U.S. Environmental Protection Agency
Region 7

Site: Agromac-Lockwood
ID# NESFN0703537
Break: 1.3 OU2
Other: 68-S7-01-41
2 of 9 2-27-02

Superfund Technical Assessment and Response Team (START) 2 Contract

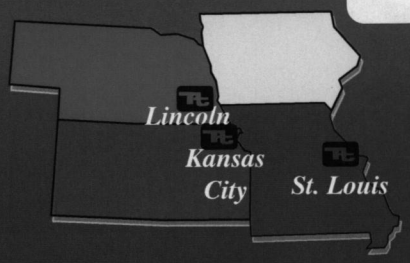
Contract No. 68-S7-01-41

Attachment 8

Agromac-Lockwood Operable Unit 2
Gering, Nebraska

Volume 7 of 9

40088822
SUPERFUND RECORDS



Tetra Tech EM Inc.

Printed on Recycled Paper

Columbia Analytical Services inc.

A FULL SERVICE ENVIRONMENTAL LABORATORY

February 27, 2002

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

PROJECT:AGROMAC-LOCKWOOD OU#2 G9011.E.01.0008.10
Submission #:R2210427

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: AGROMAC-LOCKWOOD OU#2 G9011.E.01.0008.10
Lab Submission # : R2210427
Project Manager : Mark Wilson
Reported : 02/27/02

Report Contains a total of 636 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 K. Perry

SDG NARRATIVE

CASE NARRATIVE

COMPANY: Tetra Tech EM Inc.
Agromack-Lockwood OU#2
SUBMISSION #: R2210427

Tetra Tech soil and water samples were collected on 01/15-21/02 and received at CAS on 01/24/02 in good condition.

VOLATILE ORGANICS

Water samples were analyzed for Target Compound List (TCL) volatile organics by SW-846 Method 8260B.

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 Trichloroethene which was above limits in another LCS analyzed 01/29/02. This analyte were not detected in any associated samples. 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.

SEMIVOLATILE ORGANICS

One soil sample was analyzed for Target Compound List (TCL) semivolatile organics by SW-846 Method 8270C. Due to high levels of hydrocarbons present, the sample extract required dilution prior to analysis.

All initial and continuing calibrations were compliant.

All blank spike recoveries were within QC limits.

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 and soil and one non-aqueous sample were analyzed for a site list of Metals by EPA Methods 6010B and 7470A/7471A. Soil samples were also analyzed for Site list Metals following extraction by EPA Method 1311.

All matrix spike recoveries and RPD were within QC limits except for the recovery of Chromium, Silver and Zinc in sample SI-GGW-2 and Arsenic and Lead in TCLP sample MTS-GB-SLU-3.

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

RPD was outside limits for the duplicates for sample SMWB-SLU.

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-Kelso laboratory. The report for that data will be sent at a later date as an addendum to this report.

CAS ASP/CLP BATCHING FORM / LOGIN SHEET

SDG #: OS-PW-12	BATCH COMPLETE: __yes_____	DATE REVISED:
SUBMISSION R2210427	DISKETTE REQUESTED: YES	DATE DUE: 02/22/02
CLIENT: Tetra Tech EM Inc.	DATE: 01/25/02	PROTOCOL: 846
CLIENT REP: Mark Wilson	CUSTODY SEAL: PRESENT/ABSENT:	SHIPPING No.:
PROJECT: AGROMAC-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
526346	OS-PW-12	WATER	Met	1/19/02	1/24/02			6020
526348	SI-GGW-3	WATER	Met	1/21/02	1/24/02			6020
526349	SI-GGW-1	WATER	Met	1/21/02	1/24/02			6020
526351	SI-GGW-2	WATER	QC Met	1/21/02	1/24/02			6020
526352	SI-GGW-4	WATER	Met	1/21/02	1/24/02			6020
526353	OS-PW-11	WATER	Met	1/19/02	1/24/02			6020
526354	OS-GGW-4	WATER	Met	1/21/02	1/24/02			6020
526356	OS-GGW-3	WATER	Met	1/21/02	1/24/02			6020
526357	OS-PW-10	WATER	Met	1/19/02	1/24/02			6020
526358	OS-PW-13	WATER	Met	1/19/02	1/24/02			6020
526359	OS-PW-14	WATER	Met	1/19/02	1/24/02			6020
526360	RINSATE-S7	WATER	Met	1/21/02	1/24/02			6020
526371	OS-GGW-2	WATER	Met	1/21/02	1/24/02			6020
526374	SI-GGW-3-FD	WATER	Met	1/21/02	1/24/02			6020
526375	OS-GGW-1	WATER	Met	1/21/02	1/24/02			6020
526382	RINSATE-S4	WATER	8260/Met	1/22/02	1/24/02			6020
526385	GB-GGW-4	WATER	8260/Met	1/22/02	1/24/02			6020
526386	GB-GGW-2	WATER	8260/Met	1/22/02	1/24/02			6020
526387	GB-GGW-1	WATER	8260/Met	1/22/02	1/24/02			6020
526394	BAC-1	SOIL	Met	1/15/02	1/24/02			
526396	BAC-1	SOIL	TCLP Met	1/15/02	1/24/02			
526399	HWSC-WW	WATER	QC pH	1/20/02	1/24/02			
526400	HWSC-WW-FD	WATER	pH	1/20/02	1/24/02			
526401	SMWB-WW	WATER	Met	1/19/02	1/24/02			6020
526404	SMWB-SLU	SOIL	TCLP Met/pH	1/19/02	1/24/02			
526405	HWSC-SLU	SOIL	TCLP Met/pH	1/20/02	1/24/02			
526406	MTS-GB-SLU-1	SOIL	TCLP Met/pH	1/21/02	1/24/02			
526407	MTS-GB-SLU-2-FD	SOIL	TCLP Met/pH	1/21/02	1/24/02			
526408	MTS-GB-SLU-2	SOIL	TCLP Met/pH	1/21/02	1/24/02			
526409	MTS-GB-SLU-4	SOIL	TCLP Met/pH	1/21/02	1/24/02			
526410	ST-SLU	SOIL	TCLP Met/pH	1/20/02	1/24/02			

05

SDG #: OS-P\	0 BATCH COMPLETE: __yes_____	DATE REVISED:

CAS ASP/CLP BATCHING FORM / LOGIN SHEET

SUBMISSION R2210427 | DISKETTE REQUESTED: YES | DATE DUE: 02/22/02
CLIENT: Tetra Tech EM Inc. | DATE: 01/25/02 | PROTOCOL: 846
CLIENT REP: Mark Wilson | CUSTODY SEAL: PRESENT/ABSENT: | SHIPPING No.:
PROJECT: AGROMAC-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
526411	BAC-SLU	SOIL	TCLP Met/pH	1/20/02	1/24/02			
526412	MTS-GB-SLU-3	SOIL	8270/TPH/pH	1/21/02	1/24/02			
526413	MTS-GB-SLU-3	SOIL	QC TCLP Met/pH	1/21/02	1/24/02			

90

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

ACCREDITED IN ACCORDANCE WITH nelac

CHAINS OF CUSTODY
INTERNAL CHAINS

Columbia Analytical Services INC.
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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

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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)

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	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	WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)						REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE														2	2						
OS-PW-12	526376	1/19/02	1557	Water	1								✓								
SI-GGW-3	48	1/21/02	0905	Water	1									✓							
SI-GGW-1	49	1/21/02	1110	Water	2								✓	✓							
SI-GGW-2	51	1/21/02	1030	Water	2								✓	✓							
SI-GGW-2-MS		1/21/02	1030	Water	2								✓	✓							
SI-GGW-2-MSD	↓	1/21/02	1030	Water	2								✓	✓							
SI-GGW-4	52	1/21/02	0835	Water	2								✓	✓							
OS-PW-11	53	1/19/02	1535	Water	2								✓	✓							
OS-GGW-4	54	1/21/02	1442	Water	2								✓	✓							
OS-GGW-3	56	1/21/02	1400	Water	2								✓	✓							

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
Total Metals by 6010B
Dissolved Metals by 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. Specialized Forms / Custom Report
Edata ___ Yes ___ No

INVOICE INFORMATION
PO#
BILL TO:
22210 427
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: Brian Gilson	Printed Name	Printed Name	Printed Name	Printed Name
Firm: TTEMI	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 01/23/02 1800	Date/Time: 1/24/02 9:50	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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SR #

CAS Contact

Project Name: Agromac-Lockwood OU #2
Project Number: G9611.E.01.0008.10
Project Manager: Curt Gnos
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 Dealy

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	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	WASTE CHARACTERIZATION ☐ H/P ☐ React ☐ Corros. ☐ Ignit.	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)					REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE														2	2					
OS-PW-10	526357	1/19/02	1452	Water	2									✓	✓					
OS-PW-13	58	1/19/02	1631	Water	2									✓	✓					
OS-PW-14	59	1/19/02	1704	Water	2									✓	✓					
Rinsate-S7	60	1/21/02	1835	Water	2									✓	✓					

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
Total Metals by 6010B
Dissolved Metals by 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: [illegible]	Signature	Signature	Signature	Signature
Printed Name: Trisha R. Dealy	Printed Name: Brian Collier	Printed Name	Printed Name	Printed Name	Printed Name
Firm: TTEMI	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 01/23/02 1500	Date/Time: 1/24/02 950	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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SR #

CAS Contact

Project Name: Agromac-Lockwood OU#2
Project Number: G9011.E.01.00058.10
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)

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	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)					REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE						1										2	2			
OS-PW-12	526376	1/19/02	1557	Water	1									✓						
~~OS-GGW-3~~		~~1/21/02~~	~~1100~~	~~Water~~	~~1~~									~~✓~~						~~1/23/02~~
OS-GGW-2	71	1/21/02	1100	Water	2								✓	✓						
SI-GGW-3	48	1/21/02	0905	Water	1								✓							
SI-GGW-3 FD	74	1/21/02	0905	Water	2								✓	✓						
OS-GGW-1	75	1/21/02	0910	Water	2								✓	✓						
Rinsate-S4	82	1/22/02	1845	Water	2								✓	✓						
Rinsate-S4	↓	1/22/02	1845	Water	3	✓														
GB-GGW-4	85	1/22/02	1445	Water	5	✓							✓	✓						
GB-GGW-2	86	1/22/02	1700	Water	5	✓							✓	✓						

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
Total Metals by 6010B
Dissolved Metals by 6020

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: [illegible]	Signature	Signature	Signature	Signature
Printed Name: Trisha R. Dealy	Printed Name: [illegible]	Printed Name	Printed Name	Printed Name	Printed Name
Firm: TTEMI	Firm: [illegible]	Firm	Firm	Firm	Firm
Date/Time: 01/23/02 1800	Date/Time: 1/24/02 950	Date/Time	Date/Time	Date/Time	Date/Time

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

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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)

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PRESERVATIVE						1							0		*	2	2	0			
GB-GGW-1	526387	1/22/02	1545	Water	5	✓								✓	✓						
BAC-1	394/396	1/15/02	1505	Soil	2							✓		✓							
HWSC-WW	399	1/20/02	1500	Water	1											✓					
HWSC-WW-MS	↓	1/20/02	1500	Water	1											✓					
HWSC-WW-MSD	↓	1/20/02	1500	Water	1											✓					
HWSC-WW-FD	400	1/20/02	1500	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 _____

REMARKS/ ALTERNATE DESCRIPTION

SPECIAL INSTRUCTIONS/COMMENTS
Metals
Total Metals by 6010B *Total Metals analysis on "Soil" sample (BAC-1) does not have HNO_3 preservative. (Blue lid, 4-oz jar)
Dissolved Metals by 6020 **Note: The Blue lid 4-oz. jar water samples are for pH only. Disregard 8260B.
TCLP Metals by 1311
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: [illegible]	Signature	Signature	Signature	Signature
Printed Name: Trisha R. Dealy	Printed Name: Brian Colon	Printed Name	Printed Name	Printed Name	Printed Name
Firm: TEMI	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 01/23/02 1600	Date/Time: 1/24/02 950	Date/Time	Date/Time	Date/Time	Date/Time

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

SCOC-0101-08

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 1 OF 4

SR #

CAS Contact

Project Name: Agromac-Lockwood OU #2
Project Number: G9011.E.01.00008.10
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)

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's ☐ 8260 ☐ 624 ☐ CLP	GC/MS SVOA's ☐ 8270 ☐ 625 ☐ CLP	GC VOA's ☐ 8021	PESTICIDES/ PCB's ☐ 601/602 ☐ 8081 ☐ 608 ☐ CLP ☐ 8082	STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP	STAR'S LIST 8270 SVOA's ☐ TOTAL ☐ TCLP	TCLP ☒ METALS 1311 ☐ VOA's ☐ SVOA's ☐ H/P	WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	pH and % Solids	TPH 418.1			REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE																See below	2	8	0	
SMWB-WW	526401	1/19/02	1545	Water	2									✓	✓					
SMWB-SLU	404	1/19/02	1545	Soil	2							✓				(X)				Please Note: The
HWSC-SLU	05	1/20/02	1600	Soil	2							✓				X				Soil jars marked
MTS-GB-SLU-1	06	1/21/02	1030	Soil	2							✓				X				for total metals
MTS-GB-SLU-2-FD	07	1/21/02	0800	Soil	2							✓				X				are ONLY for
MTS-GB-SLU-2	08	1/21/02	0800	Soil	2							✓				X				pH and % Solids.
MTS-GB-SLU-4	09	1/21/02	1330	Soil	2							✓				X				Disregard the
ST-SLU	10	1/20/02	1430	Soil	2							✓				X				metals analysis.
BAC-SLU	11	1/20/02	1700	Soil	2							✓				X				That will come later.
MTS-GB-SLU-3	412 / 413	1/21/02	0900	Soil	2					✓	✓					✓	✓			

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

Total Metals by 6010B
Dissolved Metals by 6020
TCLP Metals by 1311

See QAPP ☐

See Remarks in Side column.
* Total Metals in Water preserved with HNO_3. Total Metals in Soil "preserved" with Ice, no other preservative.
(**) Soil samples analyzed for Total Metals, also for pH & % Solids

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. Specialized 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: Brian Colton	Printed Name	Printed Name	Printed Name	Printed Name
Firm: TTEMI	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 1/23/02 1400	Date/Time: 1/24/02 950	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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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

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SR #

CAS Contact

Project Name: Agromac-Lockwood OU #2
Project Number: G9011.E.01.00008.10
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)

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	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 1311 ☐ SVOA's ☐ H/P	WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	pH, % Solids	% Solids for 5035			REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE													0		*	*	0	0		
MTS-GB-SLU-3-MS	412/413	1/21/02	0900	Soil	2							✓				✓				
MTS-GB-SLU-3-MSD	↓	1/21/02	0900	Soil	2							✓				✓				
SR-S-3-6/10		1/19/02	0950	Soil	1												✓			
SR-S-3-6/10 MS		1/19/02	0950	Soil	1												✓			
SR-S-3-6/10 MSD		1/19/02	0950	Soil	1												✓			
SR-S-3-2/6		1/19/02	0900	Soil	1												✓			
SR-S-3-2/6 FD		1/19/02	0900	Soil	1												✓			
SI-S-4-10/14		1/20/02	1215	Soil	1												✓			
SI-S-4-6/10		1/20/02	1215	Soil	1												✓			
SI-S-1-10/14		1/20/02	1035	Soil	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
Please note: 1. The 8-oz. jars labeled for total metals analysis are for pH and % solids. Please disregard the metals analysis.
2. The 4-oz. jars labeled for VOC analysis are for % solids for 5035.

TCLP by 1311
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: [illegible]	Signature	Signature	Signature	Signature
Printed Name: Trisha R. Dealy	Printed Name: Sven Colon	Printed Name	Printed Name	Printed Name	Printed Name
Firm: TTEMI	Firm: GPS	Firm	Firm	Firm	Firm
Date/Time: 1/23/02 1800	Date/Time: 1/24/02 950	Date/Time	Date/Time	Date/Time	Date/Time

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

SCOC-0101-08

Cooler Receipt And Preservation Check Form

Project/Client Tetrtech Submission Number 10927.

Cooler received on 1/24/02 by: BC 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: 1° 1° 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: 1/24/02 1000

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

If out of Temperature, Client Approval to Run Samples_____

Cooler Breakdown: Date : 1/24/02 by: BC

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 CHAINS

LIENT NAME: Tetra Tech EM Inc.

OG#: SUBMISSION: R2210427 DATE REC'D: 01/24/02 0950

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE	TIME	PH	STORAGE LOCATION	SCHEDULED LTS DATE
260B	526382	3	BC		1/24/02	1400			02/23/02
260B	526385	3							02/23/02
260B	526386	3							02/23/02
260B	526387	3							02/23/02

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INTERNAL C INS

CLIENT NAME: Tetra Tech EM Inc.

SDG#: SUBMISSION: R2210427 DATE REC'D: 01/24/02 0950

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE TIME	STORAGE LOCATION	SCHEDULED LTS DATE
3270C	526412	1	[illegible]	[illegible]	1-24-02 ~~7-25-02~~ 1-24-02 17:00	C3	02/23/02

18

INTERNAL INS

CLIENT NAME: Tetra Tech EM Inc.

SDG#: SUBMISSION: R2210427 DATE REC'D: 01/24/02 0950

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE TIME	STORAGE LOCATION	SCHEDULED LTS DATE
TCLP EXT.	526396	1	[illegible]	[illegible]	1/25/02 0740	C3	02/23/02

INTERNAL C INS

CLIENT NAME: Tetra Tech EM Inc.

SDG#: SUBMISSION: R2210427 DATE REC'D: 01/24/02 0950

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE TIME	STORAGE LOCATION	SCHEDULED LTS DATE
TCLP EXT.	526404	2	AE	JM	1-24-02 17:00	C3	02/23/02
TCLP EXT.	526405	2					02/23/02
TCLP EXT.	526406	2					02/23/02
TCLP EXT.	526407	2					02/23/02
TCLP EXT.	526408	2					02/23/02
TCLP EXT.	526409	2					02/23/02
TCLP EXT.	526410	2					02/23/02
TCLP EXT.	526411	2					02/23/02
TCLP EXT.	526413 QC	3					02/23/02

INTERNAL ' INS

CLIENT NAME: Tetra Tech EM Inc.

SDG#: SUBMISSION: R2210427 DATE REC'D: 01/24/02 0950

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE TIME	STORAGE LOCATION	SCHEDULED LTS DATE
METALS	526346	1	[illegible]	JM	1/25/02 0730	A1	02/23/02
METALS	526348	1					02/23/02
METALS	526349	1					02/23/02
METALS	526351 QC	2					02/23/02
METALS	526352	1					02/23/02
METALS	526353	1					02/23/02
METALS	526354	1					02/23/02
METALS	526356	1					02/23/02
METALS	526357	1					02/23/02
METALS	526358	1					02/23/02
METALS	526359	1					02/23/02
METALS	526360	1					02/23/02
METALS	526371	1					02/23/02
METALS	526374	1					02/23/02
METALS	526375	1					02/23/02
METALS	526382	1					02/23/02
METALS	526385	1					02/23/02
METALS	526386	1					02/23/02

INTERNAL C INS

:LIENT NAME: Tetra Tech EM Inc.

3DG#: SUBMISSION: R2210427 DATE REC'D: 01/24/02 0950

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE TIME	STORAGE LOCATION	SCHEDULED LTS DATE
ME TALS	526387	1	BZ	JM	1/25/02 0730	A1	02/23/02
ME TALS	526394	1					02/23/02
~~ME TALS~~	~~526396~~						02/23/02
ME TALS	526401	1					02/23/02

22

INTERNAL C INS

CLIENT NAME: Tetra Tech EM Inc.

SDG#: SUBMISSION: R2210427 DATE REC'D: 01/24/02 0950

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE TIME	STORAGE LOCATION	SCHEDULED LTS DATE
METALS	526396	1	JM	DCB	1/30/02 1100	C3	02/23/02

INTERNAL CHAINS

LIENT NAME: Tetra Tech EM Inc.

OG#: SUBMISSION: R2210427 DATE REC'D: 01/24/02 0950

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE TIME	STORAGE LOCATION	SCHEDULED LTS DATE
ETALS	526404	1	JM	DCB	1/30/02 1100	C3	02/23/02
ETALS	526405	1					02/23/02
ETALS	526406	1					02/23/02
ETALS	526407	1					02/23/02
ETALS	526408	1					02/23/02
ETALS	526409	1					02/23/02
ETALS	526410	1					02/23/02
ETALS	526411	1					02/23/02
ETALS	526413 QC	2					02/23/02

INTERNAL C[illegible]NS

CLIENT NAME: Tetra Tech EM Inc.

BDG#: SUBMISSION: R2210427 DATE REC'D: 01/24/02 0950

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE TIME	STORAGE LOCATION	SCHEDULED LTS DATE
HG	526346	1	BZ	DCB	1/25/02 610	C-3	02/23/02
HG	526348	1					02/23/02
HG	526349	1					02/23/02
HG	526351 QC	1					02/23/02
HG	526352	1					02/23/02
HG	526353	1					02/23/02
HG	526354	1					02/23/02
HG	526356	1					02/23/02
HG	526357	1					02/23/02
HG	526358	1					02/23/02
HG	526359	1					02/23/02
HG	526360	1					02/23/02
HG	526371	1					02/23/02
HG	526374	1					02/23/02
HG	526375	1					02/23/02
HG	526382	1					02/23/02
HG	526385	1					02/23/02
HG	526386	1					02/23/02

INTERNAL C INS

CLIENT NAME: Tetra Tech EM Inc.

SDG#: SUBMISSION: R2210427 DATE REC'D: 01/24/02 0950

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE	TIME	STORAGE LOCATION	SCHEDULED LTS DATE
HG	526387	1	BC	DCB	1/25/02	610	C-3	02/23/02
HG	526394	1						02/23/02
~~HG~~ TCLP BC	~~526396~~							02/23/02
HG	526401	1		DCB	1/25/02	610	C-3	02/23/02

INTERNAL C INS

CLIENT NAME: Tetra Tech EM Inc.

SDG#: SUBMISSION: R2210427 DATE REC'D: 01/24/02 0950

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE TIME	STORAGE LOCATION	SCHEDULED LTS DATE
HG	526396	1	JM	DCB	1/30/02 1100	C3	02/23/02

27

INTERNAL (INS

CLIENT NAME: Tetra Tech EM Inc.

SDG#: SUBMISSION: R2210427 DATE REC'D: 01/24/02 0950

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE TIME	STORAGE LOCATION	SCHEDULED LTS DATE
HG	526404	1	JM	DCB	1/30/02 1100	C3	02/23/02
HG	526405	1					02/23/02
HG	526406	1					02/23/02
HG	526407	1					02/23/02
HG	526408	1					02/23/02
HG	526409	1					02/23/02
HG	526410	1					02/23/02
HG	526411	1					02/23/02
HG	526413 QC	2					02/23/02

INTERNAL C INS

CLIENT NAME: Tetra Tech EM Inc.

SDG#: SUBMISSION: R2210427 DATE REC'D: 01/24/02 0950

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE TIME	STORAGE LOCATION	SCHEDULED LTS DATE
PERCENT SOLIDS	526394	1	BZ	TD	1/24/02 1715	CZ	02/23/02

INTERNAL C' 'NS

CLIENT NAME: Tetra Tech EM Inc.

SDG#: SUBMISSION: R2210427 DATE REC'D: 01/24/02 0950

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE TIME	STORAGE LOCATION	SCHEDULED LTS DATE
PERCENT SOLIDS	526412	QC 1	AE	TD	1-24-02 17:00	C-2	02/23/02

30

INTERNAL C INS

CLIENT NAME: Tetra Tech EM Inc.

SDG#: SUBMISSION: R2210427 DATE REC'D: 01/24/02 0950

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE	TIME	STORAGE LOCATION	SCHEDULED LTS DATE
PH	526399 QC	3	[illegible]	[illegible]	1/24/02	1215	C2	02/23/02
PH	526400	1	✓	✓	✓	✓	✓	02/23/02

INTERNAL C' INS

:LIENT NAME: Tetra Tech EM Inc.

3DG#: SUBMISSION: R2210427 DATE REC'D: 01/24/02 0950

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE TIME	STORAGE LOCATION	SCHEDULED LTS DATE
PH	526404	1	NE	NE	1-24-02 17:00	C-2	02/23/02
PH	526405	1					02/23/02
PH	526406	1					02/23/02
PH	526407	1					02/23/02
PH	526408	1					02/23/02
PH	526409	1					02/23/02
PH	526410	1					02/23/02
PH	526411	1					02/23/02
PH	526412 QC	2					02/23/02

INTERNAL C[illegible] INS

:LIENT NAME: Tetra Tech EM Inc.

3DG#: SUBMISSION: R2210427 DATE REC'D: 01/24/02 0950

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE TIME	STORAGE LOCATION	SCHEDULED LTS DATE
TOTAL PETROLEUM	526412	1	ME	TD	1-24-02 17:00	C-2	02/23/02

VOLATILE ORGANICS

QC SUMMARY

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD: 8260B TCL

LABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 527426 ANALYTICAL RUN # : 73931

DATE ANALYZED : 01/29/02
ANALYTICAL DILUTION: 1.0

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
ACETONE	20.0	93	50 - 150
BENZENE	20.0	114	70 - 130
BROMODICHLOROMETHANE	20.0	119	70 - 130
BROMOFORM	20.0	111	70 - 130
BROMOMETHANE	20.0	116	50 - 150
2-BUTANONE (MEK)	20.0	92	50 - 150
CARBON DISULFIDE	20.0	76	70 - 130
CARBON TETRACHLORIDE	20.0	109	70 - 130
CHLOROBENZENE	20.0	111	70 - 130
CHLOROETHANE	20.0	106	70 - 130
CHLOROFORM	20.0	113	70 - 130
ILOROMETHANE	20.0	116	70 - 130
IBROMOCHLOROMETHANE	20.0	111	70 - 130
1,1-DICHLOROETHANE	20.0	116	70 - 130
1,2-DICHLOROETHANE	20.0	118	70 - 130
1,1-DICHLOROETHENE	20.0	105	70 - 130
CIS-1,2-DICHLOROETHENE	20.0	111	70 - 130
TRANS-1,2-DICHLOROETHENE	20.0	114	70 - 130
1,2-DICHLOROPROPANE	20.0	112	70 - 130
CIS-1,3-DICHLOROPROPENE	20.0	111	70 - 130
TRANS-1,3-DICHLOROPROPENE	20.0	108	70 - 130
ETHYLBENZENE	20.0	109	70 - 130
2-HEXANONE	20.0	85	70 - 130
METHYLENE CHLORIDE	20.0	113	70 - 130
4-METHYL-2-PENTANONE (MIBK)	20.0	88	70 - 130
STYRENE	20.0	110	70 - 130
1,1,2,2-TETRACHLOROETHANE	20.0	87	70 - 130
TETRACHLOROETHENE	20.0	111	70 - 130
TOLUENE	20.0	109	70 - 130
1,1,1-TRICHLOROETHANE	20.0	112	70 - 130
1,1,2-TRICHLOROETHANE	20.0	110	70 - 130
TRICHLOROETHENE	20.0	136 *	70 - 130
VINYL CHLORIDE	20.0	114	70 - 130
O-XYLENE	20.0	107	70 - 130
M+P-XYLENE	40.0	107	70 - 130

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

MET BLK

Lab Name: CAS/ROCH Contract: TTEM-KS

Lab Code: 10145 Case No.: R22-1042 SAS No.: _____ SDG No.: OS-PW-1

Lab File ID: B9415.D Lab Sample ID: 527425 1.0

Date Analyzed: 01/28/02 Time Analyzed: 23:54

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	LCS	527426 1.0	B9416.D	00:30
02	RINSATE-S4	526382 1.0	B9422.D	04:09
03	GB-GGW-4	526385 1.0	B9423.D	04:46
04	GB-GGW-2	526386 1.0	B9424.D	05:23
05	GB-GGW-1	526387 1.0	B9425.D	05:59

COMMENTS

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CAS/ROCH Contract: TTEM-KS

Lab Code: 10145 Case No.: R22-1042 SAS No.: _____ SDG No.: OS-PW-1

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

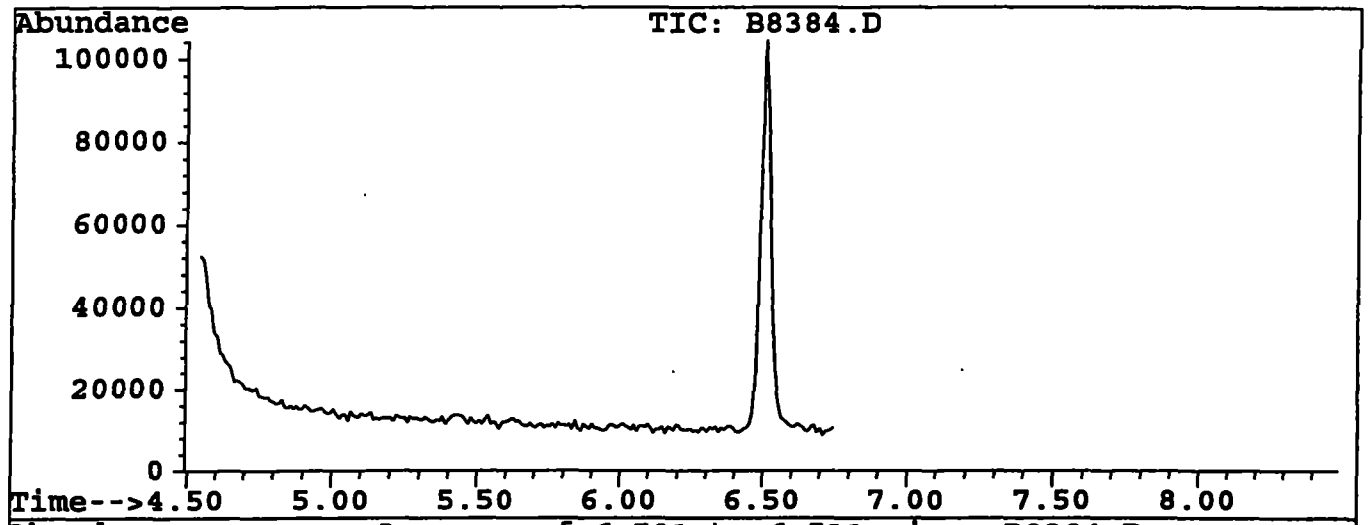
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

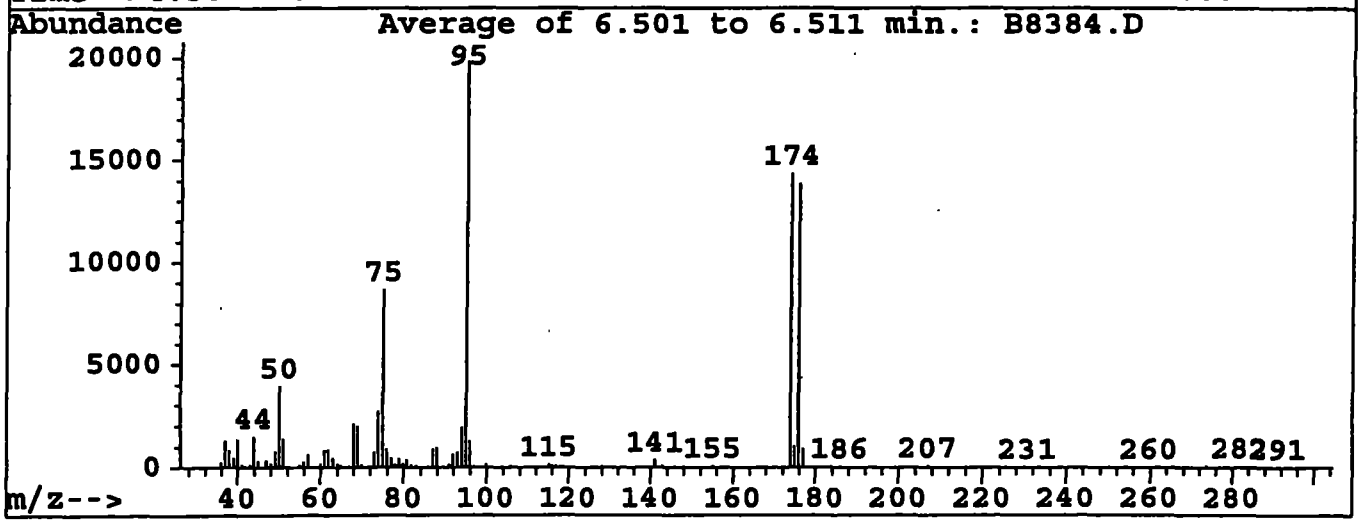
	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	001	1 PPB	B8386.D	12/17/01	11:01
02	005	5 PPB	B8387.D	12/17/01	11:39
03	020	20 PPB	B8388.D	12/17/01	12:15
04	050	50 PPB	B8389.D	12/17/01	12:52
05	100	100 PPB	B8390.D	12/17/01	13:28
06	150	150 PPB	B8391.D	12/17/01	14:05
07	200	200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

BFB

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8384.D Vial: 2
Acq On : 17 Dec 101 9:49 am Operator: droot
Sample : tune Inst : 5971 - In
Misc : 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

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: CAS/ROCH Contract: TTEM-KS

Lab Code: 10145 Case No.: R22-1042 SAS No.: _____ SDG No.: OS-PW-1

Lab File ID: B9410.D BFB Injection Date: 01/28/02

Instrument ID: MS#3 BFB Injection Time: 20:53

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	25.5
75	30.0 - 66.0% of mass 95	45.2
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	0.5 (0.8)1
174	50.0 - 120.0% of mass 95	67.4
175	4.0 - 9.0% of mass 174	4.7 (7.0)1
176	93.0 - 101.0% of mass 174	65.4 (97.0)1
177	5.0 - 9.0% of mass 176	4.5 (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:

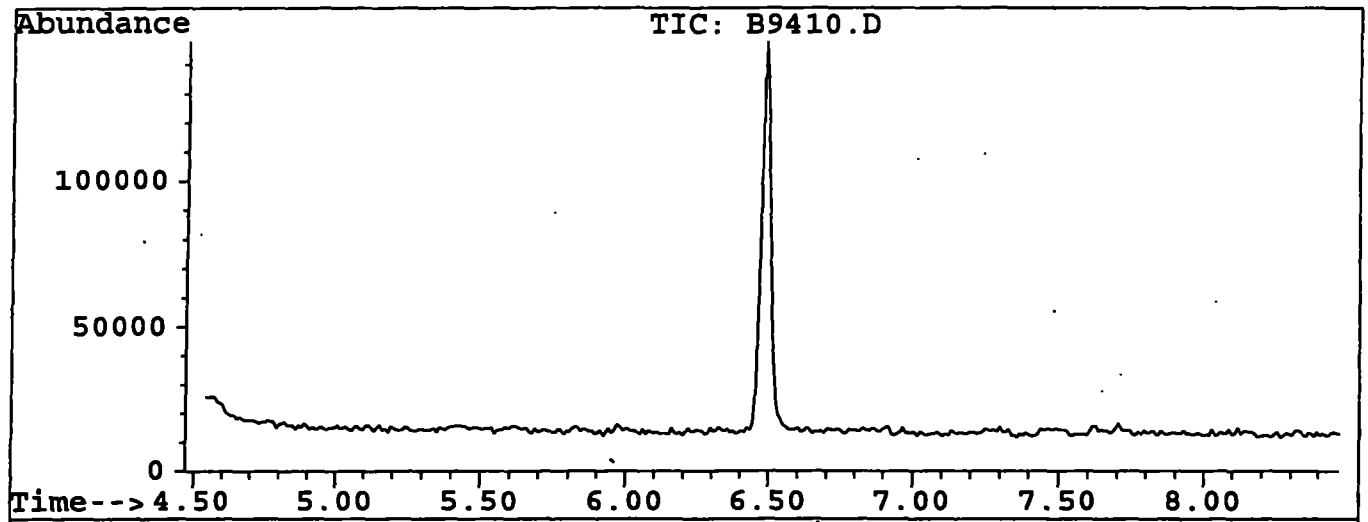
	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV	CCV	B9413.D	01/28/02	22:41
02	MET BLK	527425 1.0	B9415.D	01/28/02	23:54
03	LCS	527426 1.0	B9416.D	01/29/02	00:30
04	RINSATE-S4	526382 1.0	B9422.D	01/29/02	04:09
05	GB-GGW-4	526385 1.0	B9423.D	01/29/02	04:46
06	GB-GGW-2	526386 1.0	B9424.D	01/29/02	05:23
07	GB-GGW-1	526387 1.0	B9425.D	01/29/02	05:59

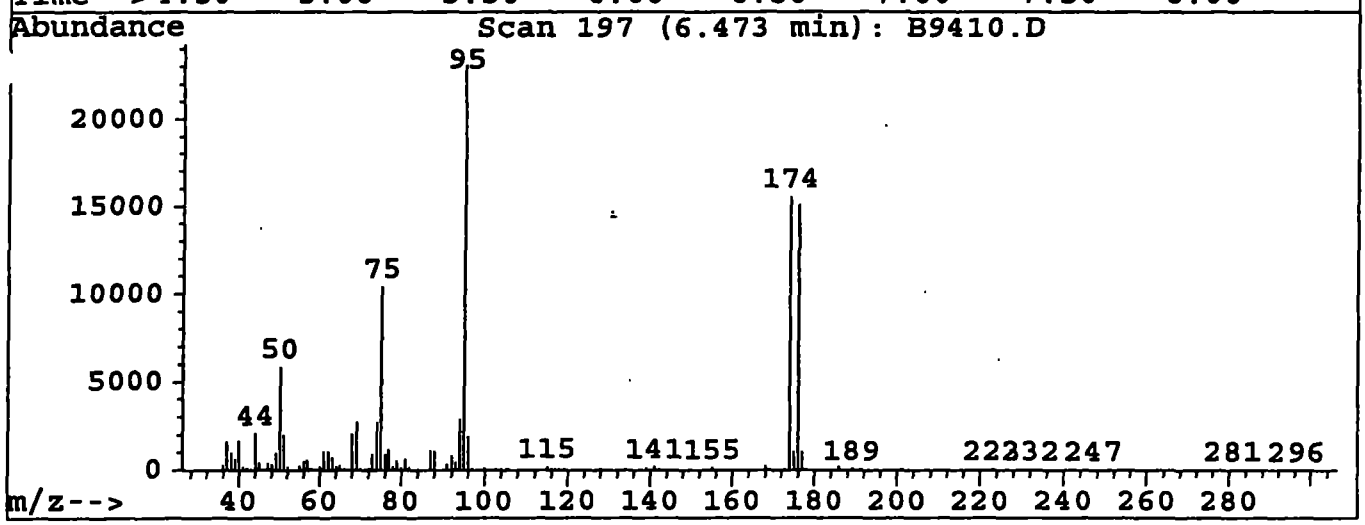
BFB

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9410.D
Acq On : 28 Jan 102 8:53 pm
Sample : TUNE
Misc :

Vial: 16
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

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





Peak Apex is scan: 197

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.5	5889	PASS
75	95	30	60	45.2	10447	PASS
95	95	100	100	100.0	23112	PASS
96	95	5	9	8.3	1917	PASS
173	174	0	2	0.8	120	PASS
174	95	50	120	67.4	15580	PASS
175	174	5	9	7.0	1097	PASS
176	174	95	101	97.0	15111	PASS
177	176	5	9	6.9	1039	PASS

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS/ROCH Contract: TTEM-KS

Lab Code: 10145 Case No.: R22-1042 SAS No.: _____ SDG No.: OS-PW-1

Lab File ID (Standard): B9413.D Date Analyzed: 01/28/02

Instrument ID: MS#3 Time Analyzed: 22:41

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	832859	7.37	1553086	8.55	1278715	13.63
	UPPER LIMIT	1665718	6.87	3106172	8.05	2557430	13.13
	LOWER LIMIT	416430	7.87	776543	9.05	639358	14.13
	EPA SAMPLE NO.						
01	MET BLK	824199	7.36	1539153	8.54	1253984	13.63
02	LCS	811198	7.36	1496837	8.54	1251395	13.63
03	RINSATE-S4	749136	7.36	1438662	8.54	1185139	13.63
04	GB-GGW-4	729069	7.36	1421578	8.54	1166578	13.63
05	GB-GGW-2	747582	7.36	1424580	8.54	1175424	13.63
06	GB-GGW-1	741081	7.37	1410842	8.54	1181232	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

40A

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS/ROCH Contract: TTEM-KS

Lab Code: 10145 Case No.: R22-1042 SAS No.: _____ SDG No.: OS-PW-1

Lab File ID (Standard): B9413.D Date Analyzed: 01/28/02

Instrument ID: MS#3 Time Analyzed: 22:41

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

		IS4 AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	529385	18.07				
	UPPER LIMIT	1058770	17.57				
	LOWER LIMIT	264693	18.57				
	EPA SAMPLE NO.						
01	MET BLK	512069	18.07				
02	LCS	481997	18.07				
03	RINSATE-S4	457629	18.07				
04	GB-GGW-4	423508	18.07				
05	GB-GGW-2	456536	18.07				
06	GB-GGW-1	457375	18.07				

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

VOLATILE ORGANICS

SAMPLE DATA

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/27/02

Tetra Tech EM Inc.
Project Reference: AGROMAC-LOCKWOOD OU#2 G9011.E.01.0008.10
Client Sample ID : RINSATE-S4

Date Sampled : 01/22/02 18:45 **Order #:** 526382 **Sample Matrix:** WATER
Date Received: 01/24/02 **Submission #:** R2210427 **Analytical Run** 73931

DATE ANALYZED : 01/29/02
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	1.9 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 %)	102	%
TOLUENE-D8	(87 - 108 %)	99	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	100	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9422.D Vial: 28
Acq On : 29 Jan 102 4:09 am Operator: droot
Sample : 526382 1.0 Inst : 5971 - In
Misc : TTEM -KS R21-10427 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 29 4:37 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	749136	50.00	ppb	-0.04
35) 1,4 - Difluorobenzene	8.54	114	1438662	50.00	ppb	-0.04
52) d5 - Chlorobenzene	13.63	117	1185139	50.00	ppb	-0.04
74) d4 - Dichlorobenzene	18.07	152	457629	50.00	ppb	-0.04
System Monitoring Compounds						%Recovery
36) surr4,Dibrflmethane	7.25	113	508761	49.89	ppb	99.78%
58) surr3,Toluene-d8	11.05	98	1392548	49.28	ppb	98.56%
59) surr2,bfb	15.84	95	570484	51.12	ppb	102.24%
Target Compounds						Qvalue
12) Acetone	3.74	43	6751	2.10	ppb	99 <
13) Iodomethane	3.80	127	523	~~4.46~~	~~ppb~~	~~1~~
15) Acetonitrile	4.13	41	438	~~1.21~~	~~ppb~~ #	~~1~~
18) TBA	4.67	59	565	~~0.64~~	~~ppb~~ #	~~40~~
24) 2-Chloro-1,3-butadiene	5.79	53	112	~~1.19~~	~~PPB~~	~~92~~
32) Chloroform	6.99	83	22448	1.90	ppb	96 < (3)
39) Iso-Butyl Alcohol	8.49	43	366	~~1.10~~	~~ppb~~	~~80~~
46) 1,4-Dioxane	9.60	88	100	~~1.10~~	~~ppb~~ #	~~12~~
60) Tetrachloroethene	12.11	166	92	~~4.27~~	~~ppb~~ #	~~1~~
72) Isopropylbenzene	15.58	105	407	~~3.30~~	~~ppb~~ #	~~49~~
80) 1,3,5-Trimethylbenzene	16.69	105	534	~~3.76~~	~~ppb~~ #	~~72~~
92) Nitrobenzene	20.76	77	866	~~9.51~~	~~ppb~~ #	~~27~~

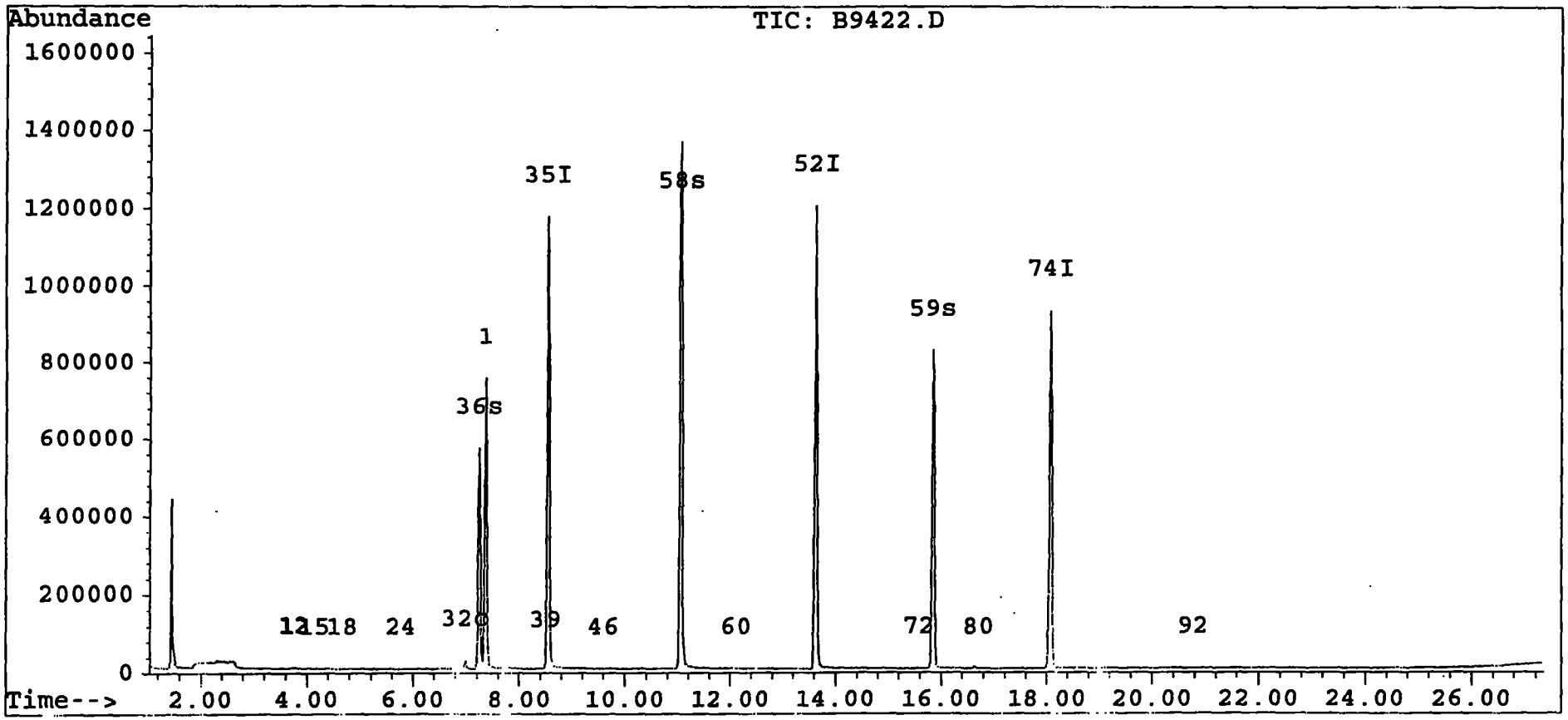
(#) = qualifier out of range (m) = manual integration

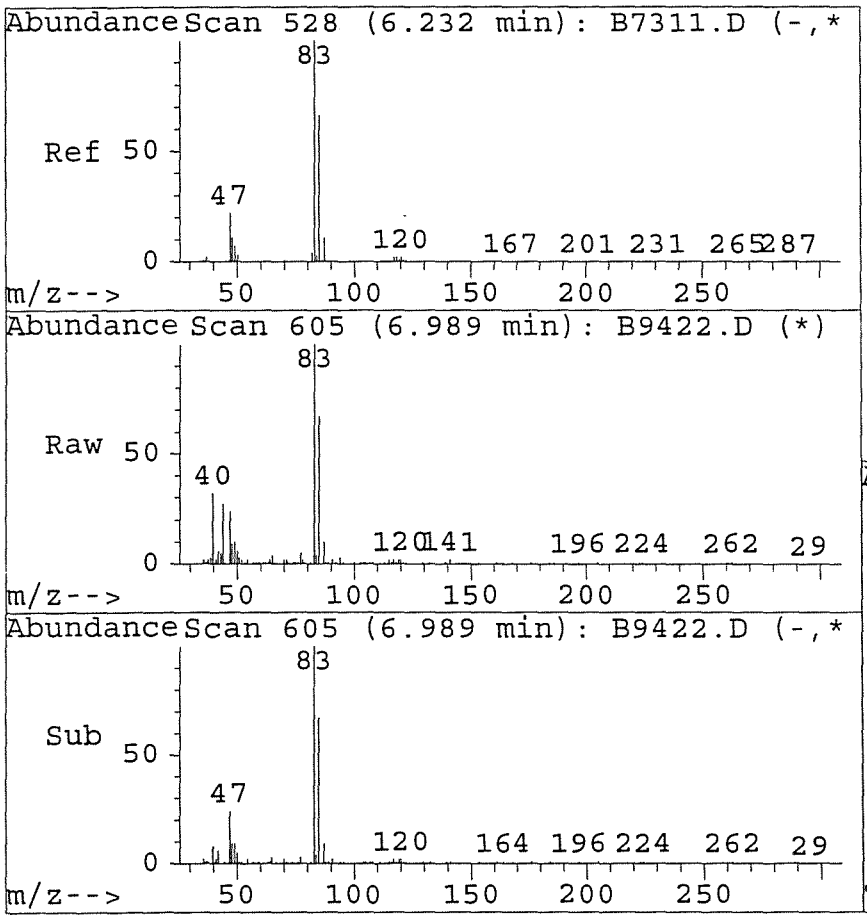
Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9422.D
Acq On : 29 Jan 102 4:09 am
Sample : 526382 1.0
Misc : TTEM -KS R21-10427 8260B.TCLL
Quant Time: Jan 29 4:37 19102

Vial: 28
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

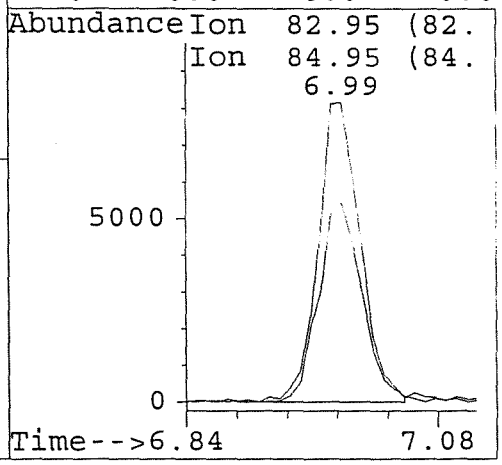




#32
Chloroform
Concen: 1.90 ppb
RT: 6.99 min Scan# 605
Delta R.T. -0.03 min
Lab File: B9422.D
Acq: 29 Jan 102 4:09 am

Tgt Ion:82.95 Resp: 22448

Ion	Ratio	Lower	Upper
83	100		
85	67.0	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: 02/27/02

Tetra Tech EM Inc.
Project Reference: AGROMAC-LOCKWOOD OU#2 G9011.E.01.0008.10
Client Sample ID : GB-GGW-4

Date Sampled : 01/22/02 14:45 **Order #:** 526385 **Sample Matrix:** WATER
Date Received: 01/24/02 **Submission #:** R2210427 **Analytical Run** 73931

DATE ANALYZED : 01/29/02
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
ILOROMETHANE	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	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 %)	101	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	100	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9423.D Vial: 29
Acq On : 29 Jan 102 4:46 am Operator: droot
Sample : 526385 1.0 Inst : 5971 - In
Misc : TTEM -KS R21-10427 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 29 5:14 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	729069	50.00	ppb	-0.04
35) 1,4 - Difluorobenzene	8.54	114	1421578	50.00	ppb	-0.04
52) d5 - Chlorobenzene	13.63	117	1166578	50.00	ppb	-0.04
74) d4 - Dichlorobenzene	18.07	152	423508	50.00	ppb	-0.04
System Monitoring Compounds						%Recovery
36) surr4,Dibrflmethane	7.24	113	503406	49.98	ppb	99.95%
58) surr3,Toluene-d8	11.05	98	1397834	50.58	ppb	101.16%
59) surr2,bfb	15.85	95	548418	49.49	ppb	98.98%
Target Compounds						Qvalue
5) Bromomethane	2.23	94	2649	~~0.54~~	~~ppb~~	~~# 4~~
12) Acetone	3.75	43	7671	2.45	ppb	# 61
13) Iodomethane	3.88	127	144	~~4.37~~	~~ppb~~	~~46~~
15) Acetonitrile	4.15	41	282	~~0.80~~	~~ppb~~	~~# 1~~
18) TBA	4.66	59	476	~~0.56~~	~~ppb~~	~~# 4~~
24) 2-Chloro-1,3-butadiene	5.69	53	347	~~1.21~~	~~PPB~~	~~# 63~~
39) Iso-Butyl Alcohol	8.32	43	335	~~1.02~~	~~ppb~~	~~83~~
46) 1,4-Dioxane	9.51	88	288	~~3.19~~	~~ppb~~	~~99~~
60) Tetrachloroethene	12.15	166	401	~~4.31~~	~~ppb~~	~~# 10~~
72) Isopropylbenzene	15.60	105	484	~~3.30~~	~~ppb~~	~~# 49~~
73) Cyclohexanone	15.70	55	529	~~0.65~~	~~ppb~~	~~95~~
80) 1,3,5-Trimethylbenzene	16.94	105	155	~~3.74~~	~~ppb~~	~~97~~
92) Nitrobenzene	20.75	77	565	~~9.27~~	~~ppb~~	~~# 27~~

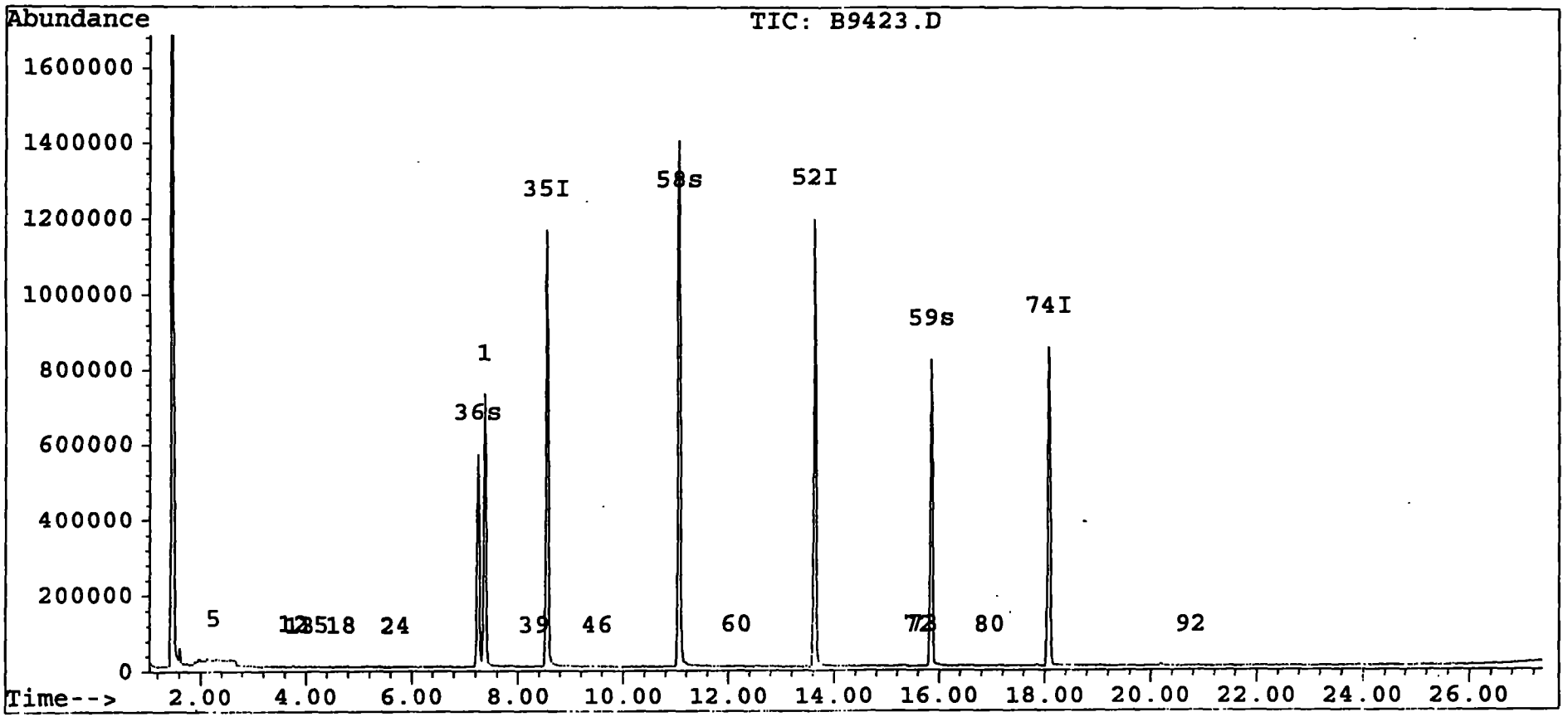
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9423.D
Acq On : 29 Jan 102 4:46 am
Sample : 526385 1.0
Misc : TTEM -KS R21-10427 8260B.TCLL
Quant Time: Jan 29 5:14 19102

Vial: 29
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: 02/27/02

Tetra Tech EM Inc.
Project Reference: AGROMAC-LOCKWOOD OU#2 G9011.E.01.0008.10
Client Sample ID : GB-GGW-2

Date Sampled : 01/22/02 17:00 **Order #:** 526386 **Sample Matrix:** WATER
Date Received: 01/24/02 **Submission #:** R2210427 **Analytical Run** 73931

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/29/02			
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 %)	102	%
TOLUENE-D8	(87 - 108 %)	99	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	102	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9424.D Vial: 30
Acq On : 29 Jan 102 5:23 am Operator: droot
Sample : 526386 1.0 Inst : 5971 - In
Misc : TTEM -KS R21-10427 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 29 5:51 19102

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

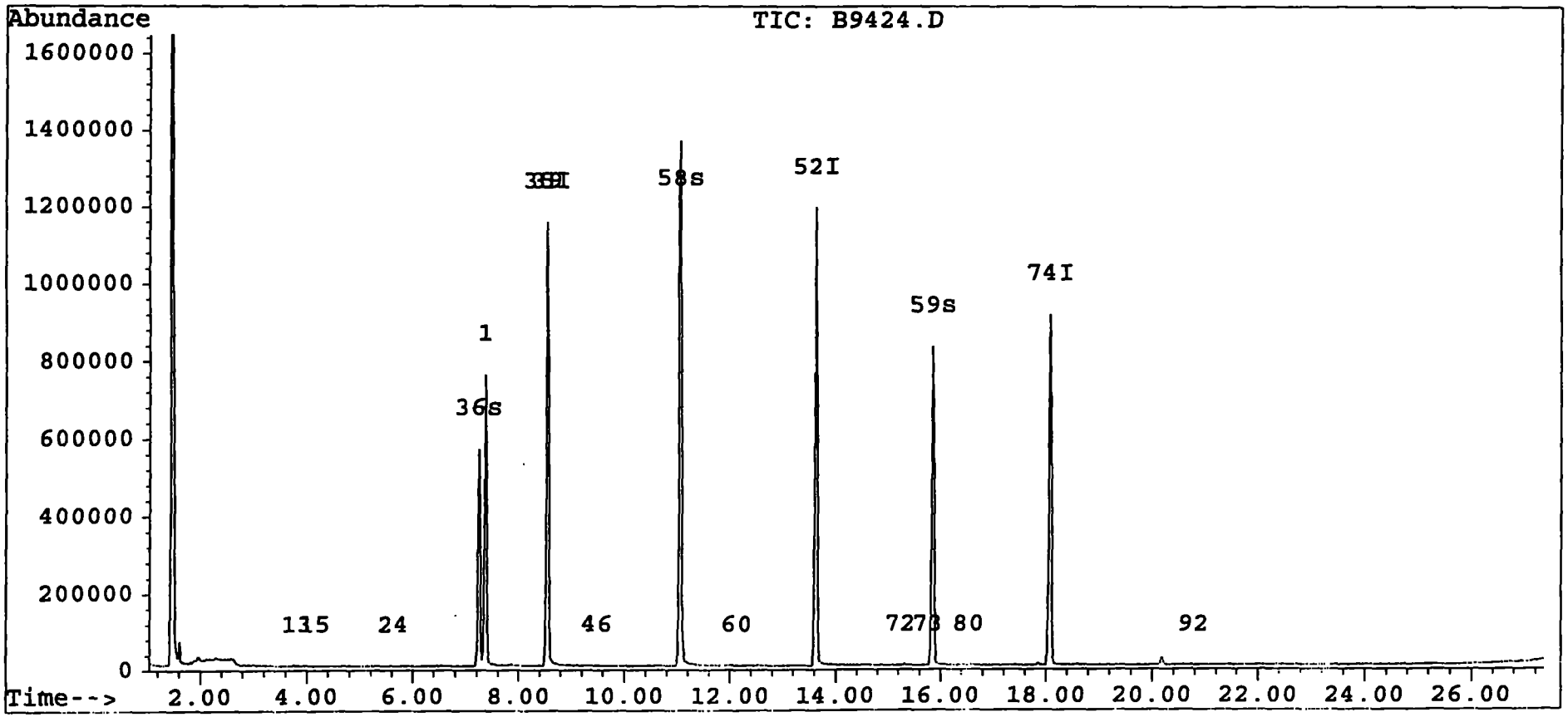
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.36	168	747582	50.00 ppb	-0.04
35) 1,4 - Difluorobenzene	8.54	114	1424580	50.00 ppb	-0.04
52) d5 - Chlorobenzene	13.63	117	1175424	50.00 ppb	-0.04
74) d4 - Dichlorobenzene	18.07	152	456536	50.00 ppb	-0.04
System Monitoring Compounds					%Recovery
36) surr4,Dibrflmethane	7.24	113	511517	50.88 ppb	101.76%
58) surr3,Toluene-d8	11.05	98	1389873	49.70 ppb	99.39%
59) surr2,bfb	15.84	95	565087	51.03 ppb	102.06%
Target Compounds					Qvalue
13) Iodomethane	3.80	127	705	~~4.51 ppb~~	~~1~~
15) Acetonitrile	4.16	41	411	~~1.14 ppb #~~	~~1~~
24) 2-Chloro-1,3-butadiene	5.65	53	435	~~1.22 PPB #~~	~~23~~
39) Iso-Butyl Alcohol	8.54	43	1339	~~4.05 ppb~~	~~81~~
46) 1,4-Dioxane	9.48	88	100	~~1.11 ppb~~	~~96~~
60) Tetrachloroethene	12.14	166	57	~~4.26 ppb #~~	~~1~~
72) Isopropylbenzene	15.23	105	223	~~3.29 ppb~~	~~98~~
73) Cyclohexanone	15.74	55	334	~~0.41 ppb~~	~~89~~
80) 1,3,5-Trimethylbenzene	16.53	105	240	~~3.75 ppb~~	~~95~~
92) Nitrobenzene	20.78	77	870	~~9.51 ppb #~~	~~27~~

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

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9424.. Vial: 30
Acq On : 29 Jan 102 5:23 am Operator: droot
Sample : 526386 1.0 Inst : 5971 - In
Misc : TTEM -KS R21-10427 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 29 5:51 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: 02/27/02

Tetra Tech EM Inc.
Project Reference: AGROMAC-LOCKWOOD OU#2 G9011.E.01.0008.10
Client Sample ID : GB-GGW-1

Date Sampled : 01/22/02 15:45 **Order #:** 526387 **Sample Matrix:** WATER
Date Received: 01/24/02 **Submission #:** R2210427 **Analytical Run** 73931

DATE ANALYZED : 01/29/02
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
ЧLOROMETHANE	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	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 %)	98	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	102	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9425.D Vial: 31
Acq On : 29 Jan 102 5:59 am Operator: droot
Sample : 526387 1.0 Inst : 5971 - In
Misc : TTEM -KS R21-10427 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 29 6:27 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	7.37	168	741081	50.00 ppb	-0.03
35) 1,4 - Difluorobenzene	8.54	114	1410842	50.00 ppb	-0.04
52) d5 - Chlorobenzene	13.63	117	1181232	50.00 ppb	-0.04
74) d4 - Dichlorobenzene	18.07	152	457375	50.00 ppb	-0.04
System Monitoring Compounds					%Recovery
36) surr4,Dibrflmethane	7.24	113	505675	50.76 ppb	101.53%
58) surr3,Toluene-d8	11.05	98	1380606	48.93 ppb	97.86%
59) surr2,bfb	15.85	95	567087	50.93 ppb	101.87%
Target Compounds					Qvalue
12) Acetone	3.77	43	4210	1.32 ppb	100
13) Iodomethane	3.88	127	540	~~4.47 ppb~~	~~1~~
15) Acetonitrile	4.15	41	262	~~0.73 ppb #~~	~~1~~
18) TBA	4.66	59	835	~~0.96 ppb #~~	~~1~~
24) 2-Chloro-1,3-butadiene	5.39	53	40	~~1.19 PPB~~	~~99~~
39) Iso-Butyl Alcohol	8.40	43	1877	~~5.73 ppb~~	~~95~~
46) 1,4-Dioxane	9.59	88	167	~~1.87 ppb~~	~~95~~
60) Tetrachloroethene	12.15	166	302	~~4.30 ppb #~~	~~1~~
72) Isopropylbenzene	15.64	105	151	~~3.29 ppb~~	~~94~~
80) 1,3,5-Trimethylbenzene	16.71	105	498	~~3.76 ppb~~	~~91~~
92) Nitrobenzene	20.72	77	662	~~9.32 ppb #~~	~~27~~

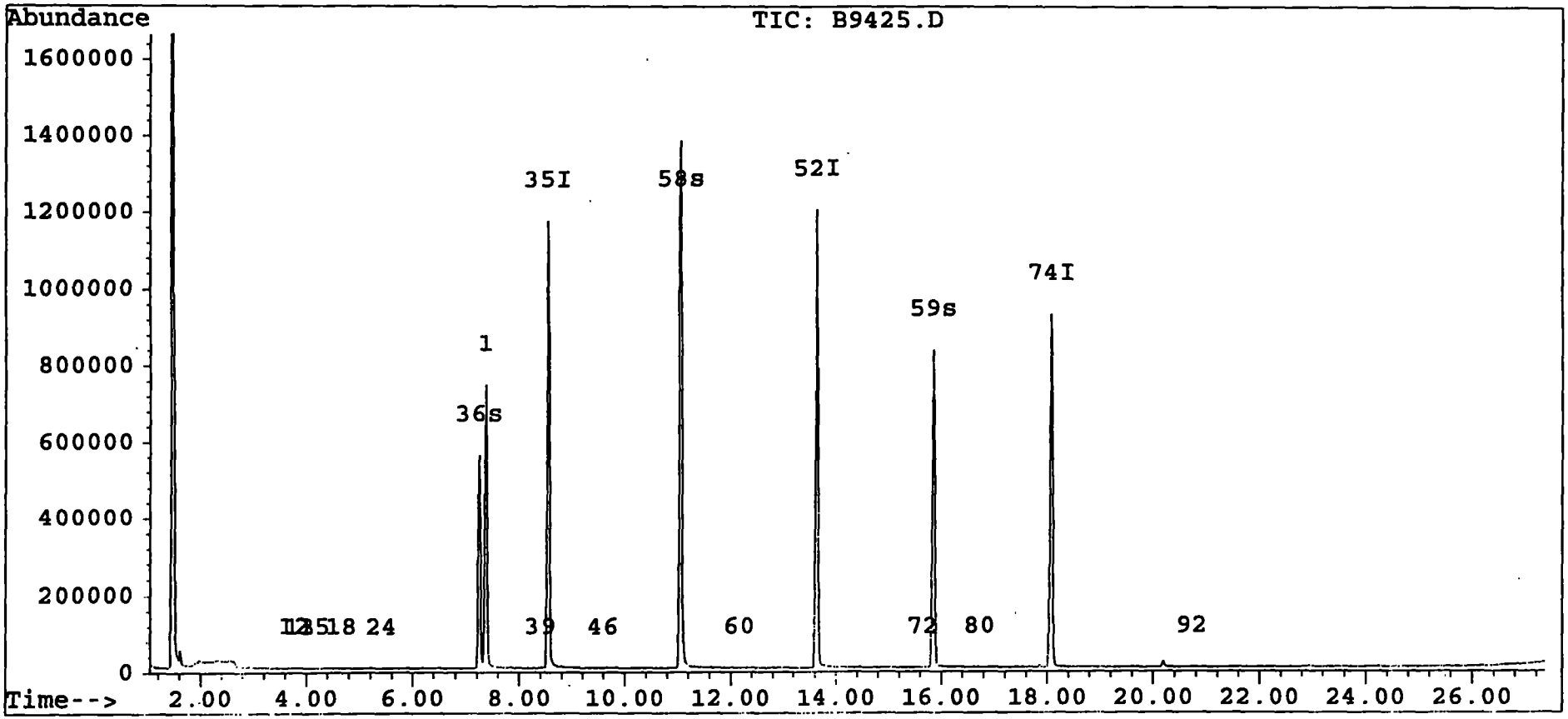
1/30

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

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9425.D Vial: 31
Acq On : 29 Jan 102 5:59 am Operator: droot
Sample : 526387 1.0 Inst : 5971 - In
Misc : TTEM -KS R21-10427 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 29 6:27 19102

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



55

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	
16)		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	
		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	
		1,1,2-Trichloroetha	0.235	0.273	0.263	0.247	0.286	0.277	0.265	6.77	
[illegible]	s	surr3,Toluene-d8			1.051	1.220	1.051	1.015	1.066	8.41	UL
59)	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	UL
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
[illegible]		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	
83)		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 ###

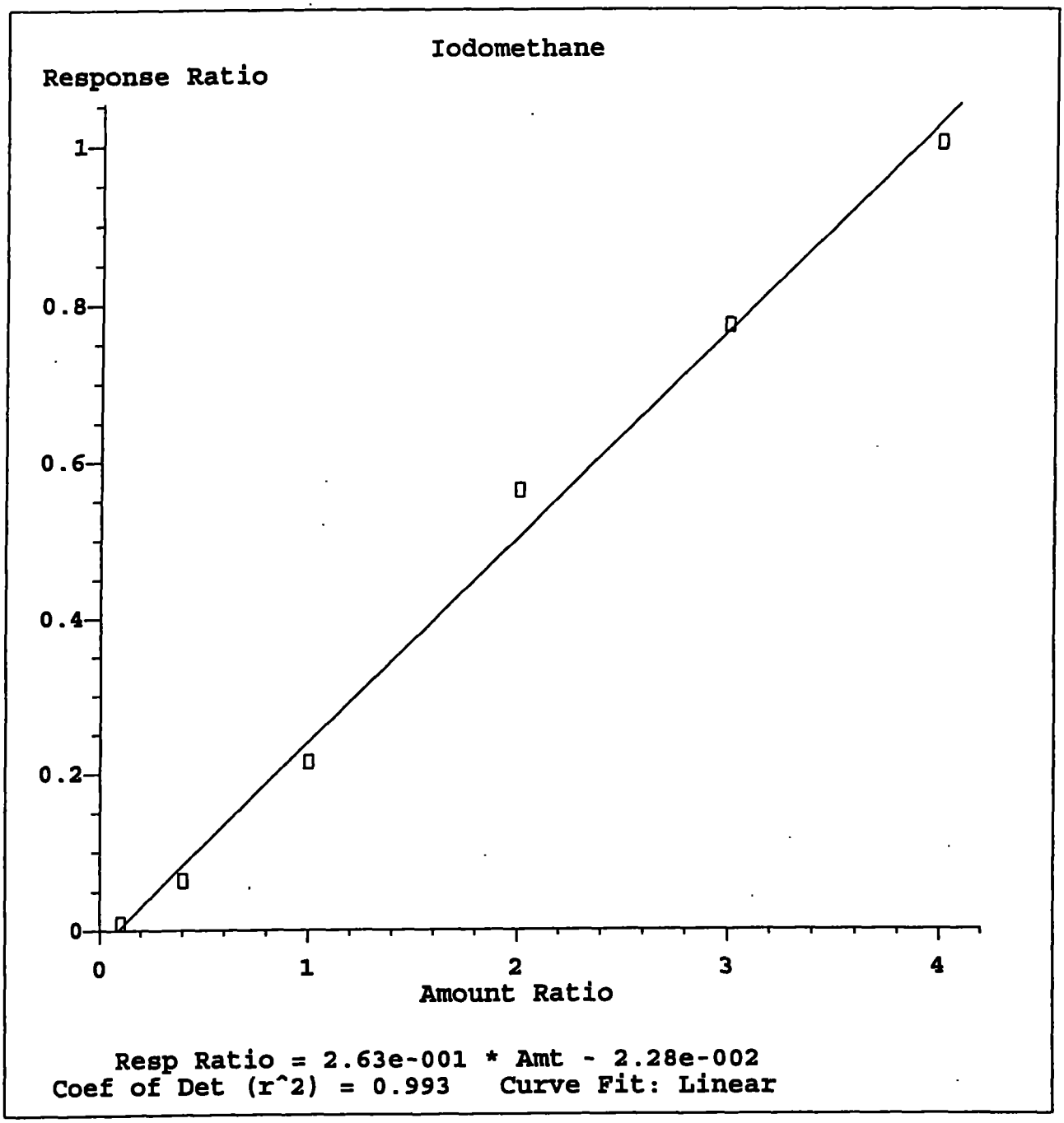
Response Factor Report 5971 - In

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

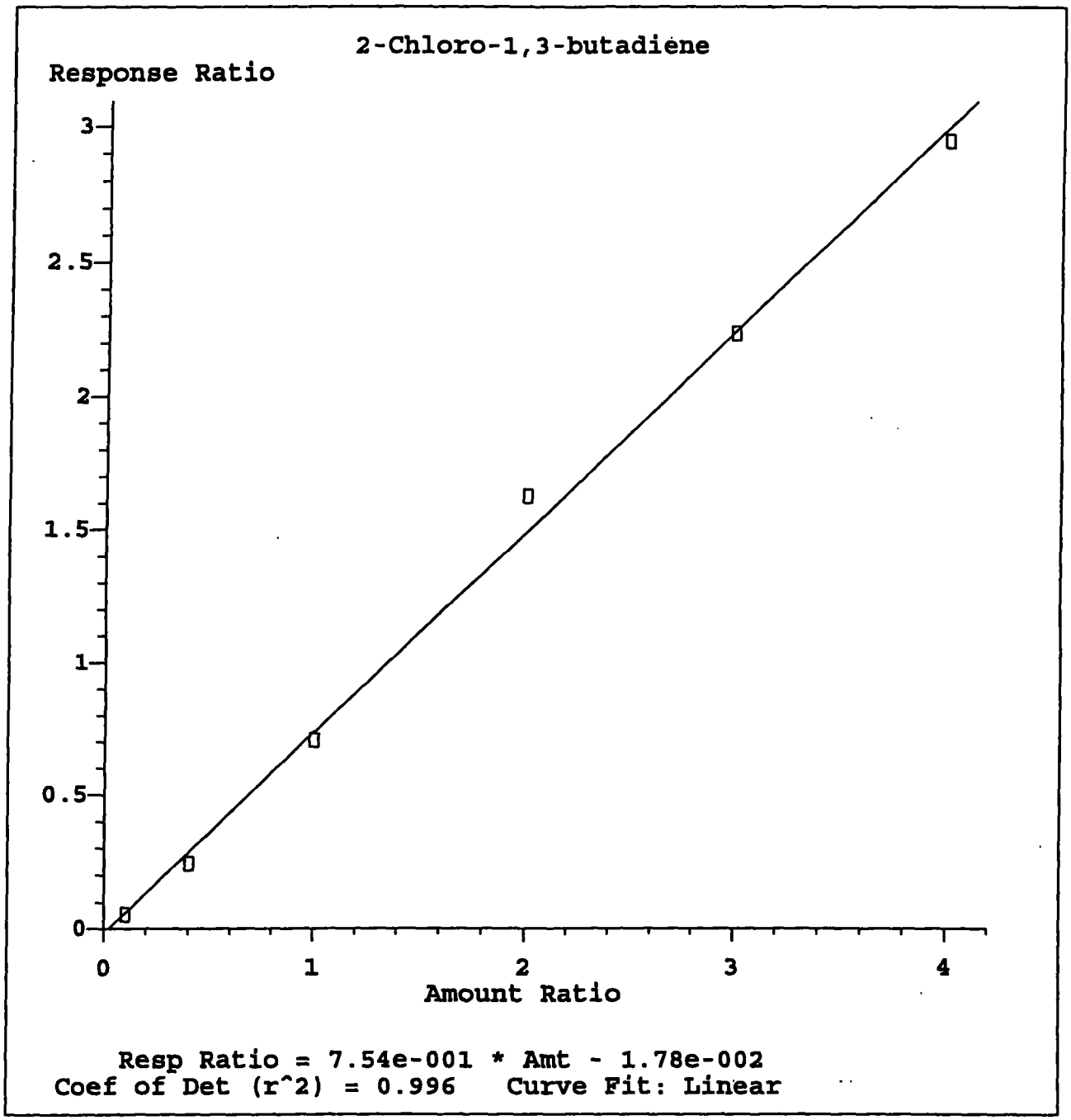
Calibration Files
1 =B8386.D 5 =B8387.D 20 =B8388.D
50 =B8389.D 100 =B8390.D 150 =B8391.D

	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 UR
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

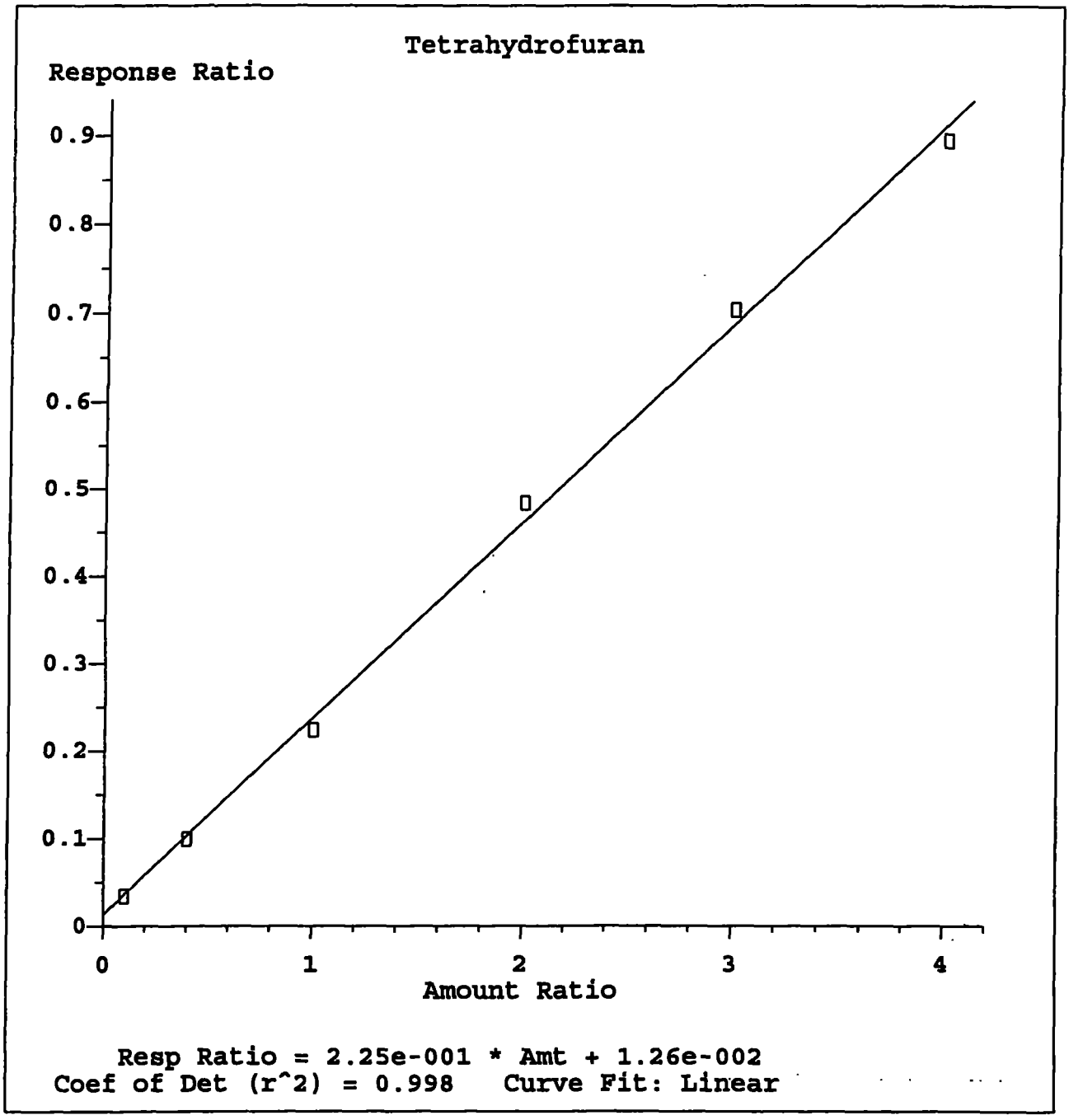
(#) = Out of Range ### Number of calibration levels exceeded format ###
EXP1217.M Mon Dec 17 16:03:33 2001 Page 3



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



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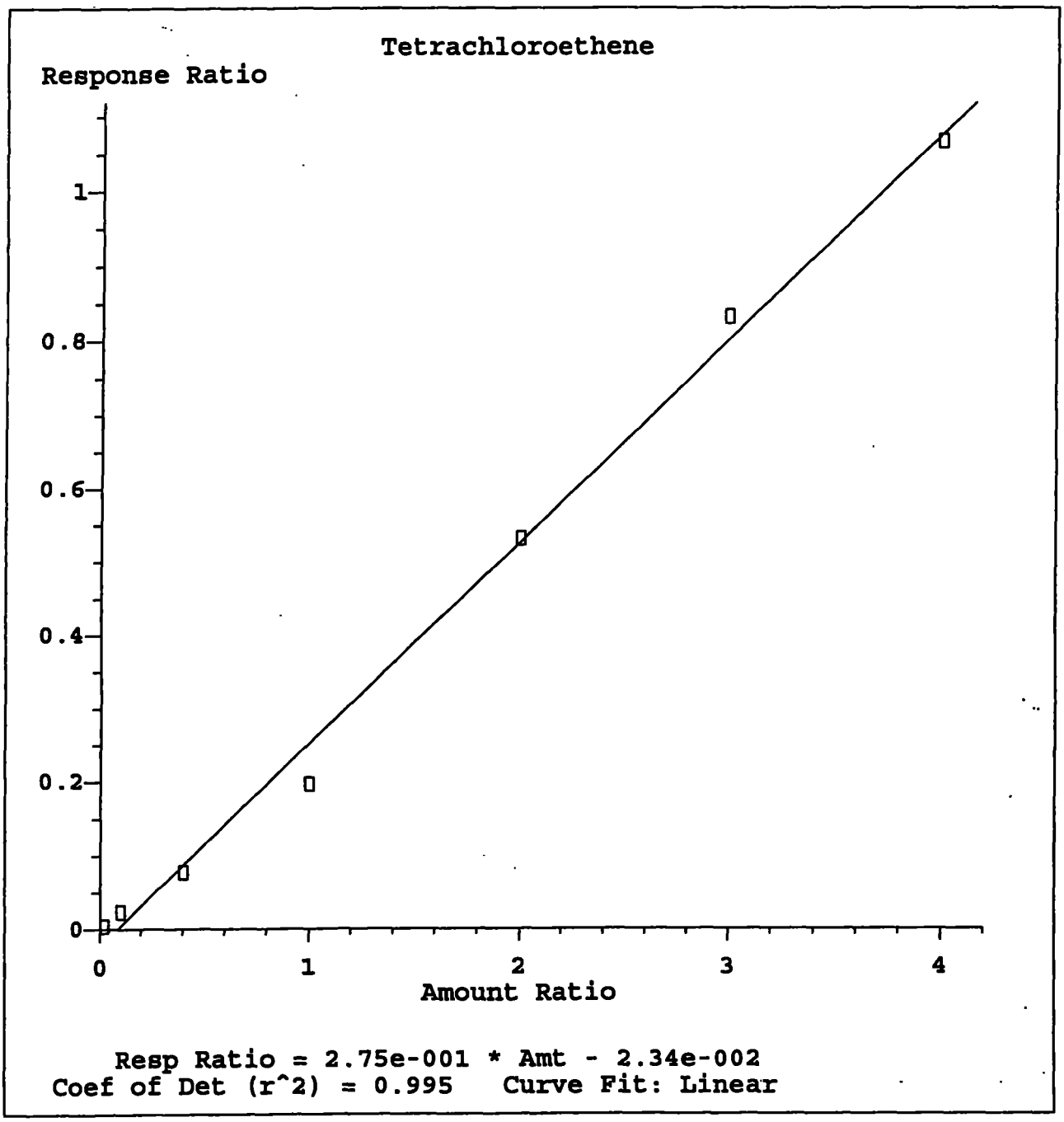
Calibration Table Last Updated: Mon Dec 17 15:18:22 2001



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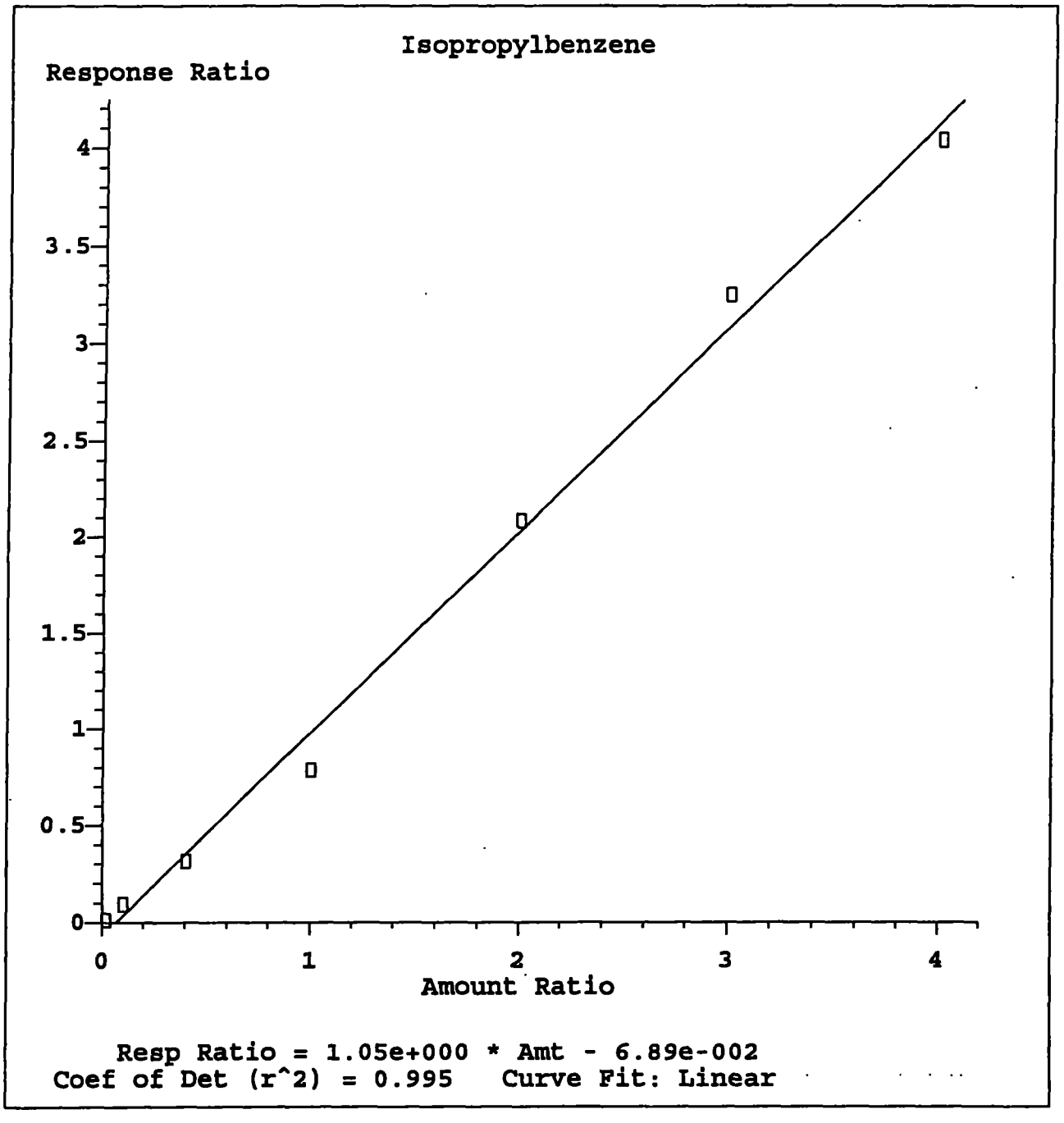
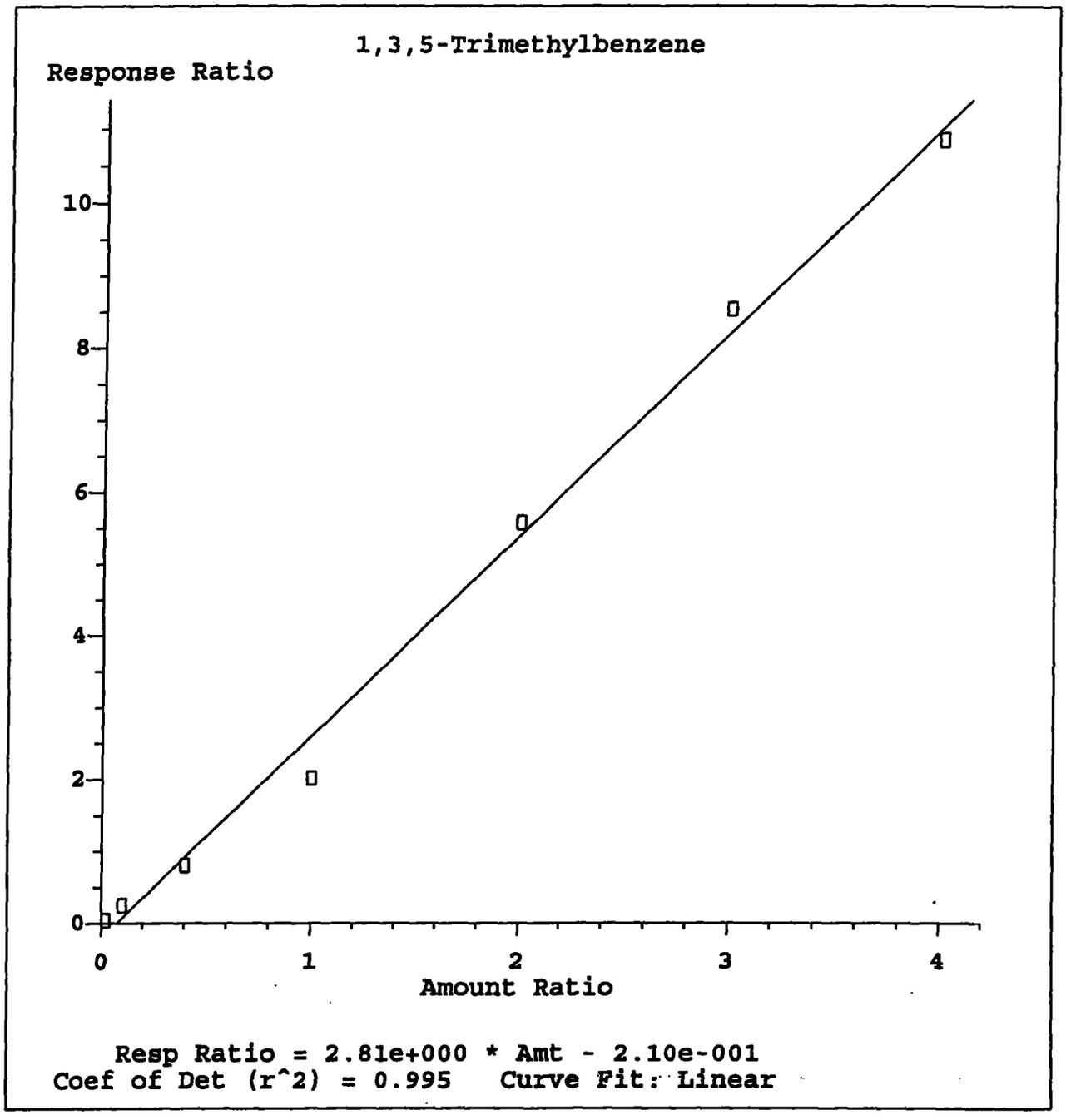
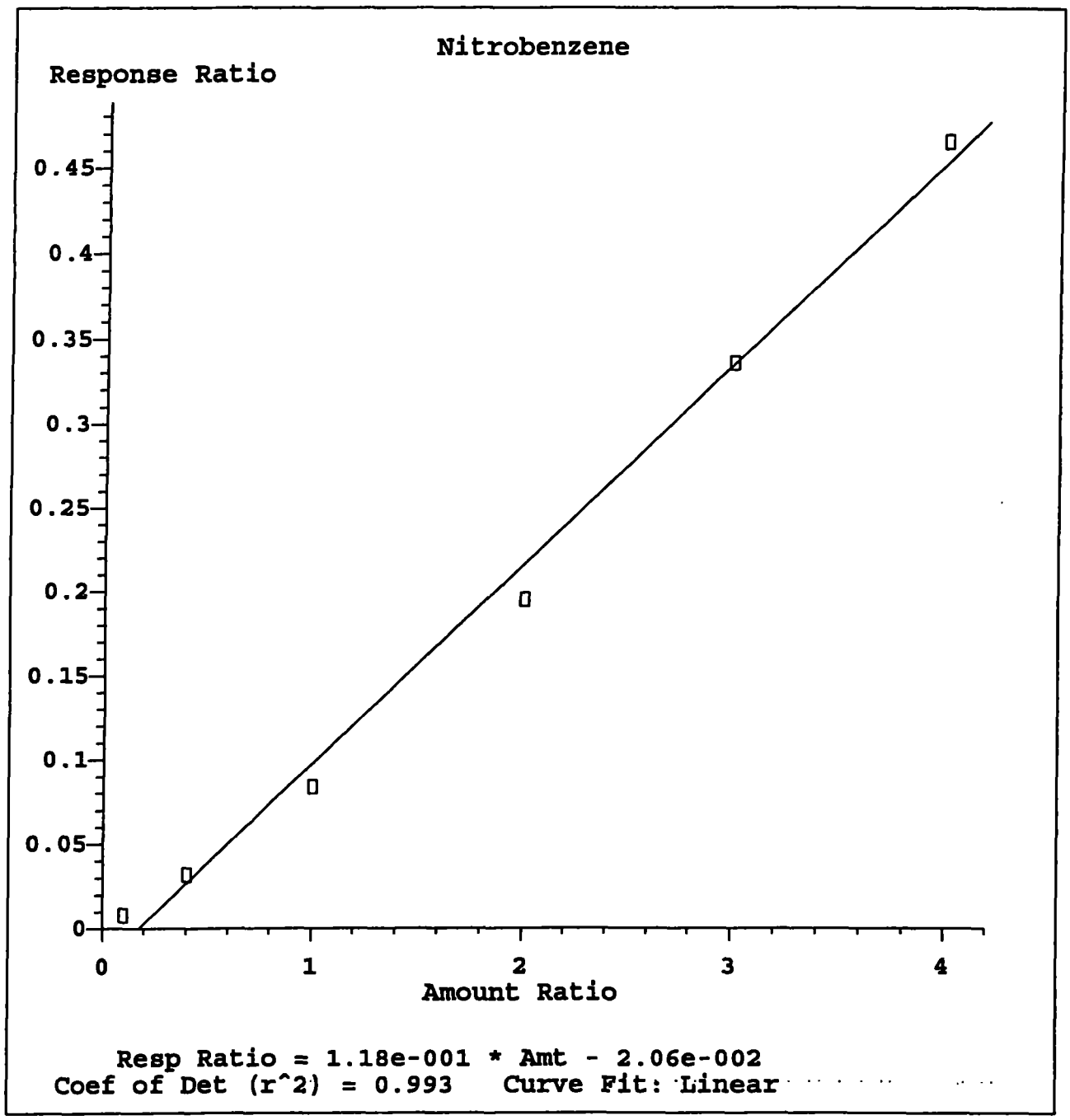
Calibration Table Last Updated: Mon Dec 17 15:18:46 2001



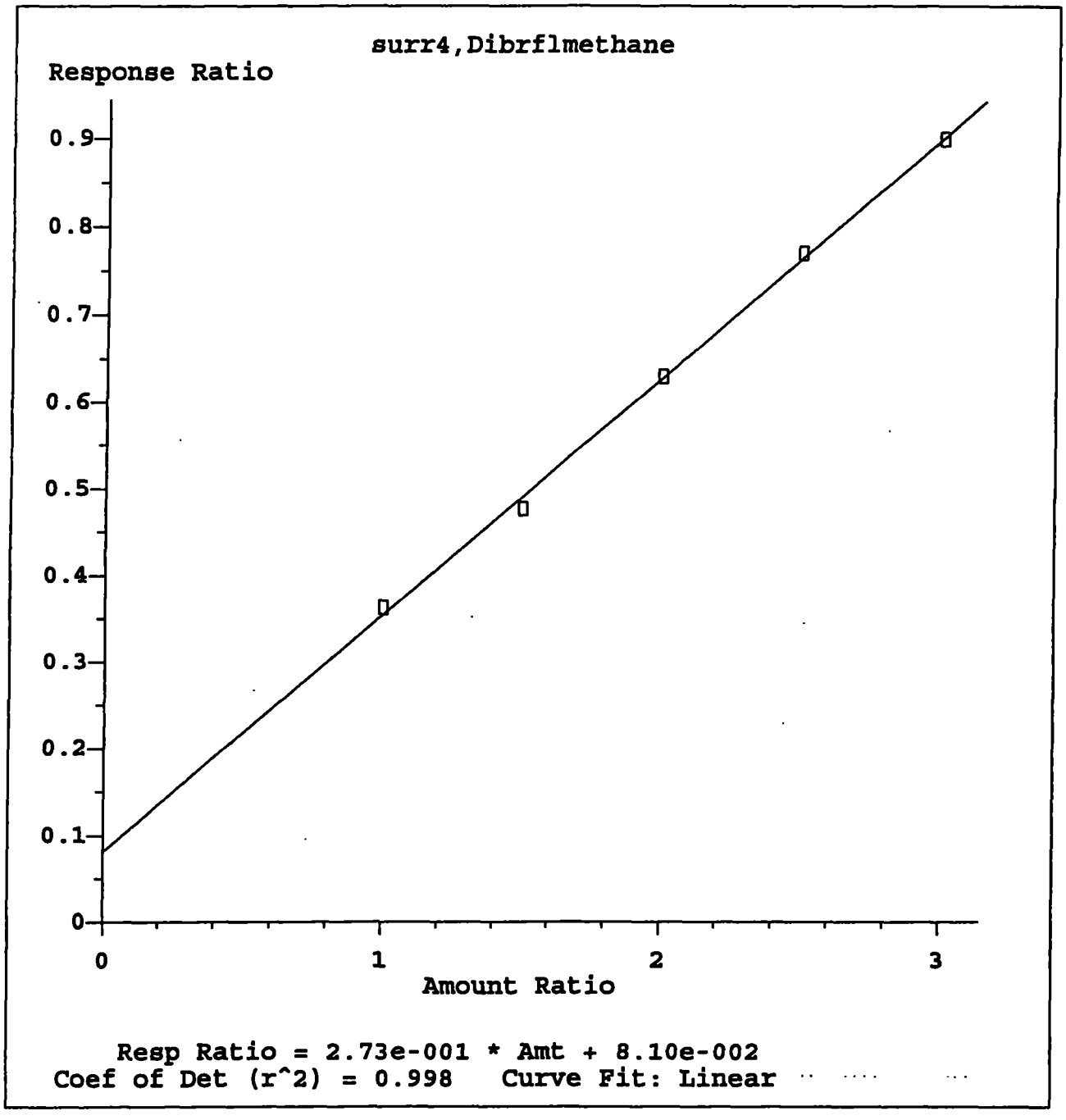
Method Name: J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Calibration Table Last Updated: Mon Dec 17 15:19:01 2001



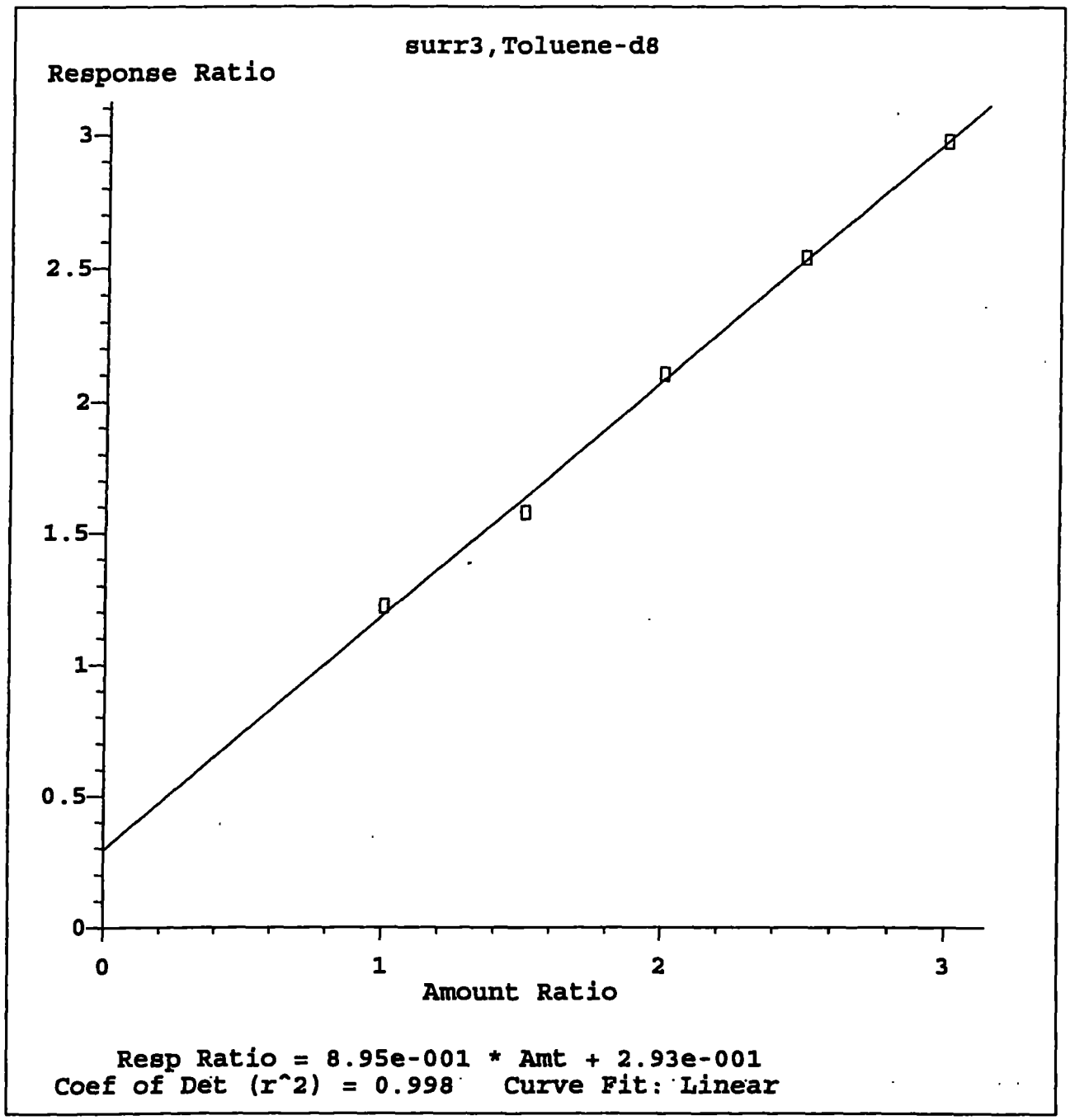
Method Name: J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Calibration Table Last Updated: Mon Dec 17 15:19:15 2001



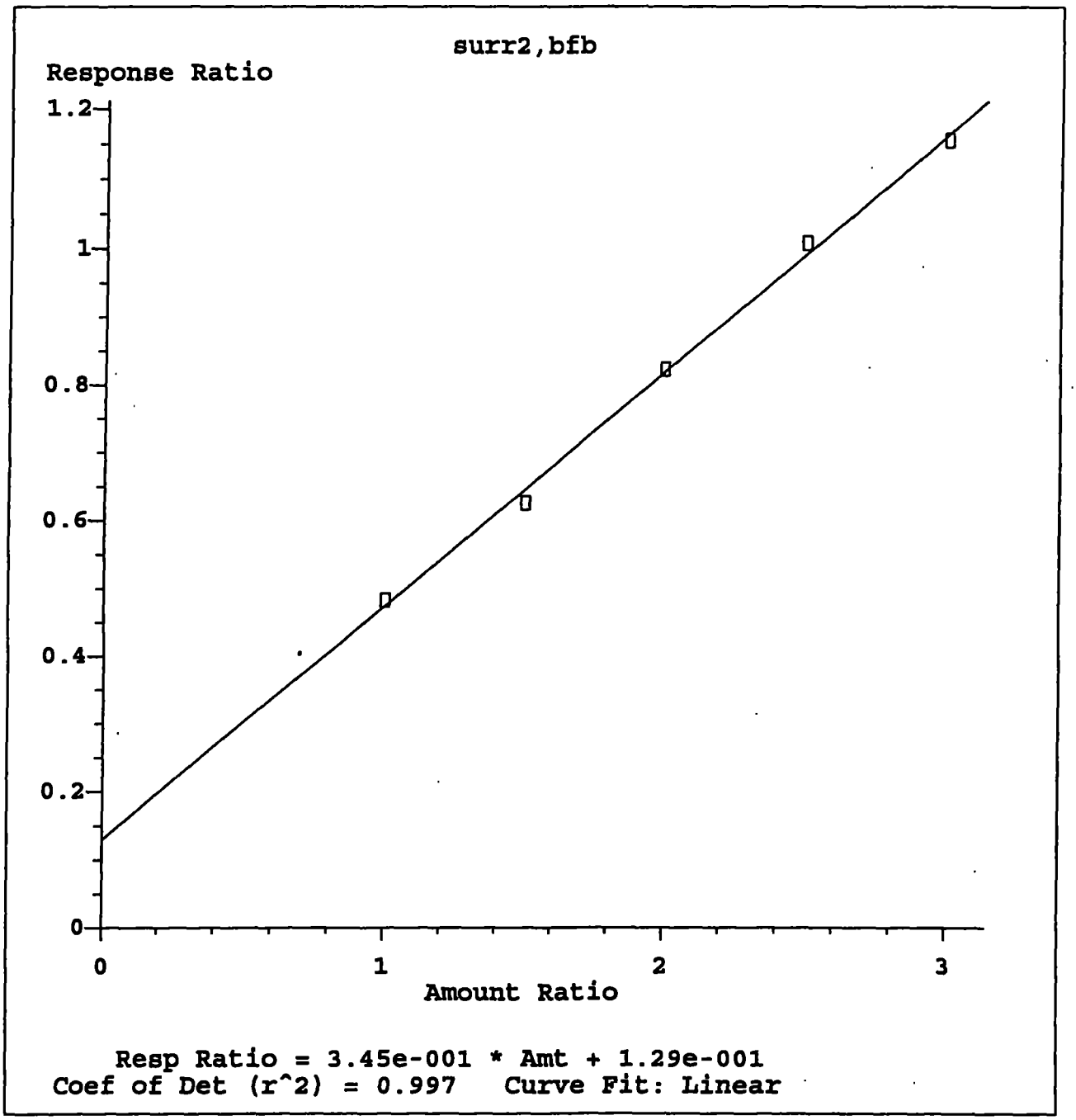
Method Name: J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Calibration Table Last Updated: Mon Dec 17 15:19:29 2001



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~~ ok	~~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

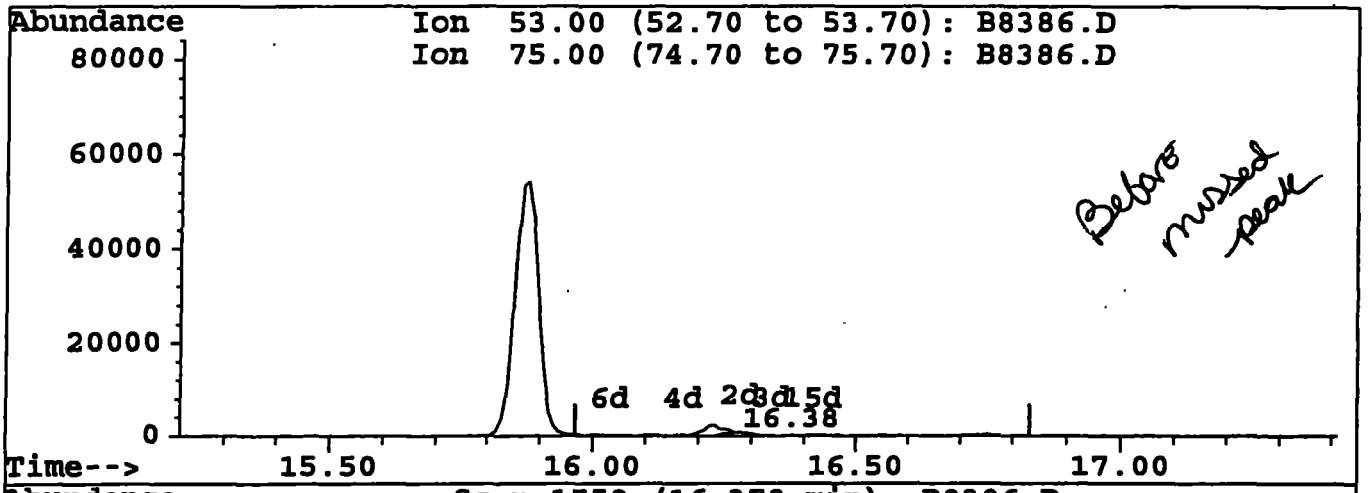
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
86) p-Isopropyltoluene	17.37	119	8173	4.68	ppb	#	87
87) 1,3-Dclbenz	17.98	146	5681	0.90	ppb	#	73
88) 1,4-Dclbenz	18.15	146	6325	0.91	ppb		98
89) n-Butylbenzene	18.88	91	7365	2.98	ppb	#	94
90) 1,2-Dclbenz	18.87	146	6102	0.91	ppb	#	84
~~91) 1,2-Dibromo-3-chloropropan~~	~~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

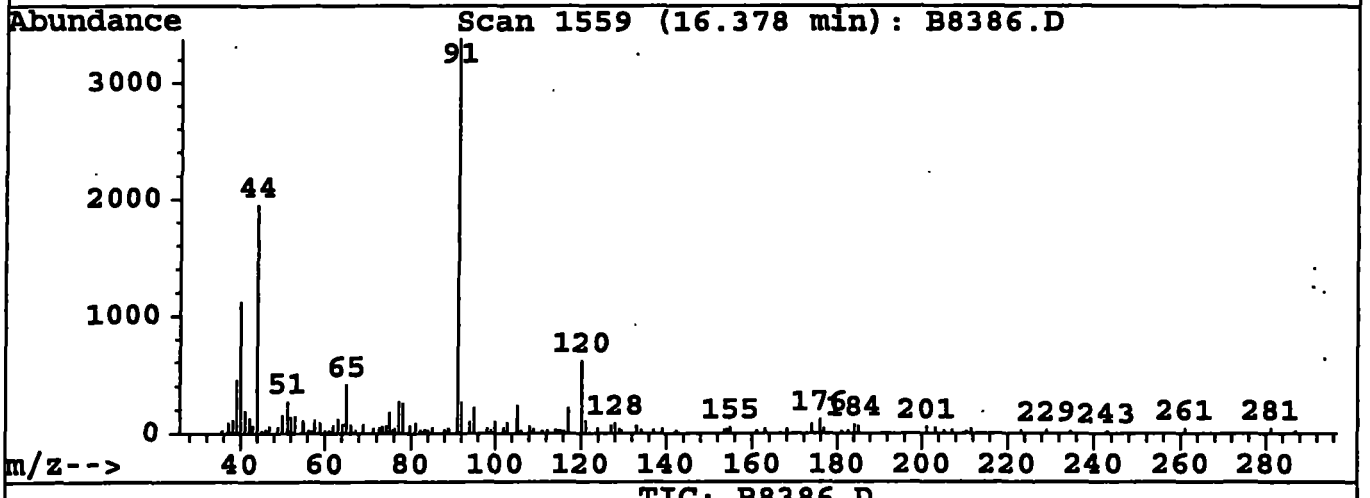
(#) = qualifier out of range (m) = manual integration

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

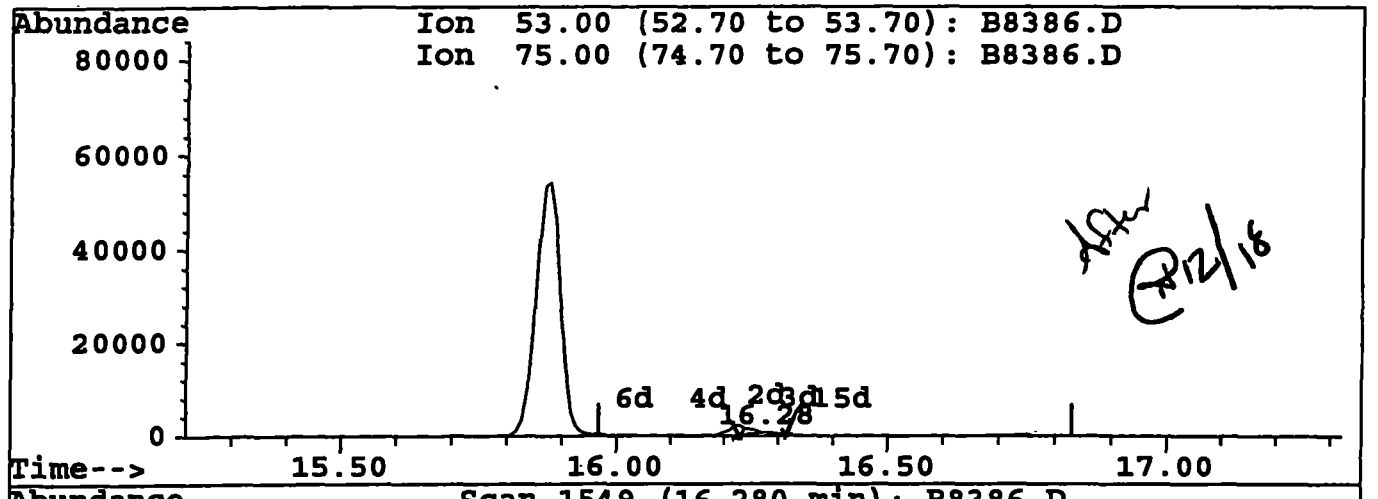
DW 1/8/17

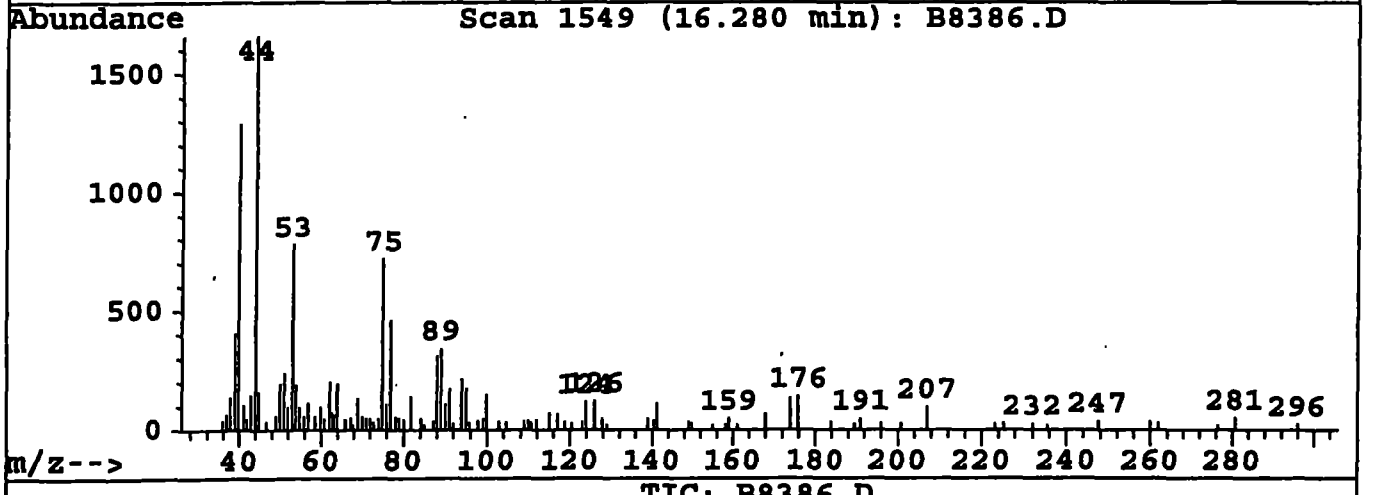
Quantitation Report

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





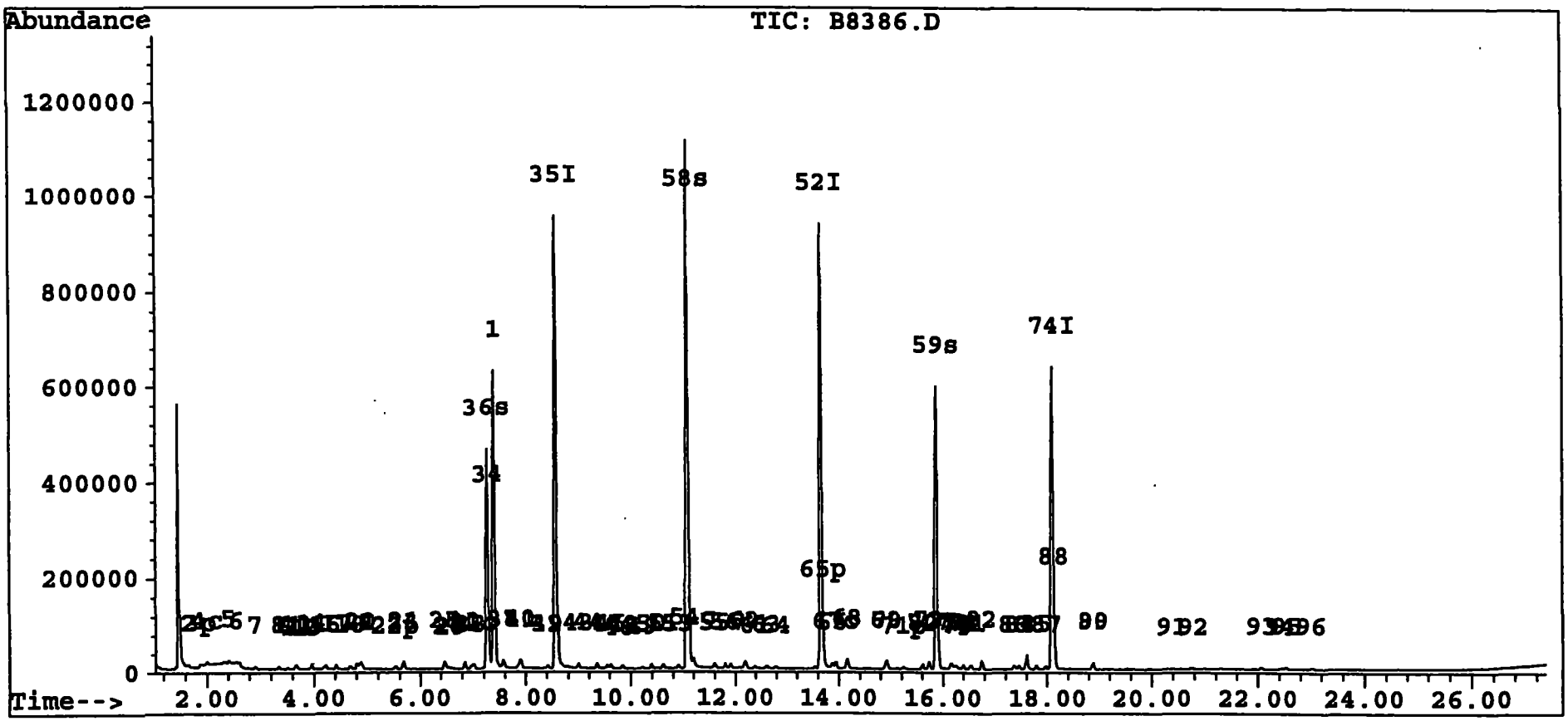
TIC: B8386.D

(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

Data Fi. : J:\ACQUDATA\MSVOA3\DATA\121701\B8386.1 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



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
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 15:28:12 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

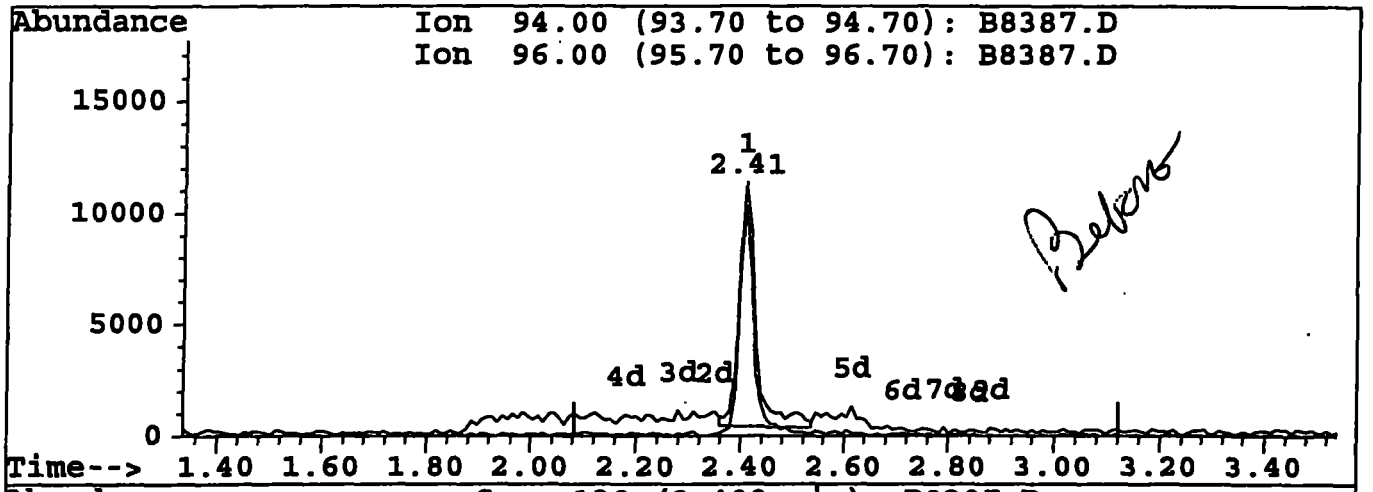
(#) = qualifier out of range (m) = manual integration

Quantitation Report

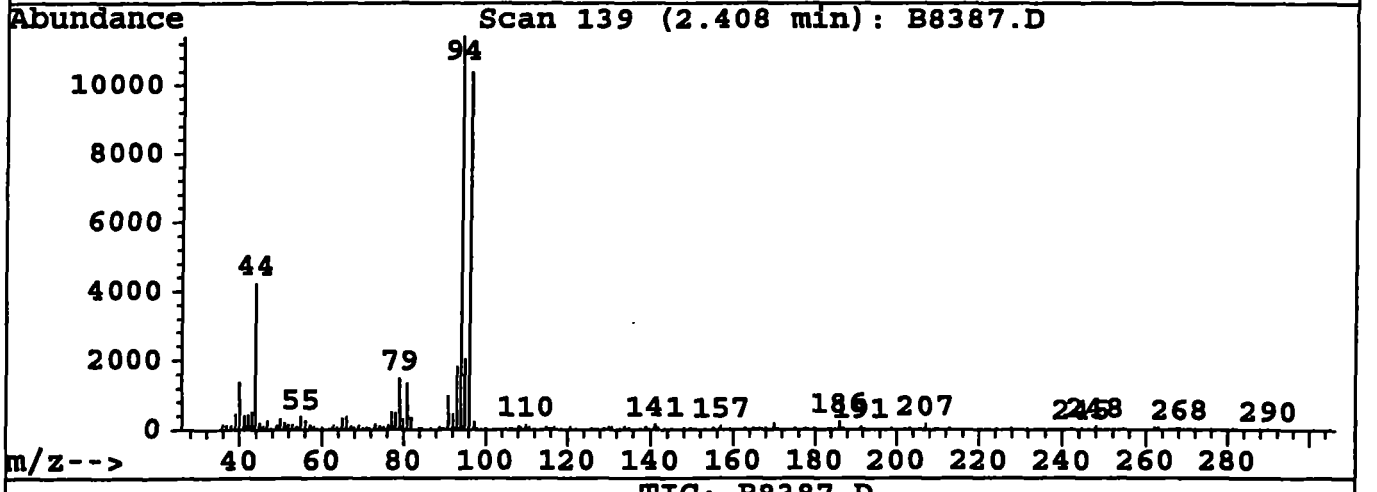
Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8387.D
Acq On : 17 Dec 101 11:39 am
Sample : 5 PPB
Misc :
Quant Time: Dec 17 12:06 19101

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



Before



TIC: B8387.D

(5) Bromomethane
2.41min 8.57ppb
response 24930

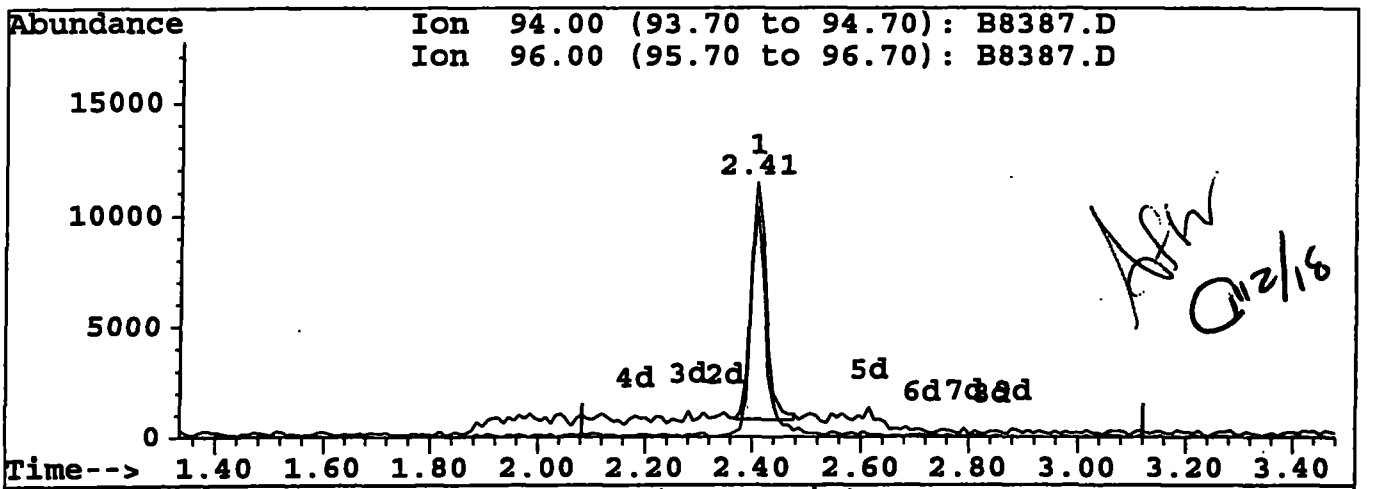
Ion	Exp%	Act%
94.00	100	100
96.00	90.30	90.82
0.00	0.00	0.00
0.00	0.00	0.00

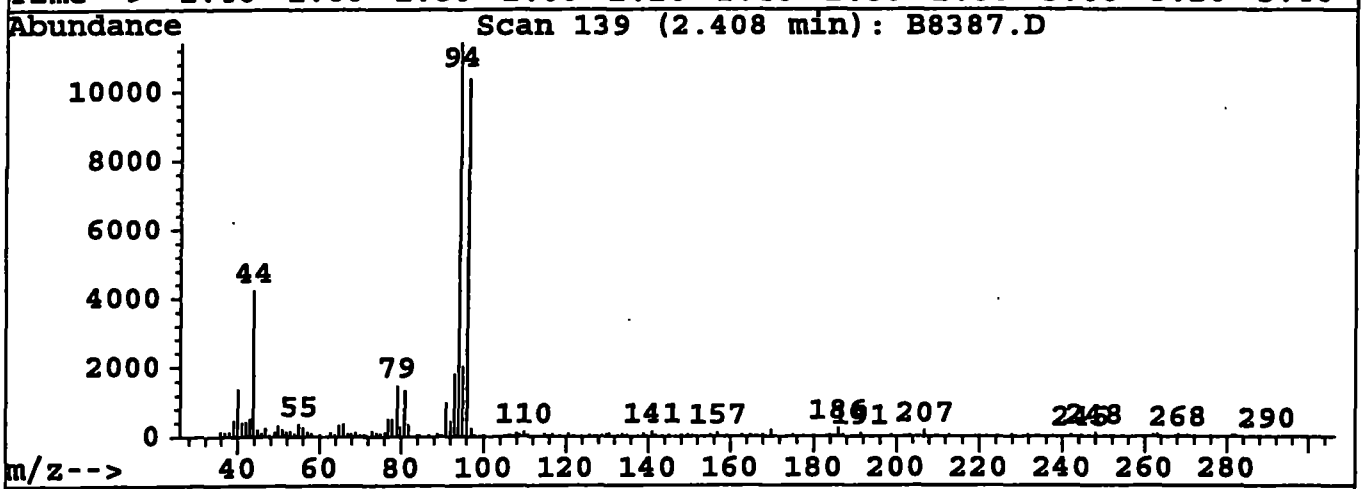
Quantitation Report

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





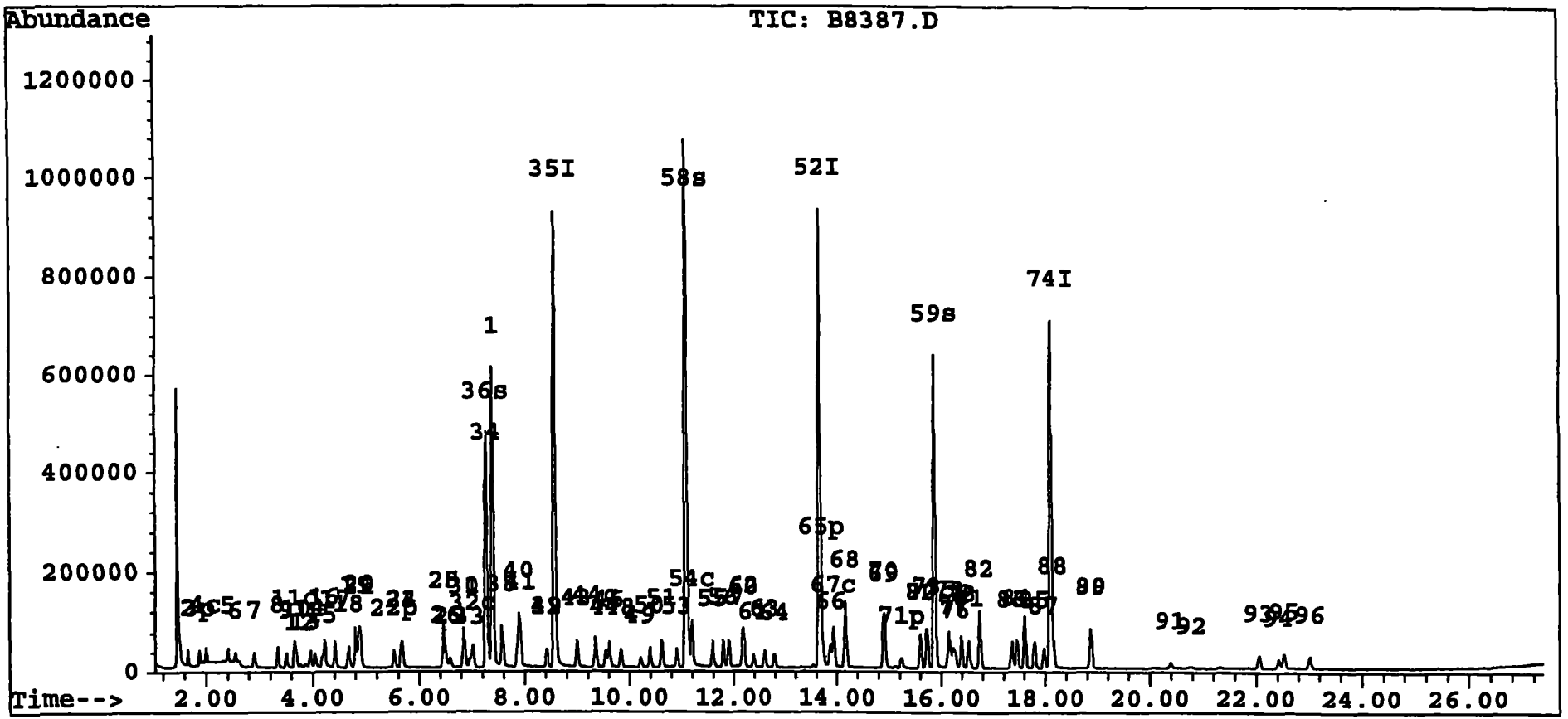
TIC: B8387.D

(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

Data F : J:\ACQUDATA\MSVOA3\DATA\121701\B8387. 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
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

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

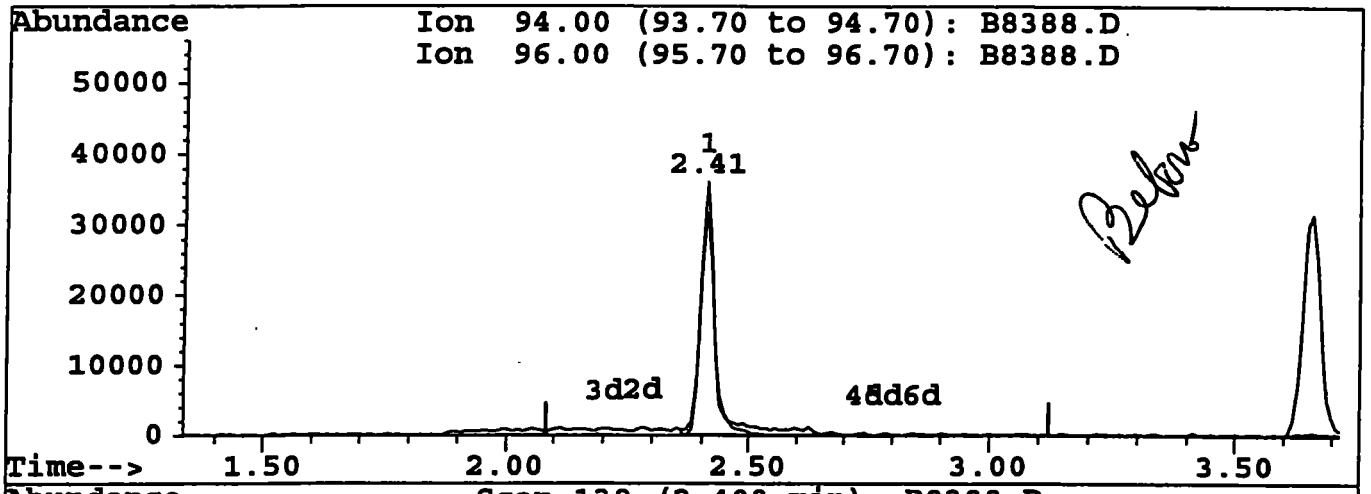
(#) = qualifier out of range (m) = manual integration

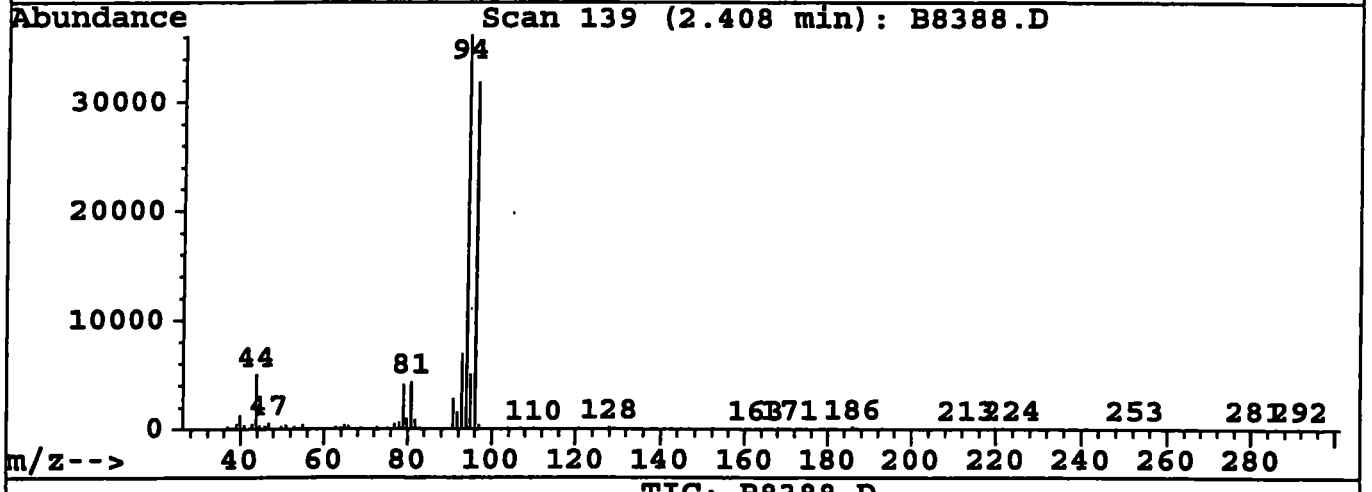
Quantitation Report

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

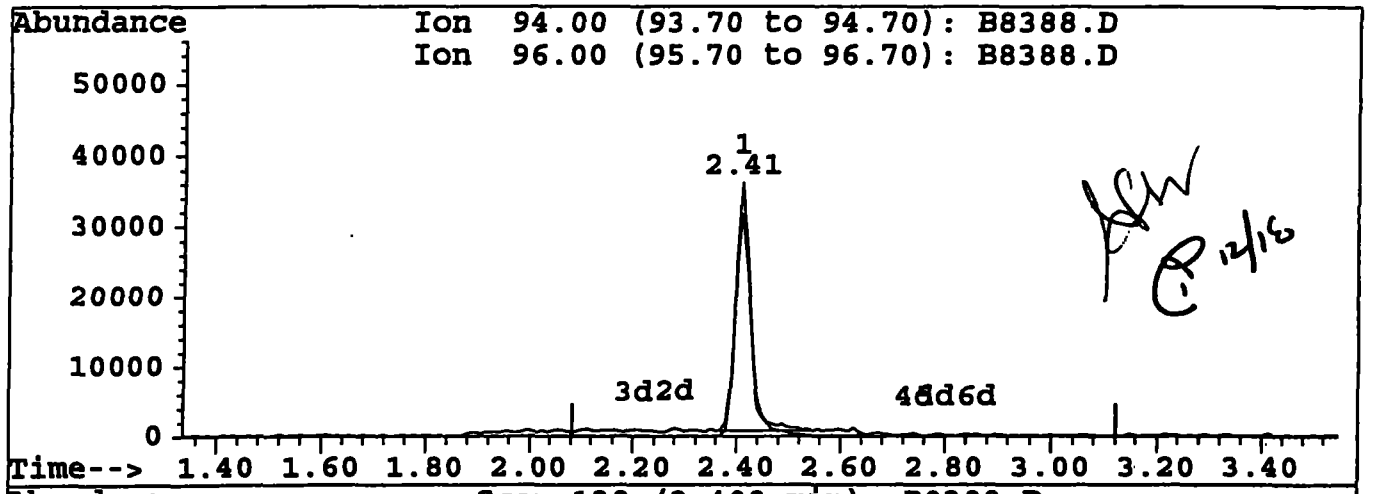
Ion	Exp%	Act%
94.00	100	100
96.00	90.30	87.91
0.00	0.00	0.00
0.00	0.00	0.00

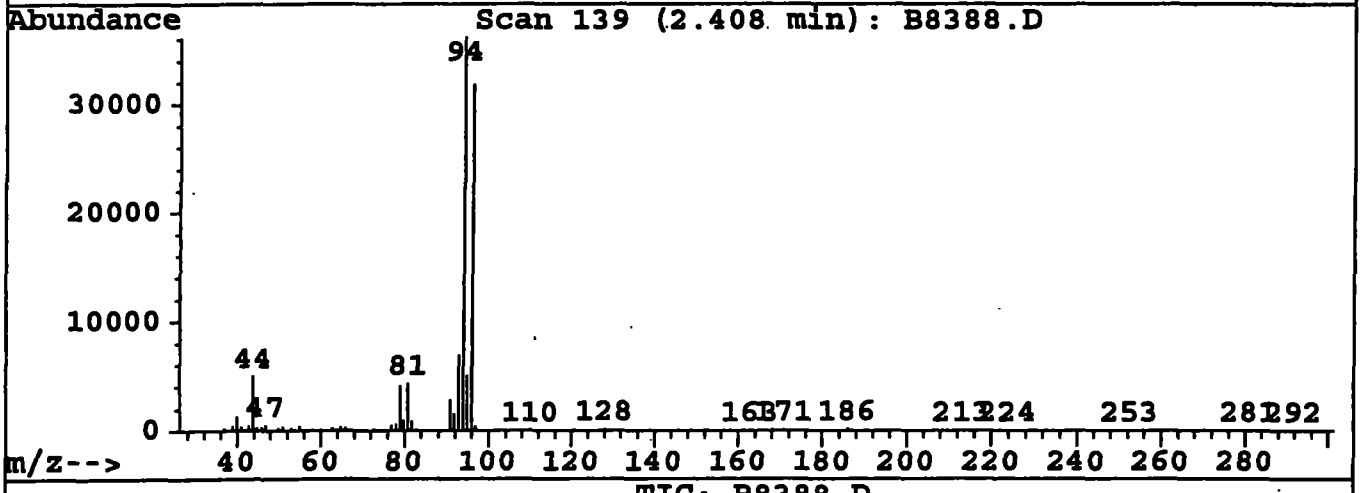
Quantitation Report

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

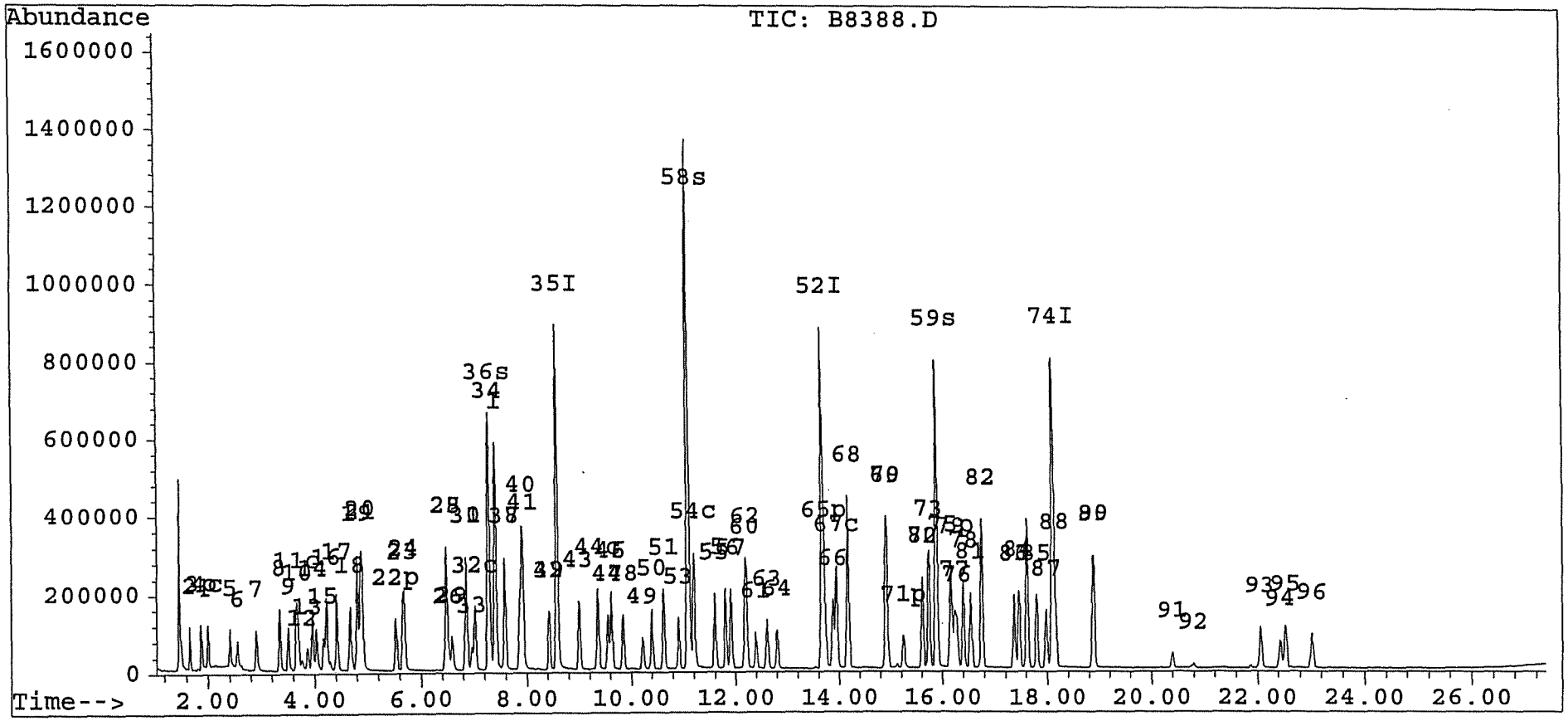
(5) Bromomethane
2.41min 19.06ppb m
response 71458

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 F. : J:\ACQUDATA\MSVOA3\DATA\121701\B8388.
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



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
13		Iodomethane	0.209	0.214	-2.4	100	0.00
[illegible]		Carbon Disulfide	1.431	1.448	-1.2	100	0.00
[illegible]		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
37		Carbontetrachloride	0.262	0.221	15.8	100	0.00
?		1,1-Dichloropropene	0.314	0.266	15.3	100	0.00
[illegible]		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
[illegible]		4-Methyl-2-Pentanone	0.504	0.513	-1.9	100	0.00
[illegible]	c	Toluene	1.048	0.916	12.6	100	0.00
[illegible]		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
[illegible]		Bromobenzene	0.668	0.563	15.7	100	0.01
[illegible]		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

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
[illegible]	Hexachlorobt	0.187	0.160	14.6	100	0.00
[illegible]	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 pl 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
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
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
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

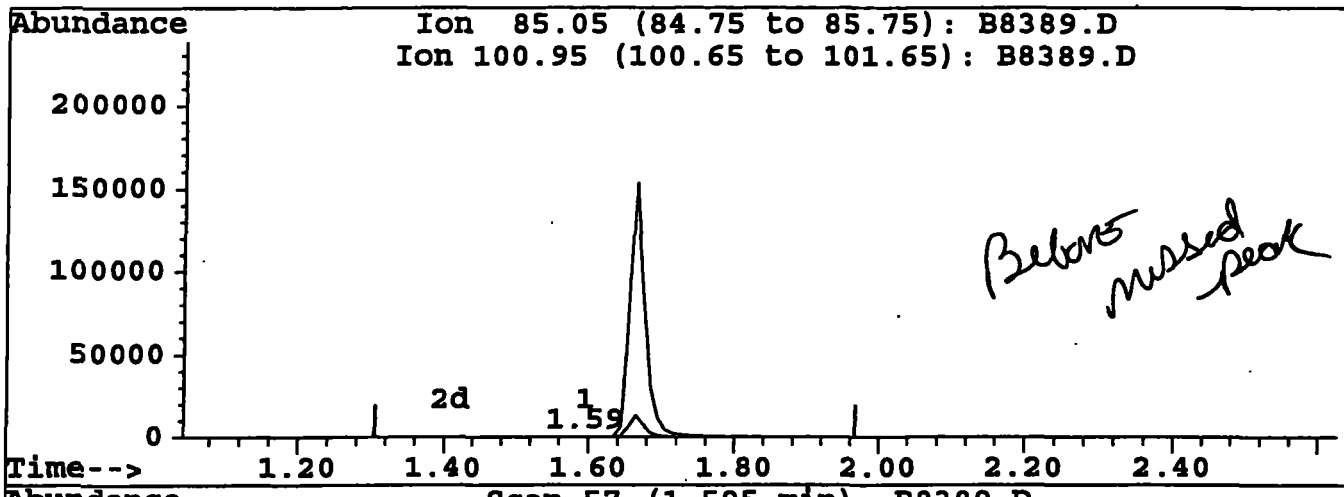
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
86) p-Isopropyltoluene	17.36	119	401101	41.05 ppb	98
87) 1,3-Dclbenz	17.98	146	276215	41.55 ppb	98
88) 1,4-Dclbenz	18.16	146	306377	41.39 ppb	99
89) n-Butylbenzene	18.89	91	402155	42.12 ppb	97
90) 1,2-Dclbenz	18.87	146	294342	41.65 ppb	98
91) 1,2-Dibromo-3-chloropropan	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

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

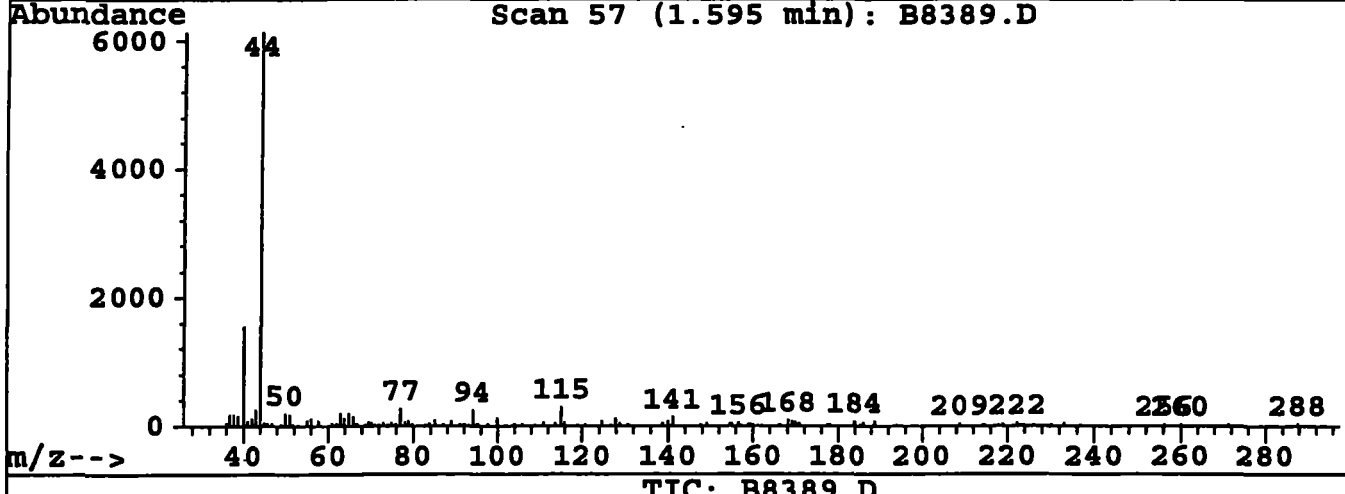
Quantitation Report

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 13:20 19101

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



Below missed peak



TIC: B8389.D

(2) Dichlorodifluoromethane
1.59min 0.06ppb
response 291

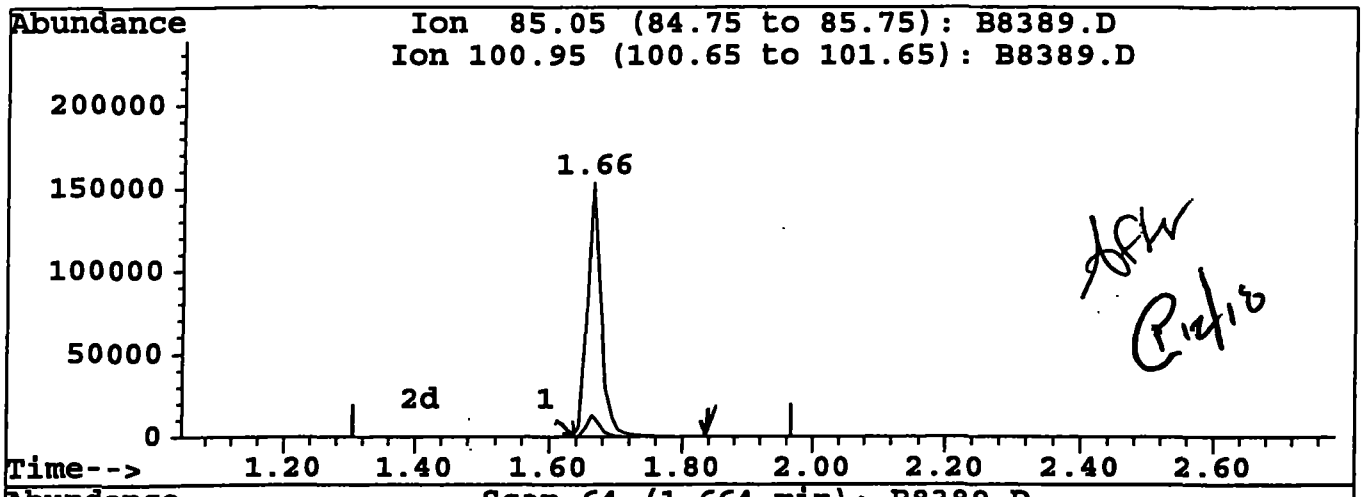
Ion	Exp%	Act%
85.05	100	100
100.95	8.10	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

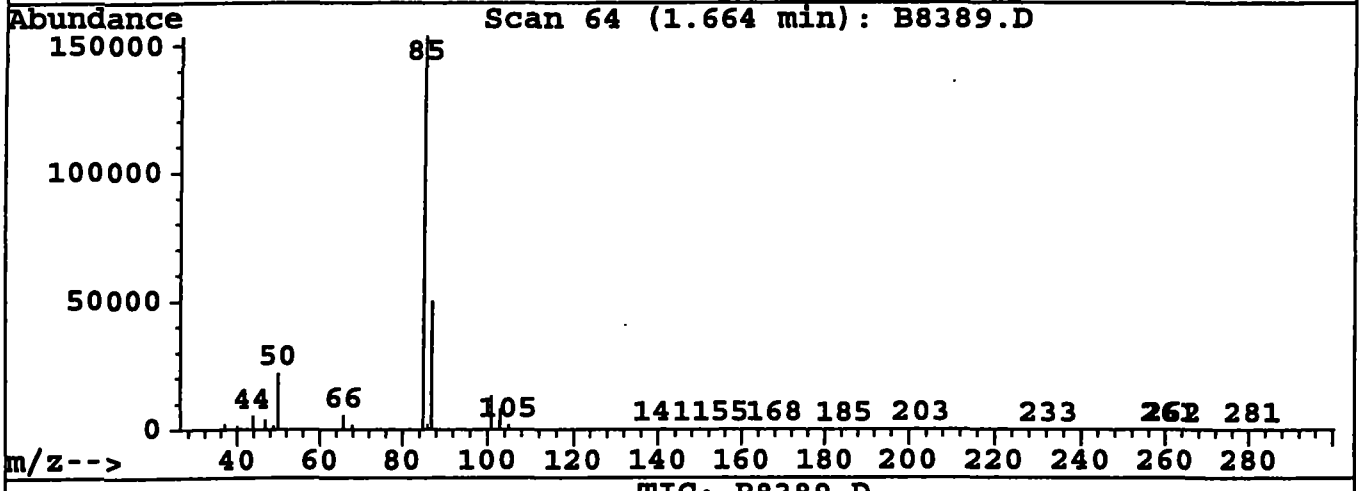
Quantitation Report

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

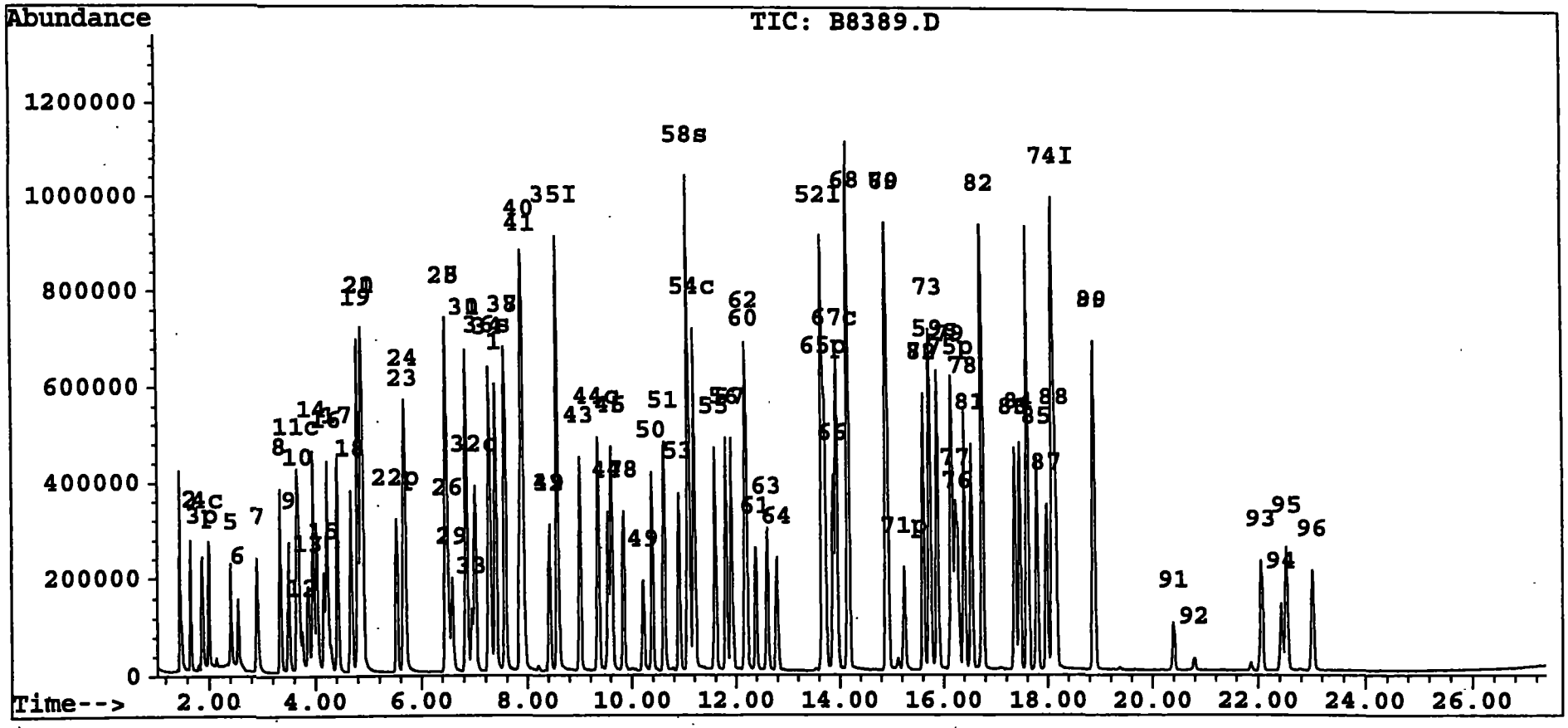
(2) Dichlorodifluoromethane
1.66min 42.78ppb m
response 221895

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 Fi : J:\ACQUDATA\MSVOA3\DATA\121701\B8389.I
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



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

97

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
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

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

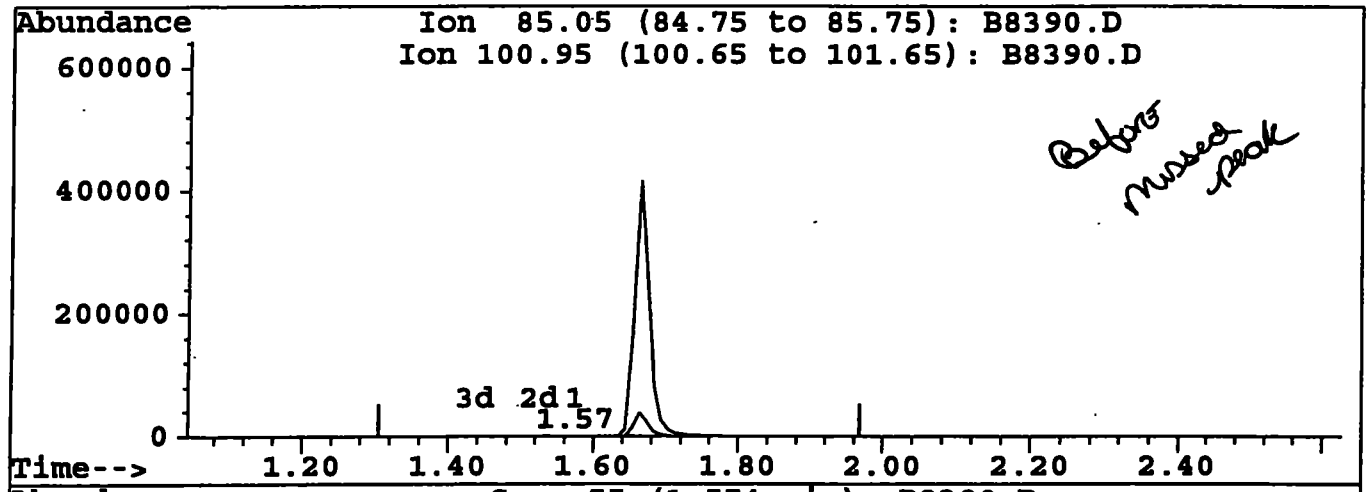
(#) = qualifier out of range (m) = manual integration

Quantitation Report

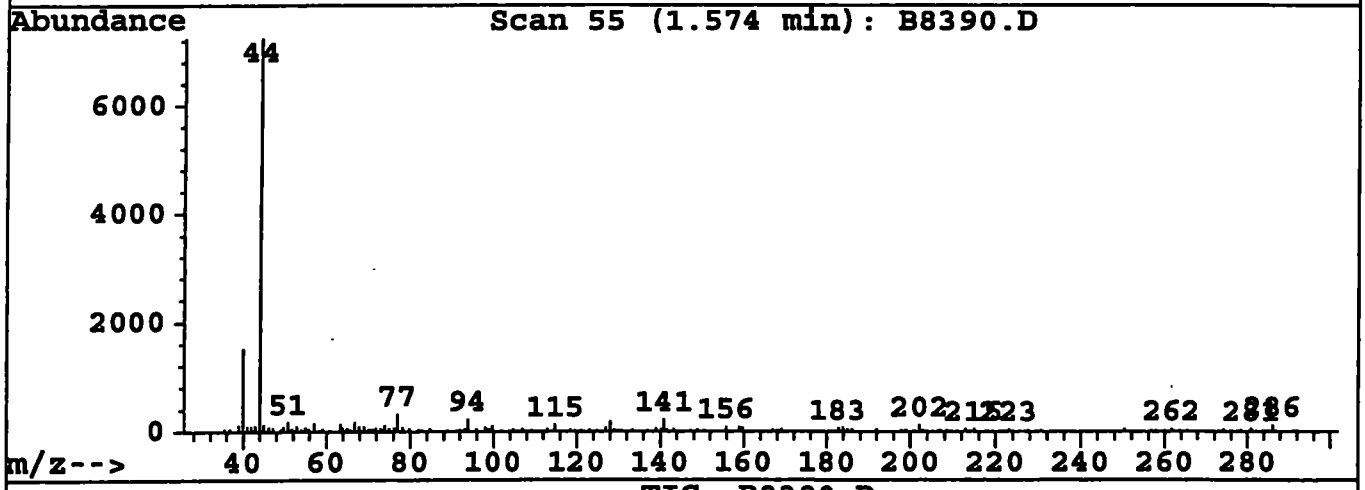
Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8390.D
Acq On : 17 Dec 101 1:28 pm
Sample : 100 PPB
Misc :
Quant Time: Dec 17 13:56 19101

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



Before 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

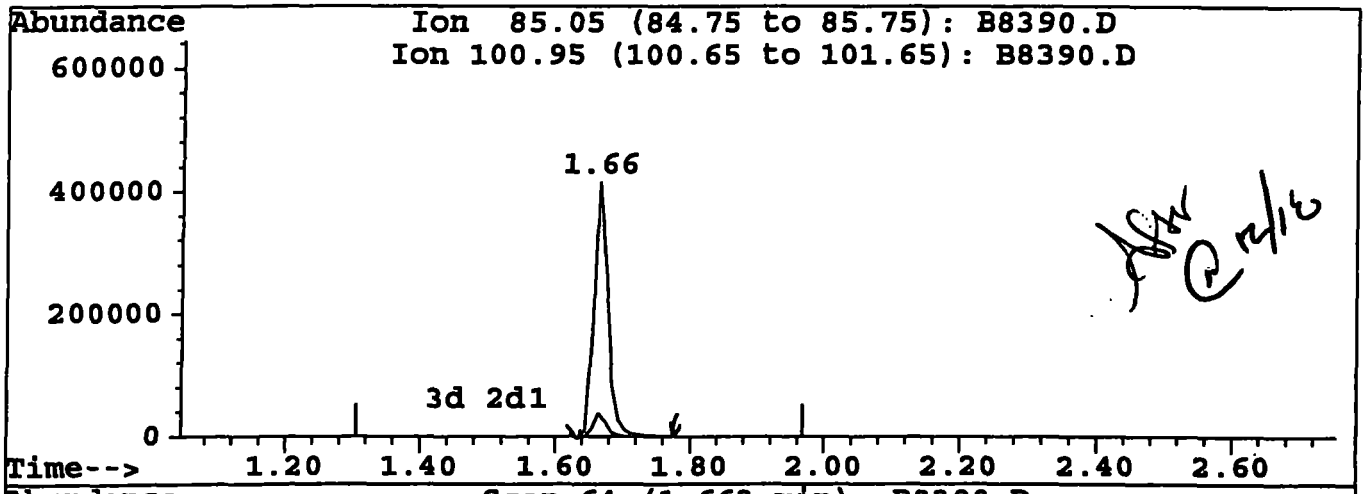
DW 12/17

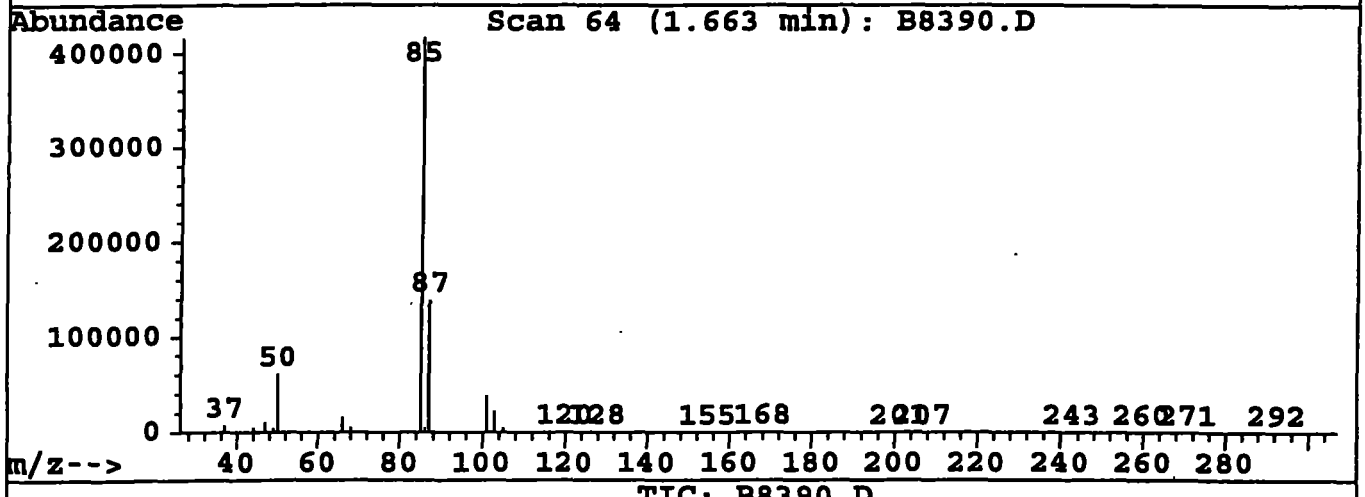
Quantitation Report

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

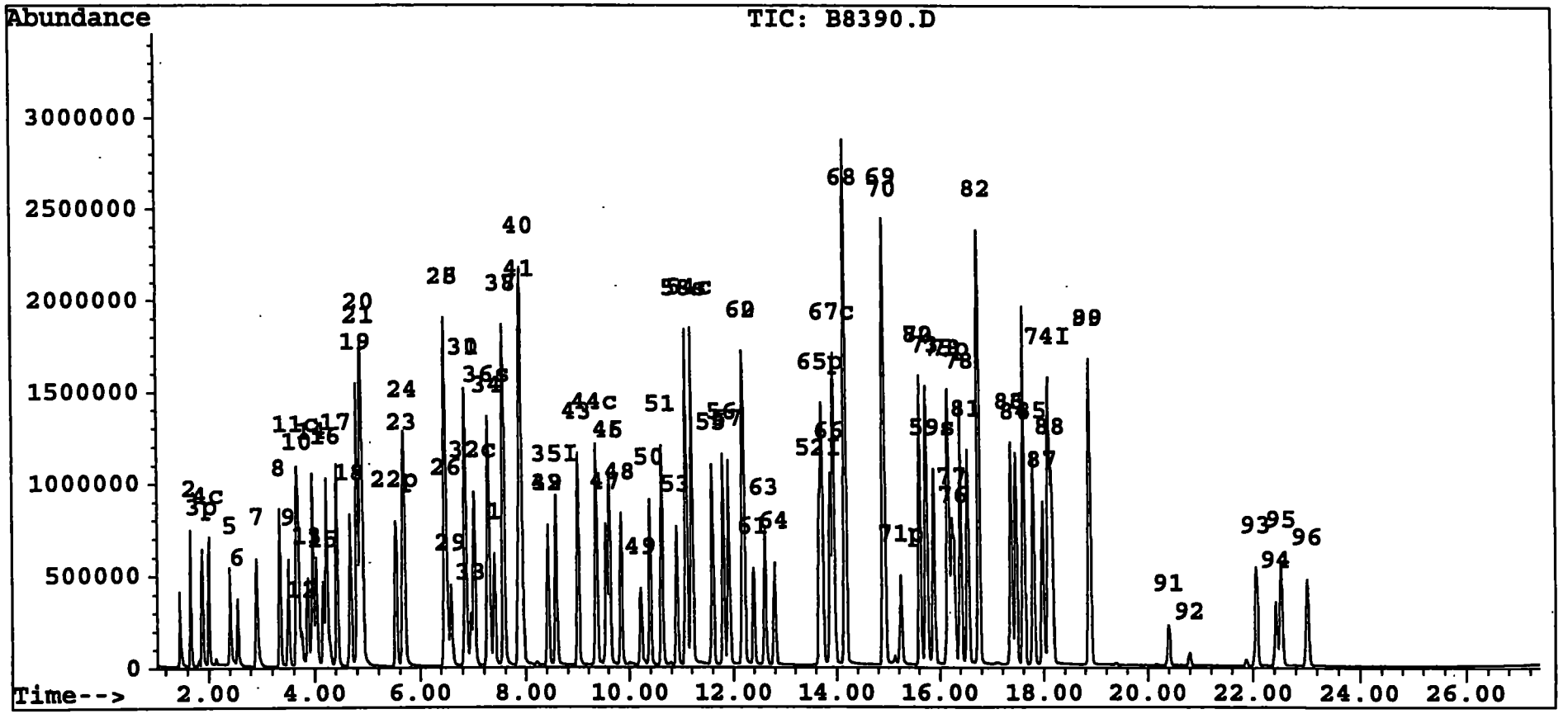
(2) Dichlorodifluoromethane
1.66min 115.92ppb m
response 590277

