ER1D 084329

Tuesday, July 31, 2001

REQUEST NUMBER: 9477R

ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 7/31/01
REPORT DUE: 9/1/01
TURN AROUND REQ'D: 30 day

These samples are on:

LANL Request Number: 9477R
Per Agreement Number:
Project Cost Code: MR0R0001E000

RAD SCREENING: Yes, Received
COMMENTS: 39 - 1082 , WN;

LANL ER SMO CONTACT: Joylene Valdez, MS H865 5056659968
Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
PCB		RC39-01-0001	02	S	7/27/1901	
PCB		RC39-01-0002	02	S	7/27/1901	
PCB		RC39-01-0003	02	S	7/27/1901	
PCB		RC39-01-0004	02	S	7/27/1901	
PCB		RC39-01-0005	02	S	7/27/1901	

Final Page of REQUEST NUMBER 9477R

30830

Tuesday, July 31, 2001

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 9477RC

REQUEST NUMBER: 9477R
ANALYSIS TYPE: ORG

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
RC39-01-0001	02	125 ml Glass	PCB	None	S
RC39-01-0002	02	125 ml Glass	PCB	None	S
RC39-01-0003	02	125 ml Glass	PCB	None	S
RC39-01-0004	02	125 ml Glass	PCB	None	S
RC39-01-0005	02	125 ml Glass	PCB	None	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 9477R Page 1

Relinquished By:		Date	Time	Received By:		Date	Time
PRINTED NAME	SIGNATURE	7/31/01	1326	PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		

Received for DISPOSAL By:		Date	Time
PRINTED NAME	SIGNATURE		

Remarks:

Los Alamos National Laboratory Environmental Restoration (Los Alamos, NM 87545)

CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Technical Area	39	Send Lab Report to	Roy Bohn M992	Field Unit Leader	Dave McInroy (505)667-0819
Operable Unit	1082				
Date		LANL Destination	SMO	Turnaround	30 days
OU Contact	Roy Bohn	LANL Contact	Joylene Valdez	Lab Report Required	
Contact Phone No	(505) 665-5138	LANL Mail Stop		Charge Code	MR0R0001E000

Relinquished by: Roy Bohn (Signature): Affiliation: E-ER	Date: 7/27/01	Relinquished by: (Signature): Affiliation:	Date:	Relinquished by: (Signature): Affiliation:	Date:
Received by: (Signature): Affiliation:	Time: 1400	Received by: (Signature): Affiliation:	Time:	Received by: (Signature): Affiliation:	Time:

POSSIBLE HAZARD IDENTIFICATION: (please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances):
Radiological___ Highly Toxic___
Flammable___ Skin Irritant___ Non-Hazard___ Other___

SCREENING METHOD: ARS RAD Screening

SAMPLE DISPOSAL: Disposal by Lab

Comments:

Field Unique Sample #/ID	Cont ID	Date & Time Collected	Sample Container Volume/Material	Matrix	Preservat	ANALYSIS REQUESTED: (SMO Order Codes)	REMARKS (Conditions of receipt, etc.)
RC39-01-0003	02	7/27/01 1020	125 ml Glass	Soil	None	PCB	
RC39-01-0003	01	1015	125 ml Polyethylene	Soil	Ice	METTAL	
RC39-01-0002	02		125 ml Glass	Soil	None	PCB	
RC39-01-0002	01	1010	125 ml Polyethylene	Soil	Ice	METTAL	
RC39-01-0001	01		125 ml Polyethylene	Soil	Ice	METTAL	
RC39-01-0001	02	1015	125 ml Glass	Soil	None	PCB	

Original - LANL Destination

Yellow - RPF

Pink - FTL Copy

Los Alamos National Laboratory Environmental Restoration (Los Alamos, NM 87545)

CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Technical Area	39	**Send Lab Report to**	Roy Bohn	**Field Unit Leader**	Dave McInroy
Operable Unit	1082		M992		(505)667-0819
Date		**LANL Destination**	SMO	**Turnaround**	30 days
OU Contact	Roy Bohn	**LANL Contact**	Joylene Valdez	**Lab Report Required**	
Contact Phone No	(505) 665-5138	**LANL Mail Stop**		**Charge Code**	MR0R0001E000

Relinquished by: Roy Bohn **(Signature):** Roy Bohn **Affiliation:** E-ER	**Date:** 7/27/01	**Relinquished by:** **(Signature):** **Affiliation:**	**Date:**	**Relinquished by:** **(Signature):** **Affiliation:**	**Date:**
Received by: **(Signature):** **Affiliation:**	**Time:** 1400	**Received by:** **(Signature):** **Affiliation:**	**Time:**	**Received by:** **(Signature):** **Affiliation:**	**Time:**

POSSIBLE HAZARD IDENTIFICATION: (please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances):
Radiological___ Highly Toxic___
Flammable___ Skin Irritant___ Non-Hazard___ Other___

SCREENING METHOD: ARS RAD Screening

SAMPLE DISPOSAL: Disposal by Lab

Comments:

Field Unique Sample #/ID	Cont ID	Date & Time Collected		Sample Container Volume/Material	Matrix	Preservat	ANALYSIS REQUESTED: (SMO Order Codes)	REMARKS (Conditions of receipt, etc.)
RC39-01-0004	01	7/27/01	1025	125 ml Polyethylene	Soil	Ice	METTAL	
RC39-01-0004	02	↓	↓	125 ml Glass	Soil	None	PCB	
RC39-01-0005	01	↓	1030	125 ml Polyethylene	Soil	Ice	METTAL	
RC39-01-0005	02	↓	↓	125 ml Glass	Soil	None	PCB	

RADIOLOGICAL SCREENING DATA RELEASE FORM

The following samples (list samples by number) were received at the Field Support Facility (FSF) without radiological screening data. These samples will not be shipped until radiological screening documentation arrives at the FSF. I understand that it is my responsibility to ensure that this information arrives at the FSF in a timely manner. **If holding times are missed because screening data do not arrive, I will pick up the samples when called to do so.**

RC-39-01-0001 thru 0005

****

The following samples (list samples by number) do not require radiological screening for the reason stated.

Reason:

Signature Roy Bohn

Printed name Roy Bohn

Telephone number 5-5138 Date 7/22/01

AMERICAN RADIATION SERVICES OF NEW MEXICO

1903 Central Ave. • Los Alamos, New Mexico 87544
(505) 663-0363 • Fax (505) 663-0365

ARSNM Tracking Number:	ARSNM-01-0098	**COC Number:**	1082-01-1058
Client I.D.:	RC39-01-0001	**ARSNM Sample I.D.:**	ARSNM-01-0608
Date Sampled:	07/27/01	**Date Received:**	7/27/01
Time Sampled:	1010	**Time Received:**	1125
Type of Sample:	solid	**Date of Report:**	7/30/01
Contact Person:	R.Bohn	**Charge Code:**	MR0R0001E000

Analysis Description	Analysis Result	Analysis Error ±2 Sigma	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Gross Alpha	35.06	13.97	14.24	pCi/gm	EPA 900M	07/30/01 0902	bz
Gross Beta	40.27	10.97	18.85	pCi/gm	EPA 900M	07/30/01 0902	bz
Gross Gamma	9.26	0.71	1.22	pCi/gm	EPA 901.1M	07/30/01 1025	bz

Notes:

B. Zelenay
Barbara Zelenay

Cost Per Sample: 124.09

Notes: American Radiation Services of New Mexico, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

AMERICAN RADIATION SERVICES OF NEW MEXICO

1903 Central Ave. • Los Alamos, New Mexico 87544
(505) 663-0363 • Fax (505) 663-0365

ARSNM Tracking Number:	ARSNM-01-0098	**COC Number:**	1082-01-1058
Client I.D.:	RC39-01-0002	**ARSNM Sample I.D.:**	ARSNM-01-0609
Date Sampled:	07/27/01	**Date Received:**	7/27/01
Time Sampled:	1015	**Time Received:**	1125
Type of Sample:	solid	**Date of Report:**	7/30/01
Contact Person:	R.Bohn	**Charge Code:**	MR0R0001E000

Analysis Description	Analysis Result	Analysis Error ±2 Sigma	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Gross Alpha	25.92	13.22	16.25	pCi/gm	EPA 900M	07/30/01 0902	bz
Gross Beta	80.78	15.01	22.06	pCi/gm	EPA 900M	07/30/01 0902	bz
Gross Gamma	8.79	0.67	1.15	pCi/gm	EPA 901.1M	07/30/01 1040	bz

Notes:

B. Zelenay
Barbara Zelenay

Cost Per Sample: 124.09

Notes: American Radiation Services of New Mexico, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

AMERICAN RADIATION SERVICES OF NEW MEXICO

1903 Central Ave. • Los Alamos, New Mexico 87544
(505) 663-0363 • Fax (505) 663-0365

ARSNM Tracking Number:	ARSNM-01-0098	**COC Number:**	1082-01-1058
Client I.D.:	RC39-01-0003	**ARSNM Sample I.D.:**	ARSNM-01-0610
Date Sampled:	07/27/01	**Date Received:**	7/27/01
Time Sampled:	1020	**Time Received:**	1125
Type of Sample:	solid	**Date of Report:**	7/30/01
Contact Person:	R.Bohn	**Charge Code:**	MR0R0001E000

Analysis Description	Analysis Result	Analysis Error ±2 Sigma	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Gross Alpha	29.23	13.31	15.05	pCi/gm	EPA 900M	07/30/01 1004	bz
Gross Beta	65.08	13.05	19.87	pCi/gm	EPA 900M	07/30/01 1004	bz
Gross Gamma	9.89	0.67	1.12	pCi/gm	EPA 901.1M	07/30/01 1050	bz

Notes:

B. Zelenay
Barbara Zelenay

Cost Per Sample: 124.09

Notes: American Radiation Services of New Mexico, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

ARS
AMERICAN RADIATION SERVICES OF
NEW MEXICO

1903 Central Ave. • Los Alamos, New Mexico 87544
(505) 663-0383 • Fax (505) 663-0365

ARSNM Tracking Number:	ARSNM-01-0098	**COC Number:**	1082-01-1060
Client I.D.:	RC39-01-0004	**ARSNM Sample I.D.:**	ARSNM-01-0611
Date Sampled:	07/27/01	**Date Received:**	7/27/01
Time Sampled:	1025	**Time Received:**	1125
Type of Sample:	solid	**Date of Report:**	7/30/01
Contact Person:	R.Bohn	**Charge Code:**	MR0R0001E000

Analysis Description	Analysis Result	Analysis Error ±2 Sigma	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Gross Alpha	33.46	13.88	14.62	pCi/gm	EPA 900M	07/30/01 1004	bz
Gross Beta	68.92	13.00	19.25	pCi/gm	EPA 900M	07/30/01 1004	bz
Gross Gamma	9.05	0.59	0.97	pCi/gm	EPA 901.1M	07/30/01 1100	bz

Notes:

B. Zelenay
Barbara Zelenay

Cost Per Sample: 124.09

Notes: American Radiation Services of New Mexico, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

AMERICAN RADIATION SERVICES OF NEW MEXICO

1903 Central Ave. • Los Alamos, New Mexico 87544
(505) 663-0363 • Fax (505) 663-0365

ARSNM Tracking Number:	ARSNM-01-0098	**COC Number:**	1082-01-1060
Client I.D.:	RC39-01-0005	**ARSNM Sample I.D.:**	ARSNM-01-0612
Date Sampled:	07/27/01	**Date Received:**	7/27/01
Time Sampled:	1030	**Time Received:**	1125
Type of Sample:	solid	**Date of Report:**	7/30/01
Contact Person:	R.Bohn	**Charge Code:**	MR0R0001E000

Analysis Description	Analysis Result	Analysis Error ±2 Sigma	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Gross Alpha	19.06	10.79	14.27	pCi/gm	EPA 900M	07/30/01 1004	bz
Gross Beta	45.52	11.31	18.80	pCi/gm	EPA 900M	07/30/01 1004	bz
Gross Gamma	8.40	0.58	0.97	pCi/gm	EPA 901.1M	07/30/01 1110	bz

Notes:

B. Zelenay
Barbara Zelenay

Cost Per Sample: 124.09

Notes: American Radiation Services of New Mexico, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LIONVILLE LABORATORY INC.

29 August 2001

Ms. Joylene Valdez
Los Alamos National Laboratory
TA-3, Building 271
DP. O1U MS-H865
Los Alamos, NM 87545

Ref: Subcontract No. 7791L0014-AA
Data Report for LVL Batch 0108L447
LANL Request No. 9477R

Dear Ms. Valdez:

Enclosed please find the data report for 5 soil samples received 1 August 2001. These were analyzed for PCBs on a 30 day turnaround. The EDD is enclosed.

Please do not hesitate to contact me at (610) 280-3029 with any question you may have regarding either the hard copy or electronic report.

Very truly yours,

Lionville Laboratory Incorporated

Judith L. Stone
Senior Project Manager

Report Sent To:
Approved By:
Date Sent:

Enclosure:

9.5.01

FIELD COPY

208 Welsh Pool Road • Exton, PA 19341-1313 • (610) 280-3000 • Fax (610) 280-3041

Analytical Data Package Chain of Custody

Section I. Data Package Information (relinquisher completes)

New issue? ☐ Yes ☐ No

Request Number(s): 9397R 9483R 9387R 9150R 9477R
9230R 9450R 9459R ~~[illegible]~~ [9269, 9286] / [9394, 9403]
[9548R] [9332R 9316R 9342R] [9132R/9160] 9446R 9429R 9628R

Data package requestor (check one): ☐ Editing/validation ☐ User ☐ SMO

Name (print): Joylene Valdez Telephone: 5-9968

Focus area: SMO Z number: 164122

Section II. Authorizing Signatures (relinquisher and receiver both complete)

Relinquished by: John Wilcox John A Wilcox Date: 9/19/01
(print name, then sign)

I accept custody of the above listed data package(s).

Received by: Joylene Valdez Date: 9-19-01
(print name, then sign)

Relinquished by: _____ Date: _____
(print name, then sign)

I accept custody of the above listed data package(s).

Received by: _____ Date: _____
(print name, then sign)

Comments:

CHAIN OF CUSTODY FORM (Example)

SECTION I. DATA PACKAGE INFORMATION (Relinquisher completes)

New Issue ☑ Yes ☐ No

Request Number(s): 9469 ✓ 9456 ✓ 9482 ✓ 9477 ✓
9472 ✓ 9465 ✓ 9461 ✓ 9468 ✓

Data Package Requestor (check one): ☐ Editing/Validation ☐ User

Name (print) John Wilcox Focus Area: A3
Phone 7-4086 Z Number: 153002

SECTION II. AUTHORIZING SIGNATURES (Reliquished/Received signatures)

Relinquished By: [signature] Date: 9-4-01

I accept custody of the above listed data package(s).

Received By: John a wilcox Date: 9/5/01

Relinquished By: _____ Date: _____

I accept custody of the above listed data package(s).

Received By: _____ Date: _____

Comments:

ER SOP-15.09

Los Alamos
Environmental Restoration Project

Data Validation Cover Sheet

Section I. Data Record Package Identification

Request Number: 9477 R Validation Date: 13-Sep-01 Lab Code: _____

Contract Laboratory Name: ~~STL St. Louis~~ Lionville

Validator: Nita P. Patel Organization: EES-9

Analytical Suite(s): (check all that apply)

- ☐ Volatile Organics
- ☐ Semivolatile Organics
- ☒ Organochlorine Pesticides/Polychlorinated Biphenyls
- ☐ Other: _____ (describe)
- ☐ High Explosives
- ☐ Inorganics
- ☐ Radiochemistry

Section II. Completeness Check

Yes	No	n/a	(check one)	Yes	No	n/a	(check one)
☒	☐	☐	1. Chain-of-custody form(s)	☒	☐	☐	6. Raw/BSS data
☒	☐	☐	2. Case narrative	☒	☐	☐	7. Quality control forms
☒	☐	☐	3. Sample result forms	☒	☐	☐	8. Quantitation reports
☒	☐	☐	4. Sample chromatograms	☐	☐	☒	9. TICs forms
☒	☐	☐	5. Standard chromatograms	☐	☐	☒	10. TICs mass spectra

Identify any samples in the assigned Request Number that are missing:

_____ _____ _____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____ _____ _____

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed upon date of resolution and contract laboratory point of contact): PCBs: For sample -0002, the surrogates were diluted out of the sample due to DF=20. All other QC were within limits.

(Attach additional comment sheets as necessary)

Validator's signature: Nita Patel Date: 9/13/01

ER-SOPs 15.01–15.06, 15.14

Los Alamos
Environmental Restoration Project

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Part Ia. Instrument Calibrations

Criteria	Criterion true? (y, n, or n/a)	Action if "criterion true?" = no	Actual time lapse
Was the initial calibration completed?	1a. yes	1b. Return the data record package to the SMO.	1c. n/a
Was the continuing calibration check performed at the beginning of each 24-hr analysis period following the analysis of the instrument performance check and before the analysis of blanks and samples? **Attention:** A continuing calibration check is not required if all samples are analyzed within 24 hrs of initial calibration—record "n/a" in blocks 2a and 2c.	2a. yes	2b. Assign the qualifier and reason code **"A, P16"** to all results. In block 2c, record the actual time lapse.	2c. na

Part Ib. Instrument Calibrations (continued)

Criteria	Criterion true? (y, n, or n/a)	Action if "criterion true?" = no	List noncompliant analyte(s) and affected samples.
Is there a standard analysis for each multicomponent analyte detected within 72 hours of the sample analysis where the multicomponent analyte was detected?	3a. na	3b. Assign the qualifier and reason code **"J, P7a"** to the detected results.	3c. na

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Part Ic. Analyte Breakdown Criteria

Criteria	Criterion true? (yes or no)	Action if "criterion true?" = yes Identify noncompliant LCS analytes *and* assign qualifier & reason code...	List noncompliant analyte(s) and affected samples.	Percent breakdown
Are any required analyte percent breakdowns *not* reported?	1a. no	1b. "**A, P10b**" for any missing documentation. In block 1c, record • noncompliant analytes and • all affected samples.	1c. na	1d. n/a
Is 4,4'-DDT breakdown > 20% **AND** was 4,4'-DDT detected in the samples?	2a. no	2b. "**J-, P10**" to 4,4'-DDT results. In block 2c, record affected samples. In block 2d, record the percent breakdown of affected 4,4'-DDT. Assign qualifier & reason code "**J+, P10a**" to detected DDD and DDE results.	2c. na	2d. na
Is 4,4'-DDT breakdown > 20% **AND** was 4,4'-DDT *not detected* in the samples **AND** Was either DDD and/or DDE *detected* in the samples?	3a. no	3b. "**RPM, P10**" to 4,4'-DDT results. In block 3c, record affected samples. In block 3d, record the percent breakdown of affected 4,4'-DDT. Assign qualifier & reason code "**J+, P10a**" to detected DDD and DDE results.	3c. na	3d. na

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Part Ic. Analyte Breakdown Criteria (continued)

Criteria	Criterion true? (yes or no)	Action if "criterion true?" = yes Identify noncompliant LCS analytes *and* assign qualifier & reason code...	List noncompliant analyte(s) and affected samples.	Percent breakdown
Is Endrin breakdown > 20% **AND** was Endrin detected in the samples?	4a. no	4b. **"J-, P10"** to Endrin results. In block 4c, record affected samples. In block 4d, record the percent breakdown of affected Endrin. Assign qualifier & reason code **"J+, P10a"** to detected Endrin ketone and Endrin aldehyde results.	4c. na	4d. na
Is Endrin breakdown > 20% **AND** are 4,4'-DDT or Endrin *not detected* in the samples **AND** were either Endrin ketone and/or Endrin aldehyde *detected* in the samples?	5a. no	5b. **"RPM, P10"** to Endrin results. In block 5c, record affected samples. In block 5d, record the combined percent breakdown of affected 4,4'-DDT. Assign qualifier & reason code **"J+, P10a"** to detected Endrin ketone and Endrin aldehyde results.	5c. na	5d. na
Is the combined breakdown > 30% **AND** were either 4,4'-DDT or Endrin detected in the samples?	6a. no	6b. **"J-, P10"** to 4,4'-DDT and/or Endrin results. In block 6c, record affected samples. In block 6d, record the combined percent breakdown. Assign qualifier & reason code **"J+, P10a"** to detected DDD and DDE and/or Endrin ketone and Endrin aldehyde results.	6c. na	6d. na

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Part Ic. Analyte Breakdown Criteria (continued)

Criteria	Criterion true? (yes or no)	Action if "criterion true?" = yes Identify noncompliant LCS analytes *and* assign qualifier & reason code...	List noncompliant analyte(s) and affected samples.	Percent breakdown
Is the combined breakdown > 30% **AND** were 4,4'-DDT or Endrin *not detected* in the samples **AND** were DDD and/or DDE or Endrin ketone and/or Endrin aldehyde *detected* in the samples?	7a. no	7b. **"RPM, P10"** to 4,4'-DDT and/or Endrin results. In block 7c, record affected samples. In block 7d, record the percent breakdown of Endrin. Assign qualifier & reason code **"J+, P10a"** to detected DDD, DDE, Endrin ketone, and Endrin aldehyde results.	7c. na	7d. na

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Part IIa. Method and Instrument Blanks Validation Criteria

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = no Assign qualifier & reason code...	List all affected sample matrices and/or analytical batches.
Was a method blank analyzed for each sample matrix and batch?	1a. yes	1b. **"A, P4a"** to any samples with results > EQL that have any missing documentation. In block 1c, record all sample matrices and/or analytical batches that *did not* include a method blank.	1c. na
Was an instrument blank analyzed every 12 hours?	2a. yes	2b. **"A, P4a"** to any samples with results > EQL that have any missing documentation. In block 2c, record all sample matrices and/or analytical batches that *were not* covered by an instrument blank.	2c. na

Part IIb. Method and Instrument Blanks Validation Criteria (continued)

Criteria	Criterion true? (yes or no)	Action if "criterion true?" = yes Assign qualifier & reason code...	List detected blank analyte(s) and affected samples.	Analyte concentration (mg/kg)
Is the sample result > the EQL but < 5 times the blank concentration?	3a. no	3b. **"U, P4"** to sample results > the EQL. In block 3c, record blank (method or instrument), samples, and analyte(s) in question. In block 3d, record the analyte concentration(s).	3c. na	3d. na

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Part III. Laboratory Control Sample Criteria

Criteria	Criterion true? (yes or no)	Action if "criterion true?" = yes Assign qualifier & reason code...	List noncompliant analyte(s) and affected samples.	Percent recovery
Is any required analyte percent recovery *not* reported?	1a. no	1b. **"A, P12"** for any missing documentation. In block 1c, record • noncompliant analytes and • all affected samples.	1c. na	1d. n/a
Is any required analyte recovery < 10%?	2a. no	2b. **"RPM, P12a"** to all analyte results. In block 2c, record • noncompliant analytes and • all affected samples. In block 2d, record the percent recoveries of all affected analytes.	2c. na	2d. na
Is any required analyte recovery < 80% but > 10%?	3a. no	3b. **"J-, P12b"** to *detected* sample analytes and **"UJ-, P12c"** to all *nondetected* sample analytes. In block 3c, record • ~~noncompliant analytes and~~ • all affected samples. In block 3d, record the percent recoveries of all affected analytes.	3c. na	3d. na
Is any required analyte recovery > 120%?	4a. no	4b. **"J+, P12d"** to detected sample analytes. In block 4c, record • noncompliant analytes and • all affected samples. In block 4d, record the percent recoveries of all affected analytes.	4c. na	4d. na

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Required Pesticide Surrogate Compounds and Recovery Acceptance Ranges

Surrogate name	Soil matrix recovery acceptance range	Water matrix recovery acceptance range
Tetrachloro-*m*-xylene	60%–150%	60%–150%
Decachlorobiphenyl	60%–150%	60%–150%

Part IV. Surrogate Validation Criteria

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = yes Identify noncompliant surrogates *and* assign qualifier & reason code...	List all noncompliant surrogates and samples.	Percent recovery
Are any required surrogate percent recoveries *not* reported?	1a. no	1b. **"A, P11a"** for any missing documentation. In block 1c, record • noncompliant surrogates and • all affected samples.	1c. na	1d. n/a
Is at least one surrogate recovery <10%?	2a. no	2b. **"J-, P3b"** to all *detected* sample analytes and **"RPM, P3d"** to all *nondetected* sample analytes.	2c. na	2d. na
Is at least one surrogate percent recovery > UAL **AND** no surrogate percent recoveries < LAL?	3a. no	3b. **"J+, P3"** to all detected sample analytes.	3c. na	3d. na

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Part IV. Surrogate Validation Criteria (continued)

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = yes Identify noncompliant surrogates *and* assign qualifier & reason code...	List all noncompliant surrogates and samples.	Percent recovery
Is at least one surrogate percent recovery > UAL **AND** at least one surrogate percent recovery <LAL?	4a. no	4b. **"J, P3e"** to all *detected* sample analytes and **"UJ, P3e"** to all *nondetected* sample analytes.	4c. na	4d. na
Is at least one surrogate percent recovery < LAL **AND** *the same* surrogate percent recovery > 10%?	5a. no	5b. **"J-, P3a"** to all *detected* sample analytes and **"UJ, P3c"** to all *nondetected* sample analytes.	5c. na	5d. na
Does at least one surrogate have a retention time outside of the ±0.05 minute window?	6a. no	6b. **"PM, P11"** to all *detected* sample analytes and **"RPM, P11"** to all *nondetected* sample analytes.	6c. na	6d. n/a

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Part V. Holding Time Validation Criteria

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = no Assign qualifier & reason code...	List samples for which holding times were exceeded.	List the number of days by which holding times were exceeded.
Was each sample prepared within its extraction holding time?	1a. yes	1b. **"PM, P9"** to all analytes in affected samples.	1c. na	1d. na
Was each sample analyzed within its analytical holding time?	2a. yes	2b. **"PM, P9"** to all analytes in affected samples.	2c. na	2d. na

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Part VIa. Required Cleanup Criteria

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = yes List the type of cleanup required.	List samples that required cleanup.
Is cleanup required on any samples?	1a. no	1b. na	1c. na

Part VIb. Required Cleanup Criteria

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = no Assign qualifier & reason code...	List noncompliant samples that required cleanup.
Was florisil cartridge cleanup conducted?	1a. na	1b. "**A, P13**" for any missing documentation. In block 1c, record all affected samples.	1c. na
Was gel permeation chromatography (GPC) cleanup conducted on soil samples?	2a. na	2b. "**A, P13a**" for any missing documentation. In block 2c, record all affected samples.	2c. na
Were other required cleanups conducted as required?	3a. yes	3b. "**A, P13b**" for any missing documentation. In block 3c, record all affected samples and missing cleanup.	3c. H2SO4 cleanup performed on PCBs.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC39-01-0001 02

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9477R

Matrix: SOIL

Lab Sample ID: 0108L447-001

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: 08060135.62

Level: (low/med) LOW

Date Received: 08/01/01

% Moisture: not dec. 6 dec.

Date Extracted: 08/03/01

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 08/09/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	
12674-11-2	Aroclor-1016	35	U
11104-28-2	Aroclor-1221	70	U
11141-16-5	Aroclor-1232	35	U
53469-21-9	Aroclor-1242	35	U
12672-29-6	Aroclor-1248	35	U
11097-69-1	Aroclor-1254	35	U
11096-82-5	Aroclor-1260	32	J

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1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC39-01-0002 02

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9477R

Matrix: SOIL

Lab Sample ID: 0108L447-002

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08130135.04

Level: (low/med) LOW

Date Received: 08/01/01

% Moisture: not dec. 5 dec.

Date Extracted: 08/03/01

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 08/14/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 20.0

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

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	700	U
11104-28-2	Aroclor-1221	1400	U
11141-16-5	Aroclor-1232	700	U
53469-21-9	Aroclor-1242	700	U
12672-29-6	Aroclor-1248	700	U
11097-69-1	Aroclor-1254	3000	
11096-82-5	Aroclor-1260	700	U

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1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC39-01-0003 02

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9477R

Matrix: SOIL

Lab Sample ID: 0108L447-003

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08060135.64

Level: (low/med) LOW

Date Received: 08/01/01

% Moisture: not dec. 7 dec.

Date Extracted: 08/03/01

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 08/09/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	
12674-11-2	Aroclor-1016	36	U
11104-28-2	Aroclor-1221	71	U
11141-16-5	Aroclor-1232	36	U
53469-21-9	Aroclor-1242	36	U
12672-29-6	Aroclor-1248	36	U
11097-69-1	Aroclor-1254	36	U
11096-82-5	Aroclor-1260	86	

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1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC39-01-0004 02

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9477R

Matrix: SOIL

Lab Sample ID: 0108L447-004

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08060135.65

Level: (low/med) LOW

Date Received: 08/01/01

% Moisture: not dec. 6 dec.

Date Extracted: 08/03/01

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 08/09/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	35	U
11104-28-2	Aroclor-1221	71	U
11141-16-5	Aroclor-1232	35	U
53469-21-9	Aroclor-1242	35	U
12672-29-6	Aroclor-1248	35	U
11097-69-1	Aroclor-1254	35	U
11096-82-5	Aroclor-1260	35	U

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1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC39-01-0005 02

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9477R

Matrix: SOIL

Lab Sample ID: 0108L447-005

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08060135.66

Level: (low/med) LOW

Date Received: 08/01/01

% Moisture: not dec. 5 dec.

Date Extracted: 08/03/01

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 08/09/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	35	U
11104-28-2	Aroclor-1221	70	U
11141-16-5	Aroclor-1232	35	U
53469-21-9	Aroclor-1242	35	U
12672-29-6	Aroclor-1248	35	U
11097-69-1	Aroclor-1254	35	U
11096-82-5	Aroclor-1260	36	

FORM 1 PEST 12/88 Rev.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

PBLKMY

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9477R

Matrix: SOIL

Lab Sample ID: 01LE0922-MB1

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08060135.53

Level: (low/med) LOW

Date Received: 08/03/01

% Moisture: not dec. 0 dec.

Date Extracted: 08/03/01

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 08/08/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
12674-11-2------	Aroclor-1016	33	U
11104-28-2------	Aroclor-1221	67	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

FORM 1 PEST

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1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

PBLKMYMS

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9477R

Matrix: SOIL

Lab Sample ID: 01LE0922-MB1 BS

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08060135.54

Level: (low/med) LOW

Date Received: 08/03/01

% Moisture: not dec. 0 dec.

Date Extracted: 08/03/01

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 08/08/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	67	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		SP
11096-82-5	Aroclor-1260	33	U

SP: SPIKE COMPOUND

FORM 1 PEST

12/88 Rev.

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9477R GC Sample ID: 08060135

Instrument ID: 35 GC Column ID: DB608

Dates of Analyses: 08/06/01 to 08/09/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2801 A	08/06/01	1813
02	ZZZZZ	AR1660 2802 B	08/06/01	1901
03	ZZZZZ	AR1660 2803 C	08/06/01	1949
04	ZZZZZ	AR1660 2804 D	08/06/01	2037
05	ZZZZZ	AR1660 2805 E	08/06/01	2125
06	ZZZZZ	AR1221 1108	08/06/01	2213
07	ZZZZZ	AR1232 1205	08/06/01	2301
08	ZZZZZ	AR1242 1304	08/06/01	2349
09	ZZZZZ	AR1248 1101	08/07/01	0037
10	ZZZZZ	AR1254 9403 C	08/07/01	0125
11	ZZZZZ	AR1660 2803 C	08/08/01	1616
12	ZZZZZ	0108L458-001	08/08/01	1704
13	ZZZZZ	01LE0923-MB1	08/08/01	1752
14	ZZZZZ	01LE0923-MB1S	08/08/01	1840
15	ZZZZZ	01LE0923-MB1T	08/08/01	1928
16	PBLKMYLE0922	01LE0922-MB1	08/08/01	2016
17	PBLKMYLE0922 MS	01LE0922-MB1S	08/08/01	2104
18	ZZZZZ	0108L445-001	08/08/01	2152
19	ZZZZZ	0108L445-001S	08/08/01	2240
20	ZZZZZ	0108L445-001T	08/08/01	2328
21	ZZZZZ	0108L445-0015	08/09/01	0016
22	ZZZZZ	HEXANE	08/09/01	0104
23	ZZZZZ	AR1660 2803 C	08/09/01	0152
24	ZZZZZ	0108L445-009	08/09/01	0240
25	RC39-01-0001 02	0108L447-001	08/09/01	0329
26	RC39-01-0002 02	0108L447-002	08/09/01	0417
27	RC39-01-0003 02	0108L447-003	08/09/01	0506
28	RC39-01-0004 02	0108L447-004	08/09/01	0554
29	RC39-01-0005 02	0108L447-005	08/09/01	0642
30	ZZZZZ	HEXANE	08/09/01	0730
31	ZZZZZ	AR1660 2803 C	08/09/01	0818

Hayes 8/20/01

FORM VIII PEST

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9477R GC Sample ID: 08060136

Instrument ID: 36 GC Column ID: RTX1701

Dates of Analyses: 08/06/01 to 08/09/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2801 A	08/06/01	1813
02	ZZZZZ	AR1660 2802 B	08/06/01	1901
03	ZZZZZ	AR1660 2803 C	08/06/01	1949
04	ZZZZZ	AR1660 2804 D	08/06/01	2037
05	ZZZZZ	AR1660 2805 E	08/06/01	2125
06	ZZZZZ	AR1221 1108	08/06/01	2213
07	ZZZZZ	AR1232 1205	08/06/01	2301
08	ZZZZZ	AR1242 1304	08/06/01	2349
09	ZZZZZ	AR1248 1101	08/07/01	0037
10	ZZZZZ	AR1254 9403 C	08/07/01	0125
11	ZZZZZ	AR1660 2803 C	08/08/01	1616
12	ZZZZZ	0108L458-001	08/08/01	1704
13	ZZZZZ	01LE0923-MB1	08/08/01	1752
14	ZZZZZ	01LE0923-MB1S	08/08/01	1840
15	ZZZZZ	01LE0923-MB1T	08/08/01	1928
16	PBLKMYLE0922	01LE0922-MB1	08/08/01	2016
17	PBLKMYLE0922 MS	01LE0922-MB1S	08/08/01	2104
18	ZZZZZ	0108L445-001	08/08/01	2152
19	ZZZZZ	0108L445-001S	08/08/01	2240
20	ZZZZZ	0108L445-001T	08/08/01	2328
21	ZZZZZ	0108L445-0015	08/09/01	0016
22	ZZZZZ	HEXANE	08/09/01	0104
23	ZZZZZ	AR1660 2803 C	08/09/01	0152
24	ZZZZZ	0108L445-009	08/09/01	0240
25	RC39-01-0001 02	0108L447-001	08/09/01	0329
26	RC39-01-0002 02	0108L447-002	08/09/01	0417
27	RC39-01-0003 02	0108L447-003	08/09/01	0506
28	RC39-01-0004 02	0108L447-004	08/09/01	0554
29	RC39-01-0005 02	0108L447-005	08/09/01	0642
30	ZZZZZ	HEXANE	08/09/01	0730
31	ZZZZZ	AR1660 2803 C	08/09/01	0818

FORM VIII PEST

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9477R GC Sample ID: 08130135

Instrument ID: 35 GC Column ID: DB608

Dates of Analyses: 08/14/01 to 08/14/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2803 C	08/14/01	0828
02	ZZZZZ	0107L383-003	08/14/01	0916
03	RC39-01-0002 02	0108L447-002	08/14/01	1004
04	ZZZZZ	0107L401-001	08/14/01	1052
05	ZZZZZ	0107L401-002	08/14/01	1141
06	ZZZZZ	0107L401-003	08/14/01	1229
07	ZZZZZ	0107L401-004	08/14/01	1318
08	ZZZZZ	0107L401-005	08/14/01	1406
09	ZZZZZ	0107L401-006	08/14/01	1454
10	ZZZZZ	0107L401-007	08/14/01	1542
11	ZZZZZ	0107L401-008	08/14/01	1631
12	ZZZZZ	HEXANE	08/14/01	1719
13	ZZZZZ	AR1660 2803 C	08/14/01	1807

FORM VIII PEST

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9477R GC Sample ID: 08130136

Instrument ID: 36 GC Column ID: RTX1701

Dates of Analyses: 08/14/01 to 08/14/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2803 C	08/14/01	0828
02	ZZZZZ	0107L383-003	08/14/01	0916
03	RC39-01-0002 02	0108L447-002	08/14/01	1004
04	ZZZZZ	0107L401-001	08/14/01	1052
05	ZZZZZ	0107L401-002	08/14/01	1141
06	ZZZZZ	0107L401-003	08/14/01	1229
07	ZZZZZ	0107L401-004	08/14/01	1318
08	ZZZZZ	0107L401-005	08/14/01	1406
09	ZZZZZ	0107L401-006	08/14/01	1454
10	ZZZZZ	0107L401-007	08/14/01	1542
11	ZZZZZ	0107L401-008	08/14/01	1631
12	ZZZZZ	HEXANE	08/14/01	1719
13	ZZZZZ	AR1660 2803 C	08/14/01	1807

[illegible] 8/27/01

FORM VIII PEST

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc. | Contract: NONE

Client: LAB | GC Sample ID: 08060135.48

RFW Lot No.: | GC Column: DB608

Instrument ID: 35 | DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/06/01 | DATE OF ANALYSIS 08/08/01 TIME OF ANALYSIS 1616 STANDARD ID: AR1660 2803 C

Method: P3560

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.69	11.62	11.76	85611	11.74	84590		- 1.2
Aroclor-1016	13.32	13.25	13.39	168309	13.37	163740		- 2.7
Aroclor-1016	14.85	14.78	14.92	213306	14.90	219480		2.9
Aroclor-1016	15.40	15.33	15.47	102062	15.45	107580		5.4
Aroclor-1016	17.19	17.12	17.26	93152	17.24	92030		- 1.2
Total				662440		667420		- 0.8
Aroclor-1260	21.57	21.50	21.64	228716	21.61	207930		- 9.1
Aroclor-1260	22.03	21.96	22.10	249376	22.07	238830		- 4.2
Aroclor-1260	23.69	23.62	23.76	167057	23.73	148260		- 11
Aroclor-1260	24.87	24.80	24.94	187462	24.91	160960		- 14
Aroclor-1260	25.49	25.42	25.56	333574	25.53	303330		- 9.1
Total				1166185		1059310		- 9.2
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc. Contract: NONE

Client: LAB GC Sample ID: 08060135.60

RFW Lot No.: GC Column: DB608

Instrument ID: 35 DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/06/01 DATE OF ANALYSIS 08/09/01

Method: P3560 TIME OF ANALYSIS 0152

STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.69	11.62	11.76	85611	11.72	85020		- 0.7
Aroclor-1016	13.32	13.25	13.39	168309	13.36	165600		- 1.6
Aroclor-1016	14.85	14.78	14.92	213306	14.89	222030		4.1
Aroclor-1016	15.40	15.33	15.47	102062	15.44	106550		4.4
Aroclor-1016	17.19	17.12	17.26	93152	17.23	92140		- 1.1
Total				662440		671340		- 1.3
Aroclor-1260	21.57	21.50	21.64	228716	21.60	221670		- 3.1
Aroclor-1260	22.03	21.96	22.10	249376	22.07	246600		- 1.1
Aroclor-1260	23.69	23.62	23.76	167057	23.72	152140		- 8.9
Aroclor-1260	24.87	24.80	24.94	187462	24.91	167990		- 10
Aroclor-1260	25.49	25.42	25.56	333574	25.52	312190		- 6.4
Total				1166185		1100590		- 5.6
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: NONE

Client: LAB

GC Sample ID: 08060135.68

RFW Lot No.:

GC Column: DB608

Instrument ID: 35

Method: P3560

DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/06/01

DATE OF ANALYSIS 08/09/01
TIME OF ANALYSIS 0818
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.69	11.62	11.76	85611	11.72	80470		- 6.0
Aroclor-1016	13.32	13.25	13.39	168309	13.36	146990		- 13
Aroclor-1016	14.85	14.78	14.92	213306	14.89	207450		- 2.7
Aroclor-1016	15.40	15.33	15.47	102062	15.44	99490		- 2.5
Aroclor-1016	17.19	17.12	17.26	93152	17.23	84150		- 9.7
Total				662440		618550		- 6.6
Aroclor-1260	21.57	21.50	21.64	228716	21.61	216940		- 5.1
Aroclor-1260	22.03	21.96	22.10	249376	22.07	240780		- 3.4
Aroclor-1260	23.69	23.62	23.76	167057	23.72	150050		- 10
Aroclor-1260	24.87	24.80	24.94	187462	24.91	166660		- 11
Aroclor-1260	25.49	25.42	25.56	333574	25.53	305120		- 8.5
Total				1166185		1079550		- 7.4
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

Mary 8/27/01

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: _____

Client: _____

GC Sample ID: 08060136.48

RFW Lot No.: _____

GC Column: RTX1701

Instrument ID: 36

Method: P3660

DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/06/01

DATE OF ANALYSIS 08/08/01
TIME OF ANALYSIS 1616
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.74	9.67	9.81	42589	9.77	42510		- 0.2
Aroclor-1016	11.19	11.12	11.26	71454	11.23	70080		- 1.9
Aroclor-1016	12.80	12.73	12.87	99691	12.84	101350		0.0
Aroclor-1016	13.27	13.20	13.34	58336	13.30	60380		3.5
Aroclor-1016	14.90	14.83	14.97	48670	14.93	49640		2.0
Total				320740		323960		1.0
Aroclor-1260	19.21	19.14	19.28	117484	19.25	120310		2.4
Aroclor-1260	19.92	19.84	19.98	128538	19.95	138310		7.6
Aroclor-1260	21.42	21.35	21.49	90423	21.45	87910		- 2.8
Aroclor-1260	22.40	22.34	22.48	90442	22.44	87810		- 2.9
Aroclor-1260	23.24	23.17	23.31	174902	23.28	178680		2.2
Total				601789		613020		1.9
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

[illegible] 8/21/01

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: _____

Client: _____

GC Sample ID: 08060136.60

RFW Lot No.: _____

GC Column: RTX1701

Instrument ID: 36

Method: P3660

DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/06/01

DATE OF ANALYSIS 08/09/01
TIME OF ANALYSIS 0152
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.74	9.67	9.81	42589	9.77	43390		1.9
Aroclor-1016	11.19	11.12	11.26	71454	11.23	72190		1.0
Aroclor-1016	12.80	12.73	12.87	99691	12.83	104180		4.5
Aroclor-1016	13.27	13.20	13.34	58336	13.30	61760		5.9
Aroclor-1016	14.90	14.83	14.97	48670	14.93	51840		6.5
Total				320740		333360		3.9
Aroclor-1260	19.21	19.14	19.28	117484	19.24	121520		3.4
Aroclor-1260	19.92	19.84	19.98	128538	19.95	140110		9.0
Aroclor-1260	21.42	21.35	21.49	90423	21.45	90920		0.5
Aroclor-1260	22.40	22.34	22.48	90442	22.44	90190		- 0.3
Aroclor-1260	23.24	23.17	23.31	174902	23.28	185550		6.1
Total				601789		628290		4.4
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

RFW 9/93 A

60

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: _____

Client: _____

GC Sample ID: 08060136.68

RFW Lot No.: _____

GC Column: RTX1701

Instrument ID: 36

Method: P3660

DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/06/01

DATE OF ANALYSIS 08/09/01
TIME OF ANALYSIS 0818
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.74	9.67	9.81	42589	9.77	40510		- 4.9
Aroclor-1016	11.19	11.12	11.26	71454	11.23	67080		- 6.1
Aroclor-1016	12.80	12.73	12.87	99691	12.83	95870		- 3.8
Aroclor-1016	13.27	13.20	13.34	58336	13.30	56810		- 2.6
Aroclor-1016	14.90	14.83	14.97	48670	14.93	46630		- 4.2
Total				320740		306900		- 4.3
Aroclor-1260	19.21	19.14	19.28	117484	19.24	114660		- 2.4
Aroclor-1260	19.92	19.84	19.98	128538	19.95	131930		2.6
Aroclor-1260	21.42	21.35	21.49	90423	21.45	85630		- 5.3
Aroclor-1260	22.40	22.34	22.48	90442	22.44	86180		- 4.7
Aroclor-1260	23.24	23.17	23.31	174902	23.28	175000		0
Total				601789		593400		1.4
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: NONE

Client: LAB

GC Sample ID: 08130135.02

RFW Lot No.:

GC Column: DB608

Instrument ID: 35

Method: P3560

DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/07/01

DATE OF ANALYSIS 08/14/01
TIME OF ANALYSIS 0828
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.76	11.69	11.83	85611	11.76	84160		- 1.7
Aroclor-1016	13.39	13.32	13.46	168309	13.39	157280		- 6.6
Aroclor-1016	14.92	14.84	14.98	213306	14.92	214420		0.5
Aroclor-1016	15.47	15.40	15.54	102062	15.47	104620		2.5
Aroclor-1016	17.25	17.18	17.32	93152	17.25	92850		- 0.3
Total				662440		653330		- 1.4
Aroclor-1260	21.62	21.55	21.69	228716	21.62	217250		- 5.0
Aroclor-1260	22.09	22.02	22.16	249376	22.09	242440		- 2.8
Aroclor-1260	23.74	23.67	23.81	167057	23.74	152010		- 9.0
Aroclor-1260	24.93	24.86	25.00	187462	24.93	168080		- 10
Aroclor-1260	25.54	25.47	25.61	333574	25.54	302570		- 9.3
Total				1166185		1082350		- 7.2
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: NONE

Client: LAB

GC Sample ID: 08130135.14

RFW Lot No.:

GC Column: DB608

Instrument ID: 35

Method: P3560

DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/07/01

DATE OF ANALYSIS 08/14/01
TIME OF ANALYSIS 1807
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.76	11.69	11.83	85611	11.72	85960		0.4
Aroclor-1016	13.39	13.32	13.46	168309	13.35	168360		0
Aroclor-1016	14.92	14.84	14.98	213306	14.88	213550		0.1
Aroclor-1016	15.47	15.40	15.54	102062	15.43	103210		1.1
Aroclor-1016	17.25	17.18	17.32	93152	17.22	93880		0.8
Total				**662440**		**664960**		**0.4**
Aroclor-1260	21.62	21.55	21.69	228716	21.60	230560		0.8
Aroclor-1260	22.09	22.02	22.16	249376	22.06	259170		3.9
Aroclor-1260	23.74	23.67	23.81	167057	23.72	165860		- 0.7
Aroclor-1260	24.93	24.86	25.00	187462	24.90	181470		- 3.2
Aroclor-1260	25.54	25.47	25.61	333574	25.52	335170		0.5
Total				**1166185**		**1172230**		**0.5**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: _____

Client: _____

GC Sample ID: 08130136.02

RFW Lot No.: _____

GC Column: RTX1701

Instrument ID: 36

DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/07/01

DATE OF ANALYSIS 08/14/01
TIME OF ANALYSIS 0828
STANDARD ID: AR1660 2803 C

Method: P3660

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.78	9.71	9.85	42589	9.78	48250		13
Aroclor-1016	11.23	11.16	11.30	71454	11.23	73150		2.4
Aroclor-1016	12.84	12.77	12.91	99691	12.84	107140		7.5
Aroclor-1016	13.31	13.24	13.38	58336	13.31	61690		5.7
Aroclor-1016	14.94	14.87	15.01	48670	14.94	50400		3.6
Total				320740		340630		6.2
Aroclor-1260	19.25	19.18	19.32	117484	19.25	116870		- 0.5
Aroclor-1260	19.95	19.88	20.02	128538	19.95	134790		4.9
Aroclor-1260	21.45	21.38	21.52	90423	21.45	84980		0.0
Aroclor-1260	22.44	22.37	22.51	90442	22.44	88190		- 2.5
Aroclor-1260	23.28	23.21	23.35	174902	23.28	174930		0
Total				601789		599760		0.3
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: _____

Client: _____

GC Sample ID: 08130136.14

RFW Lot No.: _____

GC Column: RTX1701

Instrument ID: 36

Method: P3660

DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/07/01

DATE OF ANALYSIS 08/14/01
TIME OF ANALYSIS 1807
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.78	9.71	9.85	42589	9.76	46030		8.1
Aroclor-1016	11.23	11.16	11.30	71454	11.22	75690		5.9
Aroclor-1016	12.84	12.77	12.91	99691	12.82	106620		7.0
Aroclor-1016	13.31	13.24	13.38	58336	13.29	63260		8.4
Aroclor-1016	14.94	14.87	15.01	48670	14.92	53110		9.1
Total				320740		344710		7.5
Aroclor-1260	19.25	19.18	19.32	117484	19.23	127020		8.1
Aroclor-1260	19.95	19.88	20.02	128538	19.94	143250		11
Aroclor-1260	21.45	21.38	21.52	90423	21.44	95030		5.1
Aroclor-1260	22.44	22.37	22.51	90442	22.43	96300		6.5
Aroclor-1260	23.28	23.21	23.35	174902	23.27	191340		9.4
Total				601789		652940		8.5
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

Addendum

Multilevel Calibration Method Report

Calibration curve statistics are presented on the Multilevel Calibration Method reports. This report includes the type of calibration preformed, the file reference (i.e. 06209811.06) of the calibration standards used, the slope and intercept of the curve for each analyte, and the curve fit statistics. The column labeled as "CORR COEFF" presents the coefficient of determination (r^2) for each analyte. Our laboratory acceptance criteria are based on the correlation coefficient ® being at least 0.996. Therefore, the minimum acceptance value for "CORR COEFF" (r^2) on the Multilevel Calibration Method report is 0.992.

208 Welsh Pool Road • Lionville, PA 19341-1333 • (610)-280-3000 • Fax (610)-280-3041

Multilevel Calibration Method

calibrated using height
Lionville Laboratory, Incorporated

% RSD TCX

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
08060135.05	LEVEL A	11887	0.04	297175			
08060135.06	LEVEL B	30969	0.1	309690			
08060135.07	LEVEL C	65924	0.2	329620	316009.1	13235.8811	4.18844936 ✓
08060135.08	LEVEL D	130795	0.4	326987.5			
08060135.09	LEVEL E	316573	1	316573			

% RSD DCB

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
08060135.05	LEVEL A	10801	0.008	1350125			
08060135.06	LEVEL B	26129	0.02	1306450			
08060135.07	LEVEL C	50995	0.04	1274875	1252684.5	85574.3157	6.83127441 ✓
08060135.08	LEVEL D	95381	0.08	1192262.5			
08060135.09	LEVEL E	227942	0.2	1139710			

AR1016
$\bar{x}$ = 446084.1
σ_{n-1} = 44418.875
% RSD = 9.96%

AR1260
$\bar{x}$ = 823723.6
σ_{n-1} = 45305.379
% RSD = 5.50%

AR1254
RF = 0.1790×10^{-5}

AR1260
RF = 0.1316×10^{-5}

68/7/01

Multilevel Calibration Method

calibrated using height
Lionville Laboratory, Incorporated

% RSD TCX

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
08060136.05	LEVEL A	5925	0.04	148125			
08060136.06	LEVEL B	15433	0.1	154330			
08060136.07	LEVEL C	33205	0.2	166025	163934.1	12945.8032	7.89695569 ✓
08060136.08	LEVEL D	68201	0.4	170502.5			
08060136.09	LEVEL E	180688	1	180688			

% RSD DCB

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
08060136.05	LEVEL A	7312	0.008	914000			
08060136.06	LEVEL B	18232	0.02	911600			
08060136.07	LEVEL C	36156	0.04	903900	885265	36103.0539	4.07821996 ✓
08060136.08	LEVEL D	69294	0.08	866175			
08060136.09	LEVEL E	166130	0.2	830650			

AR1016
$\bar{X}$ = 223895.2
σ = 10742.46
%RSD = 4.80%

AR1260
$\bar{X}$ = 437478.7
σ = 9446.307
%RSD = 2.16%

AR1254 (QC)
RF = 0.5483×10^{-5}
AR1254 (sample 002)
RF = 0.4007×10^{-5}

AR1260
RF = 0.2945×10^{-5}

68/7/01
MK

MULTI-COMPONENT STANDARD CONCENTRATIONS

COMPOUND	ID #	CONC (ng/ul)
TOXAPHENE	80481005	0.5
AROCLOR 1016	80480704; 0705	0.1
AROCLOR 1221	80481106	0.2
AROCLOR 1232	80481203	0.1
AROCLOR 1242	80481302	0.1
AROCLOR 1248	80481702	0.1
AROCLOR 1254	80480803	0.1
AROCLOR 1260	80480704; 0705	0.1

BREAKDOWN EVALUATION MIX CONCENTRATION

EVAL
80481504, 1506

COMPOUND	CONC (ng/ul)
ENDRIN	0.025
4,4'-DDT	0.05

Raw QC

LIONVILLE LABORATORY INC.

29 August 2001

Ms. Joylene Valdez
Los Alamos National Laboratory
TA-3, Building 271
DP. O1U MS-H865
Los Alamos, NM 87545

Ref: Subcontract No. 7791L0014-AA
Data Report for LVL Batch 0108L447
LANL Request No. 9477R

Dear Ms. Valdez:

Enclosed please find the data report for 5 soil samples received 1 August 2001. These were analyzed for PCBs on a 30 day turnaround. The EDD is enclosed.

Please do not hesitate to contact me at (610) 280-3029 with any question you may have regarding either the hard copy or electronic report.

Very truly yours,

Lionville Laboratory Incorporated

Judith L. Stone
Senior Project Manager

Enclosure:

208 Welsh Pool Road • Exton, PA 19341-1313 • (610) 280-3000 • Fax (610) 280-3041

Tuesday, July 31, 2001

REQUEST NUMBER: 9477R
ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

01084447

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 7/31/01
REPORT DUE: 9/1/01
TURN AROUND REQ'D: 30 day

These samples are on:

LANL Request Number: 9477R
Per Agreement Number:
Project Cost Code: MR0R0001E000

RAD SCREENING: Yes, Received
COMMENTS: 39 - 1082 , WN;

LANL ER SMO CONTACT: Joylene Valdez, MS H865 5056659968
Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
PCB		RC39-01-0001	02	S	7/27/1901	
PCB		RC39-01-0002	02	S	7/27/1901	
PCB		RC39-01-0003	02	S	7/27/1901	
PCB		RC39-01-0004	02	S	7/27/1901	
PCB		RC39-01-0005	02	S	7/27/1901	

Tuesday, July 31, 2001

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 9477RC

REQUEST NUMBER: 9477R
ANALYSIS TYPE: ORG

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
RC39-01-0001	02	125 ml Glass	PCB	None	S
RC39-01-0002	02	125 ml Glass	PCB	None	S
RC39-01-0003	02	125 ml Glass	PCB	None	S
RC39-01-0004	02	125 ml Glass	PCB	None	S
RC39-01-0005	02	125 ml Glass	PCB	None	S

Relinquished By:		Date	Time	Received By:		Date	Time
O Jackson	[signature]	7/31/01	1330				
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
Fed Ex		8-1-01	0935	T Boppel	T Boppel	8-1-01	0935
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		

Received for DISPOSAL By:		Date	Time	Remarks:
PRINTED NAME	SIGNATURE			

Lionville Laboratories Inc.

