SFUND RECORDS CTR
2033365

Jalk Fee 4716

INORGANIC/ORGANIC COMPLETE SDG FILE (CSF) INVENTORY CHECKLIST

Case No. 31520 SDG No. Y0563 SDG Nos. To Follow _____ Date Recvd 4 / 14 / 2003

EPA Lab ID: A4 Scientific

Lab Location: TX

Region: IX Audit No.: 3/03-16

Re-Submitted CSF? Yes ___ No ✓

Box No(s): _____

COMMENTS:

Over for additional comments.

ITEMS	YES	NO	N/A
CUSTODY SEALS			
1. Present on package?	✓		
2. Intact upon receipt?	✓		
FORM DC-2			
3. Numbering scheme accurate?	✓		
4. Are enclosed documents listed?	✓		
5. Are listed documents enclosed?	✓		
FORM DC-1			
6. Present?	✓		
7. Complete?	✓		
8. Accurate?	✓		
CHAIN-OF-CUSTODY RECORD(s)			
9. Signed?	✓		
10. Dated?	✓		
TRAFFIC REPORT(s) PACKING LIST(s)			
11. Signed?	✓		
12. Dated?	✓		
AIRBILLS/AIRBILL STICKER			
13. Present?	✓		
14. Signed?	✓		
15. Dated?	✓		
SAMPLE TAGS			
16. Does DC-1 list tags as being included?		✓	
17. Present?			✓
ALL DOCUMENTS			
18. Activities identified?	✓		
19. Legible?	✓		
20. Original?		✓	
20a. If "NO," does the copy indicate where original documents are located?	✓		

Received by: Beth Freitas, ACL Date 4/14/2003

Audited by: _____ (Signature) JANTIAGO LEE/Data Reviewer (Printed Name/Title) Date 5/13/02

TO BE COMPLETED BY CEAT

Date Recvd by CEAT: ___/___/___ Date Entered: ___/___/___ Date Reviewed: ___/___/___

Entered by: _____

Reviewed by: _____ (Signature) _____ (Printed Name/Title)

LOW CONCENTRATION WATER ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

LABORATORY NAME AH Scientific INC
CITY/STATE The woodlands TX, 77380
CASE NO. 31520 SDG NO. Y05L3 SDG NOS. TO FOLLOW NA
CLIENT NO. — NA
CONTRACT NO. 68-W-01-038
SOW NO. 01C03.2

All documents delivered in the Complete SDG File must be original documents where possible.

	PAGE NOs FROM	PAGE NOs TO	CHECK LAB	CHECK EPA
1. Inventory Sheet (Form DC-2) (Do Not Number)	—	—	—	
2. SDG Case Narrative	01	02	—	✓
3. SDG Cover Sheet/Traffic Report	03	5	—	✓
4. Volatiles Data				
a. QC Summary				
Deuterated Monitoring Compound Recovery (Form II LCV)	6	7	—	✓
Matrix Spike/Matrix Spike Duplicate Recovery (Form III LCV) (if Region requests)	—	—	—	
Method Blank Summary (Form IV LCV)	8	11	—	✓
GC/MS Instrument Performance Check (Form V LCV)	12	16	—	✓
Internal Standard Area and RT Summary (Form VIII LCV)	17	21	—	✓
b. Sample Data				
TCL Results - (Form I LCV-1, LCV-2)			—	✓
Tentatively Identified Compounds (Form I LCV-TIC)			—	✓
Reconstructed Total Ion Chromatograms (RIC) for each sample	22	214	—	✓
For each sample:				
Raw Spectra and background-subtracted mass spectra of target compounds identified			—	✓
Quantitation reports			—	✓
Mass Spectra of all reported TICs with three best library matches			—	✓
c. Standards Data (All Instruments)	215	267		
Initial Calibration Data (Form VI LCV-1, LCV-2, LCV-3)			—	✓
RICs and Quantitation Reports for all Standards			—	✓
Continuing Calibration Data (Form VII LCV-1, LCV-2, LCV-3)			—	✓
RICs and Quantitation Reports for all Standards			—	✓
d. Raw QC Data			—	✓
BFB	268	287	—	✓
Blank Data	288	342	—	✓
Matrix Spike/Matrix Spike Duplicate Data (if Region requests)	~~343~~ NA	~~353~~ NA	—	

LOW CONCENTRATION WATER ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET (Con't)

CASE NO. 31520 SDG NO. YOSL3 SDG NOS. TO FOLLOW NA

CLIENT NO. NA

	PAGE NOs FROM	PAGE NOs TO	CHECK LAB	CHECK EPA
5. Semivolatiles Data				
a. QC Summary				
Deuterated Monitoring Compound (Form II LCSV)	NA	NA	NA	
MS/MSD Summary (Form III LCSV) (if Region requests)				
Method Blank Summary (Form IV LCSV)				
GC/MS Instrument Performance Check (Form V LCSV)				
Internal Standard Area and RT Summary (Form VIII LCSV)				
b. Sample Data				
TCL Results - (Form I LCSV-1, LCSV-2)				
Tentatively Identified Compounds (Form I LCSV-TIC)				
Reconstructed Total Ion Chromatograms (RIC) for each sample				
For each sample:				
Raw Spectra and background-subtracted mass spectra of target compounds				
Quantitation reports				
Mass Spectra of TICs with three best library matches				
c. Standards Data (All Instruments)				
Initial Calibration Data (Form VI LCSV-1, LCSV-2, LCSV-3)				
RICs and Quantitation Reports for all Standards				
Continuing Calibration Data (Form VII LCSV-1, LCSV-2, LCSV-3)				
RICs and Quantitation Reports for all Standards				
d. Raw QC Data				
DFTPP				
Blank Data				
Matrix Spike/Matrix Spike Duplicate Data (if Region requests)				
6. Pesticides Data				
a. QC Summary				
Surrogate Percent Recovery Summary (Form II LCP)				
MS/MSD Duplicate Summary (Form III LCP-1) (if Region requests)				
Laboratory Control Sample Recovery (Form III LCP-2)				
Method Blank Summary (Form IV LCP)				
b. Sample Data				
TCL Results - Organic Analysis Data Sheet (Form I LCP)				
Chromatograms (Primary Column)				
Chromatograms from second GC column confirmation				
GC Integration report or data system printout				
Manual work sheets				

LOW CONCENTRATION WATER ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET (Con't)

CASE NO. 31520 SDG NO. Y0SL3 SDG NOS. TO FOLLOW NA

CLIENT NO. NA

	PAGE NOs FROM	PAGE NOs TO	CHECK LAB	CHECK EPA
6. Pesticides Data (Con't)				
c. Standards Data	NA	NA	NA	
Initial Calibration of Single Component Analytes (Form VI LCP-1 and LCP-2)				
Initial Calibration of Multicomponent Analytes (Form VI LCP-3)				
Analyte Resolution Summary (Form VI LCP-4)				
Performance Evaluation Mixture (Form VI LCP-5)				
Individual Standard Mixture A (Form VI LCP-6)				
Individual Standard Mixture B (Form VI LCP-7)				
Calibration Verification Summary (Form VII LCP-1)				
Calibration Verification Summary (Form VII LCP-2)				
Analytical Sequence (Form VIII LCP)				
Florisil Cartridge Check (Form IX LCP)				
Pesticide Identification Summary for Single Component Analytes (Form X LCP-1)				
Pesticide Identification Summary for Multicomponent Analytes (Form X LCP-2)				
Chromatograms and data system printouts				
A printout of retention times and corresponding peak areas or peak heights				
d. Raw QC Data				
Blank Data				
Matrix Spike/Matrix Spike Duplicate Data (if Region requests)				
Laboratory Control Sample Data				
e. Raw Florisil Data				
7. Miscellaneous Data				
Original preparation and analysis forms or copies of preparation and analysis logbook pages	343	353	✓	✓
Internal sample and sample extract transfer chain-of-custody records			✓	
Screening records			✓	
All instrument output, including strip charts from screening activities (describe or list)				

LOW CONCENTRATION WATER ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET (Con't)

CASE NO. 31520 SDG NO. 40JL3 SDG NOS. TO FOLLOW NA
CLIENT NO. NA

	PAGE NOs FROM	PAGE NOs TO	CHECK LAB	CHECK EPA
8. EPA Shipping/Receiving Documents				
Airbills (No. of shipments 2)	354	354	✓	✓
Chain-of-Custody Records	355	356	✓	✓
Sample Tags	NA	NA	✓	
Sample Log-in Sheet (Lab & DC1)	357	360	✓	✓
Miscellaneous Shipping/Receiving Records (describe or list)				
Custody Seals	361	361	✓	✓
9. Internal Lab Sample Transfer Records and Tracking Sheets (describe or list)				
Custody Log Book	362	363	✓	✓
10. Other Records (describe or list)				
Telephone Communication Log				

RR 4/22/03

11. Comments:

Completed by: (CLP Lab)	Ram R Sheeri (Signature)	RAM R Sheeri / PS MANAGER (Printed Name/Title)	04/12/03 (Date)
Verified by: (CLP Lab)	(Signature)	Mark MASINO (Printed Name/Title)	04-12-03 (Date)
Audited by: (EPA)	(Signature)	SANTIAGO LEE Reviewer (Printed Name/Title)	5/13/03 (Date)

A4 SCIENTIFIC, INC.

1544 Sawdust Road, Suite 505 • The Woodlands, TX 77380 • Phone (281) 292-5277

Contract #: 68W01038	Case #: 31520	SDG #: Y0SL3

SDG NARRATIVE

SAMPLE RECEIPT & LOGIN

The following samples were received on the dates listed against them. The samples were logged in for analysis as listed.

EPA SAMPLE #	LAB SAMPLE #	DATE /TIME RECEIVED	AIRBILL NO.	VOA	BNA	PEST	REMARKS
Y0SL3	2761.002	03/20/03 10:35	835859426446	x			
Y0SL4	2761.003	03/20/03 10:35	835859426446	x			
Y0SL6	2761.004	03/20/03 10:35	835859426446	x			
Y0SL7	2761.005	03/20/03 10:35	835859426446	x			
Y0SL8	2775.001	03/21/03 10:34	835859426516	x			
Y0SL9	2775.002	03/21/03 10:34	835859426516	x			
Y0SM0	2775.003	03/21/03 10:34	835859426516	x			

The cooler temperature was 4°C. No other discrepancies or issues were noted during sample receipt and login.

VOLATILES

Samples were analyzed using instrument **E-5973**.

Instrument **E-5973** consisted of an Agilent 5973 GC/MS with a 25-meter long DB-624 (Agilent cat# 128-1324) column having a 0.2mm ID and 1.12µm film thickness, a Tekmar Purge and Trap Model LSC2000 with an Archon autosampler. The trap used was a K trap (Supelco Cat # 21066-U; VOCARB 3000) having 10cm of Carbopack B, 6cm of Carboxen 1000, and 1cm Carboxen 1001.

Secondary ions are used for the quantitation of 1,1-Dichloroethene-d_2, Chloroform-d, and 2-Hexanone-d_5 to minimize the interferences from the associated target compounds and common non-target compounds.

TIC at RT of 7.8 min on instrument E-5973 is a contaminant. Per Cambridge Isotope Limited (suppliers) this is an artifact from the non-ketone DMC solution. The concentration of this contaminant is between 2µg/L to 4µg/L.

All VOA samples had the pH characteristic verified. The reading is listed below.

EPA SAMPLE #	LAB SAMPLE #	pH
Y0SL3	2761.002	≤ 2
Y0SL4	2761.003	≤ 2
Y0SL6	2761.004	≤ 2
Y0SL7	2761.005	≤ 2
Y0SL8	2775.001	≤ 2
Y0SL9	2775.002	≤ 2
Y0SM0	2775.002	≤ 2

The estimated total concentrations of alkanes by type are listed below.

A4 SCIENTIFIC, INC.

1544 Sawdust Road, Suite 505 • The Woodlands, TX 77380 • Phone (281) 292-5277

Contract #: 68W01038	Case #: 31520	SDG #: Y0SL3

SDG NARRATIVE

EPA Sample #	Lab Sample #	Straight Chain (µg/L)	Branched (µg/L)	Cyclic (µg/L)
Y0SL3	2761.002		1.2	
Y0SL4	2761.003		7.0	86
Y0SL4DL	2761.003DL			117
Y0SL6	2761.004		0.8	

The sample Y0SL4 failed twice in DMC recovery but its dilution had acceptable recoveries. The high concentration of non-targets (alkanes) in the sample is suspected to be causing interference. The lab is reporting the best analysis data.

Manual integrations were performed for the following samples for the compounds listed against them.

Y0SL3 – Xylene(total)
Y0SL4 – Xylene(total)
VSTD0254 - Bromoethane

These manual integrations were necessary because the software failed to accurately integrate the entire peak. In all the above instances, the quantitation reports are flagged with "m". A hard copy printout of the manual integration, the scan ranges, and initials of the analyst or manager is included in the data package.

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 hard copy data package and in the computer readable data submitted on diskette has been authorized by the laboratory manager or his/her designee, as verified by the following signature:

Reddy Pallamati / Lab Manager — Signature and Title

4/12/03 — Date of Signature

Sample Delivery Group (SDG)
Cover Sheet

SDG Number: **Y0SL3**

Laboratory Name: **A4 Scientific, Inc.**

Laboratory Code: **A4**

Contract No.: **68W01038**

Case No.: **31520**

Analysis Price: **$ 390.00**

SDG Turnaround: **21 days**

EPA Sample Numbers in SDG (Listed in Numerical Order)

1) Y0SL3	7) Y0SM0	13)	19)
2) Y0SL4	8)	14)	20)
3) Y0SL6	9)	15)	21)
4) Y0SL7	10)	16)	22)
5) Y0SL8	11)	17)	23)
6) Y0SL9	12)	18)	24)

Y0SL3	**Y0SM0**
First Sample in SDG	Last Sample in SDG
03/20/03	03/21/03
First Sample Receipt Date	Last Sample Receipt Date

Note: *There are a maximum of 20* ***field*** *samples (excluding PE samples) in an SDG. Attach TRs to this form in alphanumeric order (the order listed above on this form).*

Signature _____ Date 03/26/03

(2)

USEPA Contract Laboratory Program
Organic Traffic Report & Chain of Custody Record

Case No: 31520
DAS No:
SDG No: Y0SL3.

L

Date Shipped:	3/19/2003
Carrier Name:	FedEx
Airbill:	835859426446
Shipped to:	A4 Scientific 1544 Sawdust Road Suite 505 The Woodlands TX 77380 (281) 292-5277

Chain of Custody Record

Sampler Signature: [signature]

Relinquished By	(Date / Time)	Received By	(Date / Time)
1 [signature]	3-19-03 1600	Federal Express	3-19-03 1600
2		[signature]	3/20/03 10:35
3			
4			

For Lab Use Only

Lab Contract No: 68-W-01-038
Unit Price: $ 390.00
Transfer To:
Lab Contract No: A.S 03/21/03
Unit Price:

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME		INORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
Y0SL3	Ground Water/ Anitra Rice	L/G	VOA (21)	(HCL) (3)	JF-GW-1	S: 3/18/2003	13:00	MY0SL3	Intact 1st ex
Y0SL4	Ground Water/ Anitra Rice	L/G	VOA (21)	(HCL) (3)	JF-GW-2	S: 3/18/2003	17:01	MY0SL4	
Y0SL6	Ground Water/ Anitra Rice	L/G	VOA (21)	(HCL) (3)	JF-GW-4	S: 3/18/2003	16:31	MY0SL6	
Y0SL7	Ground Water/ Anitra Rice	L/G	VOA (21)	(HCL) (3)	JF-GW-5	S: 3/18/2003	17:17	MY0SL7	

Shipment for Case Complete? N	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s): [signature]	Cooler Temperature Upon Receipt: 3°C	Chain of Custody Seal Number:
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G		Custody Seal Intact? Y / Shipment Iced? Y

VOA = CLP TCL Volatiles

TR Number: 9-233994445-031903-0001

LABORATORY COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.
Send Copy to: Sample Management Office, 2000 Edmund Halley Dr., Reston, VA. 20191-3400 Phone 703/264-9348 Fax 703/264-9222

(5)

USEPA Contract Laboratory Program
Organic Traffic Report & Chain of Custody Record

Case No: 31520
DAS No:
SDG No: 1/05L3

L

Date Shipped:	3/20/2003
Carrier Name:	FedEx
Airbill:	835859426516
Shipped to:	A4 Scientific 1544 Sawdust Road Suite 505 The Woodlands TX 77380 (281) 292-5277

Chain of Custody Record

Sampler Signature: [signature]

Relinquished By	(Date / Time)	Received By	(Date / Time)
1 [signature]	3-20-03 1300	Federal Express	3-20-03 1300
2		[signature]	3/21/03 10:35
3			
4			

For Lab Use Only

Lab Contract No:	68-W-01-038
Unit Price:	$390.00
Transfer To:	
Lab Contract No:	A-1 03/21/03
Unit Price:	

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME		INORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
Y0SL8	Ground Water/ Anitra Rice	M/G	VOA (21)	16 (HCL), 17 (HCL), 18 (HCL) (3)	JF-GW-6	S: 3/20/2003	9:25	MY0SL8	Intact
Y0SL9	Ground Water/ Anitra Rice	L/G	VOA (21)	20 (HCL), 21 (HCL), 22 (HCL) (3)	JF-GW-8	S: 3/20/2003	10:00	MY0SL9	↓
Y0SM0	Ground Water/ Anitra Rice	M/G	VOA (21)	11 (HCL), 12 (HCL), 13 (HCL) (3)	JF-GW-3	S: 3/20/2003	9:19	MY0SM0	20ml SX

Shipment for Case Complete? Y	Sample(s) to be used for laboratory QC: Y0SM0	Additional Sampler Signature(s): Anitra Rice	Cooler Temperature Upon Receipt: 2°C	Chain of Custody Seal Number:
Analysis Key: VOA = CLP TCL Volatiles	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G		Custody Seal Intact? Y / Shipment Iced? Y

TR Number: 9-233994445-032003-0002

LABORATORY COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.
Send Copy to: Sample Management Office, 2000 Edmund Halley Dr., Reston, VA. 20191-3400 Phone 703/264-9348 Fax 703/264-9222

2LCA

LOW CONCENTRATION WATER VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

	EPA SAMPLE NO.	VDMC1 (VCL) #	VDMC2 (CLA) #	VDMC3 (DCE) #	VDMC4 (BUT) #	VDMC5 (CLF) #	VDMC6 (DCA) #	VDMC7 (BEN) #
01	VBLK4N	105	106	106	120	100	103	107
02	Y0SL6	104	110	106	104	108	111	114
03	Y0SL7	111	115	108	106	108	113	117
04	Y0SL3DL	81	84	79	134	79 D	80	82
05	Y0SL9	99	102	99	93	99	99	108
06	Y0SL3	90	93	97	129	97	99	99
07	VBLK4R	102	101	99	82	96	89	107
08	Y0SL4DL	103	106	106	96	103	103	104
09	Y0SL4	99	108	110	81	105	241 *	102
10	VBLK4S	103	106	105	95	100	99	106
11	Y0SL8	109	115	115	104	111	109	105
12	Y0SM0	106	110	109	94	107	106	105
13	VBLK4U	94	97	99	93	95	96	105
14	VHBLK01	103	112	117	93	111	111	117
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

			QC LIMITS
VDMC1	(VCL)	= Vinyl Chloride-d3	(49-138)
VDMC2	(CLA)	= Chloroethane-d5	(60-126)
VDMC3	(DCE)	= 1,1-Dichloroethene-d2	(65-130)
VDMC4	(BUT)	= 2-Butanone-d5	(42-171)
VDMC5	(CLF)	= Chloroform-d	(80-123)
VDMC6	(DCA)	= 1,2-Dichloroethane-d4	(78-129)
VDMC7	(BEN)	= Benzene-d6	(78-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

2LCB

LOW CONCENTRATION WATER VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

	EPA SAMPLE NO.	VDMC8 (DPA)#	VDMC9 (TOL)#	VDMC10 (TDP)#	VDMC11 (HEX)#	VDMC12 (BRF)#	VDMC13 (TCA)#	VDMC14 (DCZ)#	TOT OUT
01	VBLK4N	91	106	101	112	93	102	109	0
02	Y0SL6	95	112	110	91	101	105	113	0
03	Y0SL7	100	116	111	105	102	113	121	0
04	Y0SL3DL	70D	81	80	112	80	82	84	0
05	Y0SL9	91	107	99	78	99	101	105	0
06	Y0SL3	84	96	93	109	87	94	93	0
07	VBLK4R	90	103	98	82	88	89	99	0
08	Y0SL4DL	120	102	105	92	81	95	99	0
09	Y0SL4	78*	184*	1465*	108	66*	97	103	5
10	VBLK4S	93	102	98	91	83	100	104	0
11	Y0SL8	94	103	99	92	95	104	111	0
12	Y0SM0	94	102	96	88	84	101	108	0
13	VBLK4U	89	104	102	89	103	103	104	0
14	VHBLK01	101	108	112	87	103	106	106	0
15									
16									
17									
18									
19									
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22									
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27									
28									
29									
30									

			QC LIMITS
VDMC8	(DPA)	= 1,2-Dichloropropane-d6	(84-123)
VDMC9	(TOL)	= Toluene-d8	(77-120)
VDMC10	(TDP)	= trans-1,3-Dichloropropene-d4	(80-128)
VDMC11	(HEX)	= 2-Hexanone-d5	(37-169)
VDMC12	(BRF)	= Bromoform-d	(76-135)
VDMC13	(TCA)	= 1,1,2,2-Tetrachloroethane-d2	(75-131)
VDMC14	(DCZ)	= 1,2-Dichlorobenzene-d4	(50-150)

Column to be used to flag recovery values

* Values outside of contract required QC limits

4LCA
LOW CONCENTRATION WATER
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK4N

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: EVBLK4N Date Analyzed: 03/27/2003

Lab File ID: E4010 Time Analyzed: 0939

Instrument ID: E-5973

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLE ANALYSES:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	Y0SL6	2761.004	E4014	1220
02	Y0SL7	2761.005	E4015	1300
03	Y0SL3DL	2761.002DL	E4016	1356
04	Y0SL9	2775.002	E4022	1838
05	Y0SL3	2761.002	E4023	1918
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
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27				
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29				
30				

COMMENTS _____

4LCA
LOW CONCENTRATION WATER
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK4R

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: EVBLK4R Date Analyzed: 03/30/2003

Lab File ID: E4071 Time Analyzed: 1300

Instrument ID: E-5973

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLE ANALYSES:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	Y0SL4DL	2761.003DL	E4072	1339
02	Y0SL4	2761.003	E4073	1421
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS _____

4LCA
LOW CONCENTRATION WATER
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK4S

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: EVBLK4S Date Analyzed: 03/31/2003

Lab File ID: E4079 Time Analyzed: 1522

Instrument ID: E-5973

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLE ANALYSES:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	Y0SL8	2775.001	E4083	1800
02	Y0SM0	2775.003	E4084	1841
03				
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COMMENTS _____

4LCA
LOW CONCENTRATION WATER
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK4U

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: EVBLK4U Date Analyzed: 04/02/2003

Lab File ID: E4110 Time Analyzed: 1138

Instrument ID: E-5973

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLE ANALYSES:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VHBLK01	2761.001	E4120	1939
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COMMENTS _____

5LCA

LOW CONCENTRATION WATER VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No. 31520 Client No: SDG No.: Y0SL3

Lab File ID: E4001 BFB Injection Date: 03/26/2003

Instrument ID: E-5973 BFB Injection Time: 1752

GC Column: DB-624 ID: 0.20 (MM) Column Length: 25 (M)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	13.0
75	30.0 - 66.0% of mass 95	43.8
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.3 (0.3)1
174	50.0 - 120.0% of mass 95	83.0
175	4.0 - 9.0% of mass 174	6.3 (7.6)1
176	93.0 - 101.0% of mass 174	80.6 (97.1)1
177	5.0 - 9.0% of mass 176	5.5 (6.8)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0254M	EVSTD0254M	E4002	03/26/2003	1819
02	VSTD0104M	EVSTD0104M	E4003	03/26/2003	1900
03	VSTD0054M	EVSTD0054M	E4004	03/26/2003	1940
04	VSTD0014M	EVSTD0014M	E4005	03/26/2003	2021
05	VSTD0.54M	EVSTD0.54M	E4006	03/26/2003	2101
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5LCA

LOW CONCENTRATION WATER VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No. 31520 Client No: SDG No.: Y0SL3

Lab File ID: E4008 BFB Injection Date: 03/27/2003

Instrument ID: E-5973 BFB Injection Time: 0753

GC Column: DB-624 ID: 0.20 (MM) Column Length: 25 (M)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	13.4
75	30.0 - 66.0% of mass 95	43.9
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.5 (0.6)1
174	50.0 - 120.0% of mass 95	84.6
175	4.0 - 9.0% of mass 174	6.0 (7.1)1
176	93.0 - 101.0% of mass 174	81.7 (96.6)1
177	5.0 - 9.0% of mass 176	5.6 (6.9)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0054N	EVSTD0054N	E4009	03/27/2003	0859
02	VBLK4N	EVBLK4N	E4010	03/27/2003	0939
03	Y0SL6	2761.004	E4014	03/27/2003	1220
04	Y0SL7	2761.005	E4015	03/27/2003	1300
05	Y0SL3DL	2761.002DL	E4016	03/27/2003	1356
06	Y0SL9	2775.002	E4022	03/27/2003	1838
07	Y0SL3	2761.002	E4023	03/27/2003	1918
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5LCA

LOW CONCENTRATION WATER VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No. 31520 Client No: SDG No.: Y0SL3

Lab File ID: E4069 BFB Injection Date: 03/30/2003

Instrument ID: E-5973 BFB Injection Time: 1138

GC Column: DB-624 ID: 0.20 (MM) Column Length: 25 (M)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	12.8
75	30.0 - 66.0% of mass 95	41.8
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.5 (0.6)1
174	50.0 - 120.0% of mass 95	87.9
175	4.0 - 9.0% of mass 174	6.1 (6.9)1
176	93.0 - 101.0% of mass 174	85.7 (97.5)1
177	5.0 - 9.0% of mass 176	6.0 (6.9)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0054R	EVSTD0054R	E4070	03/30/2003	1206
02	VBLK4R	EVBLK4R	E4071	03/30/2003	1300
03	Y0SL4DL	2761.003DL	E4072	03/30/2003	1339
04	Y0SL4	2761.003	E4073	03/30/2003	1421
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5LCA

LOW CONCENTRATION WATER VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No. 31520 Client No: SDG No.: Y0SL3

Lab File ID: E4076 BFB Injection Date: 03/31/2003

Instrument ID: E-5973 BFB Injection Time: 0954

GC Column: DB-624 ID: 0.20 (MM) Column Length: 25 (M)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8.0 - 40.0% of mass 95	12.5	
75	30.0 - 66.0% of mass 95	42.3	
95	Base peak, 100% relative abundance	100	
96	5.0 - 9.0% of mass 95	6.8	
173	Less than 2.0% of mass 174	0.3	(0.3)1
174	50.0 - 120.0% of mass 95	88.0	
175	4.0 - 9.0% of mass 174	6.1	(7.0)1
176	93.0 - 101.0% of mass 174	83.5	(94.9)1
177	5.0 - 9.0% of mass 176	5.8	(7.0)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0054S	EVSTD0054S	E4078	03/31/2003	1404
02	VBLK4S	EVBLK4S	E4079	03/31/2003	1522
03	Y0SL8	2775.001	E4083	03/31/2003	1800
04	Y0SM0	2775.003	E4084	03/31/2003	1841
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5LCA

LOW CONCENTRATION WATER VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No. 31520 Client No: SDG No.: Y0SL3

Lab File ID: E4108 BFB Injection Date: 04/02/2003

Instrument ID: E-5973 BFB Injection Time: 0910

GC Column: DB-624 ID: 0.20 (MM) Column Length: 25 (M)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	13.3
75	30.0 - 66.0% of mass 95	42.7
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.5 (0.6)1
174	50.0 - 120.0% of mass 95	86.8
175	4.0 - 9.0% of mass 174	6.3 (7.2)1
176	93.0 - 101.0% of mass 174	84.2 (97.0)1
177	5.0 - 9.0% of mass 176	5.3 (6.2)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0054U	EVSTD0054U	E4109	04/02/2003	1017
02	VBLK4U	EVBLK4U	E4110	04/02/2003	1138
03	VHBLK01	2761.001	E4120	04/02/2003	1939
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8LCA

LOW CONCENTRATION WATER VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

EPA SAMPLE No.(VSTD005##): VSTD0054M Date Analyzed: 03/26/2003

Lab File ID (Standard): E4004 Time Analyzed: 1940

Instrument ID: E-5973

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

		IS1(CBZ) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(DCB) AREA #	RT #
	12 HOUR STD	1060903	10.32	1332727	6.30	387145	13.19
	UPPER LIMIT	1485264	10.65	1865817	6.63	542002	13.52
	LOWER LIMIT	636541	9.99	799636	5.97	232286	12.86
	EPA SAMPLE No.						
01	VSTD0254M	1139486	10.31	1304903	6.30	458088	13.19
02	VSTD0104M	934064	10.32	1138656	6.30	372246	13.19
03	VSTD0014M	856245	10.32	1097472	6.30	310961	13.19
04	VSTD0.54M	876806	10.32	1125994	6.31	302861	13.19
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IS1 (CBZ) = Chlorobenzene-d5
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (DCB) = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8LCA

LOW CONCENTRATION WATER VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

EPA SAMPLE No.(VSTD005##): VSTD0054N Date Analyzed: 03/27/2003

Lab File ID (Standard): E4009 Time Analyzed: 0859

Instrument ID: E-5973

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

		IS1(CBZ) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(DCB) AREA #	RT #
	12 HOUR STD	957384	10.32	1192885	6.31	325392	13.19
	UPPER LIMIT	1340337	10.65	1670039	6.64	455548	13.52
	LOWER LIMIT	574430	9.99	715731	5.98	195235	12.86
	EPA SAMPLE No.						
01	VBLK4N	917698	10.32	1146896	6.31	315417	13.19
02	Y0SL6	998952	10.32	1254105	6.31	330112	13.19
03	Y0SL7	893835	10.33	1108574	6.31	305312	13.19
04	Y0SL3DL	742012	10.32	930913	6.31	246968	13.19
05	Y0SL9	1013571	10.32	1324511	6.32	339131	13.19
06	Y0SL3	844669	10.33	1096742	6.31	305285	13.19
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IS1 (CBZ) = Chlorobenzene-d5
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (DCB) = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8LCA

LOW CONCENTRATION WATER VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

EPA SAMPLE No.(VSTD005##): VSTD0054R Date Analyzed: 03/30/2003

Lab File ID (Standard): E4070 Time Analyzed: 1206

Instrument ID: E-5973

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

		IS1(CBZ) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(DCB) AREA #	RT #
	12 HOUR STD	848156	10.32	1093327	6.30	260054	13.19
	UPPER LIMIT	1187418	10.65	1530657	6.63	364075	13.52
	LOWER LIMIT	508893	9.99	655996	5.97	156032	12.86
	EPA SAMPLE No.						
01	VBLK4R	768108	10.32	1090155	6.31	228899	13.19
02	Y0SL4DL	715903	10.31	969100	6.30	232405	13.19
03	Y0SL4	924776	10.31	1120115	6.30	354503	13.19
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IS1 (CBZ) = Chlorobenzene-d5
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (DCB) = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8LCA

LOW CONCENTRATION WATER VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

EPA SAMPLE No.(VSTD005##): VSTD0054S Date Analyzed: 03/31/2003

Lab File ID (Standard): E4078 Time Analyzed: 1404

Instrument ID: E-5973

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

		IS1(CBZ) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(DCB) AREA #	RT #
	12 HOUR STD	818594	10.32	1109197	6.30	271675	13.19
	UPPER LIMIT	1146031	10.65	1552875	6.63	380344	13.52
	LOWER LIMIT	491156	9.99	665518	5.97	163004	12.86
	EPA SAMPLE No.						
01	VBLK4S	727207	10.32	1016494	6.30	267717	13.19
02	Y0SL8	709357	10.31	927515	6.30	237822	13.19
03	Y0SM0	767601	10.31	1021228	6.30	284899	13.19
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IS1 (CBZ) = Chlorobenzene-d5
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (DCB) = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8LCA

LOW CONCENTRATION WATER VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

EPA SAMPLE No.(VSTD005##): VSTD0054U Date Analyzed: 04/02/2003

Lab File ID (Standard): E4109 Time Analyzed: 1017

Instrument ID: E-5973

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

		IS1(CBZ) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(DCB) AREA #	RT #
	12 HOUR STD	755795	10.32	943070	6.30	268487	13.19
	UPPER LIMIT	1058113	10.65	1320298	6.63	375881	13.52
	LOWER LIMIT	453477	9.99	565842	5.97	161092	12.86
	EPA SAMPLE No.						
01	VBLK4U	714456	10.32	924756	6.31	237615	13.19
02	VHBLK01	575106	10.32	787696	6.30	195107	13.19
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IS1 (CBZ) = Chlorobenzene-d5
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (DCB) = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

1LCA
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

Y0SL3

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2761.002 Date Received: 03/20/2003

Lab File ID: E4023 Date Analyzed: 03/27/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.17	J
75-01-4	Vinyl Chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.27	J
75-35-4	1,1-Dichloroethene	81	E
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.68	
67-64-1	Acetone	7.9	
75-15-0	Carbon Disulfide	0.16	J
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.17	JB
156-60-5	trans-1,2-Dichloroethene	0.27	J
1634-04-4	Methyl tert-Butyl Ether	0.25	J
75-34-3	1,1-Dichloroethane	8.4	
156-59-2	cis-1,2-Dichloroethene	13	
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.82	B
71-55-6	1,1,1-Trichloroethane	1.2	
110-82-7	Cyclohexane	0.54	
56-23-5	Carbon Tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	2.2	

1LCB

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS

DATA SHEET

EPA SAMPLE NO.

Y0SL3

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2761.002 Date Received: 03/20/2003

Lab File ID: E4023 Date Analyzed: 03/27/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
79-01-6	Trichloroethene	45	E
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	5.1	
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.87	
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.21	J
127-18-4	Tetrachloroethene	20	
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.19	J
1330-20-7	Xylene (total)	1.4	
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1LCF

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS

DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Y0SL3

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2761.002 Date Received: 03/20/2003

Lab File ID: E4023 Date Analyzed: 03/27/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

Number TICs found: 7

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01	000078-78-4	Butane, 2-methyl-	2.64	1.1	JN
02	000075-43-4	Methane, dichlorofluoro-	2.73	0.61	JN
03	000354-23-4	Ethane, 1,2-dichloro-1,1,2-t	3.05	0.71	JN
04	000611-14-3	Benzene, 1-ethyl-2-methyl-	12.36	0.71	JN
05	000108-67-8	Benzene, 1,3,5-trimethyl-	12.85	1.0	JN
06		UNKNOWN	13.00	0.89	J
07	000124-19-6	Nonanal	14.11	0.74	JN
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4023.D
Acq On : 03/27/2003 1918
Sample : Y0SL3
Misc : 2761.002 25ML
MS Integration Params: RTEINT.P
Quant Time: Mar 27 19:40:51 2003

Vial: 16
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Results File: LCE4009.RES

Kar 04/02/03

GP 4/04/03

Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Thu Mar 27 09:22:08 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4009.D
DataAcq Meth : VOAC

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Difluorobenzene	6.31	114	1096742	5.00 ug/L	0.00
28) Chlorobenzene-d5	10.33	117	844669	5.00 ug/L	0.00
60) 1,4-Dichlorobenzene-d4	13.19	152	305285	5.00 ug/L	0.00
System Monitoring Compounds					
4) Vinyl Chloride-d3	2.16	65	362125	4.50 ug/L	0.01
Spiked Amount 5.000	Range 49 - 138		Recovery	= 90.00%	
7) Chloroethane-d5	2.54	69	312405	4.64 ug/L	0.01
Spiked Amount 5.000	Range 60 - 126		Recovery	= 92.80%	
10) 1,1-Dichloroethene-d2	3.26	65	169620	4.83 ug/L	0.00
Spiked Amount 5.000	Range 65 - 130		Recovery	= 96.60%	
20) 2-Butanone-d5	4.88	46	45752	6.46 ug/L	0.00
Spiked Amount 5.000	Range 42 - 171		Recovery	= 129.20%	
24) Chloroform-d	5.24	86	377175	4.87 ug/L	0.00
Spiked Amount 5.000	Range 80 - 123		Recovery	= 97.40%	
26) 1,2-Dichloroethane-d4	5.81	65	205085	4.95 ug/L	0.00
Spiked Amount 5.000	Range 78 - 129		Recovery	= 99.00%	
32) Benzene-d6	5.85	84	1563759	4.96 ug/L	0.00
Spiked Amount 5.000	Range 78 - 121		Recovery	= 99.20%	
35) 1,2-Dichloropropane-d6	6.80	67	373049	4.22 ug/L	0.00
Spiked Amount 5.000	Range 84 - 123		Recovery	= 84.40%	
41) Toluene-d8	8.21	98	1477309	4.78 ug/L	0.00
Spiked Amount 5.000	Range 77 - 120		Recovery	= 95.60%	
43) trans-1,3-Dichloropropene-	8.54	79	48888	4.63 ug/L	0.00
Spiked Amount 5.000	Range 80 - 128		Recovery	= 92.60%	
47) 2-Hexanone-d5	9.13	46	71255	5.46 ug/L	0.00
Spiked Amount 5.000	Range 37 - 169		Recovery	= 109.20%	
58) 1,1,2,2-Tetrachloroethane-	12.08	84	140663	4.71 ug/L	0.00
Spiked Amount 5.000	Range 75 - 131		Recovery	= 94.20%	
61) Bromoform-d	11.51	174	74787	4.34 ug/L	0.00
Spiked Amount 5.000	Range 76 - 135		Recovery	= 86.80%	
65) 1,2-Dichlorobenzene-d4	13.54	152	291674	4.67 ug/L	0.00
Spiked Amount 5.000	Range 50 - 150		Recovery	= 93.40%	

Target Compounds					Qvalue
3) Chloromethane	2.05	50	43494	0.17 ug/L J	85
9) Trichlorofluoromethane	2.81	101	62150	0.27 ug/L J	98
11) 1,1-Dichloroethene	3.28	96	7612784	81.43 ug/L # E	50
12) 1,1,2-Trichloro-1,2,2-trif	3.28	101	70388	0.68 ug/L #	75
13) Acetone	3.30	43	37000	7.89 ug/L	69
14) Carbon Disulfide	3.50	76	49881	0.16 ug/L J	90
16) Methylene Chloride	3.71	84	13981	0.17 ug/L #JB	72
17) trans-1,2-Dichloroethene	3.96	96	27238	0.27 ug/L J	96
18) Methyl tert-Butyl Ether	3.97	73	29160	0.25 ug/L #J	1
19) 1,1-Dichloroethane	4.36	63	1266130	8.40 ug/L	99
21) cis-1,2-Dichloroethene	4.94	96	1078405	12.62 ug/L	99
25) Chloroform	5.26	83	116706	0.82 ug/L B	91
27) 1,2-Dichloroethane	5.90	62	127614	2.22 ug/L	98
29) 1,1,1-Trichloroethane	5.49	97	161070	1.22 ug/L	99
30) Cyclohexane	5.57	56	88279	0.54 ug/L #	67
34) Trichloroethene	6.65	95	3736765	45.41 ug/L E	98
37) 1,2-Dichloropropane	6.91	63	372155	5.10 ug/L	98
42) Toluene	8.30	91	356786	0.87 ug/L	99
45) 1,1,2-Trichloroethane	8.85	97	7562	0.21 ug/L #J	81
46) Tetrachloroethene	9.09	164	1750442	20.15 ug/L	99

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4023.D Vial: 16
Acq On : 03/27/2003 1918 Operator: AK
Sample : Y0SL3 Inst : E-5973
Misc : 2761.002 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 27 19:40:51 2003 Quant Results File: LCE4009.RES

Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Thu Mar 27 09:22:08 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4009.D
DataAcq Meth : VOAC

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
52) Ethylbenzene	10.54	91	75357	0.19 ug/L J	100
53) m/p-Xylene	10.73	106	129306	0.84 ug/L	98
54) o-Xylene	11.29	106	63072 NP	0.47 ug/L J	94
55) Xylene (total)	10.73	106	193050m	1.44 ug/L	

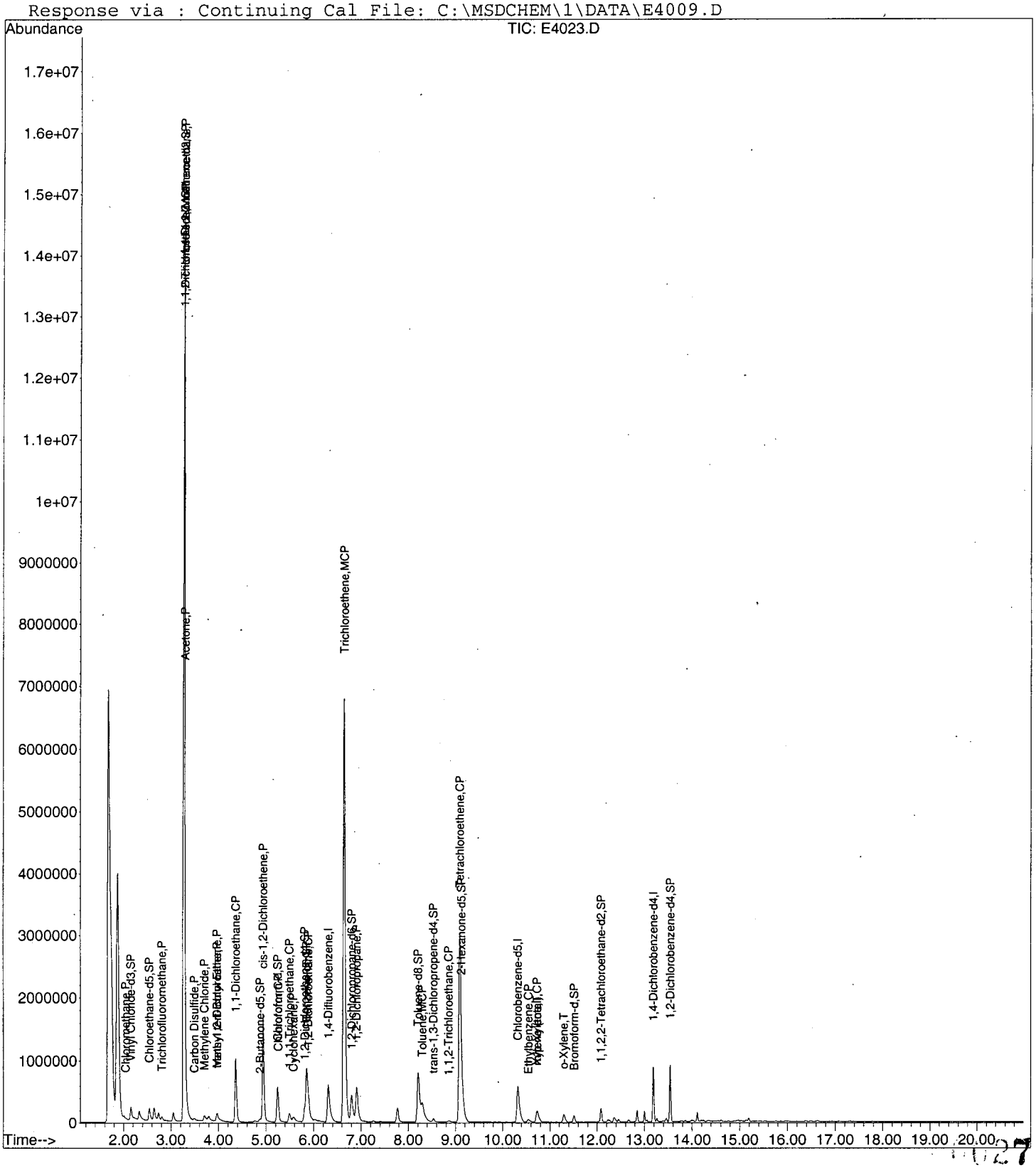
04/02/03

(#) = qualifier out of range (m) = manual integration (+) = signals summed

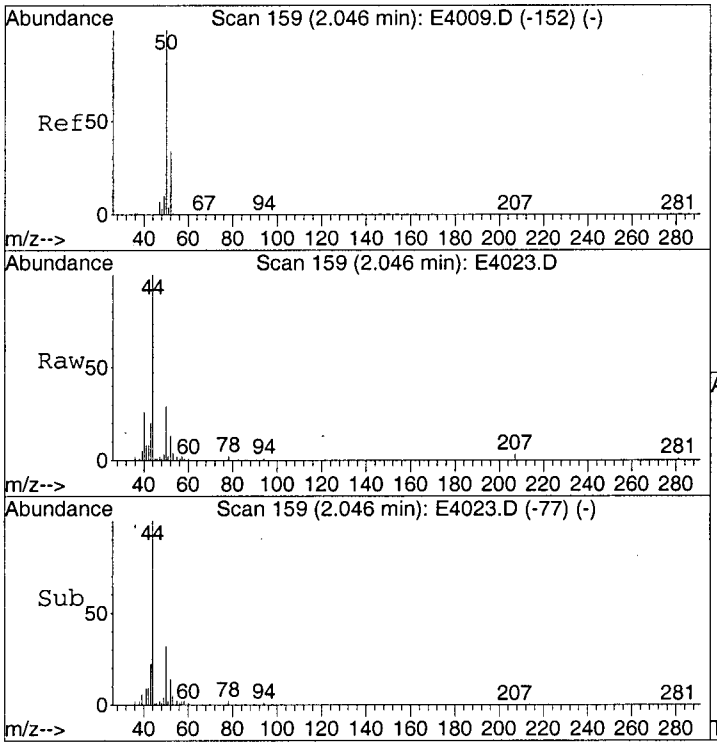
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4023.D Vial: 16
Acq On : 03/27/2003 1918 Operator: AK
Sample : Y0SL3 Inst : E-5973
Misc : 2761.002 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 2 11:05 2003 Quant Results File: LCE4009.RES

Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Thu Mar 27 09:22:08 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4009.D



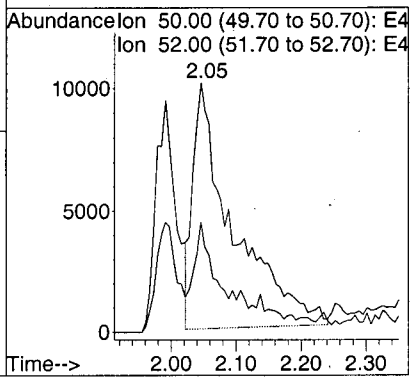
Data File : C:\MSDCHEM\1\DATA\E4023.D Vial: 16
Acq On : 03/27/2003 1918 Operator: AK
Sample : Y0SL3 Inst : E-5973
Misc : 2761.002 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

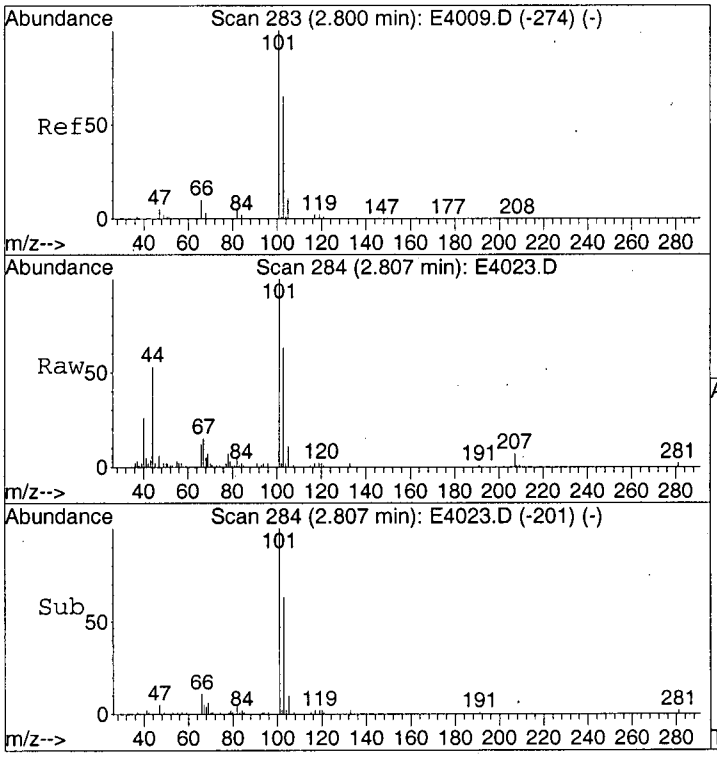


#3
Chloromethane
Concen: 0.17 ug/L
RT: 2.05 min Scan# 159
Delta R.T. 0.00 min
Lab File: E4023.D
Acq: 27 Mar 2003 19:18

Tgt Ion: 50 Resp: 43494

Ion	Ratio	Lower	Upper
50	100		
52	41.6	13.2	53.2

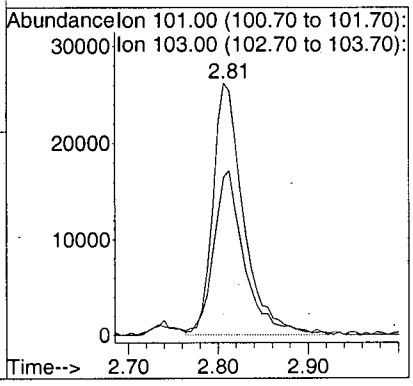




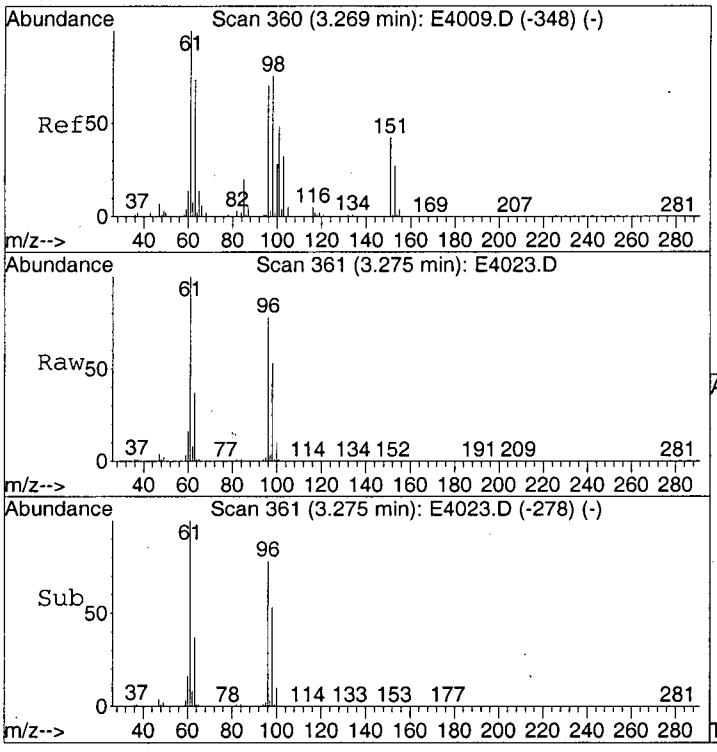
#9
Trichlorofluoromethane
Concen: 0.27 ug/L
RT: 2.81 min Scan# 284
Delta R.T. 0.01 min
Lab File: E4023.D
Acq: 27 Mar 2003 19:18

Tgt Ion:101 Resp: 62150

Ion	Ratio	Lower	Upper
101	100		
103	66.4	45.2	85.2



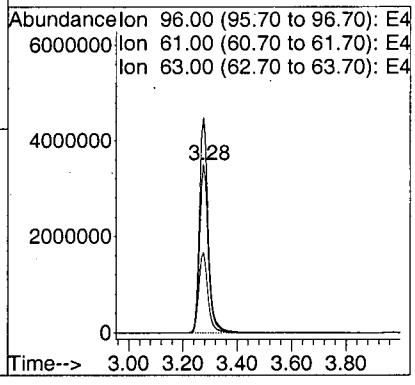
Data File : C:\MSDCHEM\1\DATA\E4023.D Vial: 16
Acq On : 03/27/2003 1918 Operator: AK
Sample : Y0SL3 Inst : E-5973
Misc : 2761.002 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

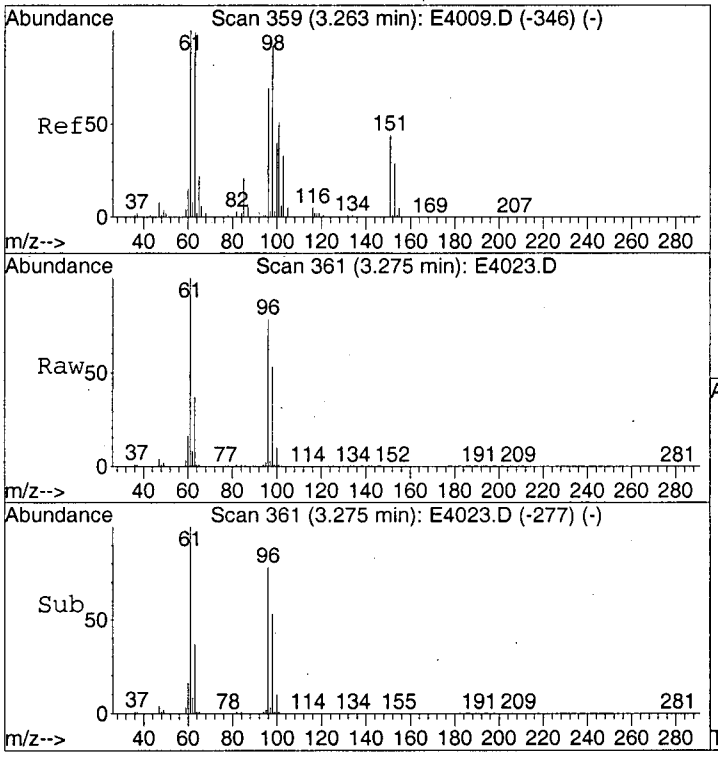


#11
1,1-Dichloroethene
Concen: 81.43 ug/L
RT: 3.28 min Scan# 361
Delta R.T. 0.01 min
Lab File: E4023.D
Acq: 27 Mar 2003 19:18

Tgt Ion: 96 Resp: 7612784

Ion	Ratio	Lower	Upper
96	100		
61	131.8	126.8	166.8
63	50.4	142.5	182.5#

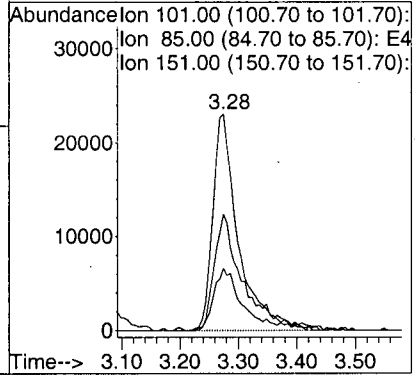




#12
1,1,2-Trichloro-1,2,2-trifluoroethane
Concen: 0.68 ug/L
RT: 3.28 min Scan# 361
Delta R.T. 0.01 min
Lab File: E4023.D
Acq: 27 Mar 2003 19:18

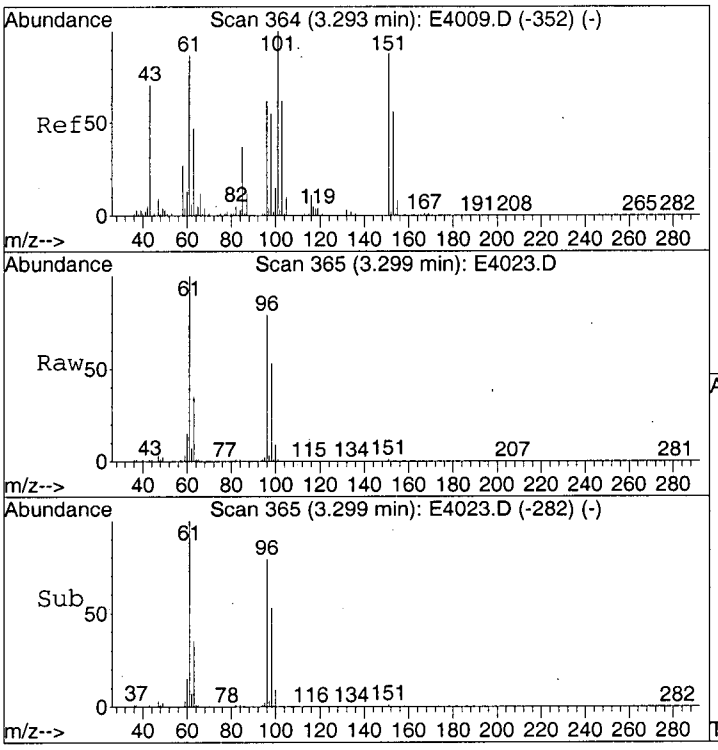
Tgt Ion:101 Resp: 70388

Ion	Ratio	Lower	Upper
101	100		
85	32.8	20.0	60.0
151	58.7	67.5	107.5#



0029

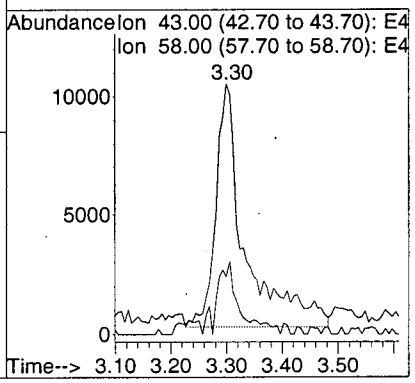
Data File : C:\MSDCHEM\1\DATA\E4023.D Vial: 16
Acq On : 03/27/2003 1918 Operator: AK
Sample : Y0SL3 Inst : E-5973
Misc : 2761.002 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

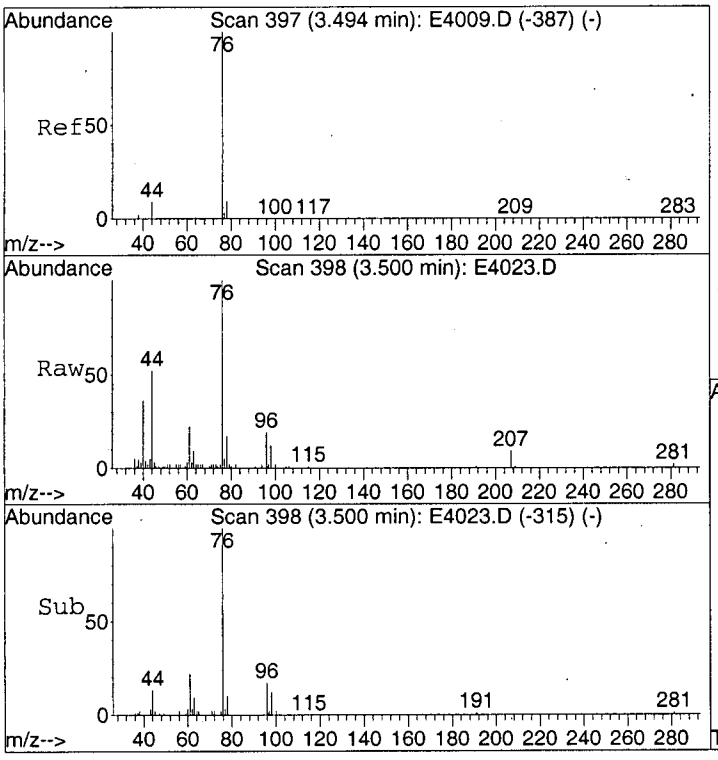


#13
Acetone
Concen: 7.89 ug/L
RT: 3.30 min Scan# 365
Delta R.T. 0.01 min
Lab File: E4023.D
Acq: 27 Mar 2003 19:18

Tgt Ion: 43 Resp: 37000

Ion	Ratio	Lower	Upper
43	100		
58	23.1	22.6	62.6

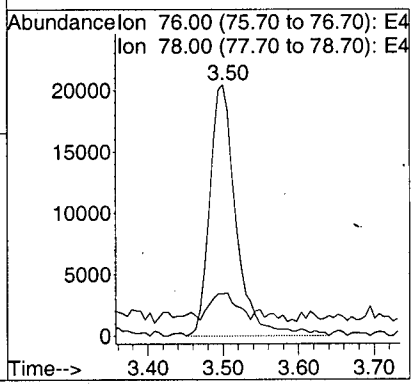




#14
Carbon Disulfide
Concen: 0.16 ug/L
RT: 3.50 min Scan# 398
Delta R.T. 0.01 min
Lab File: E4023.D
Acq: 27 Mar 2003 19:18

Tgt Ion: 76 Resp: 49881

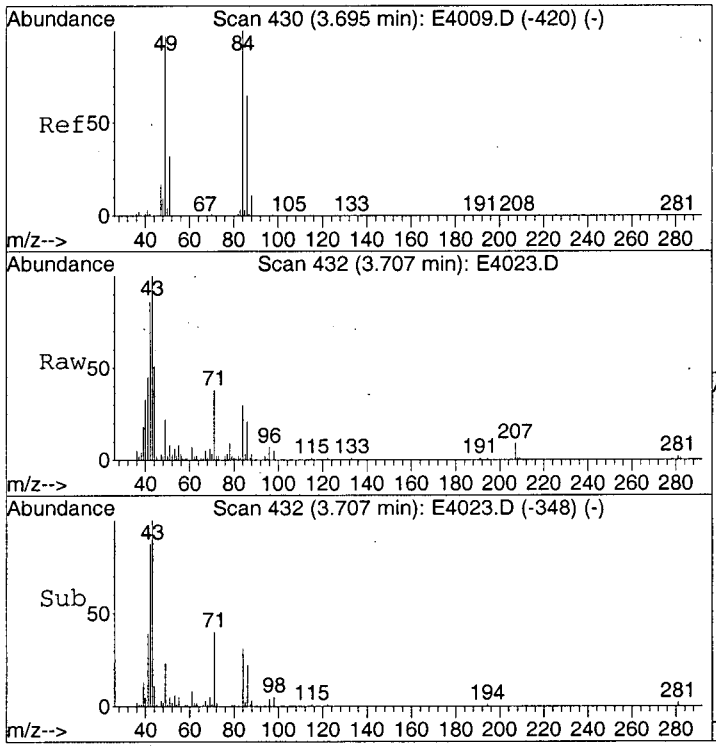
Ion	Ratio	Lower	Upper
76	100		
78	13.2	0.0	29.4



0030

Data File : C:\MSDCHEM\1\DATA\E4023.D
Acq On : 03/27/2003 1918
Sample : Y0SL3
Misc : 2761.002 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

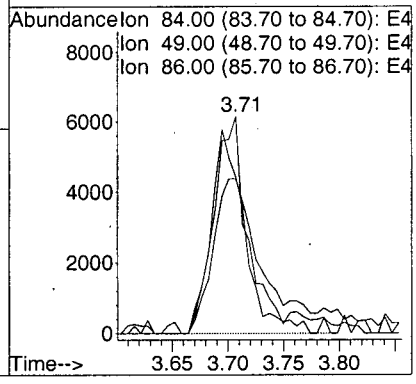
Vial: 16
Operator: AK
Inst : E-5973
Multiplr: 1.00

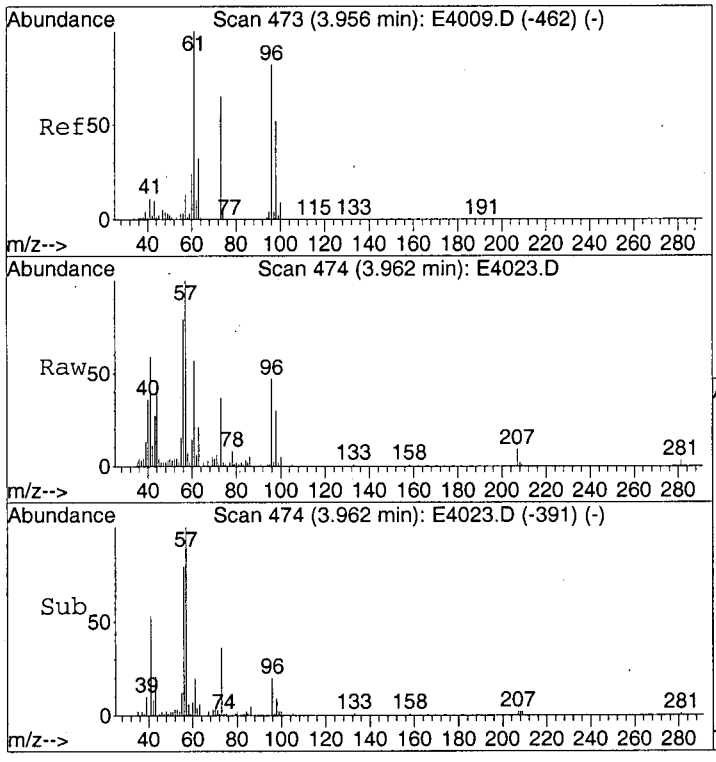


#16
Methylene Chloride
Concen: 0.17 ug/L
RT: 3.71 min Scan# 432
Delta R.T. 0.01 min
Lab File: E4023.D
Acq: 27 Mar 2003 19:18

Tgt Ion: 84 Resp: 13981

Ion	Ratio	Lower	Upper
84	100		
49	86.4	76.2	116.2
86	106.5	43.2	83.2#

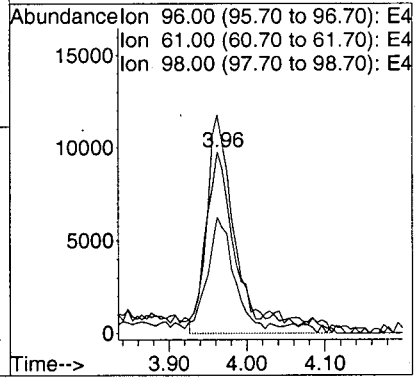




#17
trans-1,2-Dichloroethene
Concen: 0.27 ug/L
RT: 3.96 min Scan# 474
Delta R.T. 0.01 min
Lab File: E4023.D
Acq: 27 Mar 2003 19:18

Tgt Ion: 96 Resp: 27238

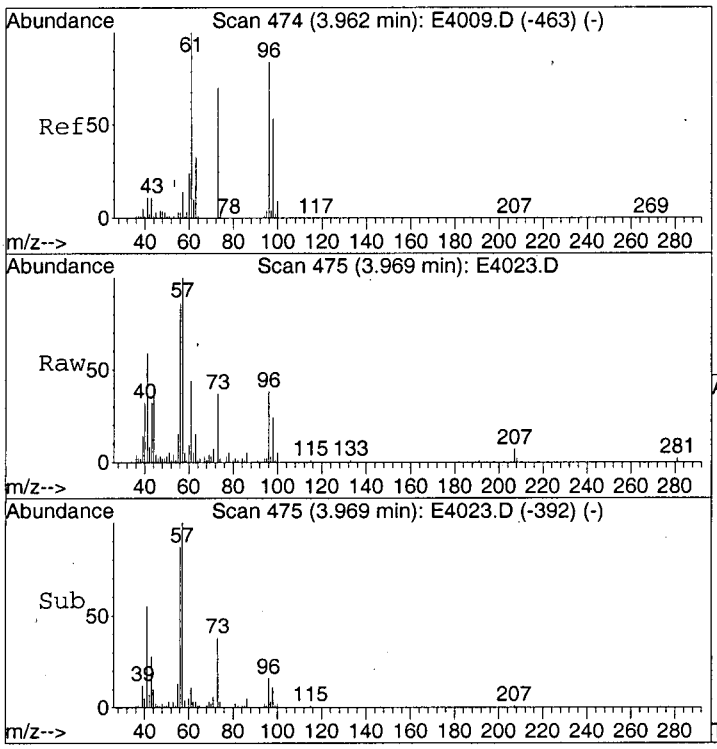
Ion	Ratio	Lower	Upper
96	100		
61	114.6	100.0	140.0
98	61.1	42.9	82.9



0031

Data File : C:\MSDCHEM\1\DATA\E4023.D
Acq On : 03/27/2003 1918
Sample : Y0SL3
Misc : 2761.002 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

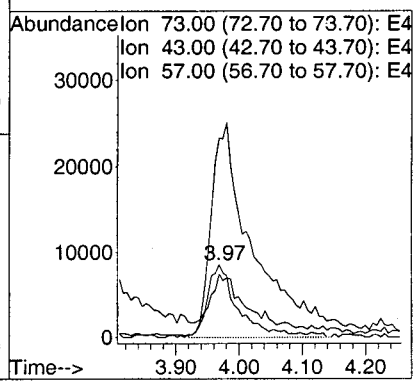
Vial: 16
Operator: AK
Inst : E-5973
Multiplr: 1.00

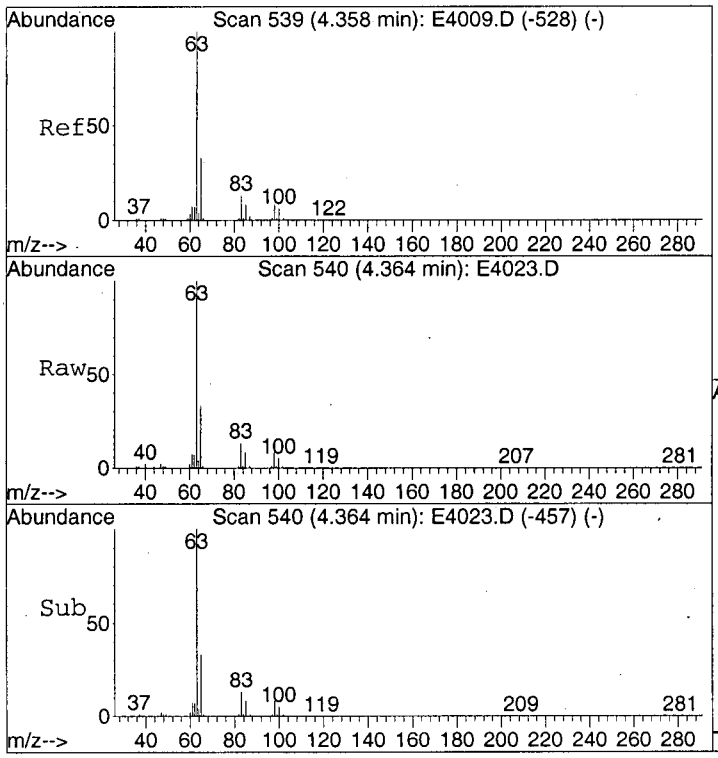


#18
Methyl tert-Butyl Ether
Concen: 0.25 ug/L
RT: 3.97 min Scan# 475
Delta R.T. 0.01 min
Lab File: E4023.D
Acq: 27 Mar 2003 19:18

Tgt Ion: 73 Resp: 29160

Ion	Ratio	Lower	Upper
73	100		
43	111.4	0.0	35.3#
57	415.7	0.2	40.2#

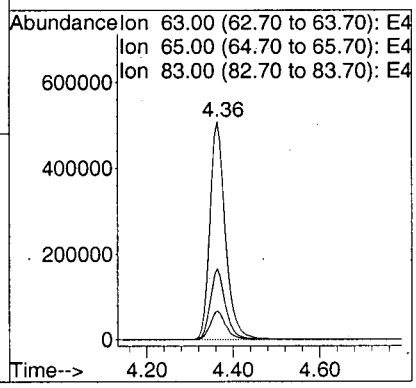




#19
1,1-Dichloroethane
Concen: 8.40 ug/L
RT: 4.36 min Scan# 540
Delta R.T. 0.01 min
Lab File: E4023.D
Acq: 27 Mar 2003 19:18

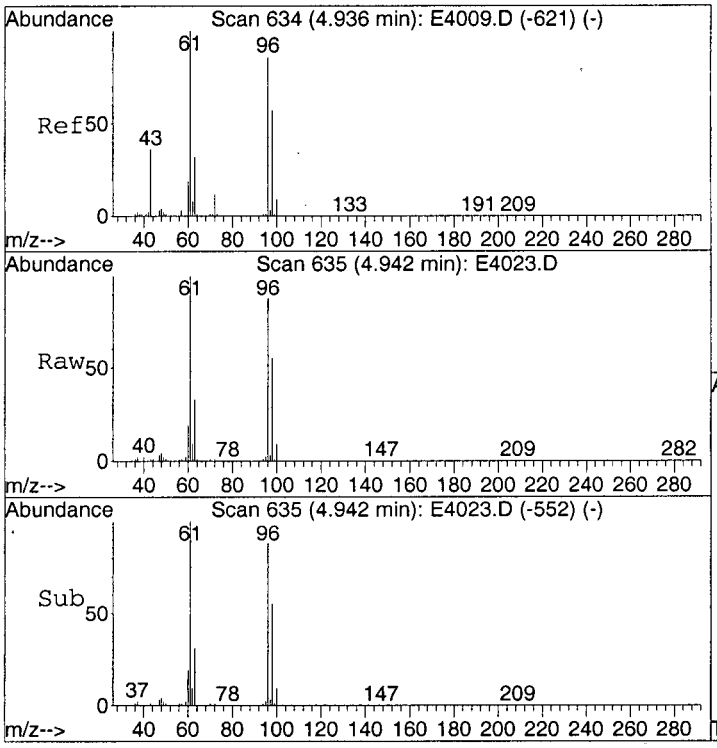
Tgt Ion: 63 Resp: 1266130

Ion	Ratio	Lower	Upper
63	100		
65	31.9	12.4	52.4
83	13.1	0.0	33.0



0032

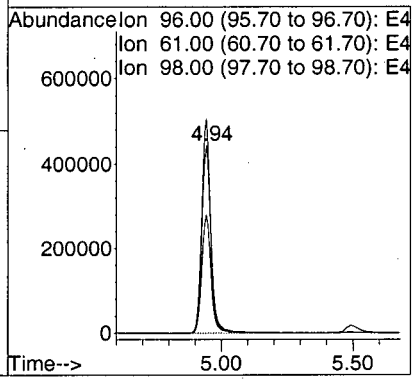
Data File : C:\MSDCHEM\1\DATA\E4023.D Vial: 16
Acq On : 03/27/2003 1918 Operator: AK
Sample : Y0SL3 Inst : E-5973
Misc : 2761.002 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

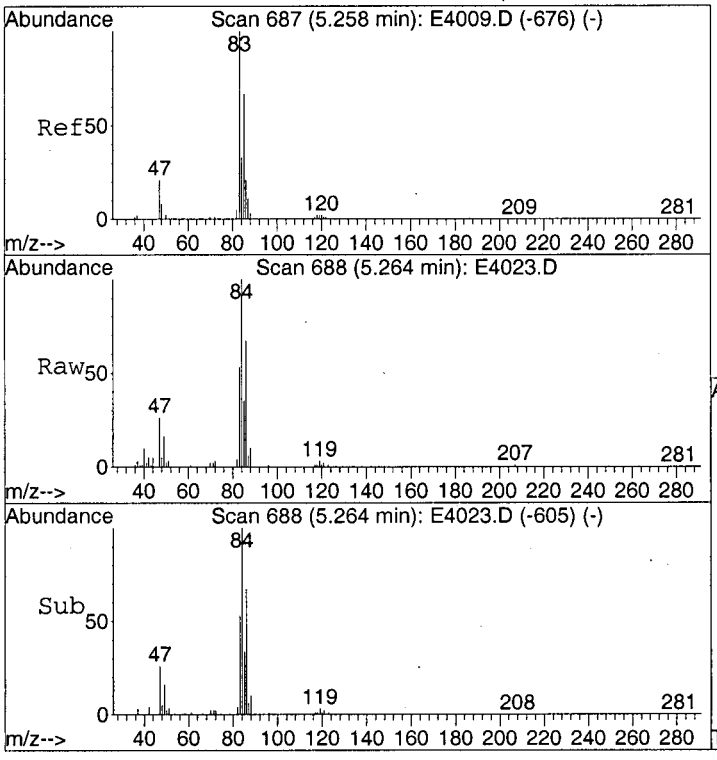


#21
cis-1,2-Dichloroethene
Concen: 12.62 ug/L
RT: 4.94 min Scan# 635
Delta R.T. 0.01 min
Lab File: E4023.D
Acq: 27 Mar 2003 19:18

Tgt Ion: 96 Resp: 1078405

Ion	Ratio	Lower	Upper
96	100		
61	113.9	95.9	135.9
98	62.9	43.4	83.4

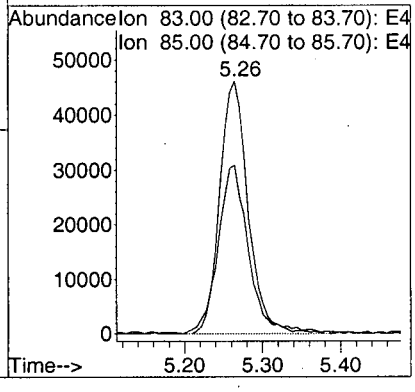




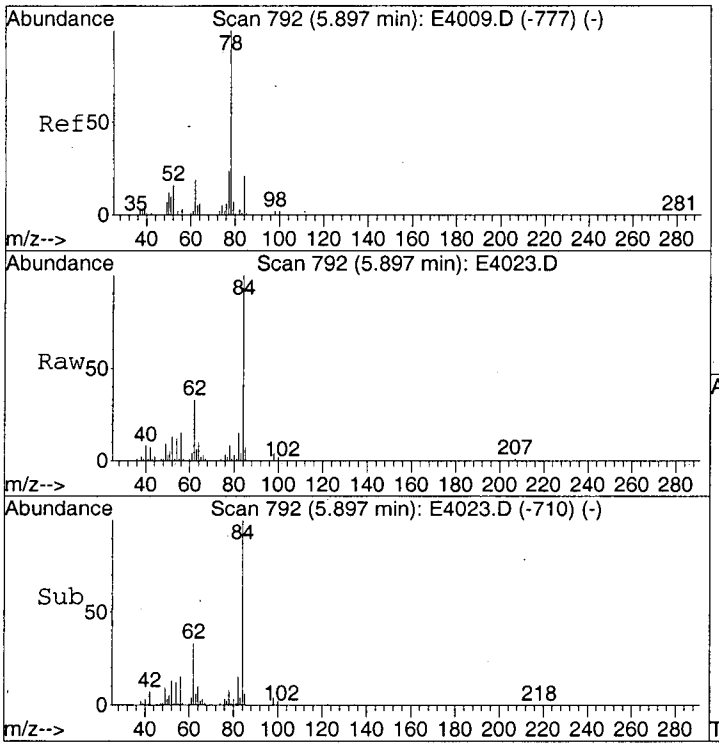
#25
Chloroform
Concen: 0.82 ug/L
RT: 5.26 min Scan# 688
Delta R.T. 0.01 min
Lab File: E4023.D
Acq: 27 Mar 2003 19:18

Tgt Ion: 83 Resp: 116706

Ion	Ratio	Lower	Upper
83	100		
85	73.1	45.9	85.9



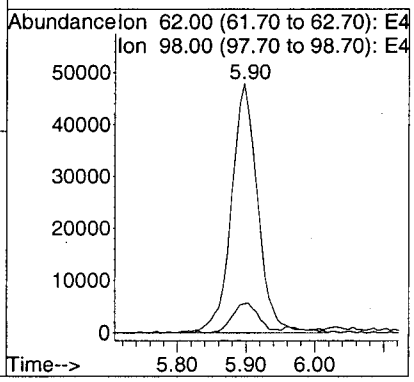
Data File : C:\MSDCHEM\1\DATA\E4023.D Vial: 16
Acq On : 03/27/2003 1918 Operator: AK
Sample : Y0SL3 Inst : E-5973
Misc : 2761.002 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

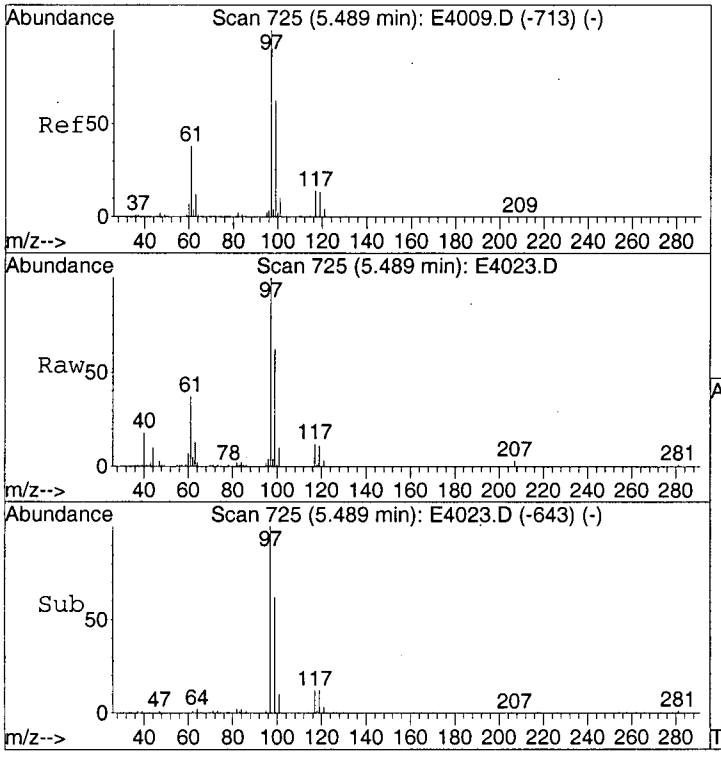


#27
1,2-Dichloroethane
Concen: 2.22 ug/L
RT: 5.90 min Scan# 792
Delta R.T. 0.00 min
Lab File: E4023.D
Acq: 27 Mar 2003 19:18

Tgt Ion: 62 Resp: 127614

Ion	Ratio	Lower	Upper
62	100		
98	12.1	0.0	31.5

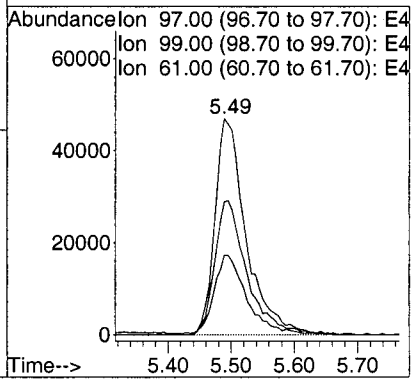




#29
1,1,1-Trichloroethane
Concen: 1.22 ug/L
RT: 5.49 min Scan# 725
Delta R.T. 0.00 min
Lab File: E4023.D
Acq: 27 Mar 2003 19:18

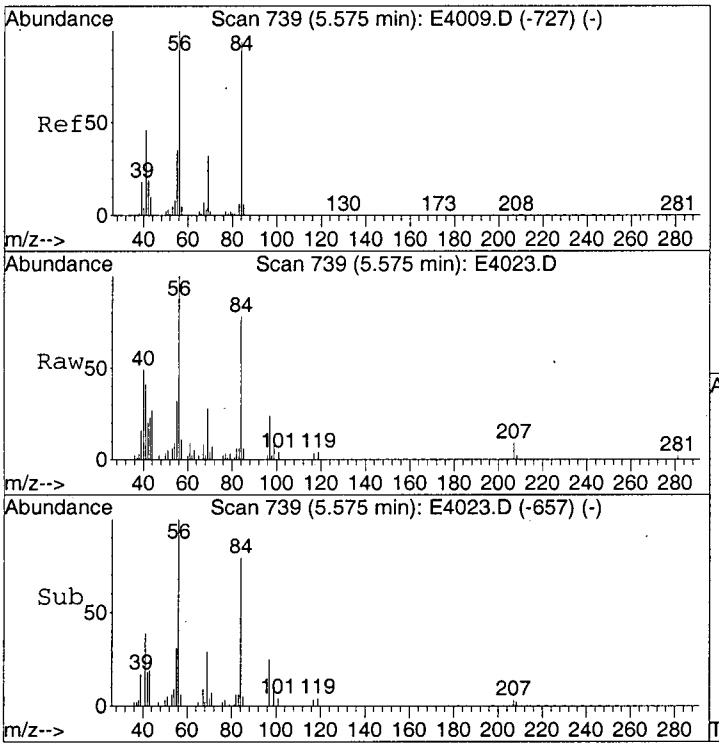
Tgt Ion: 97 Resp: 161070

Ion	Ratio	Lower	Upper
97	100		
99	63.9	44.6	84.6
61	38.9	17.8	57.8



0034

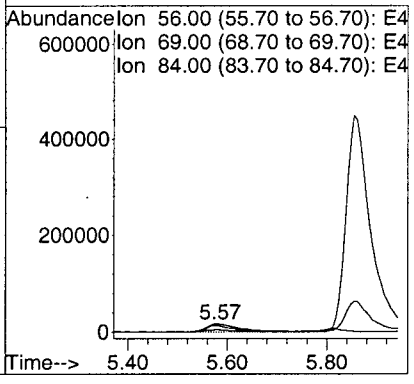
Data File : C:\MSDCHEM\1\DATA\E4023.D Vial: 16
Acq On : 03/27/2003 1918 Operator: AK
Sample : Y0SL3 Inst : E-5973
Misc : 2761.002 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

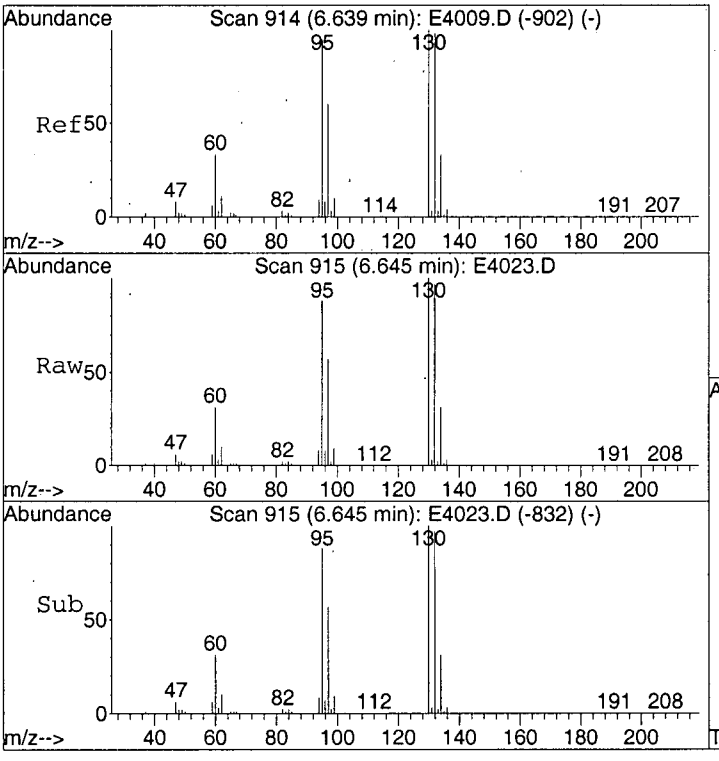


#30
Cyclohexane
Concen: 0.54 ug/L
RT: 5.57 min Scan# 739
Delta R.T. 0.00 min
Lab File: E4023.D
Acq: 27 Mar 2003 19:18

Tgt Ion: 56 Resp: 88279

Ion	Ratio	Lower	Upper
56	100		
69	23.0	11.9	51.9
84	63.1	82.1	122.1#

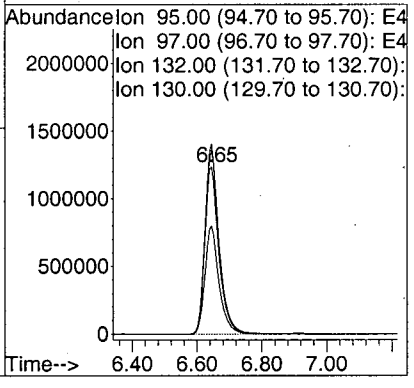




#34
Trichloroethene
Concen: 45.41 ug/L
RT: 6.65 min Scan# 915
Delta R.T. 0.01 min
Lab File: E4023.D
Acq: 27 Mar 2003 19:18

Tgt Ion: 95 Resp: 3736765

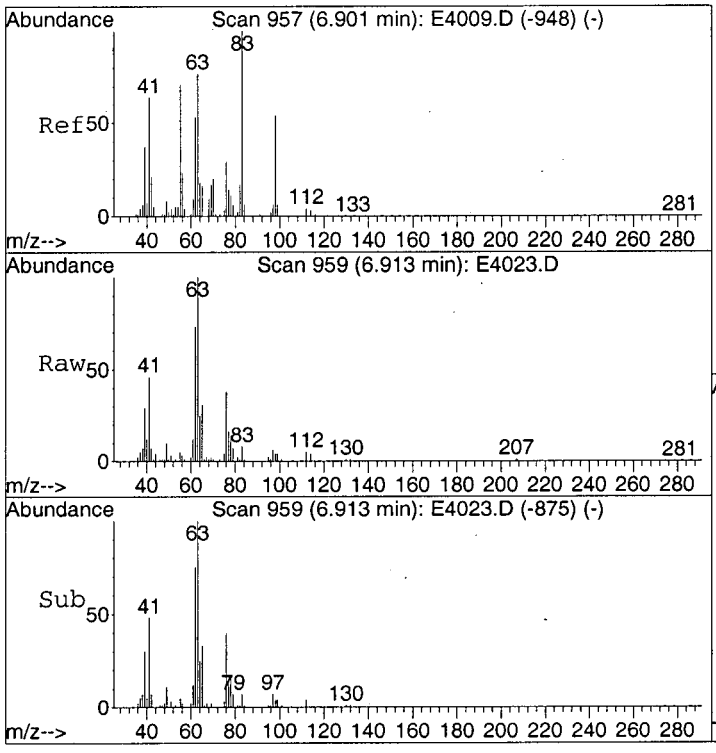
Ion	Ratio	Lower	Upper
95	100		
97	64.5	43.5	83.5
132	109.0	86.1	126.1
130	113.4	90.4	130.4



0035

Data File : C:\MSDCHEM\1\DATA\E4023.D
Acq On : 03/27/2003 1918
Sample : Y0SL3
Misc : 2761.002 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

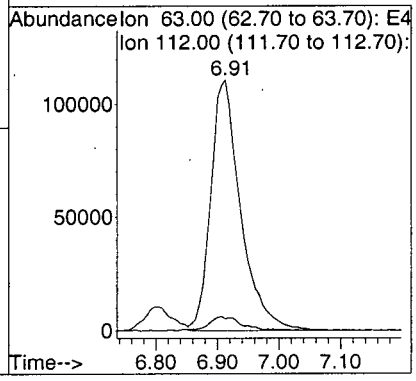
Vial: 16
Operator: AK
Inst : E-5973
Multiplr: 1.00

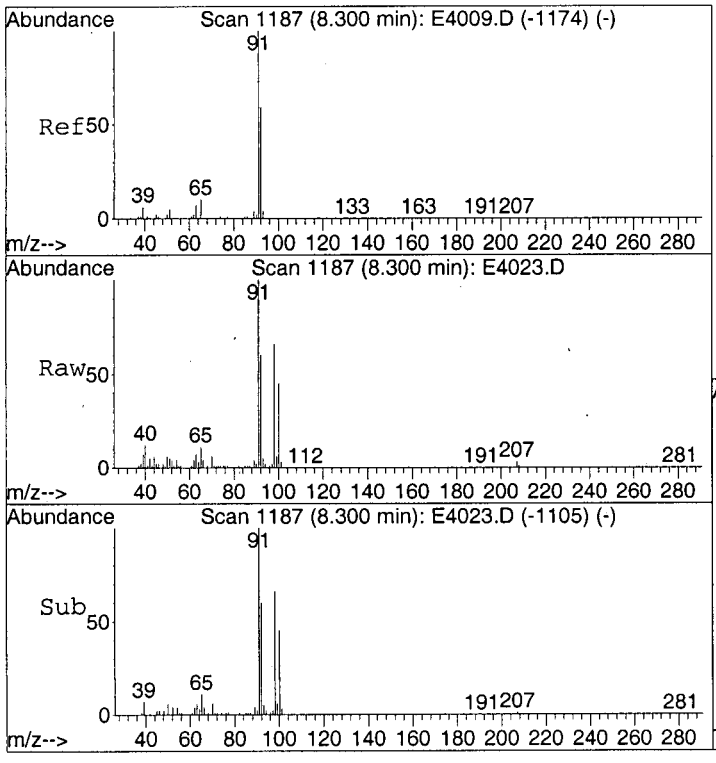


#37
1,2-Dichloropropane
Concen: 5.10 ug/L
RT: 6.91 min Scan# 959
Delta R.T. 0.01 min
Lab File: E4023.D
Acq: 27 Mar 2003 19:18

Tgt Ion: 63 Resp: 372155

Ion	Ratio	Lower	Upper
63	100		
112	6.2	0.0	25.4

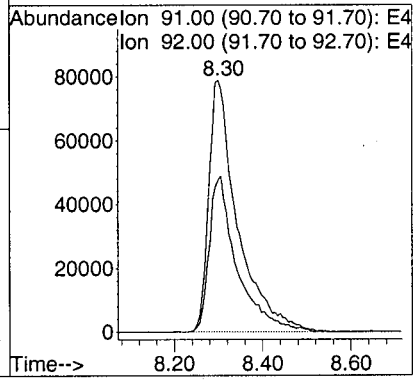




#42
Toluene
Concen: 0.87 ug/L
RT: 8.30 min Scan# 1187
Delta R.T. 0.00 min
Lab File: E4023.D
Acq: 27 Mar 2003 19:18

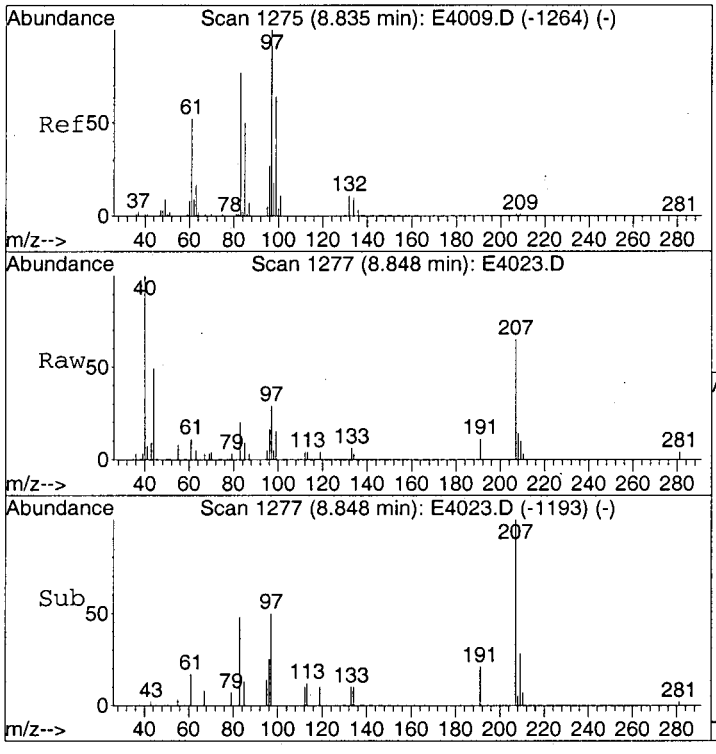
Tgt Ion: 91 Resp: 356786

Ion	Ratio	Lower	Upper
91	100		
92	59.8	39.2	79.2



0036

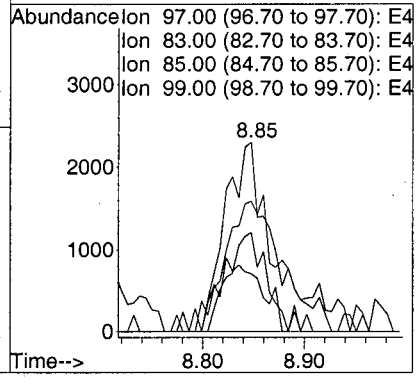
Data File : C:\MSDCHEM\1\DATA\E4023.D Vial: 16
Acq On : 03/27/2003 1918 Operator: AK
Sample : Y0SL3 Inst : E-5973
Misc : 2761.002 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

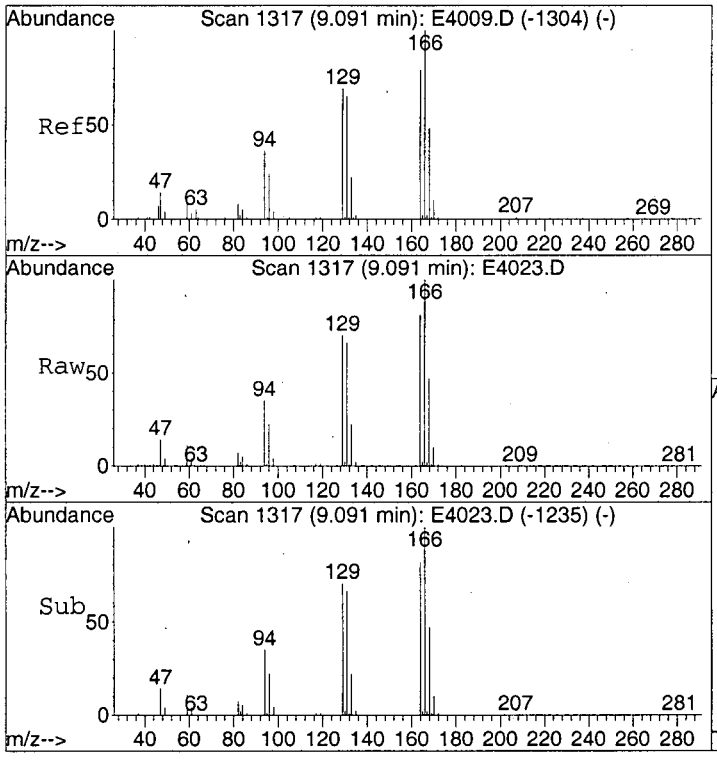


#45
1,1,2-Trichloroethane
Concen: 0.21 ug/L
RT: 8.85 min Scan# 1277
Delta R.T. 0.01 min
Lab File: E4023.D
Acq: 27 Mar 2003 19:18

Tgt Ion: 97 Resp: 7562

Ion	Ratio	Lower	Upper
97	100		
83	88.4	61.4	101.4
85	34.6	31.6	71.6
99	40.7	43.6	83.6#

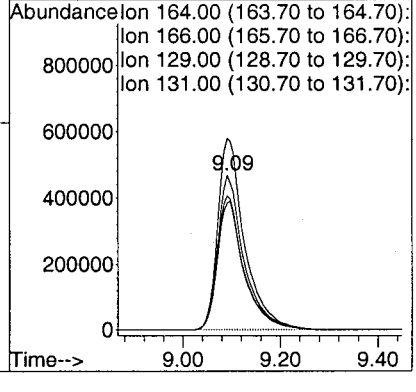




#46
Tetrachloroethene
Concen: 20.15 ug/L
RT: 9.09 min Scan# 1317
Delta R.T. 0.00 min
Lab File: E4023.D
Acq: 27 Mar 2003 19:18

Tgt Ion:164 Resp: 1750442

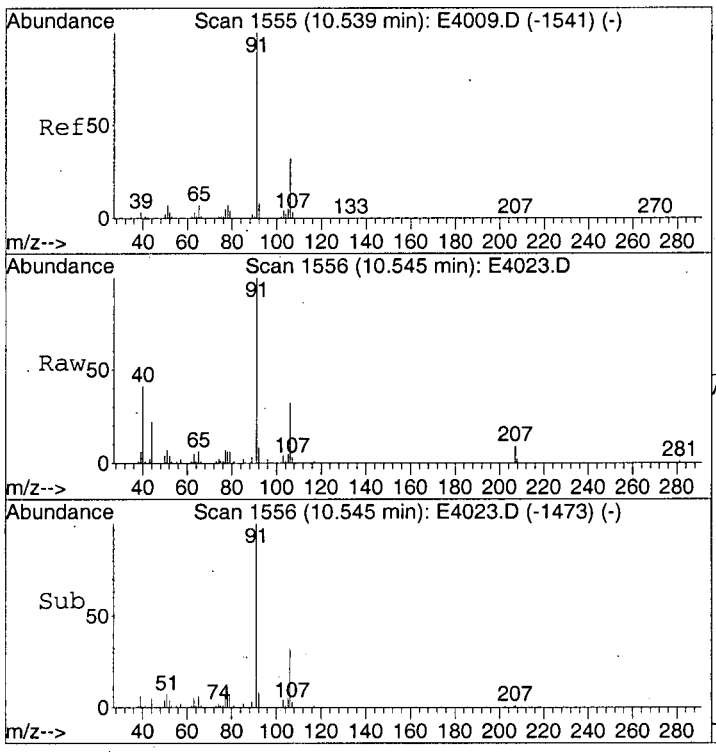
Ion	Ratio	Lower	Upper
164	100		
166	126.7	105.5	145.5
129	88.1	68.3	108.3
131	84.5	64.9	104.9



0037

Data File : C:\MSDCHEM\1\DATA\E4023.D
Acq On : 03/27/2003 1918
Sample : Y0SL3
Misc : 2761.002 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

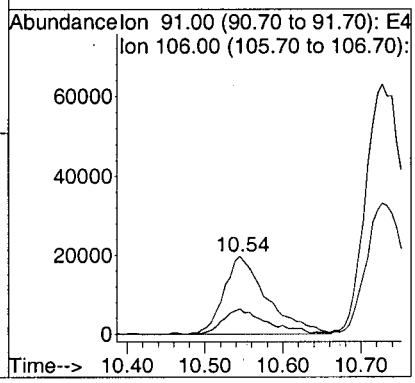
Vial: 16
Operator: AK
Inst : E-5973
Multiplr: 1.00

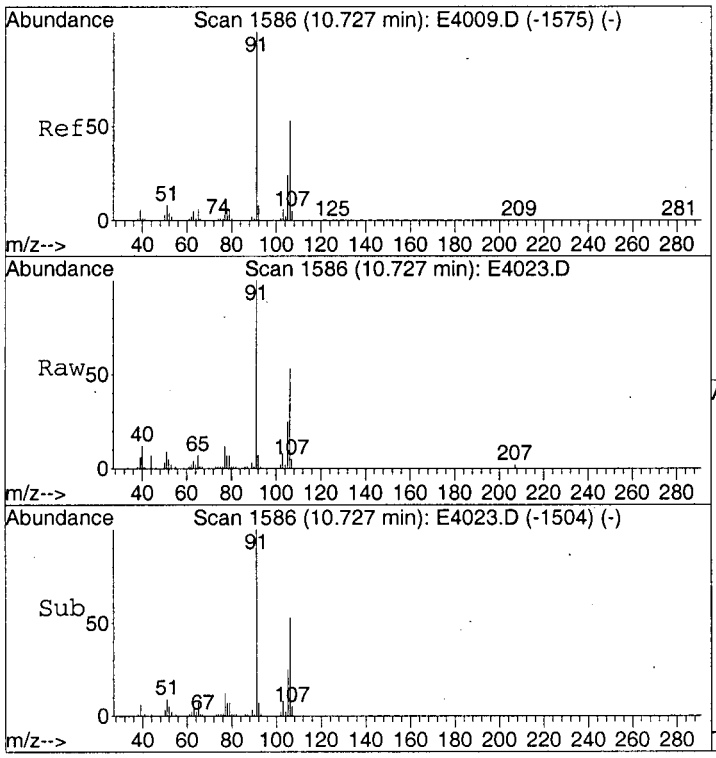


#52
Ethylbenzene
Concen: 0.19 ug/L
RT: 10.54 min Scan# 1556
Delta R.T. 0.01 min
Lab File: E4023.D
Acq: 27 Mar 2003 19:18

Tgt Ion: 91 Resp: 75357

Ion	Ratio	Lower	Upper
91	100		
106	32.9	12.7	52.7

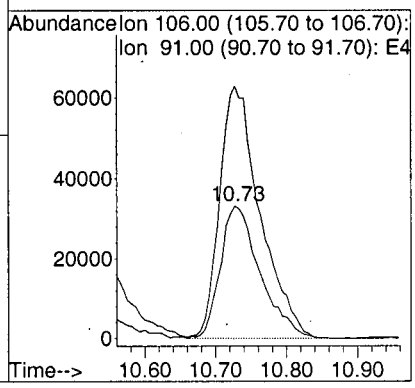




#53
m/p-Xylene
Concen: 0.84 ug/L
RT: 10.73 min Scan# 1586
Delta R.T. 0.00 min
Lab File: E4023.D
Acq: 27 Mar 2003 19:18

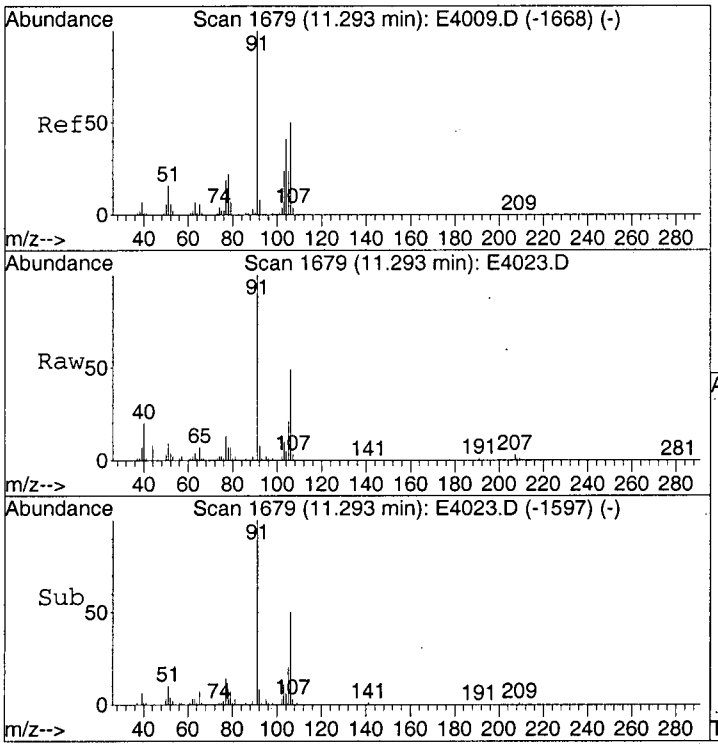
Tgt Ion:106 Resp: 129306

Ion	Ratio	Lower	Upper
106	100		
91	193.4	171.1	211.1



0038

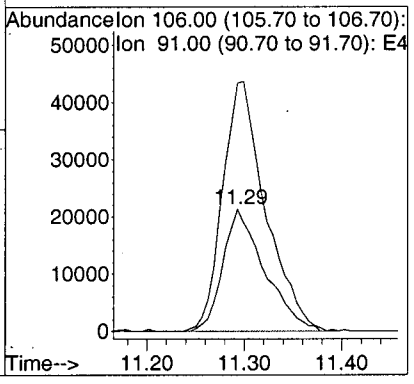
Data File : C:\MSDCHEM\1\DATA\E4023.D Vial: 16
Acq On : 03/27/2003 1918 Operator: AK
Sample : Y0SL3 Inst : E-5973
Misc : 2761.002 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

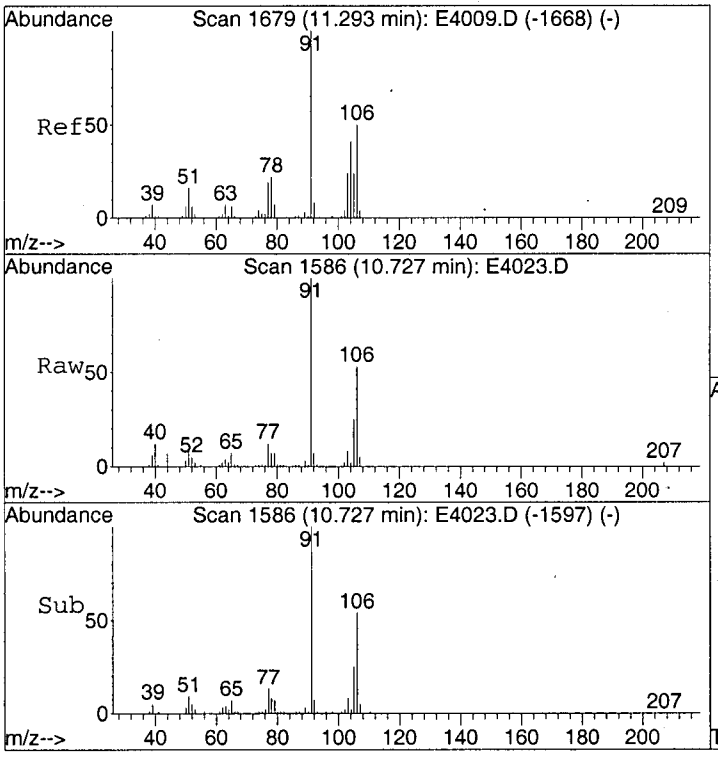


#54
o-Xylene
Concen: 0.47 ug/L
RT: 11.29 min Scan# 1679
Delta R.T. 0.00 min
Lab File: E4023.D
Acq: 27 Mar 2003 19:18

Tgt Ion:106 Resp: 63072

Ion	Ratio	Lower	Upper
106	100		
91	211.2	181.4	221.4

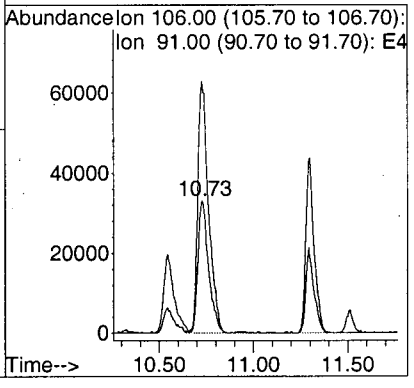




#55
Xylene (total)
Concen: 1.44 ug/L m
RT: 10.73 min Scan# 1586
Delta R.T. -0.57 min
Lab File: E4023.D
Acq: 27 Mar 2003 19:18

Tgt Ion:106 Resp: 193050

Ion	Ratio	Lower	Upper
106	100		
91	69.0	181.4	221.4#



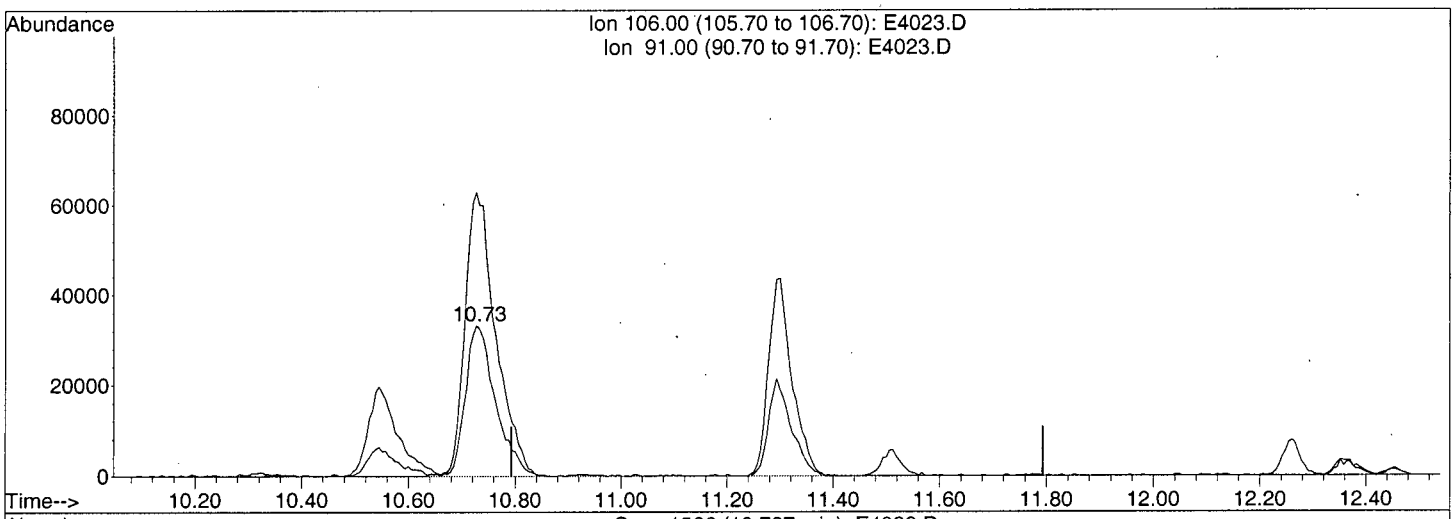
Quantitation Report (Qedit)

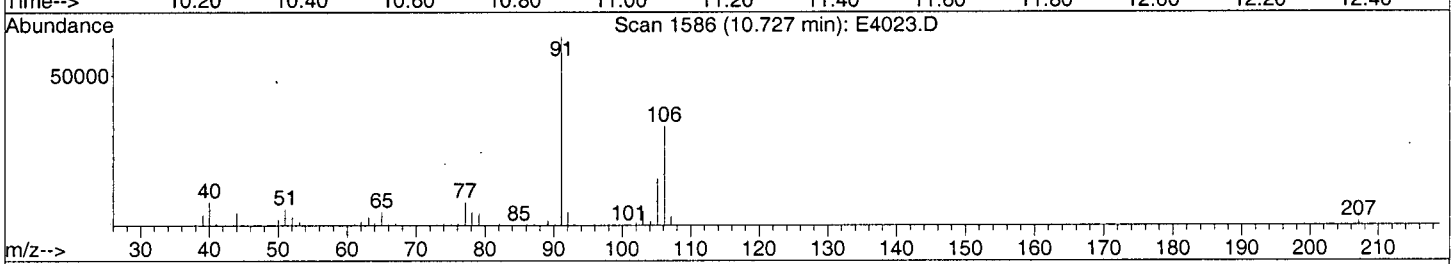
Data File : C:\MSDCHEM\1\DATA\E4023.D
Acq On : 03/27/2003 1918
Sample : Y0SL3
Misc : 2761.002 25ML
MS Integration Params: RTEINT.P
Quant Time: Apr 2 11:05 2003

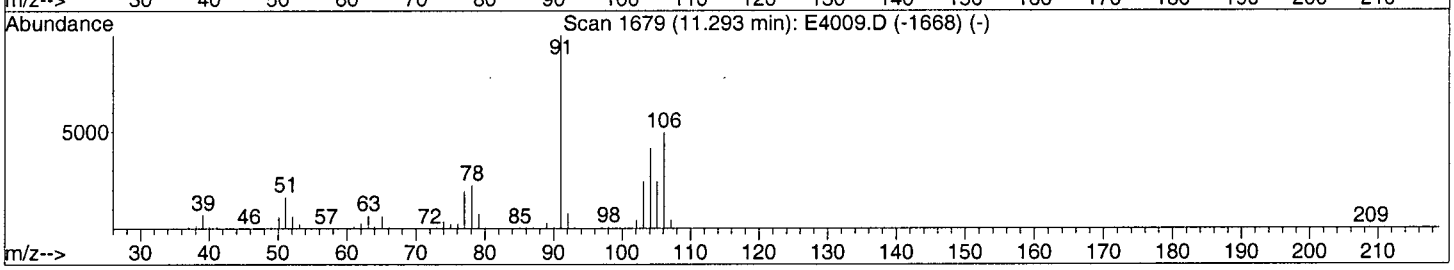
Vial: 16
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Thu Mar 27 09:22:08 2003
Response via : Single Level Calibration







TIC: E4023.D

(55) Xylene (total) (CP)

10.73min 1.44ug/L m

response 193050

KA 04/02/03

Ion	Exp%	Act%
106.00	100	100
91.00	201.40	69.00#
0.00	0.00	0.00
0.00	0.00	0.00

E4023.D LCE4009.M Wed Apr 02 11:06:00 2003

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\E4023.D
Acq On : 03/27/2003 1918
Sample : Y0SL3
Misc : 2761.002 25ML
MS Integration Params: Lscint.p

Vial: 16
Operator: AK
Inst : E-5973
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Smoothing : OFF
Filtering: 5
Sampling : 1
Min Area: 100000 Area counts
Start Thrs: 0.2
Max Peaks: 40
Stop Thrs : 0
Peak Location: TOP

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

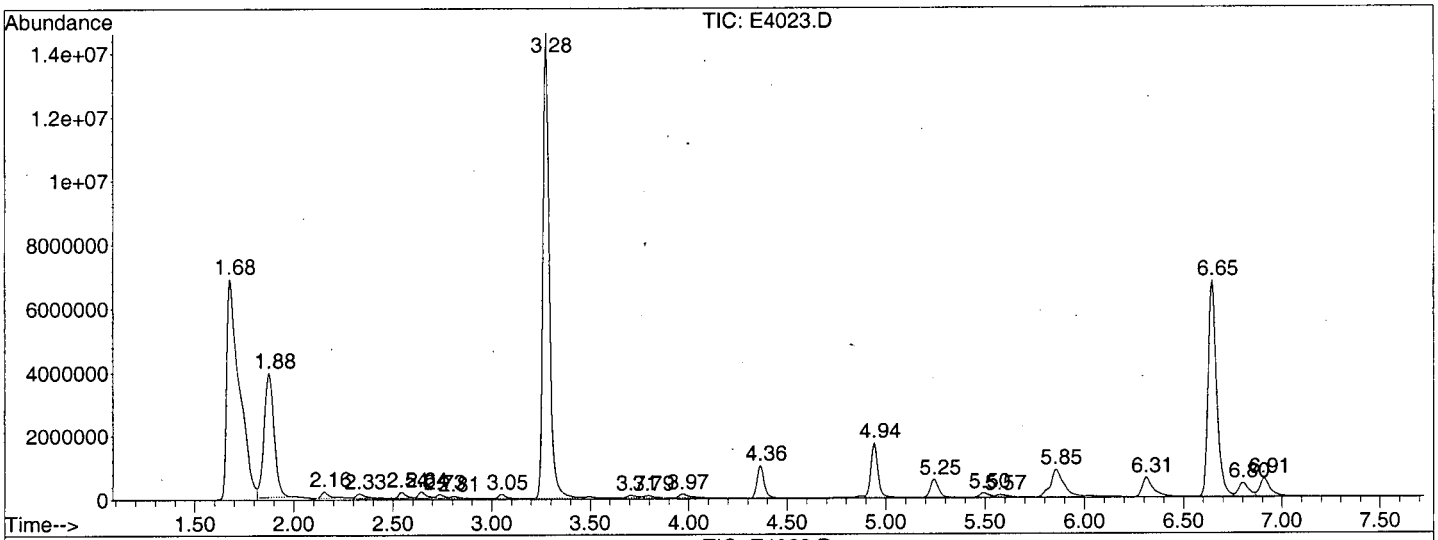
Signal : TIC

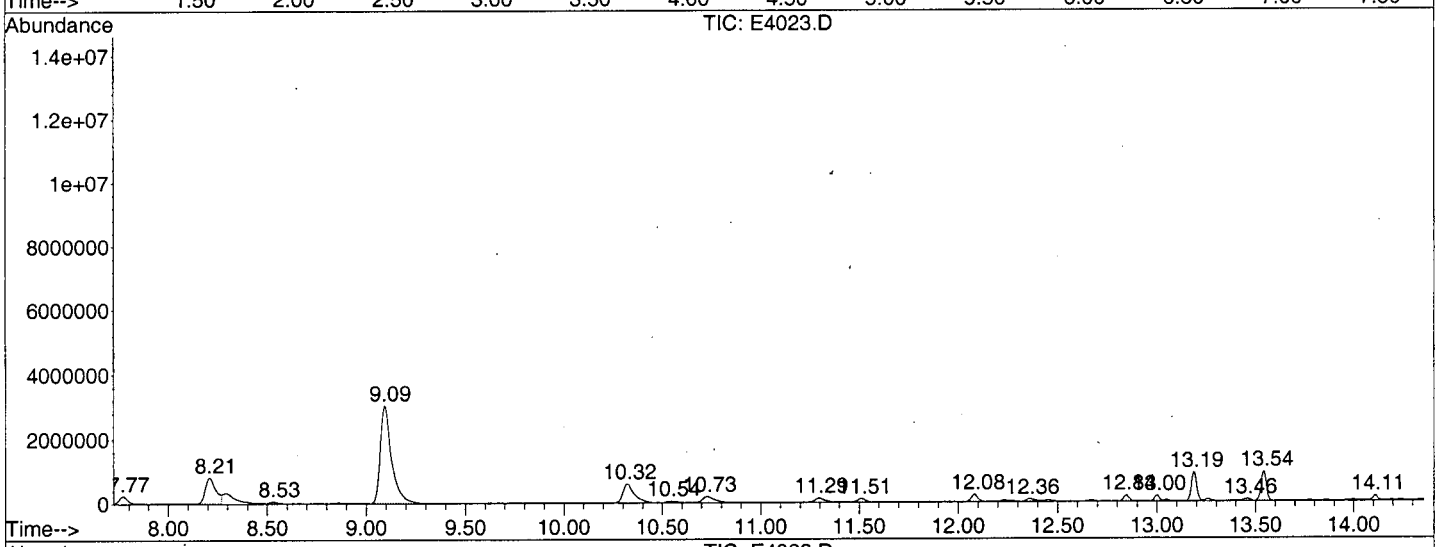
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.675	85	98	121	rBV	6937398	31012944	94.98%	21.513%
2	1.876	121	131	150	rVB	3914283	13768118	42.17%	9.551%
3	2.156	170	177	186	rBV	203905	500028	1.53%	0.347%
4	2.332	200	206	224	rVB	136923	430819	1.32%	0.299%
5	2.545	235	241	251	rBV	189875	451655	1.38%	0.313%
6	2.642	252	257	267	rVV	198851	515000	1.58%	0.357%
7	2.734	268	272	279	rVV	118077	273973	0.84%	0.190%
8	2.807	280	284	293	rVB2	60778	146602	0.45%	0.102%
9	3.050	317	324	339	rBV3	133945	318909	0.98%	0.221%
10	3.275	351	361	389	rBV	14591790	32651514	100.00%	22.650%
11	3.707	425	432	440	rBV2	79155	244511	0.75%	0.170%
12	3.792	442	446	461	rVB4	72474	211016	0.65%	0.146%
13	3.969	469	475	491	rBV3	114177	366789	1.12%	0.254%
14	4.364	529	540	562	rBV	1022051	2520182	7.72%	1.748%
15	4.942	627	635	658	rVB	1707989	4133296	12.66%	2.867%
16	5.246	674	685	697	rBV2	563076	1593185	4.88%	1.105%
17	5.496	717	726	734	rBV3	134843	430104	1.32%	0.298%
18	5.575	734	739	754	rVB4	69398	263281	0.81%	0.183%
19	5.854	768	785	809	rBV2	863376	3933228	12.05%	2.728%
20	6.311	850	860	886	rBV	601503	2243150	6.87%	1.556%
21	6.645	902	915	932	rBV	6788313	20316483	62.22%	14.093%
22	6.803	933	941	951	rVV2	427727	1521702	4.66%	1.056%
23	6.907	951	958	979	rVB	557200	1951492	5.98%	1.354%
24	7.771	1090	1100	1113	rBV	226671	642120	1.97%	0.445%
25	8.209	1161	1172	1182	rBV	801513	3010722	9.22%	2.088%
26	8.531	1219	1225	1235	rVB2	50394	133552	0.41%	0.093%
27	9.091	1305	1317	1348	rBV	3025533	11807961	36.16%	8.191%
28	10.320	1508	1519	1543	rBV2	579641	2272235	6.96%	1.576%
29	10.545	1547	1556	1568	rBV	43516	155113	0.48%	0.108%
30	10.727	1573	1586	1607	rVB	181366	735761	2.25%	0.510%
31	11.293	1668	1679	1694	rBV	124634	399857	1.22%	0.277%
32	11.512	1706	1715	1725	rBV2	100508	255529	0.78%	0.177%
33	12.084	1793	1809	1818	rBV	218485	486513	1.49%	0.337%
34	12.358	1847	1854	1865	rBV	72384	230239	0.71%	0.160%
35	12.844	1928	1934	1941	rVB	182252	330631	1.01%	0.229%
36	12.997	1953	1959	1965	rBV	170165	288171	0.88%	0.200%
37	13.185	1983	1990	1998	rBV	883836	1620664	4.96%	1.124%
38	13.459	2028	2035	2041	rVB2	55532	121518	0.37%	0.084%
39	13.544	2041	2049	2057	rBV	910180	1631308	5.00%	1.132%
40	14.110	2134	2142	2148	rBV3	148422	238793	0.73%	0.166%

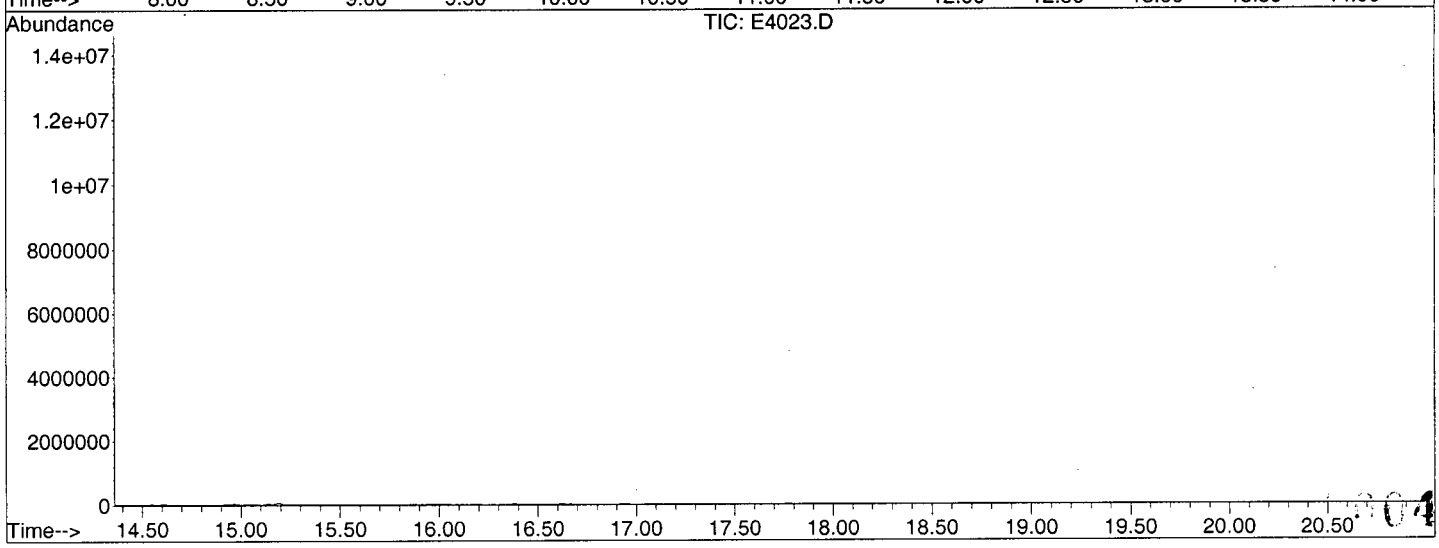
LSC Report - Integrated Chromatogram

Data File : C:\MSDCHEM\1\DATA\E4023.D
Acq On : 03/27/2003 1918
Sample : Y0SL3
Misc : 2761.002 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

Vial: 16
Operator: AK
Inst : E-5973
Multiplr: 1.00







042

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4023.D
Acq On : 03/27/2003 1918
Sample : Y0SL3
Misc : 2761.002 25ML
MS Integration Params: Lscint.p

Vial: 16
Operator: AK
Inst : E-5973
Multiplr: 1.00

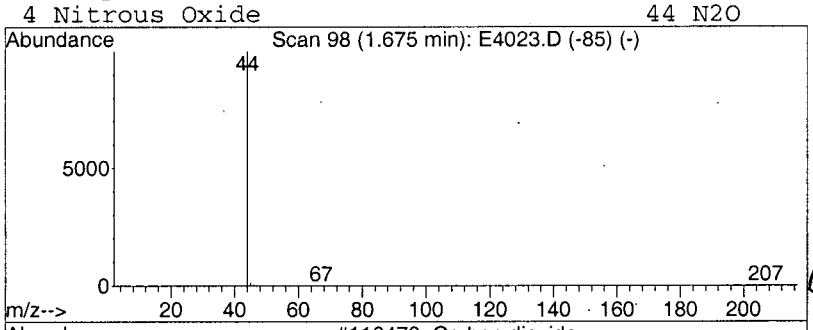
Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

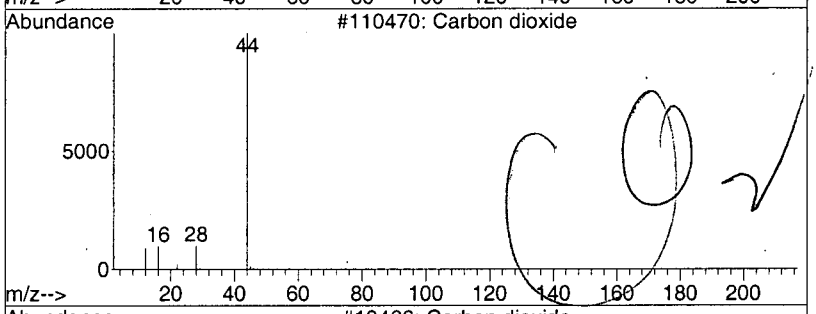
****

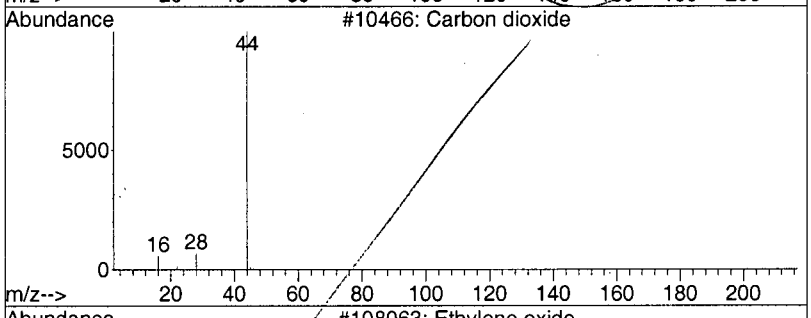
Peak Number 1 Carbon dioxide Concentration Rank 1

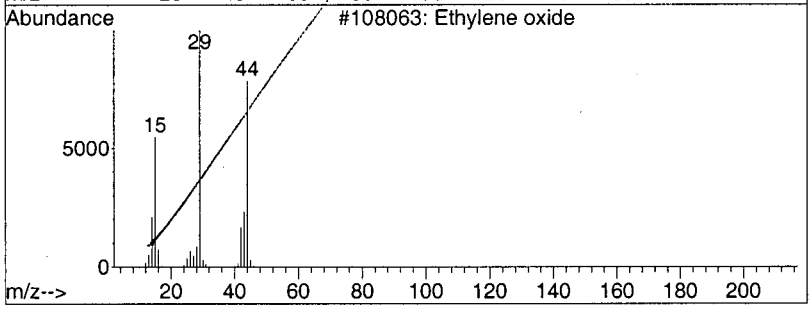
R.T.	EstConc	Area	Relative to ISTD	R.T.
1.68	69.13 ug/L	31012900	1,4-Difluorobenzene	6.31

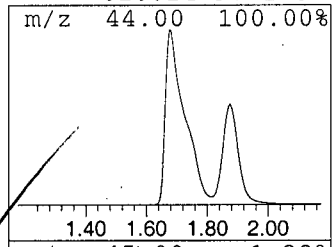
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3

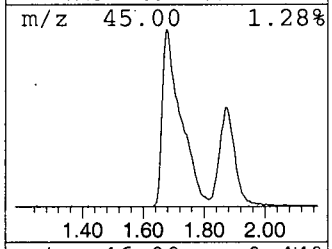


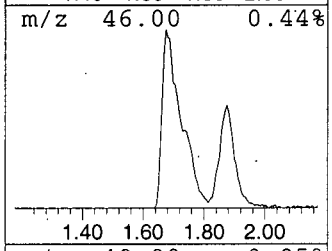


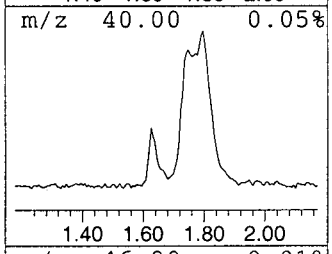


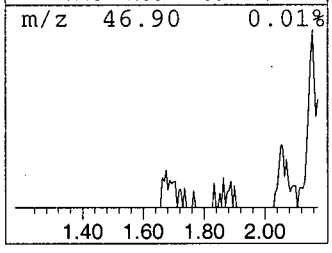












0043

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4023.D Vial: 16
Acq On : 03/27/2003 1918 Operator: AK
Sample : Y0SL3 Inst : E-5973
Misc : 2761.002 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

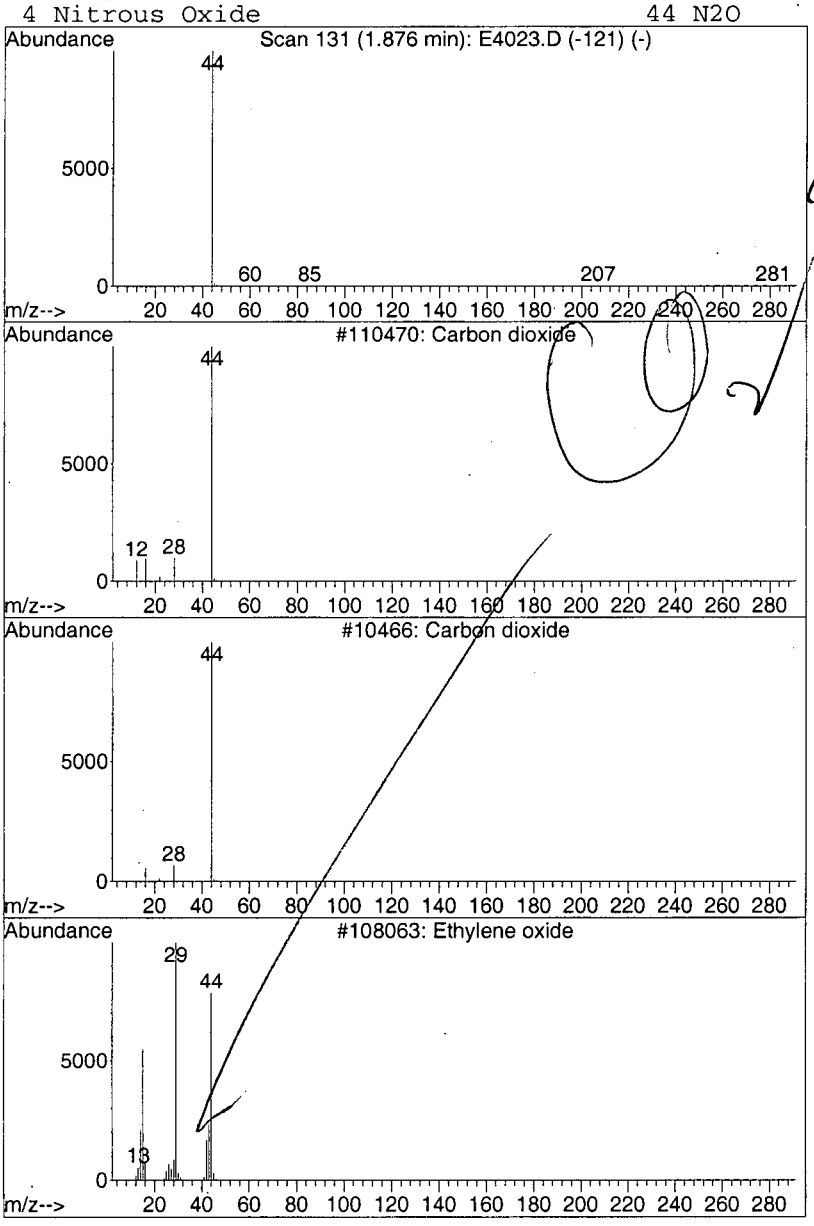
Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

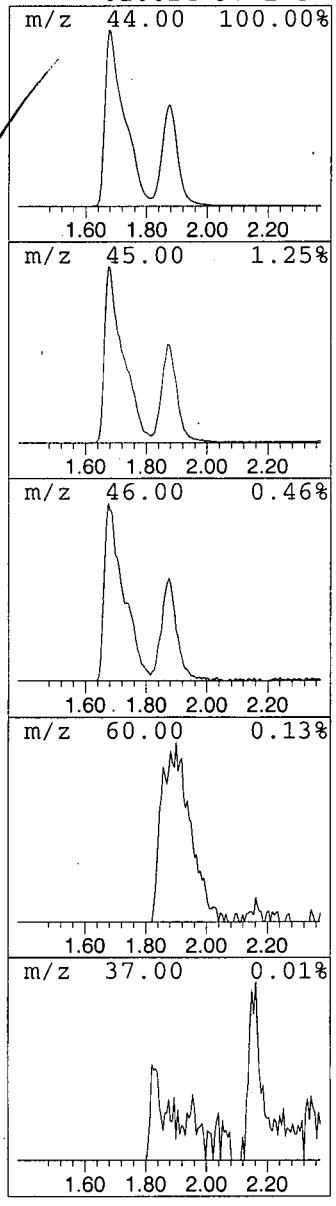
****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.88	30.69 ug/L	13768100	1,4-Difluorobenzene	6.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3





0044

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4023.D Vial: 16
Acq On : 03/27/2003 1918 Operator: AK
Sample : Y0SL3 Inst : E-5973
Misc : 2761.002 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

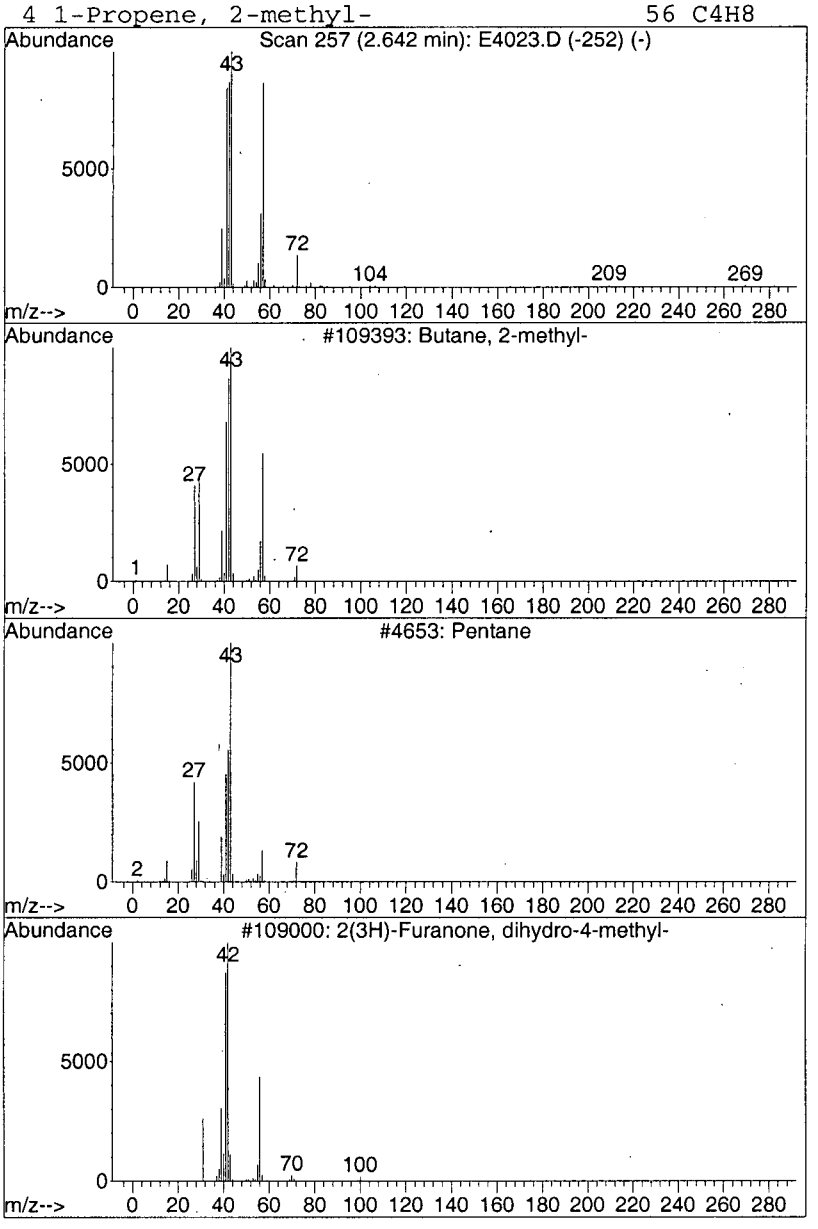
****

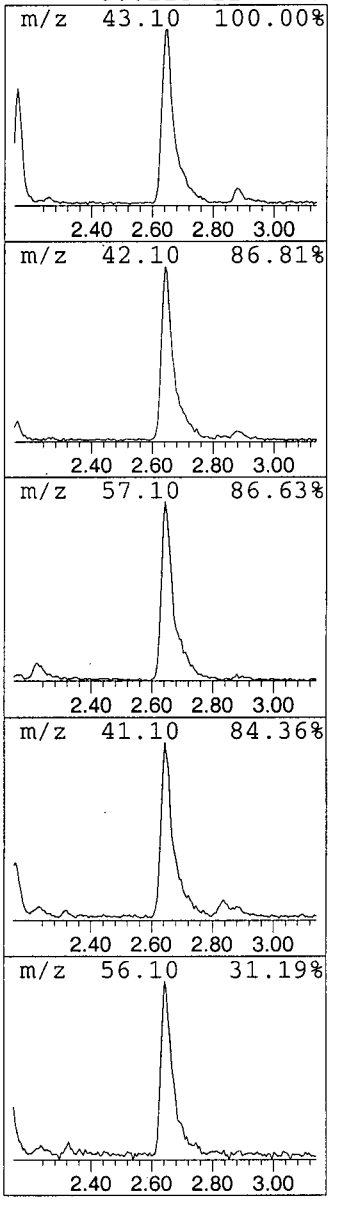
Peak Number 4 Butane, 2-methyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.64	1.15 ug/L	515000	1,4-Difluorobenzene	6.31

Branched Alkane

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	80 ✓
2	Pentane	72	C5H12	000109-66-0	40
3	2(3H)-Furanone, dihydro-4-methyl-	100	C5H8O2	001679-49-8	36
4	1-Propene, 2-methyl-	56	C4H8	000115-11-7	10





0045

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4023.D Vial: 16
Acq On : 03/27/2003 1918 Operator: AK
Sample : Y0SL3 Inst : E-5973
Misc : 2761.002 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

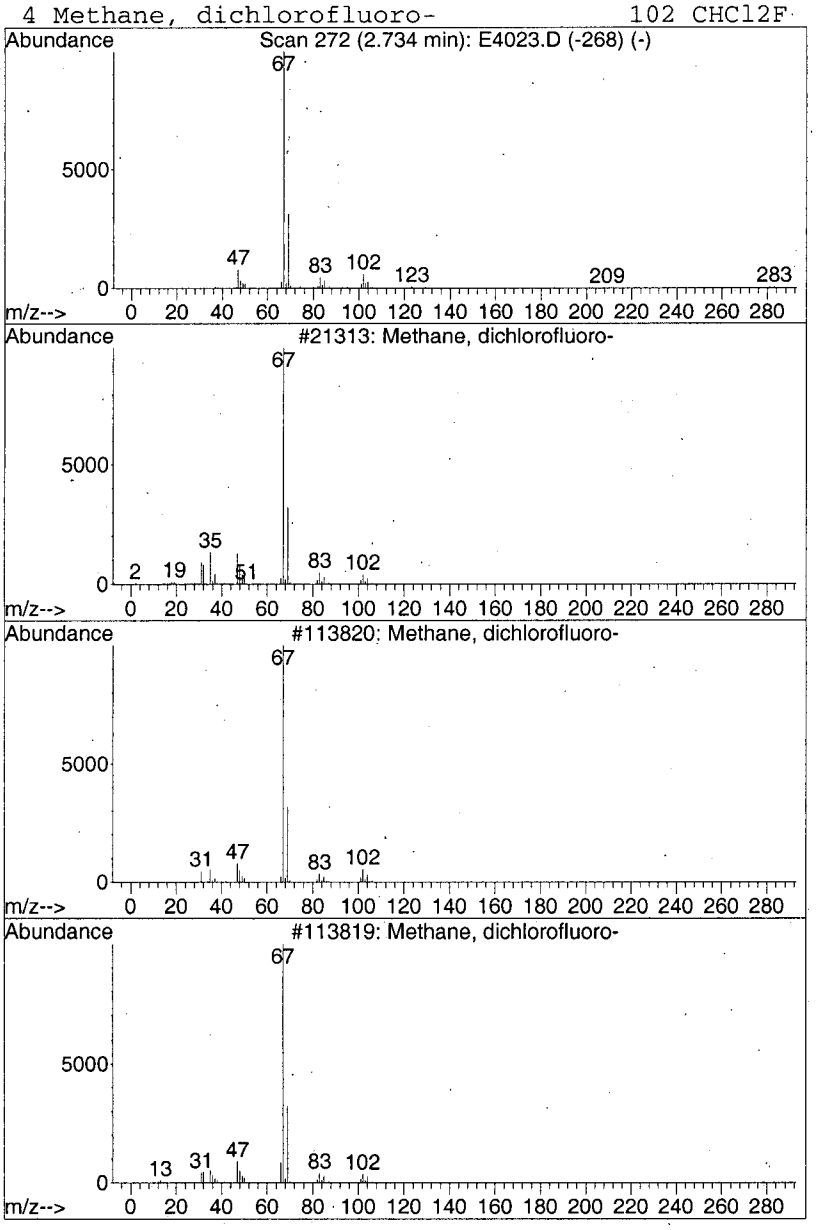
Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

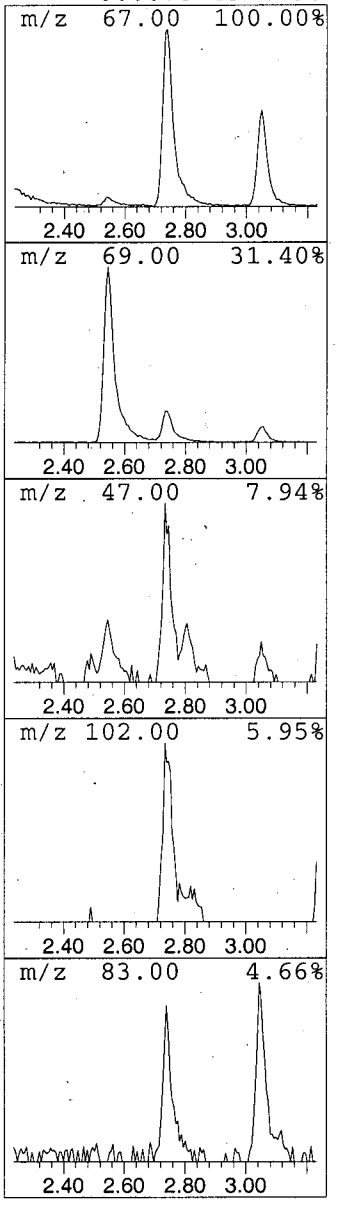
****

Peak Number 5 Methane, dichlorofluoro- Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.73	0.61 ug/L	273973	1,4-Difluorobenzene	6.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Methane, dichlorofluoro-	102	CHCl2F	000075-43-4	91
2	Methane, dichlorofluoro-	102	CHCl2F	000075-43-4	91
3	Methane, dichlorofluoro-	102	CHCl2F	000075-43-4	78
4	Methane, dichlorofluoro-	102	CHCl2F	000075-43-4	50





0046

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4023.D Vial: 16
Acq On : 03/27/2003 1918 Operator: AK
Sample : Y0SL3 Inst : E-5973
Misc : 2761.002 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

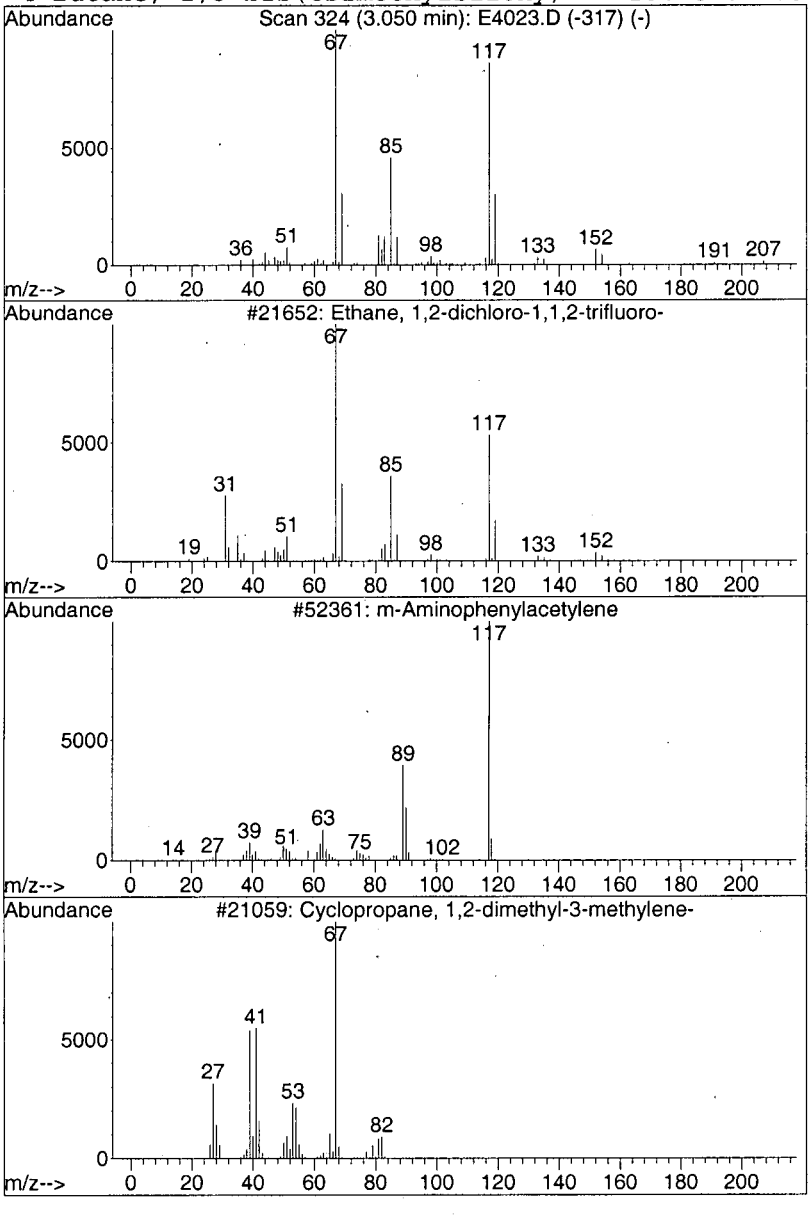
Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

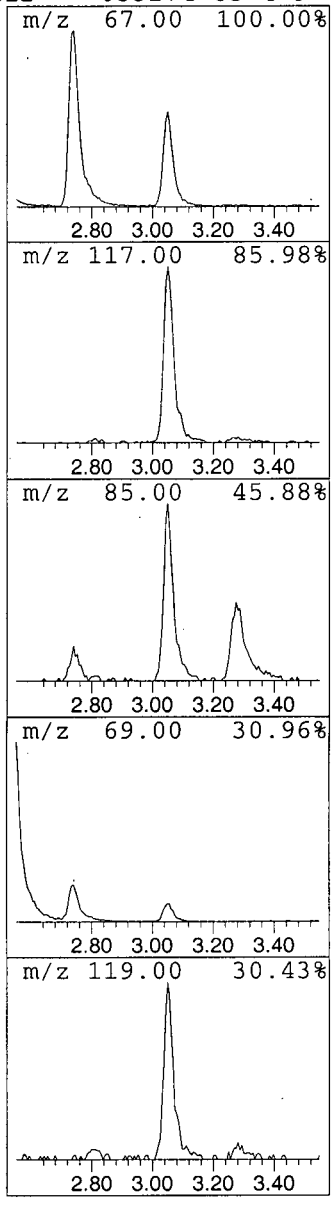
****

Peak Number 6 Ethane, 1,2-dichloro-1,1,2-... Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.05	0.71 ug/L	318909	1,4-Difluorobenzene	6.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethane, 1,2-dichloro-1,1,2-trifl...	152	C2HCl2F3	000354-23-4	94
2	m-Aminophenylacetylene	117	C8H7N	054060-30-9	9
3	Cyclopropane, 1,2-dimethyl-3-met...	82	C6H10	062338-02-7	9
4	Butane, 2,3-bis(trimethylsiloxy)-	234	C10H26O2Si2	053274-85-4	9





0047

Library Search Compound Report

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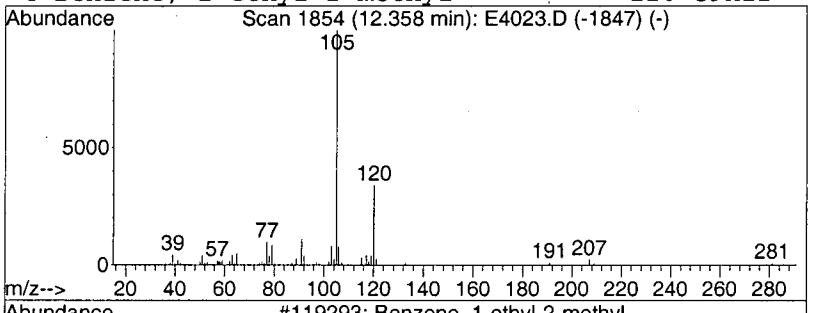
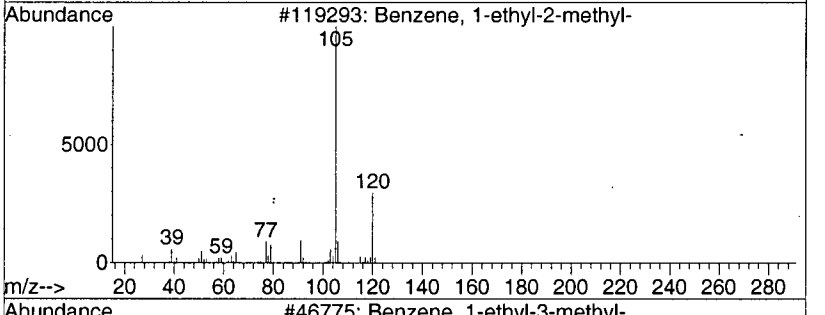
   Data File : C:\MSDCHEM\1\DATA\E4023.D                    Vial: 16
   Acq On    : 03/27/2003  1918                          Operator: AK
   Sample    : Y0SL3                                     Inst    : E-5973
   Misc      : 2761.002    25ML                          Multiplr: 1.00
MS Integration Params: Lscint.p

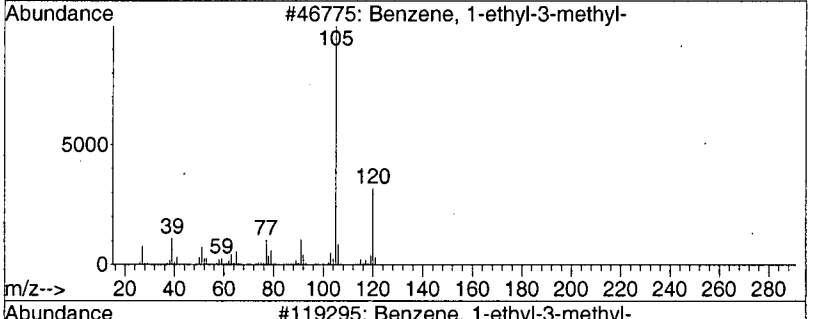
Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title        : Voa Low Concentration Organics - OLC03.2
Library      : C:\DATABASE\NIST98.L
*********************************************************************
Peak Number  8  Benzene, 1-ethyl-2-methyl-      Concentration Rank 10
```

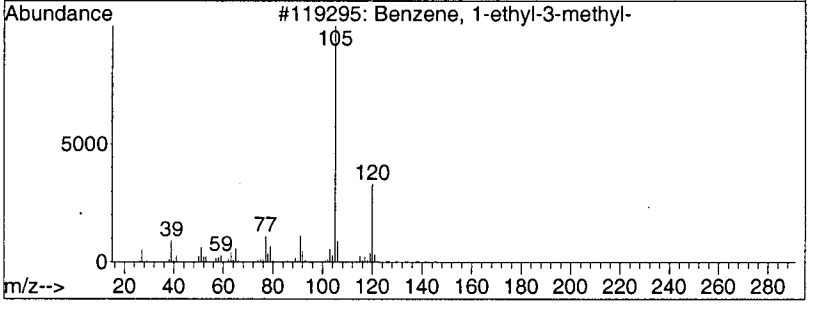
R.T.	EstConc	Area	Relative to ISTD	R.T.
12.36	0.71 ug/L	230239	1,4-Dichlorobenzene-d4	13.19

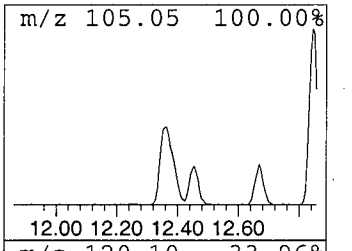
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	94
2	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	94
3	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	94
4	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	94

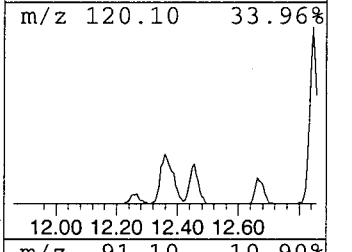


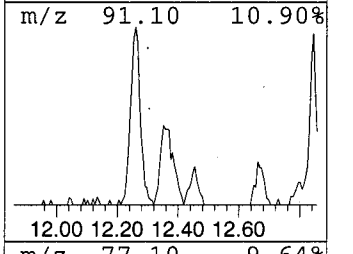


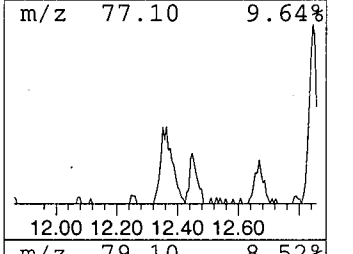


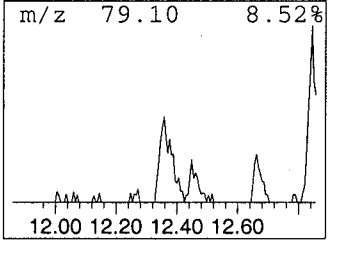












0048

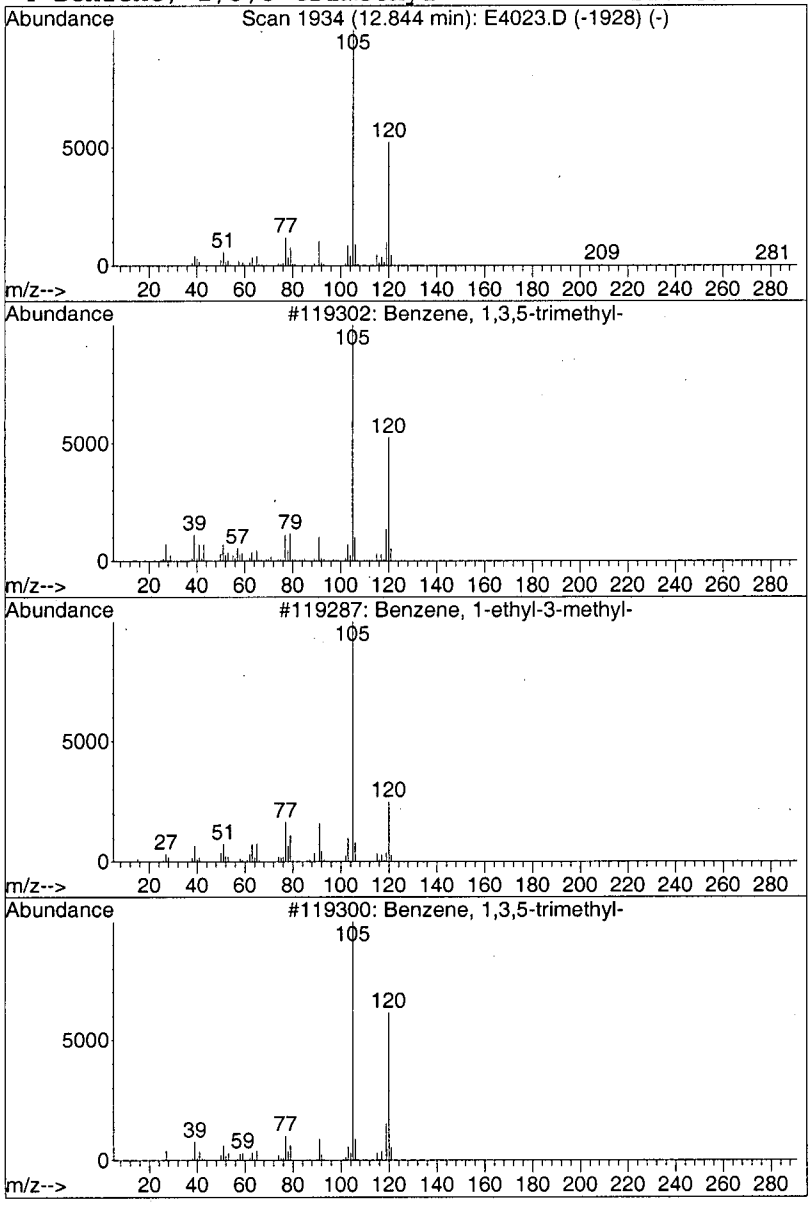
Library Search Compound Report

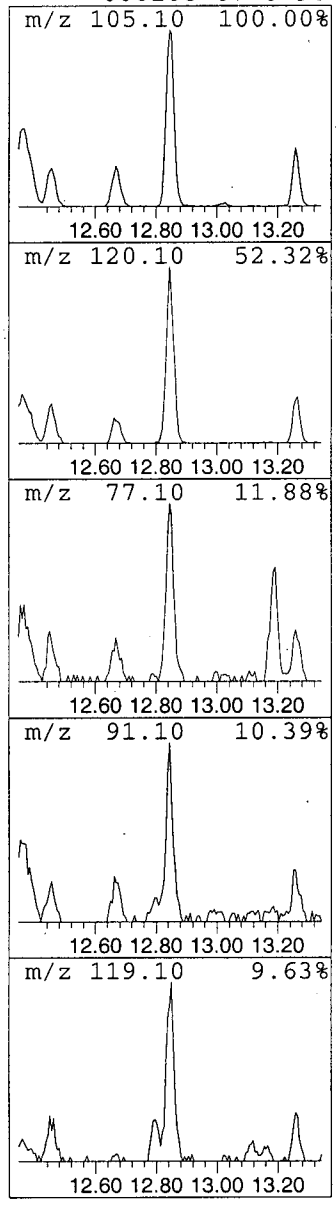
```
   Data File : C:\MSDCHEM\1\DATA\E4023.D                    Vial: 16
   Acq On    : 03/27/2003  1918                         Operator: AK
   Sample    : Y0SL3                                    Inst    : E-5973
   Misc      : 2761.002    25ML                         Multiplr: 1.00
MS Integration Params: Lscint.p

Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title        : Voa Low Concentration Organics - OLC03.2
Library      : C:\DATABASE\NIST98.L
*********************************************************************
 Peak Number  9  Benzene, 1,3,5-trimethyl-       Concentration Rank  5

   R.T.   EstConc           Area       Relative to ISTD         R.T.
 ---------------------------------------------------------------------
  12.84    1.02 ug/L       330631    1,4-Dichlorobenzene-d4     13.19