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 Fi : J:\ACQUDATA\MSVOA3\DATA\121701\B8390..
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
53) 4-Methyl-2-Pentanone	10.91	43	1368822	145.89	ppb	99
54) 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
82) 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
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

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

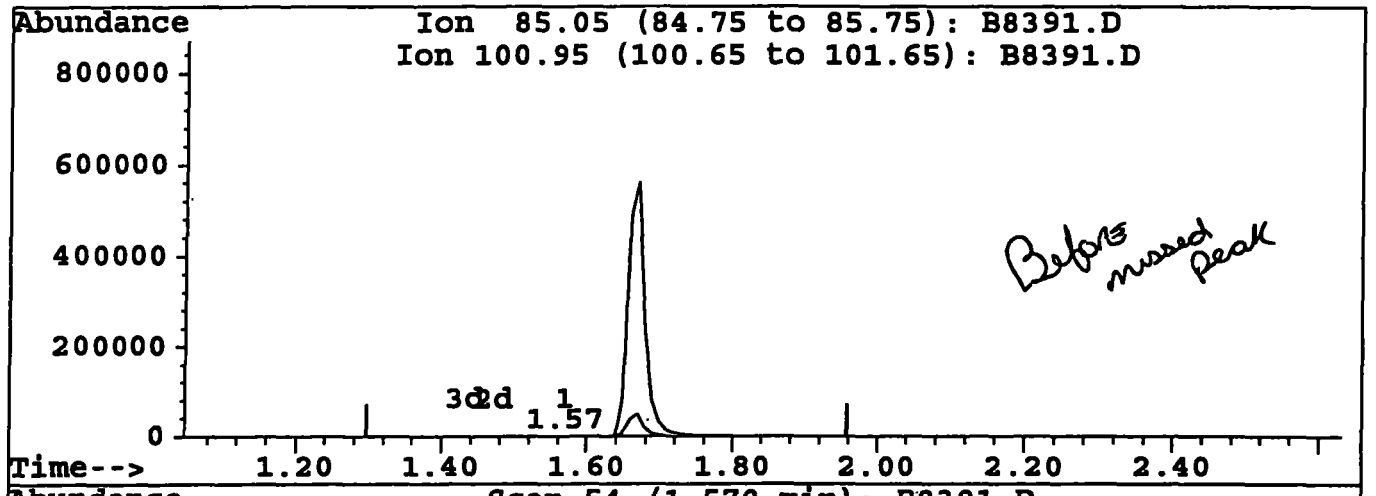
(#) = qualifier out of range (m) = manual integration

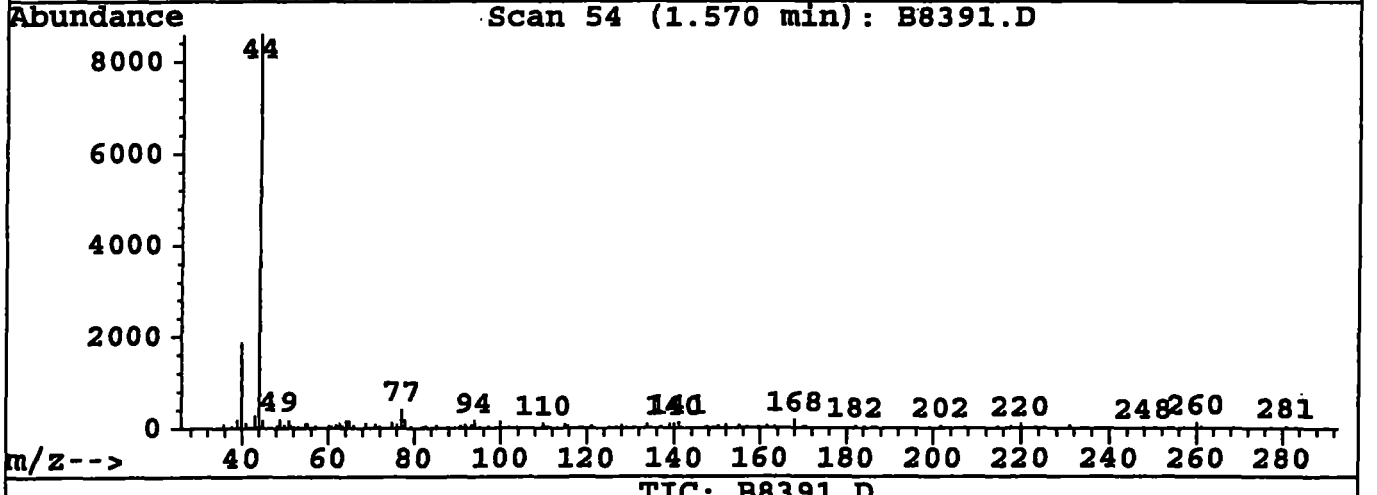
Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8391.D
Acq On : 17 Dec 101 2:05 pm
Sample : 150 PPB
Misc :
Quant Time: Dec 17 14:33 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
1.57min 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

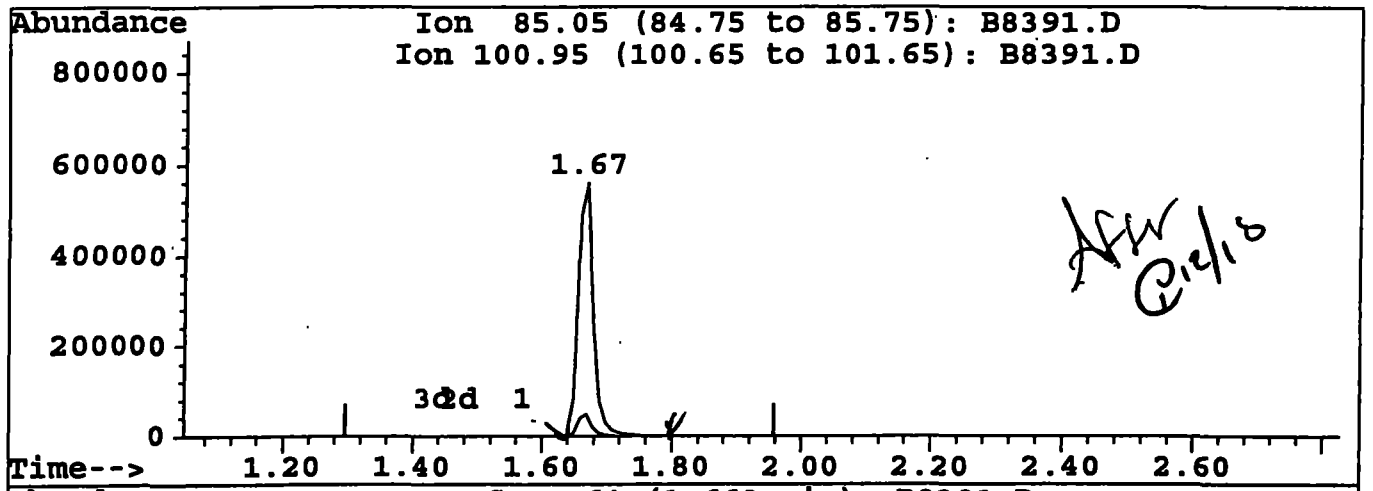
DW 12/17

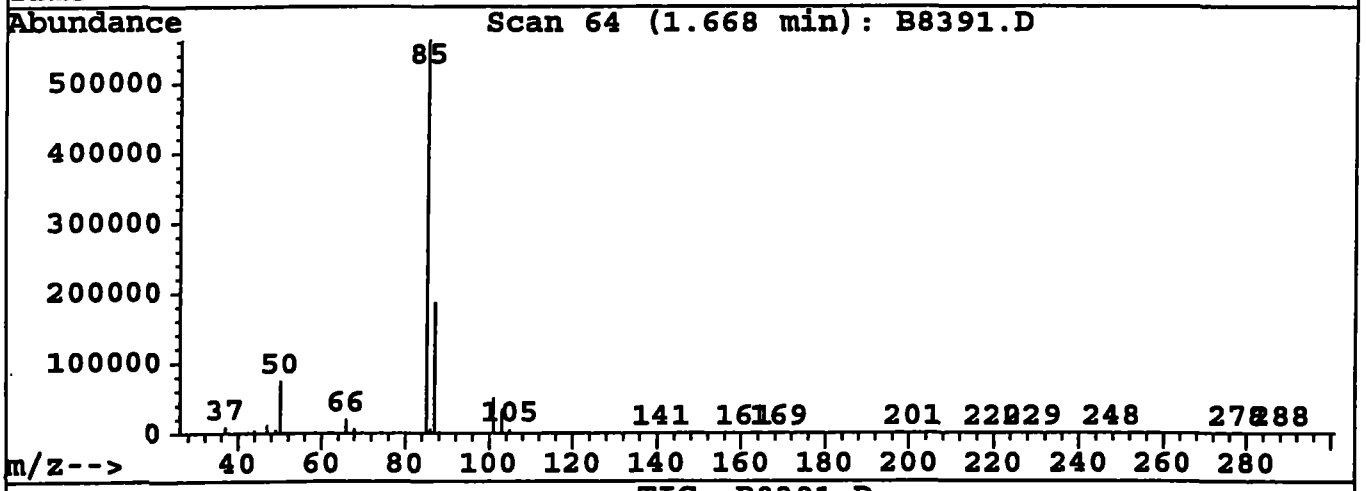
Quantitation Report

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

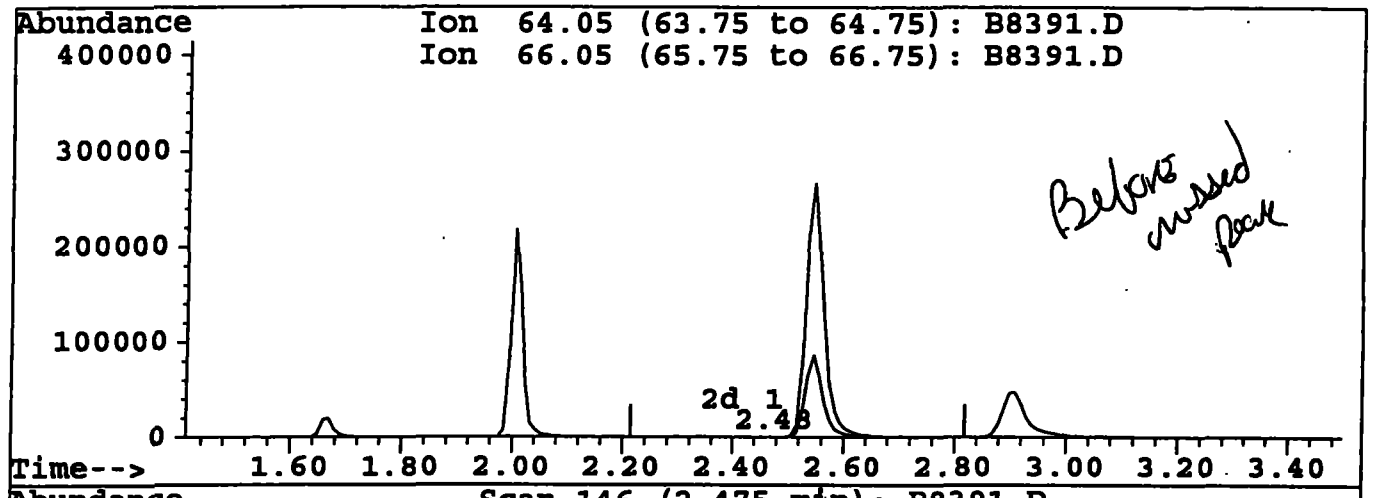
Ion	Exp%	Act%
85.05	100	100
100.95	8.10	8.81
0.00	0.00	0.00
0.00	0.00	0.00

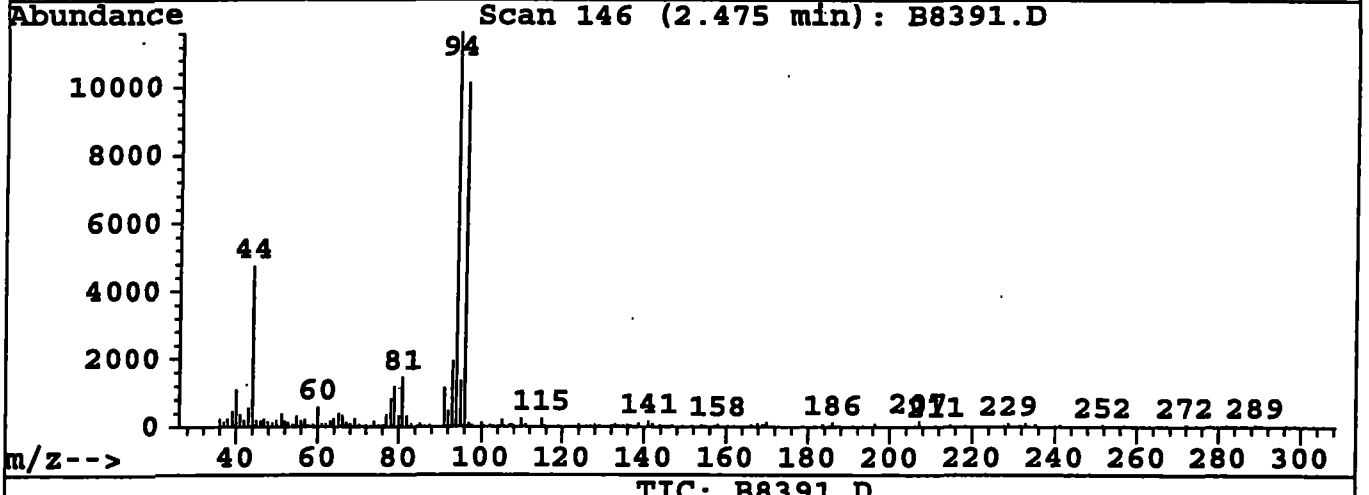
Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8391.D
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

(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

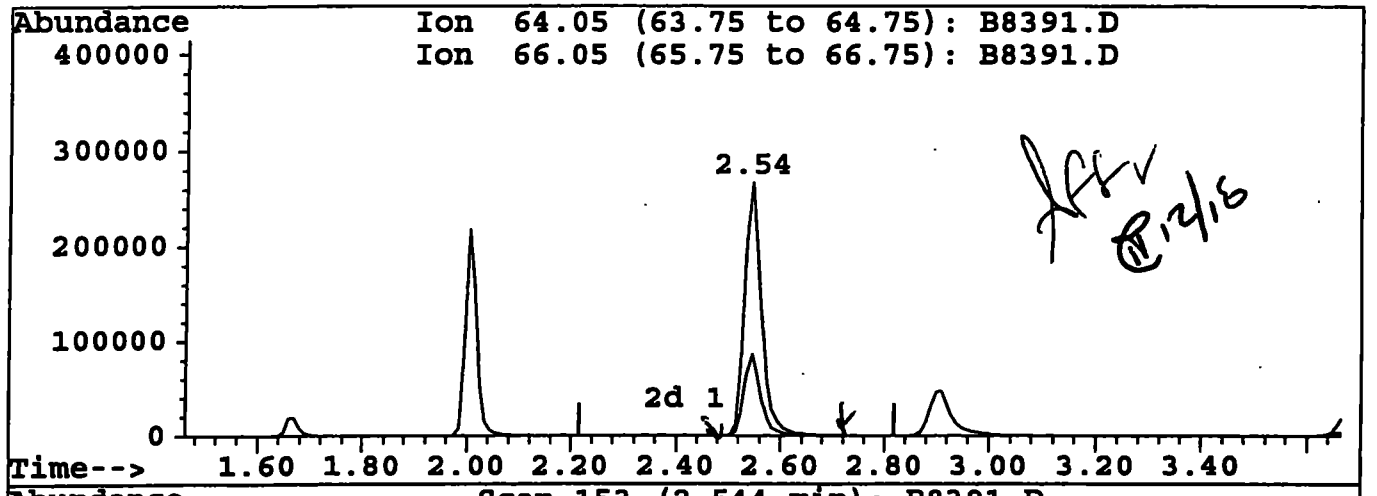
12/17

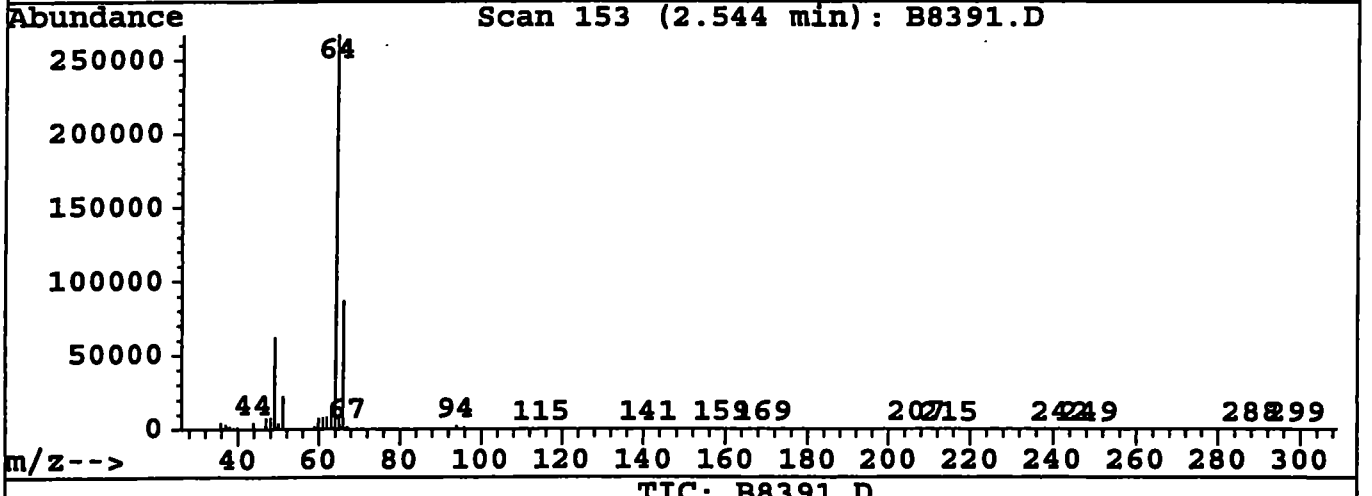
Quantitation Report

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





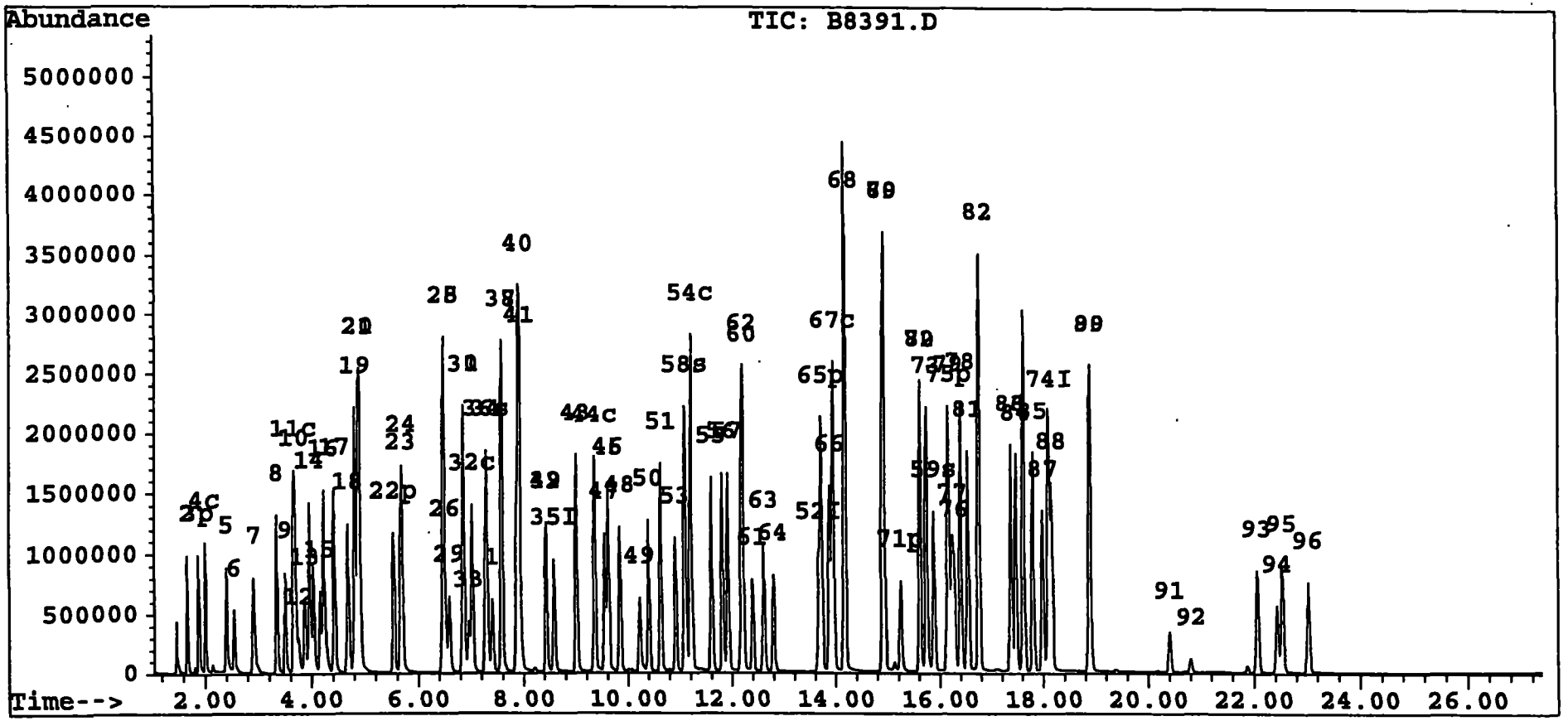
TIC: B8391.D

(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

Data Fi : J:\ACQUDATA\MSVOA3\DATA\121701\B8391. 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



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 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
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
32)	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
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
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 OK	1
95) Naphthalen	22.54	128	1772457	184.73 ppb		98
96) 1,2,3-Tclbenzene	23.02	180	617009	194.57 ppb		97

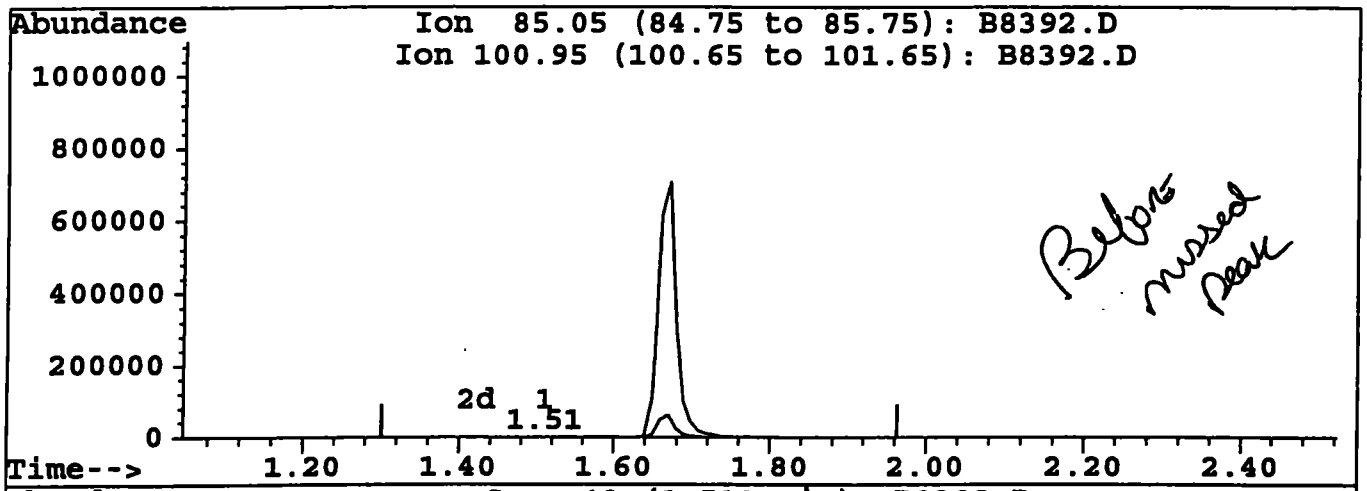
(#) = qualifier out of range (m) = manual integration

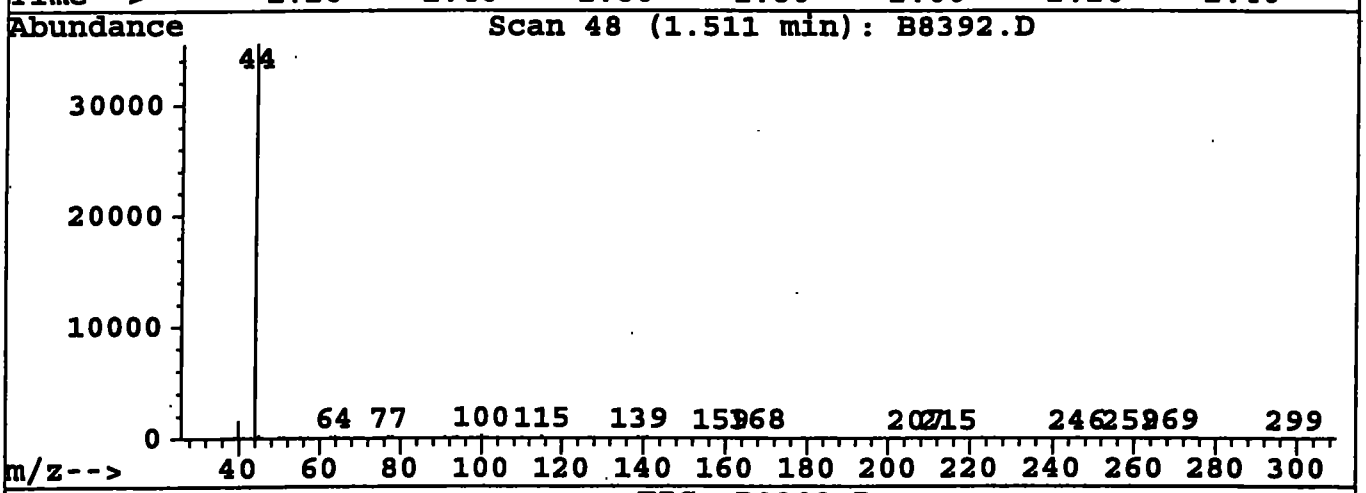
Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8392.D
Acq On : 17 Dec 101 2:42 pm
Sample : 200 PPB
Misc :
Quant Time: Dec 17 15:10 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

(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

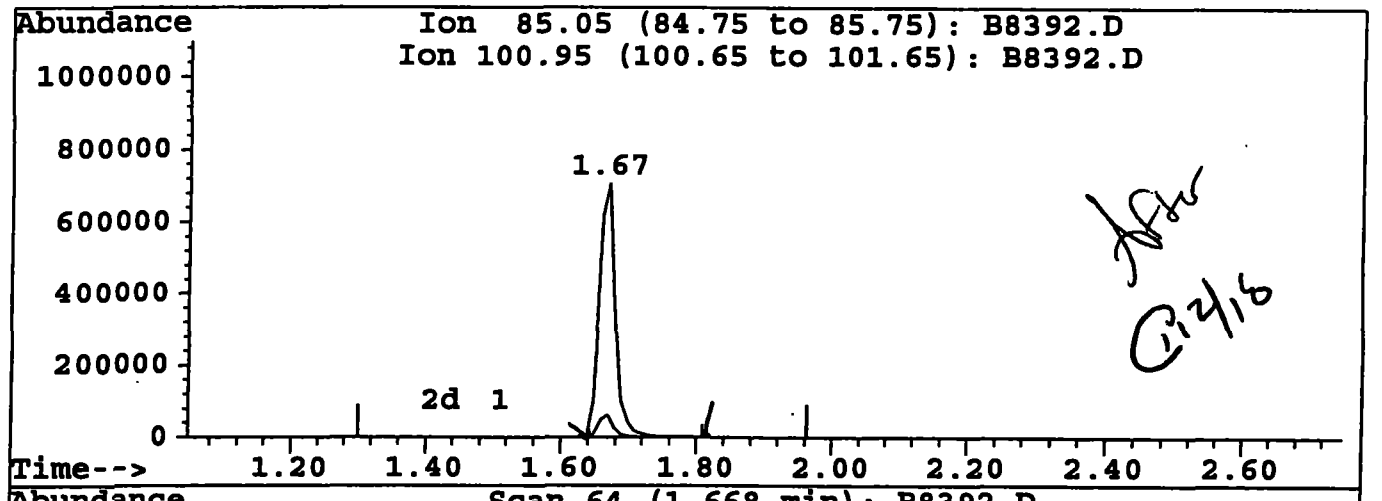
DW 12/17

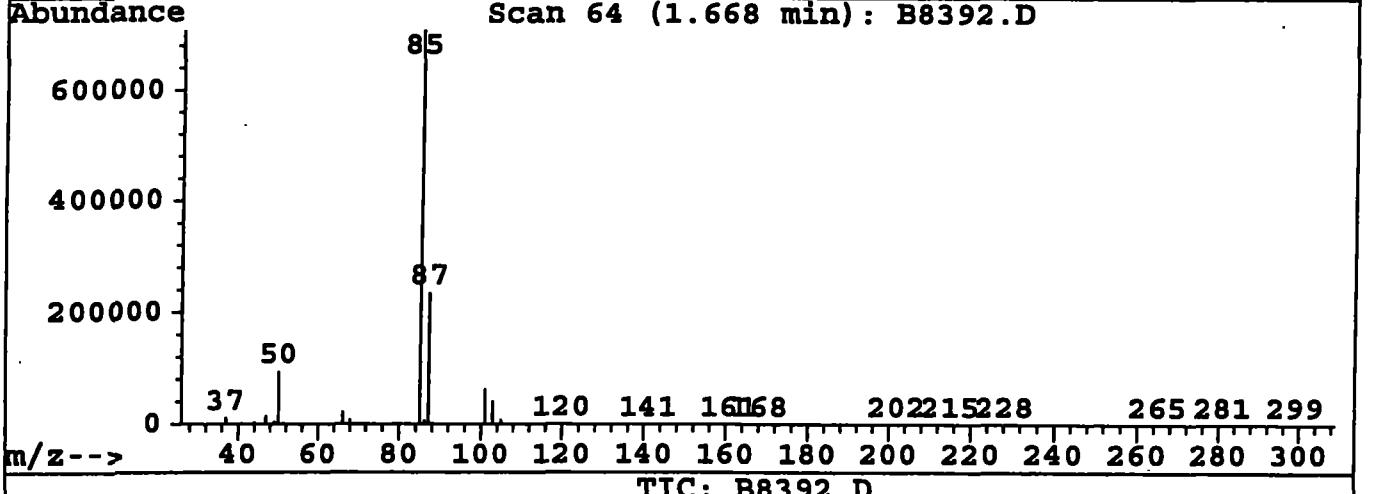
Quantitation Report

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 15:12 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

(2) Dichlorodifluoromethane
1.67min 205.77ppb m
response 1133491

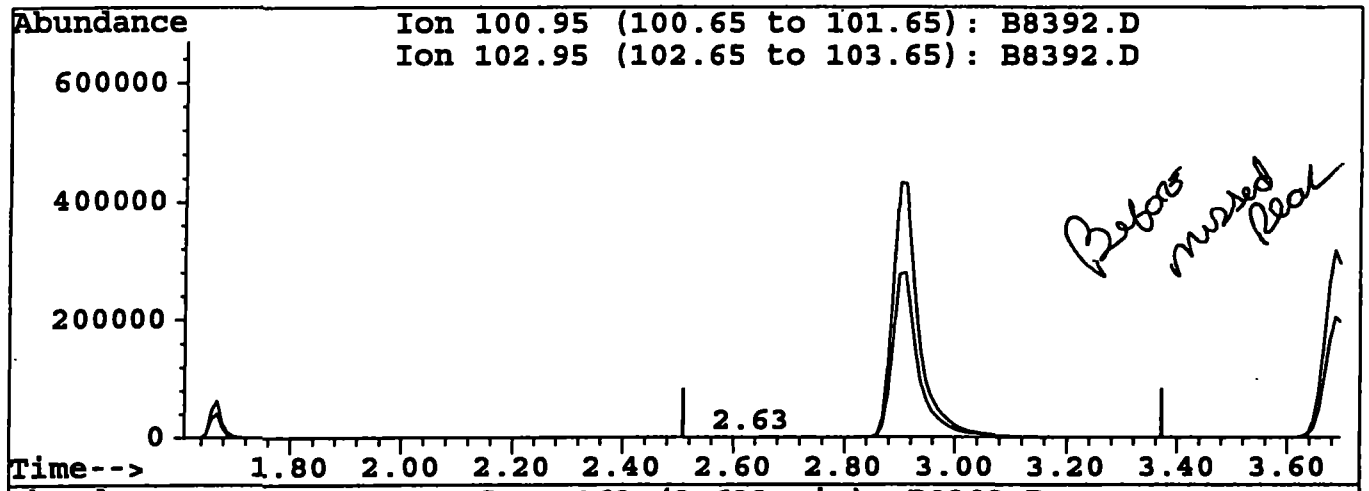
Ion	Exp%	Act%
85.05	100	100
100.95	8.10	8.82
0.00	0.00	0.00
0.00	0.00	0.00

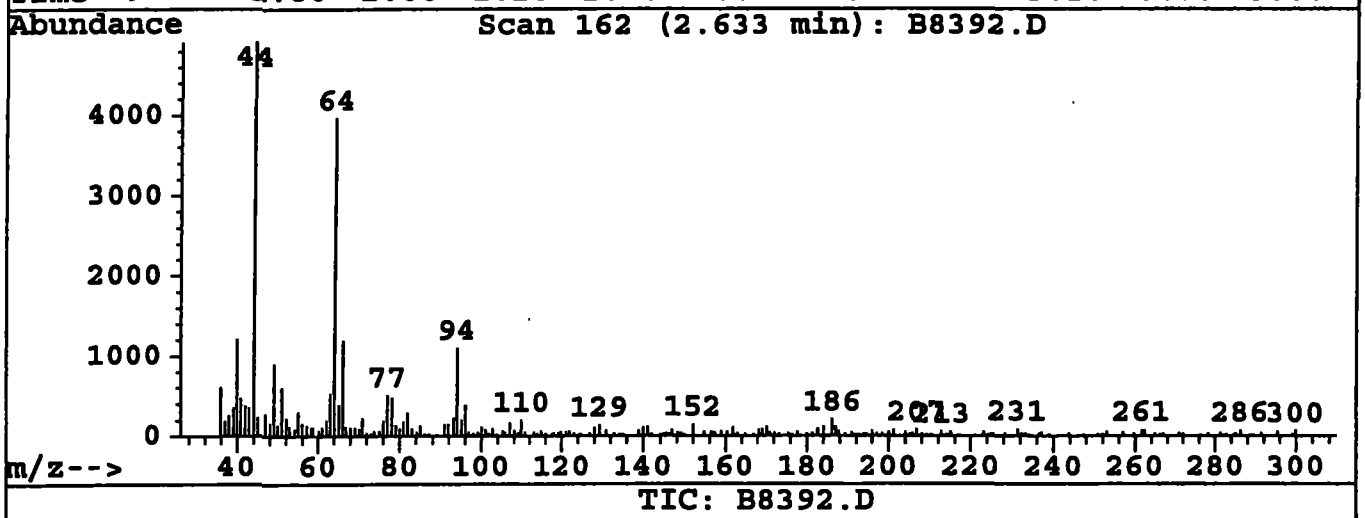
Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8392.D
Acq On : 17 Dec 101 2:42 pm
Sample : 200 PPB
Misc :
Quant Time: Dec 17 15:12 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
2.63min 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

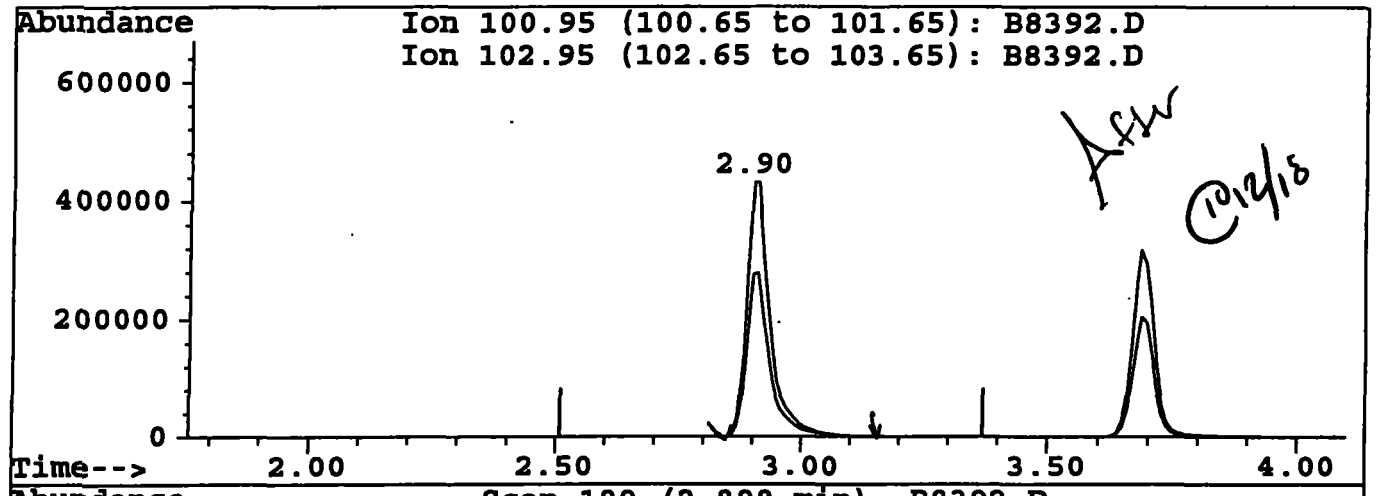
12/17

Quantitation Report

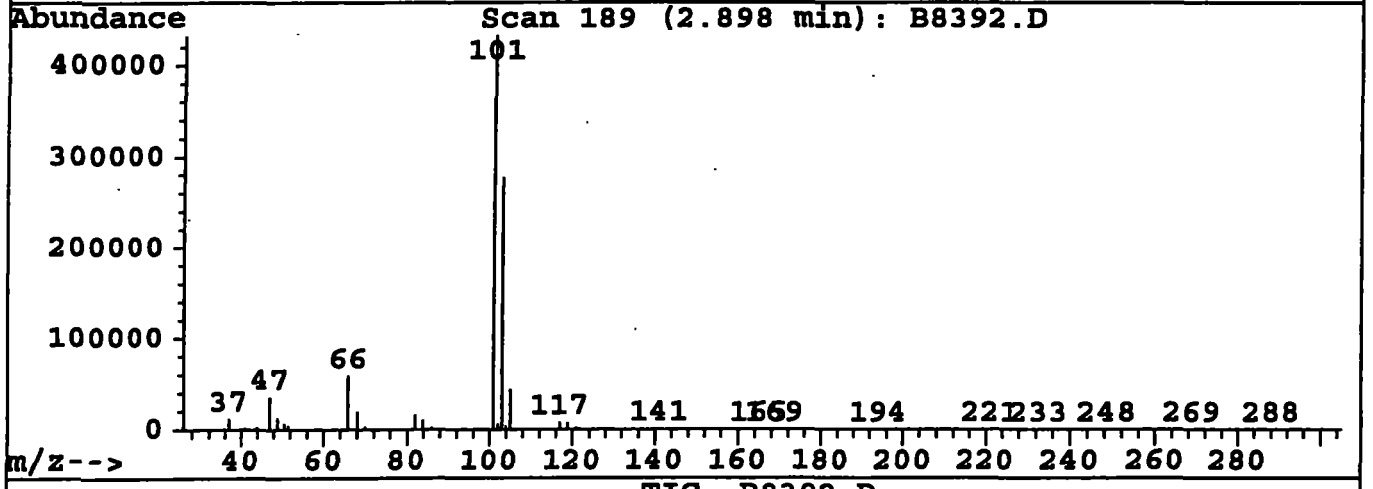
Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8392.D
Acq On : 17 Dec 101 2:42 pm
Sample : 200 PPB
Misc :
Quant Time: Dec 17 15:13 19101

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



After @12/18



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

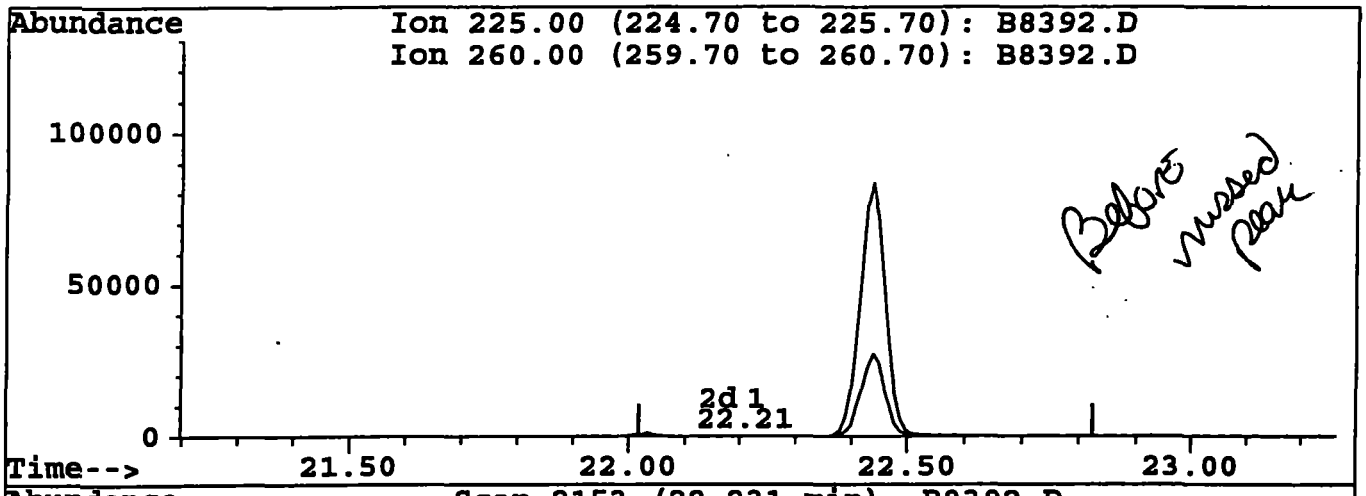
Dw 12/17

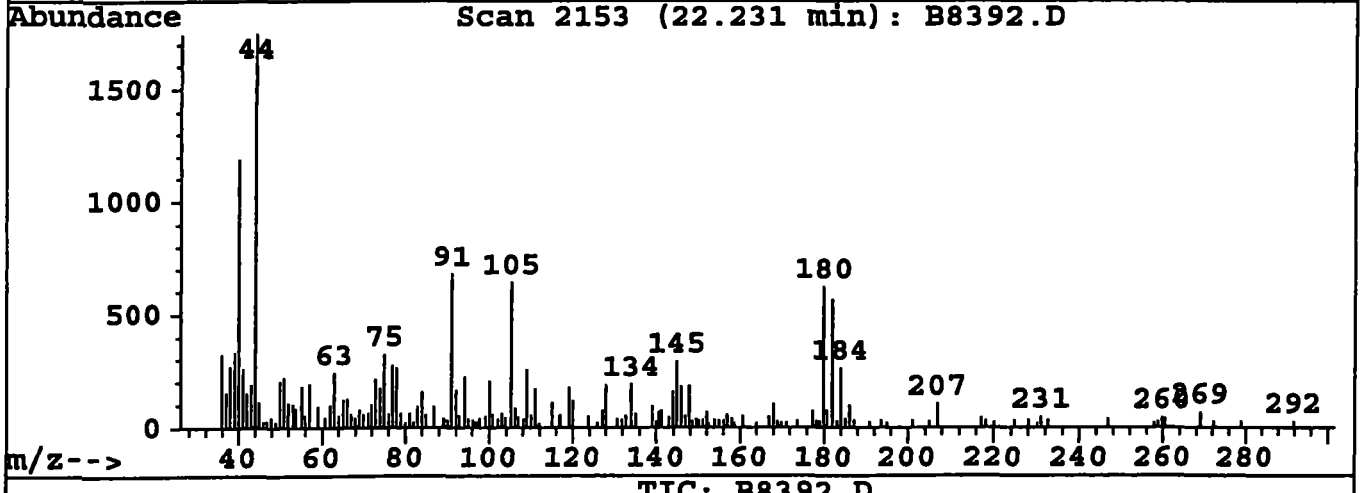
Quantitation Report

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

(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

DW 12/17

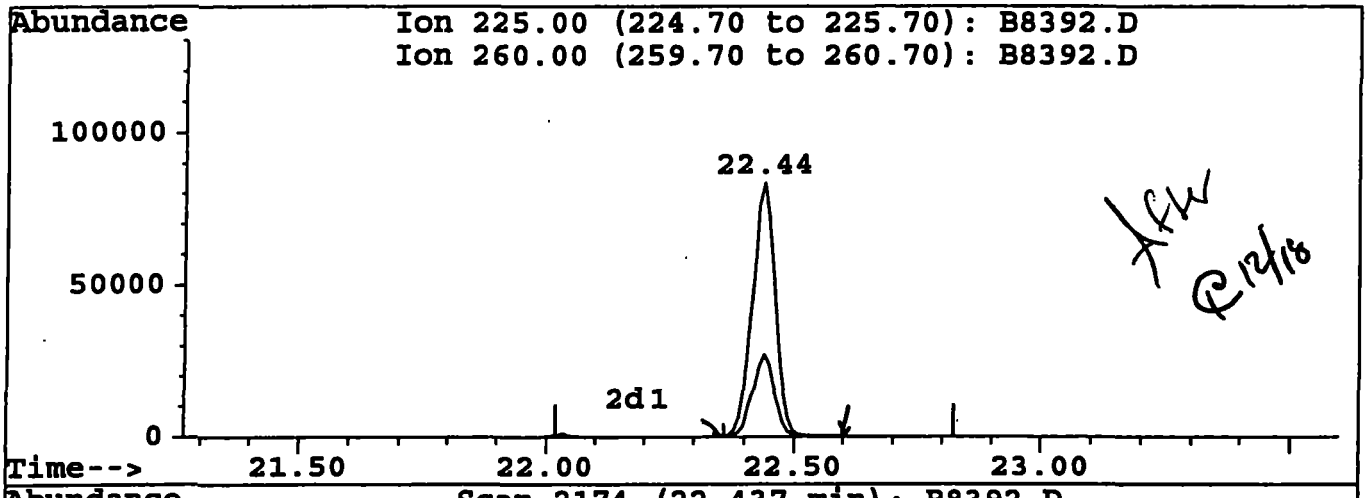
B8392.D EXP1217.M Mon Dec 17 15:13:16 2001

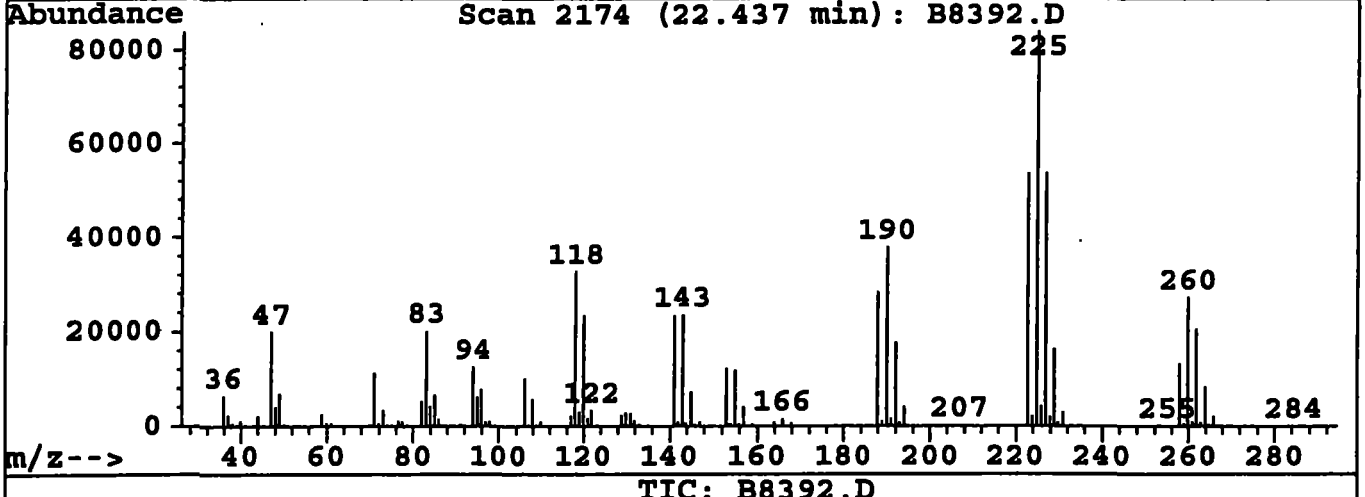
Quantitation Report

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

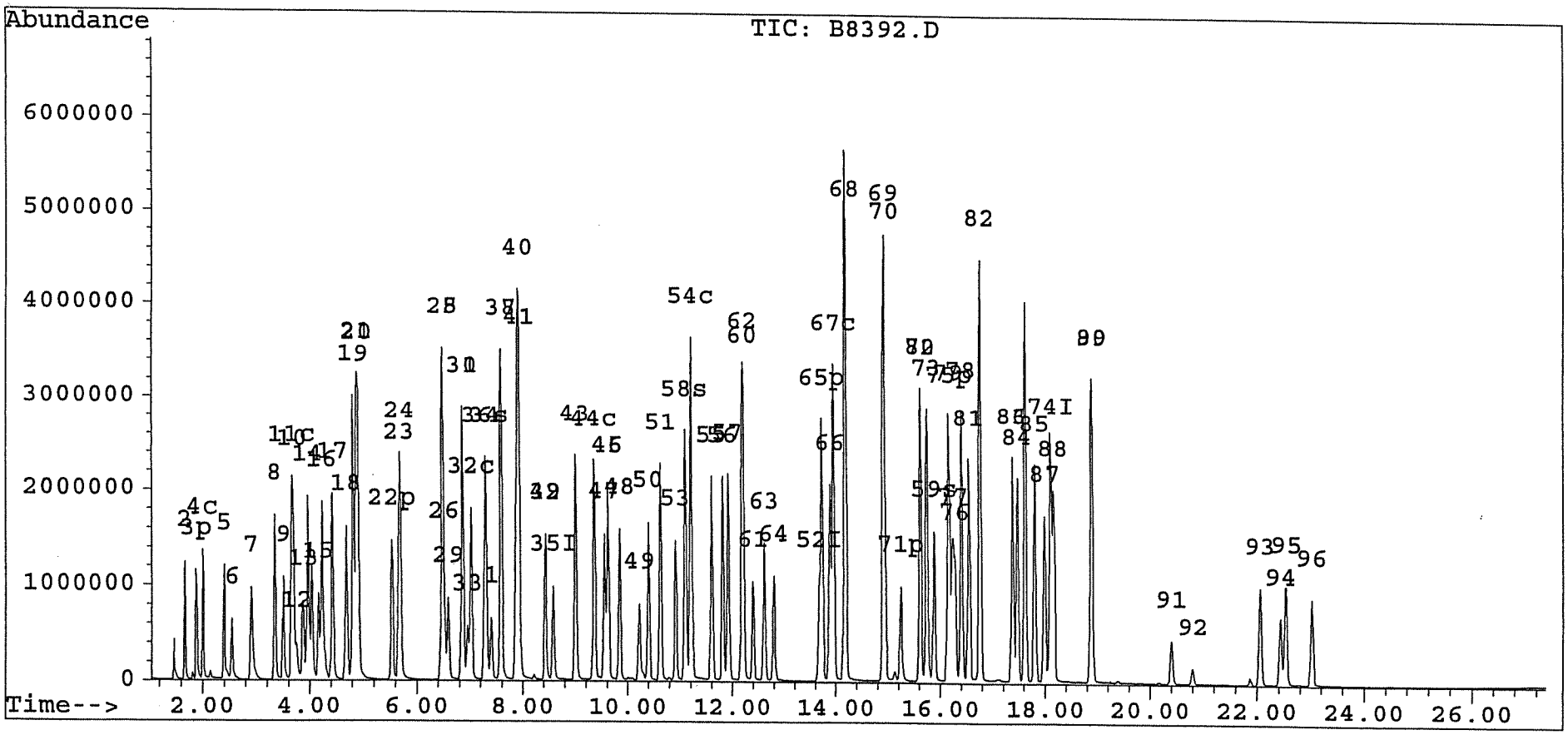
(94) Hexachlorobt
22.44min 203.03ppb m
response 267757

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 F. : J:\ACQUDATA\MSVOA3\DATA\121701\B8392.
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



120

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9413.D Vial: 19
Acq On : 28 Jan 102 10:41 pm 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	137	-0.03
2		Dichlorodifluoromethane	0.426	0.470	-10.3	176	-0.01
3	p	Chloromethane	0.564	0.542	3.9	147	-0.01
4	c	Vinyl Chloride	0.485	0.497	-2.6	165	-0.02
5		Bromomethane	0.338	0.338	0.1	165	-0.02
6		Chloroethane	0.303	0.288	5.0	158	-0.02
7		Trichlorofluoromethane	0.536	0.548	-2.3	163	-0.02
8		Diethyl Ether	0.481	0.440	8.5	138	-0.03
9		Acrolein	0.108	0.094	12.5	119	-0.02
10		FREON 113	0.142	0.138	2.5	161	-0.02
11	c	1,1-Diclethene	0.371	0.352	5.0	148	-0.03
12		Acetone	0.215	0.250	-16.4	171	-0.03
[illegible]		Iodomethane	0.209	0.350	-67.5#	224#	-0.03
		Carbon Disulfide	1.431	1.757	-22.8	166	-0.03
[illegible]		Acetonitrile	0.024	0.022	8.0	125	-0.03
16		Allyl Chloride	0.230	0.215	6.7	145	-0.02
17		Methylene Chloride	0.505	0.475	5.9	147	-0.03
18		TBA	0.059	0.061	-4.5	151	-0.03
19		Acrylonitrile	0.263	0.252	4.1	136	-0.03
20		Methyl-t-Butyl Ether	1.432	1.360	5.1	141	-0.02
21		trans-1,2-Dichloroethene	0.460	0.450	2.2	153	-0.02
22	p	1,1-Diclethane	0.821	0.779	5.0	146	-0.03
23		Vinyl Acetate	1.103	0.769	30.3#	97	-0.03
24		2-Chloro-1,3-butadiene	0.688	0.816	-18.7	159	-0.03
25		2,2-Dichloropropane	0.580	0.454	21.6	124	-0.02
26		2-Butanone	0.383	0.423	-10.4	149	-0.04
27		Ethyl Acetate	0.000	0.000	0.0	97	-0.03
28		cis-1,2-Dichloroethene	0.548	0.521	5.1	150	-0.03
29		Propionitrile	0.099	0.096	2.7	142	-0.03
30		Methacrylonitrile	0.256	0.232	9.5	134	-0.03
31		Bromochloromethane	0.271	0.259	4.4	149	-0.03
32	c	Chloroform	0.787	0.739	6.2	146	-0.03
33		Tetrahydrofuran	0.252	0.215	14.8	132	-0.04
34		1,1,1-Trichloroethane	0.581	0.572	1.5	154	-0.03
35	I	1,4 - Difluorobenzene	1.000	1.000	0.0	138	-0.03
36	s	surr4,Dibrflmethane	0.321	0.357	-11.3	135	-0.03
37		Carbontetrachloride	0.262	0.256	2.5	159	-0.03
		1,1-Dichloropropene	0.314	0.304	3.1	157	-0.03
		Iso-Butyl Alcohol	0.012	0.009	22.4	130	-0.03
40		Benzene	0.899	0.867	3.6	151	-0.03
41		1,2-Dichloroethane	0.343	0.321	6.4	143	-0.03

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9413.D Vial: 19
Acq On : 28 Jan 102 10:41 pm 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	0.179	22.9	130	-0.03
43		Trichloroethene	0.240	0.257	-7.2	169	-0.03
44	c	1,2-Diclpropane	0.295	0.284	3.5	149	-0.03
45		Methyl Methacrylate	0.213	0.195	8.4	134	-0.03
46		1,4-Dioxane	0.003	0.003	-7.9	158	-0.04
47		Dibromomethane	0.192	0.188	2.3	146	-0.03
48		Bromodichloromethane	0.328	0.310	5.4	145	-0.03
49		2-Nitropropane	0.109	0.096	11.6	129	-0.03
50		2-Chloroethylvinyl Ether	0.243	0.260	-7.1	152	-0.03
51		cis-1,3-Dichloropropene	0.429	0.387	9.9	138	-0.03
52	I	d5 - Chlorobenzene	1.000	1.000	0.0	144	-0.04
53		4-Methyl-2-Pentanone	0.504	0.550	-9.2	154	-0.03
	c	Toluene	1.048	1.000	4.6	157	-0.03
[illegible]		trans-1,3-Dichloropropene	0.472	0.416	11.8	136	-0.03
56		Ethyl Methacrylate	0.461	0.410	10.9	135	-0.04
57		1,1,2-Trichloroethane	0.265	0.247	6.7	143	-0.03
58	s	surr3,Toluene-d8	1.066	1.172	-10.0	138	-0.04
59	s	surr2,bfb	0.420	0.478	-14.0	142	-0.03
60		Tetrachloroethene	0.234	0.233	0.3	171	-0.03
61		2-Hexanone	0.341	0.371	-9.0	151	-0.04
62		1,3-Dichloropropane	0.573	0.530	7.4	143	-0.03
63		Dibromochloromethane	0.318	0.299	6.1	146	-0.03
64		1,2-Dibromoethane	0.342	0.325	5.0	147	-0.03
65	p	Chlorobenzene	0.678	0.647	4.6	156	-0.04
66		1,1,1,2-Tetrachloroethane	0.254	0.243	4.5	156	-0.04
67	c	Ethylbenzene	1.061	1.016	4.2	159	-0.04
68		(m+p)Xylene	0.376	0.375	0.4	164	-0.04
69		o-Xylene	0.370	0.370	-0.0	161	-0.04
70		Styrene	0.666	0.657	1.3	160	-0.03
71	p	Bromoform	0.210	0.198	5.5	149	-0.04
72		Isopropylbenzene	0.907	0.906	0.1	166	-0.03
73		Cyclohexanone	0.035	0.050	-43.7#	216#	-0.04
74	I	d4 - Dichlorobenzene	1.000	1.000	0.0	153	-0.04
75	p	1,1,2,2-Tetrachloroethane	1.067	0.809	24.2	130	-0.04
76		Trans-1,4-Dichloro-2-butene	0.326	0.250	23.3	128	-0.04
77		1,2,3-Trichloropropane	0.326	0.274	16.0	145	-0.04
		n-Propylbenzene	2.661	2.404	9.6	161	-0.04
		Bromobenzene	0.668	0.600	10.2	163	-0.03
80		1,3,5-Trimethylbenzene	2.423	1.492	38.4#	113	-0.05
81		2-Chlorotoluene	1.707	1.565	8.3	162	-0.03

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9413.D Vial: 19
Acq On : 28 Jan 102 10:41 pm 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	1.739	9.6	160	-0.04
83	tert-Butylbenzene	1.384	1.268	8.4	167	-0.04
84	1,2,4-Trimethylbenzene	1.594	1.540	3.4	169	-0.03
85	sec-Butylbenzene	1.994	1.853	7.1	166	-0.03
86	p-Isopropyltoluene	1.384	1.268	8.4	167	-0.04
87	1,3-Dclbenz	0.927	0.857	7.6	164	-0.04
88	1,4-Dclbenz	1.029	0.942	8.4	163	-0.04
89	n-Butylbenzene	1.332	1.233	7.4	162	-0.03
90	1,2-Dclbenz	0.987	0.898	9.1	161	-0.04
91	1,2-Dibromo-3-chloropropane	0.173	0.145	16.2	142	-0.04
92	Nitrobenzene	0.095	0.064	32.9#	116	-0.04
93	1,2,4-Tcbenzene	0.484	0.474	2.1	169	-0.05
94	Hexachlorobt	0.187	0.170	9.3	162	-0.03
	Naphthalen	1.339	1.310	2.1	160	-0.04
96	1,2,3-Tclbenzene	0.444	0.436	1.8	164	-0.04
97	TOTAL XYLENE	0.000	0.000	0.0	89	-0.01

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

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9413.D Vial: 19
Acq On : 28 Jan 102 10:41 pm Operator: droot
Sample : CCV Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Jan 29 6:52 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	832859	50.00	ppb	-0.03
35) 1,4 - Difluorobenzene	8.55	114	1553086	50.00	ppb	-0.03
52) d5 - Chlorobenzene	13.63	117	1278715	50.00	ppb	-0.04
74) d4 - Dichlorobenzene	18.07	152	529385	50.00	ppb	-0.04
System Monitoring Compounds						%Recovery
36) surr4,Dibrflmethane	7.24	113	554087	50.46	ppb	100.92%
58) surr3,Toluene-d8	11.05	98	1499142	49.13	ppb	98.27%
59) surr2,bfb	15.84	95	611808	50.70	ppb	101.40%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.65	85	391137	55.15	ppb	99
3) Chloromethane	1.87	50	451781	48.07	ppb	98
4) Vinyl Chloride	1.98	62	414146	51.31	ppb	99
5) Bromomethane	2.39	94	281182	49.94	ppb	96
6) Chloroethane	2.53	64	240009	47.50	ppb	m 1
7) Trichlorofluoromethane	2.88	101	456789	51.13	ppb	m 79
8) Diethyl Ether	3.31	59	366606	45.73	ppb	98
9) Acrolein	3.48	56	392908	218.78	ppb	98
10) FREON 113	3.67	85	115259	48.77	ppb	91
11) 1,1-Diclethene	3.63	96	293509	47.51	ppb	98
12) Acetone	3.73	43	207918	58.19	ppb	98
13) Iodomethane	3.83	127	291753	70.89	ppb	93
14) Carbon Disulfide	3.93	76	1463282	61.41	ppb	100
15) Acetonitrile	4.13	41	369071	919.55	ppb	100
16) Allyl Chloride	4.20	76	178987	46.66	ppb	100
17) Methylene Chloride	4.39	84	395971	47.04	ppb	97
18) TBA	4.64	59	1023347	1045.23	ppb	99
19) Acrylonitrile	4.77	53	1049887	239.80	ppb	99
20) Methyl-t-Butyl Ether	4.87	73	1132506	47.47	ppb	98
21) trans-1,2-Dichloroethene	4.84	96	374376	48.89	ppb	96
22) 1,1-Diclethane	5.50	63	649159	47.48	ppb	97
23) Vinyl Acetate	5.63	43	640081	34.84	ppb	100
24) 2-Chloro-1,3-butadiene	5.66	53	679957	55.34	PPB	98
25) 2,2-Dichloropropane	6.44	77	378529	39.20	ppb	97
26) 2-Butanone	6.48	43	351962	55.21	ppb	100
28) cis-1,2-Dichloroethene	6.45	96	433749	47.47	ppb	98
29) Propionitrile	6.55	54	401776	243.26	ppb	98
30) Methacrylonitrile	6.81	67	193233	45.25	ppb	92
31) Bromochloromethane	6.83	128	215906	47.80	ppb	96
32) Chloroform	6.98	83	615198	46.92	ppb	97
33) Tetrahydrofuran	6.92	42	179097	∘ 44.99	ppb	100
34) 1,1,1-Trichloroethane	7.26	97	476295	49.25	ppb	99
37) Carbontetrachloride	7.55	117	397059	48.74	ppb	99

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

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9413.D
Acq On : 28 Jan 102 10:41 pm
Sample : CCV
Misc :
Quant Time: Jan 29 6:52 19102

Vial: 19
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	7.55	75	471875	48.45	ppb		98
39)	Iso-Butyl Alcohol	8.39	43	279699	775.79	ppb		97
40)	Benzene	7.87	78	1345975	48.22	ppb		99
41)	1,2-Dichloroethane	7.90	62	498461	46.79	ppb		99
42)	N-Heptane	8.39	43	277489	38.54	ppb		98
43)	Trichloroethene	8.96	95	399351	53.60	ppb		97
44)	1,2-Diclpropane	9.33	63	441606	48.23	ppb		98
45)	Methyl Methacrylate	9.58	69	302495	45.80	ppb		100
46)	1,4-Dioxane	9.57	88	106326	1079.31	ppb		92
47)	Dibromomethane	9.51	93	291394	48.84	ppb		98
48)	Bromodichloromethane	9.81	83	481870	47.32	ppb		99
49)	2-Nitropropane	10.18	43	299134	88.44	ppb		95
50)	2-Chloroethylvinyl Ether	10.36	63	404273	53.54	ppb		96
51)	cis-1,3-Dichloropropene	10.59	75	600692	45.03	ppb		100
53)	4-Methyl-2-Pentanone	10.87	43	702868	54.58	ppb		99
54)	Toluene	11.17	91	1278696	47.71	ppb		100
55)	trans-1,3-Dichloropropene	11.56	75	532456	44.08	ppb		98
56)	Ethyl Methacrylate	11.77	69	524697	44.55	ppb		100
57)	1,1,2-Trichloroethane	11.88	83	315618	46.64	ppb		99
60)	Tetrachloroethene	12.14	166	298279	46.65	ppb		99
61)	2-Hexanone	12.35	43	474870	54.50	ppb		97
62)	1,3-Dichloropropane	12.17	76	678094	46.31	ppb		93
63)	Dibromochloromethane	12.58	129	381889	46.95	ppb		96
64)	1,2-Dibromoethane	12.76	107	415729	47.49	ppb		98
65)	Chlorobenzene	13.68	112	827178	47.69	ppb		100
66)	1,1,1,2-Tetrachloroethane	13.84	131	310500	47.73	ppb		96
67)	Ethylbenzene	13.90	91	1299566	47.91	ppb		97
68)	(m+p)Xylene	14.13	106	959322	99.64	ppb		100
69)	o-Xylene	14.86	106	472704	50.02	ppb		99
70)	Styrene	14.89	104	840012	49.33	ppb		99
71)	Bromoform	15.20	173	253272	47.23	ppb		95
72)	Isopropylbenzene	15.58	105	1158703	46.39	ppb		98
73)	Cyclohexanone	15.70	55	1274292	1436.68	ppb		100
75)	1,1,2,2-Tetrachloroethane	16.13	83	428217	37.91	ppb		96
76)	Trans-1,4-Dichloro-2-buten	16.24	53	132407	38.37	ppb		90
77)	1,2,3-Trichloropropane	16.20	110	144797	41.99	ppb		99
78)	n-Propylbenzene	16.36	91	1272798	45.18	ppb		100
79)	Bromobenzene	16.11	156	317681	44.90	ppb		96
80)	1,3,5-Trimethylbenzene	16.71	105	789583	30.29	ppb	#	52
81)	2-Chlorotoluene	16.50	91	828598	45.84	ppb		100
82)	4-Chlorotoluene	16.71	91	920747	45.21	ppb		100
83)	tert-Butylbenzene	17.33	119	671156	45.81	ppb		99
84)	1,2,4-Trimethylbenzene	17.43	105	815299	48.30	ppb		95
85)	sec-Butylbenzene	17.76	105	980954	46.47	ppb		98

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

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9413.D
Acq On : 28 Jan 102 10:41 pm
Sample : CCV
Misc :
Quant Time: Jan 29 6:52 19102

Vial: 19
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
86)	p-Isopropyltoluene	17.33	119	671156	45.81 ppb		99
87)	1,3-Dclbenz	17.94	146	453597	46.20 ppb		100
88)	1,4-Dclbenz	18.12	146	498849	45.79 ppb		97
89)	n-Butylbenzene	18.86	91	652893	46.29 ppb		99
90)	1,2-Dclbenz	18.84	146	475255	45.47 ppb		97
91)	1,2-Dibromo-3-chloropropan	20.36	157	76669	41.92 ppb		93
92)	Nitrobenzene	20.76	77	33669	35.57 ppb	#	80
93)	1,2,4-Tcbenzene	22.02	180	251152	48.96 ppb		100
94)	Hexachlorobt	22.40	225	89777	45.35 ppb		99
95)	Naphthalen	22.49	128	693711	48.94 ppb		96
96)	1,2,3-Tclbenzene	22.98	180	230835	49.10 ppb		100

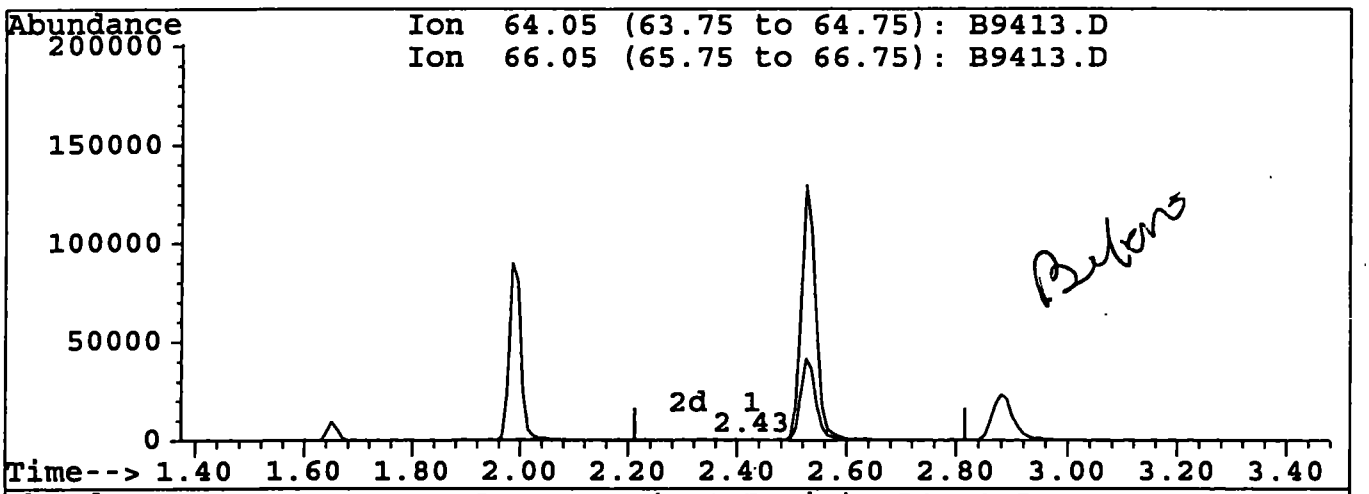
(#) = qualifier out of range (m) = manual integration

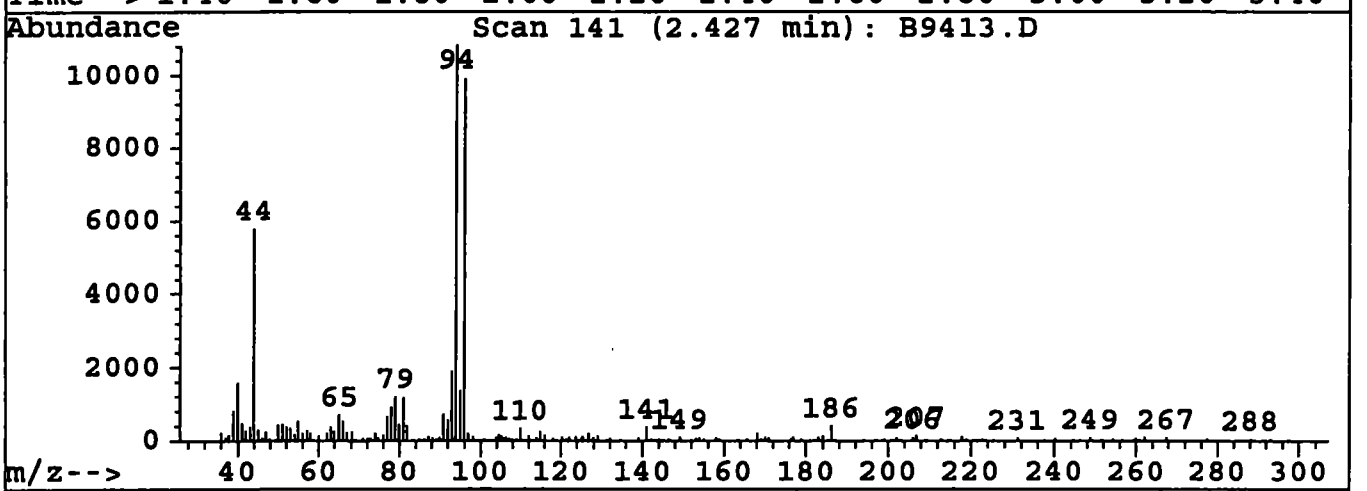
Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9413.D
Acq On : 28 Jan 102 10:41 pm
Sample : CCV
Misc :
Quant Time: Jan 28 23:09 19102

Vial: 19
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: B9413.D

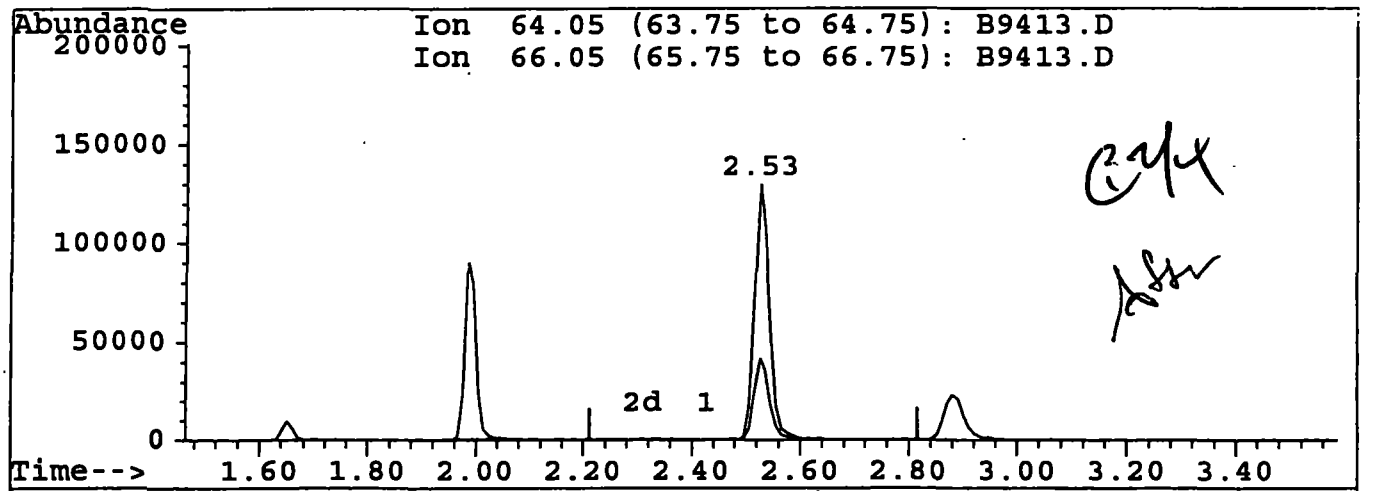
(6) Chloroethane
2.43min 0.13ppb
response 634

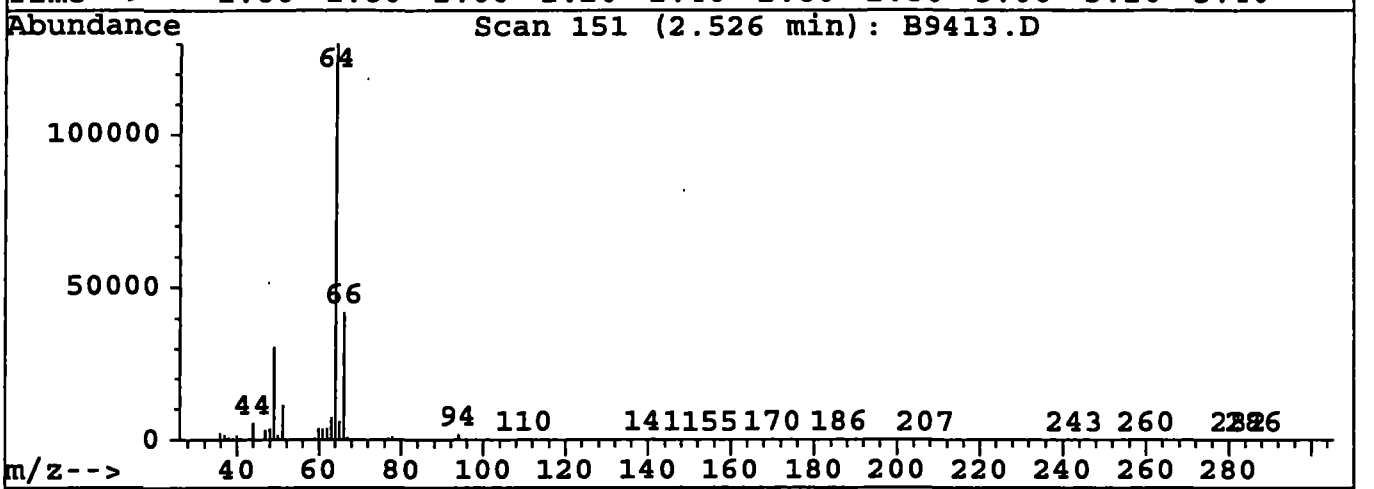
Ion	Exp%	Act%
64.05	100	100
66.05	31.90	209.58#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9413.D Vial: 19
Acq On : 28 Jan 102 10:41 pm Operator: droot
Sample : CCV Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Jan 29 6:52 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: B9413.D

(6) Chloroethane
2.53min 47.50ppb m
response 240009

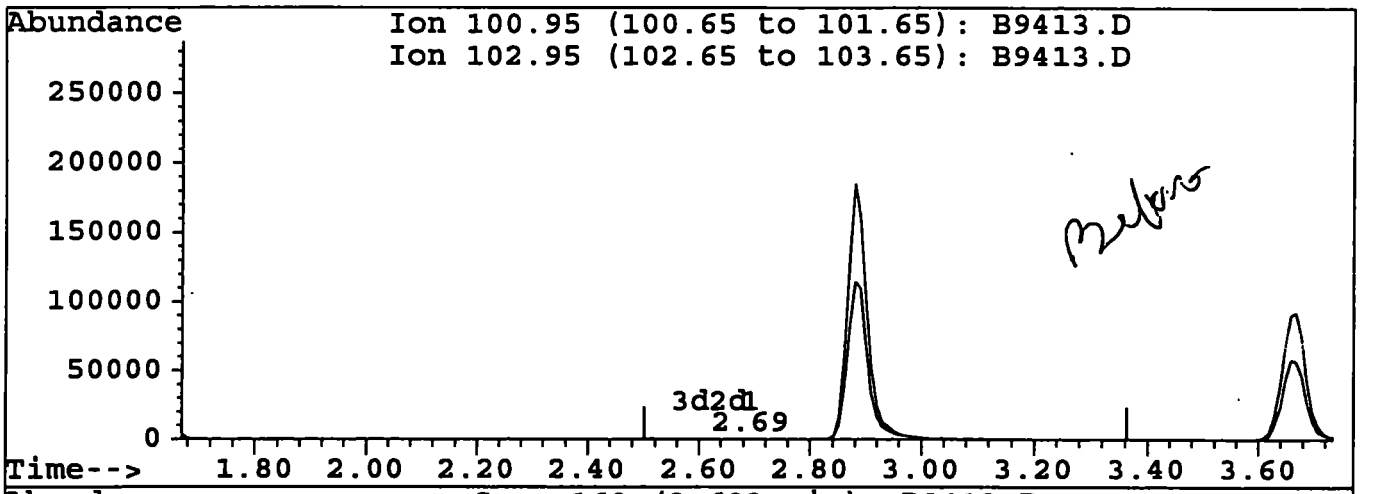
Ion	Exp%	Act%
64.05	100	100
66.05	31.90	32.25
0.00	0.00	0.00
0.00	0.00	0.00

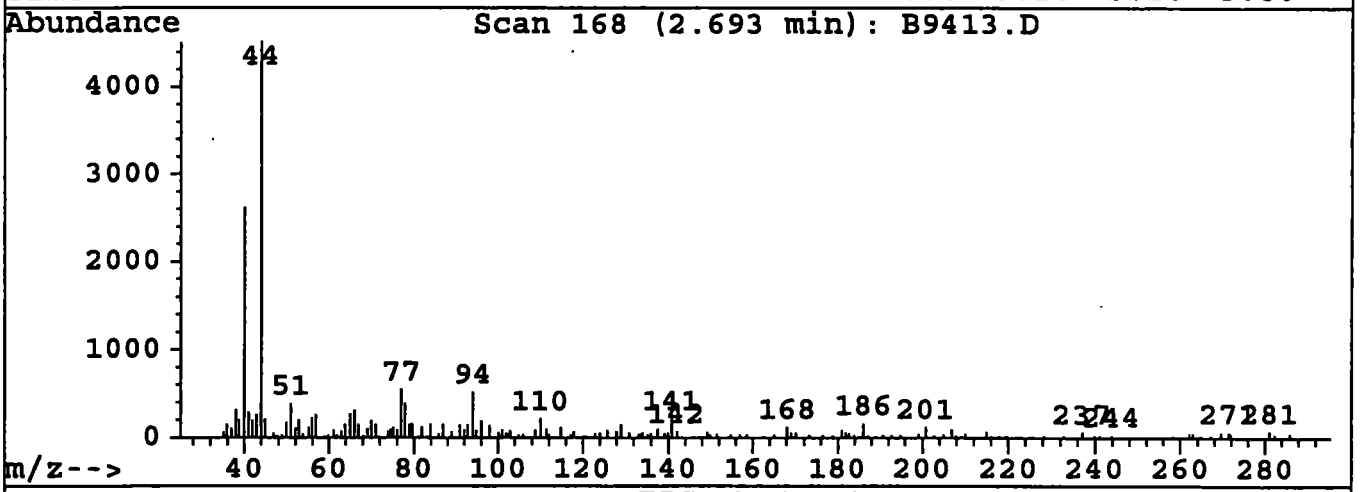
Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9413.D
Acq On : 28 Jan 102 10:41 pm
Sample : CCV
Misc :
Quant Time: Jan 29 6:52 19102

Vial: 19
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: B9413.D

(7) Trichlorofluoromethane
2.69min 0.01ppb
response 90

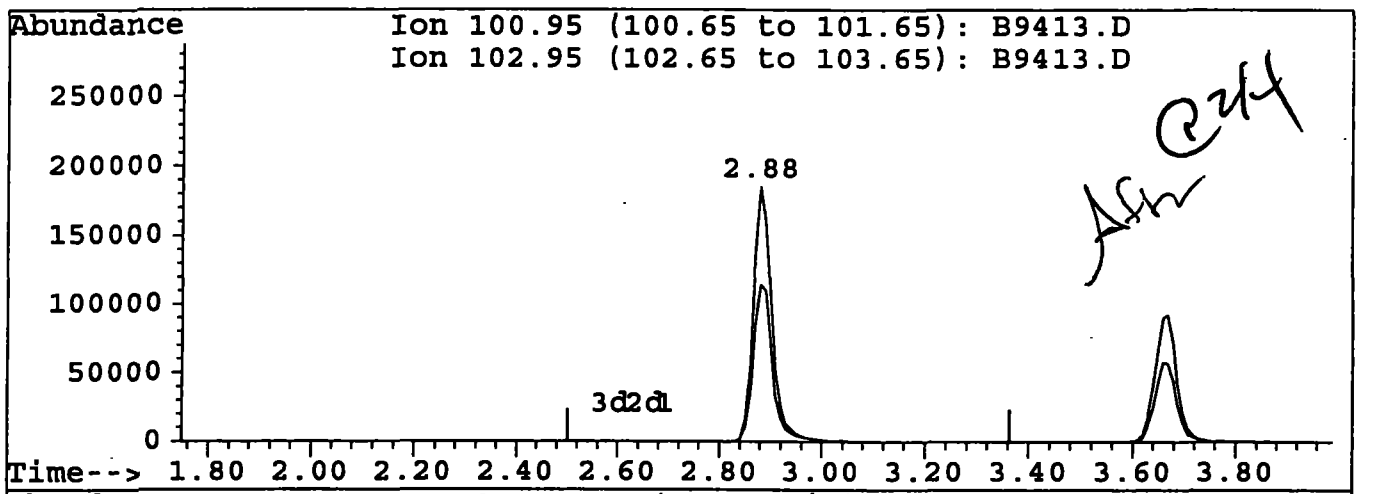
Ion	Exp%	Act%
100.95	100	100
102.95	65.90	82.47#
0.00	0.00	0.00
0.00	0.00	0.00

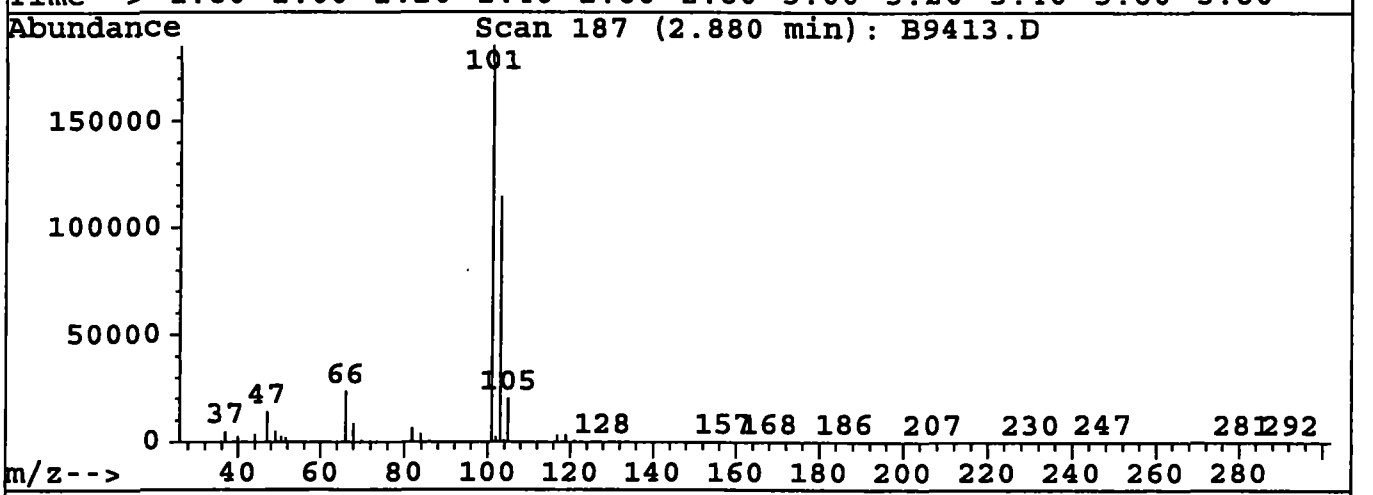
Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9413.D
Acq On : 28 Jan 102 10:41 pm
Sample : CCV
Misc :
Quant Time: Jan 29 6:52 19102

Vial: 19
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: B9413.D

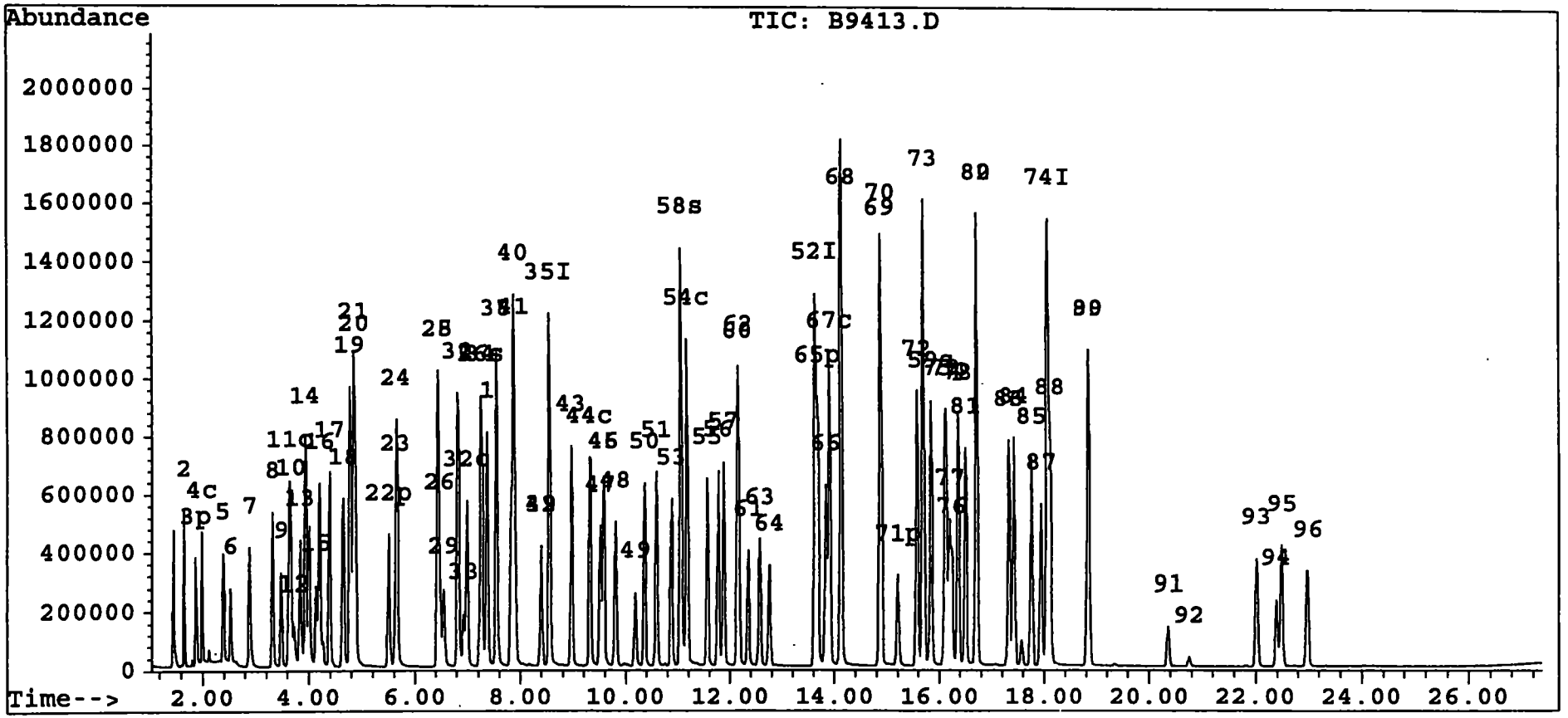
(7) Trichlorofluoromethane
2.88min 51.13ppb m
response 456789

Ion	Exp%	Act%
100.95	100	100
102.95	65.90	61.68
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data F. : J:\ACQUDATA\MSVOA3\DATA\012802\B9413. Vial: 19
Acq On : 28 Jan 102 10:41 pm Operator: droot
Sample : CCV Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Jan 29 6:52 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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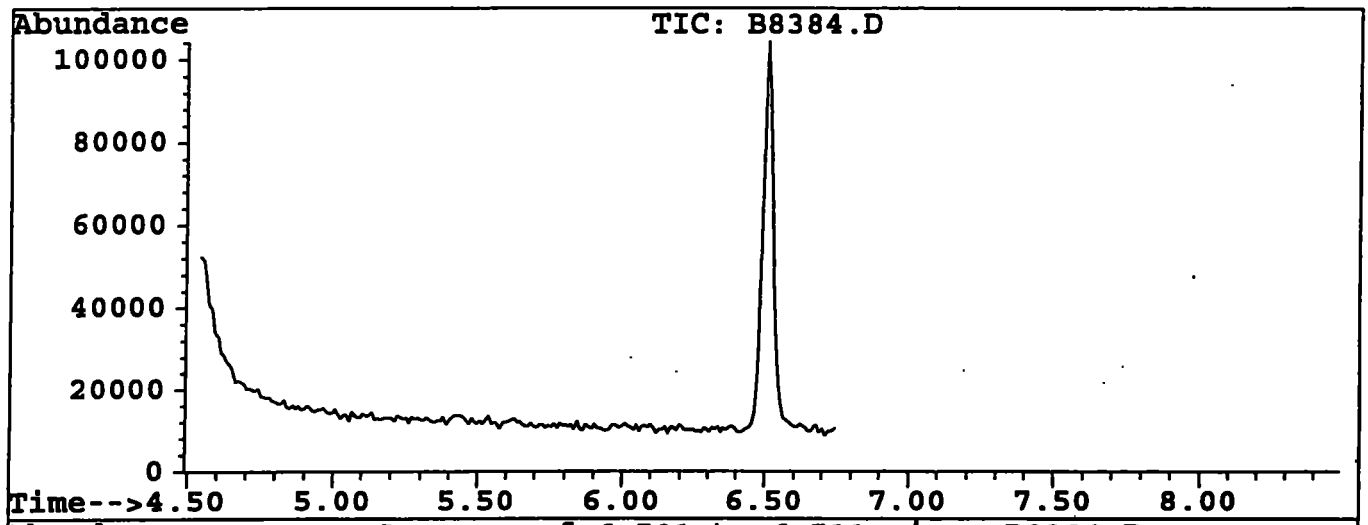
VOLATILE ORGANICS

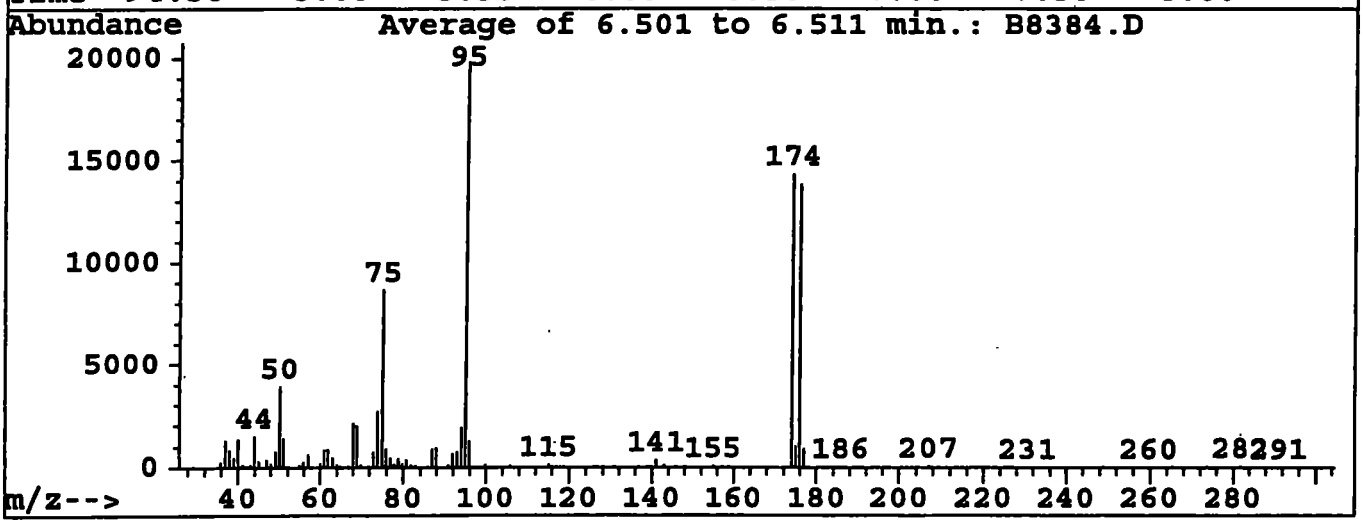
RAW QC DATA

BFB

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8384.D Vial: 2
Acq On : 17 Dec 101 9:49 am Operator: droot
Sample : tune Inst : 5971 - In
Misc : 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

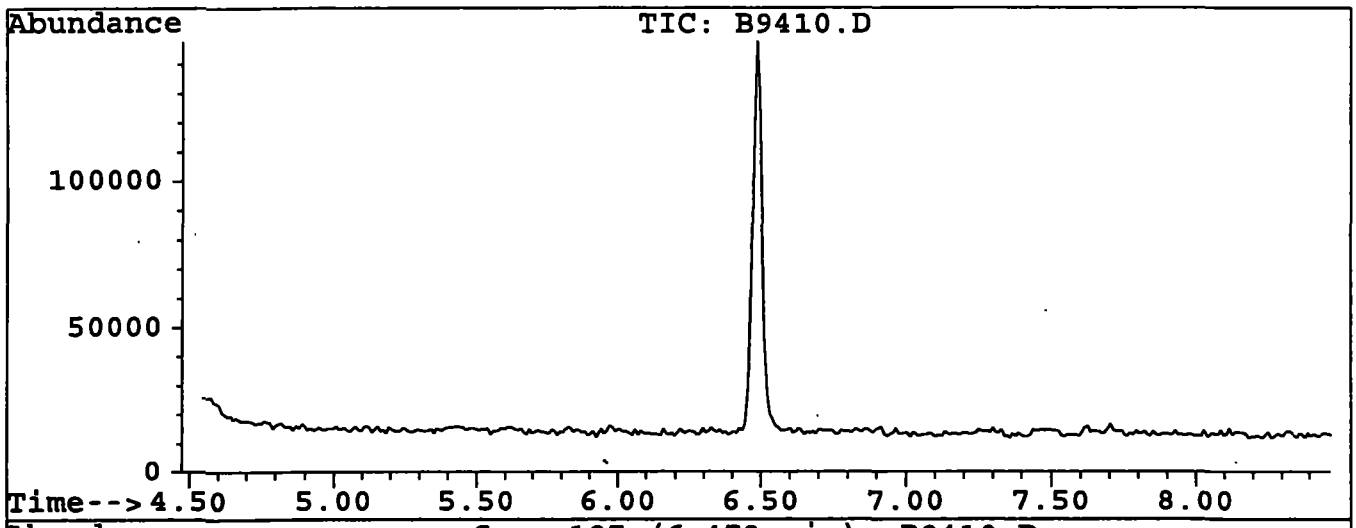
12/17

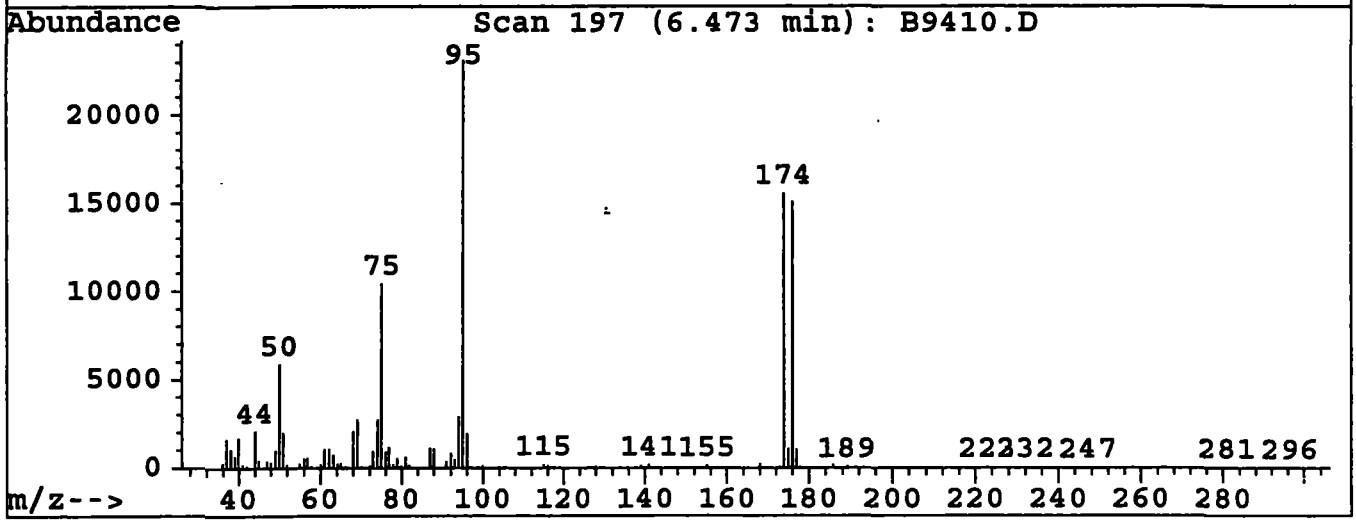
BFB

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9410.D
Acq On : 28 Jan 102 8:53 pm
Sample : TUNE
Misc :

Vial: 16
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

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





Peak Apex is scan: 197

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.5	5889	PASS
75	95	30	60	45.2	10447	PASS
95	95	100	100	100.0	23112	PASS
96	95	5	9	8.3	1917	PASS
173	174	0	2	0.8	120	PASS
174	95	50	120	67.4	15580	PASS
175	174	5	9	7.0	1097	PASS
176	174	95	101	97.0	15111	PASS
177	176	5	9	6.9	1039	PASS

B9410.D EXP1217.M Tue Jan 29 06:49:20 2002

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/27/02

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : **Order #:** 527425 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 73931

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		
4-BROMOFLUOROBENZENE	(87 - 111 %)	101	%
TOLUENE-D8	(87 - 108 %)	98	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	101	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9415.D
Acq On : 28 Jan 102 11:54 pm
Sample : MET BLK 527425
Misc :
Quant Time: Jan 29 0:22 19102

Vial: 21
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	824199	50.00 ppb	-0.04
35) 1,4 - Difluorobenzene	8.54	114	1539153	50.00 ppb	-0.04
52) d5 - Chlorobenzene	13.63	117	1253984	50.00 ppb	-0.04
74) d4 - Dichlorobenzene	18.07	152	512069	50.00 ppb	-0.04
System Monitoring Compounds					%Recovery
36) surr4,Dibrflmethane	7.24	113	548802	50.42 ppb	100.85%
58) surr3,Toluene-d8	11.05	98	1466160	48.96 ppb	97.91%
59) surr2,bfb	15.84	95	598008	50.47 ppb	100.94%
Target Compounds					Qvalue
5) Bromomethane	2.43	94	2704	~~0.49 ppb #~~	~~6~~
13) Iodomethane	3.82	127	101	~~4.35 ppb~~	~~1~~
15) Acetonitrile	4.16	41	328	~~0.83 ppb #~~	~~1~~
24) 2-Chloro-1,3-butadiene	5.83	53	148	~~1.19 PPB~~	~~86~~
39) Iso-Butyl Alcohol	8.40	43	2143	~~6.00 ppb~~	~~99~~
46) 1,4-Dioxane	9.48	88	108	~~1.11 ppb~~	~~81~~
60) Tetrachloroethene	12.13	166	604	~~4.34 ppb #~~	~~20~~
72) Isopropylbenzene	15.72	105	260	~~3.29 ppb~~	~~97~~
73) Cyclohexanone	15.52	55	481	~~0.55 ppb~~	~~97~~
80) 1,3,5-Trimethylbenzene	16.81	105	170	~~3.74 ppb~~	~~92~~
92) Nitrobenzene	20.71	77	809	~~9.37 ppb #~~	~~27~~
94) Hexachlorobt	22.39	225	1282	0.67 ppb	97 ENT

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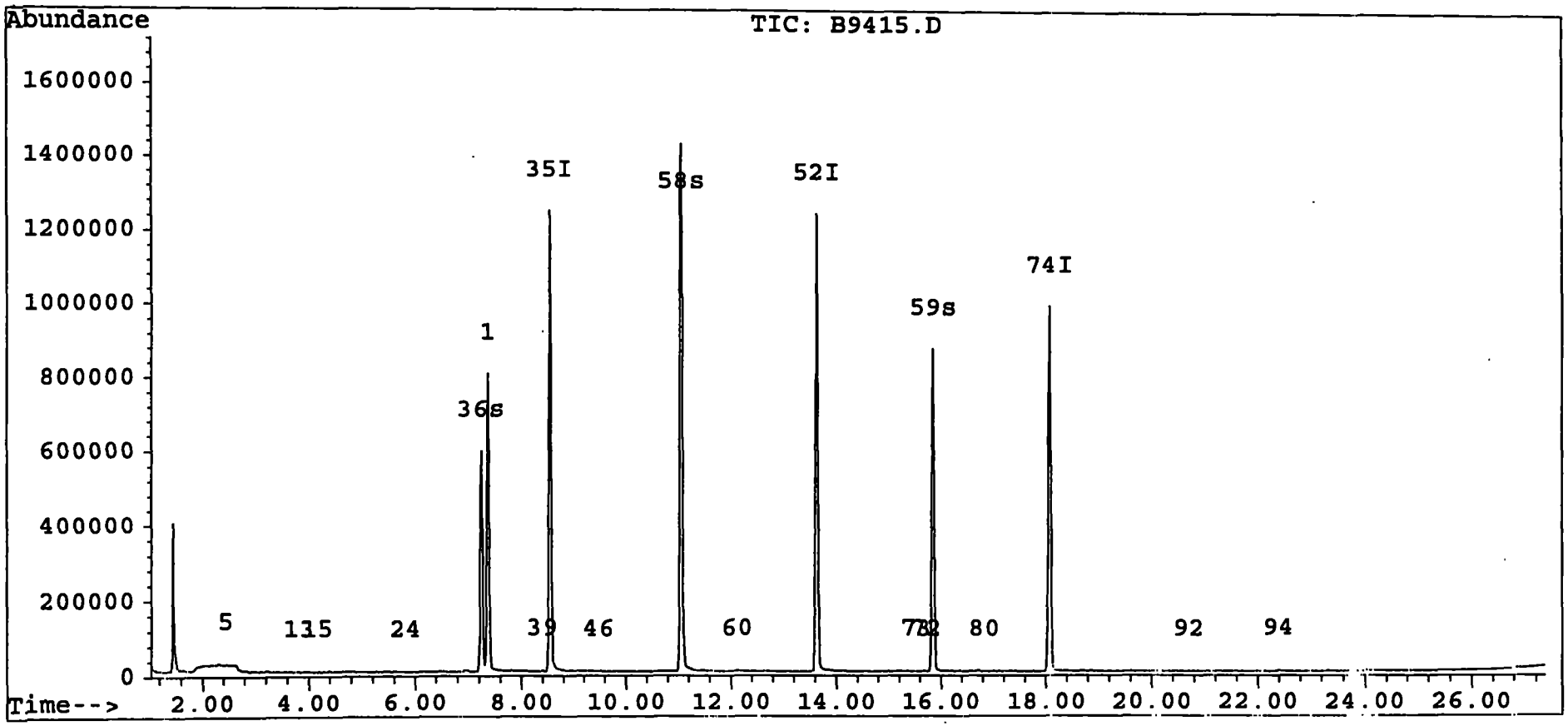
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9415.D
Acq On : 28 Jan 102 11:54 pm
Sample : MET BLK
Misc :
Quant Time: Jan 29 0:22 19102

Vial: 21
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



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COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/27/02

Project Reference:
Client Sample ID : LABORATORY CONTROL SAMPLE

Date Sampled : **Order #:** 527426 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 73931

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/29/02			
ANALYTICAL DILUTION: 1.00			
ACETONE	10	18	UG/L
BENZENE	1.0	23	UG/L
BROMODICHLOROMETHANE	1.0	24	UG/L
BROMOFORM	1.0	22	UG/L
BROMOMETHANE	1.0	23	UG/L
2-BUTANONE (MEK)	5.0	18	UG/L
CARBON DISULFIDE	5.0	15	UG/L
CARBON TETRACHLORIDE	1.0	22	UG/L
CHLOROBENZENE	1.0	22	UG/L
CHLOROETHANE	1.0	21	UG/L
CHLOROFORM	1.0	22	UG/L
CHLOROMETHANE	1.0	23	UG/L
IBROMOCHLOROMETHANE	1.0	22	UG/L
1,1-DICHLOROETHANE	1.0	23	UG/L
1,2-DICHLOROETHANE	1.0	24	UG/L
1,1-DICHLOROETHENE	1.0	21	UG/L
CIS-1,2-DICHLOROETHENE	1.0	22	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	22	UG/L
2-HEXANONE	5.0	17	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	17	UG/L
TETRACHLOROETHENE	1.0	22	UG/L
TOLUENE	1.0	22	UG/L
1,1,1-TRICHLOROETHANE	1.0	22	UG/L
1,1,2-TRICHLOROETHANE	1.0	22	UG/L
TRICHLOROETHENE	1.0	27	UG/L
VINYL CHLORIDE	1.0	23	UG/L
O-XYLENE	1.0	21	UG/L
M+P-XYLENE	1.0	43	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	100	%
TOLUENE-D8	(87 - 108 %)	97	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	101	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9416.D
Acq On : 29 Jan 102 12:30 am
Sample : LCS 527424
Misc :
Quant Time: Jan 29 0:58 19102

Vial: 22
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	811198	50.00	ppb	-0.04
35) 1,4 - Difluorobenzene	8.54	114	1496837	50.00	ppb	-0.04
52) d5 - Chlorobenzene	13.63	117	1251395	50.00	ppb	-0.04
74) d4 - Dichlorobenzene	18.07	152	481997	50.00	ppb	-0.04
System Monitoring Compounds						**%Recovery**
36) surr4,Dibrflmethane	7.24	113	535782	50.68	ppb	101.35%
58) surr3,Toluene-d8	11.05	98	1457840	48.72	ppb	97.44%
59) surr2,bfb	15.85	95	594511	50.21	ppb	100.42%
Target Compounds						**Qvalue**
2) Dichlorodifluoromethane	1.65	85	173677	25.14	ppb	100
3) Chloromethane	1.87	50	212264	23.19	ppb	96
4) Vinyl Chloride	1.99	62	179656	22.85	ppb	97
5) Bromomethane	2.39	94	127244	23.20	ppb	93
6) Chloroethane	2.53	64	104124	21.16	ppb	97
7) Trichlorofluoromethane	2.88	101	205042	23.56	ppb	98
8) Diethyl Ether	3.32	59	179433	22.98	ppb	96
9) Acrolein	3.47	56	123068	70.36	ppb	97
10) FREON 113	3.67	85	56433	24.51	ppb	83
11) 1,1-Diclethene	3.63	96	126630	21.05	ppb	98
12) Acetone	3.73	43	64501	18.53	ppb	100
13) Iodomethane	3.84	127	77401	22.46	ppb	90
14) Carbon Disulfide	3.94	76	350737	15.11	ppb	99
15) Acetonitrile	4.13	41	174481	446.33	ppb	97
16) Allyl Chloride	4.20	76	83366	22.31	ppb	96
17) Methylene Chloride	4.39	84	184594	22.51	ppb	97
18) TBA	4.65	59	457896	480.18	ppb	99
19) Acrylonitrile	4.77	53	510599	119.74	ppb	98
20) Methyl-t-Butyl Ether	4.86	73	551027	23.71	ppb	97
21) trans-1,2-Dichloroethene	4.83	96	169501	22.73	ppb	99
22) 1,1-Diclethane	5.50	63	308124	23.14	ppb	99
23) Vinyl Acetate	5.63	43	125953	7.04	ppb #01	97
24) 2-Chloro-1,3-butadiene	5.66	53	185490	16.35	PPB	98
25) 2,2-Dichloropropane	6.44	77	154160	16.39	ppb	98
26) 2-Butanone	6.50	43	114060	18.37	ppb	95
28) cis-1,2-Dichloroethene	6.45	96	197186	22.16	ppb	98
29) Propionitrile	6.56	54	188782	117.35	ppb	97
30) Methacrylonitrile	6.81	67	97070	23.34	ppb	85
31) Bromochloromethane	6.83	128	100623	22.87	ppb	99
32) Chloroform	6.99	83	288180	22.57	ppb	96
33) Tetrahydrofuran	6.92	42	93512	22.82	ppb	97
34) 1,1,1-Trichloroethane	7.26	97	210017	22.30	ppb	98
37) Carbontetrachloride	7.54	117	170677	21.74	ppb	96

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

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9416.D Vial: 22
Acq On : 29 Jan 102 12:30 am Operator: droot
Sample : LCS Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Jan 29 0:58 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	199386	21.24	ppb		99
39)	Iso-Butyl Alcohol	8.40	43	125494	361.16	ppb		100
40)	Benzene	7.87	78	613163	22.79	ppb		97
41)	1,2-Dichloroethane	7.89	62	241548	23.52	ppb		99
42)	N-Heptane	8.40	43	128146	18.47	ppb		97
43)	Trichloroethene	8.97	95	194895	27.14	ppb		97
44)	1,2-Diclpropane	9.32	63	197560	22.39	ppb		98
45)	Methyl Methacrylate	9.58	69	150501	23.64	ppb		92
46)	1,4-Dioxane	9.58	88	41308	435.07	ppb		99
47)	Dibromomethane	9.51	93	135395	23.55	ppb		98
48)	Bromodichloromethane	9.81	83	232608	23.70	ppb		93
49)	2-Nitropropane	10.18	43	131061	40.20	ppb	#	88
50)	2-Chloroethylvinyl Ether	10.36	63	123393	16.96	ppb		99
51)	cis-1,3-Dichloropropene	10.58	75	284346	22.12	ppb		98
53)	4-Methyl-2-Pentanone	10.87	43	221177	17.55	ppb		99
54)	Toluene	11.16	91	573479	21.87	ppb		100
55)	trans-1,3-Dichloropropene	11.57	75	255520	21.61	ppb		98
56)	Ethyl Methacrylate	11.77	69	269244	23.36	ppb		99
57)	1,1,2-Trichloroethane	11.88	83	146104	22.06	ppb		95
60)	Tetrachloroethene	12.15	166	123578	22.20	ppb		97
61)	2-Hexanone	12.35	43	145327	17.04	ppb		97
62)	1,3-Dichloropropane	12.17	76	309976	21.63	ppb		91
63)	Dibromochloromethane	12.57	129	176134	22.13	ppb		97
64)	1,2-Dibromoethane	12.76	107	195955	22.87	ppb		98
65)	Chlorobenzene	13.68	112	378281	22.29	ppb		97
66)	1,1,1,2-Tetrachloroethane	13.84	131	140614	22.09	ppb		97
67)	Ethylbenzene	13.91	91	578784	21.80	ppb		99
68)	(m+p)Xylene	14.14	106	405001	42.98	ppb		97
69)	o-Xylene	14.86	106	198205	21.43	ppb		98
70)	Styrene	14.88	104	366515	21.99	ppb		99
71)	Bromoform	15.21	173	116360	22.17	ppb		99
72)	Isopropylbenzene	15.57	105	489729	21.90	ppb		99
73)	Cyclohexanone	15.70	55	565051	650.97	ppb		100
75)	1,1,2,2-Tetrachloroethane	16.13	83	179376	17.44	ppb		98
76)	Trans-1,4-Dichloro-2-buten	16.24	53	60418	19.23	ppb		87
77)	1,2,3-Trichloropropane	16.19	110	66574	21.20	ppb		99
78)	n-Propylbenzene	16.36	91	516372	20.13	ppb		100
79)	Bromobenzene	16.11	156	141753	22.01	ppb		96
80)	1,3,5-Trimethylbenzene	16.71	105	319890	15.55	ppb	#	50
81)	2-Chlorotoluene	16.51	91	337139	20.48	ppb		99
82)	4-Chlorotoluene	16.71	91	369112	19.90	ppb		97
83)	tert-Butylbenzene	17.33	119	267373	20.05	ppb		98
84)	1,2,4-Trimethylbenzene	17.42	105	329243	21.42	ppb		99
85)	sec-Butylbenzene	17.76	105	379194	19.73	ppb		98

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

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9416.D Vial: 22
Acq On : 29 Jan 102 12:30 am Operator: droot
Sample : LCS Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Jan 29 0:58 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	267373	20.05 ppb		98
87)	1,3-Dclbenz	17.94	146	203427	22.76 ppb		97
88)	1,4-Dclbenz	18.12	146	205298	20.70 ppb		97
89)	n-Butylbenzene	18.85	91	252915	19.69 ppb		99
90)	1,2-Dclbenz	18.84	146	206146	21.66 ppb		95
91)	1,2-Dibromo-3-chloropropan	20.37	157	34253	20.57 ppb		95
92)	Nitrobenzene	20.75	77	12592	19.74 ppb	#	81
93)	1,2,4-Tcbenzene	22.03	180	101547	21.74 ppb		94
94)	Hexachlorobt	22.39	225	33047	18.33 ppb		92
95)	Naphthalen	22.49	128	288064	22.32 ppb		100
96)	1,2,3-Tclbenzene	22.97	180	91434	21.36 ppb		97

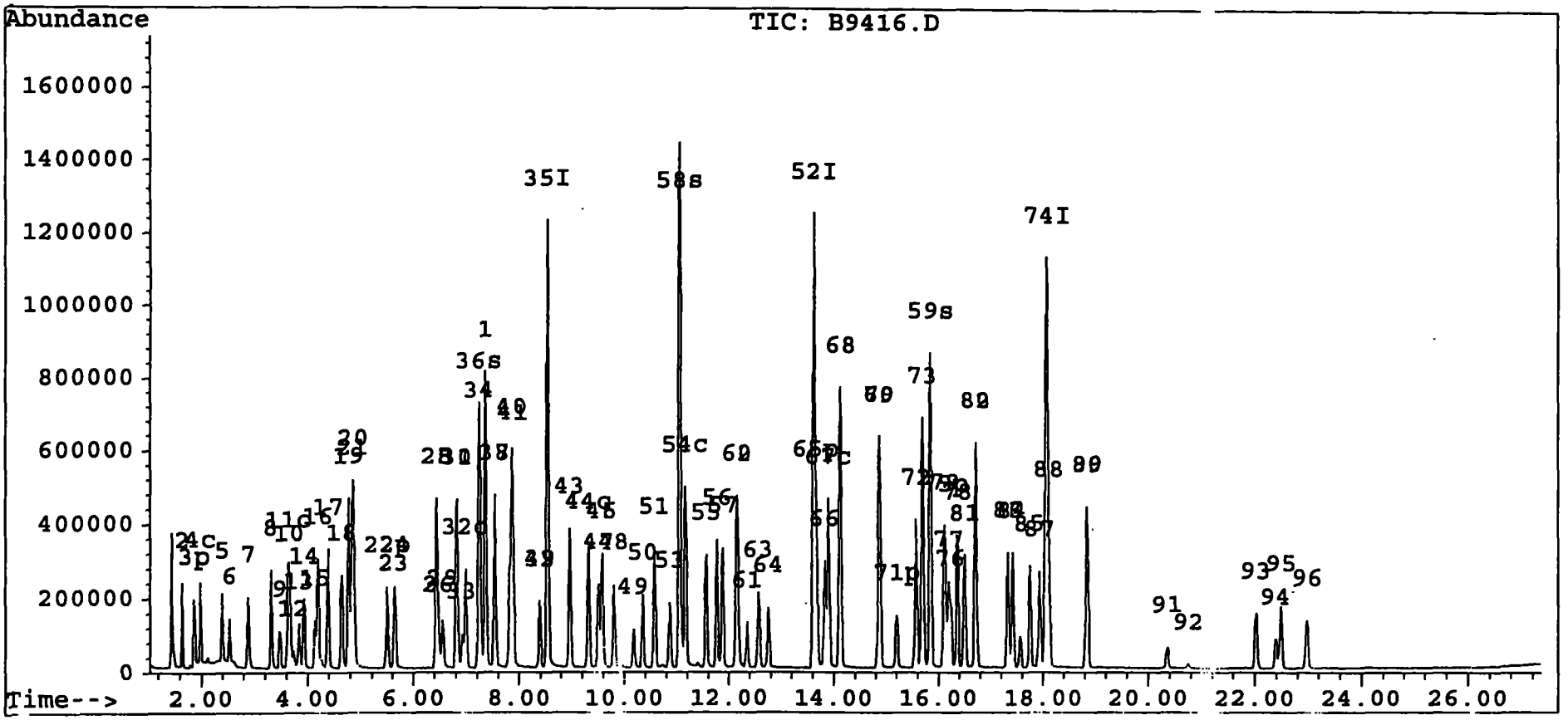
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9416.D
Acq On : 29 Jan 102 12:30 am
Sample : LCS
Misc :
Quant Time: Jan 29 0:58 19102

Vial: 22
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



1/28/02 — 8260 — 1/28/02 B....

	1	AmBlk				B9388	—	
	1	Tune	8:09am			B9389	YT	
	1	CCV				B9390	YC	
	1	Blk				B9391	—	
	2	MetBlk				B9392	Ym	
	2	LCS				B9393	YQ	
63	1	525419	1.0	ERma R22-10246	82408-7L11	B9394	Y	Pkg
63	2	420	1.0	TTem-KS R22-10409	82408-7L11	B9395	Y	
63	3	526011	1.0			B9396	Y	
63	4	012	1.0			B9397	Y	
63	5	013	1.0			B9398	Y	
63	6	017	1.0			B9399	Y	
72	7	020	1.0			B9400	Y	
72	8	021	1.0			B9401	Y	
72	9	022	1.0			B9402	Y	
72	10	023	1.0			B9403	Y	
72	11	024	2.0			B9404	Y	Too
63	12	526985	1.0	Chazen R22-10432	82408-7L1E	B9405	Y	
63	13	486	1.0			B9406	Y	
63	14	526010ms	1.0	TTem R22-10409	82408-7L11	B9407	YQ	
63	14	010msD	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	MetBlk				B9415	Ym	
	22	LCS				B9416	YQ	Hce ↑
	23	526487	1.0	Chazen R22-10432 ~~TTem-KS R22-10416~~	82408-7L1E	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	82408-7L11	B9422	Y	
	29	385	1.0			B9423	Y	
	30	386	1.0			B9424	Y	
	31	387	1.0			B9425	Y	
	32	525553	1.0	Chazen R22-10348	82408-7L14	B9426	Y	

SEMIVOLATILE ORGANICS

QC SUMMARY

COLUMBIA ANALYTICAL SERVICES

QUALITY CONTROL SUMMARY LABORATORY CONTROL SAMPLE
SOIL/SEDIMENT

Spiked Order No. : 529311

Client ID:

Test: 8270C SEMIVOLATILES

Analytical Units: UG/KG

Run Number : 74203

ANALYTE	SPIKE ADDED	SAMPLE CONCENT.	BLANK SPIKE		QC LIMITS
			FOUND	% REC.	REC.
ACENAPHTHENE	3330	0	2880	86	36 - 130
2-CHLOROPHENOL	3330	0	2540	76	18 - 103
1,4-DICHLOROBENZENE	3330	0	2330	70	25 - 105
2,4-DINITROTOLUENE	3330	0	3120	94	41 - 130
4-CHLORO-3-METHYLPHENO	3330	0	2950	89	22 - 104
4-NITROPHENOL	3330	0	2550	77	10 - 106
PENTACHLOROPHENOL	3330	0	2830	85	17 - 110
PHENOL	3330	0	2550	77	13 - 106
N-NITROSO-DI-N-PROPYLA	3330	0	2760	83	32 - 97
PYRENE	3330	0	2760	83	36 - 130
1,2,4-TRICHLOROBENZENE	3330	0	2490	75	32 - 99

4B

EPA SAMPLE NO.

SEMIVOLATILE METHOD BLANK SUMMARY

SBLK1

Lab Name: CAS-ROCH Contract: TETRA TECH

Lab Code: 10145 Case No.: R2210427 SAS No.: _____ SDG No.: OS-PW-12

Lab File ID: AN878.D Lab Sample ID: 529310 1.0

Instrument ID: 5973-A Date Extracted: 1/28/02

Matrix: (soil/water) SOIL Date Analyzed: 2/6/02

Level: (low/med) LOW Time Analyzed: 13:03

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SBLK1MS	529311 1.0	AN879.D	2/6/02
02	MTS-GB-SLU-3	526412 10	AN900.D	2/6/02

COMMENTS:

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CAS-ROCH Contract: TETRA TECH

Lab Code: 10145 Case No.: R2210427 SAS No.: _____ SDG No.: OS-PW-12

Lab File ID: AN823.D DFTPP Injection Date: 2/4/02

Instrument ID: 5973-A DFTPP Injection Time: 14:53

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 80.0% of mass 198	45.0	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 Relative abundance	55.4	
70	Less than 2.0% of mass 69	0.0	(0.0)1
127	25.0 - 75.0% of mass 198	53.2	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.2	
275	10.0 - 30.0% of mass 198	27.7	
365	Greater than 0.75% of mass 198	3.1	
441	Present, but less than mass 443	10.8	
442	40.0 - 110.0% of mass 198	74.7	
443	15.0 - 24.0% of mass 442	14.0	(18.8)2

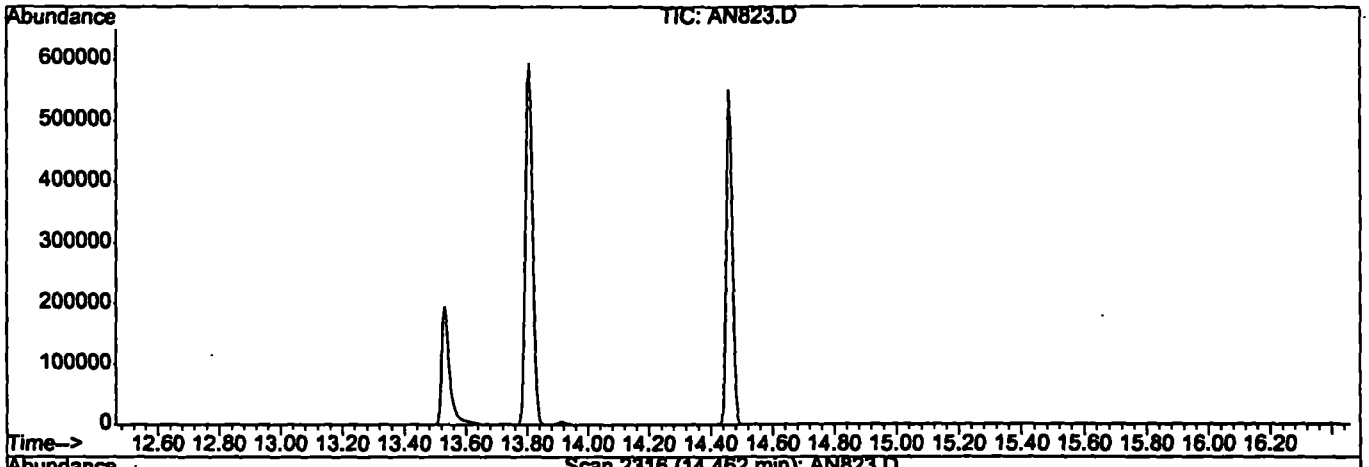
1-Value is % mass 69 2-Value is % mass 442

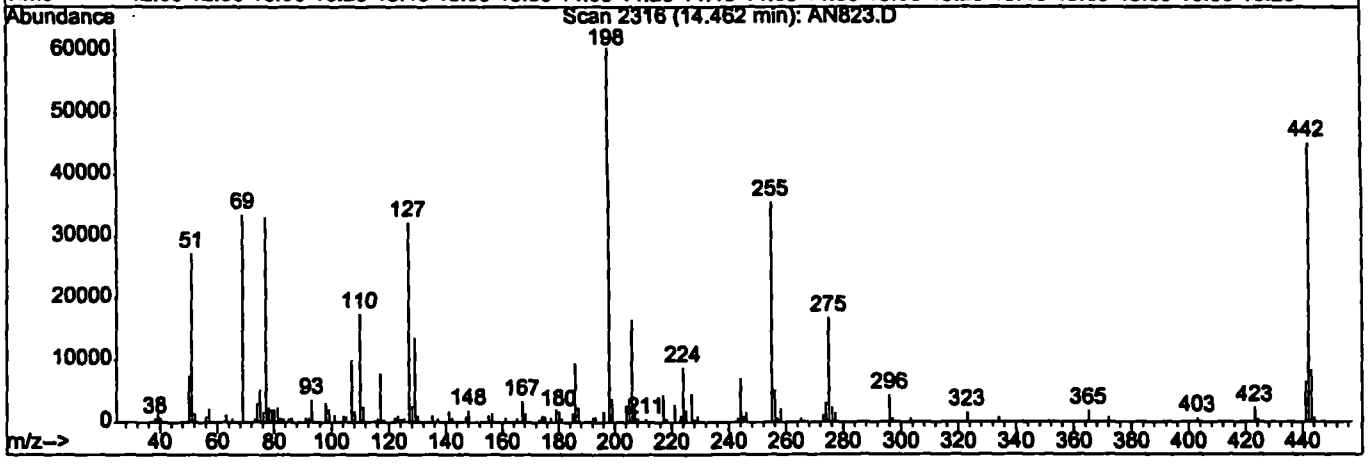
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD010	INITIAL CALIBRATION	AN825.D	2/4/02	16:11
02	SSTD050	INITIAL CALIBRATION	AN826.D	2/4/02	16:49
03	SSTD080	INITIAL CALIBRATION	AN827.D	2/4/02	17:28
04	SSTD0100	INITIAL CALIBRATION	AN828.D	2/4/02	18:06
05	SSTD0120	INITIAL CALIBRATION	AN829.D	2/4/02	18:45
06	SSTD0160	INITIAL CALIBRATION	AN830.D	2/4/02	19:23

DFTPP

Data File : J:\ACQUDATA\5973A\DATA\020402\AN823.D Vial: 1
Acq On : 4 Feb 2002 2:53 pm Operator: Z.Miao
Sample : TUNE CHECK Inst : 5973-A
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\HPCHEM\1\METHODS\TUNCHECK.M (RTE Integrator)
Title : TUNE CHECK





Spectrum Information: Scan 2316

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	45.0	27240	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	55.4	33512	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	53.2	32200	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	60472	PASS
199	198	5	9	6.2	3747	PASS
275	198	10	30	27.7	16776	PASS
365	198	1	100	3.1	1855	PASS
441	443	0.01	100	76.9	6522	PASS
442	198	40	100	74.7	45184	PASS
443	442	17	23	18.8	8480	PASS

AN823.D TUNCHECK.M Mon Feb 04 15:23:09 2002 MSA

ZM

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CAS-ROCH Contract: TETRA TECH

Lab Code: 10145 Case No.: R2210427 SAS No.: _____ SDG No.: OS-PW-12

Lab File ID: AN876.D DFTPP Injection Date: 2/6/02

Instrument ID: 5973-A DFTPP Injection Time: 11:44

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 80.0% of mass 198	43.8	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 Relative abundance	52.5	
70	Less than 2.0% of mass 69	0.0	(0.0)1
127	25.0 - 75.0% of mass 198	52.0	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	7.1	
275	10.0 - 30.0% of mass 198	28.9	
365	Greater than 0.75% of mass 198	2.9	
441	Present, but less than mass 443	12.6	
442	40.0 - 110.0% of mass 198	72.9	
443	15.0 - 24.0% of mass 442	14.9	(20.5)2

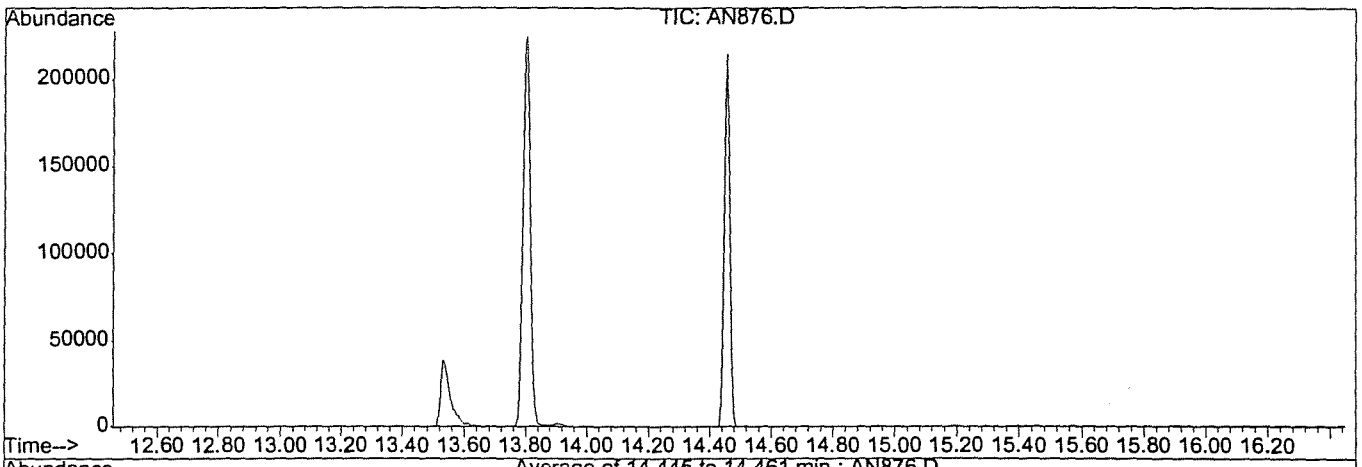
1-Value is % mass 69 2-Value is % mass 442

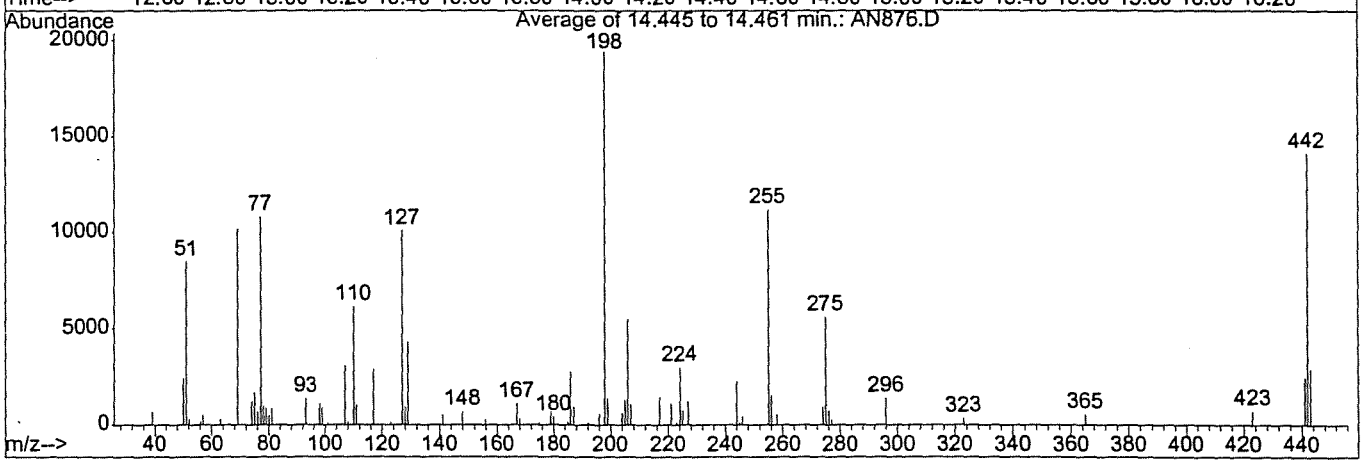
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD180	CALIBRATION CHECK	AN877.D	2/6/02	12:17
02	SBLK1	529310 1.0	AN878.D	2/6/02	13:03
03	SBLK1MS	529311 1.0	AN879.D	2/6/02	13:42
04	MTS-GB-SLU-3	526412 10	AN900.D	2/6/02	18:16

DFTPP

Data File : J:\ACQUDATA\5973A\DATA\020602\AN876.D Vial: 1
Acq On : 6 Feb 2002 11:44 am Operator: Z.Miao
Sample : TUNE CHECK Inst : 5973-A
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\HPCHEM\1\METHODS\TUNCHECK.M (RTE Integrator)
Title : TUNE CHECK





Spectrum Information: Average of 14.445 to 14.461 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	43.8	8521	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	52.5	10199	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	52.0	10103	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	19438	PASS
199	198	5	9	7.1	1387	PASS
275	198	10	30	28.9	5614	PASS
365	198	1	100	2.9	564	PASS
441	443	0.01	100	84.3	2445	PASS
442	198	40	100	72.9	14170	PASS
443	442	17	23	20.5	2900	PASS

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS-ROCH Contract: TETRA TECH

Lab Code: 10145 Case No.: R2210427 SAS No.: _____ SDG No.: OS-PW-12

Lab File ID (Standard): AN877.D Date Analyzed: 2/6/02

Instrument ID: 5973-A Time Analyzed: 12:17

		IS1(DCB)		IS2(NPT)		IS3(ANT)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	97799	5.74	360721	7.50	207332	10.72
	UPPER LIMIT	195598	6.24	721442	8.00	414664	11.22
	LOWER LIMIT	48900	5.24	180361	7.00	103666	10.22
	EPA SAMPLE NO.						
01	SBLK1	92810	5.74	350764	7.51	199253	10.72
02	SBLK1MS	76769	5.74	289728	7.51	169118	10.72
03	MTS-GB-SLU-3	88789	5.74	331707	7.50	196289	10.71

IS1 (DCB) = d4-1,4-Dichlorobenzene
IS2 (NPT) = d8-Naphthalene
IS3 (ANT) = d10-Acenaphthene
IS4 (PHN) = d10-Phenanthrene
IS5 (CRY) = d12-Chrysene
IS6 (PRY) = d12-Perylene

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

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS-ROCH Contract: TETRA TECH

Lab Code: 10145 Case No.: R2210427 SAS No.: _____ SDG No.: OS-PW-12

Lab File ID (Standard): AN877.D Date Analyzed: 02/06/02

Instrument ID: 5973-A Time Analyzed: 12:17

		IS4(PHN)		IS5(CRY)		IS6(PRY)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	378674	13.81	466241	19.70	447143	23.28
	UPPER LIMIT	757348	13.31	932482	19.20	894286	22.78
	LOWER LIMIT	189337	14.31	233121	20.20	223572	23.78
	EPA SAMPLE NO.						
01	SBLK1	379610	13.81	424722	19.69	433061	23.28
02	SBLK1MS	310619	13.81	369782	19.70	348293	23.28
03	MTS-GB-SLU-	382051	13.79	507829	19.67	474633	23.25

IS1 (DCB) = d4-1,4-Dichlorobenzene
IS2 (NPT) = d8-Naphthalene
IS3 (ANT) = d10-Acenaphthene
IS4 (PHN) = d10-Phenanthrene
IS5 (CRY) = d12-Chrysene
IS6 (PRY) = d12-Perylene

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

SEMIVOLATILE ORGANICS

SAMPLE DATA

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C SEMIVOLATILES
Reported: 02/27/02

Tetra Tech EM Inc.
Project Reference: AGROMAC-LOCKWOOD OU#2 G9011.E.01.0008.10
Client Sample ID : MTS-GB-SLU-3

Date Sampled : 01/21/02 09:00 **Order #:** 526412 **Sample Matrix:** SOIL/SEDIMENT
Date Received: 01/24/02 **Submission #:** R2210427 **Percent Solid:** 59.8

DATE EXTRACTED : 01/28/02
DATE ANALYZED : 02/06/02
ANALYTICAL DILUTION: 10.00

ANALYTE	PQL	RESULT	UNITS
			Dry Weight
ACENAPHTHENE	330	5500 U	UG/KG
ACENAPHTHYLENE	330	5500 U	UG/KG
ANTHRACENE	330	5500 U	UG/KG
BENZO(A)ANTHRACENE	330	5500 U	UG/KG
BENZO(A)PYRENE	330	5500 U	UG/KG
BENZO(B)FLUORANTHENE	330	5500 U	UG/KG
BENZO(G,H,I)PERYLENE	330	5500 U	UG/KG
BENZO(K)FLUORANTHENE	330	5500 U	UG/KG
BENZYL ALCOHOL	330	5500 U	UG/KG
BUTYL BENZYL PHTHALATE	330	5500 U	UG/KG
~T-N-BUTYLPHTHALATE	330	5500 U	UG/KG
.RBAZOLE	330	5500 U	UG/KG
INDENO(1,2,3-CD)PYRENE	330	5500 U	UG/KG
4-CHLOROANILINE	330	5500 U	UG/KG
BIS(-2-CHLOROETHOXY)METHANE	330	5500 U	UG/KG
BIS(2-CHLOROETHYL)ETHER	330	5500 U	UG/KG
2-CHLORONAPHTHALENE	330	5500 U	UG/KG
2-CHLOROPHENOL	330	5500 U	UG/KG
2,2'-OXYBIS(1-CHLOROPROPANE)	330	5500 U	UG/KG
CHRYSENE	330	5500 U	UG/KG
DIBENZO(A,H)ANTHRACENE	330	5500 U	UG/KG
DIBENZOFURAN	330	5500 U	UG/KG
1,3-DICHLOROBENZENE	330	5500 U	UG/KG
1,2-DICHLOROBENZENE	330	5500 U	UG/KG
1,4-DICHLOROBENZENE	330	5500 U	UG/KG
3,3'-DICHLOROBENZIDINE	330	5500 U	UG/KG
2,4-DICHLOROPHENOL	330	5500 U	UG/KG
DIETHYLPHTHALATE	330	5500 U	UG/KG
DIMETHYL PHTHALATE	330	5500 U	UG/KG
2,4-DIMETHYLPHENOL	330	5500 U	UG/KG
2,4-DINITROPHENOL	1700	28000 U	UG/KG
2,4-DINITROTOLUENE	330	5500 U	UG/KG
2,6-DINITROTOLUENE	330	5500 U	UG/KG
BIS(2-ETHYLHEXYL)PHTHALATE	330	1300 J	UG/KG
FLUORANTHENE	330	5500 U	UG/KG
FLUORENE	330	5500 U	UG/KG
EXACHLOROBENZENE	330	5500 U	UG/KG
.EXACHLOROBUTADIENE	330	5500 U	UG/KG
HEXACHLOROCYCLOPENTADIENE	330	5500 U	UG/KG
HEXACHLOROETHANE	330	5500 U	UG/KG
ISOPHORONE	330	5500 U	UG/KG
2-METHYLNAPHTHALENE	330	5500 U	UG/KG
4,6-DINITRO-2-METHYLPHENOL	1700	28000 U	UG/KG

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C SEMIVOLATILES
Reported: 02/27/02

Tetra Tech EM Inc.
Project Reference: AGROMAC-LOCKWOOD OU#2 G9011.E.01.0008.10
Client Sample ID : MTS-GB-SLU-3

Date Sampled : 01/21/02 09:00 **Order #:** 526412 **Sample Matrix:** SOIL/SEDIMENT
Date Received: 01/24/02 **Submission #:** R2210427 **Percent Solid:** 59.8

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 01/28/02			
DATE ANALYZED : 02/06/02			
ANALYTICAL DILUTION: 10.00			Dry Weight
4-CHLORO-3-METHYLPHENOL	330	5500 U	UG/KG
2-METHYLPHENOL	330	5500 U	UG/KG
3+4-METHYLPHENOL	330	5500 U	UG/KG
NAPHTHALENE	330	5500 U	UG/KG
2-NITROANILINE	1700	28000 U	UG/KG
3-NITROANILINE	1700	28000 U	UG/KG
4-NITROANILINE	1700	28000 U	UG/KG
NITROBENZENE	330	5500 U	UG/KG
2-NITROPHENOL	330	5500 U	UG/KG
4-NITROPHENOL	1700	28000 U	UG/KG
N-NITROSODIMETHYLAMINE	330	5500 U	UG/KG
-NITROSODIPHENYLAMINE	330	5500 U	UG/KG
DI-N-OCTYL PHTHALATE	330	5500 U	UG/KG
PENTACHLOROPHENOL	1700	28000 U	UG/KG
PHENANTHRENE	330	5500 U	UG/KG
PHENOL	330	5500 U	UG/KG
4-BROMOPHENYL-PHENYLETHER	330	5500 U	UG/KG
4-CHLOROPHENYL-PHENYLETHER	330	5500 U	UG/KG
N-NITROSO-DI-N-PROPYLAMINE	330	5500 U	UG/KG
PYRENE	330	5500 U	UG/KG
1,2,4-TRICHLOROBENZENE	330	5500 U	UG/KG
2,4,6-TRICHLOROPHENOL	330	5500 U	UG/KG
2,4,5-TRICHLOROPHENOL	330	5500 U	UG/KG

SURROGATE RECOVERIES	QC LIMITS		
TERPHENYL-d14	(10 - 152 %)	63	%
NITROBENZENE-d5	(10 - 138 %)	39	%
PHENOL-d6	(11 - 130 %)	48	%
2-FLUOROBIPHENYL	(11 - 112 %)	60	%
2-FLUOROPHENOL	(10 - 130 %)	53	%
2,4,6-TRIBROMOPHENOL	(10 - 130 %)	28	%

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MTS-GB-SLU-3

Lab Name: CAS-ROCH Contract: TETRA TECH

Lab Code: 10145 Case No.: R2210427 SAS No.: _____ SDG No.: OS-PW-12

Matrix: (soil/water) SOIL Lab Sample ID: 526412 10

Sample wt/vol: 30 (g/ml) G Lab File ID: AN900.D

Level: (low/med) LOW Date Received: _____

% Moisture: 40.2 decanted: (Y/N) N Date Extracted: 1/28/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 2/6/02

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Number TICs found: 2

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000108-65-6	1-Methoxy-2-propyl acetate	4.24	8200	JN
2. 000085-44-9	Phthalic anhydride	8.93	2900	JN

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973A\DATA\020602\AN900.D Vial: 25
Acq On : 6 Feb 2002 6:16 pm Operator: Z.Miao
Sample : 526412 10 Inst : 5973-A
Msc : 01/28/2002 1.0 TETRA 8270.TCL Multiplr: 33.30
MS Integration Params: RTEINT.P
Quant Time: Feb 7 9:56 2002 Quant Results File: 82700204.RES

Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Initial Calibration
DataAcq Meth : 82700204

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	5.74	152	88789	40.00	ppb	0.00
21) d8-Naphthalene	7.50	136	331707	40.00	ppb	0.00
37) d10-Acenaphthene	10.71	164	196289	40.00	ppb	0.00
59) d10-Phenanthrene	13.79	188	382051	40.00	ppb	-0.01
72) d12-Chrysene	19.67	240	507829	40.00	ppb	-0.02
81) d12-Perylene	23.25	264	474633	40.00	ppb	-0.02

System Monitoring Compounds

4) SURR1,2-FLUOROPHENOL	4.33	112	31735m 2M	352.25	ppb	0.01
Spiked Amount 200.000	Range 10 - 75		Recovery = 176.13%#			
7) SURR2,PHENOL-D6	5.33	99	40338	316.99	ppb	0.00
Spiked Amount 200.000	Range 10 - 130		Recovery = 158.50%#			
22) SURR4,NITROBENZENE-D5	6.51	82	17859	128.46	ppb	0.02
Spiked Amount 100.000	Range 30 - 116		Recovery = 128.46%#			
41) SURR5,2-FLUOROBIPHENYL	9.36	172	51429	198.47	ppb	0.00
Spiked Amount 100.000	Range 38 - 107		Recovery = 198.47%#			
58) SURR3,2,4,6-TRIBROMOPHENOL	12.36	330	6548	188.30	ppb	0.00
Spiked Amount 200.000	Range 10 - 135		Recovery = 94.15%			
75) SURR6,TERPHENYL-D14	17.26	244	90698	210.64	ppb	-0.02
Spiked Amount 100.000	Range 15 - 135		Recovery = 210.64%#			

Target Compounds

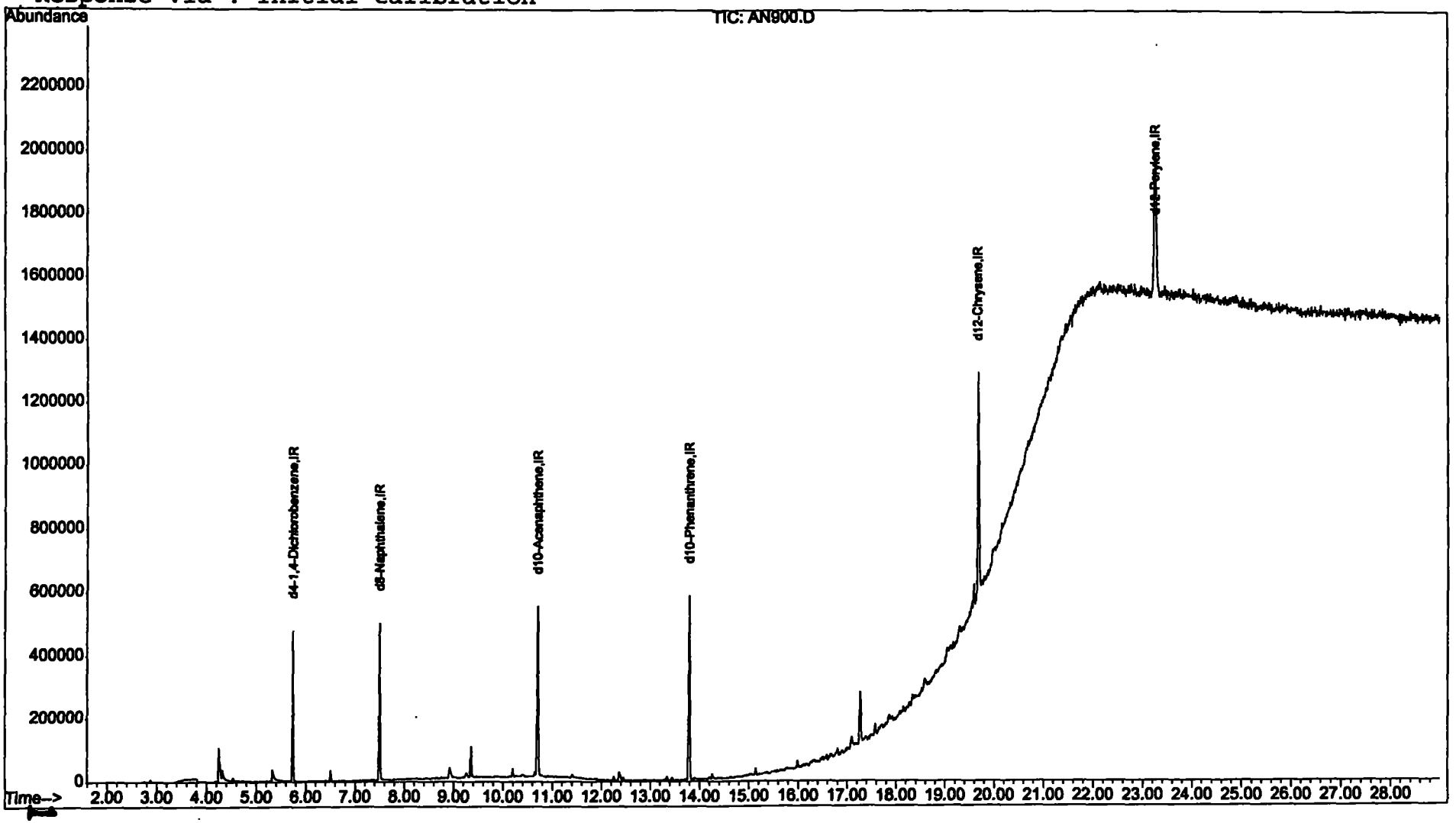
						Qvalue
80) bis(2-Ethylhexyl)phthalate	19.59	149	26811	75.76	ppb	91

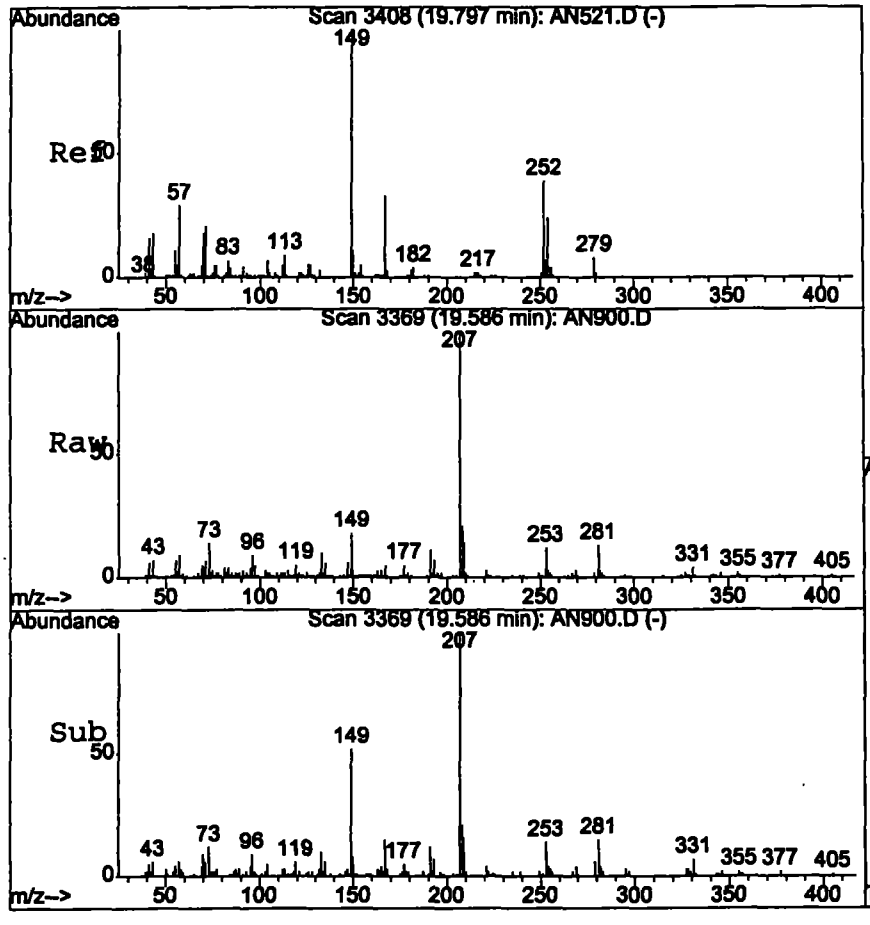
(#) = qualifier out of range (m) = manual integration
AN900.D 82700204.M Thu Feb 07 09:57:01 2002 MSA 2M

Quantitation Report

Data File : J:\ACQUDATA\5973A\DATA\020602\AN900.D Vial: 25
Acq On : 6 Feb 2002 6:16 pm Operator: Z.Miao
Sample : 526412 10 Inst : 5973-A
Misc : 01/28/2002 1.0 TETRA 8270.TCL Multiplr: 33.30
MS Integration Params: RTEINT.P
Quant Time: Feb 7 9:56 2002 Quant Results File: 82700204.RES

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Initial Calibration

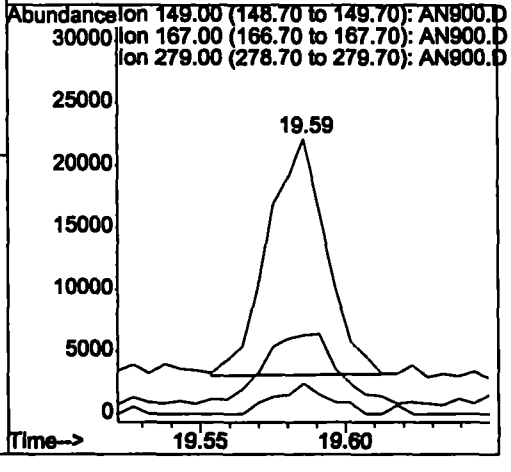




#80
bis(2-Ethylhexyl)phthalate
Concen: 75.76 ppb
RT: 19.59 min Scan# 3369
Delta R.T. -0.01 min
Lab File: AN900.D
Acq: 6 Feb 2002 6:16 pm

Tgt Ion:149 Resp: 26811

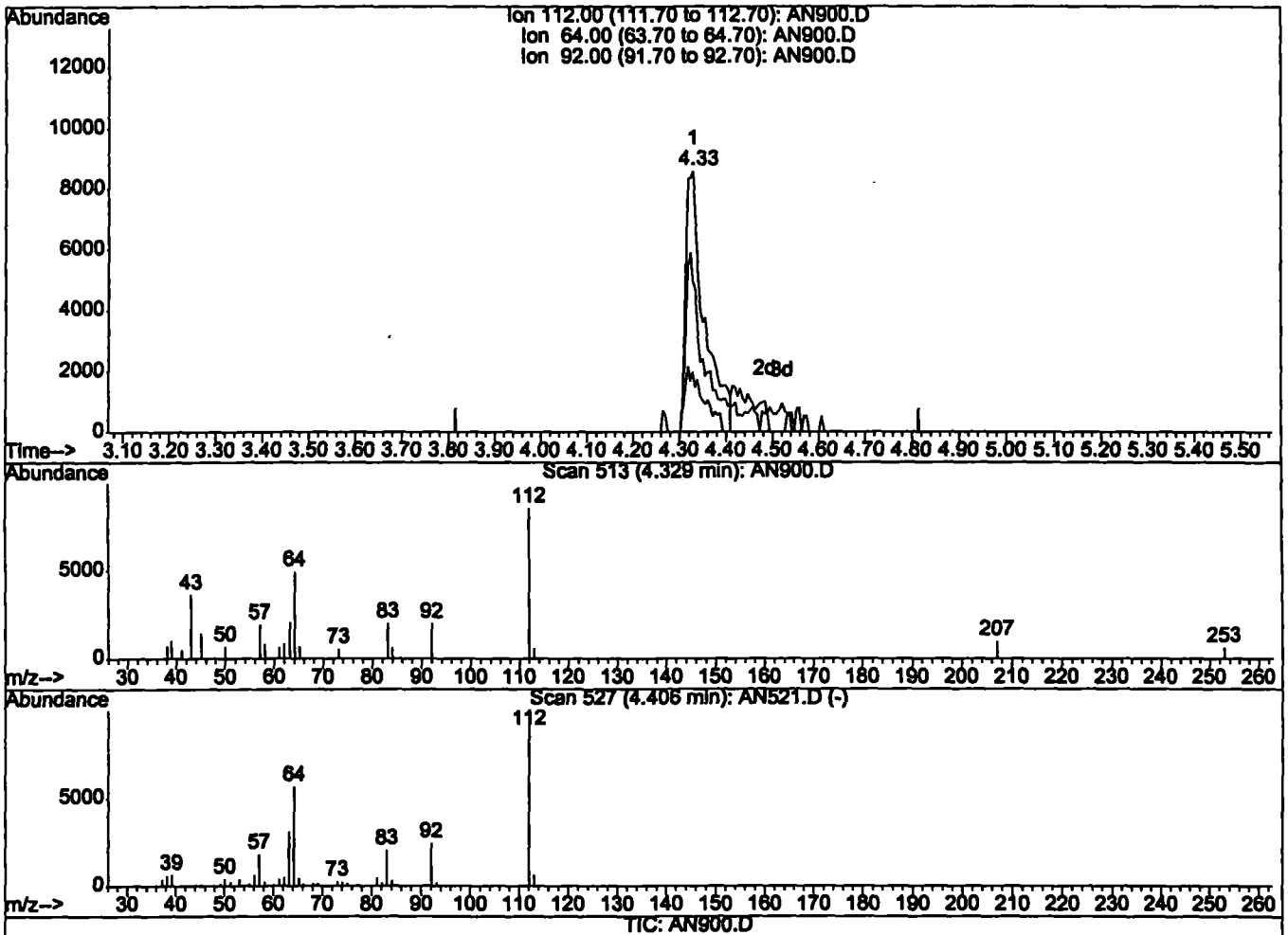
Ion	Ratio	Lower	Upper
149	100		
167	28.2	13.9	53.9
279	11.2	0.0	29.9



Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973A\DATA\020602\AN900.D Vial: 25
Acq On : 6 Feb 2002 6:16 pm Operator: Z.Miao
Sample : 526412 10 Inst : 5973-A
Misc : 01/28/2002 1.0 TETRA 8270.TCL Multiplr: 33.30
MS Integration Params: RTEINT.P
Quant Time: Feb 6 18:45 2002 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Multiple Level Calibration



(4) SURR1,2-FLUOROPHENOL (S)

4.33min 263.70ppb

response 23757

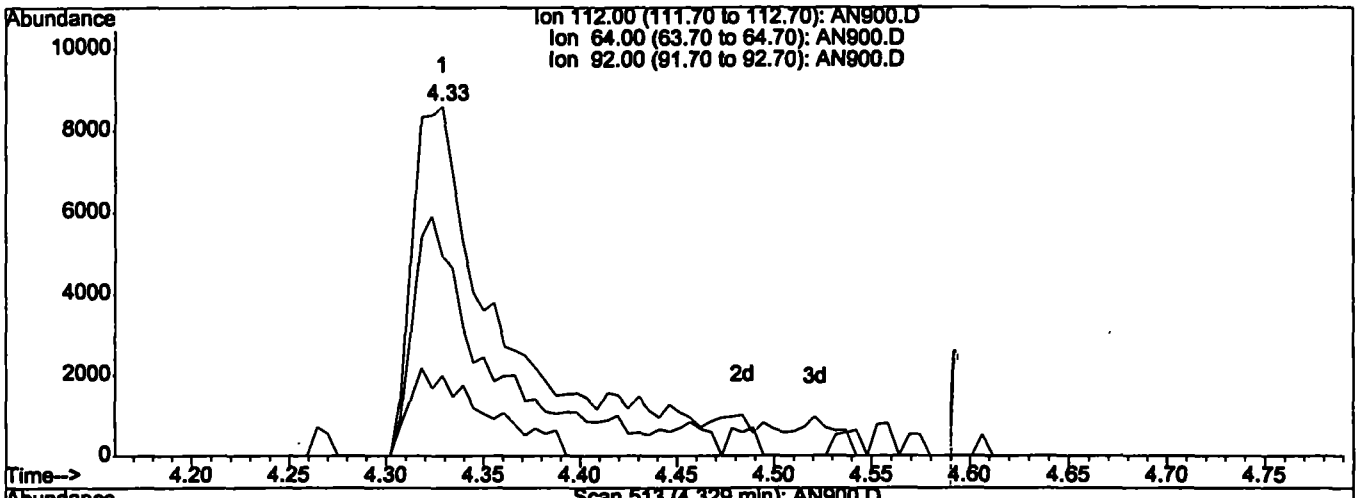
Ion	Exp%	Act%
112.00	100	100
64.00	65.70	56.32
92.00	27.30	24.74
0.00	0.00	0.00

AN900.D 82700204.M Thu Feb 07 09:56:40 2002 MSA ZM

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973A\DATA\020602\AN900.D Vial: 25
Acq On : 6 Feb 2002 6:16 pm Operator: Z.Miao
Sample : 526412 10 Inst : 5973-A
Misc : 01/28/2002 1.0 TETRA 8270.TCL Multiplr: 33.30
MS Integration Params: RTEINT.P
Quant Time: Feb 7 9:56 2002 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Multiple Level Calibration



(4) SURR1,2-FLUOROPHENOL (S)

4.33min 352.25ppb m

response 31735

Ion	Exp%	Act%
112.00	100	100
64.00	65.70	57.42
92.00	27.30	23.08
0.00	0.00	0.00

AN900.D 82700204.M Thu Feb 07 09:56:47 2002 MSA ZM 2/6/02

Tentatively Identified Compound (LSC) summary

Operator ID: Z.Miao Date Acquired: 6 Feb 2002 6:16 pm
Data File: J:\ACQUDATA\5973A\DATA\020602\AN900.D
Line: 526412 10
Misc: 01/28/2002 1.0 TETRA 8270.TCL
Method: C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title: 8270 BNA ANALYSIS
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
1-Methoxy-2-propyl a	4.24	490.2	ppb	221247	ISTD01	5.74	601137	40.0
Phthalic anhydride	8.93	173.5	ppb	95814	ISTD02	7.50	735704	40.0

AN900.D 82700204.M Mon Feb 11 13:01:07 2002 MSA

LSC Area Percent Report

Data File : J:\ACQUDATA\5973A\DATA\020602\AN900.D Vial: 25
Acq On : 6 Feb 2002 6:16 pm Operator: Z.Miao
Sample : 526412 10 Inst : 5973-A
Misc : 01/28/2002 1.0 TETRA 8270.TCL Multiplr: 33.30
LS Integration Params: TEBINT.P

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 25000 Area counts
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

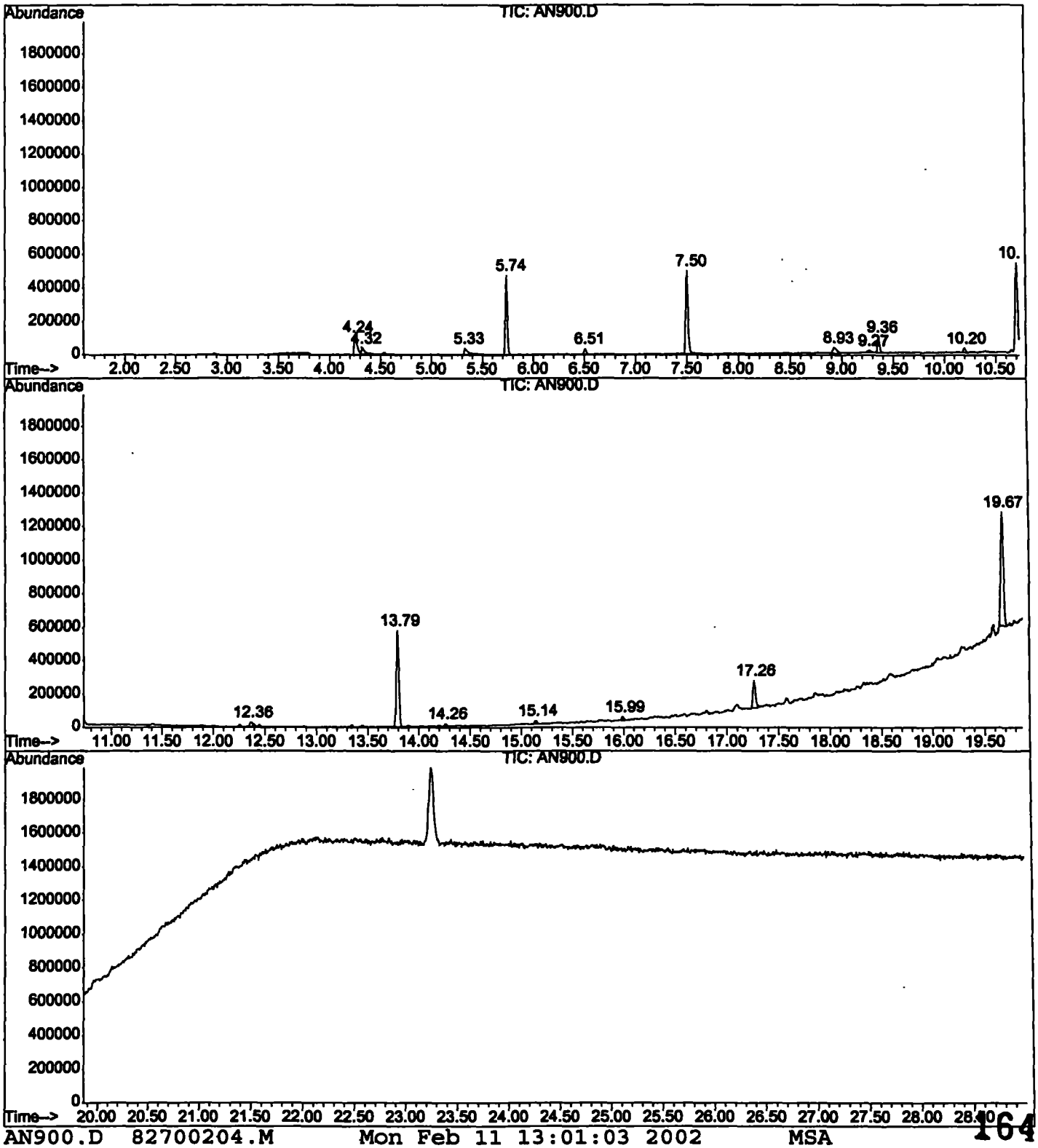
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.243	494	497	508	rBV2	106991	221247	17.98%	3.935%
2	4.318	508	511	527	rVB3	34977	78664	6.39%	1.399%
3	5.328	696	700	710	rBV2	38772	84486	6.87%	1.502%
4	5.739	771	777	786	rBV	477026	601137	48.85%	10.691%
5	6.508	916	921	927	rVB	35537	49707	4.04%	0.884%
6	7.502	1101	1107	1117	rBV	498119	735704	59.79%	13.084%
[illegible]	8.928	1367	1374	1386	rBV3	35031	95814	7.79%	1.704%
	9.270	1431	1438	1442	rBV8	13596	25841	2.10%	0.460%
9	9.356	1447	1454	1461	rBV	96304	148384	12.06%	2.639%
10	10.200	1607	1612	1619	rVB4	27266	36917	3.00%	0.657%
11	10.707	1700	1707	1717	rVB	534768	873649	71.00%	15.537%
12	12.363	2012	2017	2021	rBV4	28281	46437	3.77%	0.826%
13	13.795	2278	2285	2293	rBV2	580604	1001658	81.41%	17.813%
14	14.260	2367	2372	2380	rBV5	19157	32032	2.60%	0.570%
15	15.141	2533	2537	2541	rBV3	21028	28466	2.31%	0.506%
16	15.991	2692	2696	2703	rVB4	22879	35257	2.87%	0.627%
17	17.262	2929	2934	2941	rBV	164703	297191	24.15%	5.285%
18	19.671	3380	3385	3394	rVB	679131	1230459	100.00%	21.882%

Sum of corrected areas: 5623050

AN900.D 82700204.M Mon Feb 11 13:01:02 2002 MSA

LSC Report - Integrated Chromatogram

File : J:\ACQUDATA\5973A\DATA\020602\AN900.D
Operator : Z.Miao
Acquired : 6 Feb 2002 6:16 pm using AcqMethod 82700204
Instrument : 5973-A
Sample Name: 526412 10
Misc Info : 01/28/2002 1.0 TETRA 8270.TCL
Vial Number: 25
Quant File :82700204.RES (RTE Integrator)



AN900.D 82700204.M Mon Feb 11 13:01:03 2002 MSA

Library Search Compound Report

Data File : J:\ACQUDATA\5973A\DATA\020602\AN900.D Vial: 25
Acq On : 6 Feb 2002 6:16 pm Operator: Z.Miao
Sample : 526412 10 Inst : 5973-A
Misc : 01/28/2002 1.0 TETRA 8270.TCL Multiplr: 33.30
MS Integration Params: TEBINT.P