COOLER RECEIPT FORM

LVLI COC Batch #: 0108L447 Date Cooler Received: 8-1-01

Client/Project: LANL

A. Preliminary Examination Phase

Date Cooler Opened 8-1-01 Sample Receipt Custodian Signature: TKeppel

1. Did the cooler come with a shipping slip? (airbill, etc.) YES NO
If YES, enter carrier name & airbill # here: Fed Ex 4847325500425
2. Were custody seals present on the outside of cooler? YES NO
3. Were custody seals unbroken & intact at the date & time of arrival? YES NO
4. Were samples screened for radioactivity? YES NO
5. Were custody papers sealed in a plastic bag and taped to the inside of the cooler lid? YES NO
6. Were COC papers filled out properly? (ink, signed, etc.) YES NO
7. Did the lab sample custodian sign the COC in the appropriate place? YES NO
8. Was the project identifiable from custody papers? If YES, enter at the top of this form. YES NO
9. If required, was enough ice used? YES NO
Type of ice: blue Cooler Temperature: 3.4°C

B. Log-In Phase:

Date Samples Logged In: 8-1-01 By: (Signature): TKeppel

10. Packing Description:
11. Were all bottles sealed in plastic bags? YES NO
12. Did all bottles arrive unbroken & were labels in good condition? YES NO
13. Were all bottle labels complete? (ID, date/time, preservative, etc.) YES NO
14. Did all bottle labels agree with COC? YES NO
15. Were correct containers used for the tests indicated? YES NO
16. Did the labels indicate the correct preservatives were added to samples? ***YES NO***
17. Was the pH checked and any out of expected range documented? *YES NO*
18. Was a sufficient amount of sample sent for tests indicated? YES NO
19. Were bubbles present in volatile samples? If YES, list sample ID: YES NO

20. If discrepancies were noted, was the PM called? YES NO
21. PM notified: _____ Date: _____

COMMENTS:

PESTICIDES/PCBs: COMPLETE SDG FILE (CSF) INVENTORY SHEET

LABORATORY NAME:	Recra LabNet Philadelphia
CITY/STATE:	Lionville, PA
CASE/SDG NO.:	01081447
CLIENT NAME:	LANL, Req# 9777R
WORK ORDER NO.:	02744-004-001-9995.00
METHOD BASED ON:	SW-846, Method 8080; EPA CLP SOW 2/88

All documents in the Client's copy of the complete SDG file must be legible, clearly labeled, paginated, single-sided original documents; or of sufficient copy quality to be reproducible to fourth generation copies. (Purge file documents, e.g., original-copy chain-of-custody, etc. assembled per specific contract request only.)

	CLIENT: SDG No.:	Page Nos From	Page Nos To	Check (initials/date) Lab	Check (initials/date) Client
1	Cover Page (Lab Chron)	1	1		
2	Table of Contents (Document Inventory Sheet)	2	2	MK 8/24/01	
3	Case Narrative	3	6		
4	Shipping, Receiving, and Custody Records • Lab Chain of Custody/Work Request • Client Custody Reports/Packing Lists • Airbills	7 8/24	10 11	MK 8/24/01	
5	Pesticide/PCB Sample QC/Data Summary • Data Summary (LIMS Summary Report) • Surrogate % Recovery Form • MS/MSD Summary Form • Method Blank Summary	8/24 12	16	MK 8/24/01	
6	Sample Data, for each Sample: • Target Compound Results (single sample summary) • Chromatogram/Quant Report, 1° column • Chromatogram/Quant Report, 2° column confirmation	17	50	MK 8/24/01	
7	Calibration Standard Data	51	155		
	1° Column Standards Data Analytical Sequence Continuing Calibration Verification Form Pesticide Identification Summary, if applicable Standards Concentration Sheets • Surrogate and Spike Concentration Sheet • Analytical Standard Concentration Sheet Chromatograms/Quant Reports			MK 8/24/01	
	2° Column Standards Data Analytical Sequence Continuing Calibration Verification Form Chromatograms/Quant Reports			MK 8/24/01	
	Pesticide GPC calibration data: notebook pages and				

CLIENT: SDG No.:		Page Nos From	Page Nos To	Check (initials/date) Lab	Check (initials/date) Client
	UV detector traces				
8	Raw QC Data: Blank and Matrix Spike Data	156	168		
	Method Blank Data	—	—		
	• Target Compound Results (single sample summary)			MK	—
	• Chromatogram/Quant Report, 1° column			8/24/01	—
	• Chromatogram/Quant Report, 2° column confirmation				—
	Blank Spike/Blank Spike Duplicate	—	—		
	• Target Compound Results (single sample summary)			—	—
	• Chromatogram/Quant Report, 1° column			MK	—
	• Chromatogram/Quant Report, 2° column confirmation			8/24/01	—
	Matrix Spike/Matrix Spike Duplicate	—	—		
	• Target Compound Results (single sample summary)			—	—
	• Chromatogram/Quant Report, 1° column			—	—
	• Chromatogram/Quant Report, 2° column confirmation			—	—
9	Analysis Logbook Pages	169	179	MK 8/24/01	—
10	Standards Preparation Records	180	225		
	• Surrogate and Target Analyte Spike Solutions				—
	• Analysis Standards			MK 8/24/01	—
11	Preparation Logs	226	229		
	• Sample Prep Records (Extraction notebook pages)				—
	• Extract Chain of Custody (LIMS record, with COC section signed)			MK 8/24/01	—
	• Screening Records (Logs, Chromatograms), if applicable			—	—
	• Other Sample Cleanup Records			—	—
	• % Moisture and/or % Solids Records			—	—
12	Other/Miscellaneous	—	—		
	• MDL / IDL Table (circle one)			—	—
				—	—

COMMENTS: _____

Checked by: (Laboratory) Signature: [signature] Printed Name/Title: PATRICIA ESELDMAN DATA MGT/WITLESDER Date: 08/28/01

Checked by: (Client) Signature: _____ Printed Name/Title: _____ Date: _____

Lionville Laboratory, Inc.
PCB ANALYTICAL DATA PACKAGE FOR
LANL REQ #9477R

DATE RECEIVED: 08/01/01 LVL LOT # :0108L447

CLIENT ID	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
RC39-01-0001 02	001	S	01LE0922	07/27/01	08/03/01	08/09/01
RC39-01-0002 02	002	S	01LE0922	07/27/01	08/03/01	08/14/01
RC39-01-0003 02	003	S	01LE0922	07/27/01	08/03/01	08/09/01
RC39-01-0004 02	004	S	01LE0922	07/27/01	08/03/01	08/09/01
RC39-01-0005 02	005	S	01LE0922	07/27/01	08/03/01	08/09/01

LAB QC:

PBLKMY	MB1	S	01LE0922	N/A	08/03/01	08/08/01
PBLKMY	MB1 BS	S	01LE0922	N/A	08/03/01	08/08/01

GLOSSARY OF PESTICIDE/PCB DATA

DATA QUALIFIERS

U = Indicates that the compound was analyzed for but not detected. The minimum detection limit for the sample (not the method detection limit) is reported with the U (e.g., 10U).

J = Indicates an estimated value. This flag is used in cases where a target analyte is detected at a level less than the lower quantification level. If the limit of quantification is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination.

E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

I = Interference.

ABBREVIATIONS

BS = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.

BSD = Indicates blank spike duplicate.

MS = Indicates matrix spike.

MSD = Indicates matrix spike duplicate.

DL = Indicates that recoveries were not obtained because the extract had to be diluted for analysis.

NA = Not Applicable.

DF = Dilution Factor.

NR = Not Required.

SP = Indicates Spiked Compound.

GLOSSARY OF PESTICIDE/PCB DATA

P	=	This flag is used for an PESTICIDE/PCB target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). The lower of the two values is reported on Form 1 and flagged with a "P".
D	=	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
C	=	This flag applies to a compound that has been confirmed by GC/MS.

R:/SHARE/HPLC/PESTICIDE/PCBGLOS

Lionville Laboratory Use Only

0108L447

Custody Transfer Record/Lab Work Request

Page 1 of 1

LVLI Lionville Laboratory Inc.

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Client: Lanl Rec# 9477B

Est. Final Proj. Sampling Date:

Project #: 02744-0-eH-001-9999-00

Project Contact/Phone #:

Lionville Laboratory Project Manager: JS

QC: Spec Del: CIP TAT: 30 day

Date Rec'd: 8-1-01 Date Due: 8-31-01

Refrigerator #				5														00
#/Type Container	Liquid																	
	Solid			16														
Volume	Liquid																	
	Solid			125														
Preservatives																		
ANALYSES REQUESTED →				ORGANIC								INORG						
				VOA	BNA	Pest/PCB	Herb					Metal	CN					
Lionville Laboratory Use Only						PCB												

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected
001	BC39-01-0001-02			SO	7/30/01	1010
002	2					1015
003	3					1020
004	4					1025
005	5					1030

Special Instructions:

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

Lionville Laboratory Use Only

Samples were:
1) Shipped ✓ or Hand Delivered ___
Airbill # 4847325004 25
2) Ambient or (Chilled)
3) Received In Good Condition (Y) or N
4) Samples Properly Preserved (Y) or N
5) Received Within Holding Times (Y) or N

Tamper Resistant Seal was:
1) Present on Outer Package (Y) or N
2) Unbroken on Outer Package (Y) or N
3) Present on Sample (Y) or N
4) Unbroken on Sample (Y) or N

COC Record Present Upon Sample Rec't (Y) or N

Cooler Temp. 3.4 °C

Discrepancies Between Samples Labels and COC Record? Y or (N)
NOTES:

Relinquished by	Received by	Date	Time
FedEx	TKrupp	8-1-01	0935

Relinquished by	Received by	Date	Time
COMPOSITE WASTE	ORIGINAL REWRITTEN		

Tuesday, July 31, 2001

REQUEST NUMBER: 9477R
ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

01084447

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 7/31/01
REPORT DUE: 9/1/01
TURN AROUND REQ'D: 30 day

These samples are on:

LANL Request Number: 9477R
Per Agreement Number:
Project Cost Code: MR0R0001E000

RAD SCREENING: Yes, Received
COMMENTS: 39 - 1082 , WN;

LANL ER SMO CONTACT: Joylene Valdez, MS H865 5056659968
Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
PCB		RC39-01-0001	02	S	7/27/1901	
PCB		RC39-01-0002	02	S	7/27/1901	
PCB		RC39-01-0003	02	S	7/27/1901	
PCB		RC39-01-0004	02	S	7/27/1901	
PCB		RC39-01-0005	02	S	7/27/1901	

Final Page of REQUEST NUMBER 9477R

Tuesday, July 31, 2001

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 9477RC

REQUEST NUMBER: 9477R
ANALYSIS TYPE: ORG

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
RC39-01-0001	02	125 ml Glass	PCB	None	S
RC39-01-0002	02	125 ml Glass	PCB	None	S
RC39-01-0003	02	125 ml Glass	PCB	None	S
RC39-01-0004	02	125 ml Glass	PCB	None	S
RC39-01-0005	02	125 ml Glass	PCB	None	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 9477R Page 1

Relinquished By:		Date	Time	Received By:		Date	Time
O Jackson	[signature]	7/31/01	1330				
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
Fed Ex		8-1-01	0935	J Koppel	[signature]	8-1-01	0935
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		

Received for DISPOSAL By:		Date	Time	Remarks:
PRINTED NAME	SIGNATURE			

Lionville Laboratories Inc.

COOLER RECEIPT FORM

LVLI COC Batch #: 01081447 Date Cooler Received: 8-1-01

Client/Project: LANL

A. Preliminary Examination Phase

Date Cooler Opened 8-1-01 Sample Receipt Custodian Signature: Tkappel

1. Did the cooler come with a shipping slip? (airbill, etc.) YES NO
If YES, enter carrier name & airbill # here: Fed Ex 4847325000425
2. Were custody seals present on the outside of cooler? YES NO
3. Were custody seals unbroken & intact at the date & time of arrival? YES NO
4. Were samples screened for radioactivity? YES NO
5. Were custody papers sealed in a plastic bag and taped to the inside of the cooler lid? YES NO
6. Were COC papers filled out properly? (ink, signed, etc.) YES NO
7. Did the lab sample custodian sign the COC in the appropriate place? YES NO
8. Was the project identifiable from custody papers? If YES, enter at the top of this form. YES NO
9. If required, was enough ice used? YES NO
Type of ice: blue Cooler Temperature: 3.4°C

B. Log-In Phase:

Date Samples Logged In: 8-1-01 By: (Signature): Tkappel

10. Packing Description:
11. Were all bottles sealed in plastic bags? YES NO
12. Did all bottles arrive unbroken & were labels in good condition? YES NO
13. Were all bottle labels complete? (ID, date/time, preservative, etc.) YES NO
14. Did all bottle labels agree with COC? YES NO
15. Were correct containers used for the tests indicated? YES NO
16. Did the labels indicate the correct preservatives were added to samples? YES *NO*
17. Was the pH checked and any out of expected range documented? YES *NO*
18. Was a sufficient amount of sample sent for tests indicated? YES NO
19. Were bubbles present in volatile samples? If YES, list sample ID: YES NO

20. If discrepancies were noted, was the PM called? YES NO
21. PM notified: Date:

COMMENTS:

Lionville Laboratory, Inc.

PCBs by GC

RFW Batch Number: 0108L447 Client: LANL REQ #9477R Work Order: 02744064001 Page: 1 Report Date: 08/24/01 15:28

	Cust ID:	RC39-01-0001 02	RC39-01-0002 02	RC39-01-0003 02	RC39-01-0004 02	RC39-01-0005 02	PBLKMY
Sample Information	RFW#:	001	002	003	004	005	01LE0922-MB1
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	20.0	1.00	1.00	1.00	1.00
	Units:	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Surrogate: Tetrachloro-m-xylene		82 %	D %	80 %	85 %	78 %	90 %
Decachlorobiphenyl		76 %	D %	72 %	75 %	73 %	74 %
Aroclor-1016		35 U	700 U	36 U	35 U	35 U	33 U
Aroclor-1221		70 U	1400 U	71 U	71 U	70 U	67 U
Aroclor-1232		35 U	700 U	36 U	35 U	35 U	33 U
Aroclor-1242		35 U	700 U	36 U	35 U	35 U	33 U
Aroclor-1248		35 U	700 U	36 U	35 U	35 U	33 U
Aroclor-1254		35 U	3000	36 U	35 U	35 U	33 U
Aroclor-1260		32 J	700 U	86	35 U	36	33 U

	Cust ID:	PBLKMY BS
Sample Information	RFW#:	01LE0922-MB1
	Matrix:	SOIL
	D.F.:	1.00
	Units:	UG/KG
Surrogate: Tetrachloro-m-xylene		70 %
Decachlorobiphenyl		59 %
Aroclor-1016		33 U
Aroclor-1221		67 U
Aroclor-1232		33 U
Aroclor-1242		33 U
Aroclor-1248		33 U
Aroclor-1254		71 %
Aroclor-1260		33 U

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked. %= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

2F

SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9477R

RFW Lot No.: 0108L447

	CLIENT SAMPLE NO.	S1 ( )#	OTHER
01	RC39-01-0001 02	82	76
02	RC39-01-0002 02	D	D
03	RC39-01-0003 02	80	72
04	RC39-01-0004 02	85	75
05	RC39-01-0005 02	78	73
06	PBLKMYLE0922-MB1	90	74
07	PBLKMYLE0922-MB1 BS	70	59

	ADVISORY QC LIMITS
S1 ( ) = Tetrachloro-m-xylene	(28-118)
S2 ( ) = Decachlorobiphenyl	(38-122)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogates diluted out

3F

SOIL PESTICIDE MATRIX SPIKE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9477R RFW Lot No.: 0108L447

MATRIX Spike - Sample No.: PBLKMYLE0922-MB1 Level:(low/med) LOW

COMPOUND	SPIKE ADDED UG/KG	SAMPLE CONCENTRATION UG/KG	MS CONCENTRATION UG/KG	MS % REC #	QC LIMITS REC
Aroclor-1254	125	0	89.3	71	30 -146

Column to be used to flag recovery value with an asterisk
* Values outside of QC limits

Spike Recovery: 0 out of 1 outside limits

COMMENTS:

4C

PESTICIDE METHOD BLANK SUMMARY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9477R

Lab Sample ID: 01LE0922-MB1 Lab File ID: 08060135 .53

Matrix:(Soil/Water) SOIL Level:(low/med) LOW

Date Extracted: 08/03/01 Extraction:(SepF/Cont/Sonc) CONT

Date Analyzed (1): 08/08/01 Date Analyzed (2): 08/08/01

Time Analyzed (1): 2016 Time Analyzed (2): 2016

Instrument ID (1): 35 Instrument ID (2): 36

GC Column ID (1): B608 GC Column ID (2): RTX1701

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	RC39-01-0001 02	0108L447-001	08/09/01	08/09/01
02	RC39-01-0002 02	0108L447-002	08/14/01	08/14/01
03	RC39-01-0003 02	0108L447-003	08/09/01	08/09/01
04	RC39-01-0004 02	0108L447-004	08/09/01	08/09/01
05	RC39-01-0005 02	0108L447-005	08/09/01	08/09/01
06	PBLKMYLE0922-MB1 BS	01LE0922-MB1S	08/08/01	08/08/01

Flag data

COMMENTS:

DATA VALIDATION COVER SHEET (Example)

SECTION I.

REQUEST NUMBER: 9477 COST CODE: _____

VALIDATION DATE: _____

LAB NAME: LULT LAB CODE: _____

VALIDATOR: _____ ORGANIZATION: _____

ANALYTICAL SUITE: ___ VOLATILES ___ HIGH EXPLOSIVES

___ SEMIVOLATILES ___ INORGANICS

___ PESTICIDES/AROCLORS ___ RADIOCHEMISTRY

OTHER (describe) _____

SECTION II. COMPLETENESS CHECKLIST

Item	Present? (Y/N/NA)	Item	Present? (Y/N/NA)
1. COC form(s)		2. Case Narrative	
3. Sample Results		4. Sample Chromatograms	
5. Standard Chromatograms		6. Quantitation Reports	
7. QC Forms			

Identify any samples in the assigned Request Number that are missing:

_____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____

Comments: include information about requests to the laboratory and agreed upon date of resolution and lab contact: (Attach additional comment sheets as necessary)

_____

_____

_____

Signature/1st validation: _____ Date/1st validation: _____

Signature/2nd validation: _____ Date/2nd validation: _____

LIONVILLE LABORATORY INC.

29 August 2001

Ms. Joylene Valdez
Los Alamos National Laboratory
TA-3, Building 271
DP. O1U MS-H865
Los Alamos, NM 87545

Ref: Subcontract No. 7791L0014-AA
Data Report for LVL Batch 0108L447
LANL Request No. 9477R

Dear Ms. Valdez:

Enclosed please find the data report for 5 soil samples received 1 August 2001. These were analyzed for PCBs on a 30 day turnaround. The EDD is enclosed.

Please do not hesitate to contact me at (610) 280-3029 with any question you may have regarding either the hard copy or electronic report.

Very truly yours,

Lionville Laboratory Incorporated

Judith L. Stone
Senior Project Manager

Enclosure:

208 Welsh Pool Road • Exton, PA 19341-1313 • (610) 280-3000 • Fax (610) 280-3041

Tuesday, July 31, 2001

REQUEST NUMBER: 9477R
ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

01081447

Please analyze the enclosed samples according to the schedule indicated:

These samples are on:

SHIP DATE: 7/31/01
REPORT DUE: 9/1/01
TURN AROUND REQ'D: 30 day

LANL Request Number: 9477R
Per Agreement Number:
Project Cost Code: MR0R0001E000

RAD SCREENING: Yes, Received
COMMENTS: 39 - 1082 , WN;

LANL ER SMO CONTACT: Joylene Valdez, MS H865 5056659968
Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
PCB		RC39-01-0001	02	S	7/27/1901	
PCB		RC39-01-0002	02	S	7/27/1901	
PCB		RC39-01-0003	02	S	7/27/1901	
PCB		RC39-01-0004	02	S	7/27/1901	
PCB		RC39-01-0005	02	S	7/27/1901	

Tuesday, July 31, 2001

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 9477RC

REQUEST NUMBER: 9477R
ANALYSIS TYPE: ORG

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
RC39-01-0001	02	125 ml Glass	PCB	None	S
RC39-01-0002	02	125 ml Glass	PCB	None	S
RC39-01-0003	02	125 ml Glass	PCB	None	S
RC39-01-0004	02	125 ml Glass	PCB	None	S
RC39-01-0005	02	125 ml Glass	PCB	None	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 9477R Page 1

Relinquished By:		Date	Time	Received By:		Date	Time
O Jackson	[signature]	7/31/01	1330				
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
Fed Ex		8-1-01	0935	J Beppel	[signature]	8-1-01	0935
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		

Received for DISPOSAL By:		Date	Time	Remarks:
PRINTED NAME	SIGNATURE			

Lionville Laboratories Inc.

COOLER RECEIPT FORM

LVLI COC Batch #: 0108L447 Date Cooler Received: 8-1-01

Client/Project: LANL

A. Preliminary Examination Phase

Date Cooler Opened 8-1-01 Sample Receipt Custodian Signature: Thepp

1. Did the cooler come with a shipping slip? (airbill, etc.) YES NO

If YES, enter carrier name & airbill # here: Fed Ex 4847325004 25

2. Were custody seals present on the outside of cooler? YES NO
3. Were custody seals unbroken & intact at the date & time of arrival? YES NO
4. Were samples screened for radioactivity? YES NO
5. Were custody papers sealed in a plastic bag and taped to the inside of the cooler lid? YES NO
6. Were COC papers filled out properly? (ink, signed, etc.) YES NO
7. Did the lab sample custodian sign the COC in the appropriate place? YES NO
8. Was the project identifiable from custody papers? If YES, enter at the top of this form. YES NO
9. If required, was enough ice used? YES NO

Type of ice: blue Cooler Temperature: 3.4°C

B. Log-In Phase:

Date Samples Logged In: 8-1-01 By: (Signature): Thepp

10. Packing Description:
11. Were all bottles sealed in plastic bags? YES NO
12. Did all bottles arrive unbroken & were labels in good condition? YES NO
13. Were all bottle labels complete? (ID, date/time, preservative, etc.) YES NO
14. Did all bottle labels agree with COC? YES NO
15. Were correct containers used for the tests indicated? YES NO
16. ***Did the labels indicate the correct preservatives were added to samples?*** YES NO
17. *Was the pH checked and any out of expected range documented?* YES NO
18. Was a sufficient amount of sample sent for tests indicated? YES NO
19. Were bubbles present in volatile samples? If YES, list sample ID: YES NO

20. If discrepancies were noted, was the PM called? YES NO
21. PM notified: _____ Date: _____

COMMENTS:

PESTICIDES/PCBs: COMPLETE SDG FILE (CSF) INVENTORY SHEET

LABORATORY NAME:	Recra LabNet Philadelphia
CITY/STATE:	Lionville, PA
CASE/SDG NO.:	01081447
CLIENT NAME:	LANL Req# 9777R
WORK ORDER NO.:	02744-004-001-9999-00
METHOD BASED ON:	SW-846, Method 8080; EPA CLP SOW 2/88

All documents in the Client's copy of the complete SDG file must be legible, clearly labeled, paginated, single-sided original documents; or of sufficient copy quality to be reproducible to fourth generation copies. (Purge file documents, e.g., original-copy chain-of-custody, etc. assembled per specific contract request only.)

	CLIENT: SDG No.:	Page Nos From	Page Nos To	Check (initials/date) Lab	Check (initials/date) Client
1	Cover Page (Lab Chron)	1	1		
2	Table of Contents (Document Inventory Sheet)	2	2	MK 8/24/01	
3	Case Narrative	3	6		
4	Shipping, Receiving, and Custody Records	7	10 11		
	• Lab Chain of Custody/Work Request	8/24		MK 8/24/01	
	• Client Custody Reports/Packing Lists				
	• Airbills				
5	Pesticide/PCB Sample QC/Data Summary	8/24 12	16		
	• Data Summary (LIMS Summary Report)				
	• Surrogate % Recovery Form			MK 8/24/01	
	• MS/MSD Summary Form				
	• Method Blank Summary				
6	Sample Data, for each Sample:	17	50		
	• Target Compound Results (single sample summary)			MK 8/24/01	
	• Chromatogram/Quant Report, 1° column				
	• Chromatogram/Quant Report, 2° column confirmation				
7	Calibration Standard Data	51	155		
	1° Column Standards Data				
	Analytical Sequence				
	Continuing Calibration Verification Form			MK 8/24/01	
	Pesticide Identification Summary, if applicable				
	Standards Concentration Sheets				
	• Surrogate and Spike Concentration Sheet				
	• Analytical Standard Concentration Sheet				
	Chromatograms/Quant Reports				
	2° Column Standards Data				
	Analytical Sequence				
	Continuing Calibration Verification Form			MK 8/24/01	
	Chromatograms/Quant Reports				
	Pesticide GPC calibration data: notebook pages and				

CLIENT: SDG No.:		Page Nos		Check (initials/date)	
		From	To	Lab	Client
	UV detector traces				
8	Raw QC Data: Blank and Matrix Spike Data	156	168		
	Method Blank Data	—	—		
	• Target Compound Results (single sample summary)			MK 8/24/01	—
	• Chromatogram/Quant Report, 1° column				—
	• Chromatogram/Quant Report, 2° column confirmation				—
	Blank Spike/Blank Spike Duplicate	—	—		
	• Target Compound Results (single sample summary)			—	—
	• Chromatogram/Quant Report, 1° column			MK 8/24/01	—
	• Chromatogram/Quant Report, 2° column confirmation				—
	Matrix Spike/Matrix Spike Duplicate	—	—		
	• Target Compound Results (single sample summary)			—	—
	• Chromatogram/Quant Report, 1° column			—	—
	• Chromatogram/Quant Report, 2° column confirmation			—	—
9	Analysis Logbook Pages	169	179	MK 8/24/01	—
10	Standards Preparation Records	180	225		
	• Surrogate and Target Analyte Spike Solutions				—
	• Analysis Standards			MK 8/24/01	—
11	Preparation Logs	226	229		
	• Sample Prep Records (Extraction notebook pages)				—
	• Extract Chain of Custody (LIMS record, with COC section signed)			MK 8/24/01	—
	• Screening Records (Logs, Chromatograms), if applicable			—	—
	• Other Sample Cleanup Records			—	—
	• % Moisture and/or % Solids Records			—	—
12	Other/Miscellaneous	—	—		
	• MDL / IDL Table (circle one)			—	—
				—	—

COMMENTS: _____

Checked by: (Laboratory) [signature] Signature — PATRICIA ESELDMAN DATA MANAGEMENT Leader Printed Name/Title — 08/28/01 Date

Checked by: (Client) _____ Signature — _____ Printed Name/Title — Date

Lionville Laboratory, Inc.
PCB ANALYTICAL DATA PACKAGE FOR
LANL REQ #9477R

DATE RECEIVED: 08/01/01 LVL LOT # :0108L447

CLIENT ID	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
RC39-01-0001 02	001	S	01LE0922	07/27/01	08/03/01	08/09/01
RC39-01-0002 02	002	S	01LE0922	07/27/01	08/03/01	08/14/01
RC39-01-0003 02	003	S	01LE0922	07/27/01	08/03/01	08/09/01
RC39-01-0004 02	004	S	01LE0922	07/27/01	08/03/01	08/09/01
RC39-01-0005 02	005	S	01LE0922	07/27/01	08/03/01	08/09/01

LAB QC:

PBLKMY	MB1	S	01LE0922	N/A	08/03/01	08/08/01
PBLKMY	MB1 BS	S	01LE0922	N/A	08/03/01	08/08/01

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PCB

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r:\group\data\pest\00-tc-pcb

Case Narrative

LIONVILLE LABORATORY INC.

Analytical Report

Client: LANL REQ.#9477R
LVL#: 0108L447
Subcontract #: 7791L0014-AA

W.O.#: 02744-064-001-9999-00
Date Received: 08-01-01

PCB

The set of samples consisted of five (5) soil samples collected on 07-27-01.

The samples and their associated QC samples were extracted on 08-03-01 and analyzed according to Lionville Laboratory OPs based on SW846, 3rd Edition procedures on 08-08,09,14-01. The extraction procedure was based on method 3540 and the extracts were analyzed based on method 8082 for Aroclors only.

The following is a summary of the QC results accompanying the sample results and a description of any problems encountered during their analyses:

1. The cooler temperature has been recorded on the chain-of-custody.
2. All required holding times for extraction and analysis have been met.
3. The samples and their associated QC samples received a sulfuric acid and sulfur cleanup.
4. The method blank was below the reporting limits for all target compounds.
5. All surrogate recoveries were within acceptance criteria.
6. The blank spike recovery was within acceptance criteria.
7. Sample RC39-01-0002 02 required a twenty-fold instrument dilution due to the high concentrations of target analytes. Reporting limits have been adjusted to reflect the necessary dilutions.
8. All initial calibrations associated with this data set were within acceptance criteria.
9. All continuing calibration standards analyzed prior to sample extracts were within acceptance criteria.
10. Patterns for Aroclors 1254 and 1260 were identified in these samples. The reported Aroclor was chosen based on the best pattern match and fit. Quantitation was performed using congeners common to both Aroclors to give the best overall total PCB concentration.
11. I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, except as detailed in this QC Report.

Iain Daniels
Deputy Laboratory Manager
Lionville Laboratory Incorporated

8/29/01
Date

pef\:\group\data\pest\lanl\07L423.pcb

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 354 pages.

GLOSSARY OF PESTICIDE/PCB DATA

DATA QUALIFIERS

U = Indicates that the compound was analyzed for but not detected. The minimum detection limit for the sample (not the method detection limit) is reported with the U (e.g., 10U).

J = Indicates an estimated value. This flag is used in cases where a target analyte is detected at a level less than the lower quantification level. If the limit of quantification is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination.

E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

I = Interference.

ABBREVIATIONS

BS = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.

BSD = Indicates blank spike duplicate.

MS = Indicates matrix spike.

MSD = Indicates matrix spike duplicate.

DL = Indicates that recoveries were not obtained because the extract had to be diluted for analysis.

NA = Not Applicable.

DF = Dilution Factor.

NR = Not Required.

SP = Indicates Spiked Compound.

GLOSSARY OF PESTICIDE/PCB DATA

P = This flag is used for an PESTICIDE/PCB target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). The lower of the two values is reported on Form I and flagged with a "P".

D = This flag identifies all compounds identified in an analysis at a secondary dilution factor.

C = This flag applies to a compound that has been confirmed by GC/MS.

Shipping, Receiving, and Custody Records

Lionville Laboratory Use Only
0108L447

Custody Transfer Record/Lab Work Request

LVLI Lionville Laboratory Inc.

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Client: Lanl Proj # 9477B
Est. Final Proj. Sampling Date:
Project #: 0274N-0 oN-001-9999-00
Project Contact/Phone #:
Lionville Laboratory Project Manager: JS
QC: Spec Del: CLP TAT: 30 day
Date Rec'd: 8-1-01 Date Due: 8-31-01

Refrigerator #				A 5													8
#/Type Container	Liquid																
	Solid			1G													
Volume	Liquid																
	Solid			125													
Preservatives				–													
ANALYSES REQUESTED →				ORGANIC							INORG						
				VOA	BNA	Pest/ PCB	Herb				Metal	CN					
				↓ Lionville Laboratory Use Only ↓													
						OPCB											

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected											
001	BC39-01-0001 02			S	7/27/01	1010			✓								
002	2					1015			✓								
003	3					1020			✓								
004	4					1025			✓								
005	5					1030			✓								

Special Instructions:

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

Lionville Laboratory Use Only

Samples were:
1) Shipped ✓ or Hand Delivered ___
Airbill # 4847325004 25
2) Ambient or Chilled
3) Received in Good Condition (Y) or N
4) Samples Properly Preserved (Y) or N
5) Received Within Holding Times (Y) or N

Tamper Resistant Seal was:
1) Present on Outer Package (Y) or N
2) Unbroken on Outer Package (Y) or N
3) Present on Sample (Y) or N
4) Unbroken on Sample (Y) or N

COC Record Present Upon Sample Rec't (Y) or N

Cooler Temp. 3.4 °C

Discrepancies Between Samples Labels and COC Record? Y or (N)
NOTES:

Relinquished by	Received by	Date	Time
FedEx	TKroppel	8-1-01	0935

Relinquished by	Received by	Date	Time

COMPOSITE WASTE

ORIGINAL REWRITTEN

Tuesday, July 31, 2001

REQUEST NUMBER: 9477R
ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

01082447

Please analyze the enclosed samples according to the schedule indicated:

These samples are on:

SHIP DATE: 7/31/01
REPORT DUE: 9/1/01
TURN AROUND REQ'D: 30 day

LANL Request Number: 9477R
Per Agreement Number:
Project Cost Code: MR0R0001E000

RAD SCREENING: Yes, Received
COMMENTS: 39 - 1082 , WN;

LANL ER SMO CONTACT: Joylene Valdez, MS H865 5056659968
Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
PCB		RC39-01-0001	02	S	7/27/1901	
PCB		RC39-01-0002	02	S	7/27/1901	
PCB		RC39-01-0003	02	S	7/27/1901	
PCB		RC39-01-0004	02	S	7/27/1901	
PCB		RC39-01-0005	02	S	7/27/1901	

Final Page of REQUEST NUMBER 9477R

Tuesday, July 31, 2001

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 9477RC

REQUEST NUMBER: 9477R
ANALYSIS TYPE: ORG

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
RC39-01-0001	02	125 ml Glass	PCB	None	S
RC39-01-0002	02	125 ml Glass	PCB	None	S
RC39-01-0003	02	125 ml Glass	PCB	None	S
RC39-01-0004	02	125 ml Glass	PCB	None	S
RC39-01-0005	02	125 ml Glass	PCB	None	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 9477R Page 1

Relinquished By:		Date	Time
O Jackson	[signature]	7/31/01	1330
PRINTED NAME	SIGNATURE		
Fed Ex		8-1-01	0935
PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE		

Received By:		Date	Time
PRINTED NAME	SIGNATURE		
T Koppel	T Koppel	8-1-01	0935
PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE		

Received for DISPOSAL By:		Date	Time
PRINTED NAME	SIGNATURE		

Remarks:

Lionville Laboratories Inc.

COOLER RECEIPT FORM

LVLI COC Batch #: 01081447 Date Cooler Received: 8-1-01

Client/Project: LANL

A. Preliminary Examination Phase

Date Cooler Opened 8-1-01 Sample Receipt Custodian Signature: TKappel

1. Did the cooler come with a shipping slip? (airbill, etc.) YES NO
If YES, enter carrier name & airbill # here: Fed Ex 4847325000425
2. Were custody seals present on the outside of cooler? YES NO
3. Were custody seals unbroken & intact at the date & time of arrival? YES NO
4. Were samples screened for radioactivity? YES NO
5. Were custody papers sealed in a plastic bag and taped to the inside of the cooler lid? YES NO
6. Were COC papers filled out properly? (ink, signed, etc.) YES NO
7. Did the lab sample custodian sign the COC in the appropriate place? YES NO
8. Was the project identifiable from custody papers? If YES, enter at the top of this form. YES NO
9. If required, was enough ice used? YES NO
Type of ice: blue Cooler Temperature: 3.4°C

B. Log-In Phase:

Date Samples Logged In: 8-1-01 By: (Signature): TKappel

10. Packing Description:
11. Were all bottles sealed in plastic bags? YES NO
12. Did all bottles arrive unbroken & were labels in good condition? YES NO
13. Were all bottle labels complete? (ID, date/time, preservative, etc.) YES NO
14. Did all bottle labels agree with COC? YES NO
15. Were correct containers used for the tests indicated? YES NO
16. Did the labels indicate the correct preservatives were added to samples? YES *NO*
17. Was the pH checked and any out of expected range documented? YES *NO*
18. Was a sufficient amount of sample sent for tests indicated? YES NO
19. Were bubbles present in volatile samples? If YES, list sample ID: YES NO

20. If discrepancies were noted, was the PM called? YES NO
21. PM notified: _____ Date: _____

COMMENTS:

Data Summary/Sample QC

Lionville Laboratory, Inc.

PCBs by GC

RFW Batch Number: 0108L447 Client: LANL REQ #9477R Work Order: 02744064001 Page: 1

Report Date: 08/24/01 15:28

13

	Cust ID:	RC39-01-0001 02	RC39-01-0002 02	RC39-01-0003 02	RC39-01-0004 02	RC39-01-0005 02	PBLKMY
Sample Information	RFW#:	001	002	003	004	005	01LE0922-MB1
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	20.0	1.00	1.00	1.00	1.00
	Units:	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Surrogate: Tetrachloro-m-xylene		82 %	D %	80 %	85 %	78 %	90 %
Decachlorobiphenyl		76 %	D %	72 %	75 %	73 %	74 %
Aroclor-1016		35 U	700 U	36 U	35 U	35 U	33 U
Aroclor-1221		70 U	1400 U	71 U	71 U	70 U	67 U
Aroclor-1232		35 U	700 U	36 U	35 U	35 U	33 U
Aroclor-1242		35 U	700 U	36 U	35 U	35 U	33 U
Aroclor-1248		35 U	700 U	36 U	35 U	35 U	33 U
Aroclor-1254		35 U	3000	36 U	35 U	35 U	33 U
Aroclor-1260		32 J	700 U	86	35 U	36	33 U

	Cust ID:	PBLKMY BS
Sample Information	RFW#:	01LE0922-MB1
	Matrix:	SOIL
	D.F.:	1.00
	Units:	UG/KG
Surrogate: Tetrachloro-m-xylene		70 %
Decachlorobiphenyl		59 %
Aroclor-1016		33 U
Aroclor-1221		67 U
Aroclor-1232		33 U
Aroclor-1242		33 U
Aroclor-1248		33 U
Aroclor-1254		71 %
Aroclor-1260		33 U

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

2F

SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9477R

RFW Lot No.: 0108L447

	CLIENT SAMPLE NO.	S1 ( )#	OTHER
01	RC39-01-0001 02	82	76
02	RC39-01-0002 02	D	D
03	RC39-01-0003 02	80	72
04	RC39-01-0004 02	85	75
05	RC39-01-0005 02	78	73
06	PBLKMYLE0922-MB1	90	74
07	PBLKMYLE0922-MB1 BS	70	59

ADVISORY QC LIMITS

S1 ( ) = Tetrachloro-m-xylene (28-118)

S2 ( ) = Decachlorobiphenyl (38-122)

Column to be used to flag recovery values

* Values outside of QC limits

D Surrogates diluted out

3F

SOIL PESTICIDE MATRIX SPIKE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9477R RFW Lot No.: 0108L447

MATRIX Spike - Sample No.: PBLKMYLE0922-MB1 Level:(low/med) LOW

COMPOUND	SPIKE ADDED UG/KG	SAMPLE CONCENTRATION UG/KG	MS CONCENTRATION UG/KG	MS % REC #	QC LIMITS REC
Aroclor-1254	125	0	89.3	71	30 -146

Column to be used to flag recovery value with an asterisk
* Values outside of QC limits

Spike Recovery: 0 out of 1 outside limits

COMMENTS:

4C

PESTICIDE METHOD BLANK SUMMARY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9477R

Lab Sample ID: 01LE0922-MB1 Lab File ID: 08060135 .53

Matrix: (Soil/Water) SOIL Level: (low/med) LOW

Date Extracted: 08/03/01 Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed (1): 08/08/01 Date Analyzed (2): 08/08/01

Time Analyzed (1): 2016 Time Analyzed (2): 2016

Instrument ID (1): 35 Instrument ID (2): 36

GC Column ID (1): B608 GC Column ID (2): RTX1701

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	RC39-01-0001 02	0108L447-001	08/09/01	08/09/01
02	RC39-01-0002 02	0108L447-002	08/14/01	08/14/01
03	RC39-01-0003 02	0108L447-003	08/09/01	08/09/01
04	RC39-01-0004 02	0108L447-004	08/09/01	08/09/01
05	RC39-01-0005 02	0108L447-005	08/09/01	08/09/01
06	PBLKMYLE0922-MB1 BS	01LE0922-MB1S	08/08/01	08/08/01

Westfall

COMMENTS:

FORM IV PEST

5/88 Rev.

Sample Data

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC39-01-0001 02

Lab Name: Lionville Labs, Inc. Work Order: 0274406400 1

Client: LANL REQ #9477R

Matrix: SOIL

Lab Sample ID: 0108L447-001

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: 08060135.62

Level: (low/med) LOW

Date Received: 08/01/01

% Moisture: not dec. 6 dec.

Date Extracted: 08/03/01

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 08/09/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	35	U
11104-28-2	Aroclor-1221	70	U
11141-16-5	Aroclor-1232	35	U
53469-21-9	Aroclor-1242	35	U
12672-29-6	Aroclor-1248	35	U
11097-69-1	Aroclor-1254	35	U
11096-82-5	Aroclor-1260	32	J

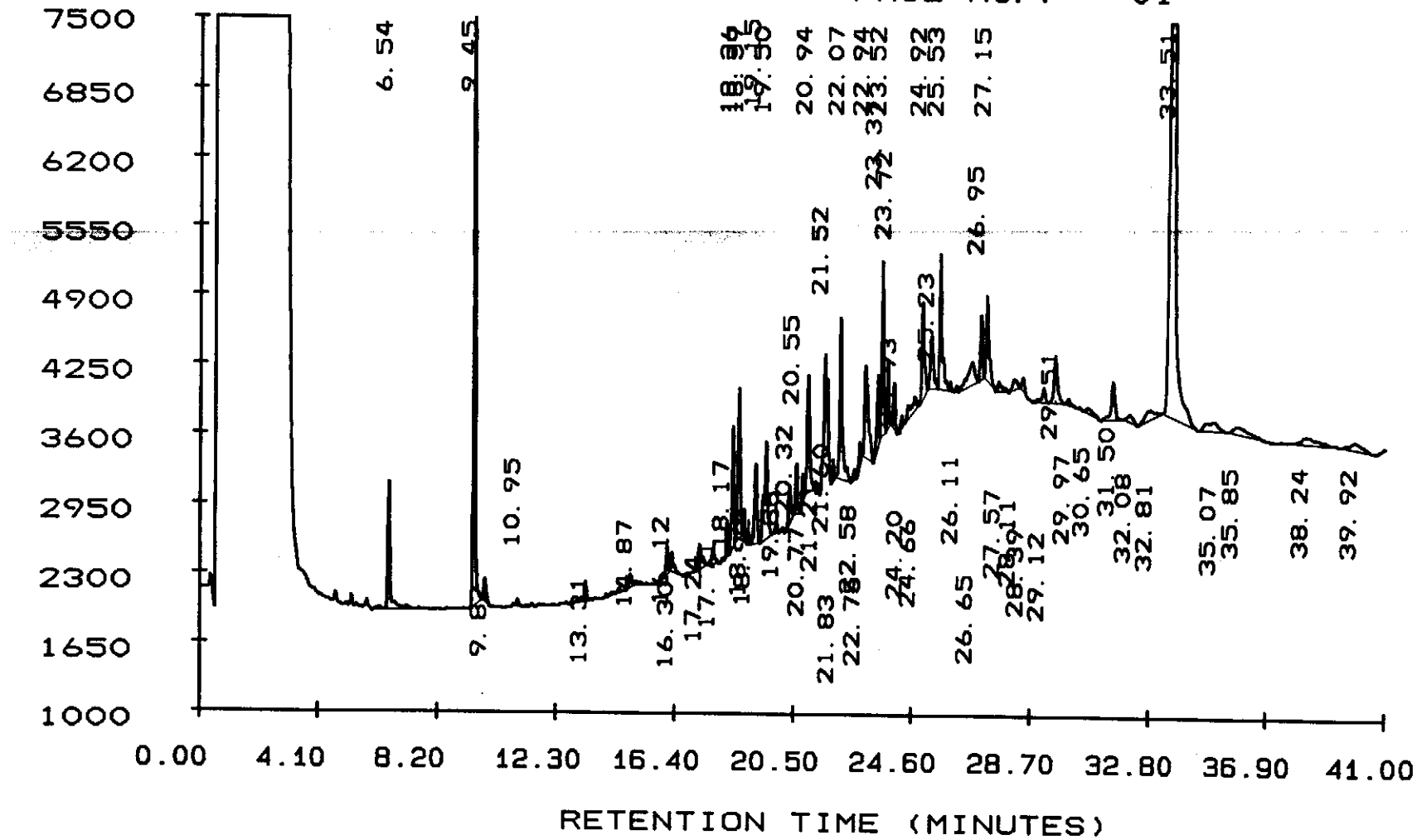
FORM 1 PEST

12/88 Rev.

0108L447-001

SAMPLE NO. : 08060135 .62
TEST NO. :
METHOD NO. : P35 / P35

INSTRUMENT: 35
DATE TIME: 08/09/01 03:29:49
PAGE NO. : 01



Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/22/01 13:34:16

EXTERNAL STANDARD

SAMPLE: 08060135 .62 INST:35 VIAL:F0 SEQ NUMBER:062
TEST : OPCB DATE-TIME INJECTED : 08/09/01 03:29:49
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/22/01 13:34:16
METHOD: P35 / PCBLK REV #: 00223 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC39-01-0001 02 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9477R COLUMN TYPE: DB608
LAB ID: 0108L447-001 RAW FILE: RAW3:H9145687
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	63315	11660	V	6.539			
006	268964	54998	V	9.448	1	TCX	0.033 82.50%
007	14515	2173	V	9.825			
008	6716	724	V	10.947			
011	13285	1787	V	13.312			
014	8241	1251	V	14.871			
016	11797	2665	V	16.122			
017	12640	1822	V	16.298			
018	20684	2309	V	17.244			
019	10941	1444	V	17.706			
021	15838	3251	V	18.167			
022	58982	11255	V	18.361			
023	72775	13916	V	18.565			
024	11606	2746	V	18.759			
025	4809	1225	V	18.919			
026	41805	7334	V	19.153			
027	6391	1579	V	19.405			
028	27888	6243	V	19.504			
029	4811	970	V	19.876			
031	20374	3525	V	20.316			
032	22358	4552	V	20.549			
033	10504	2578	V	20.774			
034	68750	10855	V	20.940			
035	6888	892	V	21.213			
036	21014	5581	V	21.519			
037	8803	3361	V	21.602			
038	7998	1947	V	21.830			
039	80430	14383	V	22.069			
040	2535	602	V	22.303			
041	6298	1095	V	22.577			
042	8646	2118	V	22.749			
043	78014	8499	V	22.941			
044	34093	6583	V	23.366			
045	81437	16171	V	23.517			
046	25501	6113	V	23.723			
047	22176	4353	V	23.934			
049	5098	1205	V	24.200			
050	4210	789	V	24.429			
051	6162	989	V	24.659			
052	55276	8876	V	24.919			

8/22/01
NK

SAMPLE: 08060135 .62 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/09/01 03:29:49
DATE-TIME PROCESSED : 08/22/01 13:34:16

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
053	40794	4964	V	25.225			
054	48676	11050	V	25.526			
055	2000	937	V	25.635			
056	2493	690	V	25.891			
057	2820	617	V	26.112			
058	38200	2148	V	26.653			
059	31347	5974	V	26.946			
060	55974	7849	V	27.146			
061	11258	938	V	27.569			
062	11460	1013	V	28.106			
063	8452	1295	V	28.393			
064	12477	1333	V	29.118			
065	36664	4251	V	29.510			
066	7656	608	V	29.972			
067	10021	537	V	30.645			
068	35637	3546	V	31.497			
069	11474	772	V	32.082			
070	24088	848	V	32.811			
071	997371	96923	V	33.505	1	DCB	0.076 76%
072	28636	878	V	35.070			
073	27473	701		35.852			
074	32324	715	V	38.245			
075	23288	711		39.922			

flagged/info

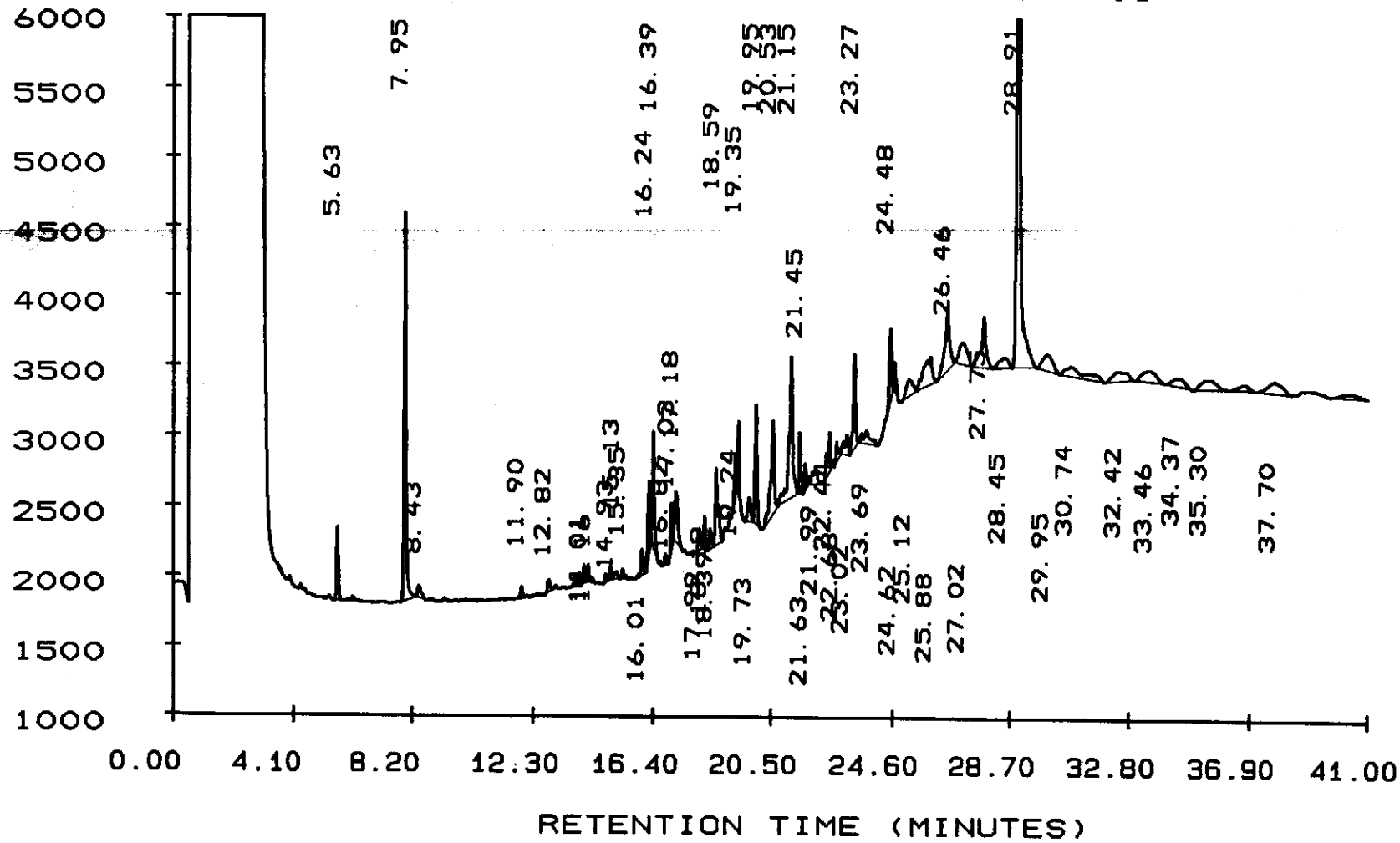
MPK	5581	21.519	AROCLOR-1260-1	0.049	RW:21.50-21.64
MPK	14383	22.069	AROCLOR-1260-2	0.115	RW:21.96-22.10
MPK	6583	23.366	AROCLOR-1260-3	0.134	RW:23.26-23.40
MPK	6113	23.723	AROCLOR-1260-4	0.073	RW:23.62-23.76
MPK	8876	24.919	AROCLOR-1260-5	0.095	RW:24.80-24.94
MPK	4964	25.225	AROCLOR-1260-6	0.098	RW:25.10-25.24
MPK	11050	25.526	AROCLOR-1260-7	0.066	RW:25.42-25.56
MPK	7849	27.146	AROCLOR-1260-8	0.102	RW:27.04-27.18
	67293			0.091	J

8/22/01
MK

0108L447-001

SAMPLE NO. : 08060136 .62
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/09/01 03:29:49
PAGE NO. : 01



Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/22/01 13:35:32

EXTERNAL STANDARD

SAMPLE: 08060136 .62 INST:36 VIAL:F0 SEQ NUMBER:062
TEST : OPCB DATE-TIME INJECTED : 08/09/01 03:29:49
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/22/01 13:35:32
METHOD: P36 / PCBJL REV #: 00213 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC39-01-0001 02 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9477R COLUMN TYPE: RTX1701
LAB ID: 0108L447-001 RAW FILE: RAW3:H9145686
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	24048	5148	V	5.629			
003	135987	27271	V	7.954	1	TCX	0.033
004	7118	856	V	8.432			
006	4996	814	V	11.901			
008	6190	883	V	12.817			
011	5152	1212	V	14.010			
012	8021	1207	V	14.156			
013	2480	552	V	14.769			
014	3841	931	V	14.930			
015	3849	530	V	15.128			
016	4835	731	V	15.353			
017	9818	1807	V	16.015			
018	21859	5135	V	16.236			
019	42780	8206	V	16.389			
020	3965	827	V	16.821			
021	13293	3198	V	17.026			
022	29600	3548	V	17.177			
024	8618	1640	V	17.991			
025	11123	2293	V	18.193			
026	7488	1472	V	18.389			
027	16725	4180	V	18.587			
028	4111	1214	V	18.695			
029	10882	2854	V	19.243			
030	21971	5164	V	19.354			
031	11595	1658	V	19.734			
032	42965	8411	V	19.948			
033	53777	6584	V	20.526			
034	87138	9929	V	21.149			
035	19562	4287	V	21.451			
036	7338	1800	V	21.629			
037	1942	538	V	21.758			
038	10178	1035	V	21.988			
039	3800	1114	V	22.341			
040	7779	2273	V	22.436			
041	1834	558	V	22.552			
042	7975	1417	V	22.680			
043	2677	575	V	22.905			
044	4637	1083	V	23.019			
045	35481	6601	V	23.274			
046	2569	479	V	23.520			

8/22/01
MK

SAMPLE: 08060136 .62

PAGE NUMBER: 2

DATE-TIME INJECTED : 08/09/01 03:29:49

DATE-TIME PROCESSED : 08/22/01 13:35:32

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
047	8585	735	V	23.686			
048	28364	5037	V	24.483			
049	10401	2026	V	24.623			
050	18921	1195	V	25.122			
051	43034	1976	V	25.880			
052	49270	4457	V	26.463			
053	30786	1544	V	27.020			
054	43384	3573	V	27.749			
055	17586	757	V	28.447			
056	514189	73214	V	28.914	1	DCB	0.081
057	28516	1176	V	29.946			
058	35924	691	V	30.740			
059	26691	707	V	32.416			
060	27802	815	V	33.461			
061	18262	615	V	34.374			
062	26309	684	V	35.305			
063	10914	404	V	36.672			
064	29235	800	V	37.703			

7408/01/01

MPK	2854	19.243	AROCLOR-1260-1	0.049	RW:19.14-19.28
MPK	8411	19.948	AROCLOR-1260-2	0.131	RW:19.84-19.99
MPK	4287	21.451	AROCLOR-1260-3	0.095	RW:21.35-21.49
MPK	2273	22.436	AROCLOR-1260-4	0.050	RW:22.33-22.48
MPK	6601	23.274	AROCLOR-1260-5	0.075	RW:23.17-23.31
MPK	5037	24.483	AROCLOR-1260-6	0.130	RW:24.39-24.54
	29959			0.091	

8/22/01
MK

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC39-01-0002 02

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9477R

Matrix: SOIL

Lab Sample ID: 0108L447-002

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08130135.04

Level: (low/med) LOW

Date Received: 08/01/01

% Moisture: not dec. 5 dec.

