Data Review Wednesday, October 10, 2001
Site Name: Allied Paper (MI)
Case Number: 29602 Laboratory: Southwest Laboratory
SDG: E0349

US EPA RECORDS CENTER REGION 5
560057

PCBs

Samples:

Sample No	Station Location	Matrix	Date Collected	Date Extracted	Date Analyzed
E0349	AP-SD030-28-04	Soil	08/16/01	08/21/01	09/14/01
E0350	AP-SD030-28-05	Soil	08/16/01	08/21/01	09/14/01
E0351	AP-SD030-28-06	Soil	08/16/01	08/21/01	09/14/01
E0352	AP-SD030-28-07	Soil	08/16/01	08/21/01	09/14/01
E0353	AP-SD036-37-01	Soil	08/15/01	08/21/01	09/15/01
E0354	AP-SD036-37-02	Soil	08/15/01	08/21/01	09/15/01
E0355	AP-SD036-37-02DP	Soil	08/15/01	08/21/01	09/15/01
E0356	AP-SD036-37-03	Soil	08/15/01	08/21/01	09/15/01
E0357	AP-SD036-37-04	Soil	08/15/01	08/21/01	09/15/01
E0358	AP-SD036-37-05	Soil	08/15/01	08/21/01	09/15/01
E0359	AP-SD036-24-01	Soil	08/15/01	08/21/01	09/15/01
E0360	AP-SD036-24-02	Soil	08/15/01	08/21/01	09/15/01
E0361	AP-SD036-24-03	Soil	08/15/01	08/21/01	09/15/01
E0362	AP-SD036-24-04	Soil	08/15/01	08/21/01	09/15/01
E0363	AP-SD036-24-04DP	Soil	08/15/01	08/21/01	09/15/01
E0364	AP-SD036-21-01	Soil	08/15/01	08/21/01	09/15/01
E0365	AP-SD036-21-02	Soil	08/15/01	08/21/01	09/15/01
E0366	AP-SD036-21-03	Soil	08/15/01	08/21/01	09/15/01
E0367	AP-SD036-21-03DP	Soil	08/15/01	08/21/01	09/15/01
E0368	AP-SD036-21-04	Soil	08/15/01	08/21/01	09/15/01

Holding Time:

All samples were extracted and analyzed within the required holding time. The samples arrived in a cooler at 3.6 & 0.9 degrees Celsius.

Method Blank:

The method blank PBLKSA was associated with this SDG. PBLKSA was analyzed on 09/14/01 with (E0349 thru E0368, and MS/MSD). The PBLKSA results were free of contamination. All samples underwent OLMO4.2 cleanup, Silica Gel Cleanup, and sulfuric acid cleanup prior analysis. All instrument blanks associated with this sample set were free of contamination.

Surrogate Recovery:

All method blanks and investigated samples had surrogate recoveries within the acceptance quality control limits (30 to 170%), except in E0350 (DCB1 265D%). Therefore, qualify the detected values in E0350 as estimated (J).

Matrix Spike/ Matrix Spike Duplicate Recovery:
The matrix spike/ matrix spike duplicate audit was performed on sample E0349. The matrix spike/ matrix spike duplicate recoveries were within the quality control limits (29-135%). Also, the relative percent difference (RPD %) recovery was acceptable.

Laboratory Control Sample Recovery:
The laboratory control sample/laboratory control sample duplicate, and the (RPD%) relative percent difference recoveries were within the quality control limits (29 to 135%).

Retention Time:
The retention time's recovery was within the acceptance limits.

Initial And Continuing Verifications Calibration:
The initial calibrations were analyzed for the arochlor, and the recoveries were within the quality control limit of an average (RSD 20%).
The multi-component calibration verification recoveries were within the quality control limit of an average (RSD 15%).

Aroclor Analytical Sequence:
The analytical sequence for the blanks, samples, and standards were within the quality control limit.

Data Reviewed By: Tania Balikji-Shammo Date: 10/09/01

067-4A-AAKS

DATE: October 3, 2001

cc D. GEEK
J. THORSEN
R. MEHL
T. BALLA

RECEIVED
OCT - 5 2001

Roy F Weston, Inc
3 Hawthorne Parkway Drive
Vernon Hills, IL 60061

Attn: Tonya Balla

SITE NAME: Allied Paper

CASE NO.	LAB	NO # OF SAMPLES	SDG	MATRIX
29602	SOUTHWEST	20	E0349	Soil

Upon receipt of data, please check each package for completeness and note any missing deliverables below.

Send this form back to Sylvia Griffin, Data Management Coordinator after filling in the blanks below.

Data Received by:_____ Date:_____

PROBLEMS:

Please indicate if data is complete, and note if there are any deliverables missing from the cases noted above.

_____

_____

Received by Data Management Coordinator, CRL for file.

Date:_____

Signature:_____

FROM: U.S. EPA
Region V
Central Regional Laboratory
536 S. Clark, 10th Floor
CHICAGO, IL 60605

Sent By: Eva M. Dixon, Sr. Data Specialist
ESAT

TB 10/10

SEP 2 4 2001

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

LABORATORY NAME SOUTHWEST LABORATORY OF OKLAHOMA
CITY/STATE BROKEN ARROW, OKLAHOMA
CASE NO. 29602 SDG NO. E0349 SDG NOS. TO FOLLOW
SAS NO.
CONTRACT NO. 68W99079
SOW NO. OLM04.2

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	1	2		
3. SDG Cover Sheet/Traffic Report	3	6		
4. Volatiles Data				
a. QC Summary				
System Monitoring Compound Summary (Form II	n/a	n/a		
Matrix Spike/Matrix Spike Duplicate Summary (Form III VOA)				
Method Blank Summary (Form IV VOA)				
GC/MS Instrument Performance Check (Form V VOA)				
Internal Standard Area and RT Summary (Form VIII VOA)				
b. Sample Data				
TCL Results - (Form I VOA-1, VOA-2)				
Tentatively Identified Compounds (Form I VOA-				
Reconstructed total ion chromatograms (RIC) for each sample				
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)				
Initial Calibration Data (Form VI VOA-1, VOA-2)				
RICs and Quan Reports for all Standards				
Continuing Calibration Data (Form VII VOA-1, VOA-2)				
RICs and Quantitation Reports for all Standards				
d. Raw QC Data				
BFB				
Blank Data				
Martix Spike/Matrix Spike Duplicate Data				

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET (cont.)

CASE NO. 29600 SDG NO. E0349 SDG NOS. TO FOLLOW _____

_____ _____ SAS NO. _____

	PAGE NOs FROM	TO	CHECK LAB	EPA
5. **Semivolatiles Data**				
a. QC Summary				
Surrogate Percent Recovery Summary (Form II SV)	n/a	n/a		
MS/MSD Summary (Form III SV)				
Method Blank Summary (Form IV SV)				
GC/MS Instrument Performance Check (Form V SV)				
Internal Standard Area and RT Summary (Form VIII SV)				
b. Sample Data				
TCL Results - (Form I SV-1, SV-2)				
Tentatively Identified Compounds (Form I SV-				
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				
GPC chromatograms (if GPC is required)				
c. Standards Data (All Instruments)				
Initial Calibration Data (Form VI SV-1, SV-2)				
RICs and Quan Reports for all Standards				
Continuing Calibration Data (Form VII SV-1, SV-				
RICs and Quantitation Reports for all Standards				
d. Raw QC Data				
DFTPP				
Blank Data				
Matrix Spike/Matrix Spike Duplicate Data				
e. Raw GPC Data				
6. **Pesticides Data**				
a. QC Summary				
Surrogate Percent Recovery Summary (Form II	7	7		
MS/MSD Duplicate Summary (Form III PEST)	8	9		
Method Blank Summary (Form IV PEST)	10	10		

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET (cont.)

CASE NO. 29602 SDG NO. E0349 SDG NOS. TO FOLLOW _____

_____ _____ SAS NO. _____

	PAGE NOs FROM	PAGE NOs TO	CHECK LAB	CHECK EPA
6. Pesticides Data (Cont.)				
b. Sample Data	11	86		
TCL Results - Organic Analysis Data Sheet (Form I PEST)				
Chromatograms (Primary Column)				
Chromatograms from second GC column				
GC Integration report or data system printout				
Manual work sheets				
For pesticides/Aroclors by GC/MS, Copies of raw spectra and copies of background-subtracted mass spectra of target compounds (samples & standards)				
c. Standards Data	87	196		
Initial Calibration of Single Component (Form VI PEST-1 and PEST-2)				
Initial Calibration of Multicomponent Analytes (Form VI PEST-3)				
Analyte Resolution Summary (Form VI PEST-4)				
Performance Evaluation Mixture (Form VI PEST-5)				
Individual Standard Mixture A (FORM VI PEST-6)				
Individual Standard Mixture B (FORM VI PEST-7)				
Calibration Verification Summary (Form VII PEST-1)				
Calibration Verification Summary (Form VII PEST-2)				
Analytical Sequence (Form VIII PEST)				
Florisil Cartridge Check (Form IX PEST-1)				
Pesticide GPC Calibration (Form IX PEST-2)				
Pesticide Identification Summary for Single Component Analytes (Form X PEST-1)				
Pesticide Identification Summary for Multicomponent Analytes (Form X PEST-2)				
Chromatograms and data system printouts A printout of retention times and corresponding peak areas or peak heights				
d. Raw QC Data				
Blank Data	197	219		
Matrix Spke/Matrix Spike Duplicate Data	220	235		

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET (cont.)

CASE NO. 29602 SDG NO. E0349 SDG NOS. TO FOLLOW _____

_____ _____ SAS NO. _____

	PAGE NOs FROM	PAGE NOs TO	CHECK LAB	CHECK EPA
6. Pesticides Data (Cont.)				
e. Raw GPC Data	236	299	em	
f. Raw Florisil Data	n/a	n/a		
7. Miscellaneous Data				
Original preparation and analysis forms or of preparation and analysis logbook pages	300	305		
Internal sample and sample extract transfer chain-of-custody records	306	311		
Screening records	n/a	n/a		
All instrument output, including strip charts from screening activities (describe or list)				
8. EPA Shipping/Receiving Documents				
Airbills (No. of shipments 3)	312	313		
Chain-of-Custody Records	314	316		
Sample Tags	317	336		
Sample Log-in Sheet (Lab & DC1)	337	341		
Miscellaneous Shipping/Receiving Records (describe or list)				
Memos, Changes, Analytical Request Form	342	348		
	n/a	n/a		
9. Internal Lab Sample Transfer Records and Tracking Sheets (describe or list)				
10. Other Records (describe or list)				
Telephone Communication Log				

11. Comments: _____

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET (cont.)

CASE NO. 25602 SDG NO. E0349 SDG NOS. TO FOLLOW _____

_____ _____ SAS NO. _____

	(Signature)	(Printed Name/Title)	(Date)
Completed by: (CLP Lab)	Sandra Jackett	Sandra Jackett / Data Clerk	9/21/01
Verified by: (CLP Lab)	Emma Morton	Emma Morton Clerk	9/21/01
Audited by: (EPA)			

SEP 2 4 2001

SOUTHWEST LABORATORY OF OKLAHOMA
(SWL-TULSA)
1700 West Albany, Suite A/ Broken Arrow, OK 74012
918-251-2858

SDG NARRATIVE

September 21, 2001

CONTRACT: 68W99079

CASE NO: 29602

SDG NO: E0349

SAMPLES: E0349, E0349MS, E0349MSD, E0350, E0351, E0352, E0353, E0354, E0355, E0356, E0357, E0358, E0359, E0360, E0361, E0362, E0363, E0364, E0365, E0366, E0367 and E0368.

FRACTION: Pesticide/PCB

Twenty soil samples were analyzed for PCBs, by modified EPA SOW OLM04.2 using Flex Clause Modification PCB-REG5.

Columns: The soil samples were analyzed on Restek dual analytical columns RTX-PEST (also known as PEST I)(proprietary phase composition, length 30m, id 0.32 mm, film thickness 0.5 um) and RTX-PEST 2 (also known as PEST II) (proprietary phase composition, length 30m, id 0.32 mm, film thickness 0.25 um) columns which were specifically designed for pesticide/PCB separation as required by the EPA's SOW. All applicable manufacturer's instructions were followed for the analysis of pesticides/PCBs. Manufacturer provided information on the performance characteristics of the columns are kept on site. Hydrogen used as the carrier gas.

The sample cooler arrived at 3.6 & 0.9 degrees Celsius.

The modification for these soils included the following cleanups: OLM04.2 GPC cleanup followed by SW846 method 3630 Silica Gel Cleanup which was then followed by SW846- method 3665 sulfuric acid cleanup prior to analyses. No florisil clean up was necessary as part of the modification. As per e-mail correspondence of 8/24/01 the laboratory had made a modification for initial dilution and if PCBs are within instruments linear range no 10X more concentrated analyses will be performed by the laboratory.

Blanks: No target analytes were detected in the extraction blanks.

Surrogates: All surrogates were within QC limits with the following exception: Sample E0350 had high recovery for DCB on one column at 265%. Since the other column was within QC limits the sample was not re-extracted.

Laboratory Control Spikes: Arochlor 1254 was used for the laboratory control spike. The recoveries were within QC limits for laboratory control spike and laboratory control spike duplicate.

Matrix Spikes: Arochlor 1254 was used for the matrix spike and matrix spike duplicate. The MS/MSD recoveries were within QC limits.

Retention Times: All retention times were within QC limits.

Resolution Checks: Since only PCBs were being analyzed for no resolution checks for pesticides were necessary.

Breakdown Products: Since only PCBs were being analyzed for no pesticide breakdown products were checked.

Initial Calibrations: Initial calibrations were analyzed for Aroclor 1016, 1242, 1254 and 1260 and all percent RSDs were within QC limits (average of all peaks at > 20%RSD)

Calibration Verifications: Calibration verifications were analyzed for Aroclors 1016 and 1260. All percent differences were within QC limits (average of all peaks at ≥ 15%).

All manual integrations in this data package for GC/EC have been performed for one of the following reasons:

a. Data system missed a peak during processing.
b. Data system improperly integrated a peak.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Harry M. Borg
Organic Program Manager September 21, 2001

Contract Laboratory Program

Sample Delivery Group (SDG) Cover Sheet

SDG Number E0349

8/21/01

Laboratory Name Southwest Laboratory of Ok. Laboratory Code SWOK

Contract No. 68W99079 Case No. ~~OLM04.2~~ 21602

Analyses Price 569.00 SDG Turnaround 21

EPA Sample Numbers in SDG (Listed in Numerical Order)

1) E0349	7) E0355	13) E0361	19) E0367
2) E0350	8) E0356	14) E0362	20) E0368
3) E0351	9) E0357	15) E0363	21)
4) E0352	10) E0358	16) E0364	22)
5) E0353	11) E0359	17) E0365	23)
6) E0354	12) E0360	18) E0366	24)

E0349	E0368
First Sample in SDG	Last Sample in SDG
08/17/2001	08/20/2001
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).*

3

Signature Henry M Boggs Date 8-21-01

Version 2.0

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

Case No:	29602
DAS No:	
SDG No:	E0349

L

Date Shipped:	8/16/2001
Carrier Name:	FedEx
Airbill:	821876980307
Shipped to:	Southwest Labs of Oklahoma, Inc. 1700 West Albany Suite C Broken Arrow OK 74012 (918) 251-0545

Chain of Custody Record

Sampler Signature:

Relinquished By	(Date / Time)	Received By	(Date / Time)
1	8-16-01 1730		8-17-01 8:20
2			
3			
4			

For Lab Use Only

Lab Contract No:	68W99079
Unit Price:	569.00
Transfer To:	
Lab Contract No:	
Unit Price:	

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE	STATION LOCATION		SAMPLE COLLECT DATE/TIME		INORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt E0349
E0348	Sediment/ Joe Ruiz	L/G	PCBs (21)	050562 (Ice Only) (1)	AP-SD030-28-03	S:	8/16/2001	12:04	original in SDG # E0329	OK
E0349	Sediment/ Joe Ruiz	L/G	PCBs (21)	050563 (Ice Only) (1)	AP-SD030-28-04	S:	8/16/2001	12:04		8-17-01
E0350	Sediment/ Joe Ruiz	L/G	PCBs (21)	050564 (Ice Only) (1)	AP-SD030-28-05	S:	8/16/2001	12:04		
E0351	Sediment/ Joe Ruiz	L/G	PCBs (21)	050565 (Ice Only) (1)	AP-SD030-28-06	S:	8/16/2001	12:04		
E0358	Sediment/ Joe Ruiz	L/G	PCBs (21)	050572 (Ice Only) (1)	AP-SD036-37-05	S:	8/15/2001	15:30		
E0359	Sediment/ Joe Ruiz	L/G	PCBs (21)	050573 (Ice Only) (1)	AP-SD036-24-01	S:	8/15/2001	14:58		
E0360	Sediment/ Joe Ruiz	L/G	PCBs (21)	050574 (Ice Only) (1)	AP-SD036-24-02	S:	8/15/2001	14:58		
E0361	Sediment/ Joe Ruiz	L/G	PCBs (21)	050575 (Ice Only) (1)	AP-SD036-24-03	S:	8/15/2001	14:58		
E0362	Sediment/ Joe Ruiz	L/G	PCBs (21)	050576 (Ice Only) (1)	AP-SD036-24-04	S:	8/15/2001	14:58		
E0363	Sediment/ Joe Ruiz	L/G	PCBs (21)	050577 (Ice Only) (1)	AP-SD036-24-04DP	S:	8/15/2001	14:58		

Shipment for Case Complete? N	Sample(s) to be used for laboratory QC: E0309, E0330, E0349	Additional Sampler Signature(s):	Cooler Temperature Upon Receipt: 3.6 FB.	Chain of Custody Seal Number: 177834, 177835
Analysis Key: PCBs = PCBs	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G		Custody Seal Intact? Y / Shipment Iced? Y

R Number: 5-490998136-081601-0002

LABORATORY COPY

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

Case No:	29602
DAS No:	
SDG No:	E0349

L

Date Shipped:	8/16/2001
Carrier Name:	FedEx
Airbill:	821876980307
Shipped to:	Southwest Labs of Oklahoma, Inc. 1700 West Albany Suite C Broken Arrow OK 74012 (918) 251-0545

Chain of Custody Record

Sampler Signature:

Relinquished By	(Date / Time)	Received By	(Date / Time)
1	8/16/01 1730		8/17/01 800
2			
3			
4			

For Lab Use Only

Lab Contract No:	68U99079
Unit Price:	569.00
Transfer To:	
Lab Contract No:	
Unit Price:	

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE	STATION LOCATION		SAMPLE COLLECT DATE/TIME		INORGANIC SAMPLE No.	FOR LAB USE ONLY E0349 Sample Condition On Receipt
E0352	Sediment/ Joe Ruiz	L/G	PCBs (21)	050566 (Ice Only) (1)	AP-SD030-28-07	S:	8/16/2001	12:04		ok
E0353	Sediment/ Joe Ruiz	L/G	PCBs (21)	050567 (Ice Only) (1)	AP-SD036-37-01	S:	8/15/2001	15:30		8-17-01 ok
E0354	Sediment/ Joe Ruiz	L/G	PCBs (21)	050568 (Ice Only) (1)	AP-SD036-37-02	S:	8/15/2001	15:30		
E0355	Sediment/ Joe Ruiz	L/G	PCBs (21)	050569 (Ice Only) (1)	AP-SD036-37-02DP	S:	8/15/2001	15:30		
E0356	Sediment/ Joe Ruiz	L/G	PCBs (21)	050570 (Ice Only) (1)	AP-SD036-37-03	S:	8/15/2001	15:30		
E0357	Sediment/ Joe Ruiz	L/G	PCBs (21)	050571 (Ice Only) (1)	AP-SD036-37-04	S:	8/15/2001	15:30		

Shipment for Case Complete?N	Sample(s) to be used for laboratory QC: E0309, E0330, E0349	Additional Sampler Signature(s):	Cooler Temperature Upon Receipt: 3.6	Chain of Custody Seal Number: 177834, 177835
Analysis Key: PCBs = PCBs	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G		Custody Seal Intact? Y / Shipment Iced? Y

R Number: 5-490998136-081601-0002

LABORATORY COPY

R provides preliminary results. Requests for preliminary results will increase analytical costs.
nd Copy to: Contract Laboratory Analytical Services Support, 2000 Edmund Halley Dr., Reston, VA. 20191-3436 Phone 703/264-9348 Fax 703/264-9222

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

Case No:	29602
DAS No:	
SDG No:	E0349

L

Date Shipped:	8/17/2001
Carrier Name:	FedEx
Airbill:	821876980400
Shipped to:	Southwest Labs of Oklahoma, Inc. 1700 West Albany Suite C Broken Arrow OK 74012 (918) 251-0545

Chain of Custody Record

Sampler Signature:

Relinquished By	(Date / Time)	Received By	(Date / Time)
1	8-17-01 1295		8-2001 8:15
2			
3			
4			

For Lab Use Only

Lab Contract No:	68W99079
Unit Price:	$69.00
Transfer To:	
Lab Contract No:	
Unit Price:	

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE	STATION LOCATION		SAMPLE COLLECT DATE/TIME		INORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt E0349
E0364	Sediment/ Joe Ruiz	L/G	PCBs (21)	050578 (Ice Only) (1)	AP-SD036-21-01	S:	8/15/2001	15:45		
E0365	Sediment/ Joe Ruiz	L/G	PCBs (21)	050579 (Ice Only) (1)	AP-SD036-21-02	S:	8/15/2001	15:45		
E0366	Sediment/ Joe Ruiz	L/G	PCBs (21)	050580 (Ice Only) (1)	AP-SD036-21-03	S:	8/15/2001	15:45		
E0367	Sediment/ Joe Ruiz	L/G	PCBs (21)	050581 (Ice Only) (1)	AP-SD036-21-03DP	S:	8/15/2001	15:45		
* E0368	Sediment/ Joe Ruiz	L/G	PCBs (21)	050582 (Ice Only) (1)	AP-SD036-21-04	S:	8/15/2001	15:45		
E0369	Sediment/ Joe Ruiz	L/G	PCBs (21)	050583 (Ice Only) (1)	AP-SD036-38-01	S:	8/15/2001	14:49		
E0370	Sediment/ Joe Ruiz	L/G	PCBs (21)	050584 (Ice Only) (1)	AP-SD036-38-02	S:	8/15/2001	14:49		
E0371	Sediment/ Joe Ruiz	L/G	PCBs (21)	050585 (Ice Only) (1)	AP-SD036-38-03	S:	8/15/2001	14:49		
E0372	Sediment/ Joe Ruiz	L/G	PCBs (21)	050586 (Ice Only) (1)	AP-SD036-38-04	S:	8/15/2001	14:49		
E0373	Sediment/ Joe Ruiz	L/G	PCBs (21)	050587 (Ice Only) (1)	AP-SD036-30-01	S:	8/15/2001	16:42		

* SDG Final Sample

Shipment for Case Complete?N	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Cooler Temperature Upon Receipt:	Chain of Custody Seal Number:
	E0369, E0389, E03A9		0.9°C	177838 177839

Analysis Key: PCBs = PCBs

Concentration: L = Low, M = Low/Medium, H = High Type/Designate: Composite = C, Grab = G

Custody Seal Intact? Y Shipment Iced? Y

R Number: 5-490998136-081701-0001

LABORATORY COPY

R provides preliminary results. Requests for preliminary results will increase analytical costs.
nd Copy to: Contract Laboratory Analytical Services Support, 2000 Edmund Halley Dr., Reston, VA. 20191-3436 Phone 703/264-9348 Fax 703/264-9222

2F
SOIL AROCLOR SURROGATE RECOVERY

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

GC Column(1): RTX-PEST 2 ID: 0.32(mm) GC Column(2): RTX-PEST ID: 0.32(mm)

	CLIENT SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	TOT OUT
01	PBLKSA	74	72	73	80	0
02	ELCS1	84	82	79	86	0
03	ELCS2	90	81	77	84	0
04	E0349	81	71	70	75	0
05	E0349MS	85	77	85	82	0
06	E0349MSD	82	74	73	75	0
07	E0350	112	108	265*	96	1
08	E0351	90	88	149	81	0
09	E0352	84	78	78	90	0
10	E0353	90	87	77	85	0
11	E0354	74	68	64	69	0
12	E0355	74	69	66	70	0
13	E0356	95	90	82	91	0
14	E0357	75	69	65	77	0
15	E0358	79	73	73	84	0
16	E0359	86	78	71	81	0
17	E0360	86	80	74	83	0
18	E0361	78	71	76	83	0
19	E0362	79	74	75	84	0
20	E0363	97	89	90	100	0
21	E0364	82	76	80	88	0
22	E0365	84	69	77	85	0
23	E0366	87	82	79	88	0
24	E0367	73	64	70	78	0
25	E0368	84	76	76	90	0
26						
27						
28						
29						
30						

QC LIMITS

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl (30-170)

Column to be used to flag recovery values
* Values outside of QC limits
D Sample was diluted

FORM II PCB-1

3H

SOIL AROCLOR LABORATORY CONTROL SPIKE/ DUPLICATE RECOVERY

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

LCS Sample NO.: ELCS1

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Aroclor-1254	133	112	84	29-135

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1254	133	113	85	1	50	29-135

Column to be used to flag recovery values

* Values outside of QC limits

RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

Comments: _____

_____

.C 8

3F

SOIL AROCLOR MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix Spike - Client Sample NO.: E0349

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Aroclor-1254	252	86.4	264	70	29-135

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1254	249	220	54	18	50	29-135

Column to be used to flag recovery values

* Values outside of QC limits

RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

Comments: _____

9

4C

AROCLOR METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

PBLKSA

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Lab Sample ID: BL0821SA Lab File ID: 16091403

Matrix: (soil/water) SOIL Extraction: (SepF/Cont/Sonc) SONC

Sulfur Cleanup: (Y/N) Y Date Extracted: 08/21/01

Date Analyzed (1): 09/14/01 Date Analyzed (2): 09/14/01

Time Analyzed (1): 1632 Time Analyzed (2): 1632

Instrument ID (1): HP_16A Instrument ID (2): HP_16B

GC Column (1): RTX-PEST 2 ID: 0.32(mm) GC Column (2): RTX-PEST ID: 0.32(mm)

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	ELCS1	LC0821SA	09/14/01	09/14/01
02	ELCS2	LD0821SA	09/14/01	09/14/01
03	E0349	47325.01	09/14/01	09/14/01
04	E0349MS	47325.02MS	09/14/01	09/14/01
05	E0349MSD	47325.03MSD	09/14/01	09/14/01
06	E0350	47325.04	09/14/01	09/14/01
07	E0351	47325.05	09/14/01	09/14/01
08	E0352	47325.06	09/14/01	09/14/01
09	E0353	47325.07	09/15/01	09/15/01
10	E0354	47325.08	09/15/01	09/15/01
11	E0355	47325.09	09/15/01	09/15/01
12	E0356	47325.10	09/15/01	09/15/01
13	E0357	47325.11	09/15/01	09/15/01
14	E0358	47325.12	09/15/01	09/15/01
15	E0359	47325.13	09/15/01	09/15/01
16	E0360	47325.14	09/15/01	09/15/01
17	E0361	47325.15	09/15/01	09/15/01
18	E0362	47325.16	09/15/01	09/15/01
19	E0363	47325.17	09/15/01	09/15/01
20	E0364	47344.01	09/15/01	09/15/01
21	E0365	47344.02	09/15/01	09/15/01
22	E0366	47344.03	09/15/01	09/15/01
23	E0367	47344.04	09/15/01	09/15/01
24	E0368	47344.05	09/15/01	09/15/01
25				
26				

Comments: _____

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

E0349

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) SOIL Lab Sample ID: 47325.01

Sample wt/vol: 30.6 (g/mL) G Lab File ID:_____

% Moisture: 47 decanted: (Y/N) __ Date Received: 08/17/01

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:08/21/01

Concentrated Extract Volume: 5000(uL) Date Analyzed: 09/14/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	61	U
11104-28-2	Aroclor-1221	61	U
11141-16-5	Aroclor-1232	61	U
53469-21-9	Aroclor-1242	43	J
12672-29-6	Aroclor-1248	61	U
11097-69-1	Aroclor-1254	86	
11096-82-5	Aroclor-1260	26	JP
Surrogate amount spiked		12.33	

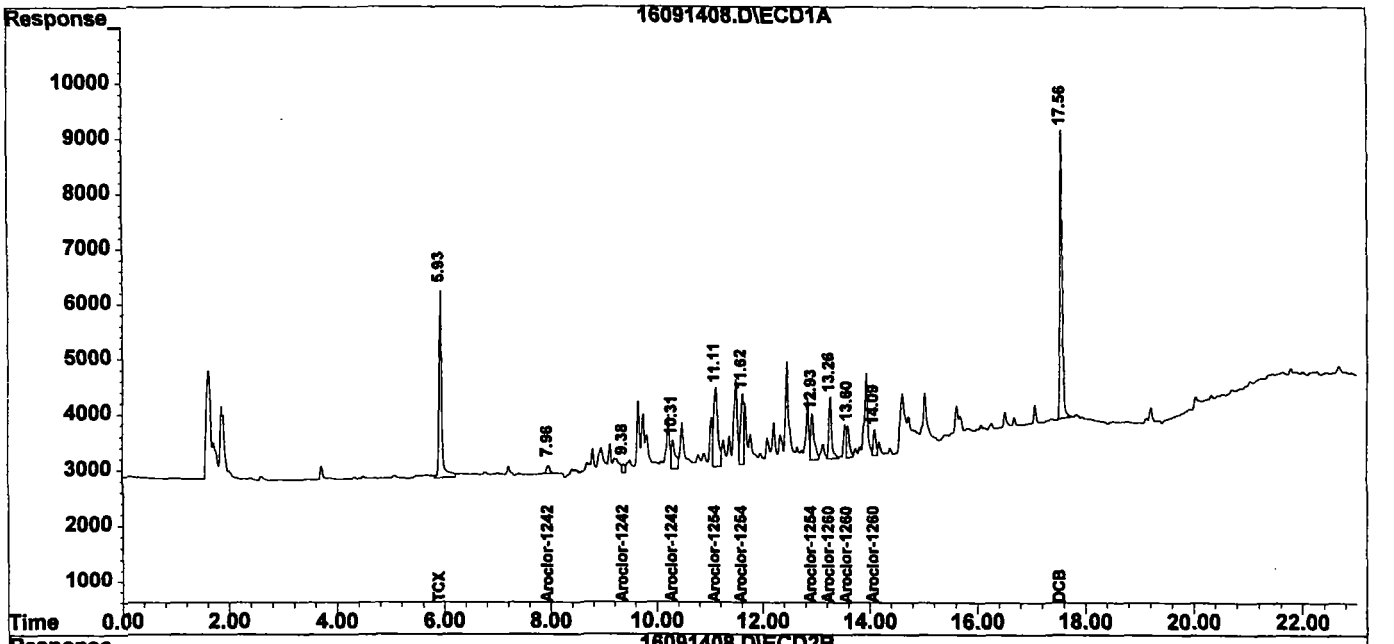
FORM I PCB

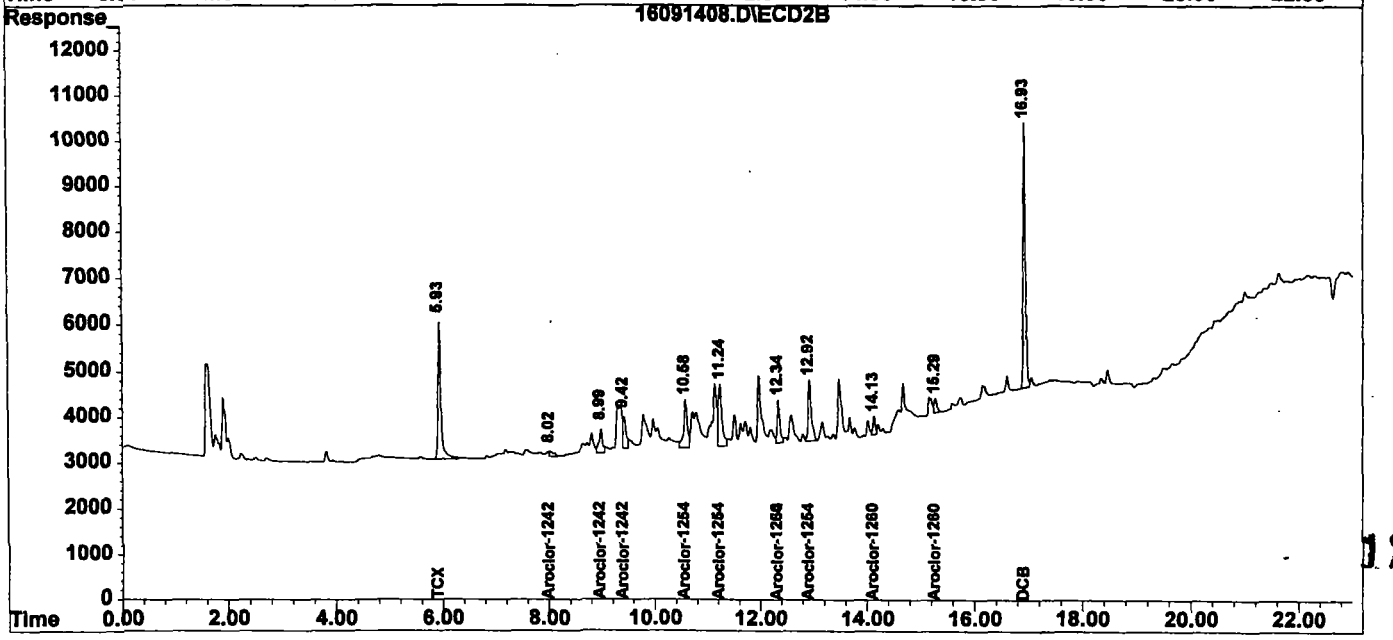
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091408.D\ECD1A.CH Vial: 8
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091408.D\ECD2B.CH
Acq On : 14 Sep 2001 18:46 Operator: DDC
Sample : 47325.01 *E0349 * Inst : HP_16
Misc : *EPA*30.6G/5.0ML*47 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 8:43 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

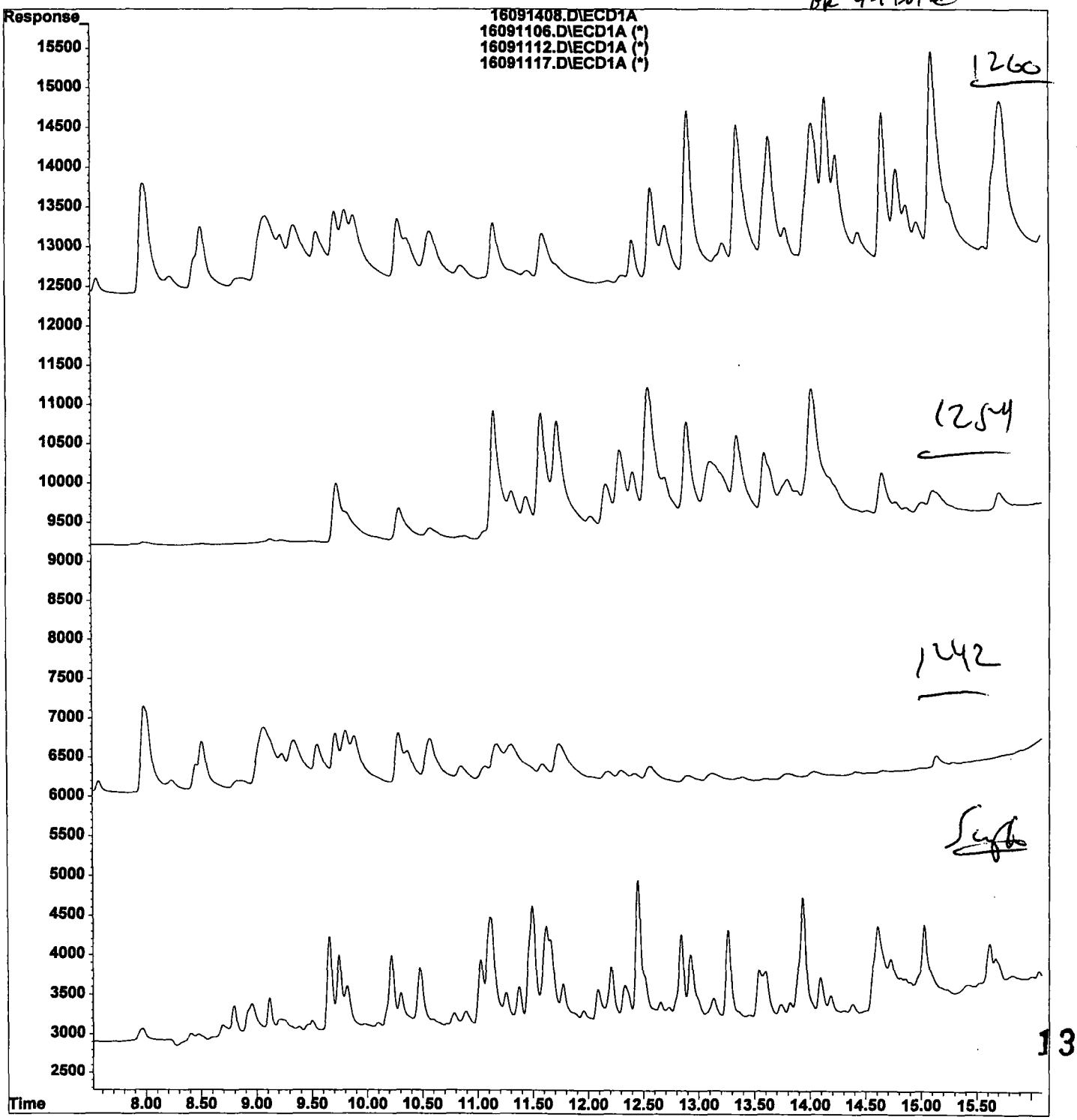
Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





12

File : F:\HPCHEM\HP\16\DATA\09_14_01\16091408.D
Operator : DDC
Acquired : 14 Sep 2001 18:46 using AcqMethod OLM03.M
Instrument : HP_16
Sample Name: 47325.01 *E0349 *
Misc Info : *EPA*30.6G/5.0ML*47
Vial Number: 8



Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091408.D\ECD1A.CH Vial: 8
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091408.D\ECD2B.CH
Acq On : 14 Sep 2001 18:46 Operator: DDC
Sample : 47325.01 *E0349 * Inst : HP_16
Misc : *EPA*30.6G/5.0ML*47 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 8:43 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg	
	System Monitoring Compounds:							
1)	S TCX	5.93f	5.94f	112853	111514	10.0	8.745	
	Spiked Amount 12.332			Recovery	=	81.09%	70.91%	
22)	S DCB	17.56	16.93	160901	168774	8.680	9.224	
	Spiked Amount 12.332			Recovery	=	70.39%	74.80%	
	Target Compounds:							
8)	L4 Aroclor-1242 {2}	7.97	8.03f	6932	6352	12.8m	15.4	
9)	L4 Aroclor-1242 {3}	9.38f	8.99	5789	25012	12.2	48.7	#
10)	L4 Aroclor-1242 {4}	0.00	9.42	0	26532	N.D. d	86.0m	#
11)	L4 Aroclor-1242 {5}	10.31	0.00	27061	0	102.6	N.D. d	#
	Sum Aroclor-1242			39781	57896	127.5	150.1	
	Average Aroclor-1242					42.504	50.027	
12)	L6 Aroclor-1254	11.12f	10.58f	80007	51237	121.7	101.0	
13)	L6 Aroclor-1254 {2}	11.62f	11.24f	48912	67980	84.9m	111.8	#
15)	L6 Aroclor-1254 {4}	12.93f	12.34f	39102	34760	73.0	67.5	
16)	L6 Aroclor-1254 {5}	0.00	12.93f	0	57995	N.D.	65.3	#
	Sum Aroclor-1254			168021	211973	279.6	345.6	
	Average Aroclor-1254					93.199	86.388	
17)	L7 Aroclor-1260	13.27f	12.34	40572	34760	44.9	38.8	
18)	L7 Aroclor-1260 {2}	13.60	0.00	23115	0	28.4	N.D. d	#
19)	L7 Aroclor-1260 {3}	14.10	14.14	16668	12845	25.2	22.7	
21)	L7 Aroclor-1260 {5}	0.00	15.29	0	12302	N.D. d	17.6	#
	Sum Aroclor-1260			80355	59907	60.7	48.7	
	Average Aroclor-1260					32.832	26.337	

DDC Spikes

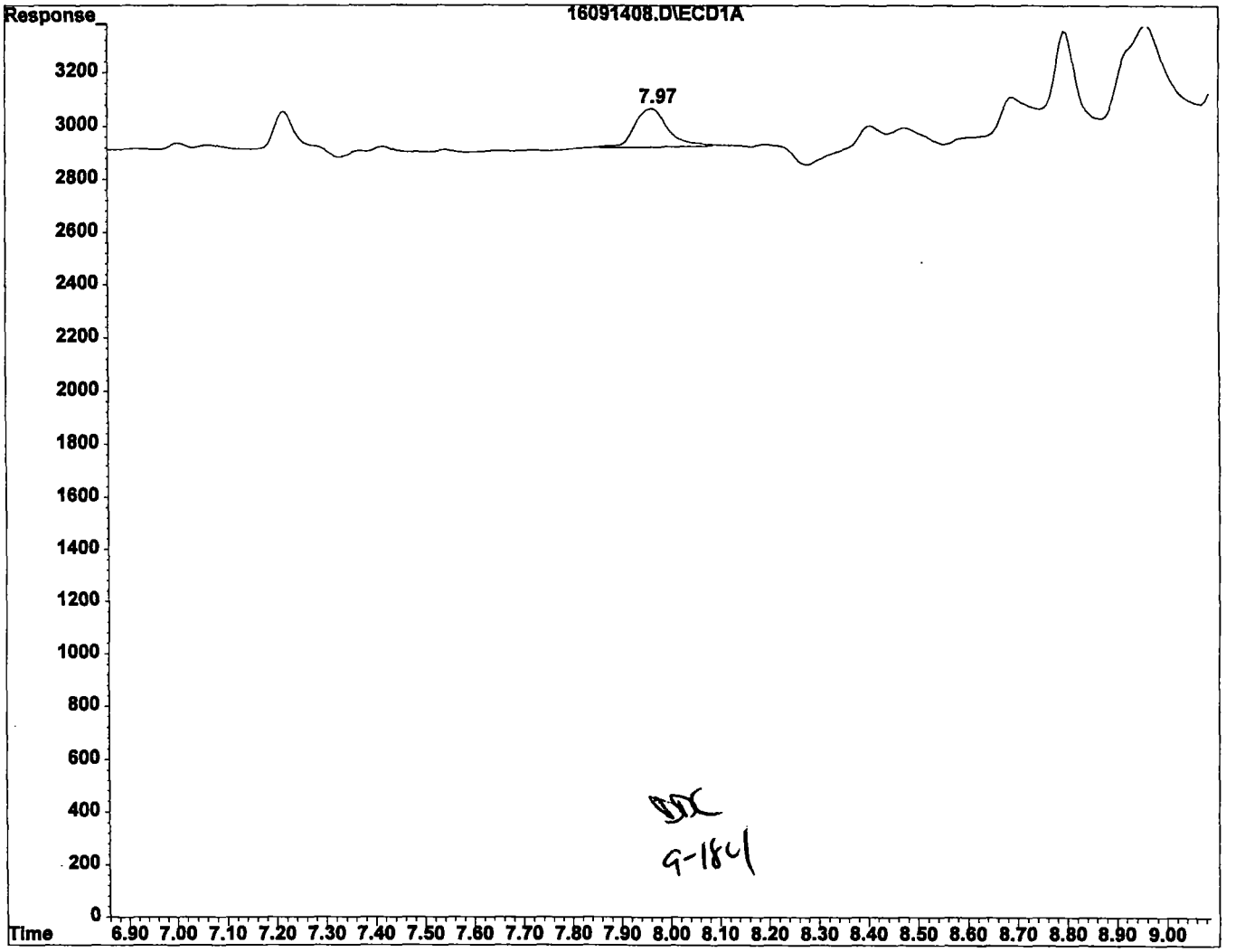
DDC Spikes

14

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_14_01\16091408.D
Date Acquired: 14 Sep 2001 18:46
Inst: HP_16 Operator ID: DDC
Name: 47325.01 *E0349 *
Misc: *EPA*30.6G/5.0ML*47
Method: F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 18 8:43 2001 Quant Results File: XPCBI11.RES



9-19-01

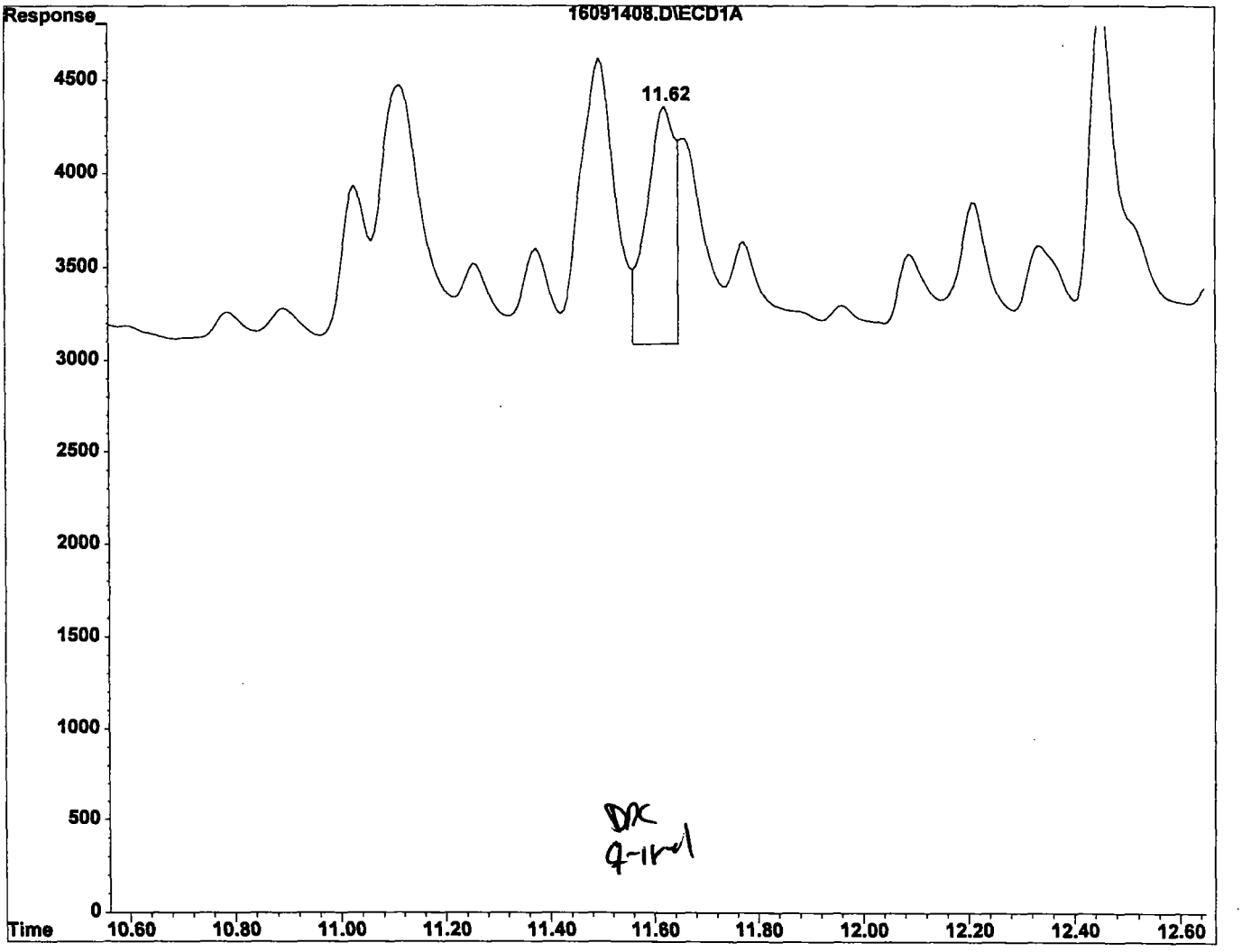
Aroclor-1242 {2} 7.97min area: 6932 m

Integration Time Range: 7.86 - 8.09

F:\HPCHEM\HP\16\DATA\09_14_01\16091408.D
Report generated: Tue Sep 18 09:19:25 2001

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_14_01\16091408.D
Date Acquired: 14 Sep 2001 18:46
Inst: HP_16 Operator ID: DDC
Name: 47325.01 *E0349 *
Misc: *EPA*30.6G/5.0ML*47
Method: F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 18 8:43 2001 Quant Results File: XPCBI11.RES



ok 9-19-01

Aroclor-1254 {2} 11.62min area: 48912 m

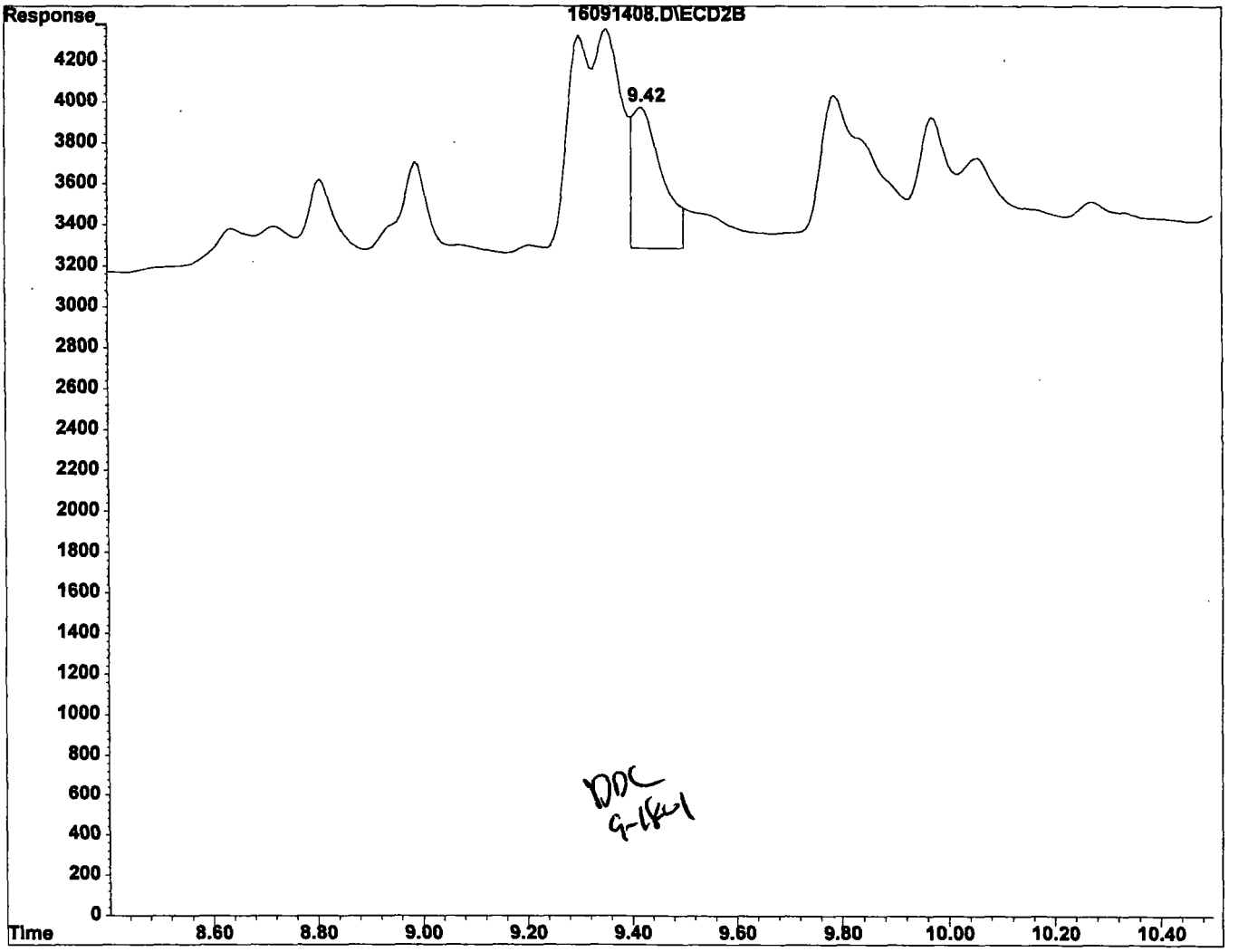
Integration Time Range: 11.56 - 11.65

16

F:\HPCHEM\HP\16\DATA\09_14_01\16091408.D
Report generated: Tue Sep 18 09:19:26 2001

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_14_01\16091408.D
Date Acquired: 14 Sep 2001 18:46
Inst: HP_16 Operator ID: DDC
Name: 47325.01 *E0349 *
Misc: *EPA*30.6G/5.0ML*47
Method: F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 18 8:43 2001 Quant Results File: XPCBI11.RES



ok 9-19-01

Aroclor-1242 {4} #2 9.42min area: 26532 m

Integration Time Range: 9.40 - 9.50

17

F:\HPCHEM\HP\16\DATA\09_14_01\16091408.D
Report generated: Tue Sep 18 09:19:27 2001

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

E0350

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) SOIL Lab Sample ID: 47325.04

Sample wt/vol: 30.8 (g/mL) G Lab File ID:_____

% Moisture: 49 decanted: (Y/N) __ Date Received: 08/17/01

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:08/21/01

Concentrated Extract Volume: 5000(uL) Date Analyzed: 09/14/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.2 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	63	U
11104-28-2	Aroclor-1221	63	U
11141-16-5	Aroclor-1232	63	U
53469-21-9	Aroclor-1242	24	JP
12672-29-6	Aroclor-1248	63	U
11097-69-1	Aroclor-1254	27	J
11096-82-5	Aroclor-1260	15	J
Surrogate amount spiked		12.73	

FORM I PCB

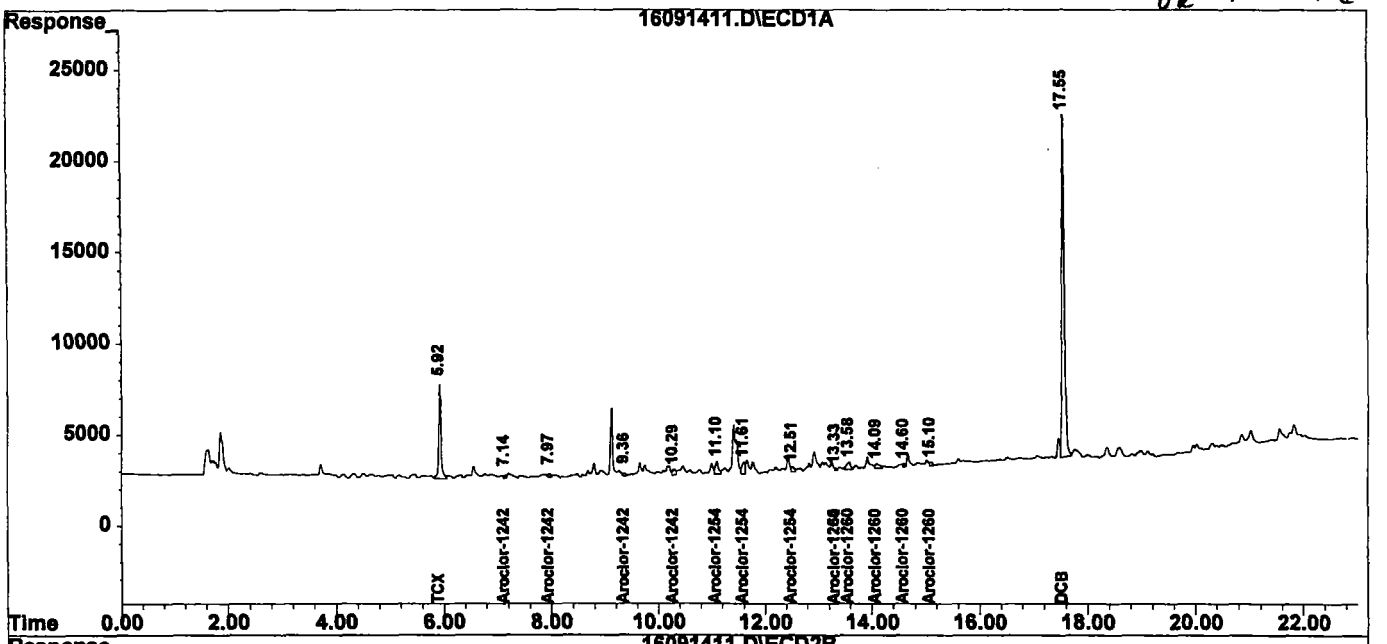
Chromatographic Report

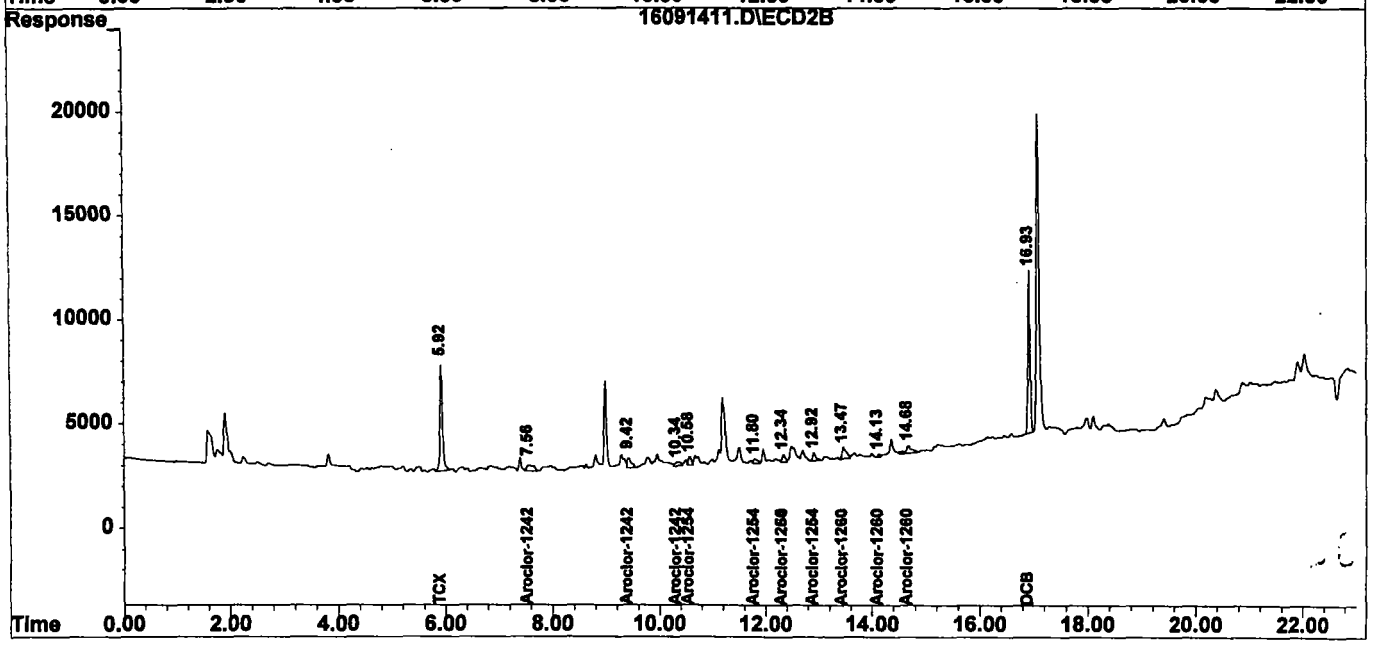
Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091411.D\ECD1A.CH Vial: 11
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091411.D\ECD2B.CH
Acq On : 14 Sep 2001 20:05 Operator: DDC
Sample : 47325.04 *E0350 * Inst : HP_16
Misc : *EPA*30.8G/5.0ML*49 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 8:56 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

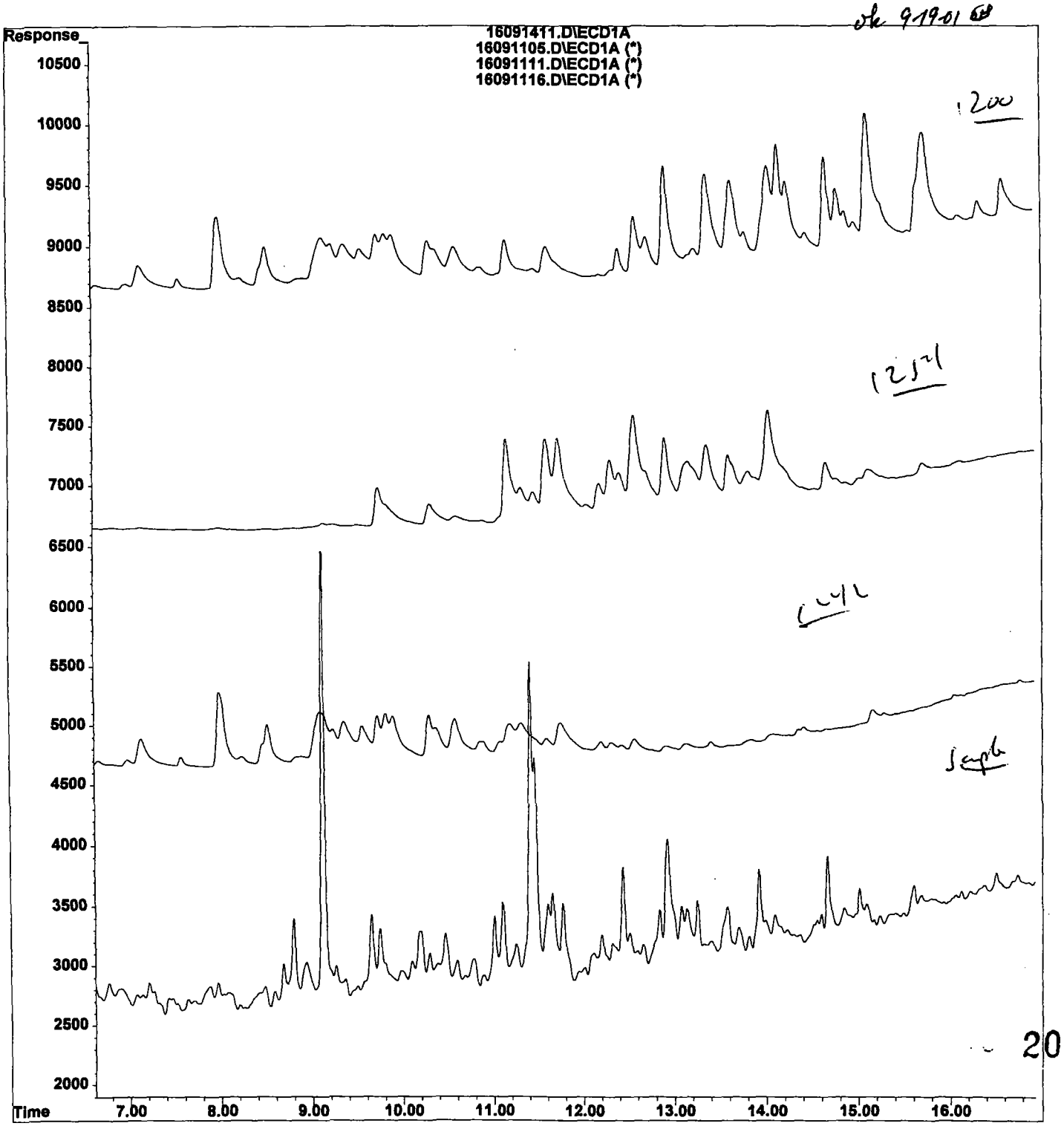
ok 9-19-01





19

File : F:\HPCHEM\HP\16\DATA\09_14_01\16091411.D
Operator : DDC
Acquired : 14 Sep 2001 20:05 using AcqMethod OLM03.M
Instrument : HP_16
Sample Name: 47325.04 *E0350 *
Misc Info : *EPA*30.8G/5.0ML*49
Vial Number: 11



Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091411.D\ECD1A.CH Vial: 11
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091411.D\ECD2B.CH
Acq On : 14 Sep 2001 20:05 Operator: DDC
Sample : 47325.04 *E0350 * Inst : HP_16
Misc : *EPA*30.8G/5.0ML*49 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 8:56 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg	
	System Monitoring Compounds:							
1)	S TCX	5.93f	5.92f	155565	169189	14.3	13.7m	
	Spiked Amount 12.732			Recovery	=	112.31%	107.60%	
22)	S DCB	17.55f	16.93	605965	216838	33.8m	12.2	#
	Spiked Amount 12.732			Recovery	=	265.47%	95.82%	
	Target Compounds:							
7)	L4 Aroclor-1242	7.14	7.57f	5481	27615	18.7	47.5	#
8)	L4 Aroclor-1242 {2}	7.97	0.00	6730	0	12.8	N.D.	#
9)	L4 Aroclor-1242 {3}	9.36	0.00	6945	0	15.1	N.D. d	#
10)	L4 Aroclor-1242 {4}	0.00	9.43	0	26902	N.D. d	90.1	#
11)	L4 Aroclor-1242 {5}	10.30	10.34	12708	15376	49.7	95.3	#
	Sum Aroclor-1242			31864	69893	96.3	232.9	
	Average Aroclor-1242					24.073	77.619	
12)	L6 Aroclor-1254	11.10f	10.58f	28847	16100	45.3	32.8m	#
13)	L6 Aroclor-1254 {2}	11.61	0.00	26259	0	47.0	N.D. d	#
14)	L6 Aroclor-1254 {3}	12.52	11.80	12141	11004	13.5	27.1	#
15)	L6 Aroclor-1254 {4}	0.00	12.34f	0	14625	N.D. d	29.3	#
16)	L6 Aroclor-1254 {5}	13.33	12.92f	3827	14898	6.844	17.3	#
	Sum Aroclor-1254			71075	56628	112.7	106.5	
	Average Aroclor-1254					28.170	26.621	
17)	L7 Aroclor-1260	13.33f	12.34	3827	14625	4.371	16.8	#
18)	L7 Aroclor-1260 {2}	13.58f	13.47f	22878	30468	29.1	30.2	
19)	L7 Aroclor-1260 {3}	14.10	14.14	16077	3938	25.1	7.181	#
20)	L7 Aroclor-1260 {4}	14.60f	14.68f	5223	28761	9.296	19.6	#
21)	L7 Aroclor-1260 {5}	15.10f	0.00	7037	0	5.387	N.D.	#
	Sum Aroclor-1260			55042	77793	46.6	47.0	
	Average Aroclor-1260					14.638	18.448	

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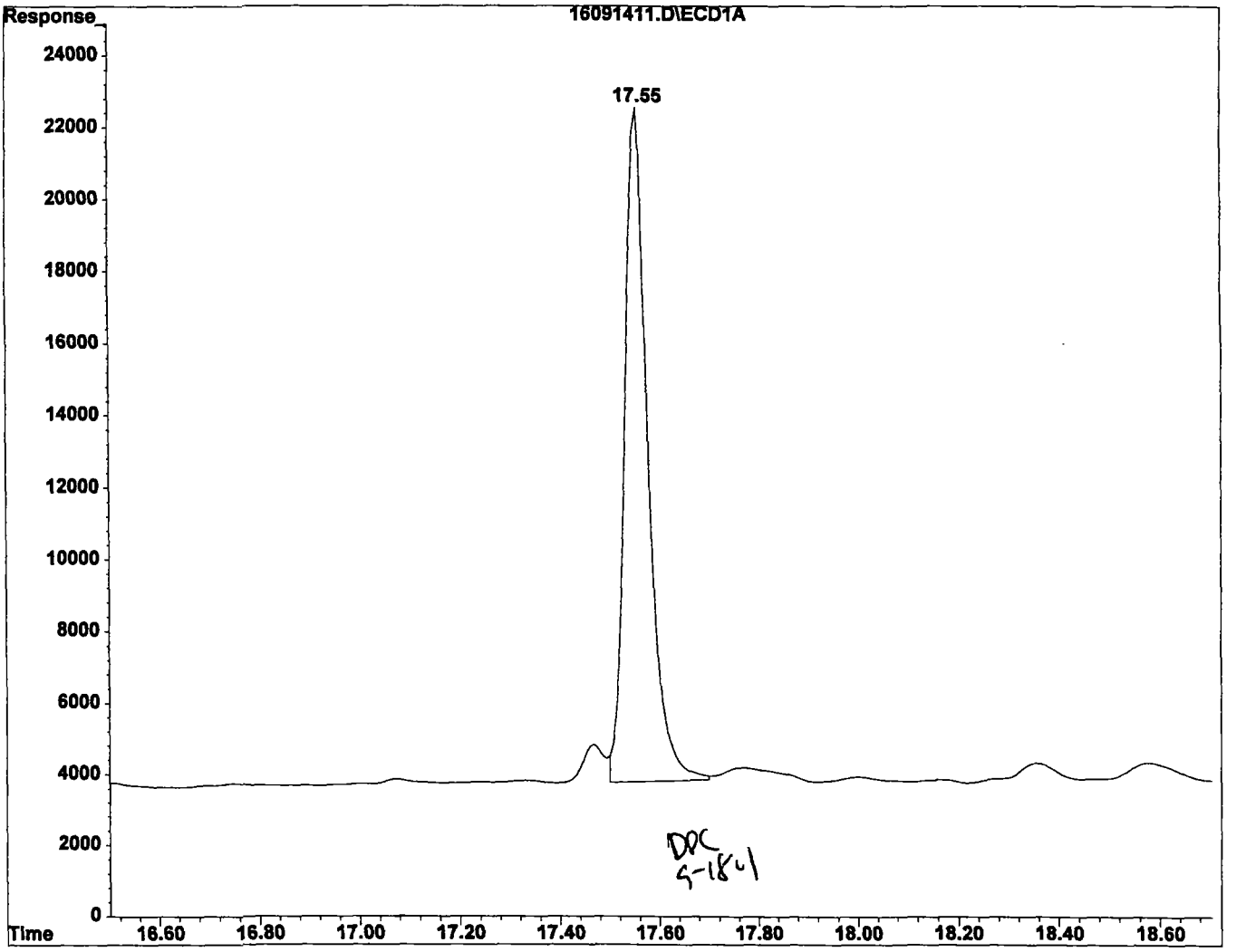
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_14_01\16091411.D
Date Acquired: 14 Sep 2001 20:05
Inst: HP_16 Operator ID: DDC
Name: 47325.04 *E0350 *
Misc: *EPA*30.8G/5.0ML*49
Method: F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 18 8:56 2001 Quant Results File: XPCBI11.RES



ok 9-19-01

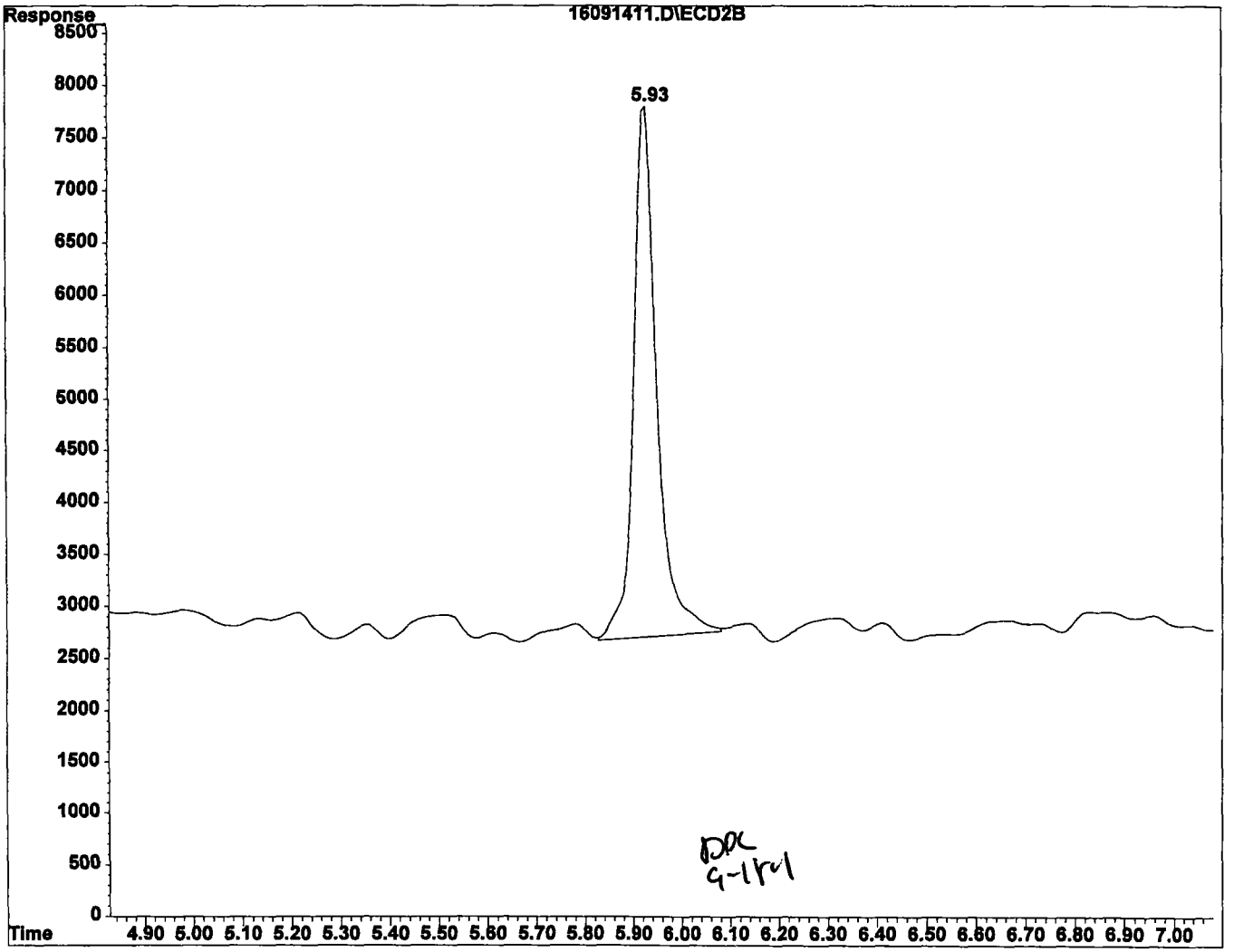
DCB 17.55min area: 605965 m

Integration Time Range: 17.50 - 17.70

F:\HPCHEM\HP\16\DATA\09_14_01\16091411.D
Report generated: Tue Sep 18 09:19:31 2001

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_14_01\16091411.D
Date Acquired: 14 Sep 2001 20:05
Inst: HP_16 Operator ID: DDC
Name: 47325.04 *E0350 *
Misc: *EPA*30.8G/5.0ML*49
Method: F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 18 8:56 2001 Quant Results File: XPCBI11.RES



ok 9-19-01

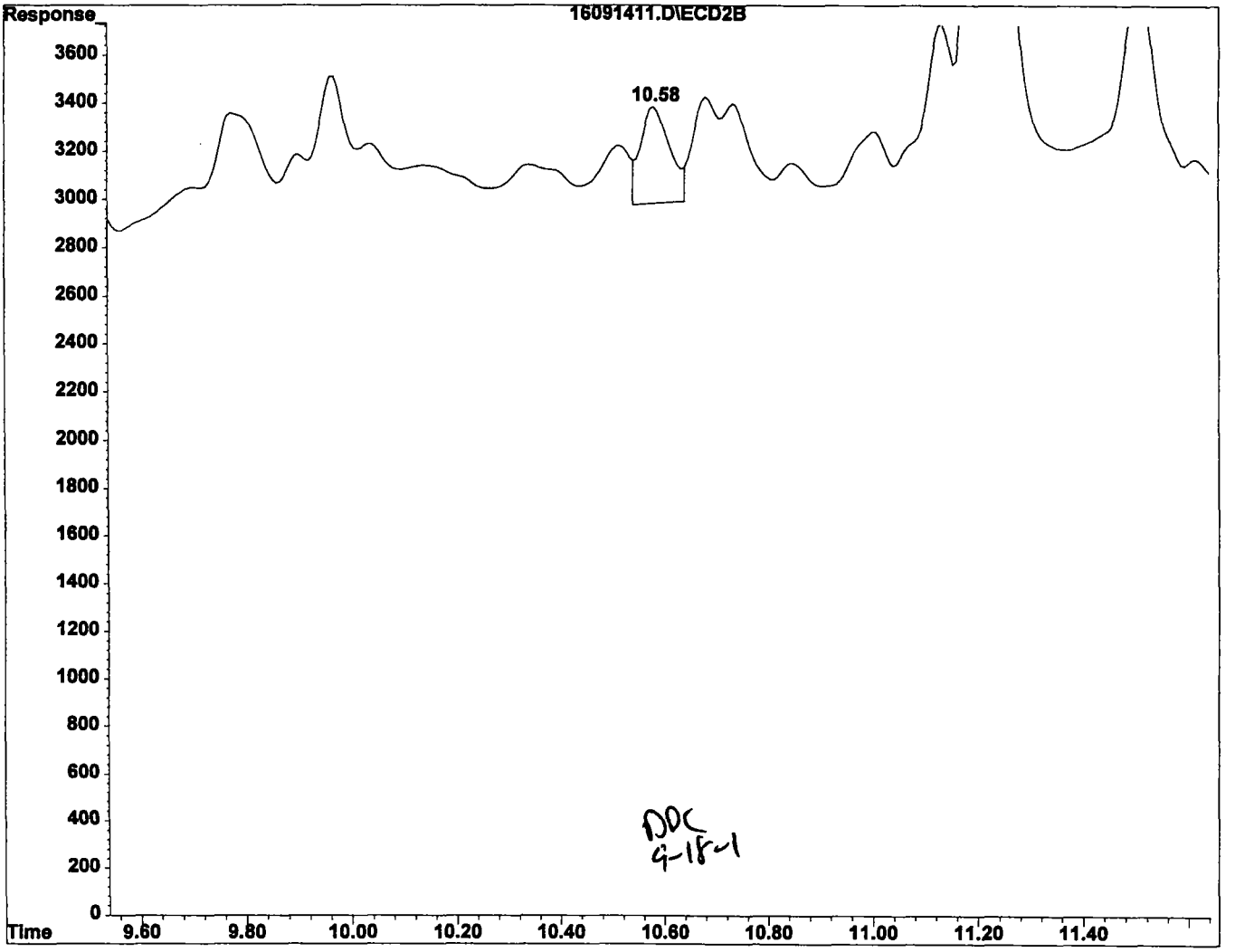
TCX #2 5.92min area: 169189 m

Integration Time Range: 5.83 - 6.08

F:\HPCHEM\HP\16\DATA\09_14_01\16091411.D
Report generated: Tue Sep 18 09:19:32 2001

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_14_01\16091411.D
Date Acquired: 14 Sep 2001 20:05
Inst: HP_16 Operator ID: DDC
Name: 47325.04 *E0350 *
Misc: *EPA*30.8G/5.0ML*49
Method: F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 18 8:56 2001 Quant Results File: XPCBI11.RES



ok 9-19-01

Aroclor-1254 #2 10.58min area: 16100 m

Integration Time Range: 10.54 - 10.64

F:\HPCHEM\HP\16\DATA\09_14_01\16091411.D
Report generated: Tue Sep 18 09:19:33 2001

1D

AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

E0351

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) SOIL Lab Sample ID: 47325.05

Sample wt/vol: 30.4 (g/mL) G Lab File ID:_____

% Moisture: 27 decanted: (Y/N) __ Date Received: 08/17/01

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:08/21/01

Concentrated Extract Volume: 5000(uL) Date Analyzed: 09/14/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	45	U
11104-28-2	Aroclor-1221	45	U
11141-16-5	Aroclor-1232	45	U
53469-21-9	Aroclor-1242	31	JP
12672-29-6	Aroclor-1248	45	U
11097-69-1	Aroclor-1254	27	J
11096-82-5	Aroclor-1260	14	J
Surrogate amount spiked		9.01	

FORM I PCB

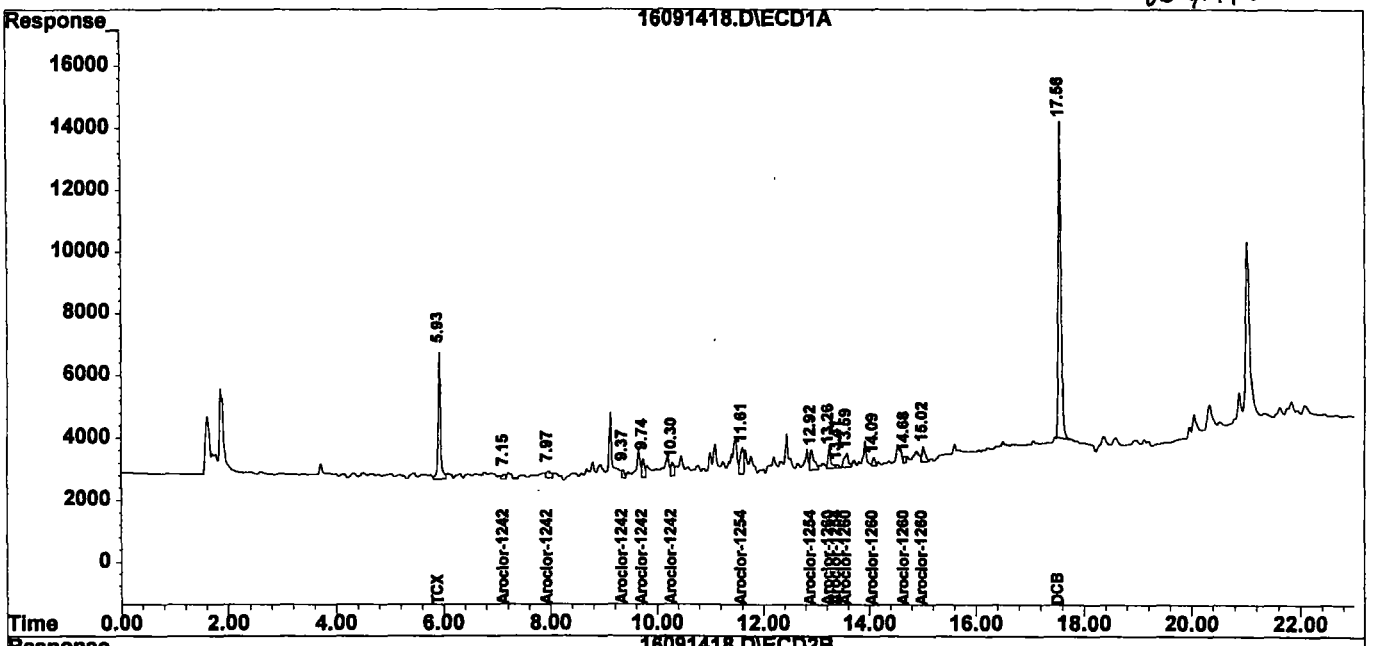
Chromatographic Report

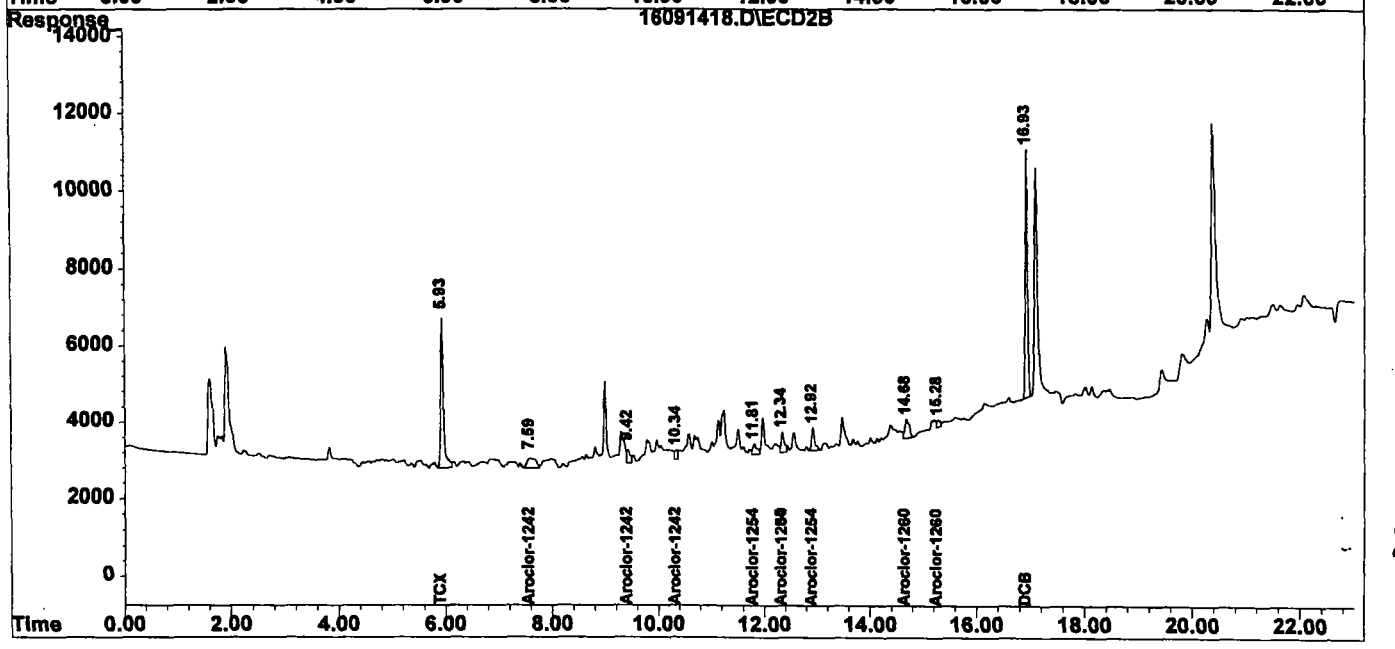
Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091418.D\ECD1A.CH Vial: 18
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091418.D\ECD2B.CH
Acq On : 14 Sep 2001 23:10 Operator: DDC
Sample : 47325.05 *E0351 * Inst : HP_16
Misc : *EPA*30.4G/5.0ML*27 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 8:59 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

DC 9-19-01

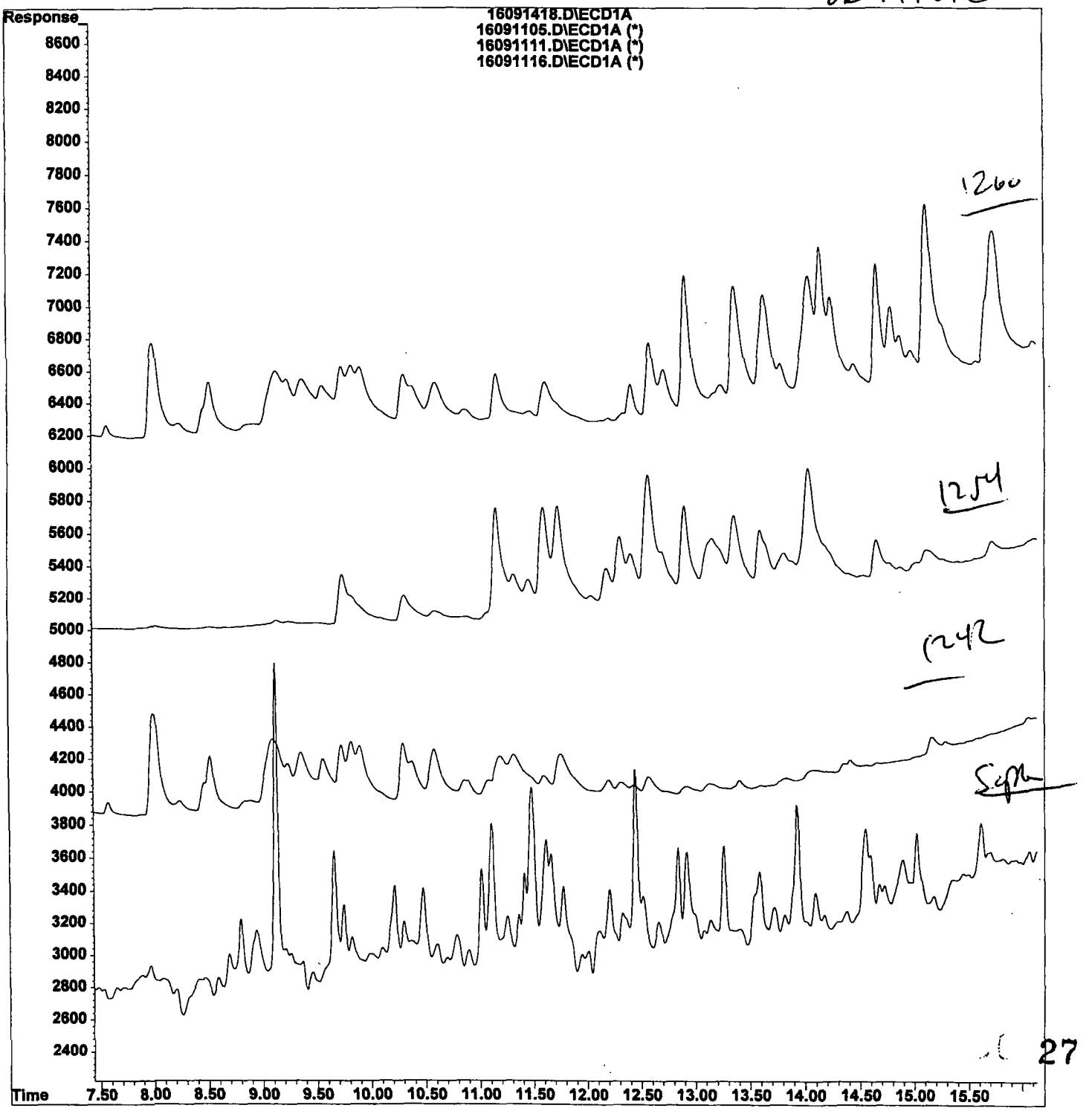




26

File : F:\HPCHEM\HP\16\DATA\09_14_01\16091418.D
Operator : DDC
Acquired : 14 Sep 2001 23:10 using AcqMethod OLM03.M
Instrument : HP_16
Sample Name: 47325.05
Misc Info :
Vial Number: 18

ok 9-19-01



27

Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091418.D\ECD1A.CH Vial: 18
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091418.D\ECD2B.CH
Acq On : 14 Sep 2001 23:10 Operator: DDC
Sample : 47325.05 *E0351 * Inst : HP_16
Misc : *EPA*30.4G/5.0ML*27 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 8:59 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg	
	System Monitoring Compounds:							
1)	S TCX	5.93f	5.93f	124416	139155	8.093	7.975	
	Spiked Amount 9.012			Recovery	=	89.80%	88.49%	
22)	S DCB	17.56	16.93	339612	183201	13.4	7.317	#
	Spiked Amount 9.012			Recovery	=	148.69%	81.19%	
	Target Compounds:							
7)	L4 Aroclor-1242	7.15	7.59f	6914	30218	16.7	36.8	#
8)	L4 Aroclor-1242 {2}	7.97	0.00	12723	0	17.1	N.D.	#
9)	L4 Aroclor-1242 {3}	9.37	0.00	8736	0	13.4	N.D. d	#
10)	L4 Aroclor-1242 {4}	9.75	9.42	20695	14961	60.9	35.5	#
11)	L4 Aroclor-1242 {5}	10.30	10.35	17734	10512	49.1	46.1	
	Sum Aroclor-1242			66802	55691	157.2	118.4	
	Average Aroclor-1242					31.446	39.451	
13)	L6 Aroclor-1254 {2}	11.62f	0.00	35045	0	44.4	N.D. d	#
14)	L6 Aroclor-1254 {3}	0.00	11.81	0	16346	N.D. d	28.5	#
15)	L6 Aroclor-1254 {4}	12.92	12.34f	33760	22087	46.1	31.4	#
16)	L6 Aroclor-1254 {5}	13.41f	12.92f	4450	24178	5.633	19.9	#
	Sum Aroclor-1254			73256	62611	96.1	79.7	
	Average Aroclor-1254					32.042	26.573	
17)	L7 Aroclor-1260	13.26f	12.34	24166	22087	19.5	18.0	
18)	L7 Aroclor-1260 {2}	13.59	0.00	24536	0	22.1	N.D. d	#
19)	L7 Aroclor-1260 {3}	14.10	0.00	8785	0	9.696	N.D. d	#
20)	L7 Aroclor-1260 {4}	14.68f	14.69f	6212	29906	7.826	14.4	#
21)	L7 Aroclor-1260 {5}	15.02f	15.29f	21304	8303	11.5	8.656	#
	Sum Aroclor-1260			85003	60296	31.8	18.5	
	Average Aroclor-1260					14.133	13.697	

28

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

E0352

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) SOIL Lab Sample ID: 47325.06

Sample wt/vol: 30.2 (g/mL) G Lab File ID:_____

% Moisture: 16 decanted: (Y/N) __ Date Received: 08/17/01

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:08/21/01

Concentrated Extract Volume: 5000(uL) Date Analyzed: 09/14/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.4 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	39	U
11104-28-2	Aroclor-1221	39	U
11141-16-5	Aroclor-1232	39	U
53469-21-9	Aroclor-1242	6.2	JP
12672-29-6	Aroclor-1248	39	U
11097-69-1	Aroclor-1254	7.6	J
11096-82-5	Aroclor-1260	4.0	J
	Surrogate amount spiked	7.88	

FORM I PCB

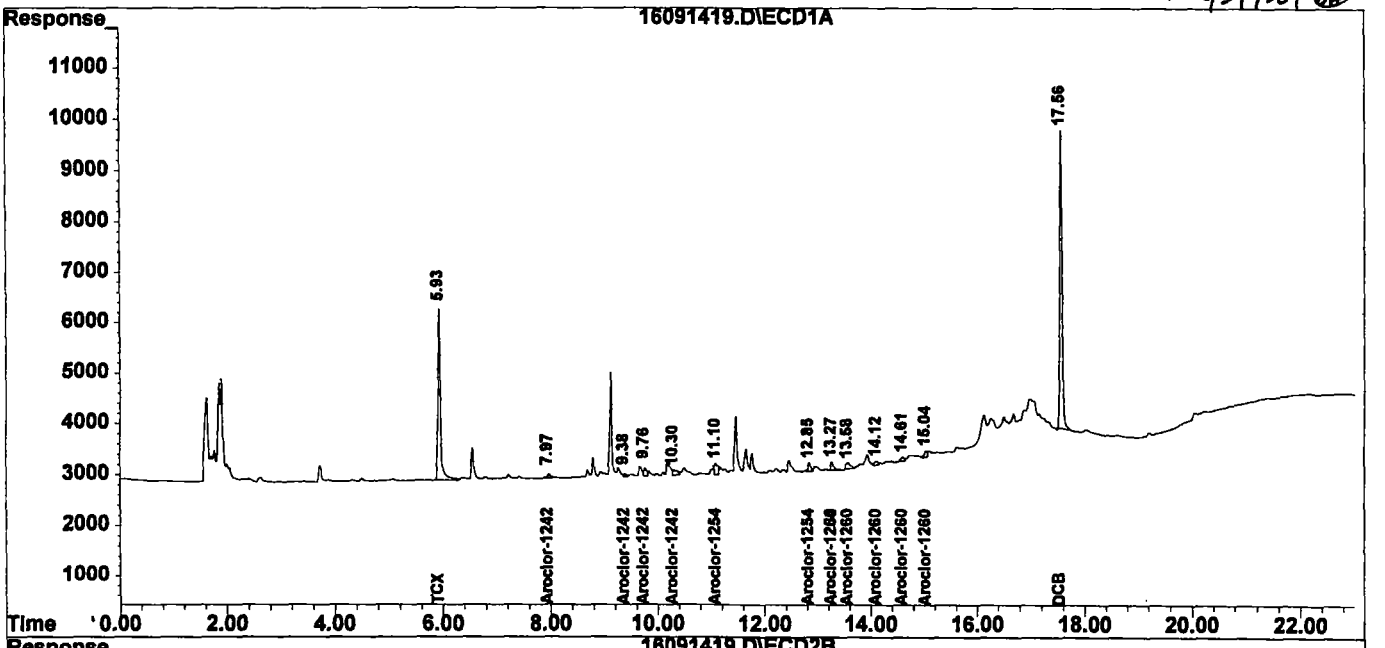
Chromatographic Report

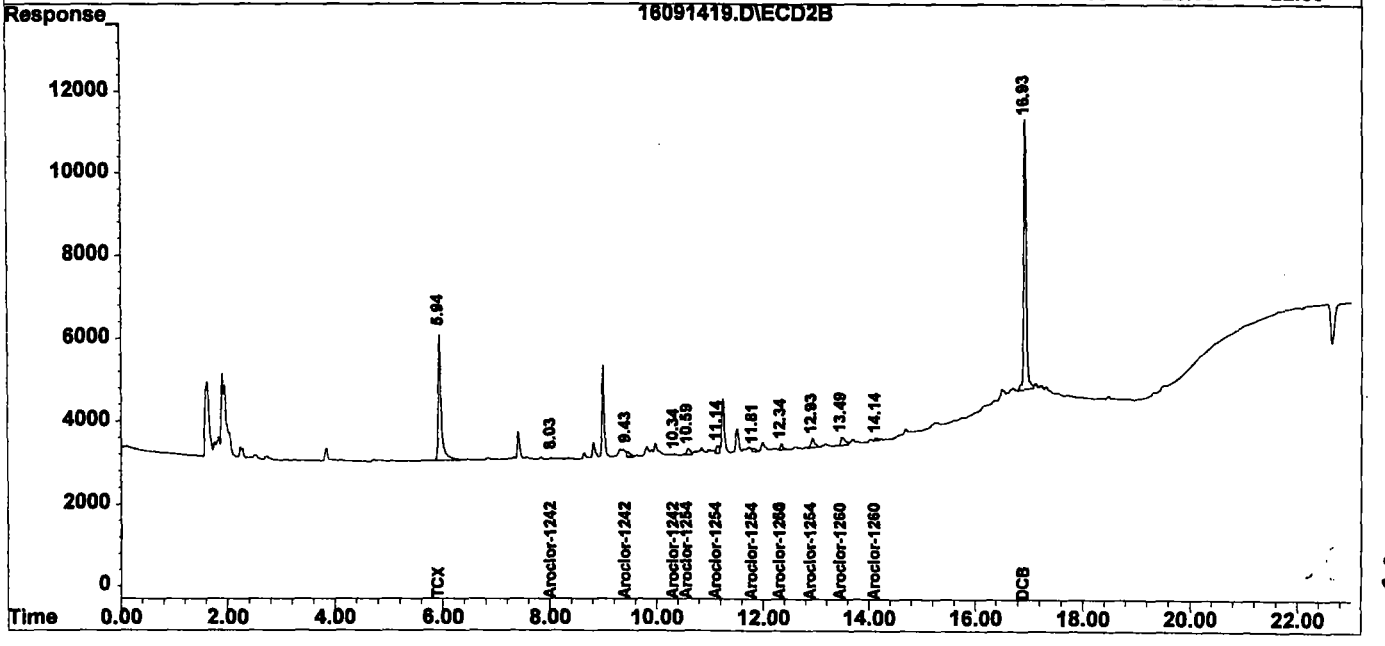
Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091419.D\ECD1A.CH Vial: 19
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091419.D\ECD2B.CH
Acq On : 14 Sep 2001 23:37 Operator: DDC
Sample : 47325.06 *E0352 * Inst : HP_16
Misc : *EPA*30.2G/5.0ML*16 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:01 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

ok 9-19-01

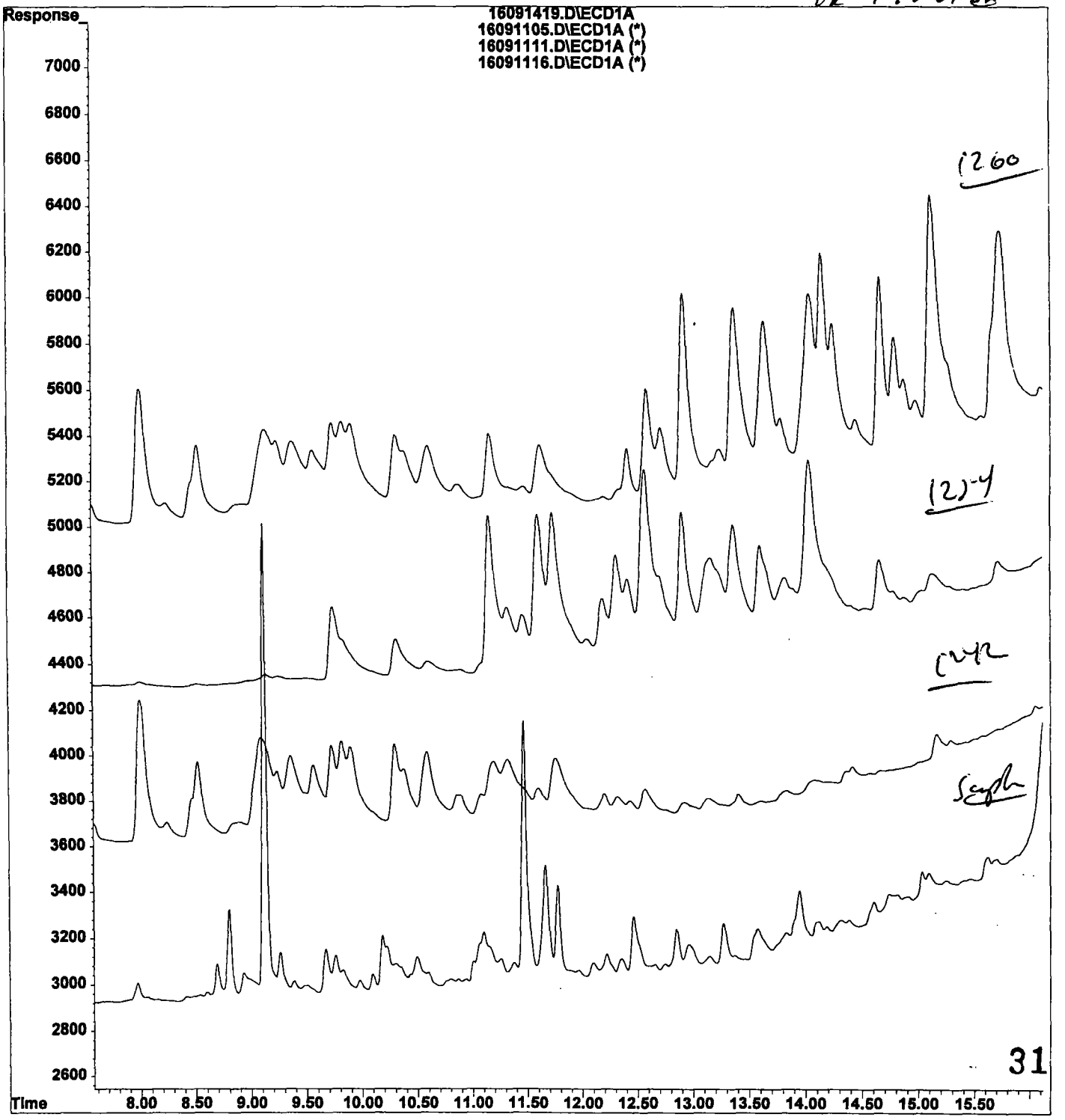




30

File : F:\HPCHEM\HP\16\DATA\09_14_01\16091419.D
Operator : DDC
Acquired : 14 Sep 2001 23:37 using AcqMethod OLM03.M
Instrument : HP_16
Sample Name: 47325.06
Misc Info :
Vial Number: 19

ok 9-18-01 DB



31

Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091419.D\ECD1A.CH Vial: 19
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091419.D\ECD2B.CH
Acq On : 14 Sep 2001 23:37 Operator: DDC
Sample : 47325.06 *E0352 * Inst : HP_16
Misc : *EPA*30.2G/5.0ML*16 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:01 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

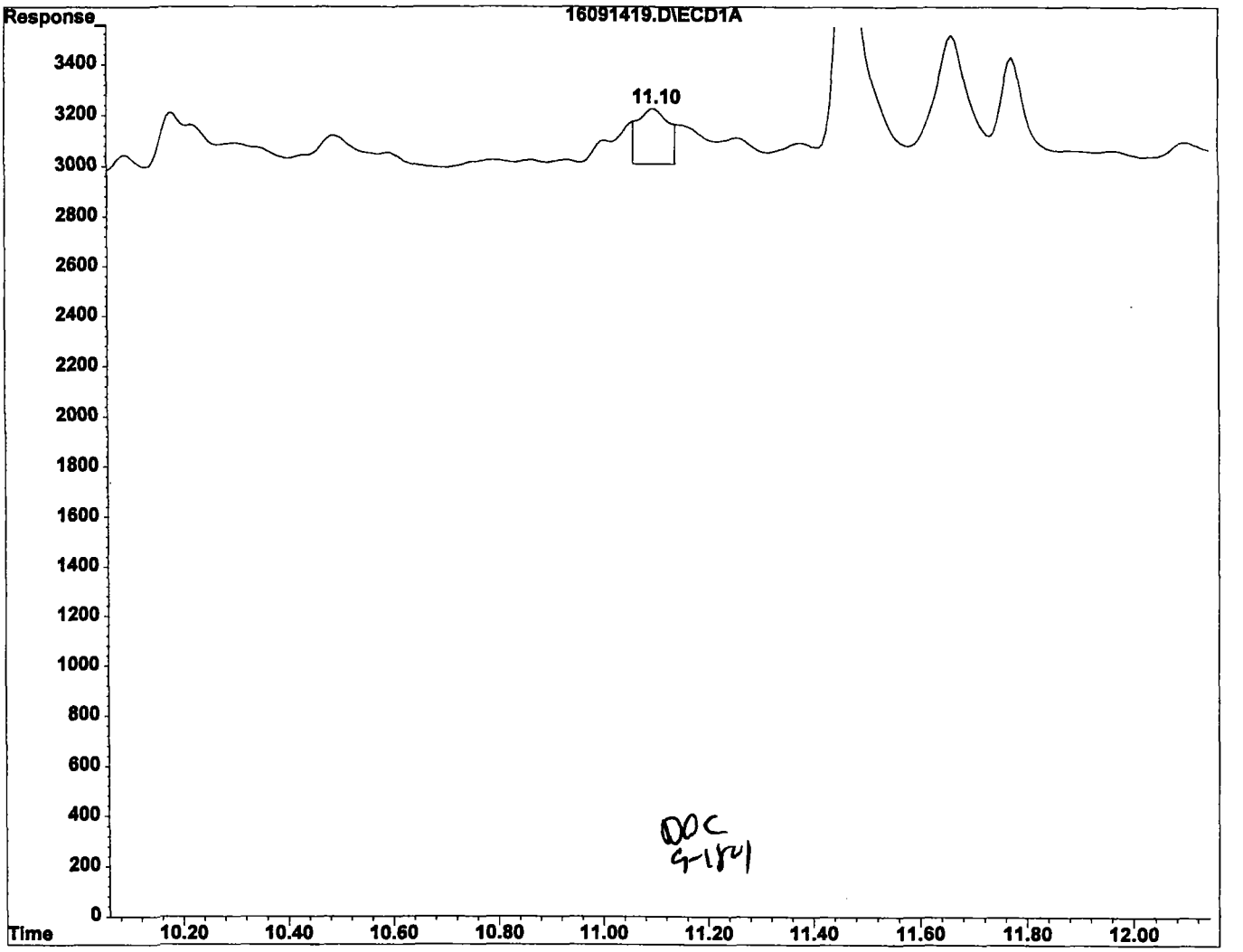
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg	
	System Monitoring Compounds:							
1)	S TCX	5.94	5.94f	116004	122547	6.601	6.144	
	Spiked Amount 7.884			Recovery	=	83.73%	77.93%	
22)	S DCB	17.56	16.93	179156	204005	6.179	7.128	
	Spiked Amount 7.884			Recovery	=	78.37%	90.41%	
	Target Compounds:							
8)	L4 Aroclor-1242 {2}	7.97	8.04f	3127	629	3.686	0.9731	#
9)	L4 Aroclor-1242 {3}	9.38f	0.00	2019	0	2.712	N.D. d	#
10)	L4 Aroclor-1242 {4}	9.76f	9.44	5789	6770	14.9	14.0	DOC 6-18-01
11)	L4 Aroclor-1242 {5}	10.30	10.33	6767	912	16.4	3.499m	#
	Sum Aroclor-1242			17703	8311	37.7	18.5	
	Average Aroclor-1242					9.423	6.169	
12)	L6 Aroclor-1254	11.10f	10.59	8904	7188	8.662m	9.055	DOC 6-18-01
13)	L6 Aroclor-1254 {2}	0.00	11.14f	0	7643	N.D.	8.032	#
14)	L6 Aroclor-1254 {3}	0.00	11.82f	0	4035	N.D.	6.146	#
15)	L6 Aroclor-1254 {4}	12.85f	12.35	6024	5348	7.190	6.643	
16)	L6 Aroclor-1254 {5}	13.27f	12.93f	7199	11530	7.972	8.298	
	Sum Aroclor-1254			22127	35743	23.8	38.2	
	Average Aroclor-1254					7.941	7.635	
17)	L7 Aroclor-1260	13.27	12.35	7199	5348	5.091	3.814	#
18)	L7 Aroclor-1260 {2}	13.58f	13.49f	7744	10862	6.092	6.658	
19)	L7 Aroclor-1260 {3}	14.12	14.14	3527	2948	3.406	3.328	
20)	L7 Aroclor-1260 {4}	14.61	0.00	3049	0	3.360	N.D. d	#
21)	L7 Aroclor-1260 {5}	15.04	0.00	4709	0	2.232	N.D. d	#
	Sum Aroclor-1260			26229	19158	7.956	5.440	
	Average Aroclor-1260					4.036	4.600	

32

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_14_01\16091419.D
Date Acquired: 14 Sep 2001 23:37
Inst: HP_16 Operator ID: DDC
Name: 47325.06 *E0352 *
Misc: *EPA*30.2G/5.0ML*16
Method: F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 18 9:01 2001 Quant Results File: XPCBI11.RES



OK 9-19-01

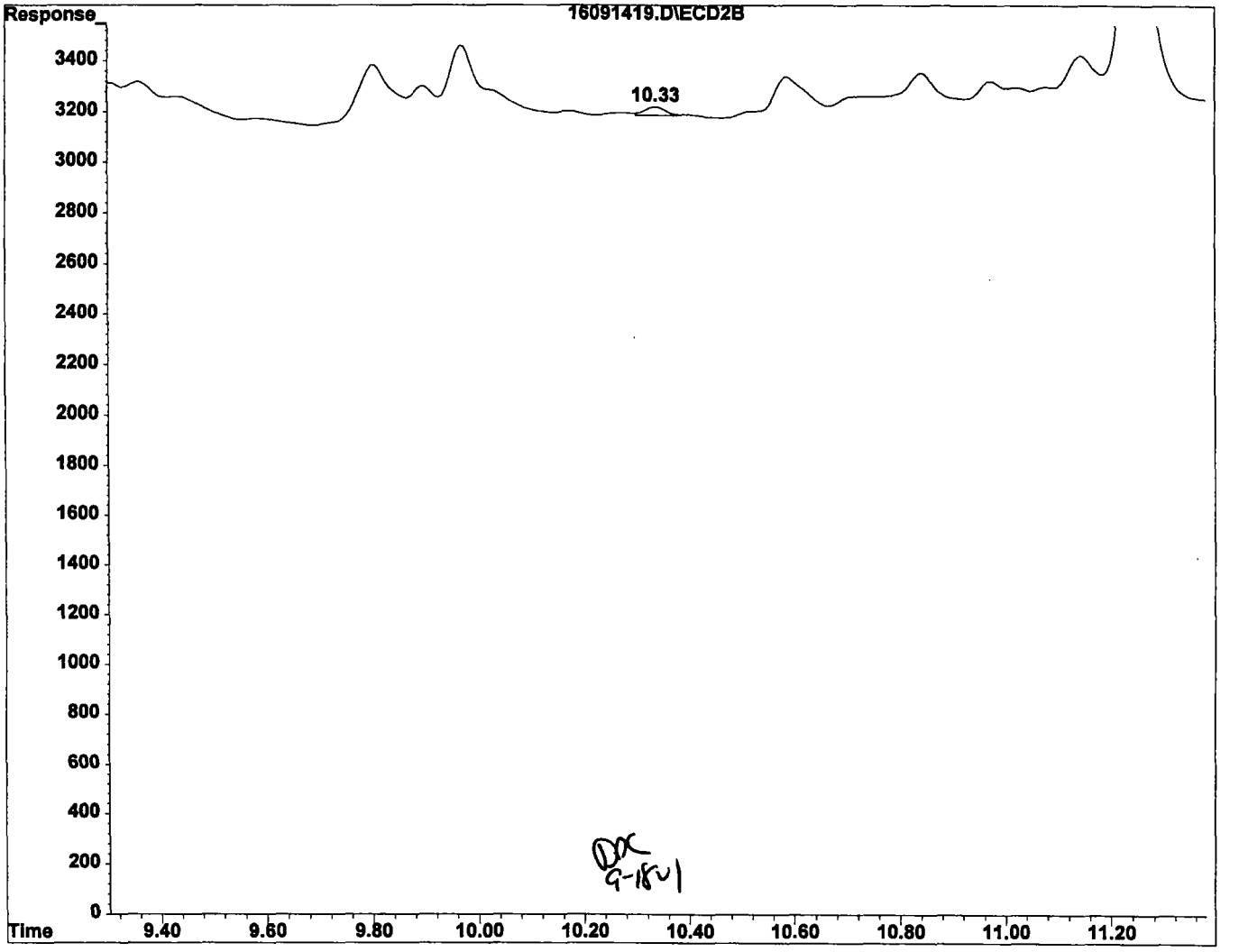
Aroclor-1254 11.10min area: 8904 m

Integration Time Range: 11.06 - 11.14

F:\HPCHEM\HP\16\DATA\09_14_01\16091419.D
Report generated: Tue Sep 18 09:19:35 2001

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_14_01\16091419.D
Date Acquired: 14 Sep 2001 23:37
Inst: HP_16 Operator ID: DDC
Name: 47325.06 *E0352 *
Misc: *EPA*30.2G/5.0ML*16
Method: F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 18 9:01 2001 Quant Results File: XPCBI11.RES



ok 9-19-01

Aroclor-1242 {5} #2 10.33min area: 912 m

Integration Time Range: 10.30 - 10.38

F:\HPCHEM\HP\16\DATA\09_14_01\16091419.D
Report generated: Tue Sep 18 09:19:36 2001

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

E0353

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) SOIL Lab Sample ID: 47325.07

Sample wt/vol: 30.9 (g/mL) G Lab File ID:_____

% Moisture: 74 decanted: (Y/N) __ Date Received: 08/17/01

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:08/21/01

Concentrated Extract Volume: 5000(uL) Date Analyzed: 09/15/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.8 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	120	U
11104-28-2	Aroclor-1221	120	U
11141-16-5	Aroclor-1232	120	U
53469-21-9	Aroclor-1242	35	JP
12672-29-6	Aroclor-1248	120	U
11097-69-1	Aroclor-1254	18	JP
11096-82-5	Aroclor-1260	8.2	JP
Surrogate amount spiked		24.90	

FORM I PCB

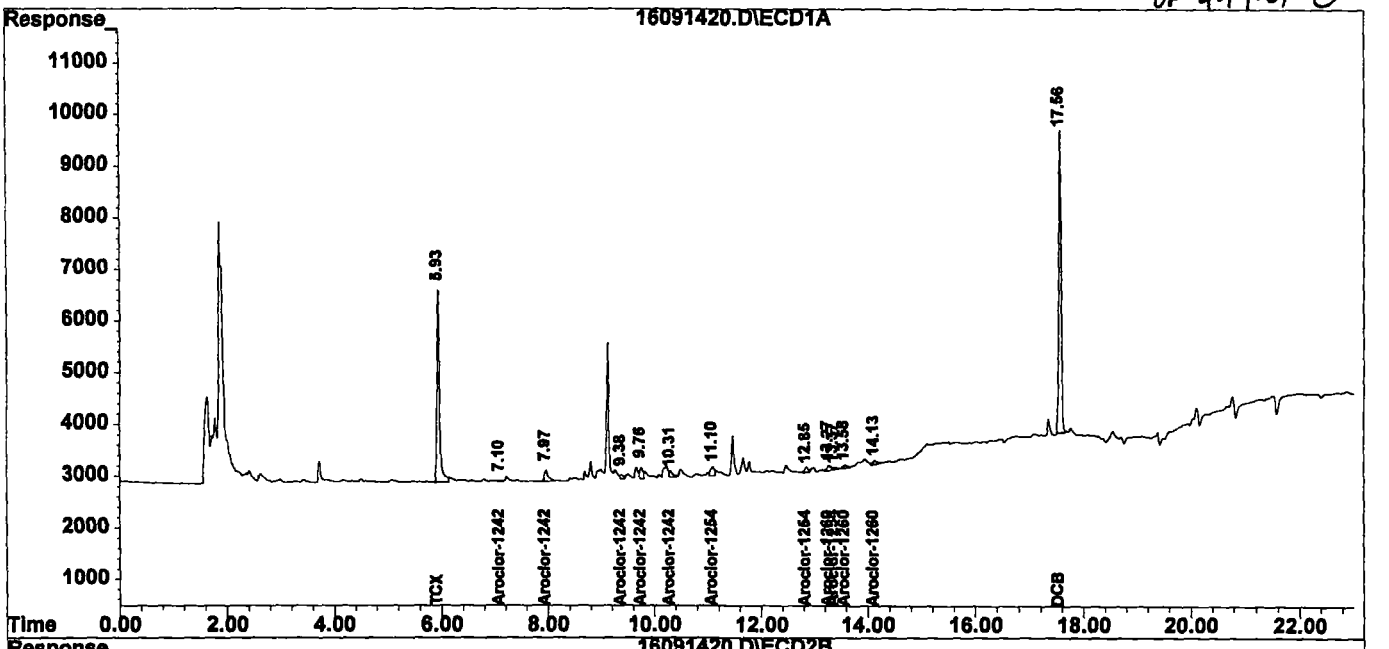
Chromatographic Report

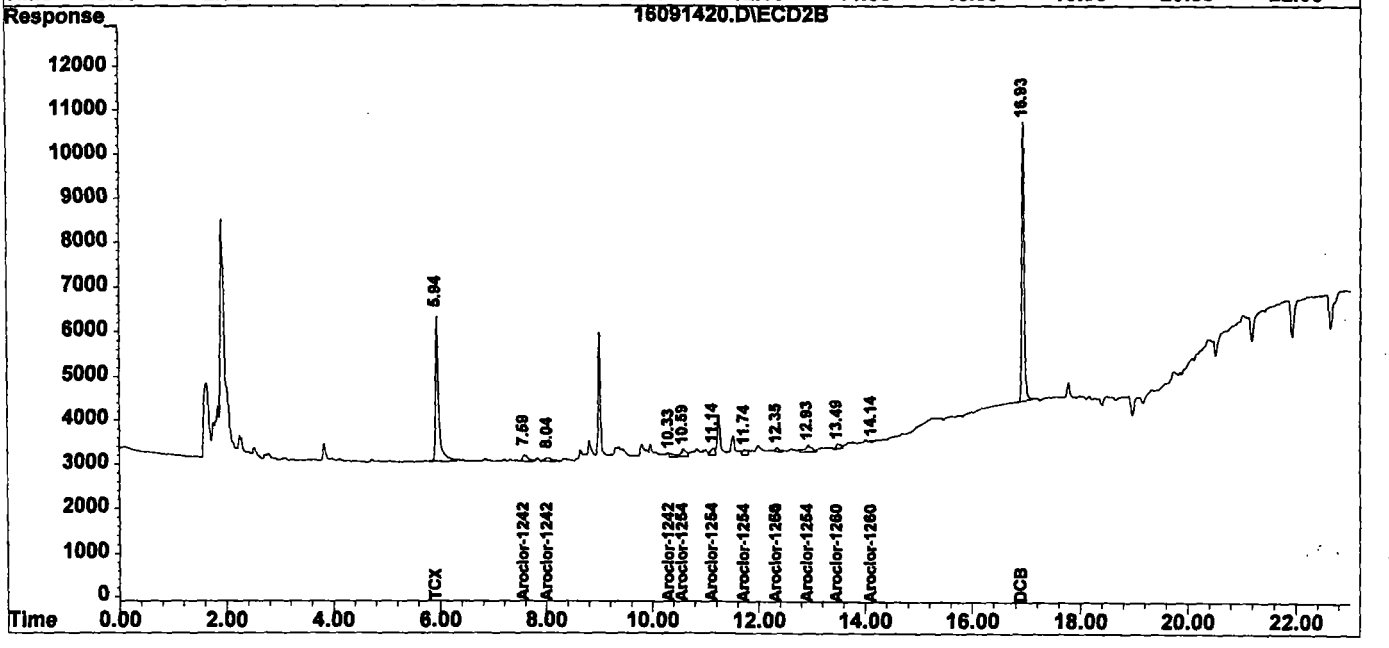
Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091420.D\ECD1A.CH Vial: 20
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091420.D\ECD2B.CH
Acq On : 15 Sep 2001 00:03 Operator: DDC
Sample : 47325.07 *E0353 * Inst : HP_16
Misc : *EPA*30.9G/5.0ML*74 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:03 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

OK 9-19-01





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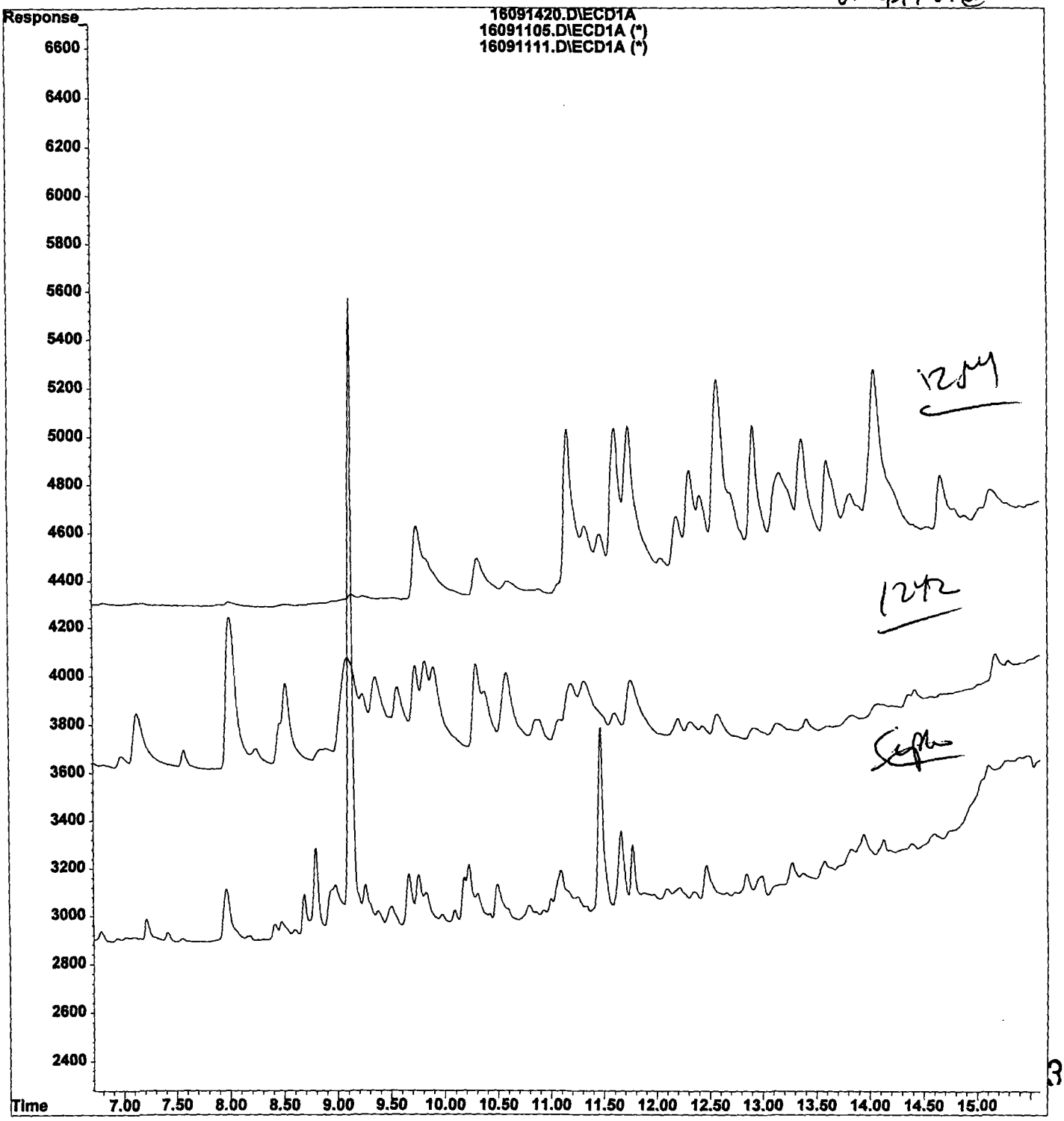
File : F:\HPCHEM\HP\16\DATA\09_14_01\16091420.D
Operator : DDC
Acquired : 15 Sep 2001 00:03 using AcqMethod OLM03.M
Instrument : HP_16
Sample Name: 47325.07
Misc Info :
Vial Number: 20