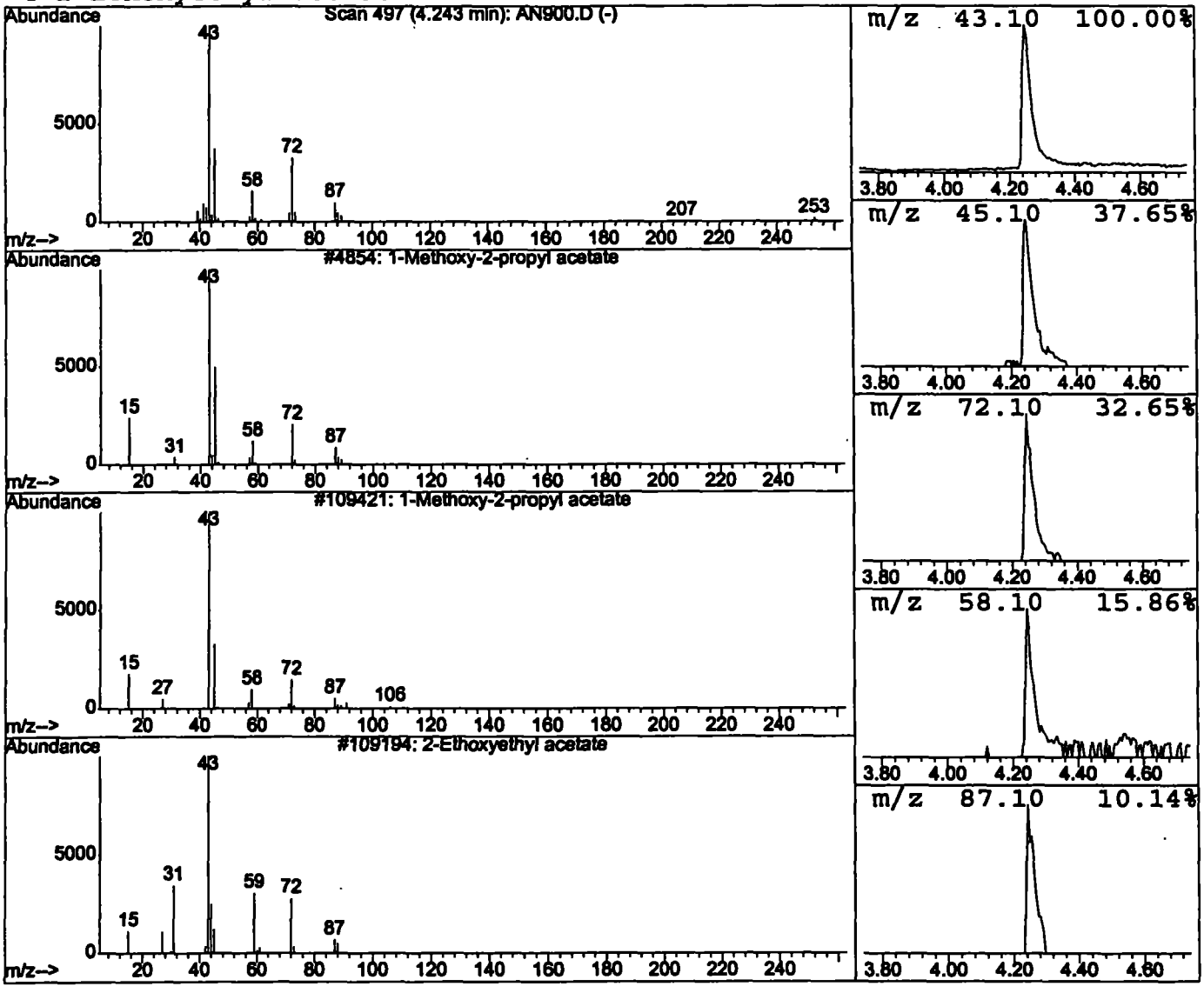
Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 1-Methoxy-2-propyl acetate Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.24	490.24 ppb	221247	d4-1,4-Dichlorobenzene	5.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Methoxy-2-propyl acetate	132	C6H12O3	000108-65-6	72
2	1-Methoxy-2-propyl acetate	132	C6H12O3	000108-65-6	56
3	2-Ethoxyethyl acetate	132	C6H12O3	000111-15-9	36
4	2-Ethoxyethyl acetate	132	C6H12O3	000111-15-9	36



Library Search Compound Report

Data File : J:\ACQUDATA\5973A\DATA\020602\AN900.D Vial: 25
Acq On : 6 Feb 2002 6:16 pm Operator: Z.Miao
Sample : 526412 10 Inst : 5973-A
Misc : 01/28/2002 1.0 TETRA 8270.TCL Multiplr: 33.30
MS Integration Params: TEBINT.P

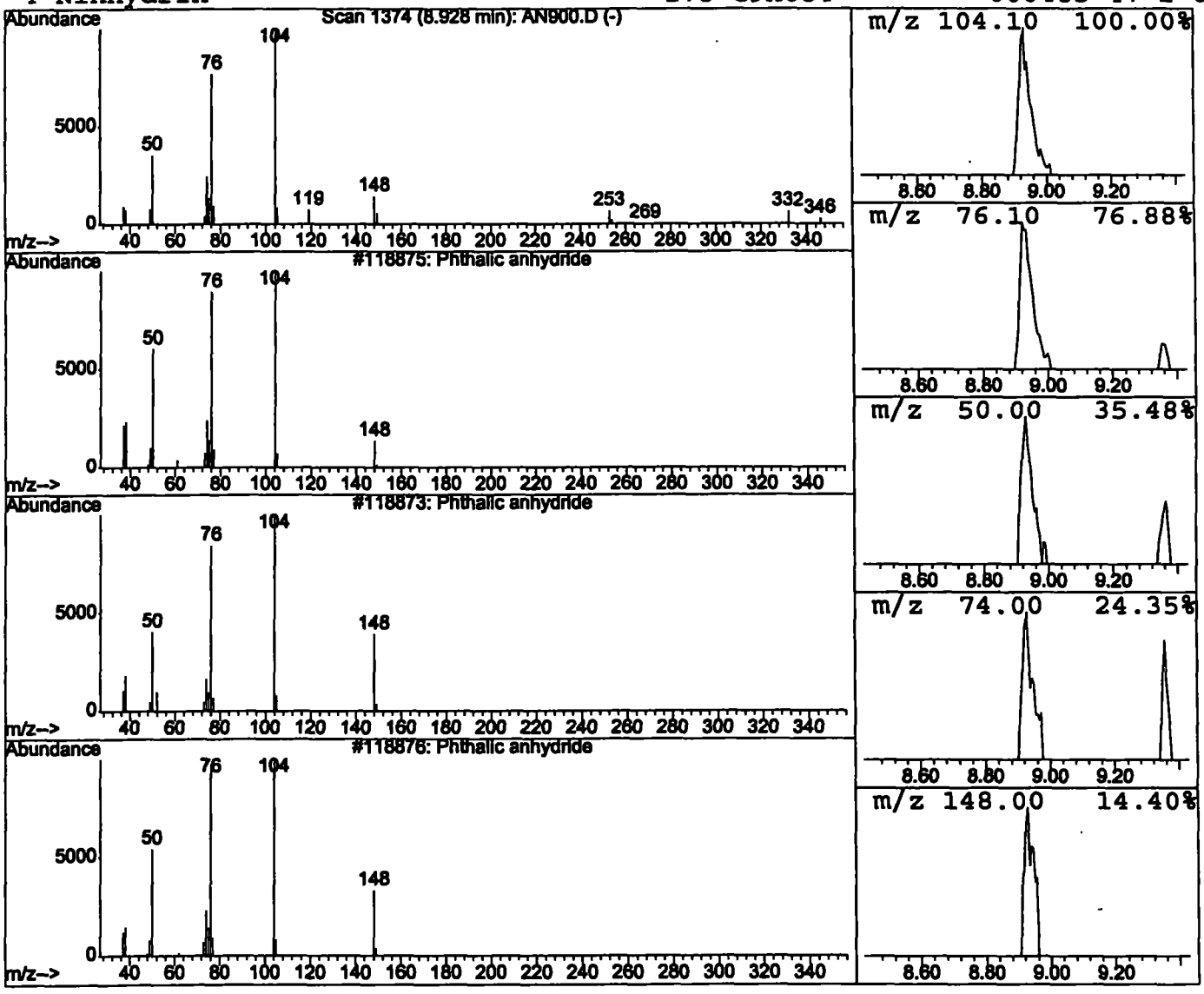
Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Library : C:\DATABASE\NIST98.L

****

Peak Number 2 Phthalic anhydride Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.93	173.47 ppb	95814	d8-Naphthalene	7.50

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phthalic anhydride	148	C8H4O3	000085-44-9	91
2	Phthalic anhydride	148	C8H4O3	000085-44-9	90
3	Phthalic anhydride	148	C8H4O3	000085-44-9	83
4	Ninhydrin	178	C9H6O4	000485-47-2	83



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SEMIVOLATILE ORGANICS

STANDARDS DATA

Response Factor Report 5973-A

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Initial Calibration

Calibration Files
10 =AN825.D 50 =AN826.D 80 =AN827.D
100 =AN828.D 120 =AN829.D 160 =AN830.D

		Compound	10	50	80	100	120	160	Avg	%RSD
1)	IR	d4-1,4-Dichlorobenzen	----------ISTD----------							
2)	T	Pyridine		1.323	1.342	1.389	1.407	1.439	1.380	3.44
3)	T	N-Nitrosodimethylam	0.798	0.812	0.803	0.813	0.814	0.836	0.813	1.62
4)	S	SURR1,2-FLUOROPHENO	1.337	1.363	1.328	1.355	1.333	1.394	1.352	1.81
5)	T	Benzaldehyde	1.070	2.107	1.444	1.219	0.839	0.674	1.226	41.64
6)	T	Aniline	2.302	2.039	1.908	1.817	1.706	1.565	1.890	13.75
7)	S	SURR2,PHENOL-D6	1.902	1.898	1.909	1.946	1.864	1.935	1.909	1.54
8)	TMC	Phenol	2.033	2.028	2.023	2.053	1.986	1.979	2.017	1.43
9)	T	bis(2-Clethyl)Ether	1.709	1.612	1.570	1.622	1.571	1.568	1.609	3.39
10)	TM	2-Chlorophenol	1.569	1.571	1.545	1.586	1.537	1.562	1.562	1.14
11)	T	1,3-Diclbenzene	1.686	1.714	1.663	1.672	1.671	1.635	1.673	1.56
12)	TMC	1,4-Dichlorobenzene	1.807	1.782	1.726	1.732	1.706	1.672	1.738	2.86
13)	T	1,2-Diclbenzene	1.714	1.705	1.642	1.642	1.607	1.587	1.649	3.10
14)	T	Benzyl Alcohol	1.458	1.612	1.605	1.643	1.569	1.553	1.573	4.12
15)	T	2,2'-oxybis(1-Chlor	1.407	1.447	1.397	1.421	1.373	1.364	1.402	2.21
[illegible])	T	2-Methylphenol	1.462	1.528	1.457	1.526	1.459	1.498	1.488	2.25
[illegible])	T	Acetophenone	2.231	2.326	2.243	2.273	2.159	2.180	2.235	2.72
18)	TMP	N-Nitroso-Di-n-prop	1.315	1.394	1.358	1.362	1.296	1.270	1.333	3.51
19)	T	Hexachloroethane	0.698	0.741	0.706	0.710	0.706	0.691	0.709	2.46
20)	T	4-Methylphenol	1.533	1.592	1.585	1.606	1.532	1.566	1.569	1.99
21)	IR	d8-Naphthalene	----------ISTD----------							
22)	S	SURR4,NITROBENZENE-	0.547	0.571	0.571	0.554	0.562	0.544	0.558	2.12
23)	T	Nitrobenzene	0.512	0.532	0.522	0.504	0.512	0.482	0.511	3.35
24)	T	Isophorone	0.843	0.914	0.926	0.905	0.911	0.885	0.897	3.29
25)	TC	2-Nitrophenol	0.183	0.217	0.221	0.217	0.221	0.219	0.213	6.97
26)	T	Benzoic Acid		0.229	0.276	0.304	0.329	0.355	0.299	16.32 UR
27)	T	2,4-Dimethylphenol	0.454	0.469	0.467	0.450	0.450	0.424	0.452	3.59
28)	T	bis(-2-Chloroethoxy	0.478	0.489	0.485	0.479	0.479	0.461	0.479	2.03
29)	TC	2,4-Dichlorophenol	0.312	0.337	0.342	0.337	0.338	0.335	0.333	3.17
30)	TM	1,2,4-Trichlorobenz	0.384	0.376	0.368	0.362	0.368	0.358	0.369	2.49
31)	T	Naphthalene	1.301	1.271	1.238	1.211	1.222	1.153	1.233	4.15
32)	T	4-Chloroaniline	0.496	0.482	0.461	0.439	0.431	0.401	0.452	7.73
33)	TC	Hexachlorobutadiene	0.226	0.226	0.224	0.218	0.223	0.217	0.223	1.77
34)	TMC	4-Chloro-3-methylph	0.354	0.397	0.407	0.413	0.414	0.407	0.399	5.72
35)	T	Caprolactam	0.101	0.137	0.124	0.126	0.123	0.120	0.122	9.70
36)	T	2-Methylnaphthalene	0.823	0.833	0.836	0.821	0.827	0.800	0.823	1.55
37)	IR	d10-Acenaphthene	----------ISTD----------							
38)	TP	Hexachlorocyclopent	0.084	0.254	0.294	0.299	0.305	0.319	0.259	34.13 UR
[illegible]9)	TC	2,4,6-Trichlorophen	0.383	0.418	0.431	0.427	0.430	0.431	0.420	4.40
[illegible])	T	2,4,5-Trichlorophen	0.405	0.449	0.455	0.458	0.463	0.469	0.450	5.15
[illegible]1)	S	SURR5,2-FLUOROBIPHE	1.826	1.804	1.781	1.726	1.731	1.682	1.758	3.10

(#) = Out of Range

Response Factor Report 5973-A

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Initial Calibration

Calibration Files
10 =AN825.D 50 =AN826.D 80 =AN827.D
100 =AN828.D 120 =AN829.D 160 =AN830.D

		Compound	10	50	80	100	120	160	Avg	%RSD
42)	T	1,1'-Biphenyl	1.904	1.880	1.852	1.806	1.801	1.746	1.831	3.18
43)	T	2-Chloronaphthalene	1.383	1.390	1.363	1.320	1.311	1.298	1.344	2.93
44)	T	2-Nitroaniline		0.506	0.517	0.510	0.516	0.510	0.512	0.92
45)	T	Acenaphthylene	2.154	2.200	2.189	2.104	2.108	2.028	2.131	3.01
46)	T	Dimethyl phthalate	1.563	1.565	1.553	1.535	1.526	1.495	1.539	1.73
47)	T	2,6-Dinitrotoluene	0.298	0.355	0.366	0.363	0.367	0.369	0.353	7.75
48)	TMC	Acenaphthene	1.468	1.441	1.417	1.375	1.379	1.329	1.402	3.60
49)	T	3-Nitroaniline		0.391	0.401	0.393	0.399	0.388	0.394	1.41
50)	TP	2,4-Dinitrophenol		0.146	0.188	0.202	0.216	0.246	0.200	18.45 vk
51)	T	Dibenzofuran	2.088	2.069	2.041	1.968	1.991	1.908	2.011	3.38
52)	TM	2,4-Dinitrotoluene	0.401	0.484	0.494	0.484	0.487	0.486	0.473	7.49
53)	TMP	4-Nitrophenol		0.347	0.369	0.369	0.379	0.370	0.367	3.19
54)	T	Fluorene	1.693	1.705	1.684	1.635	1.639	1.606	1.660	2.36
55)	T	4-Chlorophenyl-phen	0.816	0.816	0.814	0.792	0.800	0.788	0.804	1.56
56)	T	Diethylphthalate	1.631	1.706	1.684	1.641	1.638	1.574	1.646	2.79
57)	T	4-Nitroaniline		0.416	0.427	0.418	0.431	0.420	0.422	1.50
)	S	SURR3,2,4,6-TRIBROM	0.189	0.242	0.244	0.245	0.245	0.250	0.236	9.78
59)	IR	d10-Phenanthrene	----------ISTD----------							
60)	T	4,6-Dinitro-2-methy		0.140	0.159	0.161	0.166	0.172	0.159	7.57
61)	T	1,2 Diphenylhydrazi	1.076	1.131	1.104	1.055	1.047	0.978	1.065	4.98
62)	TC	N-Nitrosodiphenylam	0.690	0.724	0.711	0.692	0.684	0.665	0.694	3.01
63)	T	4-Bromophenyl-pheny	0.251	0.264	0.262	0.257	0.257	0.258	0.258	1.80
64)	T	Hexachlorobenzene	0.272	0.285	0.286	0.279	0.279	0.278	0.280	1.74
65)	T	Atrazine	0.122	0.107	0.095	0.090	0.082	0.080	0.096	16.85
66)	TCM	Pentachlorophenol		0.144	0.162	0.164	0.168	0.178	0.163	7.51
67)	T	Phenanthrene	1.370	1.339	1.334	1.295	1.302	1.241	1.314	3.40
68)	T	Anthracene	1.330	1.396	1.387	1.338	1.341	1.275	1.345	3.24
69)	T	Carbazole	1.223	1.271	1.261	1.217	1.223	1.169	1.227	2.94
70)	T	Di-n-butylphthalate	1.403	1.602	1.578	1.538	1.540	1.439	1.517	5.19
71)	TC	Fluoranthene	1.486	1.526	1.508	1.482	1.494	1.434	1.488	2.08
72)	IR	d12-Chrysene	----------ISTD----------							
73)	T	Benzidine		0.324	0.284	0.261	0.234	0.212	0.263	16.53
74)	TM	Pyrene	1.376	1.380	1.409	1.377	1.364	1.308	1.369	2.45
75)	S	SURR6,TERPHENYL-D14	1.122	1.143	1.163	1.139	1.124	1.086	1.129	2.28
76)	T	Butyl benzyl phthal	0.605	0.655	0.667	0.660	0.652	0.629	0.645	3.59
77)	T	3,3'-Dichlorobenzid	0.415	0.436	0.431	0.429	0.415	0.392	0.419	3.85
78)	T	Benzo(a)anthracene	1.413	1.401	1.404	1.374	1.363	1.304	1.376	2.94
79)	T	Chrysene	1.384	1.345	1.338	1.309	1.303	1.239	1.320	3.71
80)	T	bis(2-Ethylhexyl)ph	0.863	0.969	0.972	0.956	0.935	0.875	0.928	5.13
1)	IR	d12-Perylene	----------ISTD----------							
82)	TC	Di-n-octyl phthalat	1.426	1.725	1.758	1.727	1.693	1.567	1.649	7.78

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(#) = Out of Range

Response Factor Report 5973-A

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Initial Calibration

Calibration Files
10 =AN825.D 50 =AN826.D 80 =AN827.D
100 =AN828.D 120 =AN829.D 160 =AN830.D

		Compound	10	50	80	100	120	160	Avg	%RSD
83)	T	Benzo(b)Fluoranthen	1.433	1.446	1.432	1.442	1.449	1.530	1.455	2.57
84)	T	Benzo(k)fluoranthen	1.395	1.487	1.418	1.344	1.333	1.350	1.388	4.23
85)	TC	Benzo(a)pyrene	1.228	1.301	1.310	1.288	1.290	1.267	1.281	2.29
86)	T	Indeno(1,2,3-cd)Pyr	1.579	1.655	1.657	1.667	1.710	1.790	1.676	4.17
87)	T	Dibenz(a,h)anthrace	1.257	1.339	1.342	1.349	1.381	1.445	1.352	4.54
88)	T	Benzo(g,h,i)perylen	1.304	1.358	1.357	1.384	1.430	1.521	1.392	5.39

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973A\DATA\020402\AN827.D Vial: 4
Acq On : 4 Feb 2002 5:28 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 80 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	d4-1,4-Dichlorobenzene	1.000	1.000	0.0	100	0.00
2	T	Pyridine	1.380	1.342	2.8	100	0.00
3	T	N-Nitrosodimethylamine	0.813	0.803	1.2	100	0.00
4	S	SURR1,2-FLUOROPHENOL	1.352	1.328	1.8	100	0.00
5	T	Benzaldehyde	1.226	1.444	-17.8	100	0.00
6	T	Aniline	1.890	1.908	-1.0	100	0.00
7	S	SURR2,PHENOL-D6	1.909	1.909	0.0	100	0.00
8	TMC	Phenol	2.017	2.023	-0.3	100	0.00
9	T	bis(2-Clethyl)Ether	1.609	1.570	2.4	100	0.00
10	TM	2-Chlorophenol	1.562	1.545	1.1	100	0.00
11	T	1,3-Diclbenzene	1.673	1.663	0.6	100	0.00
12	TMC	1,4-Dichlorobenzene	1.738	1.726	0.7	100	0.00
	T	1,2-Diclbenzene	1.649	1.642	0.4	100	0.00
1_	T	Benzyl Alcohol	1.573	1.605	-2.0	100	0.00
15	T	2,2'-oxybis(1-Chloropropane	1.402	1.397	0.4	100	0.00
16	T	2-Methylphenol	1.488	1.457	2.1	100	0.00
17	T	Acetophenone	2.235	2.243	-0.4	100	0.00
18	TMP	N-Nitroso-Di-n-propylamine	1.333	1.358	-1.9	100	0.00
19	T	Hexachloroethane	0.709	0.706	0.4	100	0.00
20	T	4-Methylphenol	1.569	1.585	-1.0	100	0.00
21	IR	d8-Naphthalene	1.000	1.000	0.0	100	0.00
22	S	SURR4,NITROBENZENE-D5	0.558	0.571	-2.3	100	0.00
23	T	Nitrobenzene	0.511	0.522	-2.2	100	0.00
24	T	Isophorone	0.897	0.926	-3.2	100	0.00
25	TC	2-Nitrophenol	0.213	0.221	-3.8	100	0.00
26	T	Benzoic Acid	0.299	0.276	7.7	100	0.00
27	T	2,4-Dimethylphenol	0.452	0.467	-3.3	100	0.00
28	T	bis(-2-Chloroethoxy)Methane	0.479	0.485	-1.3	100	0.00
29	TC	2,4-Dichlorophenol	0.333	0.342	-2.7	100	0.00
30	TM	1,2,4-Trichlorobenzene	0.369	0.368	0.3	100	0.00
31	T	Naphthalene	1.233	1.238	-0.4	100	0.00
32	T	4-Chloroaniline	0.452	0.461	-2.0	100	0.00
33	TC	Hexachlorobutadiene	0.223	0.224	-0.4	100	0.00
34	TMC	4-Chloro-3-methylphenol	0.399	0.407	-2.0	100	0.00
35	T	Caprolactam	0.122	0.124	-1.6	100	0.00
36	T	2-Methylnaphthalene	0.823	0.836	-1.6	100	0.00
	IR	d10-Acenaphthene	1.000	1.000	0.0	100	0.00
38	TP	Hexachlorocyclopentadiene	0.259	0.294	-13.5	100	0.00
39	TC	2,4,6-Trichlorophenol	0.420	0.431	-2.6	100	0.00

(#) = Out of Range

ZM

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973A\DATA\020402\AN827.D Vial: 4
Acq On : 4 Feb 2002 5:28 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 80 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40	T	2,4,5-Trichlorophenol	0.450	0.455	-1.1	100	0.00
41	S	SURR5,2-FLUOROBIPHENYL	1.758	1.781	-1.3	100	0.00
42	T	1,1'-Biphenyl	1.831	1.852	-1.1	100	0.00
43	T	2-Chloronaphthalene	1.344	1.363	-1.4	100	0.00
44	T	2-Nitroaniline	0.512	0.517	-1.0	100	0.00
45	T	Acenaphthylene	2.131	2.189	-2.7	100	0.00
46	T	Dimethyl phthalate	1.539	1.553	-0.9	100	0.00
47	T	2,6-Dinitrotoluene	0.353	0.366	-3.7	100	0.00
48	TMC	Acenaphthene	1.402	1.417	-1.1	100	0.00
49	T	3-Nitroaniline	0.394	0.401	-1.8	100	0.00
50	TP	2,4-Dinitrophenol	0.200	0.188	6.0	100	0.00
51	T	Dibenzofuran	2.011	2.041	-1.5	100	0.00
52	TM	2,4-Dinitrotoluene	0.473	0.494	-4.4	100	0.00
	TMP	4-Nitrophenol	0.367	0.369	-0.5	100	0.00
54	T	Fluorene	1.660	1.684	-1.4	100	0.00
55	T	4-Chlorophenyl-phenylether	0.804	0.814	-1.2	100	0.00
56	T	Diethylphthalate	1.646	1.684	-2.3	100	0.00
57	T	4-Nitroaniline	0.422	0.427	-1.2	100	0.00
58	S	SURR3,2,4,6-TRIBROMOPHENOL	0.236	0.244	-3.4	100	0.00
59	IR	d10-Phenanthrene	1.000	1.000	0.0	100	0.00
60	T	4,6-Dinitro-2-methylphenol	0.159	0.159	0.0	100	0.00
61	T	1,2 Diphenylhydrazine	1.065	1.104	-3.7	100	0.00
62	TC	N-Nitrosodiphenylamine	0.694	0.711	-2.4	100	0.00
63	T	4-Bromophenyl-phenylether	0.258	0.262	-1.6	100	0.00
64	T	Hexachlorobenzene	0.280	0.286	-2.1	100	0.00
65	T	Atrazine	0.096	0.095	1.0	100	0.00
66	TCM	Pentachlorophenol	0.163	0.162	0.6	100	0.00
67	T	Phenanthrene	1.314	1.334	-1.5	100	0.00
68	T	Anthracene	1.345	1.387	-3.1	100	0.00
69	T	Carbazole	1.227	1.261	-2.8	100	0.00
70	T	Di-n-butylphthalate	1.517	1.578	-4.0	100	0.00
71	TC	Fluoranthene	1.488	1.508	-1.3	100	0.00
72	IR	d12-Chrysene	1.000	1.000	0.0	100	0.00
73	T	Benzidine	0.263	0.284	-8.0	100	0.00
74	TM	Pyrene	1.369	1.409	-2.9	100	0.00
75	S	SURR6,TERPHENYL-D14	1.129	1.163	-3.0	100	0.00
	T	Butyl benzyl phthalate	0.645	0.667	-3.4	100	0.00
77	T	3,3'-Dichlorobenzidine	0.419	0.431	-2.9	100	0.00
78	T	Benzo(a)anthracene	1.376	1.404	-2.0	100	0.00

(#) = Out of Range

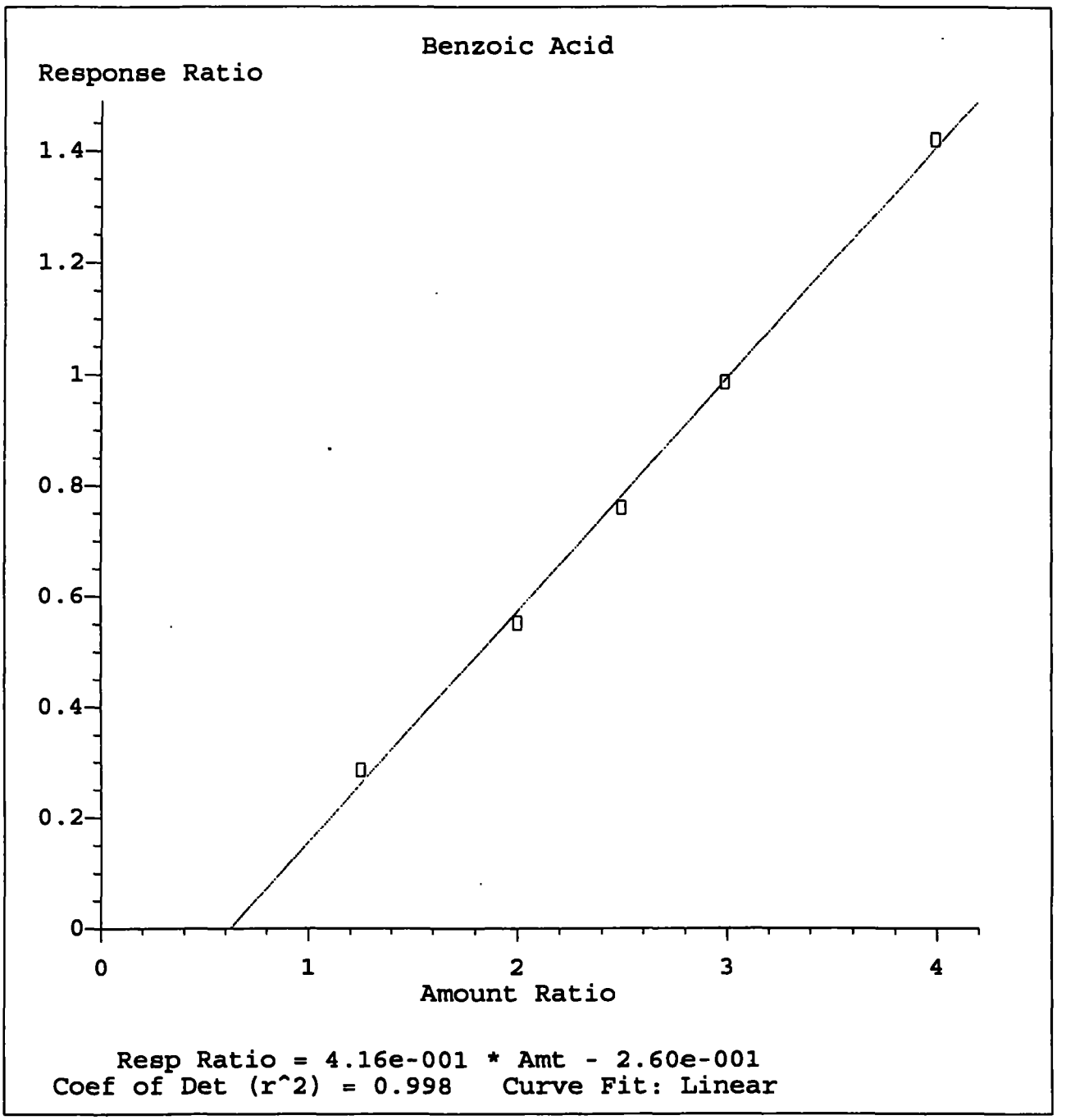
Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973A\DATA\020402\AN827.D Vial: 4
Acq On : 4 Feb 2002 5:28 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
isc : 80 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P

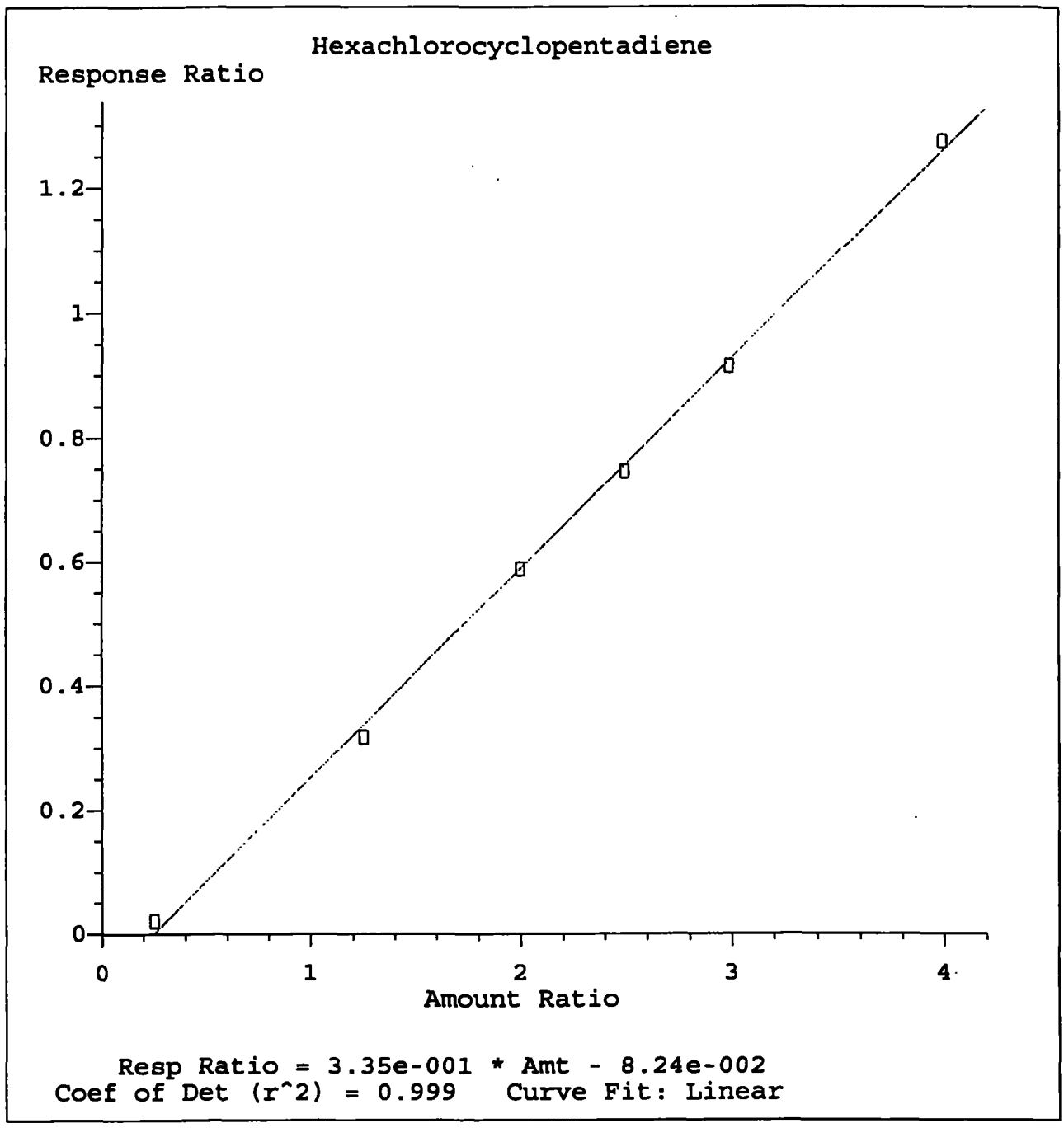
Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

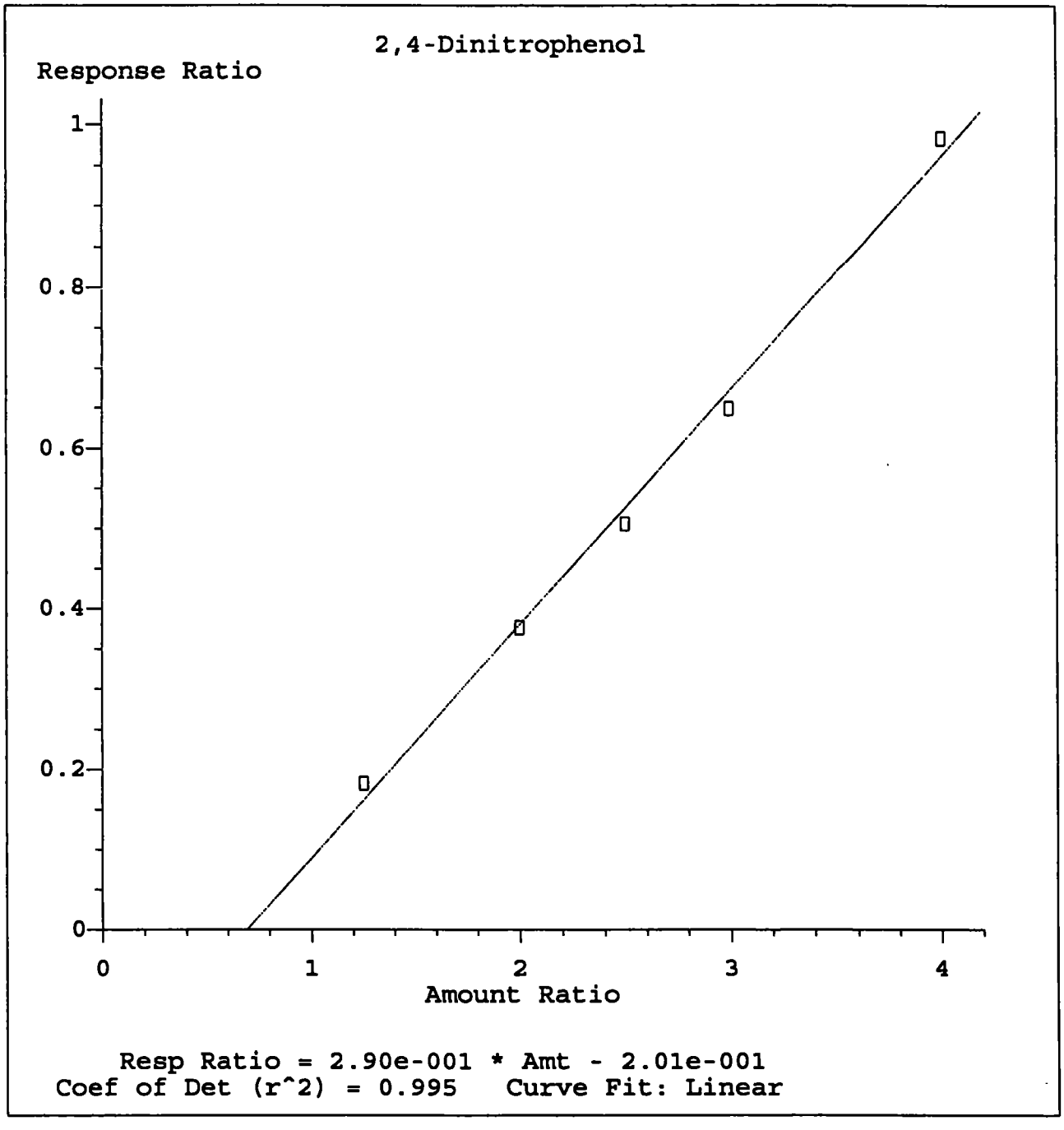
		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
79	T	Chrysene	1.320	1.338	-1.4	100	0.00
80	T	bis(2-Ethylhexyl)phthalate	0.928	0.972	-4.7	100	0.00
81	IR	d12-Perylene	1.000	1.000	0.0	100	0.00
82	TC	Di-n-octyl phthalate	1.649	1.758	-6.6	100	0.00
83	T	Benzo(b)Fluoranthene	1.455	1.432	1.6	100	0.00
84	T	Benzo(k)fluoranthene	1.388	1.418	-2.2	100	0.00
85	TC	Benzo(a)pyrene	1.281	1.310	-2.3	100	0.00
86	T	Indeno(1,2,3-cd)Pyrene	1.676	1.657	1.1	100	0.00
87	T	Dibenz(a,h)anthracene	1.352	1.342	0.7	100	0.00
88	T	Benzo(g,h,i)perylene	1.392	1.357	2.5	100	0.00



Method Name: C:\HPCHEM\1\METHODS\82700204.M
Calibration Table Last Updated: Tue Feb 05 09:35:41 2002



Method Name: C:\HPCHEM\1\METHODS\82700204.M
Calibration Table Last Updated: Tue Feb 05 09:36:07 2002



Method Name: C:\HPCHEM\1\METHODS\82700204.M
Calibration Table Last Updated: Tue Feb 05 09:36:07 2002

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN825.D Vial: 2
Acq On : 4 Feb 2002 4:11 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Mc : 10 PPM STD 8270/625 Multiplr: 1.00
Integration Params: RTEINT.P
Quant Time: Feb 5 9:26 2002 Quant Results File: 82700204.RES

Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:25:34 2002
Response via : Initial Calibration
DataAcq Meth : 82700204

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	5.75	152	114995	40.00 ppb	0.01
21) d8-Naphthalene	7.51	136	426992	40.00 ppb	0.01
37) d10-Acenaphthene	10.72	164	236985	40.00 ppb	0.00
59) d10-Phenanthrene	13.82	188	443486	40.00 ppb	0.00
72) d12-Chrysene	19.70	240	505523	40.00 ppb	0.00
81) d12-Perylene	23.29	264	508381	40.00 ppb	0.01

System Monitoring Compounds

4) SURR1,2-FLUOROPHENOL	4.33	112	38423	10.16 ppb	0.01
Spiked Amount 200.000	Range 10 - 75		Recovery = 5.08%#		
7) SURR2,PHENOL-D6	5.33	99	54680	10.74 ppb	0.00
Spiked Amount 200.000	Range 10 - 130		Recovery = 5.37%#		
22) SURR4,NITROBENZENE-D5	6.50	82	58342	9.30 ppb	0.01
Spiked Amount 100.000	Range 30 - 116		Recovery = 9.30%#		
41) SURR5,2-FLUOROBIPHENYL	9.37	172	108197	10.56 ppb	0.01
Spiked Amount 100.000	Range 38 - 107		Recovery = 10.56%#		
58) SURR3,2,4,6-TRIBROMOPHENOL	12.39	330	11206	7.64 ppb	0.02
Spiked Amount 200.000	Range 10 - 135		Recovery = 3.82%#		
75) SURR6,TERPHENYL-D14	17.29	244	141808	10.10 ppb	0.00
Spiked Amount 100.000	Range 15 - 135		Recovery = 10.10%#		

Target Compounds

					Qvalue
3) N-Nitrosodimethylamine	2.43	74	22937	10.20 ppb	94
5) Benzaldehyde	5.26	106	30774	9.45 ppb	98
6) Aniline	5.40	93	66191	12.86 ppb	99
8) Phenol	5.35	94	58459	10.73 ppb	98
9) bis(2-Clethyl)Ether	5.44	93	49132	6.14 ppb	95
10) 2-Chlorophenol	5.54	128	45095	10.35 ppb	97
11) 1,3-Diclbenzene	5.71	146	48458	9.80 ppb	98
12) 1,4-Dichlorobenzene	5.77	146	51957	9.99 ppb	94
13) 1,2-Diclbenzene	6.01	146	49264	10.04 ppb	98
14) Benzyl Alcohol	5.93	79	41920	9.27 ppb	97
15) 2,2'-oxybis(1-Chloropropan	6.09	45	40451	12.07 ppb	96
16) 2-Methylphenol	6.05	108	42030	10.13 ppb	98
17) Acetophenone	6.28	105	64125	9.60 ppb	95
18) N-Nitroso-Di-n-propylamine	6.28	70	37813	9.78 ppb	96
19) Hexachloroethane	6.41	117	20057	9.32 ppb	94
20) 4-Methylphenol	6.23	108	44067	10.19 ppb	93
23) Nitrobenzene	6.52	77	54633	9.41 ppb	99
24) Isophorone	6.82	82	90037	9.31 ppb	97
25) 2-Nitrophenol	6.98	139	19510	8.67 ppb	96
27) 2,4-Dimethylphenol	6.95	107	48509	9.52 ppb	100

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

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN825.D Vial: 2
Acq On : 4 Feb 2002 4:11 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Mult : 10 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:26 2002 Quant Results File: 82700204.RES

Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:25:34 2002
Response via : Initial Calibration
DataAcq Meth : 82700204

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
28)	bis(-2-Chloroethoxy)Methan	7.10	93	51037	10.33	ppb	97
29)	2,4-Dichlorophenol	7.31	162	33339	8.97	ppb	98
30)	1,2,4-Trichlorobenzene	7.43	180	40938	9.45	ppb	98
31)	Naphthalene	7.54	128	138836	10.31	ppb	98
32)	4-Chloroaniline	7.65	127	52930	10.60	ppb	97
33)	Hexachlorobutadiene	7.79	225	24163	8.55	ppb	98
34)	4-Chloro-3-methylphenol	8.40	107	37749	8.89	ppb	95
35)	Caprolactam	8.23	113	10783	12.76	ppb	83
36)	2-Methylnaphthalene	8.69	142	87813	9.90	ppb	98
38)	Hexachlorocyclopentadiene	9.08	237	4986	15.53	ppb	64
39)	2,4,6-Trichlorophenol	9.26	196	22713	9.01	ppb	93
40)	2,4,5-Trichlorophenol	9.34	196	23979	8.94	ppb	93
42)	1,1'-Biphenyl	9.54	154	112796	10.73	ppb	95
43)	2-Chloronaphthalene	9.60	162	81945	10.15	ppb	98
45)	Acenaphthylene	10.43	152	127615	10.44	ppb	99
46)	Dimethyl phthalate	10.19	163	92610	10.07	ppb	99
47)	2,6-Dinitrotoluene	10.38	165	17643	8.62	ppb	92
48)	Acenaphthene	10.79	153	86999	10.90	ppb	98
51)	Dibenzofuran	11.11	168	123677	10.69	ppb	98
52)	2,4-Dinitrotoluene	11.17	165	23744	8.64	ppb	96
54)	Fluorene	11.82	166	100298	10.14	ppb	100
55)	4-Chlorophenyl-phenylether	11.77	204	48361	10.08	ppb	99
56)	Diethylphthalate	11.60	149	96660	10.19	ppb	100
61)	1,2 Diphenylhydrazine	12.10	77	119297	10.14	ppb	97
62)	N-Nitrosodiphenylamine	12.04	169	76512	10.14	ppb	98
63)	4-Bromophenyl-phenylether	12.80	248	27797	8.77	ppb	91
64)	Hexachlorobenzene	13.16	284	30200	8.62	ppb	92
65)	Atrazine	13.19	215	13568	10.30	ppb	97
67)	Phenanthrene	13.86	178	151942	10.13	ppb	98
68)	Anthracene	13.96	178	147494	9.46	ppb	98
69)	Carbazole	14.31	167	135557	10.09	ppb	99
70)	Di-n-butylphthalate	15.06	149	155565	9.44	ppb	99
71)	Fluoranthene	16.49	202	164801	9.71	ppb	99
74)	Pyrene	17.01	202	173837	11.01	ppb	99
76)	Butyl benzyl phthalate	18.38	149	76462	10.70	ppb	98
77)	3,3'-Dichlorobenzidine	19.59	252	52468	9.80	ppb	90
78)	Benzo(a)anthracene	19.65	228	178602	10.37	ppb	98
79)	Chrysene	19.75	228	174946	10.57	ppb	99
80)	bis(2-Ethylhexyl)phthalate	19.61	149	109102	10.53	ppb	99
82)	Di-n-octyl phthalate	20.91	149	181179	9.59	ppb	99
83)	Benzo(b)Fluoranthene	22.20	252	182089	9.76	ppb	97

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

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN825.D Vial: 2
Acq On : 4 Feb 2002 4:11 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
c : 10 PPM STD 8270/625 Multiplr: 1.00
Integration Params: RTEINT.P
Quant Time: Feb 5 9:26 2002 Quant Results File: 82700204.RES

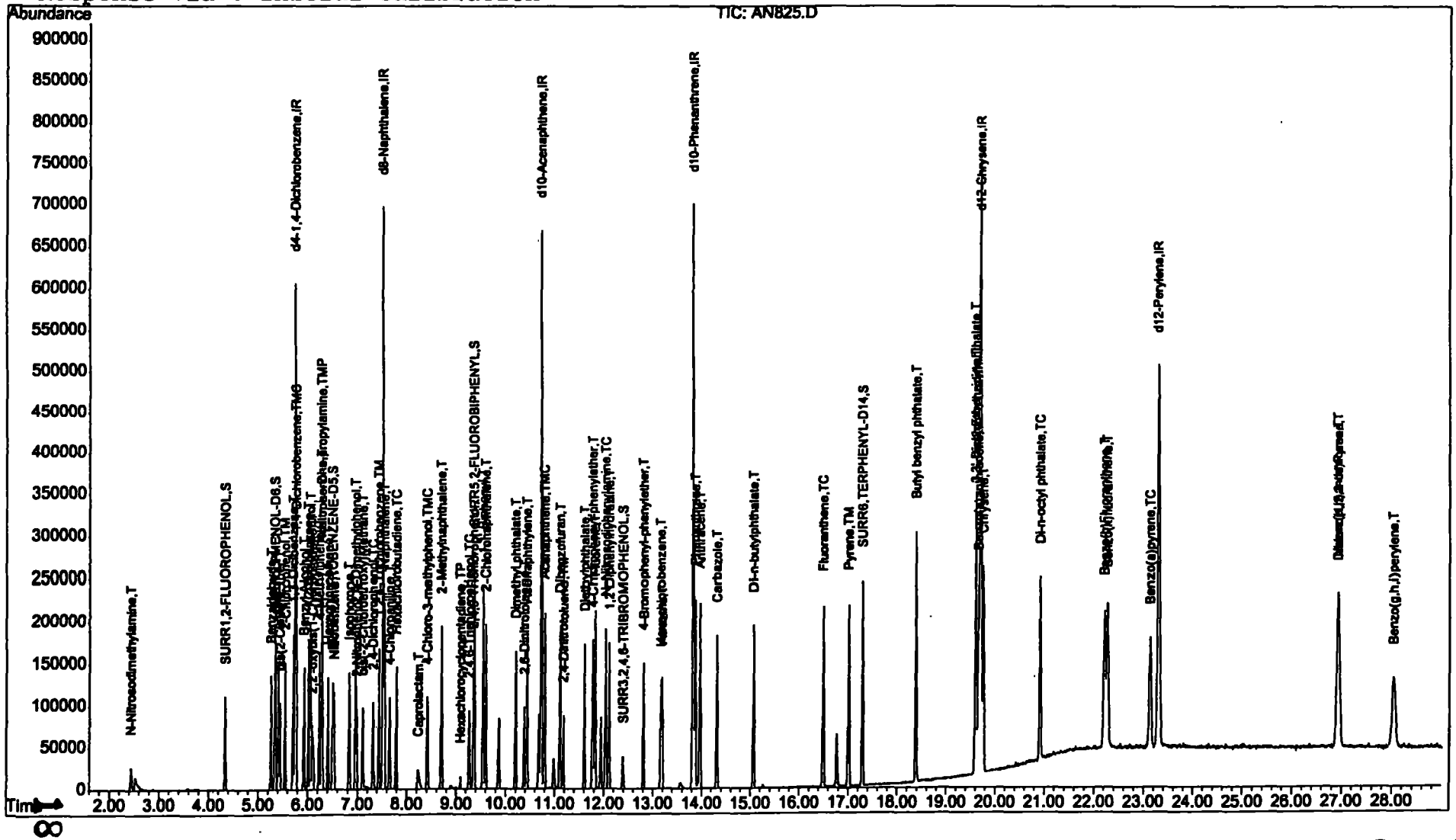
Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:25:34 2002
Response via : Initial Calibration
DataAcq Meth : 82700204

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
84)	Benzo(k)fluoranthene	22.26	252	177295	10.22 ppb	98
85)	Benzo(a)pyrene	23.12	252	156116	9.56 ppb	98
86)	Indeno(1,2,3-cd)Pyrene	26.93	276	200691	9.57 ppb	94
87)	Dibenz(a,h)anthracene	26.91	278	159703	9.44 ppb	97
88)	Benzo(g,h,i)perylene	28.04	276	165698	9.50 ppb	95

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

Data F. : J:\ACQUDATA\5973A\DATA\020402\AN825.. Vial: 2
Acq On : 4 Feb 2002 4:11 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 10 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:26 2002 Quant Results File: 82700204.RES

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN826.D Vial: 3
Acq On : 4 Feb 2002 4:49 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 50 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:27 2002 Quant Results File: 82700204.RES

Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:27:36 2002
Response via : Initial Calibration
DataAcq Meth : 82700204

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	5.74	152	119136	40.00	ppb	0.00
21) d8-Naphthalene	7.50	136	456001	40.00	ppb	0.00
37) d10-Acenaphthene	10.72	164	263143	40.00	ppb	0.00
59) d10-Phenanthrene	13.81	188	481058	40.00	ppb	0.00
72) d12-Chrysene	19.69	240	552379	40.00	ppb	0.00
81) d12-Perylene	23.28	264	522808	40.00	ppb	0.00
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	4.32	112	202913	51.69	ppb	0.00
Spiked Amount 200.000	Range 10 - 75		Recovery = 25.85%			
7) SURR2,PHENOL-D6	5.33	99	282677	52.60	ppb	0.00
Spiked Amount 200.000	Range 10 - 130		Recovery = 26.30%			
22) SURR4,NITROBENZENE-D5	6.48	82	325632	48.93	ppb	0.00
Spiked Amount 100.000	Range 30 - 116		Recovery = 48.93%			
41) SURR5,2-FLUOROBIPHENYL	9.35	172	593491	51.90	ppb	0.00
Spiked Amount 100.000	Range 38 - 107		Recovery = 51.90%			
58) SURR3,2,4,6-TRIBROMOPHENOL	12.37	330	79704	48.61	ppb	0.00
Spiked Amount 200.000	Range 10 - 135		Recovery = 24.31%			
75) SURR6,TERPHENYL-D14	17.29	244	789151	51.55	ppb	0.00
Spiked Amount 100.000	Range 15 - 135		Recovery = 51.55%			
Target Compounds						Qvalue
2) Pyridine	2.44	79	196978	51.87	ppb	96
3) N-Nitrosodimethylamine	2.42	74	120961	51.36	ppb	97
5) Benzaldehyde	5.25	106	125510	36.73	ppb	99
6) Aniline	5.39	93	303628	53.29	ppb	97
8) Phenol	5.35	94	302064	52.97	ppb	99
9) bis(2-Clethyl)Ether	5.44	93	240035	51.76	ppb	100
10) 2-Chlorophenol	5.53	128	234011	51.41	ppb	98
11) 1,3-Diclbenzene	5.70	146	255208	50.26	ppb	99
12) 1,4-Dichlorobenzene	5.76	146	265413	49.73	ppb	99
13) 1,2-Diclbenzene	6.00	146	253934	50.41	ppb	99
14) Benzyl Alcohol	5.92	79	240085	51.32	ppb	99
15) 2,2'-oxybis(1-Chloropropan	6.08	45	215524	59.75	ppb	100
16) 2-Methylphenol	6.05	108	227547	52.62	ppb	97
17) Acetophenone	6.26	105	346394	50.56	ppb	98
18) N-Nitroso-Di-n-propylamine	6.26	70	207665	51.66	ppb	97
19) Hexachloroethane	6.39	117	110401	50.25	ppb	91
20) 4-Methylphenol	6.22	108	237033	52.39	ppb	99
23) Nitrobenzene	6.51	77	303296	49.58	ppb	96
24) Isophorone	6.81	82	520817	50.58	ppb	97
25) 2-Nitrophenol	6.96	139	123926	51.37	ppb	96

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

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN826.D Vial: 3
Acq On : 4 Feb 2002 4:49 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 50 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:27 2002 Quant Results File: 82700204.RES

Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:27:36 2002
Response via : Initial Calibration
DataAcq Meth : 82700204

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
26)	Benzoic Acid	7.12	105	130396m	56.24 ppb	
27)	2,4-Dimethylphenol	6.94	107	267505	49.53 ppb	98
28)	bis(-2-Chloroethoxy)Methan	7.08	93	278989	52.61 ppb	99
29)	2,4-Dichlorophenol	7.30	162	192045	48.52 ppb	97
30)	1,2,4-Trichlorobenzene	7.42	180	214501	47.42 ppb	99
31)	Naphthalene	7.54	128	724507	50.42 ppb	99
32)	4-Chloroaniline	7.63	127	274514	51.30 ppb	100
33)	Hexachlorobutadiene	7.78	225	129009	44.43 ppb	97
34)	4-Chloro-3-methylphenol	8.40	107	226483	50.23 ppb	99
35)	Caprolactam	8.21	113	78242	62.25 ppb	96
36)	2-Methylnaphthalene	8.68	142	475062	50.37 ppb	99
38)	Hexachlorocyclopentadiene	9.07	237	83551	42.91 ppb	98
39)	2,4,6-Trichlorophenol	9.24	196	137414	48.80 ppb	98
40)	2,4,5-Trichlorophenol	9.34	196	147534	50.29 ppb	97
42)	1,1'-Biphenyl	9.53	154	618522	52.53 ppb	99
43)	2-Chloronaphthalene	9.59	162	457323	51.02 ppb	99
44)	2-Nitroaniline	9.85	65	166463	50.40 ppb	98
45)	Acenaphthylene	10.42	152	723582	53.01 ppb	98
46)	Dimethyl phthalate	10.19	163	514671	50.36 ppb	99
47)	2,6-Dinitrotoluene	10.36	165	116720	51.12 ppb	97
48)	Acenaphthene	10.78	153	474090	52.92 ppb	97
49)	3-Nitroaniline	10.67	138	128523	53.37 ppb	99
50)	2,4-Dinitrophenol	10.87	184	48020	54.55 ppb	92
51)	Dibenzofuran	11.10	168	680709	52.59 ppb	97
52)	2,4-Dinitrotoluene	11.16	165	159072	51.42 ppb	100
53)	4-Nitrophenol	10.97	65	114226	51.43 ppb	98
54)	Fluorene	11.81	166	560846	50.84 ppb	99
55)	4-Chlorophenyl-phenylether	11.77	204	268480	50.60 ppb	100
56)	Diethylphthalate	11.60	149	561284	52.79 ppb	100
57)	4-Nitroaniline	11.94	138	136762	53.08 ppb	96
60)	4,6-Dinitro-2-methylphenol	12.01	198	84076	44.28 ppb	94
61)	1,2 Diphenylhydrazine	12.10	77	680355	53.16 ppb	99
62)	N-Nitrosodiphenylamine	12.03	169	435577	52.93 ppb	99
63)	4-Bromophenyl-phenylether	12.80	248	158641	47.13 ppb	98
64)	Hexachlorobenzene	13.15	284	171159	46.46 ppb	98
65)	Atrazine	13.18	215	64115	45.89 ppb	97
66)	Pentachlorophenol	13.54	266	86642	41.53 ppb	97
67)	Phenanthrene	13.86	178	805460	49.55 ppb	99
68)	Anthracene	13.96	178	839287	50.07 ppb	99
69)	Carbazole	14.30	167	764188	52.24 ppb	99
70)	Di-n-butylphthalate	15.06	149	963533	53.62 ppb	100

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

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN826.D Vial: 3
Acq On : 4 Feb 2002 4:49 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
c : 50 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:27 2002 Quant Results File: 82700204.RES

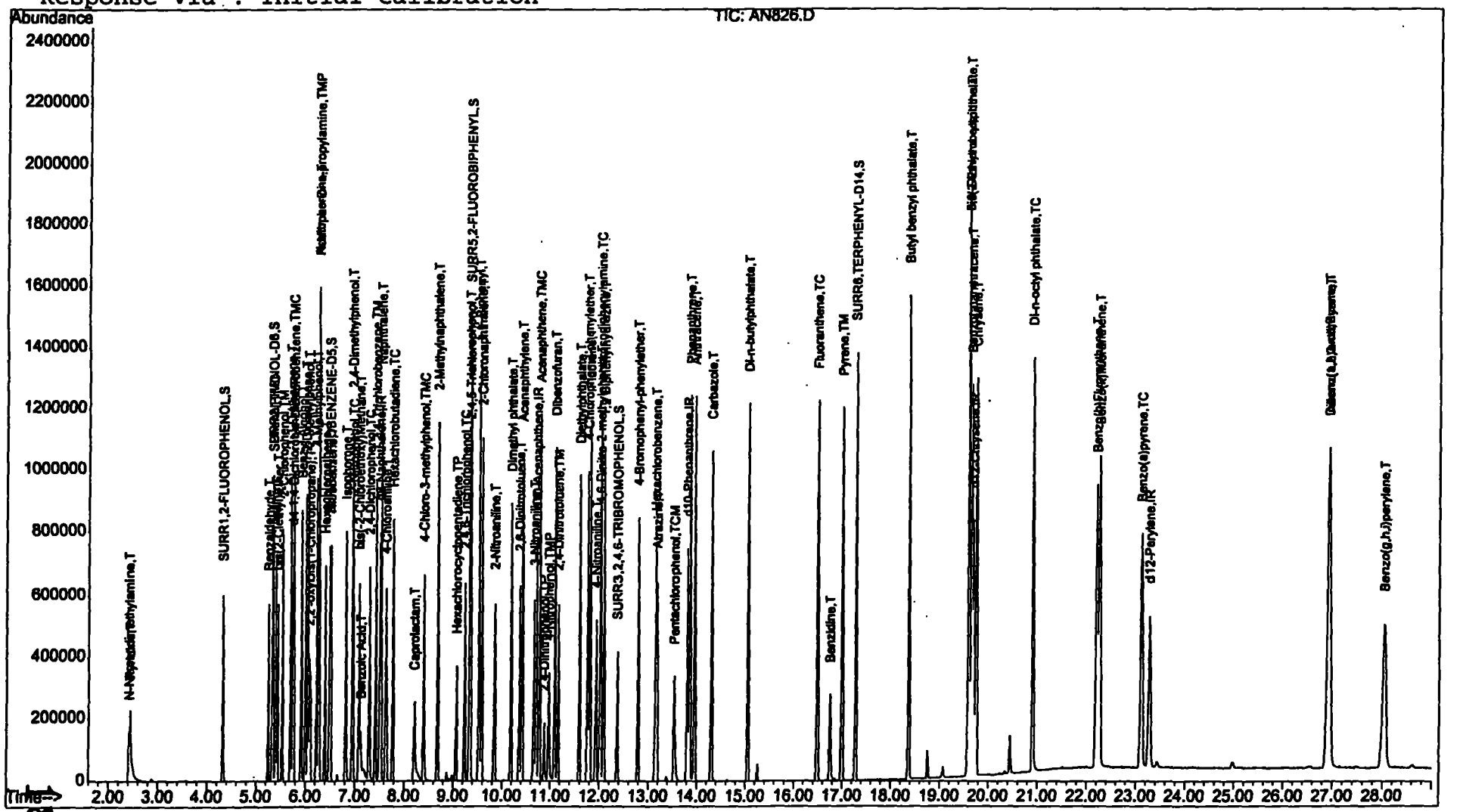
Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:27:36 2002
Response via : Initial Calibration
DataAcq Meth : 82700204

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
71)	Fluoranthene	16.49	202	917401	50.10 ppb	100
73)	Benzidine	16.76	184	223611	47.55 ppb	97
74)	Pyrene	17.00	202	952575	54.40 ppb	99
76)	Butyl benzyl phthalate	18.37	149	451935	56.47 ppb	100
77)	3,3'-Dichlorobenzidine	19.59	252	301145	52.15 ppb	99
78)	Benzo(a)anthracene	19.65	228	967107	51.39 ppb	100
79)	Chrysene	19.75	228	928390	51.11 ppb	99
80)	bis(2-Ethylhexyl)phthalate	19.60	149	668843	57.85 ppb	98
82)	Di-n-octyl phthalate	20.91	149	1127071	57.20 ppb	99
83)	Benzo(b)Fluoranthene	22.21	252	944718	49.44 ppb	99
84)	Benzo(k)fluoranthene	22.26	252	971860	54.46 ppb	99
85)	Benzo(a)pyrene	23.12	252	849957	51.03 ppb	99
86)	Indeno(1,2,3-cd)Pyrene	26.94	276	1081447	50.31 ppb	95
87)	Dibenz(a,h)anthracene	26.93	278	874918	50.62 ppb	99
88)	Benzo(g,h,i)perylene	28.04	276	887422	49.67 ppb	98

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

Data File : J:\ACQUDATA\5973A\DATA\020402\AN826.D Vial: 3
Acq On : 4 Feb 2002 4:49 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 50 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:27 2002 Quant Results File: 82700204.RES

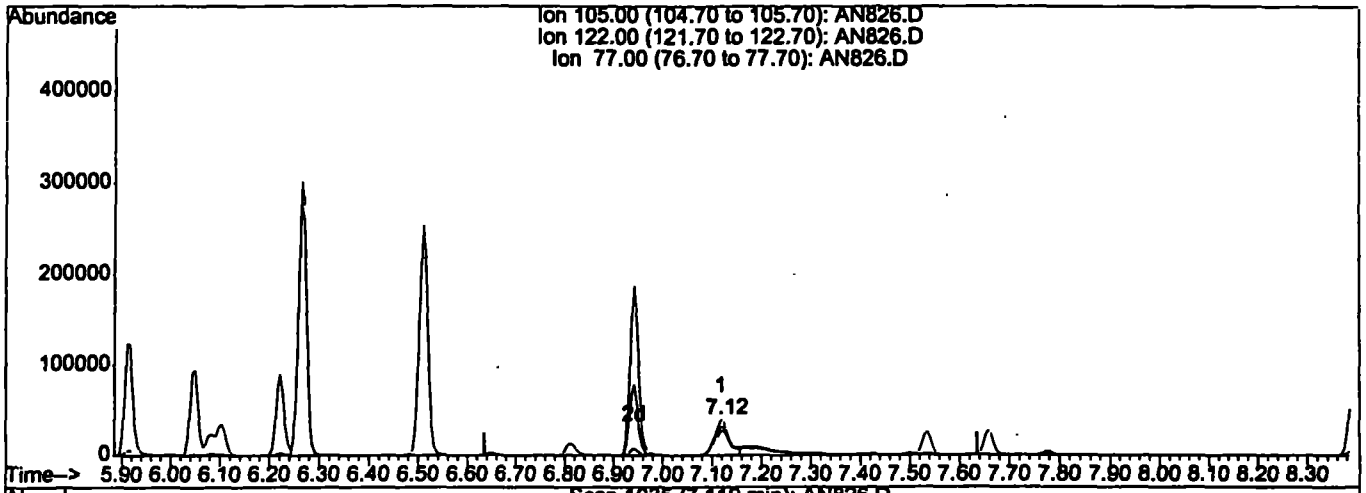
Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Initial Calibration

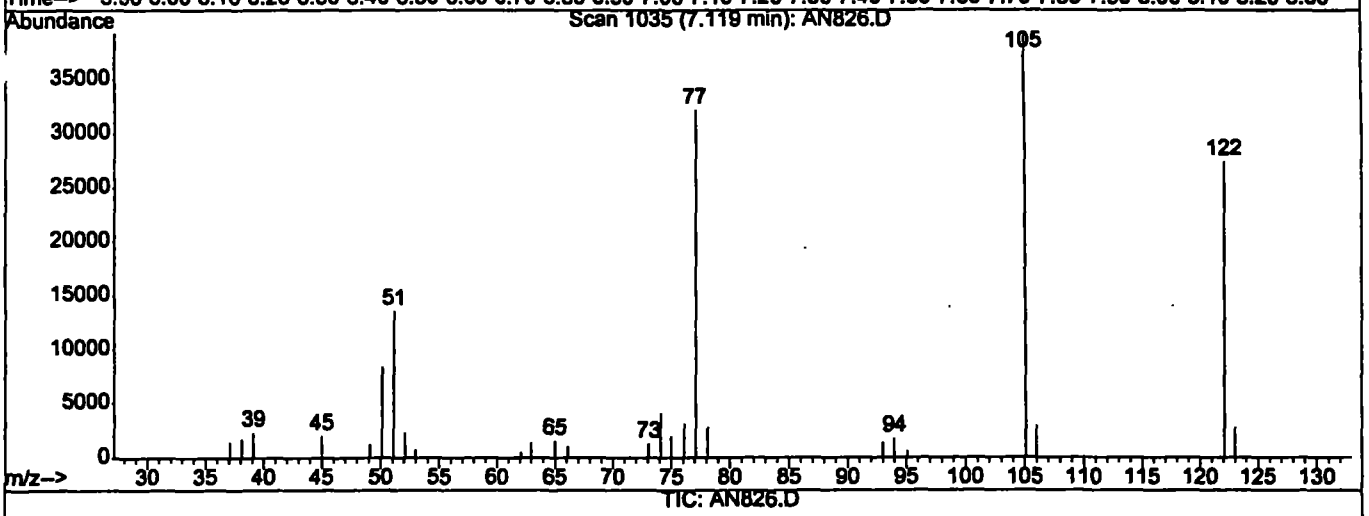


Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN826.D Vial: 3
Acq On : 4 Feb 2002 4:49 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 50 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:27 2002 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:27:36 2002
Response via : Multiple Level Calibration





(26) Benzoic Acid (T)

7.12min 45.96ppb

response 81913

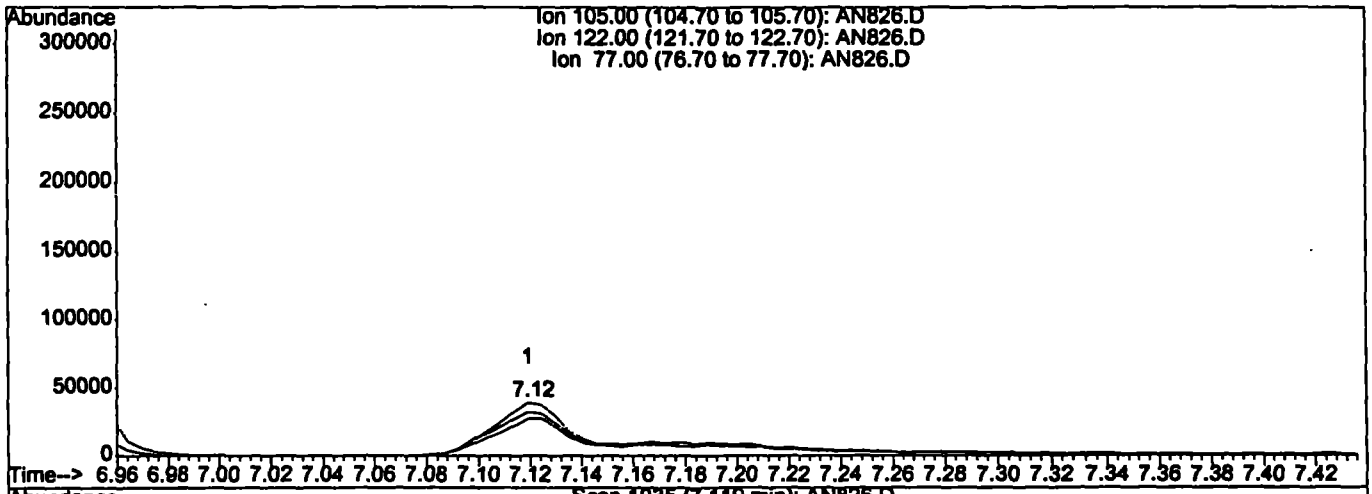
Ion	Exp%	Act%
105.00	100	100
122.00	71.90	69.64
77.00	86.30	81.78
0.00	0.00	0.00

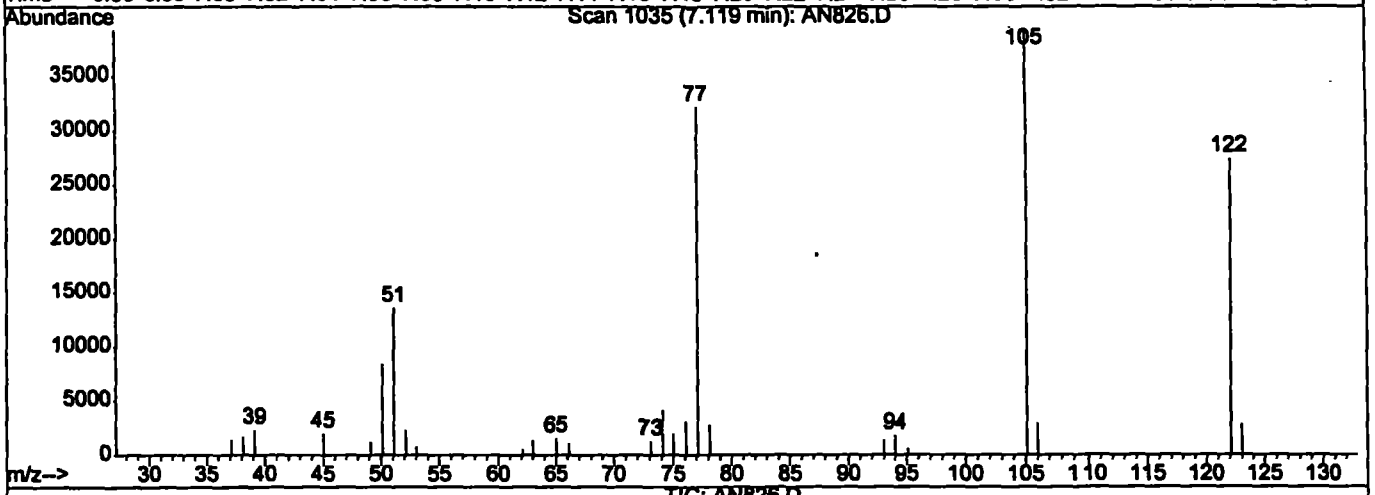
ZM

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN826.D Vial: 3
Acq On : 4 Feb 2002 4:49 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 50 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:27 2002 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:27:36 2002
Response via : Multiple Level Calibration





TIC: AN826.D

(26) Benzoic Acid (T)

7.12min 56.24ppb m

response 130396

Ion	Exp%	Act%
105.00	100	100
122.00	71.90	69.64
77.00	86.30	81.78
0.00	0.00	0.00

AN826.D 82700204.M Tue Feb 05 09:28:31 2002 MSA

ZM 2/6/02

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN827.D Vial: 4
Acq On : 4 Feb 2002 5:28 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 80 PPM STD 8270/625 Multiplr: 1.00
Integration Params: RTEINT.P
Quant Time: Feb 5 9:24 2002 Quant Results File: 82700204.RES

Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:24:11 2002
Response via : Initial Calibration
DataAcq Meth : 82700204

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	5.74	152	132245	40.00	ppb	0.00
21) d8-Naphthalene	7.50	136	500001	40.00	ppb	0.00
37) d10-Acenaphthene	10.72	164	291276	40.00	ppb	0.00
59) d10-Phenanthrene	13.81	188	530533	40.00	ppb	0.00
72) d12-Chrysene	19.69	240	591162	40.00	ppb	0.00
81) d12-Perylene	23.27	264	553620	40.00	ppb	0.00
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	4.32	112	351362	80.79	ppb	0.00
Spiked Amount 200.000	Range 10 - 75		Recovery = 40.40%			
7) SURR2,PHENOL-D6	5.33	99	504872	86.20	ppb	0.00
Spiked Amount 200.000	Range 10 - 130		Recovery = 43.10%			
22) SURR4,NITROBENZENE-D5	6.48	82	571132	77.72	ppb	0.00
Spiked Amount 100.000	Range 30 - 116		Recovery = 77.72%			
41) SURR5,2-FLUOROBIPHENYL	9.35	172	1037485	82.39	ppb	0.00
Spiked Amount 100.000	Range 38 - 107		Recovery = 82.39%			
58) SURR3,2,4,6-TRIBROMOPHENOL	12.37	330	142398	78.96	ppb	0.00
Spiked Amount 200.000	Range 10 - 135		Recovery = 39.48%			
75) SURR6,TERPHENYL-D14	17.28	244	1374601	83.76	ppb	0.00
Spiked Amount 100.000	Range 15 - 135		Recovery = 83.76%			

Target Compounds						Qvalue
2) Pyridine	2.43	79	354835	84.17	ppb	100
3) N-Nitrosodimethylamine	2.42	74	212355	82.16	ppb	100
5) Benzaldehyde	5.25	106	190920	50.96	ppb	100
6) Aniline	5.39	93	504718	85.24	ppb	100
8) Phenol	5.34	94	534971	85.42	ppb	100
9) bis(2-Clethyl)Ether	5.43	93	415222	82.28	ppb	100
10) 2-Chlorophenol	5.53	128	408649	81.57	ppb	100
11) 1,3-Diclbenzene	5.70	146	439753	77.34	ppb	100
12) 1,4-Dichlorobenzene	5.76	146	456415	76.33	ppb	100
13) 1,2-Diclbenzene	6.00	146	434217	76.96	ppb	100
14) Benzyl Alcohol	5.91	79	424489	81.63	ppb	100
15) 2,2'-oxybis(1-Chloropropan	6.08	45	369515	95.86	ppb	100
16) 2-Methylphenol	6.05	108	385428	80.81	ppb	100
17) Acetophenone	6.27	105	593321	77.23	ppb	100
18) N-Nitroso-Di-n-propylamine	6.27	70	359071	80.72	ppb	100
19) Hexachloroethane	6.39	117	186652	75.38	ppb	100
20) 4-Methylphenol	6.22	108	419295	84.34	ppb	100
23) Nitrobenzene	6.51	77	521765	76.72	ppb	100
24) Isophorone	6.81	82	925569	81.75	ppb	100
25) 2-Nitrophenol	6.95	139	220624	83.69	ppb	100

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

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN827.D Vial: 4
Acq On : 4 Feb 2002 5:28 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
sc : 80 PPM STD 8270/625 Multiplr: 1.00
Integration Params: RTEINT.P
Quant Time: Feb 5 9:24 2002 Quant Results File: 82700204.RES

Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:24:11 2002
Response via : Initial Calibration
DataAcq Meth : 82700204

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26)	Benzoic Acid	7.14	105	276184m	85.78	ppb	
27)	2,4-Dimethylphenol	6.94	107	466596	78.20	ppb	100
28)	bis(-2-Chloroethoxy)Methan	7.08	93	485025	83.83	ppb	100
29)	2,4-Dichlorophenol	7.29	162	341610	78.51	ppb	100
30)	1,2,4-Trichlorobenzene	7.42	180	367781	72.52	ppb	100
31)	Naphthalene	7.53	128	1238365	78.50	ppb	100
32)	4-Chloroaniline	7.63	127	461309	78.87	ppb	100
33)	Hexachlorobutadiene	7.77	225	224263	67.80	ppb	100
34)	4-Chloro-3-methylphenol	8.39	107	406726	81.81	ppb	100
35)	Caprolactam	8.23	113	124310	90.95	ppb	100
36)	2-Methylnaphthalene	8.67	142	836232	80.54	ppb	100
38)	Hexachlorocyclopentadiene	9.06	237	171469	67.95	ppb	100
39)	2,4,6-Trichlorophenol	9.24	196	250795	80.74	ppb	100
40)	2,4,5-Trichlorophenol	9.33	196	265186	80.54	ppb	100
42)	1,1'-Biphenyl	9.53	154	1078922	83.50	ppb	100
43)	2-Chloronaphthalene	9.59	162	793820	80.03	ppb	100
44)	2-Nitroaniline	9.85	65	301286	82.41	ppb	100
45)	Acenaphthylene	10.42	152	1275406	84.89	ppb	100
46)	Dimethyl phthalate	10.19	163	904438	79.99	ppb	100
47)	2,6-Dinitrotoluene	10.36	165	212956	84.65	ppb	100
48)	Acenaphthene	10.78	153	825571	84.18	ppb	100
49)	3-Nitroaniline	10.67	138	233523	87.60	ppb	100
50)	2,4-Dinitrophenol	10.88	184	109677	83.39	ppb	100
51)	Dibenzofuran	11.09	168	1188881	83.58	ppb	100
52)	2,4-Dinitrotoluene	11.16	165	287696	85.20	ppb	100
53)	4-Nitrophenol	10.97	65	214788	87.37	ppb	100
54)	Fluorene	11.81	166	980782	80.66	ppb	100
55)	4-Chlorophenyl-phenylether	11.76	204	474034	80.39	ppb	100
56)	Diethylphthalate	11.60	149	980936	84.10	ppb	100
57)	4-Nitroaniline	11.94	138	248886	87.28	ppb	100
60)	4,6-Dinitro-2-methylphenol	12.01	198	168984	80.71	ppb	100
61)	1,2 Diphenylhydrazine	12.10	77	1171600	83.21	ppb	100
62)	N-Nitrosodiphenylamine	12.03	169	754639	83.57	ppb	100
63)	4-Bromophenyl-phenylether	12.79	248	278342	73.41	ppb	100
64)	Hexachlorobenzene	13.15	284	303113	72.36	ppb	100
65)	Atrazine	13.18	215	101015	64.11	ppb	100
66)	Pentachlorophenol	13.53	266	172322	74.89	ppb	100
67)	Phenanthrene	13.86	178	1414995	78.88	ppb	100
68)	Anthracene	13.96	178	1471920	78.91	ppb	100
69)	Carbazole	14.31	167	1337674	83.27	ppb	100
70)	Di-n-butylphthalate	15.05	149	1674679	84.94	ppb	100

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

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN827.D Vial: 4
Acq On : 4 Feb 2002 5:28 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
sc : 80 PPM STD 8270/625 Multiplr: 1.00
Integration Params: RTEINT.P
Quant Time: Feb 5 9:24 2002 Quant Results File: 82700204.RES

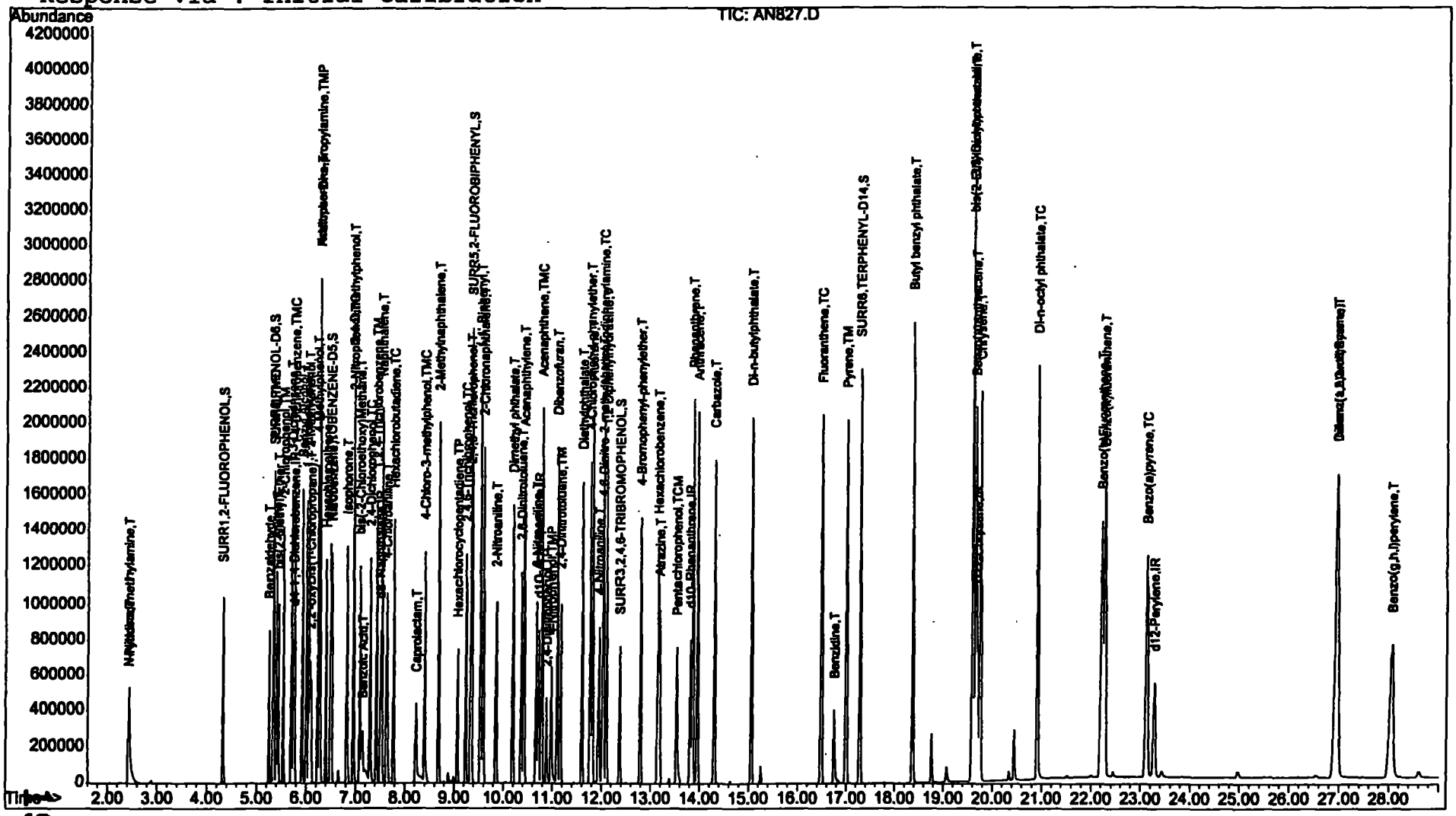
Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:24:11 2002
Response via : Initial Calibration
DataAcq Meth : 82700204

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
71)	Fluoranthene	16.49	202	1600111	78.78 ppb	100
73)	Benzidine	16.75	184	335751	91.13 ppb	100
74)	Pyrene	17.00	202	1666263	90.22 ppb	100
76)	Butyl benzyl phthalate	18.37	149	788094	94.28 ppb	100
77)	3,3'-Dichlorobenzidine	19.58	252	509257	81.37 ppb	100
78)	Benzo(a)anthracene	19.65	228	1659550	82.39 ppb	100
79)	Chrysene	19.75	228	1582154	81.72 ppb	100
80)	bis(2-Ethylhexyl)phthalate	19.60	149	1148732	94.80 ppb	100
82)	Di-n-octyl phthalate	20.91	149	1946644	94.60 ppb	100
83)	Benzo(b)Fluoranthene	22.21	252	1585700	78.06 ppb	100
84)	Benzo(k)fluoranthene	22.27	252	1569748	83.11 ppb	100
85)	Benzo(a)pyrene	23.12	252	1450562	81.61 ppb	100
86)	Indeno(1,2,3-cd)Pyrene	26.95	276	1834832	80.36 ppb	100
87)	Dibenz(a,h)anthracene	26.94	278	1486304	80.69 ppb	100
88)	Benzo(g,h,i)perylene	28.06	276	1502861	79.10 ppb	100

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

Data File : J:\ACQUDATA\5973A\DATA\020402\AN827.D Vial: 4
Acq On : 4 Feb 2002 5:28 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 80 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:24 2002 Quant Results File: 82700204.RES

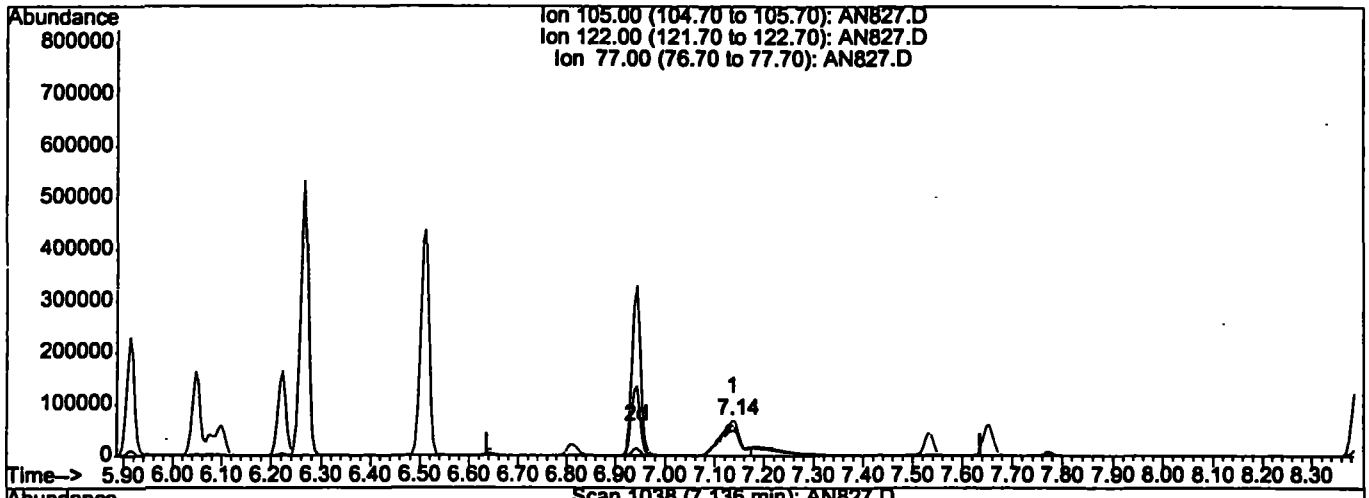
Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Initial Calibration

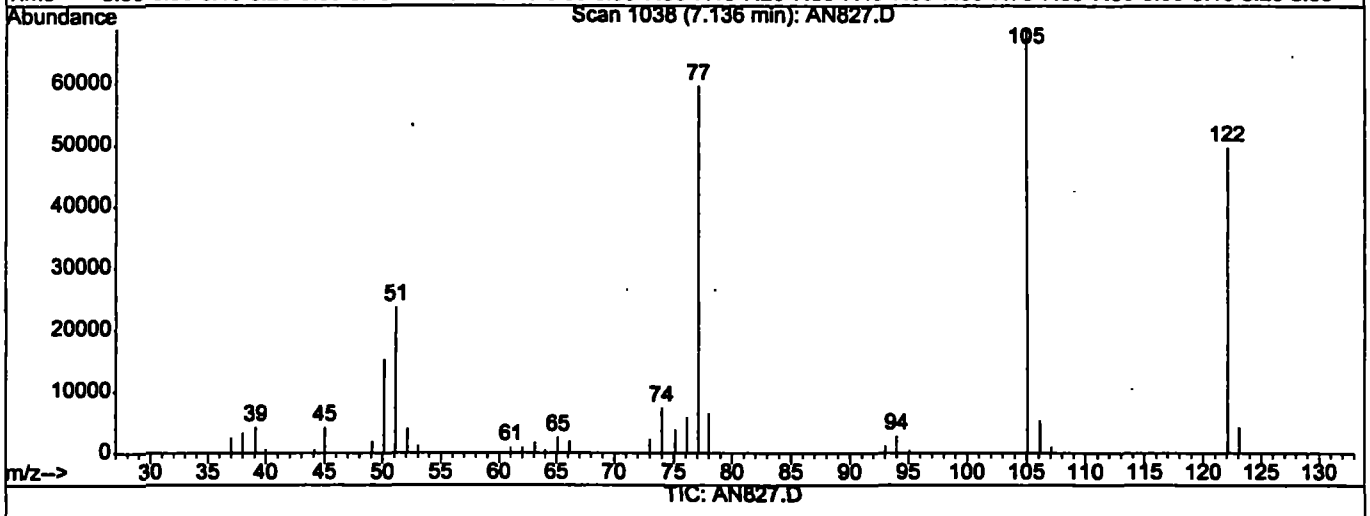


Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN827.D Vial: 4
Acq On : 4 Feb 2002 5:28 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 80 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:24 2002 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:24:11 2002
Response via : Multiple Level Calibration





(26) Benzoic Acid (T)

7.14min 71.51ppb

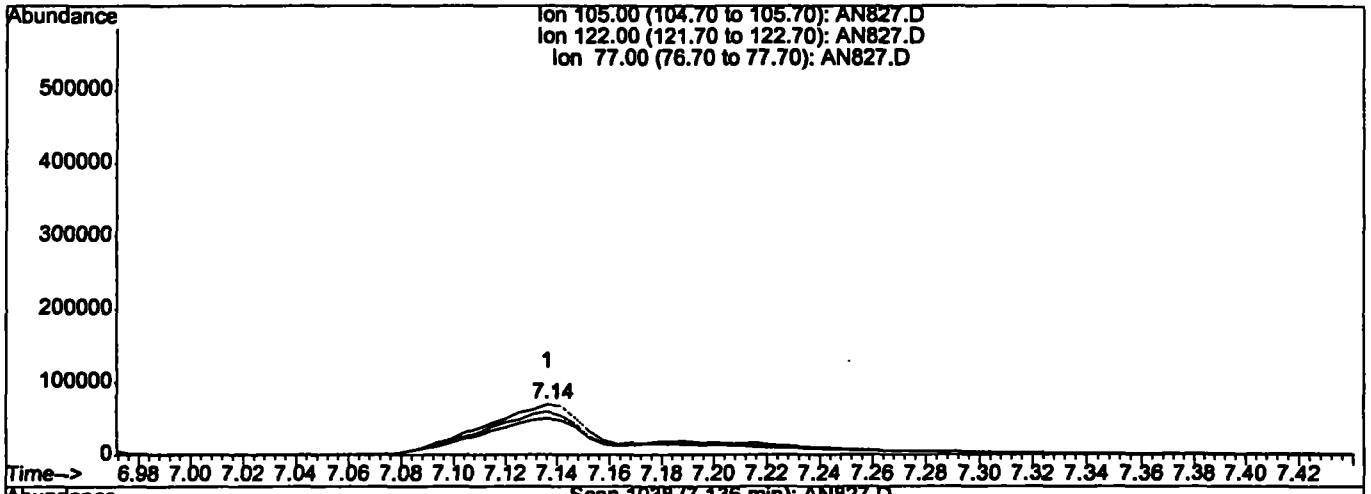
response 198864

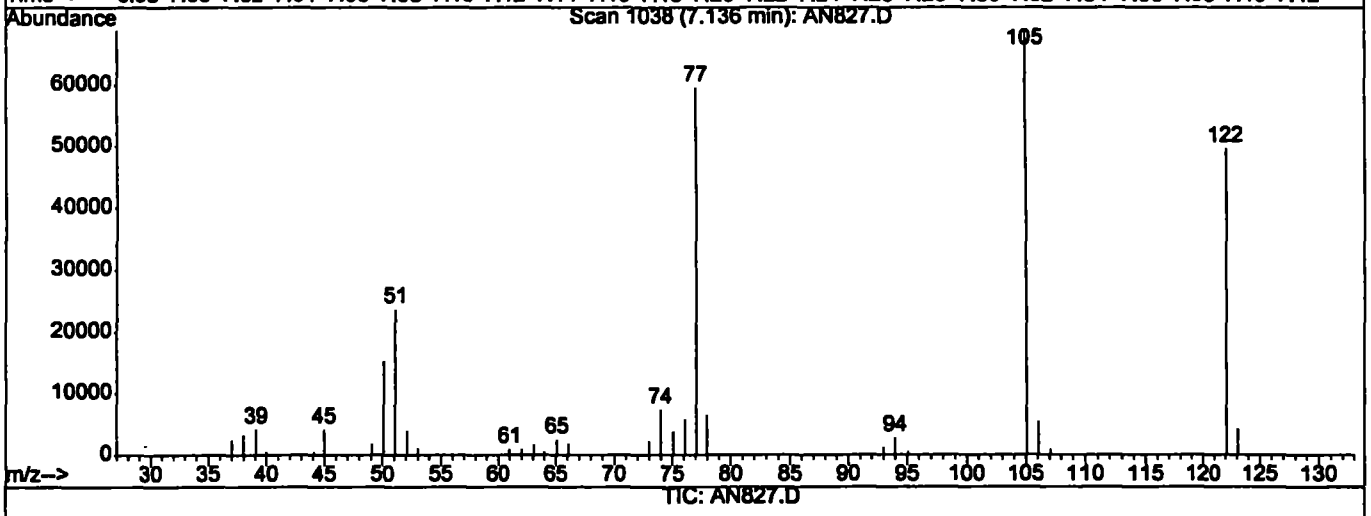
Ion	Exp%	Act%
105.00	100	100
122.00	71.90	71.89
77.00	86.30	86.34
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN827.D Vial: 4
Acq On : 4 Feb 2002 5:28 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 80 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:24 2002 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:24:11 2002
Response via : Multiple Level Calibration





(26) Benzoic Acid (T)

7.14min 85.78ppb m

response 276184

Ion	Exp%	Act%
105.00	100	100
122.00	71.90	71.89
77.00	86.30	86.34
0.00	0.00	0.00

JM 2/7

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN828.D Vial: 5
Acq On : 4 Feb 2002 6:06 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
sc : 100 PPM STD 8270/625 Multiplr: 1.00
... Integration Params: RTEINT.P
Quant Time: Feb 5 9:29 2002 Quant Results File: 82700204.RES

Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:29:00 2002
Response via : Initial Calibration
DataAcq Meth : 82700204

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	5.74	152	141771	40.00	ppb	0.00
21) d8-Naphthalene	7.50	136	557624	40.00	ppb	0.00
37) d10-Acenaphthene	10.72	164	326227	40.00	ppb	0.00
59) d10-Phenanthrene	13.82	188	598408	40.00	ppb	0.01
72) d12-Chrysene	19.70	240	665443	40.00	ppb	0.01
81) d12-Perylene	23.29	264	631984	40.00	ppb	0.02
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	4.32	112	480138	101.96	ppb	0.00
Spiked Amount 200.000	Range 10 - 75		Recovery = 50.98%			
7) SURR2,PHENOL-D6	5.34	99	689849	106.26	ppb	0.00
Spiked Amount 200.000	Range 10 - 130		Recovery = 53.13%			
22) SURR4,NITROBENZENE-D5	6.49	82	772232	95.78	ppb	0.00
Spiked Amount 100.000	Range 30 - 116		Recovery = 95.78%			
41) SURR5,2-FLUOROBIPHENYL	9.36	172	1407654	98.65	ppb	0.01
Spiked Amount 100.000	Range 38 - 107		Recovery = 98.65%			
58) SURR3,2,4,6-TRIBROMOPHENOL	12.38	330	199633	99.13	ppb	0.01
Spiked Amount 200.000	Range 10 - 135		Recovery = 49.56%			
75) SURR6,TERPHENYL-D14	17.29	244	1894758	102.32	ppb	0.01
Spiked Amount 100.000	Range 15 - 135		Recovery = 102.32%			
Target Compounds						Qvalue
2) Pyridine	2.43	79	492400	105.20	ppb	99
3) N-Nitrosodimethylamine	2.42	74	288216	102.07	ppb	98
5) Benzaldehyde	5.25	106	259157	62.13	ppb	97
6) Aniline	5.40	93	644005	93.81	ppb	79
8) Phenol	5.35	94	727694	105.64	ppb	96
9) bis(2-Clethyl)Ether	5.44	93	574755	108.02	ppb	97
10) 2-Chlorophenol	5.54	128	561962	102.82	ppb	97
11) 1,3-Diclbenzene	5.70	146	592478	98.06	ppb	99
12) 1,4-Dichlorobenzene	5.76	146	613927	97.03	ppb	98
13) 1,2-Diclbenzene	6.00	146	582051	97.12	ppb	99
14) Benzyl Alcohol	5.92	79	582298	104.35	ppb	99
15) 2,2'-oxybis(1-Chloropropan	6.08	45	503692	112.07	ppb	99
16) 2-Methylphenol	6.05	108	540969	103.95	ppb	97
17) Acetophenone	6.27	105	805479	98.84	ppb	100
18) N-Nitroso-Di-n-propylamine	6.28	70	482870	100.26	ppb	96
19) Hexachloroethane	6.40	117	251634	96.66	ppb	99
20) 4-Methylphenol	6.23	108	569366	104.45	ppb	99
23) Nitrobenzene	6.52	77	702409	94.70	ppb	98
24) Isophorone	6.82	82	1261371	100.16	ppb	100
25) 2-Nitrophenol	6.96	139	302991	102.00	ppb	97

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

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN828.D Vial: 5
Acq On : 4 Feb 2002 6:06 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
sc : 100 PPM STD 8270/625 Multiplr: 1.00
Integration Params: RTEINT.P
Quant Time: Feb 5 9:29 2002 Quant Results File: 82700204.RES

Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:29:00 2002
Response via : Initial Calibration
DataAcq Meth : 82700204

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26)	Benzoic Acid	7.16	105	424044m	100.91	ppb	
27)	2,4-Dimethylphenol	6.95	107	627363 7M	95.46	ppb	100
28)	bis(-2-Chloroethoxy)Methan	7.08	93	668043	101.92	ppb	99
29)	2,4-Dichlorophenol	7.30	162	470063	97.98	ppb	99
30)	1,2,4-Trichlorobenzene	7.43	180	504835	92.95	ppb	100
31)	Naphthalene	7.54	128	1688029	96.22	ppb	100
32)	4-Chloroaniline	7.63	127	611966	93.99	ppb	98
33)	Hexachlorobutadiene	7.78	225	304480	89.15	ppb	96
34)	4-Chloro-3-methylphenol	8.40	107	575220	103.98	ppb	98
35)	Caprolactam	8.24	113	175278	111.93	ppb	97
36)	2-Methylnaphthalene	8.68	142	1145012	99.32	ppb	99
38)	Hexachlorocyclopentadiene	9.07	237	243554	83.75	ppb	97
39)	2,4,6-Trichlorophenol	9.24	196	347983	100.28	ppb	98
40)	2,4,5-Trichlorophenol	9.34	196	373365	103.60	ppb	97
42)	1,1'-Biphenyl	9.54	154	1472625	99.91	ppb	100
43)	2-Chloronaphthalene	9.59	162	1076908	96.79	ppb	98
44)	2-Nitroaniline	9.86	65	415750	100.66	ppb	97
45)	Acenaphthylene	10.43	152	1715652	100.36	ppb	99
46)	Dimethyl phthalate	10.20	163	1252263	98.90	ppb	100
47)	2,6-Dinitrotoluene	10.37	165	295707	103.81	ppb	94
48)	Acenaphthene	10.79	153	1121443	99.64	ppb	99
49)	3-Nitroaniline	10.68	138	320242	105.21	ppb	96
50)	2,4-Dinitrophenol	10.89	184	165052	101.58	ppb	99
51)	Dibenzofuran	11.10	168	1605126	99.34	ppb	100
52)	2,4-Dinitrotoluene	11.17	165	394944	102.36	ppb	99
53)	4-Nitrophenol	10.99	65	301304	105.24	ppb	97
54)	Fluorene	11.82	166	1333126	97.41	ppb	99
55)	4-Chlorophenyl-phenylether	11.77	204	646170	98.49	ppb	99
56)	Diethylphthalate	11.61	149	1338450	100.83	ppb	98
57)	4-Nitroaniline	11.96	138	341209	104.99	ppb	99
60)	4,6-Dinitro-2-methylphenol	12.03	198	240226	100.15	ppb	90
61)	1,2 Diphenylhydrazine	12.11	77	1578174	98.42	ppb	99
62)	N-Nitrosodiphenylamine	12.05	169	1035621	100.21	ppb	99
63)	4-Bromophenyl-phenylether	12.80	248	384216	93.63	ppb	99
64)	Hexachlorobenzene	13.16	284	416644	93.24	ppb	99
65)	Atrazine	13.19	215	134354	80.50	ppb	96
66)	Pentachlorophenol	13.54	266	245213	94.59	ppb	98
67)	Phenanthrene	13.87	178	1937782	96.37	ppb	100
68)	Anthracene	13.97	178	2002348	96.49	ppb	100
69)	Carbazole	14.32	167	1820802	99.34	ppb	99
70)	Di-n-butylphthalate	15.06	149	2300509	102.06	ppb	100

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

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN828.D Vial: 5
Acq On : 4 Feb 2002 6:06 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 100 PPM STD 8270/625 Multiplr: 1.00
Integration Params: RTEINT.P
Quant Time: Feb 5 9:29 2002 Quant Results File: 82700204.RES

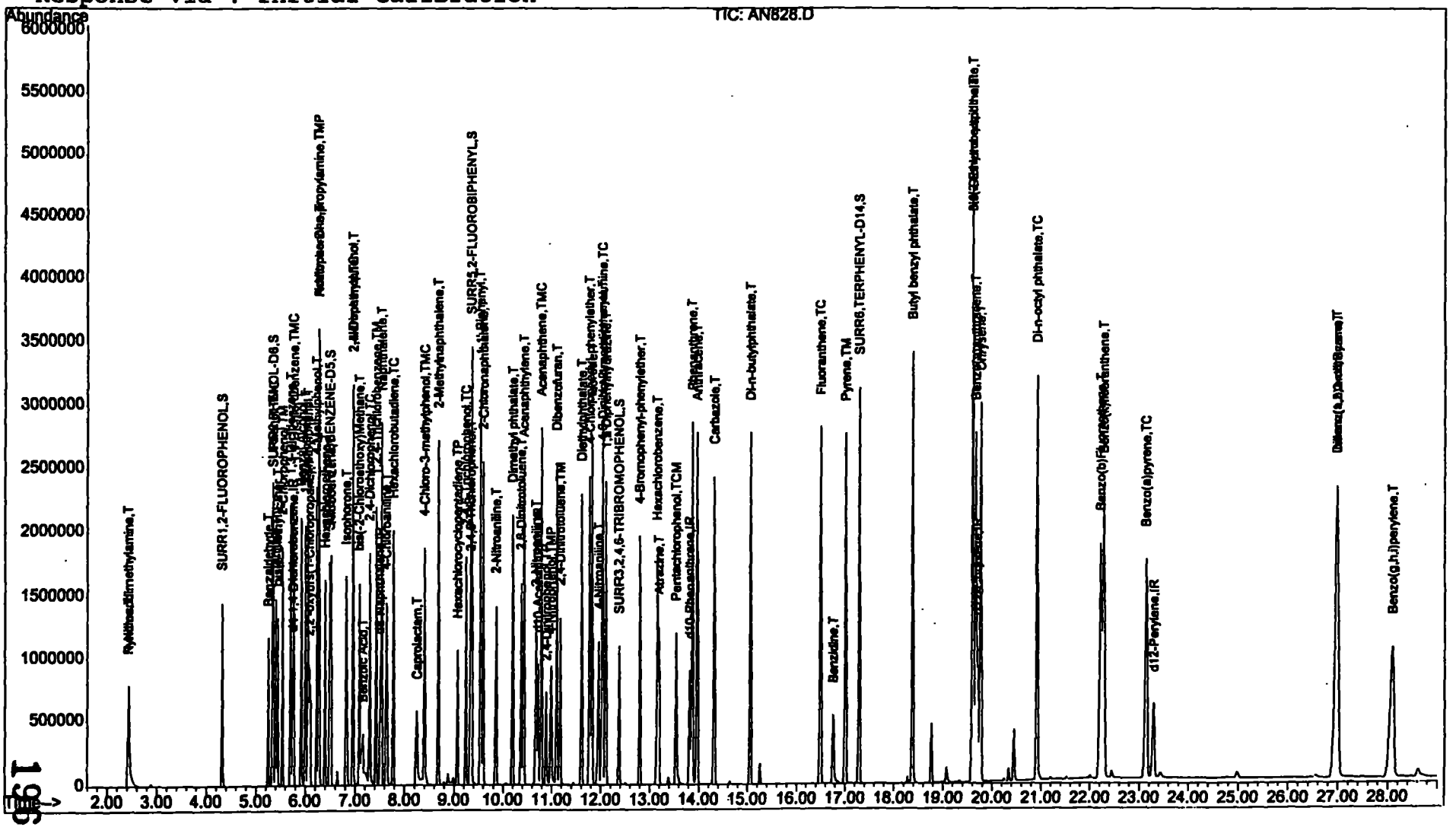
Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:29:00 2002
Response via : Initial Calibration
DataAcq Meth : 82700204

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
71)	Fluoranthene	16.50	202	2216866	98.10 ppb	99
73)	Benzidine	16.76	184	434872	113.46 ppb	99
74)	Pyrene	17.01	202	2290861	106.61 ppb	100
76)	Butyl benzyl phthalate	18.38	149	1098772	110.92 ppb	99
77)	3,3'-Dichlorobenzidine	19.60	252	712997	102.80 ppb	98
78)	Benzo(a)anthracene	19.66	228	2286379	100.79 ppb	99
79)	Chrysene	19.76	228	2176927	99.59 ppb	99
80)	bis(2-Ethylhexyl)phthalate	19.60	149	1589862	110.72 ppb	99
82)	Di-n-octyl phthalate	20.92	149	2729007	111.17 ppb	100
83)	Benzo(b)Fluoranthene	22.23	252	2278719	99.09 ppb	98
84)	Benzo(k)fluoranthene	22.29	252	2123480	97.86 ppb	99
85)	Benzo(a)pyrene	23.14	252	2035002	101.15 ppb	99
86)	Indeno(1,2,3-cd)Pyrene	26.99	276	2633948	101.26 ppb	100
87)	Dibenz(a,h)anthracene	26.98	278	2130970	101.78 ppb	99
88)	Benzo(g,h,i)perylene	28.10	276	2185936	101.25 ppb	99

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

Data Fi. : J:\ACQUDATA\5973A\DATA\020402\AN828.D Vial: 5
Acq On : 4 Feb 2002 6:06 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 100 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:29 2002 Quant Results File: 82700204.RES

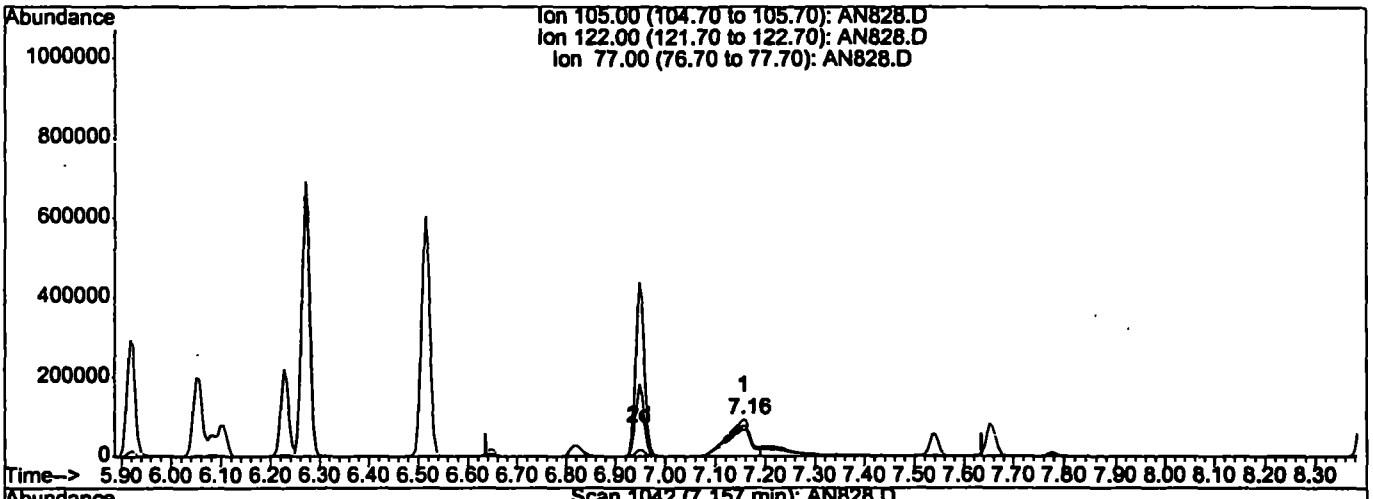
Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Initial Calibration

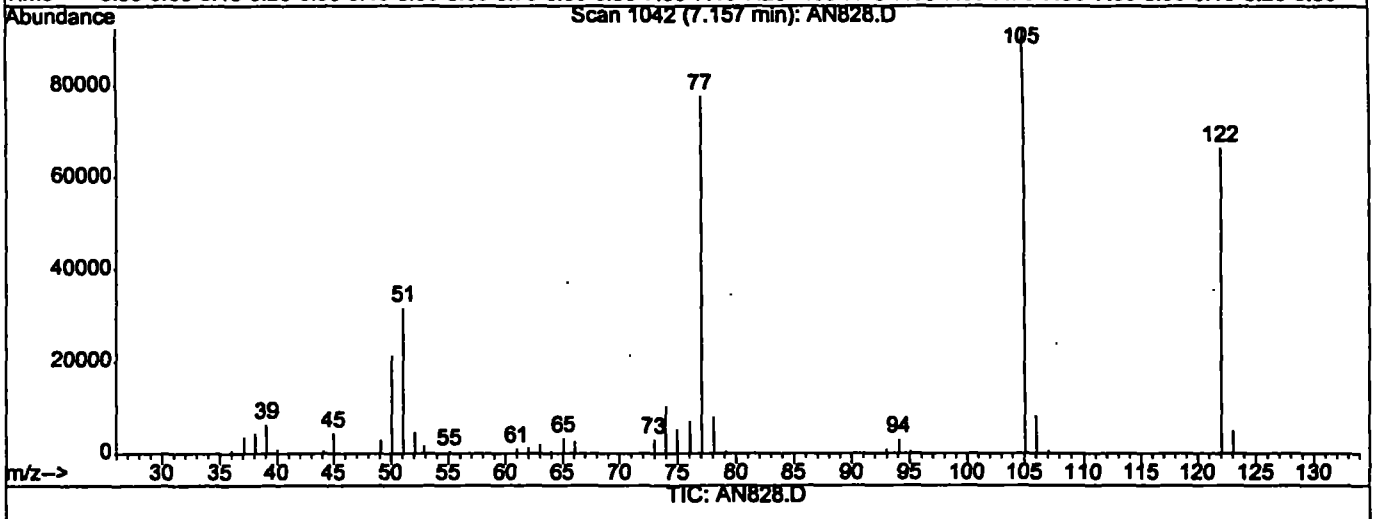


Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN828.D Vial: 5
Acq On : 4 Feb 2002 6:06 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 100 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:28 2002 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:29:00 2002
Response via : Multiple Level Calibration





(26) Benzoic Acid (T)

7.16min 80.79ppb

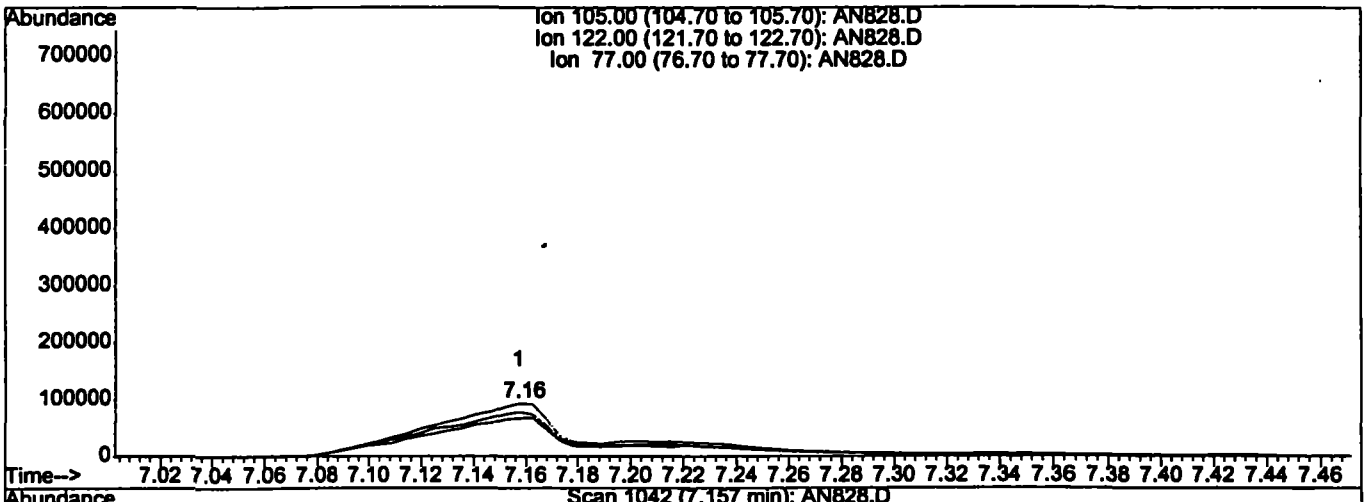
response 313272

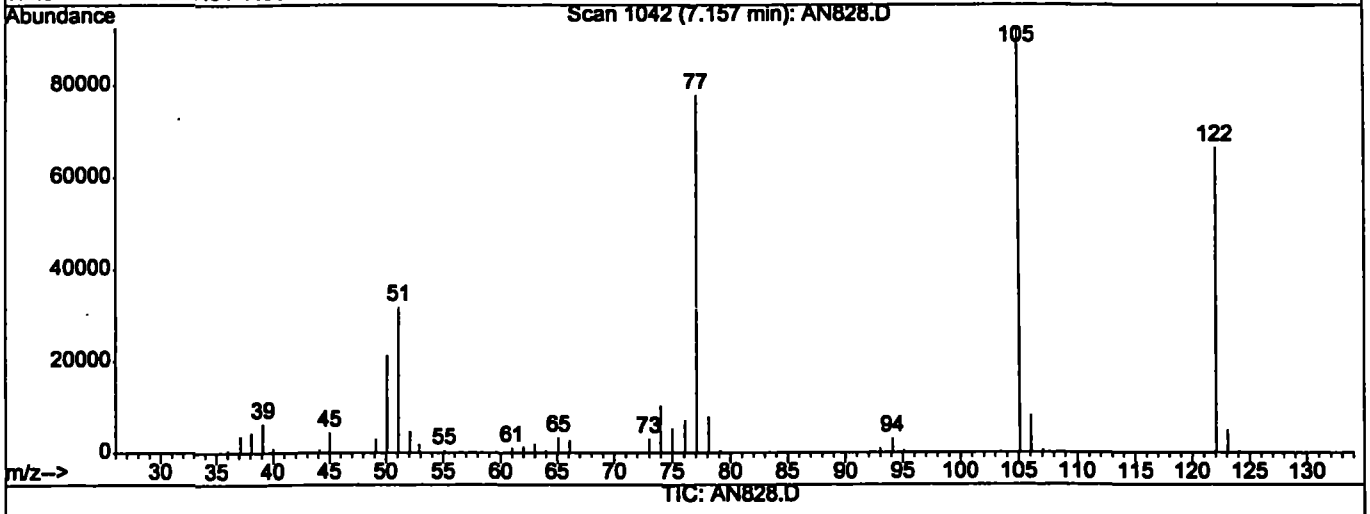
Ion	Exp%	Act%
105.00	100	100
122.00	71.90	71.80
77.00	86.30	84.02
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN828.D Vial: 5
Acq On : 4 Feb 2002 6:06 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 100 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:29 2002 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:29:00 2002
Response via : Multiple Level Calibration





(26) Benzoic Acid (T)

7.16min 100.91ppb m

response 424044

Ion	Exp%	Act%
105.00	100	100
122.00	71.90	71.80
77.00	86.30	84.02
0.00	0.00	0.00

AN828.D 82700204.M Tue Feb 05 09:30:23 2002 MSA

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN829.D Vial: 6
Acq On : 4 Feb 2002 6:45 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
sc : 120 PPM STD 8270/625 Multiplr: 1.00
... Integration Params: RTEINT.P
Quant Time: Feb 5 9:31 2002 Quant Results File: 82700204.RES

Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:30:45 2002
Response via : Initial Calibration
DataAcq Meth : 82700204

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	5.74	152	136951	40.00	ppb	0.00
21) d8-Naphthalene	7.51	136	515110	40.00	ppb	0.00
37) d10-Acenaphthene	10.73	164	301879	40.00	ppb	0.00
59) d10-Phenanthrene	13.82	188	557947	40.00	ppb	0.00
72) d12-Chrysene	19.71	240	636199	40.00	ppb	0.02
81) d12-Perylene	23.30	264	607398	40.00	ppb	0.03

System Monitoring Compounds

4) SURR1,2-FLUOROPHENOL	4.32	112	547813	119.78	ppb	0.00
Spiked Amount 200.000	Range 10 - 75		Recovery = 59.89%			
7) SURR2,PHENOL-D6	5.33	99	765639	120.05	ppb	0.00
Spiked Amount 200.000	Range 10 - 130		Recovery = 60.02%			
22) SURR4,NITROBENZENE-D5	6.49	82	868953	118.09	ppb	0.00
Spiked Amount 100.000	Range 30 - 116		Recovery = 118.09%#			
41) SURR5,2-FLUOROBIPHENYL	9.36	172	1567982	118.65	ppb	0.00
Spiked Amount 100.000	Range 38 - 107		Recovery = 118.65%#			
58) SURR3,2,4,6-TRIBROMOPHENOL	12.38	330	221990	121.47	ppb	0.01
Spiked Amount 200.000	Range 10 - 135		Recovery = 60.73%			
75) SURR6,TERPHENYL-D14	17.30	244	2144536	120.17	ppb	0.02
Spiked Amount 100.000	Range 15 - 135		Recovery = 120.17%			

Target Compounds

						Qvalue
2) Pyridine	2.43	79	577953	125.19	ppb	99
3) N-Nitrosodimethylamine	2.43	74	334577	121.66	ppb	97
5) Benzaldehyde	5.25	106	229822	56.35	ppb	99
6) Aniline	5.40	93	701078	105.49	ppb	89
8) Phenol	5.35	94	816073	120.56	ppb	98
9) bis(2-Clethyl)Ether	5.44	93	645439	124.90	ppb	99
10) 2-Chlorophenol	5.54	128	631664	118.81	ppb	99
11) 1,3-Diclbenzene	5.70	146	686573	118.20	ppb	99
12) 1,4-Dichlorobenzene	5.76	146	700927	115.41	ppb	99
13) 1,2-Diclbenzene	6.00	146	660095	114.72	ppb	98
14) Benzyl Alcohol	5.92	79	644508	119.64	ppb	98
15) 2,2'-oxybis(1-Chloropropan	6.08	45	564098	124.91	ppb	99
16) 2-Methylphenol	6.06	108	599515	118.21	ppb	99
17) Acetophenone	6.28	105	887117	113.33	ppb	99
18) N-Nitroso-Di-n-propylamine	6.28	70	532415	114.80	ppb	98
19) Hexachloroethane	6.40	117	289942	116.82	ppb	98
20) 4-Methylphenol	6.23	108	629479	118.34	ppb	99
23) Nitrobenzene	6.52	77	791477	117.00	ppb	99
24) Isophorone	6.82	82	1407140	121.17	ppb	98
25) 2-Nitrophenol	6.96	139	341174	124.01	ppb	99

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

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN829.D Vial: 6
Acq On : 4 Feb 2002 6:45 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 120 PPM STD 8270/625 Multiplr: 1.00
Integration Params: RTEINT.P
Quant Time: Feb 5 9:31 2002 Quant Results File: 82700204.RES

Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:30:45 2002
Response via : Initial Calibration
DataAcq Meth : 82700204

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
26)	Benzoic Acid	7.17	105	508009m	122.75 ppb	
27)	2,4-Dimethylphenol	6.95	107	696114	115.93 ppb	98
28)	bis(-2-Chloroethoxy)Methan	7.09	93	739776	121.03 ppb	100
29)	2,4-Dichlorophenol	7.30	162	521991	119.13 ppb	98
30)	1,2,4-Trichlorobenzene	7.43	180	569261	115.50 ppb	100
31)	Naphthalene	7.55	128	1887922	117.02 ppb	100
32)	4-Chloroaniline	7.64	127	665949	111.67 ppb	99
33)	Hexachlorobutadiene	7.78	225	343958	112.72 ppb	99
34)	4-Chloro-3-methylphenol	8.41	107	640046	124.60 ppb	100
35)	Caprolactam	8.25	113	190399	129.99 ppb	97
36)	2-Methylnaphthalene	8.68	142	1277629	119.85 ppb	100
38)	Hexachlorocyclopentadiene	9.07	237	276307	102.40 ppb	97
39)	2,4,6-Trichlorophenol	9.25	196	388973	121.89 ppb	96
40)	2,4,5-Trichlorophenol	9.34	196	419113	123.85 ppb	97
42)	1,1'-Biphenyl	9.54	154	1630751	118.89 ppb	99
43)	2-Chloronaphthalene	9.60	162	1187352	115.83 ppb	99
44)	2-Nitroaniline	9.86	65	467505	121.99 ppb	94
45)	Acenaphthylene	10.43	152	1909343	119.88 ppb	99
46)	Dimethyl phthalate	10.20	163	1381901	118.22 ppb	99
47)	2,6-Dinitrotoluene	10.38	165	332219	126.05 ppb	93
48)	Acenaphthene	10.79	153	1249154	119.30 ppb	98
49)	3-Nitroaniline	10.69	138	361694	126.14 ppb	97
50)	2,4-Dinitrophenol	10.89	184	195978	122.76 ppb	97
51)	Dibenzofuran	11.11	168	1803245	120.15 ppb	99
52)	2,4-Dinitrotoluene	11.18	165	441064	123.87 ppb	96
53)	4-Nitrophenol	10.99	65	343106	127.69 ppb	95
54)	Fluorene	11.83	166	1484161	117.74 ppb	100
55)	4-Chlorophenyl-phenylether	11.78	204	724345	119.73 ppb	99
56)	Diethylphthalate	11.62	149	1483883	120.29 ppb	99
57)	4-Nitroaniline	11.96	138	390101	127.73 ppb	98
60)	4,6-Dinitro-2-methylphenol	12.03	198	277245	123.66 ppb	92
61)	1,2 Diphenylhydrazine	12.11	77	1753104	117.15 ppb	99
62)	N-Nitrosodiphenylamine	12.05	169	1144216	118.32 ppb	99
63)	4-Bromophenyl-phenylether	12.81	248	430482	114.69 ppb	100
64)	Hexachlorobenzene	13.17	284	467631	114.76 ppb	99
65)	Atrazine	13.20	215	137518	92.27 ppb	98
66)	Pentachlorophenol	13.55	266	280748	118.14 ppb	99
67)	Phenanthrene	13.88	178	2179668	116.96 ppb	99
68)	Anthracene	13.97	178	2244279	117.01 ppb	99
69)	Carbazole	14.32	167	2046999	119.61 ppb	99
70)	Di-n-butylphthalate	15.07	149	2577864	122.10 ppb	100

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

200

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN829.D Vial: 6
Acq On : 4 Feb 2002 6:45 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 120 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:31 2002 Quant Results File: 82700204.RES

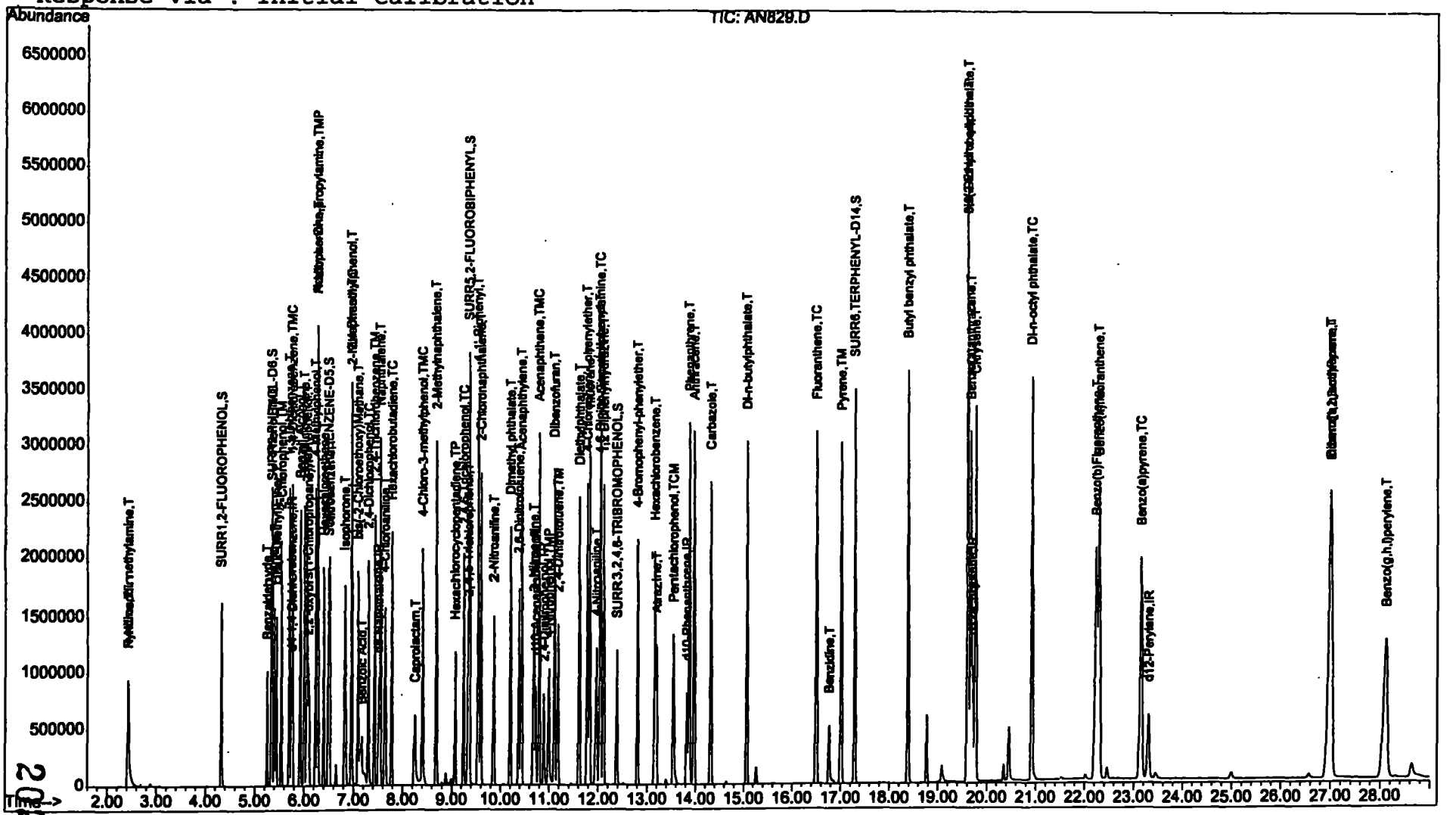
Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:30:45 2002
Response via : Initial Calibration
DataAcq Meth : 82700204

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
71)	Fluoranthene	16.51	202	2500229	119.30 ppb	99
73)	Benzidine	16.77	184	446747	124.44 ppb	99
74)	Pyrene	17.02	202	2603404	123.62 ppb	100
76)	Butyl benzyl phthalate	18.39	149	1243496	127.25 ppb	98
77)	3,3'-Dichlorobenzidine	19.60	252	791209	118.84 ppb	99
78)	Benzo(a)anthracene	19.67	228	2601010	119.28 ppb	99
79)	Chrysene	19.77	228	2486637	118.53 ppb	98
80)	bis(2-Ethylhexyl)phthalate	19.61	149	1784201	125.95 ppb	99
82)	Di-n-octyl phthalate	20.92	149	3085696	127.50 ppb	99
83)	Benzo(b)Fluoranthene	22.24	252	2640760	119.40 ppb	98
84)	Benzo(k)fluoranthene	22.30	252	2428261	116.15 ppb	97
85)	Benzo(a)pyrene	23.15	252	2349893	121.23 ppb	99
86)	Indeno(1,2,3-cd)Pyrene	27.01	276	3115243	124.16 ppb	99
87)	Dibenz(a,h)anthracene	27.00	278	2516585	124.61 ppb	98
88)	Benzo(g,h,i)perylene	28.12	276	2605211	125.03 ppb	99

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

Data F. : J:\ACQUDATA\5973A\DATA\020402\AN829.. Vial: 6
Acq On : 4 Feb 2002 6:45 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 120 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:31 2002 Quant Results File: 82700204.RES

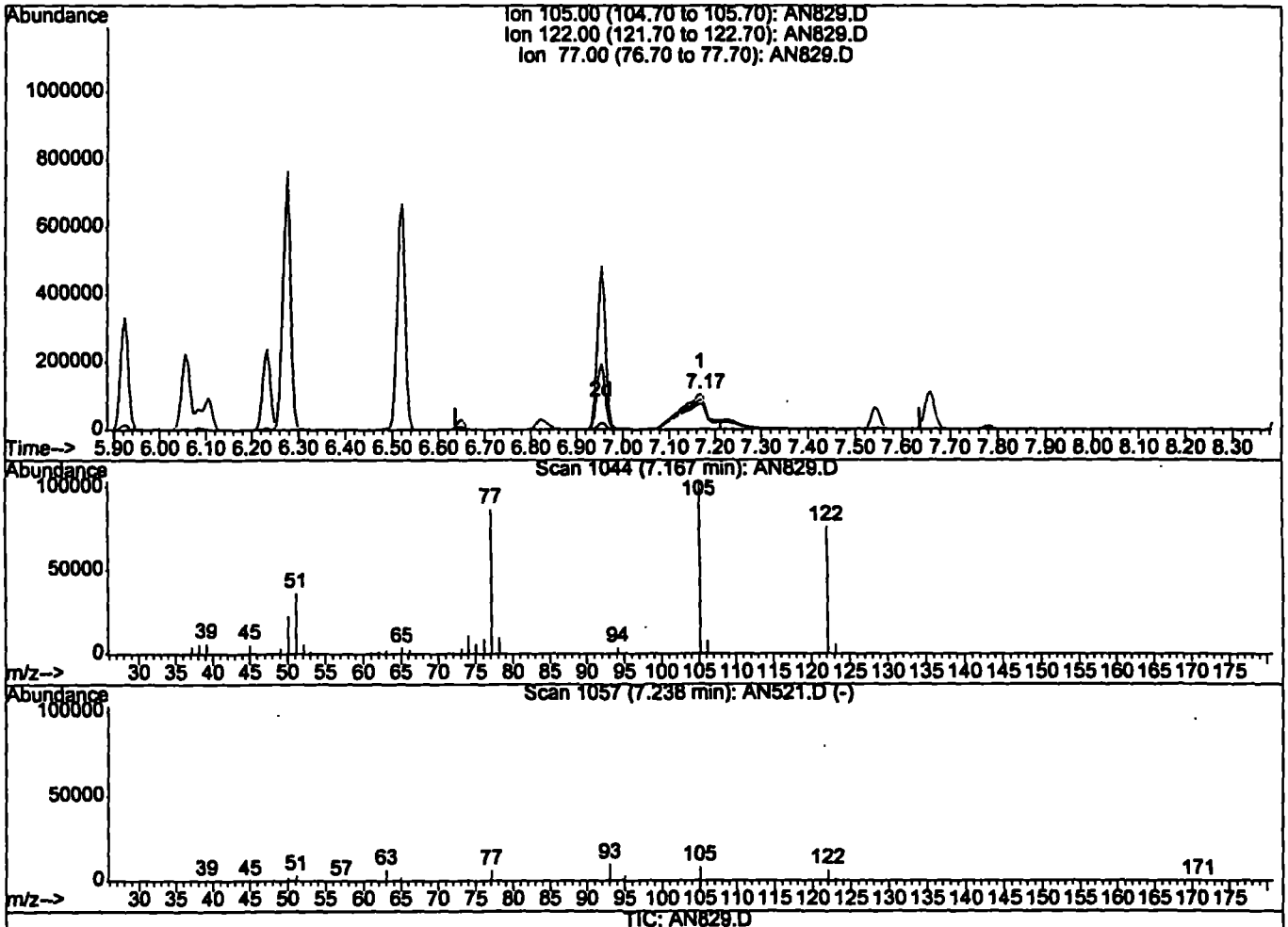
Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN829.D Vial: 6
Acq On : 4 Feb 2002 6:45 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 120 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:31 2002 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:30:45 2002
Response via : Multiple Level Calibration



(26) Benzoic Acid (T)

7.17min 106.08ppb

response 423349

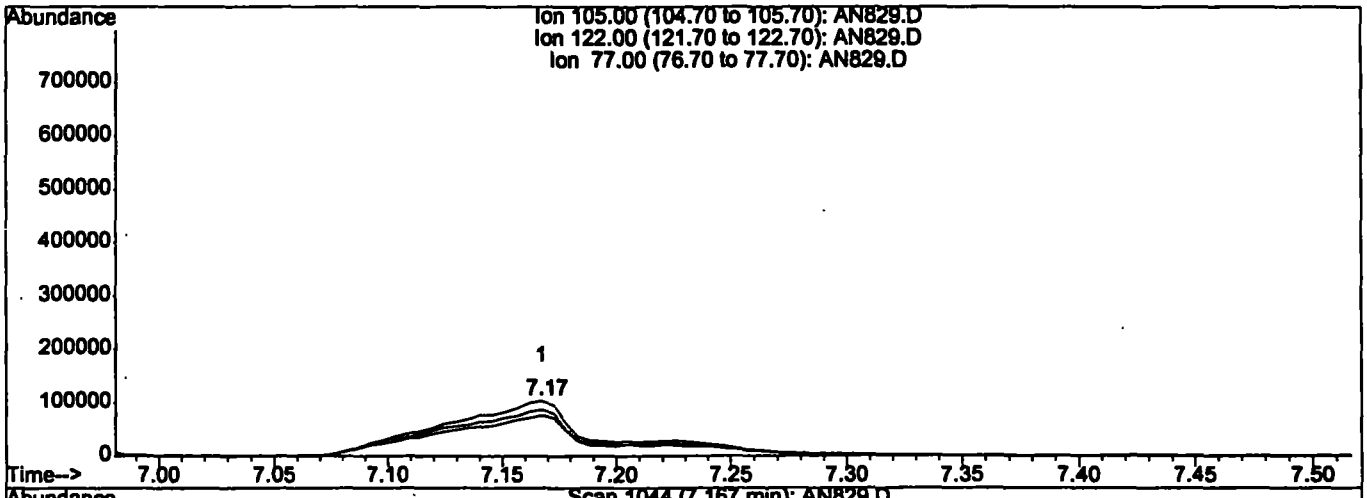
Ion	Exp%	Act%
105.00	100	100
122.00	71.90	73.64
77.00	86.30	84.00
0.00	0.00	0.00

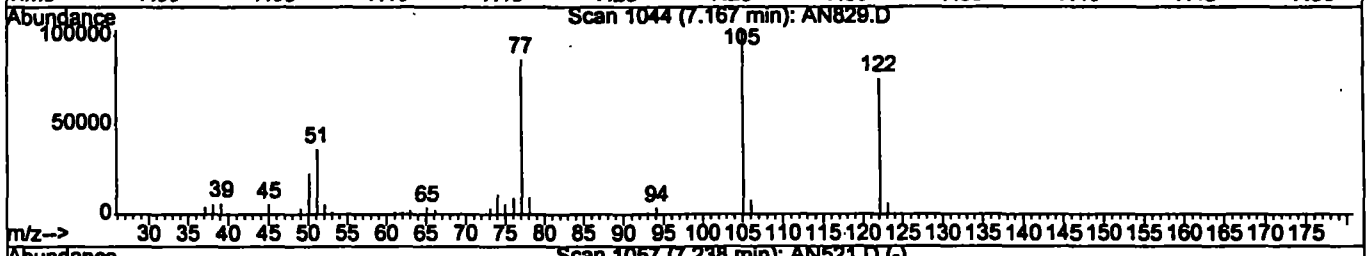
203 2/6/02

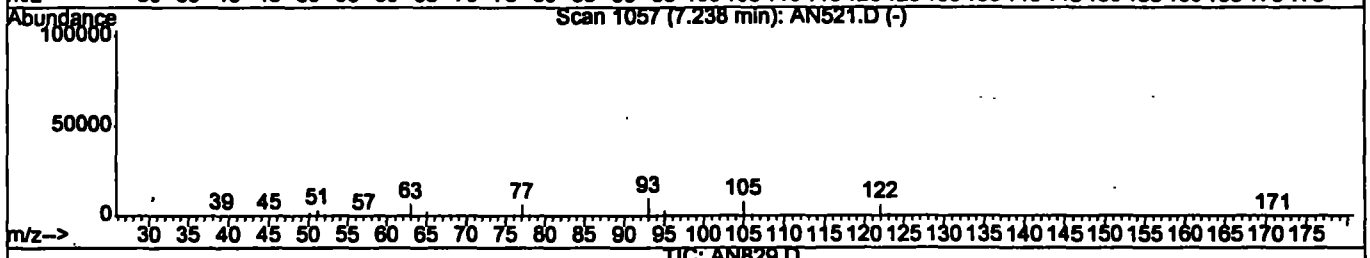
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN829.D Vial: 6
Acq On : 4 Feb 2002 6:45 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 120 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:31 2002 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:30:45 2002
Response via : Multiple Level Calibration







TIC: AN829.D

(26) Benzoic Acid (T)

7.17min 122.75ppb m

response 508009

Ion	Exp%	Act%
105.00	100	100
122.00	71.90	73.64
77.00	86.30	84.00
0.00	0.00	0.00

LR

ZM 2/4/02

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN830.D Vial: 7
Acq On : 4 Feb 2002 7:23 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 160 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:33 2002 Quant Results File: 82700204.RES

Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:32:29 2002
Response via : Initial Calibration
DataAcq Meth : 82700204

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	5.75	152	209870	40.00	ppb	0.00
21) d8-Naphthalene	7.51	136	817880	40.00	ppb	0.01
37) d10-Acenaphthene	10.73	164	473875	40.00	ppb	0.01
59) d10-Phenanthrene	13.83	188	874725	40.00	ppb	0.02
72) d12-Chrysene	19.72	240	977121	40.00	ppb	0.03
81) d12-Perylene	23.31	264	955050	40.00	ppb	0.04
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	4.32	112	1169951	166.26	ppb	0.00
Spiked Amount 200.000	Range 10 - 75		Recovery = 83.13%#			
7) SURR2,PHENOL-D6	5.35	99	1624488	164.44	ppb	0.01
Spiked Amount 200.000	Range 10 - 130		Recovery = 82.22%			
22) SURR4,NITROBENZENE-D5	6.50	82	1780961	154.16	ppb	0.01
Spiked Amount 100.000	Range 30 - 116		Recovery = 154.16%#			
41) SURR5,2-FLUOROBIPHENYL	9.37	172	3187947	153.14	ppb	0.02
Spiked Amount 100.000	Range 38 - 107		Recovery = 153.14%#			
58) SURR3,2,4,6-TRIBROMOPHENOL	12.39	330	473942	168.01	ppb	0.03
Spiked Amount 200.000	Range 10 - 135		Recovery = 84.00%			
75) SURR6,TERPHENYL-D14	17.31	244	4245873	154.37	ppb	0.03
Spiked Amount 100.000	Range 15 - 135		Recovery = 154.37%#			

Target Compounds						Qvalue
2) Pyridine	2.43	79	1208000	168.80	ppb	99
3) N-Nitrosodimethylamine	2.45	74	701883	165.73	ppb	96
5) Benzaldehyde	5.25	106	353805	55.46	ppb	98
6) Aniline	5.40	93	1313503	130.42	ppb	57
8) Phenol	5.36	94	1661073	158.48	ppb	95
9) bis(2-Clethyl)Ether	5.45	93	1316054	164.39	ppb	97
10) 2-Chlorophenol	5.54	128	1311550	160.67	ppb	99
11) 1,3-Diclbenzene	5.71	146	1372349	155.13	ppb	98
12) 1,4-Dichlorobenzene	5.77	146	1403545	152.35	ppb	99
13) 1,2-Diclbenzene	6.00	146	1332442	152.66	ppb	97
14) Benzyl Alcohol	5.93	79	1303645	158.83	ppb	98
15) 2,2'-oxybis(1-Chloropropan	6.09	45	1144689	160.46	ppb	98
16) 2-Methylphenol	6.07	108	1257186	161.86	ppb	98
17) Acetophenone	6.28	105	1830143	154.42	ppb	98
18) N-Nitroso-Di-n-propylamine	6.30	70	1065804	151.55	ppb	94
19) Hexachloroethane	6.40	117	579978	154.27	ppb	98
20) 4-Methylphenol	6.24	108	1314864	161.05	ppb	100
23) Nitrobenzene	6.53	77	1576247	148.63	ppb	98
24) Isophorone	6.84	82	2893771	157.10	ppb	100
25) 2-Nitrophenol	6.97	139	715096	163.69	ppb	98

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

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN830.D Vial: 7
Acq On : 4 Feb 2002 7:23 pm Operator: Z.Miao
mple : Initial Calibration Inst : 5973-A
sc : 160 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:33 2002 Quant Results File: 82700204.RES

Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:32:29 2002
Response via : Initial Calibration
DataAcq Meth : 82700204

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
26)	Benzoic Acid	7.23	105	1161265m	164.98 ppb	
27)	2,4-Dimethylphenol	6.96	107	1386505	147.39 ppb	94
28)	bis(-2-Chloroethoxy)Methan	7.09	93	1507862	154.42 ppb	100
29)	2,4-Dichlorophenol	7.31	162	1095885	159.43 ppb	97
30)	1,2,4-Trichlorobenzene	7.43	180	1172696	152.50 ppb	98
31)	Naphthalene	7.55	128	3771252	147.96 ppb	100
32)	4-Chloroaniline	7.65	127	1312180	140.07 ppb	99
33)	Hexachlorobutadiene	7.78	225	710627	151.36 ppb	98
34)	4-Chloro-3-methylphenol	8.42	107	1330491	163.03 ppb	98
35)	Caprolactam	8.30	113	392004	166.49 ppb	95
36)	2-Methylnaphthalene	8.69	142	2617879	154.91 ppb	97
38)	Hexachlorocyclopentadiene	9.07	237	604203	142.67 ppb	98
39)	2,4,6-Trichlorophenol	9.26	196	816266	163.70 ppb	99
40)	2,4,5-Trichlorophenol	9.34	196	889877m	165.91 ppb	
42)	1,1'-Biphenyl	9.55	154	3309589	152.90 ppb	99
43)	2-Chloronaphthalene	9.61	162	2461306	154.00 ppb	99
44)	2-Nitroaniline	9.88	65	966653	159.96 ppb	98
45)	Acenaphthylene	10.44	152	3844159	152.73 ppb	99
46)	Dimethyl phthalate	10.21	163	2833890	154.88 ppb	99
47)	2,6-Dinitrotoluene	10.39	165	698500	167.96 ppb	98
48)	Acenaphthene	10.80	153	2519697	152.27 ppb	99
49)	3-Nitroaniline	10.70	138	735597	160.17 ppb	96
50)	2,4-Dinitrophenol	10.91	184	466012	172.25 ppb	93
51)	Dibenzofuran	11.12	168	3615951	152.35 ppb	98
52)	2,4-Dinitrotoluene	11.20	165	921804	165.05 ppb	83
53)	4-Nitrophenol	11.01	65	701075	162.94 ppb	89
54)	Fluorene	11.84	166	3044514	154.40 ppb	97
55)	4-Chlorophenyl-phenylether	11.79	204	1494527	157.26 ppb	97
56)	Diethylphthalate	11.63	149	2983897	153.34 ppb	97
57)	4-Nitroaniline	12.00	138	795221	162.07 ppb	98
60)	4,6-Dinitro-2-methylphenol	12.05	198	601839	172.06 ppb	85
61)	1,2 Diphenylhydrazine	12.12	77	3421765	146.25 ppb	96
62)	N-Nitrosodiphenylamine	12.07	169	2326985	153.48 ppb	97
63)	4-Bromophenyl-phenylether	12.81	248	902447	156.86 ppb	99
64)	Hexachlorobenzene	13.17	284	972180	155.84 ppb	98
65)	Atrazine	13.21	215	278622	126.25 ppb	99
66)	Pentachlorophenol	13.56	266	622256	169.80 ppb	99
67)	Phenanthrene	13.89	178	4343847	149.86 ppb	100
68)	Anthracene	13.98	178	4462713	150.07 ppb	99
69)	Carbazole	14.33	167	4091448	152.54 ppb	99
70)	Di-n-butylphthalate	15.07	149	5036082	151.73 ppb	98

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

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN830.D Vial: 7
Acq On : 4 Feb 2002 7:23 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Comp : 160 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:33 2002 Quant Results File: 82700204.RES

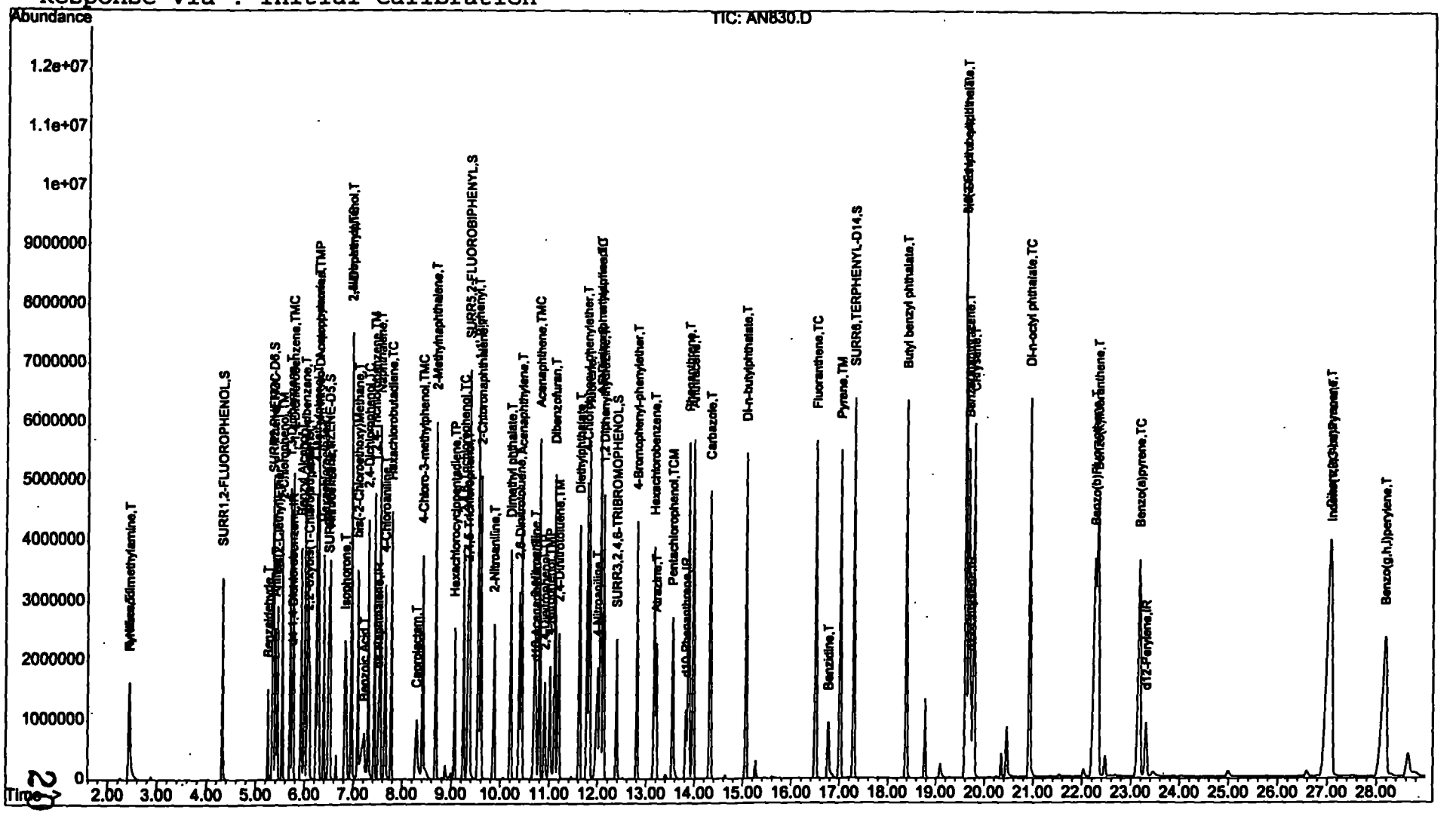
Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:32:29 2002
Response via : Initial Calibration
DataAcq Meth : 82700204

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
71)	Fluoranthene	16.52	202	5018176	153.41 ppb	97
73)	Benzidine	16.77	184	829270	160.62 ppb	98
74)	Pyrene	17.03	202	5110563	155.05 ppb	98
76)	Butyl benzyl phthalate	18.39	149	2460109	159.64 ppb	98
77)	3,3'-Dichlorobenzidine	19.61	252	1530975	149.16 ppb	98
78)	Benzo(a)anthracene	19.68	228	5094956	151.60 ppb	99
79)	Chrysene	19.78	228	4843690	150.04 ppb	99
80)	bis(2-Ethylhexyl)phthalate	19.61	149	3421666	153.36 ppb	97
82)	Di-n-octyl phthalate	20.93	149	5985274	154.05 ppb	99
83)	Benzo(b)Fluoranthene	22.27	252	5846381	168.04 ppb	99
84)	Benzo(k)fluoranthene	22.32	252	5156186m	156.42 ppb	
85)	Benzo(a)pyrene	23.18	252	4841495 um	158.63 ppb	99
86)	Indeno(1,2,3-cd)Pyrene	27.09	276	6838307	172.26 ppb	96
87)	Dibenz(a,h)anthracene	27.06	278	5518701	172.57 ppb	99
88)	Benzo(g,h,i)perylene	28.18	276	5808649	176.17 ppb	100

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

Data File : J:\ACQUDATA\5973A\DATA\020402\AN830.D Vial: 7
Acq On : 4 Feb 2002 7:23 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 160 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:33 2002 Quant Results File: 82700204.RES

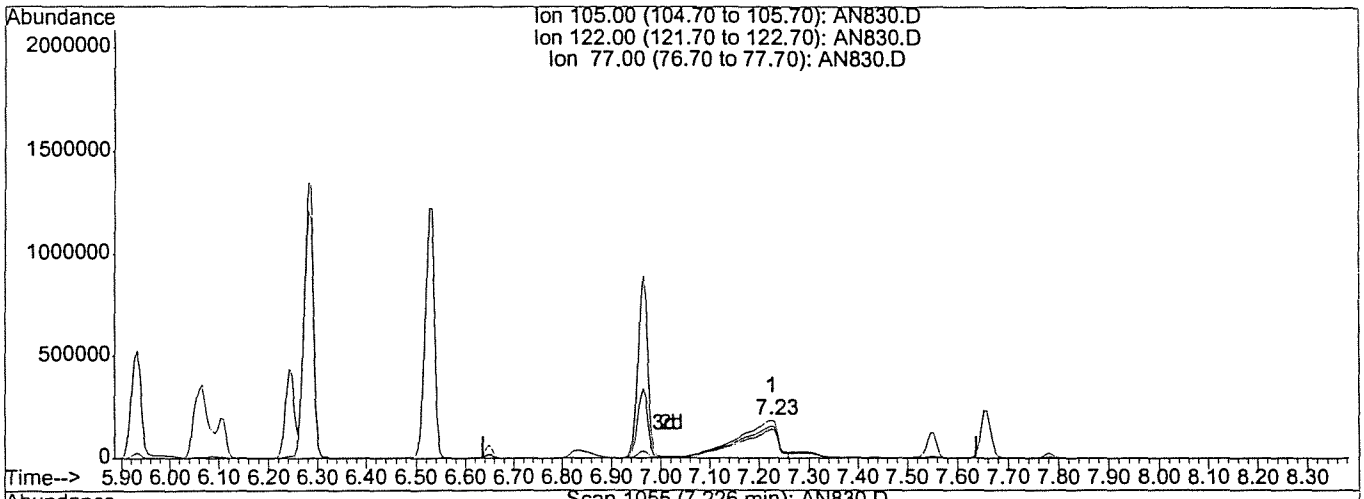
Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Initial Calibration

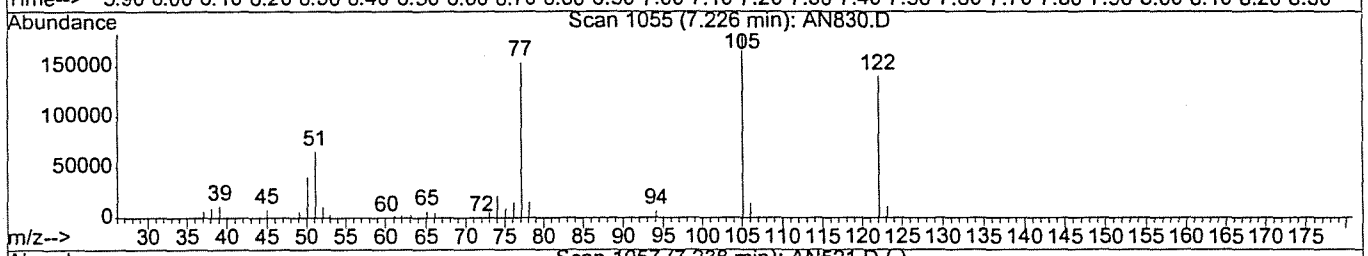


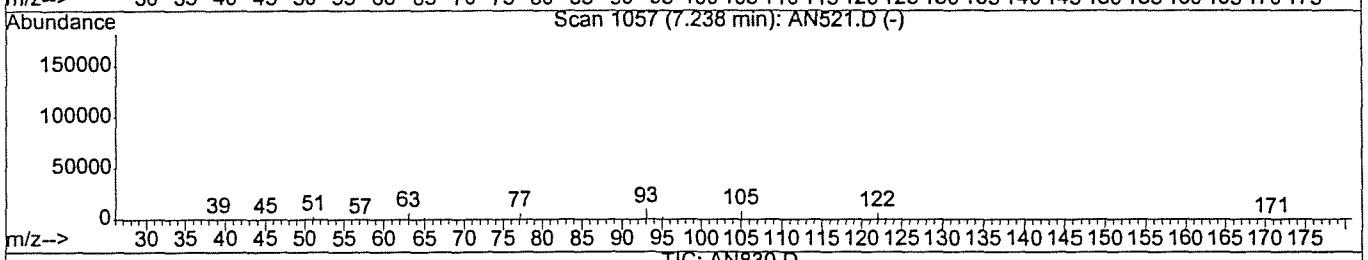
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN830.D Vial: 7
Acq On : 4 Feb 2002 7:23 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 160 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:32 2002 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:32:29 2002
Response via : Multiple Level Calibration







TIC: AN830.D

(26) Benzoic Acid (T)

7.23min 150.06ppb

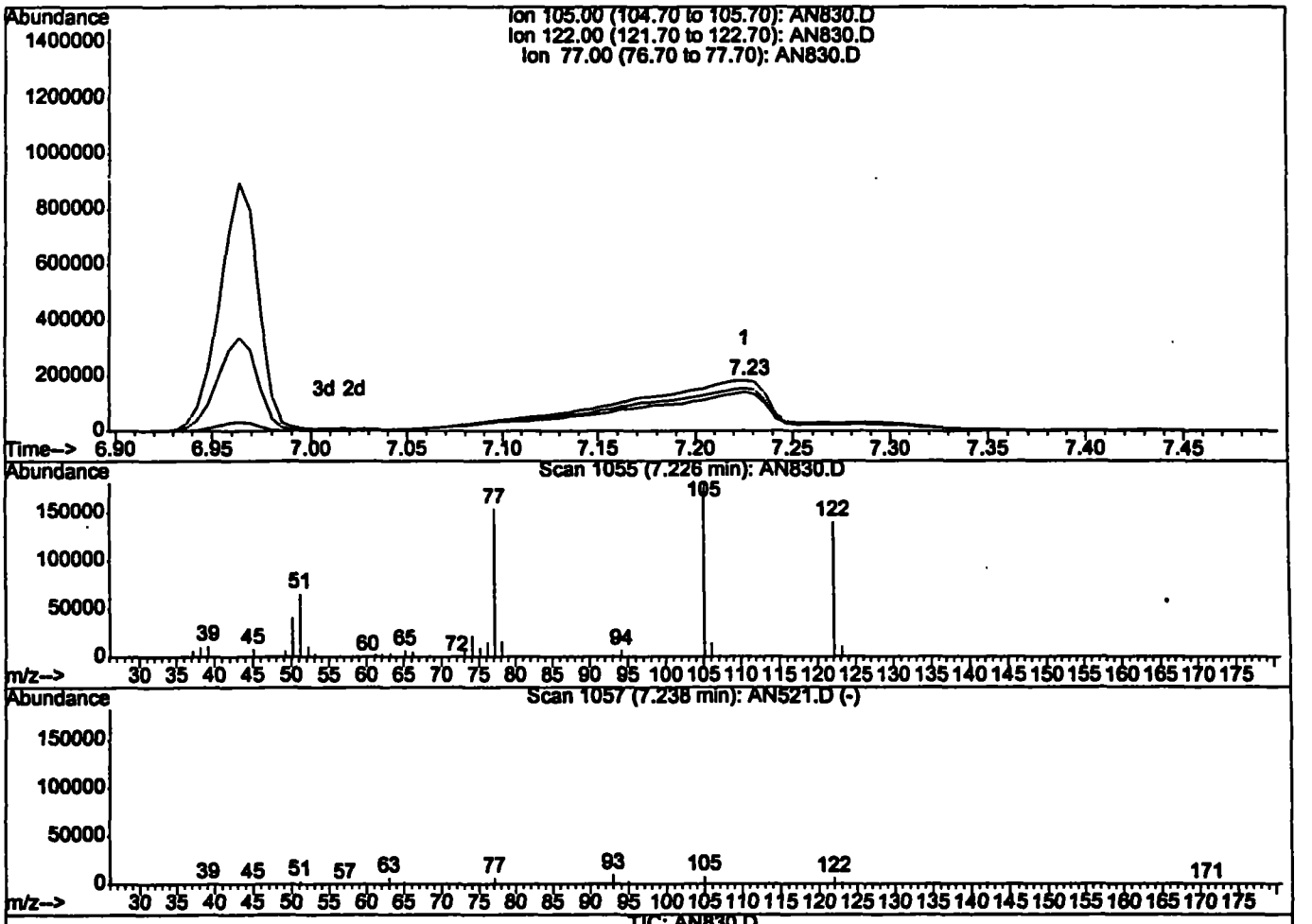
response 1039422

Ion	Exp%	Act%
105.00	100	100
122.00	71.90	77.17
77.00	86.30	84.58
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN830.D Vial: 7
Acq On : 4 Feb 2002 7:23 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 160 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:32 2002 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:32:29 2002
Response via : Multiple Level Calibration



(26) Benzoic Acid (T)

7.23min 164.98ppb m

response 1161265

Ion	Exp%	Act%
105.00	100	100
122.00	71.90	77.17
77.00	86.30	84.58
0.00	0.00	0.00

MJ

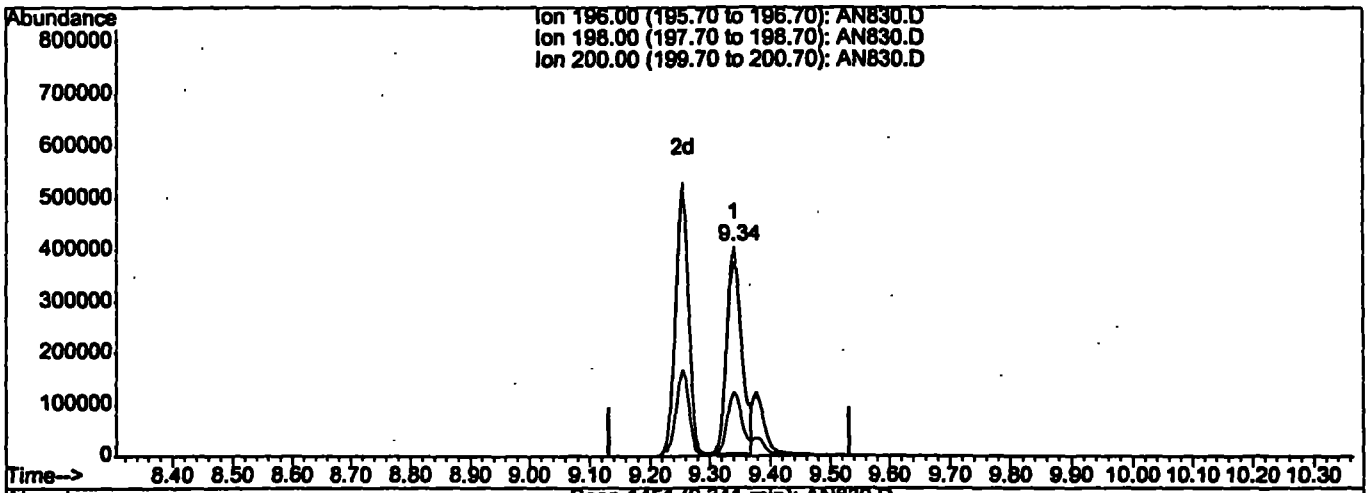
ZM 3/10/02

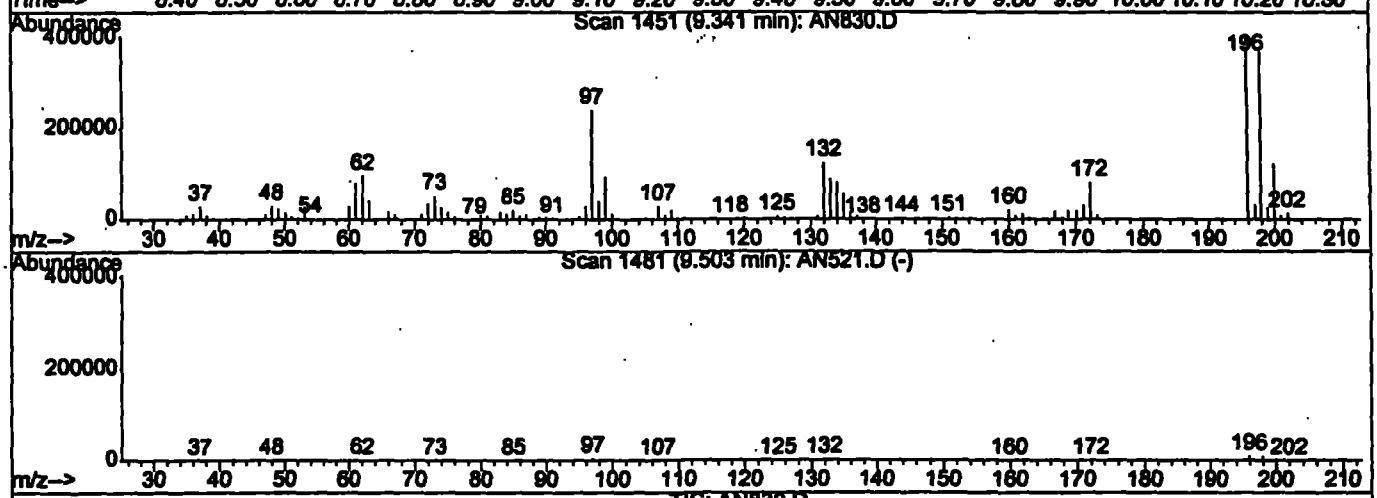
AN830.D 82700204.M Tue Feb 05 09:33:12 2002 MSA

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN830.D Vial: 7
Acq On : 4 Feb 2002 7:23 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 160 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:32 2002 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:32:29 2002
Response via : Multiple Level Calibration





TIC: AN830.D

(40) 2,4,5-Trichlorophenol (T)

9.34min 131.26ppb

response 704058

Ion	Exp%	Act%
196.00	100	100
198.00	96.10	92.75
200.00	31.70	30.43
0.00	0.00	0.00

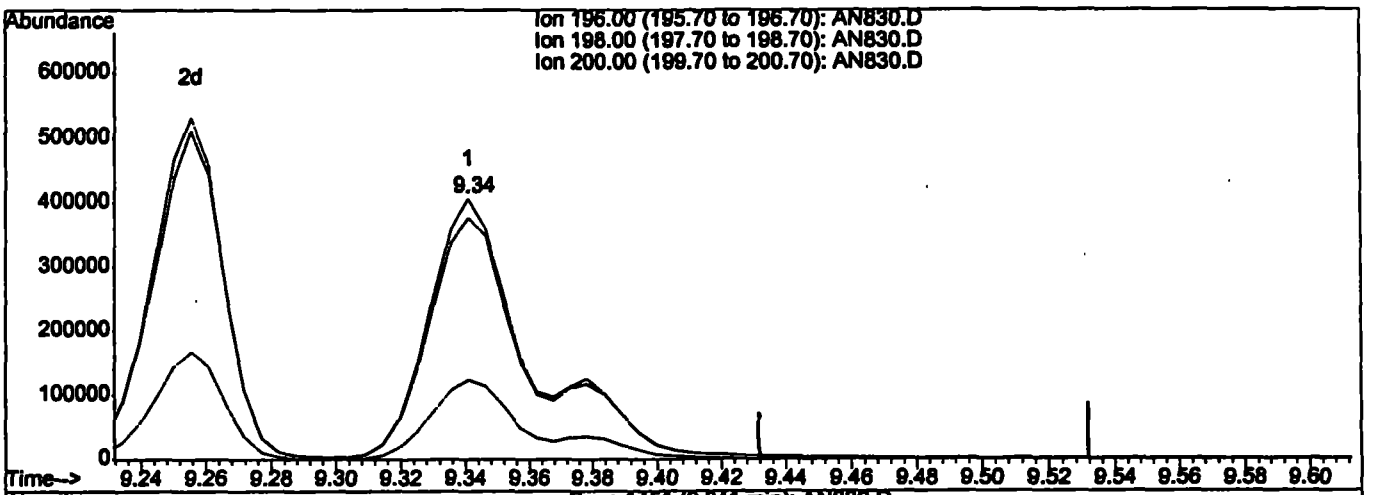
AN830.D 82700204.M Tue Feb 05 09:33:20 2002 MSA

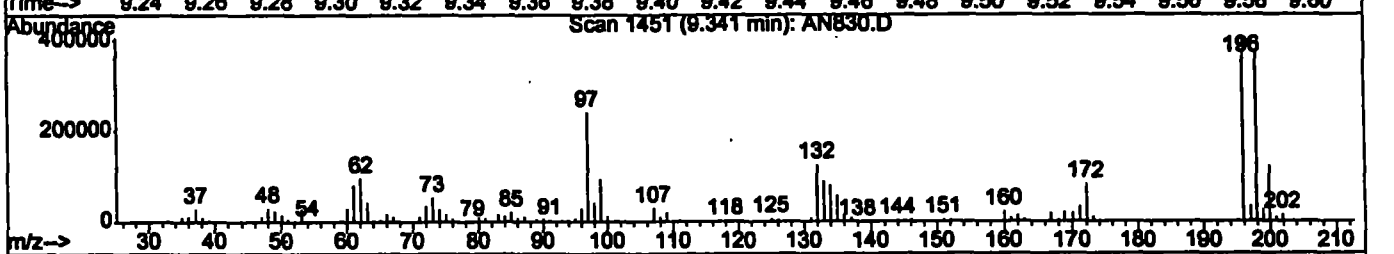
ZM

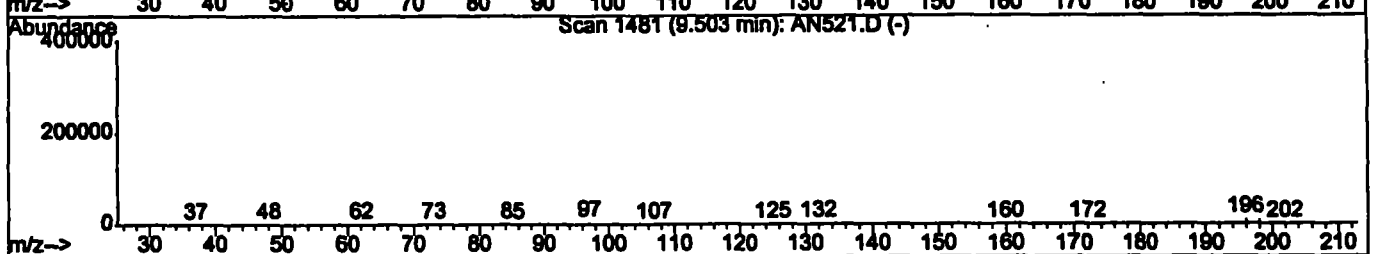
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN830.D Vial: 7
Acq On : 4 Feb 2002 7:23 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 160 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:32 2002 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:32:29 2002
Response via : Multiple Level Calibration







TIC: AN830.D

(40) 2,4,5-Trichlorophenol (T)

9.34min 165.91ppb m

response 889877

Ion	Exp%	Act%
196.00	100	100
198.00	96.10	92.75
200.00	31.70	30.43
0.00	0.00	0.00