Date Extracted: 08/03/01

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 08/14/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 20.0

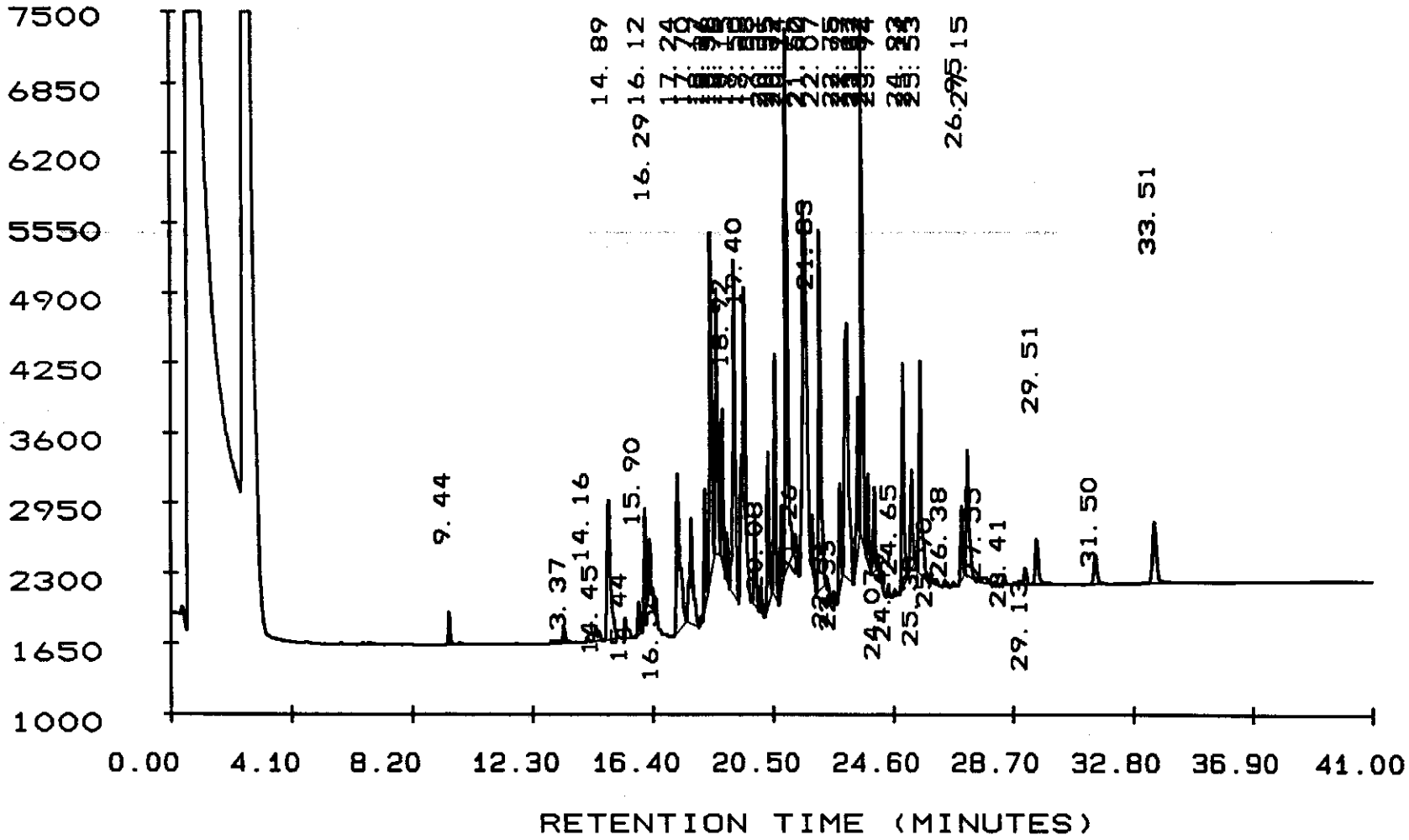
CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	700	U
11104-28-2	Aroclor-1221	1400	U
11141-16-5	Aroclor-1232	700	U
53469-21-9	Aroclor-1242	700	U
12672-29-6	Aroclor-1248	700	U
11097-69-1	Aroclor-1254	3000	
11096-82-5	Aroclor-1260	700	U

FORM 1 PEST 12/88 Rev.

0108L447-002

SAMPLE NO. : 08130135 .04 INSTRUMENT: 35
TEST NO. : DATE TIME: 08/14/01 10:04:21
METHOD NO. : P35 / P35 PAGE NO. : 01



Y MAXIMUM: 7500. START TIME: 0.00
Y MINIMUM: 1000. END TIME: 41.00

Lionville Laboratory, Inc. 08/22/01 13:38:07

EXTERNAL STANDARD

SAMPLE: 08130135 .04 INST:35 VIAL:F0 SEQ NUMBER:004
TEST : OPCB DATE-TIME INJECTED : 08/14/01 10:04:21
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/22/01 13:38:07
METHOD: P35 / PCBLK REV #: 00223 ANALYST: SANTOROB SAMP RATE: 1.56
CLIENT ID: RC39-01-0002 02 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9477R COLUMN TYPE: DB608
LAB ID: 0108L447-002 RAW FILE: RAW3:HE145803
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 20.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	17612	2915		9.439	1	TCX	0.035 D
003	10198	1316	V	13.367			
004	2403	527	V	14.162			
005	5239	1111	V	14.449			
006	2159	584	V	14.574			
007	114941	12889	V	14.889			
008	16067	1820	V	15.440			
009	14589	3070	V	15.899			
010	41914	9681	V	16.122			
011	20709	5237	V	16.295			
012	2846	1102	V	16.393			
013	5539	1625	V	16.501			
014	127314	14476	V	17.236			
015	77832	9523	V	17.703			
016	2562	730	V	18.032			
017	52659	10725	V	18.167			
018	174298	31449	V	18.358			
019	124656	24332	V	18.564			
020	64048	14199	V	18.758			
021	17241	4546	V	18.916			
022	181204	30865	V	19.151			
023	17268	5111	V	19.402			
024	96810	20421	V	19.503			
025	42399	8087	V	19.876			
026	10752	2474	V	20.079			
027	75677	14054	V	20.309			
028	110175	22193	V	20.547			
029	31373	7498	V	20.772			
030	297926	49540	V	20.941			
031	16895	2630	V	21.257			
032	53604	13818	V	21.522			
033	22865	7730	V	21.597			
034	21290	5275	V	21.827			
035	189645	32953	V	22.069			
036	6118	1127	V	22.309			
037	6761	1147	V	22.547			
038	43936	9578	V	22.746			
039	229382	23475	V	22.992			
040	70458	13581	V	23.371			
041	227141	46569	V	23.516			

8/22/01
MK

SAMPLE: 08130135 .04 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/14/01 10:04:21
DATE-TIME PROCESSED : 08/22/01 13:38:07

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
042	34248	8269	V	23.724			
043	41140	7628	V	23.940			
044	7529	1413	V	24.075			
045	5613	1249	V	24.420			
046	4608	634	V	24.650			
047	117533	20571	V	24.925			
048	56231	8963	V	25.235			
049	3940	1290	V	25.385			
050	119296	19527	V	25.528			
051	4173	889	V	25.899			
053	4633	658	V	26.384			
055	35268	6580	V	26.950			
056	78906	11488	V	27.151			
057	2573	551	V	27.549			
060	6178	929	V	28.409			
062	8791	1452	V	29.126			
063	32902	4126		29.512			
064	23866	2709		31.501			
065	54778	5616		33.506	1	DCB	0.088 D

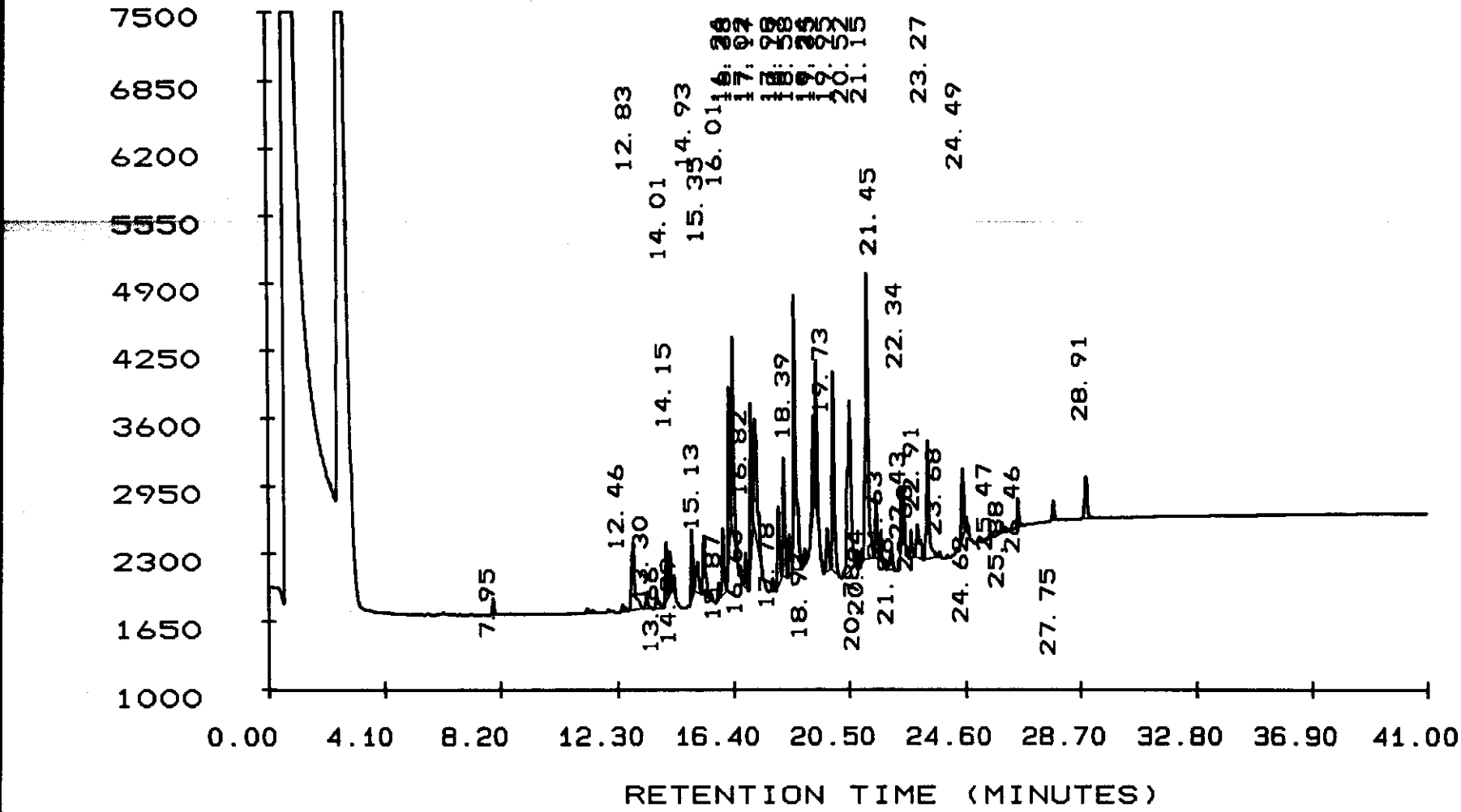
MPK	14199	18.758	AROCLOR-1254-1	3.847	RW:18.67-18.81
MPK	30865	19.151	AROCLOR-1254-2	7.015	RW:19.06-19.20
MPK	22193	20.547	AROCLOR-1254-3	8.259	RW:20.46-20.60
MPK	49540	20.941	AROCLOR-1254-4	9.840	RW:20.85-20.99
MPK	13818	21.522	AROCLOR-1254-5	4.226	RW:21.51-21.65
MPK	32953	22.069	AROCLOR-1254-6	12.248	RW:21.98-22.12
MPK	23475	22.992	AROCLOR-1254-7	9.840	RW:22.91-23.05
MPK	46569	23.516	AROCLOR-1254-8	12.332	RW:23.42-23.57
	233612			8.451	

8/22/01
MIC

0108L447-002

SAMPLE NO. : 08130136 . 04
TEST NO. :
METHOD NO. : P35 / P35

INSTRUMENT: 36
DATE TIME: 08/14/01 10:04:21
PAGE NO. : 01



Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/22/01 13:38:43

EXTERNAL STANDARD

SAMPLE: 08130136 .04 INST:36 VIAL:F0 SEQ NUMBER:004
TEST : OPCB DATE-TIME INJECTED : 08/14/01 10:04:21
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/22/01 13:38:43
METHOD: P35 / PCBJL REV #: 00213 ANALYST: SANTOROB SAMP RATE: 1.56
CLIENT ID: RC39-01-0002 02 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9477R COLUMN TYPE: RTX1701
LAB ID: 0108L447-002 RAW FILE: RAW3:HE145804
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 20.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	8675	1488		7.954	1	TCX	0.036
003	2569	419	V	11.225			
006	4955	672	V	12.460			
007	58189	6386	V	12.832			
008	7878	1161	V	13.302			
009	10934	1656	V	13.661			
010	23866	5530	V	14.008			
011	15748	3913	V	14.153			
012	7741	1848	V	14.286			
013	26942	6411	V	14.930			
014	20475	2941	V	15.130			
015	35379	5687	V	15.350			
016	2317	553	V	15.625			
017	5645	1343	V	15.866			
018	30860	6234	V	16.014			
019	65638	15175	V	16.236			
020	97774	18684	V	16.383			
021	4222	1294	V	16.632			
022	15603	3267	V	16.818			
023	59142	14146	V	17.024			
024	96989	10942	V	17.172			
025	5915	1233	V	17.784			
026	37868	7325	V	17.989			
027	54429	11200	V	18.193			
028	19942	3810	V	18.387			
029	159013	25971	V	18.584			
030	8157	1523	V	18.926			
031	33865	8485	V	19.239			
032	62392	14253	V	19.352			
033	25293	4052	V	19.729			
034	98673	18820	V	19.945			
035	148149	16194	V	20.519			
036	7728	1631	V	20.781			
037	4872	1292	V	20.939			
038	184833	27075	V	21.148			
039	27709	5591	V	21.452			
040	11663	2676	V	21.625			
041	13452	2042	V	21.981			
042	16774	4493	V	22.339			
043	8845	2916	V	22.430			

8/22/01
MK

SAMPLE: 08130136 .04 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/14/01 10:04:21
DATE-TIME PROCESSED : 08/22/01 13:38:43

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
044	1110	415	V	22.551			
045	11664	2549	V	22.675			
046	27204	3127	V	22.909			
047	71863	11105	V	23.272			
048	2796	516	V	23.681			
049	36241	6410	V	24.493			
050	7396	1360	V	24.620			
051	3842	665	V	25.467			
052	5715	1025	V	25.885			
053	15172	2730		26.464			
054	10670	1854	V	27.749			
055	28359	4018		28.909	1	DCB	0.089

MPK	5530	14.008	AROCLOR-1254-1	4.798	RW:13.92-14.06
MPK	18684	16.383	AROCLOR-1254-2	9.319	RW:16.29-16.43
MPK	14146	17.024	AROCLOR-1254-3	6.329	RW:16.94-17.08
MPK	11200	18.193	AROCLOR-1254-4	8.933	RW:18.11-18.25
MPK	25971	18.584	AROCLOR-1254-5	10.505	RW:18.50-18.64
MPK	18820	19.945	AROCLOR-1254-6	14.220	RW:19.86-20.00
MPK	27075	21.148	AROCLOR-1254-7	13.298	RW:21.07-21.21

121426 9.629

8/22/01
MK

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC39-01-0003 02

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9477R

Matrix: SOIL

Lab Sample ID: 0108L447-003

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08060135.64

Level: (low/med) LOW

Date Received: 08/01/01

% Moisture: not dec. 7 dec.

Date Extracted: 08/03/01

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 08/09/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	36	U
11104-28-2	Aroclor-1221	71	U
11141-16-5	Aroclor-1232	36	U
53469-21-9	Aroclor-1242	36	U
12672-29-6	Aroclor-1248	36	U
11097-69-1	Aroclor-1254	36	U
11096-82-5	Aroclor-1260	86	

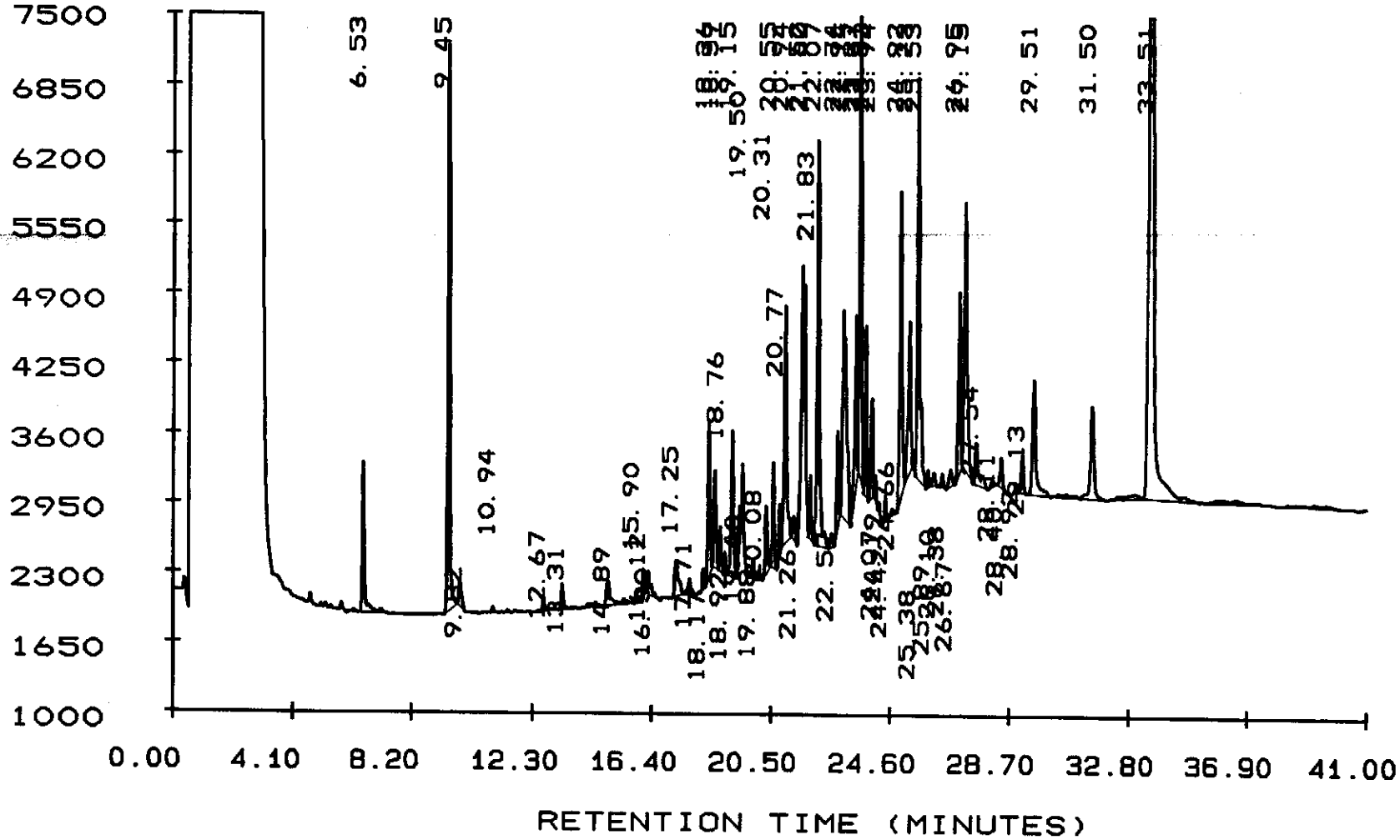
FORM 1 PEST

12/88 Rev.

0108L447-003

SAMPLE NO. : 08060135 .64
TEST NO. :
METHOD NO. : P35 / P35

INSTRUMENT: 35
DATE TIME: 08/09/01 05:06:29
PAGE NO. : 01



Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/22/01 13:34:34

EXTERNAL STANDARD

SAMPLE: 08060135 .64 INST:35 VIAL:F0 SEQ NUMBER:064
TEST : OPCB DATE-TIME INJECTED : 08/09/01 05:06:29
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/22/01 13:34:34
METHOD: P35 / PCBLK REV #: 00223 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC39-01-0003 02 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9477R COLUMN TYPE: DB608
LAB ID: 0108L447-003 RAW FILE: RAW3:H9145698
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	72567	13725	V	6.535			
004	256138	52036	V	9.446	1	TCX	0.032 80%
005	15732	2301	V	9.823			
006	4600	563	V	10.937			
009	10130	1333	V	12.668			
010	15808	2333	V	13.311			
012	21448	2274	V	14.888			
014	2403	609	V	15.902			
015	10448	2419	V	16.121			
016	16904	2130	V	16.297			
017	29998	3269	V	17.249			
018	10890	1409	V	17.705			
019	8895	1907	V	18.168			
020	76858	14298	V	18.361			
021	45171	9005	V	18.566			
022	18292	4153	V	18.760			
023	8442	2100	V	18.919			
024	75862	13406	V	19.153			
025	10430	2642	V	19.404			
026	26890	6589	V	19.500			
027	8944	1677	V	19.876			
028	4244	930	V	20.081			
029	33376	6212	V	20.311			
030	47802	9769	V	20.548			
031	19243	4754	V	20.773			
032	141644	21915	V	20.940			
033	14994	2317	V	21.263			
034	40512	10768	V	21.521			
035	23717	8627	V	21.601			
036	27296	6024	V	21.829			
037	201144	36914	V	22.069			
038	2389	638	V	22.306			
039	8090	1321	V	22.565			
040	38758	8910	V	22.745			
041	193286	19042	V	22.941			
042	81873	15732	V	23.370			
043	223759	46879	V	23.515			
044	67901	15720	V	23.725			
045	44219	9191	V	23.938			
046	8924	2500	V	24.072			

8/22/01
MK

SAMPLE: 08060135 .64 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/09/01 05:06:29
DATE-TIME PROCESSED : 08/22/01 13:34:34

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
047	3588	1143	V	24.193			
048	10669	2334	V	24.420			
049	3649	588	V	24.657			
050	158839	28279	V	24.921			
051	92064	13928	V	25.229			
052	5687	1850	V	25.385			
053	217658	36900	V	25.526			
054	6857	1620	V	25.893			
055	8082	1283	V	26.099			
056	5936	1258	V	26.383			
057	11256	1585	V	26.674			
058	88538	16766	V	26.946			
059	173354	24710	V	27.147			
060	35620	3858	V	27.541			
061	4580	560	V	28.110			
062	17384	2734	V	28.405			
063	4855	907	V	28.920			
064	21382	3491	V	29.126			
065	89806	10595	V	29.509			
067	79290	8582		31.499			
068	932535	91239	V	33.507	1	DCB	0.072 72% Flagged

MPK	10768	21.521	AROCLOR-1260-1	0.094	RW:21.50-21.64
MPK	36914	22.069	AROCLOR-1260-2	0.296	RW:21.96-22.10
MPK	15732	23.370	AROCLOR-1260-3	0.321	RW:23.26-23.40
MPK	15720	23.725	AROCLOR-1260-4	0.188	RW:23.62-23.76
MPK	28279	24.921	AROCLOR-1260-5	0.302	RW:24.80-24.94
MPK	13928	25.229	AROCLOR-1260-6	0.274	RW:25.10-25.24
MPK	36900	25.526	AROCLOR-1260-7	0.221	RW:25.42-25.56
MPK	24710	27.147	AROCLOR-1260-8	0.322	RW:27.04-27.18

183427

0.247

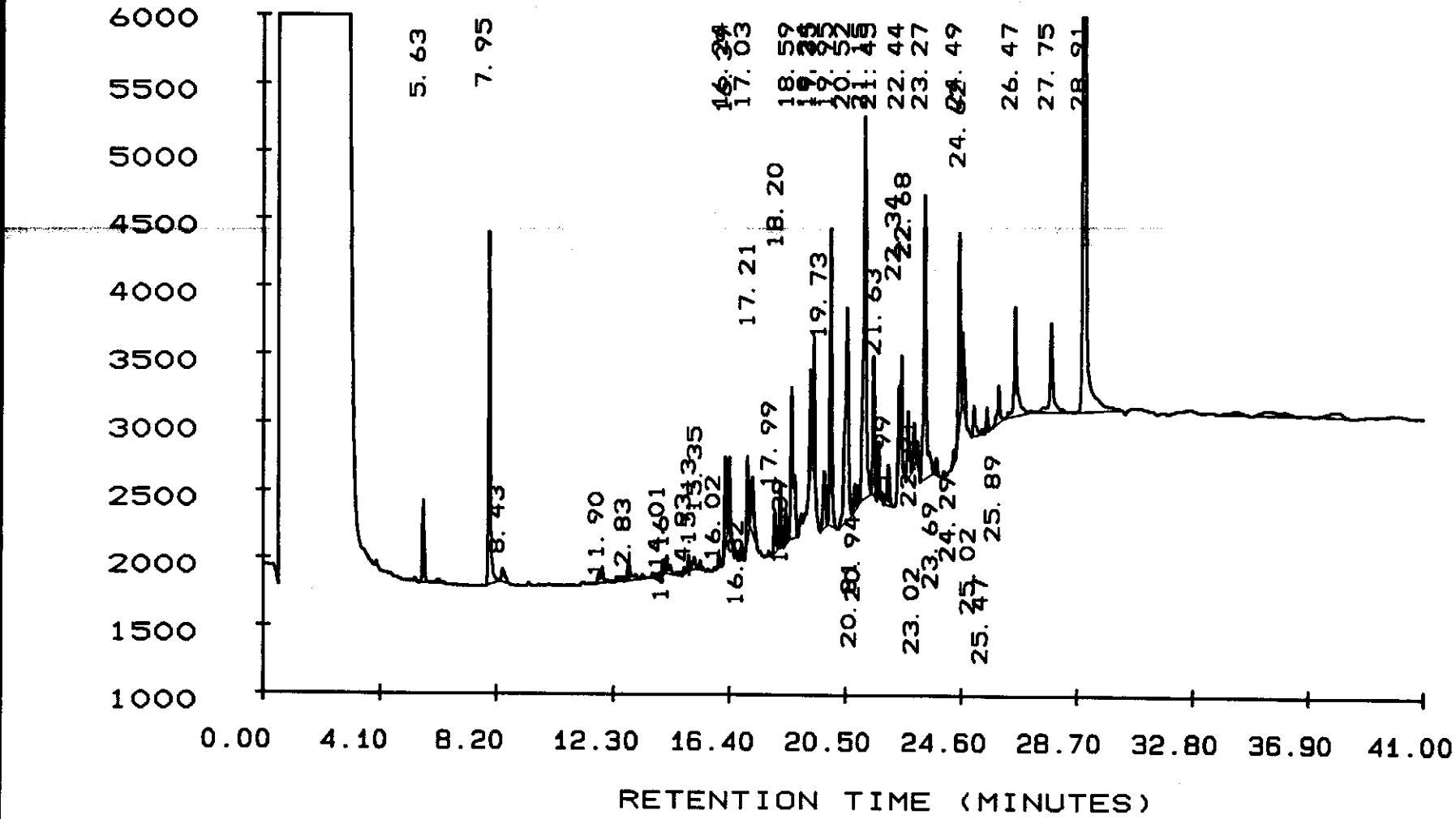
(36) 0.241

8/22/01
MK

0108L447-003

SAMPLE NO. : 08060136 .64
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/09/01 05:06:29
PAGE NO. : 01



Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/22/01 13:35:45

EXTERNAL STANDARD

SAMPLE: 08060136 .64 INST:36 VIAL:F0 SEQ NUMBER:064
TEST : OPCB DATE-TIME INJECTED : 08/09/01 05:06:29
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/22/01 13:35:45
METHOD: P36 / PCBJL REV #: 00213 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC39-01-0003 02 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9477R COLUMN TYPE: RTX1701
LAB ID: 0108L447-003 RAW FILE: RAW3:H9145699
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	28141	5969	V	5.629			
004	128705	25456	V	7.955	1	TCX	0.031
005	7922	980	V	8.431			
009	2096	532	V	11.781			
010	3516	869	V	11.901			
011	7771	1069	V	12.831			
015	4602	1093	V	14.011			
016	4756	1166	V	14.157			
017	1779	430	V	14.281			
018	2099	478	V	14.771			
019	4791	1139	V	14.932			
020	5916	906	V	15.132			
021	3922	668	V	15.352			
022	5680	1026	V	16.016			
023	27568	6377	V	16.238			
024	28871	5853	V	16.386			
025	1540	430	V	16.636			
026	6557	1359	V	16.822			
027	26304	6144	V	17.027			
028	32852	4270	V	17.209			
029	1974	434	V	17.787			
030	15763	3094	V	17.991			
031	23450	4855	V	18.195			
032	13178	2531	V	18.390			
033	37364	9004	V	18.587			
034	5260	1688	V	18.697			
035	5053	976	V	18.931			
036	26631	7219	V	19.242			
037	40321	9769	V	19.354			
038	24741	4190	V	19.733			
039	112115	21577	V	19.948			
040	130820	15572	V	20.521			
041	9969	1924	V	20.810			
042	4502	1315	V	20.940			
043	188211	27757	V	21.150			
044	46829	10036	V	21.452			
045	18845	4078	V	21.629			
046	20566	2995	V	21.985			
047	16457	4626	V	22.341			
048	20068	6257	V	22.436			

8/22/01
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SAMPLE: 08060136 .64 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/09/01 05:06:29
DATE-TIME PROCESSED : 08/22/01 13:35:45

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
049	23407	4786	V	22.681				
050	14164	2970	V	22.907				
051	6684	1879	V	23.022				
052	131282	20523	V	23.275				
053	6609	1218	V	23.686				
055	4455	1021	V	24.295				
056	77350	14029	V	24.486				
057	30756	5462	V	24.624				
058	12685	2132	V	25.016				
060	7828	1806	V	25.470				
061	18125	2712	V	25.887				
062	63437	7913	V	26.466				
063	56058	6496	V	27.752				
064	498990	69752		28.914	1	DCB	0.077	
MPK		7219		19.242		AROCLOR-1260-1	0.123	RW:19.14-19.28
MPK		21577		19.948		AROCLOR-1260-2	0.336	RW:19.84-19.99
MPK		10036		21.452		AROCLOR-1260-3	0.222	RW:21.35-21.49
MPK		6257		22.436		AROCLOR-1260-4	0.138	RW:22.33-22.48
MPK		20523		23.275		AROCLOR-1260-5	0.235	RW:23.17-23.31
MPK		14029		24.486		AROCLOR-1260-6	0.363	RW:24.39-24.54
		79641					0.241	

8/22/01
MK

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC39-01-0004 02

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9477R

Matrix: SOIL

Lab Sample ID: 0108L447-004

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08060135.65

Level: (low/med) LOW

Date Received: 08/01/01

% Moisture: not dec. 6 dec.

Date Extracted: 08/03/01

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 08/09/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	35	U
11104-28-2	Aroclor-1221	71	U
11141-16-5	Aroclor-1232	35	U
53469-21-9	Aroclor-1242	35	U
12672-29-6	Aroclor-1248	35	U
11097-69-1	Aroclor-1254	35	U
11096-82-5	Aroclor-1260	35	U

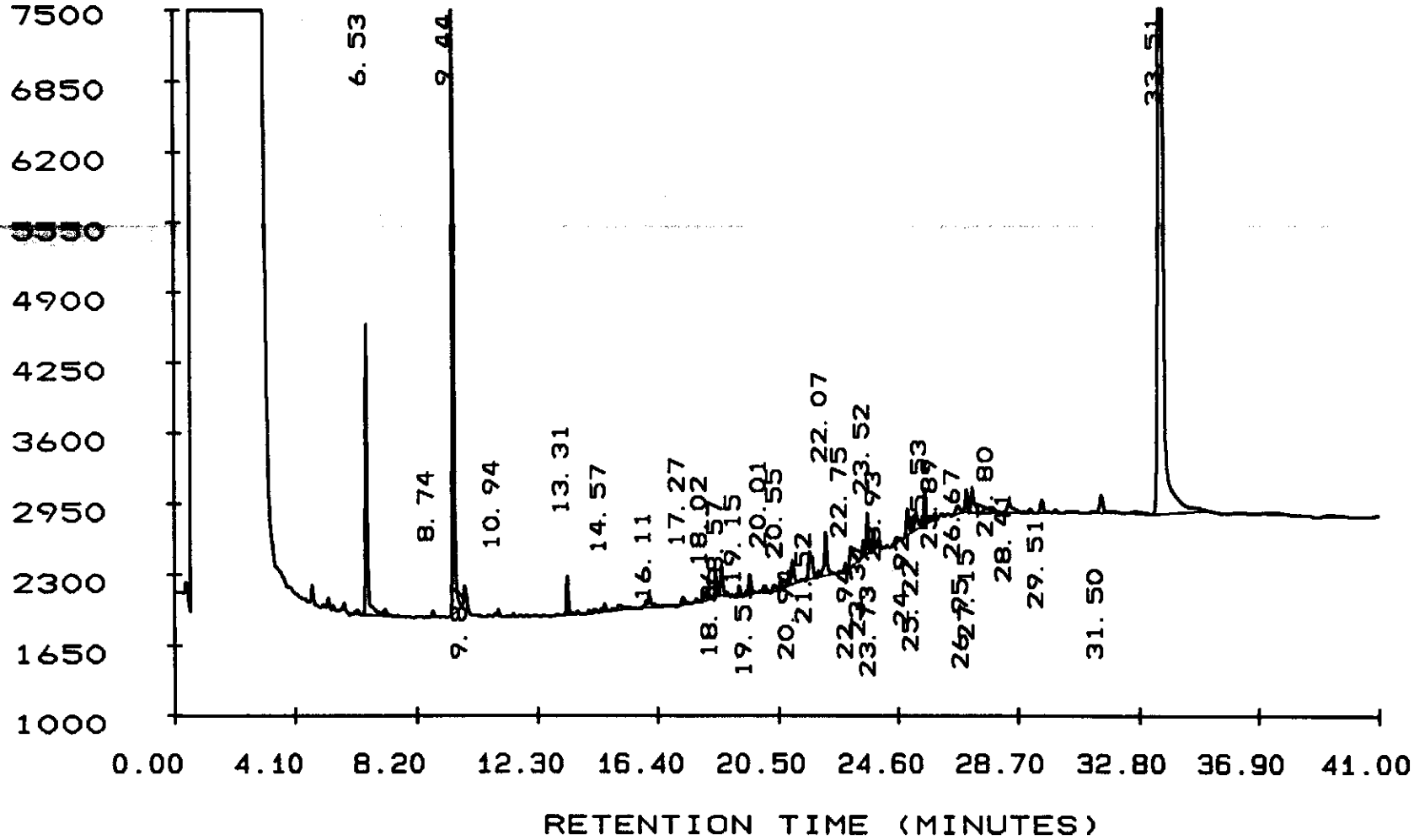
FORM 1 PEST 12/88 Rev.

0108L447-004

SAMPLE NO. : 08060135 .65 INSTRUMENT: 35

TEST NO. : DATE TIME: 08/09/01 05:54:35

METHOD NO. : P35 / P35 PAGE NO. : 01



Y MAXIMUM: 7500. START TIME: 0.00

Y MINIMUM: 1000. END TIME: 41.00

Lionville Laboratory, Inc. 08/22/01 13:34:47

EXTERNAL STANDARD

SAMPLE: 08060135 .65 INST:35 VIAL:F0 SEQ NUMBER:065
TEST : OPCB DATE-TIME INJECTED : 08/09/01 05:54:35
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/22/01 13:34:47
METHOD: P35 / PCBLK REV #: 00223 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC39-01-0004 02 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9477R COLUMN TYPE: DB608
LAB ID: 0108L447-004 RAW FILE: RAW3:H9145704
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
002	128557	26133	V	6.530				
005	4330	600	V	8.737				
006	274099	55669	V	9.442	1	TCX	0.034	85%
007	14273	2143	V	9.821				
008	6957	710	V	10.942				
012	17318	3461	V	13.305				
016	5115	704	V	14.575				
018	9645	503	V	15.065				
019	17187	1138	V	16.112				
020	5658	644	V	17.270				
022	3772	684	V	18.020				
024	11280	2152	V	18.360				
025	17798	2764	V	18.565				
026	5573	983	V	19.154				
027	14176	1828	V	19.505				
028	6396	651	V	20.011				
030	3134	643	V	20.549				
031	2125	522	V	20.775				
032	13446	2037	V	20.940				
033	23008	2468	V	21.523				
034	2266	547	V	21.831				
035	25359	3883	V	22.070				
036	2539	551	V	22.749				
037	15784	1659	V	22.944				
038	7557	1452	V	23.367				
039	17882	3649	V	23.517				
040	8237	1977	V	23.725				
041	3859	767	V	23.935				
043	14767	2446	V	24.918				
044	13646	1592	V	25.218				
045	19500	3326	V	25.528				
046	2773	652	V	25.890				
049	7354	751	V	26.666				
050	10586	2052	V	26.945				
051	17830	2317	V	27.145				
052	12652	543	V	27.797				
053	13832	958	V	28.407				
055	8542	1176	V	29.512				
058	21056	1664	V	31.500				
060	973278	95137		33.506	1	DCB	0.075	75%

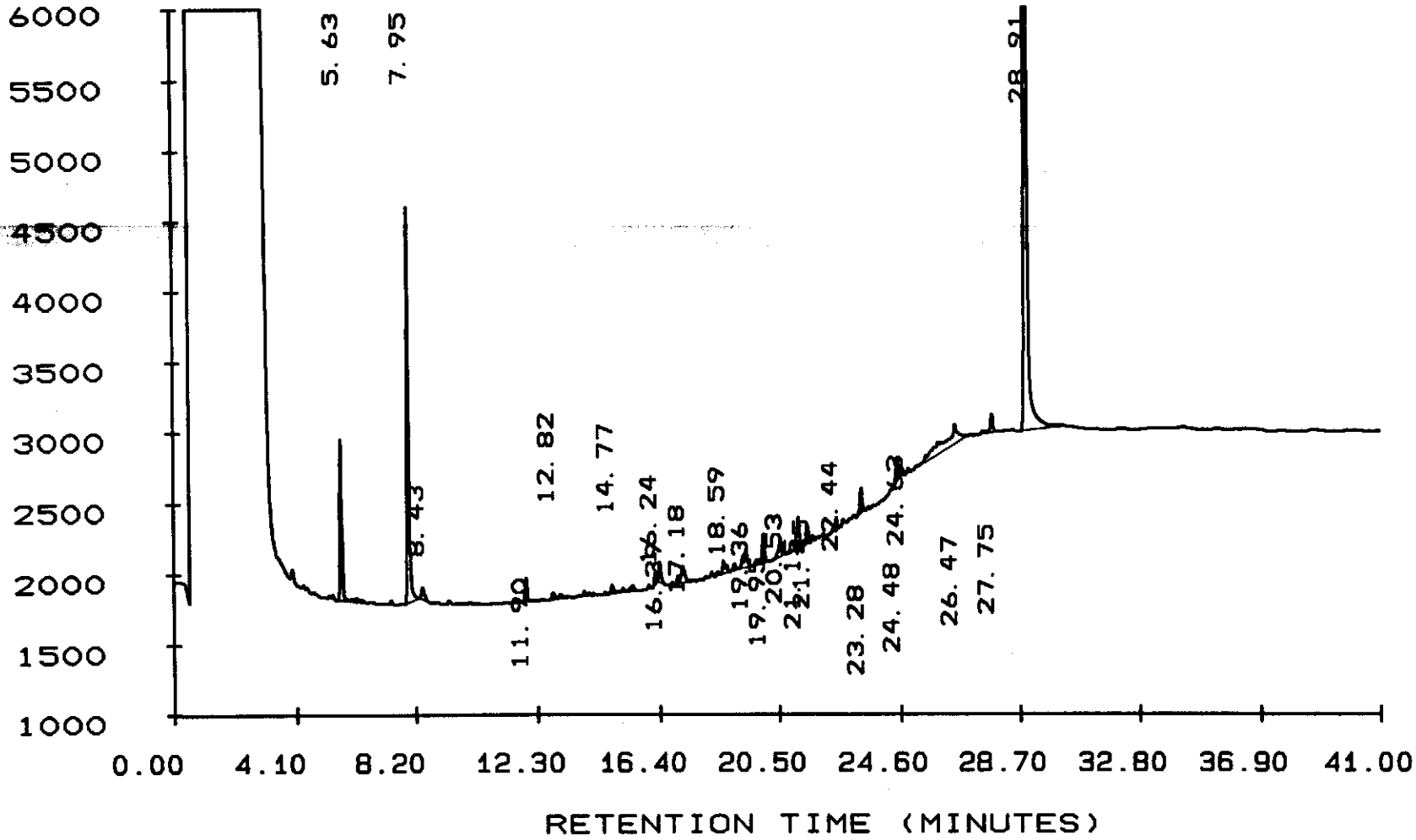
Flagged 1/01

8/22/01
MK

0108L447-004

SAMPLE NO. : 08060136 . 65
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/09/01 05:54:35
PAGE NO. : 01



Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/22/01 13:35:58

EXTERNAL STANDARD

SAMPLE: 08060136 .65 INST:36 VIAL:F0 SEQ NUMBER:065
TEST : OPCB DATE-TIME INJECTED : 08/09/01 05:54:35
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/22/01 13:35:58
METHOD: P36 / PCBJL REV #: 00213 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC39-01-0004 02 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9477R COLUMN TYPE: RTX1701
LAB ID: 0108L447-004 RAW FILE: RAW3:H9145705
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	51046	11075	V	5.630			
005	137044	27503	V	7.955	1	TCX	0.033
006	6919	874	V	8.432			
008	10858	1671	V	11.901			
009	3040	451	V	12.818			
013	4154	586	V	14.769			
015	3392	405	V	15.461			
017	3938	941	V	16.239			
018	7675	1422	V	16.393			
020	7747	978	V	17.185			
023	7309	895	V	18.589			
024	3072	462	V	18.957			
025	2040	512	V	19.245			
026	4448	933	V	19.359			
028	10251	2009	V	19.950			
029	9314	1222	V	20.530			
030	15578	2161	V	21.152			
031	5840	1261	V	21.452			
034	5690	847	V	22.440			
035	2176	406	V	22.681			
037	9025	1735	V	23.277			
038	8410	1569	V	24.480			
039	4545	811	V	24.627			
041	53230	1384	V	26.470			
042	11320	1296	V	27.751			
044	496510	71907		28.914	1	DCB	0.080

8/22/01
MK

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC39-01-0005 02

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9477R

Matrix: SOIL

Lab Sample ID: 0108L447-005

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08060135.66

Level: (low/med) LOW

Date Received: 08/01/01

% Moisture: not dec. 5 dec.

Date Extracted: 08/03/01

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 08/09/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
12674-11-2------	Aroclor-1016	35	U
11104-28-2------	Aroclor-1221	70	U
11141-16-5------	Aroclor-1232	35	U
53469-21-9------	Aroclor-1242	35	U
12672-29-6------	Aroclor-1248	35	U
11097-69-1------	Aroclor-1254	35	U
11096-82-5------	Aroclor-1260	36	

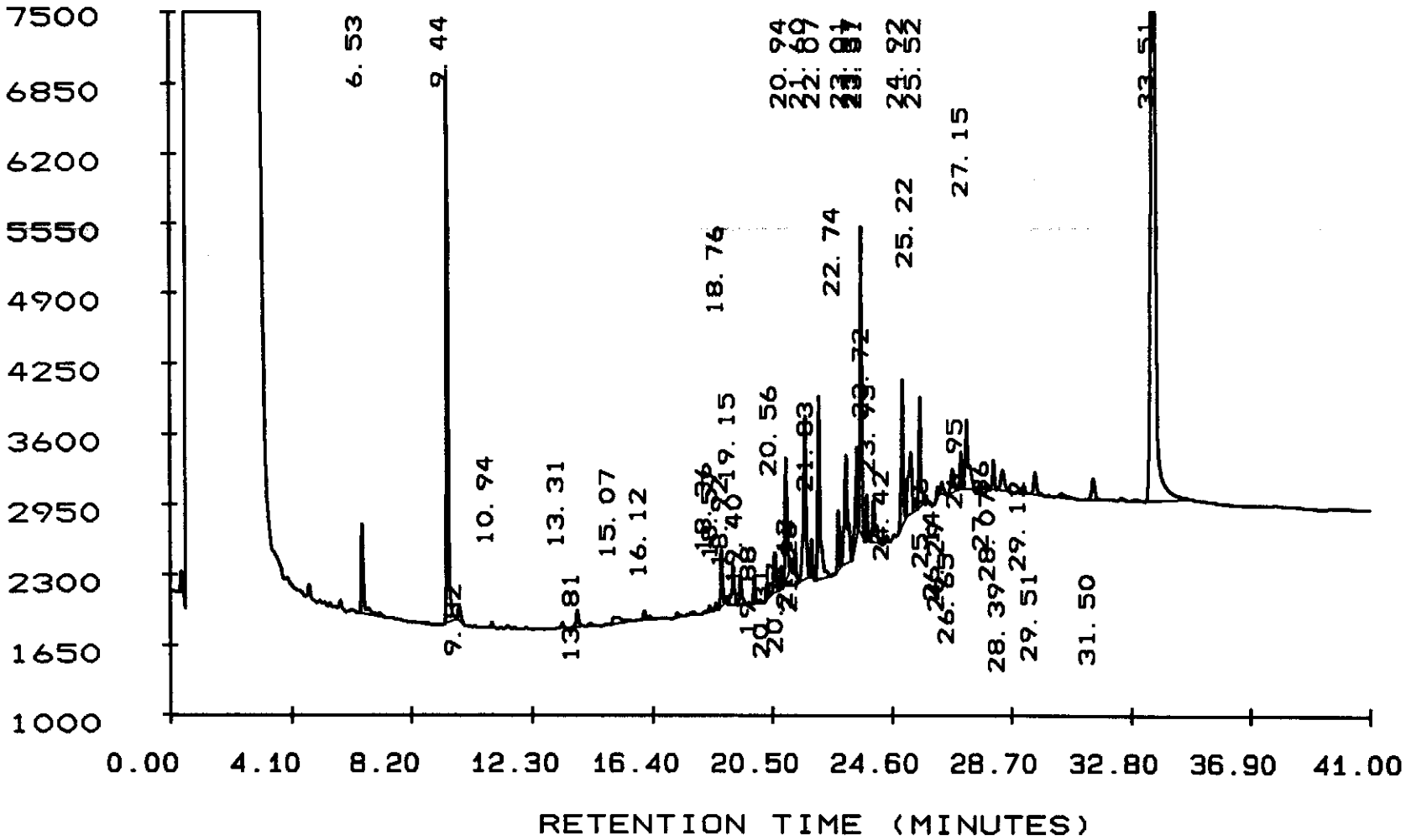
FORM 1 PEST 12/88 Rev.