  Hit# of  5    Tentative ID              MW  MolForm       CAS#        Qual
 ---------------------------------------------------------------------
  1 Benzene, 1,3,5-trimethyl-            120 C9H12         000108-67-8 91
  2 Benzene, 1-ethyl-3-methyl-           120 C9H12         000620-14-4 91
  3 Benzene, 1,3,5-trimethyl-            120 C9H12         000108-67-8 91
  4 Benzene, 1,3,5-trimethyl-            120 C9H12         000108-67-8 90
```





0049

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4023.D Vial: 16
Acq On : 03/27/2003 1918 Operator: AK
Sample : Y0SL3 Inst : E-5973
Misc : 2761.002 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

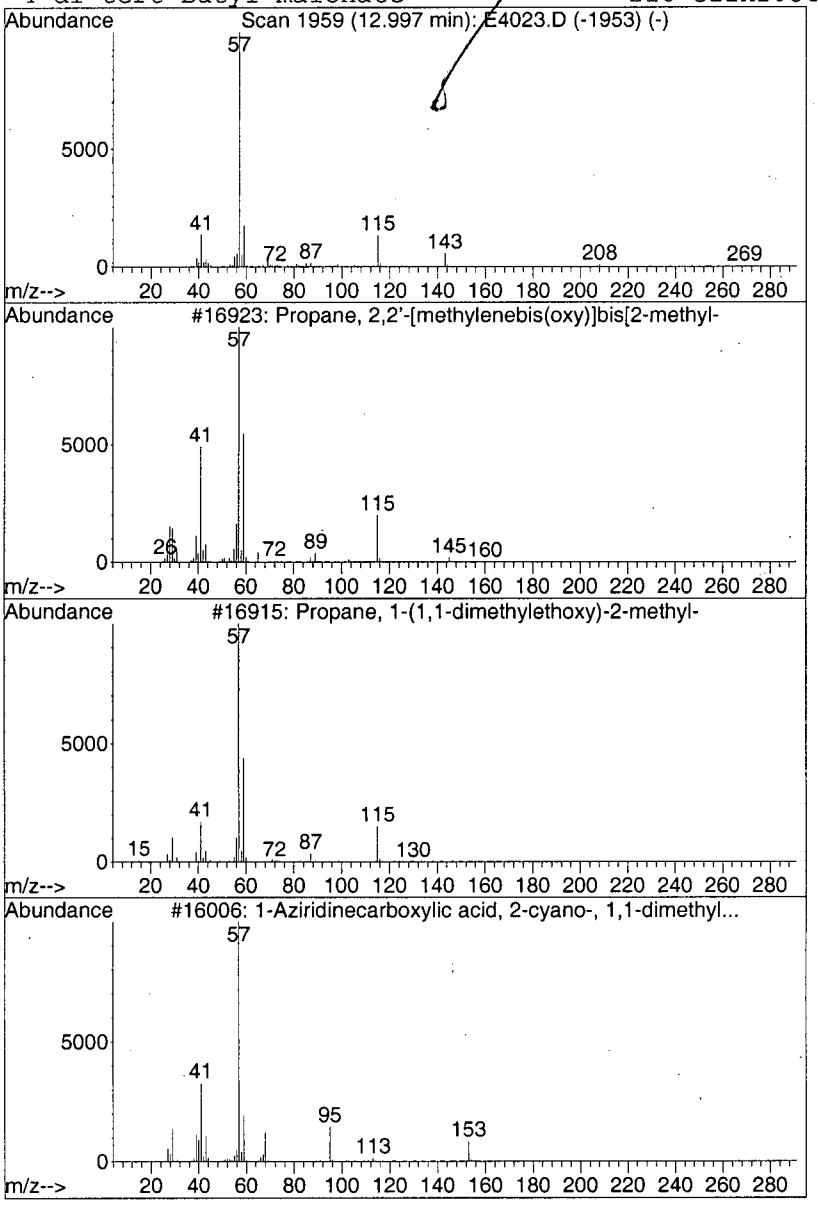
****

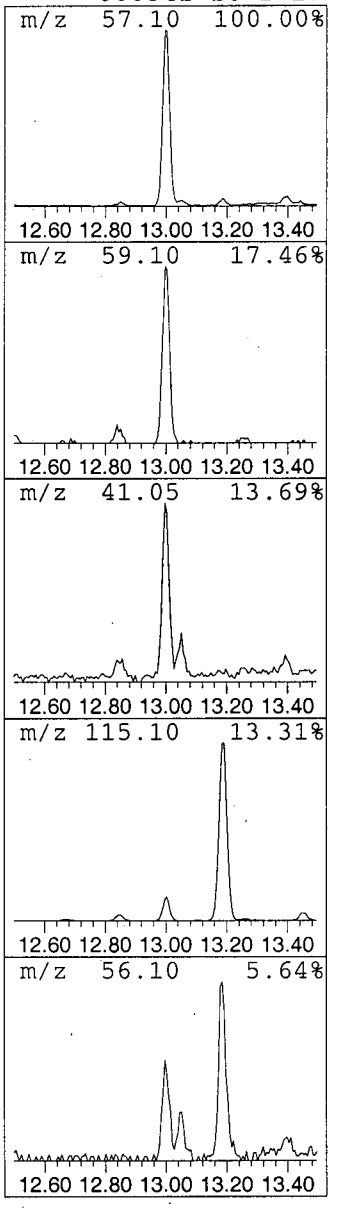
Peak Number 10 Propane, 2,2'-[methylenebis... Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.00	0.89 ug/L	288171	1,4-Dichlorobenzene-d4	13.19

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propane, 2,2'-[methylenebis(oxy)...	160	C9H20O2	002568-93-6	25
2	Propane, 1-(1,1-dimethylethoxy)-...	130	C8H18O	033021-02-2	23
3	1-Aziridinecarboxylic acid, 2-cy...	168	C8H12N2O2	067276-82-8	17
4	di-tert-Butyl malonate	216	C11H20O4	000541-16-2	17

Unknown





0050

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4023.D Vial: 16
Acq On : 03/27/2003 1918 Operator: AK
Sample : Y0SL3 Inst : E-5973
Misc : 2761.002 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

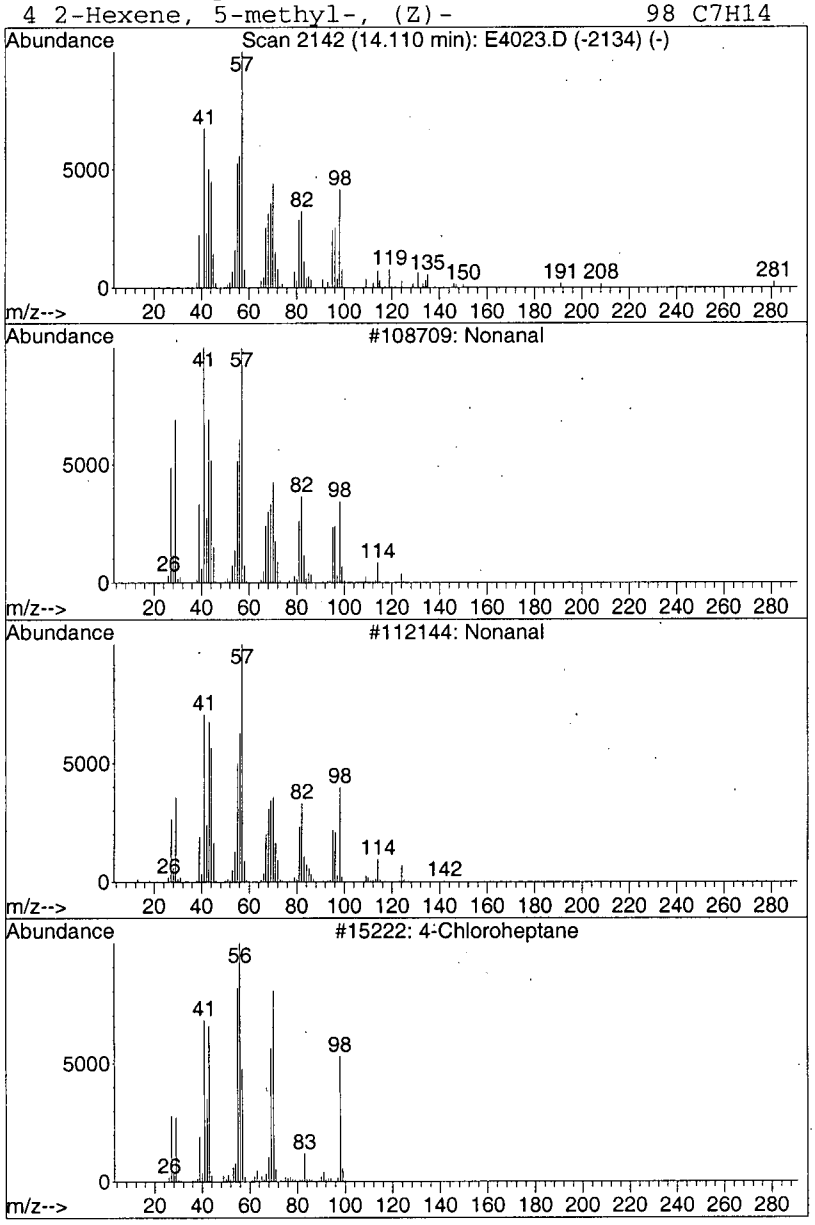
Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

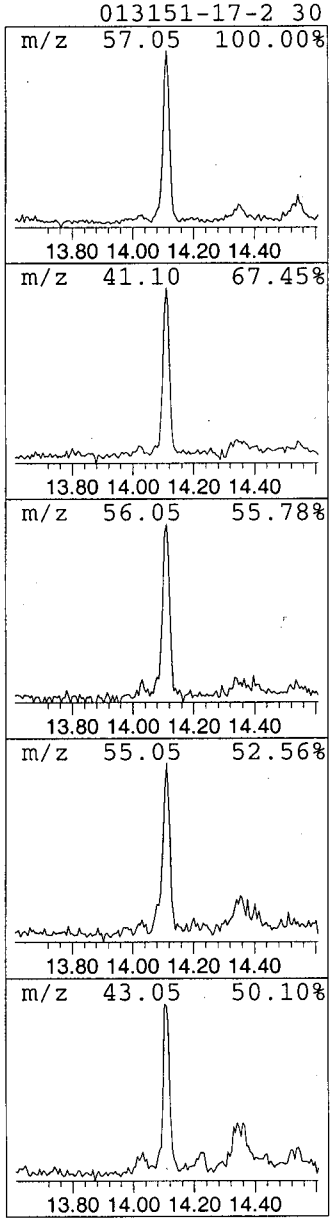
****

Peak Number 11 Nonanal Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.11	0.74 ug/L	238793	1,4-Dichlorobenzene-d4	13.19

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nonanal	142	C9H18O	000124-19-6	91
2	Nonanal	142	C9H18O	000124-19-6	80
3	4-Chloroheptane	134	C7H15Cl	1000193-78-0	35
4	2-Hexene, 5-methyl-, (Z)-	98	C7H14	013151-17-2	30





0051

1LCA
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

Y0SL3DL

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2761.002DL Date Received: 03/20/2003

Lab File ID: E4016 Date Analyzed: 03/27/2003

Purge Volume: 25 (ML) Dilution Factor: 5.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-71-8	Dichlorodifluoromethane	2.5	U
74-87-3	Chloromethane	1.0	JD
75-01-4	Vinyl Chloride	2.5	U
74-83-9	Bromomethane	2.5	U
75-00-3	Chloroethane	2.5	U
75-69-4	Trichlorofluoromethane	2.5	U
75-35-4	1,1-Dichloroethene	58	D
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.5	U
67-64-1	Acetone	12	JD
75-15-0	Carbon Disulfide	2.5	U
79-20-9	Methyl Acetate	2.5	U
75-09-2	Methylene Chloride	2.7	DB
156-60-5	trans-1,2-Dichloroethene	2.5	U
1634-04-4	Methyl tert-Butyl Ether	2.5	U
75-34-3	1,1-Dichloroethane	6.3	D
156-59-2	cis-1,2-Dichloroethene	9.6	D
78-93-3	2-Butanone	25	U
74-97-5	Bromochloromethane	2.5	U
67-66-3	Chloroform	1.1	JDB
71-55-6	1,1,1-Trichloroethane	0.90	JD
110-82-7	Cyclohexane	2.5	U
56-23-5	Carbon Tetrachloride	2.5	U
71-43-2	Benzene	2.5	U
107-06-2	1,2-Dichloroethane	2.3	JD

1LCB

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS

DATA SHEET

EPA SAMPLE NO.

Y0SL3DL

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2761.002DL Date Received: 03/20/2003

Lab File ID: E4016 Date Analyzed: 03/27/2003

Purge Volume: 25 (ML) Dilution Factor: 5.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
79-01-6	Trichloroethene	38	D
108-87-2	Methylcyclohexane	2.5	U
78-87-5	1,2-Dichloropropane	4.5	D
75-27-4	Bromodichloromethane	2.5	U
10061-01-5	cis-1,3-Dichloropropene	2.5	U
108-10-1	4-Methyl-2-pentanone	25	U
108-88-3	Toluene	2.5	U
10061-02-6	trans-1,3-Dichloropropene	2.5	U
79-00-5	1,1,2-Trichloroethane	2.5	U
127-18-4	Tetrachloroethene	20	D
591-78-6	2-Hexanone	25	U
124-48-1	Dibromochloromethane	2.5	U
106-93-4	1,2-Dibromoethane	2.5	U
108-90-7	Chlorobenzene	2.5	U
100-41-4	Ethylbenzene	2.5	U
1330-20-7	Xylene (total)	2.5	U
100-42-5	Styrene	2.5	U
75-25-2	Bromoform	2.5	U
98-82-8	Isopropylbenzene	2.5	U
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U
541-73-1	1,3-Dichlorobenzene	2.5	U
106-46-7	1,4-Dichlorobenzene	2.5	U
95-50-1	1,2-Dichlorobenzene	2.5	U
96-12-8	1,2-Dibromo-3-chloropropane	2.5	U
120-82-1	1,2,4-Trichlorobenzene	2.5	U
87-61-6	1,2,3-Trichlorobenzene	2.5	U

1LCF

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS

DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Y0SL3DL

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2761.002DL Date Received: 03/20/2003

Lab File ID: E4016 Date Analyzed: 03/27/2003

Purge Volume: 25 (ML) Dilution Factor: 5.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

Number TICs found: 1

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01	000556-67-2	Cyclotetrasiloxane, octameth	12.23	3.1	JND
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4016.D
Acq On : 03/27/2003 1356
Sample : Y0SL3DL
Misc : 2761.002DL 25ML 5X
MS Integration Params: RTEINT.P
Quant Time: Apr 02 10:48:00 2003

Vial: 9
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Results File: LCE4009.RES

KBR 03/04/02/03 KBR

Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Thu Mar 27 09:22:08 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4009.D
DataAcq Meth : VOAC

GP 4/04/03

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Difluorobenzene	6.31	114	930913	5.00 ug/L	0.00
28) Chlorobenzene-d5	10.32	117	742012	5.00 ug/L	0.00
60) 1,4-Dichlorobenzene-d4	13.19	152	246968	5.00 ug/L	0.00
System Monitoring Compounds					
4) Vinyl Chloride-d3	2.16	65	277585	4.07 ug/L	0.01
Spiked Amount 5.000	Range 49 - 138		Recovery	= 81.40%	
7) Chloroethane-d5	2.54	69	239692	4.20 ug/L	0.01
Spiked Amount 5.000	Range 60 - 126		Recovery	= 84.00%	
10) 1,1-Dichloroethene-d2	3.26	65	118182	3.97 ug/L	0.00
Spiked Amount 5.000	Range 65 - 130		Recovery	= 79.40%	
20) 2-Butanone-d5	4.88	46	40207	6.68 ug/L	0.00
Spiked Amount 5.000	Range 42 - 171		Recovery	= 133.60%	
24) Chloroform-d	5.24	86	259691	3.95 ug/L	0.00
Spiked Amount 5.000	Range 80 - 123		Recovery	= 79.00%#	
26) 1,2-Dichloroethane-d4	5.81	65	141291	4.01 ug/L	0.00
Spiked Amount 5.000	Range 78 - 129		Recovery	= 80.20%	
32) Benzene-d6	5.85	84	1140784	4.12 ug/L	0.00
Spiked Amount 5.000	Range 78 - 121		Recovery	= 82.40%	
35) 1,2-Dichloropropane-d6	6.80	67	271760	3.50 ug/L	0.00
Spiked Amount 5.000	Range 84 - 123		Recovery	= 70.00%#	
41) Toluene-d8	8.21	98	1106895	4.07 ug/L	0.00
Spiked Amount 5.000	Range 77 - 120		Recovery	= 81.40%	
43) trans-1,3-Dichloropropene-	8.53	79	37227	4.02 ug/L	0.00
Spiked Amount 5.000	Range 80 - 128		Recovery	= 80.40%	
47) 2-Hexanone-d5	9.13	46	63993	5.58 ug/L	0.00
Spiked Amount 5.000	Range 37 - 169		Recovery	= 111.60%	
58) 1,1,2,2-Tetrachloroethane-	12.08	84	107024	4.08 ug/L	0.00
Spiked Amount 5.000	Range 75 - 131		Recovery	= 81.60%	
61) Bromoform-d	11.51	174	55812	4.00 ug/L	0.00
Spiked Amount 5.000	Range 76 - 135		Recovery	= 80.00%	
65) 1,2-Dichlorobenzene-d4	13.54	152	212792	4.21 ug/L	0.00
Spiked Amount 5.000	Range 50 - 150		Recovery	= 84.20%	

Target Compounds					Qvalue
3) Chloromethane	2.05	50	43343	0.20 ug/L J	90
11) 1,1-Dichloroethene	3.28	96	917509	11.56 ug/L #	66
13) Acetone	3.29	43	9678	2.43 ug/L J	85
16) Methylene Chloride	3.70	84	37953	0.54 ug/L B	99
19) 1,1-Dichloroethane	4.36	63	161500	1.26 ug/L	98
21) cis-1,2-Dichloroethene	4.94	96	138996	1.92 ug/L	99
25) Chloroform	5.26	83	25780	0.21 ug/L #JB	73
27) 1,2-Dichloroethane	5.90	62	22098	0.45 ug/L J	95
29) 1,1,1-Trichloroethane	5.49	97	20637	0.18 ug/L J	95
34) Trichloroethene	6.64	95	546907	7.57 ug/L	98
37) 1,2-Dichloropropane	6.91	63	57003	0.89 ug/L	96
46) Tetrachloroethene	9.09	164	299048	3.92 ug/L	99

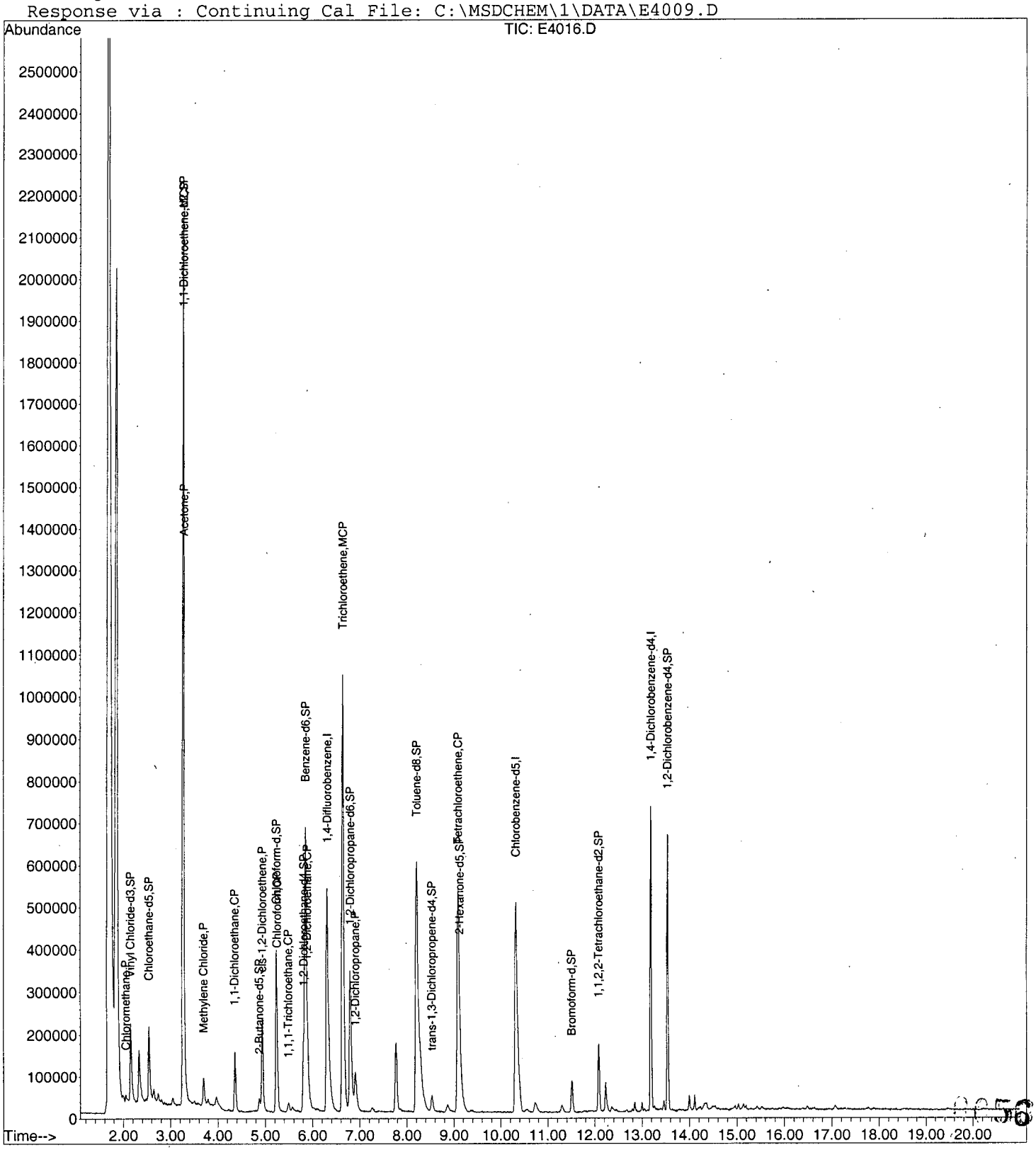
0055

(#) = qualifier out of range (m) = manual integration (+) = signals summed

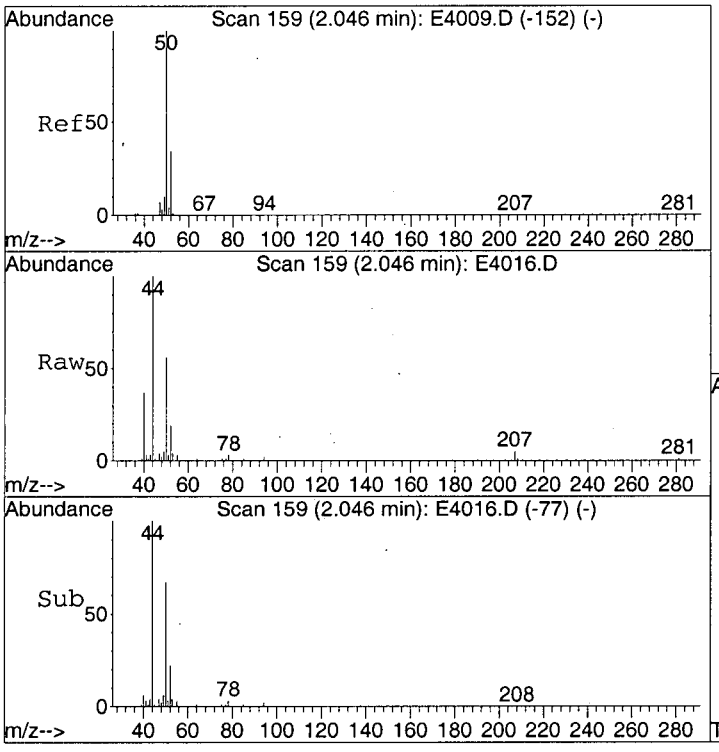
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4016.D Vial: 9
Acq On : 03/27/2003 1356 Operator: AK
Sample : Y0SL3DL Inst : E-5973
Misc : 2761.002DL 25ML 5X Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 2 10:53 2003 Quant Results File: LCE4009.RES

Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Thu Mar 27 09:22:08 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4009.D



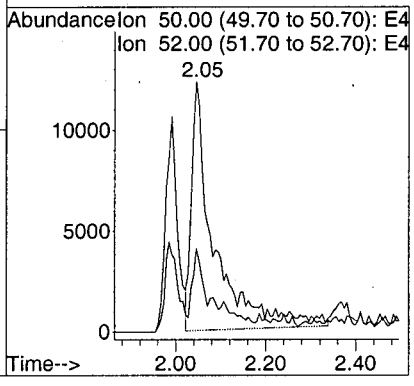
Data File : C:\MSDCHEM\1\DATA\E4016.D Vial: 9
Acq On : 03/27/2003 1356 Operator: AK
Sample : Y0SL3DL Inst : E-5973
Misc : 2761.002DL 25ML 5X Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

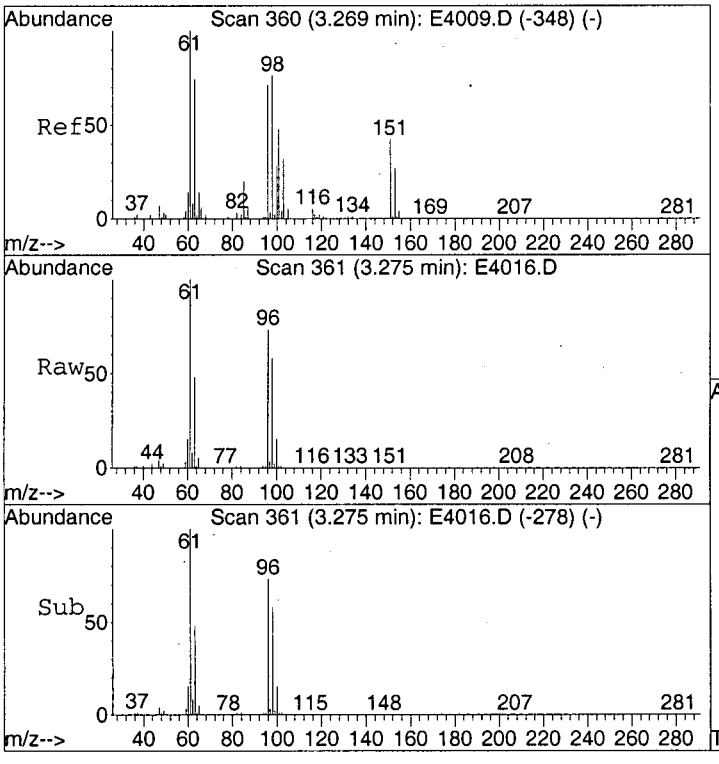


#3
Chloromethane
Concen: 0.20 ug/L
RT: 2.05 min Scan# 159
Delta R.T. 0.00 min
Lab File: E4016.D
Acq: 27 Mar 2003 13:56

Tgt Ion: 50 Resp: 43343

Ion	Ratio	Lower	Upper
50	100		
52	38.6	13.2	53.2

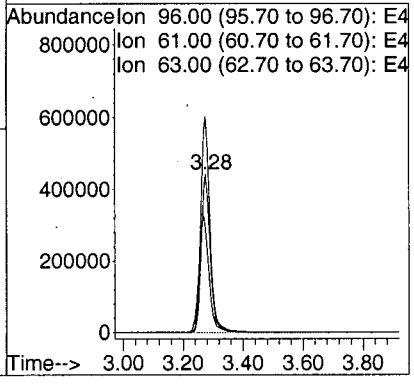




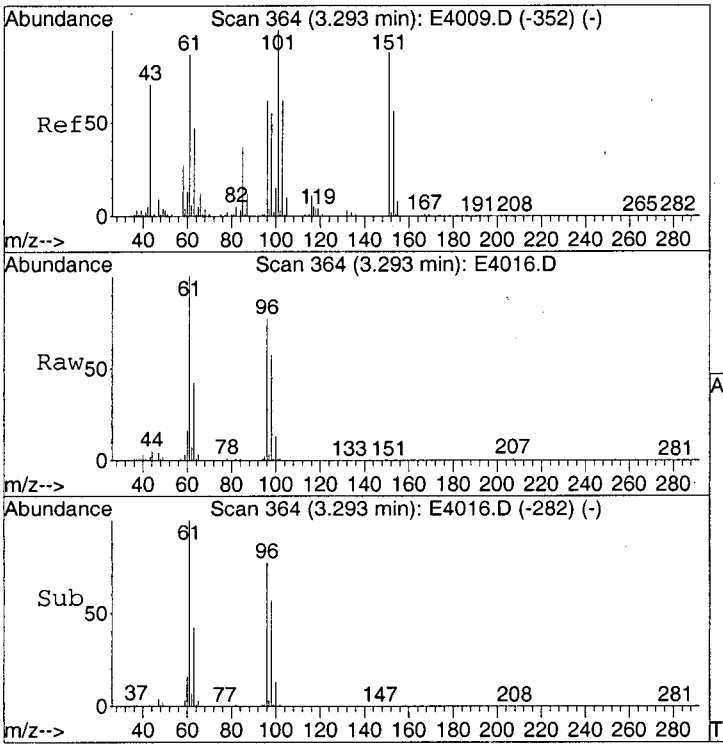
#11
1,1-Dichloroethene
Concen: 11.56 ug/L
RT: 3.28 min Scan# 361
Delta R.T. 0.01 min
Lab File: E4016.D
Acq: 27 Mar 2003 13:56

Tgt Ion: 96 Resp: 917509

Ion	Ratio	Lower	Upper
96	100		
61	138.5	126.8	166.8
63	83.6	142.5	182.5#



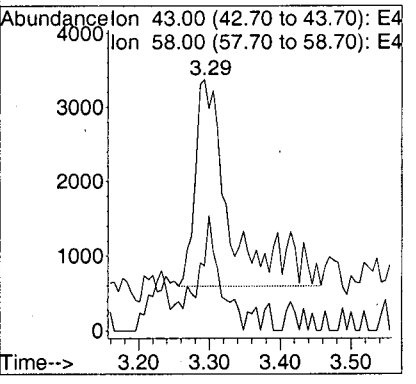
Data File : C:\MSDCHEM\1\DATA\E4016.D Vial: 9
Acq On : 03/27/2003 1356 Operator: AK
Sample : Y0SL3DL Inst : E-5973
Misc : 2761.002DL 25ML 5X Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

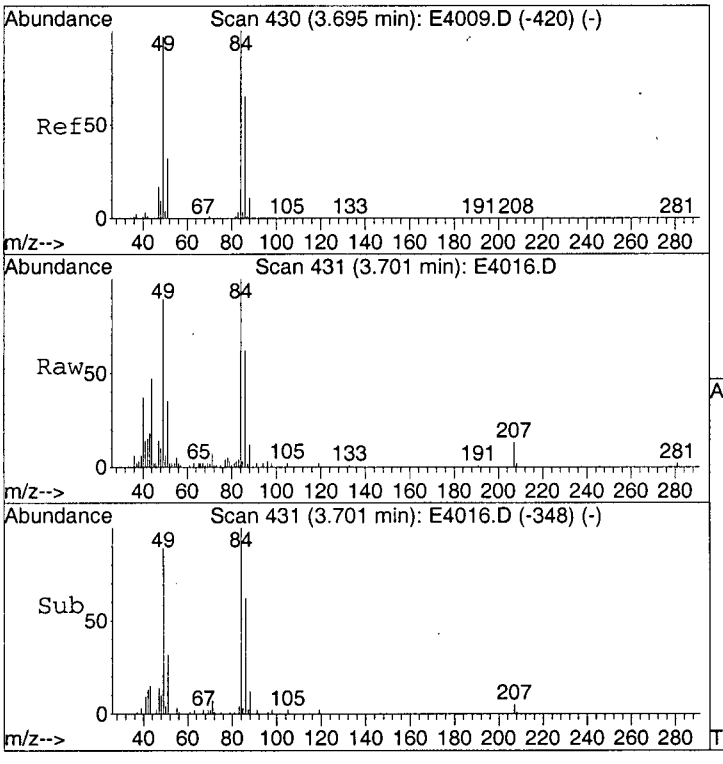


#13
Acetone
Concen: 2.43 ug/L
RT: 3.29 min Scan# 364
Delta R.T. 0.00 min
Lab File: E4016.D
Acq: 27 Mar 2003 13:56

Tgt Ion: 43 Resp: 9678

Ion	Ratio	Lower	Upper
43	100		
58	32.7	22.6	62.6

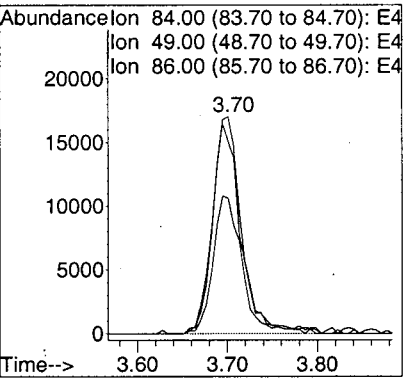




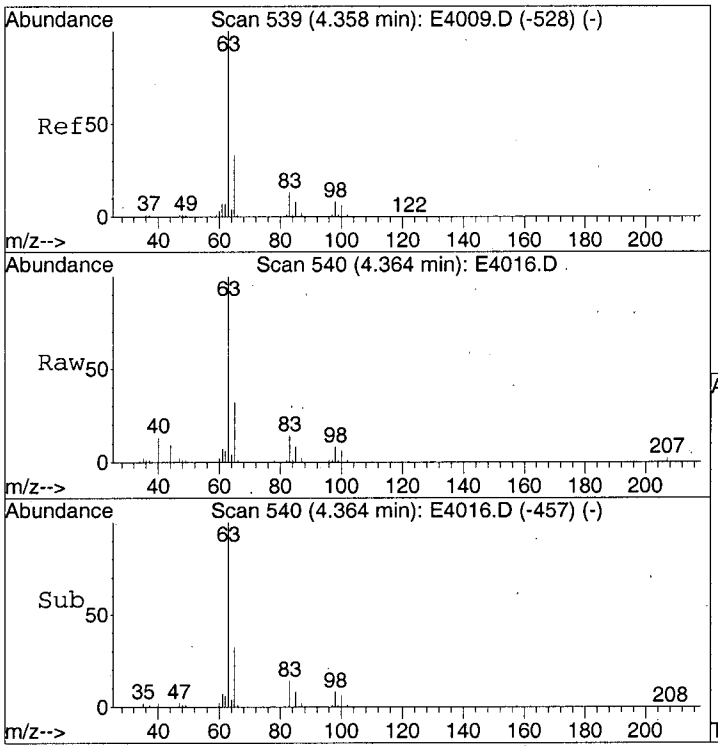
#16
Methylene Chloride
Concen: 0.54 ug/L
RT: 3.70 min Scan# 431
Delta R.T. 0.01 min
Lab File: E4016.D
Acq: 27 Mar 2003 13:56

Tgt Ion: 84 Resp: 37953

Ion	Ratio	Lower	Upper
84	100		
49	95.3	76.2	116.2
86	63.5	43.2	83.2



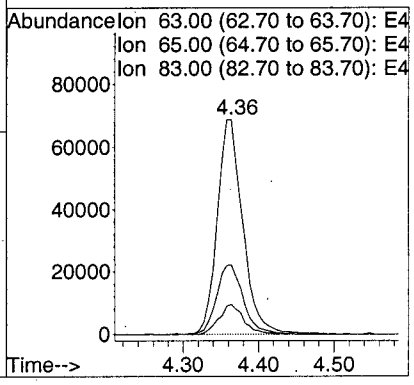
Data File : C:\MSDCHEM\1\DATA\E4016.D Vial: 9
Acq On : 03/27/2003 1356 Operator: AK
Sample : Y0SL3DL Inst : E-5973
Misc : 2761.002DL 25ML 5X Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

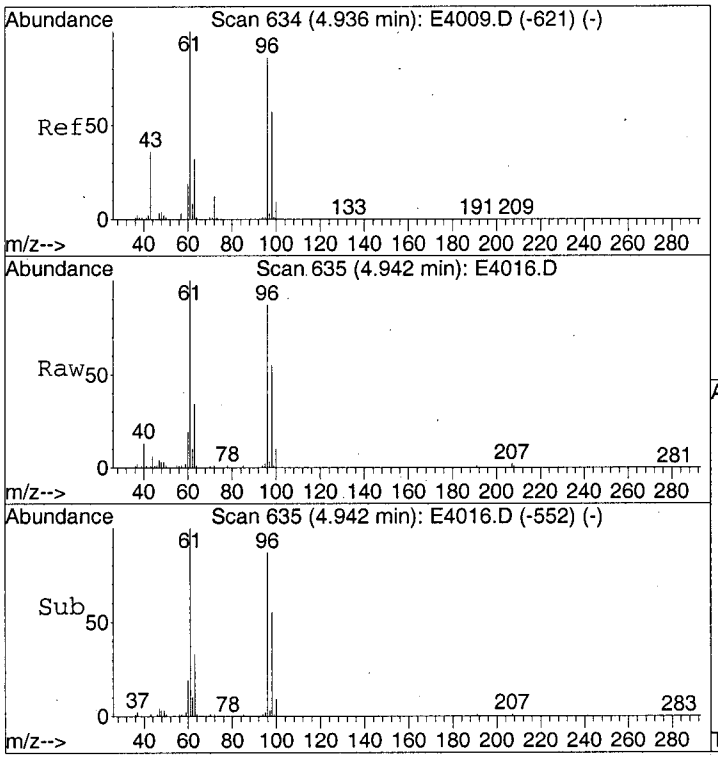


#19
1,1-Dichloroethane
Concen: 1.26 ug/L
RT: 4.36 min Scan# 540
Delta R.T. 0.01 min
Lab File: E4016.D
Acq: 27 Mar 2003 13:56

Tgt Ion: 63 Resp: 161500

Ion	Ratio	Lower	Upper
63	100		
65	33.6	12.4	52.4
83	13.2	0.0	33.0

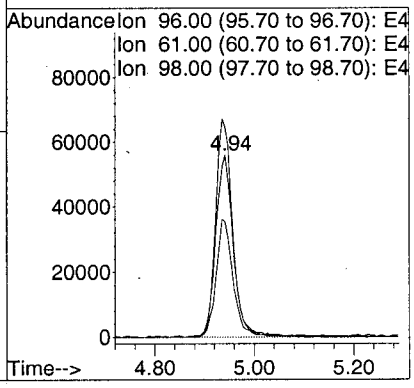




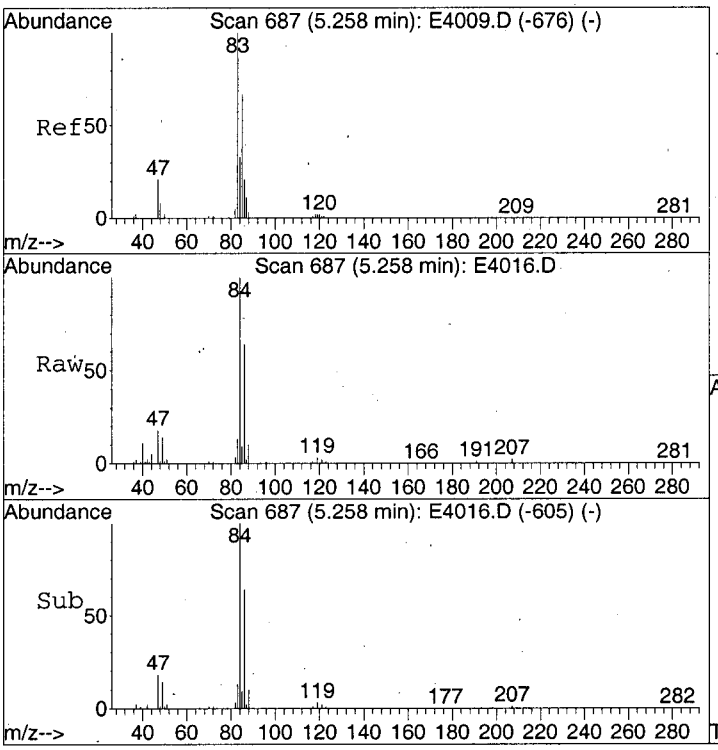
#21
cis-1,2-Dichloroethene
Concen: 1.92 ug/L
RT: 4.94 min Scan# 635
Delta R.T. 0.01 min
Lab File: E4016.D
Acq: 27 Mar 2003 13:56

Tgt Ion: 96 Resp: 138996

Ion	Ratio	Lower	Upper
96	100		
61	115.3	95.9	135.9
98	61.6	43.4	83.4



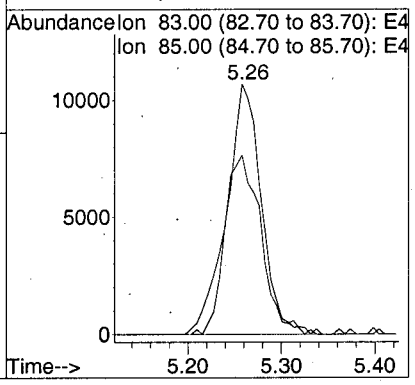
Data File : C:\MSDCHEM\1\DATA\E4016.D Vial: 9
Acq On : 03/27/2003 1356 Operator: AK
Sample : Y0SL3DL Inst : E-5973
Misc : 2761.002DL 25ML 5X Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

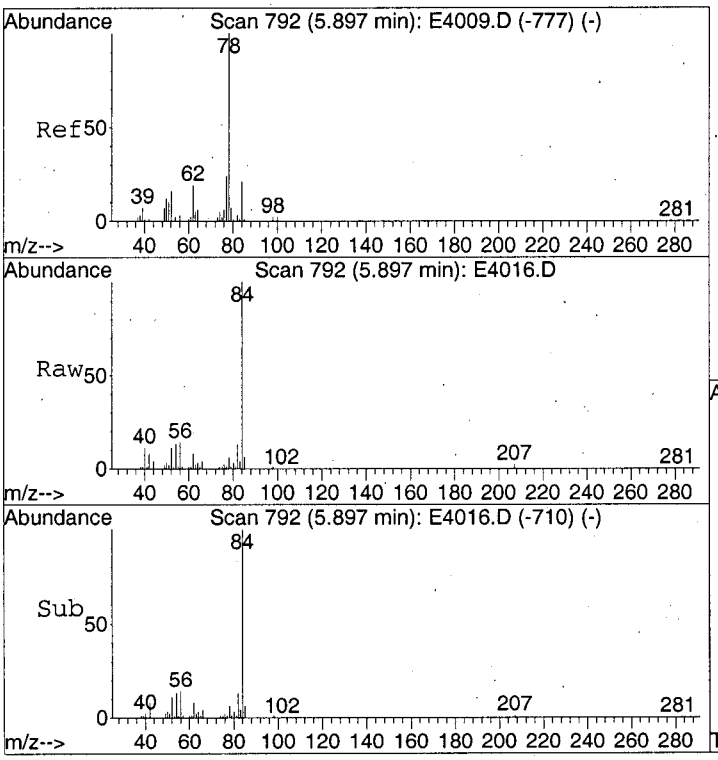


#25
Chloroform
Concen: 0.21 ug/L
RT: 5.26 min Scan# 687
Delta R.T. 0.00 min
Lab File: E4016.D
Acq: 27 Mar 2003 13:56

Tgt Ion: 83 Resp: 25780

Ion	Ratio	Lower	Upper
83	100		
85	87.5	45.9	85.9#

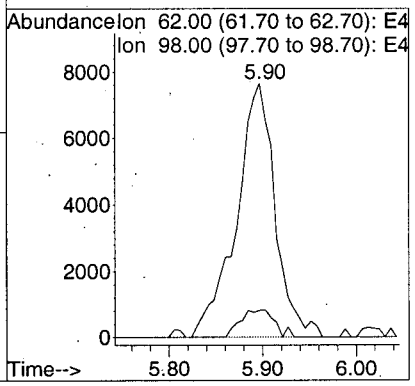




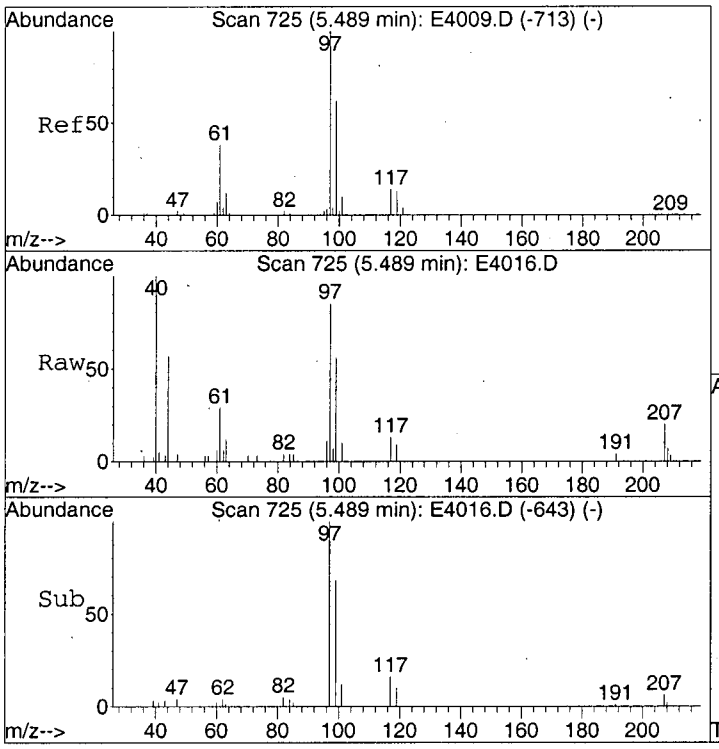
#27
1,2-Dichloroethane
Concen: 0.45 ug/L
RT: 5.90 min Scan# 792
Delta R.T. 0.00 min
Lab File: E4016.D
Acq: 27 Mar 2003 13:56

Tgt Ion: 62 Resp: 22098

Ion	Ratio	Lower	Upper
62	100		
98	9.6	0.0	31.5



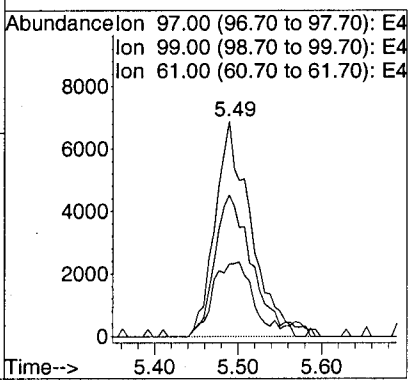
Data File : C:\MSDCHEM\1\DATA\E4016.D Vial: 9
Acq On : 03/27/2003 1356 Operator: AK
Sample : Y0SL3DL Inst : E-5973
Misc : 2761.002DL 25ML 5X Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

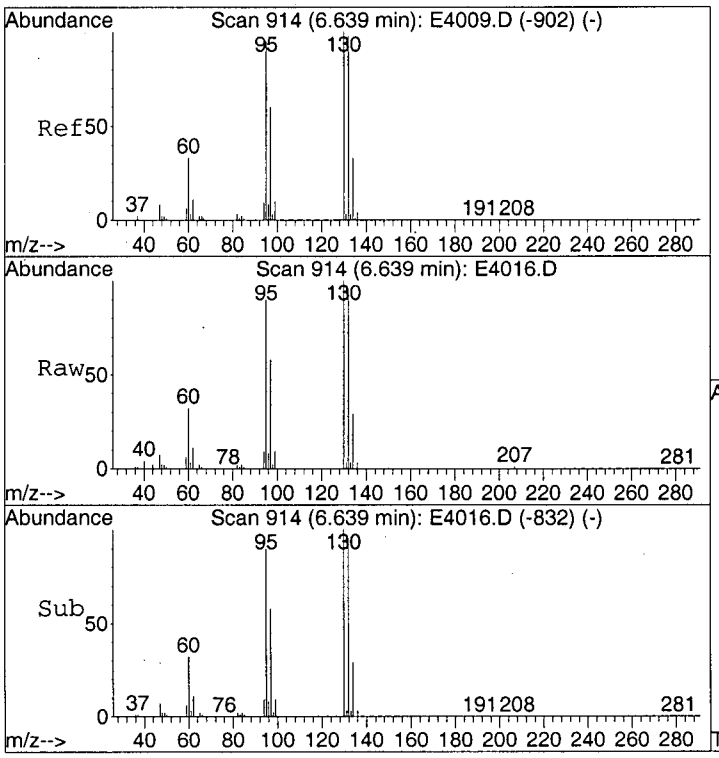


#29
1,1,1-Trichloroethane
Concen: 0.18 ug/L
RT: 5.49 min Scan# 725
Delta R.T. 0.00 min
Lab File: E4016.D
Acq: 27 Mar 2003 13:56

Tgt Ion: 97 Resp: 20637

Ion	Ratio	Lower	Upper
97	100		
99	69.2	44.6	84.6
61	39.4	17.8	57.8

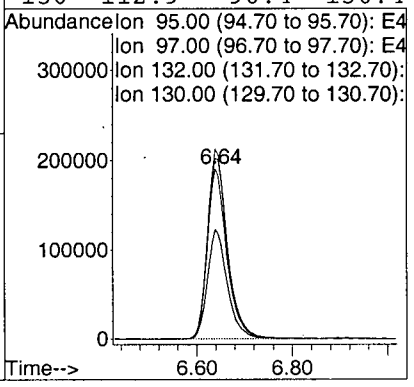




#34
Trichloroethene
Concen: 7.57 ug/L
RT: 6.64 min Scan# 914
Delta R.T. 0.00 min
Lab File: E4016.D
Acq: 27 Mar 2003 13:56

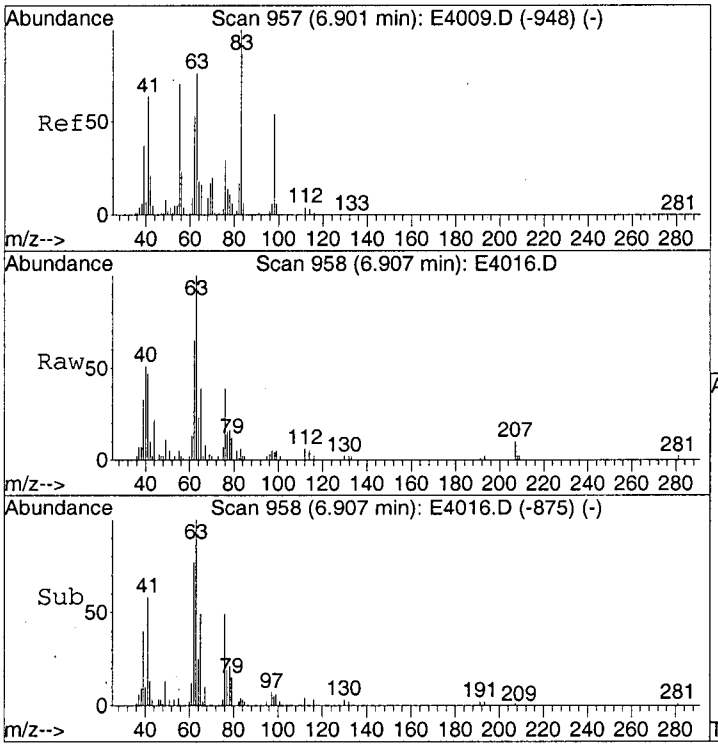
Tgt Ion: 95 Resp: 546907

Ion	Ratio	Lower	Upper
95	100		
97	65.0	43.5	83.5
132	108.2	86.1	126.1
130	112.9	90.4	130.4



1061

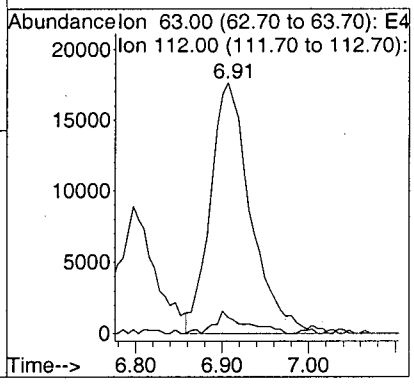
Data File : C:\MSDCHEM\1\DATA\E4016.D Vial: 9
Acq On : 03/27/2003 1356 Operator: AK
Sample : Y0SL3DL Inst : E-5973
Misc : 2761.002DL 25ML 5X Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

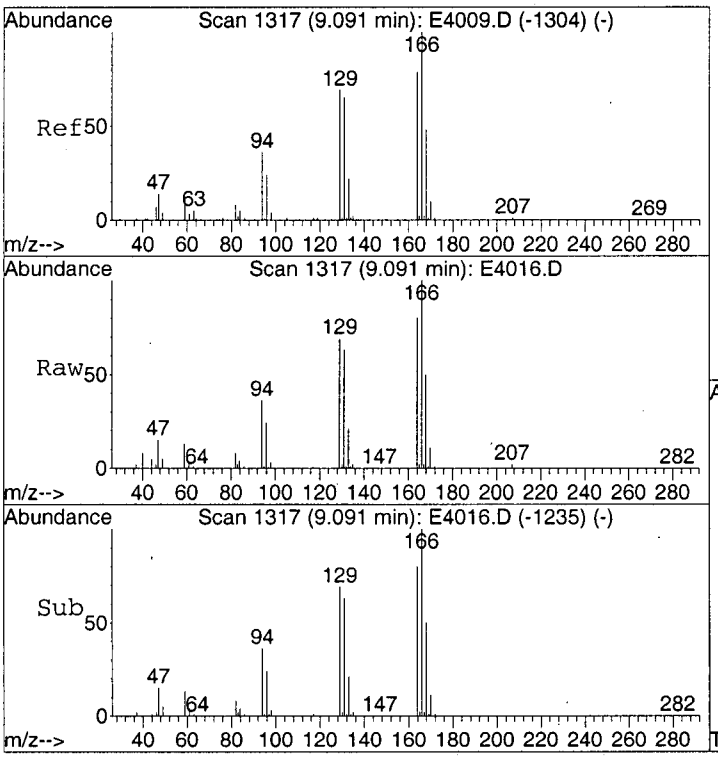


#37
1,2-Dichloropropane
Concen: 0.89 ug/L
RT: 6.91 min Scan# 958
Delta R.T. 0.01 min
Lab File: E4016.D
Acq: 27 Mar 2003 13:56

Tgt Ion: 63 Resp: 57003

Ion	Ratio	Lower	Upper
63	100		
112	6.6	0.0	25.4

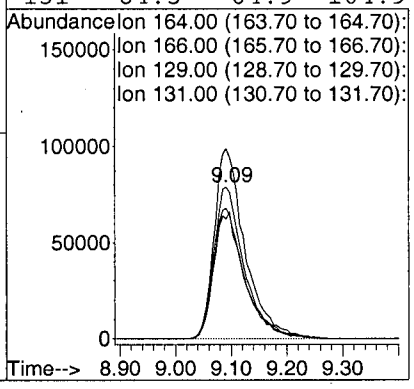




#46
Tetrachloroethene
Concen: 3.92 ug/L
RT: 9.09 min Scan# 1317
Delta R.T. 0.00 min
Lab File: E4016.D
Acq: 27 Mar 2003 13:56

Tgt Ion:164 Resp: 299048

Ion	Ratio	Lower	Upper
164	100		
166	127.2	105.5	145.5
129	87.3	68.3	108.3
131	84.5	64.9	104.9



LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\E4016.D Vial: 9
Acq On : 03/27/2003 1356 Operator: AK
Sample : Y0SL3DL Inst : E-5973
Misc : 2761.002DL 25ML 5X Multiplr: 1.00
MS Integration Params: Lscint.p

Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 100000 Area counts
Start Thrs: 0.2 Max Peaks: 40
Stop Thrs : 0 Peak Location: TOP

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

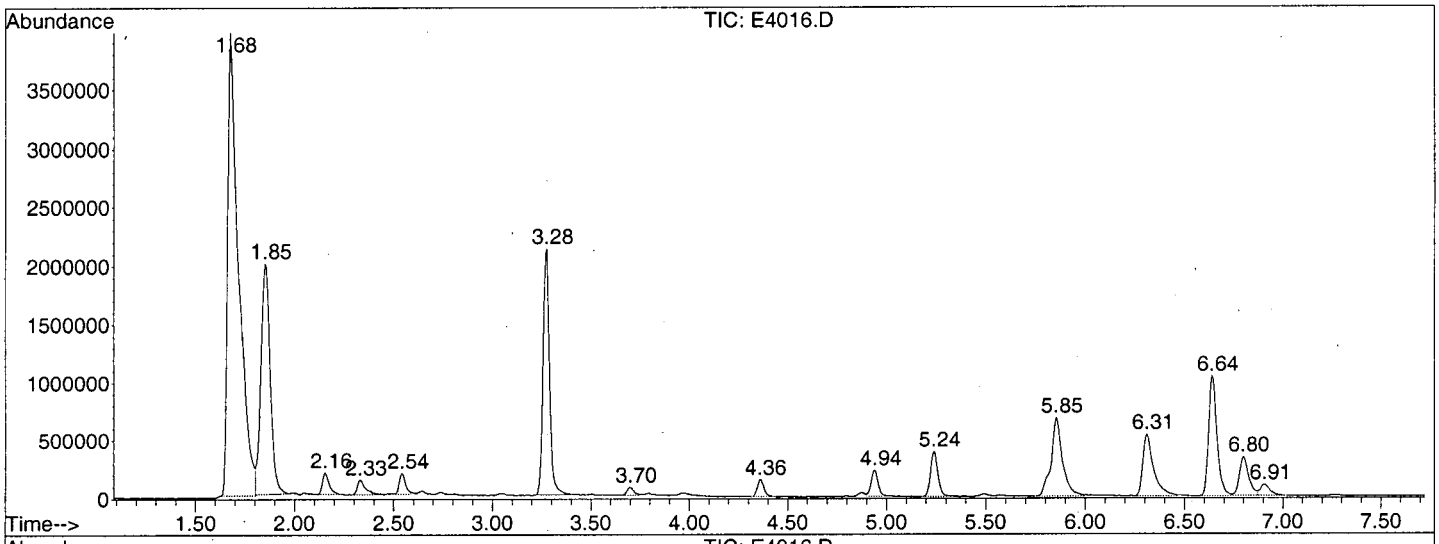
Signal : TIC

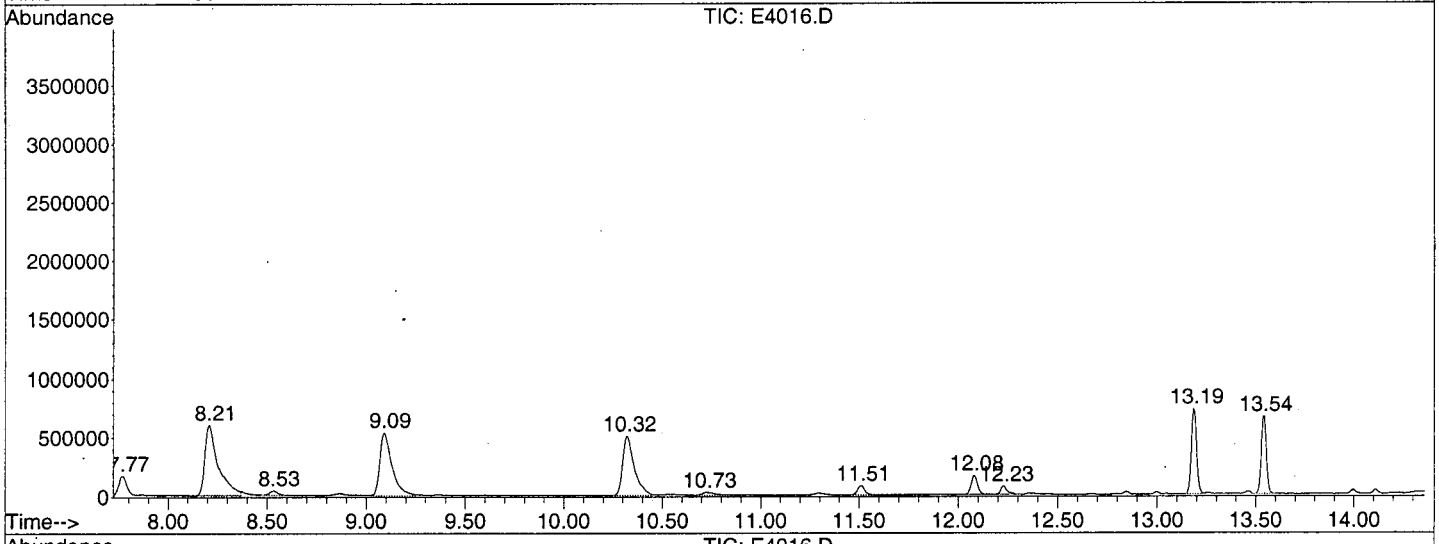
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.675	91	98	119	rBV	3957826	15345177	100.00%	30.902%
2	1.851	119	127	146	rVB	1980843	6430128	41.90%	12.949%
3	2.156	171	177	190	rBV	183788	422954	2.76%	0.852%
4	2.332	199	206	221	rBV	125053	350699	2.29%	0.706%
5	2.545	234	241	248	rBV	177970	388328	2.53%	0.782%
6	3.275	352	361	381	rBV2	2112949	4770577	31.09%	9.607%
7	3.701	423	431	439	rBV4	66241	163448	1.07%	0.329%
8	4.358	532	539	552	rVB	143492	328172	2.14%	0.661%
9	4.942	628	635	648	rVB	221507	533001	3.47%	1.073%
10	5.240	674	684	696	rBV	384590	969767	6.32%	1.953%
11	5.854	768	785	808	rBV2	676479	2668919	17.39%	5.375%
12	6.311	850	860	886	rBV	529027	1953377	12.73%	3.934%
13	6.639	903	914	930	rBV	1035530	3001256	19.56%	6.044%
14	6.797	931	940	952	rVV2	333529	1079704	7.04%	2.174%
15	6.907	952	958	977	rVB3	93816	319331	2.08%	0.643%
16	7.771	1090	1100	1110	rBV3	166335	475428	3.10%	0.957%
17	8.209	1161	1172	1198	rBV2	593848	2790678	18.19%	5.620%
18	8.531	1216	1225	1235	rVB2	37239	101429	0.66%	0.204%
19	9.091	1306	1317	1343	rBV4	529339	2239957	14.60%	4.511%
20	10.320	1508	1519	1541	rBV	498534	2020521	13.17%	4.069%
21	10.727	1577	1586	1605	rVB2	23943	105658	0.69%	0.213%
22	11.506	1707	1714	1725	rVB2	75273	186619	1.22%	0.376%
23	12.078	1799	1808	1818	rBV	162299	353084	2.30%	0.711%
24	12.230	1825	1833	1848	rVB	70217	163218	1.06%	0.329%
25	13.185	1983	1990	1998	rBV	722937	1324162	8.63%	2.667%
26	13.538	2040	2048	2058	rBV	655453	1171677	7.64%	2.360%

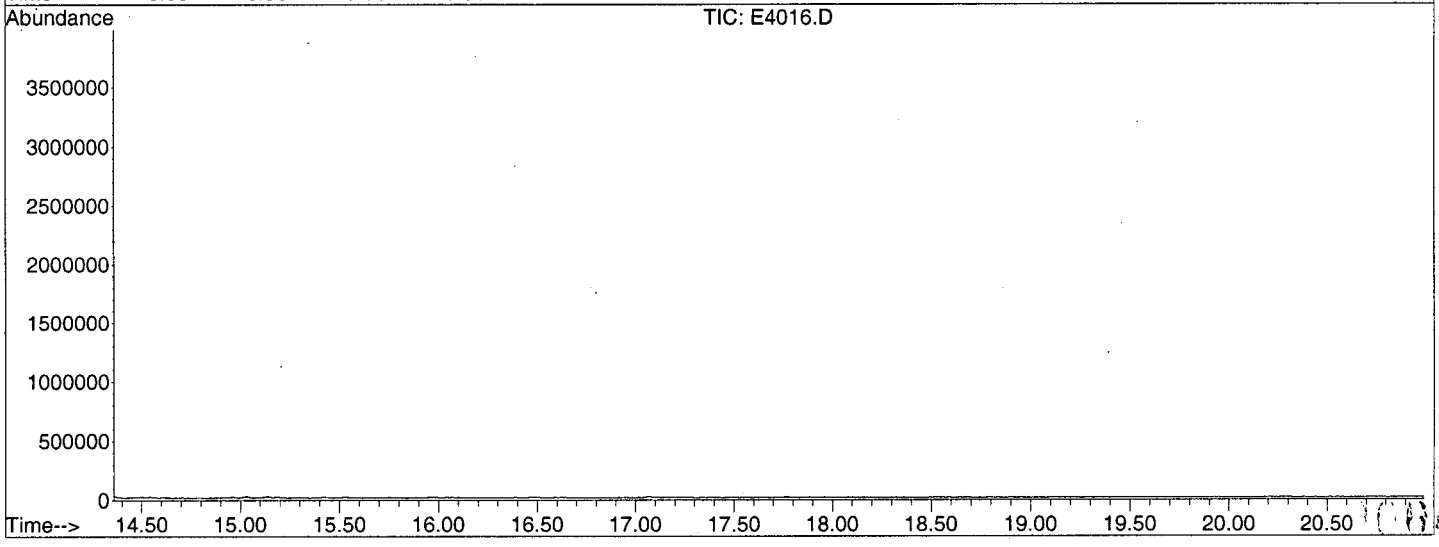
Sum of corrected areas: 49657269

LSC Report - Integrated Chromatogram

Data File : C:\MSDCHEM\1\DATA\E4016.D Vial: 9
Acq On : 03/27/2003 1356 Operator: AK
Sample : Y0SL3DL Inst : E-5973
Misc : 2761.002DL 25ML 5X Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2







Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4016.D Vial: 9
Acq On : 03/27/2003 1356 Operator: AK
Sample : Y0SL3DL Inst : E-5973
Misc : 2761.002DL 25ML 5X Multiplr: 1.00
MS Integration Params: Lscint.p

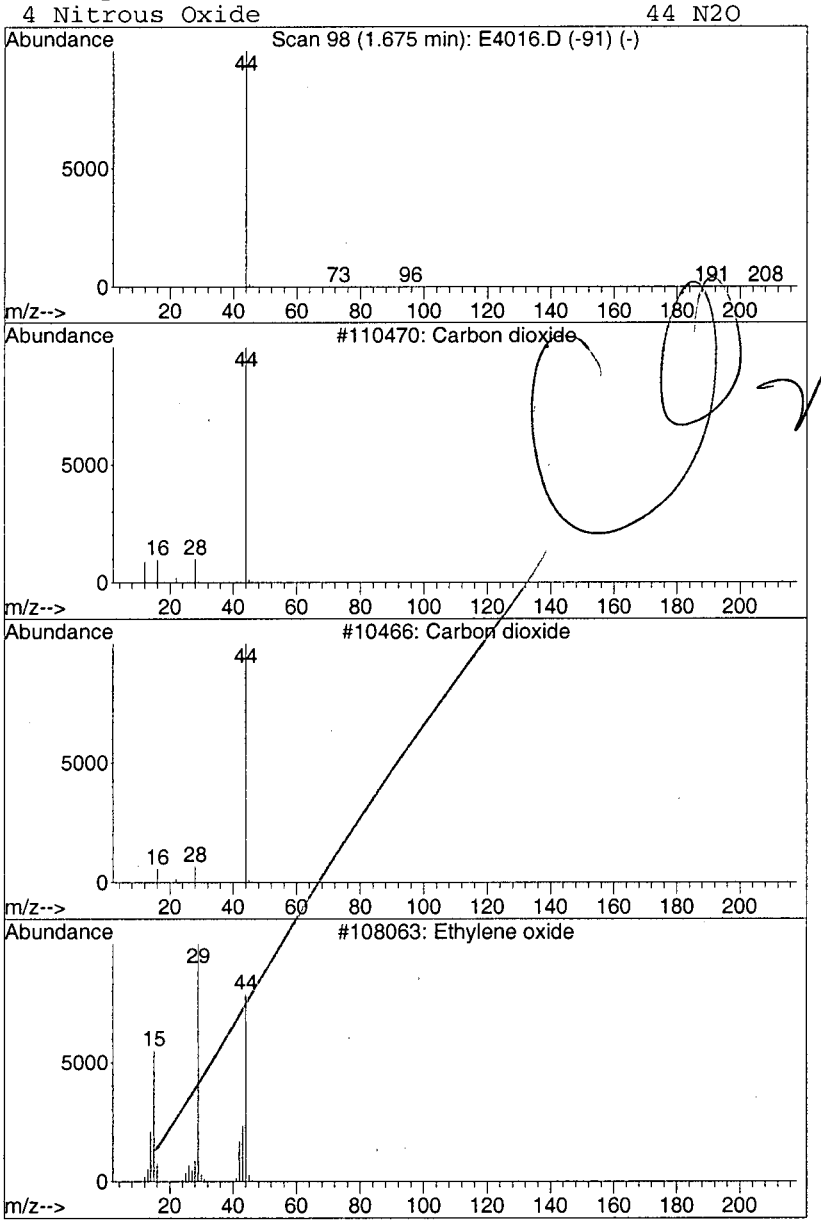
Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

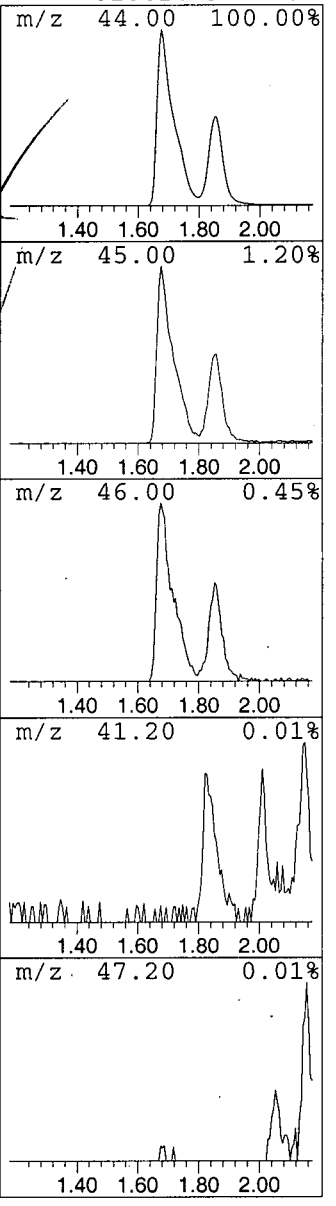
****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.68	39.28 ug/L	15345200	1,4-Difluorobenzene	6.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4016.D Vial: 9
Acq On : 03/27/2003 1356 Operator: AK
Sample : Y0SL3DL Inst : E-5973
Misc : 2761.002DL 25ML 5X Multiplr: 1.00
MS Integration Params: Lscint.p

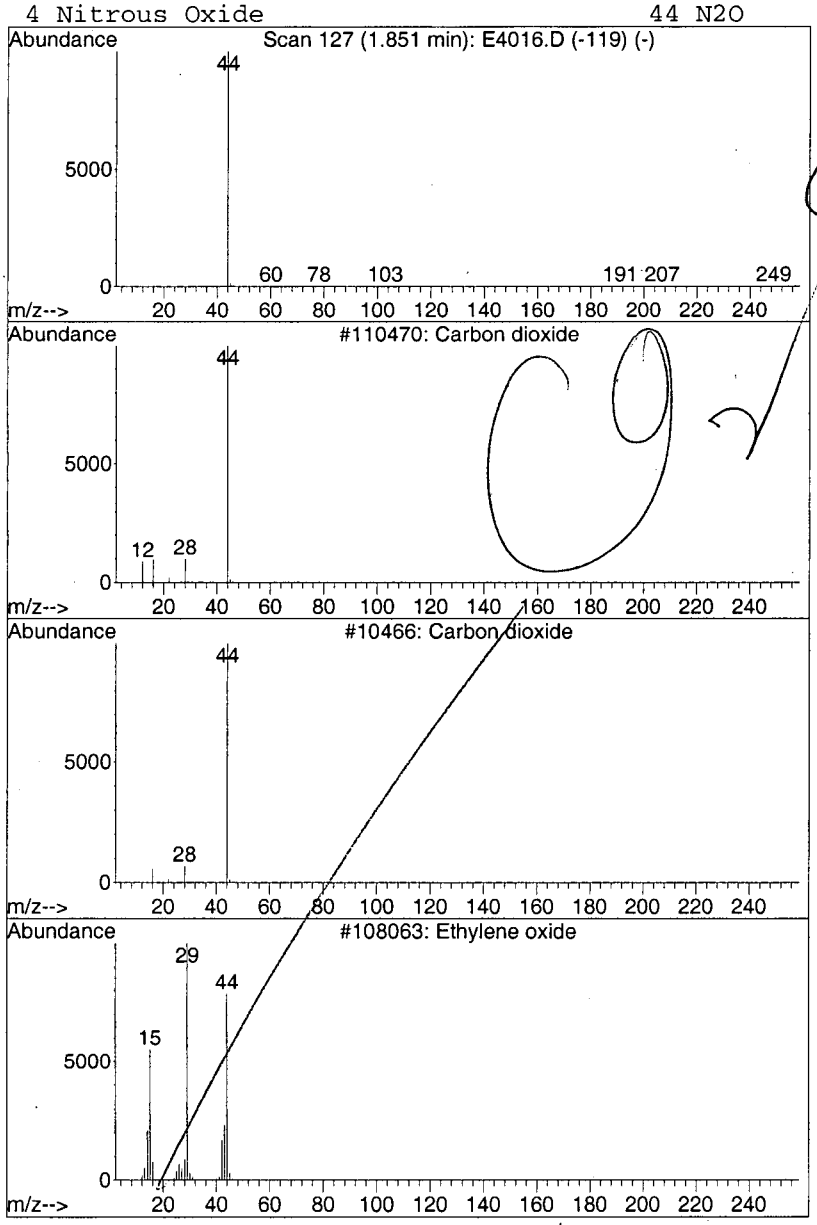
Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

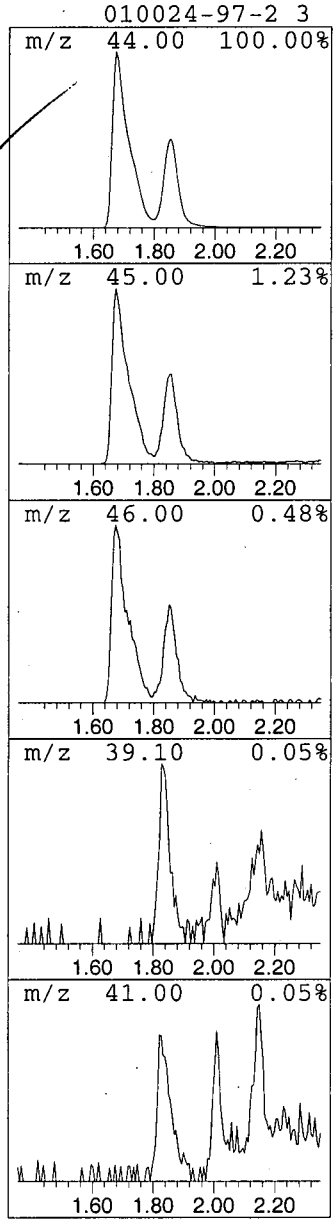
****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.85	16.46 ug/L	6430130	1,4-Difluorobenzene	6.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3





1LCB

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS

DATA SHEET

EPA SAMPLE NO.

Y0SL4

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2761.003 Date Received: 03/20/2003

Lab File ID: E4073 Date Analyzed: 03/30/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
79-01-6	Trichloroethene	24	
108-87-2	Methylcyclohexane	290	E
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.1	
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	6.9	
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.81	
1330-20-7	Xylene (total)	2.1	
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	36	E
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

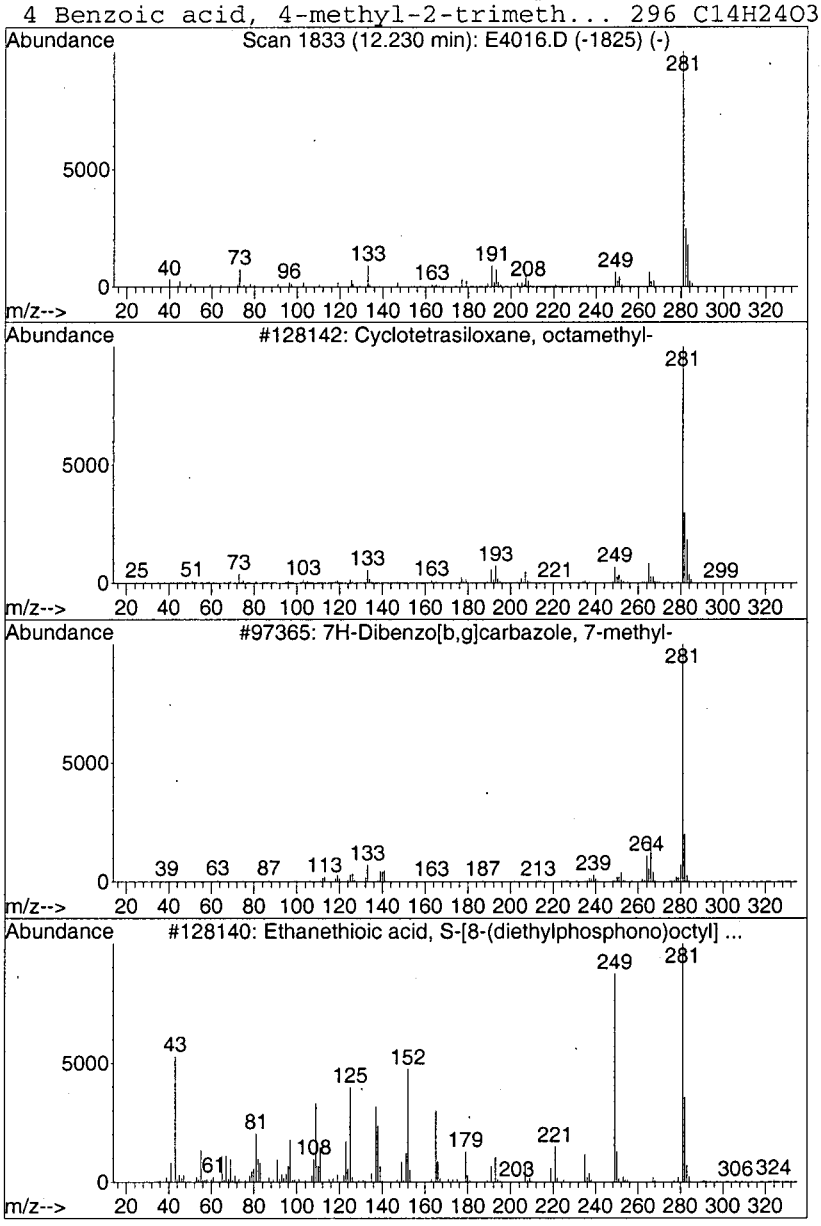
Library Search Compound Report

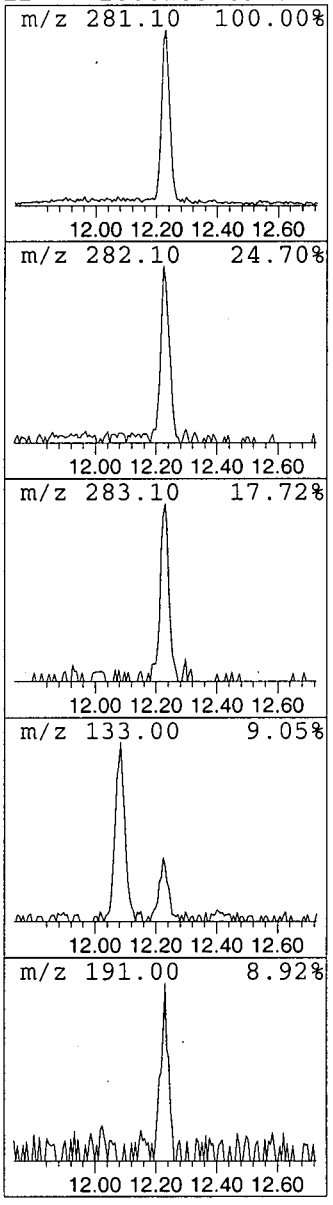
```
   Data File : C:\MSDCHEM\1\DATA\E4016.D                    Vial: 9
   Acq On    : 03/27/2003  1356                          Operator: AK
   Sample    : Y0SL3DL                                   Inst    : E-5973
   Misc      : 2761.002DL   25ML     5X                  Multiplr: 1.00
MS Integration Params: Lscint.p

Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title        : Voa Low Concentration Organics - OLC03.2
Library      : C:\DATABASE\NIST98.L
 ******************************************************************
 Peak Number  5  Cyclotetrasiloxane, octamet...  Concentration Rank  5

   R.T.   EstConc          Area       Relative to ISTD        R.T.
 ------------------------------------------------------------------
  12.23    0.62 ug/L       163218    1,4-Dichlorobenzene-d4    13.19

  Hit# of  5    Tentative ID              MW  MolForm       CAS#        Qual
 ------------------------------------------------------------------
  1 Cyclotetrasiloxane, octamethyl-      296 C8H24O4Si4     000556-67-2 87
  2 7H-Dibenzo[b,g]carbazole, 7-methyl-  281 C21H15N        003557-49-1 50
  3 Ethanethioic acid, S-[8-(diethyl...  324 C14H29O4PS     129065-11-8 46
  4 Benzoic acid, 4-methyl-2-trimeth...  296 C14H24O3Si2    1000153-59-3 45
```





1LCA
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

Y0SL4

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2761.003 Date Received: 03/20/2003

Lab File ID: E4073 Date Analyzed: 03/30/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.19	J
75-01-4	Vinyl Chloride	8.1	
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.15	J
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	18	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	0.32	J
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	12	
1634-04-4	Methyl tert-Butyl Ether	0.50	U
75-34-3	1,1-Dichloroethane	4.1	
156-59-2	cis-1,2-Dichloroethene	140	E
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.29	J
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	220	E
56-23-5	Carbon Tetrachloride	0.50	U
71-43-2	Benzene	2.1	
107-06-2	1,2-Dichloroethane	0.50	U

1LCF

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS

DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Y0SL4

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2761.003 Date Received: 03/20/2003

Lab File ID: E4073 Date Analyzed: 03/30/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

Number TICs found: 24

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01	000078-78-4	Butane, 2-methyl-	2.62	3.3	JN
02	000079-29-8	Butane, 2,3-dimethyl-	3.69	2.3	JN
03	000287-92-3	Cyclopentane	3.78	1.4	JN
04	002453-00-1	Cyclopentane, 1,3-dimethyl-	5.95	12	JN
05	002532-58-3	Cyclopentane, 1,3-dimethyl-,	6.03	5.0	JN
06	001640-89-7	Cyclopentane, ethyl-	7.11	2.9	JN
07	002815-58-9	Cyclopentane, 1,2,4-trimethy	7.21	5.7	JN
08	015890-40-1	Cyclopentane, 1,2,3-trimethy	7.39	10	JN
09	004259-00-1	Cyclopentane, 1,1,2-trimethy	7.83	3.5	JN
10	006876-23-9	Cyclohexane, 1,2-dimethyl-,	8.67	8.8	JN
11	002207-03-6	Cyclohexane, 1,3-dimethyl-,	8.83	5.3	JN
12	002207-01-4	Cyclohexane, 1,2-dimethyl-,	9.45	2.4	JN
13	001678-91-7	Cyclohexane, ethyl-	9.52	7.2	JN
14	003073-66-3	Cyclohexane, 1,1,3-trimethyl	9.60	7.7	JN
15	001795-26-2	Cyclohexane, 1,3,5-trimethyl	9.94	1.6	JN
16	000694-72-4	Pentalene, octahydro-	10.47	5.0	JN
17	004926-78-7	Cyclohexane, 1-ethyl-4-methy	11.21	1.2	JN
18	000103-65-1	Benzene, propyl-	12.26	12	JN
19	000135-98-8	Benzene, (1-methylpropyl)-	13.02	5.0	JN
20	000637-50-3	Benzene, 1-propenyl-	13.44	4.1	JN
21	002870-04-4	Benzene, 2-ethyl-1,3-dimethy	13.85	6.2	JN
22	000767-58-8	Indan, 1-methyl-	13.96	7.7	JN
23	000095-93-2	Benzene, 1,2,4,5-tetramethyl	14.60	8.7	JN
24	017059-48-2	1H-Indene, 2,3-dihydro-1,6-d	15.03	4.0	JN
25					
26					
27					
28					
29					
30					

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4073.D
Acq On : 03/30/2003 1421
Sample : Y0SL4
Misc : 2761.003 25ML
MS Integration Params: RTEINT.P
Quant Time: Apr 01 09:52:07 2003

Vial: 5
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Results File: LCE4070.RES

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Sun Mar 30 13:10:50 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4070.D
DataAcq Meth : VOAC

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Difluorobenzene	6.30	114	1120115	5.00 ug/L	0.00
28) Chlorobenzene-d5	10.31	117	924776	5.00 ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	13.19	152	354503	5.00 ug/L	0.00
System Monitoring Compounds					
4) Vinyl Chloride-d3	2.13	65	397180	4.97 ug/L	-0.02
Spiked Amount 5.000	Range 49 - 138		Recovery	= 99.40%	
7) Chloroethane-d5	2.52	69	381740	5.42 ug/L	-0.01
Spiked Amount 5.000	Range 60 - 126		Recovery	= 108.40%	
10) 1,1-Dichloroethene-d2	3.24	65	201811	5.50 ug/L	-0.02
Spiked Amount 5.000	Range 65 - 130		Recovery	= 110.00%	
20) 2-Butanone-d5	4.87	46	38858	4.06 ug/L	0.00
Spiked Amount 5.000	Range 42 - 171		Recovery	= 81.20%	
24) Chloroform-d	5.22	86	467529	5.26 ug/L	-0.01
Spiked Amount 5.000	Range 80 - 123		Recovery	= 105.20%	
26) 1,2-Dichloroethane-d4	5.79	65	585106	12.05 ug/L	-0.02
Spiked Amount 5.000	Range 78 - 129		Recovery	= 241.00%#	
32) Benzene-d6	5.84	84	2016714	5.11 ug/L	-0.01
Spiked Amount 5.000	Range 78 - 121		Recovery	= 102.20%	
35) 1,2-Dichloropropane-d6	6.79	67	424464	3.90 ug/L	-0.01
Spiked Amount 5.000	Range 84 - 123		Recovery	= 78.00%#	
41) Toluene-d8	8.20	98	3468740	9.21 ug/L	-0.01
Spiked Amount 5.000	Range 77 - 120		Recovery	= 184.20%#	
43) trans-1,3-Dichloropropene-	8.46	79	1023822	73.23 ug/L	-0.07
Spiked Amount 5.000	Range 80 - 128		Recovery	= 1464.60%#	
47) 2-Hexanone-d5	9.12	46	84446	5.39 ug/L	0.00
Spiked Amount 5.000	Range 37 - 169		Recovery	= 107.80%	
58) 1,1,2,2-Tetrachloroethane-	12.08	84	184664	4.85 ug/L	0.00
Spiked Amount 5.000	Range 75 - 131		Recovery	= 97.00%	
61) Bromoform-d	11.51	174	93675	3.30 ug/L	0.00
Spiked Amount 5.000	Range 76 - 135		Recovery	= 66.00%#	
65) 1,2-Dichlorobenzene-d4	13.54	152	415056	5.16 ug/L	0.00
Spiked Amount 5.000	Range 50 - 150		Recovery	= 103.20%	

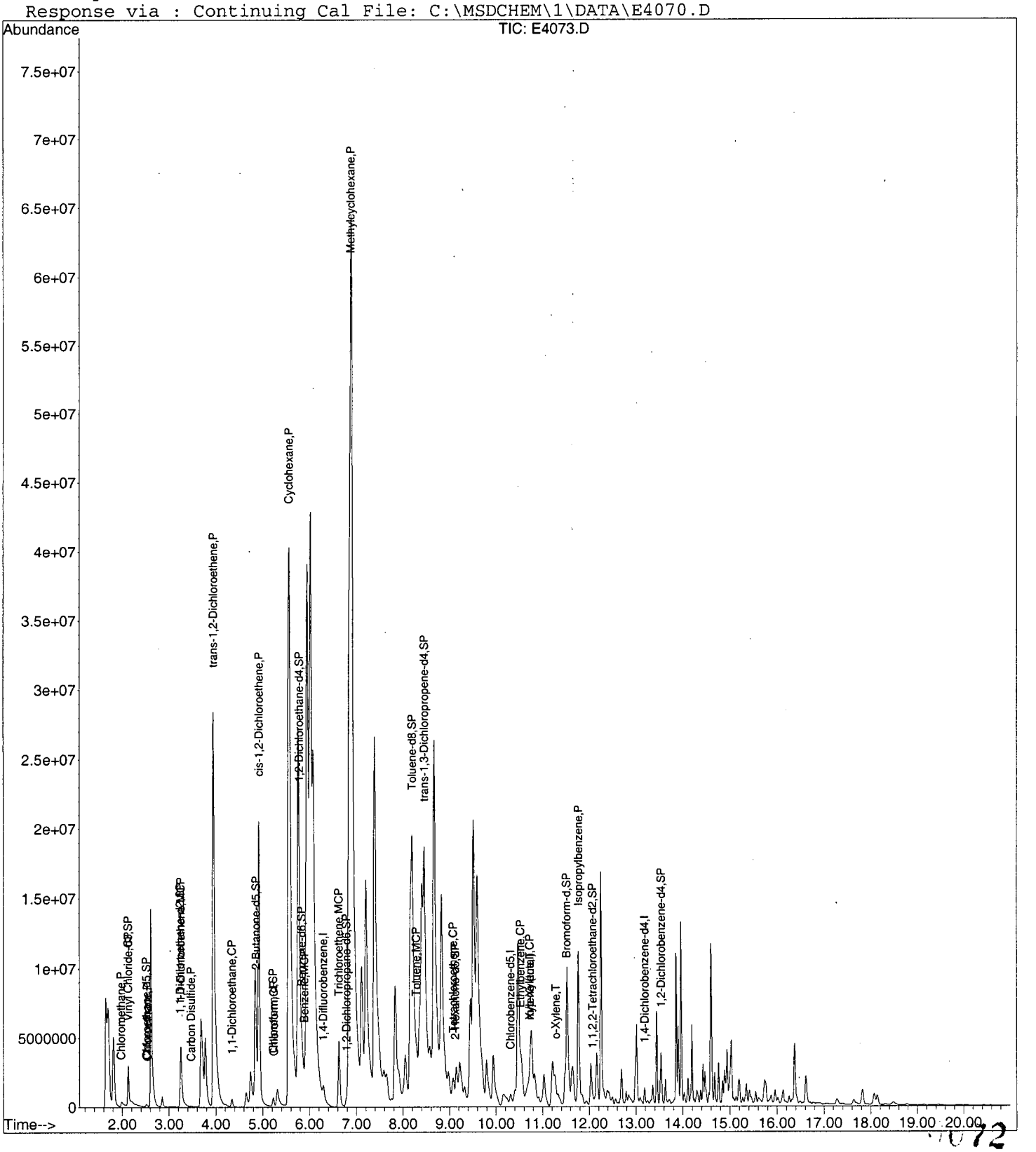
Target Compounds					Qvalue
3) Chloromethane	1.97	50	47272	0.19 ug/L J	90
5) Vinyl Chloride	2.13	62	1617611	8.07 ug/L	100
8) Chloroethane	2.55	64	17309	0.15 ug/L J	96
11) 1,1-Dichloroethene	3.26	96	1667694	17.51 ug/L #	64
14) Carbon Disulfide	3.48	76	97772	0.32 ug/L J	94
17) trans-1,2-Dichloroethene	3.94	96	1267296	12.20 ug/L	95
19) 1,1-Dichloroethane	4.35	63	629908	4.11 ug/L	100
21) cis-1,2-Dichloroethene	4.92	96	12191341	137.90 ug/L E	96
25) Chloroform	5.25	83	41315	0.29 ug/L #J	72
30) Cyclohexane	5.56	56	40065903	215.64 ug/L #E	79
33) Benzene	5.88	78	931047	2.11 ug/L	100
34) Trichloroethene	6.63	95	2298685	24.08 ug/L	100
36) Methylcyclohexane	6.88	83	58871987	288.79 ug/L #E	82
42) Toluene	8.29	91	530086	1.12 ug/L	91
46) Tetrachloroethene	9.08	164	712940	6.91 ug/L	99
52) Ethylbenzene	10.53	91	331942	0.81 ug/L	98
53) m/p-Xylene	10.72	106	184309	1.17 ug/L #	79
54) o-Xylene	11.29	106	107574	0.78 ug/L #	85
55) Xylene (total)	10.72	106	294445m	2.14 ug/L	
57) Isopropylbenzene	11.77	105	11137152	35.98 ug/L	99

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

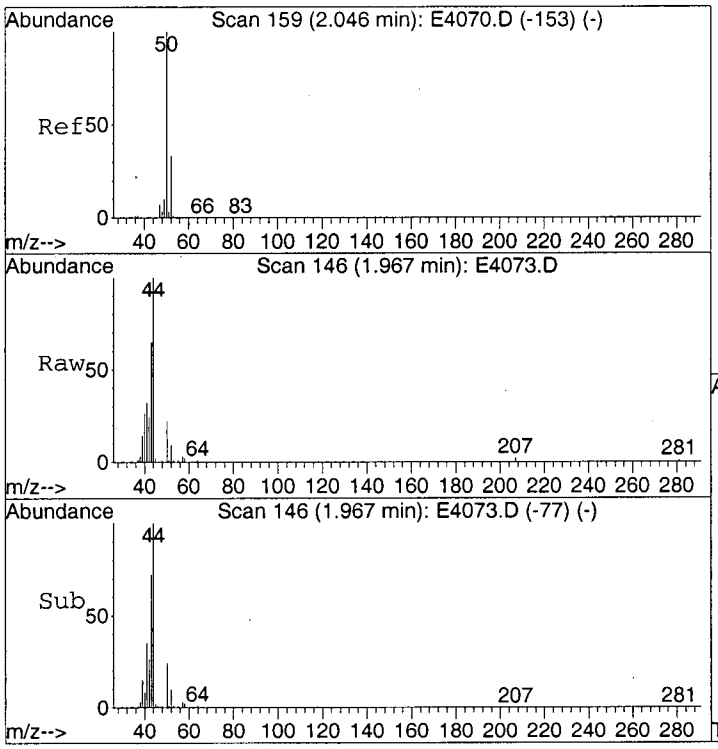
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4073.D Vial: 5
Acq On : 03/30/2003 1421 Operator: AK
Sample : Y0SL4 Inst : E-5973
Misc : 2761.003 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 1 9:58 2003 Quant Results File: LCE4070.RES

Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Sun Mar 30 13:10:50 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4070.D



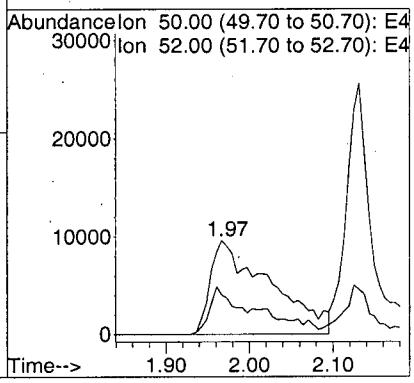
Data File : C:\MSDCHEM\1\DATA\E4073.D Vial: 5
Acq On : 03/30/2003 1421 Operator: AK
Sample : Y0SL4 Inst : E-5973
Misc : 2761.003 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

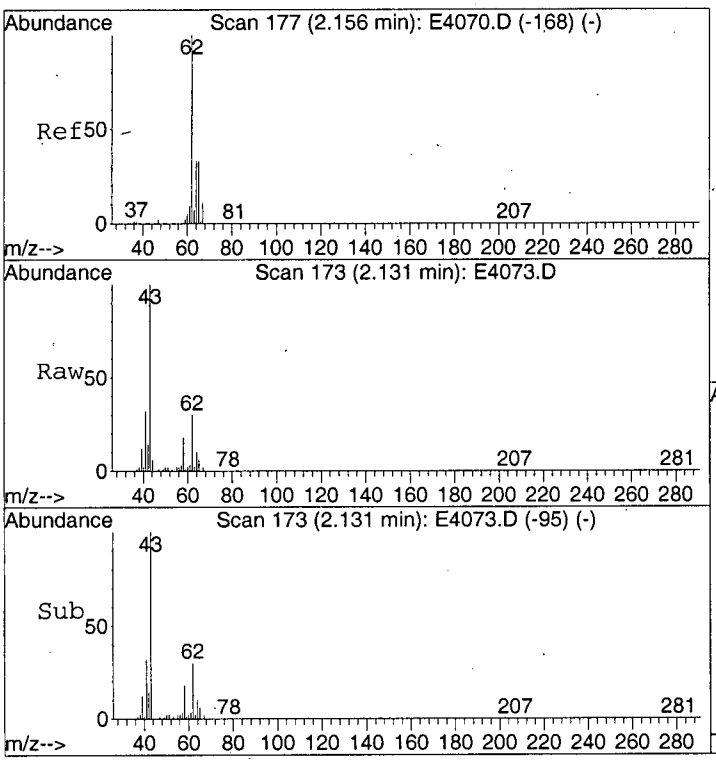


#3
Chloromethane
Concen: 0.19 ug/L
RT: 1.97 min Scan# 146
Delta R.T. -0.08 min
Lab File: E4073.D
Acq: 30 Mar 2003 14:21

Tgt Ion: 50 Resp: 47272

Ion	Ratio	Lower	Upper
50	100		
52	39.8	14.0	54.0

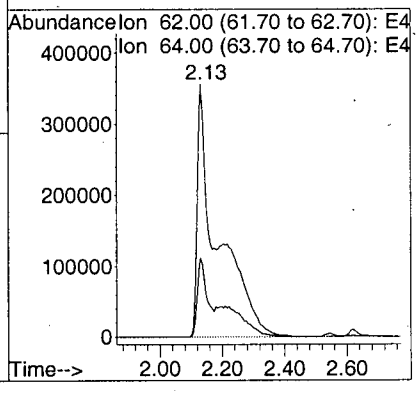




#5
Vinyl Chloride
Concen: 8.07 ug/L
RT: 2.13 min Scan# 173
Delta R.T. -0.02 min
Lab File: E4073.D
Acq: 30 Mar 2003 14:21

Tgt Ion: 62 Resp: 1617611

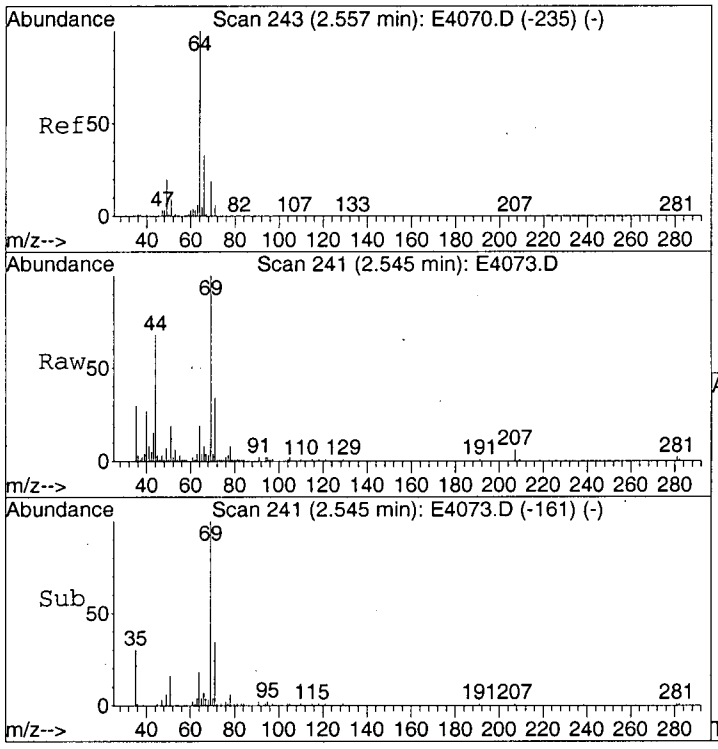
Ion	Ratio	Lower	Upper
62	100		
64	32.5	12.3	52.3



0073

Data File : C:\MSDCHEM\1\DATA\E4073.D
Acq On : 03/30/2003 1421
Sample : Y0SL4
Misc : 2761.003 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

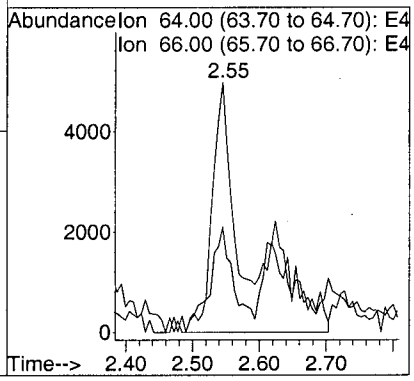
Vial: 5
Operator: AK
Inst : E-5973
Multiplr: 1.00

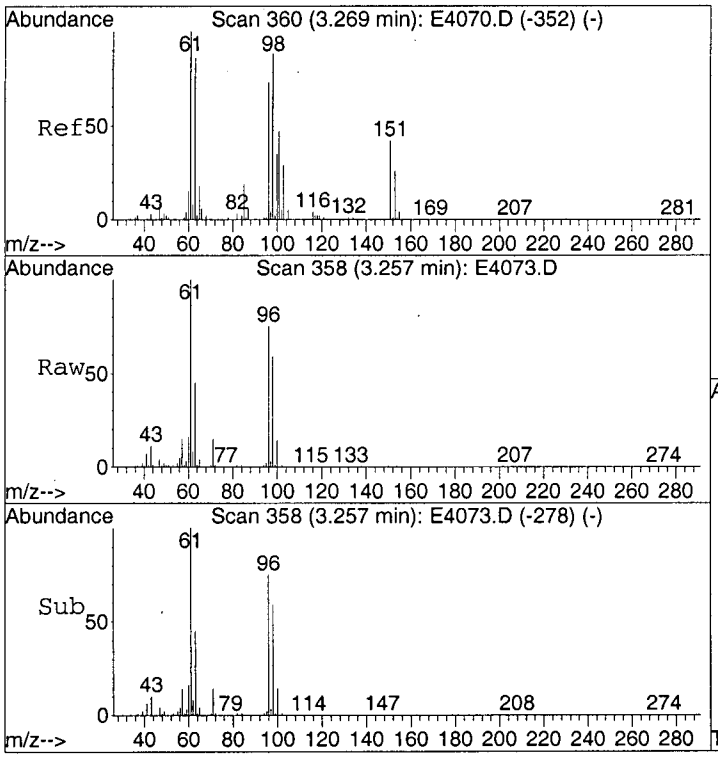


#8
Chloroethane
Concen: 0.15 ug/L
RT: 2.55 min Scan# 241
Delta R.T. -0.01 min
Lab File: E4073.D
Acq: 30 Mar 2003 14:21

Tgt Ion: 64 Resp: 17309

Ion	Ratio	Lower	Upper
64	100		
66	30.5	13.0	53.0

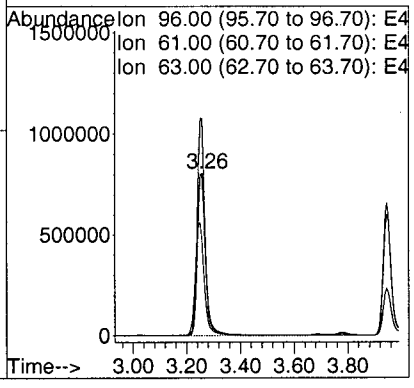




#11
1,1-Dichloroethene
Concen: 17.51 ug/L
RT: 3.26 min Scan# 358
Delta R.T. -0.01 min
Lab File: E4073.D
Acq: 30 Mar 2003 14:21

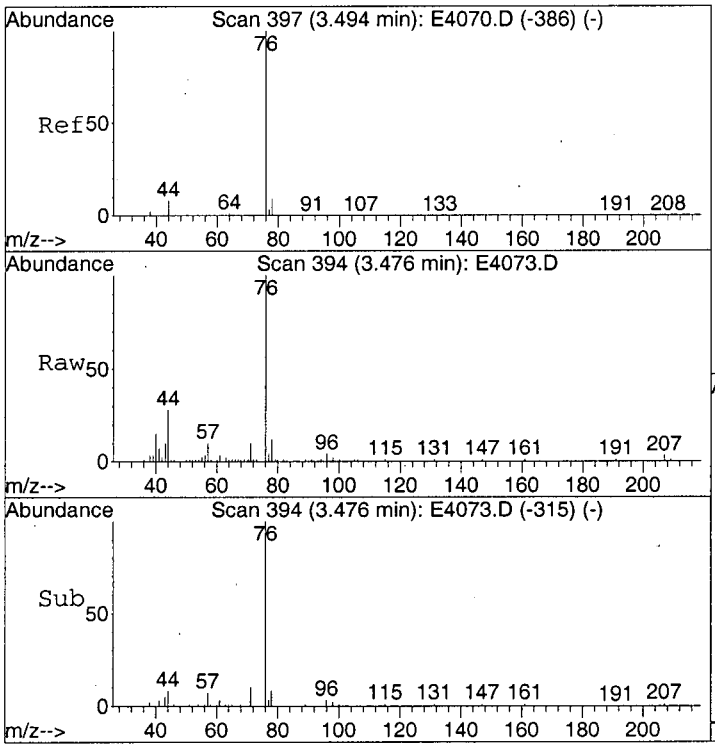
Tgt Ion: 96 Resp: 1667694

Ion	Ratio	Lower	Upper
96	100		
61	134.4	121.8	161.8
63	78.9	140.3	180.3#



Data File : C:\MSDCHEM\1\DATA\E4073.D
Acq On : 03/30/2003 1421
Sample : Y0SL4
Misc : 2761.003 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

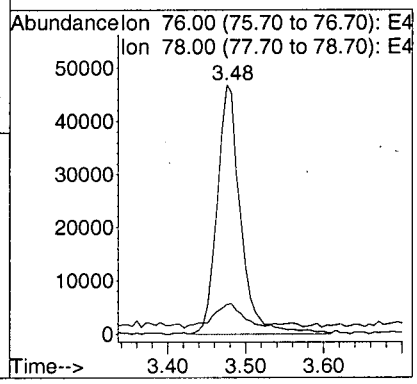
Vial: 5
Operator: AK
Inst : E-5973
Multiplr: 1.00

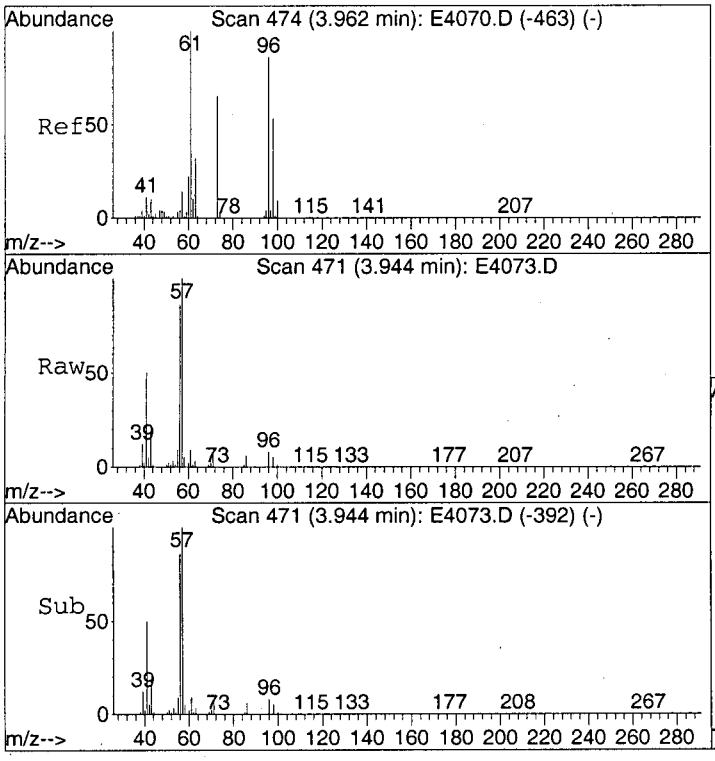


#14
Carbon Disulfide
Concen: 0.32 ug/L
RT: 3.48 min Scan# 394
Delta R.T. -0.02 min
Lab File: E4073.D
Acq: 30 Mar 2003 14:21

Tgt Ion: 76 Resp: 97772

Ion	Ratio	Lower	Upper
76	100		
78	11.9	0.0	29.8

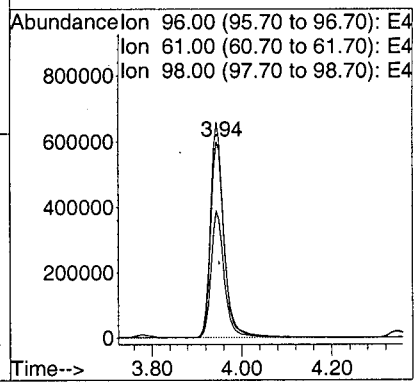




#17
trans-1,2-Dichloroethene
Concen: 12.20 ug/L
RT: 3.94 min Scan# 471
Delta R.T. -0.02 min
Lab File: E4073.D
Acq: 30 Mar 2003 14:21

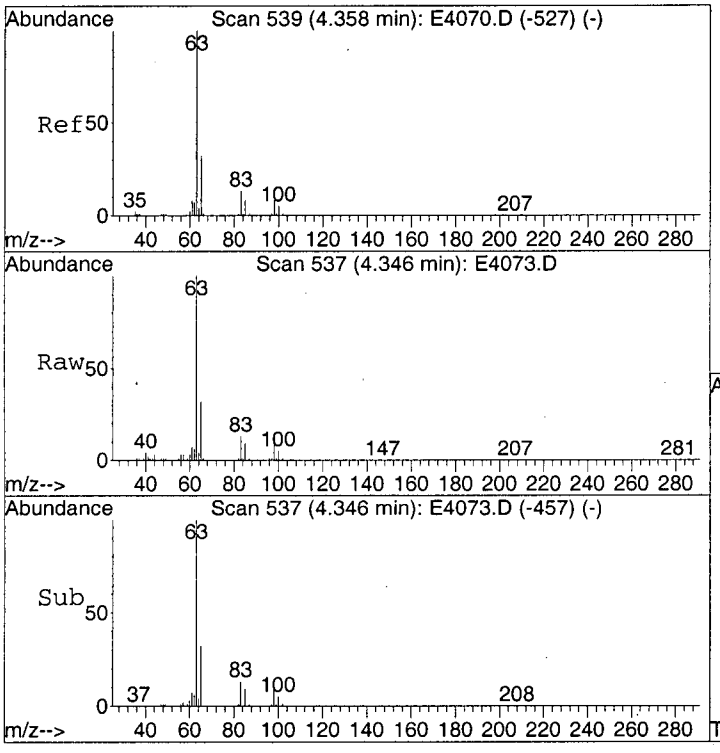
Tgt Ion: 96 Resp: 1267296

Ion	Ratio	Lower	Upper
96	100		
61	111.3	99.6	139.6
98	64.6	43.4	83.4



Data File : C:\MSDCHEM\1\DATA\E4073.D
Acq On : 03/30/2003 1421
Sample : Y0SL4
Misc : 2761.003 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

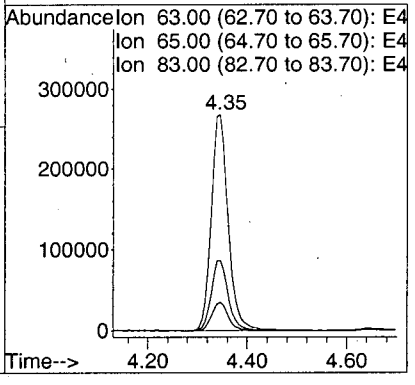
Vial: 5
Operator: AK
Inst : E-5973
Multiplr: 1.00

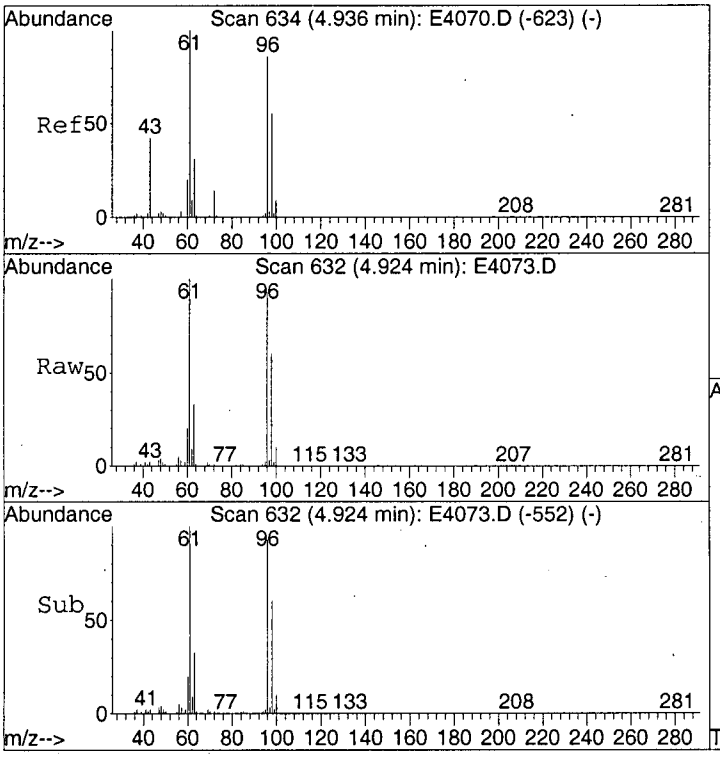


#19
1,1-Dichloroethane
Concen: 4.11 ug/L
RT: 4.35 min Scan# 537
Delta R.T. -0.01 min
Lab File: E4073.D
Acq: 30 Mar 2003 14:21

Tgt Ion: 63 Resp: 629908

Ion	Ratio	Lower	Upper
63	100		
65	32.5	12.2	52.2
83	12.9	0.0	33.0

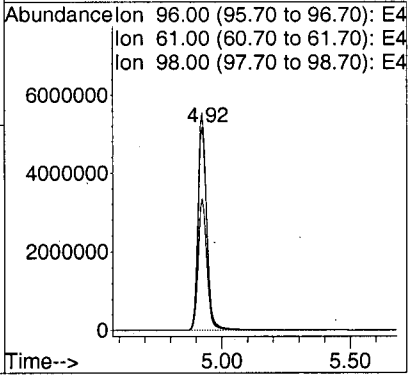




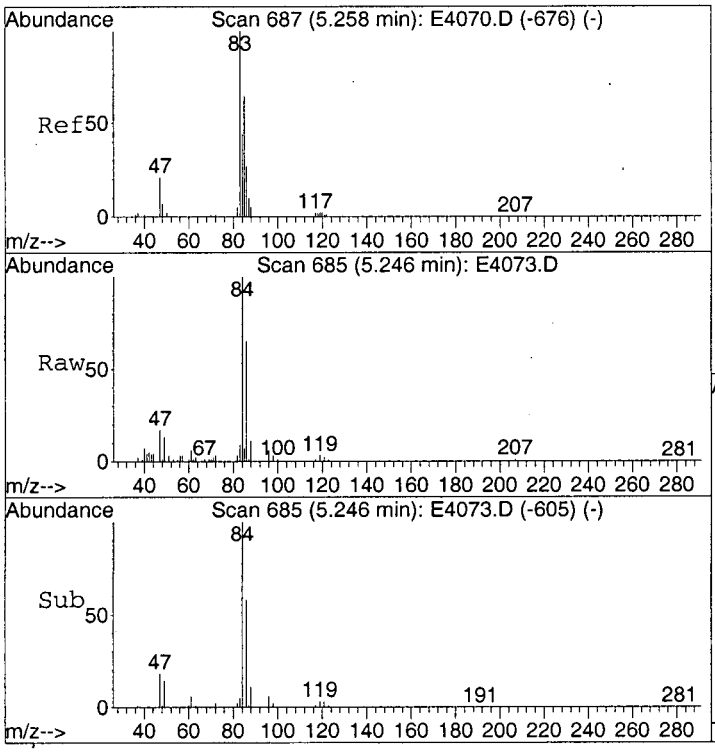
#21
cis-1,2-Dichloroethene
Concen: 137.90 ug/L
RT: 4.92 min Scan# 632
Delta R.T. -0.01 min
Lab File: E4073.D
Acq: 30 Mar 2003 14:21

Tgt Ion: 96 Resp:12191341

Ion	Ratio	Lower	Upper
96	100		
61	109.0	95.9	135.9
98	64.2	43.9	83.9



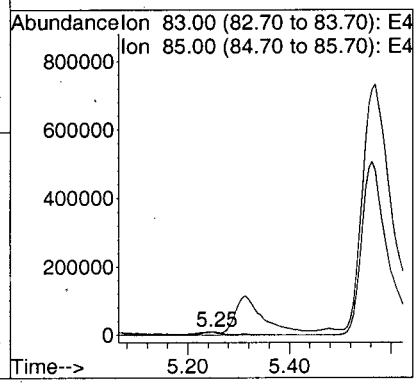
Data File : C:\MSDCHEM\1\DATA\E4073.D Vial: 5
Acq On : 03/30/2003 1421 Operator: AK
Sample : Y0SL4 Inst : E-5973
Misc : 2761.003 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

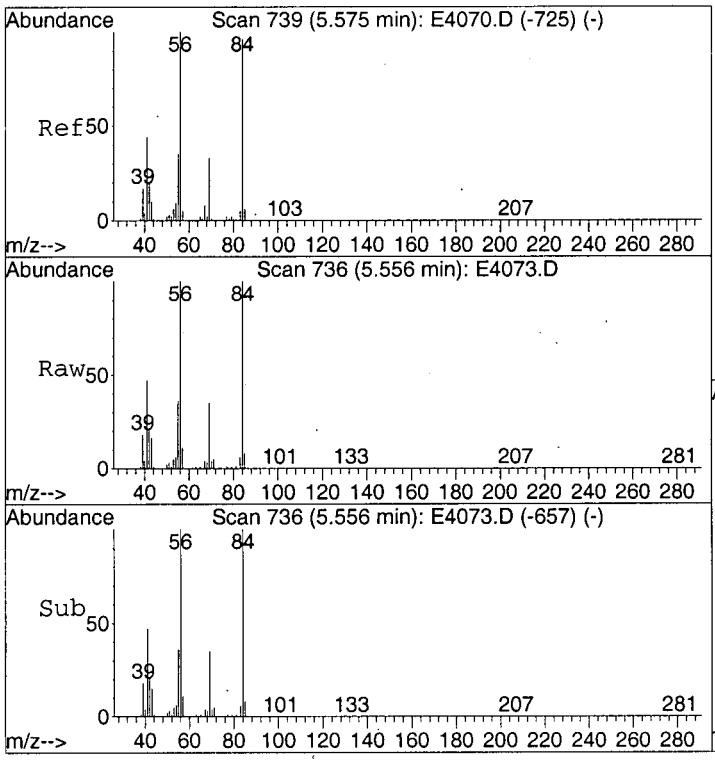


#25
Chloroform
Concen: 0.29 ug/L
RT: 5.25 min Scan# 685
Delta R.T. -0.01 min
Lab File: E4073.D
Acq: 30 Mar 2003 14:21

Tgt Ion: 83 Resp: 41315

Ion	Ratio	Lower	Upper
83	100		
85	43.2	45.5	85.5#

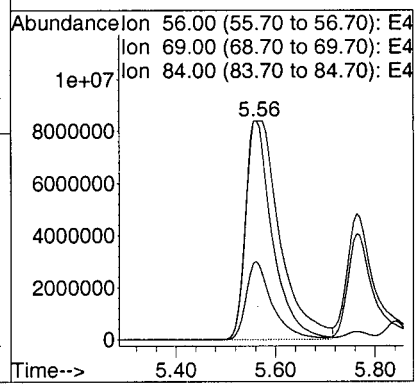




#30
Cyclohexane
Concen: 215.64 ug/L
RT: 5.56 min Scan# 736
Delta R.T. -0.02 min
Lab File: E4073.D
Acq: 30 Mar 2003 14:21

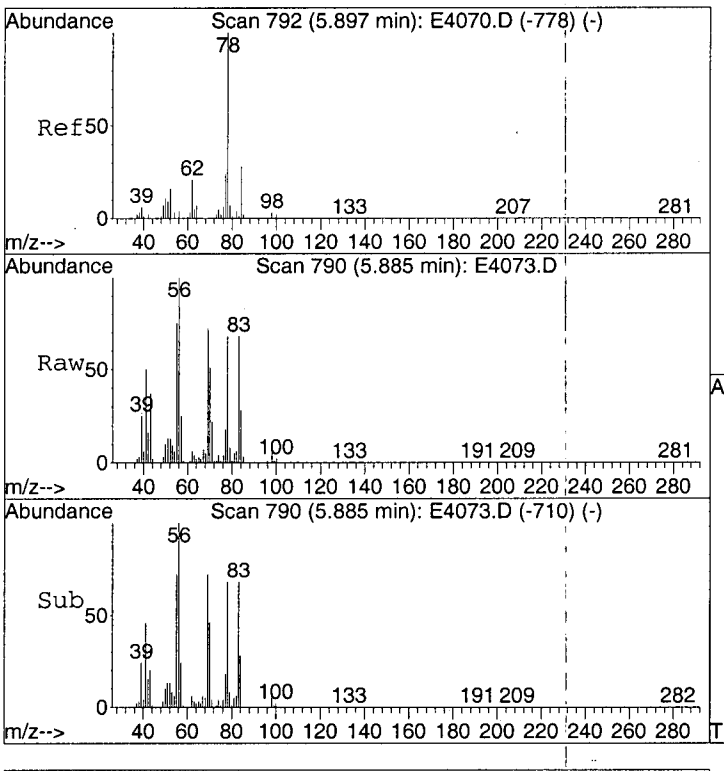
Tgt Ion: 56 Resp:40065903

Ion	Ratio	Lower	Upper
56	100		
69	27.0	12.3	52.3
84	77.5	82.0	122.0#



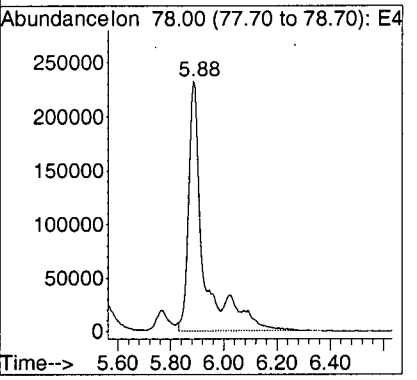
Data File : C:\MSDCHEM\1\DATA\E4073.D
Acq On : 03/30/2003 1421
Sample : Y0SL4
Misc : 2761.003 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

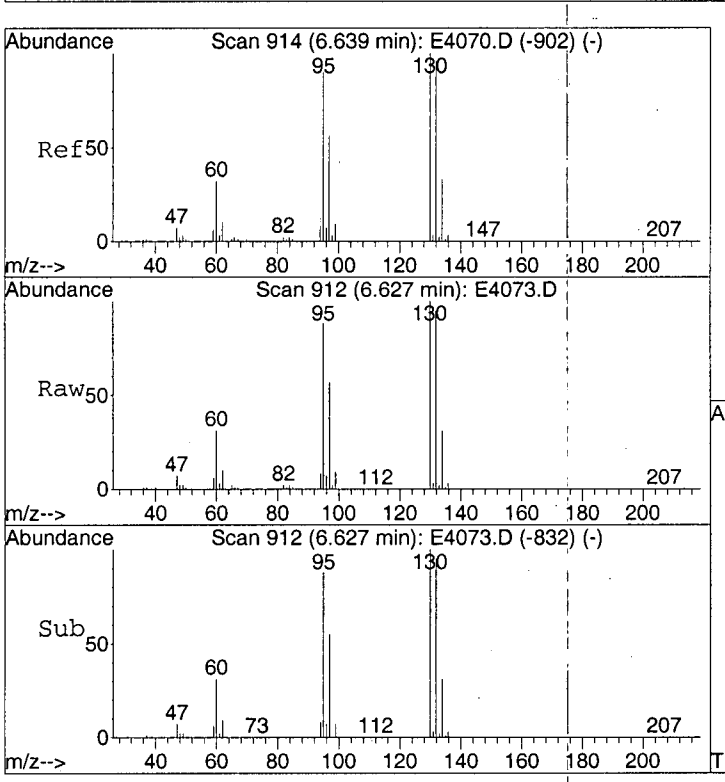
Vial: 5
Operator: AK
Inst : E-5973
Multiplr: 1.00



#33
Benzene
Concen: 2.11 ug/L
RT: 5.88 min Scan# 790
Delta R.T. -0.01 min
Lab File: E4073.D
Acq: 30 Mar 2003 14:21

Tgt Ion: 78 Resp: 931047

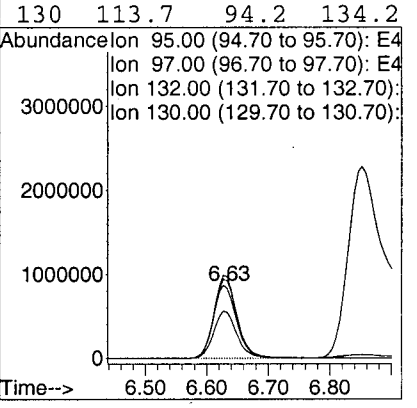




#34
Trichloroethene
Concen: 24.08 ug/L
RT: 6.63 min Scan# 912
Delta R.T. -0.01 min
Lab File: E4073.D
Acq: 30 Mar 2003 14:21

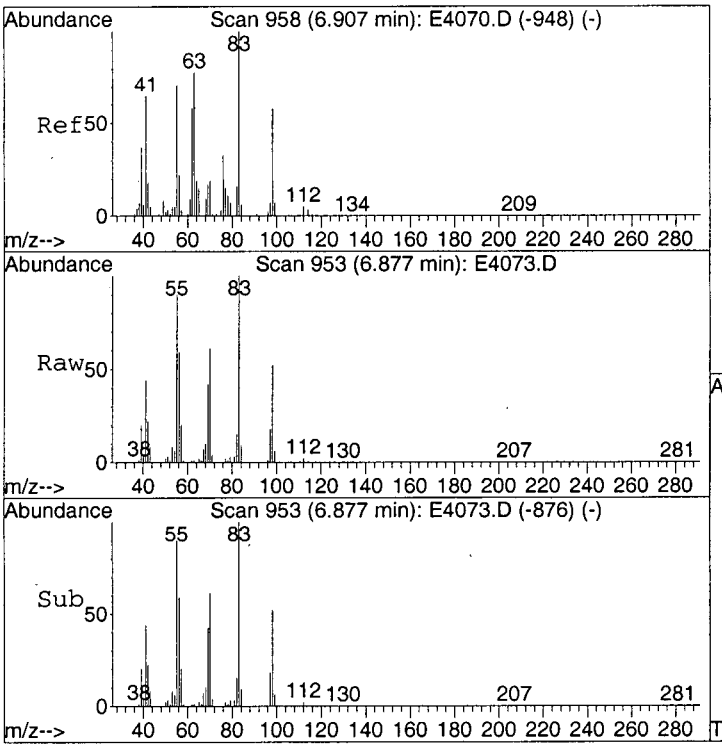
Tgt Ion: 95 Resp: 2298685

Ion	Ratio	Lower	Upper
95	100		
97	64.6	44.8	84.8
132	109.3	89.9	129.9
130	113.7	94.2	134.2



Data File : C:\MSDCHEM\1\DATA\E4073.D
Acq On : 03/30/2003 1421
Sample : Y0SL4
Misc : 2761.003 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

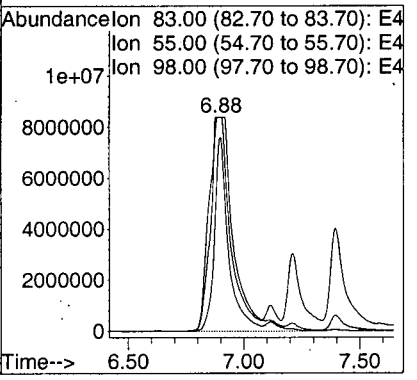
Vial: 5
Operator: AK
Inst : E-5973
Multiplr: 1.00

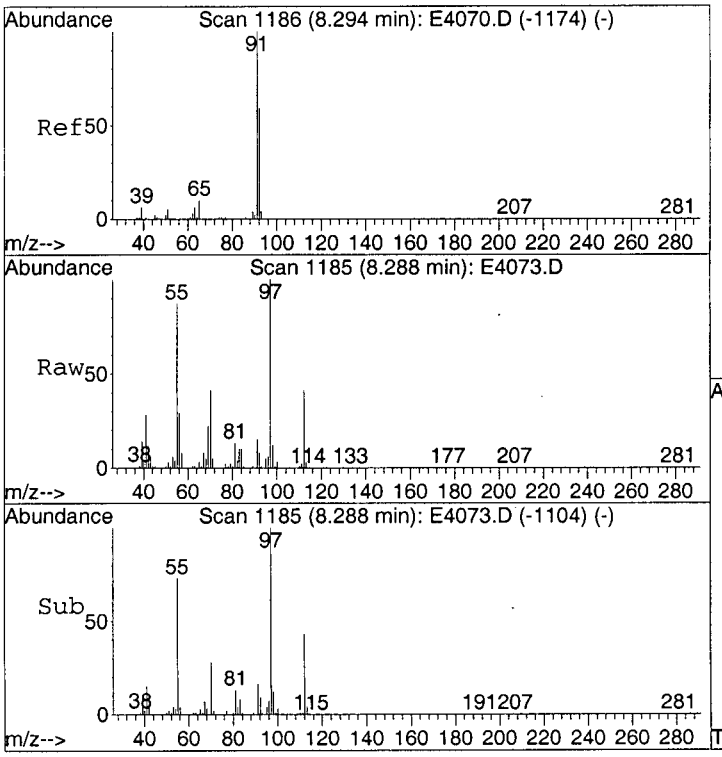


#36
Methylcyclohexane
Concen: 288.79 ug/L
RT: 6.88 min Scan# 953
Delta R.T. -0.03 min
Lab File: E4073.D
Acq: 30 Mar 2003 14:21

Tgt Ion: 83 Resp:58871987

Ion	Ratio	Lower	Upper
83	100		
55	92.0	50.0	90.0#
98	57.3	32.5	72.5

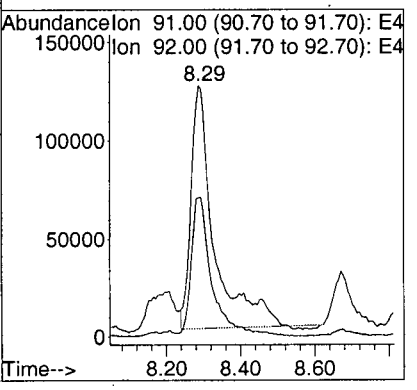




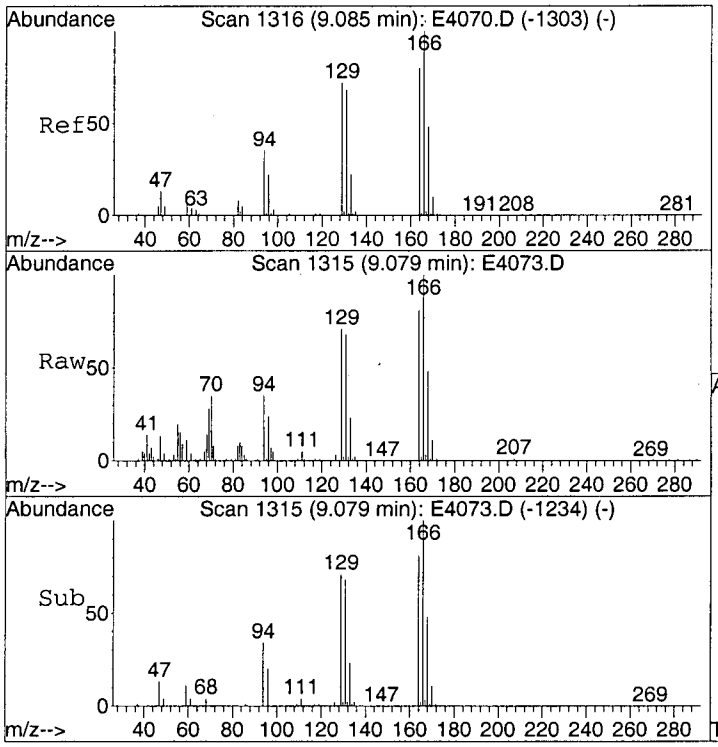
#42
Toluene
Concen: 1.12 ug/L
RT: 8.29 min Scan# 1185
Delta R.T. -0.01 min
Lab File: E4073.D
Acq: 30 Mar 2003 14:21

Tgt Ion: 91 Resp: 530086

Ion	Ratio	Lower	Upper
91	100		
92	52.1	39.2	79.2



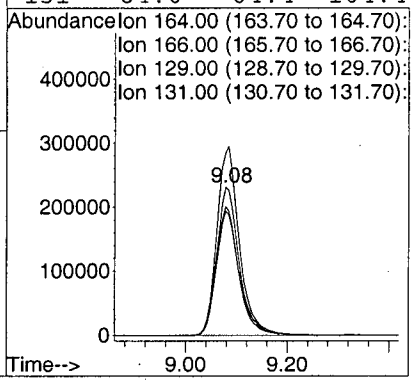
Data File : C:\MSDCHEM\1\DATA\E4073.D Vial: 5
Acq On : 03/30/2003 1421 Operator: AK
Sample : Y0SL4 Inst : E-5973
Misc : 2761.003 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

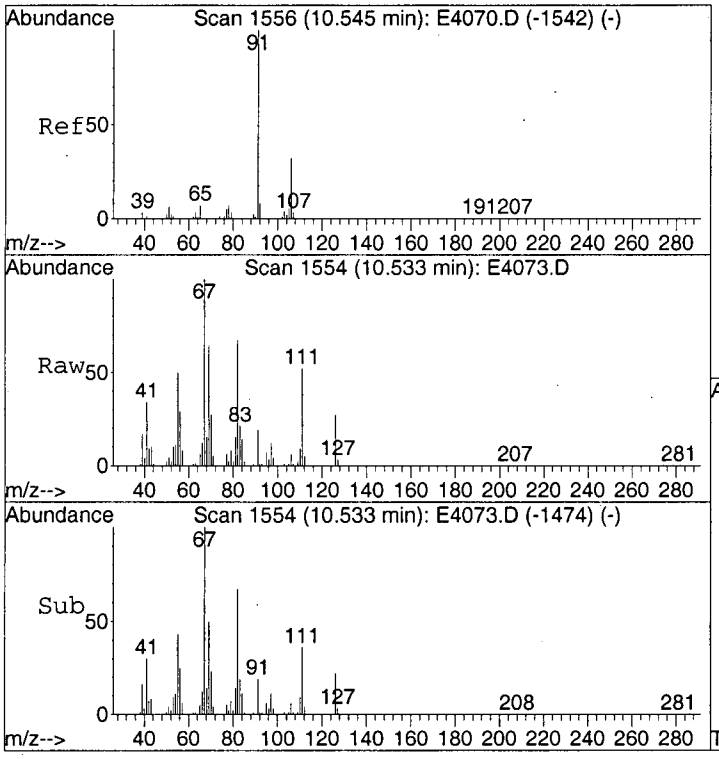


#46
Tetrachloroethene
Concen: 6.91 ug/L
RT: 9.08 min Scan# 1315
Delta R.T. -0.01 min
Lab File: E4073.D
Acq: 30 Mar 2003 14:21

Tgt Ion:164 Resp: 712940

Ion	Ratio	Lower	Upper
164	100		
166	127.3	107.4	147.4
129	89.0	67.2	107.2
131	84.0	64.4	104.4

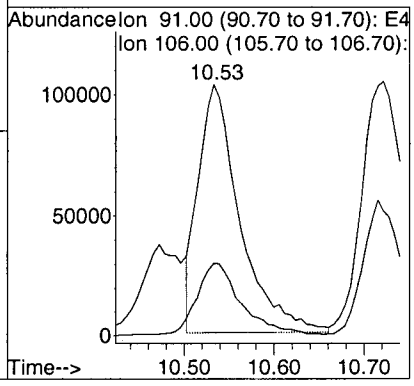




#52
Ethylbenzene
Concen: 0.81 ug/L
RT: 10.53 min Scan# 1554
Delta R.T. -0.01 min
Lab File: E4073.D
Acq: 30 Mar 2003 14:21

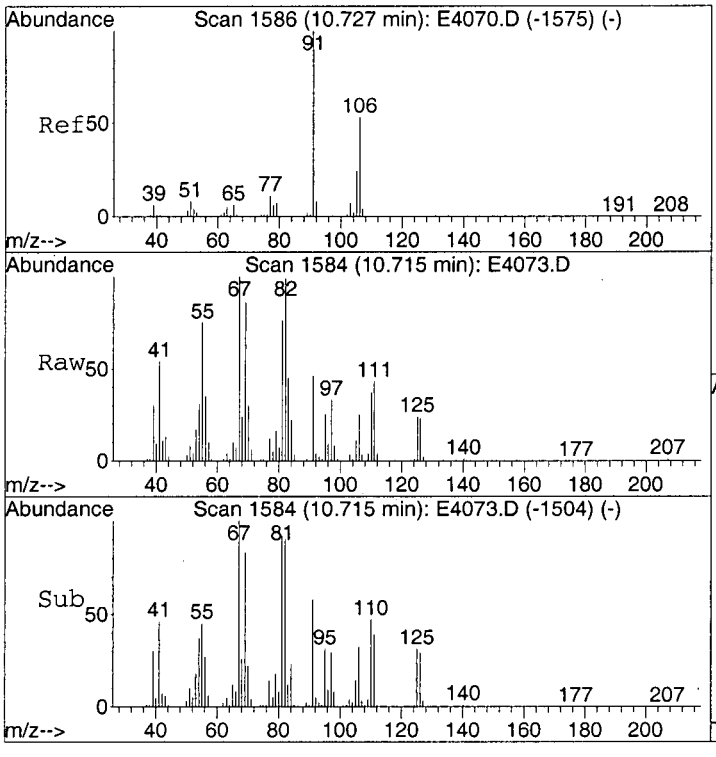
Tgt Ion: 91 Resp: 331942

Ion	Ratio	Lower	Upper
91	100		
106	32.1	13.0	53.0



Data File : C:\MSDCHEM\1\DATA\E4073.D
Acq On : 03/30/2003 1421
Sample : Y0SL4
Misc : 2761.003 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

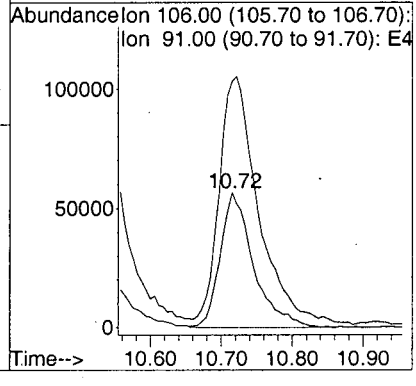
Vial: 5
Operator: AK
Inst : E-5973
Multiplr: 1.00

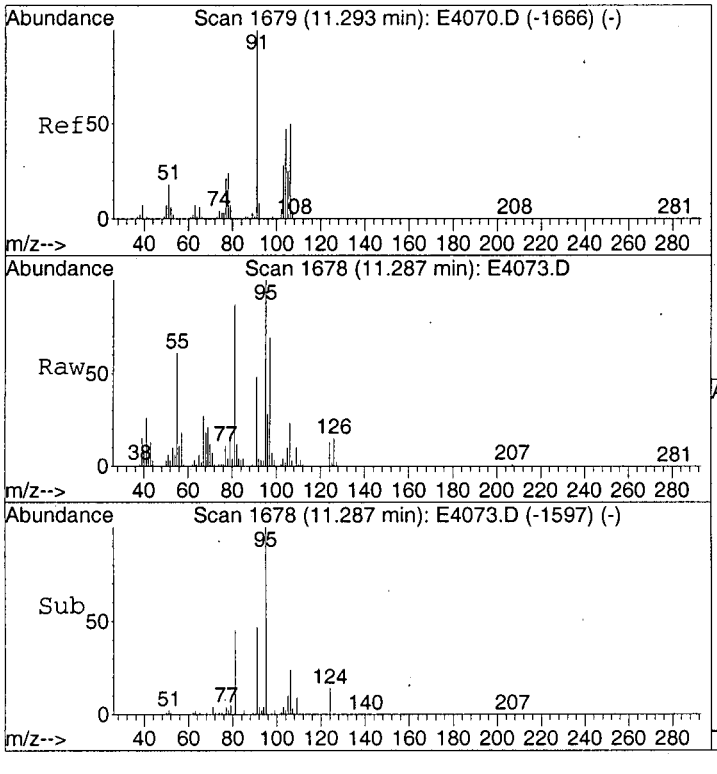


#53
m/p-Xylene
Concen: 1.17 ug/L
RT: 10.72 min Scan# 1584
Delta R.T. -0.01 min
Lab File: E4073.D
Acq: 30 Mar 2003 14:21

Tgt Ion:106 Resp: 184309

Ion	Ratio	Lower	Upper
106	100		
91	220.4	169.4	209.4#

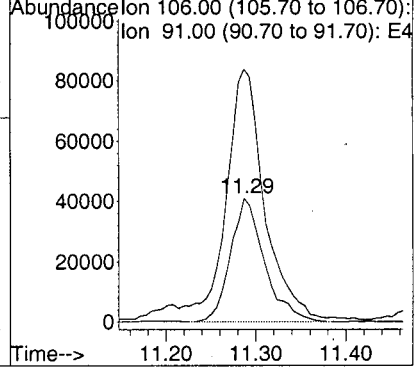




#54
o-Xylene
Concen: 0.78 ug/L
RT: 11.29 min Scan# 1678
Delta R.T. -0.01 min
Lab File: E4073.D
Acq: 30 Mar 2003 14:21

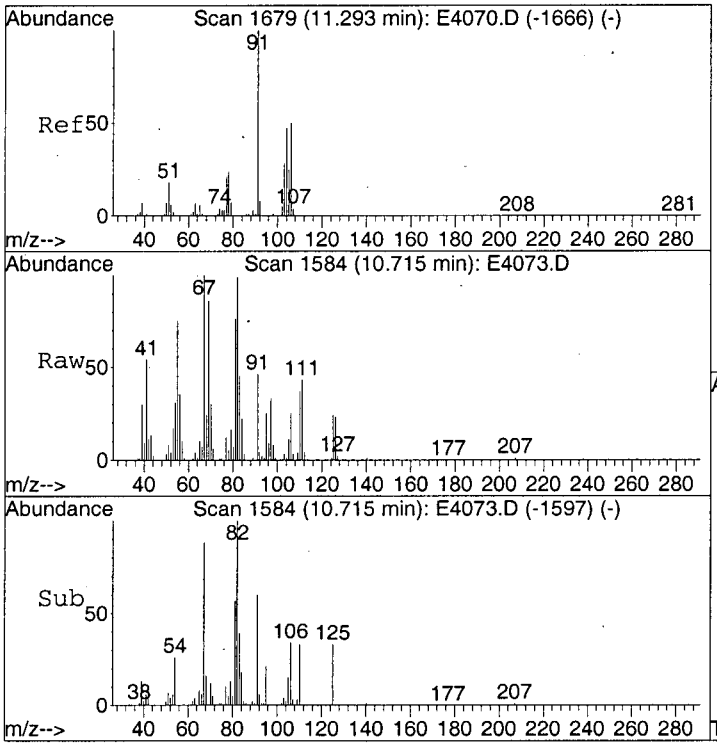
Tgt Ion:106 Resp: 107574

Ion	Ratio	Lower	Upper
106	100		
91	221.2	178.4	218.4#



Data File : C:\MSDCHEM\1\DATA\E4073.D
Acq On : 03/30/2003 1421
Sample : Y0SL4
Misc : 2761.003 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

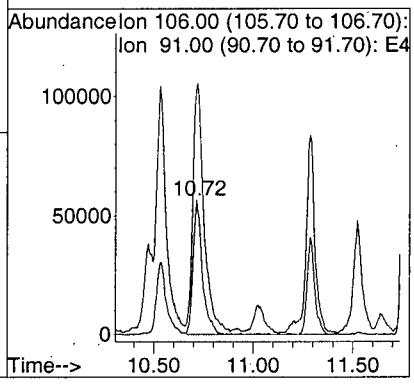
Vial: 5
Operator: AK
Inst : E-5973
Multiplr: 1.00

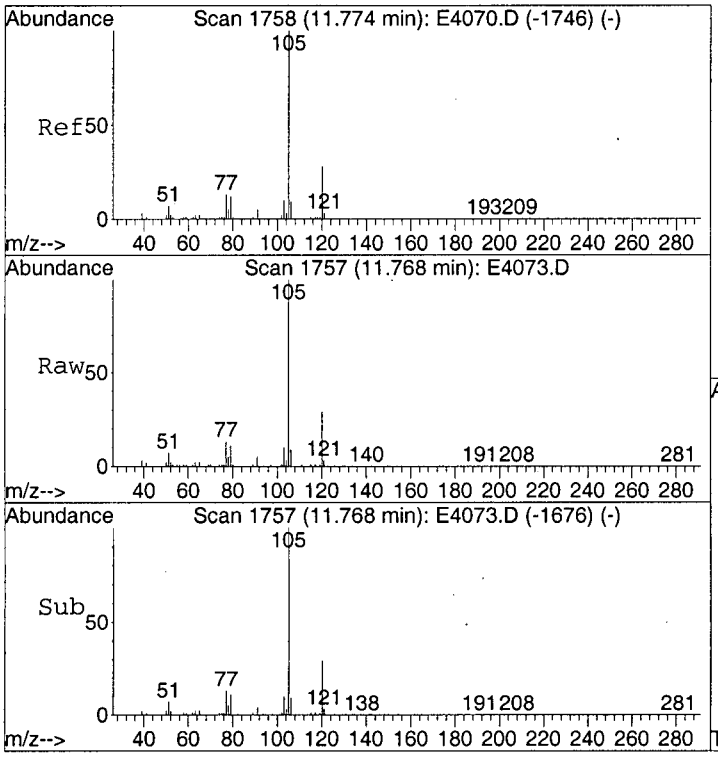


#55
Xylene (total)
Concen: 2.14 ug/L m
RT: 10.72 min Scan# 1584
Delta R.T. -0.58 min
Lab File: E4073.D
Acq: 30 Mar 2003 14:21

Tgt Ion:106 Resp: 294445

Ion	Ratio	Lower	Upper
106	100		
91	80.8	178.4	218.4#

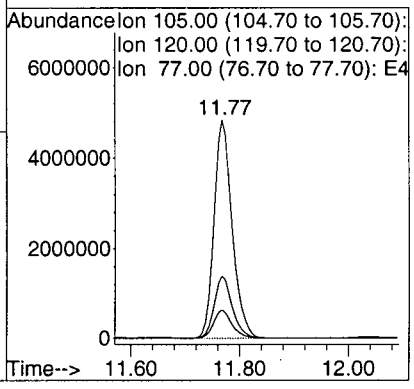




#57
Isopropylbenzene
Concen: 35.98 ug/L
RT: 11.77 min Scan# 1757
Delta R.T. -0.01 min
Lab File: E4073.D
Acq: 30 Mar 2003 14:21

Tgt Ion:105 Resp:11137152

Ion	Ratio	Lower	Upper
105	100		
120	28.5	7.9	47.9
77	13.1	0.0	33.2



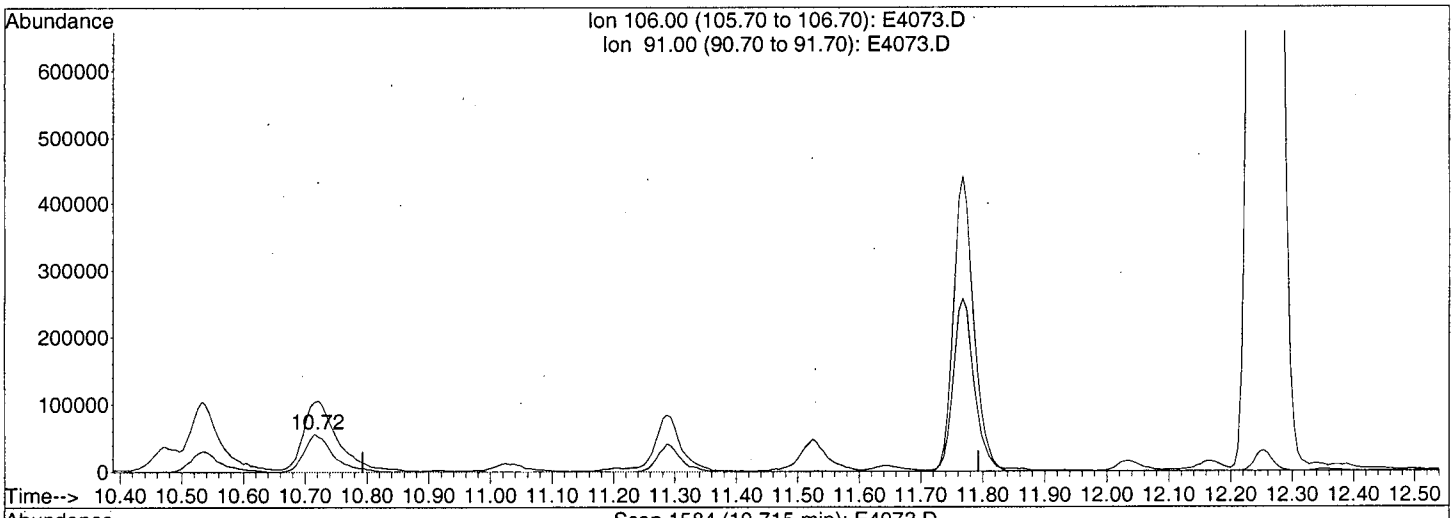
Quantitation Report (Qedit)

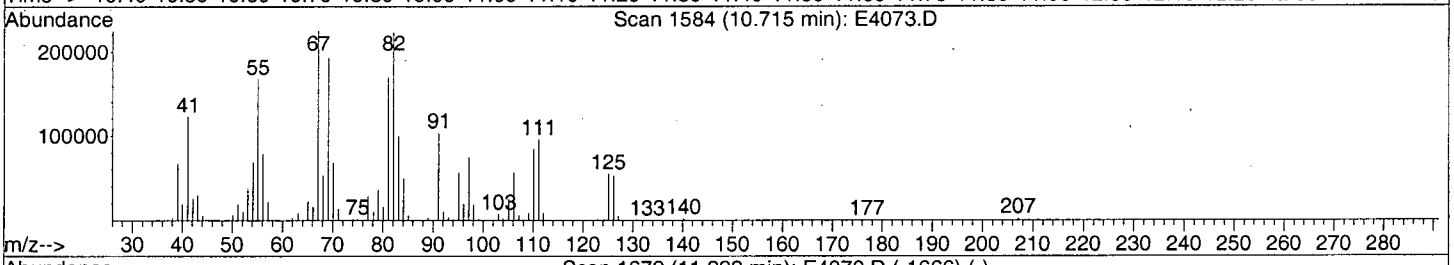
Data File : C:\MSDCHEM\1\DATA\E4073.D
Acq On : 03/30/2003 1421
Sample : Y0SL4
Misc : 2761.003 25ML
MS Integration Params: RTEINT.P
Quant Time: Apr 1 9:58 2003

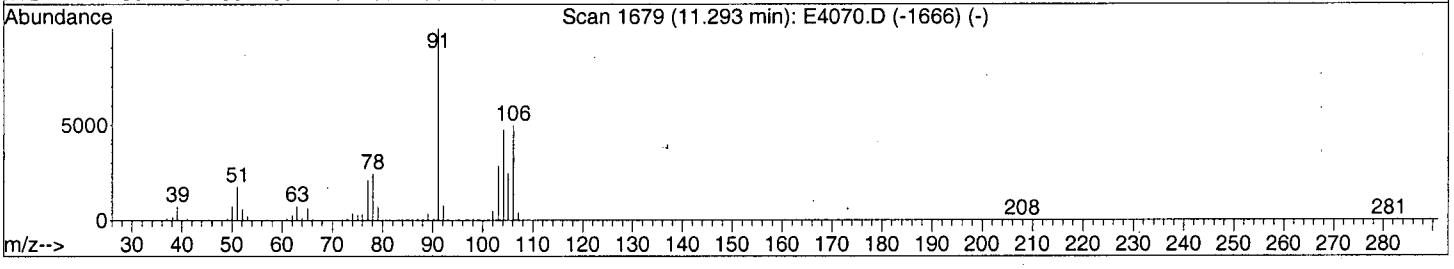
Vial: 5
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Sun Mar 30 13:10:50 2003
Response via : Single Level Calibration







TIC: E4073.D

(55) Xylene (total) (CP)

10.72min 2.14ug/L m

KAA 04/01/03

response 294445

Ion	Exp%	Act%
106.00	100	100
91.00	198.40	80.82#
0.00	0.00	0.00
0.00	0.00	0.00

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\E4073.D
Acq On : 03/30/2003 1421
Sample : Y0SL4
Misc : 2761.003 25ML
MS Integration Params: Lscint.p

Vial: 5
Operator: AK
Inst : E-5973
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 100000 Area counts
Max Peaks: 40
Peak Location: TOP

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

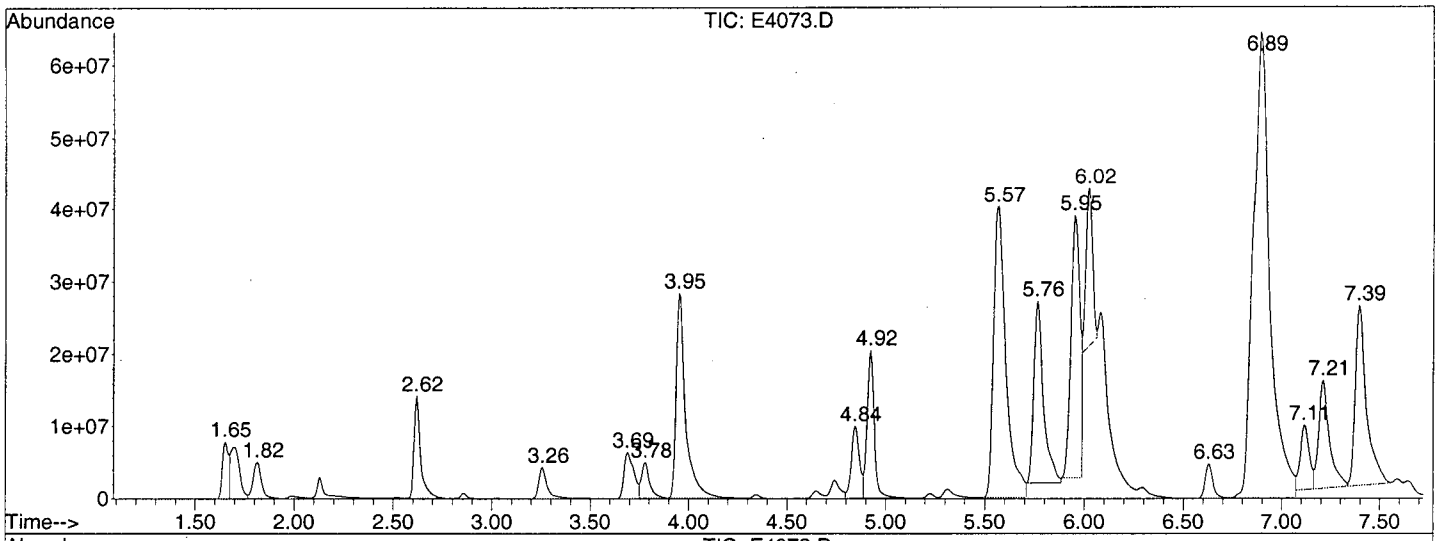
Signal : TIC

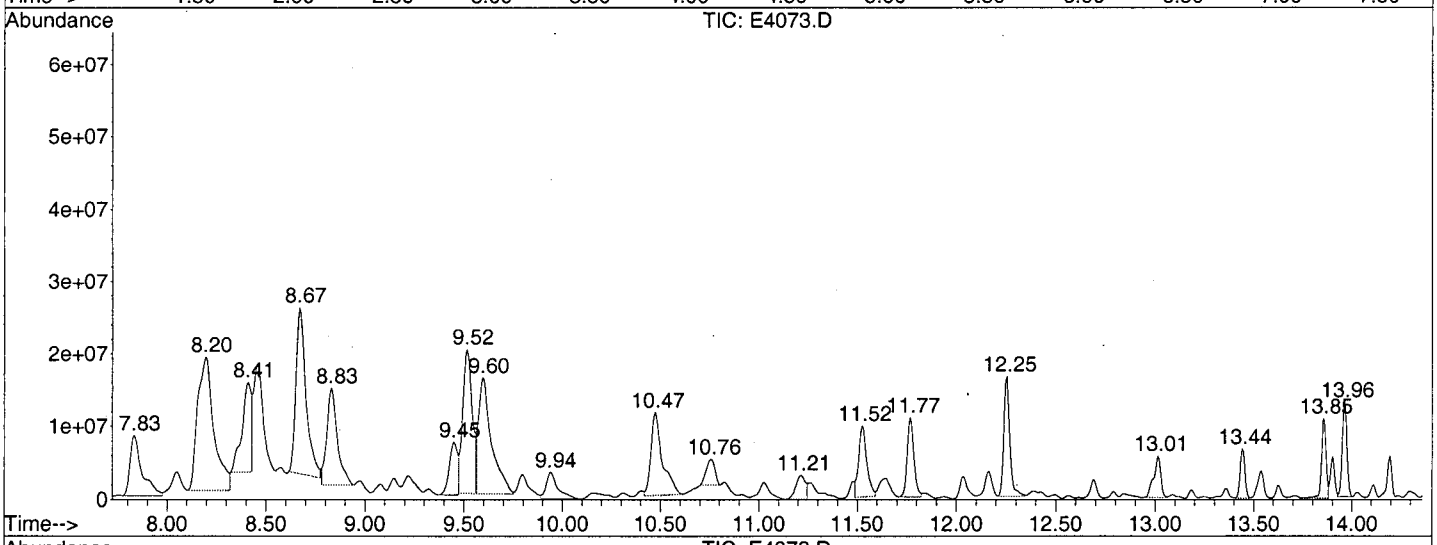
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.651	87	94	98	rBV	7889921	17893128	4.70%	0.880%
2	1.815	113	121	143	rVB	5013749	14405698	3.78%	0.709%
3	2.618	246	253	280	rVV	14205708	32664438	8.58%	1.607%
4	3.257	348	358	390	rBV3	4343639	12794301	3.36%	0.629%
5	3.689	419	429	439	rBV	6391931	22571570	5.93%	1.111%
6	3.780	439	444	463	rVV	4963852	13939223	3.66%	0.686%
7	3.950	463	472	511	rVV	28282824	93496000	24.56%	4.600%
8	4.845	611	619	626	rVV	10023576	28898370	7.59%	1.422%
9	4.924	626	632	673	rVB	20472982	51018188	13.40%	2.510%
10	5.569	726	738	761	rBV3	40161901	173875299	45.67%	8.555%
11	5.763	762	770	790	rBV2	25054878	85172897	22.37%	4.191%
12	5.952	791	801	807	rBV3	36232173	115754612	30.40%	5.695%
13	6.025	807	813	819	rVV	20823659	49846035	13.09%	2.452%
14	6.627	901	912	930	rBV	4767985	12900697	3.39%	0.635%
15	6.895	930	956	985	rBV5	64433468	380726263	100.00%	18.732%
16	7.114	985	992	1000	rVV	8904852	28604639	7.51%	1.407%
17	7.211	1000	1008	1028	rVV	14805606	56730300	14.90%	2.791%
18	7.394	1029	1038	1065	rVV2	24553107	98075245	25.76%	4.825%
19	7.832	1101	1110	1134	rBV2	8210767	34689089	9.11%	1.707%
20	8.197	1155	1170	1190	rBV4	18311879	104271355	27.39%	5.130%
21	8.410	1191	1205	1208	rBV	12386060	40559785	10.65%	1.996%
22	8.671	1239	1248	1265	rBV	22724423	80590374	21.17%	3.965%
23	8.829	1266	1274	1293	rVB2	13288100	48677583	12.79%	2.395%
24	9.450	1364	1376	1380	rBV	7178443	21537560	5.66%	1.060%
25	9.517	1380	1387	1394	rVV	19799971	65987984	17.33%	3.247%
26	9.596	1395	1400	1426	rVV2	15913236	70286523	18.46%	3.458%
27	9.937	1448	1456	1481	rVB2	3595957	14704713	3.86%	0.723%
28	10.472	1535	1544	1567	rVB	11265127	45603941	11.98%	2.244%
29	10.758	1582	1591	1599	rVB6	3471493	10490513	2.76%	0.516%
30	11.214	1653	1666	1671	rBV3	3204297	10907648	2.86%	0.537%
31	11.524	1711	1717	1728	rVV	9740725	27475306	7.22%	1.352%
32	11.768	1748	1757	1766	rBV	10839657	25140970	6.60%	1.237%
33	12.254	1830	1837	1853	rBV	16391558	34166075	8.97%	1.681%
34	13.015	1951	1962	1970	rBV2	5625539	13691703	3.60%	0.674%
35	13.441	2026	2032	2039	rVB2	6649825	11136223	2.92%	0.548%
36	13.854	2082	2100	2104	rBV	10858987	17027376	4.47%	0.838%
37	13.964	2112	2118	2125	rVB2	12928542	20975122	5.51%	1.032%
38	14.597	2217	2222	2230	rVB3	11364377	23717854	6.23%	1.167%
39	15.029	2283	2293	2299	rVB3	4301349	10869307	2.85%	0.535%
40	16.373	2507	2514	2528	rVV	4321609	10612272	2.79%	0.522%

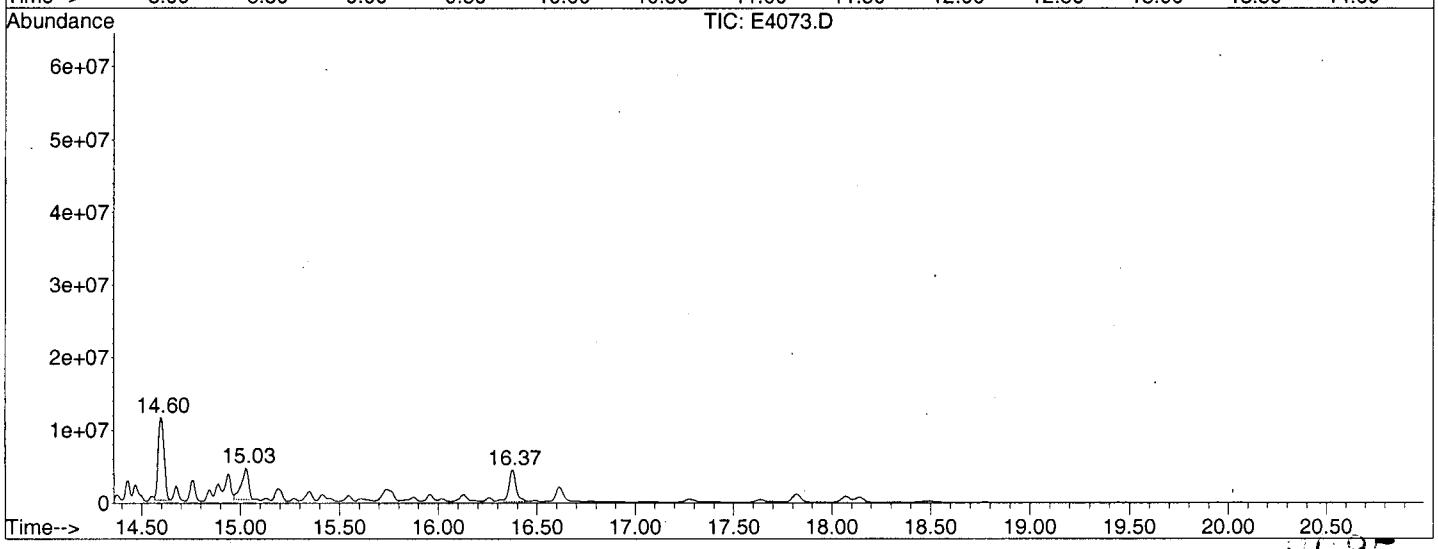
LSC Report - Integrated Chromatogram

Data File : C:\MSDCHEM\1\DATA\E4073.D
Acq On : 03/30/2003 1421
Sample : Y0SL4
Misc : 2761.003 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

Vial: 5
Operator: AK
Inst : E-5973
Multiplr: 1.00







Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4073.D Vial: 5
Acq On : 03/30/2003 1421 Operator: AK
Sample : Y0SL4 Inst : E-5973
Misc : 2761.003 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

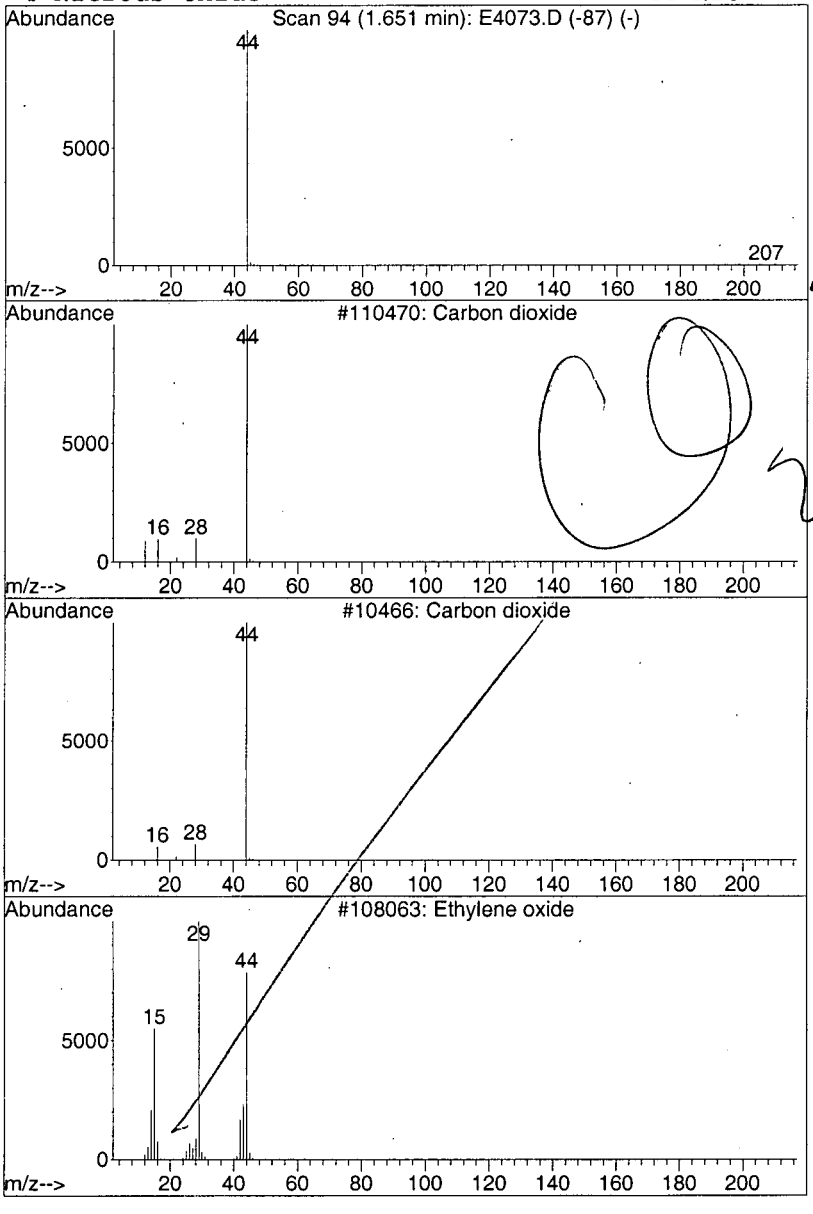
Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

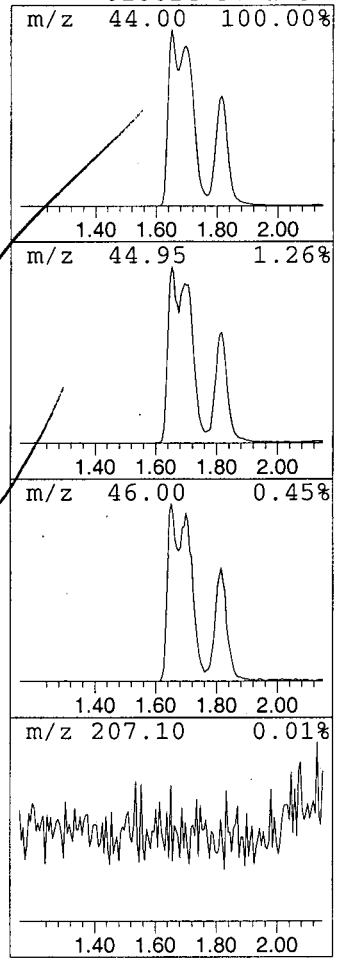
****

Peak Number 1 Carbon dioxide Concentration Rank 23

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.65	1.79 ug/L	17893100	1,4-Difluorobenzene	6.30

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3





036

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4073.D Vial: 5
Acq On : 03/30/2003 1421 Operator: AK
Sample : Y0SL4 Inst : E-5973
Misc : 2761.003 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

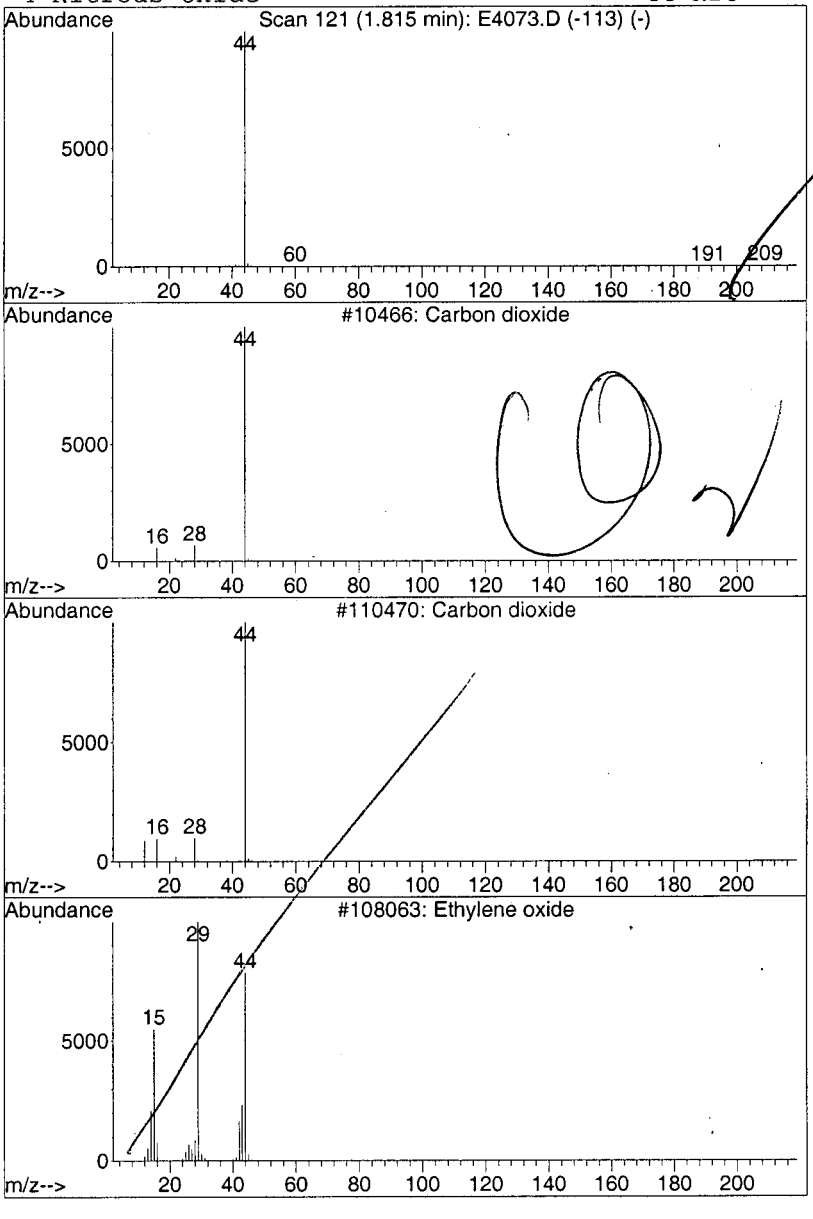
Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

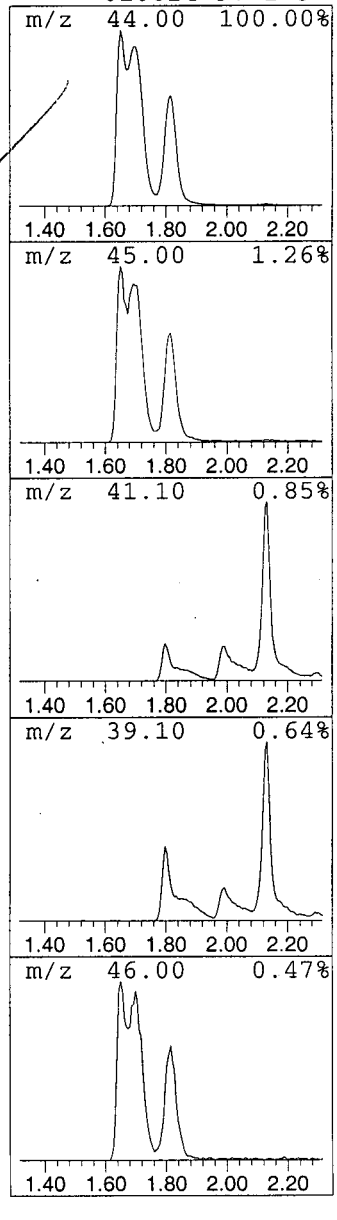
****

Peak Number 2 Carbon dioxide Concentration Rank 25

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.82	1.45 ug/L	14405700	1,4-Difluorobenzene	6.30

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3





0087

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4073.D Vial: 5
Acq On : 03/30/2003 1421 Operator: AK
Sample : Y0SL4 Inst : E-5973
Misc : 2761.003 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

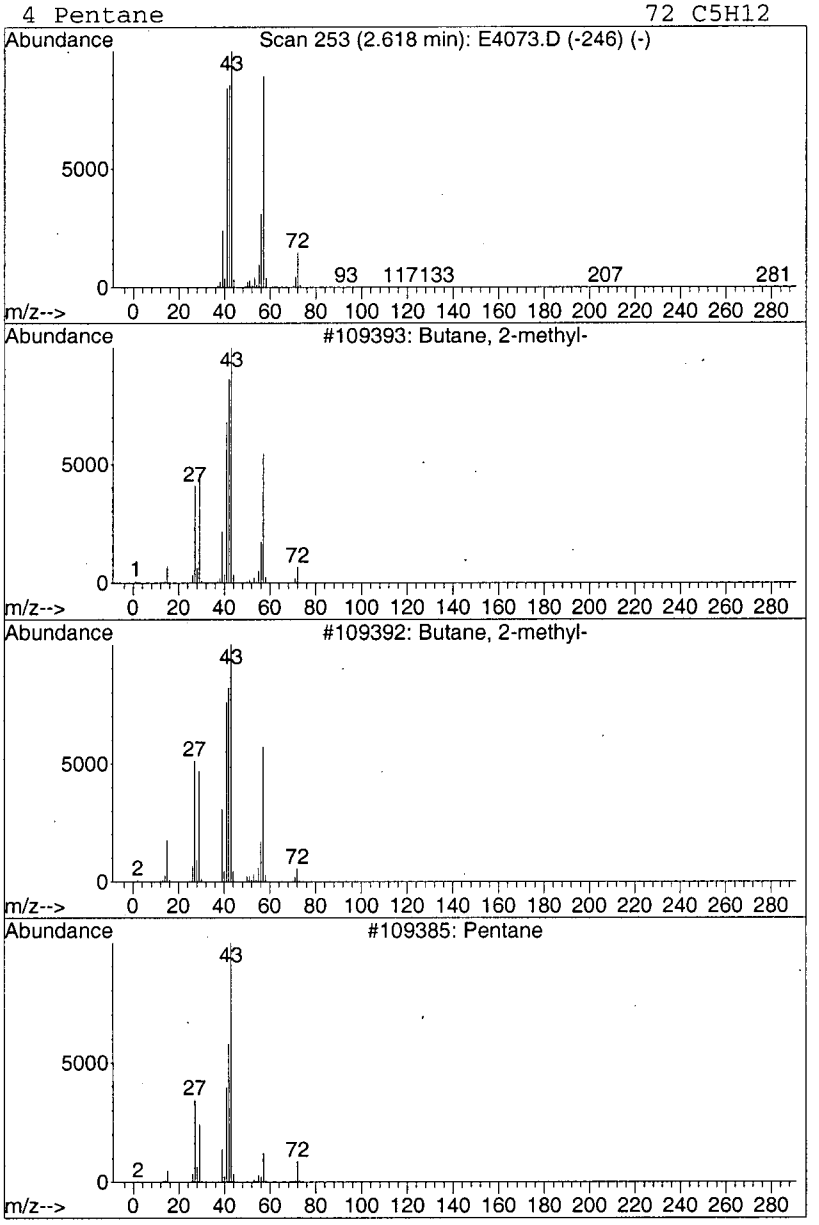
****

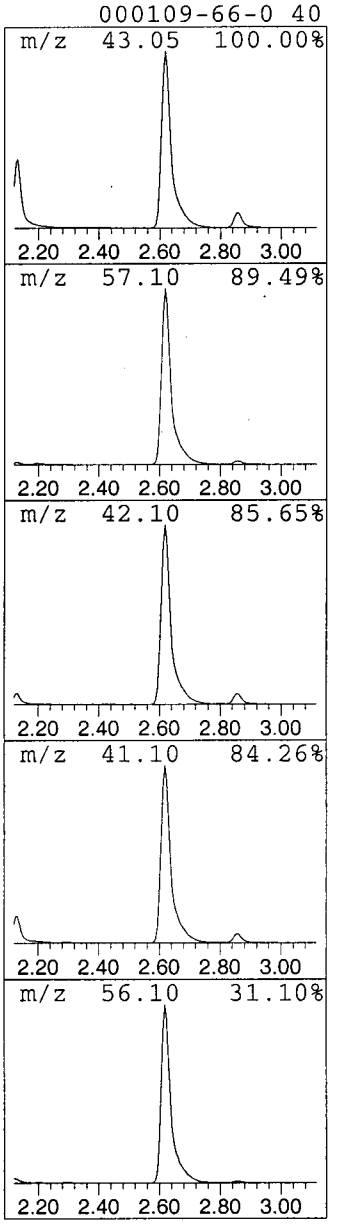
Peak Number 3 Butane, 2-methyl- Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.62	3.28 ug/L	32664400	1,4-Difluorobenzene	6.30

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	91
2	Butane, 2-methyl-	72	C5H12	000078-78-4	47
3	Pentane	72	C5H12	000109-66-0	42
4	Pentane	72	C5H12	000109-66-0	40

branched alkane





0088

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4073.D
Acq On : 03/30/2003 1421
Sample : Y0SL4
Misc : 2761.003 25ML
MS Integration Params: Lscint.p

Vial: 5
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

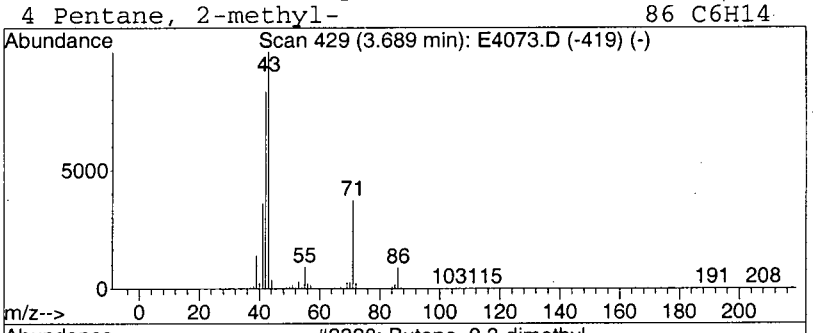
****

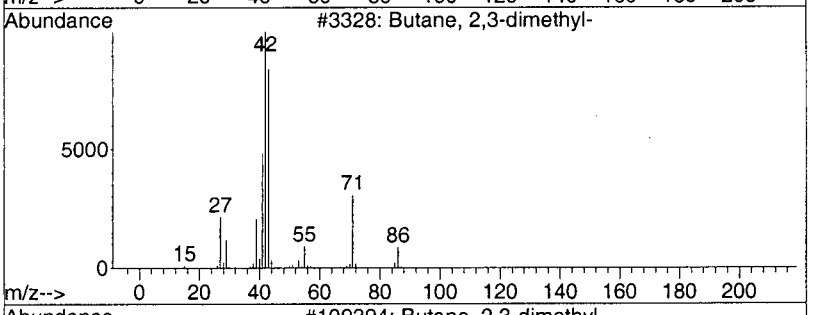
Peak Number 4 Butane, 2,3-dimethyl- Concentration Rank 22

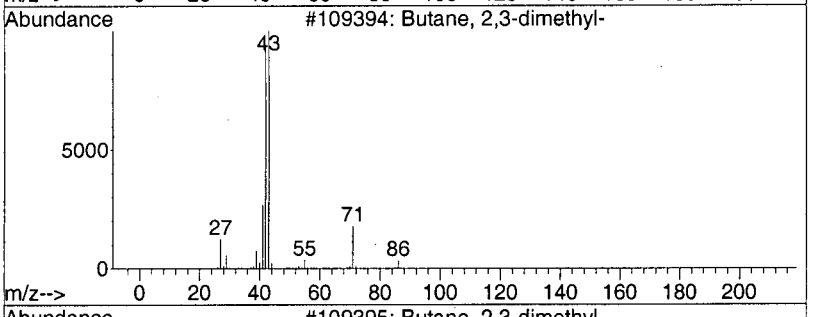
R.T.	EstConc	Area	Relative to ISTD	R.T.
3.69	2.26 ug/L	22571600	1,4-Difluorobenzene	6.30

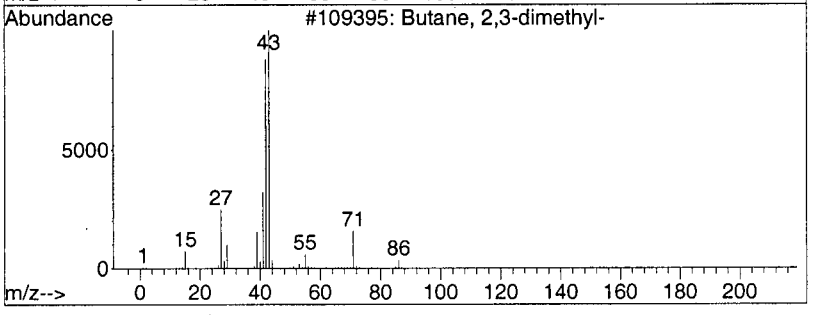
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2,3-dimethyl-	86	C6H14	000079-29-8	91
2	Butane, 2,3-dimethyl-	86	C6H14	000079-29-8	83
3	Butane, 2,3-dimethyl-	86	C6H14	000079-29-8	83
4	Pentane, 2-methyl-	86	C6H14	000107-83-5	59

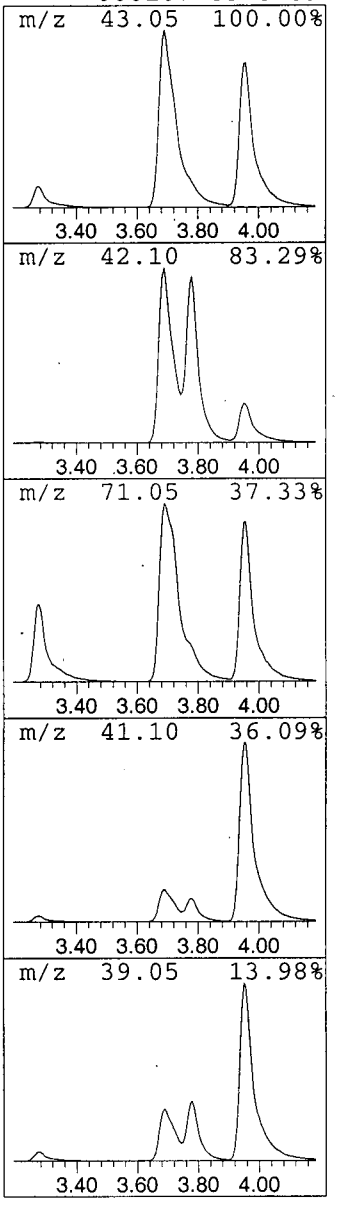
Branched alkane











0089

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4073.D
Acq On : 03/30/2003 1421
Sample : Y0SL4
Misc : 2761.003 25ML
MS Integration Params: Lscint.p

Vial: 5
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

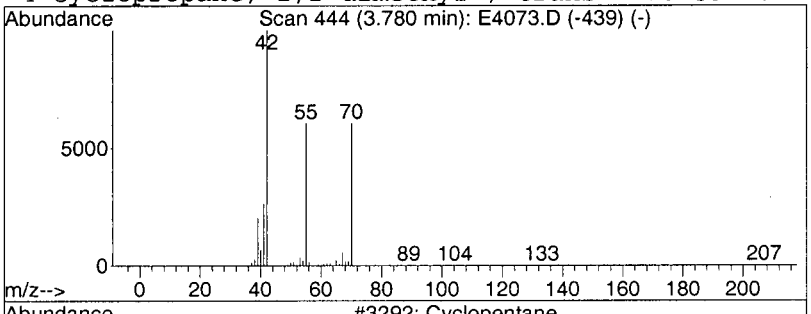
****

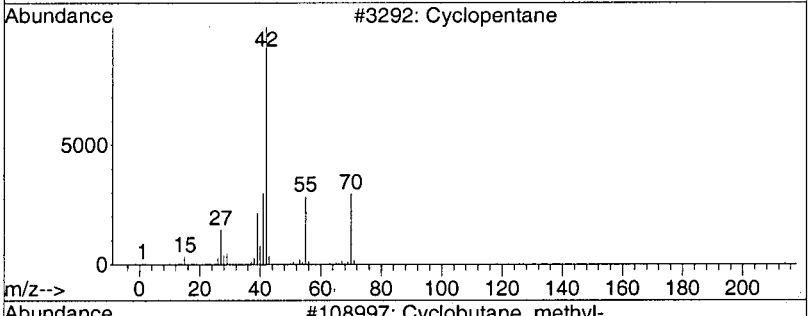
Peak Number 5 Cyclopentane Concentration Rank 26

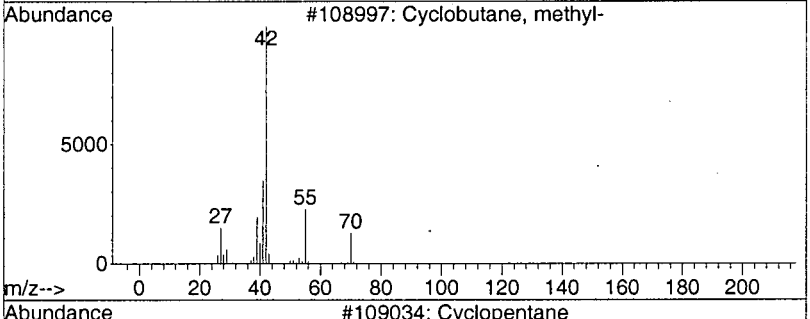
R.T.	EstConc	Area	Relative to ISTD	R.T.
3.78	1.40 ug/L	13939200	1,4-Difluorobenzene	6.30

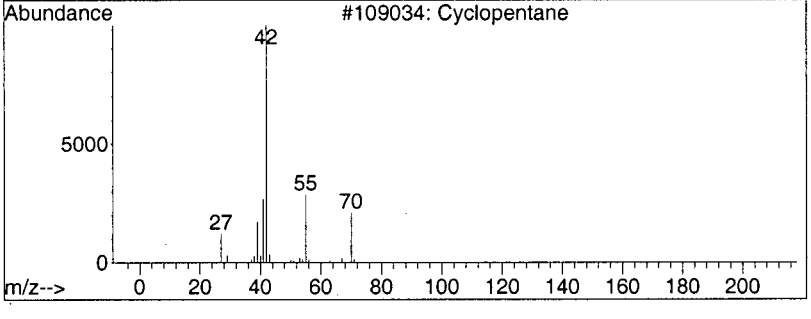
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane	70	C5H10	000287-92-3	78
2	Cyclobutane, methyl-	70	C5H10	000598-61-8	72
3	Cyclopentane	70	C5H10	000287-92-3	72
4	Cyclopropane, 1,2-dimethyl-, trans-	70	C5H10	002402-06-4	10

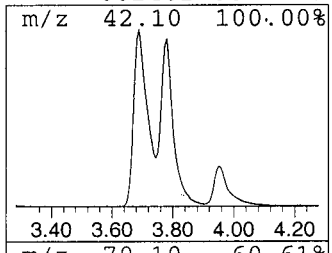
Cyclic alkane

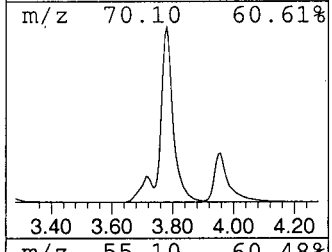


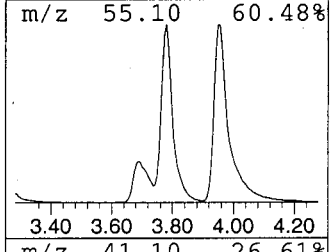


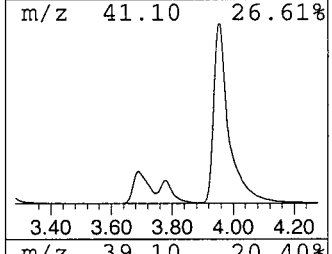


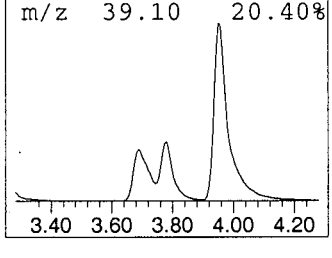












000090

Library Search Compound Report

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   Data File : C:\MSDCHEM\1\DATA\E4073.D                    Vial: 5
   Acq On    : 03/30/2003  1421                         Operator: AK
   Sample    : Y0SL4                                    Inst    : E-5973
   Misc      : 2761.003  25ML                           Multiplr: 1.00
MS Integration Params: Lscint.p

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title        : Voa Low Concentration Organics - OLC03.2
Library      : C:\DATABASE\NIST98.L
 ******************************************************************
 Peak Number  6  Cyclopentane, 1,3-dimethyl-     Concentration Rank  2
```
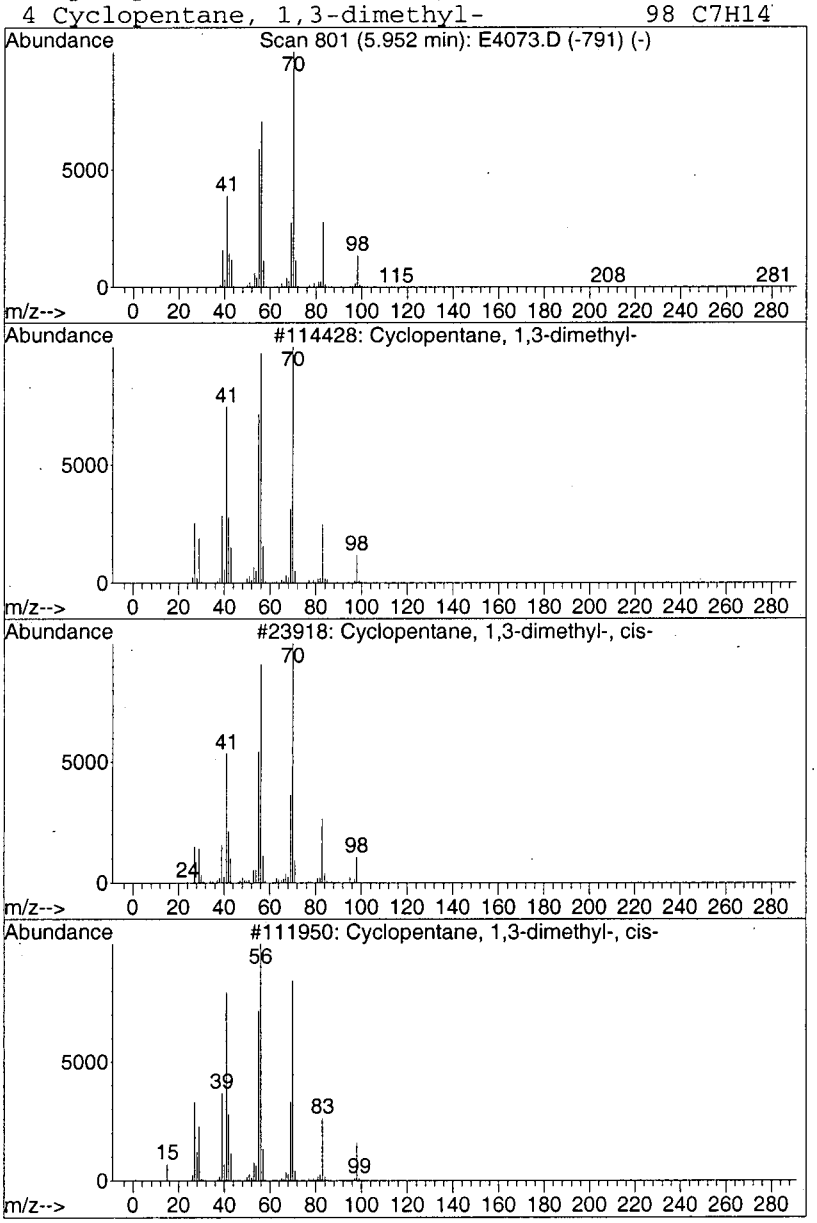
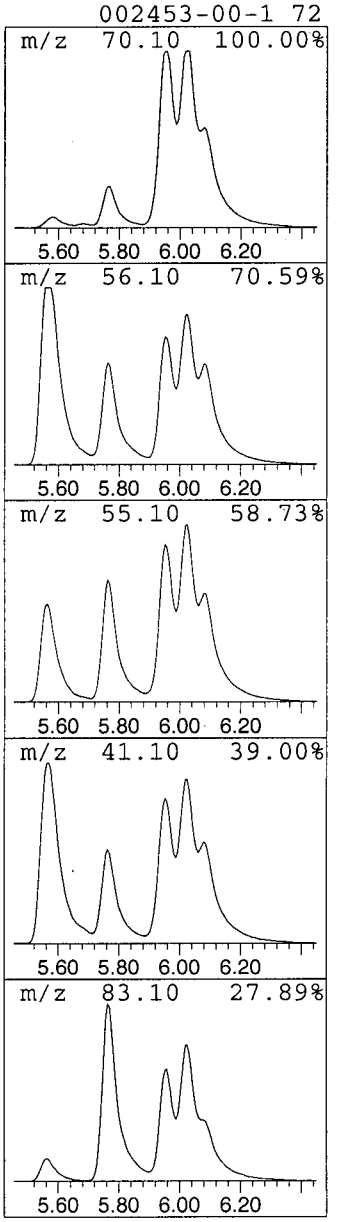