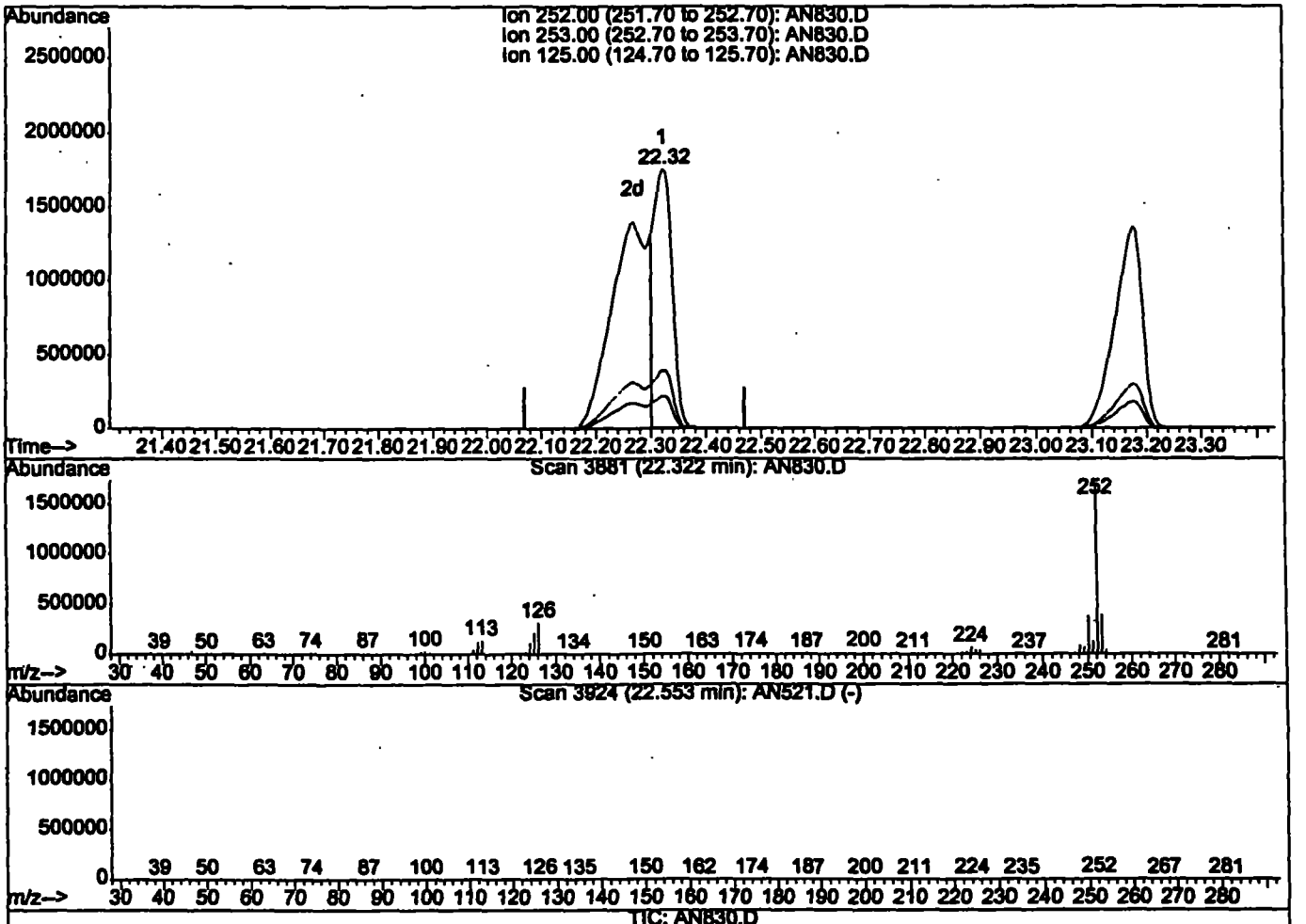
212 2/6/02

AN830.D 82700204.M Tue Feb 05 09:33:26 2002 MSA

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN830.D Vial: 7
Acq On : 4 Feb 2002 7:23 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 160 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:32 2002 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:32:29 2002
Response via : Multiple Level Calibration



(84) Benzo(k)fluoranthene (T)

22.32min 119.51ppb

response 3939516

Ion	Exp%	Act%
252.00	100	100
253.00	21.60	22.50
125.00	11.00	12.40
0.00	0.00	0.00

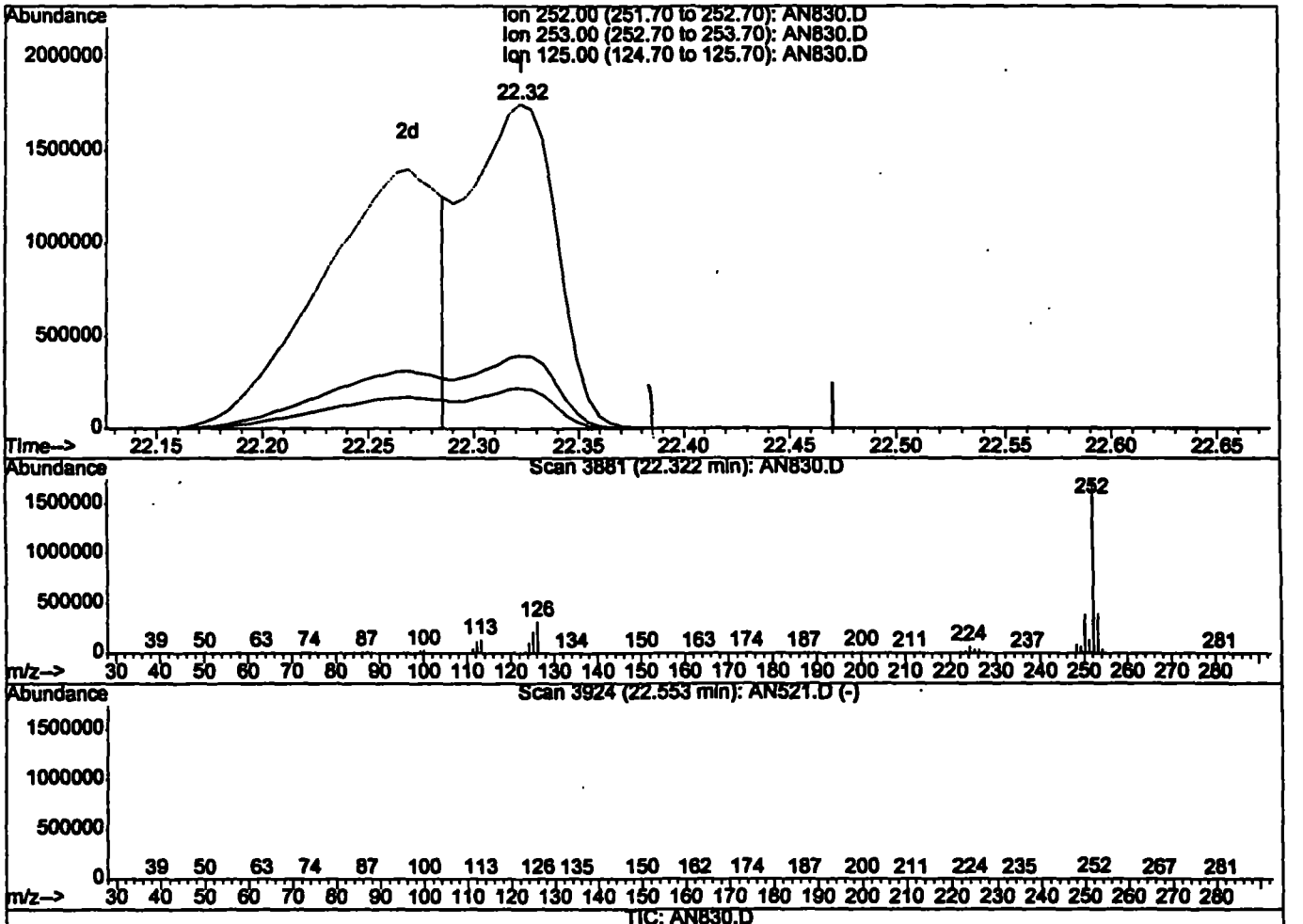
AN830.D 82700204.M Tue Feb 05 09:33:49 2002 MSA

ZM

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN830.D Vial: 7
Acq On : 4 Feb 2002 7:23 pm Operator: Z.Miao
Sample : Initial Calibration Inst : 5973-A
Misc : 160 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 5 9:33 2002 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:32:29 2002
Response via : Multiple Level Calibration



(84) Benzo(k)fluoranthene (T)

22.32min 156.42ppb m

response 5156186

Ion	Exp%	Act%
252.00	100	100
253.00	21.60	22.55
125.00	11.00	12.45
0.00	0.00	0.00

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973A\DATA\020602\AN877.D Vial: 1
Acq On : 6 Feb 2002 12:17 pm Operator: Z.Miao
Sample : CALIBRATION CHECK Inst : 5973-A
Misc : 80 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	d4-1,4-Dichlorobenzene	1.000	1.000	0.0	74	0.00
2	T	Pyridine	1.380	1.270	8.0	70	0.00
3	T	N-Nitrosodimethylamine	0.813	0.811	0.2	75	0.00
4	S	SURR1,2-FLUOROPHENOL	1.352	1.349	0.2	75	0.00
5	T	Benzaldehyde	1.226	1.199	2.2	61	0.00
6	T	Aniline	1.890	1.691	10.5	66	0.00
7	S	SURR2,PHENOL-D6	1.909	1.816	4.9	70	0.00
8	TMC	Phenol	2.017	1.946	3.5	71	0.00
9	T	bis(2-Clethyl)Ether	1.609	1.513	6.0	71	0.00
10	TM	2-Chlorophenol	1.562	1.553	0.6	74	0.00
11	T	1,3-Diclbenzene	1.673	1.682	-0.5	75	0.00
[illegible]	TMC	1,4-Dichlorobenzene	1.738	1.765	-1.6	76	0.00
1[illegible]	T	1,2-Diclbenzene	1.649	1.658	-0.5	75	0.00
14	T	Benzyl Alcohol	1.573	1.623	-3.2	75	0.00
15	T	2,2'-oxybis(1-Chloropropane	1.402	1.317	6.1	70	0.00
16	T	2-Methylphenol	1.488	1.513	-1.7	77	0.00
17	T	Acetophenone	2.235	2.344	-4.9	77	0.00
18	TMP	N-Nitroso-Di-n-propylamine	1.333	1.400	-5.0	76	0.00
19	T	Hexachloroethane	0.709	0.739	-4.2	77	0.00
20	T	4-Methylphenol	1.569	1.580	-0.7	74	0.00
21	IR	d8-Naphthalene	1.000	1.000	0.0	72	0.00
22	S	SURR4,NITROBENZENE-D5	0.558	0.598	-7.2	75	0.00
23	T	Nitrobenzene	0.511	0.549	-7.4	76	0.00
24	T	Isophorone	0.897	0.938	-4.6	73	0.00
25	TC	2-Nitrophenol	0.213	0.222	-4.2	73	0.00
26	T	Benzoic Acid	0.299	0.293	2.0	77	0.00
27	T	2,4-Dimethylphenol	0.452	0.489	-8.2	76	0.00
28	T	bis(-2-Chloroethoxy)Methane	0.479	0.487	-1.7	72	0.00
29	TC	2,4-Dichlorophenol	0.333	0.341	-2.4	72	0.00
30	TM	1,2,4-Trichlorobenzene	0.369	0.381	-3.3	75	0.00
31	T	Naphthalene	1.233	1.289	-4.5	75	0.00
32	T	4-Chloroaniline	0.452	0.441	2.4	69	0.00
33	TC	Hexachlorobutadiene	0.223	0.245	-9.9	79	0.00
34	TMC	4-Chloro-3-methylphenol	0.399	0.425	-6.5	75	0.00
35	T	Caprolactam	0.122	0.137	-12.3	80	0.00
[illegible]	T	2-Methylnaphthalene	0.823	0.835	-1.5	72	0.00
37	IR	d10-Acenaphthene	1.000	1.000	0.0	71	0.00
38	TP	Hexachlorocyclopentadiene	0.259	0.263	-1.5	64	0.00
39	TC	2,4,6-Trichlorophenol	0.420	0.421	-0.2	70	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973A\DATA\020602\AN877.D Vial: 1
Acq On : 6 Feb 2002 12:17 pm Operator: Z.Miao
Sample : CALIBRATION CHECK Inst : 5973-A
Misc : 80 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40	T	2,4,5-Trichlorophenol	0.450	0.467	-3.8	73	0.00
41	S	SURR5,2-FLUOROBIPHENYL	1.758	1.839	-4.6	73	0.00
42	T	1,1'-Biphenyl	1.831	1.895	-3.5	73	0.00
43	T	2-Chloronaphthalene	1.344	1.383	-2.9	72	0.00
44	T	2-Nitroaniline	0.512	0.506	1.2	70	0.00
45	T	Acenaphthylene	2.131	2.156	-1.2	70	0.00
46	T	Dimethyl phthalate	1.539	1.563	-1.6	72	0.00
47	T	2,6-Dinitrotoluene	0.353	0.365	-3.4	71	0.00
48	TMC	Acenaphthene	1.402	1.441	-2.8	72	0.00
49	T	3-Nitroaniline	0.394	0.385	2.3	68	0.00
50	TP	2,4-Dinitrophenol	0.200	0.164	18.0	62	0.00
5[illegible]	[illegible]	Dibenzofuran	2.011	2.091	-4.0	73	0.00
5[illegible]	TM	2,4-Dinitrotoluene	0.473	0.490	-3.6	71	0.00
53	TMP	4-Nitrophenol	0.367	0.337	8.2	65	0.00
54	T	Fluorene	1.660	1.723	-3.8	73	0.00
55	T	4-Chlorophenyl-phenylether	0.804	0.835	-3.9	73	0.00
56	T	Diethylphthalate	1.646	1.703	-3.5	72	0.00
57	T	4-Nitroaniline	0.422	0.413	2.1	69	0.00
58	S	SURR3,2,4,6-TRIBROMOPHENOL	0.236	0.250	-5.9	73	0.00
59	IR	d10-Phenanthrene	1.000	1.000	0.0	71	0.00
60	T	4,6-Dinitro-2-methylphenol	0.159	0.152	4.4	68	0.00
61	T	1,2 Diphenylhydrazine	1.065	1.153	-8.3	75	0.00
62	TC	N-Nitrosodiphenylamine	0.694	0.726	-4.6	73	0.00
63	T	4-Bromophenyl-phenylether	0.258	0.281	-8.9	76	0.00
64	T	Hexachlorobenzene	0.280	0.297	-6.1	74	0.00
65	T	Atrazine	0.096	0.080	16.7	60	0.00
66	TCM	Pentachlorophenol	0.163	0.154	5.5	68	0.00
67	T	Phenanthrene	1.314	1.331	-1.3	71	0.00
68	T	Anthracene	1.345	1.390	-3.3	72	0.00
69	T	Carbazole	1.227	1.247	-1.6	71	0.00
70	T	Di-n-butylphthalate	1.517	1.595	-5.1	72	0.00
71	TC	Fluoranthene	1.488	1.554	-4.4	74	0.00
72	IR	d12-Chrysene	1.000	1.000	0.0	79	0.00
73	T	Benzidine	0.263	0.168	36.1#	47#	0.00
	TM	Pyrene	1.369	1.296	5.3	73	0.00
	S	SURR6,TERPHENYL-D14	1.129	1.107	1.9	75	0.00
76	T	Butyl benzyl phthalate	0.645	0.622	3.6	74	0.00
77	T	3,3'-Dichlorobenzidine	0.419	0.412	1.7	75	0.00
78	T	Benzo(a)anthracene	1.376	1.372	0.3	77	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973A\DATA\020602\AN877.D Vial: 1
Acq On : 6 Feb 2002 12:17 pm Operator: Z.Miao
Sample : CALIBRATION CHECK Inst : 5973-A
Misc : 80 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
79	T	Chrysene	1.320	1.306	1.1	77	0.00
80	T	bis(2-Ethylhexyl)phthalate	0.928	0.905	2.5	73	0.00
81	IR	d12-Perylene	1.000	1.000	0.0	81	0.00
82	TC	Di-n-octyl phthalate	1.649	1.675	-1.6	77	0.00
83	T	Benzo(b)Fluoranthene	1.455	1.463	-0.5	82	0.00
84	T	Benzo(k)fluoranthene	1.388	1.464	-5.5	83	0.00
85	TC	Benzo(a)pyrene	1.281	1.300	-1.5	80	0.00
86	T	Indeno(1,2,3-cd)Pyrene	1.676	1.724	-2.9	84	0.00
87	T	Dibenz(a,h)anthracene	1.352	1.384	-2.4	83	0.00
88	T	Benzo(g,h,i)perylene	1.392	1.421	-2.1	85	0.00

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973A\DATA\020602\AN877.D Vial: 1
Acq On : 6 Feb 2002 12:17 pm Operator: Z.Miao
S ple : CALIBRATION CHECK Inst : 5973-A
M : 80 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 7 9:38 2002 Quant Results File: 82700204.RES

Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Initial Calibration
DataAcq Meth : 82700204

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	5.74	152	97799	40.00	ppb	0.00
21) d8-Naphthalene	7.50	136	360721	40.00	ppb	0.00
37) d10-Acenaphthene	10.72	164	207332	40.00	ppb	0.00
59) d10-Phenanthrene	13.81	188	378674	40.00	ppb	0.00
72) d12-Chrysene	19.70	240	466241	40.00	ppb	0.00
81) d12-Perylene	23.28	264	447143	40.00	ppb	0.00
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	4.32	112	263858	79.85	ppb	0.00
Spiked Amount 200.000	Range 10 - 75		Recovery = 39.92%			
7) SURR2,PHENOL-D6	5.33	99	355276	76.12	ppb	0.00
Spiked Amount 200.000	Range 10 - 130		Recovery = 38.06%			
22) SURR4,NITROBENZENE-D5	6.49	82	431190	85.65	ppb	0.00
Spiked Amount 100.000	Range 30 - 116		Recovery = 85.65%			
41) SURR5,2-FLUOROBIPHENYL	9.36	172	762360	83.64	ppb	0.00
Spiked Amount 100.000	Range 38 - 107		Recovery = 83.64%			
58) SURR3,2,4,6-TRIBROMOPHENOL	12.37	330	103730	84.81	ppb	0.00
Spiked Amount 200.000	Range 10 - 135		Recovery = 42.41%			
75) SURR6,TERPHENYL-D14	17.28	244	1031983	78.39	ppb	0.00
Spiked Amount 100.000	Range 15 - 135		Recovery = 78.39%			
Target Compounds						Qvalue
2) Pyridine	2.43	79	248393	73.63	ppb	98
3) N-Nitrosodimethylamine	2.42	74	158714	79.87	ppb	92
5) Benzaldehyde	5.25	106	117260	39.13	ppb	97
6) Aniline	5.40	93	330694	71.58	ppb	96
8) Phenol	5.34	94	380660	77.19	ppb	97
9) bis(2-Clethyl)Ether	5.44	93	295966	75.26	ppb	97
10) 2-Chlorophenol	5.54	128	303699	79.54	ppb	98
11) 1,3-Diclbenzene	5.70	146	328990	80.42	ppb	95
12) 1,4-Dichlorobenzene	5.76	146	345156	81.25	ppb	98
13) 1,2-Diclbenzene	6.00	146	324300	80.42	ppb	98
14) Benzyl Alcohol	5.92	79	317543	82.55	ppb	98
15) 2,2'-oxybis(1-Chloropropan	6.08	45	257568	75.17	ppb	97
16) 2-Methylphenol	6.05	108	295957	81.33	ppb	97
17) Acetophenone	6.27	105	458564	83.91	ppb	98
18) N-Nitroso-Di-n-propylamine	6.27	70	273927	84.08	ppb	99
19) Hexachloroethane	6.40	117	144602	83.47	ppb	98
20) 4-Methylphenol	6.23	108	309071	80.56	ppb	98
23) Nitrobenzene	6.51	77	395725	85.94	ppb	99
24) Isophorone	6.81	82	676738	83.65	ppb	99
25) 2-Nitrophenol	6.96	139	160331	83.50	ppb	96

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

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973A\DATA\020602\AN877.D Vial: 1
Acq On : 6 Feb 2002 12:17 pm Operator: Z.Miao
S[illegible]ple : CALIBRATION CHECK Inst : 5973-A
M[illegible] : 80 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 7 9:38 2002 Quant Results File: 82700204.RES

Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Initial Calibration
DataAcq Meth : 82700204

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
26)	Benzoic Acid	7.13	105	211688m	81.41 ppb	
27)	2,4-Dimethylphenol	6.95	107	352854	86.48 ppb	98
28)	bis(-2-Chloroethoxy)Methan	7.08	93	351583	81.47 ppb	99
29)	2,4-Dichlorophenol	7.29	162	246338	81.92 ppb	98
30)	1,2,4-Trichlorobenzene	7.43	180	275150	82.59 ppb	99
31)	Naphthalene	7.54	128	929839	83.65 ppb	99
32)	4-Chloroaniline	7.64	127	318499	78.20 ppb	100
33)	Hexachlorobutadiene	7.78	225	176642	88.02 ppb	98
34)	4-Chloro-3-methylphenol	8.40	107	306598	85.31 ppb	97
35)	Caprolactam	8.22	113	98901	89.97 ppb	98
36)	2-Methylnaphthalene	8.68	142	602719	81.17 ppb	97
38)	Hexachlorocyclopentadiene	9.07	237	109018	72.56 ppb	99
9)	2,4,6-Trichlorophenol	9.24	196	174749	80.32 ppb	98
40)	2,4,5-Trichlorophenol	9.34	196	193702	83.09 ppb	100
42)	1,1'-Biphenyl	9.54	154	785869	82.78 ppb	98
43)	2-Chloronaphthalene	9.59	162	573397	82.29 ppb	98
44)	2-Nitroaniline	9.85	65	209898	79.12 ppb	93
45)	Acenaphthylene	10.43	152	894117	80.97 ppb	98
46)	Dimethyl phthalate	10.19	163	648081	81.22 ppb	99
47)	2,6-Dinitrotoluene	10.37	165	151147	82.68 ppb	96
48)	Acenaphthene	10.79	153	597352	82.21 ppb	100
49)	3-Nitroaniline	10.67	138	159809	78.18 ppb	99
50)	2,4-Dinitrophenol	10.88	184	68197	72.99 ppb	90
51)	Dibenzofuran	11.10	168	867243	83.21 ppb	100
52)	2,4-Dinitrotoluene	11.17	165	203015	82.87 ppb	94
53)	4-Nitrophenol	10.98	65	139818	73.54 ppb	93
54)	Fluorene	11.81	166	714323	83.01 ppb	99
55)	4-Chlorophenyl-phenylether	11.77	204	346285	83.05 ppb	96
56)	Diethylphthalate	11.60	149	706108	82.77 ppb	99
57)	4-Nitroaniline	11.95	138	171438	78.32 ppb	89
60)	4,6-Dinitro-2-methylphenol	12.02	198	114861	76.09 ppb	97
61)	1,2 Diphenylhydrazine	12.10	77	873254	86.59 ppb	99
62)	N-Nitrosodiphenylamine	12.04	169	549833	83.64 ppb	99
63)	4-Bromophenyl-phenylether	12.80	248	212527	86.97 ppb	99
64)	Hexachlorobenzene	13.15	284	224906	84.93 ppb	99
65)	Atrazine	13.19	215	60533	66.63 ppb	97
66)	Pentachlorophenol	13.53	266	116633	75.49 ppb	95
67)	Phenanthrene	13.87	178	1008160	81.06 ppb	99
68)	Anthracene	13.96	178	1052474	82.68 ppb	100
69)	Carbazole	14.31	167	944377	81.28 ppb	99
70)	Di-n-butylphthalate	15.06	149	1207878	84.12 ppb	99

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

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973A\DATA\020602\AN877.D Vial: 1
Acq On : 6 Feb 2002 12:17 pm Operator: Z.Miao
S ·le : CALIBRATION CHECK Inst : 5973-A
M. : 80 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 7 9:38 2002 Quant Results File: 82700204.RES

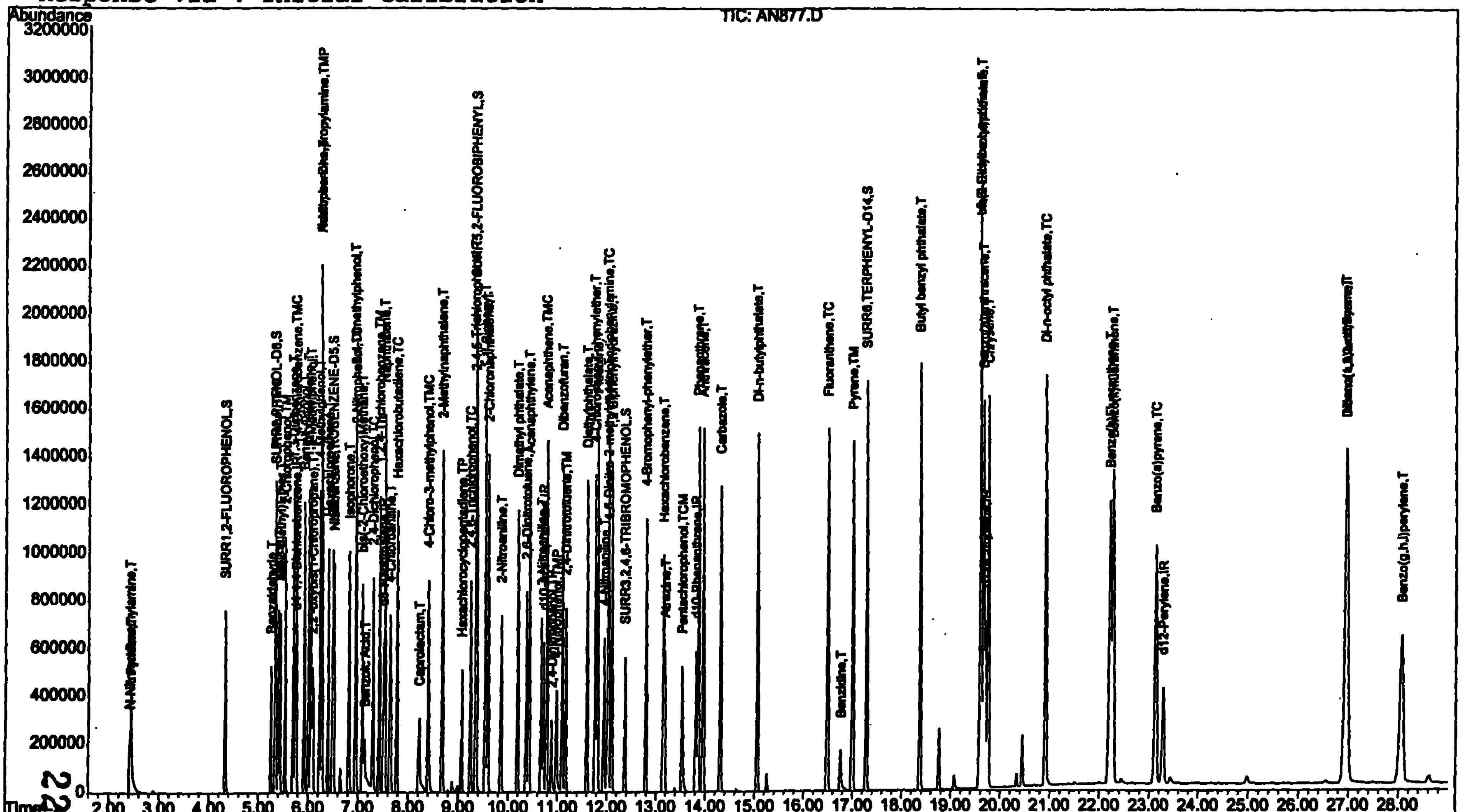
Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Initial Calibration
DataAcq Meth : 82700204

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
71)	Fluoranthene	16.49	202	1176887	83.53 ppb	100
73)	Benzidine	16.76	184	156508	51.04 ppb	99
74)	Pyrene	17.01	202	1208350	75.73 ppb	99
76)	Butyl benzyl phthalate	18.37	149	580249	77.23 ppb	99
77)	3,3'-Dichlorobenzidine	19.59	252	384448	78.63 ppb	97
78)	Benzo(a)anthracene	19.66	228	1279639	79.76 ppb	99
79)	Chrysene	19.76	228	1217638	79.16 ppb	98
80)	bis(2-Ethylhexyl)phthalate	19.60	149	843452	77.96 ppb	98
82)	Di-n-octyl phthalate	20.91	149	1497804	81.24 ppb	99
83)	Benzo(b)Fluoranthene	22.22	252	1308083	80.40 ppb	98
84)	Benzo(k)fluoranthene	22.27	252	1309393	84.41 ppb	99
95)	Benzo(a)pyrene	23.13	252	1162483	81.20 ppb	98
.6)	Indeno(1,2,3-cd)Pyrene	26.96	276	1542117	82.30 ppb	93
87)	Dibenz(a,h)anthracene	26.95	278	1237845	81.90 ppb	98
88)	Benzo(g,h,i)perylene	28.06	276	1271218	81.69 ppb	94

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

Data File : J:\ACQUDATA\5973A\DATA\020602\AN877.D Vial: 1
Acq On : 6 Feb 2002 12:17 pm Operator: Z.Miao
Sample : CALIBRATION CHECK Inst : 5973-A
Misc : 80 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 7 9:38 2002 Quant Results File: 82700204.RES

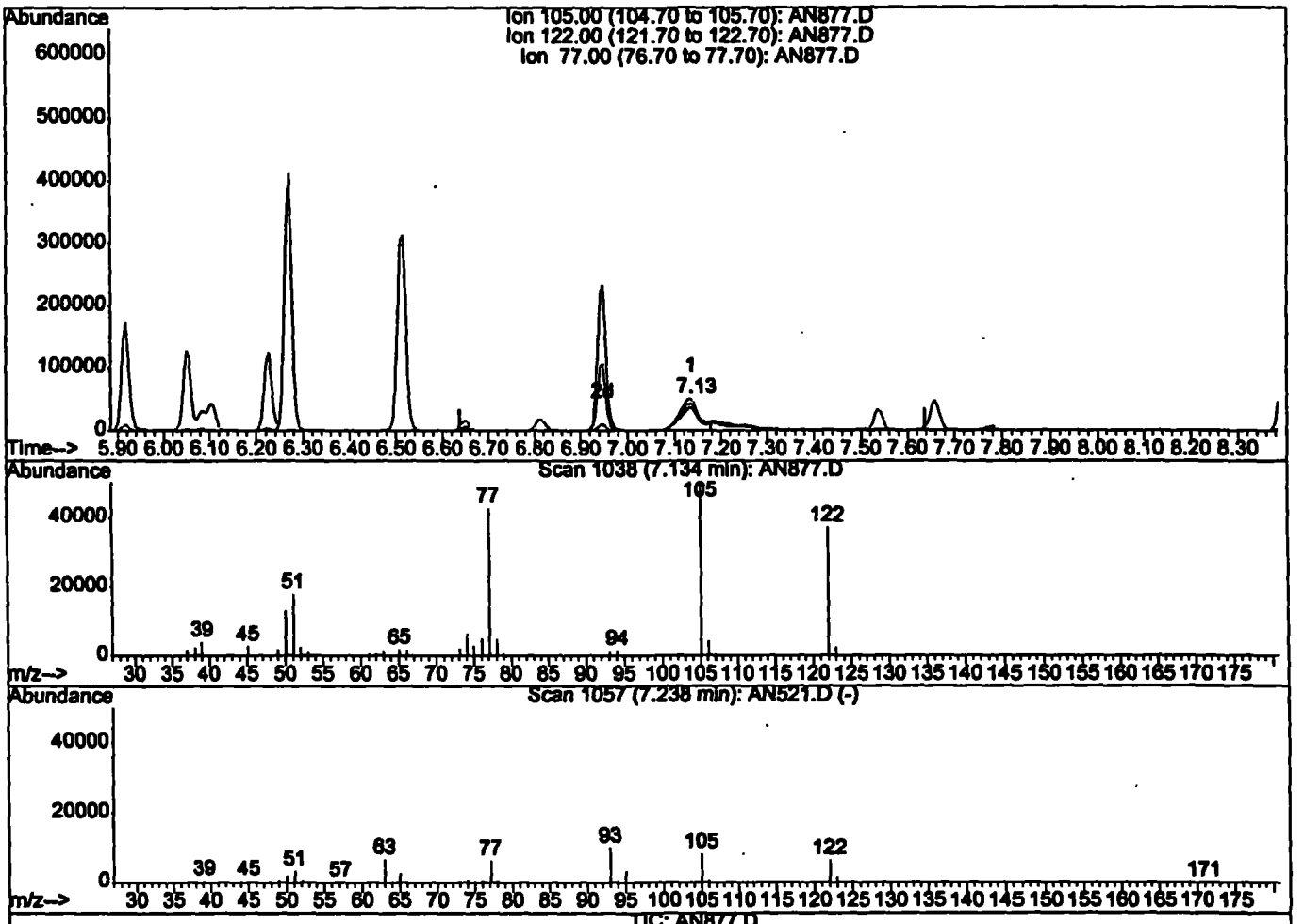
Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973A\DATA\020602\AN877.D Vial: 1
Acq On : 6 Feb 2002 12:17 pm Operator: Z.Miao
Sample : CALIBRATION CHECK Inst : 5973-A
Misc : 80 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 6 12:47 2002 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Multiple Level Calibration



(26) Benzoic Acid (T)

7.13min 64.39ppb

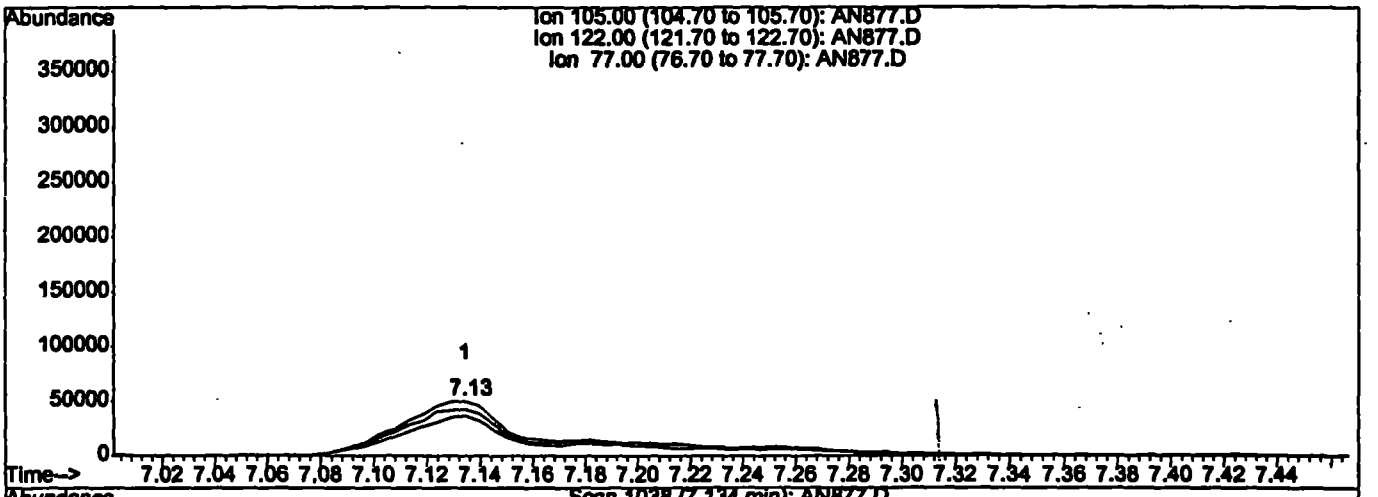
response 147822

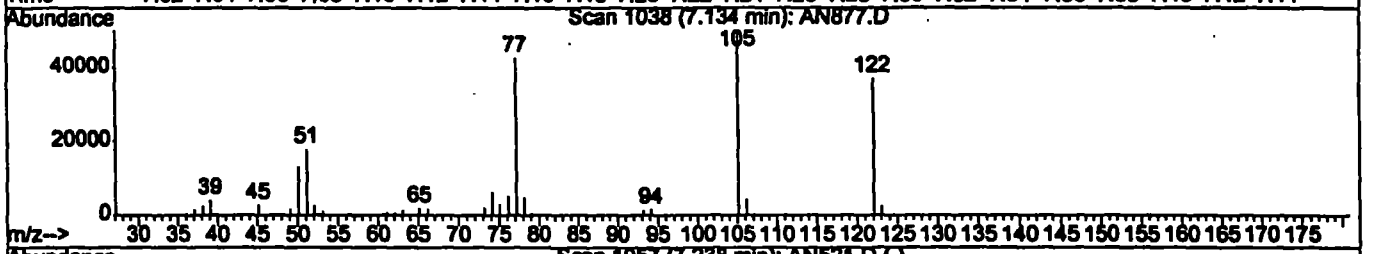
Ion	Exp%	Act%
105.00	100	100
122.00	71.90	74.06
77.00	86.30	85.24
0.00	0.00	0.00

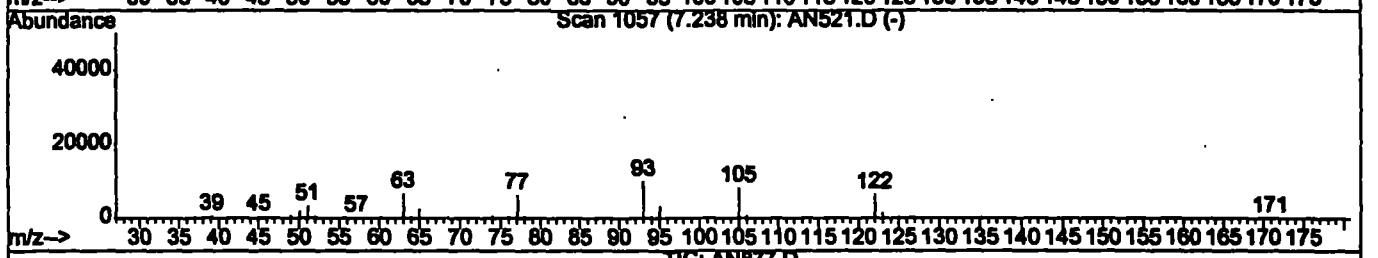
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973A\DATA\020602\AN877.D Vial: 1
Acq On : 6 Feb 2002 12:17 pm Operator: Z.Miao
Sample : CALIBRATION CHECK Inst : 5973-A
Misc : 80 PPM STD 8270/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 7 9:38 2002 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Multiple Level Calibration







TIC: AN877.D

(26) Benzoic Acid (T)

7.13min 81.41ppb m

response 211688

Ion	Exp%	Act%
105.00	100	100
122.00	71.90	74.06
77.00	86.30	85.24
0.00	0.00	0.00

22B

AN877.D 82700204.M Thu Feb 07 09:38:20 2002 MSA

ZM 2/07/02

Quantitation Report (Not Reviewed)

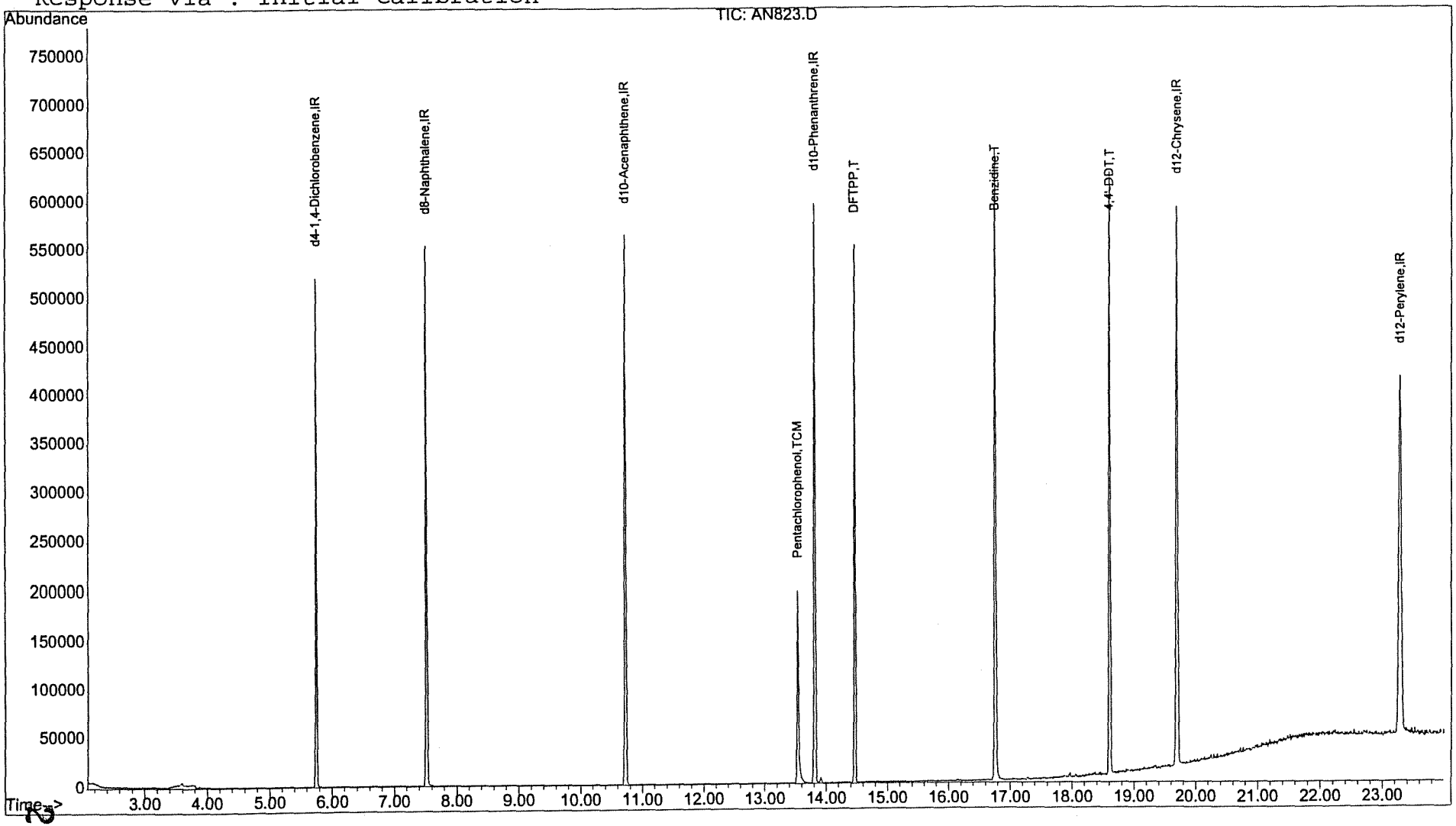
Data File : J:\ACQUDATA\5973A\DATA\020402\AN823.D Vial: 1
Acq On : 4 Feb 2002 2:53 pm Operator: Z.Miao
Sample : TUNE CHECK Inst : 5973-A
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 4 15:16 2002 Quant Results File: TUNCHECK.RES

Quant Method : C:\HPCHEM\1\METHODS\TUNCHECK.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Wed Jan 16 17:53:56 2002
Response via : Initial Calibration
DataAcq Meth : TUNCHECK

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	5.74	152	98781	40.00 ppb	-0.10
2) d8-Naphthalene	7.51	136	372578	40.00 ppb	-0.13
3) d10-Acenaphthene	10.72	164	206083	40.00 ppb	-0.18
4) d10-Phenanthrene	13.81	188	380168	40.00 ppb	-0.18
7) d12-Chrysene	19.69	240	403676	40.00 ppb	-0.20
12) d12-Perylene	23.28	264	401798	40.00 ppb	-0.32
Target Compounds					**Qvalue**
5) Pentachlorophenol	13.53	266	46331	36.93 ppb	96
6) DFTPP	14.46	198	86593	53.64 ppb	95
8) Benzidine	16.75	184	450370	46.39 ppb	98
9) 4,4'-DDE	0.00	246	0	N.D.	
10) 4,4'-DDD	0.00	235	0	N.D.	
11) 4,4'-DDT	18.60	235	186595	54.07 ppb	97

Data File : J:\ACQUDATA\5973A\DATA\020402\AN823.D Vial: 1
Acq On : 4 Feb 2002 2:53 pm Operator: Z.Miao
Sample : TUNE CHECK Inst : 5973-A
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 4 15:16 2002 Quant Results File: TUNCHECK.RES

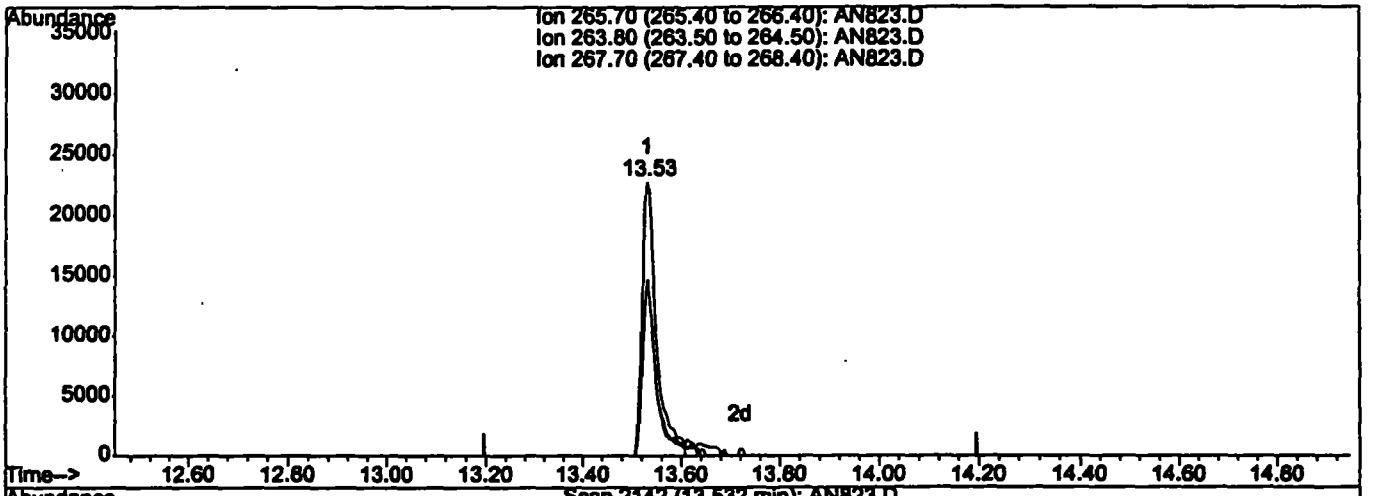
Method : C:\HPCHEM\1\METHODS\TUNCHECK.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Wed Jan 16 17:53:56 2002
Response via : Initial Calibration

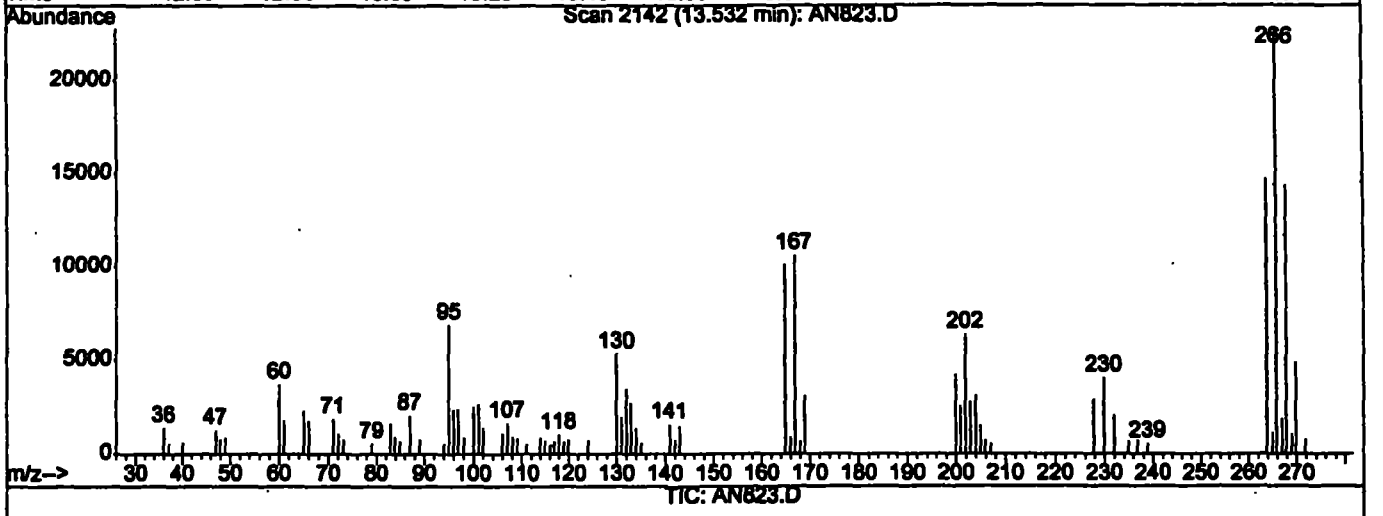


Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN823.D Vial: 1
Acq On : 4 Feb 2002 2:53 pm Operator: Z.Miao
Sample : TUNE CHECK Inst : 5973-A
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 4 15:16 2002 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\TUNCHECK.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Wed Jan 16 17:53:56 2002
Response via : Single Level Calibration





(5) Pentachlorophenol (TCM)

13.53min 36.93ppb

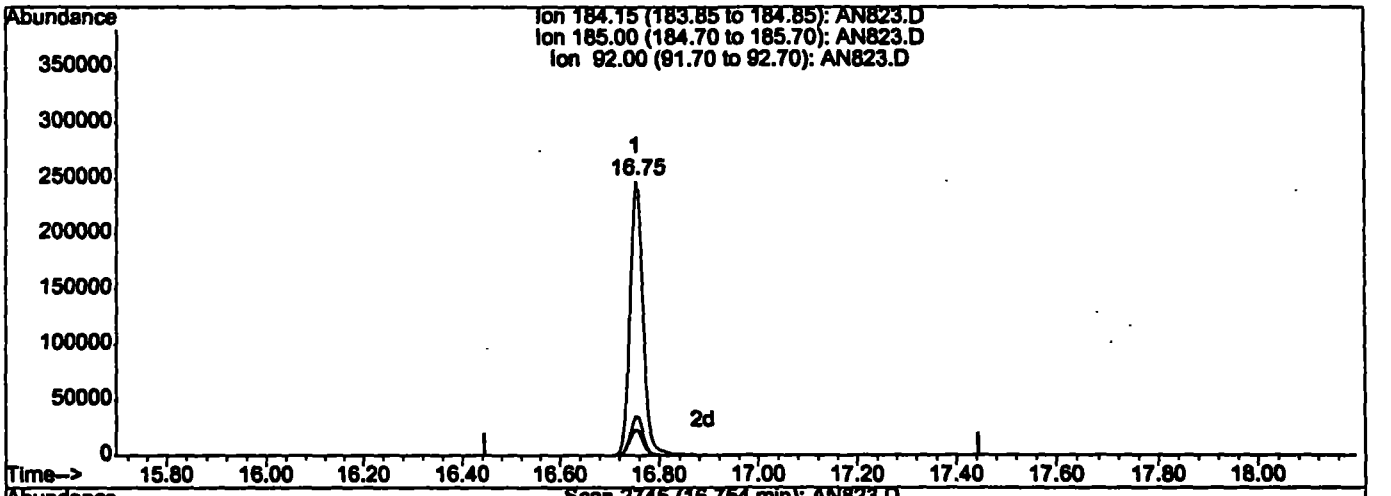
response 46331

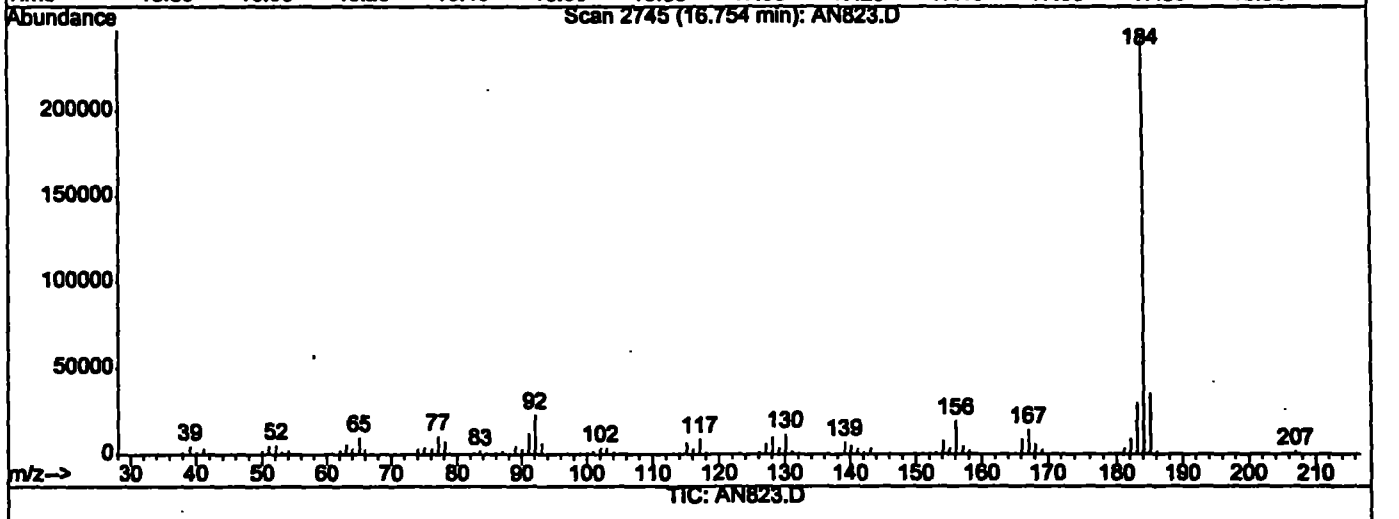
Ion	Exp%	Act%
265.70	100	100
263.80	61.20	64.36
267.70	65.00	62.16
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973A\DATA\020402\AN823.D Vial: 1
Acq On : 4 Feb 2002 2:53 pm Operator: Z.Miao
Sample : TUNE CHECK Inst : 5973-A
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 4 15:16 2002 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\TUNCHECK.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Wed Jan 16 17:53:56 2002
Response via : Single Level Calibration





(8) Benzidine (T)

16.75min 46.39ppb

response 450370

Ion	Exp%	Act%
184.15	100	100
185.00	14.90	14.12
92.00	10.20	9.25
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\5973A\DATA\020602\AN876.D Vial: 1
Acq On : 6 Feb 2002 11:44 am Operator: Z.Miao
ple : TUNE CHECK Inst : 5973-A
c : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 6 12:08 2002 Quant Results File: TUNCHECK.RES

Quant Method : C:\HPCHEM\1\METHODS\TUNCHECK.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Wed Jan 16 17:53:56 2002
Response via : Initial Calibration
DataAcq Meth : TUNCHECK

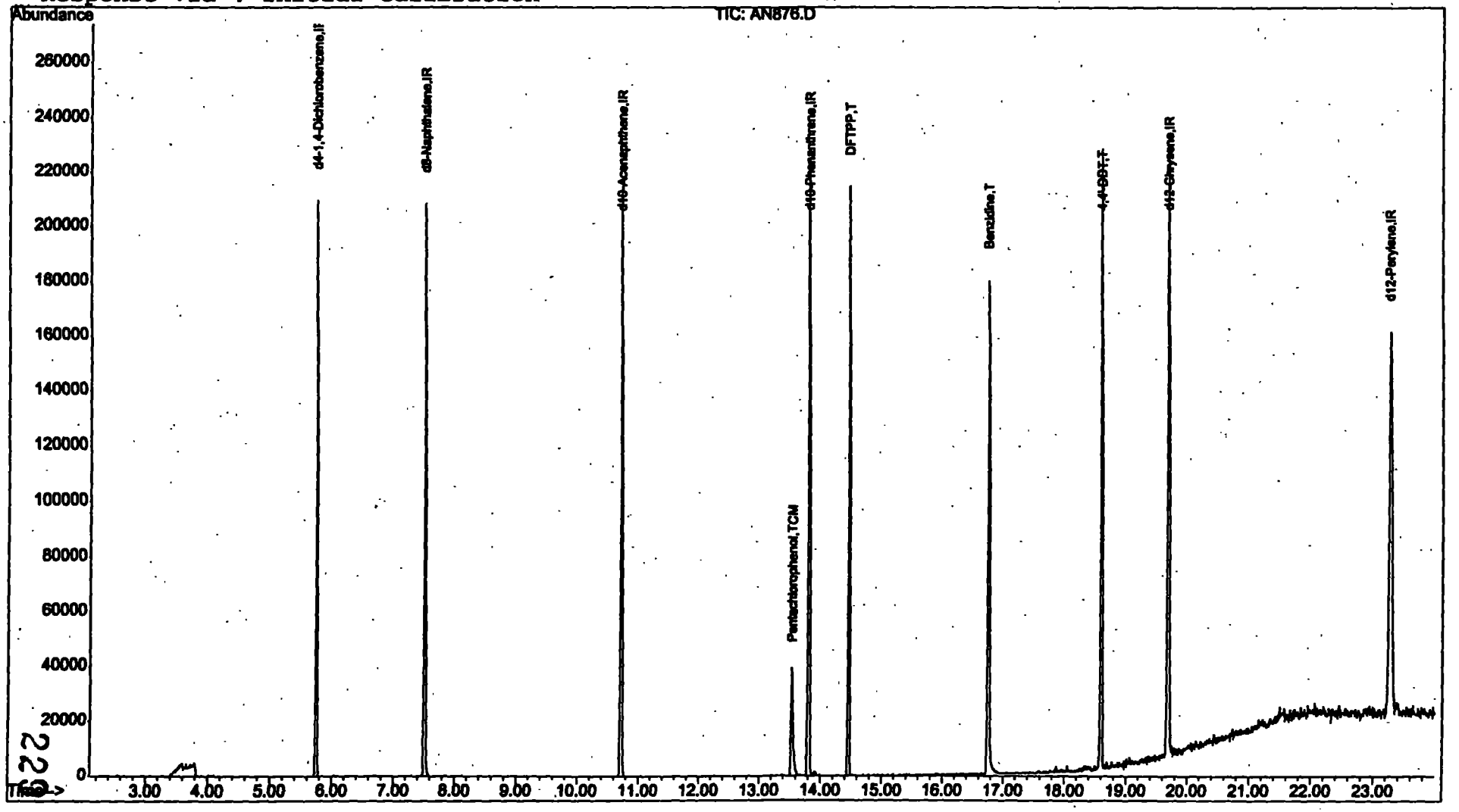
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	5.74	152	38200	40.00 ppb	-0.10
2) d8-Naphthalene	7.51	136	144578	40.00 ppb	-0.13
3) d10-Acenaphthene	10.72	164	78861	40.00 ppb	-0.18
4) d10-Phenanthrene	13.80	188	152745	40.00 ppb	-0.19
7) d12-Chrysene	19.68	240	166055	40.00 ppb	-0.21
12) d12-Perylene	23.27	264	166537	40.00 ppb	-0.34
Target Compounds					**Qvalue**
5) Pentachlorophenol	13.54	266	16008	31.76 ppb	94
6) DFTPP	14.46	198	33942	52.33 ppb	96
8) Benzidine	16.75	184	149832	37.52 ppb	97
9) 4,4'-DDE	0.00	246	0	N.D.	
10) 4,4'-DDD	0.00	235	0	N.D.	
11) 4,4'-DDT	18.59	235	71734	50.53 ppb	97

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

Quantitation Report

Data File : J:\ACQUDATA\5973A\DATA\020602\AN876.D Vial: 1
Acq On : 6 Feb 2002 11:44 am Operator: Z.Miao
Sample : TUNE CHECK Inst : 5973-A
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 6 12:08 2002 Quant Results File: TUNCHECK.RES

Method : C:\HPCHEM\1\METHODS\TUNCHECK.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Wed Jan 16 17:53:56 2002
Response via : Initial Calibration



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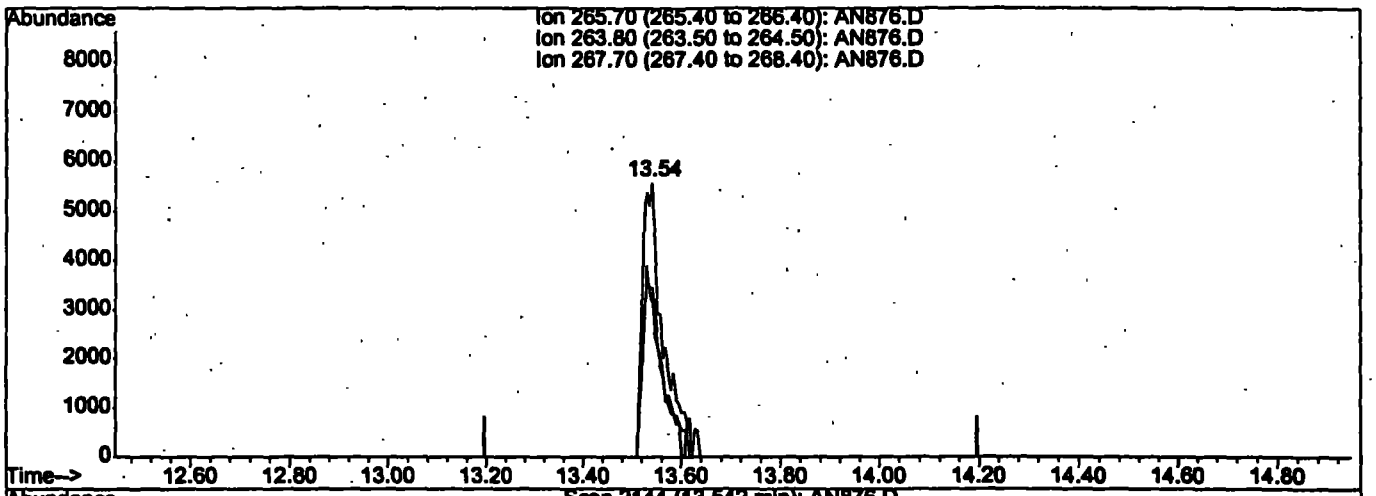
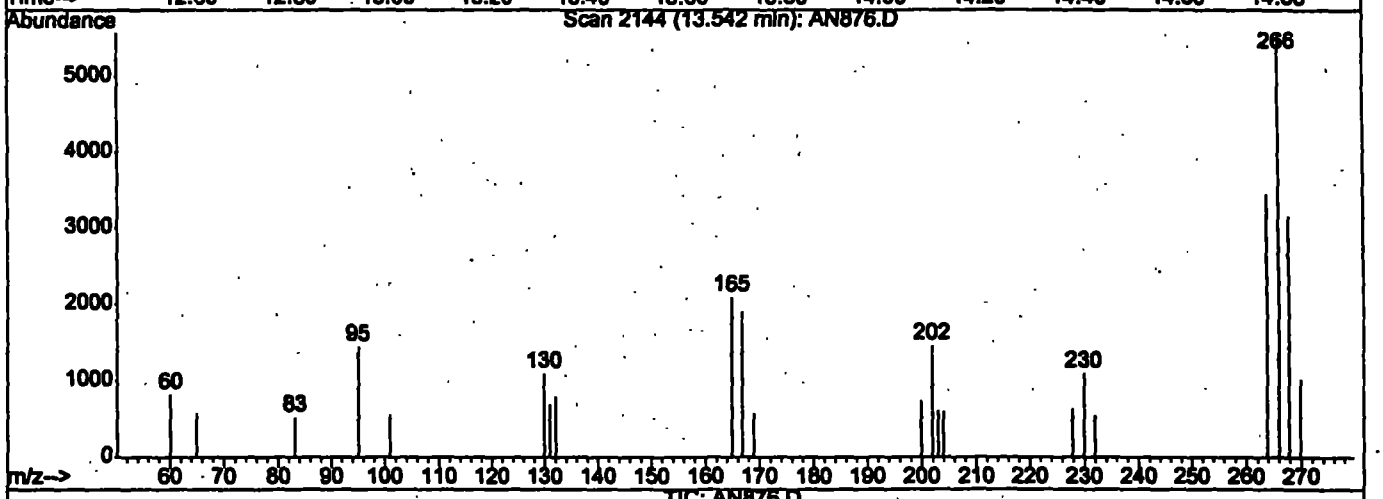
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973A\DATA\020602\AN876.D Vial: 1
Acq On : 6 Feb 2002 11:44 am Operator: Z.Miao
Sample : TUNE CHECK Inst : 5973-A
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 6 12:08 2002 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\TUNCHECK.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Wed Jan 16 17:53:56 2002
Response via : Single Level Calibration





(5) Pentachlorophenol (TCM)

13.54min 31.76ppb

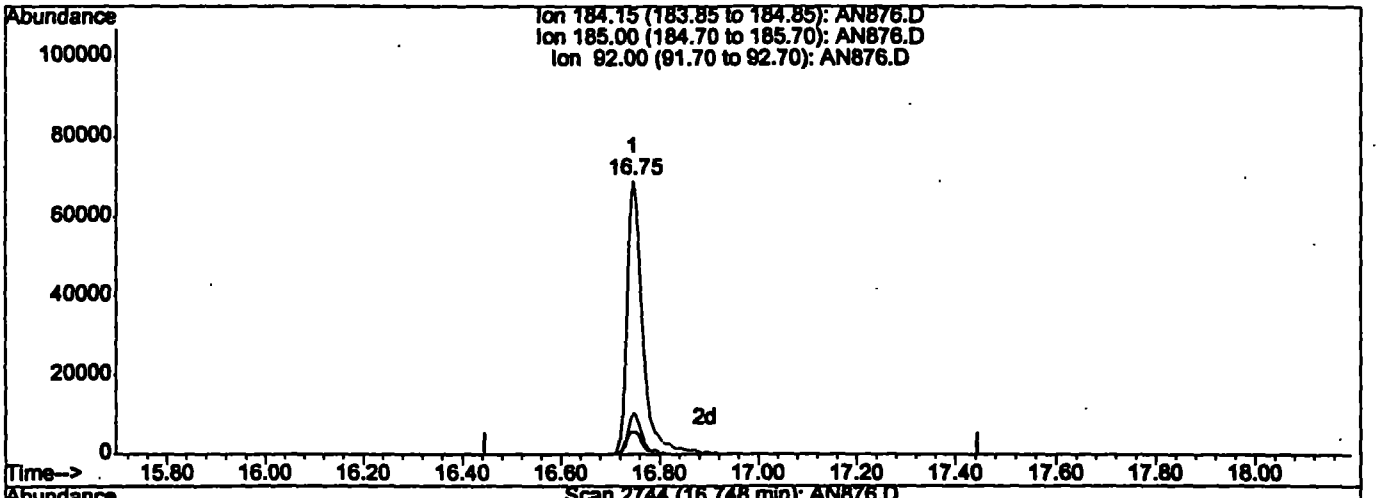
response 16008

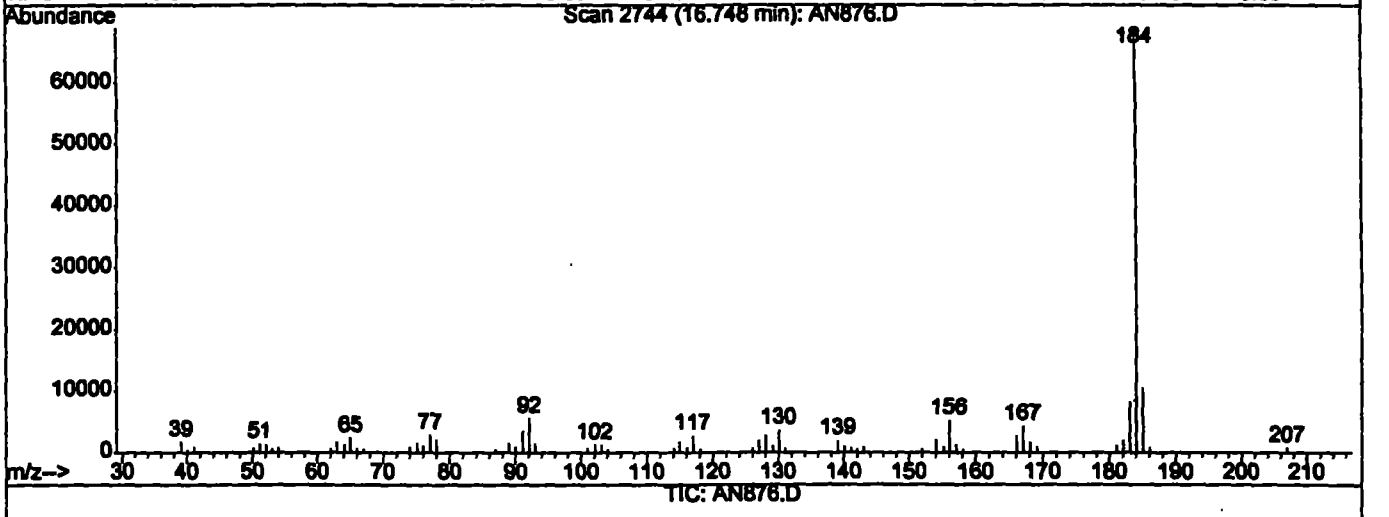
Ion	Exp%	Act%
265.70	100	100
263.80	61.20	61.89
267.70	65.00	56.55
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973A\DATA\020602\AN876.D Vial: 1
Acq On : 6 Feb 2002 11:44 am Operator: Z.Miao
Sample : TUNE CHECK Inst : 5973-A
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 6 12:08 2002 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\TUNCHECK.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Wed Jan 16 17:53:56 2002
Response via : Single Level Calibration





(8) Benzidine (T)

16.75min 37.52ppb

response 149832

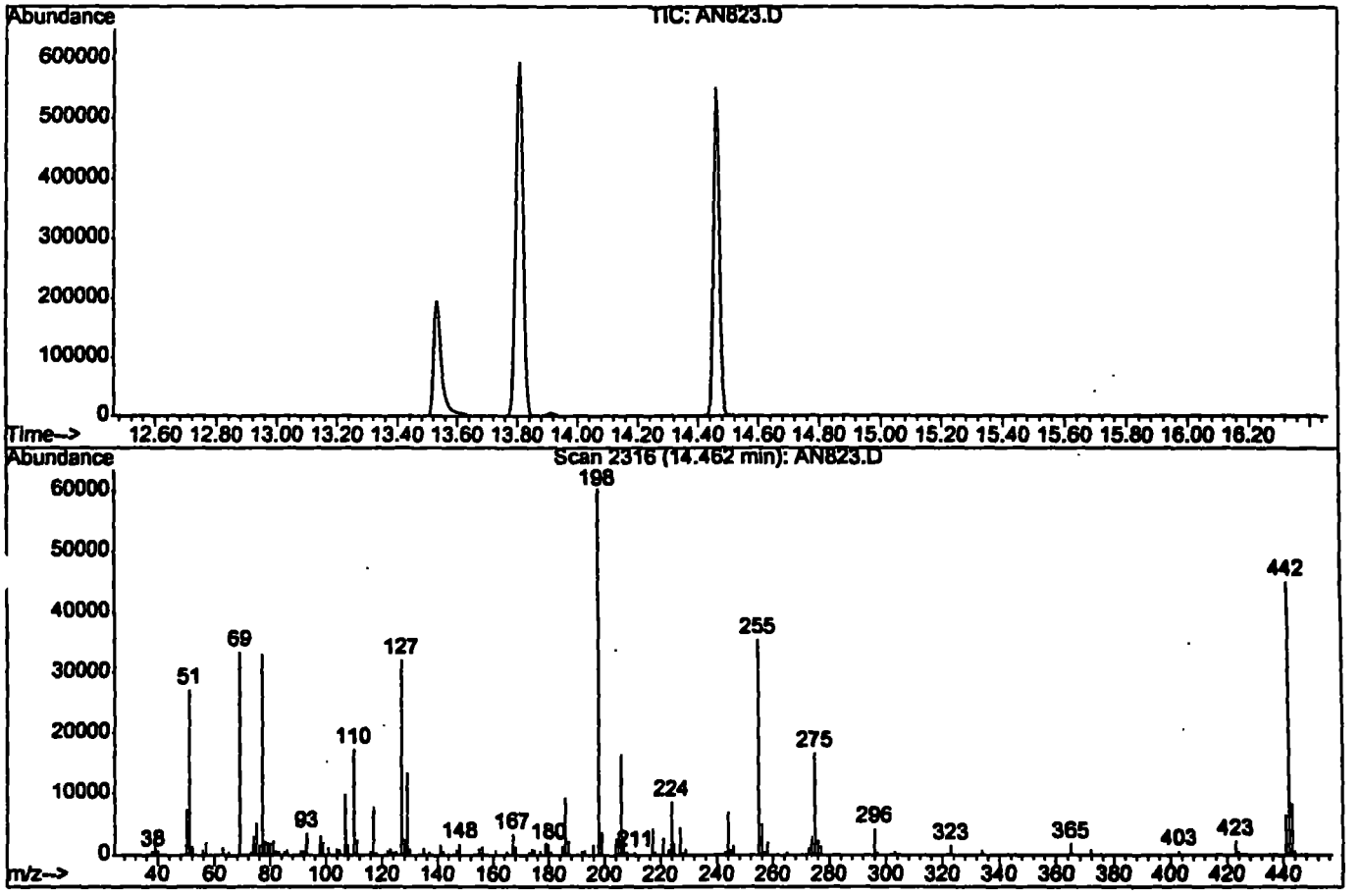
Ion	Exp%	Act%
184.15	100	100
185.00	14.90	15.28
92.00	10.20	8.15
0.00	0.00	0.00

SEMIVOLATILE ORGANICS

RAW QC DATA

DFTPP

Data File : J:\ACQUDATA\5973A\DATA\020402\AN823.D Vial: 1
Acq On : 4 Feb 2002 2:53 pm Operator: Z.Miao
Sample : TUNE CHECK Inst : 5973-A
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\HPCHEM\1\METHODS\TUNCHECK.M (RTE Integrator)
Title : TUNE CHECK



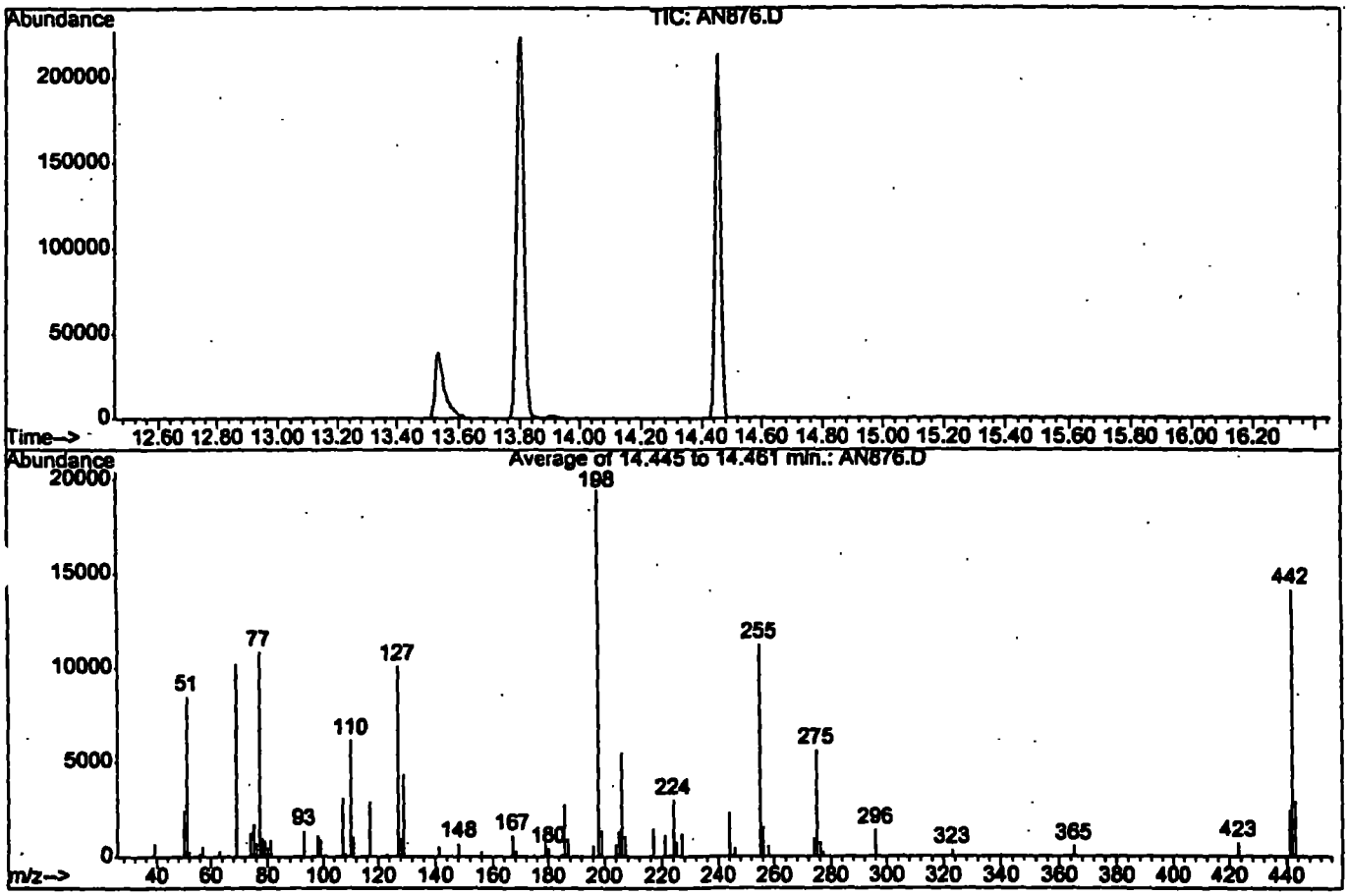
Spectrum Information: Scan 2316

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	45.0	27240	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	55.4	33512	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	53.2	32200	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	60472	PASS
199	198	5	9	6.2	3747	PASS
275	198	10	30	27.7	16776	PASS
365	198	1	100	3.1	1855	PASS
441	443	0.01	100	76.9	6522	PASS
442	198	40	100	74.7	45184	PASS
443	442	17	23	18.8	8480	PASS

AN823.D TUNCHECK.M Mon Feb 04 15:23:09 2002 MSA ZM

DFTPP

Data File : J:\ACQUDATA\5973A\DATA\020602\AN876.D Vial: 1
Acq On : 6 Feb 2002 11:44 am Operator: Z.Miao
Sample : TUNE CHECK Inst : 5973-A
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\HPCHEM\1\METHODS\TUNCHECK.M (RTE Integrator)
Title : TUNE CHECK



Spectrum Information: Average of 14.445 to 14.461 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	43.8	8521	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	52.5	10199	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	52.0	10103	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	19438	PASS
199	198	5	9	7.1	1387	PASS
275	198	10	30	28.9	5614	PASS
365	198	1	100	2.9	564	PASS
441	443	0.01	100	84.3	2445	PASS
442	198	40	100	72.9	14170	PASS
443	442	17	23	20.5	2900	PASS

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C SEMIVOLATILES
Reported: 02/27/02

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : **Order #:** 529310 **Sample Matrix:** SOIL/SEDIMENT
Date Received: **Submission #:** **Percent Solid:** 100

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 01/28/02			
DATE ANALYZED : 02/06/02			
ANALYTICAL DILUTION: 1.00			Dry Weight
ACENAPHTHENE	330	330 U	UG/KG
ACENAPHTHYLENE	330	330 U	UG/KG
ANTHRACENE	330	330 U	UG/KG
BENZO(A)ANTHRACENE	330	330 U	UG/KG
BENZO(A)PYRENE	330	330 U	UG/KG
BENZO(B)FLUORANTHENE	330	330 U	UG/KG
BENZO(G,H,I)PERYLENE	330	330 U	UG/KG
BENZO(K)FLUORANTHENE	330	330 U	UG/KG
BENZYL ALCOHOL	330	330 U	UG/KG
BUTYL BENZYL PHTHALATE	330	330 U	UG/KG
DI-N-BUTYLPHTHALATE	330	330 U	UG/KG
ARBAZOLE	330	330 U	UG/KG
NDENO(1,2,3-CD)PYRENE	330	330 U	UG/KG
4-CHLOROANILINE	330	330 U	UG/KG
BIS(-2-CHLOROETHOXY)METHANE	330	330 U	UG/KG
BIS(2-CHLOROETHYL)ETHER	330	330 U	UG/KG
2-CHLORONAPHTHALENE	330	330 U	UG/KG
2-CHLOROPHENOL	330	330 U	UG/KG
2,2'-OXYBIS(1-CHLOROPROPANE)	330	330 U	UG/KG
CHRYSENE	330	330 U	UG/KG
DIBENZO(A,H)ANTHRACENE	330	330 U	UG/KG
DIBENZOFURAN	330	330 U	UG/KG
1,3-DICHLOROBENZENE	330	330 U	UG/KG
1,2-DICHLOROBENZENE	330	330 U	UG/KG
1,4-DICHLOROBENZENE	330	330 U	UG/KG
3,3'-DICHLOROBENZIDINE	330	330 U	UG/KG
2,4-DICHLOROPHENOL	330	330 U	UG/KG
DIETHYLPHTHALATE	330	330 U	UG/KG
DIMETHYL PHTHALATE	330	330 U	UG/KG
2,4-DIMETHYLPHENOL	330	330 U	UG/KG
2,4-DINITROPHENOL	1700	1700 U	UG/KG
2,4-DINITROTOLUENE	330	330 U	UG/KG
2,6-DINITROTOLUENE	330	330 U	UG/KG
BIS(2-ETHYLHEXYL)PHTHALATE	330	330 U	UG/KG
FLUORANTHENE	330	330 U	UG/KG
FLUORENE	330	330 U	UG/KG
HEXACHLOROBENZENE	330	330 U	UG/KG
HEXACHLOROBUTADIENE	330	330 U	UG/KG
HEXACHLOROCYCLOPENTADIENE	330	330 U	UG/KG
HEXACHLOROETHANE	330	330 U	UG/KG
ISOPHORONE	330	330 U	UG/KG
2-METHYLNAPHTHALENE	330	330 U	UG/KG
4,6-DINITRO-2-METHYLPHENOL	1700	1700 U	UG/KG
4-CHLORO-3-METHYLPHENOL	330	330 U	UG/KG

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C SEMIVOLATILES
Reported: 02/27/02

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : **Order #:** 529310 **Sample Matrix:** SOIL/SEDIMENT
Date Received: **Submission #:** **Percent Solid:** 100

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 01/28/02			
DATE ANALYZED : 02/06/02			
ANALYTICAL DILUTION: 1.00			Dry Weight
2-METHYLPHENOL	330	330 U	UG/KG
3+4-METHYLPHENOL	330	330 U	UG/KG
NAPHTHALENE	330	330 U	UG/KG
2-NITROANILINE	1700	1700 U	UG/KG
3-NITROANILINE	1700	1700 U	UG/KG
4-NITROANILINE	1700	1700 U	UG/KG
NITROBENZENE	330	330 U	UG/KG
2-NITROPHENOL	330	330 U	UG/KG
4-NITROPHENOL	1700	1700 U	UG/KG
N-NITROSODIMETHYLAMINE	330	330 U	UG/KG
N-NITROSODIPHENYLAMINE	330	330 U	UG/KG
-N-OCTYL PHTHALATE	330	330 U	UG/KG
PENTACHLOROPHENOL	1700	1700 U	UG/KG
PHENANTHRENE	330	330 U	UG/KG
PHENOL	330	330 U	UG/KG
4-BROMOPHENYL-PHENYLETHER	330	330 U	UG/KG
4-CHLOROPHENYL-PHENYLETHER	330	330 U	UG/KG
N-NITROSO-DI-N-PROPYLAMINE	330	330 U	UG/KG
PYRENE	330	330 U	UG/KG
1,2,4-TRICHLOROBENZENE	330	330 U	UG/KG
2,4,6-TRICHLOROPHENOL	330	330 U	UG/KG
2,4,5-TRICHLOROPHENOL	330	330 U	UG/KG

SURROGATE RECOVERIES	QC LIMITS		
TERPHENYL-d14	(10 - 152 %)	81	%
NITROBENZENE-d5	(10 - 138 %)	64	%
PHENOL-d6	(11 - 130 %)	79	%
2-FLUOROBIPHENYL	(11 - 112 %)	67	%
2-FLUOROPHENOL	(10 - 130 %)	79	%
2,4,6-TRIBROMOPHENOL	(10 - 130 %)	84	%

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK1

Lab Name: CAS-ROCH Contract: TETRA TECH

Lab Code: 10145 Case No.: R2210427 SAS No.: _____ SDG No.: OS-PW-12

Matrix: (soil/water) SOIL Lab Sample ID: 529310 1.0

Sample wt/vol: 30 (g/ml) G Lab File ID: AN878.D

Level: (low/med) LOW Date Received: _____

% Moisture: 0 decanted: (Y/N) N Date Extracted: 1/28/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 2/6/02

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Number TICs found: 8

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000141-79-7	3-Penten-2-one, 4-methyl-	3.36	140	JN A
2.	unknown	3.92	6800	J A
3.	unknown	4.01	230	J
4.	unknown	4.09	170	J
5.	unknown alcohol	4.14	140	J
6.	unknown	4.25	210	J
7.	unknown alcohol	4.62	690	J
8.	unknown alcohol	5.57	300	J

Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\5973A\DATA\020602\AN878.D Vial: 2
Acq On : 6 Feb 2002 1:03 pm Operator: Z.Miao
Sample : 529310 1.0 Inst : 5973-A
Misc : 01/28/2002 33.3 TETR TECH 8270.TCL BLK Multiplr: 33.30
MS Integration Params: RTEINT.P
Quant Time: Feb 6 13:33 2002 Quant Results File: 82700204.RES

Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Initial Calibration
DataAcq Meth : 82700204

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	5.74	152	92810	40.00 ppb	0.00
21) d8-Naphthalene	7.51	136	350764	40.00 ppb	0.01
37) d10-Acenaphthene	10.72	164	199253	40.00 ppb	0.00
59) d10-Phenanthrene	13.81	188	379610	40.00 ppb	0.00
72) d12-Chrysene	19.69	240	424722	40.00 ppb	0.00
81) d12-Perylene	23.28	264	433061	40.00 ppb	0.00

System Monitoring Compounds

4) SURR1,2-FLUOROPHENOL	4.32	112	494244	5248.35 ppb	0.00
Spiked Amount 200.000	Range 10 - 75		Recovery = 2624.18%#		
7) SURR2,PHENOL-D6	5.33	99	701795	5276.09 ppb	0.00
Spiked Amount 200.000	Range 10 - 130		Recovery = 2638.05%#		
22) SURR4,NITROBENZENE-D5	6.50	82	315573	2146.59 ppb	0.01
Spiked Amount 100.000	Range 30 - 116		Recovery = 2146.59%#		
41) SURR5,2-FLUOROBIPHENYL	9.36	172	584872	2223.47 ppb	0.00
Spiked Amount 100.000	Range 38 - 107		Recovery = 2223.47%#		
58) SURR3,2,4,6-TRIBROMOPHENOL	12.37	330	197051	5582.37 ppb	0.00
Spiked Amount 200.000	Range 10 - 135		Recovery = 2791.18%#		
75) SURR6,TERPHENYL-D14	17.29	244	968267	2688.69 ppb	0.00
Spiked Amount 100.000	Range 15 - 135		Recovery = 2688.69%#		

Target Compounds Qvalue

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

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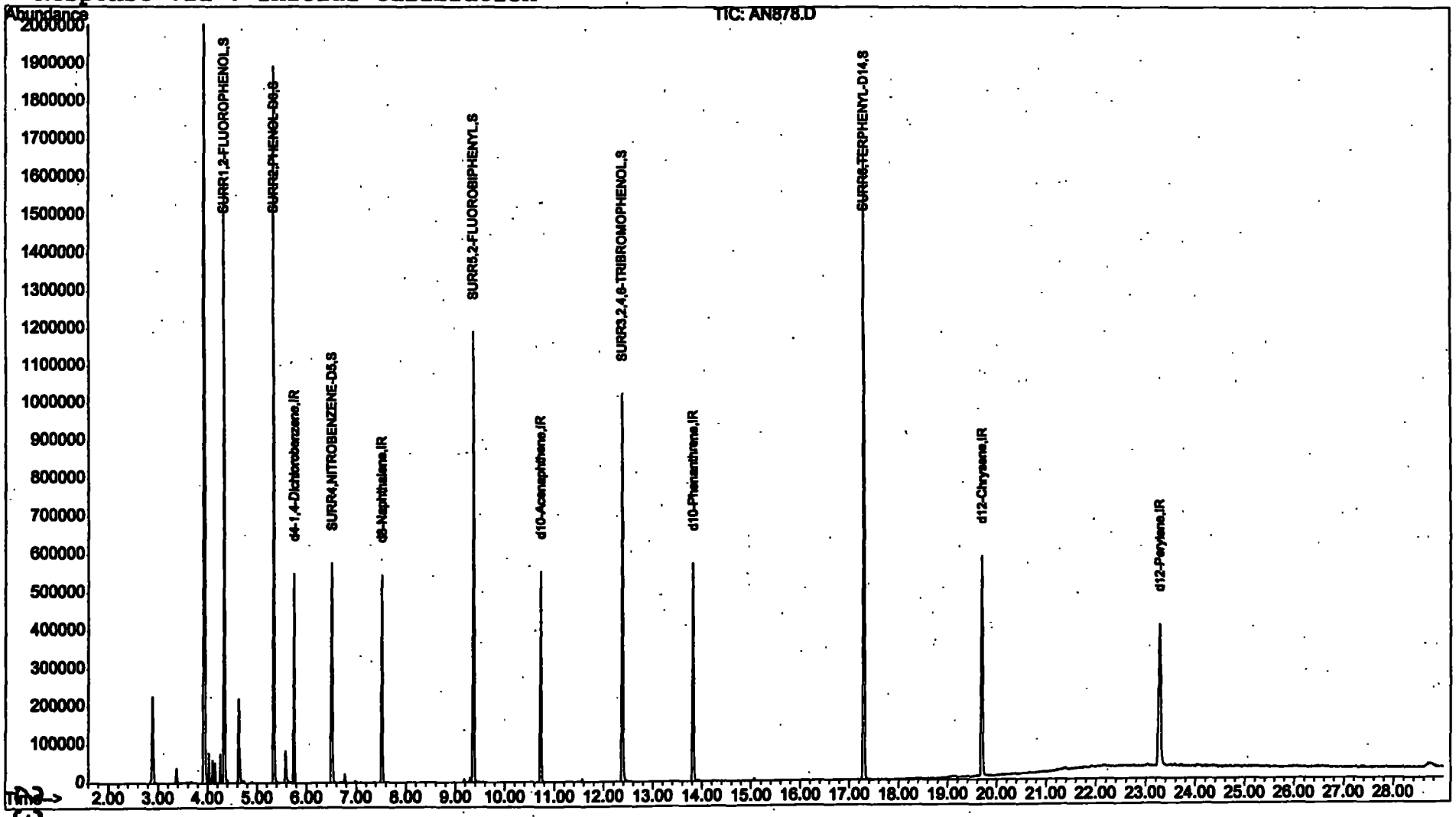
ZM

Quantitation Report

Data File : J:\ACQUDATA\5973A\DATA\020602\AN878.D Vial: 2
Acq On : 6 Feb 2002 1:03 pm Operator: Z.Miao
Sample : 529310 1.0 Inst : 5973-A
Misc : 01/28/2002 33.3 TETR TECH 8270.TCL BLK Multiplr: 33.30
MS Integration Params: RTEINT.P
Quant Time: Feb 6 13:33 2002 Quant Results File: 82700204.RES

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Initial Calibration



Tentatively Identified Compound (LSC) summary

Operator ID: Z.Miao Date Acquired: 6 Feb 2002 1:03 pm
Data File: J:\ACQUDATA\5973A\DATA\020602\AN878.D
e: 529310 1.0
Misc: 01/28/2002 33.3 ~~BBL~~ Tetra 8270.~~PAH~~ TCL BLK JW 2/26/02
Method: C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title: 8270 BNA ANALYSIS
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Toluene	2.89	843.6	ppb	398173	ISTD01	5.74	628676	40.0
3-Penten-2-one, 4-me	3.36	136.0	ppb	64169	ISTD01	5.74	628676	40.0
2-Pentanone, 4-hydro	3.92	6753.8	ppb	3187660	ISTD01	5.74	628676	40.0
3-Pentanol	4.01	226.3	ppb	106803	ISTD01	5.74	628676	40.0
4-Penten-2-ol	4.09	168.9	ppb	79701	ISTD01	5.74	628676	40.0
3-Pentanol	4.14	144.9	ppb	68397	ISTD01	5.74	628676	40.0
4-Penten-2-ol	4.25	205.6	ppb	97028	ISTD01	5.74	628676	40.0
Ethanol, 2-butoxy-	4.62	692.0	ppb	326621	ISTD01	5.74	628676	40.0
Ethanol, 2-(2-ethoxy	5.57	300.8	ppb	141967	ISTD01	5.74	628676	40.0

AN878.D 82700204.M Mon Feb 11 13:00:44 2002 MSA

LSC Area Percent Report

Data File : J:\ACQUDATA\5973A\DATA\020602\AN878.D Vial: 2
Acq On : 6 Feb 2002 1:03 pm Operator: Z.Miao
Sample : 529310 1.0 Inst : 5973-A
Misc : 01/28/2002 33.3 ~~BBL~~ Tetra 8270.~~PAH~~ TCL BLK Multiplr: 33.30
MS Integration Params: TEBINT.P

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 25000 Area counts
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

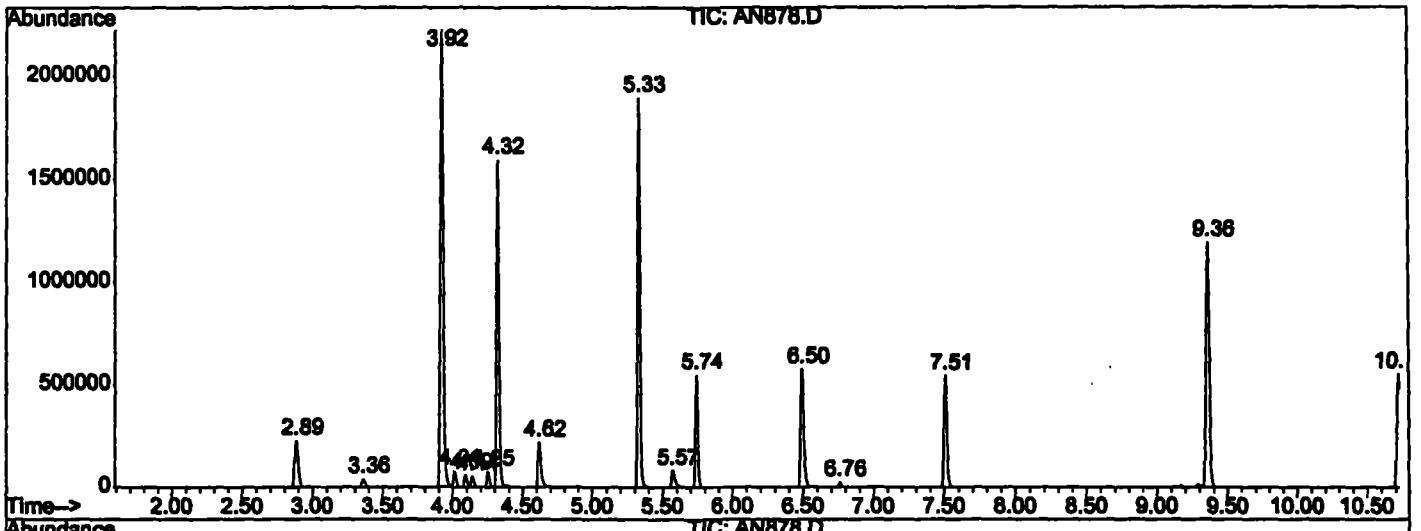
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.886	235	243	251	rBB	228829	398173	12.49%	1.872%
2	3.362	326	332	341	rBV	40943	64169	2.01%	0.302%
3	3.923	431	437	449	rBV	2225176	3187661	100.00%	14.986%
4	4.014	449	454	461	rVB	80370	106803	3.35%	0.502%
5	4.094	462	469	474	rBV	61159	79701	2.50%	0.375%
6	4.142	474	478	484	rVB	53535	68397	2.15%	0.322%
	4.249	493	498	503	rBV	77216	97028	3.04%	0.456%
	4.324	507	512	522	rBV	1594853	1888165	59.23%	8.877%
9	4.623	563	568	580	rBV	220800	326621	10.25%	1.536%
10	5.333	696	701	713	rBV	1896724	2126503	66.71%	9.997%
11	5.568	741	745	756	rBV	83778	141967	4.45%	0.667%
12	5.745	773	778	784	rVB	550119	628676	19.72%	2.956%
13	6.498	912	919	931	rBV	576744	886183	27.80%	4.166%
14	6.760	963	968	972	rBB2	25524	26167	0.82%	0.123%
15	7.513	1103	1109	1121	rVB	544103	763201	23.94%	3.588%
16	9.361	1447	1455	1469	rVB	1190483	1794484	56.29%	8.436%
17	10.723	1703	1710	1721	rBV	554216	879006	27.58%	4.133%
18	12.374	2012	2019	2033	rBV	1024691	1715784	53.83%	8.066%
19	13.811	2280	2288	2298	rBV2	573740	973738	30.55%	4.578%
20	17.289	2929	2939	2952	rBV	1672339	2821503	88.51%	13.265%
21	19.693	3381	3389	3400	rBV	578563	1141418	35.81%	5.366%
22	23.283	4049	4061	4076	rBV2	372372	1155159	36.24%	5.431%

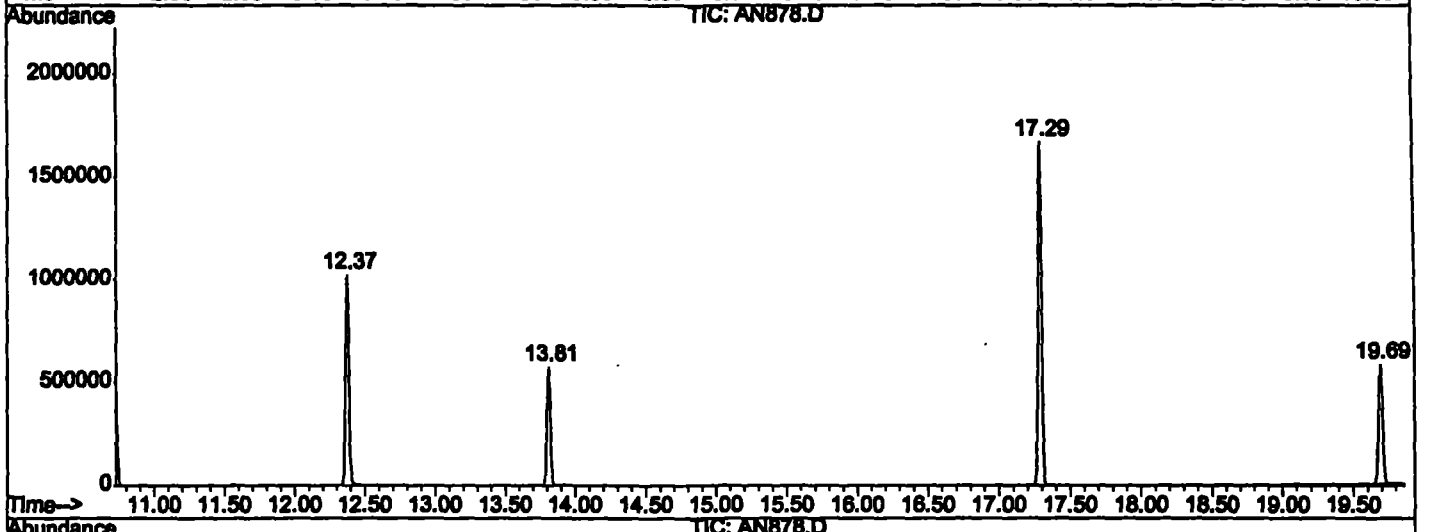
Sum of corrected areas: 21270507

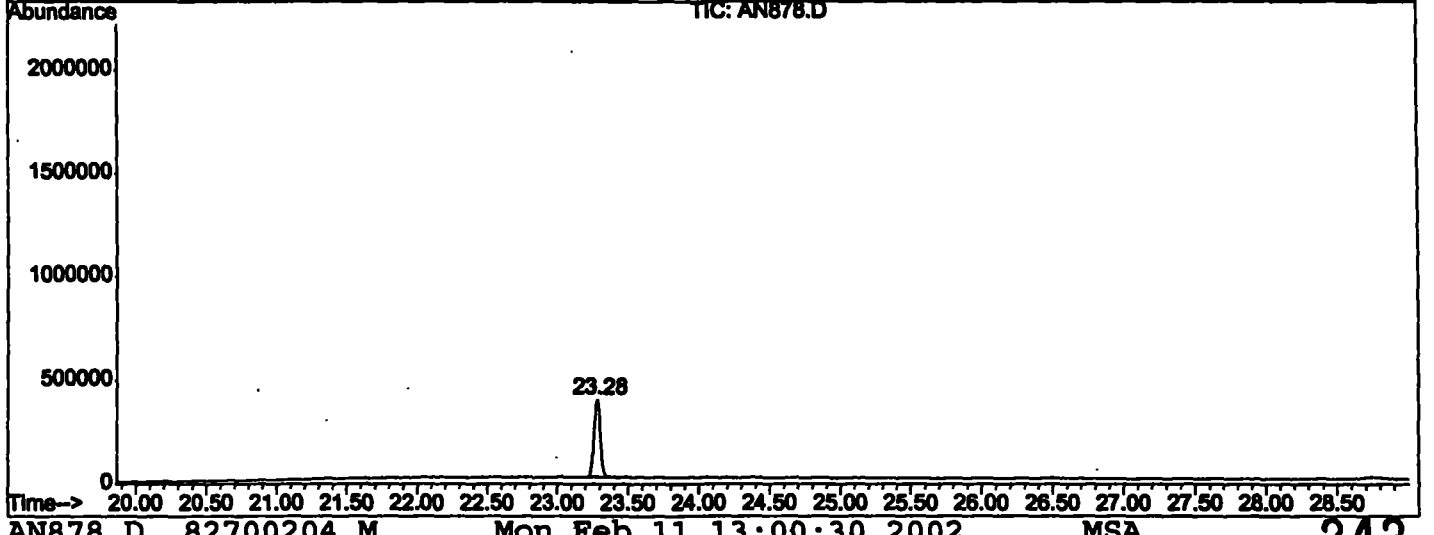
AN878.D 82700204.M Mon Feb 11 13:00:28 2002 MSA

LSC Report - Integrated Chromatogram

File : J:\ACQUDATA\5973A\DATA\020602\AN878.D
Operator : Z.Miao
Acquired : 6 Feb 2002 1:03 pm using AcqMethod 82700204
Instrument : 5973-A
Sample Name: 529310 1.0
Misc Info : 01/28/2002 33.3 ~~BBL~~ Tetra 8270.~~PAH~~ TCL BLK
Vial Number: 2
Quant File :82700204.RES (RTE Integrator)







AN878.D 82700204.M Mon Feb 11 13:00:30 2002 MSA

Library Search Compound Report

Data File : J:\ACQUDATA\5973A\DATA\020602\AN878.D Vial: 2
Acq On : 6 Feb 2002 1:03 pm Operator: Z.Miao
Sample : 529310 1.0 Inst : 5973-A
Misc : 01/28/2002 33.3 ~~BBL~~ Tetra 8270.~~PAH~~ TCL BLK Multiplr: 33.30
MS Integration Params: TEBINT.P

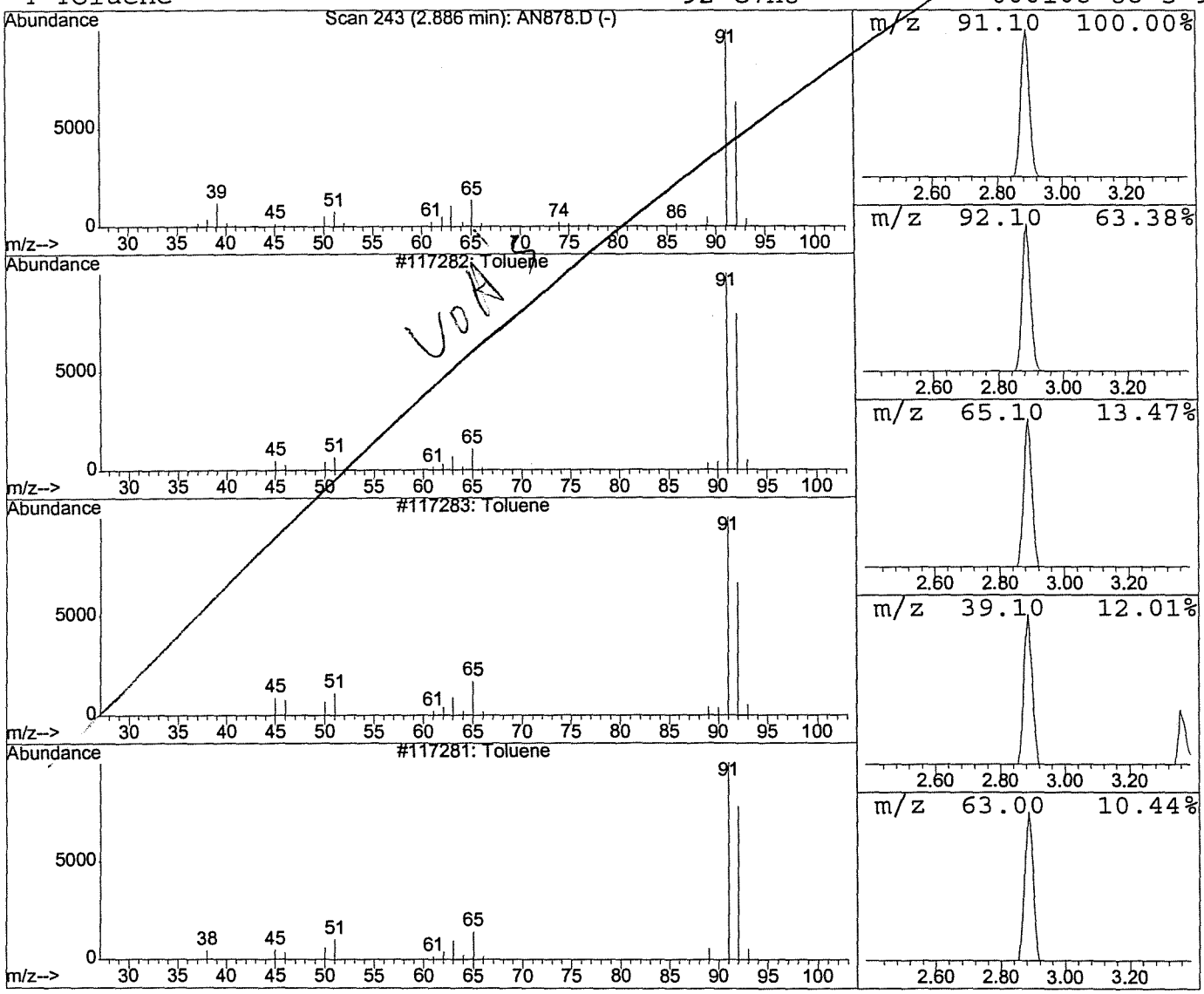
Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Toluene Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.89	843.62 ppb	398173	d4-1,4-Dichlorobenzene	5.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Toluene	92	C7H8	000108-88-3	94
2	Toluene	92	C7H8	000108-88-3	91
3	Toluene	92	C7H8	000108-88-3	91
4	Toluene	92	C7H8	000108-88-3	91



VOA

Library Search Compound Report

Data File : J:\ACQUDATA\5973A\DATA\020602\AN878.D Vial: 2
Acq On : 6 Feb 2002 1:03 pm Operator: Z.Miao
Sample : 529310 1.0 Inst : 5973-A
Misc : 01/28/2002 33.3 ~~BBL~~ Tetra 8270.~~PAH~~ TCL BLK Multiplr: 33.30
MS Integration Params: TEBINT.P

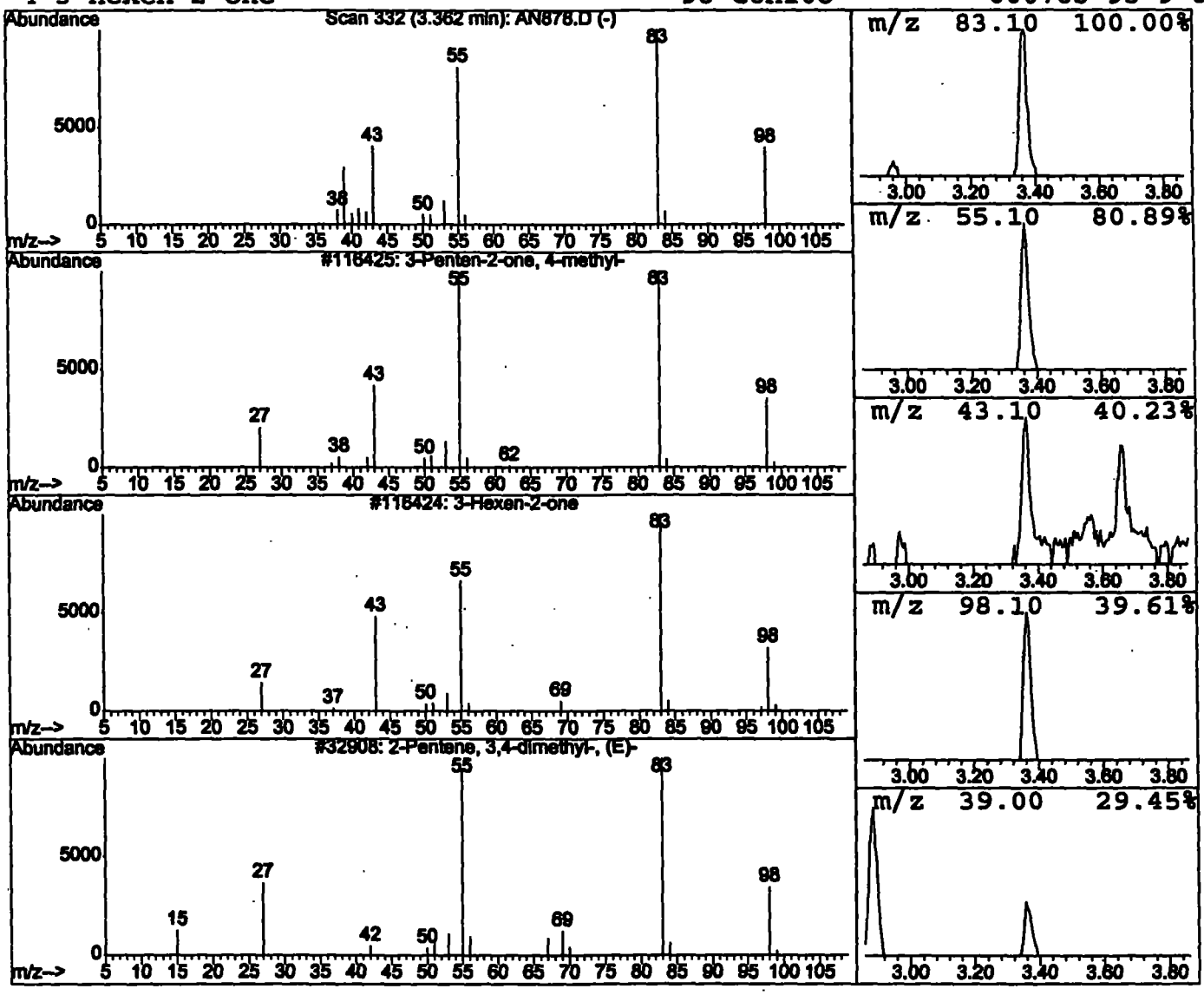
Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Library : C:\DATABASE\NIST98.L

****

Peak Number 2 3-Penten-2-one, 4-methyl- Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.36	135.96 ppb	64169	d4-1,4-Dichlorobenzene	5.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
A 1	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
2	3-Hexen-2-one	98	C6H10O	000763-93-9	90
3	2-Pentene, 3,4-dimethyl-, (E)-	98	C7H14	004914-92-5	86
4	3-Hexen-2-one	98	C6H10O	000763-93-9	86



244

Library Search Compound Report

Data File : J:\ACQUDATA\5973A\DATA\020602\AN878.D Vial: 2
Acq On : 6 Feb 2002 1:03 pm Operator: Z.Miao
Sample : 529310 1.0 Inst : 5973-A
Misc : 01/28/2002 33.3 ~~BBL~~ Tetra 8270.~~PAH~~ TCL BLK Multiplr: 33.30
MS Integration Params: TEBINT.P

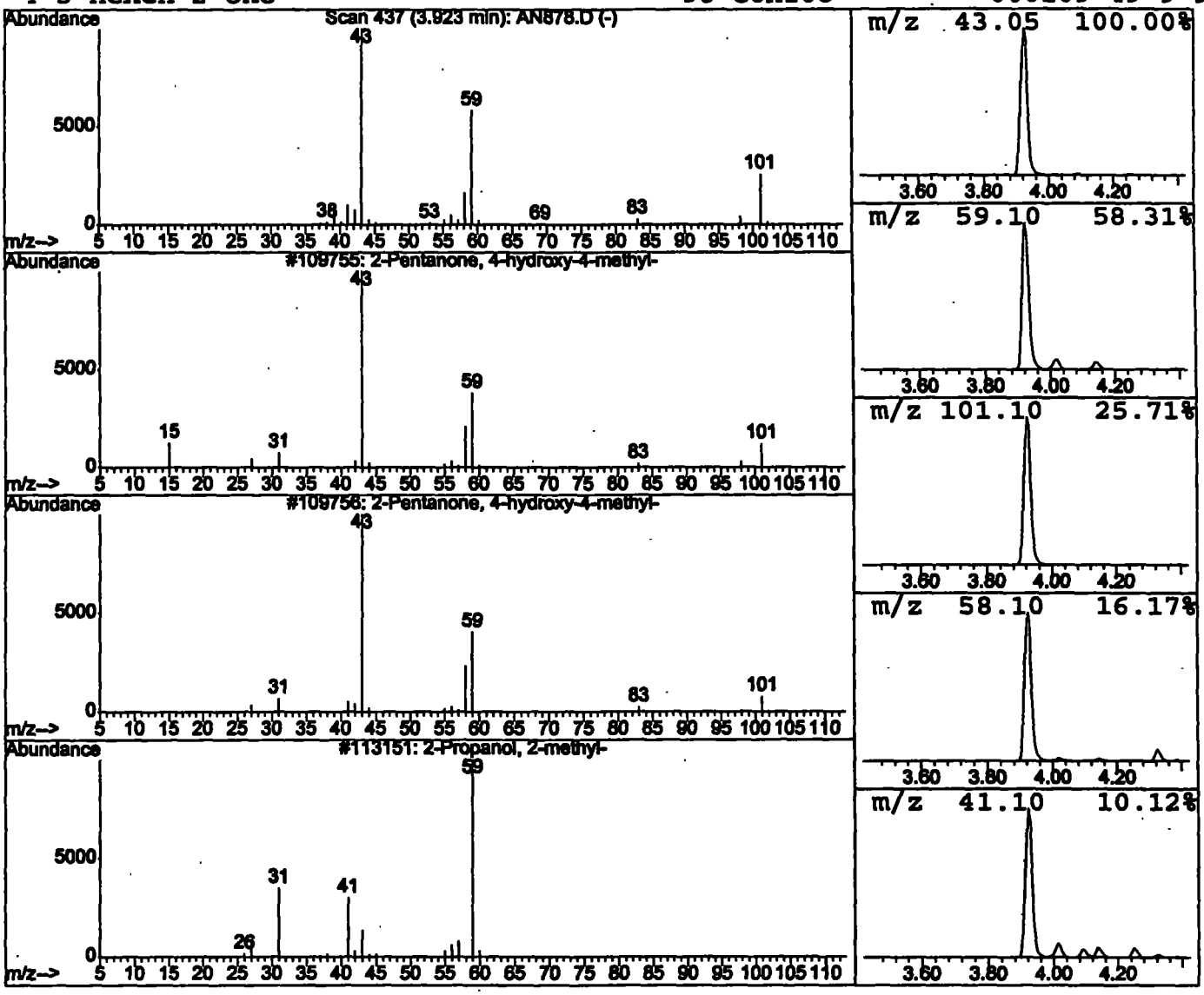
Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Library : C:\DATABASE\NIST98.L

****

Peak Number 3 2-Pentanone, 4-hydroxy-4-methy Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.92	6753.82 ppb	3187660	d4-1,4-Dichlorobenzene	5.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	50
2	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	40
3	2-Propanol, 2-methyl-	74	C4H10O	000075-65-0	17
4	5-Hexen-2-one	98	C6H10O	000109-49-9	9



245

Library Search Compound Report

Data File : J:\ACQUDATA\5973A\DATA\020602\AN878.D Vial: 2
Acq On : 6 Feb 2002 1:03 pm Operator: Z.Miao
Sample : 529310 1.0 Inst : 5973-A
Misc : 01/28/2002 33.3 ~~BBL~~ Tetra 8270.~~PAH~~ Tel BLK Multiplr: 33.30
MS Integration Params: TEBINT.P

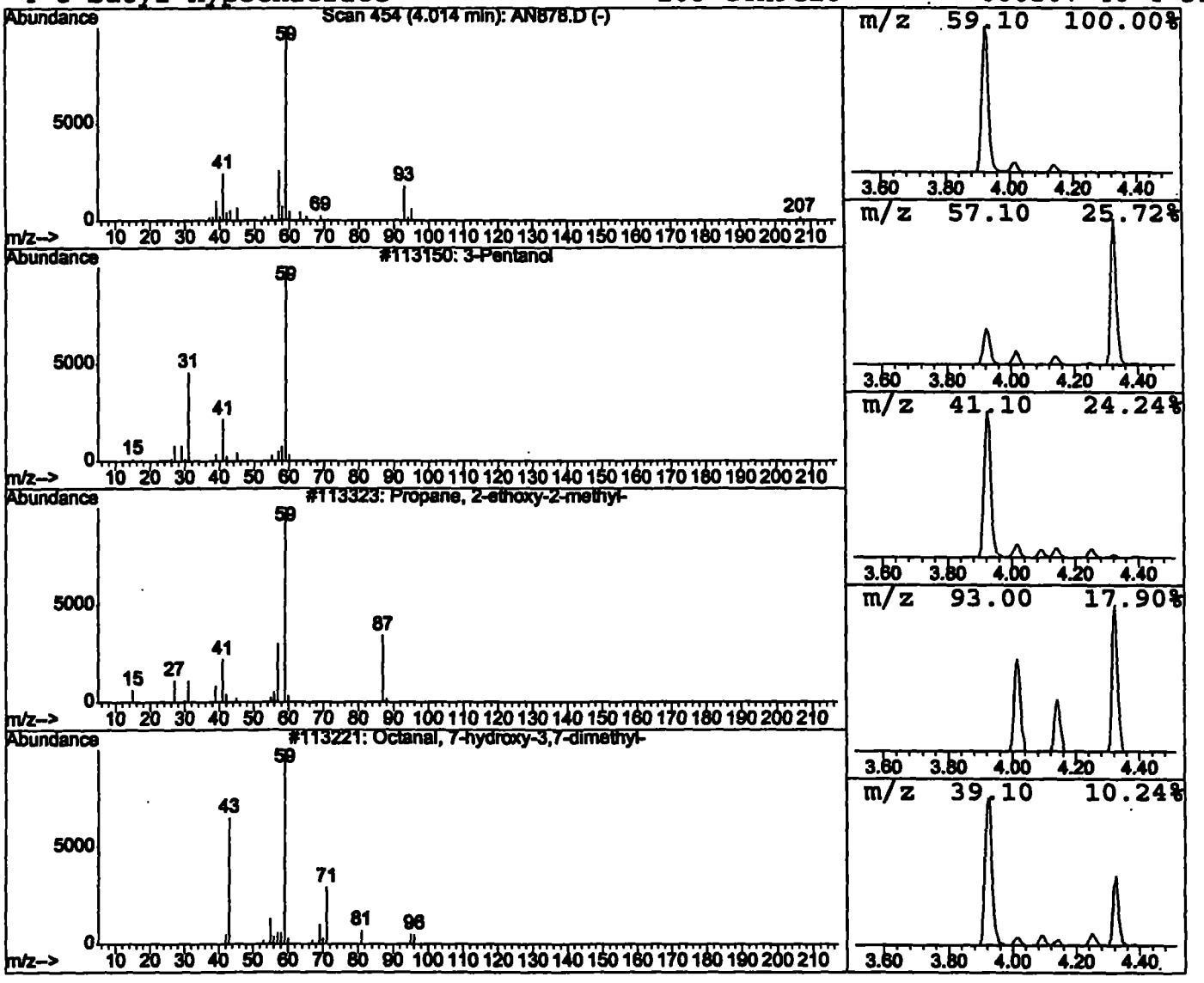
Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Library : C:\DATABASE\NIST98.L

****

Peak Number 4 3-Pentanol Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.01	226.29 ppb	106803	d4-1,4-Dichlorobenzene	5.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Pentanol	88	C5H12O	000584-02-1	50
2	Propane, 2-ethoxy-2-methyl-	102	C6H14O	000637-92-3	42
3	Octanal, 7-hydroxy-3,7-dimethyl-	172	C10H20O2	000107-75-5	39
4	t-Butyl hypochlorite	108	C4H9ClO	000507-40-4	39



246

Library Search Compound Report

Data File : J:\ACQUDATA\5973A\DATA\020602\AN878.D Vial: 2
Acq On : 6 Feb 2002 1:03 pm Operator: Z.Miao
Sample : 529310 1.0 Inst : 5973-A
Misc : 01/28/2002 33.3 ~~BBL~~ Tetra 8270. ~~PAH~~ Tcl BLK Multiplr: 33.30
MS Integration Params: TEBINT.P

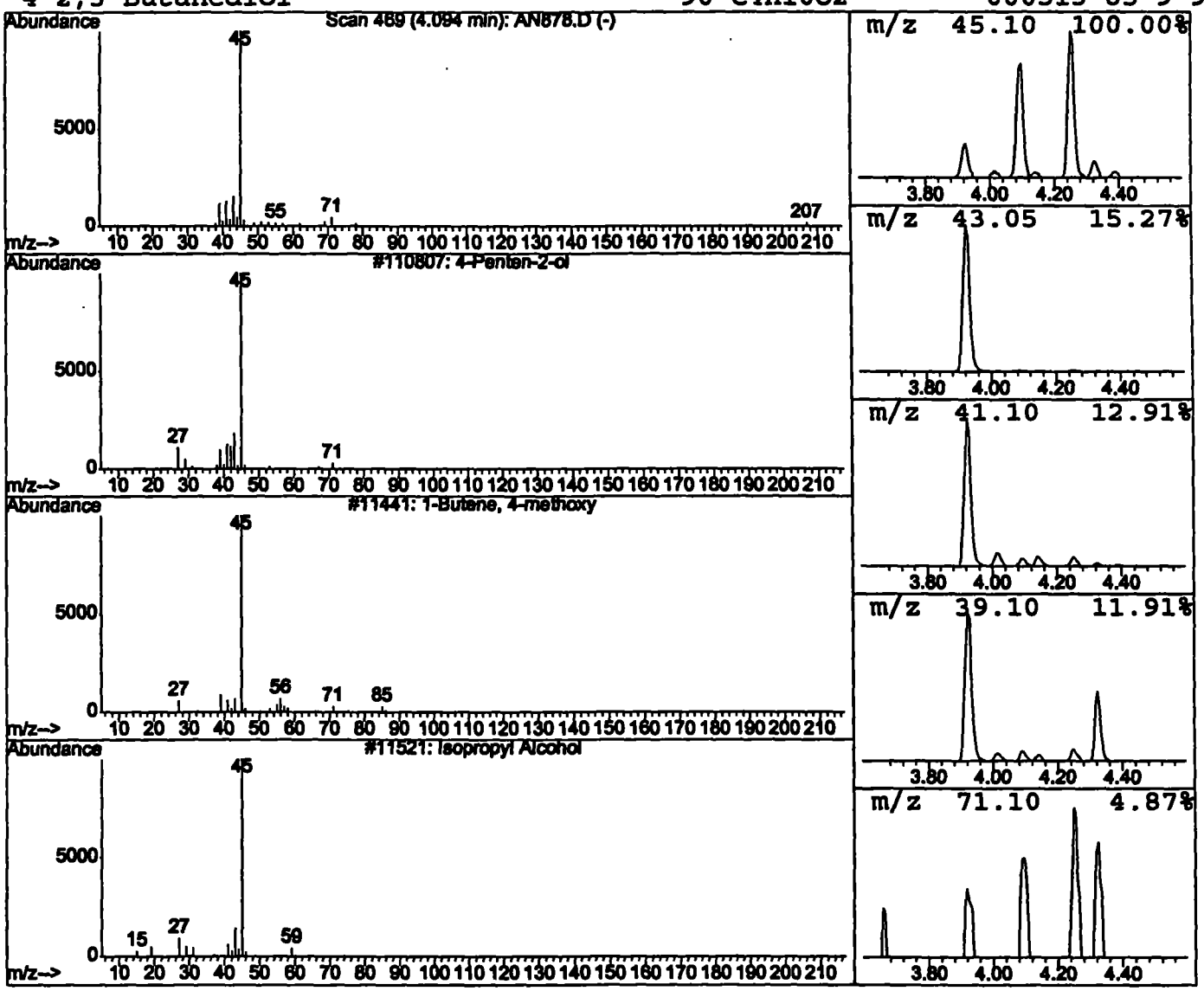
Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Library : C:\DATABASE\NIST98.L

****

Peak Number 5 4-Penten-2-ol Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.09	168.87 ppb	79701	d4-1,4-Dichlorobenzene	5.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-Penten-2-ol	86	C5H10O	000625-31-0	64
2	1-Butene, 4-methoxy	86	C5H10O	004696-30-4	40
3	Isopropyl Alcohol	60	C3H8O	000067-63-0	9
4	2,3-Butanediol	90	C4H10O2	000513-85-9	9



Library Search Compound Report

Data File : J:\ACQUDATA\5973A\DATA\020602\AN878.D Vial: 2
Acq On : 6 Feb 2002 1:03 pm Operator: Z.Miao
Sample : 529310 1.0 Inst : 5973-A
Misc : 01/28/2002 33.3 ~~BBL~~ Tetra 8270.~~PAH~~ TCL BLK Multiplr: 33.30
MS Integration Params: TEBINT.P

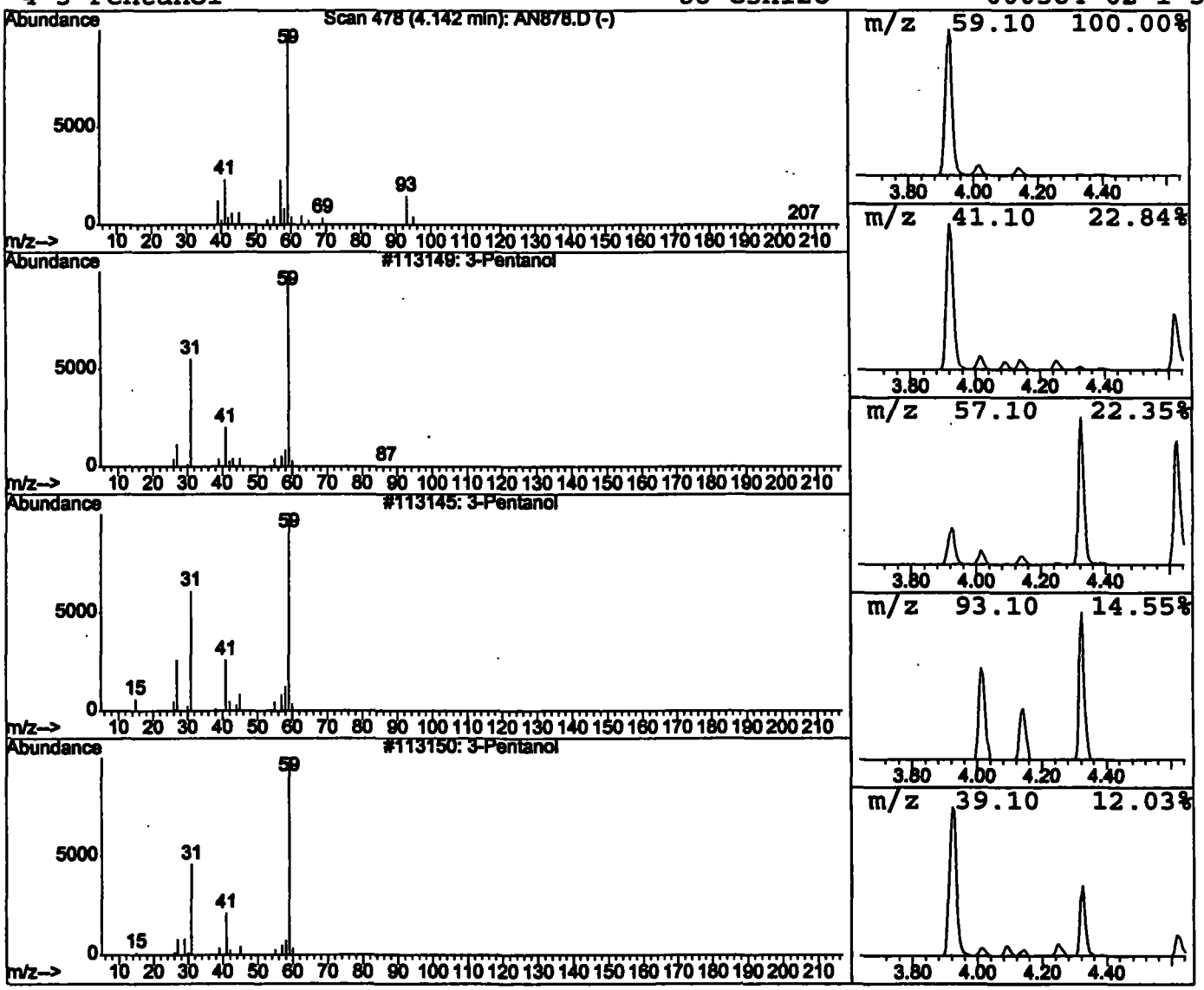
Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Library : C:\DATABASE\NIST98.L

****

Peak Number 6 3-Pentanol Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.14	144.91 ppb	68397	d4-1,4-Dichlorobenzene	5.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Pentanol	88	C5H12O	000584-02-1	50
2	3-Pentanol	88	C5H12O	000584-02-1	50
3	3-Pentanol	88	C5H12O	000584-02-1	39
4	3-Pentanol	88	C5H12O	000584-02-1	38



Library Search Compound Report

Data File : J:\ACQUDATA\5973A\DATA\020602\AN878.D Vial: 2
Acq On : 6 Feb 2002 1:03 pm Operator: Z.Miao
Sample : 529310 1.0 Inst : 5973-A
Misc : 01/28/2002 33.3 ~~BBL~~ Tetra 8270.~~PAH~~ Tcl BLK Multiplr: 33.30
MS Integration Params: TEBINT.P

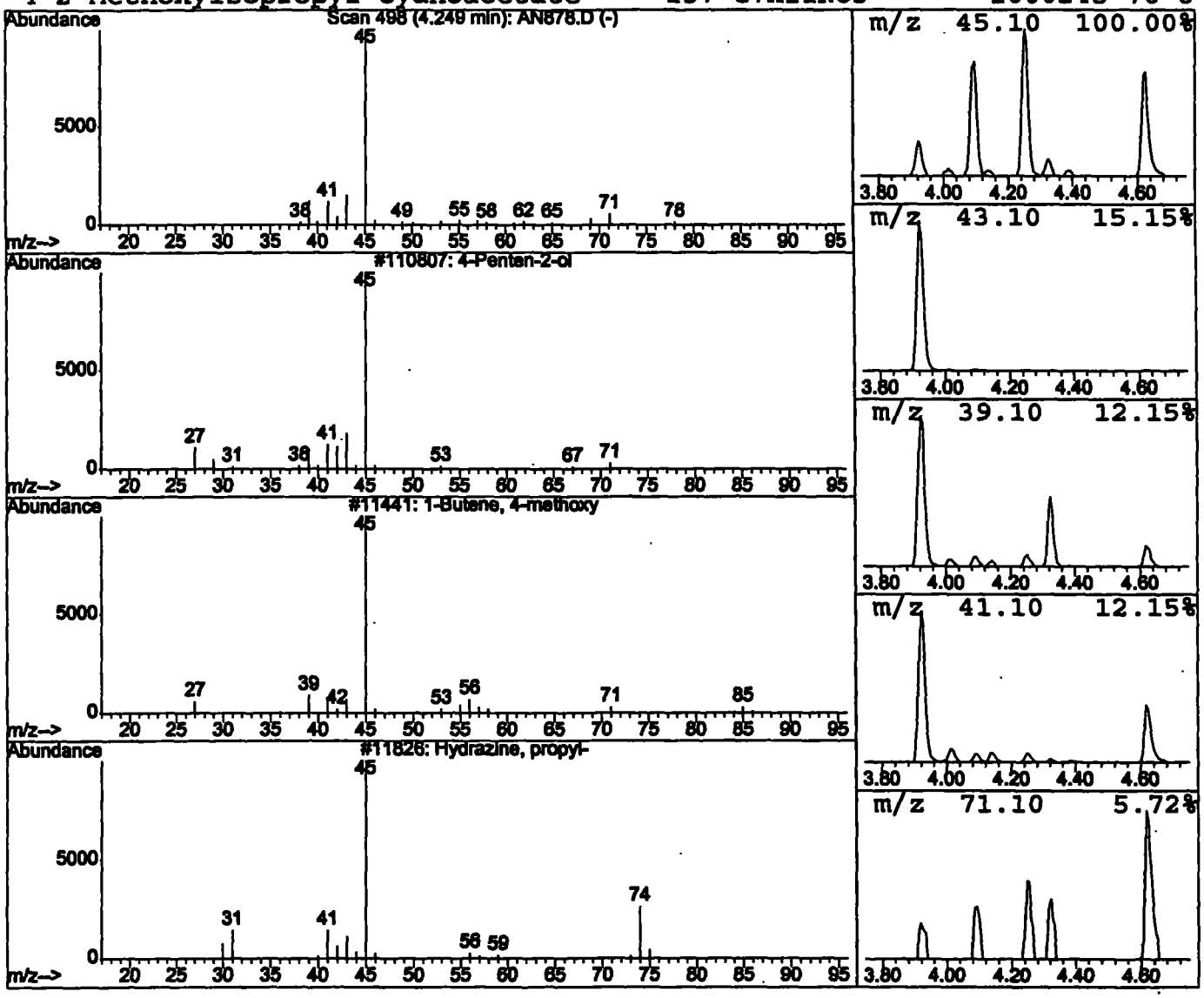
Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Library : C:\DATABASE\NIST98.L

****

Peak Number 7 4-Penten-2-ol Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.25	205.58 ppb	97028	d4-1,4-Dichlorobenzene	5.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-Penten-2-ol	86	C5H10O	000625-31-0	50
2	1-Butene, 4-methoxy	86	C5H10O	004696-30-4	40
3	Hydrazine, propyl-	74	C3H10N2	005039-61-2	9
4	2-Methoxyisopropyl cyanoacetate	157	C7H11NO3	1000245-76-8	9



Library Search Compound Report

Data File : J:\ACQUDATA\5973A\DATA\020602\AN878.D Vial: 2
Acq On : 6 Feb 2002 1:03 pm Operator: Z.Miao
Sample : 529310 1.0 Inst : 5973-A
Misc : 01/28/2002 33.3 ~~BBL~~ Tcl 8270 ~~PAH~~ Tcl BLK Multiplr: 33.30
MS Integration Params: TEBINT.P

Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Library : C:\DATABASE\NIST98.L

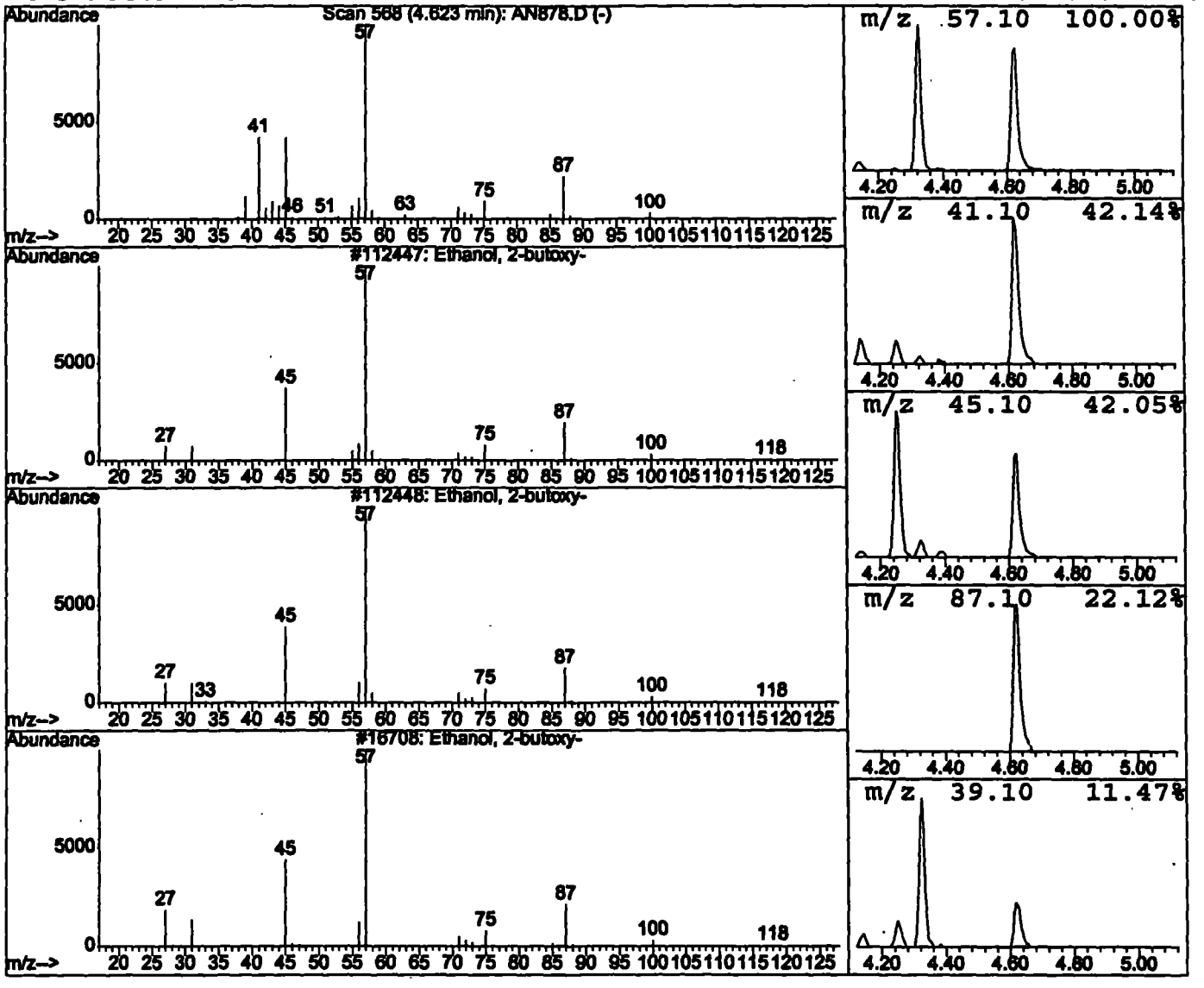
****

Peak Number 8 Ethanol, 2-butoxy- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.62	692.02 ppb	326621	d4-1,4-Dichlorobenzene	5.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethanol, 2-butoxy-	118	C6H14O2	000111-76-2	90
2	Ethanol, 2-butoxy-	118	C6H14O2	000111-76-2	83
3	Ethanol, 2-butoxy-	118	C6H14O2	000111-76-2	83
4	3-Buten-2-ol	72	C4H8O	000598-32-3	43

Alcohol



Library Search Compound Report

Data File : J:\ACQUDATA\5973A\DATA\020602\AN878.D Vial: 2
Acq On : 6 Feb 2002 1:03 pm Operator: Z.Miao
Sample : 529310 1.0 Inst : 5973-A
Misc : 01/28/2002 33.3 ~~BBL~~ Tetra 8270.~~PAH~~ Tet BLK Multiplr: 33.30
MS Integration Params: TEBINT.P

Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Library : C:\DATABASE\NIST98.L

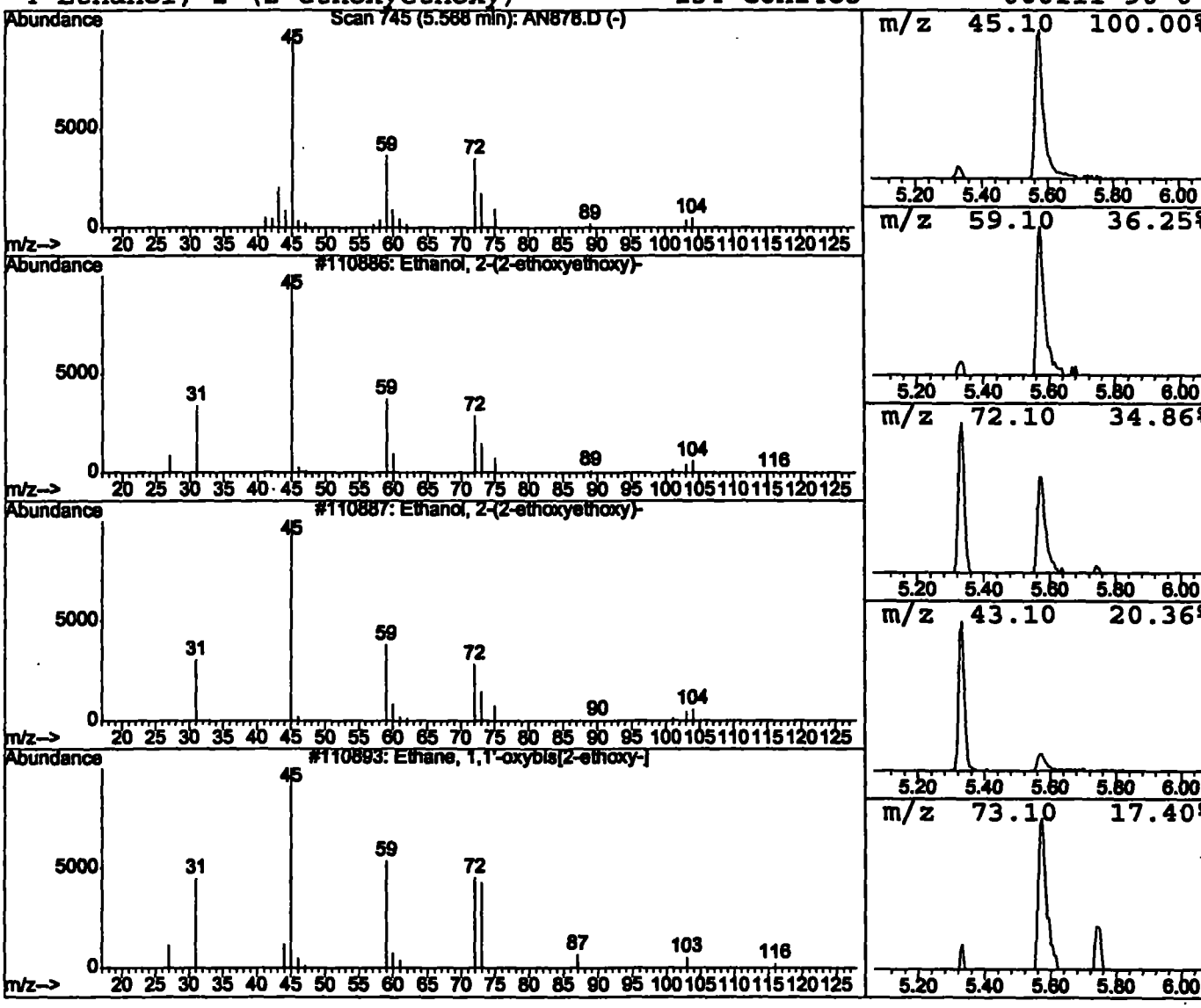
****

Peak Number 9 Ethanol, 2-(2-ethoxyethoxy)- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.57	300.79 ppb	141967	d4-1,4-Dichlorobenzene	5.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethanol, 2-(2-ethoxyethoxy)-	134	C6H14O3	000111-90-0	83
2	Ethanol, 2-(2-ethoxyethoxy)-	134	C6H14O3	000111-90-0	78
3	Ethane, 1,1'-oxybis[2-ethoxy-]	162	C8H18O3	000112-36-7	72
4	Ethanol, 2-(2-ethoxyethoxy)-	134	C6H14O3	000111-90-0	59

Ethanol



COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C SEMIVOLATILES
Reported: 02/27/02

Project Reference:
Client Sample ID : BLANK SPIKE

Date Sampled : **Order #:** 529311 **Sample Matrix:** SOIL/SEDIMENT
Date Received: **Submission #:** **Percent Solid:** 100

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 01/28/02			
DATE ANALYZED : 02/06/02			
ANALYTICAL DILUTION: 1.00			Dry Weight
ACENAPHTHENE	330	2900	UG/KG
ACENAPHTHYLENE	330	3000	UG/KG
ANTHRACENE	330	3000	UG/KG
BENZO(A)ANTHRACENE	330	2900	UG/KG
BENZO(A)PYRENE	330	3100	UG/KG
BENZO(B)FLUORANTHENE	330	3000	UG/KG
BENZO(G,H,I)PERYLENE	330	2900	UG/KG
BENZO(K)FLUORANTHENE	330	3100	UG/KG
BENZYL ALCOHOL	330	2700	UG/KG
BUTYL BENZYL PHTHALATE	330	2800	UG/KG
DI-N-BUTYLPHTHALATE	330	3100	UG/KG
CARBAZOLE	330	3100	UG/KG
INDENO(1,2,3-CD)PYRENE	330	3000	UG/KG
4-CHLOROANILINE	330	1300	UG/KG
BIS(-2-CHLOROETHOXY)METHANE	330	2700	UG/KG
BIS(2-CHLOROETHYL)ETHER	330	2400	UG/KG
2-CHLORONAPHTHALENE	330	2600	UG/KG
2-CHLOROPHENOL	330	2500	UG/KG
2,2'-OXYBIS(1-CHLOROPROPANE)	330	2900	UG/KG
CHRYSENE	330	2900	UG/KG
DIBENZO(A,H)ANTHRACENE	330	3100	UG/KG
DIBENZOFURAN	330	2900	UG/KG
1,3-DICHLOROBENZENE	330	2300	UG/KG
1,2-DICHLOROBENZENE	330	2300	UG/KG
1,4-DICHLOROBENZENE	330	2300	UG/KG
3,3'-DICHLOROBENZIDINE	330	2100	UG/KG
2,4-DICHLOROPHENOL	330	2600	UG/KG
DIETHYLPHTHALATE	330	3100	UG/KG
DIMETHYL PHTHALATE	330	2900	UG/KG
2,4-DIMETHYLPHENOL	330	2600	UG/KG
2,4-DINITROPHENOL	1700	2500	UG/KG
2,4-DINITROTOLUENE	330	3100	UG/KG
2,6-DINITROTOLUENE	330	3000	UG/KG
BIS(2-ETHYLHEXYL)PHTHALATE	330	2900	UG/KG
FLUORANTHENE	330	3100	UG/KG
FLUORENE	330	2900	UG/KG
HEXACHLOROBENZENE	330	3100	UG/KG
HEXACHLOROBUTADIENE	330	2600	UG/KG
HEXACHLOROCYCLOPENTADIENE	330	2100	UG/KG
HEXACHLOROETHANE	330	2500	UG/KG
ISOPHORONE	330	2700	UG/KG
2-METHYLNAPHTHALENE	330	2600	UG/KG
4,6-DINITRO-2-METHYLPHENOL	1700	2900	UG/KG

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C SEMIVOLATILES
Reported: 02/27/02

Project Reference:
Client Sample ID : BLANK SPIKE

Date Sampled : **Order #:** 529311 **Sample Matrix:** SOIL/SEDIMENT
Date Received: **Submission #:** **Percent Solid:** 100

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 01/28/02			
DATE ANALYZED : 02/06/02			
ANALYTICAL DILUTION: 1.00			Dry Weight
4-CHLORO-3-METHYLPHENOL	330	3000	UG/KG
2-METHYLPHENOL	330	2600	UG/KG
3+4-METHYLPHENOL	330	5300	UG/KG
NAPHTHALENE	330	2700	UG/KG
2-NITROANILINE	1700	2900	UG/KG
3-NITROANILINE	1700	1900	UG/KG
4-NITROANILINE	1700	2700	UG/KG
NITROBENZENE	330	2600	UG/KG
2-NITROPHENOL	330	2600	UG/KG
4-NITROPHENOL	1700	2600	UG/KG
N-NITROSODIMETHYLAMINE	330	2300	UG/KG
-NITROSODIPHENYLAMINE	330	3000	UG/KG
DI-N-OCTYL PHTHALATE	330	3000	UG/KG
PENTACHLOROPHENOL	1700	2800	UG/KG
PHENANTHRENE	330	2900	UG/KG
PHENOL	330	2600	UG/KG
4-BROMOPHENYL-PHENYLETHER	330	3100	UG/KG
4-CHLOROPHENYL-PHENYLETHER	330	3000	UG/KG
N-NITROSO-DI-N-PROPYLAMINE	330	2800	UG/KG
PYRENE	330	2800	UG/KG
1,2,4-TRICHLOROBENZENE	330	2500	UG/KG
2,4,6-TRICHLOROPHENOL	330	2800	UG/KG
2,4,5-TRICHLOROPHENOL	330	2900	UG/KG

SURROGATE RECOVERIES	QC LIMITS		
TERPHENYL-d14	(10 - 152 %)	76	%
NITROBENZENE-d5	(10 - 138 %)	63	%
PHENOL-d6	(11 - 130 %)	73	%
2-FLUOROBIPHENYL	(11 - 112 %)	67	%
2-FLUOROPHENOL	(10 - 130 %)	72	%
2,4,6-TRIBROMOPHENOL	(10 - 130 %)	92	%

Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\5973A\DATA\020602\AN879.D Vial: 3
Acq On : 6 Feb 2002 1:42 pm Operator: Z.Miao
mple : 529311 1.0 Inst : 5973-A
sc : 01/28/2002 33.3 TETR TECH 8270.TCL LCS Multiplr: 33.30
MS Integration Params: RTEINT.P
Quant Time: Feb 6 14:11 2002 Quant Results File: 82700204.RES

Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Initial Calibration
DataAcq Meth : 82700204

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	5.74	152	76769	40.00 ppb	0.00
21) d8-Naphthalene	7.51	136	289728	40.00 ppb	0.00
37) d10-Acenaphthene	10.72	164	169118	40.00 ppb	0.00
59) d10-Phenanthrene	13.81	188	310619	40.00 ppb	0.00
72) d12-Chrysene	19.70	240	369782	40.00 ppb	0.00
81) d12-Perylene	23.28	264	348293	40.00 ppb	0.00

System Monitoring Compounds					
4) SURR1,2-FLUOROPHENOL	4.32	112	373179	4790.79 ppb	0.00
Spiked Amount 200.000	Range 10 - 75		Recovery = 2395.40%#		
7) SURR2,PHENOL-D6	5.33	99	535261	4864.92 ppb	0.00
Spiked Amount 200.000	Range 10 - 130		Recovery = 2432.46%#		
22) SURR4,NITROBENZENE-D5	6.49	82	255119	2100.95 ppb	0.00
Spiked Amount 100.000	Range 30 - 116		Recovery = 2100.95%#		
41) SURR5,2-FLUOROBIPHENYL	9.35	172	498310	2231.96 ppb	0.00
Spiked Amount 100.000	Range 38 - 107		Recovery = 2231.96%#		
58) SURR3,2,4,6-TRIBROMOPHENOL	12.37	330	183409	6121.75 ppb	0.00
Spiked Amount 200.000	Range 10 - 135		Recovery = 3060.88%#		
75) SURR6,TERPHENYL-D14	17.29	244	792636	2528.01 ppb	0.00
Spiked Amount 100.000	Range 15 - 135		Recovery = 2528.01%#		

Target Compounds					Qvalue
2) Pyridine	2.44	79	126611	1592.05 ppb	97
3) N-Nitrosodimethylamine	2.42	74	107249	2289.52 ppb	92
6) Aniline	5.40	93	206963	1900.38 ppb	95
8) Phenol	5.35	94	296486	2550.32 ppb	97
9) bis(2-Clethyl)Ether	5.44	93	222799	2403.30 ppb	98
10) 2-Chlorophenol	5.53	128	228656	2540.37 ppb	99
11) 1,3-Diclbenzene	5.70	146	225072	2333.90 ppb	98
12) 1,4-Dichlorobenzene	5.76	146	233506	2331.74 ppb	97
13) 1,2-Diclbenzene	6.00	146	221436	2329.34 ppb	97
14) Benzyl Alcohol	5.92	79	247266	2726.91 ppb	100
15) 2,2'-oxybis(1-Chloropropan	6.09	45	231334	2863.92 ppb	97
16) 2-Methylphenol	6.05	108	223321	2603.35 ppb	95
18) N-Nitroso-Di-n-propylamine	6.28	70	211644	2755.78 ppb	93
19) Hexachloroethane	6.39	117	100834	2469.21 ppb	90
20) 4-Methylphenol	6.23	108	480277	5310.76 ppb	91
23) Nitrobenzene	6.51	77	293672	2644.30 ppb	98
24) Isophorone	6.81	82	531919	2725.92 ppb	98
25) 2-Nitrophenol	6.96	139	120365	2598.97 ppb	99
26) Benzoic Acid	7.13	105	140817	2388.32 ppb	98
27) 2,4-Dimethylphenol	6.95	107	251877	2559.43 ppb	96

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

Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\5973A\DATA\020602\AN879.D Vial: 3
Acq On : 6 Feb 2002 1:42 pm Operator: Z.Miao
Sample : 529311 1.0 Inst : 5973-A
Misc : 01/28/2002 33.3 TETR TECH 8270.TCL LCS Multiplr: 33.30
IntFile : Integration Params: RTEINT.P
Quant Time: Feb 6 14:11 2002 Quant Results File: 82700204.RES

Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Initial Calibration
DataAcq Meth : 82700204

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
28)	bis(-2-Chloroethoxy)Methan	7.08	93	283672	2725.12	ppb	99
29)	2,4-Dichlorophenol	7.30	162	191669	2642.49	ppb	97
30)	1,2,4-Trichlorobenzene	7.43	180	199964	2488.50	ppb	98
31)	Naphthalene	7.54	128	715864	2670.16	ppb	99
32)	4-Chloroaniline	7.64	127	130795	1331.45	ppb	95
33)	Hexachlorobutadiene	7.78	225	123288	2547.14	ppb	97
34)	4-Chloro-3-methylphenol	8.40	107	255592	2948.49	ppb	98
36)	2-Methylnaphthalene	8.68	142	457720	2555.55	ppb	97
38)	Hexachlorocyclopentadiene	9.07	237	74337	2073.68	ppb	96
39)	2,4,6-Trichlorophenol	9.24	196	150932	2832.13	ppb	96
40)	2,4,5-Trichlorophenol	9.33	196	164632	2883.06	ppb	97
43)	2-Chloronaphthalene	9.59	162	448463	2627.40	ppb	97
44)	2-Nitroaniline	9.85	65	185642	2856.63	ppb	99
45)	Acenaphthylene	10.42	152	803692	2971.11	ppb	97
46)	Dimethyl phthalate	10.19	163	572305	2928.01	ppb	99
47)	2,6-Dinitrotoluene	10.37	165	132155	2951.28	ppb	94
48)	Acenaphthene	10.79	153	512387	2878.98	ppb	98
49)	3-Nitroaniline	10.67	138	95578	1908.97	ppb	98
50)	2,4-Dinitrophenol	10.88	184	59608	2538.46	ppb	89
51)	Dibenzofuran	11.10	168	733621	2873.57	ppb	97
52)	2,4-Dinitrotoluene	11.17	165	187139	3118.54	ppb	95
53)	4-Nitrophenol	10.98	65	118639	2547.31	ppb	91
54)	Fluorene	11.82	166	612706	2906.76	ppb	100
55)	4-Chlorophenyl-phenylether	11.77	204	305763	2993.59	ppb	98
56)	Diethylphthalate	11.60	149	642009	3072.16	ppb	97
57)	4-Nitroaniline	11.95	138	142854	2664.11	ppb	94
60)	4,6-Dinitro-2-methylphenol	12.01	198	106466	2863.11	ppb	97
61)	1,2 Diphenylhydrazine	12.10	77	762211	3068.16	ppb	99
62)	N-Nitrosodiphenylamine	12.04	169	487491	3010.34	ppb	96
63)	4-Bromophenyl-phenylether	12.80	248	186403	3096.62	ppb	99
64)	Hexachlorobenzene	13.16	284	202130	3098.54	ppb	98
66)	Pentachlorophenol	13.54	266	107848	2833.89	ppb	99
67)	Phenanthrene	13.86	178	888209	2899.22	ppb	99
68)	Anthracene	13.96	178	931555	2970.79	ppb	99
69)	Carbazole	14.31	167	888969	3106.17	ppb	100
70)	Di-n-butylphthalate	15.06	149	1106474	3128.11	ppb	99
71)	Fluoranthene	16.49	202	1057225	3046.15	ppb	99
74)	Pyrene	17.00	202	1051037	2765.82	ppb	100
76)	Butyl benzyl phthalate	18.37	149	505837	2826.74	ppb	99
77)	3,3'-Dichlorobenzidine	19.58	252	242908	2085.89	ppb	97
78)	Benzo(a)anthracene	19.65	228	1104300	2890.10	ppb	100

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

Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\5973A\DATA\020602\AN879.D Vial: 3
Acq On : 6 Feb 2002 1:42 pm Operator: Z.Miao
ple : 529311 1.0 Inst : 5973-A
c : 01/28/2002 33.3 TETR TECH 8270.TCL LCS Multiplr: 33.30
MS Integration Params: RTEINT.P
Quant Time: Feb 6 14:11 2002 Quant Results File: 82700204.RES

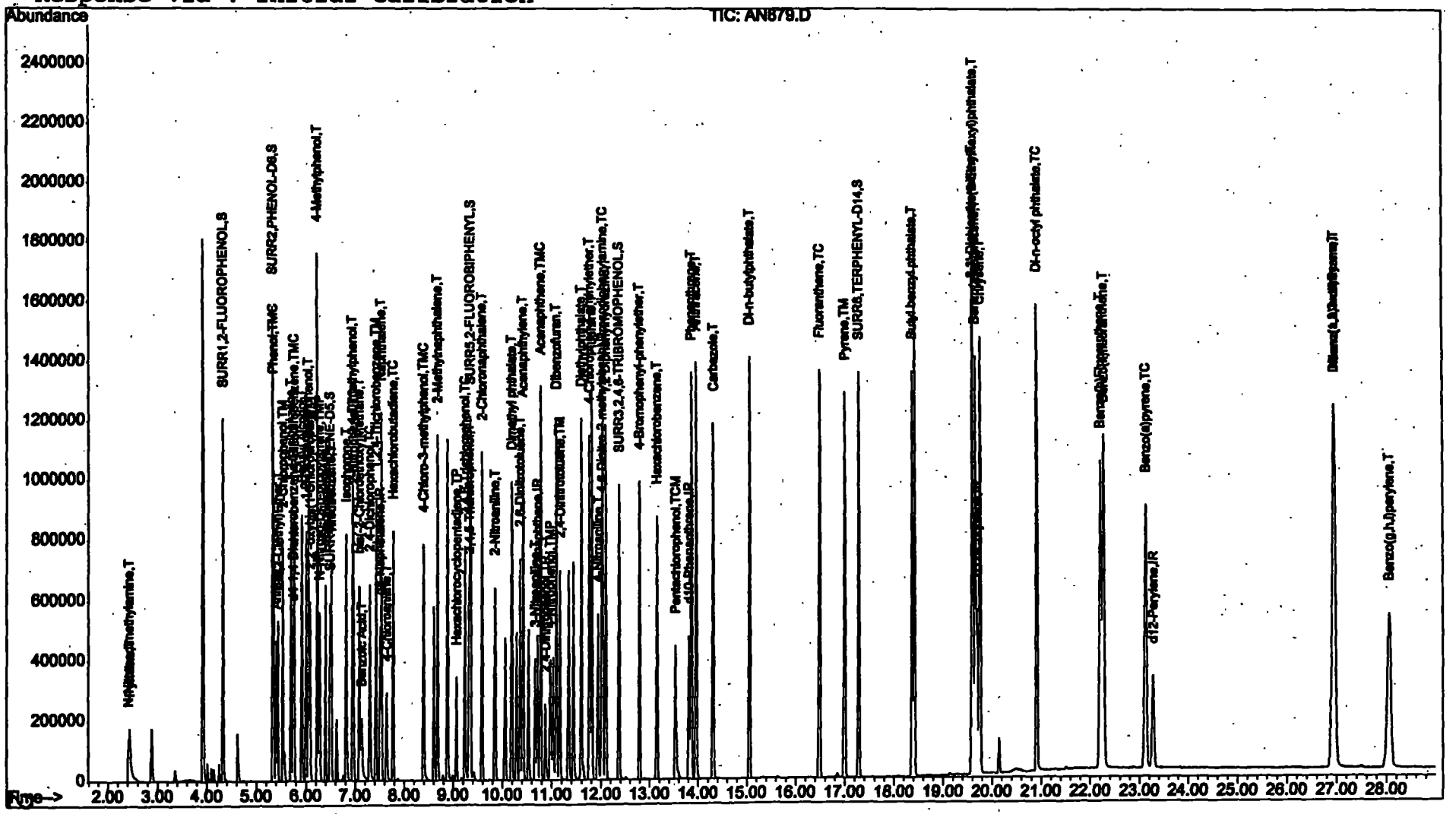
Quant Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Initial Calibration
DataAcq Meth : 82700204

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	Chrysene	19.76	228	1066756	2911.89 ppb	98
80)	bis(2-Ethylhexyl)phthalate	19.60	149	752904	2921.69 ppb	100
82)	Di-n-octyl phthalate	20.91	149	1305634	3027.51 ppb	100
83)	Benzo(b)Fluoranthene	22.21	252	1135675	2984.26 ppb	97
84)	Benzo(k)fluoranthene	22.27	252	1134469	3126.50 ppb	100
85)	Benzo(a)pyrene	23.13	252	1045867	3123.22 ppb	97
86)	Indeno(1,2,3-cd)Pyrene	26.96	276	1305561	2978.56 ppb	93
87)	Dibenz(a,h)anthracene	26.95	278	1104114	3123.12 ppb	99
88)	Benzo(g,h,i)perylene	28.06	276	1055167	2898.70 ppb	96

(#) = qualifier out of range (m) = manual integration
AN879.D 82700204.M Wed Feb 06 14:11:45 2002 MSA

Data Fi_ : J:\ACQUDATA\5973A\DATA\020602\AN879.L Vial: 3
Acq On : 6 Feb 2002 1:42 pm Operator: Z.Miao
Sample : 529311 1.0 Inst : 5973-A
Misc : 01/28/2002 33.3 TETR TECH 8270.TCL LCS Multiplr: 33.30
MS Integration Params: RTEINT.P
Quant Time: Feb 6 14:11 2002 Quant Results File: 82700204.RES

Method : C:\HPCHEM\1\METHODS\82700204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Feb 05 09:36:58 2002
Response via : Initial Calibration



Extraction Tech: [illegible] Spiked By: [illegible] Prep Method: ☐ 3540 ☒ 3550 ☐ 3510 ☐ 3520 ☐ 3580

Extraction Date: 1/28/02 Spk Witness: BOC

Concentration Tech: TLP

10 Day HT: 3/9/20

Color: C = Colorless; Y = Yellow; B = Brown; BL = Black; G = Grey
Clarity: CLR = Clear; CDY = Cloudy; OP = Opaque
Soils: F = Fine/Sand; M = Medium/Soil; C = Coarse/Rocks

RK95 2/7/1

Rm# 74203

Client / Sub. #	Sample ID	Initial Wt. (g) or Volume (ml)	Appearance (see key)	Analysis (Test) Requested	pH Check (water only) REC'D pH	BN > 11 1	BN > 11 2	Acid < 2 1	Acid < 2 2	Conc. Date	Final Volume (ml)	Date Complete	Comments / Emulsions
	BLK	30.0g	Na, Br-	8270C.TCL						1/30/02	1ml	1/30/02	529310
	LCS	30.0g		8270C.TCL									529311
Tetra Tech R-10427	526412	30.0g	B-M	8270C.TCL									
BBL R-10435	526528	30.0g	G-F	8270C.PAH									
10434	526528MS	30.0g		8270C.PAH									
CK 1/28/02	526528MSD	30.0g		8270C.PAH									
	526529	30.0g	G-S	8270C.PAH									
BBL R-10435	526530	30.0g	G-M	8270C.PAH									
	526531	30.0g	G-F	8270C.PAH									
	526532	30.0g	B-M	8270C.PAH									[illegible] organic smell
	526533	30.0g	G-F	8270C.PAH									
	526534	30.0g	G-F	8270C.PAH									
	526535	30.0g	B-F	8270C.PAH							10ml		
	526536	30.0g	G-M	8270C.PAH							1ml		
	526537	30.0g	B-M	8270C.PAH									
	526538	30.0g	G-M	8270C.PAH									
	526539	30.0g	B-M	8270C.PAH									
	526540	30.0g	B-M	8270C.PAH									
	526541	30.0g	G-F	8270C.PAH									

CK 1/28/02

Spikes:

		Amt.	Conc.	Lot#
	8081/8082	ml	ppm	
	PCB oil Surrogate	ml	ppm	
	8151water/soil	ml	ppm	
	TCLP A/BN Spike	ml	ppm	
☒	8270 LCS MIX 1	1 ml	100 ppm	0.319-29-F
	Chloropiridine Spike	ml	ppm	
	TANK List Spike	ml	ppm	
	Phthalate Spike	ml	ppm	
	680 Spike	ml	ppm	

Other: BN# Surrogate Amt. 1 ml; Conc. 100/20 ppm; Lot# 0.345-24-R

Clean-Ups: ☐ None
☐ 3620 Florisil By/Date ____ Lot# ____
☐ 3640 GPC By/Date ____ Lot# ____
☐ 3660 Cu/TBA By/Date ____ Lot# ____
☐ 3665 Acid By/Date ____ Lot# ____

Method Summary:
30g Soil + 60g Na2SO4 sonicated with 100mls
1:1 MeCl2:Acetone 3x for 3min.

Solvents:
☐ 50/50 Ace:MeCl2 Lot # 0.345-2-0
☐ MeCl2 Lot #
☐ Acetone Lot #
☐ Hexane Lot#
☐ Ether Lot#
☐ Sodium Sulfate Lot# 0.345-2-V
☐ Sulfuric Acid Lot#:
☐ Sodium Hydroxide Lot#:
☐ Other: Lot#:

METALS DATA

WATER

METALS
COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Contract: R2210427 SDG No.: OS-PW-12

Lab Code: Case No.: SAS No.:

SOW No.: SW846 CLP-M Client: Tetra Tech EM Inc.

Sample No.	Lab Sample ID.
OS-PW-12	526346
SI-GGW-3	526348
SI-GGW-1	526349
SI-GGW-2	526351
SI-GGW-2D	526351D
SI-GGW-2S	526351S
SI-GGW-4	526352
OS-PW-11	526353
OS-GGW-4	526354
OS-GGW-3	526356
OS-PW-10	526357
OS-PW-13	526358
OS-PW-14	526359
RINSATE-S7	526360
OS-GGW-2	526371
SI-GGW-3-FD	526374
OS-GGW-1	526375
RINSATE-S4	526382
GB-GGW-4	526385
GB-GGW-2	526386
GB-GGW-1	526387

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: 2/28/02 Title: Laboratory Manager

METALS
COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

on ct: R2210427 SDG No.: OS-PW-12

ab Code: Case No.: SAS No.:

OW No.: SW846 CLP-M Client: Tetra Tech EM Inc.