0108L447-005

SAMPLE NO. : 08060135 .66 INSTRUMENT: 35

TEST NO. : DATE TIME: 08/09/01 06:42:24

METHOD NO. : P35 / P35 PAGE NO. : 01



Y MAXIMUM: 7500. START TIME: 0.00

Y MINIMUM: 1000. END TIME: 41.00

Lionville Laboratory, Inc. 08/22/01 13:35:00

EXTERNAL STANDARD

SAMPLE: 08060135 .66 INST:35 VIAL:F0 SEQ NUMBER:066
TEST : OPCB DATE-TIME INJECTED : 08/09/01 06:42:24
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/22/01 13:35:00
METHOD: P35 / PCBLK REV #: 00223 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC39-01-0005 02 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9477R COLUMN TYPE: DB608
LAB ID: 0108L447-005 RAW FILE: RAW3:H9145710
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	53605	8181		6.529			
003	245085	50336	V	9.442	1	TCX	0.031 77.50%
004	10063	1523	V	9.820			
005	2796	510	V	10.935			
007	4144	532	V	13.310			
008	11350	1582	V	13.812			
010	15678	632	V	15.069			
011	7741	799	V	16.115			
015	4323	572	V	18.357			
016	3056	638	V	18.569			
017	24574	5201	V	18.760			
018	2488	708	V	18.917			
019	23517	3649	V	19.152			
020	17757	2718	V	19.401			
021	10861	2181	V	19.876			
023	8115	1545	V	20.311			
024	23132	3719	V	20.558			
025	8640	2083	V	20.772			
026	64528	11049	V	20.942			
027	3418	1090	V	21.117			
028	11377	2462	V	21.262			
029	94918	14871	V	21.604			
030	15651	3571	V	21.828			
031	102189	16696	V	22.068			
032	24571	5375	V	22.744			
033	39762	7790	V	23.005			
034	3408	1349	V	23.109			
035	41318	8175	V	23.370			
036	128058	27976	V	23.513			
037	18522	4254	V	23.724			
038	14080	3114	V	23.945			
039	2192	781	V	24.065			
040	3394	643	V	24.420			
041	67817	13297	V	24.924			
042	45329	5318	V	25.221			
043	2498	780	V	25.382			
044	52714	10023	V	25.525			
045	4166	710	V	25.763			
046	4869	1011	V	26.144			
047	7754	1110	V	26.292			

8/22/01
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SAMPLE: 08060135 .66 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/09/01 06:42:24
DATE-TIME PROCESSED : 08/22/01 13:35:00

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
048	19261	2172	V	26.654				
049	18099	3418	V	26.947				
050	49032	6301	V	27.149				
053	15126	2748	V	28.073				
054	19039	1903	V	28.386				
055	5024	735	V	29.116				
056	15822	2013	V	29.508				
058	18445	1973	V	31.498				
061	918195	92899		33.506	1	DCB	0.073	73
MPK		14871		21.604		AROCLOR-1260-1	0.130	RW:21.50-21.64
MPK		16696		22.068		AROCLOR-1260-2	0.134	RW:21.96-22.10
MPK		8175		23.370		AROCLOR-1260-3	0.167	RW:23.26-23.40
MPK		4254		23.724		AROCLOR-1260-4	0.051	RW:23.62-23.76
MPK		13297		24.924		AROCLOR-1260-5	0.142	RW:24.80-24.94
MPK		5318		25.221		AROCLOR-1260-6	0.105	RW:25.10-25.24
MPK		10023		25.525		AROCLOR-1260-7	0.060	RW:25.42-25.56
MPK		6301		27.149		AROCLOR-1260-8	0.082	RW:27.04-27.18
		79264					0.107	

36 0.103

8/22/01
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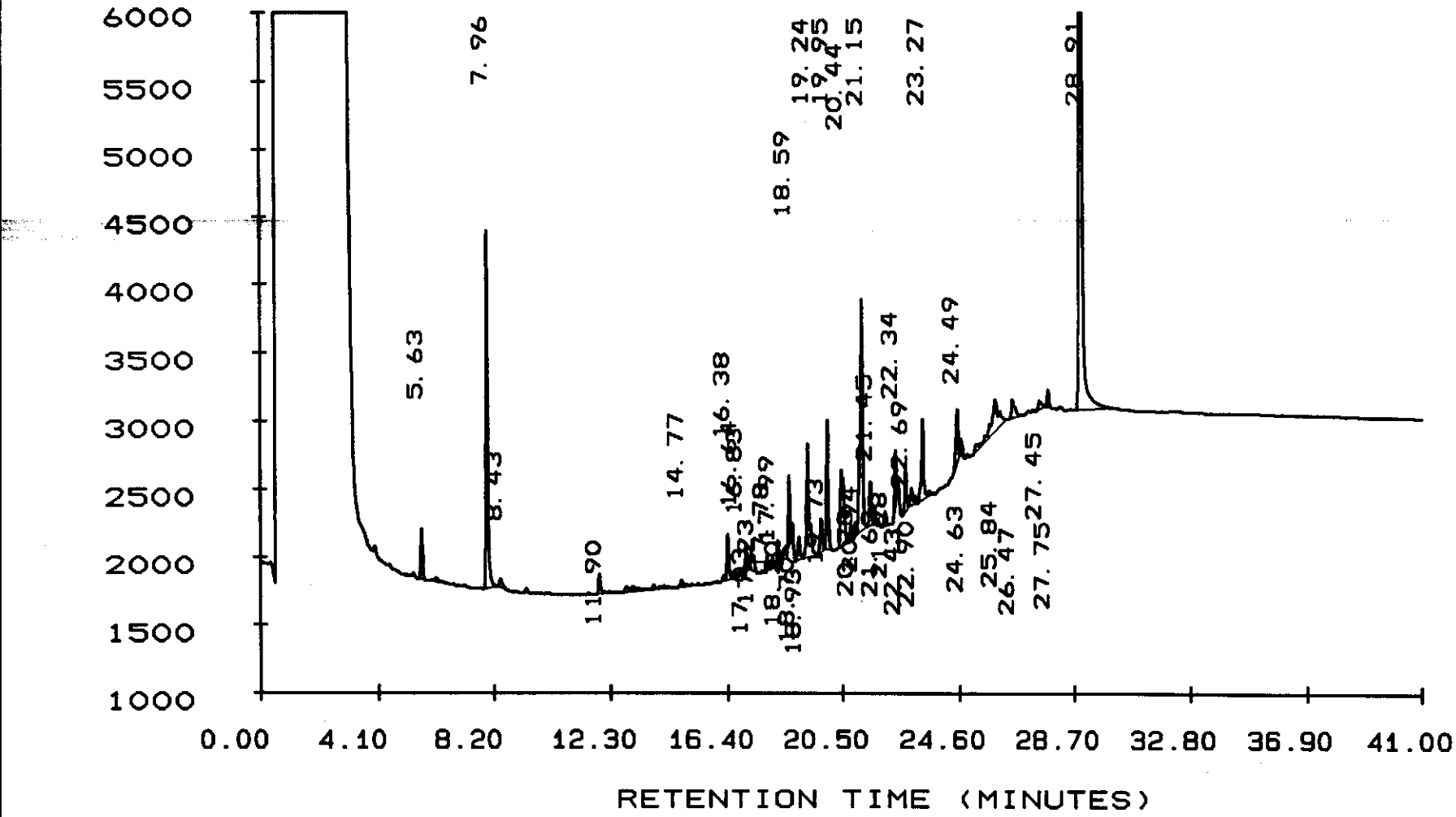
0108L447-005

SAMPLE NO. : 08060136 .66 INSTRUMENT: 36

TEST NO. : DATE TIME: 08/09/01 06:42:24

METHOD NO. : P36 / P36 PAGE NO. : 01



Y MAXIMUM: 6000. START TIME: 0.00

Y MINIMUM: 1000. END TIME: 41.00

Lionville Laboratory, Inc. 08/22/01 13:36:11

EXTERNAL STANDARD

SAMPLE: 08060136 .66 INST:36 VIAL:F0 SEQ NUMBER:066
TEST : OPCB DATE-TIME INJECTED : 08/09/01 06:42:24
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/22/01 13:36:11
METHOD: P36 / PCBJL REV #: 00213 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC39-01-0005 02 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9477R COLUMN TYPE: RTX1701
LAB ID: 0108L447-005 RAW FILE: RAW3:H9145711
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	16999	3655	V	5.632			
003	129205	25891	V	7.959	1	TCX	0.031
004	5115	668	V	8.430			
006	11232	1461	V	11.899			
011	3805	496		14.771			
012	19928	3362	V	16.377			
013	2470	571	V	16.642			
014	2922	626	V	16.826			
015	8461	1920	V	17.030			
016	2639	763	V	17.230			
017	1967	638	V	17.319			
018	5100	1029	V	17.783			
019	3888	830	V	17.991			
020	9254	1976	V	18.195			
021	7348	911	V	18.462			
022	20629	5144	V	18.587			
023	5018	1573	V	18.703			
024	10191	1661	V	18.934			
025	56029	8236	V	19.244			
026	14541	2436	V	19.729			
027	45779	9377	V	19.948			
028	51423	5637	V	20.440			
029	5825	1224	V	20.783			
030	3964	1047	V	20.940			
031	103912	16675	V	21.150			
032	16874	3202	V	21.454			
033	5847	1228	V	21.630			
034	6152	1094	V	21.979			
035	14006	3660	V	22.340			
036	3631	1363	V	22.434			
037	14740	3005	V	22.691			
038	6015	1144	V	22.905			
039	1551	436	V	23.028			
040	30842	5669	V	23.274			
042	21998	3772	V	24.492			
043	7241	1193	V	24.629			
044	14786	1587	V	25.841			
045	2140	432	V	26.008			
046	12729	1357	V	26.467			
047	6342	657	V	27.445			

8/22/01
MK

SAMPLE: 08060136 .66 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/09/01 06:42:24
DATE-TIME PROCESSED : 08/22/01 13:36:11

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
048	7267	1314	V	27.750				
050	480426	70726		28.914	1	DCB	0.078	
MPK		8236		19.244		AROCLOR-1260-1	0.140	RW:19.14-19.28
MPK		9377		19.948		AROCLOR-1260-2	0.146	RW:19.84-19.99
MPK		3202		21.454		AROCLOR-1260-3	0.071	RW:21.35-21.49
MPK		3660		22.340		AROCLOR-1260-4	0.081	RW:22.33-22.48
MPK		5669		23.274		AROCLOR-1260-5	0.065	RW:23.17-23.31
MPK		3772		24.492		AROCLOR-1260-6	0.097	RW:24.39-24.54
		34065					0.103	

8/22/01

8/22/01
MK

Calibration Standard Data

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9477R GC Sample ID: 08060135

Instrument ID: 35 GC Column ID: DB608

Dates of Analyses: 08/06/01 to 08/09/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2801 A	08/06/01	1813
02	ZZZZZ	AR1660 2802 B	08/06/01	1901
03	ZZZZZ	AR1660 2803 C	08/06/01	1949
04	ZZZZZ	AR1660 2804 D	08/06/01	2037
05	ZZZZZ	AR1660 2805 E	08/06/01	2125
06	ZZZZZ	AR1221 1108	08/06/01	2213
07	ZZZZZ	AR1232 1205	08/06/01	2301
08	ZZZZZ	AR1242 1304	08/06/01	2349
09	ZZZZZ	AR1248 1101	08/07/01	0037
10	ZZZZZ	AR1254 9403 C	08/07/01	0125
11	ZZZZZ	AR1660 2803 C	08/08/01	1616
12	ZZZZZ	0108L458-001	08/08/01	1704
13	ZZZZZ	01LE0923-MB1	08/08/01	1752
14	ZZZZZ	01LE0923-MB1S	08/08/01	1840
15	ZZZZZ	01LE0923-MB1T	08/08/01	1928
16	PBLKMYLE0922	01LE0922-MB1	08/08/01	2016
17	PBLKMYLE0922 MS	01LE0922-MB1S	08/08/01	2104
18	ZZZZZ	0108L445-001	08/08/01	2152
19	ZZZZZ	0108L445-001S	08/08/01	2240
20	ZZZZZ	0108L445-001T	08/08/01	2328
21	ZZZZZ	0108L445-0015	08/09/01	0016
22	ZZZZZ	HEXANE	08/09/01	0104
23	ZZZZZ	AR1660 2803 C	08/09/01	0152
24	ZZZZZ	0108L445-009	08/09/01	0240
25	RC39-01-0001 02	0108L447-001	08/09/01	0329
26	RC39-01-0002 02	0108L447-002	08/09/01	0417
27	RC39-01-0003 02	0108L447-003	08/09/01	0506
28	RC39-01-0004 02	0108L447-004	08/09/01	0554
29	RC39-01-0005 02	0108L447-005	08/09/01	0642
30	ZZZZZ	HEXANE	08/09/01	0730
31	ZZZZZ	AR1660 2803 C	08/09/01	0818

Hayes 8/7/01

FORM VIII PEST

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9477R GC Sample ID: 08060136

Instrument ID: 36 GC Column ID: RTX1701

Dates of Analyses: 08/06/01 to 08/09/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2801 A	08/06/01	1813
02	ZZZZZ	AR1660 2802 B	08/06/01	1901
03	ZZZZZ	AR1660 2803 C	08/06/01	1949
04	ZZZZZ	AR1660 2804 D	08/06/01	2037
05	ZZZZZ	AR1660 2805 E	08/06/01	2125
06	ZZZZZ	AR1221 1108	08/06/01	2213
07	ZZZZZ	AR1232 1205	08/06/01	2301
08	ZZZZZ	AR1242 1304	08/06/01	2349
09	ZZZZZ	AR1248 1101	08/07/01	0037
10	ZZZZZ	AR1254 9403 C	08/07/01	0125
11	ZZZZZ	AR1660 2803 C	08/08/01	1616
12	ZZZZZ	0108L458-001	08/08/01	1704
13	ZZZZZ	01LE0923-MB1	08/08/01	1752
14	ZZZZZ	01LE0923-MB1S	08/08/01	1840
15	ZZZZZ	01LE0923-MB1T	08/08/01	1928
16	PBLKMYLE0922	01LE0922-MB1	08/08/01	2016
17	PBLKMYLE0922 MS	01LE0922-MB1S	08/08/01	2104
18	ZZZZZ	0108L445-001	08/08/01	2152
19	ZZZZZ	0108L445-001S	08/08/01	2240
20	ZZZZZ	0108L445-001T	08/08/01	2328
21	ZZZZZ	0108L445-0015	08/09/01	0016
22	ZZZZZ	HEXANE	08/09/01	0104
23	ZZZZZ	AR1660 2803 C	08/09/01	0152
24	ZZZZZ	0108L445-009	08/09/01	0240
25	RC39-01-0001 02	0108L447-001	08/09/01	0329
26	RC39-01-0002 02	0108L447-002	08/09/01	0417
27	RC39-01-0003 02	0108L447-003	08/09/01	0506
28	RC39-01-0004 02	0108L447-004	08/09/01	0554
29	RC39-01-0005 02	0108L447-005	08/09/01	0642
30	ZZZZZ	HEXANE	08/09/01	0730
31	ZZZZZ	AR1660 2803 C	08/09/01	0818

FORM VIII PEST

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9477R GC Sample ID: 08130135

Instrument ID: 35 GC Column ID: DB608

Dates of Analyses: 08/14/01 to 08/14/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2803 C	08/14/01	0828
02	ZZZZZ	0107L383-003	08/14/01	0916
03	RC39-01-0002 02	0108L447-002	08/14/01	1004
04	ZZZZZ	0107L401-001	08/14/01	1052
05	ZZZZZ	0107L401-002	08/14/01	1141
06	ZZZZZ	0107L401-003	08/14/01	1229
07	ZZZZZ	0107L401-004	08/14/01	1318
08	ZZZZZ	0107L401-005	08/14/01	1406
09	ZZZZZ	0107L401-006	08/14/01	1454
10	ZZZZZ	0107L401-007	08/14/01	1542
11	ZZZZZ	0107L401-008	08/14/01	1631
12	ZZZZZ	HEXANE	08/14/01	1719
13	ZZZZZ	AR1660 2803 C	08/14/01	1807

FORM VIII PEST

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9477R GC Sample ID: 08130136

Instrument ID: 36 GC Column ID: RTX1701

Dates of Analyses: 08/14/01 to 08/14/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2803 C	08/14/01	0828
02	ZZZZZ	0107L383-003	08/14/01	0916
03	RC39-01-0002 02	0108L447-002	08/14/01	1004
04	ZZZZZ	0107L401-001	08/14/01	1052
05	ZZZZZ	0107L401-002	08/14/01	1141
06	ZZZZZ	0107L401-003	08/14/01	1229
07	ZZZZZ	0107L401-004	08/14/01	1318
08	ZZZZZ	0107L401-005	08/14/01	1406
09	ZZZZZ	0107L401-006	08/14/01	1454
10	ZZZZZ	0107L401-007	08/14/01	1542
11	ZZZZZ	0107L401-008	08/14/01	1631
12	ZZZZZ	HEXANE	08/14/01	1719
13	ZZZZZ	AR1660 2803 C	08/14/01	1807

[illegible] 8/27/01

FORM VIII PEST

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: NONE

Client: LAB

GC Sample ID: 08060135.48

RFW Lot No.: _____

GC Column: DB608

Instrument ID: 35

Method: P3560

DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/06/01

DATE OF ANALYSIS 08/08/01
TIME OF ANALYSIS 1616
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.69	11.62	11.76	85611	11.74	84590		- 1.2
Aroclor-1016	13.32	13.25	13.39	168309	13.37	163740		- 2.7
Aroclor-1016	14.85	14.78	14.92	213306	14.90	219480		2.9
Aroclor-1016	15.40	15.33	15.47	102062	15.45	107580		5.4
Aroclor-1016	17.19	17.12	17.26	93152	17.24	92030		- 1.2
Total				**662440**		**667420**		**- 0.8**
Aroclor-1260	21.57	21.50	21.64	228716	21.61	207930		- 9.1
Aroclor-1260	22.03	21.96	22.10	249376	22.07	238830		- 4.2
Aroclor-1260	23.69	23.62	23.76	167057	23.73	148260		- 11
Aroclor-1260	24.87	24.80	24.94	187462	24.91	160960		- 14
Aroclor-1260	25.49	25.42	25.56	333574	25.53	303330		- 9.1
Total				**1166185**		**1059310**		**- 9.2**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc. Contract: NONE

Client: LAB GC Sample ID: 08060135.60

RFW Lot No.: GC Column: DB608

Instrument ID: 35 | DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/06/01 | DATE OF ANALYSIS 08/09/01 TIME OF ANALYSIS 0152 STANDARD ID: AR1660 2803 C

Method: P3560

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.69	11.62	11.76	85611	11.72	85020		- 0.7
Aroclor-1016	13.32	13.25	13.39	168309	13.36	165600		- 1.6
Aroclor-1016	14.85	14.78	14.92	213306	14.89	222030		4.1
Aroclor-1016	15.40	15.33	15.47	102062	15.44	106550		4.4
Aroclor-1016	17.19	17.12	17.26	93152	17.23	92140		- 1.1
Total				662440		671340		- 1.3
Aroclor-1260	21.57	21.50	21.64	228716	21.60	221670		- 3.1
Aroclor-1260	22.03	21.96	22.10	249376	22.07	246600		- 1.1
Aroclor-1260	23.69	23.62	23.76	167057	23.72	152140		- 8.9
Aroclor-1260	24.87	24.80	24.94	187462	24.91	167990		- 10
Aroclor-1260	25.49	25.42	25.56	333574	25.52	312190		- 6.4
Total				1166185		1100590		- 5.6
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

page 1 of 1

RFW 9/93 A

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: NONE

Client: LAB

GC Sample ID: 08060135.68

RFW Lot No.:

GC Column: DB608

Instrument ID: 35

Method: P3560

DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/06/01

DATE OF ANALYSIS 08/09/01
TIME OF ANALYSIS 0818
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.69	11.62	11.76	85611	11.72	80470		- 6.0
Aroclor-1016	13.32	13.25	13.39	168309	13.36	146990		- 13
Aroclor-1016	14.85	14.78	14.92	213306	14.89	207450		- 2.7
Aroclor-1016	15.40	15.33	15.47	102062	15.44	99490		- 2.5
Aroclor-1016	17.19	17.12	17.26	93152	17.23	84150		- 9.7
Total				662440		618550		- 6.6
Aroclor-1260	21.57	21.50	21.64	228716	21.61	216940		- 5.1
Aroclor-1260	22.03	21.96	22.10	249376	22.07	240780		- 3.4
Aroclor-1260	23.69	23.62	23.76	167057	23.72	150050		- 10
Aroclor-1260	24.87	24.80	24.94	187462	24.91	166660		- 11
Aroclor-1260	25.49	25.42	25.56	333574	25.53	305120		- 8.5
Total				1166185		1079550		- 7.4
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

Mary 8/27/01

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: _____

Client: _____

GC Sample ID: 08060136.48

RFW Lot No.: _____

GC Column: RTX1701

Instrument ID: 36

Method: P3660

DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/06/01

DATE OF ANALYSIS 08/08/01
TIME OF ANALYSIS 1616
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.74	9.67	9.81	42589	9.77	42510		- 0.2
Aroclor-1016	11.19	11.12	11.26	71454	11.23	70080		- 1.9
Aroclor-1016	12.80	12.73	12.87	99691	12.84	101350		0.0
Aroclor-1016	13.27	13.20	13.34	58336	13.30	60380		3.5
Aroclor-1016	14.90	14.83	14.97	48670	14.93	49640		2.0
Total				**320740**		**323960**		**1.0**
Aroclor-1260	19.21	19.14	19.28	117484	19.25	120310		2.4
Aroclor-1260	19.92	19.84	19.98	128538	19.95	138310		7.6
Aroclor-1260	21.42	21.35	21.49	90423	21.45	87910		- 2.8
Aroclor-1260	22.40	22.34	22.48	90442	22.44	87810		- 2.9
Aroclor-1260	23.24	23.17	23.31	174902	23.28	178680		2.2
Total				**601789**		**613020**		**1.9**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

8/21

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: _____

Client: _____

GC Sample ID: 08060136.60

RFW Lot No.: _____

GC Column: RTX1701

Instrument ID: 36

Method: P3660

DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/06/01

DATE OF ANALYSIS 08/09/01
TIME OF ANALYSIS 0152
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.74	9.67	9.81	42589	9.77	43390		1.9
Aroclor-1016	11.19	11.12	11.26	71454	11.23	72190		1.0
Aroclor-1016	12.80	12.73	12.87	99691	12.83	104180		4.5
Aroclor-1016	13.27	13.20	13.34	58336	13.30	61760		5.9
Aroclor-1016	14.90	14.83	14.97	48670	14.93	51840		6.5
Total				320740		333360		3.9
Aroclor-1260	19.21	19.14	19.28	117484	19.24	121520		3.4
Aroclor-1260	19.92	19.84	19.98	128538	19.95	140110		9.0
Aroclor-1260	21.42	21.35	21.49	90423	21.45	90920		0.5
Aroclor-1260	22.40	22.34	22.48	90442	22.44	90190		- 0.3
Aroclor-1260	23.24	23.17	23.31	174902	23.28	185550		6.1
Total				601789		628290		4.4
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

RFW 9/93 A

60

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: _____

Client: _____

GC Sample ID: 08060136.68

RFW Lot No.: _____

GC Column: RTX1701

Instrument ID: 36

Method: P3660

DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/06/01

DATE OF ANALYSIS 08/09/01
TIME OF ANALYSIS 0818
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.74	9.67	9.81	42589	9.77	40510		- 4.9
Aroclor-1016	11.19	11.12	11.26	71454	11.23	67080		- 6.1
Aroclor-1016	12.80	12.73	12.87	99691	12.83	95870		- 3.8
Aroclor-1016	13.27	13.20	13.34	58336	13.30	56810		- 2.6
Aroclor-1016	14.90	14.83	14.97	48670	14.93	46630		- 4.2
Total				320740		306900		- 4.3
Aroclor-1260	19.21	19.14	19.28	117484	19.24	114660		- 2.4
Aroclor-1260	19.92	19.84	19.98	128538	19.95	131930		2.6
Aroclor-1260	21.42	21.35	21.49	90423	21.45	85630		- 5.3
Aroclor-1260	22.40	22.34	22.48	90442	22.44	86180		- 4.7
Aroclor-1260	23.24	23.17	23.31	174902	23.28	175000		0
Total				601789		593400		1.4
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc. | Contract: NONE

Client: LAB | GC Sample ID: 08130135.02

RFW Lot No.: _____ | GC Column: DB608

Instrument ID: 35 | DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/07/01 | DATE OF ANALYSIS 08/14/01 | TIME OF ANALYSIS 0828

Method: P3560 | STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.76	11.69	11.83	85611	11.76	84160		- 1.7
Aroclor-1016	13.39	13.32	13.46	168309	13.39	157280		- 6.6
Aroclor-1016	14.92	14.84	14.98	213306	14.92	214420		0.5
Aroclor-1016	15.47	15.40	15.54	102062	15.47	104620		2.5
Aroclor-1016	17.25	17.18	17.32	93152	17.25	92850		- 0.3
Total				**662440**		**653330**		**- 1.4**
Aroclor-1260	21.62	21.55	21.69	228716	21.62	217250		- 5.0
Aroclor-1260	22.09	22.02	22.16	249376	22.09	242440		- 2.8
Aroclor-1260	23.74	23.67	23.81	167057	23.74	152010		- 9.0
Aroclor-1260	24.93	24.86	25.00	187462	24.93	168080		- 10
Aroclor-1260	25.54	25.47	25.61	333574	25.54	302570		- 9.3
Total				**1166185**		**1082350**		**- 7.2**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

8/27/01

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: NONE

Client: LAB

GC Sample ID: 08130135.14

RFW Lot No.:

GC Column: DB608

Instrument ID: 35

Method: P3560

DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/07/01

DATE OF ANALYSIS 08/14/01
TIME OF ANALYSIS 1807
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.76	11.69	11.83	85611	11.72	85960		0.4
Aroclor-1016	13.39	13.32	13.46	168309	13.35	168360		0
Aroclor-1016	14.92	14.84	14.98	213306	14.88	213550		0.1
Aroclor-1016	15.47	15.40	15.54	102062	15.43	103210		1.1
Aroclor-1016	17.25	17.18	17.32	93152	17.22	93880		0.8
Total				**662440**		**664960**		**0.4**
Aroclor-1260	21.62	21.55	21.69	228716	21.60	230560		0.8
Aroclor-1260	22.09	22.02	22.16	249376	22.06	259170		3.9
Aroclor-1260	23.74	23.67	23.81	167057	23.72	165860		- 0.7
Aroclor-1260	24.93	24.86	25.00	187462	24.90	181470		- 3.2
Aroclor-1260	25.54	25.47	25.61	333574	25.52	335170		0.5
Total				**1166185**		**1172230**		**0.5**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: _____

Client: _____

GC Sample ID: 08130136.02

RFW Lot No.: _____

GC Column: RTX1701

Instrument ID: 36

Method: P3660

DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/07/01

DATE OF ANALYSIS 08/14/01
TIME OF ANALYSIS 0828
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.78	9.71	9.85	42589	9.78	48250		13
Aroclor-1016	11.23	11.16	11.30	71454	11.23	73150		2.4
Aroclor-1016	12.84	12.77	12.91	99691	12.84	107140		7.5
Aroclor-1016	13.31	13.24	13.38	58336	13.31	61690		5.7
Aroclor-1016	14.94	14.87	15.01	48670	14.94	50400		3.6
Total				**320740**		**340630**		**6.2**
Aroclor-1260	19.25	19.18	19.32	117484	19.25	116870		- 0.5
Aroclor-1260	19.95	19.88	20.02	128538	19.95	134790		4.9
Aroclor-1260	21.45	21.38	21.52	90423	21.45	84980		0.0
Aroclor-1260	22.44	22.37	22.51	90442	22.44	88190		- 2.5
Aroclor-1260	23.28	23.21	23.35	174902	23.28	174930		0
Total				**601789**		**599760**		**0.3**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc. Contract: _____

Client: _____ GC Sample ID: 08130136.14

RFW Lot No.: _____ GC Column: RTX1701

Instrument ID: 36 | DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/07/01 | DATE OF ANALYSIS 08/14/01 TIME OF ANALYSIS 1807

Method: P3660 | STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.78	9.71	9.85	42589	9.76	46030		8.1
Aroclor-1016	11.23	11.16	11.30	71454	11.22	75690		5.9
Aroclor-1016	12.84	12.77	12.91	99691	12.82	106620		7.0
Aroclor-1016	13.31	13.24	13.38	58336	13.29	63260		8.4
Aroclor-1016	14.94	14.87	15.01	48670	14.92	53110		9.1
Total				**320740**		**344710**		**7.5**
Aroclor-1260	19.25	19.18	19.32	117484	19.23	127020		8.1
Aroclor-1260	19.95	19.88	20.02	128538	19.94	143250		11
Aroclor-1260	21.45	21.38	21.52	90423	21.44	95030		5.1
Aroclor-1260	22.44	22.37	22.51	90442	22.43	96300		6.5
Aroclor-1260	23.28	23.21	23.35	174902	23.27	191340		9.4
Total				**601789**		**652940**		**8.5**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

Addendum

Multilevel Calibration Method Report

Calibration curve statistics are presented on the Multilevel Calibration Method reports. This report includes the type of calibration preformed, the file reference (i.e. 06209811.06) of the calibration standards used, the slope and intercept of the curve for each analyte, and the curve fit statistics. The column labeled as "CORR COEFF" presents the coefficient of determination (r^2) for each analyte. Our laboratory acceptance criteria are based on the correlation coefficient ® being at least 0.996. Therefore, the minimum acceptance value for "CORR COEFF" (r^2) on the Multilevel Calibration Method report is 0.992.

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Multilevel Calibration Method

calibrated using height
Lionville Laboratory, Incorporated

% RSD TCX

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
08060135.05	LEVEL A	11887	0.04	297175			
08060135.06	LEVEL B	30969	0.1	309690			
08060135.07	LEVEL C	65924	0.2	329620	316009.1	13235.8811	4.18844936 ✓
08060135.08	LEVEL D	130795	0.4	326987.5			
08060135.09	LEVEL E	316573	1	316573			

% RSD DCB

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
08060135.05	LEVEL A	10801	0.008	1350125			
08060135.06	LEVEL B	26129	0.02	1306450			
08060135.07	LEVEL C	50995	0.04	1274875	1252684.5	85574.3157	6.83127441 ✓
08060135.08	LEVEL D	95381	0.08	1192262.5			
08060135.09	LEVEL E	227942	0.2	1139710			

AR1016
$\bar{x}$ = 446084.1
σ_{n-1} = 44418.875
% RSD = 9.96%

AR1260
$\bar{x}$ = 823723.6
σ_{n-1} = 45305.379
% RSD = 5.50%

AR1254
RF = 0.1790 x 10^-5

AR1260
RF = 0.1316 x 10^-5

68/7/01
MK

Multilevel Calibration Method

calibrated using height
Lionville Laboratory, Incorporated

% RSD TCX

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
08060136.05	LEVEL A	5925	0.04	148125			
08060136.06	LEVEL B	15433	0.1	154330			
08060136.07	LEVEL C	33205	0.2	166025	163934.1	12945.8032	7.89695569 ✓
08060136.08	LEVEL D	68201	0.4	170502.5			
08060136.09	LEVEL E	180688	1	180688			

% RSD DCB

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
08060136.05	LEVEL A	7312	0.008	914000			
08060136.06	LEVEL B	18232	0.02	911600			
08060136.07	LEVEL C	36156	0.04	903900	885265	36103.0539	4.07821996 ✓
08060136.08	LEVEL D	69294	0.08	866175			
08060136.09	LEVEL E	166130	0.2	830650			

AR1016
$\bar{x}$ = 223895.2
σ = 10742.46
%RSD = 4.80%

AR1260
$\bar{x}$ = 437478.7
σ = 9446.307
%RSD = 2.16%

AR1254 (QC)
RF = 0.5483×10^{-5}

AR1254 (sample 002)
RF = 0.4007×10^{-5}

AR1260
RF = 0.2945×10^{-5}

68/7/01
MK

MULTI-COMPONENT STANDARD CONCENTRATIONS

COMPOUND	ID #	CONC (ng/ul)
TOXAPHENE	80481005	0.5
AROCLOR 1016	80480704; 0705	0.1
AROCLOR 1221	80481106	0.2
AROCLOR 1232	80481203	0.1
AROCLOR 1242	80481302	0.1
AROCLOR 1248	80481702	0.1
AROCLOR 1254	80480803	0.1
AROCLOR 1260	80480704; 0705	0.1

BREAKDOWN EVALUATION MIX CONCENTRATION

EVAL
80481504, 1506

COMPOUND	CONC (ng/ul)
ENDRIN	0.025
4,4'-DDT	0.05

MULTICOMPONENT STANDARD CONCENTRACTION

AR1660
(NG/UL)

	80486101 A	80486102 B	80486103 C	80486104 D	80486105 E
Aroclor-1016	0.04	0.10	0.20	0.40	1.0
Aroclor-1260	0.04	0.10	0.20	0.40	1.0
TCX	0.008	0.02	0.04	0.08	0.2
DCB	0.008	0.02	0.04	0.08	0.2

AR1242
(NG/UL)

Aroclor-1242	0.04	0.10	0.20	0.40	1.0
TCX	0.008	0.02	0.04	0.08	0.2
DCB	0.008	0.02	0.04	0.08	0.2

AR1248
(NG/UL)

Aroclor-1248	0.04	0.10	0.20	0.40	1.0
TCX	0.008	0.02	0.04	0.08	0.2
DCB	0.008	0.02	0.04	0.08	0.2

AR1254
(NG/UL)

	80486501 A	80486502 B	80486503 C	80486504 D	80486505 E
Aroclor-1254	0.04	0.10	0.20	0.40	1.0
TCX	0.008	0.02	0.04	0.08	0.2
DCB	0.008	0.02	0.04	0.08	0.2

MULTICOMPONENT STANDARD CONCENTRACTION

	AR1232 (NG/UL)
Aroclor-1232	0.20
TCX	0.04
DCB	0.04

	AR1221 (NG/UL)
	80481107 A
Aroclor-1221	0.04
TCX	0.008
DCB	0.008

TOXAPHENE
(NG/UL)

Toxaphene	0.1	0.25	0.5	0.75	1
TCX	0.02	0.05	0.1	0.15	0.2
DCB	0.02	0.05	0.1	0.15	0.2

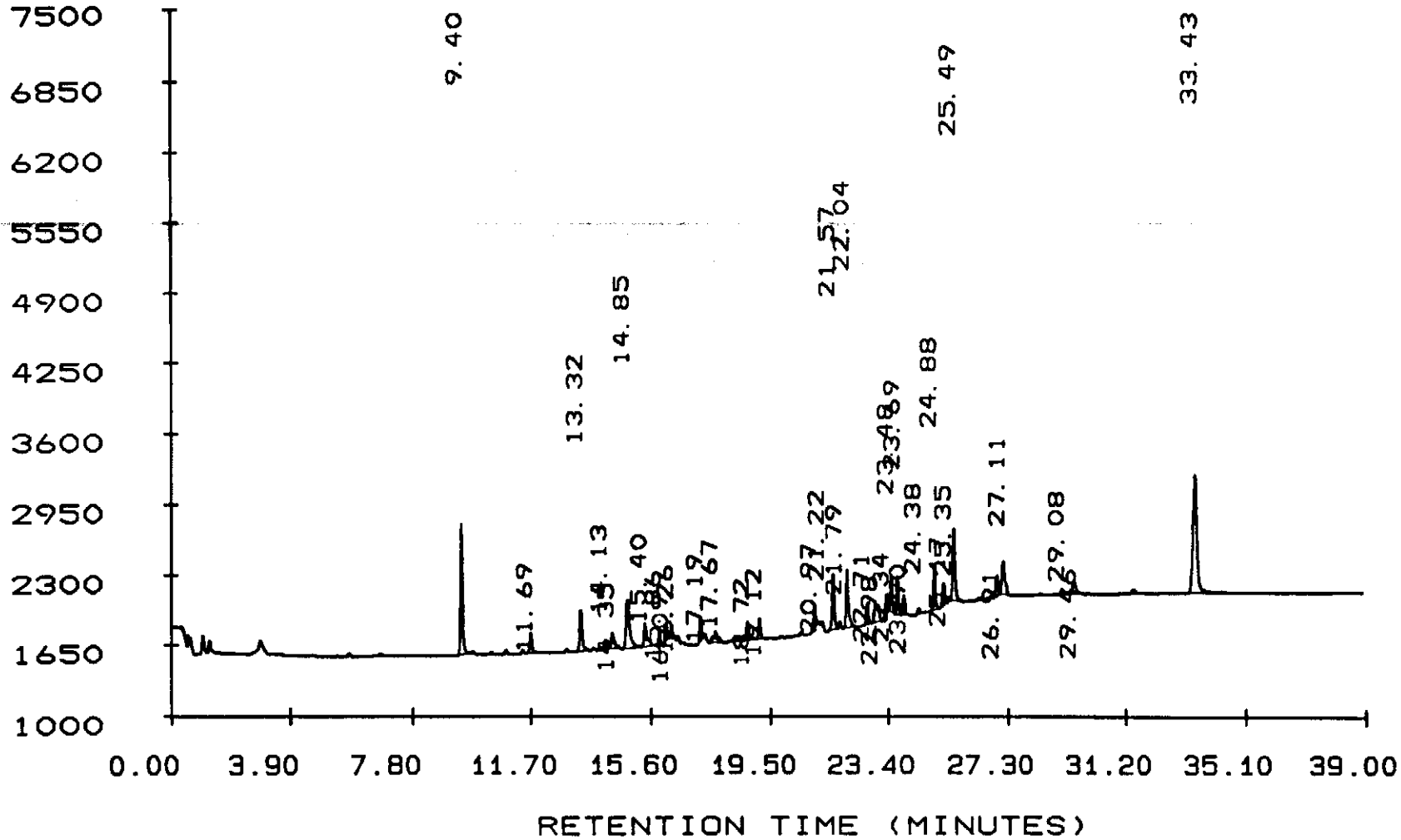
CHLORDANE
(NG/UL)

CHLORDANE	0.04	0.10	0.20	0.40	1.0
TCX	0.008	0.02	0.04	0.08	0.20
DCB	0.008	0.02	0.04	0.08	0.20

AR1660 2801 A

SAMPLE NO. : 08060135 .05
TEST NO. :
METHOD NO. : P3560 / P3560

INSTRUMENT: 35
DATE TIME: 08/06/01 18:13:55
PAGE NO. : 01



Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/07/01 08:58:27

EXTERNAL STANDARD

SAMPLE: 08060135 .05 INST:35 VIAL:F0 SEQ NUMBER:005
TEST : DATE-TIME INJECTED : 08/06/01 18:13:55
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/07/01 08:58:27
METHOD: P3560 / P3560 REV #: 00218 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2801 A RAW FILE: RAW3:H6145224
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	59671	11887	V	9.402	1	TCX	0.007
007	11171	1836		11.691	1	AR1016-1	0.021
009	24101	3752	V	13.323	1	AR1016-2	0.022
011	4126	893	V	14.126			
012	11436	1432	V	14.348			
013	38586	4481	V	14.850	1	AR1016-3	0.021
014	15981	2104	V	15.403	1	AR1016-4	0.021
015	6432	1319	V	15.863			
016	6560	1550	V	16.086			
017	7856	1261	V	16.256			
019	9195	1919	V	17.193	1	AR1016-5	0.021
021	10477	1031	V	17.669			
023	9930	1697	V	18.723			
024	10073	1789	V	19.116			
026	10752	2017	V	20.968			
028	2408	577	V	21.219			
029	27459	5110	V	21.571	1	AR1260-1	0.022
030	3443	710	V	21.795			
031	32928	5351	V	22.035	1	AR1260-2	0.021
032	10140	1937	V	22.711			
033	15667	1723	V	22.975			
034	10073	1935	V	23.338			
035	15991	3297	V	23.482			
036	16483	3518	V	23.689	1	AR1260-3	0.021
037	8928	1829	V	23.898			
038	2448	516	V	24.384			
039	20800	3907	V	24.876	1	AR1260-4	0.021
040	12086	2077	V	25.171			
041	1924	531	V	25.353			
042	36595	6584	V	25.492	1	AR1260-5	0.020
044	9873	1780	V	26.907			
045	22362	3005		27.113			
046	4218	584	V	29.076			
047	10749	1295		29.462			
049	104341	10801		33.432	1	DCB	0.008

MPK	1836	11.691	AROCLOR-1016-1	~~0.043~~	RW:11.62-11.76
MPK	3752	13.323	AROCLOR-1016-2	~~0.045~~	RW:13.25-13.39
MPK	1432	14.348	AROCLOR-1016-3	~~0.045~~	RW:14.28-14.41

0.04

8/7/01 MK

SAMPLE: 08060135 .05 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/06/01 18:13:55
DATE-TIME PROCESSED : 08/07/01 08:58:27

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
MPK		4481	14.850		AROCLOR-1016-4	0.042	RW:14.78-14.92
MPK		2104	15.403		AROCLOR-1016-5	0.041	RW:15.33-15.47
MPK		1319	15.863		AROCLOR-1016-6	0.040	RW:15.79-15.93
MPK		1550	16.086		AROCLOR-1016-7	0.041	RW:16.01-16.15
MPK		1261	16.256		AROCLOR-1016-8	0.042	RW:16.18-16.32
MPK		1919	17.193		AROCLOR-1016-9	0.041	RW:17.12-17.26
MPK		5110	21.571		AROCLOR-1260-1	0.045	RW:21.50-21.64
MPK		5351	22.035		AROCLOR-1260-2	0.043	RW:21.96-22.10
MPK		1935	23.338		AROCLOR-1260-3	0.039	RW:23.26-23.40
MPK		3297	23.482		AROCLOR-1260-4	0.040	RW:23.41-23.55
MPK		3518	23.689		AROCLOR-1260-5	0.042	RW:23.62-23.76
MPK		3907	24.876		AROCLOR-1260-6	0.042	RW:24.80-24.94
MPK		2077	25.171		AROCLOR-1260-7	0.041	RW:25.10-25.24
MPK		6584	25.492		AROCLOR-1260-8	0.039	RW:25.42-25.56
MPK		3005	27.113		AROCLOR-1260-9	0.039	RW:27.04-27.18

0.04

8/7/01
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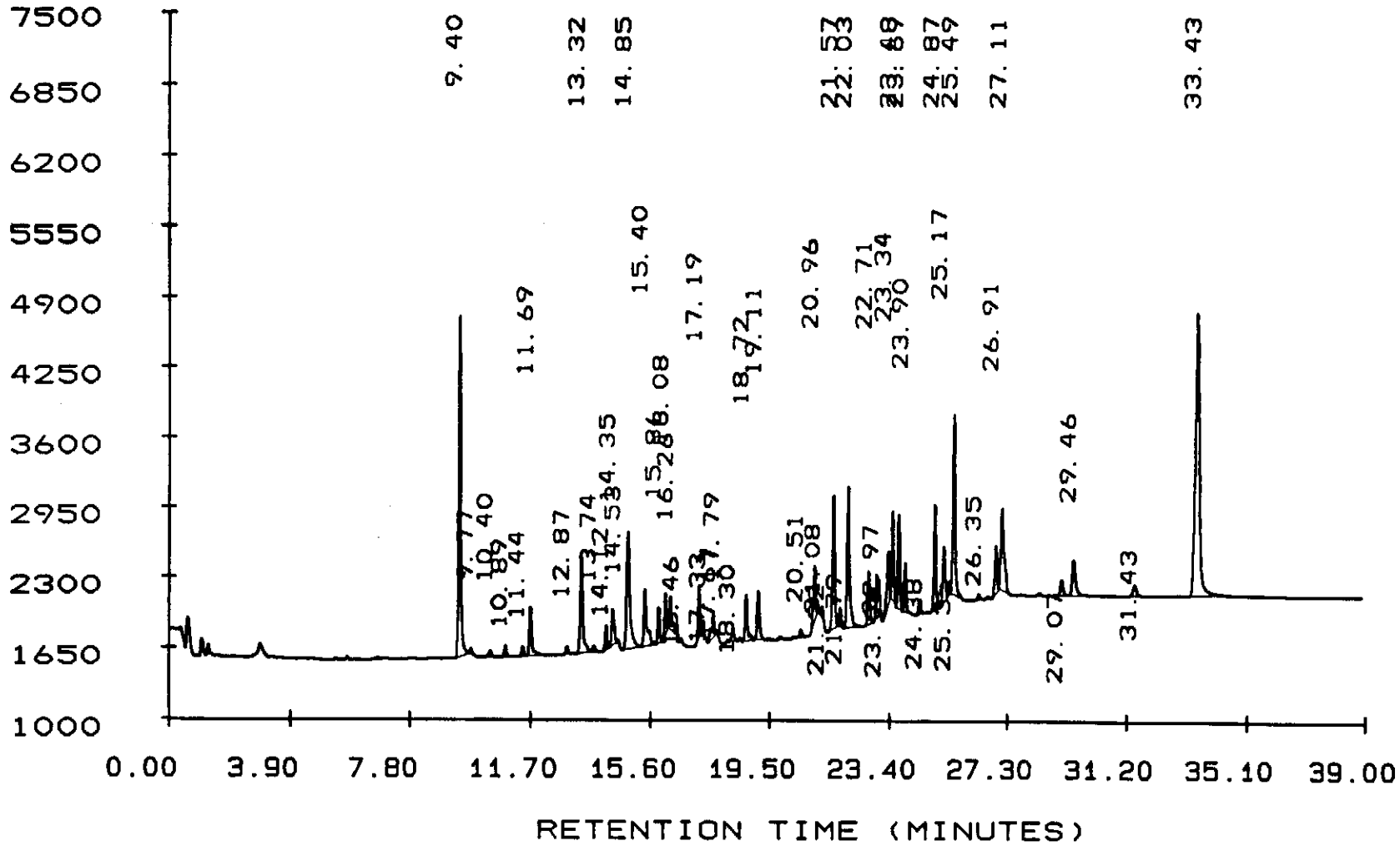
AR1660 2802 B

SAMPLE NO. : 08060135 .06 INSTRUMENT: 35

TEST NO. : DATE TIME: 08/06/01 19:01:45

METHOD NO. : P3560 / P3560 PAGE NO. : 01



Y MAXIMUM: 7500. START TIME: 0.00

Y MINIMUM: 1000. END TIME: 39.00

Lionville Laboratory, Inc. 08/07/01 08:58:38

EXTERNAL STANDARD

SAMPLE: 08060135 .06 INST:35 VIAL:F0 SEQ NUMBER:006
TEST : DATE-TIME INJECTED : 08/06/01 19:01:45
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/07/01 08:58:38
METHOD: P3560 / P3560 REV #: 00218 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2802 B RAW FILE: RAW3:H6145232
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	152891	30969	V	9.399	1	TCX	0.019
003	2980	553	V	9.772			
004	3571	579	V	10.404			
005	5127	1000	V	10.885			
006	4612	919	V	11.435			
007	27202	4411		11.688	1	AR1016-1	0.052
008	4219	725	V	12.869			
009	57514	8817	V	13.320	1	AR1016-2	0.052
010	3565	577	V	13.736			
011	10167	2178	V	14.123			
012	19435	3235	V	14.346			
013	1674	504	V	14.529			
014	93219	10788	V	14.848	1	AR1016-3	0.051
015	38637	5155	V	15.400	1	AR1016-4	0.051
016	15891	3266	V	15.860			
017	15795	3779	V	16.084			
018	19066	3065	V	16.255			
019	4021	1155	V	16.463			
021	22682	4718	V	17.191	1	AR1016-5	0.051
022	3893	1127	V	17.334			
023	13451	1992	V	17.666			
024	1935	563	V	17.789			
026	7260	1227	V	18.300			
028	24512	4142	V	18.721			
029	26413	4421	V	19.113			
031	4967	748	V	20.511			
032	26263	4853	V	20.965			
033	2483	847	V	21.083			
034	5707	1408	V	21.217			
035	64998	12100	V	21.568	1	AR1260-1	0.053
036	8413	1759	V	21.792			
037	78685	12858	V	22.033	1	AR1260-2	0.052
038	25214	4849	V	22.708			
039	8137	2216	V	22.973			
040	4709	1646	V	23.056			
041	25392	4919	V	23.335			
042	39505	8190	V	23.479			
043	40020	8619	V	23.687	1	AR1260-3	0.052
044	22174	4489	V	23.896			
045	6363	1348	V	24.381			

SAMPLE: 08060135 .06 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/06/01 19:01:45
DATE-TIME PROCESSED : 08/07/01 08:58:38

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
046	50522	9633	V	24.873	1	AR1260-4	0.051
047	30102	5126	V	25.169			
048	4898	1363	V	25.351			
049	89186	16422	V	25.489	1	AR1260-5	0.049
050	3326	588	V	26.345			
052	24773	4469	V	26.906			
053	55707	7562	V	27.110			
055	10502	1469	V	29.074			
056	26770	3256		29.459			
057	9894	1074		31.434			
058	256412	26129		33.427	1	DCB	0.020

MPK	4411	11.688	AROCLOR-1016-1	0.103	RW:11.62-11.76
MPK	8817	13.320	AROCLOR-1016-2	0.105	RW:13.25-13.39
MPK	3235	14.346	AROCLOR-1016-3	0.102	RW:14.28-14.41
MPK	10788	14.848	AROCLOR-1016-4	0.101	RW:14.78-14.92
MPK	5155	15.400	AROCLOR-1016-5	0.101	RW:15.33-15.47
MPK	3266	15.860	AROCLOR-1016-6	0.098	RW:15.79-15.93
MPK	3779	16.084	AROCLOR-1016-7	0.101	RW:16.01-16.15
MPK	3065	16.255	AROCLOR-1016-8	0.101	RW:16.18-16.32
MPK	4718	17.191	AROCLOR-1016-9	0.101	RW:17.12-17.26
MPK	12100	21.568	AROCLOR-1260-1	0.106	RW:21.50-21.64
MPK	12858	22.033	AROCLOR-1260-2	0.108	RW:21.96-22.10
MPK	4919	23.335	AROCLOR-1260-3	0.100	RW:23.26-23.40
MPK	8190	23.479	AROCLOR-1260-4	0.099	RW:23.41-23.55
MPK	8619	23.687	AROCLOR-1260-5	0.103	RW:23.62-23.76
MPK	9633	24.873	AROCLOR-1260-6	0.103	RW:24.80-24.94
MPK	5126	25.169	AROCLOR-1260-7	0.101	RW:25.10-25.24
MPK	16422	25.489	AROCLOR-1260-8	0.098	RW:25.42-25.56
MPK	7562	27.110	AROCLOR-1260-9	0.099	RW:27.04-27.18

0.10

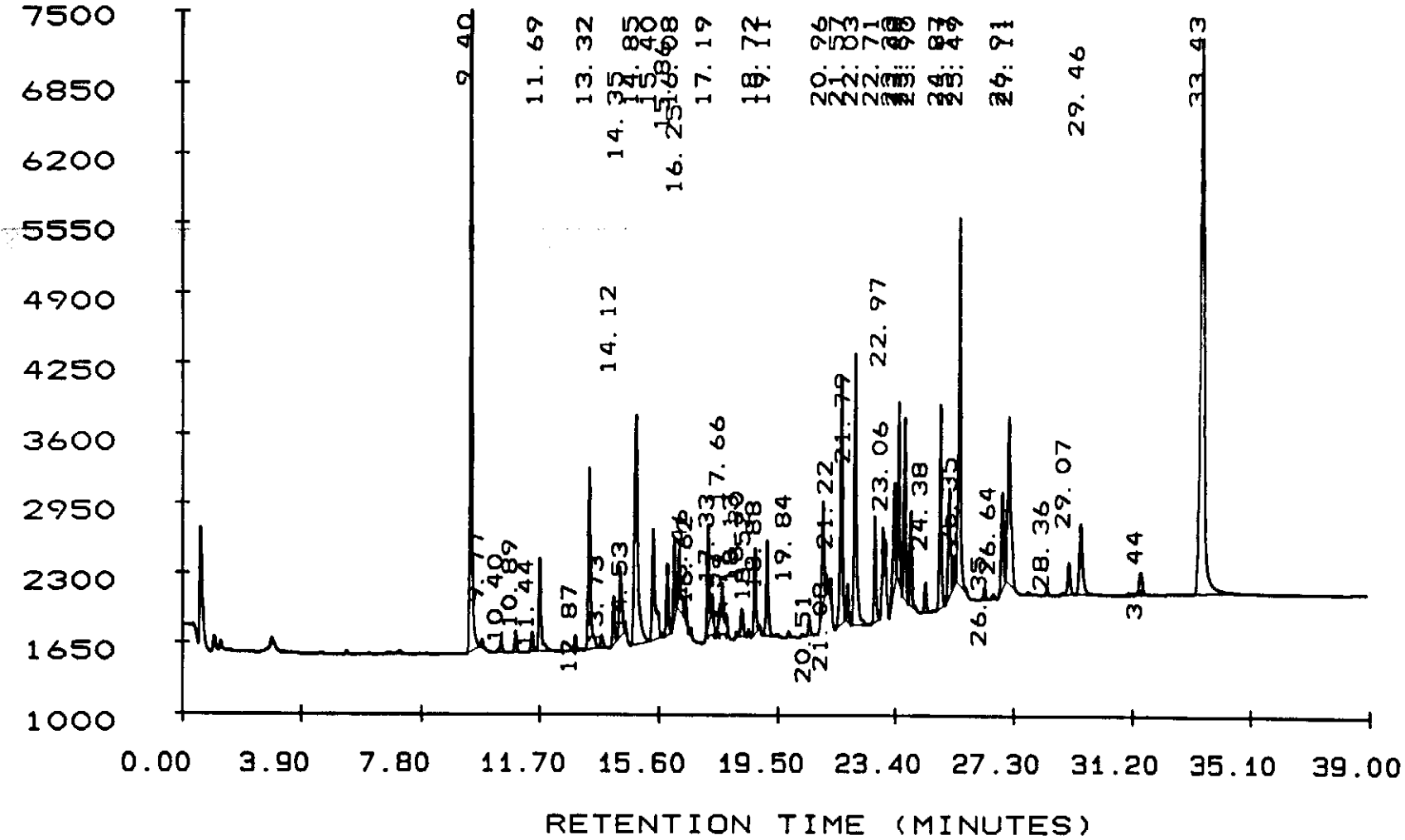
8/7/01
MK

AR1660 2803 C

SAMPLE NO. : 08060135 .07 INSTRUMENT: 35

TEST NO. : DATE TIME: 08/06/01 19:49:34

METHOD NO. : P3560 / P3560 PAGE NO. : 01



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Lionville Laboratory, Inc. 08/07/01 08:58:50

EXTERNAL STANDARD

SAMPLE: 08060135 .07 INST:35 VIAL:F0 SEQ NUMBER:007
TEST : DATE-TIME INJECTED : 08/06/01 19:49:34
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/07/01 08:58:50
METHOD: P3560 / P3560 REV #: 00218 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2803 C RAW FILE: RAW3:H6145240
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
003	320741	65924	V	9.399	1	TCX	0.040
004	4165	795	V	9.772			
005	7408	1177	V	10.403			
006	10918	2030	V	10.885			
007	9270	1851	V	11.435			
008	51776	8561		11.688	1	AR1016-1	0.100
009	8168	1457	V	12.868			
010	108154	16831	V	13.319	1	AR1016-2	0.100
011	7312	1187	V	13.734			
012	21140	4394	V	14.123			
013	38491	6365	V	14.345			
014	3597	1057	V	14.529			
015	180614	21331	V	14.846	1	AR1016-3	0.100
016	72832	10206	V	15.400	1	AR1016-4	0.100
018	32186	6642	V	15.860			
019	31678	7485	V	16.082			
020	37069	6058	V	16.253			
021	8066	2322	V	16.462			
022	3017	806	V	16.622			
023	44594	9315	V	17.189	1	AR1016-5	0.100
024	8910	2463	V	17.334			
025	4094	1163	V	17.572			
026	11617	3193	V	17.665			
027	4033	1160	V	17.789			
028	2740	614	V	18.127			
029	14736	2493	V	18.299			
030	3584	778	V	18.525			
031	38237	7761	V	18.720			
032	2185	669	V	18.875			
033	51568	8740	V	19.112			
034	3872	603	V	19.838			
036	8107	1529	V	20.510			
037	51902	9482	V	20.965			
038	4841	1651	V	21.082			
039	11195	2783	V	21.217			
040	123744	22872	V	21.567	1	AR1260-1	0.100
041	17095	3585	V	21.791			
042	152128	24938	V	22.031	1	AR1260-2	0.100
043	50099	9762	V	22.707			
044	16514	4472	V	22.971			

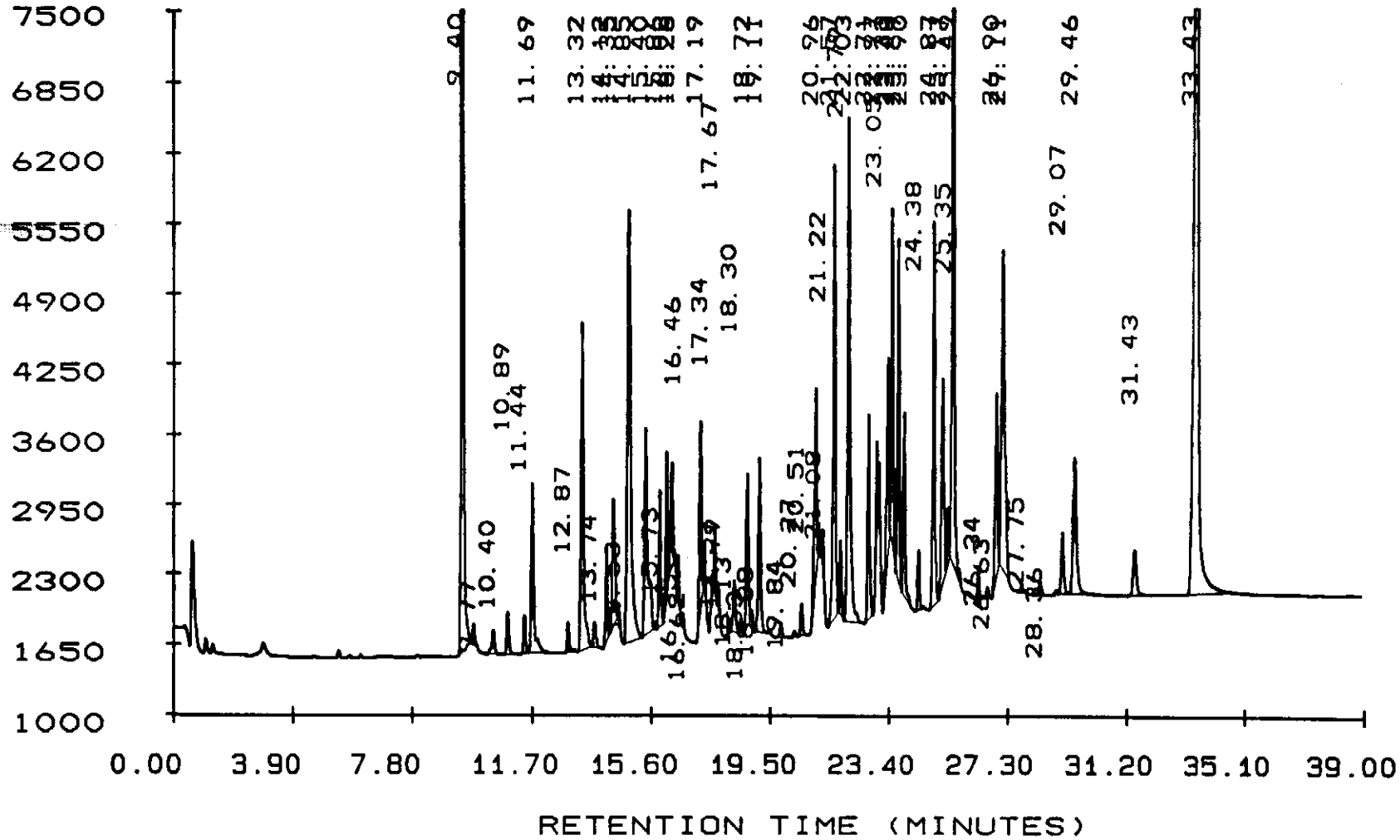
SAMPLE: 08060135 .07 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/06/01 19:49:34
DATE-TIME PROCESSED : 08/07/01 08:58:50

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
045	8984	3146	V	23.056			
046	50665	9799	V	23.334			
047	78723	16533	V	23.478			
048	77725	16706	V	23.687	1	AR1260-3	0.100
049	43869	8841	V	23.895			
050	13234	2773	V	24.380			
051	97857	18746	V	24.873	1	AR1260-4	0.100
052	60137	10175	V	25.169			
053	10113	2816	V	25.350			
054	176659	33357	V	25.489	1	AR1260-5	0.100
055	6285	1177	V	26.345			
056	2758	519	V	26.636			
057	49932	9029	V	26.906			
058	110166	15344	V	27.109			
060	4198	655	V	28.361			
061	21056	2988	V	29.074			
062	52098	6600		29.459			
063	17942	2150		31.437			
064	497155	50995		33.431	1	DCB	0.040