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.95	11.61 ug/L	115755000	1,4-Difluorobenzene	6.30

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, 1,3-dimethyl-	98	C7H14	002453-00-1	91
2	Cyclopentane, 1,3-dimethyl-, cis-	98	C7H14	002532-58-3	90
3	Cyclopentane, 1,3-dimethyl-, cis-	98	C7H14	002532-58-3	76
4	Cyclopentane, 1,3-dimethyl-	98	C7H14	002453-00-1	72

cyclic alkane





00091

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4073.D Vial: 5
Acq On : 03/30/2003 1421 Operator: AK
Sample : Y0SL4 Inst : E-5973
Misc : 2761.003 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

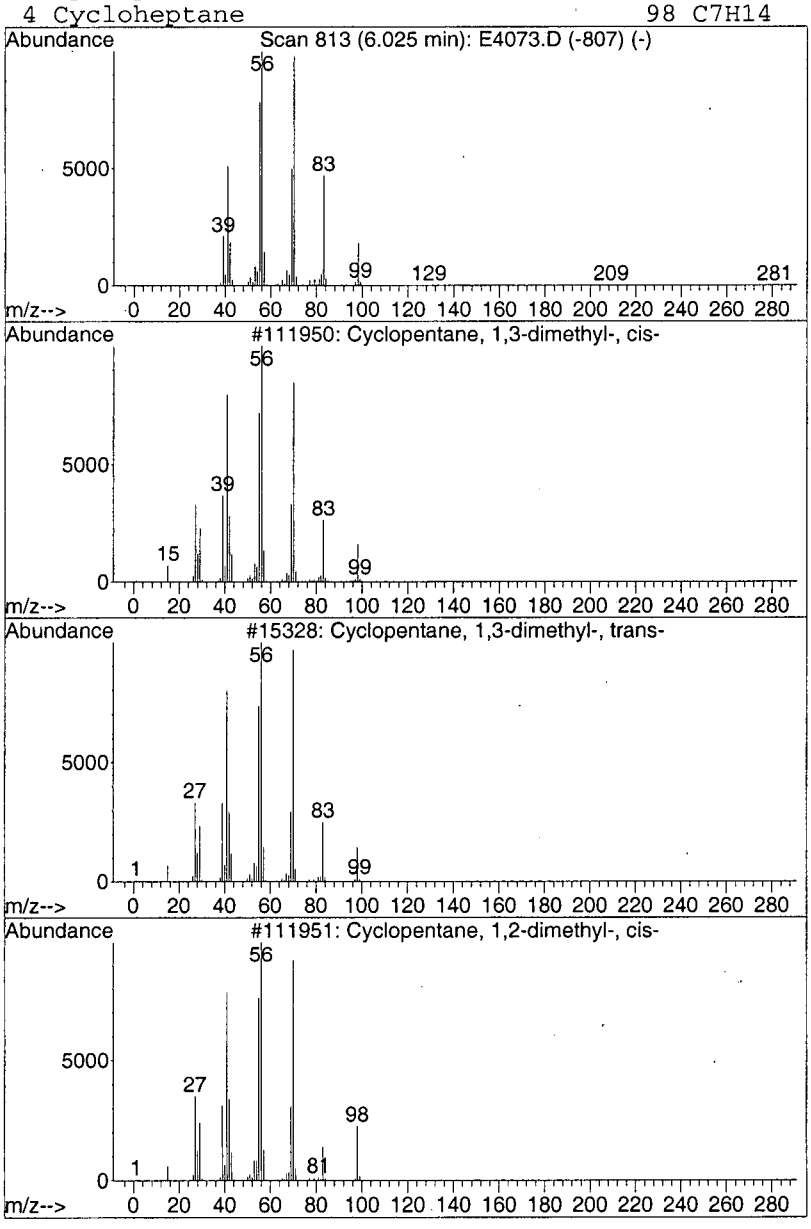
****

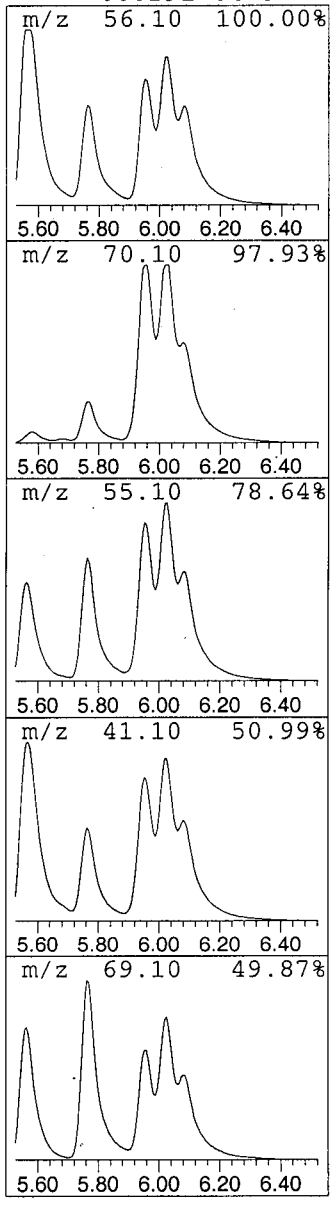
Peak Number 7 Cyclopentane, 1,3-dimethyl-... Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.02	5.00 ug/L	49846000	1,4-Difluorobenzene	6.30

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, 1,3-dimethyl-, cis-	98	C7H14	002532-58-3	90
2	Cyclopentane, 1,3-dimethyl-, trans-	98	C7H14	001759-58-6	87
3	Cyclopentane, 1,2-dimethyl-, cis-	98	C7H14	001192-18-3	80
4	Cycloheptane	98	C7H14	000291-64-5	72

Cyclic alkane





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4073.D Vial: 5
Acq On : 03/30/2003 1421 Operator: AK
Sample : Y0SL4 Inst : E-5973
Misc : 2761.003 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

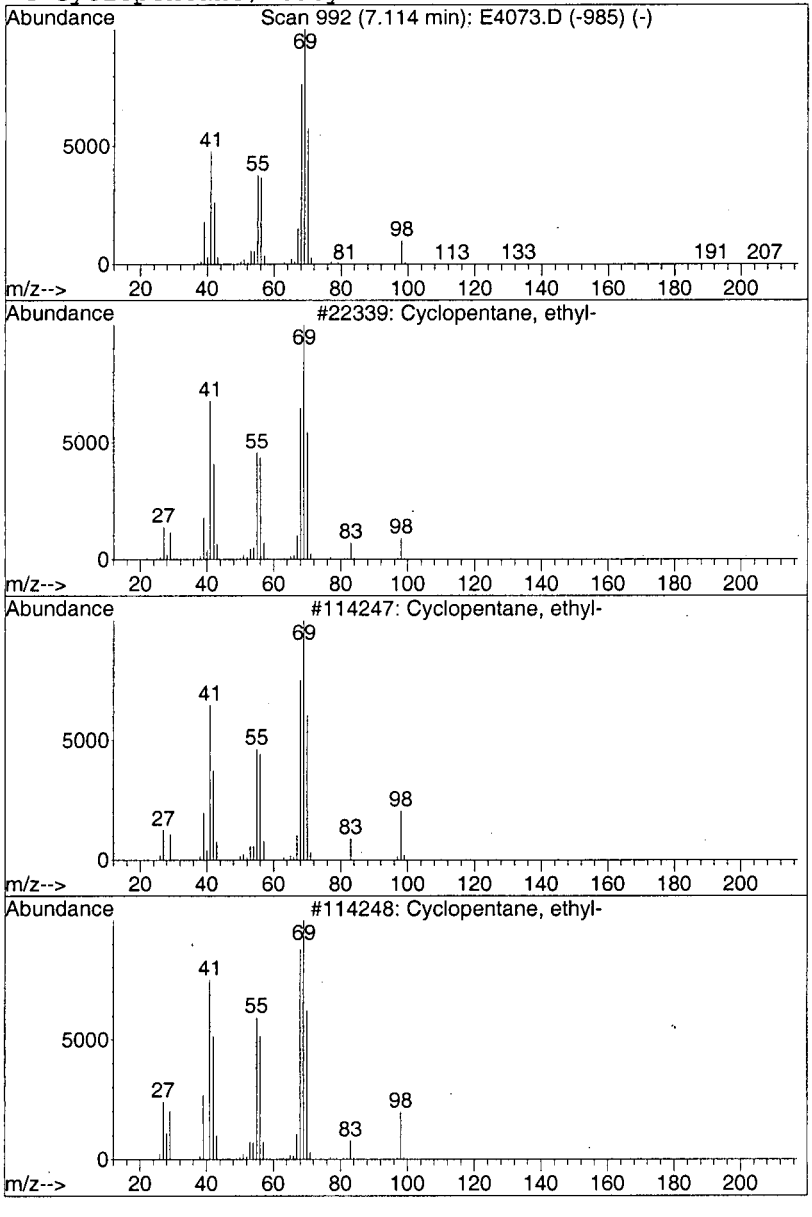
****

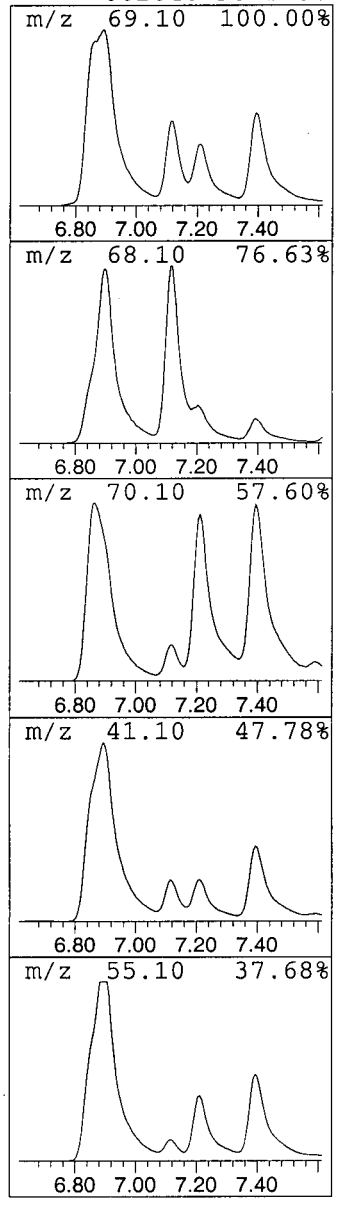
Peak Number 8 Cyclopentane, ethyl- Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.11	2.87 ug/L	28604600	1,4-Difluorobenzene	6.30

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, ethyl-	98	C7H14	001640-89-7	91
2	Cyclopentane, ethyl-	98	C7H14	001640-89-7	91
3	Cyclopentane, ethyl-	98	C7H14	001640-89-7	43
4	Cyclopentane, butyl-	126	C9H18	002040-95-1	38

cyclic alkane





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4073.D
Acq On : 03/30/2003 1421
Sample : Y0SL4
Misc : 2761.003 25ML
MS Integration Params: Lscint.p

Vial: 5
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

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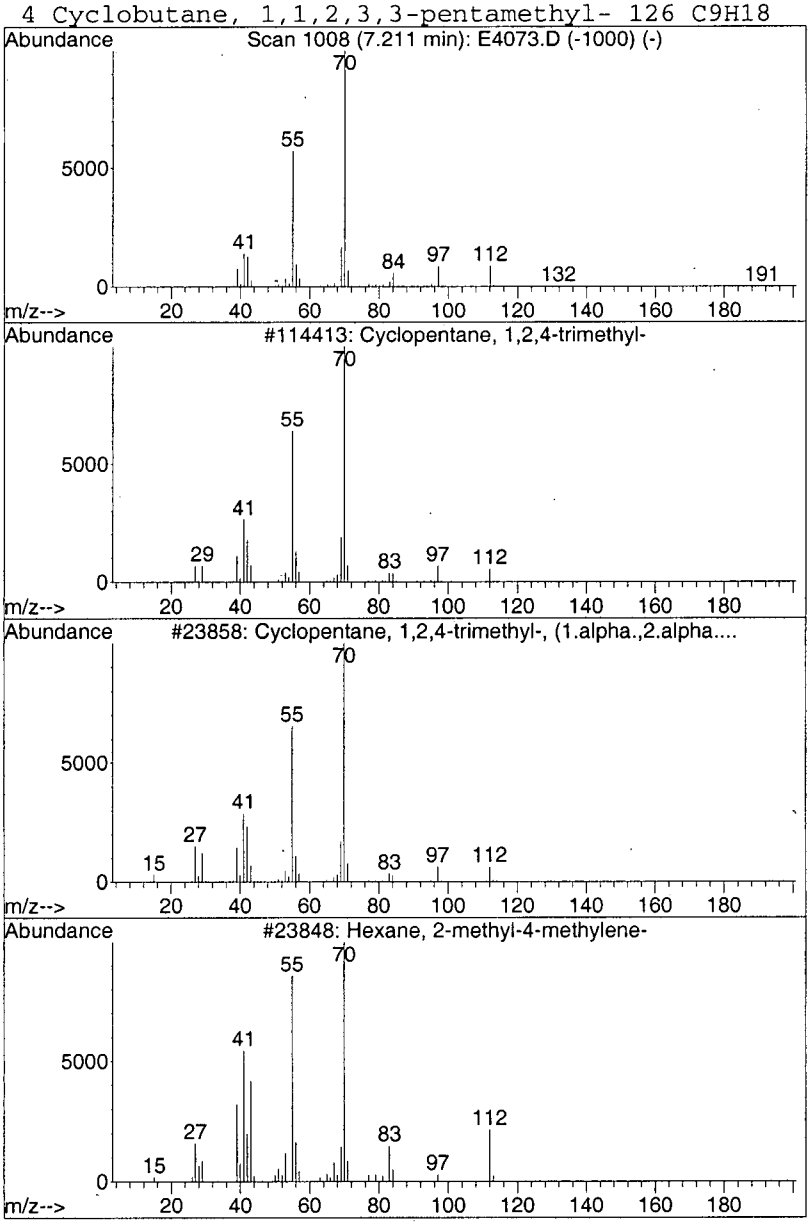
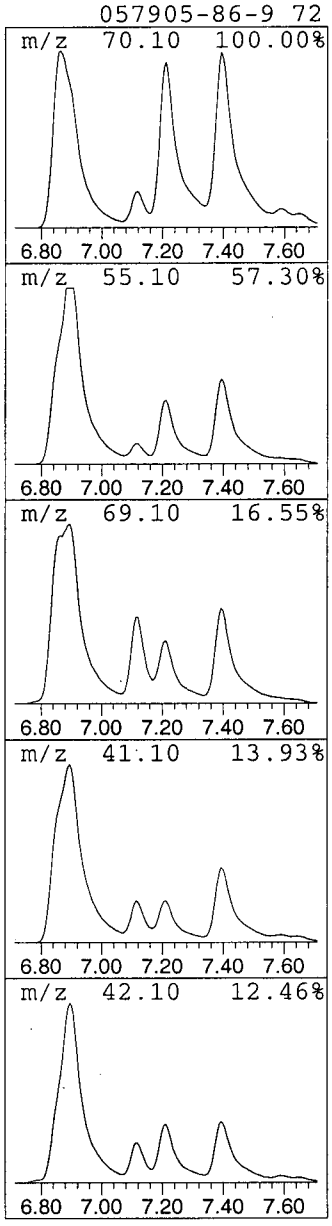
Peak Number 9 Cyclopentane, 1,2,4-trimethyl- Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.21	5.69 ug/L	56730300	1,4-Difluorobenzene	6.30

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, 1,2,4-trimethyl-	112	C8H16	002815-58-9	91
2	Cyclopentane, 1,2,4-trimethyl-, ...	112	C8H16	004850-28-6	86
3	Hexane, 2-methyl-4-methylene-	112	C8H16	003404-80-6	78
4	Cyclobutane, 1,1,2,3,3-pentamethyl-	126	C9H18	057905-86-9	72

Cyclic alkane





00094

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4073.D
Acq On : 03/30/2003 1421
Sample : Y0SL4
Misc : 2761.003 25ML
MS Integration Params: Lscint.p

Vial: 5
Operator: AK
Inst. : E-5973
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

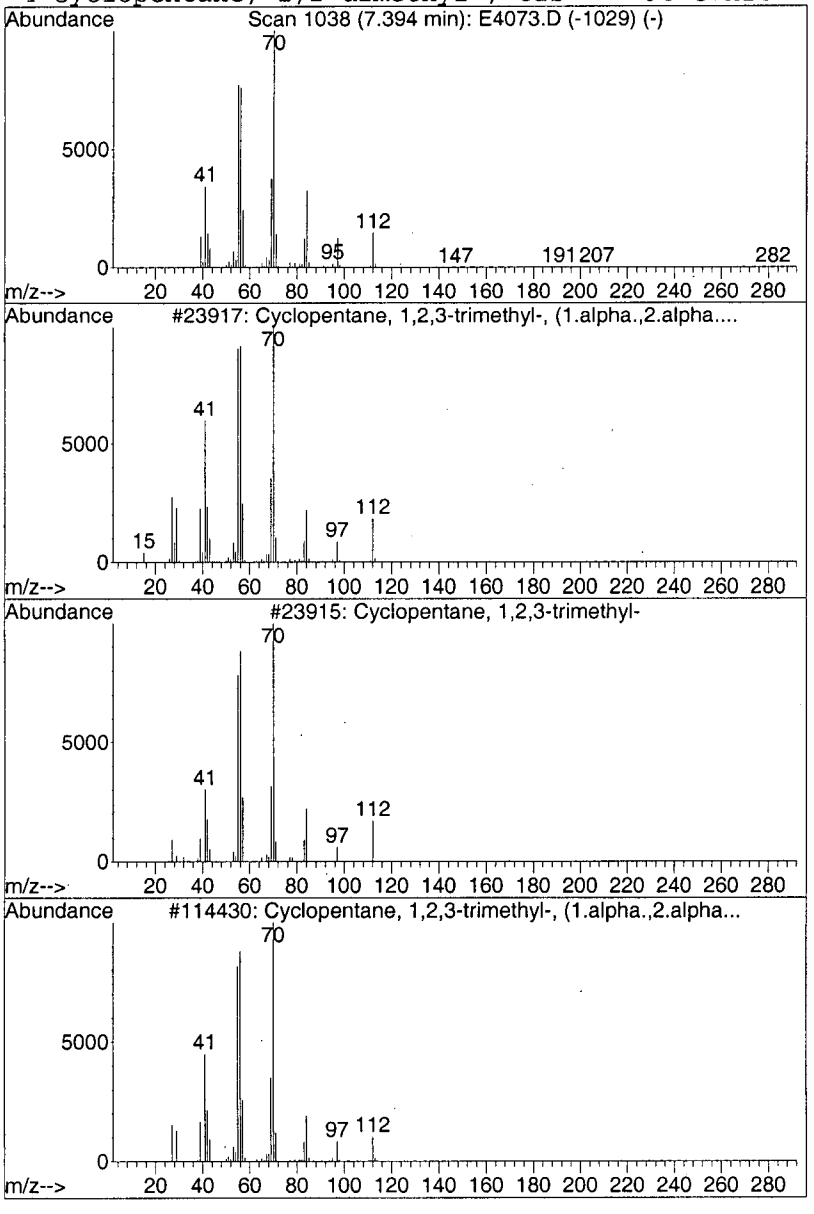
****

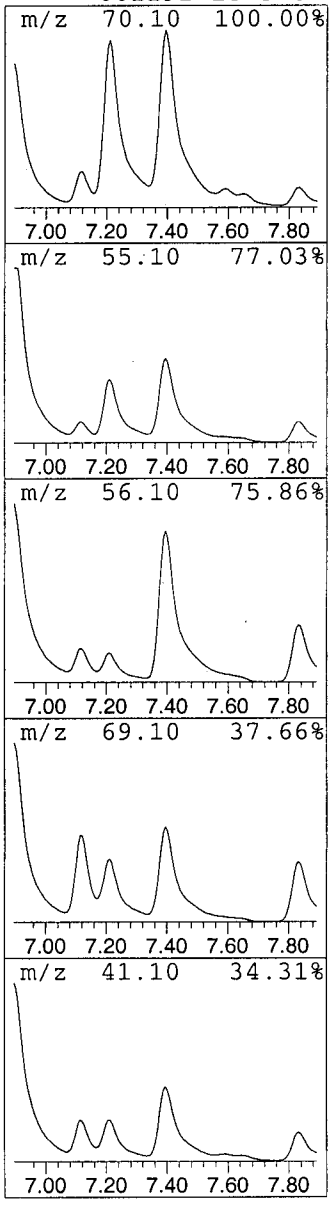
Peak Number 10 Cyclopentane, 1,2,3-trimeth... Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.39	9.84 ug/L	98075200	1,4-Difluorobenzene	6.30

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, 1,2,3-trimethyl-, ...	112	C8H16	015890-40-1	95
2	Cyclopentane, 1,2,3-trimethyl-	112	C8H16	002815-57-8	90
3	Cyclopentane, 1,2,3-trimethyl-, ...	112	C8H16	015890-40-1	90
4	Cyclopentane, 1,2-dimethyl-, cis-	98	C7H14	001192-18-3	64

cyclic alkane





0095

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4073.D
Acq On : 03/30/2003 1421
Sample : Y0SL4
Misc : 2761.003 25ML
MS Integration Params: Lscint.p

Vial: 5
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

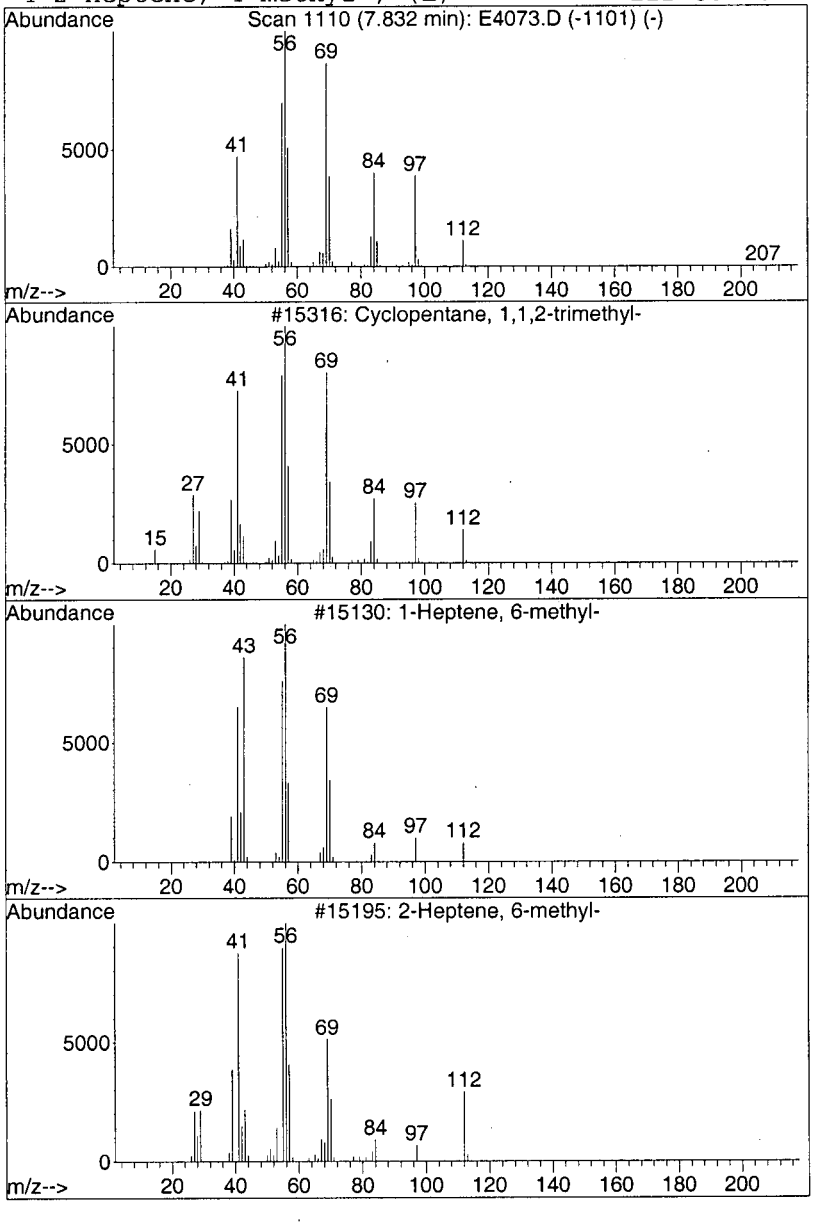
****

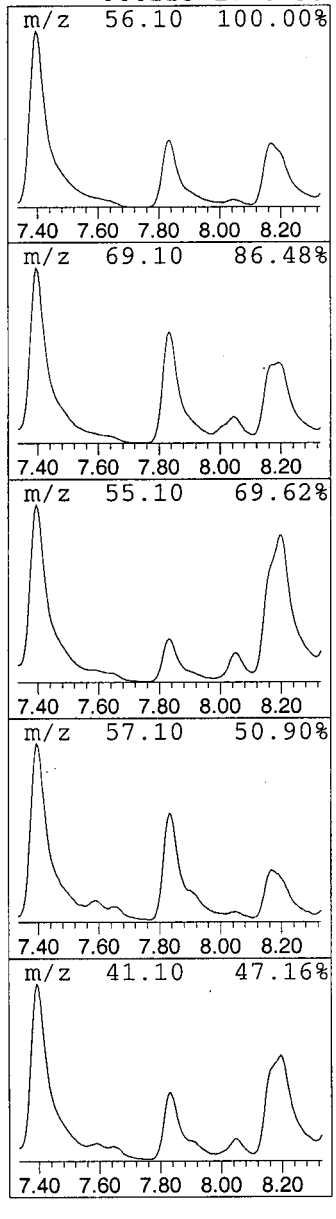
Peak Number 11 Cyclopentane, 1,1,2-trimethyl- Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.83	3.48 ug/L	34689100	1,4-Difluorobenzene	6.30

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, 1,1,2-trimethyl-	112	C8H16	004259-00-1	93
2	1-Heptene, 6-methyl-	112	C8H16	005026-76-6	58
3	2-Heptene, 6-methyl-	112	C8H16	073548-72-8	50
4	2-Heptene, 4-methyl-, (E)-	112	C8H16	066225-17-0	35

Cyclic alkane





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4073.D Vial: 5
Acq On : 03/30/2003 1421 Operator: AK
Sample : Y0SL4 Inst : E-5973
Misc : 2761.003 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

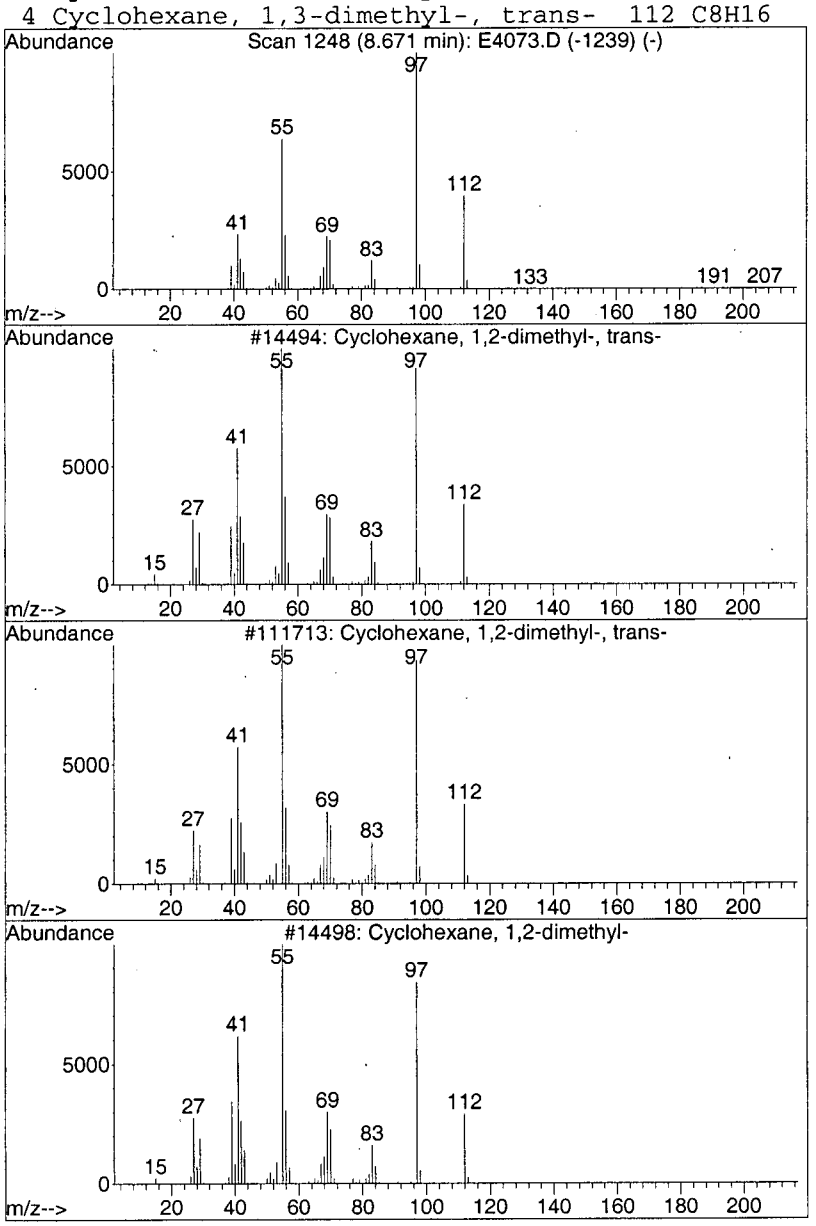
****

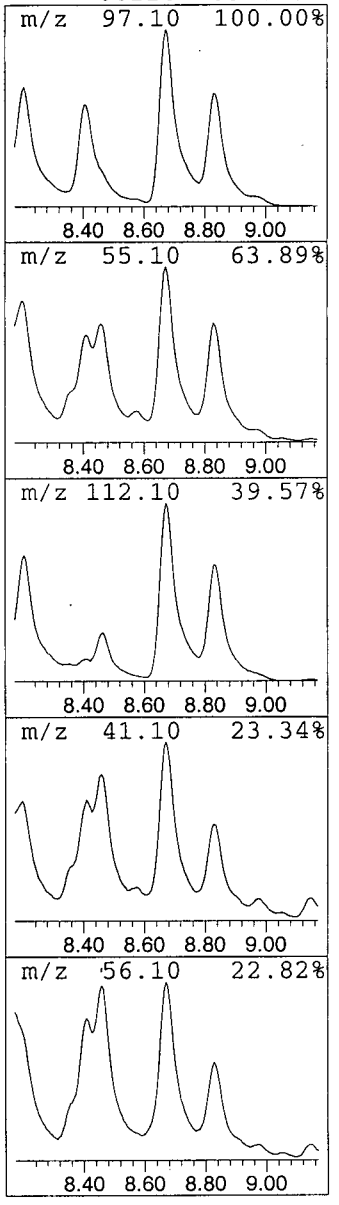
Peak Number 12 Cyclohexane, 1,2-dimethyl-,... Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.67	8.84 ug/L	80590400	Chlorobenzene-d5	10.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1,2-dimethyl-, trans-	112	C8H16	006876-23-9	91
2	Cyclohexane, 1,2-dimethyl-, trans-	112	C8H16	006876-23-9	90
3	Cyclohexane, 1,2-dimethyl-	112	C8H16	000583-57-3	87
4	Cyclohexane, 1,3-dimethyl-, trans-	112	C8H16	002207-03-6	86

cyclic alkane





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4073.D
Acq On : 03/30/2003 1421
Sample : Y0SL4
Misc : 2761.003 25ML
MS Integration Params: Lscint.p

Vial: 5
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

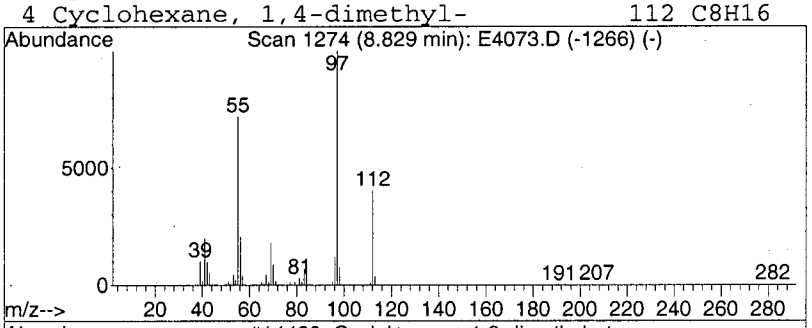
****

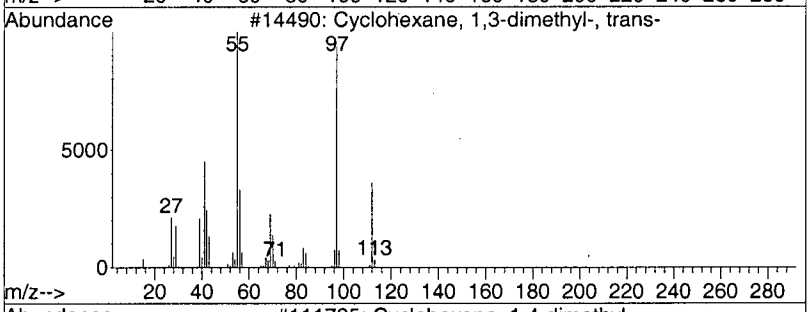
Peak Number 13 Cyclohexane, 1,3-dimethyl-,... Concentration Rank 11

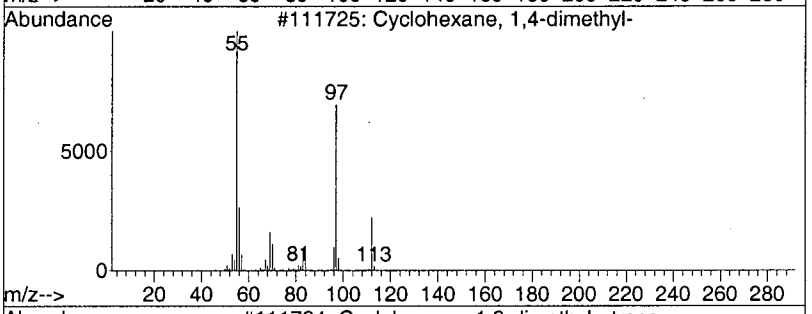
R.T.	EstConc	Area	Relative to ISTD	R.T.
8.83	5.34 ug/L	48677600	Chlorobenzene-d5	10.31

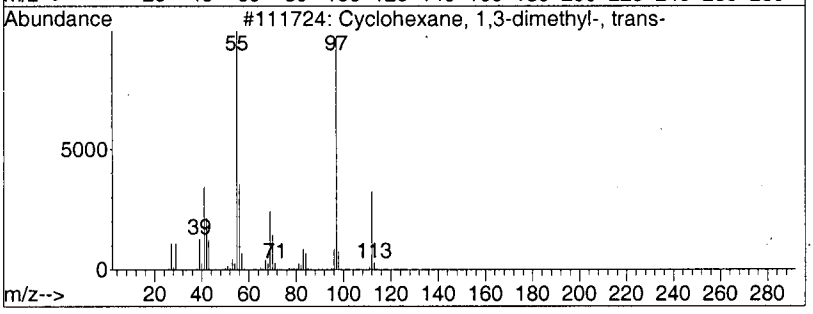
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1,3-dimethyl-, trans-	112	C8H16	002207-03-6	94
2	Cyclohexane, 1,4-dimethyl-	112	C8H16	000589-90-2	91
3	Cyclohexane, 1,3-dimethyl-, trans-	112	C8H16	002207-03-6	91
4	Cyclohexane, 1,4-dimethyl-	112	C8H16	000589-90-2	91

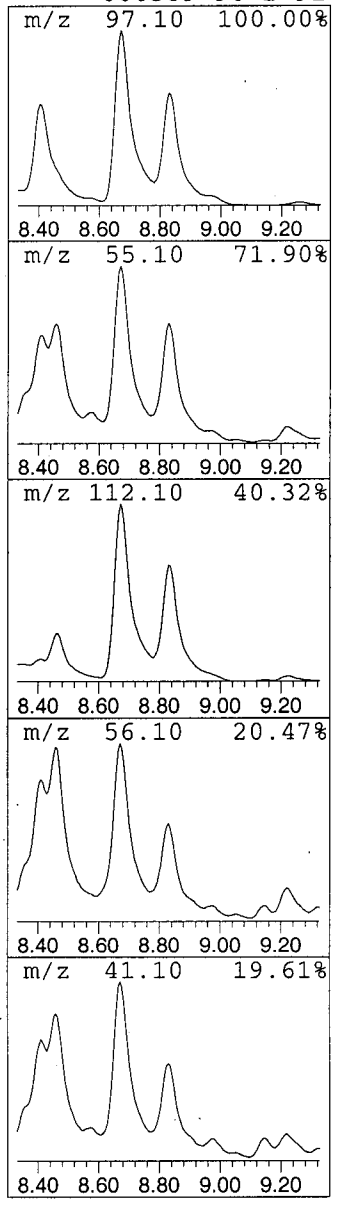
cyclic alkane











000098

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4073.D
Acq On : 03/30/2003 1421
Sample : Y0SL4
Misc : 2761.003 25ML
MS Integration Params: Lscint.p

Vial: 5
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

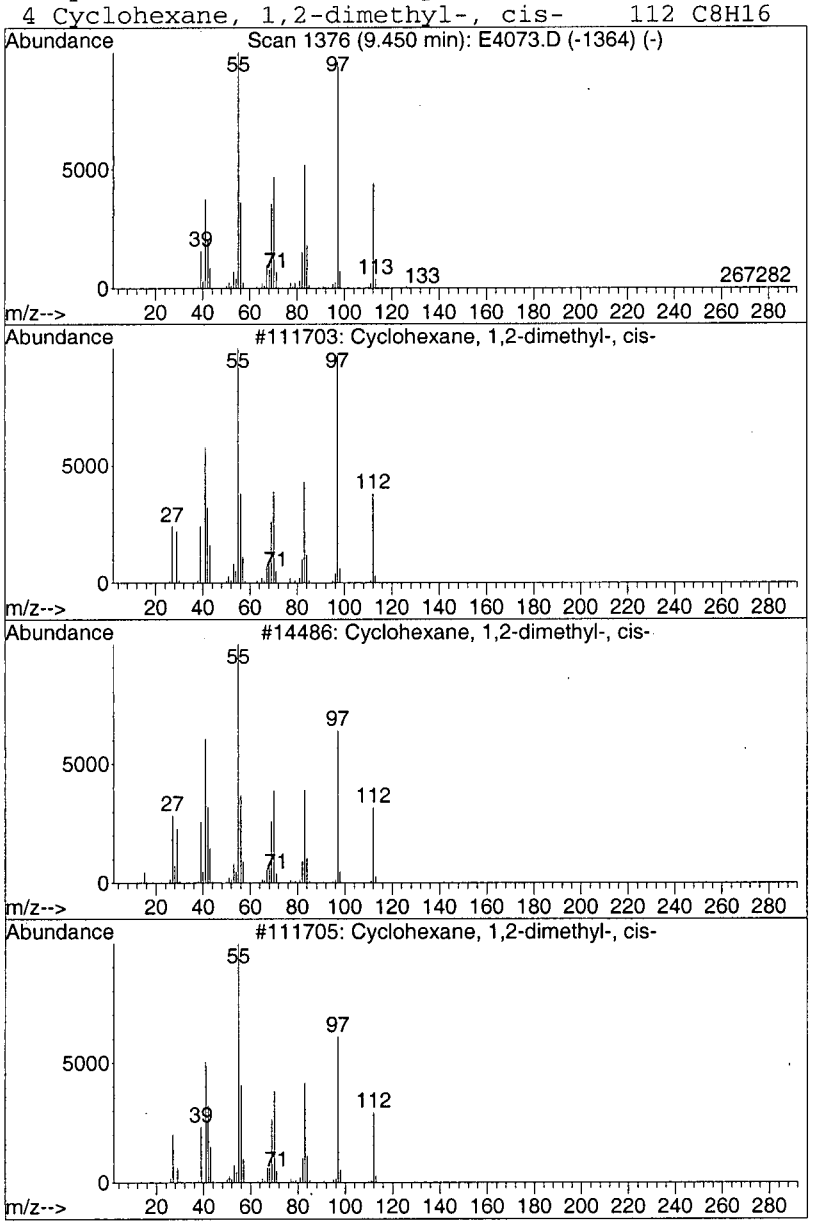
****

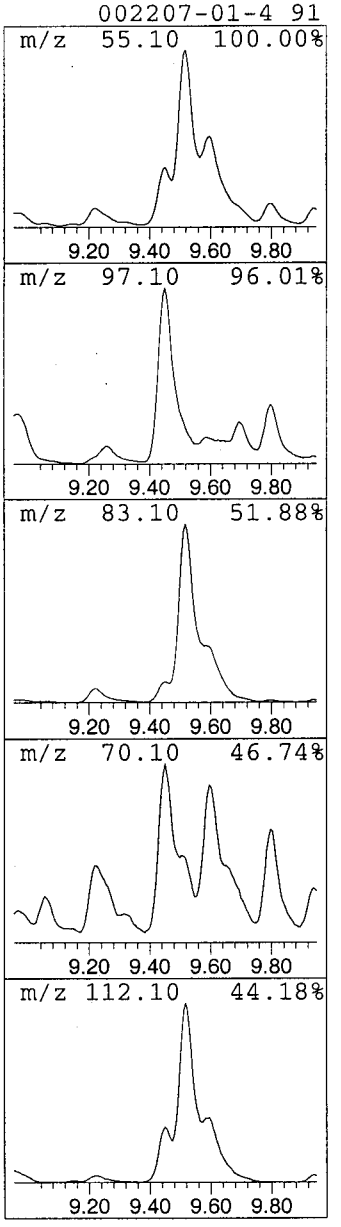
Peak Number 14 Cyclohexane, 1,2-dimethyl-,... Concentration Rank 21

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.45	2.36 ug/L	21537600	Chlorobenzene-d5	10.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1,2-dimethyl-, cis-	112	C8H16	002207-01-4	94
2	Cyclohexane, 1,2-dimethyl-, cis-	112	C8H16	002207-01-4	94
3	Cyclohexane, 1,2-dimethyl-, cis-	112	C8H16	002207-01-4	94
4	Cyclohexane, 1,2-dimethyl-, cis-	112	C8H16	002207-01-4	91

cyclic alkane





99

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4073.D Vial: 5
Acq On : 03/30/2003 1421 Operator: AK
Sample : Y0SL4 Inst : E-5973
Misc : 2761.003 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

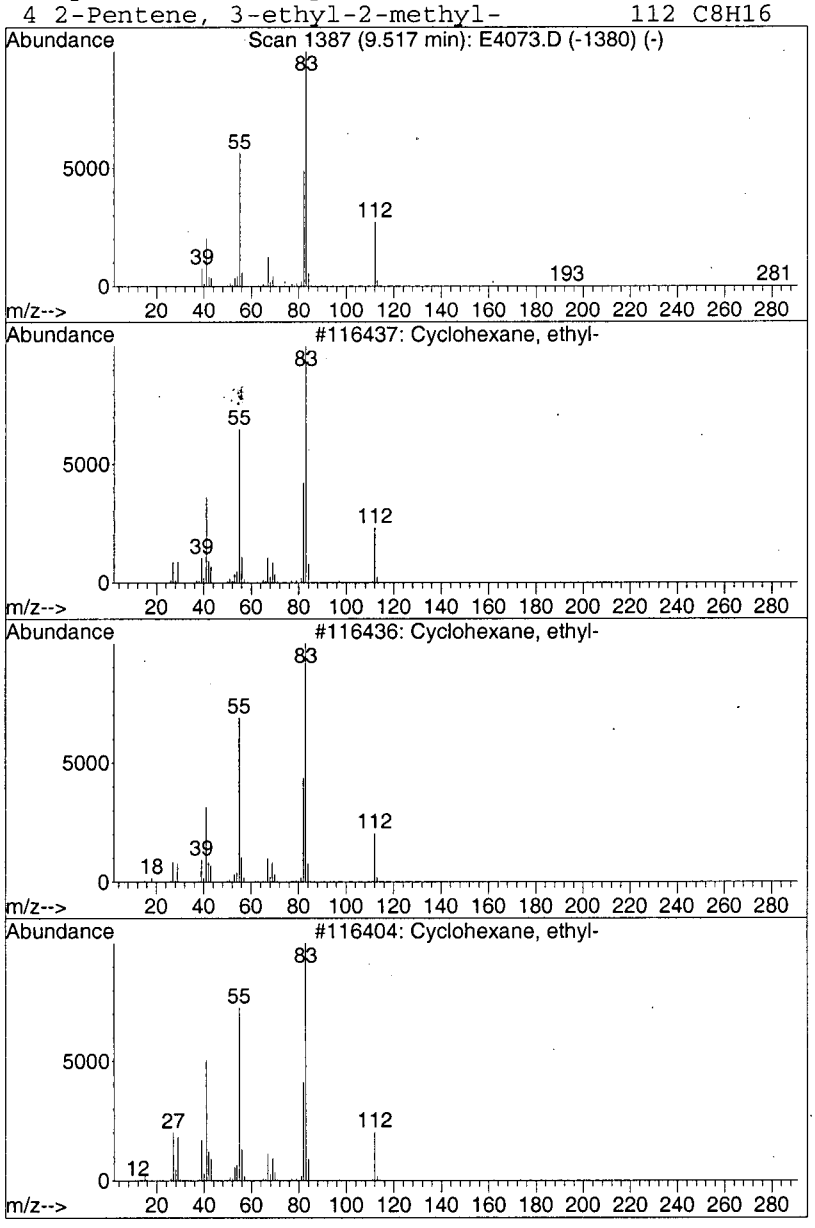
Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

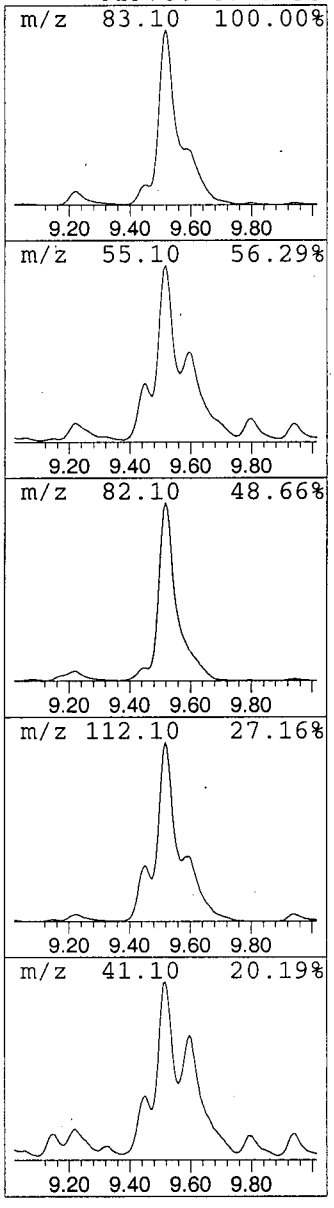
****

Peak Number 15 Cyclohexane, ethyl- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.52	7.23 ug/L	65988000	Chlorobenzene-d5	10.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, ethyl-	112	C8H16	001678-91-7	72
2	Cyclohexane, ethyl-	112	C8H16	001678-91-7	72
3	Cyclohexane, ethyl-	112	C8H16	001678-91-7	64
4	2-Pentene, 3-ethyl-2-methyl-	112	C8H16	019780-67-7	58





cyclic alkane

0100

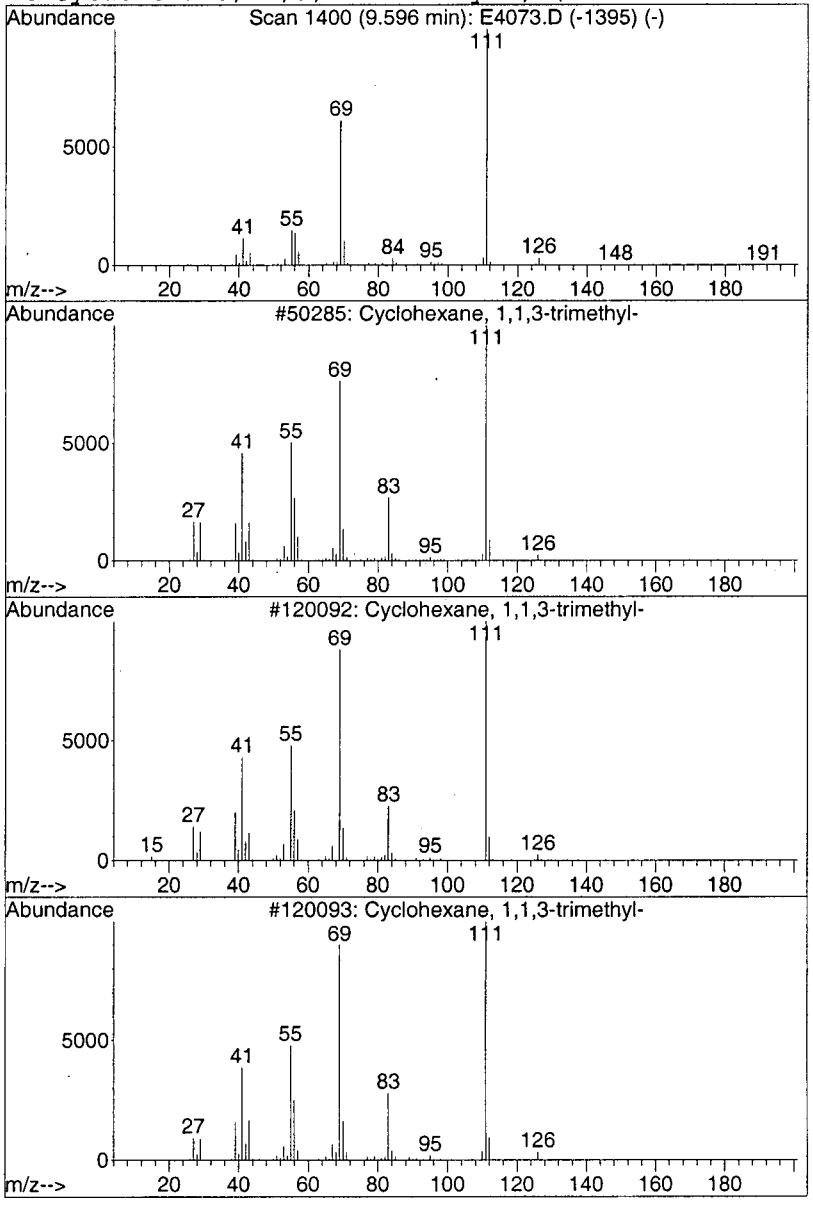
Library Search Compound Report

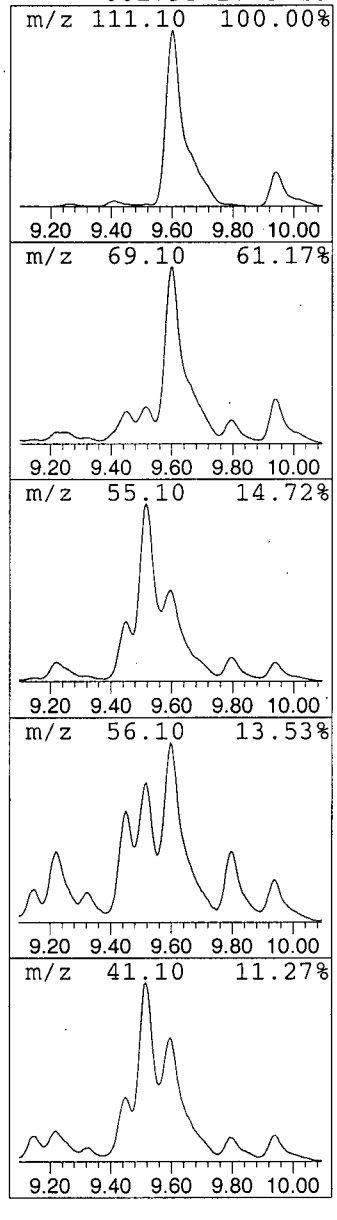
```
   Data File : C:\MSDCHEM\1\DATA\E4073.D                    Vial: 5
   Acq On    : 03/30/2003  1421                         Operator: AK
   Sample    : Y0SL4                                    Inst    : E-5973
   Misc      : 2761.003  25ML                           Multiplr: 1.00
MS Integration Params: Lscint.p

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title        : Voa Low Concentration Organics - OLC03.2
Library      : C:\DATABASE\NIST98.L
 ******************************************************************
 Peak Number 16  Cyclohexane, 1,1,3-trimethyl-   Concentration Rank  6
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.60	7.71 ug/L	70286500	Chlorobenzene-d5	10.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1,1,3-trimethyl-	126	C9H18	003073-66-3	83
2	Cyclohexane, 1,1,3-trimethyl-	126	C9H18	003073-66-3	78
3	Cyclohexane, 1,1,3-trimethyl-	126	C9H18	003073-66-3	47
4	Cyclohexane, 1,3,5-trimethyl-, (...	126	C9H18	001795-27-3	40

cyclic alkane





00101

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4073.D Vial: 5
Acq On : 03/30/2003 1421 Operator: AK
Sample : Y0SL4 Inst : E-5973
Misc : 2761.003 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

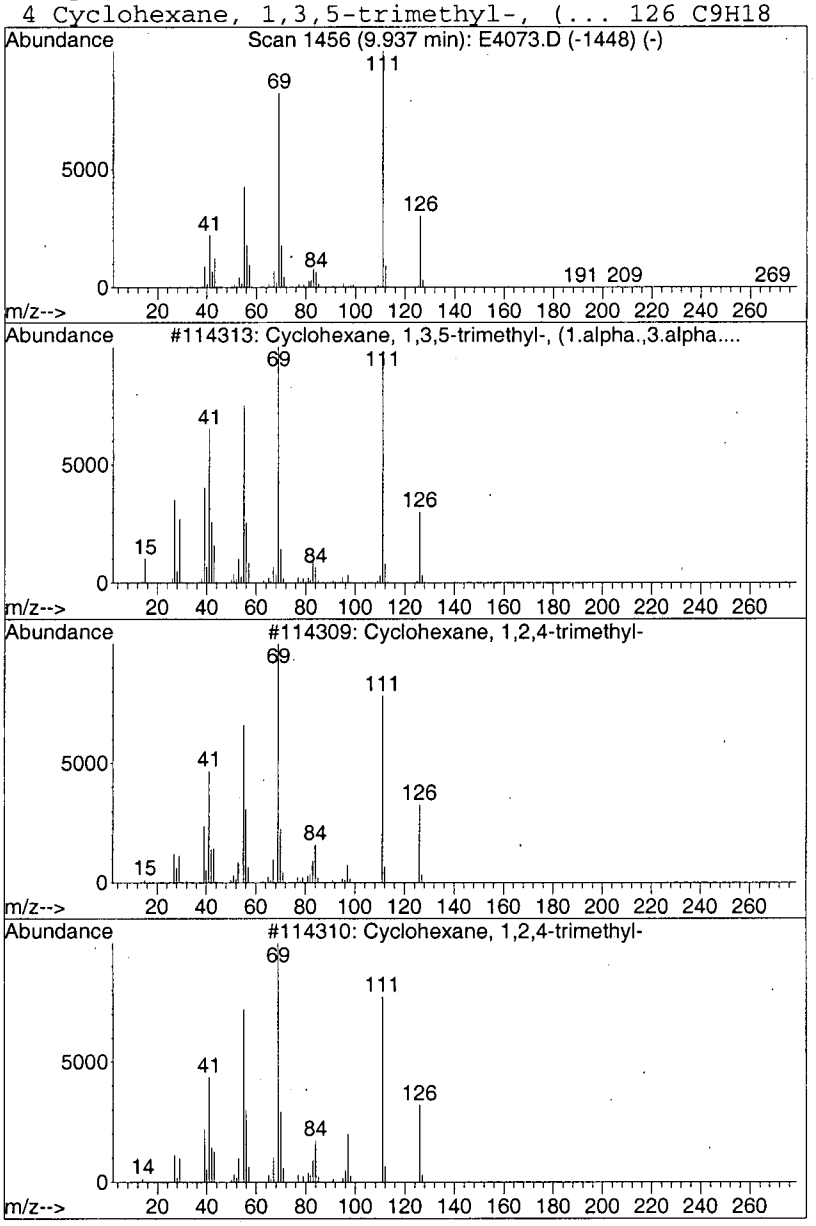
Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

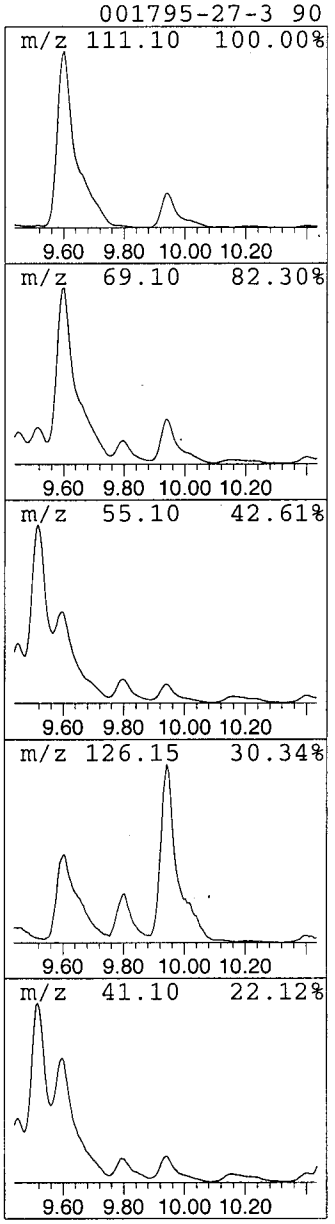
****

Peak Number 17 Cyclohexane, 1,3,5-trimethy... Concentration Rank 24

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.94	1.61 ug/L	14704700	Chlorobenzene-d5	10.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1,3,5-trimethyl-, (...	126	C9H18	001795-26-2	91
2	Cyclohexane, 1,2,4-trimethyl-	126	C9H18	002234-75-5	90
3	Cyclohexane, 1,2,4-trimethyl-	126	C9H18	002234-75-5	90
4	Cyclohexane, 1,3,5-trimethyl-, (...	126	C9H18	001795-27-3	90





cyclic alkane

0102

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4073.D Vial: 5
Acq On : 03/30/2003 1421 Operator: AK
Sample : Y0SL4 Inst : E-5973
Misc : 2761.003 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

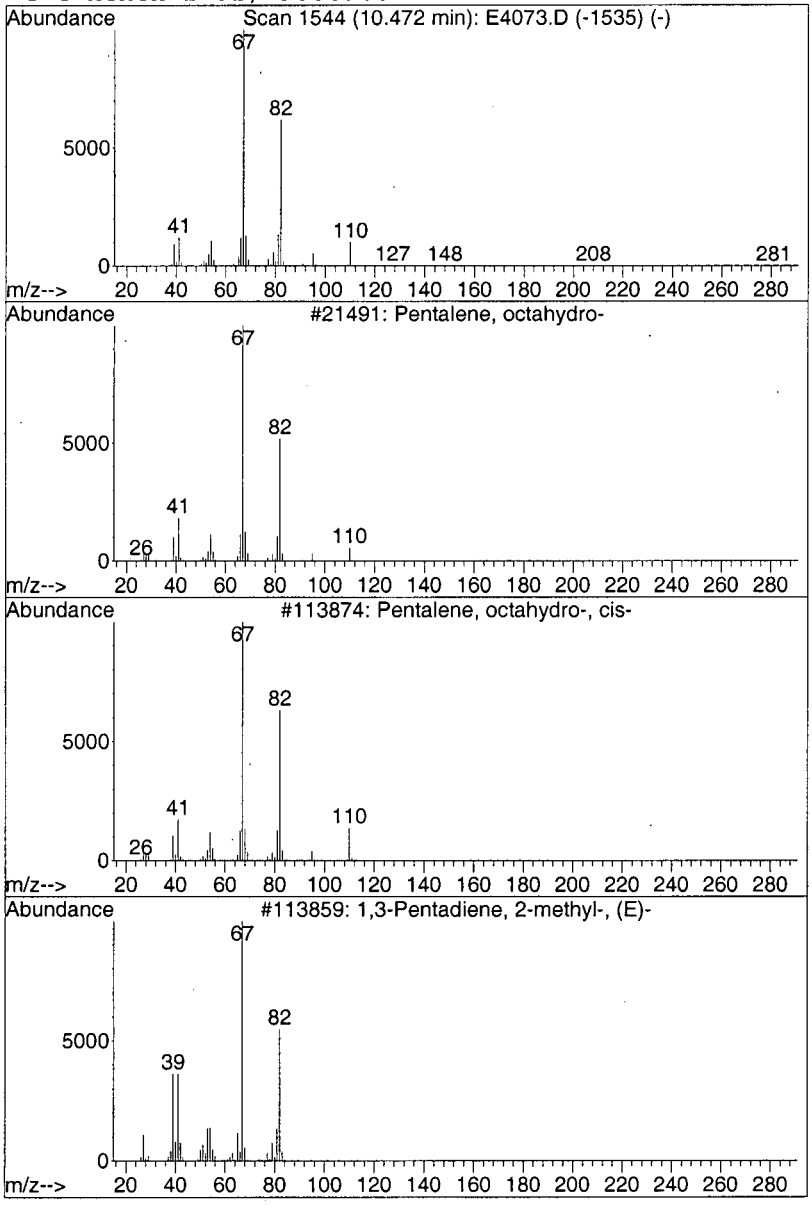
Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

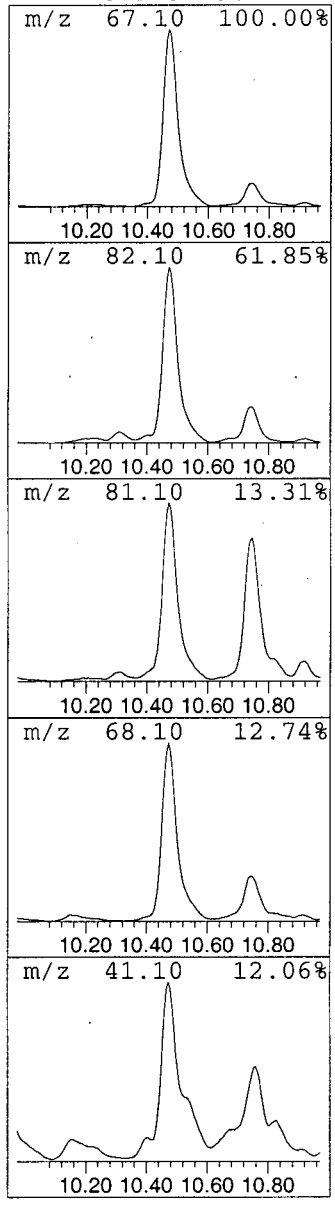
****

Peak Number 18 Pentalene, octahydro- Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.47	5.00 ug/L	45603900	Chlorobenzene-d5	10.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentalene, octahydro-	110	C8H14	000694-72-4	91
2	Pentalene, octahydro-, cis-	110	C8H14	001755-05-1	91
3	1,3-Pentadiene, 2-methyl-, (E)-	82	C6H10	000926-54-5	64
4	4-Hexen-1-ol, acetate	142	C8H14O2	072237-36-6	64





0103

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4073.D Vial: 5
Acq On : 03/30/2003 1421 Operator: AK
Sample : Y0SL4 Inst : E-5973
Misc : 2761.003 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

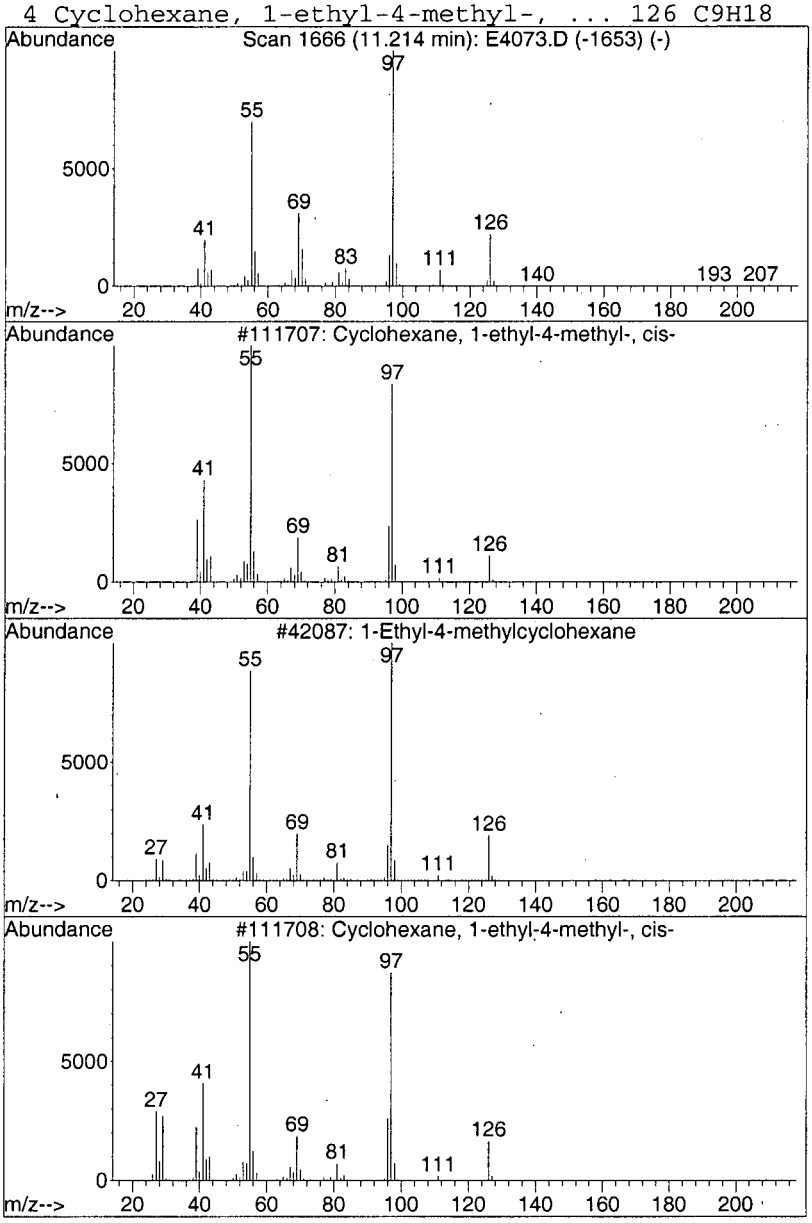
****

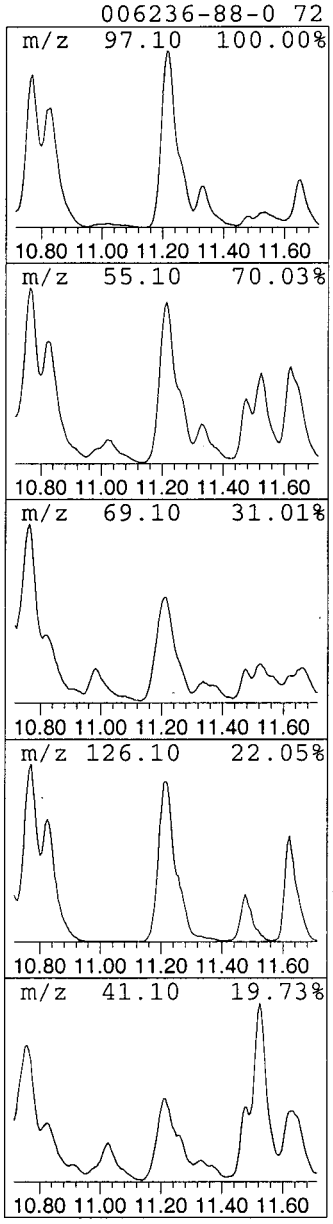
Peak Number 19 Cyclohexane, 1-ethyl-4-meth... Concentration Rank 27

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.21	1.20 ug/L	10907600	Chlorobenzene-d5	10.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1-ethyl-4-methyl-, ...	126	C9H18	004926-78-7	80
2	1-Ethyl-4-methylcyclohexane	126	C9H18	003728-56-1	80
3	Cyclohexane, 1-ethyl-4-methyl-, ...	126	C9H18	004926-78-7	72
4	Cyclohexane, 1-ethyl-4-methyl-, ...	126	C9H18	006236-88-0	72

Cyclic alkane





104

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4073.D Vial: 5
Acq On : 03/30/2003 1421 Operator: AK
Sample : Y0SL4 Inst : E-5973
Misc : 2761.003 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

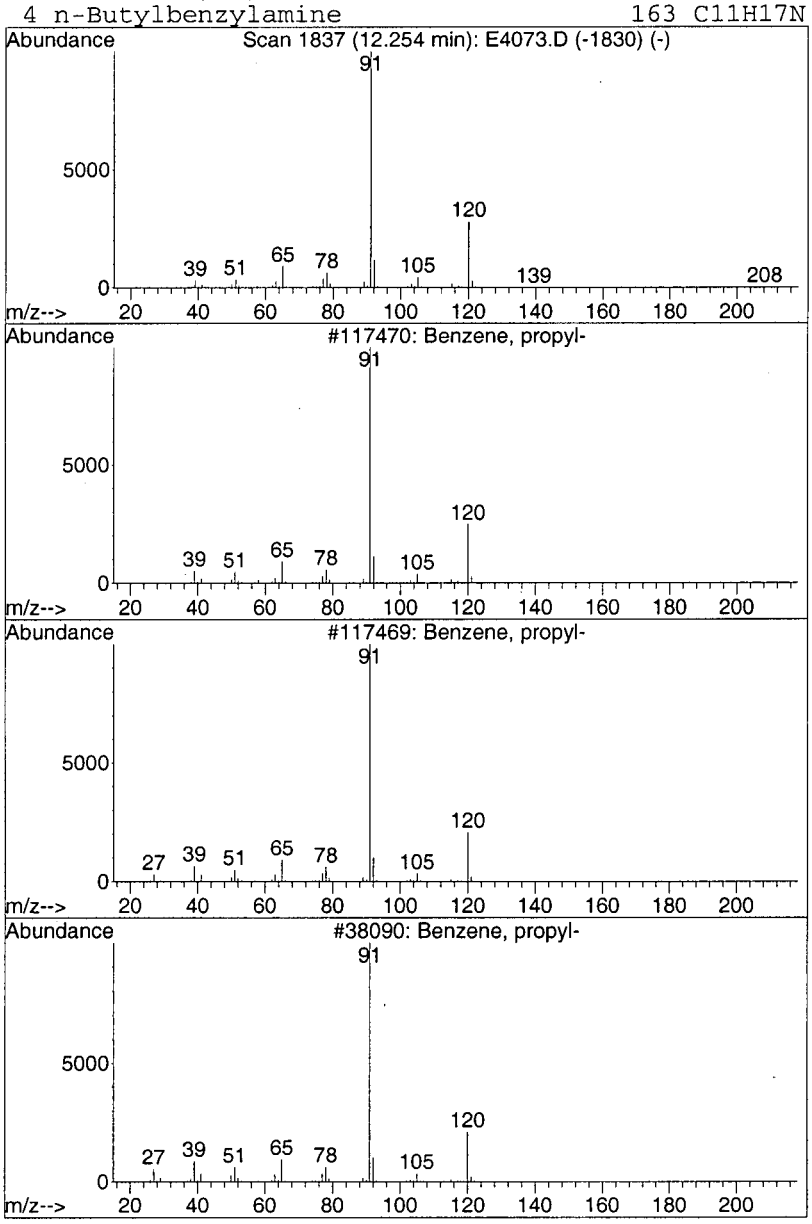
Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

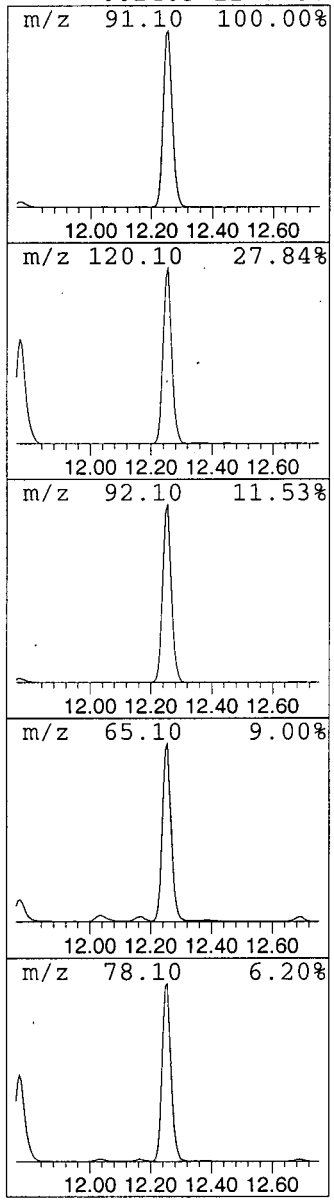
****

Peak Number 20 Benzene, propyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.25	12.48 ug/L	34166100	1,4-Dichlorobenzene-d4	13.19

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, propyl-	120	C9H12	000103-65-1	91
2	Benzene, propyl-	120	C9H12	000103-65-1	91
3	Benzene, propyl-	120	C9H12	000103-65-1	91
4	n-Butylbenzylamine	163	C11H17N	002403-22-7	64





105

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4073.D Vial: 5
Acq On : 03/30/2003 1421 Operator: AK
Sample : Y0SL4 Inst : E-5973
Misc : 2761.003 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

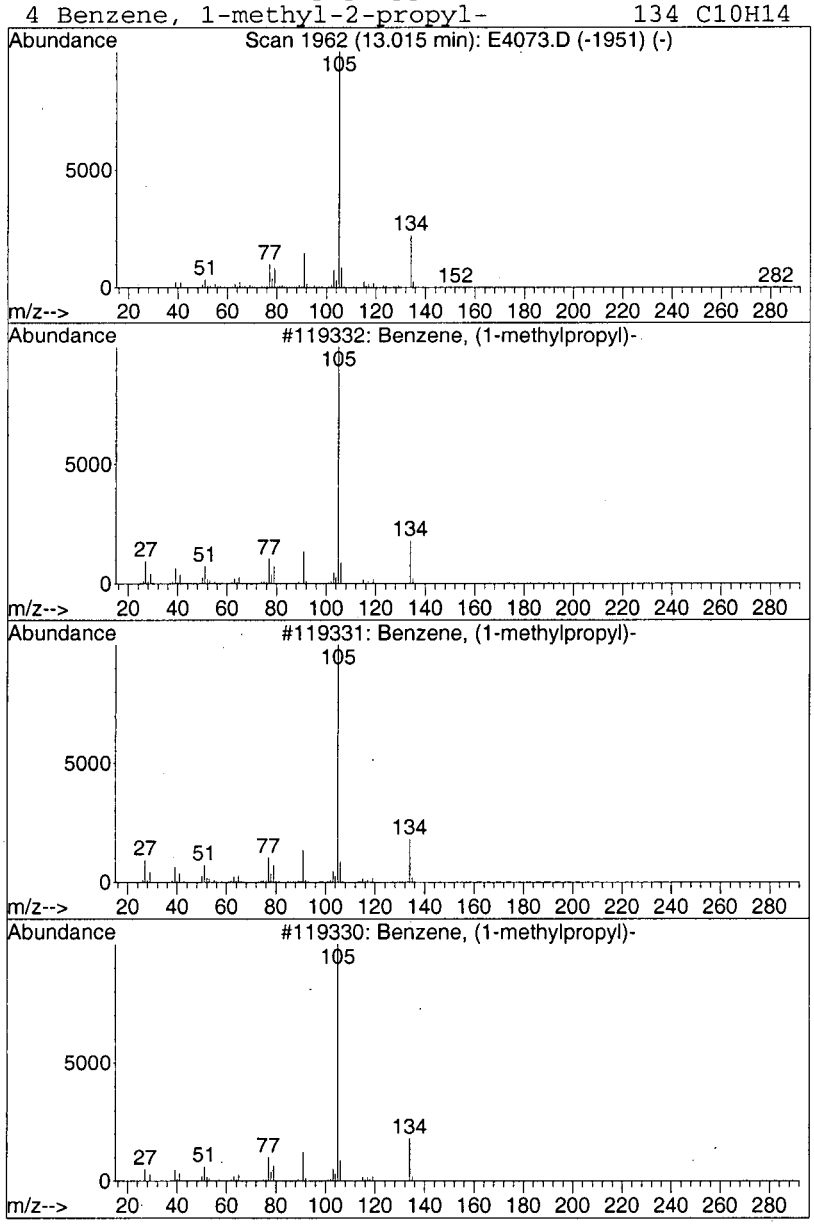
Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

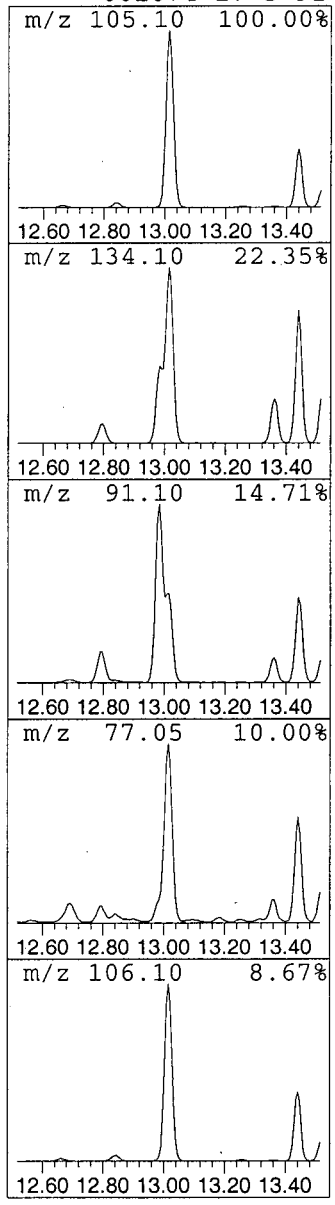
****

Peak Number 21 Benzene, (1-methylpropyl)- Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.01	5.00 ug/L	13691700	1,4-Dichlorobenzene-d4	13.19

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, (1-methylpropyl)-	134	C10H14	000135-98-8	91
2	Benzene, (1-methylpropyl)-	134	C10H14	000135-98-8	91
3	Benzene, (1-methylpropyl)-	134	C10H14	000135-98-8	91
4	Benzene, 1-methyl-2-propyl-	134	C10H14	001074-17-5	91





106

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4073.D Vial: 5
Acq On : 03/30/2003 1421 Operator: AK
Sample : Y0SL4 Inst : E-5973
Misc : 2761.003 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

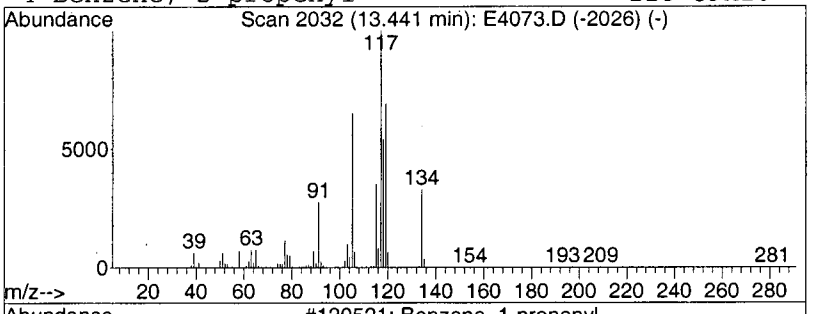
Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

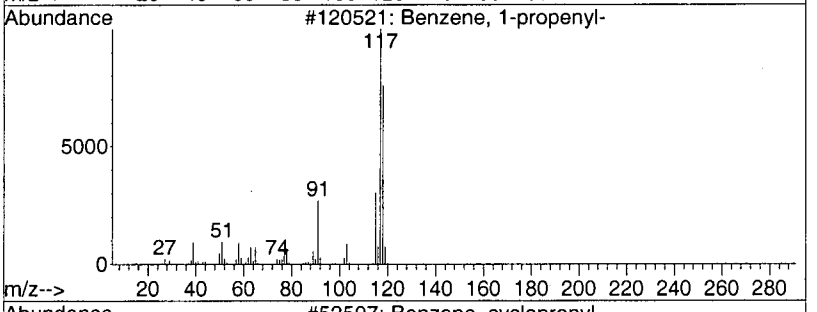
****

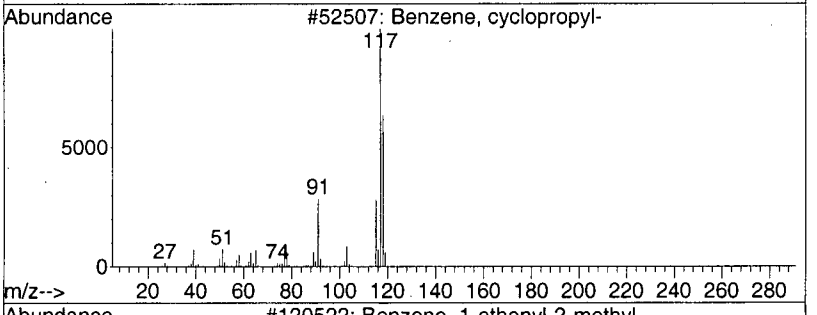
Peak Number 22 Benzene, 1-propenyl- Concentration Rank 15

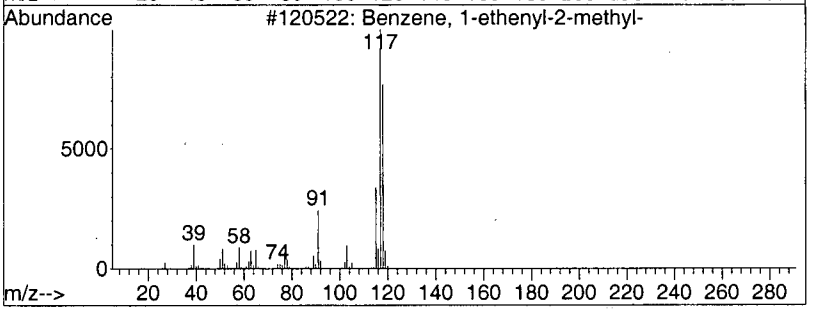
R.T.	EstConc	Area	Relative to ISTD	R.T.
13.44	4.07 ug/L	11136200	1,4-Dichlorobenzene-d4	13.19

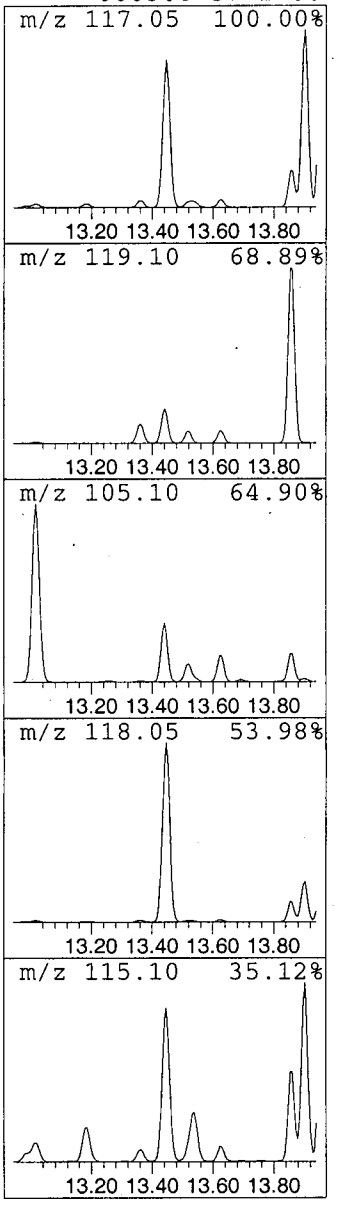
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-propenyl-	118	C9H10	000637-50-3	60
2	Benzene, cyclopropyl-	118	C9H10	000873-49-4	60
3	Benzene, 1-ethenyl-2-methyl-	118	C9H10	000611-15-4	60
4	Benzene, 2-propenyl-	118	C9H10	000300-57-2	60











107

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4073.D
Acq On : 03/30/2003 1421
Sample : Y0SL4
Misc : 2761.003 25ML
MS Integration Params: Lscint.p

Vial: 5
Operator: AK
Inst : E-5973
Multiplr: 1.00

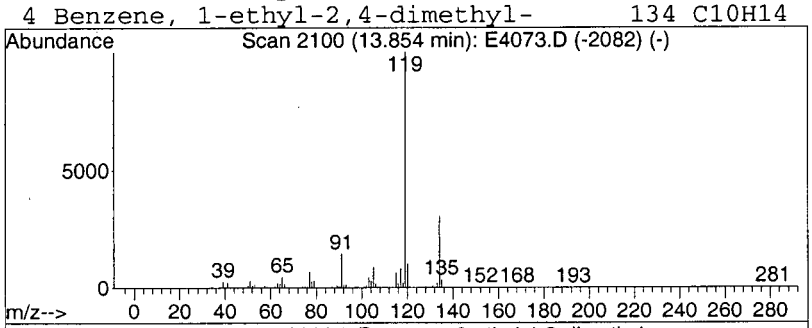
Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

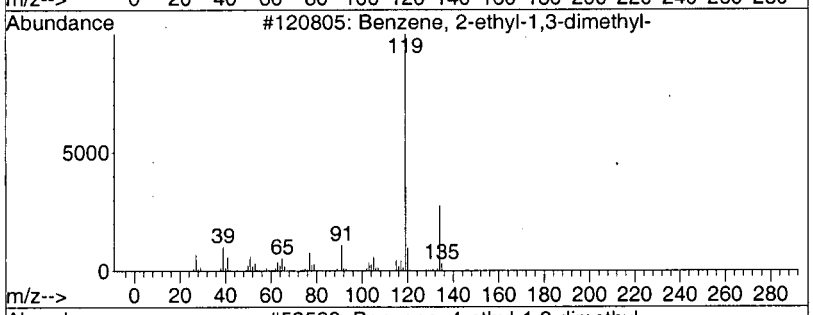
****

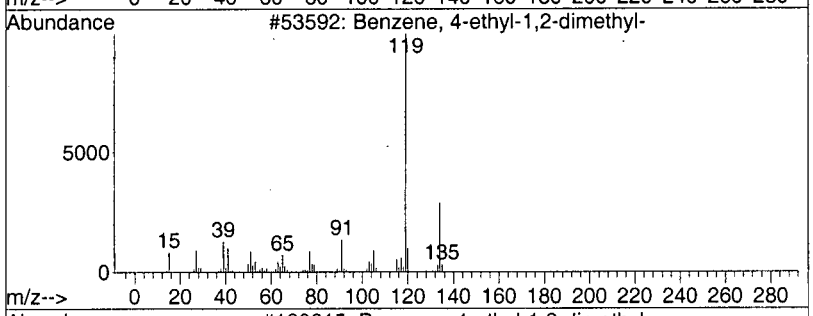
Peak Number 23 Benzene, 2-ethyl-1,3-dimethyl- Concentration Rank 9

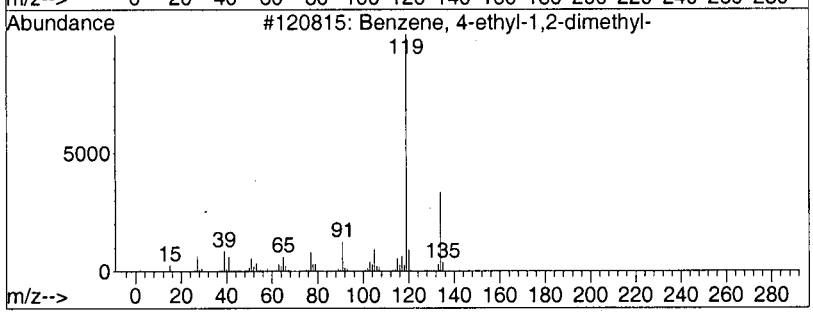
R.T.	EstConc	Area	Relative to ISTD	R.T.
13.85	6.22 ug/L	17027400	1,4-Dichlorobenzene-d4	13.19

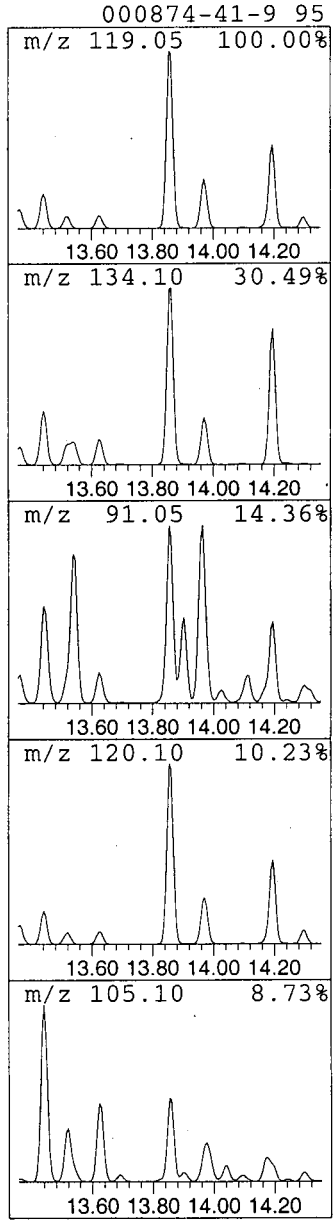
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	95
2	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	000934-80-5	95
3	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	000934-80-5	95
4	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	95











0108

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4073.D Vial: 5
Acq On : 03/30/2003 1421 Operator: AK
Sample : Y0SL4 Inst : E-5973
Misc : 2761.003 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

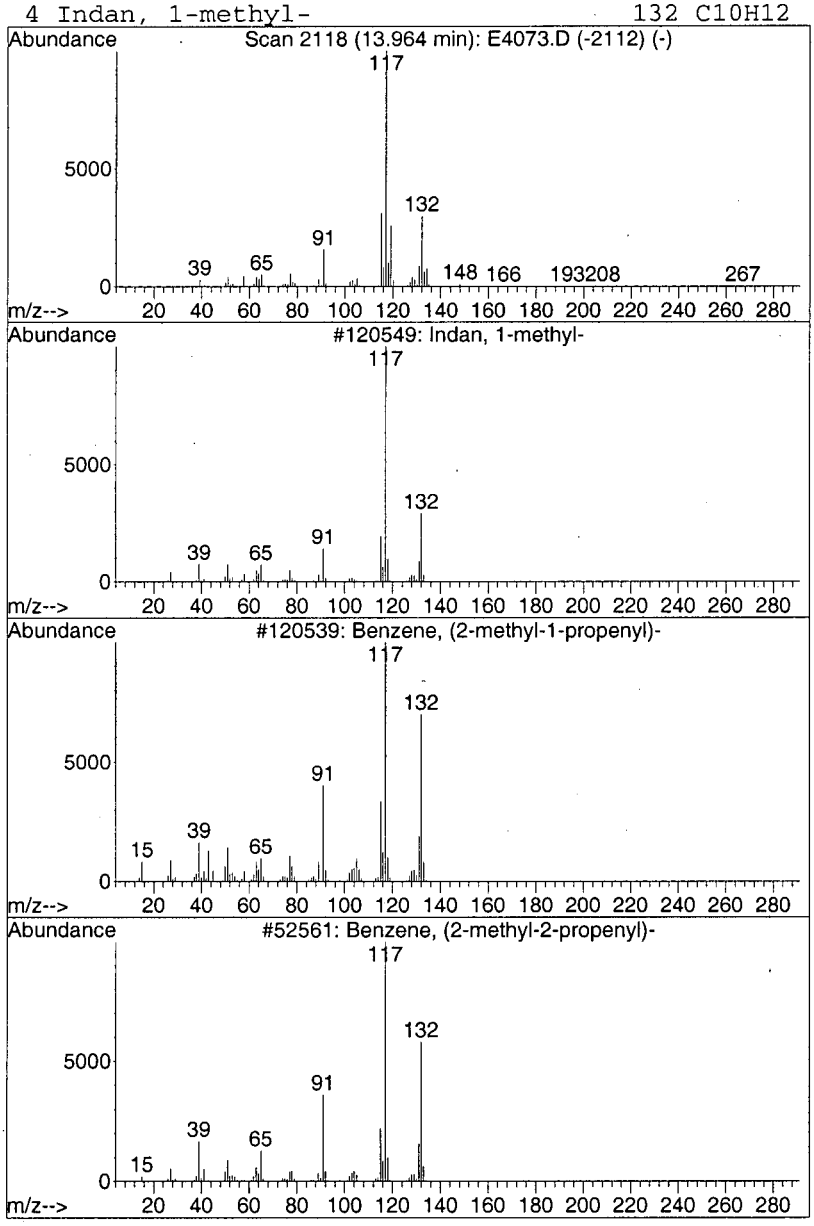
Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

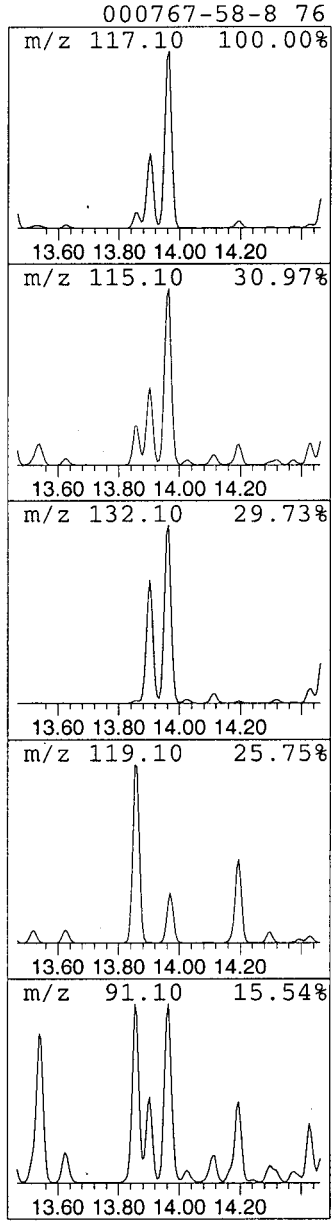
****

Peak Number 24 Indan, 1-methyl- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.96	7.66 ug/L	20975100	1,4-Dichlorobenzene-d4	13.19

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indan, 1-methyl-	132	C10H12	000767-58-8	93
2	Benzene, (2-methyl-1-propenyl)-	132	C10H12	000768-49-0	87
3	Benzene, (2-methyl-2-propenyl)-	132	C10H12	003290-53-7	80
4	Indan, 1-methyl-	132	C10H12	000767-58-8	76





109

Library Search Compound Report

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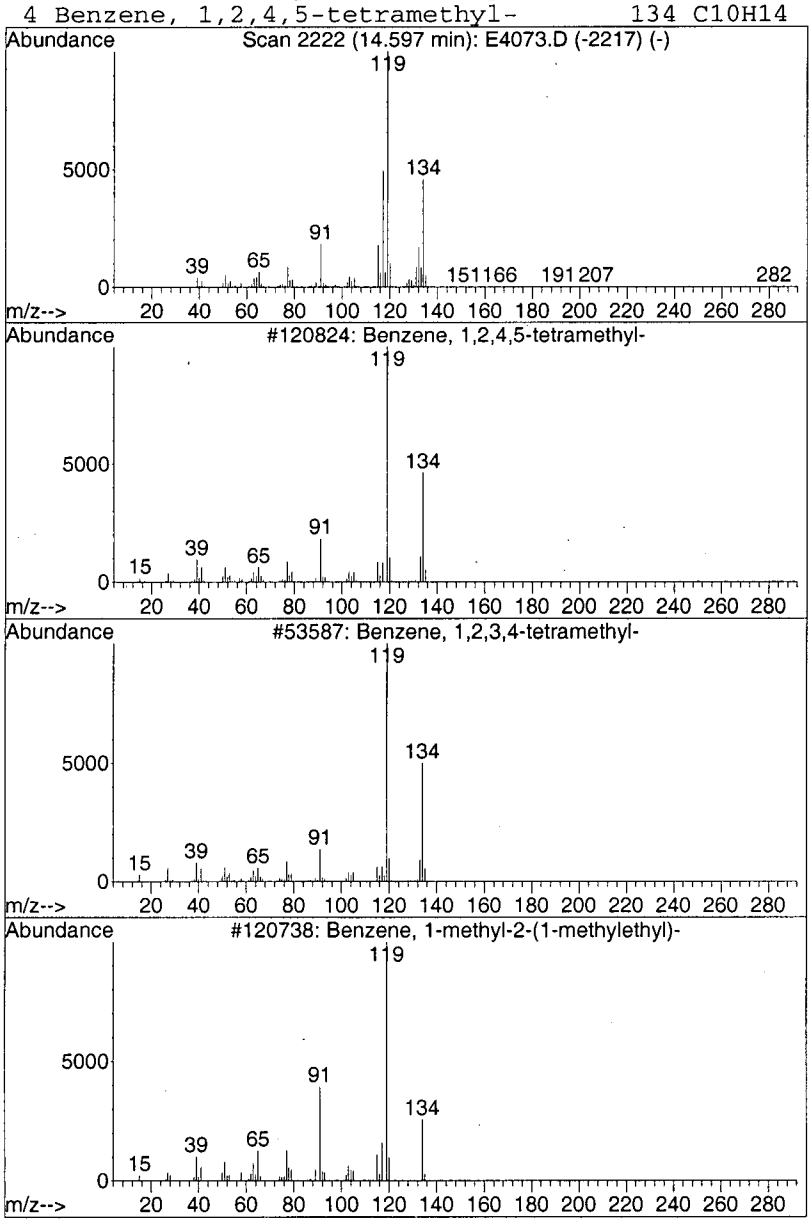
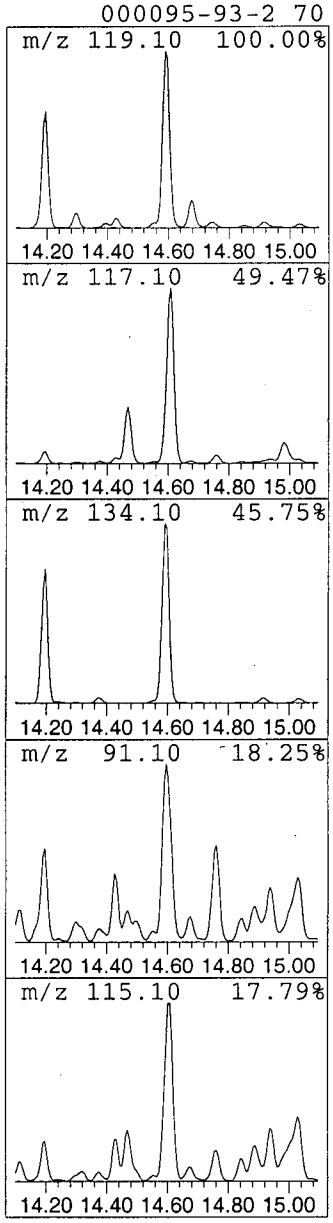
   Data File : C:\MSDCHEM\1\DATA\E4073.D                    Vial: 5
   Acq On    : 03/30/2003  1421                         Operator: AK
   Sample    : Y0SL4                                    Inst    : E-5973
   Misc      : 2761.003  25ML                           Multiplr: 1.00
MS Integration Params: Lscint.p

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title        : Voa Low Concentration Organics - OLC03.2
Library      : C:\DATABASE\NIST98.L
 ******************************************************************
 Peak Number 25  Benzene, 1,2,4,5-tetramethyl-   Concentration Rank  5
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.60	8.66 ug/L	23717900	1,4-Dichlorobenzene-d4	13.19

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	70
2	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	70
3	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	70
4	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	70





110

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4073.D Vial: 5
Acq On : 03/30/2003 1421 Operator: AK
Sample : Y0SL4 Inst : E-5973
Misc : 2761.003 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

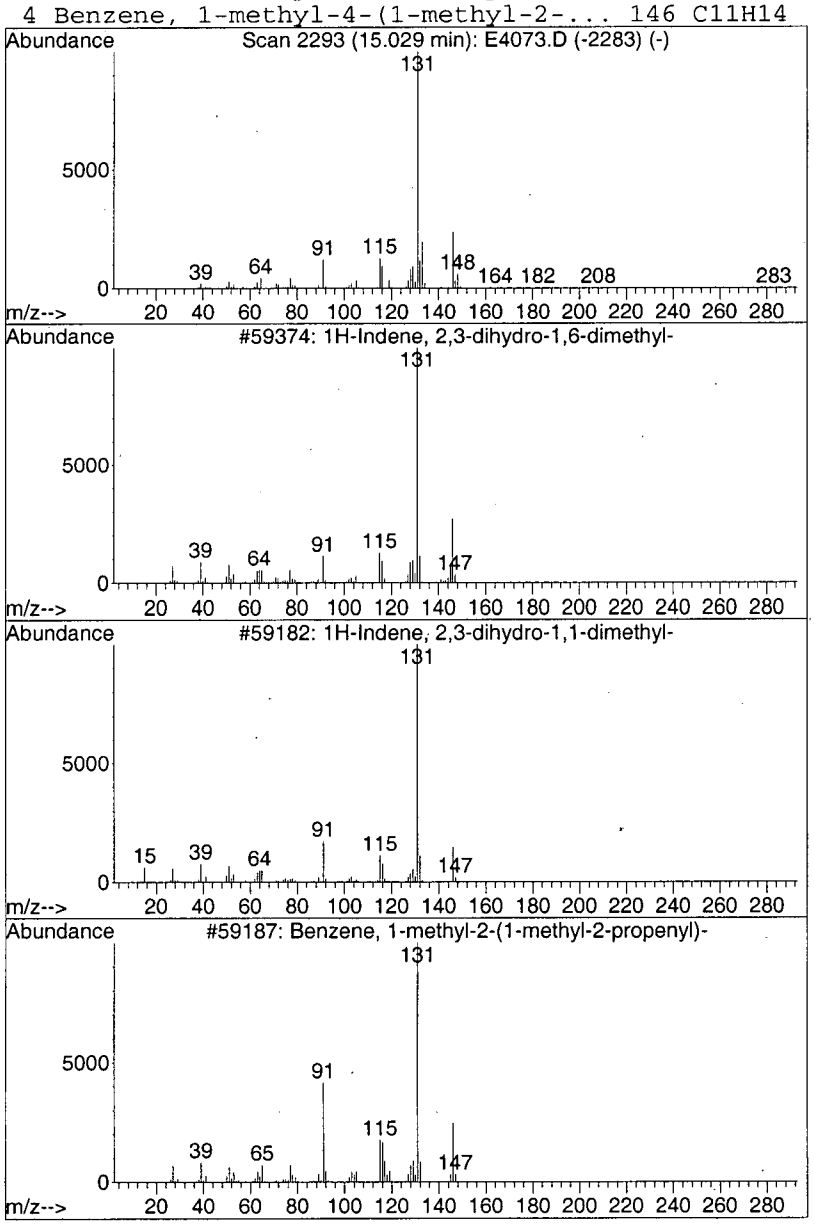
Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

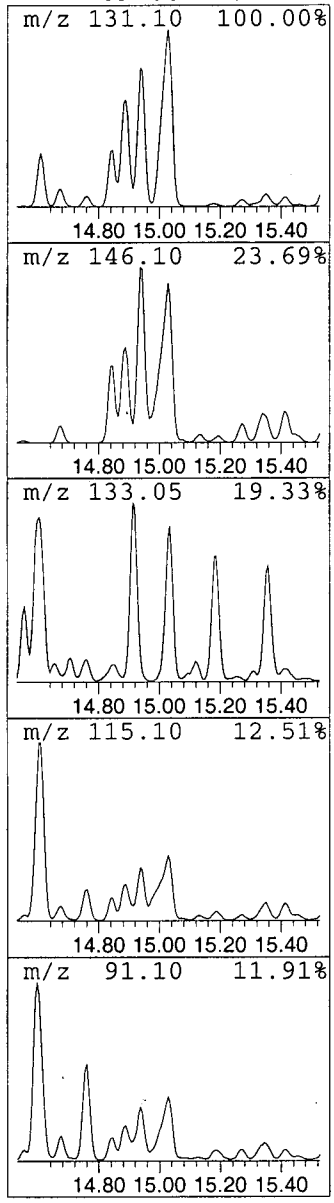
****

Peak Number 26 1H-Indene, 2,3-dihydro-1,6-... Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.03	3.97 ug/L	10869300	1,4-Dichlorobenzene-d4	13.19

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,6-dimet...	146	C11H14	017059-48-2	93
2	1H-Indene, 2,3-dihydro-1,1-dimet...	146	C11H14	004912-92-9	87
3	Benzene, 1-methyl-2-(1-methyl-2-...	146	C11H14	097664-19-2	87
4	Benzene, 1-methyl-4-(1-methyl-2-...	146	C11H14	097664-18-1	81





111

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4073.D Vial: 5
Acq On : 03/30/2003 1421 Operator: AK
Sample : Y0SL4 Inst : E-5973
Misc : 2761.003 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

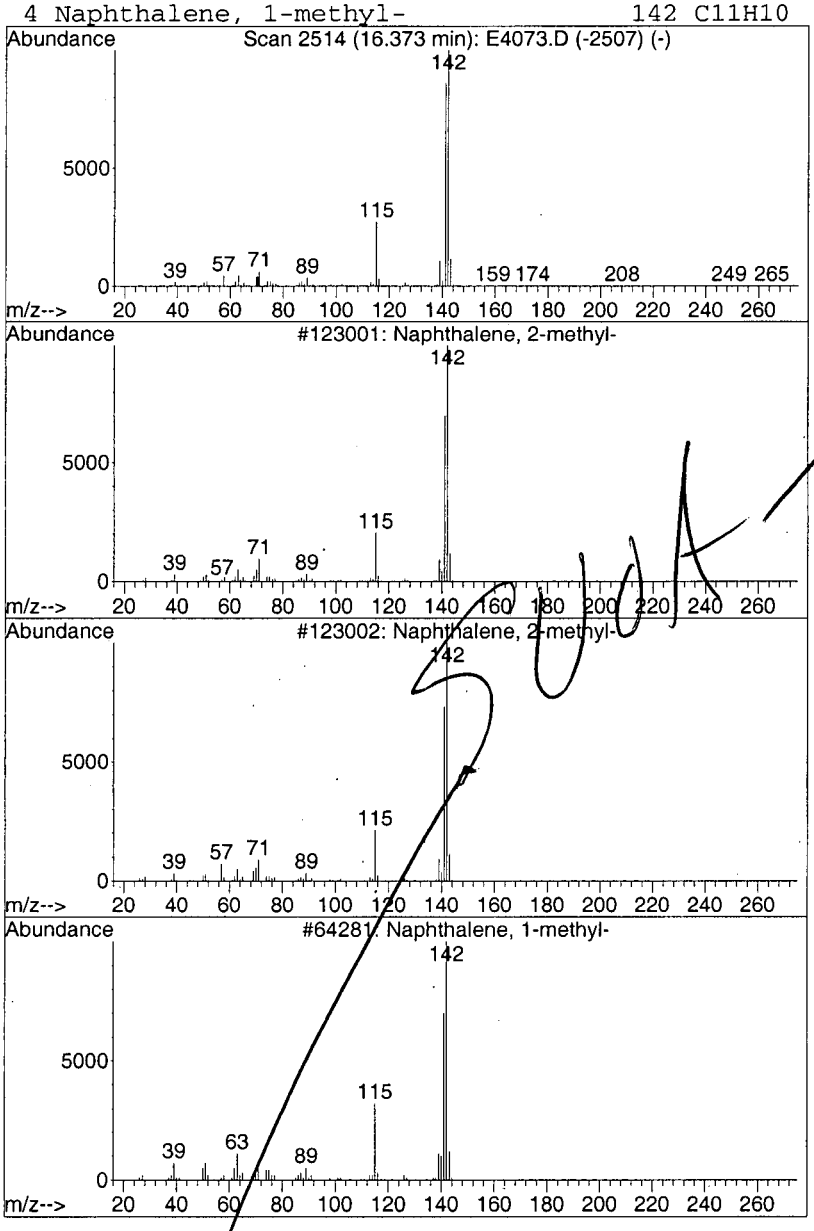
Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

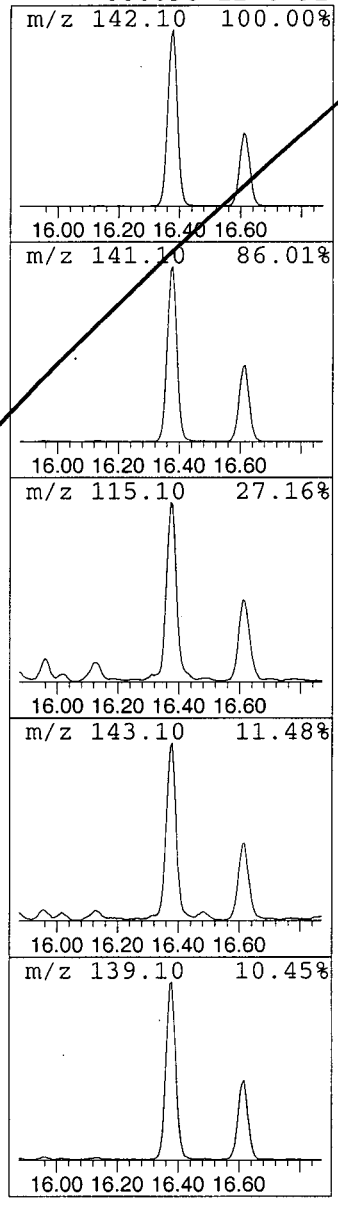
****

Peak Number 27 Naphthalene, 2-methyl- Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.37	3.88 ug/L	10612300	1,4-Dichlorobenzene-d4	13.19

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	94
2	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	94
3	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	91
4	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	91





112

1LCA
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

Y0SL4DL

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2761.003DL Date Received: 03/20/2003

Lab File ID: E4072 Date Analyzed: 03/30/2003

Purge Volume: 25 (ML) Dilution Factor: 10.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl Chloride	4.8	JD
74-83-9	Bromomethane	4.6	JD
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	14	D
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	91	DB
75-15-0	Carbon Disulfide	5.0	U
79-20-9	Methyl Acetate	5.0	U
75-09-2	Methylene Chloride	2.9	JDB
156-60-5	trans-1,2-Dichloroethene	10	D
1634-04-4	Methyl tert-Butyl Ether	5.0	U
75-34-3	1,1-Dichloroethane	3.7	JD
156-59-2	cis-1,2-Dichloroethene	120	D
78-93-3	2-Butanone	50	U
74-97-5	Bromochloromethane	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	70	D
56-23-5	Carbon Tetrachloride	5.0	U
71-43-2	Benzene	2.3	JD
107-06-2	1,2-Dichloroethane	5.0	U

1LCB

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS

DATA SHEET

EPA SAMPLE NO.

Y0SL4DL

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2761.003DL Date Received: 03/20/2003

Lab File ID: E4072 Date Analyzed: 03/30/2003

Purge Volume: 25 (ML) Dilution Factor: 10.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
79-01-6	Trichloroethene	19	D
108-87-2	Methylcyclohexane	78	D
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	50	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.9	D
591-78-6	2-Hexanone	50	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	29	D
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U

1LCF

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS

DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Y0SL4DL

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2761.003DL Date Received: 03/20/2003

Lab File ID: E4072 Date Analyzed: 03/30/2003

Purge Volume: 25 (ML) Dilution Factor: 10.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

Number TICs found: 15

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01	001640-89-7	Cyclopentane, ethyl-	7.11	15	JND
02	002613-69-6	Cyclopentane, 1,2,3-trimethy	7.21	13	JND
03	015890-40-1	Cyclopentane, 1,2,3-trimethy	7.39	19	JND
04	002207-03-6	Cyclohexane, 1,3-dimethyl-,	8.67	27	JND
05	000624-29-3	Cyclohexane, 1,4-dimethyl-,	8.83	17	JND
06	001678-91-7	Cyclohexane, ethyl-	9.52	14	JND
07	000694-72-4	Pentalene, octahydro-	10.47	32	JND
08	000103-65-1	Benzene, propyl-	12.26	83	JND
09	000135-98-8	Benzene, (1-methylpropyl)-	13.02	23	JND
10	000300-57-2	Benzene, 2-propenyl-	13.45	28	JND
11	000874-41-9	Benzene, 1-ethyl-2,4-dimethy	13.86	38	JND
12	000767-58-8	Indan, 1-methyl-	13.96	58	JND
13	000527-53-7	Benzene, 1,2,3,5-tetramethyl	14.20	23	JND
14	000527-84-4	Benzene, 1-methyl-2-(1-methy	14.60	71	JND
15	017059-48-2	1H-Indene, 2,3-dihydro-1,6-d	15.03	31	JND
16					
17					
18					
19					
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21					
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29					
30					

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4072.D
Acq On : 03/30/2003 1339
Sample : Y0SL4DL
Misc : 2761.003DL 25ML 10X
MS Integration Params: RTEINT.P
Quant Time: Apr 01 09:48:50 2003

Vial: 4
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Results File: LCE4070.RES

KAK 04/01/03

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Sun Mar 30 13:10:50 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4070.D
DataAcq Meth : VOAC

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Difluorobenzene	6.30	114	969100	5.00	ug/L	0.00
28) Chlorobenzene-d5	10.31	117	715903	5.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	13.19	152	232405	5.00	ug/L	0.00
System Monitoring Compounds						
4) Vinyl Chloride-d3	2.13	65	354081	5.13	ug/L	-0.02
Spiked Amount 5.000	Range 49 - 138		Recovery	= 102.60%		
7) Chloroethane-d5	2.52	69	322782	5.30	ug/L	-0.01
Spiked Amount 5.000	Range 60 - 126		Recovery	= 106.00%		
10) 1,1-Dichloroethene-d2	3.24	65	167644	5.28	ug/L	-0.02
Spiked Amount 5.000	Range 65 - 130		Recovery	= 105.60%		
20) 2-Butanone-d5	4.86	46	39758	4.80	ug/L	0.00
Spiked Amount 5.000	Range 42 - 171		Recovery	= 96.00%		
24) Chloroform-d	5.23	86	395056	5.14	ug/L	0.00
Spiked Amount 5.000	Range 80 - 123		Recovery	= 102.80%		
26) 1,2-Dichloroethane-d4	5.80	65	217090	5.17	ug/L	0.00
Spiked Amount 5.000	Range 78 - 129		Recovery	= 103.40%		
32) Benzene-d6	5.84	84	1595086	5.22	ug/L	-0.01
Spiked Amount 5.000	Range 78 - 121		Recovery	= 104.40%		
35) 1,2-Dichloropropane-d6	6.79	67	505622	6.00	ug/L	0.00
Spiked Amount 5.000	Range 84 - 123		Recovery	= 120.00%		
41) Toluene-d8	8.20	98	1482666	5.09	ug/L	-0.01
Spiked Amount 5.000	Range 77 - 120		Recovery	= 101.80%		
43) trans-1,3-Dichloropropene-	8.53	79	56984	5.27	ug/L	0.00
Spiked Amount 5.000	Range 80 - 128		Recovery	= 105.40%		
47) 2-Hexanone-d5	9.12	46	55838	4.61	ug/L	0.00
Spiked Amount 5.000	Range 37 - 169		Recovery	= 92.20%		
58) 1,1,2,2-Tetrachloroethane-	12.08	84	140198	4.76	ug/L	0.00
Spiked Amount 5.000	Range 75 - 131		Recovery	= 95.20%		
61) Bromoform-d	11.51	174	75577	4.06	ug/L	0.00
Spiked Amount 5.000	Range 76 - 135		Recovery	= 81.20%		
65) 1,2-Dichlorobenzene-d4	13.54	152	260421	4.94	ug/L	0.00
Spiked Amount 5.000	Range 50 - 150		Recovery	= 98.80%		

Target Compounds							Qvalue
5) Vinyl Chloride	2.14	62	82840	0.48	ug/L	J	94
6) Bromomethane	2.45	94	15968	0.46	ug/L	#J	52
11) 1,1-Dichloroethene	3.25	96	111019	1.35	ug/L	#	1
13) Acetone	3.28	43	57648	9.06	ug/L	#B	53
16) Methylene Chloride	3.68	84	20526	0.29	ug/L	#JB	83
17) trans-1,2-Dichloroethene	3.95	96	89798	1.00	ug/L		96
19) 1,1-Dichloroethane	4.35	63	49344	0.37	ug/L	J	98
21) cis-1,2-Dichloroethene	4.92	96	890578	11.64	ug/L		98
30) Cyclohexane	5.56	56	1006006	6.99	ug/L		88
33) Benzene	5.89	78	79084	0.23	ug/L	J	100
34) Trichloroethene	6.63	95	142531	1.93	ug/L		98
36) Methylcyclohexane	6.89	83	1234110	7.82	ug/L	#	77
46) Tetrachloroethene	9.09	164	47085	0.59	ug/L		97
57) Isopropylbenzene	11.77	105	684711	2.86	ug/L		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

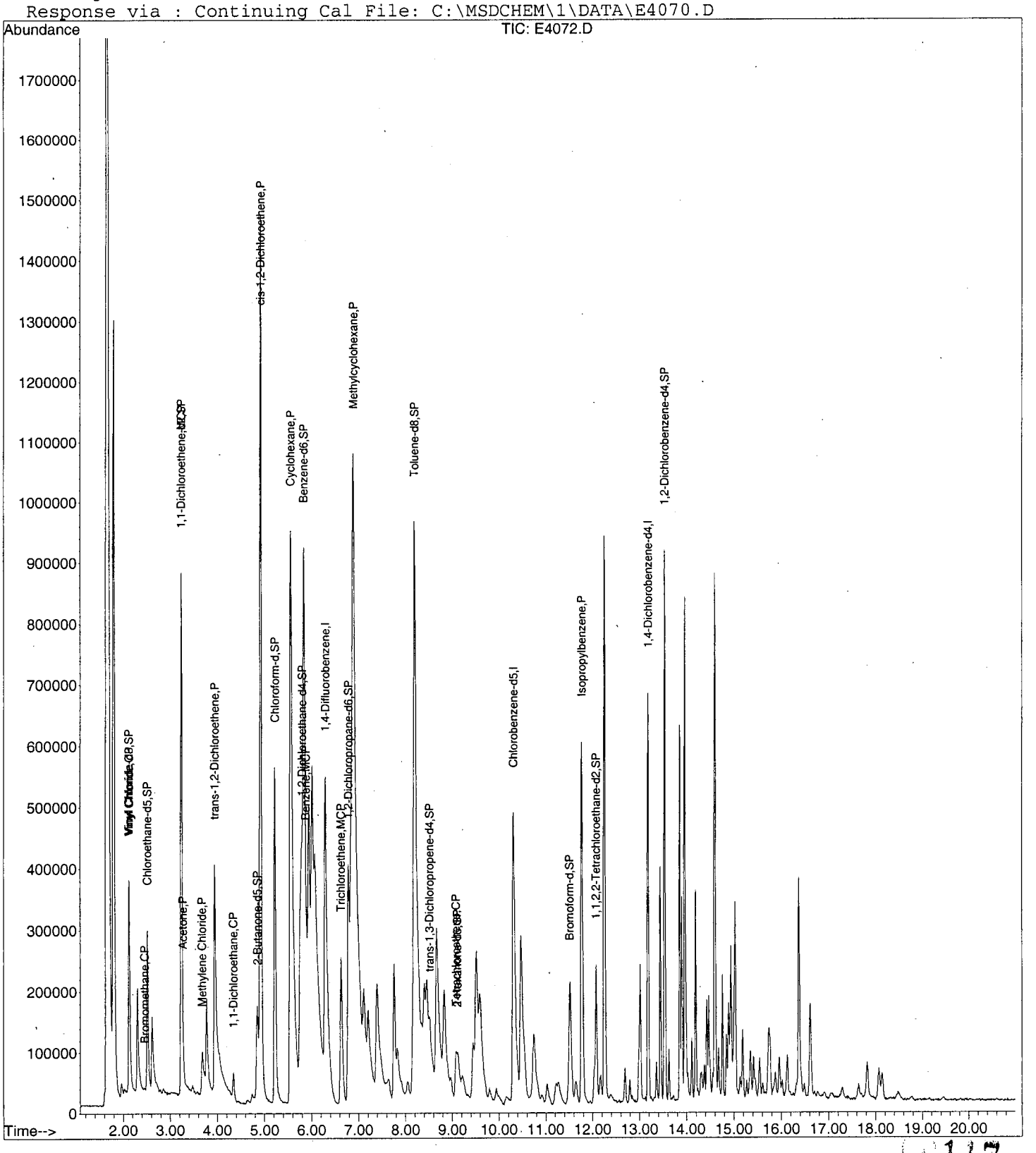
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4072.D
Acq On : 03/30/2003 1339
Sample : Y0SL4DL
Misc : 2761.003DL 25ML 10X
MS Integration Params: RTEINT.P
Quant Time: Apr 1 9:50 2003

Vial: 4
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Results File: LCE4070.RES

Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Sun Mar 30 13:10:50 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4070.D



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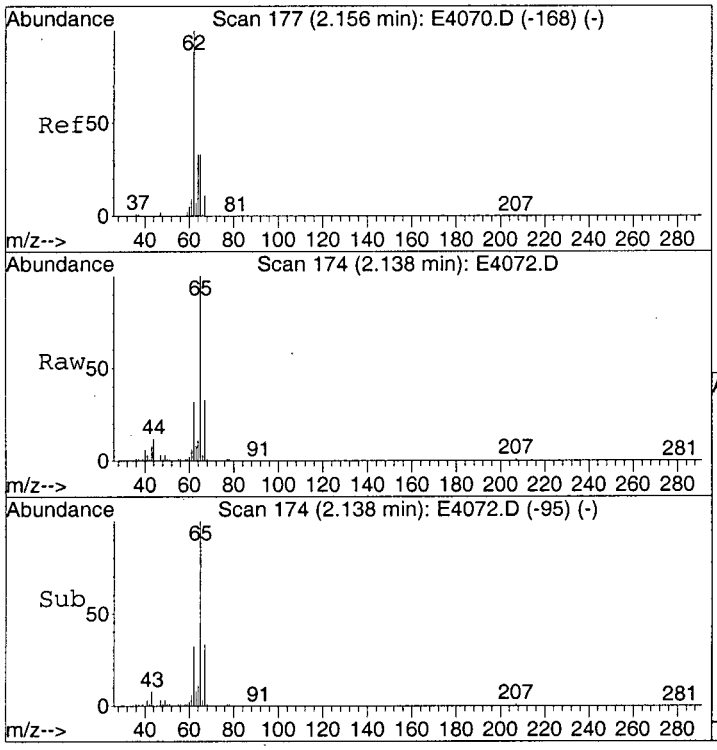
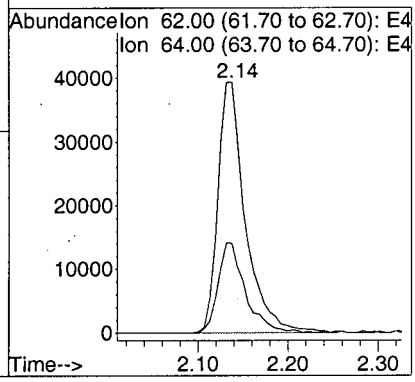
Data File : C:\MSDCHEM\1\DATA\E4072.D Vial: 4
Acq On : 03/30/2003 1339 Operator: AK
Sample : Y0SL4DL Inst : E-5973
Misc : 2761.003DL 25ML 10X Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

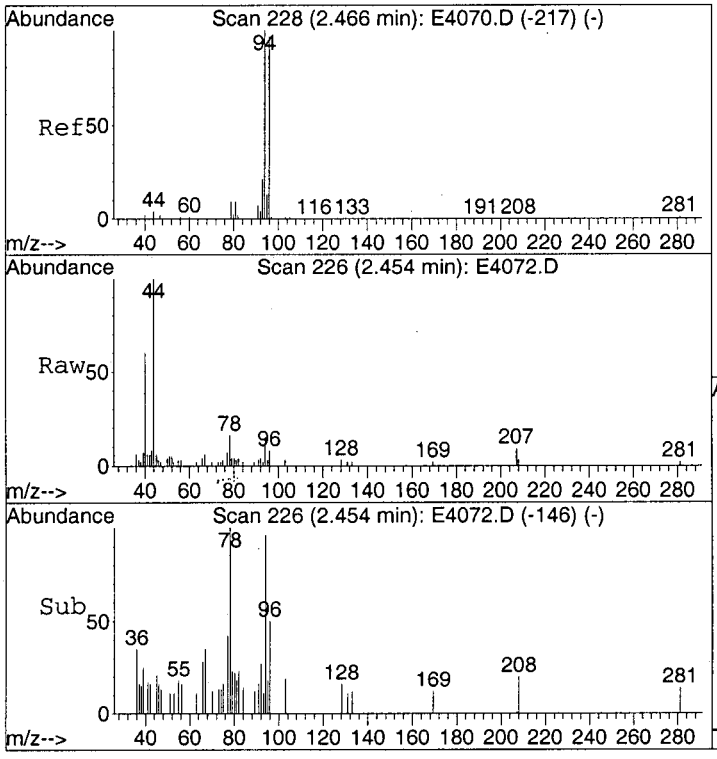


#5
Vinyl Chloride
Concen: 0.48 ug/L
RT: 2.14 min Scan# 174
Delta R.T. -0.02 min
Lab File: E4072.D
Acq: 30 Mar 2003 13:39

Tgt Ion: 62 Resp: 82840

Ion	Ratio	Lower	Upper
62	100		
64	35.8	12.3	52.3

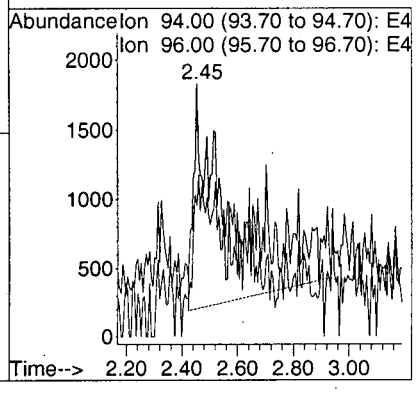




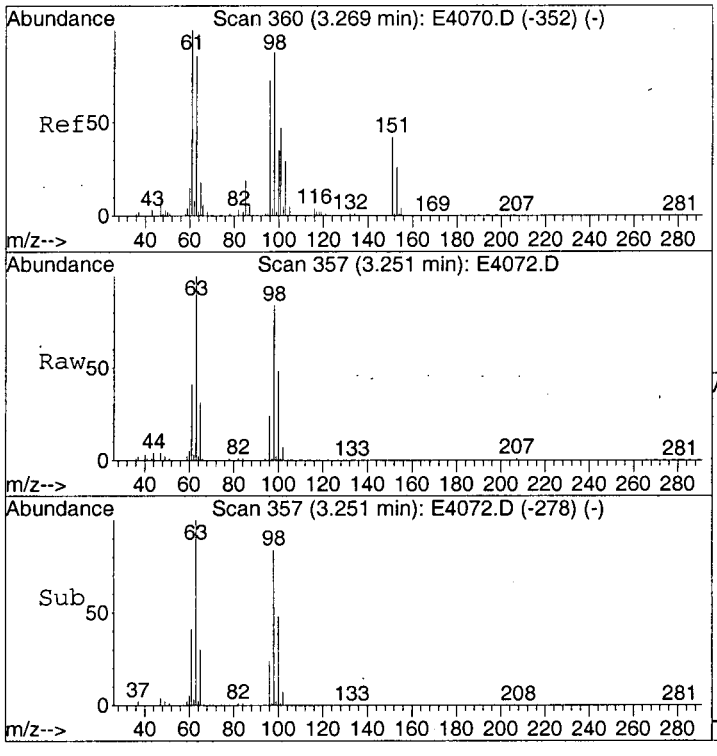
#6
Bromomethane
Concen: 0.46 ug/L
RT: 2.45 min Scan# 226
Delta R.T. -0.01 min
Lab File: E4072.D
Acq: 30 Mar 2003 13:39

Tgt Ion: 94 Resp: 15968

Ion	Ratio	Lower	Upper
94	100		
96	45.9	72.1	112.1#



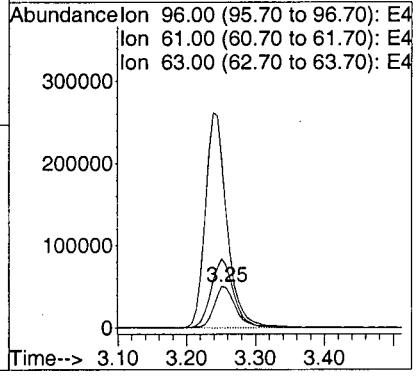
Data File : C:\MSDCHEM\1\DATA\E4072.D Vial: 4
Acq On : 03/30/2003 1339 Operator: AK
Sample : Y0SL4DL Inst : E-5973
Misc : 2761.003DL 25ML 10X Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

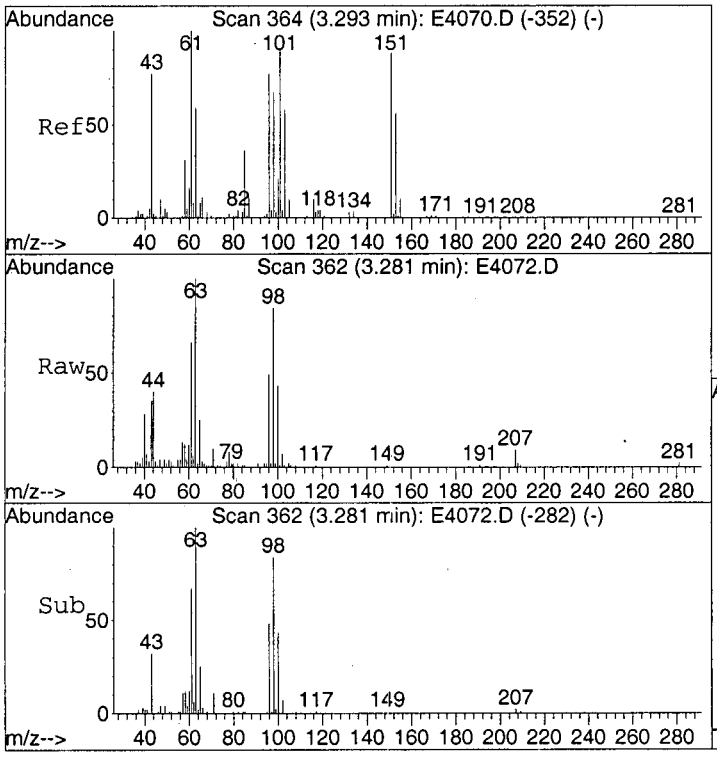


#11
1,1-Dichloroethene
Concen: 1.35 ug/L
RT: 3.25 min Scan# 357
Delta R.T. -0.02 min
Lab File: E4072.D
Acq: 30 Mar 2003 13:39

Tgt Ion: 96 Resp: 111019

Ion	Ratio	Lower	Upper
96	100		
61	172.4	121.8	161.8#
63	517.7	140.3	180.3#

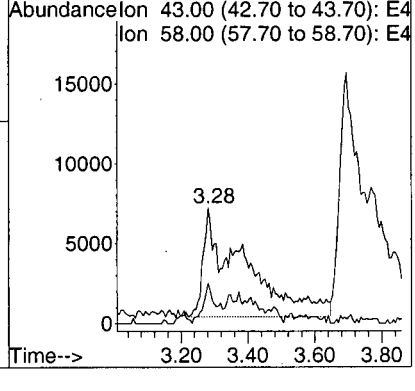




#13
Acetone
Concen: 9.06 ug/L
RT: 3.28 min Scan# 362
Delta R.T. -0.01 min
Lab File: E4072.D
Acq: 30 Mar 2003 13:39

Tgt Ion: 43 Resp: 57648

Ion	Ratio	Lower	Upper
43	100		
58	11.8	21.4	61.4#



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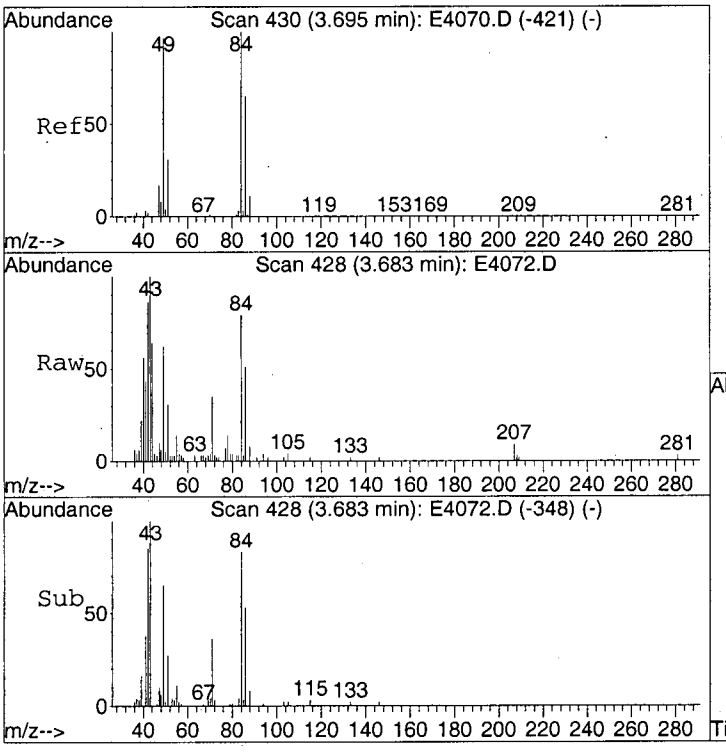
Data File : C:\MSDCHEM\1\DATA\E4072.D
Acq On : 03/30/2003 1339
Sample : Y0SL4DL
Misc : 2761.003DL 25ML 10X
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

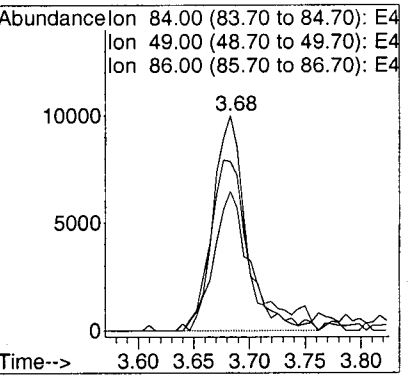
Vial: 4
Operator: AK
Inst : E-5973
Multiplr: 1.00

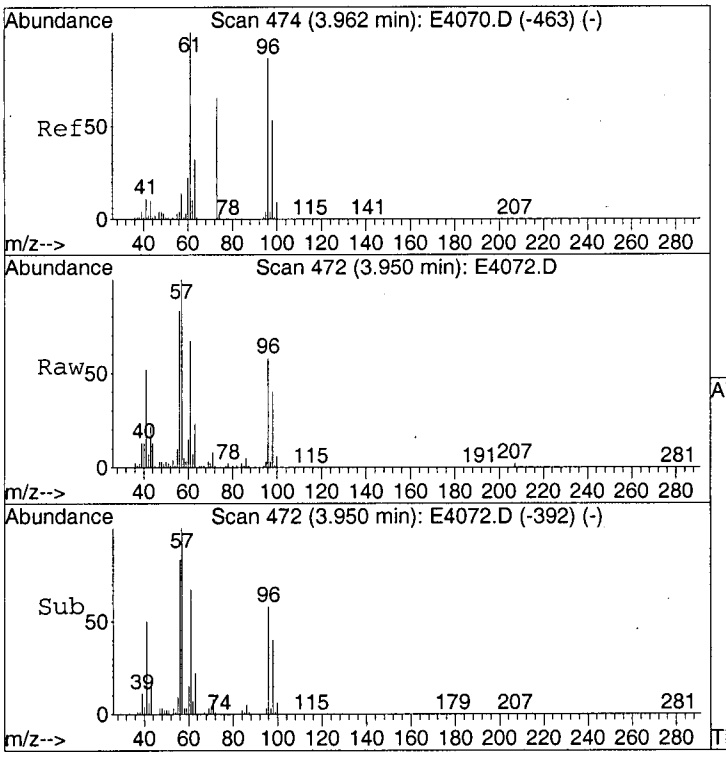


#16
Methylene Chloride
Concen: 0.29 ug/L
RT: 3.68 min Scan# 428
Delta R.T. -0.01 min
Lab File: E4072.D
Acq: 30 Mar 2003 13:39

Tgt Ion: 84 Resp: 20526

Ion	Ratio	Lower	Upper
84	100		
49	88.2	74.2	114.2
86	89.7	43.4	83.4#

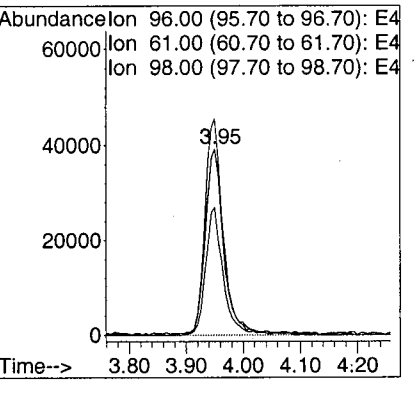




#17
trans-1,2-Dichloroethene
Concen: 1.00 ug/L
RT: 3.95 min Scan# 472
Delta R.T. -0.01 min
Lab File: E4072.D
Acq: 30 Mar 2003 13:39

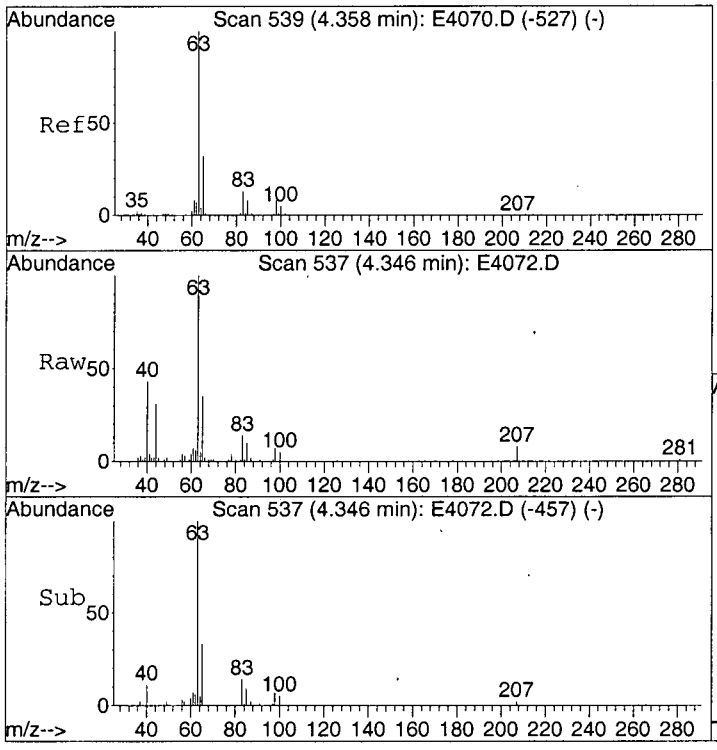
Tgt Ion: 96 Resp: 89798

Ion	Ratio	Lower	Upper
96	100		
61	113.8	99.6	139.6
98	64.3	43.4	83.4



0120

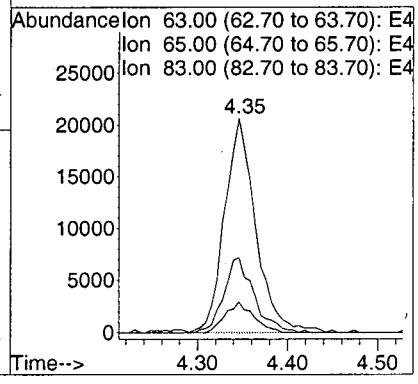
Data File : C:\MSDCHEM\1\DATA\E4072.D Vial: 4
Acq On : 03/30/2003 1339 Operator: AK
Sample : Y0SL4DL Inst : E-5973
Misc : 2761.003DL 25ML 10X Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

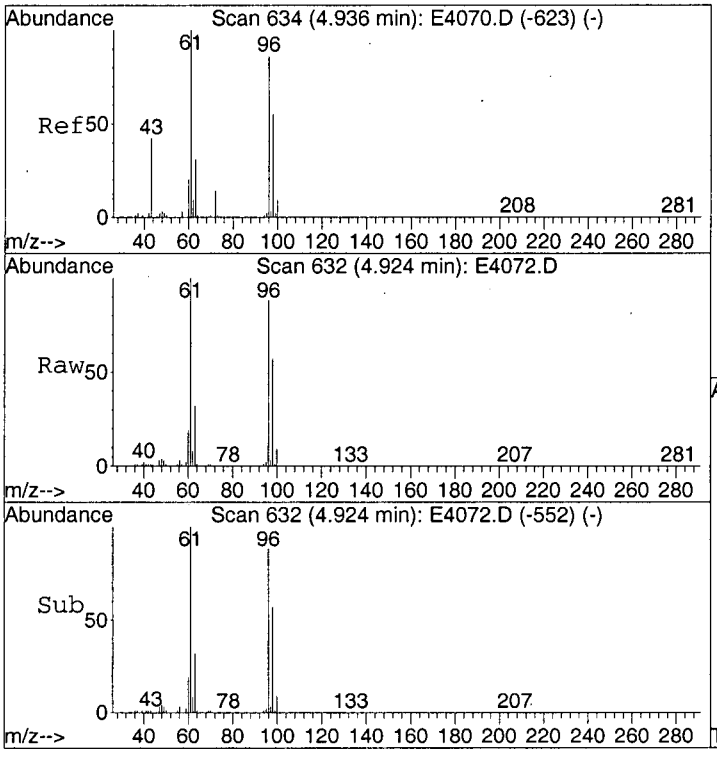


#19
1,1-Dichloroethane
Concen: 0.37 ug/L
RT: 4.35 min Scan# 537
Delta R.T. -0.01 min
Lab File: E4072.D
Acq: 30 Mar 2003 13:39

Tgt Ion: 63 Resp: 49344

Ion	Ratio	Lower	Upper
63	100		
65	33.6	12.2	52.2
83	12.8	0.0	33.0

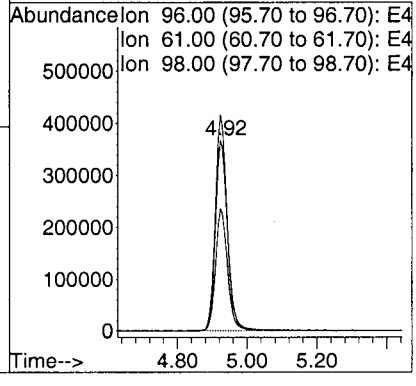




#21
cis-1,2-Dichloroethene
Concen: 11.64 ug/L
RT: 4.92 min Scan# 632
Delta R.T. -0.01 min
Lab File: E4072.D
Acq: 30 Mar 2003 13:39

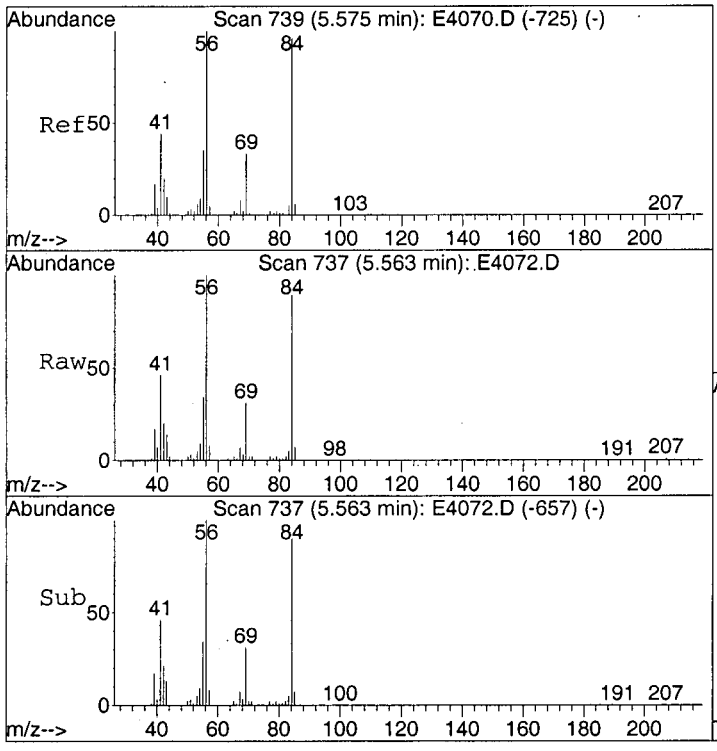
Tgt Ion: 96 Resp: 890578

Ion	Ratio	Lower	Upper
96	100		
61	112.8	95.9	135.9
98	63.5	43.9	83.9



0121

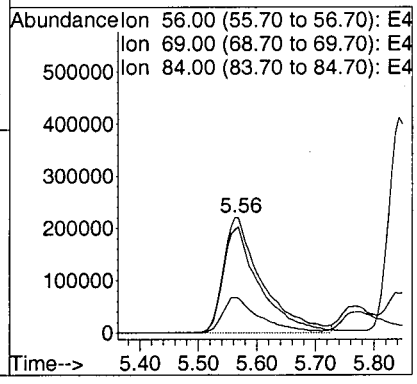
Data File : C:\MSDCHEM\1\DATA\E4072.D Vial: 4
Acq On : 03/30/2003 1339 Operator: AK
Sample : Y0SL4DL Inst : E-5973
Misc : 2761.003DL 25ML 10X Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

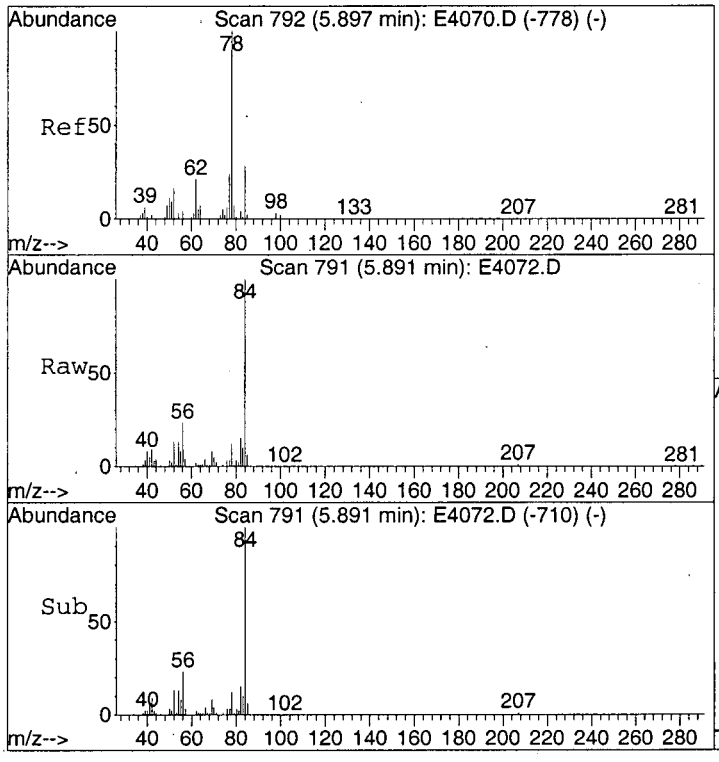


#30
Cyclohexane
Concen: 6.99 ug/L
RT: 5.56 min Scan# 737
Delta R.T. -0.01 min
Lab File: E4072.D
Acq: 30 Mar 2003 13:39

Tgt Ion: 56 Resp: 1006006

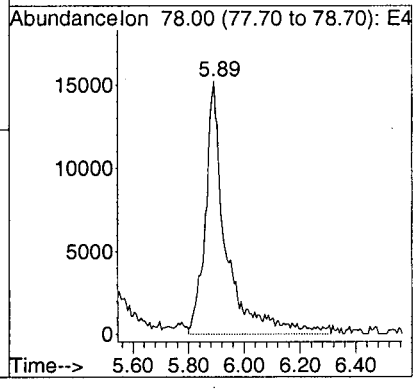
Ion	Ratio	Lower	Upper
56	100		
69	29.7	12.3	52.3
84	87.7	82.0	122.0





#33
Benzene
Concen: 0.23 ug/L
RT: 5.89 min Scan# 791
Delta R.T. -0.01 min
Lab File: E4072.D
Acq: 30 Mar 2003 13:39

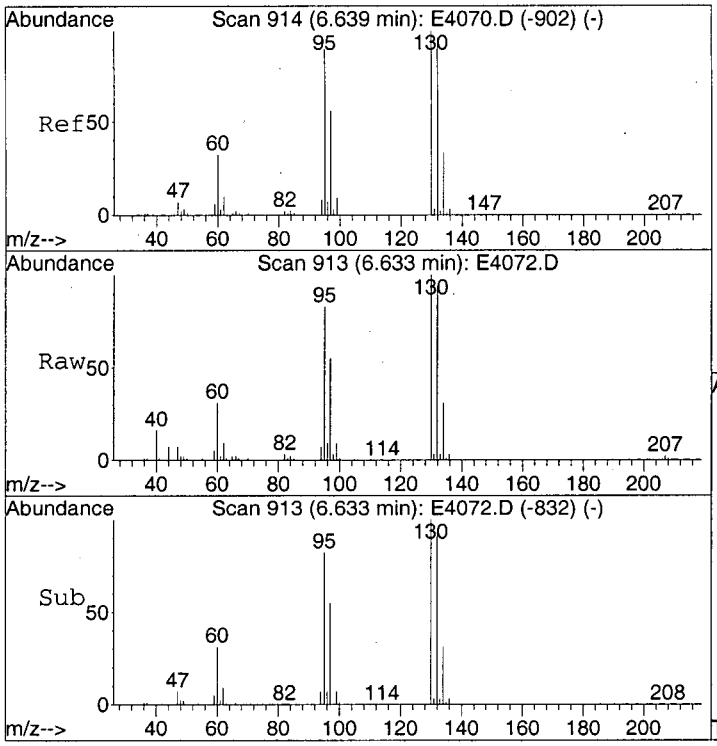
Tgt Ion: 78 Resp: 79084



122

Data File : C:\MSDCHEM\1\DATA\E4072.D
Acq On : 03/30/2003 1339
Sample : Y0SL4DL
Misc : 2761.003DL 25ML 10X
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

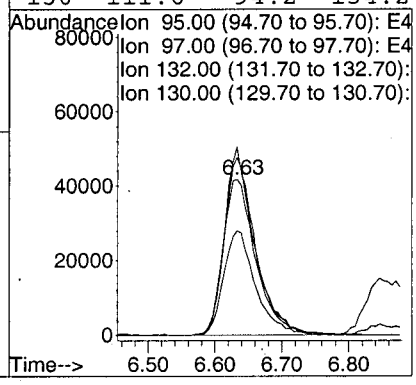
Vial: 4
Operator: AK
Inst : E-5973
Multiplr: 1.00

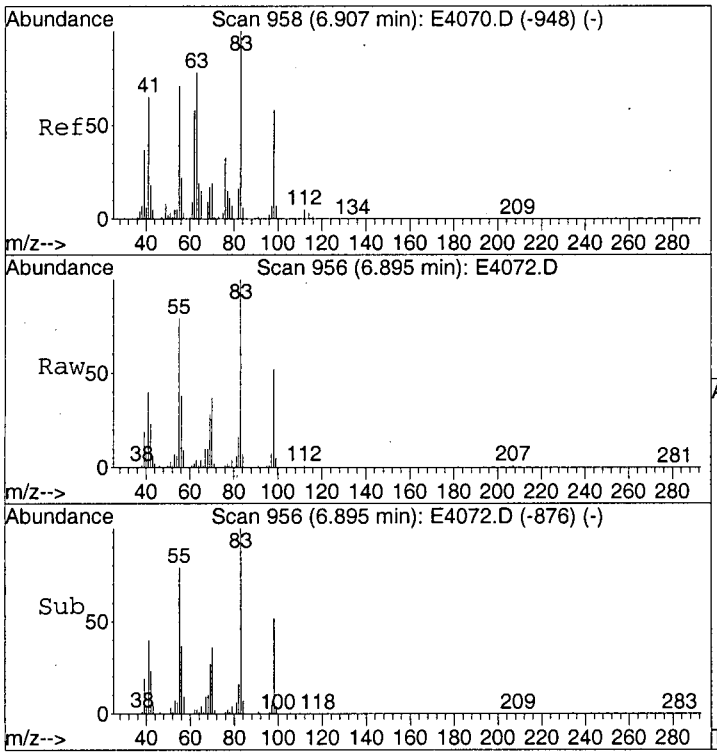


#34
Trichloroethene
Concen: 1.93 ug/L
RT: 6.63 min Scan# 913
Delta R.T. -0.01 min
Lab File: E4072.D
Acq: 30 Mar 2003 13:39

Tgt Ion: 95 Resp: 142531

Ion	Ratio	Lower	Upper
95	100		
97	65.0	44.8	84.8
132	107.6	89.9	129.9
130	111.6	94.2	134.2

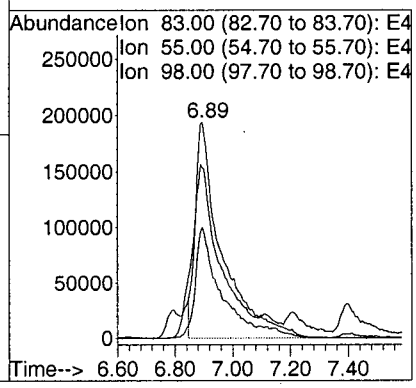




#36
Methylcyclohexane
Concen: 7.82 ug/L
RT: 6.89 min Scan# 956
Delta R.T. -0.01 min
Lab File: E4072.D
Acq: 30 Mar 2003 13:39

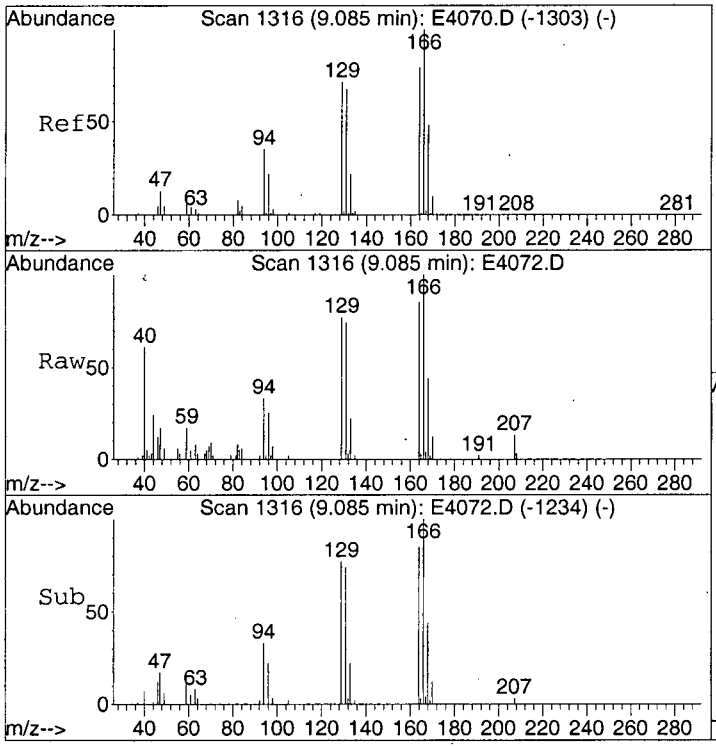
Tgt Ion: 83 Resp: 1234110

Ion	Ratio	Lower	Upper
83	100		
55	102.8	50.0	90.0#
98	51.8	32.5	72.5



123

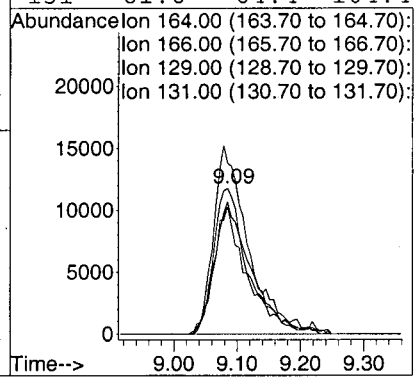
Data File : C:\MSDCHEM\1\DATA\E4072.D Vial: 4
Acq On : 03/30/2003 1339 Operator: AK
Sample : Y0SL4DL Inst : E-5973
Misc : 2761.003DL 25ML 10X Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

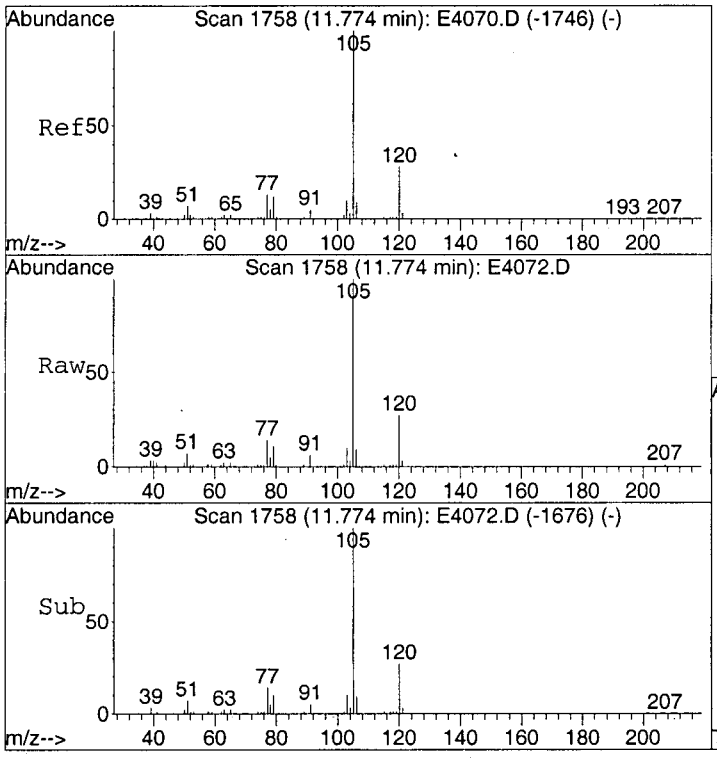


#46
Tetrachloroethene
Concen: 0.59 ug/L
RT: 9.09 min Scan# 1316
Delta R.T. 0.00 min
Lab File: E4072.D
Acq: 30 Mar 2003 13:39

Tgt Ion:164 Resp: 47085

Ion	Ratio	Lower	Upper
164	100		
166	122.7	107.4	147.4
129	85.7	67.2	107.2
131	81.6	64.4	104.4

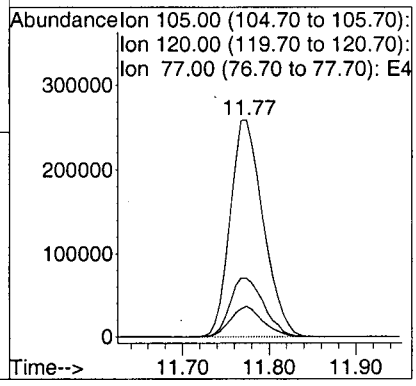




#57
Isopropylbenzene
Concen: 2.86 ug/L
RT: 11.77 min Scan# 1758
Delta R.T. 0.00 min
Lab File: E4072.D
Acq: 30 Mar 2003 13:39

Tgt Ion:105 Resp: 684711

Ion	Ratio	Lower	Upper
105	100		
120	27.8	7.9	47.9
77	13.7	0.0	33.2



124

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\E4072.D Vial: 4
Acq On : 03/30/2003 1339 Operator: AK
Sample : Y0SL4DL Inst : E-5973
Misc : 2761.003DL 25ML 10X Multiplr: 1.00
MS Integration Params: Lscint.p

Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 100000 Area counts
Start Thrs: 0.2 Max Peaks: 40
Stop Thrs : 0 Peak Location: TOP

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

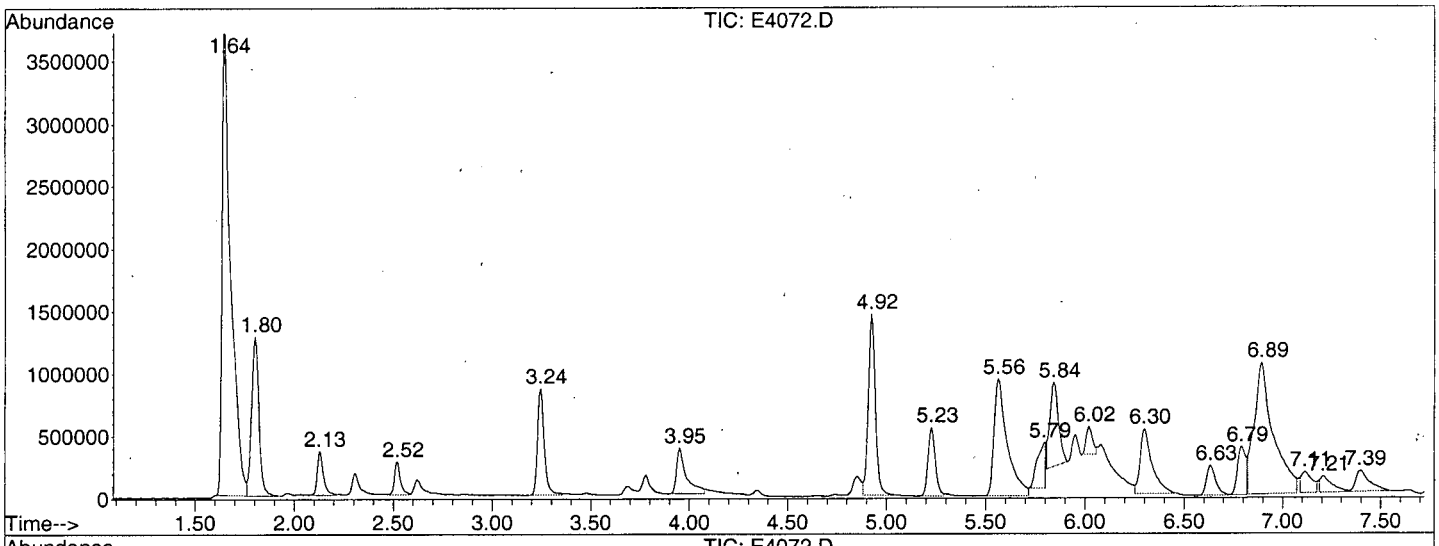
Signal : TIC

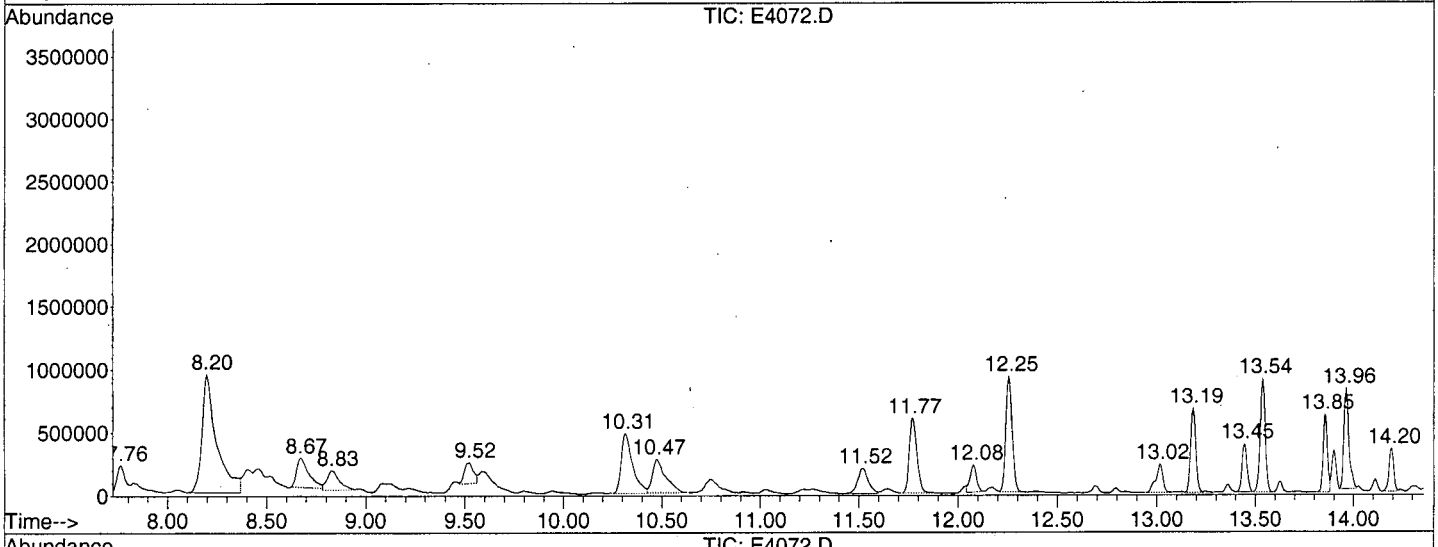
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.645	87	93	112	rBV	3688391	11395759	100.00%	16.036%
2	1.803	112	119	140	rVB	1275301	3279473	28.78%	4.615%
3	2.125	164	172	187	rBV2	347606	747064	6.56%	1.051%
4	2.521	230	237	248	rBV	261582	543838	4.77%	0.765%
5	3.245	347	356	374	rBV2	851894	2005318	17.60%	2.822%
6	3.950	465	472	493	rBV2	364485	1240057	10.88%	1.745%
7	4.924	625	632	652	rVB	1450403	3577170	31.39%	5.034%
8	5.228	673	682	692	rBV	547113	1377071	12.08%	1.938%
9	5.563	726	737	762	rBV2	935587	4278164	37.54%	6.020%
10	5.794	763	775	776	rBV6	363420	1037859	9.11%	1.460%
11	5.842	777	783	795	rVB2	660281	2037846	17.88%	2.868%
12	6.019	807	812	818	rBV3	223644	502200	4.41%	0.707%
13	6.299	850	858	885	rVB	518586	2157571	18.93%	3.036%
14	6.633	905	913	929	rBV	238749	766684	6.73%	1.079%
15	6.792	929	939	943	rBV2	386125	1098444	9.64%	1.546%
16	6.895	944	956	985	rVV2	1053371	7065298	62.00%	9.942%
17	7.114	988	992	1002	rVV4	169676	644831	5.66%	0.907%
18	7.205	1004	1007	1030	rVV4	129180	544517	4.78%	0.766%
19	7.394	1030	1038	1064	rVB3	164281	814849	7.15%	1.147%
20	7.765	1089	1099	1106	rBV	221636	658134	5.78%	0.926%
21	8.197	1155	1170	1198	rBV2	937050	4791150	42.04%	6.742%
22	8.671	1240	1248	1266	rBV3	232895	1009585	8.86%	1.421%
23	8.829	1266	1274	1293	rVB4	151159	646938	5.68%	0.910%
24	9.523	1380	1388	1394	rVV2	164996	526175	4.62%	0.740%
25	10.314	1507	1518	1536	rBV2	470916	1902640	16.70%	2.677%
26	10.472	1536	1544	1571	rVB2	266612	1234581	10.83%	1.737%
27	11.518	1701	1716	1729	rBV4	201494	750119	6.58%	1.056%
28	11.768	1748	1757	1776	rBV	589152	1599418	14.04%	2.251%
29	12.078	1802	1808	1816	rVB	216239	490018	4.30%	0.690%
30	12.255	1829	1837	1848	rVB	917521	2040936	17.91%	2.872%
31	13.015	1950	1962	1972	rBV2	226399	573259	5.03%	0.807%
32	13.185	1983	1990	1998	rBV	666529	1226573	10.76%	1.726%
33	13.447	2026	2033	2040	rVV2	381250	678966	5.96%	0.955%
34	13.538	2040	2048	2057	rVB	899627	1599032	14.03%	2.250%
35	13.855	2093	2100	2104	rBV	612924	923845	8.11%	1.300%
36	13.964	2112	2118	2126	rVV3	796482	1426135	12.51%	2.007%
37	14.195	2148	2156	2161	rBV	340306	558335	4.90%	0.786%
38	14.597	2216	2222	2230	rVB2	841977	1737315	15.25%	2.445%
39	15.029	2284	2293	2300	rVB2	309103	757008	6.64%	1.065%
40	16.379	2507	2515	2528	rVB	352166	820288	7.20%	1.154%

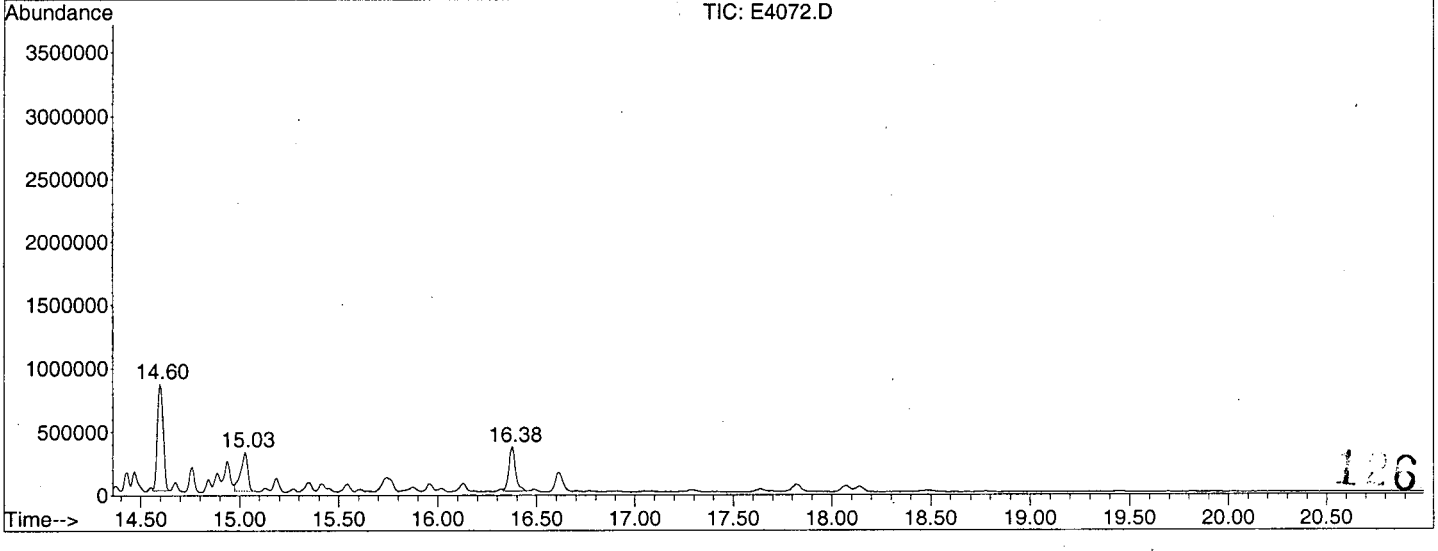
LSC Report - Integrated Chromatogram

Data File : C:\MSDCHEM\1\DATA\E4072.D
Acq On : 03/30/2003 1339
Sample : Y0SL4DL
Misc : 2761.003DL 25ML 10X
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

Vial: 4
Operator: AK
Inst : E-5973
Multiplr: 1.00







126

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4072.D Vial: 4
Acq On : 03/30/2003 1339 Operator: AK
Sample : Y0SL4DL Inst : E-5973
Misc : 2761.003DL 25ML 10X Multiplr: 1.00
MS Integration Params: Lscint.p

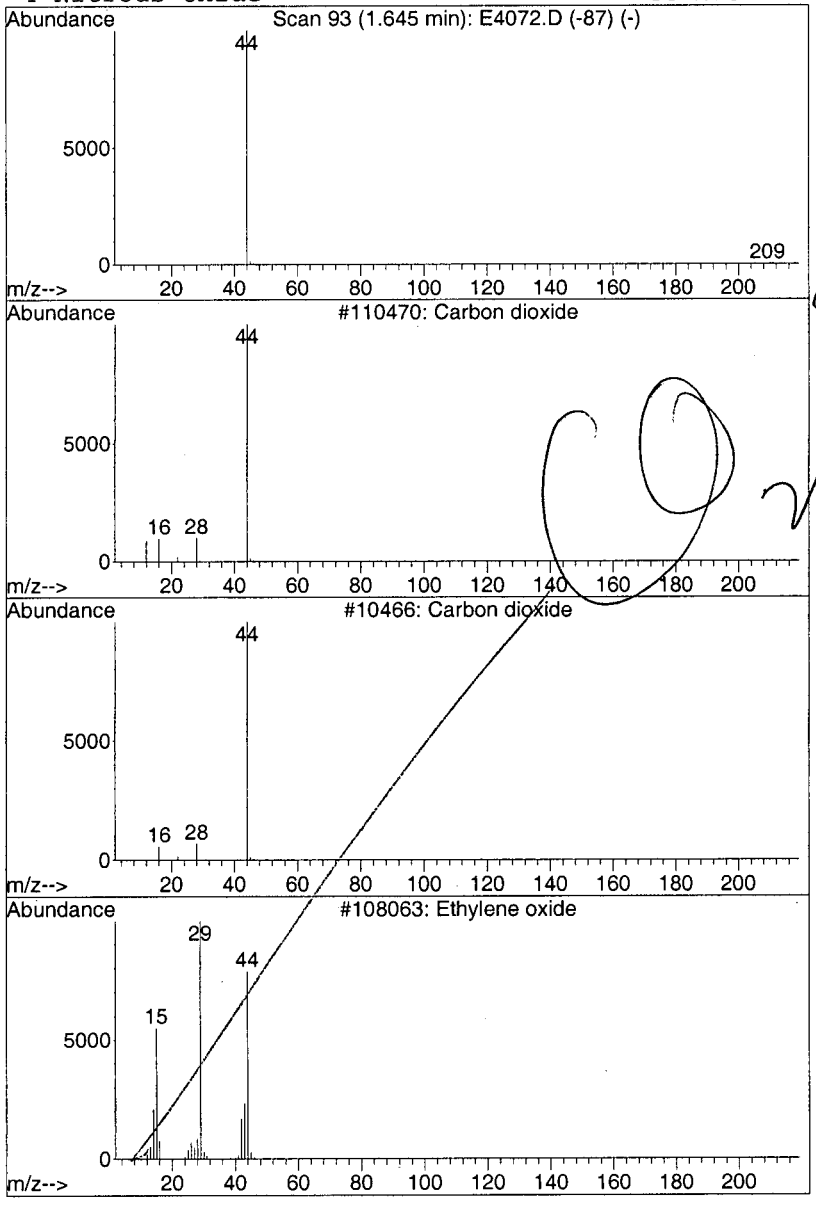
Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

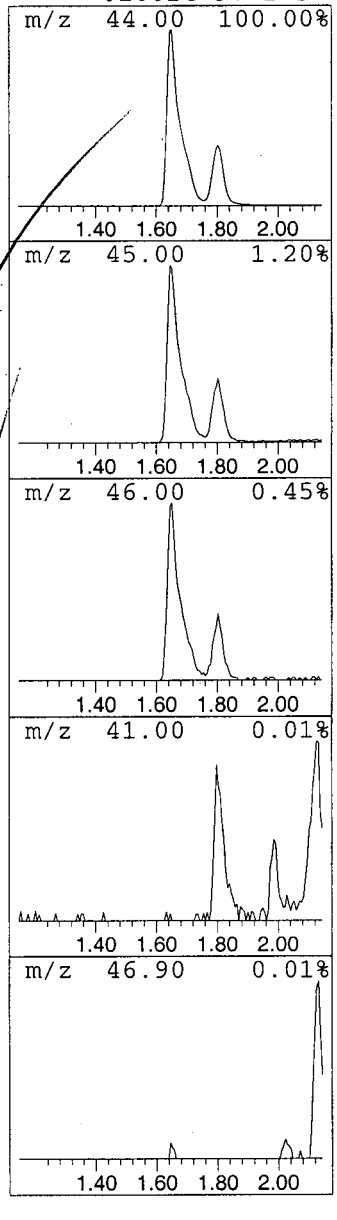
****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.64	26.41 ug/L	11395800	1,4-Difluorobenzene	6.30

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3





0127

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4072.D Vial: 4
Acq On : 03/30/2003 1339 Operator: AK
Sample : Y0SL4DL Inst : E-5973
Misc : 2761.003DL 25ML 10X Multiplr: 1.00
MS Integration Params: Lscint.p

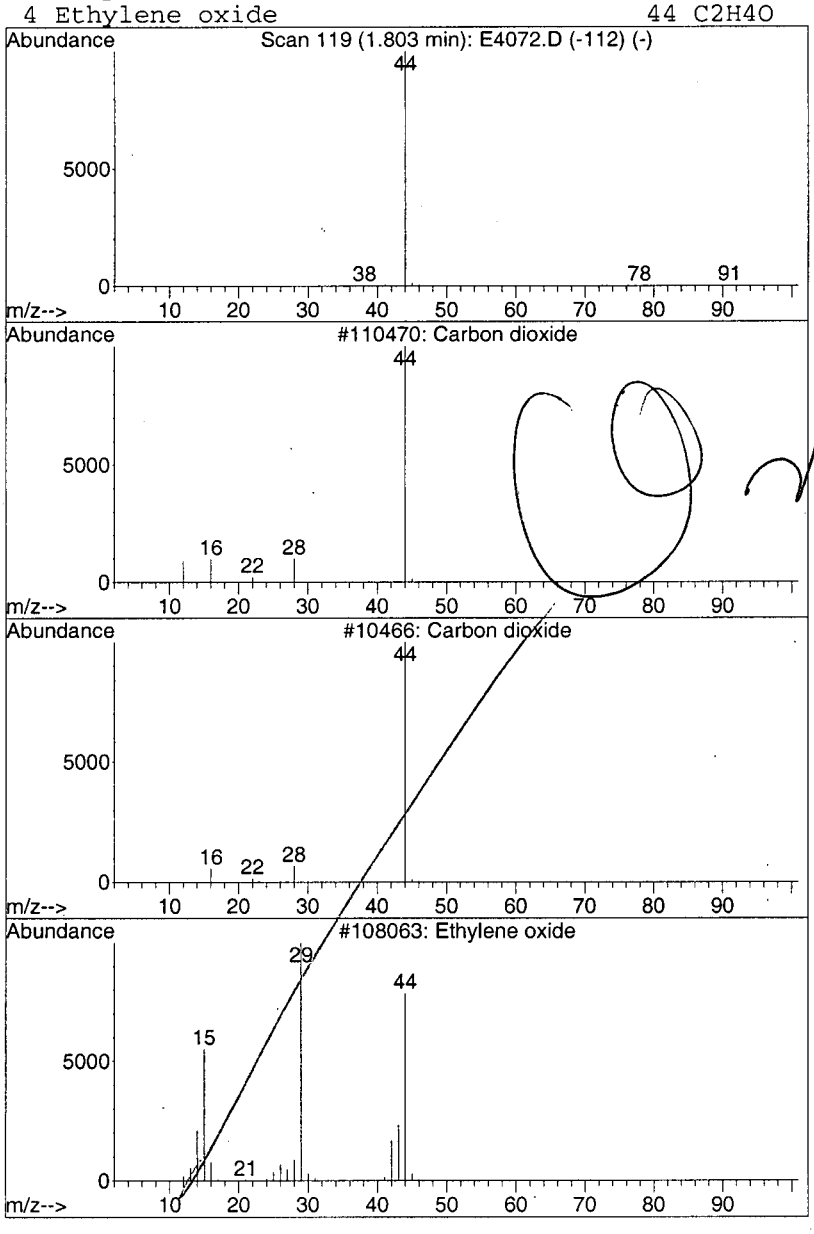
Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

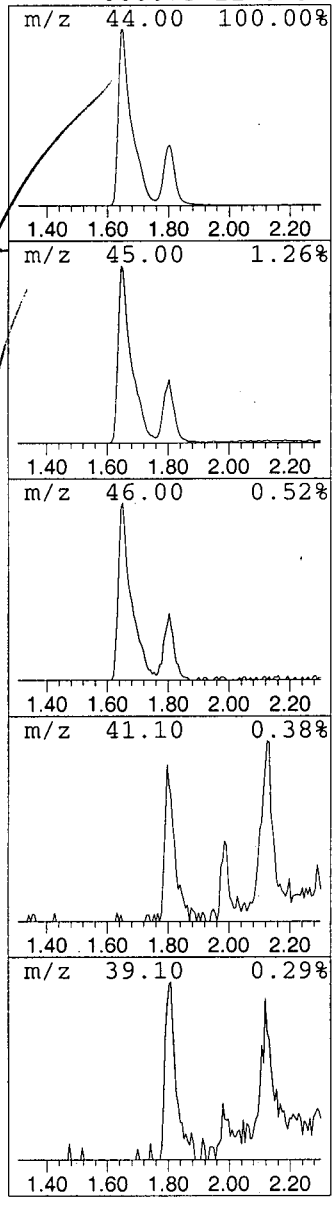
****

Peak Number 2 Carbon dioxide Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.80	7.60 ug/L	3279470	1,4-Difluorobenzene	6.30

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Ethylene oxide	44	C2H4O	000075-21-8	3





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Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4072.D Vial: 4
Acq On : 03/30/2003 1339 Operator: AK
Sample : Y0SL4DL Inst : E-5973
Misc : 2761.003DL 25ML 10X Multiplr: 1.00
MS Integration Params: Lscint.p

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

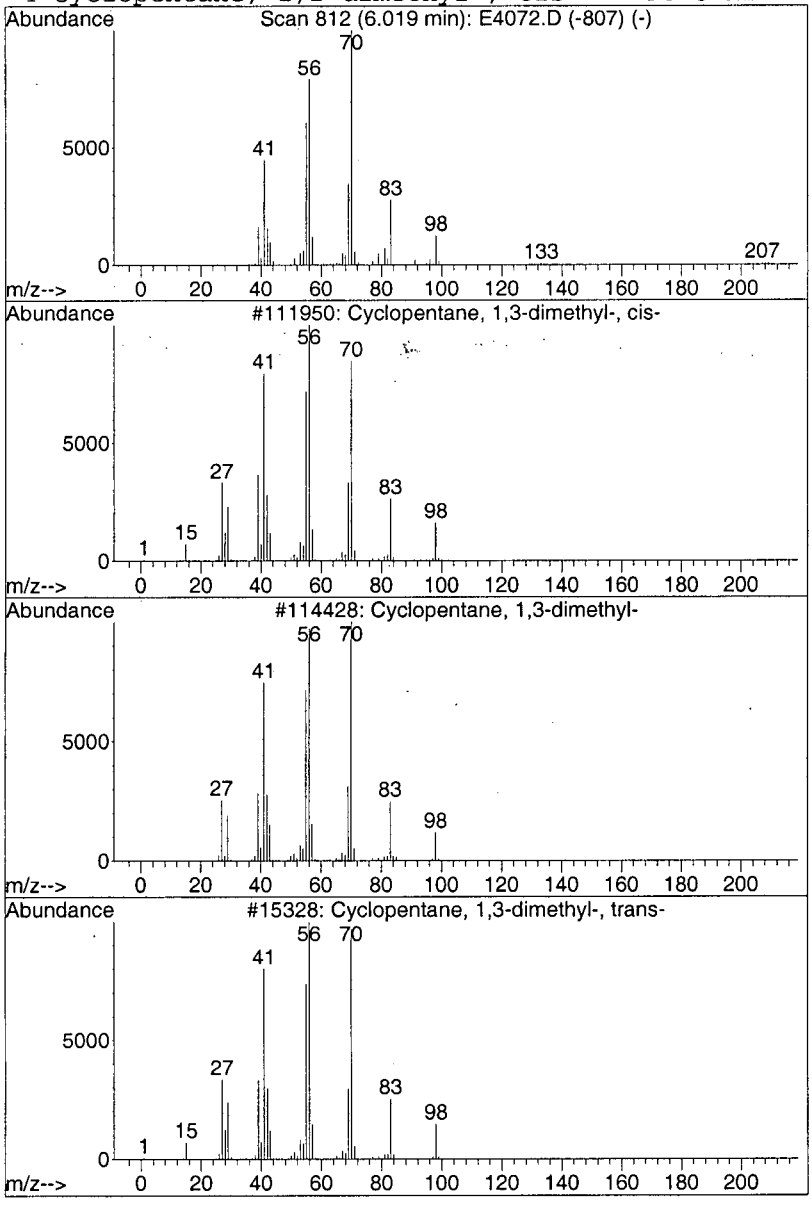
****

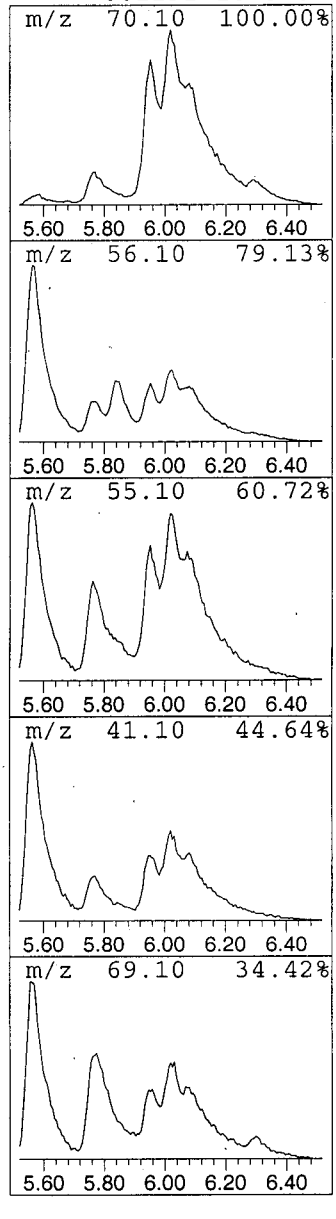
Peak Number 3 Cyclopentane, 1,3-dimethyl-... Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.02	1.16 ug/L	502200	1,4-Difluorobenzene	6.30

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, 1,3-dimethyl-, cis-	98	C7H14	002532-58-3	94
2	Cyclopentane, 1,3-dimethyl-	98	C7H14	002453-00-1	91
3	Cyclopentane, 1,3-dimethyl-, trans-	98	C7H14	001759-58-6	91
4	Cyclopentane, 1,2-dimethyl-, cis-	98	C7H14	001192-18-3	87

cyclic alkane





0129

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4072.D
Acq On : 03/30/2003 1339
Sample : Y0SL4DL
Misc : 2761.003DL 25ML 10X
MS Integration Params: Lscint.p

Vial: 4
Operator: AK
Inst : E-5973
Multiplr: 1.00

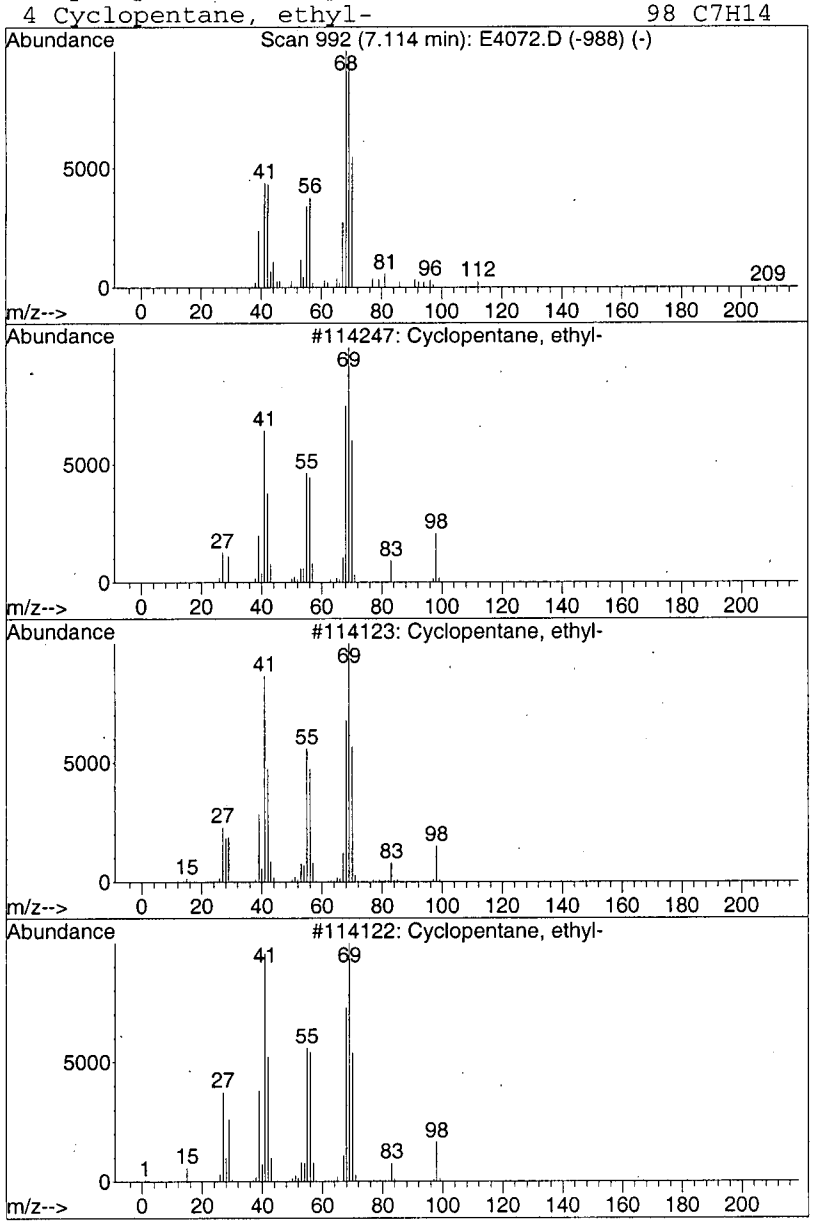
Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

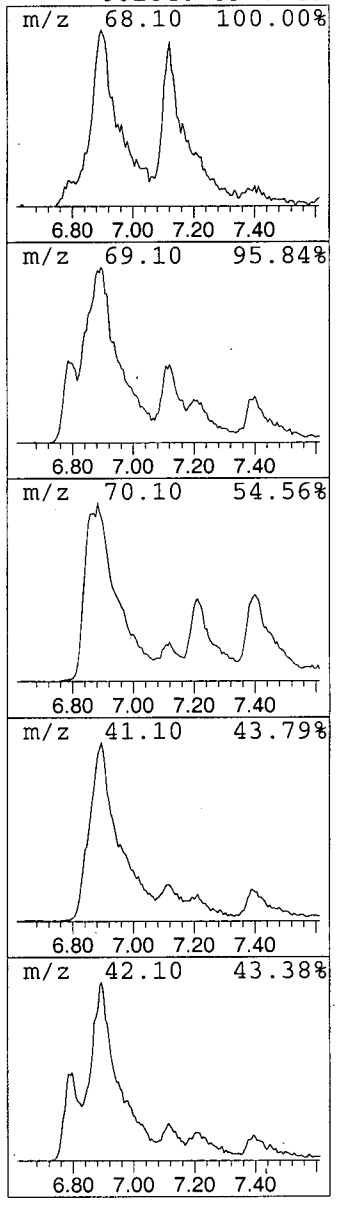
****

Peak Number 4 Cyclopentane, ethyl- Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.11	1.49 ug/L	644831	1,4-Difluorobenzene	6.30

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, ethyl-	98	C7H14	001640-89-7	50
2	Cyclopentane, ethyl-	98	C7H14	001640-89-7	50
3	Cyclopentane, ethyl-	98	C7H14	001640-89-7	40
4	Cyclopentane, ethyl-	98	C7H14	001640-89-7	40





Cyclic alkane

130

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4072.D Vial: 4
Acq On : 03/30/2003 1339 Operator: AK
Sample : Y0SL4DL Inst : E-5973
Misc : 2761.003DL 25ML 10X Multiplr: 1.00
MS Integration Params: Lscint.p

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

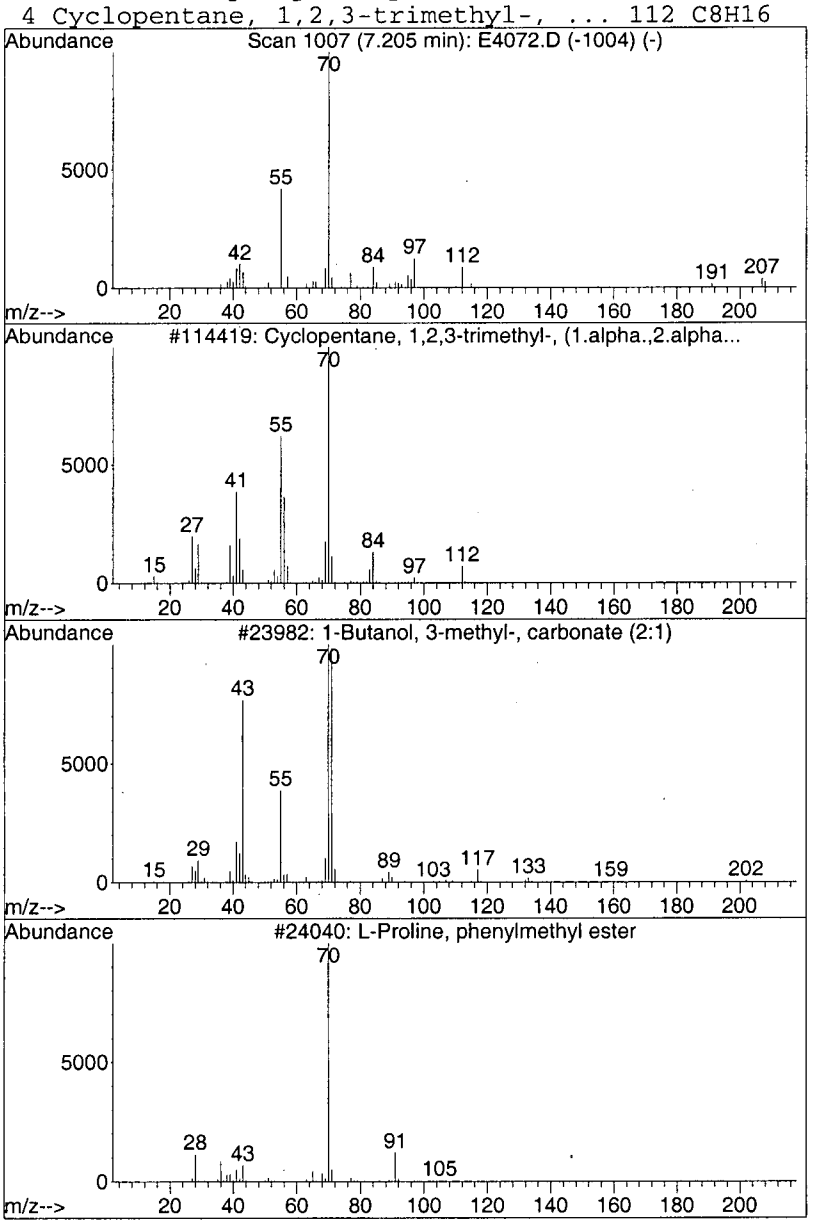
****

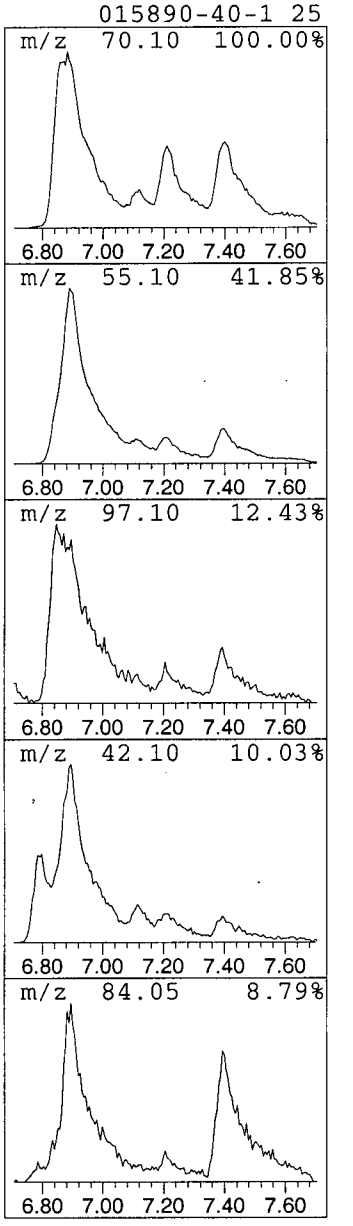
Peak Number 5 Cyclopentane, 1,2,3-trimeth... Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.21	1.26 ug/L	544517	1,4-Difluorobenzene	6.30

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, 1,2,3-trimethyl-, ...	112	C8H16	002613-69-6	38
2	1-Butanol, 3-methyl-, carbonate ...	202	C11H22O3	002050-95-5	36
3	L-Proline, phenylmethyl ester	205	C12H15NO2	041324-66-7	28
4	Cyclopentane, 1,2,3-trimethyl-, ...	112	C8H16	015890-40-1	25

cyclic alkane





131

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4072.D Vial: 4
Acq On : 03/30/2003 1339 Operator: AK
Sample : Y0SL4DL Inst : E-5973
Misc : 2761.003DL 25ML 10X Multiplr: 1.00
MS Integration Params: Lscint.p

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

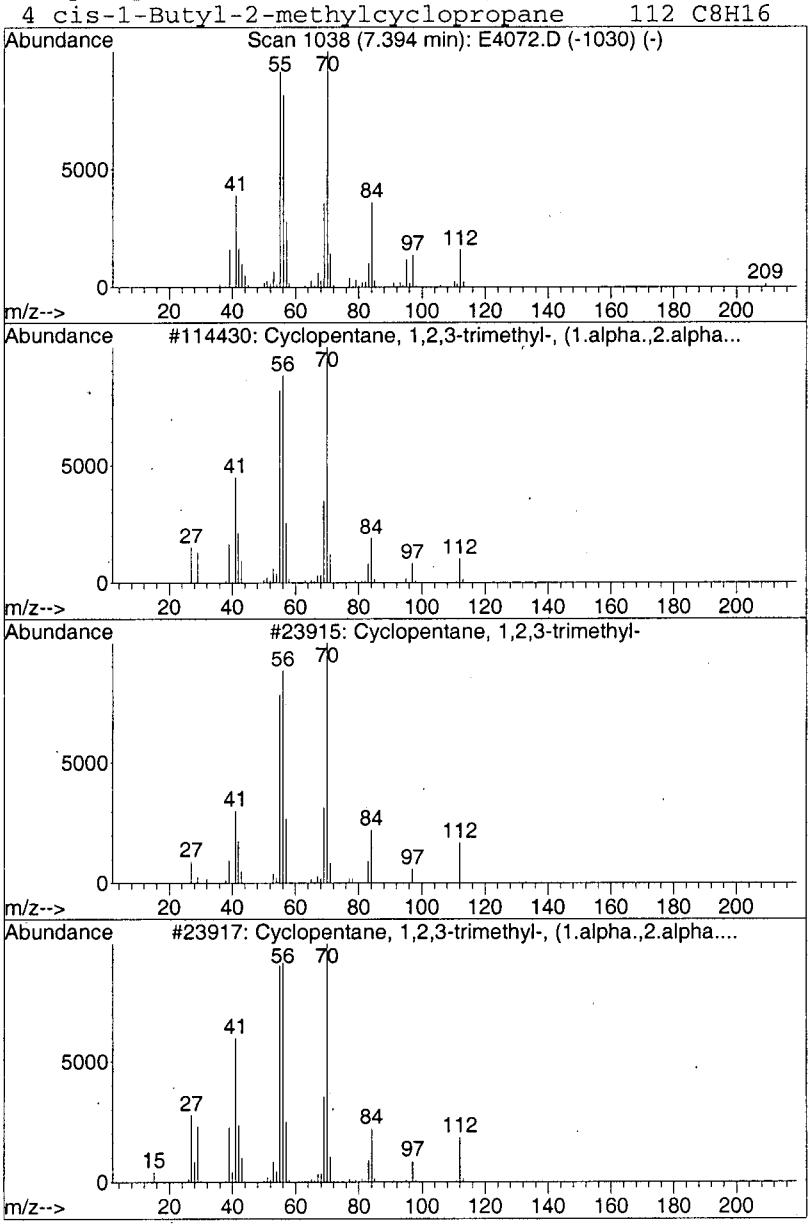
****

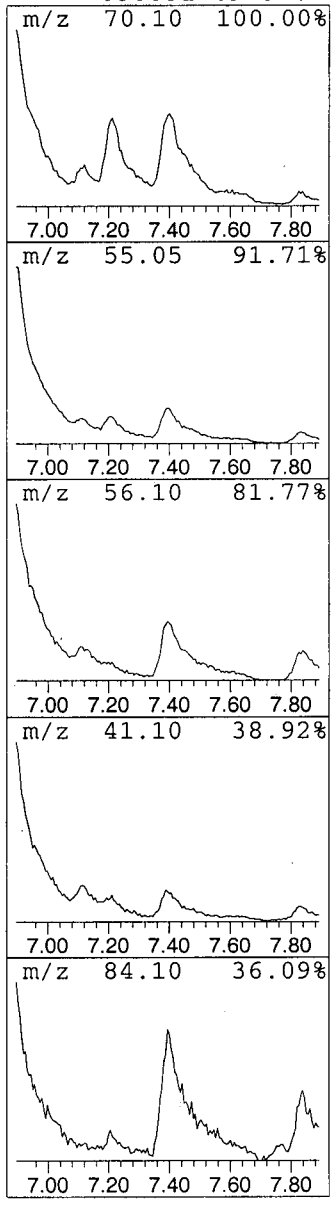
Peak Number 6 Cyclopentane, 1,2,3-trimeth... Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.39	1.89 ug/L	814849	1,4-Difluorobenzene	6.30

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, 1,2,3-trimethyl-, ...	112	C8H16	015890-40-1	91
2	Cyclopentane, 1,2,3-trimethyl-	112	C8H16	002815-57-8	91
3	Cyclopentane, 1,2,3-trimethyl-, ...	112	C8H16	015890-40-1	91
4	cis-1-Butyl-2-methylcyclopropane	112	C8H16	038851-69-3	64

cyclic alkane





132

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4072.D Vial: 4
Acq On : 03/30/2003 1339 Operator: AK
Sample : Y0SL4DL Inst : E-5973
Misc : 2761.003DL 25ML 10X Multiplr: 1.00
MS Integration Params: Lscint.p

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

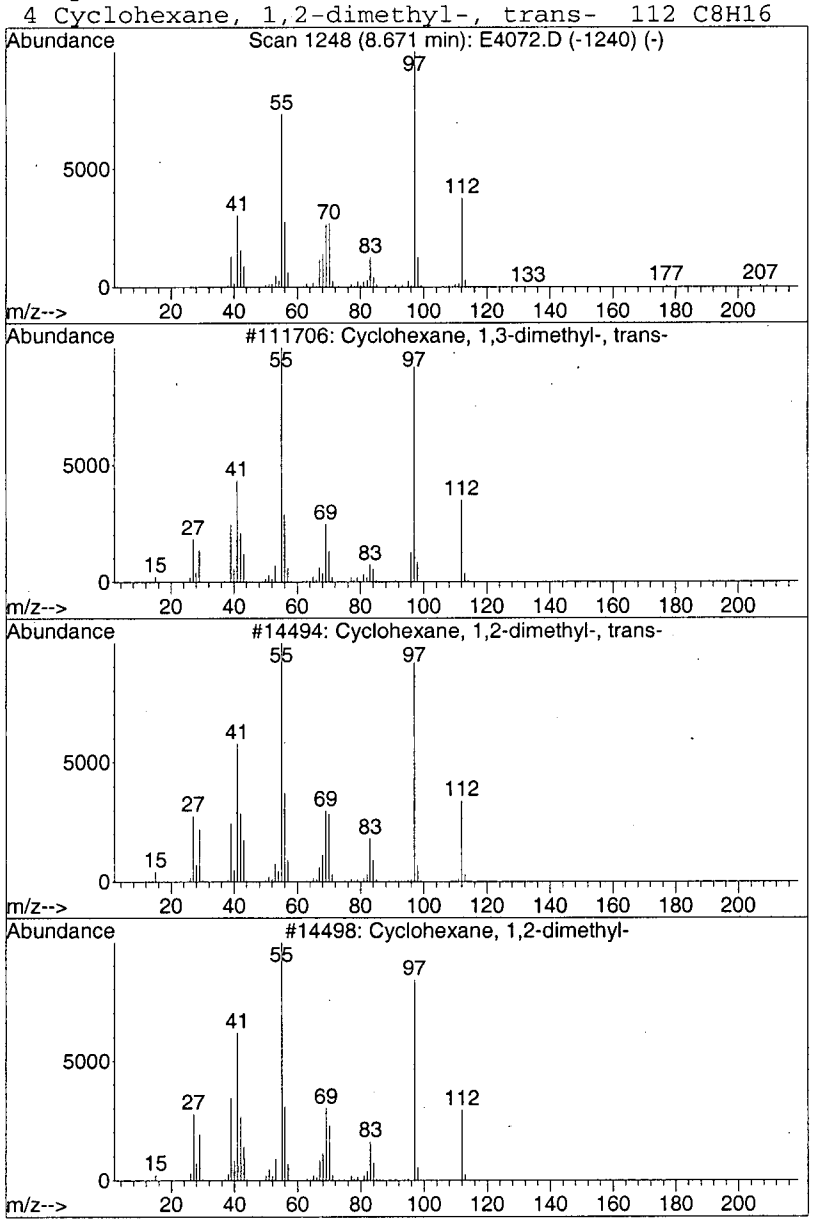
****

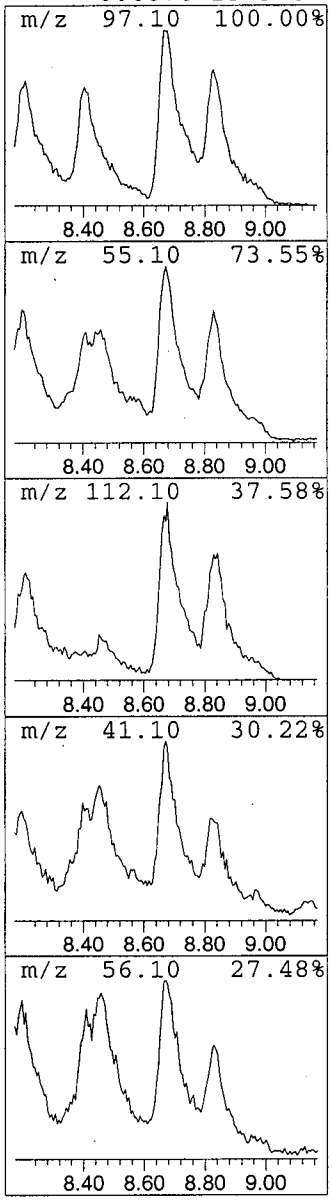
Peak Number 8 Cyclohexane, 1,3-dimethyl-,... Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.67	2.65 ug/L	1009590	Chlorobenzene-d5	10.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1,3-dimethyl-, trans-	112	C8H16	002207-03-6	87
2	Cyclohexane, 1,2-dimethyl-, trans-	112	C8H16	006876-23-9	87
3	Cyclohexane, 1,2-dimethyl-	112	C8H16	000583-57-3	87
4	Cyclohexane, 1,2-dimethyl-, trans-	112	C8H16	006876-23-9	87

cyclic alkane





113

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4072.D Vial: 4
Acq On : 03/30/2003 1339 Operator: AK
Sample : Y0SL4DL Inst : E-5973
Misc : 2761.003DL 25ML 10X Multiplr: 1.00
MS Integration Params: Lscint.p

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

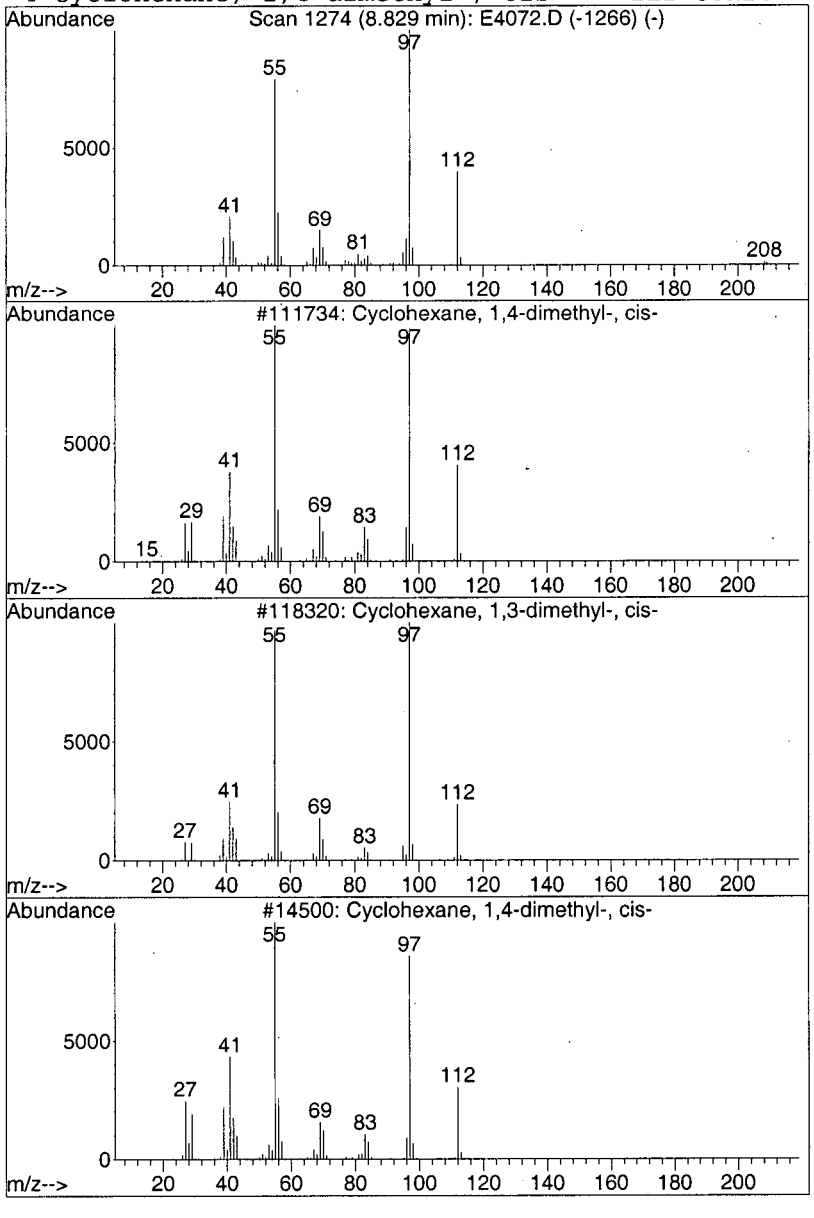
****

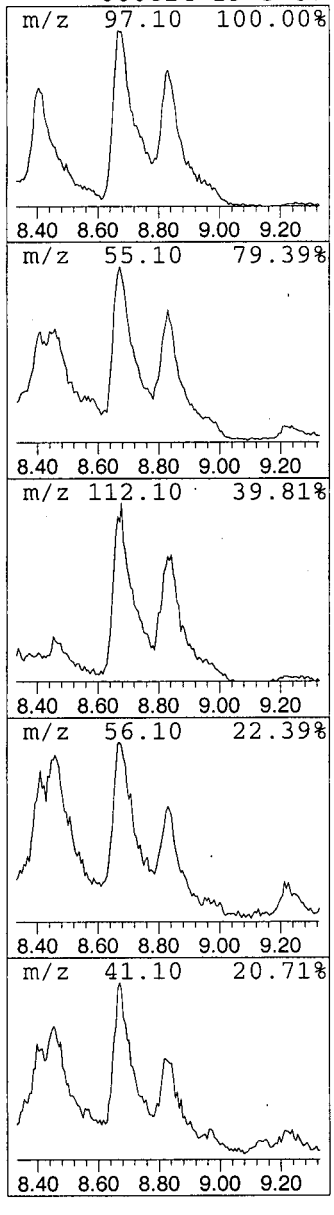
Peak Number 9 Cyclohexane, 1,4-dimethyl-,... Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.83	1.70 ug/L	646938	Chlorobenzene-d5	10.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1,4-dimethyl-, cis-	112	C8H16	000624-29-3	93
2	Cyclohexane, 1,3-dimethyl-, cis-	112	C8H16	000638-04-0	91
3	Cyclohexane, 1,4-dimethyl-, cis-	112	C8H16	000624-29-3	87
4	Cyclohexane, 1,4-dimethyl-, cis-	112	C8H16	000624-29-3	87

cyclic alkane





0134

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4072.D Vial: 4
Acq On : 03/30/2003 1339 Operator: AK
Sample : Y0SL4DL Inst : E-5973
Misc : 2761.003DL 25ML 10X Multiplr: 1.00
MS Integration Params: Lscint.p

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

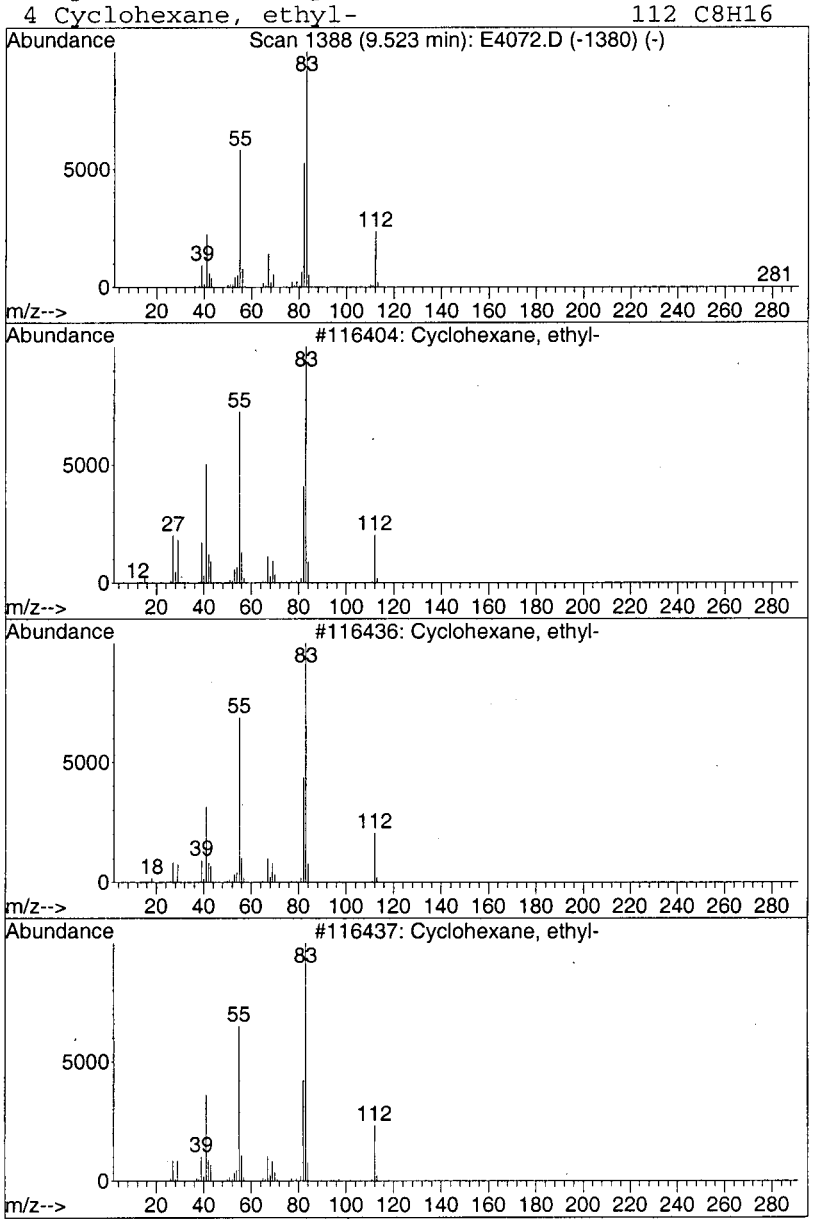
****

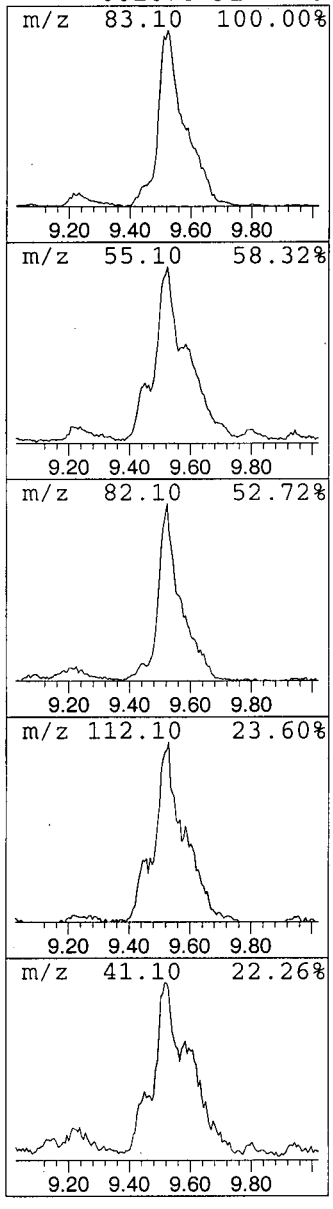
Peak Number 10 Cyclohexane, ethyl- Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.52	1.38 ug/L	526175	Chlorobenzene-d5	10.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, ethyl-	112	C8H16	001678-91-7	86
2	Cyclohexane, ethyl-	112	C8H16	001678-91-7	78
3	Cyclohexane, ethyl-	112	C8H16	001678-91-7	78
4	Cyclohexane, ethyl-	112	C8H16	001678-91-7	78

cyclic alkane





135

Library Search Compound Report

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   Data File : C:\MSDCHEM\1\DATA\E4072.D                    Vial: 4
   Acq On    : 03/30/2003  1339                         Operator: AK
   Sample    : Y0SL4DL                                  Inst    : E-5973
   Misc      : 2761.003DL  25ML  10X                    Multiplr: 1.00
MS Integration Params: Lscint.p

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title        : Voa Low Concentration Organics - OLC03.2
Library      : C:\DATABASE\NIST98.L
 ******************************************************************
 Peak Number 11  Pentalene, octahydro-          Concentration Rank  8
```
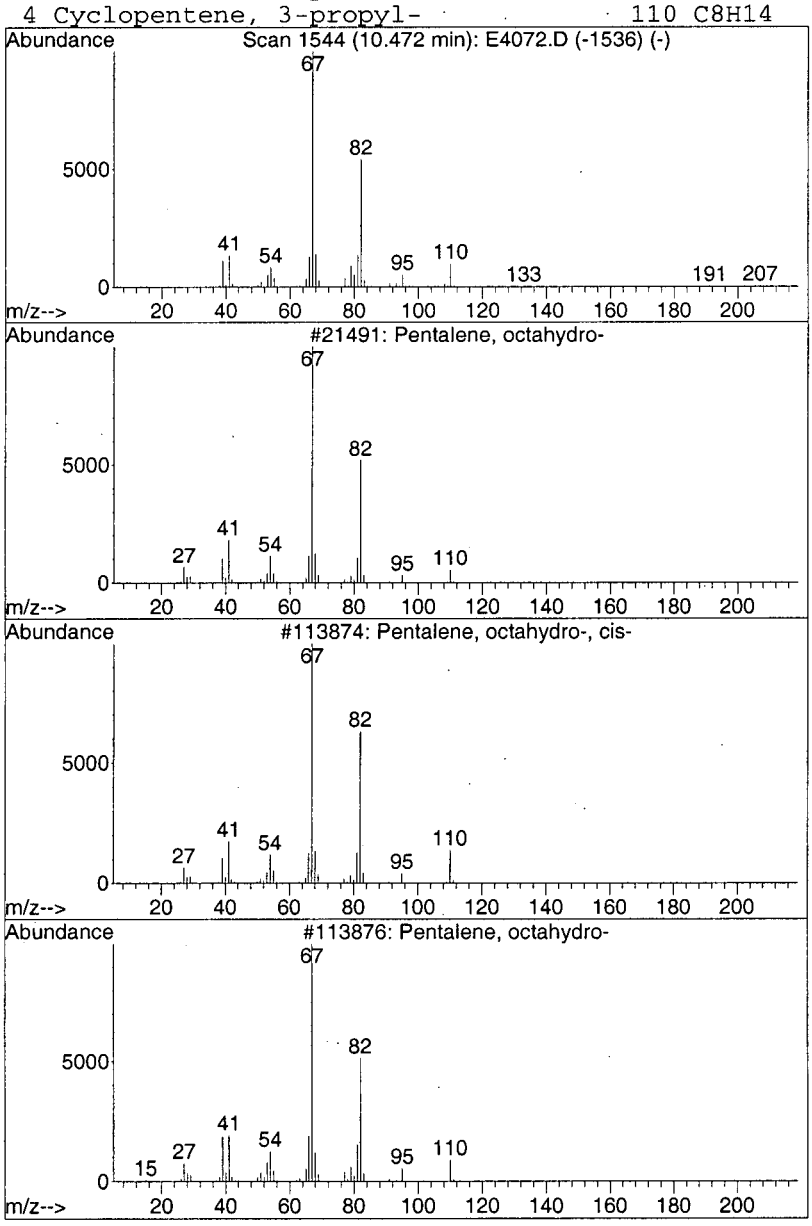
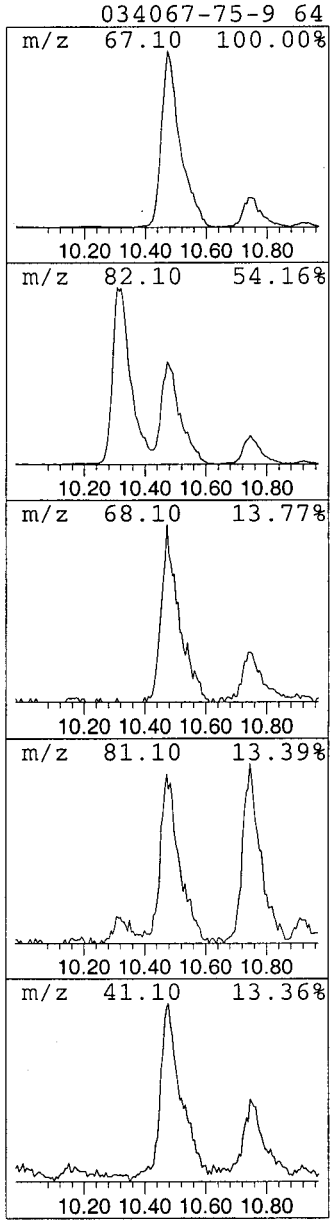