Sample No.	Lab Sample ID.
SMWB-WW	526401

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: 2/28/02 Title: Laboratory Manager

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
GB-GGW-1

ontract: R2210427

ab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

atrix (soil/water): WATER Lab Sample ID: 526387

evel (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	73.4			P
7440-39-3	Barium	13100			P
7440-43-9	Cadmium	13.9	B		P
7440-47-3	Chromium	335		NE	P
7439-92-1	Lead	178			P
7439-96-5	Manganese	10300			P
7439-97-6	Mercury	0.06	B		CV
7782-49-2	Selenium	10.4	U		P
7440-22-4	Silver	2.3	U	N	P
7440-66-6	Zinc	1130		NE	P

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLOUDY Artifacts:

Comments:

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
GB-GGW-2

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

Matrix (soil/water): WATER Lab Sample ID: 526386

Level (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	35.4			P
7440-39-3	Barium	4940			P
7440-43-9	Cadmium	16.1			P
7440-47-3	Chromium	279		NE	P
7439-92-1	Lead	92.6			P
7439-96-5	Manganese	8910			P
7439-97-6	Mercury	0.06	B		CV
7782-49-2	Selenium	6.9	U		P
7440-22-4	Silver	1.5	U	N	P
7440-66-6	Zinc	21300		NE	P

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLOUDY Artifacts:

Comments:

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
GB-GGW-4

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

Matrix (soil/water): WATER Lab Sample ID: 526385

Level (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	87.8			P
7440-39-3	Barium	6650			P
7440-43-9	Cadmium	15.7			P
7440-47-3	Chromium	425		NE	P
7439-92-1	Lead	220			P
7439-96-5	Manganese	9220			P
7439-97-6	Mercury	0.04	B		CV
7782-49-2	Selenium	9.9	B		P
7440-22-4	Silver	1.5	U	N	P
7440-66-6	Zinc	3470		NE	P

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLOUDY Artifacts:

Comments:

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
GB-GGW-4

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

Matrix (soil/water): WATER Lab Sample ID: 526385

Level (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	87.8			P
7440-39-3	Barium	6650			P
7440-43-9	Cadmium	15.7			P
7440-47-3	Chromium	425		NE	P
7439-92-1	Lead	220			P
7439-96-5	Manganese	9220			P
7439-97-6	Mercury	0.04	B		CV
7782-49-2	Selenium	9.9	B		P
7440-22-4	Silver	1.5	U	N	P
7440-66-6	Zinc	3470		NE	P

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLOUDY Artifacts:

Comments:

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
OS-GGW-2

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

Matrix (soil/water): WATER Lab Sample ID: 526371

Level (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	65.0			P
7440-39-3	Barium	11300			P
7440-43-9	Cadmium	15.0	B		P
7440-47-3	Chromium	845		NE	P
7439-92-1	Lead	222			P
7439-96-5	Manganese	10900			P
7439-97-6	Mercury	0.16	B		CV
7782-49-2	Selenium	13.1	B		P
7440-22-4	Silver	2.3	U	N	P
7440-66-6	Zinc	1470		NE	P

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLOUDY Artifacts:

Comments:

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
OS-GGW-3

ontract: R2210427

ab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

atrix (soil/water): WATER Lab Sample ID: 526356

evel (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	39.7			P
7440-39-3	Barium	7350			P
7440-43-9	Cadmium	15.8			P
7440-47-3	Chromium	135		NE	P
7439-92-1	Lead	85.0			P
7439-96-5	Manganese	6120			P
7439-97-6	Mercury	0.05	B		CV
7782-49-2	Selenium	6.9	U		P
7440-22-4	Silver	1.5	U	N	P
7440-66-6	Zinc	411		NE	P

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLOUDY Artifacts:

Comments:

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
OS-GGW-4

ontract: R2210427

ab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

atrix (soil/water): WATER Lab Sample ID: 526354

evel (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	69.6			P
7440-39-3	Barium	13300			P
7440-43-9	Cadmium	13.2	B		P
7440-47-3	Chromium	339		NE	P
7439-92-1	Lead	272			P
7439-96-5	Manganese	13800			P
7439-97-6	Mercury	0.03	B		CV
7782-49-2	Selenium	10.4	U		P
7440-22-4	Silver	2.3	U	N	P
7440-66-6	Zinc	1100		NE	P

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLOUDY Artifacts:

Comments:

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
OS-PW-10

ontract: R2210427

ab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

atrix (soil/water): WATER Lab Sample ID: 526357

evel (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	22.1			P
7440-39-3	Barium	42.1			P
7440-43-9	Cadmium	0.88	U		P
7440-47-3	Chromium	2.5	U	NE	P
7439-92-1	Lead	1.6	U		P
7439-96-5	Manganese	2.6	U		P
7439-97-6	Mercury	0.02	U		CV
7782-49-2	Selenium	6.9	U		P
7440-22-4	Silver	1.5	U	N	P
7440-66-6	Zinc	19.9	B	NE	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-11

ntract: R2210427

b Code: Case No.: SAS No.: SDG NO.: OS-PW-12

trix (soil/water): WATER Lab Sample ID: 526353

vel (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	27.2			P
7440-39-3	Barium	44.3			P
7440-43-9	Cadmium	0.88	U		P
7440-47-3	Chromium	2.5	U	NE	P
7439-92-1	Lead	28.6			P
7439-96-5	Manganese	2.9	B		P
7439-97-6	Mercury	0.02	U		CV
7782-49-2	Selenium	6.9	U		P
7440-22-4	Silver	1.5	U	N	P
7440-66-6	Zinc	126		NE	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-12

ntract: R2210427

b Code: Case No.: SAS No.: SDG NO.: OS-PW-12

trix (soil/water): WATER Lab Sample ID: 526346

vel (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	28.6			P
7440-39-3	Barium	43.2			P
7440-43-9	Cadmium	0.88	U		P
7440-47-3	Chromium	2.5	U	NE	P
7439-92-1	Lead	12.6			P
7439-96-5	Manganese	2.6	U		P
7439-97-6	Mercury	0.02	U		CV
7782-49-2	Selenium	6.9	U		P
7440-22-4	Silver	1.5	U	N	P
7440-66-6	Zinc	121		NE	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-13

ontract: R2210427

ab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

atrix (soil/water): WATER Lab Sample ID: 526358

evel (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	26.9			P
7440-39-3	Barium	37.3	B		P
7440-43-9	Cadmium	0.88	U		P
7440-47-3	Chromium	2.5	U	NE	P
7439-92-1	Lead	1.6	U		P
7439-96-5	Manganese	2.6	U		P
7439-97-6	Mercury	0.02	U		CV
7782-49-2	Selenium	6.9	U		P
7440-22-4	Silver	1.5	U	N	P
7440-66-6	Zinc	26.4	B	NE	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-14

ntract: R2210427

b Code: Case No.: SAS No.: SDG NO.: OS-PW-12

trix (soil/water): WATER Lab Sample ID: 526359

vel (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	27.2			P
7440-39-3	Barium	39.4	B		P
7440-43-9	Cadmium	0.88	U		P
7440-47-3	Chromium	2.5	U	NE	P
7439-92-1	Lead	2.8	B		P
7439-96-5	Manganese	2.6	U		P
7439-97-6	Mercury	0.02	U		CV
7782-49-2	Selenium	6.9	U		P
7440-22-4	Silver	1.5	U	N	P
7440-66-6	Zinc	42.0		NE	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-S4

ntract: R2210427

b Code: Case No.: SAS No.: SDG NO.: OS-PW-12

trix (soil/water): WATER Lab Sample ID: 526382

vel (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	7.9	U		P
7440-39-3	Barium	14.7	U		P
7440-43-9	Cadmium	0.88	U		P
7440-47-3	Chromium	2.5	U	NE	P
7439-92-1	Lead	1.6	U		P
7439-96-5	Manganese	2.6	U		P
7439-97-6	Mercury	0.02	U		CV
7782-49-2	Selenium	6.9	U		P
7440-22-4	Silver	1.5	U	N	P
7440-66-6	Zinc	8.6	U	NE	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-S7

ntract: R2210427

b Code: Case No.: SAS No.: SDG NO.: OS-PW-12

trix (soil/water): WATER Lab Sample ID: 526360

vel (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	7.9	U		P
7440-39-3	Barium	14.7	U		P
7440-43-9	Cadmium	0.88	U		P
7440-47-3	Chromium	2.5	U	NE	P
7439-92-1	Lead	1.6	U		P
7439-96-5	Manganese	2.6	U		P
7439-97-6	Mercury	0.02	U		CV
7782-49-2	Selenium	6.9	U		P
7440-22-4	Silver	1.5	U	N	P
7440-66-6	Zinc	8.6	U	NE	P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
SI-GGW-1

ontract: R2210427

ab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

atrix (soil/water): WATER Lab Sample ID: 526349

evel (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	34.4			P
7440-39-3	Barium	6030			P
7440-43-9	Cadmium	19.2			P
7440-47-3	Chromium	164		NE	P
7439-92-1	Lead	113			P
7439-96-5	Manganese	7340			P
7439-97-6	Mercury	0.05	B		CV
7782-49-2	Selenium	10.4	U		P
7440-22-4	Silver	2.3	U	N	P
7440-66-6	Zinc	483		NE	P

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLOUDY Artifacts:

Comments:

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
SI-GGW-2

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

Matrix (soil/water): WATER Lab Sample ID: 526351

Level (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	85.0			P
7440-39-3	Barium	17300			P
7440-43-9	Cadmium	14.6	B		P
7440-47-3	Chromium	262		NE	P
7439-92-1	Lead	183			P
7439-96-5	Manganese	17200			P
7439-97-6	Mercury	0.13	B		CV
7782-49-2	Selenium	10.4	U		P
7440-22-4	Silver	2.3	U	N	P
7440-66-6	Zinc	821		NE	P

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLOUDY Artifacts:

Comments:

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
SI-GGW-3

ntract: R2210427

b Code: Case No.: SAS No.: SDG NO.: OS-PW-12

trix (soil/water): WATER Lab Sample ID: 526348

vel (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	8.3	B		P
7440-39-3	Barium	2210			P
7440-43-9	Cadmium	8.8	B		P
7440-47-3	Chromium	81.8		NE	P
7439-92-1	Lead	50.1			P
7439-96-5	Manganese	6170			P
7439-97-6	Mercury	0.04	B		CV
7782-49-2	Selenium	6.9	U		P
7440-22-4	Silver	1.5	U	N	P
7440-66-6	Zinc	228		NE	P

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLOUDY Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SI-GGW-3-FD

ntract: R2210427

Code: Case No.: SAS No.: SDG NO.: OS-PW-12

trix (soil/water): WATER Lab Sample ID: 526374

vel (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	134			P
7440-39-3	Barium	12600			P
7440-43-9	Cadmium	24.8	B		P
7440-47-3	Chromium	449		NE	P
7439-92-1	Lead	292			P
7439-96-5	Manganese	22900			P
7439-97-6	Mercury	0.04	B		CV
7782-49-2	Selenium	10.4	U		P
7440-22-4	Silver	2.3	U	N	P
7440-66-6	Zinc	1300		NE	P

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLOUDY Artifacts:

Comments:

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SI-GGW-4

ıtract: R2210427

ı Code: Case No.: SAS No.: SDG NO.: OS-PW-12

:rix (soil/water): WATER Lab Sample ID: 526352

'el (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	81.9			P
7440-39-3	Barium	10500			P
7440-43-9	Cadmium	17.7			P
7440-47-3	Chromium	461		NE	P
7439-92-1	Lead	213			P
7439-96-5	Manganese	10800			P
7439-97-6	Mercury	0.06	B		CV
7782-49-2	Selenium	13.9			P
7440-22-4	Silver	1.5	U	N	P
7440-66-6	Zinc	1080		NE	P

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLOUDY Artifacts:

Comments:

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
SMWB-WW

ontract: R2210427

ab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

atrix (soil/water): WATER Lab Sample ID: 526401

evel (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	11.0	B		P
7440-39-3	Barium	115			P
7440-43-9	Cadmium	0.88	U		P
7440-47-3	Chromium	79.4		NE	P
7439-92-1	Lead	18.6			P
7439-96-5	Manganese	416			P
7439-97-6	Mercury	0.04	B		CV
7782-49-2	Selenium	17.3	U		P
7440-22-4	Silver	1.5	U	N	P
7440-66-6	Zinc	235		NE	P

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

METALS

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

ontract: R2210427

ab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

nitial Calibration Source: PE PURE

ontinuing 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	1000.0	1010.80	101.1	1000.0	1014.08	101.4	1011.97	101.2	P
Barium	10000.0	10346.82	103.5	10000.0	10454.17	104.5	10436.33	104.4	P
Cadmium	500.0	504.31	100.9	500.0	512.78	102.6	510.28	102.1	P
Chromium	500.0	504.44	100.9	500.0	508.20	101.6	503.89	100.8	P
Lead	500.0	502.03	100.4	500.0	510.69	102.1	511.50	102.3	P
Manganese	750.0	766.69	102.2	750.0	770.88	102.8	767.68	102.4	P
Mercury	3.0	3.07	102.3	3.0	3.13	104.3	3.26	108.7	CV
Selenium	500.0	498.35	99.7	500.0	502.84	100.6	506.50	101.3	P
Silver	500.0	487.05	97.4	500.0	489.56	97.9	485.97	97.2	P
Zinc	1000.0	1016.56	101.7	1000.0	1037.16	103.7	1031.02	103.1	P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

METALS

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

Initial Calibration Source:

Continuing 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				1000.0	1006.60	100.7	972.69	97.3	P
Barium				10000.0	10441.27	104.4	10437.19	104.4	P
Cadmium				500.0	511.17	102.2	512.16	102.4	P
Chromium				500.0	505.76	101.2	500.42	100.1	P
Lead				500.0	510.91	102.2	517.85	103.6	P
Manganese				750.0	774.18	103.2	758.78	101.2	P
Mercury				3.0	3.09	103.0	3.15	105.0	CV
Selenium				500.0	502.87	100.6	487.36	97.5	P
Silver				500.0	487.23	97.4	484.40	96.9	P
Zinc				1000.0	1032.85	103.3	1031.39	103.1	P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

METALS

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

Initial Calibration Source:

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				1000.0	961.01	96.1			P
Barium				10000.0	10574.58	105.7			P
Cadmium				500.0	529.71	105.9			P
Chromium				500.0	499.46	99.9			P
Lead				500.0	548.80	109.8			P
Manganese				750.0	733.90	97.9			P
Mercury				3.0	3.12	104.0	3.18	106.0	CV
Selenium				500.0	505.54	101.1			P
Silver				500.0	480.23	96.0			P
Zinc				1000.0	1050.79	105.1			P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

METALS
-2B-
CRDL STANDARD FOR AA AND ICP

ontract: R2210427

ab Code: Case No.: SAS No.: SDG No.: OS-PW-12

CRDL Standard Source:

CP 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				20.0	18.64	93.2	19.47	97.3
Barium								
Cadmium				10.0	10.40	104.0	10.51	105.1
Chromium				20.0	20.62	103.1	20.10	100.5
Lead				6.0	7.08	118.0	8.04	134.0
Manganese				30.0	31.41	104.7	29.38	97.9
Mercury	0.2	0.22	110.0					
Selenium				10.0	8.73	87.3	7.52	75.2
Silver				20.0	18.92	94.6	17.34	86.7
Zinc				40.0	41.27	103.2	42.94	107.3

METALS

-3-

BLANKS

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

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	4.0	U	4.0	U	4.0	U	4.0	U	3.970	U	P
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	1.2	U	1.2	U	1.2	U	1.2	U	1.230	U	P
Lead	1.3	B	0.8	U	1.5	B	0.8	U	0.818	U	P
Manganese	1.3	U	1.3	U	1.3	U	1.3	U	1.280	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	0.8	U	0.762	U	P
Zinc	4.3	U	4.3	U	4.3	U	4.3	U	4.280	U	P

METALS

-3-

BLANKS

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

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			4.0	U	4.0	U							P
Barium			7.4	U	7.4	U							P
Cadmium			0.4	U	0.4	U							P
Chromium			1.2	U	3.7	B							P
Lead			2.6	B	2.3	B							P
Manganese			1.3	U	1.3	U							P
Mercury			0.02	U	0.02	U	0.02	U					CV
Selenium			3.5	U	3.5	U							P
Silver			0.8	U	0.8	U							P
Zinc			4.3	U	4.3	U							P

-4-

ICP INTERFERENCE CHECK SAMPLE

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

ICP 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
Arsenic			4	-0.6		5	-4.7	
Barium		500	-5	525.8	105.2	-7	525.1	105.0
Cadmium		1000	8	947.6	94.8	7	968.4	96.8
Chromium		500	6	492.5	98.5	7	479.4	95.9
Lead		1000	-11	963.9	96.4	-9	1018.1	101.8
Manganese		500	10	502.6	100.5	8	473.3	94.7
Selenium			-4	-1.8		-6	-5.1	
Silver		1000	-10	1074.1	107.4	-12	1043.9	104.4
Zinc		1000	6	928.5	92.8	6	936.2	93.6

METALS
-5A-
SPIKE SAMPLE RECOVERY

SAMPLE NO.

SI-GGW-2S

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

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	119.4348		84.9752		40.00	86.1		P
Barium		17321.1372		17349.0747		2000.00	-1.4		P
Cadmium	75 - 125	66.9866		14.5696	B	50.00	104.8		P
Chromium	75 - 125	388.3016		262.3030		200.00	63.0	N	P
Lead	75 - 125	578.2954		182.6253		500.00	79.1		P
Manganese		16267.6553		17242.8442		500.00	-195.0		P
Mercury	75 - 125	1.1942		0.1299	B	1.00	106.4		CV
Selenium	75 - 125	817.0795		10.3800	U	1010.00	80.9		P
Silver	75 - 125	16.7627	B	2.2860	U	50.00	33.5	N	P
Zinc	75 - 125	1114.9368		821.1702		500.00	58.8	N	P

Comments:

METALS
-5B-
POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

SI-GGW-2A

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

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
Arsenic		56.16		28.33		40.0	69.6		P
Barium		7839.17		5783.02		2000.0	102.8		P
Cadmium		40.67		4.86	B	50.0	71.6		P
Chromium		274.14		87.43		200.0	93.4		P
Lead		446.86		60.88		500.0	77.2		P
Manganese		6366.79		5747.61		500.0	123.8		P
Selenium		956.92		3.46	U	1010.0	94.7		P
Silver		37.49		0.76	U	50.0	75.0		P
Zinc		736.31		273.72		500.0	92.5		P

Comments:

METALS
-6-
DUPLICATES

SAMPLE NO.

SI-GGW-2D

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

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	30.0	84.9752		98.1822		14.4		P
Barium		17349.0747		18180.7808		4.7		P
Cadmium	15.0	14.5696	B	15.1984		4.2		P
Chromium		262.3030		265.6153		1.3		P
Lead		182.6253		190.4052		4.2		P
Manganese		17242.8442		17963.9106		4.1		P
Mercury		0.1299	B	0.1280	B	1.5		CV
Selenium		10.3800	U	10.3800	U			P
Silver		2.2860	U	2.2860	U			P
Zinc		821.1702		845.9237		3.0		P

METALS
-7-
LABORATORY CONTROL SAMPLE

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

Solid LCS Source:

Aqueous LCS Source: CPI

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits	%R
Arsenic	40.0	36.47	91.2					
Barium	2000.0	2121.23	106.1					
Cadmium	50.0	50.91	101.8					
Chromium	200.0	205.80	102.9					
Lead	500.0	522.80	104.6					
Manganese	500.0	516.72	103.3					
Mercury	1.0	1.07	107.0					
Selenium	1010.0	932.59	92.3					
Silver	50.0	48.97	97.9					
Zinc	500.0	531.42	106.3					

METALS

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ICP SERIAL DILUTIONS

SAMPLE NO.

SI-GGW-2L

ntract: R2210427

o Code: Case No.: SAS No.: SDG NO.: OS-PW-12

trix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Differ-ence	Q	M
Arsenic	28.33		22.44	B	20.8		P
Barium	5783.02		6138.25		6.1		P
Cadmium	4.86	B	11.05	B	127.6		P
Chromium	87.43		98.28		12.4	E	P
Lead	60.88		64.77		6.4		P
Manganese	5747.61		6163.66		7.2		P
Selenium	3.46	U	17.30	U			P
Silver	0.76	U	3.81	U			P
Zinc	273.72		320.34		17.0	E	P

METALS
-10-
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

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
Arsenic	188.979		10.0	4.0	P
Barium	233.53		20.0	7.3	P
Cadmium	226.50		5.0	0.4	P
Chromium	267.72		10.0	1.2	P
Lead	220.35		5.0	0.8	P
Manganese	257.61		10.0	1.3	P
Selenium	196.03		5.0	3.5	P
Silver	328.07		10.0	0.8	P
Zinc	206.20		20.0	4.3	P

Comments

METALS
-10-
INSTRUMENT DETECTION LIMITS (QUARTERLY)

:ontract: R2210427

ab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

: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

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METALS

-11A-

ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

ICP 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

-12-

ICP LINEAR RANGES (QUARTERLY)

ntract: R2210427

b Code: Case No.: SAS No.: SDG NO.: OS-PW-12

P ID Number: Optima ICP 2 Date: 12/12/01

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Arsenic	0.20	5000.0	P
Barium	0.20	20000.0	P
Cadmium	0.20	5000.0	P
Chromium	0.20	10000.0	P
Lead	0.20	100000.0	P
Manganese	0.20	10000.0	P
Selenium	0.20	5000.0	P
Silver	0.20	4000.0	P
Zinc	0.20	5000.0	P

Comments:

METALS
-13-
PREPARATION LOG

ntract: R2210427

b Code: Case No.: SAS No.: SDG NO.: OS-PW-12

thod: P

Sample No.	Preparation Date	Initial Volume	Volume (mL)
GB-GGW-1	01/29/02	50	50
GB-GGW-2	01/29/02	50	50
GB-GGW-4	01/29/02	50	50
LCSW	01/29/02	50	50
OS-GGW-1	01/29/02	50	50
OS-GGW-2	01/29/02	50	50
OS-GGW-3	01/29/02	50	50
OS-GGW-4	01/29/02	50	50
OS-PW-10	01/29/02	50	50
OS-PW-11	01/29/02	50	50
OS-PW-12	01/29/02	50	50
OS-PW-13	01/29/02	50	50
OS-PW-14	01/29/02	50	50
PBW	01/29/02	50	50
RINSATE-S4	01/29/02	50	50
RINSATE-S7	01/29/02	50	50
SI-GGW-1	01/29/02	50	50
SI-GGW-2	01/29/02	50	50
SI-GGW-2D	01/29/02	50	50
SI-GGW-2S	01/29/02	50	50
SI-GGW-3	01/29/02	50	50
SI-GGW-3-FD	01/29/02	50	50
SI-GGW-4	01/29/02	50	50
SMWB-WW	01/29/02	50	50

METALS
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PREPARATION LOG

ntract: R2210427

b Code: Case No.: SAS No.: SDG NO.: OS-PW-12

thod: CV

Sample No.	Preparation Date	Initial Volume	Volume (mL)
GB-GGW-1	02/04/02	100	100
GB-GGW-2	02/04/02	100	100
GB-GGW-4	02/04/02	100	100
LCSW	02/04/02	100	100
OS-GGW-1	02/04/02	100	100
OS-GGW-2	02/04/02	100	100
OS-GGW-3	02/04/02	100	100
OS-GGW-4	02/04/02	100	100
OS-PW-10	02/04/02	100	100
OS-PW-11	02/04/02	100	100
OS-PW-12	02/04/02	100	100
OS-PW-13	02/04/02	100	100
OS-PW-14	02/04/02	100	100
PBW	02/04/02	100	100
RINSATE-S4	02/04/02	100	100
RINSATE-S7	02/04/02	100	100
SI-GGW-1	02/04/02	100	100
SI-GGW-2	02/04/02	100	100
SI-GGW-2D	02/04/02	100	100
SI-GGW-2S	02/04/02	100	100
SI-GGW-3	02/04/02	100	100
SI-GGW-3-FD	02/04/02	100	100
SI-GGW-4	02/04/02	100	100
SMWB-WW	02/04/02	100	100

METALS
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ANALYSIS RUN LOG

Contract: R2210427

Lab Code Case No.: SAS No.: SDG No.: OS-PW-12

Instrument ID Number: Optima ICP 2 Method: P

Start Date: 2/13/02 End Date: 2/13/02

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	11:09																									
Calib Blank 1	1.00	11:12				X	X		X		X				X		X				X	X				X	
Calib Std 1	1.00	11:17				X	X		X		X				X		X				X	X				X	
HIGH CHECK	1.00	11:22				X	X		X		X				X		X				X	X				X	
ICV1	1.00	11:28				X	X		X		X				X		X				X	X				X	
ICB1	1.00	11:33				X	X		X		X				X		X				X	X				X	
CRDL1	1.00	11:38				X	X		X		X				X		X				X	X				X	
ICSA1	1.00	11:43				X	X		X		X				X		X				X	X				X	
ICS-AB1	1.00	11:50				X	X		X		X				X		X				X	X				X	
[illegible]	1.00	11:55				X	X		X		X				X		X				X	X				X	
[illegible]1	1.00	12:00				X	X		X		X				X		X				X	X				X	
PBW	1.00	12:05				X	X		X		X				X		X				X	X				X	
LCSW	1.00	12:10				X	X		X		X				X		X				X	X				X	
OS-PW-12	2.00	12:15				X	X		X		X				X		X				X	X				X	
SI-GGW-3	2.00	12:20				X	X		X		X				X		X				X	X				X	
SI-GGW-1	3.00	12:26				X	X		X		X				X		X				X	X				X	
SI-GGW-2	3.00	12:32				X	X		X		X				X		X				X	X				X	
SI-GGW-2D	3.00	12:37				X	X		X		X				X		X				X	X				X	
SI-GGW-2S	3.00	12:43				X	X		X		X				X		X				X	X				X	
SI-GGW-2A	3.00	12:49				X	X		X		X				X		X				X	X				X	
SI-GGW-2L	15.00	12:54				X	X		X		X				X		X				X	X				X	
CCV2	1.00	12:59				X	X		X		X				X		X				X	X				X	
CCB2	1.00	13:04				X	X		X		X				X		X				X	X				X	
SI-GGW-4	2.00	13:10				X	X		X		X				X		X				X	X				X	
OS-PW-11	2.00	13:15				X	X		X		X				X		X				X	X				X	
OS-GGW-4	3.00	13:21				X	X		X		X				X		X				X	X				X	
OS-GGW-3	2.00	13:27				X	X		X		X				X		X				X	X				X	
OS-PW-10	2.00	13:32				X	X		X		X				X		X				X	X				X	
OS-PW-13	2.00	13:37				X	X		X		X				X		X				X	X				X	
[illegible]PW-14	2.00	13:42				X	X		X		X				X		X				X	X				X	
[illegible]NSATE-S7	2.00	13:47				X	X		X		X				X		X				X	X				X	
OS-GGW-2	3.00	13:53				X	X		X		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: R2210427

Lab Code Case No.: SAS No.: SDG No.: OS-PW-12

Instrument ID Number: Optima ICP 2 Method: P

Start Date: 2/13/02 End Date: 2/13/02

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
SI-GGW-3-FD	3.00	13:58																			X	X					
CCV3	1.00	14:03				X	X		X		X				X		X				X	X				X	
CCB3	1.00	14:08				X	X		X		X				X		X				X	X				X	
OS-GGW-1	2.00	14:13				X	X		X		X				X		X				X	X				X	
RINSATE-S4	2.00	14:18				X	X		X		X				X		X				X	X				X	
GB-GGW-4	2.00	14:24				X	X		X		X				X		X				X	X				X	
GB-GGW-2	10.00	14:29																								X	
GB-GGW-2	2.00	14:35				X	X		X		X				X		X				X	X					
GB-GGW-1	3.00	14:40				X	X		X		X				X		X				X	X				X	
[illegible]B-WW	5.00	14:46																			X						
[illegible]-WW	2.00	14:51				X	X		X		X				X		X					X				X	
SI-GGW-3-FD	5.00	14:57				X	X		X		X				X		X									X	
ZZZZZZ	1.00	15:02																									
CCV4	1.00	15:07				X	X		X		X				X		X				X	X				X	
CCB4	1.00	15:12				X	X		X		X				X		X				X	X				X	
ZZZZZZ	1.00	15:17																									
ZZZZZZ	1.00	15:22																									
ZZZZZZ	1.00	15:27																									
ZZZZZZ	1.00	15:32																									
ZZZZZZ	1.00	15:37																									
CRDL2	1.00	15:50				X	X		X		X				X		X				X	X				X	
ICSA2	1.00	15:56				X	X		X		X				X		X				X	X				X	
ICS-AB2	1.00	16:01				X	X		X		X				X		X				X	X				X	
CCV5	1.00	16:07				X	X		X		X				X		X				X	X				X	
CCB5	1.00	16:12				X	X		X		X				X		X				X	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: R2210427

Lab Code | Case No.: | SAS No.: | SDG No.: OS-PW-12

Instrument ID Number: PE FAA/CVAA | Method: CV

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
Calib Blank	1.00	08:57																X									
0.2ppb std	1.00	08:59																X									
0.5ppb std	1.00	09:01																X									
1ppb std	1.00	09:03																X									
2ppb std	1.00	09:05																X									
5ppb std	1.00	09:07																X									
10ppb std	1.00	09:08																X									
ICV1	1.00	09:10																X									
ICB1	1.00	09:12																X									
CRDL1	1.00	09:14																X									
1	1.00	09:16																X									
CCB1	1.00	09:18																X									
ZZZZZZ	1.00	09:19																									
ZZZZZZ	1.00	09:21																									
ZZZZZZ	1.00	09:23																									
ZZZZZZ	1.00	09:25																									
ZZZZZZ	1.00	09:27																									
ZZZZZZ	1.00	09:28																									
ZZZZZZ	1.00	09:30																									
ZZZZZZ	1.00	09:32																									
ZZZZZZ	1.00	09:34																									
ZZZZZZ	1.00	09:36																									
CCV2	1.00	09:37																X									
CCB2	1.00	09:39																X									
ZZZZZZ	1.00	09:41																									
ZZZZZZ	1.00	09:43																									
ZZZZZZ	1.00	09:45																									
ZZZZZZ	1.00	09:46																									
ZZZZZZ	1.00	09:48																									
ZZZZZZ	1.00	09:50																									
	1.00	09:52																X									
LCSW	1.00	09:54																X									

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Columbia Analytical Services

METALS

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ANALYSIS RUN LOG

Contract: R2210427

Lab Code | Case No.: | SAS No.: | SDG No.: OS-PW-12

Instrument ID Number: PE FAA/CVAA | Method: CV

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-12	1.00	09:55																X									
SI-GGW-3	1.00	09:57																X									
CCV3	1.00	09:59																X									
CCB3	1.00	10:01																X									
SI-GGW-1	1.00	10:03																X									
SI-GGW-2	1.00	10:04																X									
SI-GGW-2D	1.00	10:06																X									
SI-GGW-2S	1.00	10:08																X									
SI-GGW-4	1.00	10:10																X									
OS-PW-11	1.00	10:12																X									
3GW-4	1.00	10:13																X									
OS-GGW-3	1.00	10:15																X									
OS-PW-10	1.00	10:17																X									
OS-PW-13	1.00	10:19																X									
CCV4	1.00	10:20																X									
CCB4	1.00	10:23																X									
OS-PW-14	1.00	10:24																X									
RINSATE-S7	1.00	10:27																X									
OS-GGW-2	1.00	10:29																X									
SI-GGW-3-FD	1.00	10:30																X									
OS-GGW-1	1.00	10:32																X									
RINSATE-S4	1.00	10:34																X									
GB-GGW-4	1.00	10:36																X									
GB-GGW-2	1.00	10:38																X									
GB-GGW-1	1.00	10:40																X									
SMWB-WW	1.00	10:41																X									
CCV5	1.00	10:43																X									
CCB5	1.00	10:45																X									
ZZZZZZ	1.00	10:47																									
CCV6	1.00	10:49																X									
6	1.00	10:50																X									

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Metals Cover Page

Instrument: Optima 2

Analyst: JD

Date: 2/13/02

Data File: 2feb13

Reviewed By: OK 2/14/02

Entered By: OK 2/14/02

Manager Approval: SD 2/14/02

Starlims Run #	Analytes Used	Batch ID	Method Requested	Failed Analytes	Comments / Problems

OK 2/14/02

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-10427	(Pkg 5) / ASP	Ag As Ba Cd Cr Pb Se Mn Zn	—	MA020149	(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

al'' ation Summary
e Method 6010B Date: 02/13/02 11:08:09 AM

lement	Stds	Equation	Intercept	Slope	Curvature	Corr. Coeff.

ethod: Method 6010B
esults: 2feb13
ample Info: 6010b
ethod Description: Optima 3000XL #2

IEC: 012902.iec
Spectra Stored: Yes
User: User1

MSF:
Method Stored: Yes
Date: 02/13/02 11:08:09 AM

lean Data
D: IS Init
Seq. No.: 1
Data: Original
A/S Pos: 1
Date: 02/13/02 11:09:39 AM

lement	Mean Corr. Intensity	Std.Dev.	RSD
371.030	3431339.2	25898.23	0.75%

lean Data
D: Calib Blank 1
Seq. No.: 2
Data: Original
A/S Pos: 1
Date: 02/13/02 11:11:07 AM

lement	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
371.030	3424439.2	28297.29	0.83%	0.998	mg/L
g 328.068	-1287.8	32.32	2.51%	0	mg/L
l 308.215	4546.4	10.85	0.24%	0	mg/L
s 188.979	-30.3	2.28	7.52%	0	mg/L
249.773	2852.7	193.82	6.79%	0	mg/L
a 233.527	80.6	0.73	0.91%	0	mg/L
1.107	-4716.6	76.10	1.61%	0	mg/L
.887	993.9	23.59	2.37%	0	mg/L
d 226.502	-93.2	1.04	1.11%	0	mg/L
o 228.616	-200.8	3.55	1.77%	0	mg/L
r 267.716	43.8	3.64	8.32%	0	mg/L
u 324.754	2568.6	19.53	0.76%	0	mg/L
e 238.863	-424.7	25.59	6.03%	0	mg/L
K 404.721	-718.6	43.69	6.08%	0	mg/L
Mg 279.079	-398.7	8.87	2.22%	0	mg/L
Mn 257.610	-51.8	10.37	20.01%	0	mg/L
Mo 202.030	-12.6	0.74	5.85%	0	mg/L
Na 330.237	1077.5	70.23	6.52%	0	mg/L
Ni 231.604	-145.3	2.62	1.80%	0	mg/L
Pb 220.353	12.4	1.10	8.88%	0	mg/L
Sb 206.833	40.5	1.42	3.50%	0	mg/L
Se 196.026	-13.3	3.17	23.87%	0	mg/L
Sn 189.933	85.1	0.81	0.95%	0	mg/L
Ti 334.941	-307.3	10.30	3.35%	0	mg/L
Tl 190.800	-22.2	0.47	2.12%	0	mg/L
V 292.402	892.6	40.70	4.56%	0	mg/L
Zn 206.191	52.4	2.78	5.32%	0	mg/L

SdeV.to
2/13/02

Mean Data
ID: Calib Std 1
Seq. No.: 3
Data: Original
A/S Pos: 2
Date: 02/13/02 11:16:22 AM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.030	3411422.1	950.82	0.03%	0.994	mg/L
Ag 328.068	160556.8	544.73	0.34%	1.0000	mg/L
Al 308.215	310272.6	1571.11	0.51%	20.0000	mg/L
As 188.979	2866.8	2.47	0.09%	2.0000	mg/L
B 9.773	335901.0	1994.72	0.59%	5.0000	mg/L
3.527	1566309.0	166.13	0.01%	20.0000	mg/L
Be 13.107	2469797.2	528.72	0.02%	0.5000	mg/L
Ca 315.887	5718877.8	2214.63	0.04%	50.0000	mg/L
Cd 226.502	77932.7	525.35	0.67%	1.0000	mg/L
Co 228.616	113373.7	396.26	0.35%	5.0000	mg/L
Cr 267.716	106051.2	420.68	0.40%	1.0000	mg/L

324.754	522741.8	1430.47	0.27%	2.5000 mg/L
.863	197667.2	1020.13	0.52%	10.0000 mg/L
21	2457.9	8.59	0.35%	50.0000 mg/L
.079	844376.1	124.12	0.01%	50.0000 mg/L
257.610	582461.4	196.33	0.03%	1.5000 mg/L
202.030	59689.0	425.21	0.71%	5.0000 mg/L
330.237	30650.6	62.30	0.20%	50.0000 mg/L
231.604	124555.5	617.01	0.50%	4.0000 mg/L
220.353	3977.1	4.04	0.10%	1.0000 mg/L
206.833	18456.1	12.72	0.07%	10.0000 mg/L
196.026	2020.8	0.15	0.01%	1.0000 mg/L
189.933	69265.0	297.83	0.43%	10.0000 mg/L
334.941	2218551.0	763.05	0.03%	5.0000 mg/L
190.800	2399.4	3.87	0.16%	2.0000 mg/L
292.402	978788.5	821.71	0.08%	5.0000 mg/L
206.191	108316.9	708.26	0.65%	2.0000 mg/L

alibration Summary
ethod: Method 6010B Date: 02/13/02 11:17:42 AM

lement	Stds	Equation	Intercept	Slope	Curvature	Corr. Coeff.
g 328.068	1	Linear	-1287.8	161844.6	0.00000	1.000000
l 308.215	1	Linear	4546.4	15286.3	0.00000	1.000000
s 188.979	1	Linear	-30.3	1448.5	0.00000	1.000000
249.773	1	Linear	2852.7	66609.7	0.00000	1.000000
a 233.527	1	Linear	80.6	78311.4	0.00000	1.000000
e 313.107	1	Linear	-4716.6	4949027.7	0.00000	1.000000
a 315.887	1	Linear	993.9	114357.7	0.00000	1.000000
d 226.502	1	Linear	-93.2	78025.9	0.00000	1.000000
o 228.616	1	Linear	-200.8	22714.9	0.00000	1.000000
r 267.716	1	Linear	43.8	106007.4	0.00000	1.000000
u 324.754	1	Linear	2568.6	208069.3	0.00000	1.000000
e .863	1	Linear	-424.7	19809.2	0.00000	1.000000
721	1	Linear	-718.6	63.5	0.00000	1.000000
g 279.079	1	Linear	-398.7	16895.5	0.00000	1.000000
n 257.610	1	Linear	-51.8	388342.2	0.00000	1.000000
o 202.030	1	Linear	-12.6	11940.3	0.00000	1.000000
a 330.237	1	Linear	1077.5	591.5	0.00000	1.000000
i 231.604	1	Linear	-145.3	31175.2	0.00000	1.000000
b 220.353	1	Linear	12.4	3964.7	0.00000	1.000000
b 206.833	1	Linear	40.5	1841.6	0.00000	1.000000
e 196.026	1	Linear	-13.3	2034.1	0.00000	1.000000
n 189.933	1	Linear	85.1	6918.0	0.00000	1.000000
i 334.941	1	Linear	-307.3	443771.7	0.00000	1.000000
l 190.800	1	Linear	-22.2	1210.8	0.00000	1.000000
V 292.402	1	Linear	892.6	195579.2	0.00000	1.000000
Zn 206.191	1	Linear	52.4	54132.3	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: 02/13/02 11:21:44 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 371.030	3409767.6	0.994	0.0021	mg/L				0.21%
Ag 328.068	159488.5	0.9934	0.01015	mg/L				1.02%
Al 308.215	307555.5	19.82	0.215	mg/L				1.09%
As 188.979	2877.3	2.007	0.0203	mg/L				1.01%
B 249.773	340712.0	5.072	0.0748	mg/L				1.47%
Ba 233.527	1566718.6	20.01	0.003	mg/L				0.02%
Be 313.107	2472523.4	0.5006	0.00014	mg/L				0.03%
Ca 315.887	5719217.3	50.00	0.014	mg/L				0.03%
Cd 226.502	77314.2	0.9921	0.01181	mg/L				1.19%
C 8.616	112720.1	4.971	0.0425	mg/L				0.86%
7.716	105454.5	0.9944	0.00941	mg/L				0.95%
Cu 24.754	519163.2	2.483	0.0308	mg/L				1.24%
Fe 238.863	196507.5	9.941	0.0976	mg/L				0.98%
K 404.721	2426.8	49.51	1.954	mg/L				3.95%
Mg 279.079	844746.5	50.02	0.029	mg/L				0.06%
Mn 257.610	582033.2	1.499	0.0011	mg/L				0.07%

202.030	59172.4	4.957	0.0628	mg/L	1.27%
330.237	30305.3	49.42	0.323	mg/L	0.65%
604	123577.7	3.969	0.0420	mg/L	1.06%
353	3975.8	0.9997	0.00817	mg/L	0.82%
2uo.833	18495.6	10.02	0.071	mg/L	0.71%
196.026	2015.7	0.9975	0.00696	mg/L	0.70%
189.933	68818.8	9.936	0.1358	mg/L	1.37%
334.941	2217804.8	4.998	0.0045	mg/L	0.09%
190.800	2394.1	1.996	0.0164	mg/L	0.82%
292.402	978595.4	4.999	0.0022	mg/L	0.04%
206.191	107470.8	1.984	0.0216	mg/L	1.09%

ean Data

D: 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: 02/13/02 11:26:59 AM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	3463955.2	1.010	0.0047	mg/L				0.47%
g 328.068	77539.4	0.4871	0.00103	mg/L				0.21%
l 308.215	154361.3	9.801	0.0084	mg/L				0.09%
s 188.979	1433.9	1.011	0.0061	mg/L				0.60%
249.773	173400.3	2.560	0.0076	mg/L				0.30%
a 233.527	810354.5	10.35	0.002	mg/L				0.02%
e 313.107	1232972.8	0.2501	0.00002	mg/L				0.01%
a 315.887	2900277.8	25.35	0.016	mg/L				0.06%
d 226.502	39255.7	0.5043	0.00184	mg/L				0.37%
o 228.616	57395.3	2.536	0.0024	mg/L				0.09%
r 267.716	53518.1	0.5044	0.00188	mg/L				0.37%
u 324.754	264006.3	1.256	0.0003	mg/L				0.02%
e 238.863	99635.1	5.051	0.0183	mg/L				0.36%
404.721	774.7	23.51	0.496	mg/L				2.11%
g 279.079	422384.7	25.02	0.017	mg/L				0.07%
n .610	297687.0	0.7667	0.00093	mg/L				0.12%
o 030	28795.6	2.413	0.0075	mg/L				0.31%
a .237	14767.7	23.15	0.095	mg/L				0.41%
i 231.604	63988.7	2.057	0.0080	mg/L				0.39%
b 220.353	2002.8	0.5020	0.00295	mg/L				0.59%
b 206.833	9211.0	4.980	0.0006	mg/L				0.01%
e 196.026	1000.4	0.4984	0.00129	mg/L				0.26%
n 189.933	36471.5	5.260	0.0120	mg/L				0.23%
i 334.941	1088167.7	2.453	0.0027	mg/L				0.11%
l 190.800	1238.6	1.041	0.0049	mg/L				0.47%
292.402	491814.4	2.510	0.0007	mg/L				0.03%
n 206.191	55081.2	1.017	0.0040	mg/L				0.39%

lean Data

:D: ICB — Seq. No.: 6 — Sample No.: 3 — A/S Pos: 1

ample Qty: 1.0000 g — Prep. Vol.: 1.0 L — Dilution: 1.0: 1.0

Data: Original — Date: 02/13/02 11:32:00 AM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	3395792.0	0.990	0.0155	mg/L				1.57%
g 328.068	-1281.8	0.0000	0.00015	mg/L				413.31%
l 308.215	4626.6	0.0052	0.00418	mg/L				79.62%
s 188.979	-31.9	-0.0011	0.00178	mg/L				163.38%
249.773	9430.2	0.0987	0.01469	mg/L				14.88%
Ba 233.527	242.0	0.0021	0.00033	mg/L				16.15%
Be 313.107	-4354.2	0.0001	0.00003	mg/L				42.12%
Ca 315.887	1374.2	0.0033	0.00076	mg/L				23.00%
Cd 226.502	-88.6	0.0001	0.00000	mg/L				6.49%
Co 228.616	-188.6	0.0005	0.00013	mg/L				24.86%
Cr 267.716	80.3	0.0003	0.00009	mg/L				25.70%
Cu 324.754	3377.6	0.0039	0.00066	mg/L				17.09%
Fe 238.863	-410.1	0.0007	0.00212	mg/L				287.84%
K 721	-747.8	-0.4597	0.01651	mg/L				3.59%
Mg .079	-333.4	0.0039	0.00177	mg/L				45.75%
Mn 257.610	-52.1	0.0000	0.00006	mg/L				>999.9%
Mo 202.030	-7.3	0.0004	0.00038	mg/L				85.14%
Na 330.237	1073.5	-0.0068	0.01057	mg/L				155.57%
Ni 231.604	-127.6	0.0006	0.00015	mg/L				26.68%

b 220.353	17.6	0.0013	0.00051 mg/L	38.74%
b 206.833	78.1	0.0204	0.00509 mg/L	24.97%
Q ceeds upper limit for Sb 206.833 Action = Continue				
e .026	-20.2	-0.0034	0.00068 mg/L	20.14%
n 189.933	155.5	0.0102	0.00224 mg/L	21.99%
i 334.941	139.3	0.0010	0.00037 mg/L	37.03%
l 190.800	-16.0	0.0051	0.00010 mg/L	1.91%
292.402	931.0	0.0002	0.00038 mg/L	192.66%
n 206.191	72.6	0.0004	0.00009 mg/L	25.11%

lean Data ----------

ID: CRI Seq. No.: 7 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: 02/13/02 11:37:03 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
371.030	3442805.7	1.003	0.0060	mg/L				0.59%
g 328.068	1774.9	0.0189	0.00030	mg/L				1.61%
l 308.215	4553.3	0.0004	0.00187	mg/L				419.22%
s 188.979	-3.3	0.0186	0.00045	mg/L				2.40%
249.773	4148.2	0.0194	0.00682	mg/L				35.06%
a 233.527	150.9	0.0009	0.00010	mg/L				11.06%
e 313.107	45733.1	0.0102	0.00000	mg/L				0.04%
a 315.887	1715.7	0.0063	0.00004	mg/L				0.71%
d 226.502	718.3	0.0104	0.00001	mg/L				0.07%
o 228.616	2242.9	0.1076	0.00008	mg/L				0.07%
r 267.716	2229.6	0.0206	0.00024	mg/L				1.18%
u 324.754	12725.1	0.0488	0.00045	mg/L				0.92%
e 238.863	-405.4	0.0010	0.00100	mg/L				103.28%
404.721	-708.1	0.1653	0.09717	mg/L				58.79%
g 279.079	-455.4	-0.0034	0.00375	mg/L				111.88%
n 257.610	12146.7	0.0314	0.00034	mg/L				1.09%
o 202.030	-13.0	0.0000	0.00006	mg/L				232.51%
a 0.237	1014.9	-0.0159	0.01531	mg/L				14.45%
.604	2531.4	0.0859	0.00037	mg/L				0.44%
b 0.353	40.5	0.0071	0.00100	mg/L				14.16%
b 206.833	275.8	0.1278	0.00027	mg/L				0.21%
e 196.026	4.5	0.0087	0.00182	mg/L				20.80%
n 189.933	101.4	0.0024	0.00040	mg/L				16.90%
i 334.941	-263.4	0.0001	0.00001	mg/L				6.93%
l 190.800	6.9	0.0241	0.00088	mg/L				3.67%
292.402	20747.0	0.1015	0.00038	mg/L				0.38%
n 206.191	2286.3	0.0413	0.00030	mg/L				0.72%

Mean 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: 02/13/02 11:42:33 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 371.030	3169377.2	0.924	0.0083	mg/L				0.90%
Ag 328.068	-2958.3	-0.0103	0.00001	mg/L				0.07%
Al 308.215	7798410.7	509.9	3.45	mg/L				0.68%
As 188.979	-75.7	0.0037	0.00080	mg/L				21.64%
B 249.773	11525.9	0.1302	0.00501	mg/L				3.85%
Ba 233.527	-303.0	-0.0049	0.00001	mg/L				0.14%
Be 313.107	-5390.0	-0.0001	0.00000	mg/L				3.14%
Ca 315.887	54813661.0	479.3	3.23	mg/L				0.67%
Cd 226.502	1358.0	0.0075	0.00028	mg/L				3.74%
Co 228.616	-194.6	0.0003	0.00096	mg/L				356.31%
Cr 267.716	654.4	0.0058	0.00021	mg/L				3.62%
Cu 324.754	966.3	0.0038	0.00034	mg/L				9.00%
Fe 238.863	3713834.7	187.5	0.15	mg/L				0.08%
K 404.721	-2070.0	4.216	0.4797	mg/L				11.38%
Mg 279.079	8887119.6	526.0	3.66	mg/L				0.69%
7.610	-2412.6	0.0101	0.00013	mg/L				1.27%
2.030	19.3	0.0027	0.00026	mg/L				9.57%
Na 330.237	938.8	-0.0925	0.01562	mg/L				16.88%
Ni 231.604	-128.6	0.0005	0.00023	mg/L				42.24%
Pb 220.353	-182.6	-0.0114	0.00162	mg/L				14.21%
Sb 206.833	36.8	-0.0020	0.00247	mg/L				123.48%

196.026	-2.8	-0.0045	0.00081 mg/L	18.07%
189.933	13647.0	-0.0578	0.00498 mg/L	8.62%
? 41	-2788.0	-0.0056	0.00003 mg/L	0.53%
1 00	-47.6	-0.0210	0.00184 mg/L	8.78%
292.402	7540.2	0.0340	0.00054 mg/L	1.58%
206.191	1162.5	0.0063	0.00025 mg/L	3.99%

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: 02/13/02 11:48:34 AM

ement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	3221653.0	0.939	0.0044	mg/L				0.46%
328.068	172553.8	1.074	0.0072	mg/L				0.67%
308.215	7710783.8	504.1	1.25	mg/L				0.25%
188.979	-81.4	-0.0006	0.00527	mg/L				820.71%
249.773	10248.5	0.1110	0.00392	mg/L				3.53%
233.527	41254.3	0.5258	0.00291	mg/L				0.55%
313.107	2470660.6	0.5002	0.00012	mg/L				0.02%
315.887	54291072.6	474.7	1.31	mg/L				0.28%
226.502	74694.4	0.9475	0.00271	mg/L				0.29%
228.616	10346.8	0.4643	0.00175	mg/L				0.38%
267.716	52252.7	0.4925	0.00487	mg/L				0.99%
324.754	108802.7	0.5219	0.00042	mg/L				0.08%
238.863	3668834.9	185.2	0.04	mg/L				0.02%
404.721	-2215.0	1.624	0.4445	mg/L				27.36%
279.079	8808448.3	521.4	1.40	mg/L				0.27%
257.610	188920.0	0.5026	0.00459	mg/L				0.91%
202.030	17.6	0.0025	0.00000	mg/L				0.18%
330.237	1102.0	0.1803	0.02644	mg/L				14.66%
231.604	28506.5	0.9191	0.00221	mg/L				0.24%
220.353	3686.0	0.9639	0.00246	mg/L				0.25%
.833	41.9	0.0008	0.00022	mg/L				29.18%
026	2.6	-0.0018	0.00285	mg/L				159.67%
.933	13418.8	-0.0729	0.00565	mg/L				7.74%
334.941	-2706.0	-0.0054	0.00009	mg/L				1.68%
190.800	-50.8	-0.0236	0.00041	mg/L				-1.73%
292.402	104384.3	0.5292	0.00404	mg/L				0.76%
206.191	51077.2	0.9285	0.00163	mg/L				0.18%

ean Data ----------

D: CCV Seq. No.: 10 Sample No.: 2 A/S Pos: 3
ample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/13/02 11:54:15 AM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	3480683.3	1.014	0.0022	mg/L				0.21%
g 328.068	77944.1	0.4896	0.00169	mg/L				0.35%
l 308.215	156542.3	9.943	0.0393	mg/L				0.40%
s 188.979	1438.7	1.014	0.0084	mg/L				0.82%
249.773	162135.5	2.391	0.0269	mg/L				1.12%
a 233.527	818761.7	10.45	0.001	mg/L				0.01%
e 313.107	1245008.9	0.2525	0.00023	mg/L				0.09%
a 315.887	2941868.9	25.72	0.014	mg/L				0.05%
d 226.502	39916.8	0.5128	0.00221	mg/L				0.43%
o 228.616	58150.1	2.569	0.0079	mg/L				0.31%
r 267.716	53916.2	0.5082	0.00120	mg/L				0.24%
u 324.754	265285.5	1.263	0.0072	mg/L				0.57%
Fe 238.863	102797.5	5.211	0.0066	mg/L				0.13%
K 404.721	788.8	23.73	1.092	mg/L				4.60%
Mg 279.079	431113.2	25.54	0.018	mg/L				0.07%
Mn 257.610	299312.6	0.7709	0.00000	mg/L				0.00%
Mo 202.030	29216.4	2.448	0.0112	mg/L				0.46%
Na 330.237	15032.4	23.59	0.157	mg/L				0.67%
N .604	65049.5	2.091	0.0096	mg/L				0.46%
Pb 0.353	2037.1	0.5107	0.00458	mg/L				0.90%
Sb 206.833	9269.2	5.011	0.0416	mg/L				0.83%
Se 196.026	1009.5	0.5028	0.00399	mg/L				0.79%
Sn 189.933	36903.9	5.322	0.0326	mg/L				0.61%
Ti 334.941	1088133.4	2.453	0.0016	mg/L				0.06%

190.800	1239.5	1.042	0.0052 mg/L		0.50%
292 402	492382.8	2.513	0.0011 mg/L		0.04%
91	56196.4	1.037	0.0035 mg/L		0.34%

an 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: 02/13/02 11:59:17 AM

ement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
371.030	3406779.4	0.993	0.0018	mg/L				0.18%
328.068	-1290.8	0.0000	0.00011	mg/L				600.03%
308.215	4685.2	0.0091	0.00047	mg/L				5.20%
188.979	-29.1	0.0008	0.00141	mg/L				175.20%
249.773	3628.0	0.0116	0.00451	mg/L				38.71%
233.527	335.8	0.0033	0.00023	mg/L				7.09%
313.107	-4269.4	0.0001	0.00003	mg/L				31.63%
315.887	2064.8	0.0094	0.00037	mg/L				3.95%
226.502	-93.6	0.0000	0.00007	mg/L				>999.9%
228.616	-141.4	0.0026	0.00073	mg/L				28.01%
267.716	39.3	0.0000	0.00011	mg/L				258.22%
324.754	3068.7	0.0024	0.00090	mg/L				37.59%
238.863	122.6	0.0276	0.00470	mg/L				17.01%
404.721	-675.4	0.6801	0.53352	mg/L				78.44%
279.079	9051.8	0.5593	0.05699	mg/L				10.19%
QC exceeds upper limit for Mg 279.079 Action = Continue								
257.610	-4.6	0.0001	0.00009	mg/L				71.98%
202.030	-11.5	0.0001	0.00015	mg/L				159.50%
330.237	1048.0	-0.0499	0.13127	mg/L				262.85%
231.604	-128.1	0.0006	0.00002	mg/L				4.34%
220.353	14.9	0.0006	0.00000	mg/L				0.49%
206.833	72.9	0.0176	0.00603	mg/L				34.34%
QC exceeds upper limit for Sb 206.833 Action = Continue								
026	-19.6	-0.0031	0.00240	mg/L				77.72%
933	290.4	0.0297	0.00015	mg/L				0.50%
334.941	-59.5	0.0006	0.00024	mg/L				43.05%
190.800	-17.7	0.0037	0.00288	mg/L				77.51%
292.402	907.0	0.0001	0.00008	mg/L				109.69%
206.191	117.1	0.0012	0.00024	mg/L				19.83%

lean Data ----------

D: PBW-M2620149 Seq. No.: 12 Sample No.: 1 A/S Pos: 9
ample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/13/02 12:04:16 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
371.030	3444975.1	1.004	0.0017	mg/L				0.17%
Mg 328.068	-1306.7	-0.0001	0.00014	mg/L				119.26%
Al 308.215	4595.5	0.0032	0.00040	mg/L				12.61%
As 188.979	-32.2	-0.0014	0.00047	mg/L				34.76%
B 249.773	2837.7	-0.0002	0.00229	mg/L				>999.9%
Ba 233.527	211.7	0.0017	0.00016	mg/L				9.48%
Be 313.107	-4486.9	0.0000	0.00000	mg/L				5.91%
Ca 315.887	-546.4	-0.0135	0.00084	mg/L				6.23%
Cd 226.502	-91.4	0.0000	0.00006	mg/L				244.86%
Co 228.616	-191.6	0.0004	0.00021	mg/L				51.56%
Cr 267.716	68.4	0.0002	0.00019	mg/L				82.07%
Cu 324.754	2599.3	0.0001	0.00020	mg/L				133.21%
Fe 238.863	-168.5	0.0129	0.00005	mg/L				0.38%
K 404.721	-766.4	-0.7526	0.47293	mg/L				62.84%
Mg 279.079	7582.2	0.4724	0.03409	mg/L				7.22%
Mn 257.610	-148.1	-0.0002	0.00001	mg/L				2.06%
Mo 202.030	-15.4	-0.0002	0.00015	mg/L				65.14%
Na 330.237	1113.5	0.0609	0.08015	mg/L				131.55%
Ni 231.604	-156.3	-0.0004	0.00006	mg/L				17.47%
P 220.353	15.1	0.0007	0.00028	mg/L				41.55%
Sb 206.833	45.0	0.0025	0.00129	mg/L				52.70%
Se 196.026	-12.3	0.0005	0.00310	mg/L				615.87%
Sn 189.933	217.7	0.0192	0.00258	mg/L				13.48%
Ti 334.941	-266.3	0.0001	0.00011	mg/L				116.73%
Tl 190.800	-23.0	-0.0006	0.00060	mg/L				94.95%

292.402	882.7	-0.0001	0.00005	mg/L	105.93%
n .191	132.3	0.0015	0.00003	mg/L	2.28%

lean Data

D: LCSW-M2620149 Seq. No.: 13 Sample No.: 2 A/S Pos: 10
ample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/13/02 12:09:19 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	3638987.0	1.061	0.0050	mg/L				0.47%
Ag 328.068	6637.9	0.0490	0.00056	mg/L				1.14%
Al 308.215	34078.4	1.932	0.0082	mg/L				0.42%
As 188.979	22.6	0.0365	0.00019	mg/L				0.53%
B 249.773	65254.9	0.9368	0.00497	mg/L				0.53%
Ba 233.527	166197.3	2.121	0.0097	mg/L				0.46%
Be 313.107	242160.1	0.0499	0.00004	mg/L				0.09%
Ca 315.887	234842.7	2.045	0.0102	mg/L				0.50%
Cd 226.502	3879.0	0.0509	0.00029	mg/L				0.57%
Co 228.616	11756.3	0.5264	0.00347	mg/L				0.66%
Cr 267.716	21860.4	0.2058	0.00121	mg/L				0.59%
Cu 324.754	57070.8	0.2619	0.00092	mg/L				0.35%
Fe 238.863	20470.6	1.055	0.0048	mg/L				0.46%
K 404.721	495.4	19.11	0.059	mg/L				0.31%
Mg 279.079	36664.5	2.194	0.0291	mg/L				1.33%
Mn 257.610	200610.8	0.5167	0.00202	mg/L				0.39%
Mo 202.030	5701.3	0.4785	0.00294	mg/L				0.61%
Na 330.237	11646.0	17.87	0.030	mg/L				0.17%
Ni 231.604	16276.5	0.5268	0.00256	mg/L				0.49%
Pb 220.353	2085.1	0.5228	0.00445	mg/L				0.85%
Sb 206.833	949.3	0.4935	0.00065	mg/L				0.13%
Se 196.026	1883.7	0.9326	0.00729	mg/L				0.78%
Sn 189.933	671.5	0.0848	0.00164	mg/L				1.94%
Ti 334.941	221946.6	0.5008	0.00164	mg/L				0.33%
Tl .800	2477.2	2.064	0.0160	mg/L				0.77%
V .402	99274.4	0.5030	0.00187	mg/L				0.37%
Zn 206.191	28819.3	0.5314	0.00354	mg/L				0.67%

Mean Data

ID: 526346 1/2 Seq. No.: 14 Sample No.: 3 A/S Pos: 11
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 2.0
Data: Original Date: 02/13/02 12:14:22 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	3502011.0	1.021	0.0065	mg/L				0.63%
Ag 328.068	-1371.8	-0.0005	0.00004	mg/L				7.43%
Al 308.215	4679.4	0.0087	0.00195	mg/L				22.43%
As 188.979	-9.6	0.0143	0.00064	mg/L				4.48%
B 249.773	13622.7	0.1617	0.00289	mg/L				1.79%
Ba 233.527	1771.7	0.0216	0.00014	mg/L				0.66%
Be 313.107	-4582.0	0.0000	0.00001	mg/L				28.96%
Ca 315.887	3149324.6	27.53	0.022	mg/L				0.08%
Cd 226.502	-90.2	0.0000	0.00000	mg/L				10.14%
Co 228.616	-192.0	0.0004	0.00005	mg/L				12.05%
Cr 267.716	125.2	0.0008	0.00001	mg/L				1.58%
Cu 324.754	15964.5	0.0644	0.00014	mg/L				0.22%
Fe 238.863	-42.8	0.0193	0.00070	mg/L				3.61%
K 404.721	-265.9	7.126	0.2525	mg/L				3.54%
Mg 279.079	196207.4	11.64	0.030	mg/L				0.26%
Mn 257.610	-47.1	0.0000	0.00003	mg/L				214.52%
Mo 202.030	18.8	0.0026	0.00005	mg/L				1.71%
Na 330.237	75186.0	125.3	0.54	mg/L				0.43%
Ni 231.604	-120.6	0.0008	0.00005	mg/L				6.13%
Pb 220.353	37.4	0.0063	0.00000	mg/L				0.03%
Sb 206.833	38.7	-0.0010	0.00120	mg/L				123.28%
S 96.026	-6.8	0.0032	0.00064	mg/L				20.13%
S 9.933	2856.6	0.4006	0.00254	mg/L				0.63%
Ti 334.941	-364.4	-0.0001	0.00003	mg/L				20.38%
Tl 190.800	-21.7	0.0004	0.00046	mg/L				115.90%
V 292.402	2843.3	0.0100	0.00012	mg/L				1.19%
Zn 206.191	3338.3	0.0607	0.00033	mg/L				0.54%

:an Data

):: 526348 1/2 Seq. No.: 15 Sample No.: 4 A/S Pos: 12
ı Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 2.0
Data: Original Date: 02/13/02 12:19:42 PM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	3455054.0	1.007	0.0012	mg/L				0.12%
g 328.068	-1878.9	-0.0037	0.00007	mg/L				1.82%
l 308.215	814852.3	53.01	0.047	mg/L				0.09%
s 188.979	-24.3	0.0042	0.00082	mg/L				19.68%
249.773	12838.9	0.1499	0.00004	mg/L				0.03%
a 233.527	86754.2	1.107	0.0003	mg/L				0.02%
e 313.107	-10310.9	-0.0011	0.00001	mg/L				0.85%
a 315.887	29170748.6	255.1	1.99	mg/L				0.78%
d 226.502	251.8	0.0044	0.00001	mg/L				0.21%
o 228.616	230.0	0.0190	0.00020	mg/L				1.04%
r 267.716	4381.8	0.0409	0.00016	mg/L				0.38%
u 324.754	8686.6	0.0294	0.00026	mg/L				0.90%
e 238.863	788496.2	39.83	0.010	mg/L				0.02%
404.721	1317.8	37.47	0.752	mg/L				2.01%
g 279.079	653420.2	38.70	0.002	mg/L				0.01%
n 257.610	1198633.1	3.087	0.0020	mg/L				0.06%
o 202.030	97.1	0.0092	0.00011	mg/L				1.24%
a 330.237	36185.7	59.36	0.065	mg/L				0.11%
i 231.604	607.8	0.0242	0.00024	mg/L				0.98%
b 220.353	94.6	0.0250	0.00102	mg/L				4.07%
b 206.833	30.2	-0.0056	0.00042	mg/L				7.46%
e 196.026	-11.2	0.0010	0.00079	mg/L				75.62%
n 189.933	6274.5	0.8947	0.00086	mg/L				0.10%
i 334.941	981112.3	2.212	0.0004	mg/L				0.02%
l 190.800	-72.9	-0.0419	0.00094	mg/L				2.25%
292.402	25935.6	0.1280	0.00026	mg/L				0.21%
n 206.191	6234.4	0.1142	0.00018	mg/L				0.16%

le ata

:D: 526349 1/3 Seq. No.: 16 Sample No.: 5 A/S Pos: 13
ample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 3.0
Data: Original Date: 02/13/02 12:25:15 PM

:lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	3544758.8	1.033	0.0075	mg/L				0.72%
\g 328.068	-2166.0	-0.0054	0.00025	mg/L				4.56%
\l 308.215	1256822.1	81.92	0.044	mg/L				0.05%
\s 188.979	-29.7	0.0115	0.00148	mg/L				12.88%
3 249.773	13842.3	0.1650	0.00067	mg/L				0.40%
3a 233.527	157469.9	2.010	0.0015	mg/L				0.08%
3e 313.107	-11828.7	-0.0014	0.00001	mg/L				0.39%
:a 315.887	45014683.2	393.6	2.70	mg/L				0.69%
:d 226.502	406.0	0.0064	0.00046	mg/L				7.17%
:o 228.616	443.2	0.0284	0.00175	mg/L				6.18%
:r 267.716	5840.7	0.0547	0.00368	mg/L				6.73%
:u 324.754	11665.3	0.0437	0.00031	mg/L				0.71%
Fe 238.863	1175786.7	59.38	0.077	mg/L				0.13%
K 404.721	519.3	27.56	0.069	mg/L				0.25%
Mg 279.079	701700.4	41.56	0.045	mg/L				0.11%
Mn 257.610	950527.0	2.448	0.0040	mg/L				0.16%
Mo 202.030	25.7	0.0032	0.00008	mg/L				2.53%
Na 330.237	24873.7	40.23	0.044	mg/L				0.11%
Ni 231.604	858.8	0.0322	0.00217	mg/L				6.74%
Pb 220.353	134.8	0.0375	0.00145	mg/L				3.86%
Sb 206.833	27.3	-0.0072	0.00131	mg/L				18.25%
Se 196.026	-20.3	-0.0034	0.00340	mg/L				98.71%
Sn 189.933	6190.4	0.8825	0.05204	mg/L				5.90%
Ti 334.941	1402158.2	3.160	0.0008	mg/L				0.03%
Tl 190.800	-59.8	-0.0310	0.00504	mg/L				16.25%
V .402	35466.9	0.1768	0.00008	mg/L				0.05%
Zn 06.191	8768.0	0.1610	0.01102	mg/L				6.84%

Mean Data

ID: 526351 1/3 Seq. No.: 17 Sample No.: 6 A/S Pos: 14
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 3.0

Data: Original Date: 02/13/02 12:30:51 PM

le	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Units	RSD
371.030	3526728.2	1.028	0.0039	mg/L				0.38%
g 328.068	-2825.1	-0.0095	0.00041	mg/L				4.28%
l 308.215	1964990.6	128.2	0.04	mg/L				0.03%
s 188.979	-14.4	0.0283	0.00215	mg/L				7.58%
249.773	18968.5	0.2419	0.00047	mg/L				0.19%
a 233.527	452957.5	5.783	0.0028	mg/L				0.05%
e 313.107	-16129.1	-0.0023	0.00002	mg/L				0.90%
a 315.887	75463091.1	659.9	3.60	mg/L				0.55%
d 226.502	713.8	0.0049	0.00073	mg/L				15.01%
o 228.616	830.7	0.0454	0.00327	mg/L				7.19%
r 267.716	9312.5	0.0874	0.00671	mg/L				7.68%
u 324.754	17845.8	0.0734	0.00031	mg/L				0.43%
e 238.863	1837779.4	92.80	0.005	mg/L				0.01%
404.721	1125.8	41.65	1.129	mg/L				2.71%
g 279.079	1015284.8	60.12	0.001	mg/L				0.00%
n 257.610	2231989.3	5.748	0.0031	mg/L				0.05%
o 202.030	23.4	0.0030	0.00035	mg/L				11.46%
a 330.237	31759.4	51.08	0.124	mg/L				0.24%
i 231.604	1534.5	0.0539	0.00458	mg/L				8.51%
b 220.353	212.6	0.0609	0.00403	mg/L				6.62%
b 206.833	25.2	-0.0083	0.00316	mg/L				38.15%
e 196.026	-13.3	0.0000	0.00355	mg/L				>999.9%
n 189.933	7200.9	1.029	0.0653	mg/L				6.35%
i 334.941	2235791.1	5.039	0.0011	mg/L				0.02%
l 190.800	-104.4	-0.0679	0.00680	mg/L				10.01%
292.402	59823.9	0.3013	0.00045	mg/L				0.15%
n 206.191	14869.6	0.2737	0.02071	mg/L				7.56%

lean Data

D: 526351D 1/3 Seq. No.: 18 Sample No.: 7 A/S Pos: 15
a Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 3.0
Data: Original Date: 02/13/02 12:36:28 PM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Units	RSD
371.030	3548511.9	1.034	0.0084	mg/L				0.81%
g 328.068	-2857.0	-0.0097	0.00036	mg/L				3.74%
l 308.215	2019523.6	131.8	0.04	mg/L				0.03%
s 188.979	-8.8	0.0327	0.00227	mg/L				6.93%
249.773	19505.7	0.2500	0.00019	mg/L				0.07%
a 233.527	474668.2	6.060	0.0040	mg/L				0.07%
e 313.107	-15984.5	-0.0023	0.00003	mg/L				1.47%
a 315.887	78627001.0	687.5	4.89	mg/L				0.71%
d 226.502	743.8	0.0051	0.00090	mg/L				17.73%
o 228.616	851.5	0.0463	0.00414	mg/L				8.94%
r 267.716	9429.5	0.0885	0.00763	mg/L				8.61%
u 324.754	18491.7	0.0765	0.00004	mg/L				0.05%
e 238.863	1896264.3	95.75	0.227	mg/L				0.24%
404.721	1237.2	43.80	1.194	mg/L				2.73%
g 279.079	1054846.7	62.46	0.089	mg/L				0.14%
n 257.610	2325329.5	5.988	0.0070	mg/L				0.12%
o 202.030	26.5	0.0033	0.00068	mg/L				20.75%
a 330.237	33222.4	53.52	0.211	mg/L				0.39%
i 231.604	1572.1	0.0551	0.00494	mg/L				8.98%
b 220.353	221.7	0.0635	0.00328	mg/L				5.16%
b 206.833	21.3	-0.0104	0.00061	mg/L				5.87%
e 196.026	-11.2	0.0010	0.00020	mg/L				19.87%
n 189.933	7245.6	1.035	0.0816	mg/L				7.88%
i 334.941	2272604.2	5.122	0.0006	mg/L				0.01%
l 190.800	-109.1	-0.0718	0.00661	mg/L				9.21%
292.402	61089.9	0.3078	0.00013	mg/L				0.04%
n 206.191	15316.3	0.2820	0.02453	mg/L				8.70%

M Data

IL 26351S 1/3 Seq. No.: 19 Sample No.: 8 A/S Pos: 16
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 3.0
Data: Original Date: 02/13/02 12:42:05 PM

	Mean Corr.	Mean	Calib	Mean	Sample

ement	Intensity	Conc.	Std.Dev.	Units	Conc.	Std.Dev.	Units	RSD
371.030	3518756.4	1.025	0.0011	mg/L				0.11%
068	-383.5	0.0056	0.00022	mg/L				3.86%
.215	1740501.5	113.6	0.12	mg/L				0.11%
188.979	5.1	0.0398	0.00650	mg/L				16.32%
249.773	36510.9	0.5053	0.00292	mg/L				0.58%
233.527	452228.2	5.774	0.0023	mg/L				0.04%
313.107	57834.6	0.0126	0.00002	mg/L				0.15%
315.887	71436849.4	624.7	3.15	mg/L				0.50%
226.502	1649.0	0.0223	0.00177	mg/L				7.94%
228.616	3731.0	0.1731	0.01373	mg/L				7.93%
267.716	13764.7	0.1294	0.01014	mg/L				7.83%
324.754	31204.1	0.1376	0.00072	mg/L				0.52%
238.863	1630029.4	82.31	0.042	mg/L				0.05%
404.721	1381.7	44.25	0.124	mg/L				0.28%
279.079	931323.1	55.15	0.049	mg/L				0.09%
257.610	2105753.6	5.423	0.0038	mg/L				0.07%
202.030	1494.1	0.1262	0.01002	mg/L				7.94%
330.237	34000.0	54.91	0.058	mg/L				0.11%
231.604	5470.3	0.1801	0.01415	mg/L				7.85%
220.353	740.2	0.1928	0.01473	mg/L				7.64%
206.833	122.8	0.0447	0.00266	mg/L				5.96%
196.026	540.7	0.2724	0.02404	mg/L				8.83%
189.933	6964.8	0.9945	0.06694	mg/L				6.73%
334.941	1977806.5	4.458	0.0005	mg/L				0.01%
190.800	525.1	0.4520	0.03323	mg/L				7.35%
292.402	80594.9	0.4075	0.00008	mg/L				0.02%
206.191	20170.4	0.3716	0.02854	mg/L				7.68%

ean Data ----------

D: 526351A 1/3 Seq. No.: 20 Sample No.: 9 A/S Pos: 17

ample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 3.0

Data: Original Date: 02/13/02 12:47:49 PM

t	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	3498363.1	1.020	0.0038	mg/L				0.38%
g 328.068	4779.2	0.0375	0.00002	mg/L				0.05%
l 308.215	2048031.5	133.7	0.11	mg/L				0.08%
s 188.979	24.8	0.0562	0.01116	mg/L				19.87%
249.773	85849.1	1.246	0.0003	mg/L				0.02%
a 233.527	613977.5	7.839	0.0371	mg/L				0.47%
e 313.107	210399.5	0.0435	0.00021	mg/L				0.49%
a 315.887	78891718.9	689.9	6.02	mg/L				0.87%
d 226.502	3527.9	0.0407	0.01224	mg/L				30.10%
o 228.616	9200.6	0.4139	0.11145	mg/L				26.93%
r 267.716	29104.7	0.2741	0.00155	mg/L				0.56%
u 324.754	67780.6	0.3134	0.00164	mg/L				0.52%
e 238.863	1921024.9	97.00	0.071	mg/L				0.07%
404.721	2805.1	68.65	0.978	mg/L				1.42%
g 279.079	1083879.3	64.18	0.009	mg/L				0.01%
n 257.610	2472439.7	6.367	0.0131	mg/L				0.21%
o 202.030	4378.1	0.3677	0.09782	mg/L				26.60%
a 330.237	47035.0	76.87	0.345	mg/L				0.45%
i 231.604	12915.2	0.4189	0.11297	mg/L				26.97%
b 220.353	1741.1	0.4469	0.11514	mg/L				25.77%
b 206.833	739.4	0.3795	0.09962	mg/L				26.25%
e 196.026	1933.2	0.9569	0.25686	mg/L				26.84%
n 189.933	6702.9	0.9566	0.22201	mg/L				23.21%
i 334.941	2453067.7	5.528	0.0079	mg/L				0.14%
l 190.800	1666.3	1.395	0.3604	mg/L				25.84%
292.402	151020.7	0.7676	0.00474	mg/L				0.62%
n 206.191	39910.6	0.7363	0.00324	mg/L				0.44%

Mean Data ----------

ID: 526351L 1/3 Seq. No.: 21 Sample No.: 10 A/S Pos: 18

Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 3.0

Data: Original Date: 02/13/02 12:53:28 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	3570115.9	1.040	0.0001	mg/L				0.01%
Ag 328.068	-1678.8	-0.0024	0.00015	mg/L				6.12%

308.215	396354.4	25.63	0.006	mg/L	0.02%
1' 979	-23.8	0.0045	0.00138	mg/L	30.79%
2. '3	5435.9	0.0388	0.00221	mg/L	5.70%
2...527	96219.6	1.228	0.0038	mg/L	0.31%
313.107	-7058.6	-0.0005	0.00000	mg/L	0.30%
315.887	17079755.5	149.3	1.25	mg/L	0.84%
226.502	79.3	0.0022	0.00004	mg/L	1.76%
228.616	40.2	0.0106	0.00009	mg/L	0.87%
267.716	2127.4	0.0197	0.00010	mg/L	0.50%
324.754	5159.1	0.0125	0.00011	mg/L	0.89%
238.863	397556.0	20.09	0.008	mg/L	0.04%
404.721	-533.5	5.646	0.0027	mg/L	0.05%
279.079	210146.6	12.46	0.039	mg/L	0.31%
257.610	478670.2	1.233	0.0001	mg/L	0.01%
202.030	-2.6	0.0008	0.00003	mg/L	3.42%
330.237	6315.1	8.855	0.0597	mg/L	0.67%
231.604	229.2	0.0120	0.00007	mg/L	0.61%
220.353	63.8	0.0130	0.00041	mg/L	3.13%
206.833	31.6	-0.0049	0.00064	mg/L	13.19%
196.026	-14.0	-0.0004	0.00010	mg/L	27.38%
189.933	2802.8	0.3928	0.00024	mg/L	0.06%
334.941	460357.7	1.038	0.0014	mg/L	0.14%
190.800	-37.9	-0.0129	0.00060	mg/L	4.63%
292.402	12955.3	0.0617	0.00018	mg/L	0.29%
206.191	3520.5	0.0641	0.00009	mg/L	0.14%

ean Data ----------

D: CCV
ample Qty: 1.0000 g

Seq. No.: 22 Sample No.: 2 A/S Pos: 3
Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/13/02 12:58:52 PM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
37'.030	3527734.8	1.028	0.0077	mg/L				0.75%
g .068	77364.0	0.4860	0.00233	mg/L				0.48%
l .215	154728.8	9.825	0.0552	mg/L				0.56%
a 188.979	1435.6	1.012	0.0030	mg/L				0.29%
249.773	160711.4	2.370	0.0058	mg/L				0.24%
a 233.527	817364.0	10.44	0.007	mg/L				0.07%
e 313.107	1241335.5	0.2518	0.00024	mg/L				0.09%
a 315.887	2933333.0	25.64	0.020	mg/L				0.08%
d 226.502	39721.6	0.5103	0.00123	mg/L				0.24%
o 228.616	57534.4	2.542	0.0131	mg/L				0.52%
r 267.716	53460.1	0.5039	0.00170	mg/L				0.34%
u 324.754	263227.1	1.253	0.0028	mg/L				0.23%
e 238.863	100519.0	5.096	0.0242	mg/L				0.47%
404.721	804.6	23.98	1.586	mg/L				6.62%
g 279.079	427545.8	25.33	0.006	mg/L				0.02%
n 257.610	298070.6	0.7677	0.00033	mg/L				0.04%
o 202.030	29061.3	2.435	0.0048	mg/L				0.20%
a 330.237	14936.5	23.43	0.100	mg/L				0.43%
i 231.604	64567.7	2.076	0.0075	mg/L				0.36%
b 220.353	2040.4	0.5115	0.00192	mg/L				0.38%
b 206.833	9217.4	4.983	0.0086	mg/L				0.17%
e 196.026	1017.0	0.5065	0.00346	mg/L				0.68%
n 189.933	36789.1	5.306	0.0046	mg/L				0.09%
i 334.941	1084765.0	2.445	0.0032	mg/L				0.13%
l 190.800	1260.3	1.059	0.0009	mg/L				0.09%
V 292.402	490530.6	2.504	0.0018	mg/L				0.07%
n 206.191	55864.0	1.031	0.0044	mg/L				0.43%

Mean Data ----------

ID: CCB
Sample Qty: 1.0000 g

Seq. No.: 23 Sample No.: 4 A/S Pos: 1
Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/13/02 1:03:54 PM

l nt	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 3/1.030	3520150.5	1.026	0.0068	mg/L				0.66%
Ag 328.068	-1250.8	0.0002	0.00001	mg/L				3.90%
Al 308.215	4556.0	0.0006	0.00098	mg/L				157.23%
As 188.979	-27.9	0.0017	0.00086	mg/L				51.93%
B 249.773	3590.4	0.0111	0.00413	mg/L				37.30%

a 233.527	317.8	0.0030	0.00101 mg/L	33.48%
e 313.107	-4399.5	0.0001	0.00000 mg/L	0.19%
a .887	2751.9	0.0154	0.00136 mg/L	8.84%
d .502	-92.0	0.0000	0.00003 mg/L	205.48%
o 228.616	-181.6	0.0008	0.00016 mg/L	19.19%
r 267.716	57.6	0.0001	0.00038 mg/L	290.90%
u 324.754	2891.6	0.0016	0.00104 mg/L	66.97%
e 238.863	-88.0	0.0170	0.00169 mg/L	9.96%
404.721	-675.5	0.6784	0.55997 mg/L	82.55%
g 279.079	1219.7	0.0958	0.00442 mg/L	4.62%
n 257.610	17.1	0.0002	0.00011 mg/L	59.53%
o 202.030	-9.3	0.0003	0.00044 mg/L	155.85%
a 330.237	1020.6	-0.0963	0.00069 mg/L	0.71%
i 231.604	-134.1	0.0004	0.00036 mg/L	100.42%
b 220.353	18.5	0.0015	0.00048 mg/L	31.56%
b 206.833	70.1	0.0161	0.00529 mg/L	32.86%
QC exceeds upper limit for Sb 206.833		Action = Continue		
e 196.026	-14.8	-0.0008	0.00131 mg/L	174.01%
n 189.933	138.7	0.0078	0.00208 mg/L	26.82%
i 334.941	356.0	0.0015	0.00044 mg/L	29.14%
l 190.800	-12.5	0.0080	0.00119 mg/L	14.86%
292.402	897.6	0.0000	0.00010 mg/L	400.09%
n 206.191	97.4	0.0008	0.00019 mg/L	23.34%

Mean Data ----------

ID: 526352 1/2 Seq. No.: 24 Sample No.: 11 A/S Pos: 19
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 2.0
Data: Original Date: 02/13/02 1:09:25 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	3555316.5	1.036	0.0032	mg/L				0.31%
g 328.068	-3396.2	-0.0130	0.00007	mg/L				0.57%
l 308.215	3598765.5	235.1	0.29	mg/L				0.12%
s 9.979	-17.9	0.0410	0.00054	mg/L				1.32%
773	35755.2	0.4940	0.00054	mg/L				0.11%
a 3.527	411424.0	5.253	0.0076	mg/L				0.15%
e 313.107	-25549.3	-0.0042	0.00003	mg/L				0.71%
a 315.887	63939174.1	559.1	1.57	mg/L				0.28%
d 226.502	1397.0	0.0088	0.00004	mg/L				0.41%
o 228.616	1564.4	0.0777	0.00001	mg/L				0.01%
r 267.716	24481.5	0.2305	0.00086	mg/L				0.37%
u 324.754	34944.0	0.1662	0.00014	mg/L				0.08%
Fe 238.863	3436059.3	173.5	0.03	mg/L				0.02%
K 404.721	3699.3	93.12	0.890	mg/L				0.96%
Mg 279.079	1915054.2	113.4	0.01	mg/L				0.01%
Mn 257.610	2097189.1	5.415	0.0050	mg/L				0.09%
Mo 202.030	226.5	0.0200	0.00019	mg/L				0.97%
Na 330.237	56626.6	93.91	0.065	mg/L				0.07%
Ni 231.604	3193.1	0.1071	0.00038	mg/L				0.36%
Pb 220.353	372.7	0.1067	0.00003	mg/L				0.03%
Sb 206.833	22.5	-0.0098	0.00180	mg/L				18.49%
Se 196.026	0.9	0.0070	0.00409	mg/L				58.60%
Sn 189.933	9239.8	1.323	0.0023	mg/L				0.17%
Ti 334.941	4046707.3	9.120	0.0126	mg/L				0.14%
Tl 190.800	-107.3	-0.0703	0.00078	mg/L				1.11%
V 292.402	102729.1	0.5207	0.00054	mg/L				0.10%
Zn 206.191	29345.0	0.5411	0.00169	mg/L				0.31%

Mean Data ----------

ID: 526353 1/2 Seq. No.: 25 Sample No.: 12 A/S Pos: 20
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 2.0
Data: Original Date: 02/13/02 1:14:51 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	3470978.7	1.012	0.0043	mg/L				0.43%
8.068	-1391.5	-0.0006	0.00023	mg/L				35.54%
A 8.215	5170.4	0.0408	0.01084	mg/L				26.57%
As 188.979	-10.6	0.0136	0.00357	mg/L				26.22%
B 249.773	13146.2	0.1545	0.00035	mg/L				0.23%
Ba 233.527	1816.8	0.0222	0.00009	mg/L				0.39%
Be 313.107	-4995.4	-0.0001	0.00001	mg/L				21.87%

315.887	2836099.7	24.79	0.170	mg/L	0.68%
502	-95.3	0.0000	0.00002	mg/L	85.93%
616	-202.8	-0.0001	0.00002	mg/L	22.55%
267.716	121.4	0.0007	0.00017	mg/L	23.00%
324.754	86139.7	0.4017	0.00216	mg/L	0.54%
238.863	815.8	0.0626	0.00534	mg/L	8.52%
404.721	-189.8	8.323	0.4102	mg/L	4.93%
279.079	187482.3	11.12	0.062	mg/L	0.56%
257.610	517.4	0.0015	0.00013	mg/L	8.81%
202.030	16.2	0.0024	0.00019	mg/L	8.04%
330.237	75580.8	126.0	0.69	mg/L	0.54%
231.604	-155.5	-0.0003	0.00028	mg/L	83.54%
220.353	69.2	0.0143	0.00025	mg/L	1.73%
206.833	37.4	-0.0017	0.00235	mg/L	139.42%
196.026	-10.8	0.0012	0.00053	mg/L	43.62%
189.933	2661.1	0.3724	0.00086	mg/L	0.23%
334.941	1386.2	0.0038	0.00120	mg/L	31.45%
190.800	-22.5	-0.0002	0.00086	mg/L	394.95%
292.402	2739.4	0.0094	0.00022	mg/L	2.32%
206.191	3458.8	0.0629	0.00022	mg/L	0.35%

ean Data

D: 526354 1/3 Seq. No.: 26 Sample No.: 13 A/S Pos: 21
ample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 3.0
Data: Original Date: 02/13/02 1:20:24 PM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	3551812.3	1.035	0.0002	mg/L				0.02%
g 328.068	-2996.7	-0.0106	0.00010	mg/L				0.95%
l 308.215	3028859.1	197.8	0.03	mg/L				0.02%
s 188.979	-38.4	0.0232	0.00036	mg/L				1.57%
249.773	28678.9	0.3877	0.00163	mg/L				0.42%
a .527	348168.6	4.445	0.0025	mg/L				0.06%
e .107	-21224.3	-0.0033	0.00001	mg/L				0.38%
a .887	47039231.0	411.3	1.36	mg/L				0.33%
d 226.502	961.2	0.0044	0.00355	mg/L				80.57%
o 228.616	1281.3	0.0652	0.01823	mg/L				27.94%
r 267.716	12033.6	0.1131	0.03197	mg/L				28.26%
u 324.754	27538.1	0.1200	0.00004	mg/L				0.04%
Fe 238.863	3049914.4	154.0	0.09	mg/L				0.06%
K 404.721	1908.7	62.29	0.891	mg/L				1.43%
Mg 279.079	1463686.4	86.66	0.053	mg/L				0.06%
Mn 257.610	1777926.2	4.592	0.0001	mg/L				0.00%
Mo 202.030	30.5	0.0036	0.00100	mg/L				27.77%
Na 330.237	31820.4	52.57	0.034	mg/L				0.06%
Ni 231.604	2065.5	0.0709	0.02003	mg/L				28.24%
Pb 220.353	308.1	0.0906	0.01985	mg/L				21.91%
Sb 206.833	22.9	-0.0096	0.00056	mg/L				5.89%
Se 196.026	-10.1	0.0016	0.00145	mg/L				93.26%
Sn 189.933	7342.9	1.049	0.2678	mg/L				25.53%
Ti 334.941	3421299.5	7.710	0.0021	mg/L				0.03%
Tl 190.800	-84.6	-0.0516	0.01555	mg/L				30.15%
V 292.402	89502.9	0.4531	0.00032	mg/L				0.07%
Zn 206.191	19855.4	0.3658	0.10405	mg/L				28.44%

Mean Data

ID: 526356 1/2 Seq. No.: 27 Sample No.: 14 A/S Pos: 22
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 2.0
Data: Original Date: 02/13/02 1:26:10 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	3527831.1	1.028	0.0009	mg/L				0.08%
Ag 328.068	-2269.8	-0.0061	0.00031	mg/L				5.07%
Al 308.215	1574193.9	102.7	0.05	mg/L				0.05%
8.979	-21.5	0.0199	0.00347	mg/L				17.49%
9.773	18948.6	0.2416	0.00072	mg/L				0.30%
Ba 233.527	287926.8	3.676	0.0030	mg/L				0.08%
Be 313.107	-13714.1	-0.0018	0.00000	mg/L				0.20%
Ca 315.887	40809110.2	356.8	0.55	mg/L				0.15%
Cd 226.502	524.0	0.0079	0.00009	mg/L				1.11%
Co 228.616	543.3	0.0328	0.00007	mg/L				0.23%

r 267.716	7180.9	0.0673	0.00011	mg/L	0.16%
u 324.754	14549.7	0.0576	0.00036	mg/L	0.63%
e .863	1463450.7	73.90	0.014	mg/L	0.02%
721	879.6	35.20	1.536	mg/L	4.36%
g .079	914923.6	54.18	0.044	mg/L	0.08%
n 257.610	1188139.9	3.060	0.0017	mg/L	0.05%
o 202.030	19.5	0.0027	0.00009	mg/L	3.37%
a 330.237	49263.3	81.47	0.121	mg/L	0.15%
i 231.604	1186.6	0.0427	0.00009	mg/L	0.21%
b 220.353	148.0	0.0425	0.00089	mg/L	2.09%
b 206.833	27.3	-0.0072	0.00084	mg/L	11.67%
e 196.026	-12.1	0.0006	0.00420	mg/L	725.00%
n 189.933	7332.8	1.048	0.0012	mg/L	0.12%
i 334.941	1792513.3	4.040	0.0019	mg/L	0.05%
l 190.800	-68.9	-0.0385	0.00194	mg/L	5.04%
/ 292.402	41492.3	0.2076	0.00051	mg/L	0.25%
n 206.191	11175.7	0.2055	0.00008	mg/L	0.04%

Mean Data ----------

ID: 526357 1/2 Seq. No.: 28 Sample No.: 15 A/S Pos: 23
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 2.0
Data: Original Date: 02/13/02 1:31:31 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
r 371.030	3533888.7	1.030	0.0039	mg/L				0.38%
g 328.068	-1293.2	0.0000	0.00022	mg/L				665.43%
l 308.215	4917.7	0.0243	0.00416	mg/L				17.12%
s 188.979	-14.3	0.0110	0.00035	mg/L				3.13%
3 249.773	11287.8	0.1266	0.00120	mg/L				0.95%
Ba 233.527	1727.5	0.0210	0.00034	mg/L				1.62%
Be 313.107	-4803.1	0.0000	0.00001	mg/L				47.67%
Ca 315.887	4052138.9	35.43	0.006	mg/L				0.02%
Cd 226.502	-93.5	0.0000	0.00007	mg/L				>999.9%
Co 228.616	-206.1	-0.0002	0.00006	mg/L				27.30%
Cr .716	131.3	0.0008	0.00013	mg/L				15.71%
Cu .754	3051.7	0.0023	0.00002	mg/L				0.82%
Fe 238.863	254.2	0.0343	0.00490	mg/L				14.31%
K 404.721	218.9	14.76	0.499	mg/L				3.38%
Mg 279.079	247095.2	14.65	0.048	mg/L				0.33%
Mn 257.610	381.9	0.0011	0.00022	mg/L				19.38%
Mo 202.030	22.8	0.0030	0.00006	mg/L				2.16%
Na 330.237	65943.5	109.7	0.42	mg/L				0.39%
Ni 231.604	-155.0	-0.0003	0.00021	mg/L				66.17%
Pb 220.353	15.6	0.0008	0.00048	mg/L				59.61%
Sb 206.833	30.8	-0.0053	0.00013	mg/L				2.38%
Se 196.026	-9.8	0.0017	0.00135	mg/L				78.37%
Sn 189.933	3319.9	0.4676	0.00249	mg/L				0.53%
Ti 334.941	695.2	0.0023	0.00070	mg/L				30.88%
Tl 190.800	-22.3	-0.0001	0.00038	mg/L				469.20%
V 292.402	2660.9	0.0090	0.00002	mg/L				0.27%
Zn 206.191	590.1	0.0099	0.00010	mg/L				1.05%

Mean Data ----------

ID: 526358 1/2 Seq. No.: 29 Sample No.: 16 A/S Pos: 24
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 2.0
Data: Original Date: 02/13/02 1:36:35 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	3558386.4	1.037	0.0002	mg/L				0.02%
Ag 328.068	-1347.2	-0.0004	0.00017	mg/L				46.86%
Al 308.215	4757.7	0.0138	0.00595	mg/L				43.08%
As 188.979	-10.8	0.0135	0.00394	mg/L				29.29%
B 249.773	12931.2	0.1513	0.00080	mg/L				0.53%
Ba 233.527	1541.3	0.0187	0.00006	mg/L				0.32%
Be 313.107	-4858.2	0.0000	0.00001	mg/L				19.25%
Ca 5.887	2802914.4	24.50	0.006	mg/L				0.03%
Cd .502	-93.2	0.0000	0.00000	mg/L				>999.9%
Co 28.616	-202.9	-0.0001	0.00002	mg/L				17.65%
Cr 267.716	103.8	0.0006	0.00003	mg/L				4.61%
Cu 324.754	3218.7	0.0031	0.00009	mg/L				2.97%
Fe 238.863	60.5	0.0245	0.00017	mg/L				0.69%

404.721	-209.5	8.014	0.0158	mg/L	0.20%
279.079	189408.6	11.23	0.029	mg/L	0.26%
610	60.2	0.0003	0.00007	mg/L	22.96%
.030	21.6	0.0029	0.00018	mg/L	6.40%
330.237	75725.4	126.2	0.71	mg/L	0.56%
231.604	-157.8	-0.0004	0.00021	mg/L	53.36%
220.353	15.1	0.0007	0.00048	mg/L	71.57%
206.833	30.9	-0.0052	0.00090	mg/L	17.28%
196.026	-8.2	0.0025	0.00106	mg/L	42.65%
189.933	2677.1	0.3747	0.00061	mg/L	0.16%
334.941	-131.0	0.0004	0.00009	mg/L	23.32%
190.800	-20.3	0.0016	0.00213	mg/L	133.22%
292.402	2379.7	0.0076	0.00010	mg/L	1.32%
206.191	765.8	0.0132	0.00007	mg/L	0.53%

ean Data ----------

D: 526359 1/2 Seq. No.: 30 Sample No.: 17 A/S Pos: 25
ample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 2.0
Data: Original Date: 02/13/02 1:41:36 PM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	3595197.4	1.048	0.0070	mg/L				0.66%
g 328.068	-1318.4	-0.0002	0.00011	mg/L				56.75%
l 308.215	4675.7	0.0085	0.00268	mg/L				31.65%
s 188.979	-10.6	0.0136	0.00160	mg/L				11.78%
249.773	12081.7	0.1386	0.00166	mg/L				1.20%
a 233.527	1624.3	0.0197	0.00029	mg/L				1.48%
e 313.107	-4811.3	0.0000	0.00000	mg/L				14.04%
a 315.887	3102921.1	27.12	0.011	mg/L				0.04%
d 226.502	-90.8	0.0000	0.00002	mg/L				75.43%
o 228.616	-204.2	-0.0001	0.00024	mg/L				159.50%
r 267.716	104.5	0.0006	0.00001	mg/L				1.37%
u 324.754	4915.9	0.0113	0.00009	mg/L				0.82%
e .863	249.3	0.0340	0.00067	mg/L				1.98%
721	-93.4	9.841	0.4751	mg/L				4.83%
g 279.079	189806.5	11.26	0.148	mg/L				1.31%
n 257.610	4.0	0.0001	0.00001	mg/L				5.58%
o 202.030	17.3	0.0025	0.00013	mg/L				5.17%
a 330.237	70080.6	116.7	1.63	mg/L				1.40%
i 231.604	-153.6	-0.0003	0.00010	mg/L				37.71%
b 220.353	18.0	0.0014	0.00104	mg/L				74.50%
b 206.833	31.4	-0.0049	0.00124	mg/L				25.09%
e 196.026	-8.0	0.0026	0.00360	mg/L				138.63%
n 189.933	2672.7	0.3740	0.00302	mg/L				0.81%
i 334.941	-156.1	0.0003	0.00001	mg/L				1.55%
l 190.800	-20.7	0.0013	0.00055	mg/L				42.89%
292.402	2857.4	0.0100	0.00015	mg/L				1.54%
n 206.191	1190.3	0.0210	0.00022	mg/L				1.03%

lean Data ----------

D: 526360 1/2 Seq. No.: 31 Sample No.: 18 A/S Pos: 26
ample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 2.0
Data: Original Date: 02/13/02 1:46:35 PM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	3663655.4	1.068	0.0059	mg/L				0.55%
g 328.068	-1275.0	0.0001	0.00002	mg/L				19.50%
l 308.215	4547.3	0.0001	0.00662	mg/L				>999.9%
s 188.979	-28.4	0.0013	0.00216	mg/L				163.35%
249.773	1340.4	-0.0227	0.00082	mg/L				3.63%
a 233.527	80.2	0.0000	0.00001	mg/L				142.09%
e 313.107	-4612.9	0.0000	0.00001	mg/L				38.46%
a 315.887	586.0	-0.0036	0.00238	mg/L				66.74%
d 226.502	-91.1	0.0000	0.00003	mg/L				103.55%
o 228.616	-198.5	0.0001	0.00026	mg/L				258.67%
7.716	54.7	0.0001	0.00044	mg/L				420.58%
u 324.754	1996.7	-0.0027	0.00006	mg/L				2.36%
e 238.863	-19.0	0.0205	0.00005	mg/L				0.24%
404.721	-614.9	1.633	0.0301	mg/L				1.84%
g 279.079	261.6	0.0391	0.00022	mg/L				0.57%
n 257.610	-104.1	-0.0001	0.00002	mg/L				12.25%

Mo 202.030	-13.9	-0.0001	0.00008	mg/L	77.89%
Na 330.237	962.9	-0.1938	0.09549	mg/L	49.26%
Ni .604	-152.1	-0.0002	0.00006	mg/L	29.02%
Pb .353	13.7	0.0003	0.00109	mg/L	340.82%
Sb 206.833	28.8	-0.0064	0.00012	mg/L	1.92%
Se 196.026	-16.6	-0.0016	0.00134	mg/L	81.04%
Sn 189.933	43.8	-0.0060	0.00006	mg/L	1.07%
Ti 334.941	-160.4	0.0003	0.00002	mg/L	5.80%
Tl 190.800	-22.2	0.0000	0.00007	mg/L	188.33%
V 292.402	819.5	-0.0004	0.00009	mg/L	23.21%
Zn 206.191	143.5	0.0017	0.00006	mg/L	3.56%

Mean Data

ID: 526371 1/3 Seq. No.: 32 Sample No.: 19 A/S Pos: 27
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 3.0
Data: Original Date: 02/13/02 1:51:57 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	3621942.3	1.056	0.0011	mg/L				0.11%
Ag 328.068	-2712.8	-0.0088	0.00029	mg/L				3.33%
Al 308.215	2455870.1	160.4	0.13	mg/L				0.08%
As 188.979	-32.0	0.0217	0.00149	mg/L				6.87%
B 249.773	23122.9	0.3043	0.00200	mg/L				0.66%
Ba 233.527	294038.5	3.754	0.0071	mg/L				0.19%
Be 313.107	-15227.0	-0.0021	0.00003	mg/L				1.27%
Ca 315.887	43087450.7	376.8	0.41	mg/L				0.11%
Cd 226.502	859.6	0.0050	0.00097	mg/L				19.41%
Co 228.616	938.8	0.0502	0.00427	mg/L				8.51%
Cr 267.716	29890.4	0.2816	0.00019	mg/L				0.07%
Cu 324.754	23320.7	0.0997	0.00078	mg/L				0.78%
Fe 238.863	2420335.5	122.2	0.02	mg/L				0.02%
K 404.721	1296.7	48.33	1.565	mg/L				3.24%
Mg 279.079	1205324.8	71.36	0.061	mg/L				0.09%
Mn 7.610	1411659.2	3.646	0.0044	mg/L				0.12%
Mo .030	210.3	0.0187	0.00222	mg/L				11.88%
Na 0.237	29267.0	47.66	0.098	mg/L				0.21%
Ni 231.604	2578.5	0.0874	0.00771	mg/L				8.82%
Pb 220.353	254.6	0.0741	0.00451	mg/L				6.09%
Sb 206.833	21.7	-0.0102	0.00031	mg/L				3.01%
Se 196.026	-4.4	0.0044	0.00093	mg/L				21.41%
Sn 189.933	7664.6	1.096	0.0821	mg/L				7.49%
Ti 334.941	2566370.4	5.784	0.0009	mg/L				0.01%
Tl 190.800	-76.5	-0.0448	0.00347	mg/L				7.75%
V 292.402	64801.7	0.3268	0.00044	mg/L				0.13%
Zn 206.191	26568.2	0.4898	0.04288	mg/L				8.75%

Mean Data

ID: 526374 1/3 Seq. No.: 33 Sample No.: 20 A/S Pos: 28
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 3.0
Data: Original Date: 02/13/02 1:57:24 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	3665136.2	1.068	0.0020	mg/L				0.19%
Ag 328.068	-3506.6	-0.0137	0.00041	mg/L				3.02%
Al 308.215	3003449.5	196.2	0.10	mg/L				0.05%
As 188.979	-5.0	0.0441	0.00546	mg/L				12.39%
B 249.773	25483.2	0.3397	0.00296	mg/L				0.87%
Ba 233.527	311826.5	3.981	0.0285	mg/L				0.72%
Be 313.107	-18174.2	-0.0027	0.00004	mg/L				1.54%
Ca 315.887	Saturated							
Cd 226.502	1198.7	0.0081	0.00006	mg/L				0.72%
Co 228.616	1300.1	0.0661	0.00015	mg/L				0.22%
Cr 267.716	15405.7	0.1449	0.00092	mg/L				0.63%
Cu 324.754	27361.2	0.1192	0.00189	mg/L				1.59%
Fe 238.863	2819669.7	142.4	0.05	mg/L				0.03%
K .721	2538.7	70.62	1.618	mg/L				2.29%
Mg 9.079	1503540.1	89.01	0.021	mg/L				0.02%
Mn 257.610	2783891.9	7.181	0.0017	mg/L				0.02%
Mo 202.030	73.6	0.0072	0.00008	mg/L				1.13%
Na 330.237	25194.9	41.32	0.282	mg/L				0.68%
Ni 231.604	2564.4	0.0869	0.00040	mg/L				0.46%

Use Ag, Se only
CB 2/14/02

› 220.353	298.1	0.0880	0.00084	mg/L	0.95%
› 206.833	13.1	-0.0149	0.00063	mg/L	4.27%
: 026	-19.1	-0.0028	0.00142	mg/L	50.10%
ı .933	8348.4	1.194	0.0027	mg/L	0.23%
ı 334.941	3155059.4	7.110	0.0061	mg/L	0.09%
ı 190.800	-135.2	-0.0933	0.00110	mg/L	1.18%
292.402	86427.1	0.4373	0.00333	mg/L	0.76%
ı 206.191	21693.4	0.3998	0.00250	mg/L	0.62%

ean Data ----------

D: CCV Seq. No.: 34 Sample No.: 2 A/S Pos: 3
ample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/13/02 2:02:41 PM

lement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
371.030	3540710.5	1.032	0.0074	mg/L				0.72%
g 328.068	77568.0	0.4872	0.00727	mg/L				1.49%
l 308.215	156315.1	9.928	0.2039	mg/L				2.05%
s 188.979	1427.8	1.007	0.0095	mg/L				0.94%
249.773	160304.3	2.364	0.0253	mg/L				1.07%
a 233.527	817751.0	10.44	0.004	mg/L				0.04%
e 313.107	1241186.8	0.2517	0.00022	mg/L				0.09%
a 315.887	2968158.8	25.95	0.241	mg/L				0.93%
d 226.502	39790.9	0.5112	0.00775	mg/L				1.52%
o 228.616	57760.0	2.552	0.0405	mg/L				1.59%
r 267.716	53657.9	0.5058	0.00847	mg/L				1.68%
u 324.754	264157.1	1.257	0.0166	mg/L				1.32%
e 238.863	102290.2	5.185	0.1292	mg/L				2.49%
404.721	837.3	24.49	0.004	mg/L				0.02%
g 279.079	429089.8	25.42	0.019	mg/L				0.07%
n 257.610	300595.8	0.7742	0.00217	mg/L				0.28%
o 202.030	29133.6	2.441	0.0357	mg/L				1.46%
a 330.237	15002.4	23.54	0.462	mg/L				1.96%
i .604	64756.3	2.082	0.0340	mg/L				1.63%
b .353	2038.0	0.5109	0.00323	mg/L				0.63%
b 206.833	9191.0	4.969	0.0027	mg/L				0.05%
e 196.026	1009.6	0.5029	0.00394	mg/L				0.78%
n 189.933	37410.2	5.395	0.0795	mg/L				1.47%
i 334.941	1089855.7	2.457	0.0016	mg/L				0.07%
l 190.800	1251.0	1.052	0.0051	mg/L				0.49%
292.402	491812.2	2.510	0.0038	mg/L				0.15%
n 206.191	55963.0	1.033	0.0177	mg/L				1.72%

Mean Data ----------

ID: CCB Seq. No.: 35 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: 02/13/02 2:07:44 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 371.030	3508847.7	1.023	0.0007	mg/L				0.07%
Ag 328.068	-1277.1	0.0001	0.00017	mg/L				253.89%
Al 308.215	4536.4	-0.0007	0.00276	mg/L				423.41%
As 188.979	-29.7	0.0004	0.00142	mg/L				361.27%
B 249.773	2700.3	-0.0023	0.00370	mg/L				161.80%
Ba 233.527	309.4	0.0029	0.00092	mg/L				31.41%
Be 313.107	-4424.9	0.0001	0.00003	mg/L				59.02%
Ca 315.887	3473.2	0.0217	0.00910	mg/L				41.97%
Cd 226.502	-90.9	0.0000	0.00008	mg/L				283.25%
Co 228.616	-185.8	0.0007	0.00034	mg/L				51.88%
Cr 267.716	28.7	-0.0001	0.00035	mg/L				246.15%
Cu 324.754	2649.4	0.0004	0.00057	mg/L				145.71%
Fe 238.863	141.3	0.0286	0.00279	mg/L				9.76%
K 404.721	-685.6	0.5197	2.76896	mg/L				532.79%
Mg 279.079	680.1	0.0639	0.00284	mg/L				4.45%
Mn 257.610	107.0	0.0004	0.00017	mg/L				40.53%
M 2.030	-6.5	0.0005	0.00009	mg/L				16.77%
Na 0.237	947.9	-0.2191	0.04462	mg/L				20.37%
Ni 231.604	-137.9	0.0002	0.00034	mg/L				145.77%
Pb 220.353	15.3	0.0007	0.00069	mg/L				94.30%
Sb 206.833	70.3	0.0162	0.00562	mg/L				34.79%

*QC exceeds upper limit for Sb 206.833 Action = Continue

: 196.026	-18.7	-0.0027	0.00116	mg/L	43.67%
ı 1[illegible].933	150.2	0.0094	0.00293	mg/L	31.18%
. 941	502.9	0.0018	0.00065	mg/L	35.77%
. . .800	-21.9	0.0002	0.00014	mg/L	59.56%
292.402	957.4	0.0003	0.00042	mg/L	127.23%
ı 206.191	96.6	0.0008	0.00034	mg/L	41.65%

:an Data ----------

):: 526375 1/2 Seq. No.: 36 Sample No.: 21 A/S Pos: 29
ımple Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 2.0
Data: Original Date: 02/13/02 2:12:50 PM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	3542247.1	1.032	0.0054	mg/L				0.53%
g 328.068	-1523.3	-0.0015	0.00030	mg/L				20.51%
l 308.215	241826.3	15.52	0.131	mg/L				0.84%
s 188.979	-13.3	0.0117	0.00222	mg/L				18.90%
249.773	12984.6	0.1521	0.00057	mg/L				0.37%
a 233.527	41022.8	0.5228	0.00343	mg/L				0.66%
e 313.107	-6270.0	-0.0003	0.00002	mg/L				5.41%
a 315.887	10802903.4	94.46	0.041	mg/L				0.04%
d 226.502	0.9	0.0012	0.00000	mg/L				0.10%
o 228.616	-77.3	0.0054	0.00016	mg/L				3.01%
r 267.716	1357.9	0.0124	0.00002	mg/L				0.18%
u 324.754	4050.5	0.0071	0.00033	mg/L				4.58%
e 238.863	225900.6	11.43	0.096	mg/L				0.84%
404.721	-5.8	11.22	0.330	mg/L				2.94%
g 279.079	355767.5	21.08	0.177	mg/L				0.84%
n 257.610	159472.5	0.4108	0.00404	mg/L				0.98%
o 202.030	31.4	0.0037	0.00013	mg/L				3.57%
a 330.237	63505.8	105.5	0.85	mg/L				0.80%
i 231.604	55.3	0.0064	0.00008	mg/L				1.23%
b 220.353	38.0	0.0065	0.00062	mg/L				9.53%
b .833	37.6	-0.0016	0.00120	mg/L				74.99%
e .026	0.8	0.0069	0.00278	mg/L				40.14%
n 189.933	4255.4	0.6028	0.00365	mg/L				0.61%
i 334.941	276392.7	0.6235	0.00615	mg/L				0.99%
l 190.800	-28.8	-0.0055	0.00380	mg/L				69.63%
292.402	9263.8	0.0428	0.00073	mg/L				1.71%
n 206.191	1883.0	0.0338	0.00008	mg/L				0.23%

lean Data ----------

:D: 526382 1/2 Seq. No.: 37 Sample No.: 22 A/S Pos: 30
ample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 2.0
Data: Original Date: 02/13/02 2:17:54 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	3554010.8	1.036	0.0108	mg/L				1.04%
Ag 328.068	-1285.3	0.0000	0.00061	mg/L				>999.9%
Al 308.215	4675.1	0.0084	0.00266	mg/L				31.63%
As 188.979	-30.1	0.0001	0.00042	mg/L				285.73%
B 249.773	2322.5	-0.0080	0.00054	mg/L				6.80%
Ba 233.527	99.6	0.0002	0.00001	mg/L				2.47%
Be 313.107	-4764.6	0.0000	0.00001	mg/L				129.56%
Ca 315.887	7849.3	0.0599	0.01016	mg/L				16.95%
Cd 226.502	-93.5	0.0000	0.00000	mg/L				98.38%
Co 228.616	-200.2	0.0000	0.00019	mg/L				737.70%
Cr 267.716	62.6	0.0002	0.00043	mg/L				240.20%
Cu 324.754	2078.3	-0.0024	0.00046	mg/L				19.68%
Fe 238.863	317.9	0.0375	0.00202	mg/L				5.39%
K 404.721	-697.7	0.3297	1.34105	mg/L				406.76%
Mg 279.079	352.5	0.0445	0.00403	mg/L				9.07%
Mn 257.610	33.7	0.0002	0.00007	mg/L				32.80%
Mo 202.030	-12.8	0.0000	0.00017	mg/L				>999.9%
Na [illegible]0.237	1056.2	-0.0360	0.05044	mg/L				139.92%
N 1.604	-157.0	-0.0004	0.00022	mg/L				57.92%
Pb [illegible]0.353	15.6	0.0008	0.00001	mg/L				0.74%
Sb 206.833	33.3	-0.0039	0.00068	mg/L				17.32%
Se 196.026	-20.7	-0.0036	0.00214	mg/L				58.88%
Sn 189.933	50.8	-0.0050	0.00043	mg/L				8.73%
Ti 334.941	-25.2	0.0006	0.00017	mg/L				26.04%

. 190.800	-21.6	0.0005	0.00154 mg/L		332.16%
2[illegible] 402	833.8	-0.0003	0.00001 mg/L		3.30%
ı 191	168.7	0.0021	0.00003 mg/L		1.28%

ean Data ----------

D: 526385 1/2 Seq. No.: 38 Sample No.: 23 A/S Pos: 31
ample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 2.0
Data: Original Date: 02/13/02 2:23:24 PM

lement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
371.030	3558963.2	1.037	0.0041	mg/L				0.39%
g 328.068	-3046.8	-0.0109	0.00025	mg/L				2.30%
l 308.215	3201250.6	209.1	0.02	mg/L				0.01%
s 188.979	-7.6	0.0439	0.00160	mg/L				3.65%
249.773	36616.7	0.5069	0.00248	mg/L				0.49%
a 233.527	260346.0	3.323	0.0204	mg/L				0.61%
e 313.107	-15218.8	-0.0021	0.00000	mg/L				0.16%
a 315.887	52283023.9	457.2	4.19	mg/L				0.92%
d 226.502	1215.9	0.0078	0.00003	mg/L				0.39%
o 228.616	1304.8	0.0663	0.00050	mg/L				0.75%
r 267.716	22544.5	0.2123	0.00175	mg/L				0.82%
u 324.754	29932.9	0.1315	0.00060	mg/L				0.46%
'e 238.863	2991150.9	151.0	0.14	mg/L				0.09%
: 404.721	2344.9	68.75	0.886	mg/L				1.29%
ıg 279.079	1582308.9	93.68	0.092	mg/L				0.10%
ın 257.610	1784874.0	4.609	0.0034	mg/L				0.07%
ło 202.030	196.6	0.0175	0.00004	mg/L				0.21%
la 330.237	86910.0	145.1	0.85	mg/L				0.59%
ıi 231.604	3160.4	0.1060	0.00048	mg/L				0.45%
'b 220.353	380.9	0.1099	0.00005	mg/L				0.04%
ıb 206.833	16.5	-0.0131	0.00169	mg/L				12.94%
ıe 196.026	-3.2	0.0049	0.00343	mg/L				69.35%
ın 189.933	8878.0	1.271	0.0067	mg/L				0.52%
:i .941	3223454.3	7.264	0.0008	mg/L				0.01%
:l .800	-93.3	-0.0587	0.00060	mg/L				1.03%
/ 292.402	82153.4	0.4155	0.00242	mg/L				0.58%
:n 206.191	93949.5	1.735	0.0083	mg/L				0.48%

ean Data ----------

ID: 526386 1/10 Seq. No.: 39 Sample No.: 24 A/S Pos: 32
ample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 10.0
Data: Original Date: 02/13/02 2:28:52 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 371.030	3558985.6	1.037	0.0052	mg/L				0.50%
Ag 328.068	-1473.8	-0.0011	0.00070	mg/L				60.57%
Al 308.215	290990.9	18.74	0.187	mg/L				1.00%
As 188.979	-32.4	-0.0015	0.00163	mg/L				111.94%
B 249.773	6625.7	0.0566	0.00157	mg/L				2.78%
Ba 233.527	39472.7	0.5030	0.00503	mg/L				1.00%
Be 313.107	-6471.2	-0.0004	0.00000	mg/L				0.96%
Ca 315.887	7548818.2	66.00	0.068	mg/L				0.10%
Cd 226.502	30.0	0.0016	0.00005	mg/L				2.88%
Co 228.616	-16.8	0.0081	0.00058	mg/L				7.19%
Cr 267.716	3067.3	0.0285	0.00019	mg/L				0.65%
Cu 324.754	4896.2	0.0112	0.00034	mg/L				3.03%
Fe 238.863	318707.7	16.11	0.164	mg/L				1.02%
K 404.721	-523.9	5.255	0.2907	mg/L				5.53%
Mg 279.079	187166.8	11.10	0.124	mg/L				1.12%
Mn 257.610	359034.2	0.9247	0.00241	mg/L				0.26%
Mo 202.030	31.7	0.0037	0.00014	mg/L				3.84%
Na 330.237	18100.9	28.78	0.365	mg/L				1.27%
Ni 231.604	517.1	0.0212	0.00026	mg/L				1.20%
Pb 220.353	45.2	0.0083	0.00021	mg/L				2.59%
S' 6.833	28.1	-0.0067	0.00214	mg/L				31.85%
; 6.026	-15.9	-0.0013	0.00242	mg/L				191.88%
Sn 189.933	2568.1	0.3589	0.00189	mg/L				0.53%
Ti 334.941	333295.3	0.7517	0.00163	mg/L				0.22%
Tl 190.800	-34.6	-0.0103	0.00023	mg/L				2.21%
V 292.402	8896.9	0.0409	0.00065	mg/L				1.58%
Zn 206.191	115178.7	2.127	0.0165	mg/L				0.78%

Mean Data

ID: 526386 1/2 Seq. No.: 40 Sample No.: 25 A/S Pos: 33
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 2.0
Data: Original Date: 02/13/02 2:34:13 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	3514020.0	1.024	0.0069	mg/L				0.67%
Ag 328.068	-2258.9	-0.0060	0.00056	mg/L				9.26%
Al 308.215	1497803.6	97.69	0.042	mg/L				0.04%
As 188.979	-25.9	0.0177	0.00116	mg/L				6.54%
B 249.773	28331.8	0.3825	0.00104	mg/L				0.27%
Ba 233.527	193490.2	2.470	0.0015	mg/L				0.06%
Be 313.107	-13823.5	-0.0018	0.00002	mg/L				1.00%
Ca 315.887	36400508.7	318.3	3.77	mg/L				1.19%
Cd 226.502	535.0	0.0081	0.00002	mg/L				0.20%
Co 228.616	682.7	0.0389	0.00035	mg/L				0.90%
Cr 267.716	14807.2	0.1393	0.00088	mg/L				0.63%
Cu 324.754	17324.3	0.0709	0.00060	mg/L				0.85%
Fe 238.863	1554173.2	78.48	0.091	mg/L				0.12%
K 404.721	630.1	31.90	0.360	mg/L				1.13%
Mg 279.079	938448.4	55.57	0.037	mg/L				0.07%
Mn 257.610	1730251.1	4.456	0.0041	mg/L				0.09%
Mo 202.030	203.7	0.0181	0.00026	mg/L				1.44%
Na 330.237	106457.5	178.2	0.39	mg/L				0.22%
Ni 231.604	3111.4	0.1045	0.00015	mg/L				0.15%
Pb 220.353	164.7	0.0463	0.00017	mg/L				0.36%
Sb 206.833	26.7	-0.0075	0.00143	mg/L				18.99%
Se 196.026	-15.1	-0.0009	0.00428	mg/L				475.65%
Sn 189.933	7518.1	1.074	0.0068	mg/L				0.63%
Ti 334.941	1662781.4	3.748	0.0014	mg/L				0.04%
Tl 190.800	-91.8	-0.0574	0.00034	mg/L				0.59%
V 292.402	41287.3	0.2065	0.00018	mg/L				0.09%
Zn 206.191	547231.0	10.11	0.000	mg/L				0.00%

Mean Data

ID: 526387 1/3 Seq. No.: 41 Sample No.: 26 A/S Pos: 34
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 3.0
Data: Original Date: 02/13/02 2:39:40 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	3509674.8	1.023	0.0017	mg/L				0.16%
Ag 328.068	-2500.0	-0.0075	0.00046	mg/L				6.11%
Al 308.215	1758964.9	114.8	0.14	mg/L				0.12%
As 188.979	-18.6	0.0245	0.00118	mg/L				4.84%
B 249.773	20167.3	0.2599	0.00101	mg/L				0.39%
Ba 233.527	341132.5	4.355	0.0009	mg/L				0.02%
Be 313.107	-13421.1	-0.0018	0.00002	mg/L				0.92%
Ca 315.887	43263038.0	378.3	0.83	mg/L				0.22%
Cd 226.502	673.3	0.0046	0.00011	mg/L				2.33%
Co 228.616	703.7	0.0398	0.00006	mg/L				0.14%
Cr 267.716	11885.0	0.1117	0.00012	mg/L				0.11%
Cu 324.754	18538.3	0.0768	0.00002	mg/L				0.03%
Fe 238.863	1736651.7	87.69	0.054	mg/L				0.06%
K 404.721	202.5	26.42	0.172	mg/L				0.65%
Mg 279.079	864996.3	51.22	0.000	mg/L				0.00%
Mn 257.610	1331944.4	3.430	0.0027	mg/L				0.08%
Mo 202.030	97.6	0.0092	0.00022	mg/L				2.40%
Na 330.237	56059.6	92.96	0.236	mg/L				0.25%
Ni 231.604	1657.9	0.0578	0.00015	mg/L				0.26%
Pb 220.353	211.1	0.0594	0.00115	mg/L				1.94%
Sb 206.833	21.4	-0.0104	0.00030	mg/L				2.92%
Se 196.026	-17.7	-0.0022	0.00089	mg/L				41.30%
Sn 189.933	7235.9	1.034	0.0010	mg/L				0.09%
Ti 334.941	1885679.7	4.250	0.0018	mg/L				0.04%
Tl 190.800	-78.1	-0.0461	0.00086	mg/L				1.87%
V 292.402	51664.1	0.2596	0.00018	mg/L				0.07%
Zn 206.191	20495.3	0.3776	0.00069	mg/L				0.18%

Mean Data

ID: 526401 1/5 Seq. No.: 42 Sample No.: 27 A/S Pos: 35

ample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 5.0
Data: Original Date: 02/13/02 2:45:06 PM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	3465942.3	1.010	0.0044	mg/L				0.43%
g 328.068	-1459.8	-0.0011	0.00025	mg/L				23.80%
l 308.215	4976.5	0.0281	0.00739	mg/L				26.26%
s 188.979	-25.8	0.0031	0.00094	mg/L				30.67%
249.773	9976458.1	149.7	0.79	mg/L				0.53%
a 233.527	1852.5	0.0226	0.00028	mg/L				1.25%
e 313.107	-4788.1	0.0000	0.00001	mg/L				42.56%
a 315.887	604013.0	5.273	0.0053	mg/L				0.10%
d 226.502	-81.8	0.0001	0.00002	mg/L				14.86%
o 228.616	-101.2	0.0044	0.00012	mg/L				2.79%
r 267.716	1672.1	0.0154	0.00011	mg/L				0.75%
u 324.754	5146.7	0.0124	0.00063	mg/L				5.08%
e 238.863	10074.5	0.5300	0.00808	mg/L				1.52%
404.721	32762.8	527.0	9.22	mg/L				1.75%
g 279.079	100937.3	5.998	0.0337	mg/L				0.56%
n 257.610	31759.6	0.0819	0.00065	mg/L				0.80%
o 202.030	60.2	0.0061	0.00011	mg/L				1.80%
a 330.237	98232.9	164.3	0.60	mg/L				0.36%
i 231.604	1231.8	0.0442	0.00021	mg/L				0.47%
b 220.353	31.3	0.0048	0.00070	mg/L				14.67%
b 206.833	33.0	-0.0041	0.00145	mg/L				35.31%
e 196.026	-35.5	-0.0109	0.00134	mg/L				12.29%
n 189.933	1652.0	0.2265	0.00095	mg/L				0.42%
i 334.941	5209.3	0.0124	0.00040	mg/L				3.22%
l 190.800	-20.0	0.0018	0.00042	mg/L				23.05%
292.402	2912.2	0.0103	0.00022	mg/L				2.11%
n 206.191	2629.3	0.0476	0.00041	mg/L				0.86%

Mean Data

ID: 526401 1/2 Seq. No.: 43 Sample No.: 28 A/S Pos: 36
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 2.0
Data: Original Date: 02/13/02 2:50:35 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	3345559.0	0.975	0.0011	mg/L				0.11%
Ag 328.068	-1684.1	-0.0024	0.00019	mg/L				7.60%
Al 308.215	5457.2	0.0596	0.00032	mg/L				0.53%
As 188.979	-22.3	0.0055	0.00058	mg/L				10.58%
B 249.773	23319336.6	350.0	2.77	mg/L				0.79%
Ba 233.527	4570.2	0.0573	0.00013	mg/L				0.23%
Be 313.107	-4968.1	-0.0001	0.00000	mg/L				9.29%
Ca 315.887	1547131.3	13.52	0.004	mg/L				0.03%
Cd 226.502	-63.7	0.0004	0.00008	mg/L				21.32%
Co 228.616	19.7	0.0097	0.00041	mg/L				4.25%
Cr 267.716	4250.0	0.0397	0.00048	mg/L				1.20%
Cu 324.754	10297.7	0.0371	0.00013	mg/L				0.34%
Fe 238.863	23396.6	1.203	0.0105	mg/L				0.87%
K 404.721	91647.6	1454	14.1	mg/L				0.97%
Mg 279.079	254223.8	15.07	0.088	mg/L				0.58%
Mn 257.610	80767.3	0.2081	0.00145	mg/L				0.69%
Mo 202.030	182.6	0.0163	0.00005	mg/L				0.31%
Na 330.237	286685.1	482.9	4.49	mg/L				0.93%
Ni 231.604	3289.7	0.1102	0.00011	mg/L				0.10%
Pb 220.353	49.3	0.0093	0.00040	mg/L				4.34%
Sb 206.833	37.4	-0.0017	0.00264	mg/L				156.69%
Se 196.026	-65.7	-0.0258	0.00061	mg/L				2.38%
Sn 189.933	3645.6	0.5147	0.00013	mg/L				0.03%
Ti 334.941	12875.1	0.0297	0.00006	mg/L				0.22%
Tl 190.800	-24.0	-0.0015	0.00025	mg/L				17.19%
V 292.402	6109.4	0.0267	0.00006	mg/L				0.24%
Zn 206.191	6406.8	0.1174	0.00020	mg/L				0.17%

Mean Data

ID: ~~999991~~ 526374 1/5 Seq. No.: 44 Sample No.: 29 A/S Pos: 37
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
CK 2/14/02 Data: Original Date: 02/13/02 2:56:10 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	3514193.0	1.024	0.0004	mg/L				0.03%
Ag 328.068	-2749.1	-0.0090	0.00015	mg/L				1.64%
Al 308.215	1869125.9	122.0	0.05	mg/L				0.04%
As 188.979	-16.1	0.0268	0.00019	mg/L				0.70%
B 249.773	214167.2	3.172	0.3507	mg/L				11.05%
Ba 233.527	197305.4	2.518	0.0009	mg/L				0.04%
Be 313.107	-12836.2	-0.0016	0.00001	mg/L				0.48%
Ca 315.887	58775951.1	514.0	2.94	mg/L				0.57%
Cd 226.502	712.9	0.0050	0.00003	mg/L				0.67%
Co 228.616	753.7	0.0420	0.00043	mg/L				1.03%
Cr 267.716	9569.6	0.0899	0.00026	mg/L				0.29%
Cu 324.754	16986.6	0.0693	0.00008	mg/L				0.12%
Fe 238.863	1799787.4	90.88	0.071	mg/L				0.08%
K 404.721	-26.1	23.25	0.958	mg/L				4.12%
Mg 279.079	945112.3	55.96	0.034	mg/L				0.06%
Mn 257.610	1779649.1	4.583	0.0064	mg/L				0.14%
Mo 202.030	46.5	0.0050	0.00030	mg/L				6.08%
Na 330.237	15572.9	23.89	0.106	mg/L				0.44%
Ni 231.604	1584.7	0.0555	0.00011	mg/L				0.20%
Pb 220.353	204.5	0.0583	0.00033	mg/L				0.56%
Sb 206.833	20.3	-0.0110	0.00148	mg/L				13.52%
Se 196.026	-7.0	0.0031	0.00082	mg/L				26.46%
Sn 189.933	7393.0	1.056	0.0018	mg/L				0.17%
Ti 334.941	1978006.5	4.458	0.0079	mg/L				0.18%
Tl 190.800	-95.3	-0.0604	0.00182	mg/L				3.02%
V 292.402	54133.6	0.2722	0.00021	mg/L				0.08%
Zn 206.191	14081.8	0.2592	0.00007	mg/L				0.03%

all hits above pql agree w/ 1/3 dil sig. 33 ∴ use Ag, Se from 1/3 for better pql. CK 2/14/02

Mean Data ----------

ID: 999992 Seq. No.: 45 Sample No.: 30 A/S Pos: 38

Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0

Data: Original Date: 02/13/02 3:01:28 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	3426297.7	0.999	0.0031	mg/L				0.31%
Ag 328.068	-1326.6	-0.0002	0.00035	mg/L				145.91%
Al 308.215	4705.8	0.0104	0.01620	mg/L				155.44%
As 188.979	-35.0	-0.0033	0.00057	mg/L				17.51%
B 249.773	149006.0	2.194	0.1534	mg/L				6.99%
Ba 233.527	76.7	0.0000	0.00033	mg/L				663.45%
Be 313.107	-4393.9	0.0001	0.00000	mg/L				3.53%
Ca 315.887	14443.7	0.1176	0.07368	mg/L				62.65%
Cd 226.502	-102.5	-0.0001	0.00001	mg/L				11.26%
Co 228.616	-211.1	-0.0005	0.00027	mg/L				58.66%
Cr 267.716	43.0	0.0000	0.00007	mg/L				>999.9%
Cu 324.754	2308.8	-0.0012	0.00002	mg/L				1.58%
Fe 238.863	244.6	0.0338	0.01021	mg/L				30.23%
K 404.721	-1155.7	-6.879	0.1678	mg/L				2.44%
Mg 279.079	569.9	0.0573	0.00948	mg/L				16.53%
Mn 257.610	221.0	0.0007	0.00049	mg/L				69.70%
Mo 202.030	-16.1	-0.0003	0.00029	mg/L				97.51%
Na 330.237	906.8	-0.2886	0.06598	mg/L				22.86%
Ni 231.604	-169.8	-0.0008	0.00015	mg/L				18.78%
Pb 220.353	18.6	0.0016	0.00002	mg/L				1.44%
Sb 206.833	30.0	-0.0057	0.00086	mg/L				15.14%
Se 196.026	-20.8	-0.0037	0.00111	mg/L				30.00%
Sn 189.933	201.9	0.0169	0.00263	mg/L				15.55%
Ti 334.941	398.2	0.0016	0.00072	mg/L				45.29%
Tl 190.800	-21.9	0.0003	0.00043	mg/L				147.53%
V 292.402	905.4	0.0001	0.00007	mg/L				110.01%
Zn 206.191	63.6	0.0002	0.00003	mg/L				14.99%

Mean Data ----------

ID: CCV Seq. No.: 46 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: 02/13/02 3:06:41 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	3366994.5	0.981	0.0004	mg/L				0.04%

g 328.068	77110.0	0.4844	0.00154 mg/L		0.32%
l 308.215	153838.5	9.766	0.0079 mg/L		0.08%
s 979	1378.7	0.9727	0.00050 mg/L		0.05%
2 773	294135.6	4.373	0.0402 mg/L		0.92%
QC exceeds upper limit for B 249.773			Recovery = 174.92%	Action = Continue	
a 233.527	817431.6	10.44	0.001 mg/L		0.01%
e 313.107	1246573.5	0.2528	0.00017 mg/L		0.07%
a 315.887	2931167.0	25.62	0.006 mg/L		0.02%
d 226.502	39868.9	0.5122	0.00160 mg/L		0.31%
o 228.616	56766.8	2.508	0.0014 mg/L		0.06%
r 267.716	53091.8	0.5004	0.00086 mg/L		0.17%
u 324.754	261727.5	1.246	0.0025 mg/L		0.20%
e 238.863	99915.8	5.065	0.0099 mg/L		0.20%
404.721	-92.9	9.849	0.0197 mg/L		0.20%
QC exceeds lower limit for K 404.721			Recovery = 39.40%	Action = Continue	
Mg 279.079	425139.3	25.19	0.011 mg/L		0.04%
Mn 257.610	294612.5	0.7588	0.00126 mg/L		0.17%
Mo 202.030	29416.0	2.465	0.0016 mg/L		0.06%
Na 330.237	15252.4	23.97	0.026 mg/L		0.11%
Ni 231.604	64403.9	2.071	0.0045 mg/L		0.21%
Pb 220.353	2065.5	0.5178	0.00137 mg/L		0.26%
Sb 206.833	9001.4	4.866	0.0115 mg/L		0.24%
Se 196.026	978.0	0.4874	0.00087 mg/L		0.18%
Sn 189.933	37038.6	5.342	0.0016 mg/L		0.03%
Ti 334.941	1065681.5	2.402	0.0028 mg/L		0.12%
Tl 190.800	1254.0	1.054	0.0008 mg/L		0.08%
V 292.402	486096.2	2.481	0.0029 mg/L		0.12%
Zn 206.191	55883.7	1.031	0.0006 mg/L		0.06%

Mean Data ----------

ID: CCB Seq. No.: 47 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: 02/13/02 3:11:44 PM

E. t	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	3322830.2	0.968	0.0013	mg/L				0.13%
Ag 328.068	-1321.9	-0.0002	0.00033	mg/L				157.72%
Al 308.215	4309.7	-0.0155	0.00286	mg/L				18.47%
As 188.979	-32.4	-0.0015	0.00079	mg/L				53.63%
B 249.773	138874.2	2.042	0.0665	mg/L				3.25%
*QC exceeds upper limit for B 249.773			Action = Continue					
Ba 233.527	401.4	0.0041	0.00055	mg/L				13.51%
Be 313.107	-3994.6	0.0001	0.00003	mg/L				19.90%
Ca 315.887	2671.0	0.0147	0.00232	mg/L				15.85%
Cd 226.502	-92.1	0.0000	0.00001	mg/L				56.76%
Co 228.616	-202.3	-0.0001	0.00002	mg/L				28.80%
Cr 267.716	73.6	0.0003	0.00049	mg/L				172.79%
Cu 324.754	2569.8	0.0000	0.00095	mg/L				>999.9%
Fe 238.863	-181.0	0.0123	0.00031	mg/L				2.53%
K 404.721	-1319.2	-9.453	1.9528	mg/L				20.66%
*QC exceeds lower limit for K 404.721			Action = Continue					
Mg 279.079	146.1	0.0322	0.00137	mg/L				4.26%
Mn 257.610	-31.2	0.0001	0.00005	mg/L				90.95%
Mo 202.030	-8.3	0.0004	0.00011	mg/L				30.41%
Na 330.237	1121.0	0.0736	0.03428	mg/L				46.59%
Ni 231.604	-159.6	-0.0005	0.00013	mg/L				29.16%
Pb 220.353	22.8	0.0026	0.00045	mg/L				17.33%
Sb 206.833	63.3	0.0124	0.00350	mg/L				28.30%
*QC exceeds upper limit for Sb 206.833			Action = Continue					
Se 196.026	-18.0	-0.0023	0.00119	mg/L				51.43%
Sn 189.933	144.5	0.0086	0.00286	mg/L				33.23%
Ti 334.941	240.7	0.0012	0.00038	mg/L				30.93%
Tl 190.800	-20.1	0.0017	0.00136	mg/L				77.81%
V 292.402	994.8	0.0005	0.00058	mg/L				110.29%
Zn 206.191	139.0	0.0016	0.00016	mg/L				9.80%

Data ----------

CRI Seq. No.: 48 Sample No.: 5 A/S Pos: 6
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/13/02 3:16:48 PM

Mean Corr. Mean Calib Mean Sample

ement	Intensity	Conc.	Std.Dev.	Units	Conc.	Std.Dev.	Units	RSD
37 030	3347624.0	0.976	0.0009	mg/L				0.09%
068	1635.8	0.0181	0.00030	mg/L				1.65%
.215	4277.2	-0.0176	0.00618	mg/L				35.12%
188.979	-2.4	0.0193	0.00161	mg/L				8.33%
249.773	121329.2	1.779	0.0457	mg/L				2.57%
233.527	214.2	0.0017	0.00011	mg/L				6.39%
313.107	46418.3	0.0103	0.00008	mg/L				0.74%
315.887	2237.1	0.0109	0.00000	mg/L				0.01%
226.502	732.3	0.0106	0.00001	mg/L				0.07%
228.616	2155.6	0.1037	0.00028	mg/L				0.27%
267.716	2207.9	0.0204	0.00004	mg/L				0.20%
324.754	12470.2	0.0476	0.00044	mg/L				0.93%
238.863	-192.8	0.0117	0.00053	mg/L				4.55%
404.721	-1346.2	-9.879	0.5906	mg/L				5.98%
279.079	-129.8	0.0159	0.00073	mg/L				4.58%
257.610	11911.9	0.0308	0.00028	mg/L				0.90%
202.030	-16.2	-0.0003	0.00011	mg/L				37.84%
330.237	1058.3	-0.0324	0.13349	mg/L				411.73%
231.604	2517.4	0.0854	0.00027	mg/L				0.32%
220.353	46.8	0.0087	0.00025	mg/L				2.94%
206.833	260.5	0.1195	0.00084	mg/L				0.71%
196.026	3.0	0.0080	0.00062	mg/L				7.68%
189.933	85.4	0.0000	0.00037	mg/L				747.74%
334.941	-236.7	0.0002	0.00009	mg/L				58.34%
190.800	2.5	0.0204	0.00346	mg/L				16.95%
292.402	20501.0	0.1003	0.00075	mg/L				0.74%
206.191	2404.5	0.0435	0.00004	mg/L				0.08%

Do NOT Report
See below
CK 2/14/02

ean Data

D: ICSA Seq. No.: 49 Sample No.: 6 A/S Pos: 7
ample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/13/02 3:21:46 PM

l t	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
371.030	1367.7	0.000	0.0001	mg/L				12.83%
g 328.068	-575435.6	-3.548	0.5369	mg/L				15.13%
l 308.215	5498272.0	359.4	3.22	mg/L				0.90%
*QC exceeds lower limit for Al 308.215		Recovery = 71.88%		Action = Continue				
s 188.979	-91382.2	-63.07	3.689	mg/L				5.85%
3 249.773	130534673	1960	762.9	mg/L				38.93%
Ba 233.527	133591.9	1.705	0.2197	mg/L				12.89%
Be 313.107	-4736900.5	-0.9562	0.06029	mg/L				6.31%
Ca 315.887	-4310593.8	-37.70	1.447	mg/L				3.84%
*QC exceeds lower limit for Ca 315.887		Recovery = -7.54%		Action = Continue				
Cd 226.502	-33168.2	-0.4239	0.17796	mg/L				41.98%
Co 228.616	-558118.7	-24.56	3.072	mg/L				12.51%
Cr 267.716	549397.3	5.182	1.1384	mg/L				21.97%
Cu 324.754	2620206.6	12.58	0.047	mg/L				0.37%
Fe 238.863	-481744.1	-24.30	1.094	mg/L				4.50%
*QC exceeds lower limit for Fe 238.863		Recovery = -12.15%		Action = Continue				
K 404.721	-1926164.1	-30310	212.4	mg/L				0.70%
Mg 279.079	-1017488.7	-60.20	8.543	mg/L				14.19%
*QC exceeds lower limit for Mg 279.079		Recovery = -12.04%		Action = Continue				
Mn 257.610	-83441.5	-0.2147	0.14250	mg/L				66.36%
Mo 202.030	-39055.6	-3.270	0.0306	mg/L				0.94%
Na 330.237	3716471.0	6282	543.4	mg/L				8.65%
Ni 231.604	-545728.3	-17.50	1.654	mg/L				9.45%
Pb 220.353	67464.0	17.04	0.915	mg/L				5.37%
Sb 206.833	90630.4	49.19	3.208	mg/L				6.52%
Se 196.026	-14590.4	-7.161	6.6237	mg/L				92.49%
Sn 189.933	111822.0	16.15	5.267	mg/L				32.61%
Ti 334.941	-1108096.4	-2.496	0.1731	mg/L				6.94%
Tl 190.800	-48387.7	-39.94	4.823	mg/L				12.07%
V 292.402	1368140.1	6.991	0.0215	mg/L				0.31%
Z 206.191	26299.1	0.4849	0.04626	mg/L				9.54%

autosampler off alignment seq. 49-52
repeated final checks seq. 45-49
CK 2/14/02

Me... Data

ID: ICSAB Seq. No.: 50 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: 02/13/02 3:26:38 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 371.030	1335.2	0.000	0.0001	mg/L				19.00%
Ag 328.068	-570653.0	-3.518	0.1002	mg/L				2.85%
*QC exceeds lower limit for Ag 328.068 Recovery = -351.80% Action = Continue								
Al 308.215	5357578.6	350.2	4.24	mg/L				1.21%
*QC exceeds lower limit for Al 308.215 Recovery = 70.04% Action = Continue								
As 188.979	-98134.4	-67.73	14.194	mg/L				20.96%
B 249.773	192054396	2883	1351.4	mg/L				46.87%
Ba 233.527	132219.9	1.687	0.1072	mg/L				6.36%
*QC exceeds upper limit for Ba 233.527 Recovery = 337.47% Action = Continue								
Be 313.107	-4542653.9	-0.9169	0.05812	mg/L				6.34%
*QC exceeds lower limit for Be 313.107 Recovery = -183.39% Action = Continue								
Ca 315.887	-4262880.6	-37.29	1.454	mg/L				3.90%
*QC exceeds lower limit for Ca 315.887 Recovery = -7.46% Action = Continue								
Cd 226.502	-22826.9	-0.2914	0.24682	mg/L				84.71%
*QC exceeds lower limit for Cd 226.502 Recovery = -29.14% Action = Continue								
Co 228.616	-566886.2	-24.95	3.755	mg/L				15.05%
*QC exceeds lower limit for Co 228.616 Recovery = -4989.55% Action = Continue								
Cr 267.716	612397.8	5.777	1.5657	mg/L				27.11%
*QC exceeds upper limit for Cr 267.716 Recovery = 1155.30% Action = Continue								
Cu 324.754	2550546.5	12.25	0.269	mg/L				2.20%
*QC exceeds upper limit for Cu 324.754 Recovery = 2449.16% Action = Continue								
Fe 238.863	-486992.9	-24.56	3.286	mg/L				13.38%
*QC exceeds lower limit for Fe 238.863 Recovery = -12.28% Action = Continue								
K 404.721	-2083370.5	-32790	3261.3	mg/L				9.95%
Mg 279.079	-976686.5	-57.78	8.050	mg/L				13.93%
*QC exceeds lower limit for Mg 279.079 Recovery = -11.56% Action = Continue								
Mn 257.610	-47401.2	-0.1219	0.15621	mg/L				128.11%
*QC exceeds lower limit for Mn 257.610 Recovery = -24.39% Action = Continue								
Mo 202.030	-40364.7	-3.379	0.0014	mg/L				0.04%
Na 330.237	3781398.8	6391	1060.2	mg/L				16.59%
Ni 231.604	-563890.3	-18.08	3.771	mg/L				20.85%
*QC exceeds lower limit for Ni 231.604 Recovery = -1808.31% Action = Continue								
Pb 220.353	69568.0	17.57	4.571	mg/L				26.01%
*QC exceeds upper limit for Pb 220.353 Recovery = 1757.22% Action = Continue								
Sb 206.833	102297.8	55.53	12.378	mg/L				22.29%
Se 196.026	-29884.1	-14.68	0.808	mg/L				5.50%
Sn 189.933	91669.4	13.24	1.877	mg/L				14.18%
Ti 334.941	-1096089.9	-2.469	0.2443	mg/L				9.89%
Tl 190.800	-53694.0	-44.33	5.384	mg/L				12.15%
V 292.402	1293550.5	6.609	0.4042	mg/L				6.12%
*QC exceeds upper limit for V 292.402 Recovery = 1321.88% Action = Continue								
Zn 206.191	18241.8	0.3360	0.05854	mg/L				17.42%
*QC exceeds lower limit for Zn 206.191 Recovery = 33.60% Action = Continue								

see below CK 2/14/02

Mean Data ----------

ID: CCV Seq. No.: 51 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: 02/13/02 3:31:33 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 371.030	3326213.1	0.969	0.0047	mg/L				0.49%
Ag 328.068	-1471.3	-0.0011	0.00046	mg/L				40.14%
*QC exceeds lower limit for Ag 328.068 Recovery = -0.23% Action = Continue								
Al 308.215	4242.7	-0.0199	0.00299	mg/L				15.03%
*QC exceeds lower limit for Al 308.215 Recovery = -0.20% Action = Continue								
As 188.979	-32.7	-0.0016	0.00192	mg/L				116.55%
*QC exceeds lower limit for As 188.979 Recovery = -0.16% Action = Continue								
B 249.773	146755.2	2.160	0.2168	mg/L				10.04%
*QC exceeds lower limit for B 249.773 Recovery = 86.42% Action = Continue								
Ba 233.527	177.2	0.0012	0.00009	mg/L				7.48%
*QC exceeds lower limit for Ba 233.527 Recovery = 0.01% Action = Continue								
Be 313.107	-4251.7	0.0001	0.00001	mg/L				7.19%
*QC exceeds lower limit for Be 313.107 Recovery = 0.04% Action = Continue								
Ca 315.887	1817.0	0.0072	0.00005	mg/L				0.69%
*QC exceeds lower limit for Ca 315.887 Recovery = 0.03% Action = Continue								
Cd 226.502	-106.4	-0.0002	0.00003	mg/L				18.15%
*QC exceeds lower limit for Cd 226.502 Recovery = -0.03% Action = Continue								
Co 228.616	-228.0	-0.0012	0.00021	mg/L				17.38%
*QC exceeds lower limit for Co 228.616 Recovery = -0.05% Action = Continue								
Cr 267.716	94.8	0.0005	0.00025	mg/L				51.22%

*QC exceeds lower limit for Cr 267.716 Recovery = 0.10% Action = Continue
Cu 324.754 1807.7 -0.0037 0.00021 mg/L 5.70%
*QC exceeds lower limit for Cu 324.754 Recovery = -0.29% Action = Continue
Fe 238.863 -250.9 0.0088 0.00000 mg/L 0.04%
*QC exceeds lower limit for Fe 238.863 Recovery = 0.18% Action = Continue
K 404.721 -1298.1 -9.121 0.6622 mg/L 7.26%
*QC exceeds lower limit for K 404.721 Recovery = -36.48% Action = Continue
Mg 279.079 -234.1 0.0097 0.00214 mg/L 21.93%
*QC exceeds lower limit for Mg 279.079 Recovery = 0.04% Action = Continue
Mn 257.610 -138.1 -0.0002 0.00002 mg/L 7.63%
*QC exceeds lower limit for Mn 257.610 Recovery = -0.03% Action = Continue
Mo 202.030 -13.6 -0.0001 0.00007 mg/L 89.46%
*QC exceeds lower limit for Mo 202.030 Recovery = -0.00% Action = Continue
Na 330.237 1066.5 -0.0186 0.14968 mg/L 802.72%
*QC exceeds lower limit for Na 330.237 Recovery = -0.07% Action = Continue
Ni 231.604 -190.6 -0.0015 0.00009 mg/L 6.23%
*QC exceeds lower limit for Ni 231.604 Recovery = -0.07% Action = Continue
Pb 220.353 18.6 0.0016 0.00093 mg/L 60.03%
*QC exceeds lower limit for Pb 220.353 Recovery = 0.31% Action = Continue
Sb 206.833 39.3 -0.0007 0.00088 mg/L 131.40%
*QC exceeds lower limit for Sb 206.833 Recovery = -0.01% Action = Continue
Se 196.026 -20.8 -0.0037 0.00077 mg/L 20.98%
*QC exceeds lower limit for Se 196.026 Recovery = -0.74% Action = Continue
Sn 189.933 63.7 -0.0031 0.00037 mg/L 12.11%
*QC exceeds lower limit for Sn 189.933 Recovery = -0.06% Action = Continue
Ti 334.941 -371.7 -0.0001 0.00003 mg/L 21.22%
*QC exceeds lower limit for Ti 334.941 Recovery = -0.01% Action = Continue
Tl 190.800 -22.9 -0.0006 0.00044 mg/L 78.20%
*QC exceeds lower limit for Tl 190.800 Recovery = -0.06% Action = Continue
V 292.402 889.7 0.0000 0.00022 mg/L >999.9%
*QC exceeds lower limit for V 292.402 Recovery = -0.00% Action = Continue
Zn 206.191 80.0 0.0005 0.00019 mg/L 37.11%
*QC exceeds lower limit for Zn 206.191 Recovery = 0.05% Action = Continue

See below 02/14/02

M Data
I. CB Seq. No.: 52 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: 02/13/02 3:36:34 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	3314882.3	0.966	0.0033	mg/L				0.34%
Ag 328.068	-1422.6	-0.0008	0.00009	mg/L				10.37%
Al 308.215	4291.7	-0.0167	0.00335	mg/L				20.11%
As 188.979	-35.8	-0.0038	0.00036	mg/L				9.51%
B 249.773	95611.1	1.393	0.0681	mg/L				4.89%
*QC exceeds upper limit for B 249.773 Action = Continue								
Ba 233.527	158.1	0.0010	0.00010	mg/L				9.99%
Be 313.107	-4229.5	0.0001	0.00002	mg/L				21.38%
Ca 315.887	1851.9	0.0075	0.00009	mg/L				1.18%
Cd 226.502	-106.2	-0.0002	0.00001	mg/L				6.50%
Co 228.616	-227.4	-0.0012	0.00020	mg/L				16.71%
Cr 267.716	46.1	0.0000	0.00021	mg/L				957.47%
Cu 324.754	1795.3	-0.0037	0.00013	mg/L				3.62%
Fe 238.863	-284.1	0.0071	0.00121	mg/L				17.10%
K 404.721	-1402.5	-10.76	0.411	mg/L				3.82%
*QC exceeds lower limit for K 404.721 Action = Continue								
Mg 279.079	-293.1	0.0062	0.00123	mg/L				19.70%
Mn 257.610	-143.3	-0.0002	0.00000	mg/L				0.02%
Mo 202.030	-16.0	-0.0003	0.00006	mg/L				20.77%
Na 330.237	1074.2	-0.0057	0.04939	mg/L				873.95%
Ni 231.604	-191.3	-0.0015	0.00042	mg/L				28.15%
Pb 220.353	20.8	0.0021	0.00068	mg/L				32.38%
Sb 206.833	39.9	-0.0003	0.00177	mg/L				569.00%
Se 196.026	-22.7	-0.0046	0.00412	mg/L				88.64%
Sn 189.933	58.2	-0.0039	0.00008	mg/L				2.02%
Ti 334.941	-378.1	-0.0002	0.00001	mg/L				8.07%
Tl 190.800	-25.5	-0.0027	0.00082	mg/L				30.15%
V 292.402	974.1	0.0004	0.00008	mg/L				19.80%
Zn 206.191	74.9	0.0004	0.00008	mg/L				19.42%

alibration Summary

e: Method 6010B Date: 02/13/02 3:46:51 PM

autosampler error

Element	Stds	Equation	Intercept	Slope	Curvature	Corr. Coeff.
g 328.068	1	Linear	-1287.8	161844.6	0.00000	1.000000
l 308.215	1	Linear	4546.4	15286.3	0.00000	1.000000
s 188.979	1	Linear	-30.3	1448.5	0.00000	1.000000
3 249.773	1	Linear	2852.7	66609.7	0.00000	1.000000
Ba 233.527	1	Linear	80.6	78311.4	0.00000	1.000000
Be 313.107	1	Linear	-4716.6	4949027.7	0.00000	1.000000
Ca 315.887	1	Linear	993.9	114357.7	0.00000	1.000000
Cd 226.502	1	Linear	-93.2	78025.9	0.00000	1.000000
Co 228.616	1	Linear	-200.8	22714.9	0.00000	1.000000
Cr 267.716	1	Linear	43.8	106007.4	0.00000	1.000000
Cu 324.754	1	Linear	2568.6	208069.3	0.00000	1.000000
Fe 238.863	1	Linear	-424.7	19809.2	0.00000	1.000000
K 404.721	1	Linear	-718.6	63.5	0.00000	1.000000
Mg 279.079	1	Linear	-398.7	16895.5	0.00000	1.000000
Mn 257.610	1	Linear	-51.8	388342.2	0.00000	1.000000
Mo 202.030	1	Linear	-12.6	11940.3	0.00000	1.000000
Na 330.237	1	Linear	1077.5	591.5	0.00000	1.000000
Ni 231.604	1	Linear	-145.3	31175.2	0.00000	1.000000
Pb 220.353	1	Linear	12.4	3964.7	0.00000	1.000000
Sb 206.833	1	Linear	40.5	1841.6	0.00000	1.000000
Se 196.026	1	Linear	-13.3	2034.1	0.00000	1.000000
Sn 189.933	1	Linear	85.1	6918.0	0.00000	1.000000
Ti 334.941	1	Linear	-307.3	443771.7	0.00000	1.000000
Tl 190.800	1	Linear	-22.2	1210.8	0.00000	1.000000
V 292.402	1	Linear	892.6	195579.2	0.00000	1.000000
Zn 206.191	1	Linear	52.4	54132.3	0.00000	1.000000

Stopped + restarted with final DL. CL 2/14/02

Mean Data

ID: RI Seq. No.: 45 Sample No.: 5 A/S Pos: 6

Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0

Data: Original Date: 02/13/02 3:49:17 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	3473177.0	1.012	0.0048	mg/L				0.47%
Ag 328.068	1518.7	0.0173	0.00005	mg/L				0.30%
Al 308.215	4282.0	-0.0173	0.00370	mg/L				21.41%
As 188.979	-2.1	0.0195	0.00198	mg/L				10.19%
B 249.773	55122.1	0.7847	0.02308	mg/L				2.94%
Ba 233.527	118.7	0.0005	0.00007	mg/L				14.76%
Be 313.107	45954.2	0.0102	0.00008	mg/L				0.82%
Ca 315.887	2088.5	0.0096	0.00073	mg/L				7.61%
Cd 226.502	726.7	0.0105	0.00003	mg/L				0.28%
Co 228.616	2082.3	0.1005	0.00001	mg/L				0.01%
Cr 267.716	2174.5	0.0201	0.00043	mg/L				2.15%
Cu 324.754	11832.8	0.0445	0.00074	mg/L				1.66%
Fe 238.863	-270.4	0.0078	0.00129	mg/L				16.60%
K 404.721	-1319.9	-9.464	0.3887	mg/L				4.11%
Mg 279.079	-315.6	0.0049	0.00364	mg/L				73.99%
Mn 257.610	11357.5	0.0294	0.00035	mg/L				1.18%
Mo 202.030	-17.3	-0.0004	0.00008	mg/L				20.43%
Na 330.237	1043.8	-0.0570	0.04933	mg/L				86.56%
Ni 231.604	2488.9	0.0845	0.00001	mg/L				0.01%
Pb 220.353	44.3	0.0080	0.00016	mg/L				1.96%
Sb 206.833	250.4	0.1140	0.00066	mg/L				0.58%
Se 196.026	2.0	0.0075	0.00047	mg/L				6.18%
Sn 189.933	49.3	-0.0052	0.00044	mg/L				8.49%
Ti 334.941	-227.9	0.0002	0.00019	mg/L				108.85%
Tl 190.800	5.2	0.0226	0.00153	mg/L				6.75%
V 292.402	19986.5	0.0976	0.00102	mg/L				1.04%
206.191	2376.8	0.0429	0.00025	mg/L				0.57%

Mean Data

ID: ICSA Seq. No.: 46 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: 02/13/02 3:54:46 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
[illegible] 030	3138018.5	0.915	0.0046	mg/L				0.51%
g [illegible].068	-3254.2	-0.0121	0.00025	mg/L				2.08%
l 308.215	7709836.6	504.1	0.68	mg/L				0.13%
s 188.979	-73.0	0.0052	0.00618	mg/L				118.10%
249.773	57067.0	0.8139	0.00769	mg/L				0.94%
a 233.527	-477.8	-0.0071	0.00047	mg/L				6.59%
e 313.107	-4984.9	-0.0001	0.00001	mg/L				13.89%
a 315.887	55587851.9	486.1	0.54	mg/L				0.11%
d 226.502	1281.6	0.0066	0.00004	mg/L				0.57%
o 228.616	-250.3	-0.0022	0.00008	mg/L				3.44%
r 267.716	748.0	0.0066	0.00024	mg/L				3.58%
u 324.754	-372.1	-0.0028	0.00009	mg/L				3.42%
e 238.863	3679557.9	185.8	0.08	mg/L				0.04%
404.721	-3124.1	-12.61	2.588	mg/L				20.52%
g 279.079	8914144.2	527.6	0.42	mg/L				0.08%
n 257.610	-3035.6	0.0083	0.00008	mg/L				0.92%
o 202.030	23.2	0.0030	0.00003	mg/L				1.14%
a 330.237	918.0	-0.1424	0.00426	mg/L				2.99%
i 231.604	-181.1	-0.0012	0.00000	mg/L				0.23%
Pb 220.353	-170.3	-0.0087	0.00137	mg/L				15.69%
Sb 206.833	34.9	-0.0030	0.00096	mg/L				31.51%
Se 196.026	-4.7	-0.0056	0.00258	mg/L				46.32%
Sn 189.933	13542.6	-0.0790	0.00664	mg/L				8.40%
Ti 334.941	-2788.6	-0.0056	0.00003	mg/L				0.57%
Tl 190.800	-49.6	-0.0227	0.00273	mg/L				12.06%
V 292.402	8150.7	0.0371	0.00024	mg/L				0.66%
Zn 206.191	1175.1	0.0064	0.00022	mg/L				3.40%

Mean Data ----------

ID: ICSAB Seq. No.: 47 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: 02/13/02 4:00:35 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	3237667.0	0.944	0.0013	mg/L				0.14%
Ag 328.068	167655.9	1.044	0.0040	mg/L				0.38%
Al 308.215	7502932.6	490.5	3.10	mg/L				0.63%
As 188.979	-86.6	-0.0047	0.00325	mg/L				69.11%
B 249.773	48266.9	0.6818	0.01526	mg/L				2.24%
Ba 233.527	41199.3	0.5251	0.00287	mg/L				0.55%
Be 313.107	2498365.5	0.5058	0.00033	mg/L				0.07%
Ca 315.887	54510298.3	476.7	2.93	mg/L				0.61%
Cd 226.502	76309.9	0.9684	0.00700	mg/L				0.72%
Co 228.616	9801.4	0.4403	0.00023	mg/L				0.05%
Cr 267.716	50858.4	0.4794	0.00139	mg/L				0.29%
Cu 324.754	107080.9	0.5135	0.00582	mg/L				1.13%
Fe 238.863	3620118.5	182.8	0.12	mg/L				0.07%
K 404.721	-2885.1	-9.258	2.3823	mg/L				25.73%
Mg 279.079	8657912.1	512.5	3.56	mg/L				0.70%
Mn 257.610	177613.2	0.4733	0.00241	mg/L				0.51%
Mo 202.030	15.5	0.0024	0.00059	mg/L				24.93%
Na 330.237	1093.0	0.1533	0.06195	mg/L				40.41%
Ni 231.604	28429.4	0.9166	0.00055	mg/L				0.06%
Pb 220.353	3904.8	1.018	0.0012	mg/L				0.12%
Sb 206.833	35.1	-0.0030	0.00347	mg/L				117.23%
Se 196.026	-4.3	-0.0051	0.00077	mg/L				15.31%
Sn 189.933	13147.5	-0.0780	0.01194	mg/L				15.31%
Ti 334.941	-2692.7	-0.0054	0.00004	mg/L				0.79%
Tl 190.800	-53.5	-0.0259	0.00063	mg/L				2.43%
V 292.402	101493.0	0.5144	0.00181	mg/L				0.35%
Zn 206.191	51481.9	0.9362	0.00869	mg/L				0.93%

Mean Data ----------

[illegible] CCV Seq. No.: 48 Sample No.: 2 A/S Pos: 3
[illegible]le Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/13/02 4:06:03 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	3430442.1	1.000	0.0117	mg/L				1.17%

Ag 328.068	76434.8	0.4802	0.00982	mg/L	2.05%
Al 308.215	155288.9	9.861	0.1889	mg/L	1.92%
As .979	1361.8	0.9610	0.01043	mg/L	1.09%
B .773	184407.0	2.726	0.0659	mg/L	2.42%
Ba 233.527	828191.1	10.57	0.009	mg/L	0.08%
Be 313.107	1268460.5	0.2573	0.00008	mg/L	0.03%
Ca 315.887	2980185.4	26.05	0.028	mg/L	0.11%
Cd 226.502	41238.2	0.5297	0.01114	mg/L	2.10%
Co 228.616	55812.3	2.466	0.0481	mg/L	1.95%
Cr 267.716	52990.7	0.4995	0.01024	mg/L	2.05%
Cu 324.754	264247.8	1.258	0.0272	mg/L	2.16%
Fe 238.863	102999.5	5.221	0.0694	mg/L	1.33%
K 404.721	42.4	11.98	0.431	mg/L	3.60%
*QC exceeds lower limit for K 404.721 Recovery = 47.92% Action = Continue					
Mg 279.079	432908.6	25.65	0.032	mg/L	0.13%
Mn 257.610	284950.6	0.7339	0.00044	mg/L	0.06%
Mo 202.030	30453.2	2.552	0.0522	mg/L	2.05%
Na 330.237	15198.1	23.87	0.425	mg/L	1.78%
Ni 231.604	65587.7	2.109	0.0445	mg/L	2.11%
Pb 220.353	2188.2	0.5488	0.00497	mg/L	0.91%
Sb 206.833	8958.9	4.843	0.0816	mg/L	1.69%
Se 196.026	1015.0	0.5055	0.00305	mg/L	0.60%
Sn 189.933	37355.2	5.387	0.1140	mg/L	2.12%
Ti 334.941	1037843.6	2.339	0.0012	mg/L	0.05%
Tl 190.800	1328.8	1.116	0.0151	mg/L	1.35%
*QC exceeds upper limit for Tl 190.800 Recovery = 111.57% Action = Continue					
V 292.402	480309.2	2.451	0.0006	mg/L	0.02%
Zn 206.191	56934.3	1.051	0.0200	mg/L	1.90%

Mean Data ----------

ID: CCB Seq. No.: 49 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: 02/13/02 4:11:06 PM

E .t	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y .1.030	3401709.7	0.991	0.0118	mg/L				1.19%
Ag 328.068	-1352.5	-0.0004	0.00010	mg/L				25.85%
Al 308.215	4653.6	0.0070	0.00115	mg/L				16.45%
As 188.979	-33.2	-0.0020	0.00060	mg/L				29.66%
B 249.773	29086.7	0.3938	0.00656	mg/L				1.66%
*QC exceeds upper limit for B 249.773 Action = Continue								
Ba 233.527	410.2	0.0042	0.00117	mg/L				27.81%
Be 313.107	-3940.0	0.0002	0.00004	mg/L				26.92%
Ca 315.887	376.8	-0.0054	0.00461	mg/L				85.48%
Cd 226.502	-94.2	0.0000	0.00008	mg/L				660.99%
Co 228.616	-186.4	0.0006	0.00052	mg/L				81.67%
Cr 267.716	435.2	0.0037	0.00229	mg/L				61.96%
Cu 324.754	2661.4	0.0004	0.00092	mg/L				207.27%
Fe 238.863	1751.1	0.1098	0.03544	mg/L				32.26%
*QC exceeds upper limit for Fe 238.863 Action = Continue								
K 404.721	-1033.8	-4.962	0.4569	mg/L				9.21%
*QC exceeds lower limit for K 404.721 Action = Continue								
Mg 279.079	6616.1	0.4152	0.01607	mg/L				3.87%
Mn 257.610	-17.2	0.0001	0.00015	mg/L				163.52%
Mo 202.030	-1.0	0.0010	0.00027	mg/L				27.56%
Na 330.237	980.0	-0.1649	0.01691	mg/L				10.25%
Ni 231.604	-120.5	0.0008	0.00078	mg/L				98.82%
Pb 220.353	21.5	0.0023	0.00016	mg/L				6.98%
Sb 206.833	79.0	0.0209	0.00638	mg/L				30.50%
*QC exceeds upper limit for Sb 206.833 Action = Continue								
Se 196.026	-15.7	-0.0012	0.00118	mg/L				98.62%
Sn 189.933	246.6	0.0234	0.00133	mg/L				5.69%
Ti 334.941	234.9	0.0012	0.00051	mg/L				42.05%
Tl 190.800	-20.5	0.0014	0.00297	mg/L				211.97%
V 292.402	1090.6	0.0010	0.00019	mg/L				18.58%
Zn 206.191	119.5	0.0012	0.00028	mg/L				22.91%

Metals Cover Page

Instrument: FIMS

Analyst: DCB

Date: 2/5/02

Data File: Feb-05w

Reviewed By: DCB

Entered By: DCB

Manager Approval: SD 2/6/02

Starlims Run #	Analytes Used	Batch ID	Method Requested	Failed Analytes	Comments / Problems
74195	Hg	M2480130A	7470 TCLP		
74245	Hg	M2480130B	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
K-10427	Pkg 5 / ASP	Hg		M2480130A	YES / NO	MARRS to LIMS / Run Created Above	YES / NO
K-10427	Pkg 5 / ASP	Hg		M2480130B	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

Perkin-Elmer AAWinLab: 02/05/2002, 08:56:27 AM

Method Name: Hg_CLP
Method Description: Method 245.1A FIMS
Element: Hg

2/5/02
DCB

Date: 02/05/2002
Technique:FI-MHS
Calibration Type:
Hg, Zero Intercept: Linear
Wavelength: 253.7 nm
Sample Info Name: ROUTINE.SIF Results Data Set Name: Feb-05w

Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 02/05/2002
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0003	0.0010	0.0003	08:57:24	No
2			0.0002	0.0008	0.0002	08:57:53	No
Mean:			0.0003				
SD :			0.0000				
%RSD:			2.1201				

Auto-zero performed.

Element: Hg Seq. No.: 2 AS Loc.: 8 Date: 02/05/2002
Sample ID: 0.2ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0021	0.0107	0.0024	08:59:13	No
2			0.0021	0.0108	0.0024	08:59:42	No
Mean:			0.0021				
SD :			0.0000				
%RSD:			0.9387				

[Hg] Standard number 1 applied. [0.2000]
Correlation Coefficient: 1.00000 Slope: 0.01061

Element: Hg Seq. No.: 3 AS Loc.: 2 Date: 02/05/2002
Sample ID: 0.5ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0051	0.0251	0.0054	09:01:03	No
2			0.0051	0.0252	0.0054	09:01:32	No
Mean:			0.0051				
SD :			0.0000				
%RSD:							

[Hg] Standard number 2 applied. [0.5000]
Correlation Coefficient: 0.99963 Slope: 0.01033

Element: Hg Seq. No.: 4 AS Loc.: 3 Date: 02/05/2002
Sample ID: 1ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0103	0.0489	0.0106	09:02:51	No
2			0.0104	0.0494	0.0107	09:03:21	No
Mean:			0.0104				
SD :			0.0001				
%RSD:			0.7075				

[Hg] Standard number 3 applied. [1.000]

Correlation Coefficient: 0.99995 Slope: 0.01036

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Element: Hg Seq. No.: 5 AS Loc.: 4 Date: 02/05/2002
Sample ID: 2ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0210	0.0998	0.0213	09:04:44	No
2			0.0212	0.0997	0.0214	09:05:14	No
Mean:			0.0211				
SD :			0.0001				
%RSD:			0.5097				

[Hg] Standard number 4 applied. [2.000]
Correlation Coefficient: 0.99991 Slope: 0.01050

==========

Element: Hg Seq. No.: 6 AS Loc.: 5 Date: 02/05/2002
Sample ID: 5ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0522	0.2453	0.0524	09:06:34	No
2			0.0528	0.2469	0.0530	09:07:03	No
Mean:			0.0525				
SD :			0.0004				
%RSD:			0.8078				

[Hg] Standard number 5 applied. [5.000]
Correlation Coefficient: 0.99999 Slope: 0.01049

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Element: Hg Seq. No.: 7 AS Loc.: 6 Date: 02/05/2002
Sample ID: 10ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.1036	0.4869	0.1038	09:08:24	No
2			0.1044	0.4873	0.1046	09:08:54	No
Mean:			0.1040				
SD :			0.0006				
%RSD:			0.5450				

[Hg] Standard number 6 applied. [10.00]
Correlation Coefficient: 0.99998 Slope: 0.01042

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	0.0021	0.2000	0.2036	0.00002	0.9
0.5ppb std	0.0051	0.5000	0.4936	0.00000	----
1ppb std	0.0104	1.0000	0.9950	0.00007	0.7
2ppb std	0.0211	2.0000	2.023	0.00011	0.5
5ppb std	0.0525	5.0000	5.036	0.00042	0.8
10ppb std	0.1040	10.0000	9.978	0.00057	0.5

Correlation Coefficient: 0.99998 Slope: 0.01042 ----

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Element: Hg Seq. No.: 8 AS Loc.: 7 Date: 02/05/2002
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	3.060	3.060	0.0319	0.1501	0.0321	09:10:15	No
2	3.081	3.081	0.0321	0.1510	0.0324	09:10:44	No
Mean:	3.071	3.071	0.0320				
SD :	0.01492	0.01492	0.0002				
%RSD:	0.5	0.5	0.4859				

QC value within specified limits.

Element: Hg Seq. No.: 9 AS Loc.: 1 Date: 02/05/2002
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0023	-0.0023	0.0000	0.0007	0.0002	09:12:03	No
2	-0.0016	-0.0016	0.0000	0.0008	0.0002	09:12:33	No
Mean:	-0.0019	-0.0019	0.0000				
SD :	0.00046	0.00046	0.0000				
%RSD:	23.9	23.9	23.9405				

QC value within specified limits.

Element: Hg Seq. No.: 10 AS Loc.: 8 Date: 02/05/2002
Sample ID: CRII

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.2152	0.2152	0.0022	0.0112	0.0025	09:13:53	No
2	0.2178	0.2178	0.0023	0.0112	0.0025	09:14:22	No
Mean:	0.2165	0.2165	0.0023				
SD :	0.00187	0.00187	0.0000				
%RSD:	0.9	0.9	0.8649				

QC value within specified limits.

Element: Hg Seq. No.: 11 AS Loc.: 7 Date: 02/05/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.128	3.128	0.0326	0.1527	0.0328	09:15:44	No
2	3.124	3.124	0.0326	0.1534	0.0328	09:16:14	No
Mean:	3.126	3.126	0.0326				
SD :	0.00244	0.00244	0.0000				
%RSD:							

QC value within specified limits.

Element: Hg Seq. No.: 12 AS Loc.: 1 Date: 02/05/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0007	-0.0007	0.0000	0.0010	0.0002	09:17:37	No
2	0.0006	0.0006	0.0000	0.0012	0.0003	09:18:06	No
Mean:	-0.0001	-0.0001	0.0000				
SD :	0.00090	0.00090	0.0000				
%RSD:	1580	1580	1580.2242				

QC value within specified limits.

Element: Hg Seq. No.: 13 2/6/02 DLB AS Loc.: 9 Date: 02/05/2002
Sample ID: PBT-M2480130A 294256

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	0.0104	0.0104	0.0001	0.0013	0.0004	09:19:23	No
2	0.0076	0.0076	0.0001	0.0012	0.0003	09:19:52	No
Mean:	0.0090	0.0090	0.0001				
SD :	0.00200	0.00200	0.0000				
%RSD:	22.3	22.3	22.2661				

Element: Hg Seq. No.: 14 2/6/02 DCB AS Loc.: 10 Date: 02/05/2002
Sample ID: LCST-M248130A 529257

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.005	1.005	0.0105	0.0495	0.0107	09:21:09	No
2	1.005	1.005	0.0105	0.0493	0.0107	09:21:38	No
Mean:	1.005	1.005	0.0105				
SD :	0.00045	0.00045	0.0000				
%RSD:							

Element: Hg Seq. No.: 15 2/5/02 DCB AS Loc.: 11 Date: 02/05/2002
Sample ID: ~~526935~~ SD 2/4/02 526396 high RSD - see reanalysis at end

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0695	0.0695	0.0007	0.0068	0.0010	09:22:55	No
2	0.0179	0.0179	0.0002	0.0027	0.0004	09:23:24	No
Mean:	0.0437	0.0437	0.0005				
SD :	0.03644	0.03644	0.0004				
%RSD:	83.4	83.4	83.4091				

Element: Hg Seq. No.: 16 AS Loc.: 12 Date: 02/05/2002
Sample ID: 526405

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0006	-0.0006	0.0000	0.0009	0.0002	09:24:43	No
2	-0.0020	-0.0020	0.0000	0.0008	0.0002	09:25:13	No
Mean:	-0.0013	-0.0013	0.0000				
SD :	0.00094	0.00094	0.0000				
%RSD:	72.0	72.0	71.9710				

Element: Hg Seq. No.: 17 AS Loc.: 13 Date: 02/05/2002
Sample ID: 526406

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0193	0.0193	0.0002	0.0020	0.0005	09:26:32	No
2	0.0168	0.0168	0.0002	0.0015	0.0004	09:27:01	No
Mean:	0.0180	0.0180	0.0002				
SD :	0.00175	0.00175	0.0000				
%RSD:	9.7	9.7	9.7345				

Element: Hg Seq. No.: 18 AS Loc.: 14 Date: 02/05/2002
Sample ID: 526407

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0047	0.0047	0.0000	0.0011	0.0003	09:28:22	No
2	0.0005	0.0005	0.0000	0.0008	0.0003	09:28:51	No
Mean:	0.0026	0.0026	0.0000				
SD :	0.00299	0.00299	0.0000				
%RSD:	114.7	114.7	114.6765				

Element: Hg Seq. No.: 19 AS Loc.: 15 Date: 02/05/2002
Sample ID: 526408

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0008	-0.0008	0.0000	0.0010	0.0002	09:30:12	No
2	-0.0008	-0.0008	0.0000	0.0008	0.0002	09:30:41	No
Mean:	-0.0008	-0.0008	0.0000				
SD :	0.00005	0.00005	0.0000				
%RSD:	6.4	6.4	6.4448				

Element: Hg Seq. No.: 20 AS Loc.: 16 Date: 02/05/2002
Sample ID: 526409

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0029	0.0029	0.0000	0.0013	0.0003	09:32:04	No
2	0.0043	0.0043	0.0000	0.0014	0.0003	09:32:34	No
Mean:	0.0036	0.0036	0.0000				
SD :	0.00098	0.00098	0.0000				
%RSD:	27.0	27.0	26.9515				

Element: Hg Seq. No.: 21 AS Loc.: 17 Date: 02/05/2002
Sample ID: 526410

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0010	-0.0010	0.0000	0.0007	0.0002	09:33:52	No
2	0.0023	0.0023	0.0000	0.0011	0.0003	09:34:21	No
Mean:	0.0006	0.0006	0.0000				
SD :	0.00233	0.00233	0.0000				
%RSD:	378.4	378.4	378.4108				

Element: Hg Seq. No.: 22 AS Loc.: 18 Date: 02/05/2002
Sample ID: 526411

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0252	0.0252	0.0003	0.0031	0.0005	09:35:37	No
2	0.0102	0.0102	0.0001	0.0017	0.0004	09:36:06	No
Mean:	0.0177	0.0177	0.0002				
SD :	0.01060	0.01060	0.0001				
%RSD:	59.8	59.8	59.8452				

Element: Hg Seq. No.: 23 AS Loc.: 7 Date: 02/05/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.242	3.242	0.0338	0.1570	0.0340	09:37:26	No
2	3.268	3.268	0.0341	0.1568	0.0343	09:37:55	No
Mean:	3.255	3.255	0.0339				
SD :	0.01858	0.01858	0.0002				
%RSD:	0.6	0.6	0.5709				

QC value within specified limits.