MPK	8561	11.688	AROCLOR-1016-1	0.200	RW:11.62-11.76
MPK	16831	13.319	AROCLOR-1016-2	0.200	RW:13.25-13.39
MPK	6365	14.345	AROCLOR-1016-3	0.200	RW:14.28-14.41
MPK	21331	14.846	AROCLOR-1016-4	0.200	RW:14.78-14.92
MPK	10206	15.400	AROCLOR-1016-5	0.200	RW:15.33-15.47
MPK	6642	15.860	AROCLOR-1016-6	0.200	RW:15.79-15.93
MPK	7485	16.082	AROCLOR-1016-7	0.200	RW:16.01-16.15
MPK	6058	16.253	AROCLOR-1016-8	0.200	RW:16.18-16.32
MPK	9315	17.189	AROCLOR-1016-9	0.200	RW:17.12-17.26
MPK	22872	21.567	AROCLOR-1260-1	0.200	RW:21.50-21.64
MPK	24938	22.031	AROCLOR-1260-2	0.200	RW:21.96-22.10
MPK	9799	23.334	AROCLOR-1260-3	0.200	RW:23.26-23.40
MPK	16533	23.478	AROCLOR-1260-4	0.200	RW:23.41-23.55
MPK	16706	23.687	AROCLOR-1260-5	0.200	RW:23.62-23.76
MPK	18746	24.873	AROCLOR-1260-6	0.200	RW:24.80-24.94
MPK	10175	25.169	AROCLOR-1260-7	0.200	RW:25.10-25.24
MPK	33357	25.489	AROCLOR-1260-8	0.200	RW:25.42-25.56
MPK	15344	27.109	AROCLOR-1260-9	0.200	RW:27.04-27.18

AR1660 2804 D

SAMPLE NO. : 08060135 .08 INSTRUMENT: 35
TEST NO. : DATE TIME: 08/06/01 20:37:32
METHOD NO. : P3560 / P3560 PAGE NO. : 01



Y MAXIMUM: 7500. START TIME: 0.00
Y MINIMUM: 1000. END TIME: 39.00

Lionville Laboratory, Inc. 08/07/01 08:59:01

EXTERNAL STANDARD

SAMPLE: 08060135 .08 INST:35 VIAL:F0 SEQ NUMBER:008
TEST : DATE-TIME INJECTED : 08/06/01 20:37:32
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/07/01 08:59:01
METHOD: P3560 / P3560 REV #: 00218 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2804 D RAW FILE: RAW3:H6145247
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
004	643595	130795	V	9.400	1	TCX	0.079
005	9690	1815	V	9.773			
006	13840	2202	V	10.404			
007	20838	3849	V	10.886			
008	17598	3483	V	11.436			
009	95456	15482	V	11.688	1	AR1016-1	0.181
010	13108	2709	V	12.869			
012	198189	30225	V	13.320	1	AR1016-2	0.180
013	14035	2263	V	13.736			
014	38803	8333	V	14.124			
015	71266	11669	V	14.345			
016	6837	2001	V	14.530			
017	336934	39761	V	14.849	1	AR1016-3	0.186
018	135386	18951	V	15.400	1	AR1016-4	0.186
019	2244	712	V	15.727			
020	61120	12530	V	15.860			
021	56213	13311	V	16.083			
022	45073	9529	V	16.255			
023	3318	1708	V	16.352			
024	15057	4277	V	16.463			
025	5649	1508	V	16.623			
026	84210	17277	V	17.190	1	AR1016-5	0.185
027	15633	4454	V	17.335			
028	7580	2206	V	17.573			
029	22110	6061	V	17.666			
030	7830	2220	V	17.790			
031	5238	1184	V	18.127			
032	27898	4758	V	18.299			
033	6886	1495	V	18.526			
034	70448	14026	V	18.721			
035	4183	1270	V	18.876			
036	89417	15953	V	19.112			
038	7473	1204	V	19.836			
039	3257	628	V	20.272			
040	15424	2917	V	20.511			
041	96480	17412	V	20.965			
042	8333	2864	V	21.082			
043	20570	5058	V	21.217			
044	229338	41391	V	21.567	1	AR1260-1	0.181
045	32320	6743	V	21.791			

SAMPLE: 08060135 .08 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/06/01 20:37:32
DATE-TIME PROCESSED : 08/07/01 08:59:01

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
046	282298	45981	V	22.031	1	AR1260-2	0.184
047	95111	18730	V	22.706			
048	30530	8262	V	22.971			
049	17701	6111	V	23.055			
050	95016	18399	V	23.333			
051	148321	30539	V	23.477			
052	146308	31241	V	23.686	1	AR1260-3	0.187
053	83639	16817	V	23.895			
054	24755	5338	V	24.380			
056	184335	35087	V	24.872	1	AR1260-4	0.187
057	112908	19207	V	25.168			
058	19232	5315	V	25.349			
059	341195	64335	V	25.488	1	AR1260-5	0.193
060	11651	2258	V	26.343			
061	5210	1004	V	26.634			
062	93978	17068	V	26.904			
063	211895	29238	V	27.108			
064	4153	611	V	27.754			
065	7754	1266	V	28.359			
067	37350	5667	V	29.073			
068	101770	12630		29.457			
069	34730	4121		31.434			
070	947624	95381		33.429	1	DCB	0.075

MPK	15482	11.688	AROCLOR-1016-1	0.362	RW:11.62-11.76
MPK	30225	13.320	AROCLOR-1016-2	0.359	RW:13.25-13.39
MPK	11669	14.345	AROCLOR-1016-3	0.367	RW:14.28-14.41
MPK	39761	14.849	AROCLOR-1016-4	0.373	RW:14.78-14.92
MPK	18951	15.400	AROCLOR-1016-5	0.371	RW:15.33-15.47
MPK	12530	15.860	AROCLOR-1016-6	0.377	RW:15.79-15.93
MPK	13311	16.083	AROCLOR-1016-7	0.356	RW:16.01-16.15
MPK	9529	16.255	AROCLOR-1016-8	0.315	RW:16.18-16.32
MPK	17277	17.190	AROCLOR-1016-9	0.371	RW:17.12-17.26
MPK	41391	21.567	AROCLOR-1260-1	0.362	RW:21.50-21.64
MPK	45981	22.031	AROCLOR-1260-2	0.369	RW:21.96-22.10
MPK	18399	23.333	AROCLOR-1260-3	0.376	RW:23.26-23.40
MPK	30539	23.477	AROCLOR-1260-4	0.369	RW:23.41-23.55
MPK	31241	23.686	AROCLOR-1260-5	0.374	RW:23.62-23.76
MPK	35087	24.872	AROCLOR-1260-6	0.374	RW:24.80-24.94
MPK	19207	25.168	AROCLOR-1260-7	0.378	RW:25.10-25.24
MPK	64335	25.488	AROCLOR-1260-8	0.386	RW:25.42-25.56
MPK	29238	27.108	AROCLOR-1260-9	0.381	RW:27.04-27.18

6.40

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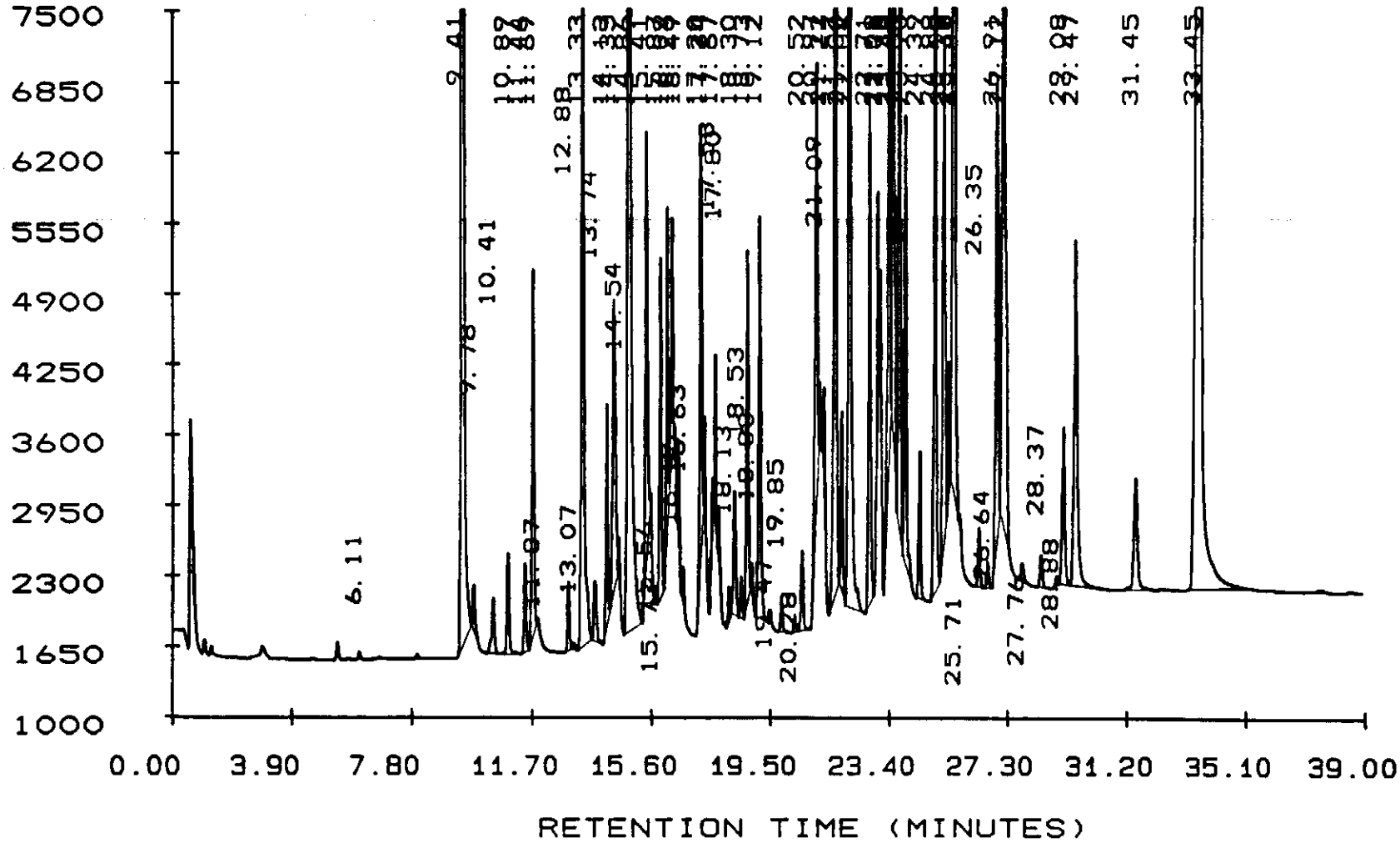
AR1660 2805 E

SAMPLE NO. : 08060135 .09 INSTRUMENT: 35

TEST NO. : DATE TIME: 08/06/01 21:25:33

METHOD NO. : P3560 / P3560 PAGE NO. : 01



Y MAXIMUM: 7500. START TIME: 0.00

Y MINIMUM: 1000. END TIME: 39.00

Lionville Laboratory, Inc. 08/07/01 08:59:13

EXTERNAL STANDARD

SAMPLE: 08060135 .09 INST:35 VIAL:F0 SEQ NUMBER:009
TEST : DATE-TIME INJECTED : 08/06/01 21:25:33
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/07/01 08:59:13
METHOD: P3560 / P3560 REV #: 00218 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2805 E RAW FILE: RAW3:H6145255
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	4072	769	V	6.112			
004	1612629	316573	V	9.406	1	TCX	0.192
005	22789	4187	V	9.779			
006	33258	5009	V	10.410			
007	50237	9184	V	10.892			
008	41056	8110	V	11.442			
009	169459	33407	V	11.694	1	AR1016-1	0.390
010	3154	810	V	11.866			
011	30700	6203	V	12.876			
012	3290	683	V	13.068			
013	441808	66412	V	13.327	1	AR1016-2	0.395
014	34131	5433	V	13.742			
015	93496	20223	V	14.130			
016	163985	26635	V	14.352			
017	16120	4591	V	14.537			
018	787360	93762	V	14.856	1	AR1016-3	0.440
019	200713	39483	V	15.406	1	AR1016-4	0.387
020	5296	2203	V	15.558			
021	5370	1627	V	15.734			
022	149504	30950	V	15.867			
023	123238	29182	V	16.089			
024	101702	21689	V	16.261			
025	4730	2994	V	16.357			
026	32609	9206	V	16.469			
027	13018	3465	V	16.630			
028	195331	39403	V	17.196	1	AR1016-5	0.423
029	39306	10576	V	17.341			
030	19618	5873	V	17.579			
031	55461	15082	V	17.672			
032	19852	5793	V	17.796			
033	13622	3082	V	18.133			
034	66943	11361	V	18.305			
035	17609	3809	V	18.532			
036	160035	32146	V	18.727			
037	10466	3211	V	18.882			
038	203892	36558	V	19.118			
039	5112	1180	V	19.468			
040	15584	2773	V	19.845			
041	8195	1553	V	20.278			
042	38803	7216	V	20.516			

SAMPLE: 08060135 .09 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/06/01 21:25:33
DATE-TIME PROCESSED : 08/07/01 08:59:13

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
043	229975	39635	V	20.971			
044	16471	5742	V	21.089			
045	50611	11493	V	21.223			
046	519142	94896	V	21.574	1	AR1260-1	0.415
047	76902	16364	V	21.797			
048	653139	106599	V	22.038	1	AR1260-2	0.427
049	231923	46183	V	22.713			
050	77330	19450	V	22.978			
051	33658	12394	V	23.062			
052	231034	44335	V	23.340			
053	372669	78508	V	23.484			
054	348477	73435	V	23.694	1	AR1260-3	0.440
055	204524	40614	V	23.901			
056	64416	13319	V	24.386			
057	439519	83896	V	24.880	1	AR1260-4	0.448
058	273809	45995	V	25.176			
059	42642	11819	V	25.356			
060	827939	161525	V	25.495	1	AR1260-5	0.484
061	4741	1526	V	25.714			
062	27967	5479	V	26.351			
063	12979	2497	V	26.642			
064	233576	42053	V	26.914			
065	531076	74644	V	27.117			
066	11918	1713	V	27.759			
067	19031	3091	V	28.369			
068	5232	984	V	28.876			
069	93555	14395	V	29.083			
070	247580	31600		29.467			
071	88496	10268		31.446			
072	2265533	227942		33.445	1	DCB	0.179

MPK	33407	11.694	AROCLOR-1016-1	0.780	RW:11.62-11.76
MPK	66412	13.327	AROCLOR-1016-2	0.789	RW:13.25-13.39
MPK	26635	14.352	AROCLOR-1016-3	0.837	RW:14.28-14.41
MPK	93762	14.856	AROCLOR-1016-4	0.879	RW:14.78-14.92
MPK	39483	15.406	AROCLOR-1016-5	0.774	RW:15.33-15.47
MPK	30950	15.867	AROCLOR-1016-6	0.932	RW:15.79-15.93
MPK	29182	16.089	AROCLOR-1016-7	0.780	RW:16.01-16.15
MPK	21689	16.261	AROCLOR-1016-8	0.716	RW:16.18-16.32
MPK	39403	17.196	AROCLOR-1016-9	0.846	RW:17.12-17.26
MPK	94896	21.574	AROCLOR-1260-1	0.830	RW:21.50-21.64
MPK	106599	22.038	AROCLOR-1260-2	0.855	RW:21.96-22.10
MPK	44335	23.340	AROCLOR-1260-3	0.905	RW:23.26-23.40
MPK	78508	23.484	AROCLOR-1260-4	0.950	RW:23.41-23.55
MPK	73435	23.694	AROCLOR-1260-5	0.879	RW:23.62-23.76
MPK	83896	24.880	AROCLOR-1260-6	0.895	RW:24.80-24.94
MPK	45995	25.176	AROCLOR-1260-7	0.904	RW:25.10-25.24
MPK	161525	25.495	AROCLOR-1260-8	0.968	RW:25.42-25.56

1.0

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SAMPLE: 08060135 .09 PAGE NUMBER: 3
DATE-TIME INJECTED : 08/06/01 21:25:33
DATE-TIME PROCESSED : 08/07/01 08:59:13

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
MPK		74644		27.117		AROCLOR-1260-9	~~0.873~~ 1.0	RW:27.04-27.18

8/7/01
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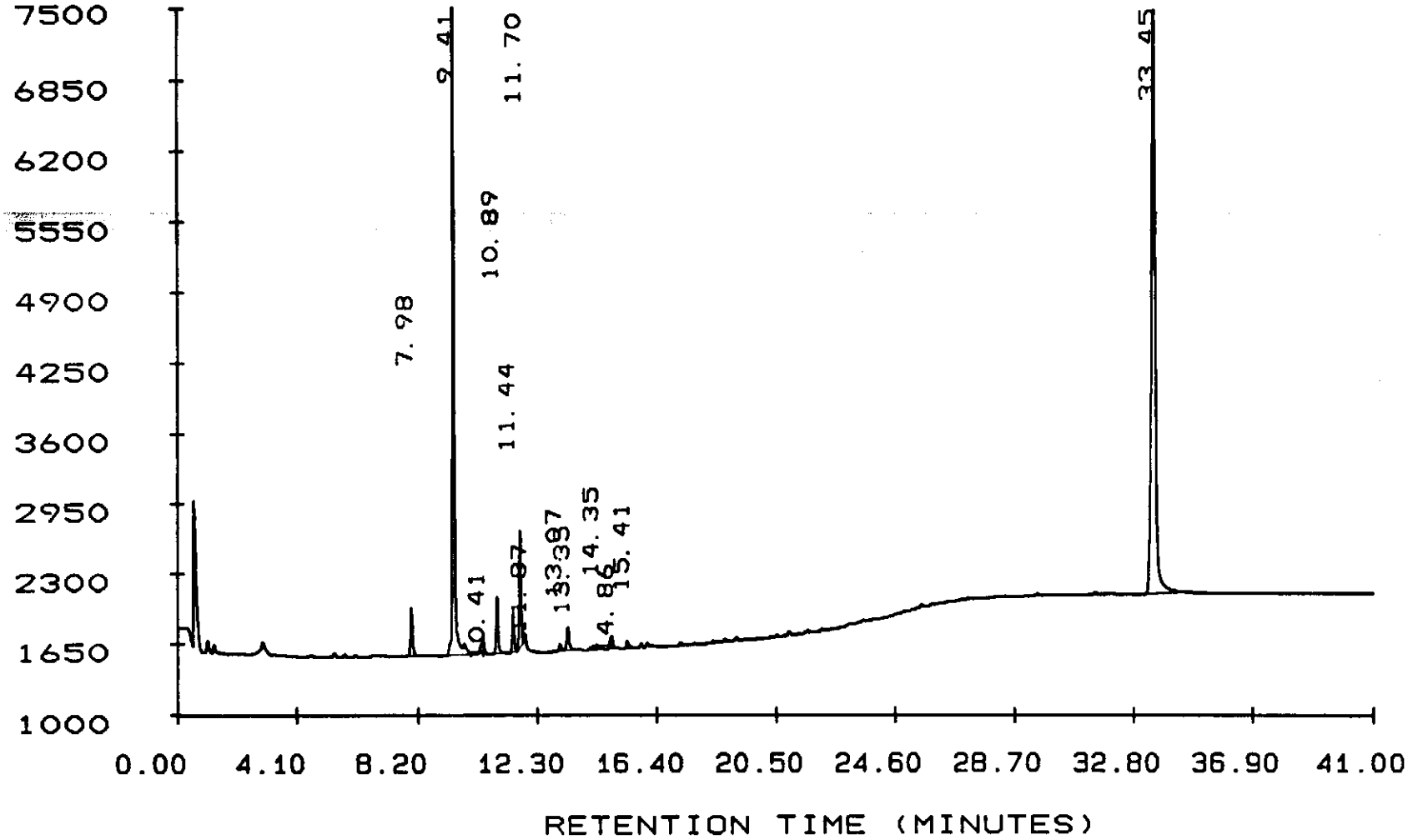
AR1221 1108

SAMPLE NO. : 08060135 . 10
TEST NO. :
METHOD NO. : P35 / P35

INSTRUMENT: 35
DATE TIME: 08/06/01 22:13:44
PAGE NO. : 01



Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/07/01 09:16:23

EXTERNAL STANDARD

SAMPLE: 08060135 .10 INST:35 VIAL:F0 SEQ NUMBER:010
TEST : DATE-TIME INJECTED : 08/06/01 22:13:44
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/07/01 09:16:23
METHOD: P35 / PCBLK REV #: 00219 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1221 1108 RAW FILE: RAW3:H6145264
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

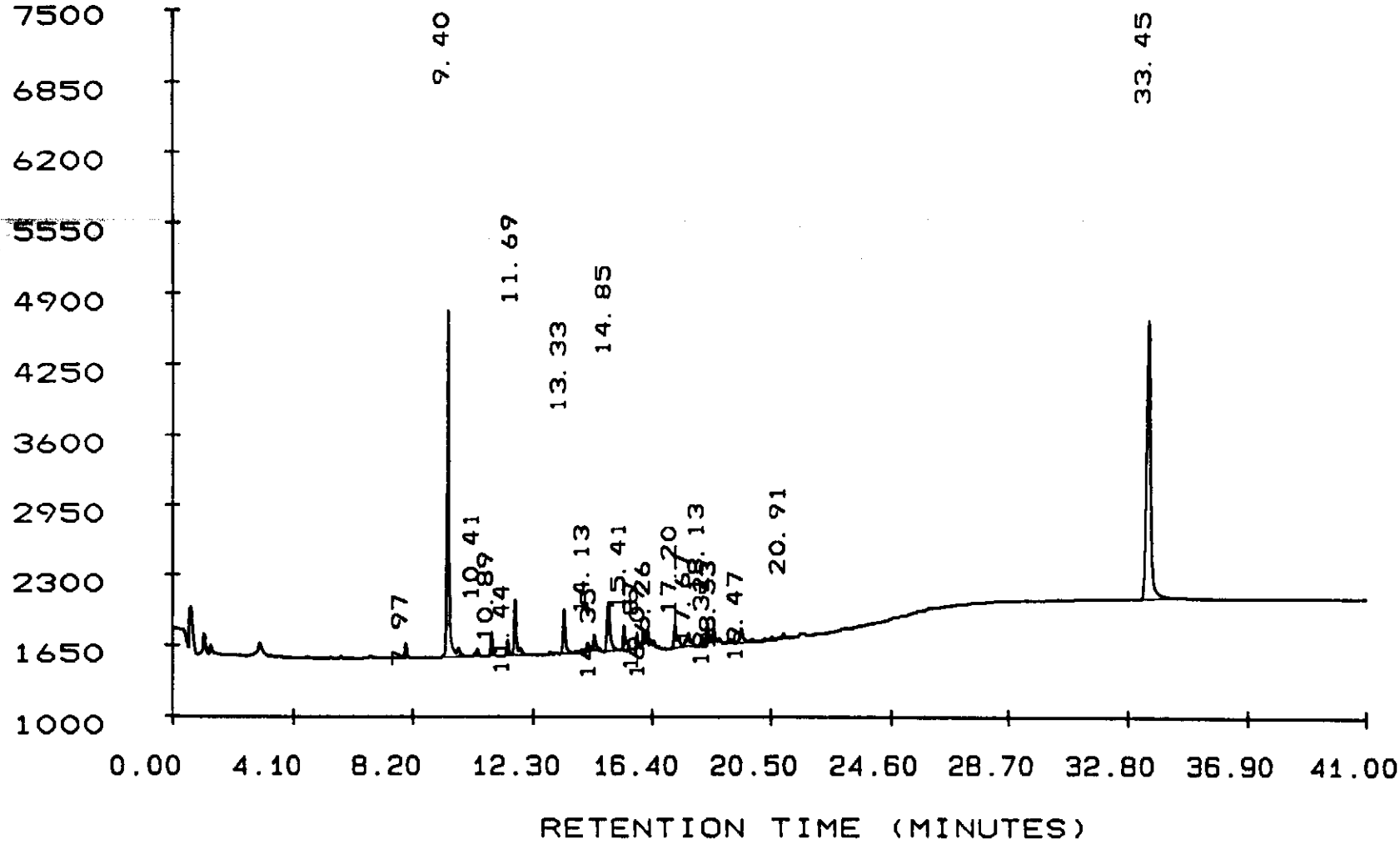
PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	25554	4450		7.976			
003	332170	68136	V	9.407	1	TCX	0.041
004	3768	672	V	9.780			
005	12877	1732	V	10.411			
006	28576	5238	V	10.889			
007	18149	3663	V	11.442			
008	51552	10589	V	11.696			
009	4243	1066		11.868			
010	4089	741	V	13.070			
011	15424	2151	V	13.347			
012	8582	543	V	14.354			
013	10157	1253	V	14.858			
014	5030	685	V	15.409			
032	518452	53251		33.445	1	DCB	0.042

MPK	4450	7.976	AROCLOR-1221-1	0.200	RW: 7.91- 8.05
MPK	1732	10.411	AROCLOR-1221-2	0.200	RW:10.34-10.48
MPK	5238	10.889	AROCLOR-1221-3	0.200	RW:10.82-10.96
MPK	3663	11.442	AROCLOR-1221-4	0.200	RW:11.37-11.51
MPK	10589	11.696	AROCLOR-1221-5	0.200	RW:11.63-11.77
MPK	1066	11.868	AROCLOR-1221-6	0.200	RW:11.80-11.94
MPK	2151	13.347	AROCLOR-1221-7	0.200	RW:13.28-13.42
MPK	1253	14.858	AROCLOR-1221-8	0.200	RW:14.79-14.93

AR1232 1205

SAMPLE NO. : 08060135 . 11
TEST NO. :
METHOD NO. : P35 / P35

INSTRUMENT: 35
DATE TIME: 08/06/01 23:01:32
PAGE NO. : 01



Y MAXIMUM: 7500.
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START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/07/01 09:16:34

EXTERNAL STANDARD

SAMPLE: 08060135 .11 INST:35 VIAL:F0 SEQ NUMBER:011
TEST : DATE-TIME INJECTED : 08/06/01 23:01:32
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/07/01 09:16:34
METHOD: P35 / PCBLK REV #: 00219 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1232 1205 RAW FILE: RAW3:H6145272
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

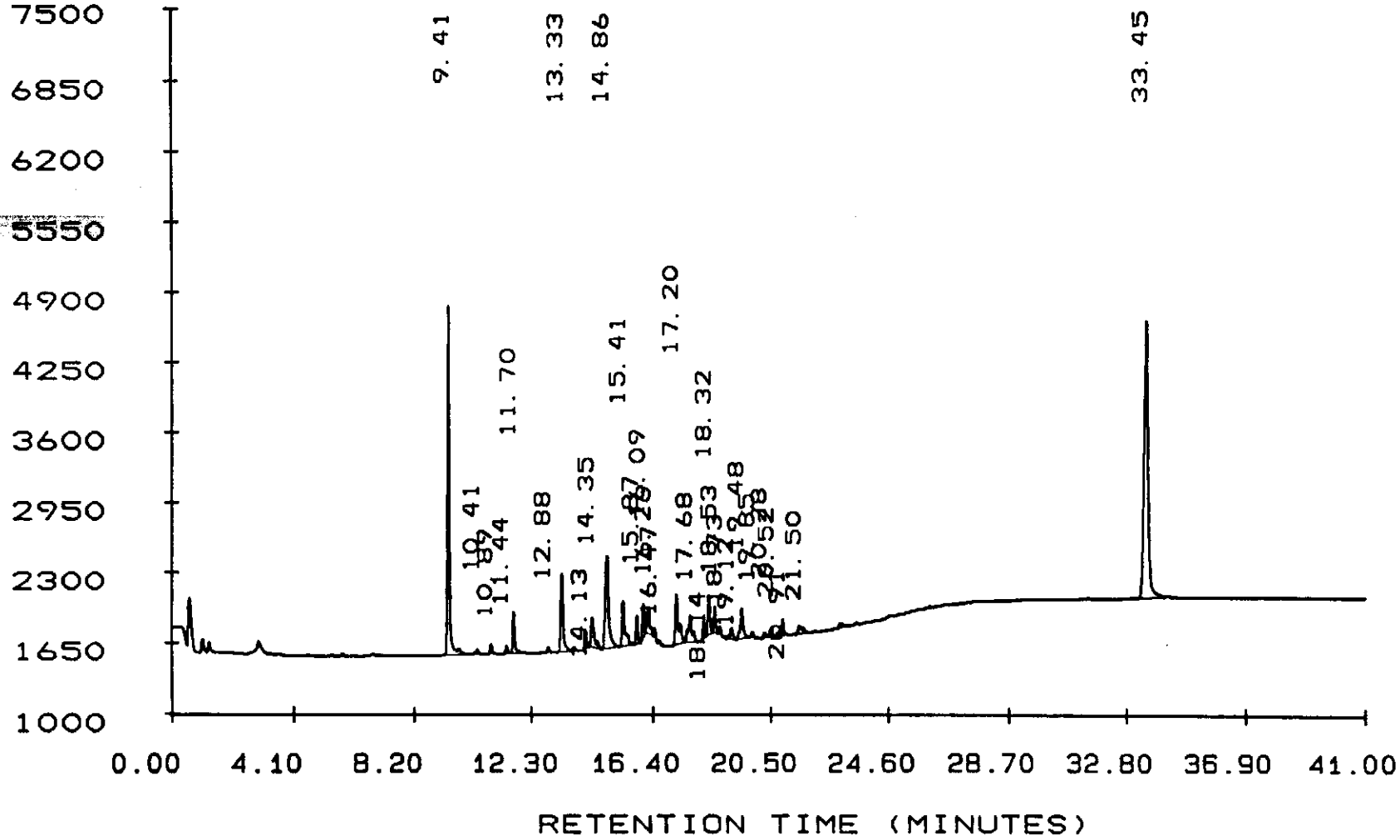
PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	7862	1349		7.974			
003	153103	31224	V	9.404	1	TCX	0.019
004	3083	559	V	9.778			
005	5306	751	V	10.409			
006	10630	1918	V	10.888			
007	7091	1431	V	11.441			
008	31709	5024		11.695			
011	26394	4043	V	13.329			
013	3893	875	V	14.131			
014	11405	1470	V	14.353			
015	39072	4560	V	14.855			
016	16378	2206	V	15.408			
017	6733	1396	V	15.868			
018	6074	1460	V	16.091			
019	7068	1162	V	16.261			
021	17803	2166	V	17.200			
022	11078	1143	V	17.673			
023	3157	673	V	18.135			
024	9299	1695	V	18.323			
025	5826	1168	V	18.534			
028	9702	1270	V	19.474			
032	4231	504	V	20.915			
035	253612	25545		33.447	1	DCB	0.020

MPK	1918	10.888	AROCLOR-1232-1	0.100	RW:10.82-10.96
MPK	5024	11.695	AROCLOR-1232-2	0.100	RW:11.63-11.76
MPK	4043	13.329	AROCLOR-1232-3	0.100	RW:13.26-13.40
MPK	1470	14.353	AROCLOR-1232-4	0.100	RW:14.28-14.42
MPK	4560	14.855	AROCLOR-1232-5	0.100	RW:14.78-14.92
MPK	2206	15.408	AROCLOR-1232-6	0.100	RW:15.34-15.48
MPK	2166	17.200	AROCLOR-1232-7	0.100	RW:17.13-17.27
MPK	1695	18.323	AROCLOR-1232-8	0.100	RW:18.25-18.39

AR1242 1304

SAMPLE NO. : 08060135 . 12
TEST NO. :
METHOD NO. : P35 / P35

INSTRUMENT: 35
DATE TIME: 08/06/01 23:49:23
PAGE NO. : 01



Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/07/01 09:16:45

EXTERNAL STANDARD

SAMPLE: 08060135 .12 INST:35 VIAL:F0 SEQ NUMBER:012
TEST : DATE-TIME INJECTED : 08/06/01 23:49:23
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/07/01 09:16:45
METHOD: P35 / PCBLK REV #: 00219 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1242 1304 RAW FILE: RAW3:H6145279
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	153690	31598	V	9.407	1	TCX	0.019
004	3136	508	V	10.412			
005	4990	934	V	10.894			
006	4066	819	V	11.444			
007	22665	3791		11.697			
008	3280	583	V	12.878			
009	45418	7174	V	13.329			
011	8070	1741	V	14.133			
012	15575	2608	V	14.355			
014	72278	8521	V	14.856			
015	30163	4086	V	15.410			
016	12576	2605	V	15.870			
017	12773	3037	V	16.092			
018	15280	2507	V	16.263			
019	3066	910	V	16.472			
020	18908	3884	V	17.201			
021	3076	871	V	17.343			
022	12718	1953	V	17.675			
023	1693	517	V	17.798			
024	7001	1537	V	18.137			
025	19885	3586	V	18.325			
026	12628	2519	V	18.534			
027	3305	800	V	18.727			
028	7196	1013	V	19.121			
029	21414	2741	V	19.475			
030	3136	603	V	19.848			
031	2979	555	V	20.284			
032	3699	731	V	20.520			
034	7117	1232	V	20.914			
035	8582	764	V	21.496			
041	253458	25515		33.448	1	DCB	0.020

MPK	3791	11.697	AROCLOR-1242-1	0.100	RW:11.63-11.77
MPK	7174	13.329	AROCLOR-1242-2	0.100	RW:13.26-13.40
MPK	8521	14.856	AROCLOR-1242-3	0.100	RW:14.79-14.93
MPK	4086	15.410	AROCLOR-1242-4	0.100	RW:15.34-15.48
MPK	3037	16.092	AROCLOR-1242-5	0.100	RW:16.02-16.16
MPK	3884	17.201	AROCLOR-1242-6	0.100	RW:17.13-17.27
MPK	3586	18.325	AROCLOR-1242-7	0.100	RW:18.25-18.40

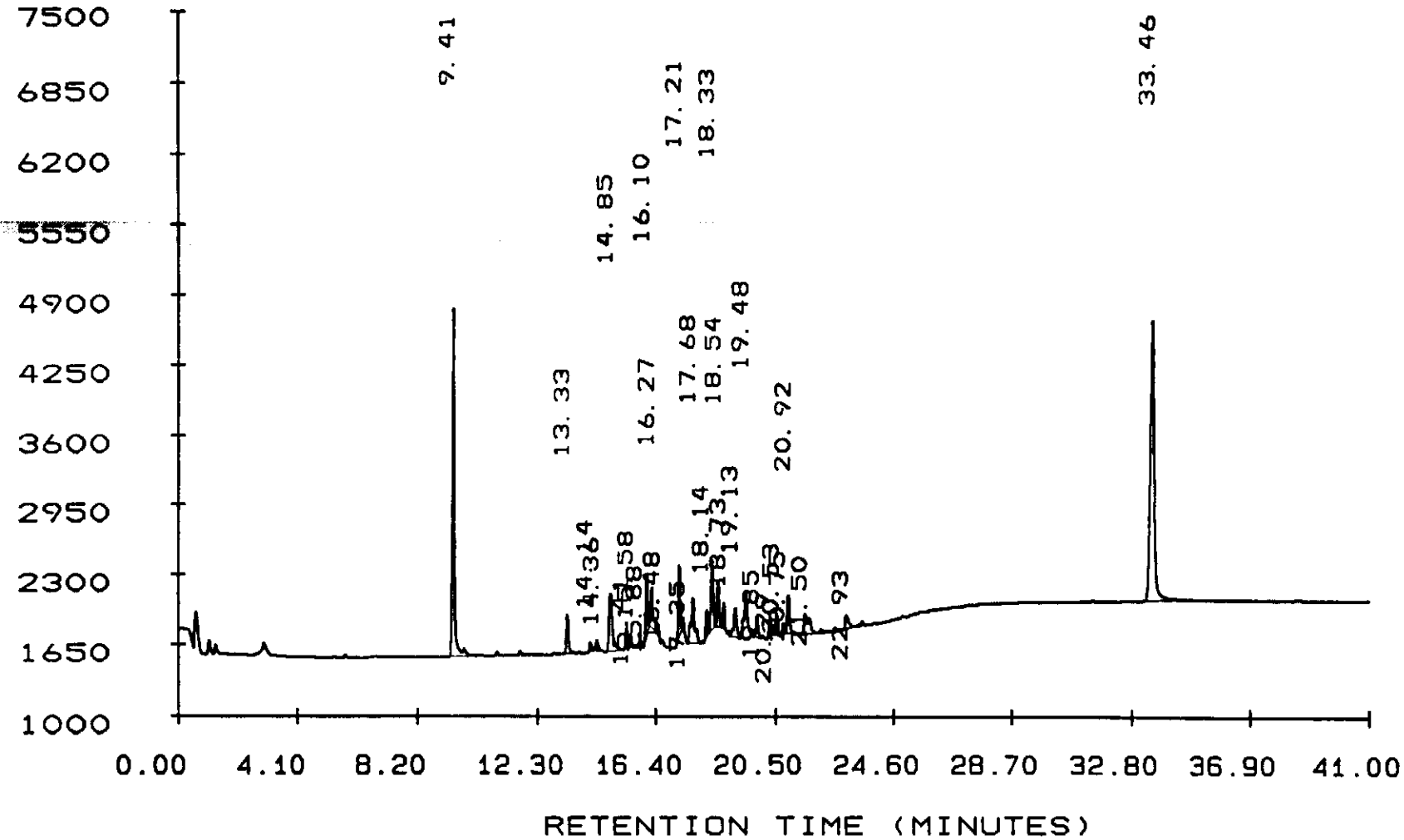
SAMPLE: 08060135 .12 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/06/01 23:49:23
DATE-TIME PROCESSED : 08/07/01 09:16:45

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
MPK		2741		19.475		AROCLOR-1242-8	0.100	RW:19.40-19.55

AR1248 1101

SAMPLE NO. : 08060135 . 13
TEST NO. :
METHOD NO. : P35 / P35

INSTRUMENT: 35
DATE TIME: 08/07/01 00:37:11
PAGE NO. : 01



Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/07/01 09:16:56

EXTERNAL STANDARD

SAMPLE: 08060135 .13 INST;35 VIAL:F0 SEQ NUMBER:013
TEST : DATE-TIME INJECTED : 08/07/01 00:37:11
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/07/01 09:16:56
METHOD: P35 / PCBLK REV #: 00219 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1248 1101 RAW FILE: RAW3:H7145287
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

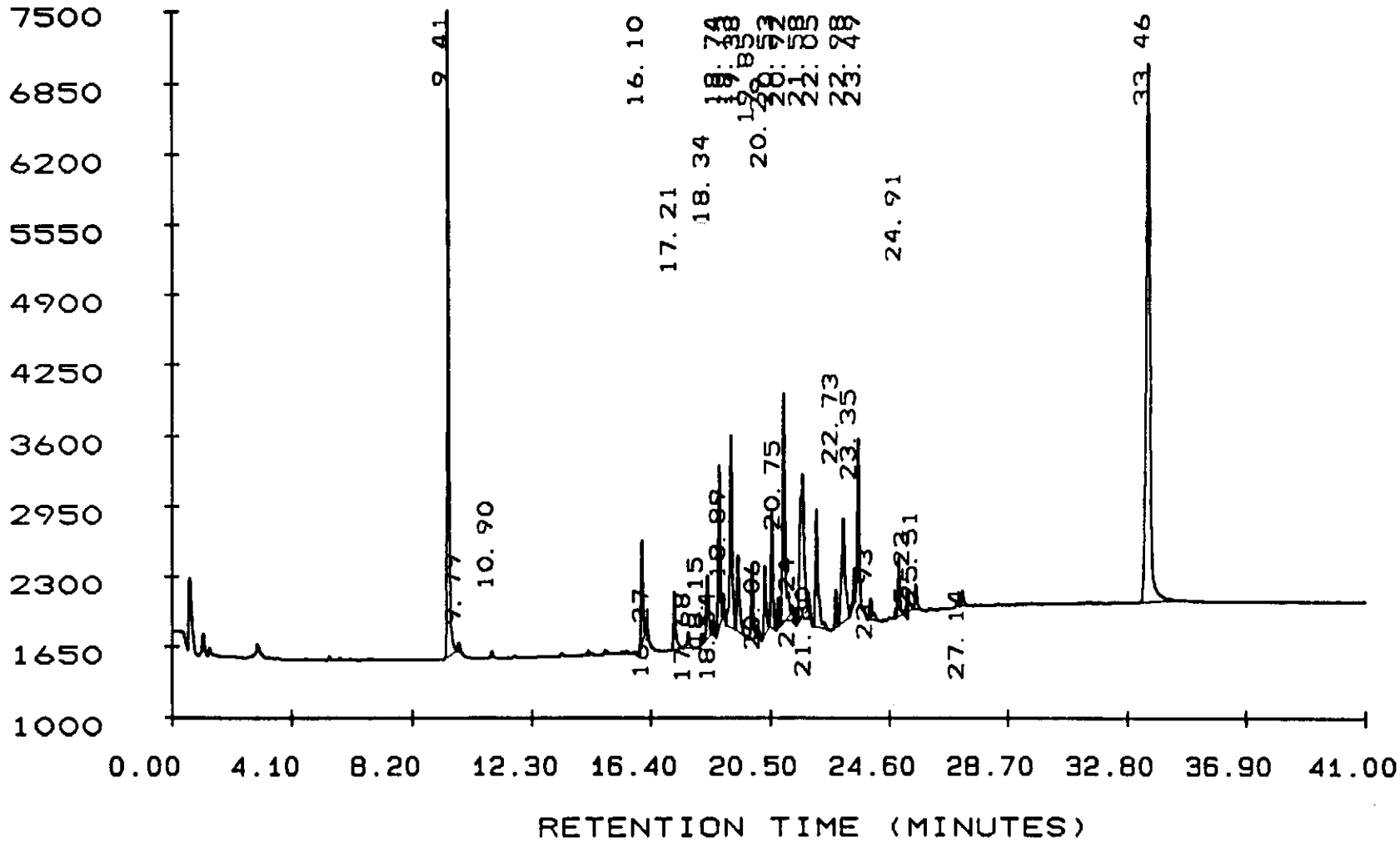
PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	154438	31694	V	9.411	1	TCX	0.019
007	23080	3623	V	13.330			
008	3638	829	V	14.137			
009	6873	990	V	14.359			
010	47366	5398	V	14.848			
011	7705	1682	V	15.414			
012	3816	931	V	15.576			
013	5801	1252	V	15.875			
014	24472	5596	V	16.098			
015	21806	3721	V	16.269			
016	3701	1120	V	16.476			
018	30573	6461	V	17.205			
019	4937	1395	V	17.348			
020	36762	4112	V	17.681			
021	11696	2534	V	18.142			
022	35248	6365	V	18.331			
023	20430	4100	V	18.541			
024	11313	2409	V	18.734			
025	18467	2719	V	19.127			
026	39005	4428	V	19.479			
027	9245	1732	V	19.854			
029	8565	1534	V	20.289			
030	9990	1994	V	20.526			
031	5072	1122	V	20.751			
032	20410	3496	V	20.920			
033	7375	1365	V	21.503			
034	2390	666	V	21.659			
036	11838	1298	V	22.932			
040	257056	25906		33.460	1	DCB	0.020

MPK	5398	14.848	AROCLOR-1248-1	0.100	RW:14.78-14.92
MPK	5596	16.098	AROCLOR-1248-2	0.100	RW:16.03-16.17
MPK	3721	16.269	AROCLOR-1248-3	0.100	RW:16.20-16.34
MPK	6461	17.205	AROCLOR-1248-4	0.100	RW:17.13-17.28
MPK	4112	17.681	AROCLOR-1248-5	0.100	RW:17.61-17.75
MPK	6365	18.331	AROCLOR-1248-6	0.100	RW:18.26-18.40
MPK	4100	18.541	AROCLOR-1248-7	0.100	RW:18.47-18.61
MPK	4428	19.479	AROCLOR-1248-8	0.100	RW:19.41-19.55

AR1254 9403 C

SAMPLE NO. : 08060135 .14
TEST NO. :
METHOD NO. : P35 / P35

INSTRUMENT: 35
DATE TIME: 08/07/01 01:25:01
PAGE NO. : 01



Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/07/01 09:17:07

EXTERNAL STANDARD

SAMPLE: 08060135 .14 INST:35 VIAL:F0 SEQ NUMBER:014
TEST : DATE-TIME INJECTED : 08/07/01 01:25:01
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/07/01 09:17:07
METHOD: P35 / PCBLK REV #: 00219 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1254 9403 C RAW FILE: RAW3:H7145293
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	310414	63993	V	9.414	1	TCX	0.039
003	5189	949		9.787			
004	3130	635	V	10.905			
010	44655	9283	V	16.100			
011	5830	1591	V	16.271			
012	32457	5317	V	17.208			
013	9710	1487	V	17.685			
014	5568	1159	V	18.145			
015	31887	5775	V	18.337			
016	6527	1478	V	18.543			
017	71879	14764	V	18.737			
018	8956	2509	V	18.893			
019	103825	17600	V	19.129			
020	43390	7018	V	19.379			
021	34694	6688	V	19.854			
022	5517	1183	V	20.058			
023	34246	6287	V	20.288			
024	55174	10748	V	20.527			
025	12800	2958	V	20.752			
026	109968	20138	V	20.921			
027	2713	1024	V	21.090			
028	5501	1161	V	21.239			
029	134186	13079	V	21.577			
030	6246	1609	V	21.804			
031	74377	10762	V	22.048			
032	17041	3567	V	22.725			
033	80864	9543	V	22.983			
034	16988	3423	V	23.352			
035	76277	15105	V	23.495			
036	1829	552	V	23.697			
037	8124	1739	V	23.931			
040	30849	5427	V	24.912			
041	16749	2120	V	25.226			
042	14018	2315	V	25.510			
045	9418	1500		27.136			
048	486112	49234		33.461	1	DCB	0.039

MPK	14764	18.737	AROCLOR-1254-1	0.200	RW:18.67-18.81
MPK	17600	19.129	AROCLOR-1254-2	0.200	RW:19.06-19.20

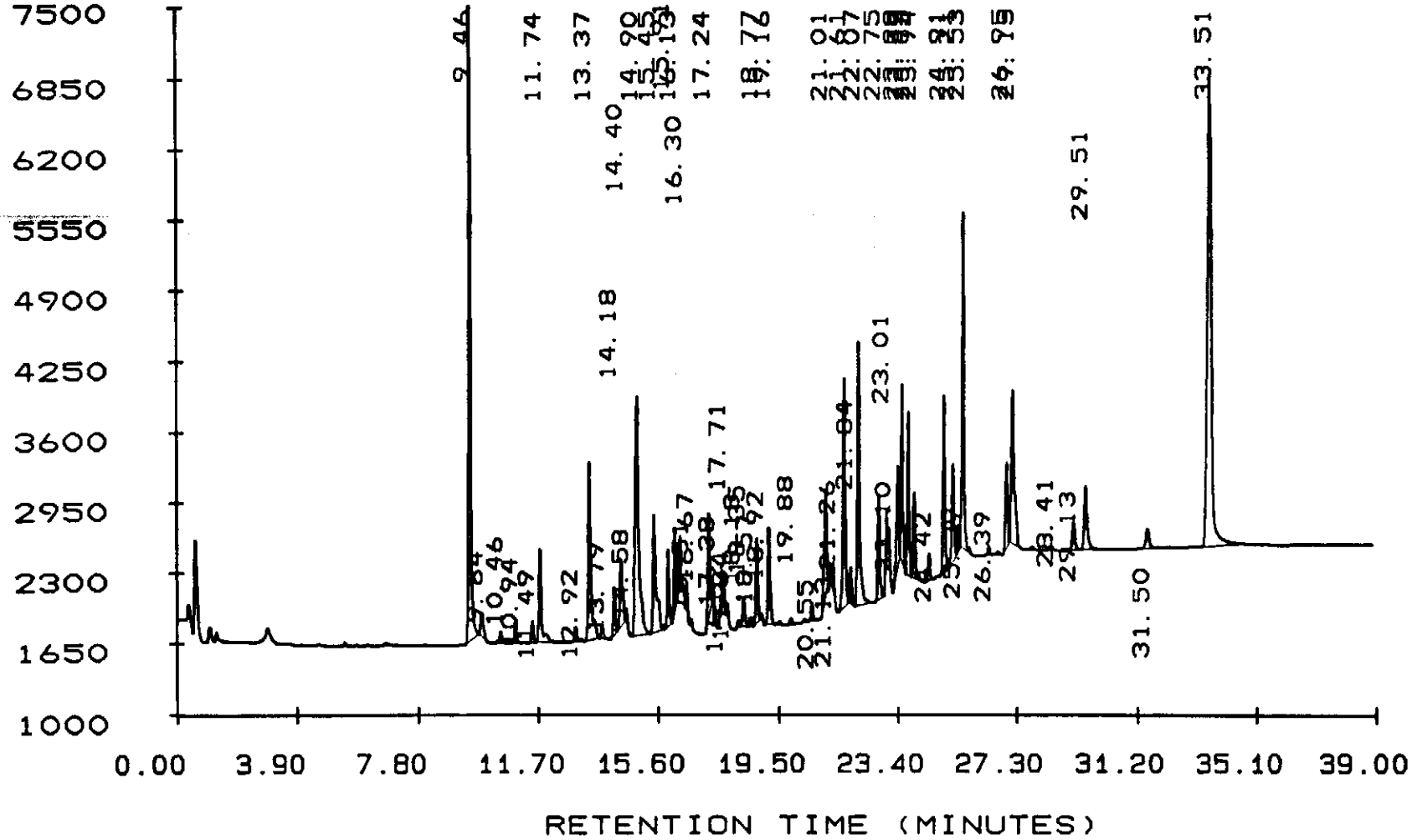
SAMPLE: 08060135 .14 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/07/01 01:25:01
DATE-TIME PROCESSED : 08/07/01 09:17:07

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
MPK		10748		20.527		AROCLOR-1254-3	0.200	RW:20.46-20.60
MPK		20138		20.921		AROCLOR-1254-4	0.200	RW:20.85-20.99
MPK		13079		21.577		AROCLOR-1254-5	0.200	RW:21.51-21.65
MPK		10762		22.048		AROCLOR-1254-6	0.200	RW:21.98-22.12
MPK		9543		22.983		AROCLOR-1254-7	0.200	RW:22.91-23.05
MPK		15105		23.495		AROCLOR-1254-8	0.200	RW:23.42-23.57

AR1660 2803 C

SAMPLE NO. : 08060135 .48
TEST NO. :
METHOD NO. : P3560 / P3560

INSTRUMENT: 35
DATE TIME: 08/08/01 16:16:41
PAGE NO. : 01



Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/08/01 16:56:16

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 08060135 .48 INST:35 VIAL:F0 SEQ NUMBER:048
TEST : DATE-TIME INJECTED : 08/08/01 16:16:41
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/08/01 16:56:16
METHOD: P3560 / P3560 REV #: 00218 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2803 C RAW FILE: RAW3:H8145590
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	302662	61447	V	9.460	1	TCX	0.037
003	15085	2183	V	9.835			
004	6726	1107	V	10.459			
005	10938	1945	V	10.942			
006	8987	1831	V	11.490			
007	53117	8459	V	11.743	1	AR1016-1	0.099
008	8342	1409	V	12.921			
009	110412	16374	V	13.373	1	AR1016-2	0.097
010	7238	1163	V	13.787			
011	20209	4411	V	14.175			
012	37235	6115	V	14.396			
013	3803	1038	V	14.581			
014	189952	21948	V	14.901	1	AR1016-3	0.103
015	80109	10758	V	15.451	1	AR1016-4	0.105
016	33856	7049	V	15.910			
017	30063	7326	V	16.133			
018	38124	5998	V	16.304			
019	7492	2284	V	16.513			
020	2577	706	V	16.670			
021	45035	9203	V	17.239	1	AR1016-5	0.099
022	8060	2320	V	17.382			
023	4544	1363	V	17.619			
024	12136	3376	V	17.714			
025	4134	1248	V	17.837			
026	3149	716	V	18.176			
027	15462	2608	V	18.348			
028	4211	904	V	18.574			
029	37453	7649	V	18.767			
030	2437	687	V	18.922			
031	47567	8849	V	19.158			
033	2841	549	V	19.883			
035	7600	1505	V	20.554			
036	48875	8778	V	21.010			
037	4360	1485	V	21.126			
038	11472	2659	V	21.260			
039	112388	20793	V	21.611	1	AR1260-1	0.091
040	15968	3394	V	21.835			
041	136426	23883	V	22.074	1	AR1260-2	0.096
042	44913	9226	V	22.749			
043	15364	4184	V	23.013			

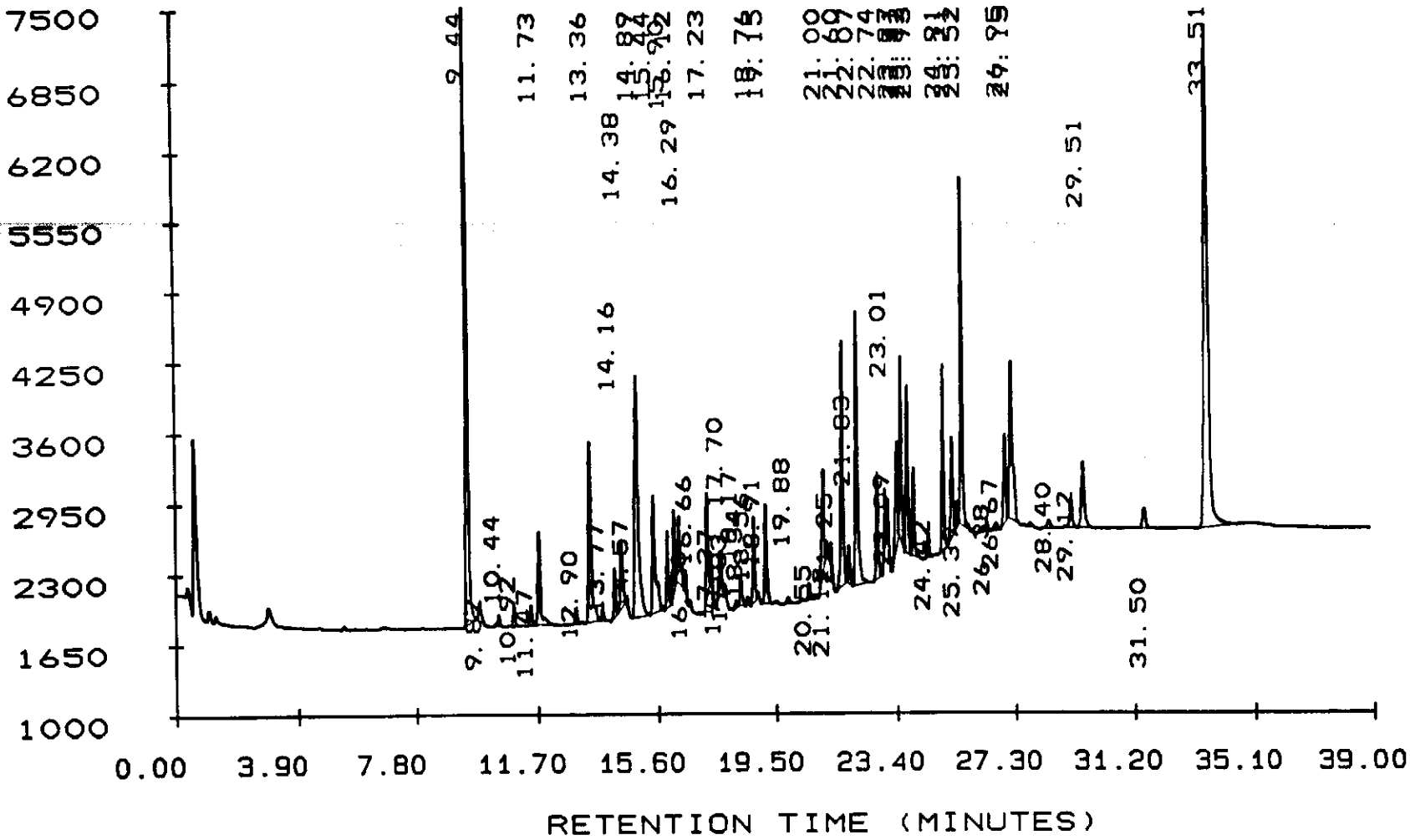
SAMPLE: 08060135 .48 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/08/01 16:16:41
DATE-TIME PROCESSED : 08/08/01 16:56:16