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.47	3.24 ug/L	1234580	Chlorobenzene-d5	10.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentalene, octahydro-	110	C8H14	000694-72-4	91
2	Pentalene, octahydro-, cis-	110	C8H14	001755-05-1	90
3	Pentalene, octahydro-	110	C8H14	000694-72-4	76
4	Cyclopentene, 3-propyl-	110	C8H14	034067-75-9	64





136

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4072.D Vial: 4
Acq On : 03/30/2003 1339 Operator: AK
Sample : Y0SL4DL Inst : E-5973
Misc : 2761.003DL 25ML 10X Multiplr: 1.00
MS Integration Params: Lscint.p

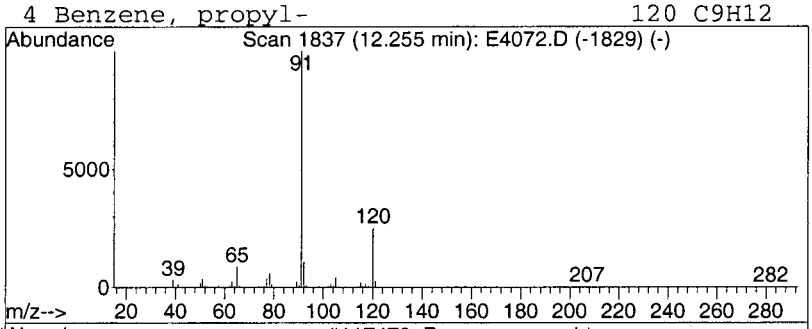
Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

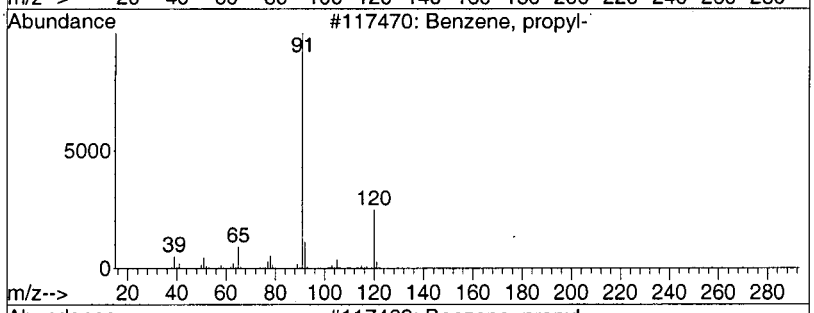
****

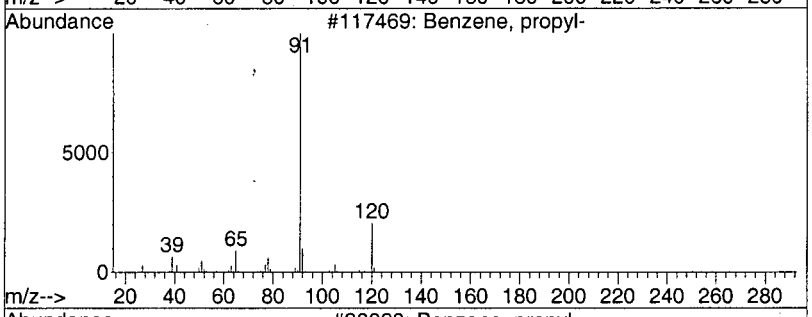
Peak Number 12 Benzene, propyl- Concentration Rank 2

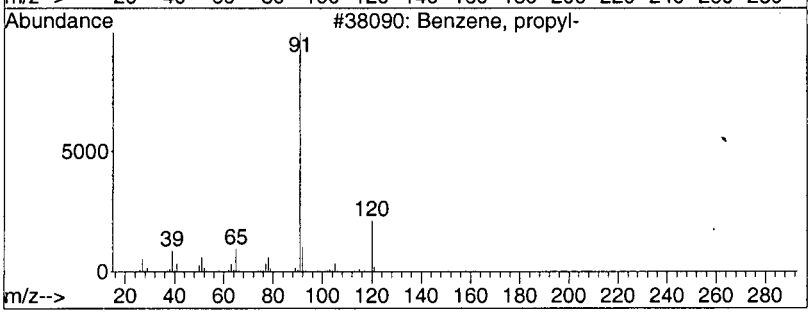
R.T.	EstConc	Area	Relative to ISTD	R.T.
12.25	8.32 ug/L	2040940	1,4-Dichlorobenzene-d4	13.19

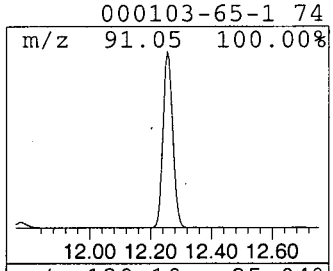
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, propyl-	120	C9H12	000103-65-1	91
2	Benzene, propyl-	120	C9H12	000103-65-1	90
3	Benzene, propyl-	120	C9H12	000103-65-1	87
4	Benzene, propyl-	120	C9H12	000103-65-1	74

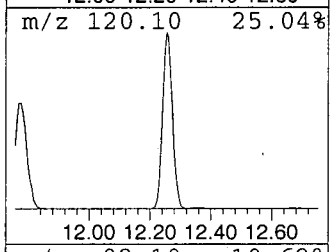


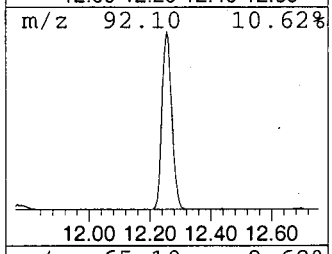


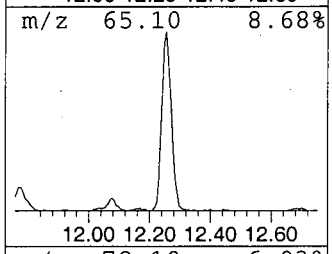


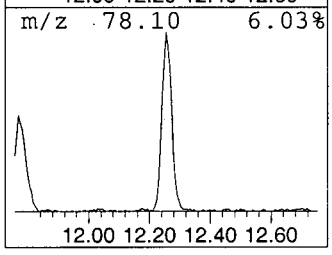












137

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4072.D Vial: 4
Acq On : 03/30/2003 1339 Operator: AK
Sample : Y0SL4DL Inst : E-5973
Misc : 2761.003DL 25ML 10X Multiplr: 1.00
MS Integration Params: Lscint.p

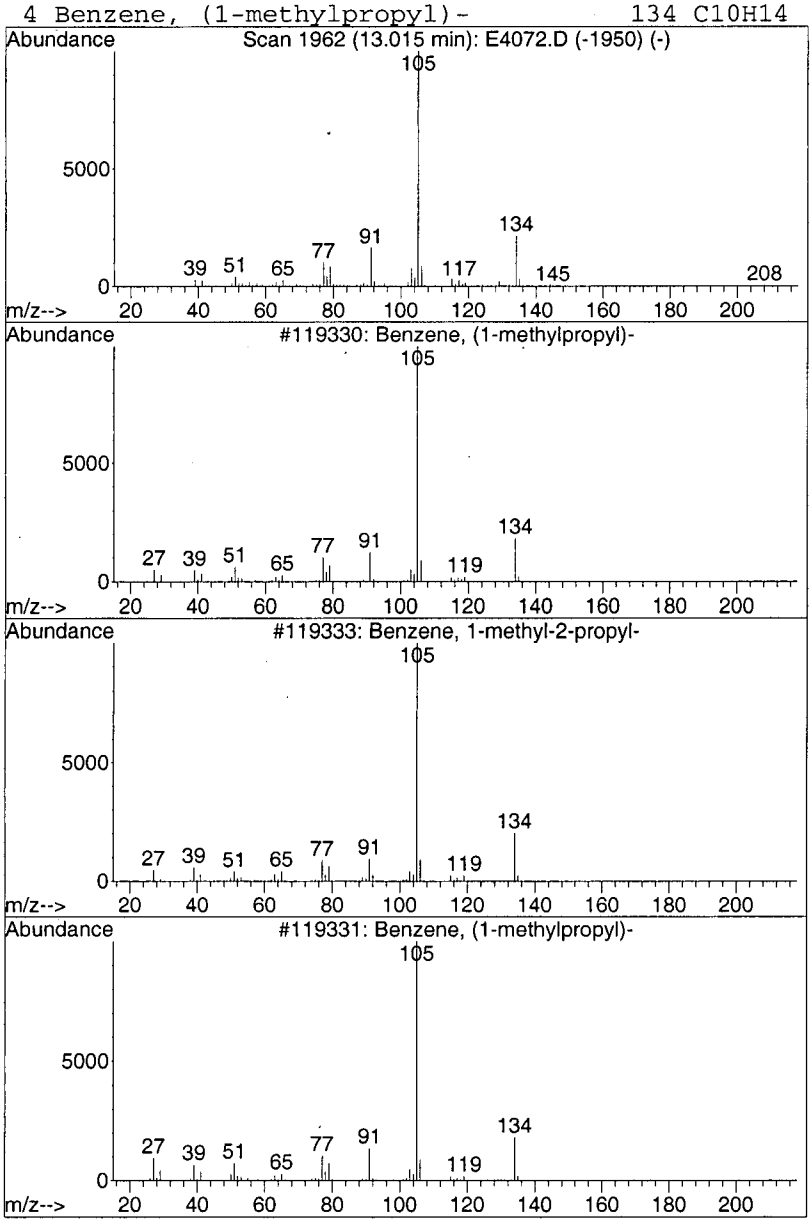
Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

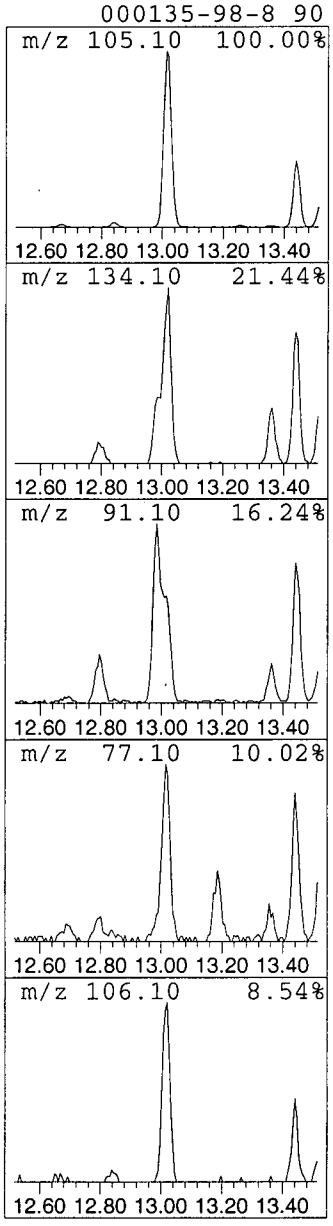
****

Peak Number 13 Benzene, (1-methylpropyl)- Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.02	2.34 ug/L	573259	1,4-Dichlorobenzene-d4	13.19

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, (1-methylpropyl)-	134	C10H14	000135-98-8	90
2	Benzene, 1-methyl-2-propyl-	134	C10H14	001074-17-5	90
3	Benzene, (1-methylpropyl)-	134	C10H14	000135-98-8	90
4	Benzene, (1-methylpropyl)-	134	C10H14	000135-98-8	90





138

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4072.D Vial: 4
Acq On : 03/30/2003 1339 Operator: AK
Sample : Y0SL4DL Inst : E-5973
Misc : 2761.003DL 25ML 10X Multiplr: 1.00
MS Integration Params: Lscint.p

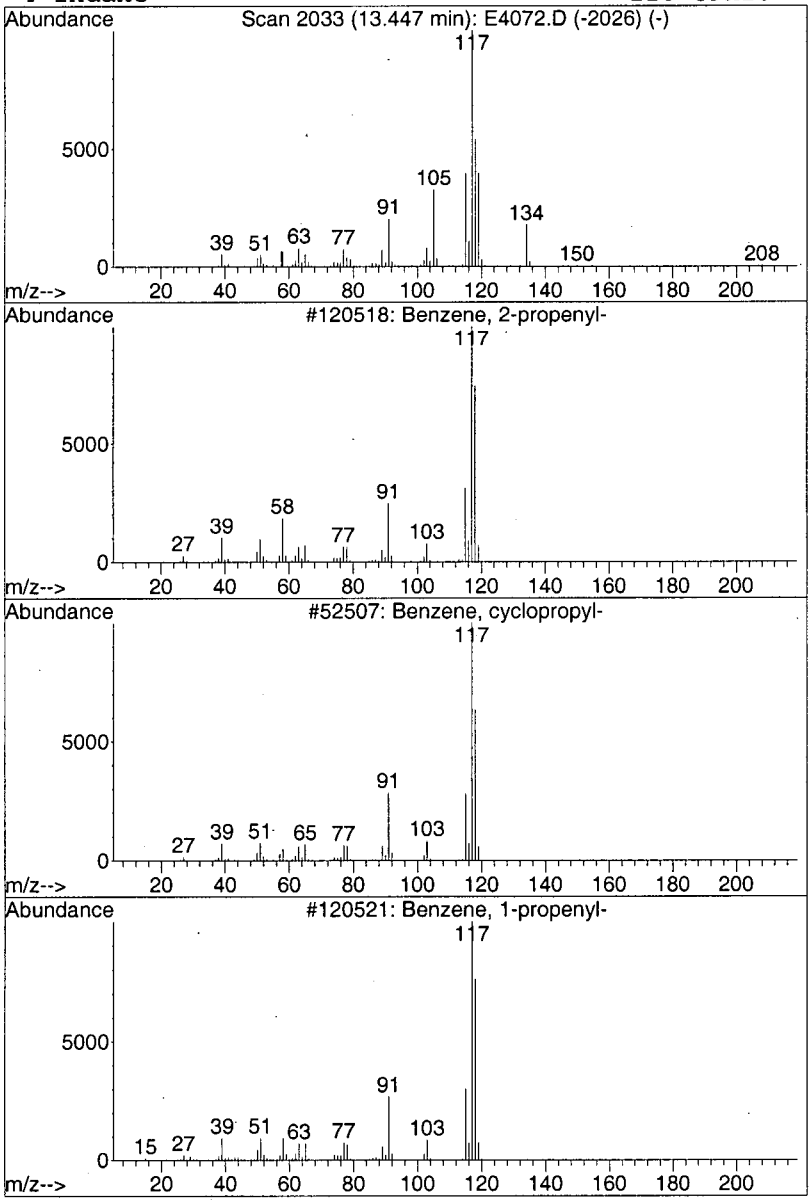
Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

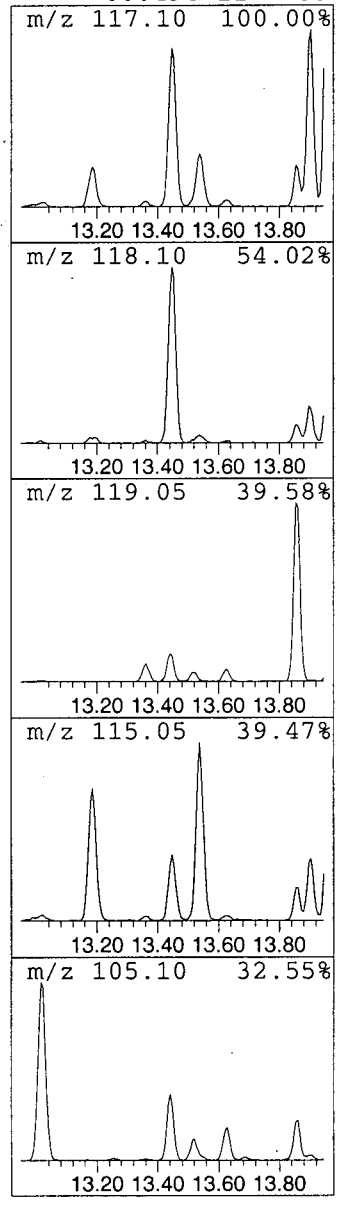
****

Peak Number 14 Benzene, 2-propenyl- Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.45	2.77 ug/L	678966	1,4-Dichlorobenzene-d4	13.19

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-propenyl-	118	C9H10	000300-57-2	55
2	Benzene, cyclopropyl-	118	C9H10	000873-49-4	55
3	Benzene, 1-propenyl-	118	C9H10	000637-50-3	55
4	Indane	118	C9H10	000496-11-7	55





0139

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4072.D Vial: 4
Acq On : 03/30/2003 1339 Operator: AK
Sample : Y0SL4DL Inst : E-5973
Misc : 2761.003DL 25ML 10X Multiplr: 1.00
MS Integration Params: Lscint.p

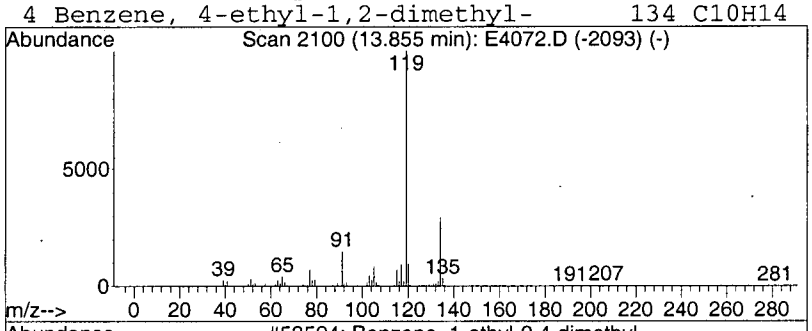
Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

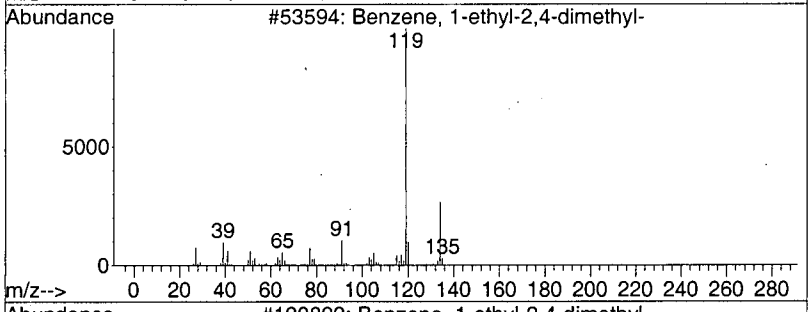
****

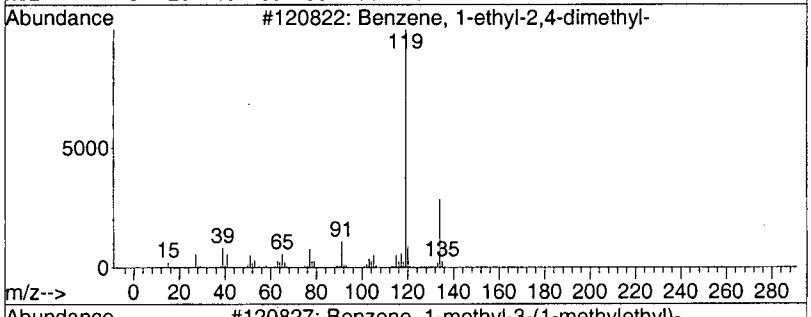
Peak Number 15 Benzene, 1-ethyl-2,4-dimethyl- Concentration Rank 6

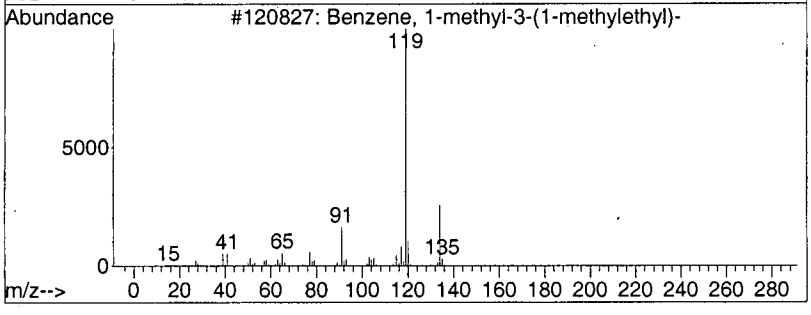
R.T.	EstConc	Area	Relative to ISTD	R.T.
13.85	3.77 ug/L	923845	1,4-Dichlorobenzene-d4	13.19

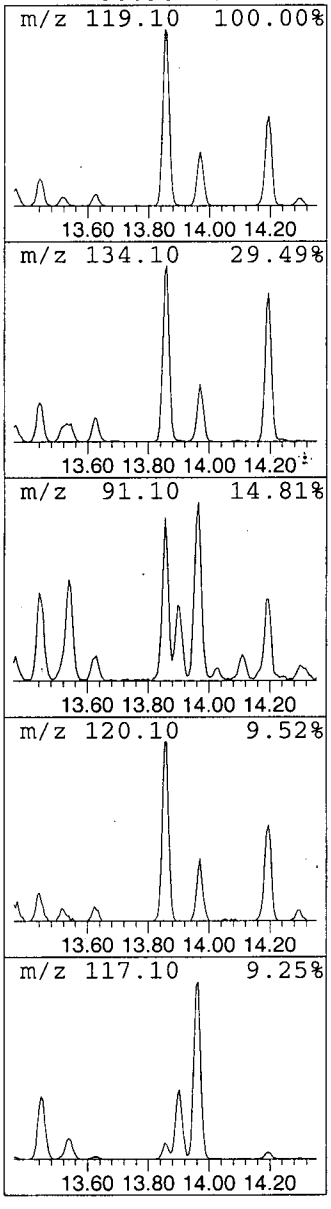
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	95
2	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	95
3	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	95
4	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	000934-80-5	95











Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4072.D Vial: 4
Acq On : 03/30/2003 1339 Operator: AK
Sample : Y0SL4DL Inst : E-5973
Misc : 2761.003DL 25ML 10X Multiplr: 1.00
MS Integration Params: Lscint.p

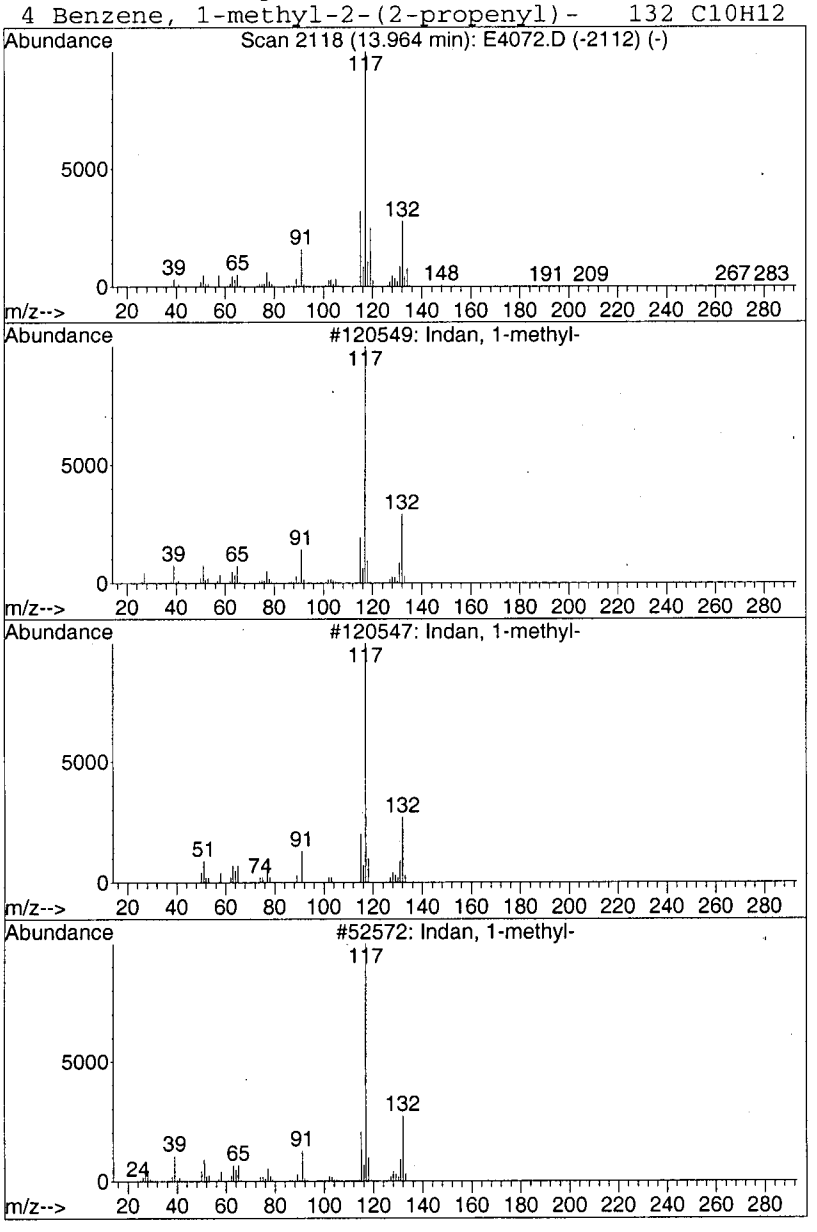
Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

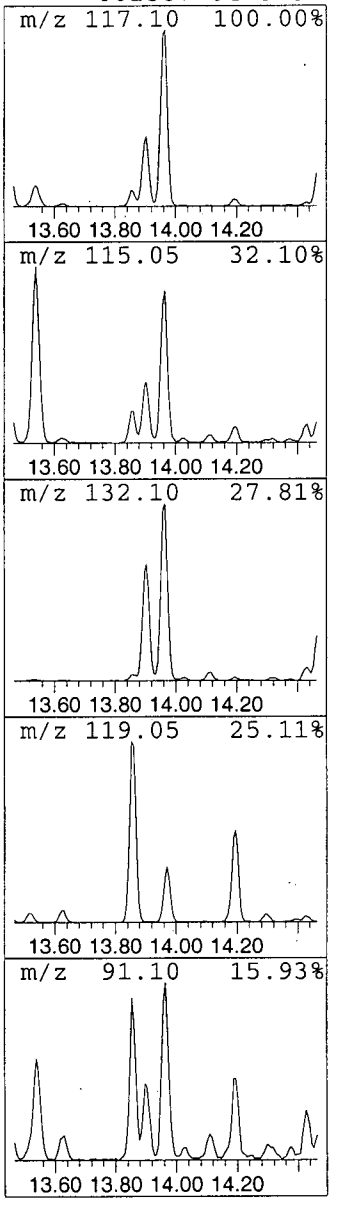
****

Peak Number 16 Indan, 1-methyl- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.96	5.81 ug/L	1426140	1,4-Dichlorobenzene-d4	13.19

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indan, 1-methyl-	132	C10H12	000767-58-8	93
2	Indan, 1-methyl-	132	C10H12	000767-58-8	89
3	Indan, 1-methyl-	132	C10H12	000767-58-8	81
4	Benzene, 1-methyl-2-(2-propenyl)-	132	C10H12	001587-04-8	81





0141

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4072.D Vial: 4
Acq On : 03/30/2003 1339 Operator: AK
Sample : Y0SL4DL Inst : E-5973
Misc : 2761.003DL 25ML 10X Multiplr: 1.00
MS Integration Params: Lscint.p

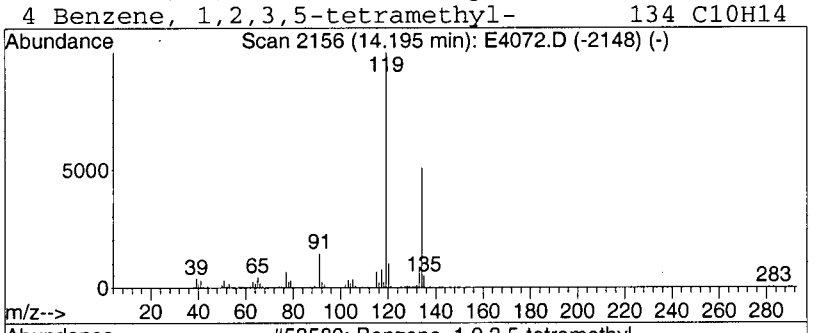
Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

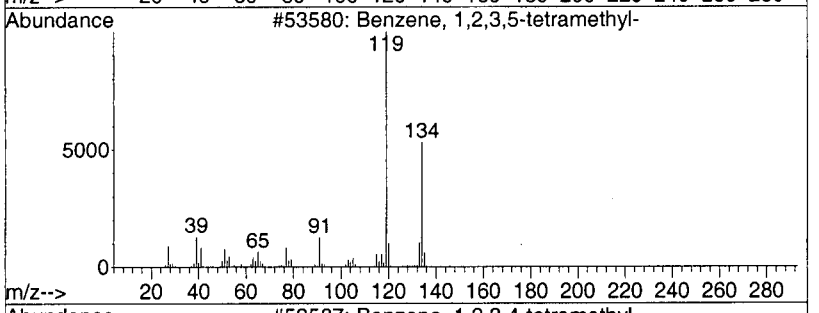
****

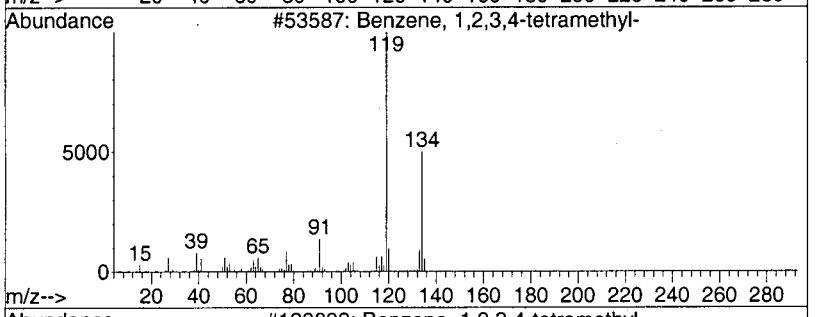
Peak Number 17 Benzene, 1,2,3,5-tetramethyl- Concentration Rank 13

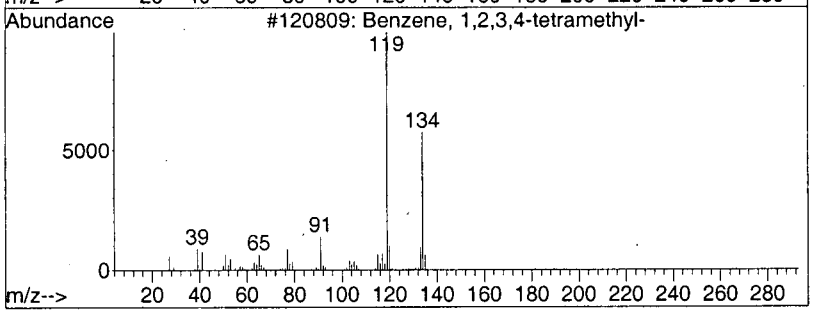
R.T.	EstConc	Area	Relative to ISTD	R.T.
14.20	2.28 ug/L	558335	1,4-Dichlorobenzene-d4	13.19

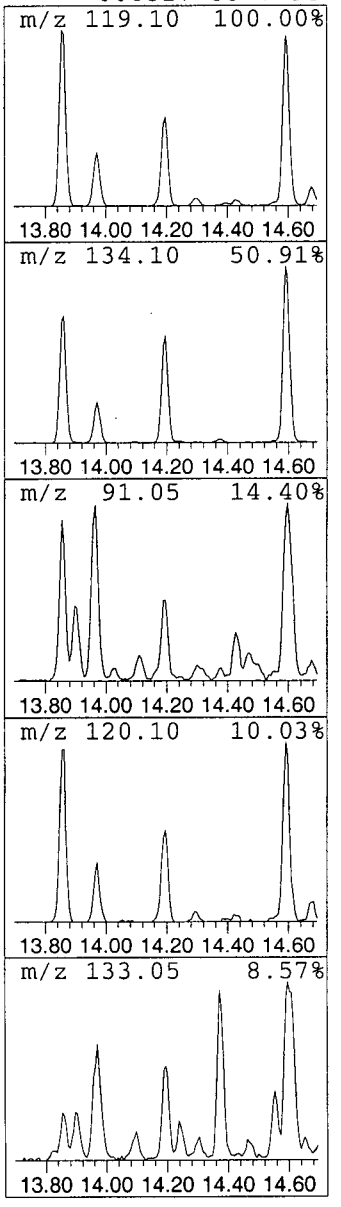
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	97
2	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	95
3	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	95
4	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	95











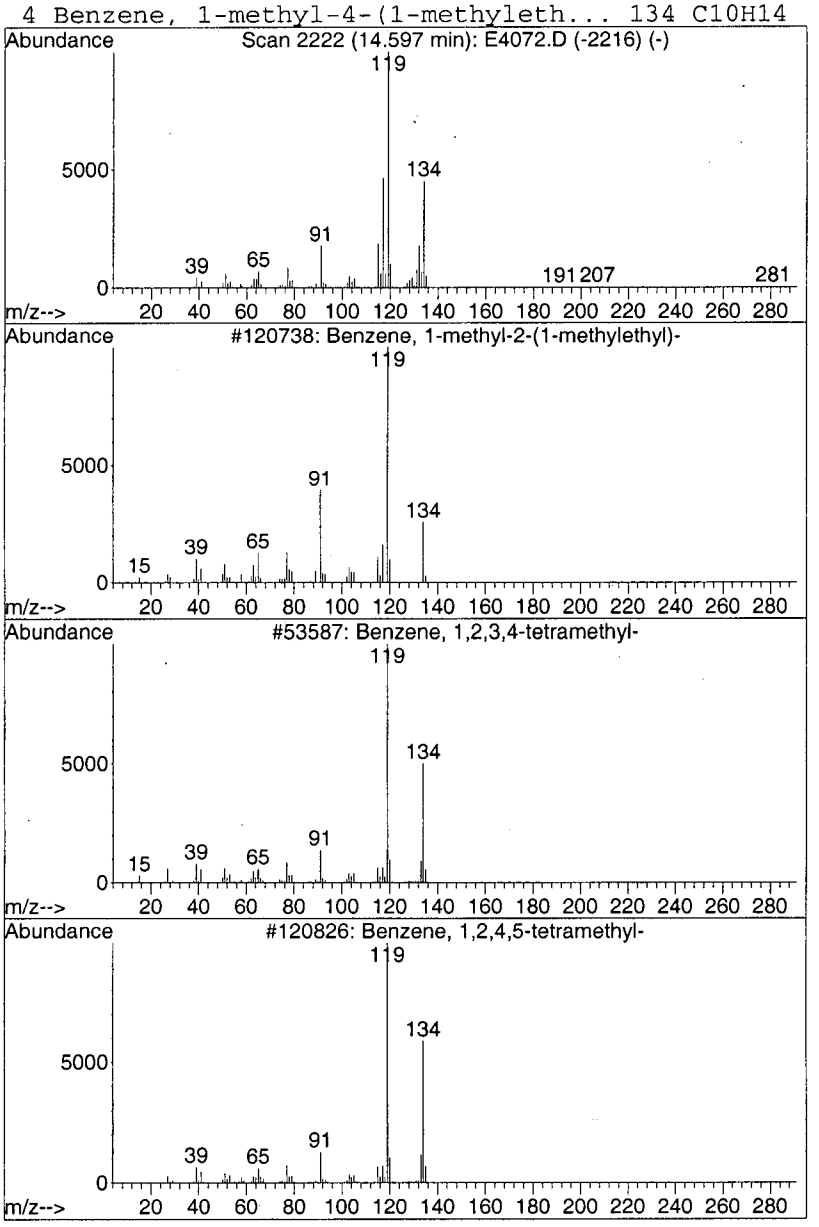
142

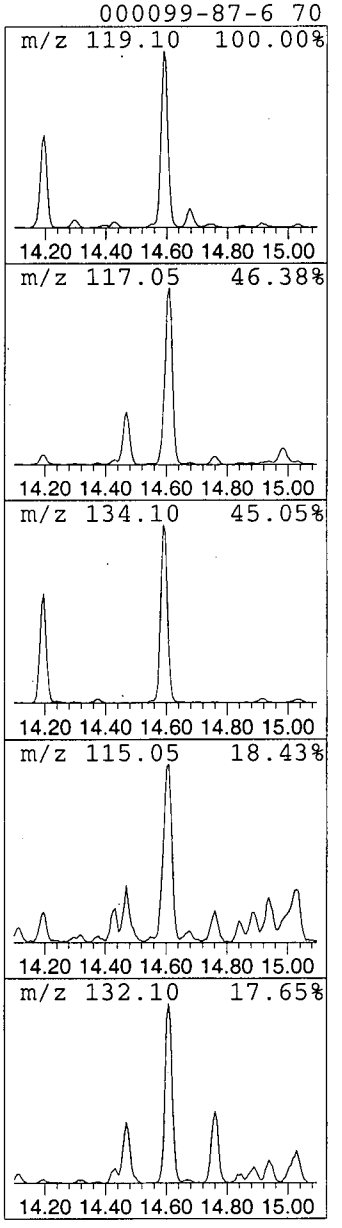
Library Search Compound Report

```
   Data File : C:\MSDCHEM\1\DATA\E4072.D                    Vial: 4
   Acq On    : 03/30/2003  1339                         Operator: AK
   Sample    : Y0SL4DL                                  Inst    : E-5973
   Misc      : 2761.003DL  25ML  10X                    Multiplr: 1.00
MS Integration Params: Lscint.p

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title        : Voa Low Concentration Organics - OLC03.2
Library      : C:\DATABASE\NIST98.L
*********************************************************************
Peak Number 18  Benzene, 1-methyl-2-(1-meth...  Concentration Rank  4
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.60	7.08 ug/L	1737320	1,4-Dichlorobenzene-d4	13.19

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	70
2	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	70
3	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	70
4	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	70

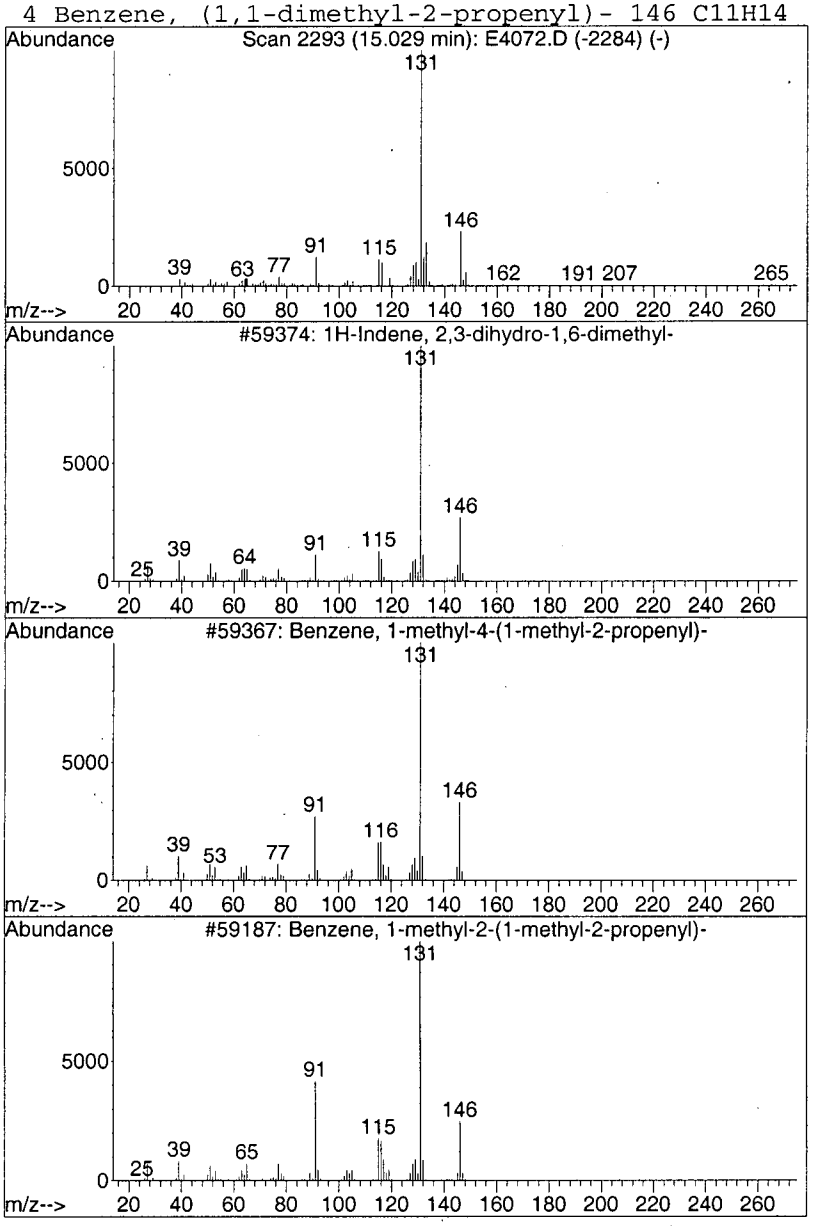


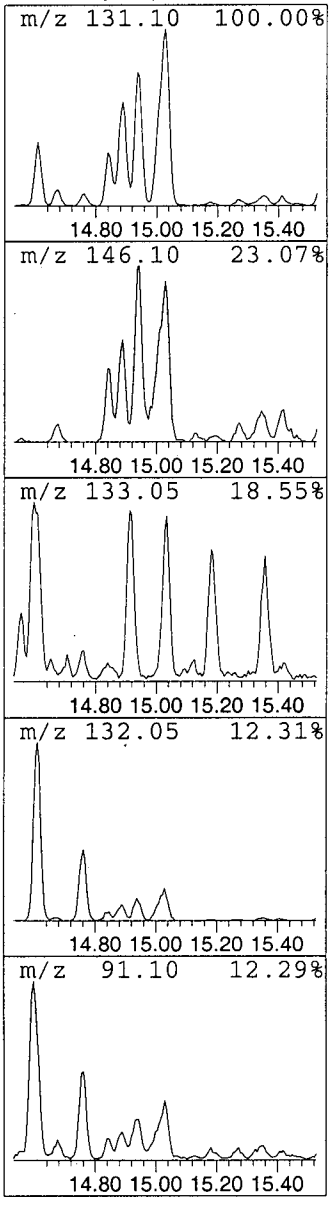


0143

Library Search Compound Report

```
   Data File : C:\MSDCHEM\1\DATA\E4072.D                    Vial: 4
   Acq On    : 03/30/2003  1339                         Operator: AK
   Sample    : Y0SL4DL                                  Inst    : E-5973
   Misc      : 2761.003DL  25ML  10X                    Multiplr: 1.00
MS Integration Params: Lscint.p

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title        : Voa Low Concentration Organics - OLC03.2
Library      : C:\DATABASE\NIST98.L
 ********************************************************************
 Peak Number 19  1H-Indene, 2,3-dihydro-1,6-...  Concentration Rank  9

   R.T.   EstConc          Area       Relative to ISTD        R.T.
 --------------------------------------------------------------------
  15.03    3.09 ug/L      757008    1,4-Dichlorobenzene-d4     13.19