OK 9-19-01



Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091420.D\ECD1A.CH Vial: 20
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091420.D\ECD2B.CH
Acq On : 15 Sep 2001 00:03 Operator: DDC
Sample : 47325.07 *E0353 * Inst : HP_16
Misc : *EPA*30.9G/5.0ML*74 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:03 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg
System Monitoring Compounds:						
1) S TCX	5.94	5.94f	124703	136696	22.4	21.6
Spiked Amount 24.894			Recovery	=	89.98%	86.77%
22) S DCB	17.56	16.93	176490	190805	19.2	21.1
Spiked Amount 24.894			Recovery	=	77.13%	84.76%
Target Compounds:						
7) L4 Aroclor-1242	7.11	7.59f	1436	9424	9.568	31.7 #
8) L4 Aroclor-1242 {2}	7.97	8.04f	11243	6968	41.8	34.0
9) L4 Aroclor-1242 {3}	9.38f	0.00	3328	0	14.1	N.D. d #
10) L4 Aroclor-1242 {4}	9.76f	0.00	8342	0	67.8	N.D. d #
11) L4 Aroclor-1242 {5}	10.31	10.34	5387	5410	41.2	65.6 #
Sum Aroclor-1242			29736	21802	174.5	131.3
Average Aroclor-1242					34.904	43.754
12) L6 Aroclor-1254	11.09f	10.59	9420	11199	28.9m	44.6 #
13) L6 Aroclor-1254 {2}	0.00	11.15f	0	8997	N.D.	29.9 #
14) L6 Aroclor-1254 {3}	0.00	11.75	0	7282	N.D.	35.0 #
15) L6 Aroclor-1254 {4}	12.85f	12.35	4347	9703	16.4	38.1 #
16) L6 Aroclor-1254 {5}	13.38	12.94f	2537	14417	8.871	32.8 #
Sum Aroclor-1254			16304	51598	54.2	180.3
Average Aroclor-1254					18.063	36.051
17) L7 Aroclor-1260	13.28	12.35	5070	3896	11.3	8.774m
18) L7 Aroclor-1260 {2}	13.58f	13.50	3891	6468	9.666	12.5 #
19) L7 Aroclor-1260 {3}	14.13	14.14	4657	969	14.2	3.453 #
Sum Aroclor-1260			13618	11333	43.8	30.8
Average Aroclor-1260					11.729	8.249

DDC 6-18-01

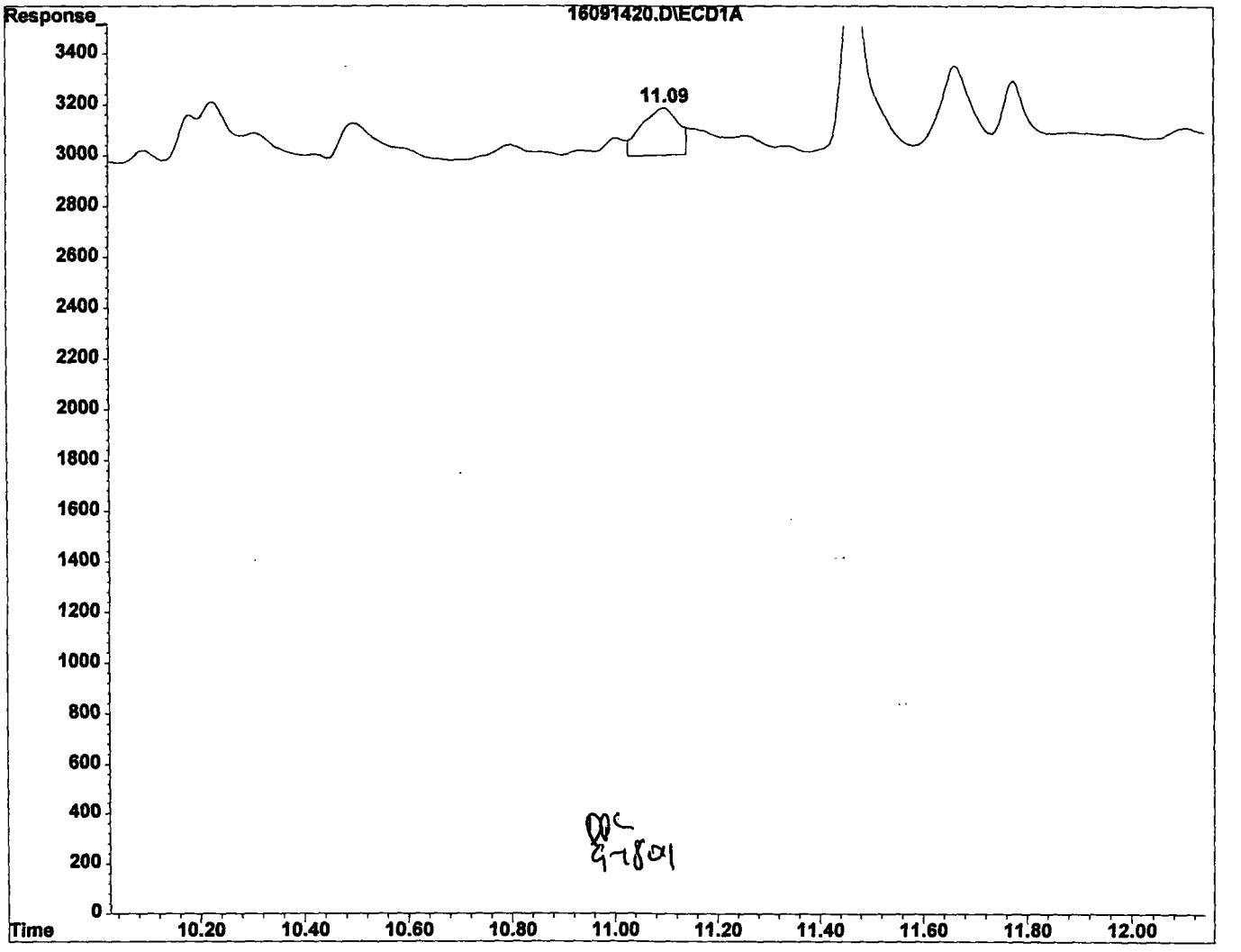
DDC 6-18-01

38

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_14_01\16091420.D
Date Acquired: 15 Sep 2001 00:03
Inst: HP_16 Operator ID: DDC
Name: 47325.07 *E0353 *
Misc: *EPA*30.9G/5.0ML*74
Method: F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 18 9:03 2001 Quant Results File: XPCBI11.RES



OK 9-19-01

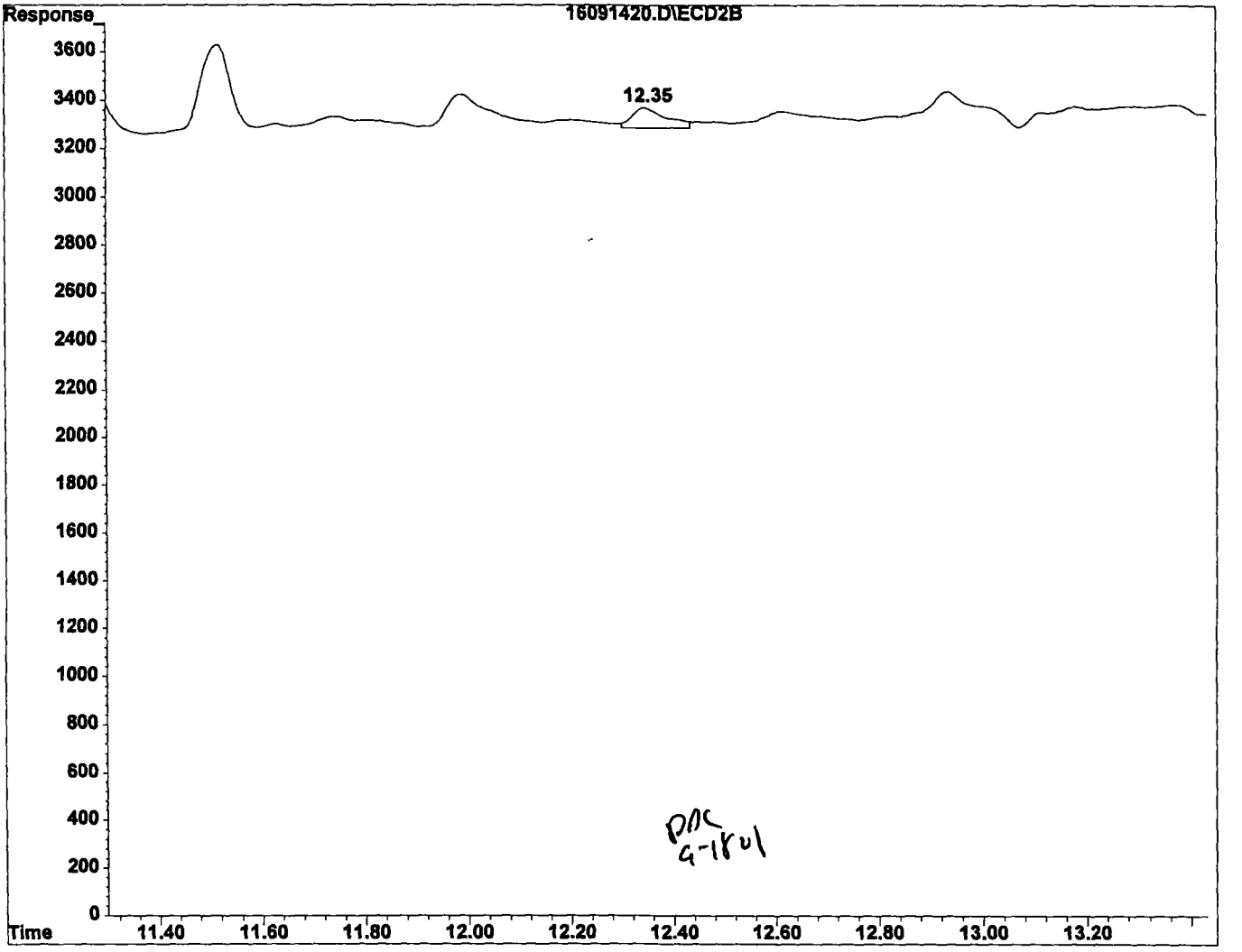
Aroclor-1254 11.09min area: 9420 m

Integration Time Range: 11.02 - 11.14

F:\HPCHEM\HP\16\DATA\09_14_01\16091420.D
Report generated: Tue Sep 18 09:19:38 2001

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_14_01\16091420.D
Date Acquired: 15 Sep 2001 00:03
Inst: HP_16 Operator ID: DDC
Name: 47325.07 *E0353 *
Misc: *EPA*30.9G/5.0ML*74
Method: F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 18 9:03 2001 Quant Results File: XPCBI11.RES



ok 9-19-01

Aroclor-1260 #2 12.35min area: 3896 m

Integration Time Range: 12.30 - 12.43

F:\HPCHEM\HP\16\DATA\09_14_01\16091420.D
Report generated: Tue Sep 18 09:19:39 2001

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

E0354

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) SOIL Lab Sample ID: 47325.08

Sample wt/vol: 30.1 (g/mL) G Lab File ID:_____

% Moisture: 87 decanted: (Y/N) __ Date Received: 08/17/01

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:08/21/01

Concentrated Extract Volume: 5000(uL) Date Analyzed: 09/15/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	250	U
11104-28-2	Aroclor-1221	250	U
11141-16-5	Aroclor-1232	250	U
53469-21-9	Aroclor-1242	250	U
12672-29-6	Aroclor-1248	250	U
11097-69-1	Aroclor-1254	250	U
11096-82-5	Aroclor-1260	250	U
	Surrogate amount spiked	51.11	

FORM I PCB

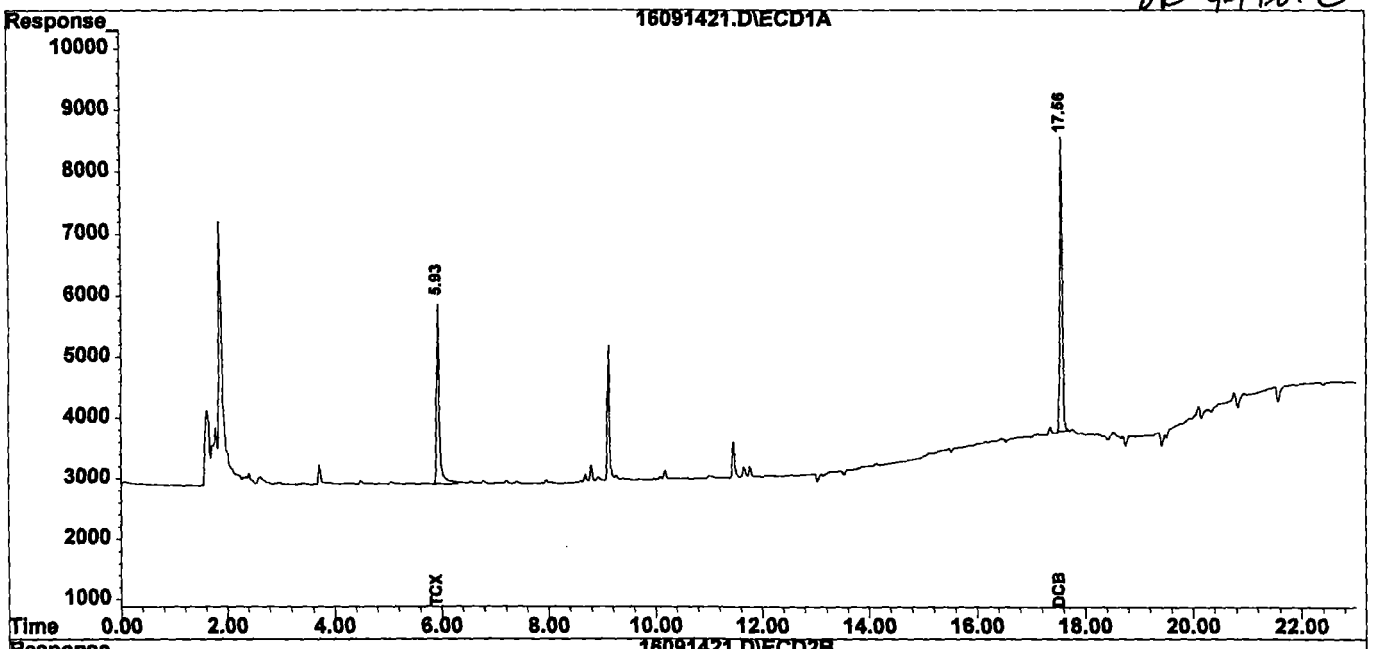
Chromatographic Report

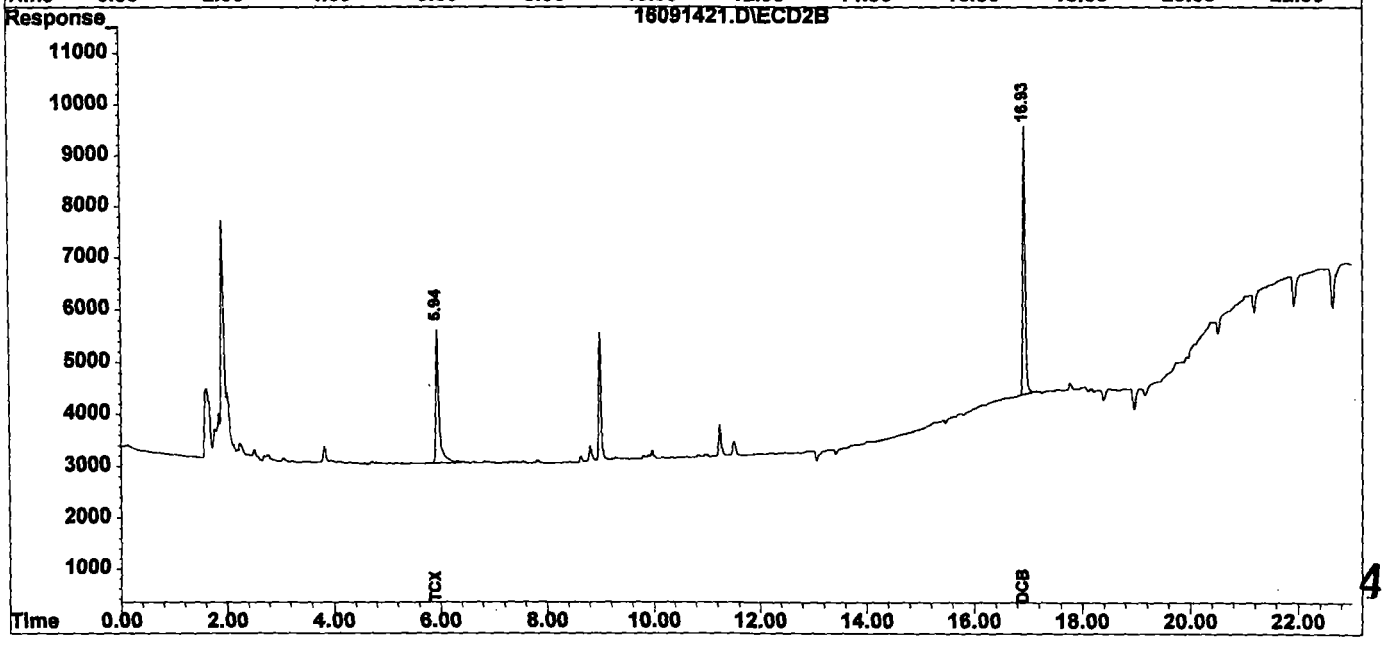
Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091421.D\ECD1A.CH Vial: 21
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091421.D\ECD2B.CH
Acq On : 15 Sep 2001 00:30 Operator: DDC
Sample : 47325.08 *E0354 * Inst : HP_16
Misc : *EPA*30.1G/5.0ML*8 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:04 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

OK 9-19-01





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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091421.D\ECD1A.CH Vial: 21
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091421.D\ECD2B.CH
Acq On : 15 Sep 2001 00:30 Operator: DDC
Sample : 47325.08 *E0354 * Inst : HP_16
Misc : *EPA*30.1G/5.0ML*87 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:04 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg
	System Monitoring Compounds:						
1)	S TCX	5.94f	5.94f	102039	107278	37.6	34.9
	Spiked Amount 51.112			Recovery	=	73.56%	68.28%
22)	S DCB	17.56	16.93	146703	155051	32.8	35.1
	Spiked Amount 51.112			Recovery	=	64.17%	68.67%

Target Compounds:

43

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

1D

AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

E0355

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) SOIL Lab Sample ID: 47325.09

Sample wt/vol: 30.5 (g/mL) G Lab File ID:_____

% Moisture: 86 decanted: (Y/N) __ Date Received: 08/17/01

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:08/21/01

Concentrated Extract Volume: 5000(uL) Date Analyzed: 09/15/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	230	U
11104-28-2	Aroclor-1221	230	U
11141-16-5	Aroclor-1232	230	U
53469-21-9	Aroclor-1242	230	U
12672-29-6	Aroclor-1248	230	U
11097-69-1	Aroclor-1254	230	U
11096-82-5	Aroclor-1260	230	U
	Surrogate amount spiked	46.83	

FORM I PCB

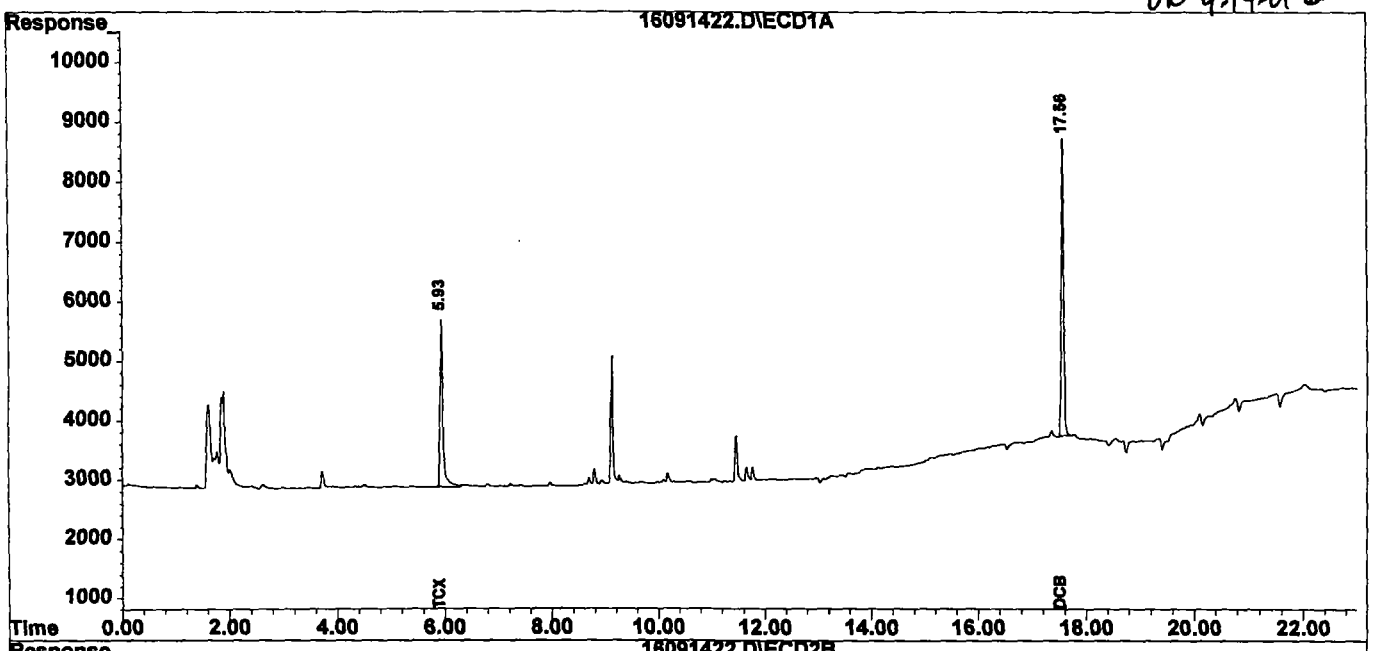
Chromatographic Report

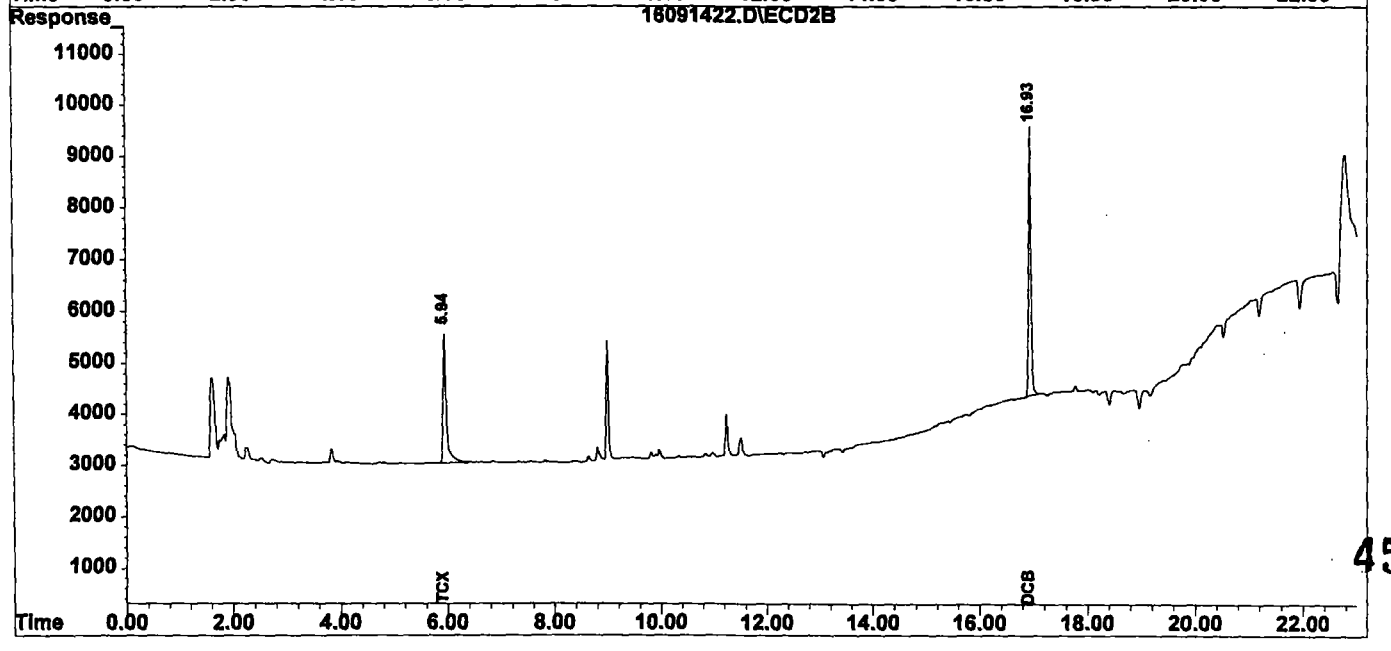
Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091422.D\ECD1A.CH Vial: 22
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091422.D\ECD2B.CH
Acq On : 15 Sep 2001 00:56 Operator: DDC
Sample : 47325.09 *E0355 * Inst : HP_16
Misc : *EPA*30.5G/5.0ML*86 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:04 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

OK 9-19-01





45

Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091422.D\ECD1A.CH Vial: 22
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091422.D\ECD2B.CH
Acq On : 15 Sep 2001 00:56 Operator: DDC
Sample : 47325.09 *E0355 * Inst : HP_16
Misc : *EPA*30.5G/5.0ML*86 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:04 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg
	System Monitoring Compounds:						
1)	S TCX	5.94	5.94f	102966	107741	34.8	32.1
	Spiked Amount 46.838			Recovery	=	74.30%	68.53%
22)	S DCB	17.56	16.93	150054	157497	30.7	32.7
	Spiked Amount 46.838			Recovery	=	65.54%	69.81%

Target Compounds:

46

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

E0356

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) SOIL Lab Sample ID: 47325.10

Sample wt/vol: 30.1 (g/mL) G Lab File ID:_____

% Moisture: 87 decanted: (Y/N) __ Date Received: 08/17/01

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:08/21/01

Concentrated Extract Volume: 5000(uL) Date Analyzed: 09/15/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	250	U
11104-28-2	Aroclor-1221	250	U
11141-16-5	Aroclor-1232	250	U
53469-21-9	Aroclor-1242	250	U
12672-29-6	Aroclor-1248	250	U
11097-69-1	Aroclor-1254	250	U
11096-82-5	Aroclor-1260	250	U
	Surrogate amount spiked	51.11	

FORM I PCB

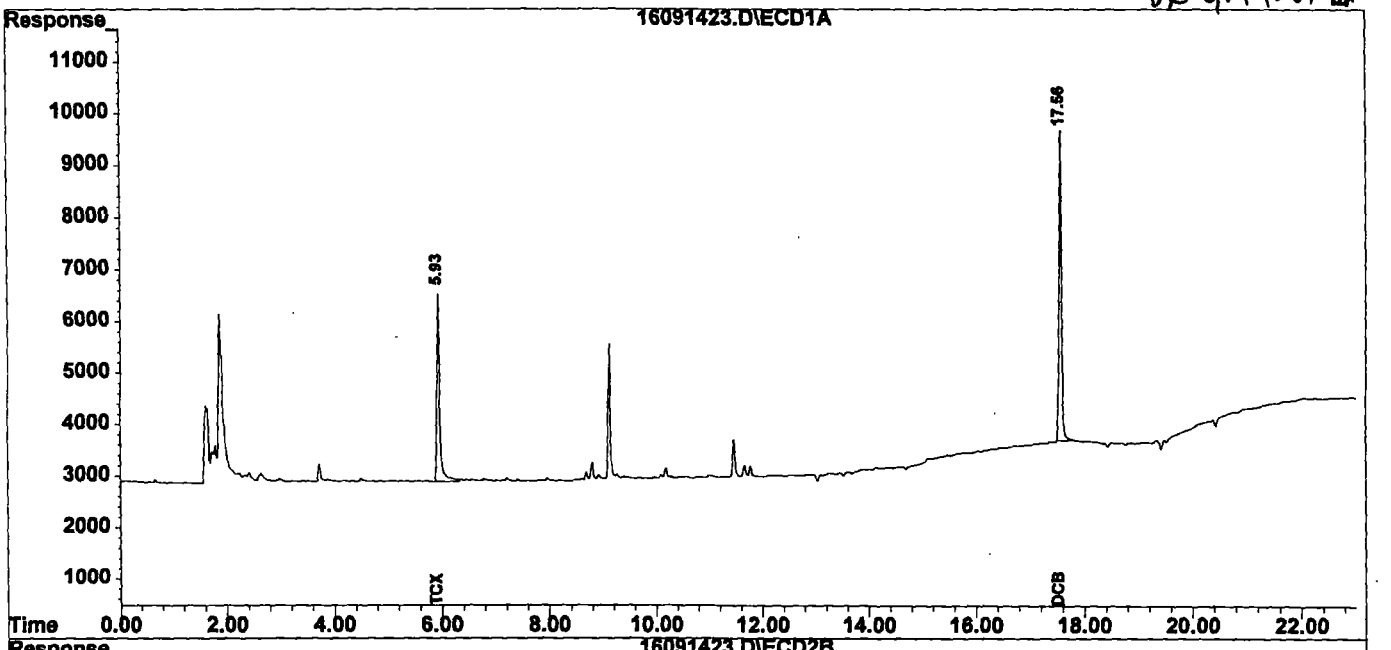
Chromatographic Report

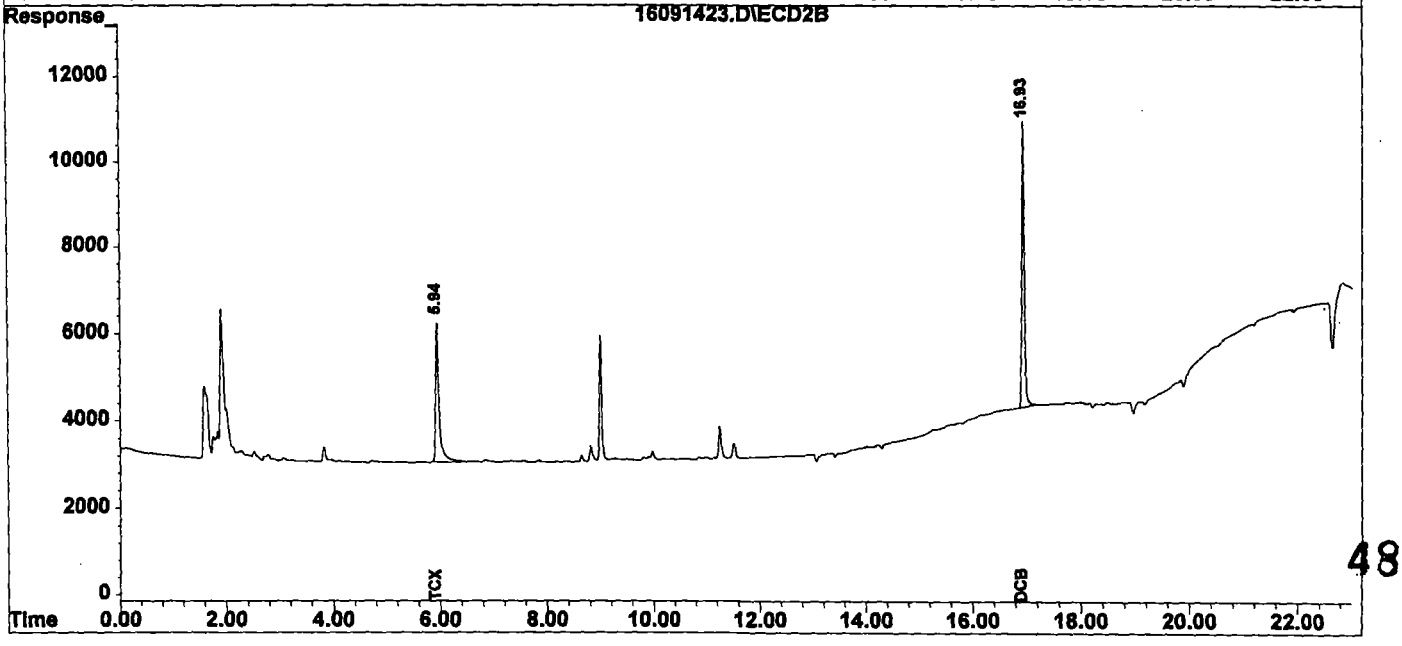
Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091423.D\ECD1A.CH Vial: 23
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091423.D\ECD2B.CH
Acq On : 15 Sep 2001 1:22 Operator: DDC
Sample : 47325.10 *E0356 * Inst : HP_16
Misc : *EPA*30.1G/5.0ML*87 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:04 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

OK 9-19-01





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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091423.D\ECD1A.CH Vial: 23
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091423.D\ECD2B.CH
Acq On : 15 Sep 2001 1:22 Operator: DDC
Sample : 47325.10 *E0356 * Inst : HP_16
Misc : *EPA*30.1G/5.0ML*87 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:04 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg
	System Monitoring Compounds:						
1)	S TCX	5.94	5.94f	132179	140941	48.8	45.8
	Spiked Amount 51.112			Recovery	=	95.48%	89.61%
22)	S DCB	17.56	16.94	187535	204889	41.9	46.4
	Spiked Amount 51.112			Recovery	=	81.98%	90.78%

Target Compounds:

49

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

E0357

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) SOIL Lab Sample ID: 47325.11

Sample wt/vol: 30.8 (g/mL) G Lab File ID:_____

% Moisture: 67 decanted: (Y/N) __ Date Received: 08/17/01

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:08/21/01

Concentrated Extract Volume: 5000(uL) Date Analyzed: 09/15/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.5 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	97	U
11104-28-2	Aroclor-1221	97	U
11141-16-5	Aroclor-1232	97	U
53469-21-9	Aroclor-1242	97	U
12672-29-6	Aroclor-1248	97	U
11097-69-1	Aroclor-1254	97	U
11096-82-5	Aroclor-1260	97	U
Surrogate amount spiked		19.68	

FORM I PCB

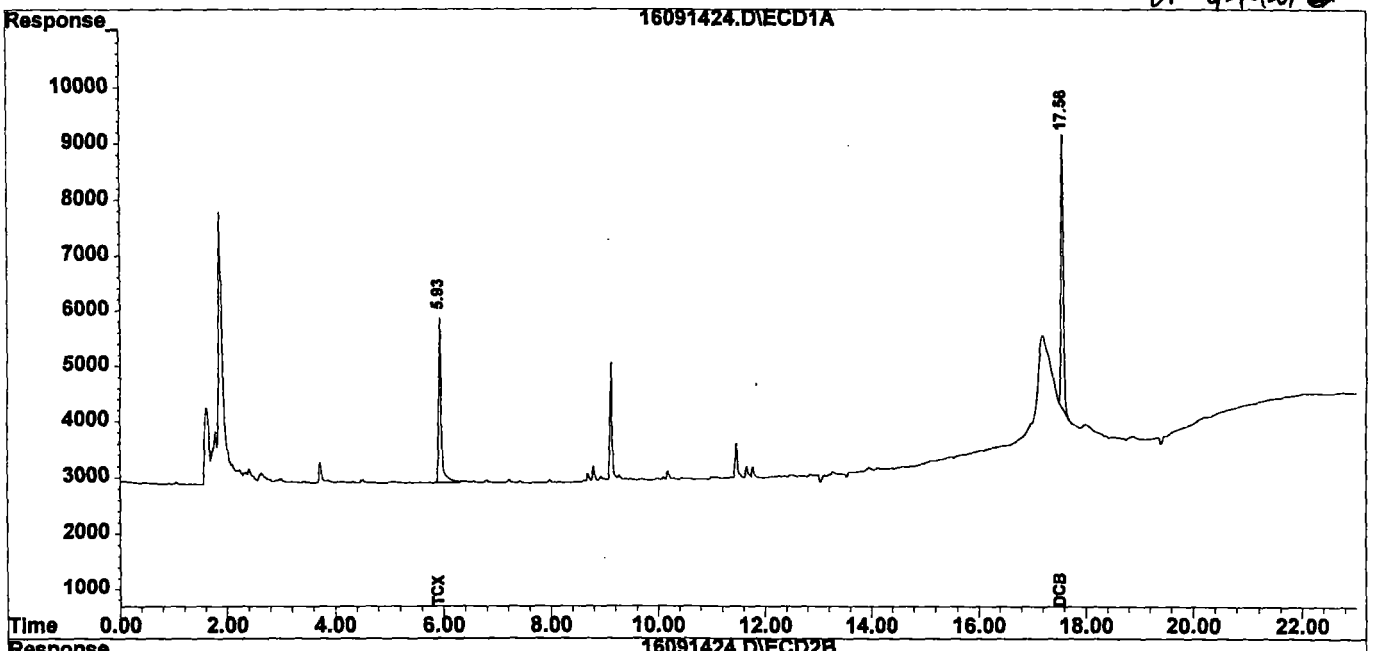
Chromatographic Report

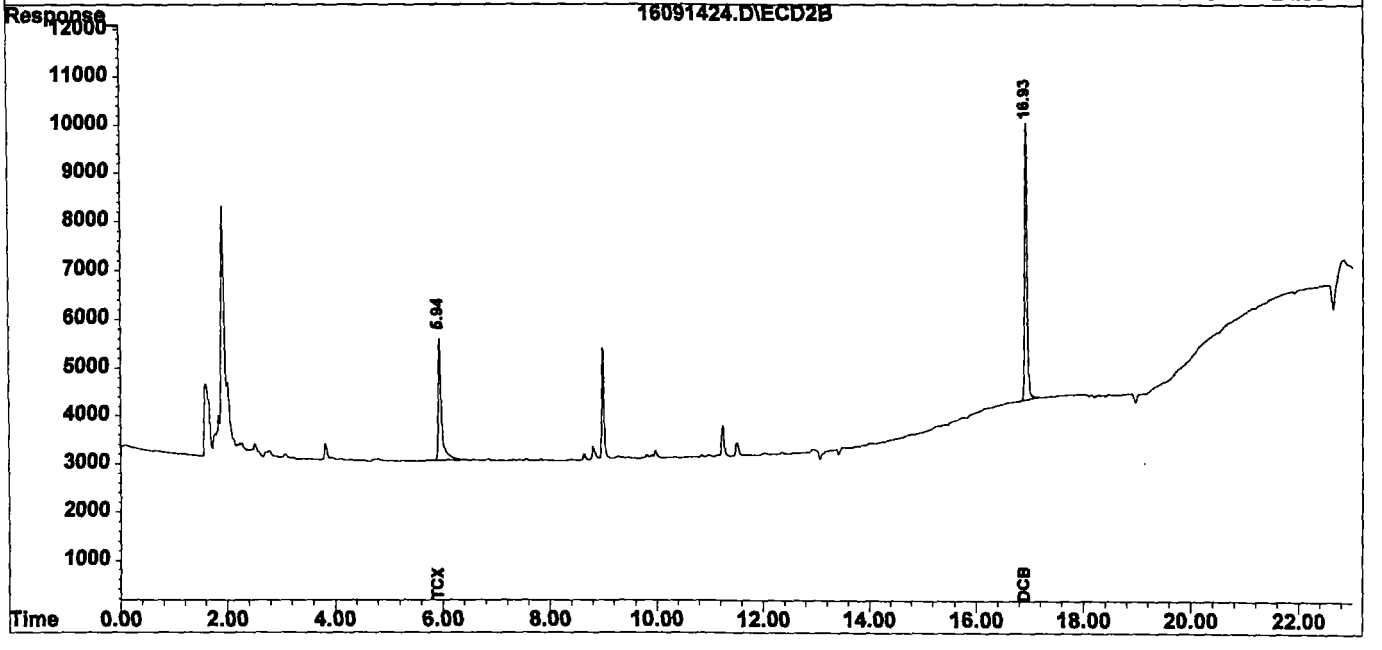
Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091424.D\ECD1A.CH Vial: 24
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091424.D\ECD2B.CH
Acq On : 15 Sep 2001 1:49 Operator: DDC
Sample : 47325.11 *E0357 * Inst : HP_16
Misc : *EPA*30.8G/5.0ML*67 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:05 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

OK 9-19-01





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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091424.D\ECD1A.CH Vial: 24
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091424.D\ECD2B.CH
Acq On : 15 Sep 2001 1:49 Operator: DDC
Sample : 47325.11 *E0357 * Inst : HP_16
Misc : *EPA*30.8G/5.0ML*67 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:05 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg
	System Monitoring Compounds:						
1)	S TCX	5.94	5.94f	103668	109242	14.7	13.7
	Spiked Amount 19.677			Recovery	=	74.71%	69.62%
22)	S DCB	17.56f	16.94	149599	174581	12.9m	15.2
	Spiked Amount 19.677			Recovery	=	65.56%	77.25%

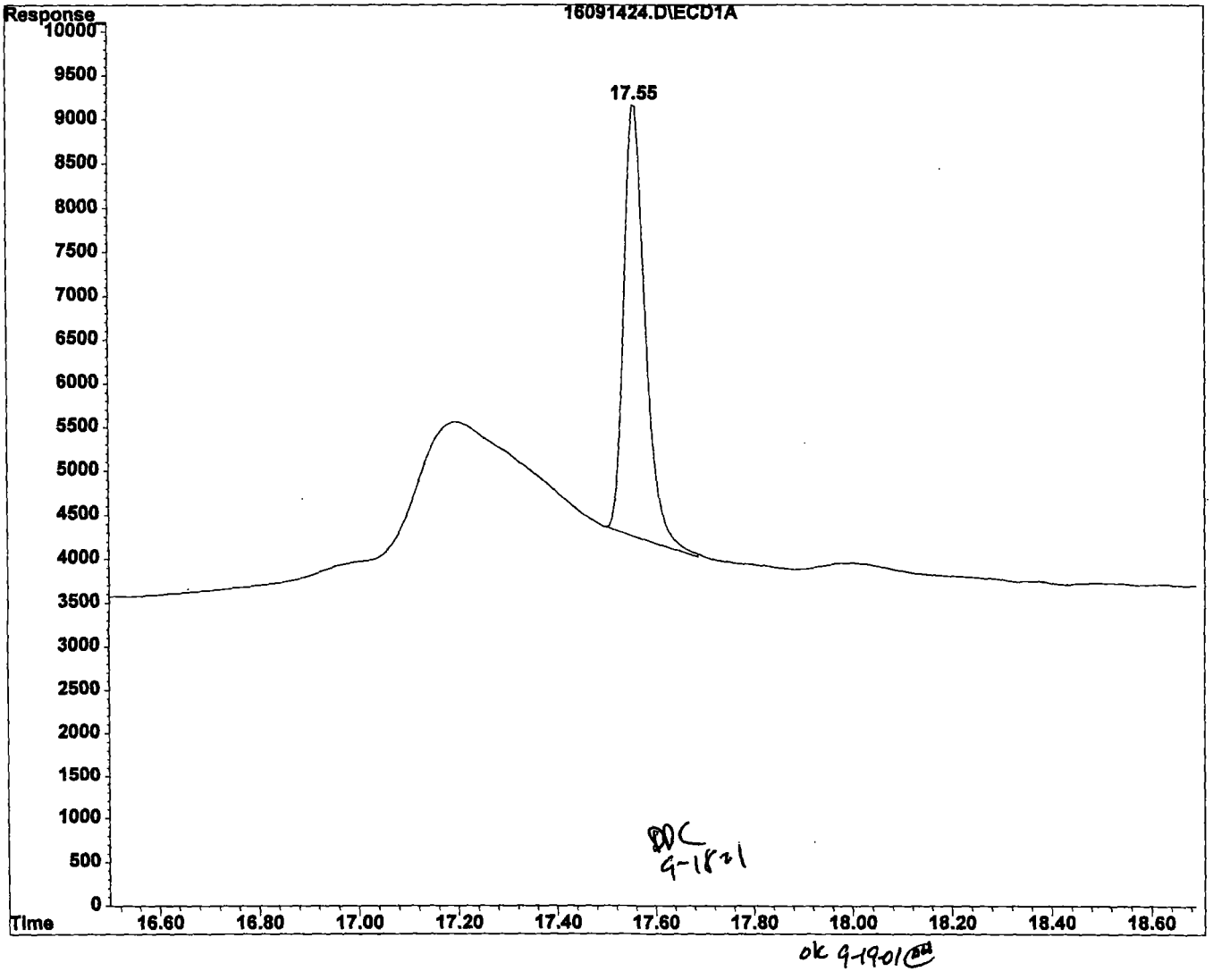
Target Compounds:

52

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_14_01\16091424.D
Date Acquired: 15 Sep 2001 1:49
Inst: HP_16 Operator ID: DDC
Name: 47325.11 *E0357 *
Misc: *EPA*30.8G/5.0ML*67
Method: F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 18 9:05 2001 Quant Results File: XPCBI11.RES



DCB 17.56min area: 149599 m

Integration Time Range: 17.50 - 17.69

F:\HPCHEM\HP\16\DATA\09_14_01\16091424.D
Report generated: Tue Sep 18 09:19:43 2001

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

E0358

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) SOIL Lab Sample ID: 47325.12

Sample wt/vol: 30.9 (g/mL) G Lab File ID:_____

% Moisture: 26 decanted: (Y/N) __ Date Received: 08/17/01

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:08/21/01

Concentrated Extract Volume: 5000(uL) Date Analyzed: 09/15/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.8 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	43	U
11104-28-2	Aroclor-1221	43	U
11141-16-5	Aroclor-1232	43	U
53469-21-9	Aroclor-1242	43	U
12672-29-6	Aroclor-1248	43	U
11097-69-1	Aroclor-1254	43	U
11096-82-5	Aroclor-1260	43	U
	Surrogate amount spiked	8.75	

FORM I PCB

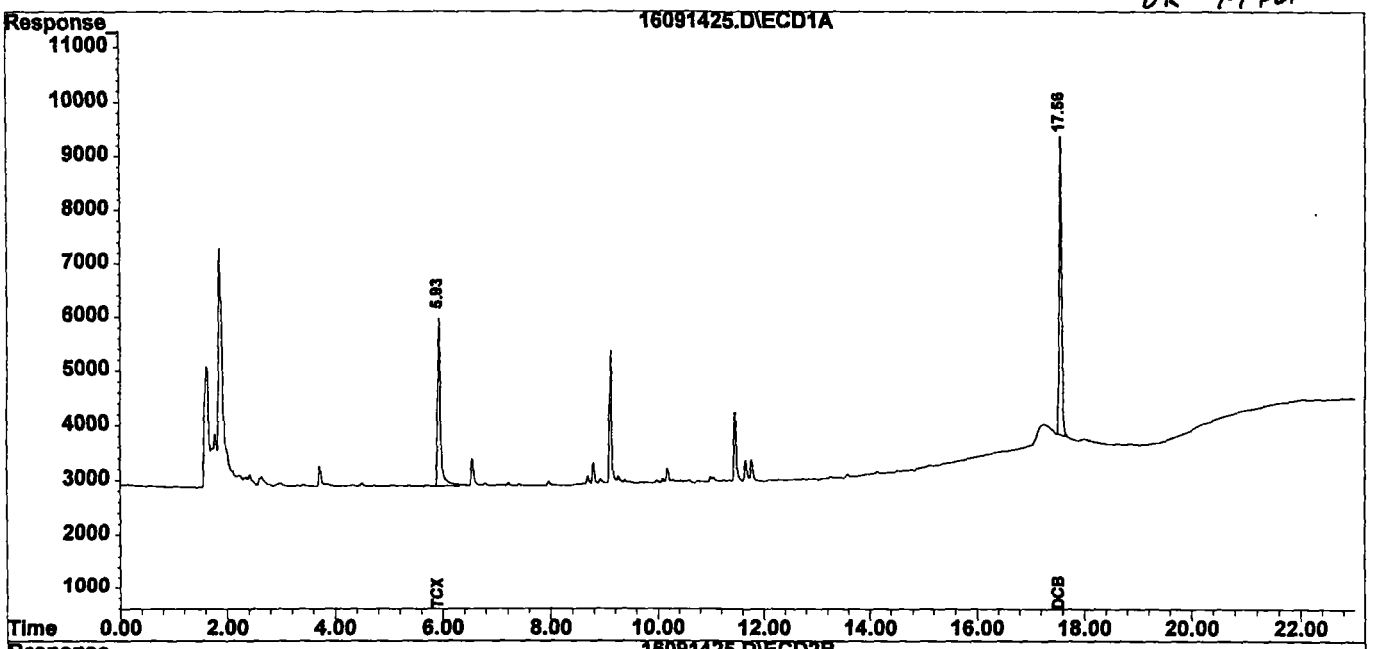
Chromatographic Report

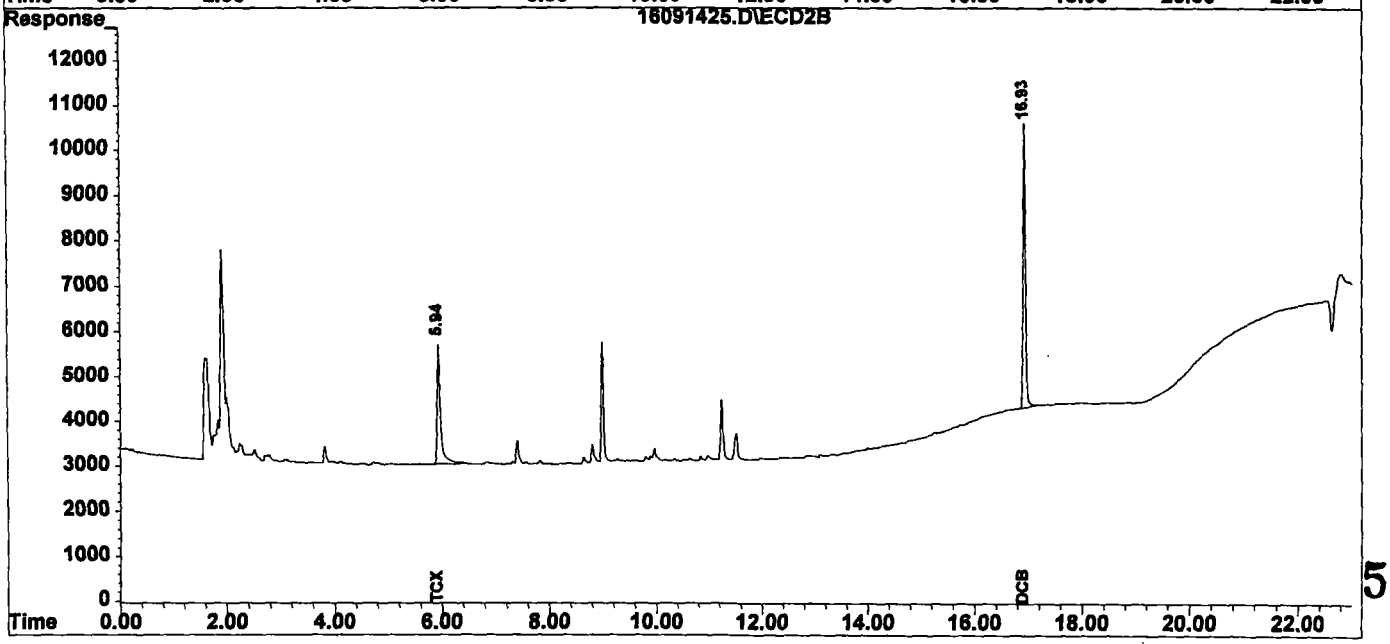
Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091425.D\ECD1A.CH Vial: 25
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091425.D\ECD2B.CH
Acq On : 15 Sep 2001 2:15 Operator: DDC
Sample : 47325.12 *E0358 * Inst : HP_16
Misc : *EPA*30.9G/5.0ML*26 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:05 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

OK 9-19-01





55

Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091425.D\ECD1A.CH Vial: 25
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091425.D\ECD2B.CH
Acq On : 15 Sep 2001 2:15 Operator: DDC
Sample : 47325.12 *E0358 * Inst : HP_16
Misc : *EPA*30.9G/5.0ML*26 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:05 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg
	System Monitoring Compounds:						
1)	S TCX	5.94	5.94f	109016	115161	6.882	6.405
	Spiked Amount 8.747			Recovery	=	78.68%	73.23%
22)	S DCB	17.56	16.93	167894	189454	6.424	7.344
	Spiked Amount 8.747			Recovery	=	73.45%	83.96%

Target Compounds:

56

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

E0359

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) SOIL Lab Sample ID: 47325.13

Sample wt/vol: 30.7 (g/mL) G Lab File ID:_____

% Moisture: 47 decanted: (Y/N) __ Date Received: 08/17/01

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:08/21/01

Concentrated Extract Volume: 5000(uL) Date Analyzed: 09/15/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.6 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	61	U
11104-28-2	Aroclor-1221	61	U
11141-16-5	Aroclor-1232	61	U
53469-21-9	Aroclor-1242	61	U
12672-29-6	Aroclor-1248	61	U
11097-69-1	Aroclor-1254	61	U
11096-82-5	Aroclor-1260	61	U
	Surrogate amount spiked	12.30	

FORM I PCB

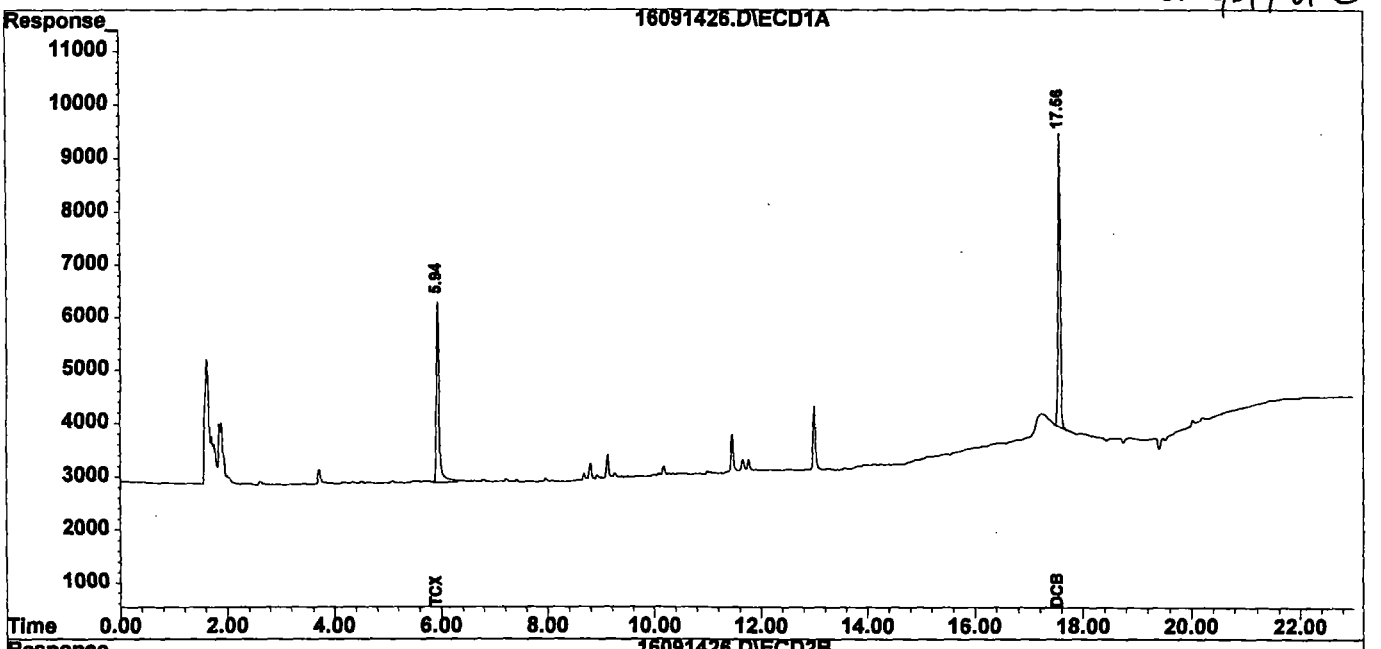
Chromatographic Report

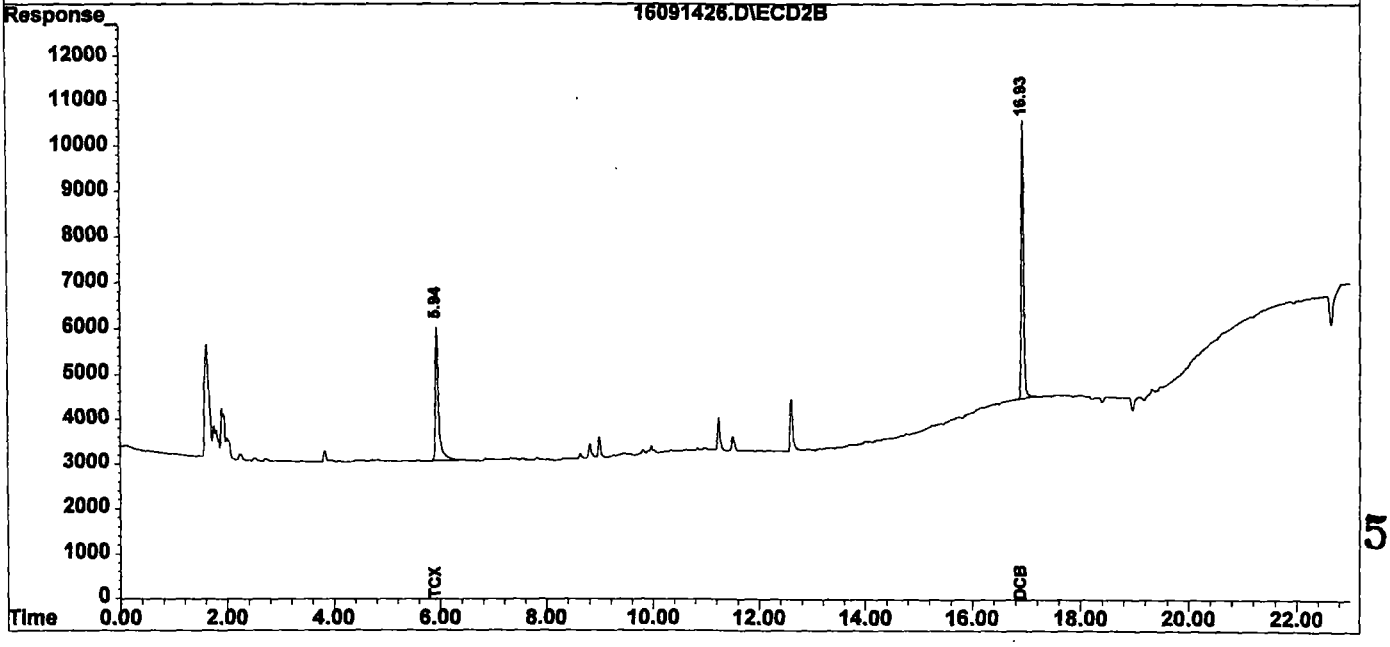
Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091426.D\ECD1A.CH Vial: 26
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091426.D\ECD2B.CH
Acq On : 15 Sep 2001 2:42 Operator: DDC
Sample : 47325.13 *E0359 * Inst : HP_16
Misc : *EPA*30.7G/5.0ML*47 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:05 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

OK 9-19-01





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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091426.D\ECD1A.CH Vial: 26
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091426.D\ECD2B.CH
Acq On : 15 Sep 2001 2:42 Operator: DDC
Sample : 47325.13 *E0359 * Inst : HP_16
Misc : *EPA*30.7G/5.0ML*47 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:05 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg
	System Monitoring Compounds:						
1)	S TCX	5.94	5.94	119709	123017	10.6	9.615
	Spiked Amount 12.292			Recovery	=	86.24%	78.22%
22)	S DCB	17.56	16.94	162443	181671	8.735	9.897
	Spiked Amount 12.292			Recovery	=	71.06%	80.52%

Target Compounds:

59

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

E0360

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) SOIL Lab Sample ID: 47325.14

Sample wt/vol: 30.4 (g/mL) G Lab File ID:_____

% Moisture: 31 decanted: (Y/N) __ Date Received: 08/17/01

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:08/21/01

Concentrated Extract Volume: 5000(uL) Date Analyzed: 09/15/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.6 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	47	U
11104-28-2	Aroclor-1221	47	U
11141-16-5	Aroclor-1232	47	U
53469-21-9	Aroclor-1242	47	U
12672-29-6	Aroclor-1248	47	U
11097-69-1	Aroclor-1254	47	U
11096-82-5	Aroclor-1260	47	U
	Surrogate amount spiked	9.53	

FORM I PCB

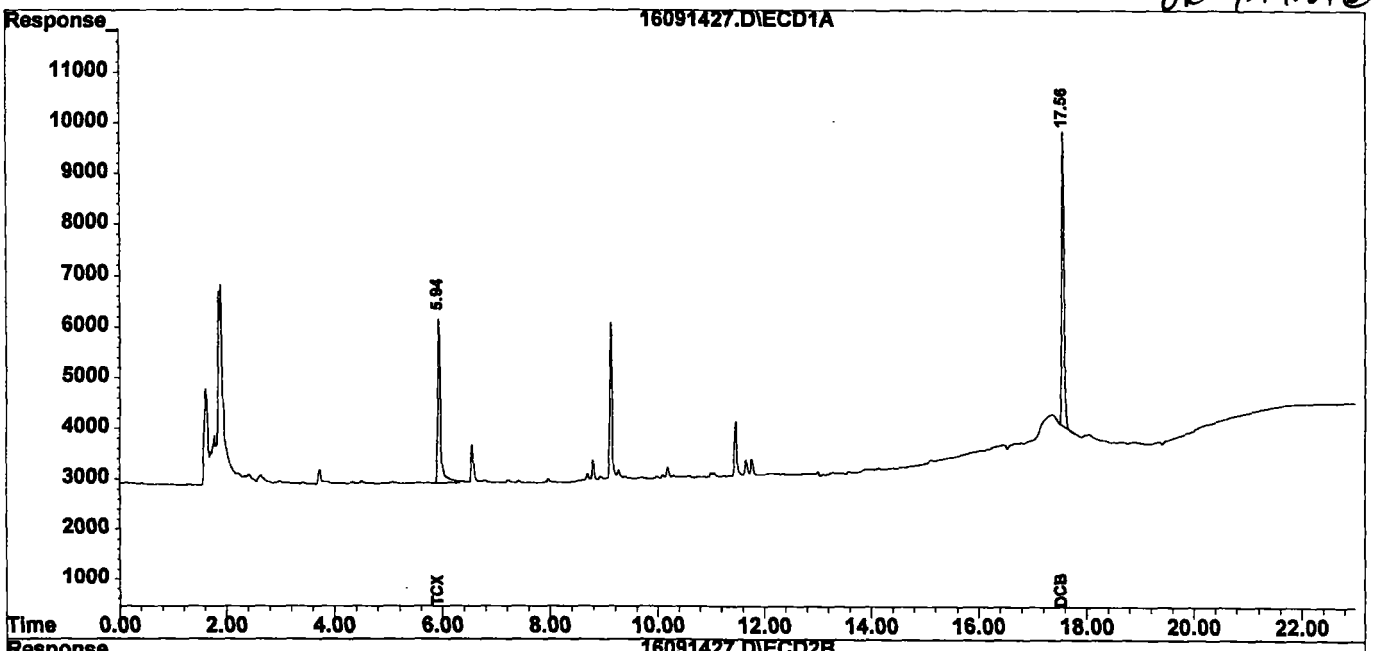
Chromatographic Report

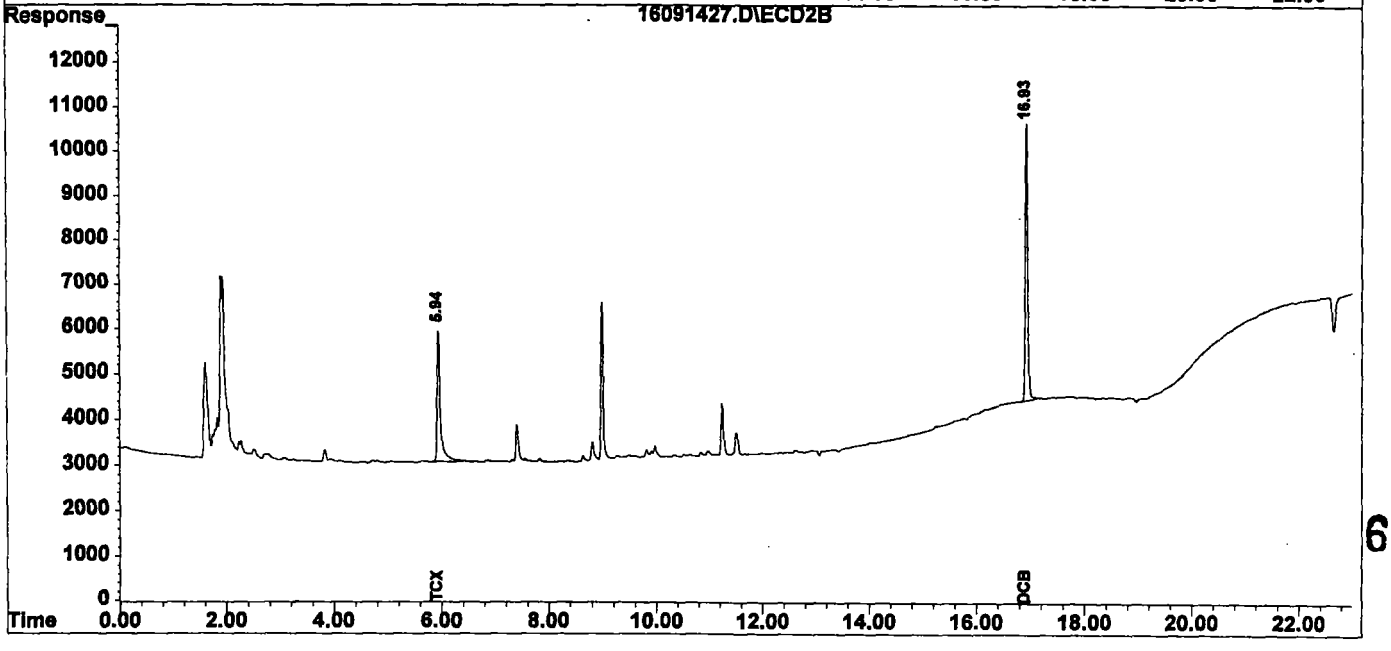
Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091427.D\ECD1A.CH Vial: 27
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091427.D\ECD2B.CH
Acq On : 15 Sep 2001 3:08 Operator: DDC
Sample : 47325.14 *E0360 * Inst : HP_16
Misc : *EPA*30.4G/5.0ML*31 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:06 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

OK 9-19-01





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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091427.D\ECD1A.CH Vial: 27
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091427.D\ECD2B.CH
Acq On : 15 Sep 2001 3:08 Operator: DDC
Sample : 47325.14 *E0360 * Inst : HP_16
Misc : *EPA*30.4G/5.0ML*31 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:06 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg
	System Monitoring Compounds:						
1)	S TCX	5.94	5.94	119472	125828	8.222	7.629
	Spiked Amount 9.535			Recovery	=	86.23%	80.01%
22)	S DCB	17.56	16.94	169037	186557	7.050	7.883
	Spiked Amount 9.535			Recovery	=	73.94%	82.68%

Target Compounds:

62

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

E0361

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) SOIL Lab Sample ID: 47325.15

Sample wt/vol: 30.9 (g/mL) G Lab File ID:_____

% Moisture: 29 decanted: (Y/N) __ Date Received: 08/17/01

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:08/21/01

Concentrated Extract Volume: 5000(uL) Date Analyzed: 09/15/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	45	U
11104-28-2	Aroclor-1221	45	U
11141-16-5	Aroclor-1232	45	U
53469-21-9	Aroclor-1242	45	U
12672-29-6	Aroclor-1248	45	U
11097-69-1	Aroclor-1254	45	U
11096-82-5	Aroclor-1260	45	U
Surrogate amount spiked		9.12	

FORM I PCB

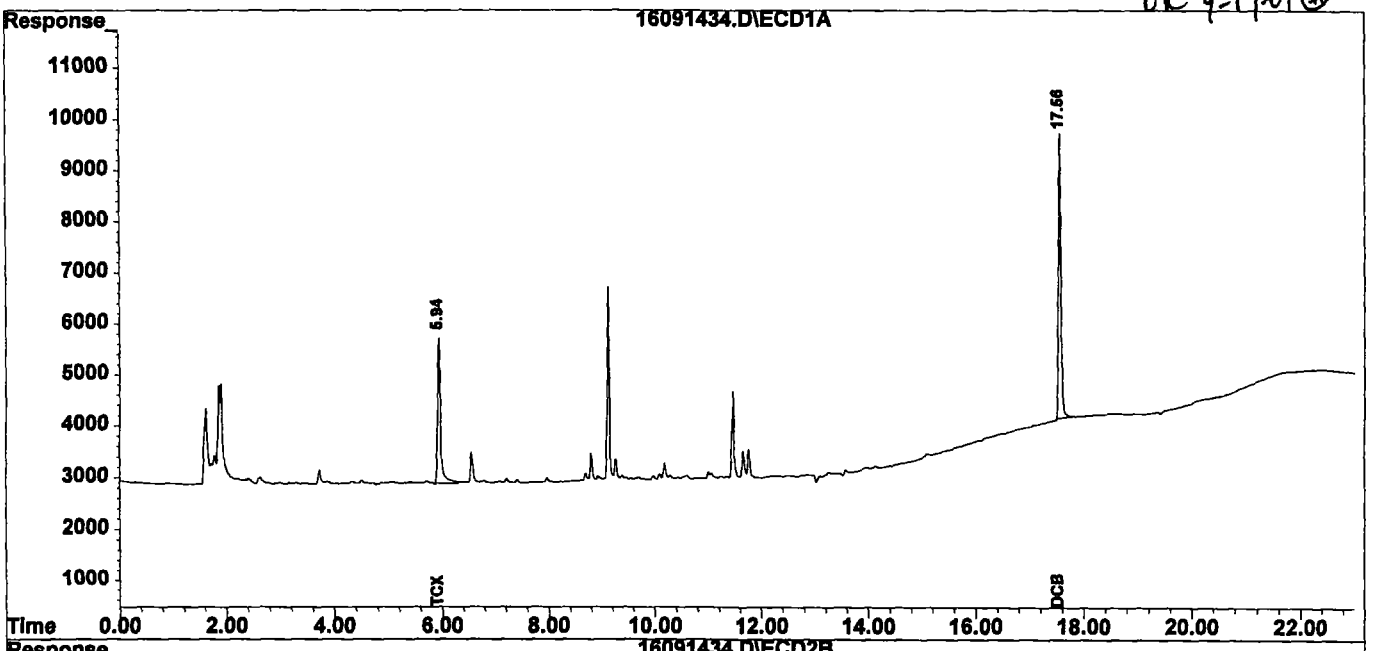
Chromatographic Report

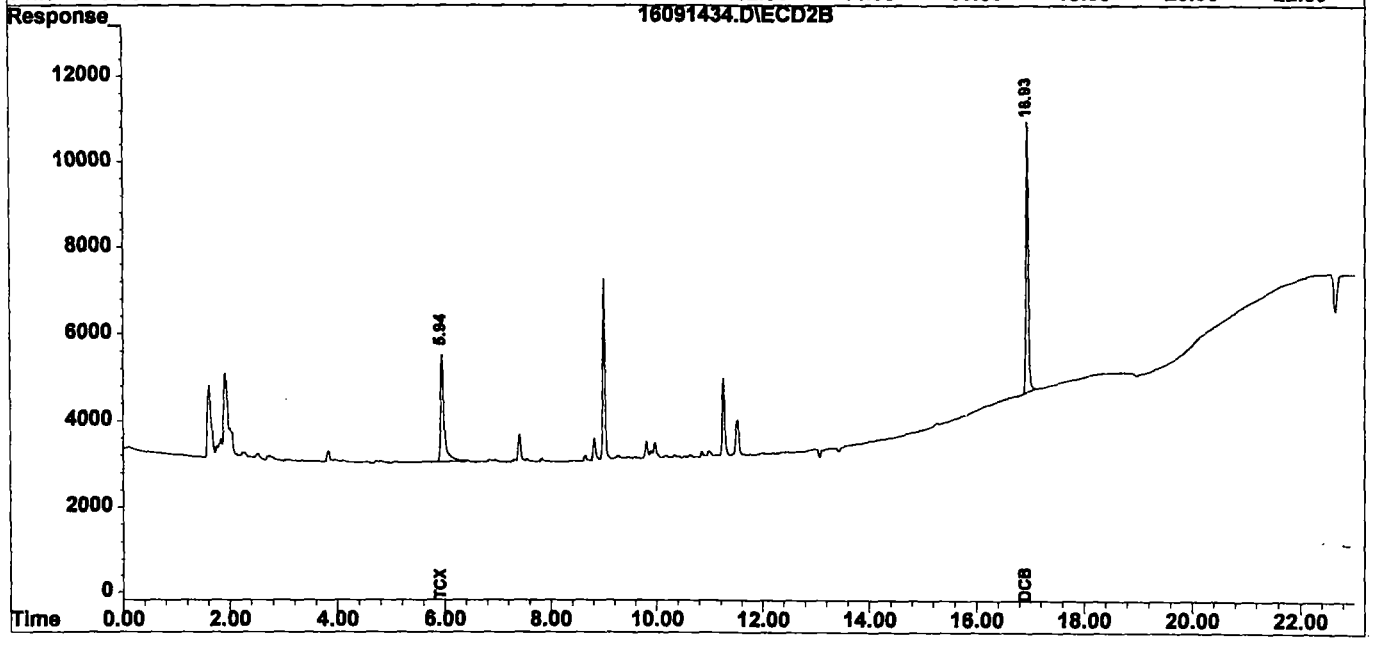
Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091434.D\ECD1A.CH Vial: 34
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091434.D\ECD2B.CH
Acq On : 15 Sep 2001 6:13 Operator: DDC
Sample : 47325.15 *E0361 * Inst : HP_16
Misc : *EPA*30.9G/5.0ML*29 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:07 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

OK 9-19-01





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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091434.D\ECD1A.CH Vial: 34
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091434.D\ECD2B.CH
Acq On : 15 Sep 2001 6:13 Operator: DDC
Sample : 47325.15 *E0361 * Inst : HP_16
Misc : *EPA*30.9G/5.0ML*29 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:07 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg
	System Monitoring Compounds:						
1)	S TCX	5.94	5.95	107740	111387	7.089	6.457
	Spiked Amount 9.116			Recovery	=	77.76%	70.83%
22)	S DCB	17.56	16.94	173864	187341	6.933	7.569
	Spiked Amount 9.116			Recovery	=	76.05%	83.03%

Target Compounds:

65

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

1D

AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

E0362

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) SOIL Lab Sample ID: 47325.16

Sample wt/vol: 30.4 (g/mL) G Lab File ID:_____

% Moisture: 21 decanted: (Y/N) __ Date Received: 08/17/01

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:08/21/01

Concentrated Extract Volume: 5000(uL) Date Analyzed: 09/15/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.6 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	41	U
11104-28-2	Aroclor-1221	41	U
11141-16-5	Aroclor-1232	41	U
53469-21-9	Aroclor-1242	41	U
12672-29-6	Aroclor-1248	41	U
11097-69-1	Aroclor-1254	41	U
11096-82-5	Aroclor-1260	41	U
	Surrogate amount spiked	8.33	

FORM I PCB

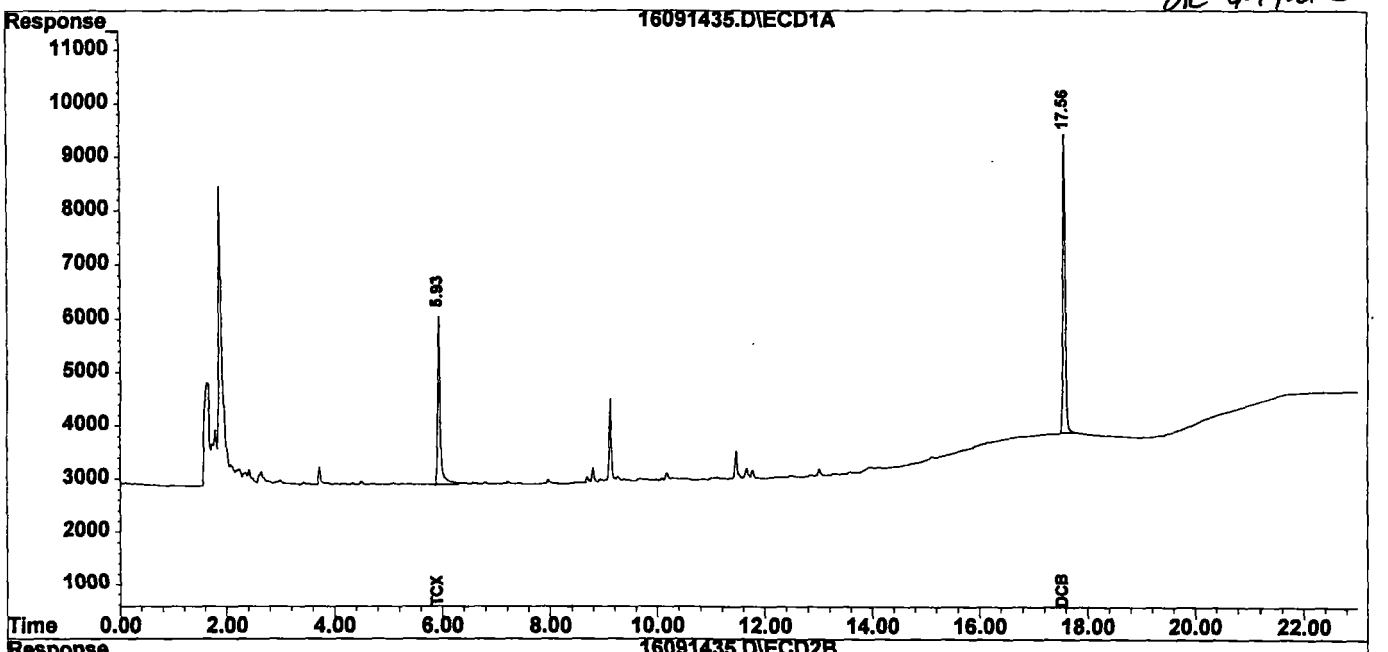
Chromatographic Report

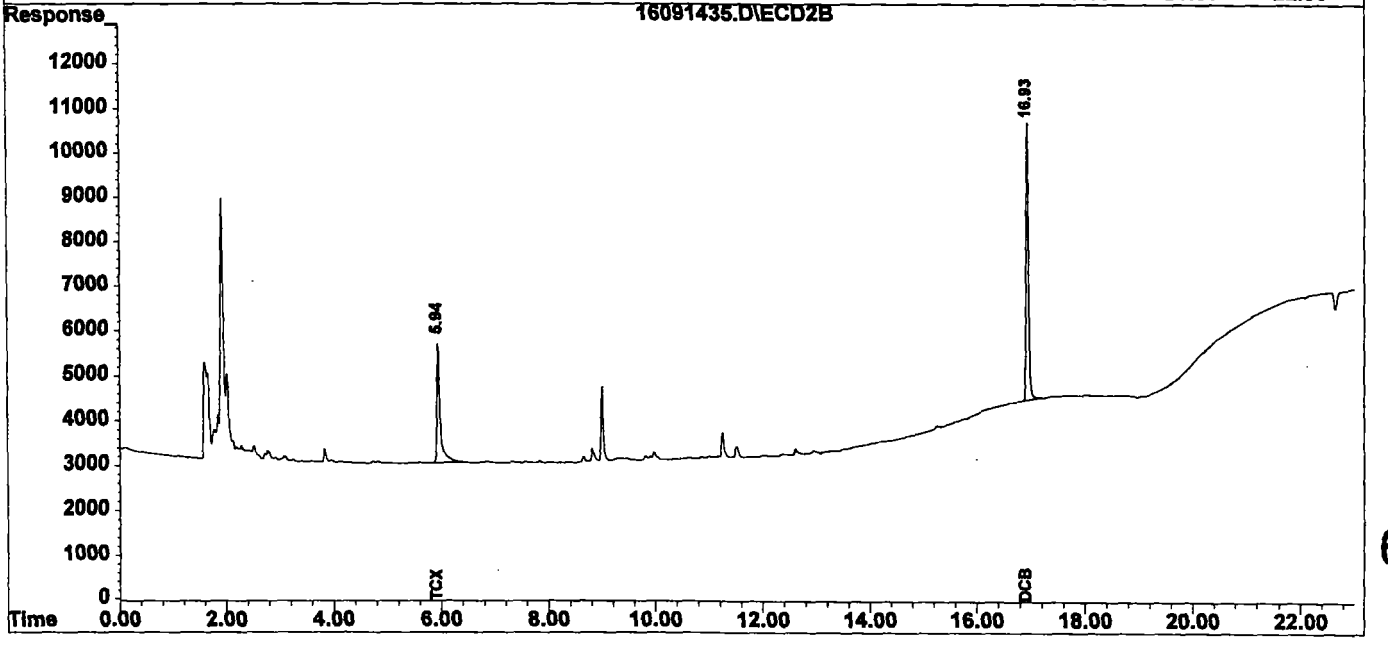
Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091435.D\ECD1A.CH Vial: 35
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091435.D\ECD2B.CH
Acq On : 15 Sep 2001 6:39 Operator: DDC
Sample : 47325.16 *E0362 * Inst : HP_16
Misc : *EPA*30.4G/5.0ML*21 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:07 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