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
044	7382	2640	V	23.098			
045	45814	9191	V	23.375			
046	73828	16088	V	23.517			
047	67481	14826	V	23.729	1	AR1260-3	0.089
048	38070	7702	V	23.937			
049	10901	2364	V	24.422			
050	81843	16096	V	24.913	1	AR1260-4	0.086
051	52321	8946	V	25.210			
052	8727	2400	V	25.391			
053	151140	30333	V	25.528	1	AR1260-5	0.091
054	4909	877	V	26.388			
056	42919	7835	V	26.953			
057	95906	13993	V	27.154			
059	4089	563	V	28.413			
060	17734	2551	V	29.128			
061	44496	5859		29.512			
062	16218	1850		31.501			
063	423294	43050		33.509	1	DCB	0.034

AR1660 2803 C

SAMPLE NO. : 08060135 .60
TEST NO. :
METHOD NO. : P3560 / P3560

INSTRUMENT: 35
DATE TIME: 08/09/01 01:52:37
PAGE NO. : 01



Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/09/01 02:32:11

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 08060135 .60 INST:35 VIAL:F0 SEQ NUMBER:060
TEST : DATE-TIME INJECTED : 08/09/01 01:52:37
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/09/01 02:32:11
METHOD: P3560 / P3560 REV #: 00218 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2803 C RAW FILE: RAW3:H9145674
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	313978	63916	V	9.439	1	TCX	0.039
003	11260	1663	V	9.819			
004	6600	1064	V	10.439			
005	10950	1950	V	10.923			
006	8934	1827	V	11.471			
007	51158	8502		11.725	1	AR1016-1	0.099
008	8318	1393	V	12.905			
009	108576	16560	V	13.357	1	AR1016-2	0.098
010	7085	1146	V	13.772			
011	20348	4460	V	14.161			
012	37436	6209	V	14.382			
013	4059	1118	V	14.568			
014	187638	22203	V	14.887	1	AR1016-3	0.104
015	75014	10655	V	15.439	1	AR1016-4	0.104
017	33642	7041	V	15.899			
018	30477	7299	V	16.121			
019	37926	6143	V	16.293			
020	7522	2175	V	16.501			
021	2658	716	V	16.659			
022	45094	9214	V	17.228	1	AR1016-5	0.099
023	8319	2368	V	17.371			
024	4703	1368	V	17.610			
025	12287	3389	V	17.704			
026	4201	1254	V	17.827			
027	3088	682	V	18.167			
028	15106	2559	V	18.338			
029	4009	874	V	18.564			
030	37469	7710	V	18.758			
031	2388	732	V	18.914			
032	47435	8956	V	19.151			
034	2907	560	V	19.876			
036	7755	1548	V	20.548			
037	50388	8954	V	21.004			
038	4712	1565	V	21.120			
039	11607	2691	V	21.254			
040	116334	22167	V	21.605	1	AR1260-1	0.097
041	16461	3583	V	21.828			
042	140902	24660	V	22.069	1	AR1260-2	0.099
043	46412	9611	V	22.745			
044	16710	4570	V	23.008			

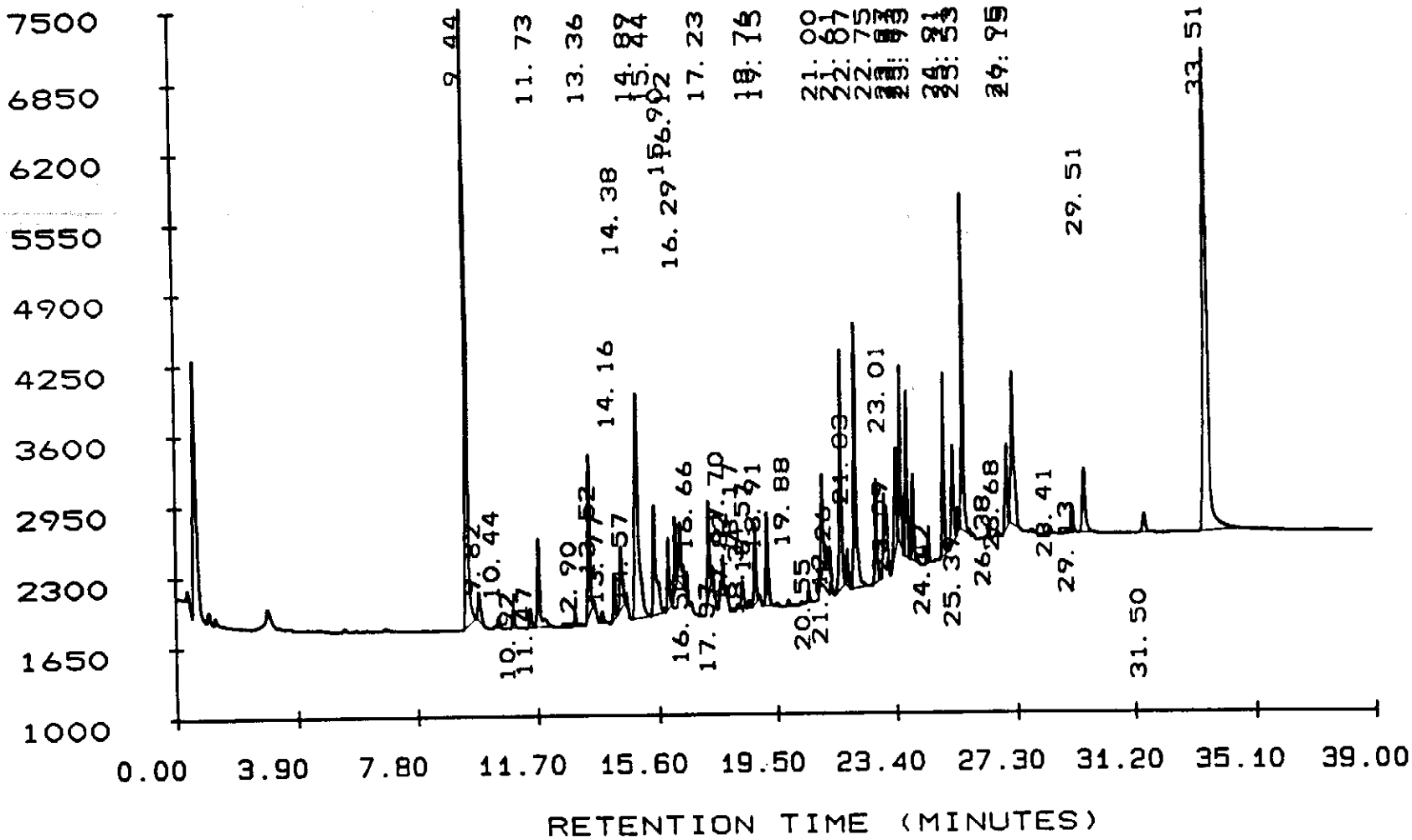
SAMPLE: 08060135 .60 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/09/01 01:52:37
DATE-TIME PROCESSED : 08/09/01 02:32:11

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
045	7627	2864	V	23.094			
046	48504	9433	V	23.371			
047	76839	16643	V	23.514			
048	70202	15214	V	23.724	1	AR1260-3	0.091
049	39440	8050	V	23.933			
050	11195	2438	V	24.418			
051	85897	16799	V	24.910	1	AR1260-4	0.090
052	54394	9233	V	25.206			
053	8621	2376	V	25.388			
054	158560	31219	V	25.525	1	AR1260-5	0.094
055	8305	1001	V	26.383			
056	5882	764	V	26.673			
057	43955	8095	V	26.950			
058	100324	14291	V	27.151			
060	7782	802	V	28.405			
061	18984	2698	V	29.124			
062	44768	6100		29.510			
063	15617	1898		31.500			
064	439018	45616		33.507	1	DCB	0.036

AR1660 2803 C

SAMPLE NO. : 08060135 . 68
TEST NO. :
METHOD NO. : P3560 / P3560

INSTRUMENT: 35
DATE TIME: 08/09/01 08:18:08
PAGE NO. : 01



Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/09/01 08:57:43

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 08060135 .68 INST:35 VIAL:F0 SEQ NUMBER:068
TEST : DATE-TIME INJECTED : 08/09/01 08:18:08
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/09/01 08:57:43
METHOD: P3560 / P3560 REV #: 00218 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2803 C RAW FILE: RAW3:H9145723
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	298905	59962	V	9.439	1	TCX	0.036
003	17812	2632	V	9.818			
004	6488	1007	V	10.439			
005	10389	1824	V	10.923			
006	8422	1716	V	11.471			
007	51568	8047	V	11.725	1	AR1016-1	0.094
008	7981	1297	V	12.905			
009	82250	14699	V	13.358	1	AR1016-2	0.087
010	3420	788	V	13.524			
011	6682	1058	V	13.773			
012	18732	4133	V	14.161			
013	34290	5716	V	14.382			
014	3677	1041	V	14.566			
015	185107	20745	V	14.887	1	AR1016-3	0.097
016	77370	9949	V	15.439	1	AR1016-4	0.097
017	31050	6441	V	15.899			
018	26735	6589	V	16.122			
019	36225	5588	V	16.293			
020	6777	1966	V	16.501			
021	1961	573	V	16.658			
022	40915	8415	V	17.229	1	AR1016-5	0.090
023	6361	1882	V	17.371			
024	3963	1019	V	17.612			
025	11270	3090	V	17.704			
026	3443	1053	V	17.825			
027	2720	601	V	18.168			
028	14598	2402	V	18.340			
029	3603	780	V	18.566			
030	36505	7264	V	18.760			
031	1729	577	V	18.915			
032	50199	8459	V	19.152			
033	3504	551	V	19.877			
035	7800	1489	V	20.549			
036	48228	8619	V	21.004			
037	4138	1436	V	21.120			
038	11358	2581	V	21.255			
039	115936	21694	V	21.607	1	AR1260-1	0.095
040	15840	3419	V	21.830			
041	142058	24078	V	22.070	1	AR1260-2	0.097
042	46128	9317	V	22.746			

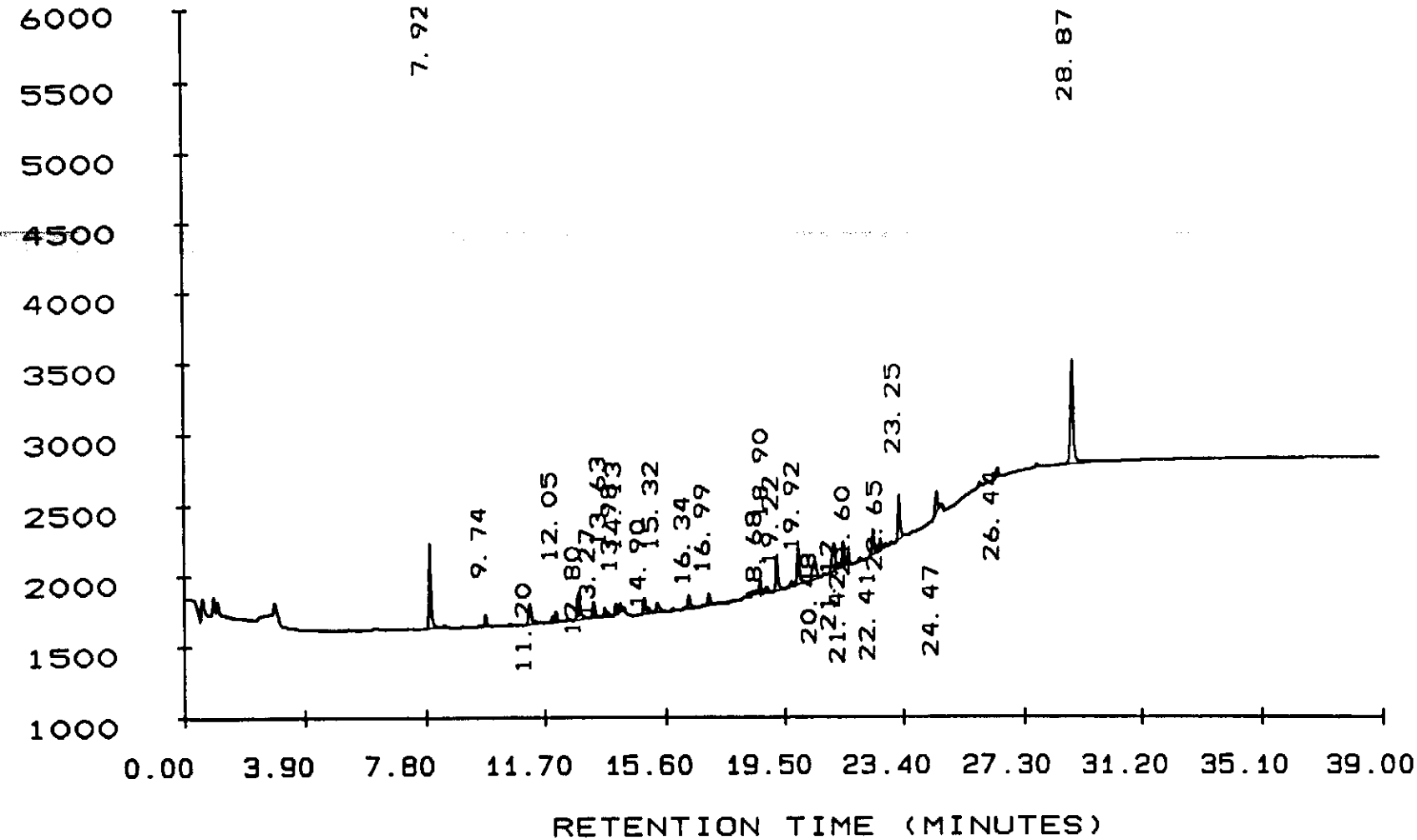
SAMPLE: 08060135 .68 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/09/01 08:18:08
DATE-TIME PROCESSED : 08/09/01 08:57:43

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
043	16005	4066	V	23.009			
044	7629	2800	V	23.094			
045	46980	9190	V	23.372			
046	75036	16175	V	23.515			
047	69053	15005	V	23.725	1	AR1260-3	0.090
048	38413	7844	V	23.934			
049	11111	2402	V	24.420			
050	85620	16666	V	24.911	1	AR1260-4	0.089
051	53187	9008	V	25.206			
052	8184	2292	V	25.389			
053	156918	30512	V	25.526	1	AR1260-5	0.091
054	6084	923	V	26.385			
055	4113	597	V	26.676			
056	42772	7800	V	26.951			
057	97192	13882	V	27.153			
059	5517	660	V	28.410			
060	17702	2595	V	29.126			
061	44864	5854		29.511			
062	14919	1800		31.500			
064	437183	44022		33.508	1	DCB	0.035

AR1660 2801 A

SAMPLE NO. : 08060136 .05
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 08/06/01 18:13:55
PAGE NO. : 01



Y MAXIMUM: 6000.
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START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/07/01 09:05:58

EXTERNAL STANDARD

SAMPLE: 08060136 .05 INST:36 VIAL:F0 SEQ NUMBER:005
TEST : DATE-TIME INJECTED : 08/06/01 18:13:55
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/07/01 09:05:58
METHOD: P3660 / P3660 REV #: 00210 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2801 A RAW FILE: RAW3:H6145223
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	30046	5925	V	7.923	1	TCX	0.007
004	4762	850	V	9.744	1	AR1016-1	0.020
006	12582	1520	V	11.196	1	AR1016-2	0.021
007	6303	740	V	12.054			
009	17060	1963	V	12.801	1	AR1016-3	0.020
010	7178	1137	V	13.272	1	AR1016-4	0.019
011	4506	632	V	13.630			
012	3454	819	V	13.979			
013	2734	667	V	14.126			
015	8268	1072	V	14.902	1	AR1016-5	0.022
016	4963	664	V	15.321			
018	6175	912	V	16.344			
019	5213	827		16.995			
021	6036	1018	V	18.676			
022	2882	442	V	18.902			
023	14173	2452	V	19.216	1	AR1260-1	0.021
025	15220	2551	V	19.920	1	AR1260-2	0.020
026	12623	1318	V	20.478			
028	16442	1996	V	21.121			
029	8243	1765	V	21.422	1	AR1260-3	0.020
030	3891	843	V	21.603			
032	9168	1784	V	22.409	1	AR1260-4	0.020
033	3749	808	V	22.650			
036	18159	3237		23.250	1	AR1260-5	0.019
037	8619	1406	V	24.469			
040	3703	739		26.437			
042	53596	7312		28.869	1	DCB	0.008

MPK	850	9.744	AROCLOR-1016-1	0.040	RW: 9.67- 9.81
MPK	1520	11.196	AROCLOR-1016-2	0.043	RW:11.12-11.26
MPK	740	12.054	AROCLOR-1016-3	0.049	RW:11.98-12.12
MPK	1963	12.801	AROCLOR-1016-4	0.039	RW:12.73-12.87
MPK	1137	13.272	AROCLOR-1016-5	0.039	RW:13.20-13.34
MPK	819	13.979	AROCLOR-1016-6	0.040	RW:13.91-14.05
MPK	667	14.126	AROCLOR-1016-7	0.041	RW:14.05-14.19
MPK	1072	14.902	AROCLOR-1016-8	0.044	RW:14.83-14.97
MPK	664	15.321	AROCLOR-1016-9	0.038	RW:15.25-15.39
MPK	1018	18.676	AROCLOR-1260-1	0.042	RW:18.60-18.74
MPK	2452	19.216	AROCLOR-1260-2	0.042	RW:19.14-19.28

0.04 8/7/01 MK 110

SAMPLE: 08060136 .05 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/06/01 18:13:55
DATE-TIME PROCESSED : 08/07/01 09:05:58

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
MPK		2551		19.920		AROCLOR-1260-3	0.040	RW:19.84-19.99
MPK		1318		20.478		AROCLOR-1260-4	0.040	RW:20.40-20.54
MPK		1996		21.121		AROCLOR-1260-5	0.039	RW:21.04-21.19
MPK		1765		21.422		AROCLOR-1260-6	0.039	RW:21.35-21.49
MPK		1784		22.409		AROCLOR-1260-7	0.039	RW:22.33-22.48
MPK		3237		23.250		AROCLOR-1260-8	0.037	RW:23.17-23.31
MPK		1406		24.469		AROCLOR-1260-9	0.036	RW:24.39-24.54

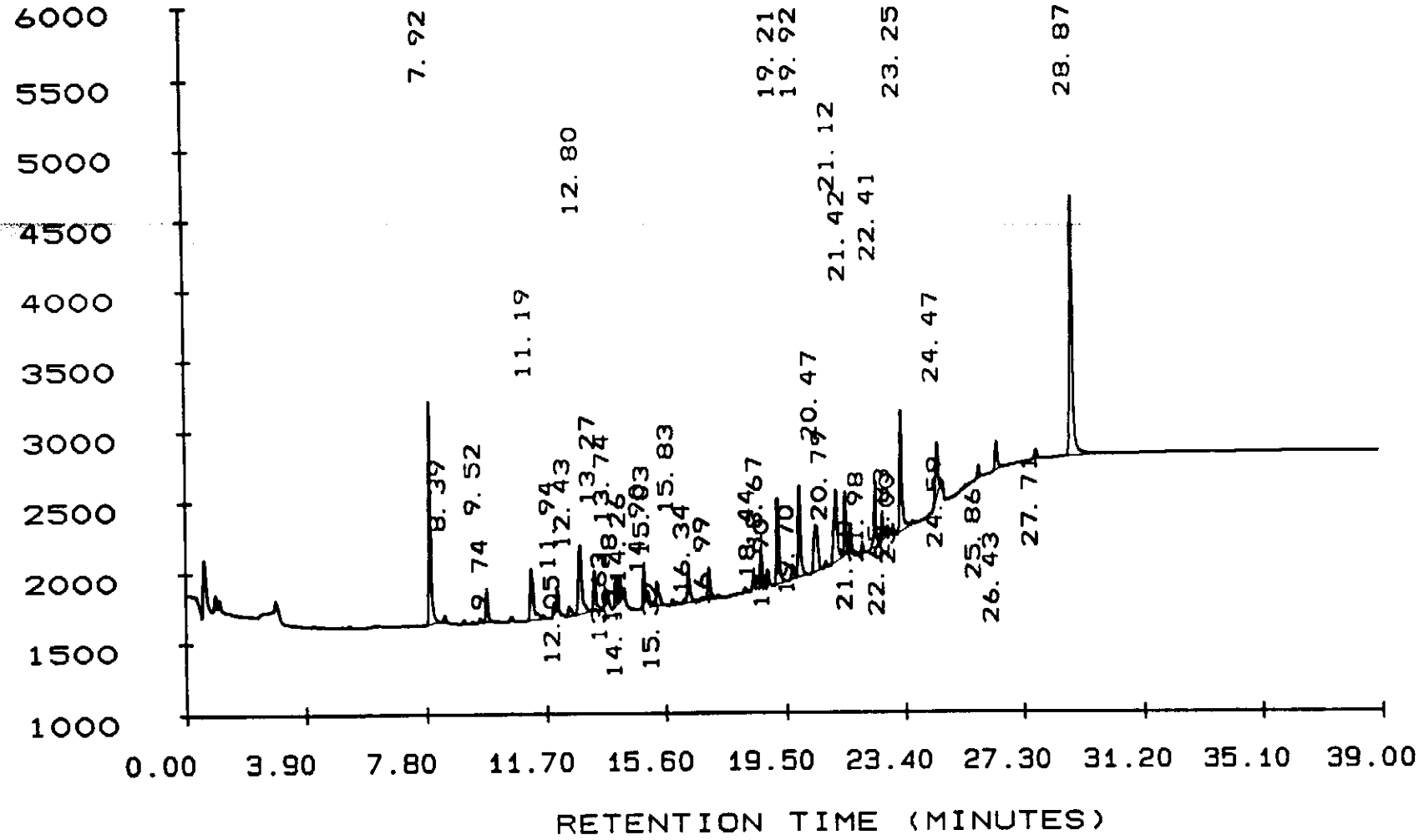
0.04

8/7/01
AMK

AR1660 2802 B

SAMPLE NO. : 08060136 .06
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 08/06/01 19:01:45
PAGE NO. : 01



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START TIME: 0.00
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Lionville Laboratory, Inc. 08/07/01 09:06:14

EXTERNAL STANDARD

SAMPLE: 08060136 .06 INST:36 VIAL:F0 SEQ NUMBER:006
TEST : DATE-TIME INJECTED : 08/06/01 19:01:45
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/07/01 09:06:14
METHOD: P3660 / P3660 REV #: 00210 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2802 B RAW FILE: RAW3:H6145231
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	76525	15433	V	7.921	1	TCX	0.019
003	3046	538	V	8.395			
005	1995	425	V	9.524			
006	12851	2122	V	9.742	1	AR1016-1	0.050
008	31821	3756	V	11.194	1	AR1016-2	0.053
009	2993	818	V	11.935			
010	6334	1489	V	12.052			
011	4931	670	V	12.429			
012	43206	4901	V	12.798	1	AR1016-3	0.049
013	18064	2856	V	13.269	1	AR1016-4	0.049
014	5176	1329	V	13.629			
015	1684	496	V	13.743			
016	8513	2019	V	13.976			
017	6792	1633	V	14.123			
018	3894	913	V	14.256			
019	10011	2372	V	14.899	1	AR1016-5	0.049
020	3151	723	V	15.035			
021	12726	1683	V	15.319			
022	3107	429	V	15.828			
023	14468	2224	V	16.342			
025	13920	2131	V	16.993			
027	3573	887	V	18.436			
028	14610	2554	V	18.674			
029	6951	1101	V	18.898			
030	34714	6006	V	19.213	1	AR1260-1	0.051
031	5491	1005	V	19.700			
032	37210	6369	V	19.917	1	AR1260-2	0.050
033	31510	3297	V	20.470			
034	2073	482	V	20.790			
035	41089	5054	V	21.118			
036	20819	4426	V	21.419	1	AR1260-3	0.049
037	9629	2101	V	21.600			
038	4161	774	V	21.978			
039	23694	4564	V	22.407	1	AR1260-4	0.050
040	9623	2064	V	22.646			
041	3277	754	V	22.826			
042	3533	788	V	23.002			
043	50923	8541	V	23.247	1	AR1260-5	0.049
045	21860	3705	V	24.467			
046	4876	676	V	24.592			

SAMPLE: 08060136 .06 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/06/01 19:01:45
DATE-TIME PROCESSED : 08/07/01 09:06:14

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
047	7884	897	V	25.858			
048	11940	2007		26.435			
049	3937	672	V	27.714			
050	127672	18232		28.868	1	DCB	0.020
MPK		2122		9.742		AROCLOR-1016-1	0.100 RW: 9.67- 9.81
MPK		3756		11.194		AROCLOR-1016-2	0.105 RW:11.12-11.26
MPK		1489		12.052		AROCLOR-1016-3	0.099 RW:11.98-12.12
MPK		4901		12.798		AROCLOR-1016-4	0.098 RW:12.73-12.87
MPK		2856		13.269		AROCLOR-1016-5	0.098 RW:13.20-13.34
MPK		2019		13.976		AROCLOR-1016-6	0.100 RW:13.91-14.05
MPK		1633		14.123		AROCLOR-1016-7	0.099 RW:14.05-14.19
MPK		2372		14.899		AROCLOR-1016-8	0.097 RW:14.83-14.97
MPK		1683		15.319		AROCLOR-1016-9	0.097 RW:15.25-15.39
MPK		2554		18.674		AROCLOR-1260-1	0.107 RW:18.60-18.74
MPK		6006		19.213		AROCLOR-1260-2	0.102 RW:19.14-19.28
MPK		6369		19.917		AROCLOR-1260-3	0.099 RW:19.84-19.99
MPK		3297		20.470		AROCLOR-1260-4	0.100 RW:20.40-20.54
MPK		5054		21.118		AROCLOR-1260-5	0.098 RW:21.04-21.19
MPK		4426		21.419		AROCLOR-1260-6	0.098 RW:21.35-21.49
MPK		4564		22.407		AROCLOR-1260-7	0.101 RW:22.33-22.48
MPK		8541		23.247		AROCLOR-1260-8	0.098 RW:23.17-23.31
MPK		3705		24.467		AROCLOR-1260-9	0.096 RW:24.39-24.54

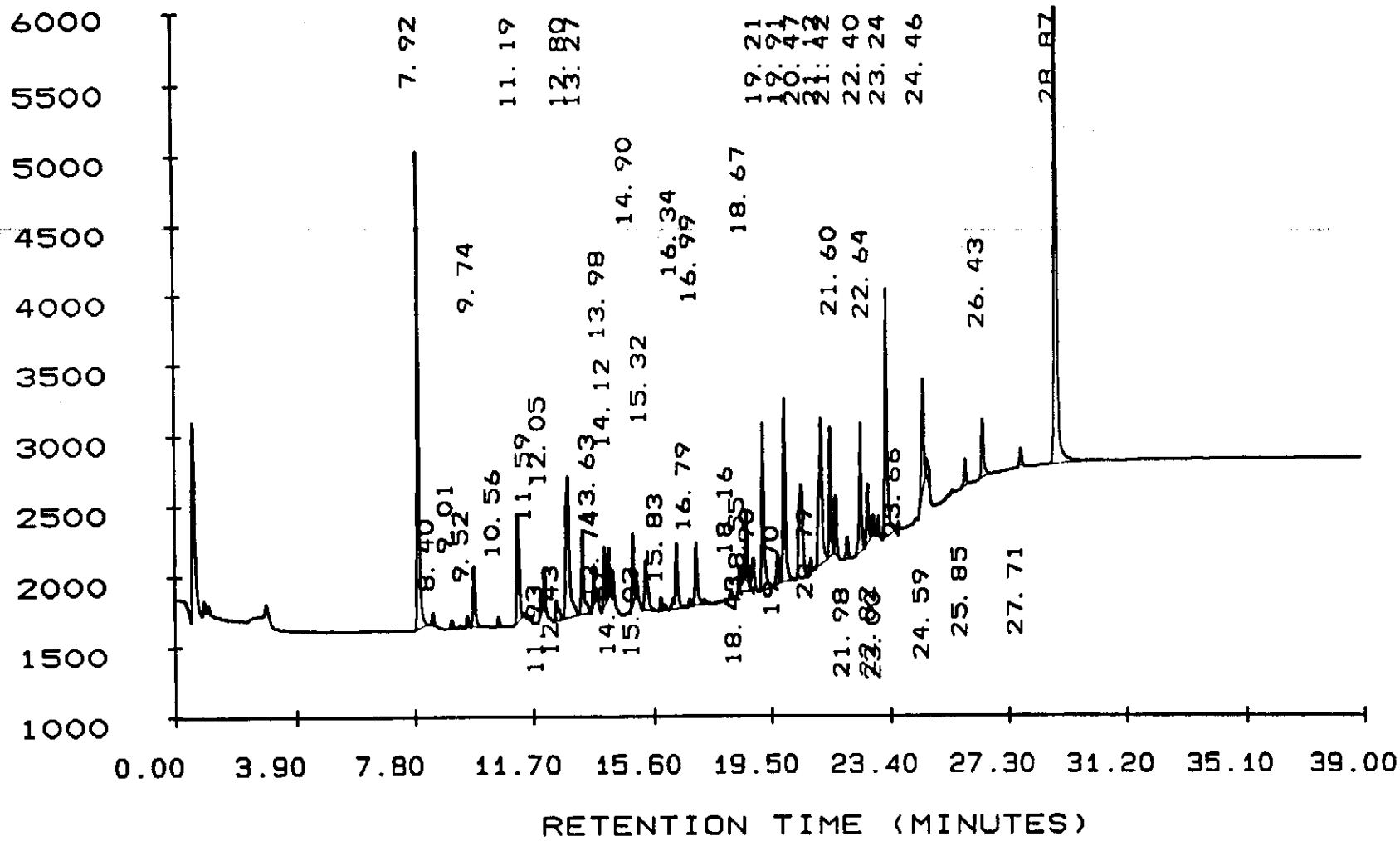
0.10

8/7/01
MK

AR1660 2803 C

SAMPLE NO. : 08060136 . 07
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 08/06/01 19:49:34
PAGE NO. : 01



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START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/07/01 09:06:30

EXTERNAL STANDARD

SAMPLE: 08060136 .07 INST:36 VIAL:F0 SEQ NUMBER:007
TEST : DATE-TIME INJECTED : 08/06/01 19:49:34
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/07/01 09:06:30
METHOD: P3660 / P3660 REV #: 00210 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2803 C RAW FILE: RAW3:H6145239
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	158858	33205	V	7.920	1	TCX	0.040
003	5195	929	V	8.396			
004	3432	666	V	9.014			
006	4058	870	V	9.524			
007	25030	4259	V	9.741	1	AR1016-1	0.100
008	3534	709	V	10.555			
009	45920	7145	V	11.193	1	AR1016-2	0.100
011	1974	452	V	11.590			
012	6161	1685	V	11.934			
013	12679	3022	V	12.051			
014	10310	1396	V	12.428			
015	86827	9969	V	12.798	1	AR1016-3	0.100
016	36735	5834	V	13.268	1	AR1016-4	0.100
017	10869	2752	V	13.628			
018	3330	1000	V	13.742			
019	17206	4055	V	13.975			
020	13496	3286	V	14.122			
021	7735	1819	V	14.255			
022	20679	4867	V	14.898	1	AR1016-5	0.100
023	6051	1410	V	15.034			
024	25568	3456	V	15.318			
025	6475	888	V	15.828			
026	30014	4498	V	16.341			
027	2477	522	V	16.788			
028	27987	4310	V	16.992			
029	3780	696	V	18.164			
030	7022	1744	V	18.434			
031	3014	917	V	18.554			
032	21282	4792	V	18.672			
033	13830	2219	V	18.896			
034	67766	11748	V	19.211	1	AR1260-1	0.100
035	11224	2095	V	19.698			
036	73213	12854	V	19.915	1	AR1260-2	0.100
037	62592	6604	V	20.467			
038	4191	997	V	20.788			
039	82212	10314	V	21.115			
040	41645	9042	V	21.416	1	AR1260-3	0.100
041	19036	4219	V	21.598			
042	8209	1559	V	21.975			
043	47227	9044	V	22.405	1	AR1260-4	0.100

SAMPLE: 08060136 .07 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/06/01 19:49:34
DATE-TIME PROCESSED : 08/07/01 09:06:30

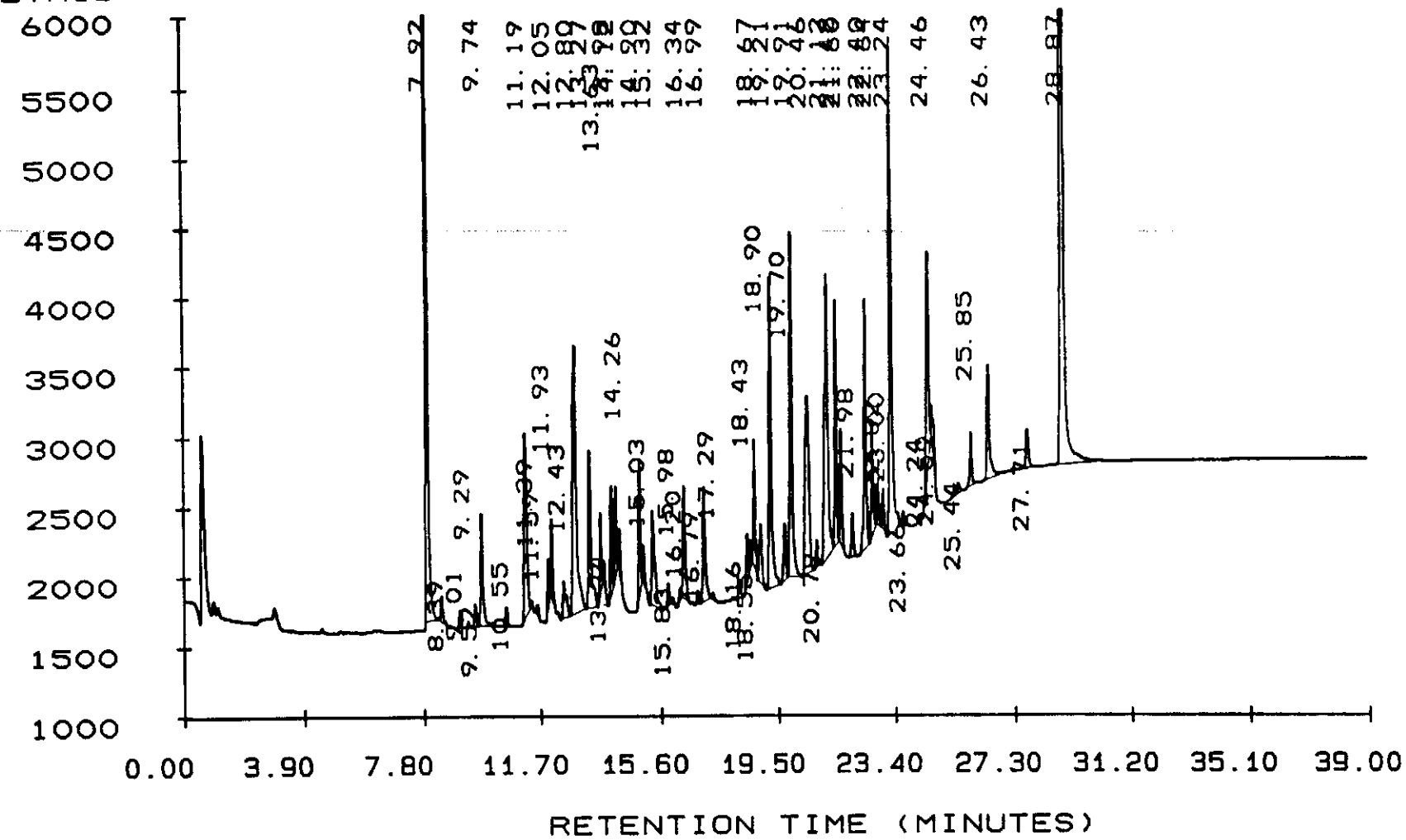
PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
044	19248	4197	V	22.644			
045	6919	1549	V	22.824			
046	6989	1578	V	23.000			
047	102144	17490	V	23.244	1	AR1260-5	0.100
048	2503	570	V	23.660			
049	45418	7738	V	24.465			
050	9988	1426	V	24.590			
052	10364	1943	V	25.855			
053	24036	4126		26.433			
054	6672	1258	V	27.713			
055	247872	36156		28.868	1	DCB	0.040

MPK	4259	9.741	AROCLOR-1016-1	0.200	RW: 9.67- 9.81
MPK	7145	11.193	AROCLOR-1016-2	0.200	RW:11.12-11.26
MPK	3022	12.051	AROCLOR-1016-3	0.200	RW:11.98-12.12
MPK	9969	12.798	AROCLOR-1016-4	0.200	RW:12.73-12.87
MPK	5834	13.268	AROCLOR-1016-5	0.200	RW:13.20-13.34
MPK	4055	13.975	AROCLOR-1016-6	0.200	RW:13.91-14.05
MPK	3286	14.122	AROCLOR-1016-7	0.200	RW:14.05-14.19
MPK	4867	14.898	AROCLOR-1016-8	0.200	RW:14.83-14.97
MPK	3456	15.318	AROCLOR-1016-9	0.200	RW:15.25-15.39
MPK	4792	18.672	AROCLOR-1260-1	0.200	RW:18.60-18.74
MPK	11748	19.211	AROCLOR-1260-2	0.200	RW:19.14-19.28
MPK	12854	19.915	AROCLOR-1260-3	0.200	RW:19.84-19.99
MPK	6604	20.467	AROCLOR-1260-4	0.200	RW:20.40-20.54
MPK	10314	21.115	AROCLOR-1260-5	0.200	RW:21.04-21.19
MPK	9042	21.416	AROCLOR-1260-6	0.200	RW:21.35-21.49
MPK	9044	22.405	AROCLOR-1260-7	0.200	RW:22.33-22.48
MPK	17490	23.244	AROCLOR-1260-8	0.200	RW:23.17-23.31
MPK	7738	24.465	AROCLOR-1260-9	0.200	RW:24.39-24.54

AR1660 2804 D

SAMPLE NO. : 08060136 . 08
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 08/06/01 20:37:33
PAGE NO. : 01



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START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/07/01 09:06:47

EXTERNAL STANDARD

SAMPLE: 08060136 .08 INST:36 VIAL:F0 SEQ NUMBER:008
TEST : DATE-TIME INJECTED : 08/06/01 20:37:33
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/07/01 09:06:47
METHOD: P3660 / P3660 REV #: 00210 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2804 D RAW FILE: RAW3:H6145248
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	317899	68201	V	7.920	1	TCX	0.082
003	10971	1857	V	8.394			
004	6402	1272	V	9.013			
005	2598	559	V	9.289			
006	7834	1669	V	9.523			
007	47312	7962	V	9.740	1	AR1016-1	0.187
008	7051	1359	V	10.554			
009	85631	13108	V	11.192	1	AR1016-2	0.183
010	2385	621	V	11.395			
011	3724	860	V	11.589			
012	11924	3256	V	11.934			
013	24003	5694	V	12.051			
014	19795	2690	V	12.428			
015	163910	19041	V	12.798	1	AR1016-3	0.191
016	70150	11157	V	13.268	1	AR1016-4	0.191
017	21269	5398	V	13.628			
018	6322	1900	V	13.742			
019	32204	7555	V	13.975			
020	25494	6211	V	14.122			
021	14854	3487	V	14.255			
022	39597	9290	V	14.898	1	AR1016-5	0.191
023	11633	2724	V	15.034			
024	49376	6706	V	15.318			
025	6674	1549	V	15.828			
026	2327	549	V	15.976			
027	3318	849	V	16.204			
028	41198	7882	V	16.341			
029	4694	1004	V	16.788			
030	46036	8094	V	16.991			
031	1811	430	V	17.287			
033	7229	1361	V	18.162			
034	13309	3286	V	18.434			
035	5764	1762	V	18.554			
036	40305	9065	V	18.672			
037	26380	4240	V	18.896			
038	127459	21929	V	19.211	1	AR1260-1	0.187
039	21703	4054	V	19.698			
040	137946	24229	V	19.915	1	AR1260-2	0.188
041	119302	12690	V	20.464			
042	7935	1901	V	20.788			

SAMPLE: 08060136 .08 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/06/01 20:37:33
DATE-TIME PROCESSED : 08/07/01 09:06:47

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
044	158925	19979	V	21.115			
045	79802	17209	V	21.416	1	AR1260-3	0.190
046	36957	8214	V	21.598			
047	16250	3075	V	21.975			
048	90895	17518	V	22.405	1	AR1260-4	0.194
049	37290	8142	V	22.644			
050	13211	2980	V	22.824			
051	13373	3044	V	22.999			
052	197670	34121	V	23.244	1	AR1260-5	0.195
053	5163	1095	V	23.658			
054	2075	487	V	24.244			
055	87171	14931	V	24.464			
056	18996	2731	V	24.589			
057	6544	797	V	25.439			
058	20144	3757	V	25.854			
059	52046	8049	V	26.432			
060	19025	2687	V	27.712			
061	480569	69294		28.868	1	DCB	0.077

MPK	7962	9.740	AROCLOR-1016-1	0.374	RW: 9.67- 9.81
MPK	13108	11.192	AROCLOR-1016-2	0.367	RW:11.12-11.26
MPK	5694	12.051	AROCLOR-1016-3	0.377	RW:11.98-12.12
MPK	19041	12.798	AROCLOR-1016-4	0.382	RW:12.73-12.87
MPK	11157	13.268	AROCLOR-1016-5	0.382	RW:13.20-13.34
MPK	7555	13.975	AROCLOR-1016-6	0.373	RW:13.91-14.05
MPK	6211	14.122	AROCLOR-1016-7	0.378	RW:14.05-14.19
MPK	9290	14.898	AROCLOR-1016-8	0.382	RW:14.83-14.97
MPK	6706	15.318	AROCLOR-1016-9	0.388	RW:15.25-15.39
MPK	9065	18.672	AROCLOR-1260-1	0.378	RW:18.60-18.74
MPK	21929	19.211	AROCLOR-1260-2	0.373	RW:19.14-19.28
MPK	24229	19.915	AROCLOR-1260-3	0.377	RW:19.84-19.99
MPK	12690	20.464	AROCLOR-1260-4	0.384	RW:20.40-20.54
MPK	19979	21.115	AROCLOR-1260-5	0.387	RW:21.04-21.19
MPK	17209	21.416	AROCLOR-1260-6	0.381	RW:21.35-21.49
MPK	17518	22.405	AROCLOR-1260-7	0.387	RW:22.33-22.48
MPK	34121	23.244	AROCLOR-1260-8	0.390	RW:23.17-23.31
MPK	14931	24.464	AROCLOR-1260-9	0.386	RW:24.39-24.54

0.40

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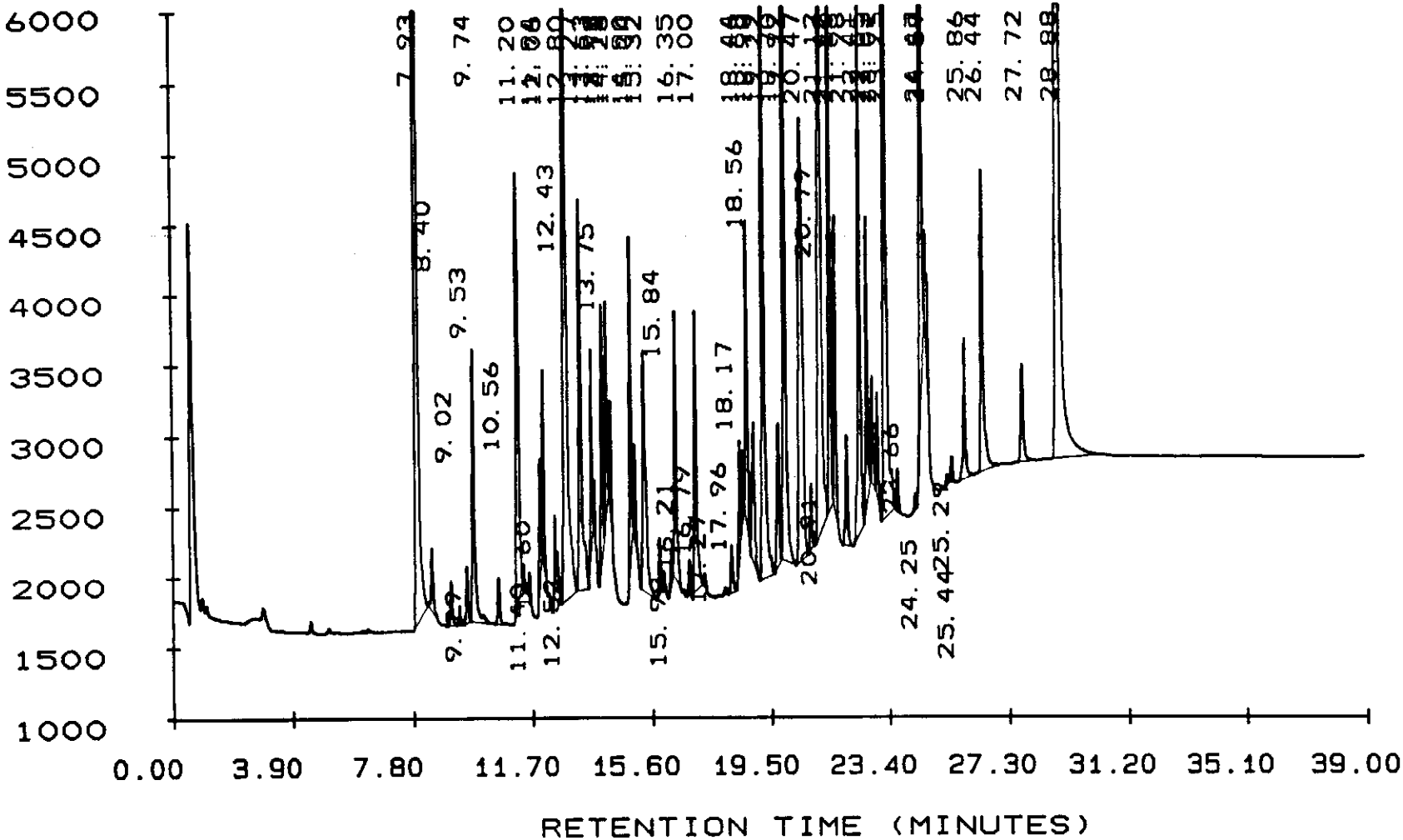
AR1660 2805 E

SAMPLE NO. : 08060136 .09
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 08/06/01 21:25:34
PAGE NO. : 01



Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
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Lionville Laboratory, Inc. 08/07/01 09:07:04

EXTERNAL STANDARD

SAMPLE: 08060136 .09 INST:36 VIAL:F0 SEQ NUMBER:009
TEST : DATE-TIME INJECTED : 08/06/01 21:25:34
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/07/01 09:07:04
METHOD: P3660 / P3660 REV #: 00210 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2805 E RAW FILE: RAW3:H6145256
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
003	872500	180688	V	7.925	1	TCX	0.218
004	26160	4550	V	8.399			
005	15802	3194	V	9.018			
006	6518	1422	V	9.294			
007	19200	4067	V	9.528			
008	111850	19004	V	9.745	1	AR1016-1	0.446
009	17340	3269	V	10.559			
010	199263	30373	V	11.197	1	AR1016-2	0.425
011	5879	1505	V	11.400			
012	9213	2147	V	11.595			
013	30399	8099	V	11.939			
014	56969	13619	V	12.057			
015	17089	4665	V	12.433			
016	4245	1470	V	12.522			
017	399968	47426	V	12.804	1	AR1016-3	0.476
018	170720	27331	V	13.274	1	AR1016-4	0.469
019	56468	13865	V	13.634			
020	14768	4243	V	13.748			
021	74826	17649	V	13.981			
022	59510	14610	V	14.128			
023	34394	7921	V	14.261			
024	95767	22300	V	14.905	1	AR1016-5	0.458
025	30547	6887	V	15.040			
026	121075	16779	V	15.324			
027	17082	3914	V	15.835			
028	5978	1470	V	15.983			
029	9277	2424	V	16.210			
030	97119	18682	V	16.347			
031	11757	2524	V	16.794			
032	110115	19504	V	16.998			
033	4206	1027	V	17.293			
034	3257	656	V	17.964			
035	17779	3398	V	18.168			
036	32101	8051	V	18.440			
037	16197	4823	V	18.559			
038	95126	21385	V	18.679			
039	63492	10054	V	18.902			
040	298112	51276	V	19.217	1	AR1260-1	0.436
041	54061	10020	V	19.704			
042	327302	59003	V	19.920	1	AR1260-2	0.459

SAMPLE: 08060136 .09 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/06/01 21:25:34
DATE-TIME PROCESSED : 08/07/01 09:07:04

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
043	288653	31075	V	20.466			
044	19396	4621	V	20.794			
045	2587	893	V	20.913			
046	392707	50045	V	21.122			
047	195274	42152	V	21.423	1	AR1260-3	0.466
048	91117	20653	V	21.604			
049	40070	7673	V	21.980			
050	221328	41909	V	22.412	1	AR1260-4	0.463
051	89472	19933	V	22.651			
052	34212	7554	V	22.830			
053	32241	7596	V	23.005			
054	503834	90883	V	23.250	1	AR1260-5	0.520
055	12010	2822	V	23.665			
056	5011	1210	V	24.249			
057	226165	39023	V	24.470			
058	52588	7441	V	24.594			
059	3684	800	V	25.292			
060	7675	1792	V	25.442			
061	53963	9713	V	25.860			
062	127078	20933	V	26.439			
063	42662	6822	V	27.720			
064	1162547	166130		28.878	1	DCB	0.184

MPK	19004	9.745	AROCLOR-1016-1	0.892	RW: 9.67- 9.81
MPK	30373	11.197	AROCLOR-1016-2	0.850	RW:11.12-11.26
MPK	13619	12.057	AROCLOR-1016-3	0.901	RW:11.98-12.12
MPK	47426	12.804	AROCLOR-1016-4	0.951	RW:12.73-12.87
MPK	27331	13.274	AROCLOR-1016-5	0.937	RW:13.20-13.34
MPK	17649	13.981	AROCLOR-1016-6	0.870	RW:13.91-14.05
MPK	14610	14.128	AROCLOR-1016-7	0.889	RW:14.05-14.19
MPK	22300	14.905	AROCLOR-1016-8	0.916	RW:14.83-14.97
MPK	16779	15.324	AROCLOR-1016-9	0.971	RW:15.25-15.39
MPK	21385	18.679	AROCLOR-1260-1	0.893	RW:18.60-18.74
MPK	51276	19.217	AROCLOR-1260-2	0.873	RW:19.14-19.28
MPK	59003	19.920	AROCLOR-1260-3	0.918	RW:19.84-19.99
MPK	31075	20.466	AROCLOR-1260-4	0.941	RW:20.40-20.54
MPK	50045	21.122	AROCLOR-1260-5	0.970	RW:21.04-21.19
MPK	42152	21.423	AROCLOR-1260-6	0.932	RW:21.35-21.49
MPK	41909	22.412	AROCLOR-1260-7	0.927	RW:22.33-22.48
MPK	90883	23.250	AROCLOR-1260-8	1.039	RW:23.17-23.31
MPK	39023	24.470	AROCLOR-1260-9	1.009	RW:24.39-24.54

1.0

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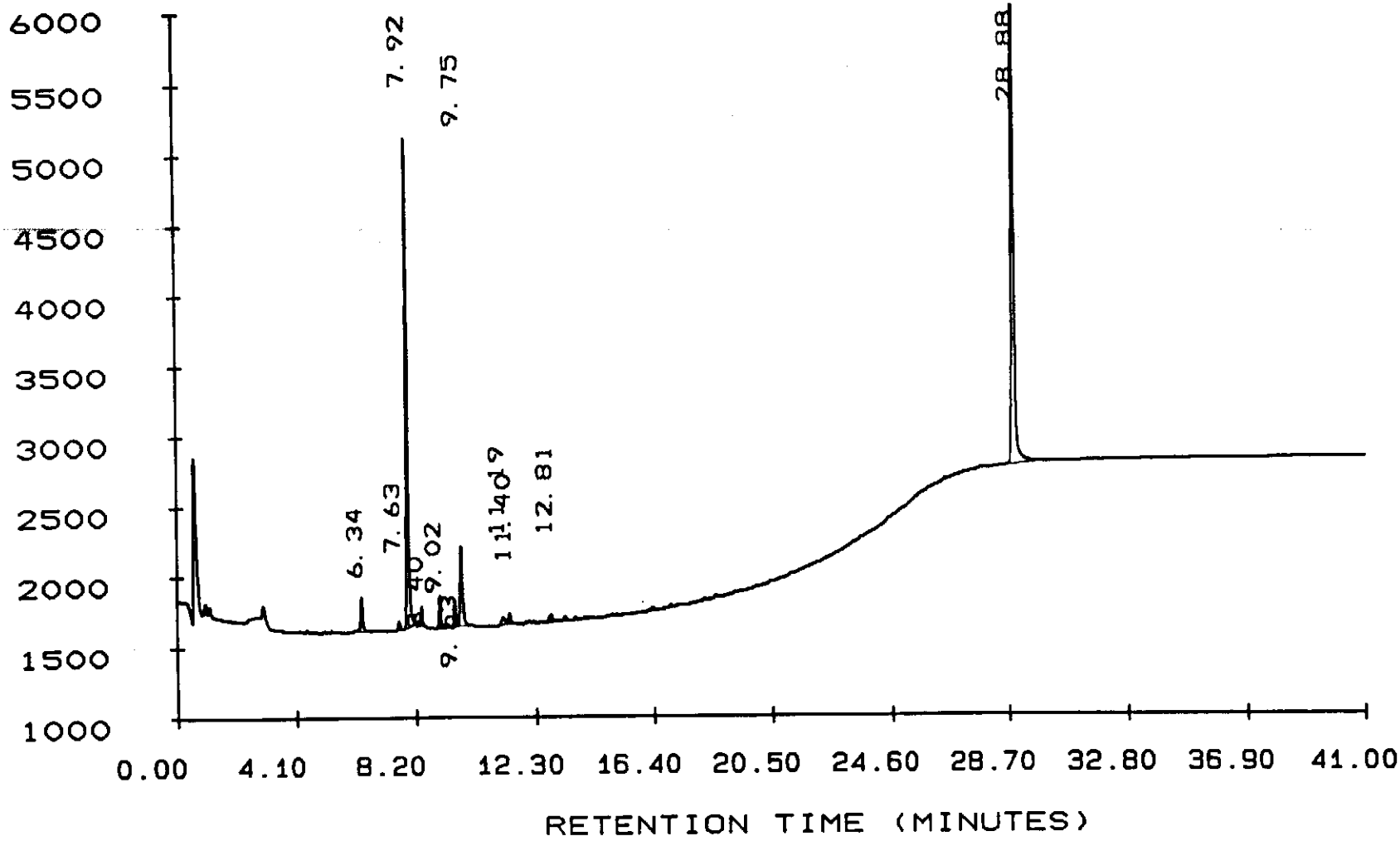
AR1221 1108