  Hit# of  5    Tentative ID              MW  MolForm       CAS#        Qual
 --------------------------------------------------------------------
  1 1H-Indene, 2,3-dihydro-1,6-dimet... 146 C11H14          017059-48-2 93
  2 Benzene, 1-methyl-4-(1-methyl-2-... 146 C11H14          097664-18-1 90
  3 Benzene, 1-methyl-2-(1-methyl-2-... 146 C11H14          097664-19-2 87
  4 Benzene, (1,1-dimethyl-2-propenyl)- 146 C11H14          018321-36-3 87
```





0144

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4072.D Vial: 4
Acq On : 03/30/2003 1339 Operator: AK
Sample : Y0SL4DL Inst : E-5973
Misc : 2761.003DL 25ML 10X Multiplr: 1.00
MS Integration Params: Lscint.p

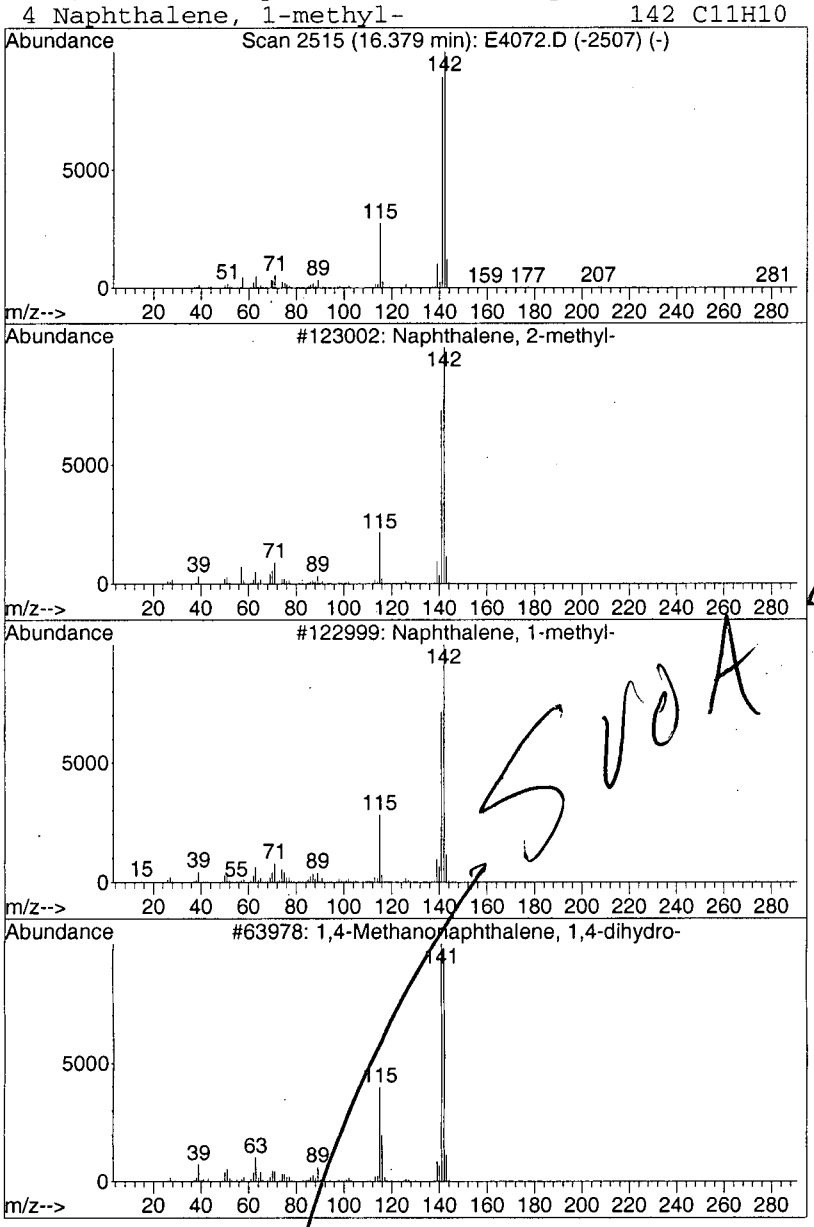
Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

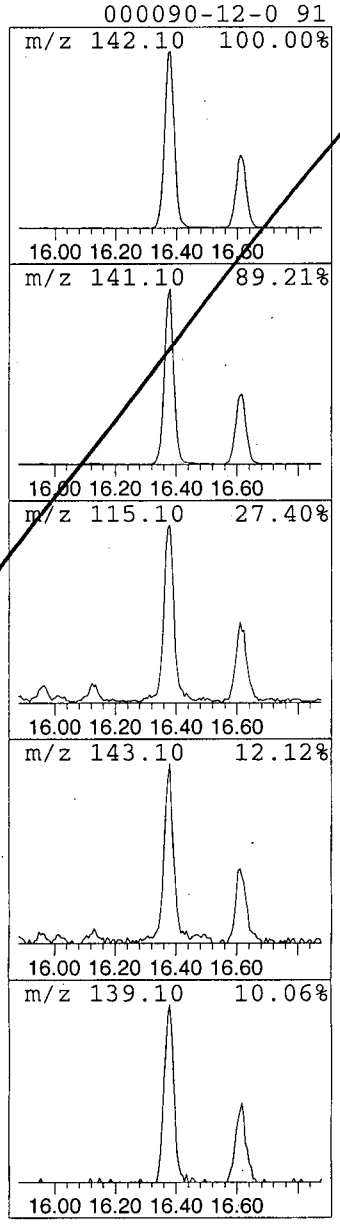
****

Peak Number 20 Naphthalene, 2-methyl- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.38	3.34 ug/L	820288	1,4-Dichlorobenzene-d4	13.19

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	91
2	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	91
3	1,4-Methanonaphthalene, 1,4-dihy...	142	C11H10	004453-90-1	91
4	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	91





5 VOA

0145

1LCA
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

Y0SL6

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2761.004 Date Received: 03/20/2003

Lab File ID: E4014 Date Analyzed: 03/27/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl Chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	3.1	J
75-15-0	Carbon Disulfide	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	2.0	B
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-Butyl Ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	0.48	J
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.34	JB
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon Tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

1LCB

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS

DATA SHEET

EPA SAMPLE NO.

Y0SL6

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2761.004 Date Received: 03/20/2003

Lab File ID: E4014 Date Analyzed: 03/27/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.64	
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
1330-20-7	Xylene (total)	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.33	JB
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1LCF

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS

DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Y0SL6

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2761.004 Date Received: 03/20/2003

Lab File ID: E4014 Date Analyzed: 03/27/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

Number TICs found: 1

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01	000075-28-5	Isobutane	2.01	0.79	JN
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4014.D
Acq On : 03/27/2003 1220
Sample : Y0SL6
Misc : 2761.004 25ML
MS Integration Params: RTEINT.P
Quant Time: Mar 27 12:43:51 2003

Vial: 7
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Results File: LCE4009.RES

KCA 03/27/03

Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Thu Mar 27 09:22:08 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4009.D
DataAcq Meth : VOAC

GW 4/02/03

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Difluorobenzene	6.31	114	1254105	5.00 ug/L	0.00
28) Chlorobenzene-d5	10.32	117	998952	5.00 ug/L	0.00
60) 1,4-Dichlorobenzene-d4	13.19	152	330112	5.00 ug/L	0.00
System Monitoring Compounds					
4) Vinyl Chloride-d3	2.15	65	476739	5.19 ug/L	0.00
Spiked Amount 5.000	Range 49 - 138		Recovery	= 103.80%	
7) Chloroethane-d5	2.54	69	423068	5.50 ug/L	0.00
Spiked Amount 5.000	Range 60 - 126		Recovery	= 110.00%	
10) 1,1-Dichloroethene-d2	3.26	65	213239	5.31 ug/L	0.00
Spiked Amount 5.000	Range 65 - 130		Recovery	= 106.20%	
20) 2-Butanone-d5	4.88	46	41955	5.18 ug/L	0.00
Spiked Amount 5.000	Range 42 - 171		Recovery	= 103.60%	
24) Chloroform-d	5.23	86	476833	5.39 ug/L	0.00
Spiked Amount 5.000	Range 80 - 123		Recovery	= 107.80%	
26) 1,2-Dichloroethane-d4	5.81	65	262042	5.53 ug/L	0.00
Spiked Amount 5.000	Range 78 - 129		Recovery	= 110.60%	
32) Benzene-d6	5.85	84	2120670	5.68 ug/L	0.00
Spiked Amount 5.000	Range 78 - 121		Recovery	= 113.60%	
35) 1,2-Dichloropropane-d6	6.80	67	494378	4.73 ug/L	0.00
Spiked Amount 5.000	Range 84 - 123		Recovery	= 94.60%	
41) Toluene-d8	8.21	98	2046174	5.59 ug/L	0.00
Spiked Amount 5.000	Range 77 - 120		Recovery	= 111.80%	
43) trans-1,3-Dichloropropene-	8.53	79	68943	5.52 ug/L	0.00
Spiked Amount 5.000	Range 80 - 128		Recovery	= 110.40%	
47) 2-Hexanone-d5	9.13	46	70599	4.57 ug/L	0.00
Spiked Amount 5.000	Range 37 - 169		Recovery	= 91.40%	
58) 1,1,2,2-Tetrachloroethane-	12.08	84	185480	5.25 ug/L	0.00
Spiked Amount 5.000	Range 75 - 131		Recovery	= 105.00%	
61) Bromoform-d	11.51	174	94037	5.04 ug/L	0.00
Spiked Amount 5.000	Range 76 - 135		Recovery	= 100.80%	
65) 1,2-Dichlorobenzene-d4	13.54	152	380358	5.63 ug/L	0.00
Spiked Amount 5.000	Range 50 - 150		Recovery	= 112.60%	

Target Compounds					Qvalue
13) Acetone	3.30	43	16441	3.07 ug/L J	86
16) Methylene Chloride	3.69	84	186090	1.96 ug/L B	99
22) 2-Butanone	4.94	43	4302	0.48 ug/L J	77
25) Chloroform	5.26	83	54996	0.34 ug/L J B	84
42) Toluene	8.30	91	310006	0.64 ug/L	99
62) Bromoform	11.54	173	7511	0.33 ug/L J B	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

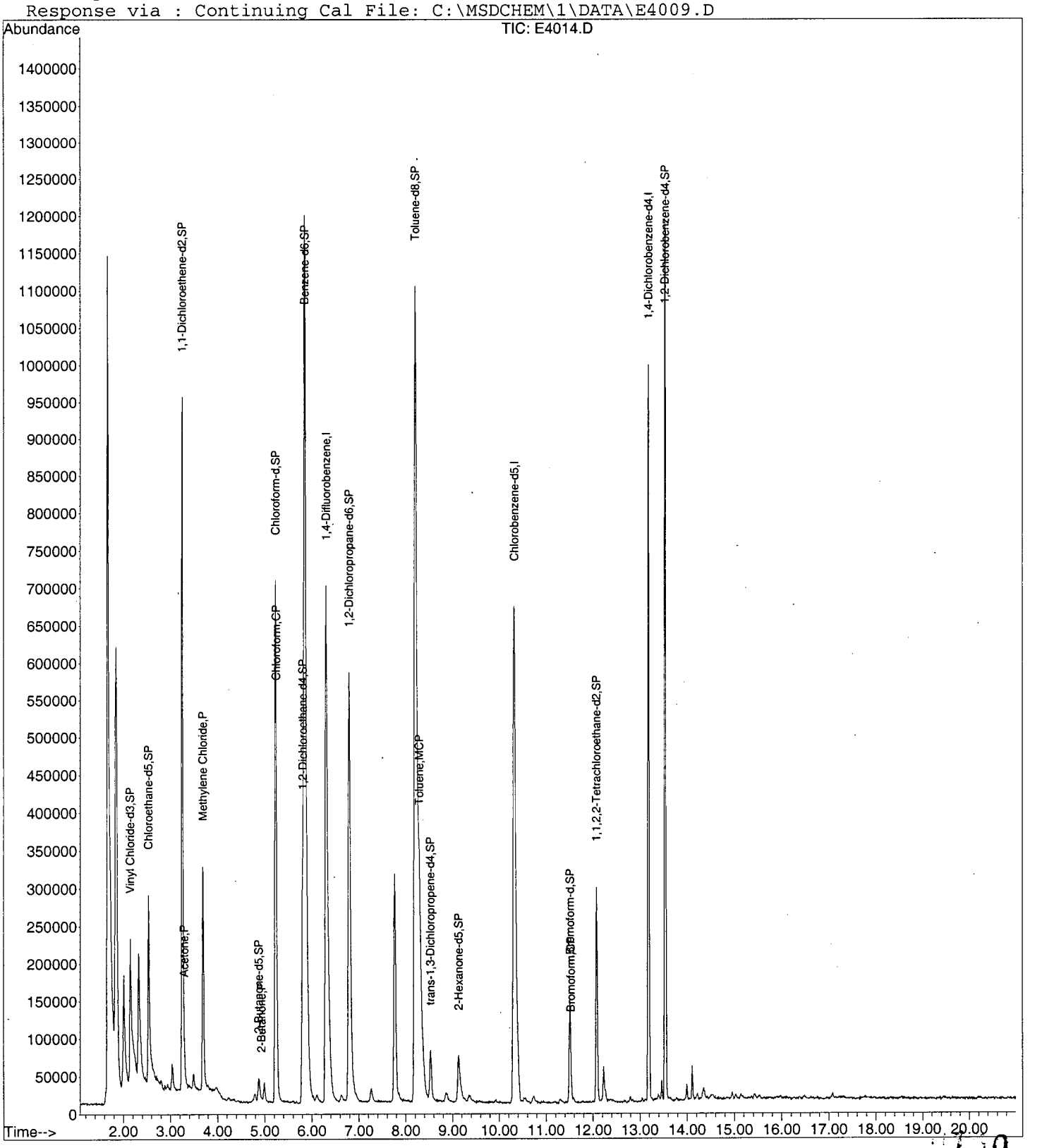
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4014.D
Acq On : 03/27/2003 1220
Sample : Y0SL6
Misc : 2761.004 25ML
MS Integration Params: RTEINT.P
Quant Time: Mar 27 13:50 2003

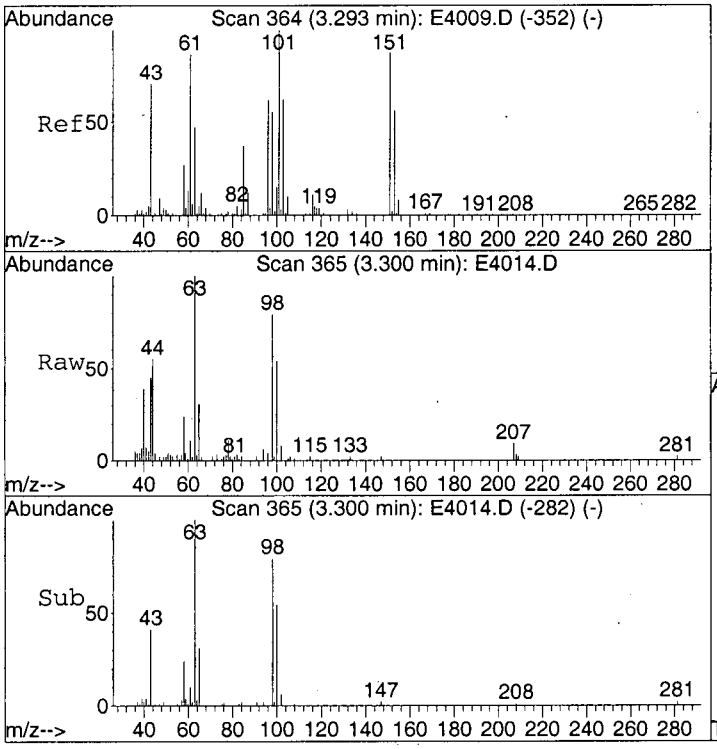
Vial: 7
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Results File: LCE4009.RES

Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Thu Mar 27 09:22:08 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4009.D



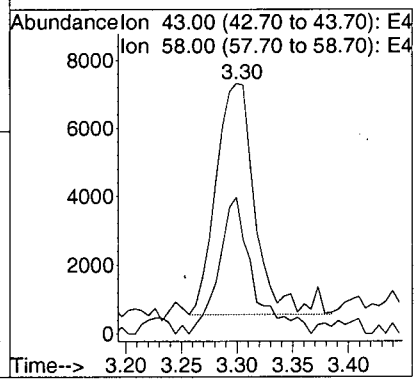
Data File : C:\MSDCHEM\1\DATA\E4014.D Vial: 7
Acq On : 03/27/2003 1220 Operator: AK
Sample : Y0SL6 Inst : E-5973
Misc : 2761.004 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

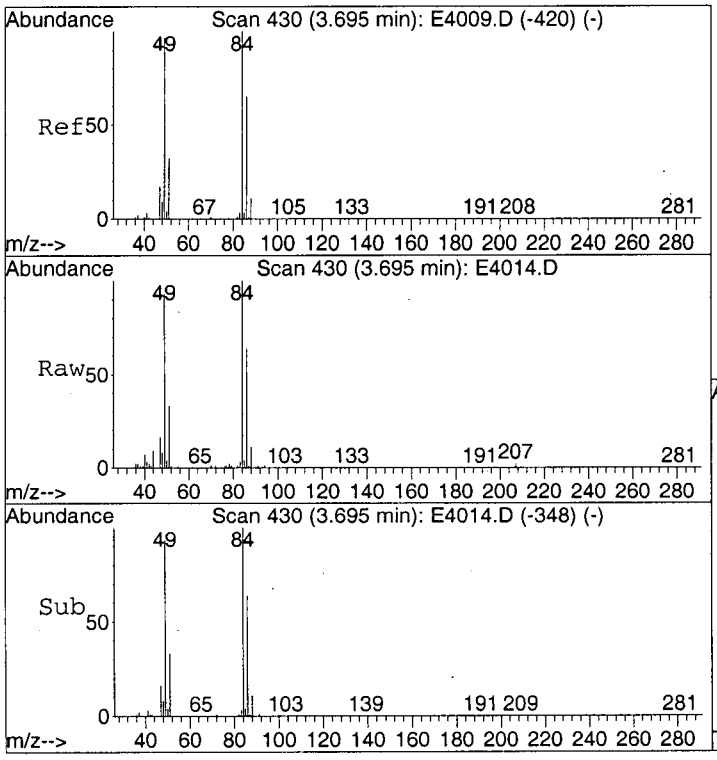


#13
Acetone
Concen: 3.07 ug/L
RT: 3.30 min Scan# 365
Delta R.T. 0.01 min
Lab File: E4014.D
Acq: 27 Mar 2003 12:20

Tgt Ion: 43 Resp: 16441

Ion	Ratio	Lower	Upper
43	100		
58	51.3	22.6	62.6

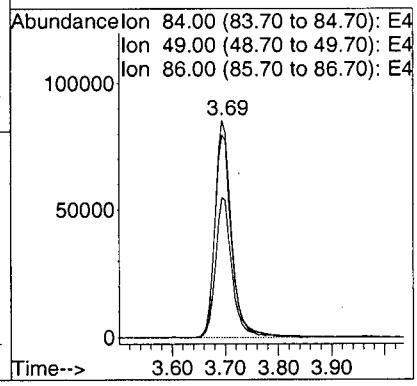




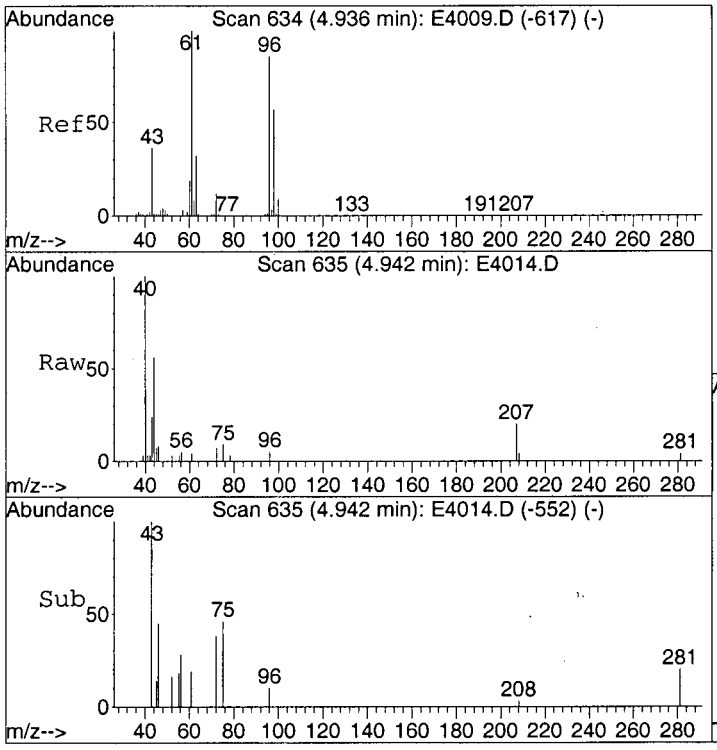
#16
Methylene Chloride
Concen: 1.96 ug/L
RT: 3.69 min Scan# 430
Delta R.T. 0.00 min
Lab File: E4014.D
Acq: 27 Mar 2003 12:20

Tgt Ion: 84 Resp: 186090

Ion	Ratio	Lower	Upper
84	100		
49	94.2	76.2	116.2
86	63.3	43.2	83.2



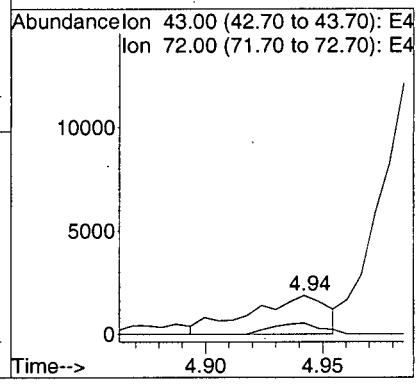
Data File : C:\MSDCHEM\1\DATA\E4014.D Vial: 7
Acq On : 03/27/2003 1220 Operator: AK
Sample : Y0SL6 Inst : E-5973
Misc : 2761.004 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

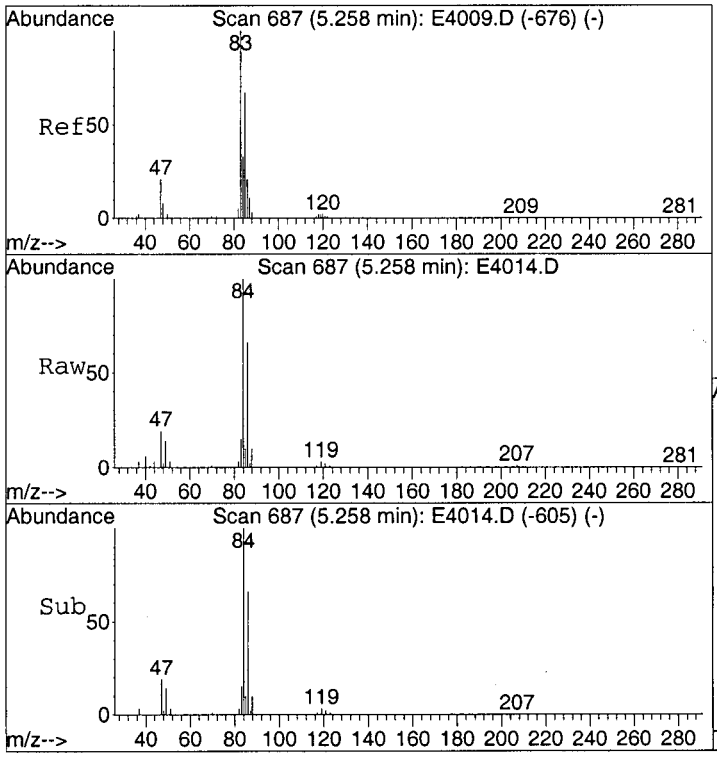


#22
2-Butanone
Concen: 0.48 ug/L
RT: 4.94 min Scan# 635
Delta R.T. 0.01 min
Lab File: E4014.D
Acq: 27 Mar 2003 12:20

Tgt Ion: 43 Resp: 4302

Ion	Ratio	Lower	Upper
43	100		
72	18.3	11.2	51.2

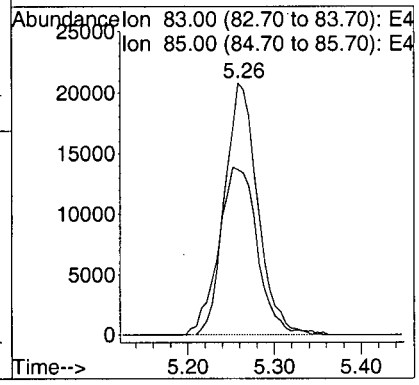




#25
Chloroform
Concen: 0.34 ug/L
RT: 5.26 min Scan# 687
Delta R.T. 0.00 min
Lab File: E4014.D
Acq: 27 Mar 2003 12:20

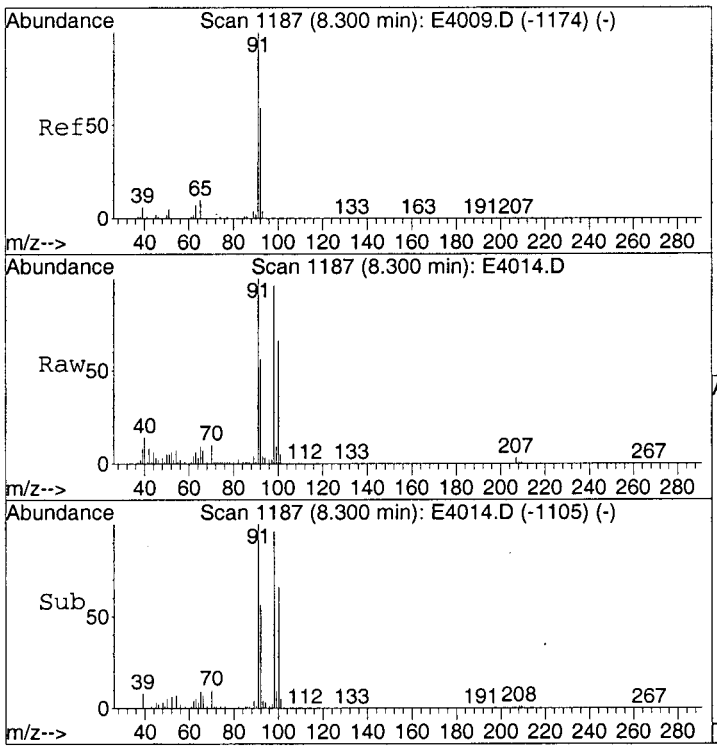
Tgt Ion: 83 Resp: 54996

Ion	Ratio	Lower	Upper
83	100		
85	78.5	45.9	85.9



Data File : C:\MSDCHEM\1\DATA\E4014.D
Acq On : 03/27/2003 1220
Sample : Y0SL6
Misc : 2761.004 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

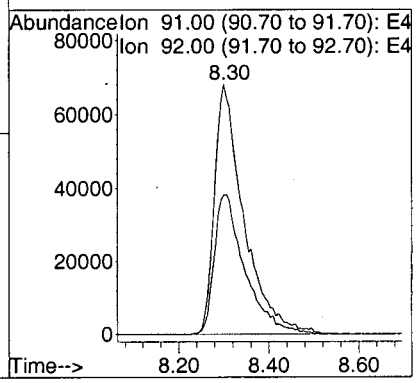
Vial: 7
Operator: AK
Inst : E-5973
Multiplr: 1.00

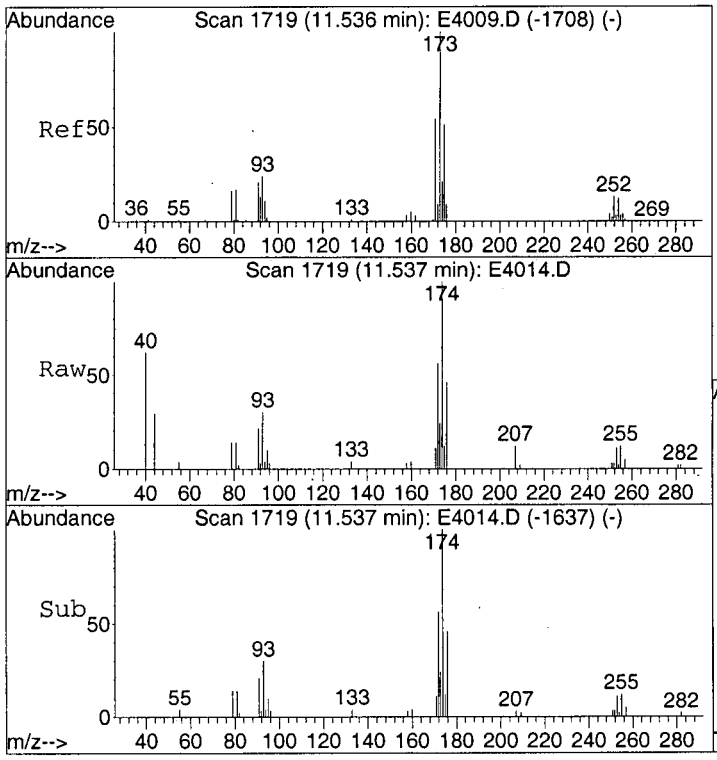


#42
Toluene
Concen: 0.64 ug/L
RT: 8.30 min Scan# 1187
Delta R.T. 0.00 min
Lab File: E4014.D
Acq: 27 Mar 2003 12:20

Tgt Ion: 91 Resp: 310006

Ion	Ratio	Lower	Upper
91	100		
92	58.5	39.2	79.2

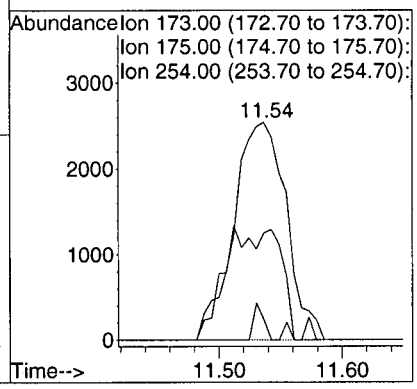




#62
Bromoform
Concen: 0.33 ug/L
RT: 11.54 min Scan# 1719
Delta R.T. 0.00 min
Lab File: E4014.D
Acq: 27 Mar 2003 12:20

Tgt Ion:173 Resp: 7511

Ion	Ratio	Lower	Upper
173	100		
175	54.3	29.4	69.4
254	3.2	0.0	31.9



LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\E4014.D
Acq On : 03/27/2003 1220
Sample : Y0SL6
Misc : 2761.004 25ML
MS Integration Params: Lscint.p

Vial: 7
Operator: AK
Inst : E-5973
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 100000 Area counts
Max Peaks: 40
Peak Location: TOP

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

Signal : TIC

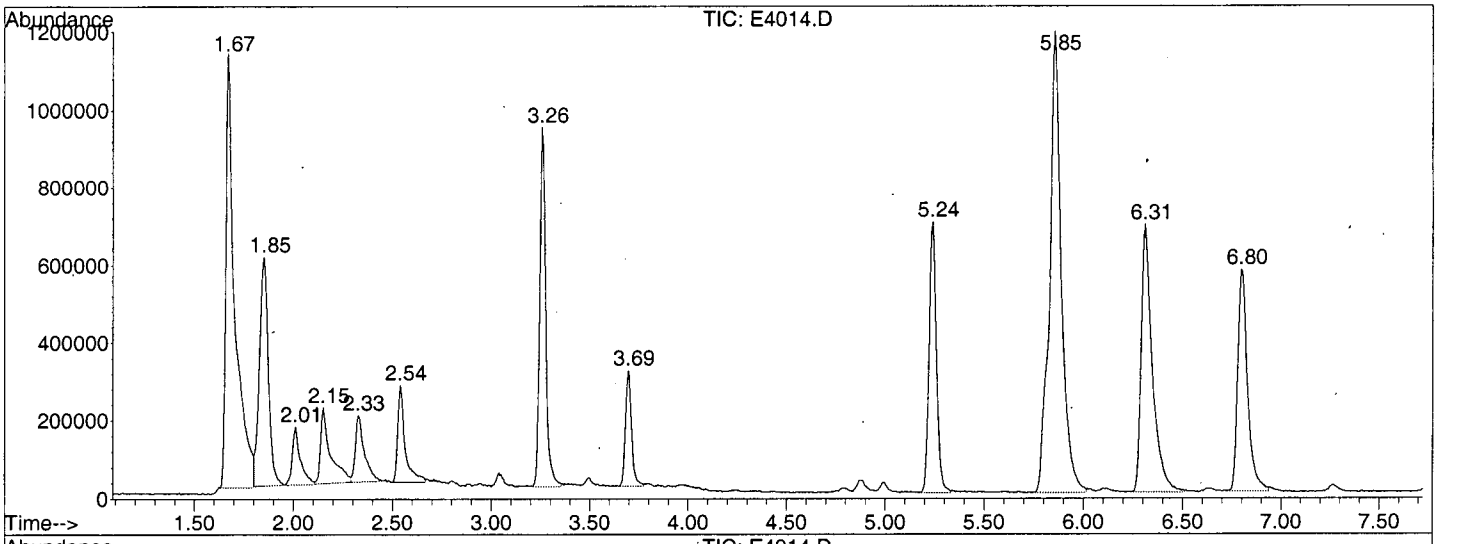
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.669	91	97	118	rBV	1117559	3574838	62.33%	9.918%
2	1.852	119	127	144	rVV	589019	1829406	31.90%	5.075%
3	2.010	145	153	169	rVV2	148638	422521	7.37%	1.172%
4	2.150	169	176	199	rVV	192607	678944	11.84%	1.884%
5	2.326	199	205	226	rVB	168198	536616	9.36%	1.489%
6	2.539	234	240	261	rBV	248958	633861	11.05%	1.759%
7	3.257	350	358	374	rBV	925822	1942790	33.88%	5.390%
8	3.695	423	430	443	rBV	297131	633902	11.05%	1.759%
9	5.240	673	684	699	rBV	695978	1782375	31.08%	4.945%
10	5.855	769	785	811	rBV2	1186825	4868679	84.89%	13.507%
11	6.311	847	860	893	rBV	687736	2661053	46.40%	7.383%
12	6.798	929	940	963	rBV	570077	1974506	34.43%	5.478%
13	7.771	1086	1100	1113	rBV	304345	873978	15.24%	2.425%
14	8.209	1160	1172	1212	rBV2	1090883	5734985	100.00%	15.911%
15	8.531	1216	1225	1238	rVB2	66428	196892	3.43%	0.546%
16	9.134	1309	1324	1331	rBV	62463	214785	3.75%	0.596%
17	10.326	1506	1520	1541	rBV	661436	2687770	46.87%	7.457%
18	11.512	1706	1715	1724	rBV	137514	335568	5.85%	0.931%
19	12.078	1800	1808	1819	rBV	286209	613763	10.70%	1.703%
20	13.185	1983	1990	2000	rBV	984011	1770979	30.88%	4.913%
21	13.538	2041	2048	2058	rBV	1178276	2076343	36.20%	5.760%

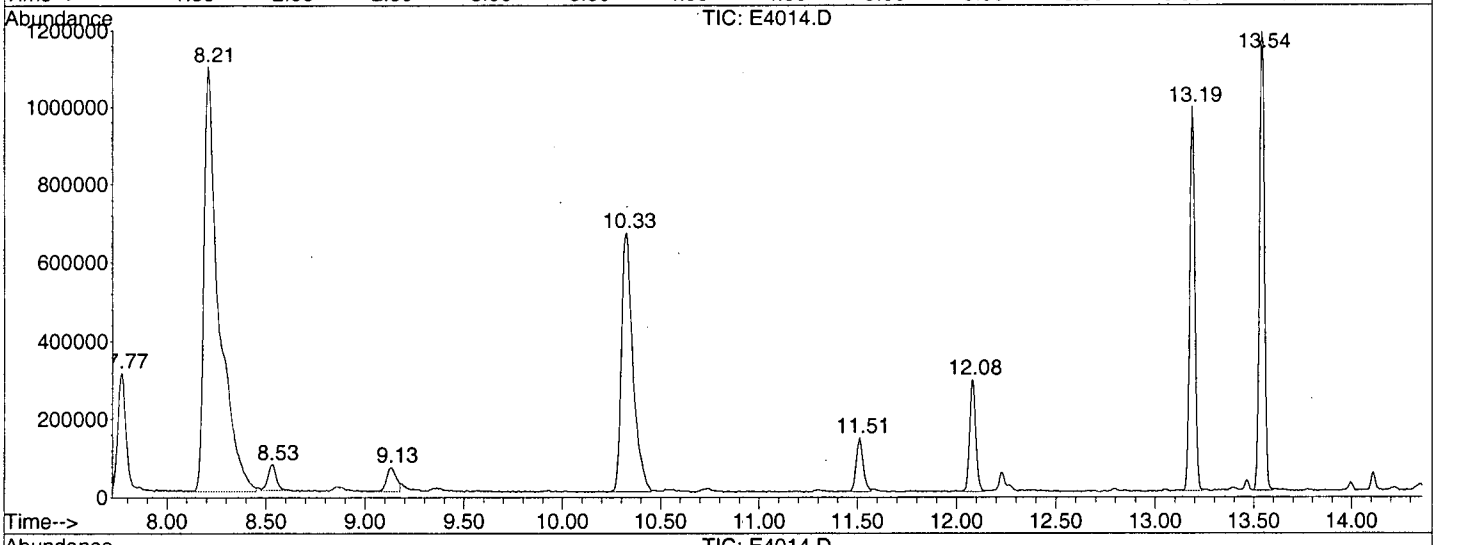
Sum of corrected areas: 36044554

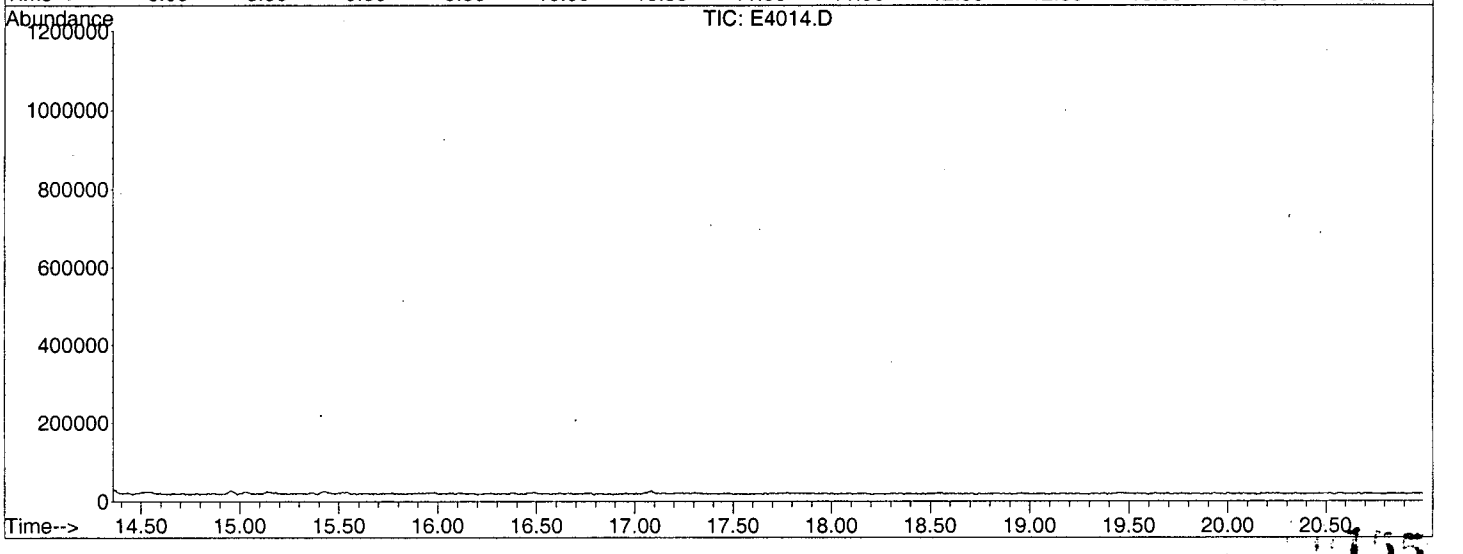
LSC Report - Integrated Chromatogram

Data File : C:\MSDCHEM\1\DATA\E4014.D
Acq On : 03/27/2003 1220
Sample : Y0SL6
Misc : 2761.004 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

Vial: 7
Operator: AK
Inst : E-5973
Multiplr: 1.00







Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4014.D Vial: 7
Acq On : 03/27/2003 1220 Operator: AK
Sample : Y0SL6 Inst : E-5973
Misc : 2761.004 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

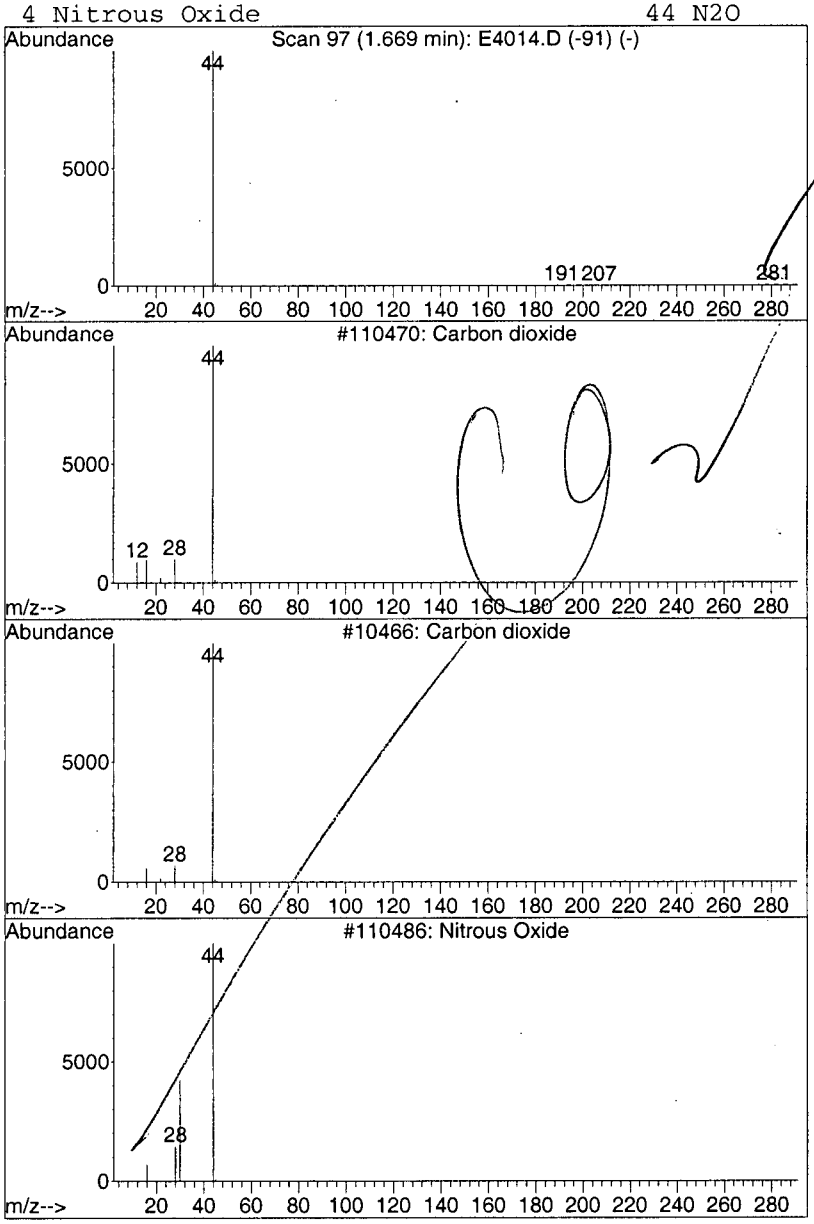
Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

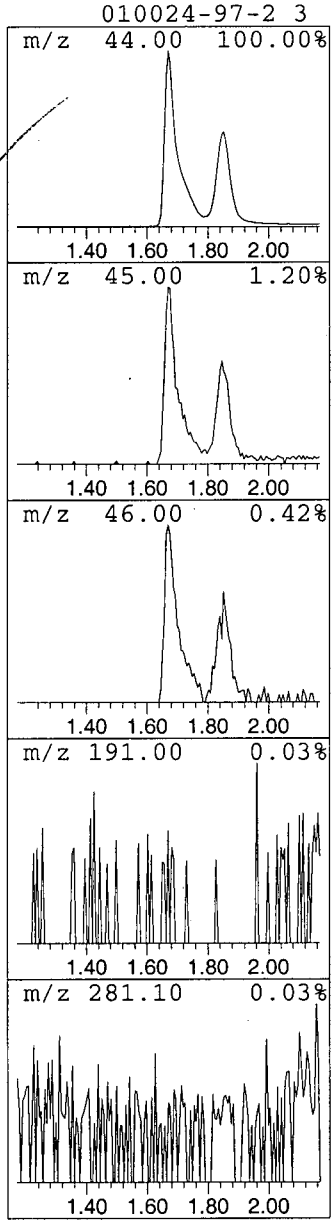
****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.67	6.72 ug/L	3574840	1,4-Difluorobenzene	6.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3





00156

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4014.D Vial: 7
Acq On : 03/27/2003 1220 Operator: AK
Sample : Y0SL6 Inst : E-5973
Misc : 2761.004 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

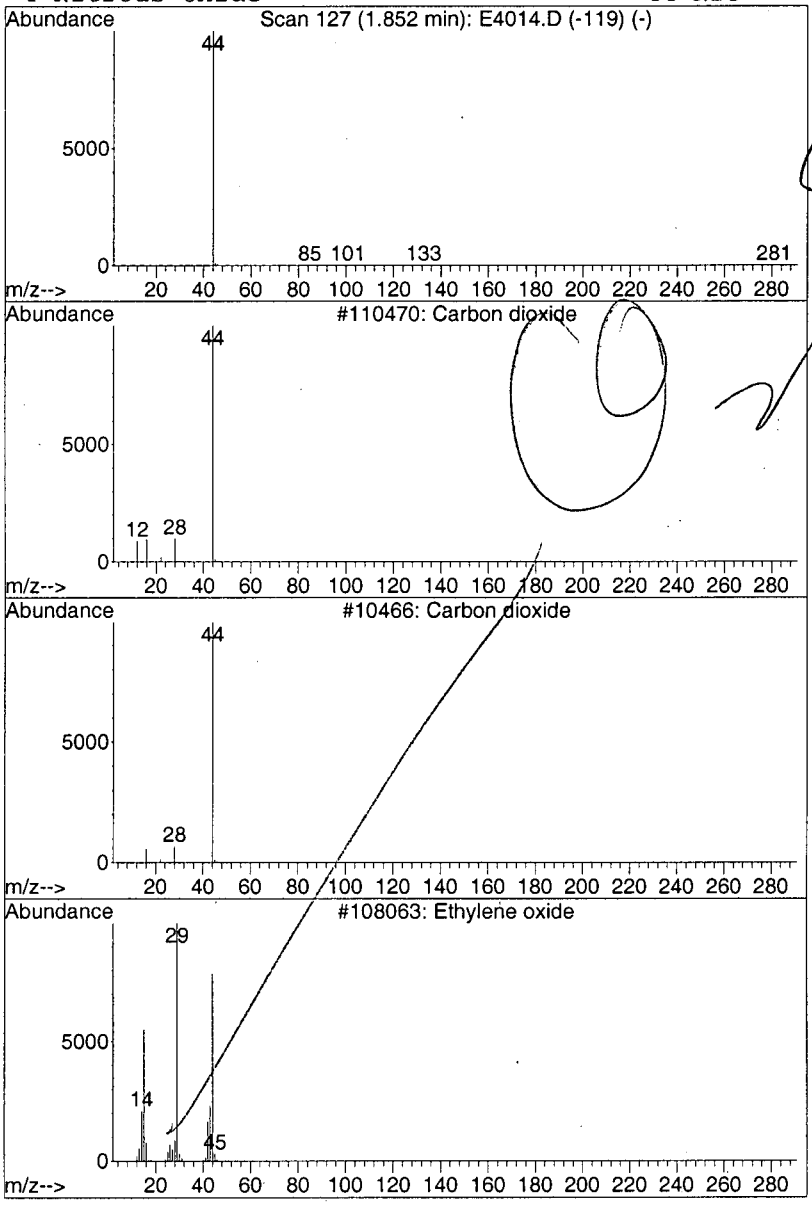
Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

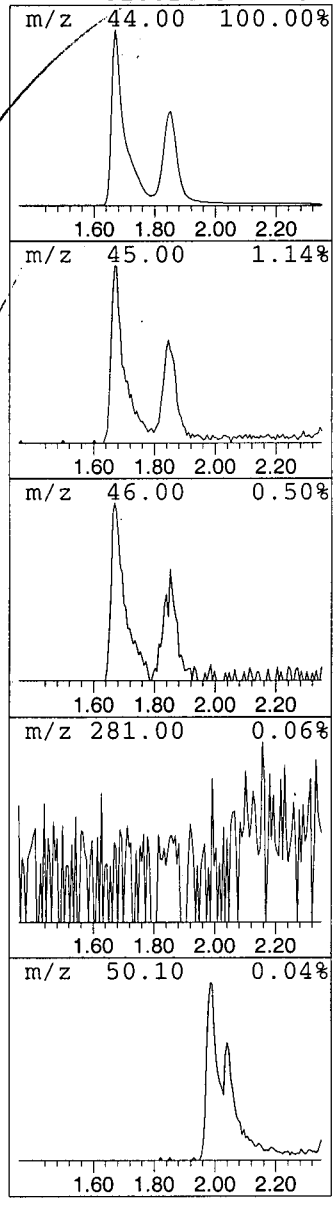
****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.85	3.44 ug/L	1829410	1,4-Difluorobenzene	6.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3





0157

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4014.D Vial: 7
Acq On : 03/27/2003 1220 Operator: AK
Sample : Y0SL6 Inst : E-5973
Misc : 2761.004 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

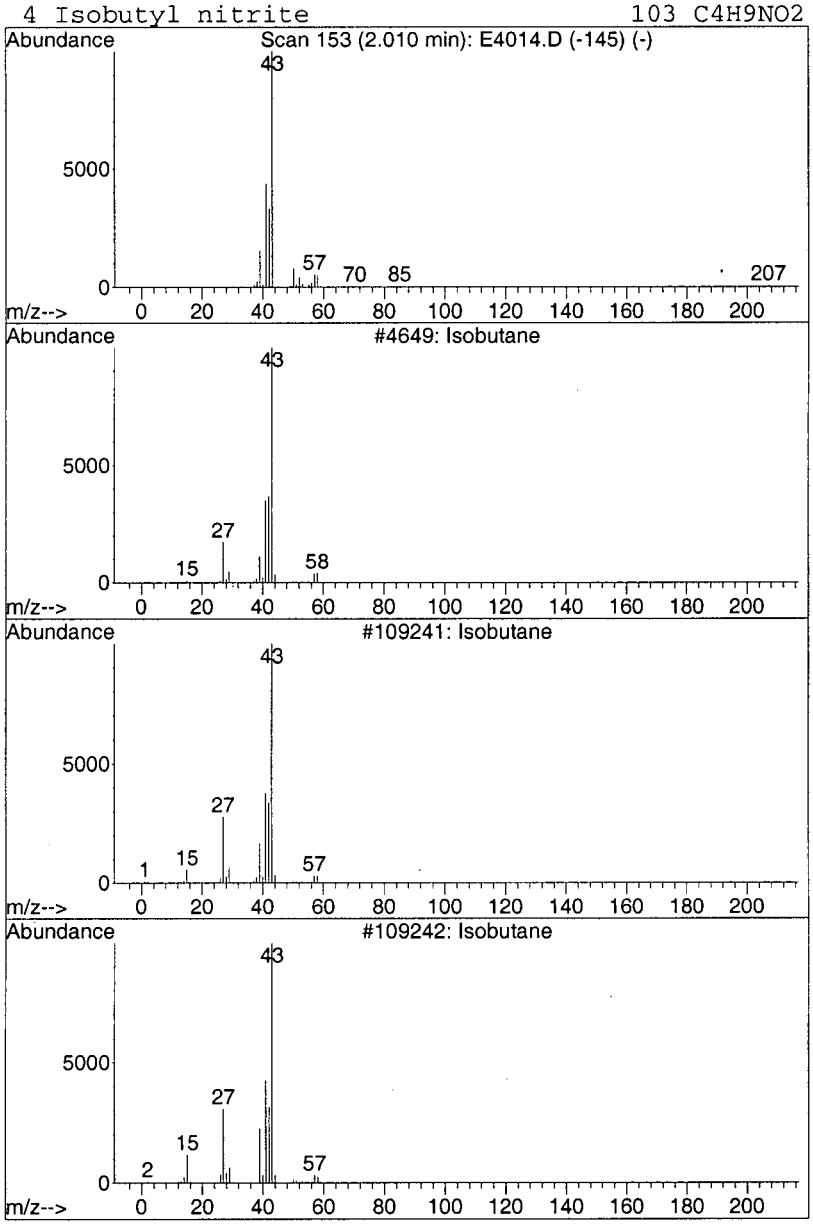
****

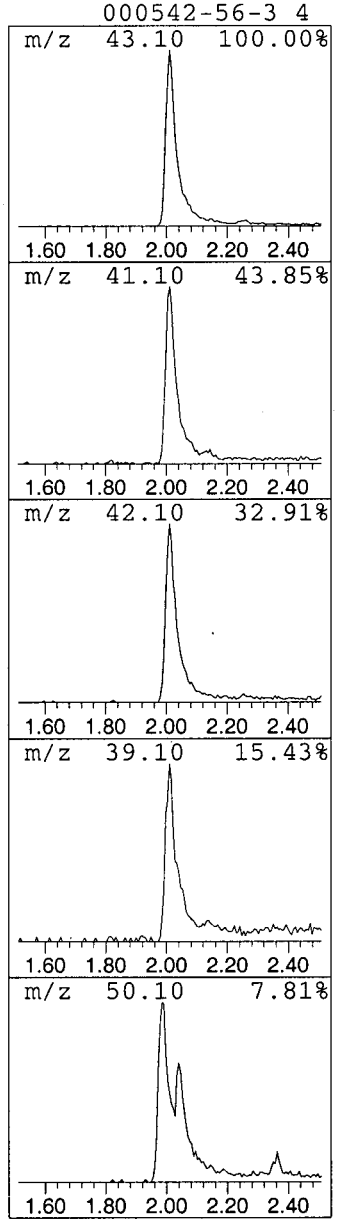
Peak Number 3 Isobutane Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.01	0.79 ug/L	422521	1,4-Difluorobenzene	6.31

Branched alkane

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Isobutane	58	C4H10	000075-28-5	64
2	Isobutane	58	C4H10	000075-28-5	64
3	Isobutane	58	C4H10	000075-28-5	53
4	Isobutyl nitrite	103	C4H9NO2	000542-56-3	4





0158

1LCA
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

Y0SL7

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2761.005 Date Received: 03/20/2003

Lab File ID: E4015 Date Analyzed: 03/27/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.22	J
75-01-4	Vinyl Chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	2.2	J
75-15-0	Carbon Disulfide	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-Butyl Ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.37	JB
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon Tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

1LCB
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

Y0SL7

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2761.005 Date Received: 03/20/2003

Lab File ID: E4015 Date Analyzed: 03/27/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.21	J
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
1330-20-7	Xylene (total)	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.39	JB
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1LCF

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS

DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Y0SL7

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2761.005 Date Received: 03/20/2003

Lab File ID: E4015 Date Analyzed: 03/27/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4015.D
Acq On : 03/27/2003 1300
Sample : YOSL7
Misc : 2761.005 25ML
MS Integration Params: RTEINT.P
Quant Time: Mar 27 13:22:09 2003

Vial: 8
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Results File: LCE4009.RES

KOA 03/27/03

Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Thu Mar 27 09:22:08 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4009.D
DataAcq Meth : VOAC

GP 4/04/03

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Difluorobenzene	6.31	114	1108574	5.00 ug/L	0.00
28) Chlorobenzene-d5	10.33	117	893835	5.00 ug/L	0.00
60) 1,4-Dichlorobenzene-d4	13.19	152	305312	5.00 ug/L	0.00
System Monitoring Compounds					
4) Vinyl Chloride-d3	2.15	65	449054	5.53 ug/L	0.00
Spiked Amount 5.000	Range 49 - 138		Recovery	= 110.60%	
7) Chloroethane-d5	2.54	69	389572	5.73 ug/L	0.00
Spiked Amount 5.000	Range 60 - 126		Recovery	= 114.60%	
10) 1,1-Dichloroethene-d2	3.26	65	191607	5.40 ug/L	0.00
Spiked Amount 5.000	Range 65 - 130		Recovery	= 108.00%	
20) 2-Butanone-d5	4.88	46	38070	5.31 ug/L	0.00
Spiked Amount 5.000	Range 42 - 171		Recovery	= 106.20%	
24) Chloroform-d	5.24	86	423192	5.41 ug/L	0.00
Spiked Amount 5.000	Range 80 - 123		Recovery	= 108.20%	
26) 1,2-Dichloroethane-d4	5.81	65	235829	5.63 ug/L	0.00
Spiked Amount 5.000	Range 78 - 129		Recovery	= 112.60%	
32) Benzene-d6	5.85	84	1957456	5.86 ug/L	0.00
Spiked Amount 5.000	Range 78 - 121		Recovery	= 117.20%	
35) 1,2-Dichloropropane-d6	6.80	67	466160	4.98 ug/L	0.00
Spiked Amount 5.000	Range 84 - 123		Recovery	= 99.60%	
41) Toluene-d8	8.21	98	1900998	5.81 ug/L	0.00
Spiked Amount 5.000	Range 77 - 120		Recovery	= 116.20%	
43) trans-1,3-Dichloropropene-	8.53	79	62018	5.55 ug/L	0.00
Spiked Amount 5.000	Range 80 - 128		Recovery	= 111.00%	
47) 2-Hexanone-d5	9.13	46	72367	5.24 ug/L	0.00
Spiked Amount 5.000	Range 37 - 169		Recovery	= 104.80%	
58) 1,1,2,2-Tetrachloroethane-	12.08	84	179196	5.67 ug/L	0.00
Spiked Amount 5.000	Range 75 - 131		Recovery	= 113.40%	
61) Bromoform-d	11.51	174	87596	5.08 ug/L	0.00
Spiked Amount 5.000	Range 76 - 135		Recovery	= 101.60%	
65) 1,2-Dichlorobenzene-d4	13.54	152	377670	6.05 ug/L	0.00
Spiked Amount 5.000	Range 50 - 150		Recovery	= 121.00%	

Target Compounds					Qvalue
3) Chloromethane	1.99	50	55664	0.22 ug/L J	81
13) Acetone	3.31	43	10485	2.21 ug/L J	97
25) Chloroform	5.26	83	52238	0.37 ug/L JB	82
42) Toluene	8.29	91	89352	0.21 ug/L J	99
62) Bromoform	11.54	173	8095	0.39 ug/L JB	84

(#) = qualifier out of range (m) = manual integration (+) = signals summed

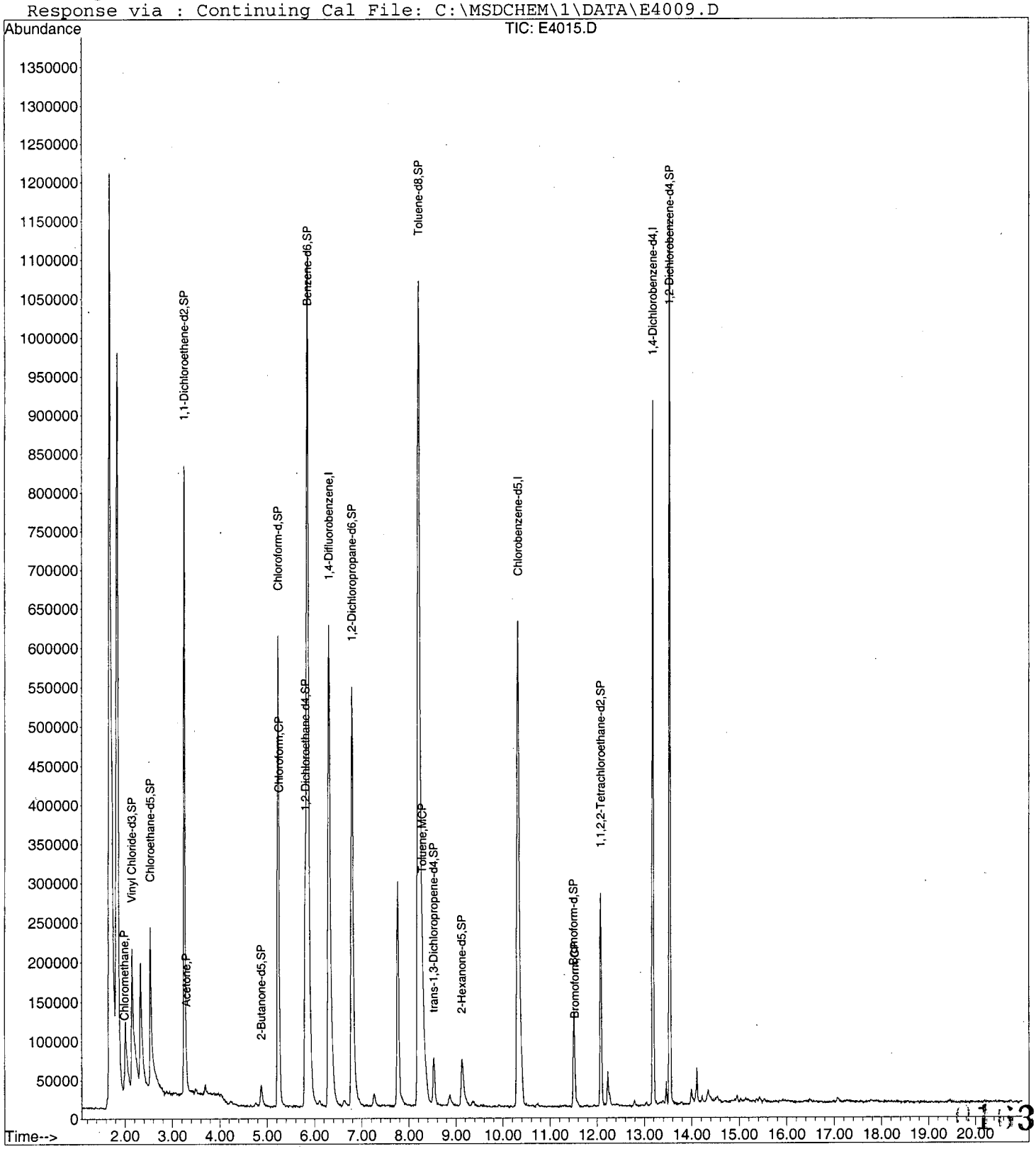
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4015.D
Acq On : 03/27/2003 1300
Sample : Y0SL7
Misc : 2761.005 25ML
MS Integration Params: RTEINT.P
Quant Time: Mar 27 13:51 2003

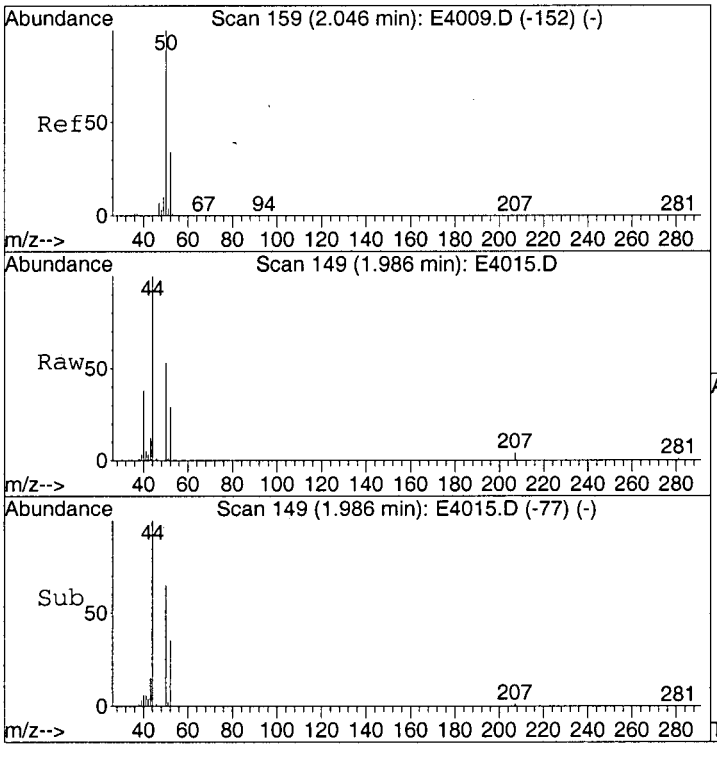
Vial: 8
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Results File: LCE4009.RES

Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Thu Mar 27 09:22:08 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4009.D



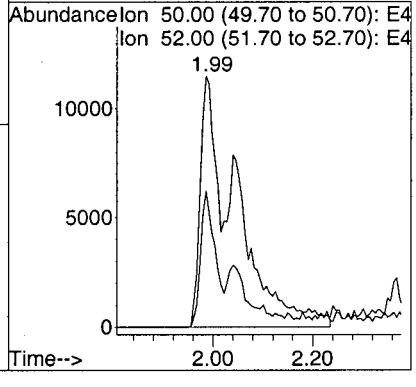
Data File : C:\MSDCHEM\1\DATA\E4015.D Vial: 8
Acq On : 03/27/2003 1300 Operator: AK
Sample : Y0SL7 Inst : E-5973
Misc : 2761.005 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

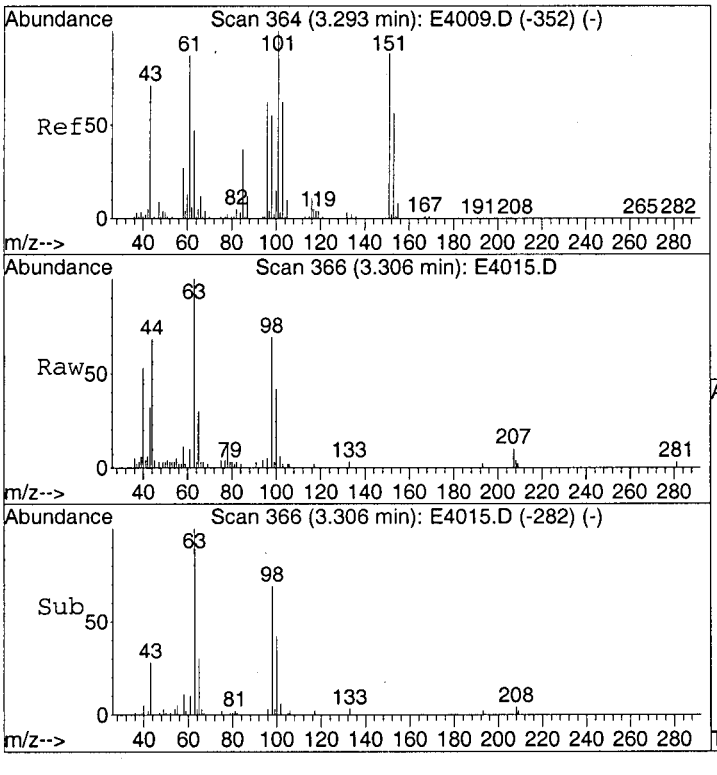


#3
Chloromethane
Concen: 0.22 ug/L
RT: 1.99 min Scan# 149
Delta R.T. -0.06 min
Lab File: E4015.D
Acq: 27 Mar 2003 13:00

Tgt Ion: 50 Resp: 55664

Ion	Ratio	Lower	Upper
50	100		
52	44.2	13.2	53.2

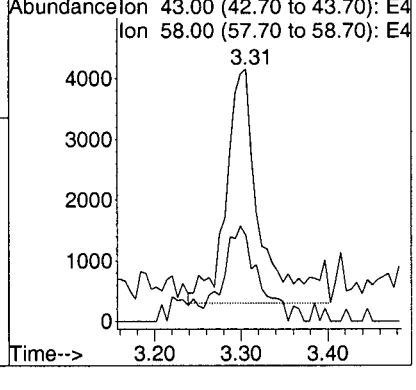




#13
Acetone
Concen: 2.21 ug/L
RT: 3.31 min Scan# 366
Delta R.T. 0.01 min
Lab File: E4015.D
Acq: 27 Mar 2003 13:00

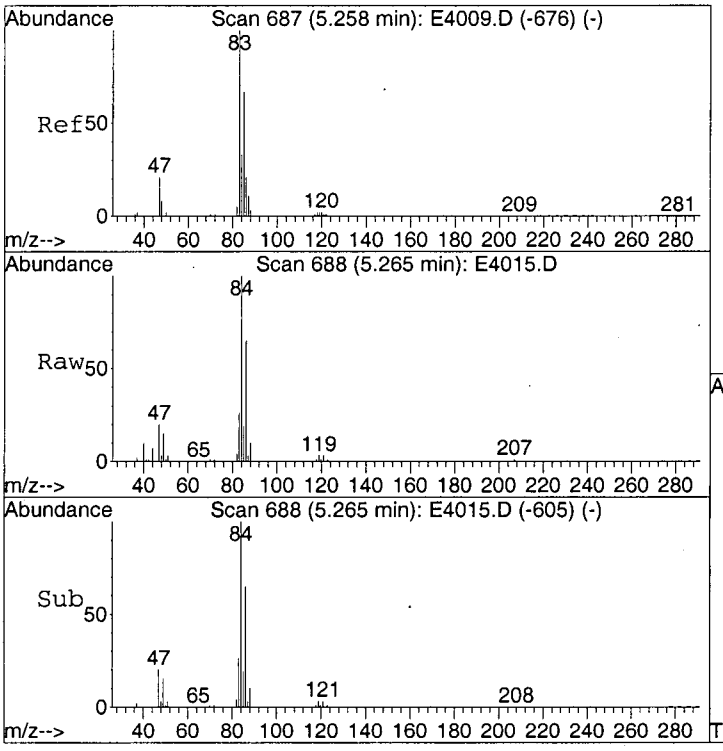
Tgt Ion: 43 Resp: 10485

Ion	Ratio	Lower	Upper
43	100		
58	40.8	22.6	62.6



0164

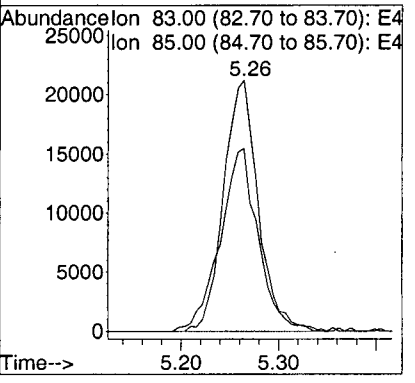
Data File : C:\MSDCHEM\1\DATA\E4015.D Vial: 8
Acq On : 03/27/2003 1300 Operator: AK
Sample : Y0SL7 Inst : E-5973
Misc : 2761.005 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

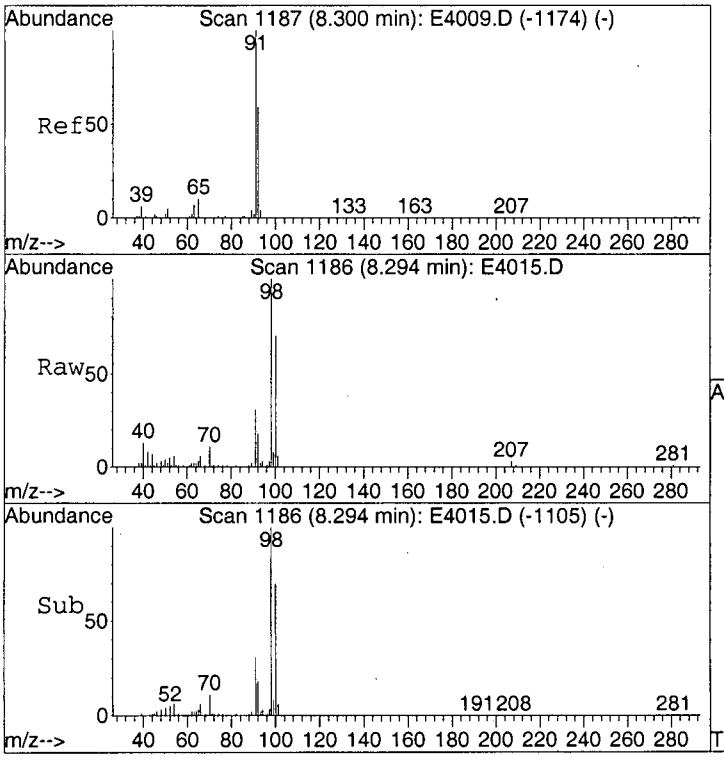


#25
Chloroform
Concen: 0.37 ug/L
RT: 5.26 min Scan# 688
Delta R.T. 0.01 min
Lab File: E4015.D
Acq: 27 Mar 2003 13:00

Tgt Ion: 83 Resp: 52238

Ion	Ratio	Lower	Upper
83	100		
85	79.8	45.9	85.9

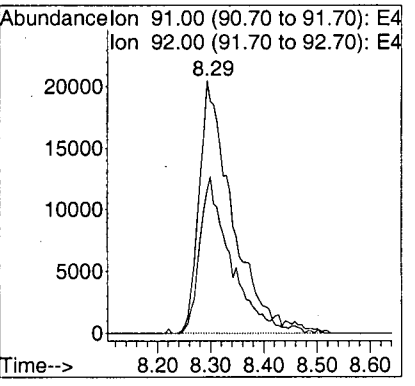




#42
Toluene
Concen: 0.21 ug/L
RT: 8.29 min Scan# 1186
Delta R.T. -0.01 min
Lab File: E4015.D
Acq: 27 Mar 2003 13:00

Tgt Ion: 91 Resp: 89352

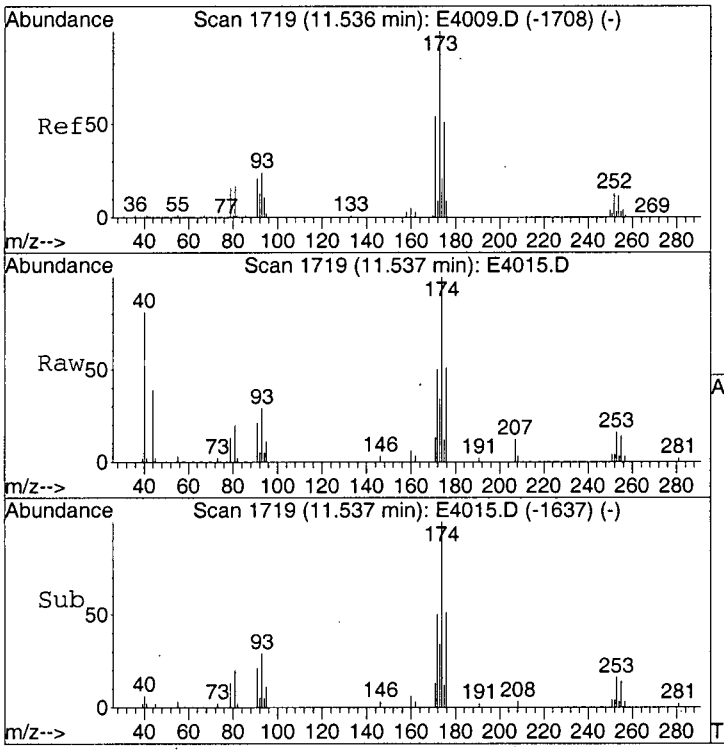
Ion	Ratio	Lower	Upper
91	100		
92	58.3	39.2	79.2



0165

Data File : C:\MSDCHEM\1\DATA\E4015.D
Acq On : 03/27/2003 1300
Sample : Y0SL7
Misc : 2761.005 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

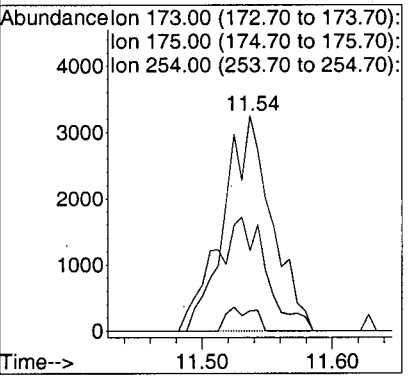
Vial: 8
Operator: AK
Inst : E-5973
Multiplr: 1.00



#62
Bromoform
Concen: 0.39 ug/L
RT: 11.54 min Scan# 1719
Delta R.T. 0.00 min
Lab File: E4015.D
Acq: 27 Mar 2003 13:00

Tgt Ion:173 Resp: 8095

Ion	Ratio	Lower	Upper
173	100		
175	60.8	29.4	69.4
254	6.5	0.0	31.9



0166

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\E4015.D
Acq On : 03/27/2003 1300
Sample : Y0SL7
Misc : 2761.005 25ML
MS Integration Params: Lscint.p

Vial: 8
Operator: AK
Inst : E-5973
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 100000 Area counts
Max Peaks: 40
Peak Location: TOP

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

Signal : TIC

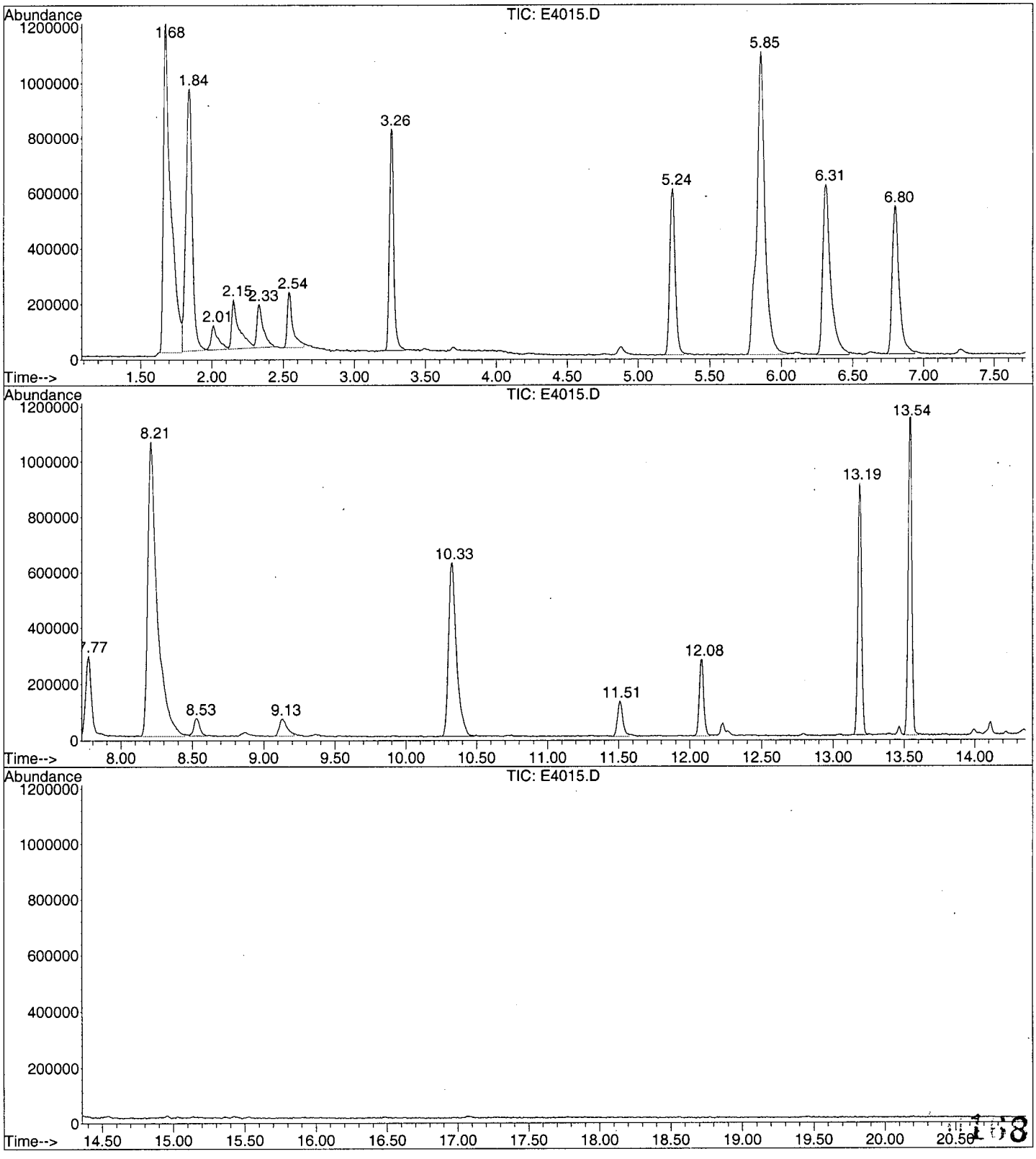
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.675	91	98	117	rBV	1185598	4264085	87.02%	12.527%
2	1.839	117	125	144	rVV	949226	2936987	59.93%	8.628%
3	2.010	146	153	168	rVV3	88334	294088	6.00%	0.864%
4	2.150	170	176	200	rVV	175924	643861	13.14%	1.892%
5	2.332	200	206	223	rVB	153706	481492	9.83%	1.415%
6	2.539	235	240	257	rBV	199512	531507	10.85%	1.561%
7	3.257	351	358	375	rBV	801682	1674527	34.17%	4.920%
8	5.240	675	684	698	rBV	600583	1582106	32.29%	4.648%
9	5.855	768	785	818	rBV2	1094365	4365579	89.09%	12.825%
10	6.311	849	860	887	rBV2	614995	2356650	48.09%	6.924%
11	6.798	930	940	963	rBV	534139	1830829	37.36%	5.379%
12	7.771	1090	1100	1113	rBV	284394	785247	16.02%	2.307%
13	8.209	1160	1172	1211	rBV	1057753	4900373	100.00%	14.397%
14	8.531	1216	1225	1236	rVB2	61637	183227	3.74%	0.538%
15	9.128	1314	1323	1337	rBV4	60662	234076	4.78%	0.688%
16	10.326	1508	1520	1546	rBV2	619039	2402341	49.02%	7.058%
17	11.506	1706	1714	1725	rBV	124554	326157	6.66%	0.958%
18	12.084	1798	1809	1819	rBV	272348	591414	12.07%	1.737%
19	13.185	1983	1990	2000	rBV	901368	1615393	32.96%	4.746%
20	13.538	2041	2048	2059	rBV	1140588	2038372	41.60%	5.988%

Sum of corrected areas: 34038311

LSC Report - Integrated Chromatogram

Data File : C:\MSDCHEM\1\DATA\E4015.D
Acq On : 03/27/2003 1300
Sample : Y0SL7
Misc : 2761.005 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

Vial: 8
Operator: AK
Inst : E-5973
Multiplr: 1.00



Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4015.D Vial: 8
Acq On : 03/27/2003 1300 Operator: AK
Sample : Y0SL7 Inst : E-5973
Misc : 2761.005 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

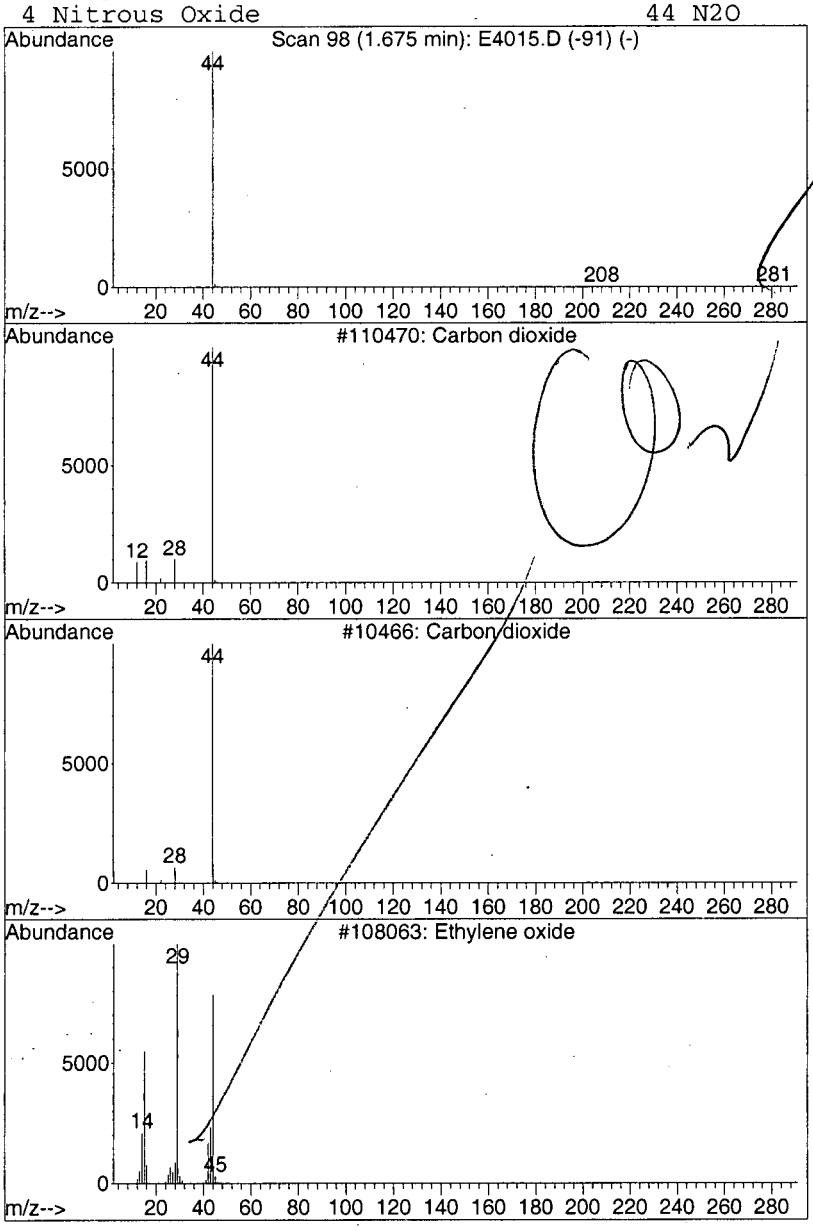
Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

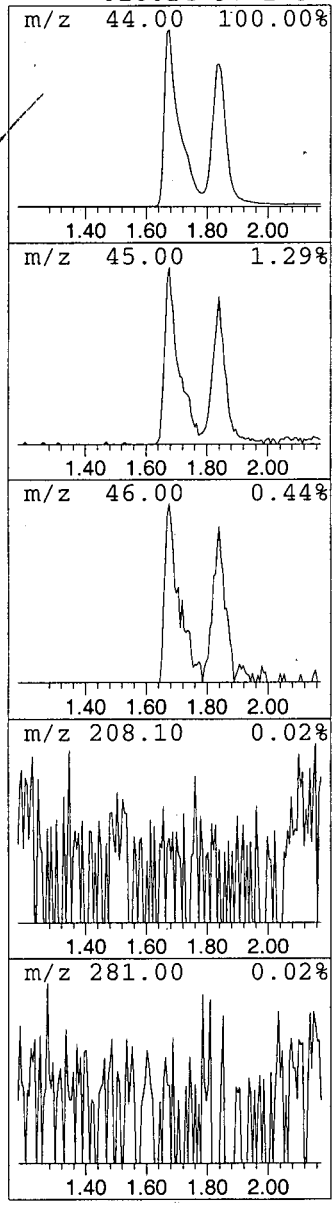
****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.68	9.05 ug/L	4264090	1,4-Difluorobenzene	6.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3





0169

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4015.D
Acq On : 03/27/2003 1300
Sample : Y0SL7
Misc : 2761.005 25ML
MS Integration Params: Lscint.p

Vial: 8
Operator: AK
Inst : E-5973
Multiplr: 1.00

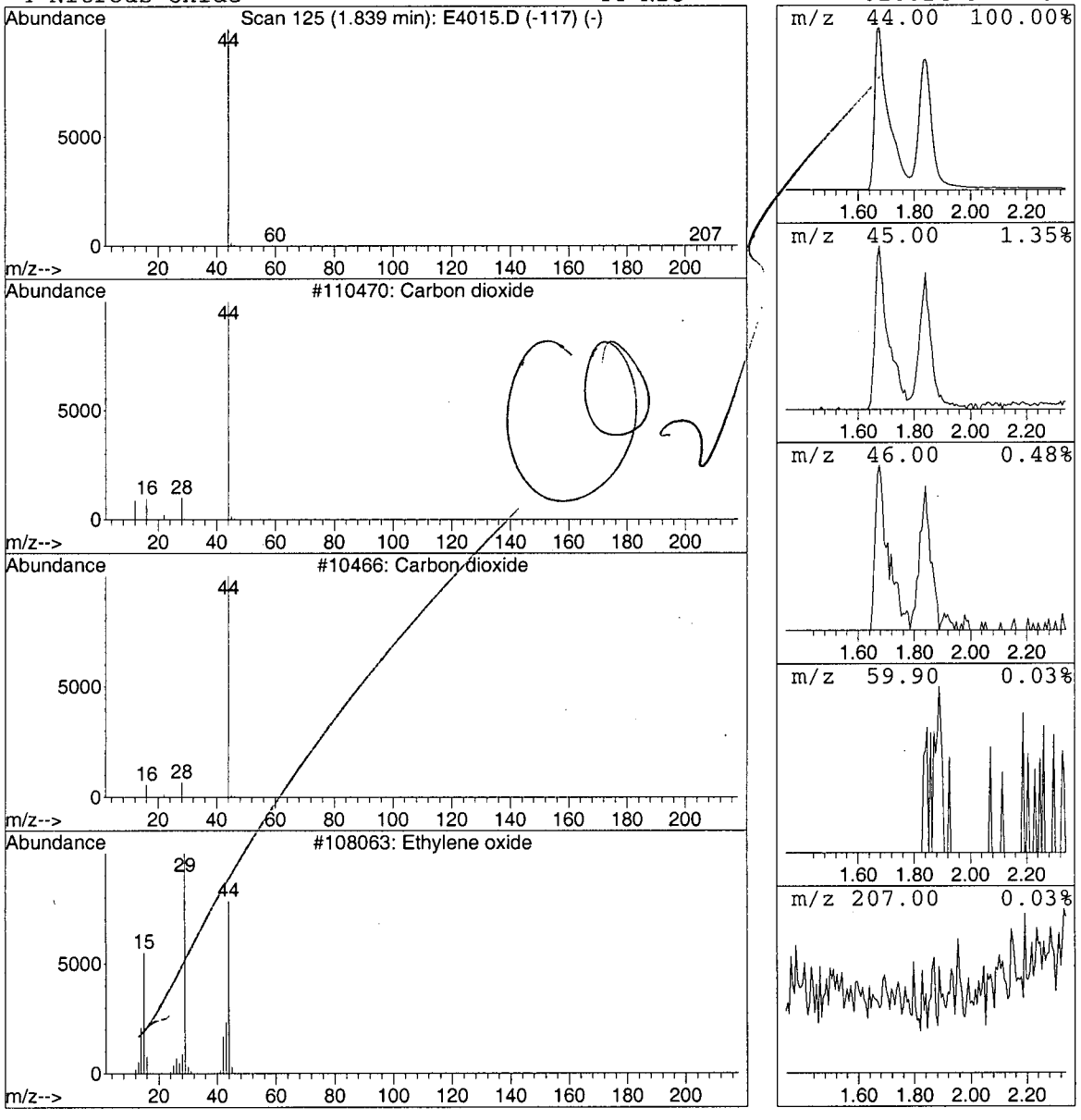
Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.84	6.23 ug/L	2936990	1,4-Difluorobenzene	6.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3



0170

1LCA
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

Y0SL8

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2775.001 Date Received: 03/21/2003

Lab File ID: E4083 Date Analyzed: 03/31/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl Chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	9.2	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	2.3	JB
75-15-0	Carbon Disulfide	0.50	U
79-20-9	Methyl Acetate	0.21	J
75-09-2	Methylene Chloride	0.72	B
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-Butyl Ether	0.17	J
75-34-3	1,1-Dichloroethane	1.6	
156-59-2	cis-1,2-Dichloroethene	2.7	
78-93-3	2-Butanone	0.33	J
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.29	JB
71-55-6	1,1,1-Trichloroethane	0.27	J
110-82-7	Cyclohexane	0.22	J
56-23-5	Carbon Tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.69	

1LCB

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS

DATA SHEET

EPA SAMPLE NO.

Y0SL8

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2775.001 Date Received: 03/21/2003

Lab File ID: E4083 Date Analyzed: 03/31/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
79-01-6	Trichloroethene	2.0	
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.71	
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.19	J
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.17	J
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
1330-20-7	Xylene (total)	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1LCF

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS

DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Y0SL8

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2775.001 Date Received: 03/21/2003

Lab File ID: E4083 Date Analyzed: 03/31/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4083.D
Acq On : 03/31/2003 1800
Sample : Y0SL8
Misc : 2775.001 25ML
MS Integration Params: RTEINT.P
Quant Time: Apr 01 09:35:16 2003

Vial: 9
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Results File: LCE4078.RES

Kak 04/01/03

Quant Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Mon Mar 31 14:25:59 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4078.D
DataAcq Meth : VOAC

GP 4/04/03

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Difluorobenzene	6.30	114	927515	5.00 ug/L	0.00
28) Chlorobenzene-d5	10.31	117	709357	5.00 ug/L	0.00
60) 1,4-Dichlorobenzene-d4	13.19	152	237822	5.00 ug/L	0.00
System Monitoring Compounds					
4) Vinyl Chloride-d3	2.14	65	440058	5.46 ug/L	0.00
Spiked Amount 5.000	Range 49 - 138		Recovery	= 109.20%	
7) Chloroethane-d5	2.53	69	396304	5.75 ug/L	0.00
Spiked Amount 5.000	Range 60 - 126		Recovery	= 115.00%	
10) 1,1-Dichloroethene-d2	3.25	65	206574	5.74 ug/L	0.00
Spiked Amount 5.000	Range 65 - 130		Recovery	= 114.80%	
20) 2-Butanone-d5	4.87	46	36895	5.21 ug/L	0.00
Spiked Amount 5.000	Range 42 - 171		Recovery	= 104.20%	
24) Chloroform-d	5.23	86	470445	5.56 ug/L	0.00
Spiked Amount 5.000	Range 80 - 123		Recovery	= 111.20%	
26) 1,2-Dichloroethane-d4	5.81	65	244834	5.47 ug/L	0.00
Spiked Amount 5.000	Range 78 - 129		Recovery	= 109.40%	
32) Benzene-d6	5.85	84	1895886	5.24 ug/L	0.00
Spiked Amount 5.000	Range 78 - 121		Recovery	= 104.80%	
35) 1,2-Dichloropropane-d6	6.79	67	442935	4.69 ug/L	0.00
Spiked Amount 5.000	Range 84 - 123		Recovery	= 93.80%	
41) Toluene-d8	8.20	98	1755234	5.13 ug/L	0.00
Spiked Amount 5.000	Range 77 - 120		Recovery	= 102.60%	
43) trans-1,3-Dichloropropene-	8.52	79	60180	4.96 ug/L	-0.01
Spiked Amount 5.000	Range 80 - 128		Recovery	= 99.20%	
47) 2-Hexanone-d5	9.12	46	52222	4.61 ug/L	0.00
Spiked Amount 5.000	Range 37 - 169		Recovery	= 92.20%	
58) 1,1,2,2-Tetrachloroethane-	12.08	84	165211	5.18 ug/L	0.00
Spiked Amount 5.000	Range 75 - 131		Recovery	= 103.60%	
61) Bromoform-d	11.51	174	90819	4.73 ug/L	0.00
Spiked Amount 5.000	Range 76 - 135		Recovery	= 94.60%	
65) 1,2-Dichlorobenzene-d4	13.54	152	336569	5.56 ug/L	0.00
Spiked Amount 5.000	Range 50 - 150		Recovery	= 111.20%	

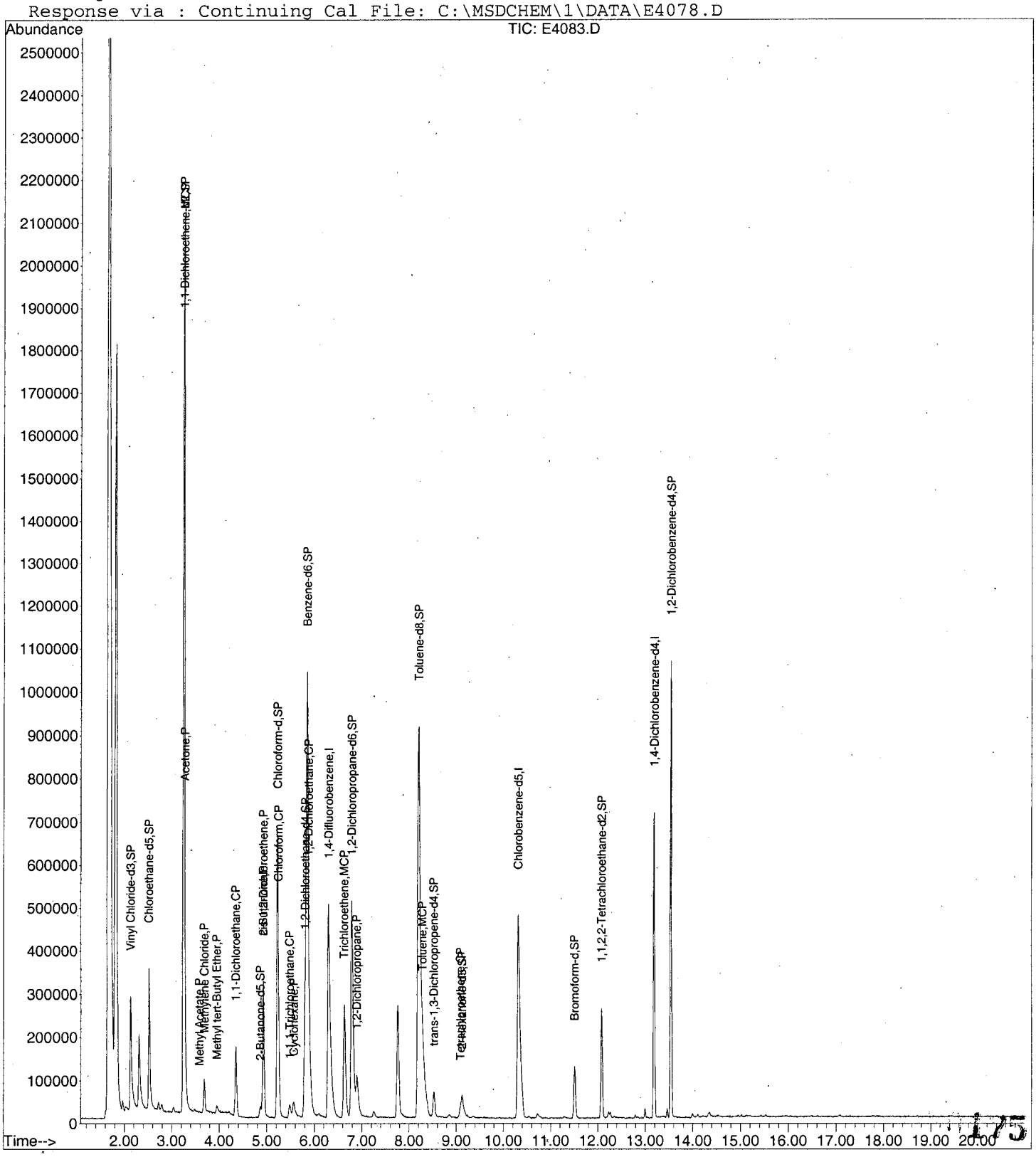
Target Compounds					Qvalue
11) 1,1-Dichloroethene	3.26	96	734575	9.24 ug/L #	79
13) Acetone	3.29	43	11342	2.31 ug/L JB	84
15) Methyl Acetate	3.59	43	2160	0.21 ug/L J	91
16) Methylene Chloride	3.68	84	48718	0.72 ug/L B	96
18) Methyl tert-Butyl Ether	3.95	73	15641	0.17 ug/L J	87
19) 1,1-Dichloroethane	4.35	63	196396	1.54 ug/L	100
21) cis-1,2-Dichloroethene	4.93	96	193300	2.69 ug/L	99
22) 2-Butanone	4.92	43	2598	0.33 ug/L J	82
25) Chloroform	5.25	83	34437	0.29 ug/L JB	76
27) 1,2-Dichloroethane	5.88	62	34241	0.69 ug/L	100
29) 1,1,1-Trichloroethane	5.48	97	33326	0.27 ug/L J	99
30) Cyclohexane	5.57	56	33320	0.22 ug/L J	90
34) Trichloroethene	6.63	95	148170	1.97 ug/L	98
37) 1,2-Dichloropropane	6.89	63	47535	0.71 ug/L	99
42) Toluene	8.29	91	67987	0.19 ug/L J	100
46) Tetrachloroethene	9.08	164	13672	0.17 ug/L J	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

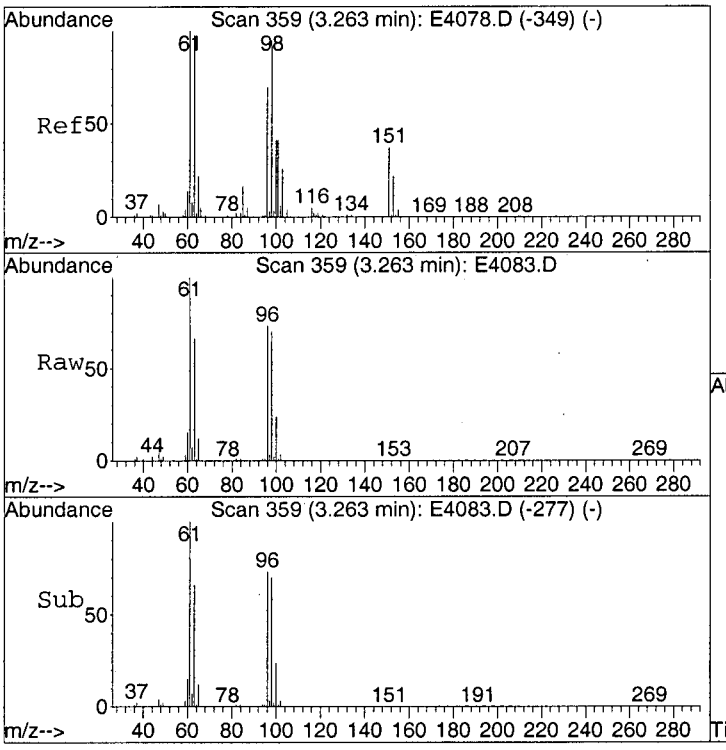
Data File : C:\MSDCHEM\1\DATA\E4083.D Vial: 9
Acq On : 03/31/2003 1800 Operator: AK
Sample : Y0SL8 Inst : E-5973
Misc : 2775.001 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 1 9:40 2003 Quant Results File: LCE4078.RES

Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Mon Mar 31 14:25:59 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4078.D



Data File : C:\MSDCHEM\1\DATA\E4083.D
Acq On : 03/31/2003 1800
Sample : Y0SL8
Misc : 2775.001 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

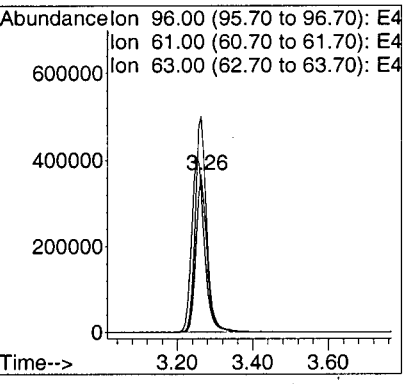
Vial: 9
Operator: AK
Inst : E-5973
Multiplr: 1.00

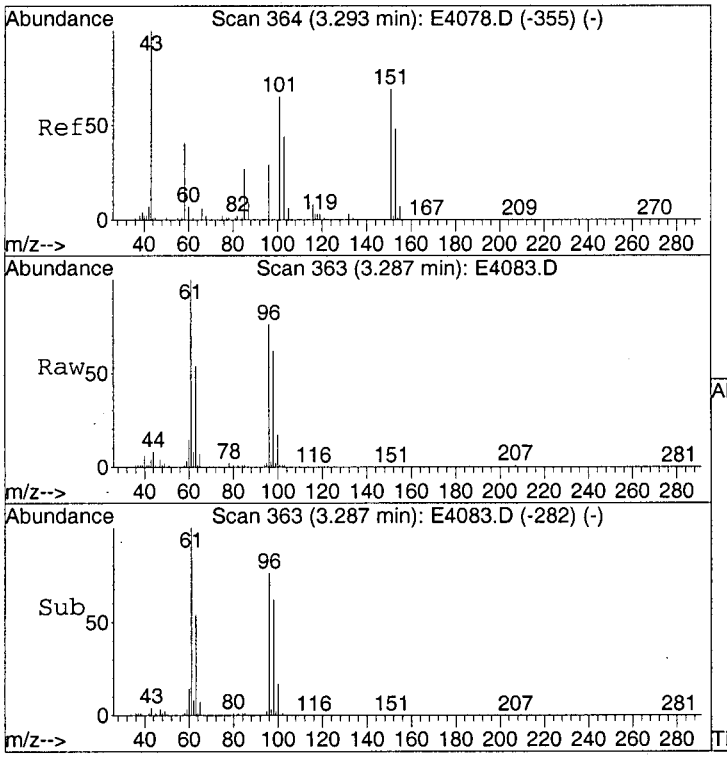


#11
1,1-Dichloroethene
Concen: 9.24 ug/L
RT: 3.26 min Scan# 359
Delta R.T. 0.00 min
Lab File: E4083.D
Acq: 31 Mar 2003 18:00

Tgt Ion: 96 Resp: 734575

Ion	Ratio	Lower	Upper
96	100		
61	143.6	126.0	166.0
63	131.7	163.4	203.4#

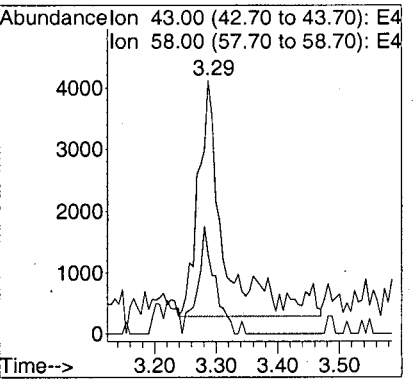




#13
Acetone
Concen: 2.31 ug/L
RT: 3.29 min Scan# 363
Delta R.T. -0.01 min
Lab File: E4083.D
Acq: 31 Mar 2003 18:00

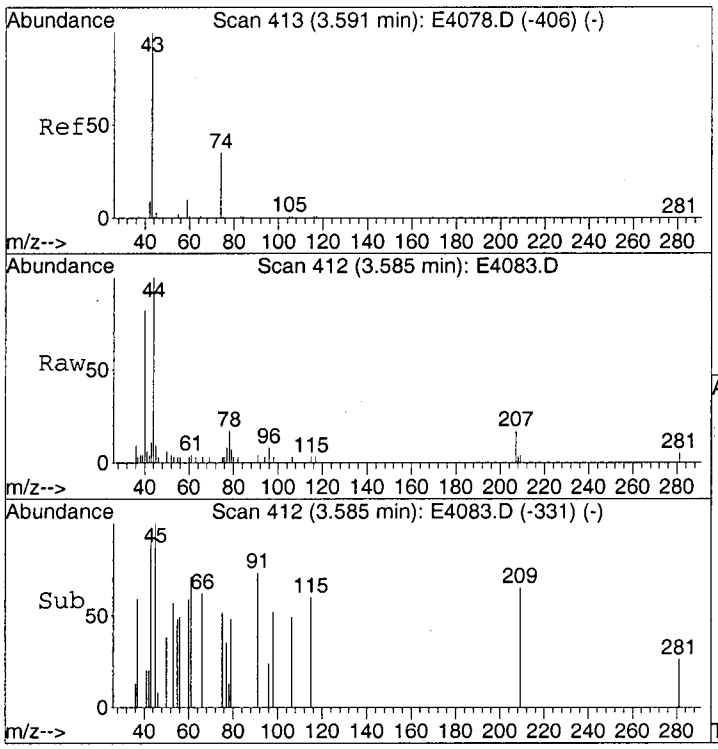
Tgt Ion: 43 Resp: 11342

Ion	Ratio	Lower	Upper
43	100		
58	29.7	19.5	59.5



176

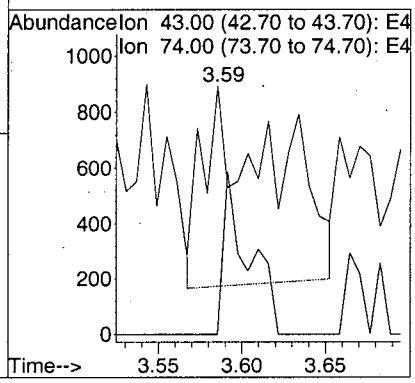
Data File : C:\MSDCHEM\1\DATA\E4083.D Vial: 9
Acq On : 03/31/2003 1800 Operator: AK
Sample : Y0SL8 Inst : E-5973
Misc : 2775.001 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

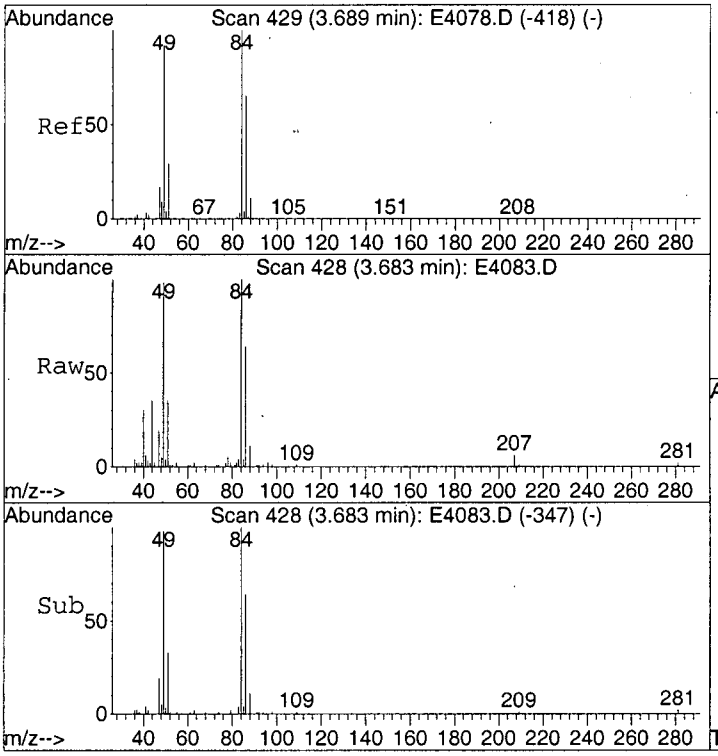


#15
Methyl Acetate
Concen: 0.21 ug/L
RT: 3.59 min Scan# 412
Delta R.T. -0.01 min
Lab File: E4083.D
Acq: 31 Mar 2003 18:00

Tgt Ion: 43 Resp: 2160

Ion	Ratio	Lower	Upper
43	100		
74	28.3	13.1	53.1

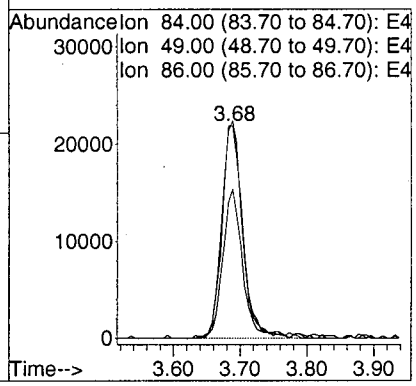




#16
Methylene Chloride
Concen: 0.72 ug/L
RT: 3.68 min Scan# 428
Delta R.T. -0.01 min
Lab File: E4083.D
Acq: 31 Mar 2003 18:00

Tgt Ion: 84 Resp: 48718

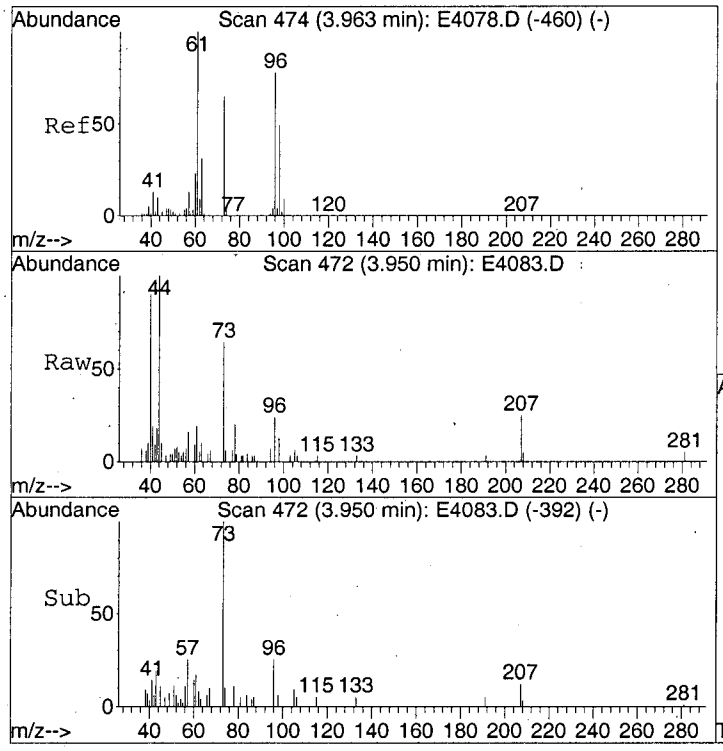
Ion	Ratio	Lower	Upper
84	100		
49	98.0	71.8	111.8
86	64.5	43.5	83.5



177

Data File : C:\MSDCHEM\1\DATA\E4083.D
Acq On : 03/31/2003 1800
Sample : Y0SL8
Misc : 2775.001 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

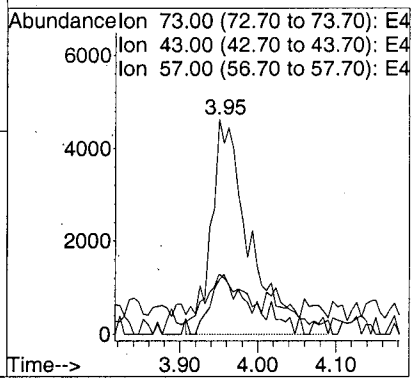
Vial: 9
Operator: AK
Inst : E-5973
Multiplr: 1.00

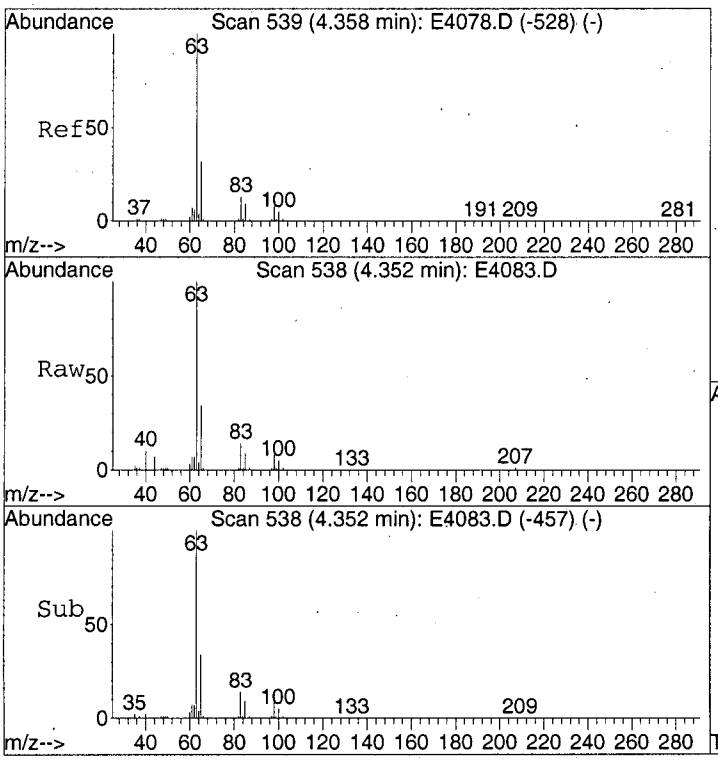


#18
Methyl tert-Butyl Ether
Concen: 0.17 ug/L
RT: 3.95 min Scan# 472
Delta R.T. -0.01 min
Lab File: E4083.D
Acq: 31 Mar 2003 18:00

Tgt Ion: 73 Resp: 15641

Ion	Ratio	Lower	Upper
73	100		
43	18.8	0.0	36.4
57	31.0	2.1	42.1

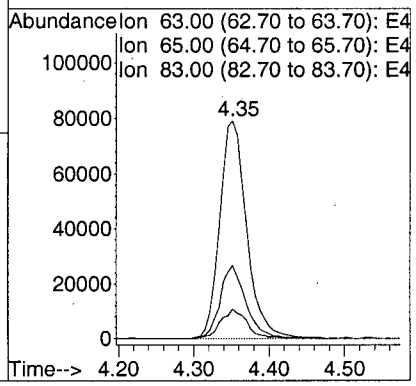




#19
1,1-Dichloroethane
Concen: 1.54 ug/L
RT: 4.35 min Scan# 538
Delta R.T. -0.01 min
Lab File: E4083.D
Acq: 31 Mar 2003 18:00

Tgt Ion: 63 Resp: 196396

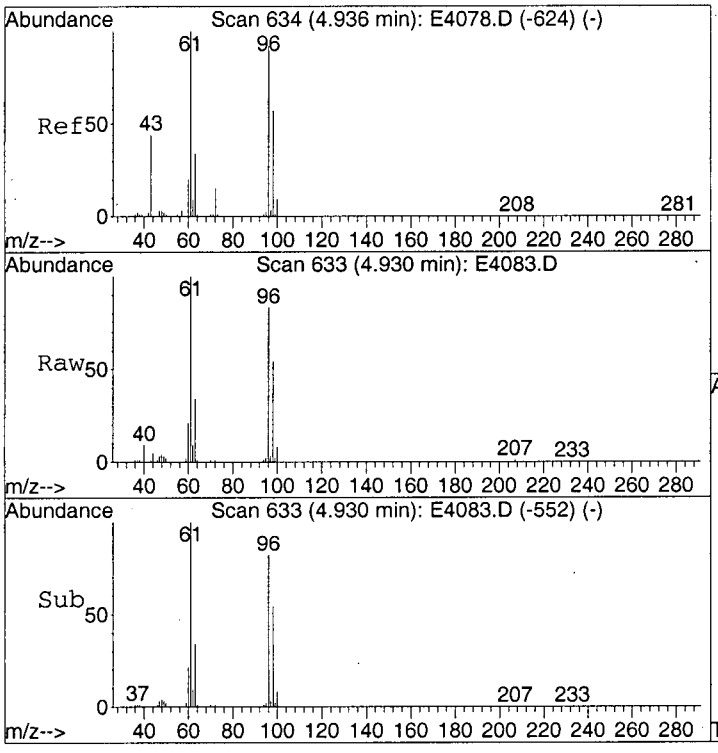
Ion	Ratio	Lower	Upper
63	100		
65	32.1	12.3	52.3
83	13.1	0.0	33.3



178

Data File : C:\MSDCHEM\1\DATA\E4083.D
Acq On : 03/31/2003 1800
Sample : Y0SL8
Misc : 2775.001 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

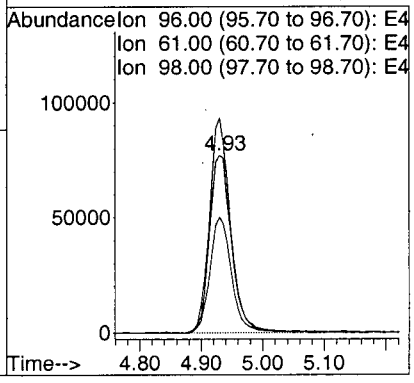
Vial: 9
Operator: AK
Inst : E-5973
Multiplr: 1.00

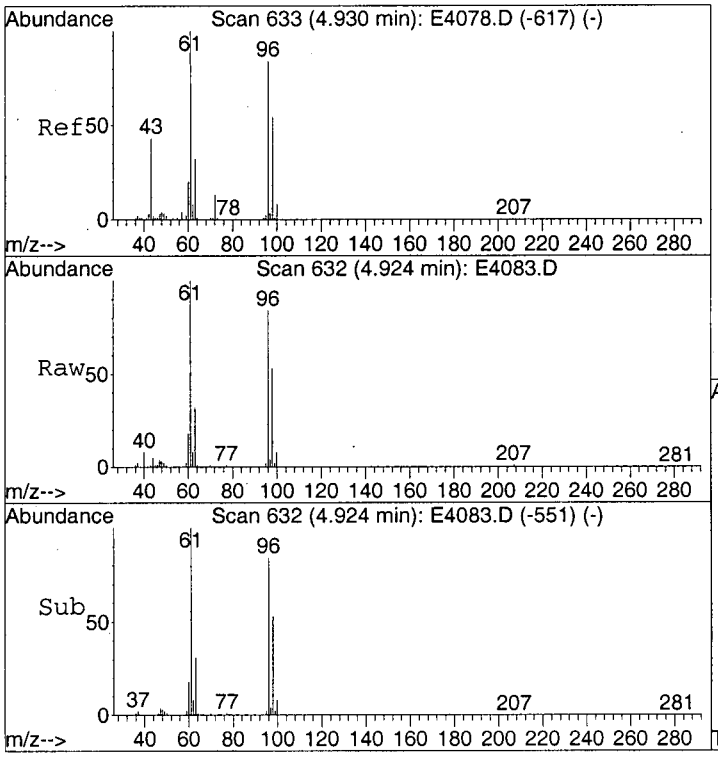


#21
cis-1,2-Dichloroethene
Concen: 2.69 ug/L
RT: 4.93 min Scan# 633
Delta R.T. -0.01 min
Lab File: E4083.D
Acq: 31 Mar 2003 18:00

Tgt Ion: 96 Resp: 193300

Ion	Ratio	Lower	Upper
96	100		
61	114.7	94.5	134.5
98	63.0	43.9	83.9

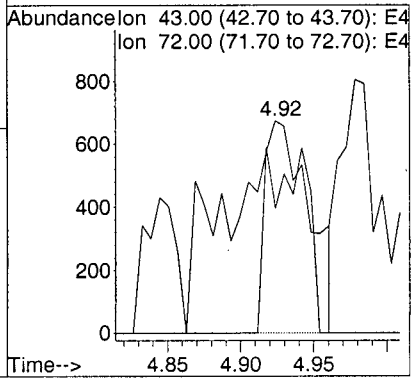




#22
2-Butanone
Concen: 0.33 ug/L
RT: 4.92 min Scan# 632
Delta R.T. -0.01 min
Lab File: E4083.D
Acq: 31 Mar 2003 18:00

Tgt Ion: 43 Resp: 2598

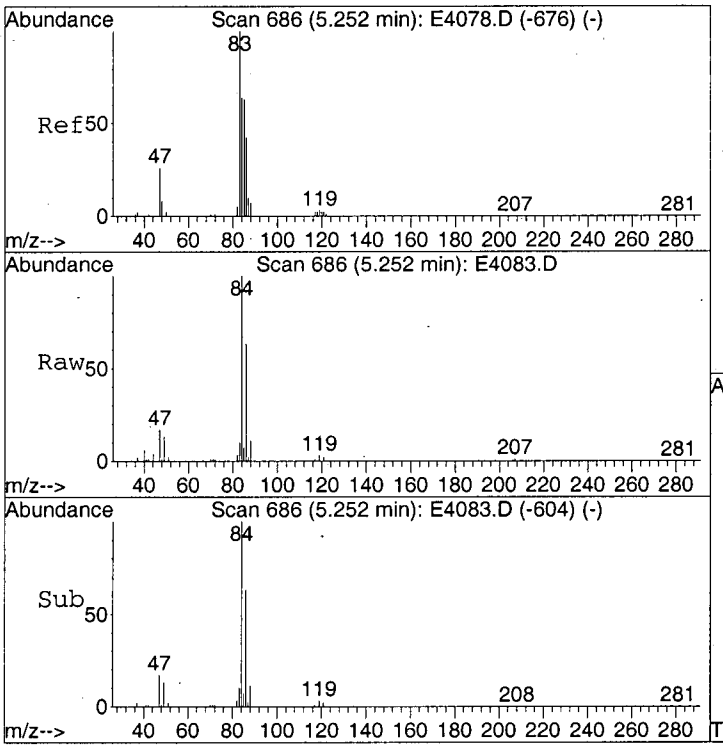
Ion	Ratio	Lower	Upper
43	100		
72	41.6	11.9	51.9



179

Data File : C:\MSDCHEM\1\DATA\E4083.D
Acq On : 03/31/2003 1800
Sample : Y0SL8
Misc : 2775.001 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

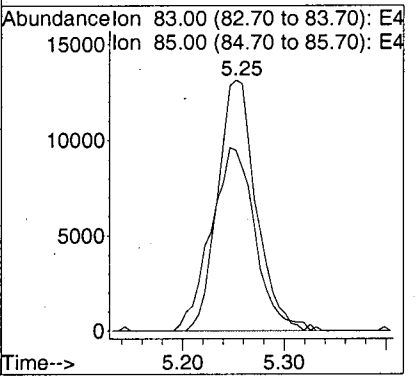
Vial: 9
Operator: AK
Inst : E-5973
Multiplr: 1.00

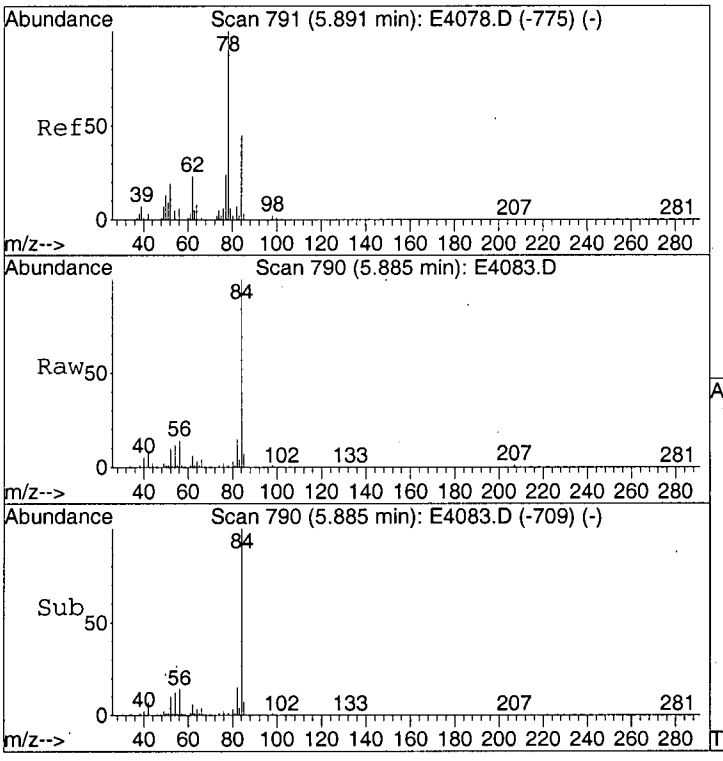


#25
Chloroform
Concen: 0.29 ug/L
RT: 5.25 min Scan# 686
Delta R.T. 0.00 min
Lab File: E4083.D
Acq: 31 Mar 2003 18:00

Tgt Ion: 83 Resp: 34437

Ion	Ratio	Lower	Upper
83	100		
85	85.0	45.6	85.6

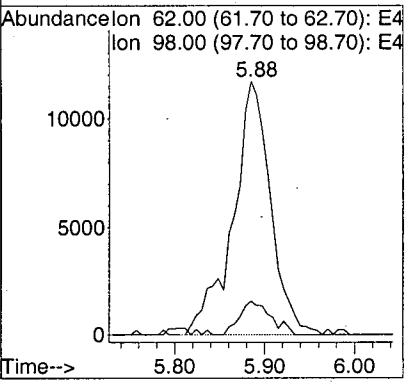




#27
1,2-Dichloroethane
Concen: 0.69 ug/L
RT: 5.88 min Scan# 790
Delta R.T. -0.01 min
Lab File: E4083.D
Acq: 31 Mar 2003 18:00

Tgt Ion: 62 Resp: 34241

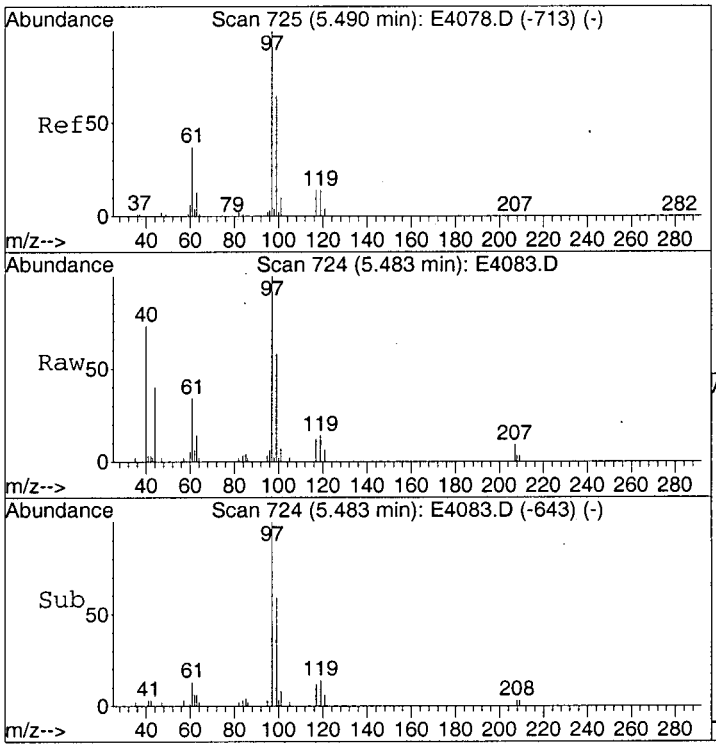
Ion	Ratio	Lower	Upper
62	100		
98	11.2	0.0	31.2



0180

Data File : C:\MSDCHEM\1\DATA\E4083.D
Acq On : 03/31/2003 1800
Sample : Y0SL8
Misc : 2775.001 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

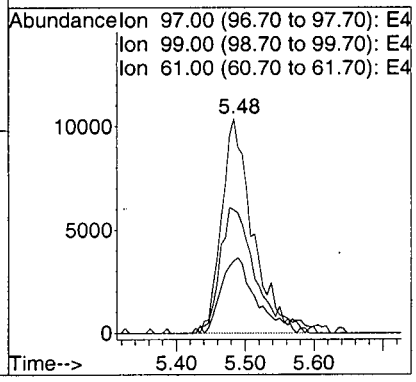
Vial: 9
Operator: AK
Inst : E-5973
Multiplr: 1.00

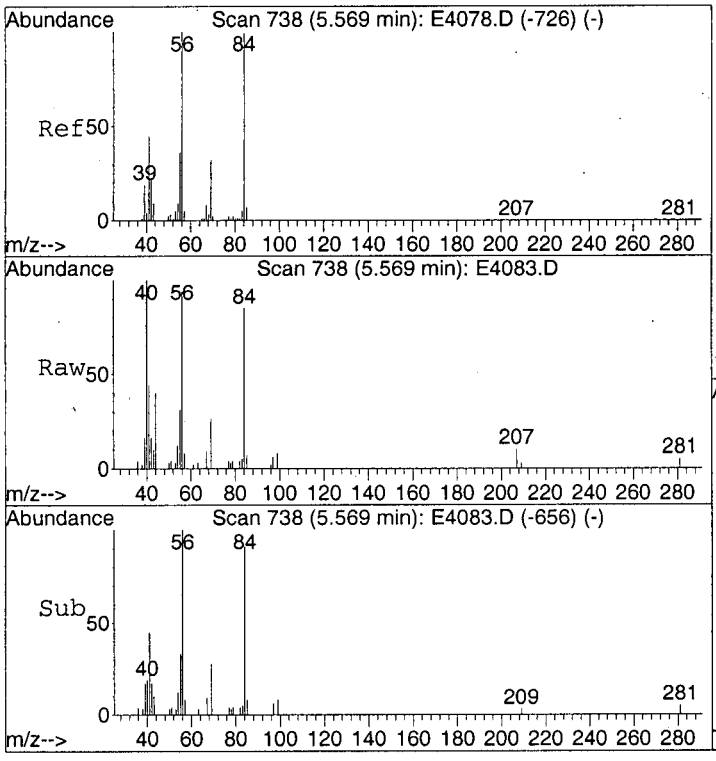


#29
1,1,1-Trichloroethane
Concen: 0.27 ug/L
RT: 5.48 min Scan# 724
Delta R.T. -0.01 min
Lab File: E4083.D
Acq: 31 Mar 2003 18:00

Tgt Ion: 97 Resp: 33326

Ion	Ratio	Lower	Upper
97	100		
99	64.6	44.5	84.5
61	38.3	17.1	57.1

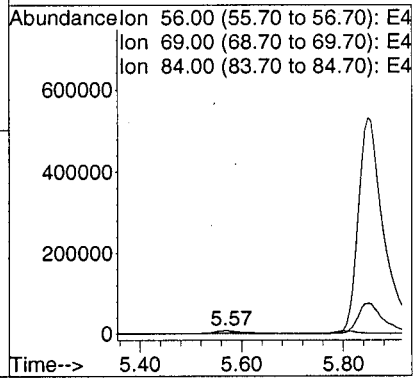




#30
Cyclohexane
Concen: 0.22 ug/L
RT: 5.57 min Scan# 738
Delta R.T. -0.00 min
Lab File: E4083.D
Acq: 31 Mar 2003 18:00

Tgt Ion: 56 Resp: 33320

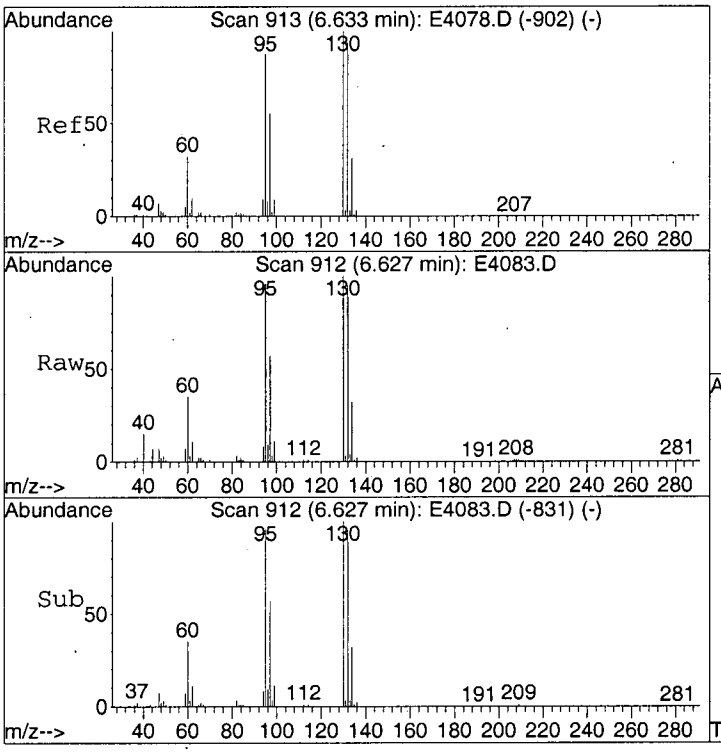
Ion	Ratio	Lower	Upper
56	100		
69	28.2	12.4	52.4
84	92.0	82.4	122.4



0181

Data File : C:\MSDCHEM\1\DATA\E4083.D
Acq On : 03/31/2003 1800
Sample : Y0SL8
Misc : 2775.001 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

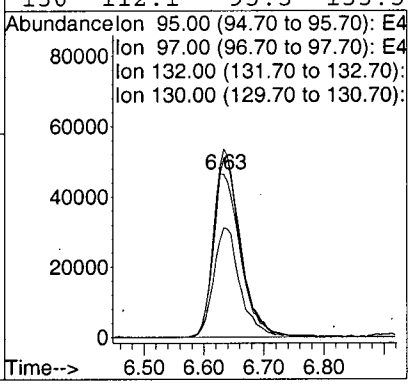
Vial: 9
Operator: AK
Inst : E-5973
Multiplr: 1.00

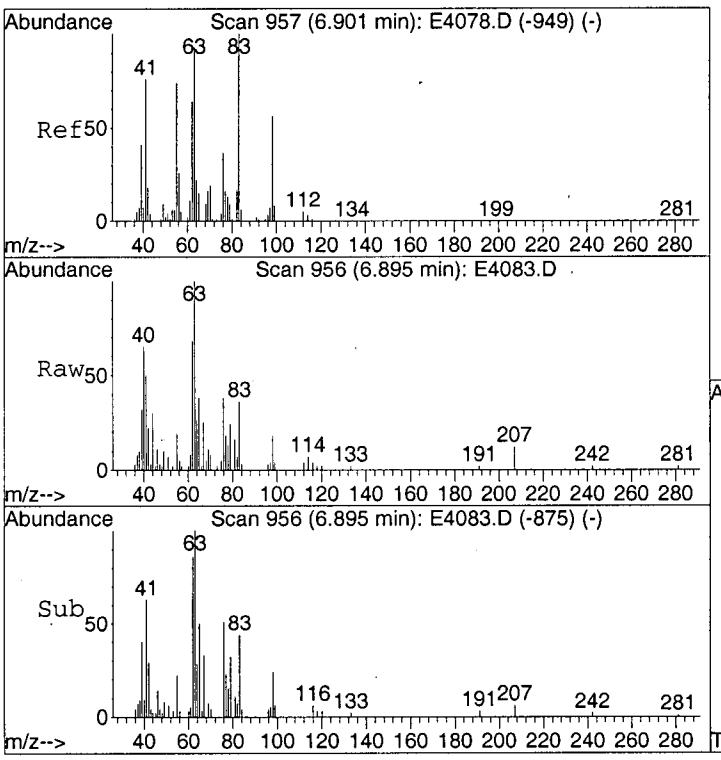


#34
Trichloroethene
Concen: 1.97 ug/L
RT: 6.63 min Scan# 912
Delta R.T. -0.01 min
Lab File: E4083.D
Acq: 31 Mar 2003 18:00

Tgt Ion: 95 Resp: 148170

Ion	Ratio	Lower	Upper
95	100		
97	64.9	45.2	85.2
132	105.9	89.3	129.3
130	112.1	93.5	133.5

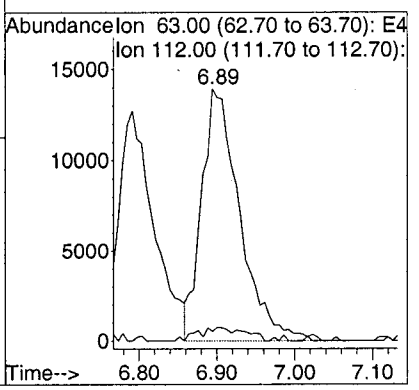




#37
1,2-Dichloropropane
Concen: 0.71 ug/L
RT: 6.89 min Scan# 956
Delta R.T. -0.01 min
Lab File: E4083.D
Acq: 31 Mar 2003 18:00

Tgt Ion: 63 Resp: 47535

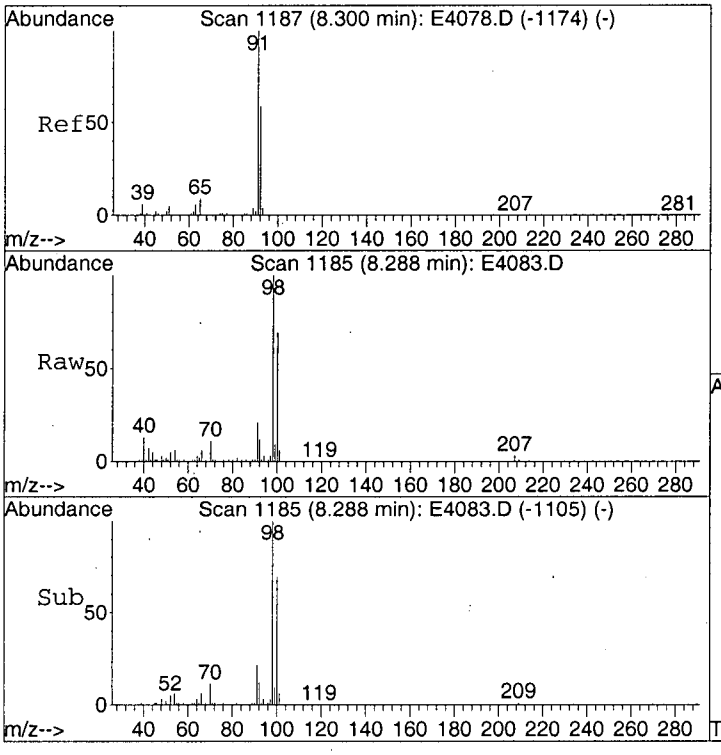
Ion	Ratio	Lower	Upper
63	100		
112	5.2	0.0	25.6



182

Data File : C:\MSDCHEM\1\DATA\E4083.D
Acq On : 03/31/2003 1800
Sample : Y0SL8
Misc : 2775.001 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

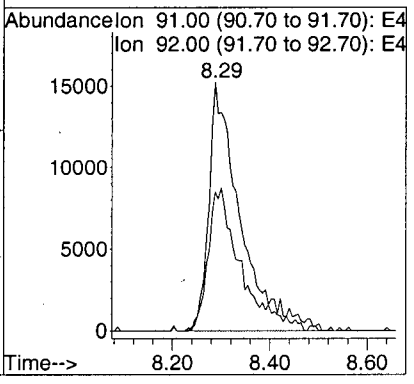
Vial: 9
Operator: AK
Inst : E-5973
Multiplr: 1.00

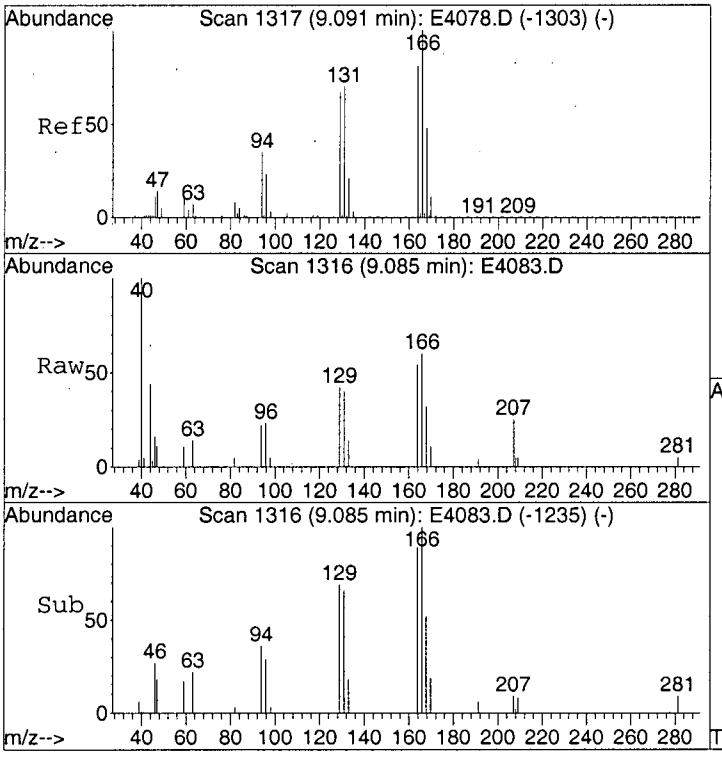


#42
Toluene
Concen: 0.19 ug/L
RT: 8.29 min Scan# 1185
Delta R.T. -0.01 min
Lab File: E4083.D
Acq: 31 Mar 2003 18:00

Tgt Ion: 91 Resp: 67987

Ion	Ratio	Lower	Upper
91	100		
92	59.1	39.1	79.1

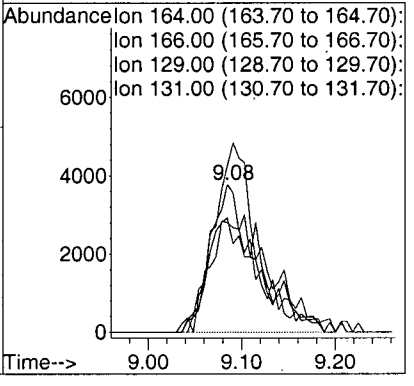




#46
Tetrachloroethene
Concen: 0.17 ug/L
RT: 9.08 min Scan# 1316
Delta R.T. -0.01 min
Lab File: E4083.D
Acq: 31 Mar 2003 18:00

Tgt Ion:164 Resp: 13672

Ion	Ratio	Lower	Upper
164	100		
166	122.9	106.3	146.3
129	81.7	67.1	107.1
131	80.5	64.4	104.4



LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\E4083.D
Acq On : 03/31/2003 1800
Sample : Y0SL8
Misc : 2775.001 25ML
MS Integration Params: Lscint.p

Vial: 9
Operator: AK
Inst : E-5973
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 100000 Area counts
Max Peaks: 40
Peak Location: TOP

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

Signal : TIC

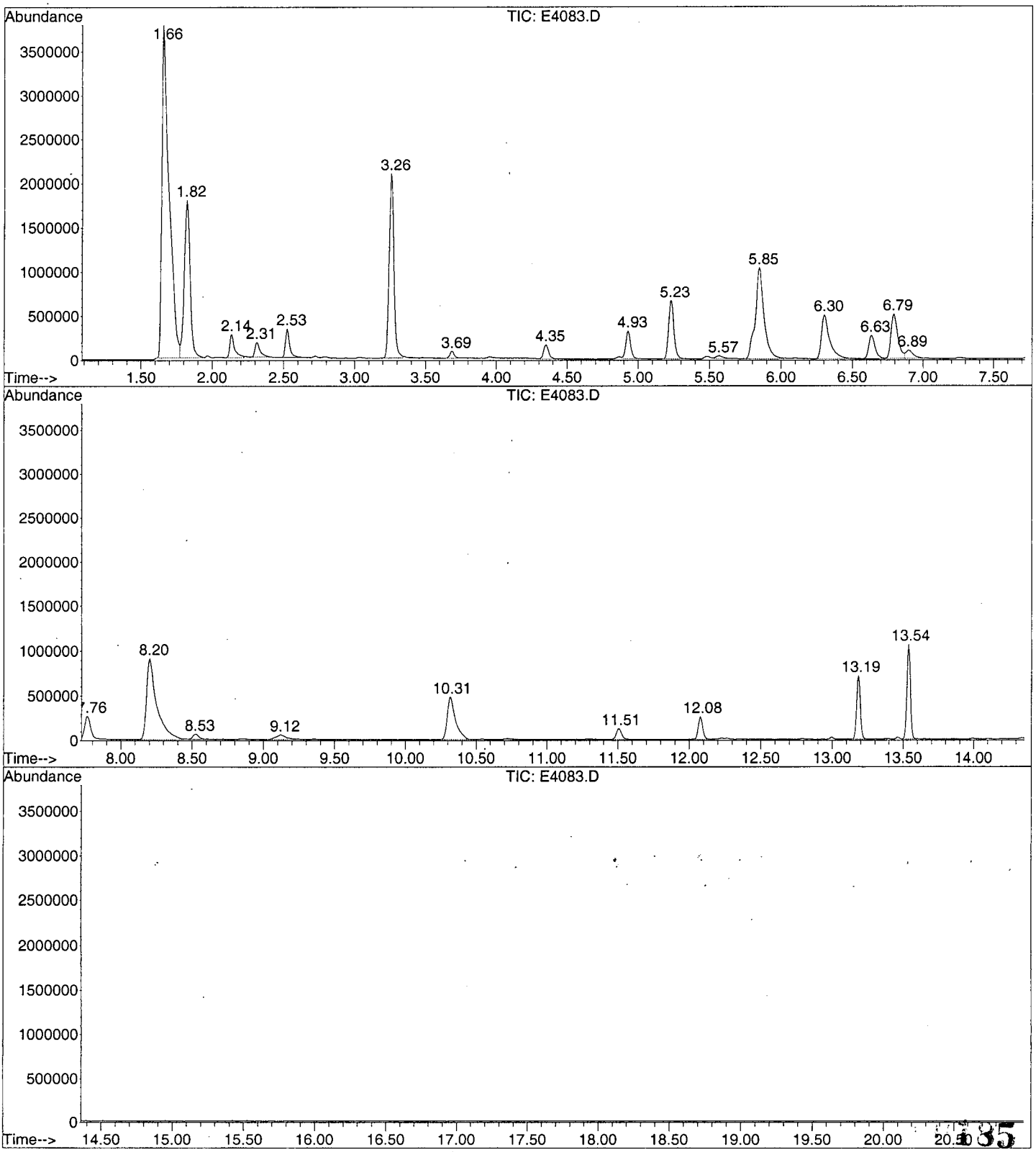
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.657	88	95	114	rBV	3771643	13155666	100.00%	27.099%
2	1.821	114	122	143	rVB	1782998	5048678	38.38%	10.400%
3	2.137	168	174	188	rBV	261611	614306	4.67%	1.265%
4	2.314	197	203	218	rBV	166316	413440	3.14%	0.852%
5	2.527	231	238	255	rBV	325075	659908	5.02%	1.359%
6	3.257	349	358	372	rBV3	2085068	4823363	36.66%	9.936%
7	3.689	422	429	436	rBV	79345	169138	1.29%	0.348%
8	4.352	530	538	549	rVB	162064	393734	2.99%	0.811%
9	4.930	626	633	646	rVB	313259	725382	5.51%	1.494%
10	5.228	673	682	697	rBV	657812	1710639	13.00%	3.524%
11	5.569	731	738	752	rVB4	33740	115280	0.88%	0.237%
12	5.848	767	784	813	rBV2	1031371	4354500	33.10%	8.970%
13	6.305	850	859	888	rBV	496228	1942796	14.77%	4.002%
14	6.633	903	913	929	rBV2	263143	823586	6.26%	1.696%
15	6.791	929	939	952	rVV	501403	1702984	12.94%	3.508%
16	6.895	952	956	974	rVB4	94183	333747	2.54%	0.687%
17	7.765	1088	1099	1116	rBV	261723	791794	6.02%	1.631%
18	8.203	1159	1171	1210	rBV	906451	4483441	34.08%	9.235%
19	8.525	1215	1224	1239	rVB	58687	171251	1.30%	0.353%
20	9.121	1306	1322	1340	rBV6	53978	267105	2.03%	0.550%
21	10.314	1508	1518	1541	rBV	471787	1894250	14.40%	3.902%
22	11.506	1706	1714	1725	rBV2	121236	314357	2.39%	0.648%
23	12.078	1800	1808	1820	rBV	255193	545467	4.15%	1.124%
24	13.185	1983	1990	1999	rBV	709093	1276333	9.70%	2.629%
25	13.538	2041	2048	2057	rBV	1058383	1815208	13.80%	3.739%

Sum of corrected areas: 48546353

LSC Report - Integrated Chromatogram

Data File : C:\MSDCHEM\1\DATA\E4083.D
Acq On : 03/31/2003 1800
Sample : Y0SL8
Misc : 2775.001 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

Vial: 9
Operator: AK
Inst : E-5973
Multiplr: 1.00



Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4083.D Vial: 9
Acq On : 03/31/2003 1800 Operator: AK
Sample : Y0SL8 Inst : E-5973
Misc : 2775.001 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

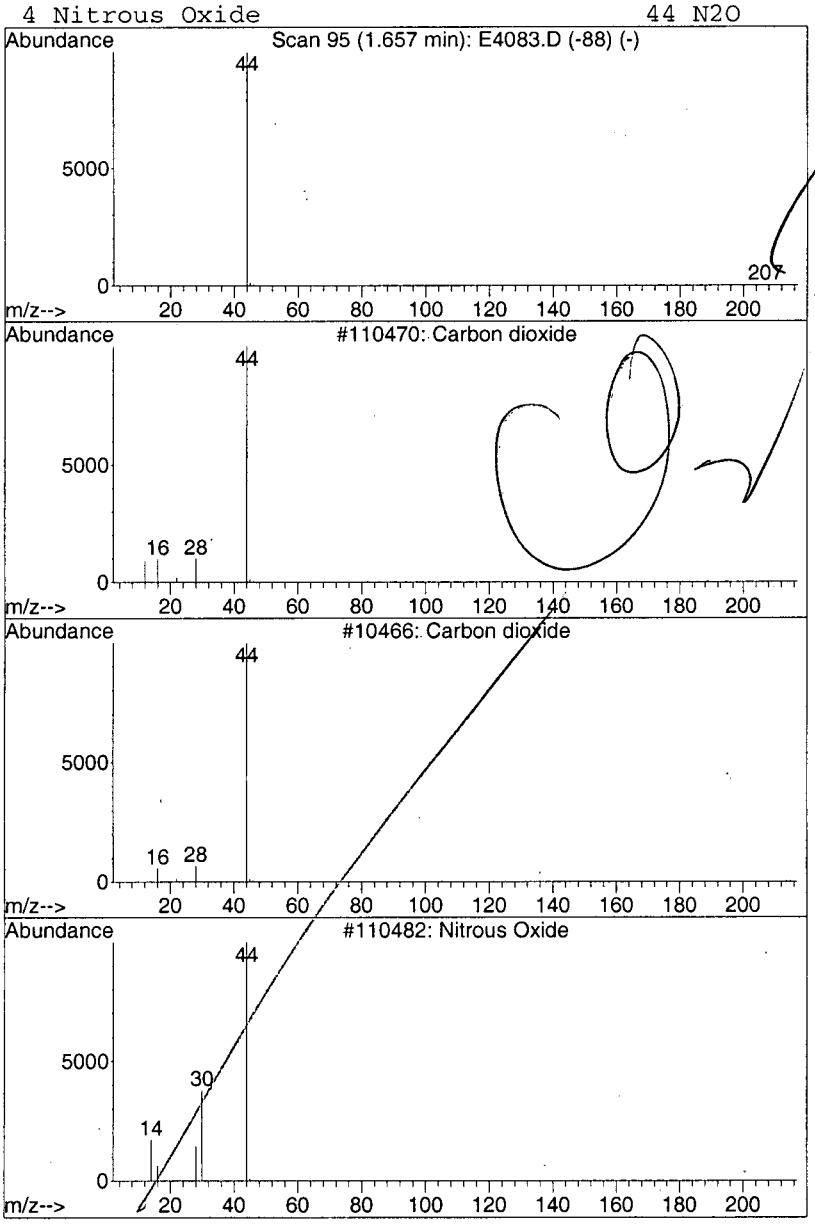
Quant Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

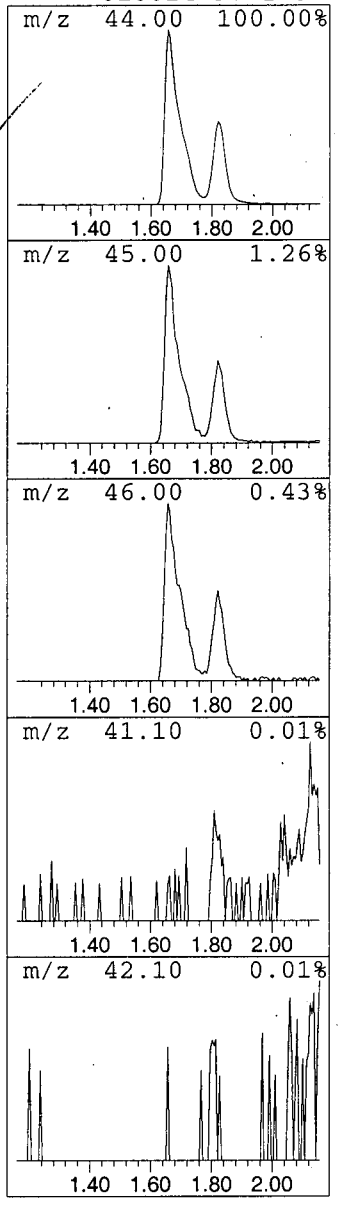
****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.66	33.86 ug/L	13155700	1,4-Difluorobenzene	6.30

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3





C136

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4083.D Vial: 9
Acq On : 03/31/2003 1800 Operator: AK
Sample : Y0SL8 Inst : E-5973
Misc : 2775.001 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

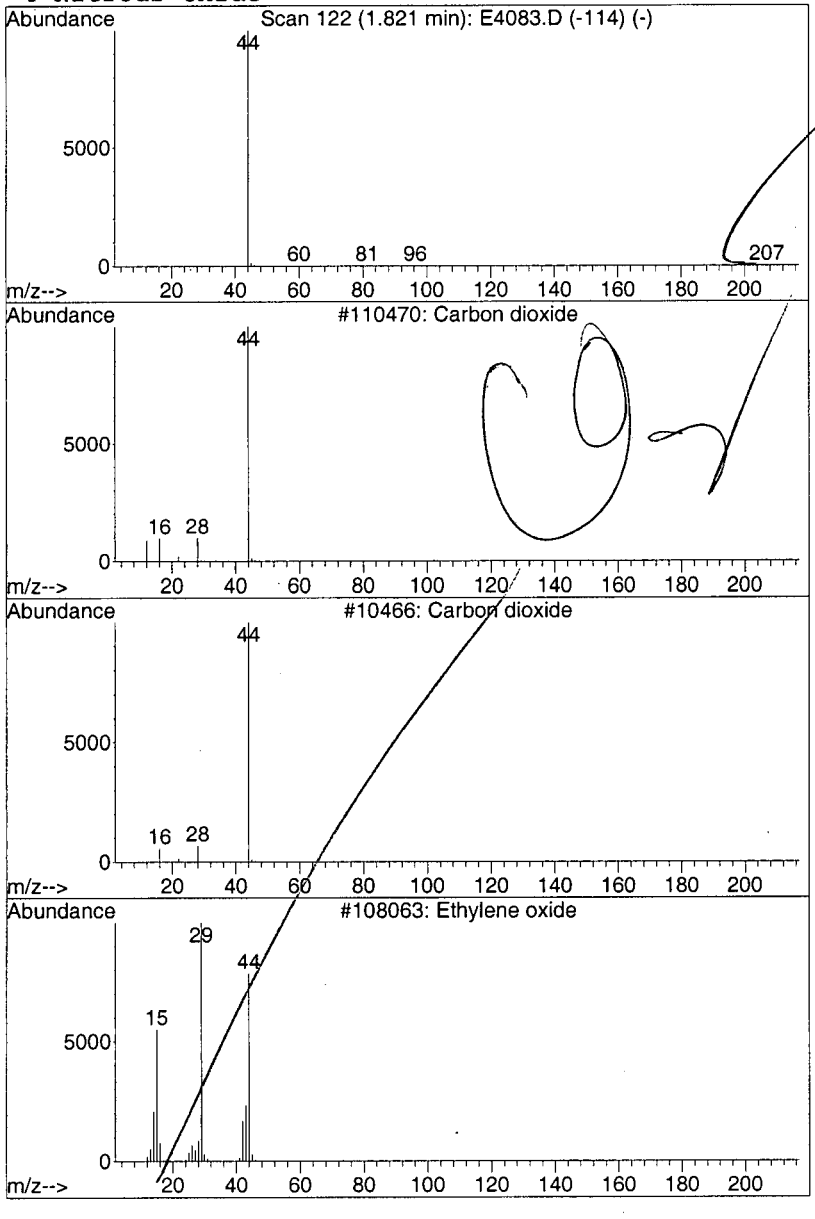
Quant Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

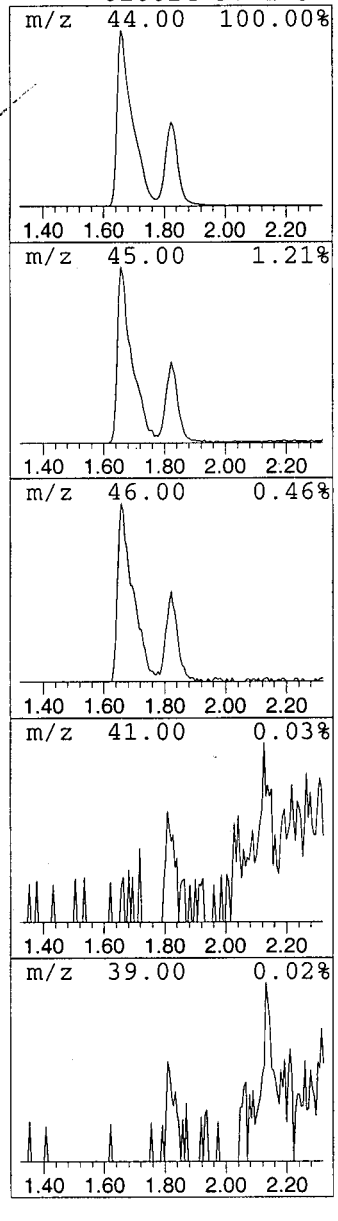
****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.82	12.99 ug/L	5048680	1,4-Difluorobenzene	6.30

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3





CO2

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1LCA
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

Y0SL9

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2775.002 Date Received: 03/21/2003

Lab File ID: E4022 Date Analyzed: 03/27/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.16	J
75-01-4	Vinyl Chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	3.3	J
75-15-0	Carbon Disulfide	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.21	JB
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-Butyl Ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon Tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

1LCB

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS

DATA SHEET

EPA SAMPLE NO.

Y0SL9

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2775.002 Date Received: 03/21/2003

Lab File ID: E4022 Date Analyzed: 03/27/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.24	J
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
1330-20-7	Xylene (total)	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1LCF

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS

DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Y0SL9

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2775.002 Date Received: 03/21/2003

Lab File ID: E4022 Date Analyzed: 03/27/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

Number TICs found: 1

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01	000124-19-6	Nonanal	14.11	0.83	JN
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4022.D
Acq On : 03/27/2003 1838
Sample : Y0SL9
Misc : 2775.002 25ML
MS Integration Params: RTEINT.P
Quant Time: Apr 02 10:48:37 2003

Vial: 15
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Results File: LCE4009.RES

Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Thu Mar 27 09:22:08 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4009.D
DataAcq Meth : VOAC

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Difluorobenzene	6.32	114	1324511	5.00 ug/L	0.00
28) Chlorobenzene-d5	10.32	117	1013571	5.00 ug/L	0.00
60) 1,4-Dichlorobenzene-d4	13.19	152	339131	5.00 ug/L	0.00
System Monitoring Compounds					
4) Vinyl Chloride-d3	2.17	65	480080	4.94 ug/L	0.02
Spiked Amount 5.000	Range 49 - 138		Recovery	= 98.80%	
7) Chloroethane-d5	2.56	69	415011	5.11 ug/L	0.02
Spiked Amount 5.000	Range 60 - 126		Recovery	= 102.20%	
10) 1,1-Dichloroethene-d2	3.27	65	210752	4.97 ug/L	0.02
Spiked Amount 5.000	Range 65 - 130		Recovery	= 99.40%	
20) 2-Butanone-d5	4.89	46	39778	4.65 ug/L	0.01
Spiked Amount 5.000	Range 42 - 171		Recovery	= 93.00%	
24) Chloroform-d	5.25	86	464133	4.97 ug/L	0.01
Spiked Amount 5.000	Range 80 - 123		Recovery	= 99.40%	
26) 1,2-Dichloroethane-d4	5.82	65	249153	4.97 ug/L	0.01
Spiked Amount 5.000	Range 78 - 129		Recovery	= 99.40%	
32) Benzene-d6	5.87	84	2052513	5.42 ug/L	0.01
Spiked Amount 5.000	Range 78 - 121		Recovery	= 108.40%	
35) 1,2-Dichloropropane-d6	6.80	67	480651	4.53 ug/L	0.00
Spiked Amount 5.000	Range 84 - 123		Recovery	= 90.60%	
41) Toluene-d8	8.21	98	1982226	5.34 ug/L	0.00
Spiked Amount 5.000	Range 77 - 120		Recovery	= 106.80%	
43) trans-1,3-Dichloropropene-	8.53	79	62496	4.93 ug/L	0.00
Spiked Amount 5.000	Range 80 - 128		Recovery	= 98.60%	
47) 2-Hexanone-d5	9.13	46	60766	3.88 ug/L	0.00
Spiked Amount 5.000	Range 37 - 169		Recovery	= 77.60%	
58) 1,1,2,2-Tetrachloroethane-	12.08	84	180879	5.05 ug/L	0.00
Spiked Amount 5.000	Range 75 - 131		Recovery	= 101.00%	
61) Bromoform-d	11.51	174	94432	4.93 ug/L	0.00
Spiked Amount 5.000	Range 76 - 135		Recovery	= 98.60%	
65) 1,2-Dichlorobenzene-d4	13.54	152	362966	5.23 ug/L	0.00
Spiked Amount 5.000	Range 50 - 150		Recovery	= 104.60%	

Target Compounds					Qvalue
3) Chloromethane	2.06	50	50360	0.16 ug/L J	93
13) Acetone	3.31	43	18614	3.29 ug/L J	94
16) Methylene Chloride	3.71	84	21094	0.21 ug/L JB	98
42) Toluene	8.31	91	115897	0.24 ug/L J	99

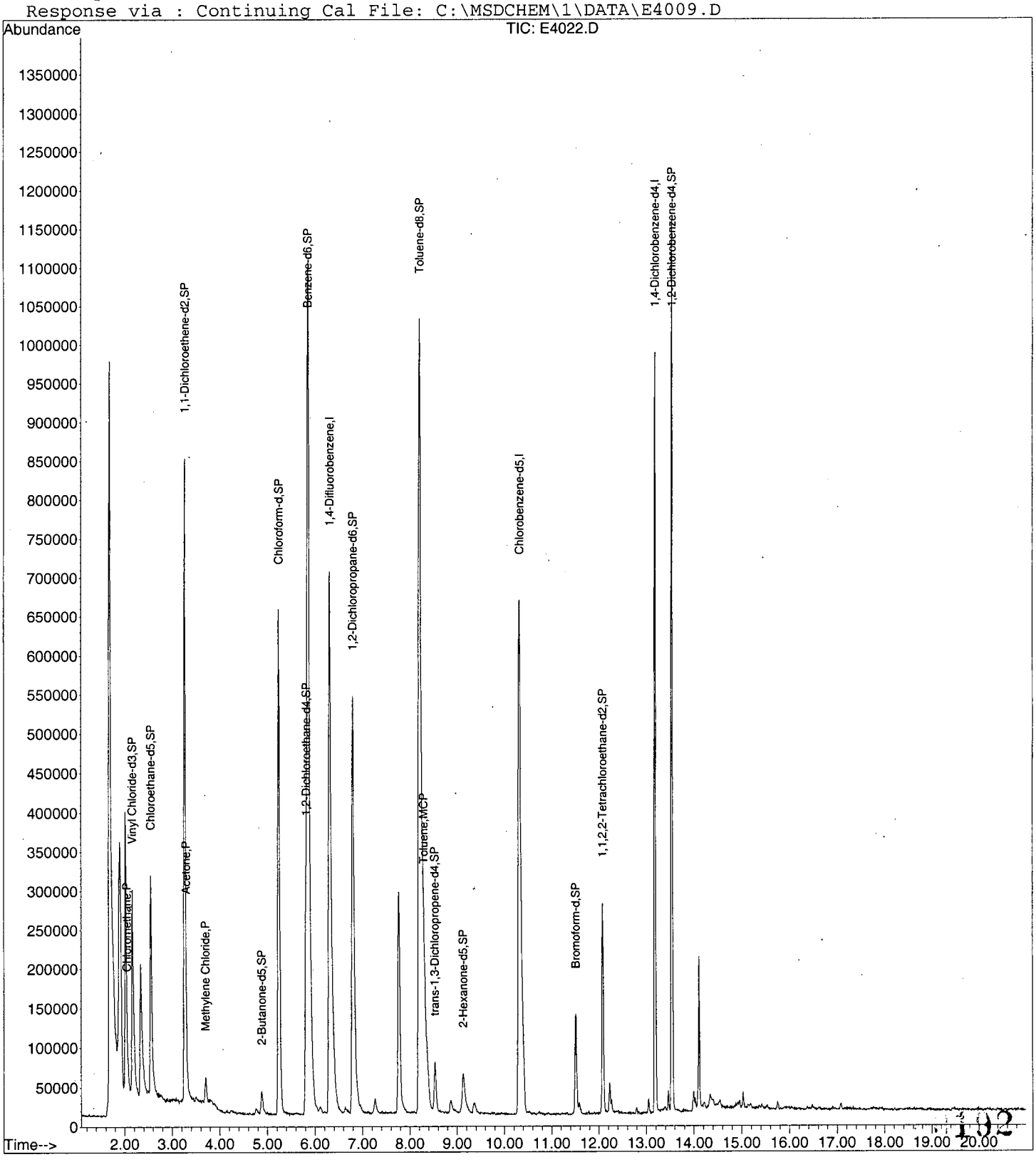
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

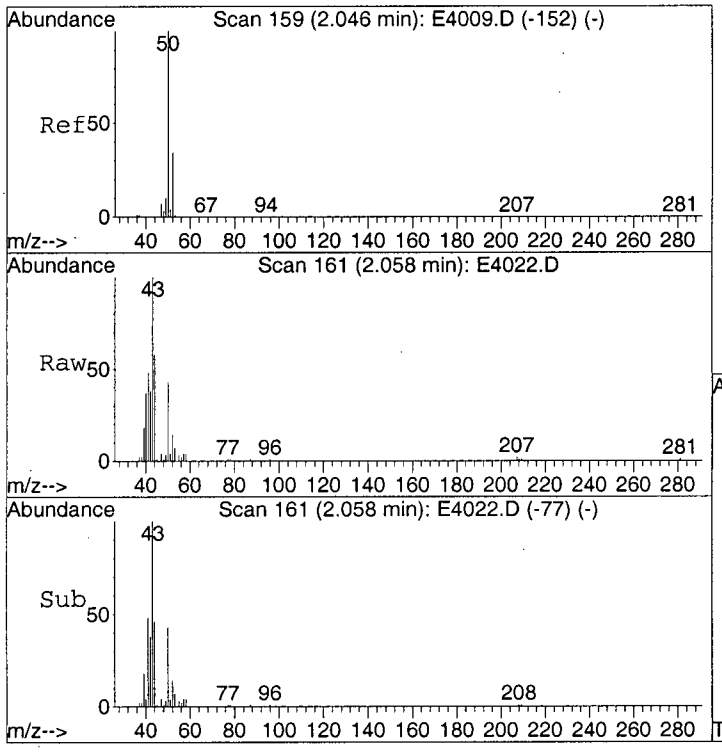
Data File : C:\MSDCHEM\1\DATA\E4022.D
Acq On : 03/27/2003 1838
Sample : Y0SL9
Misc : 2775.002 25ML
MS Integration Params: RTEINT.P
Quant Time: Apr 2 11:02 2003

Vial: 15
Operator: AK
Inst : E-5973
Multiplr: 1.00
Quant Results File: LCE4009.RES

Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Thu Mar 27 09:22:08 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4009.D



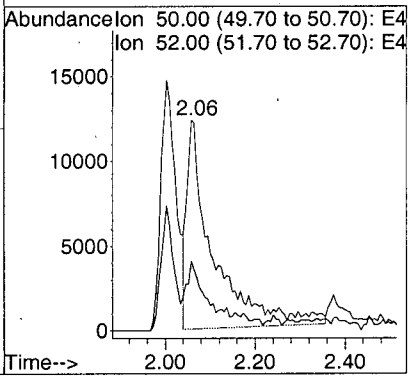
Data File : C:\MSDCHEM\1\DATA\E4022.D Vial: 15
Acq On : 03/27/2003 1838 Operator: AK
Sample : Y0SL9 Inst : E-5973
Misc : 2775.002 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

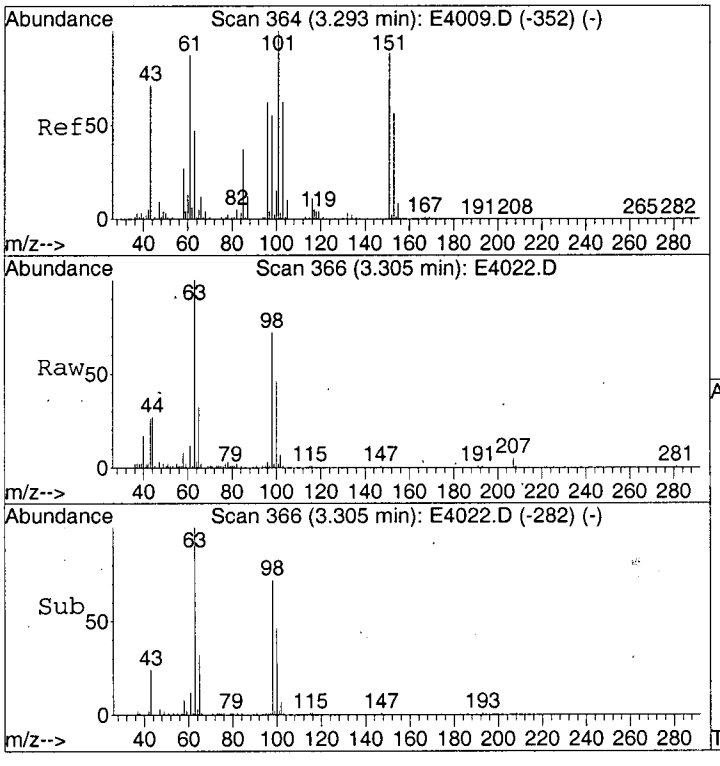


#3
Chloromethane
Concen: 0.16 ug/L
RT: 2.06 min Scan# 161
Delta R.T. 0.01 min
Lab File: E4022.D
Acq: 27 Mar 2003 18:38

Tgt Ion: 50 Resp: 50360

Ion	Ratio	Lower	Upper
50	100		
52	29.5	13.2	53.2

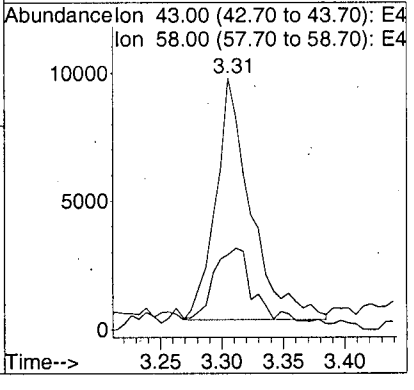




#13
Acetone
Concen: 3.29 ug/L
RT: 3.31 min Scan# 366
Delta R.T. 0.01 min
Lab File: E4022.D
Acq: 27 Mar 2003 18:38

Tgt Ion: 43 Resp: 18614

Ion	Ratio	Lower	Upper
43	100		
58	46.3	22.6	62.6



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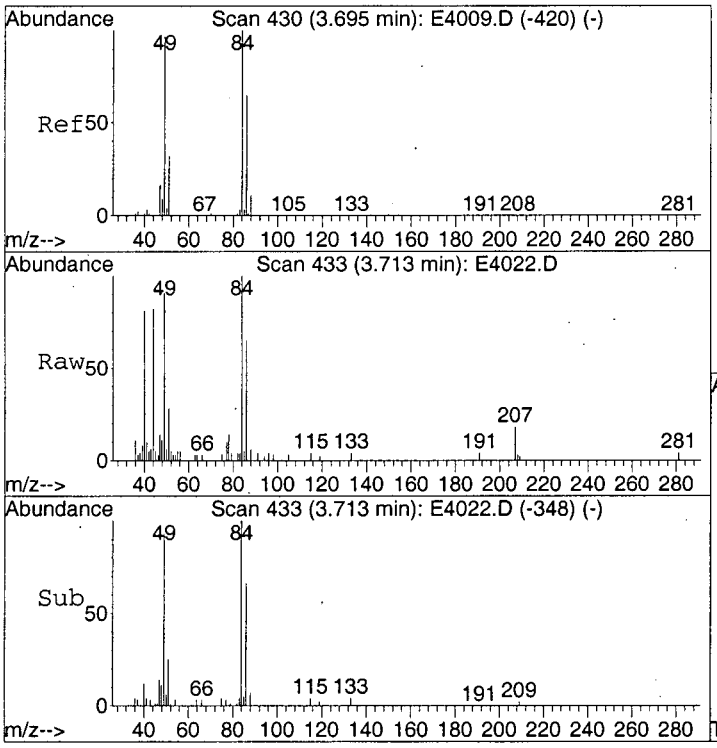
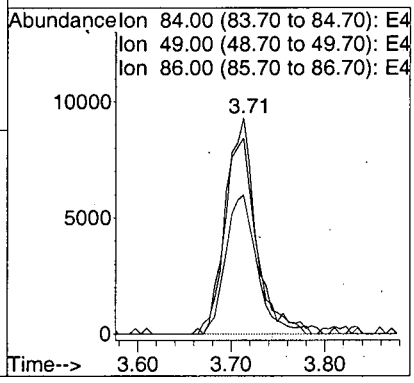
Data File : C:\MSDCHEM\1\DATA\E4022.D Vial: 15
Acq On : 03/27/2003 1838 Operator: AK
Sample : Y0SL9 Inst : E-5973
Misc : 2775.002 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

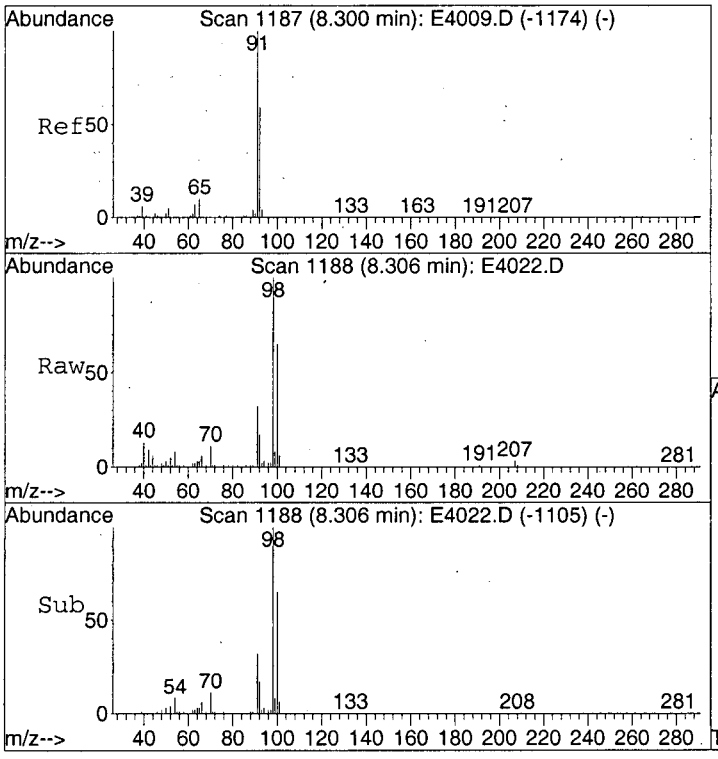


#16
Methylene Chloride
Concen: 0.21 ug/L
RT: 3.71 min Scan# 433
Delta R.T. 0.02 min
Lab File: E4022.D
Acq: 27 Mar 2003 18:38

Tgt Ion: 84 Resp: 21094

Ion	Ratio	Lower	Upper
84	100		
49	94.9	76.2	116.2
86	65.8	43.2	83.2

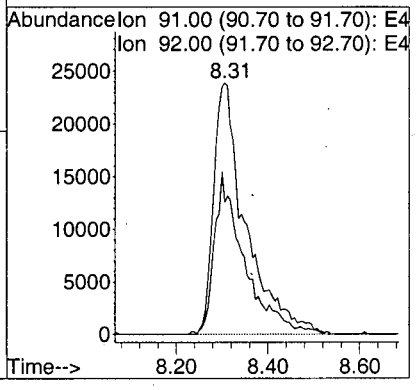




#42
Toluene
Concen: 0.24 ug/L
RT: 8.31 min Scan# 1188
Delta R.T. 0.01 min
Lab File: E4022.D
Acq: 27 Mar 2003 18:38

Tgt Ion: 91 Resp: 115897

Ion	Ratio	Lower	Upper
91	100		
92	60.0	39.2	79.2



194

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\E4022.D
Acq On : 03/27/2003 1838
Sample : Y0SL9
Misc : 2775.002 25ML
MS Integration Params: Lscint.p

Vial: 15
Operator: AK
Inst : E-5973
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 100000 Area counts
Max Peaks: 40
Peak Location: TOP

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

Signal : TIC

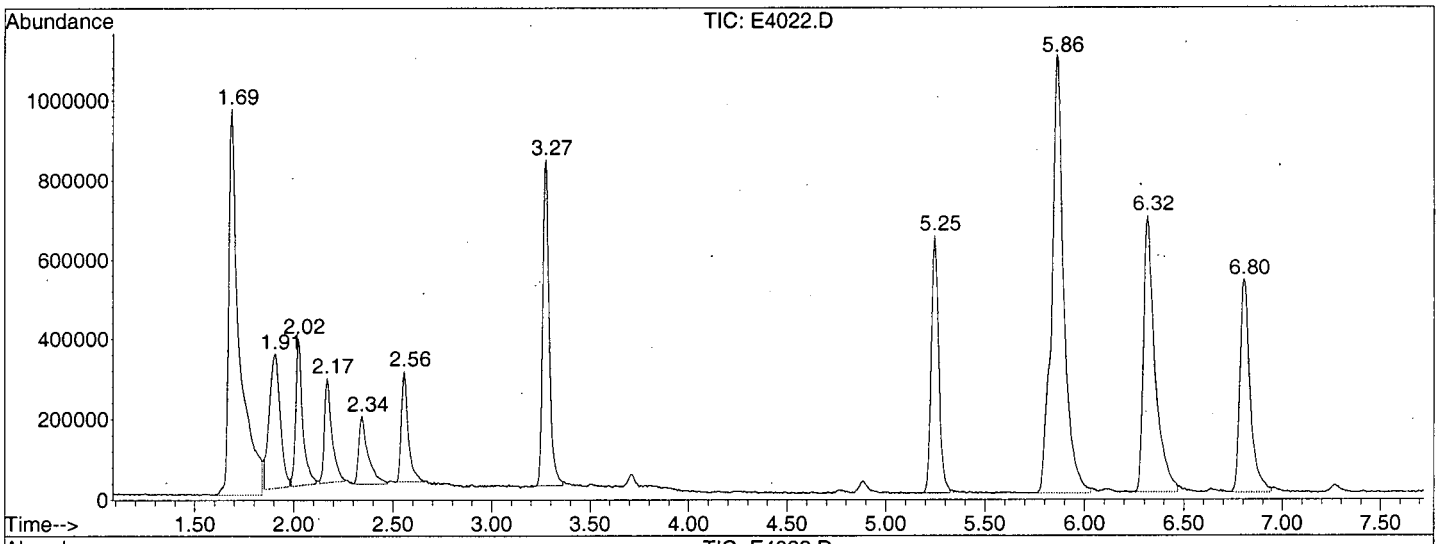
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.687	85	100	125	rBV	966475	3640939	70.60%	10.520%
2	1.906	127	136	148	rVV	333889	1275013	24.72%	3.684%
3	2.022	149	155	170	rVV	363882	887537	17.21%	2.565%
4	2.168	173	179	195	rVV	256165	676726	13.12%	1.955%
5	2.344	201	208	229	rBV	167130	542863	10.53%	1.569%
6	2.557	237	243	259	rVB	275111	656394	12.73%	1.897%
7	3.275	353	361	375	rBV	818415	1853363	35.94%	5.355%
8	5.246	676	685	698	rBV	643568	1674138	32.46%	4.837%
9	5.861	770	786	814	rBV2	1095832	4598433	89.17%	13.287%
10	6.317	851	861	886	rBV	690986	2758845	53.50%	7.972%
11	6.803	931	941	964	rBV	531973	1917411	37.18%	5.540%
12	7.771	1090	1100	1120	rBV2	282531	866614	16.81%	2.504%
13	8.215	1160	1173	1214	rBV	1018425	5156801	100.00%	14.901%
14	8.531	1217	1225	1238	rVB2	63469	189949	3.68%	0.549%
15	9.133	1312	1324	1339	rBV2	48504	210427	4.08%	0.608%
16	10.326	1507	1520	1545	rBV2	655901	2724467	52.83%	7.872%
17	11.512	1706	1715	1724	rBV2	125870	313781	6.08%	0.907%
18	12.084	1798	1809	1818	rBV2	268562	594611	11.53%	1.718%
19	13.191	1983	1991	1999	rBV	972701	1809269	35.09%	5.228%
20	13.544	2041	2049	2056	rBV	1144805	1959336	38.00%	5.662%
21	14.110	2133	2142	2149	rBV	191994	301130	5.84%	0.870%

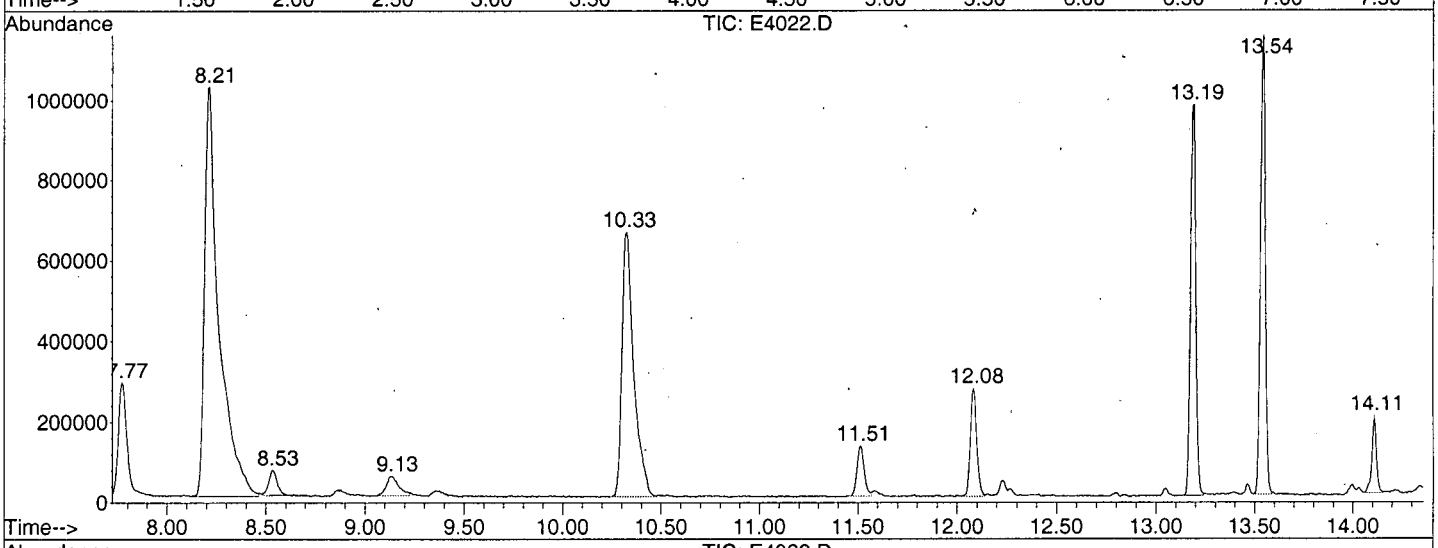
Sum of corrected areas: 34608047

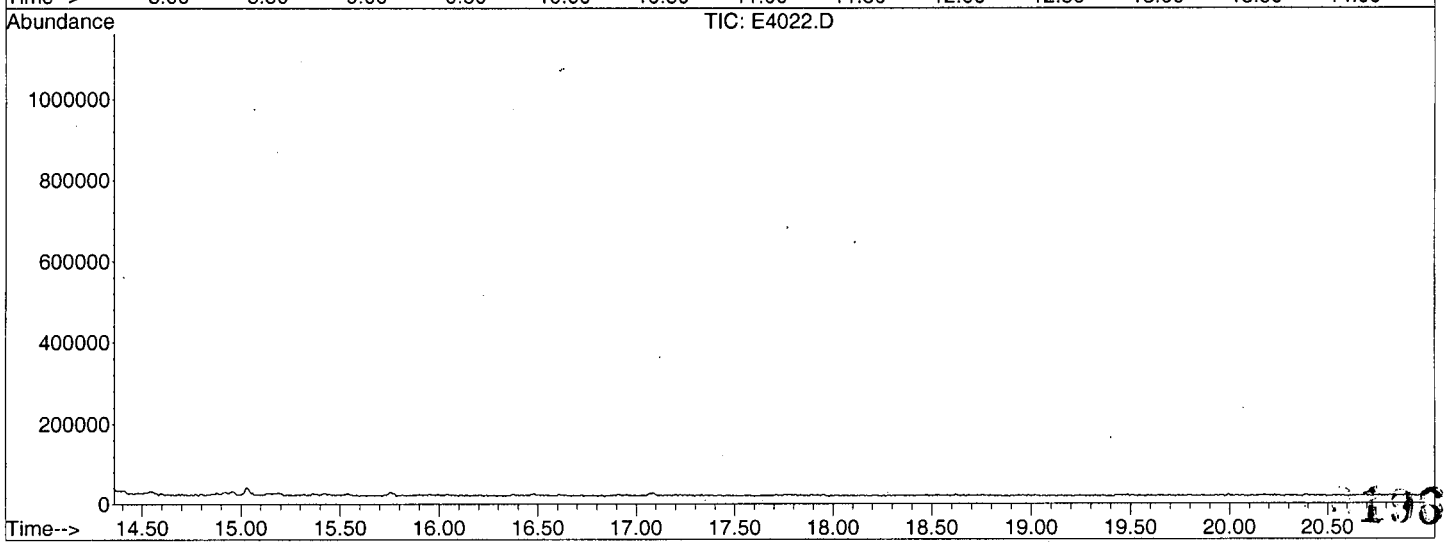
LSC Report - Integrated Chromatogram

Data File : C:\MSDCHEM\1\DATA\E4022.D
Acq On : 03/27/2003 1838
Sample : Y0SL9
Misc : 2775.002 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

Vial: 15
Operator: AK
Inst : E-5973
Multiplr: 1.00







Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4022.D Vial: 15
Acq On : 03/27/2003 1838 Operator: AK
Sample : Y0SL9 Inst : E-5973
Misc : 2775.002 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

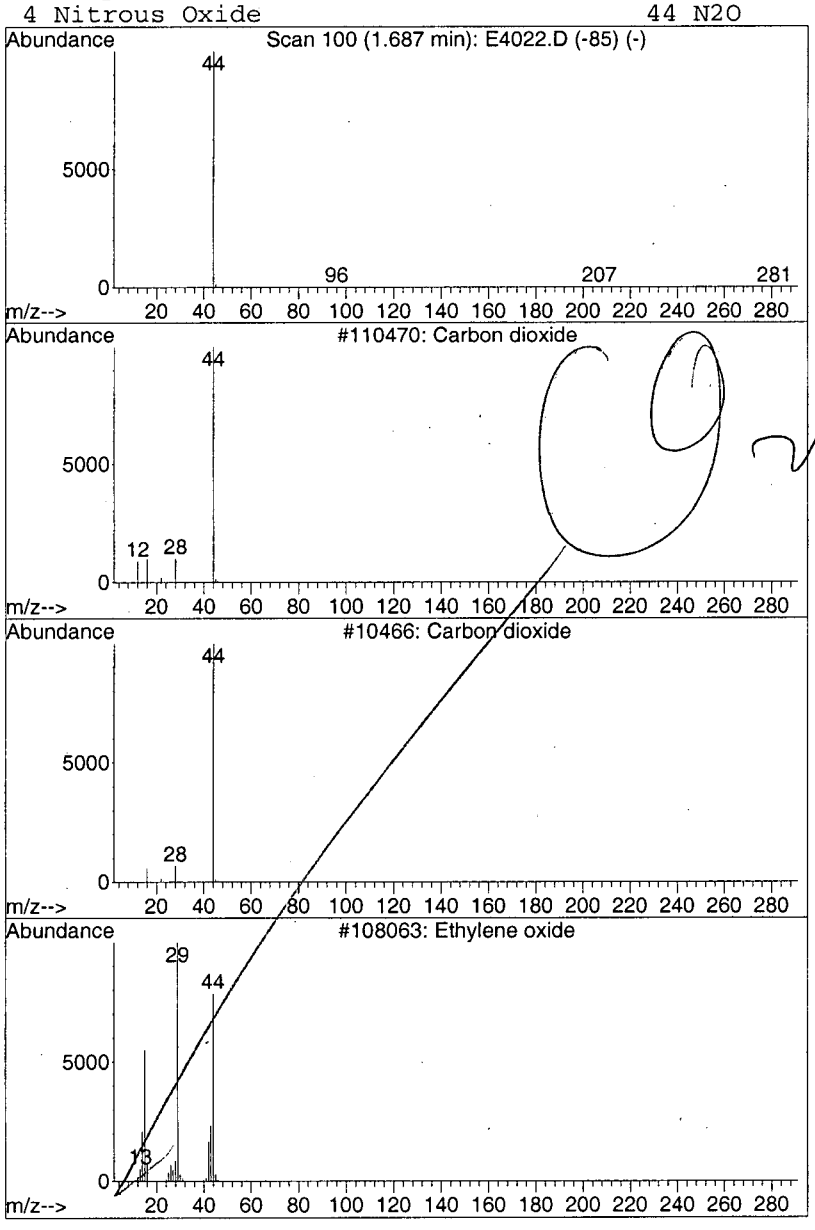
Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

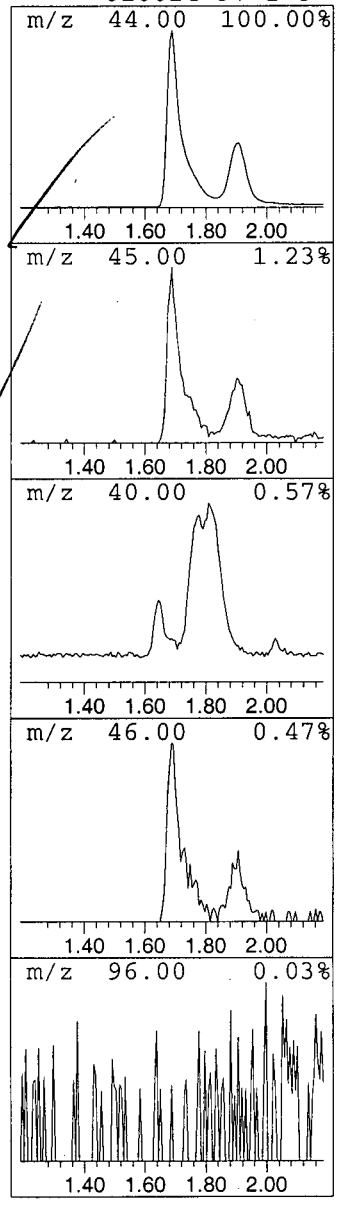
****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.69	6.60 ug/L	3640940	1,4-Difluorobenzene	6.32

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3





197

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4022.D
Acq On : 03/27/2003 1838
Sample : Y0SL9
Misc : 2775.002 25ML
MS Integration Params: Lscint.p

Vial: 15
Operator: AK
Inst : E-5973
Multiplr: 1.00

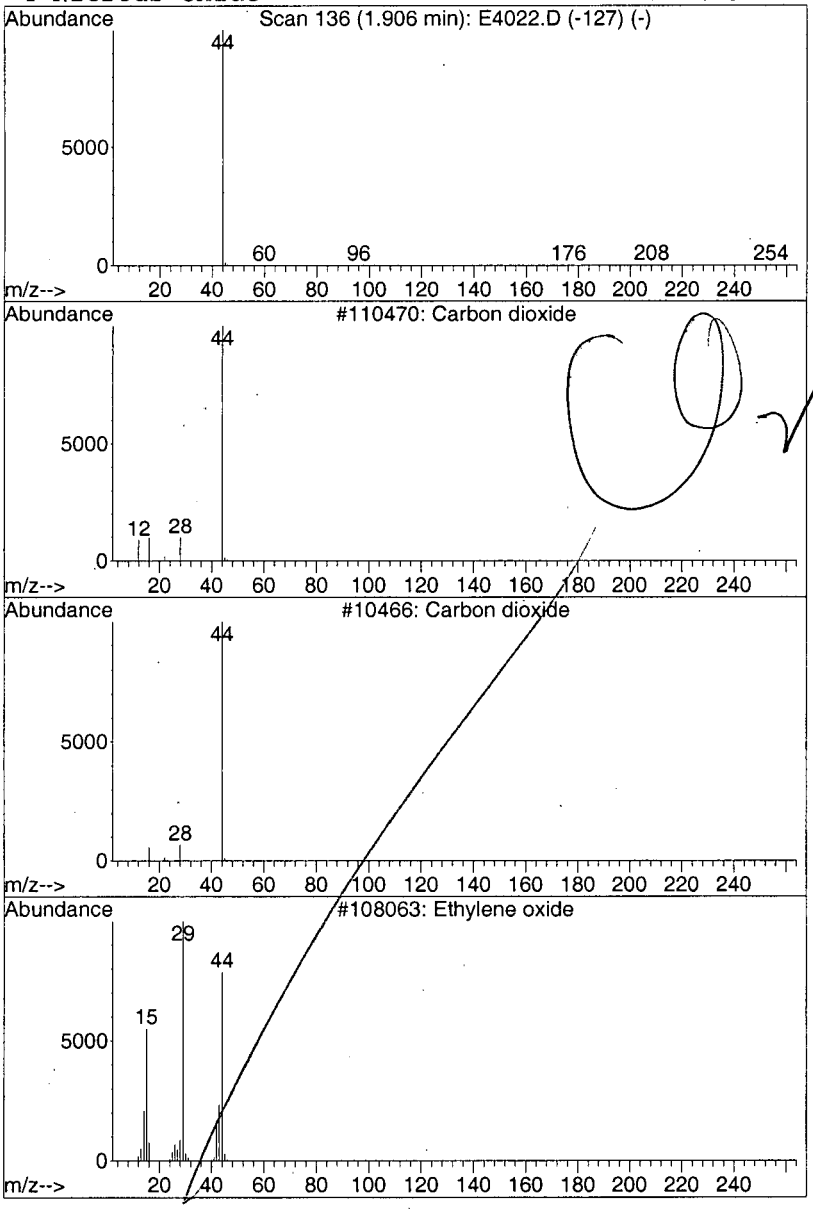
Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

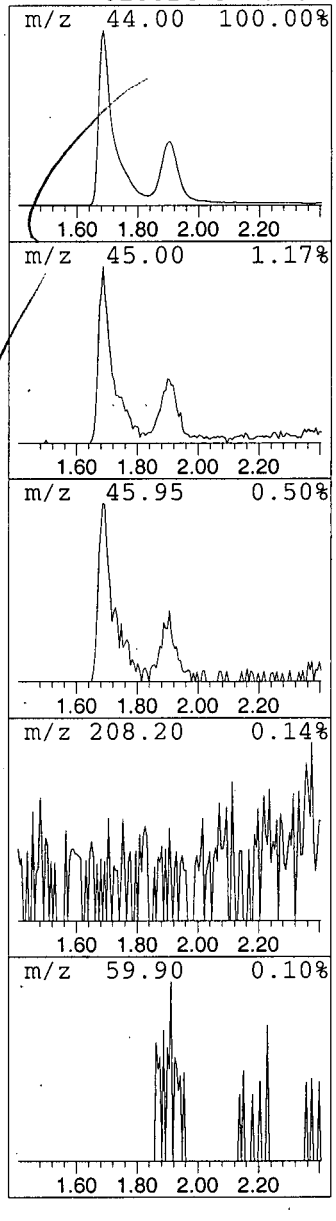
****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.91	2.31 ug/L	1275010	1,4-Difluorobenzene	6.32

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3





198

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4022.D Vial: 15
Acq On : 03/27/2003 1838 Operator: AK
Sample : Y0SL9 Inst : E-5973
Misc : 2775.002 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

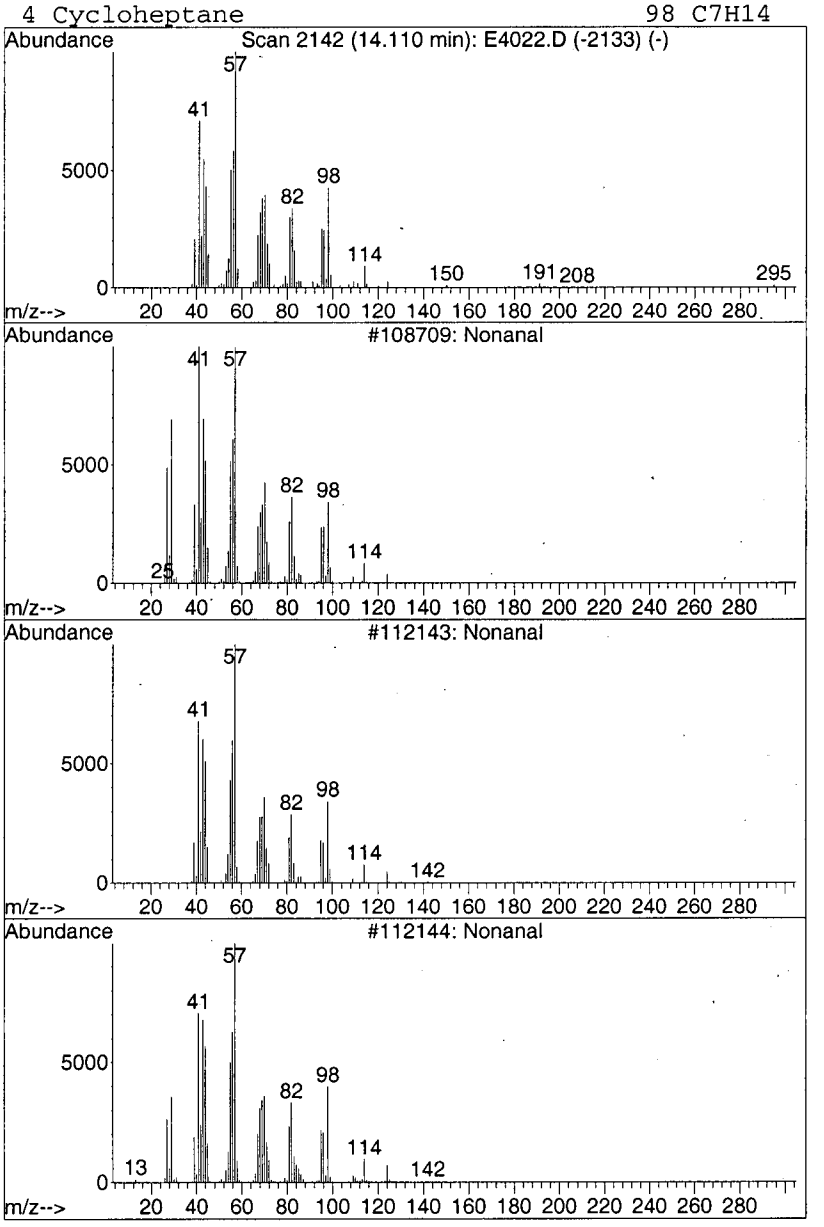
Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

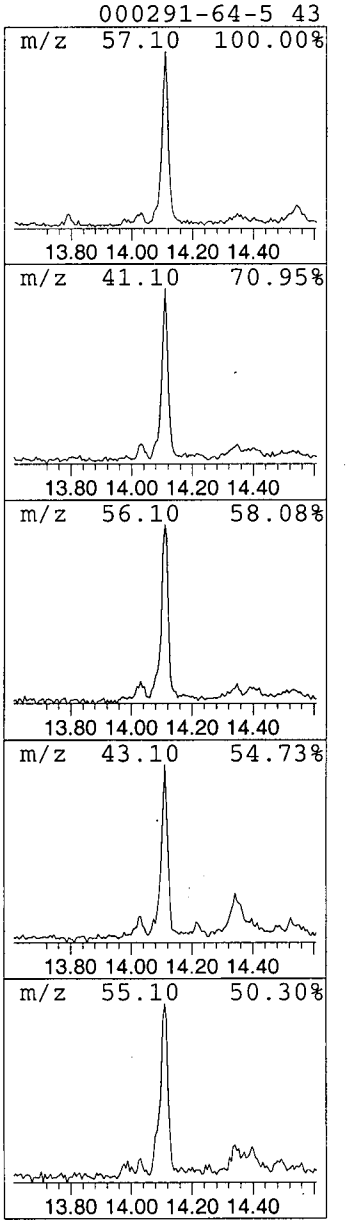
****

Peak Number 5 Nonanal Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.11	0.83 ug/L	301130	1,4-Dichlorobenzene-d4	13.19

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nonanal	142	C9H18O	000124-19-6	90
2	Nonanal	142	C9H18O	000124-19-6	86
3	Nonanal	142	C9H18O	000124-19-6	83
4	Cycloheptane	98	C7H14	000291-64-5	43





199

1LCA
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

Y0SM0

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2775.003 Date Received: 03/21/2003

Lab File ID: E4084 Date Analyzed: 03/31/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.20	JB
75-01-4	Vinyl Chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	4.4	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	1.4	JB
75-15-0	Carbon Disulfide	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.52	B
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-Butyl Ether	0.50	U
75-34-3	1,1-Dichloroethane	0.87	
156-59-2	cis-1,2-Dichloroethene	1.6	
78-93-3	2-Butanone	0.42	J
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.23	JB
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.15	J
56-23-5	Carbon Tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.49	J

1LCB
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.
Y0SM0

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2775.003 Date Received: 03/21/2003

Lab File ID: E4084 Date Analyzed: 03/31/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
79-01-6	Trichloroethene	0.83	
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.41	J
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
1330-20-7	Xylene (total)	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1LCF

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS

DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Y0SM0

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2775.003 Date Received: 03/21/2003

Lab File ID: E4084 Date Analyzed: 03/31/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4084.D
Acq On : 03/31/2003 1841
Sample : Y0SM0
Misc : 2775.003 25ML
MS Integration Params: RTEINT.P
Quant Time: Apr 01 09:35:24 2003

Vial: 10
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Results File: LCE4078.RES

Kon 04/01/03

EP 4/04/03

Quant Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Mon Mar 31 14:25:59 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4078.D
DataAcq Meth : VOAC

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Difluorobenzene	6.30	114	1021228	5.00	ug/L	0.00
28) Chlorobenzene-d5	10.31	117	767601	5.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	13.19	152	284899	5.00	ug/L	0.00
System Monitoring Compounds						
4) Vinyl Chloride-d3	2.14	65	471881	5.32	ug/L	0.00
Spiked Amount 5.000	Range 49 - 138		Recovery	=	106.40%	
7) Chloroethane-d5	2.53	69	417592	5.51	ug/L	0.00
Spiked Amount 5.000	Range 60 - 126		Recovery	=	110.20%	
10) 1,1-Dichloroethene-d2	3.25	65	215214	5.43	ug/L	0.00
Spiked Amount 5.000	Range 65 - 130		Recovery	=	108.60%	
20) 2-Butanone-d5	4.87	46	36537	4.68	ug/L	0.00
Spiked Amount 5.000	Range 42 - 171		Recovery	=	93.60%	
24) Chloroform-d	5.23	86	499980	5.37	ug/L	0.00
Spiked Amount 5.000	Range 80 - 123		Recovery	=	107.40%	
26) 1,2-Dichloroethane-d4	5.81	65	260510	5.29	ug/L	0.00
Spiked Amount 5.000	Range 78 - 129		Recovery	=	105.80%	
32) Benzene-d6	5.85	84	2048184	5.23	ug/L	0.00
Spiked Amount 5.000	Range 78 - 121		Recovery	=	104.60%	
35) 1,2-Dichloropropane-d6	6.79	67	478493	4.68	ug/L	0.00
Spiked Amount 5.000	Range 84 - 123		Recovery	=	93.60%	
41) Toluene-d8	8.20	98	1879915	5.08	ug/L	0.00
Spiked Amount 5.000	Range 77 - 120		Recovery	=	101.60%	
43) trans-1,3-Dichloropropene-	8.53	79	63194	4.81	ug/L	0.00
Spiked Amount 5.000	Range 80 - 128		Recovery	=	96.20%	
47) 2-Hexanone-d5	9.12	46	53972	4.40	ug/L	0.00
Spiked Amount 5.000	Range 37 - 169		Recovery	=	88.00%	
58) 1,1,2,2-Tetrachloroethane-	12.08	84	174450	5.05	ug/L	0.00
Spiked Amount 5.000	Range 75 - 131		Recovery	=	101.00%	
61) Bromoform-d	11.51	174	96817	4.21	ug/L	0.00
Spiked Amount 5.000	Range 76 - 135		Recovery	=	84.20%	
65) 1,2-Dichlorobenzene-d4	13.54	152	392955	5.41	ug/L	0.00
Spiked Amount 5.000	Range 50 - 150		Recovery	=	108.20%	

Target Compounds						Qvalue
3) Chloromethane	1.97	50	42649	0.20	ug/L JB	69
11) 1,1-Dichloroethene	3.26	96	386214	4.41	ug/L #	86
13) Acetone	3.29	43	7807	1.44	ug/L JB	99
16) Methylene Chloride	3.69	84	38862	0.52	ug/L B	97
19) 1,1-Dichloroethane	4.35	63	121796	0.87	ug/L	99
21) cis-1,2-Dichloroethene	4.93	96	119622	1.51	ug/L	99
22) 2-Butanone	4.92	43	3599	0.42	ug/L J	93
25) Chloroform	5.25	83	29131	0.23	ug/L #JB	61
27) 1,2-Dichloroethane	5.89	62	26898	0.49	ug/L J	91
30) Cyclohexane	5.57	56	24475	0.15	ug/L J	95
34) Trichloroethene	6.63	95	67160	0.83	ug/L	97
37) 1,2-Dichloropropane	6.91	63	30047	0.41	ug/L J	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

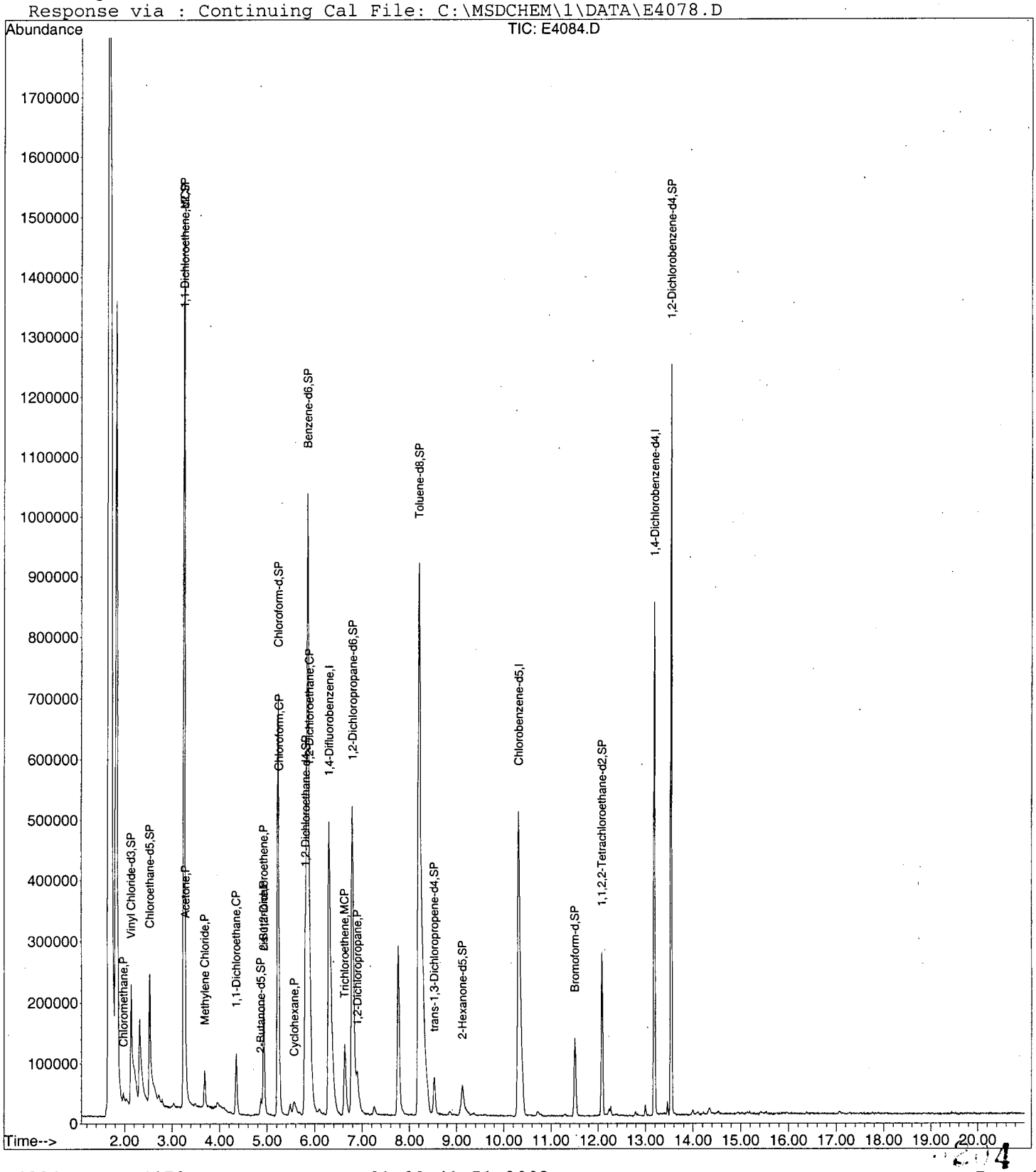
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4084.D
Acq On : 03/31/2003 1841
Sample : Y0SM0
Misc : 2775.003 25ML
MS Integration Params: RTEINT.P
Quant Time: Apr 1 9:41 2003

Vial: 10
Operator: AK
Inst : E-5973
Multiplr: 1.00

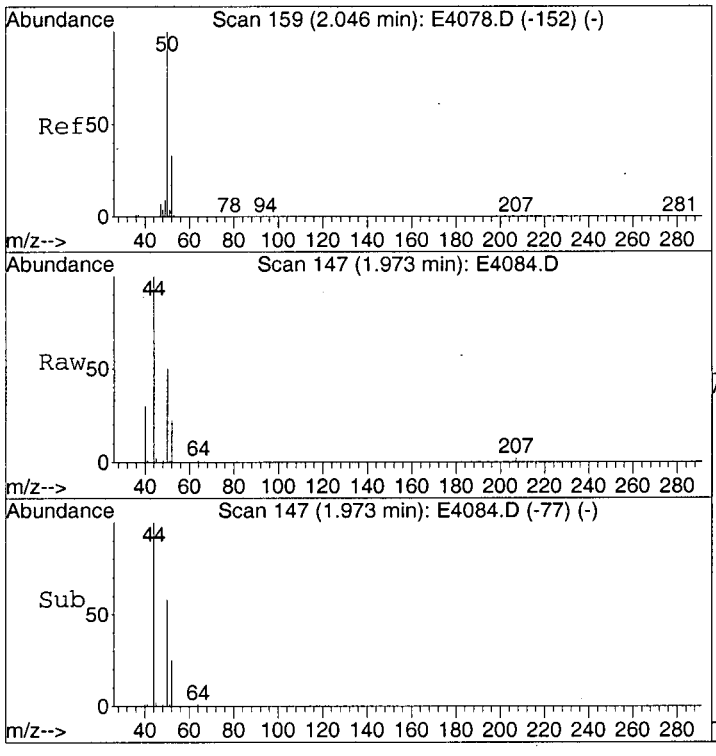
Quant Results File: LCE4078.RES

Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Mon Mar 31 14:25:59 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4078.D



Data File : C:\MSDCHEM\1\DATA\E4084.D
Acq On : 03/31/2003 1841
Sample : Y0SM0
Misc : 2775.003 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

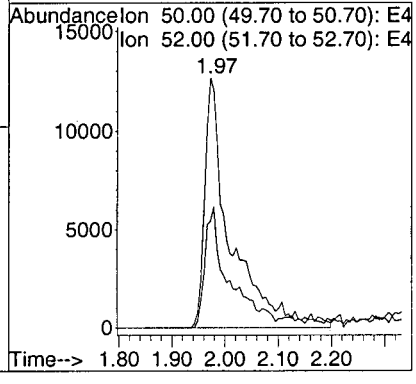
Vial: 10
Operator: AK
Inst : E-5973
Multiplr: 1.00

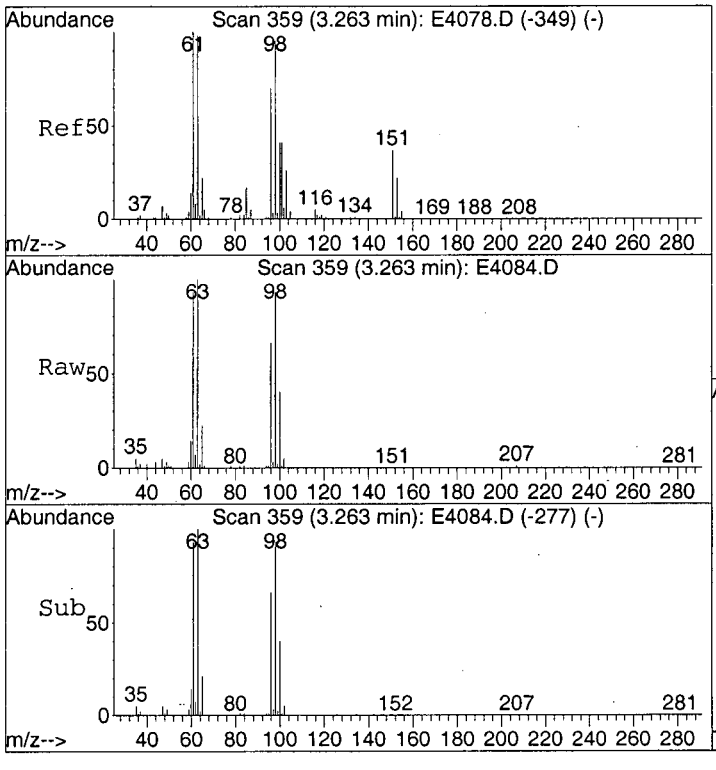


#3
Chloromethane
Concen: 0.20 ug/L
RT: 1.97 min Scan# 147
Delta R.T. -0.07 min
Lab File: E4084.D
Acq: 31 Mar 2003 18:41

Tgt Ion: 50 Resp: 42649

Ion	Ratio	Lower	Upper
50	100		
52	50.4	12.9	52.9

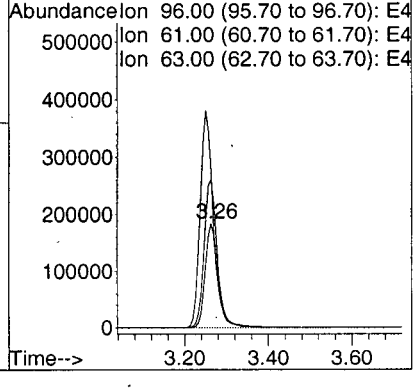




#11
1,1-Dichloroethene
Concen: 4.41 ug/L
RT: 3.26 min Scan# 359
Delta R.T. 0.00 min
Lab File: E4084.D
Acq: 31 Mar 2003 18:41

Tgt Ion: 96 Resp: 386214

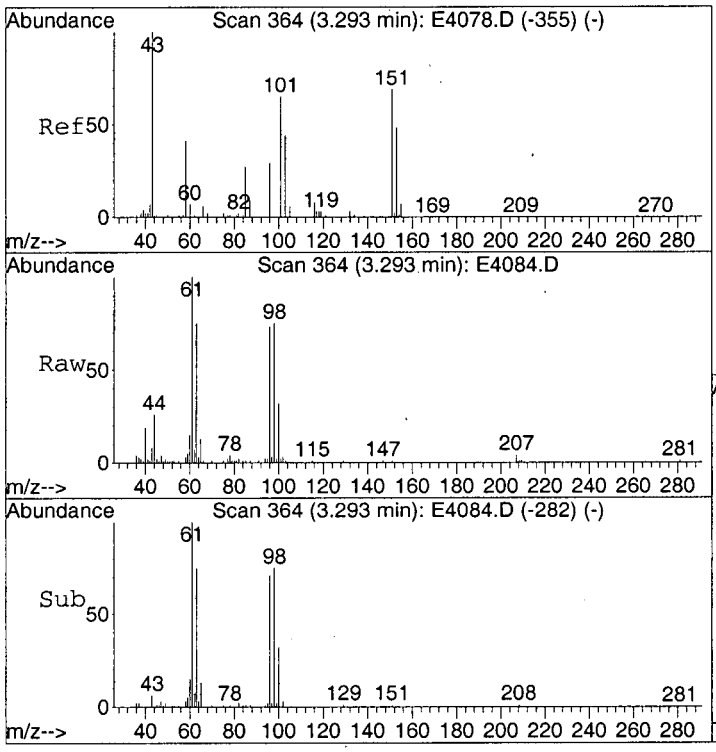
Ion	Ratio	Lower	Upper
96	100		
61	147.8	126.0	166.0
63	218.8	163.4	203.4#



205

Data File : C:\MSDCHEM\1\DATA\E4084.D
Acq On : 03/31/2003 1841
Sample : Y0SM0
Misc : 2775.003 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

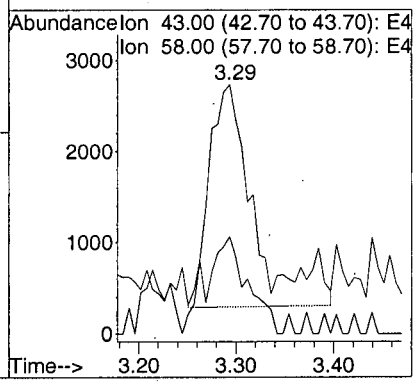
Vial: 10
Operator: AK
Inst : E-5973
Multiplr: 1.00

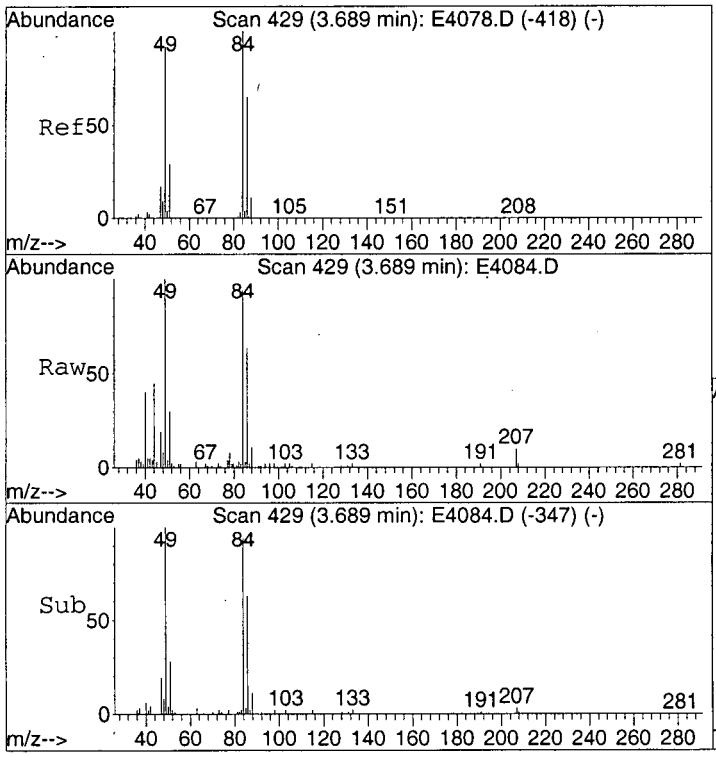


#13
Acetone
Concen: 1.44 ug/L
RT: 3.29 min Scan# 364
Delta R.T. 0.00 min
Lab File: E4084.D
Acq: 31 Mar 2003 18:41

Tgt Ion: 43 Resp: 7807

Ion	Ratio	Lower	Upper
43	100		
58	40.2	19.5	59.5

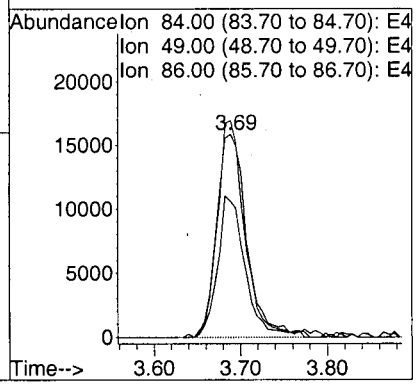




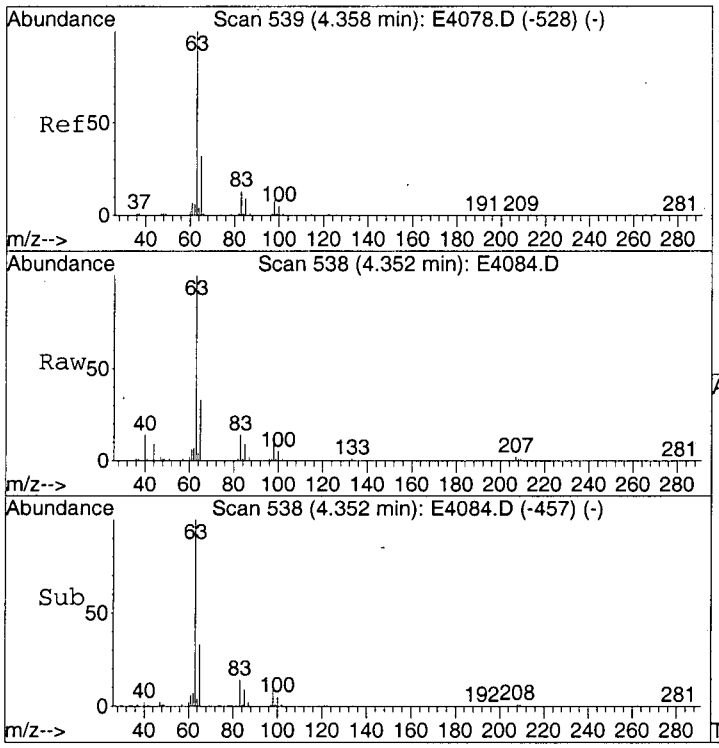
#16
Methylene Chloride
Concen: 0.52 ug/L
RT: 3.69 min Scan# 429
Delta R.T. 0.00 min
Lab File: E4084.D
Acq: 31 Mar 2003 18:41

Tgt Ion: 84 Resp: 38862

Ion	Ratio	Lower	Upper
84	100		
49	95.1	71.8	111.8
86	62.4	43.5	83.5



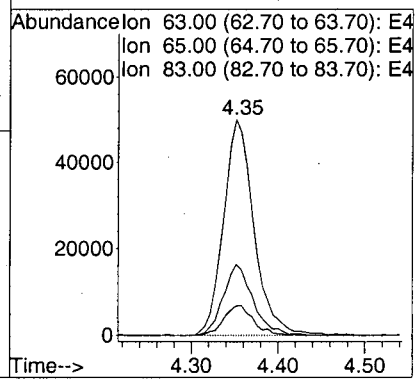
Data File : C:\MSDCHEM\1\DATA\E4084.D Vial: 10
Acq On : 03/31/2003 1841 Operator: AK
Sample : Y0SM0 Inst : E-5973
Misc : 2775.003 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

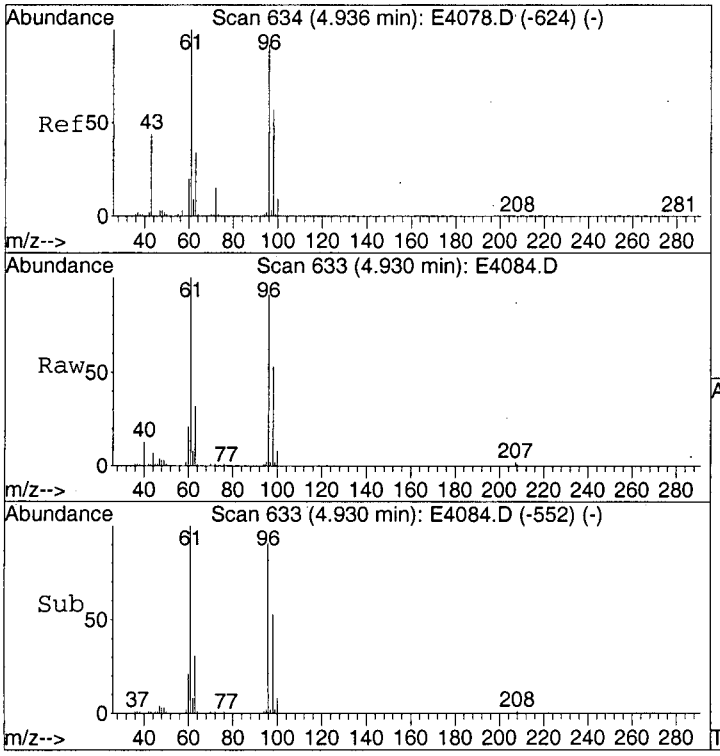


#19
1,1-Dichloroethane
Concen: 0.87 ug/L
RT: 4.35 min Scan# 538
Delta R.T. -0.01 min
Lab File: E4084.D
Acq: 31 Mar 2003 18:41

Tgt Ion: 63 Resp: 121796

Ion	Ratio	Lower	Upper
63	100		
65	31.9	12.3	52.3
83	13.3	0.0	33.3

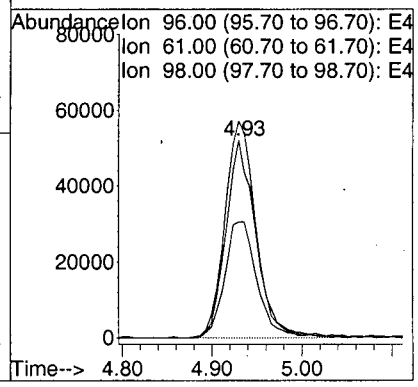




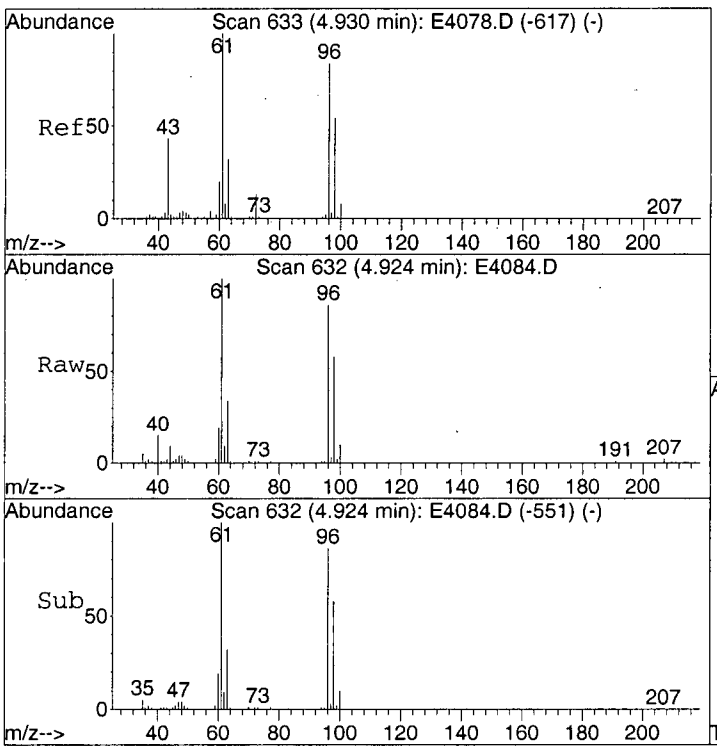
#21
cis-1,2-Dichloroethene
Concen: 1.51 ug/L
RT: 4.93 min Scan# 633
Delta R.T. -0.01 min
Lab File: E4084.D
Acq: 31 Mar 2003 18:41

Tgt Ion: 96 Resp: 119622

Ion	Ratio	Lower	Upper
96	100		
61	115.9	94.5	134.5
98	63.6	43.9	83.9



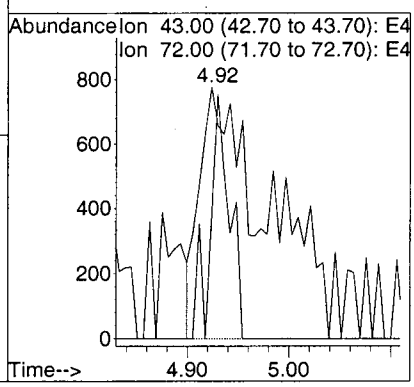
Data File : C:\MSDCHEM\1\DATA\E4084.D Vial: 10
Acq On : 03/31/2003 1841 Operator: AK
Sample : Y0SM0 Inst : E-5973
Misc : 2775.003 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

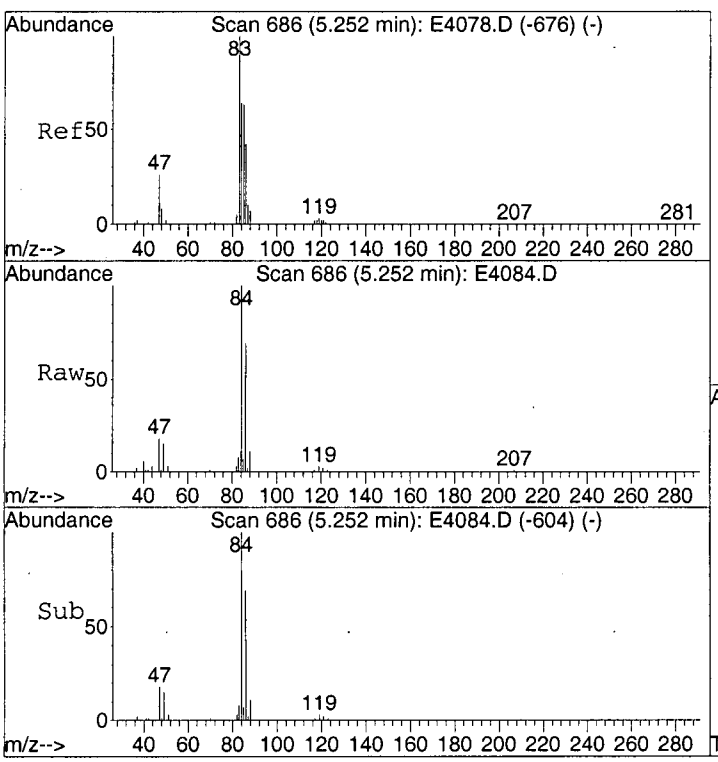


#22
2-Butanone
Concen: 0.42 ug/L
RT: 4.92 min Scan# 632
Delta R.T. -0.01 min
Lab File: E4084.D
Acq: 31 Mar 2003 18:41

Tgt Ion: 43 Resp: 3599

Ion	Ratio	Lower	Upper
43	100		
72	27.8	11.9	51.9

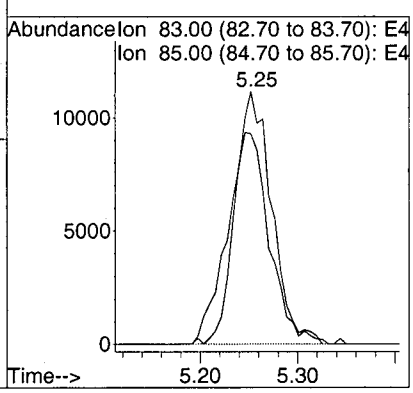




#25
Chloroform
Concen: 0.23 ug/L
RT: 5.25 min Scan# 686
Delta R.T. 0.00 min
Lab File: E4084.D
Acq: 31 Mar 2003 18:41

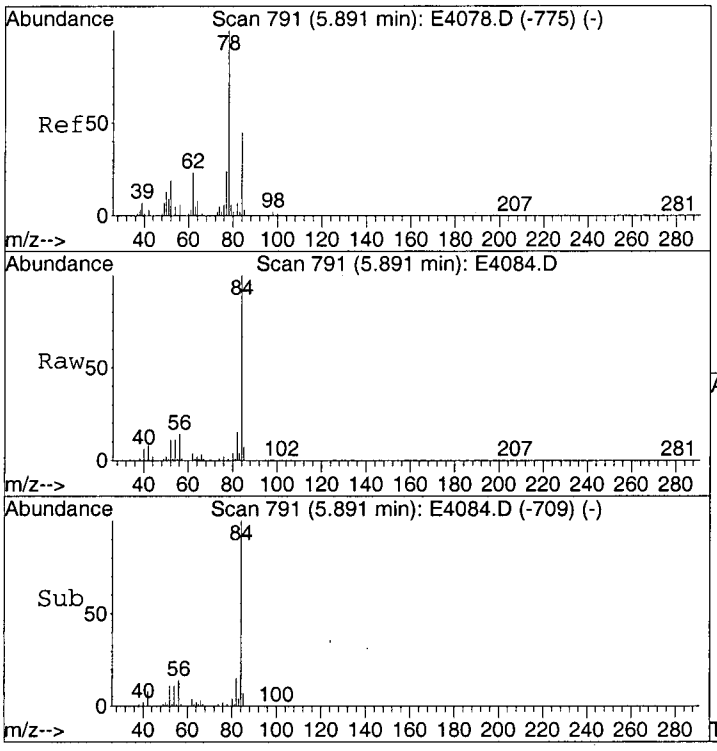
Tgt Ion: 83 Resp: 29131

Ion	Ratio	Lower	Upper
83	100		
85	96.2	45.6	85.6#



0208

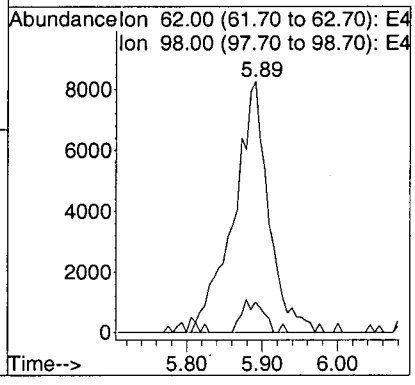
Data File : C:\MSDCHEM\1\DATA\E4084.D Vial: 10
Acq On : 03/31/2003 1841 Operator: AK
Sample : Y0SM0 Inst : E-5973
Misc : 2775.003 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

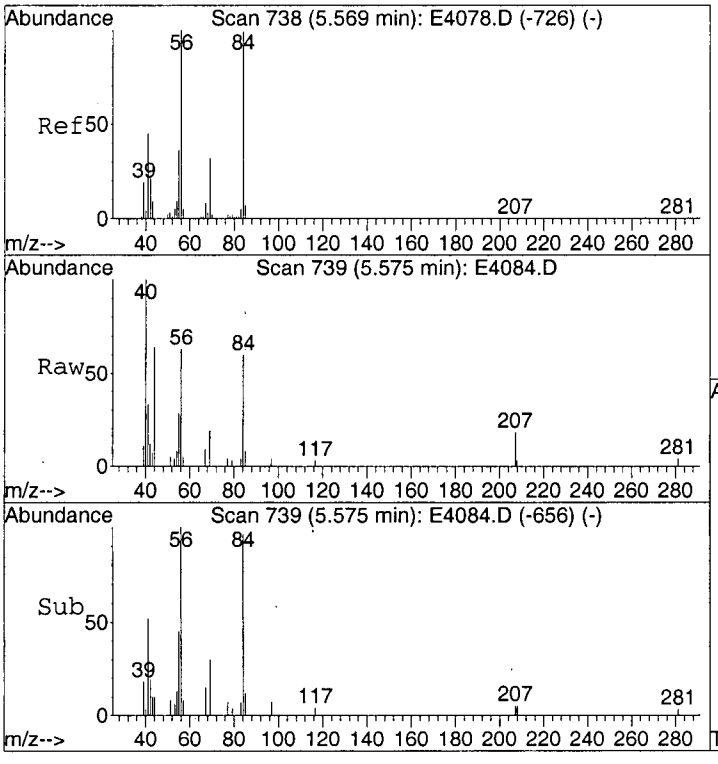


#27
1,2-Dichloroethane
Concen: 0.49 ug/L
RT: 5.89 min Scan# 791
Delta R.T. 0.00 min
Lab File: E4084.D
Acq: 31 Mar 2003 18:41

Tgt Ion: 62 Resp: 26898

Ion	Ratio	Lower	Upper
62	100		
98	7.8	0.0	31.2

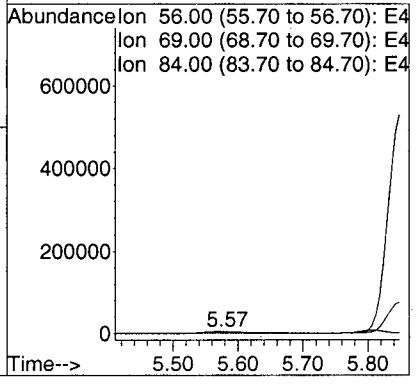




#30
Cyclohexane
Concen: 0.15 ug/L
RT: 5.57 min Scan# 739
Delta R.T. 0.01 min
Lab File: E4084.D
Acq: 31 Mar 2003 18:41

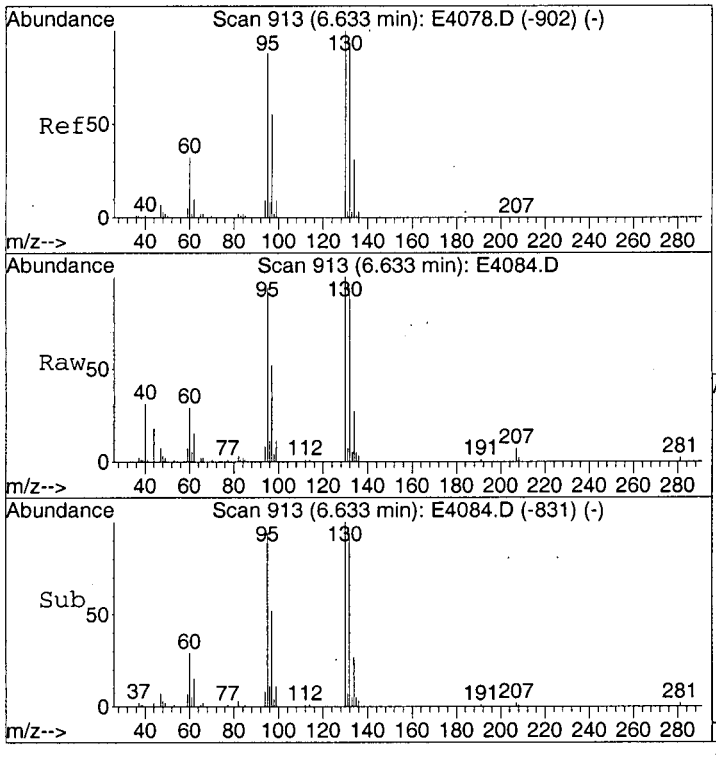
Tgt Ion: 56 Resp: 24475

Ion	Ratio	Lower	Upper
56	100		
69	30.3	12.4	52.4
84	96.7	82.4	122.4



Data File : C:\MSDCHEM\1\DATA\E4084.D
Acq On : 03/31/2003 1841
Sample : Y0SM0
Misc : 2775.003 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

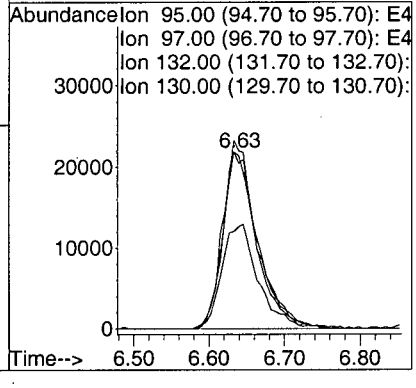
Vial: 10
Operator: AK
Inst : E-5973
Multiplr: 1.00

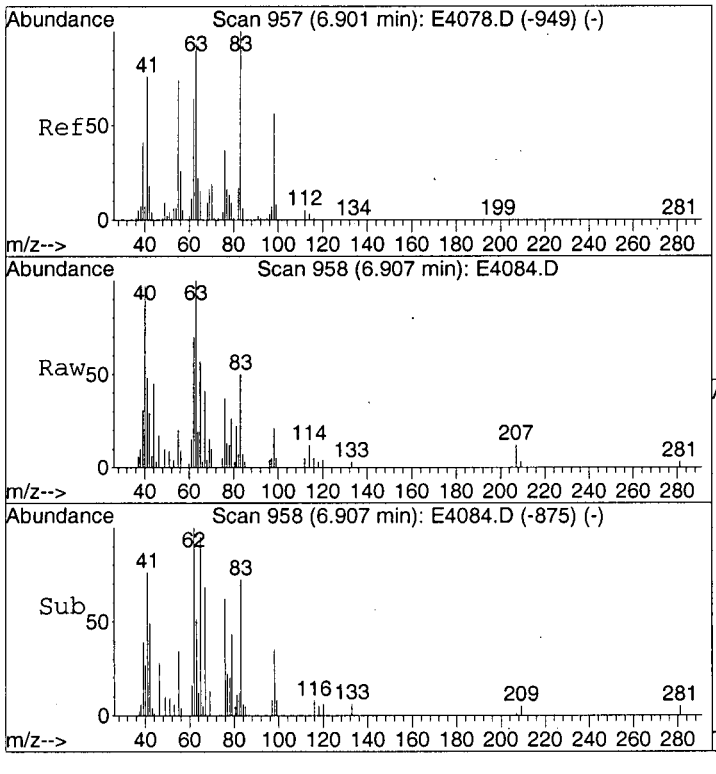


#34
Trichloroethene
Concen: 0.83 ug/L
RT: 6.63 min Scan# 913
Delta R.T. 0.00 min
Lab File: E4084.D
Acq: 31 Mar 2003 18:41

Tgt Ion: 95 Resp: 67160

Ion	Ratio	Lower	Upper
95	100		
97	64.5	45.2	85.2
132	105.2	89.3	129.3
130	109.5	93.5	133.5

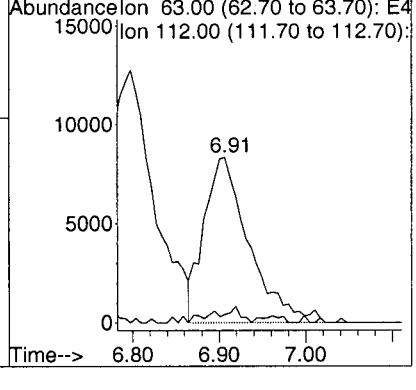




#37
1,2-Dichloropropane
Concen: 0.41 ug/L
RT: 6.91 min Scan# 958
Delta R.T. 0.01 min
Lab File: E4084.D
Acq: 31 Mar 2003 18:41

Tgt Ion: 63 Resp: 30047

Ion	Ratio	Lower	Upper
63	100		
112	5.8	0.0	25.6



210

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\E4084.D
Acq On : 03/31/2003 1841
Sample : Y0SM0
Misc : 2775.003 25ML
MS Integration Params: Lscint.p

Vial: 10
Operator: AK
Inst : E-5973
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Smoothing : OFF
Filtering: 5
Sampling : 1
Min Area: 100000 Area counts
Start Thrs: 0.2
Max Peaks: 40
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	1.663	89	96	115	rBV	3055556	11736491	100.00%	26.135%
2	1.827	115	123	143	rVB	1325223	3829541	32.63%	8.528%
3	2.138	169	174	198	rBV	191906	650721	5.54%	1.449%
4	2.320	198	204	223	rVV	129735	419013	3.57%	0.933%
5	2.533	232	239	250	rBV	205576	519814	4.43%	1.158%
6	3.257	349	358	379	rBV3	1471685	3485985	29.70%	7.763%
7	3.689	423	429	438	rVB	61592	133041	1.13%	0.296%
8	4.352	530	538	548	rBV	100959	242131	2.06%	0.539%
9	4.930	627	633	646	rVB	193294	460234	3.92%	1.025%
10	5.234	674	683	697	rBV	694584	1792240	15.27%	3.991%
11	5.848	766	784	816	rBV2	1025036	4671205	39.80%	10.402%
12	6.305	848	859	893	rBV2	483641	2158694	18.39%	4.807%
13	6.633	905	913	928	rBV2	117911	377657	3.22%	0.841%
14	6.798	928	940	953	rBV	505659	1824387	15.54%	4.063%
15	7.765	1089	1099	1115	rBV	279739	844369	7.19%	1.880%
16	8.203	1159	1171	1212	rBV	909112	4745849	40.44%	10.568%
17	8.525	1216	1224	1235	rVB2	60748	179858	1.53%	0.401%
18	9.121	1309	1322	1333	rBV5	50915	207352	1.77%	0.462%
19	10.314	1506	1518	1543	rBV	503355	2089511	17.80%	4.653%
20	11.506	1706	1714	1726	rBV	129544	337312	2.87%	0.751%
21	12.078	1800	1808	1818	rBV	268771	581673	4.96%	1.295%
22	13.185	1982	1990	2000	rBV	845300	1517177	12.93%	3.378%
23	13.538	2040	2048	2057	rBV	1241878	2102724	17.92%	4.682%

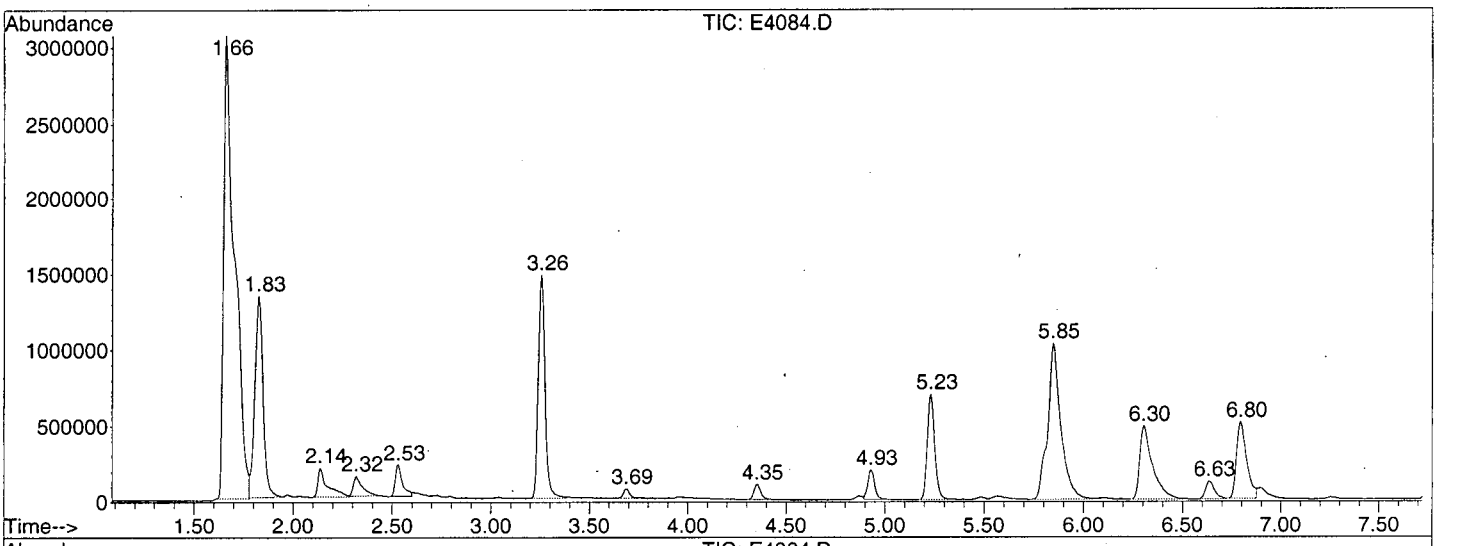
Sum of corrected areas: 44906979

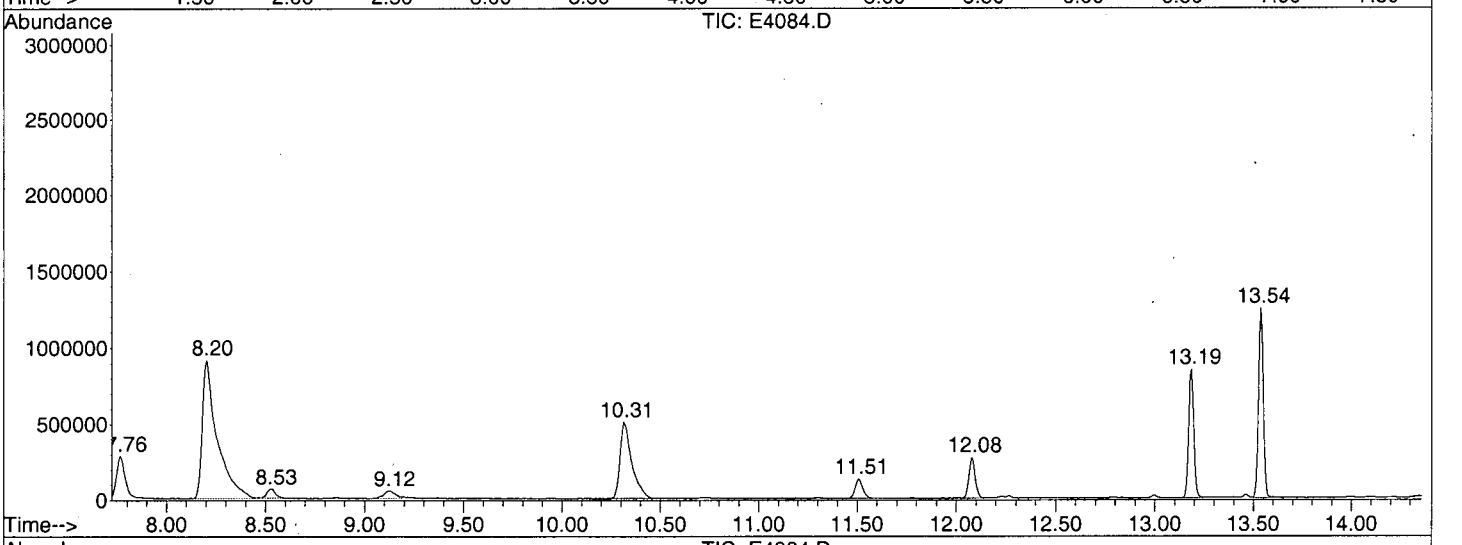
211

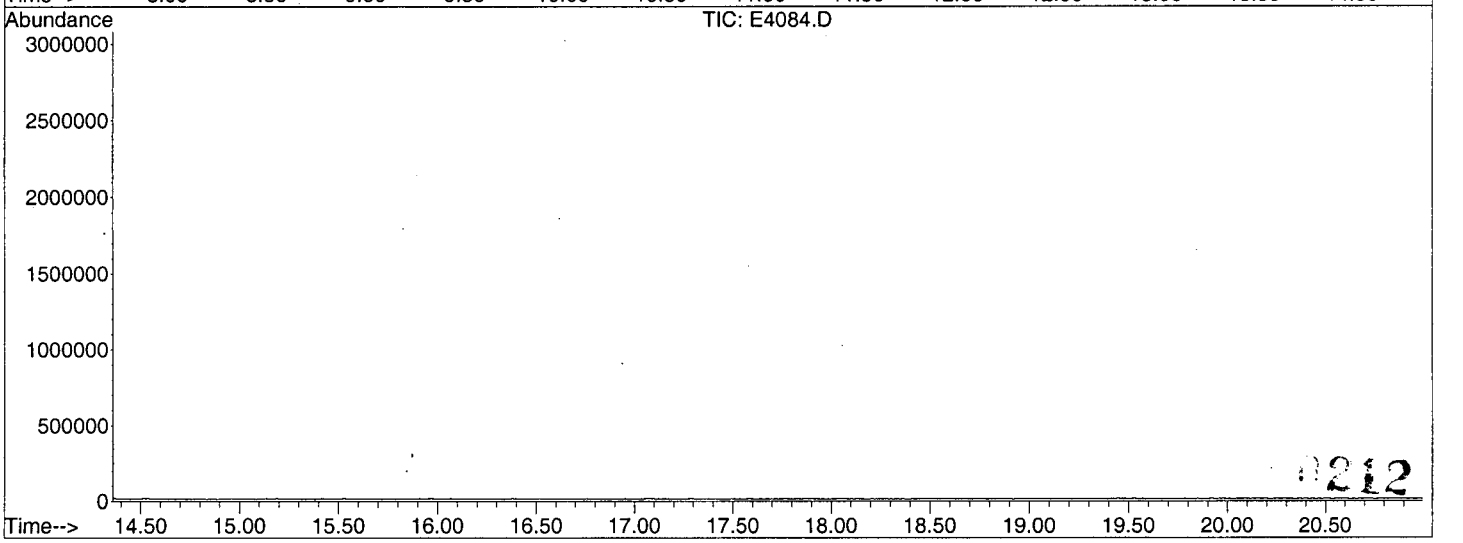
LSC Report - Integrated Chromatogram

Data File : C:\MSDCHEM\1\DATA\E4084.D
Acq On : 03/31/2003 1841
Sample : Y0SM0
Misc : 2775.003 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

Vial: 10
Operator: AK
Inst : E-5973
Multiplr: 1.00







0212

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4084.D
Acq On : 03/31/2003 1841
Sample : Y0SM0
Misc : 2775.003 25ML
MS Integration Params: Lscint.p

Vial: 10
Operator: AK
Inst : E-5973
Multiplr: 1.00

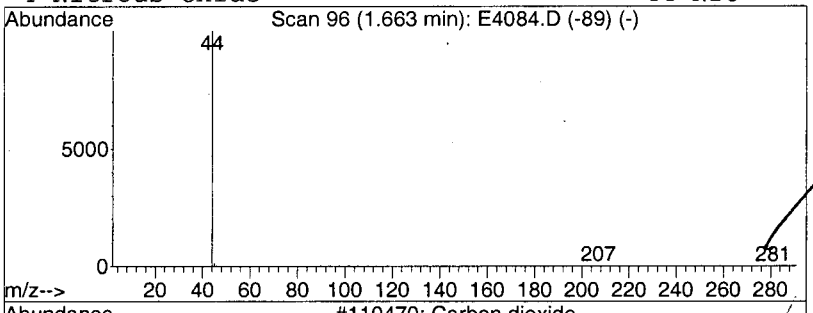
Quant Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

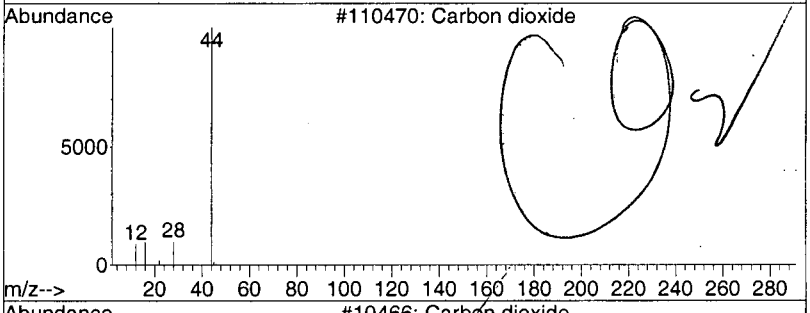
****

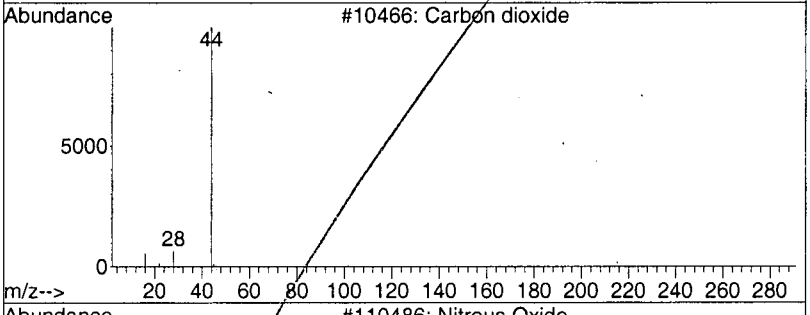
Peak Number 1 Carbon dioxide Concentration Rank 1

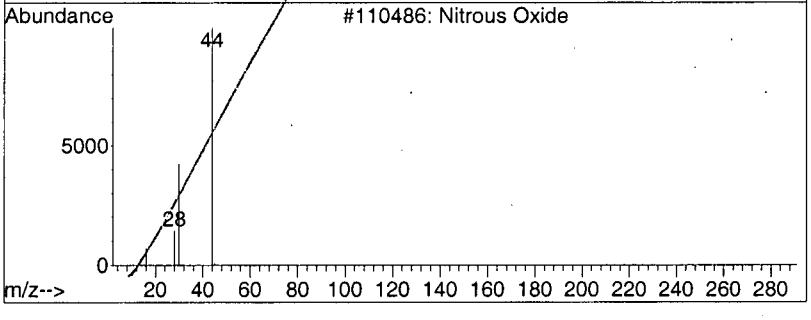
R.T.	EstConc	Area	Relative to ISTD	R.T.
1.66	27.18 ug/L	11736500	1,4-Difluorobenzene	6.30

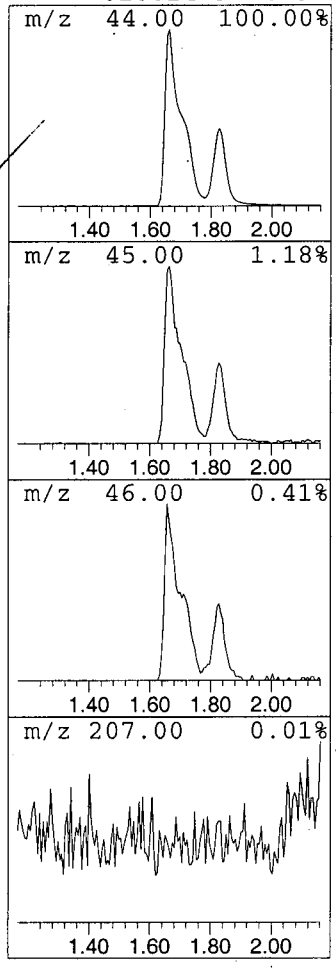
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3











0213

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4084.D
Acq On : 03/31/2003 1841
Sample : Y0SM0
Misc : 2775.003 25ML
MS Integration Params: Lscint.p

Vial: 10
Operator: AK
Inst : E-5973
Multiplr: 1.00

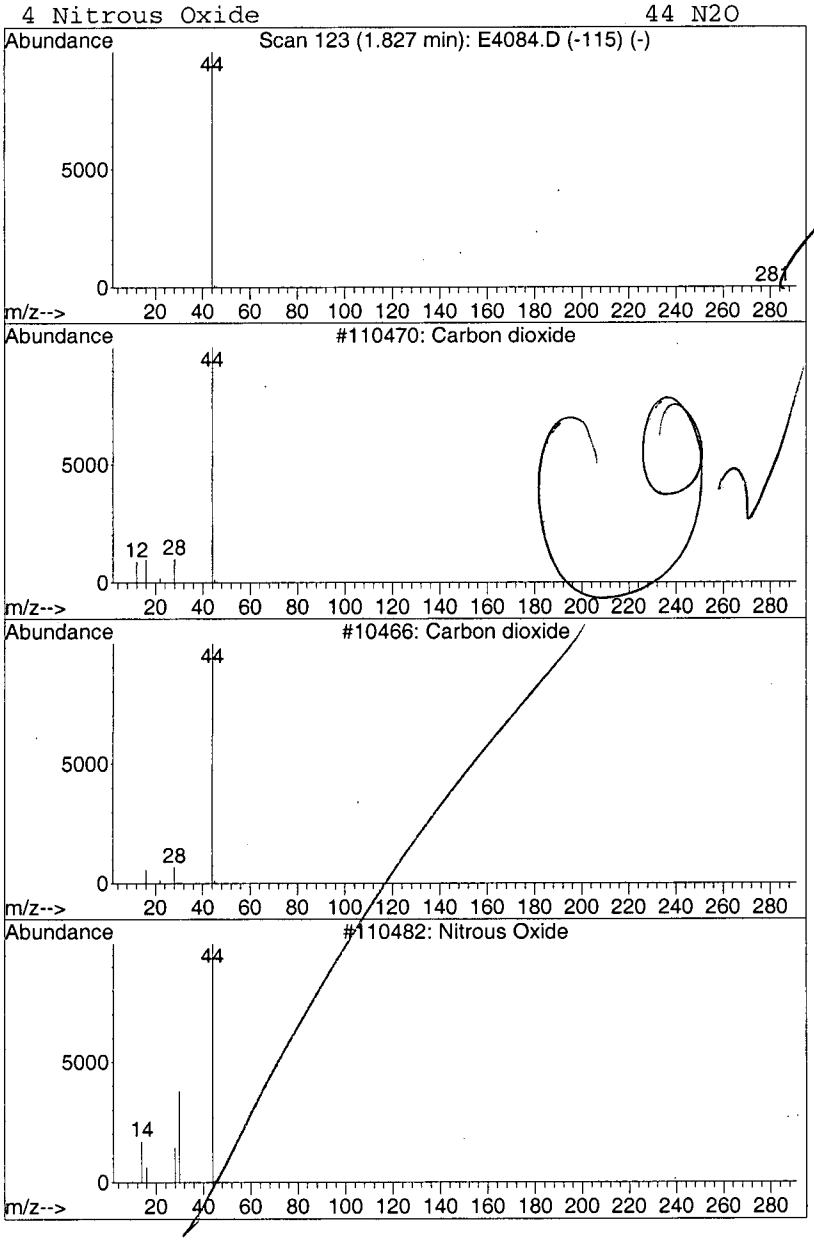
Quant Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

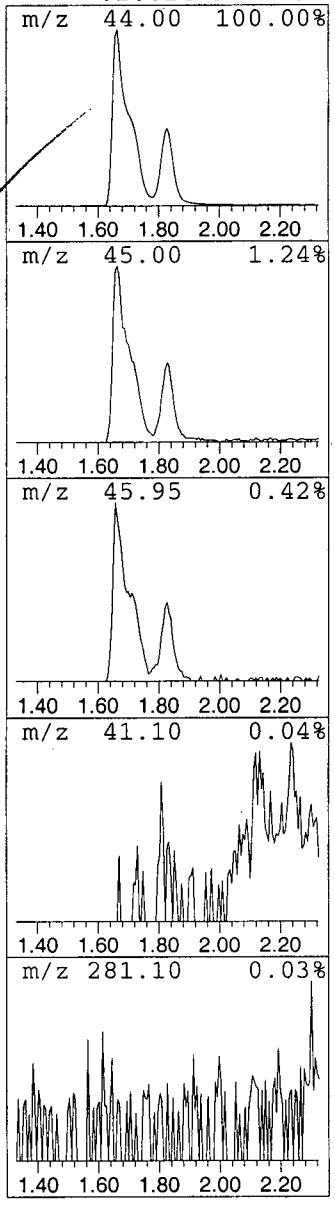
****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.83	8.87 ug/L	3829540	1,4-Difluorobenzene	6.30

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3





0214

6LCA

LOW CONCENTRATION WATER VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Instrument ID: E-5973 Calibration Date(s): 03/26/2003 03/26/2003

Calibration Times: 1819 2101

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

LAB FILE ID: RRF0.5 = E4006 RRF1 = E4005
RRF5= E4004 RRF10 = E4003 RRF25 = E4002

COMPOUND	RRF0.5	RRF1	RRF5	RRF10	RRF25	$\overline{RRF}$	% RSD
Dichlorodifluoromethane	0.776	0.731	0.613	0.780	0.693	0.719	9.6
Chloromethane	1.140	1.059	0.849	1.038	0.911	0.999	11.8
Vinyl Chloride *	0.871	0.821	0.674	0.830	0.707	0.781	10.9 *
Bromomethane *	0.217	0.202	0.167	0.193	0.094	0.175	27.8 *
Chloroethane	0.513	0.474	0.373	0.460	0.194	0.403	31.6
Trichlorofluoromethane	0.984	0.930	0.759	0.952	0.850	0.895	10.1
1,1-Dichloroethene *	0.508	0.494	0.407	0.477	0.420	0.461	9.8 *
1,1,2-Trichloro-1,2,2-trifluoroethane	0.524	0.488	0.428	0.512	0.448	0.480	8.6
Acetone	0.067	0.032	0.022	0.017	0.022	0.032	63.5
Carbon Disulfide	1.609	1.503	1.288	1.508	1.336	1.449	9.2
Methyl Acetate	0.133	0.065	0.054	0.063	0.054	0.074	45.2
Methylene Chloride	0.818	0.593	0.361	0.401	0.338	0.502	40.5
trans-1,2-Dichloroethene	0.557	0.534	0.445	0.512	0.451	0.500	10.0
Methyl tert-Butyl Ether	0.712	0.626	0.517	0.597	0.503	0.591	14.4
1,1-Dichloroethane *	0.831	0.768	0.654	0.751	0.664	0.734	10.1 *
cis-1,2-Dichloroethene	0.478	0.436	0.372	0.429	0.386	0.420	10.1
2-Butanone	0.047	0.042	0.036	0.029	0.039	0.039	17.3
Bromochloromethane *	0.142	0.128	0.114	0.130	0.118	0.126	8.7 *
Chloroform *	0.808	0.744	0.621	0.698	0.609	0.696	12.0 *
1,1,1-Trichloroethane *	0.929	0.859	0.738	0.830	0.696	0.810	11.6 *
Cyclohexane	1.079	1.017	0.900	1.045	0.881	0.984	9.0
Carbon Tetrachloride *	0.698	0.662	0.583	0.674	0.579	0.639	8.6 *
Benzene *	2.698	2.480	2.119	2.339	1.941	2.315	12.8 *
1,2-Dichloroethane *	0.318	0.287	0.249	0.286	0.252	0.278	10.3 *
Trichloroethene *	0.590	0.541	0.452	0.514	0.427	0.505	13.1 *
Methylcyclohexane	1.129	1.072	0.979	1.144	0.968	1.058	7.8

* Compounds with required minimum RRF and maximum %RSD Values.
All other compound must meet a minimum RRF of 0.010.

6LCB

LOW CONCENTRATION WATER VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Instrument ID: E-5973 Calibration Date(s): 03/26/2003 03/26/2003

Calibration Times: 1819 2101

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

LAB FILE ID: RRF0.5 = E4006 RRF1 = E4005
RRF5 = E4004 RRF10 = E4003 RRF25 = E4002

COMPOUND		RRF0.5	RRF1	RRF5	RRF10	RRF25	$\overline{RRF}$	% RSD	
1,2-Dichloropropane		0.550	0.474	0.410	0.455	0.375	0.453	14.7	
Bromodichloromethane	*	0.533	0.488	0.416	0.461	0.390	0.458	12.4	*
cis-1,3-Dichloropropene	*	0.658	0.604	0.535	0.609	0.518	0.585	9.8	*
4-Methyl-2-pentanone		0.122	0.116	0.101	0.079	0.109	0.105	15.9	
Toluene	*	2.833	2.583	2.289	2.577	2.190	2.494	10.3	*
trans-1,3-Dichloropropene	*	0.444	0.411	0.366	0.422	0.364	0.401	8.8	*
1,1,2-Trichloroethane	*	0.279	0.242	0.205	0.229	0.189	0.229	15.2	*
Tetrachloroethene	*	0.601	0.563	0.476	0.540	0.461	0.528	11.2	*
2-Hexanone		0.087	0.079	0.071	0.054	0.076	0.073	16.8	
Dibromochloromethane	*	0.270	0.249	0.227	0.264	0.224	0.247	8.5	*
1,2-Dibromoethane	*	0.221	0.183	0.165	0.190	0.161	0.184	13.0	*
Chlorobenzene	*	1.679	1.538	1.320	1.515	1.300	1.470	10.8	*
Ethylbenzene	*	2.665	2.505	2.228	2.665	2.386	2.490	7.5	*
Xylene (total)	*	0.928	0.872	0.768	0.940	0.849	0.871	7.9	*
Styrene	*	1.239	1.184	1.072	1.330	1.191	1.203	7.8	*
Bromoform	*	0.370	0.324	0.313	0.338	0.291	0.327	9.0	*
Isopropylbenzene		2.253	2.177	1.866	2.316	2.098	2.142	8.2	
1,1,2,2-Tetrachloroethane	*	0.237	0.211	0.188	0.216	0.182	0.207	10.8	*
1,3-Dichlorobenzene	*	2.960	2.573	2.124	2.368	2.093	2.424	14.8	*
1,4-Dichlorobenzene	*	2.860	2.484	2.045	2.266	1.973	2.326	15.5	*
1,2-Dichlorobenzene	*	2.289	2.043	1.656	1.855	1.605	1.890	15.0	*
1,2-Dibromo-3-chloropropane		0.083	0.076	0.052	0.060	0.049	0.064	23.3	
1,2,4-Trichlorobenzene	*	1.675	1.542	1.186	1.256	1.047	1.341	19.4	*
1,2,3-Trichlorobenzene	*	1.318	1.225	0.919	0.977	0.795	1.047	20.8	*

* Compounds with required minimum RRF and maximum %RSD Values.
All other compound must meet a minimum RRF of 0.010.

6LCC

LOW CONCENTRATION WATER VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Instrument ID: E-5973 Calibration Date(s): 03/26/2003 03/26/2003

Calibration Times: 1819 2101

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

LAB FILE ID: RRF0.5 = E4006 RRF1 = E4005
RRF5 = E4004 RRF10 = E4003 RRF25 = E4002

COMPOUND	RRF0.5	RRF1	RRF5	RRF10	RRF25	$\overline{RRF}$	% RSD
Vinyl Chloride-d3	0.473	0.461	0.413	0.434	0.377	0.432	8.9
Chloroethane-d5	0.403	0.391	0.345	0.360	0.152	0.330	31.0
1,1-Dichloroethene-d2	0.199	0.206	0.186	0.194	0.173	0.192	6.6
2-Butanone-d5	0.035	0.035	0.035	0.038	0.034	0.035	4.3
Chloroform-d	0.419	0.429	0.409	0.418	0.390	0.413	3.6
1,2-Dichloroethane-d4	0.257	0.238	0.228	0.233	0.196	0.230	9.6
Benzene-d6	2.402	2.392	2.180	2.163	1.839	2.195	10.4
1,2-Dichloropropane-d6	0.695	0.672	0.591	0.589	0.487	0.607	13.5
Toluene-d8	2.274	2.251	2.119	2.122	1.840	2.121	8.1
trans-1,3-Dichloropropene-d4	0.084	0.083	0.072	0.073	0.065	0.075	10.7
2-Hexanone-d5	0.083	0.080	0.081	0.087	0.075	0.081	5.4
Bromoform-d	0.300	0.303	0.297	0.302	0.271	0.295	4.5
1,1,2,2-Tetrachloroethane-d2	0.226	0.217	0.210	0.216	0.183	0.210	7.8
1,2-Dichlorobenzene-d4	1.431	1.387	1.182	1.175	1.039	1.243	13.1

* Compounds with required minimum RRF and maximum %RSD Values.
All other compound must meet a minimum RRF of 0.010.

Response Factor Report E-5973

Method : C:\MSDCHEM\1\METHODS\LCE4004.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Thu Mar 27 08:17:29 2003
Response via : Continuing Calibration

Calibration Files
1 =E4006.D 2 =E4005.D 3 =E4004.D
4 =E4003.D 5 =E4002.D

ORIGINAL COPY
Case: 31517 SDG: CA0727
Episode: 2749 Int./Date: 03/27/03

		Compound	1	2	3	4	5	Avg	%RSD
1)	I	1,4-Difluorobenzene	----------ISTD----------						
2)	P	Dichlorodifluorom	0.776	0.731	0.613	0.780	0.693	0.718	9.59
3)	P	Chloromethane	1.140	1.059	0.850	1.038	0.910	0.999	11.73
4)	SP	Vinyl Chloride-d3	0.473	0.461	0.413	0.434	0.377	0.432	8.90
5)	CP	Vinyl Chloride	0.871	0.821	0.673	0.830	0.707	0.780	10.95
6)	CP	Bromomethane	0.217	0.202	0.167	0.193	0.094	0.174	27.93
7)	SP	Chloroethane-d5	0.403	0.391	0.345	0.360	0.152	0.330	31.03
8)	P	Chloroethane	0.513	0.474	0.373	0.460	0.194	0.403	31.66
9)	P	Trichlorofluorome	0.984	0.930	0.759	0.952	0.850	0.895	10.13
10)	SP	1,1-Dichloroethen	0.199	0.206	0.186	0.194	0.173	0.192	6.70
11)	MCP	1,1-Dichloroethen	0.508	0.494	0.407	0.477	0.420	0.461	9.79
12)	P	1,1,2-Trichloro-1	0.524	0.488	0.428	0.512	0.448	0.480	8.54
13)	P	Acetone	0.067	0.031	0.022	0.017	0.022	0.032	63.91
14)	P	Carbon Disulfide	1.609	1.503	1.288	1.508	1.336	1.449	9.18
15)	P	Methyl Acetate	0.133	0.065	0.054	0.063	0.054	0.074	45.40
16)	P	Methylene Chlorid	0.818	0.593	0.361	0.401	0.338	0.502	40.50
17)	P	trans-1,2-Dichlor	0.557	0.534	0.445	0.512	0.451	0.500	10.01
18)	P	Methyl tert-Butyl	0.712	0.626	0.517	0.597	0.503	0.591	14.44
19)	CP	1,1-Dichloroethan	0.831	0.768	0.654	0.751	0.664	0.733	10.14
20)	SP	2-Butanone-d5	0.035	0.035	0.035	0.038	0.034	0.035	4.77
21)	P	cis-1,2-Dichloroe	0.478	0.436	0.372	0.429	0.386	0.420	10.09
22)	P	2-Butanone	0.047	0.042	0.036	0.029	0.039	0.039	17.89
23)	CP	Bromochloromethan	0.142	0.128	0.114	0.130	0.118	0.126	8.88
24)	SP	Chloroform-d	0.419	0.429	0.409	0.418	0.390	0.413	3.55
25)	CP	Chloroform	0.808	0.743	0.621	0.698	0.609	0.696	12.00
26)	SP	1,2-Dichloroethan	0.257	0.238	0.228	0.232	0.196	0.230	9.65
27)	CP	1,2-Dichloroethan	0.318	0.287	0.249	0.286	0.252	0.279	10.28
28)	I	Chlorobenzene-d5	----------ISTD----------						
29)	CP	1,1,1-Trichloroet	0.929	0.859	0.738	0.830	0.696	0.810	11.56
30)	P	Cyclohexane	1.079	1.017	0.900	1.045	0.881	0.984	9.01