Element: Hg Seq. No.: 24 AS Loc.: 1 Date: 02/05/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	-0.0004	-0.0004	0.0000	0.0006	0.0002	09:39:15	No
2	0.0010	0.0010	0.0000	0.0008	0.0003	09:39:44	No
Mean:	0.0003	0.0003	0.0000				
SD :	0.00098	0.00098	0.0000				
%RSD:	327.9	327.9	327.8712				

QC value within specified limits.

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Element: Hg Seq. No.: 25 AS Loc.: 19 Date: 02/05/2002
Sample ID: 526413

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0122	0.0122	0.0001	0.0020	0.0004	09:41:01	No
2	0.0107	0.0107	0.0001	0.0016	0.0004	09:41:30	No
Mean:	0.0114	0.0114	0.0001				
SD :	0.00102	0.00102	0.0000				
%RSD:	8.9	8.9	8.9358				

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Element: Hg Seq. No.: 26 2/6/02 DCD AS Loc.: 20 Date: 02/05/2002
Sample ID: 526413D 529254

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0030	0.0030	0.0000	0.0009	0.0003	09:42:47	No
2	0.0061	0.0061	0.0001	0.0014	0.0003	09:43:16	No
Mean:	0.0045	0.0045	0.0000				
SD :	0.00221	0.00221	0.0000				
%RSD:	48.8	48.8	48.7723				

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Element: Hg Seq. No.: 27 2/6/02 DCD AS Loc.: 21 Date: 02/05/2002
Sample ID: 526413S 529255

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.074	1.074	0.0112	0.0521	0.0114	09:44:33	No
2	1.064	1.064	0.0111	0.0512	0.0113	09:45:02	No
Mean:	1.069	1.069	0.0111				
SD :	0.00761	0.00761	0.0001				
%RSD:	0.7	0.7	0.7116				

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Element: Hg Seq. No.: 28 AS Loc.: 22 Date: 02/05/2002
Sample ID: 526562

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0043	0.0043	0.0000	0.0009	0.0003	09:46:19	No
2	0.0055	0.0055	0.0001	0.0009	0.0003	09:46:49	No
Mean:	0.0049	0.0049	0.0001				
SD :	0.00083	0.00083	0.0000				
%RSD:	17.0	17.0	17.0415				

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Element: Hg Seq. No.: 29 AS Loc.: 23 Date: 02/05/2002
Sample ID: 526564

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0160	0.0160	0.0002	0.0019	0.0004	09:48:07	No
2	0.0154	0.0154	0.0002	0.0017	0.0004	09:48:36	No
Mean:	0.0157	0.0157	0.0002				
SD :	0.00042	0.00042	0.0000				

%RSD: 2.7 2.7 2.6633

Element: Hg Seq. No.: 30 AS Loc.: 24 Date: 02/05/2002
Sample ID: 526565

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0233	0.0233	0.0002	0.0020	0.0005	09:49:55	No
2	0.0226	0.0226	0.0002	0.0020	0.0005	09:50:24	No
Mean:	0.0230	0.0230	0.0002				
SD :	0.00047	0.00047	0.0000				
%RSD:	2.1	2.1	2.0621				

Element: Hg Seq. No.: 31 2/7/02 DCB AS Loc.: 25 Date: 02/05/2002
Sample ID: PBW-M2480130B 509471

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0024	0.0024	0.0000	0.0010	0.0003	09:51:43	No
2	0.0000	0.0000	0.0000	0.0008	0.0003	09:52:12	No
Mean:	0.0012	0.0012	0.0000				
SD :	0.00171	0.00171	0.0000				
%RSD:	145.6	145.6	145.6040				

Element: Hg Seq. No.: 32 2/7/02 DCB AS Loc.: 26 Date: 02/05/2002
Sample ID: LCSW-M2480130B 509472

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.065	1.065	0.0111	0.0523	0.0113	09:53:31	No
2	1.068	1.068	0.0111	0.0523	0.0114	09:54:00	No
Mean:	1.066	1.066	0.0111				
SD :	0.00186	0.00186	0.0000				
%RSD:	0.2	0.2	0.1749				

Element: Hg Seq. No.: 33 AS Loc.: 27 Date: 02/05/2002
Sample ID: 526346

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0148	0.0148	0.0002	0.0019	0.0004	09:55:20	No
2	0.0156	0.0156	0.0002	0.0015	0.0004	09:55:49	No
Mean:	0.0152	0.0152	0.0002				
SD :	0.00053	0.00053	0.0000				
%RSD:	3.5	3.5	3.4925				

Element: Hg Seq. No.: 34 AS Loc.: 28 Date: 02/05/2002
Sample ID: 526348

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0313	0.0313	0.0003	0.0021	0.0006	09:57:11	No
2	0.0407	0.0407	0.0004	0.0028	0.0007	09:57:40	No
Mean:	0.0360	0.0360	0.0004				
SD :	0.00665	0.00665	0.0001				
%RSD:	18.5	18.5	18.4535				

Element: Hg Seq. No.: 35 AS Loc.: 7 Date: 02/05/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.089	3.089	0.0322	0.1517	0.0324	09:59:01	No
2	3.089	3.089	0.0322	0.1519	0.0324	09:59:30	No
Mean:	3.089	3.089	0.0322				
SD :	0.00033	0.00033	0.0000				
%RSD:							

QC value within specified limits.

Element: Hg Seq. No.: 36 AS Loc.: 1 Date: 02/05/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0018	0.0018	0.0000	0.0012	0.0003	10:00:50	No
2	-0.0007	-0.0007	0.0000	0.0008	0.0002	10:01:19	No
Mean:	0.0005	0.0005	0.0000				
SD :	0.00181	0.00181	0.0000				
%RSD:	336.1	336.1	336.1116				

QC value within specified limits.

Element: Hg Seq. No.: 37 AS Loc.: 29 Date: 02/05/2002
Sample ID: 526349

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0436	0.0436	0.0005	0.0030	0.0007	10:02:38	No
2	0.0500	0.0500	0.0005	0.0034	0.0008	10:03:07	No
Mean:	0.0468	0.0468	0.0005				
SD :	0.00455	0.00455	0.0000				
%RSD:	9.7	9.7	9.7123				

Element: Hg Seq. No.: 38 AS Loc.: 30 Date: 02/05/2002
Sample ID: 526351

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.1288	0.1288	0.0013	0.0073	0.0016	10:04:28	No
2	0.1311	0.1311	0.0014	0.0075	0.0016	10:04:57	No
Mean:	0.1299	0.1299	0.0014				
SD :	0.00163	0.00163	0.0000				
%RSD:	1.3	1.3	1.2538				

Element: Hg Seq. No.: 39 2/7/02 AS Loc.: 31 Date: 02/05/2002
Sample ID: 526351D 529469 DCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.1290	0.1290	0.0013	0.0075	0.0016	10:06:18	No
2	0.1269	0.1269	0.0013	0.0072	0.0016	10:06:47	No
Mean:	0.1280	0.1280	0.0013				
SD :	0.00144	0.00144	0.0000				
%RSD:	1.1	1.1	1.1240				

Element: Hg Seq. No.: 40 2/7/02 AS Loc.: 32 Date: 02/05/2002
Sample ID: 526351S 529470 DCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	1.200	1.200	0.0125	0.0598	0.0128	10:08:06	No
2	1.188	1.188	0.0124	0.0595	0.0126	10:08:36	No
Mean:	1.194	1.194	0.0124				
SD :	0.00890	0.00890	0.0001				
%RSD:	0.7	0.7	0.7453				

Element: Hg Seq. No.: 41 AS Loc.: 33 Date: 02/05/2002
Sample ID: 526352

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0602	0.0602	0.0006	0.0042	0.0009	10:09:51	No
2	0.0560	0.0560	0.0006	0.0036	0.0008	10:10:20	No
Mean:	0.0581	0.0581	0.0006				
SD :	0.00297	0.00297	0.0000				
%RSD:	5.1	5.1	5.1138				

Element: Hg Seq. No.: 42 AS Loc.: 34 Date: 02/05/2002
Sample ID: 526353

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0051	0.0051	0.0001	0.0012	0.0003	10:11:35	No
2	0.0100	0.0100	0.0001	0.0018	0.0004	10:12:04	No
Mean:	0.0075	0.0075	0.0001				
SD :	0.00342	0.00342	0.0000				
%RSD:	45.4	45.4	45.3904				

Element: Hg Seq. No.: 43 AS Loc.: 35 Date: 02/05/2002
Sample ID: 526354

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0273	0.0273	0.0003	0.0024	0.0005	10:13:20	No
2	0.0309	0.0309	0.0003	0.0027	0.0006	10:13:49	No
Mean:	0.0291	0.0291	0.0003				
SD :	0.00251	0.00251	0.0000				
%RSD:	8.6	8.6	8.6381				

Element: Hg Seq. No.: 44 AS Loc.: 36 Date: 02/05/2002
Sample ID: 526356

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0493	0.0493	0.0005	0.0033	0.0008	10:15:06	No
2	0.0502	0.0502	0.0005	0.0035	0.0008	10:15:36	No
Mean:	0.0498	0.0498	0.0005				
SD :	0.00060	0.00060	0.0000				
%RSD:	1.2	1.2	1.2047				

Element: Hg Seq. No.: 45 AS Loc.: 37 Date: 02/05/2002
Sample ID: 526357

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	10:16:52	No
2	0.0123	0.0123	0.0001	0.0018	0.0004	10:17:21	No
Mean:	0.0101	0.0101	0.0001				
SD :	0.00307	0.00307	0.0000				
%RSD:	30.3	30.3	30.3188				

Element: Hg Seq. No.: 46 AS Loc.: 38 Date: 02/05/2002
Sample ID: 526358

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0047	0.0047	0.0000	0.0015	0.0003	10:18:39	No
2	-0.0050	-0.0050	-0.0001	0.0002	0.0002	10:19:09	No
Mean:	-0.0002	-0.0002	0.0000				
SD :	0.00685	0.00685	0.0001				
%RSD:	3684	3684	3683.9100				

Element: Hg Seq. No.: 47 AS Loc.: 7 Date: 02/05/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.151	3.151	0.0328	0.1545	0.0331	10:20:29	No
2	3.141	3.141	0.0327	0.1529	0.0330	10:20:58	No
Mean:	3.146	3.146	0.0328				
SD :	0.00733	0.00733	0.0001				
%RSD:	0.2	0.2	0.2330				

QC value within specified limits.

Element: Hg Seq. No.: 48 AS Loc.: 1 Date: 02/05/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0052	0.0052	0.0001	0.0012	0.0003	10:22:39	No
2	0.0044	0.0044	0.0000	0.0012	0.0003	10:23:09	No
Mean:	0.0048	0.0048	0.0001				
SD :	0.00055	0.00055	0.0000				
%RSD:	11.4	11.4	11.3584				

QC value within specified limits.

Element: Hg Seq. No.: 49 AS Loc.: 39 Date: 02/05/2002
Sample ID: 526359

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0071	0.0071	0.0001	0.0013	0.0003	10:24:25	No
2	0.0090	0.0090	0.0001	0.0015	0.0003	10:24:54	No
Mean:	0.0081	0.0081	0.0001				
SD :	0.00136	0.00136	0.0000				
%RSD:	16.9	16.9	16.8738				

Element: Hg Seq. No.: 50 AS Loc.: 40 Date: 02/05/2002
Sample ID: 526360

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0012	0.0012	0.0000	0.0009	0.0003	10:26:41	No
2	0.0047	0.0047	0.0000	0.0013	0.0003	10:27:10	No
Mean:	0.0030	0.0030	0.0000				
SD :	0.00250	0.00250	0.0000				
%RSD:	84.2	84.2	84.1845				

Element: Hg Seq. No.: 51 AS Loc.: 41 Date: 02/05/2002
Sample ID: 526371

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	µg/L	µg/L	Signal	Area	Height		Stored
1	0.1608	0.1608	0.0017	0.0088	0.0019	10:28:30	No
2	0.1554	0.1554	0.0016	0.0083	0.0019	10:29:00	No
Mean:	0.1581	0.1581	0.0016				
SD :	0.00380	0.00380	0.0000				
%RSD:	2.4	2.4	2.4065				

Element: Hg Seq. No.: 52 AS Loc.: 42 Date: 02/05/2002
Sample ID: 526374

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0376	0.0376	0.0004	0.0030	0.0006	10:30:19	No
2	0.0354	0.0354	0.0004	0.0027	0.0006	10:30:49	No
Mean:	0.0365	0.0365	0.0004				
SD :	0.00155	0.00155	0.0000				
%RSD:	4.3	4.3	4.2580				

Element: Hg Seq. No.: 53 AS Loc.: 43 Date: 02/05/2002
Sample ID: 526375

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0172	0.0172	0.0002	0.0017	0.0004	10:32:09	No
2	0.0195	0.0195	0.0002	0.0022	0.0005	10:32:38	No
Mean:	0.0184	0.0184	0.0002				
SD :	0.00163	0.00163	0.0000				
%RSD:	8.9	8.9	8.8786				

Element: Hg Seq. No.: 54 AS Loc.: 44 Date: 02/05/2002
Sample ID: 526382

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0125	0.0125	0.0001	0.0019	0.0004	10:33:58	No
2	0.0094	0.0094	0.0001	0.0015	0.0004	10:34:28	No
Mean:	0.0109	0.0109	0.0001				
SD :	0.00216	0.00216	0.0000				
%RSD:	19.7	19.7	19.7329				

Element: Hg Seq. No.: 55 AS Loc.: 45 Date: 02/05/2002
Sample ID: 526385

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0442	0.0442	0.0005	0.0032	0.0007	10:35:49	No
2	0.0451	0.0451	0.0005	0.0031	0.0007	10:36:18	No
Mean:	0.0447	0.0447	0.0005				
SD :	0.00060	0.00060	0.0000				
%RSD:	1.4	1.4	1.3542				

Element: Hg Seq. No.: 56 AS Loc.: 46 Date: 02/05/2002
Sample ID: 526386

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0585	0.0585	0.0006	0.0040	0.0009	10:37:48	No
2	0.0606	0.0606	0.0006	0.0043	0.0009	10:38:17	No
Mean:	0.0595	0.0595	0.0006				
SD :	0.00148	0.00148	0.0000				

%RSD: 2.5 2.5 2.4846

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Element: Hg Seq. No.: 57 AS Loc.: 47 Date: 02/05/2002
Sample ID: 526387

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0622	0.0622	0.0006	0.0042	0.0009	10:39:38	No
2	0.0634	0.0634	0.0007	0.0046	0.0009	10:40:08	No
Mean:	0.0628	0.0628	0.0007				
SD :	0.00088	0.00088	0.0000				
%RSD:	1.4	1.4	1.4073				

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Element: Hg Seq. No.: 58 AS Loc.: 48 Date: 02/05/2002
Sample ID: 526401

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0349	0.0349	0.0004	0.0028	0.0006	10:41:27	No
2	0.0354	0.0354	0.0004	0.0030	0.0006	10:41:56	No
Mean:	0.0351	0.0351	0.0004				
SD :	0.00036	0.00036	0.0000				
%RSD:	1.0	1.0	1.0263				

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Element: Hg Seq. No.: 59 AS Loc.: 7 Date: 02/05/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.134	3.134	0.0326	0.1559	0.0329	10:43:14	No
2	3.111	3.111	0.0324	0.1542	0.0327	10:43:43	No
Mean:	3.122	3.122	0.0325				
SD :	0.01626	0.01626	0.0002				
%RSD:	0.5	0.5	0.5209				

QC value within specified limits.

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Element: Hg Seq. No.: 60 AS Loc.: 1 Date: 02/05/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0036	0.0036	0.0000	0.0013	0.0003	10:45:00	No
2	0.0046	0.0046	0.0000	0.0013	0.0003	10:45:29	No
Mean:	0.0041	0.0041	0.0000				
SD :	0.00072	0.00072	0.0000				
%RSD:	17.7	17.7	17.6977				

QC value within specified limits.

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Element: Hg Seq. No.: 61 AS Loc.: 49 Date: 02/05/2002
Sample ID: ~~526936~~ SD2466 526396

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0110	0.0110	0.0001	0.0017	0.0004	10:46:46	No
2	0.0095	0.0095	0.0001	0.0018	0.0004	10:47:16	No
Mean:	0.0102	0.0102	0.0001				
SD :	0.00110	0.00110	0.0000				
%RSD:	10.7	10.7	10.7461				

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Perkin-Elmer AAWinLab: 02/05/2002, 10:47:37 AM

Element: Hg Seq. No.: 62 AS Loc.: 7 Date: 02/05/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.173	3.173	0.0331	0.1560	0.0333	10:48:34	No
2	3.179	3.179	0.0331	0.1567	0.0334	10:49:04	No
Mean:	3.176	3.176	0.0331				
SD :	0.00442	0.00442	0.0000				
%RSD:	0.1	0.1	0.1390				

QC value within specified limits.

Element: Hg Seq. No.: 63 AS Loc.: 1 Date: 02/05/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0014	0.0014	0.0000	0.0011	0.0003	10:50:23	No
2	0.0053	0.0053	0.0001	0.0015	0.0003	10:50:53	No
Mean:	0.0034	0.0034	0.0000				
SD :	0.00281	0.00281	0.0000				
%RSD:	83.7	83.7	83.6798				

QC value within specified limits.

CAS-Ro[illegible] [illegible]ter ICP Water Digestion Log

(6010B/6020) // 200.7/200.8 // ASP/CLP

Batch
M2162U149

Analyst: JM Date: 1/29/02 Spk Witness: SD

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, Mo, Zn	
2	LCSW	↓	↓	↓	↓	↓	↓	+0.05 ml Se +0.5 ml spk A,B
3	R11427 5216346	<2			↓	↓		
4	348				B-CDY	Y-CDY		
5	349				↓	↓		
6	351							
7	351D							
8	351S							+0.05 ml Se +0.5 ml spk AB
9	352				↓	↓		
10	353				C-CLR	C-CLR		
11	354				B-CDY	Y-CDY		
12	356				↓	↓		
13	357				C-CLR	C-CLR		
14	358				↓	↓		
15	359							
16	360				↓	↓		
17	371				B-CDY	Y-CDY		
18	374				↓	↓		
19	375				↓	↓		
20	382				C-CLR	C-CLR		
21	385				B-CDY	~~B-CDY~~ Y-CDY		
22	386				↓	↓		
23	387				↓	↓		
24	401				↓	Y-CLR		

Spiking Standards / Reagent Lot #:

Spike A,B: M1780032AE 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

C 149

Columbia Analytical Services

Ar 's For: Hg | EPA Method: (1470) / 1471 / 245.1 / 245.5 | Analyst: DGO

Ba.. .emp: In 45 / Out 55 | Report: (Routine) / ASP / (Pkg.5) | Date Prepped: 2/4/02

Time In: 1035 | File Name: Feb.. 05W | Date Analyzed: 2/5/02

Time Out: 1235

	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		PBTCLP A	10	100	31	R-10427	526354	100	100
2		LCSTCLP A			32		360		
3	R-10427	526396			33		371		
4		405			34		374		
5		406			35		375		
6		407			36		382		
7		408			37		385		
8		409			38		386		
9		410			39		387		
10		411			40		401		
11		412			41				
12		412DUP			42				
13		412SPK			43				
14	R-10436	526562			44				
15	R-10434	526564			45		2/4/02		
	R-10440	526565			46		DGO		
		MW B	100		47				
18		LCSW B			48				
19	R-10427	526346			49				
20		348					ICB	100ml DI Water	100
21		349					Std 0	100ml DI Water	100
22		351					Std 0.2*	0.20ml of 0.1ppm	100
23		351DUP					Std 0.5*	0.50ml of 0.1ppm	100
24		351SPK					Std 1.0*	1.00ml of 0.1ppm	100
25		352					Std 2.0*	2.00ml of 0.1ppm	100
26		353					Std 5.0*	5.00ml of 0.1ppm	100
27		354					Std 10.0*	10.0ml of 0.1ppm	100
28		356					ICV/CCV**	3.00ml of 0.1ppm	100
29		357					LCSW/MS**	1.00ml of 0.1ppm	100
30		358					CRDL*	0.20ml of 0.1ppm	100

Lot # of Reagents Used:

HNO3: M17800315 H2SO4: M17800245 HCL: M17800315 K2S2O8: M17800280 KMnO4: M17800305

SnCl2: M17800310 NaCl: M17800306 NH2OH-HCL: M17800306 LCSS CAS Lot#: —

LCSS ERA Lot#: —

*Source Standard: (Vendor/Lot #) M17800305 **ICV Standard: (Vendor/Lot #) M17800265

*(10ppm stock Lot#: M26501772A) **(10ppm stock Lot#: M26501772A)

*(0.1ppm working std Lot#: M26501771A) **(0.1ppm working std Lot#: M26501772A)

Comments/Problems:

Batch Name: M2480130A M2480130A

IMA 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
Std 1	CA	M1780031W	5000	2.00	200	50.0	2%HNO3	SD 2/10/02	A	M1780031 I	M1780031 J	M18
	MG		5000			50.0	5%HCl	SD 2/11/02	B	/	/	/
	K		5000			50.0		SD 2/12/02	C	/	/	M18
	NA		5000			50.0		SD 2/13/02	D	/	/	M18
l Std 2	AG	M1780031M	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			
al Std 3	AL	M1780032K	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	SB	M1780032P	1000	2.00		10.0			V			
Elements	SN	~~30J~~ 32F	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			

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?TIMA 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	1.00	200	25.0	2%HNO3	SD 2/10/02	A	M1780031I	M1780031J	M18/M10
	MG		5000			25.0	5%HCl	SD 2/11/02	B	"	"	M18/M10
	K		5000			25.0		SD 2/12/02	C	"	"	M18/M10
	NA		5000			25.0		SD 2/13/02	D	"	"	M18/M10
Cal Std 2	AG	M1780029Y	100	1.00		0.500			E			
	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			P			
Cal Std 4	AS	M1780031C	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	SB	M1800 30H	1000	1.00		5.00			V			
Elements	SN	31V	1000	1.00		5.00			W			
	B	31P	1000	0.500		2.50			X			
	MO	27C	1000	0.500		2.50			Y			
	TI	27H	1000	0.500		2.50			Z			

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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		SD 2/10/02	J			8/10/02	M10
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				

ICSA / ICSAB STA D

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	M1780321	Multi	100	1000	Multi	5% HCL	SD 1/11/02	A	M1780039E	M1780031J	7/11/02	–
AL		5000			500	2%HNO3	SD 1/28/02	B	M1780031I	"	7/28/02	–
CA		5000			500		SD 2/10/02	C	"	"	8/10/02	–
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	~~M~~
AL		5000			500		SD 1/11/02	BB	"	"	7/11/02	–
CA		5000			500		SD 1/28/02	CC	M1780031I	"	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				
								SS				
								TT				
								UU				

OPTIMA INTERNAL STANDARD

ment	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				

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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	M1710030N	1000	1.00	100	10.0	0.5% HNO3	DCB 2/4/02	A	2/10/02	M1780031 5	MY

(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	DCB 2/4/02	B	M1780031 5	MY
								C	2/4/02 DCB	
								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	DCB 2/4/02	I	M1780031 5	—
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		

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	DCD 2/4/02	A	2/10/02	M17800315	MY

(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	DCD 2/4/02	B	M17800315	MY
								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	DCD 2/4/02	I	M17800315	—
LCSW / MS			1.00		1.00			J		
								K		
								L		
								M		
								N		
								O		

METALS DATA

TCLP WATER

METALS
COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

ol ct: R2210427 SDG No.: OS-PW-12

ab Code: Case No.: SAS No.:

OW No.: SW846 CLP-M Client: Tetra Tech EM Inc.

Sample No.	Lab Sample ID.
BAC-1	526396
HWSC-SLU	526405
MTS-GB-SLU-1	526406
MTS-GB-SLU-2-FD	526407
MTS-GB-SLU-2	526408
MTS-GB-SLU-4	526409
ST-SLU	526410
BAC-SLU	526411
MTS-GB-SLU-3	526413
MTS-GB-SLU-3D	526413D
MTS-GB-SLU-3S	526413S

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: 2/28/02 Title: Laboratory Manager

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
BAC-1

ntract: R2210427

b Code: Case No.: SAS No.: SDG NO.: OS-PW-12

trix (soil/water): TCLP Lab Sample ID: 526396

vel (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	3120		N	P
7440-39-3	Barium	5000	U		P
7440-43-9	Cadmium	351			P
7440-47-3	Chromium	100	U		P
7439-92-1	Lead	500	U	N	P
7439-96-5	Manganese	51200			P
7439-97-6	Mercury	0.16	U		CV
7782-49-2	Selenium	2000	U		P
7440-22-4	Silver	100	U		P
7440-66-6	Zinc	6040000			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
BAC-SLU

ntract: R2210427

b Code: Case No.: SAS No.: SDG NO.: OS-PW-12

trix (soil/water): TCLP Lab Sample ID: 526411

vel (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	1960		N	P
7440-39-3	Barium	5000	U		P
7440-43-9	Cadmium	1830			P
7440-47-3	Chromium	23800			P
7439-92-1	Lead	1200		N	P
7439-96-5	Manganese	75900			P
7439-97-6	Mercury	0.18	B		CV
7782-49-2	Selenium	2000	U		P
7440-22-4	Silver	100	U		P
7440-66-6	Zinc	5710000			P

Color Before: YELLOW Clarity Before: CLEAR Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
HWSC-SLU

ntract: R2210427

o Code: Case No.: SAS No.: SDG NO.: OS-PW-12

trix (soil/water): TCLP Lab Sample ID: 526405

vel (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	1000	U	N	P
7440-39-3	Barium	5000	U		P
7440-43-9	Cadmium	100	U		P
7440-47-3	Chromium	100	U		P
7439-92-1	Lead	500	U	N	P
7439-96-5	Manganese	2330			P
7439-97-6	Mercury	0.16	U		CV
7782-49-2	Selenium	2000	U		P
7440-22-4	Silver	100	U		P
7440-66-6	Zinc	42600			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
MTS-GB-SLU-1

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

Matrix (soil/water): TCLP Lab Sample ID: 526406

Level (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	1000	U	N	P
7440-39-3	Barium	5000	U		P
7440-43-9	Cadmium	261			P
7440-47-3	Chromium	100	U		P
7439-92-1	Lead	686		N	P
7439-96-5	Manganese	14400			P
7439-97-6	Mercury	0.18	B		CV
7782-49-2	Selenium	2000	U		P
7440-22-4	Silver	100	U		P
7440-66-6	Zinc	1760000			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
MTS-GB-SLU-2

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

Matrix (soil/water): TCLP Lab Sample ID: 526408

Level (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	1000	U	N	P
7440-39-3	Barium	5000	U		P
7440-43-9	Cadmium	100	U		P
7440-47-3	Chromium	100	U		P
7439-92-1	Lead	500	U	N	P
7439-96-5	Manganese	3090			P
7439-97-6	Mercury	0.16	U		CV
7782-49-2	Selenium	2000	U		P
7440-22-4	Silver	100	U		P
7440-66-6	Zinc	66200			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
MTS-GB-SLU-2-FD

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

Matrix (soil/water): TCLP Lab Sample ID: 526407

Level (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	1000	U	N	P
7440-39-3	Barium	5000	U		P
7440-43-9	Cadmium	100	U		P
7440-47-3	Chromium	100	U		P
7439-92-1	Lead	500	U	N	P
7439-96-5	Manganese	8010			P
7439-97-6	Mercury	0.16	U		CV
7782-49-2	Selenium	2000	U		P
7440-22-4	Silver	100	U		P
7440-66-6	Zinc	260000			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
MTS-GB-SLU-3

ontract: R2210427

ab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

atrix (soil/water): TCLP Lab Sample ID: 526413

evel (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	1000	U	N	P
7440-39-3	Barium	5000	U		P
7440-43-9	Cadmium	319			P
7440-47-3	Chromium	100	U		P
7439-92-1	Lead	500	U	N	P
7439-96-5	Manganese	30900			P
7439-97-6	Mercury	0.16	U		CV
7782-49-2	Selenium	2000	U		P
7440-22-4	Silver	100	U		P
7440-66-6	Zinc	3460000			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
MTS-GB-SLU-4

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

Matrix (soil/water): TCLP Lab Sample ID: 526409

Level (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	1000	U	N	P
7440-39-3	Barium	5000	U		P
7440-43-9	Cadmium	100	U		P
7440-47-3	Chromium	100	U		P
7439-92-1	Lead	500	U	N	P
7439-96-5	Manganese	51.6			P
7439-97-6	Mercury	0.16	U		CV
7782-49-2	Selenium	2000	U		P
7440-22-4	Silver	100	U		P
7440-66-6	Zinc	400	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.
ST-SLU

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

Matrix (soil/water): TCLP Lab Sample ID: 526410

Level (low/med): LOW Date Received: 01/24/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	1000	U	N	P
7440-39-3	Barium	5000	U		P
7440-43-9	Cadmium	100	U		P
7440-47-3	Chromium	100	U		P
7439-92-1	Lead	500	U	N	P
7439-96-5	Manganese	332			P
7439-97-6	Mercury	0.16	U		CV
7782-49-2	Selenium	2000	U		P
7440-22-4	Silver	100	U		P
7440-66-6	Zinc	3660			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

METALS

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

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	2000.0	2064.00	103.2	2000.0	2077.00	103.8	2146.00	107.3	P
Barium	10000.0	10060.00	100.6	10000.0	9948.00	99.5	10010.00	100.1	P
Cadmium	1000.0	1043.00	104.3	1000.0	1014.00	101.4	1062.00	106.2	P
Chromium	500.0	512.10	102.4	500.0	501.60	100.3	518.60	103.7	P
Lead	1000.0	1058.00	105.8	1000.0	1062.00	106.2	1074.00	107.4	P
Manganese	750.0	767.70	102.4	750.0	773.00	103.1	752.70	100.4	P
Mercury	3.0	3.07	102.3	3.0	3.13	104.3	3.26	108.7	CV
Selenium	1000.0	1039.00	103.9	1000.0	1051.00	105.1	1064.00	106.4	P
Silver	500.0	509.00	101.8	500.0	513.50	102.7	515.60	103.1	P
Zinc	1000.0	1027.00	102.7	1000.0	1022.00	102.2	1015.00	101.5	P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

METALS

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

Initial Calibration Source:

Continuing 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				2000.0	2015.00	100.8	2126.00	106.3	P
Barium				10000.0	9763.00	97.6	9991.00	99.9	P
Cadmium				1000.0	1049.00	104.9	1089.00	108.9	P
Chromium				500.0	506.80	101.4	529.40	105.9	P
Lead				1000.0	1051.00	105.1	1085.00	108.5	P
Manganese				750.0	745.30	99.4			P
Mercury				3.0	3.09	103.0	3.15	105.0	CV
Selenium				1000.0	939.10	93.9	979.60	98.0	P
Silver				500.0	500.10	100.0	509.60	101.9	P
Zinc				1000.0	1005.00	100.5			P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

METALS

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

Initial Calibration Source:

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)	
Mercury				3.0	3.12	104.0	3.18	106.0	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

METALS
-2B-
CRDL STANDARD FOR AA AND ICP

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG No.: OS-PW-12

AA CRDL Standard Source:

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								
Barium								
Cadmium				10.0	12.90	129.0	10.90	109.0
Chromium				20.0	22.60	113.0	23.90	119.5
Lead				106.0	129.40	122.1	154.20	145.5
Manganese				30.0	36.30	121.0	34.30	114.3
Mercury	0.2	0.22	110.0					
Selenium								
Silver				20.0	23.90	119.5	20.30	101.5
Zinc				40.0	52.10	130.3	51.70	129.3

METALS

-3-

BLANKS

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

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	100.0	U	100.0	U	100.0	U	100.0	U	100.000	U	P
Barium	500.0	U	500.0	U	500.0	U	500.0	U	500.000	U	P
Cadmium	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Chromium	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Lead	50.0	U	50.0	U	50.0	U	50.0	U	50.000	U	P
Manganese	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Mercury	0.02	U	0.02	U	0.02	U	0.02	U	0.157	U	CV
Selenium	200.0	U	200.0	U	200.0	U	200.0	U	200.000	U	P
Silver	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Zinc	200.0	U	200.0	U	200.0	U	200.0	U	200.000	U	P

METALS

-3-

BLANKS

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

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			100.0	U							P
Barium			500.0	U							P
Cadmium			10.0	U							P
Chromium			10.0	U							P
Lead			50.0	U							P
Mercury			0.02	U	0.02	U	0.02	U			CV
Selenium			200.0	U							P
Silver			10.0	U							P

-4-

ICP INTERFERENCE CHECK SAMPLE

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

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
Arsenic			47	12.2		162	86.7	
Barium		500	-23	474.6	94.9	-26	472.8	94.6
Cadmium		1000	-1	1053.0	105.3	-2	1120.0	112.0
Chromium		500	6	518.3	103.7	3	535.2	107.0
Lead		1000	16	1107.0	110.7	-21	1138.0	113.8
Manganese		500	-1	505.1	101.0	0	500.8	100.2
Selenium			-37	-146.7		-16	-110.9	
Silver		1000	-1	1118.0	111.8	3	1104.0	110.4
Zinc		1000	1	1036.0	103.6	3	1031.0	103.1

METALS
-5A-
SPIKE SAMPLE RECOVERY

SAMPLE NO.

MTS-GB-SLU-3S

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

Matrix (soil/water): TCLP 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	6875.0000		1000.0000	U	5000.00	137.5	N	P
Cadmium	75 - 125	1535.0000		319.0000		1000.00	121.6		P
Chromium	75 - 125	5770.9998		100.0000	U	5000.00	115.4		P
Lead	75 - 125	6505.9998		500.0000	U	5000.00	130.1	N	P
Manganese		30950.0008		30850.0004		2000.00	5.0		P
Mercury	75 - 125	10.6894		0.1570	U	10.00	106.9		CV
Selenium	75 - 125	2000.0000	U	2000.0000	U	1000.00	0.0		P
Silver	75 - 125	5659.0002		100.0000	U	5000.00	113.2		P
Zinc		3245500.0000		3462500.0000		2000.00	-10850.		P

Comments:

METALS
-5B-
POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

MTS-GB-SLU-3A

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

Matrix (soil/water): TCLP 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
Manganese		2286.00		61.70		2000.0	111.2		P
Zinc		9284.00		6925.00		2000.0	117.9		P

Comments:

METALS
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DUPLICATES

SAMPLE NO.

MTS-GB-SLU-3D

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

Matrix (soil/water): TCLP 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		1000.0000	U	669.0000		200.0		P
Barium		5000.0000	U	5000.0000	U			P
Cadmium	100.0	319.0000		302.0000		5.5		P
Chromium		100.0000	U	100.0000	U			P
Lead		500.0000	U	500.0000	U			P
Manganese		30850.0004		31600.0004		2.4		P
Mercury		0.1570	U	0.1570	U			CV
Selenium		2000.0000	U	2000.0000	U			P
Silver		100.0000	U	100.0000	U			P
Zinc		3462500.0000		3413500.0000		1.4		P

METALS
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LABORATORY CONTROL SAMPLE

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

Solid LCS Source:

Aqueous LCS Source: CPI

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Arsenic	5000.0	5875.00	117.5						
Barium	5000.0	4783.00	95.7						
Cadmium	1000.0	1074.00	107.4						
Chromium	5000.0	5131.00	102.6						
Lead	5000.0	5304.00	106.1						
Manganese	2000.0	2054.00	102.7						
Mercury	10.0	10.05	100.5						
Selenium	1000.0	1007.00	100.7						
Silver	5000.0	5780.00	115.6						
Zinc	2000.0	2105.00	105.3						

METALS
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ICP SERIAL DILUTIONS

SAMPLE NO.

MTS-GB-SLU-3L

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

Matrix (soil/water): TCLP Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Arsenic	100.00	U	500.00	U			P
Barium	500.00	U	2500.00	U			P
Cadmium	31.90		50.00	U	100.0		P
Chromium	10.00	U	50.00	U			P
Lead	50.00	U	250.00	U			P
Manganese	61.70		65.50		6.2		P
Selenium	200.00	U	1000.00	U			P
Silver	10.00	U	50.00	U			P
Zinc	6925.00		6885.00		0.6		P

Idl date: **12/24/01**

Linear Range date: **11/09/01**

Analyte	Leeman IDL (ppb)	Leeman Linear Range (ppm)	Routine PQL (ppb)	TCLP PQL (ppb)
Ag	3.14	4	10	100
Al	30.9	500	100	
As	90.2	4	500	500
Ba	7.49	20	20	2000
Be	0.652	5	5	
Ca	165	900	500	
Cd	1.34	30	5	100
Co	8.18	40	50	
Cr	4.25	40	10	100
Cu	3.70	100	20	
Fe	14.7	200	100	
K	474	300	2000	
Mg	155	500	500	
Mn	2.12	40	10	
Na	130	300	500	
Ni	10.7	100	40	
Pb	38.6	100	50	100
Sb	66.9	10	100	
Se	147	10	500	500
Tl	167	50	300	
V	27.2	40	50	
Zn	4.15	40	20	

Can Report TCLP As, Se from Leeman only.
Sb cannot be reported from Leeman ICP, rountine PQL 0.0600mg/l not met.

AA IDL's
(UG/L)

Analyte	4100ZL #2 (ppb) [serial # 6245]	4100ZL #1 (ppb) [serial # 6066]	FIMS (ppb)
Pb	0.565 11/05/01	0.686 11/14/01	——
As	0.844 11/19/01	2.45 10/05/01	——
Tl	1.57 12/04/01	1.25 12/04/01	——
Se	0.622 10/05/01	0.940 12/05/01	——
Sb	2.43 04/24/01	——	
Cu	——	0.837 11/26/01	——
Hg	——	——	0.0157 12/28/01

Hg Water MDL: 0.0104ug/l (01/12/2001)
Hg Soil MDL: 0.00295mg/kg (09/19/01)

METALS

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ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

ICP 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

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ICP LINEAR RANGES (QUARTERLY)

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

ICP ID Number: Leeman ICP Date: 11/09/01

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Arsenic	3.00	4000.0	P
Barium	3.00	20000.0	P
Cadmium	3.00	30000.0	P
Chromium	3.00	40000.0	P
Lead	3.00	100000.0	P
Manganese	3.00	40000.0	P
Selenium	3.00	10000.0	P
Silver	3.00	40000.0	P
Zinc	3.00	50000.0	P

Comments:

METALS
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PREPARATION LOG

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

Method: P

Sample No.	Preparation Date	Weight (grams)	Volume (mL)
BAC-1	02/01/02	50	50
BAC-SLU	02/01/02	50	50
HWSC-SLU	02/01/02	50	50
LCST	02/01/02	50	50
MTS-GB-SLU-1	02/01/02	50	50
MTS-GB-SLU-2	02/01/02	50	50
MTS-GB-SLU-2-F	02/01/02	50	50
MTS-GB-SLU-3	02/01/02	50	50
MTS-GB-SLU-3D	02/01/02	50	50
MTS-GB-SLU-3S	02/01/02	50	50
MTS-GB-SLU-4	02/01/02	50	50
PBT	02/01/02	50	50
ST-SLU	02/01/02	50	50

METALS
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PREPARATION LOG

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

Method: P

Sample No.	Preparation Date	Weight (grams)	Volume (mL)
BAC-1	02/12/02	50	50
BAC-SLU	02/12/02	50	50
HWSC-SLU	02/12/02	50	50
LCST	02/12/02	50	50
MTS-GB-SLU-1	02/12/02	50	50
MTS-GB-SLU-2	02/12/02	50	50
MTS-GB-SLU-2-F	02/12/02	50	50
MTS-GB-SLU-3	02/12/02	50	50
MTS-GB-SLU-3D	02/12/02	50	50
MTS-GB-SLU-3S	02/12/02	50	50
MTS-GB-SLU-4	02/12/02	50	50
PBT	02/12/02	50	50
ST-SLU	02/12/02	50	50

METALS
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PREPARATION LOG

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

Method: CV

Sample No.	Preparation Date	Weight (grams)	Volume (mL)
BAC-1	02/04/02	10	100
BAC-SLU	02/04/02	10	100
HWSC-SLU	02/04/02	10	100
LCST	02/04/02	10	100
MTS-GB-SLU-1	02/04/02	10	100
MTS-GB-SLU-2	02/04/02	10	100
MTS-GB-SLU-2-F	02/04/02	10	100
MTS-GB-SLU-3	02/04/02	10	100
MTS-GB-SLU-3D	02/04/02	10	100
MTS-GB-SLU-3S	02/04/02	10	100
MTS-GB-SLU-4	02/04/02	10	100
PBT	02/04/02	10	100
ST-SLU	02/04/02	10	100

METALS

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ANALYSIS RUN LOG

Contract: R2210427

Lab Code | Case No.: | SAS No.: | SDG No.: OS-PW-12

Instrument ID Number: Leeman ICP | Method: P

Start Date: 2/11/02 | End Date: 2/11/02

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
Std1Rep1	1.00	11:27				X	X		X		X				X						X	X					
Std1Rep2	1.00	11:28				X	X		X		X				X						X	X					
Std2Rep1	1.00	11:31				X	X		X		X				X						X	X					
Std2Rep2	1.00	11:32				X	X		X		X				X						X	X					
HIGH CHECK	1.00	11:36				X	X		X		X				X						X	X					
ICV1	1.00	11:39				X	X		X		X				X						X	X					
ICB1	1.00	11:42				X	X		X		X				X						X	X					
CRDL1	1.00	11:46				X	X		X		X				X						X	X					
ICS-A1	1.00	11:49				X	X		X		X				X						X	X					
ICS-AB1	1.00	11:53				X	X		X		X				X						X	X					
1	1.00	11:56				X	X		X		X				X						X	X					
CCB1	1.00	11:59				X	X		X		X				X						X	X					
PBT	1.00	12:03				X	X		X		X				X						X	X					
LCST	5.00	12:06				X																X					
LCST	1.00	12:10					X		X		X				X						X						
BAC-1	10.00	12:13				X	X		X		X				X						X	X					
HWSC-SLU	10.00	12:16				X	X		X		X				X						X	X					
MTS-GB-SLU-1	10.00	12:20				X	X		X		X				X						X	X					
MTS-GB-SLU-2-FD	10.00	12:23				X	X		X		X				X						X	X					
MTS-GB-SLU-2	10.00	12:27				X	X		X		X				X						X	X					
MTS-GB-SLU-4	10.00	12:30				X	X		X		X				X						X	X					
ST-SLU	10.00	12:33				X	X		X		X				X						X	X					
CCV2	1.00	12:37				X	X		X		X				X						X	X					
CCB2	1.00	12:40				X	X		X		X				X						X	X					
BAC-SLU	10.00	12:43				X	X		X		X				X						X	X					
MTS-GB-SLU-3	10.00	12:47				X	X		X		X				X						X	X					
MTS-GB-SLU-3D	10.00	12:50				X	X		X		X				X						X	X					
MTS-GB-SLU-3S	10.00	12:54				X			X		X				X						X	X					
MTS-GB-SLU-3L	50.00	12:57				X	X		X		X				X						X	X					
ZZZZZZ	1.00	13:00																									
ZZZZ	1.00	13:04																									
ZZZZZZ	1.00	13:07																									

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Form XIV - IN

METALS

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ANALYSIS RUN LOG

Contract: R2210427

Lab Code | Case No.: | SAS No.: | SDG No.: OS-PW-12

Instrument ID Number: Leeman ICP | Method: P

Start Date: 2/11/02 | End Date: 2/11/02

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
ZZZZZZ	1.00	13:11																									
ZZZZZZ	1.00	13:14																									
CCV3	1.00	13:18				X	X		X		X				X						X	X					
CCB3	1.00	13:21				X	X		X		X				X						X	X					
ZZZZZZ	1.00	13:24																									
ZZZZZZ	5.00	13:28																									
CRDL2	1.00	13:31				X	X		X		X				X						X	X					
ICS-A2	1.00	13:35				X	X		X		X				X						X	X					
ICS-AB2	1.00	13:38				X	X		X		X				X						X	X					
CCV4	1.00	13:41				X	X		X		X				X						X	X					
4	1.00	13:45				X	X		X		X				X						X	X					

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 1

METALS
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ANALYSIS RUN LOG

Contract: R2210427

Lab Code | Case No.: | SAS No.: | SDG No.: OS-PW-12

Instrument ID Number: Leeman ICP | Method: P

Start Date: 2/13/02 | End Date: 2/13/02

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
Std1Rep1	1.00	10:14															X									X	
Std1Rep2	1.00	10:15															X									X	
Std2Rep1	1.00	10:19															X									X	
Std2Rep2	1.00	10:20															X									X	
HIGH CHECK	1.00	10:24															X									X	
ICV1	1.00	10:28															X									X	
ICB1	1.00	10:32															X									X	
CRDL1	1.00	10:35															X									X	
ICS-A1	1.00	10:39															X									X	
ICS-AB1	1.00	10:43															X									X	
1	1.00	10:47															X									X	
CCB1	1.00	10:51															X									X	
PBT	1.00	10:55															X									X	
LCST	1.00	10:59															X									X	
BAC-1	500.00	11:03															X									X	
HWSC-SLU	10.00	11:07															X									X	
MTS-GB-SLU-1	200.00	11:11															X									X	
MTS-GB-SLU-2-FD	100.00	11:14															X									X	
MTS-GB-SLU-2	10.00	11:18															X									X	
MTS-GB-SLU-4	2.00	11:22															X									X	
ST-SLU	2.00	11:26															X									X	
BAC-SLU	500.00	11:30															X									X	
CCV2	1.00	11:34															X									X	
CCB2	1.00	11:38															X									X	
MTS-GB-SLU-3	500.00	11:42															X									X	
MTS-GB-SLU-3D	500.00	11:46															X									X	
MTS-GB-SLU-3S	500.00	11:49															X									X	
MTS-GB-SLU-3A	500.00	11:53															X									X	
MTS-GB-SLU-3L	2500.0	11:57															X									X	
ZZZZZ	1.00	12:01																									
L2	1.00	12:05															X									X	
ICS-A2	1.00	12:09															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: R2210427

Lab Code | Case No.: | SAS No.: | SDG No.: OS-PW-12

Instrument ID Number: Leeman ICP | Method: P

Start Date: 2/13/02 | End Date: 2/13/02

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
ICS-AB2	1.00	12:13															X									X	
CCV3	1.00	12:17															X									X	
CCB3	1.00	12:21															X									X	

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

METALS
-14-
ANALYSIS RUN LOG

Contract: R2210427

Lab Code | Case No.: | SAS No.: | SDG No.: OS-PW-12

Instrument ID Number: PE FAA/CVAA | Method: CV

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
Calib Blank	1.00	08:57																X									
0.2ppb std	1.00	08:59																X									
0.5ppb std	1.00	09:01																X									
1ppb std	1.00	09:03																X									
2ppb std	1.00	09:05																X									
5ppb std	1.00	09:07																X									
10ppb std	1.00	09:08																X									
ICV1	1.00	09:10																X									
ICB1	1.00	09:12																X									
CRDL1	1.00	09:14																X									
1	1.00	09:16																X									
CCB1	1.00	09:18																X									
PBT	1.00	09:19																X									
LCST	1.00	09:21																X									
BAC-1	1.00	09:23																X									
HWSC-SLU	1.00	09:25																X									
MTS-GB-SLU-1	1.00	09:27																X									
MTS-GB-SLU-2-FD	1.00	09:28																X									
MTS-GB-SLU-2	1.00	09:30																X									
MTS-GB-SLU-4	1.00	09:32																X									
ST-SLU	1.00	09:34																X									
BAC-SLU	1.00	09:36																X									
CCV2	1.00	09:37																X									
CCB2	1.00	09:39																X									
MTS-GB-SLU-3	1.00	09:41																X									
MTS-GB-SLU-3D	1.00	09:43																X									
MTS-GB-SLU-3S	1.00	09:45																X									
ZZZZZZ	1.00	09:46																									
ZZZZZZ	1.00	09:48																									
ZZZZZZ	1.00	09:50																									
ZZZ	1.00	09:52																									
ZZZZZZ	1.00	09:54																									

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

METALS

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ANALYSIS RUN LOG

Contract: R2210427

Lab Code | Case No.: | SAS No.: | SDG No.: OS-PW-12

Instrument ID Number: PE FAA/CVAA | Method: CV

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
ZZZZZZ	1.00	09:55																									
ZZZZZZ	1.00	09:57																									
CCV3	1.00	09:59																X									
CCB3	1.00	10:01																X									
ZZZZZZ	1.00	10:03																									
ZZZZZZ	1.00	10:04																									
ZZZZZZ	1.00	10:06																									
ZZZZZZ	1.00	10:08																									
ZZZZZZ	1.00	10:10																									
ZZZZZZ	1.00	10:12																									
ZZZ	1.00	10:13																									
ZZZZZZ	1.00	10:15																									
ZZZZZZ	1.00	10:17																									
ZZZZZZ	1.00	10:19																									
CCV4	1.00	10:20																X									
CCB4	1.00	10:23																X									
ZZZZZZ	1.00	10:24																									
ZZZZZZ	1.00	10:27																									
ZZZZZZ	1.00	10:29																									
ZZZZZZ	1.00	10:30																									
ZZZZZZ	1.00	10:32																									
ZZZZZZ	1.00	10:34																									
ZZZZZZ	1.00	10:36																									
ZZZZZZ	1.00	10:38																									
ZZZZZZ	1.00	10:40																									
ZZZZZZ	1.00	10:41																									
CCV5	1.00	10:43																X									
CCB5	1.00	10:45																X									
BAC-1	1.00	10:47																X									
CCV6	1.00	10:49																X									
CCB6	1.00	10:50																X									

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Metals Cover Page

Instrument: Leeman

alyst: JD Date: 2/11/02

Data File: 08-1 Reviewed By: CK 2/11/02

Entered By: CK 2/13/02 Manager Approval: CK 2/13/02

Starlims Run #	Analytes Used	Batch ID	Method Requested	Failed Analytes	Comments / Problems

Package Data:

TCLP

Client Sub. #	Type Of Package	Analytes Used	Failed Metals	Batch ID	Standards Attached	How Was Data Transferred To LIMS	Raw Data Copied
✓ B-10427	Pkg 5 / ASP	Ag As Ba Cd Cr Pb Se		M2089003	YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP	water			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

*** Standard: 1 Rep: 1 Seq: 64 11:27:26 11 Feb 2002 ICP

Line	Conc.	Units	SD/RSD	1	2	3	4	5
Ag1	.0000	ppm		22782	25671	24560		
			Ave. Int. =	24338	S. D. =	1457		
Al3	.0000	ppm		4625	6903	5161		
			Ave. Int. =	5563	S. D. =	1191		
As2	.0000	ppm		327	1382	789		
			Ave. Int. =	833	S. D. =	529		
Ba1	.0000	ppm		602616	734437	655963		
			Ave. Int. =	664339	S. D. =	66308		
Ca3	.0000	ppm		47429	58369	52487		
			Ave. Int. =	52762	S. D. =	5475		
Cd1	.0000	ppm		-3044	-3463	-3785		
			Ave. Int. =	-3431	S. D. =	372		
Cr4	.0000	ppm		10321	10796	9397		
			Ave. Int. =	10171	S. D. =	711		
Fe2	.0000	ppm		-1586	-331	-153		
			Ave. Int. =	-690	S. D. =	781		
K 1	.0000	ppm		1120	1067	1150		
			Ave. Int. =	1112	S. D. =	42		
Mg4	.0000	ppm		5926	6273	7861		
			Ave. Int. =	6687	S. D. =	1032		
Mn[illegible]	.0000	ppm		535	1448	1447		
			Ave. Int. =	1143	S. D. =	527		
Na2	.0000	ppm		2168	6738	4401		
			Ave. Int. =	4436	S. D. =	2285		
Pb1	.0000	ppm		6214	11356	6122		
			Ave. Int. =	7897	S. D. =	2996		
Se4	.0000	ppm		-32	378	-1684		
			Ave. Int. =	-446	S. D. =	1092		
Zn3	.0000	ppm		324	2637	2136		
			Ave. Int. =	1699	S. D. =	1217		

SdeV.h
2/11/02

ine	Conc.	Units	SD/RSD	1	2	3	4	5

** Standard: 1 Rep: 2 Seq: 65 11:28:17 11 Feb 2002 ICP

g1	.0000	ppm	21052	26396	23898		
			Ave. Int. =	23782	S. D. =	2674	
l3	.0000	ppm	7400	5178	6699		
			Ave. Int. =	6426	S. D. =	1136	
s2	.0000	ppm	1165	1547	1170		
			Ave. Int. =	1294	S. D. =	219	
a1	.0000	ppm	616890	683073	673264		
			Ave. Int. =	657742	S. D. =	35717	
a3	.0000	ppm	50318	53054	53564		
			Ave. Int. =	52312	S. D. =	1746	
d1	.0000	ppm	-3951	-4208	-1746		
			Ave. Int. =	-3302	S. D. =	1353	
r4	.0000	ppm	8457	9863	10775		
			Ave. Int. =	9698	S. D. =	1168	
e2	.0000	ppm	-851	-901	-2268		
			Ave. Int. =	-1340	S. D. =	804	
1	.0000	ppm	1194	885	1060		
			Ave. Int. =	1046	S. D. =	155	
g4	.0000	ppm	5832	7520	6901		
			Ave. Int. =	6751	S. D. =	854	
n	.0000	ppm	1155	2001	2265		
			Ave. Int. =	1807	S. D. =	580	
a2	.0000	ppm	5149	4822	4547		
			Ave. Int. =	4839	S. D. =	301	
b1	.0000	ppm	7264	9573	4422		
			Ave. Int. =	7086	S. D. =	2580	
e4	.0000	ppm	1160	986	-53		
			Ave. Int. =	698	S. D. =	656	
n3	.0000	ppm	1694	913	2716		
			Ave. Int. =	1774	S. D. =	904	

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Standard: 2 Rep: 1 Seq: 66 11:31:46 11 Feb 2002 ICP

Ag1	1.000	ppm	1449467	1428755	1425365		
			Ave. Int. =	1434529	S. D. =	13047	
Al3	20.00	ppm	2098274	2055373	2078233		
			Ave. Int. =	2077293	S. D. =	21466	
As2	4.000	ppm	90159	90242	91108		
			Ave. Int. =	90503	S. D. =	526	
Ba1	20.00	ppm	457146981	447965882	451664580		
			Ave. Int. =	452259148	S. D. =	4619337	
Ca3	100.0	ppm	24652024	24558380	24700448		
			Ave. Int. =	24636951	S. D. =	72223	
Cd1	2.000	ppm	3880645	3867862	3899829		
			Ave. Int. =	3882779	S. D. =	16090	
Cr4	1.000	ppm	481020	482276	485826		
			Ave. Int. =	483041	S. D. =	2493	
Fe2	10.00	ppm	1761018	1746165	1754872		
			Ave. Int. =	1754018	S. D. =	7463	
K 1	100.0	ppm	76798	74151	74417		
			Ave. Int. =	75122	S. D. =	1458	
Mg4	100.0	ppm	3985910	3946159	3956973		
			Ave. Int. =	3963014	S. D. =	20553	
M[illegible]	1.500	ppm	1013902	1004673	1009707		
			Ave. Int. =	1009427	S. D. =	4621	
Na2	100.0	ppm	1850827	1799881	1794269		
			Ave. Int. =	1814992	S. D. =	31160	
Pb1	2.000	ppm	212672	213720	212348		
			Ave. Int. =	212913	S. D. =	717	
Se4	2.010	ppm	29624	28311	28975		
			Ave. Int. =	28970	S. D. =	657	
Zn3	2.000	ppm	683275	680844	681612		
			Ave. Int. =	681910	S. D. =	1243	

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Standard: 2 Rep: 2 Seq: 67 11:32:35 11 Feb 2002 ICP

Ag1	1.000	ppm		1445627	1445079	1444323		
			Ave. Int. =	1445010	S. D. =	655		
Al3	20.00	ppm		2092975	2064977	2086708		
			Ave. Int. =	2081553	S. D. =	14694		
As2	4.000	ppm		93602	88942	89585		
			Ave. Int. =	90710	S. D. =	2525		
Ba1	20.00	ppm		456679957	451437227	457164999		
			Ave. Int. =	455094061	S. D. =	3176184		
Ca3	100.0	ppm		24709579	24597685	24725188		
			Ave. Int. =	24677484	S. D. =	69547		
Cd1	2.000	ppm		3871650	3872827	3896679		
			Ave. Int. =	3880385	S. D. =	14123		
Cr4	1.000	ppm		487581	479923	501097		
			Ave. Int. =	489534	S. D. =	10721		
Fe2	10.00	ppm		1752154	1748414	1762872		
			Ave. Int. =	1754480	S. D. =	7504		
K 1	100.0	ppm		75424	73871	74982		
			Ave. Int. =	74759	S. D. =	800		
Mg4	100.0	ppm		3975928	3958087	3998987		
			Ave. Int. =	3977667	S. D. =	20505		
[illegible]	1.500	ppm		1016095	1010132	1021977		
			Ave. Int. =	1016068	S. D. =	5923		
Na2	100.0	ppm		1831399	1798945	1826819		
			Ave. Int. =	1819054	S. D. =	17565		
Pb1	2.000	ppm		215900	211314	220361		
			Ave. Int. =	215858	S. D. =	4524		
Se4	2.010	ppm		28121	30588	28115		
			Ave. Int. =	28941	S. D. =	1426		
Zn3	2.000	ppm		677299	677319	682359		
			Ave. Int. =	678992	S. D. =	2916		

	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: HIGH CHECK 08-1				Seq: 69		11:36:12 11 Feb 2002 ICP		
Ag1	.9916	ppm	.7318 %	.9982	.9838	.9926		
Al3	19.94	ppm	.8815 %	20.00	19.75	20.09		
As2	3.967	ppm	3.985 %	3.831	3.928	4.140		
Ba1	19.96	ppm	1.217 %	20.03	19.69	20.16		
Ca3	98.88	ppm	.3490 %	98.80	98.57	99.25		
Cd1	1.974	ppm	.1356 %	1.975	1.971	1.975		
Cr4	.9953	ppm	.5417 %	1.002	.9921	.9924		
Fe2	9.919	ppm	.6786 %	9.928	9.848	9.982		
K 1	99.96	ppm	1.596 %	101.1	98.14	100.6		
Mg4	99.29	ppm	.7084 %	99.33	98.57	99.98		
Mn1	1.488	ppm	.5003 %	1.493	1.479	1.491		
Na2	100.4	ppm	1.462 %	101.0	98.72	101.5		
Pb1	1.979	ppm	.4233 %	1.984	1.969	1.983		
Se4	1.953	ppm	3.319 %	1.898	2.025	1.937		
Zn3	1.966	ppm	.2014 %	1.971	1.965	1.963		
*** Sample ID: ICV			08-1	Seq: 70		11:39:35 11 Feb 2002 ICP		
Ag1	.5090	ppm	.6994 %	.5103	.5050	.5117		
Al3	10.13	ppm	.3857 %	10.16	10.15	10.09		
As2	2.064	ppm	1.430 %	2.039	2.056	2.096		
Ba1	10.06	ppm	.3614 %	10.04	10.10	10.03		
Ca3	50.67	ppm	.4249 %	50.47	50.64	50.89		
Cd1	1.043	ppm	.7178 %	1.035	1.044	1.049		
Cr4	.5121	ppm	.5693 %	.5146	.5127	.5089		
Fe2	5.144	ppm	.5636 %	5.111	5.163	5.159		
K 1	51.03	ppm	.7311 %	51.03	51.40	50.65		
Mg4	49.78	ppm	.3150 %	49.60	49.90	49.83		
Mn1	.7723	ppm	.2774 %	.7702	.7722	.7745		
Na2	51.47	ppm	.6402 %	51.44	51.82	51.16		
Pb1	1.058	ppm	2.330 %	1.058	1.033	1.083		
Se4	1.039	ppm	2.106 %	1.041	1.016	1.060		
Zn3	1.014	ppm	.0938 %	1.014	1.015	1.013		

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: ICB			08-1		Seq: 71	11:42:57 11 Feb 2002 ICP		
Ag1	.0019 L	ppm	14.91 %	.0018	.0017	.0023		
Al3	.0195 L	ppm	64.09 %	.0157	.0093	.0334		
As2	.0018 L	ppm	1239. %	-.0241	.0155	.0140		
Ba1	.0232	ppm	47.11 %	.0341	.0123	.0232		
Ca3	.1230 L	ppm	44.07 %	.1747	.0666	.1278		
Cd1	.0032 L	ppm	71.25 %	.0050	.0006	.0039		
Cr4	-.0001 L	ppm	-487.9%	-.0008	.0001	.0003		
Fe2	.0107 L	ppm	56.84 %	.0147	.0037	.0136		
K 1	.1182 L	ppm	49.02 %	.0676	.1056	.1815		
Mg4	.1080 L	ppm	68.60 %	.1918	.0514	.0808		
Mn1	.0014 L	ppm	85.58 %	.0025	.0001	.0015		
Na2	.1433 L	ppm	73.54 %	.2596	.0540	.1164		
Pb1	-.0048 L	ppm	-360.0%	-.0074	-.0205	.0136		
Se4	-.0177 L	ppm	-635.2%	-.0878	.1119	-.0771		
Zn3	.0026 L	ppm	68.55 %	.0030	.0006	.0041		
*** Sample ID: CRI			08-1		Seq: 73	11:46:19 11 Feb 2002 ICP		
Ag1	.0239	ppm	6.862 %	.0244	.0253	.0221		
Al3	.0075 L	ppm	277.6 %	-.0057	.0316	-.0033		
[illegible]	.0344 L	ppm	28.88 %	.0303	.0271	.0457		
Ba1	.0073 L	ppm	37.47 %	.0052	.0104	.0063		
Ca3	.0343 L	ppm	72.38 %	.0187	.0629	.0212		
Cd1	.0129	ppm	1.648 %	.0130	.0130	.0126		
Cr4	.0226	ppm	14.64 %	.0199	.0263	.0216		
Fe2	.0056 L	ppm	16.72 %	.0053	.0048	.0066		
K 1	.0849 L	ppm	145.1 %	.1463	.1652	-.0569		
Mg4	.0288 L	ppm	125.4 %	-.0112	.0593	.0384		
Mn1	.0347	ppm	4.363 %	.0356	.0355	.0329		
Na2	-.0103 L	ppm	-602.5%	.0150	.0352	-.0812		
Pb1	.1294	ppm	14.92 %	.1280	.1494	.1109		
Se4	-.0297 L	ppm	-120.4%	-.0699	-.0014	-.0178		
Zn3	.0481	ppm	3.197 %	.0474	.0498	.0469		

	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: ICSA			08-1		Seq: 74	11:49:42 11 Feb 2002 ICP		
Ag1	-.0005 L	ppm	-345.5%	.0013	-.0007	-.0021		
Al3	538.3 H	ppm	.9027 %	539.3	533.0	542.6		
As2	.0471 L	ppm	111.7 %	.1062	.0294	.0056		
Ba1	-.0233 L	ppm	-25.62%	-.0164	-.0264	-.0270		
Ca3	547.9	ppm	.8528 %	548.6	542.9	552.2		
Cd1	-.0011 L	ppm	-82.43%	-.0011	-.0019	-.0002		
Cr4	.0062 L	ppm	2.952 %	.0062	.0060	.0063		
Fe2	203.6 H	ppm	.8638 %	204.0	201.7	205.1		
K 1	.0251 L	ppm	903.0 %	.2864	-.1245	-.0864		
Mg4	568.1 H	ppm	.9487 %	569.4	562.3	572.8		
Mn1	-.0046 L	ppm	-12.84%	-.0039	-.0049	-.0050		
Na2	-.0360 L	ppm	-179.5%	.0226	-.0254	-.1052		
Pb1	.0156 L	ppm	147.4 %	.0264	.0311	-.0108		
Se4	-.0371 L	ppm	-345.3%	-.0619	-.1512	.1017		
Zn3	-.0096 L	ppm	-12.54%	-.0085	-.0109	-.0095		
*** Sample ID: ICSAB			08-1		Seq: 75	11:53:04 11 Feb 2002 ICP		
Ag1	1.118	ppm	.6096 %	1.120	1.111	1.124		
Al3	534.3 H	ppm	.5549 %	536.2	530.9	535.9		
As2	.0122 L	ppm	459.9 %	.0046	-.0396	.0716		
Ba1	.4746	ppm	.7543 %	.4767	.4705	.4766		
Ca3	546.3	ppm	.1970 %	545.3	546.2	547.5		
Cd1	1.053	ppm	.2455 %	1.052	1.056	1.052		
Cr4	.5183	ppm	.7257 %	.5171	.5153	.5225		
Fe2	203.0 H	ppm	.2661 %	203.1	202.4	203.4		
K 1	-.1161 L	ppm	-77.78%	-.0130	-.1810	-.1542		
Mg4	560.6 H	ppm	.2933 %	560.2	559.2	562.4		
Mn1	.5050	ppm	.4598 %	.5076	.5039	.5033		
Na2	.0116 L	ppm	105.8 %	.0007	.0248	.0092		
Pb1	1.107	ppm	.6441 %	1.099	1.112	1.110		
Se4	-.1467 L	ppm	-60.95%	-.0875	-.2496	-.1031		
Zn3	1.013	ppm	.7758 %	1.004	1.017	1.017		

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: CCV			08-1		Seq: 77	11:56:28 11 Feb 2002 ICP		
Ag1	.5135	ppm	1.552 %	.5044	.5168	.5193		
Al3	9.945	ppm	1.126 %	9.827	9.959	10.05		
As2	2.077	ppm	2.041 %	2.102	2.028	2.100		
Ba1	9.948	ppm	1.000 %	9.834	9.992	10.02		
Ca3	50.19	ppm	1.012 %	49.65	50.28	50.65		
Cd1	1.014	ppm	.8335 %	1.006	1.014	1.023		
Cr4	.5016	ppm	1.407 %	.4935	.5065	.5047		
Fe2	5.108	ppm	.9383 %	5.063	5.101	5.158		
K 1	50.20	ppm	1.082 %	49.75	50.05	50.81		
Mg4	48.45	ppm	1.216 %	47.79	48.62	48.94		
Mn1	.7517	ppm	1.258 %	.7416	.7532	.7604		
Na2	49.80	ppm	1.400 %	49.11	49.81	50.50		
Pb1	1.062	ppm	.3088 %	1.059	1.065	1.061		
Se4	1.051	ppm	5.651 %	.9855	1.102	1.065		
Zn3	.9869	ppm	1.303 %	.9721	.9939	.9948		
*** Sample ID: CCB			08-1		Seq: 78	11:59:52 11 Feb 2002 ICP		
Ag1	.0017 L	ppm	104.3 %	.0021	-.0002	.0033		
[illegible]	1.302	ppm	12.30 %	1.191	1.485	1.229		
[illegible]	-.0171 L	ppm	-77.56%	-.0321	-.0126	-.0067		
Ba1	-.0077 L	ppm	-28.24%	-.0098	-.0055	-.0078		
Ca3	1.373	ppm	11.56 %	1.281	1.557	1.283		
Cd1	.0007 L	ppm	138.3 %	-.0001	.0018	.0005		
Cr4	-.0017 L	ppm	-110.8%	-.0000	-.0013	-.0037		
Fe2	.5680	ppm	11.10 %	.5350	.6407	.5283		
K 1	-.0809 L	ppm	-322.3%	.2139	-.1749	-.2818		
Mg4	1.301	ppm	14.50 %	1.169	1.517	1.217		
Mn1	-.0007 L	ppm	-89.26%	-.0014	-.0002	-.0006		
Na2	-.1037 L	ppm	-18.91%	-.1225	-.1052	-.0834		
Pb1	-.0039 L	ppm	-343.6%	.0107	-.0069	-.0154		
Se4	-.0184 L	ppm	-403.6%	-.1017	.0412	.0053		
Zn3	-.0003 L	ppm	-282.5%	-.0013	.0005	-.0001		

*** Sample ID: PBT 2/1 08-1 Seq: 79 12:03:16 11 Feb 2002 ICP
M2680003

.e	Conc.	Units	SD/RSD	1	2	3	4	5
Ag1	.0007 L	ppm	112.4 %	-.0001	.0015	.0008		
Al3	.0924 L	ppm	80.47 %	.0320	.0697	.1754		
As2	.0049 L	ppm	462.4 %	.0309	-.0041	-.0120		
Ba1	-.0247 L	ppm	-7.307%	-.0260	-.0255	-.0226		
Ca3	.0079 L	ppm	1157. %	-.0561	-.0330	.1129		
Cd1	-.0030 L	ppm	-14.56%	-.0028	-.0034	-.0026		
Cr4	-.0024 L	ppm	-96.60%	-.0018	-.0050	-.0005		
Fe2	.0765 L	ppm	44.78 %	.0520	.0620	.1157		
K 1	-.1327 L	ppm	-82.28%	-.2383	-.1395	-.0203		
Mg4	-.0465 L	ppm	-187.6%	-.1106	-.0817	.0528		
Mn1	-.0028 L	ppm	-15.98%	-.0029	-.0033	-.0024		
Na2	-.0916 L	ppm	-11.50%	-.0930	-.0804	-.1013		
Pb1	.0136 L	ppm	61.78 %	.0208	.0044	.0157		
Se4	-.0080 L	ppm	-225.2%	.0125	-.0211	-.0154		
Zn3	.0061 L	ppm	27.97 %	.0076	.0043	.0064		

*** Sample ID: LCST 08-1 Seq: 81 12:06:40 11 Feb 2002 ICP
1/5

Ag1	1.156	ppm	.6011 %	1.159	1.161	1.148		
	.6031	ppm	7.389 %	.5886	.6531	.5676		
	1.175	ppm	4.972 %	1.114	1.230	1.181		
Ba1	1.022	ppm	.1969 %	1.020	1.024	1.022		
Ca3	.5854	ppm	8.497 %	.5510	.6424	.5628		
Cd1	.2526	ppm	.8872 %	.2550	.2521	.2506		
Cr4	1.177	ppm	.3504 %	1.178	1.181	1.173		
Fe2	.2524	ppm	8.802 %	.2324	.2763	.2485		
K 1	.0406 L	ppm	347.1 %	.1788	.0460	-.1030		
Mg4	.5569	ppm	11.99 %	.5090	.6331	.5284		
Mn1	.4514	ppm	.5069 %	.4505	.4540	.4496		
Na2	-.0881 L	ppm	-26.03%	-.0653	-.0879	-.1112		
Pb1	1.202	ppm	.9966 %	1.196	1.195	1.216		
Se4	.2736 L	ppm	43.42 %	.3624	.3198	.1387		
Zn3	.4755	ppm	.4473 %	.4731	.4768	.4767		

	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: LCST			08-1 M2680003	Seq: 82		12:10:04 11 Feb 2002 ICP		
Ag1	5.089 H	ppm	.1483 %	5.098	5.086	5.084		
Al3	.0035 L	ppm	187.1 %	-.0005	-.0001	.0110		
As2	5.116 H	ppm	.8452 %	5.163	5.109	5.077		
Ba1	4.783	ppm	.6878 %	4.818	4.779	4.753		
Ca3	-.1158 L	ppm	-0.453%	-.1164	-.1154	-.1156		
Cd1	1.074	ppm	.6377 %	1.066	1.077	1.079		
Cr4	5.131	ppm	.1731 %	5.122	5.133	5.139		
Fe2	.0011 L	ppm	285.6 %	.0018	.0037	-.0023		
K 1	-.2099 L	ppm	-37.06%	-.1381	-.2925	-.1991		
Mg4	-.1106 L	ppm	-23.01%	-.1075	-.1375	-.0869		
Mn1	2.007	ppm	.1450 %	2.007	2.004	2.010		
Na2	-.0846 L	ppm	-45.84%	-.1134	-.0405	-.0998		
Pb1	5.304	ppm	.1025 %	5.298	5.308	5.306		
Se4	1.007	ppm	5.908 %	.9918	.9560	1.072		
Zn3	2.000	ppm	.5141 %	1.989	2.004	2.009		
*** Sample ID: 526396			08-1 1/10	Seq: 83		12:13:28 11 Feb 2002 ICP		
Ag1	-.0002 L	ppm	-679.8%	-.0004	-.0013	.0011		
Al3	.0415 L	ppm	29.74 %	.0324	.0556	.0367		
[illegible]	.3115 L	ppm	5.203 %	.3070	.3294	.2980		
[illegible]	-.0222 L	ppm	-5.316%	-.0236	-.0213	-.0218		
Ca3	4.504	ppm	1.057 %	4.534	4.530	4.449		
Cd1	.0351	ppm	5.796 %	.0374	.0341	.0337		
Cr4	.0004 L	ppm	1034. %	-.0034	-.0001	.0047		
Fe2	645.5 H	ppm	1.204 %	653.0	646.0	637.5		
K 1	.2346 L	ppm	88.24 %	.1809	.4632	.0598		
Mg4	2.232	ppm	1.404 %	2.195	2.250	2.249		
Mn1	4.594	ppm	1.482 %	4.663	4.592	4.527		
Na2	161.1	ppm	.8535 %	162.7	160.5	160.2		
Pb1	.0383 L	ppm	60.46 %	.0194	.0641	.0314		
Se4	.0367 L	ppm	54.53 %	.0411	.0148	.0541		
Zn3	576.2 H	ppm	1.549 %	584.2	577.8	566.5		

*** Sample ID: 526405 08-1 Seq: 85 12:16:52 11 Feb 2002 ICP

1/10

Line	Conc.	Units	SD/RSD	1	2	3	4	5
Ag1	.0084 L	ppm	17.58 %	.0101	.0074	.0078		
Al3	.1053	ppm	47.83 %	.1120	.1519	.0519		
As2	.0224 L	ppm	73.64 %	.0079	.0404	.0189		
Ba1	.3947	ppm	2.371 %	.4032	.3962	.3847		
Ca3	34.72	ppm	1.783 %	35.41	34.52	34.22		
Cd1	-.0007 L	ppm	-88.24%	.0000	-.0010	-.0012		
Cr4	.0022 L	ppm	249.4 %	.0062	.0046	-.0041		
Fe2	1.622	ppm	29.43 %	1.763	2.013	1.090		
K 1	.9136 L	ppm	10.96 %	.9449	.9943	.8015		
Mg4	.2821 L	ppm	21.62 %	.3154	.3192	.2117		
Mn1	.2378	ppm	2.919 %	.2440	.2389	.2303		
Na2	155.6	ppm	1.819 %	158.4	155.7	152.7		
Pb1	.0460 L	ppm	8.995 %	.0457	.0502	.0420		
Se4	.0122 L	ppm	563.0 %	.0426	-.0662	.0601		
Zn3	5.313	ppm	7.397 %	5.526	5.554	4.860		

*** Sample ID: 526406 08-1 Seq: 86 12:20:16 11 Feb 2002 ICP

1/10

Line	Conc.	Units	SD/RSD	1	2	3	4	5
Ag1	.0036 L	ppm	48.20 %	.0049	.0016	.0044		
A[illegible]	-.0122 L	ppm	-97.72%	-.0099	-.0016	-.0252		
A[illegible]	.0482 L	ppm	8.792 %	.0531	.0464	.0452		
Ba1	-.0096 L	ppm	-4.232%	-.0097	-.0092	-.0100		
Ca3	85.92	ppm	2.356 %	88.17	85.38	84.23		
Cd1	.0261	ppm	10.00 %	.0283	.0268	.0232		
Cr4	-.0021 L	ppm	-132.6%	.0005	-.0018	-.0050		
Fe2	.0562 L	ppm	82.50 %	.0046	.0944	.0697		
K 1	1.610 L	ppm	6.470 %	1.659	1.681	1.491		
Mg4	7.271	ppm	1.749 %	7.413	7.231	7.168		
Mn1	1.290	ppm	2.431 %	1.326	1.274	1.270		
Na2	356.4 H	ppm	1.831 %	363.0	356.3	349.9		
Pb1	.0686	ppm	3.647 %	.0710	.0660	.0687		
Se4	.1024 L	ppm	70.80 %	.1811	.0877	.0384		
Zn3	161.0 H	ppm	2.352 %	165.2	160.0	157.8		

	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 526407			08-1 1/10	Seq: 87		12:23:41 11 Feb 2002 ICP		
Ag1	-.0001 L	ppm	-1821.%	-.0023	-.0011	.0029		
Al3	.0083 L	ppm	293.2 %	.0015	-.0118	.0351		
As2	-.0032 L	ppm	-1299.%	.0414	-.0396	-.0113		
Ba1	-.0090 L	ppm	-21.36%	-.0087	-.0111	-.0072		
Ca3	25.44	ppm	2.388 %	26.14	25.14	25.04		
Cd1	.0029 L	ppm	46.12 %	.0029	.0016	.0043		
Cr4	.0014 L	ppm	233.3 %	.0010	-.0017	.0048		
Fe2	.2494	ppm	93.48 %	.2283	.0275	.4925		
K 1	5.373	ppm	2.022 %	5.449	5.421	5.249		
Mg4	4.886	ppm	2.233 %	4.999	4.877	4.781		
Mn1	.7854	ppm	1.440 %	.7984	.7779	.7800		
Na2	590.4 H	ppm	1.644 %	601.4	586.7	583.0		
Pb1	-.0017 L	ppm	-609.2%	.0020	-.0133	.0063		
Se4	-.0487 L	ppm	-30.35%	-.0345	-.0640	-.0475		
Zn3	25.57	ppm	2.263 %	26.21	25.08	25.42		
*** Sample ID: 526408			08-1 1/10	Seq: 89		12:27:04 11 Feb 2002 ICP		
Ag1	.0006 L	ppm	503.3 %	.0018	.0026	-.0027		
Al3	.0259 L	ppm	117.0 %	.0210	.0584	-.0017		
As2	-.0227 L	ppm	-87.30%	-.0009	-.0276	-.0396		
Ba1	-.0143 L	ppm	-4.210%	-.0145	-.0136	-.0147		
Ca3	13.31	ppm	1.531 %	13.52	13.29	13.11		
Cd1	-.0005 L	ppm	-218.4%	-.0018	.0005	-.0003		
Cr4	.0029 L	ppm	116.4 %	.0032	.0062	-.0006		
Fe2	.3428	ppm	16.42 %	.3046	.4074	.3163		
K 1	6.353	ppm	4.082 %	6.589	6.396	6.076		
Mg4	2.837	ppm	1.873 %	2.826	2.895	2.791		
Mn1	.3200	ppm	1.264 %	.3241	.3199	.3160		
Na2	588.6 H	ppm	.9455 %	595.0	585.0	585.9		
Pb1	.0105 L	ppm	224.2 %	.0097	.0343	-.0126		
Se4	.0230 L	ppm	379.0 %	.1190	.0015	-.0514		
Zn3	7.446	ppm	1.549 %	7.496	7.527	7.314		

	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 526409			08-1 1/10	Seq: 90		12:30:27 11 Feb 2002 ICP		
Ag1	.0001 L	ppm	2373. %	-.0011	.0034	-.0019		
Al3	.0170 L	ppm	51.13 %	.0257	.0084	.0169		
As2	.0166 L	ppm	263.3 %	-.0266	.0157	.0607		
Ba1	.0339	ppm	4.737 %	.0358	.0329	.0331		
Ca3	81.05	ppm	3.077 %	83.79	80.44	78.91		
Cd1	-.0016 L	ppm	-14.41%	-.0016	-.0019	-.0014		
Cr4	.0041 L	ppm	102.6 %	-.0006	.0054	.0074		
Fe2	.2675	ppm	16.53 %	.2972	.2167	.2885		
K 1	2.391	ppm	3.021 %	2.459	2.399	2.316		
Mg4	.5396	ppm	4.704 %	.5626	.5438	.5123		
Mn1	.0091 L	ppm	13.06 %	.0100	.0077	.0095		
Na2	172.0	ppm	2.818 %	177.5	169.7	168.7		
Pb1	-.0019 L	ppm	-628.5%	-.0070	.0117	-.0104		
Se4	-.0279 L	ppm	-179.1%	.0233	-.0305	-.0765		
Zn3	.4895	ppm	15.13 %	.5368	.4041	.5275		
*** Sample ID: 526410			08-1 1/10	Seq: 91		12:33:50 11 Feb 2002 ICP		
Ag1	-.0003 L	ppm	-1974.%	.0035	-.0063	.0019		
Al3	.0355 L	ppm	22.32 %	.0336	.0287	.0443		
[illegible]	-.0381 L	ppm	-149.5%	.0275	-.0746	-.0671		
[illegible]	.0709	ppm	1.043 %	.0717	.0705	.0704		
Ca3	10.77	ppm	.7440 %	10.86	10.75	10.70		
Cd1	-.0026 L	ppm	-82.52%	-.0001	-.0037	-.0038		
Cr4	-.0009 L	ppm	-46.36%	-.0013	-.0005	-.0008		
Fe2	.2372	ppm	9.686 %	.2636	.2259	.2221		
K 1	.1806 L	ppm	36.89 %	.1973	.1072	.2373		
Mg4	.5018	ppm	2.915 %	.5083	.5120	.4850		
Mn1	.0419	ppm	1.804 %	.0428	.0413	.0417		
Na2	156.0	ppm	.9459 %	157.7	155.2	155.1		
Pb1	.0067 L	ppm	121.8 %	-.0026	.0099	.0127		
Se4	-.0342 L	ppm	-299.2%	-.1492	.0001	.0466		
Zn3	.8143	ppm	3.439 %	.8445	.8092	.7893		

L	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: CCV			08-1	Seq: 93		12:37:13 11 Feb 2002 ICP		
Ag1	.5156	ppm	.9105 %	.5209	.5121	.5137		
Al3	10.14	ppm	.3577 %	10.18	10.11	10.12		
As2	2.146	ppm	1.110 %	2.129	2.173	2.135		
Ba1	10.01	ppm	.2623 %	10.03	10.03	9.984		
Ca3	51.51	ppm	.2081 %	51.43	51.46	51.63		
Cd1	1.062	ppm	.4210 %	1.059	1.059	1.067		
Cr4	.5186	ppm	.9348 %	.5220	.5130	.5207		
Fe2	5.214	ppm	.1823 %	5.223	5.204	5.215		
K 1	51.46	ppm	1.219 %	52.00	51.62	50.77		
Mg4	50.20	ppm	.3262 %	50.19	50.36	50.04		
Mn1	.7763	ppm	.3964 %	.7734	.7795	.7761		
Na2	51.39	ppm	.4861 %	51.68	51.25	51.26		
Pb1	1.074	ppm	2.202 %	1.047	1.089	1.087		
Se4	1.064	ppm	13.26 %	1.050	1.211	.9298		
Zn3	1.025	ppm	.3412 %	1.021	1.028	1.026		
*** Sample ID: CCB			08-1	Seq: 94		12:40:36 11 Feb 2002 ICP		
Ag1	.0018 L	ppm	117.4 %	.0018	.0041	-.0003		
Al3	.0106 L	ppm	416.5 %	.0454	.0258	-.0393		
[illegible]	-.0066 L	ppm	-452.1%	.0242	-.0084	-.0357		
Ba1	-.0195 L	ppm	-4.844%	-.0193	-.0206	-.0187		
Ca3	.1314 L	ppm	29.79 %	.1614	.0871	.1457		
Cd1	-.0017 L	ppm	-16.91%	-.0019	-.0014	-.0018		
Cr4	-.0025 L	ppm	-90.14%	.0001	-.0038	-.0038		
Fe2	.1343	ppm	12.32 %	.1466	.1155	.1408		
K 1	-.0650 L	ppm	-183.9%	.0699	-.1074	-.1576		
Mg4	-.0837 L	ppm	-26.96%	-.1063	-.0612	-.0835		
Mn1	.0005 L	ppm	162.0 %	.0012	-.0004	.0007		
Na2	1.686	ppm	14.82 %	1.834	1.397	1.825		
Pb1	.0119 L	ppm	105.7 %	.0014	.0258	.0084		
Se4	-.0356 L	ppm	-48.94%	-.0167	-.0510	-.0390		
Zn3	.2230	ppm	12.58 %	.2484	.1929	.2276		

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 526411			08-1	Seq: 95		12:43:59 11 Feb 2002 ICP		
			1/10					
Ag1	.0037 L	ppm	86.17 %	.0032	.0008	.0071		
Al3	2.100	ppm	1.928 %	2.146	2.071	2.082		
As2	.1964 L	ppm	9.580 %	.1932	.1795	.2167		
Ba1	-.0087 L	ppm	-26.86%	-.0062	-.0108	-.0092		
Ca3	1.918	ppm	3.144 %	1.986	1.873	1.894		
Cd1	.1829	ppm	.2128 %	.1828	.1834	.1826		
Cr4	2.376	ppm	.7777 %	2.397	2.363	2.369		
Fe2	515.1 H	ppm	.8320 %	520.0	512.5	512.7		
K 1	1.655 L	ppm	7.697 %	1.755	1.512	1.699		
Mg4	2.194	ppm	2.494 %	2.255	2.177	2.150		
Mn1	7.139	ppm	1.059 %	7.227	7.096	7.095		
Na2	200.4	ppm	1.613 %	204.1	198.3	198.8		
Pb1	.1202	ppm	15.49 %	.1292	.1327	.0988		
Se4	.0179 L	ppm	563.7 %	.0141	-.0809	.1204		
Zn3	550.3 H	ppm	.8206 %	555.5	548.4	547.1		
*** Sample ID: 526413			08-1	Seq: 97		12:47:23 11 Feb 2002 ICP		
			1/10					
Ag1	.0012 L	ppm	193.6 %	.0008	.0037	-.0009		
[illegible]	.0022 L	ppm	903.8 %	.0051	.0203	-.0189		
[illegible]	.0738 L	ppm	53.91 %	.1137	.0735	.0341		
Ba1	-.0099 L	ppm	-10.05%	-.0088	-.0102	-.0106		
Ca3	25.85	ppm	.4993 %	25.87	25.96	25.71		
Cd1	.0319	ppm	5.129 %	.0302	.0321	.0334		
Cr4	.0054 L	ppm	33.02 %	.0063	.0067	.0034		
Fe2	166.6	ppm	.2722 %	167.1	166.5	166.2		
K 1	.3133 L	ppm	68.16 %	.1387	.5513	.2498		
Mg4	6.330	ppm	.3772 %	6.326	6.309	6.356		
Mn1	3.084	ppm	.0850 %	3.084	3.086	3.081		
Na2	218.2	ppm	.8240 %	219.4	216.1	219.1		
Pb1	.0305 L	ppm	37.32 %	.0175	.0355	.0386		
Se4	.0753 L	ppm	61.66 %	.0851	.0248	.1161		
Zn3	360.1 H	ppm	.5547 %	360.4	361.9	358.0		

*** Sample ID: 526413D 08-1 Seq: 98 12:50:47 11 Feb 2002 ICP

e	Conc.	Units	SD/RSD	1	2	3	4	5
			1/10					
Ag1	.0006 L	ppm	412.5 %	-.0020	.0006	.0032		
Al3	-.0193 L	ppm	-43.09%	-.0247	-.0235	-.0097		
As2	~~.1073~~ L	ppm 0.0069	68.14 %	.0456	.0882	~~.1861~~		
Ba1	-.0154 L	ppm	-2.865%	-.0149	-.0154	-.0158		
Ca3	24.87	ppm	.5594 %	25.03	24.81	24.78		
Cd1	.0302	ppm	2.663 %	.0308	.0306	.0293		
Cr4	.0010 L	ppm	165.2 %	.0002	.0028	-.0001		
Fe2	143.0	ppm	.5998 %	143.8	142.1	143.0		
K 1	.2094 L	ppm	100.8 %	.1023	.4525	.0734		
Mg4	6.258	ppm	.7466 %	6.310	6.243	6.220		
Mn1	3.105	ppm	.3432 %	3.114	3.093	3.107		
Na2	219.0	ppm	1.004 %	219.5	216.6	220.9		
Pb1	.0429 L	ppm	19.06 %	.0450	.0499	.0339		
Se4	-.0475 L	ppm	-57.15%	-.0536	-.0178	-.0709		
Zn3	352.6 H	ppm	.5954 %	355.0	351.5	351.3		

CK 2/11/02

*** Sample ID: 526413S 08-1 Seq: 99 12:54:11 11 Feb 2002 ICP

			1/10					
Ag1	.5659	ppm	1.206 %	.5720	.5671	.5585		
Al3	-.0294 L	ppm	-110.8%	-.0480	.0082	-.0484		
[illegible]	.6875	ppm	6.544 %	.7278	.6957	.6390		
[illegible]	.0029 L	ppm	10.44 %	.0031	.0031	.0026		
Ca3	25.66	ppm	1.123 %	25.94	25.68	25.36		
Cd1	.1535	ppm	2.644 %	.1578	.1527	.1498		
Cr4	.5771	ppm	1.296 %	.5797	.5829	.5686		
Fe2	165.0	ppm	.7485 %	166.2	165.0	163.8		
K 1	.1949 L	ppm	53.00 %	.2956	.2000	.0892		
Mg4	6.279	ppm	1.332 %	6.345	6.185	6.306		
Mn1	3.278	ppm	.9467 %	3.309	3.279	3.247		
Na2	218.4	ppm	.6275 %	219.9	218.0	217.3		
Pb1	.6506	ppm	8.192 %	.6982	.6607	.5930		
Se4	.1351 L	ppm	73.28 %	.1397	.0339	.2317		
Zn3	353.5 H	ppm	.9877 %	356.6	354.1	349.7		

Ba not spk'd
Report w/out Ba
MSPK
CK 2/11/02

*** Sample ID: 526413L 08-1 Seq: 101 12:57:35 11 Feb 2002 ICP

e	Conc.	Units	SD/RSD	1	2	3	4	5
			1/10					
Ag1	.0010	L ppm	150.6 %	-.0007	.0019	.0018		
Al3	-.0166	L ppm	-42.86%	-.0105	-.0150	-.0244		
As2	-.0048	L ppm	-466.7%	-.0112	.0203	-.0236		
Ba1	-.0221	L ppm	-1.602%	-.0218	-.0225	-.0220		
Ca3	5.250	ppm	.4487 %	5.273	5.226	5.250		
Cd1	.0040	L ppm	9.500 %	.0044	.0037	.0038		
Cr4	.0021	L ppm	130.8 %	-.0007	.0023	.0047		
Fe2	35.54	ppm	.4948 %	35.64	35.34	35.65		
K 1	-.0716	L ppm	-65.48%	-.0270	-.0674	-.1205		
Mg4	1.232	ppm	1.034 %	1.232	1.244	1.219		
Mn1	.6489	ppm	.7053 %	.6542	.6461	.6465		
Na2	46.56	ppm	.8680 %	46.67	46.11	46.90		
Pb1	.0108	L ppm	95.42 %	.0147	-.0009	.0187		
Se4	-.0209	L ppm	-303.8%	.0111	-.0941	.0203		
Zn3	73.48	H ppm	.3692 %	73.66	73.17	73.60		

*** Sample ID: MTHD BLNK 08-1 Seq: 102 13:00:59 11 Feb 2002 ICP

Ag1	.0000	L ppm	6647. %	.0001	.0016	-.0016		
Al3	-.0020	L ppm	-529.1%	-.0071	-.0094	.0104		
As2	-.0035	L ppm	-970.7%	.0349	-.0167	-.0286		
[illegible]	.2636	ppm	1.169 %	.2601	.2650	.2657		
Ca3	-.1024	L ppm	-3.374%	-.1028	-.1056	-.0987		
Cd1	-.0022	L ppm	-22.58%	-.0023	-.0017	-.0027		
Cr4	.0001	L ppm	1193. %	.0001	.0016	-.0013		
Fe2	.0845	L ppm	1.435 %	.0832	.0845	.0857		
K 1	.7507	L ppm	27.44 %	.5910	.9832	.6778		
Mg4	-.1440	L ppm	-29.21%	-.1578	-.1774	-.0967		
Mn1	-.0033	L ppm	-2.203%	-.0034	-.0033	-.0032		
Na2	1394.	H ppm	.8800 %	1380.	1397.	1404.		
Pb1	.0081	L ppm	69.11 %	.0145	.0052	.0045		
Se4	.0067	L ppm	1669. %	.1182	-.1059	.0078		
Zn3	.2729	ppm	.9690 %	.2700	.2734	.2752		

*** Sample ID: PBT 2/5 08-1 Seq: 103 13:04:24 11 Feb 2002 ICP
M2530074

e	Conc.	Units	SD/RSD	1	2	3	4	5
Ag1	-.0010 L	ppm	-38.98%	-.0010	-.0006	-.0013		
Al3	-.0214 L	ppm	-37.05%	-.0149	-.0190	-.0302		
As2	-.0093 L	ppm	-188.8%	-.0248	.0097	-.0128		
Ba1	-.0272 L	ppm	-0.064%	-.0272	-.0271	-.0272		
Ca3	-.1264 L	ppm	-2.343%	-.1233	-.1292	-.1266		
Cd1	-.0026 L	ppm	-38.93%	-.0037	-.0017	-.0024		
Cr4	-.0016 L	ppm	-215.1%	.0013	-.0007	-.0053		
Fe2	-.0089 L	ppm	-40.45%	-.0113	-.0107	-.0048		
K 1	-.0871 L	ppm	-44.63%	-.1232	-.0920	-.0460		
Mg4	-.1230 L	ppm	-16.02%	-.1090	-.1144	-.1455		
Mn1	-.0032 L	ppm	-20.16%	-.0027	-.0039	-.0031		
Na2	-.1661 L	ppm	-42.34%	-.0928	-.1726	-.2330		
Pb1	-.0011 L	ppm	-612.4%	.0021	.0035	-.0089		
Se4	-.0619 L	ppm	-163.7%	-.0508	-.1684	.0334		
Zn3	.0012 L	ppm	197.1 %	.0033	-.0014	.0018		

*** Sample ID: LCST 08-1 Seq: 105 13:07:48 11 Feb 2002 ICP
M2530074

Ag1	.6597	ppm	1.396 %	.6492	.6665	.6634
Al3	82.11	ppm	.6816 %	81.85	82.76	81.73
As2	1.943	ppm	1.321 %	1.916	1.948	1.967
[illegible]	1.680	ppm	.5733 %	1.675	1.691	1.673
Ca3	105.1	ppm	.1334 %	105.0	105.1	105.3
Cd1	.6830	ppm	.4020 %	.6802	.6831	.6856
Cr4	1.419	ppm	.4247 %	1.412	1.423	1.422
Fe2	112.3	ppm	.4240 %	111.9	112.9	112.2
K 1	35.21	ppm	1.102 %	35.00	35.66	34.98
Mg4	26.23	ppm	.2443 %	26.21	26.31	26.19
Mn1	3.896	ppm	.3292 %	3.883	3.909	3.895
Na2	9.821	ppm	1.262 %	9.786	9.959	9.718
Pb1	1.249	ppm	2.474 %	1.254	1.216	1.277
Se4	1.610	ppm	2.712 %	1.616	1.563	1.650
Zn3	2.728	ppm	.3398 %	2.734	2.731	2.717

L	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 526404			08-1	Seq: 106		13:11:13 11 Feb 2002 ICP		
			1/10					
Ag1	.0000 L	ppm	14120 %	.0057	-.0032	-.0023		
Al3	1.848	ppm	.3119 %	1.855	1.844	1.846		
As2	.0089 L	ppm	53.30 %	.0137	.0042	.0088		
Ba1	.1037	ppm	.3293 %	.1035	.1036	.1041		
Ca3	5.742	ppm	.8780 %	5.799	5.705	5.722		
Cd1	.0003 L	ppm	119.5 %	.0002	.0000	.0007		
Cr4	.0221	ppm	17.93 %	.0250	.0176	.0238		
Fe2	20.10	ppm	.3515 %	20.18	20.06	20.06		
K 1	4.297	ppm	3.140 %	4.336	4.408	4.147		
Mg4	.9411	ppm	1.576 %	.9263	.9559	.9410		
Mn1	.2156	ppm	1.146 %	.2184	.2149	.2136		
Na2	2.558	ppm	19.44 %	2.921	2.761	1.991		
Pb1	.1731	ppm	18.70 %	.2094	.1630	.1470		
Se4	-.0292 L	ppm	-209.1%	.0137	-.0990	-.0022		
Zn3	.9422	ppm	11.87 %	1.024	.9875	.8148		
*** Sample ID: 526404D			08-1	Seq: 107		13:14:36 11 Feb 2002 ICP		
			1/0					
Ag1	-.0005 L	ppm	-268.7%	-.0022	.0006	.0000		
Al3	1.581	ppm	1.157 %	1.568	1.573	1.602		
[illegible]	-.0064 L	ppm	-255.3%	-.0049	-.0234	.0092		
Ba1	.0730	ppm	.3364 %	.0731	.0727	.0731		
Ca3	4.959	ppm	.3806 %	4.975	4.938	4.964		
Cd1	-.0008 L	ppm	-156.6%	-.0022	-.0005	.0003		
Cr4	.0139	ppm	5.701 %	.0132	.0148	.0137		
Fe2	17.88	ppm	.3431 %	17.93	17.90	17.81		
K 1	4.105	ppm	1.155 %	4.114	4.053	4.147		
Mg4	.7833	ppm	3.940 %	.7611	.8185	.7701		
Mn1	.1683	ppm	.5872 %	.1694	.1675	.1680		
Na2	1.294	ppm	21.93 %	1.035	1.249	1.597		
Pb1	.1436	ppm	14.08 %	.1633	.1444	.1229		
Se4	.0213 L	ppm	357.2 %	.0963	.0234	-.0558		
Zn3	.6253	ppm	12.67 %	.5479	.6219	.7062		

	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: CCV			08-1	Seq: 109		13:18:01 11 Feb 2002 ICP		
Ag1	.5001	ppm	1.238 %	.4937	.5004	.5061		
Al3	9.926	ppm	.6581 %	9.901	9.877	10.00		
As2	2.015	ppm	.7872 %	2.028	1.997	2.020		
Ba1	9.763	ppm	.3034 %	9.749	9.742	9.796		
Ca3	50.31	ppm	.8375 %	50.24	49.92	50.76		
Cd1	1.049	ppm	1.022 %	1.047	1.040	1.061		
Cr4	.5068	ppm	1.445 %	.5109	.4983	.5111		
Fe2	5.101	ppm	.9871 %	5.082	5.063	5.158		
K 1	50.36	ppm	.9764 %	50.84	49.86	50.37		
Mg4	49.57	ppm	.6935 %	49.52	49.26	49.94		
Mn1	.7658	ppm	.6405 %	.7638	.7622	.7714		
Na2	50.90	ppm	.2015 %	51.00	50.80	50.91		
Pb1	1.051	ppm	2.232 %	1.059	1.024	1.069		
Se4	.9391	ppm	12.84 %	.9284	.8242	1.065		
Zn3	.9919	ppm	.4540 %	.9910	.9879	.9968		
*** Sample ID: CCB			08-1	Seq: 110		13:21:25 11 Feb 2002 ICP		
Ag1	.0006 L	ppm	305.8 %	.0006	-.0012	.0024		
Al3	.0547 L	ppm	23.06 %	.0680	.0530	.0430		
As2	-.0305 L	ppm	-73.38%	-.0298	-.0085	-.0532		
[illegible]	-.0185 L	ppm	-4.671%	-.0194	-.0176	-.0184		
Ca3	.0118 L	ppm	181.8 %	.0032	.0361	-.0040		
Cd1	-.0018 L	ppm	-40.03%	-.0026	-.0012	-.0017		
Cr4	.0002 L	ppm	1908. %	.0021	.0017	-.0033		
Fe2	.2744	ppm	10.59 %	.2568	.3080	.2586		
K 1	-.0901 L	ppm	-189.6%	.0838	-.0964	-.2575		
Mg4	-.0787 L	ppm	-18.07%	-.0667	-.0945	-.0750		
Mn1	.0032 L	ppm	15.13 %	.0030	.0037	.0028		
Na2	.8290	ppm	13.88 %	.7678	.9618	.7575		
Pb1	-.0093 L	ppm	-103.9%	.0015	-.0173	-.0122		
Se4	.0223 L	ppm	222.9 %	.0693	.0274	-.0297		
Zn3	.2403	ppm	11.07 %	.2291	.2707	.2211		

*** Sample ID: 526404S 08-1 Seq: 111 13:24:50 11 Feb 2002 ICP

e	Conc.	Units	SD/RSD	1	2	3	4	5
			1/10					
Ag1	.2389	ppm	.2274 %	.2384	.2389	.2395		
Al3	1.186	ppm	2.909 %	1.221	1.185	1.152		
As2	.5800	ppm	7.278 %	.5313	.6070	.6016		
Ba1	.5600	ppm	.6875 %	.5572	.5644	.5584		
Ca3	4.161	ppm	.2170 %	4.164	4.168	4.150		
Cd1	.1224	ppm	.4870 %	.1218	.1225	.1230		
Cr4	.5802	ppm	.8433 %	.5809	.5751	.5848		
Fe2	15.34	ppm	.0171 %	15.34	15.34	15.35		
K 1	3.745	ppm	2.732 %	3.635	3.837	3.765		
Mg4	.6235	ppm	5.288 %	.6518	.6313	.5873		
Mn1	.3542	ppm	.4084 %	.3538	.3530	.3558		
Na2	1.240	ppm	11.86 %	1.351	1.296	1.073		
Pb1	.7376	ppm	2.108 %	.7451	.7197	.7479		
Se4	.0092 L	ppm	727.7 %	-.0489	-.0055	.0820		
Zn3	.7529	ppm	4.507 %	.7886	.7489	.7211		

*** Sample ID: 526404L 08-1 Seq: 113 13:28:14 11 Feb 2002 ICP

			1/10					
Ag1	.0015 L	ppm	43.31 %	.0011	.0022	.0012		
Al3	.3857	ppm	3.736 %	.3834	.4011	.3726		
As2	-.0091 L	ppm	-149.4%	-.0116	-.0212	.0056		
[illegible]	.0120 L	ppm	12.72 %	.0126	.0131	.0102		
Ca3	1.126	ppm	1.559 %	1.139	1.132	1.106		
Cd1	-.0007 L	ppm	-56.23%	-.0011	-.0003	-.0007		
Cr4	.0035 L	ppm	119.1 %	.0073	-.0009	.0040		
Fe2	4.108	ppm	1.013 %	4.138	4.126	4.061		
K 1	.9628 L	ppm	21.93 %	.7190	1.085	1.085		
Mg4	.1418 L	ppm	22.93 %	.1415	.1745	.1094		
Mn1	.0433	ppm	3.024 %	.0435	.0444	.0418		
Na2	.6293	ppm	10.17 %	.6564	.6753	.5562		
Pb1	.0353 L	ppm	3.249 %	.0341	.0354	.0363		
Se4	-.0791 L	ppm	-27.14%	-.0869	-.0955	-.0548		
Zn3	.2161	ppm	5.894 %	.2251	.2217	.2015		

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: CRI			08-1	Seq: 114		13:31:39 11 Feb 2002 ICP		
Ag1	.0203	ppm	6.425 %	.0202	.0191	.0217		
Al3	.0136 L	ppm	112.5 %	.0292	.0131	-.0015		
As2	.0210 L	ppm	140.1 %	.0437	.0317	-.0123		
Ba1	-.0177 L	ppm	-4.629%	-.0170	-.0175	-.0185		
Ca3	-.0535 L	ppm	-10.31%	-.0487	-.0524	-.0595		
Cd1	.0109	ppm	5.317 %	.0103	.0115	.0108		
Cr4	.0239	ppm	11.54 %	.0270	.0216	.0231		
Fe2	.1234	ppm	12.36 %	.1396	.1213	.1093		
K 1	-.1274 L	ppm	-128.2%	.0555	-.1788	-.2587		
Mg4	-.0999 L	ppm	-5.157%	-.1058	-.0965	-.0974		
Mn1	.0356	ppm	1.848 %	.0349	.0359	.0361		
Na2	.1864 L	ppm	28.59 %	.1739	.2448	.1404		
Pb1	.1542	ppm	5.092 %	.1503	.1632	.1491		
Se4	-.0218 L	ppm	-623.2%	-.0347	.1200	-.1506		
Zn3	.1311	ppm	5.700 %	.1386	.1312	.1237		
*** Sample ID: ICSA			08-1	Seq: 115		13:35:04 11 Feb 2002 ICP		
Ag1	.0031 L	ppm	50.85 %	.0019	.0025	.0049		
Al3	543.0 H	ppm	.3070 %	542.1	542.0	544.9		
[illegible]	.1619 L	ppm	43.11 %	.1410	.1050	.2398		
Ba1	-.0264 L	ppm	-3.065%	-.0269	-.0268	-.0254		
Ca3	560.0	ppm	.4052 %	559.5	558.1	562.5		
Cd1	-.0021 L	ppm	-82.41%	-.0014	-.0041	-.0009		
Cr4	.0030 L	ppm	197.9 %	.0089	-.0029	.0030		
Fe2	207.3 H	ppm	.4349 %	207.3	206.4	208.2		
K 1	.0290 L	ppm	383.9 %	-.0885	.1327	.0427		
Mg4	585.3 H	ppm	.3951 %	585.3	583.0	587.6		
Mn1	-.0050 L	ppm	-21.02%	-.0060	-.0052	-.0039		
Na2	.0093 L	ppm	387.7 %	.0381	.0212	-.0313		
Pb1	-.0211 L	ppm	-199.7%	-.0487	-.0421	.0274		
Se4	-.0164 L	ppm	-935.4%	.1044	-.1890	.0354		
Zn3	.0064 L	ppm	99.10 %	.0031	.0023	.0136		

	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: ICSAB			08-1	Seq: 117		13:38:29 11 Feb 2002 ICP		
Ag1	1.104	ppm	1.155 %	1.092	1.117	1.103		
Al3	537.7 H	ppm	1.133 %	533.8	544.8	534.7		
As2	.0867 L	ppm	117.5 %	-.0062	.1957	.0706		
Ba1	.4728	ppm	1.418 %	.4684	.4805	.4695		
Ca3	564.5	ppm	.5725 %	561.9	568.1	563.4		
Cd1	1.120	ppm	.5713 %	1.115	1.127	1.117		
Cr4	.5352	ppm	.7140 %	.5395	.5326	.5333		
Fe2	208.2 H	ppm	.6324 %	207.2	209.7	207.7		
K 1	.2013 L	ppm	67.56 %	.2369	.3159	.0510		
Mg4	584.7 H	ppm	.7885 %	581.0	589.8	583.2		
Mn1	.5261	ppm	.7815 %	.5228	.5307	.5248		
Na2	.0169 L	ppm	225.7 %	-.0081	.0610	-.0021		
Pb1	1.138	ppm	1.784 %	1.121	1.160	1.132		
Se4	-.1109 L	ppm	-51.60%	-.0525	-.1134	-.1668		
Zn3	1.063	ppm	1.423 %	1.048	1.078	1.064		
*** Sample ID: CCV			08-1	Seq: 118		13:41:54 11 Feb 2002 ICP		
Ag1	.5096	ppm	.7987 %	.5105	.5132	.5052		
Al3	10.49	ppm	2.821 %	10.28	10.82	10.35		
[illegible]	2.126	ppm	2.418 %	2.074	2.176	2.129		
Ba[illegible]	9.991	ppm	.0844 %	9.982	9.998	9.995		
Ca3	53.00	ppm	1.073 %	52.51	53.62	52.86		
Cd1	1.089	ppm	1.185 %	1.075	1.099	1.094		
Cr4	.5294	ppm	.5389 %	.5324	.5268	.5290		
Fe2	5.432	ppm	2.186 %	5.339	5.566	5.392		
K 1	50.86	ppm	.3885 %	50.68	50.82	51.07		
Mg4	51.40	ppm	.9324 %	50.96	51.91	51.33		
Mn1	.7945	ppm	.8797 %	.7868	.8005	.7961		
Na2	51.39	ppm	.3646 %	51.60	51.29	51.27		
Pb1	1.085	ppm	1.797 %	1.079	1.107	1.070		
Se4	.9796	ppm	13.85 %	.8242	1.075	1.040		
Zn3	1.030	ppm	1.219 %	1.020	1.044	1.025		

*** Sample ID: CCB 08-1 Seq: 119 13:45:19 11 Feb 2002 ICP

	Conc.	Units	SD/RSD	1	2	3	4	5
Ag1	.0010 L	ppm	222.3 %	-.0012	.0033	.0010		
Al3	2.320	ppm	5.845 %	2.400	2.397	2.163		
As2	.0064 L	ppm	686.0 %	.0509	.0056	-.0372		
Ba1	-.0155 L	ppm	-2.314%	-.0159	-.0154	-.0152		
Ca3	2.451	ppm	4.577 %	2.517	2.515	2.321		
Cd1	.0025 L	ppm	20.54 %	.0029	.0025	.0019		
Cr4	-.0004 L	ppm	-579.0%	-.0010	.0020	-.0021		
Fe2	1.057	ppm	4.819 %	1.086	1.088	.9986		
K 1	.0309 L	ppm	644.7 %	.2571	-.0463	-.1181		
Mg4	2.347	ppm	3.039 %	2.394	2.381	2.265		
Mn1	-.0008 L	ppm	-12.96%	-.0007	-.0009	-.0007		
Na2	-.0065 L	ppm	-691.7%	-.0440	.0431	-.0185		
Pb1	.0123 L	ppm	105.0 %	.0267	.0018	.0083		
Se4	.0087 L	ppm	739.1 %	.0680	-.0598	.0179		
Zn3	.0291	ppm	5.167 %	.0304	.0294	.0274		

Metals Cover Page

Instrument: Zeeman

Analyst: JD

Date: 2/13/02

Data File: 13-1

Reviewed By: CK 2/13/02

Entered By: CK 2/13/02

Manager Approval: SD 2/14/02

Starlims Run #	Analytes Used	Batch ID	Method Requested	Failed Analytes	Comments / Problems

CK 2/13/02

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-10427	(Pkg 5) / ASP	Mn Zn (ICP)		M2680030	(YES) / NO	(MARRS to LIMS) / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
R-10427	(Pkg 5) / ASP	AgAlBaCdCrPbSeMnZn		M2530076	(YES) / NO	(MARRS to LIMS) / Run Created Above	YES / NO
	Pkg 5 / ASP	(ICP nag)			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

	Conc.	Units	SD/RSD	1	2	3	4	5
*** Standard: 1 Rep: 1				Seq: 2		10:14:46 13 Feb 2002 ICP		
Ag1	.0000	ppm		20600	19104	15232		
			Ave. Int. =	18312	S. D. =	2770		
Al3	.0000	ppm		2904	617	74		
			Ave. Int. =	1198	S. D. =	1502		
As2	.0000	ppm		683	376	-49		
			Ave. Int. =	337	S. D. =	368		
Ba1	.0000	ppm		36787	36455	36361		
			Ave. Int. =	36534	S. D. =	224		
Ca3	.0000	ppm		11933	11804	11434		
			Ave. Int. =	11724	S. D. =	259		
Cd1	.0000	ppm		-5982	-5541	-3837		
			Ave. Int. =	-5120	S. D. =	1133		
Cr4	.0000	ppm		5338	6432	4947		
			Ave. Int. =	5572	S. D. =	770		
Fe2	.0000	ppm		-169	-356	175		
			Ave. Int. =	-117	S. D. =	269		
K 1	.0000	ppm		774	737	584		
			Ave. Int. =	698	S. D. =	101		
Mg4	.0000	ppm		922	1450	775		
			Ave. Int. =	1049	S. D. =	355		
	.0000	ppm		-435	-949	-726		
			Ave. Int. =	-703	S. D. =	258		
Na2	.0000	ppm		2394	1225	1458		
			Ave. Int. =	1692	S. D. =	619		
Pb1	.0000	ppm		5347	6291	9302		
			Ave. Int. =	6980	S. D. =	2066		
Se4	.0000	ppm		668	692	697		
			Ave. Int. =	686	S. D. =	16		
Zn3	.0000	ppm		738	105	220		
			Ave. Int. =	354	S. D. =	337		

SJdV.D
2/13/02

e	Conc.	Units	SD/RSD	1	2	3	4	5

*** Standard: 1 Rep: 2 Seq: 3 10:15:37 13 Feb 2002 ICP

Ag1	.0000	ppm	21511	21332	22121		
			Ave. Int. =	21655	S. D. =	414	
Al3	.0000	ppm	-481	69	4573		
			Ave. Int. =	1387	S. D. =	2773	
As2	.0000	ppm	918	256	400		
			Ave. Int. =	525	S. D. =	348	
Ba1	.0000	ppm	37063	37348	36962		
			Ave. Int. =	37124	S. D. =	200	
Ca3	.0000	ppm	11811	12059	11300		
			Ave. Int. =	11723	S. D. =	387	
Cd1	.0000	ppm	-4974	-5360	-4195		
			Ave. Int. =	-4843	S. D. =	593	
Cr4	.0000	ppm	6983	5269	5956		
			Ave. Int. =	6069	S. D. =	863	
Fe2	.0000	ppm	-959	-1533	-103		
			Ave. Int. =	-865	S. D. =	720	
K 1	.0000	ppm	955	854	731		
			Ave. Int. =	847	S. D. =	112	
Mg4	.0000	ppm	-26	1890	812		
			Ave. Int. =	892	S. D. =	961	
	.0000	ppm	-947	-544	-993		
			Ave. Int. =	-828	S. D. =	247	
Na2	.0000	ppm	1536	1393	659		
			Ave. Int. =	1196	S. D. =	471	
Pb1	.0000	ppm	5549	5678	3602		
			Ave. Int. =	4943	S. D. =	1163	
Se4	.0000	ppm	652	240	1295		
			Ave. Int. =	729	S. D. =	532	
Zn3	.0000	ppm	-86	1174	323		
			Ave. Int. =	470	S. D. =	643	

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Standard: 2 Rep: 1 Seq: 4 10:19:36 13 Feb 2002 ICP

Ag1	1.000	ppm	1359215	1371577	1342590		
			Ave. Int. =	1357794	S. D. =	14546	
Al3	20.00	ppm	2069023	2110929	2047807		
			Ave. Int. =	2075920	S. D. =	32121	
As2	4.000	ppm	80717	83728	79399		
			Ave. Int. =	81281	S. D. =	2219	
Ba1	20.00	ppm	444028571	451535515	436667354		
			Ave. Int. =	444077147	S. D. =	7434200	
Ca3	100.0	ppm	20474868	20686298	20356457		
			Ave. Int. =	20505874	S. D. =	167092	
Cd1	2.000	ppm	3201833	3236919	3174812		
			Ave. Int. =	3204521	S. D. =	31141	
Cr4	1.000	ppm	421801	421183	412314		
			Ave. Int. =	418433	S. D. =	5308	
Fe2	10.00	ppm	1562372	1583077	1549038		
			Ave. Int. =	1564829	S. D. =	17152	
K 1	100.0	ppm	78181	79445	76620		
			Ave. Int. =	78082	S. D. =	1415	
Mo4	100.0	ppm	3628661	3679023	3585371		
			Ave. Int. =	3631018	S. D. =	46870	
Mn1	1.500	ppm	910055	919345	898701		
			Ave. Int. =	909367	S. D. =	10339	
Na2	100.0	ppm	1959315	2005203	1921320		
			Ave. Int. =	1961946	S. D. =	42003	
Pb1	2.000	ppm	188320	192785	181761		
			Ave. Int. =	187622	S. D. =	5545	
Se4	2.010	ppm	25586	24864	25443		
			Ave. Int. =	25298	S. D. =	382	
Zn3	2.000	ppm	508553	510055	500516		
			Ave. Int. =	506375	S. D. =	5129	

*** Standard: 2 Rep: 2 Seq: 5 10:20:25 13 Feb 2002 ICP

Line	Conc.	Units	SD/RSD	1	2	3	4	5
Ag1	1.000	ppm		1333155	1338806	1335608		
			Ave. Int. =	1335856	S. D. =	2834		
Al3	20.00	ppm		2011762	2012067	2011082		
			Ave. Int. =	2011637	S. D. =	504		
As2	4.000	ppm		81365	77501	79121		
			Ave. Int. =	79329	S. D. =	1940		
Ba1	20.00	ppm		430150990	431245344	432137158		
			Ave. Int. =	431177831	S. D. =	994804		
Ca3	100.0	ppm		20129880	20175568	20326844		
			Ave. Int. =	20210764	S. D. =	103091		
Cd1	2.000	ppm		3145303	3134589	3175247		
			Ave. Int. =	3151713	S. D. =	21073		
Cr4	1.000	ppm		412867	409488	415659		
			Ave. Int. =	412671	S. D. =	3090		
Fe2	10.00	ppm		1533427	1536366	1538844		
			Ave. Int. =	1536212	S. D. =	2712		
K 1	100.0	ppm		74707	75279	74884		
			Ave. Int. =	74957	S. D. =	293		
Mg4	100.0	ppm		3534205	3537267	3560596		
			Ave. Int. =	3544023	S. D. =	14434		
M[illegible]	1.500	ppm		886495	888935	896030		
			Ave. Int. =	890487	S. D. =	4953		
Na2	100.0	ppm		1876504	1885523	1869988		
			Ave. Int. =	1877338	S. D. =	7801		
Pb1	2.000	ppm		181988	189065	187294		
			Ave. Int. =	186116	S. D. =	3683		
Se4	2.010	ppm		23664	26112	25138		
			Ave. Int. =	24971	S. D. =	1232		
Zn3	2.000	ppm		498227	498018	504434		
			Ave. Int. =	500226	S. D. =	3645		

ine	Conc.	Units	SD/RSD	1	2	3	4	5
** Sample ID: HIGH CHECK 13-1				Seq: 7		10:24:21 13 Feb 2002 ICP		
g1	.9860	ppm	1.013 %	.9934	.9746	.9899		
l3	19.70	ppm	1.076 %	19.84	19.46	19.81		
s2	3.904	ppm	2.835 %	3.997	3.782	3.934		
a1	19.77	ppm	.9149 %	19.85	19.56	19.89		
a3	99.08	ppm	.8790 %	99.22	98.14	99.87		
d1	1.977	ppm	1.214 %	1.980	1.952	1.999		
r4	.9892	ppm	.8068 %	.9896	.9810	.9969		
e2	9.895	ppm	.9871 %	9.898	9.796	9.992		
1	98.39	ppm	.9978 %	98.82	97.27	99.08		
g4	98.63	ppm	1.023 %	99.04	97.48	99.37		
n1	1.483	ppm	1.032 %	1.485	1.467	1.498		
a2	97.94	ppm	1.600 %	98.62	96.14	99.05		
b1	1.956	ppm	1.786 %	1.958	1.920	1.990		
e4	2.072	ppm	5.660 %	1.966	2.052	2.198		
n3	1.976	ppm	1.170 %	1.973	1.954	2.000		
** Sample ID: ICV			13-1	Seq: 8		10:28:15 13 Feb 2002 ICP		
g1	.4902	ppm	.0971 %	.4902	.4897	.4907		
[illegible]	10.12	ppm	.6021 %	10.19	10.08	10.09		
[illegible]	1.981	ppm	1.433 %	1.959	1.972	2.013		
a1	10.06	ppm	.5847 %	10.13	10.02	10.04		
a3	50.98	ppm	.3799 %	50.98	51.18	50.79		
d1	1.019	ppm	.3641 %	1.018	1.024	1.017		
r4	.5126	ppm	.7455 %	.5082	.5147	.5149		
e2	5.167	ppm	.1130 %	5.168	5.172	5.161		
1	50.25	ppm	.7418 %	50.60	50.29	49.85		
g4	50.16	ppm	.3228 %	50.27	49.97	50.23		
n1	.7677	ppm	.2662 %	.7658	.7698	.7674		
a2	50.59	ppm	1.214 %	51.26	50.44	50.06		
b1	1.011	ppm	2.636 %	1.030	.9804	1.022		
e4	1.040	ppm	7.171 %	1.026	1.120	.9729		
n3	1.027	ppm	.1532 %	1.028	1.025	1.027		

ıe	Conc.	Units	SD/RSD	1	2	3	4	5
* Sample ID: ICB			13-1		Seq: 9	10:32:07 13 Feb 2002 ICP		
1	-.0010	L ppm	-309.9%	.0020	-.0042	-.0009		
3	.0071	L ppm	151.4 %	.0192	.0036	-.0015		
2	.0152	L ppm	196.6 %	.0287	-.0191	.0361		
1	.0021	L ppm	20.13 %	.0026	.0020	.0018		
3	.0087	L ppm	37.07 %	.0124	.0072	.0065		
1	.0011	L ppm	111.0 %	.0006	.0026	.0002		
4	.0006	L ppm	294.0 %	.0023	-.0010	.0004		
2	-.0053	L ppm	-45.76%	-.0042	-.0036	-.0080		
1	.0486	L ppm	191.5 %	.0508	.1407	-.0456		
4	.0055	L ppm	340.7 %	.0111	-.0153	.0205		
ı1	.0006	L ppm	77.53 %	.0010	.0007	.0001		
ı2	-.0088	L ppm	-321.3%	.0208	-.0358	-.0114		
ı1	-.0069	L ppm	-16.37%	-.0066	-.0082	-.0060		
›4	-.0822	L ppm	-32.59%	-.0522	-.1039	-.0905		
ı3	.0014	L ppm	91.85 %	.0011	.0028	.0003		
** Sample ID: CRI			13-1		Seq: 11	10:35:59 13 Feb 2002 ICP		
[illegible]	.0215	ppm	4.959 %	.0214	.0205	.0226		
[illegible]	.0144	L ppm	95.71 %	.0219	.0229	-.0015		
s2	.0201	L ppm	177.6 %	-.0056	.0051	.0610		
a1	.0004	L ppm	26.69 %	.0004	.0003	.0005		
a3	.0165	L ppm	17.28 %	.0166	.0193	.0136		
d1	.0129	ppm	1.389 %	.0127	.0131	.0129		
r4	.0252	ppm	8.161 %	.0251	.0232	.0273		
e2	.0008	L ppm	922.0 %	.0015	-.0065	.0073		
1	-.0627	L ppm	-144.1%	-.1129	.0416	-.1169		
g4	.0266	L ppm	73.53 %	.0470	.0248	.0080		
ın1	.0363	ppm	1.957 %	.0355	.0364	.0369		
la2	.0084	L ppm	102.2 %	.0059	.0179	.0013		
'b1	.1303	ppm	3.643 %	.1286	.1266	.1357		
]e4	-.0445	L ppm	-112.7%	-.0155	-.1025	-.0155		
:n3	.0521	ppm	2.748 %	.0506	.0522	.0534		

ne	Conc.	Units	SD/RSD	1	2	3	4	5
** Sample ID: ICSA			13-1		Seq: 12	10:39:52 13 Feb 2002 ICP		
g1	-.0026 L	ppm	-208.4%	-.0024	-.0081	.0027		
l3	552.9 H	ppm	1.544 %	561.8	544.7	552.3		
s2	.0663 L	ppm	314.5 %	.2788	-.1377	.0577		
a1	-.0007 L	ppm	-13.73%	-.0008	-.0006	-.0007		
a3	560.9	ppm	1.220 %	566.1	553.1	563.4		
d1	-.0016 L	ppm	-44.96%	-.0009	-.0016	-.0024		
r4	.0051 L	ppm	75.95 %	.0008	.0082	.0062		
e2	207.2 H	ppm	1.367 %	209.8	204.2	207.7		
1	.2162 L	ppm	45.84 %	.1260	.2003	.3222		
g4	571.3 H	ppm	1.366 %	579.0	563.4	571.4		
n1	-.0009 L	ppm	-85.42%	-.0018	-.0004	-.0005		
la2	.0517 L	ppm	145.7 %	.1384	.0040	.0126		
'b1	.0403 L	ppm	27.30 %	.0499	.0427	.0283		
ie4	-.0521 L	ppm	-63.07%	-.0879	-.0235	-.0448		
:n3	.0012 L	ppm	337.7 %	.0059	-.0021	-.0001		
** Sample ID: ICSAB			13-1		Seq: 13	10:43:45 13 Feb 2002 ICP		
Ag	1.085	ppm	2.737 %	1.054	1.090	1.113		
Al	519.9 H	ppm	2.790 %	504.3	522.4	533.0		
As2	.0664 L	ppm	235.7 %	-.0202	-.0277	.2472		
Ba1	.4873	ppm	2.791 %	.4730	.4890	.5000		
Ca3	539.4	ppm	2.134 %	527.7	540.0	550.7		
Cd1	1.029	ppm	1.840 %	1.012	1.027	1.049		
Cr4	.5067	ppm	2.095 %	.4975	.5044	.5184		
Fe2	198.7	ppm	2.229 %	194.2	199.1	203.0		
K 1	.0221 L	ppm	855.4 %	-.1885	.1768	.0779		
Mg4	544.0 H	ppm	2.555 %	529.1	546.2	556.7		
Mn1	.5051	ppm	1.783 %	.4965	.5043	.5145		
Na2	.1267 L	ppm	31.46 %	.0831	.1612	.1357		
Pb1	1.040	ppm	3.582 %	.9987	1.053	1.070		
Se4	-.2298 L	ppm	-70.55%	-.1515	-.4162	-.1217		
Zn3	1.036	ppm	2.323 %	1.011	1.038	1.059		

ne	Conc.	Units	SD/RSD	1	2	3	4	5
* Sample ID: CCV			13-1	Seq:	15	10:47:39 13 Feb 2002 ICP		
1	.5007	ppm	.5277 %	.5012	.5030	.4978		
3	10.24	ppm	1.532 %	10.33	10.33	10.06		
2	2.043	ppm	3.701 %	2.027	2.126	1.977		
1	10.20	ppm	1.468 %	10.25	10.33	10.04		
3	51.51	ppm	.7234 %	51.86	51.55	51.12		
1	1.018	ppm	.6890 %	1.023	1.019	1.010		
4	.5160	ppm	.8589 %	.5209	.5150	.5122		
2	5.289	ppm	1.204 %	5.352	5.291	5.225		
1	51.37	ppm	2.325 %	51.58	52.44	50.08		
4	50.48	ppm	1.182 %	50.66	50.96	49.81		
1	.7730	ppm	.6658 %	.7772	.7746	.7673		
2	51.51	ppm	2.129 %	51.49	52.62	50.42		
1	1.032	ppm	1.209 %	1.037	1.042	1.018		
4	.9890	ppm	1.946 %	1.011	.9768	.9791		
3	1.022	ppm	1.612 %	1.041	1.013	1.012		
** Sample ID: CCB			13-1	Seq:	16	10:51:32 13 Feb 2002 ICP		
	-.0075 L	ppm	-113.3%	-.0038	.0008	-.0044		
1	.0108 L	ppm	100.9 %	.0214	.0112	-.0003		
s2	.0342 L	ppm	85.58 %	.0016	.0583	.0428		
a1	.0019 L	ppm	24.48 %	.0022	.0020	.0014		
a3	.0153 L	ppm	16.88 %	.0176	.0125	.0159		
d1	.0007 L	ppm	201.5 %	.0013	.0017	-.0009		
r4	.0018 L	ppm	128.4 %	.0032	.0029	-.0008		
e2	.0018 L	ppm	238.1 %	-.0031	.0034	.0051		
1	.1886 L	ppm	116.2 %	.2727	-.0601	.3533		
g4	.0181 L	ppm	24.94 %	.0227	.0181	.0136		
n1	.0006 L	ppm	68.54 %	.0004	.0004	.0011		
a2	.0081 L	ppm	433.3 %	.0073	.0437	-.0267		
b1	-.0031 L	ppm	-342.2%	-.0002	-.0149	.0058		
e4	-.0356 L	ppm	-166.2%	-.0462	.0282	-.0889		
n3	.0021 L	ppm	43.58 %	.0029	.0025	.0011		

ıe	Conc.	Units	SD/RSD	1	2	3	4	5
* Sample ID: PBT 2/12			13-1		Seq: 17		10:55:26 13 Feb 2002 ICP	
			M2680030					
1	-.0038	L ppm	-90.96%	-.0007	-.0076	-.0032		
3	-.0036	L ppm	-542.6%	.0125	.0020	-.0254		
2	.0107	L ppm	120.6 %	-.0041	.0166	.0195		
1	-.0001	L ppm	-191.2%	.0000	-.0000	-.0002		
3	.0091	L ppm	79.64 %	.0174	.0051	.0047		
1	.0012	L ppm	30.65 %	.0010	.0016	.0009		
4	-.0009	L ppm	-227.2%	.0014	-.0017	-.0024		
2	.0093	L ppm	16.60 %	.0108	.0094	.0077		
1	-.1279	L ppm	-61.27%	-.1182	-.0548	-.2106		
4	-.0057	L ppm	-490.1%	.0264	-.0228	-.0206		
1	.0003	L ppm	117.4 %	.0006	-.0001	.0004		
2	-.0018	L ppm	-1954.%	.0028	.0304	-.0385		
1	.0008	L ppm	237.8 %	-.0013	.0014	.0022		
4	-.1024	L ppm	-68.87%	-.0457	-.1813	-.0800		
3	.0034	L ppm	67.56 %	.0020	.0022	.0060		
** Sample ID: LCST			13-1		Seq: 19		10:59:20 13 Feb 2002 ICP	
			M2680030					
[illegible]	5.268	H ppm	.5067 %	5.286	5.281	5.238		
1	.0100	L ppm	123.4 %	.0016	.0042	.0242		
s2	5.196	H ppm	1.515 %	5.262	5.216	5.109		
a1	5.050	ppm	.5493 %	5.078	5.050	5.022		
a3	.0118	L ppm	5.546 %	.0125	.0112	.0118		
d1	1.067	ppm	.4314 %	1.068	1.061	1.070		
r4	5.264	ppm	.2574 %	5.256	5.256	5.280		
e2	.0080	L ppm	32.84 %	.0081	.0105	.0053		
1	-.0610	L ppm	-264.1%	.1222	-.1248	-.1803		
lg4	-.0252	L ppm	-106.5%	-.0210	-.0538	-.0007		
In1	2.054	ppm	.1554 %	2.058	2.051	2.053		
Na2	-.0005	L ppm	-11160%	-.0586	.0317	.0256		
Pb1	5.291	ppm	.5980 %	5.316	5.301	5.255		
Se4	.9781	ppm	1.016 %	.9857	.9816	.9668		
Zn3	2.105	ppm	.8773 %	2.084	2.118	2.114		

ne	Conc.	Units	SD/RSD	1	2	3	4	5
* Sample ID: 526396			13-1	Seq: 20		11:03:14 13 Feb 2002 ICP		
			1/500					
l1	-.0002 L	ppm	-590.0%	.0011	-.0008	-.0009		
3	-.0012 L	ppm	-621.9%	.0070	-.0064	-.0040		
s2	.0013 L	ppm	656.6 %	-.0078	.0027	.0089		
a1	.0016 L	ppm	26.59 %	.0020	.0015	.0012		
a3	.1067 L	ppm	3.219 %	.1043	.1051	.1106		
d1	.0022 L	ppm	15.59 %	.0019	.0026	.0021		
r4	.0021 L	ppm	116.0 %	.0029	.0039	-.0006		
e2	15.18	ppm	.8604 %	15.07	15.14	15.32		
1	.0832 L	ppm	175.9 %	.2149	-.0744	.1092		
g4	.0591 L	ppm	55.22 %	.0731	.0824	.0218		
n1	.1024	ppm	.6565 %	.1028	.1017	.1028		
a2	3.482	ppm	2.649 %	3.422	3.435	3.588		
b1	.0072 L	ppm	263.2 %	.0031	.0277	-.0094		
e4	-.1155 L	ppm	-17.84%	-.1052	-.1020	-.1392		
n3	12.07	ppm	.7091 %	12.02	12.02	12.17		
** Sample ID: 526405			13-1	Seq: 21		11:07:08 13 Feb 2002 ICP		
			1/10					
r	-.0037 L	ppm	-82.25%	-.0005	-.0066	-.0039		
l	.0236 L	ppm	12.58 %	.0259	.0247	.0203		
s2	.0083 L	ppm	384.9 %	-.0258	.0134	.0372		
a1	.4146	ppm	.8672 %	.4125	.4187	.4125		
a3	34.83	ppm	.7907 %	34.98	35.00	34.51		
d1	.0008 L	ppm	88.25 %	.0002	.0015	.0006		
r4	-.0012 L	ppm	-164.0%	.0004	-.0006	-.0035		
e2	.1662	ppm	3.554 %	.1702	.1690	.1594		
1	1.137 L	ppm	9.517 %	1.260	1.055	1.095		
g4	.2525 L	ppm	3.779 %	.2431	.2621	.2522		
n1	.2330	ppm	.6745 %	.2327	.2347	.2316		
a2	153.2	ppm	.8639 %	151.8	154.5	153.3		
b1	.0239 L	ppm	12.65 %	.0252	.0204	.0260		
e4	-.0177 L	ppm	-654.5%	-.1512	.0531	.0451		
n3	4.261	ppm	.6420 %	4.286	4.265	4.231		

ne	Conc.	Units	SD/RSD	1	2	3	4	5
* Sample ID: 526406			13-1 1/200	Seq: 23		11:11:02 13 Feb 2002 ICP		
1	-.0023 L	ppm	-92.74%	-.0045	-.0019	-.0004		
3	.0236 L	ppm	44.30 %	.0115	.0300	.0291		
2	.0203 L	ppm	78.61 %	.0339	[illegible]	.0245		
1	.0012 L	ppm	10.44 %	.0011	.0013	.0011		
3	4.613	ppm	1.383 %	4.634	4.663	4.541		
1	.0012 L	ppm	87.63 %	.0009	.0023	.0003		
4	.0013 L	ppm	105.9 %	.0002	.0008	.0028		
2	-.0102 L	ppm	-17.48%	-.0122	-.0091	-.0092		
1	.0211 L	ppm	892.5 %	.1589	.0981	-.1936		
4	.4229 L	ppm	5.150 %	.4347	.3978	.4363		
1	.0719	ppm	1.963 %	.0721	.0731	.0703		
2	19.71	ppm	1.746 %	19.71	20.05	19.36		
1	.0099 L	ppm	135.3 %	-.0008	.0250	.0055		
4	-.0594 L	ppm	-127.7%	-.1445	-.0345	.0009		
3	8.796	ppm	1.467 %	8.796	8.924	8.666		
** Sample ID: 526407			13-1 1/100	Seq: 24		11:14:56 13 Feb 2002 ICP		
[illegible]	-.0015 L	ppm	-166.1%	-.0016	.0011	-.0041		
[illegible]	.0198 L	ppm	45.98 %	.0152	.0302	.0139		
As2	-.0269 L	ppm	-79.45%	-.0181	-.0513	-.0113		
Ba1	.0012 L	ppm	9.876 %	.0013	.0011	.0012		
Ca3	2.566	ppm	1.763 %	2.529	2.553	2.616		
Cd1	.0005 L	ppm	93.62 %	.0003	.0011	.0002		
Cr4	.0023 L	ppm	97.74 %	.0047	.0003	.0018		
Fe2	-.0047 L	ppm	-42.86%	-.0070	-.0036	-.0035		
K 1	.3522 L	ppm	46.99 %	.1615	.4587	.4365		
Mg4	.5074	ppm	2.775 %	.4942	.5058	.5223		
Mn1	.0801	ppm	3.655 %	.0774	.0797	.0832		
Na2	59.12	ppm	3.910 %	57.77	57.81	61.79		
Pb1	-.0014 L	ppm	-688.4%	-.0053	.0095	-.0084		
Se4	-.0849 L	ppm	-64.69%	-.1482	-.0574	-.0492		
Zn3	2.598	ppm	1.654 %	2.565	2.582	2.646		

ne	Conc.	Units	SD/RSD	1	2	3	4	5
* Sample ID: 526408			13-1	Seq: 25		11:18:51 13 Feb 2002 ICP		
			1/10					
1	-.0033 L	ppm	-129.5%	.0015	-.0045	-.0069		
3	.0071 L	ppm	105.6 %	.0069	-.0003	.0146		
2	.0034 L	ppm	635.4 %	-.0198	.0232	.0069		
1	.0085 L	ppm	2.350 %	.0083	.0087	.0084		
3	12.87	ppm	2.210 %	12.73	13.19	12.67		
1	.0021 L	ppm	40.96 %	.0027	.0025	.0011		
4	.0006 L	ppm	103.3 %	-.0001	.0007	.0010		
2	-.0061 L	ppm	-41.59%	-.0076	-.0076	-.0032		
1	6.356	ppm	5.703 %	6.402	6.694	5.973		
4	2.756	ppm	2.412 %	2.680	2.799	2.790		
1	.3089	ppm	3.464 %	.3041	.3211	.3014		
2	553.9 H	ppm	3.706 %	548.1	576.7	537.0		
1	-.0073 L	ppm	-193.7%	-.0111	.0083	-.0189		
4	-.0069 L	ppm	-1152.%	.0461	.0317	-.0985		
3	6.624	ppm	2.163 %	6.554	6.788	6.528		
** Sample ID: 526409			13-1	Seq: 27		11:22:44 13 Feb 2002 ICP		
			1/2					
	-.0029 L	ppm	-88.92%	-.0058	-.0009	-.0019		
1	-.0106 L	ppm	-58.95%	-.0072	-.0068	-.0179		
s2	.0468 L	ppm	114.5 %	-.0149	.0733	.0818		
a1	.2318	ppm	.1447 %	.2314	.2321	.2319		
a3	342.8	ppm	.4704 %	340.9	343.7	343.8		
d1	.0003 L	ppm	143.6 %	.0001	.0009	.0000		
r4	.0311	ppm	2.940 %	.0316	.0318	.0301		
e2	.0090 L	ppm	23.38 %	.0089	.0069	.0111		
1	10.02	ppm	.6243 %	10.04	10.06	9.945		
g4	2.567	ppm	1.693 %	2.519	2.578	2.604		
n1	.0258	ppm	2.416 %	.0263	.0260	.0251		
a2	661.4 H	ppm	.2535 %	659.8	661.2	663.2		
b1	-.0027 L	ppm	-505.0%	.0077	-.0183	.0024		
e4	-.0436 L	ppm	-337.3%	-.1796	.1123	-.0634		
n3	.0596	ppm	5.039 %	.0609	.0618	.0562		

ie	Conc.	Units	SD/RSD	1	2	3	4	5
‹ Sample ID: 526410			13-1	Seq: 28		11:26:38 13 Feb 2002 ICP		
			1/2					
1	-.0021 L	ppm	-180.6%	-.0013	.0012	-.0063		
3	.0745 L	ppm	33.55 %	.0879	.0899	.0457		
2	.0689 L	ppm	65.26 %	.1036	.0181	.0850		
1	.3881	ppm	1.926 %	.3854	.3824	.3966		
3	45.09	ppm	1.028 %	45.01	44.68	45.59		
1	.0032 L	ppm	27.06 %	.0024	.0041	.0032		
4	.0002 L	ppm	652.9 %	-.0014	.0016	.0005		
2	.0830 L	ppm	7.596 %	.0809	.0780	.0901		
1	.9927 L	ppm	7.075 %	1.051	.9148	1.012		
4	2.267	ppm	1.887 %	2.242	2.244	2.317		
1	.1661	ppm	.5805 %	.1663	.1651	.1670		
2	601.7 H	ppm	1.938 %	596.6	593.4	615.0		
1	.0058 L	ppm	75.74 %	.0057	.0102	.0014		
4	-.0375 L	ppm	-166.4%	-.0176	-.1073	.0126		
3	1.832	ppm	.4570 %	1.837	1.822	1.836		
‹* Sample ID: 526411			13-1	Seq: 29		11:30:30 13 Feb 2002 ICP		
			1/500					
[illegible]	-.0031 L	ppm	-120.0%	.0011	-.0045	-.0059		
[illegible]	.0666 L	ppm	12.83 %	.0732	.0698	.0570		
s2	.0321 L	ppm	71.28 %	.0571	.0272	.0121		
a1	.0005 L	ppm	36.79 %	.0005	.0006	.0003		
a3	.0611 L	ppm	5.621 %	.0598	.0585	.0650		
d1	.0044 L	ppm	25.18 %	.0054	.0046	.0032		
r4	.0511	ppm	2.258 %	.0503	.0524	.0506		
e2	11.37	ppm	1.374 %	11.52	11.37	11.21		
1	-.0138 L	ppm	-433.0%	-.0337	.0535	-.0614		
g4	.0458 L	ppm	51.40 %	.0697	.0448	.0227		
n1	.1519	ppm	1.407 %	.1530	.1533	.1495		
a2	4.346	ppm	1.993 %	4.446	4.295	4.298		
b1	.0168 L	ppm	98.01 %	.0232	-.0019	.0290		
e4	-.0481 L	ppm	-167.8%	.0429	-.0764	-.1107		
n3	11.42	ppm	1.330 %	11.59	11.37	11.30		

ine	Conc.	Units	SD/RSD	1	2	3	4	5
** Sample ID: CCV			13-1		Seq: 31	11:34:23 13 Feb 2002 ICP		
g1	.4911	ppm	.8085 %	.4881	.4896	.4956		
l3	10.01	ppm	.6370 %	9.959	10.08	9.998		
s2	2.017	ppm	2.333 %	1.971	2.065	2.017		
a1	9.887	ppm	.5471 %	9.839	9.946	9.878		
a3	50.05	ppm	.9608 %	49.53	50.14	50.48		
d1	.9992	ppm	1.252 %	.9860	1.001	1.011		
r4	.4959	ppm	1.403 %	.4901	.4940	.5036		
e2	5.083	ppm	.3367 %	5.069	5.079	5.102		
1	50.35	ppm	1.669 %	49.94	51.32	49.80		
g4	49.17	ppm	.8213 %	48.75	49.55	49.22		
n1	.7527	ppm	.8318 %	.7460	.7539	.7583		
a2	50.37	ppm	.5486 %	50.35	50.66	50.11		
b1	.9944	ppm	1.580 %	.9763	1.004	1.003		
e4	1.034	ppm	9.588 %	.9740	.9795	1.148		
n3	1.015	ppm	1.639 %	.9982	1.016	1.031		
*** Sample ID: CCB			13-1		Seq: 32	11:38:16 13 Feb 2002 ICP		
g1	-.0021 L	ppm	-137.7%	-.0002	-.0007	-.0055		
	.0113 L	ppm	86.96 %	.0001	.0183	.0156		
s2	.0233 L	ppm	100.4 %	.0237	.0465	-.0003		
a1	.0020 L	ppm	3.425 %	.0020	.0020	.0021		
a3	.0130 L	ppm	19.68 %	.0132	.0103	.0153		
d1	.0012 L	ppm	75.69 %	.0012	.0003	.0021		
r4	.0024 L	ppm	38.47 %	.0018	.0019	.0035		
e2	-.0023 L	ppm	-59.61%	-.0010	-.0021	-.0037		
1	-.0359 L	ppm	-203.6%	-.0720	.0482	-.0839		
g4	-.0006 L	ppm	-3764.%	.0101	-.0278	.0157		
n1	.0002 L	ppm	160.5 %	-.0001	.0003	.0003		
a2	.0261 L	ppm	103.0 %	.0413	-.0050	.0421		
b1	-.0024 L	ppm	-652.5%	.0071	.0062	-.0205		
e4	-.0917 L	ppm	-76.94%	-.1092	-.0141	-.1520		
n3	.0013 L	ppm	101.7 %	.0001	.0011	.0027		

ne	Conc.	Units	SD/RSD	1	2	3	4	5
* Sample ID: 526413			13-1	Seq: 33		11:42:10 13 Feb 2002 ICP		
			1/500					
1	-.0027 L	ppm	-47.50%	-.0033	-.0012	-.0035		
3	-.0055 L	ppm	-252.9%	-.0163	.0102	-.0104		
2	-.0063 L	ppm	-581.8%	-.0426	-.0073	.0309		
1	.0005 L	ppm	31.11 %	.0003	.0006	.0005		
3	.5127	ppm	3.177 %	.5099	.4980	.5302		
1	-.0000 L	ppm	-3204.%	.0006	-.0006	-.0001		
4	-.0000 L	ppm	-8341.%	.0029	-.0006	-.0024		
2	3.297	ppm	3.536 %	3.291	3.183	3.416		
1	.0619 L	ppm	21.42 %	.0760	.0496	.0601		
4	.1350 L	ppm	9.861 %	.1504	.1276	.1271		
1	.0617	ppm	2.365 %	.0616	.0603	.0632		
2	4.431	ppm	5.728 %	4.460	4.164	4.669		
1	.0057 L	ppm	342.1 %	-.0041	.0281	-.0069		
4	-.1383 L	ppm	-2.059%	-.1391	-.1351	-.1406		
3	6.925	ppm	2.920 %	6.927	6.722	7.127		
** Sample ID: 526413D			13-1	Seq: 35		11:46:04 13 Feb 2002 ICP		
			1/500					
	-.0034 L	ppm	-34.40%	-.0022	-.0045	-.0036		
	.0022 L	ppm	829.3 %	.0222	-.0023	-.0133		
s2	.0067 L	ppm	612.1 %	.0535	-.0096	-.0238		
a1	.0002 L	ppm	9.526 %	.0002	.0002	.0002		
a3	.4865 L	ppm	.5365 %	.4855	.4895	.4845		
d1	.0008 L	ppm	70.99 %	.0014	.0002	.0010		
r4	-.0008 L	ppm	-117.5%	-.0002	-.0020	-.0004		
e2	2.823	ppm	.4387 %	2.810	2.835	2.822		
1	-.0522 L	ppm	-121.0%	-.0931	-.0838	.0205		
g4	.1107 L	ppm	27.58 %	.1328	.0759	.1233		
n1	.0632	ppm	.5545 %	.0630	.0636	.0631		
a2	4.570	ppm	.8456 %	4.608	4.570	4.531		
b1	-.0202 L	ppm	-46.84%	-.0260	-.0253	-.0093		
e4	-.0236 L	ppm	-495.7%	.1116	-.0880	-.0945		
Zn3	6.827	ppm	.7715 %	6.867	6.848	6.768		

ine	Conc.	Units	SD/RSD	1	2	3	4	5
** Sample ID: 526416S			13-1 1/500	Seq: 36		11:49:58 13 Feb 2002 ICP		
g1	.0061 L	ppm	53.61 %	.0056	.0031	.0096		
l3	.0017 L	ppm	813.1 %	-.0143	.0113	.0082		
s2	.0060 L	ppm	106.4 %	.0127	-.0000	.0053		
a1	.0094 L	ppm	3.461 %	.0091	.0094	.0098		
a3	.4755 L	ppm	3.437 %	.4606	.4730	.4930		
d1	.0033 L	ppm	30.55 %	.0044	.0031	.0024		
r4	.0116	ppm	30.76 %	.0077	.0147	.0124		
e2	3.074	ppm	2.470 %	3.015	3.049	3.160		
1	-.0005 L	ppm	-31960%	-.0493	-.1312	.1791		
g4	.1065 L	ppm	25.77 %	.0781	.1083	.1329		
n1	.0619	ppm	3.309 %	.0603	.0614	.0642		
a2	4.045	ppm	4.212 %	3.935	3.959	4.241		
b1	.0119 L	ppm	86.76 %	.0210	.0142	.0007		
e4	-.0817 L	ppm	-46.82%	-.0805	-.1205	-.0440		
n3	6.491	ppm	1.958 %	6.382	6.459	6.631		
** Sample ID: 526413A			13-1 1/500	Seq: 37		11:53:53 13 Feb 2002 ICP		
g1	3.877	ppm	1.546 %	3.929	3.890	3.812		
l	.0071 L	ppm	71.34 %	.0099	.0013	.0102		
s	5.637 H	ppm	2.338 %	5.716	5.709	5.484		
a1	5.266	ppm	1.192 %	5.264	5.329	5.204		
a3	.4990 L	ppm	2.511 %	.5046	.5078	.4847		
d1	1.162	ppm	1.679 %	1.178	1.168	1.140		
r4	5.602	ppm	1.756 %	5.656	5.661	5.488		
e2	3.262	ppm	.7217 %	3.270	3.281	3.236		
1	.0077 L	ppm	1147. %	.1051	-.0139	-.0680		
lg4	.1232 L	ppm	30.02 %	.1339	.1537	.0821		
ln1	2.286	ppm	1.375 %	2.292	2.313	2.251		
la2	4.546	ppm	2.972 %	4.405	4.559	4.675		
b1	5.795	ppm	.9548 %	5.852	5.791	5.742		
e4	1.109	ppm	3.082 %	1.070	1.123	1.134		
n3	9.284	ppm	1.154 %	9.361	9.329	9.162		

ıe	Conc.	Units	SD/RSD	1	2	3	4	5
* Sample ID: 526413L			13-1 1/500	Seq: 39		11:57:47 13 Feb 2002 ICP		
1	-.0004	L ppm	-649.9%	.0029	-.0015	-.0027		
3	.0049	L ppm	297.4 %	-.0119	.0136	.0129		
2	.0042	L ppm	372.1 %	.0008	.0214	-.0095		
1	.0012	L ppm	3.993 %	.0013	.0012	.0012		
3	.1068	L ppm	2.486 %	.1056	.1049	.1098		
1	.0001	L ppm	1621. %	-.0018	.0008	.0013		
4	.0015	L ppm	84.49 %	.0021	.0023	.0000		
2	.6487	ppm	1.925 %	.6623	.6462	.6377		
1	-.0515	L ppm	-48.09%	-.0379	-.0802	-.0366		
4	.0226	L ppm	87.77 %	.0019	.0244	.0414		
1	.0131	ppm	3.444 %	.0127	.0129	.0136		
ı2	.9072	ppm	1.948 %	.9207	.9136	.8872		
ı1	.0008	L ppm	1091. %	-.0071	-.0010	.0107		
›4	-.0523	L ppm	-291.6%	.1239	-.1391	-.1418		
ı3	1.377	ppm	1.012 %	1.391	1.375	1.364		
** Sample ID: MTHD BLNK			13-1	Seq: 40		12:01:41 13 Feb 2002 ICP		
ı	-.0017	L ppm	-189.1%	.0020	-.0031	-.0040		
l	.0189	L ppm	19.32 %	.0216	.0147	.0204		
s2	-.0060	L ppm	-323.2%	-.0168	.0163	-.0174		
a1	.2686	ppm	1.083 %	.2679	.2718	.2661		
a3	.0083	L ppm	57.56 %	.0030	.0098	.0122		
d1	-.0002	L ppm	-115.9%	.0001	-.0004	-.0004		
r4	.0044	L ppm	37.87 %	.0025	.0057	.0050		
e2	.0328	L ppm	8.064 %	.0343	.0343	.0297		
1	.7530	L ppm	11.87 %	.8556	.6924	.7110		
g4	-.0158	L ppm	-106.0%	-.0067	-.0351	-.0056		
ln1	.0002	L ppm	262.1 %	.0002	-.0003	.0006		
la2	1227.	H ppm	1.603 %	1222.	1248.	1210.		
'b1	-.0195	L ppm	-29.15%	-.0184	-.0144	-.0256		
;e4	.0279	L ppm	316.4 %	.1220	.0153	-.0534		
'n3	.1466	ppm	2.245 %	.1502	.1459	.1437		

e	Conc.	Units	SD/RSD	1	2	3	4	5
* Sample ID: CRI			13-1		Seq: 41	12:05:35 13 Feb 2002 ICP		
1	.0189	ppm	12.30 %	.0187	.0214	.0168		
3	.0104 L	ppm	46.31 %	.0056	.0103	.0152		
2	.0345 L	ppm	80.62 %	.0117	.0654	.0264		
1	.0002 L	ppm	17.74 %	.0003	.0002	.0002		
3	.0159 L	ppm	17.05 %	.0133	.0187	.0158		
1	.0107	ppm	16.62 %	.0123	.0088	.0109		
4	.0224	ppm	3.304 %	.0220	.0220	.0233		
2	-.0044 L	ppm	-136.2%	-.0112	-.0015	-.0004		
1	.0882 L	ppm	69.63 %	.1498	.0270	.0878		
4	-.0206 L	ppm	-104.0%	-.0146	-.0028	-.0444		
1	.0343	ppm	.7216 %	.0341	.0341	.0346		
2	.3807 L	ppm	32.86 %	.5180	.3508	.2732		
1	.1095	ppm	8.204 %	.1064	.1196	.1025		
4	-.0574 L	ppm	-12.80%	-.0658	-.0543	-.0521		
3	.0517	ppm	2.325 %	.0518	.0528	.0504		
* Sample ID: ICSA			13-1		Seq: 43	12:09:29 13 Feb 2002 ICP		
1	-.0011 L	ppm	-129.3%	-.0008	-.0026	.0002		
	521.4 H	ppm	1.392 %	529.5	519.2	515.5		
s2	.0527 L	ppm	148.4 %	.0399	-.0183	.1366		
a1	-.0007 L	ppm	-8.783%	-.0007	-.0008	-.0007		
a3	528.9	ppm	.5448 %	532.1	527.9	526.5		
d1	.0014 L	ppm	272.9 %	.0021	-.0027	.0049		
r4	.0060 L	ppm	29.63 %	.0040	.0075	.0064		
e2	195.4	ppm	.8656 %	197.3	194.9	194.0		
1	.0086 L	ppm	1571. %	-.1426	.1145	.0538		
g4	541.0 H	ppm	1.001 %	547.2	538.8	537.1		
n1	-.0003 L	ppm	-412.3%	-.0007	.0011	-.0013		
a2	.0821 L	ppm	54.60 %	.1128	.0307	.1028		
b1	.0552	ppm	78.09 %	.0433	.0193	.1030		
e4	.0728 L	ppm	220.6 %	.0585	.2402	-.0801		
n3	.0025 L	ppm	252.1 %	-.0046	.0047	.0074		

ine	Conc.	Units	SD/RSD	1	2	3	4	5
** Sample ID: ICSAB			13-1		Seq: 44	12:13:24 13 Feb 2002 ICP		
g1	1.085	ppm	1.592 %	1.097	1.092	1.065		
l3	517.9 H	ppm	1.185 %	523.6	518.8	511.4		
s2	.1208 L	ppm	64.67 %	.2099	.0882	.0643		
a1	.4849	ppm	1.213 %	.4903	.4858	.4786		
a3	530.3	ppm	1.088 %	535.5	531.3	524.1		
:d1	1.016	ppm	1.294 %	1.025	1.023	1.001		
:r4	.5068	ppm	1.100 %	.5124	.5068	.5012		
'e2	196.0	ppm	1.142 %	198.1	196.3	193.7		
: 1	.0233 L	ppm	873.2 %	.1148	.1655	-.2102		
lg4	541.0 H	ppm	1.070 %	546.5	541.7	535.0		
fn1	.5008	ppm	.9907 %	.5042	.5032	.4951		
la2	.0866 L	ppm	27.60 %	.1041	.0594	.0964		
'b1	1.062	ppm	3.542 %	1.105	1.050	1.032		
3e4	-.1327 L	ppm	-213.3%	.1834	-.2187	-.3627		
!n3	1.031	ppm	1.292 %	1.039	1.038	1.015		
*** Sample ID: CCV			13-1		Seq: 45	12:17:19 13 Feb 2002 ICP		
Ag'	.4829	ppm	1.643 %	.4838	.4904	.4746		
A.	9.852	ppm	.5707 %	9.839	9.914	9.804		
As2	1.984	ppm	4.218 %	2.007	2.054	1.891		
Ba1	9.692	ppm	.6509 %	9.680	9.760	9.636		
Ca3	49.66	ppm	.5436 %	49.50	49.97	49.52		
Cd1	.9868	ppm	1.145 %	.9827	.9996	.9781		
Cr4	.4905	ppm	.8697 %	.4867	.4951	.4896		
Fe2	5.080	ppm	.4421 %	5.086	5.099	5.055		
K 1	48.59	ppm	1.490 %	48.84	49.16	47.78		
Mg4	48.45	ppm	.7676 %	48.31	48.87	48.17		
Mn1	.7453	ppm	.3092 %	.7434	.7479	.7447		
Na2	48.71	ppm	1.445 %	49.04	49.19	47.90		
Pb1	.9819	ppm	2.455 %	1.008	.9771	.9605		
Se4	.9677	ppm	15.08 %	1.130	.8472	.9259		
Zn3	1.005	ppm	.6173 %	1.003	1.013	1.001		

ine	Conc.	Units	SD/RSD	1	2	3	4	5
** Sample ID: CCB			13-1		Seq: 47	12:21:14 13 Feb 2002 ICP		
g1	-.0015	L ppm	-107.0%	-.0018	-.0030	.0002		
13	.0071	L ppm	209.6 %	.0181	-.0097	.0128		
s2	.0079	L ppm	345.0 %	.0381	-.0002	-.0143		
a1	.0023	L ppm	13.57 %	.0026	.0020	.0024		
a3	.0201	L ppm	45.83 %	.0263	.0095	.0244		
d1	-.0000	L ppm	-1267.%	.0004	-.0000	-.0006		
r4	.0002	L ppm	590.1 %	-.0001	-.0006	.0012		
e2	.0018	L ppm	296.2 %	.0030	-.0040	.0063		
1	-.0398	L ppm	-466.2%	-.0601	-.2146	.1552		
lg4	.0120	L ppm	43.50 %	.0094	.0180	.0086		
In1	.0003	L ppm	109.7 %	.0007	-.0001	.0004		
la2	-.0067	L ppm	-448.0%	.0282	-.0236	-.0248		
b1	-.0054	L ppm	-278.5%	.0034	-.0226	.0031		
e4	-.0709	L ppm	-26.12%	-.0532	-.0902	-.0693		
n3	-.0006	L ppm	-88.40%	-.0011	-.0001	-.0005		
*** Sample ID: PBT 2/8			13-1		Seq: 48	12:25:09 13 Feb 2002 ICP		
g1	-.0040	L ppm	-99.36%	-.0083	-.0004	-.0033		
	.1319	ppm	2.052 %	.1291	.1320	.1345		
s2	.0099	L ppm	245.6 %	.0274	-.0178	.0200		
a1	.0004	L ppm	6.652 %	.0004	.0004	.0004		
a3	.1331	L ppm	3.431 %	.1362	.1278	.1352		
d1	-.0000	L ppm	-5853.%	-.0008	.0002	.0005		
r4	.0004	L ppm	942.6 %	.0016	.0039	-.0042		
e2	.0175	L ppm	12.70 %	.0149	.0184	.0191		
1	-.0720	L ppm	-109.2%	.0138	-.0892	-.1407		
lg4	.1365	L ppm	17.57 %	.1101	.1424	.1570		
Mn1	.0005	L ppm	85.80 %	.0000	.0009	.0007		
Na2	.1050	L ppm	8.623 %	.0948	.1084	.1119		
Pb1	-.0092	L ppm	-89.22%	-.0058	-.0185	-.0032		
Se4	-.1147	L ppm	-37.22%	-.1639	-.0890	-.0911		
Zn3	.0083	L ppm	14.96 %	.0098	.0076	.0076		

ne	Conc.	Units	SD/RSD	1	2	3	4	5
** Sample ID: LCST			13-1		Seq: 49	12:29:04 13 Feb 2002 ICP		
g1	.9013	ppm	1.406 %	.8867	.9081	.9092		
l3	49.85	ppm	1.265 %	49.34	50.56	49.66		
s2	2.022	ppm	.6952 %	2.031	2.031	2.006		
a1	1.615	ppm	1.561 %	1.594	1.643	1.607		
a3	110.6	ppm	1.088 %	109.5	111.9	110.3		
d1	.6959	ppm	1.277 %	.6860	.7031	.6985		
r4	1.468	ppm	.9020 %	1.457	1.483	1.465		
e2	88.00	ppm	1.398 %	86.91	89.33	87.76		
1	31.24	ppm	1.513 %	30.98	31.79	30.96		
g4	22.92	ppm	1.522 %	22.66	23.31	22.78		
n1	3.712	ppm	1.233 %	3.670	3.761	3.707		
a2	9.727	ppm	1.089 %	9.682	9.848	9.651		
b1	1.262	ppm	2.017 %	1.233	1.273	1.280		
e4	1.552	ppm	7.906 %	1.590	1.651	1.414		
n3	2.800	ppm	.6903 %	2.786	2.822	2.792		
*** Sample ID: 526404			13-1		Seq: 51	12:32:59 13 Feb 2002 ICP		
c	-.0004 L	ppm	-858.2%	.0031	-.0014	-.0028		
l	15.23	ppm	1.751 %	15.17	15.52	15.00		
s2	.1009 L	ppm	57.11 %	.0790	.1663	.0575		
a1	1.275	ppm	1.954 %	1.262	1.304	1.260		
a3	55.75	ppm	1.316 %	55.43	56.59	55.23		
d1	.0205	ppm	8.514 %	.0185	.0218	.0211		
r4	.2514	ppm	1.338 %	.2514	.2548	.2480		
e2	154.9	ppm	1.547 %	153.8	157.6	153.2		
K 1	40.16	ppm	2.453 %	39.80	41.27	39.40		
Mg4	9.318	ppm	2.087 %	9.192	9.542	9.220		
Mn1	2.224	ppm	1.502 %	2.207	2.262	2.202		
Na2	7.324	ppm	2.653 %	7.212	7.549	7.212		
Pb1	1.612	ppm	2.758 %	1.620	1.652	1.564		
Se4	-.0405 L	ppm	-257.2%	-.1113	.0791	-.0893		
Zn3	4.463	ppm	1.160 %	4.441	4.523	4.427		

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 526404D			13-1		Seq: 52		12:36:54 13 Feb 2002 ICP	
Ag1	.0022 L	ppm	96.66 %	.0044	.0002	.0020		
Al3	9.148	ppm	.8480 %	9.222	9.156	9.067		
As2	.0821 L	ppm	28.10 %	.0810	.1056	.0595		
Ba1	.7405	ppm	.7040 %	.7461	.7358	.7396		
Ca3	46.49	ppm	.2232 %	46.56	46.37	46.53		
Cd1	.0195	ppm	6.635 %	.0185	.0210	.0192		
Cr4	.1787	ppm	1.618 %	.1810	.1798	.1755		
Fe2	139.5	ppm	.4207 %	140.1	139.0	139.3		
K 1	34.41	ppm	.2442 %	34.49	34.42	34.32		
Mg4	6.262	ppm	.7566 %	6.316	6.230	6.239		
Mn1	1.847	ppm	.2923 %	1.853	1.846	1.842		
Na2	6.742	ppm	3.063 %	6.963	6.553	6.712		
Pb1	1.348	ppm	.3351 %	1.351	1.343	1.350		
Se4	-.0422 L	ppm	-130.5%	.0155	-.0479	-.0942		
Zn3	4.105	ppm	.2867 %	4.118	4.102	4.095		
*** Sample ID: 526404S			13-1 1/5		Seq: 53		12:40:49 13 Feb 2002 ICP	
Ag1	.8845	ppm	1.932 %	.8750	.8743	.9043		
Al	4.079	ppm	1.350 %	4.019	4.090	4.127		
As2	1.243	ppm	1.028 %	1.252	1.229	1.249		
Ba1	1.366	ppm	2.192 %	1.333	1.373	1.392		
Ca3	15.68	ppm	.9303 %	15.51	15.74	15.78		
Cd1	.2621	ppm	.2146 %	.2614	.2624	.2624		
Cr4	1.289	ppm	1.824 %	1.271	1.281	1.316		
Fe2	41.96	ppm	1.495 %	41.27	42.12	42.49		
K 1	9.421	ppm	2.090 %	9.411	9.229	9.623		
Mg4	2.623	ppm	1.867 %	2.612	2.581	2.677		
Mn1	.6035	ppm	1.448 %	.5939	.6056	.6110		
Na2	1.611	ppm	5.113 %	1.555	1.572	1.705		
Pb1	1.694	ppm	1.167 %	1.712	1.698	1.673		
Se4	.1698 L	ppm	12.49 %	.1673	.1922	.1500		
Zn3	1.160	ppm	.8758 %	1.148	1.166	1.166		

spk not spkd for Mn, Zn
CH 2/13/02

.ine	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 526404S			13-1		Seq: 55	12:44:44 13 Feb 2002 ICP		
Ag1	3.556	ppm	.3527 %	3.548	3.570	3.548		
Al3	17.30	ppm	.4011 %	17.31	17.37	17.23		
As2	5.098 H	ppm	.9911 %	5.140	5.112	5.042		
Ba1	5.879	ppm	.2813 %	5.885	5.892	5.860		
Ca3	63.09	ppm	.4404 %	62.96	63.41	62.90		
Cd1	1.013	ppm	.4389 %	1.010	1.018	1.011		
Cr4	5.210	ppm	.6215 %	5.195	5.247	5.188		
Fe2	168.0	ppm	.4174 %	168.1	168.7	167.3		
K 1	40.07	ppm	.5871 %	40.20	39.80	40.21		
Mg4	10.66	ppm	.8082 %	10.59	10.75	10.62		
Mn1	2.452	ppm	.5242 %	2.455	2.462	2.438		
Na2	7.076	ppm	.4741 %	7.113	7.068	7.047		
Pb1	6.584	ppm	.6682 %	6.537	6.624	6.591		
Se4	.8955	ppm	10.59 %	.9772	.9179	.7914		
Zn3	4.463	ppm	.6151 %	4.477	4.481	4.431		
*** Sample ID: 526404A			13-1		Seq: 56	12:48:39 13 Feb 2002 ICP		
			1/5					
Ar1	1.182	ppm	2.209 %	1.153	1.192	1.202		
A	3.362	ppm	2.910 %	3.249	3.421	3.415		
As2	1.238	ppm	6.098 %	1.175	1.219	1.322		
Ba1	1.329	ppm	3.039 %	1.282	1.349	1.354		
Ca3	12.72	ppm	1.619 %	12.48	12.79	12.88		
Cd1	.2537	ppm	1.995 %	.2479	.2568	.2565		
Cr4	1.239	ppm	2.647 %	1.202	1.264	1.252		
Fe2	35.67	ppm	2.335 %	34.71	36.10	36.20		
K 1	8.583	ppm	3.790 %	8.208	8.747	8.793		
Mg4	2.116	ppm	2.633 %	2.057	2.123	2.168		
Mn1	.8417	ppm	2.158 %	.8208	.8519	.8526		
Na2	1.545	ppm	3.772 %	1.482	1.557	1.597		
Pb1	1.626	ppm	1.051 %	1.622	1.645	1.612		
Se4	.2575 L	ppm	31.84 %	.2919	.3166	.1639		
Zn3	1.573	ppm	2.504 %	1.528	1.589	1.602		

ne	Conc.	Units	SD/RSD	1	2	3	4	5
* Sample ID: 526404A 13-1 Seq: 57 12:52:34 13 Feb 2002 ICP								
l1	5.026 H	ppm	.8239 %	5.063	4.981	5.033		
3	14.94	ppm	1.486 %	15.17	14.73	14.93		
s2	5.239 H	ppm	.4589 %	5.251	5.254	5.211		
l1	6.094	ppm	1.542 %	6.193	6.006	6.083		
a3	54.27	ppm	1.059 %	54.81	53.67	54.35		
d1	1.038	ppm	.6529 %	1.044	1.031	1.040		
r4	5.304	ppm	1.117 %	5.353	5.238	5.321		
e2	151.8	ppm	1.114 %	153.5	150.1	151.7		
1	39.01	ppm	1.691 %	39.75	38.47	38.83		
g4	9.051	ppm	1.718 %	9.205	8.894	9.053		
n1	3.615	ppm	1.138 %	3.654	3.572	3.618		
a2	7.275	ppm	1.973 %	7.416	7.129	7.279		
b1	6.697	ppm	1.011 %	6.775	6.651	6.665		
e4	1.020	ppm	5.878 %	1.088	.9960	.9761		
n3	6.453	ppm	.8378 %	6.497	6.393	6.470		
** Sample ID: 526404L 13-1 Seq: 59 12:56:29 13 Feb 2002 ICP								
g	.0003 L	ppm	740.1 %	.0026	-.0000	-.0017		
l	3.557	ppm	2.136 %	3.484	3.550	3.636		
s2	.0340 L	ppm	49.17 %	.0449	.0423	.0147		
a1	.2966	ppm	2.139 %	.2913	.2949	.3037		
a3	13.20	ppm	1.400 %	13.01	13.22	13.38		
d1	.0050	ppm	19.87 %	.0051	.0040	.0060		
r4	.0612	ppm	2.637 %	.0596	.0628	.0613		
e2	37.39	ppm	1.613 %	36.84	37.29	38.03		
1	9.191	ppm	3.237 %	8.886	9.208	9.480		
g4	2.216	ppm	.4399 %	2.206	2.218	2.225		
n1	.5350	ppm	1.905 %	.5246	.5356	.5449		
a2	1.706	ppm	2.976 %	1.714	1.652	1.752		
b1	.4019	ppm	.8306 %	.3990	.4055	.4011		
e4	-.0465 L	ppm	-170.8%	.0436	-.1059	-.0771		
n3	1.117	ppm	1.107 %	1.103	1.123	1.126		

ine	Conc.	Units	SD/RSD	1	2	3	4	5
** Sample ID: CCV			13-1		Seq: 60	13:00:24 13 Feb 2002 ICP		
g1	.4926	ppm	1.673 %	.4852	.5015	.4912		
l3	10.15	ppm	1.615 %	10.06	10.34	10.06		
s2	2.075	ppm	2.321 %	2.021	2.113	2.090		
a1	10.12	ppm	1.738 %	10.03	10.32	10.00		
a3	50.98	ppm	1.196 %	50.33	51.54	51.07		
d1	1.032	ppm	1.162 %	1.019	1.043	1.032		
r4	.5125	ppm	2.366 %	.4996	.5237	.5144		
e2	5.226	ppm	1.415 %	5.187	5.311	5.180		
1	51.36	ppm	2.319 %	51.15	52.63	50.28		
g4	50.56	ppm	1.600 %	49.99	51.48	50.19		
n1	.7745	ppm	1.141 %	.7675	.7844	.7715		
a2	52.12	ppm	1.970 %	52.43	52.96	50.98		
b1	1.038	ppm	2.891 %	1.008	1.068	1.039		
e4	.9711	ppm	9.533 %	.8663	1.005	1.042		
n3	1.048	ppm	1.539 %	1.032	1.064	1.049		
*** Sample ID: CCB			13-1		Seq: 61	13:04:19 13 Feb 2002 ICP		
g	-.0026 L	ppm	-38.50%	-.0016	-.0036	-.0027		
l	.0074 L	ppm	276.2 %	-.0076	.0309	-.0010		
s2	.0119 L	ppm	324.6 %	.0477	.0172	-.0291		
a1	.0018 L	ppm	25.02 %	.0022	.0020	.0013		
a3	.0099 L	ppm	32.49 %	.0082	.0137	.0079		
d1	.0003 L	ppm	253.6 %	-.0004	.0001	.0013		
r4	.0013 L	ppm	81.08 %	.0026	.0004	.0011		
e2	-.0053 L	ppm	-41.69%	-.0078	-.0041	-.0038		
1	.0161 L	ppm	839.3 %	.1037	-.1393	.0839		
g4	.0063 L	ppm	237.1 %	.0111	.0182	-.0104		
n1	.0005 L	ppm	56.60 %	.0002	.0007	.0005		
a2	-.0390 L	ppm	-37.27%	-.0326	-.0287	-.0556		
b1	.0227 L	ppm	102.7 %	.0244	.0450	-.0014		
e4	-.0154 L	ppm	-437.6%	-.0360	.0599	-.0701		
n3	-.0000 L	ppm	-11860%	-.0021	.0004	.0016		

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: CRI			13-1		Seq: 63	13:08:14 13 Feb 2002 ICP		
Ag1	.0209	ppm	8.262 %	.0217	.0221	.0189		
Al3	.0095 L	ppm	179.4 %	.0274	-.0065	.0076		
As2	.0609 L	ppm	4.484 %	.0615	.0580	.0633		
Ba1	.0004 L	ppm	13.30 %	.0005	.0004	.0004		
Ca3	.0120 L	ppm	25.79 %	.0151	.0089	.0119		
Cd1	.0124	ppm	3.080 %	.0122	.0128	.0122		
Cr4	.0229	ppm	13.01 %	.0259	.0199	.0229		
Fe2	-.0074 L	ppm	-10.78%	-.0083	-.0072	-.0067		
K 1	.0579 L	ppm	214.0 %	-.0852	.1314	.1275		
Mg4	-.0054 L	ppm	-504.5%	-.0193	-.0228	.0259		
Mn1	.0370	ppm	.4330 %	.0372	.0370	.0368		
Na2	-.0259 L	ppm	-53.74%	-.0137	-.0230	-.0410		
Pb1	.1393	ppm	4.503 %	.1462	.1338	.1380		
Se4	.0203 L	ppm	643.8 %	.0940	.0973	-.1304		
Zn3	.0522	ppm	5.352 %	.0551	.0495	.0522		
*** Sample ID: ICSA			13-1		Seq: 64	13:12:09 13 Feb 2002 ICP		
Ag1	-.0045 L	ppm	-18.63%	-.0044	-.0037	-.0054		
Al3	549.6 H	ppm	.5506 %	550.6	552.0	546.2		
As2	.0214 L	ppm	328.6 %	-.0457	.0947	.0152		
Ba1	-.0007 L	ppm	-15.36%	-.0008	-.0007	-.0006		
Ca3	565.1	ppm	.1616 %	565.1	564.2	566.0		
Cd1	-.0004 L	ppm	-606.6%	-.0000	-.0029	.0017		
Cr4	.0044 L	ppm	39.21 %	.0035	.0064	.0033		
Fe2	208.6 H	ppm	.1324 %	208.6	208.8	208.3		
K 1	.1652 L	ppm	94.05 %	-.0029	.1951	.3035		
Mg4	572.2 H	ppm	.1934 %	572.4	573.1	571.0		
Mn1	-.0014 L	ppm	-52.40%	-.0006	-.0015	-.0020		
Na2	.0526 L	ppm	27.83 %	.0550	.0369	.0658		
Pb1	-.0049 L	ppm	-513.8%	.0141	-.0335	.0047		
Se4	-.2043 L	ppm	-111.2%	.0385	-.2394	-.4119		
Zn3	-.0029 L	ppm	-93.93%	-.0060	-.0022	-.0006		

ine	Conc.	Units	SD/RSD	1	2	3	4	5
** Sample ID: ICSAB			13-1		Seq: 65	13:16:04 13 Feb 2002 ICP		
g1	1.102	ppm	.6045 %	1.109	1.096	1.102		
l3	524.6 H	ppm	.8569 %	528.3	519.6	525.9		
s2	.0738 L	ppm	53.74 %	.1082	.0304	.0829		
a1	.4919	ppm	1.038 %	.4962	.4863	.4931		
a3	547.6	ppm	.6972 %	549.2	543.2	550.3		
d1	1.052	ppm	.4303 %	1.050	1.048	1.057		
r4	.5154	ppm	.7303 %	.5193	.5118	.5151		
e2	201.9 H	ppm	.6215 %	202.7	200.4	202.5		
1	.1477 L	ppm	113.7 %	-.0287	.1663	.3056		
lg4	550.0 H	ppm	.7696 %	553.0	545.2	551.8		
ln1	.5141	ppm	.8322 %	.5162	.5092	.5169		
la2	.0400 L	ppm	172.5 %	.0999	.0555	-.0354		
'b1	1.083	ppm	4.183 %	1.080	1.040	1.130		
'e4	-.1059 L	ppm	-39.07%	-.0955	-.1515	-.0707		
'n3	1.065	ppm	.8384 %	1.064	1.057	1.074		
*** Sample ID: CCV			13-1		Seq: 67	13:20:01 13 Feb 2002 ICP		
Ag1	.5102	ppm	1.023 %	.5148	.5114	.5045		
Al	10.41	ppm	.8392 %	10.50	10.39	10.33		
As2	2.153	ppm	2.499 %	2.215	2.122	2.121		
Ba1	10.35	ppm	.9994 %	10.47	10.29	10.29		
Ca3	52.17	ppm	.8112 %	52.64	51.82	52.06		
Cd1	1.032	ppm	1.577 %	1.051	1.021	1.025		
Cr4	.5205	ppm	2.717 %	.5365	.5097	.5152		
Fe2	5.390	ppm	1.161 %	5.462	5.352	5.356		
K 1	52.80	ppm	.9786 %	53.29	52.85	52.26		
Mg4	51.17	ppm	.9815 %	51.75	50.92	50.85		
Mn1	.7854	ppm	.5543 %	.7889	.7805	.7867		
Na2	52.74	ppm	.7442 %	53.09	52.82	52.31		
Pb1	1.055	ppm	1.824 %	1.077	1.042	1.047		
Se4	1.087	ppm	5.179 %	1.147	1.077	1.036		
Zn3	1.044	ppm	.9785 %	1.055	1.041	1.035		

ne	Conc.	Units	SD/RSD	1	2	3	4	5
** Sample ID: CCB			13-1		Seq: 68	13:23:57 13 Feb 2002 ICP		
g1	-.0021	L ppm	-98.79%	-.0041	-.0021	-.0000		
l3	.0290	L ppm	27.47 %	.0359	.0203	.0308		
s2	.0282	L ppm	95.64 %	.0437	.0439	-.0029		
a1	.0018	L ppm	37.14 %	.0023	.0020	.0011		
a3	.0280	L ppm	8.469 %	.0285	.0301	.0254		
d1	-.0002	L ppm	-248.2%	-.0007	-.0001	.0002		
r4	-.0002	L ppm	-1375.%	-.0020	-.0006	.0022		
e2	.0049	L ppm	42.27 %	.0058	.0064	.0026		
1	.0918	L ppm	115.8 %	.0931	.1974	-.0152		
lg4	.0264	L ppm	69.72 %	.0337	.0054	.0399		
In1	.0000	L ppm	1828. %	-.0004	.0008	-.0003		
la2	.0214	L ppm	222.2 %	.0101	.0737	-.0195		
'b1	.0030	L ppm	725.3 %	-.0187	.0249	.0028		
;e4	-.0024	L ppm	-5293.%	.0339	.1030	-.1441		
!n3	-.0006	L ppm	-220.5%	-.0017	-.0008	.0008		

Metals Cover Page

Instrument: FIMS

Analyst: DCB Date: 2/5/02

Data File: Feb-05w Reviewed By: DCB

Entered By: DCB Manager Approval: SD 2/6/02

Starlims Run #	Analytes Used	Batch ID	Method Requested	Failed Analytes	Comments / Problems
14195	Hg	M2480130A	7470 TCLP		
74245	Hg	M2480130B	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
K-10427	Pkg 5 / ASP	Hg		M2480130A	YES / NO	MARRS to LIMS / Run Created Above	YES / NO
K-10427	Pkg 5 / ASP	Hg		M2480130B	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

Perkin-Elmer AAWinLab: 02/05/2002, 08:56:27 AM

==========

Method Name: Hg_CLP
Method Description: Method 245.1A FIMS
Element: Hg

2/5/02
DCB

Date: 02/05/2002
Technique:FI-MHS
Calibration Type:
Hg, Zero Intercept: Linear
Wavelength: 253.7 nm
Sample Info Name: ROUTINE.SIF Results Data Set Name: Feb-05w

==========

Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 02/05/2002
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0003	0.0010	0.0003	08:57:24	No
2			0.0002	0.0008	0.0002	08:57:53	No
Mean:			0.0003				
SD :			0.0000				
%RSD:			2.1201				

Auto-zero performed.