SAMPLE NO. : 08060136 . 10
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/06/01 22:13:44
PAGE NO. : 01



Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/07/01 09:17:49

EXTERNAL STANDARD

SAMPLE: 08060136 .10 INST:36 VIAL:F0 SEQ NUMBER:010
TEST : DATE-TIME INJECTED : 08/06/01 22:13:44
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/07/01 09:17:49
METHOD: P36 / PCBJL REV #: 00211 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1221 1108 RAW FILE: RAW3:H6145263
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

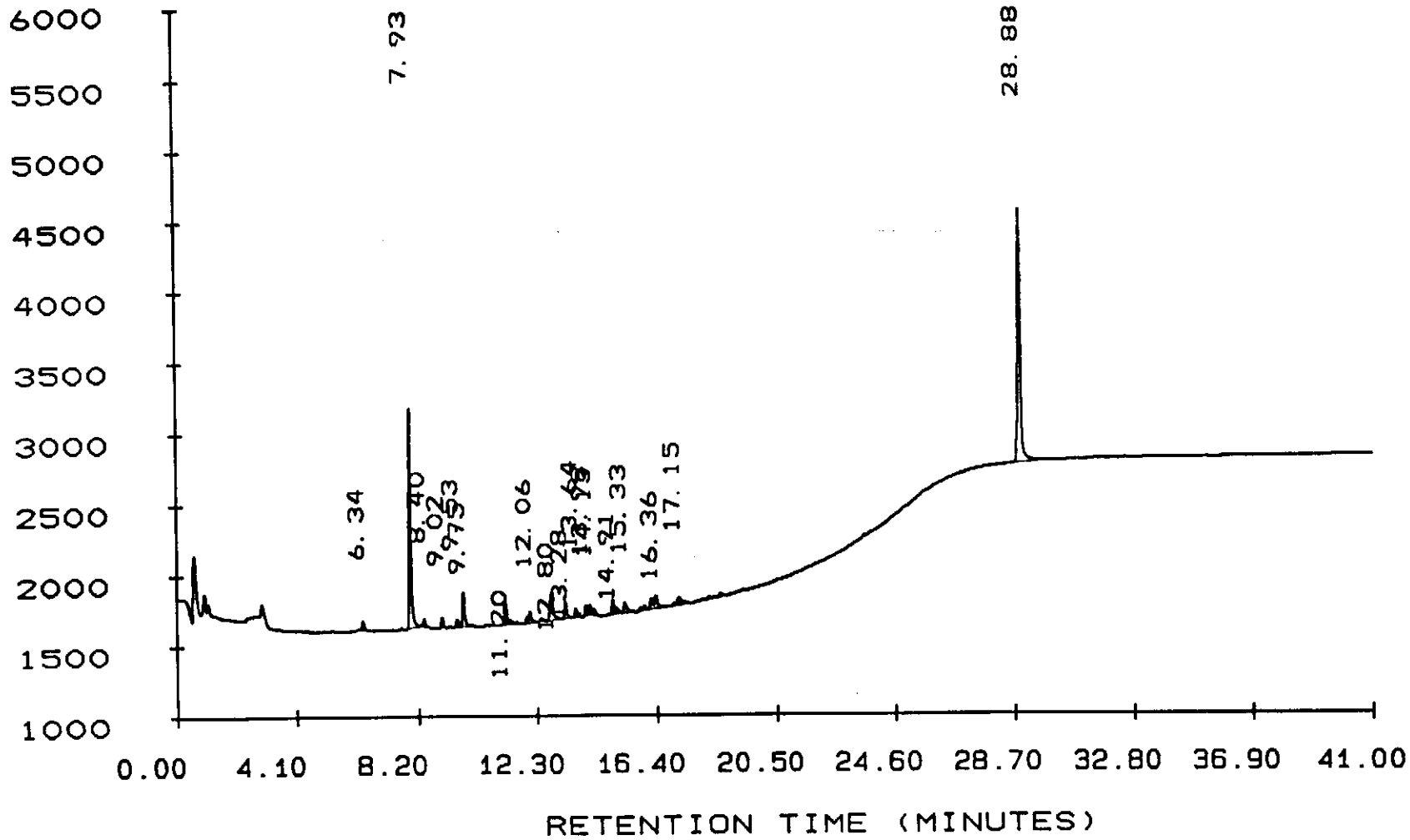
PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	14154	2375		6.335			
002	3661	660	V	7.627			
003	161238	34020	V	7.924	1	TCX	0.041
004	7561	1189	V	8.401			
005	11053	2248	V	9.018			
007	8173	1736	V	9.528			
008	33972	5578		9.746			
009	4454	541	V	11.185			
010	4461	734	V	11.398			
012	4483	531	V	12.806			
019	259521	37811		28.878	1	DCB	0.042

MPK	2375	6.335	AROCLOR-1221-1	0.200	RW: 6.27- 6.40
MPK	660	7.627	AROCLOR-1221-2	0.200	RW: 7.56- 7.70
MPK	1189	8.401	AROCLOR-1221-3	0.200	RW: 8.33- 8.47
MPK	2248	9.018	AROCLOR-1221-4	0.200	RW: 8.95- 9.09
MPK	1736	9.528	AROCLOR-1221-5	0.200	RW: 9.46- 9.60
MPK	5578	9.746	AROCLOR-1221-6	0.200	RW: 9.68- 9.82
MPK	541	11.185	AROCLOR-1221-7	0.200	RW:11.12-11.26
MPK	734	11.398	AROCLOR-1221-8	0.200	RW:11.33-11.47

AR1232 1205

SAMPLE NO. : 08060136 . 11
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/06/01 23:01:33
PAGE NO. : 01



Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/07/01 09:18:03

EXTERNAL STANDARD

SAMPLE: 08060136 .11 INST:36 VIAL:F0 SEQ NUMBER:011
TEST : DATE-TIME INJECTED : 08/06/01 23:01:33
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/07/01 09:18:03
METHOD: P36 / PCBJL REV #: 00211 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1232 1205 RAW FILE: RAW3:H6145271
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

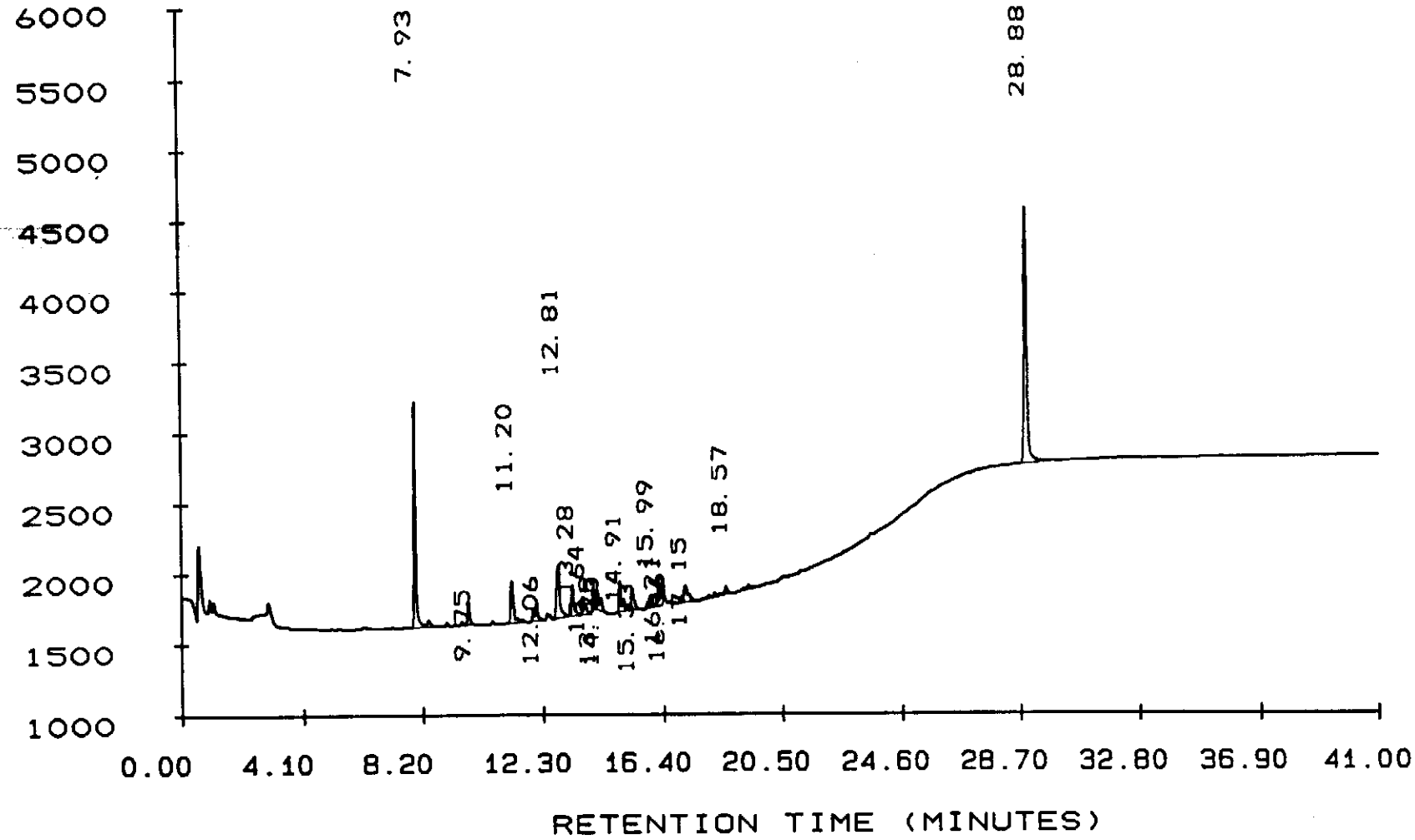
PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	5196	707		6.338			
003	75462	15252	V	7.926	1	TCX	0.018
004	3778	595	V	8.401			
005	4531	759	V	9.019			
006	3002	652	V	9.529			
007	14849	2384		9.747			
008	14490	1570	V	11.199			
009	6852	787	V	12.058			
011	17348	1973	V	12.804			
012	7101	1144	V	13.277			
013	4460	652	V	13.635			
014	2959	700	V	13.983			
015	2494	610	V	14.131			
017	3632	871	V	14.906			
019	5169	690	V	15.326			
021	2593	609	V	16.212			
022	3534	664	V	16.362			
023	7026	535		17.146			
025	125243	17748		28.880	1	DCB	0.020

MPK	707	6.338	AROCLOR-1232-1	0.100	RW: 6.27- 6.41
MPK	759	9.019	AROCLOR-1232-2	0.100	RW: 8.95- 9.09
MPK	2384	9.747	AROCLOR-1232-3	0.100	RW: 9.68- 9.82
MPK	1570	11.199	AROCLOR-1232-4	0.100	RW:11.13-11.27
MPK	787	12.058	AROCLOR-1232-5	0.100	RW:11.99-12.13
MPK	1973	12.804	AROCLOR-1232-6	0.100	RW:12.73-12.87
MPK	1144	13.277	AROCLOR-1232-7	0.100	RW:13.21-13.35
MPK	871	14.906	AROCLOR-1232-8	0.100	RW:14.84-14.98

AR1242 1304

SAMPLE NO. : 08060136 . 12
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/06/01 23:49:23
PAGE NO. : 01



Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/07/01 09:18:18

EXTERNAL STANDARD

SAMPLE: 08060136 .12 INST:36 VIAL:F0 SEQ NUMBER:012
TEST : DATE-TIME INJECTED : 08/06/01 23:49:23
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/07/01 09:18:18
METHOD: P36 / PCBJL REV #: 00211 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1242 1304 RAW FILE: RAW3:H6145280
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

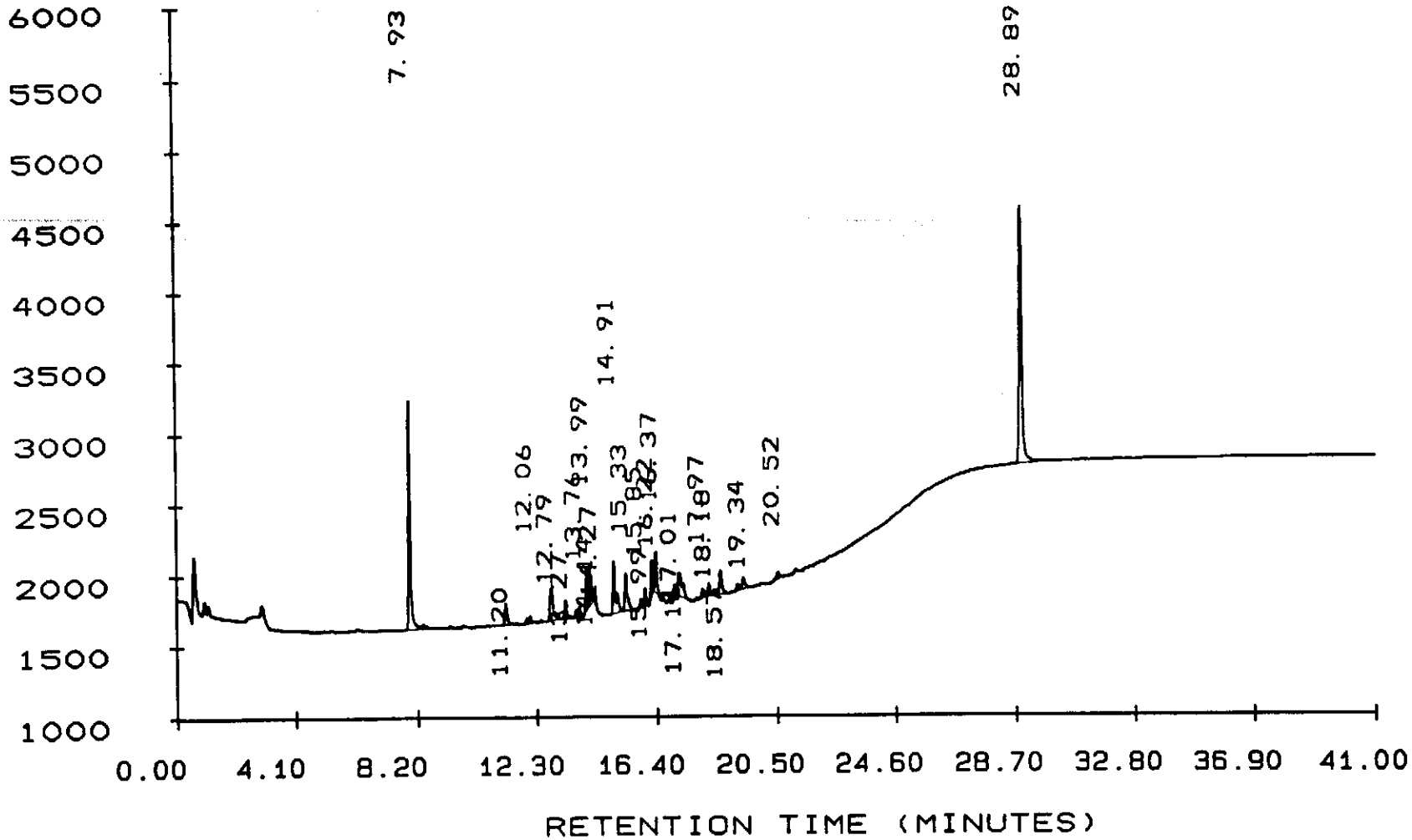
PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	76232	15678	V	7.927	1	TCX	0.019
003	2367	423	V	8.402			
006	10640	1764	V	9.748			
008	24428	2949	V	11.200			
009	2404	654	V	11.943			
010	4956	1193	V	12.059			
011	3780	522	V	12.436			
012	32720	3766	V	12.806			
013	13894	2226	V	13.277			
014	4127	1037	V	13.637			
016	6355	1488	V	13.984			
017	5203	1286	V	14.131			
018	2979	698	V	14.264			
019	8086	1922	V	14.907			
020	3328	608	V	15.046			
021	11716	1541	V	15.327			
022	1930	450	V	15.839			
023	3610	751	V	15.989			
024	5713	1341	V	16.213			
025	7398	1467	V	16.363			
027	10118	1049	V	17.148			
029	3665	566	V	18.566			
031	124389	17809		28.879	1	DCB	0.020

MPK	1764	9.748	AROCLOR-1242-1	0.100	RW: 9.68- 9.82
MPK	2949	11.200	AROCLOR-1242-2	0.100	RW:11.13-11.27
MPK	3766	12.806	AROCLOR-1242-3	0.100	RW:12.74-12.88
MPK	2226	13.277	AROCLOR-1242-4	0.100	RW:13.21-13.35
MPK	1488	13.984	AROCLOR-1242-5	0.100	RW:13.91-14.05
MPK	1922	14.907	AROCLOR-1242-6	0.100	RW:14.84-14.98
MPK	1541	15.327	AROCLOR-1242-7	0.100	RW:15.26-15.40
MPK	1467	16.363	AROCLOR-1242-8	0.100	RW:16.29-16.43

AR1248 1101

SAMPLE NO. : 08060136 . 13
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/07/01 00:37:11
PAGE NO. : 01



Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/07/01 09:18:34

EXTERNAL STANDARD

SAMPLE: 08060136 .13 INST:36 VIAL:F0 SEQ NUMBER:013
TEST : DATE-TIME INJECTED : 08/07/01 00:37:11
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/07/01 09:18:34
METHOD: P36 / PCBJL REV #: 00211 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1248 1101 RAW FILE: RAW3:H7145288
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

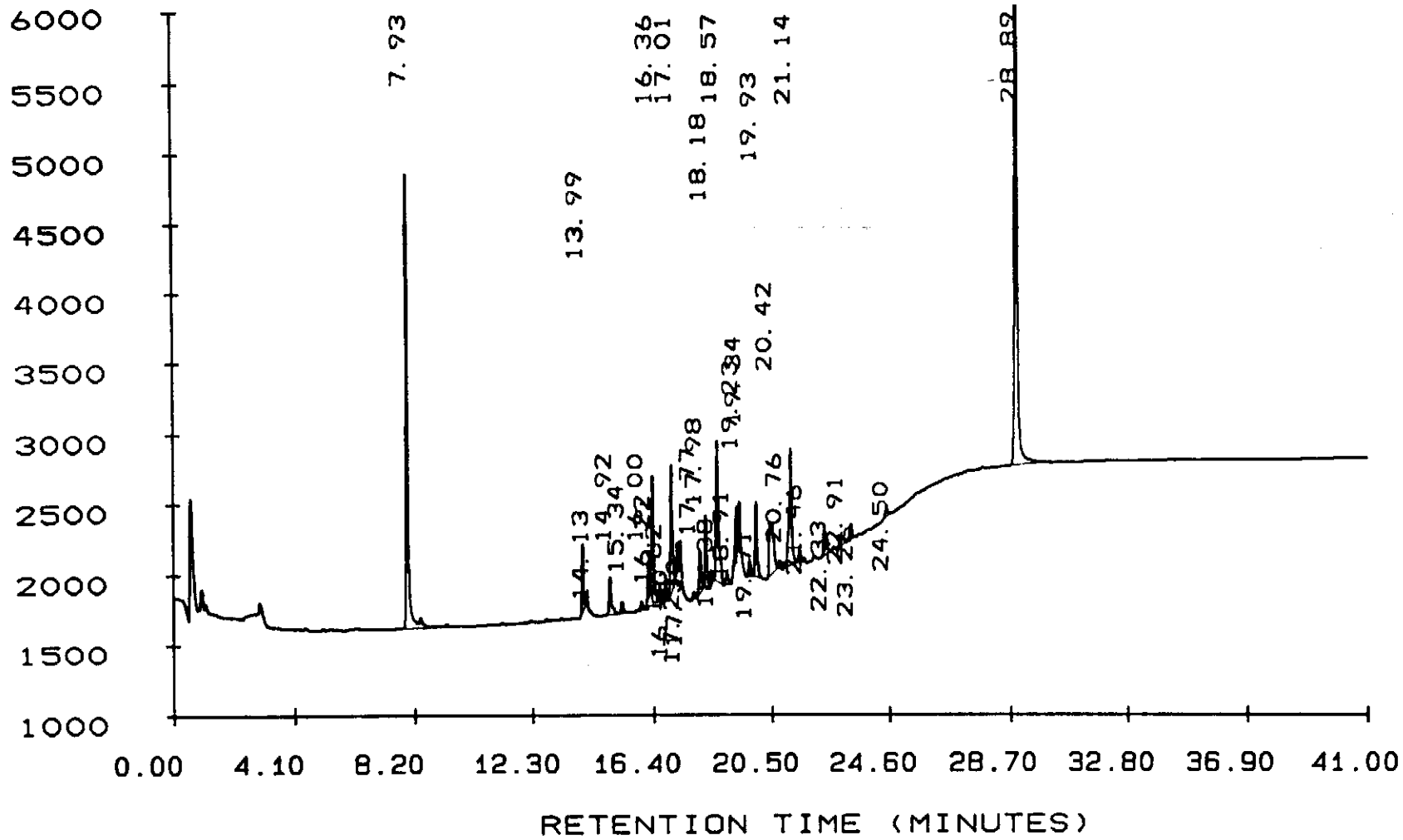
PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	84107	15798		7.931	1	TCX	0.019
004	10886	1550	V	11.203			
006	1644	412	V	12.065			
007	21267	2320	V	12.789			
008	8493	1319	V	13.275			
009	1751	469	V	13.642			
010	2173	572	V	13.757			
011	12692	3003	V	13.989			
012	8139	2009	V	14.136			
013	4211	985	V	14.266			
014	14111	3243	V	14.913			
015	3265	831	V	15.048			
016	19029	2664	V	15.333			
017	3052	709	V	15.845			
018	6164	1288	V	15.995			
019	11059	2565	V	16.218			
020	14415	2885	V	16.366			
022	4072	1016	V	17.008			
023	18049	1670	V	17.160			
024	3361	632	V	17.973			
025	4366	875	V	18.178			
026	2338	482	V	18.373			
027	9965	1642	V	18.570			
028	2364	422	V	19.147			
029	4089	687	V	19.340			
030	3976	507	V	20.520			
032	126316	17988		28.888	1	DCB	0.020

MPK	2320	12.789	AROCLOR-1248-1	0.100	RW:12.72-12.86
MPK	3003	13.989	AROCLOR-1248-2	0.100	RW:13.92-14.06
MPK	2009	14.136	AROCLOR-1248-3	0.100	RW:14.07-14.21
MPK	3243	14.913	AROCLOR-1248-4	0.100	RW:14.84-14.98
MPK	2664	15.333	AROCLOR-1248-5	0.100	RW:15.26-15.40
MPK	2565	16.218	AROCLOR-1248-6	0.100	RW:16.15-16.29
MPK	2885	16.366	AROCLOR-1248-7	0.100	RW:16.30-16.44
MPK	1670	17.160	AROCLOR-1248-8	0.100	RW:17.09-17.23

AR1254 9403 C

SAMPLE NO. : 08060136 . 14
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/07/01 01:25:02
PAGE NO. : 01



Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/07/01 09:18:51

EXTERNAL STANDARD

SAMPLE: 08060136 .14 INST:36 VIAL:F0 SEQ NUMBER:014
TEST : DATE-TIME INJECTED : 08/07/01 01:25:02
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/07/01 09:18:51
METHOD: P36 / PCBJL REV #: 00211 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1254 9403 C RAW FILE: RAW3:H7145294
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	154605	31505	V	7.934	1	TCX	0.038
002	2612	443	V	8.403			
008	20238	4610	V	13.991			
009	3736	1012	V	14.134			
010	15922	2604	V	14.916			
011	5530	826	V	15.337			
012	3693	610	V	15.997			
013	9305	2310	V	16.220			
014	40022	8020	V	16.356			
015	4845	1110	V	16.621			
016	8243	1779	V	16.804			
017	45050	8941	V	17.008			
018	6073	1739	V	17.210			
019	6561	1857	V	17.301			
020	2822	567	V	17.772			
021	14925	2853	V	17.975			
022	24897	5015	V	18.178			
023	6772	1075	V	18.376			
024	59952	9889	V	18.571			
025	5553	868	V	18.914			
026	14624	3255	V	19.226			
027	16156	3431	V	19.339			
028	6326	1157	V	19.709			
029	29114	5294	V	19.932			
030	41058	3815	V	20.424			
031	2805	613	V	20.764			
032	1711	457	V	20.926			
033	56127	8144	V	21.138			
034	3974	753	V	21.465			
037	15053	2118	V	22.331			
039	7037	769	V	22.913			
040	6812	1132		23.262			
041	4286	793		24.499			
042	240411	34847		28.890	1	DCB	0.039

MPK	4610	13.991	AROCLOR-1254-1	0.200	RW:13.92-14.06
MPK	8020	16.356	AROCLOR-1254-2	0.200	RW:16.29-16.43
MPK	8941	17.008	AROCLOR-1254-3	0.200	RW:16.94-17.08
MPK	5015	18.178	AROCLOR-1254-4	0.200	RW:18.11-18.25

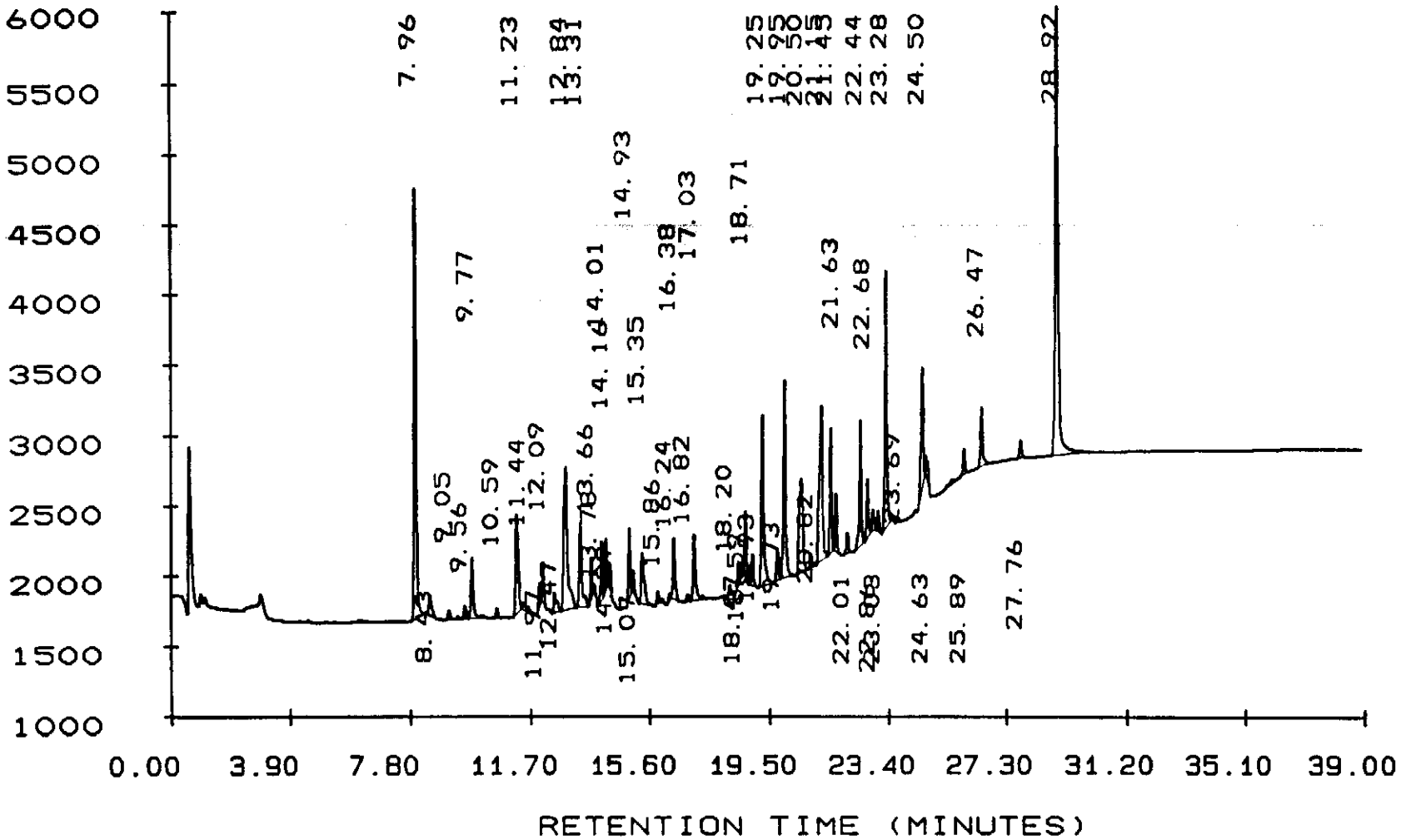
SAMPLE: 08060136 .14 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/07/01 01:25:02
DATE-TIME PROCESSED : 08/07/01 09:18:51

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
MPK		9889		18.571		AROCLOR-1254-5	0.200	RW:18.50-18.64
MPK		5294		19.932		AROCLOR-1254-6	0.200	RW:19.86-20.00
MPK		3815		20.424		AROCLOR-1254-7	0.200	RW:20.35-20.49
MPK		8144		21.138		AROCLOR-1254-8	0.200	RW:21.07-21.21

AR1660 2803 C

SAMPLE NO. : 08060136 . 48
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 08/08/01 16:16:41
PAGE NO. : 01



Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
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Lionville Laboratory, Inc. 08/08/01 16:56:29

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 08060136 .48 INST:36 VIAL:F0 SEQ NUMBER:048
TEST : DATE-TIME INJECTED : 08/08/01 16:16:41
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/08/01 16:56:29
METHOD: P3660 / P3660 REV #: 00210 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2803 C RAW FILE: RAW3:H8145591
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	148651	30049	V	7.956	1	TCX	0.036
003	10674	1502	V	8.432			
004	3264	652	V	9.047			
006	4094	866	V	9.555			
007	26093	4251	V	9.774	1	AR1016-1	0.100
008	3738	689	V	10.587			
009	45212	7008	V	11.227	1	AR1016-2	0.098
010	6275	545	V	11.443			
011	6270	1629	V	11.969			
012	11862	2898	V	12.086			
013	10182	1423	V	12.465			
014	91229	10135	V	12.835	1	AR1016-3	0.102
015	38566	6038	V	13.305	1	AR1016-4	0.104
016	12153	2889	V	13.664			
017	3172	917	V	13.778			
018	17669	4192	V	14.012			
019	14716	3621	V	14.159			
020	8798	2023	V	14.293			
021	21470	4964	V	14.934	1	AR1016-5	0.102
022	7658	1669	V	15.070			
023	26243	3648	V	15.353			
024	3593	836	V	15.863			
026	2123	556	V	16.241			
027	22240	4307	V	16.376			
028	2433	527	V	16.825			
029	28448	4676	V	17.028			
030	3696	733	V	18.198			
031	7207	1808	V	18.468			
032	4129	1224	V	18.588			
033	20863	4784	V	18.708			
034	14071	2250	V	18.930			
035	67776	12031	V	19.246	1	AR1260-1	0.102
036	11534	2188	V	19.734			
037	72813	13831	V	19.950	1	AR1260-2	0.108
038	61090	6696	V	20.498			
039	3976	940	V	20.822			
040	82743	10945	V	21.150			
041	40198	8791	V	21.452	1	AR1260-3	0.097
042	18490	4199	V	21.633			
043	7700	1512	V	22.008			

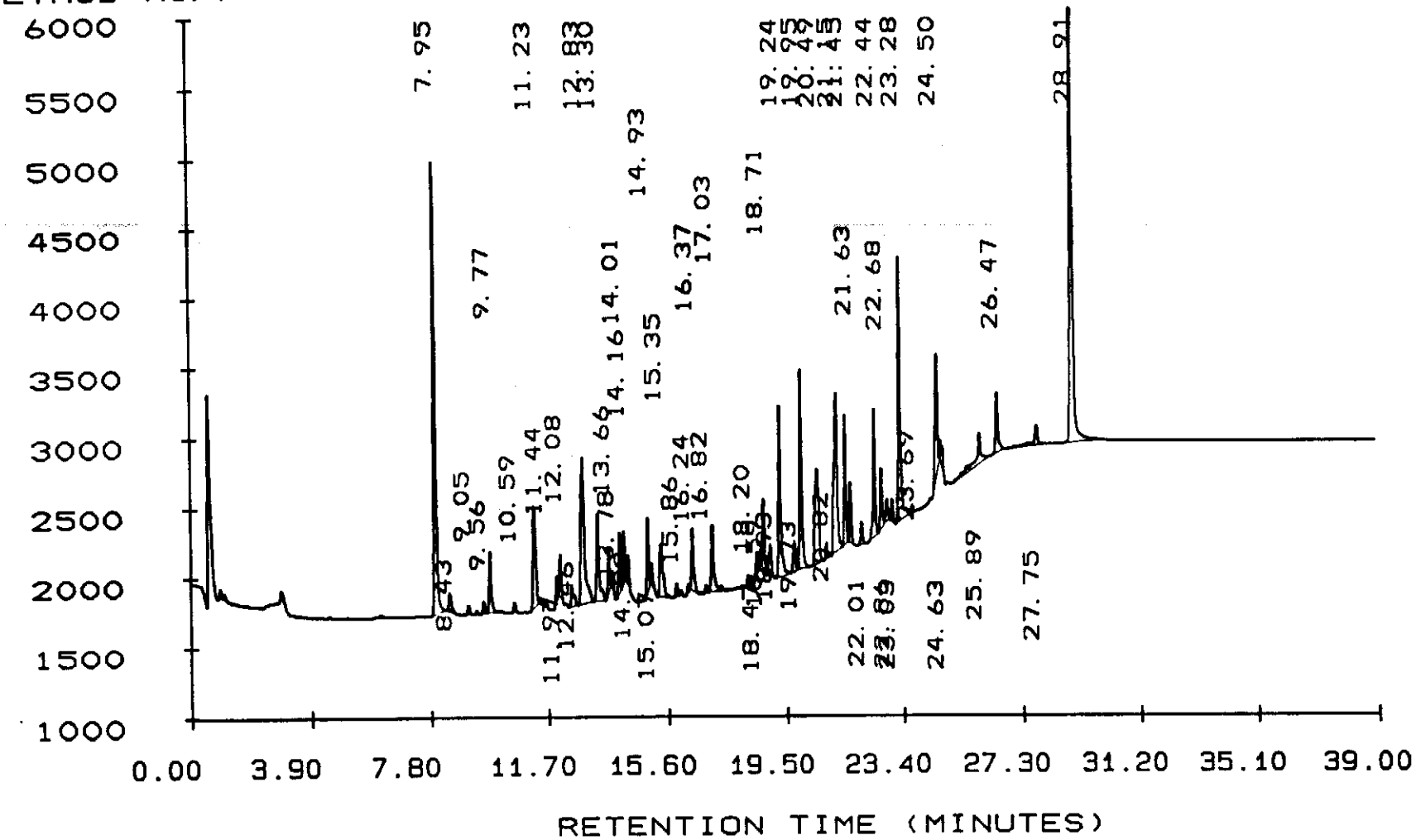
SAMPLE: 08060136 .48 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/08/01 16:16:41
DATE-TIME PROCESSED : 08/08/01 16:56:29

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
044	44921	8781	V	22.439	1	AR1260-4	0.097
045	18271	4054	V	22.678			
046	7720	1575	V	22.861			
047	6339	1512	V	23.033			
048	89685	17868	V	23.278	1	AR1260-5	0.102
050	2234	515	V	23.694			
051	46974	8284	V	24.498			
052	10659	1511	V	24.625			
053	13810	1824	V	25.889			
054	23181	4131		26.468			
055	7303	1269	V	27.755			
056	221640	32252		28.916	1	DCB	0.036

AR1660 2803 C

SAMPLE NO. : 08060136 .60
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 08/09/01 01:52:38
PAGE NO. : 01



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END TIME: 39.00

Lionville Laboratory, Inc. 08/09/01 02:32:24

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 08060136 .60 INST:36 VIAL:F0 SEQ NUMBER:060
TEST : DATE-TIME INJECTED : 08/09/01 01:52:38
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/09/01 02:32:24
METHOD: P3660 / P3660 REV #: 00210 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2803 C RAW FILE: RAW3:H9145675
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	155370	31709	V	7.955	1	TCX	0.038
003	8787	1306	V	8.430			
004	3363	673	V	9.046			
006	4195	881	V	9.555			
007	26048	4339	V	9.773	1	AR1016-1	0.102
008	3399	693	V	10.586			
009	46255	7219	V	11.226	1	AR1016-2	0.101
010	5523	490	V	11.437			
011	6250	1705	V	11.967			
012	12529	3008	V	12.084			
013	10586	1461	V	12.463			
014	92496	10418	V	12.832	1	AR1016-3	0.105
015	39133	6176	V	13.303	1	AR1016-4	0.106
016	12543	3072	V	13.663			
017	3101	949	V	13.776			
018	18057	4278	V	14.010			
019	14879	3614	V	14.158			
020	8755	2031	V	14.291			
021	22069	5184	V	14.932	1	AR1016-5	0.107
022	7619	1679	V	15.068			
023	26987	3725	V	15.353			
024	3777	850	V	15.861			
026	2135	553	V	16.239			
027	22341	4362	V	16.374			
028	2518	539	V	16.823			
029	28902	4704	V	17.026			
030	4154	773	V	18.196			
031	7121	1790	V	18.466			
032	3917	1166	V	18.587			
033	21064	4900	V	18.706			
034	14333	2300	V	18.928			
035	68166	12152	V	19.244	1	AR1260-1	0.103
036	11757	2234	V	19.732			
037	74349	14011	V	19.949	1	AR1260-2	0.109
038	62592	6840	V	20.495			
039	4055	977	V	20.821			
040	85284	11226	V	21.148			
041	41478	9092	V	21.450	1	AR1260-3	0.101
042	19188	4334	V	21.631			
043	8090	1586	V	22.007			

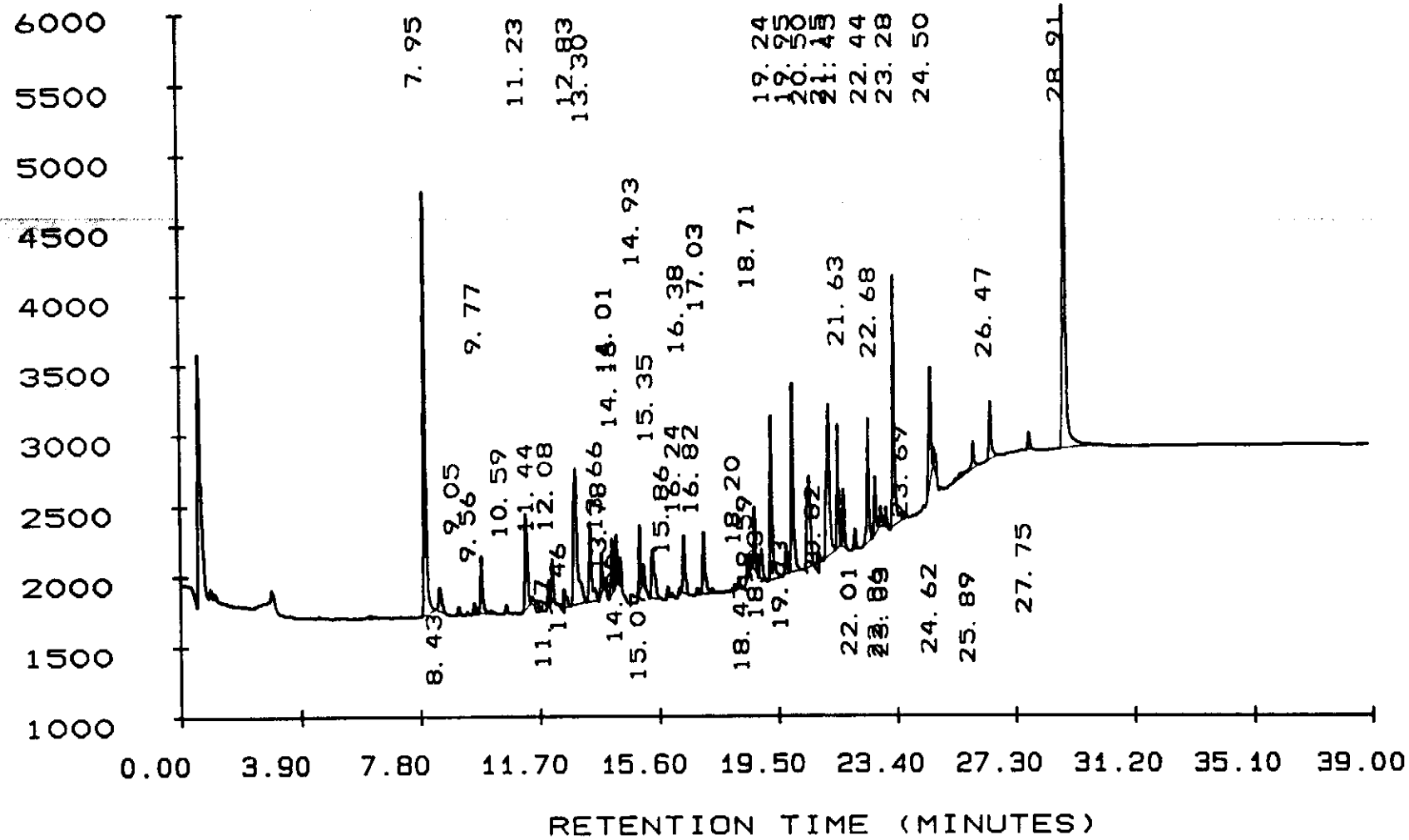
SAMPLE: 08060136 .60 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/09/01 01:52:38
DATE-TIME PROCESSED : 08/09/01 02:32:24

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
044	46101	9019	V	22.438	1	AR1260-4	0.100
045	18859	4230	V	22.677			
046	7708	1595	V	22.859			
047	6714	1604	V	23.032			
048	101126	18555	V	23.277	1	AR1260-5	0.106
049	2398	542	V	23.693			
050	48092	8327	V	24.497			
051	11047	1609	V	24.625			
052	26386	2165	V	25.887			
053	24874	4233	V	26.468			
054	14863	1401	V	27.754			
055	230868	33998		28.915	1	DCB	0.038

AR1660 2803 C

SAMPLE NO. : 08060136 .68
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 08/09/01 08:18:08
PAGE NO. : 01



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START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/09/01 08:57:56

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 08060136 .68 INST:36 VIAL:F0 SEQ NUMBER:068
TEST : DATE-TIME INJECTED : 08/09/01 08:18:08
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/09/01 08:57:56
METHOD: P3660 / P3660 REV #: 00210 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2803 C RAW FILE: RAW3:H9145722
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	146825	29585	V	7.955	1	TCX	0.036
003	11834	1690	V	8.430			
004	3193	623	V	9.045			
006	3818	818	V	9.555			
007	25613	4051	V	9.773	1	AR1016-1	0.095
008	3636	655	V	10.586			
009	43251	6708	V	11.226	1	AR1016-2	0.094
010	6712	617	V	11.445			
011	5763	1580	V	11.967			
012	11730	2788	V	12.084			
013	9414	1321	V	12.463			
014	88941	9587	V	12.832	1	AR1016-3	0.096
015	36992	5681	V	13.303	1	AR1016-4	0.097
016	11302	2788	V	13.662			
017	3101	890	V	13.777			
018	16349	3900	V	14.010			
019	14483	3507	V	14.157			
020	8571	1997	V	14.291			
021	19485	4663	V	14.932	1	AR1016-5	0.096
022	7534	1673	V	15.066			
023	25848	3407	V	15.352			
024	3336	776	V	15.861			
026	1859	487	V	16.240			
027	21985	4039	V	16.375			
028	2331	491	V	16.823			
029	28138	4334	V	17.027			
030	3817	711	V	18.197			
031	6447	1610	V	18.467			
032	3270	993	V	18.588			
033	20055	4492	V	18.706			
034	13415	2156	V	18.929			
035	66842	11466	V	19.245	1	AR1260-1	0.098
036	11014	2083	V	19.733			
037	72083	13193	V	19.949	1	AR1260-2	0.103
038	60685	6536	V	20.497			
039	3835	918	V	20.821			
040	81460	10612	V	21.148			
041	39558	8563	V	21.450	1	AR1260-3	0.095
042	18252	4093	V	21.632			
043	7580	1491	V	22.008			

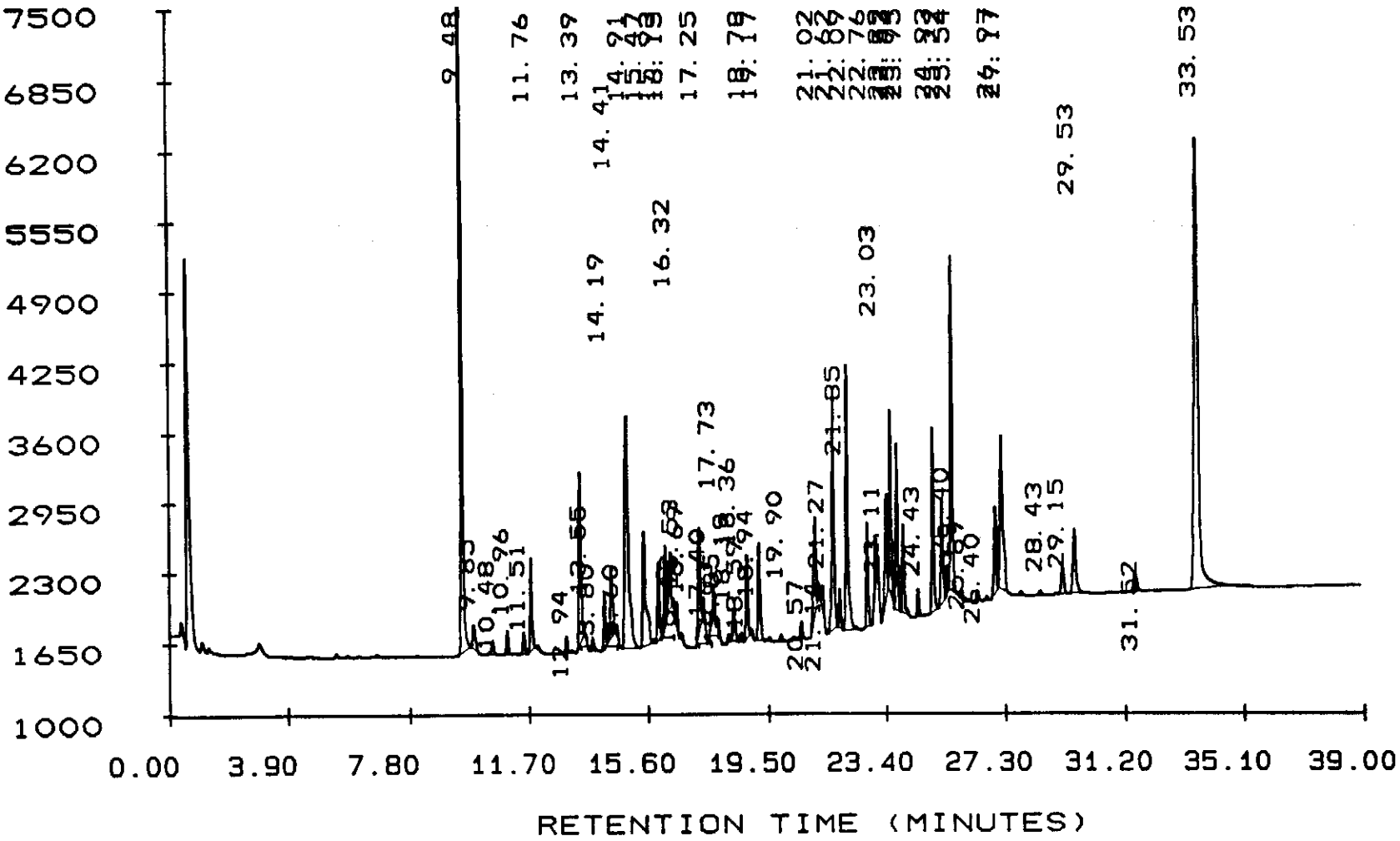
SAMPLE: 08060136 .68 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/09/01 08:18:08
DATE-TIME PROCESSED : 08/09/01 08:57:56

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
044	44484	8618	V	22.437	1	AR1260-4	0.095
045	18054	4011	V	22.677			
046	7180	1511	V	22.857			
047	6311	1504	V	23.032			
048	97141	17500	V	23.276	1	AR1260-5	0.100
049	2266	512	V	23.692			
050	45237	7869	V	24.497			
051	10265	1479	V	24.624			
052	17049	1850	V	25.888			
053	23254	4006		26.468			
054	6608	1199	V	27.754			
055	223866	32529		28.914	1	DCB	0.036

AR1660 2803 C

SAMPLE NO. : 08130135 .02
TEST NO. :
METHOD NO. : P3560 / P3560

INSTRUMENT: 35
DATE TIME: 08/14/01 08:28:33
PAGE NO. : 01



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START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/14/01 12:07:27

EXTERNAL STANDARD

SAMPLE: 08130135 .02 INST:35 VIAL:F0 SEQ NUMBER:002
TEST : DATE-TIME INJECTED : 08/14/01 08:28:33
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/14/01 12:07:27
METHOD: P3560 / P3560 REV #: 00218 ANALYST: SANTOROB SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2803 C RAW FILE: RAW3:HE145799
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
				9.399	1	TCX	
002	301602	63143	V	9.478			
003	14449	2195	V	9.848			
004	7542	1227	V	10.477			
005	11872	2131	V	10.960			
006	9764	1993	V	11.506			
007	42008	8416	V	11.760	1	AR1016-1	0.098
009	8826	1495	V	12.938			
010	87808	15728	V	13.390	1	AR1016-2	0.093
011	2765	716	V	13.551			
012	8056	1263	V	13.804			
013	20890	4648	V	14.192			
014	37892	6236	V	14.412			
015	4376	1263	V	14.597			
016	184640	21442	V	14.915	1	AR1016-3	0.101
017	76090	10462	V	15.466	1	AR1016-4	0.103
019	34829	7090	V	15.925			
020	29747	7246	V	16.148			
021	24416	5147	V	16.319			
022	2555	1181	V	16.418			
023	8037	2387	V	16.527			
024	2500	719	V	16.686			
025	44939	9285	V	17.253	1	AR1016-5	0.100
026	7392	2114	V	17.396			
027	4540	1243	V	17.635			
028	12048	3294	V	17.728			
029	3804	1171	V	17.851			
030	3594	798	V	18.188			
031	16102	2772	V	18.363			
032	4890	1051	V	18.586			
033	36772	7545	V	18.781			
034	2599	759	V	18.937			
035	46599	8829	V	19.172			
037	3053	592	V	19.897			
039	8153	1633	V	20.567			
040	49637	8725	V	21.022			
041	4885	1619	V	21.140			
042	10747	2563	V	21.273			
043	115542	21725	V	21.624	1	AR1260-1	0.095
044	16659	3610	V	21.846			

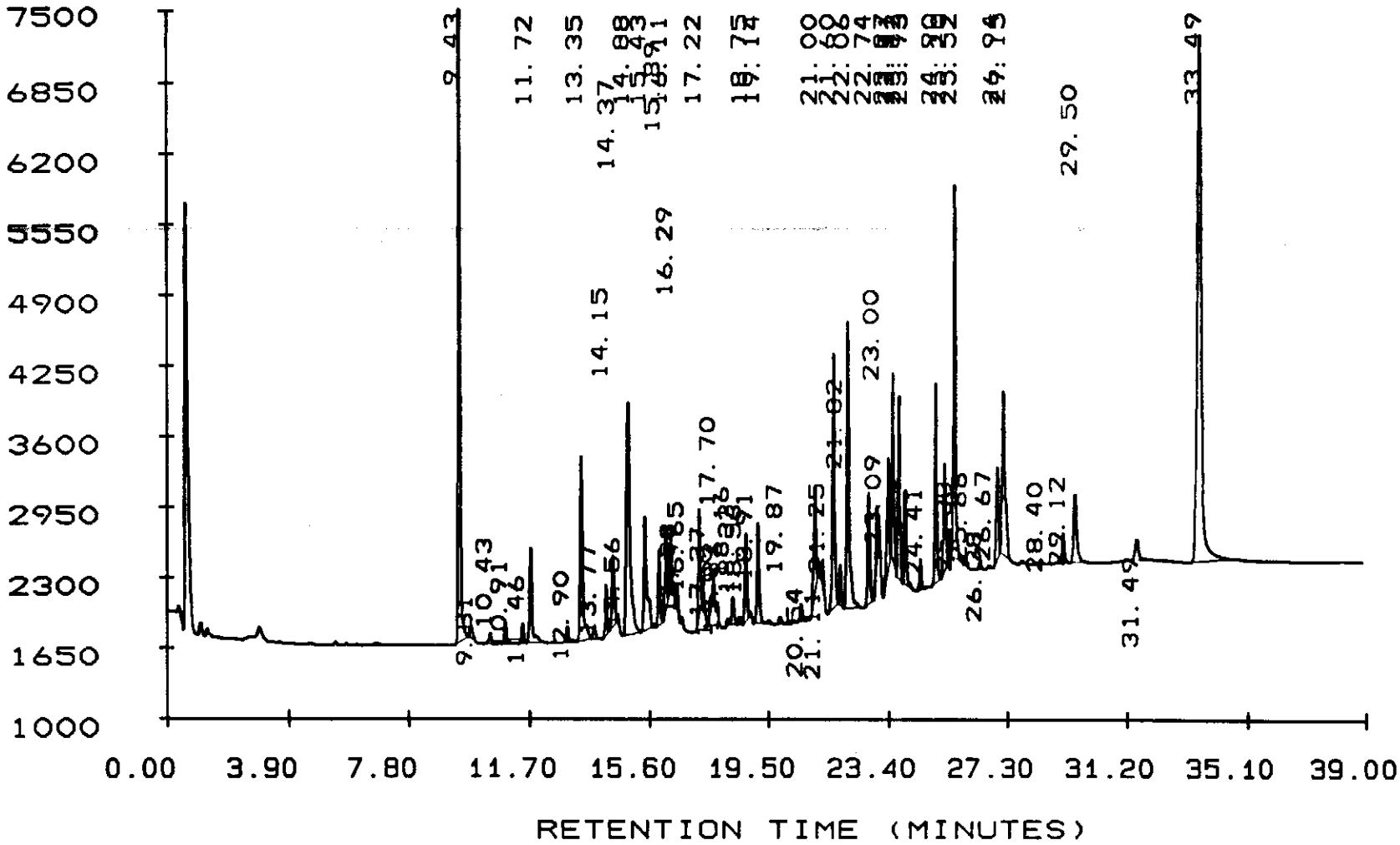
SAMPLE: 08130135 .02 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/14/01 08:28:33
DATE-TIME PROCESSED : 08/14/01 12:07:27