DIC 9-19-01





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Quantitation Report

```
Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091435.D\ECD1A.CH Vial: 35
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091435.D\ECD2B.CH
Acq On    : 15 Sep 2001   6:39                        Operator: DDC
Sample    : 47325.16  *E0362  *                       Inst    : HP_16
Misc      : *EPA*30.4G/5.0ML*21                       Dilution: 1.00
IntFile Signal #1: events1.e     IntFile Signal #2: events2.e
Quant Time: Sep 18  9:07 2001  Quant Results File: XPCBI11.RES

Method       : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path   : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update  : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj.      : 0.5uL
Signal #1 Phase : RTX-PEST 2        Signal #2 Phase: RTX-PEST
Signal #1 Info  : .32 mm            Signal #2 Info : .32 mm
Signal #1 Inst  : HP_16A            Signal #2 Inst : HP_16B
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg
	System Monitoring Compounds:						
1)	S TCX	5.94	5.94	109143	116601	6.560	6.175
	Spiked Amount 8.328			Recovery	=	78.77%	74.15%
22)	S DCB	17.56	16.94	171790	188600	6.258	6.961
	Spiked Amount 8.328			Recovery	=	75.15%	83.59%
	Target Compounds:						

68

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

1D

AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

E0363

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) SOIL Lab Sample ID: 47325.17

Sample wt/vol: 30.7 (g/mL) G Lab File ID:_____

% Moisture: 30 decanted: (Y/N) __ Date Received: 08/17/01

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:08/21/01

Concentrated Extract Volume: 5000(uL) Date Analyzed: 09/15/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.6 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	46	U
11104-28-2	Aroclor-1221	46	U
11141-16-5	Aroclor-1232	46	U
53469-21-9	Aroclor-1242	46	U
12672-29-6	Aroclor-1248	46	U
11097-69-1	Aroclor-1254	46	U
11096-82-5	Aroclor-1260	46	U
	Surrogate amount spiked	9.31	

FORM I PCB

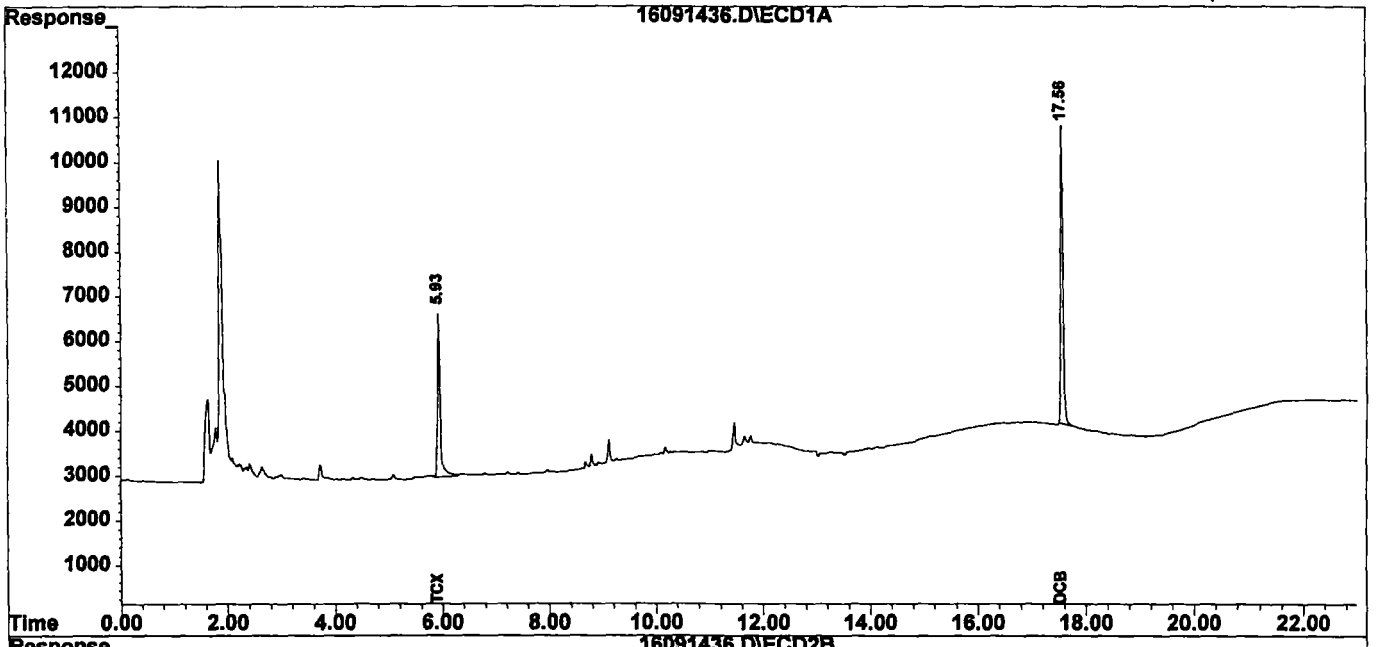
Chromatographic Report

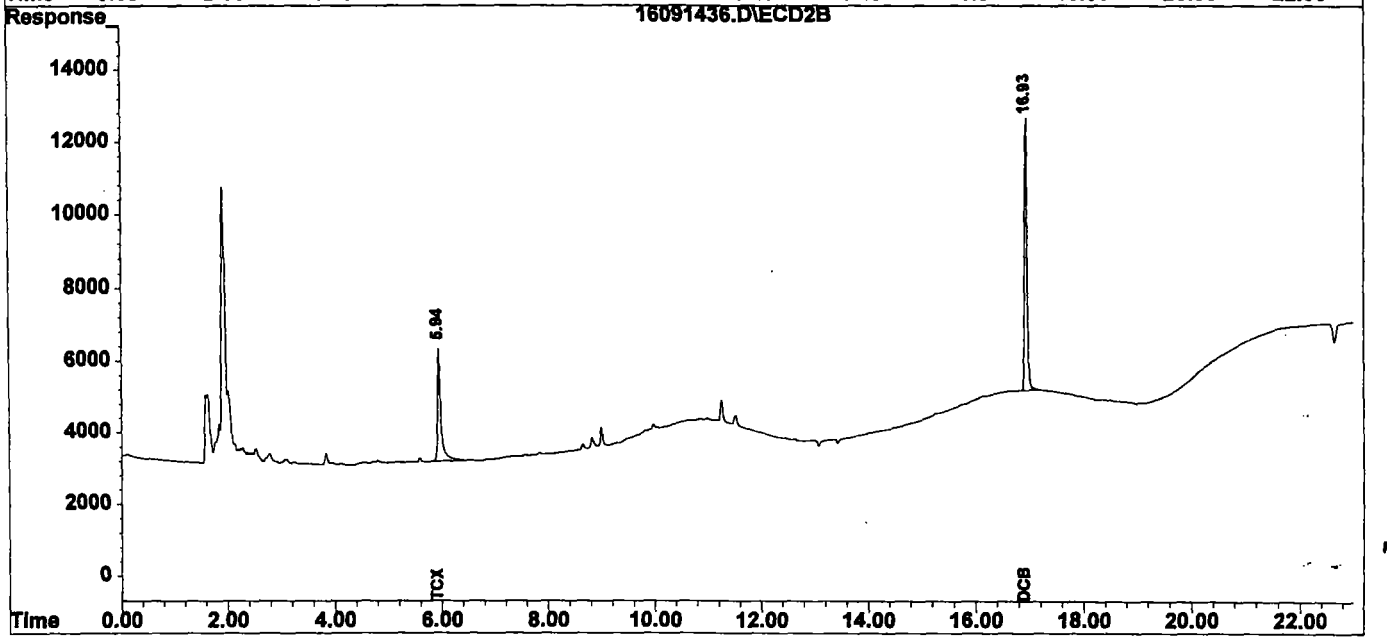
Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091436.D\ECD1A.CH Vial: 36
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091436.D\ECD2B.CH
Acq On : 15 Sep 2001 7:06 Operator: DDC
Sample : 47325.17 *E0363 * Inst : HP_16
Misc : *EPA*30.7G/5.0ML*30 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:08 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

OK 9-19-01





70

Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091436.D\ECD1A.CH Vial: 36
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091436.D\ECD2B.CH
Acq On : 15 Sep 2001 7:06 Operator: DDC
Sample : 47325.17 *E0363 * Inst : HP_16
Misc : *EPA*30.7G/5.0ML*30 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:08 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg
	System Monitoring Compounds:						
1)	S TCX	5.94	5.94	134284	140036	9.020	8.287
	Spiked Amount 9.307			Recovery	=	96.92%	89.04%
22)	S DCB	17.56	16.94	205316	226143	8.359	9.327
	Spiked Amount 9.307			Recovery	=	89.82%	100.22%

Target Compounds:

71

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

E0364

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) SOIL Lab Sample ID: 47344.01

Sample wt/vol: 30.2 (g/mL) G Lab File ID:_____

% Moisture: 78 decanted: (Y/N) __ Date Received: 08/20/01

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:08/21/01

Concentrated Extract Volume: 5000(uL) Date Analyzed: 09/15/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.3 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	150	U
11104-28-2	Aroclor-1221	150	U
11141-16-5	Aroclor-1232	150	U
53469-21-9	Aroclor-1242	150	U
12672-29-6	Aroclor-1248	150	U
11097-69-1	Aroclor-1254	150	U
11096-82-5	Aroclor-1260	150	U
	Surrogate amount spiked	30.10	

FORM I PCB

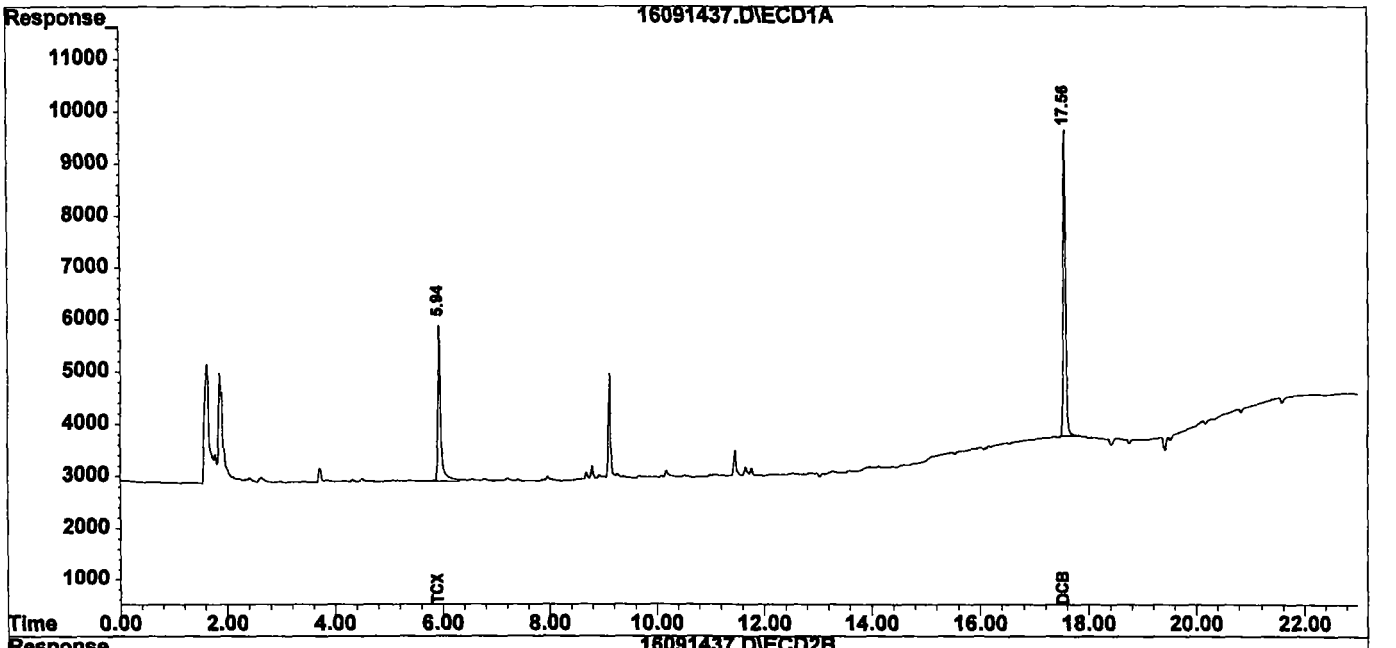
Chromatographic Report

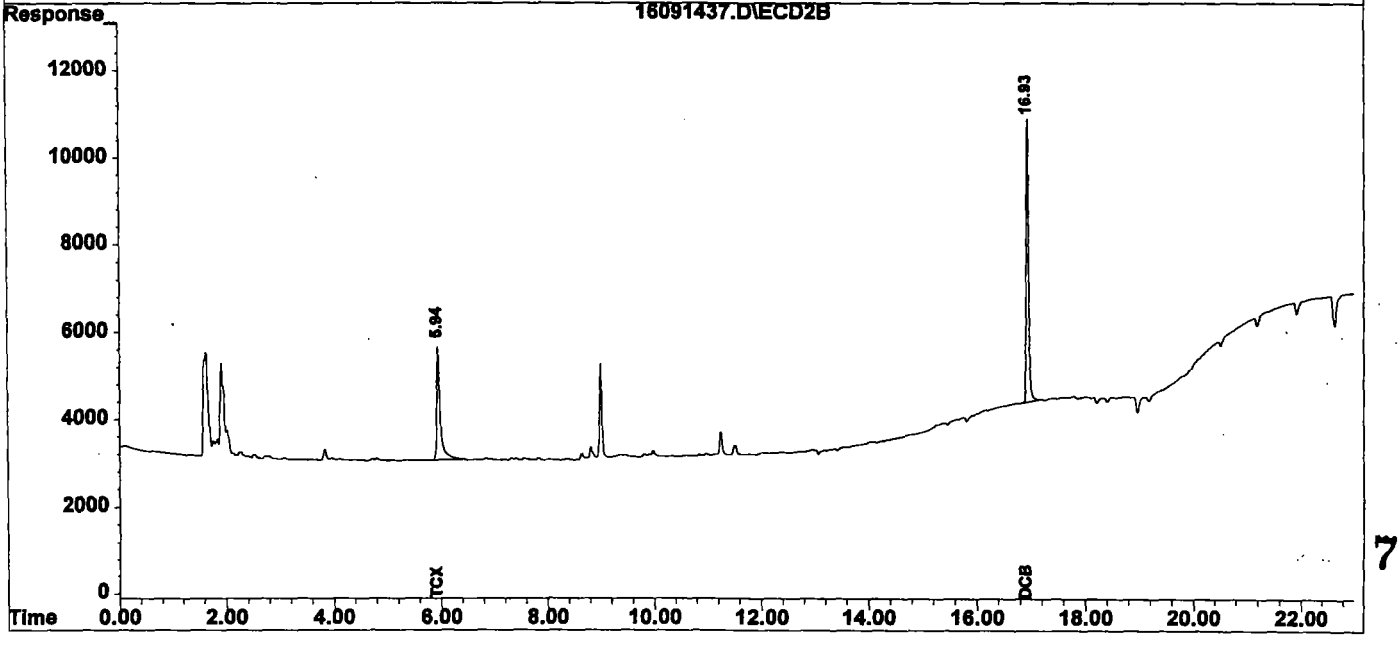
Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091437.D\ECD1A.CH Vial: 37
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091437.D\ECD2B.CH
Acq On : 15 Sep 2001 7:32 Operator: DDC
Sample : 47344.01 *E0364 * Inst : HP_16
Misc : *EPA*30.2G/5.0ML*78 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:08 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

OK 9-19-01





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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091437.D\ECD1A.CH Vial: 37
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091437.D\ECD2B.CH
Acq On : 15 Sep 2001 7:32 Operator: DDC
Sample : 47344.01 *E0364 * Inst : HP_16
Misc : *EPA*30.2G/5.0ML*78 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:08 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg
	System Monitoring Compounds:						
1)	S TCX	5.94	5.94	113682	118835	24.7	22.7
	Spiked Amount 30.102			Recovery	=	82.05%	75.41%
22)	S DCB	17.56	16.94	182770	199296	24.1	26.6
	Spiked Amount 30.102			Recovery	=	✓80.06%	✓88.37%

Target Compounds:

74

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

E0365

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) SOIL Lab Sample ID: 47344.02

Sample wt/vol: 30.6 (g/mL) G Lab File ID:_____

% Moisture: 78 decanted: (Y/N) __ Date Received: 08/20/01

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:08/21/01

Concentrated Extract Volume: 5000(uL) Date Analyzed: 09/15/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.3 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	150	U
11104-28-2	Aroclor-1221	150	U
11141-16-5	Aroclor-1232	150	U
53469-21-9	Aroclor-1242	150	U
12672-29-6	Aroclor-1248	150	U
11097-69-1	Aroclor-1254	150	U
11096-82-5	Aroclor-1260	150	U
	Surrogate amount spiked	29.70	

FORM I PCB

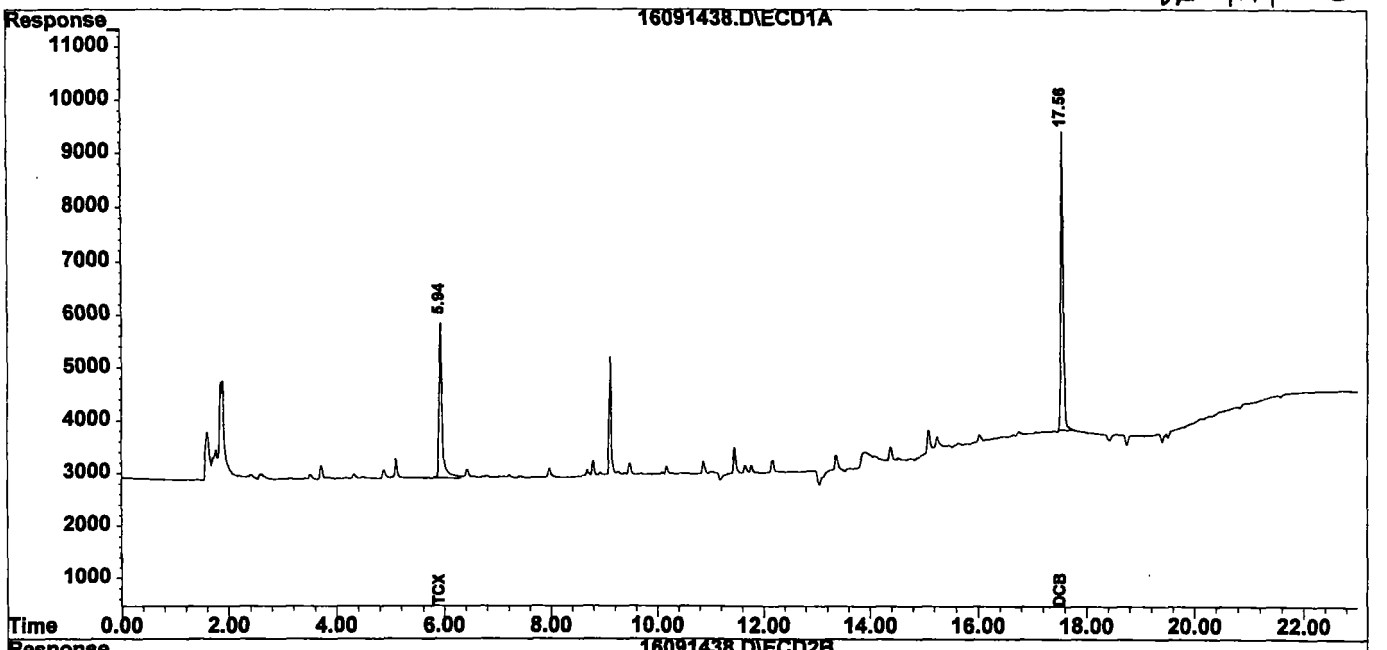
Chromatographic Report

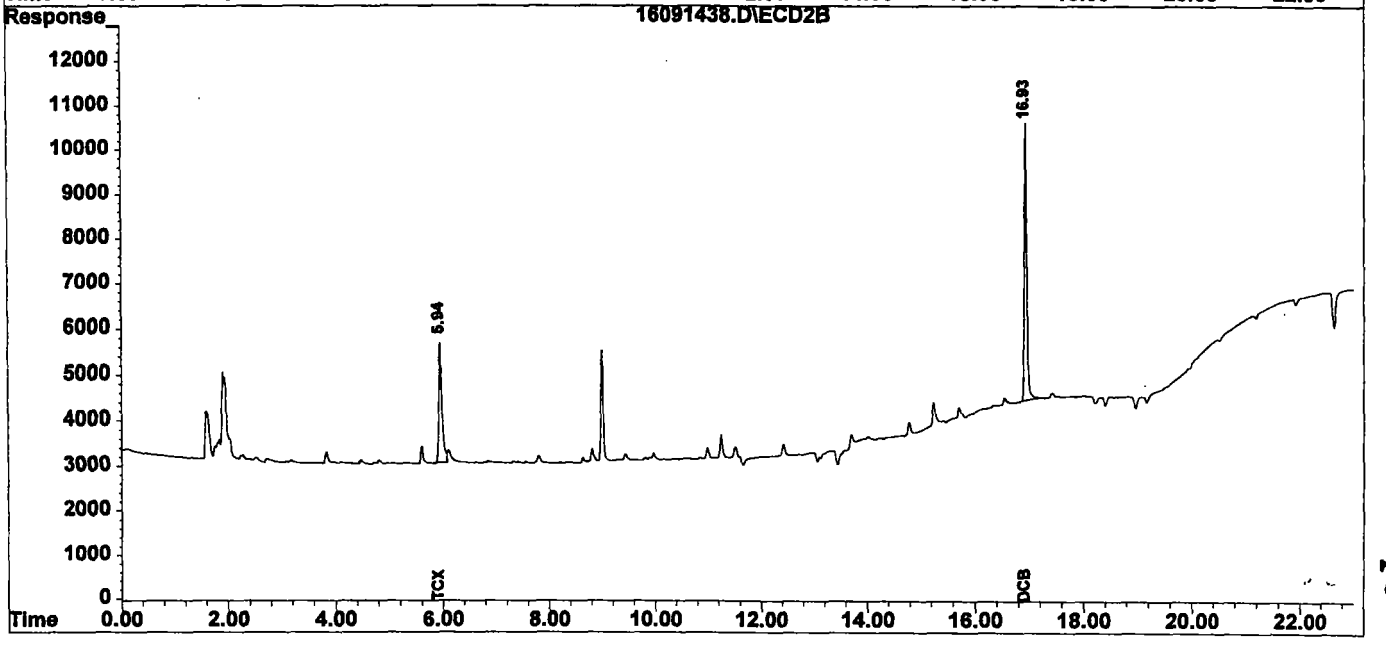
Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091438.D\ECD1A.CH Vial: 38
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091438.D\ECD2B.CH
Acq On : 15 Sep 2001 7:59 Operator: DDC
Sample : 47344.02,*E0365 * Inst : HP_16
Misc : *EPA*30.6G/5.0ML*78 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:08 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

OK 9-19-01





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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091438.D\ECD1A.CH Vial: 38
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091438.D\ECD2B.CH
Acq On : 15 Sep 2001 7:59 Operator: DDC
Sample : 47344.02 *E0365 * Inst : HP_16
Misc : *EPA*30.6G/5.0ML*78 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:08 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg
	System Monitoring Compounds:						
1)	S TCX	5.94	5.95	116960	108282	25.1	20.5
	Spiked Amount 29.709			Recovery	=	84.49%	69.00%
22)	S DCB	17.56	16.94	175787	191435	22.8	25.2
	Spiked Amount 29.709			Recovery	=	✓76.74%	✓84.82%

Target Compounds:

77

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

1D

AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

E0366

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) SOIL Lab Sample ID: 47344.03

Sample wt/vol: 30.0 (g/mL) G Lab File ID:_____

% Moisture: 45 decanted: (Y/N) __ Date Received: 08/20/01

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:08/21/01

Concentrated Extract Volume: 5000(uL) Date Analyzed: 09/15/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.6 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	60	U
11104-28-2	Aroclor-1221	60	U
11141-16-5	Aroclor-1232	60	U
53469-21-9	Aroclor-1242	60	U
12672-29-6	Aroclor-1248	60	U
11097-69-1	Aroclor-1254	60	U
11096-82-5	Aroclor-1260	60	U
	Surrogate amount spiked	12.12	

FORM I PCB

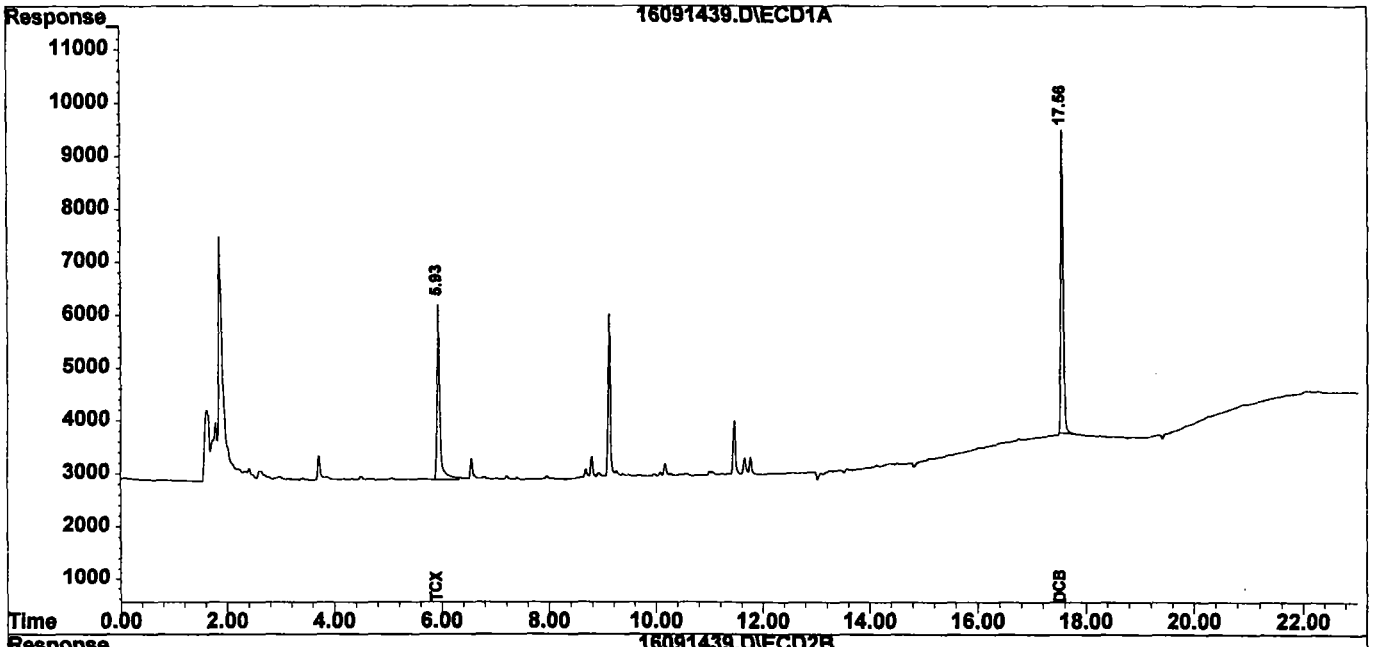
Chromatographic Report

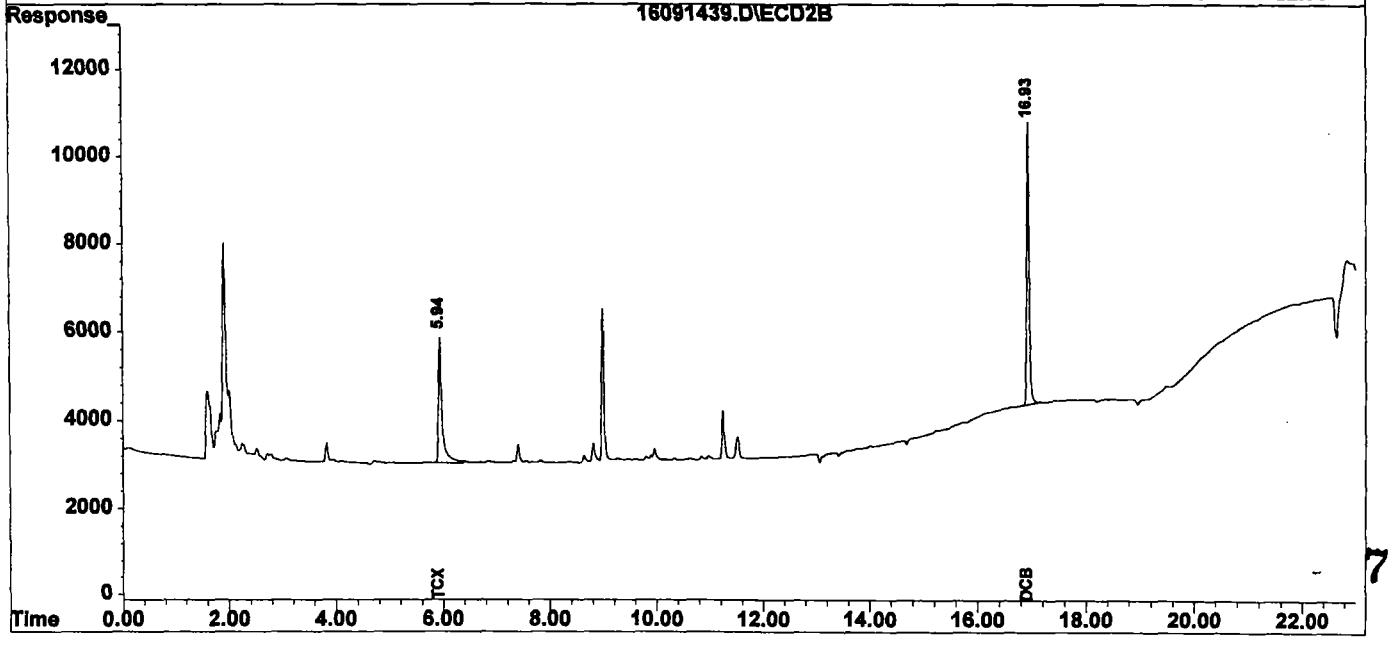
Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091439.D\ECD1A.CH Vial: 39
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091439.D\ECD2B.CH
Acq On : 15 Sep 2001 8:25 Operator: DDC
Sample : 47344.03 *E0366 * Inst : HP_16
Misc : *EPA*30G/5.0ML*45 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:08 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

OK 9-19-01





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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091439.D\ECD1A.CH Vial: 39
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091439.D\ECD2B.CH
Acq On : 15 Sep 2001 8:25 Operator: DDC
Sample : 47344.03 *E0366 * Inst : HP_16
Misc : *EPA*30G/5.0ML*45 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:08 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg
	System Monitoring Compounds:						
1)	S TCX	5.94	5.94	121178	129082	10.6	9.949
	Spiked Amount 12.121			Recovery	=	87.45%	82.08%
22)	S DCB	17.56	16.94	179664	198068	9.527	10.6
	Spiked Amount 12.121			Recovery	=	✓78.60%	✓87.45%

Target Compounds:

80

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

E0367

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) SOIL Lab Sample ID: 47344.04

Sample wt/vol: 30.4 (g/mL) G Lab File ID:_____

% Moisture: 44 decanted: (Y/N) __ Date Received: 08/20/01

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:08/21/01

Concentrated Extract Volume: 5000(uL) Date Analyzed: 09/15/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.5 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	58	U
11104-28-2	Aroclor-1221	58	U
11141-16-5	Aroclor-1232	58	U
53469-21-9	Aroclor-1242	58	U
12672-29-6	Aroclor-1248	58	U
11097-69-1	Aroclor-1254	58	U
11096-82-5	Aroclor-1260	58	U
	Surrogate amount spiked	11.74	

FORM I PCB

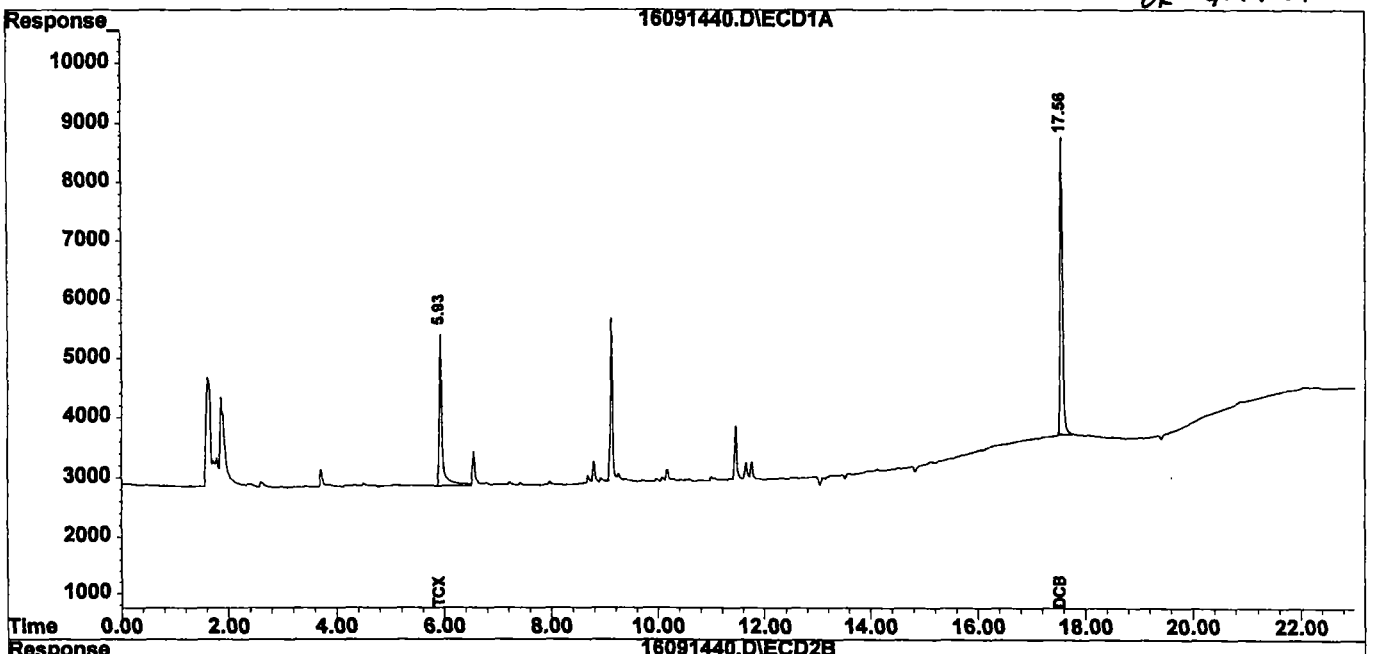
Chromatographic Report

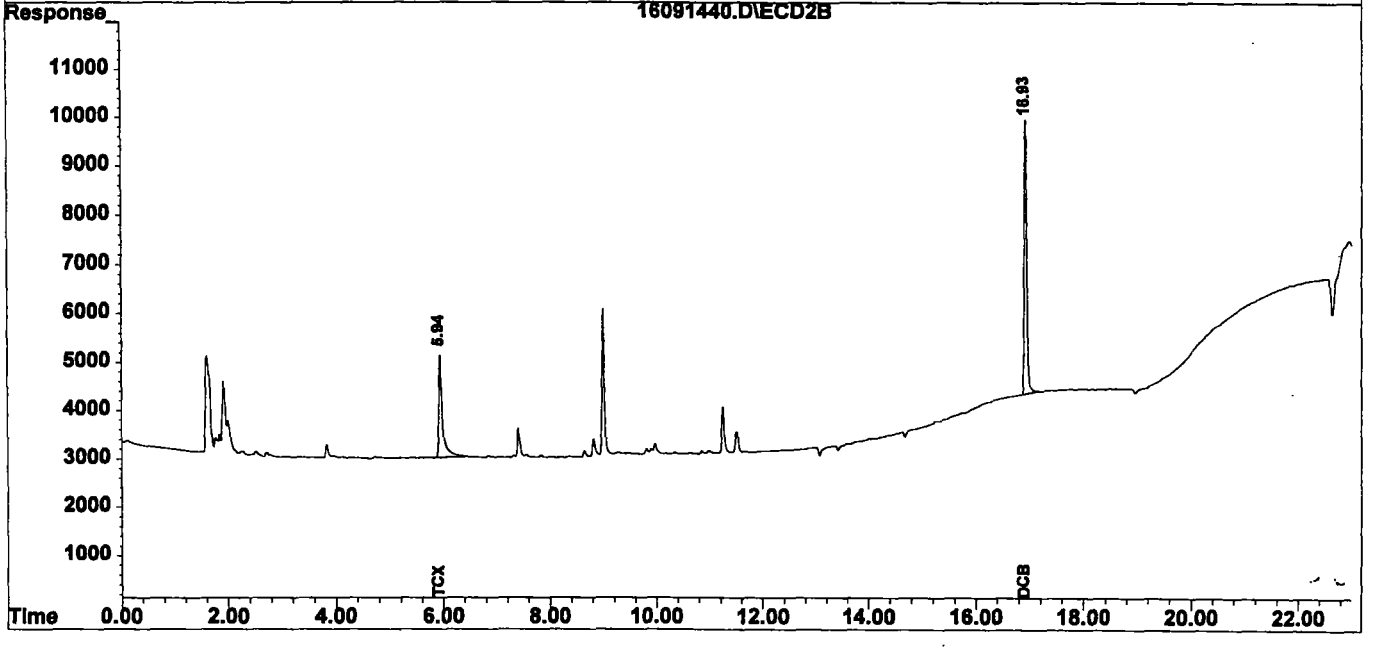
Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091440.D\ECD1A.CH Vial: 40
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091440.D\ECD2B.CH
Acq On : 15 Sep 2001 8:52 Operator: DDC
Sample : 47344.04 *E0367 * Inst : HP_16
Misc : *EPA*30.4G/5.0ML*44 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:09 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

OK 9-19-01





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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091440.D\ECD1A.CH Vial: 40
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091440.D\ECD2B.CH
Acq On : 15 Sep 2001 8:52 Operator: DDC
Sample : 47344.04 *E0367 * Inst : HP_16
Misc : *EPA*30.4G/5.0ML*44 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:09 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg
	System Monitoring Compounds:						
1)	S TCX	5.94	5.94	101782	101218	8.630	7.562
	Spiked Amount 11.748			Recovery	=	73.46%	64.37%
22)	S DCB	17.56	16.94	160611	175080	8.254	9.116
	Spiked Amount 11.748			Recovery	=	70.26%	77.60%

Target Compounds:

83

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std
16091440.D XPCBI11.M Tue Sep 18 09:17:51 2001

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

E0368

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) SOIL Lab Sample ID: 47344.05

Sample wt/vol: 30.3 (g/mL) G Lab File ID:_____

% Moisture: 35 decanted: (Y/N) __ Date Received: 08/20/01

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:08/21/01

Concentrated Extract Volume: 5000(uL) Date Analyzed: 09/15/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.6 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	50	U
11104-28-2	Aroclor-1221	50	U
11141-16-5	Aroclor-1232	50	U
53469-21-9	Aroclor-1242	50	U
12672-29-6	Aroclor-1248	50	U
11097-69-1	Aroclor-1254	50	U
11096-82-5	Aroclor-1260	50	U
	Surrogate amount spiked	10.16	

FORM I PCB

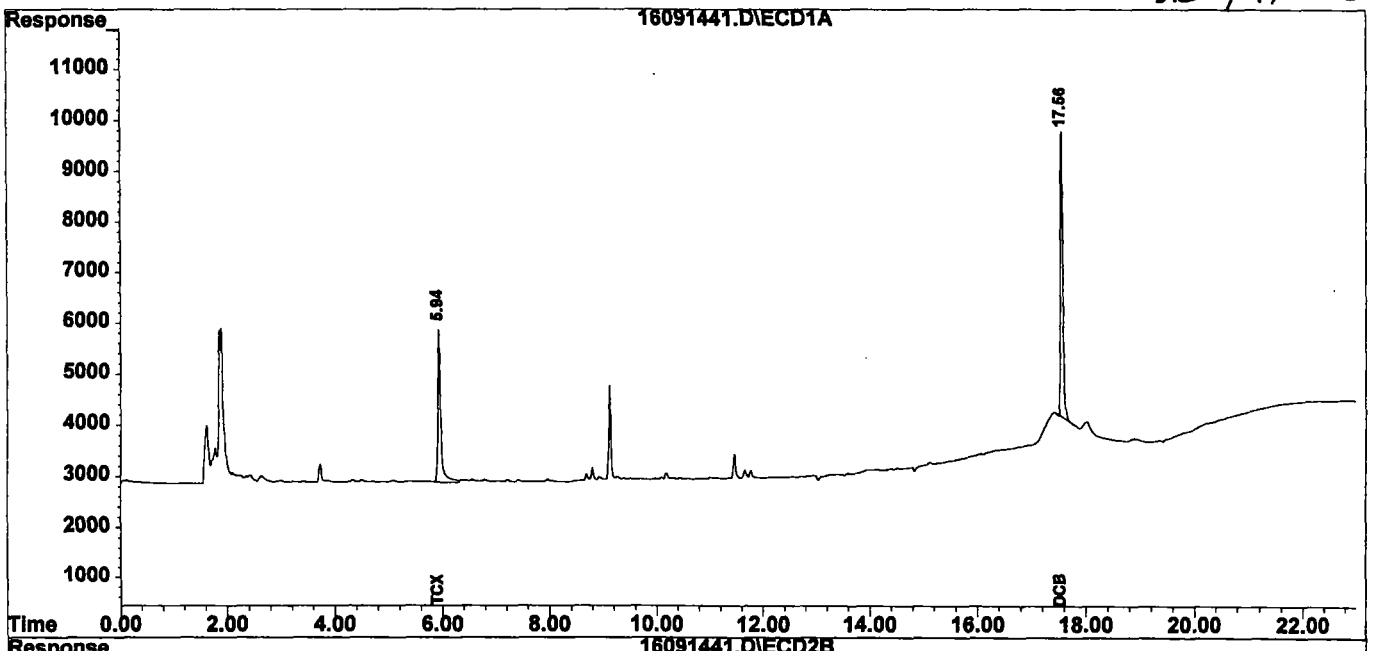
Chromatographic Report

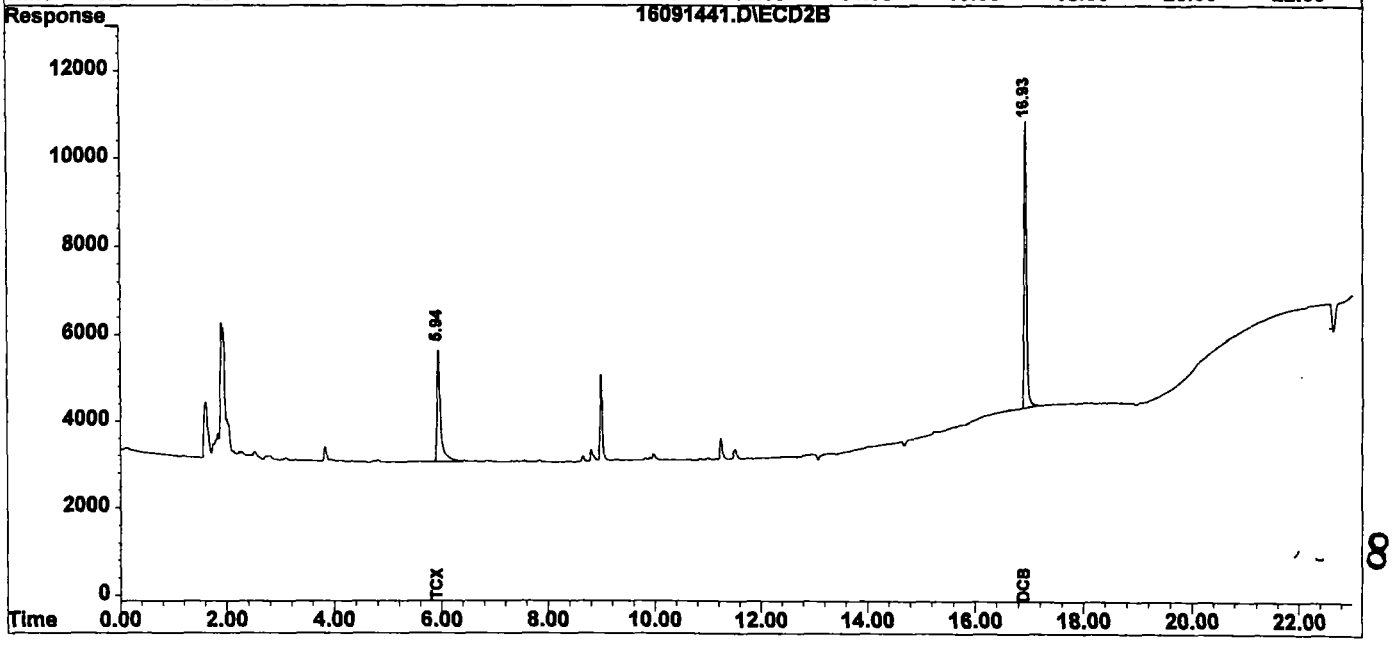
Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091441.D\ECD1A.CH Vial: 41
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091441.D\ECD2B.CH
Acq On : 15 Sep 2001 9:18 Operator: DDC
Sample : 47344.05 *E0368 * Inst : HP_16
Misc : *EPA*30.3G/5.0ML*35 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:09 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

OK 9-19-01





85

Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091441.D\ECD1A.CH Vial: 41
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091441.D\ECD2B.CH
Acq On : 15 Sep 2001 9:18 Operator: DDC
Sample : 47344.05 *E0368 * Inst : HP_16
Misc : *EPA*30.3G/5.0ML*35 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 9:09 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg
	System Monitoring Compounds:						
1)	S TCX	5.94	5.95	115837	120207	8.490	7.762
	Spiked Amount 10.155			Recovery	=	83.61%	76.44%
22)	S DCB	17.56	16.94	173109	201949	7.690	9.089
	Spiked Amount 10.155			Recovery	=	75.73%	89.50%

Target Compounds:

86

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

6F

AROCLOR INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Instrument ID: HP_16A Date(s) Analyzed: 09/11/01 09/11/01

Level (x Level 1): L1: 1.0 L2: 2.0 L3: 4.0 L4: 8.0 L5: 16.0

GC Column: RTX-PEST 2 ID: 0.32(mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	CALIBRATION FACTOR	CALIB TYPE
Aroclor 1242 L1	0.10	1	7.14	229080	MEAN
		2	8.00	399610	
		3	9.36	310390	
		4	9.73	174990	
		5	10.30	176630	
Aroclor 1242 L2	0.20	1	7.13	194075	MEAN
		2	7.99	348540	
		3	9.34	284805	
		4	9.72	157860	
		5	10.29	161120	
Aroclor 1242 L3	0.40	1	7.12	177158	MEAN
		2	7.99	327478	
		3	9.33	270253	
		4	9.71	152128	
		5	10.28	159778	
Aroclor 1242 L4	0.80	1	7.11	169014	MEAN
		2	7.98	304746	
		3	9.30	310601	
		4	9.70	143469	
		5	10.27	155915	
Aroclor 1242 L5	1.60	1	7.10	164506	MEAN
		2	7.97	292005	
		3	9.28	290879	
		4	9.69	137588	
		5	10.26	159944	

COMPOUND	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	MEAN CALIB. FACTOR	% RSD
Aroclor 1242 MEAN	1	7.11	7.06	7.16	186766	14.0
	2	7.99	7.94	8.04	334476	12.7
	3	9.32	9.27	9.37	293386	5.9
	4	9.71	9.66	9.76	153207	9.4
	5	10.28	10.23	10.33	162677	4.9

FORM VI PCB-3

6F

AROCLOR INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Instrument ID: HP_16B Date(s) Analyzed: 09/11/01 09/11/01

Level (x Level 1): L1: 1.0 L2: 2.0 L3: 4.0 L4: 8.0 L5: 16.0

GC Column: RTX-PEST ID: 0.32(mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	CALIBRATION FACTOR	CALIB TYPE
Aroclor 1242 L1	0.10	1	7.64	417700	MEAN
		2	8.08	259810	
		3	8.99	386020	
		4	9.41	233920	
		5	10.34	106840	
Aroclor 1242 L2	0.20	1	7.63	383175	MEAN
		2	8.08	247855	
		3	8.99	335600	
		4	9.41	204480	
		5	10.33	83685	
Aroclor 1242 L3	0.40	1	7.63	361013	MEAN
		2	8.08	243630	
		3	8.99	316068	
		4	9.40	181053	
		5	10.33	102885	
Aroclor 1242 L4	0.80	1	7.62	346484	MEAN
		2	8.07	256186	
		3	8.99	279989	
		4	9.40	168558	
		5	10.32	109284	
Aroclor 1242 L5	1.60	1	7.61	342332	MEAN
		2	8.06	267231	
		3	8.98	266584	
		4	9.39	162638	
		5	10.32	110989	

COMPOUND	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	MEAN CALIB. FACTOR	% RSD
Aroclor 1242 MEAN	1	7.62	7.57	7.67	370141	8.4
	2	8.07	8.02	8.12	254943	3.7
	3	8.99	8.94	9.04	316852	15.0
	4	9.40	9.35	9.45	190130	15.4
	5	10.33	10.28	10.38	102737	10.8

FORM VI PCB-3

6F

AROCLOR INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Instrument ID: HP_16A Date(s) Analyzed: 09/11/01 09/11/01

Level (x Level 1): L1: 1.0 L2: 2.0 L3: 4.0 L4: 8.0 L5: 16.0

GC Column: RTX-PEST 2 ID: 0.32(mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	CALIBRATION FACTOR	CALIB TYPE
Aroclor 1254 L1	0.10	1	11.16	421700	MEAN
		2	11.60	383210	
		3	12.57	722340	
		4	12.91	343840	
		5	13.36	355210	
Aroclor 1254 L2	0.20	1	11.15	480780	MEAN
		2	11.58	431400	
		3	12.55	644880	
		4	12.90	406885	
		5	13.35	430570	
Aroclor 1254 L3	0.40	1	11.15	304410	MEAN
		2	11.58	271418	
		3	12.54	410240	
		4	12.90	260653	
		5	13.34	276545	
Aroclor 1254 L4	0.80	1	11.14	400184	MEAN
		2	11.55	347484	
		3	12.52	541973	
		4	12.88	328251	
		5	13.32	360825	
Aroclor 1254 L5	1.60	1	11.13	419044	MEAN
		2	11.54	343576	
		3	12.50	547561	
		4	12.88	311757	
		5	13.31	356749	

COMPOUND	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	MEAN CALIB. FACTOR	% RSD
Aroclor 1254 MEAN	1	11.14	11.09	11.19	405224	15.8
	2	11.57	11.52	11.62	355418	16.5
	3	12.54	12.49	12.59	573399	20.6
	4	12.89	12.84	12.94	330277	16.1
	5	13.34	13.29	13.39	355980	15.3

6F

AROCLOR INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Instrument ID: HP_16B Date(s) Analyzed: 09/11/01 09/11/01

Level (x Level 1): L1: 1.0 L2: 2.0 L3: 4.0 L4: 8.0 L5: 16.0

GC Column: RTX-PEST ID: 0.32(mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	CALIBRATION FACTOR	CALIB TYPE
Aroclor 1254 L1	0.10	1	10.63	344990	MEAN
		2	11.21	410680	
		3	11.79	232600	
		4	12.38	314380	
		5	12.99	558950	
Aroclor 1254 L2	0.20	1	10.62	378450	MEAN
		2	11.19	437600	
		3	11.79	286360	
		4	12.38	383705	
		5	12.98	663795	
Aroclor 1254 L3	0.40	1	10.62	236778	MEAN
		2	11.19	280680	
		3	11.78	194600	
		4	12.38	249108	
		5	12.98	421203	
Aroclor 1254 L4	0.80	1	10.61	302796	MEAN
		2	11.18	371364	
		3	11.77	282454	
		4	12.37	324899	
		5	12.97	553518	
Aroclor 1254 L5	1.60	1	10.61	301492	MEAN
		2	11.17	375074	
		3	11.76	297896	
		4	12.37	314563	
		5	12.96	541123	

COMPOUND	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	MEAN CALIB. FACTOR	% RSD
Aroclor 1254 MEAN	1	10.61	10.56	10.66	312901	17.0
	2	11.19	11.14	11.24	375080	15.8
	3	11.78	11.73	11.83	258782	16.9
	4	12.38	12.33	12.43	317331	15.1
	5	12.98	12.93	13.03	547718	15.7

FORM VI PCB-3

6F

AROCLOR INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Instrument ID: HP_16A Date(s) Analyzed: 09/11/01 09/11/01

Level (x Level 1): L1: 1.0 L2: 2.0 L3: 4.0 L4: 8.0 L5: 16.0

GC Column: ID: 0.00(mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	CALIBRATION FACTOR	CALIB TYPE
Aroclor 1016 L1	0.10	1	8.01	416140	MEAN
		2	8.52	261710	
		3	9.56	230300	
		4	9.83	204370	
		5	10.60	286730	
Aroclor 1016 L2	0.20	1	8.00	475095	MEAN
		2	8.52	325290	
		3	9.56	277030	
		4	9.82	239700	
		5	10.59	356715	
Aroclor 1016 L3	0.40	1	7.99	368460	MEAN
		2	8.51	263050	
		3	9.55	214093	
		4	9.80	188208	
		5	10.58	284563	
Aroclor 1016 L4	0.80	1	7.98	357768	MEAN
		2	8.51	260041	
		3	9.54	219653	
		4	9.79	180840	
		5	10.56	281151	
Aroclor 1016 L5	1.60	1	7.97	361444	MEAN
		2	8.50	193254	
		3	9.53	239688	
		4	9.78	185614	
		5	10.54	292282	

COMPOUND	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	MEAN CALIB. FACTOR	% RSD
Aroclor 1016 MEAN	1	7.98	7.93	8.03	395781	12.7
	2	8.51	8.46	8.56	260669	17.9
	3	9.55	9.50	9.60	236153	10.5
	4	9.80	9.75	9.85	199746	12.0
	5	10.57	10.52	10.62	300288	10.6

FORM VI PCB-3

6F

AROCLOR INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Instrument ID: HP_16A Date(s) Analyzed: 09/11/01 09/11/01

Level (x Level 1): L1: 1.0 L2: 2.0 L3: 4.0 L4: 8.0 L5: 16.0

GC Column: ID: 0.00(mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	CALIBRATION FACTOR	CALIB TYPE
Aroclor 1260 L1	0.10	1	13.37	521830	MEAN
		2	13.64	468340	
		3	14.15	429540	
		4	14.66	321450	
		5	15.12	838590	
Aroclor 1260 L2	0.20	1	13.35	658330	MEAN
		2	13.64	586175	
		3	14.14	502305	
		4	14.66	408035	
		5	15.11	1049765	
Aroclor 1260 L3	0.40	1	13.33	536670	MEAN
		2	13.63	475070	
		3	14.13	367660	
		4	14.65	340153	
		5	15.08	806103	
Aroclor 1260 L4	0.80	1	13.32	525266	MEAN
		2	13.62	475629	
		3	14.12	370283	
		4	14.64	342770	
		5	15.08	695971	
Aroclor 1260 L5	1.60	1	13.30	544962	MEAN
		2	13.61	500279	
		3	14.12	371447	
		4	14.63	376142	
		5	15.06	767963	

COMPOUND	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	MEAN CALIB. FACTOR	% RSD
Aroclor 1260 MEAN	1	13.32	13.27	13.37	557412	10.3
	2	13.63	13.58	13.68	501099	9.8
	3	14.13	14.08	14.18	408247	14.4
	4	14.65	14.60	14.70	357710	9.6
	5	15.09	15.04	15.14	831678	16.0

FORM VI PCB-3

6F

AROCLOR INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Instrument ID: HP_16B Date(s) Analyzed: 09/11/01 09/11/01

Level (x Level 1): L1: 1.0 L2: 2.0 L3: 4.0 L4: 8.0 L5: 16.0

GC Column: ID: 0.32(mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	CALIBRATION FACTOR	CALIB TYPE
Aroclor 1016 L1	0.10	1	7.64	424590	MEAN
		2	8.96	199480	
		3	9.42	243640	
		4	9.86	376720	
		5	10.63	240270	
Aroclor 1016 L2	0.20	1	7.64	489370	MEAN
		2	8.97	208680	
		3	9.41	259740	
		4	9.85	436335	
		5	10.63	308420	
Aroclor 1016 L3	0.40	1	7.63	399910	MEAN
		2	8.97	154210	
		3	9.41	208623	
		4	9.84	352808	
		5	10.62	270548	
Aroclor 1016 L4	0.80	1	7.62	402024	MEAN
		2	8.98	186790	
		3	9.40	197563	
		4	9.83	351261	
		5	10.62	276105	
Aroclor 1016 L5	1.60	1	7.60	414413	MEAN
		2	8.97	179235	
		3	9.38	200345	
		4	9.82	361871	
		5	10.61	278951	

COMPOUND	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	MEAN CALIB. FACTOR	% RSD
Aroclor 1016 MEAN	1	7.62	7.57	7.67	426061	8.6
	2	8.97	8.92	9.02	185679	11.3
	3	9.40	9.35	9.45	221982	12.6
	4	9.84	9.79	9.89	375799	9.4
	5	10.62	10.57	10.67	274859	8.8

FORM VI PCB-3

6F

AROCLOR INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Instrument ID: HP_16B Date(s) Analyzed: 09/11/01 09/11/01

Level (x Level 1): L1: 1.0 L2: 2.0 L3: 4.0 L4: 8.0 L5: 16.0

GC Column: ID: 0.32(mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	CALIBRATION FACTOR	CALIB TYPE
Aroclor 1260 L1	0.10	1	12.39	578490	MEAN
		2	13.57	546990	
		3	14.18	327880	
		4	14.75	861240	
		5	15.33	437260	
Aroclor 1260 L2	0.20	1	12.38	659040	MEAN
		2	13.56	703195	
		3	14.17	416855	
		4	14.74	1060415	
		5	15.32	526140	
Aroclor 1260 L3	0.40	1	12.38	509970	MEAN
		2	13.55	602523	
		3	14.17	307708	
		4	14.73	855838	
		5	15.32	364438	
Aroclor 1260 L4	0.80	1	12.37	502728	MEAN
		2	13.54	635106	
		3	14.16	329978	
		4	14.72	903675	
		5	15.32	415954	
Aroclor 1260 L5	1.60	1	12.36	513362	MEAN
		2	13.52	727558	
		3	14.16	363371	
		4	14.71	988857	
		5	15.31	417209	

COMPOUND	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	MEAN CALIB. FACTOR	% RSD
Aroclor 1260 MEAN	1	12.37	12.32	12.42	552718	12.1
	2	13.55	13.50	13.60	643074	11.5
	3	14.17	14.12	14.22	349158	12.3
	4	14.73	14.68	14.78	934005	9.5
	5	15.32	15.27	15.37	432200	13.7

FORM VI PCB-3

6F

AROCLOR INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Instrument ID: HP_16A Date(s) Analyzed: 09/11/01 09/11/01

Level (x Level 1): L1: 1.0 L2: 2.0 L3: 4.0 L4: 8.0 L5: 16.0

GC Column: RTX-PEST 2 ID: 0.32(mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	CALIBRATION FACTOR	CALIB TYPE
Aroclor 1221	0.40	1	6.65	98305	SINGLE
		2	6.97	65388	POINT
		3	7.11	299185	
		4			
		5			
Aroclor 1232	0.40	1	7.98	217240	SINGLE
		2	8.51	113303	POINT
		3	9.03	300198	
		4	9.31	172743	
		5			
Aroclor 1248	0.40	1	9.71	240968	SINGLE
		2	9.80	237265	POINT
		3	10.27	277390	
		4	10.56	434973	
		5	11.57	187688	

FORM VI PCB-3

6F

AROCLOR INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Instrument ID: HP_16B Date(s) Analyzed: 09/11/01 09/11/01

Level (x Level 1): L1: 1.0 L2: 2.0 L3: 4.0 L4: 8.0 L5: 16.0

GC Column: RTX-PEST ID: 0.32(mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	CALIBRATION FACTOR	CALIB TYPE
Aroclor 1221	0.40	1	6.48	74955	SINGLE
		2	6.83	35980	POINT
		3	6.90	330660	
		4			
		5			
Aroclor 1232	0.40	1	7.63	220203	SINGLE
		2	8.08	126843	POINT
		3	9.02	179313	
		4	9.41	179693	
		5			
Aroclor 1248	0.40	1	9.24	99030	SINGLE
		2	9.40	262758	POINT
		3	9.83	502305	
		4	10.10	522038	
		5	10.92	522990	

FORM VI PCB-3

7F

MULTI-COMPONENT CALIBRATION VERIFICATION SUMMARY

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

GC Column: RTX-PEST 2 ID: 0.32(mm) Init. Calib Date(s): 09/11/01 09/11/01

Client Sample No.(PIBLK): PIBLKCF Date Analyzed : 09/14/01

Lab Sample ID (PIBLK): 5-131-7 Time Analyzed : 1232

Client Sample No.: AR1660L3CF Date Analyzed : 09/14/01

Lab Sample ID : 5-210-7 Time Analyzed : 1259

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIB. FACTOR	MEAN CALIB. FACTOR	%D #
Aroclor 1016 #1	7.95	7.93	8.03	424763	395781	7.3
Aroclor 1016 #2	8.48	8.46	8.56	210653	260669	19.2*
Aroclor 1016 #3	9.51	9.50	9.60	266958	236153	13.0
Aroclor 1016 #4	9.76	9.75	9.85	220825	199746	10.6
Aroclor 1016 #5	10.49	10.52	10.62	323778	300288	7.8
Aroclor 1260 #1	13.27	13.27	13.37	609378	557412	9.3
Aroclor 1260 #2	13.59	13.58	13.68	546200	501099	9.0
Aroclor 1260 #3	14.10	14.08	14.18	409483	408247	0.3
Aroclor 1260 #4	14.61	14.60	14.70	406933	357710	13.8
Aroclor 1260 #5	15.04	15.04	15.14	817725	831678	1.7

QC LIMITS: RPD of amounts of the Multi-Components must be less than or equal to 15.0%.

FORM VII PCB

7F

MULTI-COMPONENT CALIBRATION VERIFICATION SUMMARY

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

GC Column: RTX-PEST ID: 0.32(mm) Init. Calib Date(s): 09/11/01 09/11/01

Client Sample No.(PIBLK): PIBLKCF Date Analyzed : 09/14/01

Lab Sample ID (PIBLK): 5-131-7 Time Analyzed : 1232

Client Sample No.: AR1660L3CF Date Analyzed : 09/14/01

Lab Sample ID : 5-210-7 Time Analyzed : 1259

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIB. FACTOR	MEAN CALIB. FACTOR	%D #
Aroclor 1016 #1	7.58	7.57	7.67	471548	426061	10.7
Aroclor 1016 #2	8.95	8.92	9.02	200040	185679	7.7
Aroclor 1016 #3	9.36	9.35	9.45	236833	221982	6.7
Aroclor 1016 #4	9.79	9.79	9.89	399635	375799	6.3
Aroclor 1016 #5	10.59	10.57	10.67	321800	274859	17.1*
Aroclor 1260 #1	12.34	12.32	12.42	584740	552718	5.8
Aroclor 1260 #2	13.48	13.50	13.60	565840	643074	12.0
Aroclor 1260 #3	14.14	14.12	14.22	393965	349158	12.8
Aroclor 1260 #4	14.69	14.68	14.78	964645	934005	3.3
Aroclor 1260 #5	15.29	15.27	15.37	326323	432200	24.5*

QC LIMITS: RPD of amounts of the Multi-Components must be less than or equal to 15.0%.

FORM VII PCB

7F

MULTI-COMPONENT CALIBRATION VERIFICATION SUMMARY

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

GC Column: RTX-PEST 2 ID: 0.32(mm) Init. Calib Date(s): 09/11/01 09/11/01

Client Sample No.(PIBLK): PIBLKCG Date Analyzed : 09/14/01

Lab Sample ID (PIBLK): 5-131-7 Time Analyzed : 2151

Client Sample No.: AR1660L3CH Date Analyzed : 09/14/01

Lab Sample ID : 5-210-7 Time Analyzed : 2217

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIB. FACTOR	MEAN CALIB. FACTOR	%D #
Aroclor 1016 #1	7.95	7.93	8.03	473300	395781	19.6*
Aroclor 1016 #2	8.48	8.46	8.56	223413	260669	14.3
Aroclor 1016 #3	9.51	9.50	9.60	267293	236153	13.2
Aroclor 1016 #4	9.76	9.75	9.85	231275	199746	15.8*
Aroclor 1016 #5	10.50	10.52	10.62	283930	300288	5.5
Aroclor 1260 #1	13.28	13.27	13.37	620120	557412	11.2
Aroclor 1260 #2	13.59	13.58	13.68	574958	501099	14.7
Aroclor 1260 #3	14.10	14.08	14.18	455533	408247	11.6
Aroclor 1260 #4	14.61	14.60	14.70	449018	357710	25.5*
Aroclor 1260 #5	15.04	15.04	15.14	910538	831678	9.5

QC LIMITS: RPD of amounts of the Multi-Components must be less than or equal to 15.0%.

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7F

MULTI-COMPONENT CALIBRATION VERIFICATION SUMMARY

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

GC Column: RTX-PEST ID: 0.32(mm) Init. Calib Date(s): 09/11/01 09/11/01

Client Sample No.(PIBLK): PIBLKCG Date Analyzed : 09/14/01

Lab Sample ID (PIBLK): 5-131-7 Time Analyzed : 2151

Client Sample No.: AR1660L3CH Date Analyzed : 09/14/01

Lab Sample ID : 5-210-7 Time Analyzed : 2217

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIB. FACTOR	MEAN CALIB. FACTOR	%D #
Aroclor 1016 #1	7.58	7.57	7.67	525923	426061	23.4*
Aroclor 1016 #2	8.95	8.92	9.02	197100	185679	6.2
Aroclor 1016 #3	9.36	9.35	9.45	256275	221982	15.4*
Aroclor 1016 #4	9.79	9.79	9.89	418095	375799	11.3
Aroclor 1016 #5	10.59	10.57	10.67	259328	274859	5.7
Aroclor 1260 #1	12.34	12.32	12.42	655298	552718	18.6*
Aroclor 1260 #2	13.49	13.50	13.60	604370	643074	6.0
Aroclor 1260 #3	14.14	14.12	14.22	420900	349158	20.5*
Aroclor 1260 #4	14.69	14.68	14.78	1095973	934005	17.3*
Aroclor 1260 #5	15.29	15.27	15.37	385510	432200	10.8

QC LIMITS: RPD of amounts of the Multi-Components must be less than or equal to 15.0%.

8T 9/21/01

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7F

MULTI-COMPONENT CALIBRATION VERIFICATION SUMMARY

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

GC Column: RTX-PEST 2 ID: 0.32(mm) Init. Calib Date(s): 09/11/01 09/11/01

Client Sample No.(PIBLK): PIBLKCH Date Analyzed : 09/15/01

Lab Sample ID (PIBLK): 5-131-7 Time Analyzed : 0454

Client Sample No.: AR1660L3CJ Date Analyzed : 09/15/01

Lab Sample ID : 5-210-7 Time Analyzed : 0520

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIB. FACTOR	MEAN CALIB. FACTOR	%D #
Aroclor 1016 #1	7.96	7.93	8.03	426893	395781	7.9
Aroclor 1016 #2	8.49	8.46	8.56	300653	260669	15.3*
Aroclor 1016 #3	9.52	9.50	9.60	262733	236153	11.3
Aroclor 1016 #4	9.76	9.75	9.85	223110	199746	11.7
Aroclor 1016 #5	10.51	10.52	10.62	324768	300288	8.2
Aroclor 1260 #1	13.29	13.27	13.37	604390	557412	8.4
Aroclor 1260 #2	13.60	13.58	13.68	546045	501099	9.0
Aroclor 1260 #3	14.10	14.08	14.18	415143	408247	1.7
Aroclor 1260 #4	14.62	14.60	14.70	397673	357710	11.2
Aroclor 1260 #5	15.05	15.04	15.14	904850	831678	8.8

QC LIMITS: RPD of amounts of the Multi-Components must be less than or equal to 15.0%.

FORM VII PCB

7F

MULTI-COMPONENT CALIBRATION VERIFICATION SUMMARY

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

GC Column: RTX-PEST ID: 0.32(mm) Init. Calib Date(s): 09/11/01 09/11/01

Client Sample No.(PIBLK): PIBLKCH Date Analyzed : 09/15/01

Lab Sample ID (PIBLK): 5-131-7 Time Analyzed : 0454

Client Sample No.: AR1660L3CJ Date Analyzed : 09/15/01

Lab Sample ID : 5-210-7 Time Analyzed : 0520

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIB. FACTOR	MEAN CALIB. FACTOR	%D #
Aroclor 1016 #1	7.60	7.57	7.67	468645	426061	10.0
Aroclor 1016 #2	8.95	8.92	9.02	184030	185679	0.9
Aroclor 1016 #3	9.37	9.35	9.45	237980	221982	7.2
Aroclor 1016 #4	9.80	9.79	9.89	399645	375799	6.4
Aroclor 1016 #5	10.59	10.57	10.67	317355	274859	15.5*
Aroclor 1260 #1	12.35	12.32	12.42	585363	552718	5.9
Aroclor 1260 #2	13.50	13.50	13.60	778608	643074	21.1*
Aroclor 1260 #3	14.14	14.12	14.22	386065	349158	10.6
Aroclor 1260 #4	14.70	14.68	14.78	967200	934005	3.6
Aroclor 1260 #5	15.30	15.27	15.37	368410	432200	14.8

QC LIMITS: RPD of amounts of the Multi-Components must be less than or equal to 15.0%.

FORM VII PCB

7F

MULTI-COMPONENT CALIBRATION VERIFICATION SUMMARY

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

GC Column: RTX-PEST 2 ID: 0.32(mm) Init. Calib Date(s): 09/11/01 09/11/01

Client Sample No.(PIBLK): PIBLKCI Date Analyzed : 09/15/01

Lab Sample ID (PIBLK): 5-131-7 Time Analyzed : 1104

Client Sample No.: AR1660L3CL Date Analyzed : 09/15/01

Lab Sample ID : 5-210-7 Time Analyzed : 1130

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIB. FACTOR	MEAN CALIB. FACTOR	%D #
Aroclor 1016 #1	7.96	7.93	8.03	375455	395781	5.1
Aroclor 1016 #2	8.48	8.46	8.56	198138	260669	24.0*
Aroclor 1016 #3	9.52	9.50	9.60	228870	236153	3.1
Aroclor 1016 #4	9.76	9.75	9.85	193928	199746	2.9
Aroclor 1016 #5	10.51	10.52	10.62	289075	300288	3.7
Aroclor 1260 #1	13.29	13.27	13.37	515830	557412	7.5
Aroclor 1260 #2	13.60	13.58	13.68	466928	501099	6.8
Aroclor 1260 #3	14.10	14.08	14.18	370770	408247	9.2
Aroclor 1260 #4	14.62	14.60	14.70	341553	357710	4.5
Aroclor 1260 #5	15.05	15.04	15.14	691320	831678	16.9*

QC LIMITS: RPD of amounts of the Multi-Components must be less than or equal to 15.0%.

FORM VII PCB

7F

MULTI-COMPONENT CALIBRATION VERIFICATION SUMMARY

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

GC Column: RTX-PEST ID: 0.32(mm) Init. Calib Date(s): 09/11/01 09/11/01

Client Sample No.(PIBLK): PIBLKCI Date Analyzed : 09/15/01

Lab Sample ID (PIBLK): 5-131-7 Time Analyzed : 1104

Client Sample No.: AR1660L3CL Date Analyzed : 09/15/01

Lab Sample ID : 5-210-7 Time Analyzed : 1130

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIB. FACTOR	MEAN CALIB. FACTOR	%D #
Aroclor 1016 #1	7.60	7.57	7.67	413633	426061	2.9
Aroclor 1016 #2	8.95	8.92	9.02	177860	185679	4.2
Aroclor 1016 #3	9.37	9.35	9.45	209580	221982	5.6
Aroclor 1016 #4	9.80	9.79	9.89	354318	375799	5.7
Aroclor 1016 #5	10.59	10.57	10.67	269800	274859	1.8
Aroclor 1260 #1	12.35	12.32	12.42	512800	552718	7.2
Aroclor 1260 #2	13.51	13.50	13.60	656190	643074	2.0
Aroclor 1260 #3	14.14	14.12	14.22	339613	349158	2.7
Aroclor 1260 #4	14.70	14.68	14.78	842370	934005	9.8
Aroclor 1260 #5	15.30	15.27	15.37	328075	432200	24.1*

QC LIMITS: RPD of amounts of the Multi-Components must be less than or equal to 15.0%.

8D
AROCLOR ANALYTICAL SEQUENCE

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SAS No.: SDG No.: E0349

GC Column: RTX-PEST 2 ID: 0.32(mm) Init. Calib. Date(s): 09/11/01

Instrument ID: HP_16A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	RESCCI	5-171-7	09/11/01	1151	5.96	17.60
02	AR1221L3CI	5-420-6	09/11/01	1218	5.96	17.60
03	AR1232L3CI	5-422-6	09/11/01	1315	5.95	17.59
04	AR1242L1CI	5-11-7	09/11/01	1341	5.96	17.60
05	AR1242L2CI	5-10-7	09/11/01	1408	5.96	17.59
06	AR1242L3CI	5-9-7	09/11/01	1434	5.96	17.59
07	AR1242L4CI	5-8-7	09/11/01	1501	5.96	17.59
08	AR1242L5CI	5-7-7	09/11/01	1528	5.95	17.59
09	AR1248L3CI	5-424-6	09/11/01	1555	5.96	17.59
10	AR1254L1CI	5-6-7	09/11/01	1621	5.96	17.60
11	AR1254L2CI	5-5-7	09/11/01	1648	5.96	17.59
12	AR1254L3CI	5-4-7	09/11/01	1714	5.96	17.60
13	AR1254L4CI	5-3-7	09/11/01	1741	5.95	17.59
14	AR1254L5CI	5-2-7	09/11/01	1807	5.95	17.59
15	AR1660L1CI	5-212-7	09/11/01	1834	5.96	17.60
16	AR1660L2CI	5-211-7	09/11/01	1900	5.96	17.60
17	AR1660L3CN	5-210-7	09/11/01	1927	5.96	17.59
18	AR1660L4CI	5-209-7	09/11/01	1953	5.95	17.59
19	AR1660L5CI	5-208-7	09/11/01	2019	5.95	17.58
20	PIBLKCW	5-131-7	09/11/01	2046	5.96	17.59
21	PIBLKCF	5-131-7	09/14/01	1232	5.93	17.56
22	AR1660L3CF	5-210-7	09/14/01	1259	5.94	17.56
23	PBLKSA	BL0821SA	09/14/01	1632	5.93	17.56
24	ELCS1	LC0821SA	09/14/01	1725	5.94	17.56
25	ELCS2	LD0821SA	09/14/01	1753	5.93	17.56
26	E0349	47325.01	09/14/01	1846	5.93	17.56
27	E0349MS	47325.02MS	09/14/01	1912	5.93	17.56
28	E0349MSD	47325.03MSD	09/14/01	1938	5.93	17.56
29	E0350	47325.04	09/14/01	2005	5.93	17.55
30	PIBLKCG	5-131-7	09/14/01	2151	5.94	17.56
31	AR1660L3CH	5-210-7	09/14/01	2217	5.93	17.56
32	E0351	47325.05	09/14/01	2310	5.93	17.56
33	E0352	47325.06	09/14/01	2337	5.94	17.56
34	E0353	47325.07	09/15/01	0003	5.94	17.56
35	E0354	47325.08	09/15/01	0030	5.94	17.56

TCX = Tetrachloro-m-xylene (+/- 0.05 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.10 MINUTES)

8D
AROCLOR ANALYTICAL SEQUENCE

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SAS No.: SDG No.: E0349

GC Column: RTX-PEST 2 ID: 0.32(mm) Init. Calib. Date(s): 09/11/01

Instrument ID: HP_16A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	E0355	47325.09	09/15/01	0056	5.94	17.56
02	E0356	47325.10	09/15/01	0122	5.94	17.56
03	E0357	47325.11	09/15/01	0149	5.94	17.56
04	E0358	47325.12	09/15/01	0215	5.94	17.56
05	E0359	47325.13	09/15/01	0242	5.94	17.56
06	E0360	47325.14	09/15/01	0308	5.94	17.56
07	PIBLKCH	5-131-7	09/15/01	0454	5.94	17.56
08	AR1660L3CJ	5-210-7	09/15/01	0520	5.94	17.56
09	E0361	47325.15	09/15/01	0613	5.94	17.56
10	E0362	47325.16	09/15/01	0639	5.94	17.56
11	E0363	47325.17	09/15/01	0706	5.94	17.56
12	E0364	47344.01	09/15/01	0732	5.94	17.56
13	E0365	47344.02	09/15/01	0759	5.94	17.56
14	E0366	47344.03	09/15/01	0825	5.94	17.56
15	E0367	47344.04	09/15/01	0852	5.94	17.56
16	E0368	47344.05	09/15/01	0918	5.94	17.56
17	PIBLKCI	5-131-7	09/15/01	1104	5.94	17.56
18	AR1660L3CL	5-210-7	09/15/01	1130	5.94	17.56
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						

TCX = Tetrachloro-m-xylene (+/- 0.05 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.10 MINUTES)

8D
AROCLOR ANALYTICAL SEQUENCE

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SAS No.: SDG No.: E0349

GC Column: RTX-PEST ID: 0.32(mm) Init. Calib. Date(s): 09/11/01

Instrument ID: HP_16B

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	RESCCI	5-171-7	09/11/01	1151	5.96	16.96
02	AR1221L3CI	5-420-6	09/11/01	1218	5.97	16.96
03	AR1232L3CI	5-422-6	09/11/01	1315	5.97	16.96
04	AR1242L1CI	5-11-7	09/11/01	1341	5.98	16.97
05	AR1242L2CI	5-10-7	09/11/01	1408	5.97	16.96
06	AR1242L3CI	5-9-7	09/11/01	1434	5.97	16.96
07	AR1242L4CI	5-8-7	09/11/01	1501	5.97	16.96
08	AR1242L5CI	5-7-7	09/11/01	1528	5.96	16.95
09	AR1248L3CI	5-424-6	09/11/01	1555	5.97	16.96
10	AR1254L1CI	5-6-7	09/11/01	1621	5.98	16.96
11	AR1254L2CI	5-5-7	09/11/01	1648	5.97	16.96
12	AR1254L3CI	5-4-7	09/11/01	1714	5.97	16.96
13	AR1254L4CI	5-3-7	09/11/01	1741	5.96	16.95
14	AR1254L5CI	5-2-7	09/11/01	1807	5.96	16.95
15	AR1660L1CI	5-212-7	09/11/01	1834	5.98	16.96
16	AR1660L2CI	5-211-7	09/11/01	1900	5.98	16.96
17	AR1660L3CN	5-210-7	09/11/01	1927	5.97	16.95
18	AR1660L4CI	5-209-7	09/11/01	1953	5.97	16.95
19	AR1660L5CI	5-208-7	09/11/01	2019	5.96	16.95
20	PIBLKCW	5-131-7	09/11/01	2046	5.97	16.95
21	PIBLKCF	5-131-7	09/14/01	1232	5.94	16.94
22	AR1660L3CF	5-210-7	09/14/01	1259	5.94	16.94
23	PBLKSA	BL0821SA	09/14/01	1632	5.94	16.94
24	ELCS1	LC0821SA	09/14/01	1725	5.94	16.94
25	ELCS2	LD0821SA	09/14/01	1753	5.94	16.94
26	E0349	47325.01	09/14/01	1846	5.94	16.93
27	E0349MS	47325.02MS	09/14/01	1912	5.93	16.93
28	E0349MSD	47325.03MSD	09/14/01	1938	5.94	16.93
29	E0350	47325.04	09/14/01	2005	5.92	16.93
30	PIBLKCG	5-131-7	09/14/01	2151	5.94	16.94
31	AR1660L3CH	5-210-7	09/14/01	2217	5.94	16.94
32	E0351	47325.05	09/14/01	2310	5.93	16.93
33	E0352	47325.06	09/14/01	2337	5.94	16.93
34	E0353	47325.07	09/15/01	0003	5.94	16.93
35	E0354	47325.08	09/15/01	0030	5.94	16.93

TCX = Tetrachloro-m-xylene (+/- 0.05 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.10 MINUTES)

8D
AROCLOR ANALYTICAL SEQUENCE

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SAS No.: SDG No.: E0349

GC Column: RTX-PEST ID: 0.32(mm) Init. Calib. Date(s): 09/11/01

Instrument ID: HP_16B

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	E0355	47325.09	09/15/01	0056	5.94	16.93
02	E0356	47325.10	09/15/01	0122	5.94	16.94
03	E0357	47325.11	09/15/01	0149	5.94	16.94
04	E0358	47325.12	09/15/01	0215	5.94	16.93
05	E0359	47325.13	09/15/01	0242	5.94	16.94
06	E0360	47325.14	09/15/01	0308	5.94	16.94
07	PIBLKCH	5-131-7	09/15/01	0454	5.94	16.94
08	AR1660L3CJ	5-210-7	09/15/01	0520	5.95	16.94
09	E0361	47325.15	09/15/01	0613	5.95	16.94
10	E0362	47325.16	09/15/01	0639	5.94	16.94
11	E0363	47325.17	09/15/01	0706	5.94	16.94
12	E0364	47344.01	09/15/01	0732	5.94	16.94
13	E0365	47344.02	09/15/01	0759	5.95	16.94
14	E0366	47344.03	09/15/01	0825	5.94	16.94
15	E0367	47344.04	09/15/01	0852	5.94	16.94
16	E0368	47344.05	09/15/01	0918	5.95	16.94
17	PIBLKCI	5-131-7	09/15/01	1104	5.94	16.94
18	AR1660L3CL	5-210-7	09/15/01	1130	5.94	16.94
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						

TCX = Tetrachloro-m-xylene (+/- 0.05 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.10 MINUTES)

10B
IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

CLIENT SAMPLE NO.

ELCS1

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Lab Sample ID: LC0821SA Date(s) Analyzed: 09/14/01 09/14/01

Instrument ID (1): HP_16A Instrument ID (2): HP_16B

GC Column (1): RTX-PEST 2 ID: 0.32(mm) GC Column (2): RTX-PEST ID: 0.32(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	11.10	11.09	11.19	138		
Aroclor-1254	2	11.51	11.52	11.62	178		
	3	12.47	12.49	12.59	117		
COLUMN 1	4	12.85	12.84	12.94	107		
	5	13.28	13.29	13.39	109	130	
	1	10.59	10.56	10.66	135		
	2	11.15	11.14	11.24	133		
	3	11.82	11.73	11.83	66.6		
COLUMN 2	4	12.35	12.33	12.43	110		
	5	12.94	12.93	13.03	113	110	18.2
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks are required for identification of multicomponent analytes

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IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

CLIENT SAMPLE NO.

ELCS2

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Lab Sample ID: LD0821SA Date(s) Analyzed: 09/14/01 09/14/01

Instrument ID (1): HP_16A Instrument ID (2): HP_16B

GC Column (1): RTX-PEST 2 ID: 0.32(mm) GC Column (2): RTX-PEST ID: 0.32(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	11.10	11.09	11.19	137		
Aroclor-1254	2	11.51	11.52	11.62	157		
	3	12.46	12.49	12.59	119		
COLUMN 1	4	12.85	12.84	12.94	110		
	5	13.28	13.29	13.39	111	130	
	1	10.59	10.56	10.66	135		
	2	11.24	11.14	11.24	129		
	3	11.82	11.73	11.83	70.6		
COLUMN 2	4	12.35	12.33	12.43	114		
	5	12.94	12.93	13.03	117	110	18.2
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks are required for identification of multicomponent analytes

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IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

CLIENT SAMPLE NO.

E0349

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Lab Sample ID: 47325.01 Date(s) Analyzed: 09/14/01 09/14/01

Instrument ID (1): HP_16A Instrument ID (2): HP_16B

GC Column (1): RTX-PEST 2 ID: 0.32(mm) GC Column (2): RTX-PEST ID: 0.32(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1						
Aroclor-1242	2	7.97	7.94	8.04	12.8		
	3	9.38	9.27	9.37	12.2		
COLUMN 1	4						
	5	10.31	10.23	10.33	103	43	
	1						
	2	8.03	8.02	8.12	15.4		
	3	8.99	8.94	9.04	48.7		
COLUMN 2	4	9.42	9.35	9.45	86.0		
	5					50	16.3
	1	11.12	11.09	11.19	122		
Aroclor-1254	2	11.62	11.52	11.62	84.9		
	3						
COLUMN 1	4	12.93	12.84	12.94	73.0		
	5					93	
	1	10.58	10.56	10.66	101		
	2	11.24	11.14	11.24	112		
	3						
COLUMN 2	4	12.34	12.33	12.43	67.5		
	5	12.93	12.93	13.03	65.3	86	8.1
	1	13.27	13.27	13.37	44.9		
Aroclor-1260	2	13.60	13.58	13.68	28.4		
	3	14.10	14.08	14.18	25.2		
COLUMN 1	4						
	5					33	
	1	12.34	12.32	12.42	38.8		
	2						
	3	14.14	14.12	14.22	22.7		
COLUMN 2	4						
	5	15.29	15.27	15.37	17.6	26	26.9

At least 3 peaks are required for identification of multicomponent analytes

10B
IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

CLIENT SAMPLE NO.

E0349MS

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Lab Sample ID: 47325.02MS Date(s) Analyzed: 09/14/01 09/14/01

Instrument ID (1): HP_16A Instrument ID (2): HP_16B

GC Column (1): RTX-PEST 2 ID: 0.32(mm) GC Column (2): RTX-PEST ID: 0.32(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1						
Aroclor-1242	2	7.96	7.94	8.04	22.4		
	3	9.38	9.27	9.37	9.4		
COLUMN 1	4						
	5	10.30	10.23	10.33	142	58	
	1						
	2	8.03	8.02	8.12	24.1		
	3	8.99	8.94	9.04	134		
COLUMN 2	4						
	5	10.27	10.28	10.38	84.6	81	39.7
	1	11.10	11.09	11.19	346		
Aroclor-1254	2	11.62	11.52	11.62	217		
	3						
COLUMN 1	4	12.92	12.84	12.94	354		
	5					310	
	1	10.58	10.56	10.66	355		
	2	11.22	11.14	11.24	268		
	3	11.81	11.73	11.83	165		
COLUMN 2	4	12.34	12.33	12.43	262		
	5	12.92	12.93	13.03	269	260	19.2
	1	13.26	13.27	13.37	162		
Aroclor-1260	2	13.60	13.58	13.68	154		
	3	14.10	14.08	14.18	70.7		
COLUMN 1	4						
	5	15.03	15.04	15.14	61.1	110	
	1	12.34	12.32	12.42	150		
	2						
	3	14.13	14.12	14.22	70.5		
COLUMN 2	4	14.68	14.68	14.78	51.1		
	5	15.28	15.27	15.37	35.8	77	42.9

At least 3 peaks are required for identification of multicomponent analytes

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IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

CLIENT SAMPLE NO.

E0349MSD

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Lab Sample ID: 47325.03MSD Date(s) Analyzed: 09/14/01 09/14/01

Instrument ID (1): HP_16A Instrument ID (2): HP_16B

GC Column (1): RTX-PEST 2 ID: 0.32(mm) GC Column (2): RTX-PEST ID: 0.32(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1						
Aroclor-1242	2	7.96	7.94	8.04	16.6		
	3	9.38	9.27	9.37	7.7		
COLUMN 1	4						
	5	10.31	10.23	10.33	96.1	40	
	1	7.58	7.57	7.67	22.1		
	2	8.03	8.02	8.12	17.2		
	3	8.99	8.94	9.04	46.0		
COLUMN 2	4						
	5	10.28	10.28	10.38	43.5	32	25.0
	1	11.10	11.09	11.19	284		
Aroclor-1254	2	11.62	11.52	11.62	165		
	3						
COLUMN 1	4	12.93	12.84	12.94	308		
	5					250	
	1	10.58	10.56	10.66	295		
	2	11.22	11.14	11.24	225		
	3	11.81	11.73	11.83	134		
COLUMN 2	4	12.34	12.33	12.43	222		
	5	12.93	12.93	13.03	226	220	13.6
	1	13.26	13.27	13.37	139		
Aroclor-1260	2	13.60	13.58	13.68	123		
	3	14.11	14.08	14.18	56.4		
COLUMN 1	4						
	5	15.03	15.04	15.14	54.2	93	
	1	12.34	12.32	12.42	127		
	2						
	3	14.14	14.12	14.22	54.8		
COLUMN 2	4	14.69	14.68	14.78	44.6		
	5	15.29	15.27	15.37	20.0	62	50.0

At least 3 peaks are required for identification of multicomponent analytes

10B
IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

CLIENT SAMPLE NO.

E0350

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Lab Sample ID: 47325.04 Date(s) Analyzed: 09/14/01 09/14/01

Instrument ID (1): HP_16A Instrument ID (2): HP_16B

GC Column (1): RTX-PEST 2 ID: 0.32(mm) GC Column (2): RTX-PEST ID: 0.32(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	7.14	7.06	7.16	18.7		
Aroclor-1242	2	7.97	7.94	8.04	12.8		
	3	9.36	9.27	9.37	15.1		
COLUMN 1	4						
	5	10.30	10.23	10.33	49.7	24	
	1	7.57	7.57	7.67	47.5		
	2						
	3						
COLUMN 2	4	9.43	9.35	9.45	90.1		
	5	10.34	10.28	10.38	95.3	78	225
	1	11.10	11.09	11.19	45.3		
Aroclor-1254	2	11.61	11.52	11.62	47.0		
	3	12.52	12.49	12.59	13.5		
COLUMN 1	4						
	5	13.33	13.29	13.39	6.8	28	
	1	10.58	10.56	10.66	32.8		
	2						
	3	11.80	11.73	11.83	27.1		
COLUMN 2	4	12.34	12.33	12.43	29.3		
	5	12.92	12.93	13.03	17.3	27	3.7
	1	13.33	13.27	13.37	4.4		
Aroclor-1260	2	13.58	13.58	13.68	29.1		
	3	14.10	14.08	14.18	25.1		
COLUMN 1	4	14.60	14.60	14.70	9.3		
	5	15.10	15.04	15.14	5.4	15	
	1	12.34	12.32	12.42	16.8		
	2	13.47	13.50	13.60	30.2		
	3	14.14	14.12	14.22	7.2		
COLUMN 2	4	14.68	14.68	14.78	19.6		
	5					18	20.0

At least 3 peaks are required for identification of multicomponent analytes

10B
IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

CLIENT SAMPLE NO.

E0351

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Lab Sample ID: 47325.05 Date(s) Analyzed: 09/14/01 09/14/01

Instrument ID (1): HP_16A Instrument ID (2): HP_16B

GC Column (1): RTX-PEST 2 ID: 0.32(mm) GC Column (2): RTX-PEST ID: 0.32(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	7.15	7.06	7.16	16.7		
Aroclor-1242	2	7.97	7.94	8.04	17.1		
	3	9.37	9.27	9.37	13.4		
COLUMN 1	4	9.75	9.66	9.76	60.9		
	5	10.30	10.23	10.33	49.1	31	
	1	7.59	7.57	7.67	36.8		
	2						
	3						
COLUMN 2	4	9.42	9.35	9.45	35.5		
	5	10.35	10.28	10.38	46.1	39	25.8
	1						
Aroclor-1254	2	11.62	11.52	11.62	44.4		
	3						
COLUMN 1	4	12.92	12.84	12.94	46.1		
	5	13.41	13.29	13.39	5.6	32	
	1						
	2						
	3	11.81	11.73	11.83	28.5		
COLUMN 2	4	12.34	12.33	12.43	31.4		
	5	12.92	12.93	13.03	19.9	27	18.5
	1	13.26	13.27	13.37	19.5		
Aroclor-1260	2	13.59	13.58	13.68	22.1		
	3	14.10	14.08	14.18	9.7		
COLUMN 1	4	14.68	14.60	14.70	7.8		
	5	15.02	15.04	15.14	11.5	14	
	1	12.34	12.32	12.42	18.0		
	2						
	3						
COLUMN 2	4	14.69	14.68	14.78	14.4		
	5	15.29	15.27	15.37	8.7	14	0.0

At least 3 peaks are required for identification of multicomponent analytes

10B
IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

CLIENT SAMPLE NO.

E0352

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Lab Sample ID: 47325.06 Date(s) Analyzed: 09/14/01 09/14/01

Instrument ID (1): HP_16A Instrument ID (2): HP_16B

GC Column (1): RTX-PEST 2 ID: 0.32(mm) GC Column (2): RTX-PEST ID: 0.32(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1						
Aroclor-1242	2	7.97	7.94	8.04	3.7		
	3	9.38	9.27	9.37	2.7		
COLUMN 1	4	9.76	9.66	9.76	14.9		
	5	10.30	10.23	10.33	16.4	9.4	
	1						
	2	8.04	8.02	8.12	0.97		
	3						
COLUMN 2	4	9.44	9.35	9.45	14.0		
	5	10.33	10.28	10.38	3.5	6.2	51.6
	1	11.10	11.09	11.19	8.7		
Aroclor-1254	2						
	3						
COLUMN 1	4	12.85	12.84	12.94	7.2		
	5	13.27	13.29	13.39	8.0	7.9	
	1	10.59	10.56	10.66	9.1		
	2	11.14	11.14	11.24	8.0		
	3	11.82	11.73	11.83	6.2		
COLUMN 2	4	12.35	12.33	12.43	6.6		
	5	12.93	12.93	13.03	8.3	7.6	3.9
	1	13.27	13.27	13.37	5.1		
Aroclor-1260	2	13.58	13.58	13.68	6.1		
	3	14.12	14.08	14.18	3.4		
COLUMN 1	4	14.61	14.60	14.70	3.4		
	5	15.04	15.04	15.14	2.2	4.0	
	1	12.35	12.32	12.42	3.8		
	2	13.49	13.50	13.60	6.7		
	3	14.14	14.12	14.22	3.3		
COLUMN 2	4						
	5					4.6	15.0

At least 3 peaks are required for identification of multicomponent analytes

10B
IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

CLIENT SAMPLE NO.

E0353

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Lab Sample ID: 47325.07 Date(s) Analyzed: 09/15/01 09/15/01

Instrument ID (1): HP_16A Instrument ID (2): HP_16B

GC Column (1): RTX-PEST 2 ID: 0.32(mm) GC Column (2): RTX-PEST ID: 0.32(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	7.11	7.06	7.16	9.6		
Aroclor-1242	2	7.97	7.94	8.04	41.8		
	3	9.38	9.27	9.37	14.1		
COLUMN 1	4	9.76	9.66	9.76	67.8		
	5	10.31	10.23	10.33	41.2	35	
	1	7.59	7.57	7.67	31.7		
	2	8.04	8.02	8.12	34.0		
	3						
COLUMN 2	4						
	5	10.34	10.28	10.38	65.6	44	25.7
	1	11.09	11.09	11.19	28.9		
Aroclor-1254	2						
	3						
COLUMN 1	4	12.85	12.84	12.94	16.4		
	5	13.38	13.29	13.39	8.9	18	
	1	10.59	10.56	10.66	44.6		
	2	11.15	11.14	11.24	29.9		
	3	11.75	11.73	11.83	35.0		
COLUMN 2	4	12.35	12.33	12.43	38.1		
	5	12.94	12.93	13.03	32.8	36	100
	1	13.28	13.27	13.37	11.3		
Aroclor-1260	2	13.58	13.58	13.68	9.7		
	3	14.13	14.08	14.18	14.2		
COLUMN 1	4						
	5					12	
	1	12.35	12.32	12.42	8.8		
	2	13.50	13.50	13.60	12.5		
	3	14.14	14.12	14.22	3.5		
COLUMN 2	4						
	5					8.2	46.3

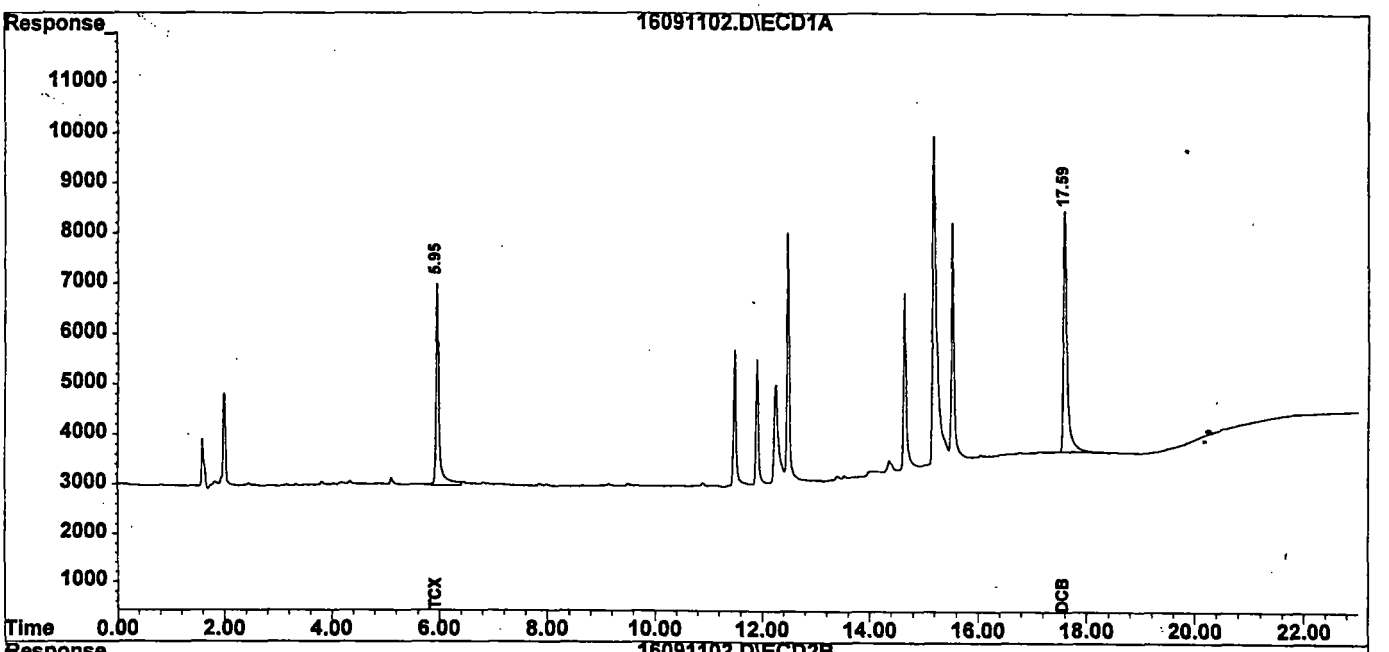
At least 3 peaks are required for identification of multicomponent analytes

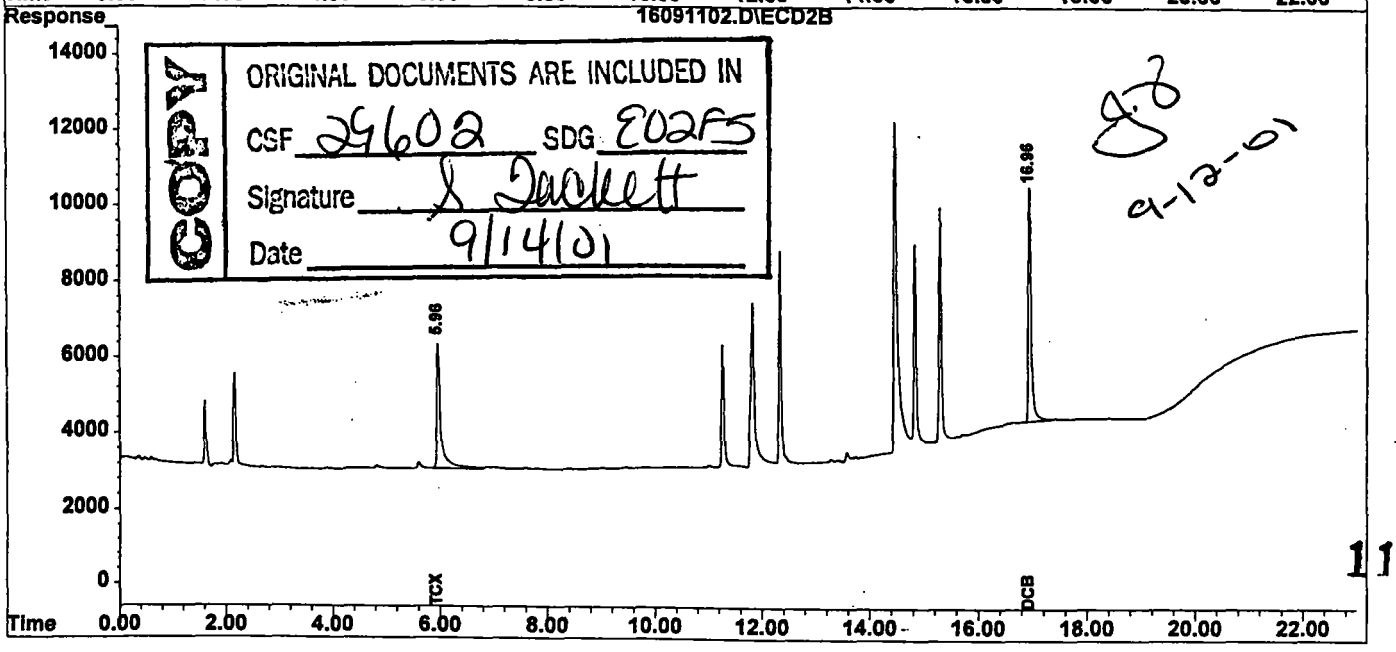
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091102.D\ECD1A.CH Vial: 6
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091102.D\ECD2B.CH
Acq On : 11 Sep 2001 11:51 Operator: DDC
Sample : RESCCI Inst : HP_16
Misc : 5-171-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 12 10:56 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 29602 SDG E02F5
Signature S Jackett
Date 9/14/01

9-12-01

118

Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091102.D\ECD1A.CH Vial: 6
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091102.D\ECD2B.CH
Acq On : 11 Sep 2001 11:51 Operator: DDC
Sample : RESCCI Inst : HP_16
Misc : 5-171-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 12 10:56 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds:						
1)	S TCX	5.96	5.96	157415	170412	22.7	21.7
22)	S DCB	17.60	16.96	221193	227187	19.4	20.1
	Target Compounds:						

119

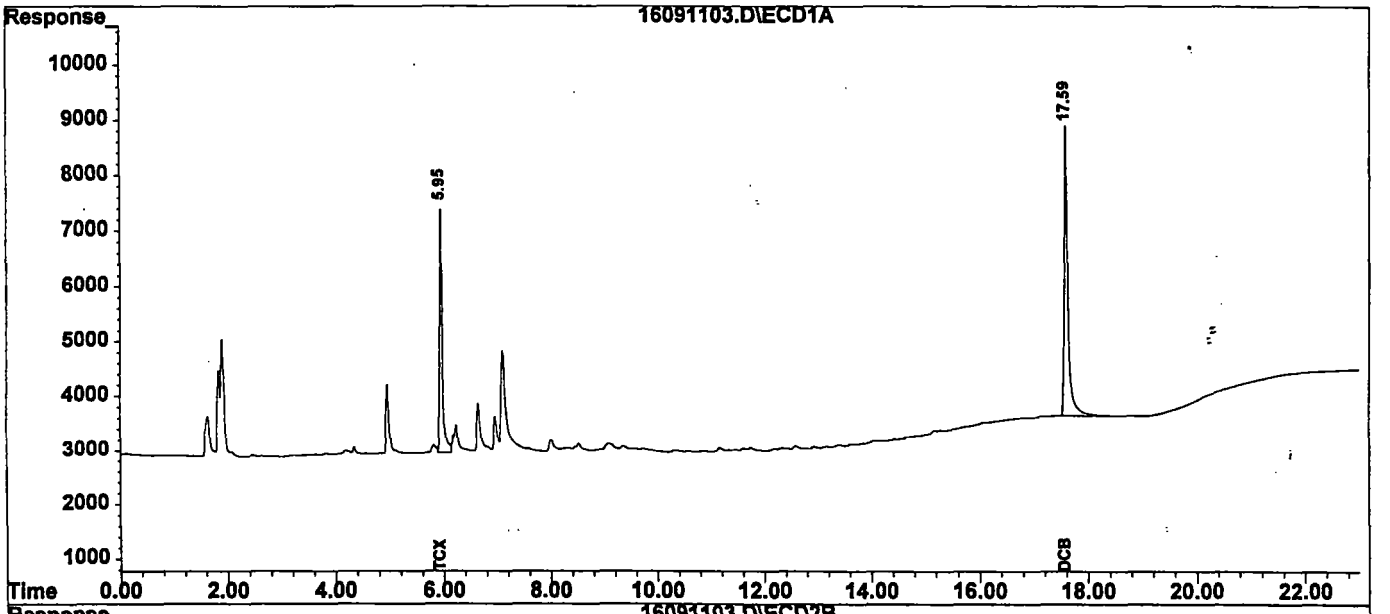
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

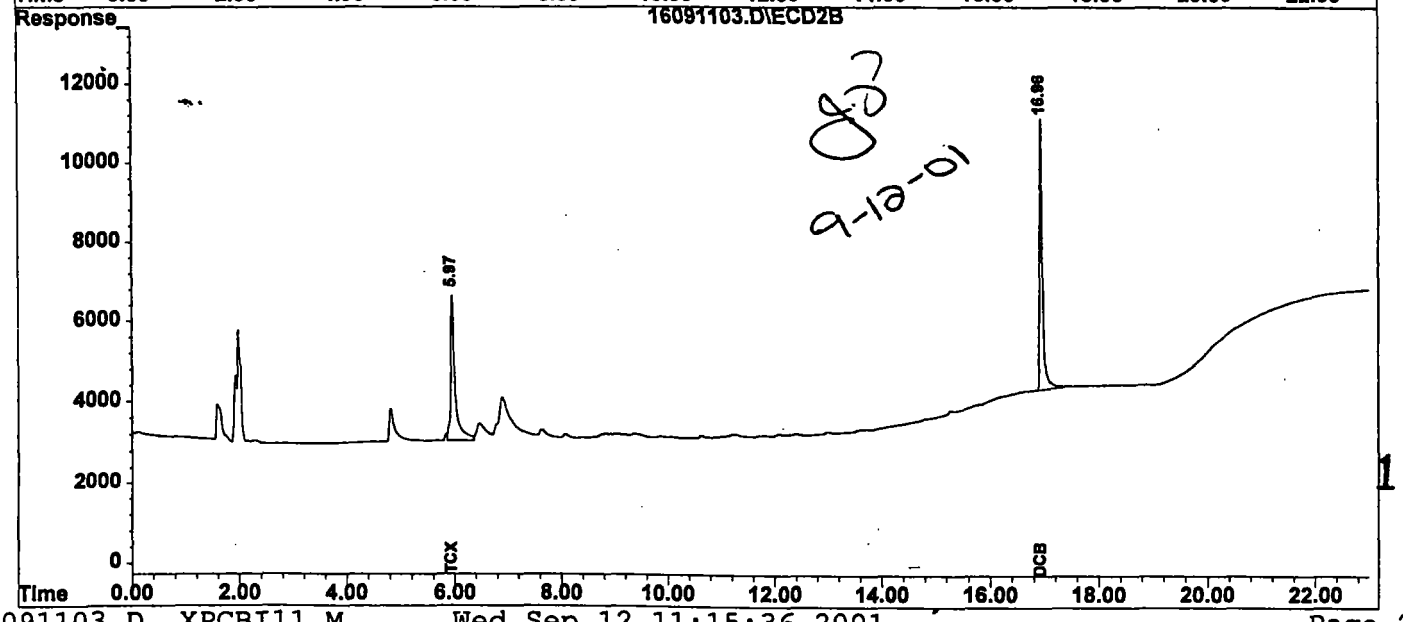
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091103.D\ECD1A.CH Vial: 7
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091103.D\ECD2B.CH
Acq On : 11 Sep 2001 12:18 Operator: DDC
Sample : AR1221L3CI Inst : HP_16
Misc : 5-420-6 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 12 10:56 2001 Quant Results File: XPCBI11.RES
Quant Time: Sep 12 10:59 2001 Quant Results File: xspcbi11.RES

Pesticide Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-ICAL Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001

Multi-Component Method : f:\hpchem\hp\16\data\09_11_01\xspcbi11.m
Title : PCB/TOXAPHENE
Last Update : Fri May 18 09:02:00 2001
Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





DD
9-12-01

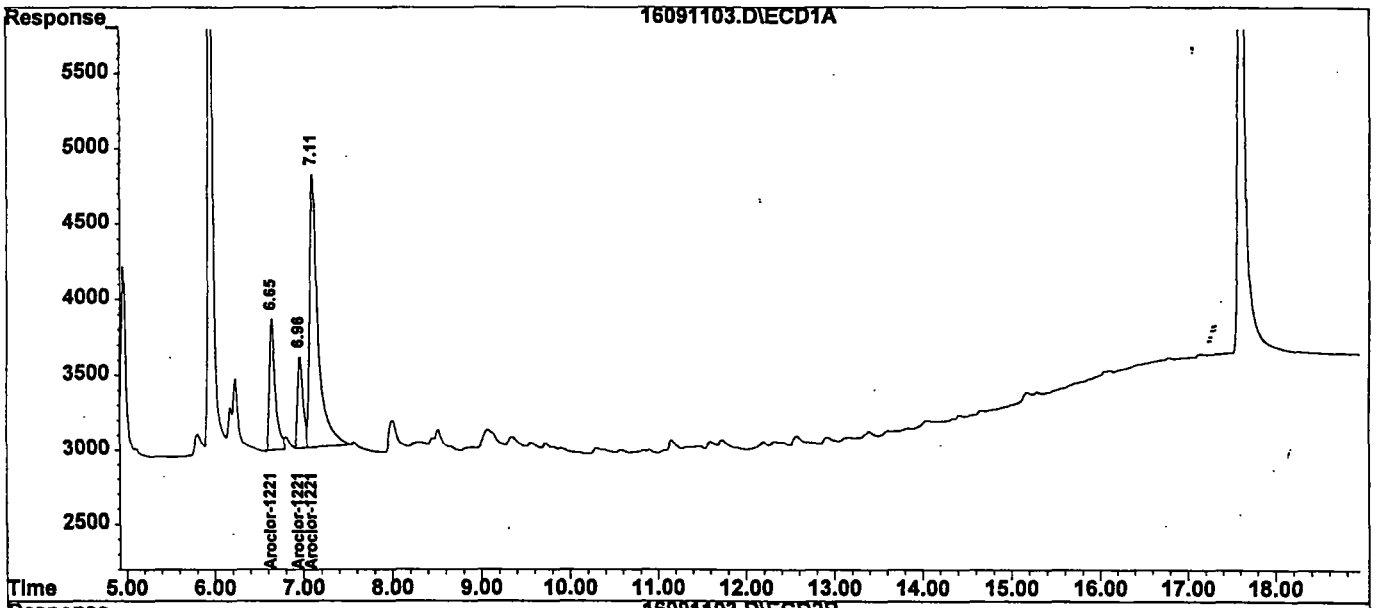
120

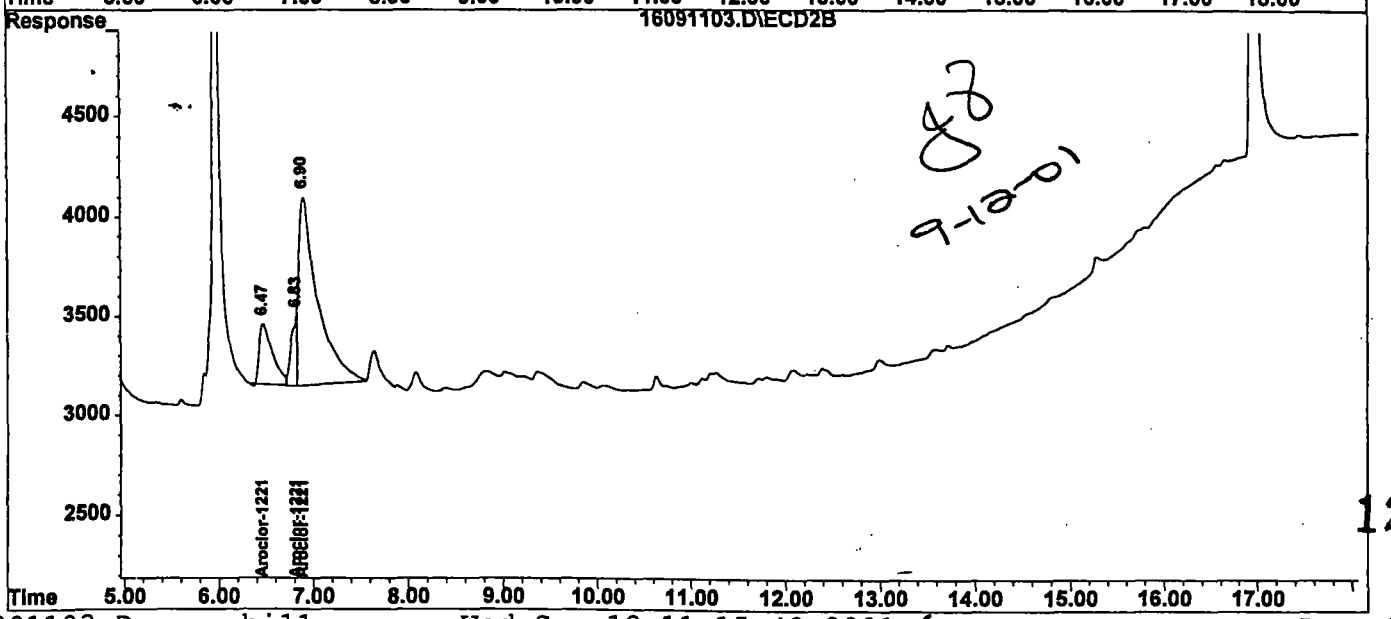
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091103.D\ECD1A.CH Vial: 7
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091103.D\ECD2B.CH
Acq On : 11 Sep 2001 12:18 Operator: DDC
Sample : AR1221L3CI Inst : HP_16
Misc : 5-420-6 Dilution: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Sep 12 10:59 2001 Quant Results File: xspcbi11.RES
Quant Time: Sep 12 10:59 2001 Quant Results File: xspcbi11.RES

Pesticide Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-ICAL Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001

Multi-Component Method : f:\hpchem\hp\16\data\09_11_01\xspcbi11.m
Title : PCB/TOXAPHENE
Last Update : Fri May 18 09:02:00 2001
Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 Signal #2 Info : .32
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





DB
9-12-01

121

Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091103.D\ECD1A.CH Vial: 7
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091103.D\ECD2B.CH
Acq On : 11 Sep 2001 12:18 Operator: DDC
Sample : AR1221L3CI Inst : HP_16
Misc : 5-420-6 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 12 10:56 2001 Quant Results File: XPCBI11.RES
Multi Time: Sep 12 10:59 2001 Quant Results File: xspcbi11.RES

Pesticide Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-ICAL Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001

Multi-Component Method : f:\hpchem\hp\16\data\09_11_01\xspcbi11.m
Title : PCB/TOXAPHENE
Last Update : Fri May 18 09:02:00 2001
Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds:						
1)	S TCX	5.96	5.97	158926	198579	22.9	25.3
22)	S DCB	17.60	16.96	246612	255803	21.6	22.7
	Target Compounds:						
	Multi-Component Compounds:						
2)	L2 Aroclor-1221	6.65f	6.48	39322	29982	419.4	398.3
3)	L2 Aroclor-1221 {2}	6.97f	6.83f	26155	14392	409.7	450.9m
4)	L2 Aroclor-1221 {3}	7.11f	6.90	119674	132264	437.6	431.9m
	Sum Aroclor-1221			185151	176638	1266.6	1281.2
	Average Aroclor-1221					422.213	427.053

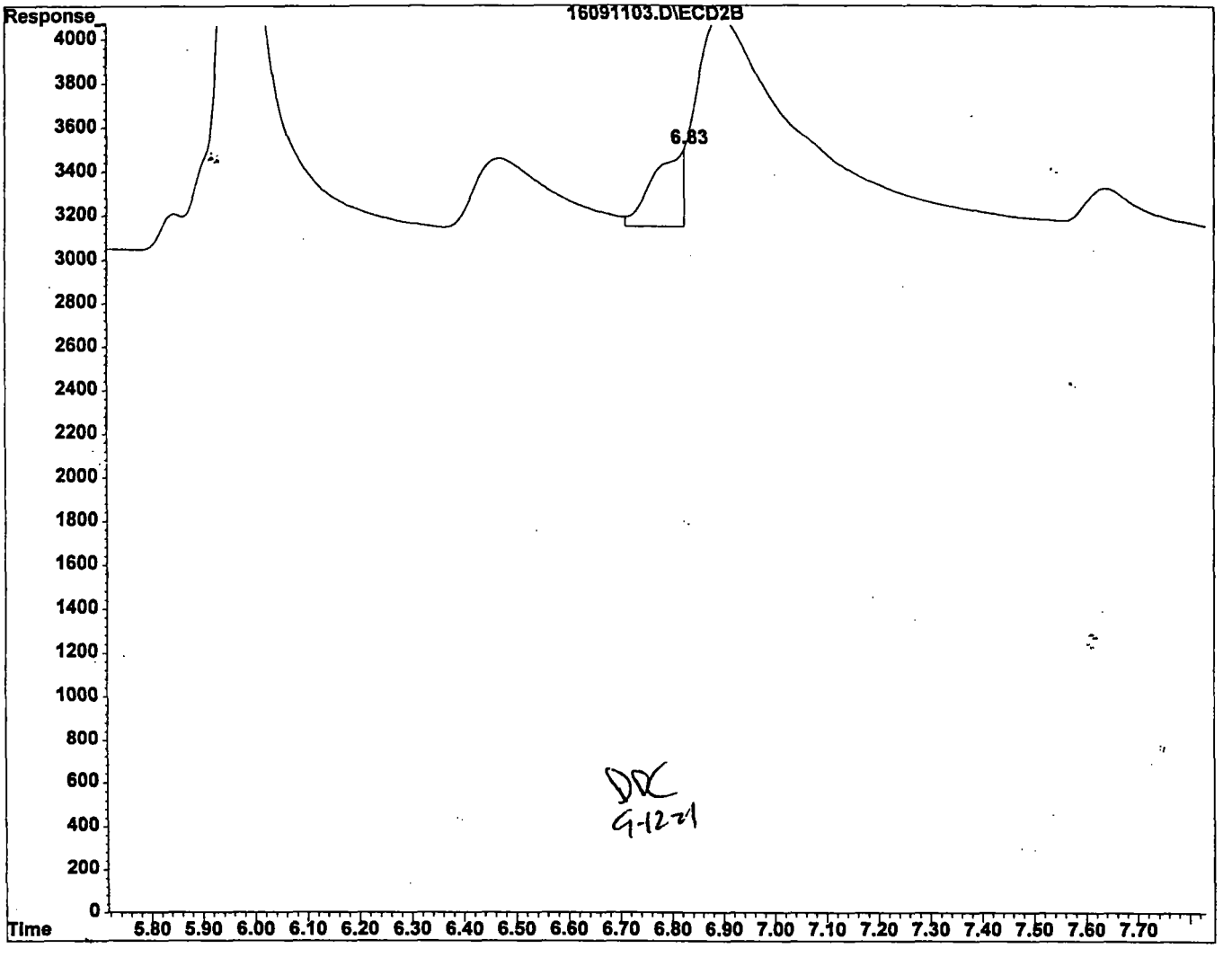
DDC 9-12-01

122

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_11_01\16091103.D
Date Acquired: 11 Sep 2001 12:18
Inst: HP_16 Operator ID: DDC
Name: AR1221L3CI
Misc: 5-420-6
Method: f:\hpchem\hp\16\data\09_11_01\xspcbi11.m
Title:
Quant Time: Sep 12 10:59 2001 Quant Results File: xspcbi11.RES



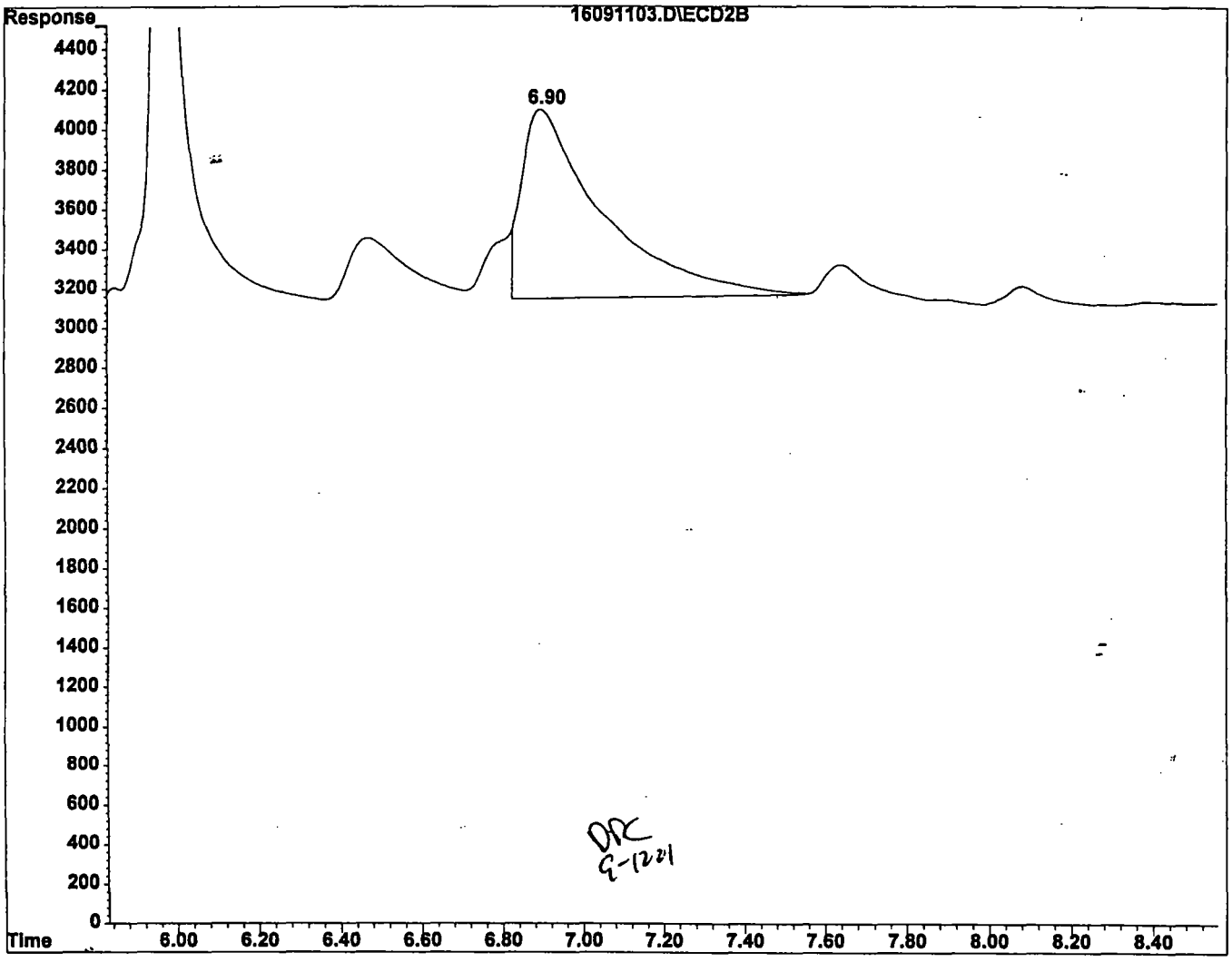
Aroclor-1221 {2} #2 6.83min area: 14392 m

Integration Time Range: 6.72 - 6.83

F:\HPCHEM\HP\16\DATA\09_11_01\16091103.D
Report generated: Wed Sep 12 11:14:28 2001

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_11_01\16091103.D
Date Acquired: 11 Sep 2001 12:18
Inst: HP_16 Operator ID: DDC
Name: AR1221L3CI
Misc: 5-420-6
Method: f:\hpchem\hp\16\data\09_11_01\xspcbi11.m
Title:
Quant Time: Sep 12 10:59 2001 Quant Results File: xspcbi11.RES



Aroclor-1221 {3} #2 6.90min area: 132264 m

Integration Time Range: 6.83 - 7.56

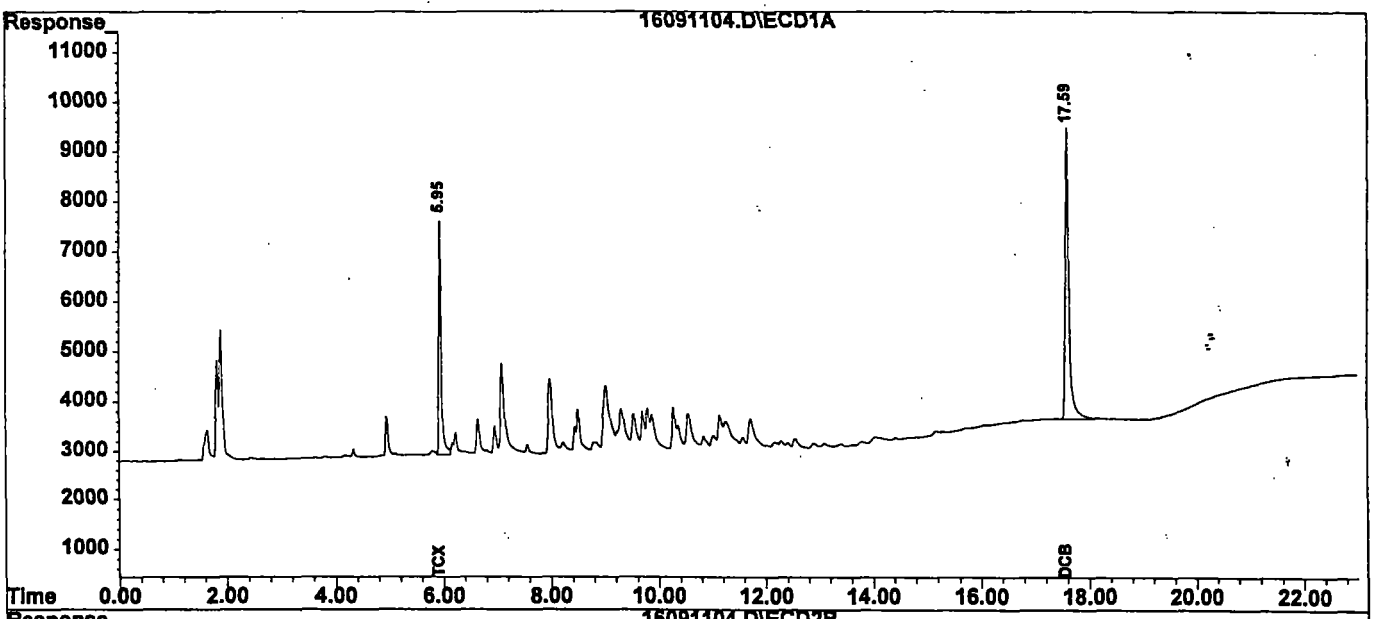
F:\HPCHEM\HP\16\DATA\09_11_01\16091103.D
Report generated: Wed Sep 12 11:14:29 2001

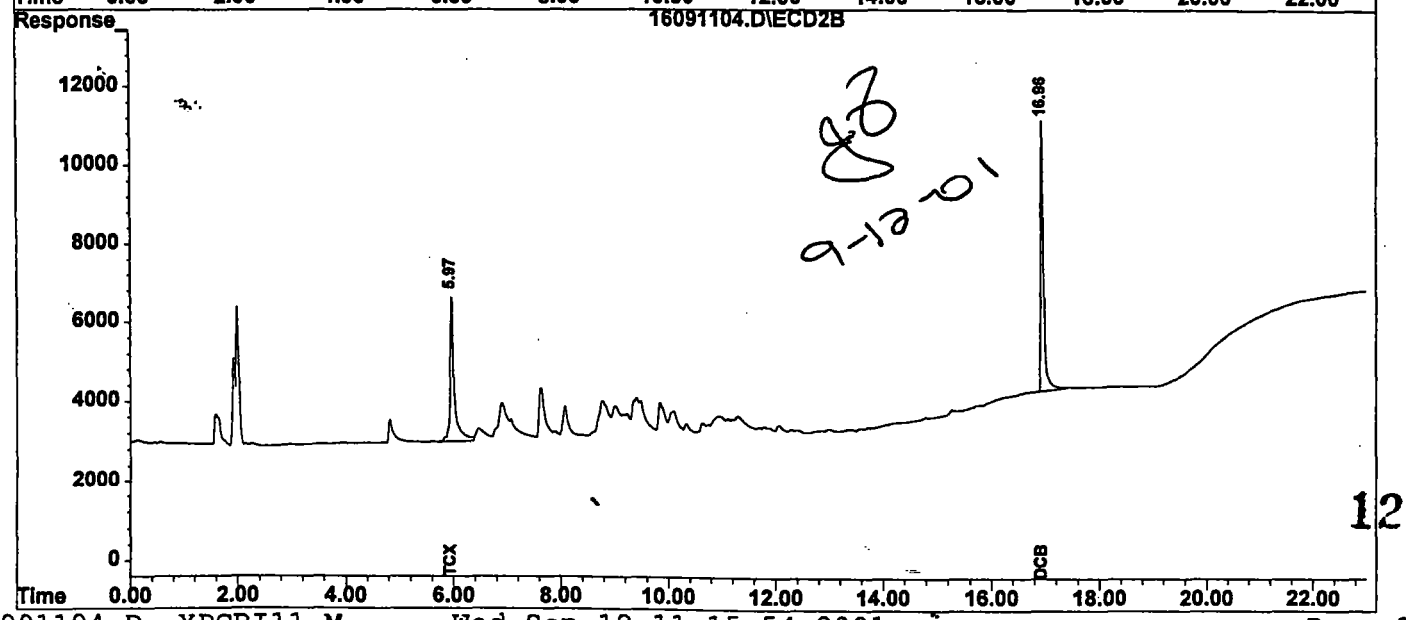
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091104.D\ECD1A.CH Vial: 8
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091104.D\ECD2B.CH
Acq On : 11 Sep 2001 13:15 Operator: DDC
Sample : AR1232L3CI Inst : HP_16
Misc : 5-422-6 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 12 10:59 2001 Quant Results File: XPCBI11.RES
Quant Time: Sep 12 11:00 2001 Quant Results File: xspcbi11.RES

Pesticide Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-ICAL Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001

Multi-Component Method : f:\hpchem\hp\16\data\09_11_01\xspcbi11.m
Title : PCB/TOXAPHENE
Last Update : Fri May 18 09:02:00 2001
Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





DB
9-12-01

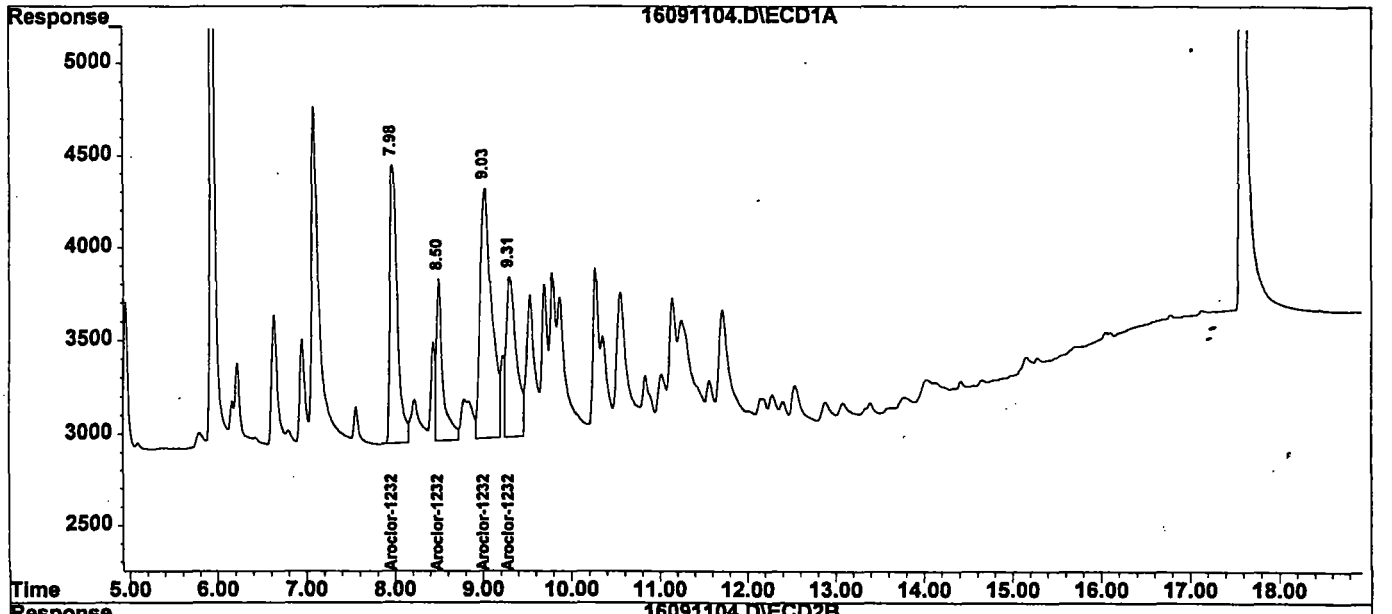
125

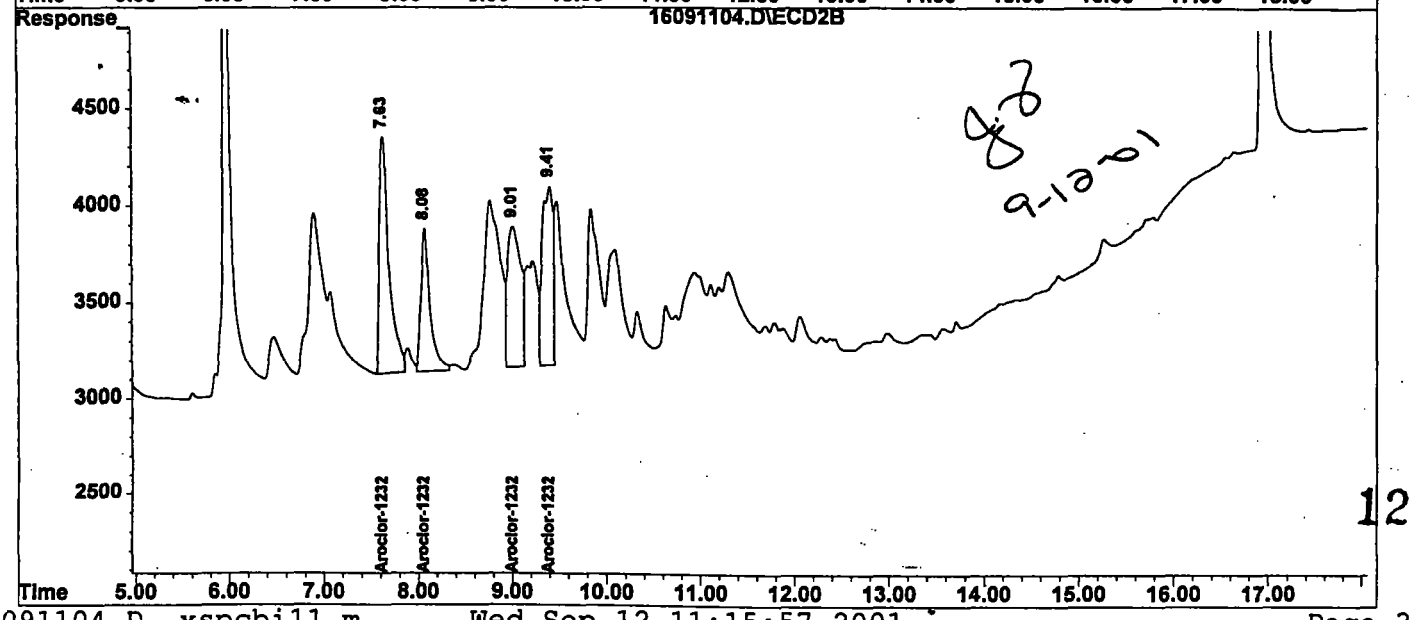
Chromatographic Report

```
Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091104.D\ECD1A.CH Vial: 8
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091104.D\ECD2B.CH
Acq On    : 11 Sep 2001  13:15                        Operator: DDC
Sample    : AR1232L3CI                                Inst    : HP_16
Misc      : 5-422-6                                   Dilution: 1.00
IntFile Signal #1: events.e     IntFile Signal #2: events2.e
Quant Time: Sep 12 11:00 2001  Quant Results File: xspcbi11.RES
Quant Time: Sep 12 11:00 2001  Quant Results File: xspcbi11.RES

Pesticide Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-ICAL Path  : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update      : Wed Sep 05 14:36:59 2001