31)	CP	Carbon Tetrachlor	0.698	0.662	0.583	0.674	0.579	0.639	8.55
32)	SP	Benzene-d6	2.402	2.392	2.179	2.163	1.839	2.195	10.43
33)	MCP	Benzene	2.698	2.480	2.119	2.339	1.941	2.315	12.83
34)	MCP	Trichloroethene	0.590	0.541	0.452	0.514	0.427	0.505	13.06
35)	SP	1,2-Dichloropropa	0.695	0.672	0.591	0.589	0.487	0.607	13.50
36)	P	Methylcyclohexane	1.129	1.072	0.979	1.144	0.968	1.058	7.77
37)	P	1,2-Dichloropropa	0.550	0.474	0.410	0.455	0.375	0.453	14.75
38)	CP	Bromodichlorometh	0.533	0.488	0.416	0.461	0.390	0.458	12.43
39)	CP	cis-1,3-Dichlorop	0.658	0.604	0.535	0.609	0.518	0.585	9.83
40)	P	4-Methyl-2-Pentan	0.122	0.116	0.101	0.079	0.109	0.105	16.08
41)	SP	Toluene-d8	2.274	2.251	2.119	2.122	1.840	2.121	8.13
42)	MCP	Toluene	2.833	2.583	2.289	2.576	2.190	2.494	10.31
43)	SP	trans-1,3-Dichlor	0.084	0.083	0.072	0.073	0.065	0.075	10.50
44)	CP	trans-1,3-Dichlor	0.444	0.410	0.365	0.422	0.364	0.401	8.82
45)	CP	1,1,2-Trichloroet	0.279	0.242	0.205	0.229	0.189	0.229	15.17
46)	CP	Tetrachloroethene	0.601	0.563	0.476	0.540	0.461	0.528	11.13
47)	SP	2-Hexanone-d5	0.083	0.080	0.081	0.087	0.075	0.081	5.28
48)	P	2-Hexanone	0.087	0.079	0.071	0.054	0.076	0.073	16.63
49)	CP	Dibromochlorometh	0.270	0.249	0.227	0.264	0.224	0.246	8.50
50)	CP	1,2-Dibromoethane	0.221	0.183	0.165	0.190	0.161	0.184	13.15
51)	MCP	Chlorobenzene	1.679	1.538	1.320	1.515	1.300	1.470	10.84
52)	CP	Ethylbenzene	2.665	2.505	2.227	2.665	2.386	2.490	7.54
53)	T	m/p-Xylene	1.036	0.983	0.875	1.058	0.947	0.980	7.46
54)	T	o-Xylene	0.928	0.872	0.768	0.940	0.849	0.871	7.92
55)	CP	Xylene (total)	0.928	0.872	0.768	0.940	0.849	0.871	7.92

(#) = Out of Range

Method : C:\MSDCHEM\1\METHODS\LCE4004.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Thu Mar 27 08:17:29 2003
Response via : Continuing Calibration

Calibration Files
1 =E4006.D 2 =E4005.D 3 =E4004.D
4 =E4003.D 5 =E4002.D

		Compound	1	2	3	4	5	Avg	%RSD
56)	CP	Styrene	1.239	1.184	1.072	1.330	1.191	1.203	7.77
57)	P	Isopropylbenzene	2.253	2.177	1.866	2.316	2.098	2.142	8.15
58)	SP	1,1,2,2-Tetrachlo	0.226	0.217	0.210	0.216	0.183	0.210	7.74
59)	CP	1,1,2,2-Tetrachlo	0.237	0.211	0.187	0.216	0.181	0.207	10.87
60)	I	1,4-Dichlorobenzene-d	----------ISTD----------						
61)	SP	Bromoform-d	0.300	0.303	0.297	0.302	0.271	0.295	4.51
62)	CP	Bromoform	0.370	0.324	0.313	0.338	0.291	0.327	9.07
63)	CP	1,3-Dichlorobenze	2.960	2.573	2.124	2.368	2.093	2.424	14.76
64)	CP	1,4-Dichlorobenze	2.860	2.484	2.045	2.266	1.973	2.326	15.48
65)	SP	1,2-Dichlorobenze	1.431	1.387	1.182	1.175	1.039	1.243	13.10
66)	CP	1,2-Dichlorobenze	2.288	2.043	1.656	1.855	1.605	1.890	14.96
67)	P	1,2-Dibromo-3-chl	0.083	0.076	0.052	0.060	0.049	0.064	23.20
68)	CP	1,2,4-Trichlorobe	1.674	1.542	1.186	1.255	1.047	1.341	19.35
69)	CP	1,2,3-Trichlorobe	1.318	1.225	0.919	0.977	0.795	1.047	20.81

(#) = Out of Range

Data File : C:\MSDCHEM\1\DATA\E4006.D Vial: 6
Acq On : 03/26/2003 2101 Operator: AK
Sample : VSTD0.54M Inst : E-5973
Misc : EVSTD0.54M 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 27 08:15:51 2003 Quant Results File: LCE4004.RES

Quant Method : C:\MSDCHEM\1\METHODS\LCE4004.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Wed Mar 26 22:12:01 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4004.D
DataAcq Meth : VOAC

ORIGINAL COPY
Case: 31517 SDG: CAQZ7
Episode: 2749 Int./Date: 03/27/03

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Difluorobenzene	6.31	114	1125994	5.00 ug/L	0.00
28) Chlorobenzene-d5	10.32	117	876806	5.00 ug/L	0.00
60) 1,4-Dichlorobenzene-d4	13.19	152	302861	5.00 ug/L	0.00

System Monitoring Compounds					
4) Vinyl Chloride-d3	2.14	65	53247	0.57 ug/L	0.00
Spiked Amount 5.000	Range 49 - 138		Recovery	= 11.40%#	
7) Chloroethane-d5	2.54	69	45414	0.58 ug/L	0.00
Spiked Amount 5.000	Range 60 - 126		Recovery	= 11.60%#	
10) 1,1-Dichloroethene-d2	3.26	65	22419	0.53 ug/L	0.00
Spiked Amount 5.000	Range 65 - 130		Recovery	= 10.60%#	
20) 2-Butanone-d5	4.87	46	39385	4.98 ug/L	0.00
Spiked Amount 5.000	Range 42 - 171		Recovery	= 99.60%	
24) Chloroform-d	5.24	86	47195	0.51 ug/L	0.00
Spiked Amount 5.000	Range 80 - 123		Recovery	= 10.20%#	
26) 1,2-Dichloroethane-d4	5.81	65	28906	0.56 ug/L	0.00
Spiked Amount 5.000	Range 78 - 129		Recovery	= 11.20%#	
32) Benzene-d6	5.85	84	210598	0.55 ug/L	0.00
Spiked Amount 5.000	Range 78 - 121		Recovery	= 11.00%#	
35) 1,2-Dichloropropane-d6	6.80	67	60896	0.59 ug/L	0.00
Spiked Amount 5.000	Range 84 - 123		Recovery	= 11.80%#	
41) Toluene-d8	8.21	98	199361	0.54 ug/L	0.00
Spiked Amount 5.000	Range 77 - 120		Recovery	= 10.80%#	
43) trans-1,3-Dichloropropene-	8.53	79	7331	0.58 ug/L	0.00
Spiked Amount 5.000	Range 80 - 128		Recovery	= 11.60%#	
47) 2-Hexanone-d5	9.13	46	73004	5.14 ug/L	0.00
Spiked Amount 5.000	Range 37 - 169		Recovery	= 102.80%	
58) 1,1,2,2-Tetrachloroethane-	12.08	84	19799	0.54 ug/L	0.00
Spiked Amount 5.000	Range 75 - 131		Recovery	= 10.80%#	
61) Bromoform-d	11.51	174	9091	0.50 ug/L	0.00
Spiked Amount 5.000	Range 76 - 135		Recovery	= 10.00%#	
65) 1,2-Dichlorobenzene-d4	13.54	152	43349	0.61 ug/L	0.00
Spiked Amount 5.000	Range 50 - 150		Recovery	= 12.20%#	

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.85	85	87337	0.63 ug/L	99
3) Chloromethane	2.05	50	128344	0.67 ug/L	98
5) Vinyl Chloride	2.15	62	98044	0.65 ug/L	96
6) Bromomethane	2.47	94	24410	0.65 ug/L #	68
8) Chloroethane	2.56	64	57814	0.69 ug/L	93
9) Trichlorofluoromethane	2.80	101	110825	0.65 ug/L	99
11) 1,1-Dichloroethene	3.27	96	57182	0.62 ug/L #	89
12) 1,1,2-Trichloro-1,2,2-trif	3.27	101	59018	0.61 ug/L	99
13) Acetone	3.29	43	75842	15.11 ug/L	97
14) Carbon Disulfide	3.49	76	181221	0.62 ug/L	97
15) Methyl Acetate	3.59	43	14985	1.24 ug/L	81
16) Methylene Chloride	3.69	84	92151	1.13 ug/L	99
17) trans-1,2-Dichloroethene	3.96	96	62738	0.63 ug/L	99
18) Methyl tert-Butyl Ether	3.96	73	80201	0.69 ug/L	78
19) 1,1-Dichloroethane	4.35	63	93551	0.64 ug/L	99
21) cis-1,2-Dichloroethene	4.94	96	53866	0.64 ug/L	94
22) 2-Butanone	4.94	43	53269	6.51 ug/L	92
23) Bromochloromethane	5.19	128	16036	0.63 ug/L	92
25) Chloroform	5.26	83	90929	0.65 ug/L	99
27) 1,2-Dichloroethane	5.90	62	35839	0.64 ug/L	98

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

Data File : C:\MSDCHEM\1\DATA\E4006.D Vial: 6
Acq On : 03/26/2003 2101 Operator: AK
Sample : VSTD0.54M Inst : E-5973
Misc : EVSTD0.54M 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 27 08:15:51 2003 Quant Results File: LCE4004.RES

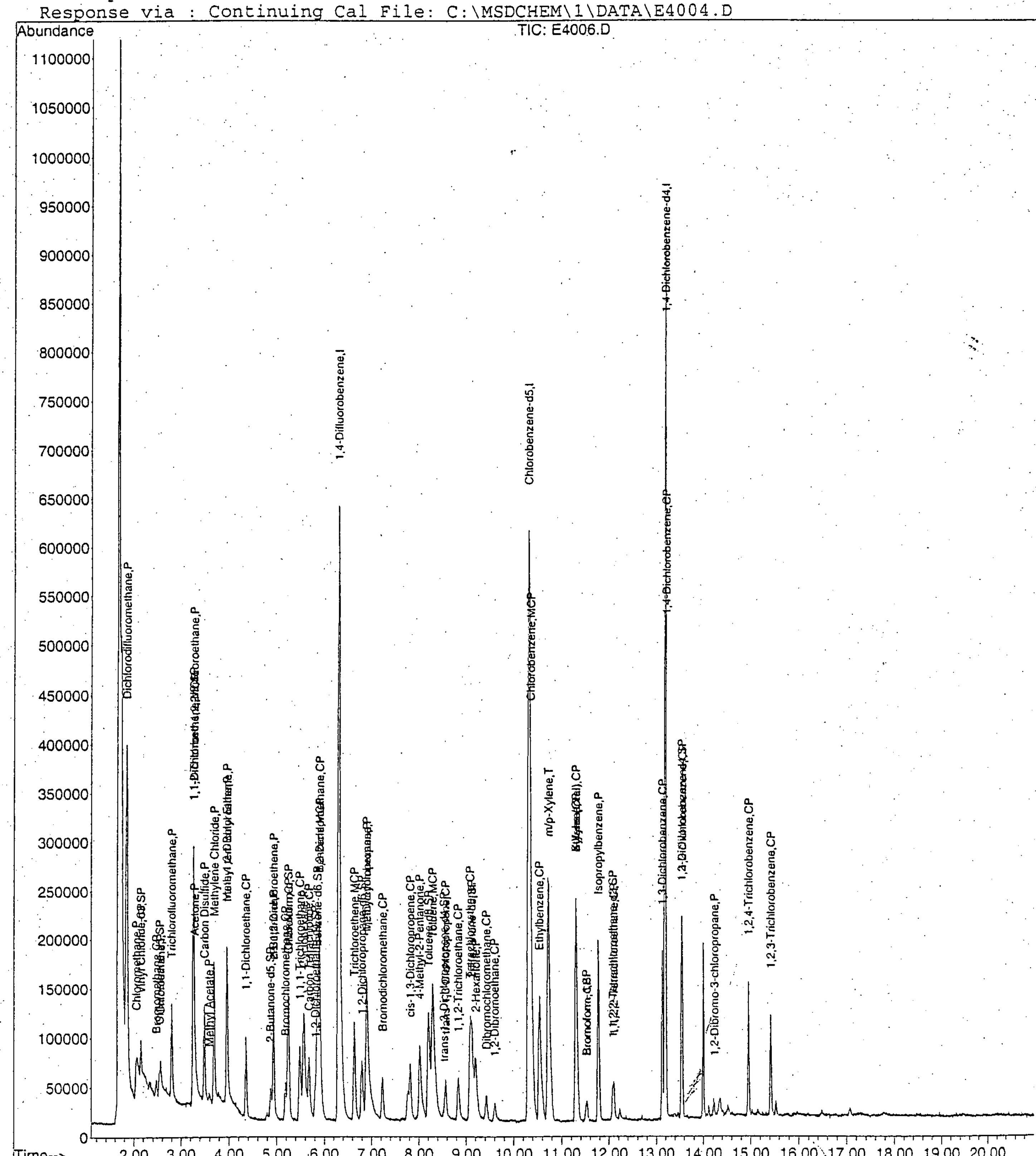
Quant Method : C:\MSDCHEM\1\METHODS\LCE4004.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Wed Mar 26 22:12:01 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4004.D
DataAcq Meth : VOAC

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29) 1,1,1-Trichloroethane	5.48	97	81437	0.63	ug/L		99
30) Cyclohexane	5.57	56	94581	0.60	ug/L		99
31) Carbon Tetrachloride	5.68	117	61231	0.60	ug/L		99
33) Benzene	5.90	78	236531	0.64	ug/L		100
34) Trichloroethene	6.64	95	51689	0.65	ug/L		96
36) Methylcyclohexane	6.91	83	99008	0.58	ug/L		93
37) 1,2-Dichloropropane	6.91	63	48216	0.67	ug/L		93
38) Bromodichloromethane	7.23	83	46749	0.64	ug/L		98
39) cis-1,3-Dichloropropene	7.82	75	57652	0.61	ug/L		100
40) 4-Methyl-2-Pentanone	8.01	43	107317	6.04	ug/L		99
42) Toluene	8.29	91	248430	0.62	ug/L		99
44) trans-1,3-Dichloropropene	8.57	75	38968	0.61	ug/L	#	64
45) 1,1,2-Trichloroethane	8.83	97	24462	0.68	ug/L		99
46) Tetrachloroethene	9.08	164	52688	0.63	ug/L		99
48) 2-Hexanone	9.21	43	76073	6.12	ug/L		93
49) Dibromochloromethane	9.43	129	23647	0.60	ug/L		93
50) 1,2-Dibromoethane	9.60	107	19414	0.67	ug/L		95
51) Chlorobenzene	10.36	112	147193	0.64	ug/L		94
52) Ethylbenzene	10.54	91	233625	0.60	ug/L		100
53) m/p-Xylene	10.73	106	181611	1.18	ug/L		100
54) o-Xylene	11.30	106	81370	0.60	ug/L		98
55) Xylene (total)	11.30	106	81370	0.60	ug/L		98
56) Styrene	11.31	104	108600	0.58	ug/L		99
57) Isopropylbenzene	11.77	105	197522	0.60	ug/L		99
59) 1,1,2,2-Tetrachloroethane	12.10	83	20751	0.63	ug/L		98
62) Bromoform	11.54	173	11214	0.59	ug/L		98
63) 1,3-Dichlorobenzene	13.12	146	89637	0.70	ug/L		98
64) 1,4-Dichlorobenzene	13.21	146	86629	0.70	ug/L		97
66) 1,2-Dichlorobenzene	13.56	146	69309	0.69	ug/L		98
67) 1,2-Dibromo-3-chloropropan	14.23	75	2506	0.79	ug/L		86
68) 1,2,4-Trichlorobenzene	14.96	180	50714	0.71	ug/L		98
69) 1,2,3-Trichlorobenzene	15.42	180	39911	0.72	ug/L		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\MSDCHEM\1\DATA\E4006.D   Vial: 6
Acq On   : 03/26/2003 2101   Operator: AK
Sample   : VSTD0.54M   Inst   : E-5973
Misc   : EVSTD0.54M   25ML   Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 27 8:15 2003   Quant Results File: LCE4004.RES

Method   : C:\MSDCHEM\1\METHODS\LCE4004.M (RTE Integrator)
Title   : Voa Low Concentration Organics - OLC03.2
Last Update : Wed Mar 26 22:12:01 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4004.D



000222

Data File : C:\MSDCHEM\1\DATA\E4005.D Vial: 5
Acq On : 03/26/2003 2021 Operator: AK
Sample : VSTD0014M Inst : E-5973
Misc : EVSTD0014M 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 27 08:15:47 2003 Quant Results File: LCE4004.RES

Quant Method : C:\MSDCHEM\1\METHODS\LCE4004.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Wed Mar 26 22:12:01 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4004.D
DataAcq Meth : VOAC

ORIGINAL COPY
Case: 31517 SDG: CA0727
Episode: 2749 Int./Date: 03/27/03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Difluorobenzene	6.30	114	1097472	5.00	ug/L	0.00
28) Chlorobenzene-d5	10.32	117	856245	5.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	13.19	152	310961	5.00	ug/L	0.00

System Monitoring Compounds						
4) Vinyl Chloride-d3	2.13	65	101263	1.12	ug/L	0.00
Spiked Amount 5.000	Range 49 - 138		Recovery = 22.40%#			
7) Chloroethane-d5	2.53	69	85728	1.13	ug/L	0.00
Spiked Amount 5.000	Range 60 - 126		Recovery = 22.60%#			
10) 1,1-Dichloroethene-d2	3.24	65	45276	1.11	ug/L	0.00
Spiked Amount 5.000	Range 65 - 130		Recovery = 22.20%#			
20) 2-Butanone-d5	4.86	46	76996	10.00	ug/L	0.00
Spiked Amount 5.000	Range 42 - 171		Recovery = 200.00%#			
24) Chloroform-d	5.23	86	94253	1.05	ug/L	0.00
Spiked Amount 5.000	Range 80 - 123		Recovery = 21.00%#			
26) 1,2-Dichloroethane-d4	5.80	65	52232	1.04	ug/L	0.00
Spiked Amount 5.000	Range 78 - 129		Recovery = 20.80%#			
32) Benzene-d6	5.85	84	409587	1.10	ug/L	0.00
Spiked Amount 5.000	Range 78 - 121		Recovery = 22.00%#			
35) 1,2-Dichloropropane-d6	6.80	67	114995	1.14	ug/L	0.00
Spiked Amount 5.000	Range 84 - 123		Recovery = 22.80%#			
41) Toluene-d8	8.20	98	385433	1.06	ug/L	0.00
Spiked Amount 5.000	Range 77 - 120		Recovery = 21.20%#			
43) trans-1,3-Dichloropropene-	8.52	79	14238	1.15	ug/L	0.00
Spiked Amount 5.000	Range 80 - 128		Recovery = 23.00%#			
47) 2-Hexanone-d5	9.13	46	137076	9.88	ug/L	0.00
Spiked Amount 5.000	Range 37 - 169		Recovery = 197.60%#			
58) 1,1,2,2-Tetrachloroethane-	12.08	84	37127	1.03	ug/L	0.00
Spiked Amount 5.000	Range 75 - 131		Recovery = 20.60%#			
61) Bromoform-d	11.51	174	18829	1.02	ug/L	0.00
Spiked Amount 5.000	Range 76 - 135		Recovery = 20.40%#			
65) 1,2-Dichlorobenzene-d4	13.54	152	86231	1.17	ug/L	0.00
Spiked Amount 5.000	Range 50 - 150		Recovery = 23.40%#			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.85	85	160382	1.19	ug/L	97
3) Chloromethane	2.04	50	232537	1.25	ug/L	98
5) Vinyl Chloride	2.14	62	180189	1.22	ug/L	96
6) Bromomethane	2.46	94	44305	1.21	ug/L	89
8) Chloroethane	2.55	64	103996	1.27	ug/L	95
9) Trichlorofluoromethane	2.79	101	204047	1.22	ug/L	97
11) 1,1-Dichloroethene	3.26	96	108407	1.21	ug/L	93
12) 1,1,2-Trichloro-1,2,2-trif	3.26	101	107007	1.14	ug/L	99
13) Acetone	3.29	43	69096	14.13	ug/L	99
14) Carbon Disulfide	3.48	76	329904	1.17	ug/L	98
15) Methyl Acetate	3.59	43	14283	1.21	ug/L	83
16) Methylene Chloride	3.69	84	130069	1.64	ug/L	99
17) trans-1,2-Dichloroethene	3.96	96	117270	1.20	ug/L	97
18) Methyl tert-Butyl Ether	3.96	73	137312	1.21	ug/L	97
19) 1,1-Dichloroethane	4.35	63	168585	1.17	ug/L	99
21) cis-1,2-Dichloroethene	4.93	96	95735	1.17	ug/L	98
22) 2-Butanone	4.93	43	92313	11.57	ug/L	96
23) Bromochloromethane	5.18	128	28097	1.12	ug/L	99
25) Chloroform	5.25	83	163192	1.20	ug/L	99
27) 1,2-Dichloroethane	5.89	62	63089	1.16	ug/L	99

(#) = qualifier out of range (m) = manual integration
E4005.D LCE4004.M Thu Mar 27 08:15:49 2003

Data File : C:\MSDCHEM\1\DATA\E4005.D Vial: 5
Acq On : 03/26/2003 2021 Operator: AK
Sample : VSTD0014M Inst : E-5973
Misc : EVSTD0014M 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 27 08:15:47 2003 Quant Results File: LCE4004.RES

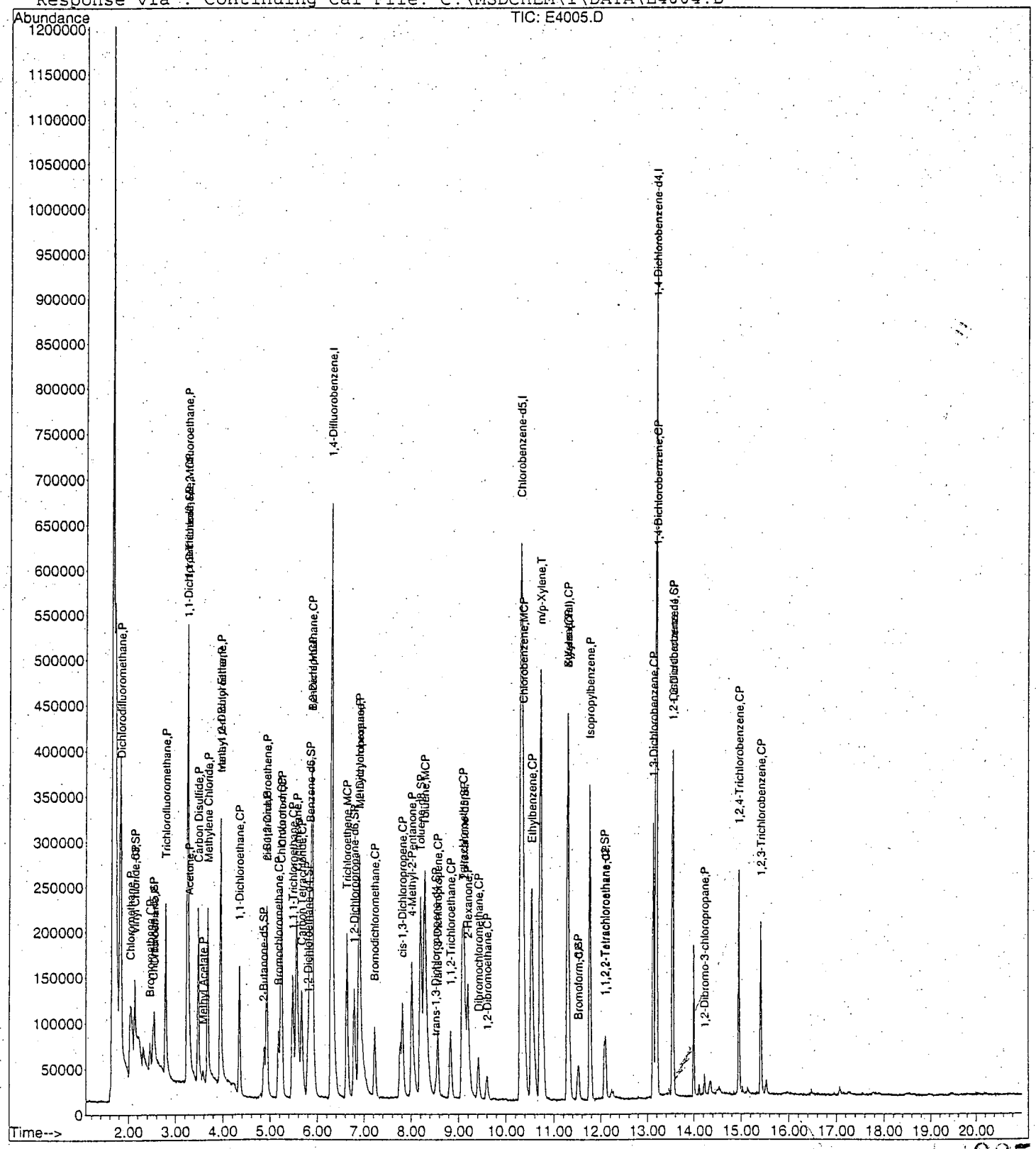
Quant Method : C:\MSDCHEM\1\METHODS\LCE4004.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Wed Mar 26 22:12:01 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4004.D
DataAcq Meth : VOAC

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
29)	1,1,1-Trichloroethane	5.48	97	147046	1.16 ug/L	98
30)	Cyclohexane	5.57	56	174167	1.13 ug/L	97
31)	Carbon Tetrachloride	5.67	117	113296	1.14 ug/L	99
33)	Benzene	5.89	78	424750	1.17 ug/L	100
34)	Trichloroethene	6.63	95	92573	1.20 ug/L	97
36)	Methylcyclohexane	6.90	83	183504	1.09 ug/L	96
37)	1,2-Dichloropropane	6.90	63	81186	1.16 ug/L	95
38)	Bromodichloromethane	7.23	83	83529	1.17 ug/L	99
39)	cis-1,3-Dichloropropene	7.81	75	103468	1.13 ug/L	100
40)	4-Methyl-2-Pentanone	8.01	43	198098	11.42 ug/L	99
42)	Toluene	8.29	91	442371	1.13 ug/L	98
44)	trans-1,3-Dichloropropene	8.57	75	70293	1.12 ug/L	80
45)	1,1,2-Trichloroethane	8.84	97	41435	1.18 ug/L	97
46)	Tetrachloroethene	9.09	164	96399	1.18 ug/L	99
48)	2-Hexanone	9.20	43	135089	11.13 ug/L	96
49)	Dibromochloromethane	9.42	129	42587	1.10 ug/L	100
50)	1,2-Dibromoethane	9.61	107	31294	1.11 ug/L	99
51)	Chlorobenzene	10.37	112	263433	1.17 ug/L	98
52)	Ethylbenzene	10.54	91	428919	1.12 ug/L	99
53)	m/p-Xylene	10.73	106	336813	2.25 ug/L	100
54)	o-Xylene	11.29	106	149274	1.13 ug/L	98
55)	Xylene (total)	11.29	106	149274	1.13 ug/L	98
56)	Styrene	11.31	104	202811	1.10 ug/L	100
57)	Isopropylbenzene	11.77	105	372785	1.17 ug/L	99
59)	1,1,2,2-Tetrachloroethane	12.11	83	36204	1.13 ug/L	99
62)	Bromoform	11.53	173	20133	1.03 ug/L	96
63)	1,3-Dichlorobenzene	13.12	146	160035	1.21 ug/L	99
64)	1,4-Dichlorobenzene	13.21	146	154492	1.21 ug/L	99
66)	1,2-Dichlorobenzene	13.56	146	127074	1.23 ug/L	99
67)	1,2-Dibromo-3-chloropropan	14.23	75	4727	1.45 ug/L	84
68)	1,2,4-Trichlorobenzene	14.96	180	95881	1.30 ug/L	98
69)	1,2,3-Trichlorobenzene	15.42	180	76205	1.33 ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\MSDCHEM\1\DATA\E4005.D Vial: 5
Acq On : 03/26/2003 2021 Operator: AK
Sample : VSTD0014M Inst : E-5973
Misc : EVSTD0014M 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 27 8:15 2003 Quant Results File: LCE4004.RES

Method : C:\MSDCHEM\1\METHODS\LCE4004.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Wed Mar 26 22:12:01 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4004.D



Data File : C:\MSDCHEM\1\DATA\E4004.D Vial: 4
Acq On : 03/26/2003 1940 Operator: AK
Sample : VSTD0054M Inst : E-5973
Misc : EVSTD0054M 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 27 08:15:43 2003 Quant Results File: LCE4004.RES

Quant Method : C:\MSDCHEM\1\METHODS\LCE4004.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Wed Mar 26 22:12:01 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4004.D
DataAcq Meth : VOAC

ORIGINAL COPY
Case: 31517 SDG: CA0Z7
Episode: 2749 Int./Date: 03/27/03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Difluorobenzene	6.30	114	1332727	5.00	ug/L	0.00
28) Chlorobenzene-d5	10.32	117	1060903	5.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	13.19	152	387145	5.00	ug/L	0.00

System Monitoring Compounds						
4) Vinyl Chloride-d3	2.14	65	550493	5.00	ug/L	0.00
Spiked Amount 5.000	Range 49 - 138		Recovery	=	100.00%	
7) Chloroethane-d5	2.53	69	459790	5.00	ug/L	0.00
Spiked Amount 5.000	Range 60 - 126		Recovery	=	100.00%	
10) 1,1-Dichloroethene-d2	3.25	65	248290	5.00	ug/L	0.00
Spiked Amount 5.000	Range 65 - 130		Recovery	=	100.00%	
20) 2-Butanone-d5	4.87	46	233834	25.00	ug/L	0.00
Spiked Amount 5.000	Range 42 - 171		Recovery	=	500.00%#	
24) Chloroform-d	5.23	86	545567	5.00	ug/L	0.00
Spiked Amount 5.000	Range 80 - 123		Recovery	=	100.00%	
26) 1,2-Dichloroethane-d4	5.81	65	304424	5.00	ug/L	0.00
Spiked Amount 5.000	Range 78 - 129		Recovery	=	100.00%	
32) Benzene-d6	5.85	84	2312958	5.00	ug/L	0.00
Spiked Amount 5.000	Range 78 - 121		Recovery	=	100.00%	
35) 1,2-Dichloropropane-d6	6.80	67	626737	5.00	ug/L	0.00
Spiked Amount 5.000	Range 84 - 123		Recovery	=	100.00%	
41) Toluene-d8	8.20	98	2247577	5.00	ug/L	0.00
Spiked Amount 5.000	Range 77 - 120		Recovery	=	100.00%	
43) trans-1,3-Dichloropropene-	8.53	79	76645	5.00	ug/L	0.00
Spiked Amount 5.000	Range 80 - 128		Recovery	=	100.00%	
47) 2-Hexanone-d5	9.13	46	429847	25.00	ug/L	0.00
Spiked Amount 5.000	Range 37 - 169		Recovery	=	500.00%#	
58) 1,1,2,2-Tetrachloroethane-	12.08	84	222886	5.00	ug/L	0.00
Spiked Amount 5.000	Range 75 - 131		Recovery	=	100.00%	
61) Bromoform-d	11.51	174	115107	5.00	ug/L	0.00
Spiked Amount 5.000	Range 76 - 135		Recovery	=	100.00%	
65) 1,2-Dichlorobenzene-d4	13.54	152	457507	5.00	ug/L	0.00
Spiked Amount 5.000	Range 50 - 150		Recovery	=	100.00%	

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.85	85	816569	5.00	ug/L	100
3) Chloromethane	2.04	50	1131390	4.99	ug/L	100
5) Vinyl Chloride	2.15	62	897574	5.00	ug/L	100
6) Bromomethane	2.46	94	222263	5.00	ug/L	100
8) Chloroethane	2.56	64	497322	5.00	ug/L	100
9) Trichlorofluoromethane	2.80	101	1012106	5.00	ug/L	100
11) 1,1-Dichloroethene	3.26	96	542096	5.00	ug/L	100
12) 1,1,2-Trichloro-1,2,2-trif	3.26	101	570861	5.00	ug/L	100
13) Acetone	3.29	43	148488	25.00	ug/L	100
14) Carbon Disulfide	3.49	76	1717062	5.00	ug/L	100
15) Methyl Acetate	3.59	43	71878	5.01	ug/L	100
16) Methylene Chloride	3.69	84	480974	5.00	ug/L	100
17) trans-1,2-Dichloroethene	3.96	96	592817	5.00	ug/L	100
18) Methyl tert-Butyl Ether	3.96	73	688911	5.00	ug/L	100
19) 1,1-Dichloroethane	4.36	63	871494	5.00	ug/L	100
21) cis-1,2-Dichloroethene	4.94	96	495787	5.00	ug/L	100
22) 2-Butanone	4.93	43	242282	25.00	ug/L	100
23) Bromochloromethane	5.18	128	151751	5.00	ug/L	100
25) Chloroform	5.25	83	827162	5.00	ug/L	100
27) 1,2-Dichloroethane	5.89	62	331531	5.00	ug/L	100

(#) = qualifier out of range (m) = manual integration
E4004.D LCE4004.M Thu Mar 27 08:15:46 2003

Data File : C:\MSDCHEM\1\DATA\E4004.D Vial: 4
Acq On : 03/26/2003 1940 Operator: AK
Sample : VSTD0054M Inst : E-5973
Misc : EVSTD0054M 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 27 08:15:43 2003 Quant Results File: LCE4004.RES

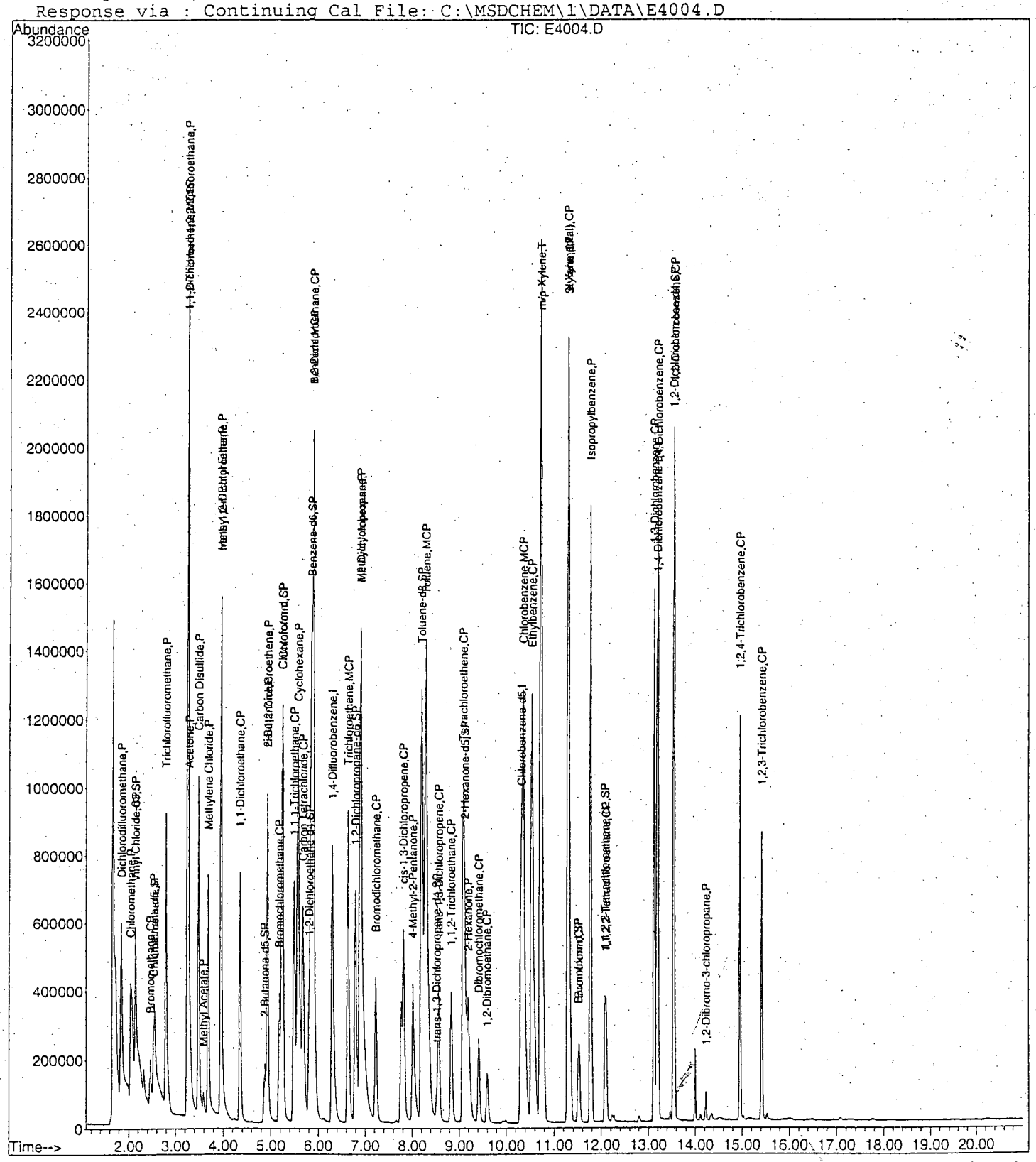
Quant Method : C:\MSDCHEM\1\METHODS\LCE4004.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Wed Mar 26 22:12:01 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4004.D
DataAcq Meth : VOAC

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
29)	1,1,1-Trichloroethane	5.48	97	782831	5.00	ug/L	100
30)	Cyclohexane	5.57	56	955018	5.00	ug/L	100
31)	Carbon Tetrachloride	5.68	117	618389	5.00	ug/L	100
33)	Benzene	5.90	78	2247625	5.00	ug/L	100
34)	Trichloroethene	6.64	95	479658	5.00	ug/L	100
36)	Methylcyclohexane	6.90	83	1038375	5.00	ug/L	100
37)	1,2-Dichloropropane	6.91	63	434544	5.00	ug/L	100
38)	Bromodichloromethane	7.23	83	441779	5.00	ug/L	100
39)	cis-1,3-Dichloropropene	7.82	75	567253	5.00	ug/L	100
40)	4-Methyl-2-Pentanone	8.01	43	537345	25.01	ug/L	100
42)	Toluene	8.30	91	2427983	5.00	ug/L	100
44)	trans-1,3-Dichloropropene	8.57	75	387712	5.00	ug/L	100
45)	1,1,2-Trichloroethane	8.84	97	217881	5.00	ug/L	100
46)	Tetrachloroethene	9.08	164	504793	5.00	ug/L	100
48)	2-Hexanone	9.19	43	376092	25.00	ug/L	100
49)	Dibromochloromethane	9.43	129	240390	5.00	ug/L	100
50)	1,2-Dibromoethane	9.60	107	174803	5.00	ug/L	100
51)	Chlorobenzene	10.36	112	1400843	5.00	ug/L	100
52)	Ethylbenzene	10.54	91	2363133	5.00	ug/L	100
53)	m/p-Xylene	10.73	106	1856124	10.00	ug/L	100
54)	o-Xylene	11.29	106	815152	5.00	ug/L	100
55)	Xylene (total)	11.29	106	815152	5.00	ug/L	100
56)	Styrene	11.31	104	1137323	5.00	ug/L	100
57)	Isopropylbenzene	11.77	105	1979600	5.00	ug/L	100
59)	1,1,2,2-Tetrachloroethane	12.11	83	198906	5.00	ug/L	100
62)	Bromoform	11.53	173	121122	5.00	ug/L	100
63)	1,3-Dichlorobenzene	13.12	146	822368	5.00	ug/L	100
64)	1,4-Dichlorobenzene	13.21	146	791598	5.00	ug/L	100
66)	1,2-Dichlorobenzene	13.56	146	641149	5.00	ug/L	100
67)	1,2-Dibromo-3-chloropropan	14.23	75	20255	5.00	ug/L	100
68)	1,2,4-Trichlorobenzene	14.96	180	459205	5.00	ug/L	100
69)	1,2,3-Trichlorobenzene	15.42	180	355694	5.00	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\MSDCHEM\1\DATA\E4004.D Vial: 4
Acq On : 03/26/2003 1940 Operator: AK
Sample : VSTD0054M Inst : E-5973
Misc : EVSTD0054M 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 27 8:15 2003 Quant Results File: LCE4004.RES

Method : C:\MSDCHEM\1\METHODS\LCE4004.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Wed Mar 26 22:12:01 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4004.D



Data File : C:\MSDCHEM\1\DATA\E4003.D Vial: 3
Acq On : 03/26/2003 1900 Operator: AK
Sample : VSTD0104M Inst : E-5973
Misc : EVSTD0104M 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 27 08:15:39 2003 Quant Results File: LCE4004.RES

Quant Method : C:\MSDCHEM\1\METHODS\LCE4004.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Wed Mar 26 22:12:01 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4004.D
DataAcq Meth : VOAC

ORIGINAL COPY
Case: 31517 SDG: CAQZ7
Episode: 2749 Int./Date: 03/27/03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Difluorobenzene	6.30	114	1138656	5.00	ug/L	0.00
28) Chlorobenzene-d5	10.32	117	934064	5.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	13.19	152	372246	5.00	ug/L	0.00

System Monitoring Compounds						
4) Vinyl Chloride-d3	2.14	65	989127	10.52	ug/L	0.00
Spiked Amount 5.000	Range 49 - 138		Recovery = 210.40%#			
7) Chloroethane-d5	2.53	69	820309	10.44	ug/L	0.00
Spiked Amount 5.000	Range 60 - 126		Recovery = 208.80%#			
10) 1,1-Dichloroethene-d2	3.25	65	441578	10.41	ug/L	0.00
Spiked Amount 5.000	Range 65 - 130		Recovery = 208.20%#			
20) 2-Butanone-d5	4.87	46	435120	54.45	ug/L	0.00
Spiked Amount 5.000	Range 42 - 171		Recovery = 1089.00%#			
24) Chloroform-d	5.23	86	951707	10.21	ug/L	0.00
Spiked Amount 5.000	Range 80 - 123		Recovery = 204.20%#			
26) 1,2-Dichloroethane-d4	5.81	65	529384	10.18	ug/L	0.00
Spiked Amount 5.000	Range 78 - 129		Recovery = 203.60%#			
32) Benzene-d6	5.85	84	4040688	9.93	ug/L	0.00
Spiked Amount 5.000	Range 78 - 121		Recovery = 198.60%#			
35) 1,2-Dichloropropane-d6	6.80	67	1100002	9.97	ug/L	0.00
Spiked Amount 5.000	Range 84 - 123		Recovery = 199.40%#			
41) Toluene-d8	8.20	98	3964174	10.02	ug/L	0.00
Spiked Amount 5.000	Range 77 - 120		Recovery = 200.40%#			
43) trans-1,3-Dichloropropene-	8.53	79	136353	10.10	ug/L	0.00
Spiked Amount 5.000	Range 80 - 128		Recovery = 202.00%#			
47) 2-Hexanone-d5	9.13	46	809218	53.46	ug/L	0.00
Spiked Amount 5.000	Range 37 - 169		Recovery = 1069.20%#			
58) 1,1,2,2-Tetrachloroethane-	12.08	84	404015	10.29	ug/L	0.00
Spiked Amount 5.000	Range 75 - 131		Recovery = 205.80%#			
61) Bromoform-d	11.51	174	224484	10.14	ug/L	0.00
Spiked Amount 5.000	Range 76 - 135		Recovery = 202.80%#			
65) 1,2-Dichlorobenzene-d4	13.54	152	874685	9.94	ug/L	0.00
Spiked Amount 5.000	Range 50 - 150		Recovery = 198.80%#			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.85	85	1775551	12.73	ug/L	99
3) Chloromethane	2.05	50	2363199	12.21	ug/L	99
5) Vinyl Chloride	2.15	62	1891109	12.33	ug/L	100
6) Bromomethane	2.45	94	439041	11.57	ug/L	96
8) Chloroethane	2.55	64	1047794	12.33	ug/L	100
9) Trichlorofluoromethane	2.79	101	2168856	12.54	ug/L	99
11) 1,1-Dichloroethene	3.26	96	1086799	11.73	ug/L	94
12) 1,1,2-Trichloro-1,2,2-trif	3.26	101	1166754	11.96	ug/L	99
13) Acetone	3.29	43	191323	37.70	ug/L	98
14) Carbon Disulfide	3.49	76	3435088	11.71	ug/L	100
15) Methyl Acetate	3.59	43	142737	11.65	ug/L	98
16) Methylene Chloride	3.69	84	912309	11.10	ug/L	99
17) trans-1,2-Dichloroethene	3.96	96	1165893	11.51	ug/L	100
18) Methyl tert-Butyl Ether	3.96	73	1358698	11.54	ug/L	99
19) 1,1-Dichloroethane	4.35	63	1709400	11.48	ug/L	100
21) cis-1,2-Dichloroethene	4.94	96	976383	11.53	ug/L	99
22) 2-Butanone	4.93	43	326273	39.40	ug/L	100
23) Bromochloromethane	5.19	128	296621	11.44	ug/L	97
25) Chloroform	5.25	83	1589001	11.24	ug/L	100
27) 1,2-Dichloroethane	5.89	62	650504	11.48	ug/L	100

(#) = qualifier out of range (m) = manual integration
E4003.D LCE4004.M Thu Mar 27 08:15:41 2003

Data File : C:\MSDCHEM\1\DATA\E4003.D Vial: 3
Acq On : 03/26/2003 1900 Operator: AK
Sample : VSTD0104M Inst : E-5973
Misc : EVSTD0104M 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 27 08:15:39 2003 Quant Results File: LCE4004.RES

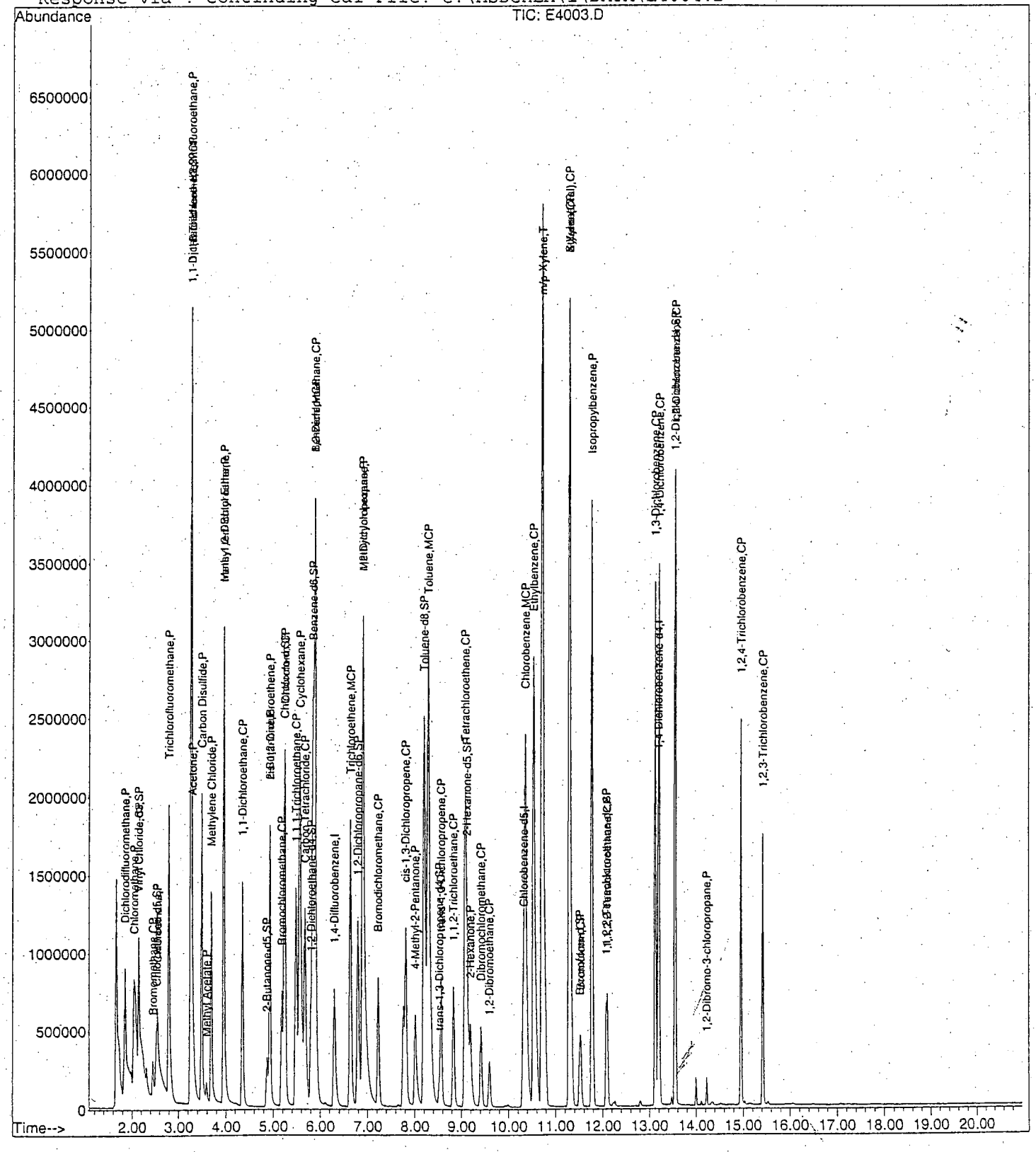
Quant Method : C:\MSDCHEM\1\METHODS\LCE4004.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Wed Mar 26 22:12:01 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4004.D
DataAcq Meth : VOAC

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
29)	1,1,1-Trichloroethane	5.48	97	1550207	11.25 ug/L	99
30)	Cyclohexane	5.57	56	1952431	11.61 ug/L	100
31)	Carbon Tetrachloride	5.68	117	1258760	11.56 ug/L	100
33)	Benzene	5.90	78	4369750	11.04 ug/L	100
34)	Trichloroethene	6.63	95	959936	11.37 ug/L	98
36)	Methylcyclohexane	6.90	83	2136816	11.69 ug/L	100
37)	1,2-Dichloropropane	6.90	63	850276	11.11 ug/L	100
38)	Bromodichloromethane	7.23	83	860326	11.06 ug/L	98
39)	cis-1,3-Dichloropropene	7.82	75	1137434	11.39 ug/L	98
40)	4-Methyl-2-Pentanone	8.01	43	733242	38.76 ug/L	100
42)	Toluene	8.29	91	4813222	11.26 ug/L	100
44)	trans-1,3-Dichloropropene	8.57	75	787801	11.54 ug/L	95
45)	1,1,2-Trichloroethane	8.84	97	428070	11.16 ug/L	99
46)	Tetrachloroethene	9.09	164	1008828	11.35 ug/L	99
48)	2-Hexanone	9.20	43	505251	38.15 ug/L	98
49)	Dibromochloromethane	9.42	129	492288	11.63 ug/L	99
50)	1,2-Dibromoethane	9.60	107	354727	11.52 ug/L	99
51)	Chlorobenzene	10.36	112	2830632	11.48 ug/L	99
52)	Ethylbenzene	10.54	91	4978361	11.96 ug/L	100
53)	m/p-Xylene	10.73	106	3952632	24.19 ug/L	99
54)	o-Xylene	11.29	106	1756083	12.23 ug/L	100
55)	Xylene (total)	11.29	106	1756083	12.23 ug/L	100
56)	Styrene	11.31	104	2483933	12.40 ug/L	99
57)	Isopropylbenzene	11.77	105	4327192	12.41 ug/L	99
59)	1,1,2,2-Tetrachloroethane	12.11	83	404138	11.54 ug/L	99
62)	Bromoform	11.54	173	251305	10.79 ug/L	99
63)	1,3-Dichlorobenzene	13.12	146	1762820	11.15 ug/L	99
64)	1,4-Dichlorobenzene	13.21	146	1686978	11.08 ug/L	99
66)	1,2-Dichlorobenzene	13.56	146	1380991	11.20 ug/L	100
67)	1,2-Dibromo-3-chloropropan	14.23	75	44593	11.45 ug/L	97
68)	1,2,4-Trichlorobenzene	14.96	180	934705	10.58 ug/L	99
69)	1,2,3-Trichlorobenzene	15.42	180	727692	10.64 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\MSDCHEM\1\DATA\E4003.D Vial: 3
Acq On : 03/26/2003 1900 Operator: AK
Sample : VSTD0104M Inst : E-5973
Misc : EVSTD0104M 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 27 8:15 2003 Quant Results File: LCE4004.RES

Method : C:\MSDCHEM\1\METHODS\LCE4004.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Wed Mar 26 22:12:01 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4004.D



Data File : C:\MSDCHEM\1\DATA\E4002.D Vial: 2
Acq On : 03/26/2003 1819 Operator: AK
Sample : VSTD0254M Inst : E-5973
Misc : EVSTD0254M 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 27 08:15:36 2003 Quant Results File: LCE4004.RES

Quant Method : C:\MSDCHEM\1\METHODS\LCE4004.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Wed Mar 26 22:12:01 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4004.D
DataAcq Meth : VOAC

ORIGINAL COPY
Case: 31517 SDG: CA0Z7
Episode: 2749 Int./Date: 03/27/03
KP 3/27/03

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Difluorobenzene	6.30	114	1304903	5.00 ug/L	0.00
28) Chlorobenzene-d5	10.31	117	1139486	5.00 ug/L	0.00
60) 1,4-Dichlorobenzene-d4	13.19	152	458088	5.00 ug/L	0.00

System Monitoring Compounds					
4) Vinyl Chloride-d3	2.14	65	2460491	22.82 ug/L	0.00
Spiked Amount 5.000	Range 49 - 138		Recovery = 456.40%#		
7) Chloroethane-d5	2.50	69	989748	10.99 ug/L	-0.03
Spiked Amount 5.000	Range 60 - 126		Recovery = 219.80%#		
10) 1,1-Dichloroethene-d2	3.24	65	1127167	23.18 ug/L	0.00
Spiked Amount 5.000	Range 65 - 130		Recovery = 463.60%#		
20) 2-Butanone-d5	4.87	46	1097456	119.83 ug/L	0.00
Spiked Amount 5.000	Range 42 - 171		Recovery = 2396.60%#		
24) Chloroform-d	5.23	86	2546406	23.83 ug/L	0.00
Spiked Amount 5.000	Range 80 - 123		Recovery = 476.60%#		
26) 1,2-Dichloroethane-d4	5.81	65	1275546	21.40 ug/L	0.00
Spiked Amount 5.000	Range 78 - 129		Recovery = 428.00%#		
32) Benzene-d6	5.85	84	10475462	21.10 ug/L	0.00
Spiked Amount 5.000	Range 78 - 121		Recovery = 422.00%#		
35) 1,2-Dichloropropane-d6	6.79	67	2774714	20.61 ug/L	0.00
Spiked Amount 5.000	Range 84 - 123		Recovery = 412.20%#		
41) Toluene-d8	8.20	98	10483602	21.71 ug/L	0.00
Spiked Amount 5.000	Range 77 - 120		Recovery = 434.20%#		
43) trans-1,3-Dichloropropene-	8.53	79	370482	22.50 ug/L	0.00
Spiked Amount 5.000	Range 80 - 128		Recovery = 450.00%#		
47) 2-Hexanone-d5	9.12	46	2136804	115.71 ug/L	0.00
Spiked Amount 5.000	Range 37 - 169		Recovery = 2314.20%#		
58) 1,1,2,2-Tetrachloroethane-	12.08	84	1042905	21.78 ug/L	0.00
Spiked Amount 5.000	Range 75 - 131		Recovery = 435.60%#		
61) Bromoform-d	11.51	174	620962	22.80 ug/L	0.00
Spiked Amount 5.000	Range 76 - 135		Recovery = 456.00%#		
65) 1,2-Dichlorobenzene-d4	13.54	152	2380505	21.99 ug/L	0.00
Spiked Amount 5.000	Range 50 - 150		Recovery = 439.80%#		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.85	85	4522349	28.28 ug/L	99
3) Chloromethane	2.04	50	5940516	26.78 ug/L	99
5) Vinyl Chloride	2.15	62	4609677	26.23 ug/L	100
6) Bromomethane	2.43	94	610442m	14.03 ug/L	
8) Chloroethane	2.53	64	1264972	12.99 ug/L	95
9) Trichlorofluoromethane	2.78	101	5544682	27.98 ug/L	99
11) 1,1-Dichloroethene	3.26	96	2740812	25.82 ug/L	94
12) 1,1,2-Trichloro-1,2,2-trif	3.26	101	2925147	26.17 ug/L	99
13) Acetone	3.29	43	720950	123.97 ug/L	98
14) Carbon Disulfide	3.48	76	8719324	25.94 ug/L	100
15) Methyl Acetate	3.59	43	354918	25.28 ug/L	99
16) Methylene Chloride	3.69	84	2205258	23.41 ug/L	99
17) trans-1,2-Dichloroethene	3.95	96	2943949	25.36 ug/L	98
18) Methyl tert-Butyl Ether	3.96	73	3282917	24.33 ug/L	99
19) 1,1-Dichloroethane	4.35	63	4332417	25.39 ug/L	100
21) cis-1,2-Dichloroethene	4.93	96	2519764	25.95 ug/L	99
22) 2-Butanone	4.93	43	1284898	135.41 ug/L	97
23) Bromochloromethane	5.18	128	768845	25.87 ug/L	96
25) Chloroform	5.25	83	3975861	24.55 ug/L	99
27) 1,2-Dichloroethane	5.89	62	1647092	25.37 ug/L	100

(#) = qualifier out of range (m) = manual integration
E4002.D LCE4004.M Thu Mar 27 08:16:48 2003

Data File : C:\MSDCHEM\1\DATA\E4002.D Vial: 2
Acq On : 03/26/2003 1819 Operator: AK
Sample : VSTD0254M Inst : E-5973
Misc : EVSTD0254M 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 27 08:15:36 2003 Quant Results File: LCE4004.RES

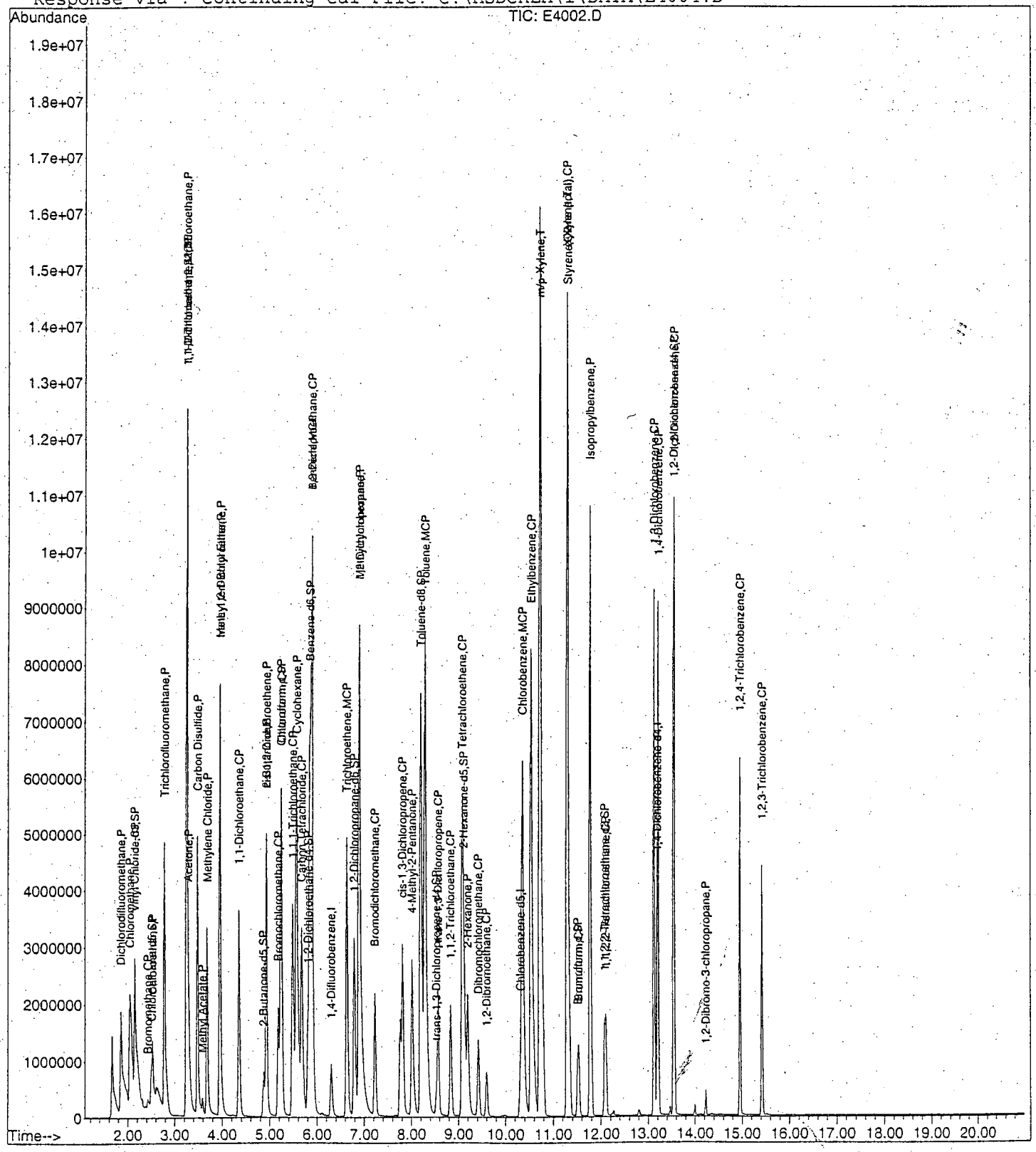
Quant Method : C:\MSDCHEM\1\METHODS\LCE4004.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Wed Mar 26 22:12:01 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4004.D
DataAcq Meth : VOAC

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
29) 1,1,1-Trichloroethane	5.48	97	3964323	23.57 ug/L	100
30) Cyclohexane	5.57	56	5017961	24.46 ug/L	100
31) Carbon Tetrachloride	5.67	117	3300507	24.85 ug/L	99
33) Benzene	5.89	78	11056624	22.90 ug/L	100
34) Trichloroethene	6.63	95	2432676	23.61 ug/L	100
36) Methylcyclohexane	6.90	83	5513051	24.72 ug/L	100
37) 1,2-Dichloropropane	6.90	63	2135805	22.88 ug/L	100
38) Bromodichloromethane	7.23	83	2220625	23.40 ug/L	98
39) cis-1,3-Dichloropropene	7.81	75	2951626	24.22 ug/L	98
40) 4-Methyl-2-Pentanone	8.01	43	3105351	134.56 ug/L	99
42) Toluene	8.29	91	12476377	23.92 ug/L	100
44) trans-1,3-Dichloropropene	8.57	75	2076240	24.93 ug/L	95
45) 1,1,2-Trichloroethane	8.84	97	1077068	23.01 ug/L	99
46) Tetrachloroethene	9.08	164	2629046	24.24 ug/L	99
48) 2-Hexanone	9.19	43	2165896	134.04 ug/L	99
49) Dibromochloromethane	9.42	129	1273881	24.67 ug/L	98
50) 1,2-Dibromoethane	9.60	107	916731	24.41 ug/L	99
51) Chlorobenzene	10.36	112	7404072	24.60 ug/L	100
52) Ethylbenzene	10.54	91	13594615	26.78 ug/L	100
53) m/p-Xylene	10.73	106	10785662	54.10 ug/L	99
54) o-Xylene	11.29	106	4836192	27.62 ug/L	99
55) Xylene (total)	11.29	106	4836192	27.62 ug/L	99
56) Styrene	11.31	104	6782958	27.76 ug/L	99
57) Isopropylbenzene	11.77	105	11954475	28.11 ug/L	100
59) 1,1,2,2-Tetrachloroethane	12.11	83	1034083	24.20 ug/L	98
62) Bromoform	11.54	173	665533	23.22 ug/L	100
63) 1,3-Dichlorobenzene	13.12	146	4794758	24.64 ug/L	100
64) 1,4-Dichlorobenzene	13.21	146	4518324	24.12 ug/L	99
66) 1,2-Dichlorobenzene	13.56	146	3675925	24.23 ug/L	100
67) 1,2-Dibromo-3-chloropropan	14.23	75	111706	23.30 ug/L	97
68) 1,2,4-Trichlorobenzene	14.96	180	2397885	22.07 ug/L	100
69) 1,2,3-Trichlorobenzene	15.42	180	1821288	21.64 ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\MSDCHEM\1\DATA\E4002.D Vial: 2
Acq On : 03/26/2003 1819 Operator: AK
Sample : VSTD0254M Inst : E-5973
Misc : EVSTD0254M 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 27 8:16 2003 Quant Results File: LCE4004.RES

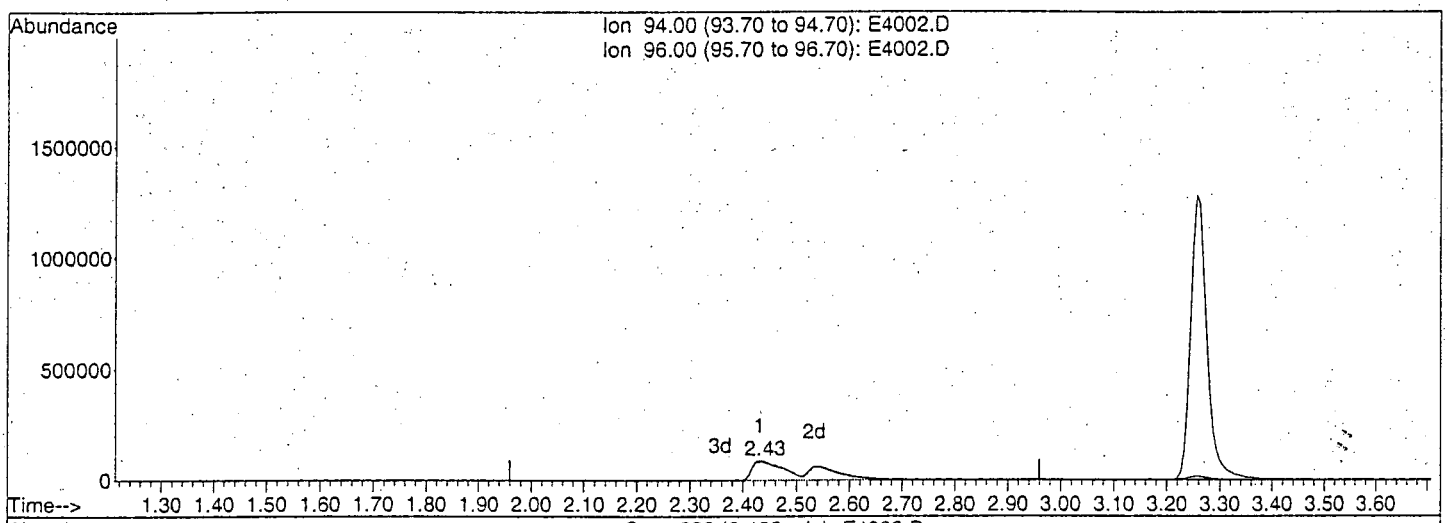
Method : C:\MSDCHEM\1\METHODS\LCE4004.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Thu Mar 27 08:16:08 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4004.D

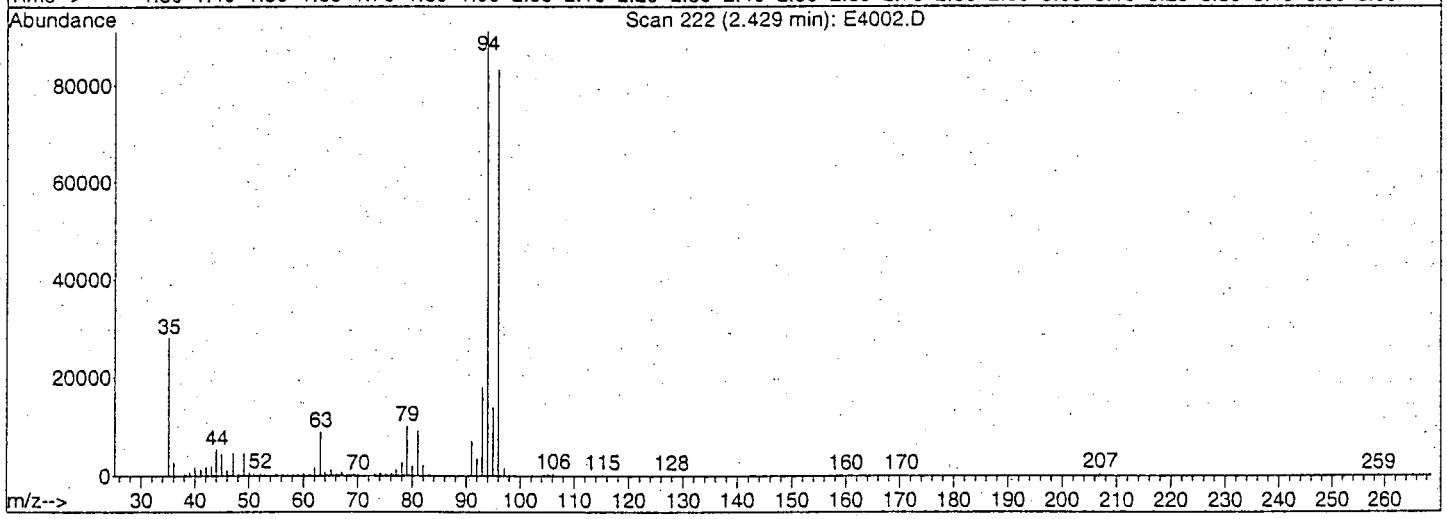


E4002.D LCE4004.M Thu Mar 27 08:16:49 2003

Data File : C:\MSDCHEM\1\DATA\E4002.D Vial: 2
Acq On : 03/26/2003 1819 Operator: AK
Sample : VSTD0254M Inst : E-5973
Misc : EVSTD0254M 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 27 8:16 2003 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\LCE4004.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Thu Mar 27 08:16:08 2003
Response via : Single Level Calibration





TIC: E4002.D

(6) Bromomethane (CP)

2.43min 14.03ug/L m

response 610442

LCA 03/27/03

Ep 3/27/03

Ion	Exp%	Act%
94.00	100	100
96.00	92.30	55.38#
0.00	0.00	0.00
0.00	0.00	0.00

7LCA

LOW CONCENTRATION WATER VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client NO. SDG NO.: Y0SL3

Instrument ID: E-5973 Calibration Date: 03/27/2003 Time: 0859

Lab File ID: E4009 Init. Calib. Date(s): 03/26/2003 03/26/2003

EPA Sample No.(VSTD005##): VSTD0054N Init. Calib. Times: 1819 2101

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

COMPOUND	$\overline{RRF}$	RRF5	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.719	0.875		21.7	
Chloromethane	0.999	1.165		16.6	
Vinyl Chloride	0.781	0.897	0.100	14.9	30.0
Bromomethane	0.175	0.173	0.100	-1.1	30.0
Chloroethane	0.403	0.502		24.6	
Trichlorofluoromethane	0.895	1.043		16.5	
1,1-Dichloroethene	0.461	0.426	0.100	-7.6	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.480	0.473		-1.5	
Acetone	0.032	0.021		-34.4	
Carbon Disulfide	1.449	1.380		-4.8	
Methyl Acetate	0.074	0.055		-25.7	
Methylene Chloride	0.502	0.378		-24.7	
trans-1,2-Dichloroethene	0.500	0.465		-7.0	
Methyl tert-Butyl Ether	0.591	0.533		-9.8	
1,1-Dichloroethane	0.734	0.687	0.200	-6.4	30.0
cis-1,2-Dichloroethene	0.420	0.390		-7.1	
2-Butanone	0.039	0.036		-7.7	
Bromochloromethane	0.126	0.117	0.050	-7.1	30.0
Chloroform	0.696	0.645	0.200	-7.3	30.0
1,1,1-Trichloroethane	0.810	0.782	0.100	-3.5	30.0
Cyclohexane	0.984	0.971		-1.3	
Carbon Tetrachloride	0.639	0.635	0.100	-0.6	30.0
Benzene	2.315	2.223	0.400	-4.0	30.0
1,2-Dichloroethane	0.278	0.262	0.100	-5.8	30.0
Trichloroethene	0.505	0.487	0.300	-3.6	30.0
Methylcyclohexane	1.058	1.056		-0.2	

All other compound must meet a minimum RRF of 0.010

7LCB

LOW CONCENTRATION WATER VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client NO. SDG NO.: Y0SL3

Instrument ID: E-5973 Calibration Date: 03/27/2003 Time: 0859

Lab File ID: E4009 Init. Calib. Date(s): 03/26/2003 03/26/2003

EPA Sample No.(VSTD005##): VSTD0054N Init. Calib. Times: 1819 2101

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

COMPOUND	$\overline{RRF}$	RRF5	MIN RRF	%D	MAX %D
1,2-Dichloropropane	0.453	0.432		-4.6	
Bromodichloromethane	0.458	0.430	0.200	-6.1	30.0
cis-1,3-Dichloropropene	0.585	0.561	0.200	-4.1	30.0
4-Methyl-2-pentanone	0.105	0.100		-4.8	
Toluene	2.494	2.427	0.400	-2.7	30.0
trans-1,3-Dichloropropene	0.401	0.382	0.100	-4.7	30.0
1,1,2-Trichloroethane	0.229	0.211	0.100	-7.9	30.0
Tetrachloroethene	0.528	0.514	0.100	-2.7	30.0
2-Hexanone	0.073	0.068		-6.8	
Dibromochloromethane	0.247	0.238	0.100	-3.6	30.0
1,2-Dibromoethane	0.184	0.173	0.100	-6.0	30.0
Chlorobenzene	1.470	1.391	0.500	-5.4	30.0
Ethylbenzene	2.490	2.337	0.100	-6.1	30.0
Xylene (total)	0.871	0.795	0.300	-8.7	30.0
Styrene	1.203	1.093	0.300	-9.1	30.0
Bromoform	0.327	0.340	0.050	4.0	30.0
Isopropylbenzene	2.142	1.926		-10.1	
1,1,2,2-Tetrachloroethane	0.207	0.189	0.100	-8.7	30.0
1,3-Dichlorobenzene	2.424	2.275	0.400	-6.1	30.0
1,4-Dichlorobenzene	2.326	2.157	0.400	-7.3	30.0
1,2-Dichlorobenzene	1.890	1.768	0.400	-6.5	30.0
1,2-Dibromo-3-chloropropane	0.064	0.057		-10.9	
1,2,4-Trichlorobenzene	1.341	1.295	0.200	-3.4	30.0
1,2,3-Trichlorobenzene	1.047	1.007	0.200	-3.8	30.0

All other compound must meet a minimum RRF of 0.010

7LCC

LOW CONCENTRATION WATER VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client NO. SDG NO.: Y0SL3

Instrument ID: E-5973 Calibration Date: 03/27/2003 Time: 0859

Lab File ID: E4009 Init. Calib. Date(s): 03/26/2003 03/26/2003

EPA Sample No.(VSTD005##): VSTD0054N Init. Calib. Times: 1819 2101

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

COMPOUND	$\overline{RRF}$	RRF5	MIN RRF	%D	MAX %D
Vinyl Chloride-d3	0.432	0.367		-15.0	
Chloroethane-d5	0.330	0.307		-7.0	
1,1-Dichloroethene-d2	0.192	0.160		-16.7	
2-Butanone-d5	0.035	0.032		-8.6	
Chloroform-d	0.413	0.353		-14.5	
1,2-Dichloroethane-d4	0.230	0.189		-17.8	
Benzene-d6	2.195	1.868		-14.9	
1,2-Dichloropropane-d6	0.607	0.523		-13.8	
Toluene-d8	2.121	1.831		-13.7	
trans-1,3-Dichloropropene-d4	0.075	0.063		-16.0	
2-Hexanone-d5	0.081	0.077		-4.9	
Bromoform-d	0.295	0.283		-4.1	
1,1,2,2-Tetrachloroethane-d2	0.210	0.177		-15.7	
1,2-Dichlorobenzene-d4	1.243	1.023		-17.7	

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\E4009.D
Acq On : 03/27/2003 0859
Sample : VSTD0054N
Misc : EVSTD0054N 25ML
MS Integration Params: RTEINT.P

Vial: 2
Operator: AK
Inst : E-5973
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Thu Mar 27 09:22:08 2003
Response via : Single Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

ORIGINAL COPY
Case: 31522 SDG: CAQR2
Episode: 27559 Int./Date: 03/27/03

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Difluorobenzene	1.000	1.000	0.0	90	0.00
2	P	Dichlorodifluoromethane	0.718	0.875	-21.9	128	0.00
3	P	Chloromethane	0.999	1.165	-16.6	123	0.00
4	SP	Vinyl Chloride-d3	0.432	0.367	15.0	79	0.00
5	CP	Vinyl Chloride	0.780	0.897	-15.0	119	0.00
6	CP	Bromomethane	0.174	0.173	0.6	93	0.00
7	SP	Chloroethane-d5	0.330	0.307	7.0	80	0.00
8	P	Chloroethane	0.403	0.502	-24.6	120	0.00
9	P	Trichlorofluoromethane	0.895	1.043	-16.5	123	0.00
10	SP	1,1-Dichloroethene-d2	0.192	0.160	16.7	77	0.00
11	MCP	1,1-Dichloroethene	0.461	0.426	7.6	94	0.00
12	P	1,1,2-Trichloro-1,2,2-trifl	0.480	0.473	1.5	99	0.00
13	P	Acetone	0.032	0.021	34.4#	86	0.00
14	P	Carbon Disulfide	1.449	1.380	4.8	96	0.00
15	P	Methyl Acetate	0.074	0.055	25.7#	92	0.00
16	P	Methylene Chloride	0.502	0.378	24.7	94	0.00
17	P	trans-1,2-Dichloroethene	0.500	0.464	7.2	93	0.00
18	P	Methyl tert-Butyl Ether	0.591	0.533	9.8	92	0.00
19	CP	1,1-Dichloroethane	0.733	0.687	6.3	94	0.00
20	SP	2-Butanone-d5	0.035	0.032	8.6	82	0.00
21	P	cis-1,2-Dichloroethene	0.420	0.390	7.1	94	0.00
22	P	2-Butanone	0.039	0.036	7.7	89	0.00
23	CP	Bromochloromethane	0.126	0.117	7.1	92	0.00
24	SP	Chloroform-d	0.413	0.353	14.5	77	0.00
25	CP	Chloroform	0.696	0.645	7.3	93	0.00
26	SP	1,2-Dichloroethane-d4	0.230	0.189	17.8	74	0.00
27	CP	1,2-Dichloroethane	0.279	0.262	6.1	94	0.00
28	I	Chlorobenzene-d5	1.000	1.000	0.0	90	0.00
29	CP	1,1,1-Trichloroethane	0.810	0.782	3.5	96	0.00
30	P	Cyclohexane	0.984	0.971	1.3	97	0.00
31	CP	Carbon Tetrachloride	0.639	0.635	0.6	98	0.00
32	SP	Benzene-d6	2.195	1.868	14.9	77	0.00
33	MCP	Benzene	2.315	2.223	4.0	95	0.00
34	MCP	Trichloroethene	0.505	0.487	3.6	97	0.00
35	SP	1,2-Dichloropropane-d6	0.607	0.523	13.8	80	0.00
36	P	Methylcyclohexane	1.058	1.056	0.2	97	0.00
37	P	1,2-Dichloropropane	0.453	0.432	4.6	95	0.00
38	CP	Bromodichloromethane	0.458	0.430	6.1	93	0.00
39	CP	cis-1,3-Dichloropropene	0.585	0.561	4.1	95	0.00
40	P	4-Methyl-2-Pentanone	0.105	0.100	4.8	89	0.00
41	SP	Toluene-d8	2.121	1.831	13.7	78	0.00
42	MCP	Toluene	2.494	2.427	2.7	96	0.00
43	SP	trans-1,3-Dichloropropene-d	0.075	0.062	17.3	78	0.00
44	CP	trans-1,3-Dichloropropene	0.401	0.382	4.7	94	0.00
45	CP	1,1,2-Trichloroethane	0.229	0.211	7.9	93	0.00
46	CP	Tetrachloroethene	0.528	0.514	2.7	98	0.00
47	SP	2-Hexanone-d5	0.081	0.077	4.9	86	0.00
48	P	2-Hexanone	0.073	0.068	6.8	87	0.00
49	CP	Dibromochloromethane	0.246	0.238	3.3	95	0.00
50	CP	1,2-Dibromoethane	0.184	0.173	6.0	95	0.00
51	MCP	Chlorobenzene	1.470	1.391	5.4	95	0.00
52	CP	Ethylbenzene	2.490	2.337	6.1	95	0.00
53	T	m/p-Xylene	0.980	0.913	6.8	94	0.00

(#) = Out of Range

1239

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\E4009.D Vial: 2
Acq On : 03/27/2003 0859 Operator: AK
Sample : VSTD0054N Inst : E-5973
Misc : EVSTD0054N 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Thu Mar 27 09:22:08 2003
Response via : Single Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
54	T	o-Xylene	0.871	0.794	8.8	93	0.00
55	CP	Xylene (total)	0.871	0.794	8.8	93	0.00
56	CP	Styrene	1.203	1.093	9.1	92	0.00
57	P	Isopropylbenzene	2.142	1.926	10.1	93	0.00
58	SP	1,1,2,2-Tetrachloroethane-d	0.210	0.177	15.7	76	0.00
59	CP	1,1,2,2-Tetrachloroethane	0.207	0.188	9.2	91	0.00
60	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	84	0.00
61	SP	Bromoform-d	0.295	0.283	4.1	80	0.00
62	CP	Bromoform	0.327	0.340	-4.0	91	0.00
63	CP	1,3-Dichlorobenzene	2.424	2.275	6.1	90	0.00
64	CP	1,4-Dichlorobenzene	2.326	2.157	7.3	89	0.00
65	SP	1,2-Dichlorobenzene-d4	1.243	1.023	17.7	73	0.00
66	CP	1,2-Dichlorobenzene	1.890	1.768	6.5	90	0.00
67	P	1,2-Dibromo-3-chloropropane	0.064	0.057	10.9	91	0.00
68	CP	1,2,4-Trichlorobenzene	1.341	1.295	3.4	92	0.00
69	CP	1,2,3-Trichlorobenzene	1.047	1.007	3.8	92	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
E4009.D LCE4009.M Thu Mar 27 09:23:26 2003

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4009.D
Acq On : 03/27/2003 0859
Sample : VSTD0054N
Misc : EVSTD0054N 25ML
MS Integration Params: RTEINT.P
Quant Time: Mar 27 09:21:11 2003

Vial: 2
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Results File: LCE4009.RES

Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Thu Mar 27 08:30:59 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4004.D
DataAcq Meth : VOAC

ORIGINAL COPY
Case: 31522 SDG: CAQR2
Episode: 2759 Int./Date: 03/27/03
GP 3/27/03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Difluorobenzene	6.31	114	1192885	5.00	ug/L	0.00
28) Chlorobenzene-d5	10.32	117	957384	5.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	13.19	152	325392	5.00	ug/L	0.00
System Monitoring Compounds						
4) Vinyl Chloride-d3	2.14	65	437239	4.44	ug/L	0.00
Spiked Amount 5.000	Range 49 - 138		Recovery = 88.80%			
7) Chloroethane-d5	2.53	69	366043	4.45	ug/L	0.00
Spiked Amount 5.000	Range 60 - 126		Recovery = 89.00%			
10) 1,1-Dichloroethene-d2	3.26	65	190811	4.29	ug/L	0.00
Spiked Amount 5.000	Range 65 - 130		Recovery = 85.80%			
20) 2-Butanone-d5	4.87	46	192722	23.02	ug/L	0.00
Spiked Amount 5.000	Range 42 - 171		Recovery = 460.40%#			
24) Chloroform-d	5.23	86	420929	4.31	ug/L	0.00
Spiked Amount 5.000	Range 80 - 123		Recovery = 86.20%			
26) 1,2-Dichloroethane-d4	5.81	65	225522	4.14	ug/L	0.00
Spiked Amount 5.000	Range 78 - 129		Recovery = 82.80%			
32) Benzene-d6	5.85	84	1788034	4.29	ug/L	0.00
Spiked Amount 5.000	Range 78 - 121		Recovery = 85.80%			
35) 1,2-Dichloropropane-d6	6.80	67	500909	4.43	ug/L	0.00
Spiked Amount 5.000	Range 84 - 123		Recovery = 88.60%			
41) Toluene-d8	8.21	98	1752626	4.32	ug/L	0.00
Spiked Amount 5.000	Range 77 - 120		Recovery = 86.40%			
43) trans-1,3-Dichloropropene-	8.53	79	59814	4.32	ug/L	0.00
Spiked Amount 5.000	Range 80 - 128		Recovery = 86.40%			
47) 2-Hexanone-d5	9.13	46	370131	23.85	ug/L	0.00
Spiked Amount 5.000	Range 37 - 169		Recovery = 477.00%#			
58) 1,1,2,2-Tetrachloroethane-	12.08	84	169312	4.21	ug/L	0.00
Spiked Amount 5.000	Range 75 - 131		Recovery = 84.20%			
61) Bromoform-d	11.51	174	91924	4.75	ug/L	0.00
Spiked Amount 5.000	Range 76 - 135		Recovery = 95.00%			
65) 1,2-Dichlorobenzene-d4	13.54	152	332821	4.33	ug/L	0.00
Spiked Amount 5.000	Range 50 - 150		Recovery = 86.60%			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.85	85	1043314	7.14	ug/L	100
3) Chloromethane	2.05	50	1389542	6.85	ug/L	100
5) Vinyl Chloride	2.15	62	1070300	6.66	ug/L	100
6) Bromomethane	2.46	94	206871	5.20	ug/L	95
8) Chloroethane	2.56	64	598283	6.72	ug/L	98
9) Trichlorofluoromethane	2.80	101	1243786	6.86	ug/L	100
11) 1,1-Dichloroethene	3.27	96	508424	5.24	ug/L #	91
12) 1,1,2-Trichloro-1,2,2-trif	3.26	101	564756	5.53	ug/L	100
13) Acetone	3.29	43	127493	23.98	ug/L	100
14) Carbon Disulfide	3.49	76	1645624	5.35	ug/L	100
15) Methyl Acetate	3.59	43	66017	5.14	ug/L	96
16) Methylene Chloride	3.69	84	450942	5.24	ug/L	99
17) trans-1,2-Dichloroethene	3.96	96	554055	5.22	ug/L	99
18) Methyl tert-Butyl Ether	3.96	73	635571	5.15	ug/L	99
19) 1,1-Dichloroethane	4.36	63	819668	5.25	ug/L	99
21) cis-1,2-Dichloroethene	4.94	96	464897	5.24	ug/L	99
22) 2-Butanone	4.94	43	214795	24.76	ug/L	100
23) Bromochloromethane	5.19	128	139161	5.12	ug/L	95
25) Chloroform	5.26	83	769552	5.20	ug/L	99
27) 1,2-Dichloroethane	5.90	62	312762	5.27	ug/L	100

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

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4009.D Vial: 2
Acq On : 03/27/2003 0859 Operator: AK
Sample : VSTD0054N Inst : E-5973
Misc : EVSTD0054N 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 27 09:21:11 2003 Quant Results File: LCE4009.RES

Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Thu Mar 27 08:30:59 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4004.D
DataAcq Meth : VOAC

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
29) 1,1,1-Trichloroethane	5.49	97	748496	5.30 ug/L	99
30) Cyclohexane	5.57	56	929971	5.40 ug/L	99
31) Carbon Tetrachloride	5.68	117	607482	5.44 ug/L	100
33) Benzene	5.90	78	2128394	5.25 ug/L	100
34) Trichloroethene	6.64	95	466370	5.39 ug/L	98
36) Methylcyclohexane	6.90	83	1010978	5.39 ug/L	99
37) 1,2-Dichloropropane	6.90	63	413737	5.28 ug/L	100
38) Bromodichloromethane	7.24	83	412030	5.17 ug/L	98
39) cis-1,3-Dichloropropene	7.82	75	537076	5.25 ug/L	98
40) 4-Methyl-2-Pentanone	8.02	43	479960	24.75 ug/L	97
42) Toluene	8.30	91	2323803	5.30 ug/L	100
44) trans-1,3-Dichloropropene	8.57	75	365683	5.23 ug/L	99
45) 1,1,2-Trichloroethane	8.84	97	202037	5.14 ug/L	99
46) Tetrachloroethene	9.09	164	492214	5.40 ug/L	99
48) 2-Hexanone	9.20	43	327374	24.11 ug/L	99
49) Dibromochloromethane	9.43	129	227834	5.25 ug/L	97
50) 1,2-Dibromoethane	9.60	107	165349	5.24 ug/L	98
51) Chlorobenzene	10.37	112	1332056	5.27 ug/L	100
52) Ethylbenzene	10.54	91	2237472	5.25 ug/L	100
53) m/p-Xylene	10.73	106	1748084	10.44 ug/L	99
54) o-Xylene	11.29	106	760617	5.17 ug/L	100
55) Xylene (total)	11.29	106	760617	5.17 ug/L	100
56) Styrene	11.31	104	1046625	5.10 ug/L	99
57) Isopropylbenzene	11.77	105	1843768	5.16 ug/L	99
59) 1,1,2,2-Tetrachloroethane	12.11	83	180452	5.03 ug/L	97
62) Bromoform	11.54	173	110613	5.43 ug/L	99
63) 1,3-Dichlorobenzene	13.12	146	740117	5.35 ug/L	99
64) 1,4-Dichlorobenzene	13.21	146	701763	5.27 ug/L	100
66) 1,2-Dichlorobenzene	13.56	146	575310	5.34 ug/L	99
67) 1,2-Dibromo-3-chloropropan	14.23	75	18415	5.41 ug/L	97
68) 1,2,4-Trichlorobenzene	14.96	180	421315	5.46 ug/L	99
69) 1,2,3-Trichlorobenzene	15.42	180	327798	5.48 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

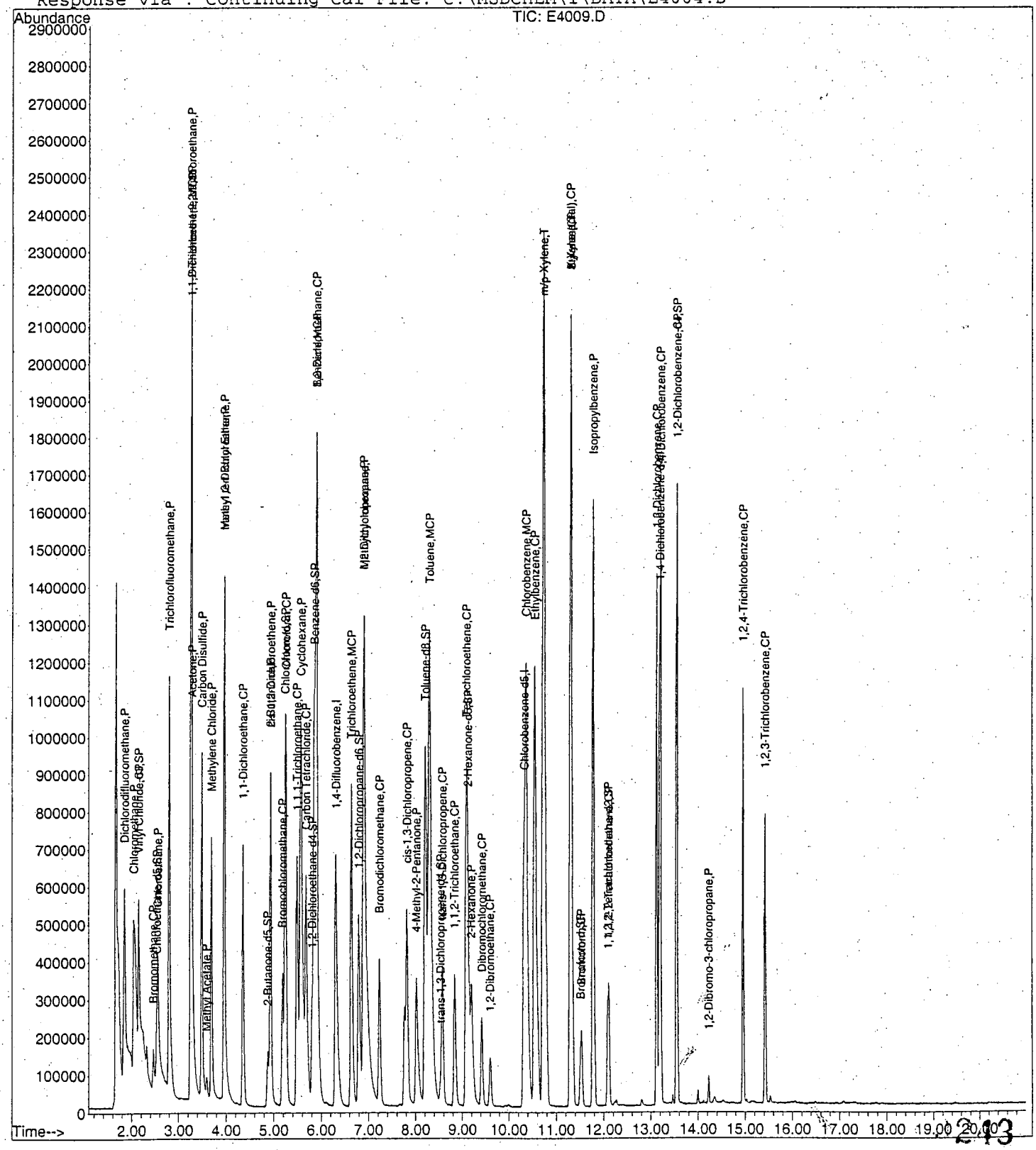
Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4009.D
Acq On : 03/27/2003 0859
Sample : VSTD0054N
Misc : EVSTD0054N 25ML
MS Integration Params: RTEINT.P
Quant Time: Mar 27 9:21 2003

Vial: 2
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Results File: LCE4009.RES

Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Thu Mar 27 09:22:08 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4004.D



7LCA

LOW CONCENTRATION WATER VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client NO. SDG NO.: Y0SL3

Instrument ID: E-5973 Calibration Date: 03/30/2003 Time: 1206

Lab File ID: E4070 Init. Calib. Date(s): 03/26/2003 03/26/2003

EPA Sample No.(VSTD005##): VSTD0054R Init. Calib. Times: 1819 2101

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

COMPOUND	$\overline{RRF}$	RRF5	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.719	0.845		17.5	
Chloromethane	0.999	1.133		13.4	
Vinyl Chloride	0.781	0.895	0.100	14.6	30.0
Bromomethane	0.175	0.180	0.100	2.9	30.0
Chloroethane	0.403	0.506		25.6	
Trichlorofluoromethane	0.895	1.030		15.1	
1,1-Dichloroethene	0.461	0.425	0.100	-7.8	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.480	0.466		-2.9	
Acetone	0.032	0.033		3.1	
Carbon Disulfide	1.449	1.371		-5.4	
Methyl Acetate	0.074	0.070		-5.4	
Methylene Chloride	0.502	0.365		-27.3	
trans-1,2-Dichloroethene	0.500	0.464		-7.2	
Methyl tert-Butyl Ether	0.591	0.588		-0.5	
1,1-Dichloroethane	0.734	0.685	0.200	-6.7	30.0
cis-1,2-Dichloroethene	0.420	0.395		-6.0	
2-Butanone	0.039	0.043		10.3	
Bromochloromethane	0.126	0.128	0.050	1.6	30.0
Chloroform	0.696	0.633	0.200	-9.1	30.0
1,1,1-Trichloroethane	0.810	0.829	0.100	2.3	30.0
Cyclohexane	0.984	1.005		2.1	
Carbon Tetrachloride	0.639	0.699	0.100	9.4	30.0
Benzene	2.315	2.385	0.400	3.0	30.0
1,2-Dichloroethane	0.278	0.275	0.100	-1.1	30.0
Trichloroethene	0.505	0.516	0.300	2.2	30.0
Methylcyclohexane	1.058	1.102		4.2	

All other compound must meet a minimum RRF of 0.010

7LCB

LOW CONCENTRATION WATER VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client NO. SDG NO.: Y0SL3

Instrument ID: E-5973 Calibration Date: 03/30/2003 Time: 1206

Lab File ID: E4070 Init. Calib. Date(s): 03/26/2003 03/26/2003

EPA Sample No.(VSTD005##): VSTD0054R Init. Calib. Times: 1819 2101

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

COMPOUND	$\overline{RRF}$	RRF5	MIN RRF	%D	MAX %D
1,2-Dichloropropane	0.453	0.481		6.2	
Bromodichloromethane	0.458	0.500	0.200	9.2	30.0
cis-1,3-Dichloropropene	0.585	0.625	0.200	6.8	30.0
4-Methyl-2-pentanone	0.105	0.123		17.1	
Toluene	2.494	2.549	0.400	2.2	30.0
trans-1,3-Dichloropropene	0.401	0.438	0.100	9.2	30.0
1,1,2-Trichloroethane	0.229	0.250	0.100	9.2	30.0
Tetrachloroethene	0.528	0.558	0.100	5.7	30.0
2-Hexanone	0.073	0.083		13.7	
Dibromochloromethane	0.247	0.279	0.100	13.0	30.0
1,2-Dibromoethane	0.184	0.210	0.100	14.1	30.0
Chlorobenzene	1.470	1.449	0.500	-1.4	30.0
Ethylbenzene	2.490	2.205	0.100	-11.4	30.0
Xylene (total)	0.871	0.743	0.300	-14.7	30.0
Styrene	1.203	1.030	0.300	-14.4	30.0
Bromoform	0.327	0.442	0.050	35.2	30.0
Isopropylbenzene	2.142	1.674		-21.8	
1,1,2,2-Tetrachloroethane	0.207	0.212	0.100	2.4	30.0
1,3-Dichlorobenzene	2.424	2.386	0.400	-1.6	30.0
1,4-Dichlorobenzene	2.326	2.270	0.400	-2.4	30.0
1,2-Dichlorobenzene	1.890	1.861	0.400	-1.5	30.0
1,2-Dibromo-3-chloropropane	0.064	0.062		-3.1	
1,2,4-Trichlorobenzene	1.341	1.475	0.200	10.0	30.0
1,2,3-Trichlorobenzene	1.047	1.138	0.200	8.7	30.0

All other compound must meet a minimum RRF of 0.010

7LCC

LOW CONCENTRATION WATER VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client NO. SDG NO.: Y0SL3

Instrument ID: E-5973 Calibration Date: 03/30/2003 Time: 1206

Lab File ID: E4070 Init. Calib. Date(s): 03/26/2003 03/26/2003

EPA Sample No.(VSTD005##): VSTD0054R Init. Calib. Times: 1819 2101

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

COMPOUND	$\overline{RRF}$	RRF5	MIN RRF	%D	MAX %D
Vinyl Chloride-d3	0.432	0.356		-17.6	
Chloroethane-d5	0.330	0.314		-4.8	
1,1-Dichloroethene-d2	0.192	0.164		-14.6	
2-Butanone-d5	0.035	0.043		22.9	
Chloroform-d	0.413	0.397		-3.9	
1,2-Dichloroethane-d4	0.230	0.217		-5.7	
Benzene-d6	2.195	2.135		-2.7	
1,2-Dichloropropane-d6	0.607	0.588		-3.1	
Toluene-d8	2.121	2.036		-4.0	
trans-1,3-Dichloropropene-d4	0.075	0.076		1.3	
2-Hexanone-d5	0.081	0.085		4.9	
Bromoform-d	0.295	0.401		35.9	
1,1,2,2-Tetrachloroethane-d2	0.210	0.206		-1.9	
1,2-Dichlorobenzene-d4	1.243	1.135		-8.7	

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\E4070.D Vial: 2
Acq On : 03/30/2003 1206 Operator: AK
Sample : VSTD0054R Inst : E-5973
Misc : EVSTD0054R 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\LCE4053.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Sat Mar 29 20:47:13 2003
Response via : Single Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

ORIGINAL COPY
Case: 31520 SDG: Y05L3
Episode: 2761 2775 Int./Date: 03/30/03

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Difluorobenzene	1.000	1.000	0.0	82	0.00
2	P	Dichlorodifluoromethane	0.718	0.845	-17.7	113	0.01
3	P	Chloromethane	0.999	1.133	-13.4	109	0.01
4	SP	Vinyl Chloride-d3	0.432	0.356	17.6	71	0.01
5	CP	Vinyl Chloride	0.780	0.895	-14.7	109	0.01
6	CP	Bromomethane	0.174	0.180	-3.4	89	0.00
7	SP	Chloroethane-d5	0.330	0.314	4.8	75	0.00
8	P	Chloroethane	0.403	0.506	-25.6#	111	0.00
9	P	Trichlorofluoromethane	0.895	1.030	-15.1	111	0.00
10	SP	1,1-Dichloroethene-d2	0.192	0.164	14.6	72	0.00
11	MCP	1,1-Dichloroethene	0.461	0.425	7.8	86	0.00
12	P	1,1,2-Trichloro-1,2,2-trifl	0.480	0.466	2.9	89	0.00
13	P	Acetone	0.032	0.033	-3.1	121	0.00
14	P	Carbon Disulfide	1.449	1.371	5.4	87	0.01
15	P	Methyl Acetate	0.074	0.070	5.4	106	0.00
16	P	Methylene Chloride	0.502	0.365	27.3#	83	0.00
17	P	trans-1,2-Dichloroethene	0.500	0.464	7.2	86	0.01
18	P	Methyl tert-Butyl Ether	0.591	0.588	0.5	93	0.00
19	CP	1,1-Dichloroethane	0.733	0.685	6.5	86	0.00
20	SP	2-Butanone-d5	0.035	0.043	-22.9	100	0.00
21	P	cis-1,2-Dichloroethene	0.420	0.395	6.0	87	0.00
22	P	2-Butanone	0.039	0.043	-10.3	97	0.00
23	CP	Bromochloromethane	0.126	0.127	-0.8	92	0.00
24	SP	Chloroform-d	0.413	0.397	3.9	80	0.00
25	CP	Chloroform	0.696	0.633	9.1	84	0.00
26	SP	1,2-Dichloroethane-d4	0.230	0.217	5.7	78	0.00
27	CP	1,2-Dichloroethane	0.279	0.275	1.4	91	0.00
28	I	Chlorobenzene-d5	1.000	1.000	0.0	80	0.00
29	CP	1,1,1-Trichloroethane	0.810	0.829	-2.3	90	0.00
30	P	Cyclohexane	0.984	1.005	-2.1	89	0.00
31	CP	Carbon Tetrachloride	0.639	0.699	-9.4	96	0.00
32	SP	Benzene-d6	2.195	2.135	2.7	78	0.00
33	MCP	Benzene	2.315	2.385	-3.0	90	0.00
34	MCP	Trichloroethene	0.505	0.516	-2.2	91	0.00
35	SP	1,2-Dichloropropane-d6	0.607	0.588	3.1	80	0.00
36	P	Methylcyclohexane	1.058	1.102	-4.2	90	0.00
37	P	1,2-Dichloropropane	0.453	0.481	-6.2	94	0.00
38	CP	Bromodichloromethane	0.458	0.500	-9.2	96	0.00
39	CP	cis-1,3-Dichloropropene	0.585	0.625	-6.8	93	0.00
40	P	4-Methyl-2-Pentanone	0.105	0.123	-17.1	97	0.00
41	SP	Toluene-d8	2.121	2.036	4.0	77	0.00
42	MCP	Toluene	2.494	2.549	-2.2	89	0.00
43	SP	trans-1,3-Dichloropropene-d	0.075	0.076	-1.3	84	0.00
44	CP	trans-1,3-Dichloropropene	0.401	0.438	-9.2	96	0.00
45	CP	1,1,2-Trichloroethane	0.229	0.250	-9.2	97	0.00
46	CP	Tetrachloroethene	0.528	0.558	-5.7	94	0.00
47	SP	2-Hexanone-d5	0.081	0.085	-4.9	84	0.00
48	P	2-Hexanone	0.073	0.083	-13.7	93	0.00
49	CP	Dibromochloromethane	0.246	0.279	-13.4	98	0.00
50	CP	1,2-Dibromoethane	0.184	0.210	-14.1	102	0.00
51	MCP	Chlorobenzene	1.470	1.449	1.4	88	0.00
52	CP	Ethylbenzene	2.490	2.205	11.4	79	0.00
53	T	m/p-Xylene	0.980	0.855	12.8	78	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\E4070.D Vial: 2
Acq On : 03/30/2003 1206 Operator: AK
Sample : VSTD0054R Inst : E-5973
Misc : EVSTD0054R 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\LCE4053.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Sat Mar 29 20:47:13 2003
Response via : Single Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
54	T	o-Xylene	0.871	0.743	14.7	77	0.00
55	CP	Xylene (total)	0.871	0.743	14.7	77	0.00
56	CP	Styrene	1.203	1.030	14.4	77	0.00
57	P	Isopropylbenzene	2.142	1.674	21.8	72	0.00
58	SP	1,1,2,2-Tetrachloroethane-d	0.210	0.206	1.9	78	0.00
59	CP	1,1,2,2-Tetrachloroethane	0.207	0.212	-2.4	91	0.00
60	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	67	0.00
61	SP	Bromoform-d	0.295	0.401	-35.9#	91	0.00
62	CP	Bromoform	0.327	0.442	-35.2#	95	0.00
63	CP	1,3-Dichlorobenzene	2.424	2.386	1.6	75	0.00
64	CP	1,4-Dichlorobenzene	2.326	2.270	2.4	75	0.00
65	SP	1,2-Dichlorobenzene-d4	1.243	1.135	8.7	65	0.00
66	CP	1,2-Dichlorobenzene	1.890	1.860	1.6	75	0.00
67	P	1,2-Dibromo-3-chloropropane	0.064	0.062	3.1	80	0.00
68	CP	1,2,4-Trichlorobenzene	1.341	1.475	-10.0	84	0.00
69	CP	1,2,3-Trichlorobenzene	1.047	1.138	-8.7	83	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 1
E4070.D LCE4053.M Sun Mar 30 13:10:22 2003

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4070.D
Acq On : 03/30/2003 1206
Sample : VSTD0054R
Misc : EVSTD0054R 25ML
MS Integration Params: RTEINT.P
Quant Time: Mar 30 12:38:27 2003

Vial: 2
Operator: AK
Inst : E-5973
Multiplr: 1.00
Quant Results File: LCE4053.RES

Quant Method : C:\MSDCHEM\1\METHODS\LCE4053.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Sat Mar 29 20:47:13 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4053.D
DataAcq Meth : VOAC

ORIGINAL COPY
Case: 31520 SDG: 70513
Episode: 276127 Int./Date: 03/30/03
Loa
AV

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Difluorobenzene	6.30	114	1093327	5.00 ug/L	0.00
28) Chlorobenzene-d5	10.32	117	848156	5.00 ug/L	0.00
60) 1,4-Dichlorobenzene-d4	13.19	152	260054	5.00 ug/L	0.00
System Monitoring Compounds					
4) Vinyl Chloride-d3	2.15	65	389704	4.54 ug/L	0.01
Spiked Amount 5.000	Range 49 - 138		Recovery	= 90.80%	
7) Chloroethane-d5	2.53	69	343745	4.61 ug/L	0.00
Spiked Amount 5.000	Range 60 - 126		Recovery	= 92.20%	
10) 1,1-Dichloroethene-d2	3.26	65	179050	4.75 ug/L	0.00
Spiked Amount 5.000	Range 65 - 130		Recovery	= 95.00%	
20) 2-Butanone-d5	4.87	46	233561	28.19 ug/L	0.00
Spiked Amount 5.000	Range 42 - 171		Recovery	= 563.80%#	
24) Chloroform-d	5.23	86	433755	4.95 ug/L	0.00
Spiked Amount 5.000	Range 80 - 123		Recovery	= 99.00%	
26) 1,2-Dichloroethane-d4	5.81	65	236911	5.06 ug/L	0.00
Spiked Amount 5.000	Range 78 - 129		Recovery	= 101.20%	
32) Benzene-d6	5.85	84	1810518	4.86 ug/L	0.00
Spiked Amount 5.000	Range 78 - 121		Recovery	= 97.20%	
35) 1,2-Dichloropropane-d6	6.80	67	499061	4.95 ug/L	0.00
Spiked Amount 5.000	Range 84 - 123		Recovery	= 99.00%	
41) Toluene-d8	8.21	98	1726815	4.91 ug/L	0.00
Spiked Amount 5.000	Range 77 - 120		Recovery	= 98.20%	
43) trans-1,3-Dichloropropene-	8.53	79	64112	5.36 ug/L	0.00
Spiked Amount 5.000	Range 80 - 128		Recovery	= 107.20%	
47) 2-Hexanone-d5	9.12	46	359051	28.02 ug/L	0.00
Spiked Amount 5.000	Range 37 - 169		Recovery	= 560.40%#	
58) 1,1,2,2-Tetrachloroethane-	12.08	84	174588	5.31 ug/L	0.00
Spiked Amount 5.000	Range 75 - 131		Recovery	= 106.20%	
61) Bromoform-d	11.51	174	104222	5.74 ug/L	0.00
Spiked Amount 5.000	Range 76 - 135		Recovery	= 114.80%	
65) 1,2-Dichlorobenzene-d4	13.54	152	295179	5.28 ug/L	0.00
Spiked Amount 5.000	Range 50 - 150		Recovery	= 105.60%	

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.86	85	923926	4.68 ug/L	100
3) Chloromethane	2.05	50	1238893	4.62 ug/L	99
5) Vinyl Chloride	2.16	62	978030	4.69 ug/L	99
6) Bromomethane	2.47	94	197149	6.19 ug/L	94
8) Chloroethane	2.56	64	553038	4.71 ug/L	99
9) Trichlorofluoromethane	2.80	101	1126528	4.70 ug/L	99
11) 1,1-Dichloroethene	3.27	96	464721	4.76 ug/L	99
12) 1,1,2-Trichloro-1,2,2-trif	3.27	101	509552	4.78 ug/L	99
13) Acetone	3.29	43	179412	27.39 ug/L	99
14) Carbon Disulfide	3.49	76	1499355	4.80 ug/L	100
15) Methyl Acetate	3.59	43	76029	5.32 ug/L	99
16) Methylene Chloride	3.69	84	398938	4.86 ug/L	99
17) trans-1,2-Dichloroethene	3.96	96	506970	4.90 ug/L	98
18) Methyl tert-Butyl Ether	3.96	73	642899	5.41 ug/L	99
19) 1,1-Dichloroethane	4.36	63	748739	4.89 ug/L	100
21) cis-1,2-Dichloroethene	4.94	96	431459	4.91 ug/L	98
22) 2-Butanone	4.93	43	235417	26.86 ug/L	99
23) Bromochloromethane	5.19	128	139361	5.24 ug/L	97
25) Chloroform	5.26	83	691657	4.92 ug/L	99
27) 1,2-Dichloroethane	5.89	62	300280	5.09 ug/L	98

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

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4070.D Vial: 2
Acq On : 03/30/2003 1206 Operator: AK
Sample : VSTD0054R Inst : E-5973
Misc : EVSTD0054R 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 30 12:38:27 2003 Quant Results File: LCE4053.RES

Quant Method : C:\MSDCHEM\1\METHODS\LCE4053.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Sat Mar 29 20:47:13 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4053.D
DataAcq Meth : VOAC

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
29) 1,1,1-Trichloroethane	5.48	97	703321	4.74 ug/L	99
30) Cyclohexane	5.57	56	852022	4.82 ug/L	98
31) Carbon Tetrachloride	5.68	117	592929	4.80 ug/L	99
33) Benzene	5.90	78	2022841	4.85 ug/L	100
34) Trichloroethene	6.64	95	437822	4.75 ug/L	98
36) Methylcyclohexane	6.91	83	934848	4.93 ug/L	99
37) 1,2-Dichloropropane	6.91	63	408274	5.07 ug/L	99
38) Bromodichloromethane	7.24	83	424046	5.04 ug/L	99
39) cis-1,3-Dichloropropene	7.82	75	530036	5.07 ug/L	99
40) 4-Methyl-2-Pentanone	8.01	43	521746	26.84 ug/L	100
42) Toluene	8.29	91	2161599	4.89 ug/L	100
44) trans-1,3-Dichloropropene	8.57	75	371493	5.10 ug/L	98
45) 1,1,2-Trichloroethane	8.84	97	212237	5.36 ug/L	98
46) Tetrachloroethene	9.08	164	473041	4.88 ug/L	99
48) 2-Hexanone	9.20	43	350296	26.85 ug/L	100
49) Dibromochloromethane	9.42	129	236234	5.18 ug/L	99
50) 1,2-Dibromoethane	9.60	107	178337	5.33 ug/L	98
51) Chlorobenzene	10.36	112	1229261	4.99 ug/L	99
52) Ethylbenzene	10.54	91	1870367	4.91 ug/L	100
53) m/p-Xylene	10.73	106	1449502	9.82 ug/L	98
54) o-Xylene	11.29	106	630259	4.87 ug/L	99
55) Xylene (total)	11.29	106	630259	4.87 ug/L	99
56) Styrene	11.31	104	873737	4.97 ug/L	99
57) Isopropylbenzene	11.77	105	1419600	4.72 ug/L	100
59) 1,1,2,2-Tetrachloroethane	12.11	83	180132	5.37 ug/L	99
62) Bromoform	11.54	173	114936	5.82 ug/L	98
63) 1,3-Dichlorobenzene	13.12	146	620599	5.21 ug/L	99
64) 1,4-Dichlorobenzene	13.21	146	590356	5.09 ug/L	99
66) 1,2-Dichlorobenzene	13.56	146	483829	5.19 ug/L	99
67) 1,2-Dibromo-3-chloropropan	14.23	75	16106	5.48 ug/L	93
68) 1,2,4-Trichlorobenzene	14.96	180	383516	5.11 ug/L	100
69) 1,2,3-Trichlorobenzene	15.42	180	295937	5.11 ug/L	100

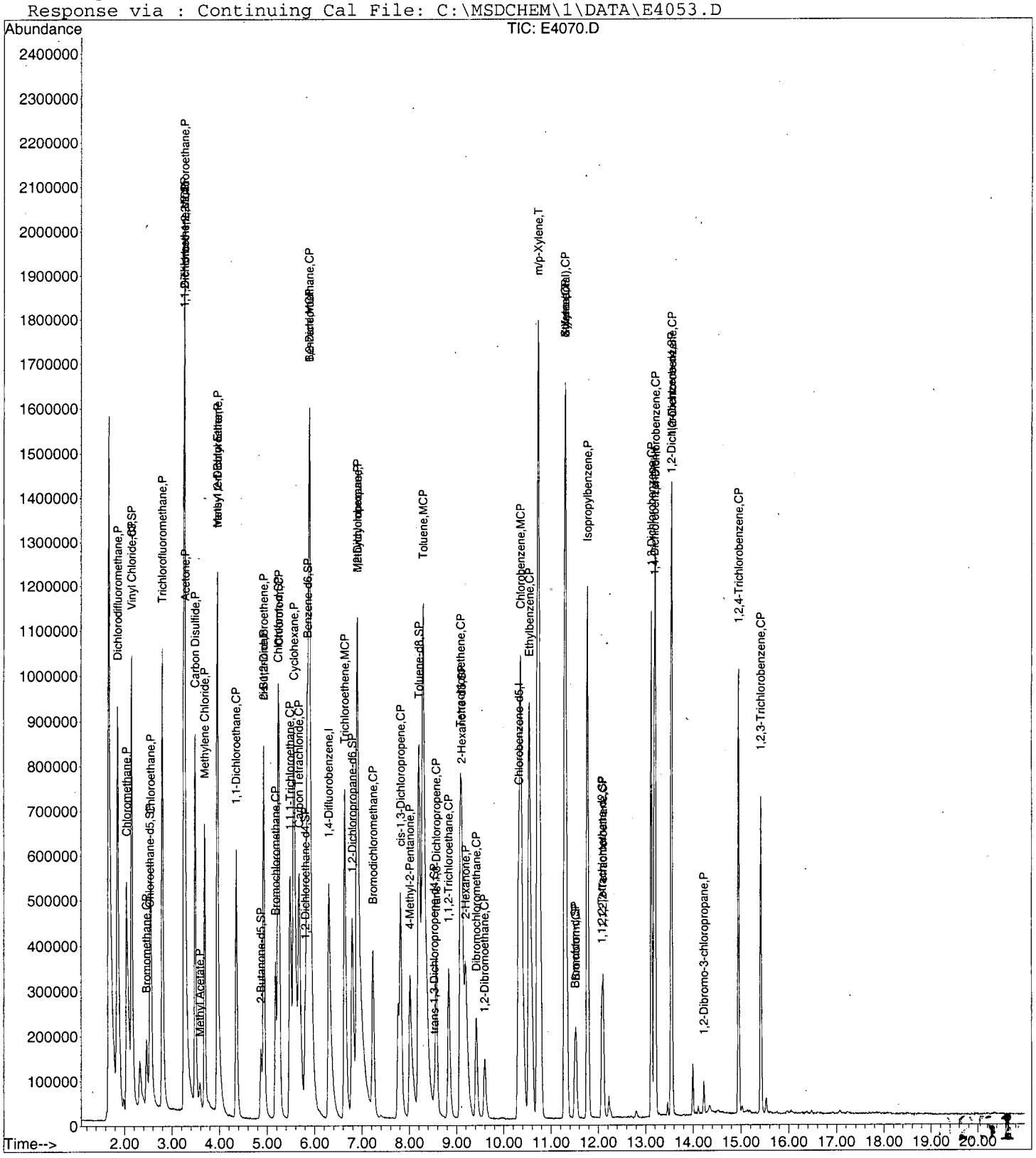
Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4070.D
Acq On : 03/30/2003 1206
Sample : VSTD0054R
Misc : EVSTD0054R 25ML
MS Integration Params: RTEINT.P
Quant Time: Mar 30 12:38 2003

Vial: 2
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Results File: LCE4053.RES

Method : C:\MSDCHEM\1\METHODS\LCE4053.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Sat Mar 29 20:47:13 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4053.D



7LCA

LOW CONCENTRATION WATER VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client NO. SDG NO.: Y0SL3

Instrument ID: E-5973 Calibration Date: 03/31/2003 Time: 1404

Lab File ID: E4078 Init. Calib. Date(s): 03/26/2003 03/26/2003

EPA Sample No.(VSTD005##): VSTD0054S Init. Calib. Times: 1819 2101

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

COMPOUND	$\overline{RRF}$	RRF5	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.719	0.815		13.4	
Chloromethane	0.999	1.059		6.0	
Vinyl Chloride	0.781	0.855	0.100	9.5	30.0
Bromomethane	0.175	0.201	0.100	14.9	30.0
Chloroethane	0.403	0.487		20.8	
Trichlorofluoromethane	0.895	1.053		17.7	
1,1-Dichloroethene	0.461	0.429	0.100	-6.9	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.480	0.482		0.4	
Acetone	0.032	0.027		-15.6	
Carbon Disulfide	1.449	1.351		-6.8	
Methyl Acetate	0.074	0.054		-27.0	
Methylene Chloride	0.502	0.364		-27.5	
trans-1,2-Dichloroethene	0.500	0.438		-12.4	
Methyl tert-Butyl Ether	0.591	0.495		-16.2	
1,1-Dichloroethane	0.734	0.686	0.200	-6.5	30.0
cis-1,2-Dichloroethene	0.420	0.388		-7.6	
2-Butanone	0.039	0.042		7.7	
Bromochloromethane	0.126	0.122	0.050	-3.2	30.0
Chloroform	0.696	0.633	0.200	-9.1	30.0
1,1,1-Trichloroethane	0.810	0.874	0.100	7.9	30.0
Cyclohexane	0.984	1.044		6.1	
Carbon Tetrachloride	0.639	0.715	0.100	11.9	30.0
Benzene	2.315	2.447	0.400	5.7	30.0
1,2-Dichloroethane	0.278	0.266	0.100	-4.3	30.0
Trichloroethene	0.505	0.530	0.300	5.0	30.0
Methylcyclohexane	1.058	1.123		6.1	

All other compound must meet a minimum RRF of 0.010

7LCB

LOW CONCENTRATION WATER VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client NO. SDG NO.: Y0SL3

Instrument ID: E-5973 Calibration Date: 03/31/2003 Time: 1404

Lab File ID: E4078 Init. Calib. Date(s): 03/26/2003 03/26/2003

EPA Sample No.(VSTD005##): VSTD0054S Init. Calib. Times: 1819 2101

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

COMPOUND	$\overline{RRF}$	RRF5	MIN RRF	%D	MAX %D
1,2-Dichloropropane	0.453	0.473		4.4	
Bromodichloromethane	0.458	0.485	0.200	5.9	30.0
cis-1,3-Dichloropropene	0.585	0.611	0.200	4.4	30.0
4-Methyl-2-pentanone	0.105	0.125		19.0	
Toluene	2.494	2.571	0.400	3.1	30.0
trans-1,3-Dichloropropene	0.401	0.414	0.100	3.2	30.0
1,1,2-Trichloroethane	0.229	0.234	0.100	2.2	30.0
Tetrachloroethene	0.528	0.572	0.100	8.3	30.0
2-Hexanone	0.073	0.085		16.4	
Dibromochloromethane	0.247	0.266	0.100	7.7	30.0
1,2-Dibromoethane	0.184	0.196	0.100	6.5	30.0
Chlorobenzene	1.470	1.426	0.500	-3.0	30.0
Ethylbenzene	2.490	2.177	0.100	-12.6	30.0
Xylene (total)	0.871	0.751	0.300	-13.8	30.0
Styrene	1.203	1.027	0.300	-14.6	30.0
Bromoform	0.327	0.380	0.050	16.2	30.0
Isopropylbenzene	2.142	1.750		-18.3	
1,1,2,2-Tetrachloroethane	0.207	0.196	0.100	-5.3	30.0
1,3-Dichlorobenzene	2.424	2.302	0.400	-5.0	30.0
1,4-Dichlorobenzene	2.326	2.204	0.400	-5.2	30.0
1,2-Dichlorobenzene	1.890	1.792	0.400	-5.2	30.0
1,2-Dibromo-3-chloropropane	0.064	0.053		-17.2	
1,2,4-Trichlorobenzene	1.341	1.439	0.200	7.3	30.0
1,2,3-Trichlorobenzene	1.047	1.105	0.200	5.5	30.0

All other compound must meet a minimum RRF of 0.010

7LCC

LOW CONCENTRATION WATER VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client NO. SDG NO.: Y0SL3