==========

Element: Hg Seq. No.: 2 AS Loc.: 8 Date: 02/05/2002
Sample ID: 0.2ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0021	0.0107	0.0024	08:59:13	No
2			0.0021	0.0108	0.0024	08:59:42	No
Mean:			0.0021				
SD :			0.0000				
%RSD:			0.9387				

[Hg] Standard number 1 applied. [0.2000]
Correlation Coefficient: 1.00000 Slope: 0.01061

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Element: Hg Seq. No.: 3 AS Loc.: 2 Date: 02/05/2002
Sample ID: 0.5ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0051	0.0251	0.0054	09:01:03	No
2			0.0051	0.0252	0.0054	09:01:32	No
Mean:			0.0051				
SD :			0.0000				
%RSD:							

[Hg] Standard number 2 applied. [0.5000]
Correlation Coefficient: 0.99963 Slope: 0.01033

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Element: Hg Seq. No.: 4 AS Loc.: 3 Date: 02/05/2002
Sample ID: 1ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0103	0.0489	0.0106	09:02:51	No
2			0.0104	0.0494	0.0107	09:03:21	No
Mean:			0.0104				
SD :			0.0001				
%RSD:			0.7075				

[Hg] Standard number 3 applied. [1.000]

Correlation Coefficient: 0.99995 Slope: 0.01036

==========

Element: Hg Seq. No.: 5 AS Loc.: 4 Date: 02/05/2002
Sample ID: 2ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0210	0.0998	0.0213	09:04:44	No
2			0.0212	0.0997	0.0214	09:05:14	No
Mean:			0.0211				
SD :			0.0001				
%RSD:			0.5097				

[Hg] Standard number 4 applied. [2.000]
Correlation Coefficient: 0.99991 Slope: 0.01050

==========

Element: Hg Seq. No.: 6 AS Loc.: 5 Date: 02/05/2002
Sample ID: 5ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0522	0.2453	0.0524	09:06:34	No
2			0.0528	0.2469	0.0530	09:07:03	No
Mean:			0.0525				
SD :			0.0004				
%RSD:			0.8078				

[Hg] Standard number 5 applied. [5.000]
Correlation Coefficient: 0.99999 Slope: 0.01049

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Element: Hg Seq. No.: 7 AS Loc.: 6 Date: 02/05/2002
Sample ID: 10ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.1036	0.4869	0.1038	09:08:24	No
2			0.1044	0.4873	0.1046	09:08:54	No
Mean:			0.1040				
SD :			0.0006				
%RSD:			0.5450				

[Hg] Standard number 6 applied. [10.00]
Correlation Coefficient: 0.99998 Slope: 0.01042

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	0.0021	0.2000	0.2036	0.00002	0.9
0.5ppb std	0.0051	0.5000	0.4936	0.00000	----
1ppb std	0.0104	1.0000	0.9950	0.00007	0.7
2ppb std	0.0211	2.0000	2.023	0.00011	0.5
5ppb std	0.0525	5.0000	5.036	0.00042	0.8
10ppb std	0.1040	10.0000	9.978	0.00057	0.5

Correlation Coefficient: 0.99998 Slope: 0.01042 ----

==========

Element: Hg Seq. No.: 8 AS Loc.: 7 Date: 02/05/2002
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	3.060	3.060	0.0319	0.1501	0.0321	09:10:15	No
2	3.081	3.081	0.0321	0.1510	0.0324	09:10:44	No
Mean:	3.071	3.071	0.0320				
SD :	0.01492	0.01492	0.0002				
%RSD:	0.5	0.5	0.4859				

QC value within specified limits.

==========

Element: Hg Seq. No.: 9 AS Loc.: 1 Date: 02/05/2002
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0023	-0.0023	0.0000	0.0007	0.0002	09:12:03	No
2	-0.0016	-0.0016	0.0000	0.0008	0.0002	09:12:33	No
Mean:	-0.0019	-0.0019	0.0000				
SD :	0.00046	0.00046	0.0000				
%RSD:	23.9	23.9	23.9405				

QC value within specified limits.

==========

Element: Hg Seq. No.: 10 AS Loc.: 8 Date: 02/05/2002
Sample ID: CRII

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.2152	0.2152	0.0022	0.0112	0.0025	09:13:53	No
2	0.2178	0.2178	0.0023	0.0112	0.0025	09:14:22	No
Mean:	0.2165	0.2165	0.0023				
SD :	0.00187	0.00187	0.0000				
%RSD:	0.9	0.9	0.8649				

QC value within specified limits.

==========

Element: Hg Seq. No.: 11 AS Loc.: 7 Date: 02/05/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.128	3.128	0.0326	0.1527	0.0328	09:15:44	No
2	3.124	3.124	0.0326	0.1534	0.0328	09:16:14	No
Mean:	3.126	3.126	0.0326				
SD :	0.00244	0.00244	0.0000				
%RSD:							

QC value within specified limits.

==========

Element: Hg Seq. No.: 12 AS Loc.: 1 Date: 02/05/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0007	-0.0007	0.0000	0.0010	0.0002	09:17:37	No
2	0.0006	0.0006	0.0000	0.0012	0.0003	09:18:06	No
Mean:	-0.0001	-0.0001	0.0000				
SD :	0.00090	0.00090	0.0000				
%RSD:	1580	1580	1580.2242				

QC value within specified limits.

==========

Element: Hg Seq. No.: 13 2/6/02 DCB AS Loc.: 9 Date: 02/05/2002
Sample ID: PBT-M2480130A 29456

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	0.0104	0.0104	0.0001	0.0013	0.0004	09:19:23	No
2	0.0076	0.0076	0.0001	0.0012	0.0003	09:19:52	No
Mean:	0.0090	0.0090	0.0001				
SD :	0.00200	0.00200	0.0000				
%RSD:	22.3	22.3	22.2661				

Element: Hg Seq. No.: 14 2/6/02 DCB AS Loc.: 10 Date: 02/05/2002
Sample ID: LCST-M248130A 529257

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.005	1.005	0.0105	0.0495	0.0107	09:21:09	No
2	1.005	1.005	0.0105	0.0493	0.0107	09:21:38	No
Mean:	1.005	1.005	0.0105				
SD :	0.00045	0.00045	0.0000				
%RSD:							

Element: Hg Seq. No.: 15 2/5/02 DCB AS Loc.: 11 Date: 02/05/2002
Sample ID: ~~526936~~ 526396 5/2/4/02 high RSD - see reanalysis at end

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0695	0.0695	0.0007	0.0068	0.0010	09:22:55	No
2	0.0179	0.0179	0.0002	0.0027	0.0004	09:23:24	No
Mean:	0.0437	0.0437	0.0005				
SD :	0.03644	0.03644	0.0004				
%RSD:	83.4	83.4	83.4091				

Element: Hg Seq. No.: 16 AS Loc.: 12 Date: 02/05/2002
Sample ID: 526405

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0006	-0.0006	0.0000	0.0009	0.0002	09:24:43	No
2	-0.0020	-0.0020	0.0000	0.0008	0.0002	09:25:13	No
Mean:	-0.0013	-0.0013	0.0000				
SD :	0.00094	0.00094	0.0000				
%RSD:	72.0	72.0	71.9710				

Element: Hg Seq. No.: 17 AS Loc.: 13 Date: 02/05/2002
Sample ID: 526406

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0193	0.0193	0.0002	0.0020	0.0005	09:26:32	No
2	0.0168	0.0168	0.0002	0.0015	0.0004	09:27:01	No
Mean:	0.0180	0.0180	0.0002				
SD :	0.00175	0.00175	0.0000				
%RSD:	9.7	9.7	9.7345				

Element: Hg Seq. No.: 18 AS Loc.: 14 Date: 02/05/2002
Sample ID: 526407

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0047	0.0047	0.0000	0.0011	0.0003	09:28:22	No
2	0.0005	0.0005	0.0000	0.0008	0.0003	09:28:51	No
Mean:	0.0026	0.0026	0.0000				
SD :	0.00299	0.00299	0.0000				
%RSD:	114.7	114.7	114.6765				

Element: Hg Seq. No.: 19 AS Loc.: 15 Date: 02/05/2002
Sample ID: 526408

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0008	-0.0008	0.0000	0.0010	0.0002	09:30:12	No
2	-0.0008	-0.0008	0.0000	0.0008	0.0002	09:30:41	No
Mean:	-0.0008	-0.0008	0.0000				
SD :	0.00005	0.00005	0.0000				
%RSD:	6.4	6.4	6.4448				

Element: Hg Seq. No.: 20 AS Loc.: 16 Date: 02/05/2002
Sample ID: 526409

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0029	0.0029	0.0000	0.0013	0.0003	09:32:04	No
2	0.0043	0.0043	0.0000	0.0014	0.0003	09:32:34	No
Mean:	0.0036	0.0036	0.0000				
SD :	0.00098	0.00098	0.0000				
%RSD:	27.0	27.0	26.9515				

Element: Hg Seq. No.: 21 AS Loc.: 17 Date: 02/05/2002
Sample ID: 526410

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0010	-0.0010	0.0000	0.0007	0.0002	09:33:52	No
2	0.0023	0.0023	0.0000	0.0011	0.0003	09:34:21	No
Mean:	0.0006	0.0006	0.0000				
SD :	0.00233	0.00233	0.0000				
%RSD:	378.4	378.4	378.4108				

Element: Hg Seq. No.: 22 AS Loc.: 18 Date: 02/05/2002
Sample ID: 526411

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0252	0.0252	0.0003	0.0031	0.0005	09:35:37	No
2	0.0102	0.0102	0.0001	0.0017	0.0004	09:36:06	No
Mean:	0.0177	0.0177	0.0002				
SD :	0.01060	0.01060	0.0001				
%RSD:	59.8	59.8	59.8452				

Element: Hg Seq. No.: 23 AS Loc.: 7 Date: 02/05/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.242	3.242	0.0338	0.1570	0.0340	09:37:26	No
2	3.268	3.268	0.0341	0.1568	0.0343	09:37:55	No
Mean:	3.255	3.255	0.0339				
SD :	0.01858	0.01858	0.0002				
%RSD:	0.6	0.6	0.5709				

QC value within specified limits.

Element: Hg Seq. No.: 24 AS Loc.: 1 Date: 02/05/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	-0.0004	-0.0004	0.0000	0.0006	0.0002	09:39:15	No
2	0.0010	0.0010	0.0000	0.0008	0.0003	09:39:44	No
Mean:	0.0003	0.0003	0.0000				
SD :	0.00098	0.00098	0.0000				
%RSD:	327.9	327.9	327.8712				

QC value within specified limits.

Element: Hg Seq. No.: 25 AS Loc.: 19 Date: 02/05/2002
Sample ID: 526413

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0122	0.0122	0.0001	0.0020	0.0004	09:41:01	No
2	0.0107	0.0107	0.0001	0.0016	0.0004	09:41:30	No
Mean:	0.0114	0.0114	0.0001				
SD :	0.00102	0.00102	0.0000				
%RSD:	8.9	8.9	8.9358				

Element: Hg Seq. No.: 26 2/6/02 DCB AS Loc.: 20 Date: 02/05/2002
Sample ID: 526413D 529254

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0030	0.0030	0.0000	0.0009	0.0003	09:42:47	No
2	0.0061	0.0061	0.0001	0.0014	0.0003	09:43:16	No
Mean:	0.0045	0.0045	0.0000				
SD :	0.00221	0.00221	0.0000				
%RSD:	48.8	48.8	48.7723				

Element: Hg Seq. No.: 27 2/6/02 DCB AS Loc.: 21 Date: 02/05/2002
Sample ID: 526413S 529255

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.074	1.074	0.0112	0.0521	0.0114	09:44:33	No
2	1.064	1.064	0.0111	0.0512	0.0113	09:45:02	No
Mean:	1.069	1.069	0.0111				
SD :	0.00761	0.00761	0.0001				
%RSD:	0.7	0.7	0.7116				

Element: Hg Seq. No.: 28 AS Loc.: 22 Date: 02/05/2002
Sample ID: 526562

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0043	0.0043	0.0000	0.0009	0.0003	09:46:19	No
2	0.0055	0.0055	0.0001	0.0009	0.0003	09:46:49	No
Mean:	0.0049	0.0049	0.0001				
SD :	0.00083	0.00083	0.0000				
%RSD:	17.0	17.0	17.0415				

Element: Hg Seq. No.: 29 AS Loc.: 23 Date: 02/05/2002
Sample ID: 526564

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0160	0.0160	0.0002	0.0019	0.0004	09:48:07	No
2	0.0154	0.0154	0.0002	0.0017	0.0004	09:48:36	No
Mean:	0.0157	0.0157	0.0002				
SD :	0.00042	0.00042	0.0000				

%RSD:	2.7	2.7	2.6633

Element: Hg Seq. No.: 30 AS Loc.: 24 Date: 02/05/2002
Sample ID: 526565

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0233	0.0233	0.0002	0.0020	0.0005	09:49:55	No
2	0.0226	0.0226	0.0002	0.0020	0.0005	09:50:24	No
Mean:	0.0230	0.0230	0.0002				
SD :	0.00047	0.00047	0.0000				
%RSD:	2.1	2.1	2.0621				

Element: Hg Seq. No.: 31 2/7/02 DCB AS Loc.: 25 Date: 02/05/2002
Sample ID: PBW-M2480130B 529471

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0024	0.0024	0.0000	0.0010	0.0003	09:51:43	No
2	0.0000	0.0000	0.0000	0.0008	0.0003	09:52:12	No
Mean:	0.0012	0.0012	0.0000				
SD :	0.00171	0.00171	0.0000				
%RSD:	145.6	145.6	145.6040				

Element: Hg Seq. No.: 32 2/7/02 DCB AS Loc.: 26 Date: 02/05/2002
Sample ID: LCSW-M2480130B 529472

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.065	1.065	0.0111	0.0523	0.0113	09:53:31	No
2	1.068	1.068	0.0111	0.0523	0.0114	09:54:00	No
Mean:	1.066	1.066	0.0111				
SD :	0.00186	0.00186	0.0000				
%RSD:	0.2	0.2	0.1749				

Element: Hg Seq. No.: 33 AS Loc.: 27 Date: 02/05/2002
Sample ID: 526346

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0148	0.0148	0.0002	0.0019	0.0004	09:55:20	No
2	0.0156	0.0156	0.0002	0.0015	0.0004	09:55:49	No
Mean:	0.0152	0.0152	0.0002				
SD :	0.00053	0.00053	0.0000				
%RSD:	3.5	3.5	3.4925				

Element: Hg Seq. No.: 34 AS Loc.: 28 Date: 02/05/2002
Sample ID: 526348

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0313	0.0313	0.0003	0.0021	0.0006	09:57:11	No
2	0.0407	0.0407	0.0004	0.0028	0.0007	09:57:40	No
Mean:	0.0360	0.0360	0.0004				
SD :	0.00665	0.00665	0.0001				
%RSD:	18.5	18.5	18.4535				

Element: Hg Seq. No.: 35 AS Loc.: 7 Date: 02/05/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.089	3.089	0.0322	0.1517	0.0324	09:59:01	No
2	3.089	3.089	0.0322	0.1519	0.0324	09:59:30	No
Mean:	3.089	3.089	0.0322				
SD :	0.00033	0.00033	0.0000				
%RSD:							

QC value within specified limits.

Element: Hg Seq. No.: 36 AS Loc.: 1 Date: 02/05/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0018	0.0018	0.0000	0.0012	0.0003	10:00:50	No
2	-0.0007	-0.0007	0.0000	0.0008	0.0002	10:01:19	No
Mean:	0.0005	0.0005	0.0000				
SD :	0.00181	0.00181	0.0000				
%RSD:	336.1	336.1	336.1116				

QC value within specified limits.

Element: Hg Seq. No.: 37 AS Loc.: 29 Date: 02/05/2002
Sample ID: 526349

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0436	0.0436	0.0005	0.0030	0.0007	10:02:38	No
2	0.0500	0.0500	0.0005	0.0034	0.0008	10:03:07	No
Mean:	0.0468	0.0468	0.0005				
SD :	0.00455	0.00455	0.0000				
%RSD:	9.7	9.7	9.7123				

Element: Hg Seq. No.: 38 AS Loc.: 30 Date: 02/05/2002
Sample ID: 526351

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.1288	0.1288	0.0013	0.0073	0.0016	10:04:28	No
2	0.1311	0.1311	0.0014	0.0075	0.0016	10:04:57	No
Mean:	0.1299	0.1299	0.0014				
SD :	0.00163	0.00163	0.0000				
%RSD:	1.3	1.3	1.2538				

Element: Hg Seq. No.: 39 2/7/02 DCB AS Loc.: 31 Date: 02/05/2002
Sample ID: 526351D 529464

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.1290	0.1290	0.0013	0.0075	0.0016	10:06:18	No
2	0.1269	0.1269	0.0013	0.0072	0.0016	10:06:47	No
Mean:	0.1280	0.1280	0.0013				
SD :	0.00144	0.00144	0.0000				
%RSD:	1.1	1.1	1.1240				

Element: Hg Seq. No.: 40 2/7/02 AS Loc.: 32 Date: 02/05/2002
Sample ID: 526351S 529470 DCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	1.200	1.200	0.0125	0.0598	0.0128	10:08:06	No
2	1.188	1.188	0.0124	0.0595	0.0126	10:08:36	No
Mean:	1.194	1.194	0.0124				
SD :	0.00890	0.00890	0.0001				
%RSD:	0.7	0.7	0.7453				

Element: Hg Seq. No.: 41 AS Loc.: 33 Date: 02/05/2002
Sample ID: 526352

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0602	0.0602	0.0006	0.0042	0.0009	10:09:51	No
2	0.0560	0.0560	0.0006	0.0036	0.0008	10:10:20	No
Mean:	0.0581	0.0581	0.0006				
SD :	0.00297	0.00297	0.0000				
%RSD:	5.1	5.1	5.1138				

Element: Hg Seq. No.: 42 AS Loc.: 34 Date: 02/05/2002
Sample ID: 526353

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0051	0.0051	0.0001	0.0012	0.0003	10:11:35	No
2	0.0100	0.0100	0.0001	0.0018	0.0004	10:12:04	No
Mean:	0.0075	0.0075	0.0001				
SD :	0.00342	0.00342	0.0000				
%RSD:	45.4	45.4	45.3904				

Element: Hg Seq. No.: 43 AS Loc.: 35 Date: 02/05/2002
Sample ID: 526354

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0273	0.0273	0.0003	0.0024	0.0005	10:13:20	No
2	0.0309	0.0309	0.0003	0.0027	0.0006	10:13:49	No
Mean:	0.0291	0.0291	0.0003				
SD :	0.00251	0.00251	0.0000				
%RSD:	8.6	8.6	8.6381				

Element: Hg Seq. No.: 44 AS Loc.: 36 Date: 02/05/2002
Sample ID: 526356

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0493	0.0493	0.0005	0.0033	0.0008	10:15:06	No
2	0.0502	0.0502	0.0005	0.0035	0.0008	10:15:36	No
Mean:	0.0498	0.0498	0.0005				
SD :	0.00060	0.00060	0.0000				
%RSD:	1.2	1.2	1.2047				

Element: Hg Seq. No.: 45 AS Loc.: 37 Date: 02/05/2002
Sample ID: 526357

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	10:16:52	No
2	0.0123	0.0123	0.0001	0.0018	0.0004	10:17:21	No
Mean:	0.0101	0.0101	0.0001				
SD :	0.00307	0.00307	0.0000				
%RSD:	30.3	30.3	30.3188				

Element: Hg Seq. No.: 46 AS Loc.: 38 Date: 02/05/2002
Sample ID: 526358

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0047	0.0047	0.0000	0.0015	0.0003	10:18:39	No
2	-0.0050	-0.0050	-0.0001	0.0002	0.0002	10:19:09	No
Mean:	-0.0002	-0.0002	0.0000				
SD :	0.00685	0.00685	0.0001				
%RSD:	3684	3684	3683.9100				

Element: Hg Seq. No.: 47 AS Loc.: 7 Date: 02/05/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.151	3.151	0.0328	0.1545	0.0331	10:20:29	No
2	3.141	3.141	0.0327	0.1529	0.0330	10:20:58	No
Mean:	3.146	3.146	0.0328				
SD :	0.00733	0.00733	0.0001				
%RSD:	0.2	0.2	0.2330				

QC value within specified limits.

Element: Hg Seq. No.: 48 AS Loc.: 1 Date: 02/05/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0052	0.0052	0.0001	0.0012	0.0003	10:22:39	No
2	0.0044	0.0044	0.0000	0.0012	0.0003	10:23:09	No
Mean:	0.0048	0.0048	0.0001				
SD :	0.00055	0.00055	0.0000				
%RSD:	11.4	11.4	11.3584				

QC value within specified limits.

Element: Hg Seq. No.: 49 AS Loc.: 39 Date: 02/05/2002
Sample ID: 526359

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0071	0.0071	0.0001	0.0013	0.0003	10:24:25	No
2	0.0090	0.0090	0.0001	0.0015	0.0003	10:24:54	No
Mean:	0.0081	0.0081	0.0001				
SD :	0.00136	0.00136	0.0000				
%RSD:	16.9	16.9	16.8738				

Element: Hg Seq. No.: 50 AS Loc.: 40 Date: 02/05/2002
Sample ID: 526360

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0012	0.0012	0.0000	0.0009	0.0003	10:26:41	No
2	0.0047	0.0047	0.0000	0.0013	0.0003	10:27:10	No
Mean:	0.0030	0.0030	0.0000				
SD :	0.00250	0.00250	0.0000				
%RSD:	84.2	84.2	84.1845				

Element: Hg Seq. No.: 51 AS Loc.: 41 Date: 02/05/2002
Sample ID: 526371

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	µg/L	µg/L	Signal	Area	Height		Stored
1	0.1608	0.1608	0.0017	0.0088	0.0019	10:28:30	No
2	0.1554	0.1554	0.0016	0.0083	0.0019	10:29:00	No
Mean:	0.1581	0.1581	0.0016				
SD :	0.00380	0.00380	0.0000				
%RSD:	2.4	2.4	2.4065				

Element: Hg Seq. No.: 52 AS Loc.: 42 Date: 02/05/2002
Sample ID: 526374

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0376	0.0376	0.0004	0.0030	0.0006	10:30:19	No
2	0.0354	0.0354	0.0004	0.0027	0.0006	10:30:49	No
Mean:	0.0365	0.0365	0.0004				
SD :	0.00155	0.00155	0.0000				
%RSD:	4.3	4.3	4.2580				

Element: Hg Seq. No.: 53 AS Loc.: 43 Date: 02/05/2002
Sample ID: 526375

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0172	0.0172	0.0002	0.0017	0.0004	10:32:09	No
2	0.0195	0.0195	0.0002	0.0022	0.0005	10:32:38	No
Mean:	0.0184	0.0184	0.0002				
SD :	0.00163	0.00163	0.0000				
%RSD:	8.9	8.9	8.8786				

Element: Hg Seq. No.: 54 AS Loc.: 44 Date: 02/05/2002
Sample ID: 526382

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0125	0.0125	0.0001	0.0019	0.0004	10:33:58	No
2	0.0094	0.0094	0.0001	0.0015	0.0004	10:34:28	No
Mean:	0.0109	0.0109	0.0001				
SD :	0.00216	0.00216	0.0000				
%RSD:	19.7	19.7	19.7329				

Element: Hg Seq. No.: 55 AS Loc.: 45 Date: 02/05/2002
Sample ID: 526385

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0442	0.0442	0.0005	0.0032	0.0007	10:35:49	No
2	0.0451	0.0451	0.0005	0.0031	0.0007	10:36:18	No
Mean:	0.0447	0.0447	0.0005				
SD :	0.00060	0.00060	0.0000				
%RSD:	1.4	1.4	1.3542				

Element: Hg Seq. No.: 56 AS Loc.: 46 Date: 02/05/2002
Sample ID: 526386

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0585	0.0585	0.0006	0.0040	0.0009	10:37:48	No
2	0.0606	0.0606	0.0006	0.0043	0.0009	10:38:17	No
Mean:	0.0595	0.0595	0.0006				
SD :	0.00148	0.00148	0.0000				

%RSD: 2.5 2.5 2.4846

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Element: Hg Seq. No.: 57 AS Loc.: 47 Date: 02/05/2002
Sample ID: 526387

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0622	0.0622	0.0006	0.0042	0.0009	10:39:38	No
2	0.0634	0.0634	0.0007	0.0046	0.0009	10:40:08	No
Mean:	0.0628	0.0628	0.0007				
SD :	0.00088	0.00088	0.0000				
%RSD:	1.4	1.4	1.4073				

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Element: Hg Seq. No.: 58 AS Loc.: 48 Date: 02/05/2002
Sample ID: 526401

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0349	0.0349	0.0004	0.0028	0.0006	10:41:27	No
2	0.0354	0.0354	0.0004	0.0030	0.0006	10:41:56	No
Mean:	0.0351	0.0351	0.0004				
SD :	0.00036	0.00036	0.0000				
%RSD:	1.0	1.0	1.0263				

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Element: Hg Seq. No.: 59 AS Loc.: 7 Date: 02/05/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.134	3.134	0.0326	0.1559	0.0329	10:43:14	No
2	3.111	3.111	0.0324	0.1542	0.0327	10:43:43	No
Mean:	3.122	3.122	0.0325				
SD :	0.01626	0.01626	0.0002				
%RSD:	0.5	0.5	0.5209				

QC value within specified limits.

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Element: Hg Seq. No.: 60 AS Loc.: 1 Date: 02/05/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0036	0.0036	0.0000	0.0013	0.0003	10:45:00	No
2	0.0046	0.0046	0.0000	0.0013	0.0003	10:45:29	No
Mean:	0.0041	0.0041	0.0000				
SD :	0.00072	0.00072	0.0000				
%RSD:	17.7	17.7	17.6977				

QC value within specified limits.

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Element: Hg Seq. No.: 61 AS Loc.: 49 Date: 02/05/2002
Sample ID: ~~526936~~ 526396 SD 2/6/02

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0110	0.0110	0.0001	0.0017	0.0004	10:46:46	No
2	0.0095	0.0095	0.0001	0.0018	0.0004	10:47:16	No
Mean:	0.0102	0.0102	0.0001				
SD :	0.00110	0.00110	0.0000				
%RSD:	10.7	10.7	10.7461				

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Perkin-Elmer AAWinLab: 02/05/2002, 10:47:37 AM

Element: Hg Seq. No.: 62 AS Loc.: 7 Date: 02/05/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.173	3.173	0.0331	0.1560	0.0333	10:48:34	No
2	3.179	3.179	0.0331	0.1567	0.0334	10:49:04	No
Mean:	3.176	3.176	0.0331				
SD :	0.00442	0.00442	0.0000				
%RSD:	0.1	0.1	0.1390				

QC value within specified limits.

Element: Hg Seq. No.: 63 AS Loc.: 1 Date: 02/05/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0014	0.0014	0.0000	0.0011	0.0003	10:50:23	No
2	0.0053	0.0053	0.0001	0.0015	0.0003	10:50:53	No
Mean:	0.0034	0.0034	0.0000				
SD :	0.00281	0.00281	0.0000				
%RSD:	83.7	83.7	83.6798				

QC value within specified limits.

CAS-Ro **ter ICP Water Digestion Log** (6010B/846) // 200.7/1638 // ASPROL ...

Batch #: M268W03

Analyst: JM **Date:** 2/1/02 **Spk Witness:** SD

Prep Method: 3010 // (3010 TCLP) // 3005 // 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	PB TCLP	NA	50	50	C-CLR	C-CLR	Ag, As, Ba, Cd, Cr, Mn, Pb, Se, Zn	
2	LCS TCLP	↓	↓	↓	↓	↓	↓	10.5 mL TCLP-1 + 0.1 mL Mn, 1.0 mL Ba, 10.1 mL Zn
3	R10427 5216396	<2	↓	↓	↓	Y-CLR	↓	
4	405	↓	↓	↓	↓	C-CLR JM 2/1/02	↓	
5	406	↓	↓	↓	↓	↓	↓	
6	407	↓	↓	↓	↓	↓	↓	
7	408	↓	↓	↓	↓	↓	↓	
8	409	↓	↓	↓	↓	↓	↓	
9	410	↓	↓	↓	↓	↓	↓	
10	411	↓	↓	↓	Y-CLR	Y-CLR	↓	
11	413	↓	↓	↓	C-CLR	↓	↓	
12	413D	↓	↓	↓	↓	↓	↓	
13	413S	↓	↓	↓	↓	↓	↓	10.5 mL TCLP-1 + 1.0 mL Mn, 1.0 mL Ba
14	Method Blank (1/30/02)	↓	↓	↓	↓	C-CLR	↓	
15	R10438 5265162	↓	↓	↓	Y-CLR	↓	Ag, As, Ba, Cd, Cr, Pb, Se	
16	R10439 5265164	↓	↓	↓	↓	Y-CLR	↓	
17	R10440 5265165	↓	↓	↓	↓	↓	↓	
18	Method Blank (2/1/02)	↓	↓	↓	C-CLR	C-CLR	↓	
19								
20								
21								
22								
23								
24								

JM 2/1/02

Spiking Standards / Reagent Lot #:

Spike A,B: — Spike #4 (Mn, 2/1/02): M178002 5D
TCLP Spk: M178002 6H TCLP Ba: M178002 6T
Se Std: — Se Std (2/1/02): M178002 2Y
HNO3: M178003 1I HCL: M178003 1J

Color / Clarity Key:
Color: C = Colorless ; Y = Yellow ; B = Brown
BL = Black ; G = Grey
Clarity: CDY = Cloudy ; CLR = Clear ; OP = Opaque

Comments: (PKG5 = R10427)

A 03

CAS-Ro[illegible]er ICP Water Digestion Log

Batch ID: M2680L 30

Analyst: JM Date: 2/12/02 Spk Witness: DB

Prep Method: 3010 // 3010 TCLP // 3005 // CLP Report Type: Routine // ASP // Pkg5

Digest: Initial // Redigest of: M2680003 Approval: CL

	Submission / Order #	pH	Initial Vol (ml)	Final Vol (ml)	Initial Color / Clarity	Final Color / Clarity	Metals	Spike Vol (ml)
1	PBTCLP	NA	50	50	C-CLR	C-CLR	Ag, As, Ba, Cd, Cr, Mo, Pb, Se, Zn	
2	LCSTCLP	↓	↓	↓	↓	↓	↓	0.025ml Ba 0.1ml Mn, Zn 0.5ml TCLP-1
3	B10427 5263916	<2				Y-CLR		
4	405					C-CLR		
5	406					↓		
6	407					↓		
7	408					↓		
8	409					↓		
9	410				↓	↓		
10	411				Y-CLR	Y-CLR		
11	413				C-CLR	↓		
12	413D				↓	↓		
13	413S				↓	↓		0.025ml Ba 0.1ml Mn, Zn 0.5ml TCLP-1
14	Method Blank (1-31-02)		↓	↓	↓	C-CLR	↓	
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

JM 2/12/02

Spiking Standards / Reagent Lot #:

Spike ~~A-B~~ 20: M178002 2Y Spike ~~#4~~ Mn: M178002 50
TCLP Spk: M178002 64 TCLP Ba: M178002 6T
Se Std: — Sn Std: —
HNO3: M178003 1I HCL: M178003 1J

Color / Clarity Key:

Color: C = Colorless ; Y = Yellow ; B = Brown
BL = Black ; G = Grey
Clarity: CDY = Cloudy ; CLR = Clear ; OP = Opaque

Comments: Hot Block

D 30

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Columbia Analytical Services

Run For: Hg	EPA Method: (1470) / 1471 / 245.1 / 245.5	Analyst: DCD	
Bath Temp: In 95 / Out 95	Report: (Routine) / ASP / (Pkg.5)	Date Prepped: 2/4/02	
Time In: 1035	File Name: Feb-05W	Date Analyzed: 2/5/02	
Time Out: 1235			

	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		PBTCLP A	10	100	31	R-10427	526354	100	100
2		LCSTCLP A			32		360		
3	R-10427	526396			33		371		
4		405			34		374		
5		406			35		375		
6		407			36		382		
7		408			37		385		
8		409			38		386		
9		410			39		387		
10		411			40		401		
11		413			41				
12		413DUP			42				
13		413SPK			43				
14	R-10438	526562			44				
15	R-10439	526564			45				
	R-10440	526565			46		2/4/02 DCD		
17		PBW B	100		47				
18		LCSW B			48				
19	R-10427	526346			49				
20		348					ICB	100ml DI Water	100
21		349					Std 0	100ml DI Water	100
22		351					Std 0.2*	0.20ml of 0.1ppm	100
23		351DUP					Std 0.5*	0.50ml of 0.1ppm	100
24		351SPK					Std 1.0*	1.00ml of 0.1ppm	100
25		352					Std 2.0*	2.00ml of 0.1ppm	100
26		353					Std 5.0*	5.00ml of 0.1ppm	100
27		354					Std 10.0*	10.0ml of 0.1ppm	100
28		356					ICV/CCV**	3.00ml of 0.1ppm	100
29		357					LCSW/MS**	1.00ml of 0.1ppm	100
30		358					CRDL*	0.20ml of 0.1ppm	100

Lot # of Reagents Used:

HNO3: M17800315 H2SO4: M17800245 HCL: M17800315 K2S2O8: M17800280 KMnO4: M17800308

SnCl2: M17800310 NaCl: M17800308 NH2OH-HCL: M17800306 LCSS CAS Lot#: —

LCSS ERA Lot#: —

*Source Standard: (Vendor/Lot #) M17800308N **ICV Standard: (Vendor/Lot #) M17800266

*(10ppm stock Lot#: M26501774) **(10ppm stock Lot#: M26501774)

(0.1ppm working std Lot#: M26501771) **(0.1ppm working std Lot#: M26501771)

Comments/Problems:

Batch Name: M2480130A M2480130A

EMAN 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
l Std 1	CA	M1780031W	5000	2.00	100	100	2%HNO3	SD 2/11/02	* A	M1780031	M1780031J	M18
	MG		5000			100	5%HCl	SD 2/11/02	B	1	1	1
	K		5000			100	*6%HNO3	SD 2/12/02	C	1	1	M18
	NA		5000			100	15%HCl	SD 2/13/02	* D	1	1	M18
l Std 2	AG	M1780031M	100	1.00		1.00			E			
	CR		100			1.00			F			
	MN		150			1.50			G			
	NI		400			4.00			H			
	ZN		200			2.00			I			
al 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			S			
	SE		50			2.00			T			
	TL		100			4.00			U			
Single	SB	M1780032P	1000	1.00		10.0			V			
Elements									W			
		SD 2/11/02							X			
									Y			
									Z			

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EMAN 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
l Std 1	CA	M1780031F	5000	2.00	200	50.0	2%HNO3	SD 2/11/02	A	M1780031I	M1780031J	M18
	MG		5000			50.0	5%HCl	/	B	/	/	/
	K		5000			50.0	7.6% HNO_3	SD 2/12/02	C	/	/	M18
	NA		5000			50.0	15% HCL	SD 2/13/02	X D	/	/	M18
al Std 2	AG	M1780029Y	100	1.00		0.500			E			
	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			P			
Cal Std 4	AS	M1780031C	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	SB	M1780030H	1000	1.00		5.00			V			
Elements									W			
		SD 2/11/02							X			
									Y			
									Z			

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LEEMAN CRI STANDARD

ıent	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
DL D	M1780026O	Multi	0.500	500	Multi	5% HCL 2%HNO3	SD 6/05/01	A	M1780025I	M1780026H	12/25/02	M11 M10
G		20			0.0200		SD 8/6/01	B	M1780027M	M1780026H	2/6/02	M10 M11
S		20			0.0200		SD 9/10/01	C	M1780028N	M1780028K	3/10/02	M10/M1
E		10			0.0100		SD 10/25/01	D	M1780028N	M1780029V	4/25/02	M10/M1
D		10			0.0100		SD 12/18/01	E	M1780029E	M1780031J	6/18/02	M10/M1
R		20			0.0200			F				
O		100			0.100			G				
U		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 / ICSAB STANDA

ICSA

ement	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
A Sol'n	M1780032 1	Multi	100	1000	Multi	5% HCL	SD 1/11/02	A	M1780039E	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	1		8/10/02	–
FE		2000			200			D				
MG		5000			500			E				

ICSAB

A Sol'n	M1780031E	Multi	100	1000	Multi		SD 12/26/01	AA	M1780039E	M1780031J	6/26/02	~~AA~~
AL		5000			500		SD 1/11/02	BB	1	1	7/11/02	–
CA		5000			500		SD 1/28/02	CC	M1780031 1	1	7/28/02	–
FE		2000			200			DD				
MG		5000			500			EE				
t. 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				
								SS				
								TT				
								UU				

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	M17H0030N	1000	1.00	100	10.0	0.5% HNO3	DCB 2/4/02	A	2/10/02	M17800315	MY

(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	DCB 2/4/02	B	M17800315 expires 2/10/02	MY
								C	2/4/02 DCB	
								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	DCB 2/4/02	I	M17800315	—
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		

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	DCB 2/4/02	A	2/10/02	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	DCB 2/4/02	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	DCB 2/4/02	I	M1780031E	—
LCSW / MS			1.00		1.00			J		
								K		
								L		
								M		
								N		
								O		

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METALS DATA

SOIL

METALS
COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Contract: R2210427 SDG No.: OS-PW-12

Lab Code: Case No.: SAS No.:

SOW No.: SW846 CLP-M Client: Tetra Tech EM Inc.

Sample No.	Lab Sample ID.
BAC-1	526394

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: 2/28/02 Title: Laboratory Manager

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
BAC-1

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

Matrix (soil/water): SOIL/SEDIMENT Lab Sample ID: 526394

Level (low/med): LOW Date Received: 01/24/02

% Solids: 76.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	5.1	U		P
7440-39-3	Barium	9.5	U		P
7440-43-9	Cadmium	3.6	B		P
7440-47-3	Chromium	20.8			P
7439-92-1	Lead	10.0			P
7439-96-5	Manganese	1210			P
7439-97-6	Mercury	0.003	U		CV
7782-49-2	Selenium	4.5	U		P
7440-22-4	Silver	0.98	U		P
7440-66-6	Zinc	142000			P

Color Before: GREEN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

Form I - IN

METALS

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

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	1000.0	1029.57	103.0	1000.0	1059.18	105.9	1062.06	106.2	P
Barium	10000.0	10368.67	103.7	10000.0	10349.72	103.5	10343.52	103.4	P
Cadmium	500.0	511.34	102.3	500.0	507.60	101.5	506.54	101.3	P
Chromium	500.0	514.22	102.8	500.0	520.51	104.1	519.58	103.9	P
Lead	500.0	508.99	101.8	500.0	503.83	100.8	503.97	100.8	P
Manganese	750.0	773.94	103.2	750.0	788.93	105.2	785.81	104.8	P
Mercury	3.0	3.04	101.3	3.0	3.06	102.0	3.20	106.7	CV
Selenium	500.0	502.96	100.6	500.0	502.00	100.4	500.47	100.1	P
Silver	500.0	498.09	99.6	500.0	502.30	100.5	500.98	100.2	P
Zinc	1000.0	1026.04	102.6	1000.0	1018.03	101.8	1015.90	101.6	P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

METALS

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

Initial Calibration Source:

Continuing 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				1000.0	1055.51	105.6	1061.34	106.1	P
Barium				10000.0	10346.35	103.5	10349.13	103.5	P
Cadmium				500.0	509.76	102.0	510.20	102.0	P
Chromium				500.0	520.19	104.0	522.37	104.5	P
Lead				500.0	504.71	100.9	507.05	101.4	P
Manganese				750.0	783.65	104.5	789.15	105.2	P
Mercury				3.0	3.22	107.3			CV
Selenium				500.0	498.46	99.7	501.42	100.3	P
Silver				500.0	501.13	100.2	503.19	100.6	P
Zinc				1000.0	1019.46	101.9	1024.45	102.4	P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

METALS
-2B-
CRDL STANDARD FOR AA AND ICP

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG No.: OS-PW-12

AA CRDL Standard Source:

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				20.0	21.12	105.6	20.06	100.3
Barium								
Cadmium				10.0	10.21	102.1	10.37	103.7
Chromium				20.0	20.31	101.6	20.98	104.9
Lead				6.0	5.89	98.2	6.37	106.2
Manganese				30.0	31.58	105.3	32.51	108.4
Mercury	0.2	0.21	105.0					
Selenium				10.0	11.42	114.2	13.27	132.7
Silver				20.0	20.05	100.3	20.06	100.3
Zinc				40.0	40.80	102.0	43.93	109.8

METALS

-3-

BLANKS

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Arsenic	4.0	U	4.0	U	4.0	U	4.0	U	-0.503	B	P
Barium	7.4	U	7.4	U	7.4	U	7.4	U	0.735	U	P
Cadmium	0.4	U	0.4	U	0.4	U	0.4	U	0.044	U	P
Chromium	1.2	U	1.2	U	1.2	U	1.2	U	0.123	U	P
Lead	0.8	U	0.8	U	0.8	U	0.8	U	0.082	U	P
Manganese	1.3	U	1.3	U	1.3	U	1.3	U	0.128	U	P
Mercury	0.02	U	0.02	U	0.02	U	0.02	U	0.003	U	CV
Selenium	3.5	U	3.5	U	3.5	U	3.5	U	0.492	B	P
Silver	1.1	B	1.7	B	1.2	B	1.3	B	0.096	B	P
Zinc	4.3	U	4.3	U	4.3	U	4.3	U	0.428	U	P

METALS
-3-
BLANKS

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

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			4.0	U							P
Barium			7.4	U							P
Cadmium			0.4	U							P
Chromium			1.2	U							P
Lead			0.8	U							P
Manganese			1.3	U							P
Selenium			3.5	U							P
Silver			1.3	B							P
Zinc			4.3	U							P

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ICP INTERFERENCE CHECK SAMPLE

'ontract: R2210427

ab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

CP 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
Arsenic			-8	-8.0		-4	-10.0	
Barium		500	-3	526.4	105.3	-3	530.0	106.0
Cadmium		1000	0	939.3	93.9	0	948.1	94.8
Chromium		500	10	506.5	101.3	10	511.4	102.3
Lead		1000	-6	943.9	94.4	-6	949.3	94.9
Manganese		500	-4	499.5	99.9	-4	502.7	100.5
Selenium			6	3.7		4	9.6	
Silver		1000	-17	1091.2	109.1	-17	1101.0	110.1
Zinc		1000	5	934.2	93.4	6	944.1	94.4

METALS
-7-
LABORATORY CONTROL SAMPLE

ıtract: R2210427

Code: Case No.: SAS No.: SDG NO.: OS-PW-12

ıid LCS Source: ERA

ıeous LCS Source:

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Arsenic				185.0	214.8		138.0	233.0	116.1
Barium				177.0	192.8		137.0	218.0	108.9
Cadmium				64.0	70.1		49.2	78.7	109.5
Chromium				143.0	156.5		114.0	171.0	109.4
Lead				119.0	128.6		90.9	148.0	108.0
Manganese				388.0	411.9		311.0	465.0	106.2
Mercury				1.5	1.6		0.9	2.1	105.1
Selenium				150.0	157.1		111.0	188.0	104.7
Silver				90.0	96.7		67.0	113.0	107.5
Zinc				273.0	284.6		211.0	335.0	104.2

METALS

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ICP SERIAL DILUTIONS

SAMPLE NO.

BAC-1L

ntract: R2210427

Code: Case No.: SAS No.: SDG NO.: OS-PW-12

trix (soil/water): SOIL/SEDI Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Arsenic	3.97	U	19.85	U			P
Barium	7.35	U	36.75	U			P
Cadmium	2.76	B	11.39	B	312.3		P
Chromium	16.14		14.34	B	11.1		P
Lead	7.75		5.27	B	32.0		P
Manganese	935.51		913.92		2.3		P
Selenium	3.46	U	17.30	U			P
Silver	0.76	U	3.81	U			P
Zinc	2194.87		2033.44		7.4		P

METALS
-10-
INSTRUMENT DETECTION LIMITS (QUARTERLY)

ontract: R2210427

ab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

CP ID Number: Optima ICP 2 Date: 11/14/01

ame AA ID Number:

urnace AA ID Number:

Analyte	Wave-length	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Arsenic	188.979		10.0	4.0	P
Barium	233.53		20.0	7.3	P
Cadmium	226.50		5.0	0.4	P
Chromium	267.72		10.0	1.2	P
Lead	220.35		5.0	0.8	P
Manganese	257.61		10.0	1.3	P
Selenium	196.03		5.0	3.5	P
Silver	328.07		10.0	0.8	P
Zinc	206.20		20.0	4.3	P

ments

METALS
-10-
INSTRUMENT DETECTION LIMITS (QUARTERLY)

ontract: R2210427

ab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

CP ID Number: Date: 12/28/01

ame 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

ents

METALS

-11A-

ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

ontract: R2210427

ab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

CP 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

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ICP LINEAR RANGES (QUARTERLY)

tract: R2210427

Code: Case No.: SAS No.: SDG NO.: OS-PW-12

ID Number: Optima ICP 2 Date: 12/12/01

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Arsenic	0.20	5000.0	P
Barium	0.20	20000.0	P
Cadmium	0.20	5000.0	P
Chromium	0.20	10000.0	P
Lead	0.20	100000.0	P
Manganese	0.20	10000.0	P
Selenium	0.20	5000.0	P
Silver	0.20	4000.0	P
Zinc	0.20	5000.0	P

Comments:

METALS
-13-
PREPARATION LOG

ntract: R2210427

b Code: Case No.: SAS No.: SDG NO.: OS-PW-12

thod: P

Sample No.	Preparation Date	Weight (grams)	Volume (mL)
BAC-1	02/08/02	1.02	100
LCSS	02/08/02	1.00	100
PBS	02/08/02	1.00	100

METALS
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PREPARATION LOG

tract: R2210427

Code: Case No.: SAS No.: SDG NO.: OS-PW-12

hod: CV

Sample No.	Preparation Date	Weight (grams)	Volume (mL)
BAC-1	01/31/02	0.60	100
LCSS	01/31/02	0.62	100
PBS	01/31/02	0.60	100

METALS

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ANALYSIS RUN LOG

Contract: R2210427

Lab Code | Case No.: | SAS No.: | SDG No.: OS-PW-12

Instrument ID Number: Optima ICP 2 | Method: P

Start Date: 2/12/02 | End Date: 2/12/02

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	10:17																									
Calib Blank 1	1.00	10:19				X	X		X		X				X		X				X	X				X	
Calib Std 1	1.00	10:25				X	X		X		X				X		X				X	X				X	
HIGH CHECK	1.00	10:30				X	X		X		X				X		X				X	X				X	
ICV1	1.00	10:35				X	X		X		X				X		X				X	X				X	
ICB1	1.00	10:40				X	X		X		X				X		X				X	X				X	
CRDL1	1.00	10:45				X	X		X		X				X		X				X	X				X	
ICS-A1	1.00	10:51				X	X		X		X				X		X				X	X				X	
ICS-AB1	1.00	10:58				X	X		X		X				X		X				X	X				X	
[illegible]	1.00	11:03				X	X		X		X				X		X				X	X				X	
[illegible]	1.00	11:08				X	X		X		X				X		X				X	X				X	
ZZZZZZ	2.00	11:13																									
ZZZZZZ	2.00	11:19																									
ZZZZZZ	2.00	11:24																									
ZZZZZZ	2.00	11:30																									
ZZZZZZ	2.00	11:35																									
ZZZZZZ	2.00	11:40																									
ZZZZZZ	2.00	11:46																									
ZZZZZZ	2.00	11:51																									
ZZZZZZ	2.00	11:56																									
ZZZZZZ	2.00	12:02																									
CCV2	1.00	12:07				X	X		X		X				X		X				X	X				X	
CCB2	1.00	12:12				X	X		X		X				X		X				X	X				X	
PBS	1.00	12:17				X	X		X		X				X		X				X	X				X	
LCSS	1.00	12:23				X	X		X		X				X		X				X	X				X	
BAC-1	500.00	12:28																								X	
BAC-1L	2500.0	12:33																								X	
ZZZZZZ	1.00	12:38																									
ZZZZZZ	1.00	12:44																									
[illegible]ZZZ	1.00	12:50																									
[illegible]V3	1.00	12:55				X	X		X		X				X		X				X	X				X	
CCB3	1.00	13:00				X	X		X		X				X		X				X	X				X	

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Columbia Analytical Services

METALS
-14-
ANALYSIS RUN LOG

Contract: R2210427

Lab Code | Case No.: | SAS No.: | SDG No.: OS-PW-12

Instrument ID Number: Optima ICP 2 | Method: P

Start Date: 2/12/02 | End Date: 2/12/02

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
BAC-1	10.00	13:06				X	X		X		X				X		X				X	X					
BAC-1L	50.00	13:11				X	X		X		X				X		X				X	X					
ZZZZZZ	1.00	13:16																									
ZZZZZZ	1.00	13:21																									
ZZZZZZ	1.00	13:26																									
ZZZZZZ	1.00	13:31																									
ZZZZZZ	1.00	13:36																									
CRDL3	1.00	13:41				X	X		X		X				X		X				X	X				X	
ICS-A3	1.00	13:47				X	X		X		X				X		X				X	X				X	
[illegible]-AB3	1.00	13:53				X	X		X		X				X		X				X	X				X	
[illegible]V4	1.00	13:58				X	X		X		X				X		X				X	X				X	
CCB4	1.00	14:04				X	X		X		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: R2210427

Lab Code | Case No.: | SAS No.: | SDG No.: OS-PW-12

Instrument ID Number: PE FAA/CVAA | Method: CV

Start Date: 1/31/02 | End Date: 1/31/02

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	11:37																X									
0.2ppb std	1.00	11:39																X									
0.5ppb std	1.00	11:41																X									
1ppb std	1.00	11:42																X									
2ppb std	1.00	11:44																X									
5ppb std	1.00	11:46																X									
10ppb std	1.00	11:48																X									
ICV1	1.00	11:50																X									
ICB1	1.00	11:52																X									
1	1.00	11:53																X									
CCV1	1.00	11:55																X									
CCB1	1.00	11:57																X									
PBS	1.00	11:59																X									
LCSS	1.00	12:01																X									
ZZZZZZ	1.00	12:02																									
ZZZZZZ	1.00	12:04																									
ZZZZZZ	1.00	12:06																									
ZZZZZZ	1.00	12:08																									
ZZZZZZ	1.00	12:10																									
ZZZZZZ	1.00	12:12																									
ZZZZZZ	1.00	12:13																									
ZZZZZZ	1.00	12:15																									
CCV2	1.00	12:17																X									
CCB2	1.00	12:19																X									
ZZZZZZ	1.00	12:20																									
ZZZZZZ	1.00	12:22																									
ZZZZZZ	1.00	12:24																									
BAC-1	1.00	12:26																X									
CCV3	1.00	12:28																X									
3	1.00	12:29																X									

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Metals Cover Page

Instrument: Optima 2

Analyst: AP

Date: 2/12/02

Data File: 2feb12

Reviewed By: CK 2/13/02

Entered By: CK 2/13/02

Manager Approval: SD 2/14/01

Starlims Run #	Analytes Used	Batch ID	Method Requested	Failed Analytes	Comments / Problems

Package Data:

Client Sub. #	Type Of Package	Analytes Used	Failed Metals	Batch ID	Standards Attached	How Was Data Transferred To LIMS	Raw Data Copied
R10459	Pkg 5 / ASP	Ag Al As Ba Cd Cr Mn Pb Se		M2530071	YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP	(10ts)			YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
10427	Pkg 5 / ASP	Ag Al As Ba Cd Cr Mn Pb Se Zn		M2530077	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

b on Summary
.oa. Method 6010B Date: 02/12/02 10:15:39 AM

ıent	Stds	Equation	Intercept	Slope	Curvature	Corr. Coeff.

ıod: Method 6010B IEC: 012902.iec MSF:
ılts: 2feb12 Spectra Stored: Yes Method Stored: Yes
ple Info: 6010b User: User1 Date: 02/12/02 10:15:39 AM
nod Description: Optima 3000XL #2

n Data
IS Init Seq. No.: 1 A/S Pos: 1
Data: Original Date: 02/12/02 10:17:09 AM

ment	Mean Corr. Intensity	Std.Dev.	RSD
:71.030	4263564.6	44464.52	1.04%

ın Data
: Calib Blank 1 Seq. No.: 2 A/S Pos: 1
Data: Original Date: 02/12/02 10:18:39 AM

ement	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
371.030	4289092.5	35663.73	0.83%	1.006	mg/L
328.068	-2553.0	5.39	0.21%	0	mg/L
308.215	5261.9	110.56	2.10%	0	mg/L
188.979	-25.2	1.04	4.13%	0	mg/L
24° 773	777.6	7.56	0.97%	0	mg/L
527	8.9	5.31	59.60%	0	mg/L
107	-5183.6	6.16	0.12%	0	mg/L
315.887	-3054.5	129.91	4.25%	0	mg/L
226.502	-217.1	3.68	1.70%	0	mg/L
228.616	-275.5	3.69	1.34%	0	mg/L
267.716	-53.6	4.18	7.80%	0	mg/L
324.754	1138.0	24.47	2.15%	0	mg/L
238.863	-575.2	18.97	3.30%	0	mg/L
404.721	-2068.5	35.78	1.73%	0	mg/L
279.079	-908.3	33.17	3.65%	0	mg/L
257.610	-69.8	10.64	15.24%	0	mg/L
202.030	-15.4	0.22	1.44%	0	mg/L
330.237	952.6	35.56	3.73%	0	mg/L
231.604	-285.9	2.81	0.98%	0	mg/L
220.353	31.9	1.25	3.91%	0	mg/L
206.833	46.4	2.32	5.00%	0	mg/L
196.026	-31.0	1.55	4.99%	0	mg/L
189.933	53.1	3.45	6.50%	0	mg/L
334.941	-640.0	29.97	4.68%	0	mg/L
190.800	-26.5	1.68	6.33%	0	mg/L
292.402	1219.3	45.95	3.77%	0	mg/L
:n 206.191	27.0	4.12	15.25%	0	mg/L

Std/10
2/12/02

ean Data
ID: Calib Std 1 Seq. No.: 3 A/S Pos: 2
Data: Original Date: 02/12/02 10:23:55 AM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.030	4170898.8	10033.41	0.24%	0.978	mg/L
Ag 328.068	162976.9	1094.68	0.67%	1.0000	mg/L
Al 308.215	379040.9	2560.41	0.68%	20.0000	mg/L
A 8.979	2747.9	12.03	0.44%	2.0000	mg/L
B .773	328044.4	4835.28	1.47%	5.0000	mg/L
Ba 33.527	2138011.1	434.21	0.02%	20.0000	mg/L
Be 313.107	3338427.1	2205.03	0.07%	0.5000	mg/L
Ca 315.887	8173696.0	1641.59	0.02%	50.0000	mg/L
Cd 226.502	118122.4	562.47	0.48%	1.0000	mg/L
Co 228.616	118014.4	830.86	0.70%	5.0000	mg/L
Cr 267.716	115224.8	834.04	0.72%	1.0000	mg/L

324.754	598231.8	2977.25	0.50%	2.5000 mg/L
2? 53	240396.1	1505.93	0.63%	10.0000 mg/L
0·	1392.7	24.28	1.74%	50.0000 mg/L
27ɔ.079	1177825.1	696.05	0.06%	50.0000 mg/L
257.610	558593.1	769.51	0.14%	1.5000 mg/L
202.030	87687.5	540.76	0.62%	5.0000 mg/L
330.237	38961.6	340.33	0.87%	50.0000 mg/L
231.604	165148.4	897.46	0.54%	4.0000 mg/L
220.353	6775.9	28.14	0.42%	1.0000 mg/L
206.833	18865.9	88.65	0.47%	10.0000 mg/L
196.026	2950.6	0.65	0.02%	1.0000 mg/L
189.933	101326.0	966.85	0.95%	10.0000 mg/L
334.941	2082543.9	204.39	0.01%	5.0000 mg/L
190.800	4100.6	21.67	0.53%	2.0000 mg/L
:92.402	1020158.6	443.69	0.04%	5.0000 mg/L
206.191	164607.4	885.58	0.54%	2.0000 mg/L

libration Summary ----------
thod: Method 6010B Date: 02/12/02 10:25:15 AM

ement	Stds	Equation	Intercept	Slope	Curvature	Corr. Coeff.
328.068	1	Linear	-2553.0	165530.0	0.00000	1.000000
308.215	1	Linear	5261.9	18688.9	0.00000	1.000000
188.979	1	Linear	-25.2	1386.5	0.00000	1.000000
249.773	1	Linear	777.6	65453.4	0.00000	1.000000
233.527	1	Linear	8.9	106900.1	0.00000	1.000000
313.107	1	Linear	-5183.6	6687221.6	0.00000	1.000000
315.887	1	Linear	-3054.5	163535.0	0.00000	1.000000
226.502	1	Linear	-217.1	118339.5	0.00000	1.000000
228.616	1	Linear	-275.5	23658.0	0.00000	1.000000
267.716	1	Linear	-53.6	115278.4	0.00000	1.000000
.754	1	Linear	1138.0	238837.5	0.00000	1.000000
963	1	Linear	-575.2	24097.1	0.00000	1.000000
.21	1	Linear	-2068.5	69.2	0.00000	1.000000
279.079	1	Linear	-908.3	23574.7	0.00000	1.000000
257.610	1	Linear	-69.8	372442.0	0.00000	1.000000
202.030	1	Linear	-15.4	17540.6	0.00000	1.000000
330.237	1	Linear	952.6	760.2	0.00000	1.000000
231.604	1	Linear	-285.9	41358.6	0.00000	1.000000
220.353	1	Linear	31.9	6744.0	0.00000	1.000000
206.833	1	Linear	46.4	1881.9	0.00000	1.000000
196.026	1	Linear	-31.0	2981.6	0.00000	1.000000
189.933	1	Linear	53.1	10127.3	0.00000	1.000000
334.941	1	Linear	-640.0	416636.8	0.00000	1.000000
190.800	1	Linear	-26.5	2063.5	0.00000	1.000000
292.402	1	Linear	1219.3	203787.9	0.00000	1.000000
206.191	1	Linear	27.0	82290.2	0.00000	1.000000

lean Data ----------
:D: HIGH CHECK Seq. No.: 4 Sample No.: 10 A/S Pos: 2
:ample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/12/02 10:29:21 AM

:lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
(371.030	4167290.3	0.977	0.0039	mg/L				0.40%
\g 328.068	163718.9	1.004	0.0004	mg/L				0.04%
\l 308.215	378392.1	19.97	0.000	mg/L				0.00%
\s 188.979	2790.5	2.031	0.0002	mg/L				0.01%
B 249.773	335266.4	5.110	0.0208	mg/L				0.41%
Ba 233.527	2129685.2	19.92	0.023	mg/L				0.12%
Be 313.107	3337724.6	0.4999	0.00471	mg/L				0.94%
Ca 315.887	8064219.3	49.33	0.456	mg/L				0.92%
Cd 226.502	118358.8	1.002	0.0000	mg/L				0.00%
C 9.616	118513.1	5.021	0.0006	mg/L				0.01%
C. 7.716	115766.7	1.005	0.0000	mg/L				0.00%
Cu 324.754	594951.4	2.486	0.0006	mg/L				0.02%
Fe 238.863	241970.8	10.07	0.000	mg/L				0.00%
K 404.721	1407.7	50.22	0.506	mg/L				1.01%
Mg 279.079	1175146.9	49.89	0.008	mg/L				0.02%
Mn 257.610	561619.1	1.508	0.0003	mg/L				0.02%

o 202.030	87581.3	4.994	0.0077	mg/L	0.15%
a [illegible].237	38822.5	49.82	0.111	mg/L	0.22%
i [illegible].604	165198.8	4.001	0.0016	mg/L	0.04%
b [illegible].353	6774.4	0.9998	0.00231	mg/L	0.23%
b 206.833	19102.6	10.13	0.033	mg/L	0.33%
e 196.026	2954.0	1.001	0.0043	mg/L	0.43%
n 189.933	101229.8	9.991	0.0045	mg/L	0.05%
i 334.941	2098687.4	5.039	0.0035	mg/L	0.07%
l 190.800	4094.2	1.997	0.0108	mg/L	0.54%
292.402	1019850.0	4.998	0.0016	mg/L	0.03%
n 206.191	164732.4	2.002	0.0016	mg/L	0.08%

lean Data ----------

:D: 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: 02/12/02 10:34:41 AM

:lement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
: 371.030	4252602.6	0.997	0.0054	mg/L				0.54%
\g 328.068	79896.1	0.4981	0.00423	mg/L				0.85%
\l 308.215	192776.1	10.03	0.060	mg/L				0.59%
\s 188.979	1402.3	1.030	0.0090	mg/L				0.87%
3 249.773	169006.9	2.570	0.0162	mg/L				0.63%
3a 233.527	1108420.5	10.37	0.006	mg/L				0.06%
3e 313.107	1675839.7	0.2514	0.00015	mg/L				0.06%
:a 315.887	4115280.1	25.18	0.006	mg/L				0.02%
:d 226.502	60294.2	0.5113	0.00412	mg/L				0.81%
:o 228.616	61052.2	2.592	0.0133	mg/L				0.51%
:r 267.716	59225.3	0.5142	0.00533	mg/L				1.04%
:u 324.754	302381.2	1.261	0.0081	mg/L				0.64%
Fe 238.863	123774.0	5.160	0.0418	mg/L				0.81%
K 404.721	-539.7	22.08	0.730	mg/L				3.31%

*QC exceeds lower limit for K 404.721 Recovery = 88.34% Action = Continue

[illegible] 9.079	592863.5	25.19	0.159	mg/L	0.63%
[illegible] 7.610	288177.7	0.7739	0.00397	mg/L	0.51%
Mo 202.030	42899.4	2.447	0.0149	mg/L	0.61%
Na 330.237	19107.0	23.88	0.097	mg/L	0.41%
Ni 231.604	85727.5	2.080	0.0111	mg/L	0.53%
Pb 220.353	3464.6	0.5090	0.00174	mg/L	0.34%
Sb 206.833	9552.6	5.051	0.0082	mg/L	0.16%
Se 196.026	1468.6	0.5030	0.00031	mg/L	0.06%
Sn 189.933	53385.0	5.266	0.0213	mg/L	0.40%
Ti 334.941	1040856.4	2.500	0.0107	mg/L	0.43%
Tl 190.800	2102.0	1.031	0.0033	mg/L	0.32%
V 292.402	518879.7	2.540	0.0007	mg/L	0.03%
Zn 206.191	84459.7	1.026	0.0059	mg/L	0.57%

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: 02/12/02 10:39:46 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 371.030	4272749.5	1.002	0.0074	mg/L				0.74%
Ag 328.068	-2371.4	0.0011	0.00009	mg/L				8.50%
Al 308.215	5269.8	0.0004	0.00511	mg/L				>999.9%
As 188.979	-22.5	0.0020	0.00087	mg/L				43.95%
B 249.773	2798.6	0.0309	0.00496	mg/L				16.07%
Ba 233.527	138.1	0.0012	0.00044	mg/L				36.22%
Be 313.107	-5011.8	0.0000	0.00003	mg/L				104.36%
Ca 315.887	-2095.4	0.0059	0.00128	mg/L				21.83%
Cd 226.502	-209.6	0.0001	0.00000	mg/L				1.93%
Co 228.616	-269.5	0.0003	0.00027	mg/L				106.08%
Cr 267.716	-40.7	0.0001	0.00008	mg/L				74.49%
[illegible] 324.754	1697.4	0.0023	0.00042	mg/L				18.11%
[illegible] 38.863	-505.5	0.0029	0.00020	mg/L				7.03%
[illegible] 04.721	-1988.5	1.157	1.2471	mg/L				107.81%
Mg 279.079	-816.6	0.0039	0.00010	mg/L				2.5[illegible]
Mn 257.610	-54.9	0.0000	0.00004	mg/L				9[illegible]
Mo 202.030	26.6	0.0024	0.00069	mg/L				[illegible]
Na 330.237	1085.1	0.1743	0.09674	mg/L				

31.604	-273.7	0.0003	0.00019 mg/L		65.15%
353	33.5	0.0002	0.00058 mg/L		251.00%
333	106.7	0.0320	0.00826 mg/L		25.82%
exceeds upper limit for Sb 206.833 Action = Continue					
96.026	-24.7	0.0021	0.00152 mg/L		71.74%
89.933	269.8	0.0214	0.00392 mg/L		18.31%
34.941	-104.9	0.0013	0.00049 mg/L		38.31%
90.800	-24.4	0.0010	0.00045 mg/L		43.99%
92.402	1293.4	0.0004	0.00048 mg/L		131.98%
206.191	56.7	0.0004	0.00014 mg/L		39.09%

a Data ----------

CRI
ple Qty: 1.0000 g

Seq. No.: 7 Sample No.: 5 A/S Pos: 6
Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/12/02 10:44:49 AM

ment	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
71.030	4432108.0	1.040	0.0054	mg/L				0.52%
328.068	766.5	0.0201	0.00047	mg/L				2.34%
308.215	5062.4	-0.0107	0.00124	mg/L				11.66%
188.979	4.1	0.0211	0.00211	mg/L				9.99%
49.773	1828.6	0.0161	0.00071	mg/L				4.41%
233.527	46.4	0.0004	0.00004	mg/L				11.23%
313.107	59291.5	0.0096	0.00003	mg/L				0.32%
315.887	1211.0	0.0261	0.00055	mg/L				2.09%
226.502	991.3	0.0102	0.00010	mg/L				0.97%
228.616	2299.1	0.1088	0.00093	mg/L				0.86%
267.716	2287.3	0.0203	0.00000	mg/L				0.01%
324.754	12826.7	0.0489	0.00027	mg/L				0.54%
238.863	-461.1	0.0047	0.00048	mg/L				10.20%
104.721	-1958.0	1.596	0.4860	mg/L				30.45%
279.079	-851.8	0.0024	0.00106	mg/L				44.27%
7.610	11693.4	0.0316	0.00004	mg/L				0.13%
.030	-3.1	0.0007	0.00010	mg/L				14.10%
.237	980.8	0.0371	0.07738	mg/L				208.83%
231.604	3205.3	0.0844	0.00027	mg/L				0.32%
220.353	71.6	0.0059	0.00060	mg/L				10.26%
206.833	293.6	0.1313	0.00157	mg/L				1.20%
196.026	3.0	0.0114	0.00093	mg/L				8.12%
189.933	158.7	0.0104	0.00024	mg/L				2.31%
334.941	-443.0	0.0005	0.00011	mg/L				23.77%
190.800	19.3	0.0222	0.00024	mg/L				1.10%
292.402	21583.9	0.0999	0.00052	mg/L				0.52%
206.191	3384.6	0.0408	0.00026	mg/L				0.65%

an Data ----------

): ICSA
mple Qty: 1.0000 g

Seq. No.: 8 Sample No.: 6 A/S Pos: 7
Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/12/02 10:50:27 AM

lement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
371.030	3818798.0	0.896	0.0021	mg/L				0.24%
g 328.068	-5355.2	-0.0169	0.00018	mg/L				1.09%
l 308.215	9504657.2	508.3	1.47	mg/L				0.29%
s 188.979	-85.1	-0.0079	0.00025	mg/L				3.21%
249.773	11014.4	0.1564	0.00013	mg/L				0.08%
a 233.527	-263.5	-0.0025	0.00012	mg/L				4.61%
e 313.107	-6275.1	-0.0002	0.00000	mg/L				2.68%
a 315.887	76743559.4	469.3	1.14	mg/L				0.24%
d 226.502	1156.6	0.0004	0.00014	mg/L				31.45%
o 228.616	-329.8	-0.0023	0.00021	mg/L				8.98%
r 267.716	1150.2	0.0104	0.00005	mg/L				0.52%
u 324.754	-2142.0	-0.0022	0.00021	mg/L				9.72%
e 238.863	4555023.0	189.1	0.38	mg/L				0.20%
.721	-3902.3	-0.7916	1.70119	mg/L				214.92%
9.079	12079667.1	512.4	1.29	mg/L				0.25%
Mn 257.610	-7590.8	-0.0039	0.00010	mg/L				2.64%
Mo 202.030	39.4	0.0031	0.00025	mg/L				7.97%
Na 330.237	823.0	-0.0105	0.02450	mg/L				234.40%
Ni 231.604	-285.8	0.0000	0.00019	mg/L				>999.9%
Pb 220.353	-262.3	-0.0060	0.00044	mg/L				7.42%

5.033	44.9	-0.0008	0.00081 mg/L	101.97%
6	15.0	0.0062	0.00407 mg/L	65.76%
5.3	17378.1	-0.2553	0.00202 mg/L	0.79%
4.941	-3897.2	-0.0078	0.00006 mg/L	0.77%
0.800	-63.0	-0.0177	0.00249 mg/L	14.09%
.402	12579.2	0.0557	0.00031 mg/L	0.56%
6.191	1551.4	0.0046	0.00025 mg/L	5.37%

Data ----------

CSAB Seq. No.: 9 Sample No.: 7 A/S Pos: 8
.e Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/12/02 10:56:34 AM

ent	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
1.030	3881645.6	0.910	0.0082	mg/L				0.90%
28.068	178066.5	1.091	0.0137	mg/L				1.25%
08.215	9371486.3	501.2	4.64	mg/L				0.93%
88.979	-85.3	-0.0080	0.00126	mg/L				15.69%
9.773	10854.9	0.1540	0.00186	mg/L				1.21%
33.527	56284.6	0.5264	0.00662	mg/L				1.26%
13.107	3322249.4	0.4976	0.00003	mg/L				0.01%
15.887	75496545.6	461.7	4.12	mg/L				0.89%
26.502	112256.5	0.9393	0.01098	mg/L				1.17%
28.616	10751.2	0.4661	0.00510	mg/L				1.10%
67.716	58329.4	0.5065	0.00700	mg/L				1.38%
24.754	123564.0	0.5241	0.00648	mg/L				1.24%
38.863	4542518.6	188.5	0.19	mg/L				0.10%
04.721	-3901.8	-0.8541	1.97998	mg/L				231.81%
79.079	11893025.2	504.5	4.87	mg/L				0.96%
57.610	179916.3	0.4995	0.00827	mg/L				1.66%
02.030	30.2	0.0026	0.00010	mg/L				3.99%
330.237	1034.7	0.2752	0.06589	mg/L				23.94%
604	37742.9	0.9195	0.00896	mg/L				0.97%
353	6147.5	0.9439	0.00820	mg/L				0.87%
206.833	41.2	-0.0028	0.00088	mg/L				31.94%
196.026	7.0	0.0037	0.00342	mg/L				93.22%
189.933	17059.1	-0.2564	0.00407	mg/L				1.59%
334.941	-3735.3	-0.0074	0.00019	mg/L				2.60%
190.800	-63.6	-0.0180	0.00010	mg/L				0.56%
92.402	114855.9	0.5576	0.00855	mg/L				1.53%
206.191	78027.2	0.9342	0.01362	mg/L				1.46%

in Data ----------

CCV Seq. No.: 10 Sample No.: 2 A/S Pos: 3
mple Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/12/02 11:02:17 AM

ement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	4280170.0	1.004	0.0014	mg/L				0.14%
328.068	80593.0	0.5023	0.00090	mg/L				0.18%
308.215	193813.1	10.09	0.001	mg/L				0.01%
188.979	1443.4	1.059	0.0004	mg/L				0.04%
249.773	168742.3	2.566	0.0259	mg/L				1.01%
233.527	1106394.9	10.35	0.005	mg/L				0.05%
313.107	1674518.4	0.2512	0.00001	mg/L				0.00%
315.887	4125411.4	25.25	0.004	mg/L				0.01%
226.502	59851.7	0.5076	0.00060	mg/L				0.12%
228.616	61915.0	2.629	0.0040	mg/L				0.15%
267.716	59950.4	0.5205	0.00093	mg/L				0.18%
324.754	300621.3	1.254	0.0026	mg/L				0.21%
238.863	124243.6	5.180	0.0057	mg/L				0.11%
404.721	-458.0	23.26	0.132	mg/L				0.57%
279.079	593918.4	25.23	0.010	mg/L				0.04%
57.610	293761.7	0.7889	0.00234	mg/L				0.30%
2.030	42382.2	2.417	0.0069	mg/L				0.28%
30.237	19016.5	23.76	0.080	mg/L				0.34%
231.604	85416.7	2.072	0.0040	mg/L				0.19%
220.353	3429.8	0.5038	0.00161	mg/L				0.32%
206.833	9683.1	5.121	0.0103	mg/L				0.20%
196.026	1465.7	0.5020	0.00446	mg/L				0.89%
189.933	52776.8	5.206	0.0226	mg/L				0.43%

33⁴ 941	1064776.2	2.557	0.0003 mg/L		0.01%
1)0	2071.6	1.017	0.0053 mg/L		0.52%
9 .2	523391.0	2.562	0.0051 mg/L		0.20%
206.191	83801.1	1.018	0.0000 mg/L		0.00%

n Data ----------

CCB
ple Qty: 1.0000 g

Seq. No.: 11 Sample No.: 4 A/S Pos: 1
Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/12/02 11:07:22 AM

ment	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
371.030	4333687.1	1.016	0.0007	mg/L				0.07%
328.068	-2265.1	0.0017	0.00031	mg/L				18.06%
308.215	5113.7	-0.0079	0.00335	mg/L				42.21%
188.979	-29.2	-0.0029	0.00132	mg/L				45.61%
249.773	2272.4	0.0228	0.00427	mg/L				18.68%
233.527	117.6	0.0010	0.00050	mg/L				49.56%
313.107	-4868.4	0.0000	0.00001	mg/L				21.91%
315.887	-1415.1	0.0100	0.00227	mg/L				22.67%
226.502	-204.5	0.0001	0.00007	mg/L				63.56%
228.616	-270.6	0.0002	0.00020	mg/L				98.05%
267.716	-39.9	0.0001	0.00001	mg/L				4.91%
324.754	1608.7	0.0020	0.00039	mg/L				19.68%
238.863	-436.2	0.0058	0.00079	mg/L				13.73%
404.721	-1956.8	1.614	0.2419	mg/L				14.98%
279.079	-758.9	0.0063	0.00348	mg/L				54.85%
257.610	-100.0	-0.0001	0.00004	mg/L				52.21%
202.030	15.1	0.0017	0.00079	mg/L				45.49%
330.237	1036.7	0.1106	0.00126	mg/L				1.14%
231.604	-270.9	0.0004	0.00012	mg/L				34.44%
220.353	30.7	-0.0002	0.00018	mg/L				98.69%
206.833	95.4	0.0260	0.00494	mg/L				18.98%
XC eeds upper limit for Sb 206.833 Action = Continue								
026	-23.7	0.0025	0.00139	mg/L				56.48%
1 189.933	202.4	0.0147	0.00341	mg/L				23.10%
1 334.941	-227.8	0.0010	0.00045	mg/L				45.79%
1 190.800	-25.8	0.0003	0.00030	mg/L				90.17%
292.402	1226.8	0.0000	0.00015	mg/L				404.97%
n 206.191	51.0	0.0003	0.00007	mg/L				23.67%

ean Data ----------

D: 526789 1/2
ample Qty: 1.0300 g

Seq. No.: 12 Sample No.: 1 A/S Pos: 9
Prep. Vol.: 100.0 mL Dilution: 1.0: 2.0
Data: Original Date: 02/12/02 11:12:34 AM

lement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
371.030	3993719.3	0.937	0.0675	mg/L				7.20%
g 328.068	-3587.4	-0.0062	0.00097	mg/L				15.58%
l 308.215	882295.6	46.93	4.270	mg/L				9.10%
s 188.979	-40.7	0.0045	0.00102	mg/L				22.92%
3 249.773	9751.5	0.1371	0.01232	mg/L				8.99%
3a 233.527	93763.2	0.8770	0.07876	mg/L				8.98%
3e 313.107	-10405.1	-0.0008	0.00013	mg/L				16.78%
a 315.887	16655580.4	101.9	9.64	mg/L				9.47%
d 226.502	511.0	0.0035	0.00327	mg/L				92.54%
o 228.616	287.6	0.0238	0.00148	mg/L				6.20%
Cr 267.716	15134.1	0.1317	0.01220	mg/L				9.26%
Cu 324.754	21062.7	0.0834	0.00836	mg/L				10.02%
Fe 238.863	2010238.5	83.45	7.394	mg/L				8.86%
K 404.721	-2993.0	-2.012	1.2364	mg/L				61.46%
Mg 279.079	523700.2	22.25	1.980	mg/L				8.90%
Mn 257.610	575935.2	1.547	0.1383	mg/L				8.94%
Mo 202.030	223.0	0.0136	0.00086	mg/L				6.33%
Na 330.237	2519.0	2.061	0.2822	mg/L				13.70%
N 1.604	1479.4	0.0427	0.00358	mg/L				8.39%
Pb 20.353	3270.3	0.4840	0.04471	mg/L				9.24%
Sb 206.833	61.8	0.0081	0.00644	mg/L				79.00%
Se 196.026	-28.9	0.0007	0.00110	mg/L				156.29%
Sn 189.933	6208.0	0.6078	0.05355	mg/L				8.81%
Ti 334.941	832723.2	2.000	0.1767	mg/L				8.84%
Tl 190.800	-56.1	-0.0143	0.00312	mg/L				21.73%

:92 402	25239.7	0.1179	0.01027	mg/L	8.72%
7 91	143824.1	1.747	0.1538	mg/L	8.80%

un Data

: 526790 1/2 Seq. No.: 13 Sample No.: 2 A/S Pos: 10
mple Qty: 1.0200 g Prep. Vol.: 100.0 mL Dilution: 1.0: 2.0
Data: Original Date: 02/12/02 11:17:56 AM

ement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	4258958.2	0.999	0.0122	mg/L				1.22%
328.068	-3300.5	-0.0045	0.00003	mg/L				0.70%
308.215	1153625.6	61.45	0.043	mg/L				0.07%
188.979	-99.1	-0.0418	0.00076	mg/L				1.81%
249.773	10159.2	0.1433	0.00121	mg/L				0.84%
233.527	146562.4	1.371	0.0002	mg/L				0.01%
313.107	-17158.2	-0.0018	0.00001	mg/L				0.44%
315.887	19254035.9	117.8	1.04	mg/L				0.89%
226.502	309.7	0.0045	0.00001	mg/L				0.20%
228.616	533.7	0.0342	0.00003	mg/L				0.08%
267.716	185134.0	1.606	0.0008	mg/L				0.05%
324.754	35428.4	0.1436	0.00003	mg/L				0.02%
238.863	1470950.2	61.07	0.023	mg/L				0.04%
404.721	-1791.1	12.31	1.409	mg/L				11.45%
279.079	667283.2	28.34	0.001	mg/L				0.00%
257.610	540248.8	1.451	0.0011	mg/L				0.08%
202.030	3688.1	0.2111	0.00299	mg/L				1.42%
330.237	10092.2	12.02	0.160	mg/L				1.33%
231.604	1172.3	0.0353	0.00036	mg/L				1.03%
220.353	95797.0	14.21	0.020	mg/L				0.14%
206.833	165.9	0.0635	0.00253	mg/L				3.99%
196.026	-22.1	0.0030	0.00319	mg/L				106.44%
189.933	7092.1	0.6951	0.00819	mg/L				1.18%
.941	1268877.2	3.047	0.0013	mg/L				0.04%
.800	-48.9	-0.0109	0.00056	mg/L				5.12%
2..402	24482.4	0.1142	0.00033	mg/L				0.29%
206.191	38994.2	0.4735	0.00087	mg/L				0.18%

use original 1/10 CK 2/13/02

ean Data

D: 526791 1/2 Seq. No.: 14 Sample No.: 3 A/S Pos: 11
ample Qty: 1.0500 g Prep. Vol.: 100.0 mL Dilution: 1.0: 2.0
Data: Original Date: 02/12/02 11:23:21 AM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	4196269.4	0.984	0.0003	mg/L				0.03%
g 328.068	-3287.1	-0.0044	0.00009	mg/L				1.95%
l 308.215	1147816.0	61.14	0.060	mg/L				0.10%
s 188.979	-87.7	-0.0344	0.00181	mg/L				5.26%
249.773	9553.4	0.1341	0.00035	mg/L				0.26%
la 233.527	146093.1	1.367	0.0003	mg/L				0.02%
le 313.107	-15521.5	-0.0015	0.00001	mg/L				0.67%
a 315.887	19617436.6	120.0	0.81	mg/L				0.68%
d 226.502	295.3	0.0043	0.00001	mg/L				0.18%
o 228.616	529.5	0.0340	0.00036	mg/L				1.05%
r 267.716	194103.6	1.684	0.0017	mg/L				0.10%
u 324.754	34733.7	0.1407	0.00006	mg/L				0.04%
Fe 238.863	1369254.1	56.85	0.023	mg/L				0.04%
K 404.721	-1692.3	13.16	2.005	mg/L				15.24%
Mg 279.079	675318.5	28.68	0.037	mg/L				0.13%
Mn 257.610	545534.5	1.465	0.0041	mg/L				0.28%
Mo 202.030	3597.7	0.2060	0.00008	mg/L				0.04%
Na 330.237	10380.9	12.40	0.001	mg/L				0.01%
Ni 231.604	1222.2	0.0365	0.00019	mg/L				0.52%
Pb 220.353	102090.1	15.14	0.016	mg/L				0.10%
Sb 206.833	120.2	0.0392	0.00069	mg/L				1.77%
S 6.026	-22.3	0.0029	0.00025	mg/L				8.71%
S. 9.933	7187.6	0.7045	0.00106	mg/L				0.15%
Ti 334.941	1205914.9	2.896	0.0067	mg/L				0.23%
Tl 190.800	-47.9	-0.0104	0.00031	mg/L				2.95%
V 292.402	21276.8	0.0984	0.00014	mg/L				0.14%
Zn 206.191	38471.3	0.4672	0.00122	mg/L				0.26%

use original 1/10 CK 2/13/02

an Data

: '99 1/2 Seq. No.: 15 Sample No.: 4 A/S Pos: 12
mp. Qty: 1.0200 g Prep. Vol.: 100.0 mL Dilution: 1.0: 2.0
Data: Original Date: 02/12/02 11:28:48 AM

ement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	4212587.0	0.988	0.0036	mg/L				0.37%
328.068	-2991.0	-0.0026	0.00007	mg/L				2.65%
308.215	1043559.0	55.56	0.321	mg/L				0.58%
188.979	-48.7	-0.0039	0.00029	mg/L				7.37%
249.773	8990.2	0.1255	0.00056	mg/L				0.45%
233.527	91069.4	0.8518	0.00583	mg/L				0.68%
313.107	-9243.4	-0.0006	0.00001	mg/L				0.83%
315.887	19598412.9	119.9	0.58	mg/L				0.48%
226.502	549.4	0.0065	0.00008	mg/L				1.22%
228.616	238.1	0.0217	0.00004	mg/L				0.19%
267.716	8074.2	0.0705	0.00063	mg/L				0.89%
324.754	12471.4	0.0475	0.00010	mg/L				0.20%
238.863	1679190.1	69.71	0.532	mg/L				0.76%
404.721	-1966.9	10.94	0.721	mg/L				6.59%
279.079	558821.0	23.74	0.218	mg/L				0.92%
257.610	426104.6	1.144	0.0094	mg/L				0.82%
202.030	27.4	0.0024	0.00034	mg/L				14.02%
330.237	6277.9	7.005	0.0500	mg/L				0.71%
231.604	1207.1	0.0361	0.00026	mg/L				0.72%
220.353	268.3	0.0396	0.00031	mg/L				0.80%
206.833	43.5	-0.0015	0.00062	mg/L				39.95%
196.026	-33.5	-0.0008	0.00132	mg/L				161.30%
189.933	6349.7	0.6217	0.00447	mg/L				0.72%
334.941	861571.8	2.069	0.0159	mg/L				0.77%
190.800	-47.3	-0.0101	0.00008	mg/L				0.77%
292.402	29238.6	0.1375	0.00163	mg/L				1.19%
.191	1274826.1	15.49	0.118	mg/L				0.76%

ean Data

D: 526800 1/2 Seq. No.: 16 Sample No.: 5 A/S Pos: 13
ample Qty: 1.0000 g Prep. Vol.: 100.0 mL Dilution: 1.0: 2.0
Data: Original Date: 02/12/02 11:34:15 AM

:lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	4201984.6	0.986	0.0078	mg/L				0.79%
g 328.068	-3244.0	-0.0042	0.00042	mg/L				10.16%
l 308.215	1169927.1	62.32	0.180	mg/L				0.29%
s 188.979	-39.3	0.0016	0.00252	mg/L				158.48%
249.773	9468.1	0.1328	0.00051	mg/L				0.38%
a 233.527	120502.1	1.127	0.0012	mg/L				0.11%
e 313.107	-6540.3	-0.0002	0.00000	mg/L				0.41%
a 315.887	23566770.7	144.1	0.53	mg/L				0.37%
d 226.502	309.4	0.0044	0.00002	mg/L				0.49%
o 228.616	308.9	0.0247	0.00015	mg/L				0.59%
r 267.716	5768.7	0.0505	0.00029	mg/L				0.57%
u 324.754	16067.2	0.0625	0.00042	mg/L				0.67%
Fe 238.863	1511187.2	62.74	0.049	mg/L				0.08%
K 404.721	-1596.1	15.35	0.763	mg/L				4.97%
Mg 279.079	695990.9	29.56	0.011	mg/L				0.04%
Mn 257.610	528870.2	1.420	0.0036	mg/L				0.26%
Mo 202.030	11.0	0.0015	0.00000	mg/L				0.15%
Na 330.237	5471.2	5.944	0.0232	mg/L				0.39%
Ni 231.604	1271.0	0.0376	0.00036	mg/L				0.97%
Pb 220.353	366.3	0.0546	0.00138	mg/L				2.53%
Sb 206.833	42.0	-0.0023	0.00008	mg/L				3.23%
Se 196.026	-27.5	0.0012	0.00005	mg/L				4.18%
Sn 189.933	7231.7	0.7088	0.00543	mg/L				0.77%
T 34.941	856954.9	2.058	0.0032	mg/L				0.15%
0.800	-52.9	-0.0128	0.00145	mg/L				11.36%
V .402	29631.0	0.1394	0.00012	mg/L				0.08%
Zn 206.191	955929.3	11.62	0.013	mg/L				0.11%

Mean Data

ID: 526801 1/2 Seq. No.: 17 Sample No.: 6 A/S Pos: 14
Sample Qty: 1.0500 g Prep. Vol.: 100.0 mL Dilution: 1.0: 2.0

Data: Original Date: 02/12/02 11:39:42 AM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	4298168.9	1.008	0.0017	mg/L				0.17%
g 328.068	-3328.1	-0.0047	0.00011	mg/L				2.32%
l 308.215	1151934.5	61.36	0.006	mg/L				0.01%
s 188.979	-38.1	0.0018	0.00071	mg/L				39.21%
249.773	10329.4	0.1459	0.00006	mg/L				0.04%
a 233.527	142764.4	1.335	0.0012	mg/L				0.09%
e 313.107	-7761.9	-0.0004	0.00000	mg/L				0.82%
a 315.887	20980231.7	128.3	0.95	mg/L				0.74%
d 226.502	424.1	0.0054	0.00002	mg/L				0.39%
o 228.616	351.4	0.0265	0.00004	mg/L				0.14%
r 267.716	6068.5	0.0531	0.00054	mg/L				1.02%
u 324.754	11390.1	0.0429	0.00022	mg/L				0.50%
e 238.863	1430368.4	59.38	0.057	mg/L				0.10%
404.721	-1713.2	13.20	0.073	mg/L				0.56%
lg 279.079	664677.0	28.23	0.043	mg/L				0.15%
in 257.610	780856.1	2.097	0.0034	mg/L				0.16%
lo 202.030	23.2	0.0022	0.00005	mg/L				2.09%
la 330.237	8536.9	9.977	0.0826	mg/L				0.83%
li 231.604	1128.9	0.0342	0.00009	mg/L				0.25%
Pb 220.353	901.1	0.1339	0.00064	mg/L				0.47%
Sb 206.833	43.2	-0.0017	0.00008	mg/L				4.35%
Se 196.026	-15.5	0.0052	0.00044	mg/L				8.52%
Sn 189.933	7009.0	0.6868	0.00411	mg/L				0.60%
Ti 334.941	893629.6	2.146	0.0038	mg/L				0.18%
Tl 190.800	-62.3	-0.0174	0.00026	mg/L				1.47%
V 292.402	30482.6	0.1436	0.00012	mg/L				0.09%
Zn 206.191	231285.1	2.810	0.0060	mg/L				0.21%

Mean Data

I' 26802 1/2 Seq. No.: 18 Sample No.: 7 A/S Pos: 15
S. e Qty: 1.0200 g Prep. Vol.: 100.0 mL Dilution: 1.0: 2.0
Data: Original Date: 02/12/02 11:45:05 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	4245351.8	0.996	0.0174	mg/L				1.75%
Ag 328.068	-3431.0	-0.0053	0.00008	mg/L				1.45%
Al 308.215	1414257.9	75.39	1.019	mg/L				1.35%
As 188.979	-41.4	0.0007	0.00195	mg/L				264.41%
B 249.773	9402.0	0.1318	0.00196	mg/L				1.49%
Ba 233.527	131256.3	1.228	0.0176	mg/L				1.44%
Be 313.107	-5368.9	0.0000	0.00001	mg/L				21.34%
Ca 315.887	15454734.9	94.52	1.680	mg/L				1.78%
Cd 226.502	298.0	0.0044	0.00006	mg/L				1.38%
Co 228.616	415.9	0.0292	0.00047	mg/L				1.62%
Cr 267.716	5549.3	0.0486	0.00113	mg/L				2.33%
Cu 324.754	12699.5	0.0484	0.00108	mg/L				2.23%
Fe 238.863	1594178.0	66.18	1.086	mg/L				1.64%
K 404.721	-1797.4	12.91	0.174	mg/L				1.34%
Mg 279.079	773904.1	32.87	0.506	mg/L				1.54%
Mn 257.610	677212.9	1.818	0.0291	mg/L				1.60%
Mo 202.030	13.4	0.0016	0.00003	mg/L				2.10%
Na 330.237	5927.2	6.544	0.1563	mg/L				2.39%
Ni 231.604	1362.8	0.0399	0.00079	mg/L				1.99%
Pb 220.353	304.7	0.0466	0.00066	mg/L				1.41%
Sb 206.833	39.9	-0.0035	0.00014	mg/L				4.06%
Se 196.026	-21.9	0.0031	0.00201	mg/L				65.57%
Sn 189.933	7702.7	0.7553	0.01454	mg/L				1.92%
Ti 334.941	961778.5	2.310	0.0373	mg/L				1.62%
Tl 190.800	-59.3	-0.0159	0.00147	mg/L				9.24%
V 292.402	32002.6	0.1511	0.00327	mg/L				2.17%
Zn 206.191	27379.5	0.3324	0.00704	mg/L				2.12%

Mean Data

ID: 526804 1/2 Seq. No.: 19 Sample No.: 8 A/S Pos: 16
Sample Qty: 1.0100 g Prep. Vol.: 100.0 mL Dilution: 1.0: 2.0
Data: Original Date: 02/12/02 11:50:25 AM

	Mean Corr.	Mean	Calib	Mean	Sample

ıent	Intensity	Conc.	Std.Dev.	Units	Conc.	Std.Dev.	Units	RSD
7)	4256223.7	0.998	0.0080	mg/L				0.81%
3. 58	-3314.5	-0.0046	0.00020	mg/L				4.44%
308.215	1346088.3	71.74	0.015	mg/L				0.02%
188.979	-36.4	0.0037	0.00360	mg/L				97.24%
49.773	9019.8	0.1259	0.00044	mg/L				0.35%
233.527	116649.1	1.091	0.0008	mg/L				0.08%
313.107	-4379.1	0.0001	0.00001	mg/L				10.42%
315.887	14991087.2	91.69	0.222	mg/L				0.24%
226.502	265.7	0.0041	0.00010	mg/L				2.35%
228.616	383.9	0.0279	0.00008	mg/L				0.28%
267.716	5405.5	0.0474	0.00033	mg/L				0.69%
324.754	12238.3	0.0465	0.00021	mg/L				0.46%
238.863	1515474.0	62.91	0.035	mg/L				0.06%
104.721	-1789.0	12.59	0.016	mg/L				0.12%
279.079	741803.1	31.50	0.001	mg/L				0.00%
257.610	646315.9	1.736	0.0007	mg/L				0.04%
202.030	8.5	0.0014	0.00038	mg/L				28.11%
330.237	5792.1	6.366	0.0313	mg/L				0.49%
231.604	1294.3	0.0382	0.00048	mg/L				1.26%
220.353	304.4	0.0462	0.00093	mg/L				2.01%
206.833	42.5	-0.0021	0.00202	mg/L				96.41%
196.026	-15.0	0.0054	0.00297	mg/L				55.33%
189.933	7580.3	0.7433	0.00459	mg/L				0.62%
334.941	872437.2	2.096	0.0012	mg/L				0.06%
190.800	-57.9	-0.0152	0.00056	mg/L				3.70%
292.402	30274.6	0.1426	0.00023	mg/L				0.16%
206.191	36156.9	0.4391	0.00034	mg/L				0.08%

2nd analysis OK to report CK 2/13/02

an Data

): 526805 1/2	Seq. No.: 20	Sample No.: 9	A/S Pos: 17
ımple Qty: 1.0200 g	Prep. Vol.:	100.0 mL	Dilution: 1.0: 2.0
	Data: Original		Date: 02/12/02 11:55:47 AM

ement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	4287255.9	1.006	0.0013	mg/L				0.13%
; 328.068	-3327.5	-0.0047	0.00007	mg/L				1.44%
(308.215	1199409.4	63.90	0.431	mg/L				0.67%
s 188.979	-35.4	0.0039	0.00194	mg/L				49.65%
249.773	9755.7	0.1372	0.00007	mg/L				0.05%
a 233.527	125835.6	1.177	0.0065	mg/L				0.55%
e 313.107	-6134.2	-0.0001	0.00002	mg/L				11.51%
a 315.887	16284767.0	99.60	0.062	mg/L				0.06%
d 226.502	367.9	0.0049	0.00001	mg/L				0.14%
o 228.616	332.6	0.0257	0.00016	mg/L				0.63%
r 267.716	16714.9	0.1455	0.00005	mg/L				0.03%
u 324.754	12048.0	0.0457	0.00037	mg/L				0.82%
'e 238.863	1447604.5	60.10	0.279	mg/L				0.46%
: 404.721	-1851.8	11.30	1.015	mg/L				8.98%
ıg 279.079	690040.7	29.31	0.143	mg/L				0.49%
ın 257.610	597317.0	1.604	0.0082	mg/L				0.51%
lo 202.030	21.5	0.0021	0.00005	mg/L				2.22%
la 330.237	6178.5	6.875	0.0203	mg/L				0.30%
ıi 231.604	1204.2	0.0360	0.00002	mg/L				0.07%
?b 220.353	3220.2	0.4779	0.00124	mg/L				0.26%
ıb 206.833	46.7	0.0001	0.00182	mg/L				>999.9%
ıe 196.026	-12.6	0.0062	0.00243	mg/L				39.35%
ın 189.933	7216.2	0.7073	0.00013	mg/L				0.02%
ıi 334.941	870105.9	2.090	0.0100	mg/L				0.48%
ıl 190.800	-53.5	-0.0131	0.00096	mg/L				7.33%
V 292.402	29610.9	0.1393	0.00019	mg/L				0.14%
Zn 206.191	132241.0	1.607	0.0090	mg/L				0.56%

2nd analysis OK to report CK 2/13/02

Mean Data

ID: 526805L 1/2	Seq. No.: 21	Sample No.: 10	A/S Pos: 18
S e Qty: 1.0000 mL	Prep. Vol.:	100.0 mL	Dilution: 1.0: 2.0
	Data: Original		Date: 02/12/02 12:00:59 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	4495710.9	1.054	0.0006	mg/L				0.06%
Ag 328.068	-2561.0	0.0000	0.00018	mg/L				371.39%

308.215	232633.2	12.17	0.103	mg/L	0.85%
1' 79	-26.2	-0.0007	0.00066	mg/L	98.65%
4 3	2681.6	0.0291	0.00019	mg/L	0.65%
23.527	24760.9	0.2315	0.00103	mg/L	0.45%
313.107	-5227.0	0.0000	0.00000	mg/L	76.73%
315.887	3169602.3	19.40	0.009	mg/L	0.05%
226.502	-84.1	0.0011	0.00001	mg/L	0.75%
228.616	-136.6	0.0059	0.00001	mg/L	0.12%
267.716	3206.1	0.0283	0.00034	mg/L	1.21%
324.754	3303.4	0.0091	0.00003	mg/L	0.29%
238.863	284653.6	11.84	0.061	mg/L	0.51%
404.721	-1977.4	1.316	0.0915	mg/L	6.95%
279.079	133435.8	5.699	0.0331	mg/L	0.58%
257.610	116825.5	0.3139	0.00185	mg/L	0.59%
202.030	-6.0	0.0005	0.00012	mg/L	22.77%
330.237	1915.5	1.267	0.0393	mg/L	3.10%
231.604	30.5	0.0076	0.00006	mg/L	0.82%
220.353	654.5	0.0923	0.00073	mg/L	0.79%
206.833	43.1	-0.0018	0.00037	mg/L	21.31%
196.026	-16.7	0.0048	0.00327	mg/L	68.39%
189.933	2005.5	0.1928	0.00001	mg/L	0.00%
334.941	166395.5	0.4009	0.00296	mg/L	0.74%
190.800	-29.7	-0.0016	0.00018	mg/L	11.49%
292.402	6628.9	0.0265	0.00018	mg/L	0.68%
206.191	26506.6	0.3218	0.00233	mg/L	0.73%

an Data ----------

: CCV Seq. No.: 22 Sample No.: 2 A/S Pos: 3
mple Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/12/02 12:06:14 PM

.ement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
3 030	4291536.1	1.007	0.0009	mg/L				0.08%
068	80374.1	0.5010	0.00353	mg/L				0.70%
.215	192146.8	10.000	0.0742	mg/L				0.74%
188.979	1447.4	1.062	0.0053	mg/L				0.50%
249.773	168614.9	2.564	0.0414	mg/L				1.61%
233.527	1105732.7	10.34	0.005	mg/L				0.05%
313.107	1672071.2	0.2508	0.00000	mg/L				0.00%
315.887	4117832.8	25.20	0.005	mg/L				0.02%
226.502	59726.8	0.5065	0.00345	mg/L				0.68%
228.616	61754.8	2.622	0.0168	mg/L				0.64%
267.716	59842.3	0.5196	0.00317	mg/L				0.61%
324.754	300063.7	1.252	0.0100	mg/L				0.80%
238.863	123474.9	5.148	0.0373	mg/L				0.72%
404.721	-514.0	22.46	1.133	mg/L				5.05%
QC exceeds lower limit for K 404.721		Recovery = 89.82%		Action = Continue				
279.079	595371.7	25.29	0.012	mg/L				0.05%
257.610	292597.7	0.7858	0.00528	mg/L				0.67%
202.030	42133.8	2.403	0.0197	mg/L				0.82%
330.237	18829.3	23.52	0.119	mg/L				0.50%
231.604	85144.9	2.066	0.0136	mg/L				0.66%
220.353	3430.7	0.5040	0.00119	mg/L				0.24%
206.833	9695.1	5.127	0.0022	mg/L				0.04%
196.026	1461.2	0.5005	0.00184	mg/L				0.37%
189.933	52846.1	5.213	0.0627	mg/L				1.20%
334.941	1070032.2	2.570	0.0020	mg/L				0.08%
190.800	2072.5	1.017	0.0013	mg/L				0.13%
292.402	530270.3	2.596	0.0008	mg/L				0.03%
206.191	83625.4	1.016	0.0091	mg/L				0.90%

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: 02/12/02 12:11:20 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	4309111.2	1.011	0.0040	mg/L				0.40%
Ag 328.068	-2363.2	0.0011	0.00021	mg/L				18.71%
Al 308.215	5131.0	-0.0070	0.00185	mg/L				26.41%
As 188.979	-26.7	-0.0011	0.00029	mg/L				26.15%

249.773	1910.3	0.0173	0.00399	mg/L	23.04%
527	148.4	0.0013	0.00056	mg/L	42.95%
107	-4917.4	0.0000	0.00001	mg/L	36.77%
.887	-1327.4	0.0106	0.00309	mg/L	29.29%
226.502	-199.8	0.0001	0.00003	mg/L	20.50%
228.616	-266.6	0.0004	0.00004	mg/L	9.80%
267.716	-40.4	0.0001	0.00004	mg/L	37.68%
324.754	1490.7	0.0015	0.00027	mg/L	18.30%
238.863	-434.1	0.0059	0.00082	mg/L	14.03%
404.721	-2059.0	0.1379	0.10430	mg/L	75.63%
279.079	-795.1	0.0048	0.00082	mg/L	17.15%
257.610	-30.4	0.0001	0.00008	mg/L	77.72%
202.030	17.8	0.0019	0.00053	mg/L	27.79%
330.237	1066.1	0.1494	0.11368	mg/L	76.11%
231.604	-265.7	0.0005	0.00018	mg/L	37.54%
220.353	33.3	0.0002	0.00069	mg/L	331.12%
206.833	89.9	0.0231	0.00488	mg/L	21.12%
QC exceeds upper limit for Sb 206.833 Action = Continue					
196.026	-26.5	0.0015	0.00026	mg/L	17.31%
189.933	199.9	0.0145	0.00333	mg/L	22.96%
334.941	-109.4	0.0013	0.00049	mg/L	38.36%
190.800	-26.0	0.0003	0.00121	mg/L	482.66%
292.402	1332.7	0.0006	0.00030	mg/L	53.48%
206.191	114.3	0.0011	0.00018	mg/L	16.69%

ean Data ----------

D: PBS-M2530077 Seq. No.: 24 Sample No.: 11 A/S Pos: 19
ample Qty: 1.0000 g Prep. Vol.: 100.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/12/02 12:16:23 PM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	4385508.6	1.029	0.0159	mg/L				1.55%
g 328.068	-2393.7	0.0010	0.00008	mg/L				8.02%
l .215	5176.5	-0.0046	0.00628	mg/L				137.42%
s .979	-32.2	-0.0050	0.00172	mg/L				34.25%
249.773	1528.1	0.0115	0.00068	mg/L				5.97%
a 233.527	38.6	0.0003	0.00001	mg/L				1.81%
e 313.107	-4939.3	0.0000	0.00001	mg/L				29.51%
a 315.887	-1311.3	0.0107	0.00051	mg/L				4.80%
d 226.502	-202.5	0.0001	0.00005	mg/L				42.35%
o 228.616	-271.1	0.0002	0.00003	mg/L				13.87%
r 267.716	42.7	0.0008	0.00000	mg/L				0.05%
u 324.754	1492.5	0.0015	0.00027	mg/L				18.34%
e 238.863	-422.2	0.0063	0.00019	mg/L				2.95%
404.721	-2078.0	-0.1364	1.00138	mg/L				734.17%
g 279.079	-774.4	0.0057	0.00194	mg/L				34.12%
n 257.610	-182.1	-0.0003	0.00000	mg/L				0.09%
o 202.030	-4.7	0.0006	0.00009	mg/L				14.62%
a 330.237	1416.8	0.6107	0.12240	mg/L				20.04%
i 231.604	-281.6	0.0001	0.00028	mg/L				263.72%
b 220.353	34.8	0.0004	0.00034	mg/L				79.46%
b 206.833	63.2	0.0089	0.00153	mg/L				17.18%
e 196.026	-16.3	0.0049	0.00161	mg/L				32.72%
n 189.933	262.7	0.0207	0.00028	mg/L				1.36%
i 334.941	-391.2	0.0006	0.00012	mg/L				19.79%
l 190.800	-29.2	-0.0013	0.00021	mg/L				15.92%
V 292.402	1192.3	-0.0001	0.00005	mg/L				39.51%
n 206.191	192.6	0.0020	0.00001	mg/L				0.58%

Mean Data ----------

ID: LCSS-M2530077 Seq. No.: 25 Sample No.: 12 A/S Pos: 20
Sample Qty: 1.0500 g Prep. Vol.: 100.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/12/02 12:21:51 PM

E nt	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y .030	4288009.2	1.006	0.0052	mg/L				0.52%
Ag 328.068	157522.9	0.9671	0.00608	mg/L				0.63%
Al 308.215	1019598.4	54.27	0.074	mg/L				0.14%
As 188.979	2927.5	2.148	0.0192	mg/L				0.89%
B 249.773	36876.0	0.5515	0.00589	mg/L				1.07%
Ba 233.527	206072.2	1.928	0.0155	mg/L				0.81%

313.107	3281879.0	0.4915	0.00019	mg/L	0.04%
887	18111111.1	110.8	0.09	mg/L	0.08%
02	83395.2	0.7006	0.00668	mg/L	0.95%
2..616	58447.7	2.482	0.0118	mg/L	0.47%
267.716	180368.3	1.565	0.0108	mg/L	0.69%
324.754	241883.6	1.008	0.0068	mg/L	0.67%
238.863	2418544.6	100.4	0.03	mg/L	0.03%
404.721	-1836.8	16.99	0.669	mg/L	3.94%
279.079	589677.1	25.05	0.217	mg/L	0.87%
257.610	1534083.3	4.119	0.0018	mg/L	0.04%
202.030	8423.9	0.4811	0.00389	mg/L	0.81%
330.237	9200.5	10.85	0.106	mg/L	0.98%
231.604	34414.8	0.8390	0.00645	mg/L	0.77%
220.353	8673.0	1.286	0.0101	mg/L	0.78%
206.833	467.5	0.2238	0.00125	mg/L	0.56%
196.026	4652.4	1.571	0.0107	mg/L	0.68%
189.933	15480.4	1.523	0.0123	mg/L	0.81%
334.941	647488.8	1.556	0.0005	mg/L	0.03%
190.800	1742.9	0.8575	0.00750	mg/L	0.87%
292.402	372048.0	1.820	0.0122	mg/L	0.67%
206.191	234187.1	2.846	0.0267	mg/L	0.94%

an Data ----------

D: 526394 1/500 Seq. No.: 26 Sample No.: 13 A/S Pos: 21
ample Qty: 1.0200 g Prep. Vol.: 100.0 mL Dilution: 1.0: 500.0
Data: Original Date: 02/12/02 12:27:11 PM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	4409747.4	1.034	0.0051	mg/L				0.50%
g 328.068	-2275.3	0.0017	0.00060	mg/L				35.83%
l 308.215	5183.9	-0.0042	0.00395	mg/L				94.70%
s 188.979	-26.4	-0.0008	0.00215	mg/L				264.00%
2..773	1408.0	0.0096	0.00065	mg/L				6.76%
a 527	18.8	0.0001	0.00005	mg/L				54.88%
e .107	-4681.3	0.0001	0.00003	mg/L				33.67%
a 315.887	-358.2	0.0165	0.00587	mg/L				35.59%
d 226.502	-172.3	0.0004	0.00007	mg/L				17.36%
o 228.616	-258.6	0.0007	0.00021	mg/L				29.42%
r 267.716	-7.6	0.0004	0.00007	mg/L				18.41%
u 324.754	1509.5	0.0016	0.00008	mg/L				5.42%
e 238.863	76155.5	3.184	0.0125	mg/L				0.39%
404.721	-2117.5	-0.7081	0.26064	mg/L				36.81%
g 279.079	-601.2	0.0130	0.00120	mg/L				9.18%
n 257.610	6932.4	0.0188	0.00034	mg/L				1.81%
o 202.030	-11.8	0.0002	0.00017	mg/L				80.16%
a 330.237	1349.5	0.5221	0.13670	mg/L				26.18%
i 231.604	-196.8	0.0022	0.00000	mg/L				0.22%
b 220.353	30.3	-0.0002	0.00043	mg/L				177.82%
b 206.833	48.1	0.0009	0.00080	mg/L				93.52%
e 196.026	-30.7	0.0001	0.00086	mg/L				807.15%
n 189.933	41.9	-0.0011	0.00023	mg/L				21.09%
i 334.941	-445.1	0.0005	0.00005	mg/L				11.21%
l 190.800	-26.2	0.0001	0.00038	mg/L				280.52%
292.402	1398.4	0.0009	0.00011	mg/L				12.38%
n 206.191	180643.3	2.195	0.0043	mg/L				0.20%

Mean Data ----------

ID: 526394L 1/500 Seq. No.: 27 Sample No.: 14 A/S Pos: 22
Sample Qty: 1.0000 mL Prep. Vol.: 100.0 mL Dilution: 1.0: 500.0
Data: Original Date: 02/12/02 12:32:17 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	4394274.8	1.031	0.0024	mg/L				0.23%
Ag 328.068	-2329.2	0.0014	0.00038	mg/L				27.74%
A 8.215	5116.6	-0.0078	0.00118	mg/L				15.17%
A 3.979	-25.6	-0.0003	0.00051	mg/L				193.43%
B ..9.773	1143.6	0.0056	0.00012	mg/L				2.07%
Ba 233.527	9.4	0.0000	0.00010	mg/L				>999.9%
Be 313.107	-5128.6	0.0000	0.00002	mg/L				221.96%
Ca 315.887	-3793.0	-0.0045	0.00138	mg/L				30.59%
Cd 226.502	-196.7	0.0002	0.00004	mg/L				22.64%

228.616	-265.0	0.0004	0.00011	mg/L	25.33%
2[illegible] 716	-81.5	-0.0002	0.00001	mg/L	4.56%
[illegible]54	1346.0	0.0009	0.00013	mg/L	15.14%
[illegible].863	14288.5	0.6168	0.00739	mg/L	1.20%
404.721	-1997.7	1.024	0.3104	mg/L	30.32%
[illegible] 279.079	-778.1	0.0055	0.00191	mg/L	34.52%
[illegible] 257.610	1020.3	0.0029	0.00001	mg/L	0.23%
[illegible] 202.030	-14.0	0.0001	0.00006	mg/L	80.21%
[illegible] 330.237	1014.9	0.0820	0.01293	mg/L	15.77%
[illegible] 231.604	-251.8	0.0008	0.00018	mg/L	21.93%
[illegible] 220.353	28.3	-0.0005	0.00015	mg/L	28.36%
[illegible] 206.833	47.3	0.0004	0.00318	mg/L	722.87%
[illegible] 196.026	-28.4	0.0009	0.00068	mg/L	79.52%
[illegible] 189.933	35.6	-0.0017	0.00012	mg/L	6.78%
[illegible] 334.941	-539.4	0.0002	0.00004	mg/L	18.45%
[illegible] 190.800	-24.3	0.0011	0.00164	mg/L	153.65%
292.402	1213.3	0.0000	0.00006	mg/L	216.49%
[illegible] 206.191	33493.4	0.4067	0.00457	mg/L	1.12%

[illegible]ean Data

[illegible]D: CRI — Seq. No.: 28 — Sample No.: 5 — A/S Pos: 6

[illegible]ample Qty: 1.0000 g — Prep. Vol.: 1.0 L — Dilution: 1.0: 1.0

Data: Original — Date: 02/12/02 12:37:23 PM

[illegible]lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	4373767.9	1.026	0.0039	mg/L				0.38%
[illegible]g 328.068	817.6	0.0204	0.00007	mg/L				0.36%
[illegible]l 308.215	5073.9	-0.0101	0.00249	mg/L				24.75%
[illegible]s 188.979	5.4	0.0221	0.00198	mg/L				8.97%
249.773	1148.3	0.0057	0.00037	mg/L				6.51%
[illegible]a 233.527	34.9	0.0002	0.00001	mg/L				3.55%
[illegible]e 313.107	60020.3	0.0098	0.00010	mg/L				0.99%
[illegible]a 315.887	-90.4	0.0181	0.00042	mg/L				2.34%
[illegible]d 502	1010.2	0.0104	0.00002	mg/L				0.18%
[illegible]o .616	2353.7	0.1111	0.00022	mg/L				0.20%
[illegible]r 267.716	2381.0	0.0211	0.00015	mg/L				0.71%
[illegible]u 324.754	12935.3	0.0494	0.00051	mg/L				1.04%
[illegible]e 238.863	-420.8	0.0064	0.00267	mg/L				41.70%
[illegible] 404.721	-2092.3	-0.3440	0.78763	mg/L				228.98%
[illegible]g 279.079	-883.4	0.0011	0.00071	mg/L				67.24%
[illegible]n 257.610	12005.2	0.0324	0.00030	mg/L				0.92%
[illegible]o 202.030	-15.0	0.0000	0.00003	mg/L				134.05%
[illegible]a 330.237	1044.4	0.1208	0.00519	mg/L				4.30%
[illegible]i 231.604	3251.8	0.0855	0.00041	mg/L				0.47%
[illegible]b 220.353	72.3	0.0060	0.00005	mg/L				0.91%
[illegible]b 206.833	286.2	0.1274	0.00244	mg/L				1.91%
[illegible]e 196.026	3.8	0.0117	0.00110	mg/L				9.45%
[illegible]n 189.933	77.8	0.0024	0.00029	mg/L				11.91%
[illegible]i 334.941	-551.7	0.0002	0.00001	mg/L				6.37%
[illegible]l 190.800	18.3	0.0217	0.00047	mg/L				2.17%
[illegible] 292.402	22117.2	0.1025	0.00120	mg/L				1.17%
[illegible]n 206.191	3540.4	0.0427	0.00046	mg/L				1.09%

[illegible]ean Data

[illegible]D: ICSA — Seq. No.: 29 — Sample No.: 6 — A/S Pos: 7

[illegible]ample Qty: 1.0000 g — Prep. Vol.: 1.0 L — Dilution: 1.0: 1.0

Data: Original — Date: 02/12/02 12:42:59 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	3803390.4	0.892	0.0062	mg/L				0.69%
Ag 328.068	-5246.6	-0.0163	0.00014	mg/L				0.85%
Al 308.215	9542021.8	510.3	3.61	mg/L				0.71%
As 188.979	-75.0	0.0000	0.00180	mg/L				>999.9%
B 249.773	10641.4	0.1507	0.00134	mg/L				0.89%
Ba [illegible]3.527	-310.9	-0.0030	0.00011	mg/L				3.63%
B [illegible].107	-6215.4	-0.0002	0.00002	mg/L				12.61%
Ca [illegible]5.887	76971827.7	470.7	2.97	mg/L				0.63%
Cd 226.502	1168.3	0.0004	0.00006	mg/L				17.81%
Co 228.616	-326.9	-0.0022	0.00004	mg/L				1.92%
Cr 267.716	1118.4	0.0102	0.00001	mg/L				0.11%
Cu 324.754	-2152.7	-0.0020	0.00051	mg/L				25.23%

: 238.863	4622090.0	191.8	0.17	mg/L	0.09%
4 721	-4046.6	-2.498	1.1031	mg/L	44.17%
079	12137842.1	514.9	3.33	mg/L	0.65%
.610	-7523.0	-0.0035	0.00035	mg/L	10.17%
202.030	29.7	0.0026	0.00017	mg/L	6.55%
330.237	845.3	0.0278	0.00630	mg/L	22.65%
231.604	-285.9	0.0000	0.00013	mg/L	>999.9%
220.353	-263.9	-0.0061	0.00049	mg/L	7.95%
206.833	35.5	-0.0058	0.00444	mg/L	76.59%
196.026	20.3	0.0079	0.00286	mg/L	36.19%
189.933	17397.9	-0.2628	0.00095	mg/L	0.36%
334.941	-3907.5	-0.0078	0.00008	mg/L	1.07%
190.800	-62.6	-0.0175	0.00093	mg/L	5.31%
292.402	12744.9	0.0566	0.00086	mg/L	1.51%
206.191	1612.0	0.0053	0.00004	mg/L	0.80%

ean Data ----------

D: ICSAB Seq. No.: 30 Sample No.: 7 A/S Pos: 8
ample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/12/02 12:49:06 PM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	3884887.1	0.911	0.0078	mg/L				0.86%
g 328.068	177483.0	1.088	0.0152	mg/L				1.39%
l 308.215	9348640.9	499.9	4.29	mg/L				0.86%
s 188.979	-89.7	-0.0113	0.00477	mg/L				42.21%
249.773	10436.3	0.1476	0.00176	mg/L				1.19%
a 233.527	55915.6	0.5230	0.00571	mg/L				1.09%
e 313.107	3294711.2	0.4935	0.00075	mg/L				0.15%
a 315.887	75355974.9	460.8	4.41	mg/L				0.96%
d 226.502	111921.0	0.9365	0.01297	mg/L				1.38%
o 228.616	10709.2	0.4643	0.00453	mg/L				0.98%
r 267.716	57986.6	0.5035	0.00579	mg/L				1.15%
u .754	123519.0	0.5239	0.00944	mg/L				1.80%
e .863	4530958.7	188.1	0.43	mg/L				0.23%
404.721	-4009.3	-2.473	1.0050	mg/L				40.63%
g 279.079	11880770.1	504.0	5.05	mg/L				1.00%
n 257.610	178402.4	0.4954	0.00571	mg/L				1.15%
o 202.030	29.4	0.0026	0.00029	mg/L				11.20%
a 330.237	1018.3	0.2528	0.00996	mg/L				3.94%
i 231.604	37730.5	0.9192	0.00923	mg/L				1.00%
b 220.353	6145.5	0.9435	0.01054	mg/L				1.12%
b 206.833	38.4	-0.0042	0.00271	mg/L				63.88%
e 196.026	23.9	0.0093	0.00159	mg/L				17.06%
n 189.933	17035.4	-0.2568	0.00340	mg/L				1.32%
i 334.941	-3671.4	-0.0073	0.00009	mg/L				1.29%
l 190.800	-59.7	-0.0161	0.00369	mg/L				22.95%
292.402	114430.5	0.5555	0.00654	mg/L				1.18%
Zn 206.191	77696.0	0.9302	0.01283	mg/L				1.38%

Mean Data ----------

ID: CCV Seq. No.: 31 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: 02/12/02 12:54:49 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	4271674.4	1.002	0.0026	mg/L				0.26%
Ag 328.068	80399.7	0.5011	0.00147	mg/L				0.29%
Al 308.215	193370.6	10.07	0.060	mg/L				0.60%
As 188.979	1438.3	1.056	0.0049	mg/L				0.47%
B 249.773	168284.4	2.559	0.0080	mg/L				0.31%
Ba 233.527	1106035.1	10.35	0.007	mg/L				0.07%
Be 313.107	1673130.0	0.2510	0.00007	mg/L				0.03%
Ca 315.887	4126104.9	25.25	0.031	mg/L				0.12%
Cd 226.502	60107.6	0.5098	0.00018	mg/L				0.04%
Co 228.616	61643.2	2.617	0.0093	mg/L				0.36%
Cr 267.716	59912.9	0.5202	0.00183	mg/L				0.35%
Cu 324.754	300599.0	1.254	0.0035	mg/L				0.28%
Fe 238.863	124423.2	5.187	0.0261	mg/L				0.50%
K 404.721	-534.1	22.17	0.038	mg/L				0.17%

*QC exceeds lower limit for K 404.721 Recovery = 88.66% Action = Continue

27° 079	596137.1	25.33	0.027	mg/L	0.11%
2' 10	291794.3	0.7836	0.00333	mg/L	0.43%
2L 30	42426.5	2.420	0.0007	mg/L	0.03%
330.237	19049.9	23.81	0.205	mg/L	0.86%
231.604	85414.9	2.072	0.0026	mg/L	0.13%
220.353	3435.7	0.5047	0.00310	mg/L	0.61%
206.833	9644.8	5.100	0.0522	mg/L	1.02%
196.026	1455.2	0.4985	0.00134	mg/L	0.27%
189.933	52923.6	5.221	0.0121	mg/L	0.23%
334.941	1063498.3	2.554	0.0059	mg/L	0.23%
190.800	2077.3	1.019	0.0119	mg/L	1.17%
292.402	528667.4	2.588	0.0021	mg/L	0.08%
206.191	83918.3	1.019	0.0012	mg/L	0.12%

an Data ----------

: CCB Seq. No.: 32 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: 02/12/02 12:59:54 PM

ement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	4324130.9	1.014	0.0063	mg/L				0.62%
328.068	-2337.4	0.0013	0.00024	mg/L				18.57%
308.215	5174.7	-0.0047	0.00190	mg/L				40.72%
188.979	-26.5	-0.0009	0.00018	mg/L				19.06%
249.773	1981.2	0.0184	0.00427	mg/L				23.24%
233.527	131.4	0.0011	0.00051	mg/L				44.88%
313.107	-4871.6	0.0000	0.00002	mg/L				48.05%
315.887	-1247.9	0.0110	0.00239	mg/L				21.66%
226.502	-198.1	0.0002	0.00003	mg/L				19.85%
228.616	-258.0	0.0007	0.00022	mg/L				29.88%
267.716	-47.4	0.0001	0.00011	mg/L				203.17%
324.754	1524.1	0.0016	0.00068	mg/L				42.20%
863	-414.5	0.0067	0.00090	mg/L				13.44%
21	-2086.6	-0.2607	0.88623	mg/L				339.96%
279.079	-726.8	0.0077	0.00189	mg/L				24.49%
257.610	-91.2	-0.0001	0.00005	mg/L				80.79%
202.030	16.1	0.0018	0.00063	mg/L				35.20%
330.237	1078.7	0.1658	0.08363	mg/L				50.43%
231.604	-260.8	0.0006	0.00012	mg/L				19.14%
220.353	33.8	0.0003	0.00019	mg/L				69.04%
206.833	93.3	0.0249	0.00620	mg/L				24.92%
QC exceeds upper limit for Sb 206.833			Action = Continue					
196.026	-26.5	0.0015	0.00061	mg/L				40.24%
189.933	195.5	0.0141	0.00249	mg/L				17.72%
334.941	-193.2	0.0011	0.00042	mg/L				38.96%
190.800	-25.2	0.0006	0.00038	mg/L				60.17%
292.402	1333.3	0.0006	0.00067	mg/L				119.66%
206.191	80.5	0.0007	0.00018	mg/L				27.99%

lean Data ----------

:D: 526394 1/10 Seq. No.: 33 Sample No.: 15 A/S Pos: 23
:ample Qty: 1.0200 g Prep. Vol.: 100.0 mL Dilution: 1.0: 10.0
Data: Original Date: 02/12/02 1:05:07 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
f 371.030	4311275.1	1.011	0.0120	mg/L				1.19%
Ag 328.068	-3920.0	-0.0083	0.00062	mg/L				7.47%
Al 308.215	5719.3	0.0245	0.00362	mg/L				14.79%
As 188.979	-68.4	-0.0028	0.00223	mg/L				79.00%
B 249.773	8459.3	0.1174	0.00097	mg/L				0.83%
Ba 233.527	-339.9	-0.0033	0.00001	mg/L				0.35%
Be 313.107	-5276.8	0.0000	0.00000	mg/L				27.93%
Ca 315.887	84200.1	0.5336	0.00960	mg/L				1.80%
Cd 226.502	1169.2	0.0028	0.00010	mg/L				3.68%
C 228.616	-122.8	0.0065	0.00018	mg/L				2.82%
Cr 267.716	1806.9	0.0161	0.00014	mg/L				0.84%
Cu 324.754	409.6	-0.0030	0.00002	mg/L				0.56%
Fe 238.863	3647616.3	151.4	0.26	mg/L				0.17%
K 404.721	-3424.2	0.9966	1.15631	mg/L				116.02%
Mg 279.079	9227.6	0.4299	0.00891	mg/L				2.07%
Mn 257.610	343488.9	0.9355	0.01516	mg/L				1.62%

202.030	-71.2	-0.0032	0.00005	mg/L	1.51%
3?^ 237	21295.7	27.34	0.531	mg/L	1.94%
? 04	2883.9	0.0766	0.00115	mg/L	1.50%
2. 353	84.2	0.0077	0.00012	mg/L	1.60%
206.833	51.1	0.0025	0.00276	mg/L	111.38%
196.026	-31.1	0.0000	0.00231	mg/L	>999.9%
189.933	263.2	0.0208	0.00073	mg/L	3.51%
334.941	-29.9	0.0015	0.00003	mg/L	2.23%
190.800	-44.8	-0.0089	0.00008	mg/L	0.89%
292.402	9475.9	0.0405	0.00103	mg/L	2.55%
206.191	7151167.7	86.90	0.392	mg/L	0.45%

an Data ----------

: 526394L 1/10 Seq. No.: 34 Sample No.: 16 A/S Pos: 24
mple Qty: 1.0000 mL Prep. Vol.: 100.0 mL Dilution: 1.0: 10.0
Data: Original Date: 02/12/02 1:10:17 PM

.ement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	4269722.4	1.001	0.0006	mg/L				0.06%
; 328.068	-2687.1	-0.0008	0.00016	mg/L				19.67%
. 308.215	5416.4	0.0083	0.00078	mg/L				9.40%
; 188.979	-34.3	-0.0066	0.00348	mg/L				52.97%
249.773	2593.9	0.0278	0.00048	mg/L				1.72%
; 233.527	-62.3	-0.0007	0.00005	mg/L				7.49%
: 313.107	-5258.8	0.0000	0.00001	mg/L				49.95%
; 315.887	13332.7	0.1002	0.00157	mg/L				1.57%
; 226.502	52.5	0.0023	0.00007	mg/L				3.26%
; 228.616	-246.1	0.0012	0.00011	mg/L				8.73%
r 267.716	277.1	0.0029	0.00007	mg/L				2.58%
; 324.754	1144.1	0.0000	0.00016	mg/L				633.94%
e 238.863	738258.8	30.66	0.002	mg/L				0.01%
404.721	-2395.0	-0.5484	0.27434	mg/L				50.03%
g 279.079	1166.7	0.0880	0.00162	mg/L				1.84%
n 610	68006.4	0.1828	0.00148	mg/L				0.81%
o .030	-27.9	-0.0007	0.00012	mg/L				16.87%
a 330.237	5087.5	5.439	0.0401	mg/L				0.74%
i 231.604	357.4	0.0156	0.00017	mg/L				1.07%
b 220.353	39.0	0.0011	0.00068	mg/L				64.79%
b 206.833	49.9	0.0018	0.00199	mg/L				108.59%
e 196.026	-32.6	-0.0005	0.00131	mg/L				247.05%
n 189.933	82.7	0.0029	0.00040	mg/L				13.61%
'i 334.941	-509.9	0.0003	0.00001	mg/L				2.48%
'l 190.800	-33.0	-0.0031	0.00012	mg/L				3.77%
' 292.402	2820.7	0.0079	0.00001	mg/L				0.18%
:n 206.191	1696039.3	20.61	0.034	mg/L				0.17%

lean Data ----------

:D: 999991 Seq. No.: 35 Sample No.: 17 A/S Pos: 25
;ample Qty: 1.0000 mL Prep. Vol.: 100.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/12/02 1:15:17 PM

:lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
(371.030	4303505.1	1.009	0.0075	mg/L				0.75%
\g 328.068	-2298.5	0.0015	0.00019	mg/L				12.10%
\l 308.215	5057.5	-0.0109	0.00023	mg/L				2.14%
\s 188.979	-25.8	-0.0004	0.00167	mg/L				400.51%
B 249.773	1434.1	0.0100	0.00015	mg/L				1.51%
Ba 233.527	61.4	0.0005	0.00021	mg/L				41.93%
Be 313.107	-4979.5	0.0000	0.00000	mg/L				2.26%
Ca 315.887	1387.2	0.0272	0.00037	mg/L				1.37%
Cd 226.502	-208.9	0.0001	0.00003	mg/L				44.40%
Co 228.616	-274.5	0.0000	0.00040	mg/L				969.01%
Cr 267.716	-14.1	0.0003	0.00007	mg/L				19.01%
Cu 324.754	1491.5	0.0015	0.00022	mg/L				14.88%
F^ ^8.863	991.4	0.0650	0.00104	mg/L				1.60%
K .721	-2020.1	0.6996	1.29044	mg/L				184.46%
Mg _/9.079	-828.8	0.0034	0.00053	mg/L				15.84%
Mn 257.610	1497.0	0.0042	0.00021	mg/L				5.05%
Mo 202.030	-11.1	0.0002	0.00039	mg/L				159.21%
Na 330.237	1356.5	0.5313	0.01713	mg/L				3.22%
Ni 231.604	-280.8	0.0001	0.00009	mg/L				76.23%

220.353	30.2	-0.0003	0.00022	mg/L	87.46%
20[illegible] 833	53.8	0.0039	0.00189	mg/L	48.22%
[illegible]26	-25.7	0.0018	0.00004	mg/L	2.16%
[illegible] 933	408.4	0.0351	0.00586	mg/L	16.69%
334.941	-555.8	0.0002	0.00000	mg/L	0.73%
190.800	-28.9	-0.0011	0.00013	mg/L	11.58%
292.402	1228.6	0.0000	0.00005	mg/L	115.61%
206.191	3506.8	0.0423	0.01361	mg/L	32.19%

an Data ----------

: 999992 Seq. No.: 36 Sample No.: 18 A/S Pos: 26
mple Qty: 1.0000 mL Prep. Vol.: 100.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/12/02 1:20:17 PM

ement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	4285563.0	1.005	0.0045	mg/L				0.45%
328.068	-2369.0	0.0011	0.00024	mg/L				21.85%
308.215	5056.5	-0.0110	0.00272	mg/L				24.71%
188.979	-28.2	-0.0021	0.00015	mg/L				7.07%
249.773	1450.6	0.0103	0.00008	mg/L				0.78%
233.527	38.9	0.0003	0.00005	mg/L				18.68%
313.107	-5004.5	0.0000	0.00001	mg/L				20.08%
315.887	784.0	0.0235	0.00009	mg/L				0.40%
226.502	-204.7	0.0001	0.00001	mg/L				5.34%
228.616	-277.1	-0.0001	0.00013	mg/L				189.07%
267.716	-17.9	0.0003	0.00022	mg/L				70.36%
324.754	1363.2	0.0009	0.00007	mg/L				6.92%
238.863	877.8	0.0603	0.00036	mg/L				0.60%
404.721	-1975.2	1.348	0.3028	mg/L				22.47%
279.079	-864.5	0.0019	0.00131	mg/L				70.50%
257.610	1589.3	0.0045	0.00021	mg/L				4.77%
202.030	-10.2	0.0003	0.00000	mg/L				0.19%
330.237	1221.3	0.3535	0.08034	mg/L				22.73%
604	-277.9	0.0002	0.00004	mg/L				21.53%
.353	30.0	-0.0003	0.00026	mg/L				90.94%
206.833	53.4	0.0037	0.00150	mg/L				40.49%
196.026	-22.3	0.0029	0.00249	mg/L				85.71%
189.933	287.0	0.0231	0.00091	mg/L				3.92%
334.941	-625.6	0.0000	0.00004	mg/L				127.78%
190.800	-25.4	0.0005	0.00022	mg/L				42.16%
292.402	1229.0	0.0000	0.00017	mg/L				350.53%
206.191	1079.5	0.0128	0.00229	mg/L				17.89%

ean Data ----------

D: 999993 Seq. No.: 37 Sample No.: 19 A/S Pos: 27
ample Qty: 1.0000 mL Prep. Vol.: 100.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/12/02 1:25:18 PM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	4291513.8	1.007	0.0073	mg/L				0.73%
g 328.068	-2364.4	0.0011	0.00018	mg/L				16.07%
l 308.215	5069.9	-0.0103	0.00557	mg/L				54.19%
s 188.979	-28.8	-0.0026	0.00344	mg/L				131.66%
249.773	1486.6	0.0108	0.00003	mg/L				0.25%
a 233.527	38.4	0.0003	0.00012	mg/L				44.48%
e 313.107	-5039.8	0.0000	0.00001	mg/L				53.84%
a 315.887	700.2	0.0230	0.00012	mg/L				0.53%
d 226.502	-209.5	0.0001	0.00005	mg/L				76.02%
o 228.616	-273.4	0.0001	0.00014	mg/L				165.03%
r 267.716	-12.5	0.0004	0.00007	mg/L				19.08%
u 324.754	1362.6	0.0009	0.00001	mg/L				1.26%
Fe 238.863	876.4	0.0602	0.00091	mg/L				1.51%
K 404.721	-1985.9	1.194	0.4979	mg/L				41.69%
Mg 279.079	-884.1	0.0010	0.00000	mg/L				0.10%
Mn 257.610	1658.0	0.0046	0.00009	mg/L				2.05%
M .030	-12.7	0.0002	0.00019	mg/L				123.52%
Na 0.237	1167.5	0.2827	0.04943	mg/L				17.49%
Ni 231.604	-280.1	0.0001	0.00001	mg/L				8.24%
Pb 220.353	31.4	-0.0001	0.00039	mg/L				519.39%
Sb 206.833	53.0	0.0035	0.00029	mg/L				8.41%
Se 196.026	-24.7	0.0021	0.00192	mg/L				91.46%

189.933	243.0	0.0188	0.00002	mg/L	0.12%
3 941	-594.9	0.0001	0.00003	mg/L	25.20%
00	-27.2	-0.0003	0.00050	mg/L	156.03%
29 .02	1208.0	-0.0001	0.00013	mg/L	225.53%
206.191	614.5	0.0071	0.00121	mg/L	16.94%

an Data ----------

: 999994 Seq. No.: 38 Sample No.: 20 A/S Pos: 28
mple Qty: 1.0000 mL Prep. Vol.: 100.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/12/02 1:30:19 PM

ement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	4330709.2	1.016	0.0004	mg/L				0.04%
328.068	-2371.1	0.0011	0.00035	mg/L				31.86%
308.215	5038.3	-0.0120	0.00005	mg/L				0.46%
188.979	-27.4	-0.0015	0.00293	mg/L				190.41%
249.773	1479.6	0.0107	0.00011	mg/L				1.06%
233.527	39.9	0.0003	0.00004	mg/L				15.08%
313.107	-4923.2	0.0000	0.00000	mg/L				5.52%
315.887	525.5	0.0219	0.00061	mg/L				2.77%
226.502	-204.3	0.0001	0.00003	mg/L				25.30%
228.616	-281.5	-0.0003	0.00016	mg/L				63.43%
267.716	-9.9	0.0004	0.00001	mg/L				2.55%
324.754	1267.1	0.0005	0.00005	mg/L				9.34%
238.863	830.1	0.0583	0.00048	mg/L				0.82%
404.721	-2037.8	0.4437	0.35588	mg/L				80.21%
279.079	-838.9	0.0029	0.00004	mg/L				1.44%
257.610	1620.8	0.0045	0.00014	mg/L				3.03%
202.030	-12.7	0.0002	0.00010	mg/L				66.08%
330.237	1173.8	0.2910	0.01910	mg/L				6.57%
231.604	-278.0	0.0002	0.00005	mg/L				28.32%
220.353	33.0	0.0002	0.00017	mg/L				106.29%
206.833	53.8	0.0039	0.00188	mg/L				48.36%
026	-24.2	0.0023	0.00169	mg/L				74.53%
.933	212.9	0.0158	0.00063	mg/L				3.98%
334.941	-634.0	0.0000	0.00005	mg/L				348.38%
190.800	-28.3	-0.0009	0.00051	mg/L				58.77%
292.402	1200.0	-0.0001	0.00017	mg/L				183.00%
206.191	383.9	0.0043	0.00058	mg/L				13.33%

ean Data ----------

D: 999995 Seq. No.: 39 Sample No.: 21 A/S Pos: 29
ample Qty: 1.0000 mL Prep. Vol.: 100.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/12/02 1:35:21 PM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	4322778.1	1.014	0.0130	mg/L				1.28%
g 328.068	-2371.3	0.0011	0.00002	mg/L				1.61%
l 308.215	5000.8	-0.0140	0.00119	mg/L				8.53%
s 188.979	-30.2	-0.0036	0.00048	mg/L				13.16%
249.773	1511.9	0.0112	0.00019	mg/L				1.68%
a 233.527	32.1	0.0002	0.00001	mg/L				4.62%
e 313.107	-4926.3	0.0000	0.00001	mg/L				21.07%
a 315.887	439.8	0.0214	0.00024	mg/L				1.14%
d 226.502	-204.2	0.0001	0.00002	mg/L				19.49%
o 228.616	-275.8	0.0000	0.00014	mg/L				949.63%
r 267.716	-6.0	0.0004	0.00005	mg/L				11.27%
u 324.754	1283.8	0.0006	0.00019	mg/L				31.13%
e 238.863	839.5	0.0587	0.00210	mg/L				3.57%
404.721	-2002.7	0.9511	0.58599	mg/L				61.61%
g 279.079	-846.5	0.0026	0.00069	mg/L				26.30%
n 257.610	1619.3	0.0045	0.00001	mg/L				0.29%
o 202.030	-15.2	0.0000	0.00010	mg/L				787.46%
Na 330.237	1169.2	0.2849	0.09748	mg/L				34.21%
N .604	-284.2	0.0000	0.00022	mg/L				532.11%
Pl .353	31.9	0.0000	0.00057	mg/L				>999.9%
Sb 206.833	51.7	0.0028	0.00078	mg/L				27.84%
Se 196.026	-27.7	0.0011	0.00118	mg/L				106.08%
Sn 189.933	199.6	0.0145	0.00035	mg/L				2.44%
Ti 334.941	-580.5	0.0001	0.00007	mg/L				46.41%
Tl 190.800	-28.2	-0.0008	0.00045	mg/L				55.47%

2.[illegible]	1159.9	-0.0003	0.00016	mg/L	53.40%
0[illegible]	283.7	0.0031	0.00042	mg/L	13.38%

Data ----------

CRI
le Qty: 1.0000 g

Seq. No.: 40 Sample No.: 5 A/S Pos: 6
Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/12/02 1:40:26 PM

ment	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
71.030	4416276.1	1.036	0.0071	mg/L				0.68%
328.068	766.9	0.0201	0.00018	mg/L				0.92%
308.215	5012.9	-0.0133	0.00091	mg/L				6.81%
188.979	2.6	0.0201	0.00305	mg/L				15.20%
49.773	1243.6	0.0071	0.00007	mg/L				0.99%
233.527	12.6	0.0000	0.00003	mg/L				97.95%
313.107	60375.2	0.0098	0.00006	mg/L				0.62%
315.887	-113.6	0.0180	0.00046	mg/L				2.57%
226.502	1010.6	0.0104	0.00007	mg/L				0.67%
228.616	2339.3	0.1105	0.00061	mg/L				0.55%
267.716	2364.8	0.0210	0.00031	mg/L				1.47%
324.754	12844.3	0.0490	0.00031	mg/L				0.63%
238.863	-278.4	0.0123	0.00104	mg/L				8.45%
04.721	-1998.0	1.018	0.5645	mg/L				55.44%
279.079	-887.2	0.0009	0.00090	mg/L				101.24%
257.610	12039.1	0.0325	0.00031	mg/L				0.96%
202.030	-16.2	0.0000	0.00006	mg/L				120.26%
330.237	978.6	0.0342	0.21526	mg/L				629.46%
231.604	3262.5	0.0858	0.00090	mg/L				1.05%
220.353	74.9	0.0064	0.00023	mg/L				3.64%
206.833	279.4	0.1238	0.00179	mg/L				1.45%
196.026	8.5	0.0133	0.00173	mg/L				13.02%
189.933	57.4	0.0004	0.00008	mg/L				17.90%
[illegible]41	-611.9	0.0001	0.00004	mg/L				58.39%
[illegible]00	16.7	0.0209	0.00042	mg/L				2.02%
292.402	22112.3	0.1025	0.00056	mg/L				0.55%
206.191	3642.2	0.0439	0.00017	mg/L				0.39%

an Data ----------

: ICSA
mple Qty: 1.0000 g

Seq. No.: 41 Sample No.: 6 A/S Pos: 7
Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/12/02 1:46:02 PM

ement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
371.030	3836521.2	0.900	0.0026	mg/L				0.29%
328.068	-5301.4	-0.0166	0.00038	mg/L				2.28%
308.215	9574287.4	512.0	0.49	mg/L				0.10%
188.979	-80.0	-0.0037	0.00780	mg/L				212.88%
249.773	10747.0	0.1523	0.00064	mg/L				0.42%
233.527	-312.2	-0.0030	0.00005	mg/L				1.78%
313.107	-6087.0	-0.0001	0.00001	mg/L				8.02%
315.887	77187081.5	472.0	0.25	mg/L				0.05%
226.502	1174.1	0.0004	0.00017	mg/L				38.33%
228.616	-340.4	-0.0027	0.00065	mg/L				23.84%
267.716	1122.3	0.0102	0.00008	mg/L				0.75%
324.754	-2349.8	-0.0029	0.00022	mg/L				7.62%
238.863	4614352.6	191.5	0.05	mg/L				0.03%
404.721	-3967.5	-1.399	0.8607	mg/L				61.52%
279.079	12178190.2	516.6	0.04	mg/L				0.01%
257.610	-7558.0	-0.0036	0.00008	mg/L				2.24%
202.030	32.7	0.0027	0.00009	mg/L				3.30%
330.237	865.6	0.0518	0.03683	mg/L				71.12%
231.604	-278.7	0.0002	0.00029	mg/L				165.16%
220.353	-265.1	-0.0062	0.00034	mg/L				5.53%
[illegible]5.833	39.7	-0.0036	0.00027	mg/L				7.55%
[illegible].026	7.7	0.0037	0.00207	mg/L				56.36%
[illegible].933	17259.5	-0.2831	0.00491	mg/L				1.73%
334.941	-3990.7	-0.0080	0.00007	mg/L				0.82%
190.800	-58.8	-0.0156	0.00007	mg/L				0.44%
292.402	12607.4	0.0559	0.00028	mg/L				0.50%
206.191	1673.6	0.0060	0.00021	mg/L				3.46%

an Data ----------

: 'AB Seq. No.: 42 Sample No.: 7 A/S Pos: 8
m Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/12/02 1:52:09 PM

ement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	3892450.3	0.913	0.0009	mg/L				0.10%
328.068	179702.1	1.101	0.0071	mg/L				0.65%
308.215	9482561.8	507.1	0.67	mg/L				0.13%
188.979	-87.9	-0.0100	0.00249	mg/L				24.98%
249.773	10613.3	0.1503	0.00050	mg/L				0.33%
233.527	56670.6	0.5300	0.00308	mg/L				0.58%
313.107	3298578.2	0.4940	0.00008	mg/L				0.02%
315.887	76418671.7	467.3	0.89	mg/L				0.19%
226.502	113293.9	0.9481	0.00640	mg/L				0.68%
228.616	10800.0	0.4682	0.00054	mg/L				0.12%
267.716	58896.1	0.5114	0.00273	mg/L				0.53%
324.754	124794.3	0.5293	0.00330	mg/L				0.62%
238.863	4533618.6	188.2	0.06	mg/L				0.03%
404.721	-3917.4	-1.131	0.0275	mg/L				2.43%
g 279.079	12066657.1	511.9	1.12	mg/L				0.22%
n 257.610	181118.5	0.5027	0.00374	mg/L				0.74%
o 202.030	27.4	0.0024	0.00012	mg/L				5.11%
a 330.237	1053.1	0.2912	0.00630	mg/L				2.16%
i 231.604	37955.7	0.9246	0.00189	mg/L				0.20%
b 220.353	6180.9	0.9493	0.00047	mg/L				0.05%
b 206.833	35.4	-0.0059	0.00095	mg/L				16.25%
e 196.026	25.1	0.0096	0.00035	mg/L				3.63%
n 189.933	17022.9	-0.2883	0.00637	mg/L				2.21%
i 334.941	-3774.1	-0.0075	0.00012	mg/L				1.62%
l 190.800	-67.7	-0.0200	0.00005	mg/L				0.23%
292.402	115961.2	0.5630	0.00348	mg/L				0.62%
n 206.191	78861.0	0.9441	0.00689	mg/L				0.73%

le. Data ----------

D: CCV Seq. No.: 43 Sample No.: 2 A/S Pos: 3
ample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/12/02 1:57:51 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	4288973.8	1.006	0.0101	mg/L				1.01%
Ag 328.068	80739.7	0.5032	0.00318	mg/L				0.63%
Al 308.215	194261.3	10.11	0.118	mg/L				1.17%
As 188.979	1446.4	1.061	0.0092	mg/L				0.87%
B 249.773	169260.5	2.574	0.0044	mg/L				0.17%
Ba 233.527	1106331.7	10.35	0.002	mg/L				0.02%
Be 313.107	1674820.1	0.2512	0.00001	mg/L				0.00%
Ca 315.887	4126593.2	25.25	0.030	mg/L				0.12%
Cd 226.502	60160.3	0.5102	0.00585	mg/L				1.15%
Co 228.616	62050.9	2.634	0.0182	mg/L				0.69%
Cr 267.716	60164.5	0.5224	0.00428	mg/L				0.82%
Cu 324.754	301545.8	1.258	0.0103	mg/L				0.82%
Fe 238.863	124805.8	5.203	0.0564	mg/L				1.08%
K 404.721	-553.9	21.88	0.613	mg/L				2.80%
*QC exceeds lower limit for K 404.721		Recovery = 87.52%		Action = Continue				
Mg 279.079	596841.5	25.36	0.279	mg/L				1.10%
Mn 257.610	293843.3	0.7892	0.00550	mg/L				0.70%
Mo 202.030	42491.8	2.423	0.0291	mg/L				1.20%
Na 330.237	18967.3	23.70	0.260	mg/L				1.10%
Ni 231.604	85759.0	2.080	0.0211	mg/L				1.01%
Pb 220.353	3451.5	0.5070	0.00421	mg/L				0.83%
Sb 206.833	9693.9	5.126	0.0257	mg/L				0.50%
Se 196.026	1464.0	0.5014	0.00413	mg/L				0.82%
Sn 189.933	52849.7	5.213	0.0300	mg/L				0.58%
T 4.941	1066224.3	2.561	0.0018	mg/L				0.07%
1 0.800	2080.4	1.021	0.0086	mg/L				0.85%
V 292.402	525726.2	2.574	0.0207	mg/L				0.80%
Zn 206.191	84328.9	1.024	0.0106	mg/L				1.04%

Mean Data ----------

ID: CCB Seq. No.: 44 Sample No.: 4 A/S Pos: 1

ple Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/12/02 2:02:56 PM

ment	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
71.030	4343695.3	1.019	0.0030	mg/L				0.30%
328.068	-2335.4	0.0013	0.00005	mg/L				3.99%
308.215	5090.2	-0.0092	0.00044	mg/L				4.76%
188.979	-25.8	-0.0004	0.00216	mg/L				564.66%
249.773	2018.0	0.0190	0.00426	mg/L				22.49%
233.527	110.1	0.0009	0.00043	mg/L				45.14%
313.107	-5006.4	0.0000	0.00001	mg/L				47.42%
315.887	-1323.6	0.0106	0.00203	mg/L				19.18%
226.502	-203.9	0.0001	0.00005	mg/L				49.25%
228.616	-261.4	0.0006	0.00009	mg/L				15.04%
267.716	-55.8	0.0000	0.00013	mg/L				642.30%
324.754	1468.6	0.0014	0.00014	mg/L				9.93%
238.863	-417.6	0.0065	0.00116	mg/L				17.67%
404.721	-2056.5	0.1745	0.84309	mg/L				483.13%
279.079	-774.5	0.0057	0.00258	mg/L				45.46%
257.610	-146.9	-0.0002	0.00003	mg/L				14.42%
202.030	15.4	0.0018	0.00065	mg/L				37.00%
330.237	1065.5	0.1486	0.17344	mg/L				116.72%
231.604	-266.2	0.0005	0.00018	mg/L				37.57%
220.353	30.6	-0.0002	0.00030	mg/L				154.26%
206.833	93.7	0.0251	0.00819	mg/L				32.60%
C exceeds upper limit for Sb 206.833 Action = Continue								
196.026	-23.0	0.0027	0.00162	mg/L				60.51%
189.933	183.1	0.0128	0.00263	mg/L				20.48%
334.941	-267.1	0.0009	0.00045	mg/L				50.74%
190.800	-23.9	0.0013	0.00019	mg/L				15.12%
292.402	1258.1	0.0002	0.00016	mg/L				81.64%
206.191	127.8	0.0012	0.00017	mg/L				13.71%

Metals Cover Page

Instrument: FIMS

Analyst: DCB

Date: 1/31/02

Data File: Jan-31s

Reviewed By: DCB

Entered By: DCB

Manager Approval: CA 1/31/02

Starlims Run #	Analytes Used	Batch ID	Method Requested	Failed Analytes	Comments / Problems
74040	Hg	M24801-29	7471		
74247	Hg	M24801-29	7471		

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-10336	Pkg 5 / ASP	Hg		M24801-29	YES / NO	MARRS to LIMS / Run Created Above	YES / NO
R-10427	Pkg 5 / ASP (Soil)	Hg		M24801-29	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

Perkin-Elmer AAWinLab: 01/31/2002, 11:36:01 AM

==========

Method Name: Hg_CLP
Method Description: Method 245.1A FIMS
Element: Hg

1/31/02

Date: 01/31/2002
Technique:FI-MHS

DCB

Calibration Type:
Hg, Zero Intercept: Linear
Wavelength: 253.7 nm
Sample Info Name: ROUTINE.SIF Results Data Set Name: Jan-31S

==========

Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 01/31/2002
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0003	0.0014	0.0003	11:36:56	No
2			0.0003	0.0012	0.0003	11:37:26	No
Mean:			0.0003				
SD :			0.0000				
%RSD:			2.5840				

Auto-zero performed.

==========

Element: Hg Seq. No.: 2 AS Loc.: 8 Date: 01/31/2002
Sample ID: 0.2ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0023	0.0115	0.0026	11:38:47	No
2			0.0023	0.0121	0.0026	11:39:17	No
Mean:			0.0023				
SD :			0.0000				
%RSD:			0.3087				

[Hg] Standard number 1 applied. [0.2000]
Correlation Coefficient: 1.00000 Slope: 0.01165

==========

Element: Hg Seq. No.: 3 AS Loc.: 2 Date: 01/31/2002
Sample ID: 0.5ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0058	0.0272	0.0061	11:40:38	No
2			0.0059	0.0274	0.0061	11:41:08	No
Mean:			0.0058				
SD :			0.0000				
%RSD:			0.3101				

[Hg] Standard number 2 applied. [0.5000]
Correlation Coefficient: 1.00000 Slope: 0.01168

==========

Element: Hg Seq. No.: 4 AS Loc.: 3 Date: 01/31/2002
Sample ID: 1ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0118	0.0532	0.0120	11:42:27	No
2			0.0117	0.0528	0.0120	11:42:56	No
Mean:			0.0117				
SD :			0.0000				
%RSD:			0.1034				

[Hg] Standard number 3 applied. [1.000]

Correlation Coefficient: 0.99999 Slope: 0.01173

Element: Hg Seq. No.: 5 AS Loc.: 4 Date: 01/31/2002
Sample ID: 2ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0236	0.1077	0.0239	11:44:15	No
2			0.0235	0.1057	0.0238	11:44:44	No
Mean:			0.0236				
SD :			0.0001				
%RSD:			0.2572				

[Hg] Standard number 4 applied. [2.000]
Correlation Coefficient: 0.99999 Slope: 0.01178

Element: Hg Seq. No.: 6 AS Loc.: 5 Date: 01/31/2002
Sample ID: 5ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0578	0.2635	0.0581	11:46:04	No
2			0.0583	0.2644	0.0586	11:46:34	No
Mean:			0.0581				
SD :			0.0004				
%RSD:			0.6397				

[Hg] Standard number 5 applied. [5.000]
Correlation Coefficient: 0.99997 Slope: 0.01164

Element: Hg Seq. No.: 7 AS Loc.: 6 Date: 01/31/2002
Sample ID: 10ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.1144	0.5187	0.1147	11:47:55	No
2			0.1153	0.5150	0.1156	11:48:25	No
Mean:			0.1149				
SD :			0.0007				
%RSD:			0.5923				

[Hg] Standard number 6 applied. [10.00]
Correlation Coefficient: 0.99996 Slope: 0.01152

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	0.0023	0.2000	0.2022	0.00001	0.3
0.5ppb std	0.0058	0.5000	0.5071	0.00002	0.3
1ppb std	0.0117	1.0000	1.019	0.00001	0.1
2ppb std	0.0236	2.0000	2.046	0.00006	0.3
5ppb std	0.0581	5.0000	5.040	0.00037	0.6
10ppb std	0.1149	10.0000	9.968	0.00068	0.6

Correlation Coefficient: 0.99996 Slope: 0.01152 ----

Element: Hg Seq. No.: 8 AS Loc.: 7 Date: 01/31/2002
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	3.072	3.072	0.0354	0.1610	0.0357	11:49:46	No
2	3.009	3.009	0.0347	0.1594	0.0350	11:50:15	No
Mean:	3.041	3.041	0.0350				
SD :	0.04469	0.04469	0.0005				
%RSD:	1.5	1.5	1.4697				

QC value within specified limits.

==========

Element: Hg Seq. No.: 9 AS Loc.: 1 Date: 01/31/2002
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0085	0.0085	0.0001	0.0016	0.0004	11:51:35	No
2	0.0090	0.0090	0.0001	0.0016	0.0004	11:52:04	No
Mean:	0.0087	0.0087	0.0001				
SD :	0.00033	0.00033	0.0000				
%RSD:	3.8	3.8	3.8138				

QC value within specified limits.

==========

Element: Hg Seq. No.: 10 AS Loc.: 8 Date: 01/31/2002
Sample ID: CRII

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.2075	0.2075	0.0024	0.0124	0.0027	11:53:24	No
2	0.2045	0.2045	0.0024	0.0121	0.0026	11:53:53	No
Mean:	0.2060	0.2060	0.0024				
SD :	0.00214	0.00214	0.0000				
%RSD:	1.0	1.0	1.0394				

QC value within specified limits.

==========

Element: Hg Seq. No.: 11 AS Loc.: 7 Date: 01/31/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.071	3.071	0.0354	0.1602	0.0357	11:55:15	No
2	3.056	3.056	0.0352	0.1576	0.0355	11:55:44	No
Mean:	3.063	3.063	0.0353				
SD :	0.01046	0.01046	0.0001				
%RSD:	0.3	0.3	0.3415				

QC value within specified limits.

==========

Element: Hg Seq. No.: 12 AS Loc.: 1 Date: 01/31/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0032	0.0032	0.0000	0.0015	0.0003	11:57:03	No
2	0.0078	0.0078	0.0001	0.0014	0.0004	11:57:32	No
Mean:	0.0055	0.0055	0.0001				
SD :	0.00325	0.00325	0.0000				
%RSD:	59.4	59.4	59.3905				

QC value within specified limits.

==========

Element: Hg Seq. No.: 13 1/31/02 DCB AS Loc.: 9 Date: 01/31/2002
Sample ID: PBS-M2480129 528056 529487 2/1/02 DCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	0.0030	0.0030	0.0000	0.0018	0.0003	11:58:49	No
2	0.0020	0.0020	0.0000	0.0017	0.0003	11:59:18	No
Mean:	0.0025	0.0025	0.0000				
SD :	0.00070	0.00070	0.0000				
%RSD:	28.3	28.3	28.3232				

Element: Hg Seq. No.: 14 1/31/02 DLB AS Loc.: 10 Date: 01/31/2002
Sample ID: LCSS-M2480129 528051 524185 2/7/02 DLB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	9.676	9.676	0.1115	0.5148	0.1118	12:00:35	No
2	9.736	9.736	0.1122	0.5102	0.1125	12:01:05	No
Mean:	9.706	9.706	0.1118				
SD :	0.04204	0.04204	0.0005				
%RSD:	0.4	0.4	0.4331				

Element: Hg Seq. No.: 15 AS Loc.: 11 Date: 01/31/2002
Sample ID: 524858

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0459	0.0459	0.0005	0.0059	0.0008	12:02:23	No
2	0.0368	0.0368	0.0004	0.0048	0.0007	12:02:53	No
Mean:	0.0413	0.0413	0.0005				
SD :	0.00646	0.00646	0.0001				
%RSD:	15.6	15.6	15.6267				

Element: Hg Seq. No.: 16 AS Loc.: 12 Date: 01/31/2002
Sample ID: 525272

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.1659	0.1659	0.0019	0.0097	0.0022	12:04:12	No
2	0.1681	0.1681	0.0019	0.0098	0.0022	12:04:41	No
Mean:	0.1670	0.1670	0.0019				
SD :	0.00153	0.00153	0.0000				
%RSD:	0.9	0.9	0.9170				

Element: Hg Seq. No.: 17 AS Loc.: 13 Date: 01/31/2002
Sample ID: 525272D

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.1845	0.1845	0.0021	0.0111	0.0024	12:06:00	No
2	0.1886	0.1886	0.0022	0.0115	0.0025	12:06:29	No
Mean:	0.1865	0.1865	0.0021				
SD :	0.00296	0.00296	0.0000				
%RSD:	1.6	1.6	1.5872				

Element: Hg Seq. No.: 18 AS Loc.: 14 Date: 01/31/2002
Sample ID: 525272S

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.8345	0.8345	0.0096	0.0445	0.0099	12:07:50	No
2	0.8384	0.8384	0.0097	0.0445	0.0100	12:08:19	No
Mean:	0.8364	0.8364	0.0096				
SD :	0.00278	0.00278	0.0000				
%RSD:	0.3	0.3	0.3327				

Element: Hg Seq. No.: 19 AS Loc.: 15 Date: 01/31/2002
Sample ID: 525273

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.1232	0.1232	0.0014	0.0077	0.0017	12:09:40	No
2	0.1222	0.1222	0.0014	0.0072	0.0017	12:10:10	No
Mean:	0.1227	0.1227	0.0014				
SD :	0.00072	0.00072	0.0000				
%RSD:	0.6	0.6	0.5873				

Element: Hg Seq. No.: 20 AS Loc.: 16 Date: 01/31/2002
Sample ID: 525274

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.1065	0.1065	0.0012	0.0066	0.0015	12:11:32	No
2	0.1075	0.1075	0.0012	0.0065	0.0015	12:12:01	No
Mean:	0.1070	0.1070	0.0012				
SD :	0.00074	0.00074	0.0000				
%RSD:	0.7	0.7	0.6956				

Element: Hg Seq. No.: 21 AS Loc.: 17 Date: 01/31/2002
Sample ID: 525275

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.1258	0.1258	0.0014	0.0079	0.0017	12:13:20	No
2	0.1229	0.1229	0.0014	0.0072	0.0017	12:13:49	No
Mean:	0.1243	0.1243	0.0014				
SD :	0.00209	0.00209	0.0000				
%RSD:	1.7	1.7	1.6845				

Element: Hg Seq. No.: 22 AS Loc.: 18 Date: 01/31/2002
Sample ID: 525276

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.2766	0.2766	0.0032	0.0153	0.0035	12:15:05	No
2	0.2789	0.2789	0.0032	0.0153	0.0035	12:15:34	No
Mean:	0.2778	0.2778	0.0032				
SD :	0.00161	0.00161	0.0000				
%RSD:	0.6	0.6	0.5796				

Element: Hg Seq. No.: 23 AS Loc.: 7 Date: 01/31/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.179	3.179	0.0366	0.1644	0.0369	12:16:53	No
2	3.212	3.212	0.0370	0.1630	0.0373	12:17:23	No
Mean:	3.195	3.195	0.0368				
SD :	0.02373	0.02373	0.0003				
%RSD:	0.7	0.7	0.7427				

QC value within specified limits.

Element: Hg Seq. No.: 24 AS Loc.: 1 Date: 01/31/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	0.0026	0.0026	0.0000	0.0013	0.0003	12:18:42	No
2	0.0003	0.0003	0.0000	0.0011	0.0003	12:19:12	No
Mean:	0.0015	0.0015	0.0000				
SD :	0.00166	0.00166	0.0000				
%RSD:	113.5	113.5	113.4785				

QC value within specified limits.

==========

Element: Hg Seq. No.: 25 AS Loc.: 19 Date: 01/31/2002
Sample ID: 525277

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.1724	0.1724	0.0020	0.0100	0.0023	12:20:28	No
2	0.2096	0.2096	0.0024	0.0145	0.0027	12:20:58	No
Mean:	0.1910	0.1910	0.0022				
SD :	0.02630	0.02630	0.0003				
%RSD:	13.8	13.8	13.7687				

==========

Element: Hg Seq. No.: 26 AS Loc.: 20 Date: 01/31/2002
Sample ID: 526855

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.1264	0.1264	0.0015	0.0078	0.0018	12:22:15	No
2	0.1250	0.1250	0.0014	0.0074	0.0017	12:22:45	No
Mean:	0.1257	0.1257	0.0014				
SD :	0.00100	0.00100	0.0000				
%RSD:	0.8	0.8	0.7947				

==========

Element: Hg Seq. No.: 27 AS Loc.: 21 Date: 01/31/2002
Sample ID: 527030

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.2983	0.2983	0.0034	0.0165	0.0037	12:24:02	No
2	0.2955	0.2955	0.0034	0.0162	0.0037	12:24:32	No
Mean:	0.2969	0.2969	0.0034				
SD :	0.00195	0.00195	0.0000				
%RSD:	0.7	0.7	0.6570				

==========

Element: Hg Seq. No.: 28 AS Loc.: 22 Date: 01/31/2002
Sample ID: 526394

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0160	0.0160	0.0002	0.0030	0.0005	12:25:50	No
2	0.0127	0.0127	0.0001	0.0028	0.0004	12:26:19	No
Mean:	0.0143	0.0143	0.0002				
SD :	0.00229	0.00229	0.0000				
%RSD:	15.9	15.9	15.9410				

==========

Element: Hg Seq. No.: 29 AS Loc.: 7 Date: 01/31/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.216	3.216	0.0371	0.1648	0.0373	12:27:39	No
2	3.229	3.229	0.0372	0.1641	0.0375	12:28:08	No
Mean:	3.222	3.222	0.0371				
SD :	0.00897	0.00897	0.0001				

%RSD: 0.3 0.3 0.2784
QC value within specified limits.

==========

Element: Hg Seq. No.: 30 AS Loc.: 1 Date: 01/31/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0007	0.0007	0.0000	0.0011	0.0003	12:29:27	No
2	0.0000	0.0000	0.0000	0.0009	0.0003	12:29:56	No
Mean:	0.0003	0.0003	0.0000				
SD :	0.00051	0.00051	0.0000				
%RSD:	150.8	150.8	150.8224				

QC value within specified limits.