Multi-Component Method : f:\hpchem\hp\16\data\09_11_01\xspcbi11.m
Title                  : PCB/TOXAPHENE
Last Update            : Fri May 18 09:02:00 2001
Volume Inj.      : 0.5uL
Signal #1 Phase : RTX-PEST 2        Signal #2 Phase: RTX-PEST
Signal #1 Info  : .32               Signal #2 Info : .32
Signal #1 Inst  : HP_16A            Signal #2 Inst : HP_16B
```





9-12-01

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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091104.D\ECD1A.CH Vial: 8
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091104.D\ECD2B.CH
Acq On : 11 Sep 2001 13:15 Operator: DDC
Sample : AR1232L3CI Inst : HP_16
Misc : 5-422-6 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 12 10:59 2001 Quant Results File: XPCBI11.RES
Multi Time: Sep 12 11:00 2001 Quant Results File: xspcbi11.RES

Pesticide Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-ICAL Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001

Multi-Component Method : f:\hpchem\hp\16\data\09_11_01\xspcbi11.m
Title : PCB/TOXAPHENE
Last Update : Fri May 18 09:02:00 2001
Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds:							
1)	S TCX	5.95	5.97	153667	193861	22.2	24.7	
22)	S DCB	17.59	16.96	263730	256158	23.1	22.7	
	Target Compounds:							
	Multi-Component Compounds:							
5)	L3 Aroclor-1232	7.98f	7.63	86896	88081	607.8	631.2	
6)	L3 Aroclor-1232 {2}	8.51f	8.08	45321	50737	728.7	575.8	
7)	L3 Aroclor-1232 {3}	9.03	9.02	120079	71725	636.5	765.6	
8)	L3 Aroclor-1232 {4}	9.31	9.41	69097	71877	576.0	1218.8	#
	Sum Aroclor-1232			321394	282420	2549.0	3191.4	
	Average Aroclor-1232					637.253	797.851	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std
16091104.D xspcbi11.m Wed Sep 12 11:15:51 2001 Page 1

Response Factor Report HP_16

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Calibration Files
L1 =16091105.D L2 =16091106.D L3 =16091107.D
L4 =16091108.D L5 =16091109.D

Compound	L1	L2	L3	L4	L5	Avg	%RSD
7) Aroclor-1242	229.1	194.1	177.2	169.0	164.5	186.8	14.03
8) Aroclor-1242 {2}	399.6	348.5	327.5	304.7	292.0	334.5	12.66
9) Aroclor-1242 {3}	310.4	284.8	270.3	310.6	290.9	293.4	5.91
10) Aroclor-1242 {4}	175.0	157.9	152.1	143.5	137.6	153.2	9.44
11) Aroclor-1242 {5}	176.6	161.1	159.8	155.9	159.9	162.7	4.94

Signal #2 Calibration Files
L1 =16091105.D L2 =16091106.D L3 =16091107.D
L4 =16091108.D L5 =16091109.D

Compound	L1	L2	L3	L4	L5	Avg	%RSD
30) Aroclor-1242 #2	417.7	383.2	361.0	346.5	342.3	370.1	8.38
31) Aroclor-1242 {2} #2	259.8	247.9	243.6	256.2	267.2	254.9	3.69
32) Aroclor-1242 {3} #2	386.0	335.6	316.1	280.0	266.6	316.9	14.99
33) Aroclor-1242 {4} #2	233.9	204.5	181.1	168.6	162.6	190.1	15.40
34) Aroclor-1242 {5} #2	106.8	83.7	102.9	109.3	111.0	102.7	10.78

(#) = Out of Range

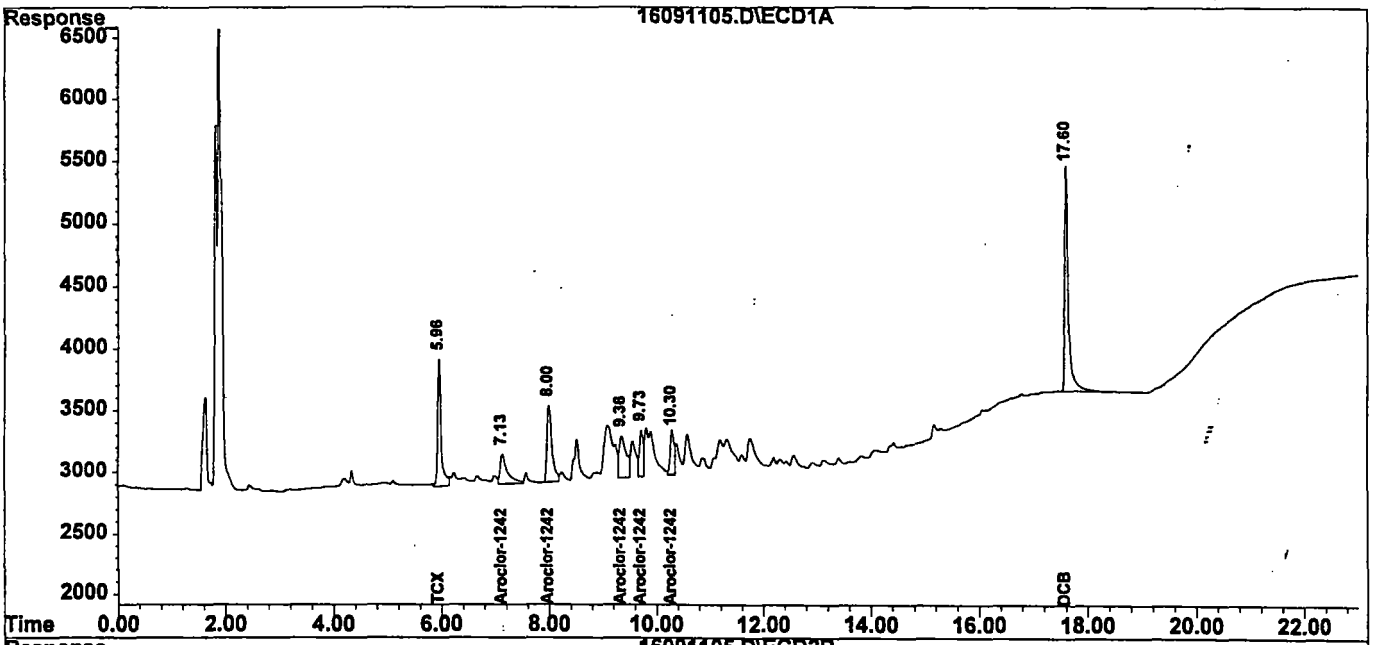
XPCBI11.M Tue Sep 11 19:09:39 2001

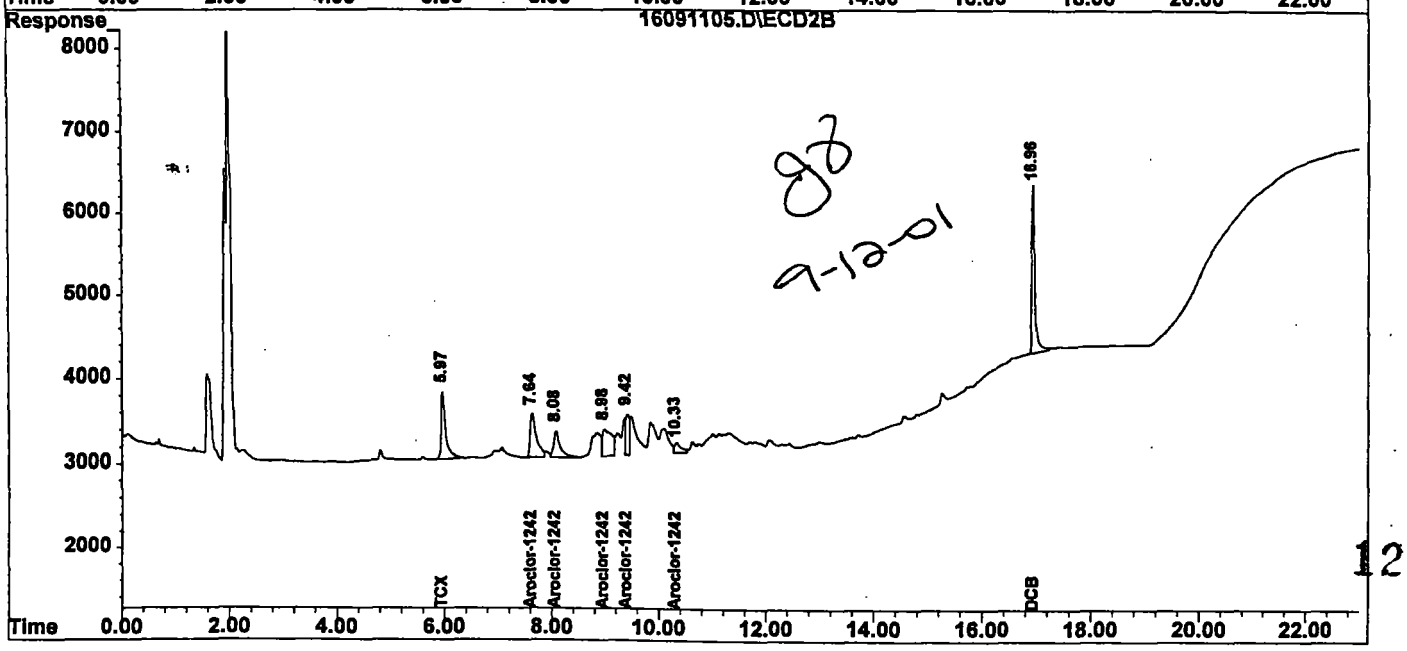
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091105.D\ECD1A.CH Vial: 9
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091105.D\ECD2B.CH
Acq On : 11 Sep 2001 13:41 Operator: DDC
Sample : AR1242L1CI Inst : HP_16
Misc : 5-11-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 11 19:08 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_05_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





gg
9-12-01

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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091105.D\ECD1A.CH Vial: 9
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091105.D\ECD2B.CH
Acq On : 11 Sep 2001 13:41 Operator: DDC
Sample : AR1242L1CI Inst : HP_16
Misc : 5-11-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 11 19:08 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_05_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds:							
1)	S TCX	5.96	5.98	46082	46057	7.602	7.359	
22)	S DCB	17.60	16.97	85648	77562	8.864	8.647	
	Target Compounds:							
7)	L4 Aroclor-1242	7.14	7.64	22908	41770	183.5	146.7	
8)	L4 Aroclor-1242 {2}	8.00	8.08	39961	25981	141.3	144.3	
9)	L4 Aroclor-1242 {3}	9.36	8.99	31039	38602	121.8	196.5	# DDC
10)	L4 Aroclor-1242 {4}	9.73	9.41	17499	23392	142.1	238.4m	# 9-12-01
11)	L4 Aroclor-1242 {5}	10.30	10.34	17663	10684	130.1	347.2	#
	Sum Aroclor-1242			129071	140428	718.8	1073.2	
	Average Aroclor-1242					143.760	214.639	

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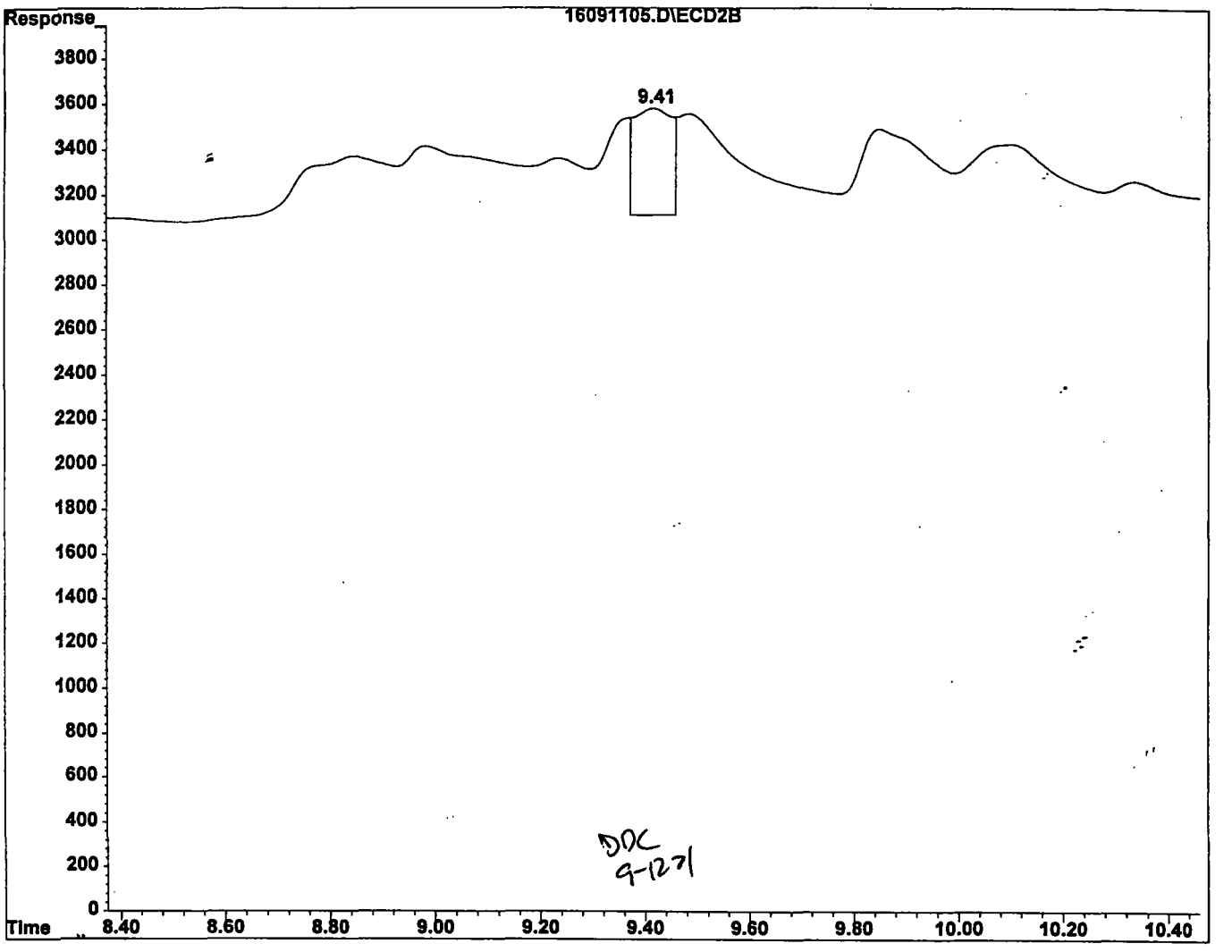
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_11_01\16091105.D
Date Acquired: 11 Sep 2001 13:41
Inst: HP_16 Operator ID: DDC
Name: AR1242L1CI
Misc: 5-11-7
Method: F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 11 19:08 2001 Quant Results File: XPCBI11.RES



Aroclor-1242 {4} #2 9.41min area: 23392 m

Integration Time Range: 9.37 - 9.46

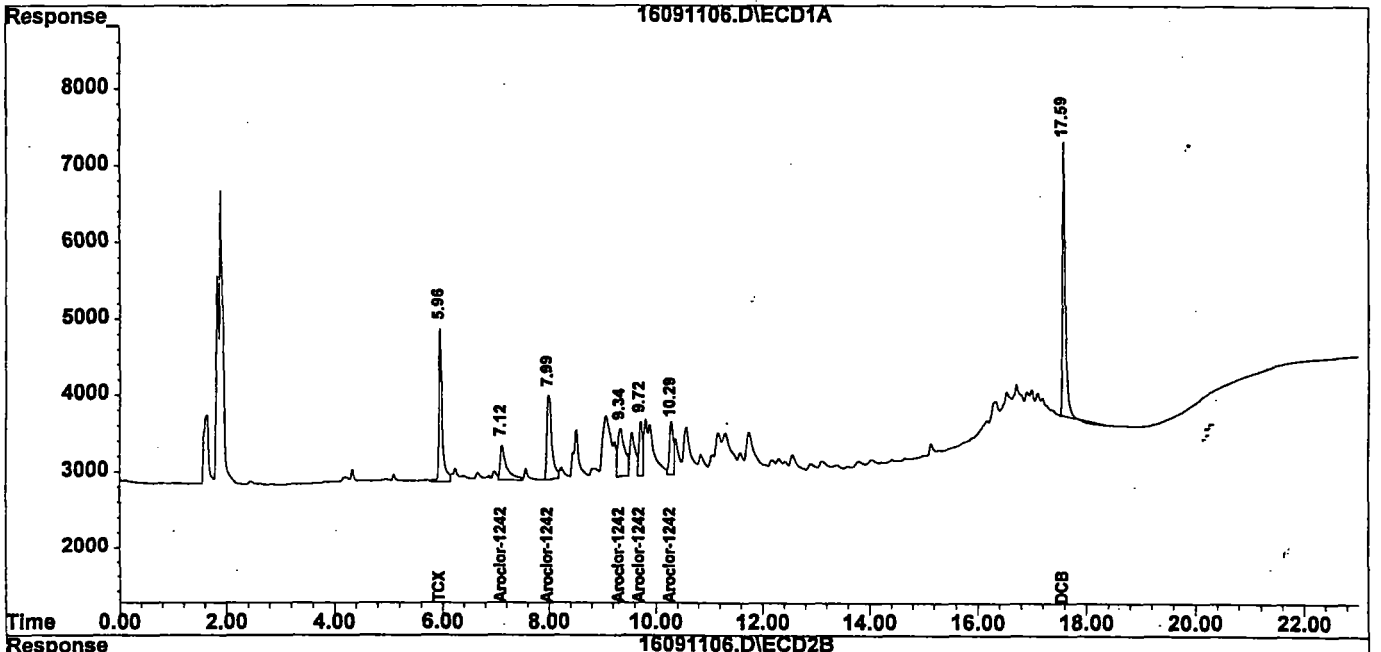
F:\HPCHEM\HP\16\DATA\09_11_01\16091105.D
Report generated: Wed Sep 12 11:14:33 2001

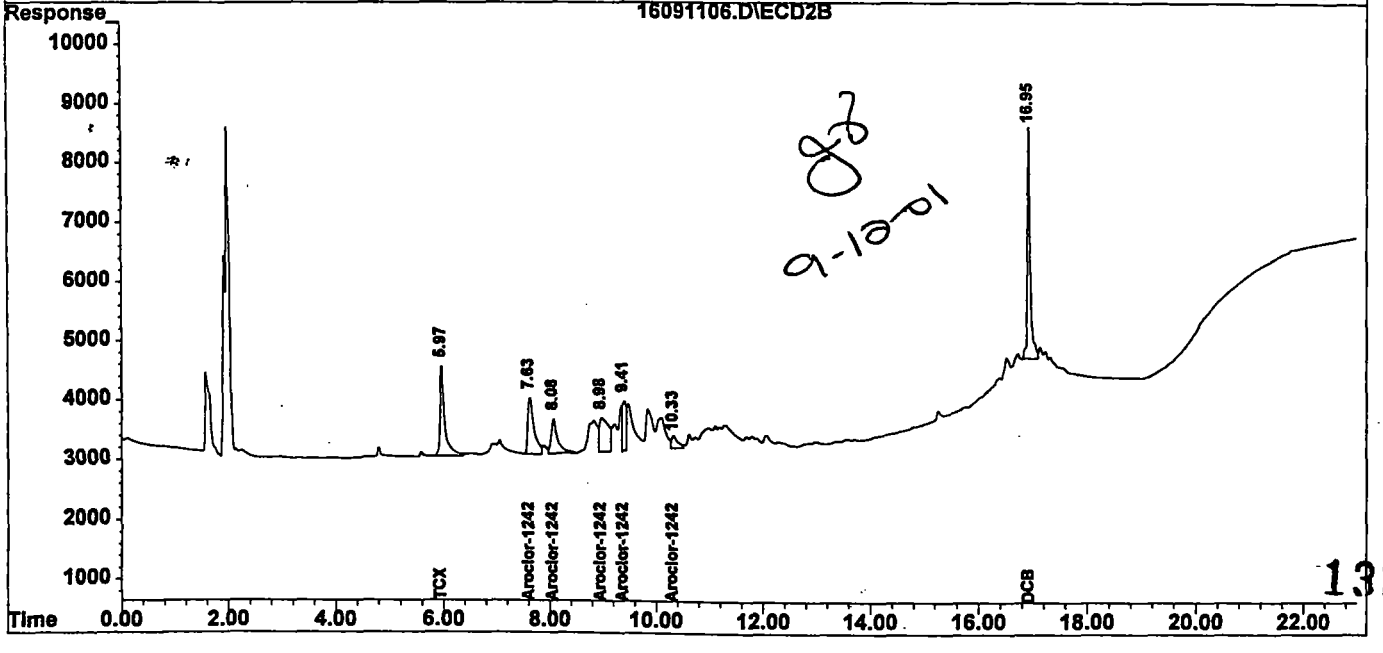
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091106.D\ECD1A.CH Vial: 10
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091106.D\ECD2B.CH
Acq On : 11 Sep 2001 14:08 Operator: DDC
Sample : AR1242L2CI Inst : HP_16
Misc : 5-10-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 11 19:09 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





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9-12-01

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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091106.D\ECD1A.CH Vial: 10
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091106.D\ECD2B.CH
Acq On : 11 Sep 2001 14:08 Operator: DDC
Sample : AR1242L2CI Inst : HP_16
Misc : 5-10-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 11 19:09 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds:							
1)	S TCX	5.96	5.97	82857	89952	12.5	13.2	
22)	S DCB	17.59	16.96	127727	144355	11.8	14.2	
	Target Compounds:							
7)	L4 Aroclor-1242	7.13	7.63	38815	76635	268.1	249.5	
8)	L4 Aroclor-1242 {2}	7.99	8.08	69708	49571	231.4	250.3	
9)	L4 Aroclor-1242 {3}	9.34	8.99	56961	67120	213.9	288.1	# DDC 9-12-01
10)	L4 Aroclor-1242 {4}	9.72	9.41	31572	40896	235.7	267.4m	
11)	L4 Aroclor-1242 {5}	10.29	10.33	32224	16737	221.5	353.0	#
	Sum Aroclor-1242			229280	250960	1170.6	1408.3	
	Average Aroclor-1242					234.119	281.652	

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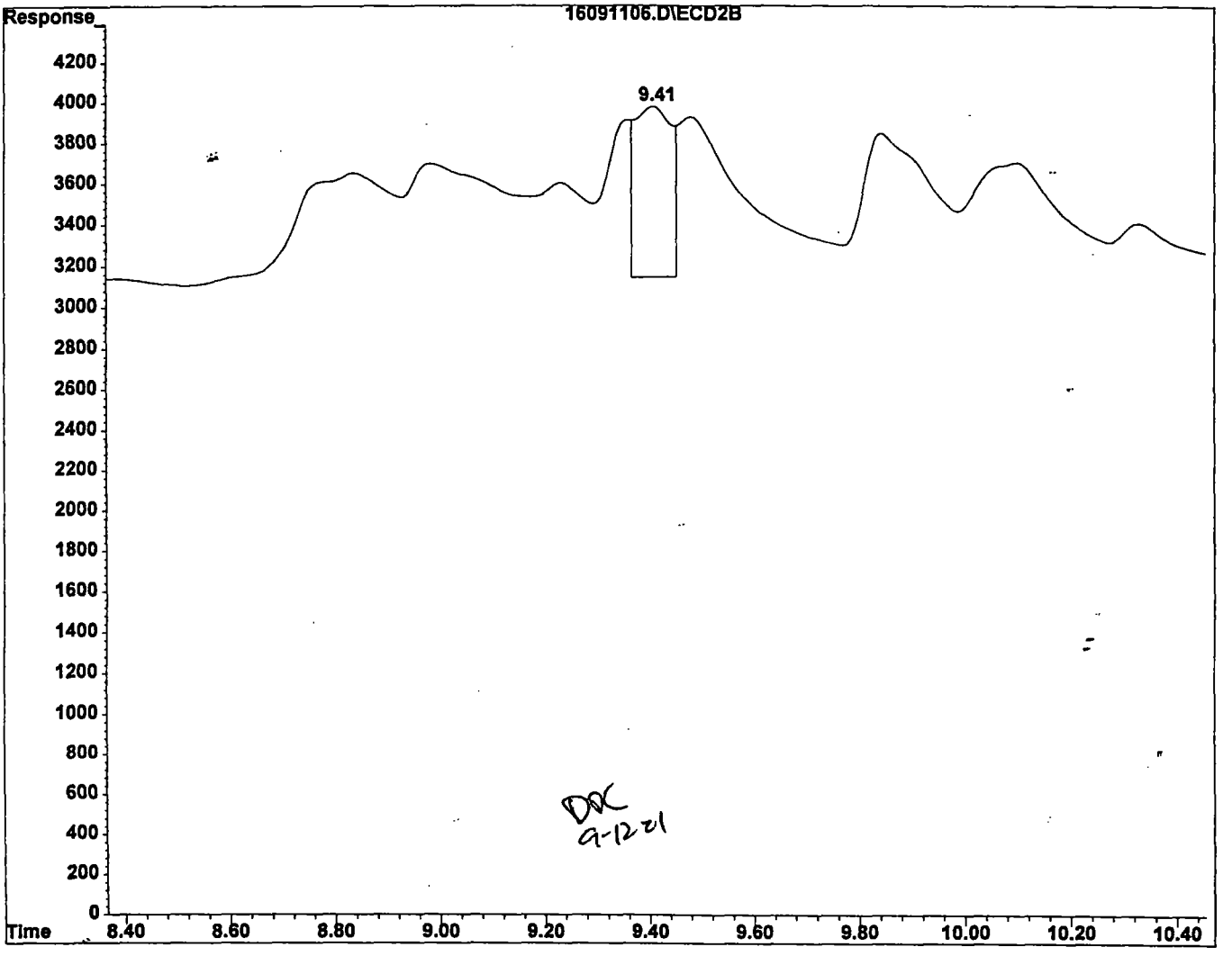
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_11_01\16091106.D
Date Acquired: 11 Sep 2001 14:08
Inst: HP_16 Operator ID: DDC
Name: AR1242L2CI
Misc: 5-10-7
Method: F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 11 19:09 2001 Quant Results File: XPCBI11.RES



Aroclor-1242 {4} #2 9.41min area: 40896 m

Integration Time Range: 9.37 - 9.45

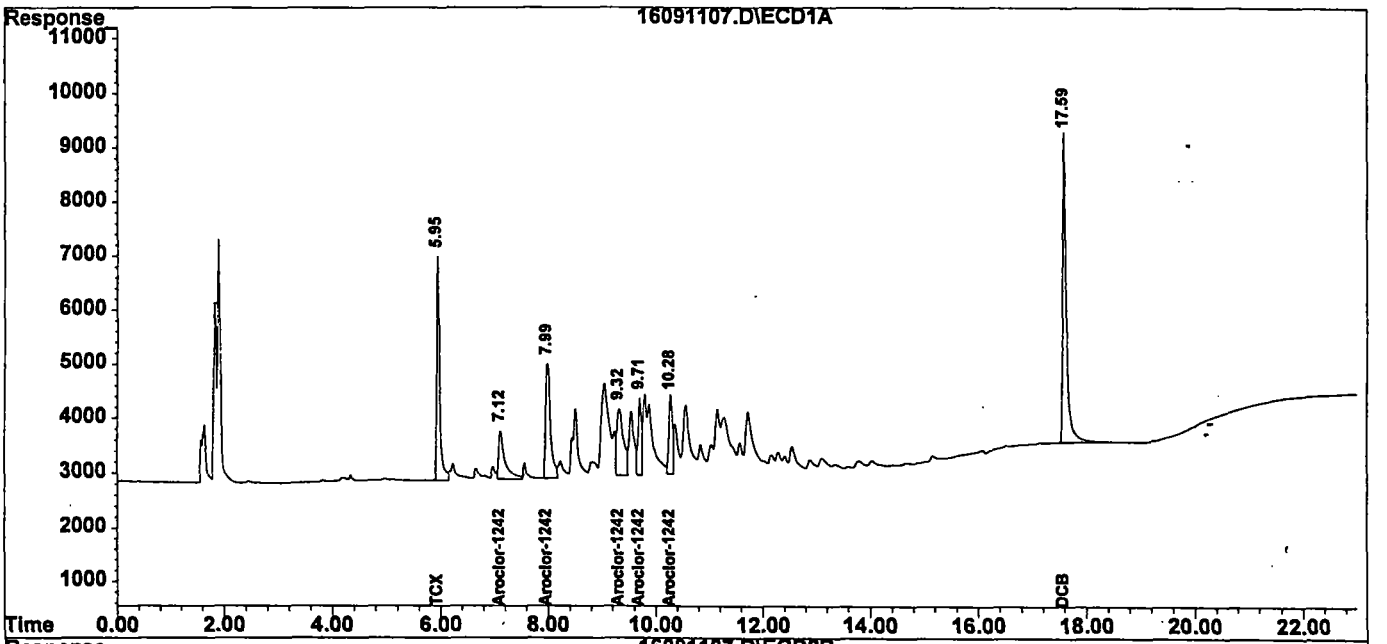
F:\HPCHEM\HP\16\DATA\09_11_01\16091106.D
Report generated: Wed Sep 12 11:14:34 2001

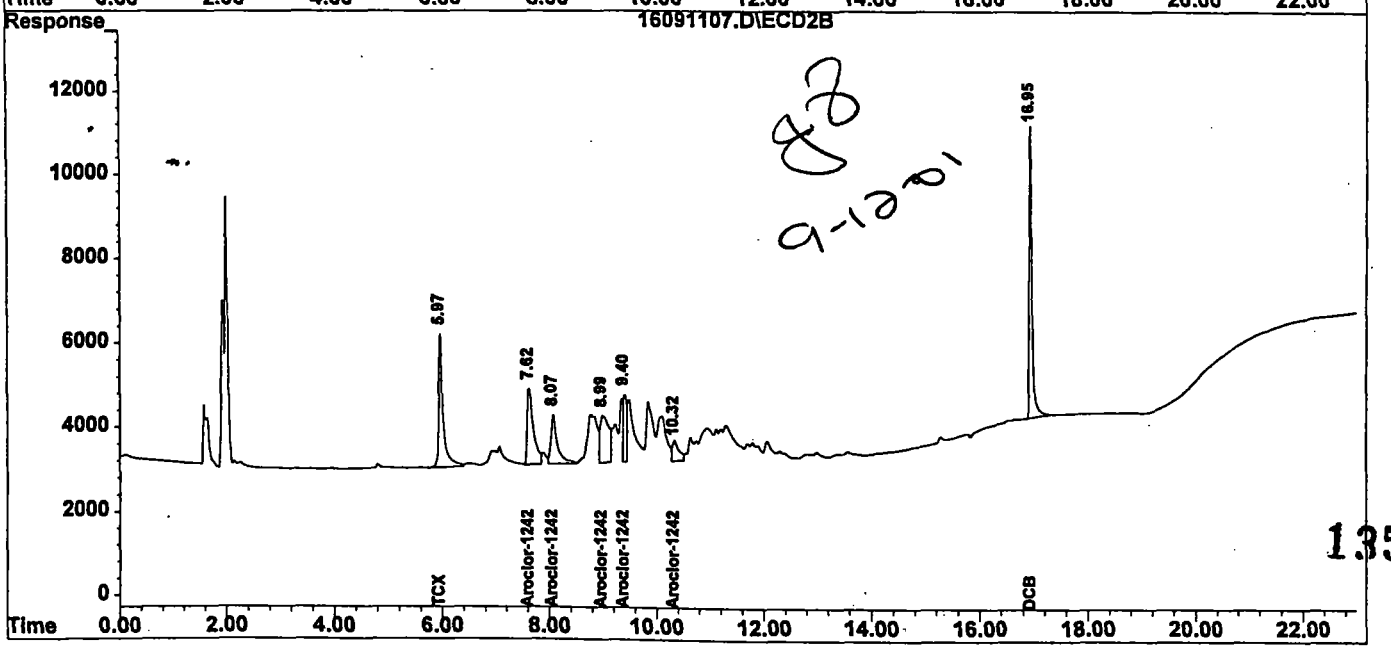
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091107.D\ECD1A.CH Vial: 11
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091107.D\ECD2B.CH
Acq On : 11 Sep 2001 14:34 Operator: DDC
Sample : AR1242L3CI Inst : HP_16
Misc : 5-9-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 11 19:07 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091107.D\ECD1A.CH Vial: 11
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091107.D\ECD2B.CH
Acq On : 11 Sep 2001 14:34 Operator: DDC
Sample : AR1242L3CI Inst : HP_16
Misc : 5-9-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 11 19:07 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds:							
1)	S TCX	5.96	5.97	151931	175280	21.3	23.3	
22)	S DCB	17.59	16.96	260388	253516	22.6	22.3	
	Target Compounds:							
7)	L4 Aroclor-1242	7.12	7.63	70863	144405	443.5	439.6	
8)	L4 Aroclor-1242 {2}	7.99	8.08	130991	97452	415.2	458.3	
9)	L4 Aroclor-1242 {3}	9.33	8.99	108101	126427	393.6	483.4	
10)	L4 Aroclor-1242 {4}	9.71	9.40	60851	72421	428.1	363.6	
11)	L4 Aroclor-1242 {5}	10.28	10.33	63911	41154	417.7	710.5	#
	Sum Aroclor-1242			434717	481859	2098.1	2455.3	
	Average Aroclor-1242					419.628	491.066	

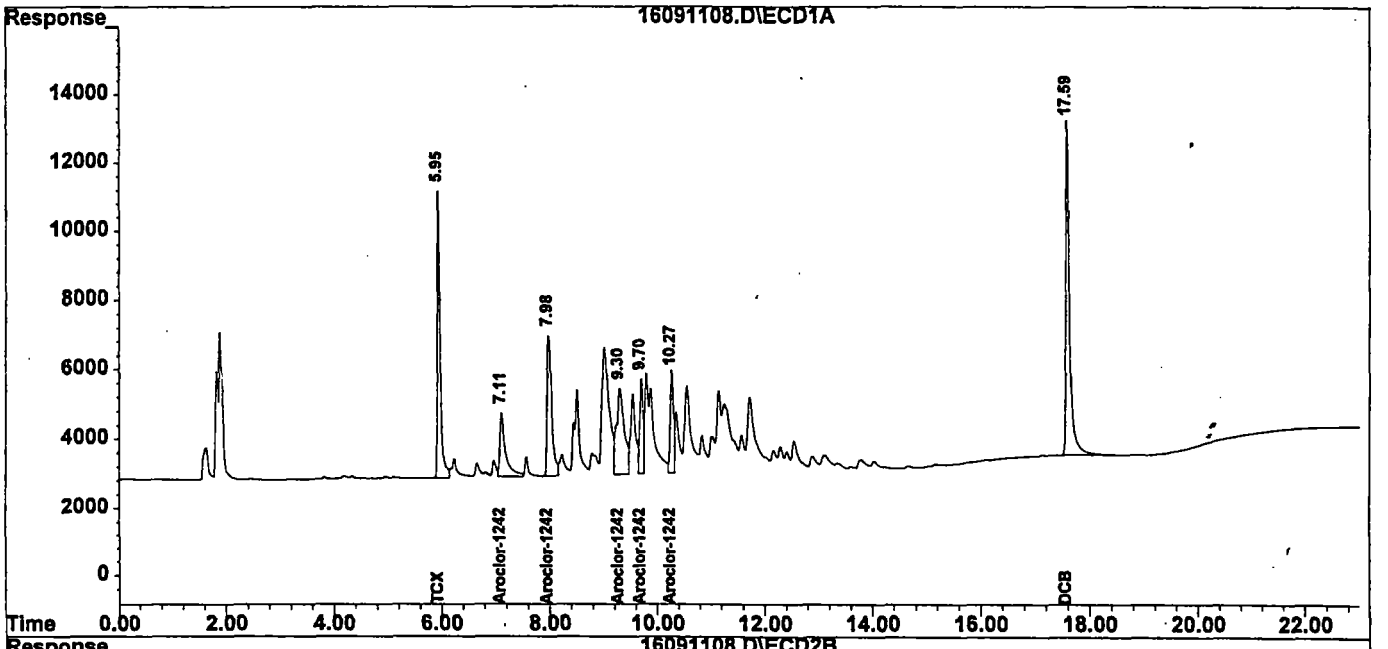
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std
16091107.D XPCBI11.M Wed Sep 12 11:16:23 2001 Page 1

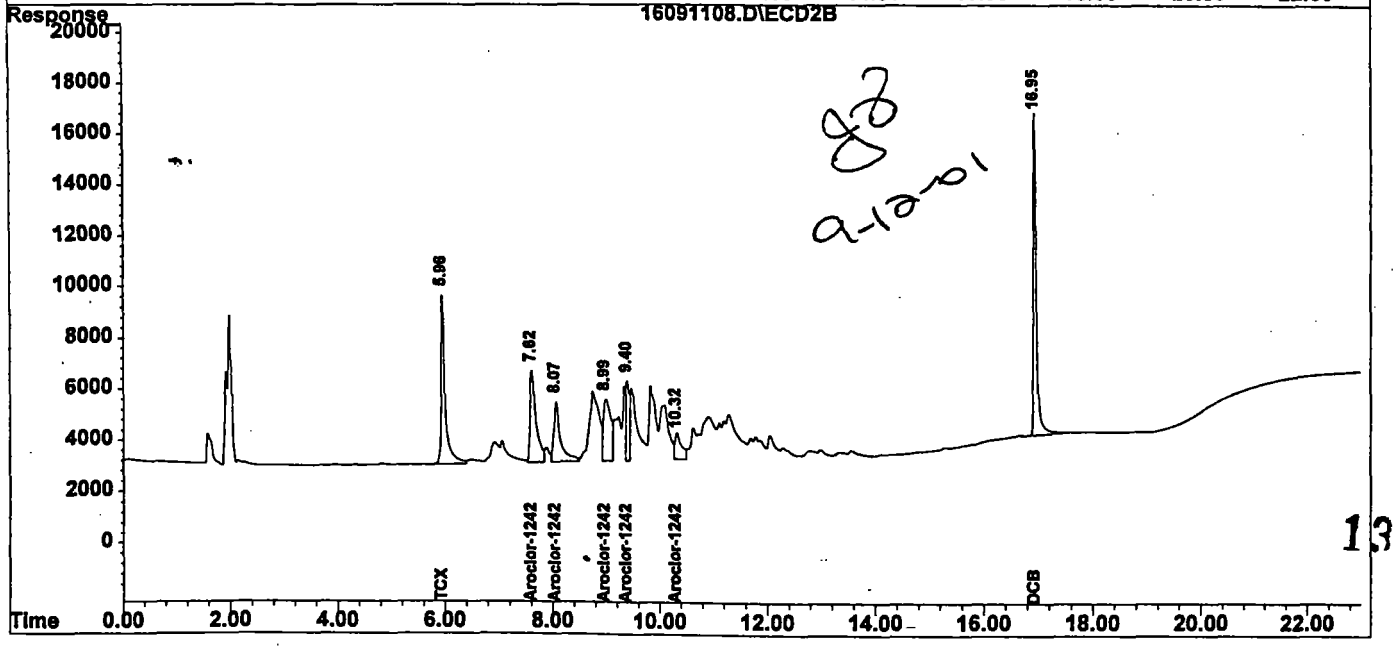
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091108.D\ECD1A.CH Vial: 12
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091108.D\ECD2B.CH
Acq On : 11 Sep 2001 15:01 Operator: DDC
Sample : AR1242L4CI Inst : HP_16
Misc : 5-8-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 11 19:07 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091108.D\ECD1A.CH Vial: 12
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091108.D\ECD2B.CH
Acq On : 11 Sep 2001 15:01 Operator: DDC
Sample : AR1242L4CI Inst : HP_16
Misc : 5-8-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 11 19:07 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds:							
1)	S TCX	5.96	5.97	301456	349582	41.0	44.3	
22)	S DCB	17.59	16.96	460304	479121	38.4	40.4	
	Target Compounds:							
7)	L4 Aroclor-1242	7.11	7.62	135211	277187	789.4	801.6	
8)	L4 Aroclor-1242 {2}	7.98	8.07	243797	204949	747.5	905.9	
9)	L4 Aroclor-1242 {3}	9.30	8.99	248481	223991	890.9	780.3	
10)	L4 Aroclor-1242 {4}	9.70	9.40	114775	134846	772.3	622.9	
11)	L4 Aroclor-1242 {5}	10.27	10.32	124732	87427	783.6	1212.9	#
	Sum Aroclor-1242			866996	928400	3983.6	4323.6	
	Average Aroclor-1242					796.722	864.724	

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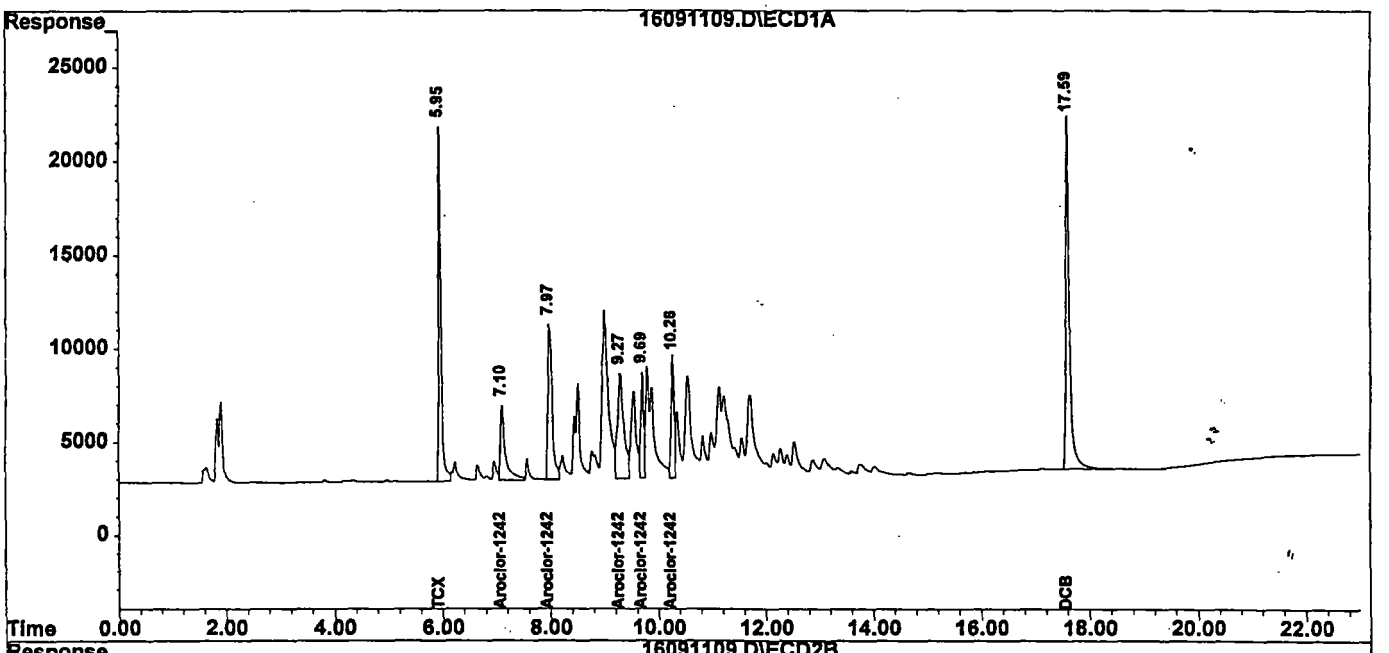
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

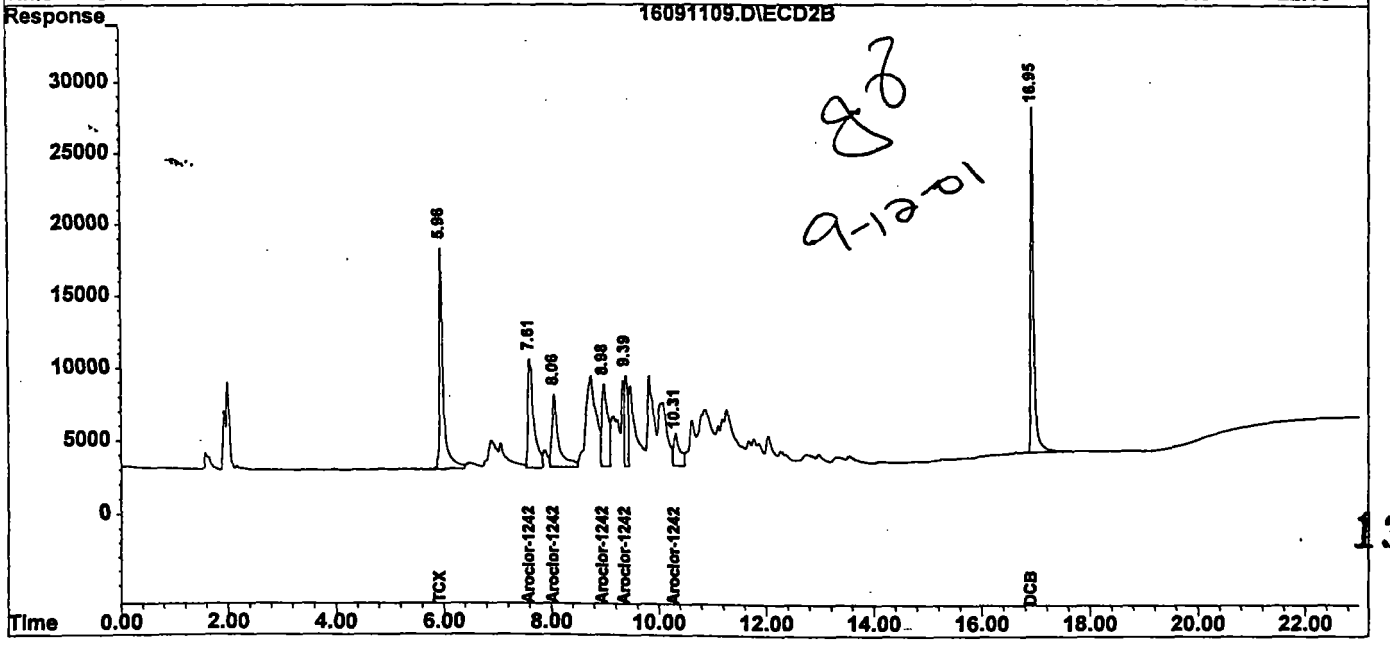
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091109.D\ECD1A.CH Vial: 13
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091109.D\ECD2B.CH
Acq On : 11 Sep 2001 15:28 Operator: DDC
Sample : AR1242L5CI Inst : HP_16
Misc : 5-7-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 11 19:07 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





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9-12-01

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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091109.D\ECD1A.CH Vial: 13
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091109.D\ECD2B.CH
Acq On : 11 Sep 2001 15:28 Operator: DDC
Sample : AR1242L5CI Inst : HP_16
Misc : 5-7-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 11 19:07 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds:						
1)	S TCX	5.95	5.96	624679	737475	82.4 E	89.1 E
22)	S DCB	17.59	16.95	873273	911177	70.7 E	73.6 E
	Target Compounds:						
7)	L4 Aroclor-1242	7.10	7.61	263209	547731	1478.9	1544.6 E
8)	L4 Aroclor-1242 {2}	7.97	8.06	467208	427570	1425.5 E	1800.9 E#
9)	L4 Aroclor-1242 {3}	9.28	8.98	465407	426534	1634.1	1417.6 E
10)	L4 Aroclor-1242 {4}	9.69	9.39	220140	260220	1470.1	1137.0
11)	L4 Aroclor-1242 {5}	10.26	10.32	255911	177583	1609.5 E	2047.3 E#
	Sum Aroclor-1242			1671875	1839639	7618.1	7947.4
	Average Aroclor-1242					1523.624	1589.480

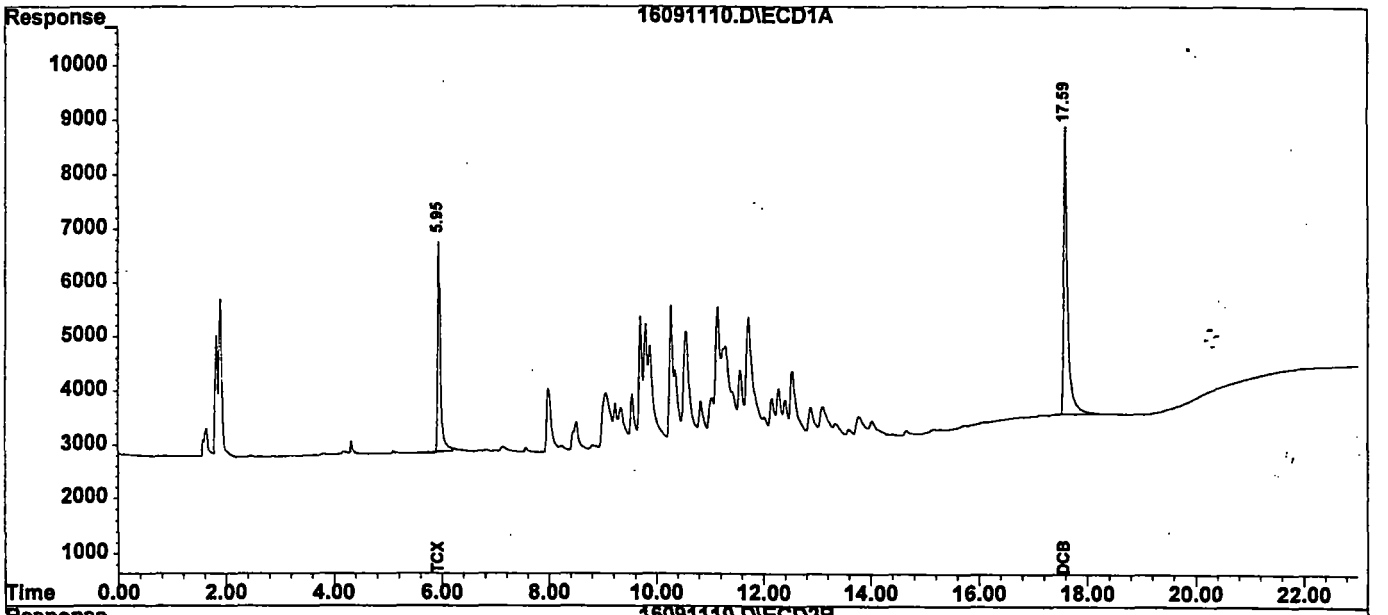
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std
16091109.D XPCBI11.M Wed Sep 12 11:16:42 2001 Page 1

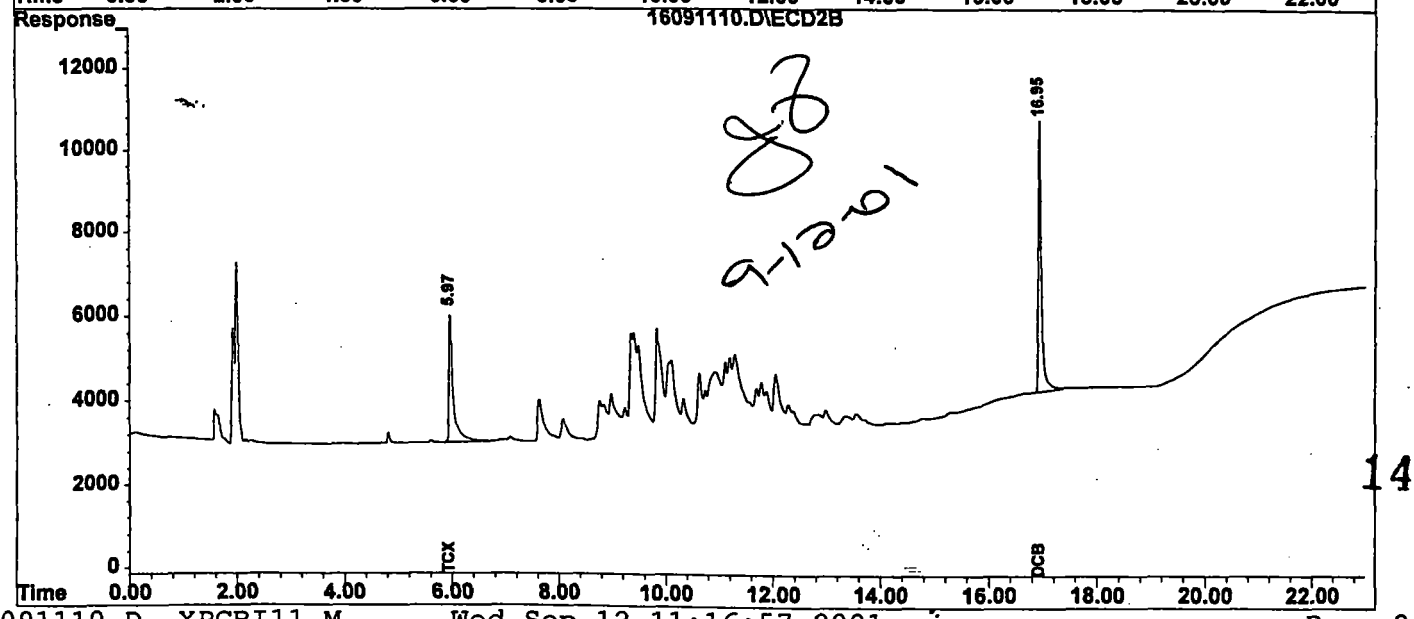
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091110.D\ECD1A.CH Vial: 14
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091110.D\ECD2B.CH
Acq On : 11 Sep 2001 15:55 Operator: DDC
Sample : AR1248L3CI Inst : HP_16
Misc : 5-424-6 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 12 11:01 2001 Quant Results File: XPCBI11.RES
Quant Time: Sep 12 11:02 2001 Quant Results File: xspcbi11.RES

Pesticide Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-ICAL Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001

Multi-Component Method : f:\hpchem\hp\16\data\09_11_01\xspcbi11.m
Title : PCB/TOXAPHENE
Last Update : Fri May 18 09:02:00 2001
Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





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9-12-01

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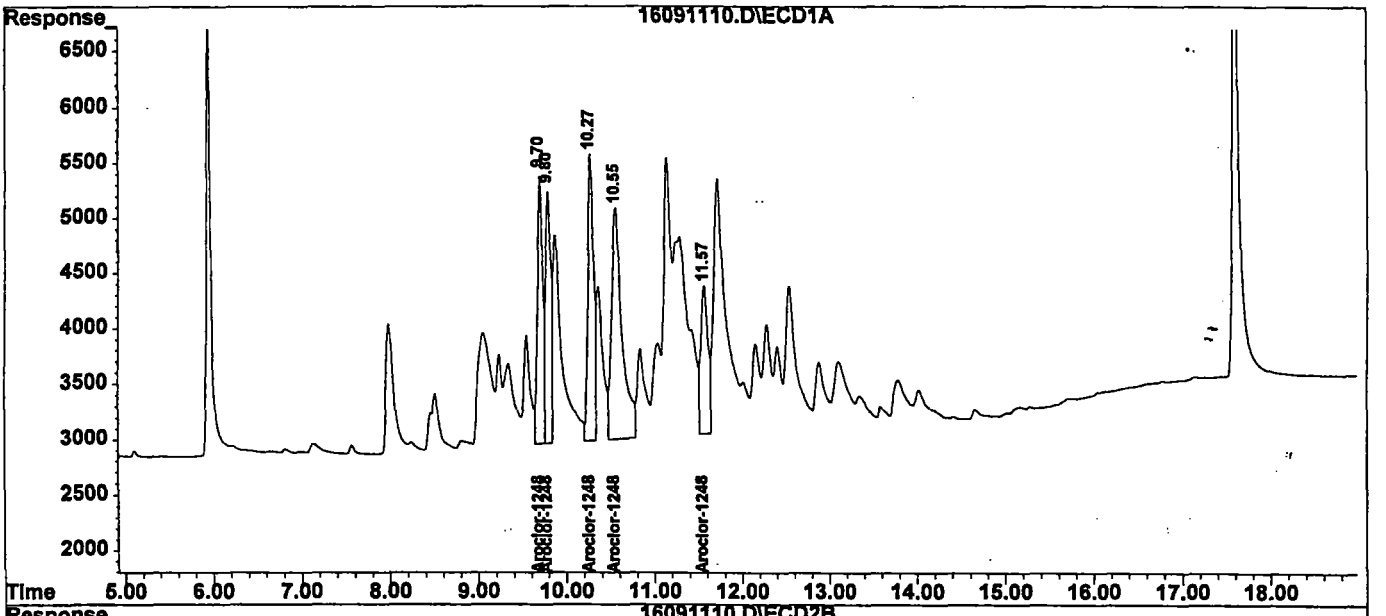
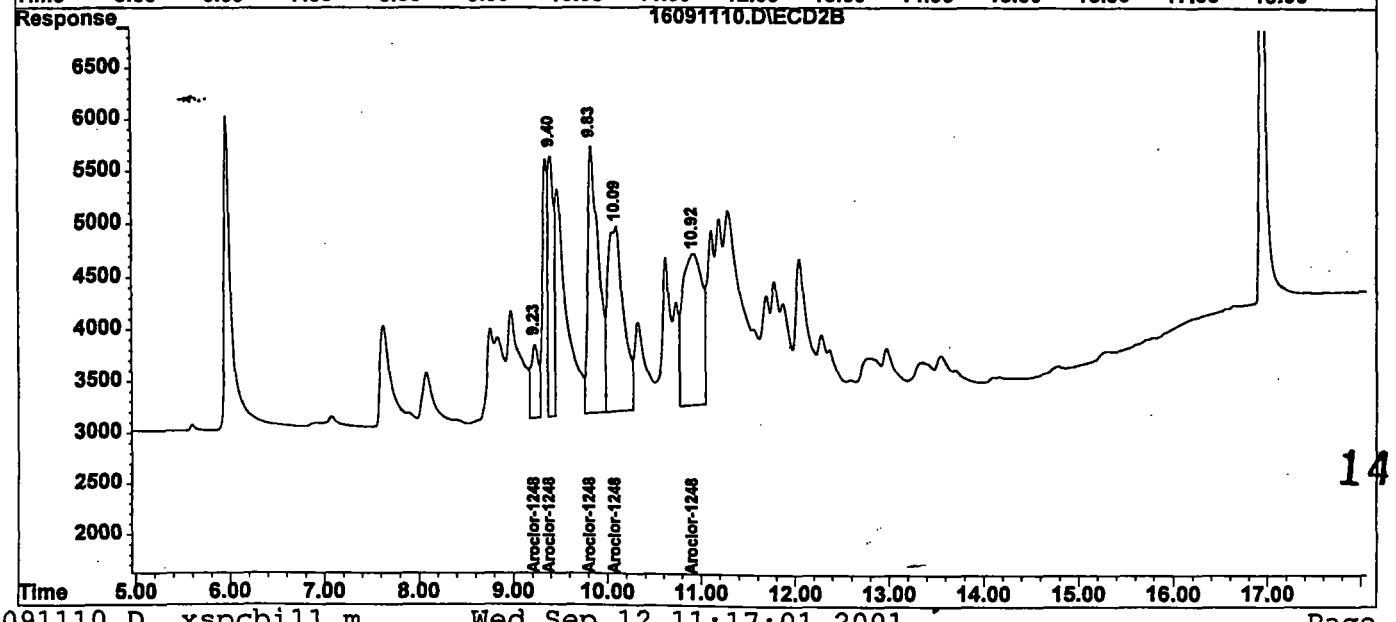
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091110.D\ECD1A.CH Vial: 14
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091110.D\ECD2B.CH
Acq On : 11 Sep 2001 15:55 Operator: DDC
Sample : AR1248L3CI Inst : HP_16
Misc : 5-424-6 Dilution: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Sep 12 11:02 2001 Quant Results File: xspcbi11.RES
Quant Time: Sep 12 11:02 2001 Quant Results File: xspcbi11.RES

Pesticide Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-ICAL Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001

Multi-Component Method : f:\hpchem\hp\16\data\09_11_01\xspcbi11.m
Title : PCB/TOXAPHENE
Last Update : Fri May 18 09:02:00 2001
Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 Signal #2 Info : .32
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091110.D\ECD1A.CH Vial: 14
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091110.D\ECD2B.CH
Acq On : 11 Sep 2001 15:55 Operator: DDC
Sample : AR1248L3CI Inst : HP_16
Misc : 5-424-6 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 12 11:01 2001 Quant Results File: XPCBI11.RES
Multi Time: Sep 12 11:02 2001 Quant Results File: xspcbi11.RES

Pesticide Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-ICAL Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001

Multi-Component Method : f:\hpchem\hp\16\data\09_11_01\xspcbi11.m
Title : PCB/TOXAPHENE
Last Update : Fri May 18 09:02:00 2001
Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds:							
1)	S TCX	5.96	5.97	135270	164157	19.5	20.9	
22)	S DCB	17.59	16.96	260242	251123	22.8	22.3	
	Target Compounds:							
	Multi-Component Compounds:							
14)	L5 Aroclor-1248	9.71	9.24	96387	39612	470.9	198.6	#
15)	L5 Aroclor-1248 {2}	9.80	9.40	94906	105103	476.0	527.1	
16)	L5 Aroclor-1248 {3}	10.27	9.83	110956	200922	480.4	550.0	
17)	L5 Aroclor-1248 {4}	10.56	10.10	173989	208815	494.6	987.8	#
18)	L5 Aroclor-1248 {5}	11.57	10.92	75075	209196	544.6	442.5	
	Sum Aroclor-1248			551311	763648	2466.4	2706.0	
	Average Aroclor-1248					493.284	541.194	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std
16091110.D xspcbi11.m Wed Sep 12 11:16:55 2001 Page 1

Response Factor Report HP_16

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Calibration Files
L1 =16091111.D L2 =16091112.D L3 =16091113.D
L4 =16091114.D L5 =16091115.D

Compound	L1	L2	L3	L4	L5	Avg	%RSD
12) Aroclor-1254	421.7	480.8	304.4	400.2	419.0	405.2	15.78
13) Aroclor-1254 {2}	383.2	431.4	271.4	347.5	343.6	355.4	16.53
14) Aroclor-1254 {3}	722.3	644.9	410.2	542.0	547.6	573.4	20.56
15) Aroclor-1254 {4}	343.8	406.9	260.7	328.3	311.8	330.3	16.06
16) Aroclor-1254 {5}	355.2	430.6	276.5	360.8	356.7	356.0	15.32

Signal #2 Calibration Files
L1 =16091111.D L2 =16091112.D L3 =16091113.D
L4 =16091114.D L5 =16091115.D

Compound	L1	L2	L3	L4	L5	Avg	%RSD
35) Aroclor-1254 #2	345.0	378.5	236.8	302.8	301.5	312.9	17.03
36) Aroclor-1254 {2} #2	410.7	437.6	280.7	371.4	375.1	375.1	15.83
37) Aroclor-1254 {3} #2	232.6	286.4	194.6	282.5	297.9	258.8	16.91
38) Aroclor-1254 {4} #2	314.4	383.7	249.1	324.9	314.6	317.3	15.06
39) Aroclor-1254 {5} #2	558.9	663.8	421.2	553.5	541.1	547.7	15.73

(#) = Out of Range

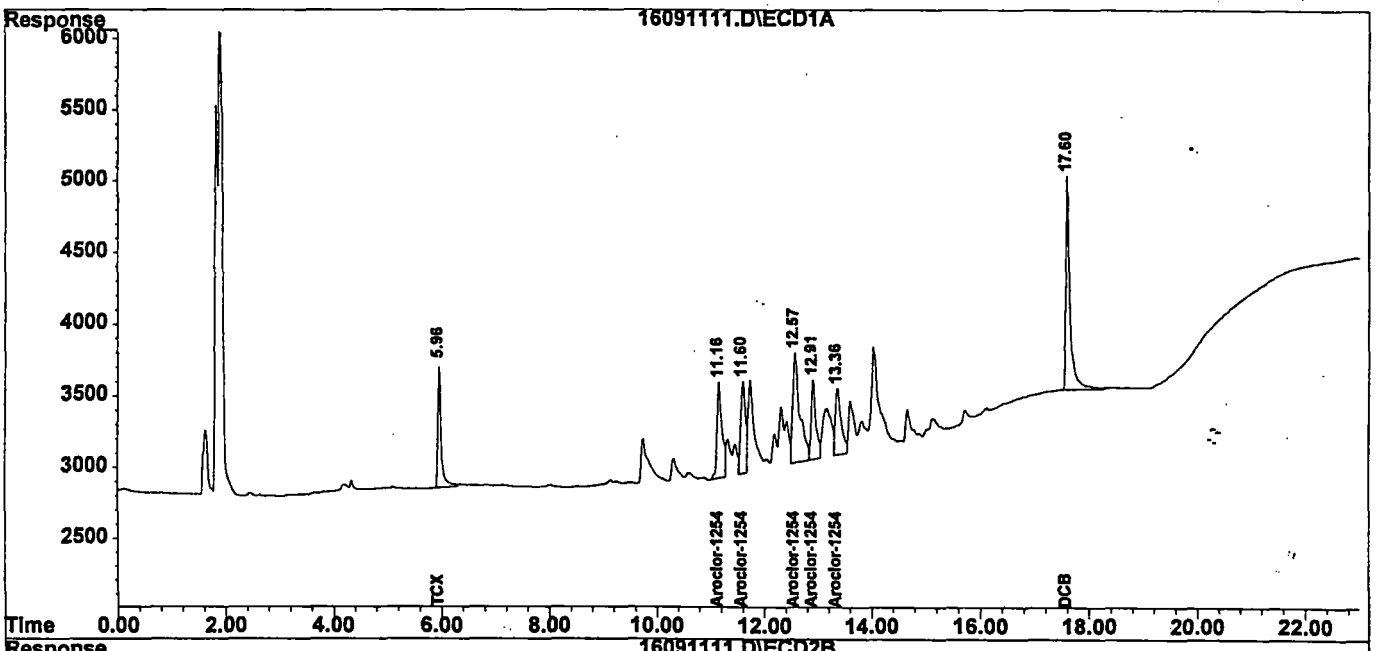
XPCBI11.M Tue Sep 11 19:16:13 2001

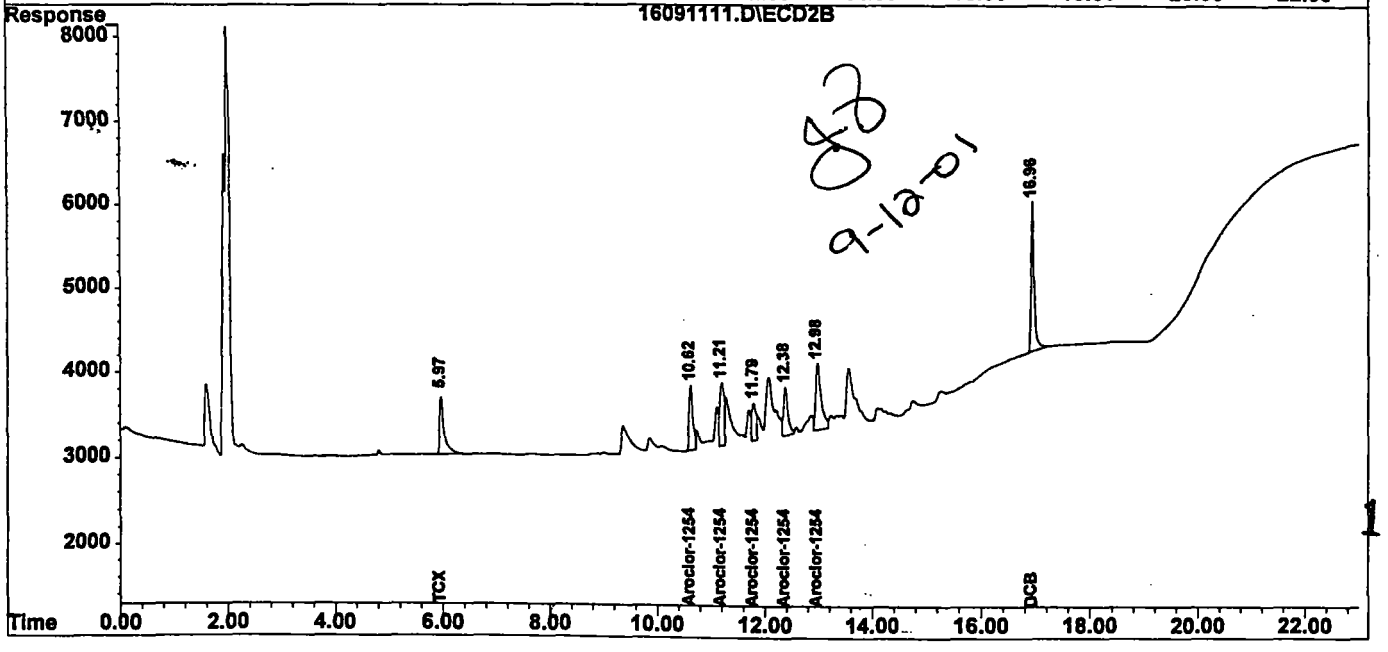
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091111.D\ECD1A.CH Vial: 15
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091111.D\ECD2B.CH
Acq On : 11 Sep 2001 16:21 Operator: DDC
Sample : AR1254L1CI Inst : HP_16
Misc : 5-6-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 11 19:15 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091111.D\ECD1A.CH Vial: 15
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091111.D\ECD2B.CH
Acq On : 11 Sep 2001 16:21 Operator: DDC
Sample : AR1254L1CI Inst : HP_16
Misc : 5-6-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 11 19:15 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds:						
1)	S TCX	5.96	5.98	36955	38695	4.569	4.306
22)	S DCB	17.60	16.96	76811	68117	5.877	5.161
	Target Compounds:						
12)	L6 Aroclor-1254	11.16	10.63	42170	34499	105.5	124.5
13)	L6 Aroclor-1254 {2}	11.60	11.21	38321	41068	115.2	124.6m
14)	L6 Aroclor-1254 {3}	12.57f	11.79	72234	23260	141.8	91.2m #
15)	L6 Aroclor-1254 {4}	12.91	12.38	34384	31438	121.6	125.8
16)	L6 Aroclor-1254 {5}	13.36	12.99	35521	55895	111.0	129.9
	Sum Aroclor-1254			222630	186160	595.0	596.0
	Average Aroclor-1254					119.002	119.203

JPC 9-12-01

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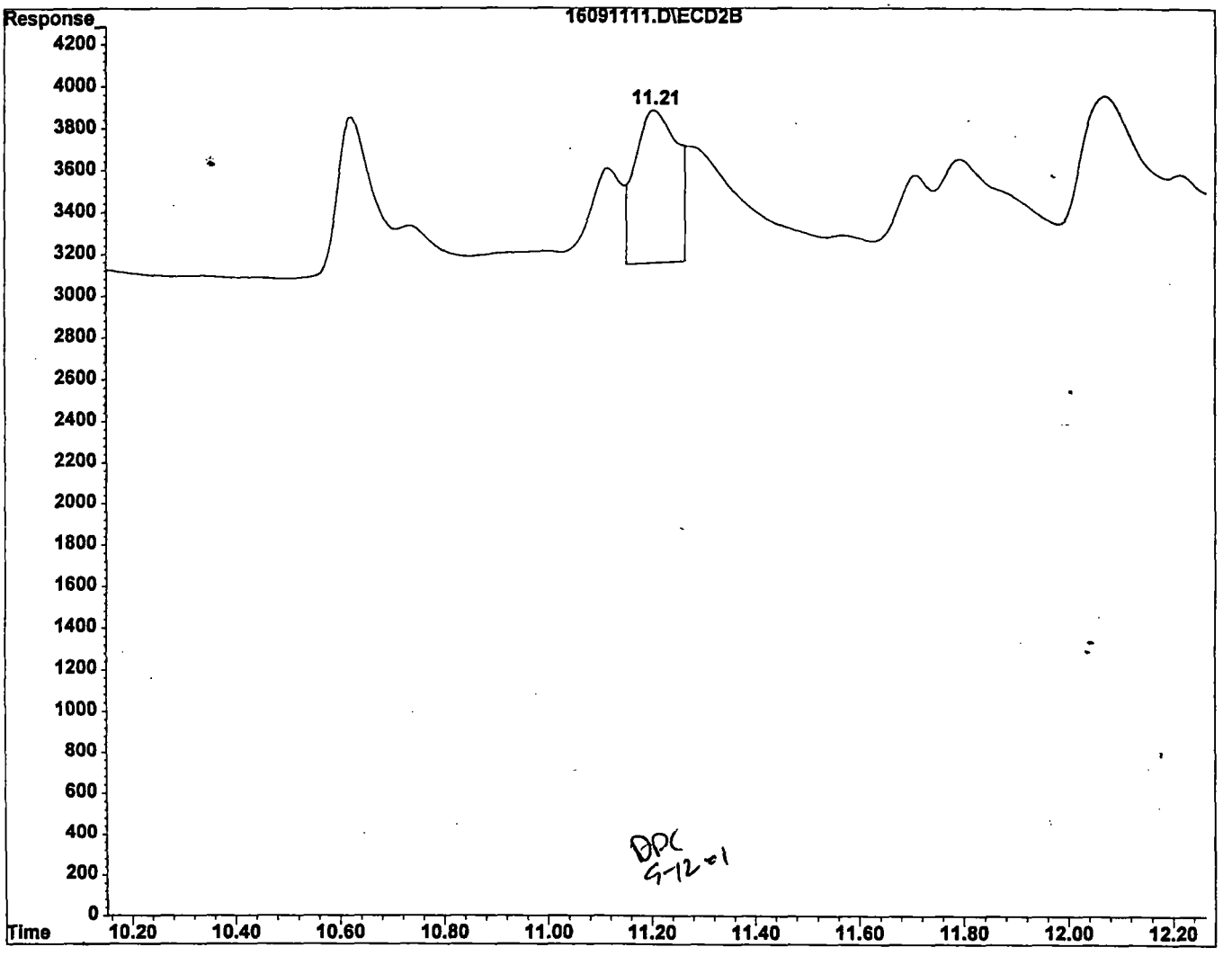
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_11_01\16091111.D
Date Acquired: 11 Sep 2001 16:21
Inst: HP_16 Operator ID: DDC
Name: AR1254L1CI
Misc: 5-6-7
Method: F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 11 19:15 2001 Quant Results File: XPCBI11.RES



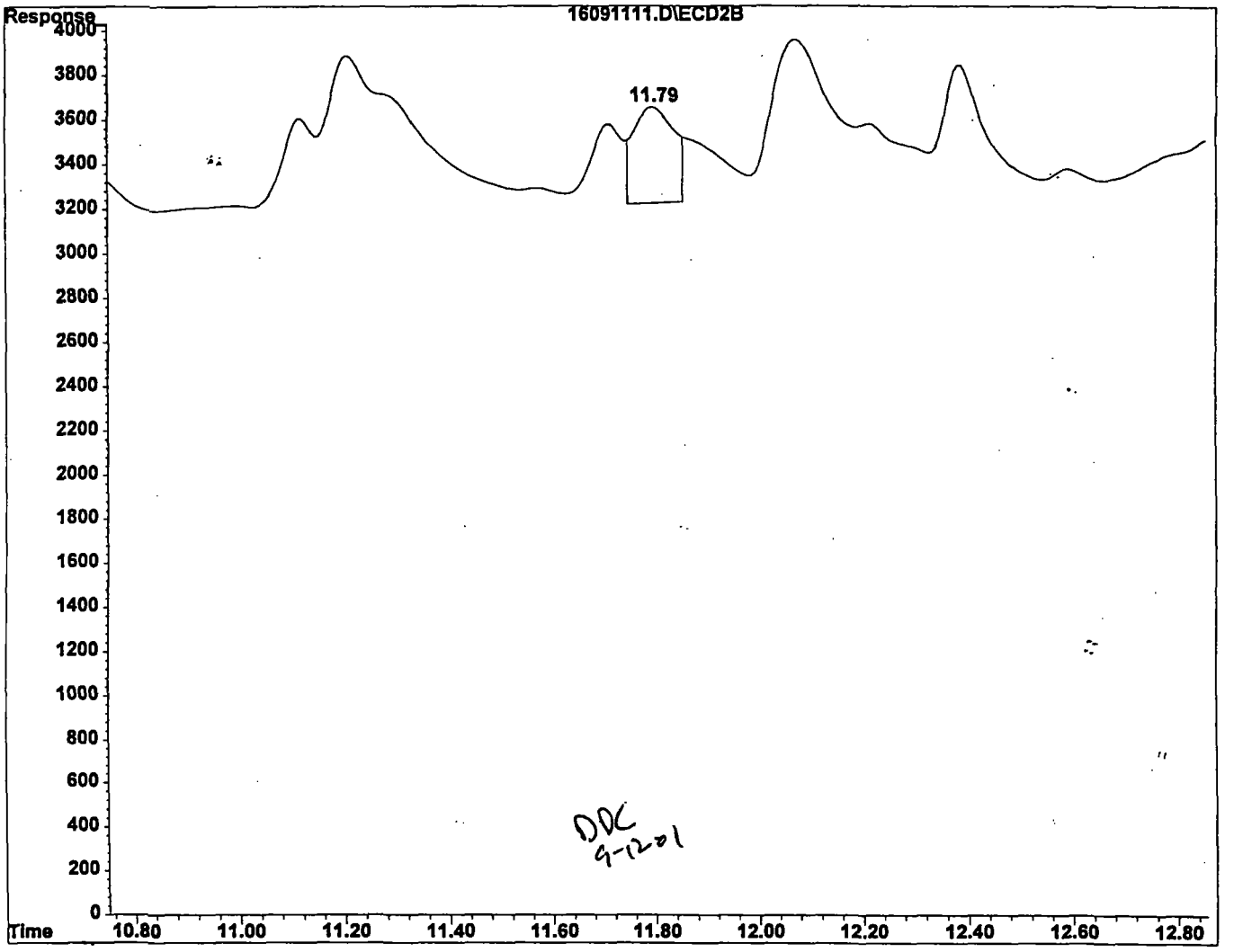
Aroclor-1254 {2} #2 11.21min area: 41068 m

Integration Time Range: 11.15 - 11.26

F:\HPCHEM\HP\16\DATA\09_11_01\16091111.D
Report generated: Wed Sep 12 11:14:40 2001

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_11_01\16091111.D
Date Acquired: 11 Sep 2001 16:21
Inst: HP_16 Operator ID: DDC
Name: AR1254L1CI
Misc: 5-6-7
Method: F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 11 19:15 2001 Quant Results File: XPCBI11.RES



Aroclor-1254 {3} #2 11.79min area: 23260 m

Integration Time Range: 11.75 - 11.85

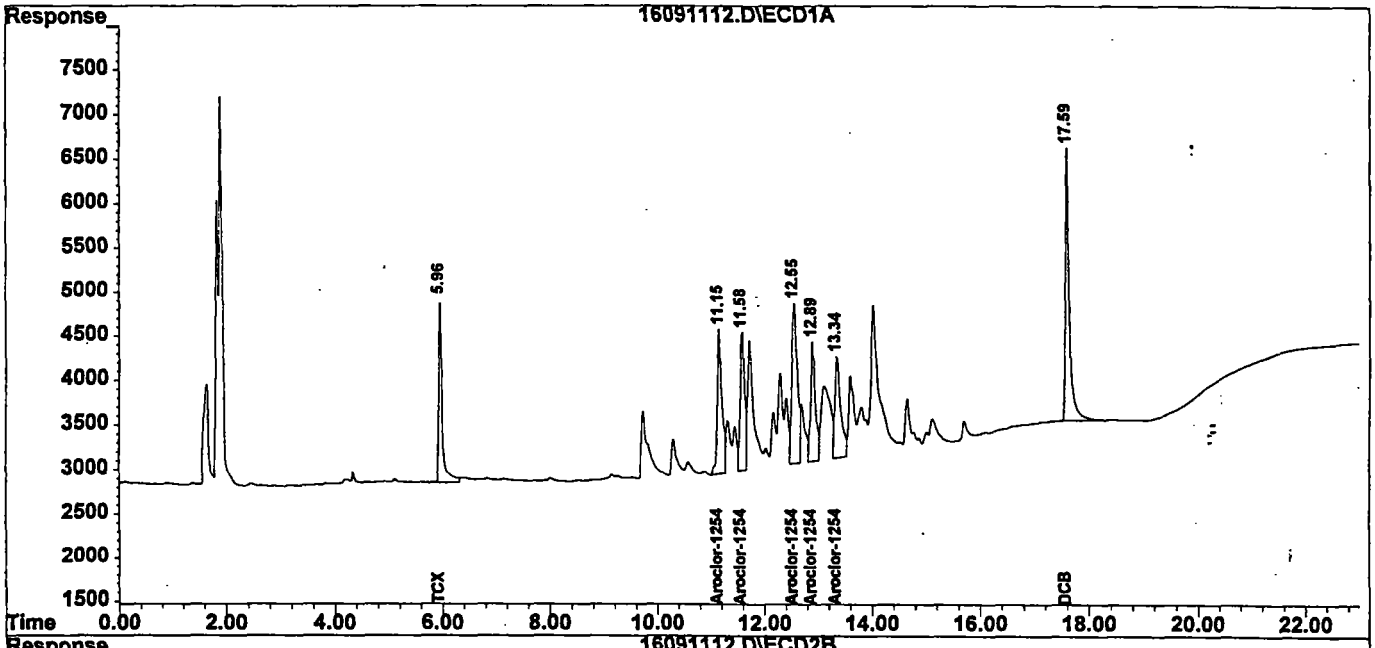
F:\HPCHEM\HP\16\DATA\09_11_01\16091111.D
Report generated: Wed Sep 12 11:14:41 2001

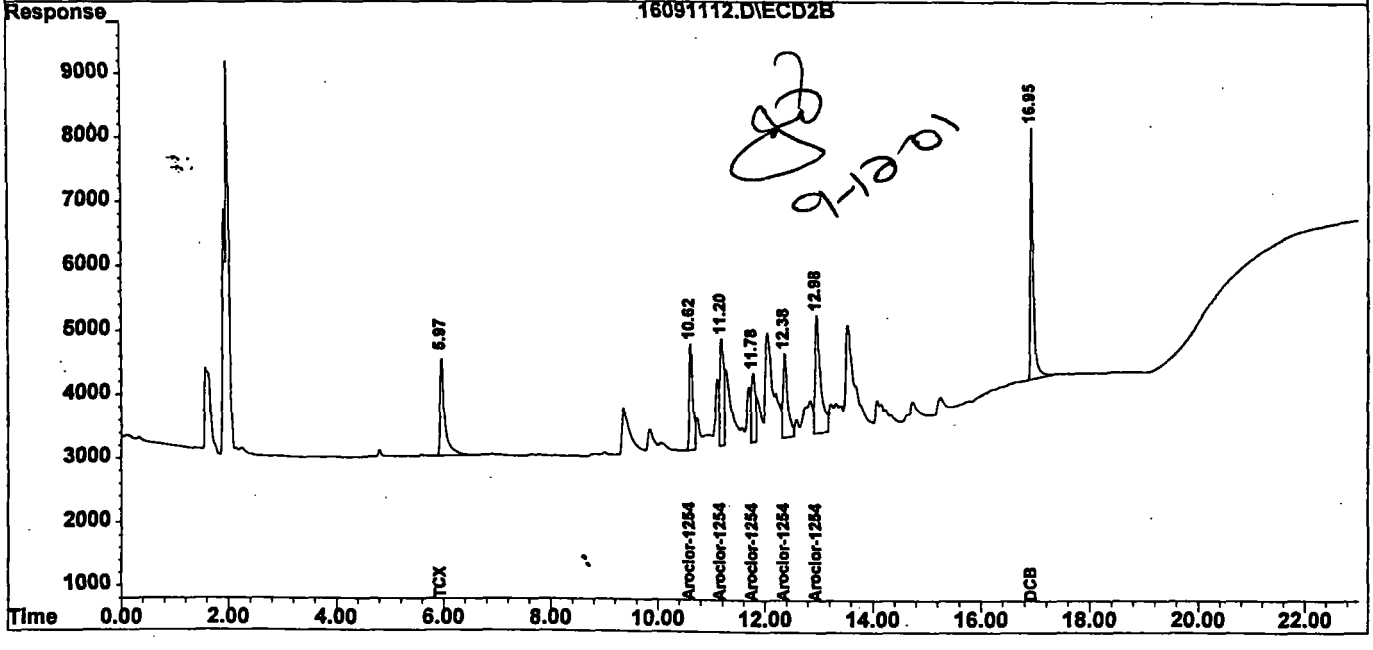
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091112.D\ECD1A.CH Vial: 16
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091112.D\ECD2B.CH
Acq On : 11 Sep 2001 16:48 Operator: DDC
Sample : AR1254L2CI Inst : HP_16
Misc : 5-5-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 11 19:15 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091112.D\ECD1A.CH Vial: 16
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091112.D\ECD2B.CH
Acq On : 11 Sep 2001 16:48 Operator: DDC
Sample : AR1254L2CI Inst : HP_16
Misc : 5-5-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 11 19:15 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds:						
1)	S TCX	5.96	5.97	90319	90636	11.7	10.4
22)	S DCB	17.59	16.96	152251	146555	12.0	11.4
	Target Compounds:						
12)	L6 Aroclor-1254	11.15	10.62	96156	75690	239.3	258.1
13)	L6 Aroclor-1254 {2}	11.58	11.19	86280	87520	254.2	200.6m
14)	L6 Aroclor-1254 {3}	12.55	11.79	128976	57272	233.7	195.6m
15)	L6 Aroclor-1254 {4}	12.90	12.38	81377	76741	276.3	282.7
16)	L6 Aroclor-1254 {5}	13.35	12.98	86114	132759	260.4	286.1
	Sum Aroclor-1254			478903	429982	1263.9	1223.1
	Average Aroclor-1254					252.784	244.616

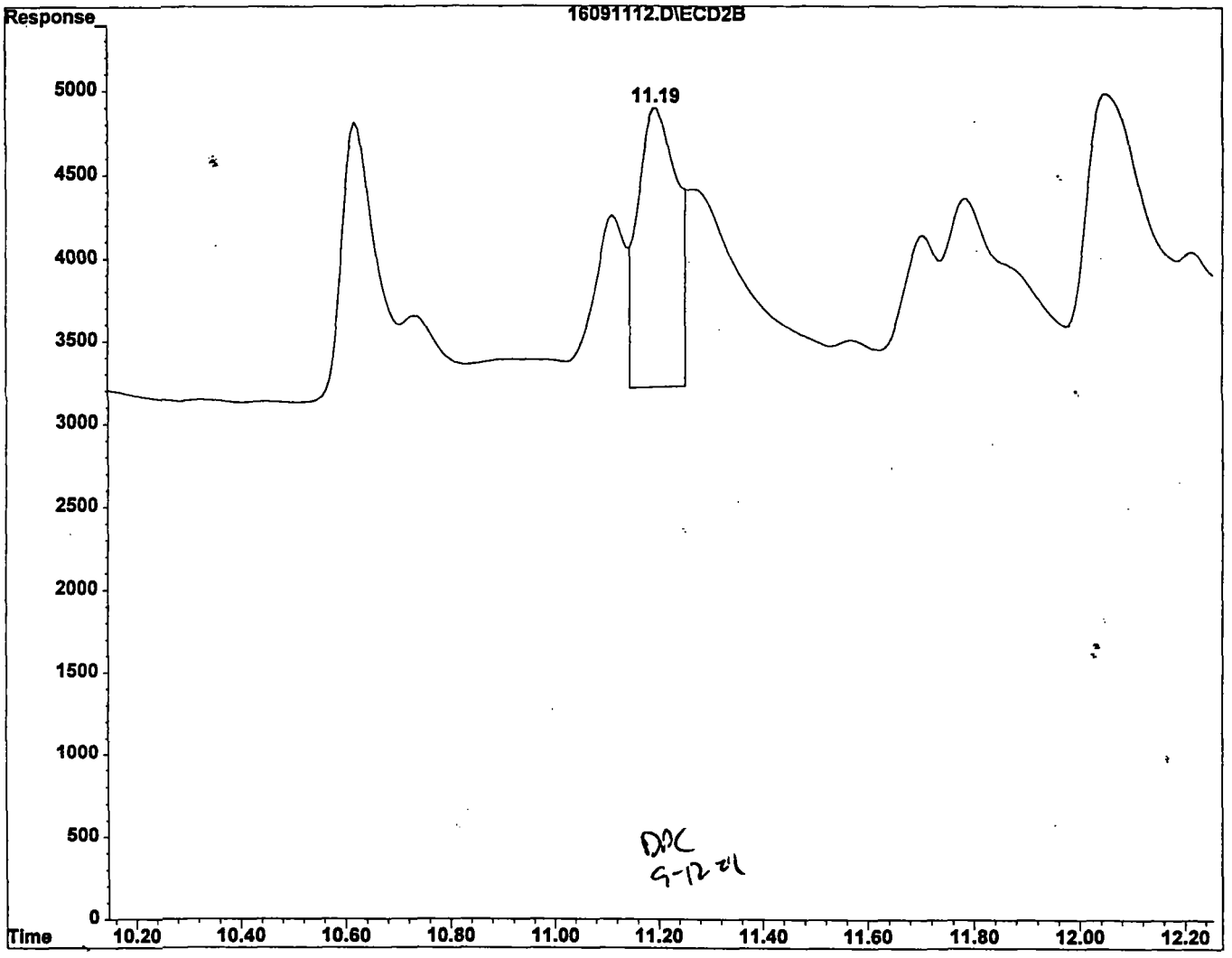
DDC 9-12-01

150

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_11_01\16091112.D
Date Acquired: 11 Sep 2001 16:48
Inst: HP_16 Operator ID: DDC
Name: AR1254L2CI
Misc: 5-5-7
Method: F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 11 19:15 2001 Quant Results File: XPCBI11.RES



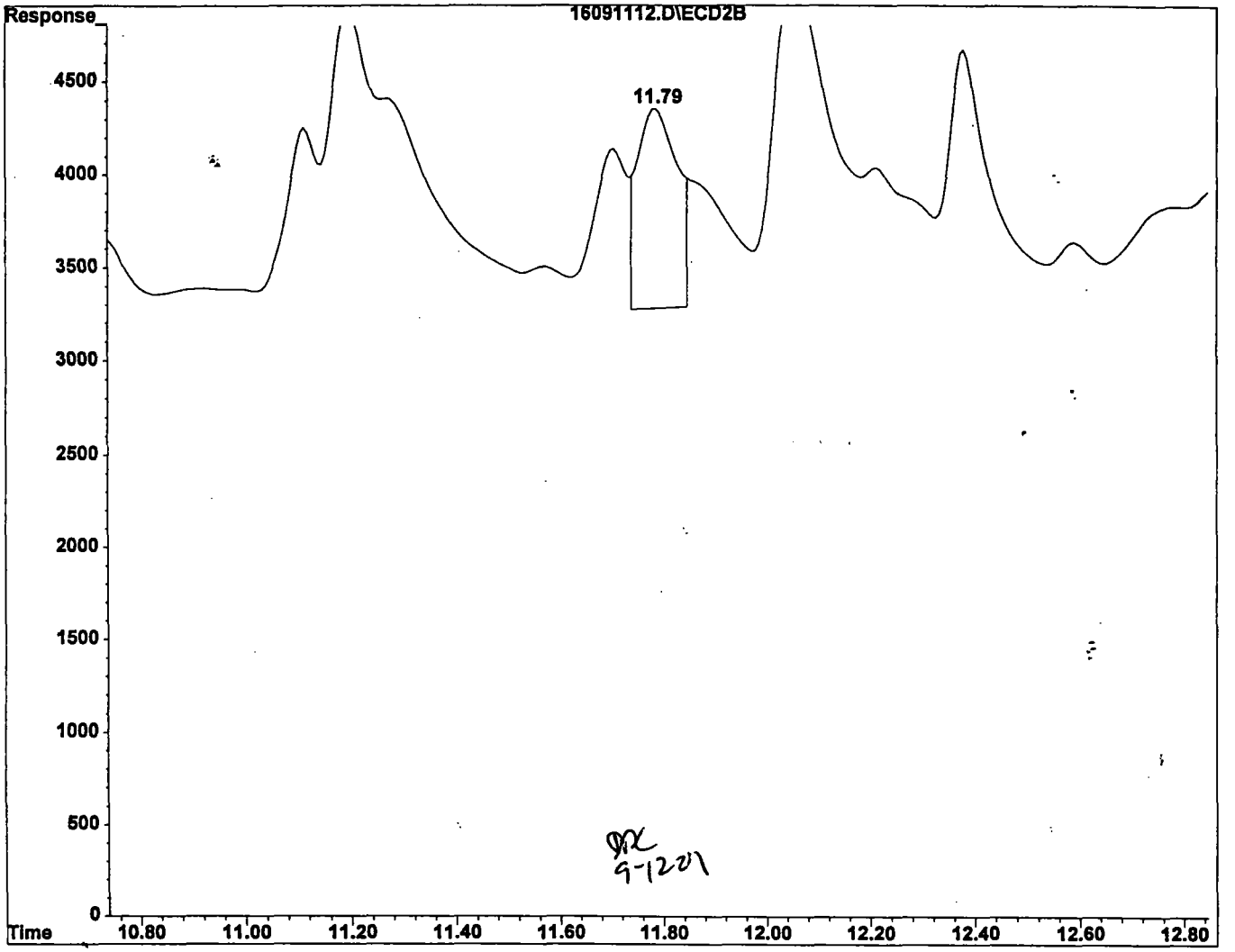
Aroclor-1254 {2} #2 11.19min area: 87520 m

Integration Time Range: 11.15 - 11.25

F:\HPCHEM\HP\16\DATA\09_11_01\16091112.D
Report generated: Wed Sep 12 11:14:42 2001

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_11_01\16091112.D
Date Acquired: 11 Sep 2001 16:48
Inst: HP_16 Operator ID: DDC
Name: AR1254L2CI
Misc: 5-5-7
Method: F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 11 19:15 2001 Quant Results File: XPCBI11.RES



Aroclor-1254 {3} #2 11.79min area: 57272 m

Integration Time Range: 11.74 - 11.85

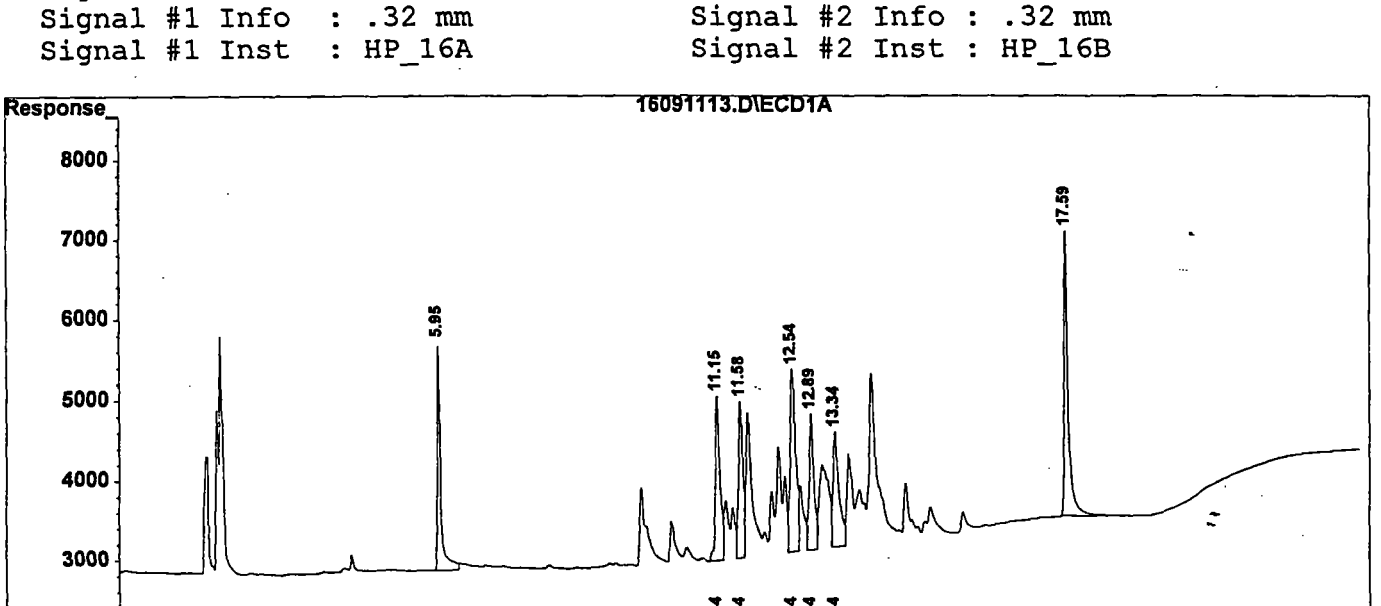
F:\HPCHEM\HP\16\DATA\09_11_01\16091112.D
Report generated: Wed Sep 12 11:14:43 2001

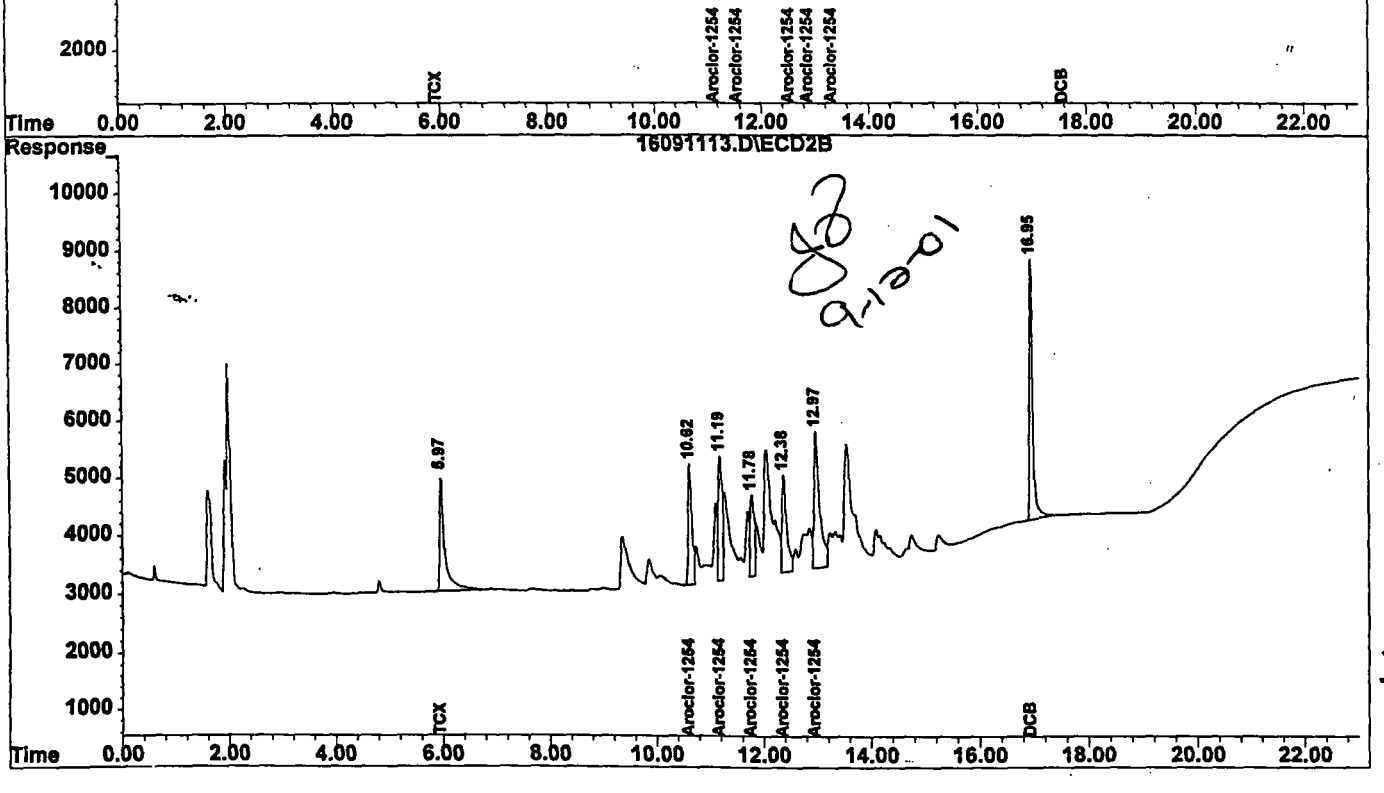
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091113.D\ECD1A.CH Vial: 17
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091113.D\ECD2B.CH
Acq On : 11 Sep 2001 17:14 Operator: DDC
Sample : AR1254L3CI Inst : HP_16
Misc : 5-4-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 11 19:15 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091113.D\ECD1A.CH Vial: 17
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091113.D\ECD2B.CH
Acq On : 11 Sep 2001 17:14 Operator: DDC
Sample : AR1254L3CI Inst : HP_16
Misc : 5-4-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 11 19:15 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds:						
1)	S TCX	5.96	5.97	122588	127292	15.6	14.6
22)	S DCB	17.60	16.96	183162	179910	13.9	14.0
	Target Compounds:						
12)	L6 Aroclor-1254	11.15	10.62	121764	94711	290.3	302.7
13)	L6 Aroclor-1254 {2}	11.58	11.19	108567	112272	302.2	199.7m #
14)	L6 Aroclor-1254 {3}	12.54	11.78	164096	77840	282.2	225.6m
15)	L6 Aroclor-1254 {4}	12.90	12.38	104261	99643	325.8	329.9
16)	L6 Aroclor-1254 {5}	13.34	12.98	110618	168481	311.5	326.5
	Sum Aroclor-1254			609306	552947	1512.1	1384.3
	Average Aroclor-1254					302.411	276.862

DDC 9-12-01

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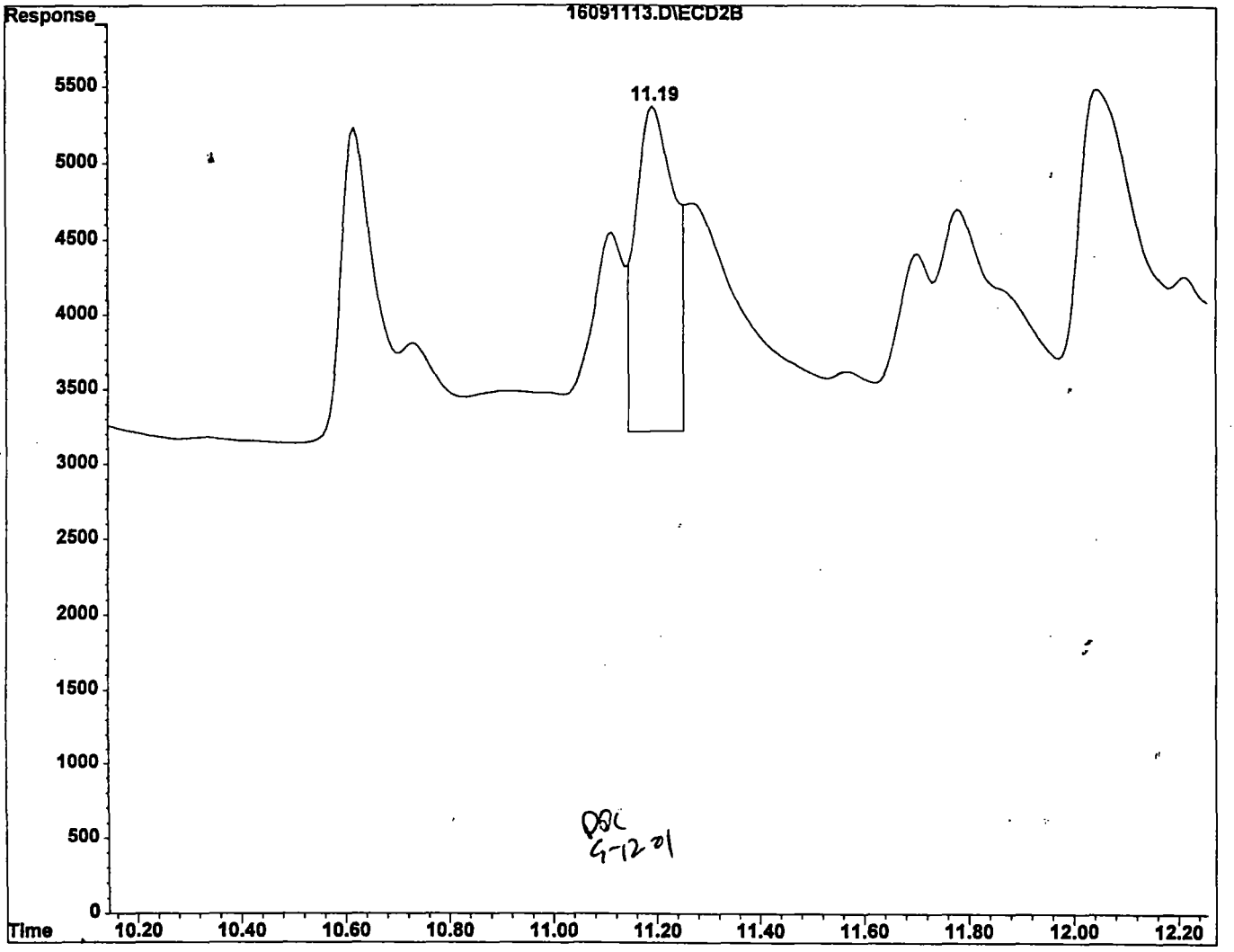
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_11_01\16091113.D
Date Acquired: 11 Sep 2001 17:14
Inst: HP_16 Operator ID: DDC
Name: AR1254L3CI
Misc: 5-4-7
Method: F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 11 19:15 2001 Quant Results File: XPCBI11.RES



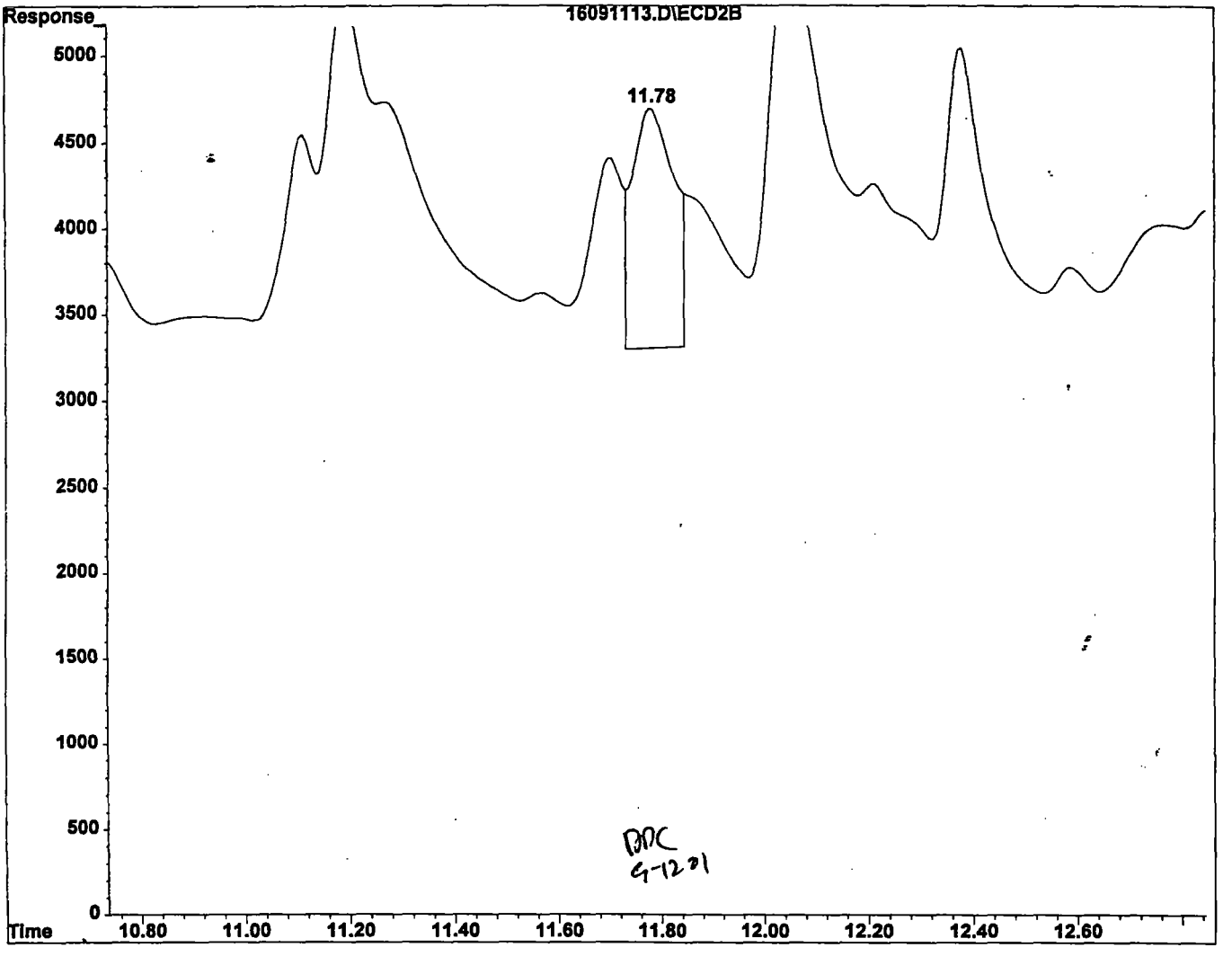
Aroclor-1254 {2} #2 11.19min area: 112272 m

Integration Time Range: 11.14 - 11.25

F:\HPCHEM\HP\16\DATA\09_11_01\16091113.D
Report generated: Wed Sep 12 11:14:44 2001

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_11_01\16091113.D
Date Acquired: 11 Sep 2001 17:14
Inst: HP_16 Operator ID: DDC
Name: AR1254L3CI
Misc: 5-4-7
Method: F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 11 19:15 2001 Quant Results File: XPCBI11.RES



Aroclor-1254 {3} #2 11.78min area: 77840 m

Integration Time Range: 11.74 - 11.84

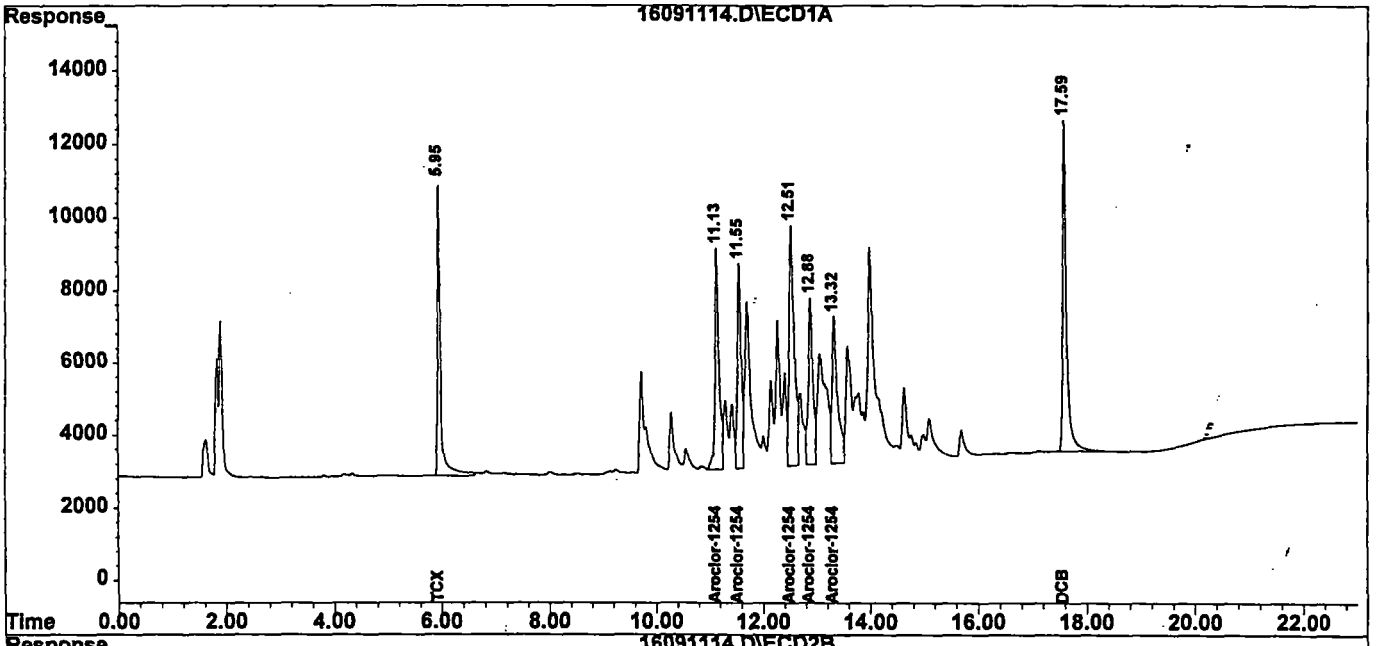
F:\HPCHEM\HP\16\DATA\09_11_01\16091113.D
Report generated: Wed Sep 12 11:14:44 2001

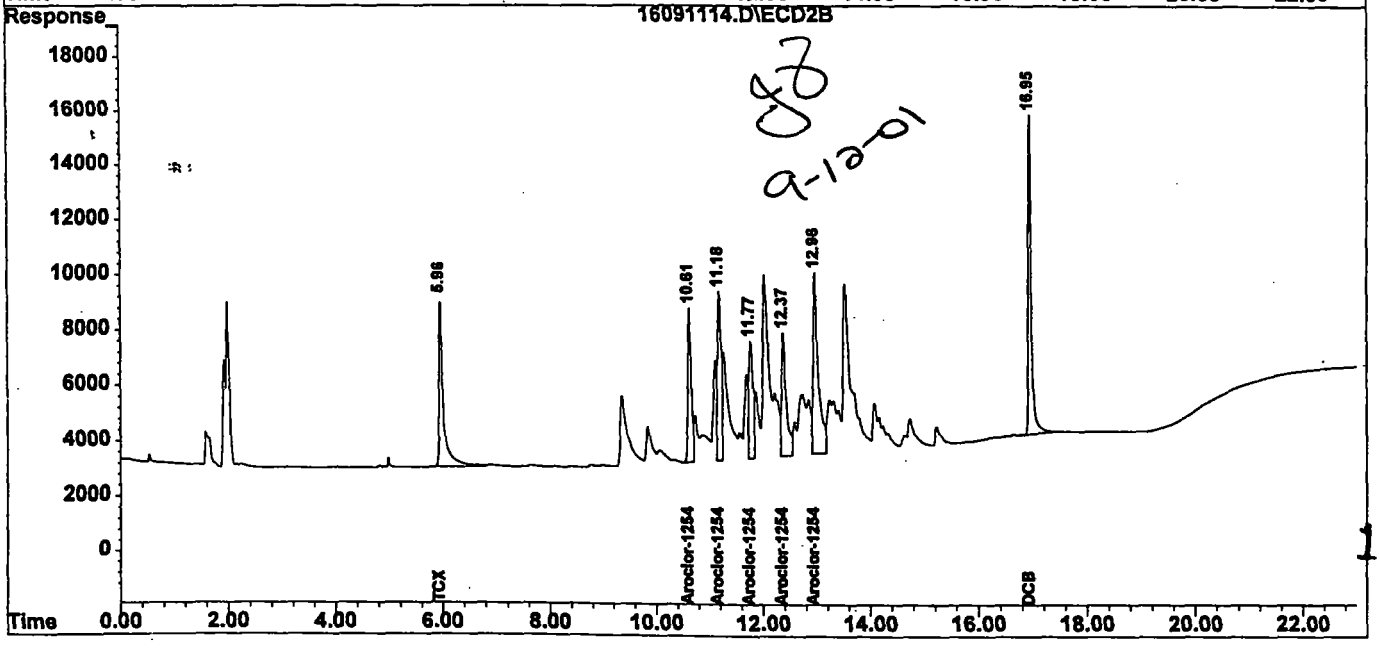
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091114.D\ECD1A.CH Vial: 18
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091114.D\ECD2B.CH
Acq On : 11 Sep 2001 17:41 Operator: DDC
Sample : AR1254L4CI Inst : HP_16
Misc : 5-3-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 11 19:11 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091114.D\ECD1A.CH Vial: 18
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091114.D\ECD2B.CH
Acq On : 11 Sep 2001 17:41 Operator: DDC
Sample : AR1254L4CI Inst : HP_16
Misc : 5-3-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 11 19:11 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds:							
1)	S TCX	5.95	5.96	326521	336604	43.1	40.9	
22)	S DCB	17.59	16.95	439879	452673	35.4	37.3	
	Target Compounds:							
12)	L6 Aroclor-1254	11.14	10.61	320147	242237	805.8	803.9	
13)	L6 Aroclor-1254 {2}	11.55	11.18	277987	297091	806.1	482.9	#
14)	L6 Aroclor-1254 {3}	12.52	11.77	433578	225963	777.4	650.4	
15)	L6 Aroclor-1254 {4}	12.88	12.37	262601	259919	843.3	874.6	
16)	L6 Aroclor-1254 {5}	13.32	12.97	288660	442814	844.9	873.2	
	Sum Aroclor-1254			1582972	1468024	4077.5	3685.1	
	Average Aroclor-1254					815.496	737.012	

158

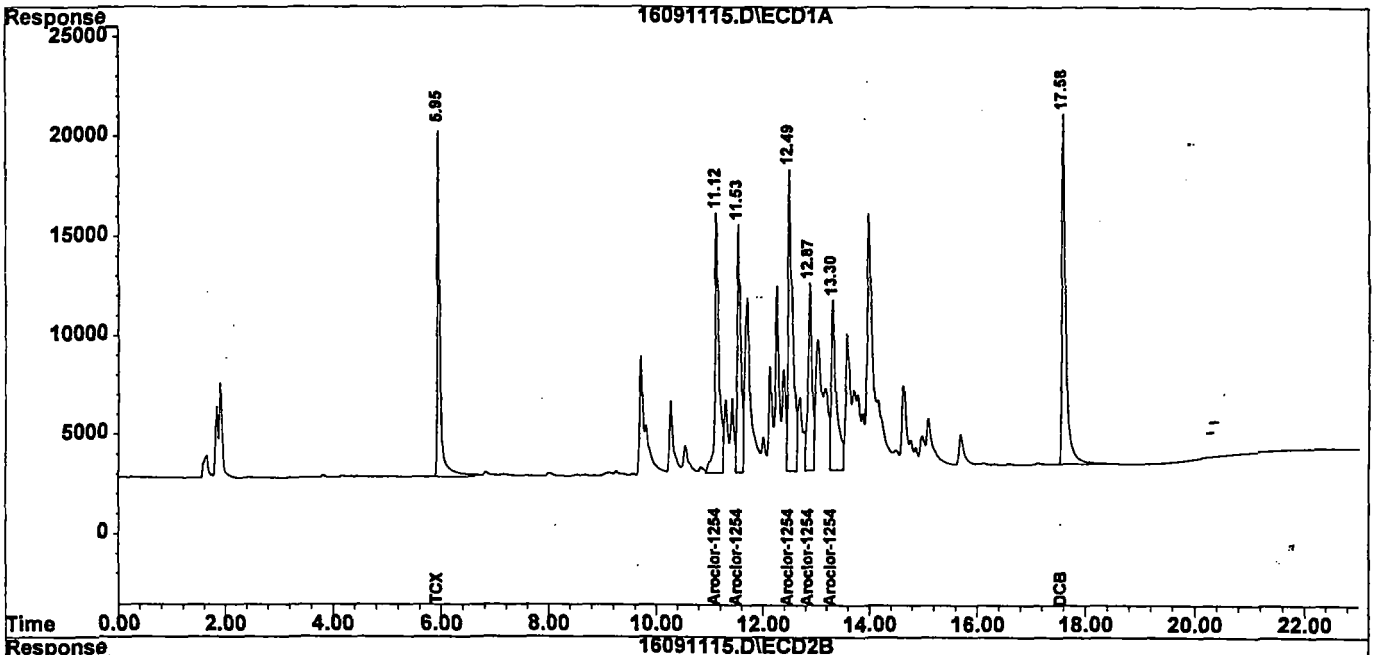
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

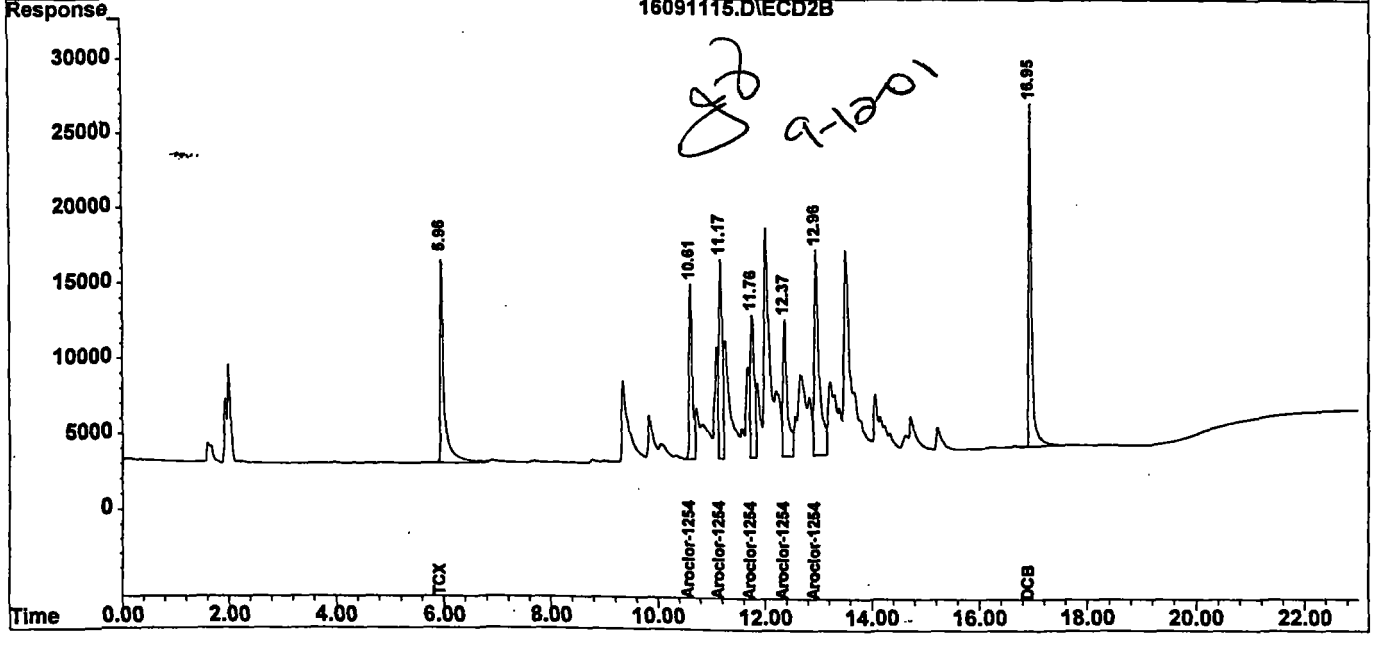
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091115.D\ECD1A.CH Vial: 19
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091115.D\ECD2B.CH
Acq On : 11 Sep 2001 18:07 Operator: DDC
Sample : AR1254L5CI Inst : HP_16
Misc : 5-2-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 11 19:11 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091115.D\ECD1A.CH Vial: 19
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091115.D\ECD2B.CH
Acq On : 11 Sep 2001 18:07 Operator: DDC
Sample : AR1254L5CI Inst : HP_16
Misc : 5-2-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 11 19:11 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds:						
1)	S TCX	5.95	5.96	652942	707910	84.7 E	86.8 E
22)	S DCB	17.59	16.95	847789	884561	68.7 E	73.7 E
	Target Compounds:						
12)	L6 Aroclor-1254	11.13	10.61	670471	482387	1661.5	1561.3
13)	L6 Aroclor-1254 {2}	11.54	11.17	549722	600118	1557.7	958.2 E#
14)	L6 Aroclor-1254 {3}	12.50	11.76	876098	476634	1537.2	1351.7 E
15)	L6 Aroclor-1254 {4}	12.88	12.37	498811	503300	1542.0 E	1621.6
16)	L6 Aroclor-1254 {5}	13.31	12.96	570799	865797	1626.5 E	1629.5 E
	Sum Aroclor-1254			3165901	2928237	7925.1	7122.4
	Average Aroclor-1254					1585.018	1424.484

160

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

Response Factor Report HP_16

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\15\DATA\09_10_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Calibration Files
L1 =16091116.D L2 =16091117.D L3 =16091118.D
L4 =16091119.D L5 =16091120.D

	Compound	L1	L2	L3	L4	L5	Avg		%RSD
1)	TCX	6.6	7.8	6.3	6.5	7.4	6.9	E3	9.36
2)	Aroclor-1016	416.1	475.1	368.5	357.8	361.4	395.8		12.68
3)	Aroclor-1016 {2}	261.7	325.3	263.0	260.0	193.3	260.7		17.92
4)	Aroclor-1016 {3}	230.3	277.0	214.1	219.7	239.7	236.2		10.54
5)	Aroclor-1016 {4}	204.4	239.7	188.2	180.8	185.6	199.7		12.03
6)	Aroclor-1016 {5}	286.7	356.7	284.6	281.2	292.3	300.3		10.59
17)	Aroclor-1260	521.8	658.3	536.7	525.3	545.0	557.4		10.25
18)	Aroclor-1260 {2}	468.3	586.2	475.1	475.6	500.3	501.1		9.80
19)	Aroclor-1260 {3}	429.5	502.3	367.7	370.3	371.4	408.2		14.36
20)	Aroclor-1260 {4}	321.5	408.0	340.2	342.8	376.1	357.7		9.60
21)	Aroclor-1260 {5}	838.6	1049.8	806.1	696.0	768.0	831.7		15.99
22)	DCB	12.1	13.9	10.5	10.3	10.2	11.4	E3	13.99

Signal #2 Calibration Files
L1 =16091116.D L2 =16091117.D L3 =16091118.D
L4 =16091119.D L5 =16091120.D

	Compound	L1	L2	L3	L4	L5	Avg		%RSD
24)	TCX #2	7.0	8.6	7.3	7.7	8.7	7.9	E3	9.52
25)	Aroclor-1016 #2	424.6	489.4	399.9	402.0	414.4	426.1		8.63
26)	Aroclor-1016 {2} #2	199.5	208.7	154.2	186.8	179.2	185.7		11.27
27)	Aroclor-1016 {3} #2	243.6	259.7	208.6	197.6	200.3	222.0		12.62
28)	Aroclor-1016 {4} #2	376.7	436.3	352.8	351.3	361.9	375.8		9.40
29)	Aroclor-1016 {5} #2	240.3	308.4	270.5	276.1	279.0	274.9		8.84
40)	Aroclor-1260 #2	578.5	659.0	510.0	502.7	513.4	552.7		12.08
41)	Aroclor-1260 {2} #2	547.0	703.2	602.5	635.1	727.6	643.1		11.45
42)	Aroclor-1260 {3} #2	327.9	416.9	307.7	330.0	363.4	349.2		12.26
43)	Aroclor-1260 {4} #2	861.2	1060.4	855.8	903.7	988.9	934.0		9.47
44)	Aroclor-1260 {5} #2	437.3	526.1	364.4	416.0	417.2	432.2		13.65
45)	DCB #2	11.4	13.5	10.5	10.5	10.5	11.3	E3	11.46

(#) = Out of Range

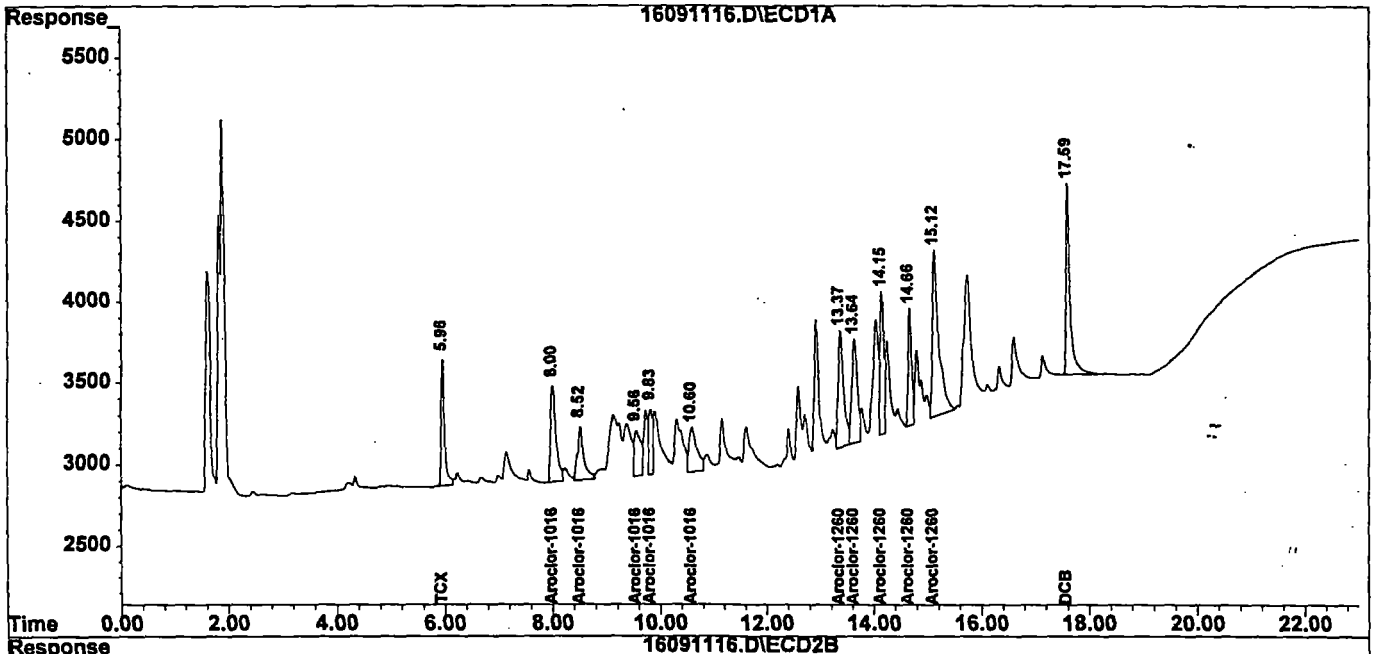
XPCBI11.M Wed Sep 12 10:55:53 2001

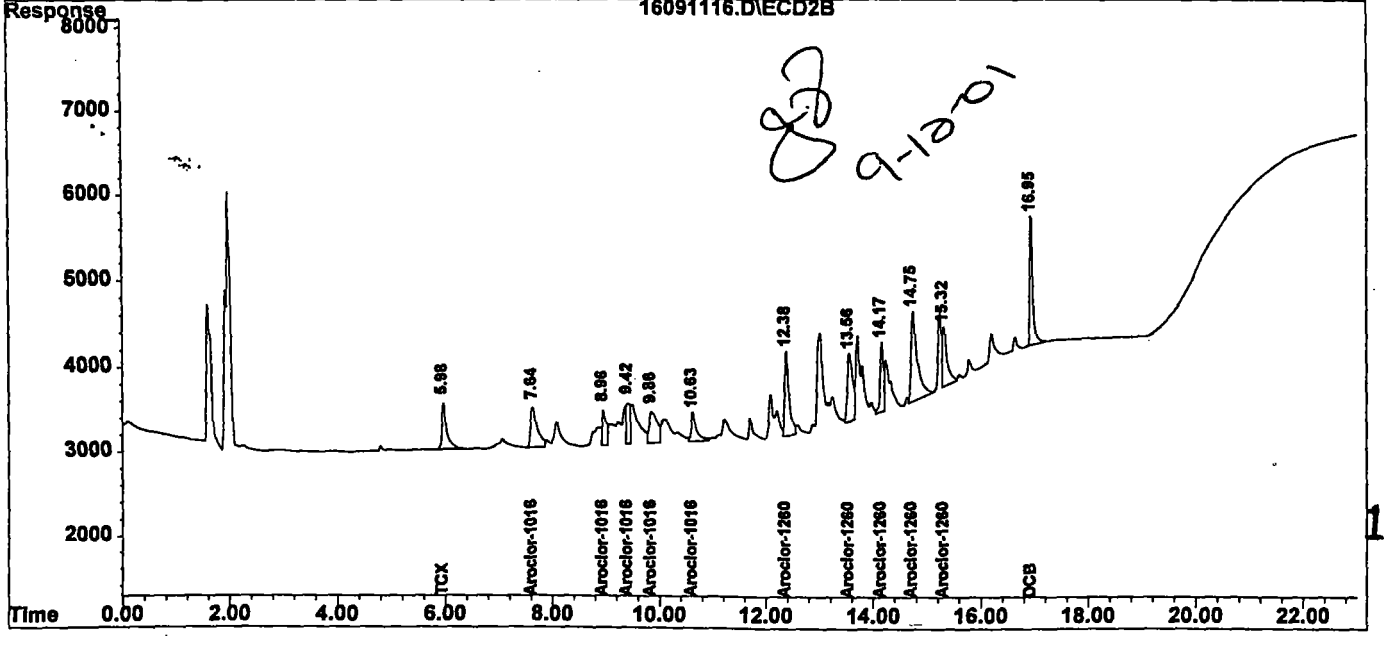
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091116.D\ECD1A.CH Vial: 20
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091116.D\ECD2B.CH
Acq On : 11 Sep 2001 18:34 Operator: DDC
Sample : AR1660L1CI Inst : HP_16
Misc : 5-212-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 12 10:55 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\15\DATA\09_10_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091116.D\ECD1A.CH Vial: 20
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091116.D\ECD2B.CH
Acq On : 11 Sep 2001 18:34 Operator: DDC
Sample : AR1660L1CI Inst : HP_16
Misc : 5-212-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 12 10:55 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\15\DATA\09_10_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds:						
1)	S TCX	5.96	5.98	32858	34964	4.226	4.324
22)	S DCB	17.60	16.96	60743	56799	4.951	4.761
	Target Compounds:						
2)	L1 Aroclor-1016	8.01	7.64	41614	42459	122.3	124.2
3)	L1 Aroclor-1016 {2}	8.52f	8.96f	26171	19948	153.5	80.5m #
4)	L1 Aroclor-1016 {3}	9.56f	9.42	23030	24364	114.0	141.4m
5)	L1 Aroclor-1016 {4}	9.83	9.86	20437	37672	121.9	129.1
6)	L1 Aroclor-1016 {5}	10.60	10.63	28673	24027	117.6	105.5
	Sum Aroclor-1016			139925	148469	629.4	580.7
	Average Aroclor-1016					125.884	116.134
17)	L7 Aroclor-1260	13.37	12.39f	52183	57849	110.8	133.9
18)	L7 Aroclor-1260 {2}	13.64f	13.57	46834	54699	110.3	102.6
19)	L7 Aroclor-1260 {3}	14.15f	14.18f	42954	32788	129.2	121.5
20)	L7 Aroclor-1260 {4}	14.66f	14.75	32145	86124	107.1	117.5
21)	L7 Aroclor-1260 {5}	15.12	15.33f	83859	43726	122.2	133.2
	Sum Aroclor-1260			257975	275185	579.6	608.6
	Average Aroclor-1260					115.922	121.721

DDC 9-12-01

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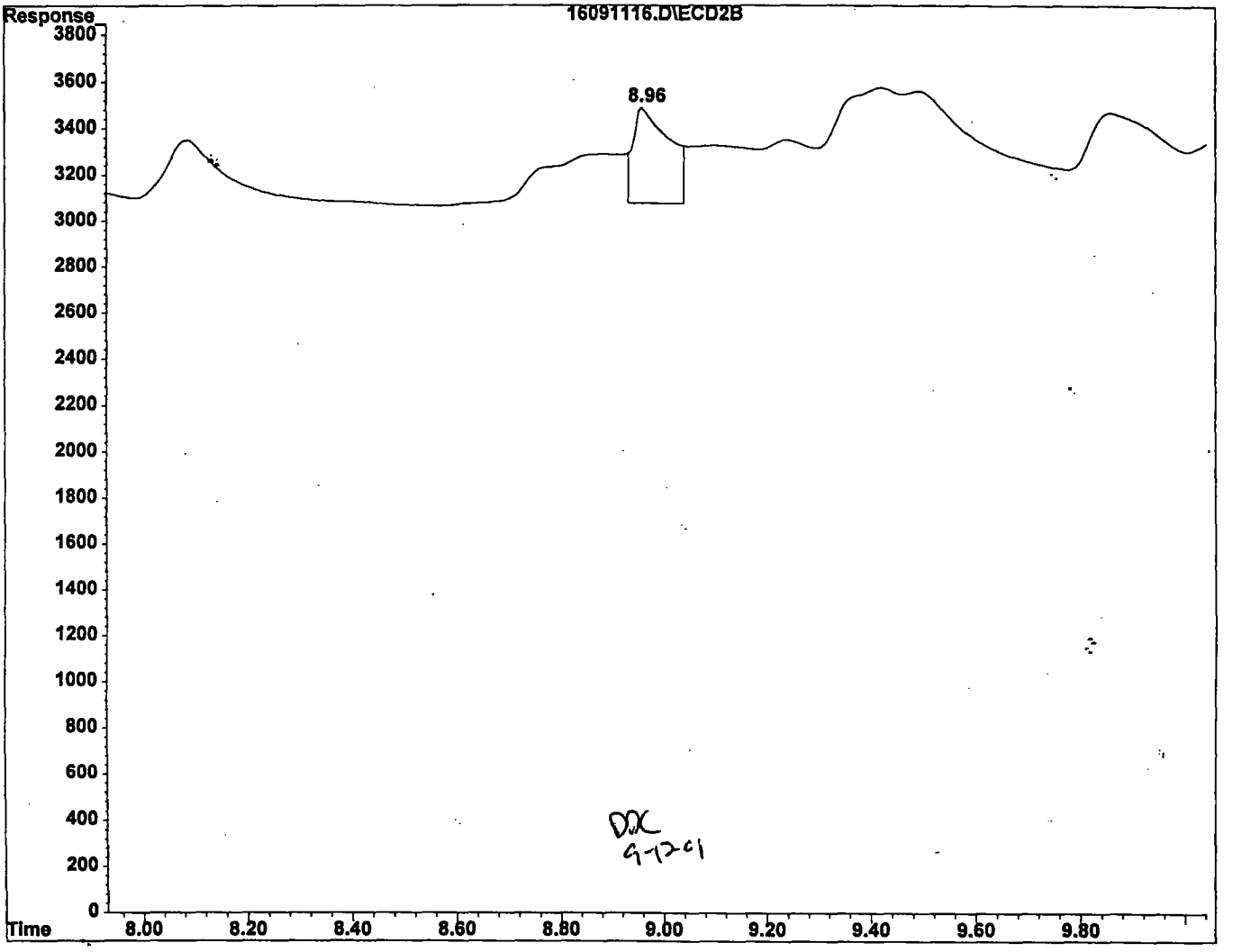
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_11_01\16091116.D