Instrument ID: E-5973 Calibration Date: 03/31/2003 Time: 1404

Lab File ID: E4078 Init. Calib. Date(s): 03/26/2003 03/26/2003

EPA Sample No.(VSTD005##): VSTD0054S Init. Calib. Times: 1819 2101

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

COMPOUND	$\overline{RRF}$	RRF5	MIN RRF	%D	MAX %D
Vinyl Chloride-d3	0.432	0.434		0.5	
Chloroethane-d5	0.330	0.371		12.4	
1,1-Dichloroethene-d2	0.192	0.194		1.0	
2-Butanone-d5	0.035	0.038		8.6	
Chloroform-d	0.413	0.456		10.4	
1,2-Dichloroethane-d4	0.230	0.241		4.8	
Benzene-d6	2.195	2.549		16.1	
1,2-Dichloropropane-d6	0.607	0.666		9.7	
Toluene-d8	2.121	2.412		13.7	
trans-1,3-Dichloropropene-d4	0.075	0.086		14.7	
2-Hexanone-d5	0.081	0.080		-1.2	
Bromoform-d	0.295	0.404		36.9	
1,1,2,2-Tetrachloroethane-d2	0.210	0.225		7.1	
1,2-Dichlorobenzene-d4	1.243	1.274		2.5	

Data File : C:\MSDCHEM\1\DATA\E4078.D
Acq On : 03/31/2003 1404
Sample : VSTD0054S
Misc : EVSTD0054S 25ML
MS Integration Params: RTEINT.P
Quant Time: Mar 31 14:25:32 2003

Vial: 3
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Results File: LCE4078.RES

Quant Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Mon Mar 31 11:28:30 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4077.D
DataAcq Meth : VOAC

ORIGINAL COPY
Case: 31517 SDG: CA0Z7
Episode: 27149 Int./Date: 03/31/03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Difluorobenzene	6.30	114	1109197	5.00	ug/L	0.00
28) Chlorobenzene-d5	10.32	117	818594	5.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	13.19	152	271675	5.00	ug/L	0.00
System Monitoring Compounds						
4) Vinyl Chloride-d3	2.14	65	481778	3.72	ug/L	-0.01
Spiked Amount 5.000	Range 49 - 138		Recovery = 74.40%			
7) Chloroethane-d5	2.53	69	411788	3.87	ug/L	0.00
Spiked Amount 5.000	Range 60 - 126		Recovery = 77.40%			
10) 1,1-Dichloroethene-d2	3.25	65	215066	3.91	ug/L	0.00
Spiked Amount 5.000	Range 65 - 130		Recovery = 78.20%			
20) 2-Butanone-d5	4.87	46	211810	24.66	ug/L	0.00
Spiked Amount 5.000	Range 42 - 171		Recovery = 493.20%#			
24) Chloroform-d	5.23	86	506025	3.89	ug/L	0.00
Spiked Amount 5.000	Range 80 - 123		Recovery = 77.80%#			
26) 1,2-Dichloroethane-d4	5.81	65	267539	3.99	ug/L	0.00
Spiked Amount 5.000	Range 78 - 129		Recovery = 79.80%			
32) Benzene-d6	5.85	84	2086374	3.88	ug/L	0.00
Spiked Amount 5.000	Range 78 - 121		Recovery = 77.60%#			
35) 1,2-Dichloropropane-d6	6.80	67	545056	3.94	ug/L	0.00
Spiked Amount 5.000	Range 84 - 123		Recovery = 78.80%#			
41) Toluene-d8	8.20	98	1974590	3.76	ug/L	0.00
Spiked Amount 5.000	Range 77 - 120		Recovery = 75.20%#			
43) trans-1,3-Dichloropropene-	8.53	79	69989	3.95	ug/L	0.00
Spiked Amount 5.000	Range 80 - 128		Recovery = 79.00%#			
47) 2-Hexanone-d5	9.13	46	326966	23.90	ug/L	0.00
Spiked Amount 5.000	Range 37 - 169		Recovery = 478.00%#			
58) 1,1,2,2-Tetrachloroethane-	12.08	84	184145	3.72	ug/L	0.00
Spiked Amount 5.000	Range 75 - 131		Recovery = 74.40%#			
61) Bromoform-d	11.51	174	109628	3.52	ug/L	0.00
Spiked Amount 5.000	Range 76 - 135		Recovery = 70.40%#			
65) 1,2-Dichlorobenzene-d4	13.54	152	346021	3.65	ug/L	0.00
Spiked Amount 5.000	Range 50 - 150		Recovery = 73.00%			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.86	85	904296	4.47	ug/L	100
3) Chloromethane	2.05	50	1174200	4.16	ug/L	99
5) Vinyl Chloride	2.15	62	948789	4.52	ug/L	100
6) Bromomethane	2.46	94	222966	7.99	ug/L	99
8) Chloroethane	2.56	64	540335	4.65	ug/L	99
9) Trichlorofluoromethane	2.80	101	1167818	4.76	ug/L	99
11) 1,1-Dichloroethene	3.26	96	475370	4.93	ug/L #	87
12) 1,1,2-Trichloro-1,2,2-trif	3.26	101	535058	4.84	ug/L	99
13) Acetone	3.29	43	146764	27.60	ug/L	96
14) Carbon Disulfide	3.49	76	1498617	5.01	ug/L	93
15) Methyl Acetate	3.59	43	60148	5.19	ug/L	92
16) Methylene Chloride	3.69	84	404160	5.16	ug/L	100
17) trans-1,2-Dichloroethene	3.96	96	485469	5.07	ug/L	99
18) Methyl tert-Butyl Ether	3.96	73	548482	4.80	ug/L	100
19) 1,1-Dichloroethane	4.36	63	760475	4.99	ug/L	100
21) cis-1,2-Dichloroethene	4.94	96	430024	4.98	ug/L	100
22) 2-Butanone	4.93	43	231943	26.32	ug/L	99
23) Bromochloromethane	5.19	128	135066	5.13	ug/L #	61
25) Chloroform	5.25	83	702278	4.96	ug/L	100
27) 1,2-Dichloroethane	5.89	62	295500	5.11	ug/L	97

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

Data File : C:\MSDCHEM\1\DATA\E4078.D
Acq On : 03/31/2003 1404
Sample : VSTD0054S
Misc : EVSTD0054S 25ML
MS Integration Params: RTEINT.P
Quant Time: Mar 31 14:25:32 2003

Vial: 3
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Results File: LCE4078.RES

Quant Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Mon Mar 31 11:28:30 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4077.D
DataAcq Meth : VOAC

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
29)	1,1,1-Trichloroethane	5.49	97	715411	4.99	ug/L	100
30)	Cyclohexane	5.57	56	854705	4.95	ug/L	100
31)	Carbon Tetrachloride	5.68	117	585208	4.87	ug/L	99
33)	Benzene	5.90	78	2002769	4.98	ug/L	100
34)	Trichloroethene	6.63	95	433830	4.89	ug/L	99
36)	Methylcyclohexane	6.90	83	919213	4.82	ug/L	100
37)	1,2-Dichloropropane	6.90	63	387434	4.95	ug/L	100
38)	Bromodichloromethane	7.23	83	396716	5.02	ug/L	99
39)	cis-1,3-Dichloropropene	7.82	75	499925	4.90	ug/L	99
40)	4-Methyl-2-Pentanone	8.02	43	513151	26.22	ug/L	99
42)	Toluene	8.30	91	2104780	4.78	ug/L	100
44)	trans-1,3-Dichloropropene	8.57	75	338726	4.85	ug/L	99
45)	1,1,2-Trichloroethane	8.84	97	191879	4.84	ug/L	99
46)	Tetrachloroethene	9.09	164	468121	4.85	ug/L	99
48)	2-Hexanone	9.20	43	348888	26.17	ug/L	98
49)	Dibromochloromethane	9.43	129	217962	4.79	ug/L	99
50)	1,2-Dibromoethane	9.60	107	160060	4.93	ug/L	99
51)	Chlorobenzene	10.36	112	1167329	4.74	ug/L	100
52)	Ethylbenzene	10.55	91	1782133	4.58	ug/L	100
53)	m/p-Xylene	10.73	106	1420112	9.40	ug/L	99
54)	o-Xylene	11.29	106	614337	4.70	ug/L	99
55)	Xylene (total)	11.29	106	614337	4.70	ug/L	99
56)	Styrene	11.31	104	840735	4.76	ug/L	99
57)	Isopropylbenzene	11.77	105	1432282	4.69	ug/L	100
59)	1,1,2,2-Tetrachloroethane	12.11	83	160602	4.70	ug/L	100
62)	Bromoform	11.53	173	103210	4.31	ug/L	99
63)	1,3-Dichlorobenzene	13.12	146	625321	4.72	ug/L	99
64)	1,4-Dichlorobenzene	13.21	146	598744	4.74	ug/L	99
66)	1,2-Dichlorobenzene	13.56	146	486896	4.74	ug/L	99
67)	1,2-Dibromo-3-chloropropan	14.23	75	14293	4.54	ug/L	93
68)	1,2,4-Trichlorobenzene	14.96	180	390908	4.87	ug/L	99
69)	1,2,3-Trichlorobenzene	15.42	180	300222	4.83	ug/L	99

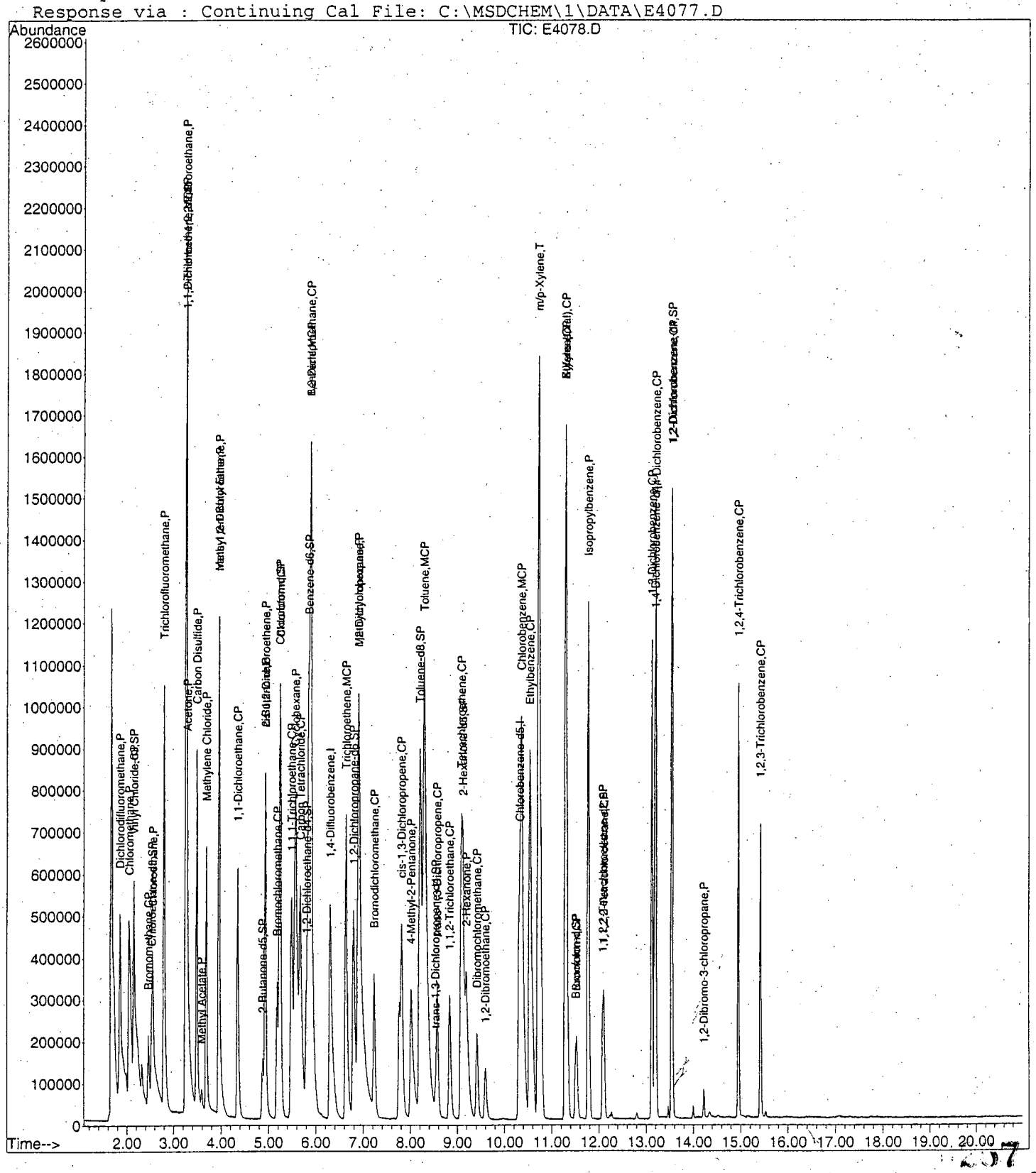
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\MSDCHEM\1\DATA\E4078.D
Acq On : 03/31/2003 1404
Sample : VSTD0054S
Misc : EVSTD0054S 25ML
MS Integration Params: RTEINT.P
Quant Time: Mar 31 14:25 2003

Vial: 3
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Results File: LCE4078.RES

Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Mon Mar 31 14:25:59 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4077.D



Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\E4078.D
Acq On : 03/31/2003 1404
Sample : VSTD0054S
Misc : EVSTD0054S 25ML
MS Integration Params: RTEINT.P

Vial: 3
Operator: AK
Inst : E-5973
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Mon Mar 31 14:25:59 2003
Response via : Single Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

ORIGINAL COPY
Case: 31517 SDG: CA8227
Episode: 2749 Int./Date: 03/31/03

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Difluorobenzene	1.000	1.000	0.0	83	0.00
2	P	Dichlorodifluoromethane	0.718	0.815	-13.5	111	0.00
3	P	Chloromethane	0.999	1.059	-6.0	104	0.00
4	SP	Vinyl Chloride-d3	0.432	0.434	-0.5	88	0.00
5	CP	Vinyl Chloride	0.780	0.855	-9.6	106	0.00
6	CP	Bromomethane	0.174	0.201	-15.5	100	0.00
7	SP	Chloroethane-d5	0.330	0.371	-12.4	90	0.00
8	P	Chloroethane	0.403	0.487	-20.8	109	0.00
9	P	Trichlorofluoromethane	0.895	1.053	-17.7	115	0.00
10	SP	1,1-Dichloroethene-d2	0.192	0.194	-1.0	87	0.00
11	MCP	1,1-Dichloroethene	0.461	0.429	6.9	88	0.00
12	P	1,1,2-Trichloro-1,2,2-trifl	0.480	0.482	-0.4	94	0.00
13	P	Acetone	0.032	0.026	18.8	99	0.00
14	P	Carbon Disulfide	1.449	1.351	6.8	87	0.00
15	P	Methyl Acetate	0.074	0.054	27.0#	84	0.00
16	P	Methylene Chloride	0.502	0.364	27.5#	84	0.00
17	P	trans-1,2-Dichloroethene	0.500	0.438	12.4	82	0.00
18	P	Methyl tert-Butyl Ether	0.591	0.494	16.4	80	0.00
19	CP	1,1-Dichloroethane	0.733	0.686	6.4	87	0.00
20	SP	2-Butanone-d5	0.035	0.038	-8.6	91	0.00
21	P	cis-1,2-Dichloroethene	0.420	0.388	7.6	87	0.00
22	P	2-Butanone	0.039	0.042	-7.7	96	0.00
23	CP	Bromochloromethane	0.126	0.122	3.2	89	0.00
24	SP	Chloroform-d	0.413	0.456	-10.4	93	0.00
25	CP	Chloroform	0.696	0.633	9.1	85	0.00
26	SP	1,2-Dichloroethane-d4	0.230	0.241	-4.8	88	0.00
27	CP	1,2-Dichloroethane	0.279	0.266	4.7	89	0.00
28	I	Chlorobenzene-d5	1.000	1.000	0.0	77	0.00
29	CP	1,1,1-Trichloroethane	0.810	0.874	-7.9	91	0.00
30	P	Cyclohexane	0.984	1.044	-6.1	89	0.00
31	CP	Carbon Tetrachloride	0.639	0.715	-11.9	95	0.00
32	SP	Benzene-d6	2.195	2.549	-16.1	90	0.00
33	MCP	Benzene	2.315	2.447	-5.7	89	0.00
34	MCP	Trichloroethene	0.505	0.530	-5.0	90	0.00
35	SP	1,2-Dichloropropane-d6	0.607	0.666	-9.7	87	0.00
36	P	Methylcyclohexane	1.058	1.123	-6.1	89	0.00
37	P	1,2-Dichloropropane	0.453	0.473	-4.4	89	0.00
38	CP	Bromodichloromethane	0.458	0.485	-5.9	90	0.00
39	CP	cis-1,3-Dichloropropene	0.585	0.611	-4.4	88	0.00
40	P	4-Methyl-2-Pentanone	0.105	0.125	-19.0	96	0.00
41	SP	Toluene-d8	2.121	2.412	-13.7	88	0.00
42	MCP	Toluene	2.494	2.571	-3.1	87	0.00
43	SP	trans-1,3-Dichloropropene-d	0.075	0.085	-13.3	91	0.00
44	CP	trans-1,3-Dichloropropene	0.401	0.414	-3.2	87	0.00
45	CP	1,1,2-Trichloroethane	0.229	0.234	-2.2	88	0.00
46	CP	Tetrachloroethene	0.528	0.572	-8.3	93	0.00
47	SP	2-Hexanone-d5	0.081	0.080	1.2	76	0.00
48	P	2-Hexanone	0.073	0.085	-16.4	93	0.00
49	CP	Dibromochloromethane	0.246	0.266	-8.1	91	0.00
50	CP	1,2-Dibromoethane	0.184	0.196	-6.5	92	0.00
51	MCP	Chlorobenzene	1.470	1.426	3.0	83	0.00
52	CP	Ethylbenzene	2.490	2.177	12.6	75	0.00
53	T	m/p-Xylene	0.980	0.867	11.5	77	0.00

(#) = Out of Range

Data File : C:\MSDCHEM\1\DATA\E4078.D
Acq On : 03/31/2003 1404
Sample : VSTD0054S
Misc : EVSTD0054S 25ML
MS Integration Params: RTEINT.P

Vial: 3
Operator: AK
Inst : E-5973
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Mon Mar 31 14:25:59 2003
Response via : Single Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
54	T	o-Xylene	0.871	0.750	13.9	75	0.00
55	CP	Xylene (total)	0.871	0.750	13.9	75	0.00
56	CP	Styrene	1.203	1.027	14.6	74	0.00
57	P	Isopropylbenzene	2.142	1.750	18.3	72	0.00
58	SP	1,1,2,2-Tetrachloroethane-d	0.210	0.225	-7.1	83	0.00
59	CP	1,1,2,2-Tetrachloroethane	0.207	0.196	5.3	81	0.00
60	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	70	0.00
61	SP	Bromoform-d	0.295	0.404	-36.9#	95	0.00
62	CP	Bromoform	0.327	0.380	-16.2	85	0.00
63	CP	1,3-Dichlorobenzene	2.424	2.302	5.0	76	0.00
64	CP	1,4-Dichlorobenzene	2.326	2.204	5.2	76	0.00
65	SP	1,2-Dichlorobenzene-d4	1.243	1.274	-2.5	76	0.00
66	CP	1,2-Dichlorobenzene	1.890	1.792	5.2	76	0.00
67	P	1,2-Dibromo-3-chloropropane	0.064	0.053	17.2	71	0.00
68	CP	1,2,4-Trichlorobenzene	1.341	1.439	-7.3	85	0.00
69	CP	1,2,3-Trichlorobenzene	1.047	1.105	-5.5	84	0.00

7LCA

LOW CONCENTRATION WATER VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client NO. SDG NO.: Y0SL3

Instrument ID: E-5973 Calibration Date: 04/02/2003 Time: 1017

Lab File ID: E4109 Init. Calib. Date(s): 03/26/2003 03/26/2003

EPA Sample No.(VSTD005##): VSTD0054U Init. Calib. Times: 1819 2101

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

COMPOUND	$\overline{RRF}$	RRF5	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.719	0.959		33.4	
Chloromethane	0.999	1.332		33.3	
Vinyl Chloride	0.781	1.021	0.100	30.7	30.0
Bromomethane	0.175	0.188	0.100	7.4	30.0
Chloroethane	0.403	0.577		43.2	
Trichlorofluoromethane	0.895	1.227		37.1	
1,1-Dichloroethene	0.461	0.487	0.100	5.6	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.480	0.554		15.4	
Acetone	0.032	0.034		6.3	
Carbon Disulfide	1.449	1.591		9.8	
Methyl Acetate	0.074	0.069		-6.8	
Methylene Chloride	0.502	0.418		-16.7	
trans-1,2-Dichloroethene	0.500	0.486		-2.8	
Methyl tert-Butyl Ether	0.591	0.565		-4.4	
1,1-Dichloroethane	0.734	0.773	0.200	5.3	30.0
cis-1,2-Dichloroethene	0.420	0.439		4.5	
2-Butanone	0.039	0.049		25.6	
Bromochloromethane	0.126	0.139	0.050	10.3	30.0
Chloroform	0.696	0.717	0.200	3.0	30.0
1,1,1-Trichloroethane	0.810	0.944	0.100	16.5	30.0
Cyclohexane	0.984	1.107		12.5	
Carbon Tetrachloride	0.639	0.819	0.100	28.2	30.0
Benzene	2.315	2.607	0.400	12.6	30.0
1,2-Dichloroethane	0.278	0.305	0.100	9.7	30.0
Trichloroethene	0.505	0.566	0.300	12.1	30.0
Methylcyclohexane	1.058	1.233		16.5	

All other compound must meet a minimum RRF of 0.010

7LCB

LOW CONCENTRATION WATER VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client NO. SDG NO.: Y0SL3

Instrument ID: E-5973 Calibration Date: 04/02/2003 Time: 1017

Lab File ID: E4109 Init. Calib. Date(s): 03/26/2003 03/26/2003

EPA Sample No.(VSTD005##): VSTD0054U Init. Calib. Times: 1819 2101

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

COMPOUND	$\overline{RRF}$	RRF5	MIN RRF	%D	MAX %D
1,2-Dichloropropane	0.453	0.506		11.7	
Bromodichloromethane	0.458	0.524	0.200	14.4	30.0
cis-1,3-Dichloropropene	0.585	0.666	0.200	13.8	30.0
4-Methyl-2-pentanone	0.105	0.138		31.4	
Toluene	2.494	2.864	0.400	14.8	30.0
trans-1,3-Dichloropropene	0.401	0.465	0.100	16.0	30.0
1,1,2-Trichloroethane	0.229	0.261	0.100	14.0	30.0
Tetrachloroethene	0.528	0.626	0.100	18.6	30.0
2-Hexanone	0.073	0.093		27.4	
Dibromochloromethane	0.247	0.297	0.100	20.2	30.0
1,2-Dibromoethane	0.184	0.215	0.100	16.8	30.0
Chlorobenzene	1.470	1.651	0.500	12.3	30.0
Ethylbenzene	2.490	2.731	0.100	9.7	30.0
Xylene (total)	0.871	0.940	0.300	7.9	30.0
Styrene	1.203	1.286	0.300	6.9	30.0
Bromoform	0.327	0.415	0.050	26.9	30.0
Isopropylbenzene	2.142	2.275		6.2	
1,1,2,2-Tetrachloroethane	0.207	0.229	0.100	10.6	30.0
1,3-Dichlorobenzene	2.424	2.651	0.400	9.4	30.0
1,4-Dichlorobenzene	2.326	2.544	0.400	9.4	30.0
1,2-Dichlorobenzene	1.890	2.061	0.400	9.0	30.0
1,2-Dibromo-3-chloropropane	0.064	0.064		0.0	
1,2,4-Trichlorobenzene	1.341	1.503	0.200	12.1	30.0
1,2,3-Trichlorobenzene	1.047	1.161	0.200	10.9	30.0

All other compound must meet a minimum RRF of 0.010

7LCC

LOW CONCENTRATION WATER VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client NO. SDG NO.: Y0SL3

Instrument ID: E-5973 Calibration Date: 04/02/2003 Time: 1017

Lab File ID: E4109 Init. Calib. Date(s): 03/26/2003 03/26/2003

EPA Sample No.(VSTD005##): VSTD0054U Init. Calib. Times: 1819 2101

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

COMPOUND	$\overline{RRF}$	RRF5	MIN RRF	%D	MAX %D
Vinyl Chloride-d3	0.432	0.458		6.0	
Chloroethane-d5	0.330	0.381		15.5	
1,1-Dichloroethene-d2	0.192	0.191		-0.5	
2-Butanone-d5	0.035	0.043		22.9	
Chloroform-d	0.413	0.459		11.1	
1,2-Dichloroethane-d4	0.230	0.241		4.8	
Benzene-d6	2.195	2.328		6.1	
1,2-Dichloropropane-d6	0.607	0.638		5.1	
Toluene-d8	2.121	2.273		7.2	
trans-1,3-Dichloropropene-d4	0.075	0.079		5.3	
2-Hexanone-d5	0.081	0.087		7.4	
Bromoform-d	0.295	0.385		30.5	
1,1,2,2-Tetrachloroethane-d2	0.210	0.222		5.7	
1,2-Dichlorobenzene-d4	1.243	1.284		3.3	

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4109.D
Acq On : 04/02/2003 1017
Sample : VSTD0054U
Misc : EVSTD0054U 25ML
MS Integration Params: RTEINT.P
Quant Time: Apr 02 10:39:08 2003

Vial: 2
Operator: AK
Inst : E-5973
Multiplr: 1.00
Quant Results File: LCE4109.RES

Quant Method : C:\MSDCHEM\1\METHODS\LCE4109.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Tue Apr 01 10:12:38 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4091.D
DataAcq Meth : VOAC

ORIGINAL COPY
Case: 31512 SDG: E0003
Episode: 2757 Int./Date: 04/01/03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Difluorobenzene	6.30	114	943070	5.00	ug/L	0.00
28) Chlorobenzene-d5	10.32	117	755795	5.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	13.19	152	268487	5.00	ug/L	0.00
System Monitoring Compounds						
4) Vinyl Chloride-d3	2.15	65	431891	5.00	ug/L	0.00
Spiked Amount 5.000	Range 49 - 138		Recovery = 100.00%			
7) Chloroethane-d5	2.53	69	358986	4.83	ug/L	-0.01
Spiked Amount 5.000	Range 60 - 126		Recovery = 96.60%			
10) 1,1-Dichloroethene-d2	3.26	65	180255	4.73	ug/L	0.00
Spiked Amount 5.000	Range 65 - 130		Recovery = 94.60%			
20) 2-Butanone-d5	4.88	46	204318	29.65	ug/L	0.00
Spiked Amount 5.000	Range 42 - 171		Recovery = 593.00%#			
24) Chloroform-d	5.24	86	433049	4.97	ug/L	0.00
Spiked Amount 5.000	Range 80 - 123		Recovery = 99.40%			
26) 1,2-Dichloroethane-d4	5.81	65	227209	4.72	ug/L	0.00
Spiked Amount 5.000	Range 78 - 129		Recovery = 94.40%			
32) Benzene-d6	5.85	84	1759776	4.70	ug/L	0.00
Spiked Amount 5.000	Range 78 - 121		Recovery = 94.00%			
35) 1,2-Dichloropropane-d6	6.80	67	482195	4.77	ug/L	0.00
Spiked Amount 5.000	Range 84 - 123		Recovery = 95.40%			
41) Toluene-d8	8.20	98	1717509	4.80	ug/L	0.00
Spiked Amount 5.000	Range 77 - 120		Recovery = 96.00%			
43) trans-1,3-Dichloropropene-	8.53	79	59938	4.69	ug/L	0.00
Spiked Amount 5.000	Range 80 - 128		Recovery = 93.80%			
47) 2-Hexanone-d5	9.13	46	330374	26.75	ug/L	0.00
Spiked Amount 5.000	Range 37 - 169		Recovery = 535.00%#			
58) 1,1,2,2-Tetrachloroethane-	12.08	84	168120	4.82	ug/L	0.00
Spiked Amount 5.000	Range 75 - 131		Recovery = 96.40%			
61) Bromoform-d	11.51	174	103292	5.37	ug/L	0.00
Spiked Amount 5.000	Range 76 - 135		Recovery = 107.40%			
65) 1,2-Dichlorobenzene-d4	13.54	152	344769	5.13	ug/L	0.00
Spiked Amount 5.000	Range 50 - 150		Recovery = 102.60%			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.86	85	904461	5.41	ug/L	99
3) Chloromethane	2.05	50	1256570	5.55	ug/L	98
5) Vinyl Chloride	2.16	62	963095	5.50	ug/L	100
6) Bromomethane	2.47	94	177027	6.46	ug/L	97
8) Chloroethane	2.56	64	543763	5.46	ug/L	98
9) Trichlorofluoromethane	2.80	101	1157387	5.42	ug/L	99
11) 1,1-Dichloroethene	3.27	96	459290	5.65	ug/L #	91
12) 1,1,2-Trichloro-1,2,2-trif	3.27	101	522628	5.67	ug/L	98
13) Acetone	3.29	43	161032	26.33	ug/L	98
14) Carbon Disulfide	3.49	76	1500577	5.88	ug/L	91
15) Methyl Acetate	3.59	43	64728	5.04	ug/L	89
16) Methylene Chloride	3.69	84	394002	5.58	ug/L	100
17) trans-1,2-Dichloroethene	3.96	96	458106	5.34	ug/L	95
18) Methyl tert-Butyl Ether	3.97	73	533184	5.08	ug/L	99
19) 1,1-Dichloroethane	4.36	63	728746	5.64	ug/L	100
21) cis-1,2-Dichloroethene	4.94	96	414368	5.76	ug/L	99
22) 2-Butanone	4.94	43	232538	27.81	ug/L	98
23) Bromochloromethane	5.19	128	131507	5.84	ug/L	94
25) Chloroform	5.26	83	676164	5.56	ug/L	99
27) 1,2-Dichloroethane	5.89	62	287354	5.50	ug/L	100

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

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4109.D Vial: 2
Acq On : 04/02/2003 1017 Operator: AK
Sample : VSTD0054U Inst : E-5973
Misc : EVSTD0054U 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 02 10:39:08 2003 Quant Results File: LCE4109.RES

Quant Method : C:\MSDCHEM\1\METHODS\LCE4109.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Tue Apr 01 10:12:38 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4091.D
DataAcq Meth : VOAC

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
29)	1,1,1-Trichloroethane	5.49	97	713171	5.48 ug/L	99
30)	Cyclohexane	5.57	56	836857	5.61 ug/L	98
31)	Carbon Tetrachloride	5.68	117	618989	5.67 ug/L	99
33)	Benzene	5.90	78	1970276	5.52 ug/L	100
34)	Trichloroethene	6.64	95	427605	5.45 ug/L	98
36)	Methylcyclohexane	6.91	83	932151	5.80 ug/L	100
37)	1,2-Dichloropropane	6.91	63	382630	5.43 ug/L	100
38)	Bromodichloromethane	7.23	83	396042	5.31 ug/L	98
39)	cis-1,3-Dichloropropene	7.82	75	503277	5.56 ug/L	100
40)	4-Methyl-2-Pentanone	8.01	43	519582	25.89 ug/L	100
42)	Toluene	8.30	91	2164668	5.69 ug/L	100
44)	trans-1,3-Dichloropropene	8.57	75	351135	5.58 ug/L	99
45)	1,1,2-Trichloroethane	8.84	97	197499	5.53 ug/L	98
46)	Tetrachloroethene	9.08	164	473098	5.62 ug/L	99
48)	2-Hexanone	9.19	43	352962	26.20 ug/L	98
49)	Dibromochloromethane	9.42	129	224570	5.41 ug/L	100
50)	1,2-Dibromoethane	9.60	107	162786	5.75 ug/L	99
51)	Chlorobenzene	10.36	112	1247863	5.76 ug/L	99
52)	Ethylbenzene	10.54	91	2063915	6.05 ug/L	100
53)	m/p-Xylene	10.73	106	1625011	11.76 ug/L	99
54)	o-Xylene	11.29	106	710579	5.81 ug/L	99
55)	Xylene (total)	11.29	106	710579	5.81 ug/L	99
56)	Styrene	11.31	104	972103	5.72 ug/L	100
57)	Isopropylbenzene	11.77	105	1719275	5.82 ug/L	100
59)	1,1,2,2-Tetrachloroethane	12.11	83	172976	5.67 ug/L	99
62)	Bromoform	11.54	173	111391	5.77 ug/L	97
63)	1,3-Dichlorobenzene	13.12	146	711723	5.95 ug/L	99
64)	1,4-Dichlorobenzene	13.21	146	683050	5.81 ug/L	100
66)	1,2-Dichlorobenzene	13.56	146	553337	5.82 ug/L	100
67)	1,2-Dibromo-3-chloropropan	14.23	75	17146	6.16 ug/L	98
68)	1,2,4-Trichlorobenzene	14.96	180	403462	5.47 ug/L	99
69)	1,2,3-Trichlorobenzene	15.42	180	311588	5.49 ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

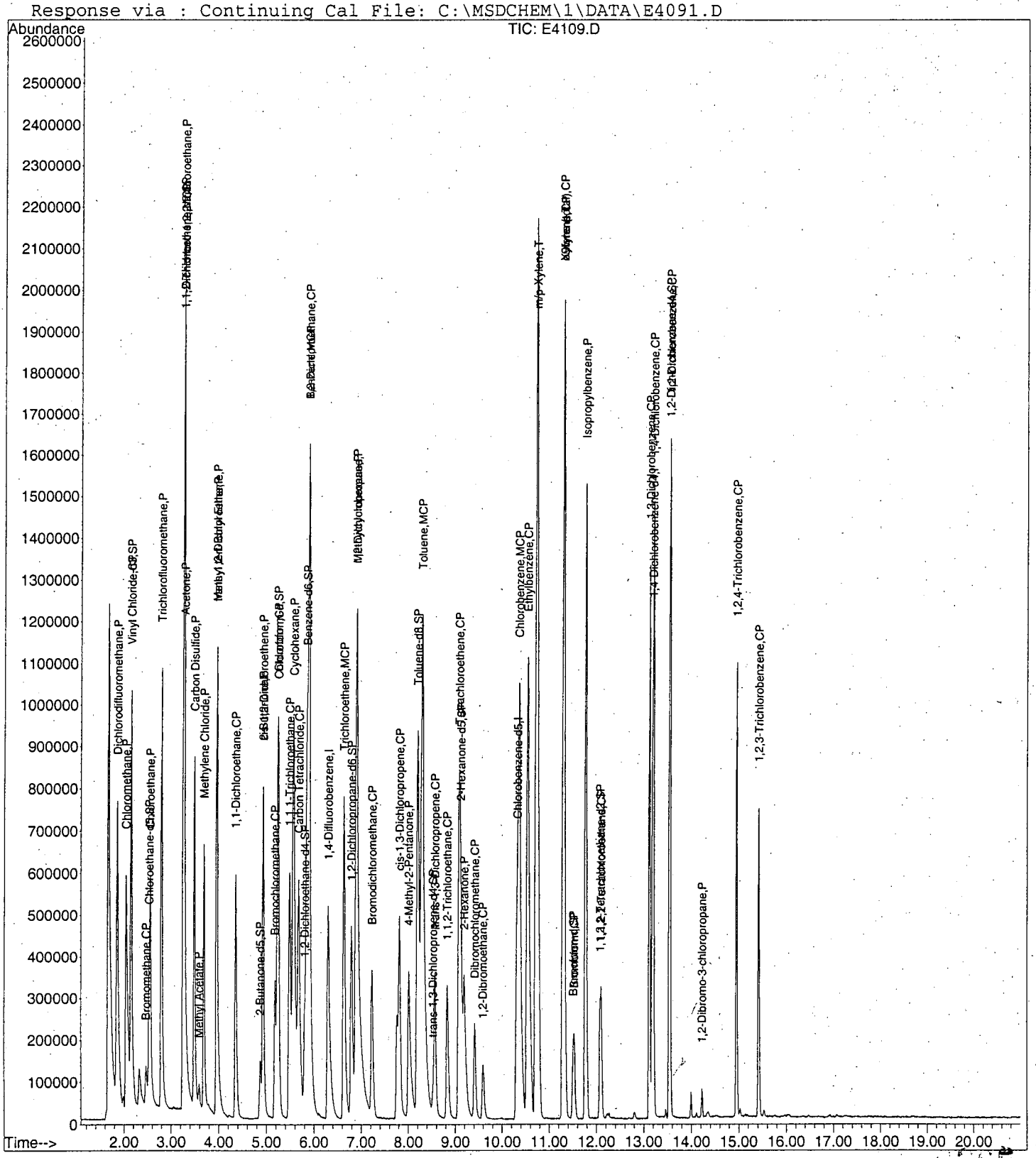
Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4109.D
Acq On : 04/02/2003 1017
Sample : VSTD0054U
Misc : EVSTD0054U 25ML
MS Integration Params: RTEINT.P
Quant Time: Apr 2 10:39 2003

Vial: 2
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Results File: LCE4109.RES

Method : C:\MSDCHEM\1\METHODS\LCE4109.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Wed Apr 02 10:40:01 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4091.D



Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\E4109.D
Acq On : 04/02/2003 1017
Sample : VSTD0054U
Misc : EVSTD0054U 25ML
MS Integration Params: RTEINT.P

Vial: 2
Operator: AK
Inst : E-5973
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\LCE4109.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Wed Apr 02 10:40:01 2003
Response via : Single Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

ORIGINAL COPY
Case: 31512 SDG: E00083
Episode: 2757 Int./Date: 04/02/03

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Difluorobenzene	1.000	1.000	0.0	71	0.00
2	P	Dichlorodifluoromethane	0.718	0.959	-33.6#	111	0.00
3	P	Chloromethane	0.999	1.332	-33.3#	111	0.00
4	SP	Vinyl Chloride-d3	0.432	0.458	-6.0	78	0.00
5	CP	Vinyl Chloride	0.780	1.021	-30.9#	107	0.00
6	CP	Bromomethane	0.174	0.188	-8.0	80	0.00
7	SP	Chloroethane-d5	0.330	0.381	-15.5	78	0.00
8	P	Chloroethane	0.403	0.577	-43.2#	109	0.00
9	P	Trichlorofluoromethane	0.895	1.227	-37.1#	114	0.00
10	SP	1,1-Dichloroethene-d2	0.192	0.191	0.5	73	0.00
11	MCP	1,1-Dichloroethene	0.461	0.487	-5.6	85	0.00
12	P	1,1,2-Trichloro-1,2,2-trifl	0.480	0.554	-15.4	92	0.00
13	P	Acetone	0.032	0.034	-6.3	108	0.00
14	P	Carbon Disulfide	1.449	1.591	-9.8	87	0.00
15	P	Methyl Acetate	0.074	0.069	6.8	90	0.00
16	P	Methylene Chloride	0.502	0.418	16.7	82	0.00
17	P	trans-1,2-Dichloroethene	0.500	0.486	2.8	77	0.00
18	P	Methyl tert-Butyl Ether	0.591	0.565	4.4	77	0.00
19	CP	1,1-Dichloroethane	0.733	0.773	-5.5	84	0.00
20	SP	2-Butanone-d5	0.035	0.043	-22.9	87	0.00
21	P	cis-1,2-Dichloroethene	0.420	0.439	-4.5	84	0.00
22	P	2-Butanone	0.039	0.049	-25.6#	96	0.00
23	CP	Bromochloromethane	0.126	0.139	-10.3	87	0.00
24	SP	Chloroform-d	0.413	0.459	-11.1	79	0.00
25	CP	Chloroform	0.696	0.717	-3.0	82	0.00
26	SP	1,2-Dichloroethane-d4	0.230	0.241	-4.8	75	0.00
27	CP	1,2-Dichloroethane	0.279	0.305	-9.3	87	0.00
28	I	Chlorobenzene-d5	1.000	1.000	0.0	71	0.00
29	CP	1,1,1-Trichloroethane	0.810	0.944	-16.5	91	0.00
30	P	Cyclohexane	0.984	1.107	-12.5	88	0.00
31	CP	Carbon Tetrachloride	0.639	0.819	-28.2	100	0.00
32	SP	Benzene-d6	2.195	2.328	-6.1	76	0.00
33	MCP	Benzene	2.315	2.607	-12.6	88	0.00
34	MCP	Trichloroethene	0.505	0.566	-12.1	89	0.00
35	SP	1,2-Dichloropropane-d6	0.607	0.638	-5.1	77	0.00
36	P	Methylcyclohexane	1.058	1.233	-16.5	90	0.00
37	P	1,2-Dichloropropane	0.453	0.506	-11.7	88	0.00
38	CP	Bromodichloromethane	0.458	0.524	-14.4	90	0.00
39	CP	cis-1,3-Dichloropropene	0.585	0.666	-13.8	89	0.00
40	P	4-Methyl-2-Pentanone	0.105	0.137	-30.5#	97	0.00
41	SP	Toluene-d8	2.121	2.272	-7.1	76	0.00
42	MCP	Toluene	2.494	2.864	-14.8	89	0.00
43	SP	trans-1,3-Dichloropropene-d	0.075	0.079	-5.3	78	0.00
44	CP	trans-1,3-Dichloropropene	0.401	0.465	-16.0	91	0.00
45	CP	1,1,2-Trichloroethane	0.229	0.261	-14.0	91	0.00
46	CP	Tetrachloroethene	0.528	0.626	-18.6	94	0.00
47	SP	2-Hexanone-d5	0.081	0.087	-7.4	77	0.00
48	P	2-Hexanone	0.073	0.093	-27.4#	94	0.00
49	CP	Dibromochloromethane	0.246	0.297	-20.7	93	0.00
50	CP	1,2-Dibromoethane	0.184	0.215	-16.8	93	0.00
51	MCP	Chlorobenzene	1.470	1.651	-12.3	89	0.00
52	CP	Ethylbenzene	2.490	2.731	-9.7	87	0.00
53	T	m/p-Xylene	0.980	1.075	-9.7	88	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\E4109.D Vial: 2
Acq On : 04/02/2003 1017 Operator: AK
Sample : VSTD0054U Inst : E-5973
Misc : EVSTD0054U 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\LCE4109.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Wed Apr 02 10:40:01 2003
Response via : Single Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

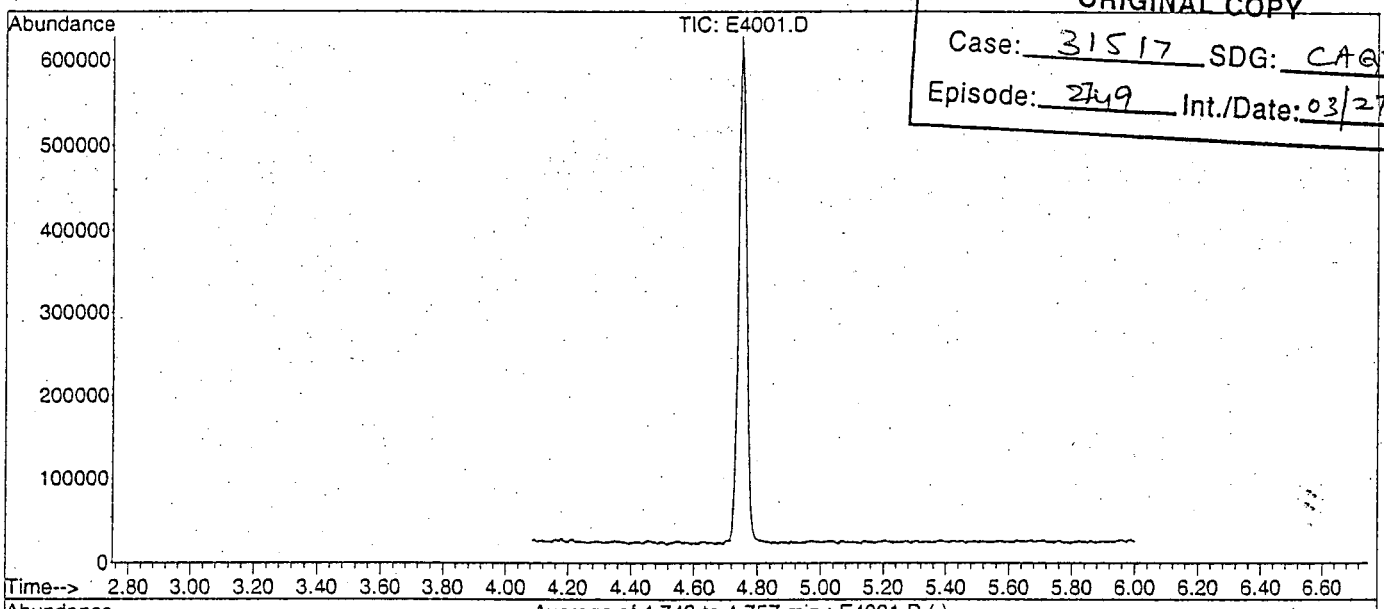
		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
54	T	o-Xylene	0.871	0.940	-7.9	87	0.00
55	CP	Xylene (total)	0.871	0.940	-7.9	87	0.00
56	CP	Styrene	1.203	1.286	-6.9	85	0.00
57	P	Isopropylbenzene	2.142	2.275	-6.2	87	0.00
58	SP	1,1,2,2-Tetrachloroethane-d	0.210	0.222	-5.7	75	0.00
59	CP	1,1,2,2-Tetrachloroethane	0.207	0.229	-10.6	87	0.00
60	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	69	0.00
61	SP	Bromoform-d	0.295	0.385	-30.5#	90	0.00
62	CP	Bromoform	0.327	0.415	-26.9	92	0.00
63	CP	1,3-Dichlorobenzene	2.424	2.651	-9.4	87	0.00
64	CP	1,4-Dichlorobenzene	2.326	2.544	-9.4	86	0.00
65	SP	1,2-Dichlorobenzene-d4	1.243	1.284	-3.3	75	0.00
66	CP	1,2-Dichlorobenzene	1.890	2.061	-9.0	86	0.00
67	P	1,2-Dibromo-3-chloropropane	0.064	0.064	0.0	85	0.00
68	CP	1,2,4-Trichlorobenzene	1.341	1.503	-12.1	88	0.00
69	CP	1,2,3-Trichlorobenzene	1.047	1.161	-10.9	88	0.00

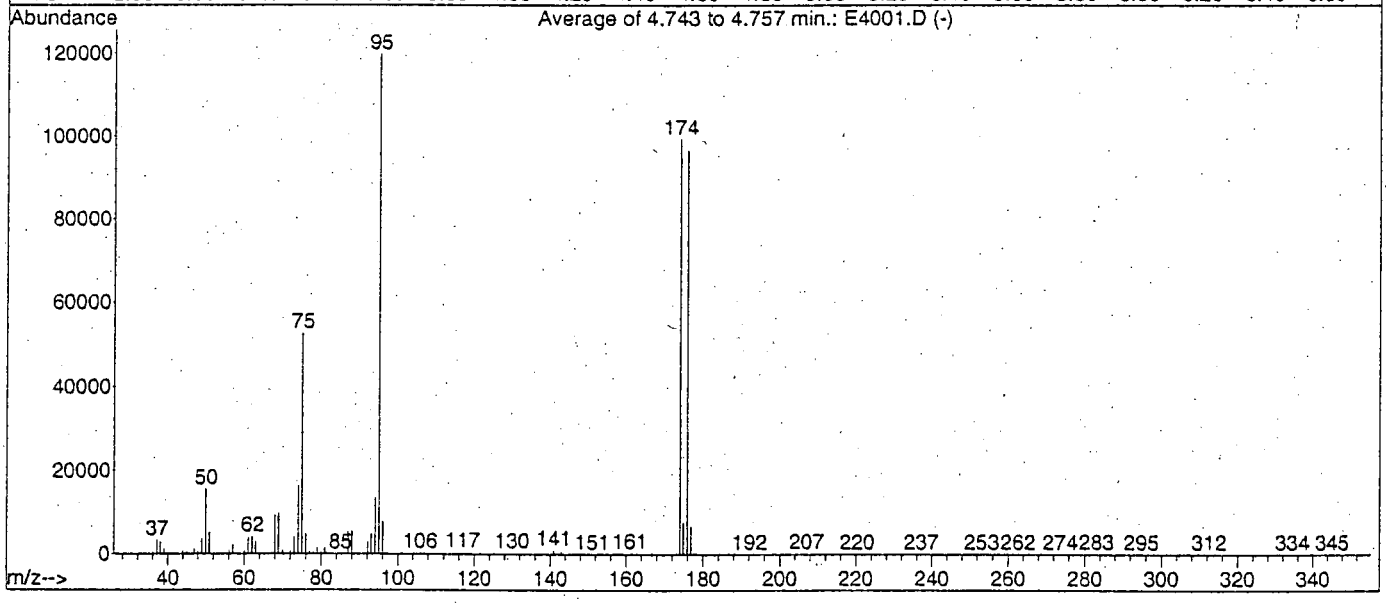
(#) = Out of Range SPCC's out = 0 CCC's out = 1
E4109.D LCE4109.M Wed Apr 02 10:43:08 2003

Data File : C:\MSDCHEM\1\DATA\E4001.D
Acq On : 03/26/2003 1752
Sample : BFB4M
Misc : EBFB4M
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE3996.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

Vial: 1
Operator: AK
Inst : E-5973
Multiplr: 1.00

ORIGINAL COPY
Case: 31517 SDG: CAQZ7
Episode: 2749 Int./Date: 03/27/03
KBA
4/P
3/27/03





AutoFind: Scans 93, 94, 95; Background Corrected with Scan 86

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	13.0	15506	PASS
75	95	30	66	43.8	52467	PASS
95	95	100	100	100.0	119654	PASS
96	95	5	9	6.4	7654	PASS
173	174	0.00	2	0.3	323	PASS
174	95	50	120	83.0	99325	PASS
175	174	4	9	7.6	7505	PASS
176	174	93	101	97.1	96448	PASS
177	176	5	9	6.8	6573	PASS

Data File : C:\MSDCHEM\1\DATA\E4001.D Vial: 1
Acq On : 03/26/2003 1752 Operator: AK
Sample : BFB4M Inst : E-5973
Misc : EBFB4M Multiplr: 1.00

SCAN 86

35.10	69.0
36.10	112.0
38.00	56.0
39.10	142.0
40.00	7999.0
41.10	189.0
41.80	173.0
43.10	179.0
44.00	3731.0
45.00	146.0
46.20	88.0
50.20	64.0
52.60	99.0
54.10	54.0
55.10	394.0
56.10	173.0
57.10	138.0
57.90	53.0
60.10	50.0
66.20	52.0
67.10	189.0
68.20	68.0
69.40	140.0
70.20	120.0
71.00	77.0
71.60	51.0
73.10	233.0
74.40	70.0
75.10	149.0
77.20	113.0
77.90	92.0
79.30	52.0
80.80	79.0
82.00	112.0
84.70	66.0
89.20	134.0
91.00	115.0
95.00	124.0
95.90	215.0
97.30	56.0
103.00	130.0
103.60	58.0
104.10	97.0
105.60	63.0
107.00	67.0
108.30	73.0
110.00	53.0
110.80	61.0
115.20	77.0
116.10	86.0
117.10	94.0
124.00	50.0
124.90	124.0
126.30	103.0
127.30	64.0
130.30	55.0
131.40	119.0
132.90	142.0
133.60	62.0
135.00	72.0
155.50	64.0
158.50	101.0
162.20	64.0
174.90	62.0
190.90	278.0
192.90	253.0
193.90	71.0
195.70	93.0
201.00	56.0
203.00	68.0
204.90	134.0
207.10	1153.0
207.90	251.0
209.10	131.0
210.00	112.0
218.50	57.0
222.30	51.0
233.10	85.0
245.10	80.0
253.00	89.0
267.20	110.0
269.10	117.0
272.00	53.0
281.00	394.0
282.10	70.0
285.20	53.0
286.30	78.0
297.70	60.0
340.90	56.0
341.90	61.0
347.00	73.0
349.90	54.0

SCAN 93

36.10	747.0
37.10	2893.0
38.10	2695.0
39.00	1239.0
40.00	9300.0
41.10	244.0
42.20	85.0
43.30	109.0
44.00	4617.0
45.00	744.0
46.20	105.0
47.10	891.0
47.90	526.0
49.10	3225.0
50.10	14074.0
51.00	5511.0
52.10	332.0
53.90	60.0
55.10	408.0
56.10	1265.0
57.10	2798.0
58.10	182.0
60.10	532.0
61.00	3744.0
62.10	3839.0
63.00	2115.0
64.00	537.0
65.10	124.0
66.70	136.0
67.20	295.0
68.00	8106.0
69.00	9250.0
70.10	811.0
72.00	489.0
73.00	3489.0
74.00	14907.0
75.10	45728.0
76.00	4488.0
77.10	998.0
77.90	497.0
79.00	1258.0
80.00	269.0
80.90	1440.0
81.90	224.0
82.80	130.0
83.00	127.0
83.90	100.0
85.00	69.0
85.20	80.0
87.00	4257.0
88.00	4438.0
90.90	441.0
92.00	2999.0
93.00	4730.0
94.00	11399.0
95.00	103208.0
96.10	6832.0
96.90	118.0
97.90	60.0
98.80	115.0
101.20	55.0
101.40	65.0
102.90	70.0
103.90	129.0
105.00	140.0
105.90	305.0
106.80	128.0
107.20	74.0
109.50	58.0
110.20	55.0
110.90	86.0
112.10	103.0
115.00	60.0
115.90	304.0
116.90	347.0
117.80	292.0
119.00	425.0
123.90	141.0
126.30	75.0
126.90	69.0
127.90	215.0
128.90	231.0
130.00	289.0
131.00	303.0
133.20	243.0
135.10	170.0
135.80	102.0
137.20	137.0
140.10	57.0
140.90	750.0
141.40	140.0
141.70	118.0
142.10	96.0
143.00	604.0
143.80	85.0
145.10	130.0
146.00	211.0
146.90	223.0
148.10	200.0
149.00	107.0
149.90	81.0
151.00	110.0
153.10	120.0
153.90	88.0
154.80	302.0
156.00	146.0
156.90	219.0
160.90	216.0
163.10	72.0
166.80	62.0
168.00	52.0
172.00	90.0
172.90	216.0
174.00	75912.0
174.90	6068.0
175.90	73480.0

Data File : C:\MSDCHEM\1\DATA\E4001.D Vial: 1
Acq On : 03/26/2003 1752 Operator: AK
Sample : BFB4M Inst : E-5973
Misc : EBFB4M Multiplr: 1.00

		61.00	4149.0	118.00	331.0	179.00	57.0
176.90	5065.0	62.00	4674.0	118.90	685.0	182.60	52.0
178.10	141.0	63.10	3269.0	119.80	123.0	185.40	50.0
184.20	71.0	64.00	462.0	121.90	87.0	186.10	133.0
190.70	80.0	65.10	113.0	122.90	55.0	192.10	139.0
193.10	103.0	66.40	69.0	124.20	93.0	193.00	78.0
201.10	72.0	67.00	271.0	125.10	150.0	193.40	59.0
207.10	1187.0	68.00	9987.0	126.00	60.0	194.30	52.0
207.90	208.0	69.00	11028.0	126.70	114.0	197.10	72.0
208.40	138.0			127.80	536.0	199.90	61.0
209.10	255.0	70.00	1013.0	129.00	197.0	205.70	53.0
213.30	61.0	71.10	217.0	129.90	375.0	207.00	1304.0
216.10	73.0	72.10	852.0	130.50	123.0	208.10	266.0
220.30	89.0	73.00	4525.0	131.00	178.0	209.00	363.0
223.40	70.0	74.00	17704.0	132.10	81.0	222.40	97.0
237.20	57.0			133.00	276.0	241.00	56.0
239.10	53.0	75.00	59336.0	134.20	97.0	252.90	68.0
252.00	51.0			134.80	357.0	254.40	58.0
264.70	60.0	76.00	5275.0	136.00	80.0	273.70	84.0
269.20	205.0	77.00	872.0	136.90	146.0	281.00	341.0
273.60	71.0	78.10	636.0	139.10	61.0	283.00	67.0
277.70	56.0	79.00	1770.0	139.90	164.0	321.10	52.0
281.20	472.0	80.00	576.0	141.00	1252.0	334.60	97.0
282.10	68.0	81.00	1664.0	142.00	145.0	343.10	59.0
283.10	184.0	81.90	429.0	143.10	834.0	SCAN 95	
289.70	82.0	83.00	121.0	145.00	226.0	36.10	523.0
294.80	82.0	83.80	99.0	145.80	280.0	37.10	3284.0
318.40	73.0	86.00	255.0	147.00	290.0	38.00	2749.0
329.00	62.0	87.00	5843.0	147.90	369.0	39.10	1155.0
345.20	52.0	88.00	5834.0	148.90	157.0	40.00	7721.0
SCAN 94		89.80	120.0	150.00	340.0	41.00	479.0
36.00	655.0	91.00	350.0	151.10	122.0	42.20	120.0
37.10	3658.0	92.10	2911.0	152.00	131.0	43.00	202.0
38.10	3505.0	93.00	5579.0	152.80	142.0	44.00	4171.0
39.00	1645.0	94.00	16720.0	153.90	123.0	45.00	427.0
40.00	8159.0			155.00	303.0	46.00	82.0
41.00	389.0	95.00	136192.0	156.20	117.0	47.00	1047.0
43.00	445.0			156.90	269.0	48.10	503.0
44.00	4433.0	96.00	9714.0	157.90	128.0	49.00	3092.0
45.10	707.0	97.20	363.0	158.90	157.0	50.00	14221.0
46.00	280.0	98.20	57.0	160.90	217.0		
47.00	1633.0	102.90	77.0	161.80	104.0	51.10	5108.0
48.00	255.0	104.00	119.0	163.20	106.0	52.00	210.0
49.10	4184.0	104.90	247.0	165.90	95.0	53.00	69.0
50.00	18416.0	105.90	275.0	166.80	91.0	55.00	405.0
		106.70	94.0	171.80	159.0	56.10	1044.0
51.00	5005.0	106.90	103.0	173.00	755.0	57.00	1757.0
52.00	255.0	109.10	107.0	174.00	113232.0	57.90	91.0
54.80	378.0	110.00	119.0			58.20	110.0
56.10	1025.0	112.00	81.0	175.00	8121.0	60.10	784.0
57.00	2574.0	113.10	135.0	176.00	108712.0	61.10	3335.0
58.00	181.0	114.90	249.0			62.00	3866.0
58.60	173.0	115.80	363.0	177.00	7792.0	63.10	3237.0
60.00	955.0	116.90	849.0	178.10	281.0	64.20	310.0

Data File : C:\MSDCHEM\1\DATA\E4001.D Vial: 1
Acq On : 03/26/2003 1752 Operator: AK
Sample : BFB4M Inst : E-5973
Misc : EBFB4M Multiplr: 1.00

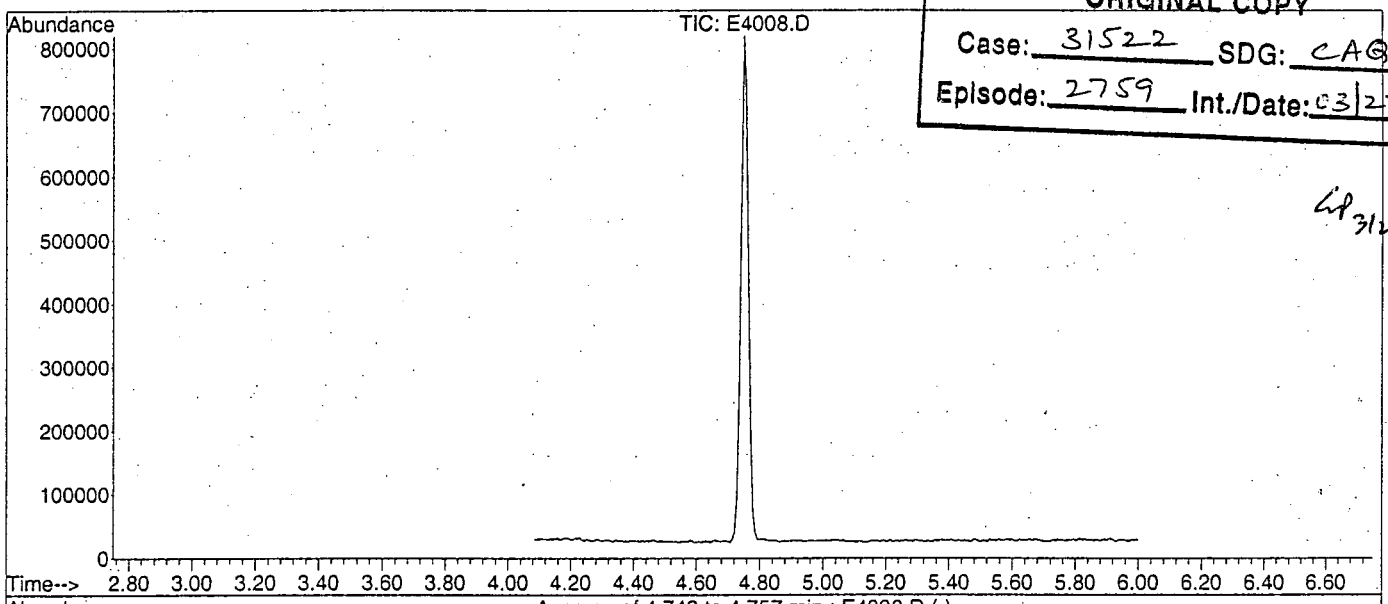
67.00	297.0	125.20	53.0	214.40	75.0
68.00	9764.0	128.10	477.0	221.00	82.0
69.00	8674.0	129.00	251.0	222.00	50.0
70.00	855.0	130.00	345.0	224.00	70.0
71.00	100.0	130.70	135.0	225.40	89.0
72.00	628.0	133.00	175.0	239.80	57.0
73.00	4354.0	133.60	109.0	240.10	51.0
74.00	16102.0	134.90	238.0	253.10	69.0
		135.90	133.0	262.60	65.0
75.00	52784.0	136.90	196.0	266.20	70.0
		138.40	91.0	269.30	198.0
76.10	4778.0	139.80	121.0	281.20	511.0
77.00	597.0	140.90	851.0	282.30	236.0
77.90	334.0	142.10	155.0	283.00	50.0
78.90	1140.0	142.90	742.0	290.40	77.0
80.00	429.0	144.00	64.0	302.50	54.0
81.00	1229.0	145.00	125.0	312.50	81.0
81.90	341.0	145.90	202.0	327.30	65.0
83.20	196.0	147.00	146.0	334.40	96.0
84.10	68.0	147.90	304.0	343.30	85.0
85.00	67.0	148.90	156.0		
86.00	155.0	149.80	141.0		
87.00	6013.0	153.90	212.0		
88.00	6038.0	155.00	268.0		
88.90	100.0	156.00	157.0		
89.60	113.0	156.60	100.0		
91.00	480.0	157.00	186.0		
92.00	2331.0	158.00	183.0		
93.00	4021.0	159.10	111.0		
94.00	12073.0	160.90	312.0		
		163.00	52.0		
95.00	119936.0	163.80	58.0		
		171.80	59.0		
96.00	7061.0	172.10	119.0		
96.90	302.0	174.00	108832.0		
98.20	66.0				
103.90	601.0	175.00	8513.0		
104.40	116.0	176.00	107152.0		
104.90	270.0				
105.90	304.0	177.00	6864.0		
106.80	188.0	178.00	448.0		
109.20	50.0	178.70	94.0		
110.10	242.0	187.40	52.0		
111.10	116.0	191.00	150.0		
111.90	77.0	193.20	77.0		
113.10	64.0	200.20	187.0		
114.90	175.0	200.70	74.0		
115.20	153.0	206.00	83.0		
116.00	221.0	207.10	1587.0		
117.00	666.0	207.90	146.0		
117.90	275.0	209.00	269.0		
119.00	276.0	210.20	54.0		
121.60	70.0	211.00	50.0		
124.00	143.0	213.70	51.0		

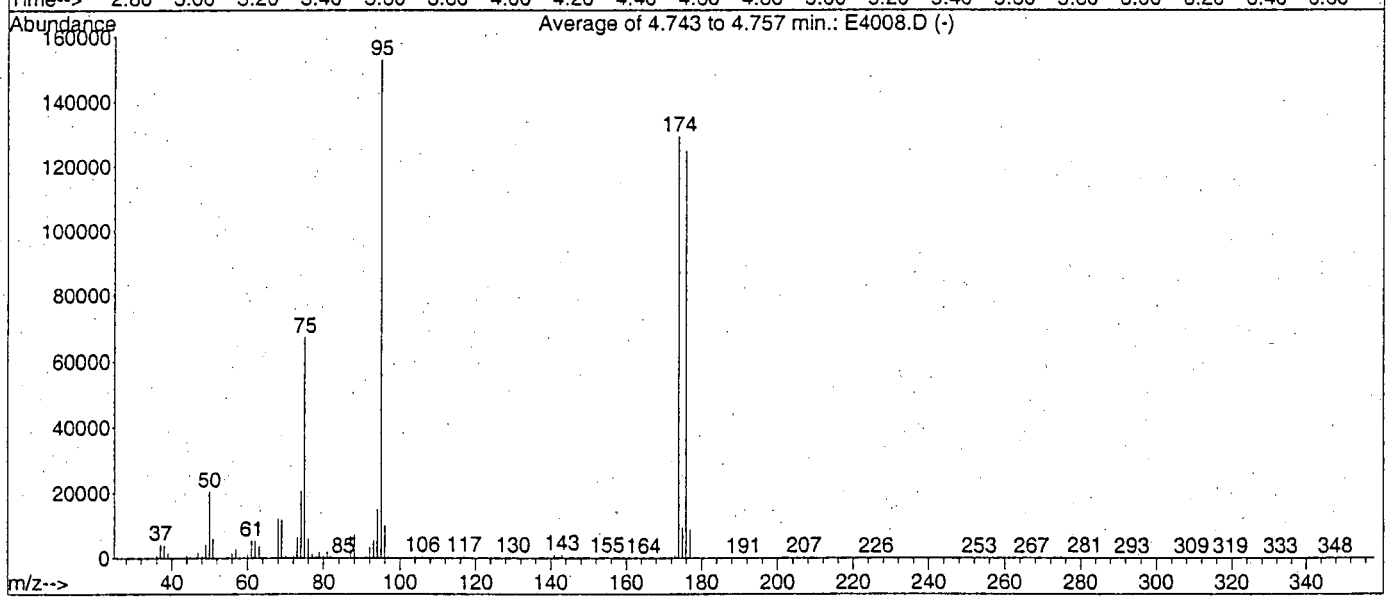
CLPBFB

Data File : C:\MSDCHEM\1\DATA\E4008.D
Acq On : 03/27/2003 0753
Sample : BFB4N
Misc : EBFB4N
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4004.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

Vial: 1
Operator: AK
Inst : E-5973
Multiplr: 1.00

ORIGINAL COPY
Case: 31522 SDG: CAQR2
Episode: 2759 Int./Date: 03/27/03
KAM
LP 3/27/03





AutoFind: Scans 93, 94, 95; Background Corrected with Scan 84

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	13.4	20474	PASS
75	95	30	66	43.9	67157	PASS
95	95	100	100	100.0	152848	PASS
96	95	5	9	6.6	10020	PASS
173	174	0.00	2	0.6	784	PASS
174	95	50	120	84.6	129312	PASS
175	174	4	9	7.1	9243	PASS
176	174	93	101	96.6	124925	PASS
177	176	5	9	6.9	8597	PASS

Data File : C:\MSDCHEM\1\DATA\E4008.D Vial: 1
Acq On : 03/27/2003 0753 Operator: AK
Sample : BFB4N Inst : E-5973
Misc : EBFB4N Multiplr: 1.00

SCAN 84

36.50	59.0	127.00	130.0	37.10	3627.0	84.10	204.0
37.10	71.0	129.20	66.0	38.10	3220.0	85.00	180.0
39.20	183.0	129.40	60.0	39.10	1219.0	86.10	338.0
40.00	8497.0	131.00	58.0	40.00	7684.0	87.00	5941.0
41.10	560.0	133.10	338.0	41.20	268.0	88.00	5574.0
42.10	163.0	136.20	56.0	42.00	152.0	90.10	109.0
43.00	372.0	140.00	73.0	43.00	155.0	90.90	375.0
44.00	4003.0	147.10	61.0	43.30	157.0	92.00	2477.0
44.90	237.0	150.00	68.0	44.00	4353.0	93.00	4080.0
45.90	103.0	151.10	71.0	45.00	836.0	94.00	12718.0
49.00	51.0	155.70	149.0	45.90	117.0		
49.90	158.0	156.90	51.0	47.00	1250.0	95.00	126320.0
51.00	125.0	159.90	85.0	48.10	532.0		
52.00	63.0	163.50	64.0	49.10	3157.0	96.10	8796.0
53.10	151.0	165.10	73.0	50.00	17872.0	97.00	246.0
54.00	152.0	167.40	86.0			97.90	64.0
55.10	233.0	168.40	80.0	51.00	6180.0	99.00	77.0
56.10	209.0	175.80	67.0	52.00	286.0	102.00	62.0
57.00	534.0	176.40	60.0	52.60	61.0	103.10	121.0
58.90	58.0	183.00	58.0	53.30	68.0	104.00	321.0
61.70	87.0	191.10	79.0	55.10	802.0	104.80	97.0
66.00	65.0	193.00	52.0	56.00	1825.0	105.30	79.0
68.10	112.0	193.70	79.0	57.00	2694.0	105.90	477.0
68.90	224.0	207.00	1180.0	57.90	120.0	106.90	82.0
70.10	385.0	208.00	351.0	58.70	96.0	107.80	59.0
71.00	147.0	209.00	169.0	60.00	917.0	109.30	62.0
73.20	165.0	213.20	50.0	61.00	4653.0	110.40	205.0
74.00	186.0	217.20	50.0	62.00	4496.0	111.10	92.0
74.90	132.0	218.90	61.0	63.00	3224.0	112.00	163.0
75.10	132.0	221.30	105.0	64.10	382.0	112.90	213.0
76.00	68.0	230.60	67.0	65.10	222.0	114.90	174.0
77.00	92.0	236.30	53.0	65.80	119.0	116.00	453.0
78.00	240.0	237.10	55.0	67.10	480.0	117.00	485.0
78.80	205.0	247.00	99.0	68.00	10669.0	117.90	342.0
82.90	99.0	251.20	97.0			118.90	451.0
85.70	59.0	253.70	55.0	69.00	10592.0	119.90	71.0
87.20	91.0	256.70	78.0			121.10	141.0
88.80	79.0	274.90	56.0	70.00	1168.0	123.90	102.0
90.20	52.0	275.90	64.0	70.90	134.0	125.10	84.0
93.10	60.0	280.20	135.0	71.10	136.0	125.50	50.0
93.90	191.0	281.00	545.0	72.00	715.0	126.20	71.0
95.90	188.0	282.10	53.0	73.00	5262.0	126.90	78.0
98.10	50.0	283.20	132.0	74.00	15717.0	128.00	338.0
103.20	75.0	296.30	58.0			128.80	90.0
105.00	82.0	307.40	106.0	75.00	57544.0	130.00	234.0
107.40	55.0	315.20	78.0			130.80	196.0
110.40	150.0	321.50	60.0	76.00	5585.0	132.10	59.0
111.00	61.0	329.20	96.0	77.00	1039.0	133.00	373.0
112.10	114.0	334.20	70.0	78.10	991.0	134.30	64.0
117.00	129.0	341.20	77.0	79.00	1421.0	134.90	182.0
118.00	86.0	343.20	80.0	79.90	298.0	136.10	52.0
119.10	133.0	SCAN 93		81.00	1561.0	137.00	194.0
120.10	157.0	35.30	51.0	82.00	401.0	138.40	126.0
		36.00	947.0	83.00	142.0	138.80	60.0

Data File : C:\MSDCHEM\1\DATA\E4008.D Vial: 1
Acq On : 03/27/2003 0753 Operator: AK
Sample : BFB4N Inst : E-5973
Misc : EBFB4N Multiplr: 1.00

139.30	58.0	265.10	77.0			130.00	444.0
140.10	132.0	267.00	132.0	75.00	76792.0	130.90	197.0
141.00	448.0	269.20	73.0			132.10	103.0
141.90	189.0	274.20	72.0	76.00	6782.0	133.00	300.0
143.00	737.0	280.90	465.0	77.10	1558.0	135.10	286.0
143.80	90.0	282.10	131.0	78.00	771.0	136.90	273.0
145.00	215.0	283.10	73.0	78.90	2647.0	138.90	87.0
145.80	116.0	289.60	107.0	80.00	794.0	139.90	168.0
147.00	252.0	303.50	89.0	80.90	2255.0	140.90	1373.0
147.80	216.0	308.60	74.0	81.90	521.0	142.00	250.0
149.00	60.0	319.60	73.0	83.10	201.0	142.90	1329.0
149.90	147.0	341.00	79.0	84.10	168.0	144.20	68.0
151.20	69.0	343.20	111.0	85.10	284.0	145.10	56.0
151.80	186.0	SCAN 94		86.00	70.0	145.90	191.0
154.10	153.0	36.00	827.0	87.00	7493.0	147.00	80.0
154.90	310.0	37.00	5382.0	88.00	8308.0	147.90	178.0
155.10	298.0	38.00	4531.0	89.10	91.0	148.80	207.0
156.00	78.0	39.10	2046.0	91.00	462.0	149.80	165.0
157.00	367.0	40.00	8374.0	92.00	3774.0	151.70	63.0
158.00	236.0	41.00	361.0	93.00	6570.0	152.90	205.0
158.70	83.0	42.20	203.0	94.00	17408.0	154.00	179.0
158.90	86.0	43.10	446.0			154.90	375.0
161.10	222.0	44.00	5174.0	95.00	178048.0	156.00	300.0
162.20	65.0	45.10	807.0			157.10	415.0
165.10	54.0	47.00	2298.0	96.00	11356.0	157.90	244.0
172.00	154.0	48.00	668.0			159.00	168.0
172.90	643.0	49.00	5158.0	97.10	713.0	160.90	314.0
174.00	93600.0	50.00	23808.0	97.80	97.0	163.10	95.0
				101.10	61.0	164.60	51.0
174.90	6026.0	51.00	7013.0	102.80	114.0	170.10	71.0
175.90	90944.0	51.90	414.0	103.20	97.0	172.10	226.0
		53.10	250.0	103.90	560.0	173.00	1044.0
177.00	6265.0	55.00	519.0	105.00	381.0	173.90	150016.0
178.00	205.0	56.00	1769.0	105.90	363.0		
182.40	63.0	57.10	3882.0	106.90	294.0	175.00	11712.0
183.10	84.0	58.00	132.0	111.00	253.0		
191.00	195.0	59.20	94.0	111.60	139.0	175.90	143360.0
191.80	93.0	60.00	1300.0	113.00	152.0		
192.90	70.0	61.10	6503.0	115.00	269.0	177.00	10029.0
197.30	53.0	62.00	6024.0	116.00	484.0		
197.80	79.0	63.00	4090.0	117.00	937.0	177.90	108.0
203.30	71.0	64.00	553.0	117.90	649.0	178.10	118.0
207.00	1177.0	65.00	332.0	119.00	750.0	178.90	181.0
208.00	115.0	66.00	88.0	120.20	137.0	179.80	56.0
209.00	593.0	67.00	430.0	120.90	53.0	183.90	62.0
210.10	198.0	68.00	14116.0	122.40	82.0	188.30	53.0
220.10	91.0			122.90	214.0	190.60	86.0
228.60	68.0	69.00	13913.0	123.60	61.0	191.00	96.0
229.30	55.0			125.00	95.0	193.10	91.0
245.30	77.0	70.10	1197.0	125.80	50.0	205.10	82.0
248.40	75.0	70.90	262.0	126.30	117.0	207.10	1557.0
248.90	79.0	72.10	681.0	127.10	244.0	208.00	420.0
252.90	88.0	73.00	7200.0	127.80	354.0	208.90	340.0
253.90	90.0	74.00	24896.0	128.90	196.0	210.10	80.0

Data File : C:\MSDCHEM\1\DATA\E4008.D Vial: 1
Acq On : 03/27/2003 0753 Operator: AK
Sample : BFB4N Inst : E-5973
Misc : EBFB4N Multiplr: 1.00

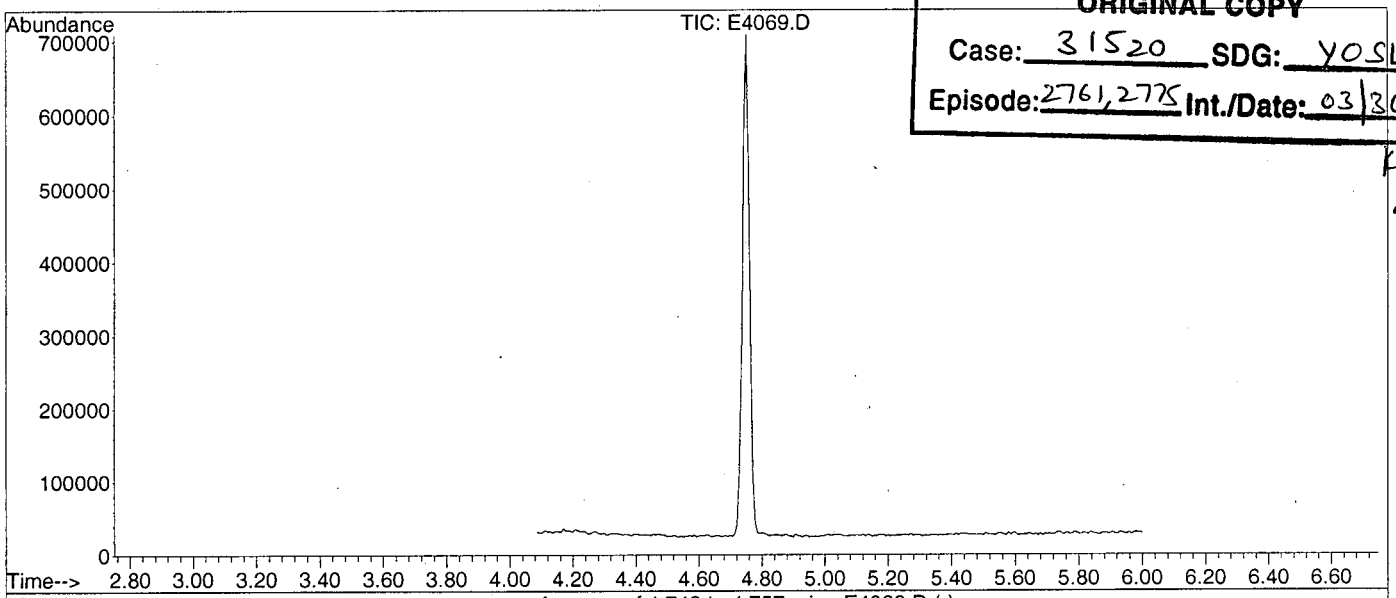
215.90	60.0	70.00	1238.0	125.90	124.0	209.10	152.0
219.00	76.0	71.20	288.0	127.90	332.0	218.10	50.0
220.10	58.0	72.00	749.0	128.90	258.0	220.90	63.0
221.10	86.0	73.00	6451.0	130.00	372.0	225.90	127.0
224.20	57.0	74.00	21752.0	131.00	245.0	232.50	50.0
226.10	78.0			133.10	69.0	236.20	96.0
253.20	82.0	75.00	67928.0	133.80	131.0	249.90	115.0
256.10	97.0			134.90	286.0	253.30	80.0
261.00	86.0	76.10	5741.0	136.90	202.0	254.80	85.0
267.10	63.0	77.00	1297.0	138.00	134.0	257.40	57.0
269.10	123.0	78.00	708.0	139.10	179.0	258.30	53.0
281.10	204.0	78.90	2128.0	139.80	123.0	259.40	54.0
281.90	193.0	80.00	719.0	140.10	113.0	264.20	55.0
283.10	138.0	80.90	1878.0	141.00	1142.0	265.00	120.0
286.40	116.0	82.00	466.0	141.70	63.0	266.90	78.0
293.50	64.0	83.10	265.0	142.00	95.0	269.20	50.0
301.00	99.0	84.00	125.0	142.90	997.0	269.70	50.0
317.10	86.0	85.20	129.0	143.90	57.0	281.10	510.0
342.20	61.0	86.00	173.0	145.00	93.0	282.00	225.0
SCAN 95		87.00	6945.0	146.00	242.0	283.50	50.0
36.10	779.0	88.00	7374.0	146.90	177.0	293.60	59.0
37.00	3356.0	89.20	128.0	147.90	272.0	295.70	57.0
38.00	4046.0	91.00	227.0	149.90	203.0	309.20	155.0
39.10	1934.0	91.30	186.0	151.20	80.0	309.80	65.0
40.00	7908.0	92.00	3836.0	152.10	67.0	316.70	77.0
41.00	464.0	93.00	5010.0	152.90	126.0	318.00	68.0
42.00	154.0	94.00	15530.0	153.70	81.0	325.70	53.0
43.10	577.0			154.30	75.0	328.30	60.0
44.00	5094.0	95.00	154176.0	154.90	419.0	330.70	55.0
45.00	656.0			155.80	173.0	333.00	71.0
46.00	164.0	96.00	10473.0	156.90	349.0	347.80	56.0
47.00	1856.0			158.00	206.0		
48.00	675.0	97.00	313.0	159.00	283.0		
49.00	4210.0	98.20	84.0	160.20	124.0		
50.10	20216.0	100.60	50.0	161.00	186.0		
		100.90	52.0	161.70	88.0		
51.10	4992.0	102.90	154.0	164.10	125.0		
51.90	159.0	104.00	791.0	164.90	63.0		
53.10	92.0	105.00	160.0	170.10	56.0		
55.00	440.0	106.00	453.0	172.00	217.0		
56.00	1368.0	107.20	147.0	172.90	665.0		
57.00	3212.0	109.80	82.0	173.90	144320.0		
58.10	92.0	111.10	178.0				
60.00	1168.0	111.90	82.0	175.00	9993.0		
61.00	4696.0	112.80	137.0	175.90	140672.0		
62.00	5158.0	114.80	98.0				
63.10	3797.0	115.70	187.0	177.00	9497.0		
63.90	356.0	116.20	231.0	178.10	197.0		
65.00	261.0	116.90	686.0	181.20	105.0		
67.10	323.0	118.00	245.0	189.10	59.0		
68.00	11725.0	119.00	669.0	190.80	148.0		
		120.30	103.0	193.50	72.0		
69.00	11634.0	123.30	60.0	207.00	1457.0		
		124.00	188.0	207.90	412.0		

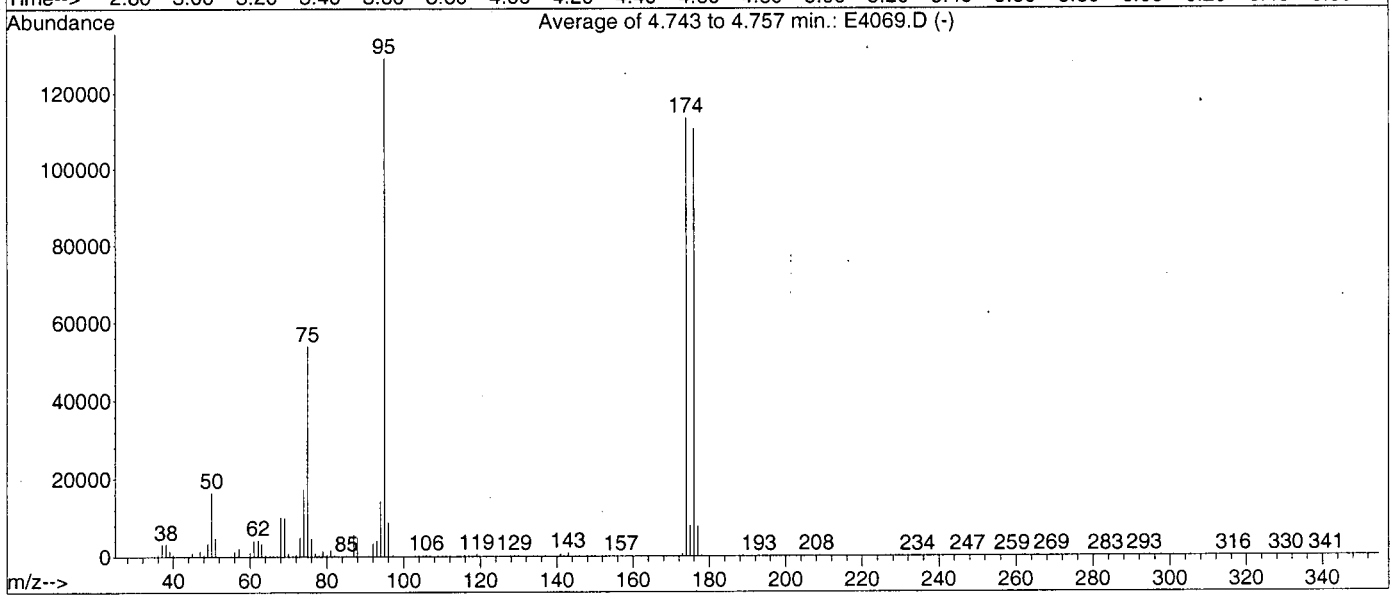
CLPBFB

Data File : C:\MSDCHEM\1\DATA\E4069.D
Acq On : 03/30/2003 1138
Sample : BFB4R
Misc : EBFB4R 50NG
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

Vial: 1
Operator: AK
Inst : E-5973
Multiplr: 1.00

ORIGINAL COPY
Case: 31520 SDG: YOSL3
Episode: 2761, 2775 Int./Date: 03/30/03
KA
WP





AutoFind: Scans 93, 94, 95; Background Corrected with Scan 83

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	12.8	16492	PASS
75	95	30	66	41.8	53928	PASS
95	95	100	100	100.0	129129	PASS
96	95	5	9	6.9	8900	PASS
173	174	0.00	2	0.6	688	PASS
174	95	50	120	87.9	113554	PASS
175	174	4	9	6.9	7839	PASS
176	174	93	101	97.5	110706	PASS
177	176	5	9	6.9	7684	PASS

0276

E4069.D LCE4070.M Sun Mar 30 13:12:01 2003

Data File : C:\MSDCHEM\1\DATA\E4069.D Vial: 1
Acq On : 03/30/2003 1138 Operator: AK
Sample : BFB4R Inst : E-5973
Misc : EBFB4R 50NG Multiplr: 1.00

SCAN 83

35.90	75.0
37.00	176.0
39.00	202.0
40.00	7686.0
41.10	453.0
42.10	296.0
43.00	578.0
44.00	3962.0
46.00	64.0
50.10	106.0
51.20	156.0
52.20	62.0
53.10	61.0
54.00	70.0
55.10	378.0
56.00	285.0
57.10	474.0
58.20	56.0
59.90	56.0
63.20	81.0
65.30	75.0
67.00	129.0
68.30	159.0
69.10	198.0
70.00	235.0
71.10	215.0
72.20	58.0
73.00	149.0
74.10	51.0
75.20	208.0
76.10	83.0
77.00	168.0
78.00	439.0
78.80	53.0
82.30	119.0
82.90	133.0
84.00	134.0
86.80	97.0
87.90	82.0
91.10	79.0
93.80	123.0
95.10	97.0
96.40	59.0
96.80	102.0
99.20	168.0
101.10	57.0
102.20	65.0
104.00	77.0
108.00	93.0
110.10	63.0
112.10	73.0
112.90	124.0
116.90	73.0
118.00	98.0
124.50	78.0
126.30	67.0
127.80	146.0
129.10	134.0
130.90	141.0
132.90	122.0
135.00	66.0
139.10	68.0
143.00	52.0
144.00	85.0
146.10	102.0
146.80	67.0
148.20	51.0
153.10	62.0
156.20	64.0
163.00	81.0
176.70	125.0
179.00	93.0
179.90	86.0
181.40	57.0
183.40	53.0
184.60	56.0
191.00	134.0
192.00	113.0
194.90	53.0
202.90	67.0
204.10	79.0
207.10	1131.0
208.10	85.0
209.10	300.0
216.20	58.0
235.20	53.0
245.10	73.0
247.90	52.0
249.10	102.0
254.10	61.0
254.30	58.0
254.90	105.0
256.60	67.0
266.80	144.0
281.30	303.0
282.20	95.0
333.90	71.0
341.40	93.0

SCAN 93

35.20	62.0
36.00	747.0
37.00	3624.0
38.10	3175.0
39.10	1676.0
40.00	7870.0
41.10	481.0
42.10	173.0
43.00	382.0
44.00	3534.0
45.00	832.0
45.90	154.0
47.00	1593.0
48.00	541.0
49.10	3357.0
50.10	16371.0
51.00	4754.0
51.90	127.0
53.10	160.0
54.10	198.0
55.00	533.0
56.00	1424.0
57.00	2588.0
58.20	111.0
58.70	66.0
60.00	1158.0
61.00	4229.0
62.10	4627.0
63.10	3482.0
64.10	258.0
64.90	73.0
65.80	137.0
67.00	308.0
68.00	10775.0
69.00	9480.0
70.10	1035.0
71.10	328.0
72.00	509.0
73.00	4368.0
74.00	17816.0
75.00	54368.0
76.00	5356.0
77.10	993.0
78.00	793.0
78.90	1308.0
80.00	468.0
81.00	1609.0
81.90	225.0
82.10	224.0
83.20	232.0
84.10	70.0
85.00	182.0
86.00	227.0
87.00	5663.0
87.90	4760.0
89.10	66.0
91.00	296.0
92.00	3491.0
93.00	3952.0
94.00	13715.0
95.00	124736.0
96.00	8553.0
97.20	387.0
98.70	68.0
99.10	53.0
100.80	82.0
103.00	99.0
104.00	367.0
105.30	166.0
105.90	328.0
106.90	153.0
110.20	119.0
111.00	113.0
112.10	109.0
113.00	98.0
114.10	115.0
115.90	247.0
116.90	371.0
117.80	235.0
119.10	442.0
120.10	81.0
123.00	114.0
124.10	193.0
124.70	75.0
126.00	193.0
127.10	92.0
127.90	295.0
128.80	270.0
130.00	282.0
130.90	154.0
133.00	313.0
134.00	84.0
134.70	68.0
135.10	107.0
136.90	280.0
139.10	96.0
139.90	67.0
140.80	1058.0
141.80	166.0
143.00	630.0
145.80	81.0
147.10	152.0
147.90	356.0
149.10	121.0
149.90	126.0
151.90	83.0
153.00	95.0
153.70	173.0
154.30	57.0
154.80	266.0

Data File : C:\MSDCHEM\1\DATA\E4069.D Vial: 1
Acq On : 03/30/2003 1138 Operator: AK
Sample : BFB4R Inst : E-5973
Misc : EBFB4R 50NG Multiplr: 1.00

155.30	140.0	44.90	1348.0	95.00	149184.0	155.00	390.0
155.90	139.0	47.10	1298.0			155.90	184.0
156.90	266.0	48.00	452.0	96.00	11137.0	156.90	357.0
158.90	246.0	49.00	4060.0			157.90	70.0
161.10	278.0	50.00	20120.0	97.30	484.0	158.80	95.0
162.70	54.0			98.90	106.0	161.00	258.0
172.10	214.0	51.10	5929.0	99.40	61.0	163.80	91.0
172.90	491.0	52.10	296.0	101.10	113.0	164.60	108.0
174.00	98904.0	53.00	164.0	103.00	91.0	165.80	77.0
		54.10	212.0	103.80	420.0	167.20	80.0
174.90	7313.0	55.20	653.0	105.10	227.0	171.80	141.0
176.00	95664.0	56.00	1926.0	105.90	419.0	173.00	711.0
		57.10	3138.0	108.00	76.0	174.00	134592.0
177.00	6364.0	58.00	143.0	109.00	83.0		
178.10	62.0	59.20	95.0	109.70	97.0	174.90	9249.0
179.90	60.0	60.10	1018.0	111.10	206.0	175.90	130352.0
184.40	101.0	61.00	4922.0	111.90	153.0		
185.90	70.0	62.10	4714.0	112.20	138.0	177.00	9169.0
188.20	60.0	63.10	3924.0	113.10	85.0	178.00	285.0
191.00	204.0	64.00	537.0	114.00	127.0	182.60	53.0
192.00	60.0	65.20	246.0	114.80	151.0	187.80	175.0
193.10	96.0	66.20	54.0	116.00	500.0	188.90	68.0
194.20	71.0	66.90	510.0	116.90	532.0	191.10	50.0
195.60	70.0	68.00	11661.0	117.90	451.0	192.90	93.0
207.10	1078.0			119.10	781.0	203.40	52.0
208.00	310.0	69.00	12404.0	121.10	120.0	207.00	924.0
209.00	190.0			122.90	137.0	208.10	204.0
234.50	75.0	70.00	1021.0	123.90	94.0	208.90	163.0
249.20	62.0	71.30	232.0	125.10	111.0	209.20	127.0
250.20	52.0	72.00	634.0	126.20	79.0	211.00	109.0
259.00	81.0	73.00	6229.0	128.00	616.0	229.10	62.0
263.10	55.0	74.00	20368.0	128.90	535.0	238.00	59.0
266.20	97.0			129.80	261.0	247.50	145.0
266.80	60.0	75.00	62168.0	131.00	136.0	252.10	62.0
269.40	59.0			132.10	88.0	253.30	64.0
279.20	52.0	76.00	5342.0	132.80	280.0	267.30	55.0
281.20	311.0	77.00	1038.0	134.00	283.0	269.10	55.0
282.20	105.0	78.00	766.0	134.90	325.0	271.10	68.0
283.30	82.0	78.90	1599.0	136.00	67.0	281.10	382.0
285.70	52.0	80.00	756.0	137.10	160.0	282.20	118.0
293.30	264.0	81.00	1877.0	140.00	161.0	283.30	66.0
299.80	131.0	82.00	452.0	141.00	1284.0	283.80	56.0
330.40	69.0	83.10	227.0	141.80	301.0	292.40	55.0
333.50	60.0	84.00	107.0	143.00	1210.0	307.50	55.0
SCAN 94		84.20	115.0	145.00	181.0	316.60	85.0
36.10	706.0	85.10	278.0	146.00	183.0	334.20	68.0
37.00	3632.0	85.90	167.0	147.00	57.0	336.80	87.0
38.10	3519.0	87.00	6696.0	147.90	318.0	338.10	62.0
39.10	1909.0	88.00	6024.0	149.00	96.0	344.60	83.0
40.00	8911.0	91.00	495.0	150.10	122.0	SCAN 95	
41.10	446.0	92.00	3483.0	151.80	157.0	36.00	418.0
42.00	115.0	93.00	4443.0	152.80	89.0	37.10	2378.0
43.20	345.0	94.00	17840.0	153.20	131.0	38.10	2759.0
44.00	3491.0			153.90	194.0	39.10	1247.0

Data File : C:\MSDCHEM\1\DATA\E4069.D Vial: 1
Acq On : 03/30/2003 1138 Operator: AK
Sample : BFB4R Inst : E-5973
Misc : EBFB4R 50NG Multiplr: 1.00

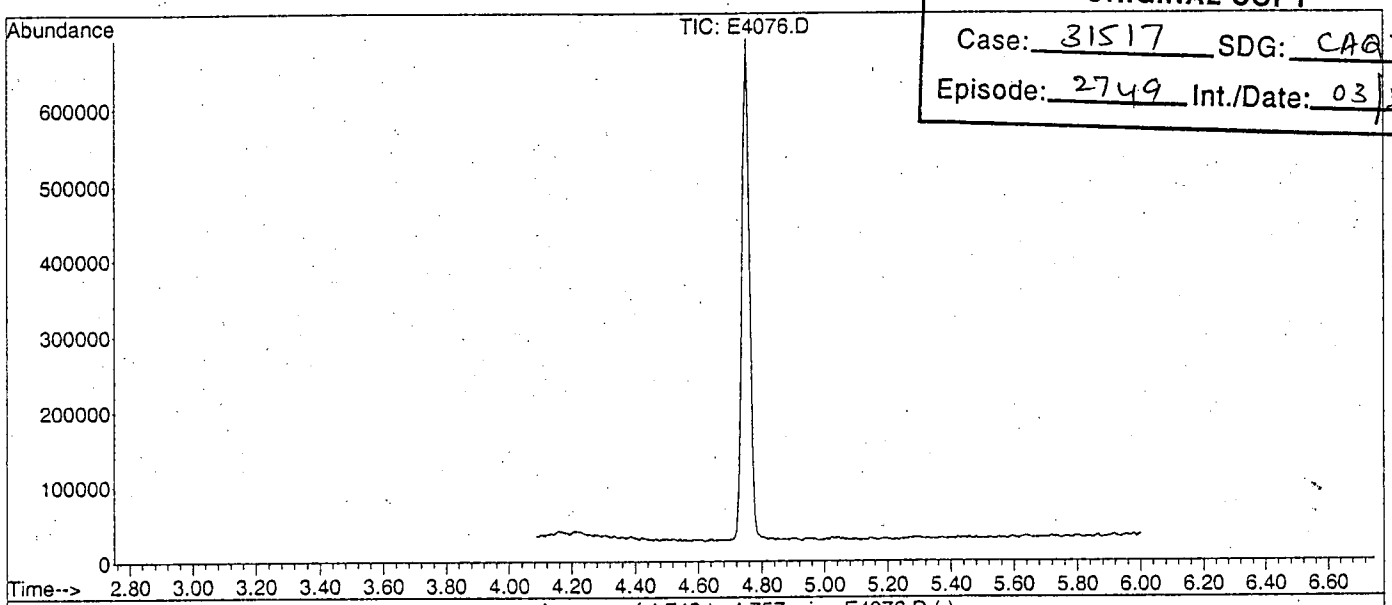
40.00	7875.0	94.00	11392.0	157.00	81.0
41.20	432.0			158.80	214.0
42.00	208.0	95.00	113760.0	159.80	106.0
43.00	284.0			160.70	82.0
44.00	4197.0	96.00	7011.0	161.10	68.0
45.10	579.0	97.00	330.0	162.00	156.0
47.00	1415.0	97.20	336.0	163.10	68.0
48.10	153.0	99.30	114.0	167.00	94.0
49.00	2843.0	103.10	61.0	171.90	273.0
50.10	13304.0	103.90	339.0	173.00	863.0
		105.10	301.0	174.00	107168.0
51.10	4280.0	105.90	415.0		
51.90	297.0	107.50	62.0	175.00	6956.0
53.90	108.0	109.00	67.0	176.00	106104.0
55.10	887.0	112.10	309.0		
56.10	1296.0	112.90	61.0	177.00	7519.0
57.00	1929.0	113.20	53.0	177.90	365.0
58.10	64.0	113.40	54.0	188.80	103.0
58.60	50.0	115.80	225.0	190.40	70.0
59.20	104.0	117.10	598.0	191.00	92.0
60.10	929.0	117.90	344.0	192.90	87.0
61.00	2688.0	118.90	434.0	194.90	68.0
62.10	3419.0	119.70	53.0	200.20	161.0
63.00	2785.0	121.10	177.0	202.00	56.0
64.00	371.0	122.00	53.0	205.40	54.0
65.20	206.0	123.10	84.0	207.10	1200.0
66.10	222.0	124.00	125.0	208.20	276.0
67.20	431.0	125.50	123.0	209.00	170.0
68.00	8196.0	127.30	119.0	228.30	54.0
69.00	8417.0	128.00	297.0	246.40	76.0
70.00	1023.0	128.90	218.0	249.00	59.0
71.10	240.0	129.90	308.0	250.70	59.0
72.10	733.0	131.20	99.0	253.00	54.0
73.00	4514.0	133.10	100.0	267.00	94.0
74.00	14208.0	133.80	75.0	267.60	54.0
		134.00	70.0	269.20	336.0
75.00	45872.0	134.90	344.0	270.30	51.0
		136.90	190.0	272.60	53.0
76.10	3223.0	138.90	110.0	281.10	388.0
77.10	670.0	140.20	160.0	282.00	102.0
78.00	525.0	140.90	840.0	283.20	113.0
79.00	1552.0	141.90	134.0	284.50	127.0
80.00	360.0	142.90	1129.0	296.90	57.0
81.00	1555.0	143.90	133.0	301.90	52.0
82.00	389.0	145.80	176.0	308.90	54.0
82.80	134.0	146.10	126.0	312.10	53.0
84.20	267.0	146.90	134.0	314.90	54.0
85.10	240.0	148.00	394.0	335.90	97.0
87.00	5152.0	149.30	194.0	341.00	97.0
88.00	4462.0	149.80	168.0	343.90	90.0
88.70	139.0	151.90	55.0		
90.80	318.0	154.00	165.0		
92.00	2929.0	154.90	269.0		
93.00	3877.0	155.90	92.0		

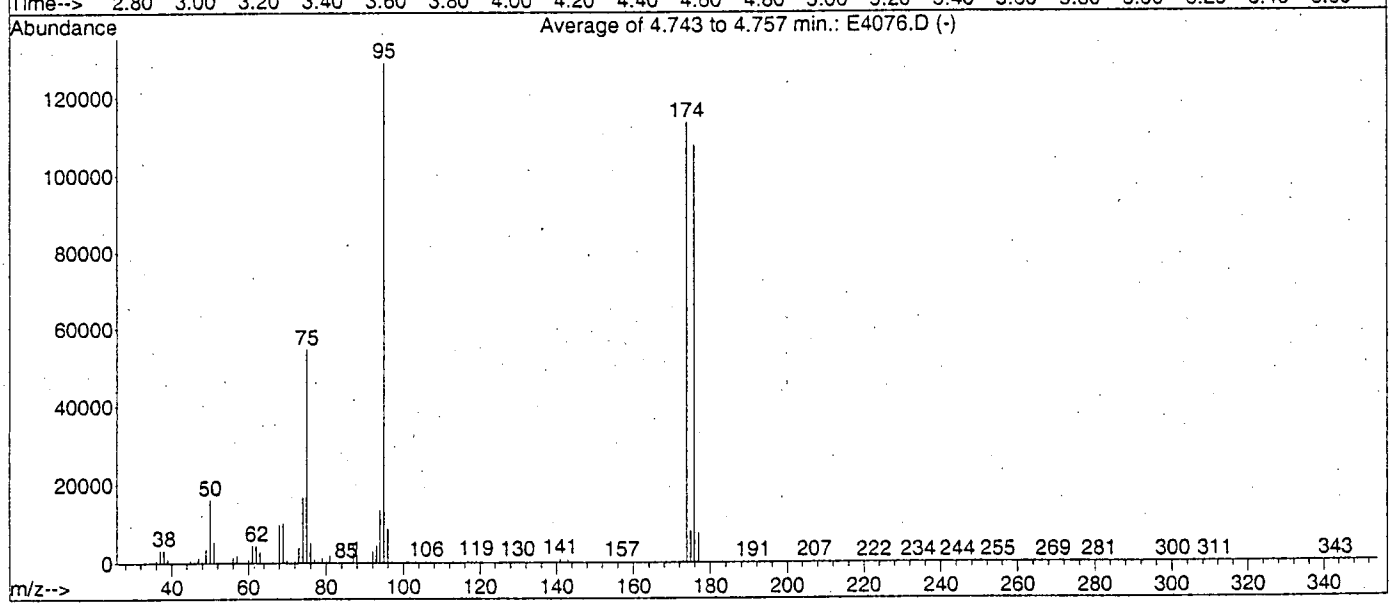
CLPBFB

Data File : C:\MSDCHEM\1\DATA\E4076.D
Acq On : 03/31/2003 0954
Sample : BFB4S
Misc : EBFB4S 50NG
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4053.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

Vial: 1
Operator: AK
Inst : E-5973
Multiplr: 1.00

ORIGINAL COPY
Case: 31517 SDG: CA027
Episode: 2749 Int./Date: 03/31/03
KA
Ent





AutoFind: Scans 93, 94, 95; Background Corrected with Scan 82

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	12.5	16114	PASS
75	95	30	66	42.3	54562	PASS
95	95	100	100	100.0	128890	PASS
96	95	5	9	6.8	8748	PASS
173	174	0.00	2	0.3	383	PASS
174	95	50	120	88.0	113389	PASS
175	174	4	9	7.0	7911	PASS
176	174	93	101	94.9	107628	PASS
177	176	5	9	7.0	7491	PASS

E4076.D LCE4053.M Mon Mar 31 10:04:26 2003

Data File : C:\MSDCHEM\1\DATA\E4076.D Vial: 1
Acq On : 03/31/2003 0954 Operator: AK
Sample : BFB4S Inst : E-5973
Misc : EBFB4S 50NG Multiplr: 1.00

SCAN 82

37.00	90.0
39.00	271.0
40.00	7646.0
41.10	561.0
43.10	464.0
44.00	4795.0
45.00	93.0
46.10	64.0
49.00	55.0
53.00	256.0
54.10	135.0
55.00	681.0
55.90	222.0
57.10	758.0
57.90	113.0
61.00	127.0
63.20	77.0
65.30	111.0
66.00	69.0
67.00	346.0
68.10	75.0
69.00	190.0
70.00	171.0
71.20	361.0
72.10	86.0
72.90	319.0
73.80	87.0
75.20	72.0
75.90	163.0
77.10	65.0
78.00	429.0
79.00	126.0
81.30	147.0
82.20	82.0
83.00	160.0
84.10	180.0
84.90	83.0
87.20	99.0
88.00	51.0
89.00	50.0
90.90	108.0
93.00	104.0
94.00	87.0
95.00	136.0
96.00	154.0
97.30	94.0
98.00	136.0
99.00	185.0
104.00	216.0
104.90	118.0
106.00	109.0
108.20	97.0
109.20	59.0
111.20	94.0
112.20	63.0
113.00	83.0
115.80	145.0
116.90	89.0
119.30	76.0
121.20	53.0
123.50	115.0
126.20	176.0
131.00	135.0
133.20	153.0
138.20	80.0
141.50	113.0
144.20	67.0
145.20	98.0
146.20	64.0
146.90	114.0
147.40	60.0
148.70	56.0
155.00	154.0
156.00	58.0
164.30	56.0
165.10	93.0
166.30	51.0
169.90	58.0
175.80	57.0
177.20	72.0
178.20	54.0
180.20	60.0
181.10	62.0
186.00	56.0
193.20	178.0
197.30	78.0
198.30	82.0
199.20	53.0
207.10	715.0
208.00	428.0
209.20	148.0
209.90	90.0
212.10	135.0
215.60	63.0
219.20	55.0
225.90	56.0
233.60	88.0
247.50	79.0
248.80	110.0
255.40	50.0
267.10	69.0
269.20	96.0
271.00	170.0
277.70	53.0
281.00	154.0
281.30	129.0
282.90	64.0
286.30	54.0
312.90	52.0
321.60	54.0
322.60	65.0
330.40	58.0
334.20	57.0
342.10	103.0

SCAN 93

36.10	578.0
37.10	3011.0
38.00	3532.0
39.00	1382.0
40.00	8104.0
41.10	651.0
41.90	165.0
43.20	343.0
44.00	3706.0
45.00	722.0
45.90	209.0
47.00	1501.0
47.90	505.0
49.00	3221.0
50.00	15011.0
51.00	4755.0
52.10	309.0
53.10	198.0
54.10	134.0
55.10	837.0
56.00	1549.0
57.00	2329.0
60.00	791.0
61.00	4588.0
62.00	3796.0
63.10	2724.0
64.10	419.0
65.00	304.0
65.90	115.0
66.40	71.0
67.10	286.0
68.00	9174.0
69.00	9483.0
70.00	1121.0
71.10	542.0
72.00	386.0
73.00	4320.0
74.00	15980.0
75.00	49968.0
76.10	5561.0
76.90	1061.0
78.00	691.0
79.00	1560.0
80.10	305.0
80.90	1644.0
82.00	376.0
82.90	55.0
83.10	63.0
83.80	73.0
84.20	70.0
85.20	52.0
86.10	172.0
87.00	4617.0
88.00	6249.0
89.90	77.0
90.90	413.0
92.00	2639.0
93.00	4461.0
94.00	13505.0
95.00	116160.0
96.00	7762.0
97.00	440.0
98.10	152.0
99.00	86.0
102.10	95.0
102.70	54.0
104.00	456.0
105.00	302.0
105.90	726.0
106.80	78.0
108.10	143.0
111.10	286.0
112.00	123.0
112.60	179.0
112.90	139.0
114.90	264.0
115.80	223.0
117.00	480.0
117.90	384.0
119.10	416.0
120.20	88.0
121.90	53.0
124.00	159.0
126.10	111.0
126.90	230.0
127.90	450.0
129.00	281.0
129.90	202.0
131.00	286.0
133.00	269.0
134.00	58.0
135.10	183.0
136.00	90.0
137.10	229.0
138.90	65.0

Data File : C:\MSDCHEM\1\DATA\E4076.D Vial: 1
Acq On : 03/31/2003 0954 Operator: AK
Sample : BFB4S Inst : E-5973
Misc : EBFB4S 50NG Multiplr: 1.00

140.10	115.0	257.10	65.0	80.90	1943.0	136.80	304.0
140.90	895.0	269.10	112.0	82.00	348.0	139.90	214.0
142.10	113.0	281.10	172.0	83.10	292.0	140.90	1074.0
143.00	776.0	283.10	98.0	84.20	93.0	141.90	95.0
143.90	74.0	311.20	109.0	85.20	153.0	142.90	656.0
145.20	68.0	344.10	94.0	85.90	245.0	144.40	52.0
146.00	181.0	SCAN 94		87.00	6325.0	145.00	123.0
146.90	107.0	36.00	884.0	87.90	6538.0	145.90	261.0
148.00	244.0	37.00	4024.0	89.00	54.0	147.00	193.0
148.70	94.0	38.00	3681.0	90.10	88.0	147.80	201.0
151.10	130.0	39.00	1604.0	90.90	493.0	148.80	126.0
151.90	185.0	40.00	7899.0	92.00	3216.0	149.00	112.0
153.00	200.0	41.10	570.0	93.10	4248.0	150.00	83.0
154.80	207.0	42.20	116.0	94.00	15879.0	152.00	269.0
155.90	70.0	43.10	564.0			152.80	62.0
157.00	109.0	44.00	4343.0	95.00	148672.0	153.70	63.0
157.80	112.0	45.00	821.0			154.10	104.0
159.10	128.0	46.30	120.0	96.00	10652.0	154.90	227.0
159.30	120.0	47.00	1944.0			156.10	178.0
160.00	70.0	47.80	449.0	97.00	223.0	157.00	291.0
160.90	260.0	49.10	3750.0	98.10	70.0	157.90	133.0
161.80	53.0	50.00	19080.0	99.30	111.0	158.90	236.0
163.30	102.0			100.20	55.0	159.90	78.0
165.40	81.0	51.10	6834.0	100.70	74.0	161.00	176.0
172.00	215.0	52.10	631.0	103.00	80.0	162.10	95.0
172.80	439.0	53.00	119.0	103.90	505.0	162.90	55.0
173.90	92256.0	55.10	601.0	104.80	98.0	165.70	77.0
		56.00	2056.0	106.00	468.0	167.20	71.0
174.90	6908.0	57.00	2823.0	107.10	166.0	170.90	98.0
175.90	86568.0	58.10	122.0	108.90	51.0	172.00	183.0
		60.00	1311.0	109.90	222.0	173.00	717.0
177.00	6385.0	61.00	4656.0	111.00	190.0	174.00	131136.0
178.00	135.0	62.00	4947.0	112.10	91.0		
179.70	106.0	63.00	2888.0	112.80	199.0	175.00	9136.0
182.20	124.0	64.10	590.0	115.00	256.0	175.90	123336.0
183.10	93.0	65.00	136.0	115.90	325.0		
184.50	52.0	67.10	388.0	116.90	683.0	176.90	8542.0
189.30	110.0	68.00	11828.0	118.00	293.0	177.80	205.0
190.30	66.0			119.00	642.0	182.40	211.0
191.20	201.0	69.10	11582.0	120.00	80.0	184.40	56.0
197.30	219.0			121.70	67.0	185.30	111.0
198.00	90.0	70.00	1095.0	122.30	101.0	188.40	59.0
201.00	132.0	71.10	672.0	123.00	112.0	190.90	158.0
203.10	73.0	72.00	1229.0	123.80	173.0	191.20	96.0
207.10	1134.0	73.00	4321.0	125.20	118.0	191.90	61.0
208.20	172.0	74.00	20280.0	128.00	440.0	206.20	78.0
209.20	99.0			128.80	170.0	207.10	931.0
219.90	73.0	75.00	63112.0	129.90	479.0	207.90	174.0
224.00	59.0			130.90	172.0	209.00	108.0
228.00	58.0	76.00	6221.0	132.10	51.0	211.10	59.0
237.60	65.0	77.00	1168.0	133.10	169.0	222.60	75.0
244.30	62.0	77.90	846.0	133.90	151.0	226.00	55.0
248.00	92.0	78.90	1602.0	134.90	191.0	254.80	112.0
250.80	78.0	79.90	390.0	136.10	63.0	266.90	67.0

Data File : C:\MSDCHEM\1\DATA\E4076.D Vial: 1
Acq On : 03/31/2003 0954 Operator: AK
Sample : BFB4S Inst : E-5973
Misc : EBFB4S 50NG Multiplr: 1.00

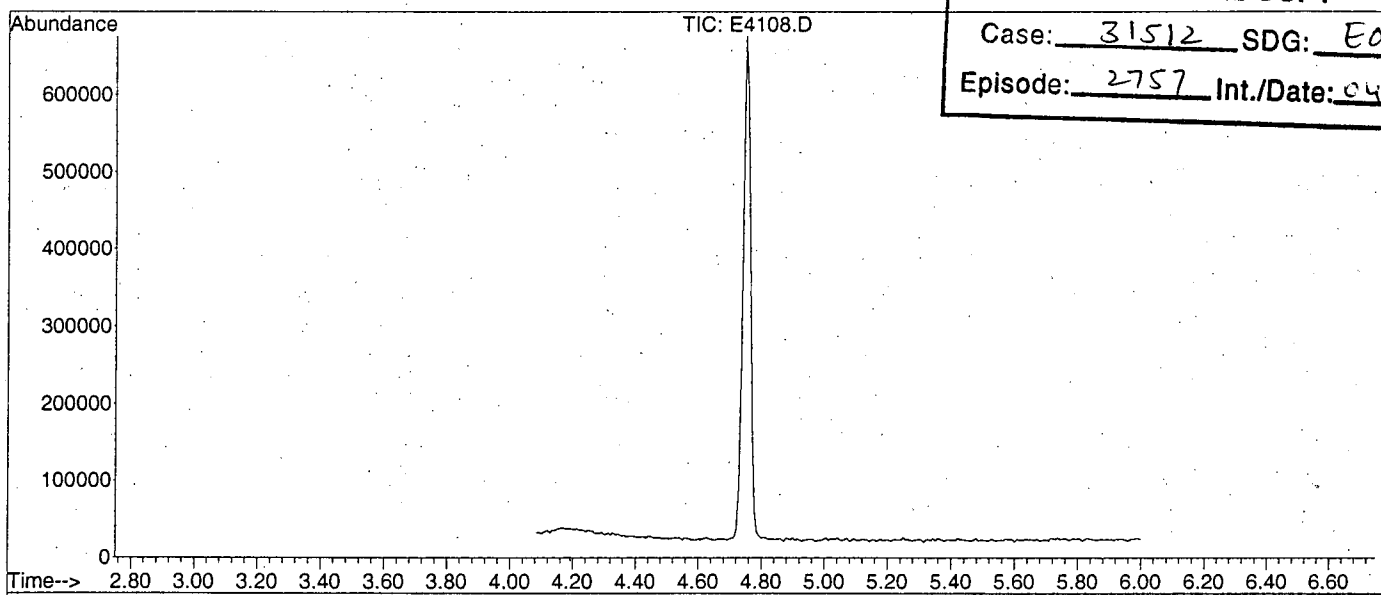
269.10	183.0	76.00	3900.0	139.10	99.0
272.70	56.0	77.00	1048.0	140.90	801.0
276.20	62.0	78.10	913.0	142.00	250.0
281.10	203.0	79.00	1221.0	143.00	791.0
284.20	80.0	80.00	435.0	145.00	113.0
300.20	99.0	81.00	1912.0	146.00	213.0
341.30	103.0	82.00	348.0	146.90	138.0
343.00	60.0	83.00	164.0	147.90	409.0
SCAN 95		84.10	70.0	149.10	85.0
36.00	550.0	85.10	228.0	150.00	124.0
37.00	2866.0	86.00	125.0	152.10	69.0
38.00	2590.0	87.00	4796.0	153.00	101.0
39.00	951.0	88.00	4244.0	155.00	190.0
40.00	7436.0	90.90	347.0	155.80	129.0
41.00	372.0	92.00	2902.0	157.10	404.0
41.90	130.0	93.10	4779.0	157.70	87.0
42.40	74.0	94.00	10832.0	158.10	67.0
43.20	697.0			158.90	101.0
44.00	4438.0	95.00	122248.0	160.90	207.0
45.10	778.0			162.30	58.0
45.70	60.0	96.00	8293.0	164.00	115.0
47.10	787.0	97.10	433.0	165.10	131.0
48.00	435.0	98.10	130.0	172.00	317.0
49.00	3417.0	99.10	75.0	172.90	432.0
50.10	14251.0	100.80	105.0	174.00	116776.0
		101.30	163.0		
51.00	4211.0	102.00	66.0	174.90	7690.0
52.00	373.0	103.20	331.0	175.90	113152.0
53.00	166.0	104.00	517.0		
54.10	148.0	104.90	200.0	176.90	7547.0
55.00	512.0	106.00	285.0	178.10	108.0
56.10	1570.0	107.00	104.0	185.60	65.0
57.10	2931.0	108.00	138.0	187.00	64.0
58.00	88.0	108.90	83.0	190.00	110.0
58.80	99.0	110.90	162.0	191.00	271.0
60.00	713.0	111.80	88.0	192.80	58.0
61.00	4269.0	112.30	116.0	198.00	96.0
62.10	4528.0	113.00	234.0	202.10	79.0
63.10	2972.0	116.00	617.0	207.10	772.0
64.00	361.0	116.90	770.0	208.10	460.0
65.00	166.0	117.90	376.0	208.80	74.0
65.90	192.0	118.90	765.0	215.50	66.0
67.00	541.0	120.10	181.0	234.10	79.0
68.00	8628.0	124.00	98.0	240.60	60.0
69.00	10316.0	125.10	142.0	264.00	103.0
		125.80	84.0	267.00	102.0
70.00	894.0	127.90	401.0	269.00	111.0
71.10	334.0	129.00	135.0	281.00	258.0
72.10	433.0	129.90	636.0	282.20	93.0
73.00	4095.0	131.10	234.0	284.60	57.0
74.00	14068.0	132.00	73.0	290.10	51.0
		134.10	117.0	343.10	79.0
75.00	50824.0	135.10	353.0		
		136.80	170.0		

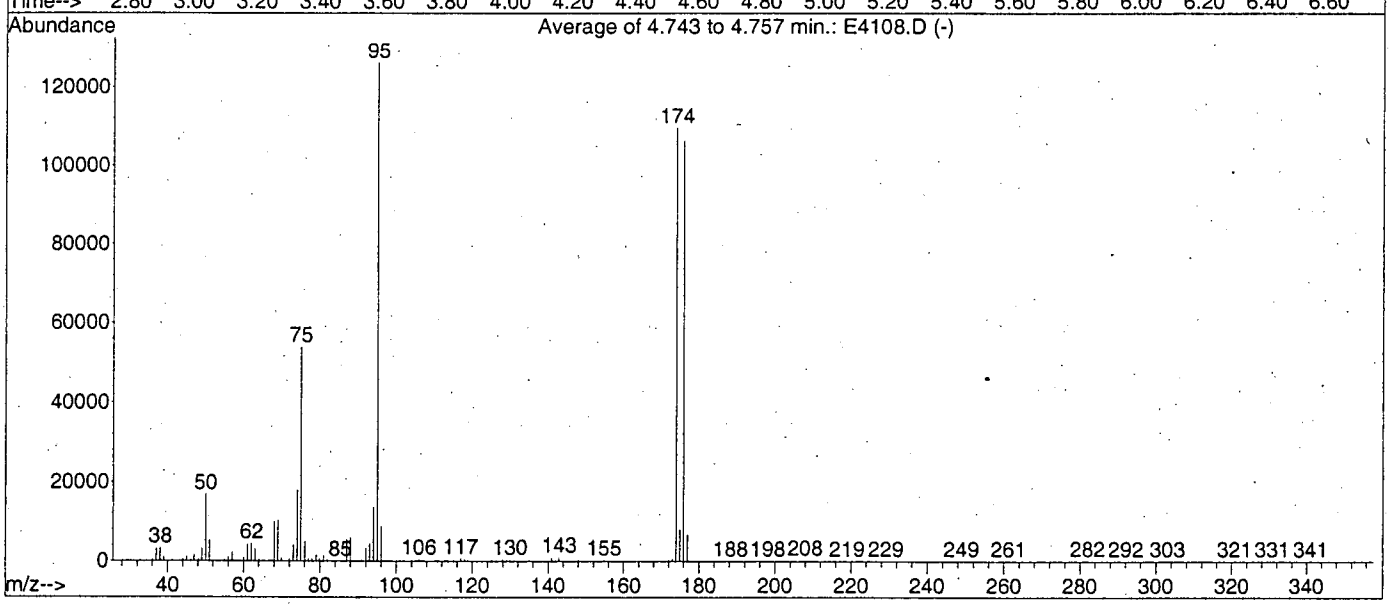
CLPBFB

Data File : C:\MSDCHEM\1\DATA\E4108.D
Acq On : 04/02/2003 0910
Sample : BFB4U
Misc : EBFB4U
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4109.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

Vial: 1
Operator: AK
Inst : E-5973
Multiplr: 1.00

ORIGINAL COPY
Case: 31512 SDG: E0003
Episode: 2757 Int./Date: 04/02/03





AutoFind: Scans 93, 94, 95; Background Corrected with Scan 84

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	13.3	16851	PASS
75	95	30	66	42.7	53910	PASS
95	95	100	100	100.0	126242	PASS
96	95	5	9	6.9	8668	PASS
173	174	0.00	2	0.6	679	PASS
174	95	50	120	86.8	109568	PASS
175	174	4	9	7.2	7895	PASS
176	174	93	101	97.0	106277	PASS
177	176	5	9	6.2	6633	PASS

E4108.D LCE4109.M Wed Apr 02 09:17:44 2003

Data File : C:\MSDCHEM\1\DATA\E4108.D Vial: 1
Acq On : 04/02/2003 0910 Operator: AK
Sample : BFB4U Inst : E-5973
Misc : EBFB4U Multiplr: 1.00

SCAN 84

36.00	355.0
36.90	111.0
38.00	126.0
39.00	325.0
40.00	7783.0
41.10	477.0
42.00	115.0
42.90	238.0
44.00	3866.0
45.00	109.0
46.60	68.0
48.10	93.0
49.70	56.0
50.00	80.0
51.20	131.0
52.00	93.0
53.00	181.0
54.90	325.0
56.00	163.0
57.00	241.0
59.10	53.0
63.80	77.0
65.30	112.0
65.90	51.0
67.10	171.0
68.00	88.0
68.80	218.0
69.30	164.0
70.00	143.0
70.70	57.0
71.10	140.0
73.00	109.0
74.90	58.0
75.70	97.0
76.30	82.0
77.00	146.0
77.20	150.0
78.00	364.0
79.00	88.0
79.90	62.0
81.10	251.0
82.10	128.0
83.00	102.0
85.10	78.0
87.00	56.0
91.00	230.0
93.10	198.0
93.90	113.0
96.10	225.0
97.50	67.0
99.30	58.0
100.40	76.0
101.90	53.0
103.00	183.0
104.10	194.0
105.20	82.0
107.90	102.0
110.90	52.0
112.00	58.0
115.10	183.0
115.90	152.0
118.90	128.0
125.90	125.0
129.20	64.0
134.70	61.0
141.30	50.0
146.00	116.0
146.70	91.0
147.30	59.0
156.00	73.0
156.70	71.0
161.30	60.0
162.20	120.0
164.80	79.0
167.00	57.0
169.00	78.0
175.80	53.0
177.20	73.0
179.60	69.0
183.90	69.0
191.00	127.0
193.10	75.0
207.10	626.0
208.10	101.0
208.90	186.0
239.20	100.0
244.10	71.0
263.90	67.0
265.10	84.0
267.00	64.0
269.00	86.0
281.00	200.0
282.20	81.0
283.10	70.0
284.20	71.0
302.30	61.0
322.20	55.0
328.00	107.0
343.20	125.0

SCAN 93

36.00	651.0
37.10	3202.0
38.10	2815.0
39.00	1440.0
40.00	7645.0
41.10	451.0
42.10	194.0
42.90	159.0
44.00	4215.0
45.00	831.0
46.20	74.0
47.00	1361.0
48.00	555.0
49.00	2883.0
50.00	15946.0
51.10	4873.0
52.00	468.0
54.00	135.0
54.90	395.0
56.00	1093.0
57.00	2208.0
58.10	103.0
59.00	146.0
60.00	772.0
61.00	3897.0
62.10	3800.0
63.10	3374.0
64.10	511.0
64.90	261.0
67.10	265.0
68.00	9154.0
69.00	8050.0
70.00	716.0
71.10	176.0
72.00	303.0
73.00	3276.0
74.00	15797.0
75.00	48968.0
76.00	4126.0
77.00	623.0
78.00	1224.0
79.00	1468.0
80.10	421.0
80.90	1317.0
81.90	334.0
83.00	54.0
83.90	88.0
85.10	94.0
85.80	230.0
86.90	4455.0
87.90	4812.0
90.90	434.0
92.00	3087.0
93.00	4053.0
94.00	11493.0
95.00	109496.0
96.00	8474.0
97.10	394.0
98.40	91.0
99.50	82.0
103.20	67.0
104.00	283.0
105.10	240.0
106.00	441.0
107.00	87.0
111.10	58.0
112.10	115.0
114.80	96.0
115.90	245.0
117.10	569.0
118.00	474.0
119.00	280.0
121.80	57.0
123.10	107.0
125.10	97.0
126.10	94.0
126.90	87.0
127.90	359.0
129.00	333.0
129.80	367.0
131.00	157.0
132.00	62.0
133.20	227.0
134.10	170.0
134.90	172.0
135.80	102.0
136.70	96.0
137.90	61.0
138.70	70.0
139.90	84.0
141.00	501.0
142.10	160.0
143.00	896.0
144.70	112.0
144.90	136.0
146.10	174.0
146.70	124.0
147.10	58.0
148.00	53.0
149.10	138.0
149.90	89.0
151.80	206.0
152.90	94.0
154.20	118.0
155.00	278.0
156.00	58.0
157.20	93.0
158.10	83.0
159.70	64.0
160.80	122.0

Data File : C:\MSDCHEM\1\DATA\E4108.D Vial: 1
Acq On : 04/02/2003 0910 Operator: AK
Sample : BFB4U Inst : E-5973
Misc : EBFB4U Multiplr: 1.00

172.00	170.0	56.00	1400.0	107.00	113.0	175.00	8667.0
173.00	378.0	57.00	2844.0	107.20	113.0	175.90	121240.0
174.00	82928.0	57.80	63.0	109.10	144.0		
		60.00	985.0	110.20	177.0	176.90	8397.0
174.90	7206.0	61.00	4454.0	110.90	184.0	178.00	221.0
176.00	82440.0	62.00	5093.0	112.70	83.0	178.90	54.0
		63.00	2923.0	113.20	122.0	182.50	125.0
177.00	4941.0	64.10	216.0	114.90	156.0	185.00	79.0
177.90	111.0	65.00	382.0	115.90	492.0	188.30	166.0
179.60	79.0	66.00	138.0	116.90	651.0	191.00	223.0
188.60	69.0	67.10	484.0	117.80	618.0	193.30	71.0
190.80	82.0	68.00	11618.0	118.90	391.0	194.10	54.0
193.10	109.0			119.60	125.0	199.20	52.0
195.70	73.0	69.00	12621.0	123.90	143.0	204.70	68.0
198.10	115.0			125.70	75.0	207.10	668.0
207.00	680.0	70.00	1110.0	126.10	95.0	207.90	237.0
208.20	203.0	71.10	169.0	126.30	94.0	208.90	78.0
209.10	171.0	72.00	487.0	127.10	112.0	209.50	67.0
211.20	98.0	73.00	5004.0	127.90	474.0	210.30	160.0
219.00	54.0	74.00	20304.0	128.90	212.0	211.80	66.0
222.10	69.0			129.90	437.0	214.70	77.0
245.90	99.0	75.00	62488.0	131.00	162.0	218.90	56.0
248.90	180.0			132.30	127.0	222.30	51.0
252.10	60.0	76.10	5803.0	132.90	161.0	231.40	64.0
266.40	53.0	77.00	974.0	134.00	90.0	241.60	73.0
269.10	91.0	77.90	742.0	135.00	369.0	266.90	76.0
270.00	67.0	79.00	1833.0	136.90	116.0	281.00	201.0
281.00	266.0	79.90	895.0	139.10	99.0	281.90	88.0
283.20	56.0	81.00	1916.0	139.80	66.0	282.30	60.0
285.30	75.0	81.90	358.0	141.00	1108.0	303.00	94.0
322.00	56.0	82.90	132.0	142.00	139.0	320.80	127.0
344.40	89.0	83.90	74.0	142.90	1140.0	322.20	54.0
SCAN 94		85.40	77.0	144.80	118.0	330.80	62.0
36.00	642.0	86.00	170.0	145.20	68.0	333.20	65.0
37.00	3529.0	86.90	6785.0	145.90	214.0	341.00	121.0
38.10	4376.0	88.00	7390.0	147.00	143.0	347.50	76.0
39.00	1367.0	88.90	149.0	148.00	290.0	SCAN 95	
40.00	7354.0	90.90	478.0	148.80	131.0	36.00	761.0
41.00	363.0	92.00	2918.0	149.90	197.0	37.10	2924.0
42.20	163.0	93.00	5667.0	152.90	150.0	38.10	2794.0
43.20	151.0	94.00	15235.0	153.70	187.0	39.10	1416.0
44.00	4315.0			154.90	465.0	40.00	7756.0
45.10	1465.0	95.00	142656.0	156.00	147.0	41.00	238.0
46.10	82.0			156.80	88.0	43.00	119.0
47.00	1922.0	96.00	10014.0	157.80	244.0	44.00	4634.0
48.10	437.0			161.00	379.0	45.00	865.0
49.00	3776.0	97.00	291.0	164.10	57.0	45.90	130.0
50.10	19376.0	97.70	51.0	165.00	67.0	47.00	1398.0
		99.90	88.0	165.60	75.0	48.00	442.0
51.10	5772.0	102.00	101.0	170.20	56.0	49.00	2690.0
51.90	196.0	103.10	225.0	171.90	145.0	50.10	15472.0
53.00	249.0	103.90	499.0	173.00	994.0		
53.60	57.0	104.90	163.0	174.00	125680.0	51.00	5281.0
55.10	368.0	106.00	462.0			51.90	253.0

Data File : C:\MSDCHEM\1\DATA\E4108.D Vial: 1
Acq On : 04/02/2003 0910 Operator: AK
Sample : BFB4U Inst : E-5973
Misc : EBFB4U Multiplr: 1.00

52.90	165.0	102.90	115.0		
54.10	73.0	104.00	527.0	175.00	7814.0