CAS-Rochester ICP Soil Digest Log

A st: JM Date: 2/8/02 Spike Witness: DCB Approval: CK

Method: SW846 3050 // CLP Digest: Initial Digestion // Redigestion of M2530075

Report: Routine // ASP // Pkg.5 6010B/846 // 200.7/136 // ASP/CLP

	Client/ Order #	Initial wgt(g)	Final vol(ml)	Initial Color/Clarity	Final Color/Clarity	Metals	Spike vol(ml)
1	PBS	1.00	100	colorless/clear	colorless/clear	Ag	
2	LCSS	1.05		brown/fine	yellow/clear		
3	R10459 526807	1.02		brown/medium			
4	811	1.03					
5	812	1.02					
6	813	1.00					
7	814	1.00					
8	815	1.03					
9	816	1.02					
10	R10427 526394	1.02		green/medium		AgAsBaCdCrPbSeMnZn	
	394D	1.01					
	394S	1.04					0.1ml Se 1.0ml Se AB
13	R10434 526855	1.02		brown/medium		Ag	
14	527030	1.02					
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							

JM 2/8/02

Spiking Standards Lot # or Prep Date:
Spike A,B M1780032DE Spike #4 — Se M1780029Q Sn — Ba — TCLP —

Reagent Lot #:
LCSS M1780032M HNO3 M1780031I HCL M1780031J H2O2 M1780020R

Comments/Problems: M2530077

Hot Plate (PKGS = R10459, R10427) (GE = R10434) 77

Columbia Analytical Services

Analysis For: Hg | EPA Method: 7470 / 7471 / 245.1 / 245.5 | Analyst: DCB

Temp: In 95 / Out 95 | Report: Routine / ASP / Pkg.5 | Date Prepped: 1/31/02

Time In: 820 | File Name: Jan-31S | Date Analyzed: 1/31/02

Time Out: 850

	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		PBS	0.60	100	31				
2		LCSS	0.62		32				
3	R-10318	524858	0.63		33				
4	R-10336	525272	0.62		34				
5		272Dup	0.63		35				
6		272SpK	0.64		36				
7		273	0.60		37				
8		274	0.61		38				
9		275	0.63		39				
10		276	0.61		40				
11		277	0.60		41				
12	R-10434	526855	0.61		42				
13		527030	0.60		43				
14	R-10427	526394	0.60		44				
15					45				
					46				
					47				
18					48				
19					49				
20							ICB	100ml DI Water	100
21							Std 0	100ml DI Water	100
22							Std 0.2*	0.20ml of 0.1ppm	100
23							Std 0.5*	0.50ml of 0.1ppm	100
24							Std 1.0*	1.00ml of 0.1ppm	100
25							Std 2.0*	2.00ml of 0.1ppm	100
26							Std 5.0*	5.00ml of 0.1ppm	100
27							Std 10.0*	10.0ml of 0.1ppm	100
28							ICV/CCV**	3.00ml of 0.1ppm	100
29							LCSW/MS**	1.00ml of 0.1ppm	100
30							CRDL*	0.20ml of 0.1ppm	100

Lot # of Reagents Used:

HNO3: M1780031I | H2SO4: — | HCL: M1780031J | K2S2O8: — | KMnO4: M1780030P

SnCl2: M1780031Q | NaCl: M1780030K | NH2OH-HCL: M1780030E | LCSS CAS Lot#: M1780029W

LCSS ERA Lot#: 246

*Source Standard: (Vendor/Lot #) M1780030N

*(10ppm stock Lot#: M2650176A)

0.1ppm working std Lot#: M2650176C)

**ICV Standard: (Vendor/Lot #) M1780026F

**(10ppm stock Lot#: M2650216A)

**(0.1ppm working std Lot#: M2650216C)

Comments/Problems:

Batch Name: MA480129

MA 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
Std 1	CA	M1780031W	5000	2.00	200	50.0	2%HNO3	SD 2/10/02	A	M1780031 L	M1780031J	M18
	MG		5000			50.0	5%HCl	SD 2/11/02	B	/	/	/
	K		5000			50.0		SD 2/12/02	C	/	/	M18
	NA		5000			50.0		SD 2/13/02	D	/	/	M18
Std 2	AG	M1780031M	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			
l Std 3	AL	M1780032K	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			
al 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	SB	M1780032P	1000	2.00		10.0			V			
lements	SN	~~32J~~ 32F	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			

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TIMA 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
al Std 1	CA	M1780031F	5000	1.00	200	25.0	2%HNO3	SD 2/10/02	A	M1780031I	M1780031J	M18/M10
	MG		5000			25.0	5%HCl	SD 2/11/02	B			M18/M10
	K		5000			25.0		SD 2/12/02	C			M18/M10
	NA		5000			25.0		SD 2/13/02	D			M18/M10
al Std 2	AG	M1780029Y	100	1.00		0.500			E			
	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			P			
Cal Std 4	AS	M1780031C	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	SB	M1780030H	1000	1.00		5.00			V			
Elements	SN	31V	1000	1.00		5.00			W			
	B	31P	1000	0.500		2.50			X			
	MO	27C	1000	0.500		2.50			Y			
	TI	27H	1000	0.500		2.50			Z			

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OPTIMA CRI STANDARD

ment	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 TD	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		SD 2/10/02	J	↑	↑	8/10/02	M10
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				

525

ICSA / ICSAB STAN

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	M178003 21	Multi	100	1000	Multi	5% HCL	SD 1/11/02	A	M178009E	M178003 1J	7/11/02	–
AL		5000			500	2%HNO3	SD 1/28/02	B	M178003 11	"	7/28/02	–
CA		5000			500		SD 2/10/02	C	"	"	8/10/02	–
FE		2000			200			D				
MG		5000			500			E				

ICSAB

Int. A Sol'n	M178003 1E	Multi	100	1000	Multi		SD 12/26/01	AA	M178009E	M178003 1J	6/26/02	~~AA~~
AL		5000			500		SD 1/11/02	BB	"	"	7/11/02	–
CA		5000			500		SD 1/28/02	CC	M178003 11	"	7/28/02	–
FE		2000			200			DD				
MG		5000			500			EE				
Int. B Sol'n	M178002 8J	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				

OPTIMA INTERNAL STANDARD

ement	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				

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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	M17800030N	1000	1.00	100	10.0	0.5% HNO3	DCB 1/28/02	A	~~1/29/02~~ 2/4/02 1/29/02 DCB	M17800031I	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	DCB 1/29/02	B	M17800031I	M4
							DCB 1/31/02	C	M17800031I	M4
								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	DCB 1/29/02	I	M17800031I	—
0.500			0.500		0.500		DCB 1/31/02	J	M17800031I	—
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		

528

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	DCB 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	DCB 1/29/02	B	m1780031E	m4
							DCB 1/31/02	C	m1780031E	m4
								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	DCB 1/29/02	I	m1780031E	—
LCSW / MS			1.00		1.00		DCB 1/31/02	J	m1780031E	—
								K		
								L		
								M		
								N		
								O		

METALS DATA

TCLP NON-AQUEOUS

METALS
COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

ol act: R2210427 SDG No.: OS-PW-12

ab Code: Case No.: SAS No.:

SOW No.: SW846 CLP-M Client: Tetra Tech EM Inc.

Sample No.	Lab Sample ID.
SMWB-SLU	526404
SMWB-SLUD	526404D
SMWB-SLUS	526404S

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: 2/28/02 Title: Laboratory Manager

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
SMWB-SLU

Contract: R2210427

Lab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

Matrix (soil/water): NON-AQUEOUS Lab Sample ID: 526404

Level (low/med): LOW Date Received: 01/24/02

Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	9.6			P
7440-39-3	Barium	121		*	P
7440-43-9	Cadmium	2.0			P
7440-47-3	Chromium	23.9		*	P
7439-92-1	Lead	154			P
7439-96-5	Manganese	212		E	P
7439-97-6	Mercury	0.03	U		CV
7782-49-2	Selenium	19.0	U		P
7440-22-4	Silver	0.95	U		P
7440-66-6	Zinc	425			P

Color Before: BLACK Clarity Before: Texture: NON-AQ

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

METALS

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

ontract: R2210427

ab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

nitial Calibration Source: PE PURE

ontinuing 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	2000.0	1981.00	99.1	2000.0	2043.00	102.2	2017.00	100.8	P
Barium	10000.0	10060.00	100.6	10000.0	10200.00	102.0	9887.00	98.9	P
Cadmium	1000.0	1019.00	101.9	1000.0	1018.00	101.8	999.20	99.9	P
Chromium	500.0	512.60	102.5	500.0	516.00	103.2	495.90	99.2	P
Lead	1000.0	1011.00	101.1	1000.0	1032.00	103.2	994.40	99.4	P
Manganese	750.0	767.70	102.4	750.0	773.00	103.1	752.70	100.4	P
Mercury	3.0	3.05	101.7	3.0	3.03	101.0	3.08	102.7	CV
Selenium	1000.0	1040.00	104.0	1000.0	989.00	98.9	1034.00	103.4	P
Silver	500.0	490.20	98.0	500.0	500.70	100.1	491.10	98.2	P
Zinc	1000.0	1027.00	102.7	1000.0	1022.00	102.2	1015.00	101.5	P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

METALS
-2A-
INITIAL AND CONTINUING CALIBRATION VERIFICATION

ntract: R2210427

b Code: Case No.: SAS No.: SDG NO.: OS-PW-12

itial Calibration Source:

ontinuing 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				2000.0	1984.00	99.2	2075.00	103.8	P
Barium				10000.0	9692.00	96.9	10120.00	101.2	P
Cadmium				1000.0	986.80	98.7	1032.00	103.2	P
Chromium				500.0	490.50	98.1	512.50	102.5	P
Lead				1000.0	981.90	98.2	1038.00	103.8	P
Manganese				750.0	745.30	99.4	774.50	103.3	P
Selenium				1000.0	967.70	96.8	971.10	97.1	P
Silver				500.0	482.90	96.6	492.60	98.5	P
Zinc				1000.0	1005.00	100.5	1048.00	104.8	P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

METALS

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

ontract: R2210427

ab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

nitial Calibration Source:

ontinuing 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				2000.0	2153.00	107.7			P
Barium				10000.0	10350.00	103.5			P
Cadmium				1000.0	1032.00	103.2			P
Chromium				500.0	520.50	104.1			P
Lead				1000.0	1055.00	105.5			P
Manganese				750.0	785.40	104.7			P
Selenium				1000.0	1087.00	108.7			P
Silver				500.0	510.20	102.0			P
Zinc				1000.0	1044.00	104.4			P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

METALS
-2B-
CRDL STANDARD FOR AA AND ICP

ract: R2210427

Code: Case No.: SAS No.: SDG No.: OS-PW-12

RDL Standard Source:

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								
Barium								
Cadmium				10.0	12.90	129.0	12.40	124.0
Chromium				20.0	25.20	126.0	22.90	114.5
Lead				106.0	130.30	122.9	139.30	131.4
Manganese				30.0	36.30	121.0	37.00	123.3
Mercury	0.2	0.20	100.0					
Selenium								
Silver				20.0	21.50	107.5	20.90	104.5
Zinc				40.0	52.10	130.3	52.20	130.5

METALS

-3-

BLANKS

ontract: R2210427

ab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

reparation Blank Matrix (soil/water): SOIL

reparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Arsenic	100.0	U	100.0	U	100.0	U	100.0	U	10.000	U	P
Barium	500.0	U	500.0	U	500.0	U	500.0	U	50.000	U	P
Cadmium	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Chromium	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Lead	50.0	U	50.0	U	50.0	U	50.0	U	5.000	U	P
Manganese	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Mercury	0.20	U	0.20	U	0.20	U			0.033	U	CV
Selenium	200.0	U	200.0	U	200.0	U	200.0	U	20.000	U	P
Silver	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Zinc	200.0	U	200.0	U	200.0	U	200.0	U	20.000	U	P

METALS

-3-

BLANKS

tract: R2210427

Code: Case No.: SAS No.: SDG NO.: OS-PW-12

paration Blank Matrix (soil/water): WATER

paration 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			100.0	U	100.0	U					P
Barium			500.0	U	500.0	U					P
Cadmium			10.0	U	10.0	U					P
Chromium			10.0	U	10.0	U					P
Lead			50.0	U	50.0	U					P
Manganese			10.0	U	10.0	U					P
Selenium			200.0	U	200.0	U					P
Silver			10.0	U	10.0	U					P
Zinc			200.0	U	200.0	U					P

-4-

ICP INTERFERENCE CHECK SAMPLE

ontract: R2210427

ab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

CP ID Number: Leeman ICP ICS Source: PE PURE

Concentration Units): ug/L

Analyte	True Sol.A	True Sol.AB	Initial Found Sol.A	Initial Found Sol.AB	Initial Found %R	Final Found Sol.A	Final Found Sol.AB	Final Found %R
Arsenic			66	66.4		21	73.8	
Barium		500	-1	487.3	97.5	-1	491.9	98.4
Cadmium		1000	-2	1029.0	102.9	0	1052.0	105.2
Chromium		500	5	506.7	101.3	4	515.4	103.1
Lead		1000	40	1040.0	104.0	-5	1083.0	108.3
Manganese		500	-1	505.1	101.0	-1	514.1	102.8
Selenium			-52	-229.8		-204	-105.9	
Silver		1000	-3	1085.0	108.5	-5	1102.0	110.2
Zinc		1000	1	1036.0	103.6	-3	1065.0	106.5

METALS
-5A-
SPIKE SAMPLE RECOVERY

SAMPLE NO.

SMWB-SLUS

ontract: R2210427

ab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

atrix (soil/water): NON-AQUE Level (low/med): LOW

Solids for Sample: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Arsenic	75 - 125	597.5962		9.6095		480.77	122.3		P
Barium	75 - 125	565.2885		121.4286		480.77	92.3		P
Cadmium	75 - 125	97.4039		1.9524		96.15	99.3		P
Chromium	75 - 125	500.9616		23.9429		480.77	99.2		P
Lead	75 - 125	633.0770		153.5238		480.77	99.7		P
Mercury	75 - 125	0.1583		0.0313	U	0.16	98.1		CV
Selenium	75 - 125	86.1058		19.0476	U	96.15	89.6		P
Silver	75 - 125	425.2404		0.9524	U	480.77	88.5		P

Comments:

METALS
-5B-
POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

SMWB-SLUA

ntract: R2210427

b Code: Case No.: SAS No.: SDG NO.: OS-PW-12

trix (soil/water): NON-AQUE 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
Arsenic		1238.00		100.90		1000.0	113.7		P
Barium		6094.00		1275.00		5000.0	96.4		P
Cadmium		1038.00		20.50		1000.0	101.8		P
Chromium		5304.00		251.40		5000.0	101.1		P
Lead		6697.00		1612.00		5000.0	101.7		P
Manganese		3615.00		2224.00		2000.0	69.6		P
Selenium		1020.00		200.00	U	1000.0	102.0		P
Silver		1182.00		10.00	U	1000.0	118.2		P
Inc		6453.00		4463.00		2000.0	99.5		P

Comments:

METALS

-6-

DUPLICATES

SAMPLE NO.

SMWB-SLUD

ntract: R2210427

b Code: Case No.: SAS No.: SDG NO.: OS-PW-12

trix (soil/water): NON-AQUEO Level (low/med): LOW

Solids for Sample: 100.0 % Solids for Duplicate: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Arsenic		9.6095		9.5238	U	200.0		P
Barium	47.6	121.4286		70.5238		53.0	*	P
Cadmium	1.0	1.9524		1.8571		5.0		P
Chromium		23.9429		17.0190		33.8	*	P
Lead		153.5238		128.3810		17.8		P
Manganese		211.8095		175.9048		18.5		P
Mercury		0.0313	U	0.0313	U			CV
Selenium		19.0476	U	19.0476	U			P
Silver		0.9524	U	0.9524	U			P
Zinc		425.0477		390.9524		8.4		P

METALS

-7-

LABORATORY CONTROL SAMPLE

ract: R2210427

Code: Case No.: SAS No.: SDG NO.: OS-PW-12

d LCS Source: ERA

ous LCS Source:

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Arsenic				185.0	196.3		38.3	68.2	106.1
Barium				177.0	156.8		137.0	218.0	88.6
Cadmium				64.0	67.6		49.2	78.7	105.6
Chromium				143.0	142.5		114.0	171.0	99.7
Lead				119.0	122.5		90.9	148.0	103.0
Manganese				388.0	360.4		311.0	465.0	92.9
Mercury				1.5	1.5		0.9	2.1	98.7
Selenium				150.0	150.7		106.0	180.0	100.5
Silver				90.0	87.5		67.0	113.0	97.2
Zinc				273.0	271.8		211.0	335.0	99.6

METALS

-9-

ICP SERIAL DILUTIONS

SAMPLE NO.

SMWB-SLUL

tract: R2210427

Code: Case No.: SAS No.: SDG NO.: OS-PW-12

rix (soil/water): NON-AQUEO Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Differ-ence	Q	M
Arsenic	100.90		500.00	U	100.0		P
Barium	1275.00		2500.00	U	100.0		P
Cadmium	20.50		50.00	U	100.0		P
Chromium	251.40		306.00		21.7		P
Lead	1612.00		2009.50		24.7		P
Manganese	2224.00		2675.00		20.3	E	P
Selenium	200.00	U	1000.00	U			P
Silver	10.00	U	50.00	U			P
Zinc	4463.00		5585.00		25.1		P

idl date: **12/24/01**

Linear Range date: **11/09/01**

Analyte	Leeman IDL (ppb)	Leeman Linear Range (ppm)	Routine PQL (ppb)	TCLP PQL (ppb)
Ag	3.14	4	10	100
Al	30.9	500	100	
As	90.2	4	500	500
Ba	7.49	20	20	2000
Be	0.652	5	5	
Ca	165	900	500	
Cd	1.34	30	5	100
Co	8.18	40	50	
Cr	4.25	40	10	100
Cu	3.70	100	20	
Fe	14.7	200	100	
K	474	300	2000	
Mg	155	500	500	
Mn	2.12	40	10	
Na	130	300	500	
Ni	10.7	100	40	
Pb	38.6	100	50	100
Sb	66.9	10	100	
Se	147	10	500	500
Tl	167	50	300	
V	27.2	40	50	
Zn	4.15	40	20	

Can Report TCLP As, Se from Leeman only.
Sb cannot be reported from Leeman ICP, rountine PQL 0.0600mg/l not met.

AA IDL's
(UG/L)

Analyte	4100ZL #2 (ppb) [serial # 6245]	4100ZL #1 (ppb) [serial # 6066]	FIMS (ppb)
Pb	0.565 11/05/01	0.686 11/14/01	——
As	0.844 11/19/01	2.45 10/05/01	——
Tl	1.57 12/04/01	1.25 12/04/01	——
Se	0.622 10/05/01	0.940 12/05/01	——
Sb	2.43 04/24/01	——	
Cu	——	0.837 11/26/01	——
Hg	——	——	0.0157 12/28/01

Hg Water MDL: 0.0104ug/l (01/12/2001)
Hg Soil MDL: 0.00295mg/kg (09/19/01)

METALS

-11A-

ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

ntract: R2210427

b Code: Case No.: SAS No.: SDG NO.: OS-PW-12

P 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: R2210427

b Code: Case No.: SAS No.: SDG NO.: OS-PW-12

P ID Number: Leeman ICP Date: 11/09/01

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Arsenic	3.00	4000.0	P
Barium	3.00	20000.0	P
Cadmium	3.00	30000.0	P
Chromium	3.00	40000.0	P
Lead	3.00	100000.0	P
Manganese	3.00	40000.0	P
Selenium	3.00	10000.0	P
Silver	3.00	40000.0	P
Zinc	3.00	50000.0	P

Comments:

METALS
-13-
PREPARATION LOG

ıtract: R2210427

ɔ Code: Case No.: SAS No.: SDG NO.: OS-PW-12

thod: P

Sample No.	Preparation Date	Weight (grams)	Volume (mL)
LCSS	02/08/02	1.03	100
PBS	02/08/02	1.00	100
SMWB-SLU	02/08/02	1.05	100
SMWB-SLUD	02/08/02	1.05	100
SMWB-SLUS	02/08/02	1.04	100

METALS
-13-
PREPARATION LOG

ontract: R2210427

ab Code: Case No.: SAS No.: SDG NO.: OS-PW-12

ethod: CV

Sample No.	Preparation Date	Weight (grams)	Volume (mL)
LCSS	02/05/02	0.60	100
PBS	02/05/02	0.60	100
SMWB-SLU	02/05/02	0.64	100
SMWB-SLUD	02/05/02	0.64	100
SMWB-SLUS	02/05/02	0.62	100

METALS

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ANALYSIS RUN LOG

Contract: R2210427

Lab Code Case No.: SAS No.: SDG No.: OS-PW-12

Instrument ID Number: Leeman ICP Method: P

Start Date: 2/13/02 End Date: 2/13/02

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
Std1Rep1	1.00	10:14				X	X		X		X				X		X				X	X				X	
Std1Rep2	1.00	10:15				X	X		X		X				X		X				X	X				X	
Std2Rep1	1.00	10:19				X	X		X		X				X		X				X	X				X	
Std2Rep2	1.00	10:20				X	X		X		X				X		X				X	X				X	
HIGH CHECK	1.00	10:24				X	X		X		X				X		X				X	X				X	
ICV1	1.00	10:28				X	X		X		X				X		X				X	X				X	
ICB1	1.00	10:32				X	X		X		X				X		X				X	X				X	
CRDL1	1.00	10:35				X	X		X		X				X		X				X	X				X	
ICS-A1	1.00	10:39				X	X		X		X				X		X				X	X				X	
AB1	1.00	10:43				X	X		X		X				X		X				X	X				X	
[illegible]	1.00	10:47				X	X		X		X				X		X				X	X				X	
CCB1	1.00	10:51				X	X		X		X				X		X				X	X				X	
ZZZZZZ	1.00	10:55																									
ZZZZZZ	1.00	10:59																									
ZZZZZZ	500.00	11:03																									
ZZZZZZ	10.00	11:07																									
ZZZZZZ	200.00	11:11																									
ZZZZZZ	100.00	11:14																									
ZZZZZZ	10.00	11:18																									
ZZZZZZ	2.00	11:22																									
ZZZZZZ	2.00	11:26																									
ZZZZZZ	500.00	11:30																									
CCV2	1.00	11:34				X	X		X		X				X		X				X	X				X	
CCB2	1.00	11:38				X	X		X		X				X		X				X	X				X	
ZZZZZZ	500.00	11:42																									
ZZZZZZ	500.00	11:46																									
ZZZZZZ	500.00	11:49																									
ZZZZZZ	500.00	11:53																									
ZZZZZZ	2500.0	11:57																									
[illegible]ZZZ	1.00	12:01																									
[illegible]ZZZZ	1.00	12:05																									
ZZZZZZ	1.00	12:09																									

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

METALS
-14-
ANALYSIS RUN LOG

Contract: R2210427

Lab Code Case No.: SAS No.: SDG No.: OS-PW-12

Instrument ID Number: Leeman ICP Method: P

Start Date: 2/13/02 End Date: 2/13/02

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
ZZZZZZ	1.00	12:13																									
CCV3	1.00	12:17				X	X		X		X				X		X				X	X				X	
CCB3	1.00	12:21				X	X		X		X				X		X				X	X				X	
PBS	1.00	12:25				X	X		X		X				X		X				X	X				X	
LCSS	1.00	12:29				X	X		X		X				X		X				X	X				X	
SMWB-SLU	1.00	12:32				X	X		X		X				X		X				X	X				X	
SMWB-SLUD	1.00	12:36				X	X		X		X				X		X				X	X				X	
SMWB-SLUS	5.00	12:40				X																X					
SMWB-SLUS	1.00	12:44					X		X		X				X						X						
[illegible]-SLUA	1.00	12:48				X																X					
[illegible]-SLUA	1.00	12:52					X		X		X				X		X				X					X	
SMWB-SLUL	5.00	12:56				X	X		X		X				X		X				X	X				X	
CCV4	1.00	13:00				X	X		X		X				X		X				X	X				X	
CCB4	1.00	13:04				X	X		X		X				X		X				X	X				X	
CRDL3	1.00	13:08				X	X		X		X				X		X				X	X				X	
ICS-A3	1.00	13:12				X	X		X		X				X		X				X	X				X	
ICS-AB3	1.00	13:16				X	X		X		X				X		X				X	X				X	
CCV5	1.00	13:20				X	X		X		X				X		X				X	X				X	
CCB5	1.00	13:23				X	X		X		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: R2210427

Lab Code | Case No.: | SAS No.: | SDG No.: OS-PW-12

Instrument ID Number: PE FAA/CVAA | Method: CV

Start 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
Calib Blank	1.00	09:42																X									
0.2ppb std	1.00	09:44																X									
0.5ppb std	1.00	09:46																X									
1ppb std	1.00	09:48																X									
2ppb std	1.00	09:50																X									
5ppb std	1.00	09:51																X									
10ppb std	1.00	09:53																X									
ICV1	1.00	09:55																X									
ICB1	1.00	09:57																X									
[illegible]	1.00	09:59																X									
[illegible]	1.00	10:01																X									
CCB1	1.00	10:02																X									
PBS	1.00	10:04																X									
LCSS	1.00	10:06																X									
SMWB-SLU	1.00	10:08																X									
SMWB-SLUD	1.00	10:09																X									
SMWB-SLUS	1.00	10:11																X									
ZZZZZZ	1.00	10:13																									
ZZZZZZ	1.00	10:15																									
ZZZZZZ	1.00	10:17																									
ZZZZZZ	1.00	10:19																									
ZZZZZZ	1.00	10:20																									
CCV2	1.00	10:22																X									
CCB2	1.00	10:24																X									

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Metals Cover Page

Instrument: Leeman

Analyst: JD

Date: 2/13/02

Data File: 13-1

Reviewed By: CK 2/13/02

Entered By: CK 2/13/02

Manager Approval: SD 2/14/02

Starlims Run #	Analytes Used	Batch ID	Method Requested	Failed Analytes	Comments / Problems

CK 2/13/02

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-10427	Pkg 5 / ASP	Mn Zn (TJP)		M2180030	YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
R-10427	Pkg 5 / ASP	AgAsBaCdCrPbSeMnZn		M2530076	YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP	(TJP mag)			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: 2 10:14:46 13 Feb 2002 ICP

g1	.0000	ppm	20600	19104	15232		
			Ave. Int. =	18312	S. D. =	2770	
l3	.0000	ppm	2904	617	74		
			Ave. Int. =	1198	S. D. =	1502	
s2	.0000	ppm	683	376	-49		
			Ave. Int. =	337	S. D. =	368	
a1	.0000	ppm	36787	36455	36361		
			Ave. Int. =	36534	S. D. =	224	
a3	.0000	ppm	11933	11804	11434		
			Ave. Int. =	11724	S. D. =	259	
d1	.0000	ppm	-5982	-5541	-3837		
			Ave. Int. =	-5120	S. D. =	1133	
r4	.0000	ppm	5338	6432	4947		
			Ave. Int. =	5572	S. D. =	770	
e2	.0000	ppm	-169	-356	175		
			Ave. Int. =	-117	S. D. =	269	
K 1	.0000	ppm	774	737	584		
			Ave. Int. =	698	S. D. =	101	
Mg4	.0000	ppm	922	1450	775		
			Ave. Int. =	1049	S. D. =	355	
Mn1	.0000	ppm	-435	-949	-726		
			Ave. Int. =	-703	S. D. =	258	
Na2	.0000	ppm	2394	1225	1458		
			Ave. Int. =	1692	S. D. =	619	
Pb1	.0000	ppm	5347	6291	9302		
			Ave. Int. =	6980	S. D. =	2066	
Se4	.0000	ppm	668	692	697		
			Ave. Int. =	686	S. D. =	16	
Zn3	.0000	ppm	738	105	220		
			Ave. Int. =	354	S. D. =	337	

SJdV.b
2/13/02

ne	Conc.	Units	SD/RSD	1	2	3	4	5

t* Standard: 1 Rep: 2 Seq: 3 10:15:37 13 Feb 2002 ICP

g1	.0000	ppm	21511	21332	22121			
			Ave. Int. =	21655	S. D. =	414		
l3	.0000	ppm	-481	69	4573			
			Ave. Int. =	1387	S. D. =	2773		
s2	.0000	ppm	918	256	400			
			Ave. Int. =	525	S. D. =	348		
a1	.0000	ppm	37063	37348	36962			
			Ave. Int. =	37124	S. D. =	200		
a3	.0000	ppm	11811	12059	11300			
			Ave. Int. =	11723	S. D. =	387		
d1	.0000	ppm	-4974	-5360	-4195			
			Ave. Int. =	-4843	S. D. =	593		
r4	.0000	ppm	6983	5269	5956			
			Ave. Int. =	6069	S. D. =	863		
e2	.0000	ppm	-959	-1533	-103			
			Ave. Int. =	-865	S. D. =	720		
1	.0000	ppm	955	854	731			
			Ave. Int. =	847	S. D. =	112		
r	.0000	ppm	-26	1890	812			
			Ave. Int. =	892	S. D. =	961		
n1	.0000	ppm	-947	-544	-993			
			Ave. Int. =	-828	S. D. =	247		
Na2	.0000	ppm	1536	1393	659			
			Ave. Int. =	1196	S. D. =	471		
Pb1	.0000	ppm	5549	5678	3602			
			Ave. Int. =	4943	S. D. =	1163		
Se4	.0000	ppm	652	240	1295			
			Ave. Int. =	729	S. D. =	532		
Zn3	.0000	ppm	-86	1174	323			
			Ave. Int. =	470	S. D. =	643		

i...	Conc.	Units	SD/RSD	1	2	3	4	5

** Standard: 2 Rep: 1 Seq: 4 10:19:36 13 Feb 2002 ICP

g1	1.000	ppm	1359215	1371577	1342590		
			Ave. Int. =	1357794	S. D. =	14546	
13	20.00	ppm	2069023	2110929	2047807		
			Ave. Int. =	2075920	S. D. =	32121	
s2	4.000	ppm	80717	83728	79399		
			Ave. Int. =	81281	S. D. =	2219	
a1	20.00	ppm	444028571	451535515	436667354		
			Ave. Int. =	444077147	S. D. =	7434200	
a3	100.0	ppm	20474868	20686298	20356457		
			Ave. Int. =	20505874	S. D. =	167092	
d1	2.000	ppm	3201833	3236919	3174812		
			Ave. Int. =	3204521	S. D. =	31141	
r4	1.000	ppm	421801	421183	412314		
			Ave. Int. =	418433	S. D. =	5308	
e2	10.00	ppm	1562372	1583077	1549038		
			Ave. Int. =	1564829	S. D. =	17152	
1	100.0	ppm	78181	79445	76620		
			Ave. Int. =	78082	S. D. =	1415	
g4	100.0	ppm	3628661	3679023	3585371		
			Ave. Int. =	3631018	S. D. =	46870	
	1.500	ppm	910055	919345	898701		
			Ave. Int. =	909367	S. D. =	10339	
a2	100.0	ppm	1959315	2005203	1921320		
			Ave. Int. =	1961946	S. D. =	42003	
b1	2.000	ppm	188320	192785	181761		
			Ave. Int. =	187622	S. D. =	5545	
e4	2.010	ppm	25586	24864	25443		
			Ave. Int. =	25298	S. D. =	382	
Zn3	2.000	ppm	508553	510055	500516		
			Ave. Int. =	506375	S. D. =	5129	

ine	Conc.	Units	SD/RSD	1	2	3	4	5

** Standard: 2 Rep: 2 Seq: 5 10:20:25 13 Feb 2002 ICP

Ag1	1.000	ppm	1333155	1338806	1335608		
			Ave. Int. =	1335856	S. D. =	2834	
Al3	20.00	ppm	2011762	2012067	2011082		
			Ave. Int. =	2011637	S. D. =	504	
As2	4.000	ppm	81365	77501	79121		
			Ave. Int. =	79329	S. D. =	1940	
Ba1	20.00	ppm	430150990	431245344	432137158		
			Ave. Int. =	431177831	S. D. =	994804	
Ca3	100.0	ppm	20129880	20175568	20326844		
			Ave. Int. =	20210764	S. D. =	103091	
Cd1	2.000	ppm	3145303	3134589	3175247		
			Ave. Int. =	3151713	S. D. =	21073	
Cr4	1.000	ppm	412867	409488	415659		
			Ave. Int. =	412671	S. D. =	3090	
Fe2	10.00	ppm	1533427	1536366	1538844		
			Ave. Int. =	1536212	S. D. =	2712	
K 1	100.0	ppm	74707	75279	74884		
			Ave. Int. =	74957	S. D. =	293	
Mg4	100.0	ppm	3534205	3537267	3560596		
			Ave. Int. =	3544023	S. D. =	14434	
Mn	1.500	ppm	886495	888935	896030		
			Ave. Int. =	890487	S. D. =	4953	
Na2	100.0	ppm	1876504	1885523	1869988		
			Ave. Int. =	1877338	S. D. =	7801	
Pb1	2.000	ppm	181988	189065	187294		
			Ave. Int. =	186116	S. D. =	3683	
Se4	2.010	ppm	23664	26112	25138		
			Ave. Int. =	24971	S. D. =	1232	
Zn3	2.000	ppm	498227	498018	504434		
			Ave. Int. =	500226	S. D. =	3645	

.ine	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: HIGH CHECK 13-1			Seq: 7		10:24:21 13 Feb 2002 ICP			
Ag1	.9860	ppm	1.013 %	.9934	.9746	.9899		
Al3	19.70	ppm	1.076 %	19.84	19.46	19.81		
As2	3.904	ppm	2.835 %	3.997	3.782	3.934		
Ba1	19.77	ppm	.9149 %	19.85	19.56	19.89		
Ca3	99.08	ppm	.8790 %	99.22	98.14	99.87		
Cd1	1.977	ppm	1.214 %	1.980	1.952	1.999		
Cr4	.9892	ppm	.8068 %	.9896	.9810	.9969		
Fe2	9.895	ppm	.9871 %	9.898	9.796	9.992		
K 1	98.39	ppm	.9978 %	98.82	97.27	99.08		
Mg4	98.63	ppm	1.023 %	99.04	97.48	99.37		
Mn1	1.483	ppm	1.032 %	1.485	1.467	1.498		
Na2	97.94	ppm	1.600 %	98.62	96.14	99.05		
Pb1	1.956	ppm	1.786 %	1.958	1.920	1.990		
Se4	2.072	ppm	5.660 %	1.966	2.052	2.198		
Zn3	1.976	ppm	1.170 %	1.973	1.954	2.000		
*** Sample ID: ICV			13-1	Seq: 8		10:28:15 13 Feb 2002 ICP		
Ag1	.4902	ppm	.0971 %	.4902	.4897	.4907		
Al	10.12	ppm	.6021 %	10.19	10.08	10.09		
As2	1.981	ppm	1.433 %	1.959	1.972	2.013		
Ba1	10.06	ppm	.5847 %	10.13	10.02	10.04		
Ca3	50.98	ppm	.3799 %	50.98	51.18	50.79		
Cd1	1.019	ppm	.3641 %	1.018	1.024	1.017		
Cr4	.5126	ppm	.7455 %	.5082	.5147	.5149		
Fe2	5.167	ppm	.1130 %	5.168	5.172	5.161		
K 1	50.25	ppm	.7418 %	50.60	50.29	49.85		
Mg4	50.16	ppm	.3228 %	50.27	49.97	50.23		
Mn1	.7677	ppm	.2662 %	.7658	.7698	.7674		
Na2	50.59	ppm	1.214 %	51.26	50.44	50.06		
Pb1	1.011	ppm	2.636 %	1.030	.9804	1.022		
Se4	1.040	ppm	7.171 %	1.026	1.120	.9729		
Zn3	1.027	ppm	.1532 %	1.028	1.025	1.027		

ine	Conc.	Units	SD/RSD	1	2	3	4	5
** Sample ID: ICB			13-1		Seq: 9	10:32:07 13 Feb 2002 ICP		
g1	-.0010	L ppm	-309.9%	.0020	-.0042	-.0009		
l3	.0071	L ppm	151.4 %	.0192	.0036	-.0015		
s2	.0152	L ppm	196.6 %	.0287	-.0191	.0361		
a1	.0021	L ppm	20.13 %	.0026	.0020	.0018		
a3	.0087	L ppm	37.07 %	.0124	.0072	.0065		
d1	.0011	L ppm	111.0 %	.0006	.0026	.0002		
r4	.0006	L ppm	294.0 %	.0023	-.0010	.0004		
e2	-.0053	L ppm	-45.76%	-.0042	-.0036	-.0080		
1	.0486	L ppm	191.5 %	.0508	.1407	-.0456		
g4	.0055	L ppm	340.7 %	.0111	-.0153	.0205		
n1	.0006	L ppm	77.53 %	.0010	.0007	.0001		
a2	-.0088	L ppm	-321.3%	.0208	-.0358	-.0114		
b1	-.0069	L ppm	-16.37%	-.0066	-.0082	-.0060		
e4	-.0822	L ppm	-32.59%	-.0522	-.1039	-.0905		
n3	.0014	L ppm	91.85 %	.0011	.0028	.0003		
** Sample ID: CRI			13-1		Seq: 11	10:35:59 13 Feb 2002 ICP		
g1	.0215	ppm	4.959 %	.0214	.0205	.0226		
l	.0144	L ppm	95.71 %	.0219	.0229	-.0015		
s	.0201	L ppm	177.6 %	-.0056	.0051	.0610		
a1	.0004	L ppm	26.69 %	.0004	.0003	.0005		
a3	.0165	L ppm	17.28 %	.0166	.0193	.0136		
d1	.0129	ppm	1.389 %	.0127	.0131	.0129		
r4	.0252	ppm	8.161 %	.0251	.0232	.0273		
e2	.0008	L ppm	922.0 %	.0015	-.0065	.0073		
1	-.0627	L ppm	-144.1%	-.1129	.0416	-.1169		
g4	.0266	L ppm	73.53 %	.0470	.0248	.0080		
n1	.0363	ppm	1.957 %	.0355	.0364	.0369		
a2	.0084	L ppm	102.2 %	.0059	.0179	.0013		
b1	.1303	ppm	3.643 %	.1286	.1266	.1357		
e4	-.0445	L ppm	-112.7%	-.0155	-.1025	-.0155		
n3	.0521	ppm	2.748 %	.0506	.0522	.0534		

*** Sample ID: ICSA 13-1 Seq: 12 10:39:52 13 Feb 2002 ICP

Line	Conc.	Units	SD/RSD	1	2	3	4	5
Ag1	-.0026 L	ppm	-208.4%	-.0024	-.0081	.0027		
Al3	552.9 H	ppm	1.544 %	561.8	544.7	552.3		
As2	.0663 L	ppm	314.5 %	.2788	-.1377	.0577		
Ba1	-.0007 L	ppm	-13.73%	-.0008	-.0006	-.0007		
Ca3	560.9	ppm	1.220 %	566.1	553.1	563.4		
Cd1	-.0016 L	ppm	-44.96%	-.0009	-.0016	-.0024		
Cr4	.0051 L	ppm	75.95 %	.0008	.0082	.0062		
Fe2	207.2 H	ppm	1.367 %	209.8	204.2	207.7		
K 1	.2162 L	ppm	45.84 %	.1260	.2003	.3222		
Mg4	571.3 H	ppm	1.366 %	579.0	563.4	571.4		
Mn1	-.0009 L	ppm	-85.42%	-.0018	-.0004	-.0005		
Na2	.0517 L	ppm	145.7 %	.1384	.0040	.0126		
Pb1	.0403 L	ppm	27.30 %	.0499	.0427	.0283		
Se4	-.0521 L	ppm	-63.07%	-.0879	-.0235	-.0448		
Zn3	.0012 L	ppm	337.7 %	.0059	-.0021	-.0001		

*** Sample ID: ICSAB 13-1 Seq: 13 10:43:45 13 Feb 2002 ICP

Line	Conc.	Units	SD/RSD	1	2	3	4	5
Ag1	1.085	ppm	2.737 %	1.054	1.090	1.113		
Al3	519.9 H	ppm	2.790 %	504.3	522.4	533.0		
As2	.0664 L	ppm	235.7 %	-.0202	-.0277	.2472		
Ba1	.4873	ppm	2.791 %	.4730	.4890	.5000		
Ca3	539.4	ppm	2.134 %	527.7	540.0	550.7		
Cd1	1.029	ppm	1.840 %	1.012	1.027	1.049		
Cr4	.5067	ppm	2.095 %	.4975	.5044	.5184		
Fe2	198.7	ppm	2.229 %	194.2	199.1	203.0		
K 1	.0221 L	ppm	855.4 %	-.1885	.1768	.0779		
Mg4	544.0 H	ppm	2.555 %	529.1	546.2	556.7		
Mn1	.5051	ppm	1.783 %	.4965	.5043	.5145		
Na2	.1267 L	ppm	31.46 %	.0831	.1612	.1357		
Pb1	1.040	ppm	3.582 %	.9987	1.053	1.070		
Se4	-.2298 L	ppm	-70.55%	-.1515	-.4162	-.1217		
Zn3	1.036	ppm	2.323 %	1.011	1.038	1.059		

	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: CCV			13-1	Seq: 15		10:47:39 13 Feb 2002 ICP		
Ag1	.5007	ppm	.5277 %	.5012	.5030	.4978		
Al3	10.24	ppm	1.532 %	10.33	10.33	10.06		
As2	2.043	ppm	3.701 %	2.027	2.126	1.977		
Ba1	10.20	ppm	1.468 %	10.25	10.33	10.04		
Ca3	51.51	ppm	.7234 %	51.86	51.55	51.12		
Cd1	1.018	ppm	.6890 %	1.023	1.019	1.010		
Cr4	.5160	ppm	.8589 %	.5209	.5150	.5122		
Fe2	5.289	ppm	1.204 %	5.352	5.291	5.225		
K 1	51.37	ppm	2.325 %	51.58	52.44	50.08		
Mg4	50.48	ppm	1.182 %	50.66	50.96	49.81		
Mn1	.7730	ppm	.6658 %	.7772	.7746	.7673		
Na2	51.51	ppm	2.129 %	51.49	52.62	50.42		
Pb1	1.032	ppm	1.209 %	1.037	1.042	1.018		
Se4	.9890	ppm	1.946 %	1.011	.9768	.9791		
Zn3	1.022	ppm	1.612 %	1.041	1.013	1.012		
*** Sample ID: CCB			13-1	Seq: 16		10:51:32 13 Feb 2002 ICP		
Ag1	-.0025 L	ppm	-113.3%	-.0038	.0008	-.0044		
Al3	.0108 L	ppm	100.9 %	.0214	.0112	-.0003		
[illegible]	.0342 L	ppm	85.58 %	.0016	.0583	.0428		
Ba1	.0019 L	ppm	24.48 %	.0022	.0020	.0014		
Ca3	.0153 L	ppm	16.88 %	.0176	.0125	.0159		
Cd1	.0007 L	ppm	201.5 %	.0013	.0017	-.0009		
Cr4	.0018 L	ppm	128.4 %	.0032	.0029	-.0008		
Fe2	.0018 L	ppm	238.1 %	-.0031	.0034	.0051		
K 1	.1886 L	ppm	116.2 %	.2727	-.0601	.3533		
Mg4	.0181 L	ppm	24.94 %	.0227	.0181	.0136		
Mn1	.0006 L	ppm	68.54 %	.0004	.0004	.0011		
Na2	.0081 L	ppm	433.3 %	.0073	.0437	-.0267		
Pb1	-.0031 L	ppm	-342.2%	-.0002	-.0149	.0058		
Se4	-.0356 L	ppm	-166.2%	-.0462	.0282	-.0889		
Zn3	.0021 L	ppm	43.58 %	.0029	.0025	.0011		

Line	Conc.	Units	SD/RSD	1	2	3	4	5
** Sample ID: PBT 2/12 13-1 Seq: 17 10:55:26 13 Feb 2002 ICP								
			M2680030					
Ag1	-.0038	L ppm	-90.96%	-.0007	-.0076	-.0032		
Al3	-.0036	L ppm	-542.6%	.0125	.0020	-.0254		
As2	.0107	L ppm	120.6 %	-.0041	.0166	.0195		
Ba1	-.0001	L ppm	-191.2%	.0000	-.0000	-.0002		
Ca3	.0091	L ppm	79.64 %	.0174	.0051	.0047		
Cd1	.0012	L ppm	30.65 %	.0010	.0016	.0009		
Cr4	-.0009	L ppm	-227.2%	.0014	-.0017	-.0024		
Fe2	.0093	L ppm	16.60 %	.0108	.0094	.0077		
K 1	-.1279	L ppm	-61.27%	-.1182	-.0548	-.2106		
Mg4	-.0057	L ppm	-490.1%	.0264	-.0228	-.0206		
Mn1	.0003	L ppm	117.4 %	.0006	-.0001	.0004		
Na2	-.0018	L ppm	-1954.%	.0028	.0304	-.0385		
Pb1	.0008	L ppm	237.8 %	-.0013	.0014	.0022		
Se4	-.1024	L ppm	-68.87%	-.0457	-.1813	-.0800		
Zn3	.0034	L ppm	67.56 %	.0020	.0022	.0060		
** Sample ID: LCST 13-1 Seq: 19 10:59:20 13 Feb 2002 ICP								
			M2680030					
Ag1	5.268	H ppm	.5067 %	5.286	5.281	5.238		
As2	.0100	L ppm	123.4 %	.0016	.0042	.0242		
Al3	5.196	H ppm	1.515 %	5.262	5.216	5.109		
Ba1	5.050	ppm	.5493 %	5.078	5.050	5.022		
Ca3	.0118	L ppm	5.546 %	.0125	.0112	.0118		
Cd1	1.067	ppm	.4314 %	1.068	1.061	1.070		
Cr4	5.264	ppm	.2574 %	5.256	5.256	5.280		
Fe2	.0080	L ppm	32.84 %	.0081	.0105	.0053		
K 1	-.0610	L ppm	-264.1%	.1222	-.1248	-.1803		
Mg4	-.0252	L ppm	-106.5%	-.0210	-.0538	-.0007		
Mn1	2.054	ppm	.1554 %	2.058	2.051	2.053		
Na2	-.0005	L ppm	-11160%	-.0586	.0317	.0256		
Pb1	5.291	ppm	.5980 %	5.316	5.301	5.255		
Se4	.9781	ppm	1.016 %	.9857	.9816	.9668		
Zn3	2.105	ppm	.8773 %	2.084	2.118	2.114		

ine	Conc.	Units	SD/RSD	1	2	3	4	5
** Sample ID: 526396			13-1 1/500	Seq: 20		11:03:14 13 Feb 2002 ICP		
g1	-.0002 L	ppm	-590.0%	.0011	-.0008	-.0009		
l3	-.0012 L	ppm	-621.9%	.0070	-.0064	-.0040		
s2	.0013 L	ppm	656.6 %	-.0078	.0027	.0089		
a1	.0016 L	ppm	26.59 %	.0020	.0015	.0012		
a3	.1067 L	ppm	3.219 %	.1043	.1051	.1106		
d1	.0022 L	ppm	15.59 %	.0019	.0026	.0021		
r4	.0021 L	ppm	116.0 %	.0029	.0039	-.0006		
e2	15.18	ppm	.8604 %	15.07	15.14	15.32		
1	.0832 L	ppm	175.9 %	.2149	-.0744	.1092		
lg4	.0591 L	ppm	55.22 %	.0731	.0824	.0218		
n1	.1024	ppm	.6565 %	.1028	.1017	.1028		
a2	3.482	ppm	2.649 %	3.422	3.435	3.588		
b1	.0072 L	ppm	263.2 %	.0031	.0277	-.0094		
e4	-.1155 L	ppm	-17.84%	-.1052	-.1020	-.1392		
n3	12.07	ppm	.7091 %	12.02	12.02	12.17		
** Sample ID: 526405			13-1 1/10	Seq: 21		11:07:08 13 Feb 2002 ICP		
g1	-.0037 L	ppm	-82.25%	-.0005	-.0066	-.0039		
	.0236 L	ppm	12.58 %	.0259	.0247	.0203		
s	.0083 L	ppm	384.9 %	-.0258	.0134	.0372		
a1	.4146	ppm	.8672 %	.4125	.4187	.4125		
a3	34.83	ppm	.7907 %	34.98	35.00	34.51		
d1	.0008 L	ppm	88.25 %	.0002	.0015	.0006		
r4	-.0012 L	ppm	-164.0%	.0004	-.0006	-.0035		
e2	.1662	ppm	3.554 %	.1702	.1690	.1594		
1	1.137 L	ppm	9.517 %	1.260	1.055	1.095		
lg4	.2525 L	ppm	3.779 %	.2431	.2621	.2522		
n1	.2330	ppm	.6745 %	.2327	.2347	.2316		
a2	153.2	ppm	.8639 %	151.8	154.5	153.3		
b1	.0239 L	ppm	12.65 %	.0252	.0204	.0260		
e4	-.0177 L	ppm	-654.5%	-.1512	.0531	.0451		
n3	4.261	ppm	.6420 %	4.286	4.265	4.231		

*** Sample ID: 526406 13-1 Seq: 23 11:11:02 13 Feb 2002 ICP
1/200

Line	Conc.	Units	SD/RSD	1	2	3	4	5
Ag1	-.0023 L	ppm	-92.74%	-.0045	-.0019	-.0004		
Al3	.0236 L	ppm	44.30 %	.0115	.0300	.0291		
As2	.0203 L	ppm	78.61 %	[illegible]	[illegible]	.0245		
Ba1	.0012 L	ppm	10.44 %	.0011	.0013	.0011		
Ca3	4.613	ppm	1.383 %	4.634	4.663	4.541		
Cd1	.0012 L	ppm	87.63 %	.0009	.0023	.0003		
Cr4	.0013 L	ppm	105.9 %	.0002	.0008	.0028		
Fe2	-.0102 L	ppm	-17.48%	-.0122	-.0091	-.0092		
K 1	.0211 L	ppm	892.5 %	.1589	.0981	-.1936		
Mg4	.4229 L	ppm	5.150 %	.4347	.3978	.4363		
Mn1	.0719	ppm	1.963 %	.0721	.0731	.0703		
Na2	19.71	ppm	1.746 %	19.71	20.05	19.36		
Pb1	.0099 L	ppm	135.3 %	-.0008	.0250	.0055		
Se4	-.0594 L	ppm	-127.7%	-.1445	-.0345	.0009		
Zn3	8.796	ppm	1.467 %	8.796	8.924	8.666		

*** Sample ID: 526407 13-1 Seq: 24 11:14:56 13 Feb 2002 ICP
1/100

Line	Conc.	Units	SD/RSD	1	2	3	4	5
An1	-.0015 L	ppm	-166.1%	-.0016	.0011	-.0041		
	.0198 L	ppm	45.98 %	.0152	.0302	.0139		
[illegible]	-.0269 L	ppm	-79.45%	-.0181	-.0513	-.0113		
Ba1	.0012 L	ppm	9.876 %	.0013	.0011	.0012		
Ca3	2.566	ppm	1.763 %	2.529	2.553	2.616		
Cd1	.0005 L	ppm	93.62 %	.0003	.0011	.0002		
Cr4	.0023 L	ppm	97.74 %	.0047	.0003	.0018		
Fe2	-.0047 L	ppm	-42.86%	-.0070	-.0036	-.0035		
K 1	.3522 L	ppm	46.99 %	.1615	.4587	.4365		
Mg4	.5074	ppm	2.775 %	.4942	.5058	.5223		
Mn1	.0801	ppm	3.655 %	.0774	.0797	.0832		
Na2	59.12	ppm	3.910 %	57.77	57.81	61.79		
Pb1	-.0014 L	ppm	-688.4%	-.0053	.0095	-.0084		
Se4	-.0849 L	ppm	-64.69%	-.1482	-.0574	-.0492		
Zn3	2.598	ppm	1.654 %	2.565	2.582	2.646		

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 526408			13-1	Seq: 25		11:18:51 13 Feb 2002 ICP		
			1/10					
Ag1	-.0033 L	ppm	-129.5%	.0015	-.0045	-.0069		
Al3	.0071 L	ppm	105.6 %	.0069	-.0003	.0146		
As2	.0034 L	ppm	635.4 %	-.0198	.0232	.0069		
Ba1	.0085 L	ppm	2.350 %	.0083	.0087	.0084		
Ca3	12.87	ppm	2.210 %	12.73	13.19	12.67		
Cd1	.0021 L	ppm	40.96 %	.0027	.0025	.0011		
Cr4	.0006 L	ppm	103.3 %	-.0001	.0007	.0010		
Fe2	-.0061 L	ppm	-41.59%	-.0076	-.0076	-.0032		
K 1	6.356	ppm	5.703 %	6.402	6.694	5.973		
Mg4	2.756	ppm	2.412 %	2.680	2.799	2.790		
Mn1	.3089	ppm	3.464 %	.3041	.3211	.3014		
Na2	553.9 H	ppm	3.706 %	548.1	576.7	537.0		
Pb1	-.0073 L	ppm	-193.7%	-.0111	.0083	-.0189		
Se4	-.0069 L	ppm	-1152.%	.0461	.0317	-.0985		
Zn3	6.624	ppm	2.163 %	6.554	6.788	6.528		
*** Sample ID: 526409			13-1	Seq: 27		11:22:44 13 Feb 2002 ICP		
			1/2					
Ag1	-.0029 L	ppm	-88.92%	-.0058	-.0009	-.0019		
[illegible]	-.0106 L	ppm	-58.95%	-.0072	-.0068	-.0179		
[illegible]	.0468 L	ppm	114.5 %	-.0149	.0733	.0818		
Ba1	.2318	ppm	.1447 %	.2314	.2321	.2319		
Ca3	342.8	ppm	.4704 %	340.9	343.7	343.8		
Cd1	.0003 L	ppm	143.6 %	.0001	.0009	.0000		
Cr4	.0311	ppm	2.940 %	.0316	.0318	.0301		
Fe2	.0090 L	ppm	23.38 %	.0089	.0069	.0111		
K 1	10.02	ppm	.6243 %	10.04	10.06	9.945		
Mg4	2.567	ppm	1.693 %	2.519	2.578	2.604		
Mn1	.0258	ppm	2.416 %	.0263	.0260	.0251		
Na2	661.4 H	ppm	.2535 %	659.8	661.2	663.2		
Pb1	-.0027 L	ppm	-505.0%	.0077	-.0183	.0024		
Se4	-.0436 L	ppm	-337.3%	-.1796	.1123	-.0634		
Zn3	.0596	ppm	5.039 %	.0609	.0618	.0562		

ne	Conc.	Units	SD/RSD	1	2	3	4	5
* Sample ID: 526410			13-1 1/2	Seq: 28		11:26:38 13 Feb 2002 ICP		
1	-.0021 L	ppm	-180.6%	-.0013	.0012	-.0063		
3	.0745 L	ppm	33.55 %	.0879	.0899	.0457		
2	.0689 L	ppm	65.26 %	.1036	.0181	.0850		
1	.3881	ppm	1.926 %	.3854	.3824	.3966		
3	45.09	ppm	1.028 %	45.01	44.68	45.59		
l1	.0032 L	ppm	27.06 %	.0024	.0041	.0032		
4	.0002 L	ppm	652.9 %	-.0014	.0016	.0005		
2	.0830 L	ppm	7.596 %	.0809	.0780	.0901		
1	.9927 L	ppm	7.075 %	1.051	.9148	1.012		
4	2.267	ppm	1.887 %	2.242	2.244	2.317		
1	.1661	ppm	.5805 %	.1663	.1651	.1670		
2	601.7 H	ppm	1.938 %	596.6	593.4	615.0		
1	.0058 L	ppm	75.74 %	.0057	.0102	.0014		
4	-.0375 L	ppm	-166.4%	-.0176	-.1073	.0126		
3	1.832	ppm	.4570 %	1.837	1.822	1.836		
** Sample ID: 526411			13-1 1/500	Seq: 29		11:30:30 13 Feb 2002 ICP		
1	-.0031 L	ppm	-120.0%	.0011	-.0045	-.0059		
[illegible]	.0666 L	ppm	12.83 %	.0732	.0698	.0570		
s2	.0321 L	ppm	71.28 %	.0571	.0272	.0121		
a1	.0005 L	ppm	36.79 %	.0005	.0006	.0003		
a3	.0611 L	ppm	5.621 %	.0598	.0585	.0650		
d1	.0044 L	ppm	25.18 %	.0054	.0046	.0032		
r4	.0511	ppm	2.258 %	.0503	.0524	.0506		
e2	11.37	ppm	1.374 %	11.52	11.37	11.21		
1	-.0138 L	ppm	-433.0%	-.0337	.0535	-.0614		
lg4	.0458 L	ppm	51.40 %	.0697	.0448	.0227		
In1	.1519	ppm	1.407 %	.1530	.1533	.1495		
la2	4.346	ppm	1.993 %	4.446	4.295	4.298		
b1	.0168 L	ppm	98.01 %	.0232	-.0019	.0290		
e4	-.0481 L	ppm	-167.8%	.0429	-.0764	-.1107		
n3	11.42	ppm	1.330 %	11.59	11.37	11.30		

ine	Conc.	Units	SD/RSD	1	2	3	4	5
** Sample ID: CCV			13-1		Seq: 31	11:34:23 13 Feb 2002 ICP		
g1	.4911	ppm	.8085 %	.4881	.4896	.4956		
l3	10.01	ppm	.6370 %	9.959	10.08	9.998		
s2	2.017	ppm	2.333 %	1.971	2.065	2.017		
a1	9.887	ppm	.5471 %	9.839	9.946	9.878		
a3	50.05	ppm	.9608 %	49.53	50.14	50.48		
d1	.9992	ppm	1.252 %	.9860	1.001	1.011		
r4	.4959	ppm	1.403 %	.4901	.4940	.5036		
e2	5.083	ppm	.3367 %	5.069	5.079	5.102		
1	50.35	ppm	1.669 %	49.94	51.32	49.80		
lg4	49.17	ppm	.8213 %	48.75	49.55	49.22		
n1	.7527	ppm	.8318 %	.7460	.7539	.7583		
a2	50.37	ppm	.5486 %	50.35	50.66	50.11		
b1	.9944	ppm	1.580 %	.9763	1.004	1.003		
e4	1.034	ppm	9.588 %	.9740	.9795	1.148		
n3	1.015	ppm	1.639 %	.9982	1.016	1.031		
*** Sample ID: CCB			13-1		Seq: 32	11:38:16 13 Feb 2002 ICP		
g1	-.0021	L ppm	-137.7%	-.0002	-.0007	-.0055		
	.0113	L ppm	86.96 %	.0001	.0183	.0156		
s2	.0233	L ppm	100.4 %	.0237	.0465	-.0003		
a1	.0020	L ppm	3.425 %	.0020	.0020	.0021		
a3	.0130	L ppm	19.68 %	.0132	.0103	.0153		
d1	.0012	L ppm	75.69 %	.0012	.0003	.0021		
r4	.0024	L ppm	38.47 %	.0018	.0019	.0035		
e2	-.0023	L ppm	-59.61%	-.0010	-.0021	-.0037		
1	-.0359	L ppm	-203.6%	-.0720	.0482	-.0839		
g4	-.0006	L ppm	-3764.%	.0101	-.0278	.0157		
n1	.0002	L ppm	160.5 %	-.0001	.0003	.0003		
a2	.0261	L ppm	103.0 %	.0413	-.0050	.0421		
b1	-.0024	L ppm	-652.5%	.0071	.0062	-.0205		
e4	-.0917	L ppm	-76.94%	-.1092	-.0141	-.1520		
n3	.0013	L ppm	101.7 %	.0001	.0011	.0027		

ine	Conc.	Units	SD/RSD	1	2	3	4	5
** Sample ID: 526413			13-1 1/500	Seq: 33		11:42:10 13 Feb 2002 ICP		
g1	-.0027 L	ppm	-47.50%	-.0033	-.0012	-.0035		
l3	-.0055 L	ppm	-252.9%	-.0163	.0102	-.0104		
s2	-.0063 L	ppm	-581.8%	-.0426	-.0073	.0309		
a1	.0005 L	ppm	31.11 %	.0003	.0006	.0005		
a3	.5127	ppm	3.177 %	.5099	.4980	.5302		
d1	-.0000 L	ppm	-3204.%	.0006	-.0006	-.0001		
r4	-.0000 L	ppm	-8341.%	.0029	-.0006	-.0024		
e2	3.297	ppm	3.536 %	3.291	3.183	3.416		
1	.0619 L	ppm	21.42 %	.0760	.0496	.0601		
g4	.1350 L	ppm	9.861 %	.1504	.1276	.1271		
n1	.0617	ppm	2.365 %	.0616	.0603	.0632		
a2	4.431	ppm	5.728 %	4.460	4.164	4.669		
b1	.0057 L	ppm	342.1 %	-.0041	.0281	-.0069		
e4	-.1383 L	ppm	-2.059%	-.1391	-.1351	-.1406		
n3	6.925	ppm	2.920 %	6.927	6.722	7.127		
** Sample ID: 526413D			13-1 1/500	Seq: 35		11:46:04 13 Feb 2002 ICP		
g1	-.0034 L	ppm	-34.40%	-.0022	-.0045	-.0036		
	.0022 L	ppm	829.3 %	.0222	-.0023	-.0133		
s	.0067 L	ppm	612.1 %	.0535	-.0096	-.0238		
a1	.0002 L	ppm	9.526 %	.0002	.0002	.0002		
a3	.4865 L	ppm	.5365 %	.4855	.4895	.4845		
d1	.0008 L	ppm	70.99 %	.0014	.0002	.0010		
r4	-.0008 L	ppm	-117.5%	-.0002	-.0020	-.0004		
e2	2.823	ppm	.4387 %	2.810	2.835	2.822		
1	-.0522 L	ppm	-121.0%	-.0931	-.0838	.0205		
g4	.1107 L	ppm	27.58 %	.1328	.0759	.1233		
n1	.0632	ppm	.5545 %	.0630	.0636	.0631		
a2	4.570	ppm	.8456 %	4.608	4.570	4.531		
b1	-.0202 L	ppm	-46.84%	-.0260	-.0253	-.0093		
e4	-.0236 L	ppm	-495.7%	.1116	-.0880	-.0945		
n3	6.827	ppm	.7715 %	6.867	6.848	6.768		

.ine	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 526416S			13-1 1/500	Seq: 36		11:49:58 13 Feb 2002 ICP		
Ag1	.0061 L	ppm	53.61 %	.0056	.0031	.0096		
Al3	.0017 L	ppm	813.1 %	-.0143	.0113	.0082		
As2	.0060 L	ppm	106.4 %	.0127	-.0000	.0053		
Ba1	.0094 L	ppm	3.461 %	.0091	.0094	.0098		
Ca3	.4755 L	ppm	3.437 %	.4606	.4730	.4930		
Cd1	.0033 L	ppm	30.55 %	.0044	.0031	.0024		
Cr4	.0116	ppm	30.76 %	.0077	.0147	.0124		
Fe2	3.074	ppm	2.470 %	3.015	3.049	3.160		
K 1	-.0005 L	ppm	-31960%	-.0493	-.1312	.1791		
Mg4	.1065 L	ppm	25.77 %	.0781	.1083	.1329		
Mn1	.0619	ppm	3.309 %	.0603	.0614	.0642		
Na2	4.045	ppm	4.212 %	3.935	3.959	4.241		
Pb1	.0119 L	ppm	86.76 %	.0210	.0142	.0007		
Se4	-.0817 L	ppm	-46.82%	-.0805	-.1205	-.0440		
Zn3	6.491	ppm	1.958 %	6.382	6.459	6.631		
*** Sample ID: 526413A			13-1 1/500	Seq: 37		11:53:53 13 Feb 2002 ICP		
Ag1	3.877	ppm	1.546 %	3.929	3.890	3.812		
[illegible]	.0071 L	ppm	71.34 %	.0099	.0013	.0102		
[illegible]	5.637 H	ppm	2.338 %	5.716	5.709	5.484		
Ba1	5.266	ppm	1.192 %	5.264	5.329	5.204		
Ca3	.4990 L	ppm	2.511 %	.5046	.5078	.4847		
Cd1	1.162	ppm	1.679 %	1.178	1.168	1.140		
Cr4	5.602	ppm	1.756 %	5.656	5.661	5.488		
Fe2	3.262	ppm	.7217 %	3.270	3.281	3.236		
K 1	.0077 L	ppm	1147. %	.1051	-.0139	-.0680		
Mg4	.1232 L	ppm	30.02 %	.1339	.1537	.0821		
Mn1	2.286	ppm	1.375 %	2.292	2.313	2.251		
Na2	4.546	ppm	2.972 %	4.405	4.559	4.675		
Pb1	5.795	ppm	.9548 %	5.852	5.791	5.742		
Se4	1.109	ppm	3.082 %	1.070	1.123	1.134		
Zn3	9.284	ppm	1.154 %	9.361	9.329	9.162		

ıe	Conc.	Units	SD/RSD	1	2	3	4	5
⁺ Sample ID: 526413L			13-1 1/500	Seq: 39		11:57:47 13 Feb 2002 ICP		
1	-.0004	L ppm	-649.9%	.0029	-.0015	-.0027		
3	.0049	L ppm	297.4 %	-.0119	.0136	.0129		
2	.0042	L ppm	372.1 %	.0008	.0214	-.0095		
1	.0012	L ppm	3.993 %	.0013	.0012	.0012		
3	.1068	L ppm	2.486 %	.1056	.1049	.1098		
1	.0001	L ppm	1621. %	-.0018	.0008	.0013		
4	.0015	L ppm	84.49 %	.0021	.0023	.0000		
2	.6487	ppm	1.925 %	.6623	.6462	.6377		
1	-.0515	L ppm	-48.09%	-.0379	-.0802	-.0366		
4	.0226	L ppm	87.77 %	.0019	.0244	.0414		
1	.0131	ppm	3.444 %	.0127	.0129	.0136		
2	.9072	ppm	1.948 %	.9207	.9136	.8872		
1	.0008	L ppm	1091. %	-.0071	-.0010	.0107		
›4	-.0523	L ppm	-291.6%	.1239	-.1391	-.1418		
ı3	1.377	ppm	1.012 %	1.391	1.375	1.364		
:* Sample ID: MTHD BLNK			13-1	Seq: 40		12:01:41 13 Feb 2002 ICP		
[illegible]	-.0017	L ppm	-189.1%	.0020	-.0031	-.0040		
[illegible]	.0189	L ppm	19.32 %	.0216	.0147	.0204		
;2	-.0060	L ppm	-323.2%	-.0168	.0163	-.0174		
;1	.2686	ppm	1.083 %	.2679	.2718	.2661		
;3	.0083	L ppm	57.56 %	.0030	.0098	.0122		
d1	-.0002	L ppm	-115.9%	.0001	-.0004	-.0004		
·4	.0044	L ppm	37.87 %	.0025	.0057	.0050		
e2	.0328	L ppm	8.064 %	.0343	.0343	.0297		
1	.7530	L ppm	11.87 %	.8556	.6924	.7110		
g4	-.0158	L ppm	-106.0%	-.0067	-.0351	-.0056		
n1	.0002	L ppm	262.1 %	.0002	-.0003	.0006		
a2	1227.	H ppm	1.603 %	1222.	1248.	1210.		
b1	-.0195	L ppm	-29.15%	-.0184	-.0144	-.0256		
e4	.0279	L ppm	316.4 %	.1220	.0153	-.0534		
n3	.1466	ppm	2.245 %	.1502	.1459	.1437		

ine	Conc.	Units	SD/RSD	1	2	3	4	5
** Sample ID: CRI			13-1		Seq: 41	12:05:35 13 Feb 2002 ICP		
g1	.0189	ppm	12.30 %	.0187	.0214	.0168		
l3	.0104 L	ppm	46.31 %	.0056	.0103	.0152		
s2	.0345 L	ppm	80.62 %	.0117	.0654	.0264		
a1	.0002 L	ppm	17.74 %	.0003	.0002	.0002		
a3	.0159 L	ppm	17.05 %	.0133	.0187	.0158		
d1	.0107	ppm	16.62 %	.0123	.0088	.0109		
r4	.0224	ppm	3.304 %	.0220	.0220	.0233		
e2	-.0044 L	ppm	-136.2%	-.0112	-.0015	-.0004		
1	.0882 L	ppm	69.63 %	.1498	.0270	.0878		
g4	-.0206 L	ppm	-104.0%	-.0146	-.0028	-.0444		
n1	.0343	ppm	.7216 %	.0341	.0341	.0346		
a2	.3807 L	ppm	32.86 %	.5180	.3508	.2732		
b1	.1095	ppm	8.204 %	.1064	.1196	.1025		
e4	-.0574 L	ppm	-12.80%	-.0658	-.0543	-.0521		
n3	.0517	ppm	2.325 %	.0518	.0528	.0504		
** Sample ID: ICSA			13-1		Seq: 43	12:09:29 13 Feb 2002 ICP		
g1	-.0011 L	ppm	-129.3%	-.0008	-.0026	.0002		
[illegible]	521.4 H	ppm	1.392 %	529.5	519.2	515.5		
[illegible]	.0527 L	ppm	148.4 %	.0399	-.0183	.1366		
a1	-.0007 L	ppm	-8.783%	-.0007	-.0008	-.0007		
a3	528.9	ppm	.5448 %	532.1	527.9	526.5		
d1	.0014 L	ppm	272.9 %	.0021	-.0027	.0049		
r4	.0060 L	ppm	29.63 %	.0040	.0075	.0064		
e2	195.4	ppm	.8656 %	197.3	194.9	194.0		
1	.0086 L	ppm	1571. %	-.1426	.1145	.0538		
lg4	541.0 H	ppm	1.001 %	547.2	538.8	537.1		
ln1	-.0003 L	ppm	-412.3%	-.0007	.0011	-.0013		
la2	.0821 L	ppm	54.60 %	.1128	.0307	.1028		
b1	.0552	ppm	78.09 %	.0433	.0193	.1030		
e4	.0728 L	ppm	220.6 %	.0585	.2402	-.0801		
n3	.0025 L	ppm	252.1 %	-.0046	.0047	.0074		

e	Conc.	Units	SD/RSD	1	2	3	4	5
Sample ID: ICSAB			13-1		Seq: 44	12:13:24 13 Feb 2002 ICP		
1	1.085	ppm	1.592 %	1.097	1.092	1.065		
3	517.9 H	ppm	1.185 %	523.6	518.8	511.4		
2	.1208 L	ppm	64.67 %	.2099	.0882	.0643		
1	.4849	ppm	1.213 %	.4903	.4858	.4786		
3	530.3	ppm	1.088 %	535.5	531.3	524.1		
1	1.016	ppm	1.294 %	1.025	1.023	1.001		
4	.5068	ppm	1.100 %	.5124	.5068	.5012		
2	196.0	ppm	1.142 %	198.1	196.3	193.7		
1	.0233 L	ppm	873.2 %	.1148	.1655	-.2102		
4	541.0 H	ppm	1.070 %	546.5	541.7	535.0		
1	.5008	ppm	.9907 %	.5042	.5032	.4951		
2	.0866 L	ppm	27.60 %	.1041	.0594	.0964		
1	1.062	ppm	3.542 %	1.105	1.050	1.032		
4	-.1327 L	ppm	-213.3%	.1834	-.2187	-.3627		
3	1.031	ppm	1.292 %	1.039	1.038	1.015		
** Sample ID: CCV			13-1		Seq: 45	12:17:19 13 Feb 2002 ICP		
	.4829	ppm	1.643 %	.4838	.4904	.4746		
	9.852	ppm	.5707 %	9.839	9.914	9.804		
s2	1.984	ppm	4.218 %	2.007	2.054	1.891		
a1	9.692	ppm	.6509 %	9.680	9.760	9.636		
a3	49.66	ppm	.5436 %	49.50	49.97	49.52		
d1	.9868	ppm	1.145 %	.9827	.9996	.9781		
r4	.4905	ppm	.8697 %	.4867	.4951	.4896		
e2	5.080	ppm	.4421 %	5.086	5.099	5.055		
1	48.59	ppm	1.490 %	48.84	49.16	47.78		
g4	48.45	ppm	.7676 %	48.31	48.87	48.17		
In1	.7453	ppm	.3092 %	.7434	.7479	.7447		
la2	48.71	ppm	1.445 %	49.04	49.19	47.90		
b1	.9819	ppm	2.455 %	1.008	.9771	.9605		
e4	.9677	ppm	15.08 %	1.130	.8472	.9259		
n3	1.005	ppm	.6173 %	1.003	1.013	1.001		

ine	Conc.	Units	SD/RSD	1	2	3	4	5
** Sample ID: CCB			13-1		Seq: 47	12:21:14 13 Feb 2002 ICP		
g1	-.0015	L ppm	-107.0%	-.0018	-.0030	.0002		
l3	.0071	L ppm	209.6 %	.0181	-.0097	.0128		
s2	.0079	L ppm	345.0 %	.0381	-.0002	-.0143		
a1	.0023	L ppm	13.57 %	.0026	.0020	.0024		
a3	.0201	L ppm	45.83 %	.0263	.0095	.0244		
d1	-.0000	L ppm	-1267.%	.0004	-.0000	-.0006		
r4	.0002	L ppm	590.1 %	-.0001	-.0006	.0012		
e2	.0018	L ppm	296.2 %	.0030	-.0040	.0063		
1	-.0398	L ppm	-466.2%	-.0601	-.2146	.1552		
g4	.0120	L ppm	43.50 %	.0094	.0180	.0086		
n1	.0003	L ppm	109.7 %	.0007	-.0001	.0004		
a2	-.0067	L ppm	-448.0%	.0282	-.0236	-.0248		
b1	-.0054	L ppm	-278.5%	.0034	-.0226	.0031		
e4	-.0709	L ppm	-26.12%	-.0532	-.0902	-.0693		
n3	-.0006	L ppm	-88.40%	-.0011	-.0001	-.0005		
** Sample ID: PBT 2/8			13-1		Seq: 48	12:25:09 13 Feb 2002 ICP		
g1	-.0040	L ppm	-99.36%	-.0083	-.0004	-.0033		
	.1319	ppm	2.052 %	.1291	.1320	.1345		
s2	.0099	L ppm	245.6 %	.0274	-.0178	.0200		
a1	.0004	L ppm	6.652 %	.0004	.0004	.0004		
a3	.1331	L ppm	3.431 %	.1362	.1278	.1352		
d1	-.0000	L ppm	-5853.%	-.0008	.0002	.0005		
r4	.0004	L ppm	942.6 %	.0016	.0039	-.0042		
e2	.0175	L ppm	12.70 %	.0149	.0184	.0191		
1	-.0720	L ppm	-109.2%	.0138	-.0892	-.1407		
g4	.1365	L ppm	17.57 %	.1101	.1424	.1570		
n1	.0005	L ppm	85.80 %	.0000	.0009	.0007		
a2	.1050	L ppm	8.623 %	.0948	.1084	.1119		
b1	-.0092	L ppm	-89.22%	-.0058	-.0185	-.0032		
e4	-.1147	L ppm	-37.22%	-.1639	-.0890	-.0911		
n3	.0083	L ppm	14.96 %	.0098	.0076	.0076		

ne	Conc.	Units	SD/RSD	1	2	3	4	5
* Sample ID: LCST			13-1		Seq: 49	12:29:04 13 Feb 2002 ICP		
1	.9013	ppm	1.406 %	.8867	.9081	.9092		
3	49.85	ppm	1.265 %	49.34	50.56	49.66		
2	2.022	ppm	.6952 %	2.031	2.031	2.006		
1	1.615	ppm	1.561 %	1.594	1.643	1.607		
3	110.6	ppm	1.088 %	109.5	111.9	110.3		
1	.6959	ppm	1.277 %	.6860	.7031	.6985		
4	1.468	ppm	.9020 %	1.457	1.483	1.465		
2	88.00	ppm	1.398 %	86.91	89.33	87.76		
1	31.24	ppm	1.513 %	30.98	31.79	30.96		
4	22.92	ppm	1.522 %	22.66	23.31	22.78		
1	3.712	ppm	1.233 %	3.670	3.761	3.707		
2	9.727	ppm	1.089 %	9.682	9.848	9.651		
1	1.262	ppm	2.017 %	1.233	1.273	1.280		
4	1.552	ppm	7.906 %	1.590	1.651	1.414		
3	2.800	ppm	.6903 %	2.786	2.822	2.792		
** Sample ID: 526404			13-1		Seq: 51	12:32:59 13 Feb 2002 ICP		
4	-.0004 L	ppm	-858.2%	.0031	-.0014	-.0028		
	15.23	ppm	1.751 %	15.17	15.52	15.00		
s2	.1009 L	ppm	57.11 %	.0790	.1663	.0575		
a1	1.275	ppm	1.954 %	1.262	1.304	1.260		
a3	55.75	ppm	1.316 %	55.43	56.59	55.23		
d1	.0205	ppm	8.514 %	.0185	.0218	.0211		
r4	.2514	ppm	1.338 %	.2514	.2548	.2480		
e2	154.9	ppm	1.547 %	153.8	157.6	153.2		
1	40.16	ppm	2.453 %	39.80	41.27	39.40		
lg4	9.318	ppm	2.087 %	9.192	9.542	9.220		
In1	2.224	ppm	1.502 %	2.207	2.262	2.202		
la2	7.324	ppm	2.653 %	7.212	7.549	7.212		
b1	1.612	ppm	2.758 %	1.620	1.652	1.564		
Se4	-.0405 L	ppm	-257.2%	-.1113	.0791	-.0893		
Zn3	4.463	ppm	1.160 %	4.441	4.523	4.427		

ine	Conc.	Units	SD/RSD	1	2	3	4	5
** Sample ID: 526404D			13-1	Seq: 52		12:36:54 13 Feb 2002 ICP		
g1	.0022 L	ppm	96.66 %	.0044	.0002	.0020		
l3	9.148	ppm	.8480 %	9.222	9.156	9.067		
s2	.0821 L	ppm	28.10 %	.0810	.1056	.0595		
a1	.7405	ppm	.7040 %	.7461	.7358	.7396		
a3	46.49	ppm	.2232 %	46.56	46.37	46.53		
d1	.0195	ppm	6.635 %	.0185	.0210	.0192		
r4	.1787	ppm	1.618 %	.1810	.1798	.1755		
e2	139.5	ppm	.4207 %	140.1	139.0	139.3		
1	34.41	ppm	.2442 %	34.49	34.42	34.32		
g4	6.262	ppm	.7566 %	6.316	6.230	6.239		
n1	1.847	ppm	.2923 %	1.853	1.846	1.842		
a2	6.742	ppm	3.063 %	6.963	6.553	6.712		
b1	1.348	ppm	.3351 %	1.351	1.343	1.350		
e4	-.0422 L	ppm	-130.5%	.0155	-.0479	-.0942		
n3	4.105	ppm	.2867 %	4.118	4.102	4.095		
** Sample ID: 526404S			13-1	Seq: 53		12:40:49 13 Feb 2002 ICP		
			1/5					
g1	.8845	ppm	1.932 %	.8750	.8743	.9043		
[illegible]	4.079	ppm	1.350 %	4.019	4.090	4.127		
s[illegible]	1.243	ppm	1.028 %	1.252	1.229	1.249		
a1	1.366	ppm	2.192 %	1.333	1.373	1.392		
a3	15.68	ppm	.9303 %	15.51	15.74	15.78		
d1	.2621	ppm	.2146 %	.2614	.2624	.2624		
r4	1.289	ppm	1.824 %	1.271	1.281	1.316		
e2	41.96	ppm	1.495 %	41.27	42.12	42.49		
1	9.421	ppm	2.090 %	9.411	9.229	9.623		
g4	2.623	ppm	1.867 %	2.612	2.581	2.677		
n1	.6035	ppm	1.448 %	.5939	.6056	.6110		
a2	1.611	ppm	5.113 %	1.555	1.572	1.705		
b1	1.694	ppm	1.167 %	1.712	1.698	1.673		
e4	.1698 L	ppm	12.49 %	.1673	.1922	.1500		
n3	1.160	ppm	.8758 %	1.148	1.166	1.166		

Mn not spiked for Mn, Zn CR 2/13/02

ine	Conc.	Units	SD/RSD	1	2	3	4	5
** Sample ID: 526404S		13-1		Seq: 55		12:44:44 13 Feb 2002 ICP		
g1	3.556	ppm	.3527 %	3.548	3.570	3.548		
l3	17.30	ppm	.4011 %	17.31	17.37	17.23		
s2	5.098 H	ppm	.9911 %	5.140	5.112	5.042		
a1	5.879	ppm	.2813 %	5.885	5.892	5.860		
a3	63.09	ppm	.4404 %	62.96	63.41	62.90		
d1	1.013	ppm	.4389 %	1.010	1.018	1.011		
r4	5.210	ppm	.6215 %	5.195	5.247	5.188		
e2	168.0	ppm	.4174 %	168.1	168.7	167.3		
1	40.07	ppm	.5871 %	40.20	39.80	40.21		
lg4	10.66	ppm	.8082 %	10.59	10.75	10.62		
In1	2.452	ppm	.5242 %	2.455	2.462	2.438		
la2	7.076	ppm	.4741 %	7.113	7.068	7.047		
b1	6.584	ppm	.6682 %	6.537	6.624	6.591		
Se4	.8955	ppm	10.59 %	.9772	.9179	.7914		
n3	4.463	ppm	.6151 %	4.477	4.481	4.431		
*** Sample ID: 526404A		13-1 1/5		Seq: 56		12:48:39 13 Feb 2002 ICP		
Ag	1.182	ppm	2.209 %	1.153	1.192	1.202		
A.	3.362	ppm	2.910 %	3.249	3.421	3.415		
As2	1.238	ppm	6.098 %	1.175	1.219	1.322		
Ba1	1.329	ppm	3.039 %	1.282	1.349	1.354		
Ca3	12.72	ppm	1.619 %	12.48	12.79	12.88		
Cd1	.2537	ppm	1.995 %	.2479	.2568	.2565		
Cr4	1.239	ppm	2.647 %	1.202	1.264	1.252		
Fe2	35.67	ppm	2.335 %	34.71	36.10	36.20		
K 1	8.583	ppm	3.790 %	8.208	8.747	8.793		
Mg4	2.116	ppm	2.633 %	2.057	2.123	2.168		
Mn1	.8417	ppm	2.158 %	.8208	.8519	.8526		
Na2	1.545	ppm	3.772 %	1.482	1.557	1.597		
Pb1	1.626	ppm	1.051 %	1.622	1.645	1.612		
Se4	.2575 L	ppm	31.84 %	.2919	.3166	.1639		
Zn3	1.573	ppm	2.504 %	1.528	1.589	1.602		

*** Sample ID: 526404A 13-1 Seq: 57 12:52:34 13 Feb 2002 ICP

Line	Conc.	Units	SD/RSD	1	2	3	4	5
Ag1	5.026 H	ppm	.8239 %	5.063	4.981	5.033		
Al3	14.94	ppm	1.486 %	15.17	14.73	14.93		
As2	5.239 H	ppm	.4589 %	5.251	5.254	5.211		
Ba1	6.094	ppm	1.542 %	6.193	6.006	6.083		
Ca3	54.27	ppm	1.059 %	54.81	53.67	54.35		
Cd1	1.038	ppm	.6529 %	1.044	1.031	1.040		
Cr4	5.304	ppm	1.117 %	5.353	5.238	5.321		
Fe2	151.8	ppm	1.114 %	153.5	150.1	151.7		
K 1	39.01	ppm	1.691 %	39.75	38.47	38.83		
Mg4	9.051	ppm	1.718 %	9.205	8.894	9.053		
Mn1	3.615	ppm	1.138 %	3.654	3.572	3.618		
Na2	7.275	ppm	1.973 %	7.416	7.129	7.279		
Pb1	6.697	ppm	1.011 %	6.775	6.651	6.665		
Se4	1.020	ppm	5.878 %	1.088	.9960	.9761		
Zn3	6.453	ppm	.8378 %	6.497	6.393	6.470		

*** Sample ID: 526404L 13-1 Seq: 59 12:56:29 13 Feb 2002 ICP

Ag1	.0003 L	ppm	740.1 %	.0026	-.0000	-.0017		
A[illegible]	3.557	ppm	2.136 %	3.484	3.550	3.636		
A[illegible]	.0340 L	ppm	49.17 %	.0449	.0423	.0147		
Ba1	.2966	ppm	2.139 %	.2913	.2949	.3037		
Ca3	13.20	ppm	1.400 %	13.01	13.22	13.38		
Cd1	.0050	ppm	19.87 %	.0051	.0040	.0060		
Cr4	.0612	ppm	2.637 %	.0596	.0628	.0613		
Fe2	37.39	ppm	1.613 %	36.84	37.29	38.03		
K 1	9.191	ppm	3.237 %	8.886	9.208	9.480		
Mg4	2.216	ppm	.4399 %	2.206	2.218	2.225		
Mn1	.5350	ppm	1.905 %	.5246	.5356	.5449		
Na2	1.706	ppm	2.976 %	1.714	1.652	1.752		
Pb1	.4019	ppm	.8306 %	.3990	.4055	.4011		
Se4	-.0465 L	ppm	-170.8%	.0436	-.1059	-.0771		
Zn3	1.117	ppm	1.107 %	1.103	1.123	1.126		

ıe	Conc.	Units	SD/RSD	1	2	3	4	5
⁺ Sample ID: CCV			13-1		Seq: 60	13:00:24 13 Feb 2002 ICP		
1	.4926	ppm	1.673 %	.4852	.5015	.4912		
3	10.15	ppm	1.615 %	10.06	10.34	10.06		
2	2.075	ppm	2.321 %	2.021	2.113	2.090		
1	10.12	ppm	1.738 %	10.03	10.32	10.00		
3	50.98	ppm	1.196 %	50.33	51.54	51.07		
1	1.032	ppm	1.162 %	1.019	1.043	1.032		
4	.5125	ppm	2.366 %	.4996	.5237	.5144		
2	5.226	ppm	1.415 %	5.187	5.311	5.180		
1	51.36	ppm	2.319 %	51.15	52.63	50.28		
4	50.56	ppm	1.600 %	49.99	51.48	50.19		
ı1	.7745	ppm	1.141 %	.7675	.7844	.7715		
ı2	52.12	ppm	1.970 %	52.43	52.96	50.98		
ı1	1.038	ppm	2.891 %	1.008	1.068	1.039		
ɜ4	.9711	ppm	9.533 %	.8663	1.005	1.042		
ı3	1.048	ppm	1.539 %	1.032	1.064	1.049		
⁺⁺ Sample ID: CCB			13-1		Seq: 61	13:04:19 13 Feb 2002 ICP		
ɜ	-.0026	L ppm	-38.50%	-.0016	-.0036	-.0027		
l	.0074	L ppm	276.2 %	-.0076	.0309	-.0010		
s2	.0119	L ppm	324.6 %	.0477	.0172	-.0291		
a1	.0018	L ppm	25.02 %	.0022	.0020	.0013		
a3	.0099	L ppm	32.49 %	.0082	.0137	.0079		
d1	.0003	L ppm	253.6 %	-.0004	.0001	.0013		
r4	.0013	L ppm	81.08 %	.0026	.0004	.0011		
e2	-.0053	L ppm	-41.69%	-.0078	-.0041	-.0038		
1	.0161	L ppm	839.3 %	.1037	-.1393	.0839		
lg4	.0063	L ppm	237.1 %	.0111	.0182	-.0104		
ln1	.0005	L ppm	56.60 %	.0002	.0007	.0005		
la2	-.0390	L ppm	-37.27%	-.0326	-.0287	-.0556		
ʼb1	.0227	L ppm	102.7 %	.0244	.0450	-.0014		
ɜe4	-.0154	L ppm	-437.6%	-.0360	.0599	-.0701		
Zn3	-.0000	L ppm	-11860%	-.0021	.0004	.0016		

ne	Conc.	Units	SD/RSD	1	2	3	4	5
* Sample ID: CRI			13-1	Seq: 63		13:08:14 13 Feb 2002 ICP		
1	.0209	ppm	8.262 %	.0217	.0221	.0189		
3	.0095 L	ppm	179.4 %	.0274	-.0065	.0076		
2	.0609 L	ppm	4.484 %	.0615	.0580	.0633		
1	.0004 L	ppm	13.30 %	.0005	.0004	.0004		
3	.0120 L	ppm	25.79 %	.0151	.0089	.0119		
1	.0124	ppm	3.080 %	.0122	.0128	.0122		
4	.0229	ppm	13.01 %	.0259	.0199	.0229		
2	-.0074 L	ppm	-10.78%	-.0083	-.0072	-.0067		
1	.0579 L	ppm	214.0 %	-.0852	.1314	.1275		
4	-.0054 L	ppm	-504.5%	-.0193	-.0228	.0259		
1	.0370	ppm	.4330 %	.0372	.0370	.0368		
2	-.0259 L	ppm	-53.74%	-.0137	-.0230	-.0410		
1	.1393	ppm	4.503 %	.1462	.1338	.1380		
4	.0203 L	ppm	643.8 %	.0940	.0973	-.1304		
3	.0522	ppm	5.352 %	.0551	.0495	.0522		
** Sample ID: ICSA			13-1	Seq: 64		13:12:09 13 Feb 2002 ICP		
g	-.0045 L	ppm	-18.63%	-.0044	-.0037	-.0054		
l	549.6 H	ppm	.5506 %	550.6	552.0	546.2		
s2	.0214 L	ppm	328.6 %	-.0457	.0947	.0152		
a1	-.0007 L	ppm	-15.36%	-.0008	-.0007	-.0006		
a3	565.1	ppm	.1616 %	565.1	564.2	566.0		
d1	-.0004 L	ppm	-606.6%	-.0000	-.0029	.0017		
r4	.0044 L	ppm	39.21 %	.0035	.0064	.0033		
e2	208.6 H	ppm	.1324 %	208.6	208.8	208.3		
1	.1652 L	ppm	94.05 %	-.0029	.1951	.3035		
g4	572.2 H	ppm	.1934 %	572.4	573.1	571.0		
n1	-.0014 L	ppm	-52.40%	-.0006	-.0015	-.0020		
a2	.0526 L	ppm	27.83 %	.0550	.0369	.0658		
b1	-.0049 L	ppm	-513.8%	.0141	-.0335	.0047		
e4	-.2043 L	ppm	-111.2%	.0385	-.2394	-.4119		
n3	-.0029 L	ppm	-93.93%	-.0060	-.0022	-.0006		

ne	Conc.	Units	SD/RSD	1	2	3	4	5
* Sample ID: ICSAB			13-1		Seq: 65	13:16:04 13 Feb 2002 ICP		
ı1	1.102	ppm	.6045 %	1.109	1.096	1.102		
3	524.6 H	ppm	.8569 %	528.3	519.6	525.9		
;2	.0738 L	ppm	53.74 %	.1082	.0304	.0829		
ı1	.4919	ppm	1.038 %	.4962	.4863	.4931		
ı3	547.6	ppm	.6972 %	549.2	543.2	550.3		
d1	1.052	ppm	.4303 %	1.050	1.048	1.057		
·4	.5154	ppm	.7303 %	.5193	.5118	.5151		
e2	201.9 H	ppm	.6215 %	202.7	200.4	202.5		
1	.1477 L	ppm	113.7 %	-.0287	.1663	.3056		
g4	550.0 H	ppm	.7696 %	553.0	545.2	551.8		
n1	.5141	ppm	.8322 %	.5162	.5092	.5169		
a2	.0400 L	ppm	172.5 %	.0999	.0555	-.0354		
b1	1.083	ppm	4.183 %	1.080	1.040	1.130		
e4	-.1059 L	ppm	-39.07%	-.0955	-.1515	-.0707		
n3	1.065	ppm	.8384 %	1.064	1.057	1.074		
** Sample ID: CCV			13-1		Seq: 67	13:20:01 13 Feb 2002 ICP		
g'	.5102	ppm	1.023 %	.5148	.5114	.5045		
i	10.41	ppm	.8392 %	10.50	10.39	10.33		
s2	2.153	ppm	2.499 %	2.215	2.122	2.121		
a1	10.35	ppm	.9994 %	10.47	10.29	10.29		
:a3	52.17	ppm	.8112 %	52.64	51.82	52.06		
:d1	1.032	ppm	1.577 %	1.051	1.021	1.025		
:r4	.5205	ppm	2.717 %	.5365	.5097	.5152		
'e2	5.390	ppm	1.161 %	5.462	5.352	5.356		
(1	52.80	ppm	.9786 %	53.29	52.85	52.26		
lg4	51.17	ppm	.9815 %	51.75	50.92	50.85		
ln1	.7854	ppm	.5543 %	.7889	.7805	.7867		
la2	52.74	ppm	.7442 %	53.09	52.82	52.31		
'b1	1.055	ppm	1.824 %	1.077	1.042	1.047		
;e4	1.087	ppm	5.179 %	1.147	1.077	1.036		
Zn3	1.044	ppm	.9785 %	1.055	1.041	1.035		

Conc.	Units	SD/RSD	1	2	3	4	5
Sample ID: CCB		13-1	Seq: 68	13:23:57 13 Feb 2002 ICP			
-.0021	L ppm	-98.79%	-.0041	-.0021	-.0000		
.0290	L ppm	27.47 %	.0359	.0203	.0308		
.0282	L ppm	95.64 %	.0437	.0439	-.0029		
.0018	L ppm	37.14 %	.0023	.0020	.0011		
.0280	L ppm	8.469 %	.0285	.0301	.0254		
-.0002	L ppm	-248.2%	-.0007	-.0001	.0002		
-.0002	L ppm	-1375.%	-.0020	-.0006	.0022		
.0049	L ppm	42.27 %	.0058	.0064	.0026		
.0918	L ppm	115.8 %	.0931	.1974	-.0152		
.0264	L ppm	69.72 %	.0337	.0054	.0399		
.0000	L ppm	1828. %	-.0004	.0008	-.0003		
.0214	L ppm	222.2 %	.0101	.0737	-.0195		
.0030	L ppm	725.3 %	-.0187	.0249	.0028		
-.0024	L ppm	-5293.%	.0339	.1030	-.1441		
-.0006	L ppm	-220.5%	-.0017	-.0008	.0008		

Metals Cover Page

Instrument: FIMS

Analyst: DCB

Date: 2/6/02

Data File: Feb-06

Reviewed By: DCB

Entered By: ~~DCB~~ CK 2/11/02

Manager Approval: CK 2/11/02

Starlims Run #	Analytes Used	Batch ID	Method Requested	Failed Analytes	Comments / Problems
~~74454~~ ~~74232~~ 74319	Hg	M2480131A	7471 TCLP		

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-10427	Pkg 5 / ASP	Hg TCLP		M2480131A	YES / NO	MARRS to LIMS / Run Created Above	YES / NO
R-10454	Pkg 5 / ASP	Hg		M2480131B	YES / NO	MARRS to LIMS / Run Created Above	YES / NO
R-10454	Pkg 5 / ASP	Hg		M2480131C	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

Perkin-Elmer AAWinLab: 02/06/2002, 09:41:23 AM

Method Name: Hg_CLP
Method Description: Method 245.1A FIMS
Element: Hg

2/6/02
DCB

Date: 02/06/2002
Technique:FI-MHS
Calibration Type:
Hg, Zero Intercept: Linear
Wavelength: 253.7 nm
Sample Info Name: ROUTINE.SIF Results Data Set Name: Feb-06

Element: Hg Seq. No.: 24 AS Loc.: 1 Date: 02/06/2002
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0004	0.0015	0.0004	09:42:19	No
2			0.0003	0.0015	0.0003	09:42:48	No
Mean:			0.0003				
SD :			0.0000				
%RSD:			2.0446				

Auto-zero performed.

Element: Hg Seq. No.: 25 AS Loc.: 8 Date: 02/06/2002
Sample ID: 0.2ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0020	0.0107	0.0024	09:44:08	No
2			0.0019	0.0101	0.0023	09:44:37	No
Mean:			0.0020				
SD :			0.0000				
%RSD:			2.0592				

[Hg] Standard number 1 applied. [0.2000]
Correlation Coefficient: 1.00000 Slope: 0.00988

Element: Hg Seq. No.: 26 AS Loc.: 2 Date: 02/06/2002
Sample ID: 0.5ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0050	0.0246	0.0053	09:45:58	No
2			0.0050	0.0248	0.0053	09:46:27	No
Mean:			0.0050				
SD :			0.0000				
%RSD:							

[Hg] Standard number 2 applied. [0.5000]
Correlation Coefficient: 0.99998 Slope: 0.00994

Element: Hg Seq. No.: 27 AS Loc.: 3 Date: 02/06/2002
Sample ID: 1ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0104	0.0502	0.0107	09:47:45	No
2			0.0104	0.0504	0.0107	09:48:14	No
Mean:			0.0104				
SD :			0.0000				
%RSD:							

[Hg] Standard number 3 applied. [1.000]

Correlation Coefficient: 0.99943 Slope: 0.01027

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Element: Hg Seq. No.: 28 AS Loc.: 4 Date: 02/06/2002
Sample ID: 2ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0204	0.0972	0.0207	09:49:33	No
2			0.0204	0.0973	0.0208	09:50:02	No
Mean:			0.0204				
SD :			0.0000				
%RSD:							

[Hg] Standard number 4 applied. [2.000]
Correlation Coefficient: 0.99989 Slope: 0.01022

==========

Element: Hg Seq. No.: 29 AS Loc.: 5 Date: 02/06/2002
Sample ID: 5ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0508	0.2416	0.0511	09:51:22	No
2			0.0509	0.2418	0.0513	09:51:51	No
Mean:			0.0508				
SD :			0.0001				
%RSD:			0.2427				

[Hg] Standard number 5 applied. [5.000]
Correlation Coefficient: 0.99998 Slope: 0.01018

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Element: Hg Seq. No.: 30 AS Loc.: 6 Date: 02/06/2002
Sample ID: 10ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.1011	0.4833	0.1015	09:53:13	No
2			0.1025	0.4820	0.1028	09:53:42	No
Mean:			0.1018				
SD :			0.0010				
%RSD:			0.9470				

[Hg] Standard number 6 applied. [10.00]
Correlation Coefficient: 1.00000 Slope: 0.01018

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	0.0020	0.2000	0.1941	0.00004	2.1
0.5ppb std	0.0050	0.5000	0.4887	0.00000	----
1ppb std	0.0104	1.0000	1.018	0.00001	----
2ppb std	0.0204	2.0000	2.004	0.00000	----
5ppb std	0.0508	5.0000	4.994	0.00012	0.2
10ppb std	0.1018	10.0000	10.00	0.00096	0.9

Correlation Coefficient: 1.00000 Slope: 0.01018 ----

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Element: Hg Seq. No.: 31 AS Loc.: 7 Date: 02/06/2002
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	3.041	3.041	0.0310	0.1465	0.0313	09:55:03	No
2	3.052	3.052	0.0311	0.1456	0.0314	09:55:33	No
Mean:	3.046	3.046	0.0310				
SD :	0.00770	0.00770	0.0001				
%RSD:	0.3	0.3	0.2528				

QC value within specified limits.

Element: Hg Seq. No.: 32 AS Loc.: 1 Date: 02/06/2002
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0019	-0.0019	0.0000	0.0015	0.0003	09:56:52	No
2	-0.0014	-0.0014	0.0000	0.0017	0.0003	09:57:22	No
Mean:	-0.0016	-0.0016	0.0000				
SD :	0.00038	0.00038	0.0000				
%RSD:	23.1	23.1	23.0613				

QC value within specified limits.

Element: Hg Seq. No.: 33 AS Loc.: 8 Date: 02/06/2002
Sample ID: CRII

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.1930	0.1930	0.0020	0.0108	0.0023	09:58:42	No
2	0.1973	0.1973	0.0020	0.0108	0.0024	09:59:11	No
Mean:	0.1952	0.1952	0.0020				
SD :	0.00306	0.00306	0.0000				
%RSD:	1.6	1.6	1.5653				

QC value within specified limits.

Element: Hg Seq. No.: 34 AS Loc.: 7 Date: 02/06/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.000	3.000	0.0305	0.1451	0.0309	10:00:33	No
2	3.064	3.064	0.0312	0.1455	0.0315	10:01:02	No
Mean:	3.032	3.032	0.0309				
SD :	0.04483	0.04483	0.0005				
%RSD:	1.5	1.5	1.4784				

QC value within specified limits.

Element: Hg Seq. No.: 35 AS Loc.: 1 Date: 02/06/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0073	-0.0073	-0.0001	0.0010	0.0003	10:02:21	No
2	-0.0034	-0.0034	0.0000	0.0015	0.0003	10:02:50	No
Mean:	-0.0053	-0.0053	-0.0001				
SD :	0.00275	0.00275	0.0000				
%RSD:	51.4	51.4	51.4101				

QC value within specified limits.

Element: Hg Seq. No.: 36 2/7/02 DCB AS Loc.: 9 Date: 02/06/2002
Sample ID: PBT-M2480131A ~~529467~~ 529624

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	-0.0069	-0.0069	-0.0001	0.0012	0.0003	10:04:06	No
2	-0.0064	-0.0064	-0.0001	0.0011	0.0003	10:04:36	No
Mean:	-0.0066	-0.0066	-0.0001				
SD :	0.00035	0.00035	0.0000				
%RSD:	5.2	5.2	5.2143				

Element: Hg Seq. No.: 37 2/7/02 DCS AS Loc.: 10 Date: 02/06/2002
Sample ID: LCSS-M2480131A ~~526464~~ 526625

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	8.724	8.724	0.0888	0.4307	0.0892	10:05:53	No
2	8.929	8.929	0.0909	0.4327	0.0912	10:06:22	No
Mean:	8.826	8.826	0.0898				
SD :	0.1450	0.1450	0.0015				
%RSD:	1.6	1.6	1.6433				

Element: Hg Seq. No.: 38 AS Loc.: 11 Date: 02/06/2002
Sample ID: 526404

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0544	0.0544	0.0006	0.0040	0.0009	10:07:40	No
2	0.0504	0.0504	0.0005	0.0032	0.0009	10:08:09	No
Mean:	0.0524	0.0524	0.0005				
SD :	0.00285	0.00285	0.0000				
%RSD:	5.4	5.4	5.4384				

Element: Hg Seq. No.: 39 2/7/02 DCS AS Loc.: 12 Date: 02/06/2002
Sample ID: 526404D ~~526464~~ 526622

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0342	0.0342	0.0003	0.0029	0.0007	10:09:29	No
2	0.0374	0.0374	0.0004	0.0036	0.0007	10:09:58	No
Mean:	0.0358	0.0358	0.0004				
SD :	0.00226	0.00226	0.0000				
%RSD:	6.3	6.3	6.3146				

Element: Hg Seq. No.: 40 2/7/02 DCS AS Loc.: 13 Date: 02/06/2002
Sample ID: 526404S ~~526464~~ 526623

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.9738	0.9738	0.0099	0.0483	0.0103	10:11:17	No
2	0.9888	0.9888	0.0101	0.0481	0.0104	10:11:46	No
Mean:	0.9813	0.9813	0.0100				
SD :	0.01060	0.01060	0.0001				
%RSD:	1.1	1.1	1.0804				

Element: Hg Seq. No.: 41 AS Loc.: 14 Date: 02/06/2002
Sample ID: PBS-M2480131B

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0045	-0.0045	0.0000	0.0012	0.0003	10:13:07	No
2	-0.0030	-0.0030	0.0000	0.0014	0.0003	10:13:37	No
Mean:	-0.0038	-0.0038	0.0000				
SD :	0.00103	0.00103	0.0000				
%RSD:	27.2	27.2	27.2457				

Element: Hg Seq. No.: 42 AS Loc.: 15 Date: 02/06/2002
Sample ID: LCSS-M2480131B

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	8.405	8.405	0.0856	0.4044	0.0859	10:14:59	No
2	8.429	8.429	0.0858	0.4045	0.0861	10:15:28	No
Mean:	8.417	8.417	0.0857				
SD :	0.01712	0.01712	0.0002				
%RSD:	0.2	0.2	0.2034				

Element: Hg Seq. No.: 43 AS Loc.: 16 Date: 02/06/2002
Sample ID: ~~526737~~ 526757 CK 2/12/02

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0342	0.0342	0.0003	0.0030	0.0007	10:16:50	No
2	0.0344	0.0344	0.0004	0.0032	0.0007	10:17:20	No
Mean:	0.0343	0.0343	0.0003				
SD :	0.00018	0.00018	0.0000				
%RSD:	0.5	0.5	0.5281				

Element: Hg Seq. No.: 44 AS Loc.: 17 Date: 02/06/2002
Sample ID: ~~526737D~~ 526757D CK 2/12/02

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0307	0.0307	0.0003	0.0028	0.0007	10:18:40	No
2	0.0292	0.0292	0.0003	0.0028	0.0006	10:19:09	No
Mean:	0.0300	0.0300	0.0003				
SD :	0.00107	0.00107	0.0000				
%RSD:	3.6	3.6	3.5836				

Element: Hg Seq. No.: 45 AS Loc.: 18 Date: 02/06/2002
Sample ID: ~~526737S~~ 526757S CK 2/12/02

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.8299	0.8299	0.0084	0.0413	0.0088	10:20:23	No
2	0.8297	0.8297	0.0084	0.0413	0.0088	10:20:52	No
Mean:	0.8298	0.8298	0.0084				
SD :	0.00013	0.00013	0.0000				
%RSD:							

Element: Hg Seq. No.: 46 AS Loc.: 7 Date: 02/06/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.079	3.079	0.0313	0.1485	0.0317	10:22:11	No
2	3.075	3.075	0.0313	0.1487	0.0316	10:22:41	No
Mean:	3.077	3.077	0.0313				
SD :	0.00328	0.00328	0.0000				
%RSD:	0.1	0.1	0.1066				

QC value within specified limits.

Element: Hg Seq. No.: 47 AS Loc.: 1 Date: 02/06/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	-0.0033	-0.0033	0.0000	0.0014	0.0003	10:24:00	No
2	-0.0036	-0.0036	0.0000	0.0014	0.0003	10:24:30	No
Mean:	-0.0035	-0.0035	0.0000				
SD :	0.00017	0.00017	0.0000				
%RSD:	4.8	4.8	4.8488				

QC value within specified limits.

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Element: Hg Seq. No.: 48 AS Loc.: 19 Date: 02/06/2002
Sample ID: 526760

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.1492	0.1492	0.0015	0.0092	0.0019	10:25:47	No
2	0.1457	0.1457	0.0015	0.0088	0.0018	10:26:17	No
Mean:	0.1474	0.1474	0.0015				
SD :	0.00252	0.00252	0.0000				
%RSD:	1.7	1.7	1.7075				

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Element: Hg Seq. No.: 49 AS Loc.: 20 Date: 02/06/2002
Sample ID: 526763

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0047	0.0047	0.0000	0.0018	0.0004	10:27:33	No
2	0.0062	0.0062	0.0001	0.0020	0.0004	10:28:02	No
Mean:	0.0055	0.0055	0.0001				
SD :	0.00104	0.00104	0.0000				
%RSD:	19.1	19.1	19.0751				

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Element: Hg Seq. No.: 50 AS Loc.: 21 Date: 02/06/2002
Sample ID: 526765

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0136	0.0136	0.0001	0.0021	0.0005	10:29:19	No
2	0.0134	0.0134	0.0001	0.0019	0.0005	10:29:48	No
Mean:	0.0135	0.0135	0.0001				
SD :	0.00015	0.00015	0.0000				
%RSD:	1.1	1.1	1.1470				

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Element: Hg Seq. No.: 51 AS Loc.: 22 Date: 02/06/2002
Sample ID: 526767

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.2350	0.2350	0.0024	0.0125	0.0027	10:31:06	No
2	0.2435	0.2435	0.0025	0.0129	0.0028	10:31:35	No
Mean:	0.2392	0.2392	0.0024				
SD :	0.00603	0.00603	0.0001				
%RSD:	2.5	2.5	2.5212				

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Element: Hg Seq. No.: 52 AS Loc.: 23 Date: 02/06/2002
Sample ID: 526769

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0337	0.0337	0.0003	0.0032	0.0007	10:32:53	No
2	0.0339	0.0339	0.0003	0.0031	0.0007	10:33:23	No
Mean:	0.0338	0.0338	0.0003				
SD :	0.00018	0.00018	0.0000				

%RSD:	0.5	0.5	0.5235

Element: Hg Seq. No.: 53 AS Loc.: 24 Date: 02/06/2002
Sample ID: 526771

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0247	0.0247	0.0003	0.0025	0.0006	10:34:42	No
2	0.0240	0.0240	0.0002	0.0026	0.0006	10:35:12	No
Mean:	0.0243	0.0243	0.0002				
SD :	0.00050	0.00050	0.0000				
%RSD:	2.0	2.0	2.0407				

Element: Hg Seq. No.: 54 AS Loc.: 25 Date: 02/06/2002
Sample ID: PBS-M2480131C

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0035	-0.0035	0.0000	0.0014	0.0003	10:36:30	No
2	-0.0047	-0.0047	0.0000	0.0014	0.0003	10:36:59	No
Mean:	-0.0041	-0.0041	0.0000				
SD :	0.00086	0.00086	0.0000				
%RSD:	20.8	20.8	20.7851				

Element: Hg Seq. No.: 55 AS Loc.: 26 Date: 02/06/2002
Sample ID: LCSS-M2480131C

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	9.018	9.018	0.0918	0.4337	0.0922	10:38:18	No
2	9.052	9.052	0.0921	0.4345	0.0925	10:38:47	No
Mean:	9.035	9.035	0.0920				
SD :	0.02346	0.02346	0.0002				
%RSD:	0.3	0.3	0.2597				

Element: Hg Seq. No.: 56 AS Loc.: 27 Date: 02/06/2002
Sample ID: 526773

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.1019	0.1019	0.0010	0.0063	0.0014	10:40:12	No
2	0.1075	0.1075	0.0011	0.0069	0.0014	10:40:41	No
Mean:	0.1047	0.1047	0.0011				
SD :	0.00397	0.00397	0.0000				
%RSD:	3.8	3.8	3.7896				

Element: Hg Seq. No.: 57 AS Loc.: 28 Date: 02/06/2002
Sample ID: 526774

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0296	0.0296	0.0003	0.0030	0.0006	10:42:02	No
2	0.0281	0.0281	0.0003	0.0027	0.0006	10:42:31	No
Mean:	0.0288	0.0288	0.0003				
SD :	0.00102	0.00102	0.0000				
%RSD:	3.5	3.5	3.5195				

Element: Hg Seq. No.: 58 AS Loc.: 7 Date: 02/06/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.097	3.097	0.0315	0.1496	0.0319	10:43:52	No
2	3.157	3.157	0.0321	0.1508	0.0325	10:44:22	No
Mean:	3.127	3.127	0.0318				
SD :	0.04254	0.04254	0.0004				
%RSD:	1.4	1.4	1.3602				

QC value within specified limits.

Element: Hg Seq. No.: 59 AS Loc.: 1 Date: 02/06/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0032	-0.0032	0.0000	0.0010	0.0003	10:45:41	No
2	0.0009	0.0009	0.0000	0.0015	0.0004	10:46:11	No
Mean:	-0.0012	-0.0012	0.0000				
SD :	0.00285	0.00285	0.0000				
%RSD:	247.3	247.3	247.2864				

QC value within specified limits.

Element: Hg Seq. No.: 60 AS Loc.: 29 Date: 02/06/2002
Sample ID: 526775

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0367	0.0367	0.0004	0.0034	0.0007	10:47:30	No
2	0.0339	0.0339	0.0003	0.0031	0.0007	10:47:59	No
Mean:	0.0353	0.0353	0.0004				
SD :	0.00199	0.00199	0.0000				
%RSD:	5.7	5.7	5.6515				

Element: Hg Seq. No.: 61 AS Loc.: 30 Date: 02/06/2002
Sample ID: 526776

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.1559	0.1559	0.0016	0.0094	0.0019	10:49:21	No
2	0.1564	0.1564	0.0016	0.0092	0.0019	10:49:50	No
Mean:	0.1562	0.1562	0.0016				
SD :	0.00036	0.00036	0.0000				
%RSD:	0.2	0.2	0.2284				

Element: Hg Seq. No.: 62 AS Loc.: 31 Date: 02/06/2002
Sample ID: 526777

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0403	0.0403	0.0004	0.0036	0.0008	10:51:12	No
2	0.0383	0.0383	0.0004	0.0033	0.0007	10:51:41	No
Mean:	0.0393	0.0393	0.0004				
SD :	0.00146	0.00146	0.0000				
%RSD:	3.7	3.7	3.7238				

Element: Hg Seq. No.: 63 AS Loc.: 32 Date: 02/06/2002
Sample ID: 526778

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	0.0651	0.0651	0.0007	0.0045	0.0010	10:53:00	No
2	0.0669	0.0669	0.0007	0.0045	0.0010	10:53:29	No
Mean:	0.0660	0.0660	0.0007				
SD :	0.00125	0.00125	0.0000				
%RSD:	1.9	1.9	1.8926				

Element: Hg Seq. No.: 64 AS Loc.: 33 Date: 02/06/2002
Sample ID: 526779

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0474	0.0474	0.0005	0.0037	0.0008	10:54:44	No
2	0.0468	0.0468	0.0005	0.0037	0.0008	10:55:13	No
Mean:	0.0471	0.0471	0.0005				
SD :	0.00038	0.00038	0.0000				
%RSD:	0.8	0.8	0.7977				

Element: Hg Seq. No.: 65 AS Loc.: 34 Date: 02/06/2002
Sample ID: 526780

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.072	1.072	0.0109	0.0524	0.0113	10:56:28	No
2	1.053	1.053	0.0107	0.0507	0.0111	10:56:57	No
Mean:	1.062	1.062	0.0108				
SD :	0.01401	0.01401	0.0001				
%RSD:	1.3	1.3	1.3186				

Element: Hg Seq. No.: 66 AS Loc.: 35 Date: 02/06/2002
Sample ID: 526781

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.4665	0.4665	0.0047	0.0240	0.0051	10:58:13	No
2	0.4632	0.4632	0.0047	0.0235	0.0051	10:58:42	No
Mean:	0.4648	0.4648	0.0047				
SD :	0.00234	0.00234	0.0000				
%RSD:	0.5	0.5	0.5039				

Element: Hg Seq. No.: 67 AS Loc.: 36 Date: 02/06/2002
Sample ID: 526782

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0465	0.0465	0.0005	0.0040	0.0008	10:59:59	No
2	0.0462	0.0462	0.0005	0.0038	0.0008	11:00:28	No
Mean:	0.0464	0.0464	0.0005				
SD :	0.00023	0.00023	0.0000				
%RSD:	0.5	0.5	0.5020				

Element: Hg Seq. No.: 68 AS Loc.: 37 Date: 02/06/2002
Sample ID: 526783

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0971	0.0971	0.0010	0.0063	0.0013	11:01:44	No
2	0.0949	0.0949	0.0010	0.0062	0.0013	11:02:15	No
Mean:	0.0960	0.0960	0.0010				
SD :	0.00156	0.00156	0.0000				
%RSD:	1.6	1.6	1.6299				

Element: Hg Seq. No.: 69 AS Loc.: 38 Date: 02/06/2002
Sample ID: 526784

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.1780	0.1780	0.0018	0.0094	0.0022	11:03:32	No
2	0.1855	0.1855	0.0019	0.0106	0.0022	11:04:03	No
Mean:	0.1817	0.1817	0.0019				
SD :	0.00532	0.00532	0.0001				
%RSD:	2.9	2.9	2.9271				

Element: Hg Seq. No.: 70 AS Loc.: 7 Date: 02/06/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.154	3.154	0.0321	0.1524	0.0325	11:05:23	No
2	3.169	3.169	0.0323	0.1519	0.0326	11:05:52	No
Mean:	3.162	3.162	0.0322				
SD :	0.01098	0.01098	0.0001				
%RSD:	0.3	0.3	0.3473				

QC value within specified limits.

Element: Hg Seq. No.: 71 AS Loc.: 1 Date: 02/06/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0006	-0.0006	0.0000	0.0015	0.0003	11:07:10	No
2	-0.0028	-0.0028	0.0000	0.0014	0.0003	11:07:40	No
Mean:	-0.0017	-0.0017	0.0000				
SD :	0.00155	0.00155	0.0000				
%RSD:	91.3	91.3	91.3206				

QC value within specified limits.

Element: Hg Seq. No.: 72 AS Loc.: 39 Date: 02/06/2002
Sample ID: 526785

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0591	0.0591	0.0006	0.0044	0.0009	11:08:57	No
2	0.0591	0.0591	0.0006	0.0042	0.0009	11:09:27	No
Mean:	0.0591	0.0591	0.0006				
SD :	0.00006	0.00006	0.0000				
%RSD:	0.1	0.1	0.1094				

Element: Hg Seq. No.: 73 AS Loc.: 40 Date: 02/06/2002
Sample ID: 526786

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0310	0.0310	0.0003	0.0029	0.0007	11:10:45	No
2	0.0326	0.0326	0.0003	0.0032	0.0007	11:11:14	No
Mean:	0.0318	0.0318	0.0003				
SD :	0.00113	0.00113	0.0000				
%RSD:	3.5	3.5	3.5474				

Element: Hg Seq. No.: 74 AS Loc.: 41 Date: 02/06/2002
Sample ID: 526787

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	µg/L	µg/L	Signal	Area	Height		Stored
1	0.0269	0.0269	0.0003	0.0028	0.0006	11:12:33	No
2	0.0247	0.0247	0.0003	0.0028	0.0006	11:13:02	No
Mean:	0.0258	0.0258	0.0003				
SD :	0.00157	0.00157	0.0000				
%RSD:	6.1	6.1	6.0752				

Element: Hg Seq. No.: 75 AS Loc.: 42 Date: 02/06/2002
Sample ID: 526788

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0237	0.0237	0.0002	0.0027	0.0006	11:14:21	No
2	0.0258	0.0258	0.0003	0.0031	0.0006	11:14:50	No
Mean:	0.0247	0.0247	0.0003				
SD :	0.00145	0.00145	0.0000				
%RSD:	5.9	5.9	5.8533				

Element: Hg Seq. No.: 76 AS Loc.: 43 Date: 02/06/2002
Sample ID: 526788D

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0270	0.0270	0.0003	0.0030	0.0006	11:16:10	No
2	0.0259	0.0259	0.0003	0.0027	0.0006	11:16:40	No
Mean:	0.0264	0.0264	0.0003				
SD :	0.00077	0.00077	0.0000				
%RSD:	2.9	2.9	2.9130				

Element: Hg Seq. No.: 77 AS Loc.: 44 Date: 02/06/2002
Sample ID: 526788S

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.003	1.003	0.0102	0.0497	0.0106	11:18:00	No
2	1.032	1.032	0.0105	0.0505	0.0108	11:18:30	No
Mean:	1.017	1.017	0.0104				
SD :	0.02025	0.02025	0.0002				
%RSD:	2.0	2.0	1.9908				

Element: Hg Seq. No.: 78 AS Loc.: 45 Date: 02/06/2002
Sample ID: 526789

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0551	0.0551	0.0006	0.0043	0.0009	11:19:50	No
2	0.0548	0.0548	0.0006	0.0041	0.0009	11:20:20	No
Mean:	0.0549	0.0549	0.0006				
SD :	0.00019	0.00019	0.0000				
%RSD:	0.3	0.3	0.3379				

Element: Hg Seq. No.: 79 AS Loc.: 46 Date: 02/06/2002
Sample ID: 526790

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0426	0.0426	0.0004	0.0036	0.0008	11:21:41	No
2	0.0412	0.0412	0.0004	0.0035	0.0008	11:22:10	No
Mean:	0.0419	0.0419	0.0004				
SD :	0.00100	0.00100	0.0000				

%RSD: 2.4 2.4 2.3924

Element: Hg Seq. No.: 80 AS Loc.: 47 Date: 02/06/2002
Sample ID: 526791

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0415	0.0415	0.0004	0.0035	0.0008	11:23:32	No
2	0.0421	0.0421	0.0004	0.0035	0.0008	11:24:01	No
Mean:	0.0418	0.0418	0.0004				
SD :	0.00042	0.00042	0.0000				
%RSD:	1.0	1.0	0.9983				

Element: Hg Seq. No.: 81 AS Loc.: 48 Date: 02/06/2002
Sample ID: 526792

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0418	0.0418	0.0004	0.0036	0.0008	11:25:20	No
2	0.0447	0.0447	0.0005	0.0038	0.0008	11:25:49	No
Mean:	0.0433	0.0433	0.0004				
SD :	0.00211	0.00211	0.0000				
%RSD:	4.9	4.9	4.8726				

Element: Hg Seq. No.: 82 AS Loc.: 7 Date: 02/06/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.138	3.138	0.0319	0.1536	0.0323	11:27:07	No
2	3.166	3.166	0.0322	0.1552	0.0326	11:27:36	No
Mean:	3.152	3.152	0.0321				
SD :	0.01970	0.01970	0.0002				
%RSD:	0.6	0.6	0.6250				

QC value within specified limits.

Element: Hg Seq. No.: 83 AS Loc.: 1 Date: 02/06/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.0015	-0.0015	0.0000	0.0016	0.0003	11:28:55	No
2	-0.0006	-0.0006	0.0000	0.0016	0.0003	11:29:25	No
Mean:	-0.0010	-0.0010	0.0000				
SD :	0.00059	0.00059	0.0000				
%RSD:	56.6	56.6	56.5509				

QC value within specified limits.

CAS-Rochester ICP Soil Digest Log

Analyst: JM Date: 2/8/02 Spike Witness: DCB Approval: CK

Method: (SW846 3050) // CLP Digest: Initial Digestion // (Redigestion) of M2530074

Report: Routine // ASP // (Pkg.5) (6010B/846) // 200.7/136 // ASP/CLP

	Client/ Order #	Initial wgt(g)	Final vol(ml)	Initial Color/Clarity	Final Color/Clarity	Metals	Spike vol(ml)
1	PBS-TCLP	1.00	100	colorless/clear	colorless/clear	Ag As Ba Cd Cr	
2	LCS-TCLP	1.03		brown/fine	yellow/clear	Pb Se Mn Zn	
3	R10437 526404	1.05		black/NON-AQUEOUS			
4	404 D	1.05					
5	404 S	1.04					0.05ml TCLP-Ba 1.0ml TCLP-1
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							

2/8/02

Spiking Standards Lot # or Prep Date:

Spike A,B — Spike #4 — Se — Sn — Ba M1780026T TCLP M1780026L

Reagent Lot #:

LCSS M1780032M HNO3 M1780031I HCL M1780031J H2O2 M1780020R

Comments/Problems: M2530076

Hot Plate

Columbia Analytical Services

al For: Hg | EPA Method: 7470 (7471) / 245.1 / 245.5 | Analyst: DCB

th Temp: In 95 / Out 95 | Report: Routine / ASP (Pkg.5) | Date Prepped: 2/5/02

ne In: 1410 | File Name: Feb-06 | Date Analyzed: 2/6/02

ne Out: 1440

	Client / Submission #	Sample Number	Initial Wgt/Volume (g/ml)	Final Volume (ml)		Client / Submission #	Sample Number	Initial Wgt/Volume (g/ml)	Final Volume (ml)
		PBT A	0.60	100	31	R-10459	526785	0.61	100
		LCST A	0.60		32		786	0.63	
	R-10427	524404	0.64		33		787	0.61	
		404Dup	0.64		34		788	0.65	
5		404SPK	0.62		35		788Dup	0.64	
6		PBS B	0.60		36		788SPK	0.65	
7		LCSS B	0.62		37		789	0.60	
8	R-10459	526757	0.62		38		790	0.61	
9		757Dup	0.60		39		791	0.60	
10		757SPK	0.62		40		792	0.60	
11		760	0.61		41				
12		763	0.68		42				
13		765	0.67		43				
14		767	0.74		44				
15		769	0.63		45		2/6/02		
1		771	0.62		46		DCB		
17		PBS C	0.60		47				
18		LCSS C	0.62		48				
19		526773	0.60		49				
20		774	0.65				ICB	100ml DI Water	100
21		775	0.62				Std 0	100ml DI Water	100
22		776	0.62				Std 0.2*	0.20ml of 0.1ppm	100
23		777	0.64				Std 0.5*	0.50ml of 0.1ppm	100
24		778	0.63				Std 1.0*	1.00ml of 0.1ppm	100
25		779	0.61				Std 2.0*	2.00ml of 0.1ppm	100
26		780	0.63				Std 5.0*	5.00ml of 0.1ppm	100
27		781	0.61				Std 10.0*	10.0ml of 0.1ppm	100
28		782	0.61				ICV/CCV**	3.00ml of 0.1ppm	100
29		783	0.60				LCSW/MS**	1.00ml of 0.1ppm	100
30		784	0.61				CRDL*	0.20ml of 0.1ppm	100

Lot # of Reagents Used:

HNO3: M1780031I | H2SO4: — | HCL: M1780031J | K2S2O8: — | KMnO4: M1780030P

SnCl2: M1780031Q | NaCl: M1780030R | NH2OH-HCL: M1780030E | LCSS CAS Lot#: M1780029W

LCSS ERA Lot#: 246

*Source Standard: (Vendor/Lot #) M1780030N | **ICV Standard: (Vendor/Lot #) M2780026F

*(10ppm stock Lot#: M2650177A) | **(10ppm stock Lot#: M2650217A)

(0.1ppm working std Lot#: M2650177C) | **(0.1ppm working std Lot#: M2650217C)

Comments/Problems:

Batch Name: M2480131A | M2480131B | M2480131C

597131

MAN 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
Std 1	CA	M1780031W	5000	2.00	100	100	2%HNO3	SD 2/11/02	* A	M1780031	M1780031J	M18
	MG		5000			100	5%HCl	SD 2/11/02	B	'	'	'
	K		5000			100	*6%HNO3	SD 2/12/02	C	'	'	M18
	NA		5000			100	15%HCl	SD 2/13/02	D	'	'	M18
Std 2	AG	M1780031M	100	1.00		1.00			E			
	CR		100			1.00			F			
	MN		150			1.50			G			
	NI		400			4.00			H			
	ZN		200			2.00			I			
l 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			
al Std 4	AS	M1780032J	100	4.00		4.00			Q			
	CD		50			2.00			R			
	PB		50			2.00			S			
	SE		50			2.00			T			
	TL		100			4.00			U			
Single	SB	M1780032P	1000	1.00		10.0			V			
lements									W			
		SD 2/11/02							X			
									Y			
									Z			

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:EMAN 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
al Std 1	CA	M1780031F	5000	2.00	200	50.0	2%HNO3	SD 2/11/02	A	M1780031I	M1780031J	M18
	MG		5000			50.0	5%HCl	1	B	1	1	1
	K		5000			50.0	1% HNO3	SD 2/12/02	C	1	1	M18
	NA		5000			50.0	15% HCl	SD 2/13/02	D	1	1	M18
Cal Std 2	AG	M1780029Y	100	1.00		0.500			E			
	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			P			
Cal Std 4	AS	M1780031C	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	M1780030H	1000	1.00		5.00			V			
									W			
		SD 2/11/02							X			
									Y			
									Z			

599

LEEMAN CRI STANL...D

ent	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
DL D	M178002 60	Multi	0.500	500	Multi	5% HCL 2%HNO3	SD 6/05/01	A	M178002 5I	M178002 6 H	12/25/02	M11 M10
G		20			0.0200		SD 8/6/01	B	M178002 7M	M178002 6 H	2/6/02	M10 M11
S		20			0.0200		SD 9/10/01	C	M178002 8N	M178002 8 K	3/10/02	M10/M
E		10			0.0100		SD 10/25/01	D	M178002 8N	M178002 9 V	4/25/02	M10/M
D		10			0.0100		SD 12/18/01	E	M178003 0K	M178003 1J	6/18/02	M10/M
R		20			0.0200			F				
O		100			0.100			G				
U		50			0.0500			H				
N		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	M178002 4C	1000	0.050		0.106			S				

ICSA

ment	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
A Sol'n	M178D321	Multi	100	1000	Multi	5% HCL	SD 1/11/02	A	M178009E	M178003IJ	7/11/02	–
AL		5000			500	2%HNO3	SD 1/28/02	B	M178003I1		7/28/02	–
CA		5000			500		SD 2/10/02	C			8/10/02	–
FE		2000			200			D				
MG		5000			500			E				

ICSAB

. A Sol'n	M178D31E	Multi	100	1000	Multi		SD 12/26/01	AA	M178009E	M178031J	6/26/02	AH
AL		5000			500		SD 1/11/02	BB			7/11/02	–
CA		5000			500		SD 1/28/02	CC	M178003I1		7/28/02	–
FE		2000			200			DD				
MG		5000			500			EE				
t. B Sol'n	M178D28J	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				

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	M17100030N	1000	1.00	100	10.0	0.5% HNO3	DCB 2/4/02	A	2/10/02	M17800315	MY

(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	DCB 2/4/02	B	M17800315 2/4/02	MY
							DCB 2/5/02	C	2/4/02 DCB M17800315	MY
								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	DCB 2/4/02	I	M17800315	—
0.500			0.500		0.500		DCB 2/5/02	J	M17800315	—
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		

602

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	DCB 2/4/02	A	2/10/02	M1780031I	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	DCB 2/4/02	B	M1780031I	M4
							DCB 2/5/02	C	M1780031I	M4
								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	DCB 2/4/02	I	M1780031I	—
LCSW / MS			1.00		1.00		DCB 2/5/02	J	M1780031I	—
								K		
								L		
								M		
								N		
								O		

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WET CHEM DATA

COLUMBIA ANALYTICAL SERVICES

Reported: 02/27/02

Tetra Tech EM Inc.
Project Reference: AGROMAC-LOCKWOOD OU#2 G9011.E.01.0008.10
Client Sample ID : BAC-1

Date Sampled : 01/15/02 15:05 Order #: 526394 Sample Matrix: SOIL/SEDIMENT
Date Received: 01/24/02 Submission #: R2210427

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.0	1.0	76.0	%	01/28/02	11:45	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 02/27/02

Tetra Tech EM Inc.
Project Reference: AGROMAC-LOCKWOOD OU#2 G9011.E.01.0008.10
Client Sample ID : HWSC-WW

Date Sampled : 01/20/02 15:00 Order #: 526399 Sample Matrix: WATER
Date Received: 01/24/02 Submission #: R2210427

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PH	9040/9	1.00	7.48		01/25/02	15:15	NA

COLUMBIA ANALYTICAL SERVICES

Reported: 02/27/02

Tetra Tech EM Inc.
Project Reference: AGROMAC-LOCKWOOD OU#2 G9011.E.01.0008.10
Client Sample ID : HWSC-WW-FD

Date Sampled : 01/20/02 15:00 Order #: 526400 Sample Matrix: WATER
Date Received: 01/24/02 Submission #: R2210427

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PH	9040/9	1.00	7.54		01/25/02	15:15	NA

COLUMBIA ANALYTICAL SERVICES

Reported: 02/27/02

Tetra Tech EM Inc.
Project Reference: AGROMAC-LOCKWOOD OU#2 G9011.E.01.0008.10
Client Sample ID : SMWB-SLU

Date Sampled : 01/19/02 15:45 Order #: 526404 Sample Matrix: NON-AQUEOUS
Date Received: 01/24/02 Submission #: R2210427

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PH	9040/9		9.26		01/25/02		NA

COLUMBIA ANALYTICAL SERVICES

Reported: 02/27/02

Tetra Tech EM Inc.
Project Reference: AGROMAC-LOCKWOOD OU#2 G9011.E.01.0008.10
Client Sample ID : HWSC-SLU

Date Sampled : 01/20/02 16:00 Order #: 526405 Sample Matrix: SOIL/SEDIMENT
Date Received: 01/24/02 Submission #: R2210427

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PH	9040/9	1.00	7.40		01/25/02	15:15	NA

COLUMBIA ANALYTICAL SERVICES

Reported: 02/27/02

Tetra Tech EM Inc.
Project Reference: AGROMAC-LOCKWOOD OU#2 G9011.E.01.0008.10
Client Sample ID : MTS-GB-SLU-1

Date Sampled : 01/21/02 10:30 Order #: 526406 Sample Matrix: SOIL/SEDIMENT
Date Received: 01/24/02 Submission #: R2210427

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PH	9040/9	1.00	6.24		01/25/02	15:15	NA

COLUMBIA ANALYTICAL SERVICES

Reported: 02/27/02

Tetra Tech EM Inc.
Project Reference: AGROMAC-LOCKWOOD OU#2 G9011.E.01.0008.10
Client Sample ID : MTS-GB-SLU-2-FD

Date Sampled : 01/21/02 08:00 Order #: 526407 Sample Matrix: SOIL/SEDIMENT
Date Received: 01/24/02 Submission #: R2210427

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PH	9040/9	1.00	9.32		01/25/02	15:15	NA

COLUMBIA ANALYTICAL SERVICES

Reported: 02/27/02

Tetra Tech EM Inc.
Project Reference: AGROMAC-LOCKWOOD OU#2 G9011.E.01.0008.10
Client Sample ID : MTS-GB-SLU-2

Date Sampled : 01/21/02 08:00 Order #: 526408 Sample Matrix: SOIL/SEDIMENT
Date Received: 01/24/02 Submission #: R2210427

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PH	9040/9	1.00	9.60		01/25/02	15:15	NA

COLUMBIA ANALYTICAL SERVICES

Reported: 02/27/02

Tetra Tech EM Inc.
Project Reference: AGROMAC-LOCKWOOD OU#2 G9011.E.01.0008.10
Client Sample ID : MTS-GB-SLU-4

Date Sampled : 01/21/02 13:30 Order #: 526409 Sample Matrix: SOIL/SEDIMENT
Date Received: 01/24/02 Submission #: R2210427

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PH	9040/9	1.00	11.6		01/25/02	16:30	NA

COLUMBIA ANALYTICAL SERVICES

Reported: 02/27/02

Tetra Tech EM Inc.
Project Reference: AGROMAC-LOCKWOOD OU#2 G9011.E.01.0008.10
Client Sample ID : ST-SLU

Date Sampled : 01/20/02 14:30 Order #: 526410 Sample Matrix: SOIL/SEDIMENT
Date Received: 01/24/02 Submission #: R2210427

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PH	9040/9	1.00	7.00		01/25/02	15:15	NA

COLUMBIA ANALYTICAL SERVICES

Reported: 02/27/02

Tetra Tech EM Inc.
Project Reference: AGROMAC-LOCKWOOD OU#2 G9011.E.01.0008.10
Client Sample ID : BAC-SLU

Date Sampled : 01/20/02 17:00 Order #: 526411 Sample Matrix: SOIL/SEDIMENT
Date Received: 01/24/02 Submission #: R2210427

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PH	9040/9	1.00	1.00 U		01/25/02	16:30	NA

COLUMBIA ANALYTICAL SERVICES

Reported: 02/27/02

Tetra Tech EM Inc.
Project Reference: AGROMAC-LOCKWOOD OU#2 G9011.E.01.0008.10
Client Sample ID : MTS-GB-SLU-3

Date Sampled : 01/21/02 09:00 Order #: 526412 Sample Matrix: SOIL/SEDIMENT
Date Received: 01/24/02 Submission #: R2210427

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.0	1.0	59.8	%	01/28/02	11:45	1.0
PH	9040/9	1.00	5.09		01/25/02	15:15	NA
TOTAL PETROLEUM HYDROCARBONS	418.1	33.0	1610	MG/KG	02/06/02	09:30	1.0

OLUMBIA ANALYTICAL SERVICES

INORGANIC QUALITY CONTROL SUMMARY

Report Date : 02/27/02
CAS Order # : 526399 - HWSC-WW
Client : Tetra Tech EM Inc.
AGROMAC-LOCKWOOD OU#2 G9011.E.01.0008.10
Reported Units:
Run # : 73872

PRECISION

	ORIGINAL	DUPLICATE	RPD
PH	7.48	7.15	5

617

OLUMBIA ANALYTICAL SERVICES

INORGANIC BLANK SPIKE SUMMARY

:AS Submission #: R2210427
Client: Tetra Tech EM Inc.
AGROMAC-LOCKWOOD OU#2 G9011.E.01.0008.10

BLANK SPIKES

	BLANK	FOUND	ADDED	% REC	LIMITS	RUN	UNITS
)TAL PETROLEUM HYDROCARBONS	33.0 U	312	295	106	79 - 130	74161	MG/KG

2 copies: 10427
10436

A

: 73861
te: PERCENT SOL. 160.0 PERCENT SOLIDS
1/28/02 15:53

SUBMISSION	ORDER #	MATRIX	REPORTED RESULT	DILUTION	PQL	% RECOVERY	% RSD	DATE ANALYZED	QC	PKG #
	527278	SOIL/SEDIM	1.00	1.0	1.0			01/28/2002		
	526394	SOIL/SEDIM	76.0	1.0	1.0			01/28/2002		
9912010427	526412	SOIL/SEDIM	59.8	1.0	1.0			01/28/2002		5
9912010434	526528	SOIL/SEDIM	67.3	1.0	1.0			01/28/2002	RUN	2
9912010434	526529	SOIL/SEDIM	67.1	1.0	1.0			01/28/2002	RUN	2
	527279	SOIL/SEDIM	66.2	1.0	1.0		1.27	01/28/2002		
9912010435	526530	SOIL/SEDIM	88.4	1.0	1.0			01/28/2002	RUN	2
9912010435	526531	SOIL/SEDIM	76.1	1.0	1.0			01/28/2002	RUN	2
9912010435	526532	SOIL/SEDIM	87.2	1.0	1.0			01/28/2002	RUN	2
9912010435	526533	SOIL/SEDIM	69.8	1.0	1.0			01/28/2002	RUN	2
	527280	SOIL/SEDIM	69.3	1.0	1.0		0.67	01/28/2002		
9912010435	526534	SOIL/SEDIM	82.2	1.0	1.0			01/28/2002	RUN	2
9912010435	526535	SOIL/SEDIM	77.9	1.0	1.0			01/28/2002	RUN	2
9912010435	526536	SOIL/SEDIM	83.5	1.0	1.0			01/28/2002	RUN	2
9912010435	526537	SOIL/SEDIM	82.7	1.0	1.0			01/28/2002	RUN	2
9912010435	526538	SOIL/SEDIM	87.7	1.0	1.0			01/28/2002	RUN	2
9912010435	526539	SOIL/SEDIM	86.9	1.0	1.0			01/28/2002	RUN	2
9912010435	526540	SOIL/SEDIM	81.6	1.0	1.0			01/28/2002	RUN	2
9912010435	526541	SOIL/SEDIM	73.6	1.0	1.0			01/28/2002	RUN	2
	527281	SOIL/SEDIM	74.2	1.0	1.0		0.84	01/28/2002		
9912010436	526552	SOIL/SEDIM	84.1	1.0	1.0			01/28/2002		4+
9912010436	526553	SOIL/SEDIM	89.1	1.0	1.0			01/28/2002		4+
9912010436	526554	SOIL/SEDIM	80.2	1.0	1.0			01/28/2002		4+
9912010436	526555	SOIL/SEDIM	85.8	1.0	1.0			01/28/2002		4+
9912010436	526557	SOIL/SEDIM	80.3	1.0	1.0			01/28/2002		4+

ecords printed: 25

Review Date 1/29/02 Name B Bowe
Data Entry Date _____ Name _____
Final Review Date _____ Name _____
QC Date _____ Name _____
Comments:

ANALYTE:G:\STARLIMS\ASBAR.RP1
Page 1

DATE PRINTED: 01/28/02

SOLIDS REPORT

RUN #: 73861 ANALYSIS DATE: 01/28/2002 ASSIGNED TO :
TEMPLATE: DWPS
TEST :

CUP#	ORDER #	SUBMISSION	CONTROL TYPE	GROSS(g) TARE(g) DIFF(g)		% SOLID	DISH ID	LS JOB#	LS LOC#
1	527278	R22 0	MBLK	(1.2200-1.2200)=0.0000	DRY*100 =	1.00	1		
				(1.2200-1.2200)=0.0000	WET				
2	526394	R2210427	ESMP	(9.2200-1.2200)=8.0000	DRY*100 =	76.00	2		
				(11.7400-1.2200)=10.5200	WET				
3	526412	R2210427	ESMP	(7.5500-1.2300)=6.3200	DRY*100 =	59.80	3		
				(11.7900-1.2300)=10.5600	WET				
4	526528	R2210434	ESMP	(8.1800-1.2300)=6.9500	DRY*100 =	67.30	4		
				(11.5500-1.2300)=10.3200	WET				
5	526529	R2210434	ESMP	(8.3000-1.2300)=7.0700	DRY*100 =	67.10	5		
				(11.7600-1.2300)=10.5300	WET				
6	527279	R22 0	DUPE	(8.1800-1.2300)=6.9500	DRY*100 =	66.20	6		
				(11.7200-1.2300)=10.4900	WET				
7	526530	R2210435	ESMP	(10.4000-1.2300)=9.1700	DRY*100 =	88.40	7		
				(11.6000-1.2300)=10.3700	WET				
8	526531	R2210435	ESMP	(9.2900-1.2200)=8.0700	DRY*100 =	76.10	8		
				(11.8300-1.2200)=10.6100	WET				
9	526532	R2210435	ESMP	(9.9200-1.2200)=8.7000	DRY*100 =	87.20	9		
				(11.2000-1.2200)=9.9800	WET				
	526533	R2210435	ESMP	(8.2400-1.2400)=7.0000	DRY*100 =	69.80	10		
				(11.2700-1.2400)=10.0300	WET				
11	527280	R22 0	DUPE	(8.1700-1.2300)=6.9400	DRY*100 =	69.30	11		
				(11.2400-1.2300)=10.0100	WET				
12	526534	R2210435	ESMP	(10.0800-1.2300)=8.8500	DRY*100 =	82.20	13		
				(12.0000-1.2300)=10.7700	WET				
13	526535	R2210435	ESMP	(9.4300-1.2300)=8.2000	DRY*100 =	77.90	14		
				(11.7500-1.2300)=10.5200	WET				
14	526536	R2210435	ESMP	(9.6600-1.2200)=8.4400	DRY*100 =	83.50	15		
				(11.3300-1.2200)=10.1100	WET				
15	526537	R2210435	ESMP	(10.1000-1.2400)=8.8600	DRY*100 =	82.70	16		
				(11.9500-1.2400)=10.7100	WET				
16	526538	R2210435	ESMP	(10.1900-1.2200)=8.9700	DRY*100 =	87.70	17		
				(11.4500-1.2200)=10.2300	WET				
17	526539	R2210435	ESMP	(10.0400-1.2300)=8.8100	DRY*100 =	86.90	18		
				(11.3700-1.2300)=10.1400	WET				
18	526540	R2210435	ESMP	(9.8500-1.2300)=8.6200	DRY*100 =	81.60	19		
				(11.7900-1.2300)=10.5600	WET				
19	526541	R2210435	ESMP	(9.0600-1.2300)=7.8300	DRY*100 =	73.60	20		
				(11.8700-1.2300)=10.6400	WET				
20	527281	R22 0	DUPE	(9.0900-1.2300)=7.8600	DRY*100 =	74.20	21		
				(11.8200-1.2300)=10.5900	WET				
21	526552	R2210436	ESMP	(9.5700-1.2300)=8.3400	DRY*100 =	84.10	22		
				(11.1500-1.2300)=9.9200	WET				
22	526553	R2210436	ESMP	(11.7800-1.2300)=10.5500	DRY*100 =	89.10	24		
				(13.0700-1.2300)=11.8400	WET				
	526554	R2210436	ESMP	(9.3000-1.2200)=8.0800	DRY*100 =	80.20	25		
				(11.2900-1.2200)=10.0700	WET				
24	526555	R2210436	ESMP	(9.9700-1.2300)=8.7400	DRY*100 =	85.80	26		
				(11.4100-1.2300)=10.1800	WET				
25	526557	R2210436	ESMP	(9.3100-1.2200)=8.0900	DRY*100 =	80.30	27		
				(11.2900-1.2200)=10.0700	WET				

ry Weight Percent Solids

Analyst: T. Drobek

Columbia Analytical Services
1 Mustard Street
Rochester, NY 14609

Date: 1/28/02 Time: 11:45 "S" weight initial: 10.00 final: 10.00

Order Number	Submission Client	Dish I.D.	Wet Weight (g)		Dry Weight (g)	Percent Solid
ICB		1		Gross	1.22	
			1.22	Tare		
				Diff.		
526394	R2-10427	2	11.74	Gross	9.22	
			1.22	Tare		
				Diff.		
526412		3	11.79	Gross	7.55	
			1.23 TD 1/28	Tare		
				Diff.		
526528	R2-10434	4	11.55	Gross	8.18	
			1.23	Tare		
				Diff.		
526529		5	11.76	Gross	8.30	
			1.23 TD 1/28	Tare		
				Diff.		
-Dup		6	11.72	Gross	8.18	
			1.23	Tare		
				Diff.		
526530	R2-10435	7	11.60	Gross	10.40	
			1.23	Tare		
				Diff.		
526531		8	11.83	Gross	9.29	
			1.22	Tare		
				Diff.		

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-y Weight Percent Solids

Analyst: T. Drobek

Date: 1/28/02 Time: _____ "S" weight initial: _____ final: _____

Columbia Analytical Services
1 Mustard Street
Rochester, NY 14609

Order Number	Submission Client	Dish I.D.	Wet Weight (g)		Dry Weight (g)	Percent Solid
526532	R2-10435	9	11.20	Gross	9.92	
			1.22	Tare		
				Diff.		
526533		10	11.27	Gross	8.24	
			1.24	Tare		
				Diff.		
-Dup		11	11.24	Gross	8.17	
			1.23	Tare		
				Diff.		
CCB		12		Gross	1.23	
			1.23	Tare		
				Diff.		
526534		13	12.00	Gross	10.08	
			1.23	Tare		
				Diff.		
526535		14	11.75	Gross	9.43	
			1.23	Tare		
				Diff.		
526536		15	11.33	Gross	9.66	
			1.22	Tare		
				Diff.		
526537		16	11.95	Gross	10.10	
			1.24	Tare		
				Diff.		

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Dry Weight Percent Solids

Analyst: T. Drobek

Date: 1/28/02 Time: _____ "S" weight initial: _____ final: _____

Columbia Analytical Services
1 Mustard Street
Rochester, NY 14609

Order Number	Submission Client	Dish I.D.	Wet Weight (g)		Dry Weight (g)	Percent Solid
526538	R2-10435	17	11.45	Gross	10.19	
			1.22	Tare		
				Diff.		
526539		18	11.37	Gross	10.04	
			1.23	Tare		
				Diff.		
526540		19	11.79	Gross	9.85	
			1.23	Tare		
				Diff.		
526541		20	11.87	Gross	9.06	
			1.23	Tare		
				Diff.		
Dup		21	11.832	Gross	9.09	
			1.23	Tare		
				Diff.		
526552	R2-10436	22	11.15	Gross	9.57	
			1.23	Tare		
				Diff.		
CCB		23		Gross	1.22	
			1.23	Tare		
				Diff.		
526553		24	13.07	Gross	11.78	mainly rock
			1.23	Tare		
				Diff.		

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v Weight Percent Solids

Columbia Analytical Services
1 Mustard Street
Rochester, NY 14609

Analyst: T. Drobek

Date: 1/28/02 Time: _____ "S" weight initial: _____ final: _____

Order Number	Submission Client	Dish I.D.	Wet Weight (g)		Dry Weight (g)	Percent Solid
526554	R2-10436	25	11.29	Gross	9.30	
			1.22	Tare		
				Diff.		
526555		26	11.41	Gross	9.97	
			1.23	Tare		
				Diff.		
526557		27	11.29	Gross	9.31	
			1.22	Tare		
				Diff.		
CCB		28		Gross	1.24	
			1.23	Tare		
				Diff.		
				Gross		
				Tare		
				Diff.		
TD 1/28/02				Gross		
				Tare		
				Diff.		
				Gross		
				Tare		
				Diff.		
				Gross		
				Tare		
				Diff.		

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Columbia Analytical Services
1 Mustard St., Rochester, NY 14608-0859

General Chemistry Analytical Run Cover Sheet

Analyst: T. Drobek **Date:** 1/28/02

Analysis: DWPS **Instrument:** American Scientific Tyloader

Quality Control:

	Log Book #	Log Book Date	Stock Sol (m/Ls)	Stock Sol (mg/L)	Final Vol (mLs)	True Value (mg/L)
a) Standards Prep.:						
b) ICCV Preparation:						
c) LCS Preparation:						
d) Matrix Spike Prep.:						

Instrument log filled in? (Y) (N)

Comments:

Packages:

a) Chains Signed? (Y) (N)

b) Copy and attach Standards Preparation.

Production:

	Start Time	End Time	Total (minutes)
Preparation Time :			
Analytical Time:			
Finish Time:			

# of Samples (including Mtx QC): _____
Repeats due to Sample: _____
Repeats due to Error: _____

Comments:

c:\greg\forms\cover2.tmp

Limits for DI Water If pH < 5.5, or > 7.5 Notify QA!
Limits for Spec. Cond. >= 1 - Notify QA! (Limit is 2 umohs/cm)

Date: 1/25/02

Sub. #	Order #	pH 150.1 9040B	Corrsivity 9045C	CONDUCTVITY 120.1 raw data	units	umhos/c	TEMP °C	Analyst	Time
DI		5.502		0.502	uS	0.502		[illegible]	1515
R2-0097	521348	7.387							
"	349	7.801							
R2-0427	526399	7.484							
	QC399	7.150							
	Dup 526399	7.467							
	Dup 526399	7.125							
	526400	7.544							
	Dup 400	7.547							
	526404		9.255						
	405		7.398						
	406		6.239						
	407		9.317						
	408		9.596	pH 4 ck 4.09					
	409		12.058	recalibrate					
	410		6.999						
	411		<4	recalibrate					
	412		5.087						
	Dup 412		4.934						
Recalibrate Low		Range	(2.00, 7.00)					[illegible]	1630
	526411		0.834						
Recalibrate high		Range	(7.00, 1000)	(pH 12.45 expired)					
	526409		11.623						

pH Meter Calibration

STANDARDS 4.00 ✓ 10.00 ✓ ICV check 7.00 7.036 TEMP. _____

LOT #: BDB2639D BDB2639F BDB2639E

Conductivity Meter Calibration (calibrate to 1412 and test 2767 & 141.3 standard)

N KCL: 1412 Calibrated (Yes / NO) LOT #: BDB2639C

Cell Constant: 1.075

N KCL: 2767 LOT #: BDB2641D Reading 2690 uS

10% Limits: 2490.3 to 3043.7

N KCL: 141.3 LOT #: BDB2641C Reading 143.1

10% Limits: 127.17 to 155.43.

uS = 1 umhos/cm mS = 1,000 umhos/cm S = 1,000,000 umhos/cm

Analyst: [signature] DATE: 1/25/02 TIME: 1500

Reviewed [illegible] 1/28/02

626 097

1 copy: 16427 dsw

#: 74161
yr TPH 418.1 TOTAL PETROLEUM HYDROCARBON BY IR
t 2/08/02 16:19

:	SUBMISSION	ORDER #	MATRIX	REPORTED RESULT		DILUTION	PQL	% RECOVERY	% RSD	DATE ANALYZED	QC	PKG #
?	9912010427	526412	SOIL/SEDIM	961		1.0	33.0			02/06/2002		5
5		530025	SOIL/SEDIM	135		1.0	33.0	103.0		02/06/2002		
4		530026	SOIL/SEDIM	33.0	U	1.0	33.0			02/06/2002		
2		530030	SOIL/SEDIM	33.0	U	1.0	33.0			02/06/2002		
B		530031	SOIL/SEDIM	312		1.0	33.0	105.7		02/06/2002		
IP	9912010434	526855	SOIL/SEDIM	196		1.0	33.0			02/06/2002	RUN	2
IP		530027	SOIL/SEDIM	205		1.0	33.0		4.59	02/06/2002		
:1		530028	SOIL/SEDIM	505		1.0	33.0	105.3		02/06/2002		
4P	9912010434	527030	SOIL/SEDIM	1210		1.0	33.0			02/06/2002	RUN	2
K5		530029	SOIL/SEDIM	134		1.0	33.0	102.5		02/06/2002		

ecords printed: 10

2/11

Entry Date

C ımbia Analytical Services
1 Mustard Street
Rochester, NY 14609

Name: Chris Carlson

Date: 2/6/02

Start: 09:30 Pipet: 1ml glass volumetric

ıtal Recoverable Petroleum Hydrocarbons
ıthod: 418.1, EPA 600 Series
ʼH, mg/L = Conc.(mg/L)*Dilʼn*100 mL extract/Sample amount
ırr. Coeff: 0.99998 Y-intercept: _____ Slope: _____
ırve Date: 12/28/01

Job #	Client	Mtrx s/w	Sample Vol (mL) or Wgt (g)	Absorb Sample	Absorb Samp-Blk	Conc. (mg/L)	Dil'n	Result
	0.000			0.000				
	6.645			0.009				
	22.150			0.030				
	44.300			0.061				
	88.600			0.122				
	221.50			0.301				
Tv 131.10	ICV	–	–	0.184	–	135.08	–	135.08 (103%)
	ICB	–	–	0.000	–	<5.0	–	<0.50
	CCV	–	–	0.184		135.08	–	135.08 (103%)
	CCB	–	–	0.000		<5.0	–	<0.50
	PB	Soil	15.00	0.015	0.000	<5.0	Str	<0.50
1.0mls 4430ppm TV= ~~4.43~~ 295.33	LCS		15.00	0.079	0.064	46.83		312.2 (105.7
	526412		10.00	0.146	0.131	96.10		961.0
	526555		15.24	0.056	0.041	29.91		196.3
	-dup		15.65	0.059	0.044	32.12		205.2
+1.0mls 4430ppm TV= 293.4	-spk		15.10	0.119	0.104	76.25		504.94 105.2
	527030		15.22	0.265	0.250	183.67		1206.4
	PB reextracted from 412.1 Meth		15.00	0.018	0.000 ~~0.003~~	<5.0		<0.50
+5.0mls 2530ppm = 856.67	LCS		15.00	0.182	0.164	120.37		802.47 93.
	CCV	–	–	0.183	–	134.34	–	134.34 (102.5
	CCB	–	–	0.000	–	<5.0	–	<0.50

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Columbia Analytical Services
1 Mustard St., Rochester, NY

General Chemistry Analytical Run Cover Sheet

Analyst: C. Carlson Date: 2/6/02

Analysis: Total Petroleum Hydrocarbons Instrument: Buck IR

Quality Control:

	Log Book #	Log Book Date	Log Book Page #	Stock Sol (m/Ls)	Stock Sol (mg/L)	Final Vol (mLs)	True Value (mg/L)
a) Standards Prep.:	WC55	12/28/01	265A				
b) I/CCV Preparation:	WC55	12/28/01	264F	3	4370	100.00	131.10
c) LCS Preparation:(w)	WC55	12/28/01	264G	1	4430	1000.00	4.43
(s)	WC55	12/28/01	264H	1	4430	15.00	295.33
d) Matrix Spike Prep:(w)	WC55	12/28/01	264G	1	4430	1000.00	4.43
(s)	WC55	12/28/01	264H	1	4430	15.00	295.33

Instrument log filled in? (Y) (N)

Comments: All samples are checked with pH paper prior to analysis have pH of <2.
Unless otherwise noted:

Packages:

a) Chains Signed? (Y) (N)

b) Copy and attach Standards Preparation.

Data Review:

	Yes	No	Comments
Date Checked			
Time Checked			
Hold Times Met			
QC Objectives Met			
Calculations Checked			
Transcriptions Chck'd			
Other:			

Comments:

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TPH-IR (con't)

2/28/01 CC

(A) Standards (TPH-IR)

- made from 1st Source Standard Working Stock

Conc (mg/l)		mls 1° working stock (~~5760 ppm~~ 4430 ppm CC 12/28) (WC55264B)
0.000		0.000
~~8.640~~	6.645	3 mls of ~~288.00~~ 221.50 CC 12/28
~~28.800~~	22.150	0.500
~~57.600~~	44.300	1.000
~~115.200~~	88.600	2.000
~~288.000~~	221.50	5.000

CC 12/28

* All standards are diluted to final volumes of 100 ml in 100 ml volumetric flasks with pure freon (EM Lot# 41281, WC55245J)

2/28/01 DMG

(B) 0.00564 N Sodium Thiosulfate (Chlorine ~~Residual~~ Demand) DMG 12/28/01

- Same as WC55251D. Exp. 2 weeks, 1/11/02.

(C) Stock Chlorine Solution - Chlorine Demand

Add 6.0 mL commercial chlorine bleach to DI water and dilute to 500 mL in vol. flask. Prepare fresh each run + standardize with use.

(D) Standard Iodate Titrant 0.00564 N - Chlorine Demand

Same as WC55249E. Prepare fresh each RUN.

12/28/01 DMG

(E) Standards Prep: Intermediate Stds. Stock Solution

Exp. 6 Months, 6/28/01.

Anion	Stock conc.	mls stock	volumetric Final vol.	Int. Stock concentration, ppm
F-	100 ppm WC55219D	50.0	100 mls	50.0
Cl	1000 ppm WC55106C	10.0		100.0
Br	1000 ppm WC55209A	5.0		50.0

630

TPH - IR

12/28/01 (A) 1st Source Reference oil:

In a volumetric Flask, mix the following: 12/28/01 CC

- 15ml Hexadecane (Aldrich Lot# KU6262LS, WC45294G)
- 15ml 2,2,4-Trimethylpentane (Aldrich Lot# HU0494MS, WC45295H)
- 10ml Chlorobenzene (Aldrich Lot# DI07336DI, WC45295G)

Store @ 4°C in original vol. Flask Exp 12/28/02

(B) 1st Source Standard Working Stock (1° stock):

- 0.50ml 1st Source Reference oil (WC55264A)

⇒ 100ml w/Pure Freon (EM Lot# 41281, WC55245J)

Actual wgt. = ~~0.4760g~~ 0.4430 CC 12/28/01 TV= ~~4390~~ ~~5760~~ CC 12/28/01 4430 ppm

Store in 100ml vol Flask @ 4.0°C Exp 12/28/02

(C) 2nd Source Reference oil: 12/28/01 DMS

In a volumetric Flask, mix the following:

- 15ml Hexadecane (EM Lot# 36249, WC45296A)
- 15ml 2,2,4-Trimethylpentane (EM Lot# 40117, WC55024E)
- 10ml Chlorobenzene (Mallinckrodt Lot# 4419 KXHH, WC45296C)

Store @ 4.0°C in original vol Flask Exp 12/28/02

(D) 2nd Source Reference working Stock (2° Stock):

- 0.50ml 2nd Source Reference Oil (WC55264C)

⇒ 100ml w/Pure Freon (EM Lot# 41281, WC55245J)

Actual wgt. = ~~0.5230~~ 0.4370 CC 12/28 TV= ~~5230 ppm~~ 4370 ppm CC 12/28

Store in 100ml vol. Flask @ 4.0°C Exp 12/28/02 12/28/01 DMS

(E) ICV/CCV:

- 3 mls 2nd Source Reference working Stock (WC55264D)

⇒ 100ml w/Pure Freon (WC55245J) TV= ~~156.9 mg/l~~ 131.10 mg/l CC 12/28

Store in 100 ml vol Flask @ 4.0°C Exp 12/28/02

(G) LCS water / Matrix spike water (TPH-IR)

- 1.0ml of 1° Standard Working Stock (~~5760 ppm~~ 4430 ppm CC 12/28, WC55264B)

added to 1000 ml DI or sample TV= ~~5.76 mg/l~~ 4.43 mg/l

(H) LCS soil / Matrix spike soil (TPH-IR)

- 1.0ml 1° Standard Working Stock (~~5760 ppm~~ 4430 ppm, WC55264B)

added to 15.0g Blank soil or Sample TV= ~~384.0~~ 295.3 mg/l

6/5/00 BB — Received from Fisher

(A) · (1) x 1 Kg. Chromatographic Silica Gel, Fisher, Lot # 995513, Cat. # S745-1. No exp. date. Store @ R.T.

6/5/00 BB — Received from VWR

(B) · (1) x 4 L Acetone, B+J, Lot # BR436, Cat # 010-4. Store in flammable cabinet. No exp. date.

(C) · (1) x 3.78 L Sodium Hydroxide, 50% Soln., E.M., Lot # 125975/110912, Cat. # SX0597-1. Store @ R.T. No exp. date.

(D) · (1) x 500 ml Glycerol, E.M., Lot # 39233009, Cat. # GX0185-6. Store @ RT, No exp date

(E) · (1) x 2.5 Kg Sodium Hydroxide, Flake, J.T. Baker, Lot # N48603, Cat. # 3724-05. Store @ RT. No exp date.

(F) · (2) x 1 L Methanol, Omnisolve, E.M. Lot # 39039, Cat. # MX0482-6. Store in flammable cabinet. No. exp. date. (Were ordered by Organics).

6/5/00 BB — Received from Aldrich

(G) · (1) x 100 ml Hexadecane, 99+%, Aldrich, Lot # KU 06262LS, Cat # 29,631-7. Store @ RT. No exp date.

IC curve

6/5/00 JL

(H) Standard stock sources - same as WC45252A.
(I) Standard prep - same as WC45252B.
(J) Reference stock sources - same as WC45252C.
(K) ICV Prep - same as WC45252D.
(L) CCV Prep - same as WC45253B.
(M) LCS/MS - same as WC45253C.

6/6/00 DZ — (N) TKN Color Reagent

To a tared 1 liter amber, add:
- 75.0 g Sodium Salicylate (WC45234F)
- 0.5 g Sodium Nitroprusside (Baker Lot # L02630)
- 454 g D.I.

Stir until dissolved. Store @ RT, Exp. 1 month.

6/6/00 CC/DMG — (A) Sulfide 0.42 = Store

6/6/00 DZ — (B) TK T

6/6/00 KS — (C) TS/T 0.21 TV =

6/6/00 CC — (D) 0.02 50 ml Store

6/7/00 CC — (E) Cr^{6+} -40 -60 ⇒ Sto

6/7/00 JL — (F) D.C Sa

6/7/00 KS — (G) Rea (G) (1) DI 0 No exp

(H) (1) Lot # 632 cabne

6/6/00 CC/DMG (A) Sulfide Reference

0.4250 g $Na_2S \cdot 9H_2O$ (WC451500) ⇒ 100 mls w/ DI

$$\frac{(0.4250)(0.1333)(1000)}{100} = 0.5665$$

Store @ 4°C in amber glass. Exp. 1 week.

6/6/00 DZ (B) TKN Buffer

To a tared 1-L amber, add:

- 941 g UPDI
- 35.0 g Sodium Phosphate, Dibasic (Lot# HG50S-EM)
- 20.0 g Na_2 EDTA (WC4046H, Lot# K34607 Baker)
- 50.0 g NaOH Flakes (WC45294E)

Stir until dissolved. Store @ RT. Exp 1 month. 7/6/00.

6/6/00 KS (C) TS/TSS Reference

0.219 g Kaolin (WC4580A) → 1000 g w/ DI

TV = 219 mg/L. Store in plastic @ 4°C. Exp 6/6/01.

6/6/00 CC (D) 0.0250 N $Na_2S_2O_3$ - Sulfides

50 ml 0.1000 N $Na_2S_2O_3$ (WC45241D) ⇒ 200 ml w/ DI

Store @ 4°C in Amber glass. Expires in 2 weeks

6/7/00 CC (E) Cr^{6+} soils digest Reagent

- 40 g NaOH pellets (WC45267F)
- 60 g Na_2CO_3 (WC45229E)

⇒ 2000 ml w/ DI

Store in plastic @ 4°C for up to 1 month

6/7/00 CC (F) 0.5 N FAS - TOC Walkley Black

same as WC45220B. Exp. 6/7/01.

6/7/00 KS (G) Received from Aldrich

(G) (1) × 100 mL Chlorobenzene, 99.8%, Aldrich, Lot. # DI 07336DI, Cat. # 28,451-3. Store in Flammable cabinet. No exp. date. Exp. 6/7/00 (6/7/7)

(H) (1) × 100 mL 2,2,4-Trimethylpentane, 99.8%, Aldrich Lot# 11104946MS. Cat. # 36,006-6. Store in Flammable

No exp. date.

Cat# 010-4.

v., EM, Store @ R.T.

3.009, date R.T. Baker, C.T. No exp date. 39039, cabinet. ice).

rch, Lot# RT. No exp date.

t.

252C.

(WC45234F) Baker Lot# L02630)

p. 1 month.

6/7/00 Received from VWR

(A) (1) x 80ml, Hexadecane, OmniSolv, Lot # 36249, 6/7/01 (6/4)
Cat. # HX0201-7. Store at R.T. No exp date. Exp ~~7/7/01~~ (6/25)

(B) (1) x 500g, Glycerol, Difco, Bacto, Lot # 0117200,
Cat. # 228220 (0282-17). Store at R.T. Exp. 5/2/01

(C) (1) x 500ml, Chlorobenzene, Mallinckrodt,
Lot # 4419KXHH, Cat. # 4419-04. Store in Flammable
Cabinet. No exp. date. Exp. 6/7/01 (6/4/25)

(D) (1) x 4L, Water Hardness Titrant, VWR,
Lot # 0003198, Cat. # VW3511-4, Store at R.T.,
Exp. 9/30/01. 0.0100 M., OR 0.0200 N

6/13/00 QK

6/8/00 QK (E) FAS titrant - Cl Residual - same as WC45204C. Exp. 7/8/00.

ICCurve

6/8/00 QK (F) Standard Stock sources - same as WC45252A.
(G) Standard Prep - same as WC45252B.
(H) Reference stock sources - same as WC45252C.
(I) ICV Prep - same as WC45252D.
(J) CCV Prep - same as WC45253B.
(K) LCS/MS - same as WC45253C.

6/14/00 QK

6/14/00 QK

Digest

6/12/00 (L) TKN ~~Digest~~ (x2)

To a tared 2-liter Volumetric Flask, add:
- 268g K_2SO_4 (WC45286J)
- 14.6g $CuSO_4$ (WC45187I)
- ~1200ml UPDI

While stirring, slowly add,
- 268ml Conc H_2SO_4 Instra Analyzed (WC45250C)

Stir until cool. Bring to volume w/UPDI

6/14/00 BB

6/15/00 DZ

6/12/00 QK/DG (M) Phenols color Reagent - same as WC45006G. Exp. 6/19/00.

(N) Cr 6+ soils ICV/ICB: 0.050 mls 1000 ppm Reference Stock (WC45289H) to 49.95 mls Cr 6+ soil digest reagent. Bring to volume (100ml) with DI (TV = 0.50 mg/l)

idm

(A) Bu Jo
(B) Sor
(C) TK
(D) TK
(E) Receive
(F) NH
(G) Cr+6

9/13/00 DMG (A) Magnesium Chloride Solution: CN^- Distillation
510 $MgCl_2 \cdot 6H_2O$ (EM Lot 38230942 ≈ 272.5g)
(EM Lot 39349018 ≈ 237.5g)
⇒ 1000 mL w/ DI. Store @ R.T. Exp. 9/13/01

9/18/00 DMG (A) Stock
In
40...
in
Bri...
in

9/15/00 BB Received from VWR
(B) • (2) x 2.5L Phosphoric Acid, EM, Lot # 39350029, Cat. # PX0995-14, CAS # 7664-38-2. Store @ R.T. No Exp. date.

9/19/00 QK (B) Sulfi...
⇒...

(C) • (1) x 500g Sulfamic Acid, EM Lot # 39133025, Cat. # SX1140-3, CAS # 5329-14-6. Store @ R.T. No Exp date.

9/20/00 DL (C) TKN

(D) • (4) x 500g Sodium Phosphate Dibasic • $7H_2O$, EM Lot # 39103019, Cat. # SX0715-1, CAS # 7782-85-6. Store @ R.T. No. Exp. date.

9/20/00 DMG (D) Phenols

(E) • (1) x 1L 2,2,4-Trimethylpentane, EM Lot # 40117, Cat # TX1389-6, CAS # 540-84-1. Store in flammable cabinet. No. Exp. date.

9/20/00 DMG (E) 10% P...
100 mL...
in an...

(F) • (4) x 4L Freon, EM Lot # 39353, Cat # TX1165-1, CAS # 76-13-1, Store @ RT. No Exp date.

9/20/00 QK (F) D.O.

9/18/00 BB (G) Hydrogen Peroxide Stock # 2 (~10,000 ppm)
33 mL of 30% H_2O_2 Soln (EM Lot # 39241945)
→ 1000 mL w/ ultra pure DI. Store @ 4°C in amber glass. Standardize monthly. Exp 9/18/2001.

9/21/00 CC (G) Sulfid...
⇒

9/18/00 IS (H) TSS / TS Reference
0.2157g Kaolin (WC45080A) → 1000g w/ DI Water
TV = 216 mg/L. Store in plastic @ 4°C. Exp. 9/18/01.

9/21/00 CC ~~(H) NH4~~
To a...

SD 9/18/00 (I) Grease + 0.1 413.1 spike sol'n
To a tared amber glass jar add (using glass pipets)
• 0.2672 g Crisco 0.1
• 0.2646 g Fuel oil #2
• 100 mL pure Freon (EM Lot 39353)
Conc. = 5318 mg/L use 5 mL spk / 1000 mL DI or Sample for LCS or MS value of 26.59 mg/L
Store @ 4°C expires 3/18/01

Stor...
Conc

However, since it is not practical to use such a small volume, it would be better to prepare such a standard in steps.

$$Say: \frac{1\ ml\ of\ 1000\ ppm}{100\ mls} = 10\ ppm$$

$$Then: \frac{1\ ml\ of\ 10\ ppm}{100\ mls} = 100\ \mu g / L\ final\ working\ standard$$

9.6. Standards and reagents are stored separately, at temperatures specified in the methods.

10. QA/QC REQUIREMENTS

10.1. Periodic review of the lab notebooks and real-time review of the lab sample preparation benchsheets shall be performed by the department manager or designee.

10.2. Each batch of samples should have a laboratory control sample prepared with the samples. These may include a laboratory control sample for other matrices.

10.3. A matrix spike should be added to at least 1 sample per 20.

10.4. Spiking solutions should be made routinely and verified prior to use by analyzing them against previously used standard.

10.5. It is a CLP requirement that the statement of purity (certificate of analysis) for standards is initialed, dated and placed in the standards notebook. It should be verified that the standards are NIST traceable.

10.6. It is recommended that the following list of storage-time recommendations are followes:

≤ 100 µg/L	Daily
≤ 1000 µg/L	Weekly
1 - 100 mg/L	6 months
100 - 1000 mg/L	Yearly

All standards and reagents shall be stored under proper conditions as outlined in the appropriate analytical SOP.

10.7. Typically the following discard dates can also be used:

Purchased Reagents -	manufacturer's expiration date, or 3 years after receipt, whichever comes first
Purchased Standards -	manufacturer's expiration date, or 2 years after receipt, whichever comes first

→ Confirm purchased stock solution for standard are valid between 1 & 3 years.