Date Acquired: 11 Sep 2001 18:34
Inst: HP_16 Operator ID: DDC
Name: AR1660L1CI
Misc: 5-212-7
Method: F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 12 10:55 2001 Quant Results File: XPCBI11.RES



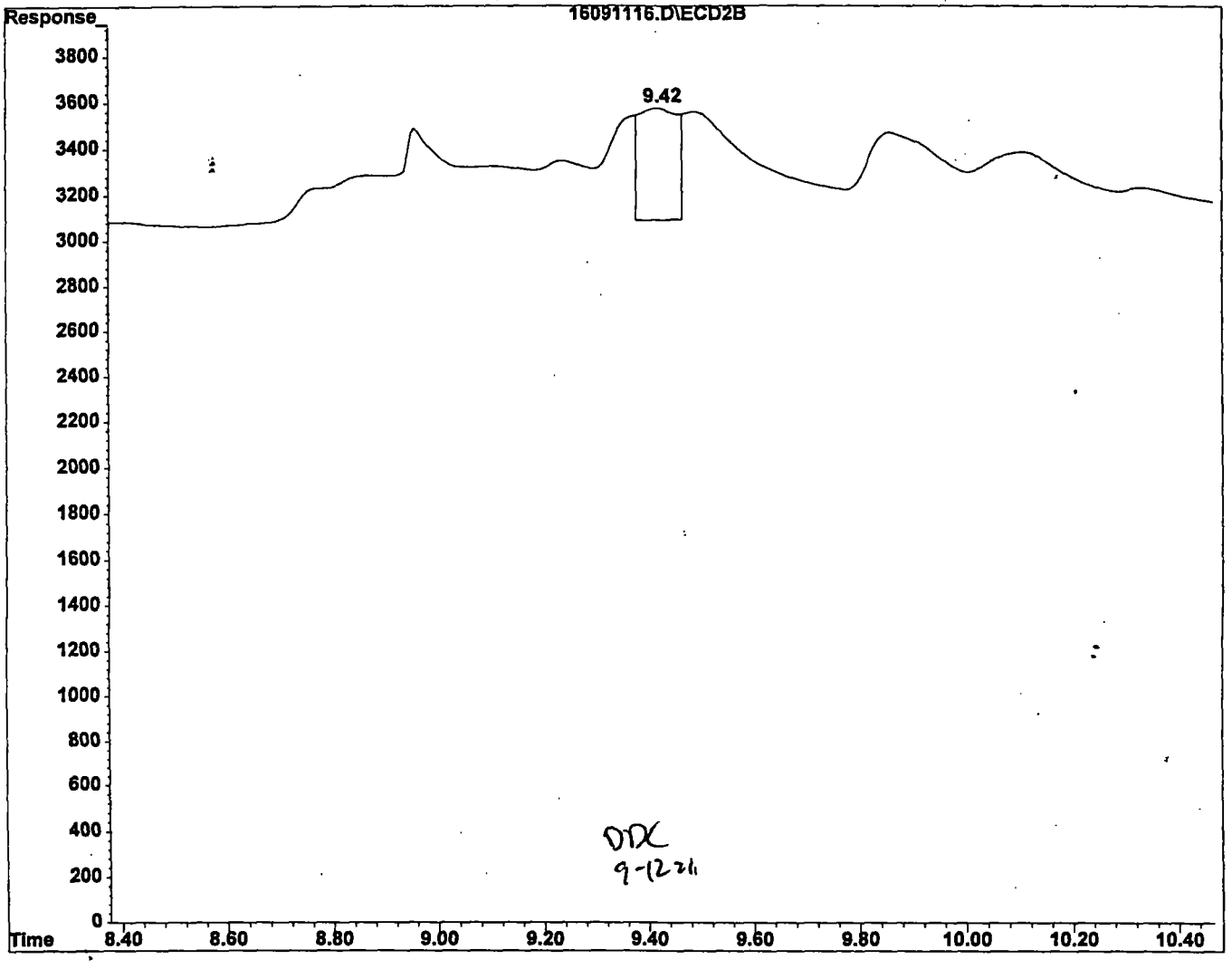
Aroclor-1016 {2} #2 8.96min area: 19948 m

Integration Time Range: 8.93 - 9.04

F:\HPCHEM\HP\16\DATA\09_11_01\16091116.D
Report generated: Wed Sep 12 11:14:47 2001

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_11_01\16091116.D
Date Acquired: 11 Sep 2001 18:34
Inst: HP_16 Operator ID: DDC
Name: AR1660L1CI
Misc: 5-212-7
Method: F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 12 10:55 2001 Quant Results File: XPCBI11.RES



Aroclor-1016 {3} #2 9.42min area: 24364 m

Integration Time Range: 9.38 - 9.46

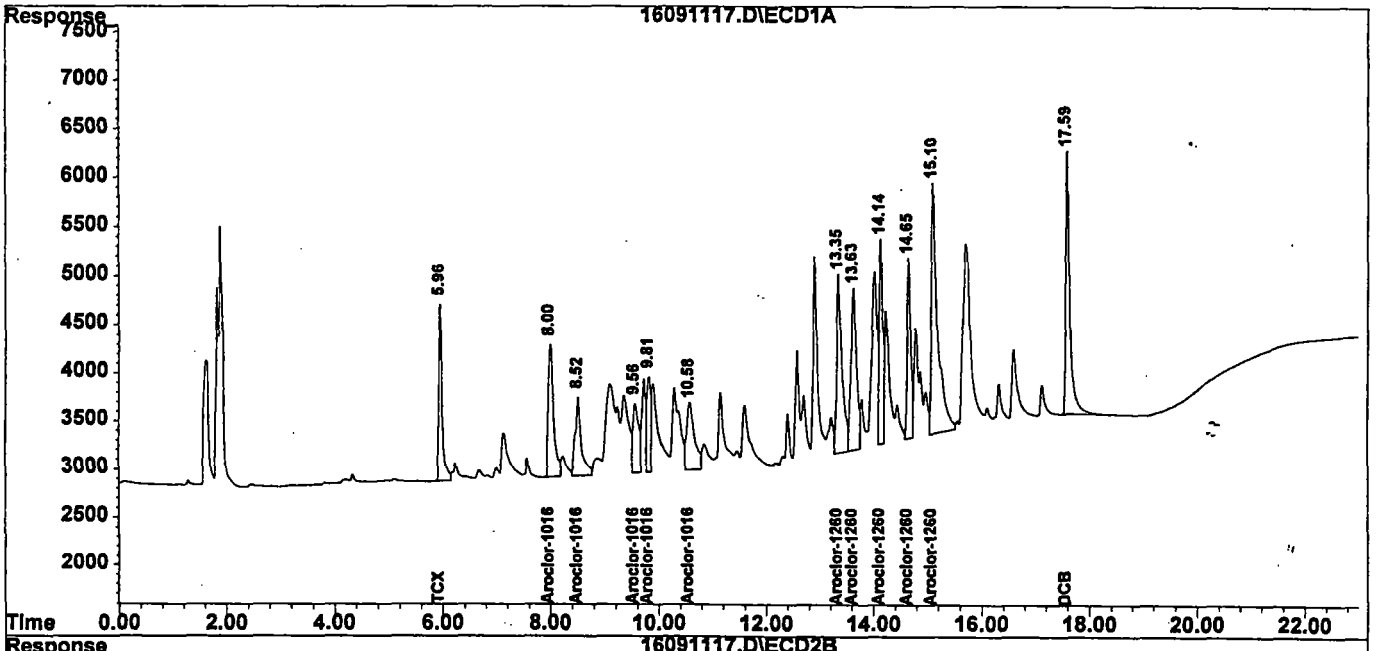
F:\HPCHEM\HP\16\DATA\09_11_01\16091116.D
Report generated: Wed Sep 12 11:14:48 2001

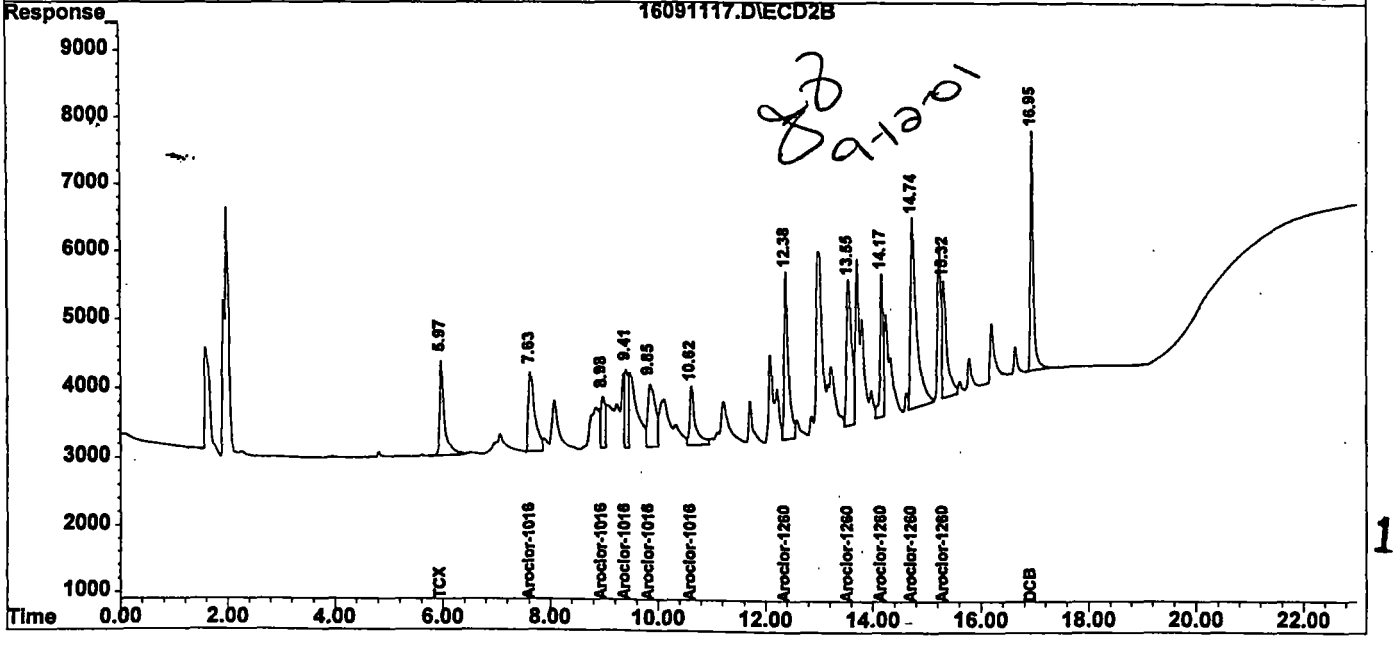
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091117.D\ECD1A.CH Vial: 21
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091117.D\ECD2B.CH
Acq On : 11 Sep 2001 19:00 Operator: DDC
Sample : AR1660L2CI Inst : HP_16
Misc : 5-211-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 12 10:55 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\15\DATA\09_10_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091117.D\ECD1A.CH Vial: 21
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091117.D\ECD2B.CH
Acq On : 11 Sep 2001 19:00 Operator: DDC
Sample : AR1660L2CI Inst : HP_16
Misc : 5-211-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 12 10:55 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\15\DATA\09_10_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds:						
1)	S TCX	5.96	5.98	78234	85589	10.3	10.8
22)	S DCB	17.60	16.96	139229	135001	12.0	11.8
	Target Compounds:						
2)	L1 Aroclor-1016	8.00	7.64	95019	97874	274.8	278.0
3)	L1 Aroclor-1016 {2}	8.52	8.97	65058	41736	347.2	167.6m #
4)	L1 Aroclor-1016 {3}	9.56	9.41	55406	51948	267.0	242.7m
5)	L1 Aroclor-1016 {4}	9.82	9.85	47940	87267	278.7	287.2
6)	L1 Aroclor-1016 {5}	10.59	10.63	71343	61684	279.0	268.1
	Sum Aroclor-1016			334766	340510	1446.6	1243.6
	Average Aroclor-1016					289.327	248.710
17)	L7 Aroclor-1260	13.35	12.38	131666	131808	276.1	293.7
18)	L7 Aroclor-1260 {2}	13.64	13.56	117235	140639	272.4	261.6
19)	L7 Aroclor-1260 {3}	14.14	14.17	100461	83371	292.1	297.9
20)	L7 Aroclor-1260 {4}	14.66	14.74	81607	212083	269.2	281.5
21)	L7 Aroclor-1260 {5}	15.11	15.32	209953	105228	302.9	303.4
	Sum Aroclor-1260			640921	673130	1412.6	1438.1
	Average Aroclor-1260					282.513	287.622

DX 9721

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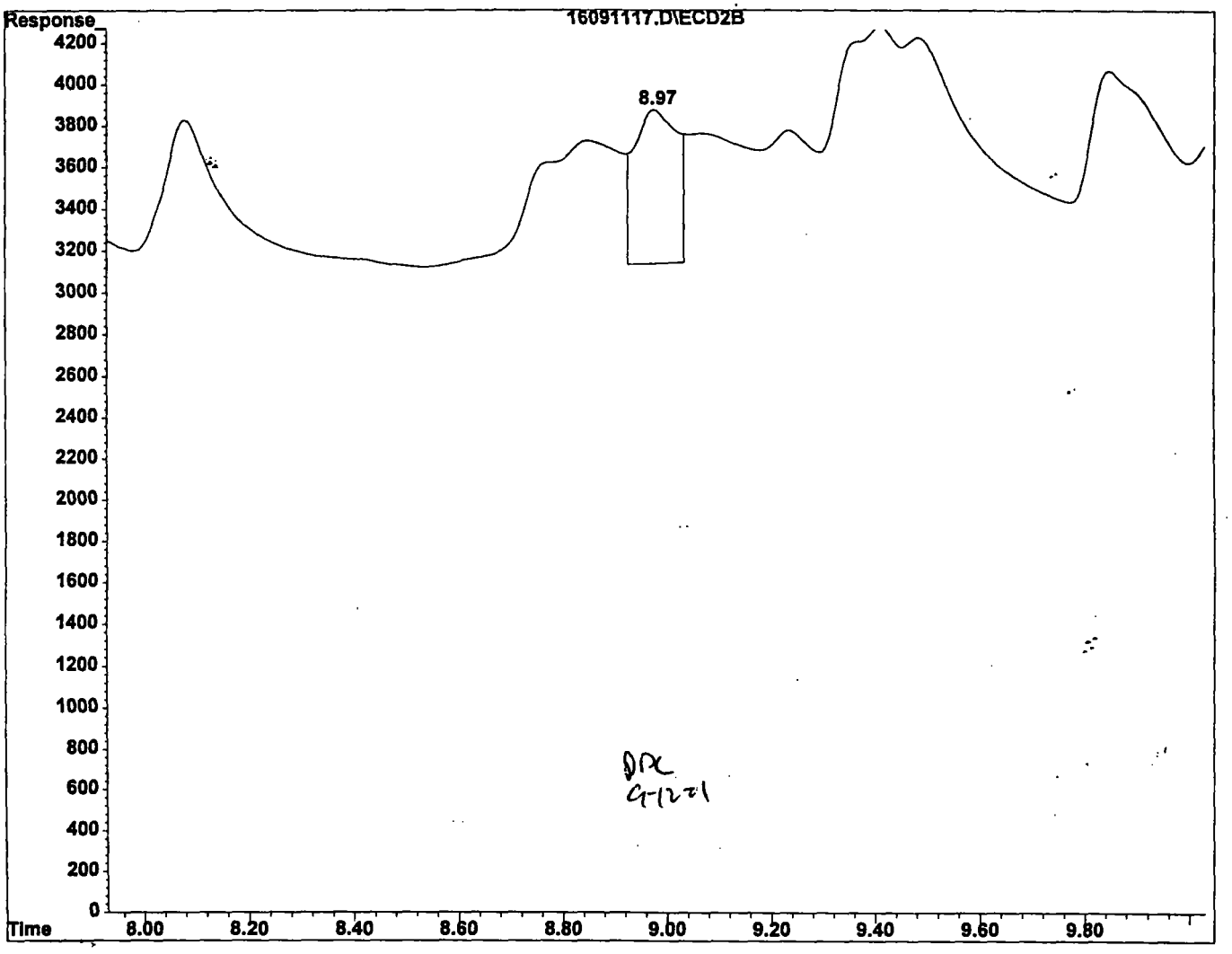
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_11_01\16091117.D
Date Acquired: 11 Sep 2001 19:00
Inst: HP_16 Operator ID: DDC
Name: AR1660L2CI
Misc: 5-211-7
Method: F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 12 10:55 2001 Quant Results File: XPCBI11.RES



Aroclor-1016 {2} #2 8.97min area: 41736 m

Integration Time Range: 8.93 - 9.03

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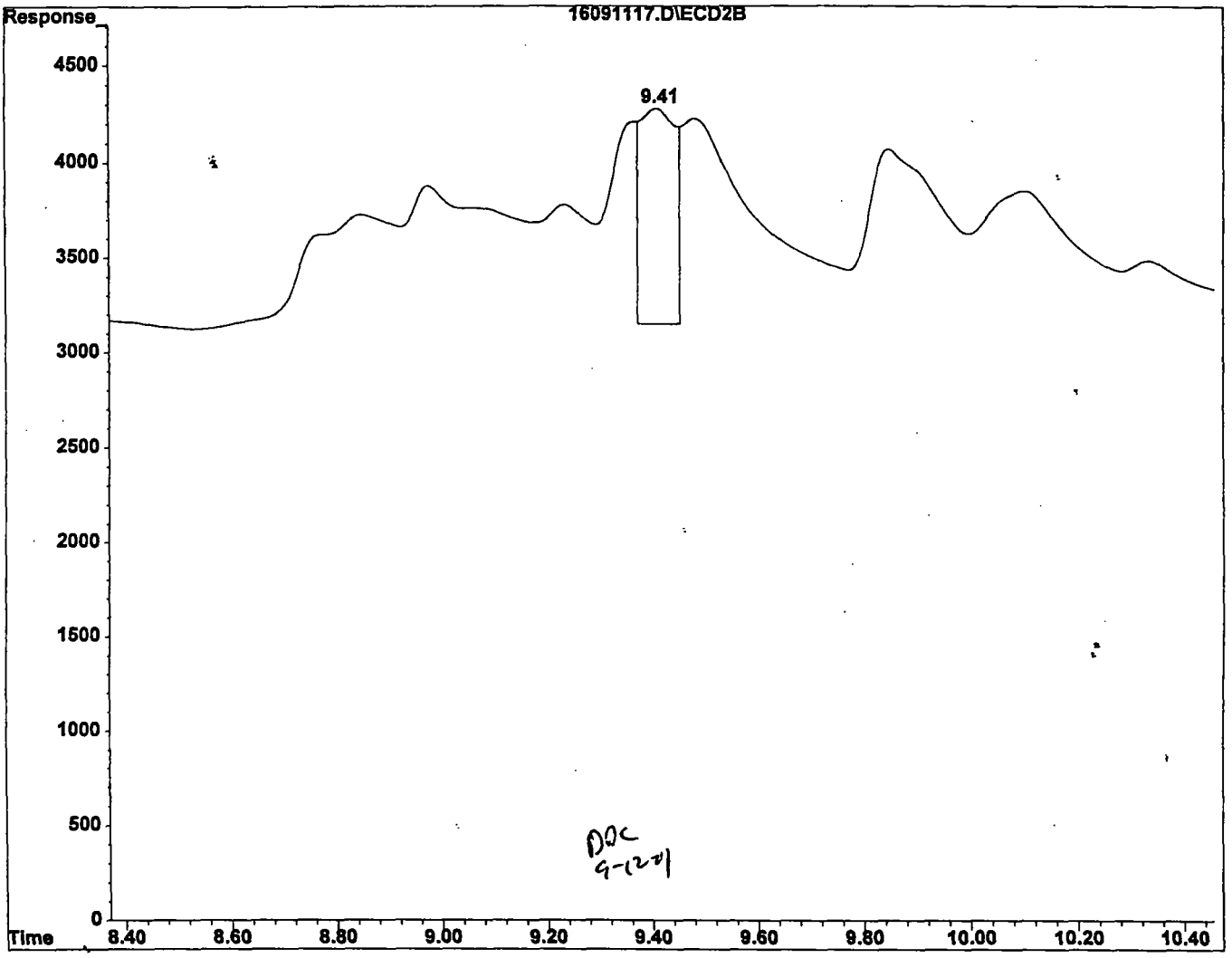
F:\HPCHEM\HP\16\DATA\09_11_01\16091117.D
Report generated: Wed Sep 12 11:14:49 2001

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_11_01\16091117.D
Date Acquired: 11 Sep 2001 19:00
Inst: HP_16 Operator ID: DDC
Name: AR1660L2CI
Misc: 5-211-7
Method: F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 12 10:55 2001 Quant Results File: XPCBI11.RES



Aroclor-1016 {3} #2 9.41min area: 51948 m

Integration Time Range: 9.37 - 9.45

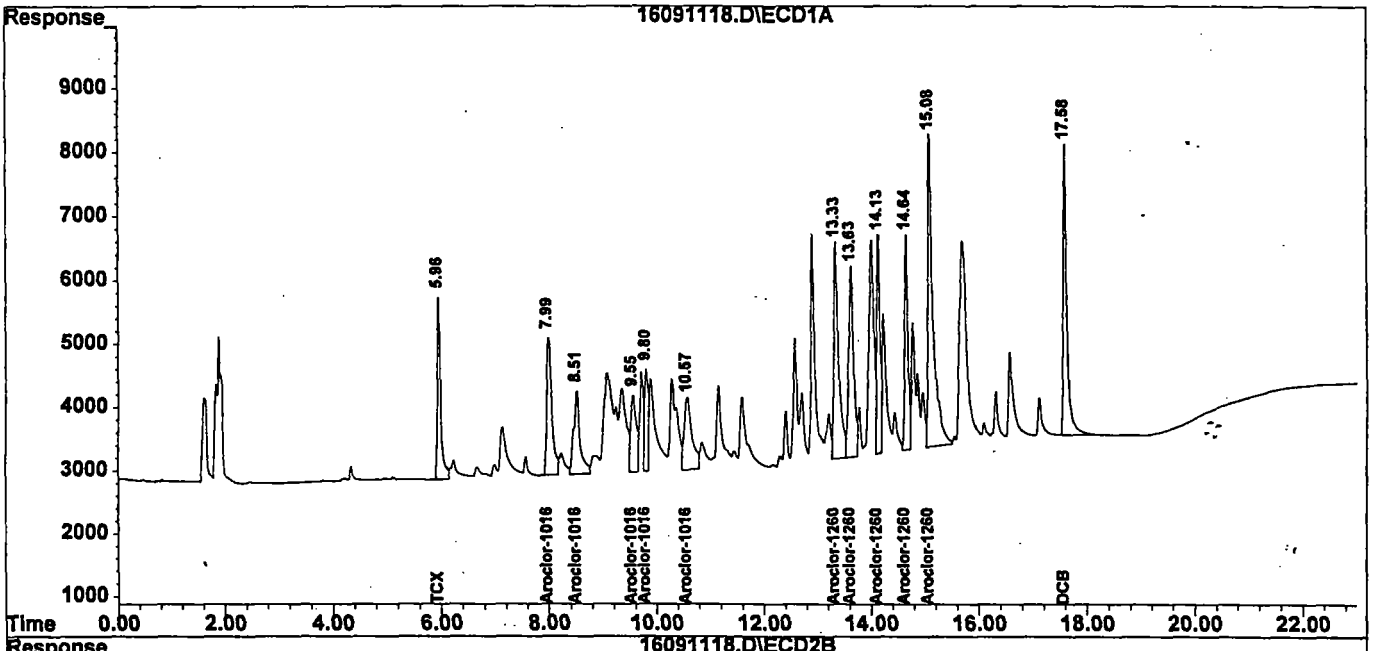
F:\HPCHEM\HP\16\DATA\09_11_01\16091117.D
Report generated: Wed Sep 12 11:14:49 2001

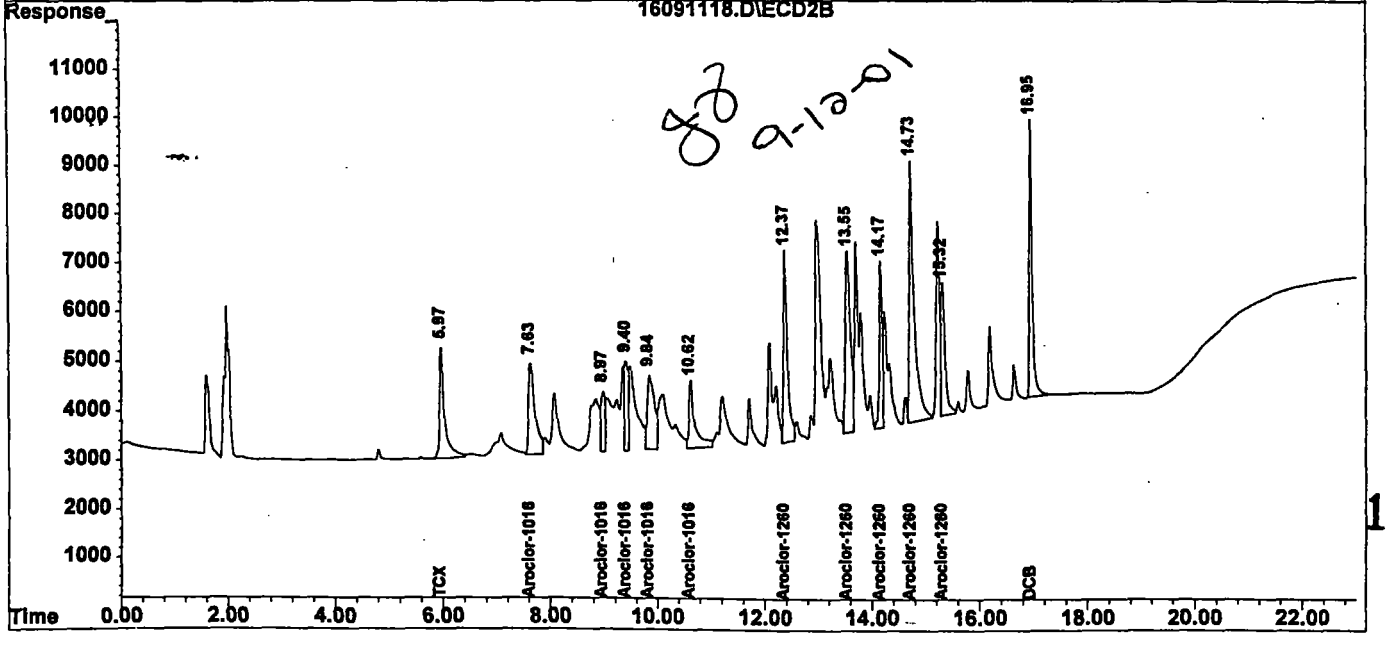
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091118.D\ECD1A.CH Vial: 22
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091118.D\ECD2B.CH
Acq On : 11 Sep 2001 19:27 Operator: DDC
Sample : AR1660L3CN Inst : HP_16
Misc : 5-210-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 12 10:52 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\15\DATA\09_10_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





8 9-12-01

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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091118.D\ECD1A.CH Vial: 22
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091118.D\ECD2B.CH
Acq On : 11 Sep 2001 19:27 Operator: DDC
Sample : AR1660L3CN Inst : HP_16
Misc : 5-210-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 12 10:52 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\15\DATA\09_10_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds:						
1)	S TCX	5.96	5.97	126260	146579	17.1	18.7
22)	S DCB	17.59	16.95	210797	210352	18.5	18.7
	Target Compounds:						
2)	L1 Aroclor-1016	7.99	7.63	147384	159964	393.3	414.7
3)	L1 Aroclor-1016 {2}	8.51	8.97	105220	61684	479.4	251.0m #
4)	L1 Aroclor-1016 {3}	9.55	9.41	85637	83449	379.3	307.0
5)	L1 Aroclor-1016 {4}	9.80	9.84	75283	141123	400.4	418.9
6)	L1 Aroclor-1016 {5}	10.58	10.62	113825	108219	404.5	430.7
	Sum Aroclor-1016			527349	554439	2056.9	1822.3
	Average Aroclor-1016					411.372	364.462
17)	L7 Aroclor-1260	13.33	12.38	214668	203988	410.7	409.8
18)	L7 Aroclor-1260 {2}	13.63	13.55	190028	241009	403.9	412.1
19)	L7 Aroclor-1260 {3}	14.13	14.17	147064	123083	385.3	390.8
20)	L7 Aroclor-1260 {4}	14.65	14.73	136061	342335	409.7	410.7
21)	L7 Aroclor-1260 {5}	15.08	15.32	322441	145775	422.2	373.5
	Sum Aroclor-1260			1010263	1056189	2031.7	1996.9
	Average Aroclor-1260					406.348	399.390

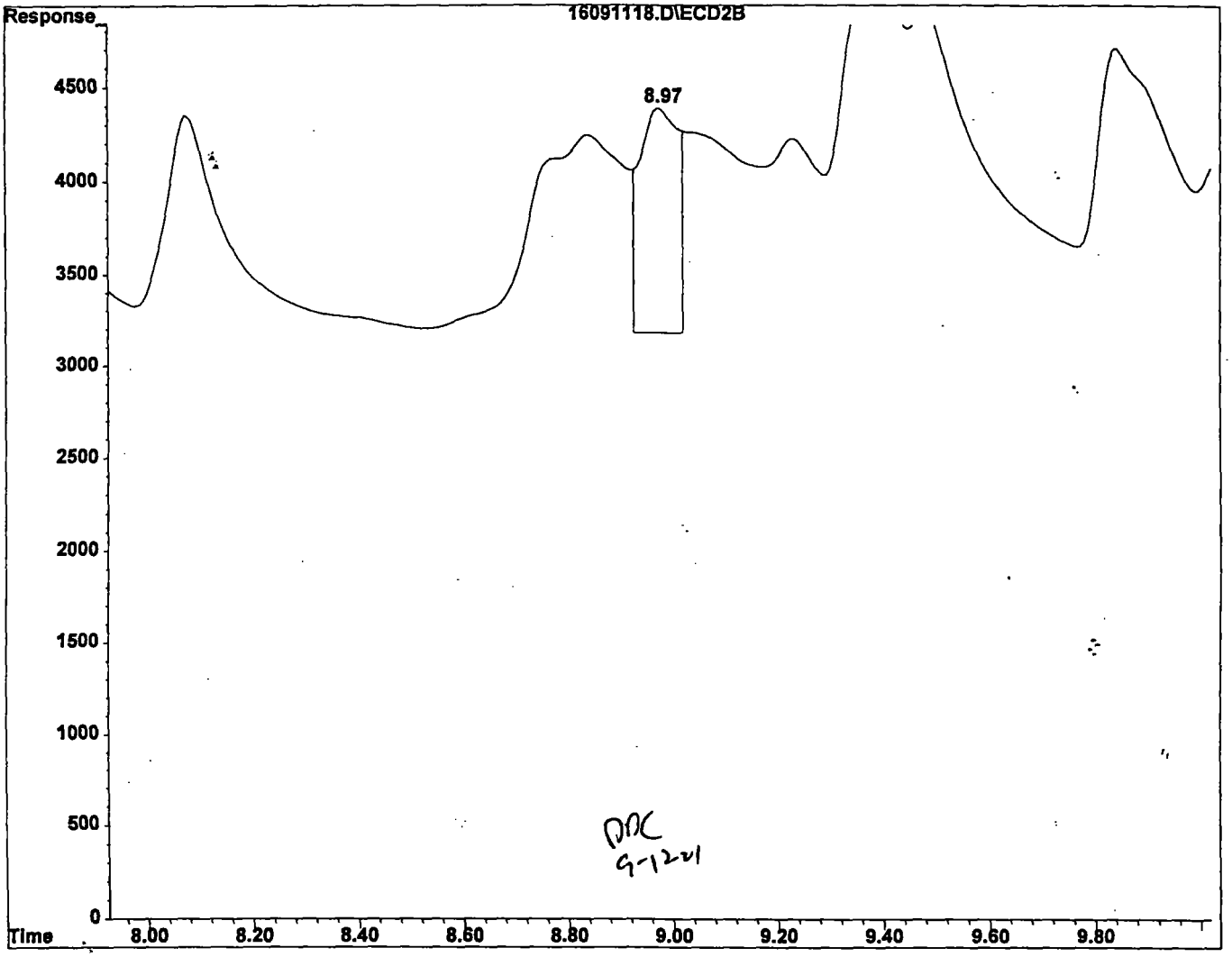
DDC 9-12-01

171

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_11_01\16091118.D
Date Acquired: 11 Sep 2001 19:27
Inst: HP_16 Operator ID: DDC
Name: AR1660L3CN
Misc: 5-210-7
Method: F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 12 10:52 2001 Quant Results File: XPCBI11.RES



Aroclor-1016 {2} #2 8.97min area: 61684 m

Integration Time Range: 8.93 - 9.02

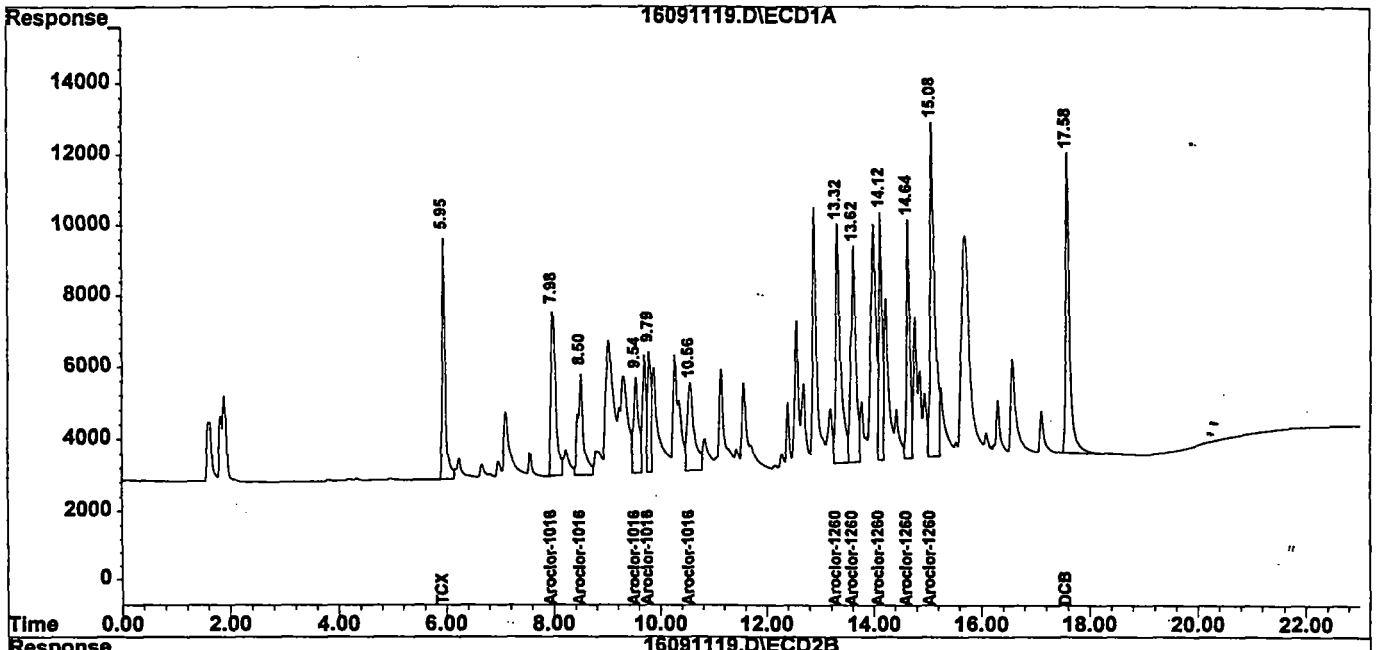
F:\HPCHEM\HP\16\DATA\09_11_01\16091118.D
Report generated: Wed Sep 12 11:14:51 2001

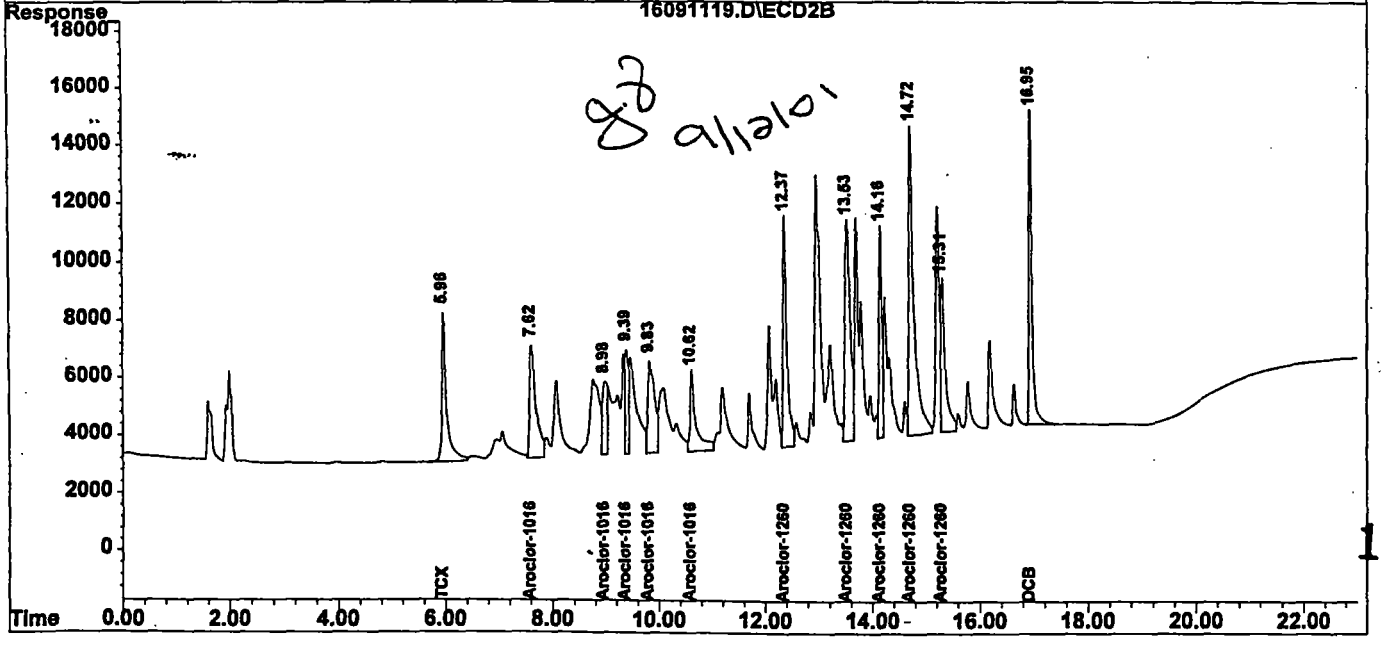
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091119.D\ECD1A.CH Vial: 23
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091119.D\ECD2B.CH
Acq On : 11 Sep 2001 19:53 Operator: DDC
Sample : AR1660L4CI Inst : HP_16
Misc : 5-209-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 12 10:51 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\15\DATA\09_10_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





8 9/12/01

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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091119.D\ECD1A.CH Vial: 23
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091119.D\ECD2B.CH
Acq On : 11 Sep 2001 19:53 Operator: DDC
Sample : AR1660L4CI Inst : HP_16
Misc : 5-209-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 12 10:51 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\15\DATA\09_10_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds:						
1)	S TCX	5.95	5.97	261376	309376	35.3	38.5
22)	S DCB	17.59	16.95	412300	419630	35.4	36.3
	Target Compounds:						
2)	L1 Aroclor-1016	7.98	7.62	286214	321619	765.4	823.8
3)	L1 Aroclor-1016 {2}	8.51	8.98	208033	149432	891.5	562.2m #
4)	L1 Aroclor-1016 {3}	9.54	9.40	175722	158050	787.2	573.7 #
5)	L1 Aroclor-1016 {4}	9.79	9.83	144672	281009	768.7	819.6
6)	L1 Aroclor-1016 {5}	10.56	10.62	224921	220884	798.0	870.9
	Sum Aroclor-1016			1039562	1130995	4010.8	3650.2
	Average Aroclor-1016					802.152	730.045
17)	L7 Aroclor-1260	13.32	12.37	420213	402182	803.4	796.0
18)	L7 Aroclor-1260 {2}	13.62	13.54	380503	508085	810.7	865.9
19)	L7 Aroclor-1260 {3}	14.12	14.16	296226	263982	777.6	833.2
20)	L7 Aroclor-1260 {4}	14.64	14.72	274216	722940	825.4	855.8
21)	L7 Aroclor-1260 {5}	15.08	15.32	556777	332763	711.8	851.6
	Sum Aroclor-1260			1927936	2229952	3928.8	4202.4
	Average Aroclor-1260					785.759	840.477

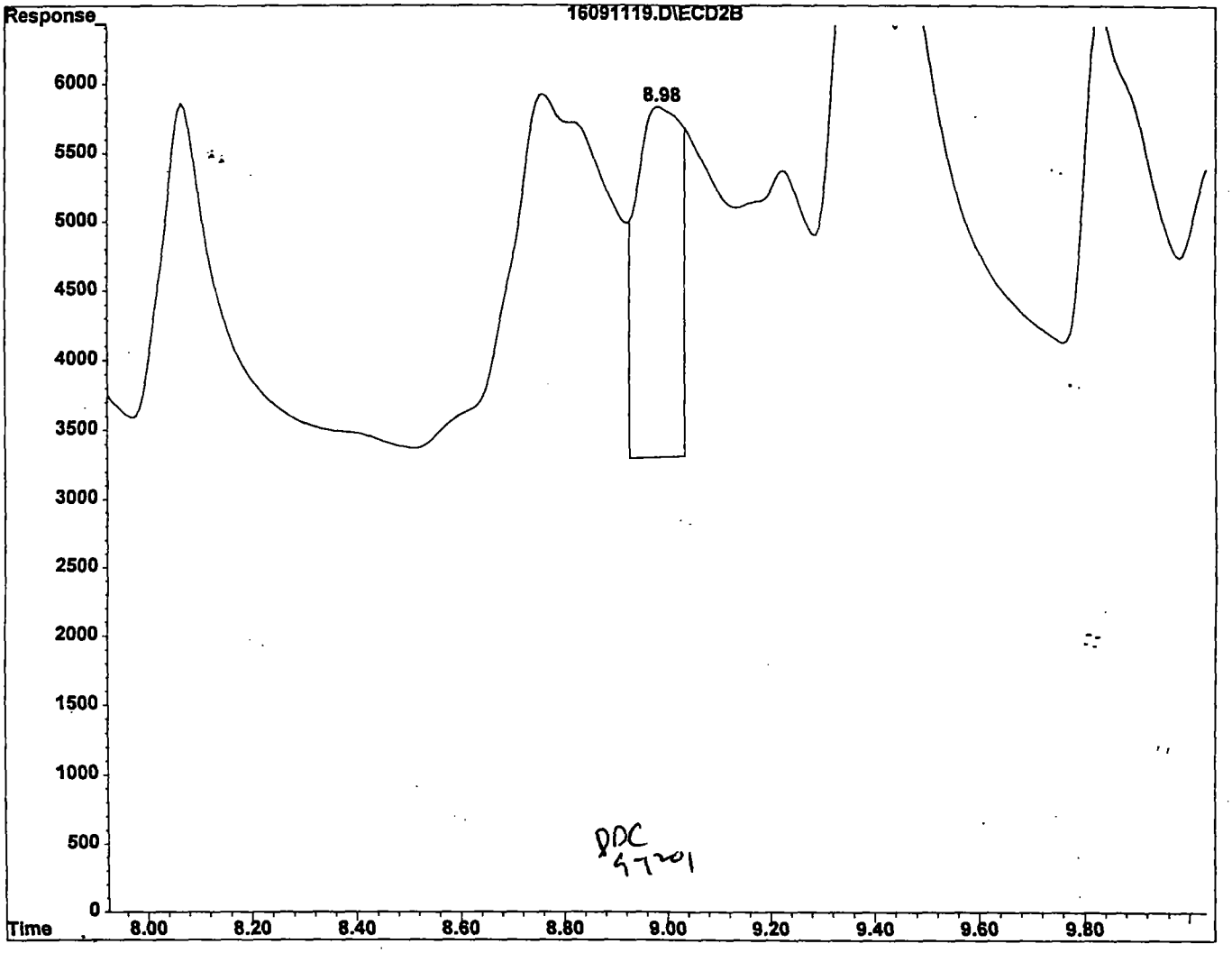
DX 9-12-01

174

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_11_01\16091119.D
Date Acquired: 11 Sep 2001 19:53
Inst: HP_16 Operator ID: DDC
Name: AR1660L4CI
Misc: 5-209-7
Method: F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 12 10:51 2001 Quant Results File: XPCBI11.RES



Aroclor-1016 {2} #2 8.98min area: 149432 m

Integration Time Range: 8.92 - 9.03

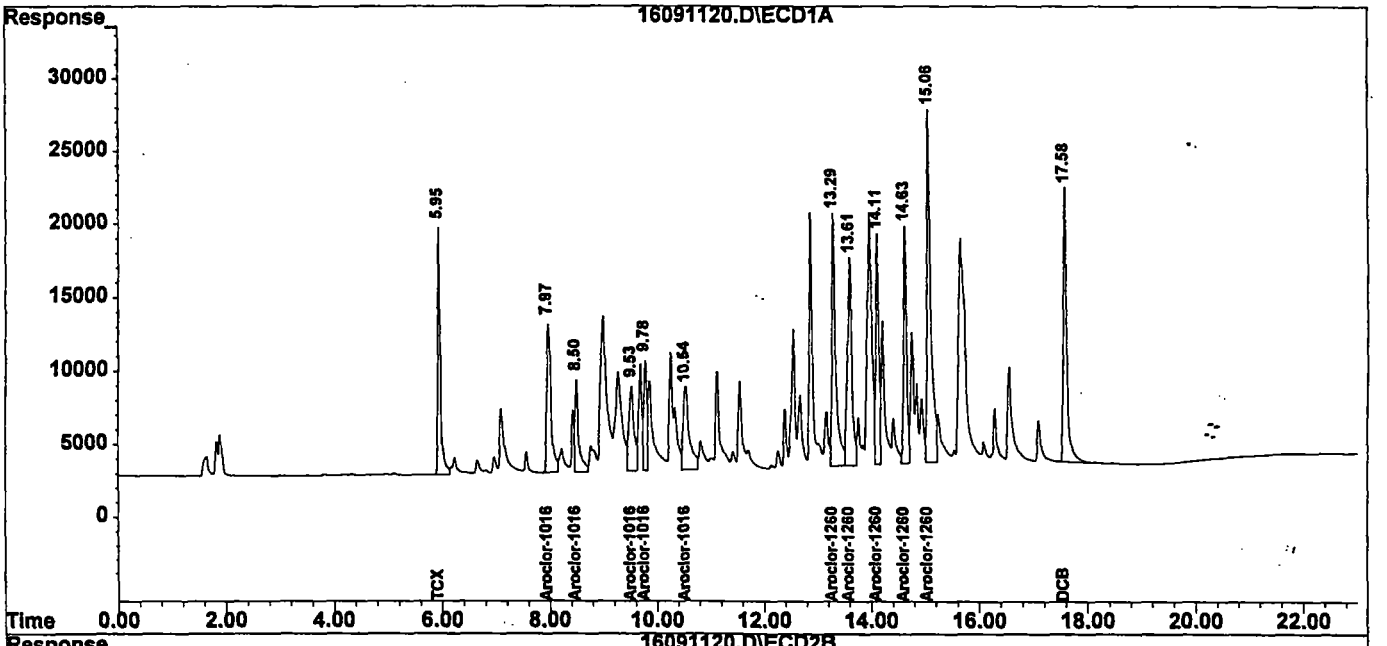
F:\HPCHEM\HP\16\DATA\09_11_01\16091119.D
Report generated: Wed Sep 12 11:14:52 2001

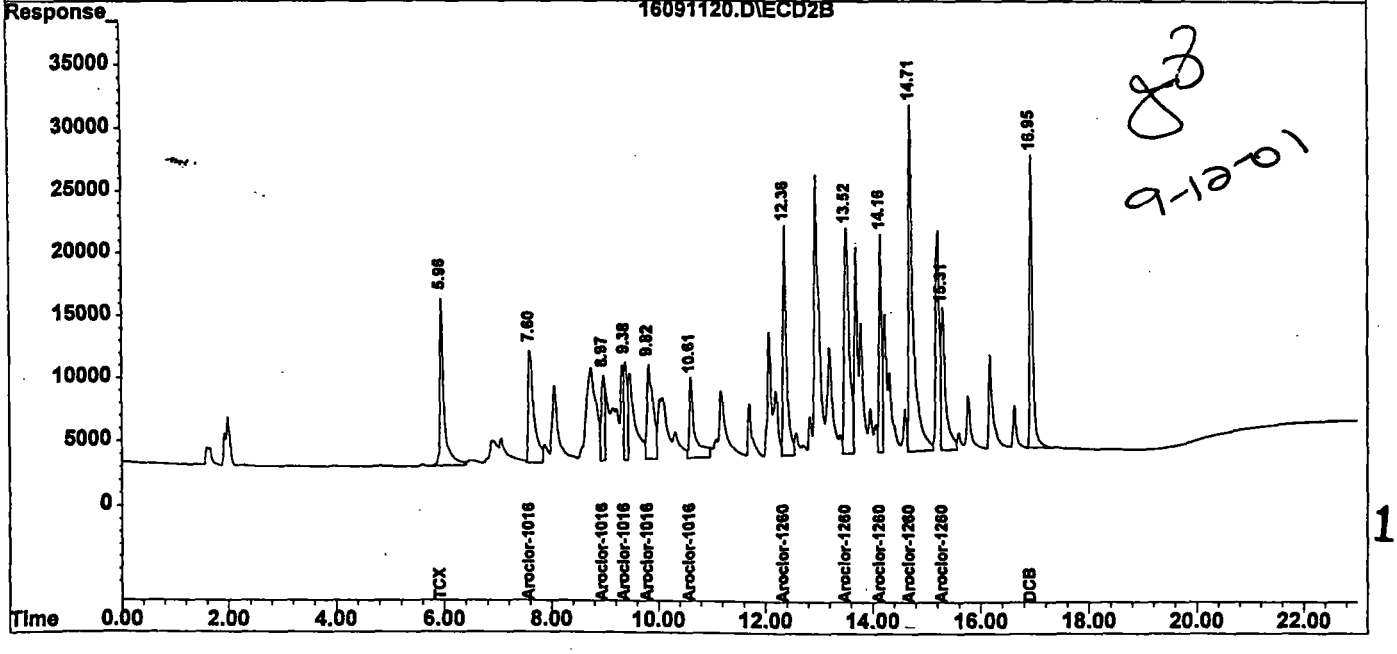
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091120.D\ECD1A.CH Vial: 24
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091120.D\ECD2B.CH
Acq On : 11 Sep 2001 20:19 Operator: DDC
Sample : AR1660L5CI Inst : HP_16
Misc : 5-208-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 12 10:48 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\15\DATA\09_10_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





8
9-12-01

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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091120.D\ECD1A.CH Vial: 24
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091120.D\ECD2B.CH
Acq On : 11 Sep 2001 20:19 Operator: DDC
Sample : AR1660L5CI Inst : HP_16
Misc : 5-208-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 12 10:48 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\15\DATA\09_10_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds:						
1)	S TCX	5.95	5.96	591697	695971	83.6	88.2 E
22)	S DCB	17.58	16.95	818457	843324	71.1	74.1
	Target Compounds:						
2)	L1 Aroclor-1016	7.97	7.60	578311	663060	1536.0 E	1661.0
3)	L1 Aroclor-1016 {2}	8.50	8.97	309206	286776	1239.2	1016.7m
4)	L1 Aroclor-1016 {3}	9.53	9.38	383500	320552	1718.2	1146.3 #
5)	L1 Aroclor-1016 {4}	9.78	9.82	296982	578993	1568.1	1647.2
6)	L1 Aroclor-1016 {5}	10.54	10.61	467651	446321	1645.9 E	1726.0
	Sum Aroclor-1016			2035650	2295701	7707.4	7197.2
	Average Aroclor-1016					1541.487	1439.449
17)	L7 Aroclor-1260	13.30	12.36	871939	821379	1656.5	1587.0 E
18)	L7 Aroclor-1260 {2}	13.61	13.52	800447	1164093	1694.1	1958.5 E
19)	L7 Aroclor-1260 {3}	14.12	14.16	594315	581394	1539.0	1796.5 E
20)	L7 Aroclor-1260 {4}	14.63	14.71	601827	1582171	1798.8 E	1829.0 E
21)	L7 Aroclor-1260 {5}	15.06	15.31	1228741	667534	1565.1 E	1652.7 E
	Sum Aroclor-1260			4097269	4816572	8253.6	8823.7
	Average Aroclor-1260					1650.714	1764.748

DDC 9/12/01

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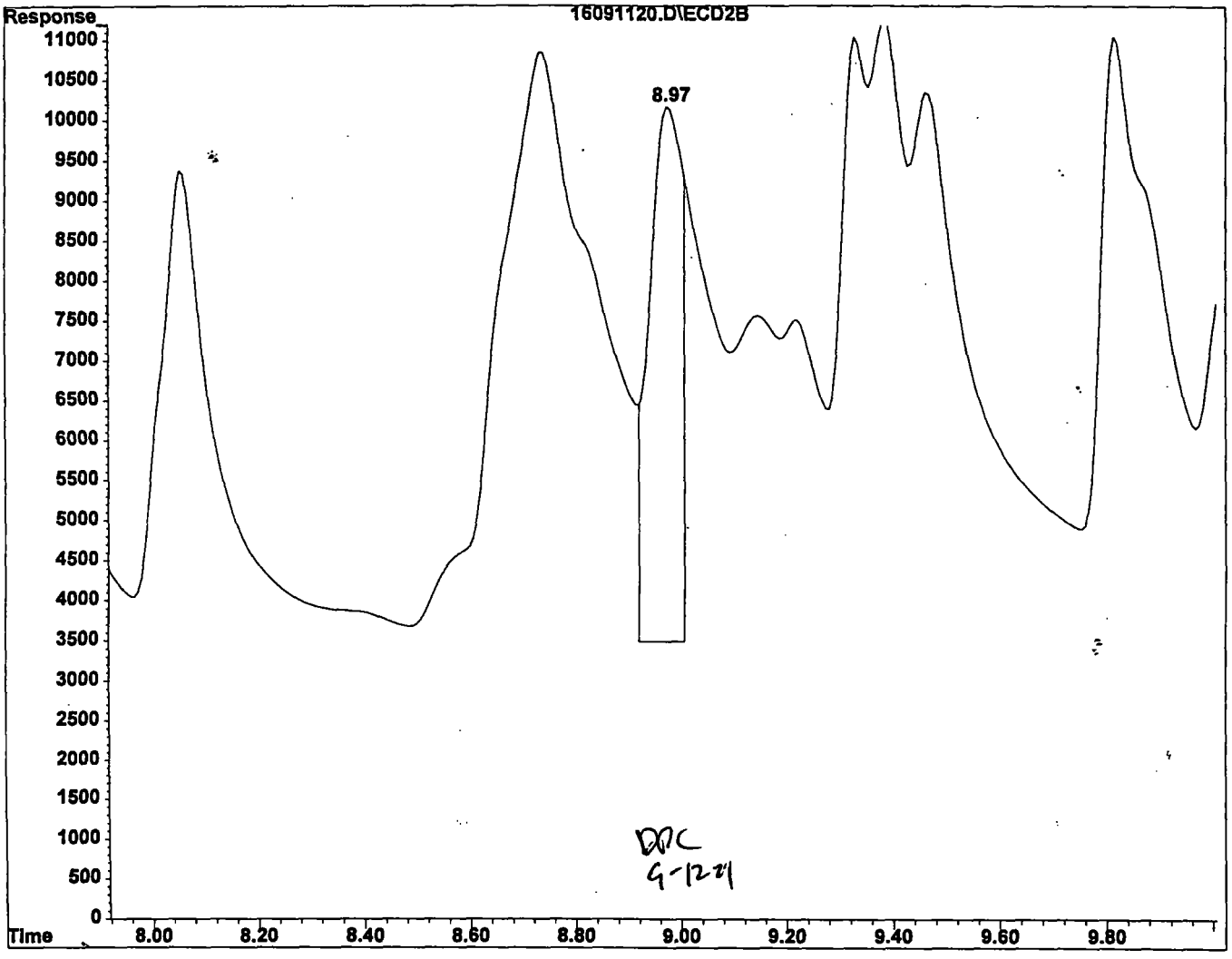
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_11_01\16091120.D
Date Acquired: 11 Sep 2001 20:19
Inst: HP_16 Operator ID: DDC
Name: AR1660L5CI
Misc: 5-208-7
Method: F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 12 10:48 2001 Quant Results File: XPCBI11.RES



Aroclor-1016 {2} #2 8.97min area: 286776 m

Integration Time Range: 8.92 - 9.01

F:\HPCHEM\HP\16\DATA\09_11_01\16091120.D
Report generated: Wed Sep 12 11:14:53 2001

Continuing Calibration Report HP_16

Method : F:\HPCHEM\HP\16\DATA\09_13_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Fri Sep 14 14:36:42 2001
Response via : Initial Calibration

Continuing Calibration File: 16091346.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%
1	S	TCX	6.928	7.296	E3	-5.3	116
2	L1	Aroclor-1016	395.782	424.762		-7.3	115
3	L1	Aroclor-1016 {2}	260.669	210.651		19.2#	80
4	L1	Aroclor-1016 {3}	236.153	266.957		-13.0	125
5	L1	Aroclor-1016 {4}	199.746	220.825		-10.6	117
6	L1	Aroclor-1016 {5}	300.287	323.777		-7.8	114
17	L7	Aroclor-1260	557.411	609.377		-9.3	114
18	L7	Aroclor-1260 {2}	501.098	546.201		-9.0	115
19	L7	Aroclor-1260 {3}	408.246	409.483		-0.3	111
20	L7	Aroclor-1260 {4}	357.710	406.932		-13.8	120
21	L7	Aroclor-1260 {5}	831.679	817.724		1.7	101
22	S	DCB	11.430	10.116	E3	11.5	96

Signal #2
Continuing Calibration File: 16091346.D

		Compound	AvgRF	CCRF		%Dev	Area%
1	S	TCX	7.863	8.526	E3	-8.4	116
2	L1	Aroclor-1016	426.061	471.547		-10.7	118
3	L1	Aroclor-1016 {2}	185.679	200.040		-7.7	130
4	L1	Aroclor-1016 {3}	221.982	236.831		-6.7	114
5	L1	Aroclor-1016 {4}	375.798	399.634		-6.3	113
6	L1	Aroclor-1016 {5}	274.859	321.800		-17.1#	119
17	L7	Aroclor-1260	552.718	584.740		-5.8	115
18	L7	Aroclor-1260 {2}	643.074	565.840		12.0	94
19	L7	Aroclor-1260 {3}	349.158	393.964		-12.8	128
20	L7	Aroclor-1260 {4}	934.005	964.645		-3.3	113
21	L7	Aroclor-1260 {5}	432.199	326.323		24.5#	90
22	S	DCB	11.282	11.143	E3	1.2	106

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

16091346.D XPCBI11.M Fri Sep 14 14:36:49 2001

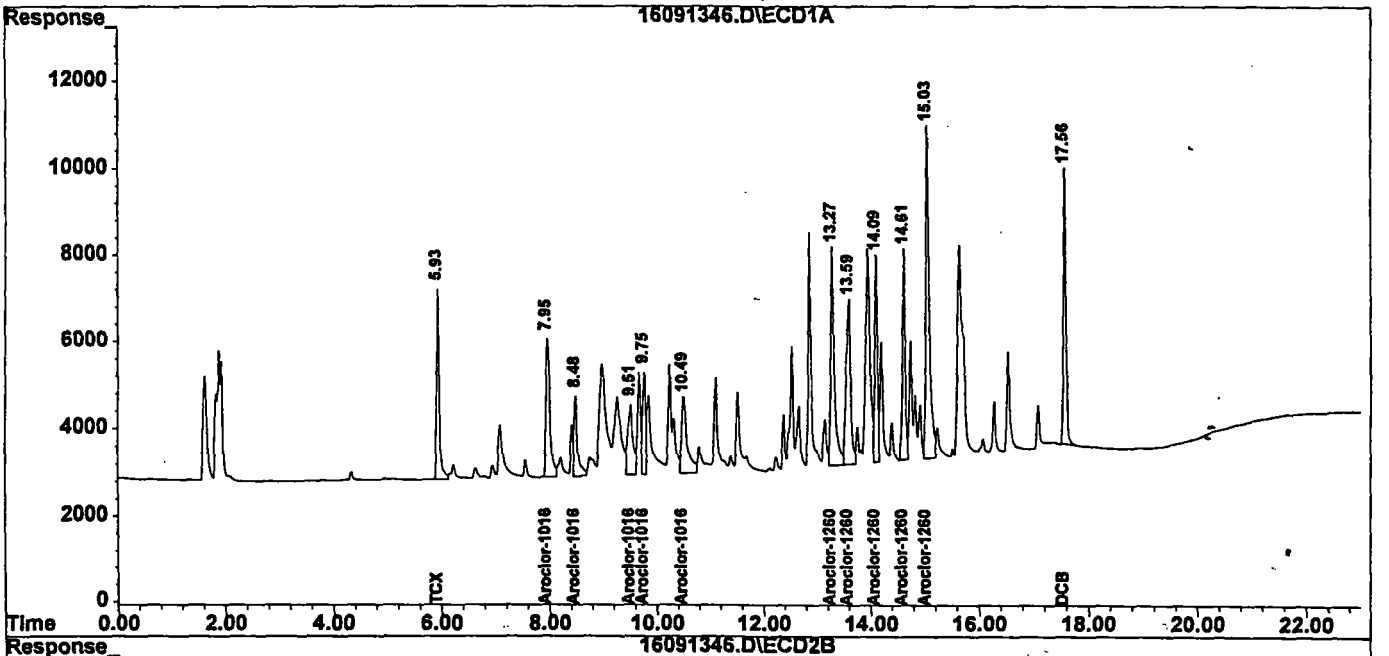
COPY
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 29602 SDG ED2/9
Signature Arelda M. Wilkin
Date 09/20/01

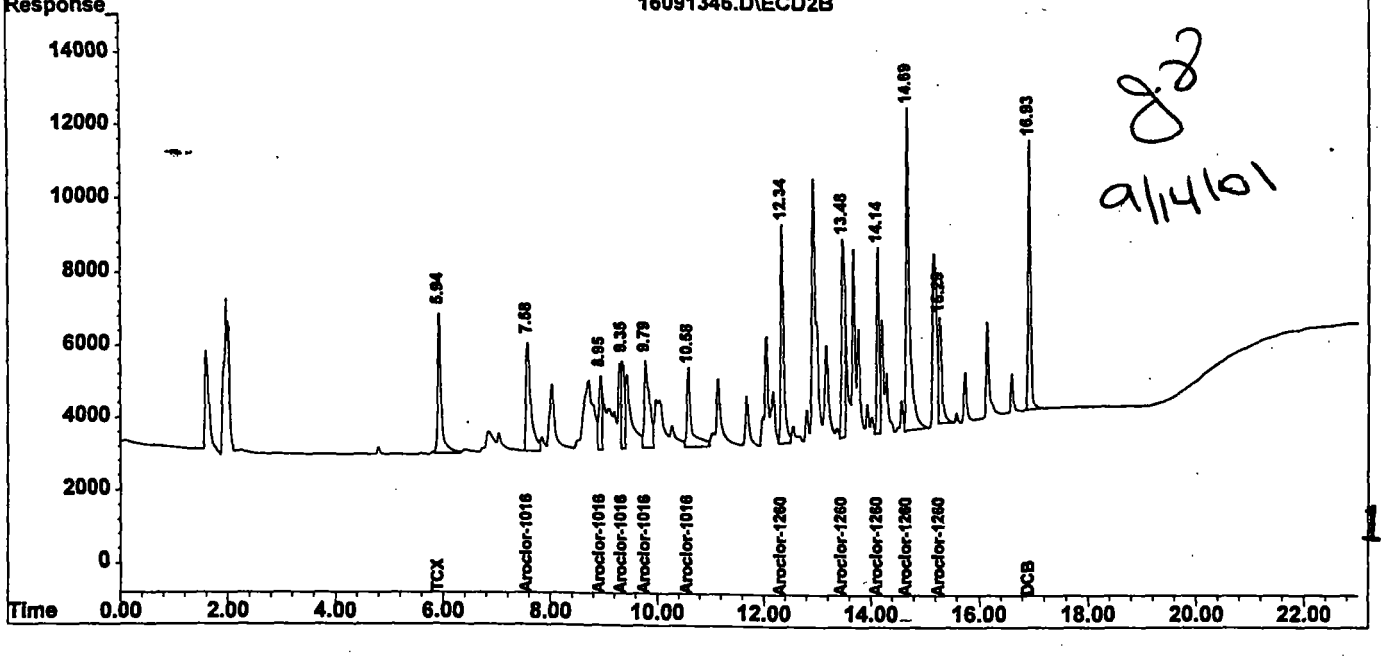
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_13_01\16091346.D\ECD1A.CH Vial: 46
Signal #2 : F:\HPCHEM\HP\16\DATA\09_13_01\16091346.D\ECD2B.CH
Acq On : 14 Sep 2001 12:59 Operator: DDC
Sample : AR1660L3CF Inst : HP_16
Misc : 5-210-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 14 14:36 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_13_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





DD
9/14/01

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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_13_01\16091346.D\ECD1A.CH Vial: 46
Signal #2 : F:\HPCHEM\HP\16\DATA\09_13_01\16091346.D\ECD2B.CH
Acq On : 14 Sep 2001 12:59 Operator: DDC
Sample : AR1660L3CF Inst : HP_16
Misc : 5-210-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 14 14:36 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_13_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds:							
1)	S TCX	5.94	5.94f	145910	170512	21.1	21.7	
22)	S DCB	17.56	16.94	202320	222852	17.7	19.8	
	Target Compounds:							
2)	L1 Aroclor-1016	7.95	7.58	169905	188619	429.3	442.7	DDC 9-14-01
3)	L1 Aroclor-1016 {2}	8.48	8.95f	84261	80016	323.2	430.9m #	
4)	L1 Aroclor-1016 {3}	9.51	9.36f	106783	94733	452.2	426.8	
5)	L1 Aroclor-1016 {4}	9.76	9.79f	88330	159854	442.2	425.4	
6)	L1 Aroclor-1016 {5}	10.49f	10.59f	129511	128720	431.3	468.3	
	Sum Aroclor-1016			578789	651941	2078.2	2194.1	
	Average Aroclor-1016					415.643	438.817	
17)	L7 Aroclor-1260	13.27	12.34	243751	233896	437.3	423.2	DDC 9-14-01
18)	L7 Aroclor-1260 {2}	13.59	13.48f	218480	226336	436.0	352!0m	
19)	L7 Aroclor-1260 {3}	14.10	14.14	163793	157586	401.2	451.3	
20)	L7 Aroclor-1260 {4}	14.61	14.69	162773	385858	455.0	413.1	
21)	L7 Aroclor-1260 {5}	15.04f	15.29	327090	130529	393.3	302.0	
	Sum Aroclor-1260			1115887	1134205	2122.8	1941.6	
	Average Aroclor-1260					424.567	388.320	

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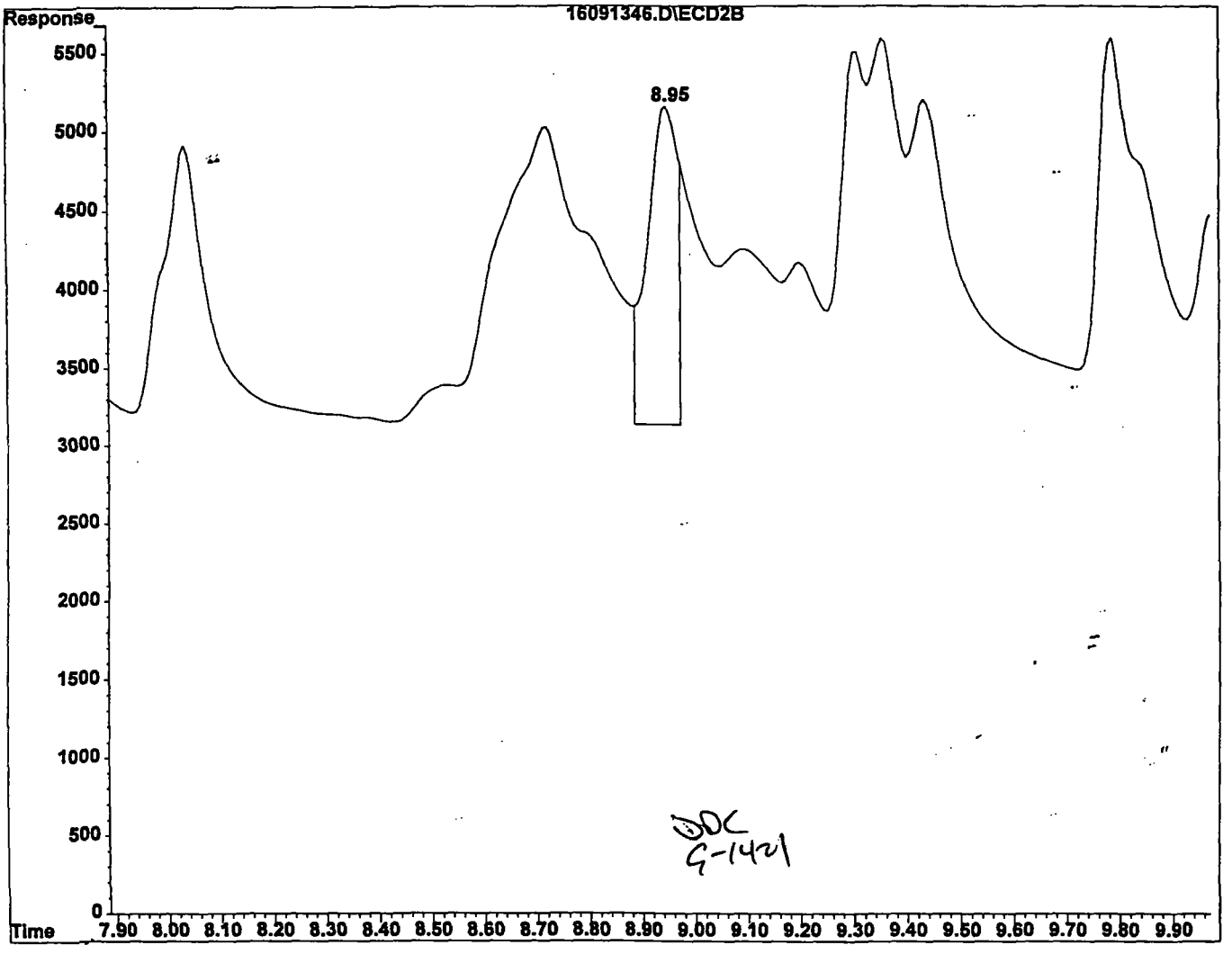
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_13_01\16091346.D
Date Acquired: 14 Sep 2001 12:59
Inst: HP_16 Operator ID: DDC
Name: AR1660L3CF
Misc: 5-210-7
Method: F:\HPCHEM\HP\16\DATA\09_13_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 14 14:36 2001 Quant Results File: XPCBI11.RES



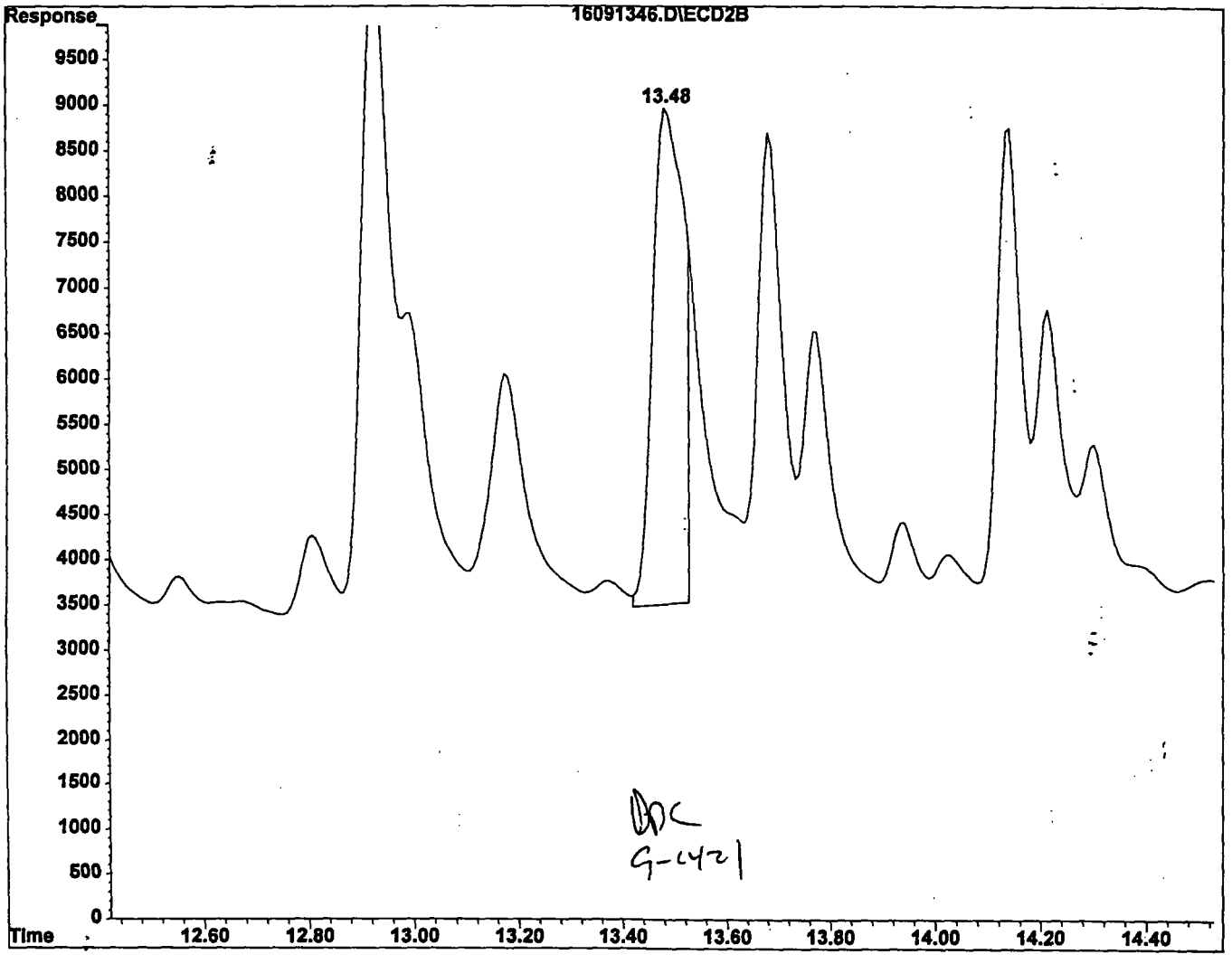
Aroclor-1016 {2} #2 8.95min area: 80016 m

Integration Time Range: 8.89 - 8.97

F:\HPCHEM\HP\16\DATA\09_13_01\16091346.D
Report generated: Fri Sep 14 14:37:18 2001

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_13_01\16091346.D
Date Acquired: 14 Sep 2001 12:59
Inst: HP_16 Operator ID: DDC
Name: AR1660L3CF
Misc: 5-210-7
Method: F:\HPCHEM\HP\16\DATA\09_13_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 14 14:36 2001 Quant Results File: XPCBI11.RES



Aroclor-1260 {2} #2 13.48min area: 226336 m

Integration Time Range: 13.42 - 13.53

F:\HPCHEM\HP\16\DATA\09_13_01\16091346.D
Report generated: Fri Sep 14 14:37:19 2001

Continuing Calibration Report HP_16

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Sat Sep 15 07:11:43 2001
Response via : Initial Calibration

Continuing Calibration File: 16091416.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%	
1	S	TCX	6.928	8.307	E3	-19.9#	132	
2	L1	Aroclor-1016	395.782	473.301		-19.6#	128	
3	L1	Aroclor-1016 {2}	260.669	223.413		14.3	85	13.60%
4	L1	Aroclor-1016 {3}	236.153	267.291		-13.2	125	
5	L1	Aroclor-1016 {4}	199.746	231.274		-15.8#	123	
6	L1	Aroclor-1016 {5}	300.287	283.929		5.4	100	
17	L7	Aroclor-1260	557.411	620.120		-11.3	116	
18	L7	Aroclor-1260 {2}	501.098	574.958		-14.7	121	
19	L7	Aroclor-1260 {3}	408.246	455.531		-11.6	124	
20	L7	Aroclor-1260 {4}	357.710	449.016		-25.5#	132	14.52%
21	L7	Aroclor-1260 {5}	831.679	910.539		-9.5	113	
22	S	DCB	11.430	11.660	E3	-2.0	111	

Signal #2
Continuing Calibration File: 16091416.D

		Compound	AvgRF	CCRF		%Dev	Area%	
1	S	TCX	7.863	9.719	E3	-23.6#	133	
2	L1	Aroclor-1016	426.061	525.922		-23.4#	132	
3	L1	Aroclor-1016 {2}	185.679	197.100		-6.2	128	
4	L1	Aroclor-1016 {3}	221.982	256.275		-15.4#	123	12.4%
5	L1	Aroclor-1016 {4}	375.798	418.095		-11.3	119	
6	L1	Aroclor-1016 {5}	274.859	259.328		5.7	96	
17	L7	Aroclor-1260	552.718	655.299		-18.6#	128	
18	L7	Aroclor-1260 {2}	643.074	604.370		6.0	100	
19	L7	Aroclor-1260 {3}	349.158	420.901		-20.5#	137	
20	L7	Aroclor-1260 {4}	934.005	1095.972		-17.3#	128	14.64%
21	L7	Aroclor-1260 {5}	432.199	385.510		10.8	106	
22	S	DCB	11.282	12.617	E3	-11.8	120	

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

16091416.D XPCBI11.M Sat Sep 15 07:11:49 2001

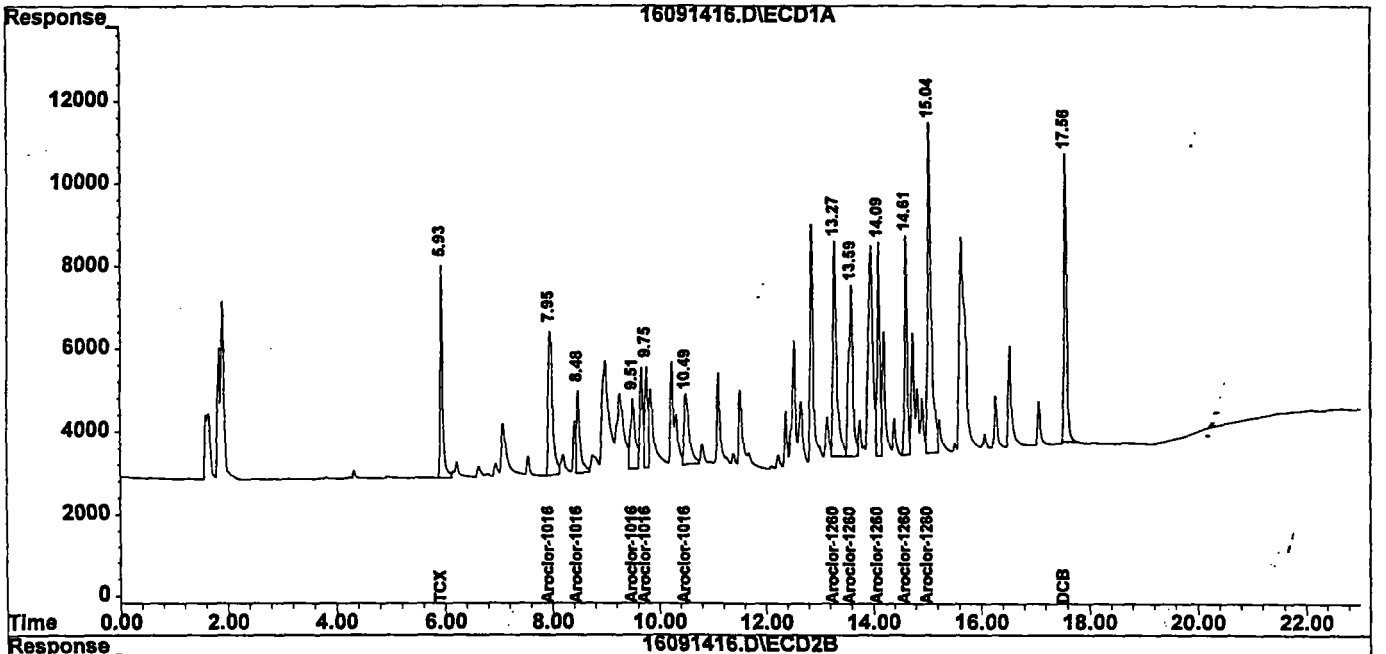
COPY
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 29692 SDG E0219
Signature Arnelda M. Willis
Date 09/20/01

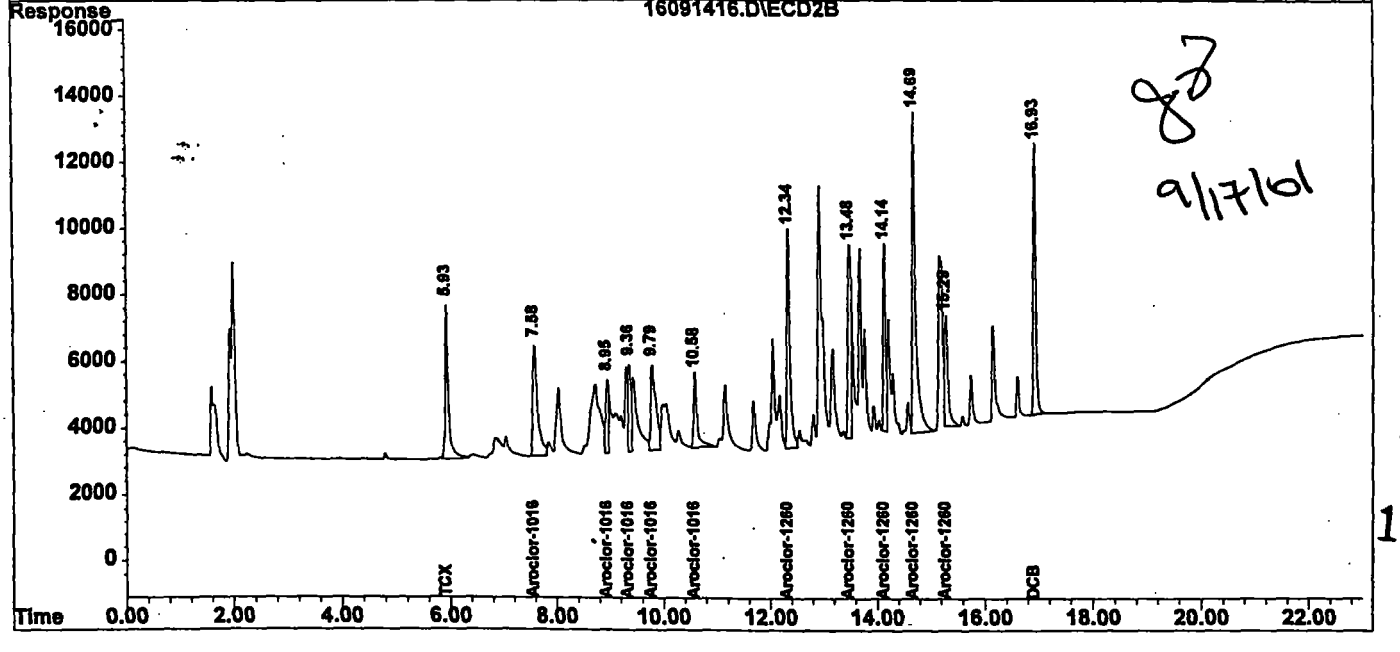
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091416.D\ECD1A.CH Vial: 16
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091416.D\ECD2B.CH
Acq On : 14 Sep 2001 22:17 Operator: DDC
Sample : AR1660L3CH Inst : HP_16
Misc : 5-210-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 15 7:11 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





8/7
9/17/01

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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091416.D\ECD1A.CH Vial: 16
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091416.D\ECD2B.CH
Acq On : 14 Sep 2001 22:17 Operator: DDC
Sample : AR1660L3CH Inst : HP_16
Misc : 5-210-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 15 7:11 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds:						
1)	S TCX	5.93f	5.94f	166147	194380	24.0	24.7
22)	S DCB	17.56	16.94	233208	252349	20.4	22.4
	Target Compounds:						
2)	L1 Aroclor-1016	7.95	7.58	189320	210369	478.3	493.8
3)	L1 Aroclor-1016 {2}	8.48	8.95f	89365	78840	342.8	424.6m DDC 9-15-1
4)	L1 Aroclor-1016 {3}	9.51	9.36f	106917	102510	452.7	461.8
5)	L1 Aroclor-1016 {4}	9.76	9.79f	92510	167238	463.1	445.0
6)	L1 Aroclor-1016 {5}	10.50f	10.59f	113572	103731	378.2	377.4
	Sum Aroclor-1016			591683	662688	2115.3	2202.6
	Average Aroclor-1016					423.053	440.514
17)	L7 Aroclor-1260	13.28	12.34	248048	262119	445.0	474.2
18)	L7 Aroclor-1260 {2}	13.59	13.49f	229983	241748	459.0	375.9m DDC 9-15-1
19)	L7 Aroclor-1260 {3}	14.10	14.14	182213	168360	446.3	482.2
20)	L7 Aroclor-1260 {4}	14.61	14.69	179607	438389	502.1	469.4
21)	L7 Aroclor-1260 {5}	15.04	15.29	364215	154204	437.9	356.8
	Sum Aroclor-1260			1204066	1264821	2290.3	2158.5
	Average Aroclor-1260					458.063	431.701

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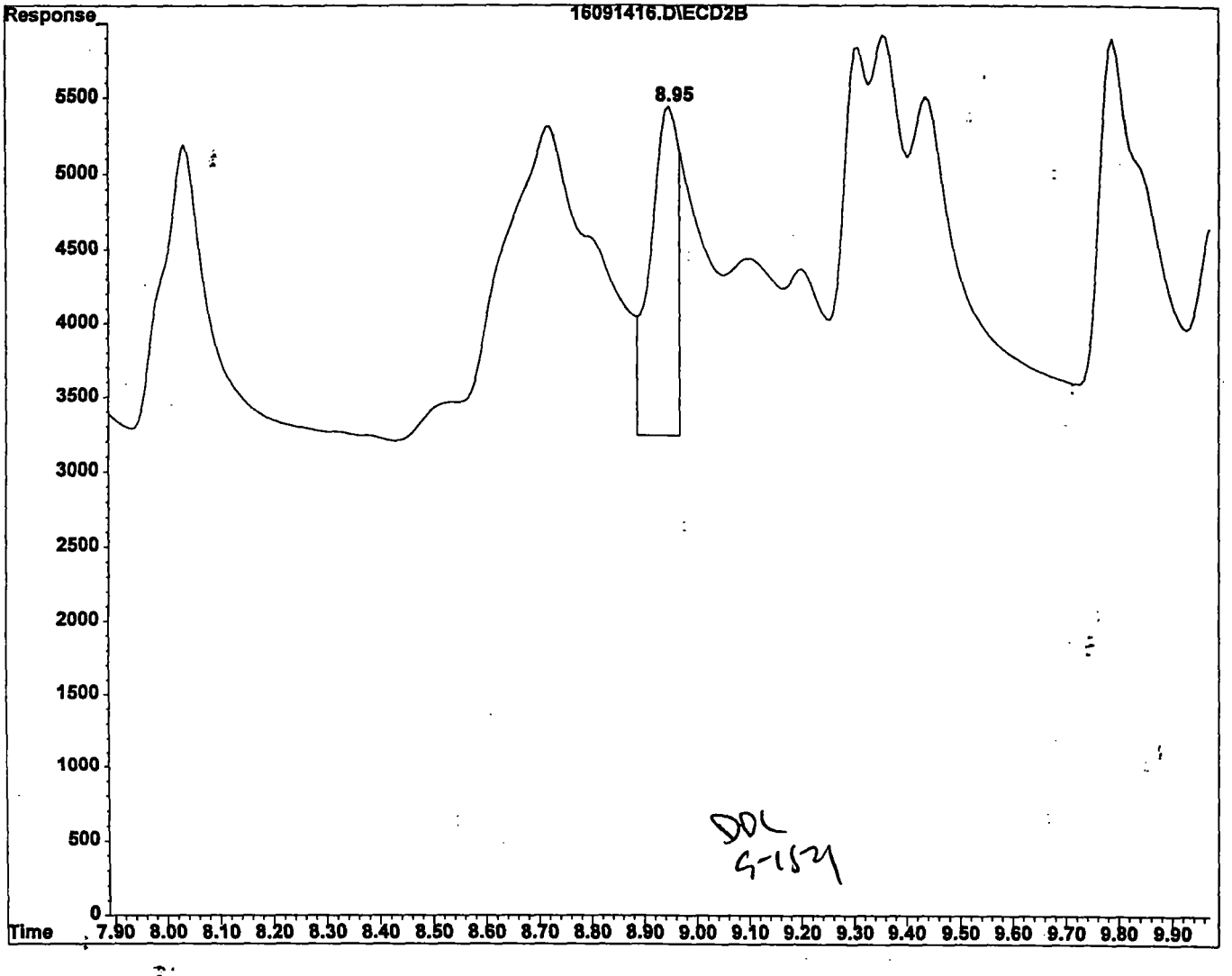
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_14_01\16091416.D
Date Acquired: 14 Sep 2001 22:17
Inst: HP_16 Operator ID: DDC
Name: AR1660L3CH
Misc: 5-210-7
Method: F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 15 7:11 2001 Quant Results File: XPCBI11.RES



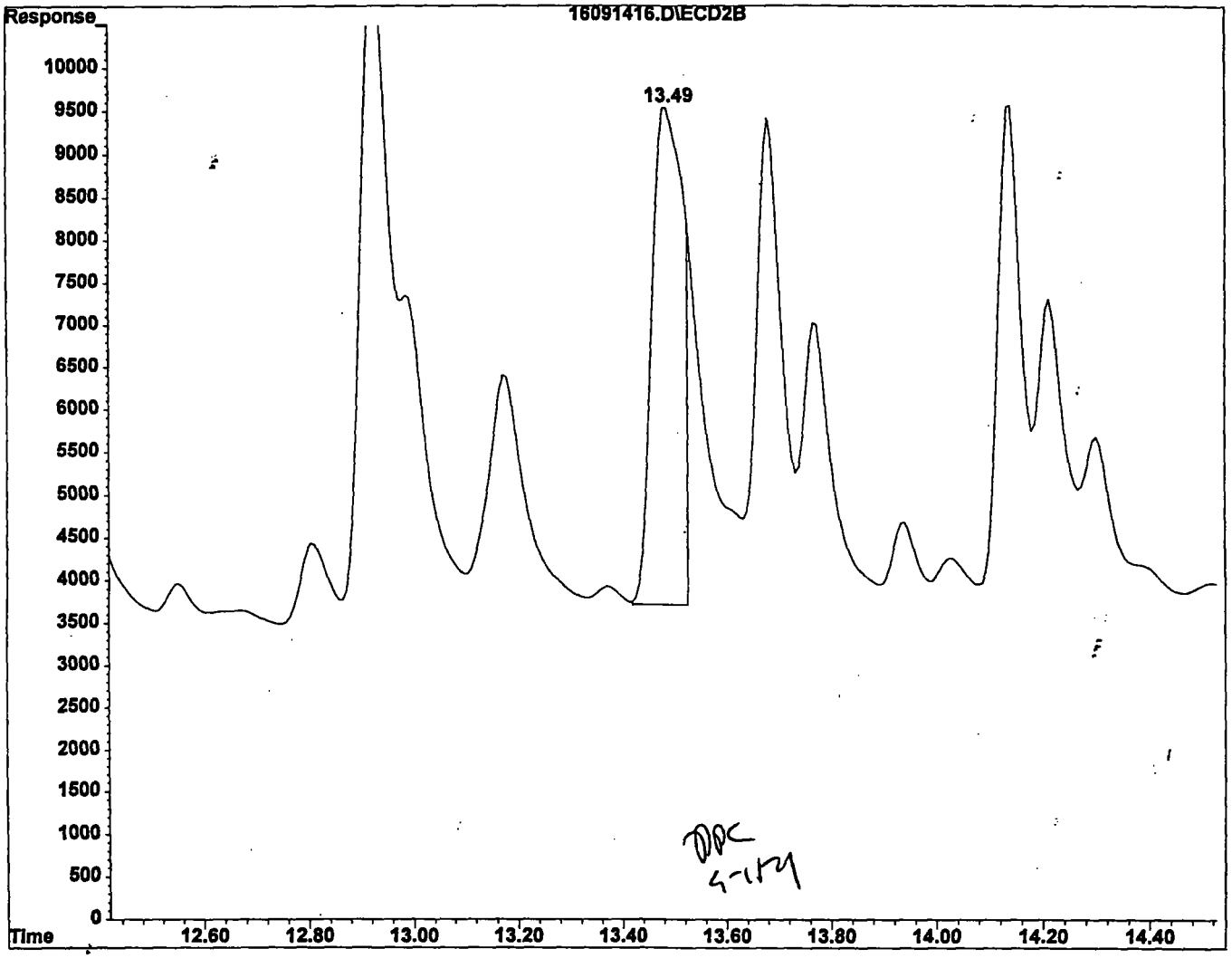
Aroclor-1016 {2} #2 8.95min area: 78840 m

Integration Time Range: 8.89 - 8.97

F:\HPCHEM\HP\16\DATA\09_14_01\16091416.D
Report generated: Sat Sep 15 07:13:56 2001

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_14_01\16091416.D
Date Acquired: 14 Sep 2001 22:17
Inst: HP_16 Operator ID: DDC
Name: AR1660L3CH
Misc: 5-210-7
Method: F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 15 7:11 2001 Quant Results File: XPCBI11.RES



Aroclor-1260 {2} #2 13.49min area: 241748 m

Integration Time Range: 13.42 - 13.53

F:\HPCHEM\HP\16\DATA\09_14_01\16091416.D
Report generated: Sat Sep 15 07:13:57 2001

Continuing Calibration Report HP_16

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Sat Sep 15 07:02:42 2001
Response via : Initial Calibration

Continuing Calibration File: 16091432.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%
1	S	TCX	6.928	7.348	E3	-6.1	116
2	L1	Aroclor-1016	395.782	426.891		-7.9	116
3	L1	Aroclor-1016 {2}	260.669	300.652		-15.3#	114
4	L1	Aroclor-1016 {3}	236.153	262.732		-11.3	123
5	L1	Aroclor-1016 {4}	199.746	223.110		-11.7	119
6	L1	Aroclor-1016 {5}	300.287	324.767		-8.2	114
17	L7	Aroclor-1260	557.411	604.391		-8.4	113
18	L7	Aroclor-1260 {2}	501.098	546.045		-9.0	115
19	L7	Aroclor-1260 {3}	408.246	415.142		-1.7	113
20	L7	Aroclor-1260 {4}	357.710	397.672		-11.2	117
21	L7	Aroclor-1260 {5}	831.679	904.850		-8.8	112
22	S	DCB	11.430	10.344	E3	9.5	98

1

Signal #2
Continuing Calibration File: 16091432.D

		Compound	AvgRF	CCRF		%Dev	Area%
1	S	TCX	7.863	8.510	E3	-8.2	116
2	L1	Aroclor-1016	426.061	468.646		-10.0	117
3	L1	Aroclor-1016 {2}	185.679	184.030		0.9	119
4	L1	Aroclor-1016 {3}	221.982	237.980		-7.2	114
5	L1	Aroclor-1016 {4}	375.798	399.646		-6.3	113
6	L1	Aroclor-1016 {5}	274.859	317.354		-15.5#	117
17	L7	Aroclor-1260	552.718	585.364		-5.9	115
18	L7	Aroclor-1260 {2}	643.074	778.609		-21.1#	129
19	L7	Aroclor-1260 {3}	349.158	386.064		-10.6	125
20	L7	Aroclor-1260 {4}	934.005	967.201		-3.6	113
21	L7	Aroclor-1260 {5}	432.199	368.409		14.8	101
22	S	DCB	11.282	11.124	E3	1.4	106

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

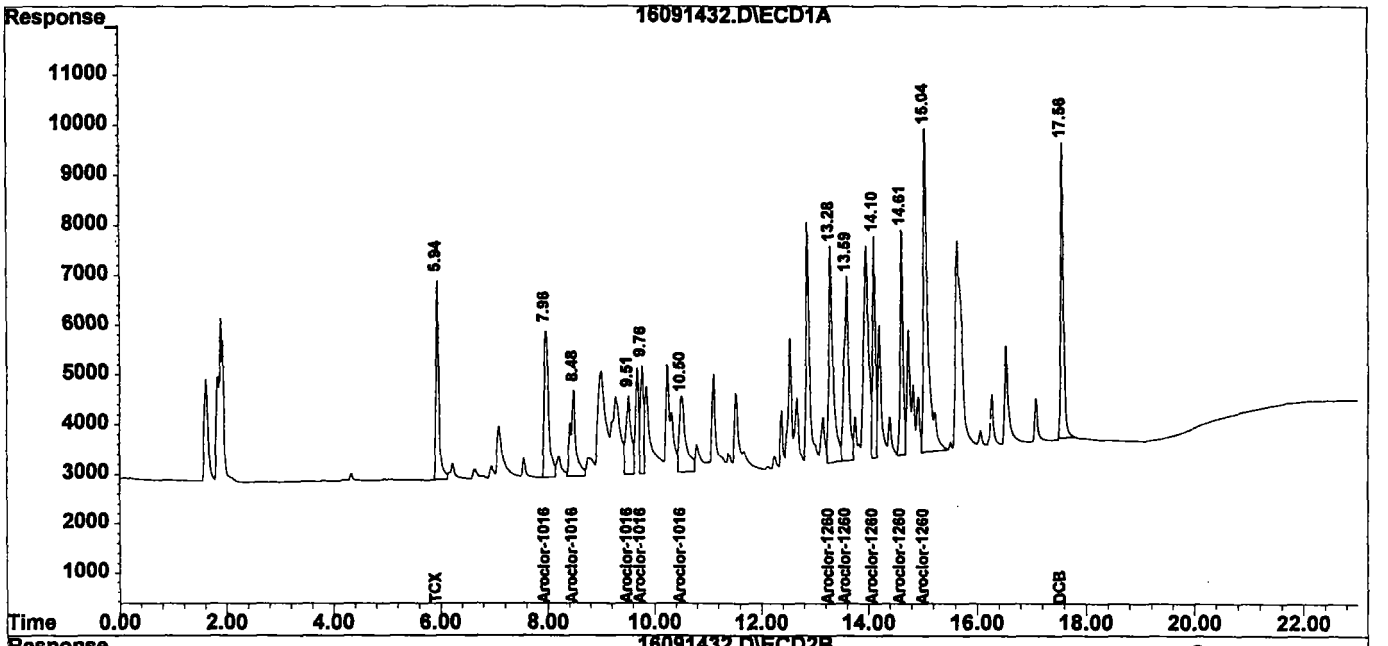
16091432.D XPCBI11.M Sat Sep 15 07:02:48 2001

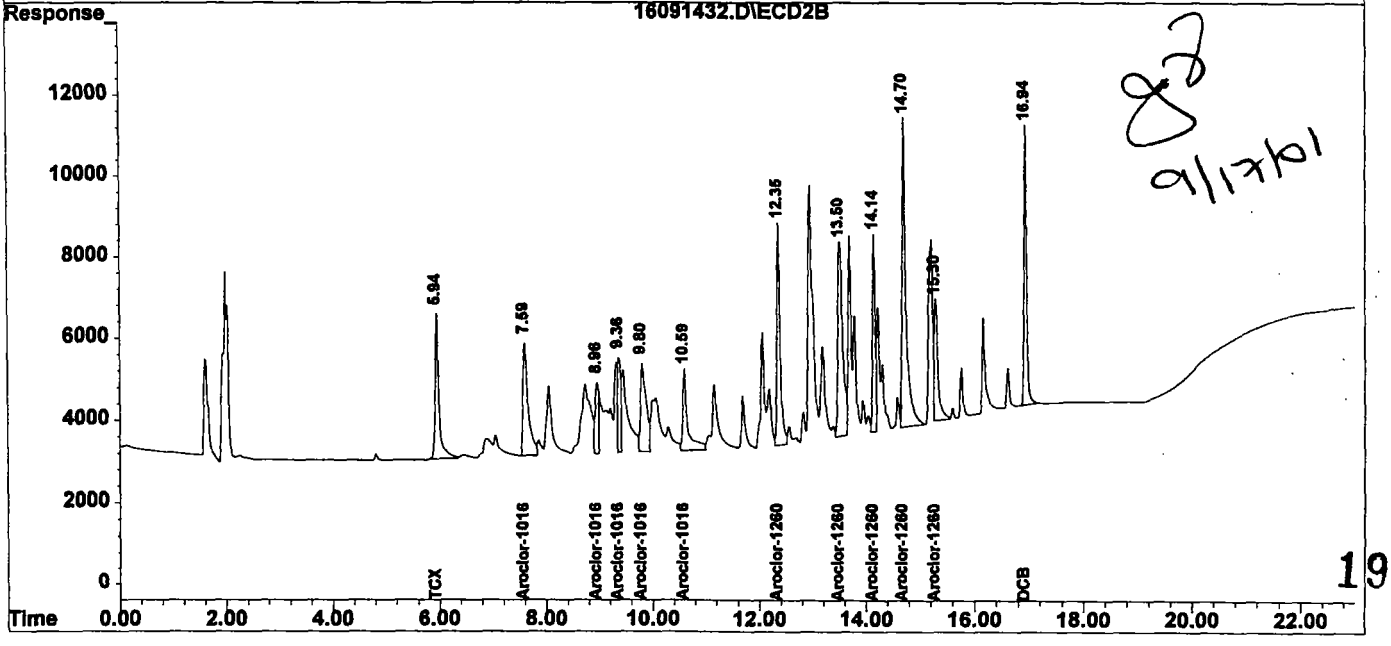
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091432.D\ECD1A.CH Vial: 32
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091432.D\ECD2B.CH
Acq On : 15 Sep 2001 5:20 Operator: DDC
Sample : AR1660L3CJ Inst : HP_16
Misc : 5-210-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 15 7:02 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





8?
9/17/01

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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091432.D\ECD1A.CH Vial: 32
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091432.D\ECD2B.CH
Acq On : 15 Sep 2001 5:20 Operator: DDC
Sample : AR1660L3CJ Inst : HP_16
Misc : 5-210-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 15 7:02 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

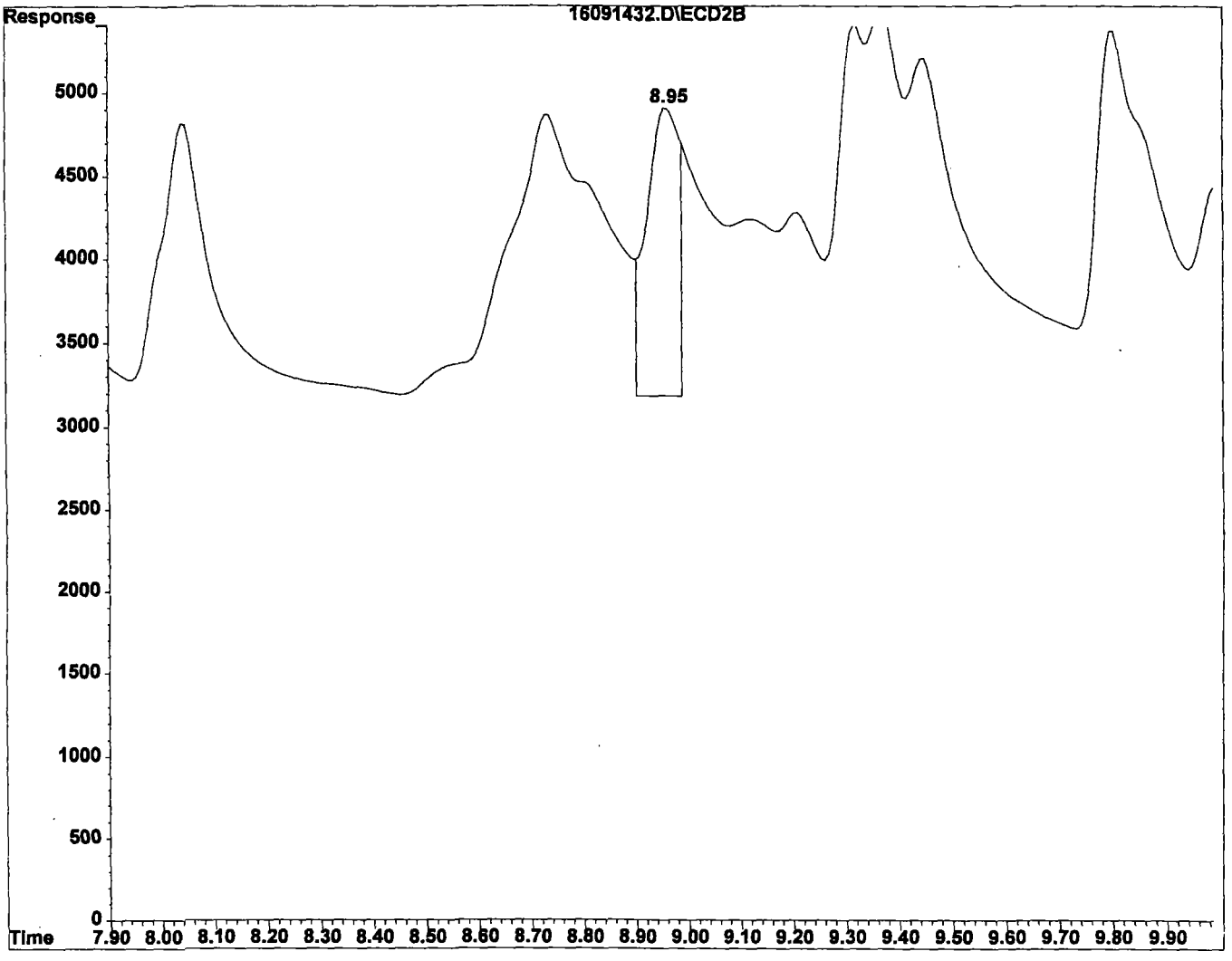
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds:						
1)	S TCX	5.94	5.95	146954	170201	21.2	21.6
22)	S DCB	17.56	16.94	206886	222470	18.1	19.7
	Target Compounds:						
2)	L1 Aroclor-1016	7.96	7.60	170757	187458	431.4	440.0
3)	L1 Aroclor-1016 {2}	8.49	8.95	120261	73612	461.4	396.4m
4)	L1 Aroclor-1016 {3}	9.52	9.37	105093	95192	445.0	428.8
5)	L1 Aroclor-1016 {4}	9.76	9.80	89244	159858	446.8	425.4
6)	L1 Aroclor-1016 {5}	10.51f	10.59	129907	126942	432.6	461.8
	Sum Aroclor-1016			615261	643062	2217.2	2152.5
	Average Aroclor-1016					443.443	430.496
17)	L7 Aroclor-1260	13.29	12.35	241756	234145	433.7	423.6
18)	L7 Aroclor-1260 {2}	13.60	13.50	218418	311443	435.9	484.3
19)	L7 Aroclor-1260 {3}	14.10	14.14	166057	154426	406.8	442.3
20)	L7 Aroclor-1260 {4}	14.62	14.70	159069	386880	444.7	414.2
21)	L7 Aroclor-1260 {5}	15.05	15.30	361940	147364	435.2	341.0
	Sum Aroclor-1260			1147240	1234258	2156.2	2105.4
	Average Aroclor-1260					431.245	421.078

DDC 9-15-01

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std
16091432.D XPCBI11.M Sat Sep 15 07:14:47 2001 Page 1

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_14_01\16091432.D
Date Acquired: 15 Sep 2001 5:20
Inst: HP_16 Operator ID: DDC
Name: AR1660L3CJ
Misc: 5-210-7
Method: F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 15 7:02 2001 Quant Results File: XPCBI11.RES



Aroclor-1016 {2} #2 8.95min area: 73612 m

Integration Time Range: 8.90 - 8.99

F:\HPCHEM\HP\16\DATA\09_14_01\16091432.D
Report generated: Sat Sep 15 07:13:58 2001

Continuing Calibration Report HP_16

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Sun Sep 16 09:31:39 2001
Response via : Initial Calibration

Continuing Calibration File: 16091446.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%
1	S	TCX	6.928	6.355	E3	8.3	101
2	L1	Aroclor-1016	395.782	375.456		5.1	102
3	L1	Aroclor-1016 {2}	260.669	198.137		24.0#	75
4	L1	Aroclor-1016 {3}	236.153	228.870		3.1	107
5	L1	Aroclor-1016 {4}	199.746	193.927		2.9	103
6	L1	Aroclor-1016 {5}	300.287	289.076		3.7	102
17	L7	Aroclor-1260	557.411	515.831		7.5	96
18	L7	Aroclor-1260 {2}	501.098	466.929		6.8	98
19	L7	Aroclor-1260 {3}	408.246	370.769		9.2	101
20	L7	Aroclor-1260 {4}	357.710	341.551		4.5	100
21	L7	Aroclor-1260 {5}	831.679	691.320		16.9#	86
22	S	DCB	11.430	9.347	E3	18.2#	89

Signal #2
Continuing Calibration File: 16091446.D

		Compound	AvgRF	CCRF		%Dev	Area%
1	S	TCX	7.863	7.638	E3	2.9	104
2	L1	Aroclor-1016	426.061	413.633		2.9	103
3	L1	Aroclor-1016 {2}	185.679	177.860		4.2	115
4	L1	Aroclor-1016 {3}	221.982	209.580		5.6	100
5	L1	Aroclor-1016 {4}	375.798	354.318		5.7	100
6	L1	Aroclor-1016 {5}	274.859	269.801		1.8	100
17	L7	Aroclor-1260	552.718	512.801		7.2	101
18	L7	Aroclor-1260 {2}	643.074	656.189		-2.0	109
19	L7	Aroclor-1260 {3}	349.158	339.611		2.7	110
20	L7	Aroclor-1260 {4}	934.005	842.371		9.8	98
21	L7	Aroclor-1260 {5}	432.199	328.074		24.1#	90
22	S	DCB	11.282	10.056	E3	10.9	96

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

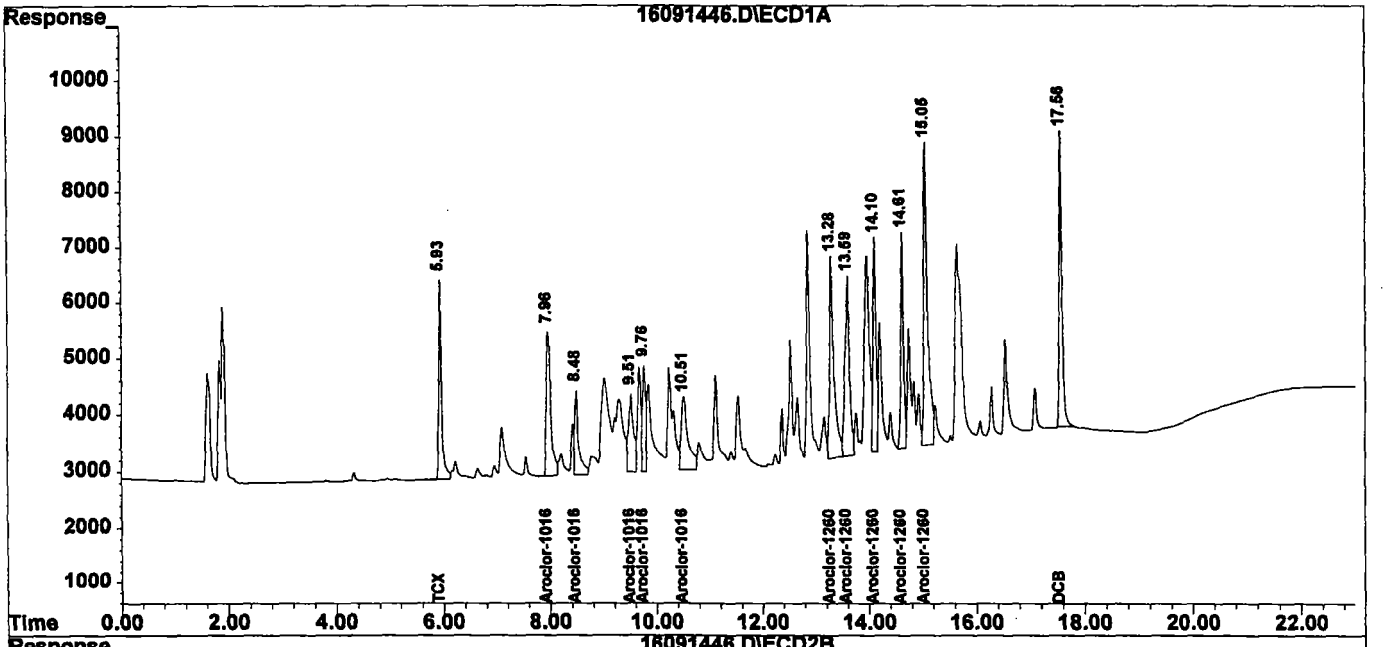
16091446.D XPCBI11.M Sun Sep 16 09:31:45 2001

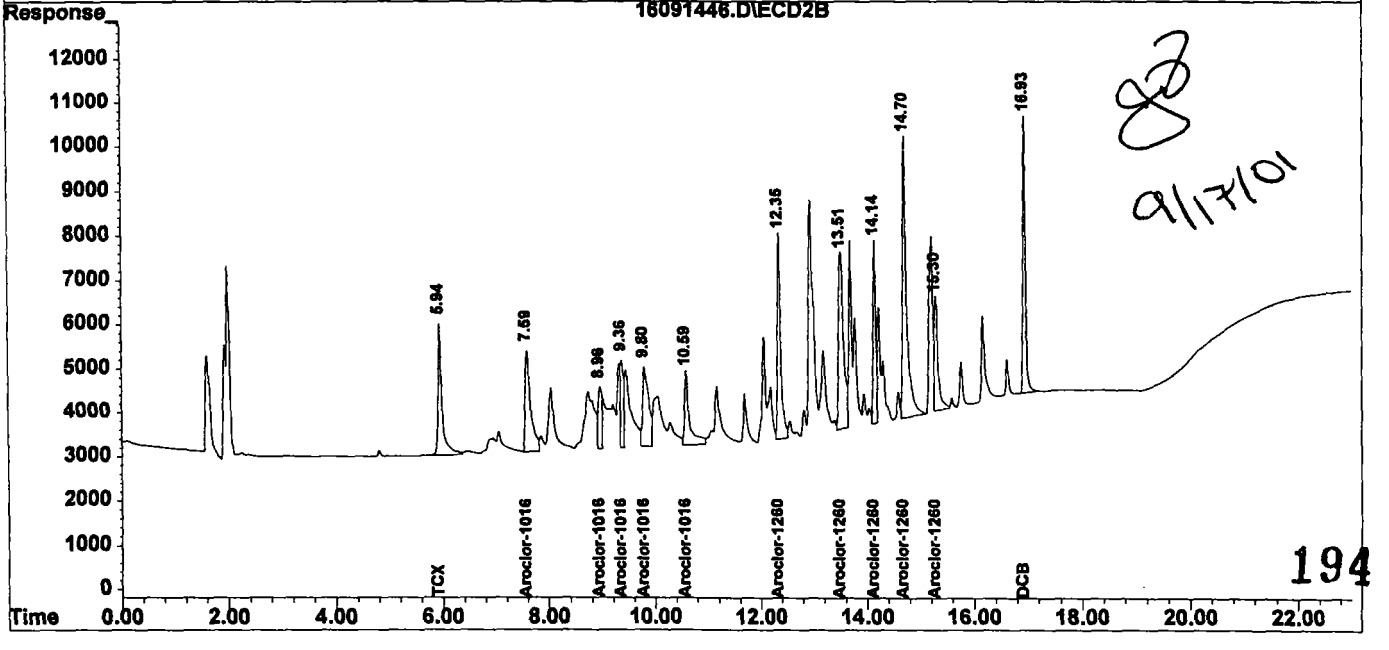
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091446.D\ECD1A.CH Vial: 46
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091446.D\ECD2B.CH
Acq On : 15 Sep 2001 11:30 Operator: DDC
Sample : AR1660L3CL Inst : HP_16
Misc : 5-210-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 16 9:31 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





9/17/01

194

Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091446.D\ECD1A.CH Vial: 46
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091446.D\ECD2B.CH
Acq On : 15 Sep 2001 11:30 Operator: DDC
Sample : AR1660L3CL Inst : HP_16
Misc : 5-210-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 16 9:31 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds:						
1)	S TCX	5.94	5.94	127097	152766	18.3	19.4
22)	S DCB	17.56	16.94	186944	201112	16.4	17.8
	Target Compounds:						
2)	L1 Aroclor-1016	7.96	7.60	150182	165453	379.5	388.3
3)	L1 Aroclor-1016 {2}	8.48	8.95	79255	71144	304.0	383.2m #
4)	L1 Aroclor-1016 {3}	9.52	9.37	91548	83832	387.7	377.7
5)	L1 Aroclor-1016 {4}	9.76	9.80	77571	141727	388.3	377.1
6)	L1 Aroclor-1016 {5}	10.51f	10.59	115630	107920	385.1	392.6
	Sum Aroclor-1016			514186	570076	1844.6	1918.9
	Average Aroclor-1016					368.916	383.783
17)	L7 Aroclor-1260	13.29	12.35	206332	205120	370.2	371.1
18)	L7 Aroclor-1260 {2}	13.60	13.51	186771	262476	372.7	408.2
19)	L7 Aroclor-1260 {3}	14.10	14.14	148308	135845	363.3	389.1
20)	L7 Aroclor-1260 {4}	14.62	14.70	136621	336948	381.9	360.8
21)	L7 Aroclor-1260 {5}	15.05	15.30	276528	131230	332.5	303.6
	Sum Aroclor-1260			954560	1071619	1820.6	1832.7
	Average Aroclor-1260					364.118	366.544

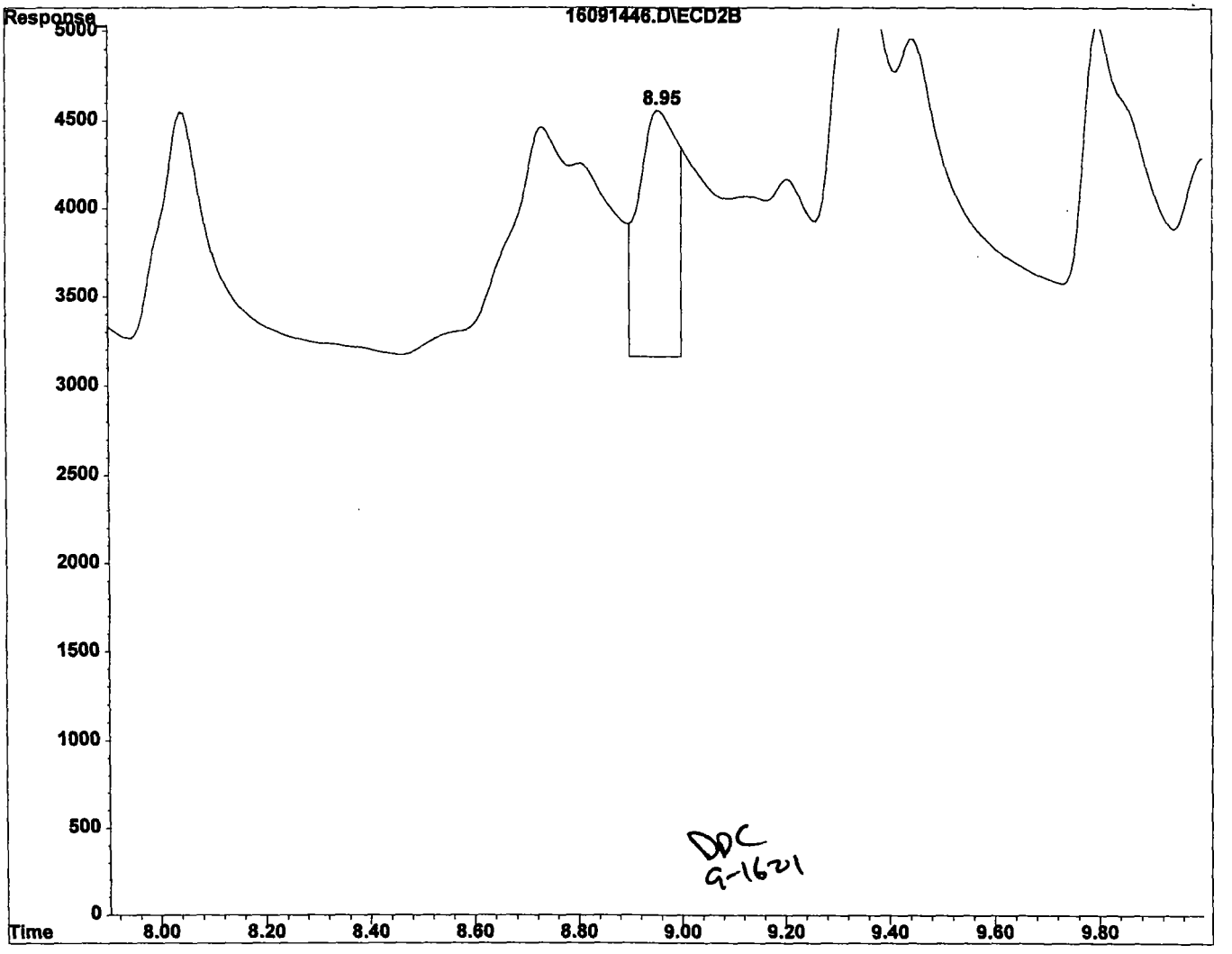
DDC 9-16-01

195

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_14_01\16091446.D
Date Acquired: 15 Sep 2001 11:30
Inst: HP_16 Operator ID: DDC
Name: AR1660L3CL
Misc: 5-210-7
Method: F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 16 9:31 2001 Quant Results File: XPCBI11.RES



Aroclor-1016 {2} #2 8.95min area: 71144 m

Integration Time Range: 8.90 - 9.00

F:\HPCHEM\HP\16\DATA\09_14_01\16091446.D
Report generated: Sun Sep 16 09:32:24 2001

1D

AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

PBLKSA

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) SOIL Lab Sample ID: BL0821SA

Sample wt/vol: 30.0 (g/mL) G Lab File ID:_____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:08/21/01

Concentrated Extract Volume: 5000(uL) Date Analyzed: 09/14/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	33	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U
	Surrogate amount spiked	6.67	

FORM I PCB

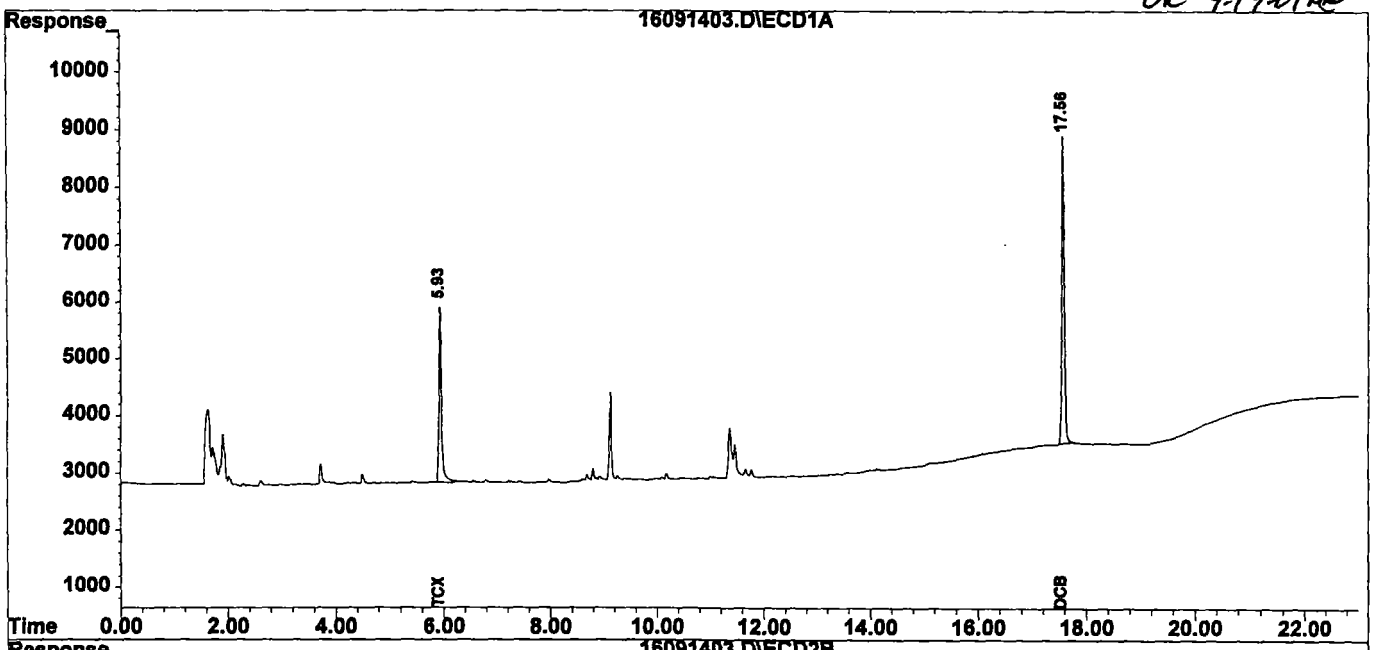
Chromatographic Report

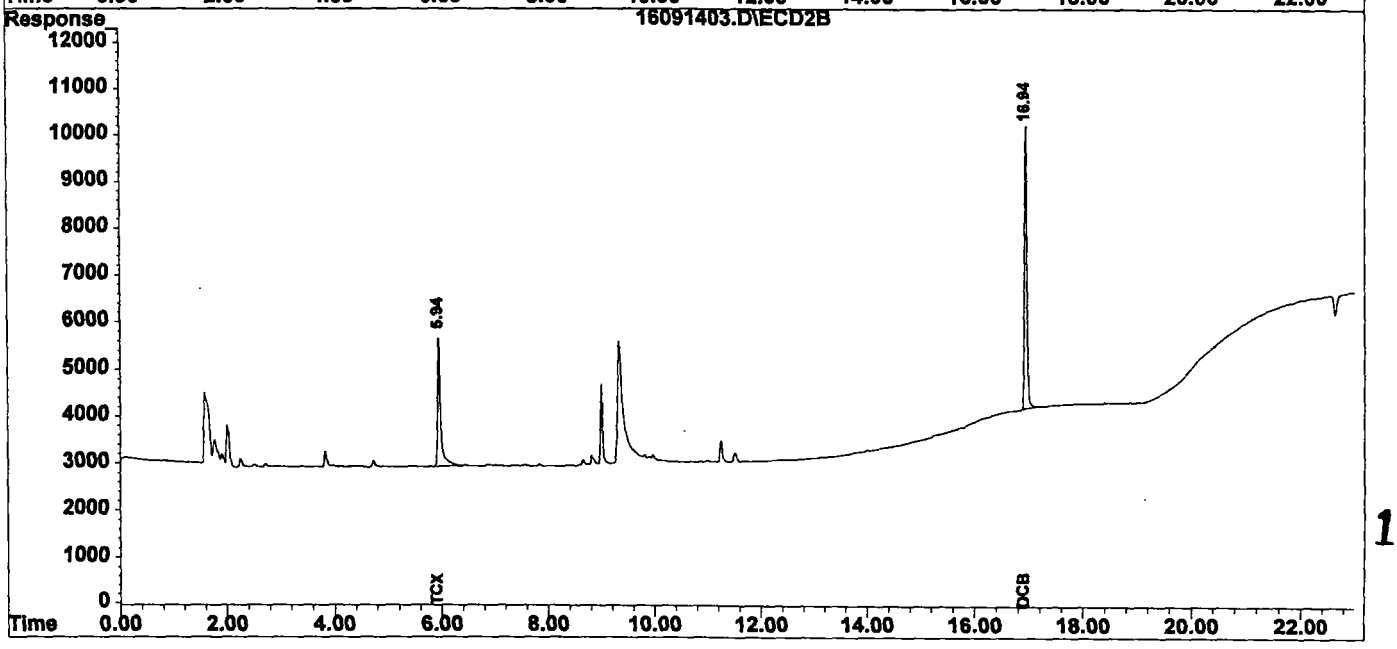
Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091403.D\ECD1A.CH Vial: 3