54.40	50.0	104.90	80.0	175.90	115312.0
55.00	529.0	105.80	388.0		
56.10	915.0	106.30	145.0	176.90	6562.0
57.00	2207.0	107.10	134.0	178.20	156.0
58.10	178.0	107.80	53.0	179.00	91.0
60.00	643.0	109.90	63.0	181.10	62.0
61.00	4069.0	110.90	60.0	183.70	56.0
62.00	4217.0	112.80	107.0	189.00	87.0
63.00	2592.0	113.30	78.0	191.00	89.0
64.00	418.0	115.00	299.0	191.20	91.0
65.20	83.0	116.10	125.0	192.30	52.0
65.90	141.0	116.90	730.0	193.10	149.0
67.00	225.0	118.00	416.0	193.80	73.0
68.00	9054.0	118.90	292.0	204.10	103.0
69.00	10642.0	121.90	63.0	205.90	100.0
		125.00	181.0	207.10	944.0
70.00	699.0	127.80	344.0	208.00	516.0
70.70	102.0	128.90	239.0	209.00	295.0
72.00	739.0	130.00	550.0	210.80	53.0
73.10	4187.0	130.90	183.0	211.90	57.0
74.00	17704.0	132.10	107.0	219.80	57.0
		133.20	217.0	222.90	62.0
75.00	50448.0	134.20	80.0	225.20	78.0
		135.00	376.0	229.20	102.0
76.00	4553.0	135.90	146.0	240.40	89.0
77.00	966.0	136.90	186.0	248.00	105.0
78.00	932.0	139.00	80.0	249.20	80.0
79.00	1530.0	140.20	96.0	253.10	146.0
80.00	637.0	141.00	754.0	261.20	69.0
81.00	1601.0	141.90	77.0	262.80	55.0
82.00	341.0	142.90	948.0	265.20	56.0
83.00	160.0	143.90	108.0	274.10	72.0
83.20	155.0	144.80	170.0	281.10	279.0
84.20	174.0	145.90	254.0	282.00	272.0
85.30	53.0	146.60	121.0	292.10	55.0
85.90	245.0	147.00	246.0	292.30	55.0
87.00	5164.0	148.10	359.0	294.80	57.0
88.00	5340.0	148.80	55.0	315.30	104.0
89.20	51.0	149.80	153.0	341.10	90.0
89.80	70.0	151.40	73.0	343.00	71.0
91.00	579.0	153.10	119.0		
92.00	3569.0	153.80	158.0		
93.00	4053.0	154.80	161.0		
94.00	14175.0	155.90	377.0		
		156.90	284.0		
95.00	126576.0	158.80	182.0		
		161.00	345.0		
96.00	8192.0	163.10	85.0		
97.00	146.0	170.10	52.0		
97.90	52.0	172.00	354.0		
99.10	51.0	173.00	667.0		
101.30	143.0	173.90	120096.0		

1LCA
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

VBLK4N

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: EVBLK4N Date Received: _____

Lab File ID: E4010 Date Analyzed: 03/27/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl Chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.19	J
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-Butyl Ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.41	J
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon Tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

1LCB

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS

DATA SHEET

EPA SAMPLE NO.

VBLK4N

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: EVBLK4N Date Received: _____

Lab File ID: E4010 Date Analyzed: 03/27/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
1330-20-7	Xylene (total)	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.38	J
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.16	J
87-61-6	1,2,3-Trichlorobenzene	0.20	J

1LCF

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS

DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK4N

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: EVBLK4N Date Received: _____

Lab File ID: E4010 Date Analyzed: 03/27/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4010.D Vial: 3
Acq On : 03/27/2003 0939 Operator: AK
Sample : VBLK4N Inst : E-5973
Misc : EVBLK4N 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 27 10:01:10 2003 Quant Results File: LCE4009.RES

Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Thu Mar 27 09:22:08 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4009.D
DataAcq Meth : VOAC

ORIGINAL COPY
Case: 31522 SDG: CAQR2
Episode: 2759 Int./Date: 03/27/03
KP GP 3/27/03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Difluorobenzene	6.31	114	1146896	5.00	ug/L	0.00
28) Chlorobenzene-d5	10.32	117	917698	5.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	13.19	152	315417	5.00	ug/L	0.00
System Monitoring Compounds						
4) Vinyl Chloride-d3	2.15	65	440061	5.23	ug/L	0.00
Spiked Amount 5.000	Range 49 - 138		Recovery	=	104.60%	
7) Chloroethane-d5	2.54	69	373931	5.31	ug/L	0.00
Spiked Amount 5.000	Range 60 - 126		Recovery	=	106.20%	
10) 1,1-Dichloroethene-d2	3.26	65	194615	5.30	ug/L	0.00
Spiked Amount 5.000	Range 65 - 130		Recovery	=	106.00%	
20) 2-Butanone-d5	4.88	46	44393	5.99	ug/L	0.00
Spiked Amount 5.000	Range 42 - 171		Recovery	=	119.80%	
24) Chloroform-d	5.23	86	404611	5.00	ug/L	0.00
Spiked Amount 5.000	Range 80 - 123		Recovery	=	100.00%	
26) 1,2-Dichloroethane-d4	5.81	65	224220	5.17	ug/L	0.00
Spiked Amount 5.000	Range 78 - 129		Recovery	=	103.40%	
32) Benzene-d6	5.85	84	1832505	5.35	ug/L	0.00
Spiked Amount 5.000	Range 78 - 121		Recovery	=	107.00%	
35) 1,2-Dichloropropane-d6	6.80	67	434853	4.53	ug/L	0.00
Spiked Amount 5.000	Range 84 - 123		Recovery	=	90.60%	
41) Toluene-d8	8.21	98	1781776	5.30	ug/L	0.00
Spiked Amount 5.000	Range 77 - 120		Recovery	=	106.00%	
43) trans-1,3-Dichloropropene-	8.53	79	58149	5.07	ug/L	0.00
Spiked Amount 5.000	Range 80 - 128		Recovery	=	101.40%	
47) 2-Hexanone-d5	9.13	46	79781	5.62	ug/L	0.00
Spiked Amount 5.000	Range 37 - 169		Recovery	=	112.40%	
58) 1,1,2,2-Tetrachloroethane-	12.08	84	166287	5.12	ug/L	0.00
Spiked Amount 5.000	Range 75 - 131		Recovery	=	102.40%	
61) Bromoform-d	11.51	174	82779	4.64	ug/L	0.00
Spiked Amount 5.000	Range 76 - 135		Recovery	=	92.80%	
65) 1,2-Dichlorobenzene-d4	13.54	152	350162	5.43	ug/L	0.00
Spiked Amount 5.000	Range 50 - 150		Recovery	=	108.60%	

Target Compounds						Qvalue
16) Methylene Chloride	3.69	84	16495	0.19	ug/L J	96
25) Chloroform	5.26	83	59971	0.41	ug/L J	89
62) Bromoform	11.54	173	8146	0.38	ug/L J	90
68) 1,2,4-Trichlorobenzene	14.96	180	13408	0.16	ug/L J	94
69) 1,2,3-Trichlorobenzene	15.42	180	12795	0.20	ug/L J	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
E4010.D LCE4009.M Thu Mar 27 10:08:37 2003

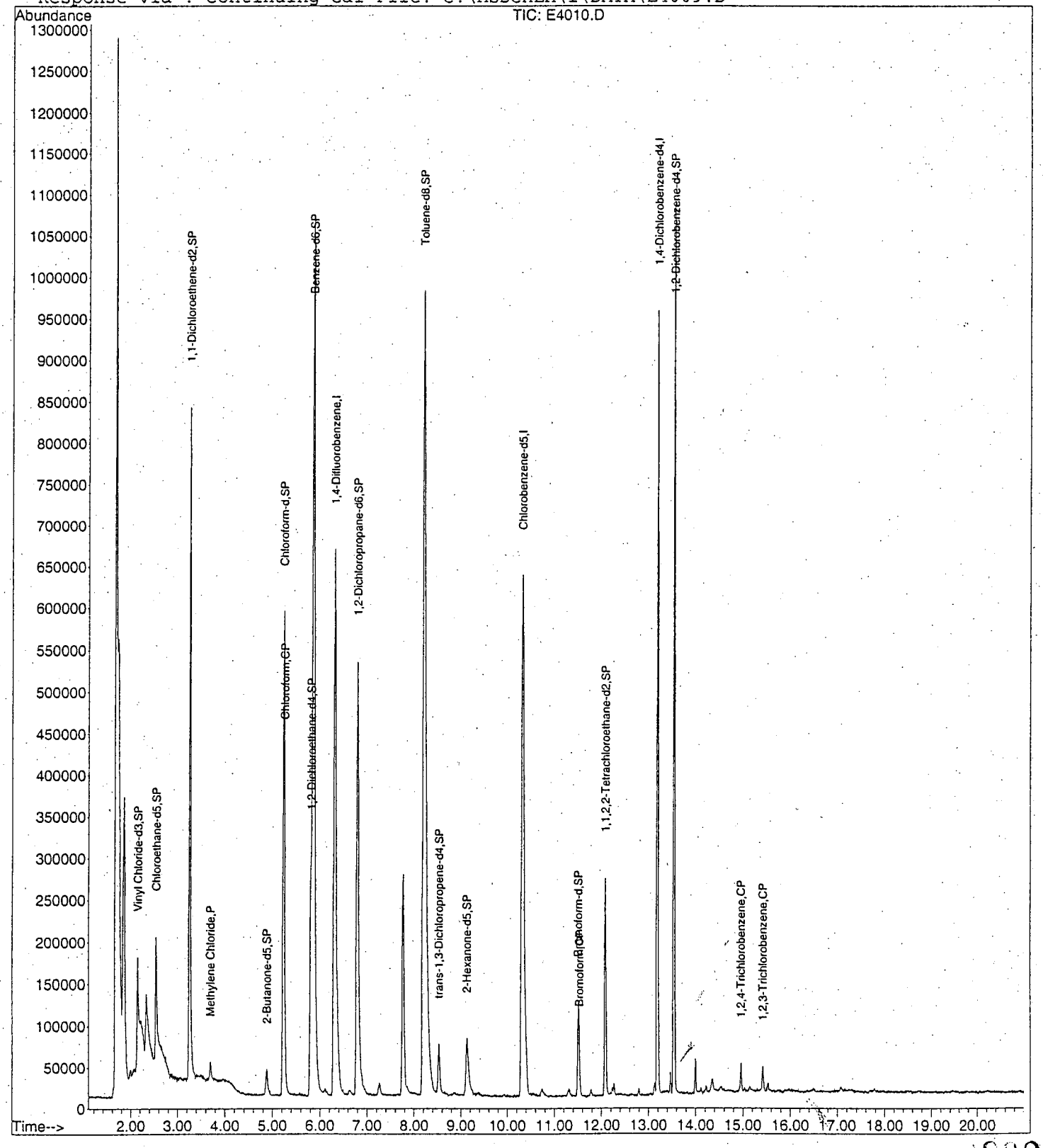
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4010.D
Acq On : 03/27/2003 0939
Sample : VBLK4N
Misc : EVBLK4N 25ML
MS Integration Params: RTEINT.P
Quant Time: Mar 27 10:08 2003

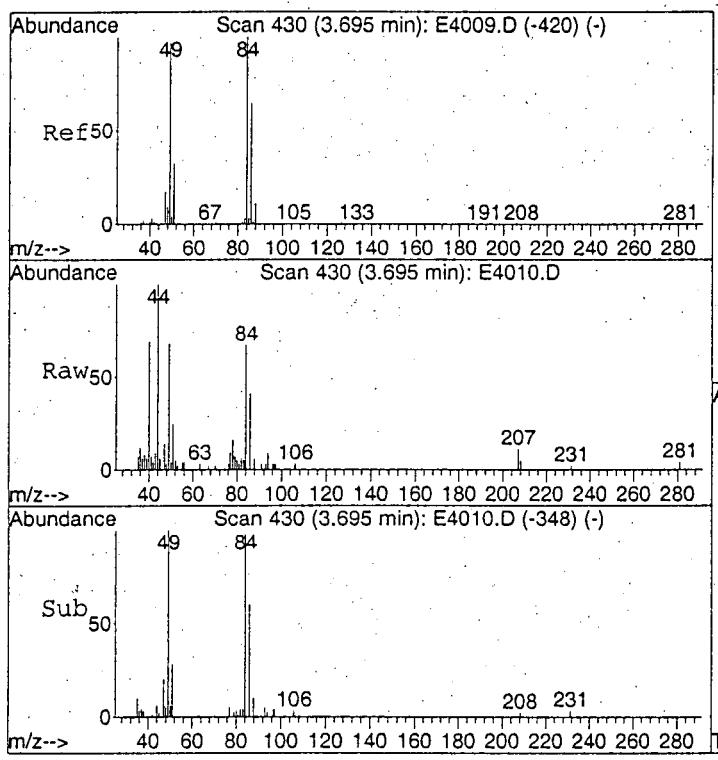
Vial: 3
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Results File: LCE4009.RES

Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Thu Mar 27 09:22:08 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4009.D



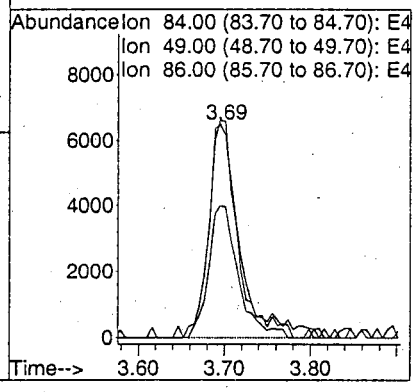
Data File : C:\MSDCHEM\1\DATA\E4010.D Vial: 3
Acq On : 03/27/2003 0939 Operator: AK
Sample : VBLK4N Inst : E-5973
Misc : EVBLK4N 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

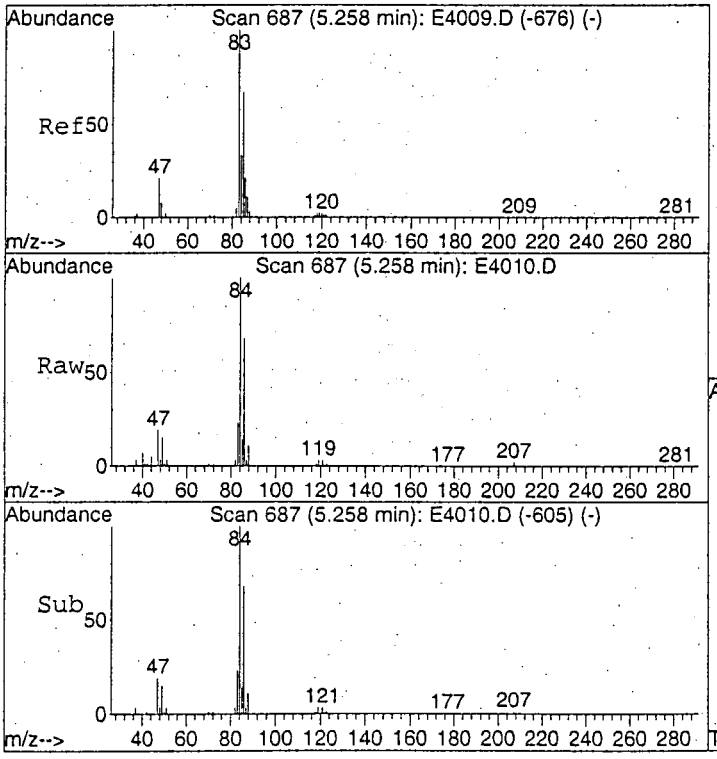


#16
Methylene Chloride
Concen: 0.19 ug/L
RT: 3.69 min Scan# 430
Delta R.T. 0.00 min
Lab File: E4010.D
Acq: 27 Mar 2003 9:39

Tgt Ion: 84 Resp: 16495

Ion	Ratio	Lower	Upper
84	100		
49	93.0	76.2	116.2
86	58.3	43.2	83.2

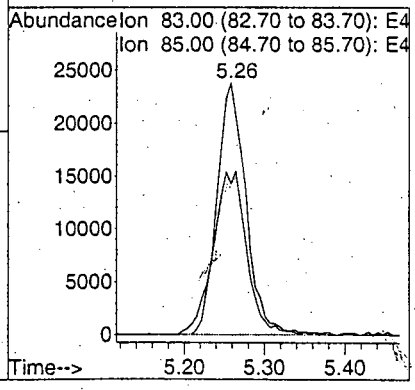




#25
Chloroform
Concen: 0.41 ug/L
RT: 5.26 min Scan# 687
Delta R.T. 0.00 min
Lab File: E4010.D
Acq: 27 Mar 2003 9:39

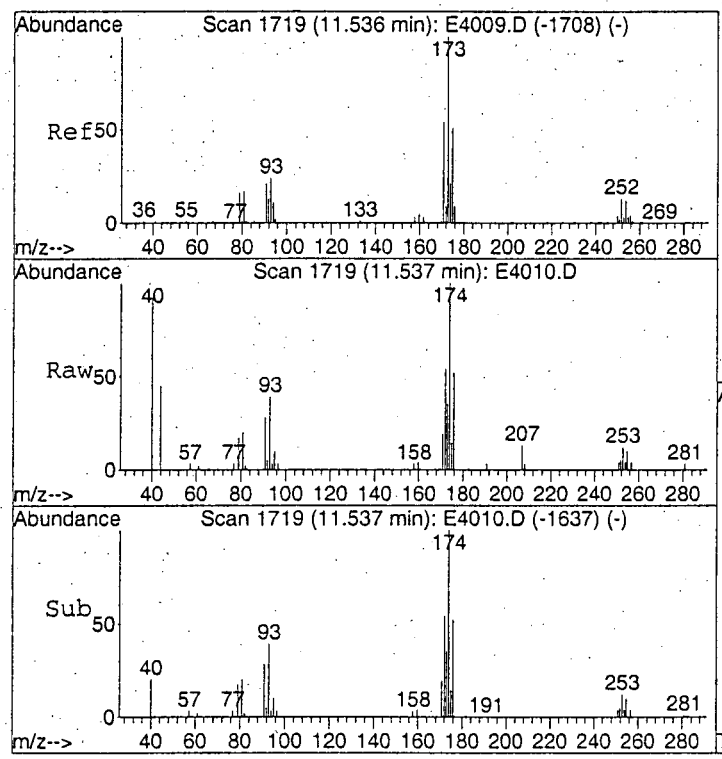
Tgt Ion: 83 Resp: 59971

Ion	Ratio	Lower	Upper
83	100		
85	74.5	45.9	85.9



293

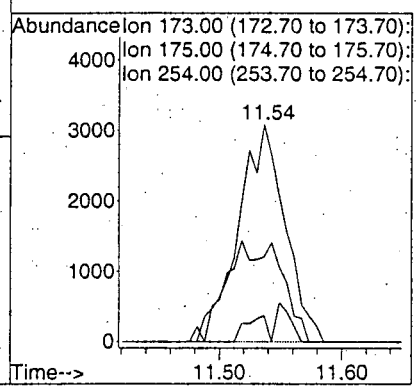
Data File : C:\MSDCHEM\1\DATA\E4010.D Vial: 3
Acq On : 03/27/2003 0939 Operator: AK
Sample : VBLK4N Inst : E-5973
Misc : EVBLK4N 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

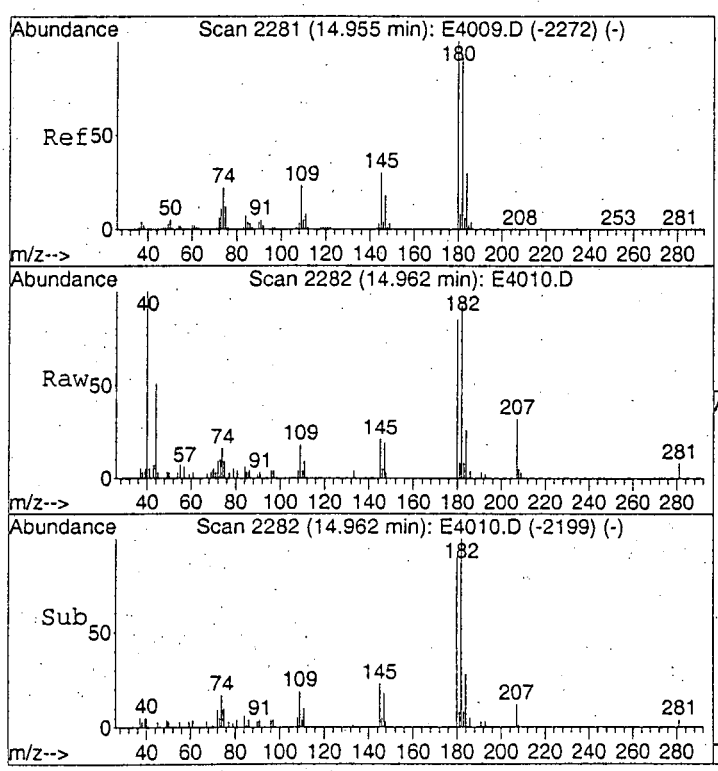


#62
Bromoform
Concen: 0.38 ug/L
RT: 11.54 min Scan# 1719
Delta R.T. 0.00 min
Lab File: E4010.D
Acq: 27 Mar 2003 9:39

Tgt Ion:173 Resp: 8146

Ion	Ratio	Lower	Upper
173	100		
175	55.1	29.4	69.4
254	5.4	0.0	31.9

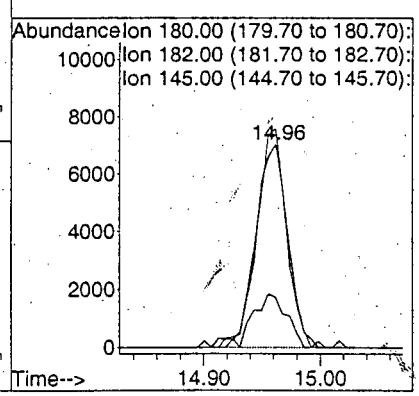




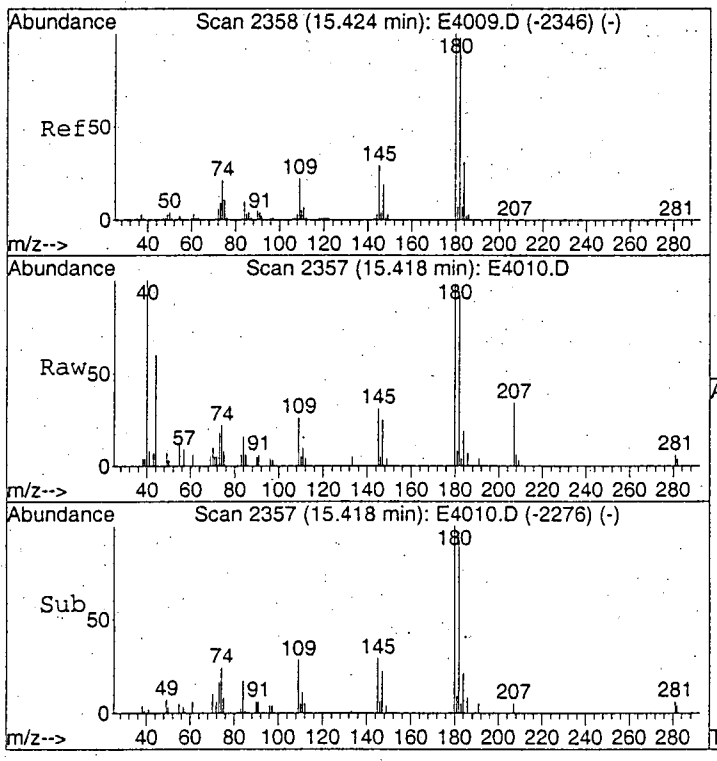
#68
1,2,4-Trichlorobenzene
Concen: 0.16 ug/L
RT: 14.96 min Scan# 2282
Delta R.T. 0.01 min
Lab File: E4010.D
Acq: 27 Mar 2003 9:39

Tgt Ion:180 Resp: 13408

Ion	Ratio	Lower	Upper
180	100		
182	100.9	74.6	114.6
145	27.2	9.1	49.1



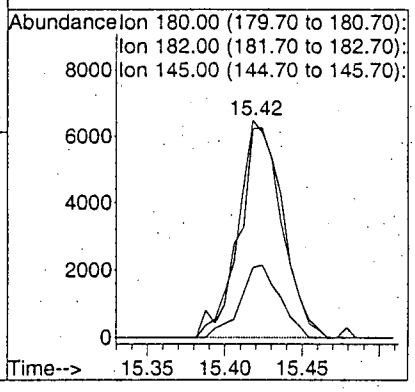
Data File : C:\MSDCHEM\1\DATA\E4010.D Vial: 3
Acq On : 03/27/2003 0939 Operator: AK
Sample : VBLK4N Inst : E-5973
Misc : EVBLK4N 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2



#69
1,2,3-Trichlorobenzene
Concen: 0.20 ug/L
RT: 15.42 min Scan# 2357
Delta R.T. -0.01 min
Lab File: E4010.D
Acq: 27 Mar 2003 9:39

Tgt Ion:180 Resp: 12795

Ion	Ratio	Lower	Upper
180	100		
182	95.6	76.1	116.1
145	29.7	10.3	50.3



LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\E4010.D
Acq On : 03/27/2003 0939
Sample : VBLK4N
Misc : EVBLK4N 25ML
MS Integration Params: Lscint.p

Vial: 3
Operator: AK
Inst : E-5973
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 100000 Area counts
Max Peaks: 40
Peak Location: TOP

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

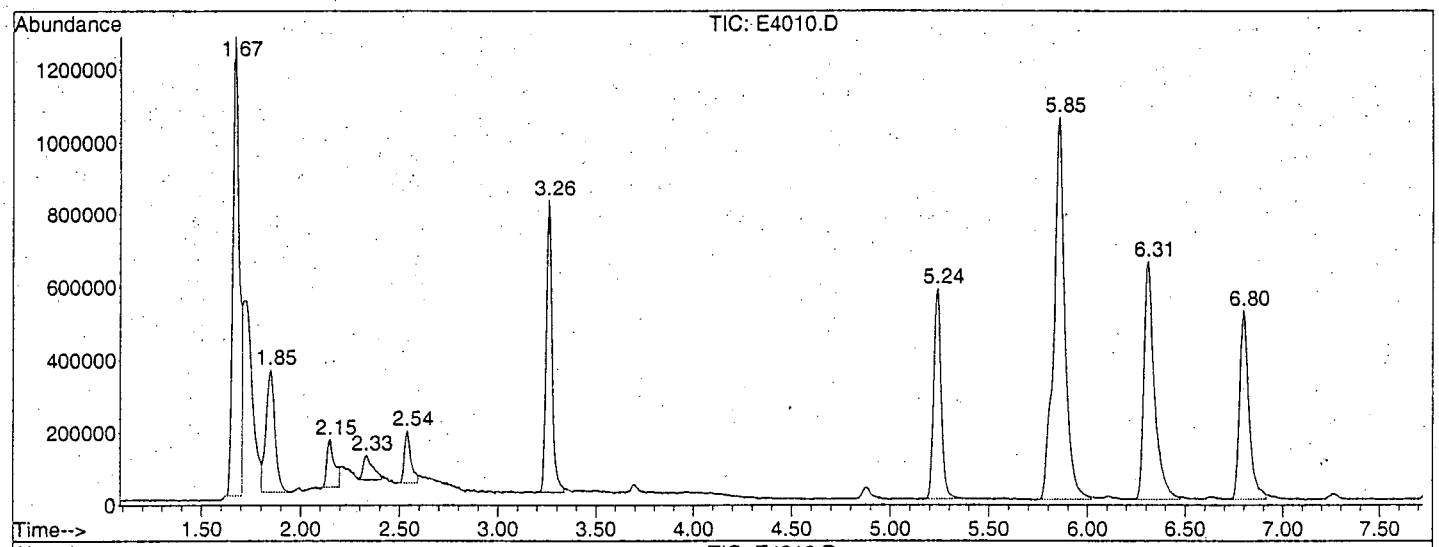
Signal : TIC

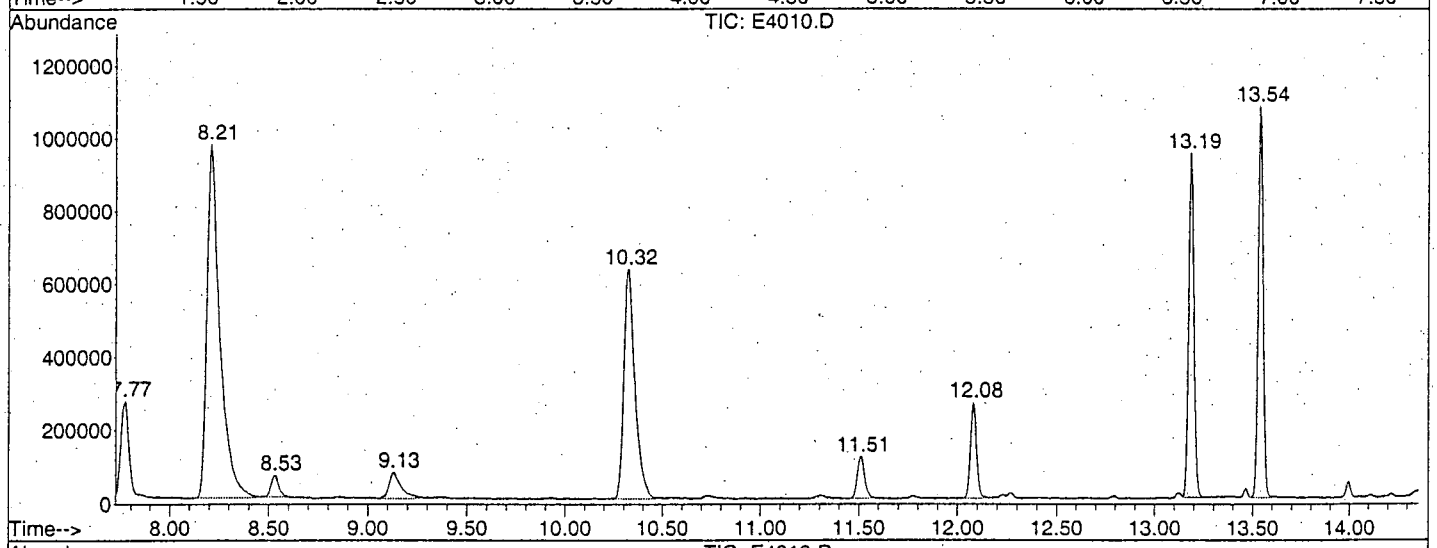
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.669	90	97	103	rBV	1264379	2938858	67.02%	10.145%
2	1.845	119	126	142	rVB	337160	1059917	24.17%	3.659%
3	2.150	170	176	184	rBV	132397	359760	8.20%	1.242%
4	2.332	200	206	219	rBV	68162	229365	5.23%	0.792%
5	2.539	234	240	249	rBV	145195	327291	7.46%	1.130%
6	3.257	351	358	371	rBV	807278	1661972	37.90%	5.737%
7	5.240	675	684	701	rBV	579400	1527879	34.84%	5.274%
8	5.855	768	785	812	rBV2	1054852	4129289	94.17%	14.254%
9	6.311	849	860	887	rBV	655839	2429460	55.41%	8.386%
10	6.798	929	940	959	rBV	519951	1723164	39.30%	5.948%
11	7.771	1089	1100	1112	rBV	265729	770934	17.58%	2.661%
12	8.209	1160	1172	1209	rBV	967363	4384822	100.00%	15.136%
13	8.531	1217	1225	1234	rBV3	58676	155000	3.53%	0.535%
14	9.128	1309	1323	1342	rBV4	70464	297785	6.79%	1.028%
15	10.320	1507	1519	1543	rBV2	626014	2500950	57.04%	8.633%
16	11.506	1707	1714	1724	rBV	113308	295393	6.74%	1.020%
17	12.078	1801	1808	1817	rBV	261865	558085	12.73%	1.926%
18	13.185	1983	1990	2001	rVB	941161	1708489	38.96%	5.898%
19	13.538	2040	2048	2058	rBV	1071845	1910541	43.57%	6.595%

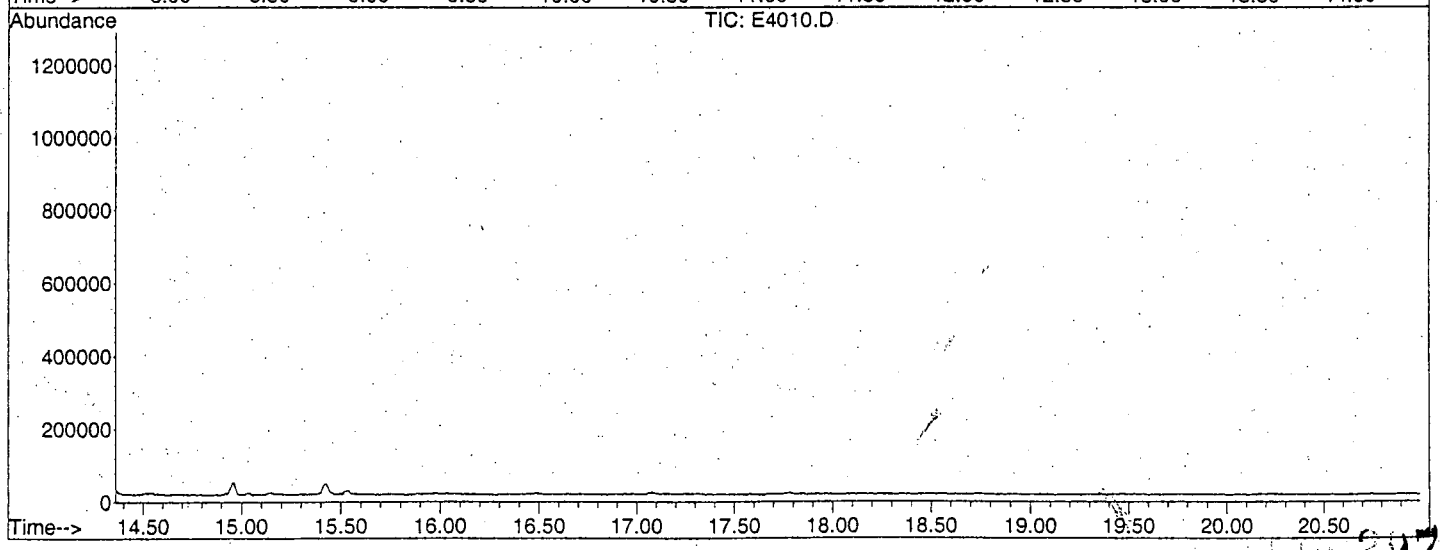
Sum of corrected areas: 28968954

LSC Report - Integrated Chromatogram

Data File : C:\MSDCHEM\1\DATA\E4010.D Vial: 3
Acq On : 03/27/2003 0939 Operator: AK
Sample : VBLK4N Inst : E-5973
Misc : EVBLK4N 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2







Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4010.D Vial: 3
Acq On : 03/27/2003 0939 Operator: AK
Sample : VBLK4N Inst : E-5973
Misc : EVBLK4N 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

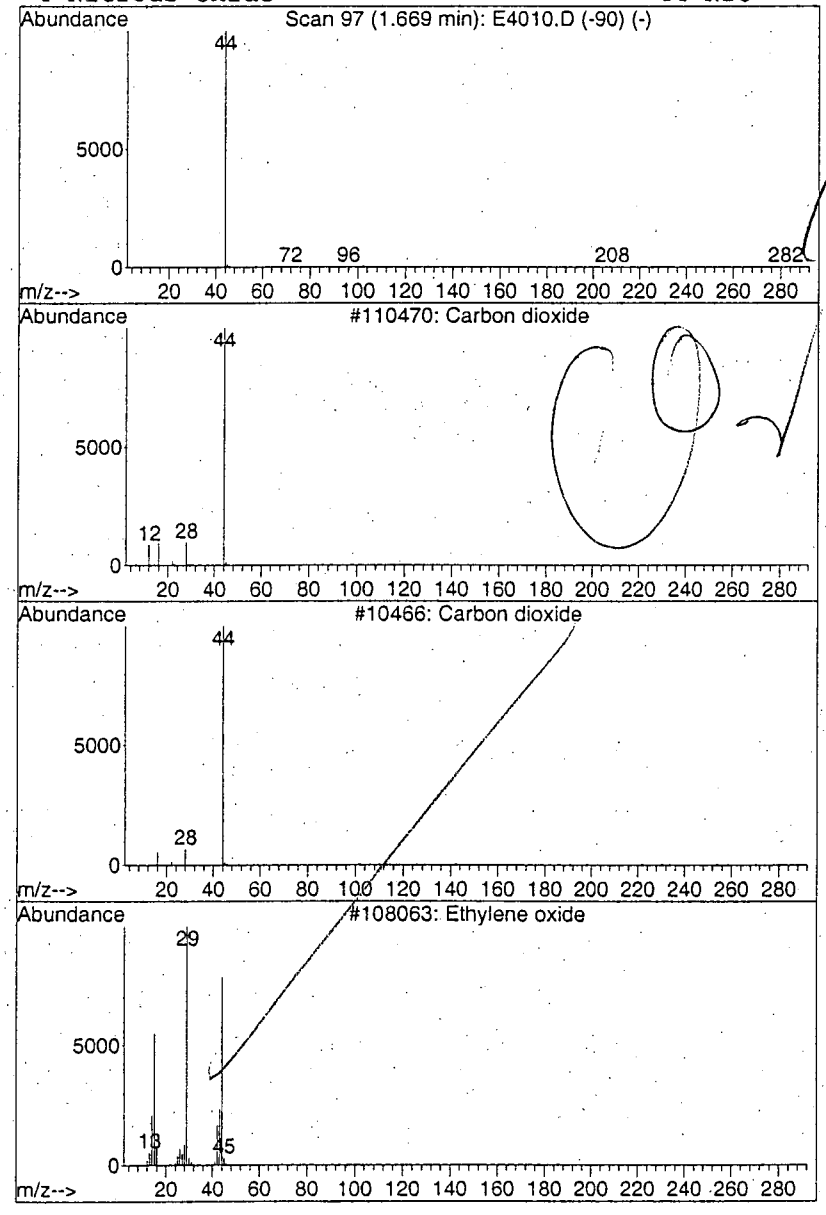
Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

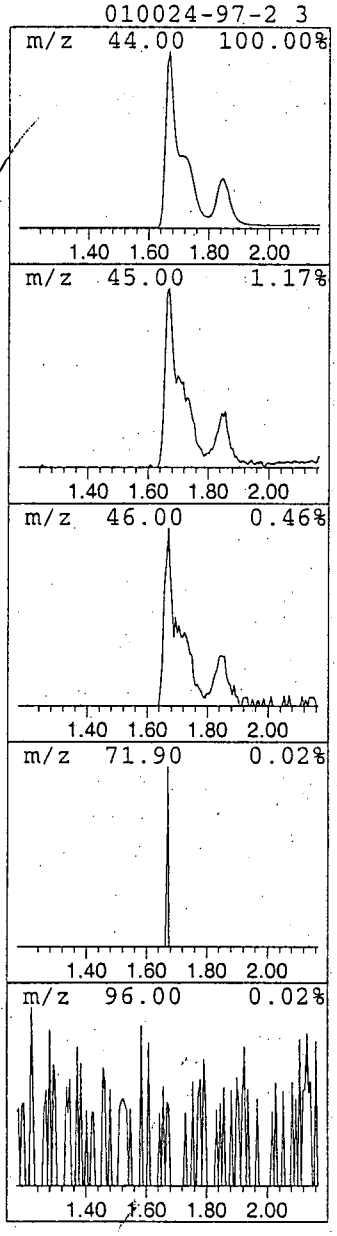
****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.67	6.05 ug/L	2938860	1,4-Difluorobenzene	6.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3





298

Data File : C:\MSDCHEM\1\DATA\E4010.D Vial: 3
Acq On : 03/27/2003 0939 Operator: AK
Sample : VBLK4N Inst : E-5973
Misc : EVBLK4N 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

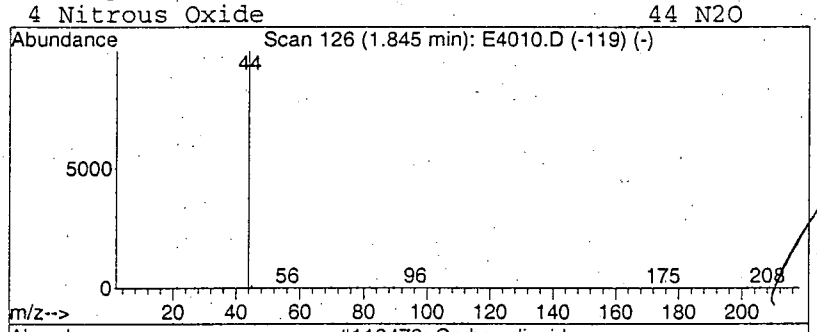
Quant Method : C:\MSDCHEM\1\METHODS\LCE4009.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

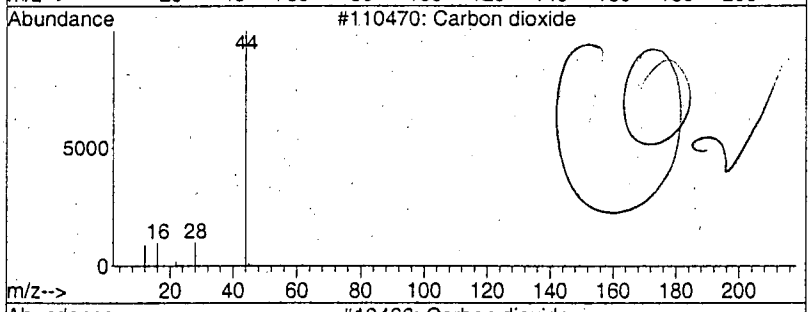
****

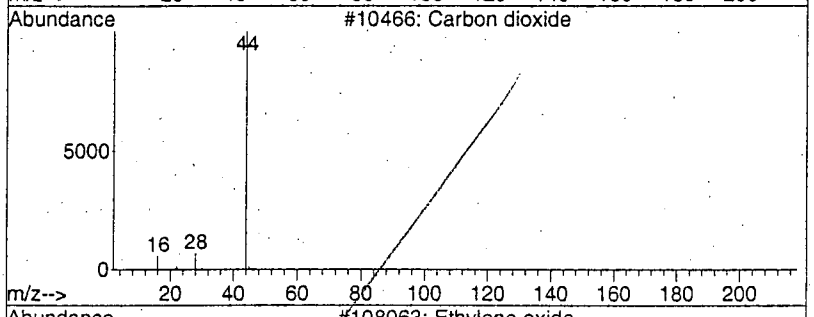
Peak Number 2 Carbon dioxide Concentration Rank 2

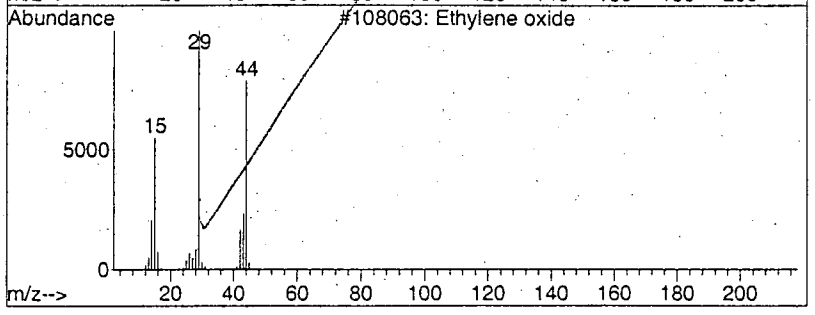
R.T.	EstConc	Area	Relative to ISTD	R.T.
1.85	2.18 ug/L	1059920	1,4-Difluorobenzene	6.31

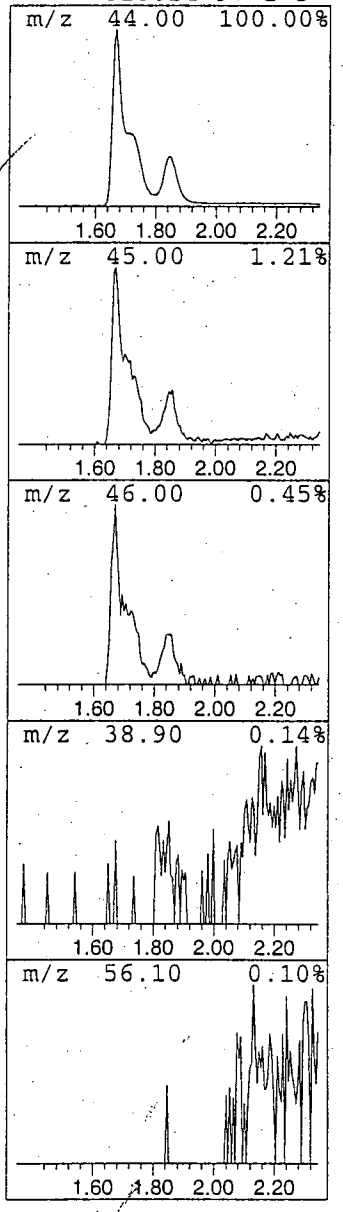
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3











1LCA
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

VBLK4R

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: EVBLK4R Date Received: _____

Lab File ID: E4071 Date Analyzed: 03/30/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl Chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	2.0	J
75-15-0	Carbon Disulfide	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.23	J
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-Butyl Ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon Tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

1LCB

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS

DATA SHEET

EPA SAMPLE NO.

VBLK4R

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: EVBLK4R Date Received: _____

Lab File ID: E4071 Date Analyzed: 03/30/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
1330-20-7	Xylene (total)	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.16	J
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.17	J

1LCF

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS

DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK4R

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: EVBLK4R Date Received: _____

Lab File ID: E4071 Date Analyzed: 03/30/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

Number TICs found: 1

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01		UNKNOWN	14.00	0.79	J
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4071.D
Acq On : 03/30/2003 1300
Sample : VBLK4R
Misc : EVBLK4R 25ML
MS Integration Params: RTEINT.P
Quant Time: Mar 31 11:45:46 2003

Vial: 3
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Results File: LCE4070.RES

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Sun Mar 30 13:10:50 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4070.D
DataAcq Meth : VOAC

ORIGINAL COPY
Case: 31520 SDG: YOSL3
Episode: 2761/2775 Int./Date: 03/30/03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Difluorobenzene	6.31	114	1090155	5.00	ug/L	0.00
28) Chlorobenzene-d5	10.32	117	768108	5.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	13.19	152	228899	5.00	ug/L	0.00
System Monitoring Compounds						
4) Vinyl Chloride-d3	2.14	65	397611	5.12	ug/L	0.00
Spiked Amount 5.000	Range 49 - 138		Recovery	=	102.40%	
7) Chloroethane-d5	2.53	69	347714	5.07	ug/L	0.00
Spiked Amount 5.000	Range 60 - 126		Recovery	=	101.40%	
10) 1,1-Dichloroethene-d2	3.25	65	176070	4.93	ug/L	0.00
Spiked Amount 5.000	Range 65 - 130		Recovery	=	98.60%	
20) 2-Butanone-d5	4.88	46	38404	4.12	ug/L	0.00
Spiked Amount 5.000	Range 42 - 171		Recovery	=	82.40%	
24) Chloroform-d	5.23	86	417237	4.82	ug/L	0.00
Spiked Amount 5.000	Range 80 - 123		Recovery	=	96.40%	
26) 1,2-Dichloroethane-d4	5.81	65	210270	4.45	ug/L	0.00
Spiked Amount 5.000	Range 78 - 129		Recovery	=	89.00%	
32) Benzene-d6	5.85	84	1757566	5.36	ug/L	0.00
Spiked Amount 5.000	Range 78 - 121		Recovery	=	107.20%	
35) 1,2-Dichloropropane-d6	6.80	67	405714	4.49	ug/L	0.00
Spiked Amount 5.000	Range 84 - 123		Recovery	=	89.80%	
41) Toluene-d8	8.21	98	1610620	5.15	ug/L	0.00
Spiked Amount 5.000	Range 77 - 120		Recovery	=	103.00%	
43) trans-1,3-Dichloropropene-	8.53	79	56762	4.89	ug/L	0.00
Spiked Amount 5.000	Range 80 - 128		Recovery	=	97.80%	
47) 2-Hexanone-d5	9.13	46	53451	4.11	ug/L	0.00
Spiked Amount 5.000	Range 37 - 169		Recovery	=	82.20%	
58) 1,1,2,2-Tetrachloroethane-	12.08	84	141167	4.46	ug/L	0.00
Spiked Amount 5.000	Range 75 - 131		Recovery	=	89.20%	
61) Bromoform-d	11.51	174	80731	4.40	ug/L	0.00
Spiked Amount 5.000	Range 76 - 135		Recovery	=	88.00%	
65) 1,2-Dichlorobenzene-d4	13.54	152	258147	4.97	ug/L	0.00
Spiked Amount 5.000	Range 50 - 150		Recovery	=	99.40%	

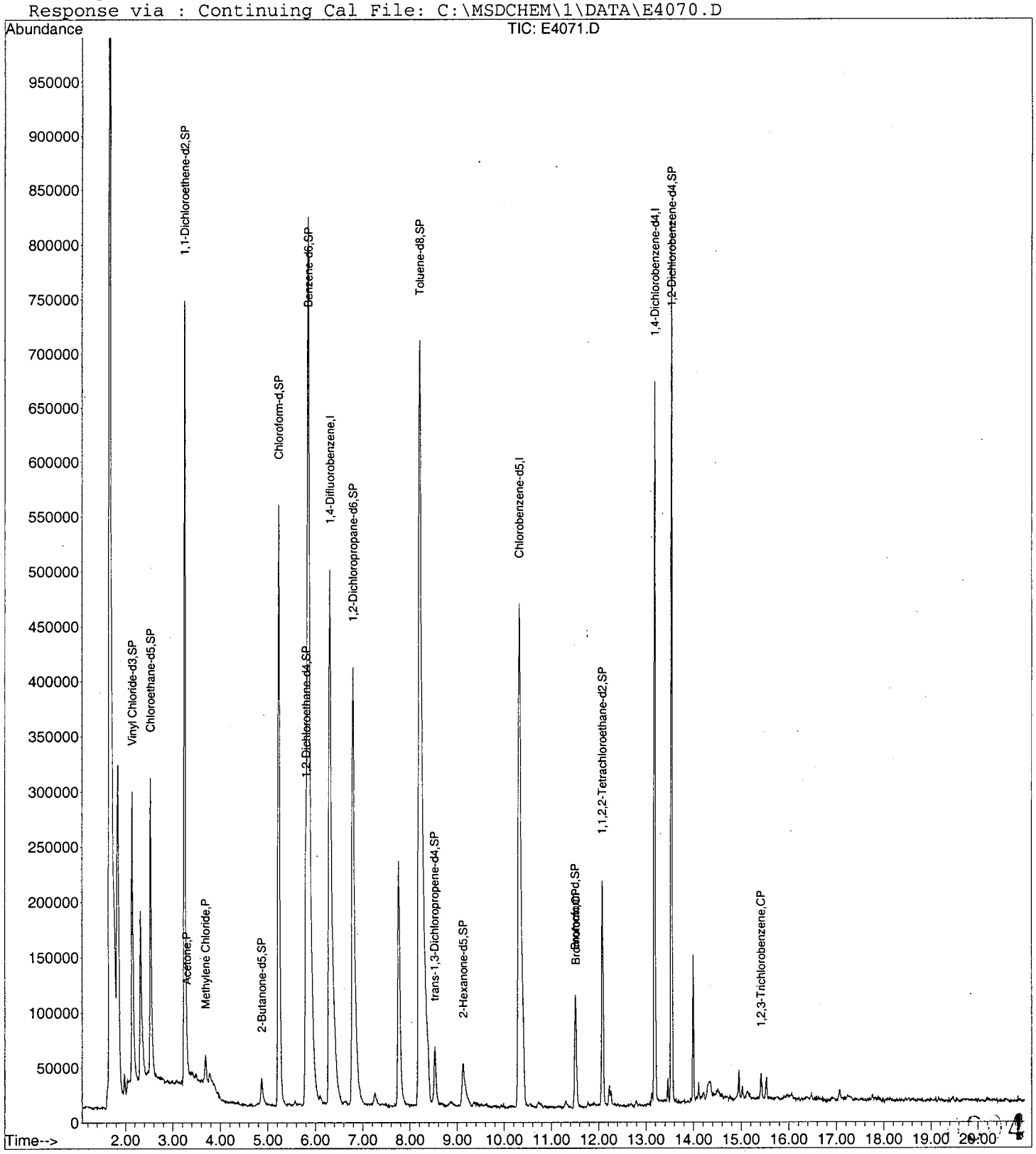
Target Compounds						Qvalue
13) Acetone	3.31	43	14011	1.96	ug/L J	81
16) Methylene Chloride	3.70	84	17999	0.23	ug/L J	94
62) Bromoform	11.52	173	3334	0.16	ug/L J	83
69) 1,2,3-Trichlorobenzene	15.42	180	8678	0.17	ug/L J	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

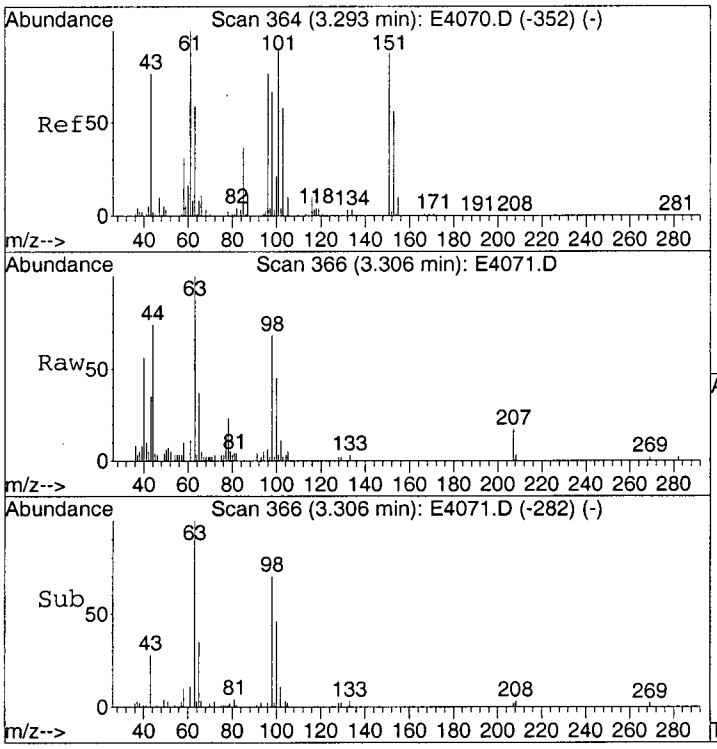
Data File : C:\MSDCHEM\1\DATA\E4071.D Vial: 3
Acq On : 03/30/2003 1300 Operator: AK
Sample : VBLK4R Inst : E-5973
Misc : EVBLK4R 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 31 11:46 2003 Quant Results File: LCE4070.RES

Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Sun Mar 30 13:10:50 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4070.D



Data File : C:\MSDCHEM\1\DATA\E4071.D
Acq On : 03/30/2003 1300
Sample : VBLK4R
Misc : EVBLK4R 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

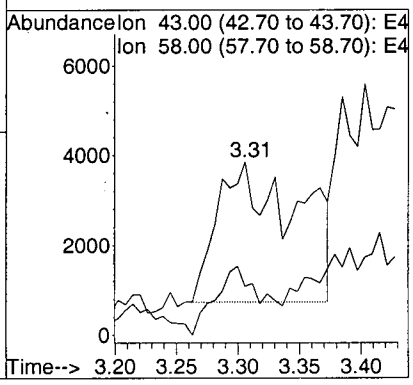
Vial: 3
Operator: AK
Inst : E-5973
Multiplr: 1.00

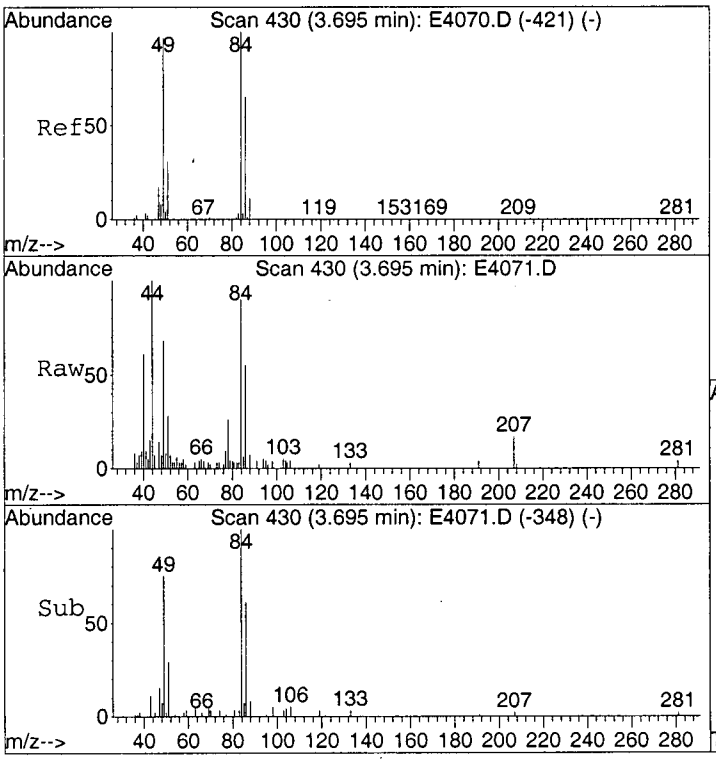


#13
Acetone
Concen: 1.96 ug/L
RT: 3.31 min Scan# 366
Delta R.T. 0.01 min
Lab File: E4071.D
Acq: 30 Mar 2003 13:00

Tgt Ion: 43 Resp: 14011

Ion	Ratio	Lower	Upper
43	100		
58	29.2	21.4	61.4

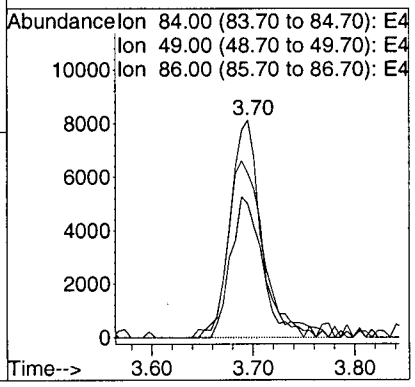




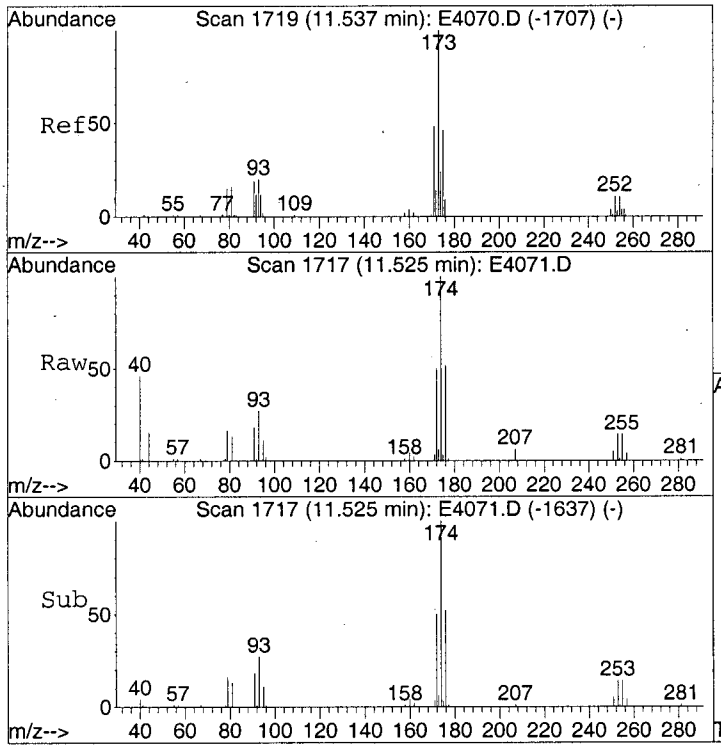
#16
Methylene Chloride
Concen: 0.23 ug/L
RT: 3.70 min Scan# 430
Delta R.T. 0.00 min
Lab File: E4071.D
Acq: 30 Mar 2003 13:00

Tgt Ion: 84 Resp: 17999

Ion	Ratio	Lower	Upper
84	100		
49	85.1	74.2	114.2
86	64.3	43.4	83.4



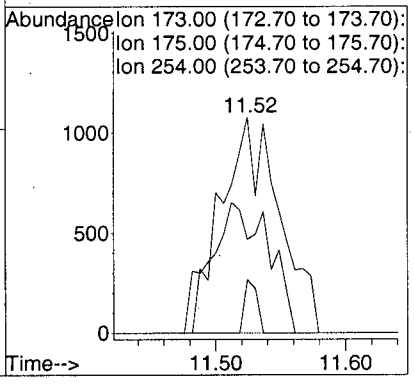
Data File : C:\MSDCHEM\1\DATA\E4071.D Vial: 3
Acq On : 03/30/2003 1300 Operator: AK
Sample : VBLK4R Inst : E-5973
Misc : EVBLK4R 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

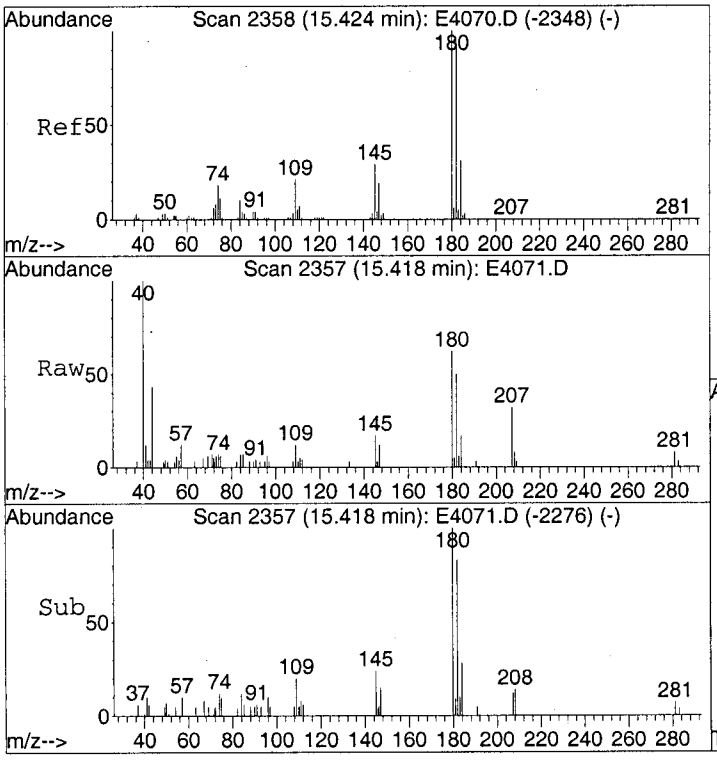


#62
Bromoform
Concen: 0.16 ug/L
RT: 11.52 min Scan# 1717
Delta R.T. -0.01 min
Lab File: E4071.D
Acq: 30 Mar 2003 13:00

Tgt Ion:173 Resp: 3334

Ion	Ratio	Lower	Upper
173	100		
175	61.8	29.7	69.7
254	5.3	0.0	31.6

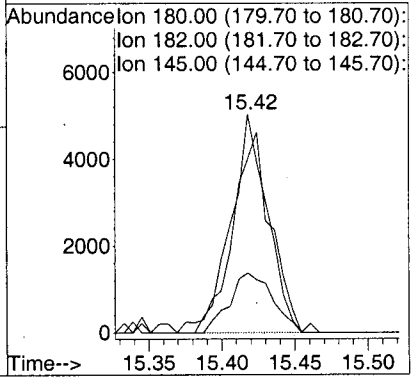




#69
1,2,3-Trichlorobenzene
Concen: 0.17 ug/L
RT: 15.42 min Scan# 2357
Delta R.T. -0.01 min
Lab File: E4071.D
Acq: 30 Mar 2003 13:00

Tgt Ion:180 Resp: 8678

Ion	Ratio	Lower	Upper
180	100		
182	97.5	75.9	115.9
145	32.3	10.7	50.7



0306

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\E4071.D
Acq On : 03/30/2003 1300
Sample : VBLK4R
Misc : EVBLK4R 25ML
MS Integration Params: Lscint.p

Vial: 3
Operator: AK
Inst : E-5973
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 100000 Area counts
Max Peaks: 40
Peak Location: TOP

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

Signal : TIC

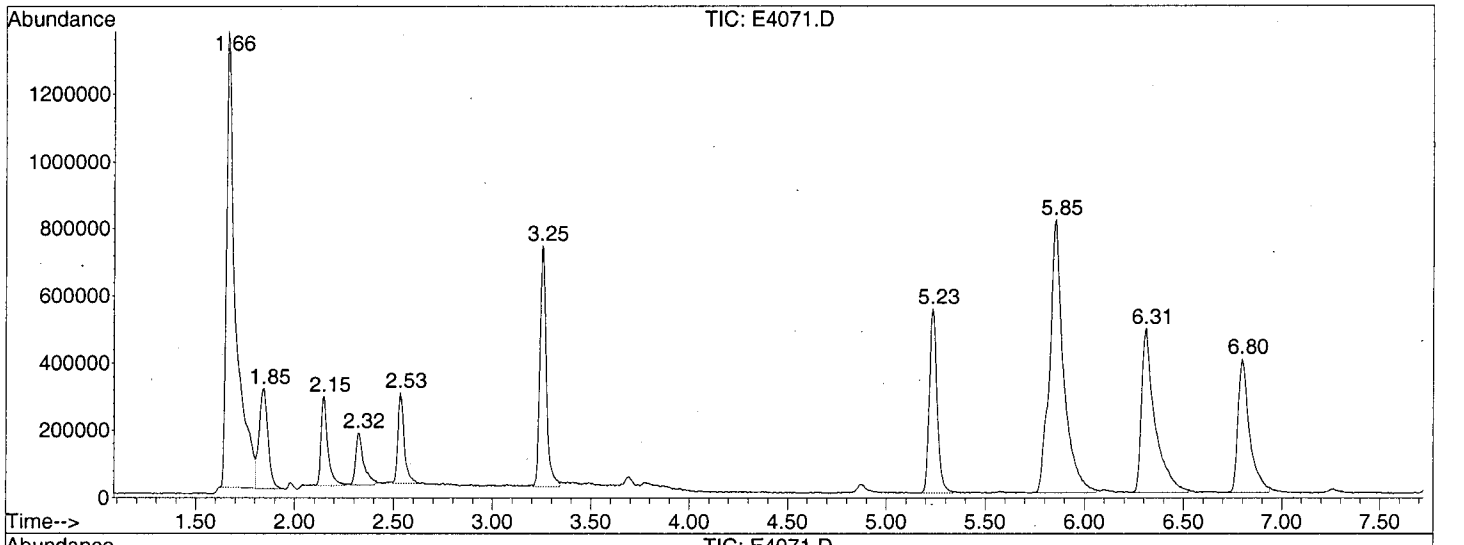
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.663	90	96	119	rBV	1352905	4424295	100.00%	15.525%
2	1.846	119	126	140	rVB	297496	908816	20.54%	3.189%
3	2.150	169	176	194	rBV	263876	619023	13.99%	2.172%
4	2.320	198	204	218	rBV	153606	423115	9.56%	1.485%
5	2.533	233	239	253	rVB	269934	581295	13.14%	2.040%
6	3.251	350	357	372	rBV	715643	1611588	36.43%	5.655%
7	5.234	674	683	700	rBV	546674	1478063	33.41%	5.187%
8	5.855	768	785	819	rBV2	809268	3920416	88.61%	13.757%
9	6.311	846	860	895	rBV	485599	2272788	51.37%	7.975%
10	6.798	927	940	963	rBV	397055	1623218	36.69%	5.696%
11	7.765	1088	1099	1120	rBV	222781	730218	16.50%	2.562%
12	8.209	1160	1172	1210	rBV	697541	3966211	89.65%	13.917%
13	8.525	1215	1224	1238	rVB2	53802	172257	3.89%	0.604%
14	9.134	1314	1324	1335	rBV3	38631	165102	3.73%	0.579%
15	10.320	1505	1519	1542	rBV2	457967	2061338	46.59%	7.233%
16	11.506	1705	1714	1727	rBV2	103232	284797	6.44%	0.999%
17	12.078	1799	1808	1818	rBV	205160	462298	10.45%	1.622%
18	13.185	1983	1990	1999	rBV	654949	1216548	27.50%	4.269%
19	13.538	2040	2048	2056	rBV	804793	1384617	31.30%	4.859%
20	13.995	2118	2123	2131	rVB	133822	192213	4.34%	0.674%

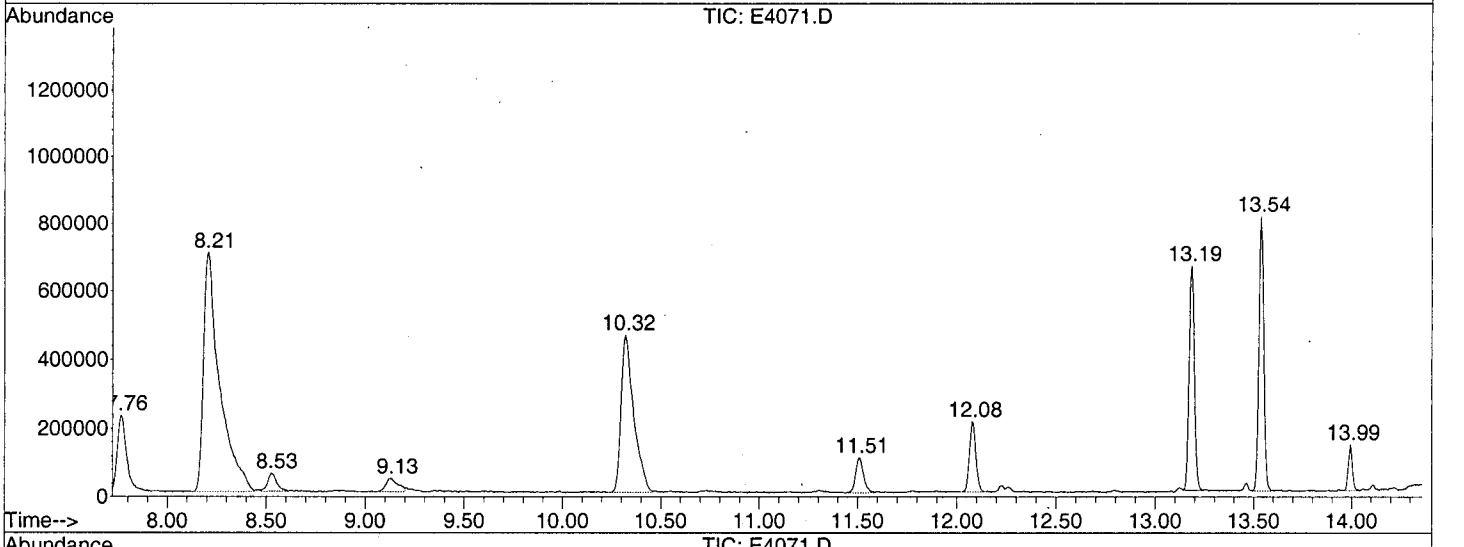
Sum of corrected areas: 28498216

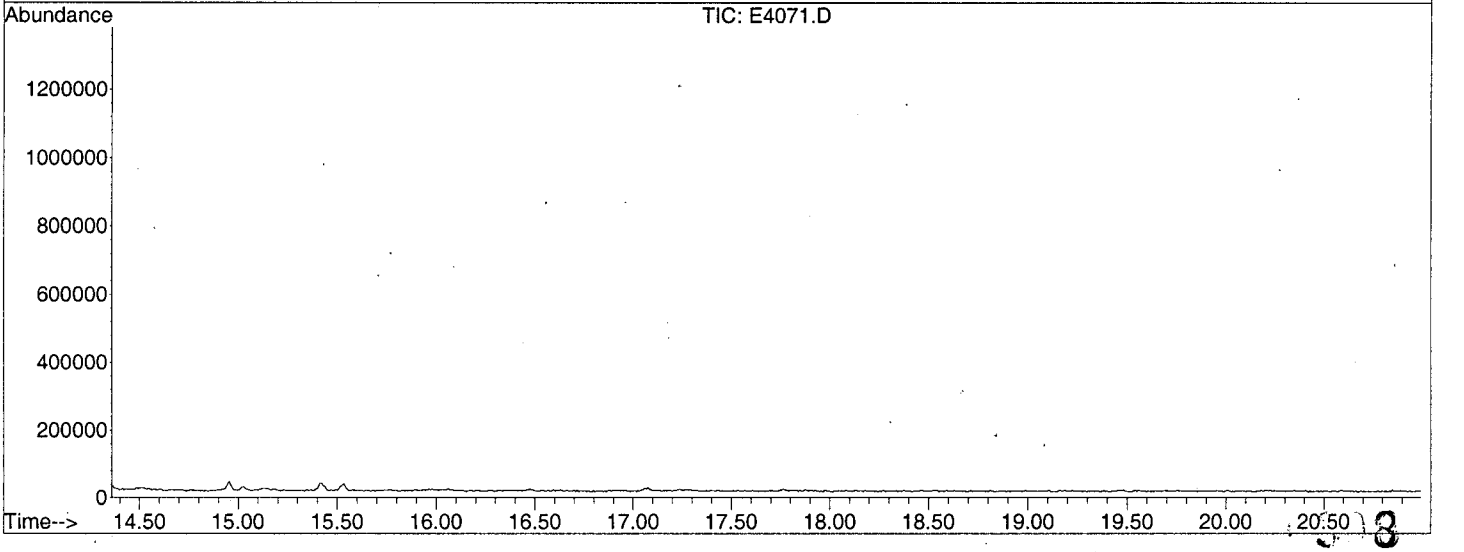
LSC Report - Integrated Chromatogram

Data File : C:\MSDCHEM\1\DATA\E4071.D
Acq On : 03/30/2003 1300
Sample : VBLK4R
Misc : EVBLK4R 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

Vial: 3
Operator: AK
Inst : E-5973
Multiplr: 1.00







Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4071.D Vial: 3
Acq On : 03/30/2003 1300 Operator: AK
Sample : VBLK4R Inst : E-5973
Misc : EVBLK4R 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

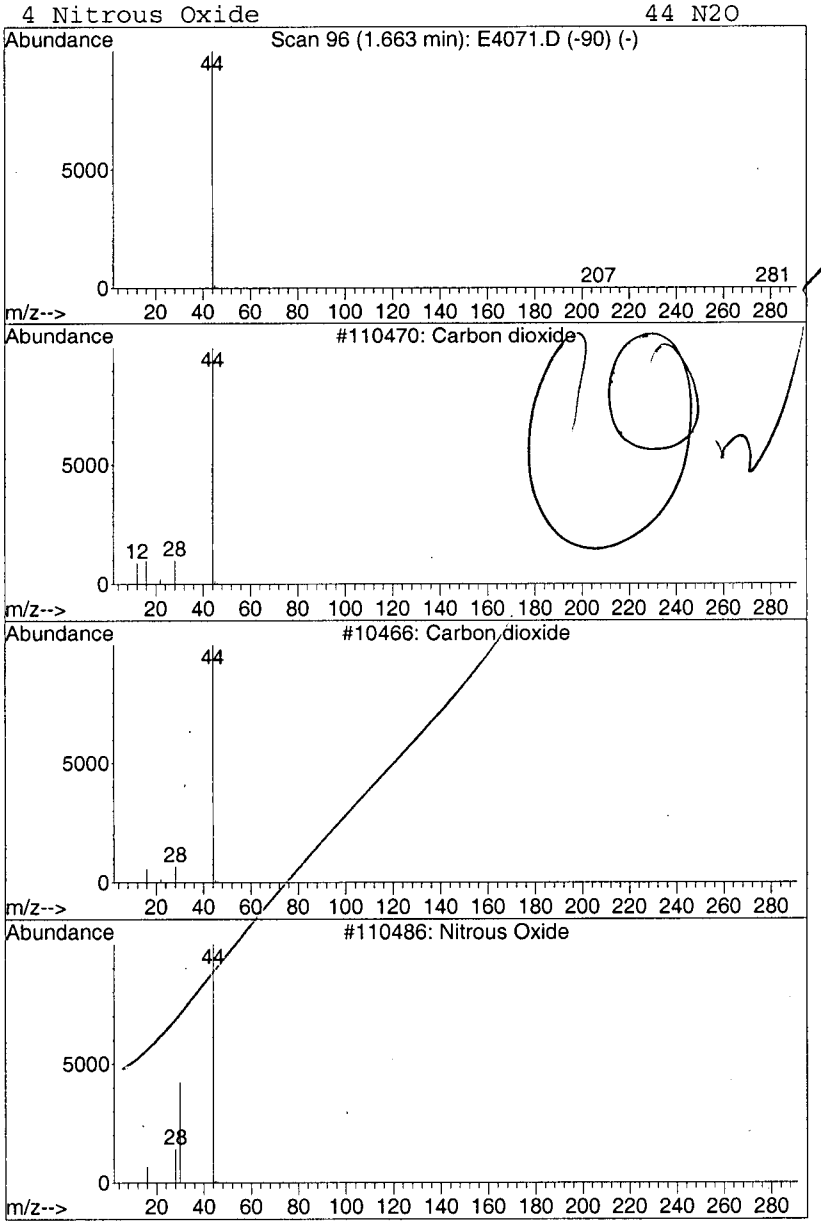
Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

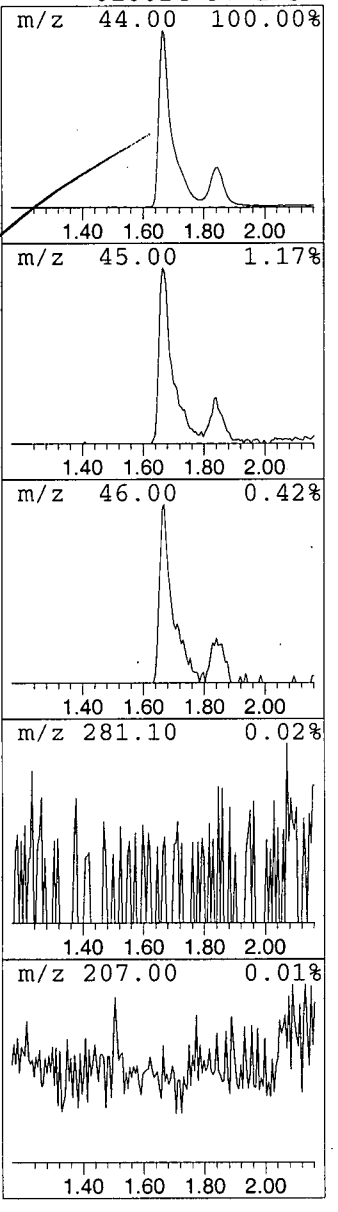
****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.66	9.73 ug/L	4424300	1,4-Difluorobenzene	6.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4071.D Vial: 3
Acq On : 03/30/2003 1300 Operator: AK
Sample : VBLK4R Inst : E-5973
Misc : EVBLK4R 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

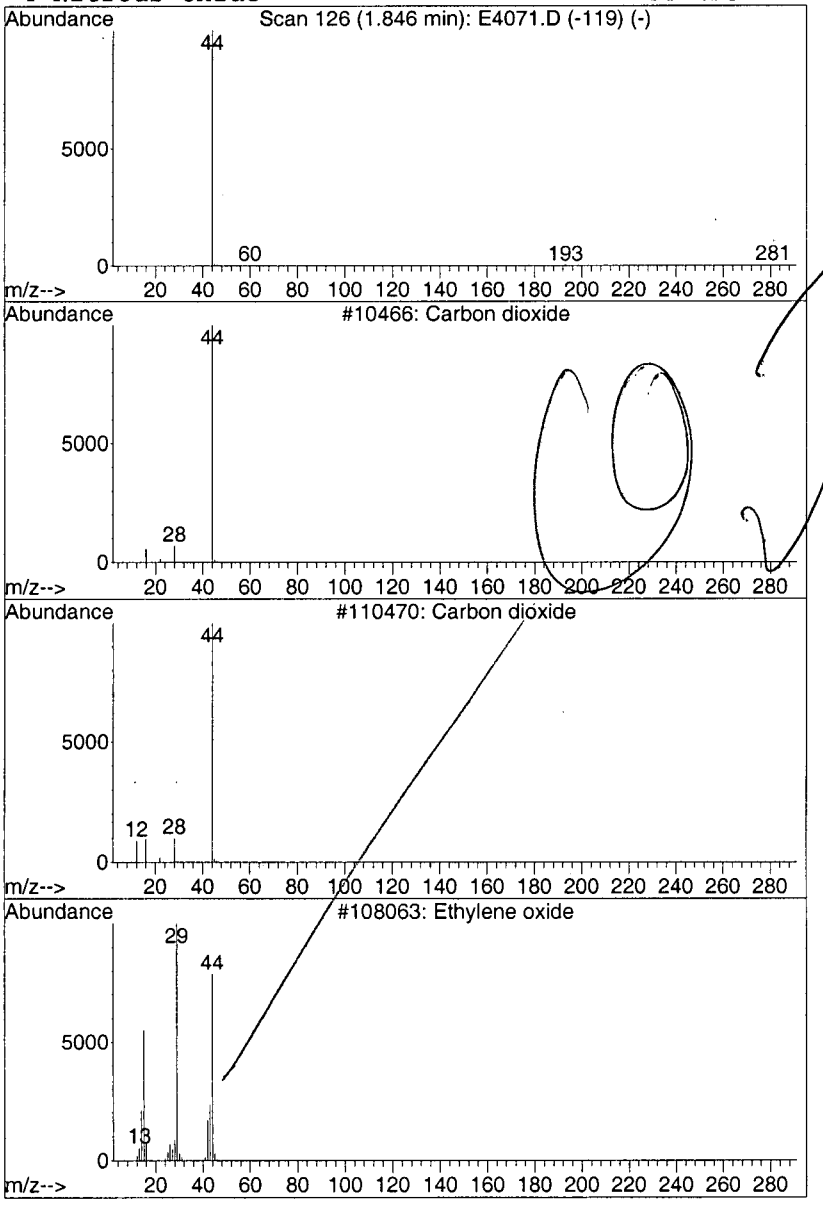
Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

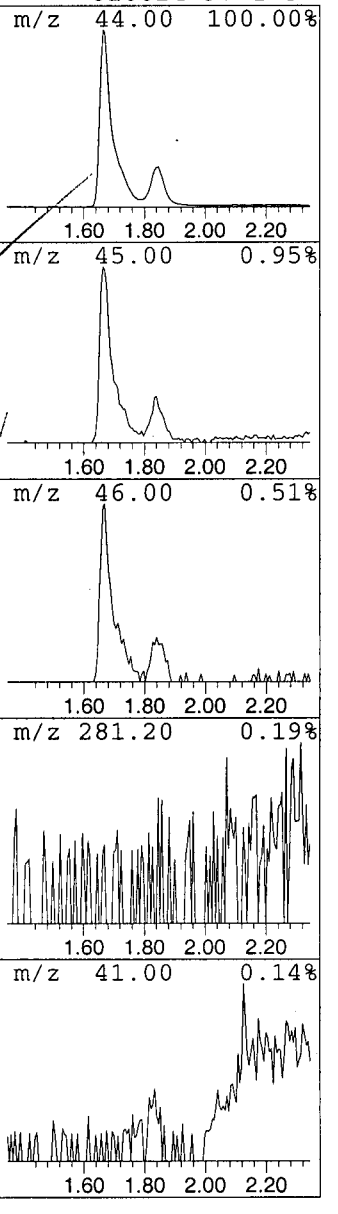
****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.85	2.00 ug/L	908816	1,4-Difluorobenzene	6.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4071.D Vial: 3
Acq On : 03/30/2003 1300 Operator: AK
Sample : VBLK4R Inst : E-5973
Misc : EVBLK4R 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

Quant Method : C:\MSDCHEM\1\METHODS\LCE4070.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

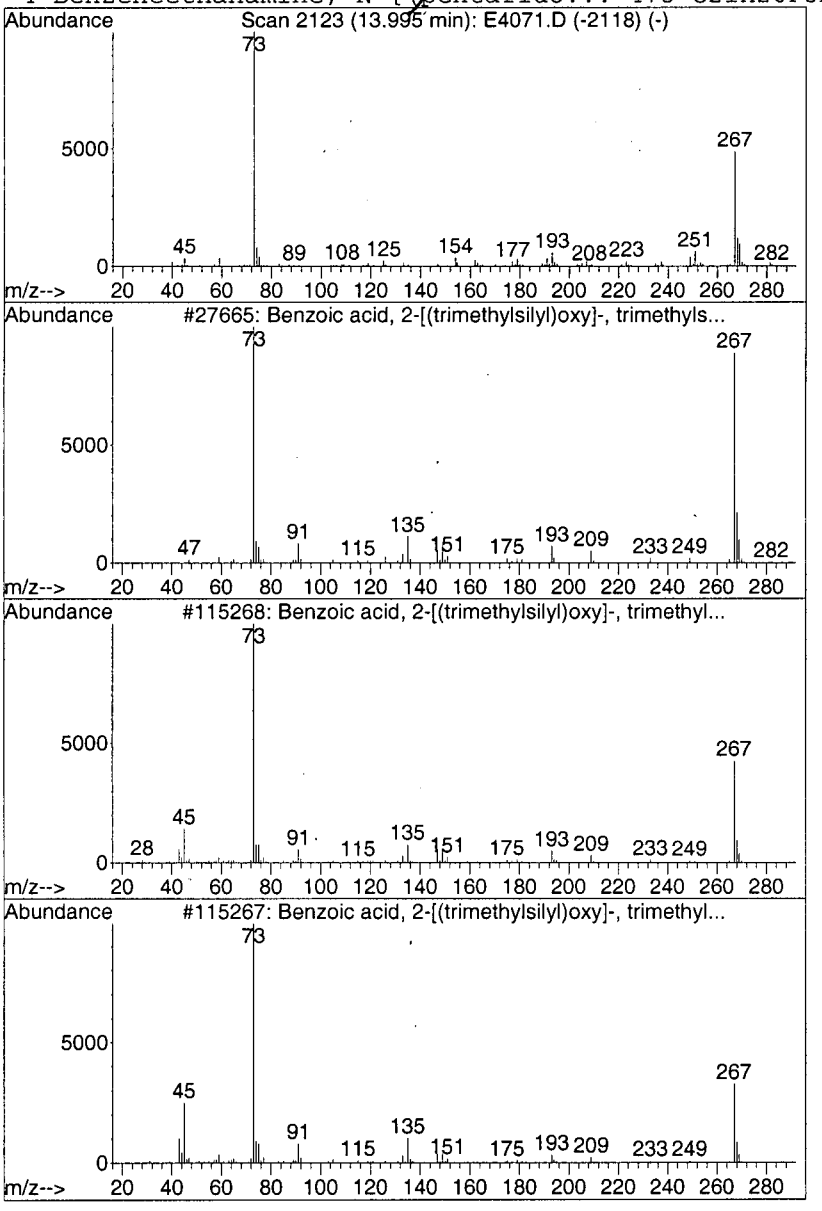
****

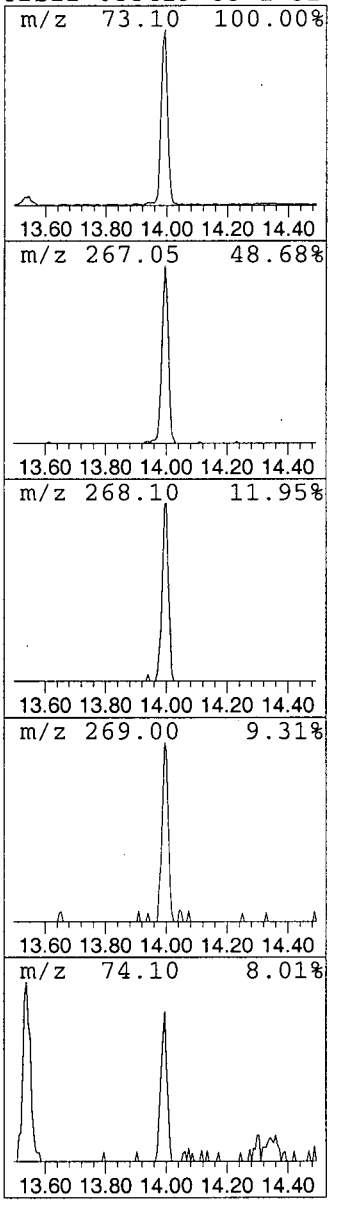
Peak Number 5 Benzoic acid, 2-[(trimethyl... Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.99	0.79 ug/L	192213	1,4-Dichlorobenzene-d4	13.19

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	64
2	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	45
3	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	38
4	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	32

Unknown





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1LCA
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

VBLK4S

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: EVBLK4S Date Received: _____

Lab File ID: E4079 Date Analyzed: 03/31/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.18	J
75-01-4	Vinyl Chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	1.0	J
75-15-0	Carbon Disulfide	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.38	J
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-Butyl Ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.15	J
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon Tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

1LCB

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS

DATA SHEET

EPA SAMPLE NO.

VBLK4S

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: EVBLK4S Date Received: _____

Lab File ID: E4079 Date Analyzed: 03/31/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
1330-20-7	Xylene (total)	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1LCF

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS

DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK4S

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: EVBLK4S Date Received: _____

Lab File ID: E4079 Date Analyzed: 03/31/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

Data File : C:\MSDCHEM\1\DATA\E4079.D Vial: 5
Acq On : 03/31/2003 1522 Operator: AK
Sample : VBLK4S Inst : E-5973
Misc : EVBLK4S 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 31 15:47:21 2003 Quant Results File: LCE4078.RES

Quant Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Mon Mar 31 14:25:59 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4078.D
DataAcq Meth : VOAC

ORIGINAL COPY
Case: 31517 SDG: CA9Z7
Episode: 2749 Int./Date: 03/31/03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Difluorobenzene	6.30	114	1016494	5.00	ug/L	0.00
28) Chlorobenzene-d5	10.32	117	727207	5.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	13.19	152	267717	5.00	ug/L	0.00
System Monitoring Compounds						
4) Vinyl Chloride-d3	2.14	65	453066	5.13	ug/L	0.00
Spiked Amount 5.000	Range 49 - 138		Recovery	=	102.60%	
7) Chloroethane-d5	2.53	69	401190	5.32	ug/L	0.00
Spiked Amount 5.000	Range 60 - 126		Recovery	=	106.40%	
10) 1,1-Dichloroethene-d2	3.26	65	207538	5.27	ug/L	0.00
Spiked Amount 5.000	Range 65 - 130		Recovery	=	105.40%	
20) 2-Butanone-d5	4.87	46	36922	4.76	ug/L	0.00
Spiked Amount 5.000	Range 42 - 171		Recovery	=	95.20%	
24) Chloroform-d	5.23	86	465830	5.02	ug/L	0.00
Spiked Amount 5.000	Range 80 - 123		Recovery	=	100.40%	
26) 1,2-Dichloroethane-d4	5.81	65	242819	4.95	ug/L	0.00
Spiked Amount 5.000	Range 78 - 129		Recovery	=	99.00%	
32) Benzene-d6	5.85	84	1955752	5.28	ug/L	0.00
Spiked Amount 5.000	Range 78 - 121		Recovery	=	105.60%	
35) 1,2-Dichloropropane-d6	6.80	67	449192	4.64	ug/L	0.00
Spiked Amount 5.000	Range 84 - 123		Recovery	=	92.80%	
41) Toluene-d8	8.20	98	1788018	5.10	ug/L	0.00
Spiked Amount 5.000	Range 77 - 120		Recovery	=	102.00%	
43) trans-1,3-Dichloropropene-	8.53	79	61136	4.92	ug/L	0.00
Spiked Amount 5.000	Range 80 - 128		Recovery	=	98.40%	
47) 2-Hexanone-d5	9.12	46	53049	4.57	ug/L	0.00
Spiked Amount 5.000	Range 37 - 169		Recovery	=	91.40%	
58) 1,1,2,2-Tetrachloroethane-	12.08	84	164403	5.02	ug/L	0.00
Spiked Amount 5.000	Range 75 - 131		Recovery	=	100.40%	
61) Bromoform-d	11.51	174	89762	4.15	ug/L	0.00
Spiked Amount 5.000	Range 76 - 135		Recovery	=	83.00%	
65) 1,2-Dichlorobenzene-d4	13.54	152	356225	5.22	ug/L	0.00
Spiked Amount 5.000	Range 50 - 150		Recovery	=	104.40%	

Target Compounds						Qvalue
3) Chloromethane	1.98	50	37781	0.18	ug/L J	83
13) Acetone	3.29	43	5593	1.04	ug/L J	91
16) Methylene Chloride	3.69	84	28091	0.38	ug/L J	99
25) Chloroform	5.26	83	19596	0.15	ug/L #J	48

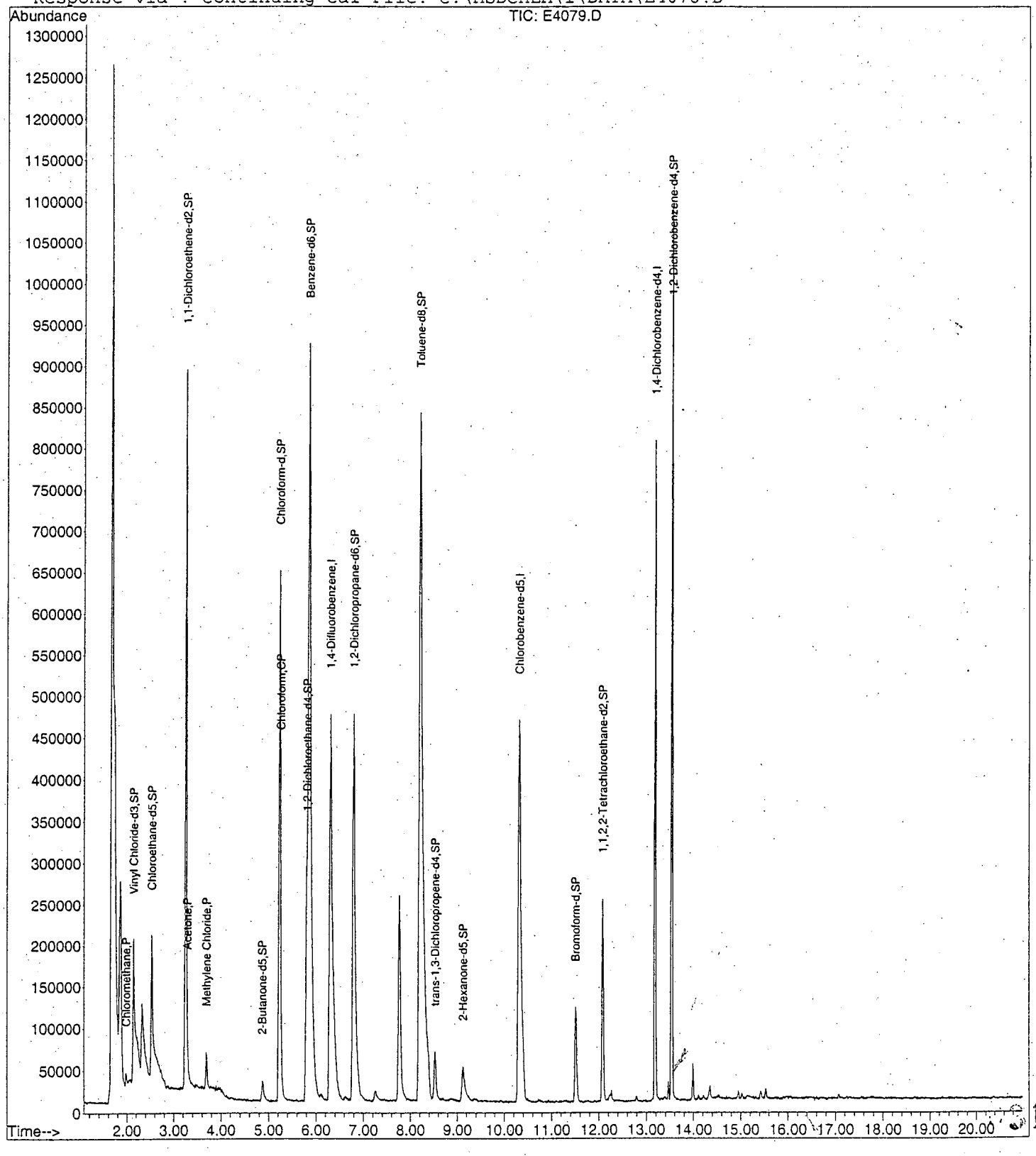
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\MSDCHEM\1\DATA\E4079.D
Acq On : 03/31/2003 1522
Sample : VBLK4S
Misc : EVBLK4S 25ML
MS Integration Params: RTEINT.P
Quant Time: Mar 31 15:49 2003

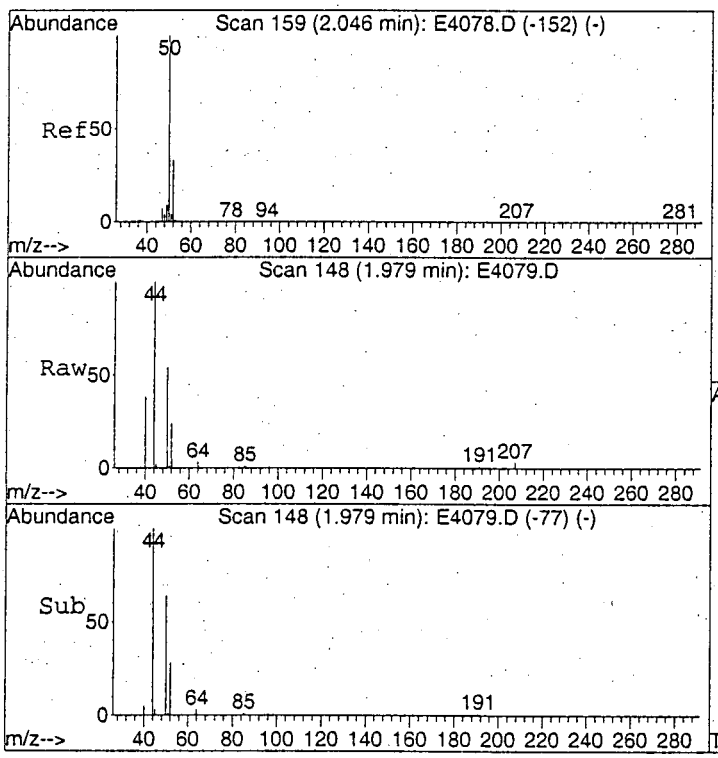
Vial: 5
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Results File: LCE4078.RES

Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Mon Mar 31 14:25:59 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4078.D



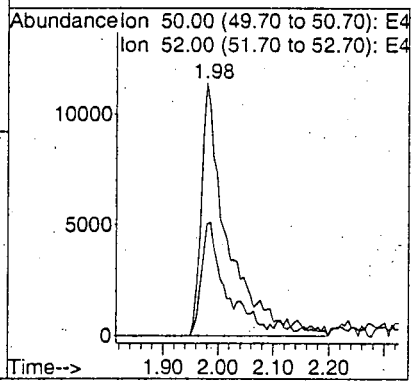
Data File : C:\MSDCHEM\1\DATA\E4079.D Vial: 5
Acq On : 03/31/2003 1522 Operator: AK
Sample : VBLK4S Inst : E-5973
Misc : EVBLK4S 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

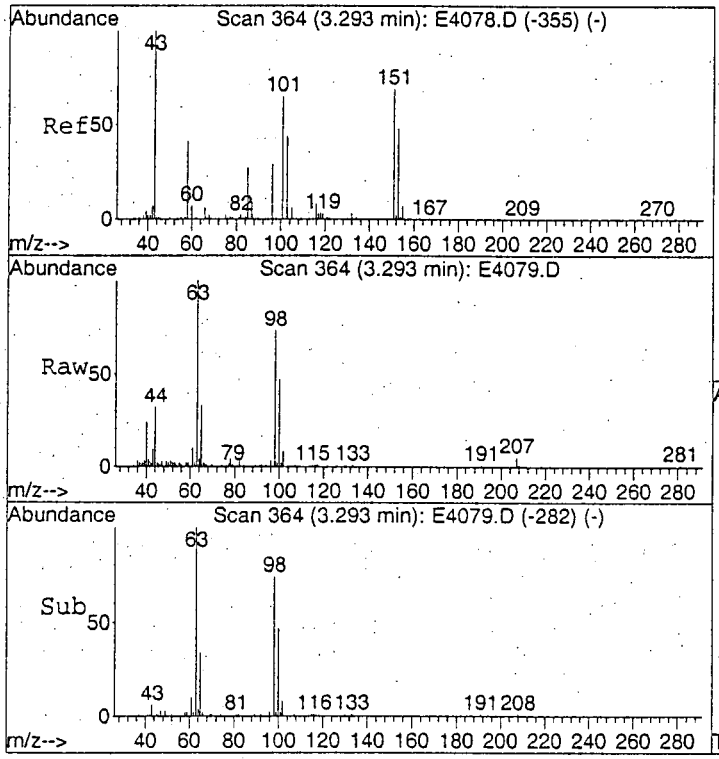


#3
Chloromethane
Concen: 0.18 ug/L
RT: 1.98 min Scan# 148
Delta R.T. -0.07 min
Lab File: E4079.D
Acq: 31 Mar 2003 15:22

Tgt Ion: 50 Resp: 37781

Ion	Ratio	Lower	Upper
50	100		
52	42.7	12.9	52.9

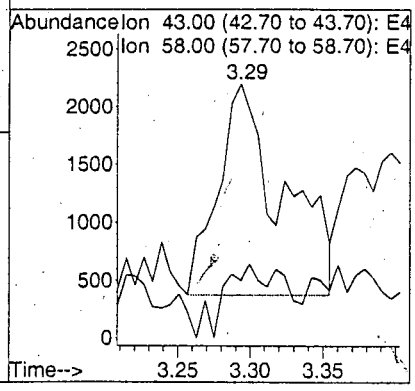




#13
Acetone
Concen: 1.04 ug/L
RT: 3.29 min Scan# 364
Delta R.T. -0.00 min
Lab File: E4079.D
Acq: 31 Mar 2003 15:22

Tgt Ion: 43 Resp: 5593

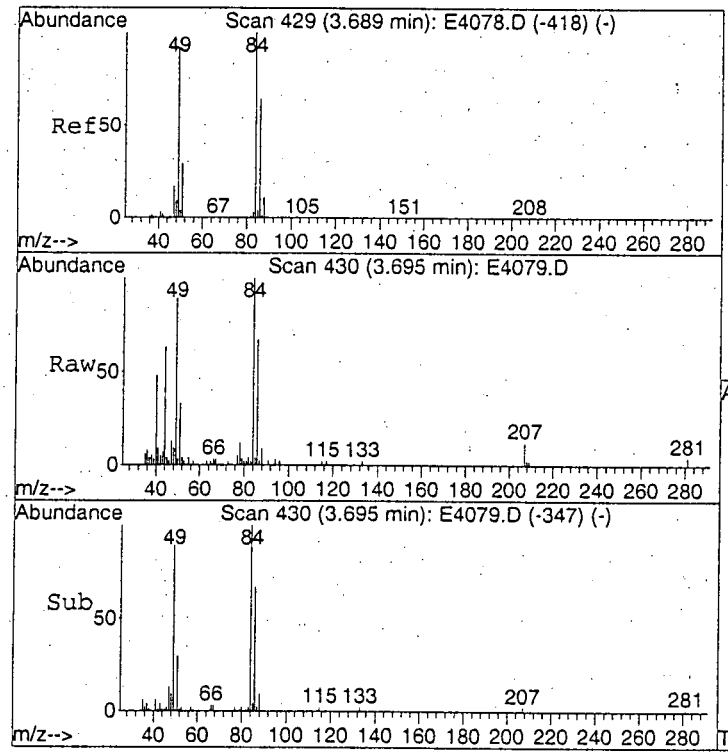
Ion	Ratio	Lower	Upper
43	100		
58	34.0	19.5	59.5



317

Data File : C:\MSDCHEM\1\DATA\E4079.D
Acq On : 03/31/2003 1522
Sample : VBLK4S
Misc : EVBLK4S 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

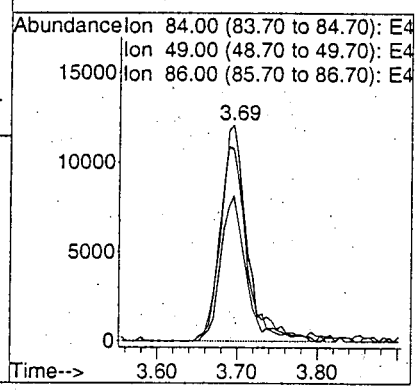
Vial: 5
Operator: AK
Inst : E-5973
Multiplr: 1.00

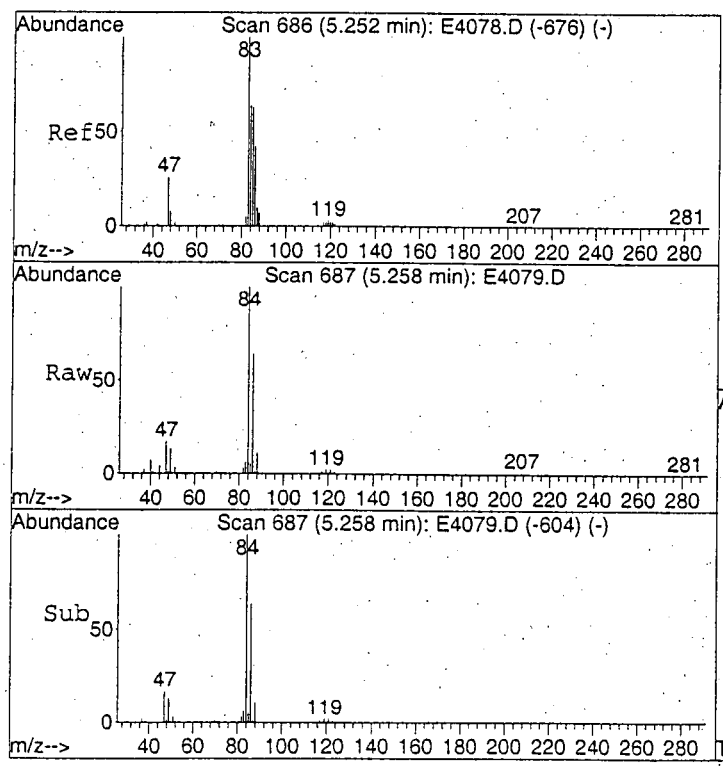


#16
Methylene Chloride
Concen: 0.38 ug/L
RT: 3.69 min Scan# 430
Delta R.T. 0.01 min
Lab File: E4079.D
Acq: 31 Mar 2003 15:22

Tgt Ion: 84 Resp: 28091

Ion	Ratio	Lower	Upper
84	100		
49	91.5	71.8	111.8
86	64.9	43.5	83.5

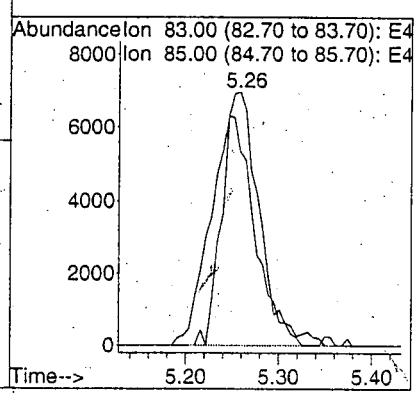




#25
Chloroform
Concen: 0.15 ug/L
RT: 5.26 min Scan# 687
Delta R.T. 0.01 min
Lab File: E4079.D
Acq: 31 Mar 2003 15:22

Tgt Ion: 83 Resp: 19596

Ion	Ratio	Lower	Upper
83	100		
85	106.6	45.6	85.6#



Data File : C:\MSDCHEM\1\DATA\E4079.D Vial: 5
Acq On : 03/31/2003 1522 Operator: AK
Sample : VBLK4S Inst : E-5973
Misc : EVBLK4S 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 100000 Area counts
Start Thrs: 0.2 Max Peaks: 40
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	1.663	83	96	120	rBV	1254491	4756862	100.00%	15.626%
2	1.858	120	128	143	rVB	248780	849543	17.86%	2.791%
3	2.144	168	175	186	rBV	173252	495790	10.42%	1.629%
4	2.326	200	205	232	rVB	85319	360818	7.59%	1.185%
5	2.533	234	239	251	rBV	166726	427465	8.99%	1.404%
6	3.257	349	358	374	rBV	866838	1843287	38.75%	6.055%
7	5.234	674	683	702	rBV	639126	1671959	35.15%	5.492%
8	5.848	768	784	821	rBV2	914456	4417726	92.87%	14.512%
9	6.305	850	859	894	rBV2	463591	2123869	44.65%	6.977%
10	6.797	928	940	966	rBV2	465507	1822055	38.30%	5.985%
11	7.765	1089	1099	1115	rBV3	247525	791100	16.63%	2.599%
12	8.203	1161	1171	1212	rBV	829443	4403485	92.57%	14.465%
13	8.531	1216	1225	1234	rBV2	55427	159918	3.36%	0.525%
14	9.127	1312	1323	1338	rBV2	41574	182279	3.83%	0.599%
15	10.320	1506	1519	1542	rBV2	460405	1971367	41.44%	6.476%
16	11.506	1704	1714	1728	rBV2	114289	318983	6.71%	1.048%
17	12.078	1799	1808	1820	rBV2	244765	539059	11.33%	1.771%
18	13.185	1983	1990	1999	rBV	793935	1394193	29.31%	4.580%
19	13.538	2040	2048	2059	rBV	1080634	1912469	40.20%	6.282%

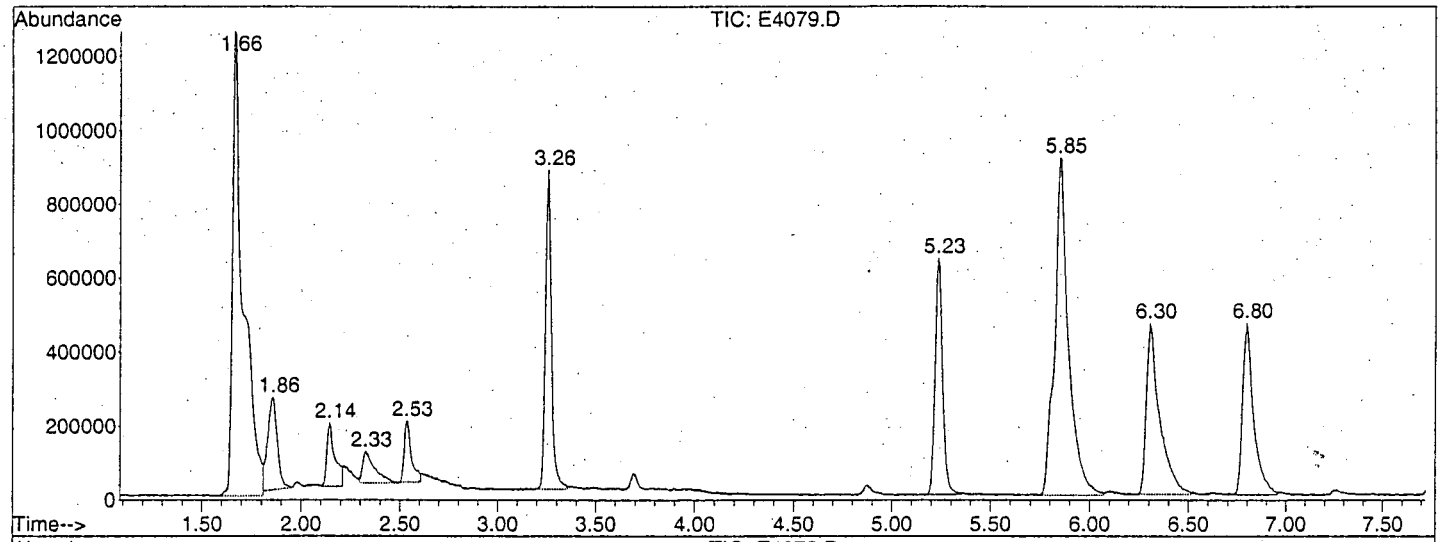
Sum of corrected areas: 30442227

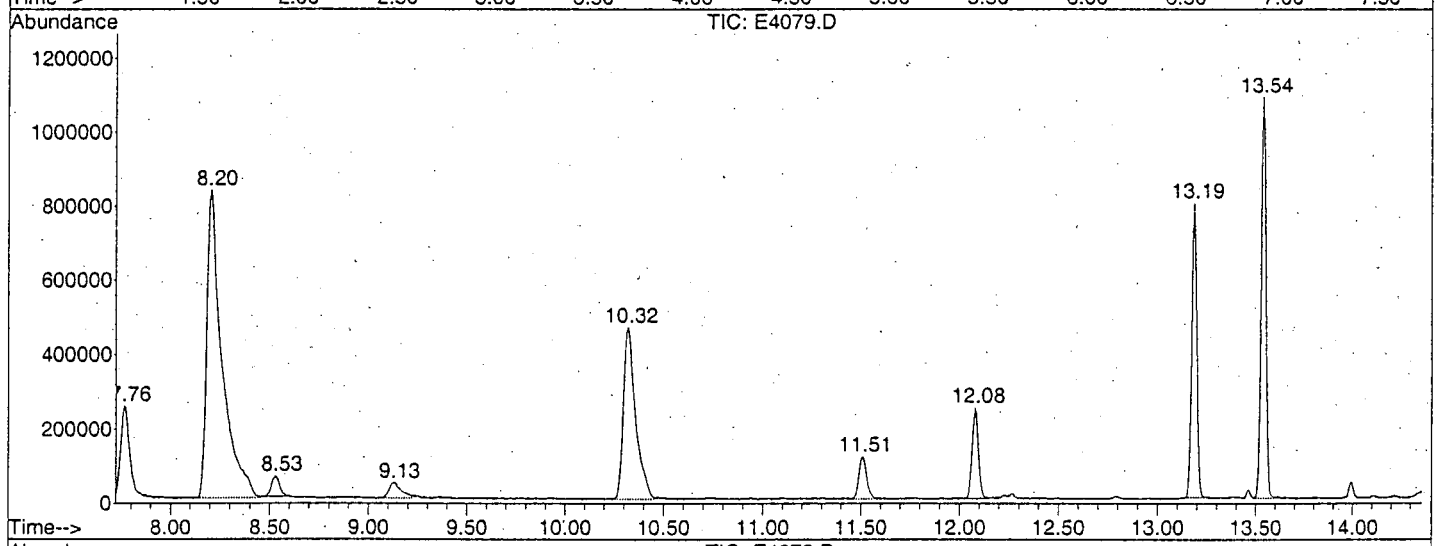
0019

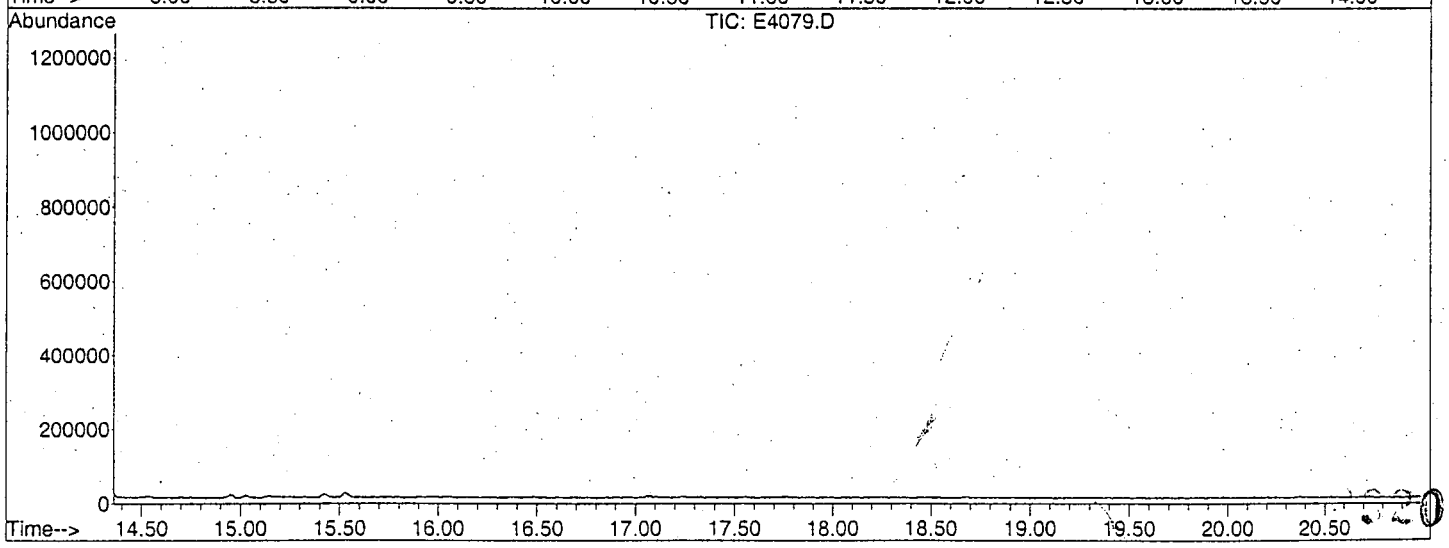
LSC Report - Integrated Chromatogram

Data File : C:\MSDCHEM\1\DATA\E4079.D
Acq On : 03/31/2003 1522
Sample : VBLK4S
Misc : EVBLK4S 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

Vial: 5
Operator: AK
Inst : E-5973
Multiplr: 1.00







Data File : C:\MSDCHEM\1\DATA\E4079.D
Acq On : 03/31/2003 1522
Sample : VBLK4S
Misc : EVBLK4S 25ML
MS Integration Params: Lscint.p

Vial: 5
Operator: AK
Inst : E-5973
Multiplr: 1.00

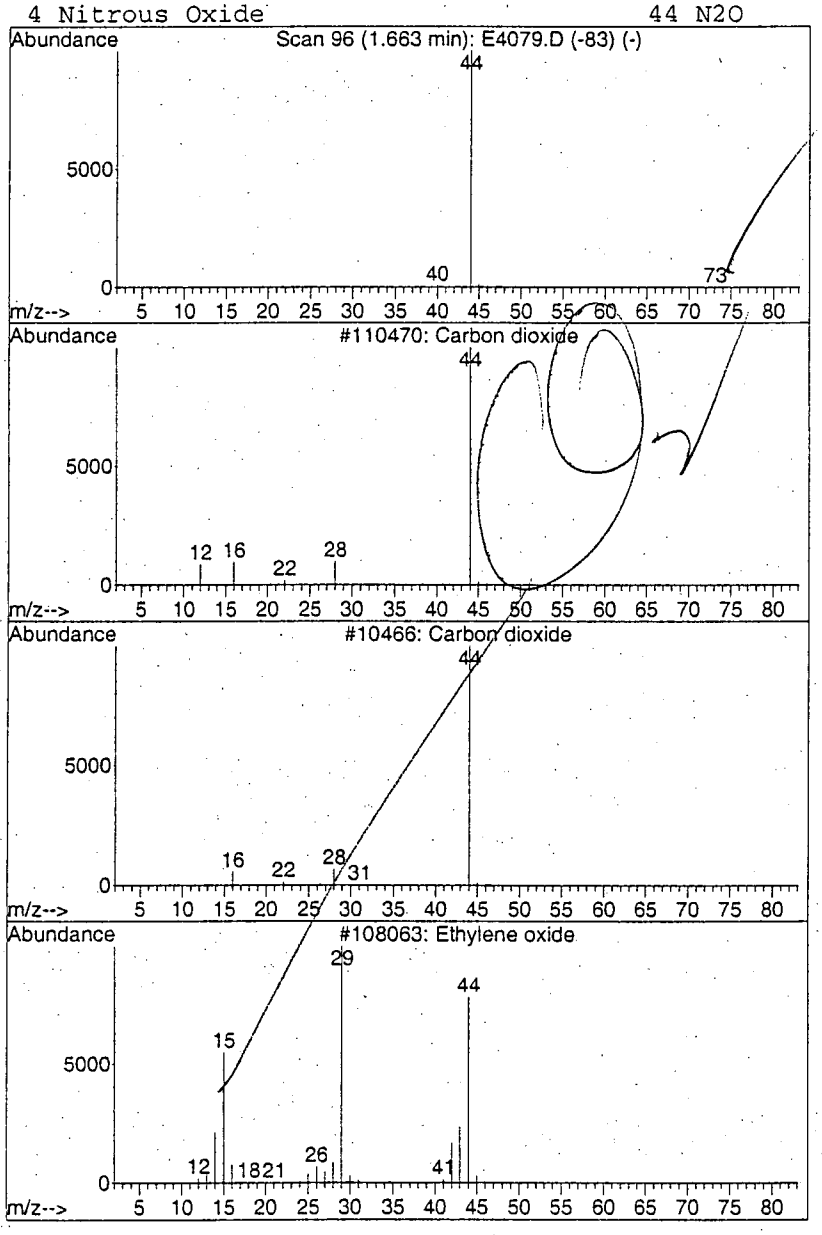
Quant Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

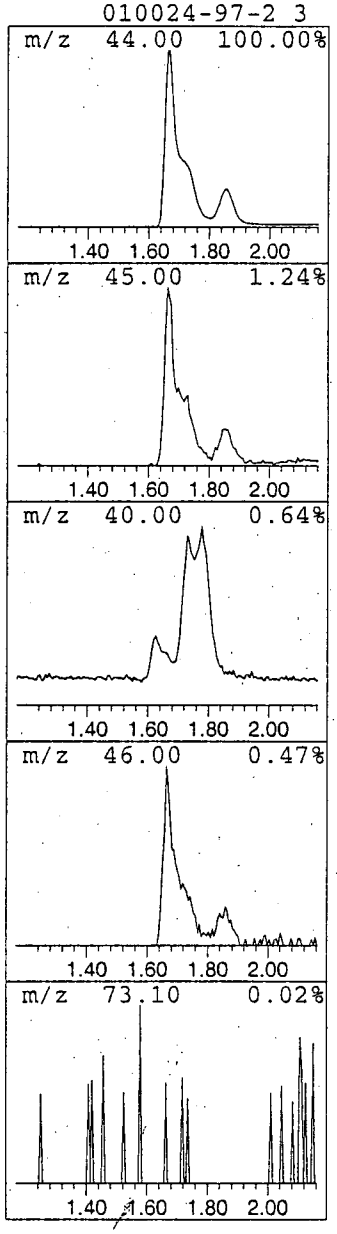
****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.66	11.20 ug/L	4756860	1,4-Difluorobenzene	6.30

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3





321

Data File : C:\MSDCHEM\1\DATA\E4079.D
Acq On : 03/31/2003 1522
Sample : VBLK4S
Misc : EVBLK4S 25ML
MS Integration Params: Lscint.p

Vial: 5
Operator: AK
Inst : E-5973
Multiplr: 1.00

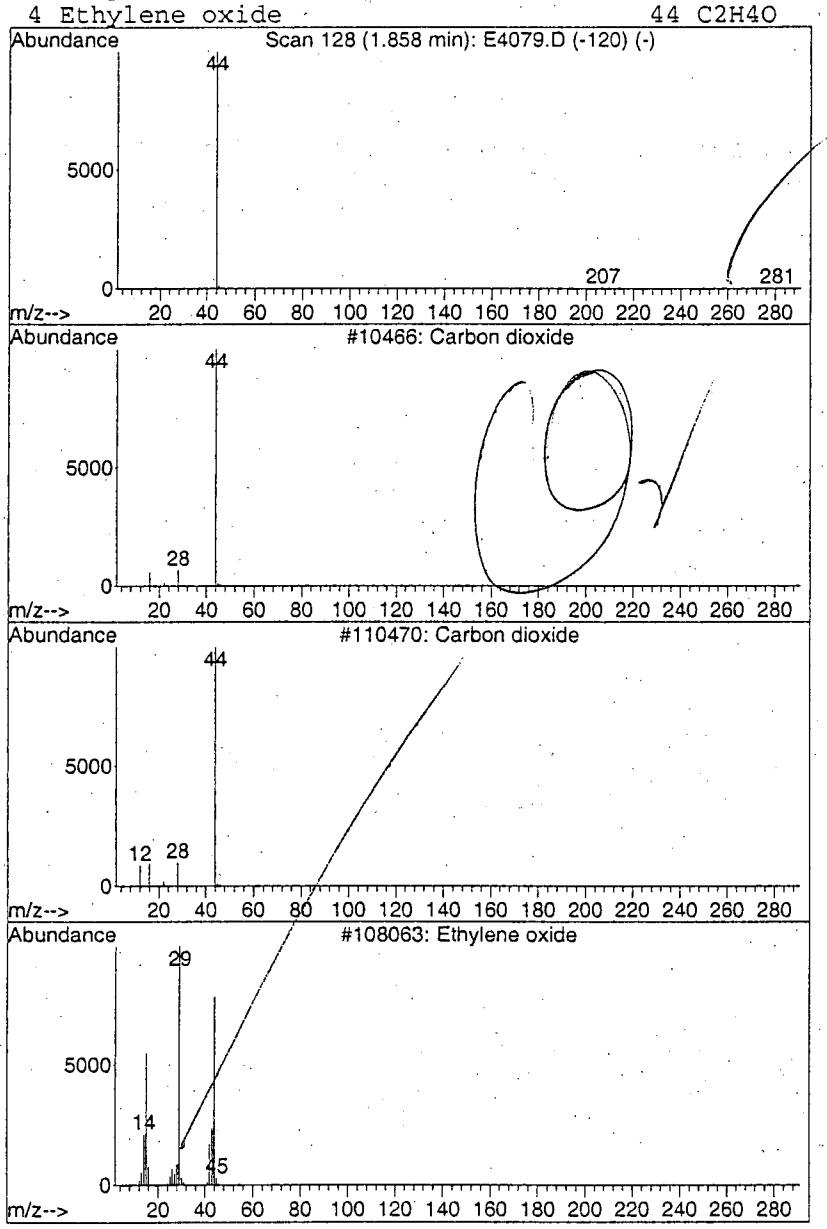
Quant Method : C:\MSDCHEM\1\METHODS\LCE4078.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

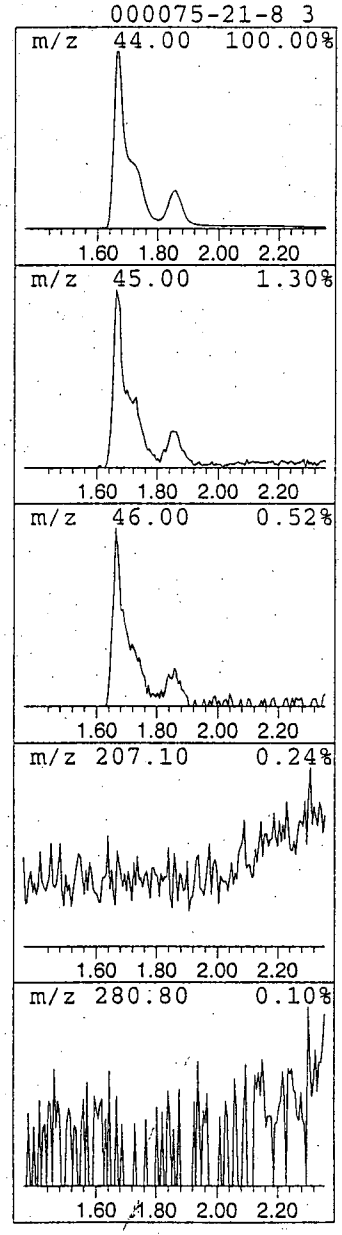
****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.86	2.00 ug/L	849543	1,4-Difluorobenzene	6.30

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Ethylene oxide	44	C2H4O	000075-21-8	3





322

1LCA
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

VBLK4U

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: EVBLK4U Date Received: _____

Lab File ID: E4110 Date Analyzed: 04/02/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl Chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.23	J
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-Butyl Ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon Tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

1LCB

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS

DATA SHEET

EPA SAMPLE NO.

VBLK4U

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: EVBLK4U Date Received: _____

Lab File ID: E4110 Date Analyzed: 04/02/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
1330-20-7	Xylene (total)	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1LCF

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS

DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK4U

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: EVBLK4U Date Received: _____

Lab File ID: E4110 Date Analyzed: 04/02/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4110.D Vial: 3
Acq On : 04/02/2003 1138 Operator: AK
Sample : VBLK4U Inst : E-5973
Misc : EVBLK4U 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 02 12:27:13 2003 Quant Results File: LCE4109.RES

Quant Method : C:\MSDCHEM\1\METHODS\LCE4109.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Wed Apr 02 10:43:22 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4109.D
DataAcq Meth : VOAC

ORIGINAL COPY
Case: 31512 SDG: E0003
Episode: 2757 Int./Date: 04/02/03
KA
4/02/03

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Difluorobenzene	6.31	114	924756	5.00 ug/L	0.00
28) Chlorobenzene-d5	10.32	117	714456	5.00 ug/L	0.00
60) 1,4-Dichlorobenzene-d4	13.19	152	237615	5.00 ug/L	0.00
System Monitoring Compounds					
4) Vinyl Chloride-d3	2.16	65	399757	4.72 ug/L	0.00
Spiked Amount 5.000	Range 49 - 138		Recovery	= 94.40%	
7) Chloroethane-d5	2.55	69	340627	4.84 ug/L	0.01
Spiked Amount 5.000	Range 60 - 126		Recovery	= 96.80%	
10) 1,1-Dichloroethene-d2	3.26	65	174356	4.93 ug/L	0.00
Spiked Amount 5.000	Range 65 - 130		Recovery	= 98.60%	
20) 2-Butanone-d5	4.87	46	37242	4.65 ug/L	0.00
Spiked Amount 5.000	Range 42 - 171		Recovery	= 93.00%	
24) Chloroform-d	5.24	86	405408	4.77 ug/L	0.00
Spiked Amount 5.000	Range 80 - 123		Recovery	= 95.40%	
26) 1,2-Dichloroethane-d4	5.81	65	213962	4.80 ug/L	0.00
Spiked Amount 5.000	Range 78 - 129		Recovery	= 96.00%	
32) Benzene-d6	5.86	84	1739884	5.23 ug/L	0.00
Spiked Amount 5.000	Range 78 - 121		Recovery	= 104.60%	
35) 1,2-Dichloropropane-d6	6.80	67	404943	4.44 ug/L	0.00
Spiked Amount 5.000	Range 84 - 123		Recovery	= 88.80%	
41) Toluene-d8	8.20	98	1680491	5.18 ug/L	0.00
Spiked Amount 5.000	Range 77 - 120		Recovery	= 103.60%	
43) trans-1,3-Dichloropropene-	8.53	79	57771	5.10 ug/L	0.00
Spiked Amount 5.000	Range 80 - 128		Recovery	= 102.00%	
47) 2-Hexanone-d5	9.12	46	55591	4.45 ug/L	0.00
Spiked Amount 5.000	Range 37 - 169		Recovery	= 89.00%	
58) 1,1,2,2-Tetrachloroethane-	12.08	84	163873	5.16 ug/L	0.00
Spiked Amount 5.000	Range 75 - 131		Recovery	= 103.20%	
61) Bromoform-d	11.51	174	94490	5.17 ug/L	0.00
Spiked Amount 5.000	Range 76 - 135		Recovery	= 103.40%	
65) 1,2-Dichlorobenzene-d4	13.54	152	317303	5.20 ug/L	0.00
Spiked Amount 5.000	Range 50 - 150		Recovery	= 104.00%	

Target Compounds					Qvalue
16) Methylene Chloride	3.71	84	17424	0.23 ug/L J	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

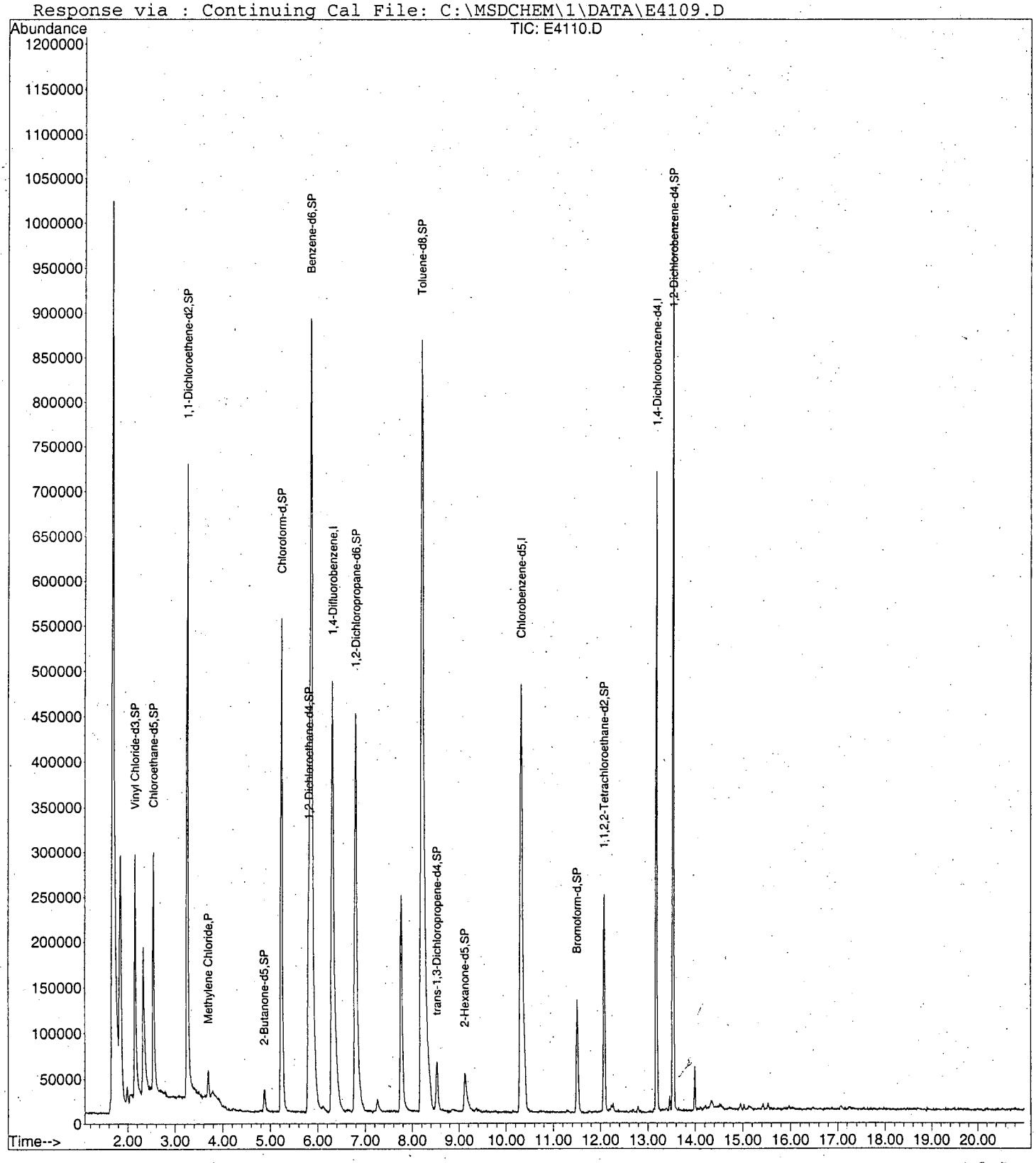
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4110.D
Acq On : 04/02/2003 1138
Sample : VBLK4U
Misc : EVBLK4U 25ML
MS Integration Params: RTEINT.P
Quant Time: Apr 2 12:28 2003

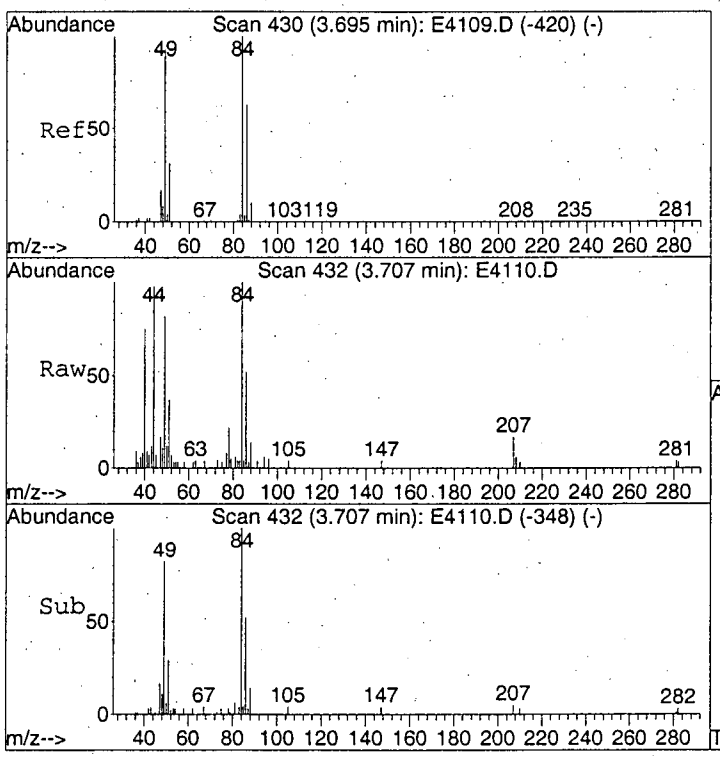
Vial: 3
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Results File: LCE4109.RES

Method : C:\MSDCHEM\1\METHODS\LCE4109.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Wed Apr 02 10:43:22 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4109.D



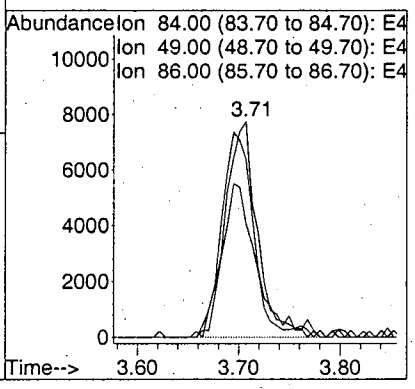
Data File : C:\MSDCHEM\1\DATA\E4110.D Vial: 3
Acq On : 04/02/2003 1138 Operator: AK
Sample : VBLK4U Inst : E-5973
Misc : EVBLK4U 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4109.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2



#16
Methylene Chloride
Concen: 0.23 ug/L
RT: 3.71 min Scan# 432
Delta R.T. 0.01 min
Lab File: E4110.D
Acq: 2 Apr 2003 11:38

Tgt Ion: 84 Resp: 17424

Ion	Ratio	Lower	Upper
84	100		
49	96.7	76.1	116.1
86	68.6	44.2	84.2



LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\E4110.D Vial: 3
Acq On : 04/02/2003 1138 Operator: AK
Sample : VBLK4U Inst : E-5973
Misc : EVBLK4U 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

Method : C:\MSDCHEM\1\METHODS\LCE4109.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 100000 Area counts
Start Thrs: 0.2 Max Peaks: 40
Stop Thrs : 0 Peak Location: TOP

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

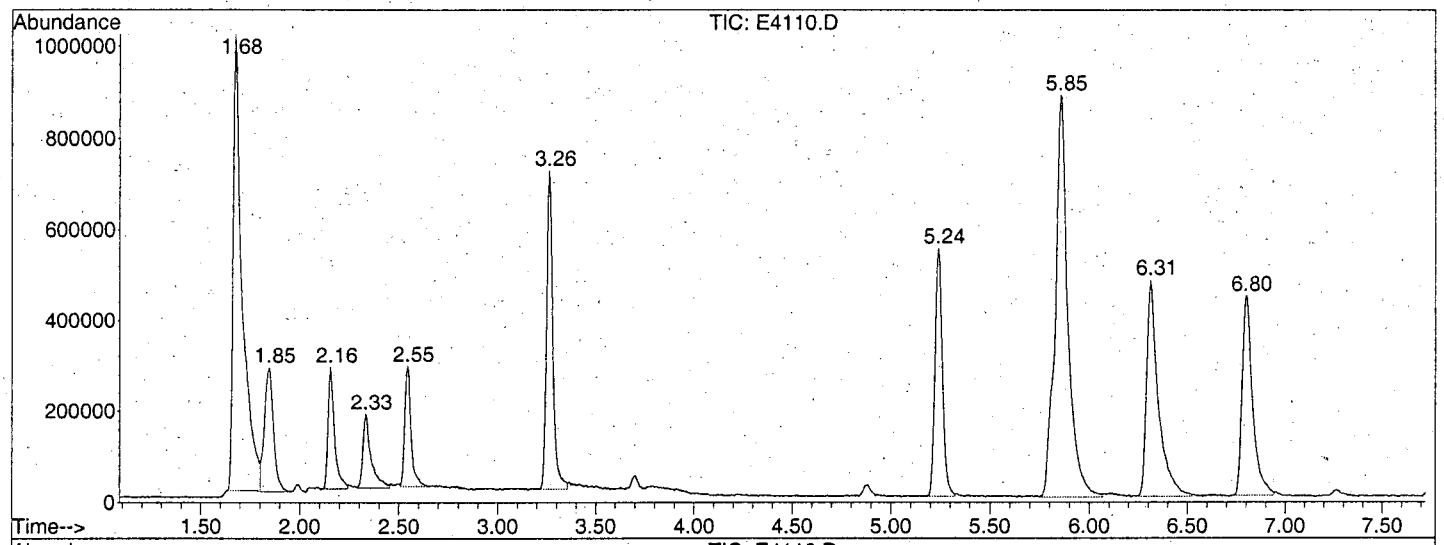
Signal : TIC

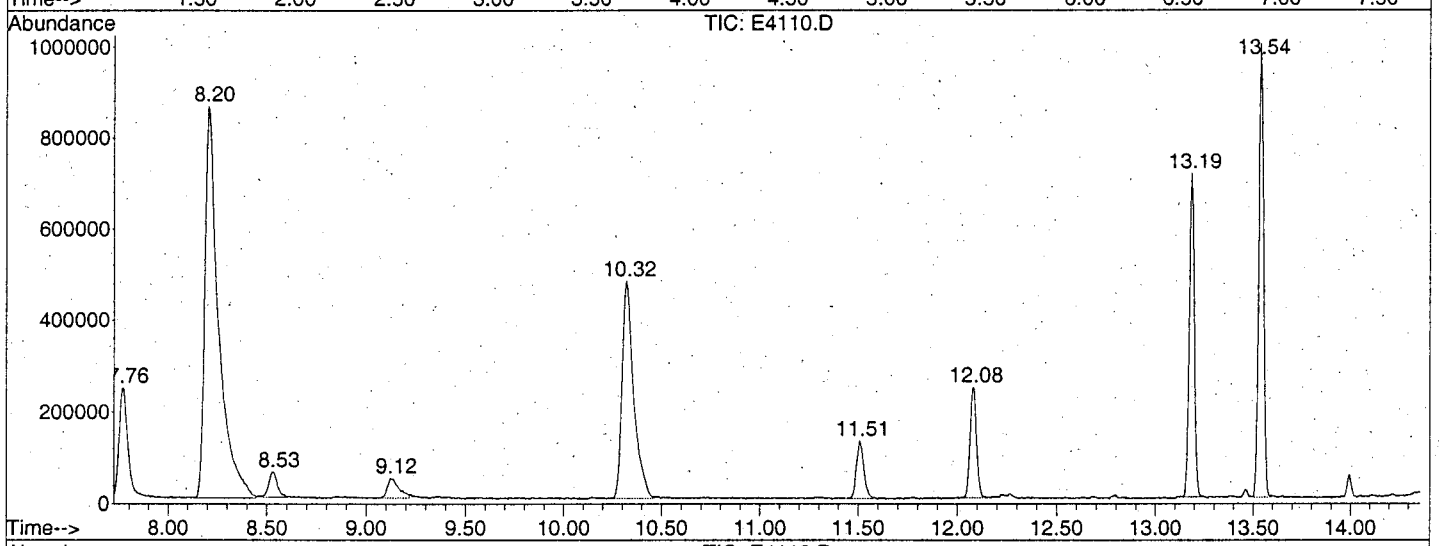
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.675	92	98	119	rBV	997879	3229833	77.88%	11.871%
2	1.845	119	126	144	rVB	271874	854691	20.61%	3.141%
3	2.156	171	177	191	rBV	266913	598640	14.43%	2.200%
4	2.332	199	206	226	rBV	161961	469226	11.31%	1.725%
5	2.545	235	241	259	rVB	263580	579402	13.97%	2.130%
6	3.263	351	359	374	rBV	701180	1546100	37.28%	5.683%
7	5.240	675	684	698	rBV	545104	1419346	34.22%	5.217%
8	5.855	767	785	820	rBV2	882542	3936458	94.92%	14.468%
9	6.311	847	860	895	rBV	477046	1976091	47.65%	7.263%
10	6.798	930	940	964	rBV	439632	1637049	39.47%	6.017%
11	7.765	1089	1099	1113	rBV	240471	735403	17.73%	2.703%
12	8.203	1159	1171	1211	rBV	857555	4147196	100.00%	15.243%
13	8.531	1216	1225	1236	rVB2	54316	163829	3.95%	0.602%
14	9.121	1314	1322	1338	rBV4	42817	176967	4.27%	0.650%
15	10.320	1507	1519	1543	rBV	473978	1926005	46.44%	7.079%
16	11.506	1702	1714	1725	rBV	125279	322858	7.78%	1.187%
17	12.078	1800	1808	1816	rBV	239788	534482	12.89%	1.964%
18	13.185	1983	1990	1998	rBV	708182	1255835	30.28%	4.616%
19	13.538	2041	2048	2057	rBV	991816	1697966	40.94%	6.241%

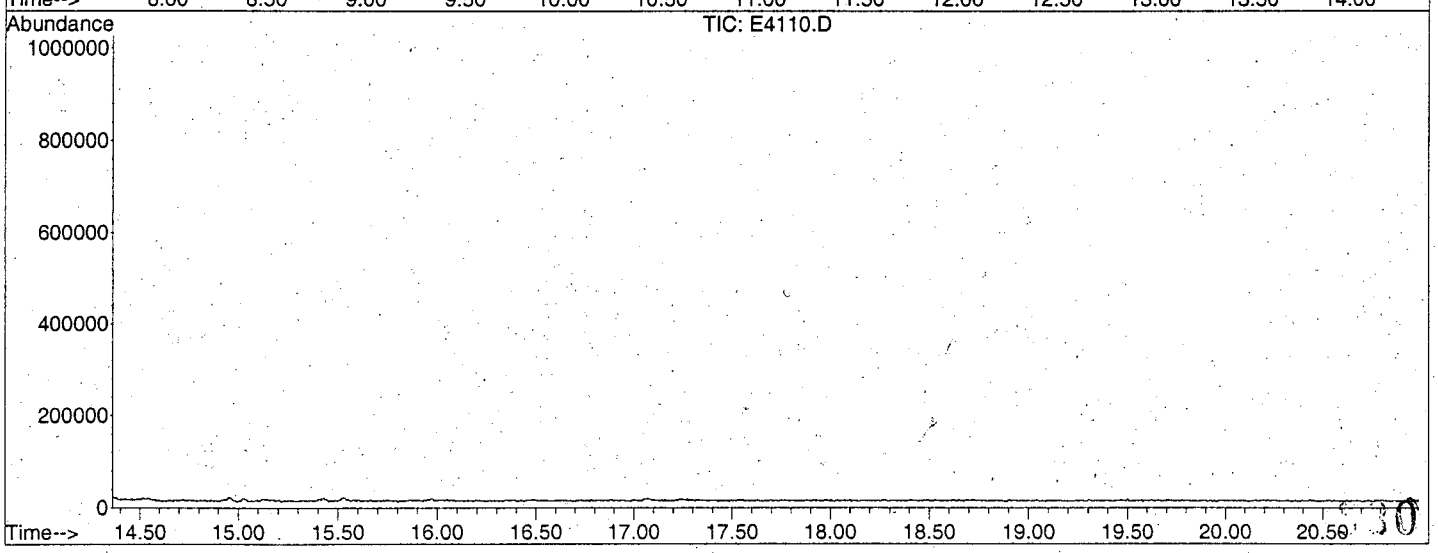
Sum of corrected areas: 27207377

LSC Report - Integrated Chromatogram

Data File : C:\MSDCHEM\1\DATA\E4110.D Vial: 3
Acq On : 04/02/2003 1138 Operator: AK
Sample : VBLK4U Inst : E-5973
Misc : EVBLK4U 25ML Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4109.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2







Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4110.D Vial: 3
Acq On : 04/02/2003 1138 Operator: AK
Sample : VBLK4U Inst : E-5973
Misc : EVBLK4U 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

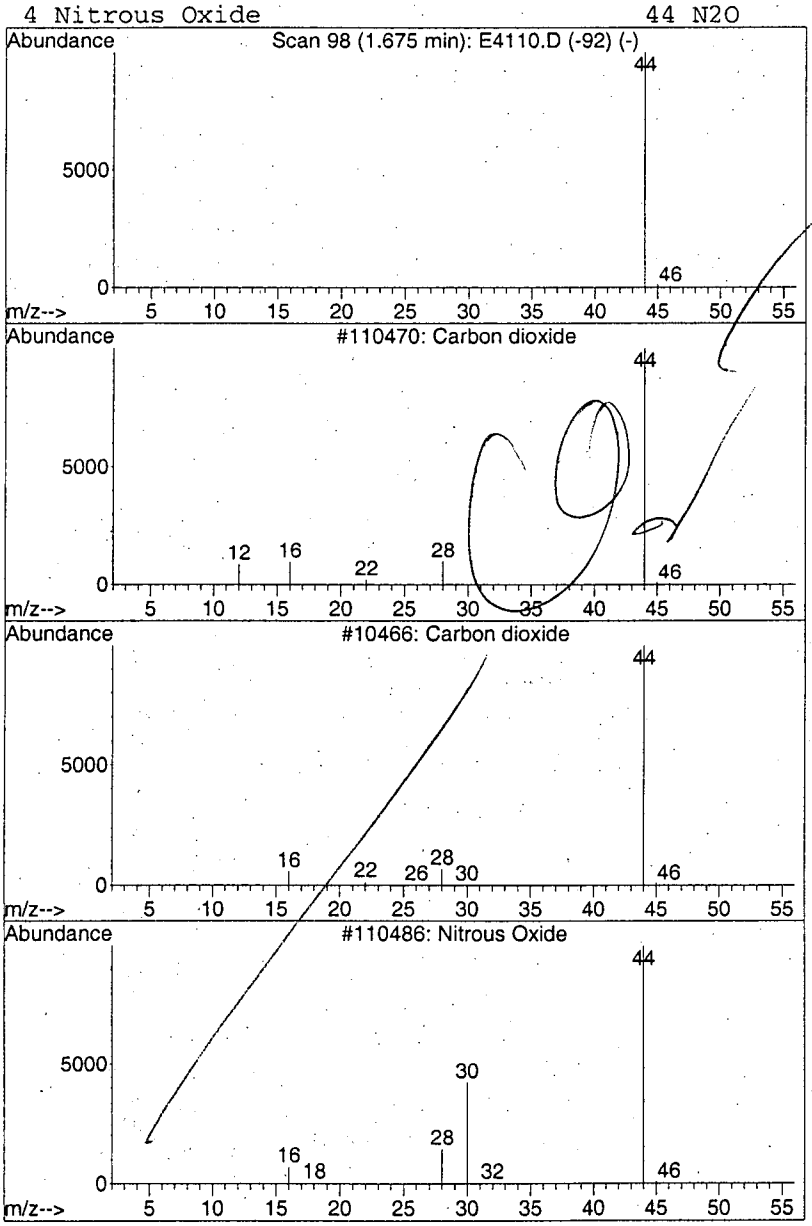
Quant Method : C:\MSDCHEM\1\METHODS\LCE4109.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

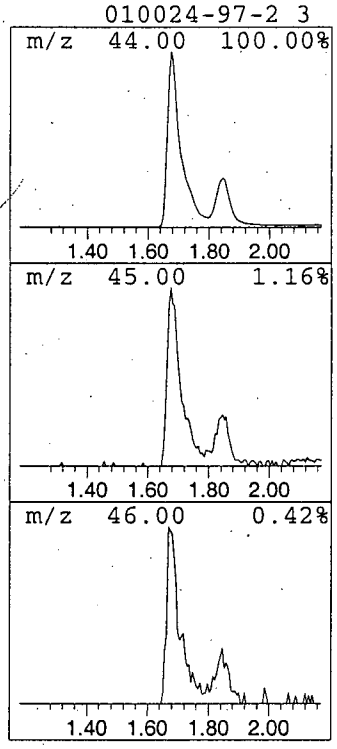
****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.68	8.17 ug/L	3229830	1,4-Difluorobenzene	6.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4110.D Vial: 3
Acq On : 04/02/2003 1138 Operator: AK
Sample : VBLK4U Inst : E-5973
Misc : EVBLK4U 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

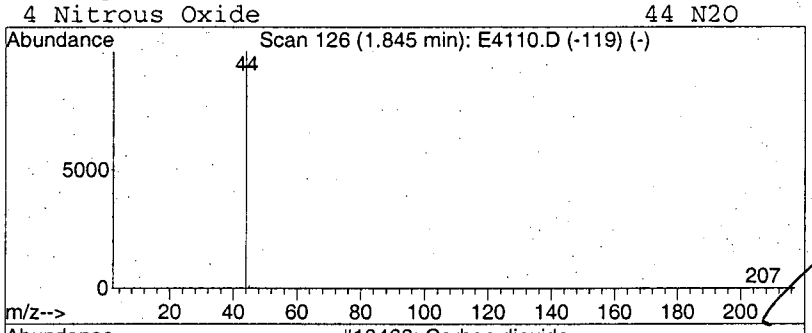
Quant Method : C:\MSDCHEM\1\METHODS\LCE4109.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

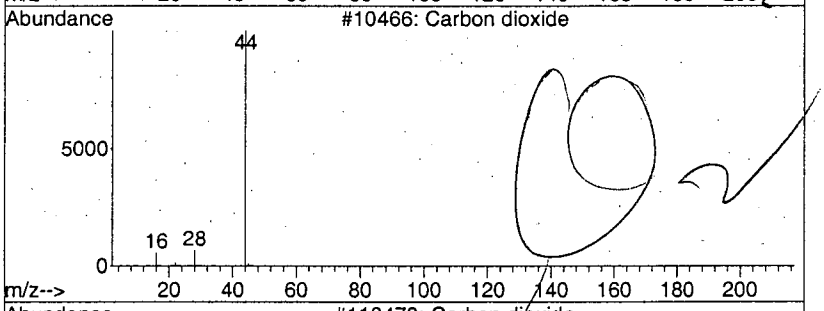
****

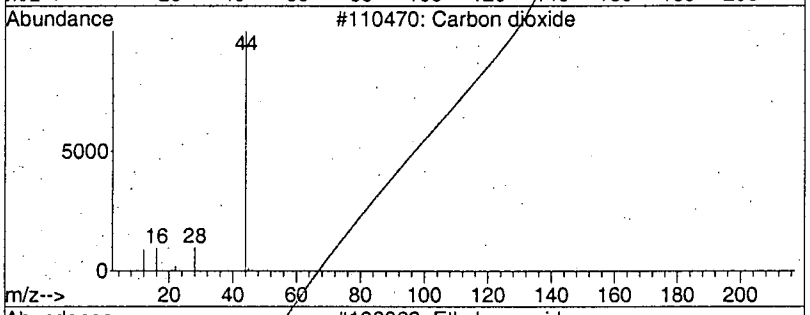
Peak Number 2 Carbon dioxide Concentration Rank 2

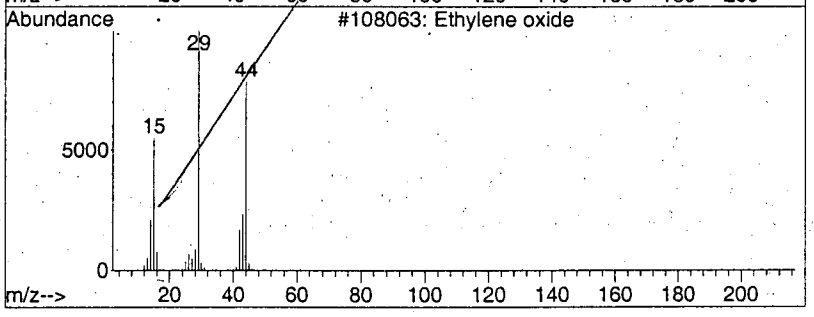
R.T.	EstConc	Area	Relative to ISTD	R.T.
1.85	2.16 ug/L	854691	1,4-Difluorobenzene	6.31

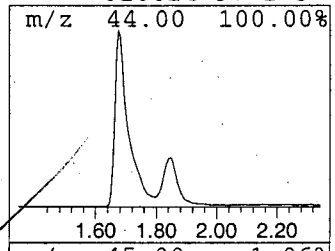
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3

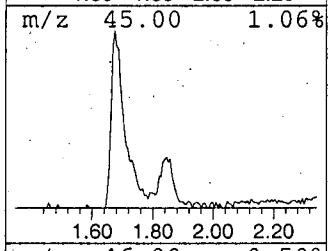


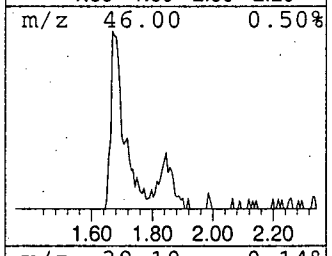


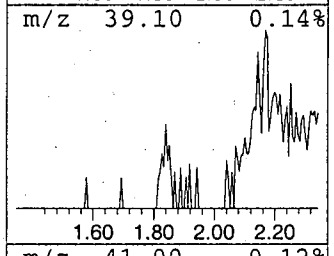


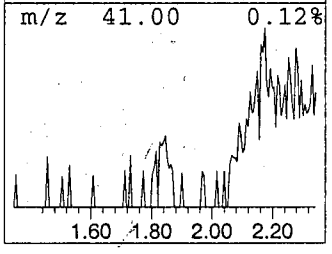












1LCA
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

VHBLK01

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2761.001 Date Received: _____

Lab File ID: E4120 Date Analyzed: 04/02/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.18	J
75-01-4	Vinyl Chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.90	B
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-Butyl Ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon Tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

1LCB

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS

DATA SHEET

EPA SAMPLE NO.

VHBLK01

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2761.001 Date Received: _____

Lab File ID: E4120 Date Analyzed: 04/02/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
1330-20-7	Xylene (total)	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1LCF

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS

DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VHBLK01

Lab Name: A4 SCIENTIFIC, INC. Contract: 68-W-01-038

Lab Code: A4 Case No.: 31520 Client No.: SDG No.: Y0SL3

Lab Sample ID: 2761.001 Date Received: _____

Lab File ID: E4120 Date Analyzed: 04/02/2003

Purge Volume: 25 (ML) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.20 (MM) Length: 25 (M)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4120.D
Acq On : 04/02/2003 1939
Sample : VHBLK01
Misc : 2761.001 25ML
MS Integration Params: RTEINT.P
Quant Time: Apr 03 08:34:57 2003

Vial: 13
Operator: AK
Inst : E-5973
Multiplr: 1.00

Quant Results File: LCE4109.RES

Kar 04/03/03

GP 4/04/04

Quant Method : C:\MSDCHEM\1\METHODS\LCE4109.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Wed Apr 02 10:43:22 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4109.D
DataAcq Meth : VOAC

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Difluorobenzene	6.30	114	787696	5.00	ug/L	0.00
28) Chlorobenzene-d5	10.32	117	575106	5.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	13.19	152	195107	5.00	ug/L	0.00

System Monitoring Compounds						
4) Vinyl Chloride-d3	2.14	65	370512	5.14	ug/L	0.00
Spiked Amount 5.000	Range 49 - 138		Recovery	=	102.80%	
7) Chloroethane-d5	2.53	69	334423	5.58	ug/L	0.00
Spiked Amount 5.000	Range 60 - 126		Recovery	=	111.60%	
10) 1,1-Dichloroethene-d2	3.25	65	175528	5.83	ug/L	0.00
Spiked Amount 5.000	Range 65 - 130		Recovery	=	116.60%	
20) 2-Butanone-d5	4.87	46	31769	4.65	ug/L	0.00
Spiked Amount 5.000	Range 42 - 171		Recovery	=	93.00%	
24) Chloroform-d	5.23	86	400156	5.53	ug/L	0.00
Spiked Amount 5.000	Range 80 - 123		Recovery	=	110.60%	
26) 1,2-Dichloroethane-d4	5.81	65	210756	5.55	ug/L	0.00
Spiked Amount 5.000	Range 78 - 129		Recovery	=	111.00%	
32) Benzene-d6	5.85	84	1567998	5.85	ug/L	0.00
Spiked Amount 5.000	Range 78 - 121		Recovery	=	117.00%	
35) 1,2-Dichloropropane-d6	6.80	67	370231	5.05	ug/L	0.00
Spiked Amount 5.000	Range 84 - 123		Recovery	=	101.00%	
41) Toluene-d8	8.21	98	1410789	5.40	ug/L	0.00
Spiked Amount 5.000	Range 77 - 120		Recovery	=	108.00%	
43) trans-1,3-Dichloropropene-	8.53	79	51218	5.61	ug/L	0.00
Spiked Amount 5.000	Range 80 - 128		Recovery	=	112.20%	
47) 2-Hexanone-d5	9.12	46	43619	4.34	ug/L	0.00
Spiked Amount 5.000	Range 37 - 169		Recovery	=	86.80%	
58) 1,1,2,2-Tetrachloroethane-	12.08	84	136165	5.32	ug/L	0.00
Spiked Amount 5.000	Range 75 - 131		Recovery	=	106.40%	
61) Bromoform-d	11.51	174	77136	5.14	ug/L	0.00
Spiked Amount 5.000	Range 76 - 135		Recovery	=	102.80%	
65) 1,2-Dichlorobenzene-d4	13.54	152	265885	5.31	ug/L	0.00
Spiked Amount 5.000	Range 50 - 150		Recovery	=	106.20%	

Target Compounds						Qvalue
3) Chloromethane	1.98	50	37952	0.18	ug/L J	88
16) Methylene Chloride	3.69	84	59556	0.90	ug/L B	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

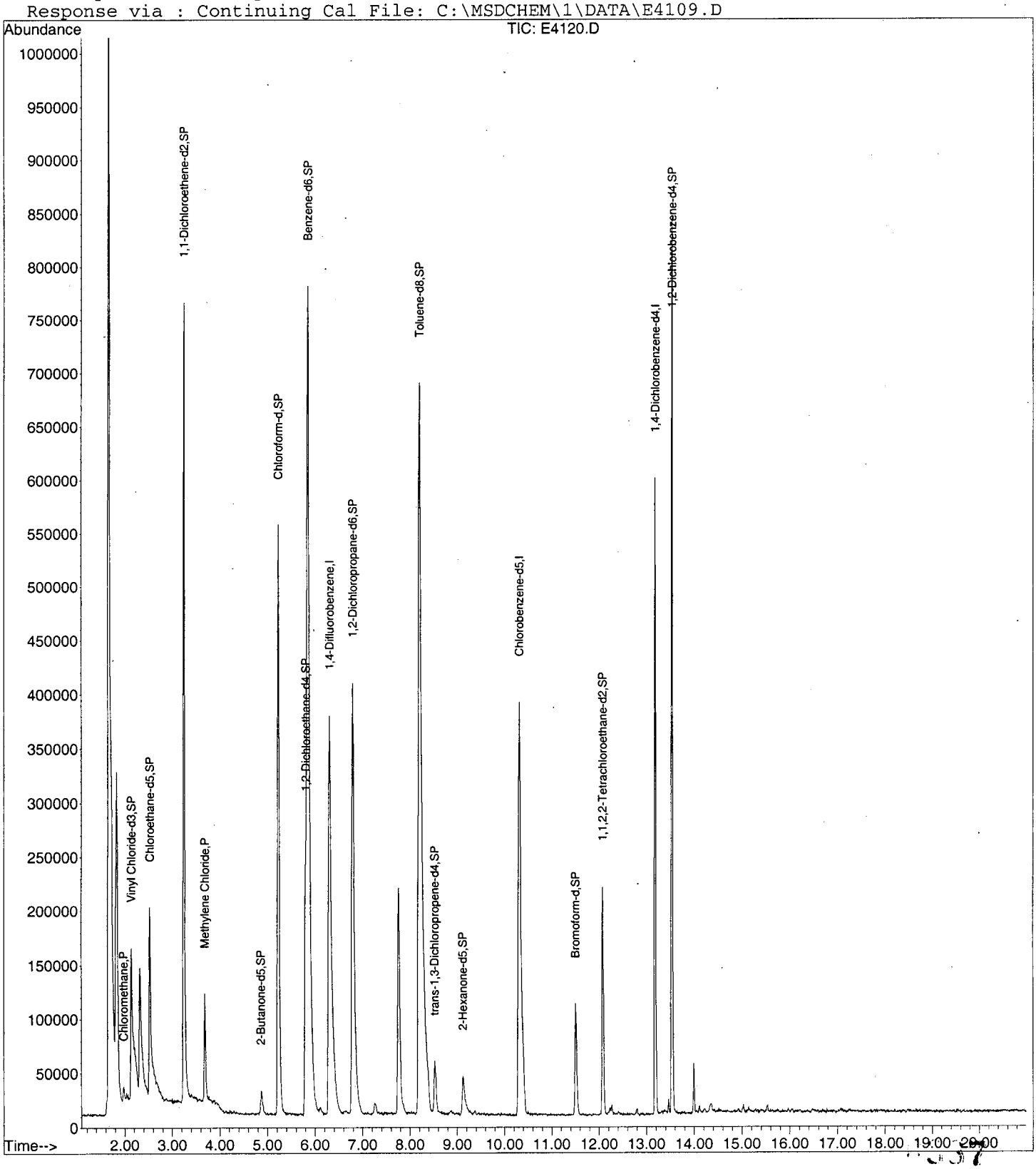
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\E4120.D
Acq On : 04/02/2003 1939
Sample : VHBLK01
Misc : 2761.001 25ML
MS Integration Params: RTEINT.P
Quant Time: Apr 3 8:42 2003

Vial: 13
Operator: AK
Inst : E-5973
Multiplr: 1.00

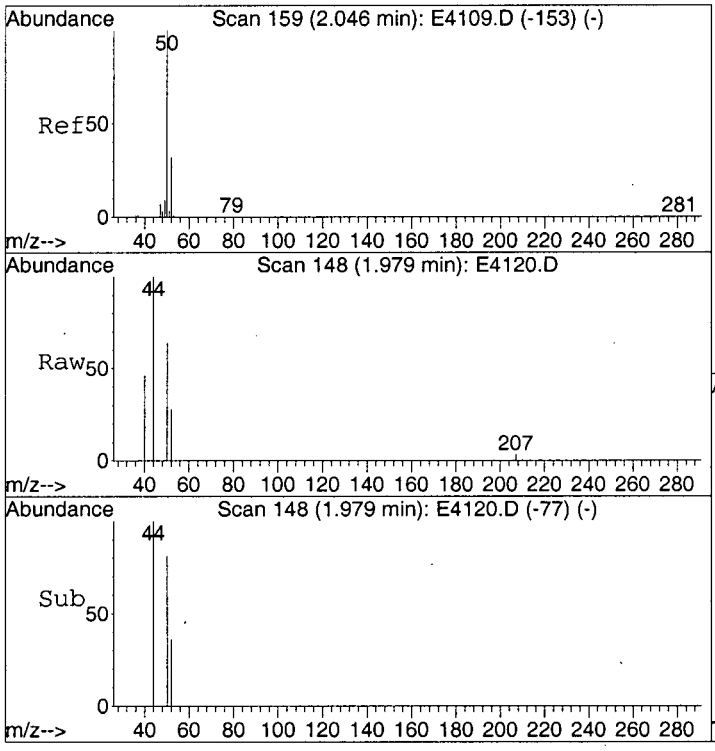
Quant Results File: LCE4109.RES

Method : C:\MSDCHEM\1\METHODS\LCE4109.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Last Update : Wed Apr 02 10:43:22 2003
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\E4109.D



Data File : C:\MSDCHEM\1\DATA\E4120.D
Acq On : 04/02/2003 1939
Sample : VHBLK01
Misc : 2761.001 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4109.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

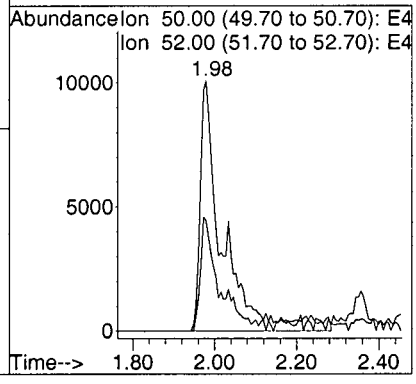
Vial: 13
Operator: AK
Inst : E-5973
Multiplr: 1.00

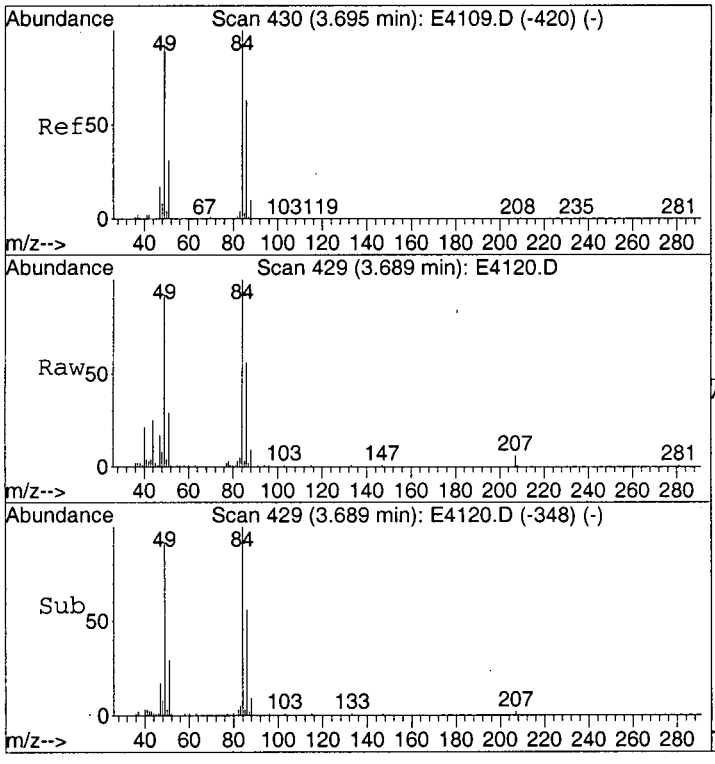


#3
Chloromethane
Concen: 0.18 ug/L
RT: 1.98 min Scan# 148
Delta R.T. -0.07 min
Lab File: E4120.D
Acq: 2 Apr 2003 19:39

Tgt Ion: 50 Resp: 37952

Ion	Ratio	Lower	Upper
50	100		
52	39.3	12.7	52.7

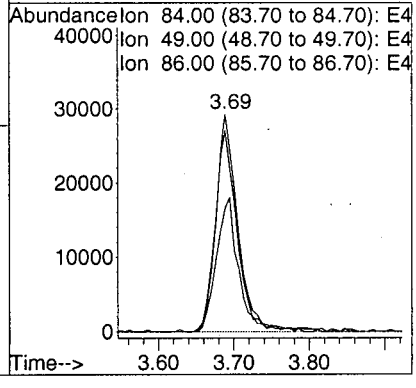




#16
Methylene Chloride
Concen: 0.90 ug/L
RT: 3.69 min Scan# 429
Delta R.T. -0.01 min
Lab File: E4120.D
Acq: 2 Apr 2003 19:39

Tgt Ion: 84 Resp: 59556

Ion	Ratio	Lower	Upper
84	100		
49	91.7	76.1	116.1
86	61.5	44.2	84.2



LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\E4120.D
Acq On : 04/02/2003 1939
Sample : VHBLK01
Misc : 2761.001 25ML
MS Integration Params: Lscint.p

Vial: 13
Operator: AK
Inst : E-5973
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\LCE4109.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 100000 Area counts
Max Peaks: 40
Peak Location: TOP

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

Signal : TIC

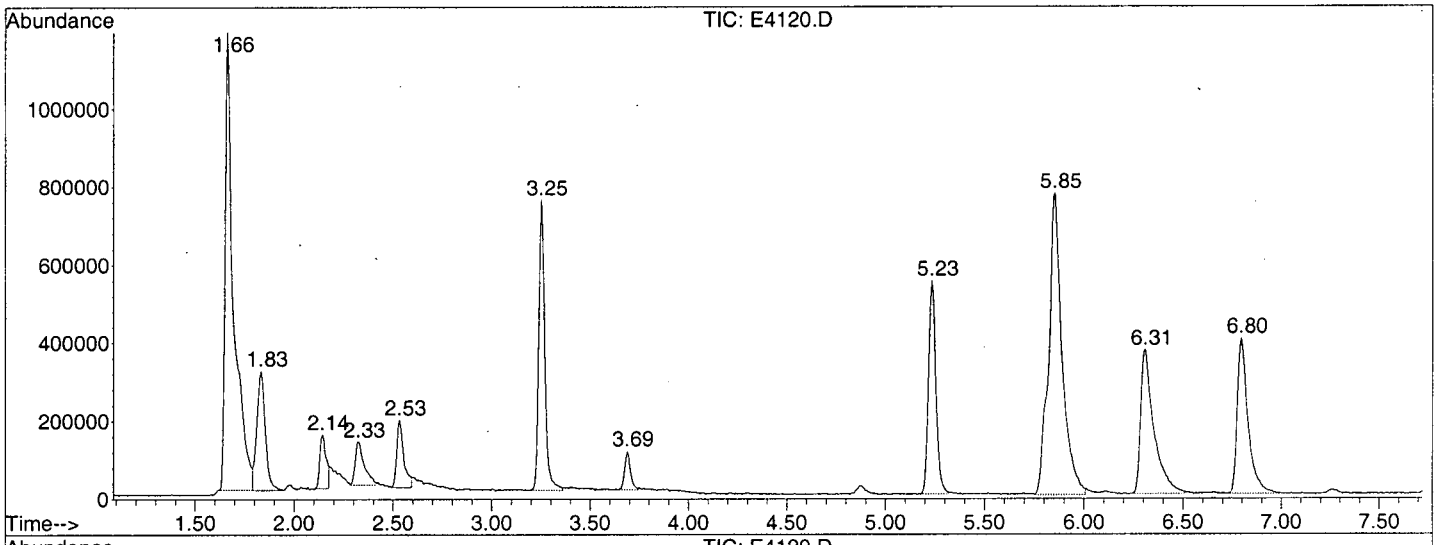
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.663	90	96	117	rBV	1171027	3543358	97.99%	14.330%
2	1.833	117	124	143	rVB	304735	902350	24.95%	3.649%
3	2.144	169	175	180	rBV	137838	305955	8.46%	1.237%
4	2.326	198	205	220	rBV	110339	353712	9.78%	1.430%
5	2.533	232	239	249	rBV	172921	425911	11.78%	1.722%
6	3.251	348	357	375	rBV	744572	1571941	43.47%	6.357%
7	3.689	422	429	438	rBV2	99700	200431	5.54%	0.811%
8	5.234	674	683	697	rBV	547037	1415667	39.15%	5.725%
9	5.854	768	785	810	rBV2	772304	3616214	100.00%	14.625%
10	6.311	849	860	894	rBV2	368143	1697604	46.94%	6.866%
11	6.797	928	940	973	rVB	398176	1521072	42.06%	6.152%
12	7.765	1088	1099	1112	rBV	209749	645204	17.84%	2.609%
13	8.203	1160	1171	1209	rBV	678449	3481319	96.27%	14.079%
14	8.525	1217	1224	1235	rVB4	46898	135719	3.75%	0.549%
15	9.121	1314	1322	1329	rBV3	35477	107744	2.98%	0.436%
16	10.320	1508	1519	1544	rBV2	383288	1595249	44.11%	6.452%
17	11.506	1705	1714	1728	rVB2	103901	267121	7.39%	1.080%
18	12.078	1801	1808	1818	rBV	210908	445925	12.33%	1.803%
19	13.185	1980	1990	1998	rBV	591412	1046072	28.93%	4.231%
20	13.538	2041	2048	2056	rBV	833509	1447895	40.04%	5.856%

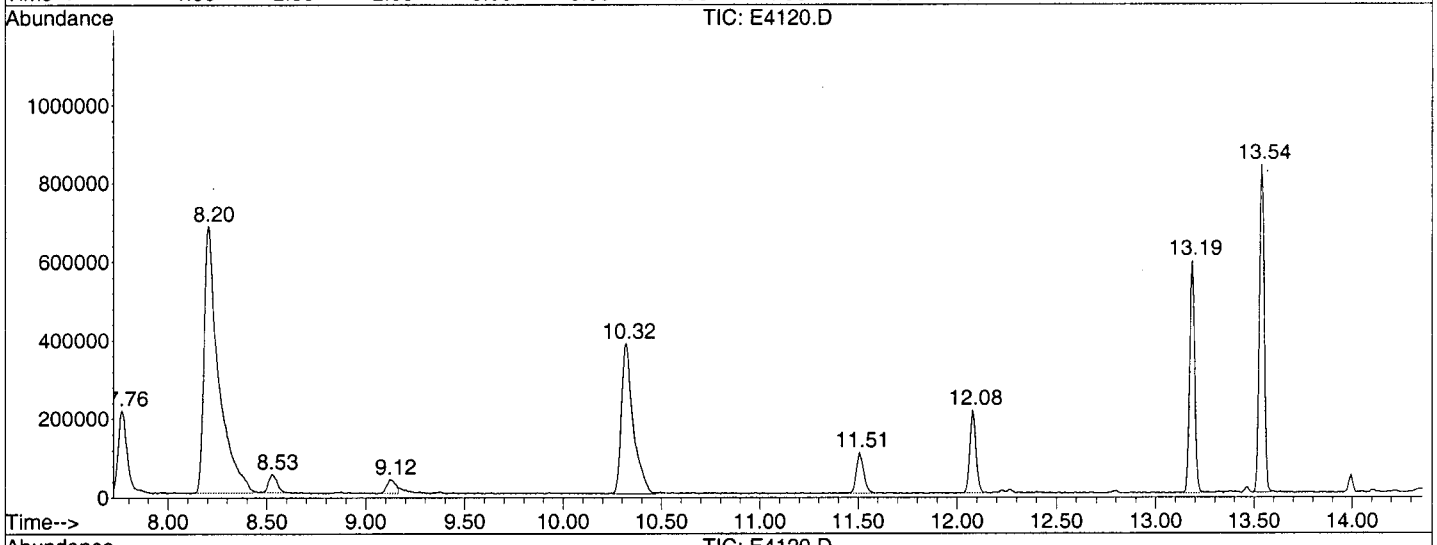
Sum of corrected areas: 24726463

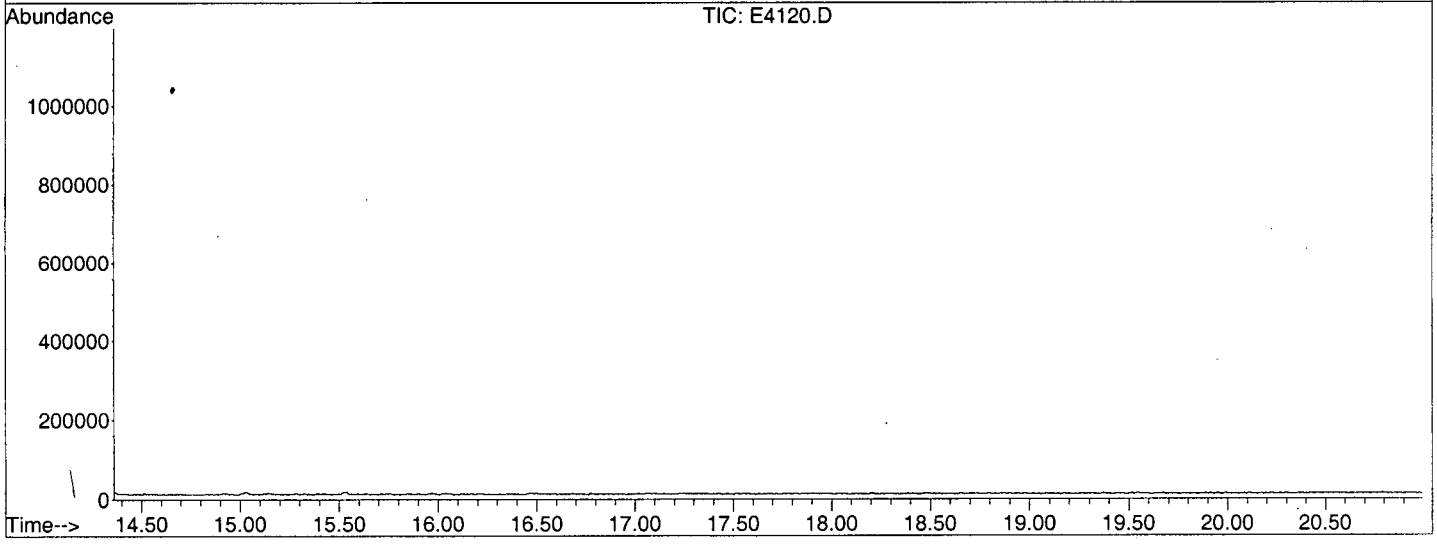
LSC Report - Integrated Chromatogram

Data File : C:\MSDCHEM\1\DATA\E4120.D
Acq On : 04/02/2003 1939
Sample : VHBLK01
Misc : 2761.001 25ML
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\LCE4109.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2

Vial: 13
Operator: AK
Inst : E-5973
Multiplr: 1.00







Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4120.D Vial: 13
Acq On : 04/02/2003 1939 Operator: AK
Sample : VHBLK01 Inst : E-5973
Misc : 2761.001 25ML Multiplr: 1.00
MS Integration Params: Lscint.p

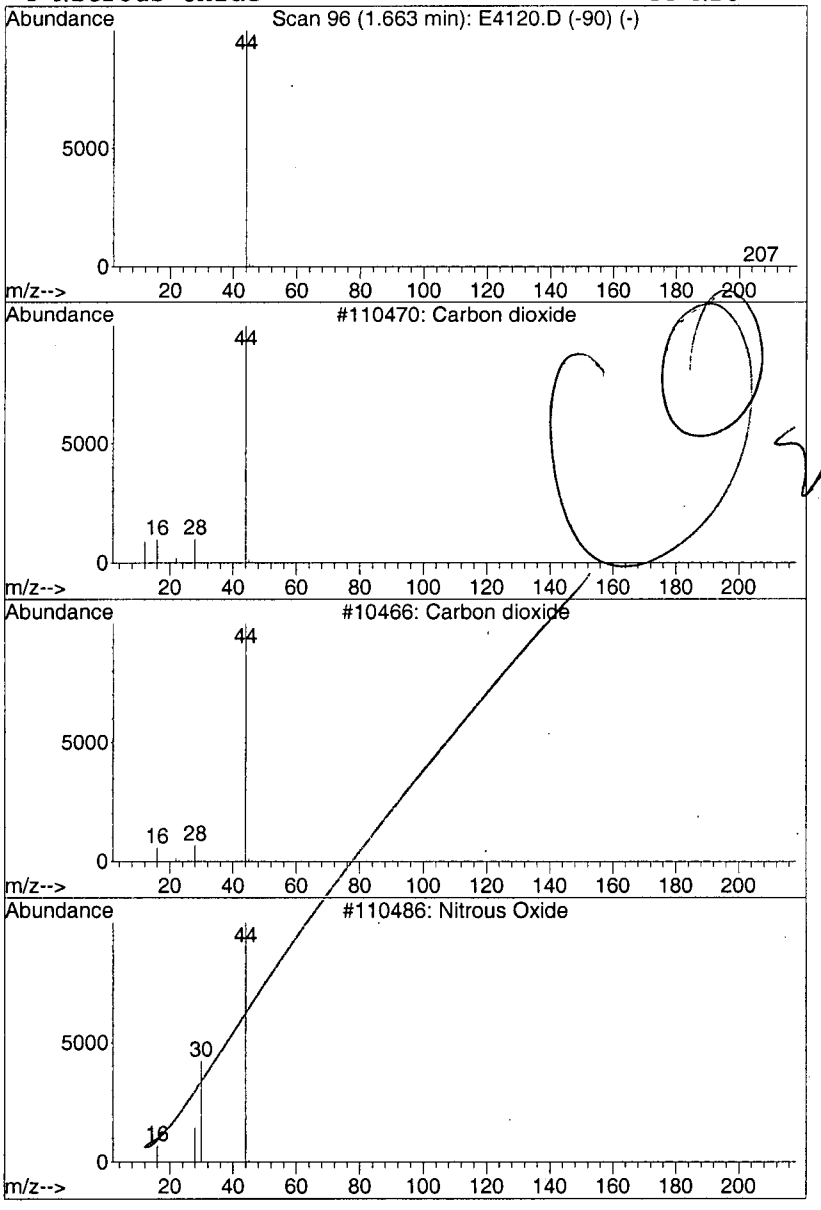
Quant Method : C:\MSDCHEM\1\METHODS\LCE4109.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

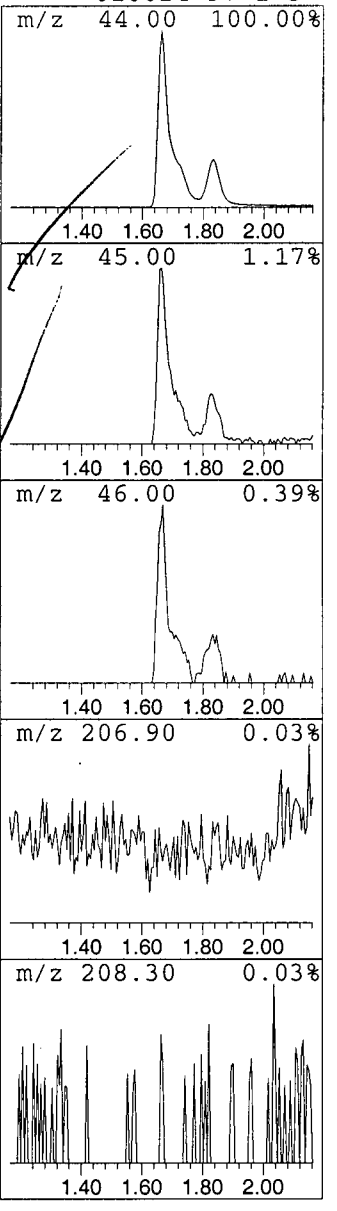
****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.66	10.44 ug/L	3543360	1,4-Difluorobenzene	6.30

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3





000341

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\E4120.D
Acq On : 04/02/2003 1939
Sample : VHBLK01
Misc : 2761.001 25ML
MS Integration Params: Lscint.p

Vial: 13
Operator: AK
Inst : E-5973
Multiplr: 1.00

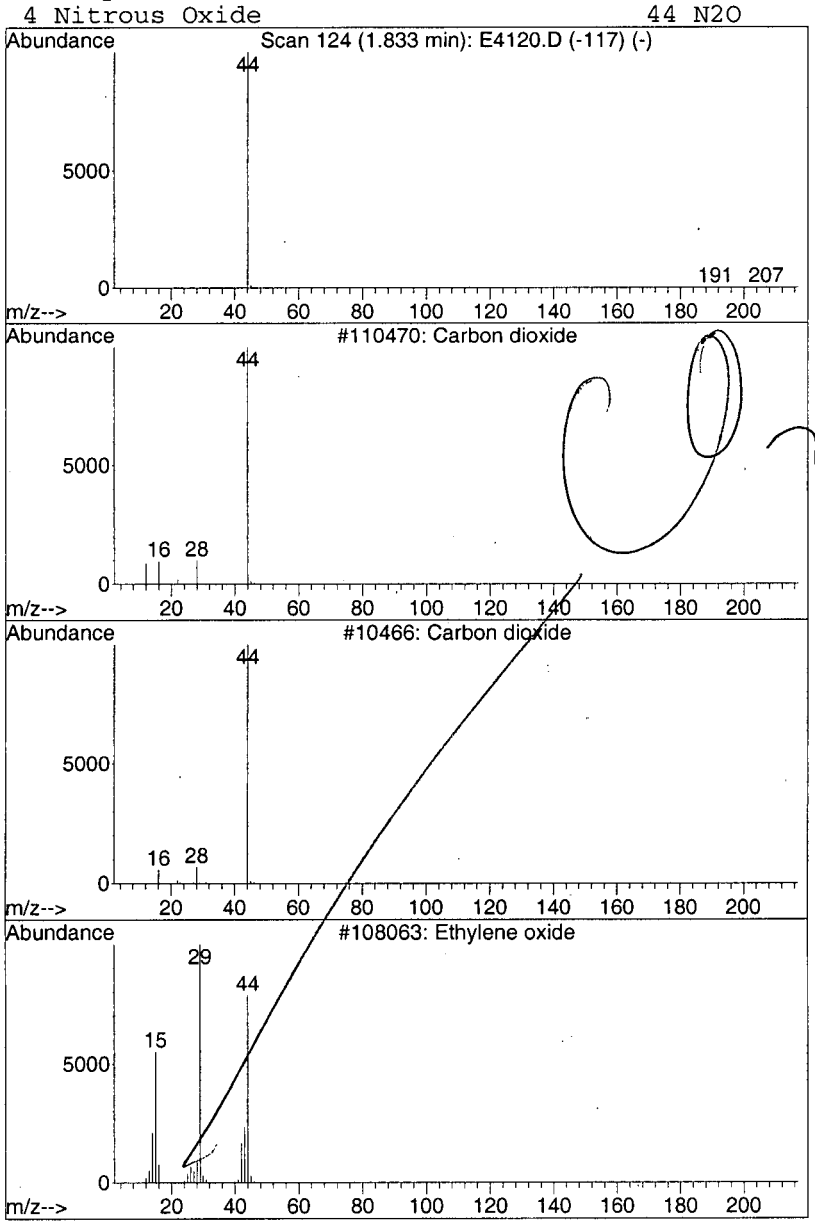
Quant Method : C:\MSDCHEM\1\METHODS\LCE4109.M (RTE Integrator)
Title : Voa Low Concentration Organics - OLC03.2
Library : C:\DATABASE\NIST98.L

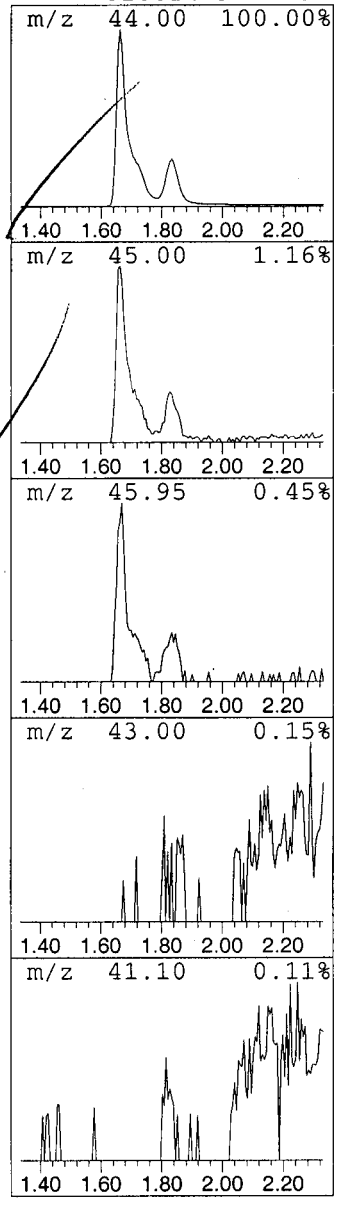
****

Peak Number 2 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.83	2.66 ug/L	902350	1,4-Difluorobenzene	6.30

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3





342

A4 Scientific
1544 Sawdust Road, Suite 505
The Woodlands, TX 77380

RCN: 091-0402

INSTRUMENT RUN LOG – GC/MS PURGEABLES
INSTRUMENT ID: E-5973

ROUTINE MAINTENANCE (record major maintenance in the Maintenance Logbook): _____

TUNE FILE ID: A4BFB.U EMV: 2035 DATE: 03/26/03
METHOD FILEs: BFB.M, VOAC.M, LCE4004.M INTRNAL STD. ID: 166-001-03
ANALYTICAL METHOD: OLC03.2 SOP: A4-VOA-300-B SURR. STD. ID: 166-002-03

FILE ID	CLIENT SAMPLE ID	LAB SAMPLE ID	SAMPLE WT/VOL	AUTO SAMPLER POSITION	DIL	INJ. VOL.	STANDARDS ID pH & COMMENTS
E4001	BFB4M	EBFB4M	1ul	–	–	–	✓
02	VSTD025 4M	EVSTD025 4M	25ml	2	–	–	✓
03	0104M	0104M		3	–	–	✓
04	0054M	0054M		4	–	–	✓
05	0014M	0014M		5	–	–	✓
06	0.54M	0.54M		6	–	–	✓
07	0.54M	0.54M		7	–	–	

NOTES : _____

ANALYST: _____ REVIEWER: _____

A4 Scientific

1544 Sawdust Road, Suite 505
The Woodlands, TX 77380

RCN: 091-0402

INSTRUMENT RUN LOG – GC/MS PURGEABLES
INSTRUMENT ID: E-5973

ROUTINE MAINTENANCE (record major maintenance in the Maintenance Logbook): _____

TUNE FILE ID: A4BFB.U EMV: 2035 DATE: 03/27/03

METHOD FILEs: BFB.M, VOAC.M, LCE4009.M INTRNAL STD. ID: 166-001-03

ANALYTICAL METHOD: OLC03.2 SOP: A4-VOA-300-B SURR. STD. ID: 166-002-03

FILE ID	CLIENT SAMPLE ID	LAB SAMPLE ID	SAMPLE WT/VOL	AUTO SAMPLER POSITION	DIL	INJ. VOL.	STANDARDS ID pH & COMMENTS
E4008	BFB4N	EBFB4N	1ul	—	—	—	✓ 0753
09	VSTD005 4N	EVSTD005 4N	25ml	2	—	—	✓
10	VBLK4N	EVBLK4N		3	—	—	✓
11	CAQY9	2759.017		4	—	—	✓ pH <2
12	CAQZ2	.018		5	—	—	✓
13	CAQS0	.005		6	—	—	✓
14	YOSL6	2761.004		7	—	—	✓ pH <2
15	YOSL7	.005		8	—	—	✓
16	YOSL3DL	.002DL		9	5x	—	✓
17	YOSL4DL	.003DL		10	25x	—	x
18	YOSJ2DL	2762.002DL		11	10x	—	✓
19	YOSJ3DL	.003DL		12	8x	—	✓
20	YOSJ5	.005		13	—	—	✓ pH <2
21	YOSJ4DL	.004DL		14	—	—	✓
22	YOSL9	2775.002		15	—	—	✓ pH <2
23	YOSL3	2761.002		16	—	—	✓ 1918

NOTES : _____

ANALYST: Kea REVIEWER: EBB

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1544 Sawdust Road, Suite 505
The Woodlands, TX 77380

RCN: 091-0402

INSTRUMENT RUN LOG – GC/MS PURGEABLES
INSTRUMENT ID: E-5973

ROUTINE MAINTENANCE (record major maintenance in the Maintenance Logbook): _____

TUNE FILE ID: AYBFB.U EMV: 2035 DATE: 03/30/03

METHOD FILEs: BFB.M, VOAC.M, LCE4070.M INTRNAL STD. ID: 166-001-03

ANALYTICAL METHOD: OLC03-2 SOP: AY-VOA-300-B SURR. STD. ID: 166-002-03

FILE ID	CLIENT SAMPLE ID	LAB SAMPLE ID	SAMPLE WT/VOL	AUTO SAMPLER POSITION	DIL	INJ. VOL.	STANDARDS ID pH & COMMENTS
E4069	BFBYR	EBFBYR	1ul	—	—	—	✓ 1138
70	VSTD005YR	EVSTD005YR	25ml	2	—	—	✓
71	VBLKYR	EVBLKYR		3	—	—	✓
72	YOSLYDL	2761.003DL		4	10X	—	✓
73	YOSLY	↓ .003		5	—	—	XS↑ pH<2
74	VIBLK11	EVIBLK11		6	—	—	} Not used
75	VIBLK12	EVIBLK12	↓	7	—	—	

NOTES : _____

ANALYST: KA REVIEWER: [illegible]

RCN: 091-0402

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The Woodlands, TX 77380

INSTRUMENT RUN LOG – GC/MS PURGEABLES
INSTRUMENT ID: E-5973

ROUTINE MAINTENANCE (record major maintenance in the Maintenance Logbook): _____

TUNE FILE ID: A4BFB.U EMV: 2035 DATE: 03/31/03
METHOD FILEs: BFB.M, VOAC.M, LCE4078.M INTRNAL STD. ID: 166-001-03
ANALYTICAL METHOD: OLC03.2 SOP: A4-VOA-300-B SURR. STD. ID: 166-002-03

FILE ID	CLIENT SAMPLE ID	LAB SAMPLE ID	SAMPLE WT/VOL	AUTO SAMPLER POSITION	DIL	INJ. VOL.	STANDARDS ID pH & COMMENTS
E4076	BFB4S	EBFB4S	1ml	—	—	—	✓ 0954
77	VSTD005 4S	EVSTD005 4S	25ml	2	—	—	✓ Not used
78	↓ 005 4S	↓ 005 4S	↓	3	—	—	✓
79	VBLK4S	EVBLK4S	↓	4	—	—	✓
80	CAQW3	2776.004	↓	5	—	—	✓ pH<2
81	CAQX9	↓ .015	↓	6	—	—	✓ ↓
82	CAQY1	↓ .016	↓	7	—	—	✓ ↓
83	YOSL8	2775.001	↓	8	—	—	✓ ↓
84	YOSM0	↓ .003	↓	9	—	—	✓ ↓
85	CAQX8	2795.006	↓	10	—	—	✓ pH<2
86	VHBLK01	2749.001	↓	11	—	—	✓ ↓
87	CAQY3	2795.008	↓	12	—	—	✓ pH<2
88	CAQZ5	↓ .009	↓	13	—	—	✓ ↓
89	CAR06	↓ .010	↓	14	—	—	✓ 2158 out of clock.

NOTES : _____

ANALYST: _____ REVIEWER: _____

instrument run log-gcms purgeables.doc

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1544 Sawdust Road, Suite 505
The Woodlands, TX 77380

RCN: 091-0402

INSTRUMENT RUN LOG – GC/MS PURGEABLES
INSTRUMENT ID: E-5973

ROUTINE MAINTENANCE (record major maintenance in the Maintenance Logbook): _____

TUNE FILE ID: A4BFB.U EMV: 2035 DATE: 04/02/03

METHOD FILEs: BFB.M, VOAC.M, LCE4109.M INTRNAL STD. ID: 166-008-03

ANALYTICAL METHOD: OLC03.2 SOP: A4-VOA-300-B SURR. STD. ID: 166-009-03

FILE ID	CLIENT SAMPLE ID	LAB SAMPLE ID	SAMPLE WT/VOL	AUTO SAMPLER POSITION	DIL	INJ. VOL.	STANDARDS ID pH & COMMENTS
E4108	BFB4U	EBFB4U	1ml	—	—	—	✓ 0910
09	VSTD0054U	EVSTD0054U	25 ml	2	—	—	✓
10	VBLK4U	EVBLK4U		3	—	—	✓
11	CAR06	2795.010		4	—	—	✓ pH<2
12	C09E2DL	2817.002DL		5	2X	—	✓
13	C09E4	↓ .004		6	—	—	✓ pH<2
14	VHBLK01	2757.001		7	—	—	✓
15	VHBLK01	2759.001		8	—	—	✓
16	VHBLK01	2762.001		9	—	—	✓
17	VHBLK01	2804.001		10	—	—	✓
18	C09E3	2817.003		11	—	—	✓ pH<2
19	VHBLK01	2795.001		12	—	—	X
20	VHBLK01	2761.001		13	—	—	✓
21	VHBLK01	2776.001		14	—	—	✓
22	VHBLK01	2817.001		15	—	—	✓ 2059

NOTES : _____

0347

ANALYST: _____ REVIEWER: _____

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1544 Sawdust Road, Suite 505
The Woodlands, TX 77380

RCN: 166-0103

ORGANICS STANDARD PREP LOGBOOK

SOLUTION NUMBER: 166-008-03 ANALYST: AK

SOLUTION NAME: I.S OLC03.2

DILUTION SOLVENT #.: MeOH (020-031-05)

PREP DATE: 04/02/03 TOTAL VOL.(mL): 0.5 ml

EXPIRATION DATE: 04/08/03

LAB ID (Receipt Logbook)	CONC. (µg/mL)	ALIQUOT (µL)	FINAL CONC. (µg/mL)
020-013-002	2500	8	40

PROBLEMS ENCOUNTERED/SPECIAL TECHNIQUES UTILIZED

REVIEWER: ESP

A4 Scientific
1544 Sawdust Road, Suite 505
The Woodlands, TX 77380

RCN: 166-0103

ORGANICS STANDARD PREP LOGBOOK

SOLUTION NUMBER: 166-009-03

ANALYST: AK

SOLUTION NAME: K-Surr OLC03-2

DILUTION SOLVENT #.: MeOH (020-031-05)

PREP DATE: 04/02/03

TOTAL VOL.(mL): 0.5ml

EXPIRATION DATE: 04/08/03

LAB ID (Receipt Logbook)	CONC. (µg/mL)	ALIQUOT (µL)	FINAL CONC. (µg/mL)
020-035-13	20,000	5	200
020-035-14	20,000	5	200

PROBLEMS ENCOUNTERED/SPECIAL TECHNIQUES UTILIZED

REVIEWER: ESP

0349

A4 Scientific

1544 Sawdust Road, Suite 505
The Woodlands, TX 77380

RCN: 166-0103

ORGANICS STANDARD PREP LOGBOOK

SOLUTION NUMBER: 166-010-03

ANALYST: AR

SOLUTION NAME: N.K Surr OLC03.2

DILUTION SOLVENT #.: MeOH (020-031-05)

PREP DATE: 04/02/03

TOTAL VOL.(mL): 0.5 ml

EXPIRATION DATE: 04/08/03

LAB ID (Receipt Logbook)	CONC. (µg/mL)	ALIQUOT (µL)	FINAL CONC. (µg/mL)
020-038-03	1000	20	40

PROBLEMS ENCOUNTERED/SPECIAL TECHNIQUES UTILIZED

REVIEWER: EJ

0350

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1544 Sawdust Road, Suite 505
The Woodlands, TX 77380

RCN: 166-0103

ORGANICS STANDARD PREP LOGBOOK

SOLUTION NUMBER: 166-011-03

ANALYST: AK

SOLUTION NAME: K.Std OLC03.2

DILUTION SOLVENT #.: MeOH (020-031-05)

PREP DATE: 04/02/03

TOTAL VOL.(mL): 0.5ml

EXPIRATION DATE: 04/08/03

LAB ID (Receipt Logbook)	CONC. (µg/mL)	ALIQUOT (µL)	FINAL CONC. (µg/mL)
020-034-12	5000	20	200

KAK

PROBLEMS ENCOUNTERED/SPECIAL TECHNIQUES UTILIZED

REVIEWER: EJP

A4 Scientific

1544 Sawdust Road, Suite 505
The Woodlands, TX 77380

RCN: 166-0103

ORGANICS STANDARD PREP LOGBOOK

SOLUTION NUMBER: 166 - 012 -03

ANALYST: AK

SOLUTION NAME: N.K. Std OLC03.2

DILUTION SOLVENT #.: MeOH (020-031-05)

PREP DATE: 04/02/03

TOTAL VOL.(mL): 0.5ml

EXPIRATION DATE: 04/08/03

LAB ID (Receipt Logbook)	CONC. (µg/mL)	ALIQUOT (µL)	FINAL CONC. (µg/mL)
020 - 034 - 11	2000	10	40
020 - 034 - 13	2000	10	40
020 - 035 - 12	2000	10	40

PROBLEMS ENCOUNTERED/SPECIAL TECHNIQUES UTILIZED

REVIEWER: [illegible]

0352

A4 Scientific

1544 Sawdust Road, Suite 505
The Woodlands, TX 77380

RCN: 166-0103

ORGANICS STANDARD PREP LOGBOOK

SOLUTION NUMBER: 166-013-03

ANALYST: AK

SOLUTION NAME: Gases OLC03.2

DILUTION SOLVENT #.: MeOH (020-031-05)

PREP DATE: 04/02/03

TOTAL VOL.(mL): 0.5ml

EXPIRATION DATE: 04/08/03

LAB ID (Receipt Logbook)	CONC. (µg/mL)	ALIQUOT (µL)	FINAL CONC. (µg/mL)
020-036-14	2000	10	40

PROBLEMS ENCOUNTERED/SPECIAL TECHNIQUES UTILIZED

REVIEWER: EBB

0053

53

200

(5)

FedEx Express *USA Airbill*

FedEx Tracking Number 8358 5942 6516

Form I.D. No. 0215

Recipient's Copy

NO POUCH NEEDED.
See back for peel and stick application instructions.

RECIPIENT: PEEL HERE

1 From This portion can be removed for Recipient's records.

Date 3.20.03 FedEx Tracking Number 835859426516

Sender's Name Anitra Rice Phone 818 382-1800

Company WESTON SOLUTIONS INC

Address 14724 VENTURA BLVD STE 1000 Dept./Floor/Suite/Room

City SHERMAN OAKS State CA ZIP 91403

2 Your Internal Billing Reference 20074.0~~Eto~~25.066.0004

3 To

Recipient's Name Reddy Pakanati Phone 281 292-5277

Company A4 Scientific (A4)

Address 1544 Sawdust Rd., Suite 505

To "HOLD" at FedEx location, print FedEx address. We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address Dept./Floor/Suite/Room

City The Woodlands State TX ZIP 77380

8358 5942 6516

0224449423

4a Express Package Service *Packages up to 150 lbs.* Delivery commitment may be later in some areas.

- [x] FedEx Priority Overnight — Next business morning
- [ ] FedEx Standard Overnight — Next business afternoon
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations
- [ ] FedEx 2Day — Second business day
- [ ] FedEx Express Saver — Third business day

FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service *Packages over 150 lbs.* Delivery commitment may be later in some areas.

- [ ] FedEx 1Day Freight* — Next business day
- [ ] FedEx 2Day Freight — Second business day
- [ ] FedEx 3Day Freight — Third business day

* Call for Confirmation:

5 Packaging * Declared value limit $500

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak
- [x] Other

6 Special Handling Include FedEx address in Section 3.

- [ ] SATURDAY Delivery — Available only for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- [ ] HOLD Weekday at FedEx Location — Not available for FedEx First Overnight
- [ ] HOLD Saturday at FedEx Location — Available only for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- [x] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Yes — Shipper's Declaration not required
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- [ ] Cargo Aircraft Only

Dangerous Goods (including Dry Ice) cannot be shipped in FedEx packaging.

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below.

- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Obtain Recip. Acct. No. [ ]

[redacted]

Total Packages	Total Weight		Total Charges
1	40	[redacted]	Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See the *FedEx Service Guide* for details.

8 Release Signature *Sign to authorize delivery without obtaining signature.*

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

Questions? Visit our Web site at fedex.com or call 1.800.Go.FedEx® 800.463.3339.

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447

1554

2)

USEPA Contract Laboratory Program
Organic Traffic Report & Chain of Custody Record

Case No: 31520
DAS No:
SDG No: Y0SL3.

L

Date Shipped:	3/19/2003
Carrier Name:	FedEx
Airbill:	835859426446
Shipped to:	A4 Scientific 1544 Sawdust Road Suite 505 The Woodlands TX 77380 (281) 292-5277

Chain of Custody Record

Sampler Signature: [signature]

Relinquished By	(Date / Time)	Received By	(Date / Time)
1 [signature]	3-19-03 1600	Federal Express	3-19-03 1600
2		[signature]	3/20/03 10:35
3			
4			

For Lab Use Only

Lab Contract No: 68-W-01-038
Unit Price: $ 390.00
Transfer To:
Lab Contract No: A.S 03/21/03
Unit Price:

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME		INORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
Y0SL3	Ground Water/ Anitra Rice	L/G	VOA (21)	(HCL) (3)	JF-GW-1	S: 3/18/2003	13:00	MY0SL3	Intact 1st
Y0SL4	Ground Water/ Anitra Rice	L/G	VOA (21)	(HCL) (3)	JF-GW-2	S: 3/18/2003	17:01	MY0SL4	
Y0SL6	Ground Water/ Anitra Rice	L/G	VOA (21)	(HCL) (3)	JF-GW-4	S: 3/18/2003	16:31	MY0SL6	
Y0SL7	Ground Water/ Anitra Rice	L/G	VOA (21)	(HCL) (3)	JF-GW-5	S: 3/18/2003	17:17	MY0SL7	

Shipment for Case Complete? N	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s): Anitra Rice	Cooler Temperature Upon Receipt: 3°C	Chain of Custody Seal Number:
Analysis Key: VOA = CLP TCL Volatiles	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G		Custody Seal Intact? Y / Shipment Iced? Y

TR Number: 9-233994445-031903-0001

PR provides preliminary results. Requests for preliminary results will increase analytical costs.
Send Copy to: Sample Management Office, 2000 Edmund Halley Dr., Reston, VA. 20191-3400 Phone 703/264-9348 Fax 703/264-9222

LABORATORY COPY

USEPA Contract Laboratory Program
Organic Traffic Report & Chain of Custody Record

Case No: 31520
DAS No:
SDG No: Y0SL3

L

Date Shipped:	3/20/2003
Carrier Name:	FedEx
Airbill:	835859426516
Shipped to:	A4 Scientific 1544 Sawdust Road Suite 505 The Woodlands TX 77380 (281) 292-5277

Chain of Custody Record

Sampler Signature: [signature]

Relinquished By	(Date / Time)	Received By	(Date / Time)
1 [signature]	3-20-03 1300	Federal Express	3-20-03 1300
2		[signature]	3/21/03 10:35
3			
4			

For Lab Use Only

Lab Contract No:	68-W-01-038
Unit Price:	$390.00
Transfer To:	
Lab Contract No:	A.I 03/21/03
Unit Price:	

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	INORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
Y0SL8	Ground Water/ Anitra Rice	M/G	VOA (21)	16 (HCL), 17 (HCL), 18 (HCL) (3)	JF-GW-6	S: 3/20/2003 9:25	MY0SL8	Intact
Y0SL9	Ground Water/ Anitra Rice	L/G	VOA (21)	20 (HCL), 21 (HCL), 22 (HCL) (3)	JF-GW-8	S: 3/20/2003 10:00	MY0SL9	
Y0SM0	Ground Water/ Anitra Rice	M/G	VOA (21)	11 (HCL), 12 (HCL), 13 (HCL) (3)	JF-GW-3	S: 3/20/2003 9:19	MY0SM0	20ml SX

Shipment for Case Complete? Y	Sample(s) to be used for laboratory QC: Y0SM0	Additional Sampler Signature(s): Anitra Rice	Cooler Temperature Upon Receipt: 2°C	Chain of Custody Seal Number:
Analysis Key: VOA = CLP TCL Volatiles	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G		Custody Seal Intact? Y / Shipment Iced? Y

TR Number: 9-233994445-032003-0002

LABORATORY COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.
Send Copy to: Sample Management Office, 2000 Edmund Halley Dr., Reston, VA. 20191-3400 Phone 703/264-9348 Fax 703/264-9222

A4 Scientific

1544 Sawdust Road, Suite 505
The Woodlands, TX 77380

Sample Log-In Report

Logged By: SA

Report Date: 04/12/2003 10:04:22

Client Name: USEPA
Client Project Name: LOW CONCENTRATION ORGANICS
ClientProject #: 68-W-01-038
P.O. No.:
Courier/No.:

Lab Project ID: CLP-OLC03.2
Date Logged: 03/21/03
Date Received: 03/20/03
Time Received: 10:35

Lab Sample ID	Client Sample ID	No. Cont.	Sample Matrix	Date Sampled	Time Sampled	Chain Of Custody No.	Date Due	Remarks
2761.001	VHBLK01	2	DW			9-233994445-031903-0001		LAB DW
	Tests Required							
	VOA_CLP_OLC03.2						03/27/03	
2761.002	Y0SL3	3	GW	03/18/03	13:00	9-233994445-031903-0001		1ST SX
	Tests Required							
	VOA_CLP_OLC03.2						03/27/03	
2761.003	Y0SL4	3	GW	03/18/03	17:01	9-233994445-031903-0001		
	Tests Required							
	VOA_CLP_OLC03.2						03/27/03	
2761.004	Y0SL6	3	GW	03/18/03	16:31	9-233994445-031903-0001		
	Tests Required							
	VOA_CLP_OLC03.2						03/27/03	
2761.005	Y0SL7	3	GW	03/18/03	17:17	9-233994445-031903-0001		
	Tests Required							
	VOA_CLP_OLC03.2						03/27/03	

Instructions To Lab:

CASE#:31520 ;SDG#: Y0SL3 ; TAT: 21 DAYS; EPISODE IN THIS SDG:2761
CASE AND SDG CLOSED

Lab Approval

Client Approval

357

A4 Scientific

1544 Sawdust Road, Suite 505
The Woodlands, TX 77380

Sample Log-In Report

Logged By: SA

Report Date: 04/12/2003 10:04:17

Client Name: USEPA
Client Project Name: LOW CONCENTRATION ORGANICS
ClientProject #: 68-W-01-038
P.O. No.:
Courier/No.:

Lab Project ID: CLP-OLC03.2
Date Logged: 03/21/03
Date Received: 03/21/03
Time Received: 10:30

Lab Sample ID	Client Sample ID	No. Cont.	Sample Matrix	Date Sampled	Time Sampled	Chain Of Custody No.	Date Due	Remarks
2775.001	Y0SL8	3	GW	03/20/03	09:25	9-233994445-032003-0002		
	Tests Required							
	VOA_CLP_OLC03.2						03/28/03	
2775.002	Y0SL9	3	GW	03/20/03	10:00	9-233994445-032003-0002		
	Tests Required							
	VOA_CLP_OLC03.2						03/28/03	
2775.003	Y0SM0	3	GW	03/20/03	09:19	9-233994445-032003-0002		LAST SX
	Tests Required							
	VOA_CLP_OLC03.2						03/28/03	

Instructions To Lab:

CASE#:31520 ; SDG#:Y0SL3; TAT:21 DAYS ; EPISODE IN THIS SDG:2761,2775

CASE AND SDG CLOSED

Lab Approval

Client Approval

SAMPLE LOG-IN SHEET

Lab Name A-4 Scientific	Page 1 of 1
Received By (Print Name) Elena Cwz	Log-in Date 3/20/03
Received By (Signature) Elena Cwz	
Case Number 31520	Sample Delivery Group No. YOSL3 / Client Number

Remarks:

1. Custody Seal(s) — Present/Absent* Intact/Broken
2. Custody Seal Nos. — NA
3. Chain of Custody Records — Present/Absent*
4. Traffic Reports or Packing Lists — Present/Absent*
5. Airbill — Airbill/Sticker Present/Absent*
6. Airbill No. — 835985942646
7. Sample Tags — Present/Absent* E.C.
   Sample Tag Nos. — Listed/Not Listed on Chain-of-Custody
8. Sample Condition — Intact/Broken*/Leaking
9. Cooler Temperature Indicator Bottle — Present/Absent*
10. Cooler Temperature — 3°C
11. Does information on custody records, traffic reports, and sample tags agree? — Yes/No*
12. Date Received at Lab — 3/20/03
13. Time Received — 10:35

EPA Sample #	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
VHBLK01	NA	2761.001	3 VIALS
YOSL3		.002	3
YOSL4		.003	3
YOSL6		.004	3
YOSL7		.005	3

E.C. 3/20/03

Sample Transfer

Fraction VOA	Fraction
Area # Cooler B	Area #
By Elena Cwz	By
On 3/20/03	On

* Contact SMO and attach record of resolution

Reviewed By	Logbook No.
Date	Logbook Page No.

FORM DC-1 OLC03.2

SAMPLE LOG-IN SHEET

Lab Name A-4 Scientific	Page 1 of 1
Received By (Print Name) Elena Cruz	Log-in Date 3/21/03
Received By (Signature) Elena Cruz	
Case Number	Sample Delivery Group No. Y05L3 — Client Number -

Remarks:

1. Custody Seal(s) — Present/Absent*; Intact/Broken
2. Custody Seal Nos. — NA
3. Chain of Custody Records — Present/Absent*
4. Traffic Reports or Packing Lists — Present/Absent*
5. Airbill — Airbill/Sticker Present/Absent*
6. Airbill No. — 8358-5942-6516
7. Sample Tags — Present/Absent*
   Sample Tag Nos. — Listed/Not Listed on Chain-of-Custody
8. Sample Condition — Intact/Broken*/Leaking
9. Cooler Temperature Indicator Bottle — Present/Absent*
10. Cooler Temperature — 2°C
11. Does information on custody records, traffic reports, and sample tags agree? — Yes/No*
12. Date Received at Lab — 3/21/03
13. Time Received — 10:34

EPA Sample #	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
Y05L8	NA	2775.001	3 vials
Y05L9	↓	.002	3
Y05M10	↓	.003	3

E.C. 3/21/03

Sample Transfer

Fraction VOA	Fraction
Area # Cooler B	Area #
By Elena Cruz	By A.S. 03/21/03
On 3/21/03	On

* Contact SMO and attach record of resolution

Reviewed By	Logbook No.
Date 03/21/03	Logbook Page No. A.S 03/21/03

FORM DC-1 OLC03.2

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
OFFICIAL SAMPLE SEAL

SAMPLE NO.

DATE 3/26/03

SIGNATURE Anitra Rice

PRINT NAME AND TITLE (Inspector, Analyst or Technician)

SEAL BROKEN BY

DATE

EPA FORM 7500-2(R7-75)

A4 Scientific

1544 Sawdust Road, Suite 505
The Woodlands, TX 77380

RCN: 129-1002

CUSTODY LOGBOOK
VOLATILES LABORATORY

SAMPLE ID	CONTAINER TYPE & NUMBER	IN OR OUT	BY	DATE & TIME	VERIFIED BY	COMMENTS
2759.004	40ml 2	IN	E.C	3-20-03 13:10	KA	
.005						
.006						
.007						
.008						
.009						
.010	6					
.011	2					
.012						
.013						
.014						
.015						
.016						
.017						
.018						
2761.001	40ml 3	IN	E.C	3-20-03 16:00	KA	
.002						
.003						
.004						
.005						
2762.001	40ml 3	IN	E.C	3-20-03 16:00	KA	
.002						
.003						
.004						
.005						
2764 .002	40ml 6	IN	EC	3-20-03 16:30	KA	

A4 Scientific
1544 Sawdust Road, Suite 505
The Woodlands, TX 77380

RCN: 129-1002

CUSTODY LOGBOOK
VOLATILES LABORATORY

SAMPLE ID	CONTAINER TYPE & NUMBER	IN OR OUT	BY	DATE & TIME	VERIFIED BY	COMMENTS
2768.001	4wm 1	in	EC	3-29-03 10:10	Jm	
.002	2mw					
.003						
.004						
.005						
.006						
.007	40ml 3					
.008						
.009						
.010						
.011						
2775.001	40ml 3	in	E.C	3-21-03 11:50	KAR	
.002						
.003						
2776.001	40ml 2	in	E.C	3-21-03 13:00	KAR	
.002						
.003						
.004						
.005						
.006						
.007						
.008						
.009						
.011						
.012						
.013						