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091403.D\ECD2B.CH
Acq On : 14 Sep 2001 16:32 Operator: DDC
Sample : BL0821SA *PBLKSA * Inst : HP_16
Misc : **30G/5.0ML*0 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 15 7:17 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

OK 9-19-01





198

Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091403.D\ECD1A.CH Vial: 3
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091403.D\ECD2B.CH
Acq On : 14 Sep 2001 16:32 Operator: DDC
Sample : BL0821SA *PBLKSA * Inst : HP_16
Misc : **30G/5.0ML*0 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 15 7:17 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg
	System Monitoring Compounds:						
1)	S TCX	5.93f	5.94	103201	113173	4.966	4.798
	Spiked Amount 6.667			Recovery	=	74.49%	71.97%
22)	S DCB	17.56	16.94	166767	181132	4.863	5.352
	Spiked Amount 6.667			Recovery	=	✓72.95%	✓80.28%

Target Compounds:

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std
16091403.D XPCBI11.M Sat Sep 15 07:25:17 2001 Page 1

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

PIBLKCF

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) WATER Lab Sample ID: 5-131-7

Sample wt/vol: _____ (g/mL) Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 09/14/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM I PCB

1D

AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

PIBLKCF

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) WATER Lab Sample ID: 5-131-7

Sample wt/vol: _____ (g/mL) Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 09/14/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

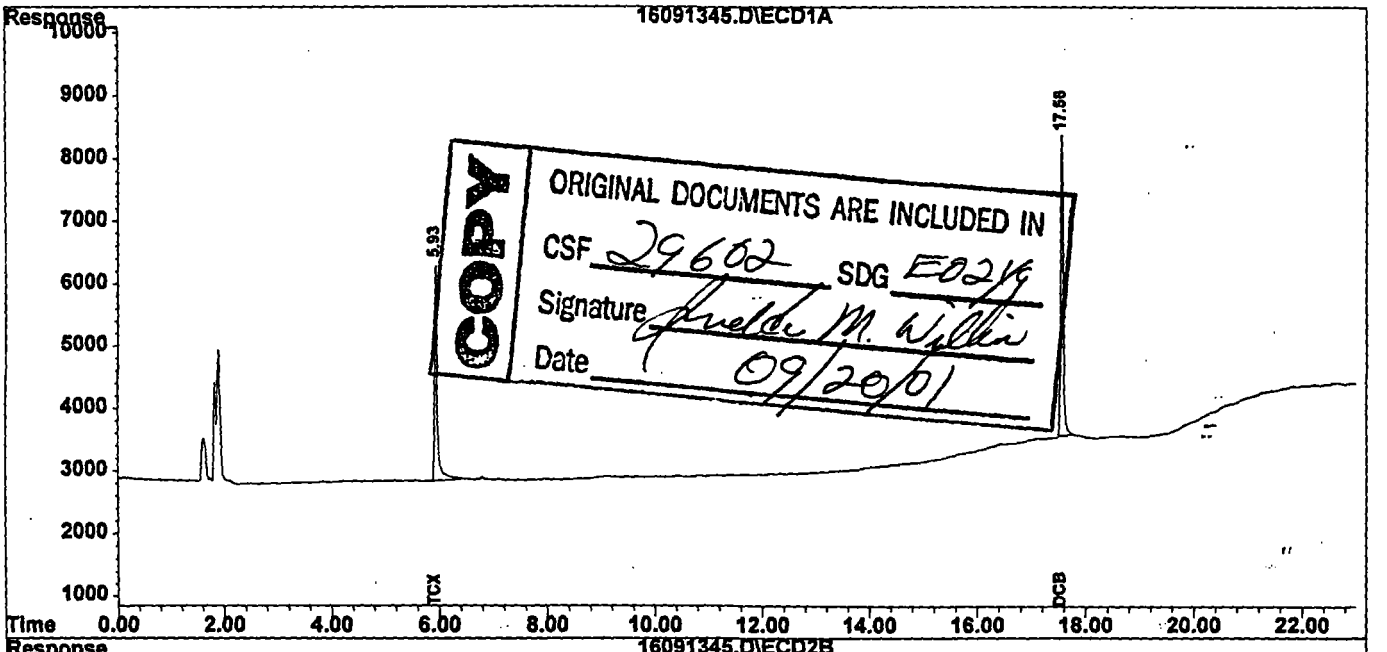
FORM I PCB

Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_13_01\16091345.D\ECD1A.CH Vial: 45
Signal #2 : F:\HPCHEM\HP\16\DATA\09_13_01\16091345.D\ECD2B.CH
Acq On : 14 Sep 2001 12:32 Operator: DDC
Sample : PIBLKCF Inst : HP_16
Misc : 5-131-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 14 13:05 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_13_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B



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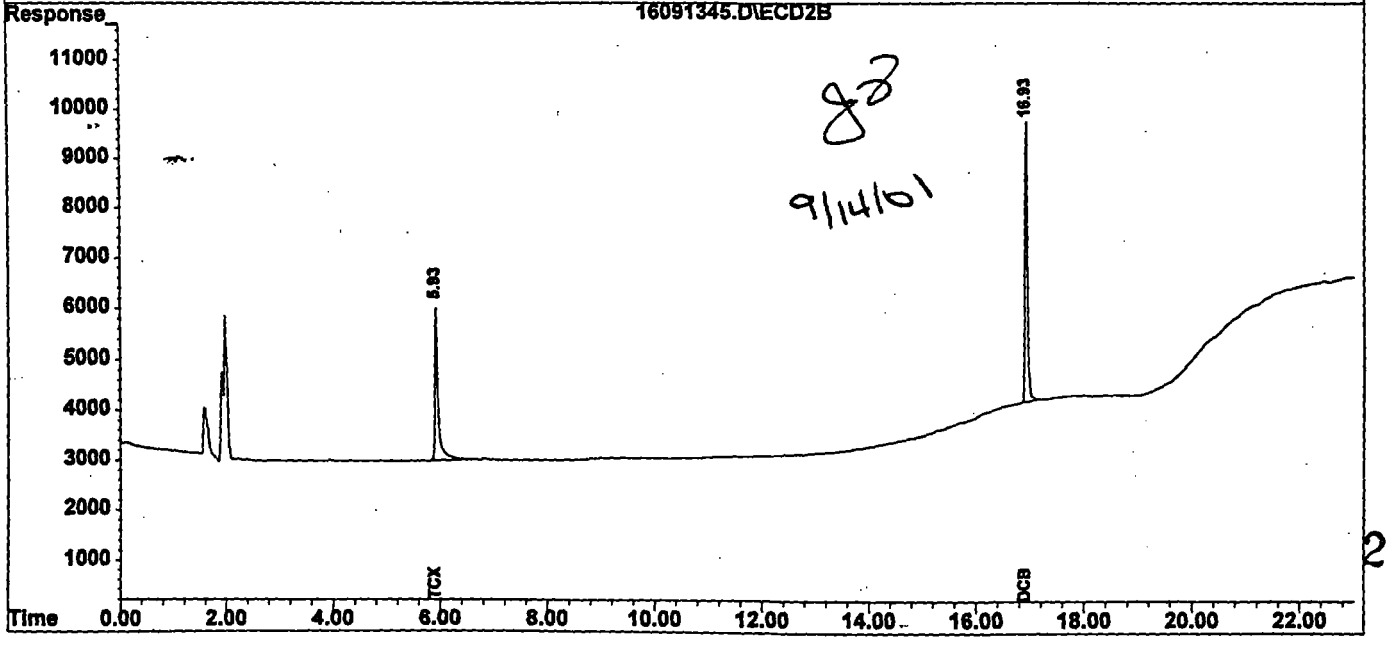
CSF 29602 SDG E0216
Signature Sheila M. Willis
Date 09/20/01



8
9/14/01

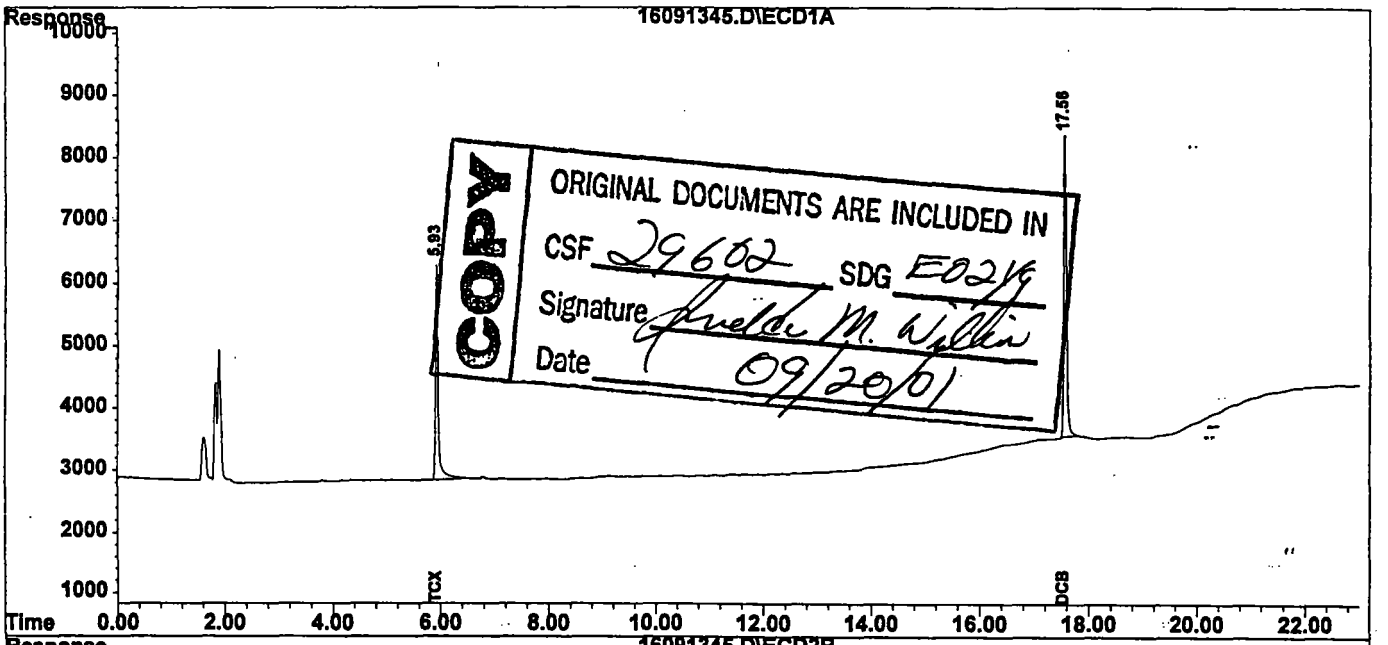
202

Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_13_01\16091345.D\ECD1A.CH Vial: 45
Signal #2 : F:\HPCHEM\HP\16\DATA\09_13_01\16091345.D\ECD2B.CH
Acq On : 14 Sep 2001 12:32 Operator: DDC
Sample : PIBLKCF Inst : HP_16
Misc : 5-131-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 14 13:05 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_13_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B



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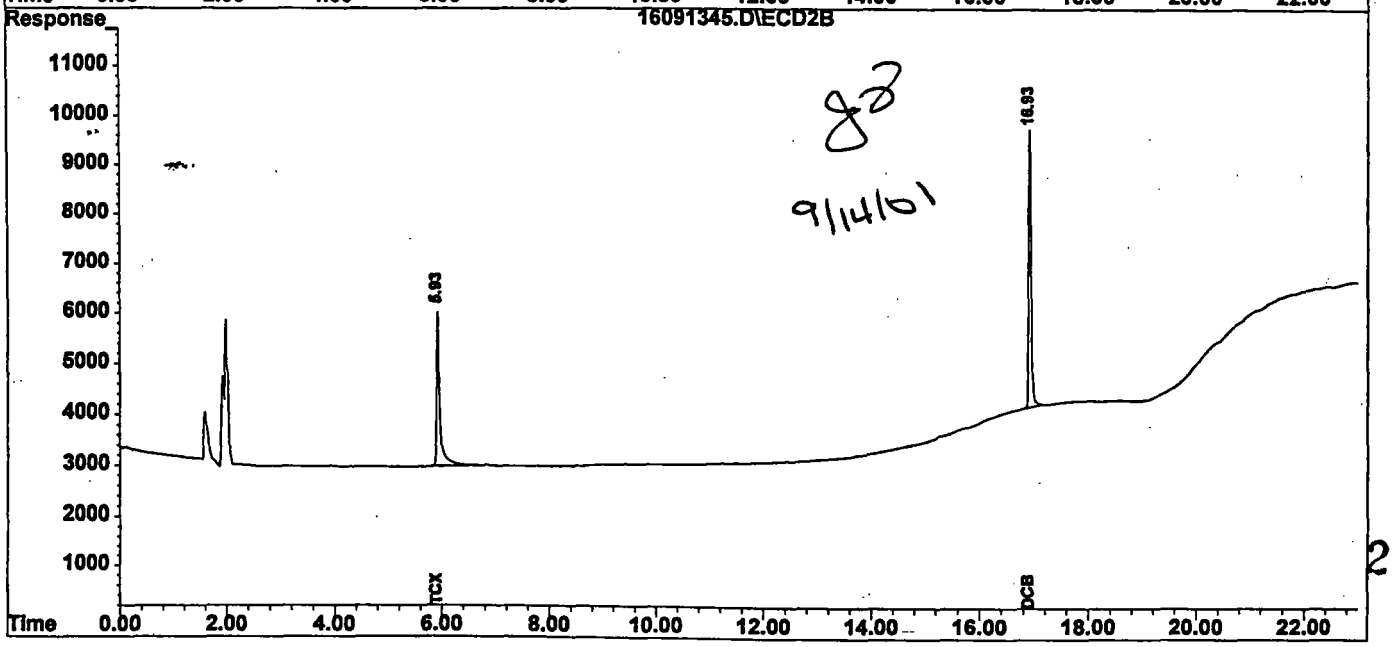
Signature Sheila M. Willis
Date 09/20/01



8
9/14/01

202

Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_13_01\16091345.D\ECD1A.CH Vial: 45
Signal #2 : F:\HPCHEM\HP\16\DATA\09_13_01\16091345.D\ECD2B.CH
Acq On : 14 Sep 2001 12:32 Operator: DDC
Sample : PIBLKCF Inst : HP_16
Misc : 5-131-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 14 13:05 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_13_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Fri Sep 14 14:36:42 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds:						
1)	S TCX	5.93f	5.94f	122476	132787	17.7	16.9
22)	S DCB	17.56	16.94	157790	170680	13.8	15.1

Target Compounds:

203

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

PIBLKCG

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) WATER Lab Sample ID: 5-131-7

Sample wt/vol: _____ (g/mL) Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 09/14/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

204

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

PIBLKCG

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) WATER Lab Sample ID: 5-131-7

Sample wt/vol: _____ (g/mL) Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 09/14/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

SF 9/21/01

~~204~~

205

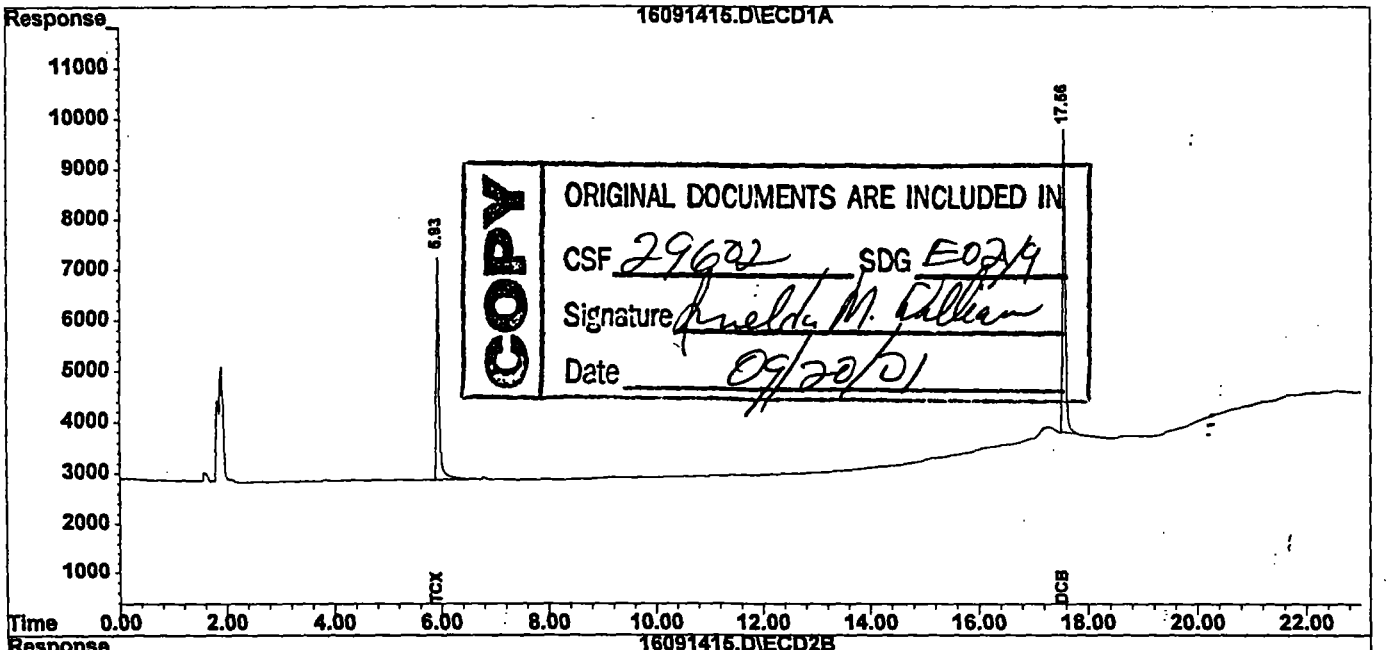
FORM I PCB

Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091415.D\ECD1A.CH Vial: 15
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091415.D\ECD2B.CH
Acq On : 14 Sep 2001 21:51 Operator: DDC
Sample : PIBLKCG Inst : HP_16
Misc : 5-131-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 15 6:58 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B



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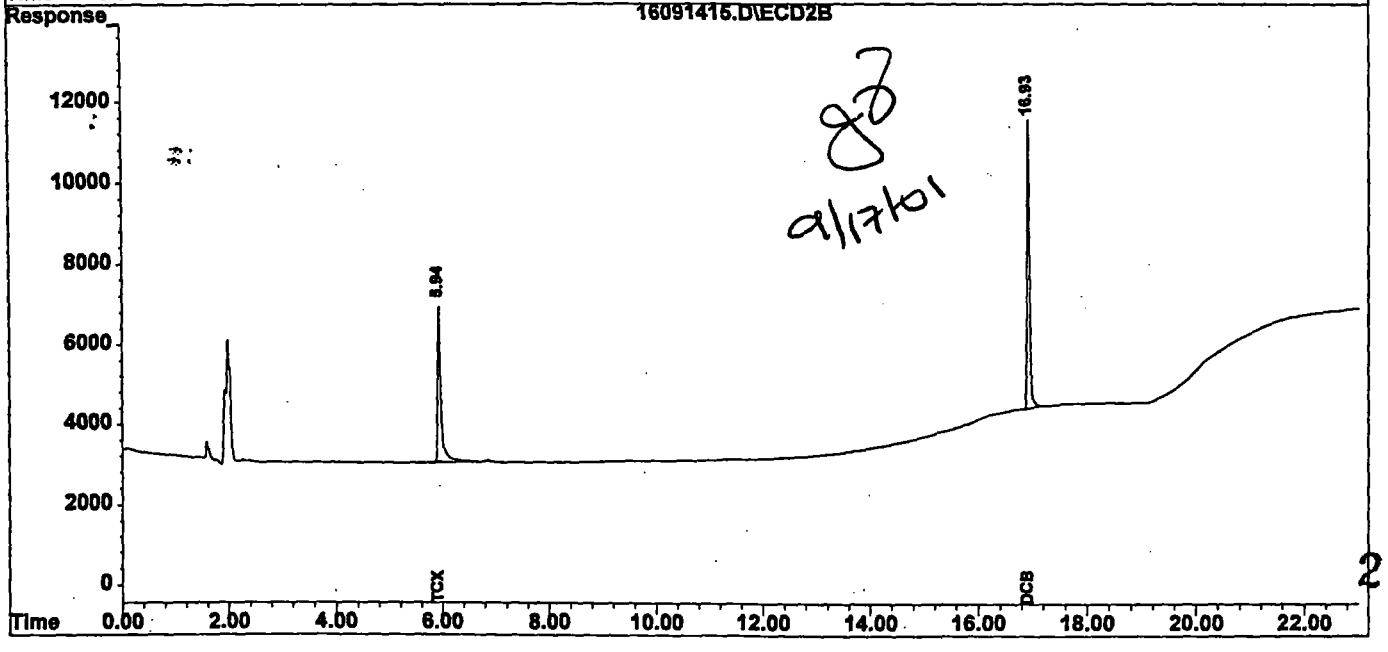
Signature Rhelda M. Gillian
Date 09/20/01



9/17/01

206

Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091415.D\ECD1A.CH Vial: 15
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091415.D\ECD2B.CH
Acq On : 14 Sep 2001 21:51 Operator: DDC
Sample : PIBLKCG Inst : HP_16
Misc : 5-131-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 15 6:58 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Sat Sep 15 07:11:43 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds:						
1)	S TCX	5.94	5.94f	156456	169099	22.6	21.5
22)	S DCB	17.56	16.94	204811	225018	17.9	19.9
	Target Compounds:						

207

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

PIBLKCH

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) WATER Lab Sample ID: 5-131-7

Sample wt/vol: _____ (g/mL) Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 09/15/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM I PCB

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

PIBLKCH

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) WATER Lab Sample ID: 5-131-7

Sample wt/vol: _____ (g/mL) Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 09/15/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

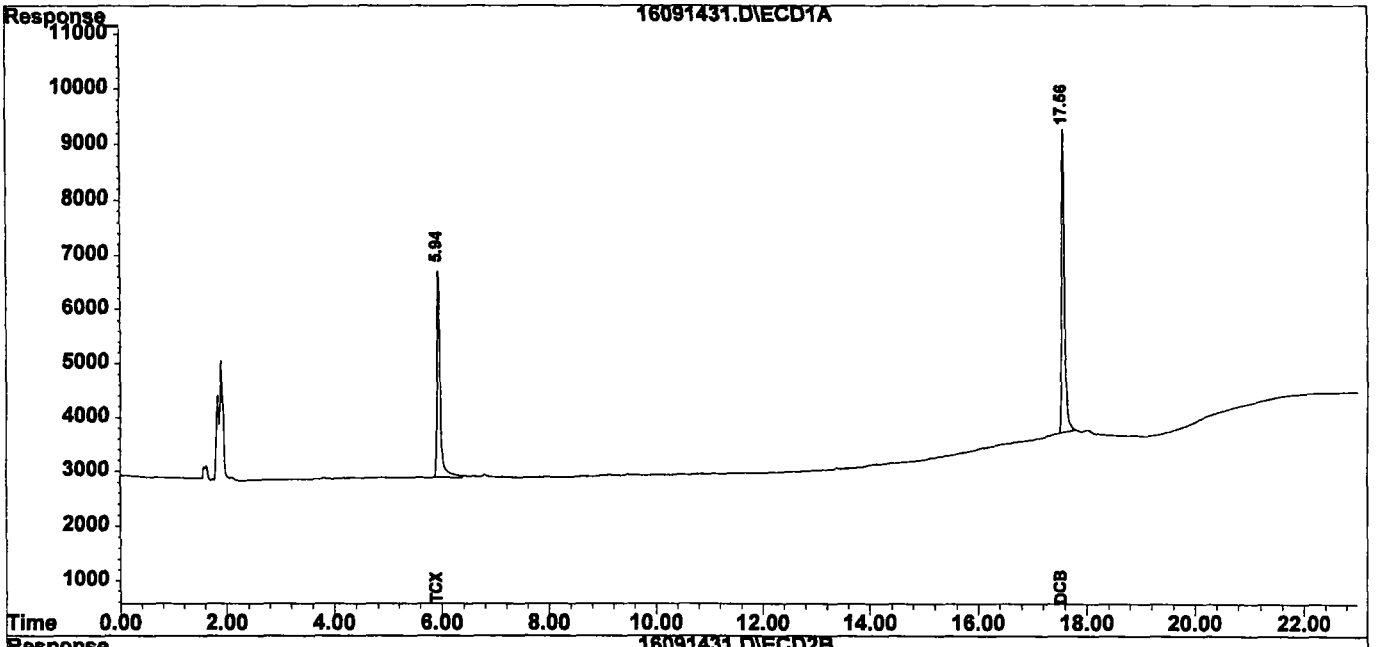
FORM I PCB

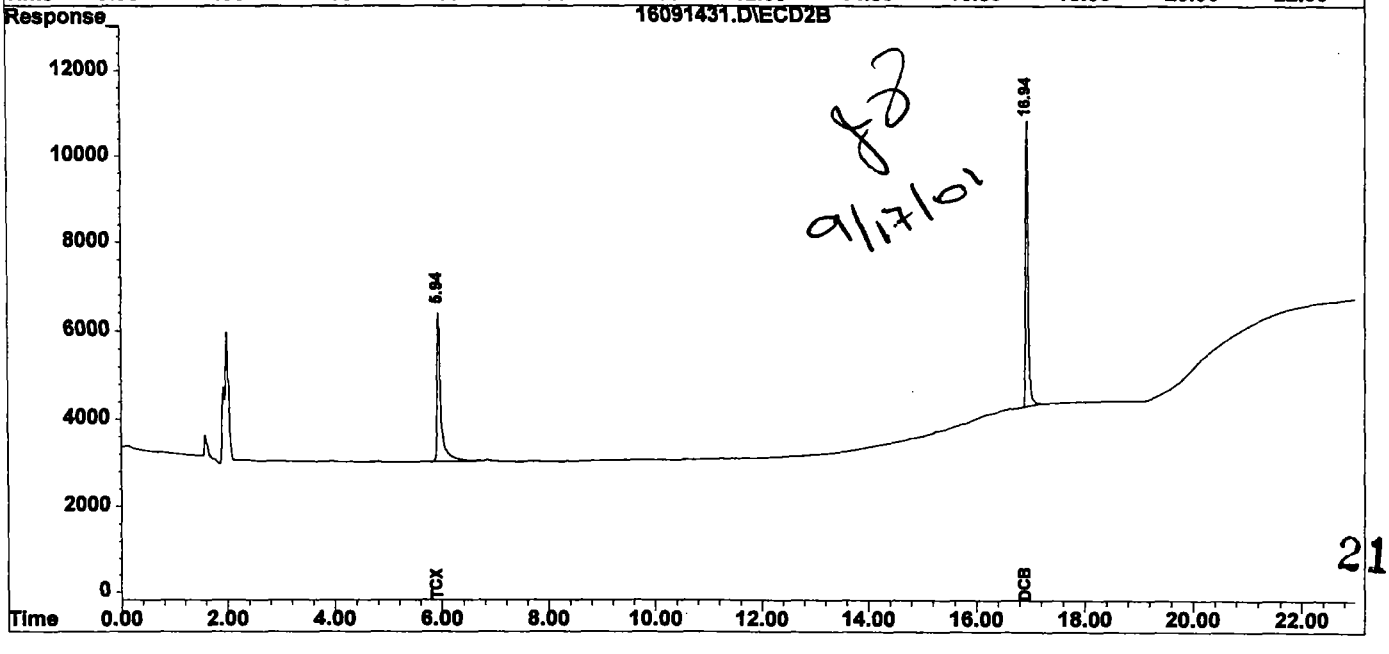
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091431.D\ECD1A.CH Vial: 31
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091431.D\ECD2B.CH
Acq On : 15 Sep 2001 4:54 Operator: DDC
Sample : PIBLKCH Inst : HP_16
Misc : 5-131-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 15 7:01 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





8
9/17/01

210

Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091431.D\ECD1A.CH Vial: 31
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091431.D\ECD2B.CH
Acq On : 15 Sep 2001 4:54 Operator: DDC
Sample : PIBLKCH Inst : HP_16
Misc : 5-131-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 15 7:01 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds:						
1)	S TCX	5.94	5.94	151572	163656	21.9	20.8
22)	S DCB	17.56	16.94	203077	218746	17.8	19.4

Target Compounds:

211

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

PIBLKCI

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) WATER Lab Sample ID: 5-131-7

Sample wt/vol: _____ (g/mL) Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 09/15/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM I PCB

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

PIBLKCI

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) WATER Lab Sample ID: 5-131-7

Sample wt/vol: _____ (g/mL) Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 09/15/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

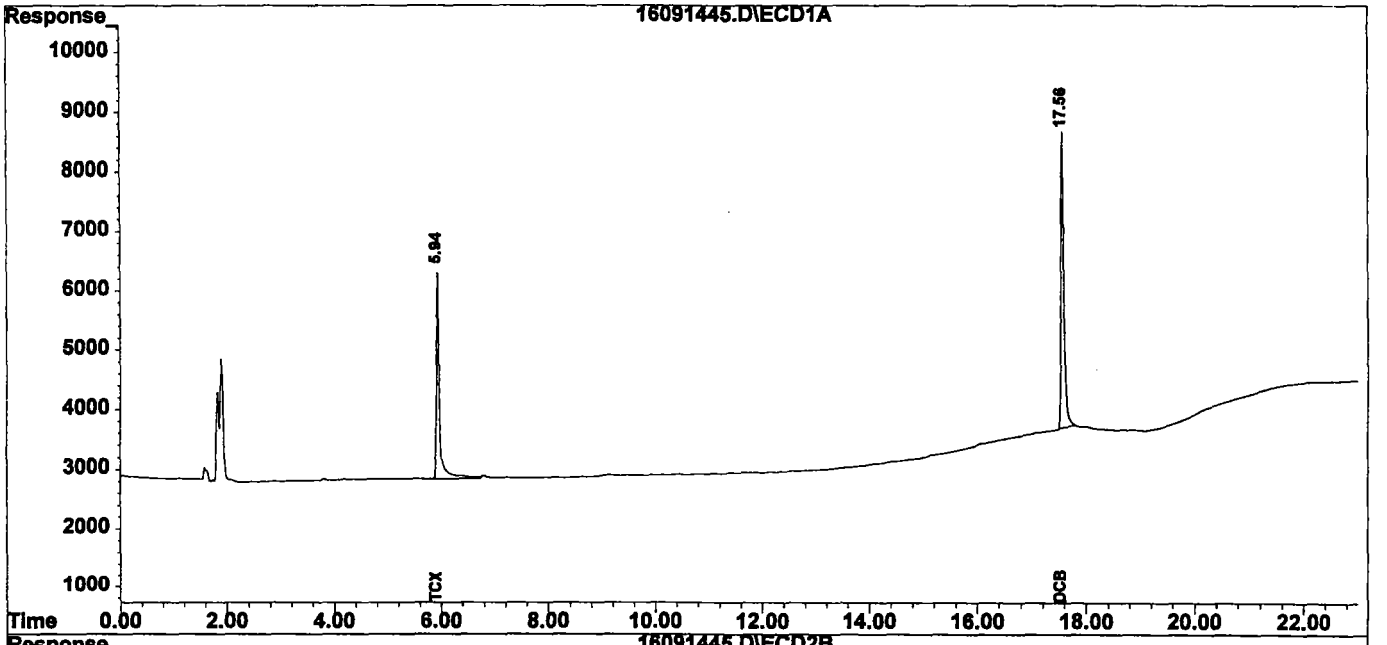
FORM I PCB

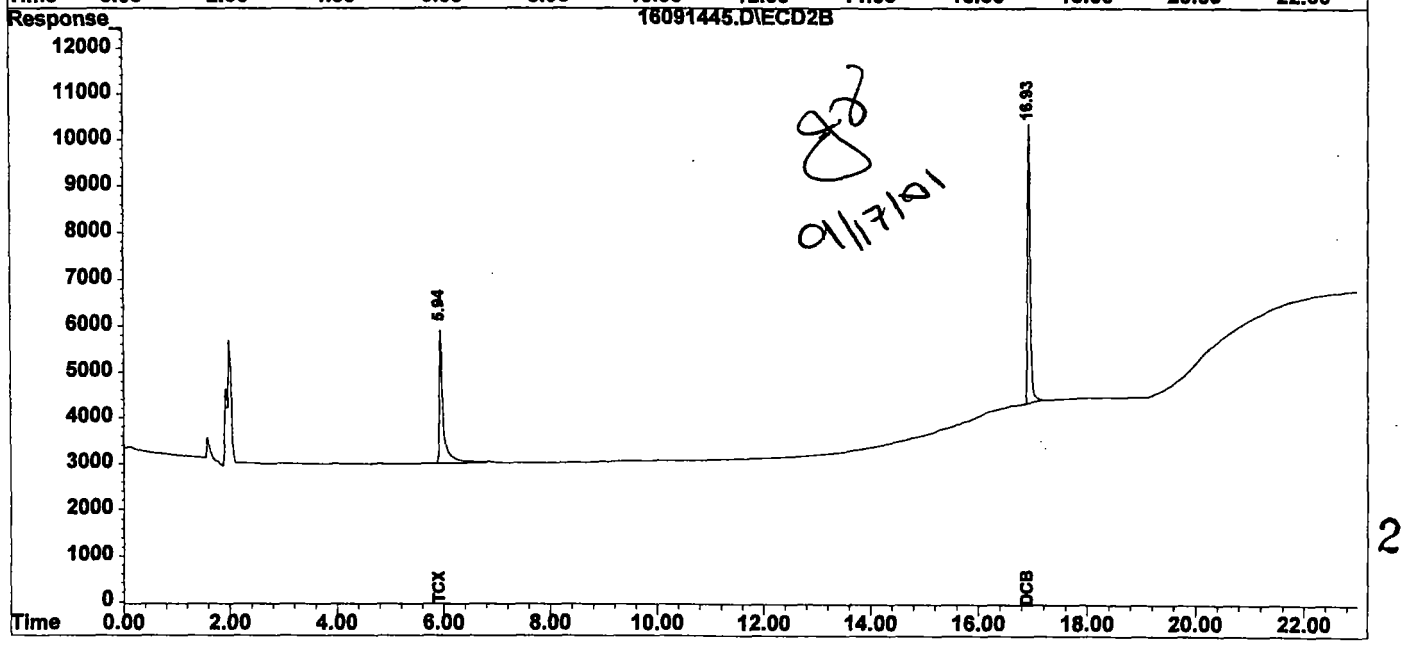
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091445.D\ECD1A.CH Vial: 45
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091445.D\ECD2B.CH
Acq On : 15 Sep 2001 11:04 Operator: DDC
Sample : PIBLKCI Inst : HP_16
Misc : 5-131-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 16 9:30 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





gb
9/17/01

214

Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091445.D\ECD1A.CH Vial: 45
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091445.D\ECD2B.CH
Acq On : 15 Sep 2001 11:04 Operator: DDC
Sample : PIBLKCI Inst : HP_16
Misc : 5-131-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 16 9:30 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Sun Sep 16 09:31:39 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds:						
1)	S TCX	5.94	5.94	145115	150550	20.9	19.1
22)	S DCB	17.56	16.94	183448	198587	16.0	17.6

Target Compounds:

215

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

PIBLKCW

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) WATER Lab Sample ID: 5-131-7

Sample wt/vol: _____ (g/mL) Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 09/11/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM I PCB

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

PIBLKCW

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) WATER Lab Sample ID: 5-131-7

Sample wt/vol: _____ (g/mL) Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 09/11/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

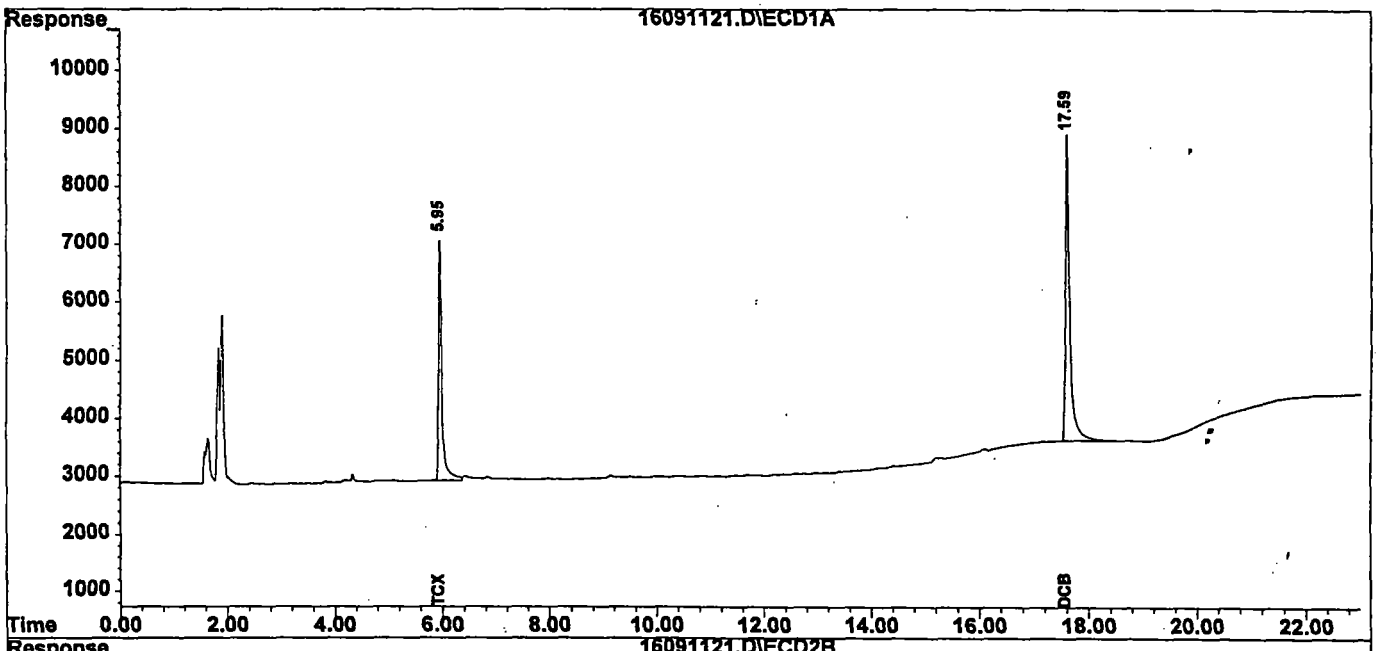
FORM I PCB

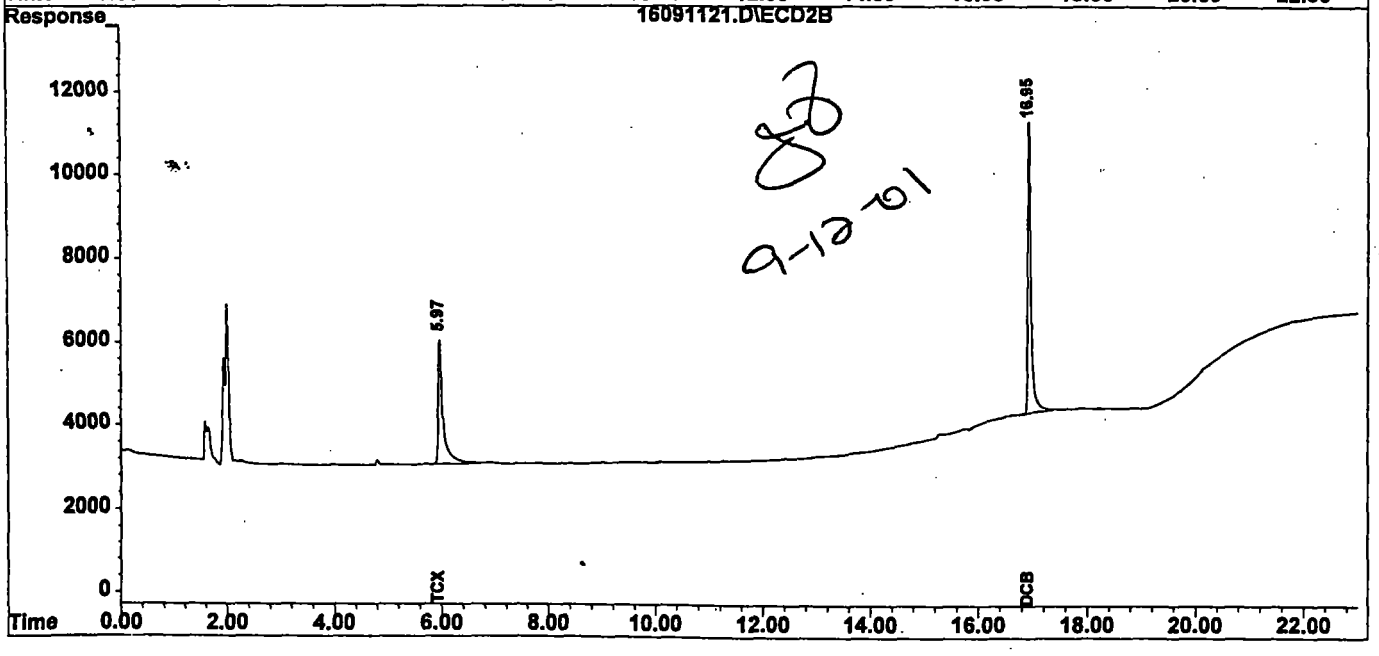
Chromatographic Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091121.D\ECD1A.CH Vial: 25
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091121.D\ECD2B.CH
Acq On : 11 Sep 2001 20:46 Operator: DDC
Sample : PIBLKCW Inst : HP_16
Misc : 5-131-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 12 11:03 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





9-12-01

218

Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_11_01\16091121.D\ECD1A.CH Vial: 25
Signal #2 : F:\HPCHEM\HP\16\DATA\09_11_01\16091121.D\ECD2B.CH
Acq On : 11 Sep 2001 20:46 Operator: DDC
Sample : PIBLKCW Inst : HP_16
Misc : 5-131-7 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 12 11:03 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_11_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds:						
1)	S TCX	5.96	5.97	172173	181542	24.9	23.1
22)	S DCB	17.59	16.95	278435	279062	24.4	24.7

Target Compounds:

219

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ELCS1

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) SOIL Lab Sample ID: LC0821SA

Sample wt/vol: 30.0 (g/mL) G Lab File ID:_____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:08/21/01

Concentrated Extract Volume: 5000(uL) Date Analyzed: 09/14/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	33	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	110	
11096-82-5	Aroclor-1260	33	U
	Surrogate amount spiked	6.67	

FORM I PCB

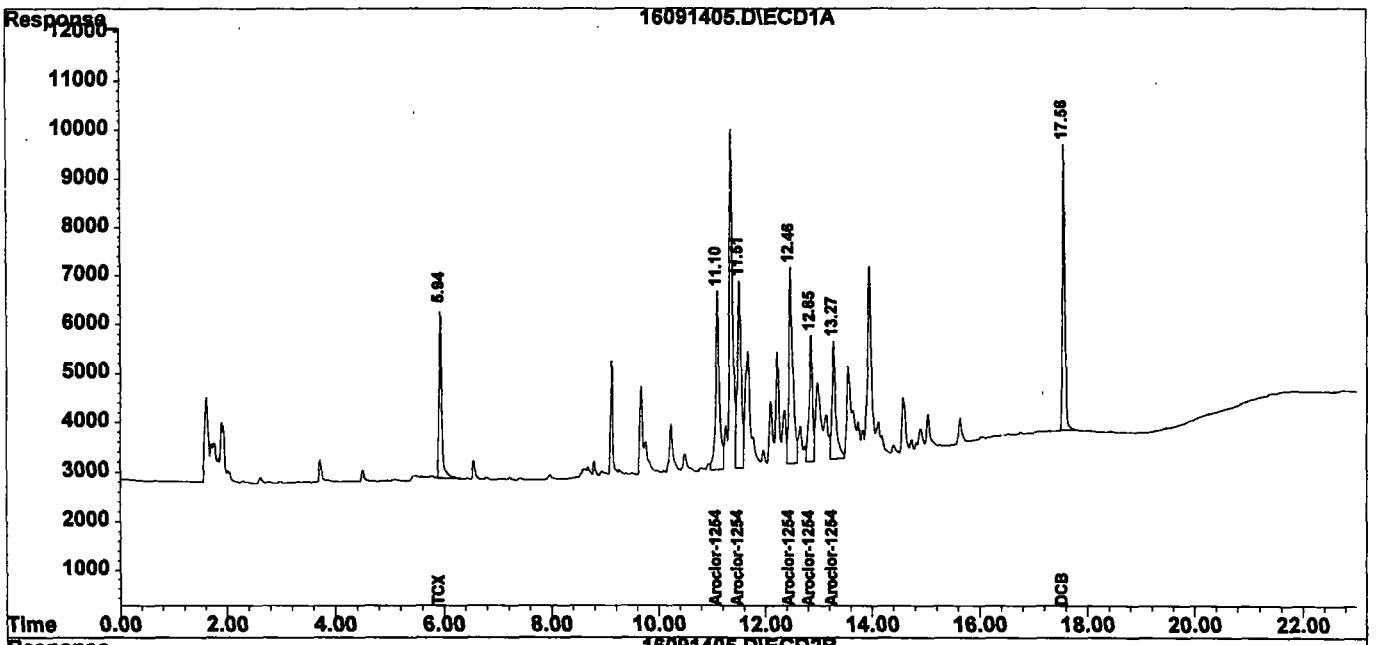
Chromatographic Report

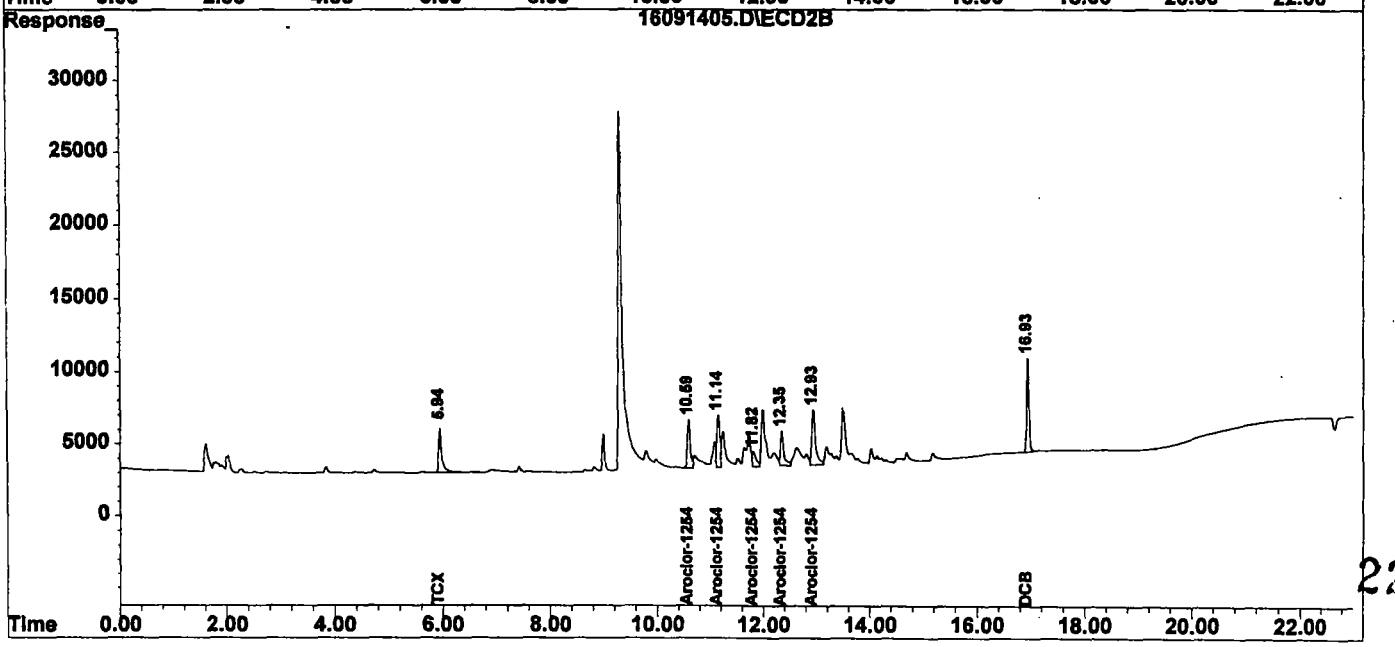
Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091405.D\ECD1A.CH Vial: 5
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091405.D\ECD2B.CH
Acq On : 14 Sep 2001 17:25 Operator: DDC
Sample : LC0821SA *ELCS1 * Inst : HP_16
Misc : **30G/5.0ML*0 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 19 14:42 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

OK 9-19-01





221

Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091405.D\ECD1A.CH Vial: 5
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091405.D\ECD2B.CH
Acq On : 14 Sep 2001 17:25 Operator: DDC
Sample : LC0821SA *ELCS1 * Inst : HP_16
Misc : **30G/5.0ML*0 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 19 14:42 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

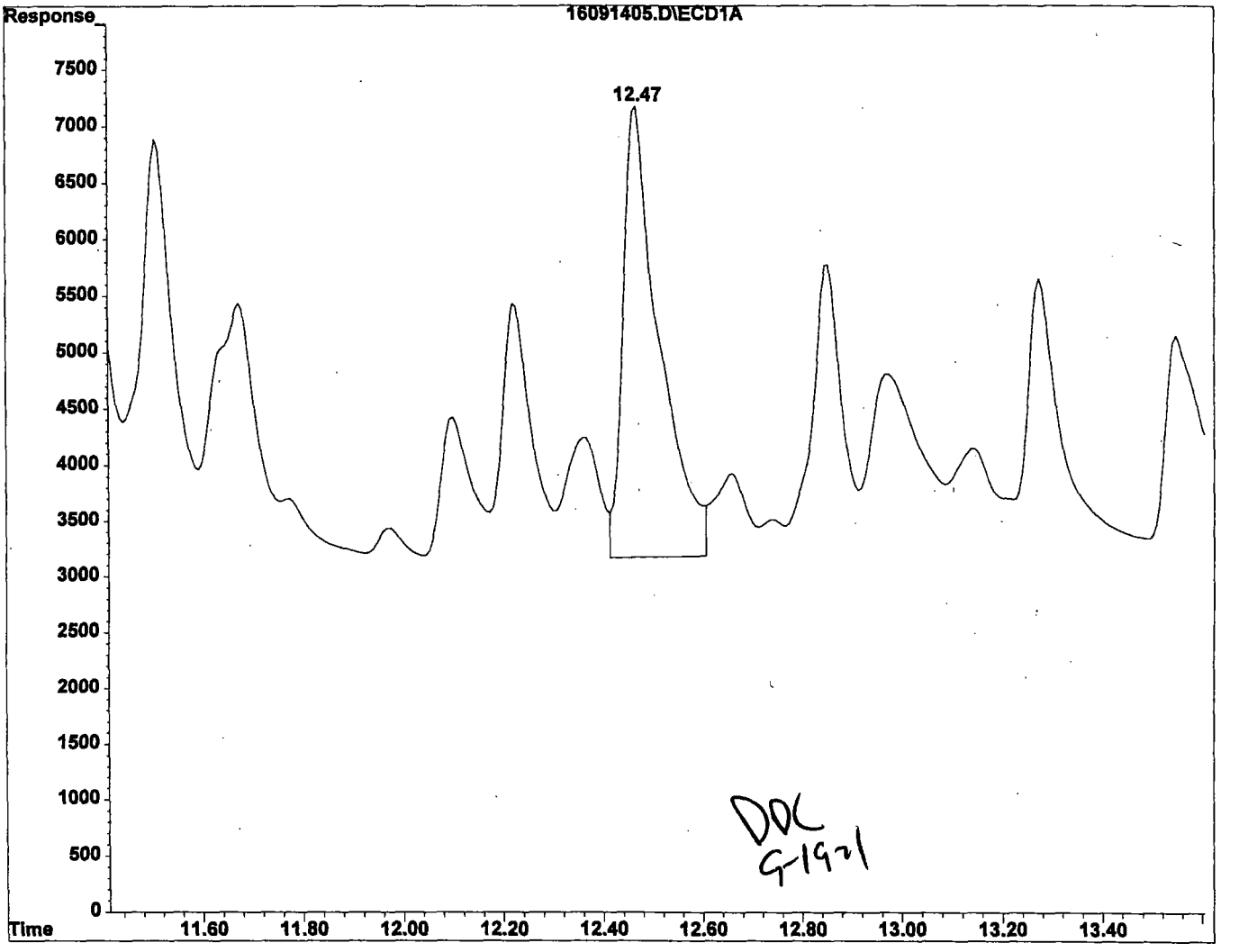
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg	
	System Monitoring Compounds:							
1)	S TCX	5.94	5.94	116817	128947	5.621	5.466	
	Spiked Amount 6.667			Recovery	=	84.32%	81.99%	
22)	S DCB	17.56	16.94	180169	195048	5.254	5.763	
	Spiked Amount 6.667			Recovery	=	78.81%	86.45%	
	Target Compounds:							
12)	L6 Aroclor-1254	11.10f	10.59	167393	126990	137.7	135.3	
13)	L6 Aroclor-1254 {2}	11.51f	11.15f	189487	149271	177.7 DDC 9-19-01	132.7	#
14)	L6 Aroclor-1254 {3}	12.47f	11.82f	202084	51702	117.5m	66.6	#
15)	L6 Aroclor-1254 {4}	12.85f	12.35	106322	104422	107.3	109.7	
16)	L6 Aroclor-1254 {5}	13.28f	12.94f	116097	186450	108.7	113.5	
	Sum Aroclor-1254			781384	618836	648.9	557.7	
	Average Aroclor-1254					129.781	111.539	
						98%	84%	

222

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_14_01\16091405.D
Date Acquired: 14 Sep 2001 17:25
Inst: HP_16 Operator ID: DDC
Name: LC0821SA *ELCS1 *
Misc: **30G/5.0ML*0
Method: F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 19 14:42 2001 Quant Results File: XPCBI11.RES



Aroclor-1254 {3} 12.47min area: 202084 m OK 9-19-01

Integration Time Range: 12.41 - 12.60

F:\HPCHEM\HP\16\DATA\09_14_01\16091405.D
Report generated: Wed Sep 19 14:45:15 2001

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ELCS2

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) SOIL Lab Sample ID: LD0821SA

Sample wt/vol: 30.0 (g/mL) G Lab File ID:_____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:08/21/01

Concentrated Extract Volume: 5000(uL) Date Analyzed: 09/14/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	33	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	110	
11096-82-5	Aroclor-1260	33	U
	Surrogate amount spiked	6.67	

FORM I PCB

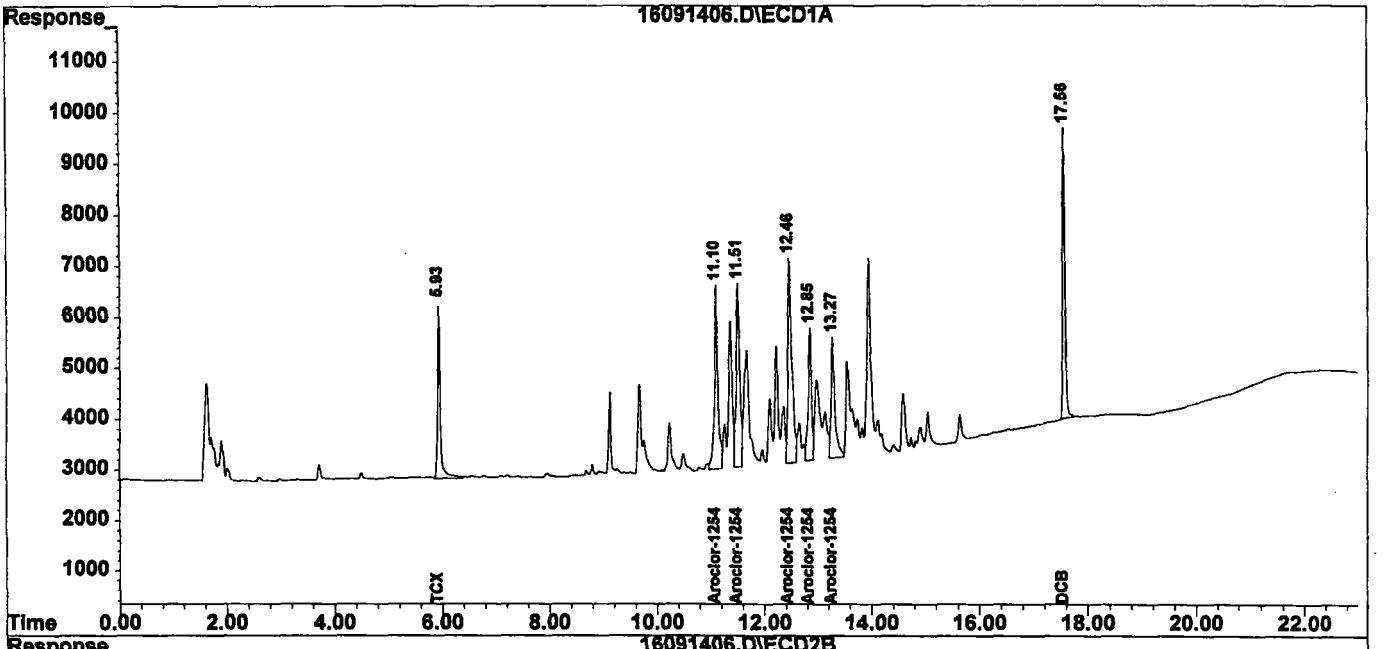
Chromatographic Report

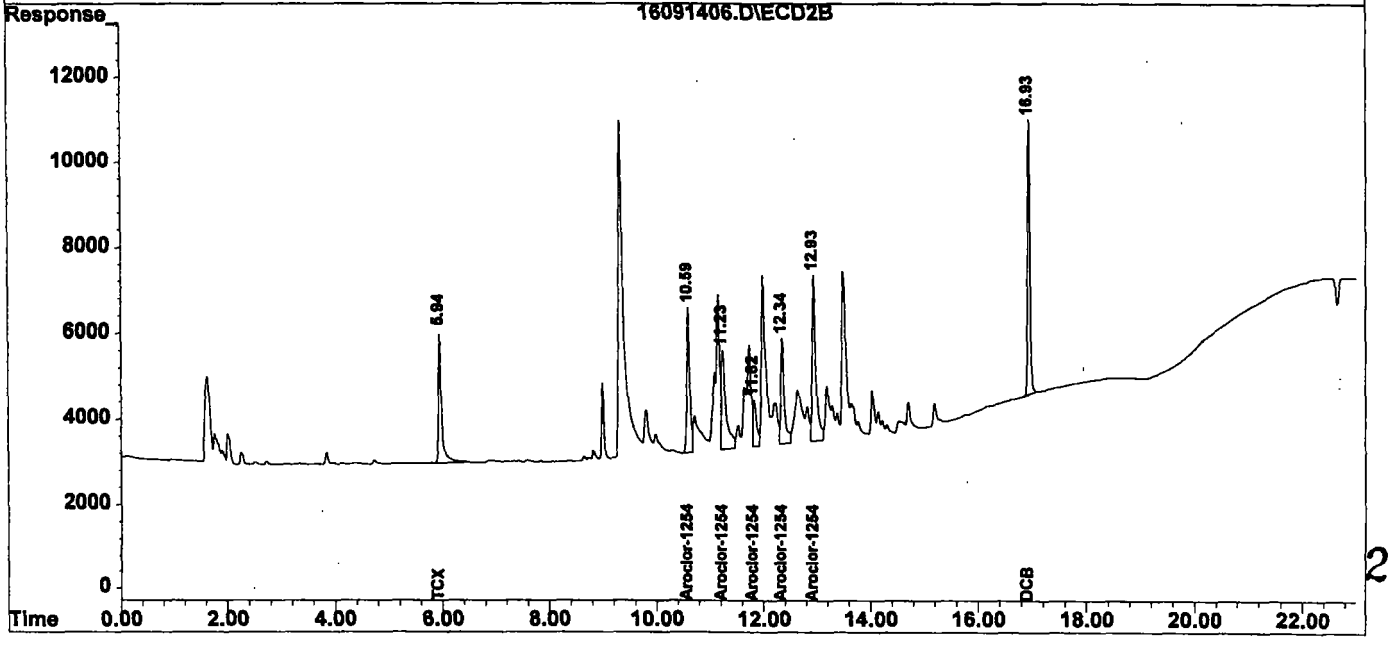
Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091406.D\ECD1A.CH Vial: 6
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091406.D\ECD2B.CH
Acq On : 14 Sep 2001 17:53 Operator: DDC
Sample : LD0821SA *ELCS2 * Inst : HP_16
Misc : **30G/5.0ML*0 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 19 14:44 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

OK 9-19-01





225

Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091406.D\ECD1A.CH Vial: 6
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091406.D\ECD2B.CH
Acq On : 14 Sep 2001 17:53 Operator: DDC
Sample : LD0821SA *ELCS2 * Inst : HP_16
Misc : **30G/5.0ML*0 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 19 14:44 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

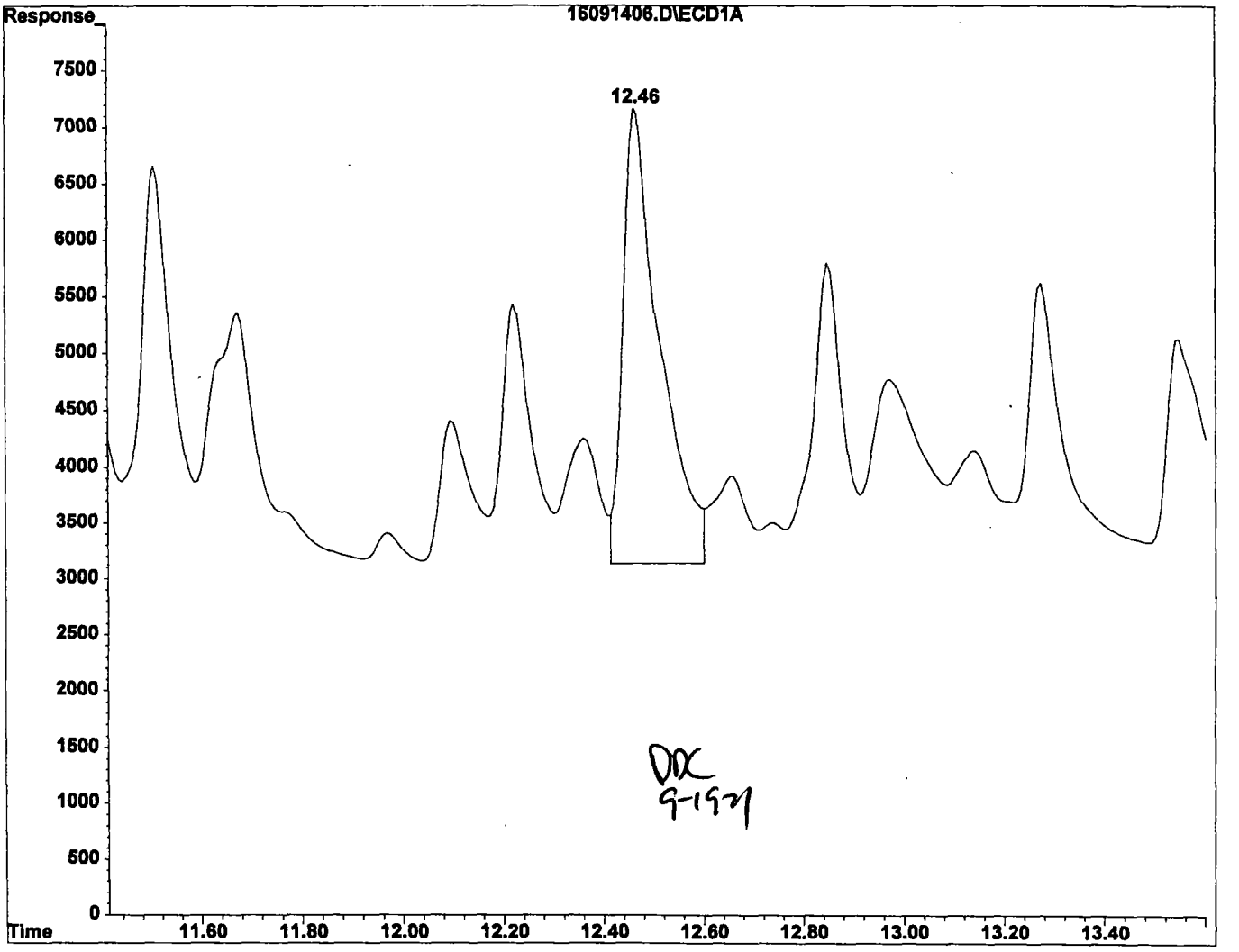
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg	
	System Monitoring Compounds:							
1)	S TCX	5.93f	5.94	124814	126871	6.006	5.378	
	Spiked Amount 6.667			Recovery	=	90.09%	80.67%	
22)	S DCB	17.56	16.94	175996	190643	5.133	5.633	
	Spiked Amount 6.667			Recovery	=	77.00%	84.50%	
	Target Compounds:							
12)	L6 Aroclor-1254	11.10f	10.59	166312	126276	136.8	134.5	
13)	L6 Aroclor-1254 {2}	11.51f	11.24f	167236	145518	156.8 DDC 9-19-01	129.3	
14)	L6 Aroclor-1254 {3}	12.46f	11.82f	205364	54798	119.4m	70.6	#
15)	L6 Aroclor-1254 {4}	12.85f	12.35	108942	108903	110.0	114.4	
16)	L6 Aroclor-1254 {5}	13.28f	12.94f	118390	192014	110.9	116.9	
	Sum Aroclor-1254			766245	627508	633.8	565.7	
	Average Aroclor-1254					126.769	113.136	
						95%	85%	

226

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_14_01\16091406.D
Date Acquired: 14 Sep 2001 17:53
Inst: HP_16 Operator ID: DDC
Name: LD0821SA *ELCS2 *
Misc: **30G/5.0ML*0
Method: F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 19 14:44 2001 Quant Results File: XPCBI11.RES



Aroclor-1254 {3} 12.46min area: 205364 m

OK 9-19-01

Integration Time Range: 12.41 - 12.60

F:\HPCHEM\HP\16\DATA\09_14_01\16091406.D
Report generated: Wed Sep 19 14:45:17 2001

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

E0349MS

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) SOIL Lab Sample ID: 47325.02MS

Sample wt/vol: 30.0 (g/mL) G Lab File ID:_____

% Moisture: 47 decanted: (Y/N) __ Date Received: 08/17/01

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:08/21/01

Concentrated Extract Volume: 5000(uL) Date Analyzed: 09/14/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	62	U
11104-28-2	Aroclor-1221	62	U
11141-16-5	Aroclor-1232	62	U
53469-21-9	Aroclor-1242	58	JP
12672-29-6	Aroclor-1248	62	U
11097-69-1	Aroclor-1254	260	
11096-82-5	Aroclor-1260	77	P
Surrogate amount spiked		12.58	

FORM I PCB

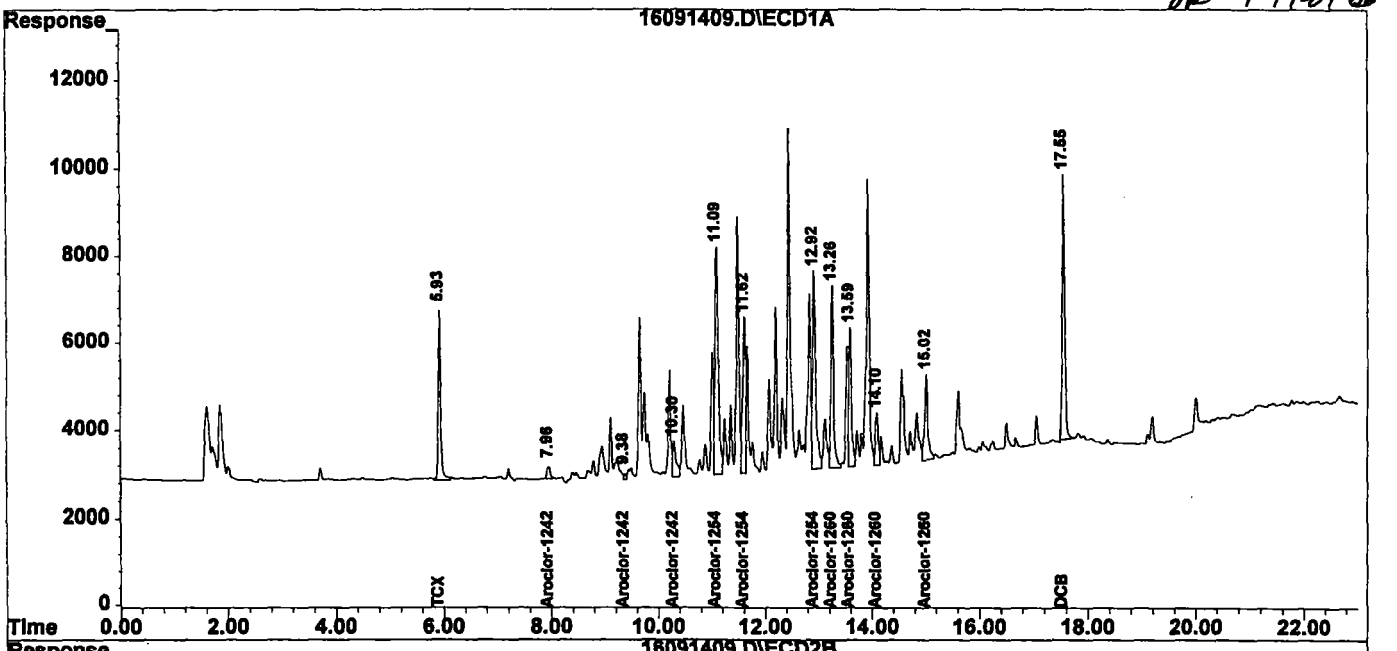
Chromatographic Report

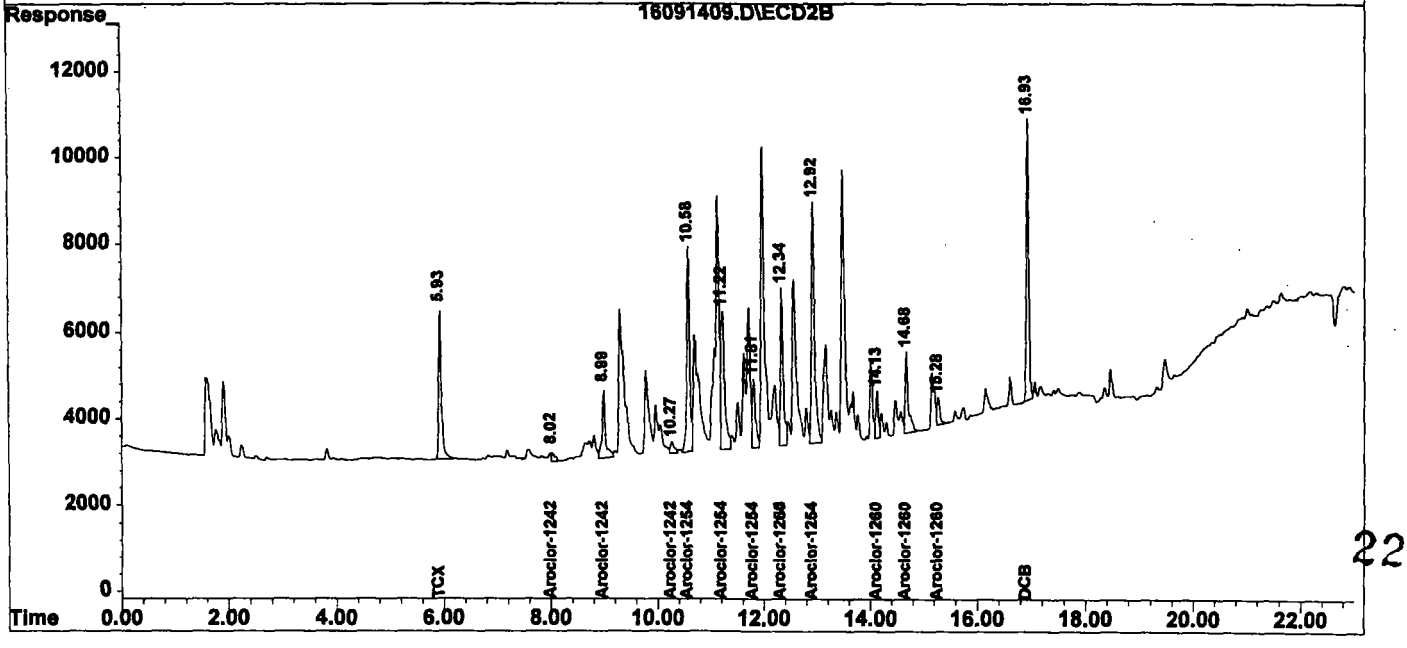
Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091409.D\ECD1A.CH Vial: 9
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091409.D\ECD2B.CH
Acq On : 14 Sep 2001 19:12 Operator: DDC
Sample : 47325.02MS *E0349MS * Inst : HP_16
Misc : *EPA*30G/5.0ML*4 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 8:44 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

ok 9-19-01





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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091409.D\ECD1A.CH Vial: 9
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091409.D\ECD2B.CH
Acq On : 14 Sep 2001 19:12 Operator: DDC
Sample : 47325.02MS *E0349MS * Inst : HP_16
Misc : *EPA*30G/5.0ML*47 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 8:44 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

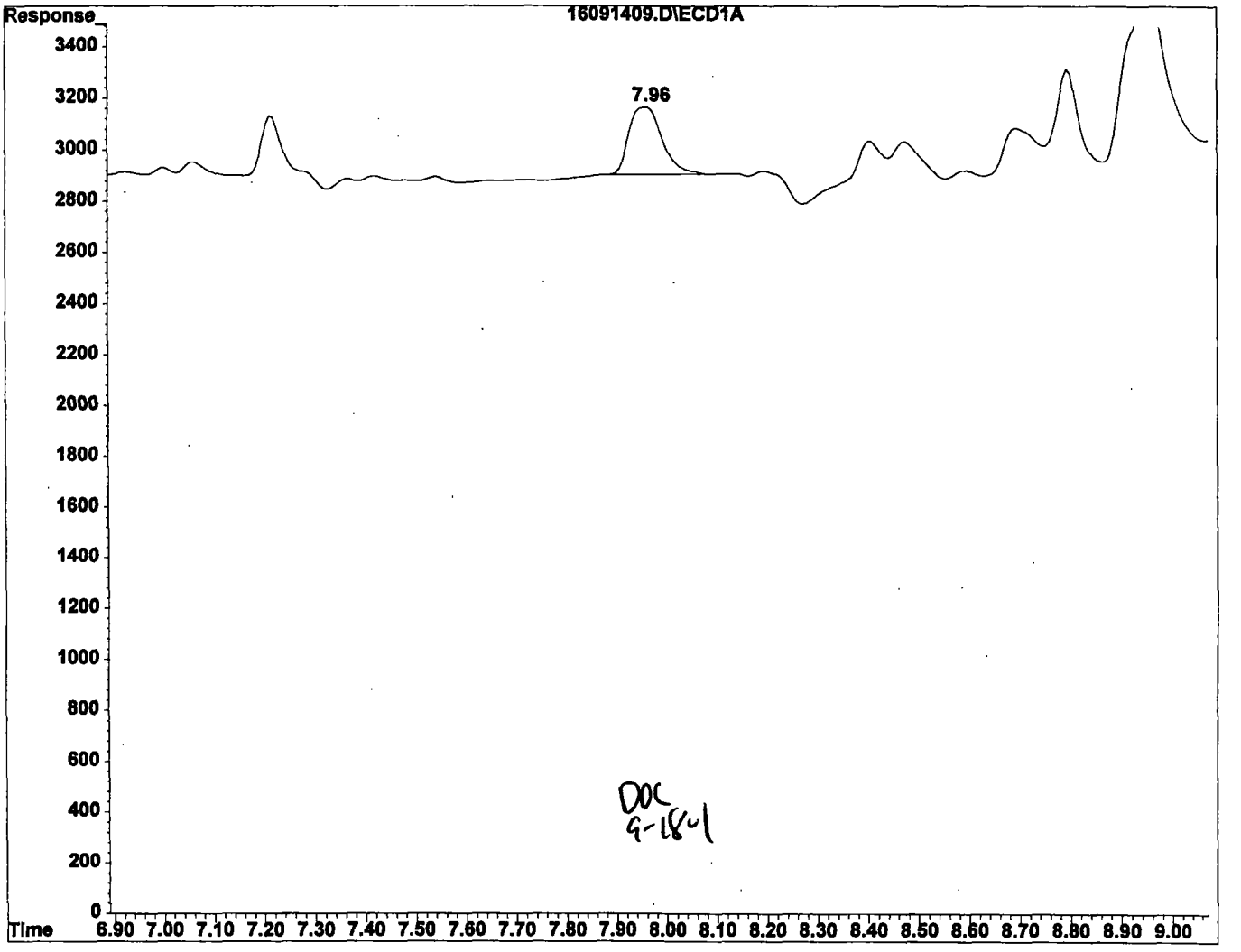
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg	
	System Monitoring Compounds:							
1)	S TCX	5.93f	5.93f	117625	120551	10.7	9.642	
	Spiked Amount 12.579			Recovery	=	85.07%	76.65%	
22)	S DCB	17.56f	16.93	194644	185838	10.7	10.4	
	Spiked Amount 12.579			Recovery	=	✓85.07%	✓82.68%	
	Target Compounds:					DDC 9-14-01		
8)	L4 Aroclor-1242 {2}	7.96	8.03f	11916	9789	22.4m	24.1	
9)	L4 Aroclor-1242 {3}	9.38	8.99	4396	67490	9.424	134.0	#
11)	L4 Aroclor-1242 {5}	10.30	10.27f	36852	13826	142.5	84.6	#
	Sum Aroclor-1242			53165	91104	174.3	242.7	
	Average Aroclor-1242					58.102	80.916	
12)	L6 Aroclor-1254	11.10f	10.58f	223056	176559	346.2	354.9	
13)	L6 Aroclor-1254 {2}	11.62f	11.22	122449	159800	216.7	268.0	
14)	L6 Aroclor-1254 {3}	0.00	11.81	0	68035	N.D.	165.3	#
15)	L6 Aroclor-1254 {4}	12.92	12.34f	185846	132088	353.9	261.8	#
16)	L6 Aroclor-1254 {5}	0.00	12.92f	0	234346	N.D.	269.1	#
	Sum Aroclor-1254			531351	770828	916.8	1319.1	
	Average Aroclor-1254					305.591	263.813	
17)	L7 Aroclor-1260	13.26f	12.34	143921	132088	162.4	150.3	
18)	L7 Aroclor-1260 {2}	13.60	0.00	122742	0	154.1	N.D.	d #
19)	L7 Aroclor-1260 {3}	14.10	14.13	45921	39139	70.7	70.5	
20)	L7 Aroclor-1260 {4}	0.00	14.68f	0	75961	N.D.	51.1	#
21)	L7 Aroclor-1260 {5}	15.03f	15.28f	80785	24633	61.1	35.8	#
	Sum Aroclor-1260			393369	271821	281.9	193.6	
	Average Aroclor-1260					112.069	76.949	

230

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_14_01\16091409.D
Date Acquired: 14 Sep 2001 19:12
Inst: HP_16 Operator ID: DDC
Name: 47325.02MS *E0349MS *
Misc: *EPA*30G/5.0ML*47
Method: F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 18 8:44 2001 Quant Results File: XPCBI11.RES



ok 9-19-01

Aroclor-1242 {2} 7.96min area: 11916 m

Integration Time Range: 7.89 - 8.07

F:\HPCHEM\HP\16\DATA\09_14_01\16091409.D
Report generated: Tue Sep 18 09:19:28 2001

1D
AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

E0349MSD

Lab Name: SWL-TULSA Contract: 68W99079

Lab Code: SWOK Case No.: 29602 SDG No.: E0349

Matrix: (soil/water) SOIL Lab Sample ID: 47325.03MSD

Sample wt/vol: 30.3 (g/mL) G Lab File ID:_____

% Moisture: 47 decanted: (Y/N) __ Date Received: 08/17/01

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:08/21/01

Concentrated Extract Volume: 5000(uL) Date Analyzed: 09/14/01

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	62	U
11104-28-2	Aroclor-1221	62	U
11141-16-5	Aroclor-1232	62	U
53469-21-9	Aroclor-1242	32	J
12672-29-6	Aroclor-1248	62	U
11097-69-1	Aroclor-1254	220	
11096-82-5	Aroclor-1260	62	P
	Surrogate amount spiked	12.46	

FORM I PCB

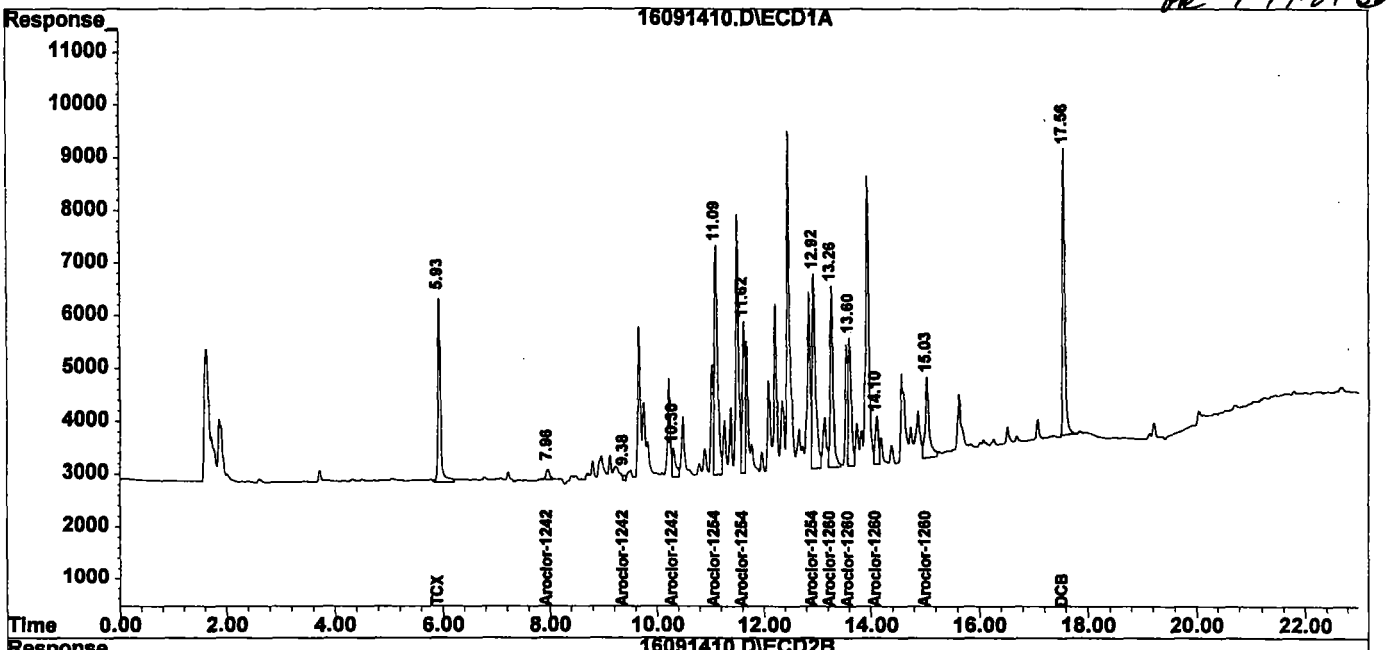
Chromatographic Report

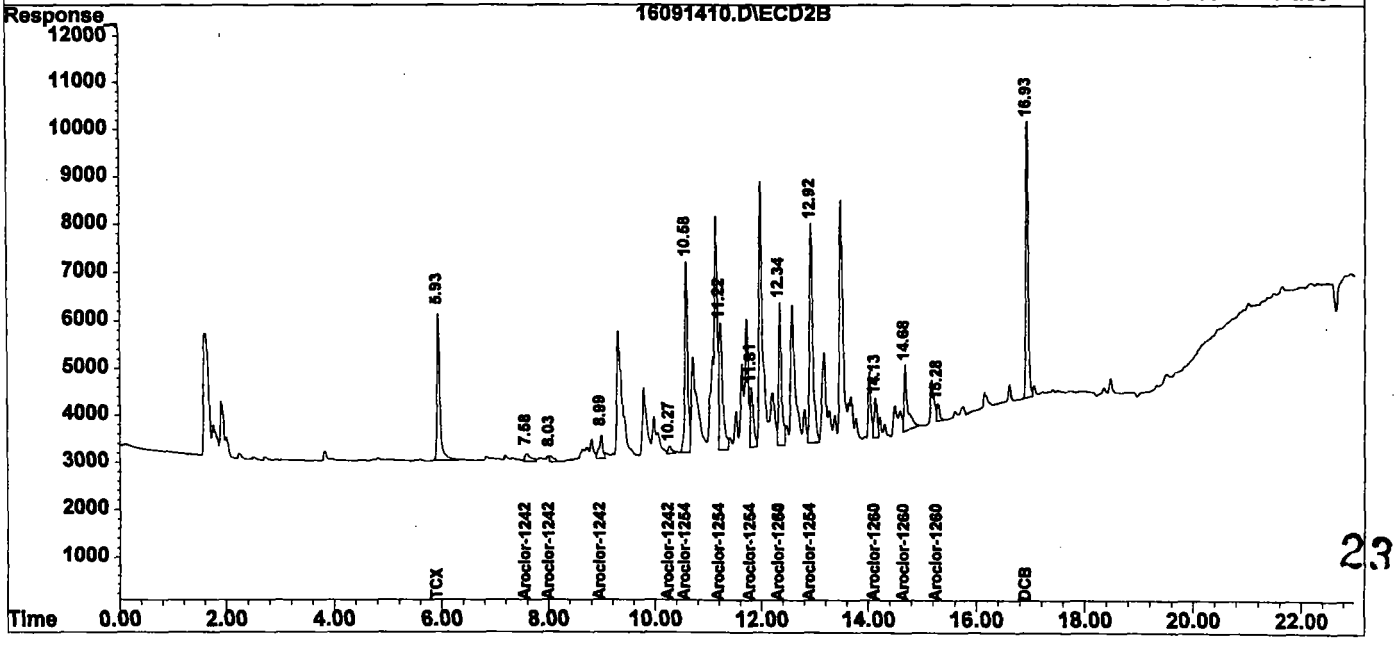
Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091410.D\ECD1A.CH Vial: 10
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091410.D\ECD2B.CH
Acq On : 14 Sep 2001 19:38 Operator: DDC
Sample : 47325.03MSD *E0349MSD * Inst : HP_16
Misc : *EPA*30.3G/5.0ML*47 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 8:45 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

ok 9-19-01 DD





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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091410.D\ECD1A.CH Vial: 10
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091410.D\ECD2B.CH
Acq On : 14 Sep 2001 19:38 Operator: DDC
Sample : 47325.03MSD *E0349MSD * Inst : HP_16
Misc : *EPA*30.3G/5.0ML*47 Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 18 8:45 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg	
	System Monitoring Compounds:							
1)	S TCX	5.93f	5.94f	113938	116544	10.2	9.230	
	Spiked Amount 12.454			Recovery	=	81.90%	74.11%	
22)	S DCB	17.56	16.93	167225	170068	9.110	9.387	
	Spiked Amount 12.454			Recovery	=	✓73.15%	✓75.37%	
	Target Compounds:							
7)	L4 Aroclor-1242	0.00	7.58f	0	13107	N.D. d	22.1	#
8)	L4 Aroclor-1242 {2}	7.96	8.03f	8912	7061	16.6m DDC 9-18-01	17.2	
9)	L4 Aroclor-1242 {3}	9.38f	8.99	3628	23405	7.701	46.0	#
11)	L4 Aroclor-1242 {5}	10.31	10.28f	25094	7181	96.1	43.5	#
	Sum Aroclor-1242			37634	50754	120.3	128.8	
	Average Aroclor-1242					40.116	32.206	
12)	L6 Aroclor-1254	11.10f	10.58f	184573	148448	283.6	295.4	
13)	L6 Aroclor-1254 {2}	11.62f	11.22	94277	135670	165.2	225.2	#
14)	L6 Aroclor-1254 {3}	0.00	11.81	0	55577	N.D.	133.7	#
15)	L6 Aroclor-1254 {4}	12.93	12.34f	163175	113061	307.6	221.9	#
16)	L6 Aroclor-1254 {5}	0.00	12.93f	0	198512	N.D.	225.7	#
	Sum Aroclor-1254			442025	651269	756.5	1102.0	
	Average Aroclor-1254					252.153	220.390	
17)	L7 Aroclor-1260	13.26f	12.34	124291	113061	138.8	127.4	
18)	L7 Aroclor-1260 {2}	13.60	0.00	99226	0	123.3	N.D. d	#
19)	L7 Aroclor-1260 {3}	14.11	14.14	36986	30733	56.4	54.8	
20)	L7 Aroclor-1260 {4}	0.00	14.69f	0	66853	N.D.	44.6	#
21)	L7 Aroclor-1260 {5}	15.03f	15.29f	72346	13888	54.2	20.0	#
	Sum Aroclor-1260			332849	224535	232.1	153.7	
	Average Aroclor-1260					93.185	61.692	

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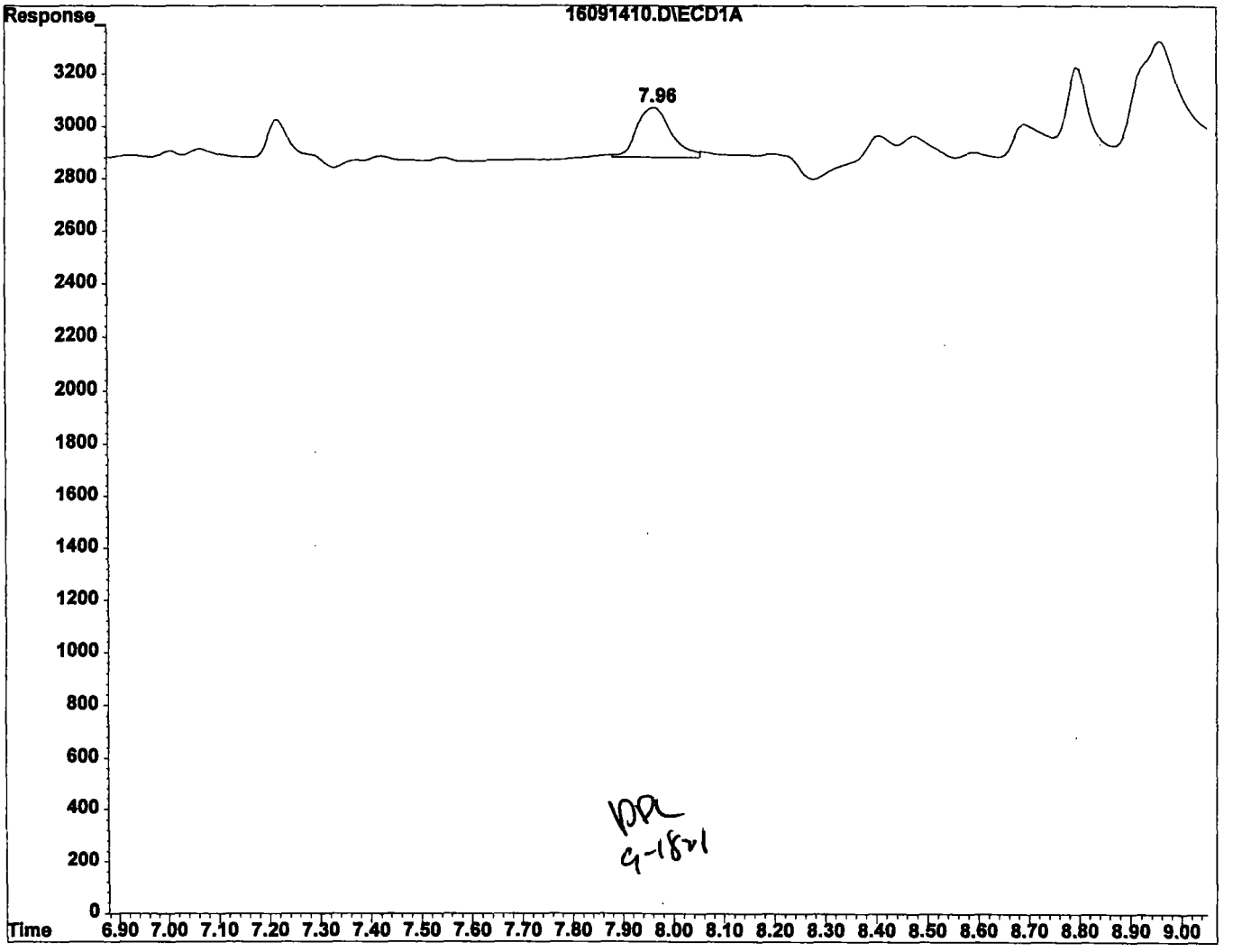
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std

MANUAL INTEGRATION REPORT

Data File: F:\HPCHEM\HP\16\DATA\09_14_01\16091410.D
Date Acquired: 14 Sep 2001 19:38
Inst: HP_16 Operator ID: DDC
Name: 47325.03MSD *E0349MSD *
Misc: *EPA*30.3G/5.0ML*47
Method: F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title: PCB/TOXAPHENE
Quant Time: Sep 18 8:45 2001 Quant Results File: XPCBI11.RES



ok 9-19-01

Aroclor-1242 {2} 7.96min area: 8912 m

Integration Time Range: 7.88 - 8.05

F:\HPCHEM\HP\16\DATA\09_14_01\16091410.D
Report generated: Tue Sep 18 09:19:30 2001

Gel Permeation Chromatography (GPC) Run Log - GPC1

SWOK/AATS SWL-OE-102-16 Rev.#: 2.1 Fraction Collected: 45 mLs

Col. ID.: 418002 Protocol: GC699 Fraction: PEST Cycle: 15-9

Cal. Std. Page: Client: EPA Case#

DATE/TIME	POS.	SAMPLE ID	FILE	COMMENT
08/25/01 14:23	1	CAL STD (INITIAL)	1_082501	
08/25/01 14:53	2	SB	1_082502	
08/25/01 15:24	3	SB	1_082503	
08/25/01 15:55	4	SB	1_082504	
08/25/01 16:26	5	SB	1_082505	
08/25/01 16:58	6	SB#082501C (PEST)	1_082506	
08/25/01 17:29	7	SB#082501D (PEST)	1_082507	
08/25/01 18:00	8	BL0821SA-EPA	1_082508	
08/25/01 18:31	9	BB0821SA-EPA	1_082509	
08/25/01 19:02	10	LC0821SA-EPA	1_082510	
08/25/01 19:33	11	LD0821SA-EPA	1_082511	
08/25/01 20:04	12	47325.06-E0352-EPA	1_082512	
08/25/01 20:35	13	47325.14-E0360-EPA	1_082513	
08/25/01 21:06	14	47325.15-E0361-EPA	1_082514	
08/25/01 21:36	15	47325.16-E0362-EPA	1_082515	
08/25/01 22:07	16	47344.02-E0365-EPA	1_082516	
08/25/01 22:38	17	47325.12-E0358-EPA	1_082517	
08/25/01 23:09	18	47344.01-E0364-EPA	1_082518	
08/25/01 23:40	19	47325.11-E0357-EPA	1_082519	
08/26/01 00:11	20	47344.04-E0367-EPA	1_082520	
08/26/01 00:42	21	47325.09-E0355-EPA	1_082521	

9/7/2001 9/6/01

Verification Signature/Date Analyst Signature/Date

Book: OE-102-16-RUN- Page No.: 16

Gel Permeation Chromatography (GPC) Run Log - GPC1

SWOK/AATS SWL-OE-102-16 Rev.#: 2.1 Fraction Collected: 45 mLs

Col. ID.: 418002 Protocol: GC699 Fraction: PEST Cycle: 15-9

Cal. Std. Page: Client: EPA Case#

DATE/TIME	POS.	SAMPLE ID	FILE	COMMENT
08/26/01 01:13	22	47325.07-E0353-EPA	1_082522	
08/26/01 01:44	23	47344.05-E0368-EPA	1_082523	
08/26/01 02:15	24	47344.03-E0367-EPA	1_082524	
08/26/01 02:46	25	47325.08-E0354-EPA	1_082525	
08/26/01 03:17	26	47325.10-E0356-EPA	1_082526	
08/26/01 03:48	27	47325.17-E0363-EPA	1_082527	
08/26/01 04:19	28	47325.02-E0349MS-EPA	1_082528	
08/26/01 04:50	29	47325.01-E0349-EPA	1_082529	
08/26/01 05:21	30	47325.03-E0349MSD-EPA	1_082530	
08/26/01 05:53	31	47325.13-E0359-EPA	1_082531	
08/26/01 06:24	32	47325.05-E0351-EPA	1_082532	
08/26/01 06:55	33	47325.04-E0350-EPA	1_082533	
08/26/01 07:26	34	SB	1_082534	
08/26/01 07:57	35	SB	1_082535	
08/26/01 08:28	36	SB	1_082536	
08/26/01 08:59	37	SB	1_082537	
08/26/01 09:30	38	CAL STD (FINAL)	1_082538	

Compound	Initial RT	Final RT	% Difference
Phthalate	14.18	13.96	1.55
Methoxychlor	15.78	15.52	1.65
Perylene	20.48	20.21	1.32

9/7/2001

Verification Signature/Date

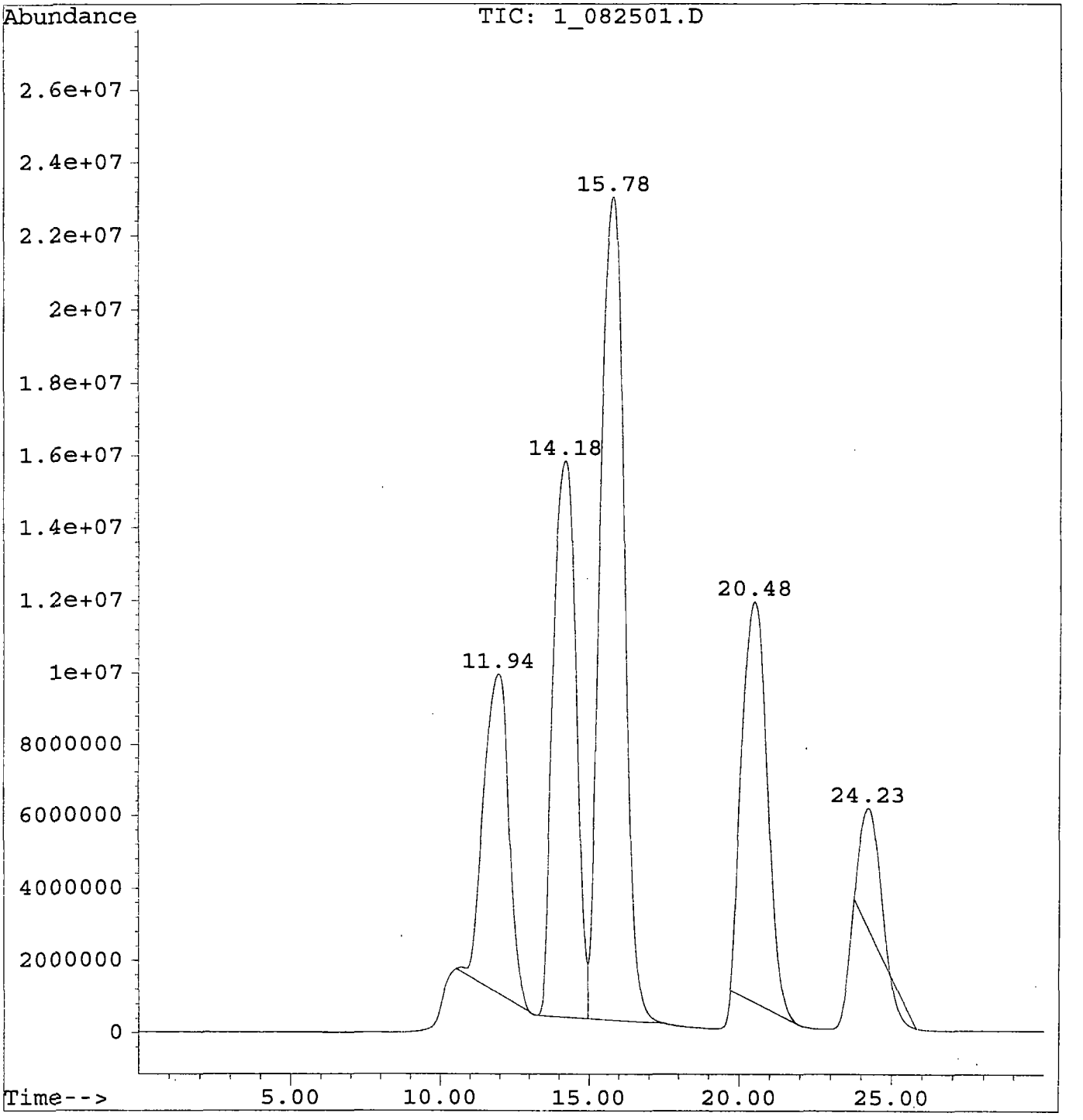
9/6/01

Analyst Signature/Date

Book: OE-102-16-RUN- Page No.: 17

Data File : C:\HPCHEM\5\DATA\082501\1_082501.D
Acq On : 25 Aug 01 14:23
Sample : CAL STD (INITIAL)
Misc : COL# 418002

Vial: 1
Operator: CR COL#
Inst : GPC1
Multiplr: 1.00



1) 11.94 = Corn Oil

3) 14.18 = Pthalate
4) 15.78 = Methoxychlor
5) 20.48 = Perylene

238

Chromatographic Resolution Report

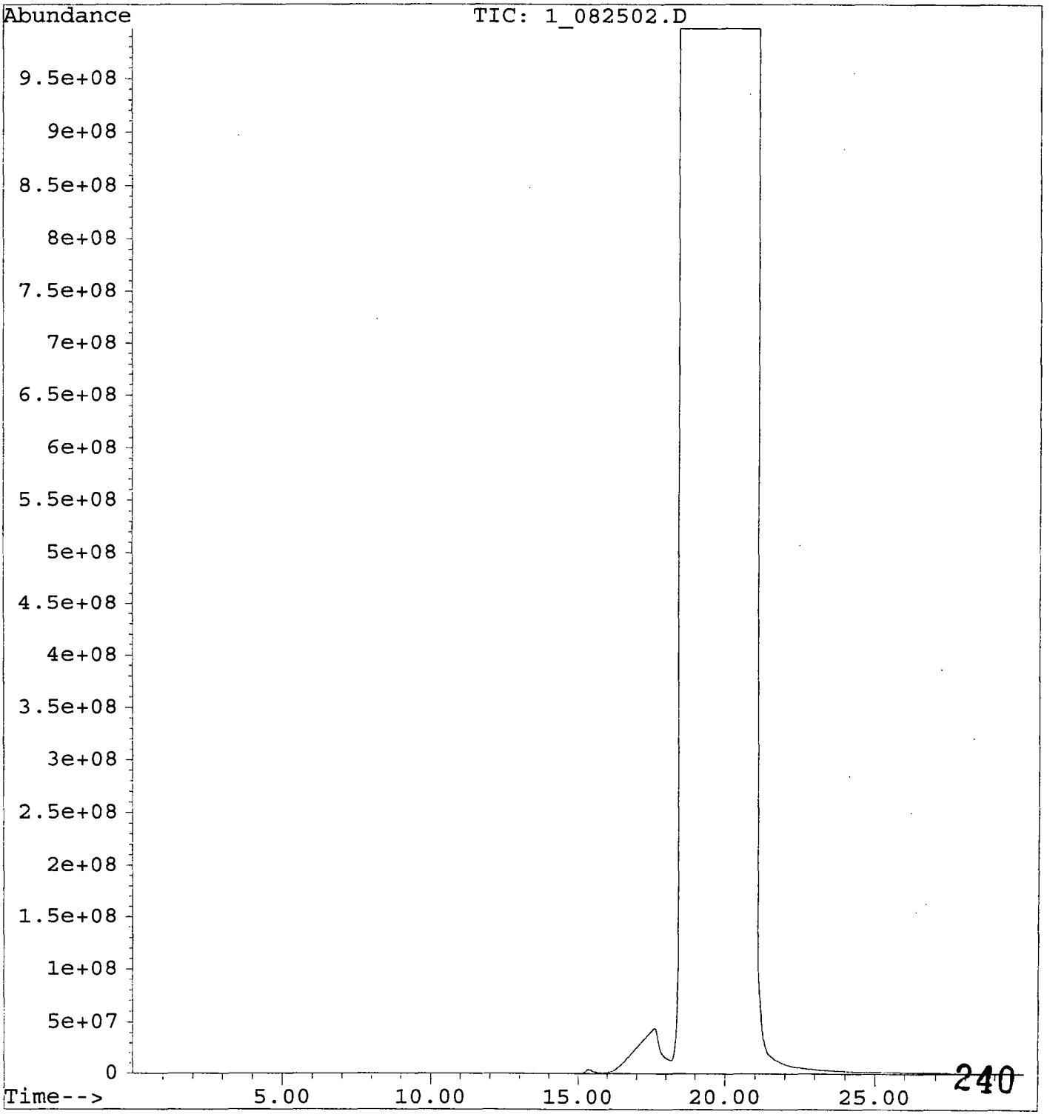
Data File : C:\HPCHEM\5\DATA\082501\1_082501.D
Acq On : 25 Aug 01 14:23
Sample : CAL STD (INITIAL)
Misc : COL# 418002

Vial: 1
Operator: CR COL# 41
Inst : GPC1
Multiplr: 1.00

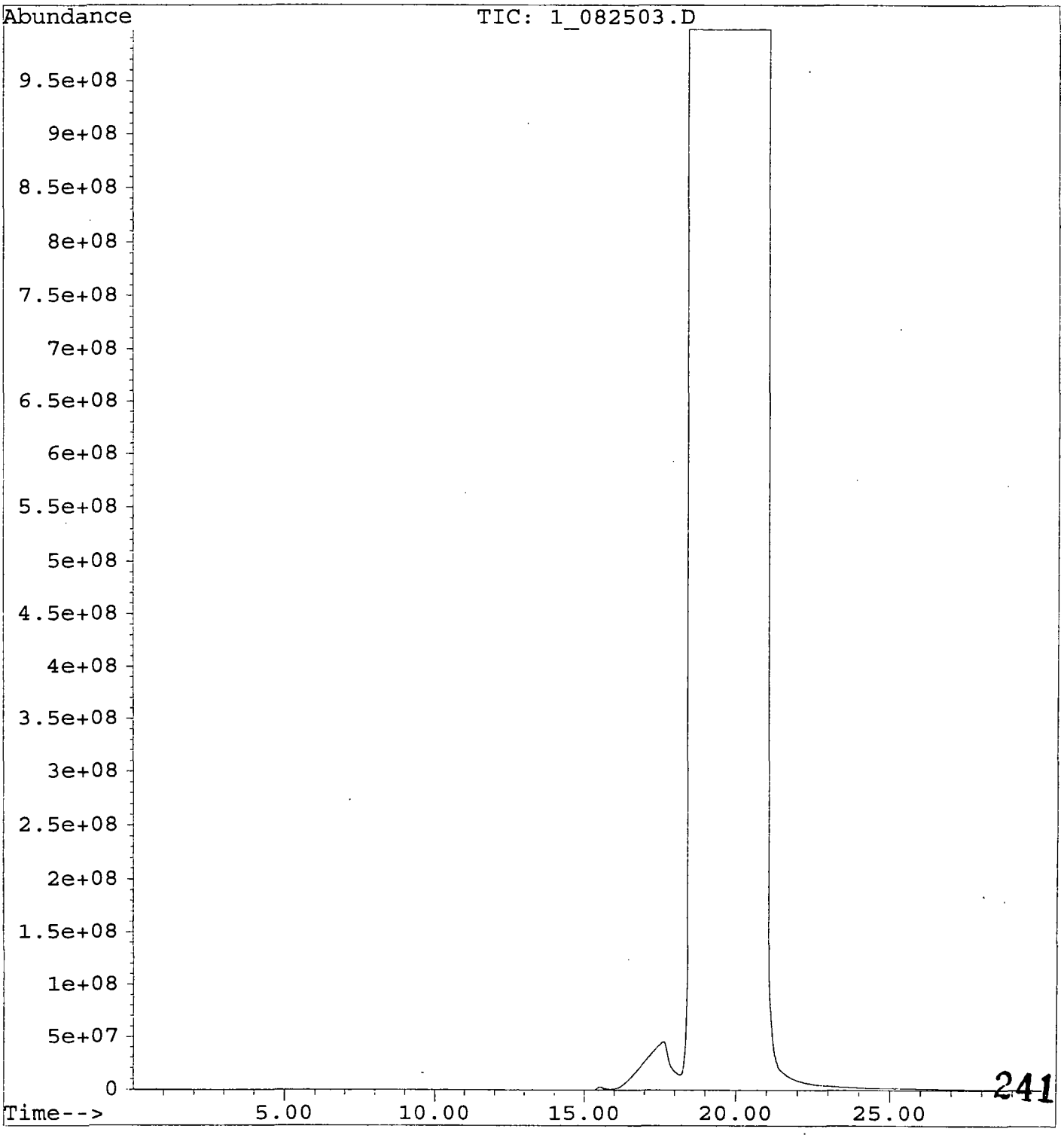
Method : C:\HPCHEM\5\METHODS\GPC.M
Title :

RT#1	RT#2	Resolution
11.942	14.180	100.00
14.180	15.777	90.51
15.777	20.485	100.00
20.485	24.228	100.00

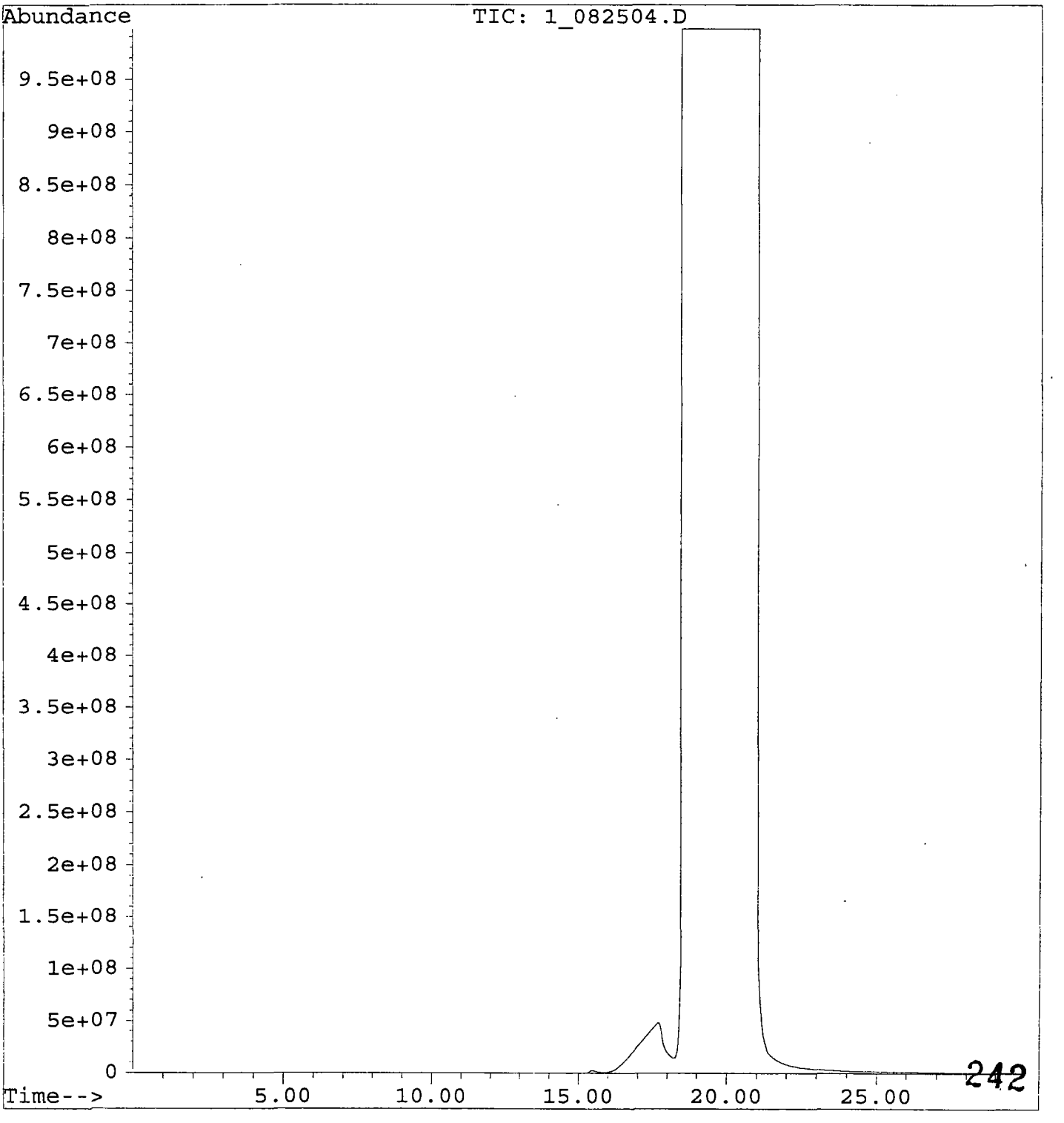
File : C:\HPCHEM\5\DATA\082501\1_082502.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 14:53 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: SB
Misc Info : COL# 418002
Vial Number: 2



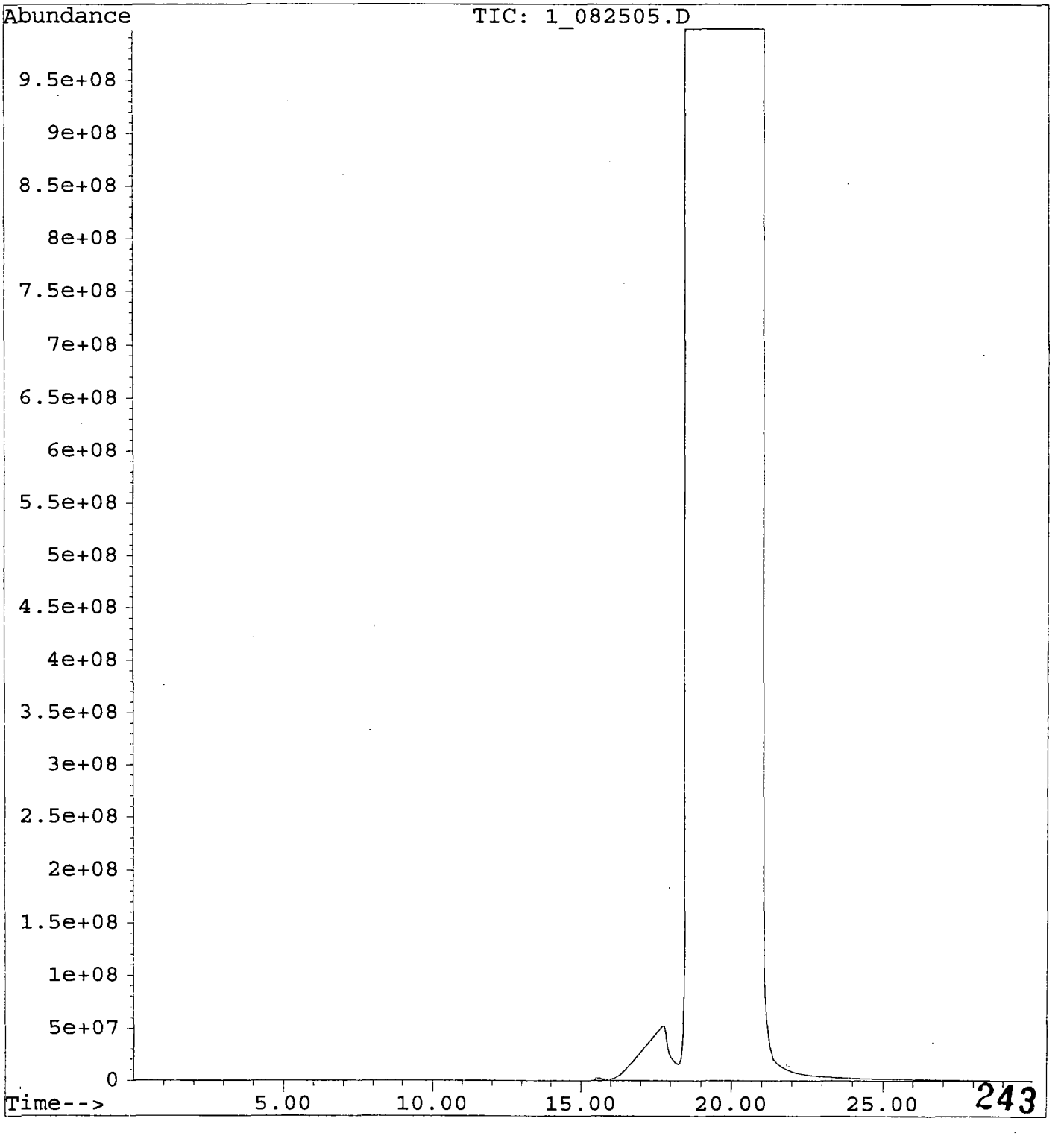
File : C:\HPCHEM\5\DATA\082501\1_082503.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 15:24 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: SB
Misc Info : COL# 418002
Vial Number: 3



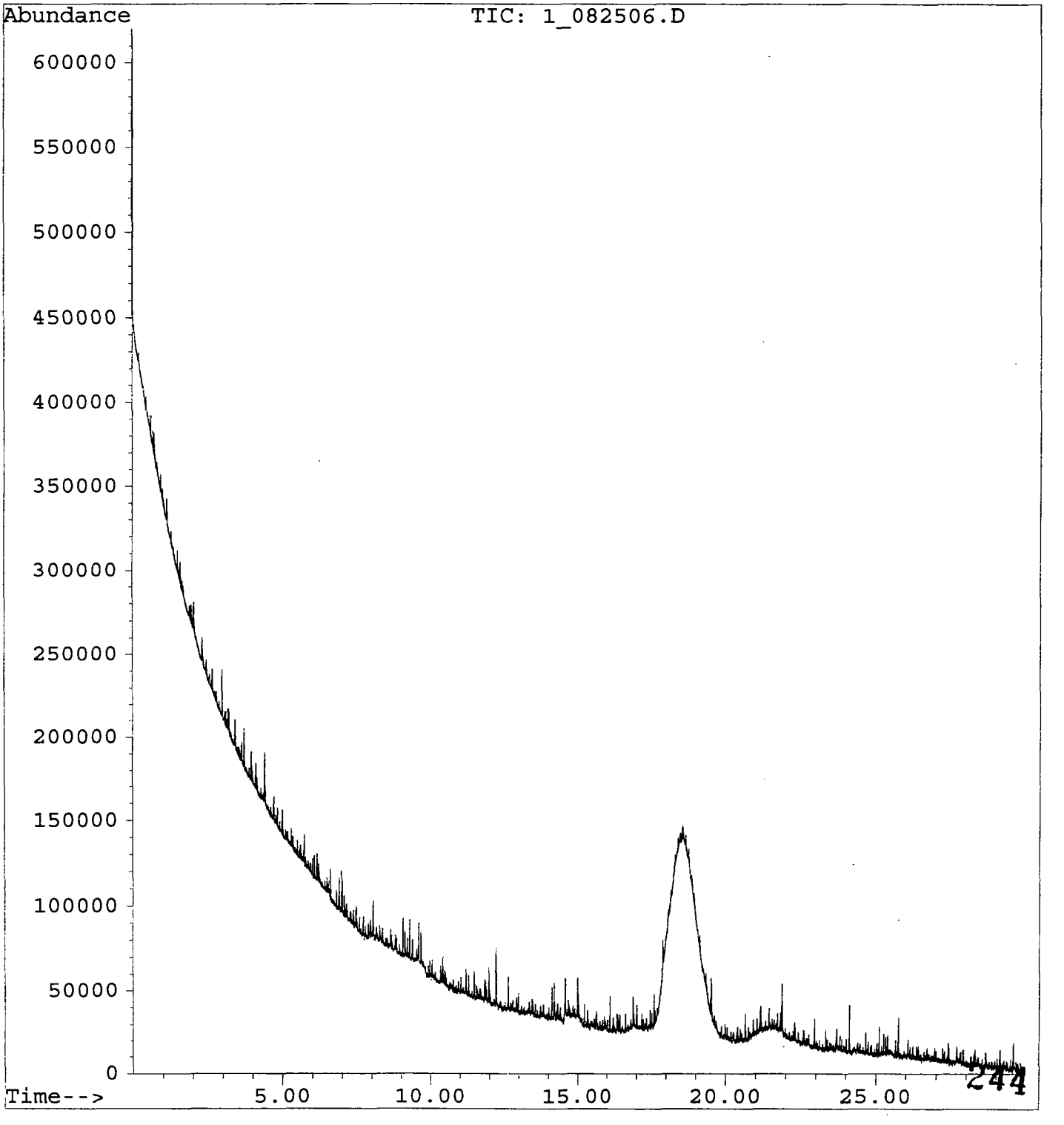
File : C:\HPCHEM\5\DATA\082501\1_082504.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 15:55 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: SB
Misc Info : COL# 418002
Vial Number: 4



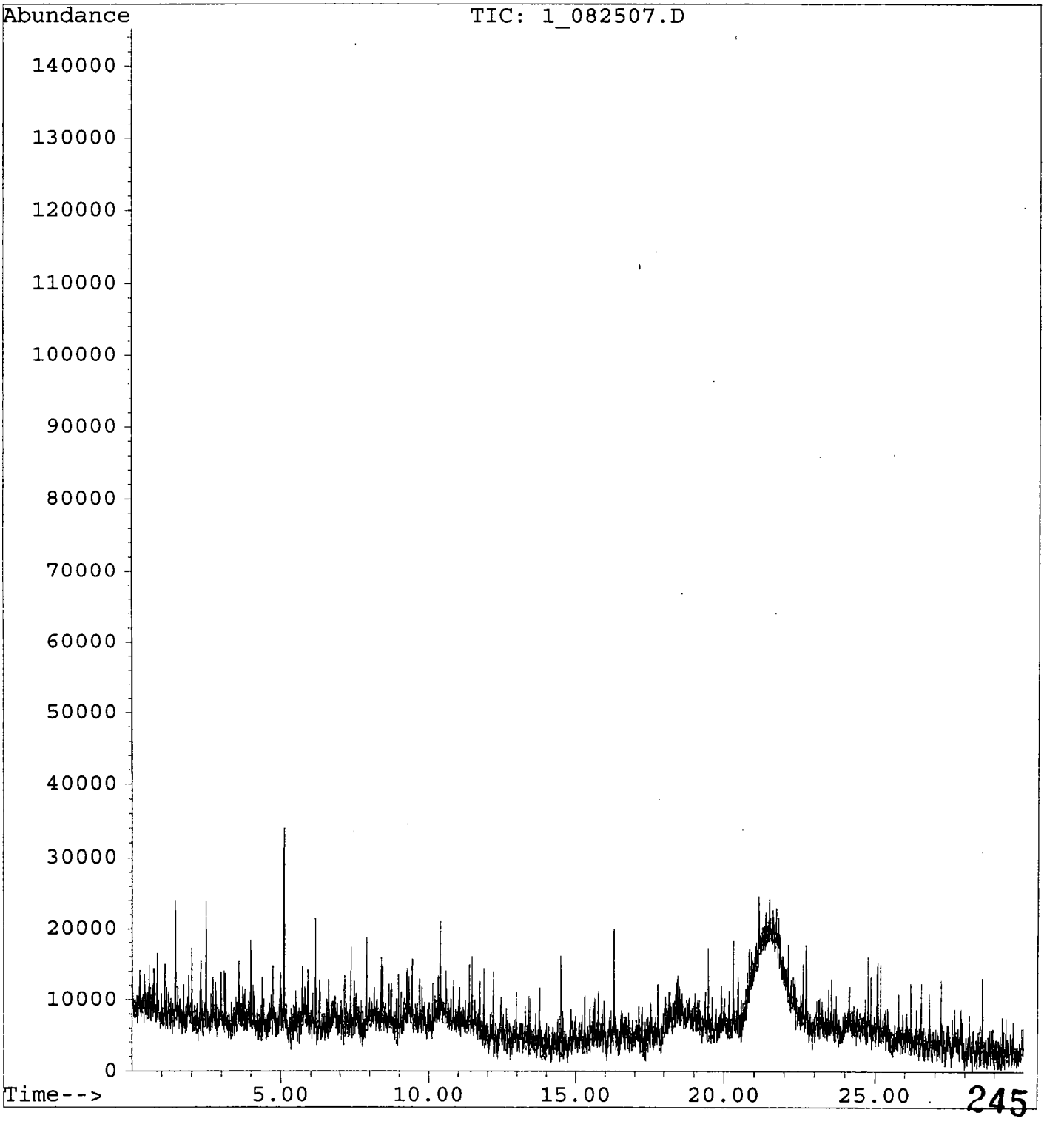
File : C:\HPCHEM\5\DATA\082501\1_082505.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 16:26 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: SB
Misc Info : COL# 418002
Vial Number: 5



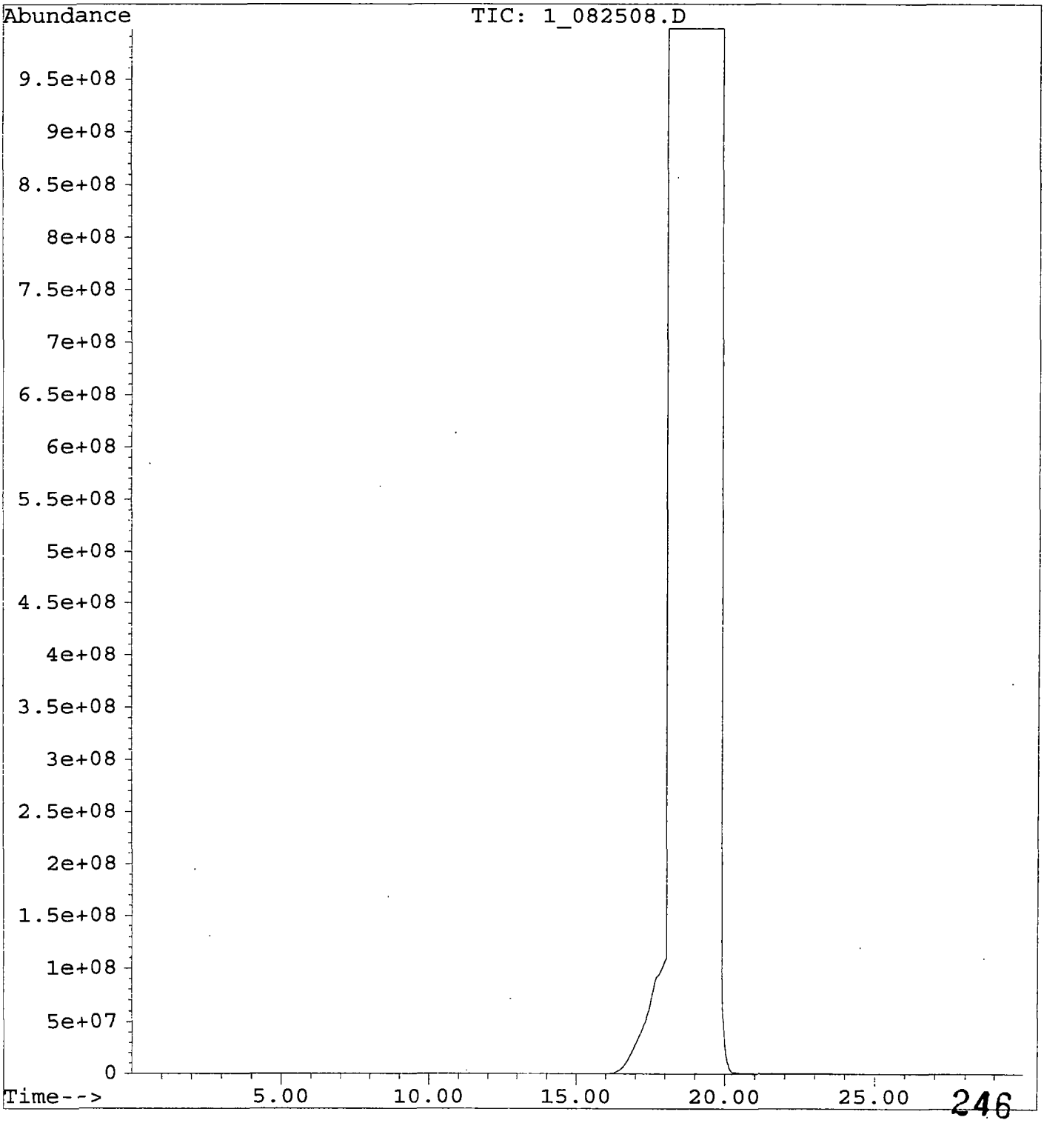
File : C:\HPCHEM\5\DATA\082501\1_082506.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 16:58 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: SB#082501C (PEST)
Misc Info : COL# 418002
Vial Number: 6



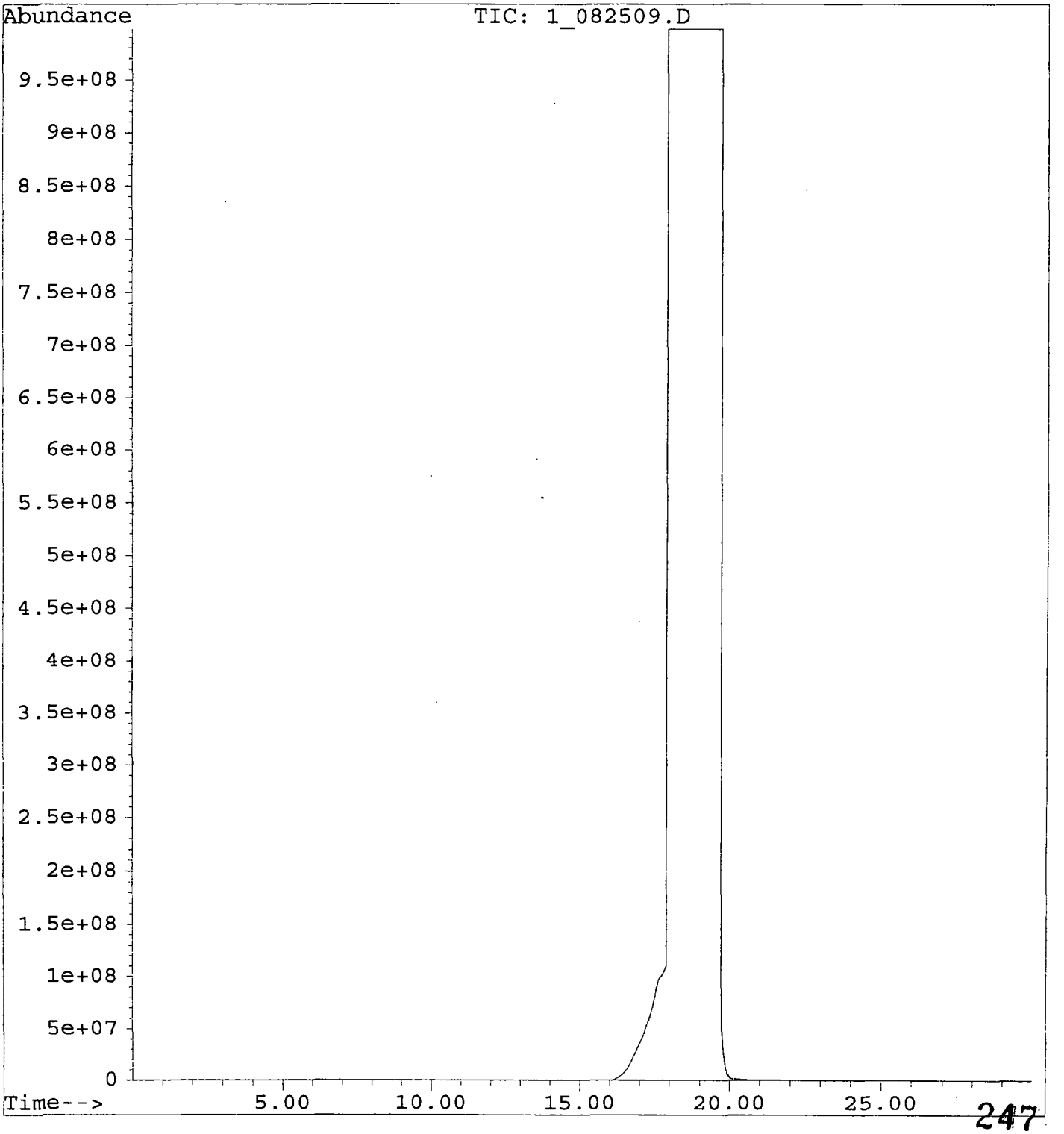
File : C:\HPCHEM\5\DATA\082501\1_082507.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 17:29 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: SB#082501D (PEST)
Misc Info : COL# 418002
Vial Number: 7



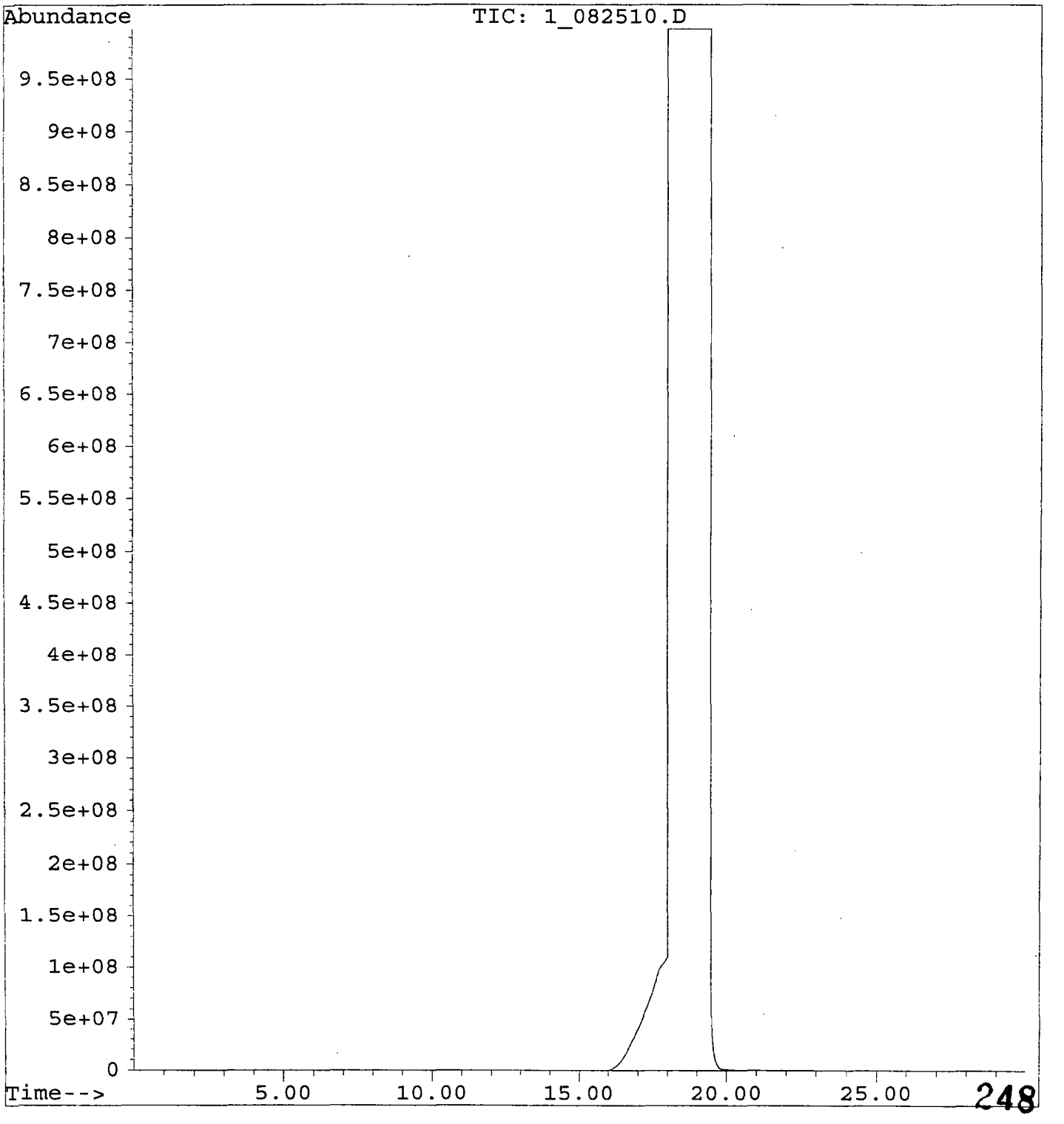
File : C:\HPCHEM\5\DATA\082501\1_082508.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 18:00 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: BL0821SA-EPA
Misc Info : COL# 418002
Vial Number: 8



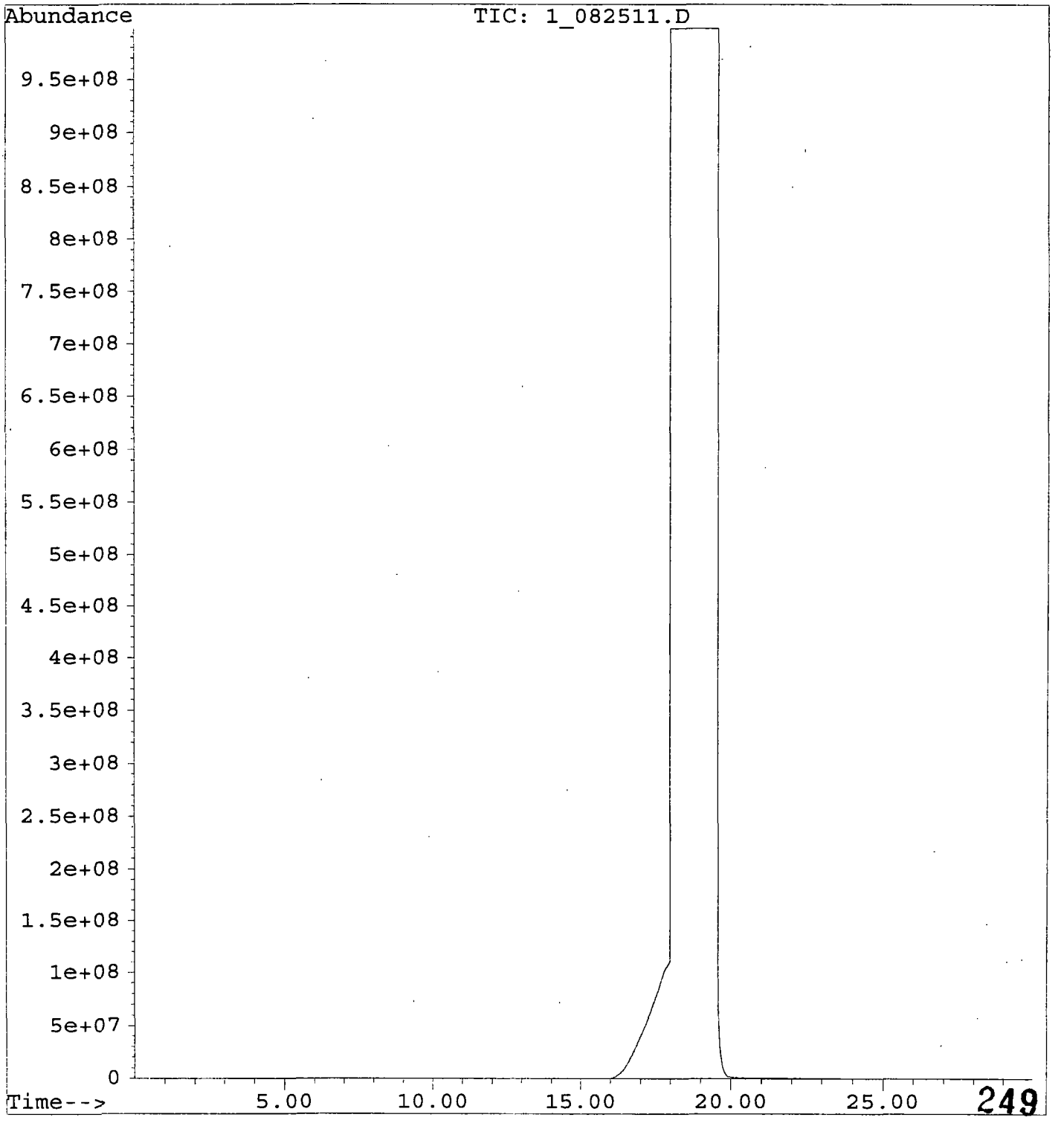
File : C:\HPCHEM\5\DATA\082501\1_082509.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 18:31 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: BB0821SA-EPA
Misc Info : COL# 418002
Vial Number: 9



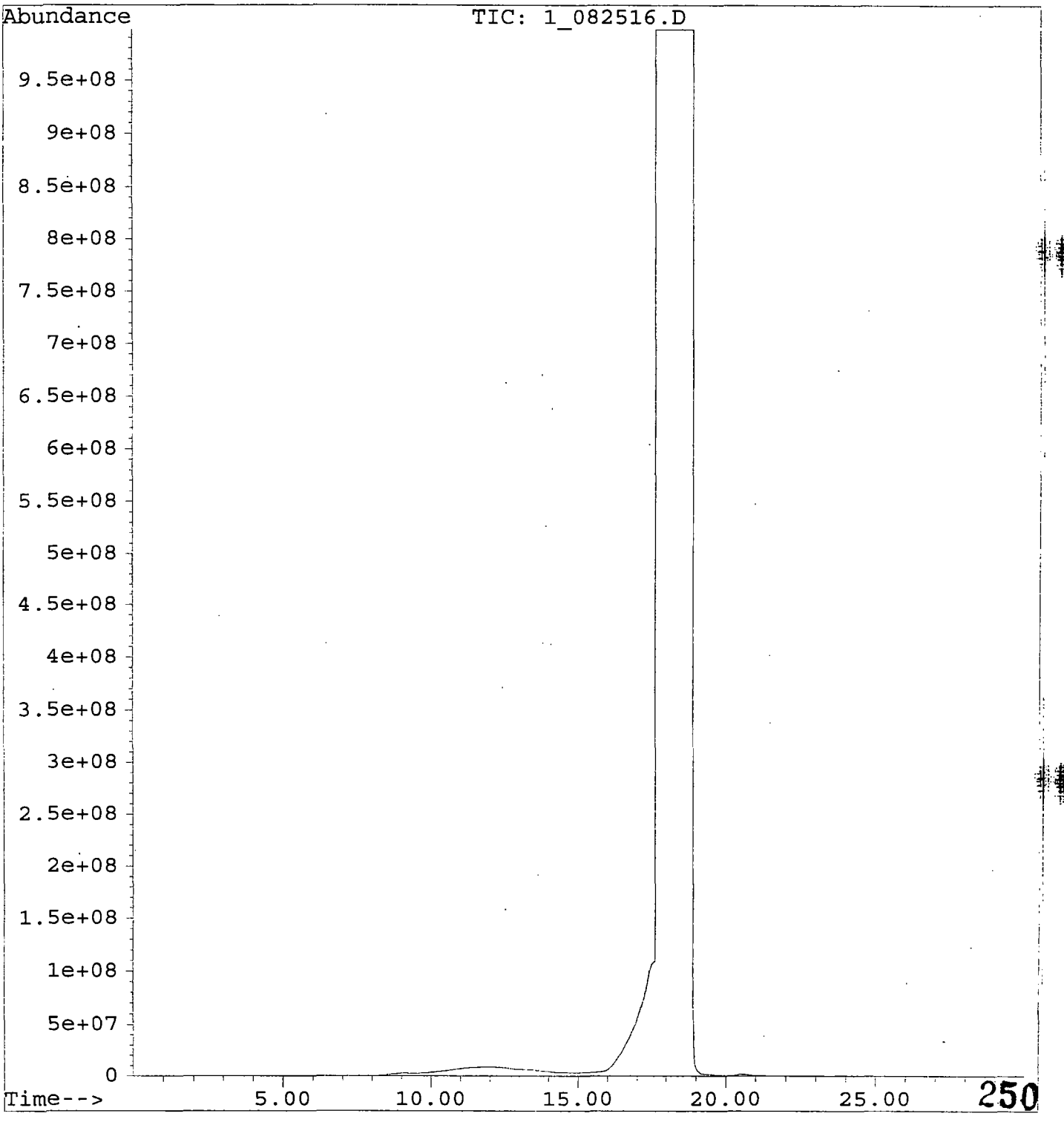
File : C:\HPCHEM\5\DATA\082501\1_082510.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 19:02 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: LC0821SA-EPA
Misc Info : COL# 418002
Vial Number: 10



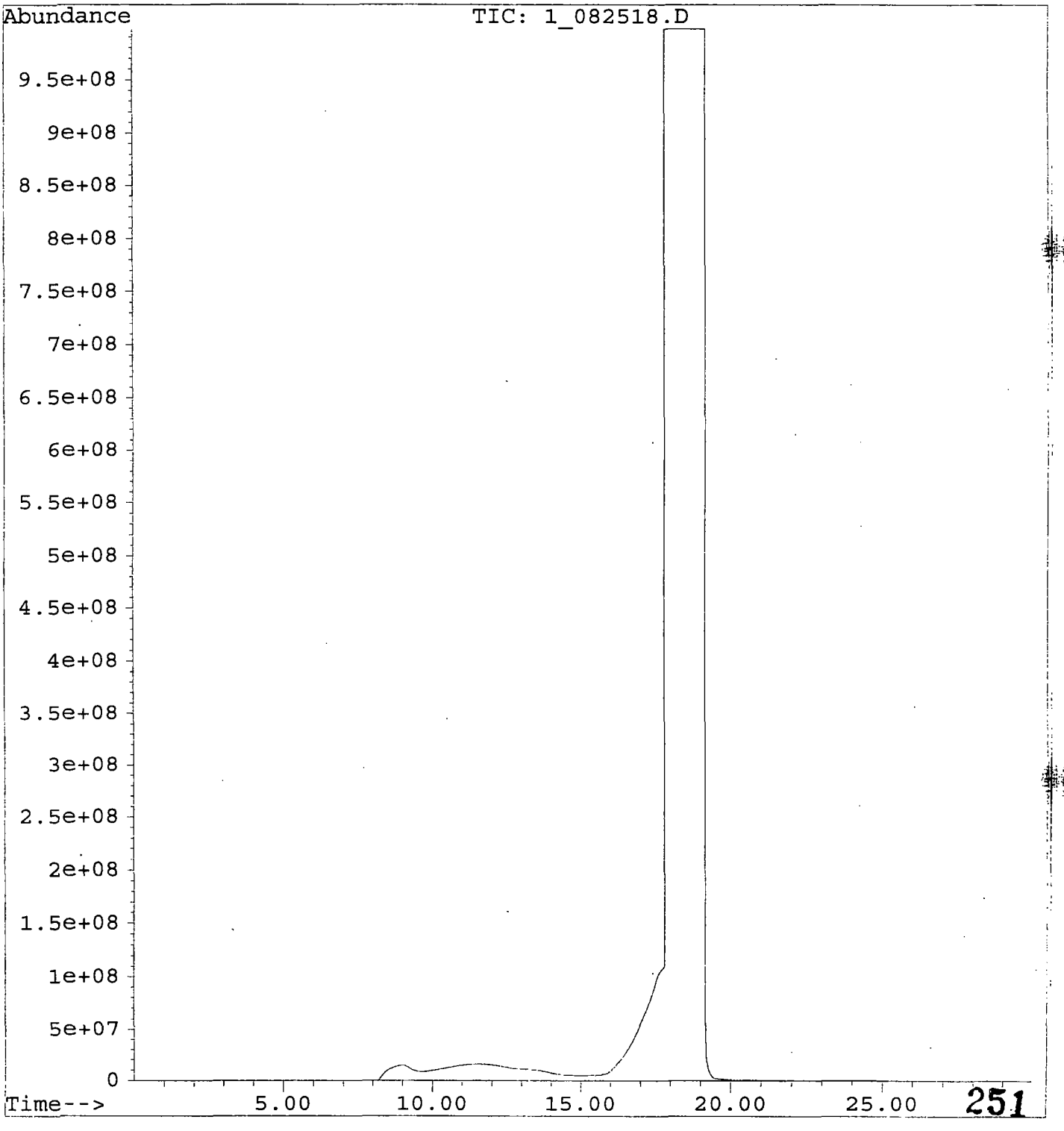
File : C:\HPCHEM\5\DATA\082501\1_082511.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 19:33 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: LD0821SA-EPA
Misc Info : COL# 418002
Vial Number: 11



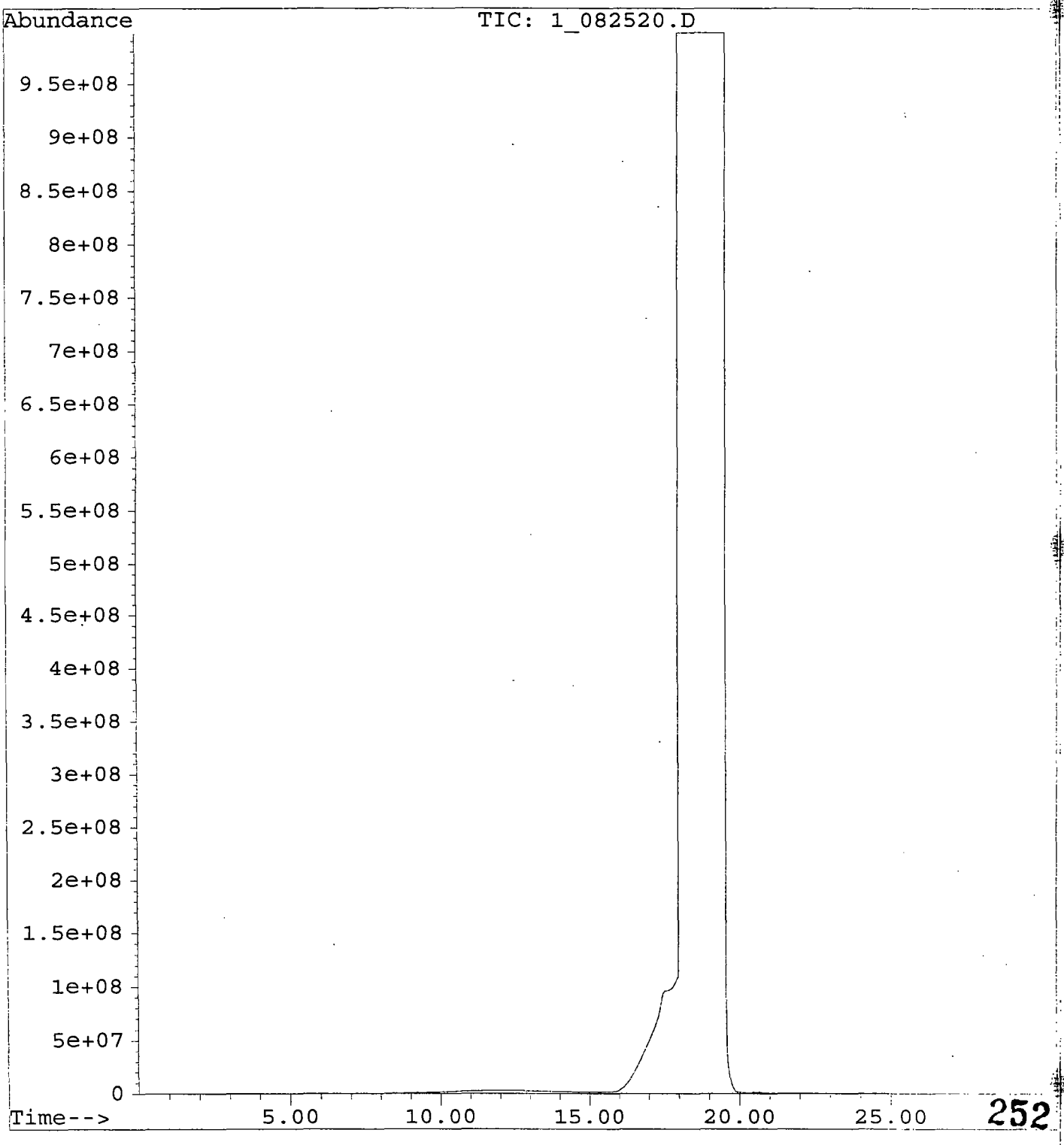
File : C:\HPCHEM\5\DATA\082501\1_082516.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 22:07 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: 47344.02-E0365-EPA
Misc Info : COL# 418002
Vial Number: 16



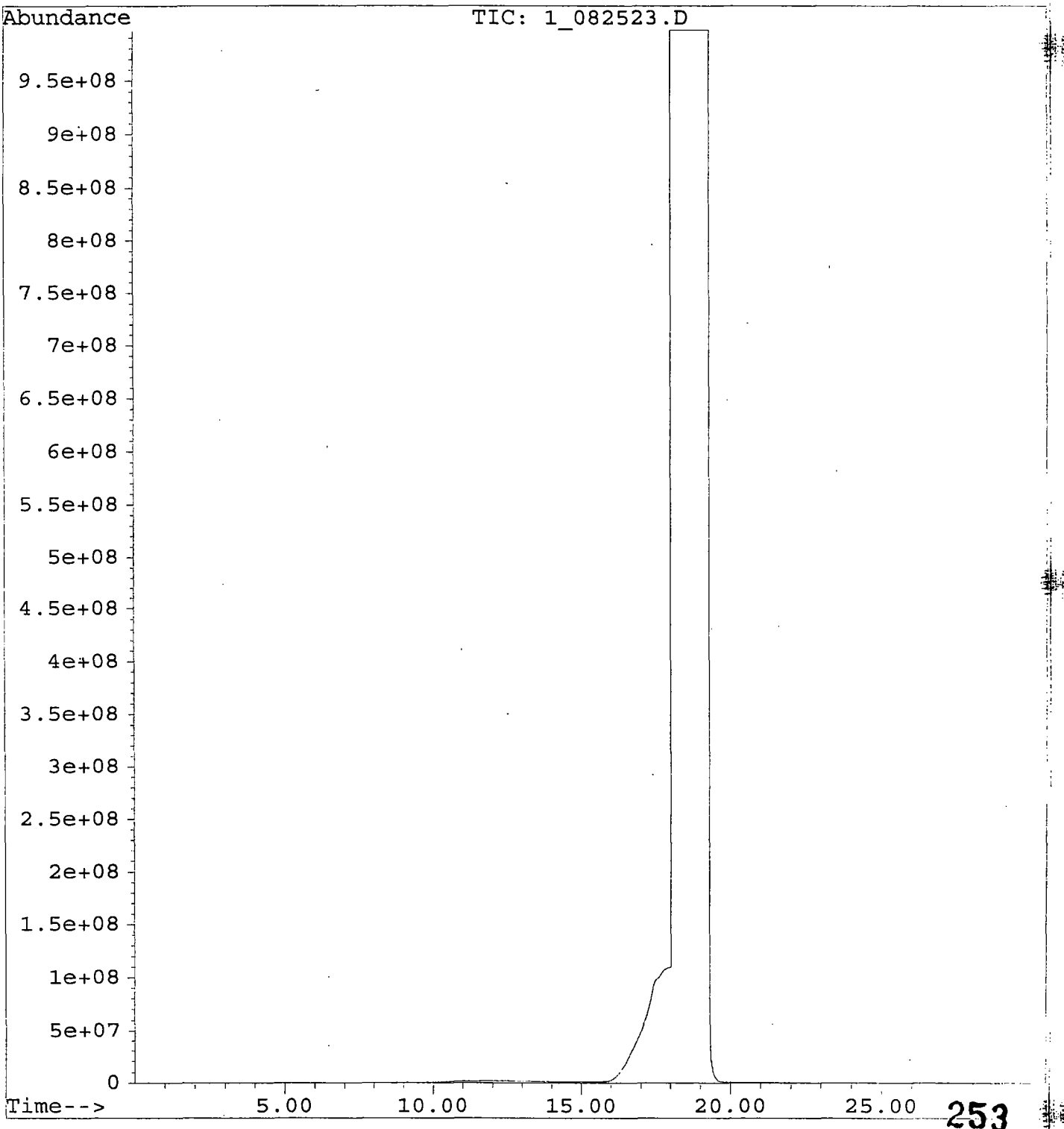
File : C:\HPCHEM\5\DATA\082501\1_082518.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 23:09 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: 47344.01-E0364-EPA
Misc Info : COL# 418002
Vial Number: 18



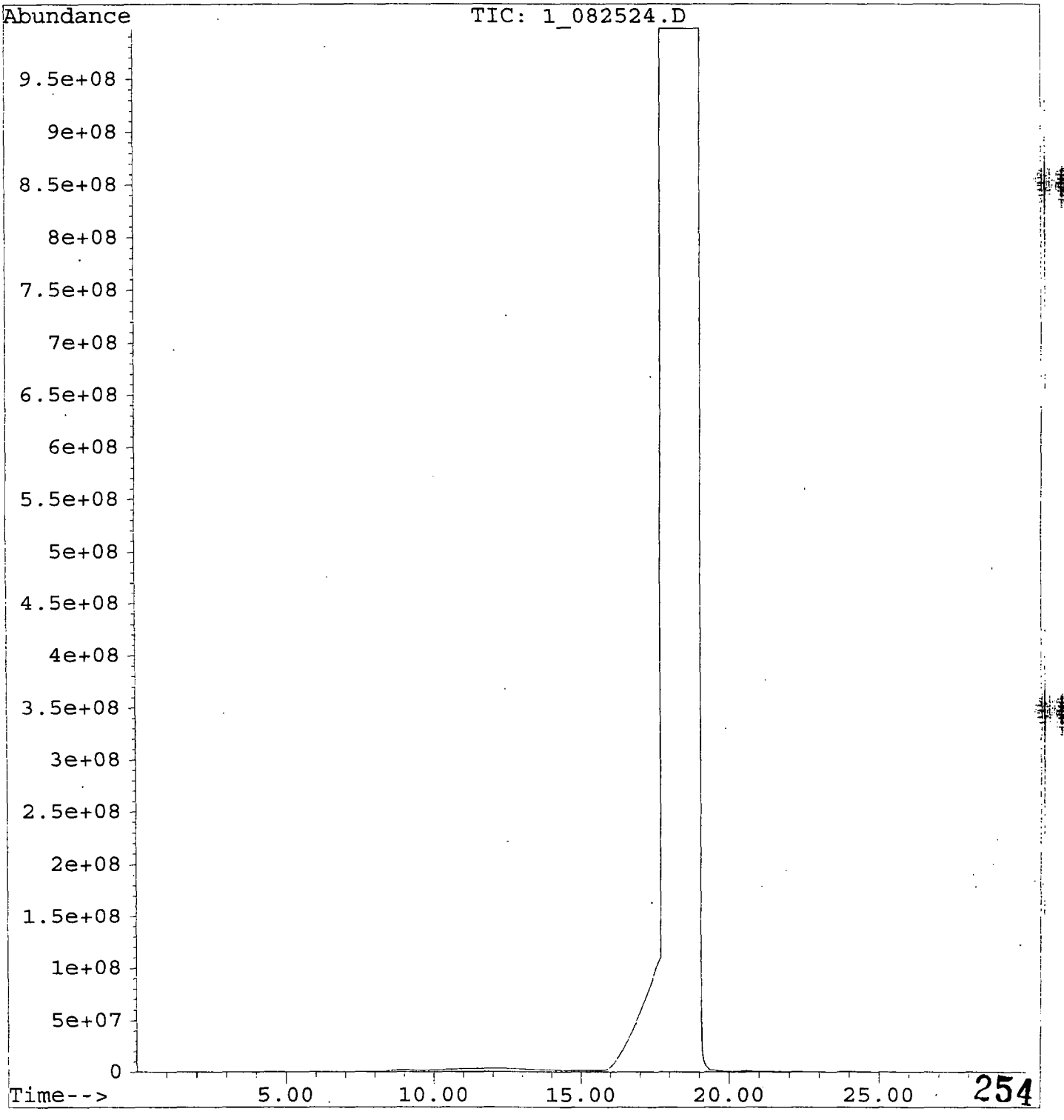
File : C:\HPCHEM\5\DATA\082501\1_082520.D
Operator : CR COL# 418002
Acquired : 26 Aug 01 00:11 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: 47344.04-E0367-EPA
Misc Info : COL# 418002
Vial Number: 20



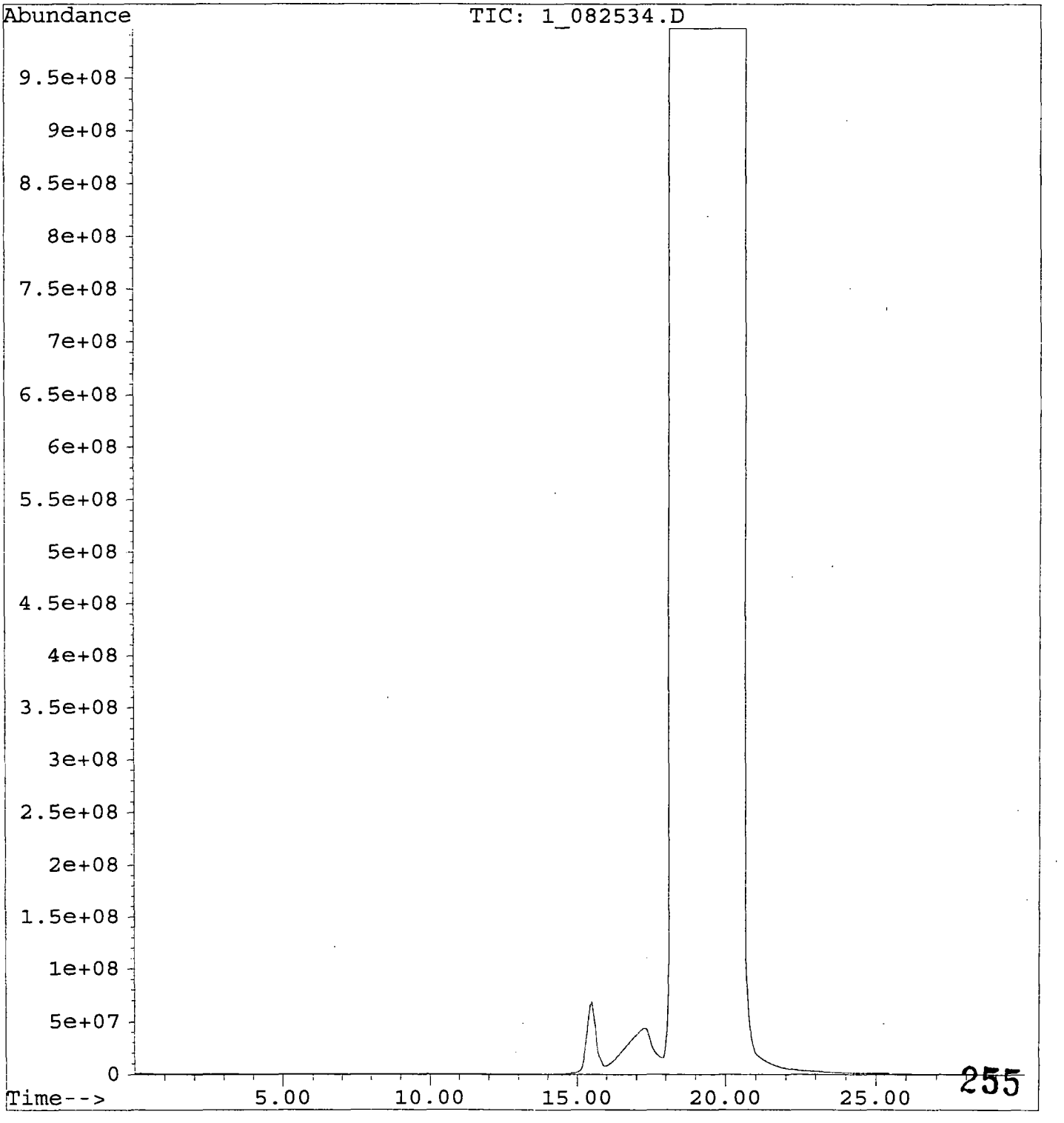
File : C:\HPCHEM\5\DATA\082501\1_082523.D
Operator : CR COL# 418002
Acquired : 26 Aug 01 01:44 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: 47344.05-E0368-EPA
Misc Info : COL# 418002
Vial Number: 23



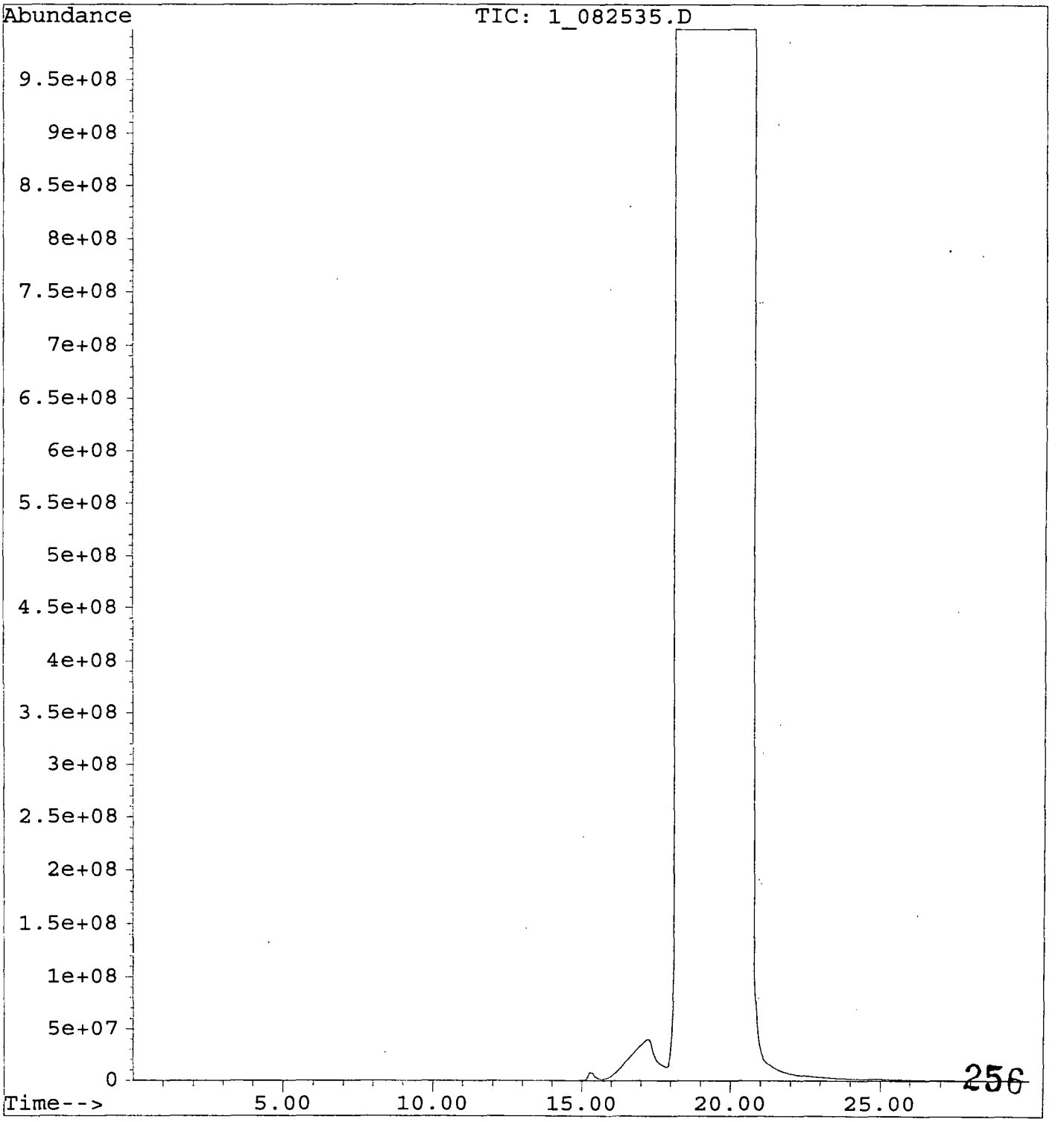
File : C:\HPCHEM\5\DATA\082501\1_082524.D
Operator : CR COL# 418002
Acquired : 26 Aug 01 02:15 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: 47344.03-E0367-EPA
Misc Info : COL# 418002
Vial Number: 24



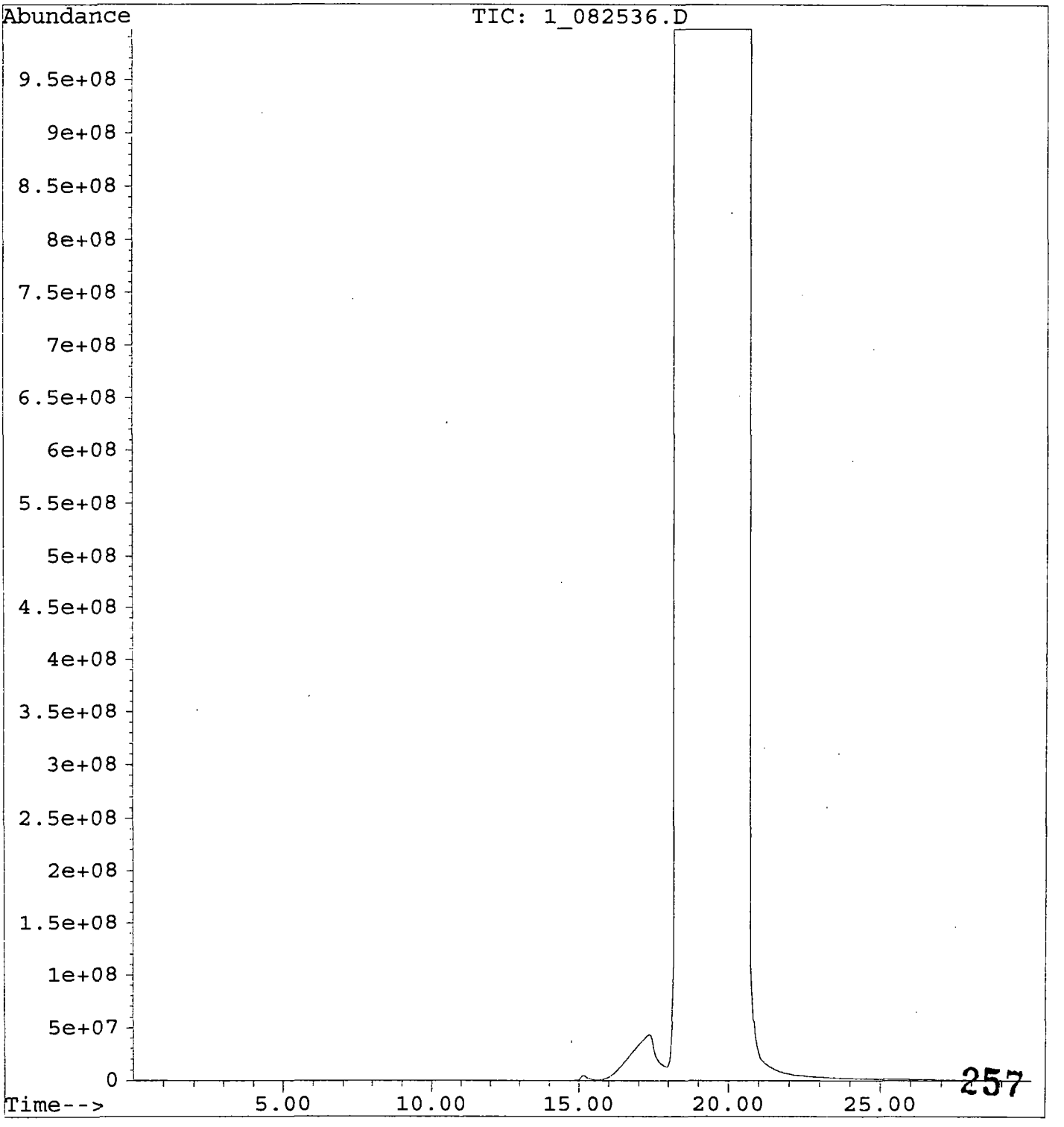
File : C:\HPCHEM\5\DATA\082501\1_082534.D
Operator : CR COL# 418002
Acquired : 26 Aug 01 07:26 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: SB
Misc Info : COL# 418002
Vial Number: 34



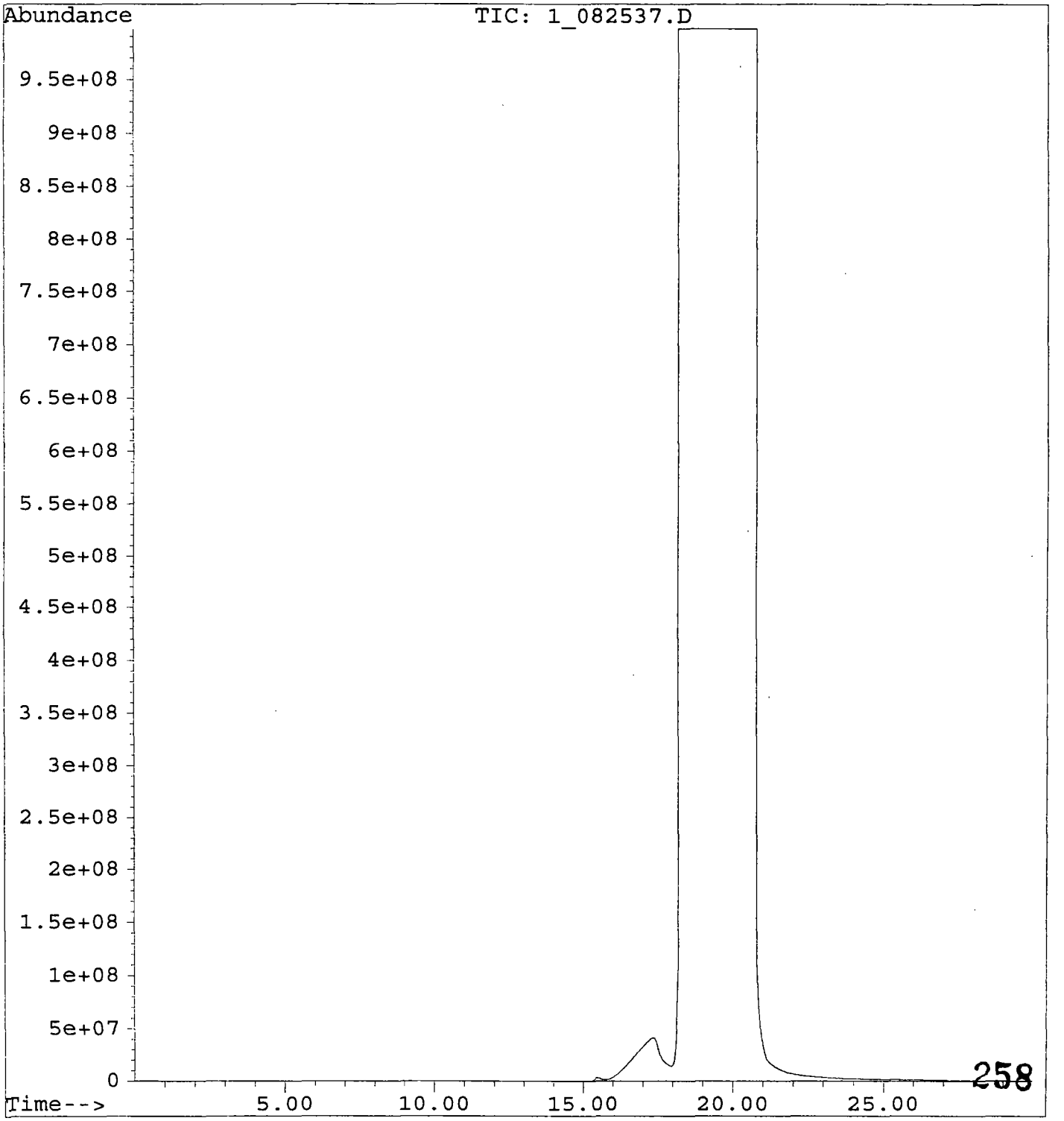
File : C:\HPCHEM\5\DATA\082501\1_082535.D
Operator : CR COL# 418002
Acquired : 26 Aug 01 07:57 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: SB
Misc Info : COL# 418002
Vial Number: 35



File : C:\HPCHEM\5\DATA\082501\1_082536.D
Operator : CR COL# 418002
Acquired : 26 Aug 01 08:28 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: SB
Misc Info : COL# 418002
Vial Number: 36

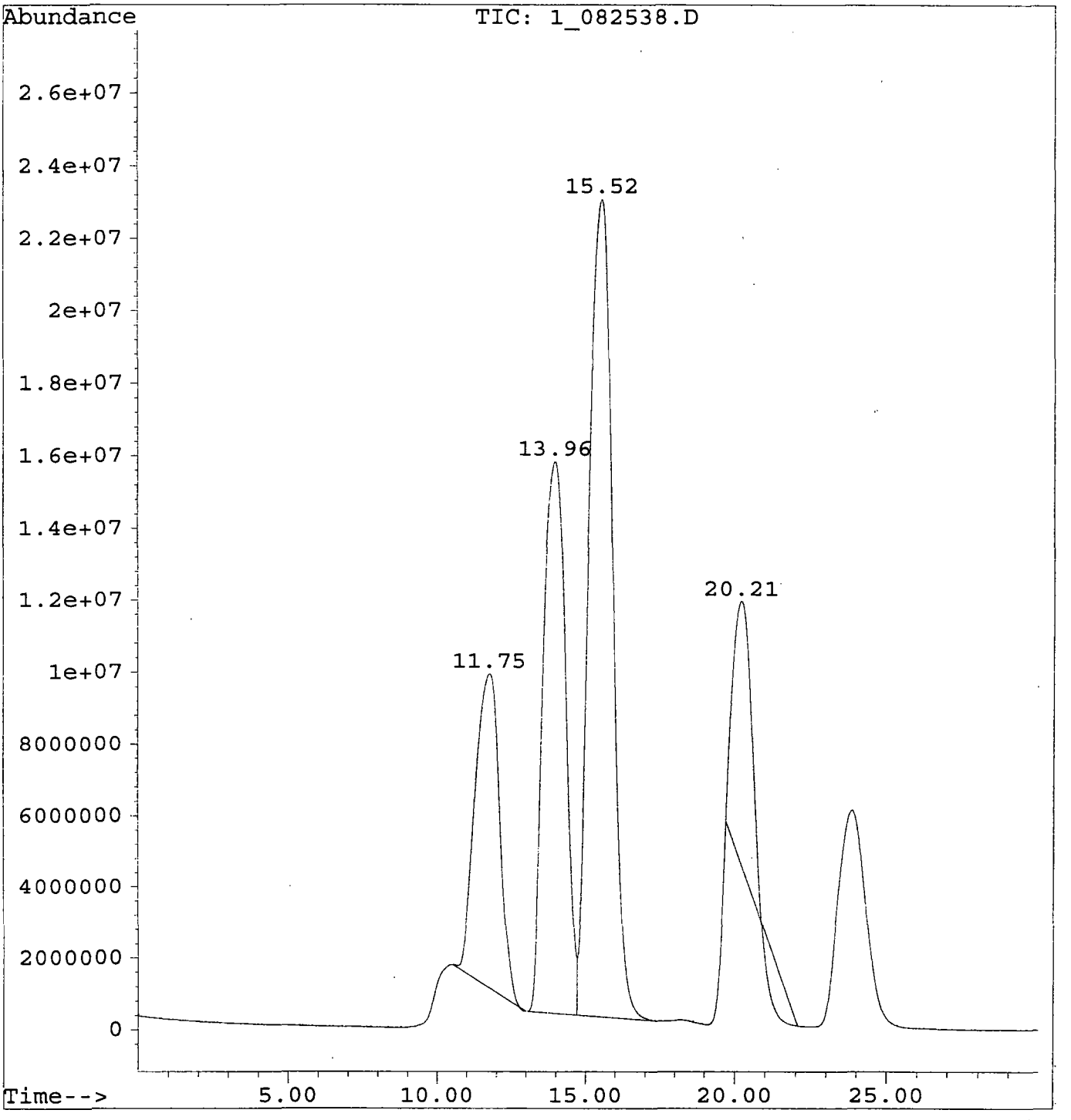


File : C:\HPCHEM\5\DATA\082501\1_082537.D
Operator : CR COL# 418002
Acquired : 26 Aug 01 08:59 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: SB
Misc Info : COL# 418002
Vial Number: 37



Data File : C:\HPCHEM\5\DATA\082501\1_082538.D
Acq On : 26 Aug 01 09:30
Sample : CAL STD (FINAL)
Misc : COL# 418002

Vial: 38
Operator: CR COL#
Inst : GPC1
Multiplr: 1.00



5) 11.75 = Corn Oil

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Chromatographic Resolution Report

Data File : C:\HPCHEM\5\DATA\082501\1_082538.D Vial: 38
Acq On : 26 Aug 01 09:30 Operator: CR COL# 41
Sample : CAL STD (FINAL) Inst : GPC1
Misc : COL# 418002 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\GPC.M
Title :

RT#1	RT#2	Resolution
11.754	13.958	100.00
13.958	15.516	89.93
15.516	20.206	100.00

Gel Permeation Chromatography (GPC) Run Log - GPC1

SWOK/AATS SWL-OE-102-16 Rev.#: 2.1 Fraction Collected: 45 mLs

Col. ID.: 418002 Protocol: GC699 Fraction: PEST Cycle: 15-9

Cal. Std. Page: Client: EPA Case#

DATE/TIME	POS.	SAMPLE ID	FILE	COMMENT
08/25/01 14:23	1	CAL STD (INITIAL)	1_082501	
08/25/01 14:53	2	SB	1_082502	
08/25/01 15:24	3	SB	1_082503	
08/25/01 15:55	4	SB	1_082504	
08/25/01 16:26	5	SB	1_082505	
08/25/01 16:58	6	SB#082501C (PEST)	1_082506	
08/25/01 17:29	7	SB#082501D (PEST)	1_082507	
08/25/01 18:00	8	BL0821SA-EPA	1_082508	
08/25/01 18:31	9	BB0821SA-EPA	1_082509	
08/25/01 19:02	10	LC0821SA-EPA	1_082510	
08/25/01 19:33	11	LD0821SA-EPA	1_082511	
08/25/01 20:04	12	47325.06-E0352-EPA	1_082512	
08/25/01 20:35	13	47325.14-E0360-EPA	1_082513	
08/25/01 21:06	14	47325.15-E0361-EPA	1_082514	
08/25/01 21:36	15	47325.16-E0362-EPA	1_082515	
08/25/01 22:07	16	47344.02-E0365-EPA	1_082516	
08/25/01 22:38	17	47325.12-E0358-EPA	1_082517	
08/25/01 23:09	18	47344.01-E0364-EPA	1_082518	
08/25/01 23:40	19	47325.11-E0357-EPA	1_082519	
08/26/01 00:11	20	47344.04-E0367-EPA	1_082520	
08/26/01 00:42	21	47325.09-E0355-EPA	1_082521	

9/7/2001

Verification Signature/Date

9/6/01

Analyst Signature/Date

Book: OE-102-16-RUN- Page No.: 16

Gel Permeation Chromatography (GPC) Run Log - GPC1

SWOK/AATS SWL-OE-102-16 Rev.#: 2.1 Fraction Collected: 45 mLs

Col. ID.: 418002 Protocol: GC699 Fraction: PEST Cycle: 15-9

Cal. Std. Page: Client: EPA Case#

DATE/TIME	POS.	SAMPLE ID	FILE	COMMENT
08/26/01 01:13	22	47325.07-E0353-EPA	1_082522	
08/26/01 01:44	23	47344.05-E0368-EPA	1_082523	
08/26/01 02:15	24	47344.03-E0367-EPA	1_082524	
08/26/01 02:46	25	47325.08-E0354-EPA	1_082525	
08/26/01 03:17	26	47325.10-E0356-EPA	1_082526	
08/26/01 03:48	27	47325.17-E0363-EPA	1_082527	
08/26/01 04:19	28	47325.02-E0349MS-EPA	1_082528	
08/26/01 04:50	29	47325.01-E0349-EPA	1_082529	
08/26/01 05:21	30	47325.03-E0349MSD-EPA	1_082530	
08/26/01 05:53	31	47325.13-E0359-EPA	1_082531	
08/26/01 06:24	32	47325.05-E0351-EPA	1_082532	
08/26/01 06:55	33	47325.04-E0350-EPA	1_082533	
08/26/01 07:26	34	SB	1_082534	
08/26/01 07:57	35	SB	1_082535	
08/26/01 08:28	36	SB	1_082536	
08/26/01 08:59	37	SB	1_082537	
08/26/01 09:30	38	CAL STD (FINAL)	1_082538	

Compound	Initial RT	Final RT	% Difference
Phthalate	14.18	13.96	1.55
Methoxychlor	15.78	15.52	1.65
Perylene	20.48	20.21	1.32

9/7/2001

Verification Signature/Date

9/6/01

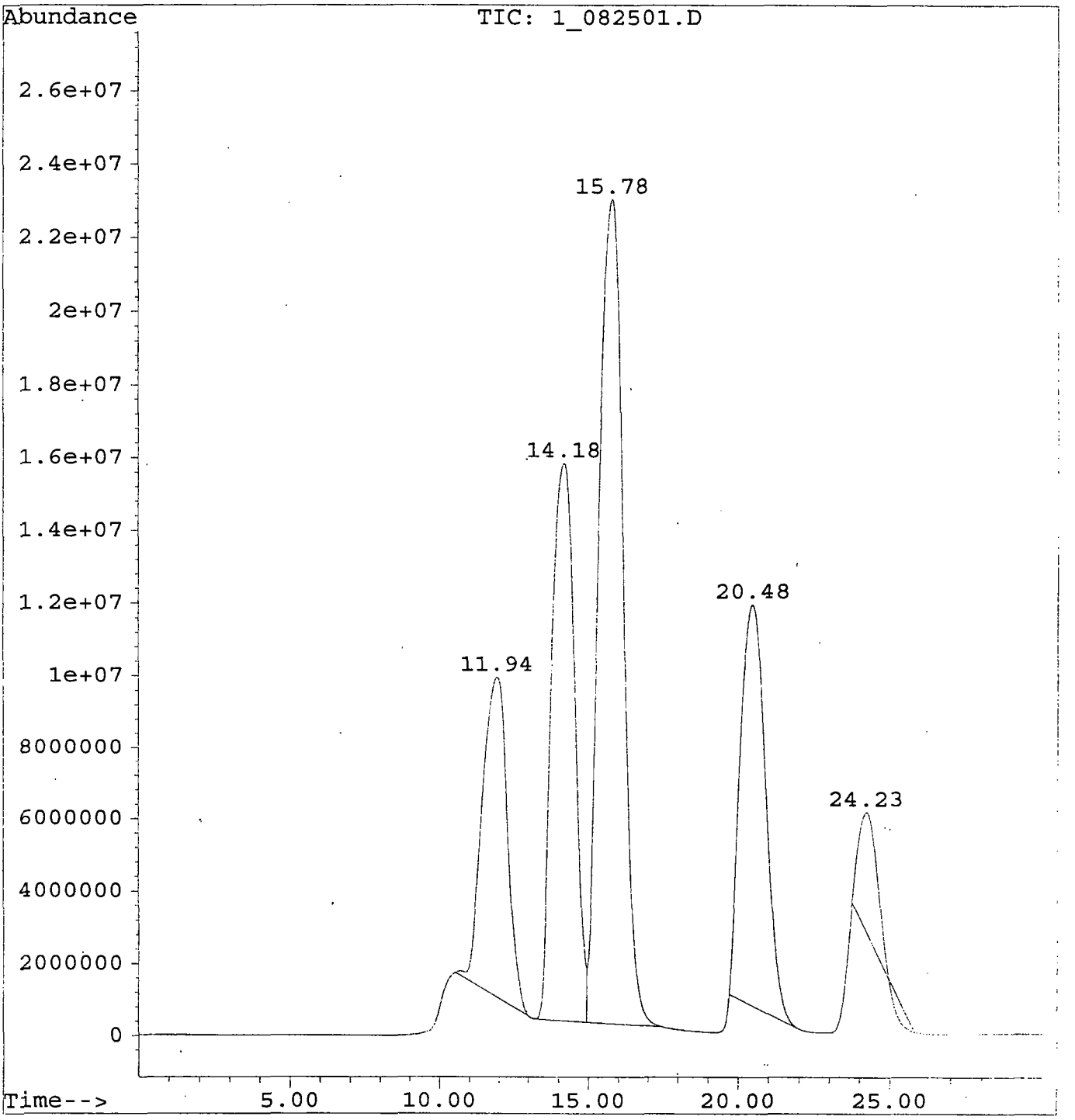
Analyst Signature/Date

Book: OE-102-16-RUN-

Page No.: 17

Data File : C:\HPCHEM\5\DATA\082501\1_082501.D
Acq On : 25 Aug 01 02:23 PM
Sample : CAL STD (INITIAL)
Misc : COL# 418002

Vial: 1
Operator: CR COL#
Inst : GPC1
Multiplr: 1.00



1) 11.94 = Corn Oil

3) 14.18 = Pthalate
4) 15.78 = Methoxychlor
5) 20.48 = Perylene

263

Chromatographic Resolution Report

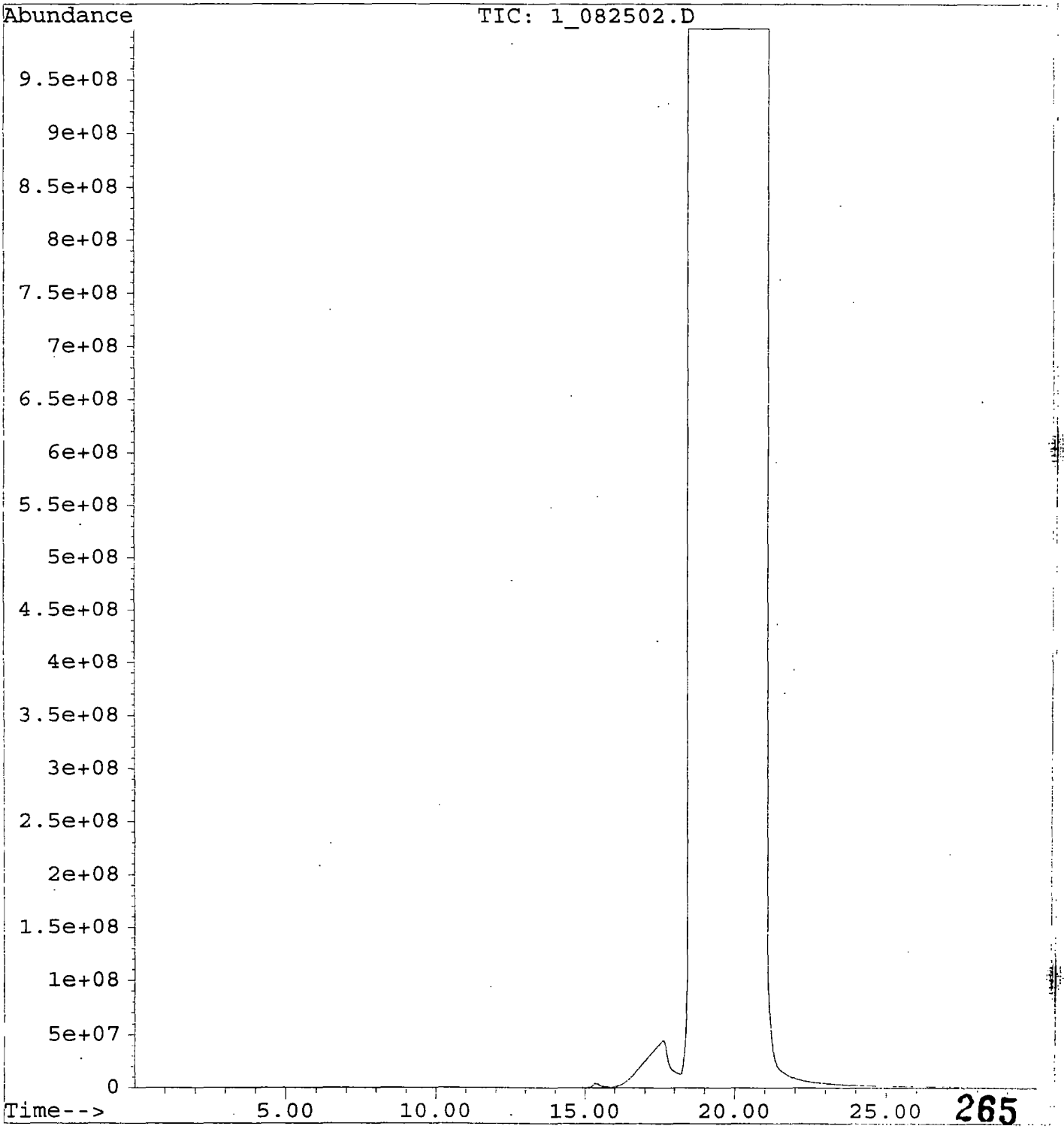
Data File : C:\HPCHEM\5\DATA\082501\1_082501.D
Acq On : 25 Aug 01 14:23
Sample : CAL STD (INITIAL)
Misc : COL# 418002

Vial: 1
Operator: CR COL# 41
Inst : GPC1
Multiplr: 1.00

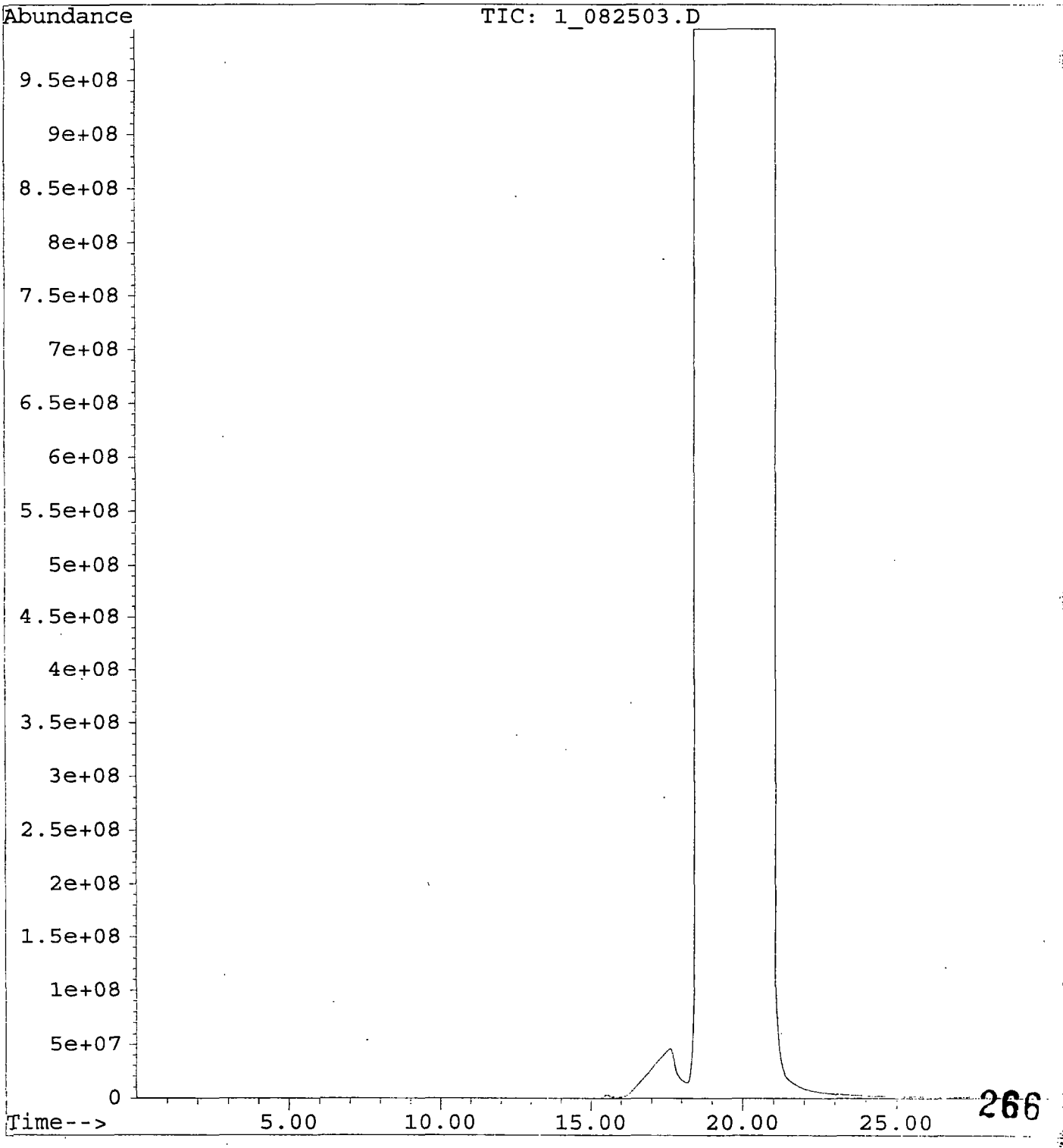
Method : C:\HPCHEM\5\METHODS\GPC.M
Title :

RT#1	RT#2	Resolution
11.942	14.180	100.00
14.180	15.777	90.51
15.777	20.485	100.00
20.485	24.228	100.00

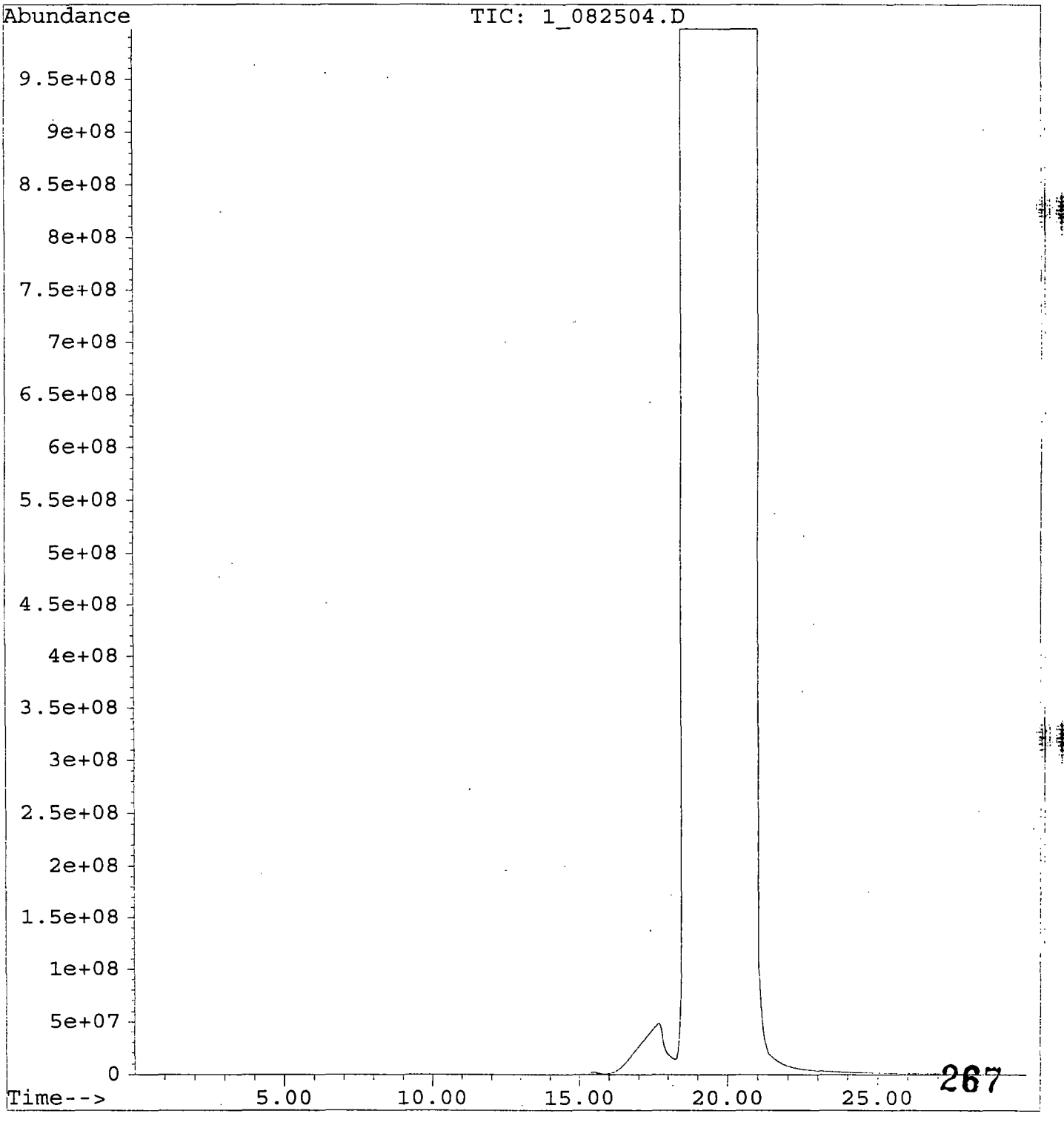
File : C:\HPCHEM\5\DATA\082501\1_082502.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 14:53 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: SB
Misc Info : COL# 418002
Vial Number: 2



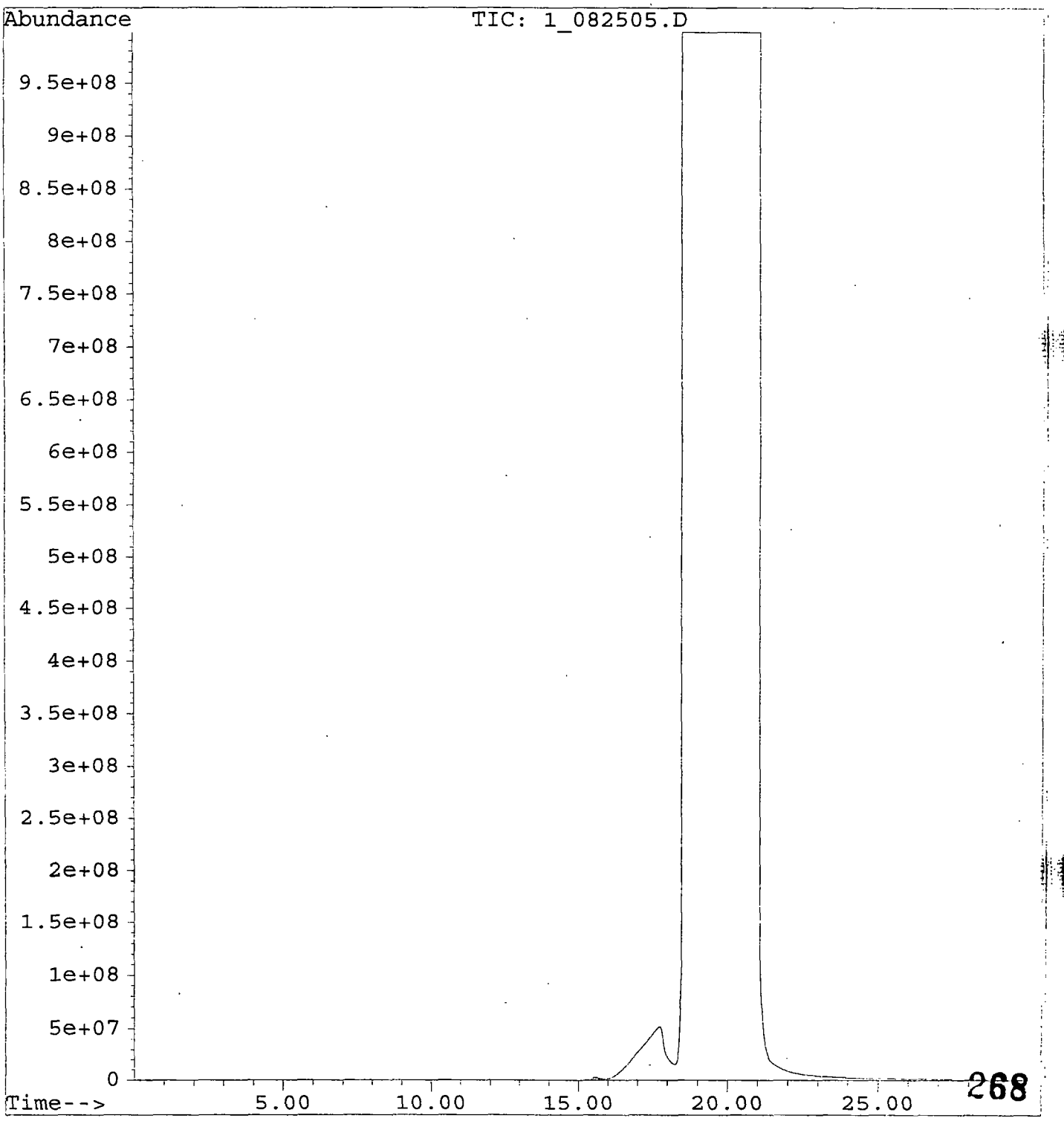
File : C:\HPCHEM\5\DATA\082501\1_082503.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 15:24 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: SB
Misc Info : COL# 418002
Vial Number: 3



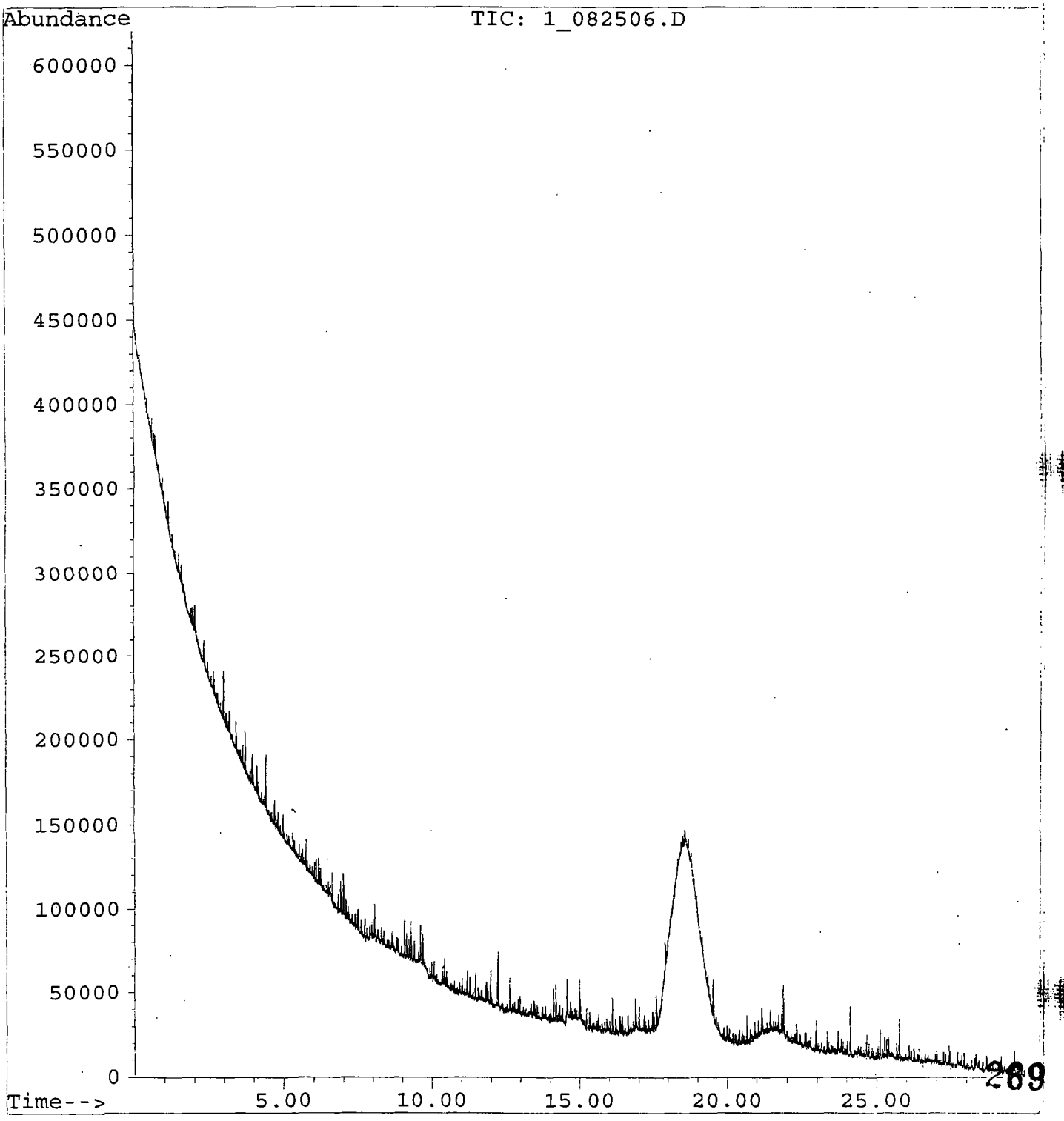
File : C:\HPCHEM\5\DATA\082501\1_082504.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 15:55 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: SB
Misc Info : COL# 418002
Vial Number: 4



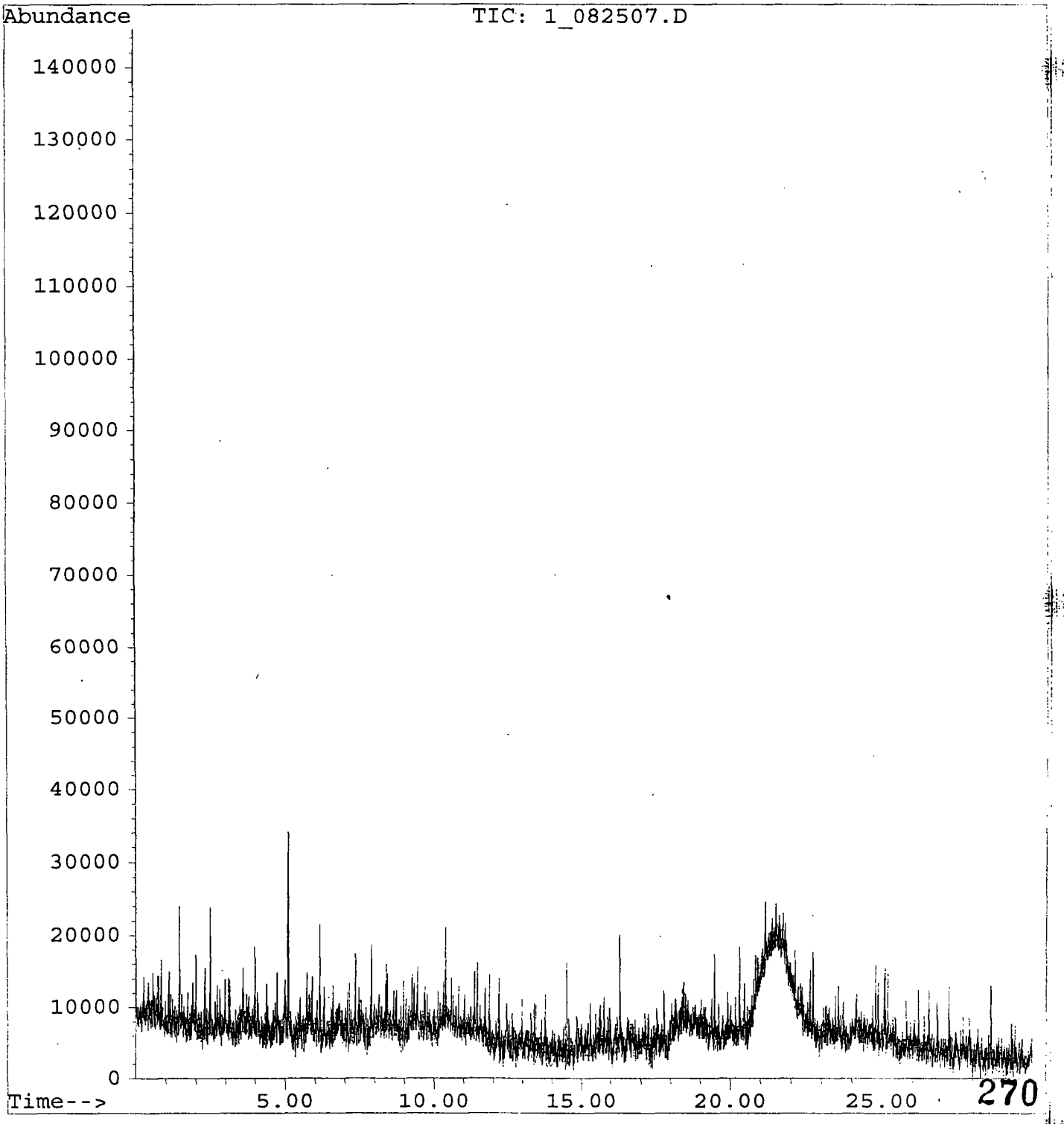
File : C:\HPCHEM\5\DATA\082501\1_082505.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 16:26 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: SB
Misc Info : COL# 418002
Vial Number: 5



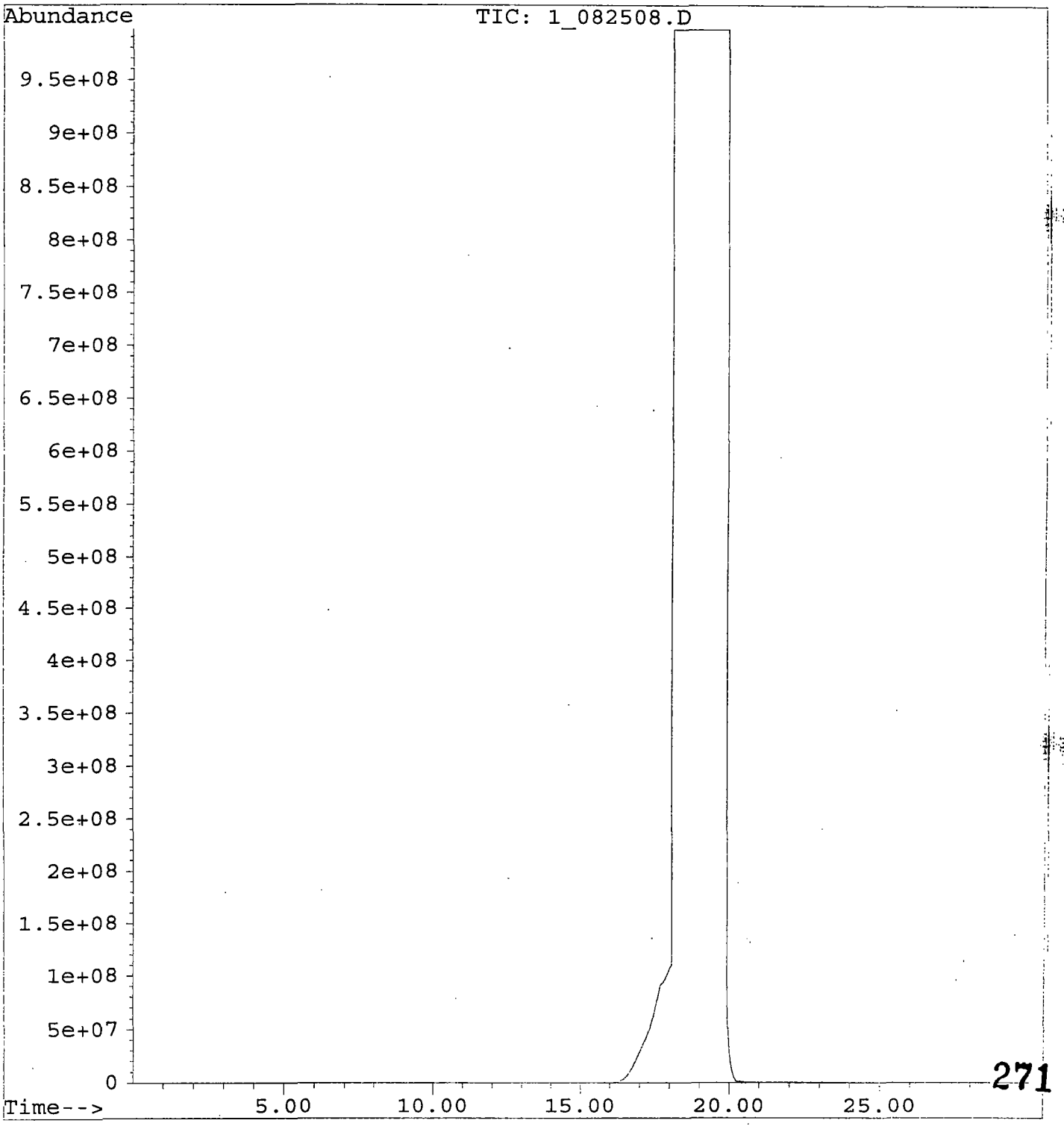
File : C:\HPCHEM\5\DATA\082501\1_082506.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 16:58 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: SB#082501C (PEST)
Misc Info : COL# 418002
Vial Number: 6



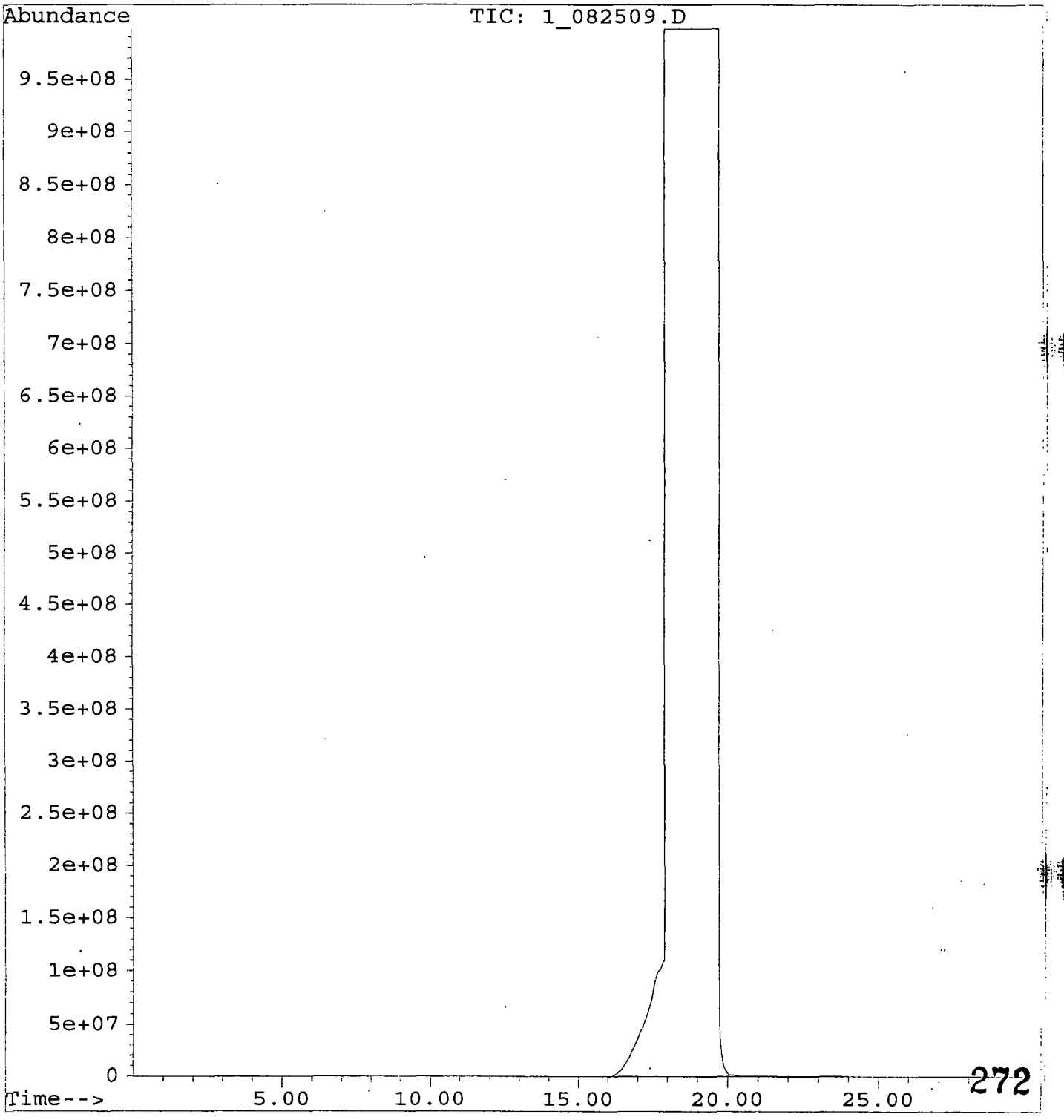
File : C:\HPCHEM\5\DATA\082501\1_082507.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 17:29 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: SB#082501D (PEST)
Misc Info : COL# 418002
Vial Number: 7



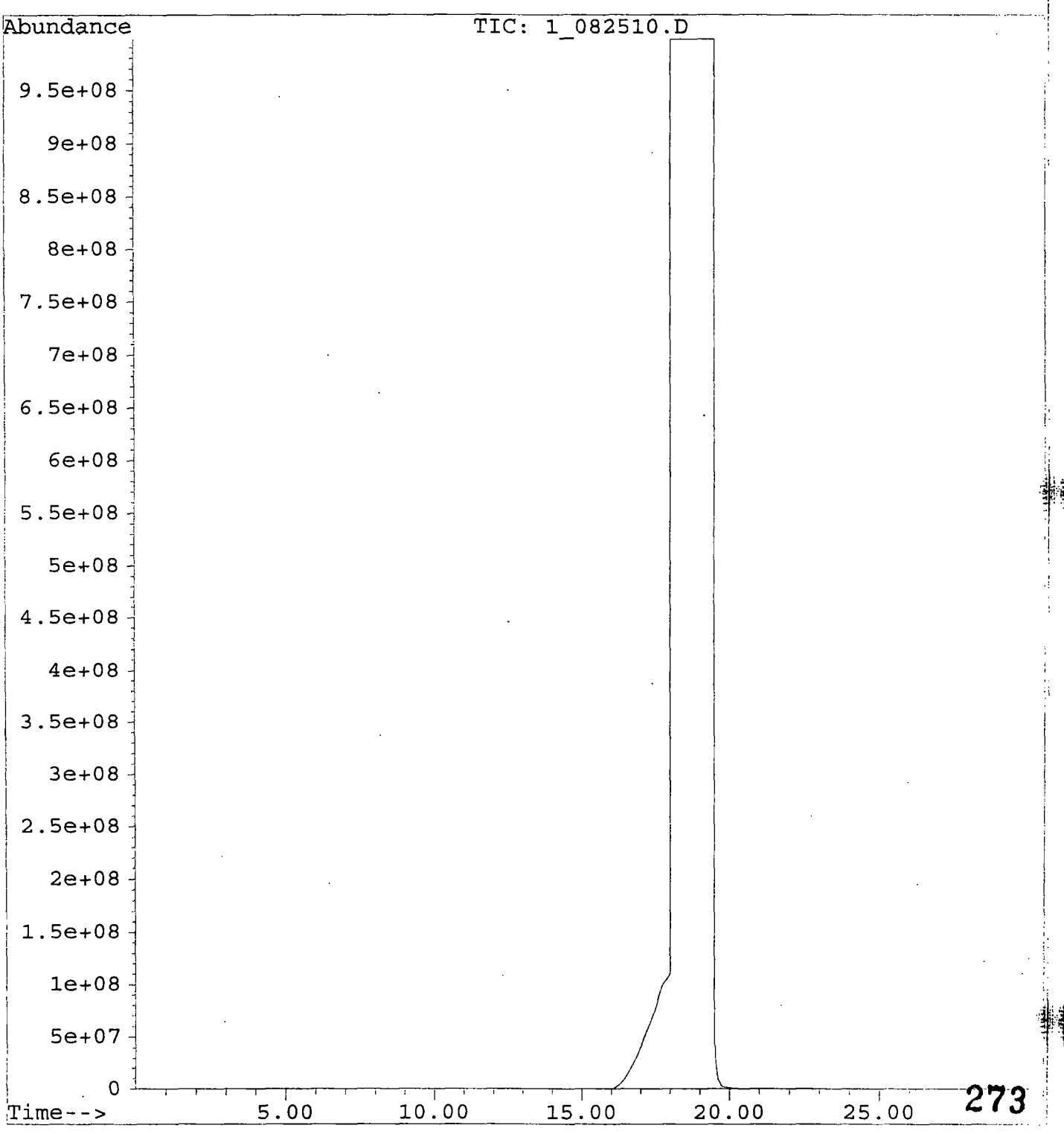
File : C:\HPCHEM\5\DATA\082501\1_082508.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 18:00 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: BL0821SA-EPA
Misc Info : COL# 418002
Vial Number: 8



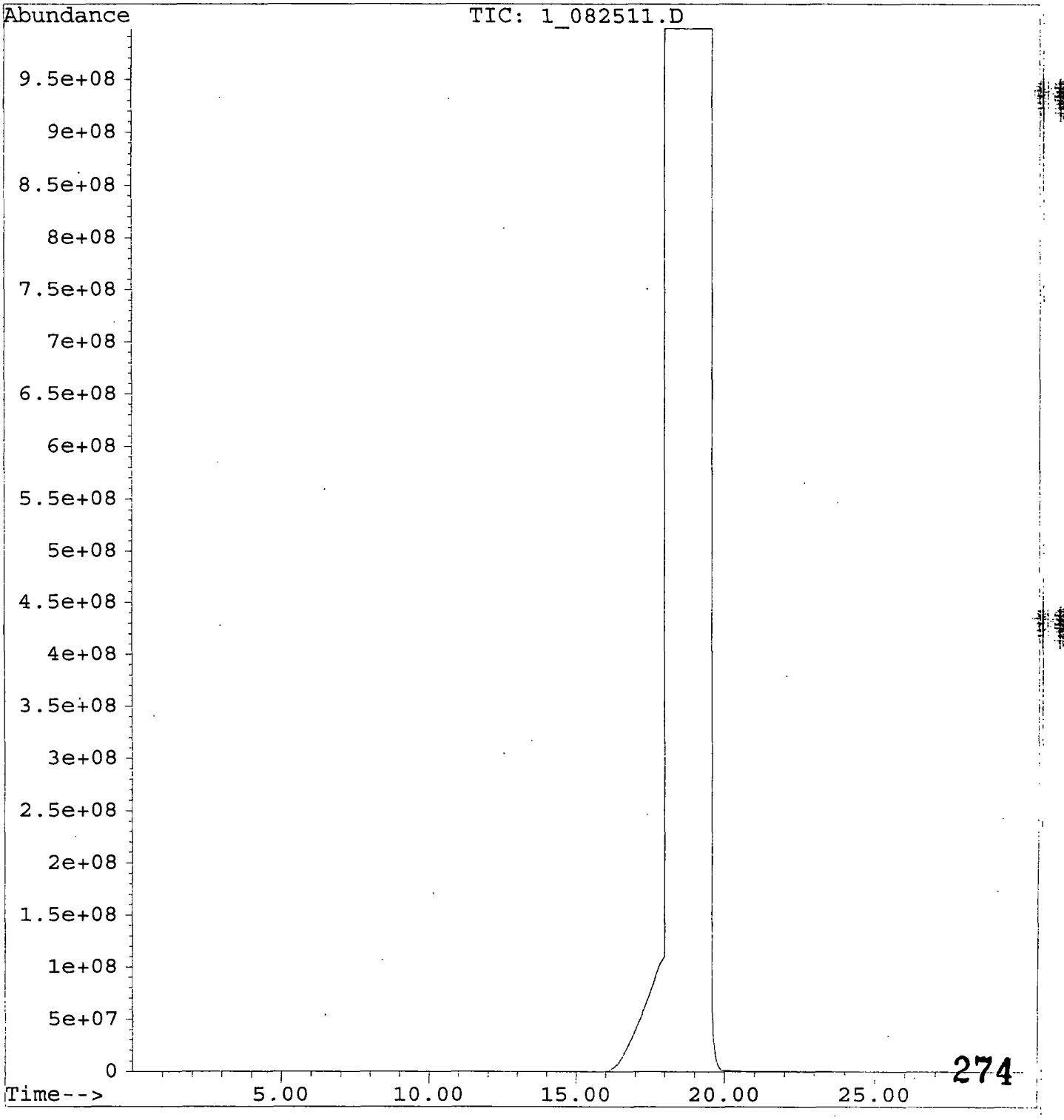
File : C:\HPCHEM\5\DATA\082501\1_082509.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 18:31 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: BB0821SA-EPA
Misc Info : COL# 418002
Vial Number: 9



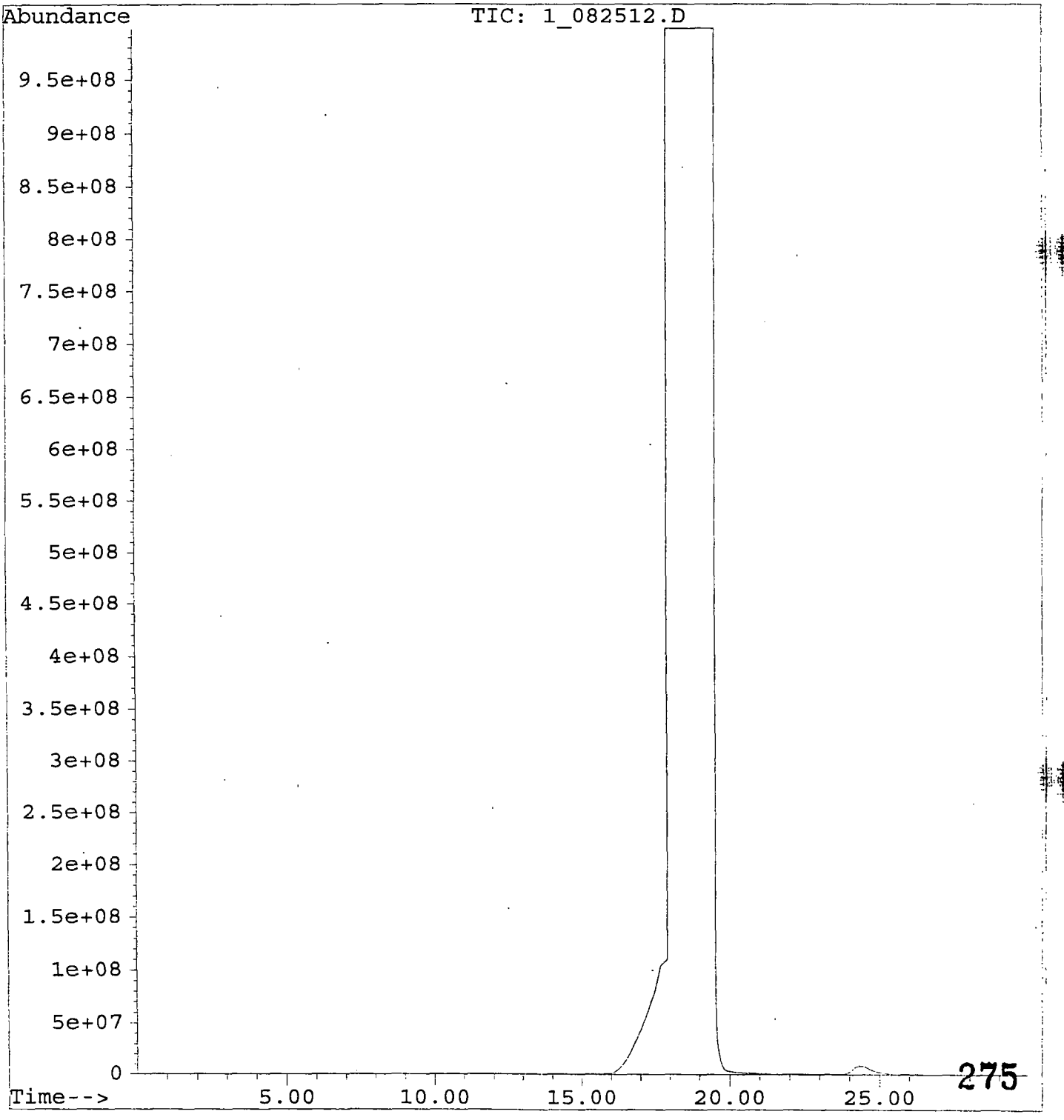
File : C:\HPCHEM\5\DATA\082501\1_082510.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 19:02 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: LC0821SA-EPA
Misc Info : COL# 418002
Vial Number: 10



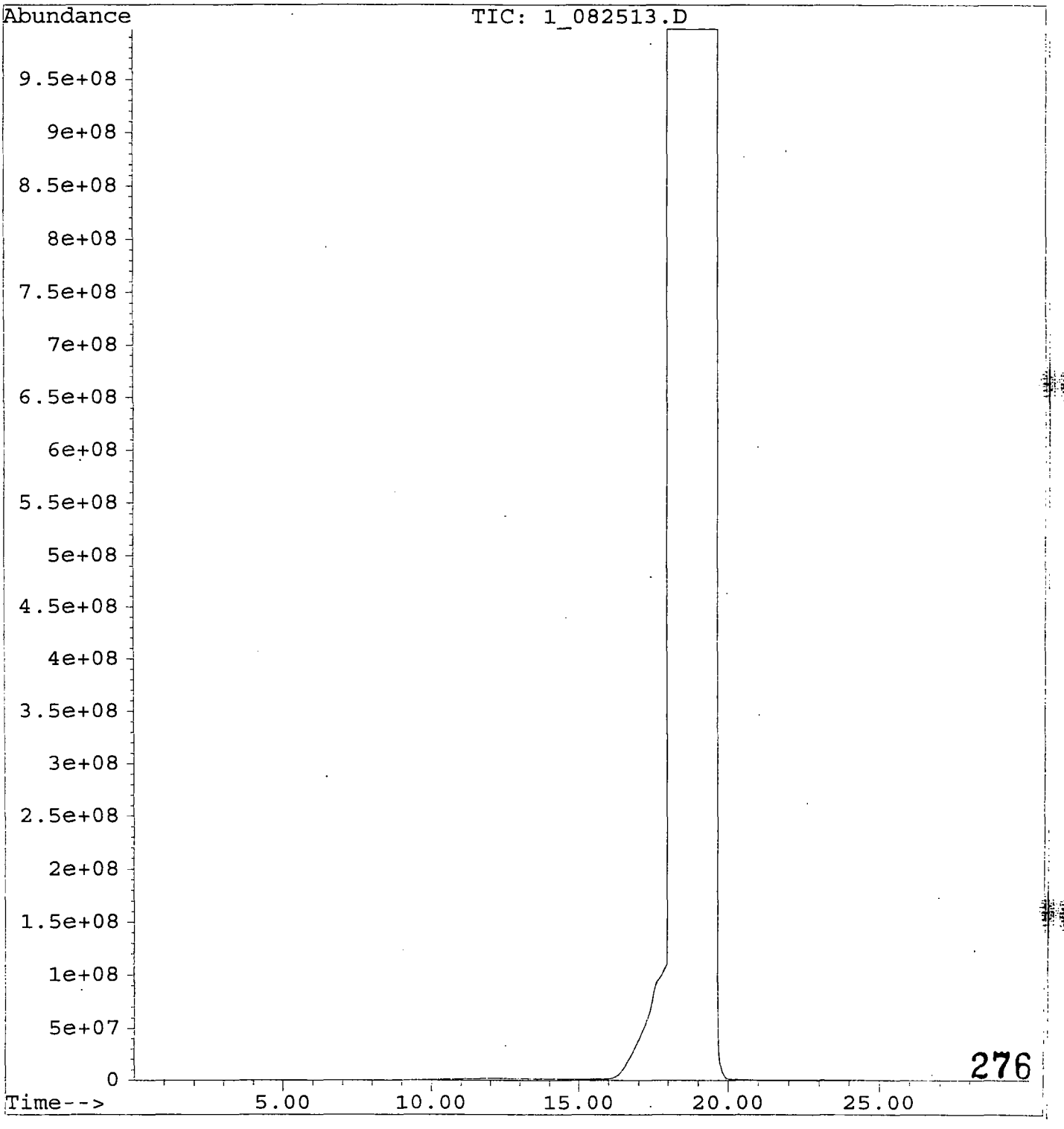
File : C:\HPCHEM\5\DATA\082501\1_082511.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 19:33 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: LD0821SA-EPA
Misc Info : COL# 418002
Vial Number: 11



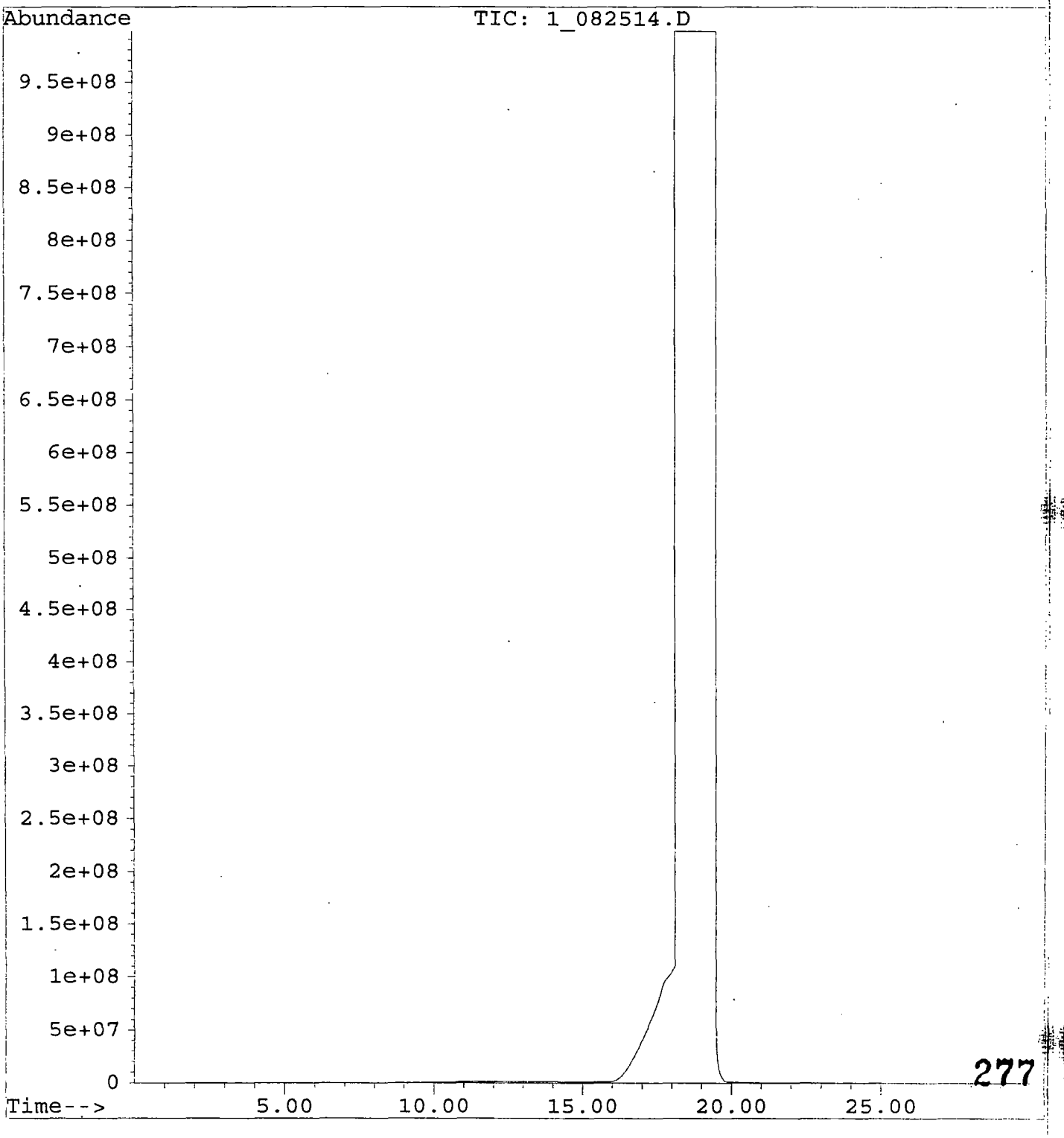
File : C:\HPCHEM\5\DATA\082501\1_082512.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 20:04 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: 47325.06-E0352-EPA
Misc Info : COL# 418002
Vial Number: 12



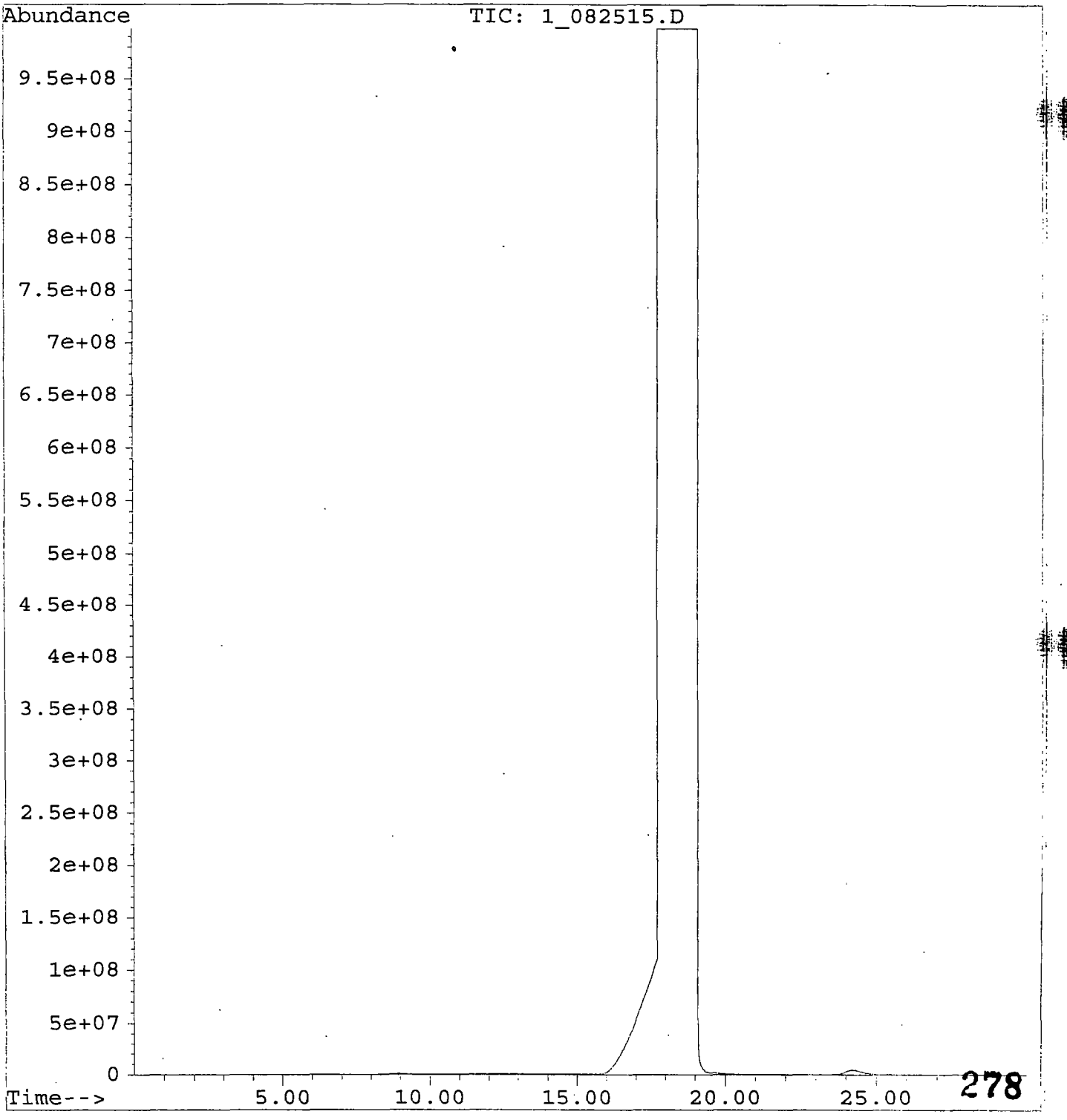
File : C:\HPCHEM\5\DATA\082501\1_082513.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 20:35 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: 47325.14-E0360-EPA
Misc Info : COL# 418002
Vial Number: 13



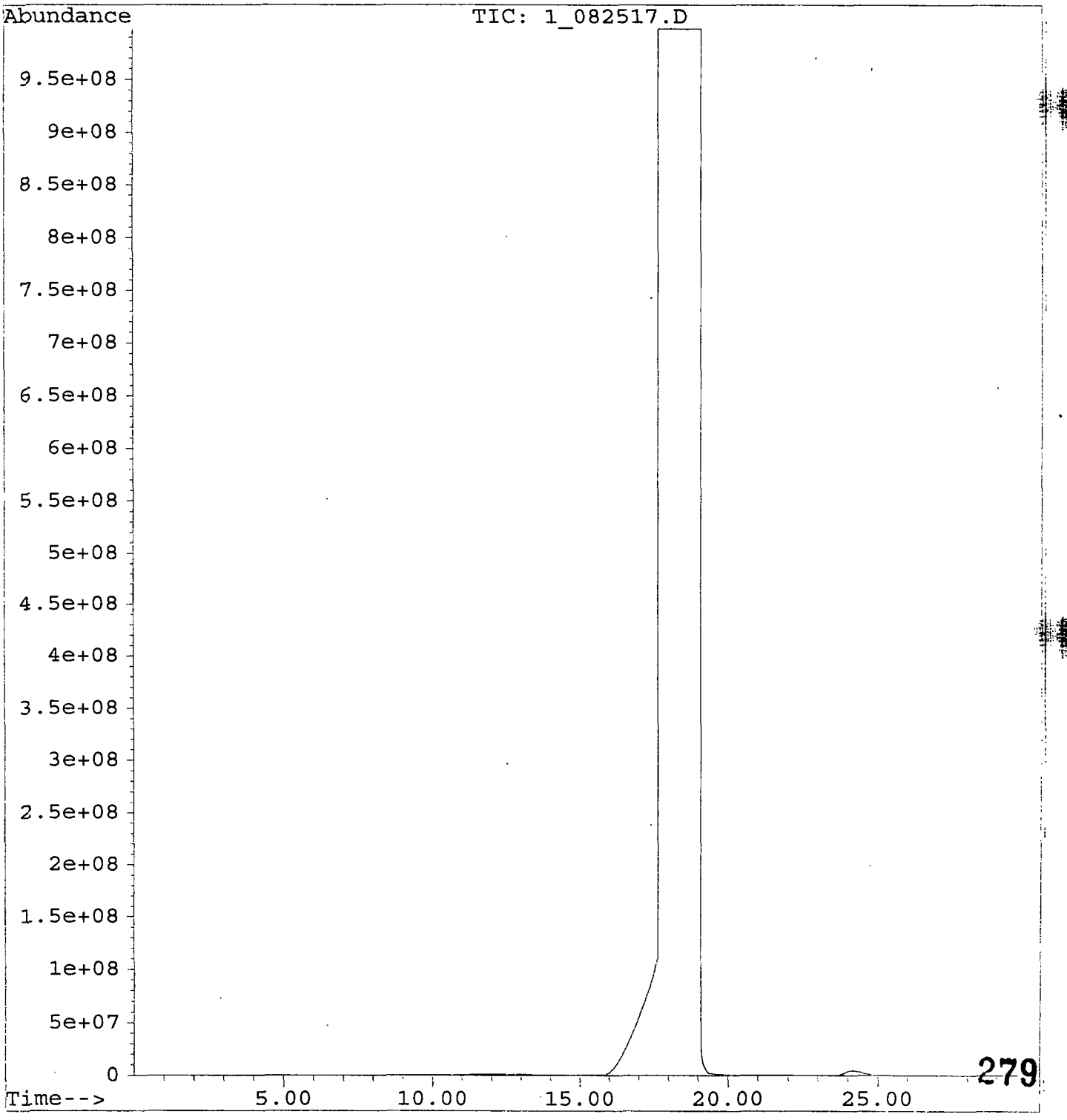
File : C:\HPCHEM\5\DATA\082501\1_082514.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 21:06 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: 47325.15-E0361-EPA
Misc Info : COL# 418002
Vial Number: 14



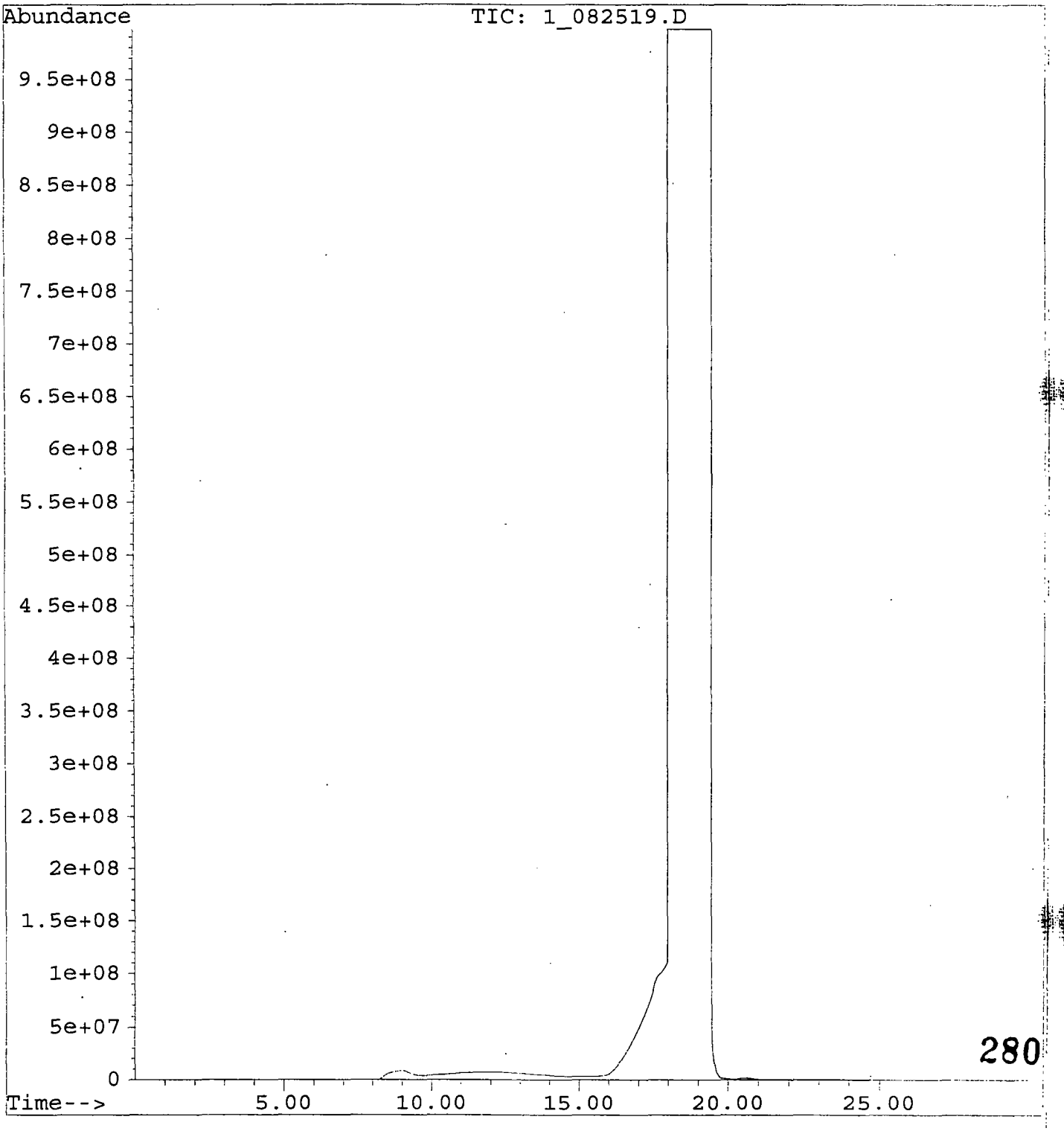
File : C:\HPCHEM\5\DATA\082501\1_082515.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 21:36 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: 47325.16-E0362-EPA
Misc Info : COL# 418002
Vial Number: 15



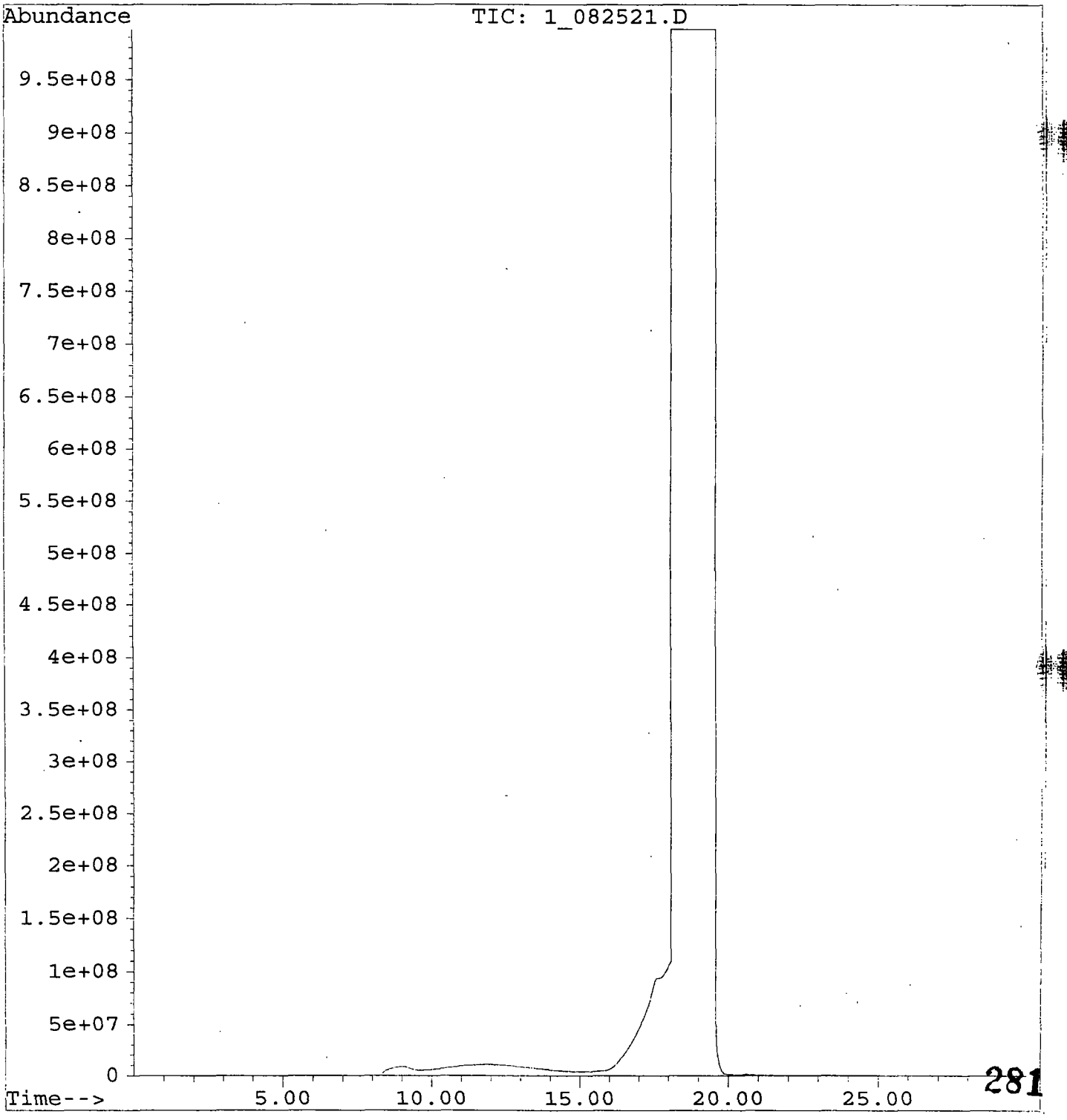
File : C:\HPCHEM\5\DATA\082501\1_082517.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 22:38 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: 47325.12-E0358-EPA
Misc Info : COL# 418002
Vial Number: 17



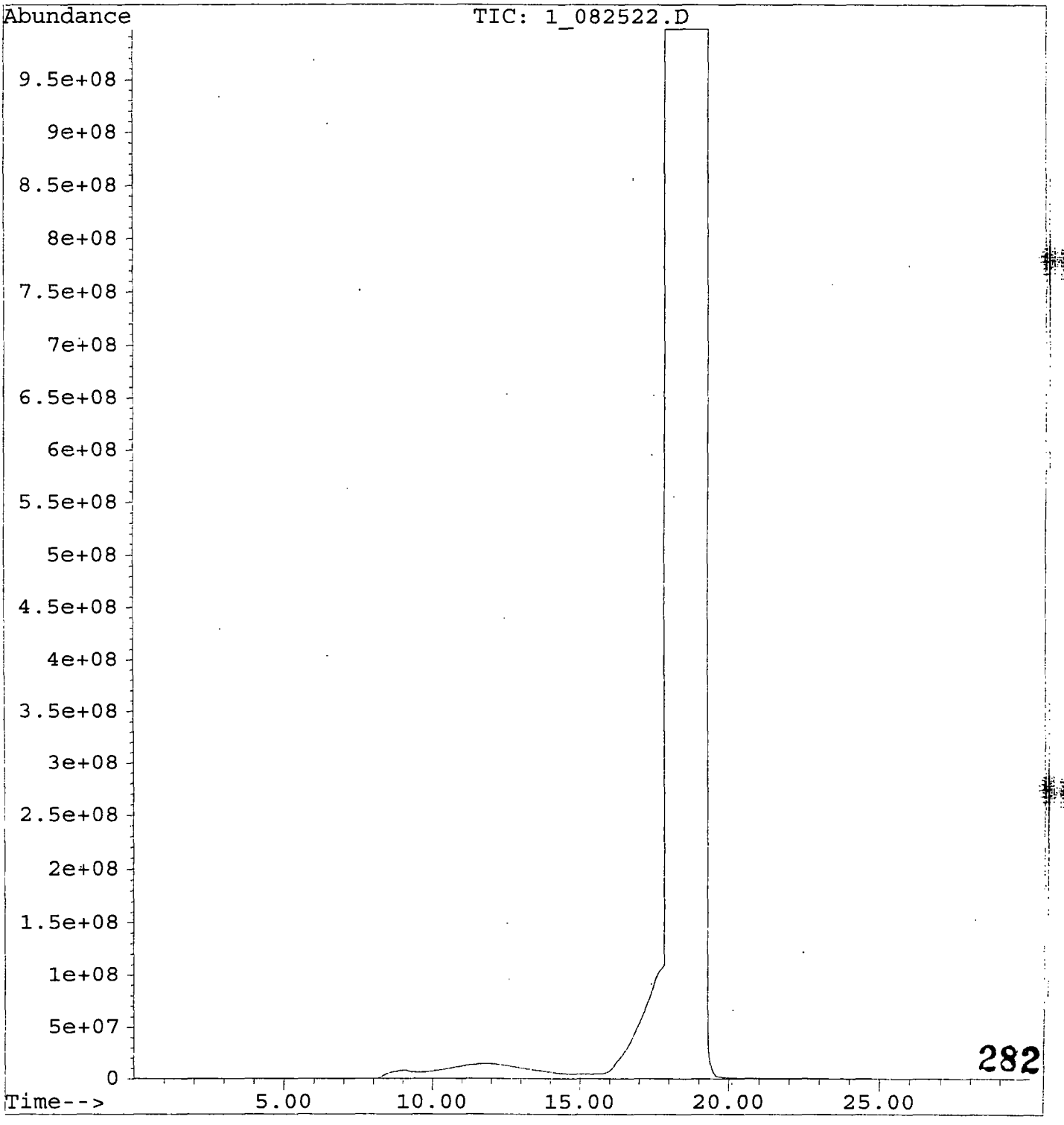
File : C:\HPCHEM\5\DATA\082501\1_082519.D
Operator : CR COL# 418002
Acquired : 25 Aug 01 23:40 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: 47325.11-E0357-EPA
Misc Info : COL# 418002
Vial Number: 19



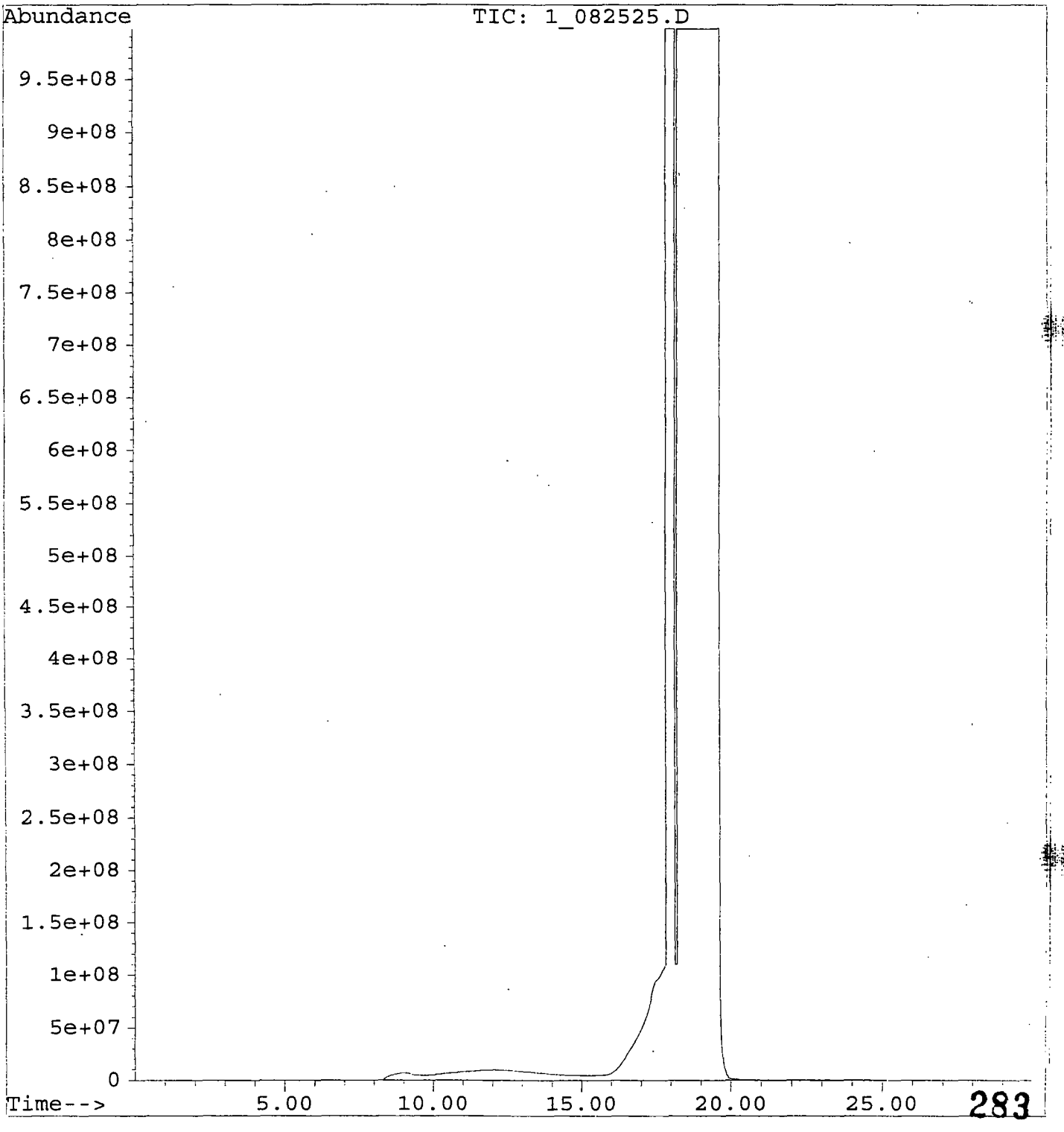
File : C:\HPCHEM\5\DATA\082501\1_082521.D
Operator : CR COL# 418002
Acquired : 26 Aug 01 00:42 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: 47325.09-E0355-EPA
Misc Info : COL# 418002
Vial Number: 21



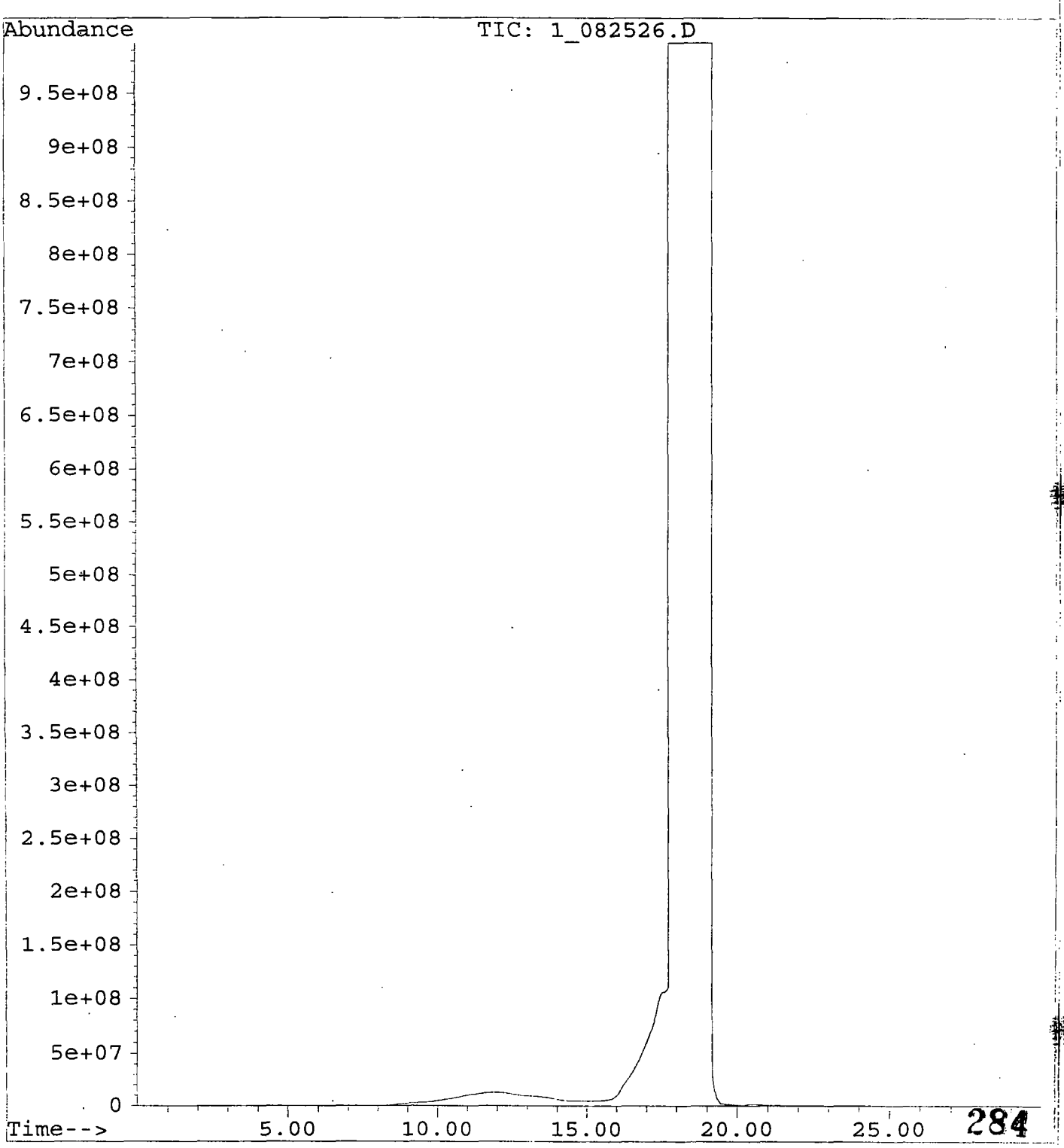
File : C:\HPCHEM\5\DATA\082501\1_082522.D
Operator : CR COL# 418002
Acquired : 26 Aug 01 01:13 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: 47325.07-E0353-EPA
Misc Info : COL# 418002
Vial Number: 22



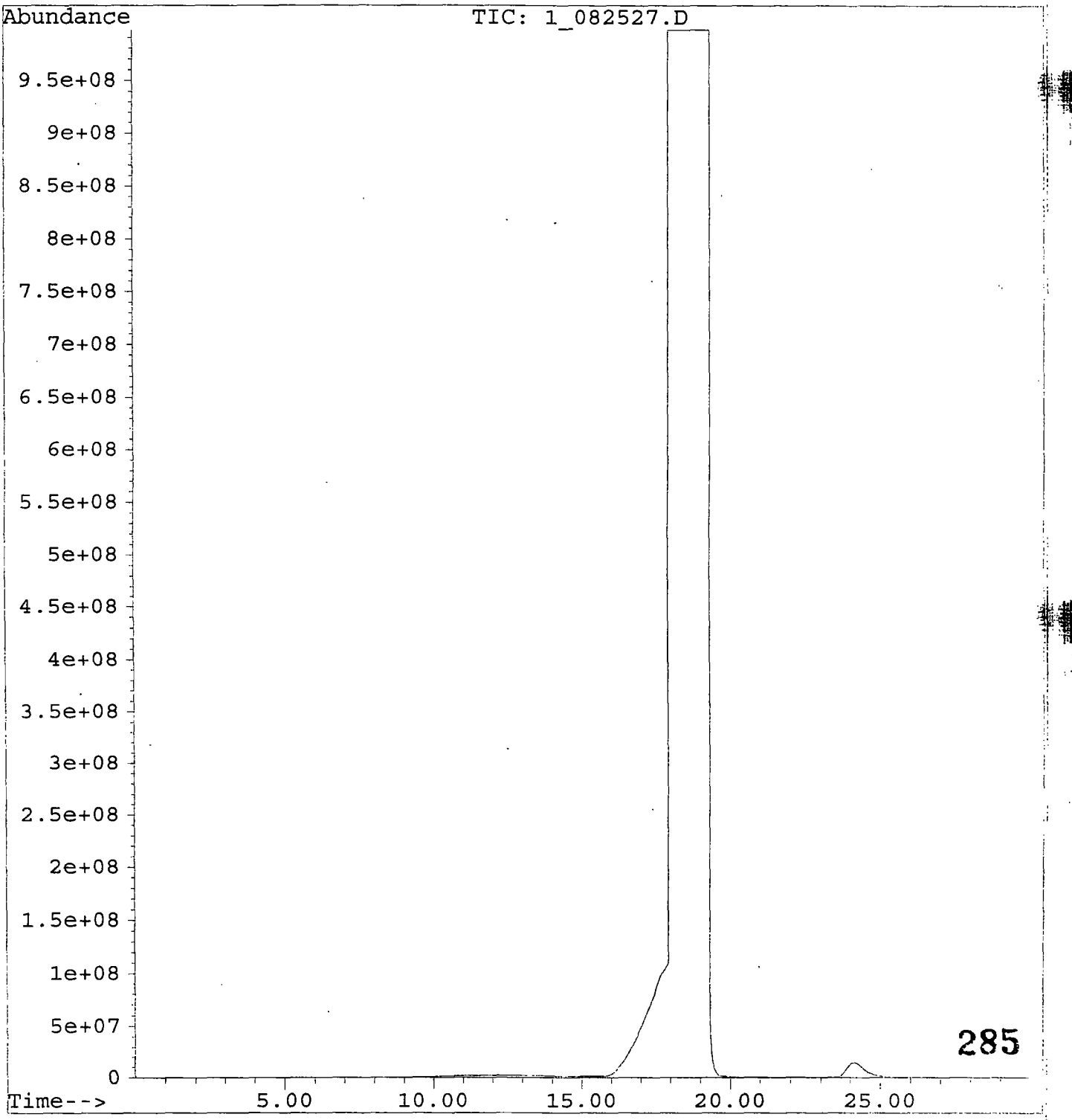
File : C:\HPCHEM\5\DATA\082501\1_082525.D
Operator : CR COL# 418002
Acquired : 26 Aug 01 02:46 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: 47325.08-E0354-EPA
Misc Info : COL# 418002
Vial Number: 25



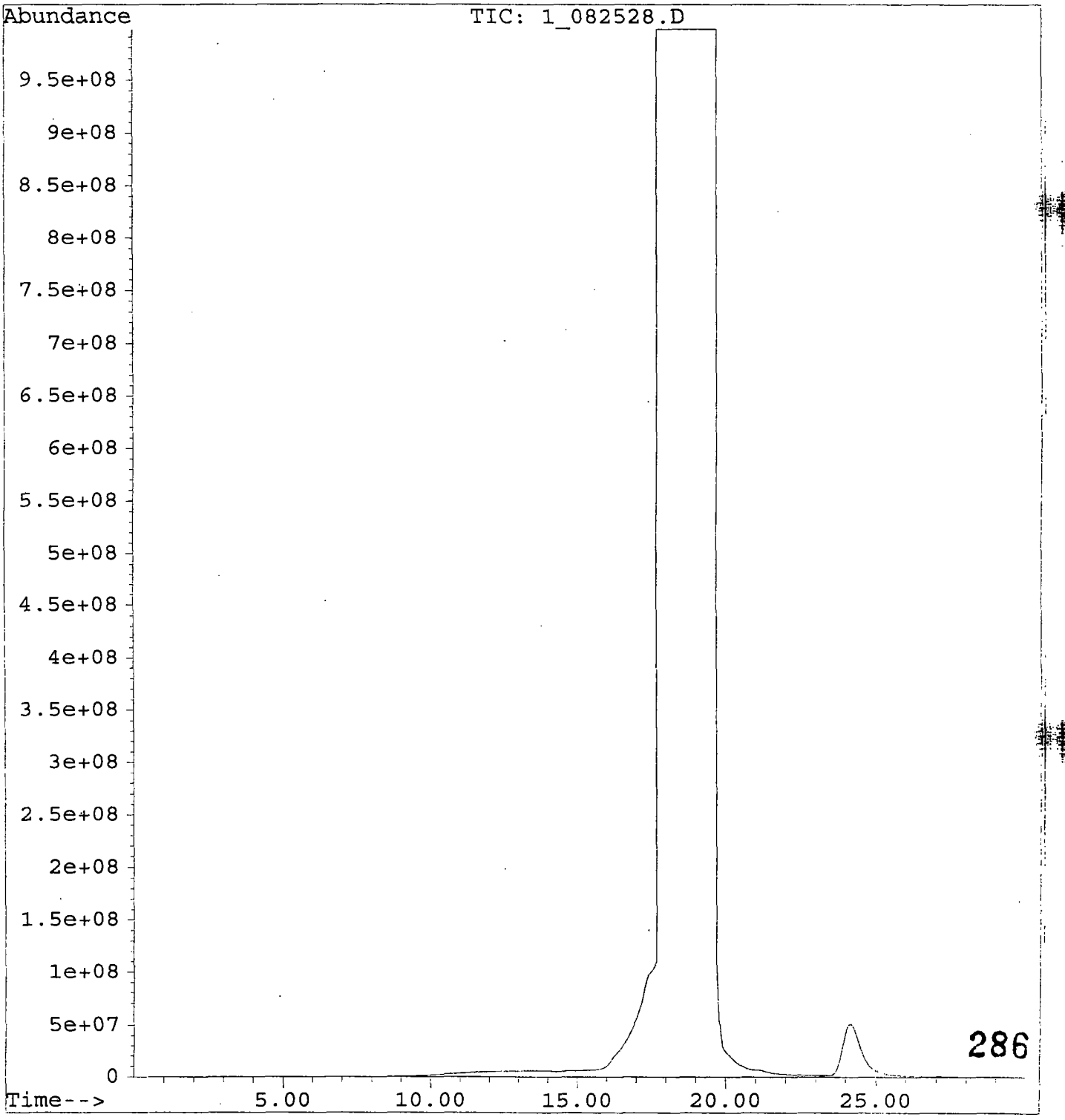
File : C:\HPCHEM\5\DATA\082501\1_082526.D
Operator : CR COL# 418002
Acquired : 26 Aug 01 03:17 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: 47325.10-E0356-EPA
Misc Info : COL# 418002
Vial Number: 26



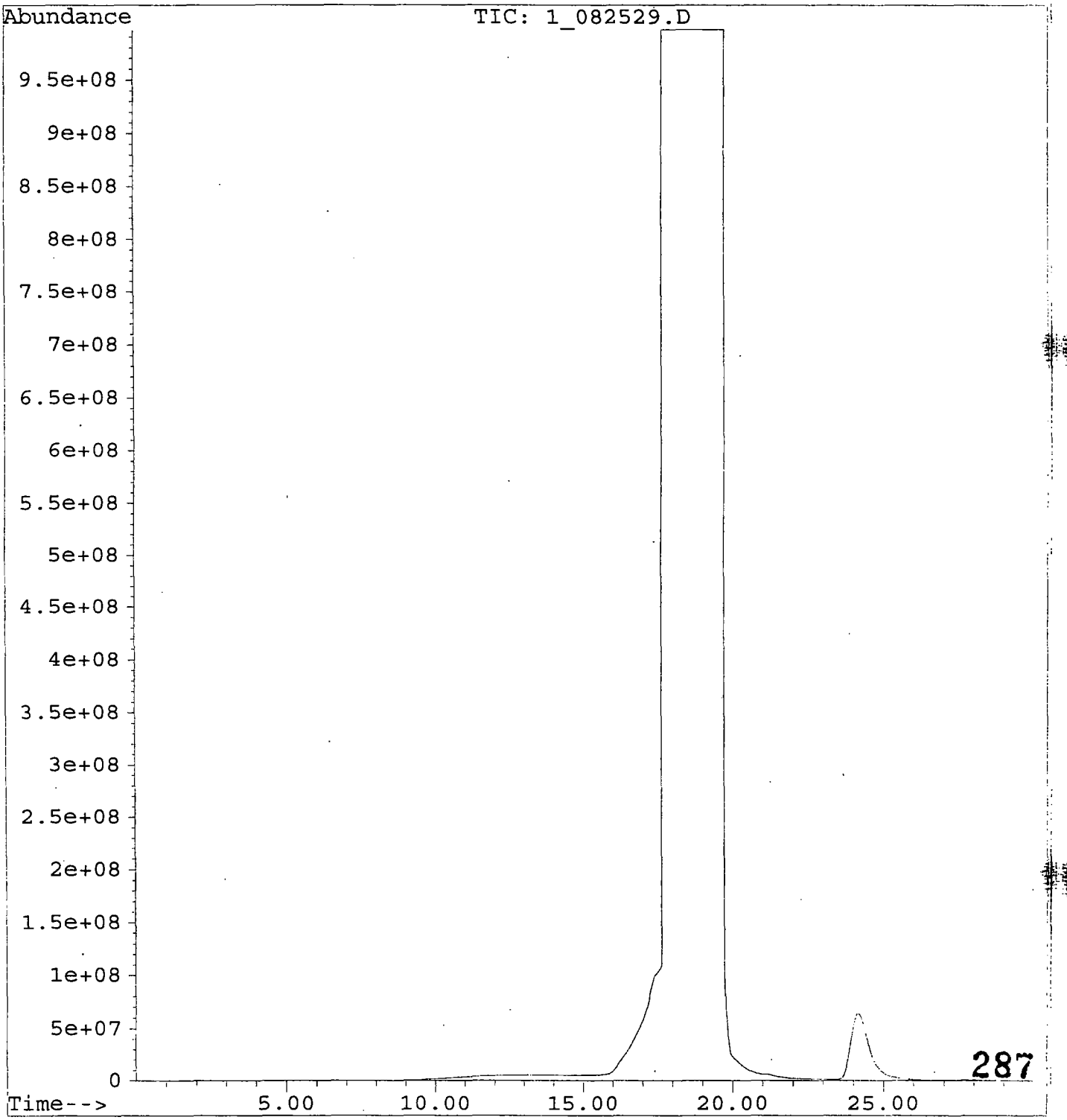
File : C:\HPCHEM\5\DATA\082501\1_082527.D
Operator : CR COL# 418002
Acquired : 26 Aug 01 03:48 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: 47325.17-E0363-EPA
Misc Info : COL# 418002
Vial Number: 27



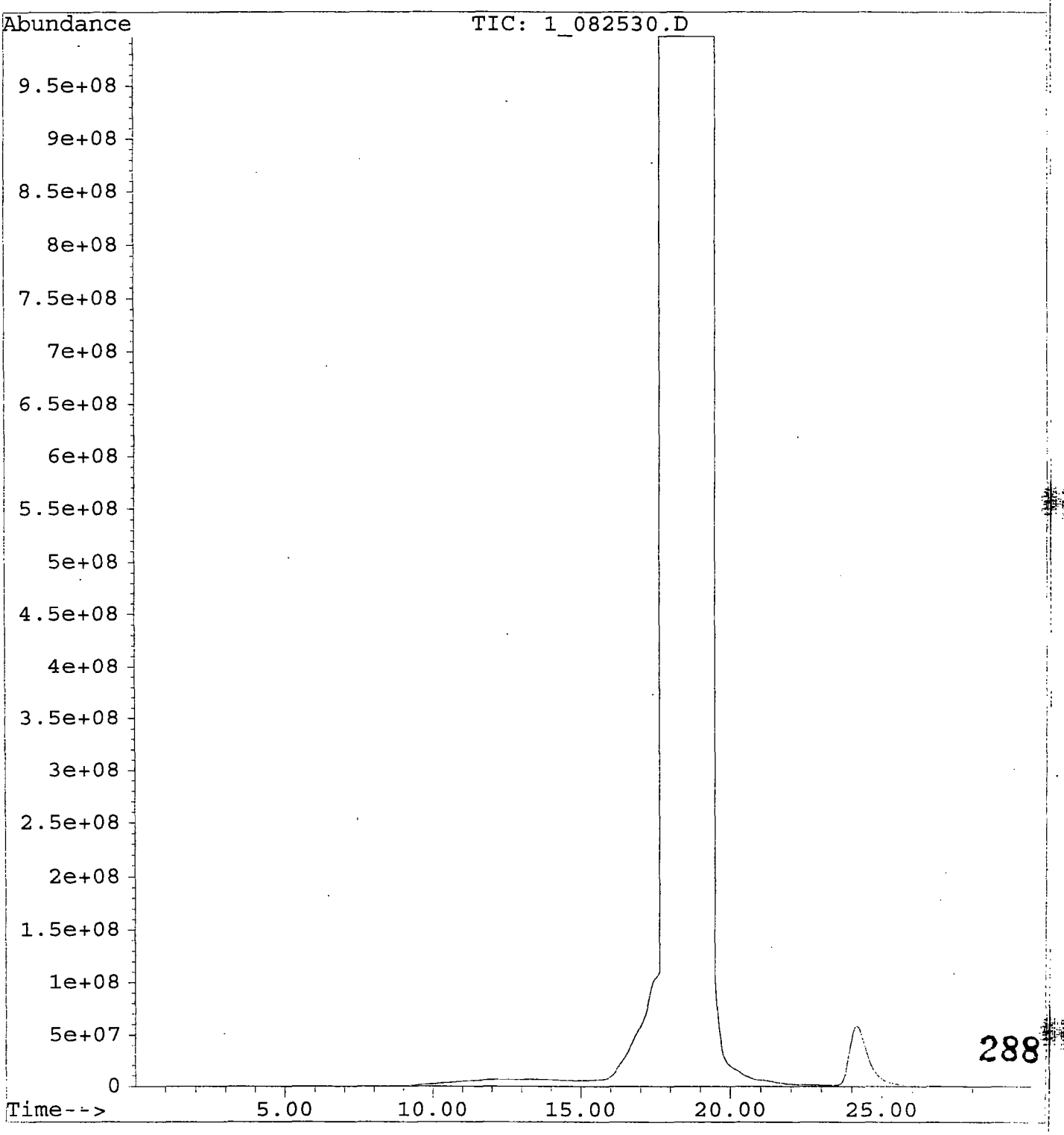
File : C:\HPCHEM\5\DATA\082501\1_082528.D
Operator : CR COL# 418002
Acquired : 26 Aug 01 04:19 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: 47325.02-E0349MS-EPA
Misc Info : COL# 418002
Vial Number: 28



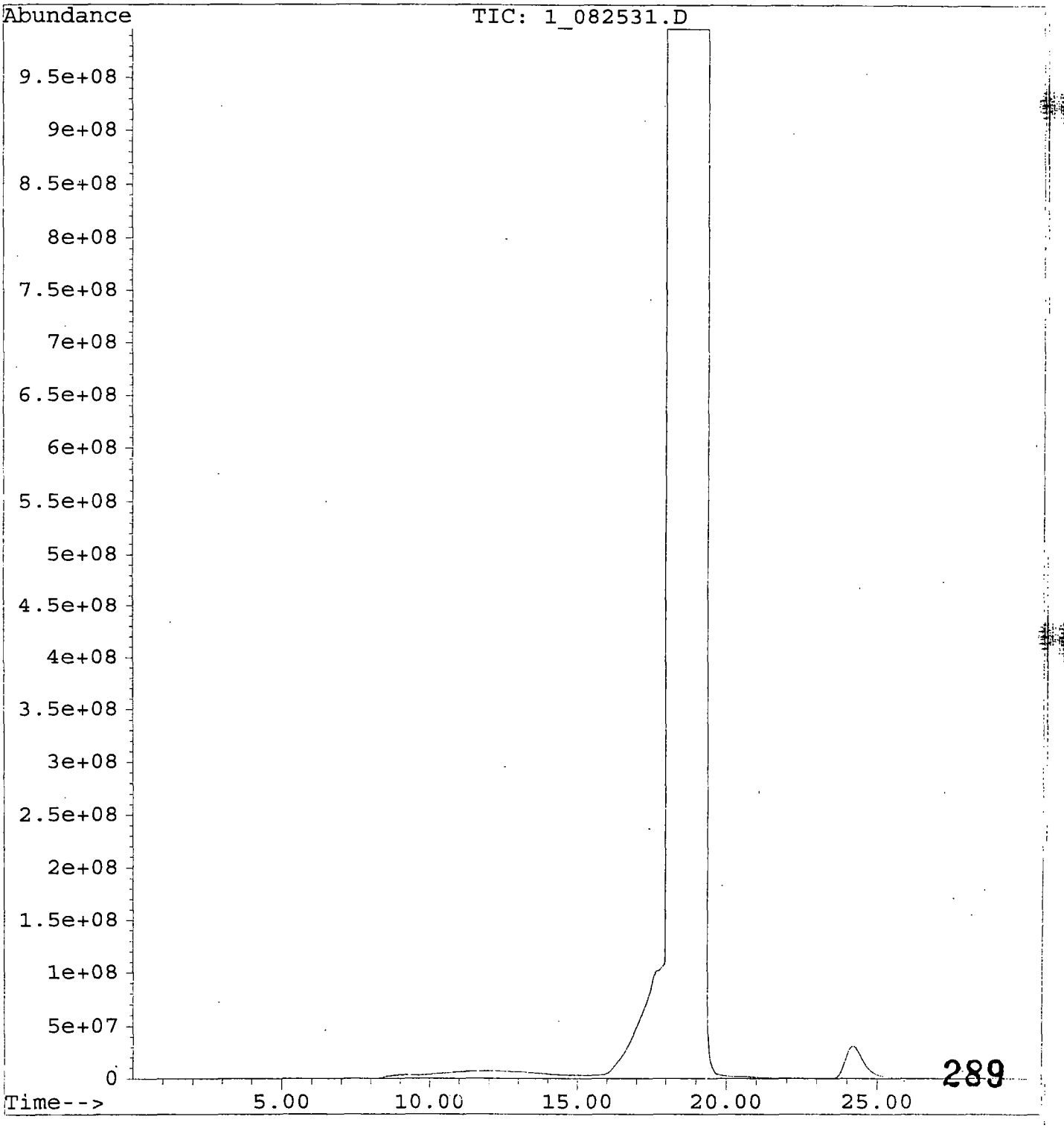
File : C:\HPCHEM\5\DATA\082501\1_082529.D
Operator : CR COL# 418002
Acquired : 26 Aug 01 04:50 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: 47325.01-E0349-EPA
Misc Info : COL# 418002
Vial Number: 29



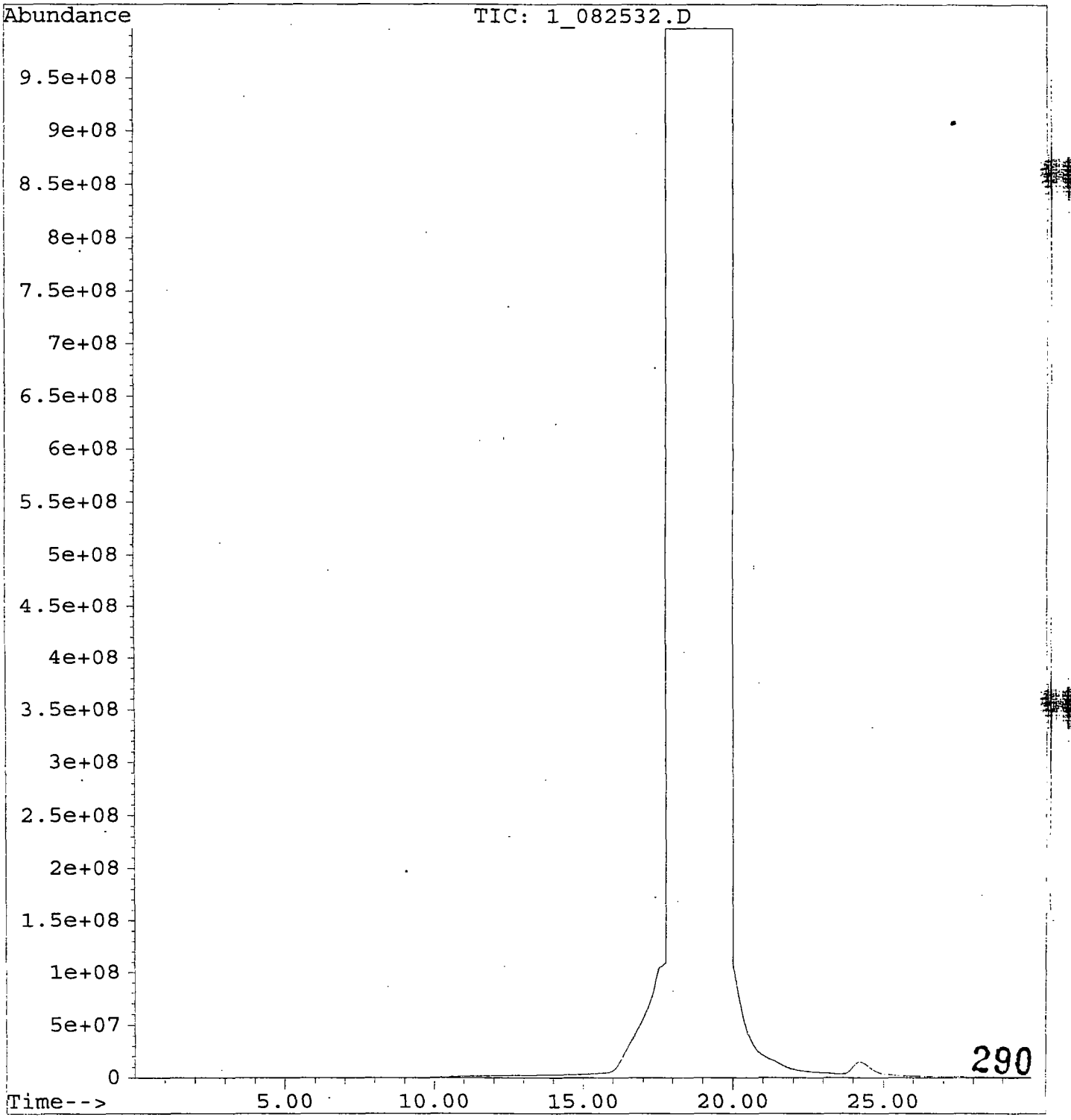
File : C:\HPCHEM\5\DATA\082501\1_082530.D
Operator : CR COL# 418002
Acquired : 26 Aug 01 05:21 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: 47325.03-E0349MSD-EPA
Misc Info : COL# 418002
Vial Number: 30



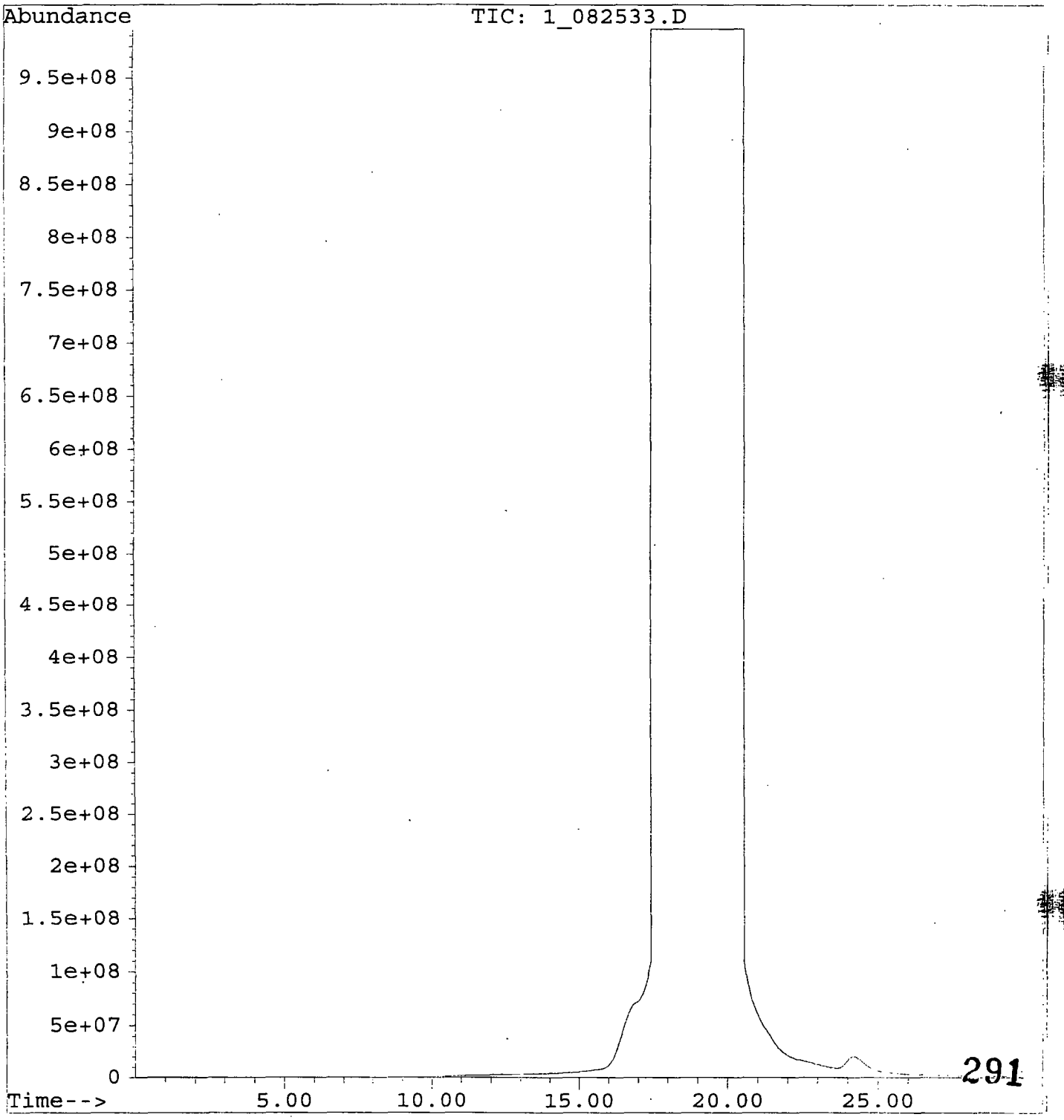
File : C:\HPCHEM\5\DATA\082501\1_082531.D
Operator : CR COL# 418002
Acquired : 26 Aug 01 05:53 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: 47325.13-E0359-EPA
Misc Info : COL# 418002
Vial Number: 31



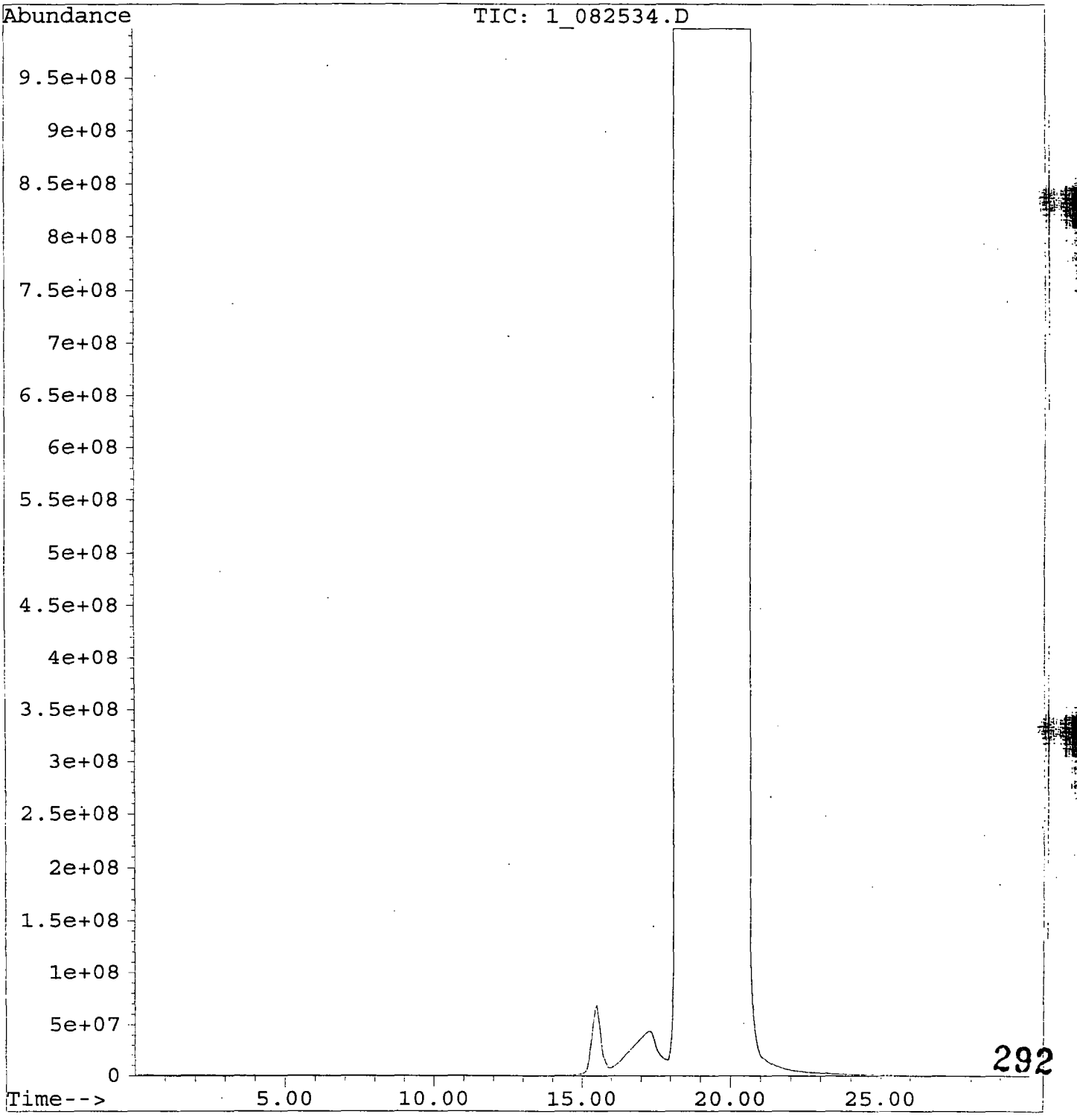
File : C:\HPCHEM\5\DATA\082501\1_082532.D
Operator : CR COL# 418002
Acquired : 26 Aug 01 06:24 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: 47325.05-E0351-EPA
Misc Info : COL# 418002
Vial Number: 32



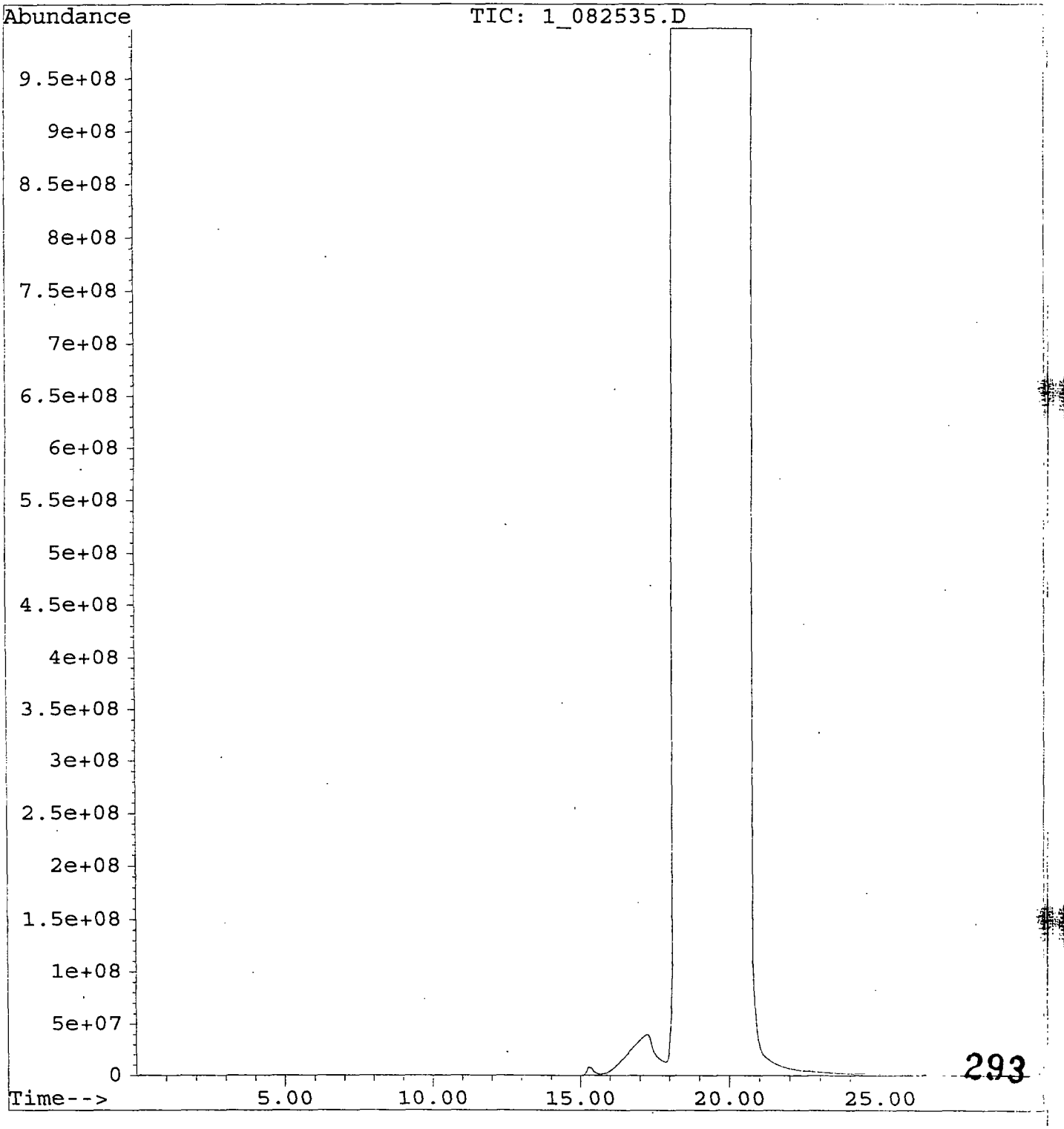
File : C:\HPCHEM\5\DATA\082501\1_082533.D
Operator : CR COL# 418002
Acquired : 26 Aug 01 06:55 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: 47325.04-E0350-EPA
Misc Info : COL# 418002
Vial Number: 33



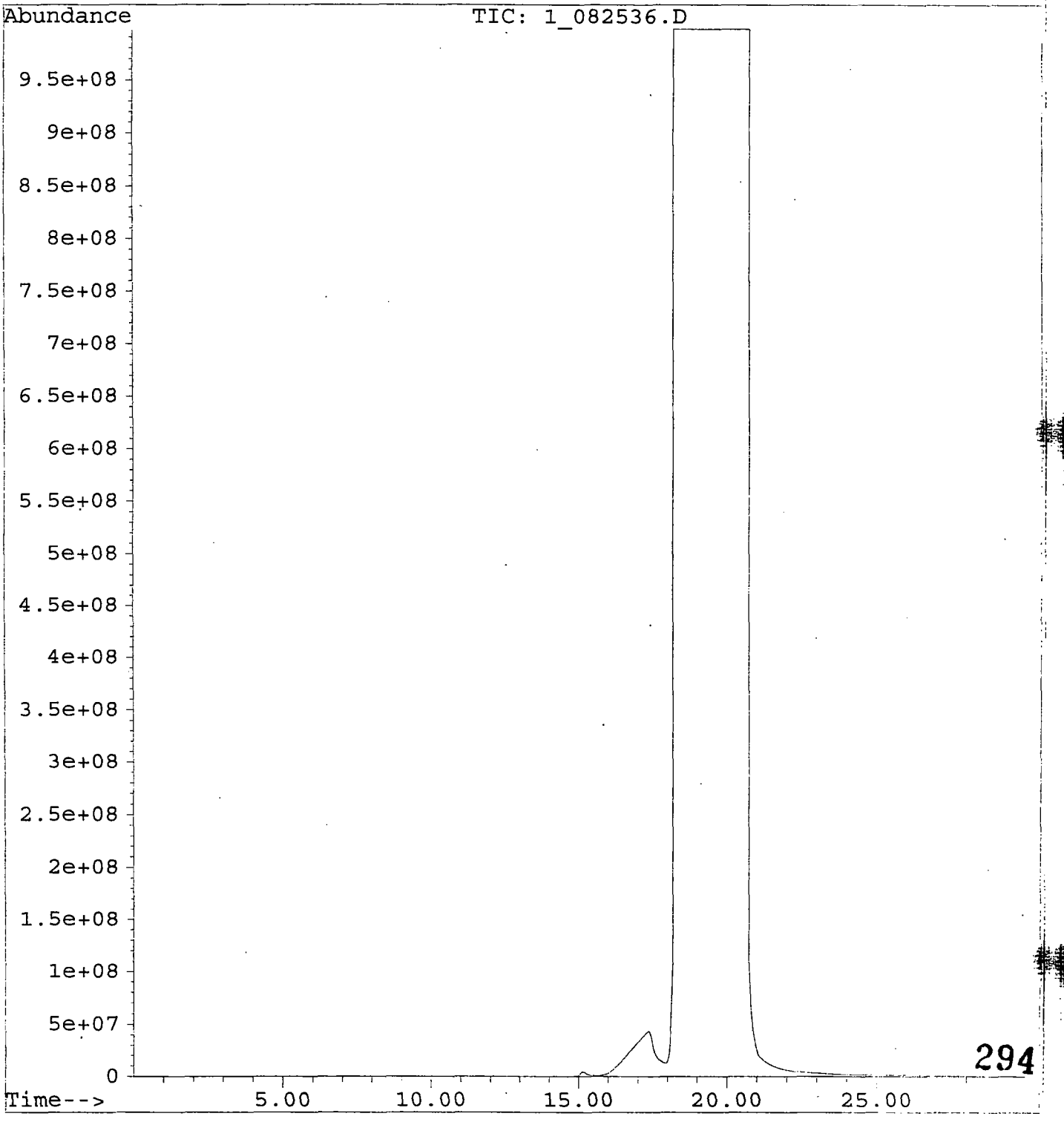
File : C:\HPCHEM\5\DATA\082501\1_082534.D
Operator : CR COL# 418002
Acquired : 26 Aug 01 07:26 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: SB
Misc Info : COL# 418002
Vial Number: 34



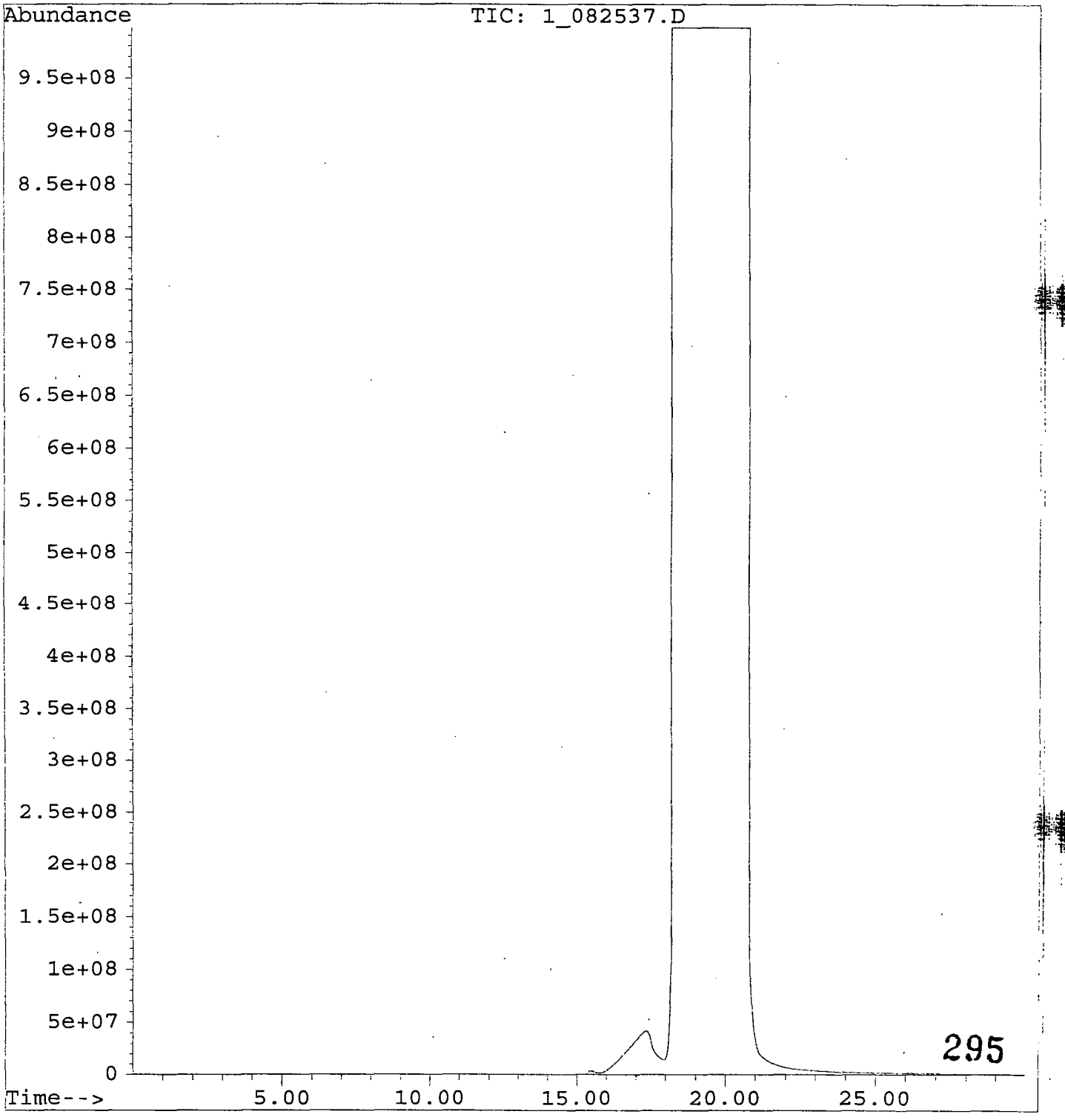
File : C:\HPCHEM\5\DATA\082501\1_082535.D
Operator : CR COL# 418002
Acquired : 26 Aug 01 07:57 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: SB
Misc Info : COL# 418002
Vial Number: 35



File : C:\HPCHEM\5\DATA\082501\1_082536.D
Operator : CR COL# 418002
Acquired : 26 Aug 01 08:28 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: SB
Misc Info : COL# 418002
Vial Number: 36

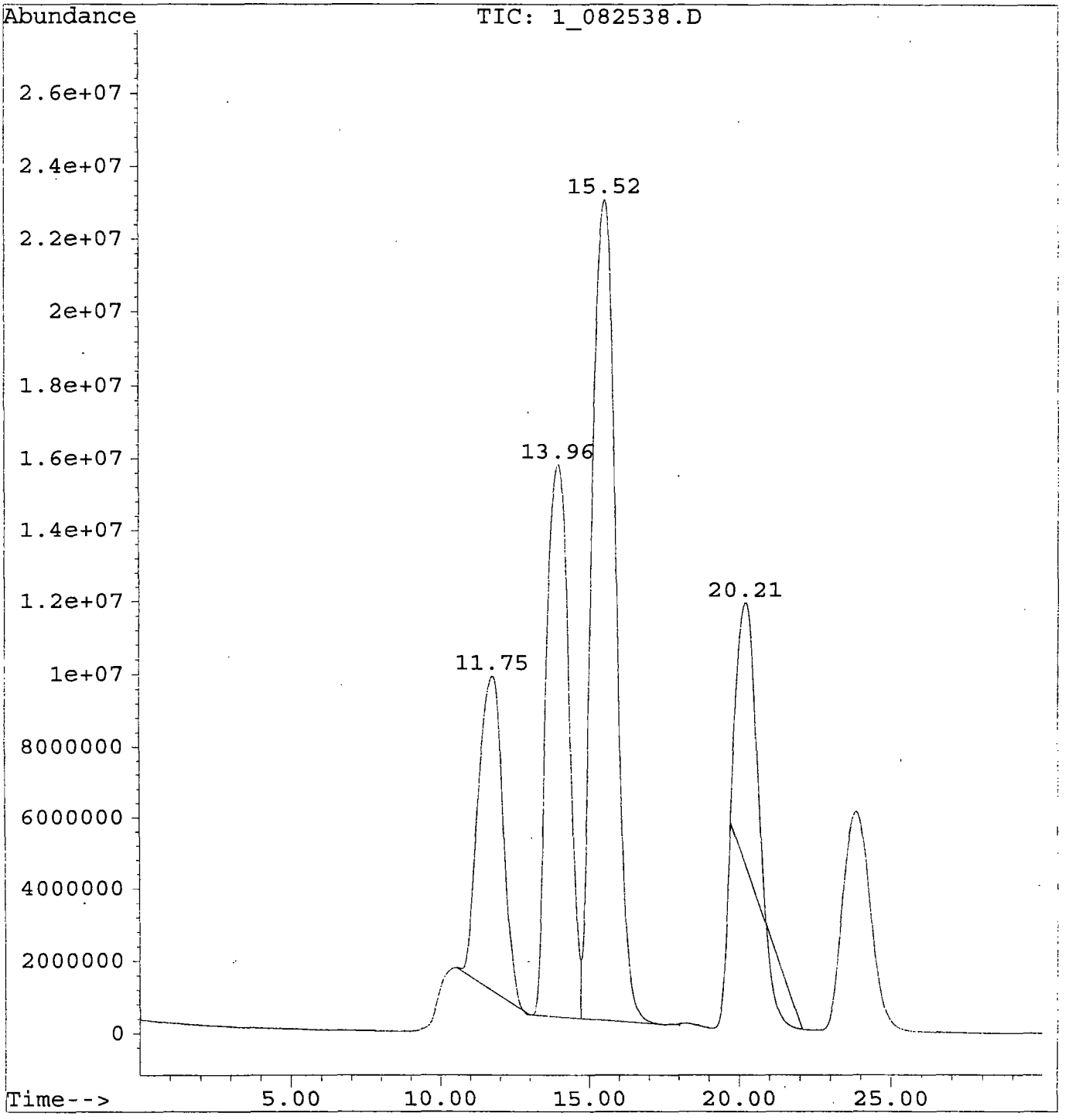


File : C:\HPCHEM\5\DATA\082501\1_082537.D
Operator : CR COL# 418002
Acquired : 26 Aug 01 08:59 using AcqMethod GPC.MTH
Instrument : GPC1
Sample Name: SB
Misc Info : COL# 418002
Vial Number: 37



Data File : C:\HPCHEM\5\DATA\082501\1_082538.D
Acq On : 26 Aug 01 09:30 AM
Sample : CAL STD (FINAL)
Misc : COL# 418002

Vial: 38
Operator: CR COL#
Inst : GPC1
Multiplr: 1.00



5) 11.75 = Corn Oil

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Chromatographic Resolution Report

Data File : C:\HPCHEM\5\DATA\082501\1_082538.D
Acq On : 26 Aug 01 09:30
Sample : CAL STD (FINAL)
Misc : COL# 418002

Vial: 38
Operator: CR COL# 41
Inst : GPC1
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\GPC.M
Title :

RT#1	RT#2	Resolution
11.754	13.958	100.00
13.958	15.516	89.93
15.516	20.206	100.00

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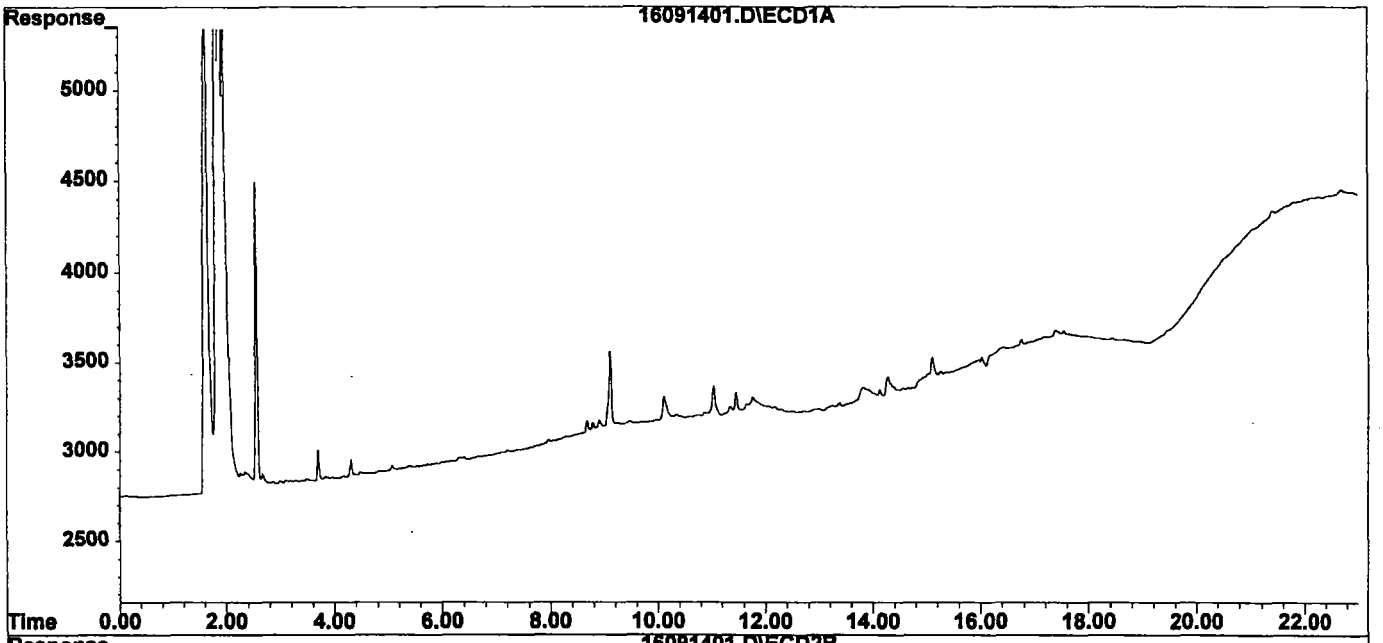
Chromatographic Report

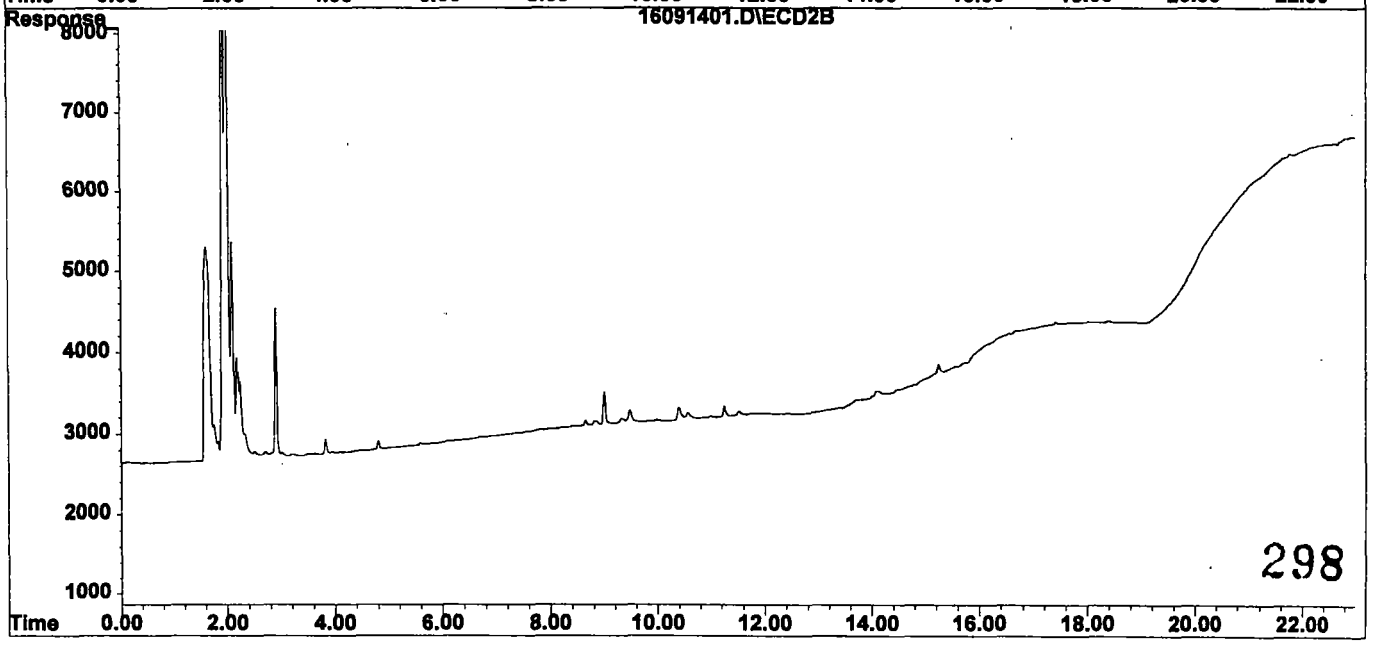
Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091401.D\ECD1A.CH Vial: 1
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091401.D\ECD2B.CH
Acq On : 14 Sep 2001 15:38 Operator: DDC
Sample : SB082501C *SB082501C * Inst : HP_16
Misc : **1000ML/10.0ML* Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 15 7:16 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Multiple Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

ok 9-19-01





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Quantitation Report

Signal #1 : F:\HPCHEM\HP\16\DATA\09_14_01\16091401.D\ECD1A.CH Vial: 1
Signal #2 : F:\HPCHEM\HP\16\DATA\09_14_01\16091401.D\ECD2B.CH
Acq On : 14 Sep 2001 15:38 Operator: DDC
Sample : SB082501C *SB082501C * Inst : HP_16
Misc : **1000ML/10.0ML* Dilution: 1.00
IntFile Signal #1: events1.e IntFile Signal #2: events2.e
Quant Time: Sep 15 7:16 2001 Quant Results File: XPCBI11.RES

Method : F:\HPCHEM\HP\16\DATA\09_14_01\XPCBI11.M
Title-Path : PCB/TOXAPHENE - F:\HPCHEM\HP\16\DATA\09_11_01\
Last Update : Wed Sep 05 14:36:59 2001
Response via : Initial Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : RTX-PEST 2 Signal #2 Phase: RTX-PEST
Signal #1 Info : .32 mm Signal #2 Info : .32 mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L

System Monitoring Compounds:

Target Compounds:

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest cal. std. (d)=compound deleted (H) Dil. < med. std
16091401.D XPCBI11.M Sat Sep 15 07:24:58 2001 Page 1

GC Laboratory Run Log - PESTICIDE/PCB

SWOK/AATS SWLO-OP-301 OP-301-RUNLOG-11 SWL Rev.#: 2.1

CASE NO.: SWLO INJ. VOL: 0.5 uL INSTRUMENT: HP_16
SDG NO. : SWLO METHOD FILE(S): XPCBI11 (OLM4.2)

DATE/TIME	CLIENT ID	SAMPLE ID	FILE	COMMENT
09/11/01 8:08	RESCCI	5-171-7	16091006	
09/11/01 11:25	HEXANE		16091101	OK
09/11/01 11:51	RESCCI	5-171-7	16091102	OK
09/11/01 12:18	AR1221L3CI	5-420-6	16091103	
09/11/01 13:15	AR1232L3CI	5-422-6	16091104	
09/11/01 13:41	AR1242L1CI	5-11-7	16091105	
09/11/01 14:08	AR1242L2CI	5-10-7	16091106	
09/11/01 14:34	AR1242L3CI	5-9-7	16091107	
09/11/01 15:01	AR1242L4CI	5-8-7	16091108	
09/11/01 15:28	AR1242L5CI	5-7-7	16091109	
09/11/01 15:55	AR1248L3CI	5-424-6	16091110	
09/11/01 16:21	AR1254L1CI	5-6-7	16091111	
09/11/01 16:48	AR1254L2CI	5-5-7	16091112	
09/11/01 17:14	AR1254L3CI	5-4-7	16091113	
09/11/01 17:41	AR1254L4CI	5-3-7	16091114	
09/11/01 18:07	AR1254L5CI	5-2-7	16091115	
09/11/01 18:34	AR1660L1CI	5-212-7	16091116	
09/11/01 19:00	AR1660L2CI	5-211-7	16091117	
09/11/01 19:27	AR1660L3CN	5-210-7	16091118	
09/11/01 19:53	AR1660L4CI	5-209-7	16091119	
09/11/01 20:19	AR1660L5CI	5-208-7	16091120	OK

Unless noted, Client Ids are the same for the quant. & confirmation columns

Blaine Bailey 091301 — Verification Signature/Date

9-13-01 — Analyst Signature/Date

300

GC Laboratory Run Log - PESTICIDE/PCB

SWOK/AATS SWLO-OP-301 OP-301-RUNLOG-11 SWL Rev.#: 2.1

CASE NO.: SWLO INJ. VOL: 0.5 uL INSTRUMENT: HP_16
SDG NO. : SWLO METHOD FILE(S): XPCBI11 (OLM4.2)

DATE/TIME	CLIENT ID	SAMPLE ID	FILE	COMMENT
09/11/01 20:46	PIBLKCW ✓	5-131-7	16091121	QC
09/11/01 21:12	SB082001A	SB082001A	16091122	
09/11/01 21:39	SB082001B	SB082001B	16091123	
09/11/01 22:05	PBLKSA	BL0815SA	16091124	
09/11/01 22:32	PBLKSA	BB0815SA	16091125	
09/11/01 22:58	ELCS1	LC0815SA	16091126	
09/11/01 23:25	ELCS2	LD0815SA	16091127	
09/11/01 23:51	E02F5	47268.01	16091128	
09/12/01 00:18	E02F6	47268.02	16091129	OK
09/12/01 00:44	E02F7	47268.03	16091130	DOC 9-13-01 OK
09/12/01 1:11	E02F8	47268.04	16091131	OK
09/12/01 1:37	HEXANE		16091132	SI
09/12/01 2:03	HEXANE		16091133	SI
09/12/01 2:30	HEXANE	HEXANE	16091134	SI
09/12/01 2:56	AR1660L3CO	5-210-7	16091135	
09/12/01 3:23	AR1660L3CP	5-210-7	16091136	
09/12/01 3:49	PIBLKCX	5-131-7	16091137	
09/12/01 4:16	E02F9	47268.05	16091138	OK
09/12/01 4:42	E02G0	47268.06	16091139	
09/12/01 5:08	E02G1	47268.07	16091140	
09/12/01 5:35	E02G2	47268.08	16091141	OK

Unless noted, Client Ids are the same for the quant. & confirmation columns

Diane Baldy 09/30/01
Verification Signature/Date

9-13-01
Analyst Signature/Date

301

GC Laboratory Run Log - PESTICIDE/PCB

SWOK AATS SWLO-OP-301 OP-301-RUNLOG-12 SWL Rev.#: 2.1

CASE NO.: SWLO INJ. VOL: 0.5 uL INSTRUMENT: HP_16
SDG NO. : SWLO METHOD FILE(S): XPCBI11 (OLM4.2)

DATE/TIME	CLIENT ID	SAMPLE ID	FILE	COMMENT
09/14/01 11:39	HEXANE		16091343	SI
09/14/01 12:06	HEXANE		16091344	SI
09/14/01 12:32	PIBLKCF ✓	5-131-7	16091345	OK
09/14/01 12:59	AR1660L3CF ✓	5-210-7	16091346	OK
09/14/01 13:25	AR1660L3CG	5-210-7	16091347	~

Unless noted, Client Ids are the same for the quant. & confirmation columns

9-14-01 9-14-01

Verification Signature/Date Analyst Signature/Date

Page No.: 3

GC Laboratory Run Log - PESTICIDE/PCB

SWOK/AATS SWLO-OP-301 OP-301-RUNLOG-12 SWL Rev.#: 2.1

CASE NO.: SWLO INJ. VOL: 0.5 uL INSTRUMENT: HP_16
SDG NO. : SWLO METHOD FILE(S): XPCBI11 (OLM4.2)

DATE/TIME	CLIENT ID	SAMPLE ID	FILE	COMMENT
09/14/01 15:38	SB082501C	SB082501C	16091401	OK
09/14/01 16:05	SB082501D	SB082501D	16091402	
09/14/01 16:32	PBLKSA	BL0821SA	16091403	
09/14/01 16:59	PBLKSA	BB0821SA	16091404	
09/14/01 17:25	ELCS1	LC0821SA	16091405	
09/14/01 17:53	ELCS2	LD0821SA	16091406	
09/14/01 18:19	E0307DL	47321.21DL	16091407	
09/14/01 18:46	E0349	47325.01	16091408	
09/14/01 19:12	E0349MS	47325.02MS	16091409	
09/14/01 19:38	E0349MSD	47325.03MSD	16091410	
09/14/01 20:05	E0350	47325.04	16091411	OK
09/14/01 20:32	HEXANE		16091412	SI
09/14/01 20:58	HEXANE		16091413	SI
09/14/01 21:25	HEXANE		16091414	SI
09/14/01 21:51	PIBLKCG	5-131-7	16091415	OK
09/14/01 22:17	AR1660L3CH	5-210-7	16091416	OK
09/14/01 22:44	AR1660L3CI	5-210-7	16091417	

Unless noted, Client Ids are the same for the quant. & confirmation columns

9/15/01 — Verification Signature/Date

9-14 — Analyst Signature/Date

Page No.: 4

GC Laboratory Run Log - PESTICIDE/PCB

SWOK AATS SWLO-OP-301 OP-301-RUNLOG-12 SWL Rev.#: 2.1

CASE NO.: SWLO INJ. VOL: 0.5 uL INSTRUMENT: HP_16
SDG NO. : SWLO METHOD FILE(S): XPCBI11 (OLM4.2)

DATE/TIME	CLIENT ID	SAMPLE ID	FILE	COMMENT
09/14/01 23:10	E0351	47325.05	16091418	OK
09/14/01 23:37	E0352	47325.06	16091419	
09/15/01 00:03	E0353	47325.07	16091420	
09/15/01 00:30	E0354	47325.08	16091421	
09/15/01 00:56	E0355	47325.09	16091422	
09/15/01 1:22	E0356	47325.10	16091423	
09/15/01 1:49	E0357	47325.11	16091424	
09/15/01 2:15	E0358	47325.12	16091425	
09/15/01 2:42	E0359	47325.13	16091426	
09/15/01 3:08	E0360	47325.14	16091427	OK
09/15/01 3:34	HEXANE		16091428	
09/15/01 4:01	HEXANE		16091429	
09/15/01 4:27	HEXANE		16091430	
09/15/01 4:54	PIBLKCH	5-131-7	16091431	OK
09/15/01 5:20	AR1660L3CJ	5-210-7	16091432	OK
09/15/01 5:47	AR1660L3CK	5-210-7	16091433	
09/15/01 6:13	E0361	47325.15	16091434	OK
09/15/01 6:39	E0362	47325.16	16091435	
09/15/01 7:06	E0363	47325.17	16091436	
09/15/01 7:32	E0364	47344.01	16091437	
09/15/01 7:59	E0365	47344.02	16091438	OK

Unless noted, Client Ids are the same for the quant. & confirmation columns

Blair Baldy 091801 — Verification Signature/Date

9-18-01 — Analyst Signature/Date

304

GC Laboratory Run Log - PESTICIDE/PCB

SWOK/AATS SWLO-OP-301 OP-301-RUNLOG-12 SWL Rev.#: 2.1

CASE NO.: SWLO INJ. VOL: 0.5 uL INSTRUMENT: HP_16
SDG NO. : SWLO METHOD FILE(S): XPCBI11 (OLM4.2)

DATE/TIME	CLIENT ID	SAMPLE ID	FILE	COMMENT
09/15/01 8:25	E0366	47344.03	16091439	OK
09/15/01 8:52	E0367	47344.04	16091440	d
09/15/01 9:18	E0368	47344.05	16091441	OK
09/15/01 9:44	HEXANE		16091442	SI
09/15/01 10:11	HEXANE		16091443	SI
09/15/01 10:37	HEXANE		16091444	SI
09/15/01 11:04	PIBLKCI	5-131-7	16091445	OK
09/15/01 11:30	AR1660L3CL	5-210-7	16091446	OK
09/15/01 11:57	AR1660L3CM	5-210-7	16091447	

Unless noted, Client Ids are the same for the quant. & confirmation columns

Blaine Belden 091801 — Verification Signature/Date

9-18-01 — Analyst Signature/Date

Page No.: 6

	SV	OD ST • PCB	OTHER
CONT EX. (3520C)			
SEP-F (3510C)			
SHAKER			
SONC. (3550B)		XXXXX	
SOXHLET			

☐ RUSH ☐ REEXTRACT ☐ TCLP ☐ DXIN

SAMPLE EXTRACTION LO

839

BATCH: 010821SA

EXTRACT DATE: 2001-08-21 09:20

002993
Page: 1 of 2

SAMPLE ID (EPISODE #)	CLIENT CASE	DATE RECEIVED CLIENT SAMPLE ID	MATRIX/LEVEL	SAMPLE pH	% MOISTURE %	DRY WEIGHT g	AMOUNT EXTRACTED g • (ml)	EXTRACTED VOLUME ml	GPC VOLUME ml	GPC ELUTE VOL ml	FLORISIL VOL CONC ml	FLORISIL FIN VOL CONC ml	VOL SV (P) ml	FIN PROCESS VOLUME ml	SCREEN Y/N Y/N	MS SV (P) µL	SURR SV (P) µL	BASE pH CONFIRMATION	ACID pH CONFIRMATION
BL0821SA			S/L				30.00	300	10/5	45	2.0		5.0	5.0	N		1000		
BB0821SA			S/L				30.00	300	10/5	45	2.0		5.0	5.0	N		1000		
LC0821SA			S/L				30.00	300	10/5	45	2.0		5.0	5.0	N	1000	1000		
LD0821SA			S/L				30.00	300	10/5	45	2.0		5.0	5.0	N	1000	1000		
47325.01 GC699	EPA 29602	08/17/2001 08:20 E0349	S/L	7.23	47.26	16.2	30.63	300	10/5	45	2.0		5.0	5.0	N		1000		
47325.02MS GC699	EPA 29602	08/17/2001 08:20 E0349MS	S/L	7.23	47.26	15.8	30.03	300	10/5	45	2.0		5.0	5.0	N	1000	1000		
47325.03MSD GC699	EPA 29602	08/17/2001 08:20 E0349MSD	S/L	7.23	47.26	16.0	30.25	300	10/5	45	2.0		5.0	5.0	N	1000	1000		
47325.04 GC699	EPA 29602	08/17/2001 08:20 E0350	S/L	8.16	48.70	15.8	30.76	300	10/5	45	2.0		5.0	5.0	N		1000		
47325.05 GC699	EPA 29602	08/17/2001 08:20 E0351	S/L	7.74	26.64	22.3	30.44	300	10/5	45	2.0		5.0	5.0	N		1000		
47325.06 GC699	EPA 29602	08/17/2001 08:20 E0352	S/L	8.41	15.74	25.4	30.15	300	10/5	45	2.0		5.0	5.0	N		1000		
47325.07 GC699	EPA 29602	08/17/2001 08:20 E0353	S/L	7.79	74.01	8.0	30.89	300	10/5	45	2.0		5.0	5.0	N		1000		
47325.08 GC699	EPA 29602	08/17/2001 08:20 E0354	S/L	7.43	87.43	3.8	30.11	300	10/5	45	2.0		5.0	5.0	N		1000		
47325.09 GC699	EPA 29602	08/17/2001 08:20 E0355	S/L	7.44	86.11	4.2	30.47	300	10/5	45	2.0		5.0	5.0	N		1000		
47325.10 GC699	EPA 29602	08/17/2001 08:20 E0356	S/L	7.37	87.02	3.9	30.05	300	10/5	45	2.0		5.0	5.0	N		1000		
47325.11 GC699	EPA 29602	08/17/2001 08:20 E0357	S/L	7.45	67.32	10.1	30.81	300	10/5	45	2.0		5.0	5.0	N		1000		

INITIALS

WEIGHING:	MC	EXTRACTION:	MC	FLORISIL:	CH2Cl2
CLEANUP:	GR	KD:	GS		acetone
BLOWDOWN:	SA	TV:	GS		Hexane
SURROG. SPIKER:	MC	VERIFIER:	GS		
MATRIX SPIKER:	MC	VERIFIER:	GS		
SUBMITTED BY:	SA	REVIEWED:			09/03

ID NUMBERS

FLORISIL CARTRIDGE #:

GPC COLUMN #: 418002 (08-25-01) #3640

SURROGATES ID CONC #: 5-157-7

MATRIX SPIKE SOLID/CONC #(s): 5-146-7

SOP METHOD # : SWL-OP- 415 Rev. 1.0

COMMENTS

SB # 082501A
SB # 082501D
Extracts went through silgel & acid clean-up.

	SV	OD ST • PCB	OTHER
CONT EX. (3520C)			
SEP-F (3510C)			
SHAKER			
SONC. (3550B)		XXXXX	
SOXHLET			

☐ RUSH ☐ REEXTRACT ☐ TCLP [OXIN

SAMPLE EXTRACTION L(

BATCH: 010821SA

EXTRACT DATE: 2001-08-21 09:20

002993

SAMPLE ID (EPISODE #)	CLIENT CASE	DATE RECEIVED CLIENT SAMPLE ID	MATRIXLEVEL	SAMPLE pH	% MOISTURE %	DRY WEIGHT g	AMOUNT EXTRACTED g • (ml)	EXTRACTED VOLUME ml	GPC VOLUME ml	GPC ELUTE VOL ml	FLORISIL VOL CONC ml	FLORISIL FIN VOL CONC ml	VOL SV (P) ml	FIN PROCESS VOLUME ml	SCREEN Y/N Y/N	MS SV (P) µL	SURR SV (P) µL	BASE pH CONFIRMATION	ACID pH CONFIRMATION
47325.12 GC699	EPA 29602	08/17/2001 08:20 E0358	S/L	7.78	26.24	22.8	30.87	300	10/5	45	2.0		5.0	5.0	N		1000		
47325.13 GC699	EPA 29602	08/17/2001 08:20 E0359	S/L	7.63	47.46	16.1	30.67	300	10/5	45	2.0		5.0	5.0	N		1000		
47325.14 GC699	EPA 29602	08/17/2001 08:20 E0360	S/L	7.59	30.83	21.1	30.44	300	10/5	45	2.0		5.0	5.0	N		1000		
47325.15 GC699	EPA 29602	08/17/2001 08:20 E0361	S/L	7.42	28.79	22.0	30.92	300	10/5	45	2.0		5.0	5.0	N		1000		
47325.16 GC699	EPA 29602	08/17/2001 08:20 E0362	S/L	7.56	20.99	24.0	30.39	300	10/5	45	2.0		5.0	5.0	N		1000		
47325.17 GC699	EPA 29602	08/17/2001 08:20 E0363	S/L	6.63	30.48	21.3	30.66	300	10/5	45	2.0		5.0	5.0	N		1000		
47344.01 GC699	XXXXXXXX XXXXXXXX	XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX	S/L	7.31	77.99	6.7	30.23	300	10/5	45	2.0		5.0	5.0	N		1000		
47344.02 GC699	XXXXXXXX XXXXXXXX	XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX	S/L	7.26	78.44	6.6	30.59	300	10/5	45	2.0		5.0	5.0	N		1000		
47344.03 GC699	XXXXXXXX XXXXXXXX	XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX	S/L	7.62	45.12	16.5	30.02	300	10/5	45	2.0		5.0	5.0	N		1000		
47344.04 GC699	XXXXXXXX XXXXXXXX	XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX	S/L	7.53	44.06	17.0	30.35	300	10/5	45	2.0		5.0	5.0	N		1000		
47344.05 GC699	XXXXXXXX XXXXXXXX	XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX	S/L	7.57	35.00	19.7	30.26	300	10/5	45	2.0		5.0	5.0	N		1000		

INITIALS

WEIGHING:	SA	EX:	MC	FLORISIL:
CLEANUP:	CR	KD:	GS	CH2Cl2
BLOWDOWN:	SA	TV:	GS	acetone
SURROG. SPIKER:	MC	VERIFIER:	GS	Hexane
MATRIX SPIKER:	MC	VERIFIER:	GS	

3017

Sen 09/03

ID NUMBERS

FLORISIL CARTRIDGE #:

GPC COLUMN #: 418002 (08-25-01) #36401

SURROGATES ID CONC #: 5-157-7

MATRIX SPIKE SOLID/CONC #(s): 5-146-7

METHOD: 1.0

COMMENTS

SB#082501C
SB#082501D
Extracts filtered through Silgel & acid clean-up

Southwest Laboratory of Oklahoma
1700 W. Albany Suite C
Broken Arrow, OK 74012-1421

INTERNAL CHAIN OF CUSTODY

Date	8/17/01
Episode	**47325**
Client	**EPA**
Project	OLM04.2
Received	08/17/01

Test Code	Cont ID	(Circle the Sample Numbers Checked out) #	#	#	#	#	#	#	Date/Time Out	Analyst	Date/Time In
GC699	A	1	2	3	4	5	6	7			
		8	9	10	11	12	13	14			
		15	16	17					08-21/9:50	ML	08/21/11:20
IN660	A	1	2	3	4	5	6	7			
		8	9	10	11	12	13	14			
		15	16	17					8-18/5:08	ML	08/18/12:00

	SV	OD ST • PCB	OTHER
CONT EX. (3520C)			
SEP-F (3510C)			
SHAKER			
SONC. (3550B)		XXXXX	
SOXHLET			

☐ RUSH ☐ REEXTRACT ☐ TCLP ☐ OXIN

SAMPLE EXTRACTION L

8/31

BATCH: 010821SA

EXTRACT DATE: 2001-08-21 09:20

002993
Page: 2 of 2

SAMPLE ID (EPISODE #)	CLIENT CASE	DATE RECEIVED CLIENT SAMPLE ID	MATRIX/LEVEL	SAMPLE pH	% MOISTURE	DRY WEIGHT	AMOUNT EXTRACTED	EXTRACTED VOLUME	GPC VOLUME	GPC ELUTE VOL	FLORISIL VOL CONC	FLORISIL FIN VOL CONC	VOL SV (P)	FIN PROCESS VOLUME	SCREEN Y/N	MS SV (P)	SURR SV (P)	BASE pH CONFIRMATION	ACID pH CONFIRMATION
					%	g	g • (ml)	ml	ml	ml	ml	ml	ml	ml	Y/N	µL	µL		
47325.12 GC699	XXXXXXXX XXXXXXXX	XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX	S/L	7.78	26.24	22.8	30.87	300	10/5	45	2.0		5.0	5.0	N		1000		
47325.13 GC699	XXXXXXXX XXXXXXXX	XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX	S/L	7.63	47.46	16.1	30.67	300	10/5	45	2.0		5.0	5.0	N		1000		
47325.14 GC699	XXXXXXXX XXXXXXXX	XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX	S/L	7.59	30.83	21.1	30.44	300	10/5	45	2.0		5.0	5.0	N		1000		
47325.15 GC699	XXXXXXXX XXXXXXXX	XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX	S/L	7.42	28.79	22.0	30.92	300	10/5	45	2.0		5.0	5.0	N		1000		
47325.16 GC699	XXXXXXXX XXXXXXXX	XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX	S/L	7.56	20.99	24.0	30.39	300	10/5	45	2.0		5.0	5.0	N		1000		
47325.17 GC699	XXXXXXXX XXXXXXXX	XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX	S/L	6.63	30.48	21.3	30.66	300	10/5	45	2.0		5.0	5.0	N		1000		
47344.01 GC699	EPA 29602	08/20/2001 08:15 E0364	S/L	7.31	77.99	6.7	30.23	300	10/5	45	2.0		5.0	5.0	N		1000		
47344.02 GC699	EPA 29602	08/20/2001 08:15 E0365	S/L	7.26	78.44	6.6	30.59	300	10/5	45	2.0		5.0	5.0	N		1000		
47344.03 GC699	EPA 29602	08/20/2001 08:15 E0366	S/L	7.62	45.12	16.5	30.02	300	10/5	45	2.0		5.0	5.0	N		1000		
47344.04 GC699	EPA 29602	08/20/2001 08:15 E0367	S/L	7.53	44.06	17.0	30.35	300	10/5	45	2.0		5.0	5.0	N		1000		
47344.05 GC699	EPA 29602	08/20/2001 08:15 E0368	S/L	7.57	35.00	19.7	30.26	300	10/5	45	2.0		5.0	5.0	N		1000		

INITIALS

WEIGHING:	SA	EXTRACTION:	MC	FLORISIL:	
CLEANUP:	SR	KD:	GS		CH2Cl2
BLOWDOWN:	SA	TV:	GS		acetone
SURROG. SPIKER:	MC	VERIFIER:	GS		Hexane
MATRIX SPIKER:	MC	VERIFIER:	GS		
SAMPLED BY:	SA	REVIEWED BY:			09/03

ID NUMBERS

FLORISIL CARTRIDGE #:

GPC COLUMN #: 418002 (08-25-01) #3640A

SURROGATES ID CONC #: 5-157-7

MATRIX SPIKE SOLID/CONC #(s): 5-146-7

COMMENTS

SB # 082501C
SB # 082501D
Extracts went through Silgel & acid clean-up

415 Rev. 1.0

Southwest Laboratory of Oklahoma
1700 W. Albany Suite C
Broken Arrow, OK 74012-1421

INTERNAL CHAIN OF CUSTODY

Date	8/20/01
Episode	**47344**
Client	**EPA**
Project	OLM04.2
Received	08/17/01

Test Code	Cont ID	#	#	#	#	#	#	#	Date/Time Out	Analyst	Date/Time In
		(Circle the Sample Numbers Checked out)									
GC699	A	1	2	3	4	5			08/21/9:50	ML	08-21/11:20
IN660	A	1	2	3	4	5			08/18 800	ML	08/18/1200

This portion can be removed for Recipient's records.

8/16/01 FedEx Tracking Number 821876980318

r's RICK MEHL Phone 847 918-4000

Company ROY F WESTON INC

450 OLD SKOKIE ROAD

ess 750 E. BUNTER [illegible] 8-17-01 8:20 Dept./Floor/Suite/Room

PARK CITY IL 60085

VERNON HILLS State ZIP 60061

Internal Billing Reference 12634.001.001.0067.00

This portion can be removed for Recipient's records.

8/16/01 FedEx Tracking Number 821876980307

r's RICK MEHL Phone 847 918-4000

mpany ROY F WESTON INC

450 OLD SKOKIE ROAD

ess [illegible] 8-17-01 8:20 Dept./Floor/Suite/Room

PARK CITY IL 60085

[illegible] State ZIP [illegible]

Internal Billing Reference 12634.001.001.0067.00

Original in 29602 EC759 8/18/01 ST

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

Case No: 29602
DAS No:
SDG No: E0349 **L**

Date Shipped: 8/16/2001
Carrier Name: FedEx
Airbill: 821876980307
Shipped to: Southwest Labs of Oklahoma, Inc. 1700 West Albany Suite C Broken Arrow OK 74012 (918) 251-0545

Chain of Custody Record

Sampler Signature:

Relinquished By	(Date / Time)	Received By	(Date / Time)
1	8/16/01 1730		8-17-01 8:20
2			
3			
4			

For Lab Use Only
Lab Contract No: 68W99079
Unit Price: 569.00
Transfer To:
Lab Contract No:
Unit Price:

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE	STATION LOCATION		SAMPLE COLLECT DATE/TIME		INORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt E0349
E0348	Sediment/ Joe Ruiz	L/G	PCBs (21)	050562 (Ice Only) (1)	AP-SD030-28-03	S:	8/16/2001	12:04	original in SDG # E0325	OK
E0349	Sediment/ Joe Ruiz	L/G	PCBs (21)	050563 (Ice Only) (1)	AP-SD030-28-04	S:	8/16/2001	12:04		8-17-01
E0350	Sediment/ Joe Ruiz	L/G	PCBs (21)	050564 (Ice Only) (1)	AP-SD030-28-05	S:	8/16/2001	12:04		
E0351	Sediment/ Joe Ruiz	L/G	PCBs (21)	050565 (Ice Only) (1)	AP-SD030-28-06	S:	8/16/2001	12:04		
E0358	Sediment/ Joe Ruiz	L/G	PCBs (21)	050572 (Ice Only) (1)	AP-SD036-37-05	S:	8/15/2001	15:30		
E0359	Sediment/ Joe Ruiz	L/G	PCBs (21)	050573 (Ice Only) (1)	AP-SD036-24-01	S:	8/15/2001	14:58		
E0360	Sediment/ Joe Ruiz	L/G	PCBs (21)	050574 (Ice Only) (1)	AP-SD036-24-02	S:	8/15/2001	14:58		
E0361	Sediment/ Joe Ruiz	L/G	PCBs (21)	050575 (Ice Only) (1)	AP-SD036-24-03	S:	8/15/2001	14:58		
E0362	Sediment/ Joe Ruiz	L/G	PCBs (21)	050576 (Ice Only) (1)	AP-SD036-24-04	S:	8/15/2001	14:58		
E0363	Sediment/ Joe Ruiz	L/G	PCBs (21)	050577 (Ice Only) (1)	AP-SD036-24-04DP	S:	8/15/2001	14:58		

Shipment for Case Complete?N	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Cooler Temperature Upon Receipt:	Chain of Custody Seal Number:
3	E0309, E0330, E0349		3.6 FB.	177834, 177835

Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Custody Seal Intact? Y	Shipment Iced? Y
PCBs = PCBs				

R Number: 5-490998136-081601-0002

LABORATORY COPY

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

Case No:	29602
DAS No:	
SDG No:	E0349

L

Date Shipped:	8/16/2001
Carrier Name:	FedEx
Airbill:	821876980307
Shipped to:	Southwest Labs of Oklahoma, Inc. 1700 West Albany Suite C Broken Arrow OK 74012 (918) 251-0545

Chain of Custody Record

Sampler Signature:

Relinquished By	(Date / Time)	Received By	(Date / Time)
1	8-16-01 1730		8-17-01 8:20
2			
3			
4			

For Lab Use Only

Lab Contract No:	68099079
Unit Price:	569.00
Transfer To:	
Lab Contract No:	
Unit Price:	

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE	STATION LOCATION		SAMPLE COLLECT DATE/TIME		INORGANIC SAMPLE No.	FOR LAB USE ONLY E0349 Sample Condition On Receipt
E0352	Sediment/ Joe Ruiz	L/G	PCBs (21)	050566 (Ice Only) (1)	AP-SD030-28-07	S:	8/16/2001	12:04		ok
E0353	Sediment/ Joe Ruiz	L/G	PCBs (21)	050567 (Ice Only) (1)	AP-SD036-37-01	S:	8/15/2001	15:30		8-17-01 ok
E0354	Sediment/ Joe Ruiz	L/G	PCBs (21)	050568 (Ice Only) (1)	AP-SD036-37-02	S:	8/15/2001	15:30		
E0355	Sediment/ Joe Ruiz	L/G	PCBs (21)	050569 (Ice Only) (1)	AP-SD036-37-02DP	S:	8/15/2001	15:30		
E0356	Sediment/ Joe Ruiz	L/G	PCBs (21)	050570 (Ice Only) (1)	AP-SD036-37-03	S:	8/15/2001	15:30		
E0357	Sediment/ Joe Ruiz	L/G	PCBs (21)	050571 (Ice Only) (1)	AP-SD036-37-04	S:	8/15/2001	15:30		

Shipment for Case Complete?N	Sample(s) to be used for laboratory QC: E0309, E0330, E0349	Additional Sampler Signature(s):	Cooler Temperature Upon Receipt: 3.6
Analysis Key: PCBs = PCBs	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Chain of Custody Seal Number: 177834, 177835
			Custody Seal Intact? Y Shipment Iced? Y

R Number: 5-490998136-081601-0002

LABORATORY COPY

R provides preliminary results. Requests for preliminary results will increase analytical costs.
nd Copy to: Contract Laboratory Analytical Services Support, 2000 Edmund Halley Dr., Reston, VA. 20191-3436 Phone 703/264-9348 Fax 703/264-9222

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

Case No: 29602
DAS No:
SDG No: E0349 **L**

Date Shipped: 8/17/2001
Carrier Name: FedEx
Airbill: 821876980400
Shipped to: Southwest Labs of Oklahoma, Inc. 1700 West Albany Suite C Broken Arrow OK 74012 (918) 251-0545

Chain of Custody Record

Sampler Signature:

Relinquished By	(Date / Time)	Received By	(Date / Time)
1	8-17-01 1245		8-2001 8:15
2			
3			
4			

For Lab Use Only
Lab Contract No: 68W99079
Unit Price: $69.00
Transfer To:
Lab Contract No:
Unit Price:

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE	STATION LOCATION		SAMPLE COLLECT DATE/TIME		INORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
E0364	Sediment/ Joe Ruiz	L/G	PCBs (21)	050578 (Ice Only) (1)	AP-SD036-21-01	S:	8/15/2001	15:45		
E0365	Sediment/ Joe Ruiz	L/G	PCBs (21)	050579 (Ice Only) (1)	AP-SD036-21-02	S:	8/15/2001	15:45		
E0366	Sediment/ Joe Ruiz	L/G	PCBs (21)	050580 (Ice Only) (1)	AP-SD036-21-03	S:	8/15/2001	15:45		
E0367	Sediment/ Joe Ruiz	L/G	PCBs (21)	050581 (Ice Only) (1)	AP-SD036-21-03DP	S:	8/15/2001	15:45		
* E0368	Sediment/ Joe Ruiz	L/G	PCBs (21)	050582 (Ice Only) (1)	AP-SD036-21-04	S:	8/15/2001	15:45		
E0369	Sediment/ Joe Ruiz	L/G	PCBs (21)	050583 (Ice Only) (1)	AP-SD036-38-01	S:	8/15/2001	14:49		
E0370	Sediment/ Joe Ruiz	L/G	PCBs (21)	050584 (Ice Only) (1)	AP-SD036-38-02	S:	8/15/2001	14:49		
E0371	Sediment/ Joe Ruiz	L/G	PCBs (21)	050585 (Ice Only) (1)	AP-SD036-38-03	S:	8/15/2001	14:49		
E0372	Sediment/ Joe Ruiz	L/G	PCBs (21)	050586 (Ice Only) (1)	AP-SD036-38-04	S:	8/15/2001	14:49		
E0373	Sediment/ Joe Ruiz	L/G	PCBs (21)	050587 (Ice Only) (1)	AP-SD036-30-01	S:	8/15/2001	16:42		

E0349

* SDG Final Sample

Shipment for Case Complete?N	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Cooler Temperature Upon Receipt:	Chain of Custody Seal Number:
319	E0369, E0389, E03A9		8.9C	177838 177839
Analysis Key: PCBs = PCBs	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G		Custody Seal Intact? Y / Shipment Iced? Y

R Number: 5-490998136-081701-0001

LABORATORY COPY

R provides preliminary results. Requests for preliminary results will increase analytical costs.
nd Copy to: Contract Laboratory Analytical Services Support, 2000 Edmund Halley Dr., Reston, VA. 20191-3436 Phone 703/264-9348 Fax 703/264-9222

Southwest Laboratory of Oklahoma
1700 W. Albany Suite C
Broken Arrow, OK 74012-1421

SAMPLE LOG-IN RECORD

REVIEWED
BY
DATE 8/17/01

Date 8/17/01 Page 1
Episode **47325**
Client **EPA**
Project OLM04.2
Received 08/17/01
Logged In 08/17/01

TEST	PRI	DUE	CONTAINER	DESCRIPTION	EXTRACTED	ANALYST	ANALYZED
Sample: **47325.01N1**			Sampled:08/16/01 12:04	ID:E0349	SDG:E0349	Matrix: S	Containers: 1
GC699	4	09/06/2001	A	NON STD PCB			
IN660	8	08/20/2001	A	% MOISTURE			
Sample: **47325.02MS1**			Sampled:08/16/01 12:04	ID:E0349MS	SDG:E0349	Matrix: S	Containers: 1
GC699	4	09/06/2001	A	NON STD PCB			
IN660	8	08/20/2001	A	% MOISTURE			
Sample: **47325.03SD1**			Sampled:08/16/01 12:04	ID:E0349MSD	SDG:E0349	Matrix: S	Containers: 1
GC699	4	09/06/2001	A	NON STD PCB			
IN660	8	08/20/2001	A	% MOISTURE			
Sample: **47325.04**			Sampled:08/16/01 12:04	ID:E0350	SDG:E0349	Matrix: S	Containers: 1
GC699	4	09/06/2001	A	NON STD PCB			
IN660	8	08/20/2001	A	% MOISTURE			
Sample: **47325.05**			Sampled:08/16/01 12:04	ID:E0351	SDG:E0349	Matrix: S	Containers: 1
GC699	4	09/06/2001	A	NON STD PCB			
IN660	8	08/20/2001	A	% MOISTURE			
Sample: **47325.06**			Sampled:08/16/01 12:04	ID:E0352	SDG:E0349	Matrix: S	Containers: 1
GC699	4	09/06/2001	A	NON STD PCB			
IN660	8	08/20/2001	A	% MOISTURE			
Sample: **47325.07**			Sampled:08/16/01 15:30	ID:E0353	SDG:E0349	Matrix: S	Containers: 1
GC699	4	09/06/2001	A	NON STD PCB			
IN660	8	08/20/2001	A	% MOISTURE			
Sample: **47325.08**			Sampled:08/16/01 15:30	ID:E0354	SDG:E0349	Matrix: S	Containers: 1
GC699	4	09/06/2001	A	NON STD PCB			
IN660	8	08/20/2001	A	% MOISTURE			
Sample: **47325.09**			Sampled:08/16/01 15:30	ID:E0355	SDG:E0349	Matrix: S	Containers: 1
GC699	4	09/06/2001	A	NON STD PCB			
IN660	8	08/20/2001	A	% MOISTURE			
Sample: **47325.10**			Sampled:08/16/01 15:30	ID:E0356	SDG:E0349	Matrix: S	Containers: 1
GC699	4	09/06/2001	A	NON STD PCB			
IN660	8	08/20/2001	A	% MOISTURE			
Sample: **47325.11**			Sampled:08/16/01 15:30	ID:E0357	SDG:E0349	Matrix: S	Containers: 1
GC699	4	09/06/2001	A	NON STD PCB			
IN660	8	08/20/2001	A	% MOISTURE			
Sample: **47325.12**			Sampled:08/16/01 15:30	ID:E0358	SDG:E0349	Matrix: S	Containers: 1
GC699	4	09/06/2001	A	NON STD PCB			
IN660	8	08/20/2001	A	% MOISTURE			
Sample: **47325.13**			Sampled:08/16/01 14:58	ID:E0359	SDG:E0349	Matrix: S	Containers: 1
GC699	4	09/06/2001	A	NON STD PCB			
IN660	8	08/20/2001	A	% MOISTURE			
Sample: **47325.14**			Sampled:08/16/01 14:58	ID:E0360	SDG:E0349	Matrix: S	Containers: 1
GC699	4	09/06/2001	A	NON STD PCB			

Southwest Laboratory of Oklahoma
1700 W. Albany Suite C
Broken Arrow, OK 74012-1421

SAMPLE LOG-IN RECORD

Date	8/17/01	Page2
Episode	**47325**	
Client	**EPA**	
Project	OLM04.2	
Received	08/17/01	
Logged In	08/17/01	

TEST	PRI	DUE	CONTAINER	DESCRIPTION	EXTRACTED	ANALYST	ANALYZED
IN660	8	08/20/2001	A	% MOISTURE			
Sample: **47325.15**		Sampled:08/16/01 14:58		ID:E0361	SDG:E0349	Matrix: S	Containers: 1
GC699	4	09/06/2001	A	NON STD PCB			
IN660	8	08/20/2001	A	% MOISTURE			
Sample: **47325.16**		Sampled:08/16/01 14:58		ID:E0362	SDG:E0349	Matrix: S	Containers: 1
GC699	4	09/06/2001	A	NON STD PCB			
IN660	8	08/20/2001	A	% MOISTURE			
Sample: **47325.17**		Sampled:08/16/01 14:58		ID:E0363	SDG:E0349	Matrix: S	Containers: 1
GC699	4	09/06/2001	A	NON STD PCB			
IN660	8	08/20/2001	A	% MOISTURE			

Southwest Laboratory of Oklahoma
1700 W. Albany Suite C
Broken Arrow, OK 74012-1421

SAMPLE LOG-IN RECORD

REVIEWED
BY
DATE 8-20-01

Date	08/20/2001 Page 1
Episode	**47344**
Client	**EPA**
Project	OLM04.2
Received	08/20/01
Logged In	08/20/01

TEST	PRI	DUE	CONTAINER	DESCRIPTION	EXTRACTED		ANALYST	ANALYZED
Sample: **47344.01**		Sampled:08/15/01	15:45	ID:E0364		SDG:E0349 Matrix:	S	Containers: 1
GC699	4	09/09/2001	A	NON STD PCB				
IN660	8	08/22/2001	A	% MOISTURE				
Sample: **47344.02**		Sampled:08/15/01	15:45	ID:E0365		SDG:E0349 Matrix:	S	Containers: 1
GC699	4	09/09/2001	A	NON STD PCB				
IN660	8	08/22/2001	A	% MOISTURE				
Sample: **47344.03**		Sampled:08/15/01	15:45	ID:E0366		SDG:E0349 Matrix:	S	Containers: 1
GC699	4	09/09/2001	A	NON STD PCB				
IN660	8	08/22/2001	A	% MOISTURE				
Sample: **47344.04**		Sampled:08/15/01	15:45	ID:E0367		SDG:E0349 Matrix:	S	Containers: 1
GC699	4	09/09/2001	A	NON STD PCB				
IN660	8	08/22/2001	A	% MOISTURE				
Sample: **47344.05**		Sampled:08/15/01	15:45	ID:E0368		SDG:E0349 Matrix:	S	Containers: 1
GC699	4	09/09/2001	A	NON STD PCB				
IN660	8	08/22/2001	A	% MOISTURE				

SAMPLE LOG-IN SHEET

Lab Name	SOUTHWEST LABORATORY OF OKLAHOMA
Page	1 of 1
Received by (Print Name)	JASON SPRIGGS
Log-In Date	2001-08-17 14:37
Received by (Signature)	
Case Number	29602
Sample Delivery Group No.	E0349
SAS Number	

Remarks: Cooler: 08/17/01-1

1. Custody Seals(s)	Present/Absent* Intact/ Broken
2. Custody Seal Nos.	177834-835
3. Chain-of Custody Records	Present/Absent*
4. Traffic Reports or Packing Lists	Present/Absent*
5. Airbill	Airbill/ Sticker Present/Absent*
6. Airbill No.	821876980307
7. Sample Tags	Present/Absent*
Sample Tag Numbers	Listed/Not Listed on Chain-of-Custody
8. Sample Condition	Intact/ Broken*/Leaking
Cooler Temperature Indicator Bottle	Present/Absent*
9. Cooler Temperature	3.6c
10. Does Information on Custody records, traffic reports, and sample tags agree?	Yes/ No*
11. Date Received at Lab	08/17/01
12. Time Received	08:20

Sample Transfer	
Fraction PCB	Fraction
Area # 9	Area #
By JS	By
On 8-17-01	On

EPA Sample #	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment: etc,
E0349	050563	47325.01	
E0349MS	050563	47325.02	
E0349MSD	050563	47325.03	
E0350	050564	47325.04	
E0351	050565	47325.05	
E0352	050566	47325.06	
E0353	050567	47325.07	
E0354	050568	47325.08	
E0355	050569	47325.09	
E0356	050570	47325.10	
E0357	050571	47325.11	
E0358	050572	47325.12	
E0359	050573	47325.13	
E0360	050574	47325.14	
E0361	050575	47325.15	
E0362	050576	47325.16	
E0363	050577	47325.17	

* Contact SMO and attach record of resolution.

Reviewed By	Logbook No. 340
Date 8/17/01	Logbook Page No.

SAMPLE LOG-IN SHEET

Lab Name SOUTHWEST LABORATORY OF OKLAHOMA	Page 1 of 1
Received by (Print Name) JASON SPRIGGS	Log-In Date 2001-08-20 13:23
Received by (Signature)	
Case Number 29602	Sample Delivery Group No. E0349 / SAS Number

Remarks: Cooler: 08/20/01-1

1. Custody Seals(s)	Present/Absent* Intact/ Broken
2. Custody Seal Nos.	177838-839
3. Chain-of Custody Records	Present/Absent*
4. Traffic Reports or Packing Lists	Present/Absent*
5. Airbill	Airbill/ Sticker Present/Absent*
6. Airbill No.	821876980400
7. Sample Tags	Present/Absent*
Sample Tag Numbers	Listed/Not Listed on Chain-of-Custody
8. Sample Condition	Intact/ Broken*/Leaking
Cooler Temperature Indicator Bottle	Present/Absent*
9. Cooler Temperature	0.9c
10. Does Information on Custody records, traffic reports, and sample tags agree?	Yes/ No*
11. Date Received at Lab	08/20/01
12. Time Received	08:15

EPA Sample #	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment: etc,
E0364	050578	47344.01	
E0365	050579	47344.02	
E0366	050580	47344.03	
E0367	050581	47344.04	
E0368	050582	47344.05	

Sample Transfer	
Fraction VOB	Fraction
Area # 9	Area #
By JS	By
On 8-20-01	On

* Contact SMO and attach record of resolution.

Reviewed By	Logbook No. 341
Date 8-20-01	Logbook Page No.

Harry Borg
From: Bauer, Heather [Heather.Bauer@dyncorp.com]
Sent: Friday, August 24, 2001 3:53 PM
To: Harry Borg (E-mail)
Cc: Howard Pham (E-mail); Tonya Balla (E-mail)
Subject: Requesting modification for FRACTION: PEST (modification PCB-REG5) a...

Harry,
Following is the resolution from Region 5. Per the Region, the lab should proceed with the dilutions as recommended. However, the lab should continue to re-extract the samples and re-analyze when the DCB surrogate is outside the QC limits as per the analytical method. Please note the issues in the case narrative and let me know if you have any other questions or problems.

Thanks,
Heather

Heather Bauer
DynCorp
(703)264-9348

-----Original Message-----

From: H161259@aol.com [mailto:H161259@aol.com]
Sent: Friday, August 24, 2001 4:08 PM
To: Bauer, Heather
Subject: Re: FW: Requesting modification for FRACTION: PEST (modification PCB-REG5) a...

Hi Heather,

Please ask the proceed the analyses with the dilution as they recommended, however, they should reextraction the sample with DCB is out of the limits as Linda's resolution.

Thanks,

Howard Pham

-----Original Message-----

From: Heather Bauer [mailto:heather.bauer@dyncorp.com]
Sent: Friday, August 24, 2001 2:55 PM
To: 'Howard at home (E-mail)'
Subject: FW: Requesting modification for FRACTION: PEST (modification PCB-REG5) analyses, Case # 29546,29602 & 29658
Importance: High

Howard,

Following is the response from the sampler. Please advise on how the lab should proceed as quickly as possible.

Thanks,
Heather

Heather Bauer
DynCorp
(703)264-9348

-----Original Message-----

From: **Mark and Tonya Balla [mailto:ballamt@voyager.net]**
Sent: Sunday, August 26, 2001 2:35 PM
To: Bauer, Heather; Howard at home (E-mail)
Cc: short.thomas@epamail.epa.gov; mehlr@mail.rfweston.com
Subject: RE: Requesting modifcation for FRACTION: PEST (modification PCB-REG5) analyses, Case # 29546,29602 & 29658
Importance: High

Howard,

I forwarded on the request to our START QA/QC officer/chemist and her thoughts are included below. If the dilution procedure is modified, please ensure that the laboratory includes this in all applicable data package narratives to aid with data validation.

Thanks
Tonya Balla
Roy F. Weston

> ----------

From: **Korobka, Linda**
Sent: Friday, August 24, 2001 2:13:00 PM
To: Balla, Tonya
Cc: Korobka, Linda
Subject: Modification for PCB analyses for Allied Paper Site samples
Auto forwarded by a Rule

Tonya,

It is my professional opinion that the modification to the dilution procedure for the PCB analyses performed on the Allied Paper Site samples as described by Harry Borg (SWOK Organic Program Manager) is acceptable and should give WESTON and the U.S. EPA acceptable results.

However, I do not agree with changing the DCB surrogate requirement for

re-extracting when the DCB recovery is outside the QC limits high. I feel

that the lab should continue to re-extract the samples and re-analyze when the DCB surrogate is outside the QC limits as per the analytical method.

Linda Korobka
Roy F. Weston, Inc.
Suite 100
2501 Jolly Road
Okemos, Michigan 48864
Telephone: (517) 381-5936

-----Original Message-----

From: **Bauer, Heather [mailto:Heather.Bauer@dyncorp.com]**
Sent: Friday, August 24, 2001 10:24 AM
To: Howard at home (E-mail); Tonya Balla (E-mail)
Subject: FW: Requesting modifcation for FRACTION: PEST (modification PCB-REG5) analyses, Case # 29546,29602 & 29658

> ----------

From: **Bauer, Heather[SMTP:HEATHER.BAUER@DYNCORP.COM]**
Sent: Friday, August 24, 2001 11:23:43 AM
To: Howard at home (E-mail); Tonya Balla (E-mail)
Subject: FW: Requesting modifcation for FRACTION: PEST (modification PCB-REG5) analyses, Case # 29546,29602 & 29658
Auto forwarded by a Rule

Howard,
Following is an e-mail from SWOK regarding the Allied Paper site. Please advise on how the lab should proceed as quickly as possible.

Thanks,
Heather

Heather Bauer
DynCorp
(703)264-9348

-----Original Message-----

From: **hborg@swlab.com [mailto:hborg@swlab.com]**
Sent: Friday, August 24, 2001 10:41 AM
To: Bauer, Heather
Cc: smith.terry@epa.gov; rharris@swlab.com
Subject: Requesting modifcation for FRACTION: PEST (modification PCB-REG5) analyses, Case # 29546,29602 & 29658

Heather,
Please check with region 5 to see if we can make the following modifications for the analyses of these PCB samples. The majority of the samples analyzed to up to this time are requiring dilutions for PCBs ranging from 10 to 100 fold. Method OLM04.2 requires a minimum of a 10 fold more concentrated extract analyses when dilutions are done. The laboratory is requesting a wavier or modification to forgo this requirement. This will allow the laboratory to do original dilutions on the samples and only run them more concentrated if aroclors are not detected within the instruments calibration range. This will speed up the analytical process and also reduce the cost to the region.

The laboratory would also like the region to review the DCB surrogate requirement for re-extracting when the DCB recovery is outside of QC limits high. To date the majority of all re-extracts taken place for this reason have duplicate the original analyses. At his time the laboratory is only sending the samples back for re-extract when the surrogate is outside of limits on both columns.

This will also help speed up the analytical process and help reduce the cost to the region.

Harry M. Borg
Organic Program Manager
SWOK

`equired OLM04.2 Changes

OLM04.2 requires contract laboratories to analyze samples for Pesticides and Aroclors through the protocol outlined in Exhibit D, Analytical Methods for Pesticides/Aroclors. Specific target analytes and their associated contract required quantitation limits (CRQL) are listed in Exhibit C, Section 3.0, page C-8 of OLM04.2.

The proposed modified analysis will require the laboratory to use sample cleanup and analysis techniques not currently written into OLM04.2. The cleanup techniques to be used should generally follow guidelines for Silica Gel cleanup as presented in SW 846 Method 3630, followed by Sulfuric acid cleanup as presented in SW 846 method 3665A, and the analytical technique should generally follow PCB GC guidelines presented in SW 846 Method 8082.

Because the particular cleanup technique is destructive to certain pesticide compounds that are target analytes of OLM04.2, isolation, quantitation, and reporting of pesticides compounds for this project is not required. Only the list of Aroclors presented in Exhibit C, Section 3 is to be analyzed and reported. Further, the need to perform the Florisil cleanup technique presented in Exhibit D/Pest is waved. However, the lab is required to still perform the GPC cleanup presented in Exhibit D/Pest.

For calibration purposes the following procedural and Quality Assurance requirements must be followed:

a. A 5-point calibration curve for combined aroclors 1016/1260 and single mid-level points for all other ochlors are to be analyzed prior to any sample analysis. For the 5-point analysis, the low point on the curve nust reflect the required CRQL.

b. The 5 point curve must meet an average 20 % RSD

c. If other arochlors are suspected, or other arochlors are detected in an analysis, a separate 5-point calibration must be run for the particular arochlor. The 20 % RSD requirement will apply to any other arochlor 5-point analysis performed.

d. A continuing calibration verification standard of arochlors 1016/1260 must be analyzed every 12 hours of analysis and not to exceed 20 samples.

e. The continuing calibration verification analysis must be within 15% of the expected value. If the % difference is greater than 15%, all samples analyzed prior to the continuing calibration verification must be reanalyzed.

f. Each extraction batch must contain method blanks, laboratory control spike and matrix spike/matrix spike duplicate samples (provided sufficient sample is sent for the matrix spike and duplicate analysis).

g. Each field sample and quality control sample must contain Decachlorobiphenyl surrogate (DCB). Samples may be spiked with TMX surrogate as well, but no recovery requirements will be placed on the TMX, as this ompound is sensitive to sulfuric acid cleanup.

h. All samples failing to meet DCB recovery limits of 30% to 170% must be re-extracted and re-analyzed.

i. For the laboratory control spike, arochlor 1254 is to be used. The results of the laboratory control sample should fall between the recovery limits of 29 to 135 %. If the recovery falls below 29%, all samples within the

extraction batch must be re-extracted and re-analyzed. If the recovery is above 135% and arochlors are not detected in the batch sample, then no further action is necessary. If the recovery is above 135% and arochlors are present in any of the batch samples, then the samples containing arochlor must be re-extracted and re-analyzed.

j. Arochlor 1254 is to be used for the matrix spike and duplicate analyses. Advisory limits are 29% to 135% are set for the matrix spike and duplicate analysis. As these limit are only advisory, no particular action is required for QC samples outside these limits. However, consistent recovery outside these limits for analysis in which no apparent matrix interference is present may justify a review by EPA personnel, and the laboratory may be requested to repeat certain analyses at no further cost to the government.

k. Some, or all, samples may require a reporting CRQL of 25 ug/Kg (33 ug/Kg is the OLM04.2 required CRQL). For these samples, the laboratory must extract 40 grams of sample, as opposed to the normal 30 grams. Also, extra sodium sulfate may have to be added to the sample in order to dry the sample properly.

l. For reporting purposes, the laboratory is to provide a standard CLP data package at the turnaround time requested by the Region. Modifications to reporting requirements due to the changes presented in this modification request form shall be incorporated into the hard copy deliverables and into the electronic diskette where practical and easily accommodated. All CLP forms associated with florisil cleanup, and GPC check analysis are not required. Any other reporting requirements, not mentioned in this document which the lab believes is affected by the modifications required for this project shall be noted in the case narrative. All hard copy and electronic reporting requirements not affected by these modifications shall be subjected to CCS. The Organic Program Manager will make recommendations to the Contracting Officer as to any disputes concerning CCS defects charged against samples.

While not required in the final data package, the laboratory should keep on file in the lab, the SOPs used to perform the Acid and Silica Gel cleanup techniques. Also, the lab should include copies of this modification request forms in the final hard copy data packages.

SOUTHWEST LABORATORY OF OKLAHOMA

ANALYTICAL REQUEST FORM, SWL-GA-131

Ref# 5699

Pg 1

Client	ACCOUNTING OFFICER	Client Code:	EPA
Contact	Heather Bauer	Phone&Fax#:	703-264-9348 703-264-9222
Project	OLM04.2	PO Number:	
Location	29602	Receipt Date	08/17/2001 Due: 09/06/2001
SDG	E0349 Open	Sample TAT: Fax	Rpt 21
Reports			
Data Pkgs	CLP: 2		
EDD			

Special Provisions: Must use arochlor 1254 for LCS/LCSD & MS/MSD
need GPCed, silica gel & Acid cleaned, 3.6C
Case#29602, to date wk 8/13/01: 217 soils , 11sets QC

Client ID	Type	Matrix	GC699									
E0349	N1	S	X									
E0349MS	MS1	S	X									
E0349MSD	SD1	S	X									
E0350		S	X									
E0351		S	X									
E0352		S	X									
E0353		S	X									
E0354		S	X									
E0355		S	X									
E0356		S	X									
E0357		S	X									
E0358		S	X									
E0359		S	X									
E0360		S	X									
E0361		S	X									
E0362		S	X									
E0363		S	X									

Reporting Address: ACCOUNTING OFFICER
Attn:;FINANCIAL MANAGEMENT DIVISION,ACCOUNTING OFFICE MD-32,RESEARCH TRIANGLE

Billing Address: Same As Reporting Address

Project Officer: HARRY M. BORG

Prepared 08/17/2001

SOUTHWEST LABORATORY OF OKLAHOMA

ANALYTICAL REQUEST FORM, SWL-GA-131

Ref# 5727

Pg 1

Client	ACCOUNTING OFFICER	Client Code:	EPA
Contact	Heather Bauer	Phone&Fax#:	703-264-9348 703-264-9222
Project	OLM04.2	PO Number:	
Location	29602	Receipt Date	08/20/2001 Due: 09/09/2001
SDG	E0349 Closed	Sample TAT:	Fax Rpt 21
Reports			
Data Pkgs	CLP: 2		
EDD			

Special Provisions: Must use arochlor 1254 for LCS/LCSD & MS/MSD
need GPCed, silica gel & Acid cleaned, 0.9C
Case#29602, to date wk 8/13/01: 222 soils , 11sets QC

Client ID	Type	Matrix	GC699									
E0364		S	X									
E0365		S	X									
E0366		S	X									
E0367		S	X									
E0368		S	X									

Reporting Address: ACCOUNTING OFFICER
Attn:;FINANCIAL MANAGEMENT DIVISION,ACCOUNTING OFFICE MD-32,RESEARCH TRIANGLE

Billing Address: Same As Reporting Address

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Project Officer: HARRY M. BORG

Prepared 08/20/2001