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
045	136655	24244	V	22.086	1	AR1260-2	0.097
046	45556	9492	V	22.762			
047	18083	4878	V	23.026			
048	7129	2514	V	23.112			
049	48578	9693	V	23.388			
050	77008	16814	V	23.530			
051	69862	15201	V	23.742	1	AR1260-3	0.091
052	40390	8200	V	23.950			
053	11501	2490	V	24.434			
054	84574	16808	V	24.926	1	AR1260-4	0.090
055	55500	9613	V	25.223			
056	9846	2669	V	25.404			
057	147650	30257	V	25.539	1	AR1260-5	0.091
058	3279	870	V	25.891			
059	5189	994	V	26.402			
061	43548	7954	V	26.966			
062	96096	14173	V	27.167			
064	3158	527	V	28.430			
065	17360	2558	V	29.146			
066	43896	5974		29.531			
067	15278	1806		31.522			
068	409007	41145		33.534	1	DCB	0.032

AR1660 2803 C

SAMPLE NO. : 08130135 . 14
TEST NO. :
METHOD NO. : P3560 / P3560

INSTRUMENT: 35
DATE TIME: 08/14/01 18:07:25
PAGE NO. : 01



Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/14/01 18:47:01

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 08130135 .14 INST:35 VIAL:F0 SEQ NUMBER:014
TEST : DATE-TIME INJECTED : 08/14/01 18:07:25
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/14/01 18:47:01
METHOD: P3560 / P3560 REV #: 00218 ANALYST: SANTOROB SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2803 C RAW FILE: RAW3:HE145827
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	316594	65558	V	9.432	1	TCX	0.040
003	10009	1472	V	9.811			
004	6941	1126	V	10.431			
005	10960	2021	V	10.915			
006	9178	1873	V	11.464			
007	51948	8596	V	11.717	1	AR1016-1	0.100
008	8195	1424	V	12.897			
009	109504	16836	V	13.350	1	AR1016-2	0.100
010	7277	1188	V	13.765			
011	20641	4510	V	14.154			
012	38479	6412	V	14.374			
013	3817	1119	V	14.561			
014	185920	21355	V	14.880	1	AR1016-3	0.100
015	74434	10321	V	15.431	1	AR1016-4	0.101
017	32592	6753	V	15.891			
018	31016	7480	V	16.114			
019	25301	5256	V	16.286			
020	1936	984	V	16.384			
021	7893	2343	V	16.494			
022	2862	786	V	16.652			
023	44660	9388	V	17.221	1	AR1016-5	0.101
024	8733	2320	V	17.365			
025	4286	1208	V	17.604			
026	12052	3335	V	17.697			
027	3898	1163	V	17.820			
028	2807	642	V	18.162			
029	15187	2534	V	18.331			
030	3750	812	V	18.558			
031	38489	7861	V	18.751			
032	2207	686	V	18.907			
033	48659	9009	V	19.144			
035	4170	624	V	19.868			
037	8127	1574	V	20.542			
038	52263	9413	V	20.997			
039	4599	1596	V	21.112			
040	12373	2725	V	21.248			
041	123410	23056	V	21.598	1	AR1260-1	0.101
042	17213	3683	V	21.822			
043	151562	25917	V	22.063	1	AR1260-2	0.104
044	50015	10118	V	22.738			

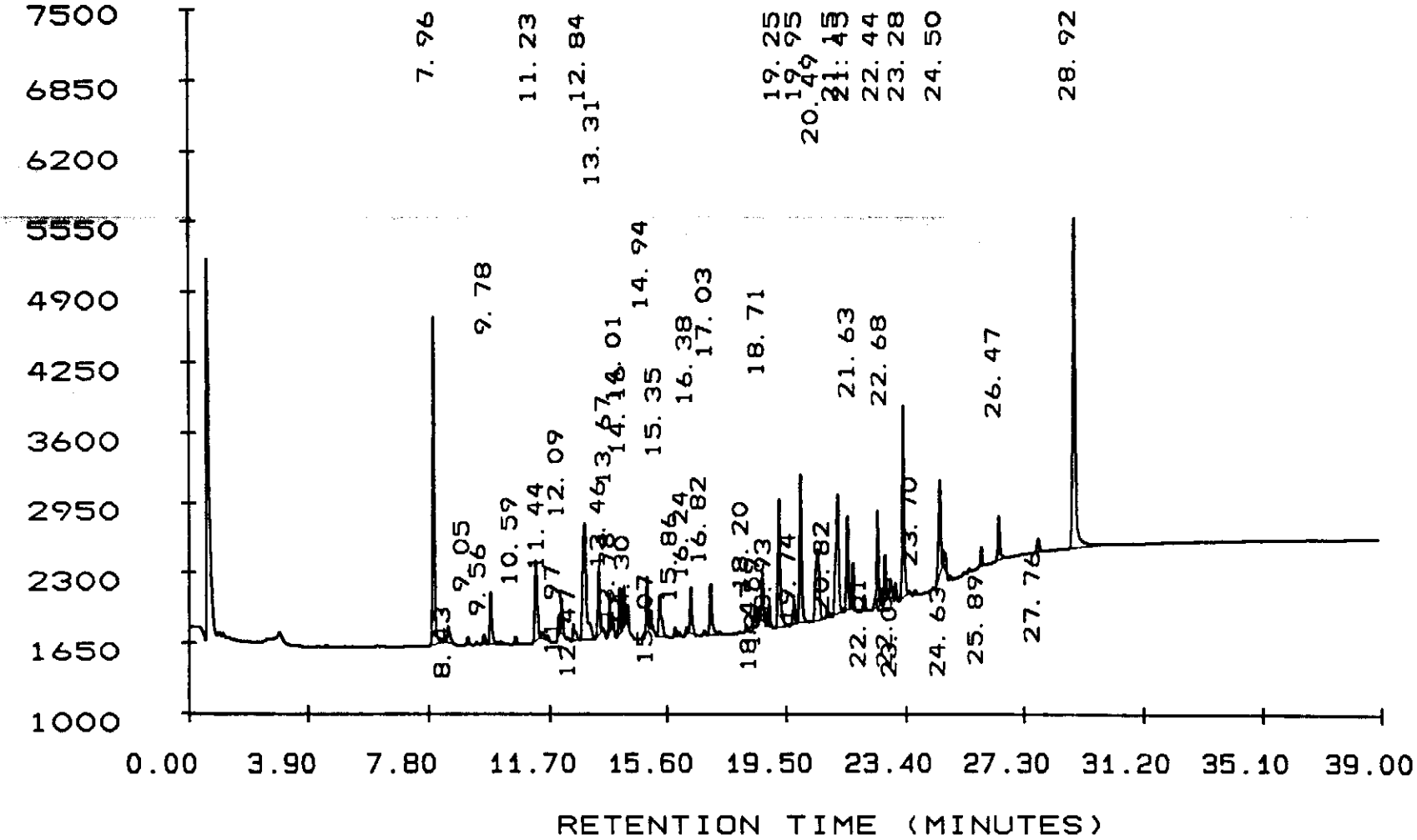
SAMPLE: 08130135 .14 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/14/01 18:07:25
DATE-TIME PROCESSED : 08/14/01 18:47:01

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
045	16856	4495	V	23.002			
046	8443	2984	V	23.086			
047	51169	10131	V	23.365			
048	80330	17120	V	23.508			
049	76467	16586	V	23.718	1	AR1260-3	0.099
050	43266	8681	V	23.926			
051	12573	2697	V	24.412			
052	93702	18147	V	24.903	1	AR1260-4	0.097
053	58065	9841	V	25.199			
054	9938	2742	V	25.381			
055	170961	33517	V	25.520	1	AR1260-5	0.100
056	2139	511	V	25.882			
057	5613	1055	V	26.378			
058	2637	500	V	26.671			
059	47177	8550	V	26.942			
060	105192	14968	V	27.145			
062	3782	599	V	28.401			
063	19206	2792	V	29.117			
064	49353	6352		29.504			
065	19895	2053		31.488			
066	471663	47789		33.493	1	DCB	0.037

AR1660 2803 C

SAMPLE NO. : 08130136 .02
TEST NO. :
METHOD NO. : P3560 / P3560

INSTRUMENT: 36
DATE TIME: 08/14/01 08:28:33
PAGE NO. : 01



Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/14/01 12:08:01

EXTERNAL STANDARD

SAMPLE: 08130136 .02 INST:36 VIAL:F0 SEQ NUMBER:002
TEST : DATE-TIME INJECTED : 08/14/01 08:28:33
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/14/01 12:08:01
METHOD: P3560 / P3660 REV #: 00210 ANALYST: SANTOROB SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2803 C RAW FILE: RAW3:HE145800
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	143454	29839	V	7.958	1	TCX	0.036
002	10679	1575	V	8.434			
003	3728	777	V	9.050			
005	4621	994	V	9.559			
006	28826	4825	V	9.777	1	AR1016-1	0.113
007	3840	723	V	10.590			
008	46993	7315	V	11.229	1	AR1016-2	0.102
009	6832	584	V	11.445			
010	6989	1862	V	11.972			
011	12738	3124	V	12.088			
012	10886	1575	V	12.466			
013	94979	10714	V	12.837	1	AR1016-3	0.107
014	30719	6169	V	13.307	1	AR1016-4	0.106
015	2176	566	V	13.464			
016	13995	3430	V	13.666			
017	3747	1059	V	13.783			
018	17556	4188	V	14.013			
019	15044	3707	V	14.160			
020	8844	2134	V	14.295			
021	21322	5040	V	14.936	1	AR1016-5	0.104
022	8604	1775	V	15.071			
023	25808	3689	V	15.355			
024	3629	869	V	15.865			
025	1754	408	V	16.015			
026	2538	665	V	16.241			
027	21080	4164	V	16.378			
028	2432	530	V	16.825			
029	27861	4599		17.029			
030	4493	766	V	18.197			
031	6687	1711	V	18.470			
032	4352	1292	V	18.588			
033	19423	4434	V	18.709			
034	13132	2107	V	18.932			
035	65158	11687	V	19.247	1	AR1260-1	0.099
036	11232	2158	V	19.735			
037	68109	13479	V	19.951	1	AR1260-2	0.105
038	59144	6559	V	20.495			
039	3932	953	V	20.825			
040	79392	10937	V	21.151			
041	38477	8498	V	21.454	1	AR1260-3	0.094

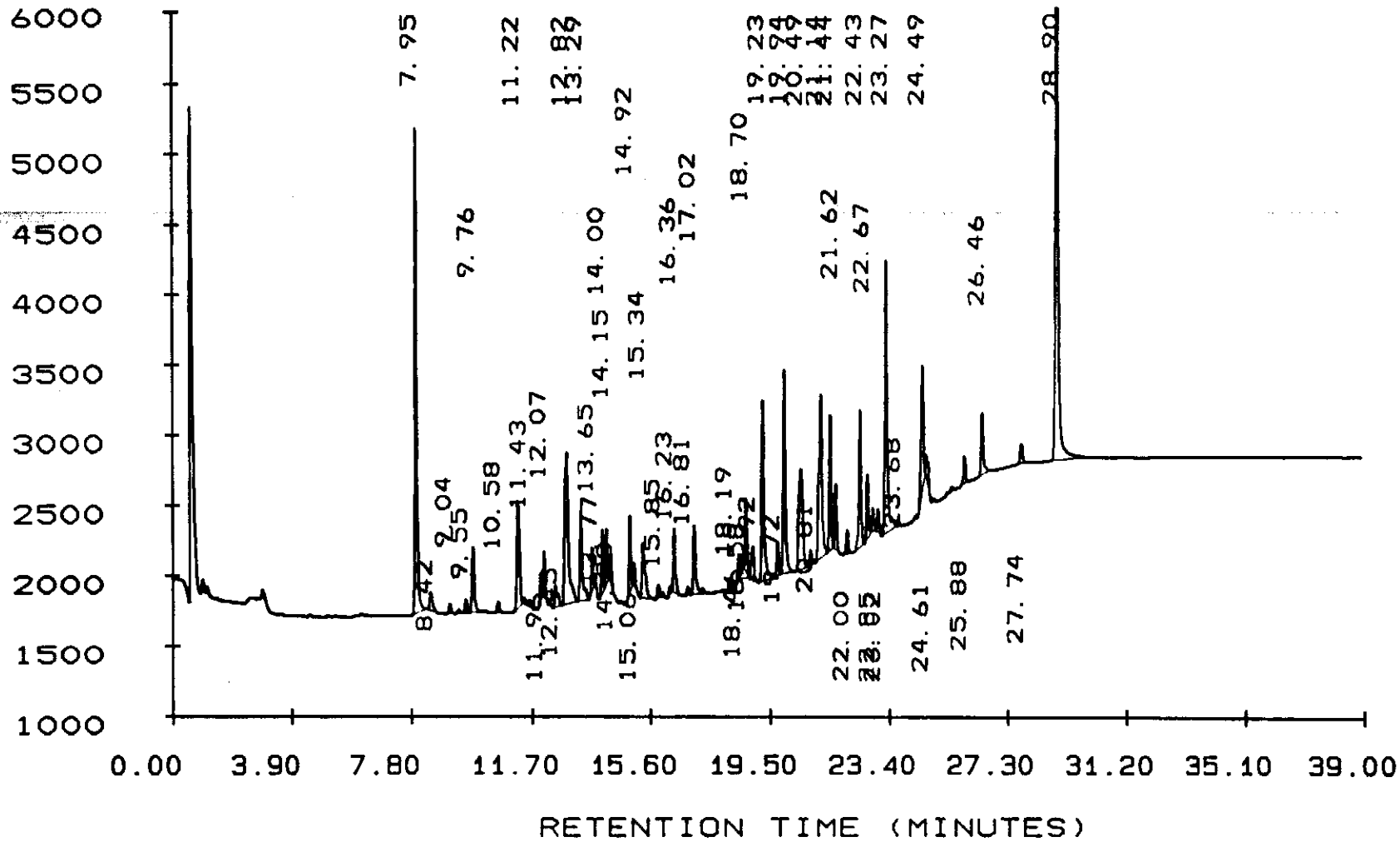
SAMPLE: 08130136 .02 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/14/01 08:28:33
DATE-TIME PROCESSED : 08/14/01 12:08:01

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
042	18456	4234	V	21.635			
043	7581	1470	V	22.010			
044	44946	8819	V	22.441	1	AR1260-4	0.098
045	18054	4164	V	22.680			
046	8806	1749	V	22.863			
047	6332	1558	V	23.034			
048	84540	17493	V	23.277	1	AR1260-5	0.100
050	2266	537	V	23.696			
051	47681	8534	V	24.501			
052	11281	1556	V	24.628			
054	8698	1778	V	25.891			
055	21176	4051		26.469			
056	6608	1229	V	27.759			
057	204232	30073		28.920	1	DCB	0.033

AR1660 2803 C

SAMPLE NO. : 08130136 . 14
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 08/14/01 18:07:26
PAGE NO. : 01



Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/14/01 18:47:13

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 08130136 .14 INST:36 VIAL:F0 SEQ NUMBER:014
TEST : DATE-TIME INJECTED : 08/14/01 18:07:26
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/14/01 18:47:13
METHOD: P3660 / P3660 REV #: 00210 ANALYST: SANTOROB SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2803 C RAW FILE: RAW3:HE145828
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	163440	33726	V	7.946	1	TCX	0.041
003	8715	1320	V	8.421			
004	3610	724	V	9.036			
006	4490	952	V	9.546			
007	27281	4603	V	9.764	1	AR1016-1	0.108
008	3618	750	V	10.576			
009	48792	7569	V	11.216	1	AR1016-2	0.106
010	5668	458	V	11.428			
011	6633	1726	V	11.957			
012	13147	3169	V	12.074			
013	10976	1512	V	12.453			
014	95130	10662	V	12.823	1	AR1016-3	0.107
015	40275	6326	V	13.293	1	AR1016-4	0.108
016	12574	3069	V	13.653			
017	3251	1002	V	13.766			
018	18842	4467	V	14.000			
019	15307	3739	V	14.147			
020	9068	2086	V	14.280			
021	22818	5311	V	14.922	1	AR1016-5	0.109
022	7403	1686	V	15.058			
023	28275	3871	V	15.342			
024	3898	877	V	15.851			
026	2070	544	V	16.230			
027	23336	4533	V	16.364			
028	2688	575	V	16.812			
029	30694	4841	V	17.016			
030	4084	791	V	18.186			
031	7559	1894	V	18.455			
032	3950	1190	V	18.577			
033	22139	5125	V	18.695			
034	15043	2414	V	18.918			
035	71882	12702	V	19.234	1	AR1260-1	0.108
036	12055	2282	V	19.723			
037	77910	14325	V	19.939	1	AR1260-2	0.111
038	65972	7135	V	20.487			
039	4386	1047	V	20.810			
040	89210	11499	V	21.139			
041	43718	9503	V	21.439	1	AR1260-3	0.105
042	20462	4589	V	21.621			
043	8573	1674	V	21.997			

SAMPLE: 08130136 .14 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/14/01 18:07:26
DATE-TIME PROCESSED : 08/14/01 18:47:13

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
044	49324	9630	V	22.427	1	AR1260-4	0.106
045	20197	4489	V	22.666			
046	7757	1678	V	22.846			
047	7101	1677	V	23.022			
048	107245	19134	V	23.267	1	AR1260-5	0.109
049	2531	587	V	23.681			
050	49953	8633	V	24.487			
051	11146	1608	V	24.614			
054	10022	1962	V	25.877			
055	25112	4397		26.457			
056	8251	1405	V	27.741			
057	242224	35034		28.899	1	DCB	0.039

Raw QC

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

PBLKMY

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9477R

Matrix: SOIL

Lab Sample ID: 01LE0922-MB1

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08060135.53

Level: (low/med) LOW

Date Received: 08/03/01

% Moisture: not dec. 0 dec.

Date Extracted: 08/03/01

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 08/08/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	67	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

8/08/01

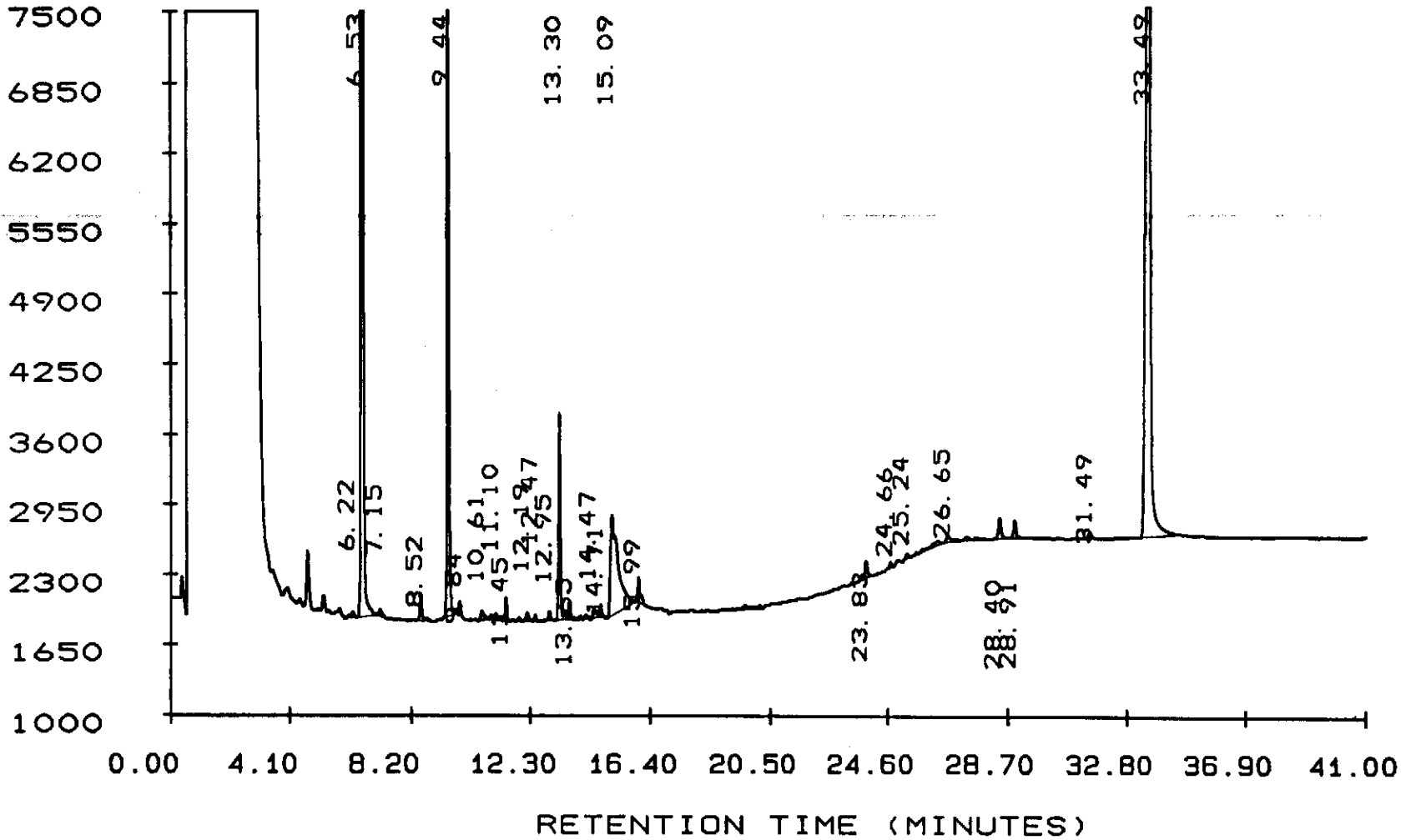
FORM 1 PEST 12/88 Rev.

01LE0922-MB1

SAMPLE NO. : 08060135 .53 INSTRUMENT: 35

TEST NO. : DATE TIME: 08/08/01 20:16:35

METHOD NO. : P35 / P35 PAGE NO. : 01



Y MAXIMUM: 7500. START TIME: 0.00

Y MINIMUM: 1000. END TIME: 41.00

Lionville Laboratory, Inc. 08/10/01 14:16:16

EXTERNAL STANDARD

SAMPLE: 08060135 .53 INST:35 VIAL:F0 SEQ NUMBER:053
TEST : OPCB DATE-TIME INJECTED : 08/08/01 20:16:35
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/10/01 14:16:16
METHOD: P35 / PCBLK REV #: 00219 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: PBLKMY SAMPLE VOL: 1.0 uL
CLIENT: LAB COLUMN TYPE: DB608
LAB ID: 01LE0922-MB1 RAW FILE: RAW3:H8145629
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	5448	624	V	6.222			
002	797558	153666	V	6.531			
003	4779	671		7.146			
004	16695	2565	V	8.519			
005	295026	59410	V	9.440	1	TCX	0.036 96 L
007	7005	1300	V	9.839			
008	7711	927	V	10.611			
010	2016	534	V	11.098			
012	10093	2194	V	11.448			
015	5447	831	V	12.187			
016	2545	581	V	12.471			
017	5218	933	V	12.953			
018	82679	18621	V	13.298			
019	2106	533	V	13.504			
020	8473	1706	V	13.652			
023	6903	907	V	14.470			
024	7048	1219	V	14.713			
025	175523	9402	V	15.094			
026	14855	2364	V	15.993			
033	10694	1646	V	23.828			
034	3795	672	V	24.665			
036	3618	569	V	25.240			
038	7467	501	V	26.645			
041	15208	2001	V	28.401			
042	12672	1704		28.912			
043	5020	570		31.491			
044	908511	93881		33.494	1	DCB	0.074 74 L

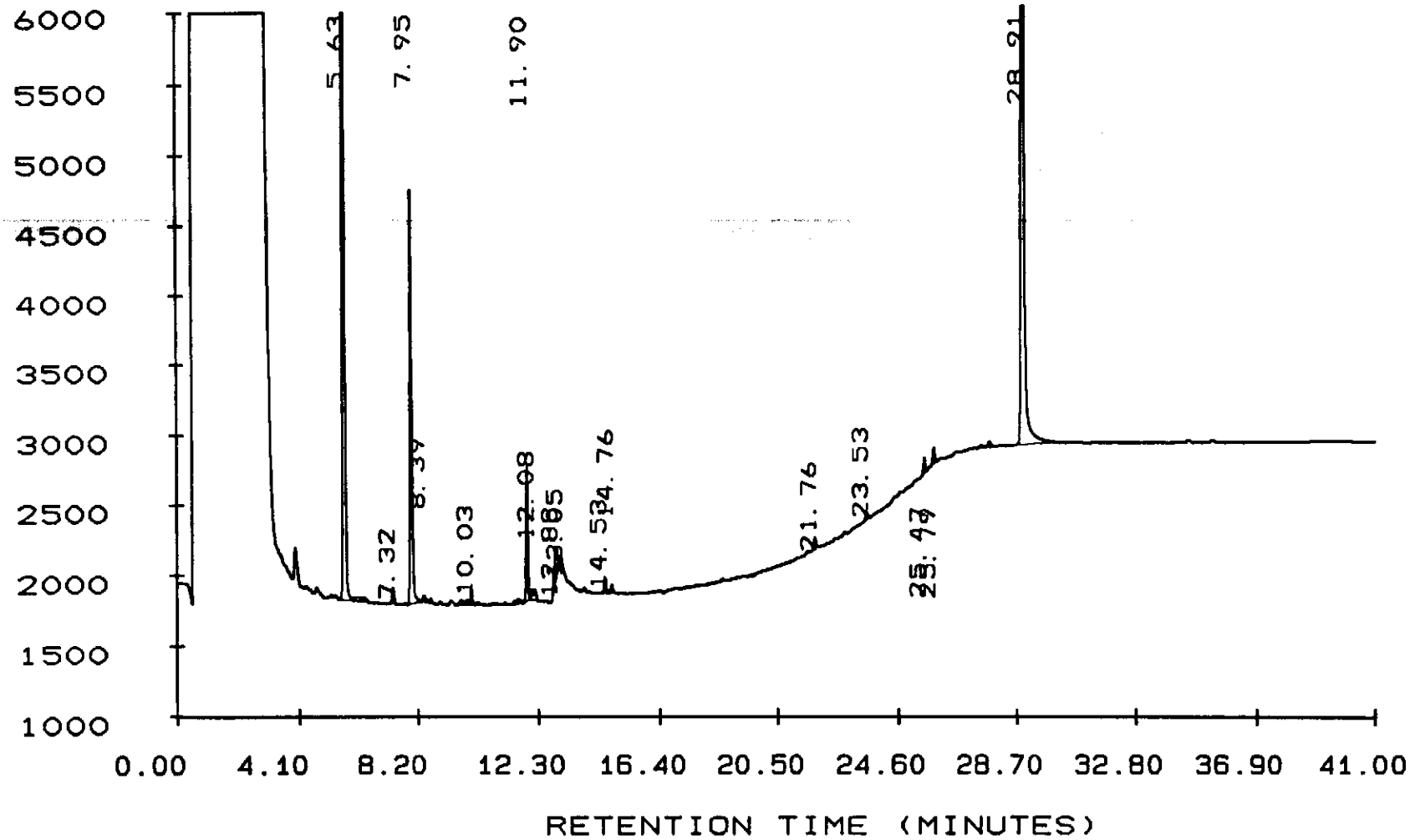
Flagged data

8/10/01
MK

01LE0922-MB1

SAMPLE NO. : 08060136 .53
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/08/01 20:16:36
PAGE NO. : 01



Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/10/01 14:18:30

EXTERNAL STANDARD

SAMPLE: 08060136 .53 INST:36 VIAL:F0 SEQ NUMBER:053
TEST : OPCB DATE-TIME INJECTED : 08/08/01 20:16:36
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/10/01 14:18:30
METHOD: P36 / PCBJL REV #: 00211 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: PBLKMY SAMPLE VOL: 1.0 uL
CLIENT: LAB COLUMN TYPE: RTX1701
LAB ID: 01LE0922-MB1 RAW FILE: RAW3:H8145628
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	351098	72627	V	5.628			
004	6726	1204	V	7.325			
005	151693	29146	V	7.954	1	TCX	0.035
006	5756	534	V	8.395			
009	2675	416	V	9.682			
011	6526	1141	V	10.034			
014	40342	9289	V	11.896			
015	2231	539	V	12.079			
016	1657	521	V	12.183			
017	20122	2408	V	12.877			
018	6376	1030	V	13.048			
020	4806	1105	V	14.528			
021	3565	606		14.762			
022	4801	841	V	21.760			
023	2747	590		23.526			
024	5256	1165	V	25.466			
025	6342	1170		25.795			
026	5156	441	V	27.747			
027	487802	72765		28.908	1	DCB	0.080

8/10/01
MK

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

PBLKMYMS

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9477R

Matrix: SOIL

Lab Sample ID: 01LE0922-MB1 BS

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08060135.54

Level: (low/med) LOW

Date Received: 08/03/01

% Moisture: not dec. 0 dec.

Date Extracted: 08/03/01

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 08/08/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	67	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		SP
11096-82-5	Aroclor-1260	33	U

SP: SPIKE COMPOUND

FORM 1 PEST

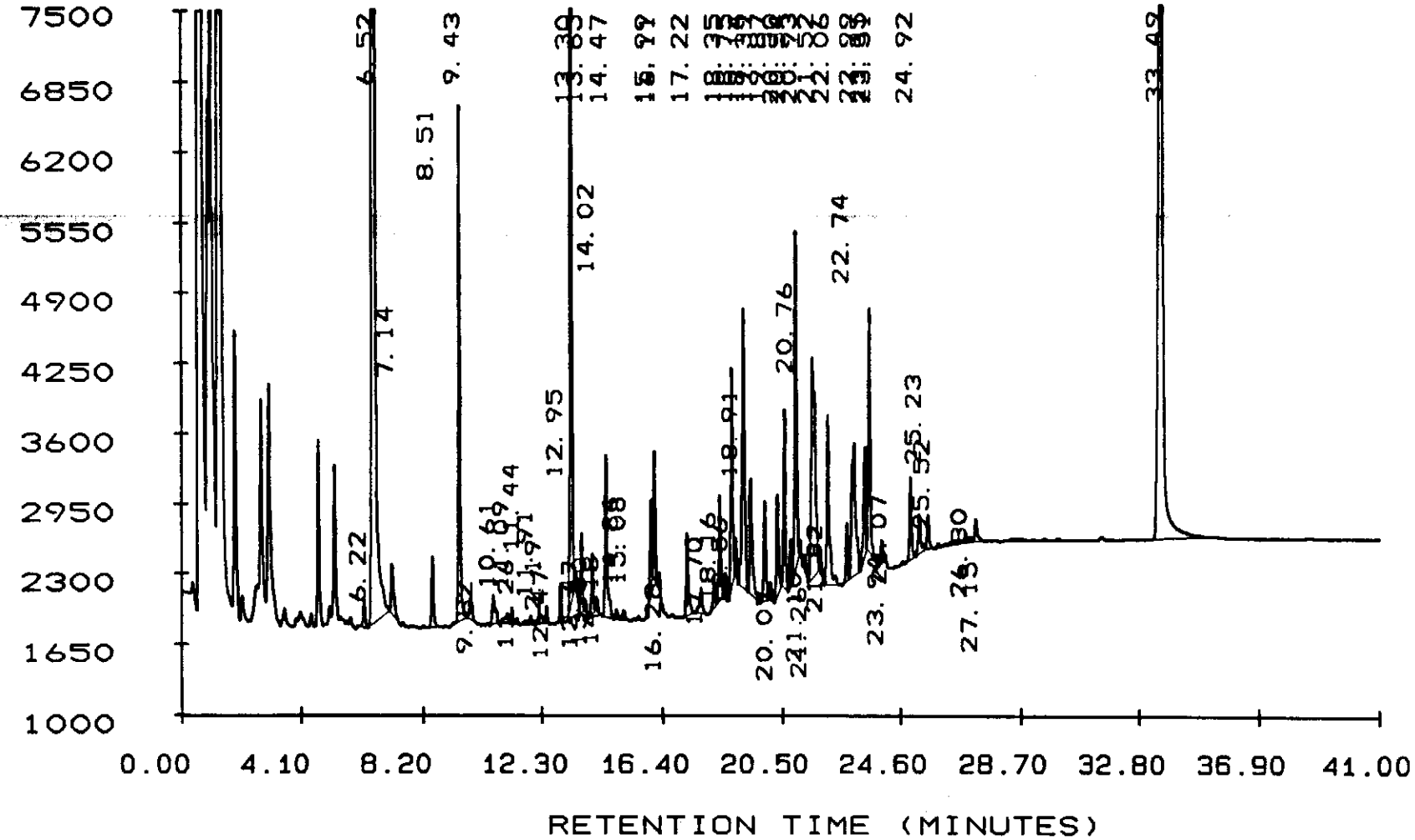
12/88 Rev.

01LE0922-MB1S

SAMPLE NO. : 08060135 .54 INSTRUMENT: 35

TEST NO. : DATE TIME: 08/08/01 21:04:24

METHOD NO. : P35 / P35 PAGE NO. : 01



Y MAXIMUM: 7500. START TIME: 0.00

Y MINIMUM: 1000. END TIME: 41.00

Lionville Laboratory, Inc. 08/10/01 14:16:30

EXTERNAL STANDARD

SAMPLE: 08060135 .54 INST:35 VIAL:F0 SEQ NUMBER:054
TEST : OPCB-S DATE-TIME INJECTED : 08/08/01 21:04:24
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/10/01 14:16:30
METHOD: P35 / PCBLK REV #: 00219 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: PBLKMY SAMPLE VOL: 1.0 uL
CLIENT: LAB COLUMN TYPE: DB608
LAB ID: 01LE0922-MB1MS RAW FILE: RAW3:H8145636
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	13252	2538	V	6.217			
002	2484721	484350	V	6.521			
003	30672	4616	V	7.143			
006	33194	6429	V	8.511			
007	230256	46935	V	9.431	1	TCX	0.028 70'C
008	14658	2068	V	9.825			
009	20098	2655	V	10.607			
010	7624	927	V	11.092			
011	6696	1477	V	11.257			
012	2693	573	V	11.440			
014	4781	964	V	11.912			
015	10010	1288	V	12.195			
016	7080	1573	V	12.466			
017	17154	3686	V	12.948			
018	331350	74551	V	13.295			
019	9971	2100	V	13.472			
020	31434	7257	V	13.651			
021	5295	1453	V	13.796			
022	25568	5568	V	14.021			
023	6011	1441	V	14.180			
024	81632	14810	V	14.470			
025	5485	888	V	14.836			
026	5107	883	V	15.078			
028	30519	8179	V	15.993			
029	49190	11715	V	16.113			
030	6187	1885	V	16.284			
032	45770	7612	V	17.222			
033	15596	2314	V	17.699			
034	14462	2548	V	18.156			
035	52713	9758	V	18.351			
036	11407	2497	V	18.558			
037	99292	20119	V	18.752			
038	13519	3690	V	18.908			
039	147408	25506	V	19.144			
040	67117	10680	V	19.393			
041	48534	9222	V	19.868			
042	9549	1758	V	20.075			
043	48941	9279	V	20.302			
044	80346	16237	V	20.540			
045	20022	4653	V	20.765			

8/10/01
MK

SAMPLE: 08060135 .54 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/08/01 21:04:24
DATE-TIME PROCESSED : 08/10/01 14:16:30

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
046	159975	30879	V	20.935			
047	4779	1589	V	21.105			
048	10168	1725	V	21.261			
049	38906	8894	V	21.516			
050	7906	2789	V	21.589			
051	9894	2441	V	21.821			
052	90650	15405	V	22.063			
053	2512	503	V	22.344			
054	26470	5470	V	22.735			
055	118226	12272	V	22.991			
056	53155	10105	V	23.351			
057	109487	22022	V	23.507			
058	9066	2152	V	23.944			
059	3386	868	V	24.067			
060	41302	7660	V	24.923			
061	19270	3564	V	25.232			
063	18291	3219	V	25.523			
066	6479	893	V	26.798			
068	13863	2084	V	27.148			
073	768745	75495		33.492	1	DCB	0.059 59%

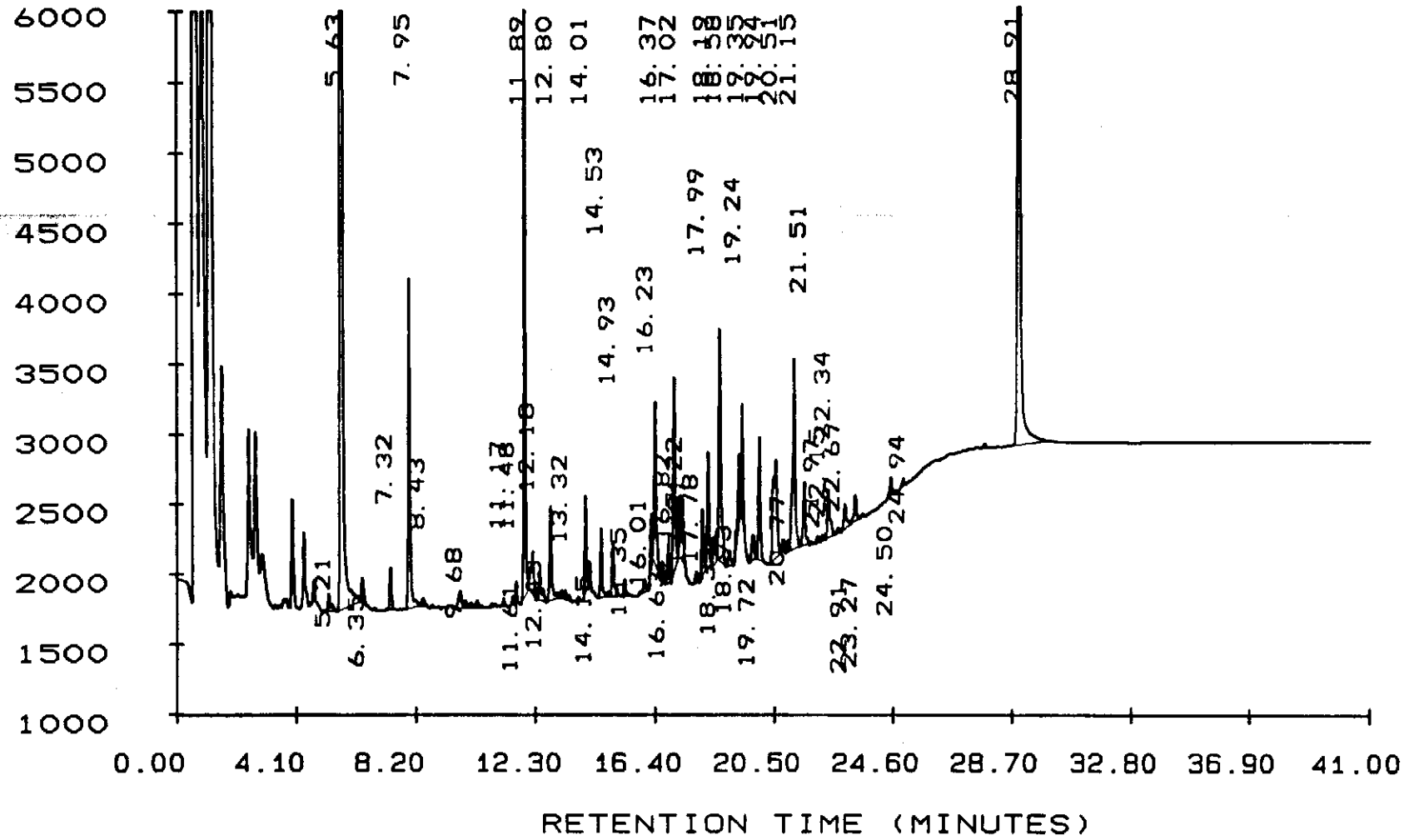
MPK	20119	18.752	AROCLOR-1254-1	0.273	RW:18.67-18.81
MPK	25506	19.144	AROCLOR-1254-2	0.290	RW:19.06-19.20
MPK	16237	20.540	AROCLOR-1254-3	0.302	RW:20.46-20.60
MPK	30879	20.935	AROCLOR-1254-4	0.307	RW:20.85-20.99
MPK	8894	21.516	AROCLOR-1254-5	0.136	RW:21.51-21.65
MPK	15405	22.063	AROCLOR-1254-6	0.286	RW:21.98-22.12
MPK	12272	22.991	AROCLOR-1254-7	0.257	RW:22.91-23.05
MPK	22022	23.507	AROCLOR-1254-8	0.292	RW:23.42-23.57
	151334			0.268	71.47%

8/10/01
MK

01LE0922-MB1S

SAMPLE NO. : 08060136 . 54
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/08/01 21:04:25
PAGE NO. : 01



Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/10/01 14:18:40

EXTERNAL STANDARD

SAMPLE: 08060136 .54 INST:36 VIAL:F0 SEQ NUMBER:054
TEST : OPCB-S DATE-TIME INJECTED : 08/08/01 21:04:25
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/10/01 14:18:40
METHOD: P36 / PCBJL REV #: 00211 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: PBLKMY SAMPLE VOL: 1.0 uL
CLIENT: LAB COLUMN TYPE: RTX1701
LAB ID: 01LE0922-MB1MS RAW FILE: RAW3:H8145637
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	9435	1328	V	5.210			
002	1362557	291185	V	5.626			
003	11578	1849	V	6.345			
004	15345	3001	V	7.319			
005	117595	23179	V	7.949	1	TCX	0.028
006	4605	633	V	8.426			
009	7870	1147	V	9.680			
010	1855	470	V	9.861			
012	2826	547	V	10.247			
014	3760	640	V	11.172			
015	2638	647	V	11.483			
016	7322	1655	V	11.615			
017	180064	41417	V	11.895			
018	20342	3087	V	12.180			
019	6747	1687	V	12.425			
020	2246	604	V	12.546			
021	36806	6601	V	12.801			
022	2228	567	V	13.179			
023	2509	621	V	13.316			
025	2227	445	V	13.759			
026	29795	6762	V	14.005			
027	6994	1861	V	14.148			
028	25120	4904	V	14.528			
029	22038	3844	V	14.928			
030	7923	1261	V	15.349			
031	6641	1049	V	16.011			
032	16153	4059	V	16.232			
033	58163	11459	V	16.368			
034	6566	1571	V	16.632			
035	12509	2732	V	16.817			
036	68435	13682	V	17.021			
037	9536	2846	V	17.223			
038	8600	2557	V	17.312			
039	4320	882	V	17.783			
040	24522	4753	V	17.986			
041	39491	8175	V	18.189			
042	12006	2062	V	18.387			
043	91462	16317	V	18.582			
044	7889	1247	V	18.927			
045	21580	4690	V	19.237			

8/10/01
MK

SAMPLE: 08060136 .54 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/08/01 21:04:25
DATE-TIME PROCESSED : 08/10/01 14:18:40

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
046	36187	8186	V	19.350				
047	10624	1838	V	19.724				
048	43240	8596	V	19.943				
049	69246	6913	V	20.512				
050	4723	1034	V	20.774				
051	3005	819	V	20.936				
052	86650	13340	V	21.147				
053	26517	4493	V	21.505				
054	3213	632	V	21.971				
055	2375	555	V	22.153				
056	22192	3457	V	22.337				
057	2314	510	V	22.671				
058	12314	1803	V	22.911				
059	10781	1842	V	23.270				
061	6817	1251	V	24.504				
062	3541	601		24.936				
064	397428	57455		28.907	1	DCB	0.064	
MPK		6762		14.005		AROCLOR-1254-1	0.293	RW:13.92-14.06
MPK		11459		16.368		AROCLOR-1254-2	0.286	RW:16.29-16.43
MPK		13682		17.021		AROCLOR-1254-3	0.306	RW:16.94-17.08
MPK		8175		18.189		AROCLOR-1254-4	0.326	RW:18.11-18.25
MPK		16317		18.582		AROCLOR-1254-5	0.330	RW:18.50-18.64
		56395					0.308	

8/14/01
NK

Analysis Run Logs

INSTRUMENT ID: 15
DETECTOR TYPE: ECD
INJECT VOLUME: 2.0ml split

COLUMN TYPE: RTX-35
COLUMN SERIAL #: 5998-32
OVEN TEMP PROGRAM: #1

ANALYST: EG 8/16/01
CALIBRATION DATE: ~~8/16/01~~ same
METHOD / OP: 8081/8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvl SAMPLE # DESCRIPTION	DF
01	08060135.01	RAW3:H6145199	08/06/01 15:02:05	COND	
02	08060135.02	RAW3:H6145203	08/06/01 15:50:03	COND	
03	08060135.03	RAW3:H6145207	08/06/01 16:38:02	COND	
04	08060135.04	RAW3:H6145216	08/06/01 17:25:59	COND	
05	08060135.05	RAW3:H6145224	08/06/01 18:13:55	AR1660 2801 A	
06	08060135.06	RAW3:H6145232	08/06/01 19:01:45	AR1660 2802 B	
07	08060135.07	RAW3:H6145240	08/06/01 19:49:34	AR1660 2803 C	
~~08~~	~~08060135.08~~	~~RAW3:H6145247~~	~~08/06/01 20:37:32~~	~~AR1660 2804 D~~	
09	08060135.09	RAW3:H6145255	08/06/01 21:25:33	AR1660 2805 E	
10	08060135.10	RAW3:H6145264	08/06/01 22:13:44	AR1221 1108	
11	08060135.11	RAW3:H6145272	08/06/01 23:01:32	AR1232 1205	
12	08060135.12	RAW3:H6145279	08/06/01 23:49:23	AR1242 1304	
13	08060135.13	RAW3:H7145287	08/07/01 00:37:11	AR1248 1101	
14	08060135.14	RAW3:H7145293	08/07/01 01:25:01	AR1254 9403 C	
15	08060135.15	RAW3:H7145299	08/07/01 02:12:49	0108L458-002	
16	08060135.16	RAW3:H7145307	08/07/01 03:00:39	01LE0921-MB1	
17	08060135.17	RAW3:H7145314	08/07/01 03:48:26	01LE0921-MB1S	
18	08060135.18	RAW3:H7145319	08/07/01 04:36:24	01LE0921-MB1S	
19	08060135.19	RAW3:H7145326	08/07/01 05:24:21	AR1660 2803 C	
20	08060135.20	RAW3:H7145331	08/07/01 06:12:18	0107L397-001	
21	08060135.21	RAW3:H7145338	08/07/01 07:00:30	0107L397-001S	
22	08060135.22	RAW3:H7145344	08/07/01 07:48:55	0107L397-001T	
23	08060135.23	RAW3:H7145350	08/07/01 08:37:20	0107L397-003	
24	08060135.24	RAW3:H7145356	08/07/01 09:25:23	01LE0915-MB1	
25	08060135.25	RAW3:H7145363	08/07/01 10:13:10	01LE0915-MB1S	
26	08060135.26	RAW3:H7145369	08/07/01 11:01:32	0107L410-001	
27	08060135.27	RAW3:H7145375	08/07/01 11:49:19	0107L410-001S	
28	08060135.28	RAW3:H7145382	08/07/01 12:37:28	0107L410-001T	
29	08060135.29	RAW3:H7145387	08/07/01 13:25:35	0107L410-004	
30	08060135.30	RAW3:H7145393	08/07/01 14:13:25	HEXANE	
31	08060135.31	RAW3:H7145399	08/07/01 15:01:12	AR1660 2803 C	
32	08060135.32	RAW3:H7145403	08/07/01 15:49:18	0107L411-001	

COMMENTS

All Standards May Be Referenced To Standard Logbook #: 8048 8633

Millennium Project ID: N/A

LOGBOOK # 8086

L-WI-022/A-02/01

REVIEWED BY/DATE: MK 8/16/01

PAGE # 077

Lionville Laboratory

GC ANALYSIS LOG

INSTRUMENT ID: _____
DETECTOR TYPE: See
INJECT VOLUME: _____

COLUMN TYPE: _____
COLUMN SERIAL #: 09 77
OVEN TEMP PROGRAM: _____

ANALYST: EL
CALIBRATION DATE: ~~8/10/01~~ 8/14/01 same
METHOD / OP: 8081/8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvl SAMPLE # DESCRIPTION	DF
33	08060135.33	RAW3:H7145412	08/07/01 16:37:05	0107L411-002	
34	08060135.34	RAW3:H7145420	08/07/01 17:25:02	0107L411-003	
35	08060135.35	RAW3:H7145428	08/07/01 18:12:56	0107L411-004	
36	08060135.36	RAW3:H7145435	08/07/01 19:00:55	0107L411-005	
37	08060135.37	RAW3:H7145444	08/07/01 19:48:50	0107L411-006	
38	08060135.38	RAW3:H7145451	08/07/01 20:36:40	0107L416-001	
39	08060135.39	RAW3:H7145459	08/07/01 21:24:35	0107L416-004	
~~40~~	~~08060135.40~~	~~RAW3:H7145467~~	~~08/07/01 22:12:25~~	~~0107L416-007~~	
41	08060135.41	RAW3:H7145475	08/07/01 23:00:36	0107L416-010	
42	08060135.42	RAW3:H7145483	08/07/01 23:48:26	HEXANE	
43	08060135.43	RAW3:H8145491	08/08/01 00:36:14	AR1660 2803 C	
44	08060135.44	RAW3:H8145497	08/08/01 01:24:16	0107L416-013	
45	08060135.45	RAW3:H8145505	08/08/01 02:12:21	0107L416-016	
46	08060135.46	RAW3:H8145513	08/08/01 03:00:10	HEXANE	
47	08060135.47	RAW3:H8145519	08/08/01 03:47:58	AR1660 2803 C	
48	08060135.48	RAW3:H8145590	08/08/01 16:16:41	AR1660 2803 C	
49	08060135.49	RAW3:H8145597	08/08/01 17:04:38	0108L458-001	
50	08060135.50	RAW3:H8145606	08/08/01 17:52:27	01LE0923-MB1	
51	08060135.51	RAW3:H8145614	08/08/01 18:40:15	01LE0923-MB1S	
52	08060135.52	RAW3:H8145623	08/08/01 19:28:26	01LE0923-MB1T	
53	08060135.53	RAW3:H8145629	08/08/01 20:16:35	01LE0922-MB1	
54	08060135.54	RAW3:H8145636	08/08/01 21:04:24	01LE0922-MB1S	
55	08060135.55	RAW3:H8145644	08/08/01 21:52:38	0108L445-001	
56	08060135.56	RAW3:H8145653	08/08/01 22:40:28	0108L445-001S	
57	08060135.57	RAW3:H8145659	08/08/01 23:28:24	0108L445-001T	
58	08060135.58	RAW3:H9145665	08/09/01 00:16:13	0108L445-001S	
59	08060135.59	RAW3:H9145669	08/09/01 01:04:49	HEXANE	
60	08060135.60	RAW3:H9145674	08/09/01 01:52:37	AR1660 2803 C	
61	08060135.61	RAW3:H9145680	08/09/01 02:40:35	0108L445-009	
62	08060135.62	RAW3:H9145687	08/09/01 03:29:49	0108L447-001	
63	08060135.63	RAW3:H9145692	08/09/01 04:17:55	0108L447-002	
64	08060135.64	RAW3:H9145698	08/09/01 05:06:29	0108L447-003	

All Standards May Be Referenced To Standard Logbook #: 8048 8633

Millennium Project ID: N/A

LOGBOOK # 8686

REVIEWED BY/DATE: MC 8/16/01

L-WI-022/A-02/01

PAGE # 078

172

INSTRUMENT ID:
DETECTOR TYPE: SCC
INJECT VOLUME:

COLUMN TYPE:
COLUMN SERIAL #: PG 77
OVEN TEMP PROGRAM:

ANALYST: EG C 8/10/01
CALIBRATION DATE: ~~8/10/01~~ same
METHOD / OP: 8081/8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvl SAMPLE # DESCRIPTION	DF	COMMENTS
65	08060135.65	RAW3:H9145704 EG8/10/01	08/09/01 05:54:35	0108L447-004		All Standards May Be Referenced To Standard Logbook #: 8648 8633
66	08060135.66	RAW3:H9145710	08/09/01 06:42:24	0108L447-005		
67	08060135.67	RAW3:H9145716	08/09/01 07:30:19	HEXANE		Millennium Project ID: N/A
68	08060135.68	RAW3:H9145723	08/09/01 08:18:08	AR1660 2803 C		
69	08060135.69	RAW3:H9145774	08/09/01 19:20:00	COND		
70	08060135.70	RAW3:H9145778	08/09/01 20:08:02	COND		
71	08060135.71	RAW3:H9145782	08/09/01 20:56:01	COND		
72	08060135.72	RAW3:H9145785	08/09/01 21:43:57	AR1660 2803 C		
73	08060135.73	RAW3:H9145786	08/09/01 22:31:54	0107L445-005		
74	08060135.74	RAW3:H9145789	08/09/01 23:20:01	HEXANE		
75	08060135.75	RAW3:HA145790 EG8/10/01	08/10/01 00:07:51	AR1660 2803 C		

End of Queue
EG 8/10/01

LOGBOOK # 8686

REVIEWED BY/DATE: MK 8/16/01

L-WI-022/A-02/01

PAGE # 079

INSTRUMENT ID: 15	COLUMN TYPE: RTX-CLP2	ANALYST: EG
DETECTOR TYPE: ECD	COLUMN SERIAL #: 236704	CALIBRATION DATE: ~~8/16/01~~ MK same 8/16/01
INJECT VOLUME: 2.0 ml split	OVEN TEMP PROGRAM: #1	METHOD / OP: 8081/8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvl SAMPLE # DESCRIPTION	DF
01	08060136.01	RAW3:H6145200 EG 8/16/01	08/06/01 15:02:05	COND	
02	08060136.02	RAW3:H6145204	08/06/01 15:50:04	COND	
03	08060136.03	RAW3:H6145208	08/06/01 16:38:02	COND	
04	08060136.04	RAW3:H6145215	08/06/01 17:25:59	COND	
05	08060136.05	RAW3:H6145223	08/06/01 18:13:55	AR1660 2801 A	
06	08060136.06	RAW3:H6145231	08/06/01 19:01:45	AR1660 2802 B	
07	08060136.07	RAW3:H6145239	08/06/01 19:49:34	AR1660 2803 C	
08	08060136.08	RAW3:H6145248	08/06/01 20:37:33	AR1660 2804 D	
09	08060136.09	RAW3:H6145256	08/06/01 21:25:34	AR1660 2805 E	
10	08060136.10	RAW3:H6145263	08/06/01 22:13:44	AR1221 1108	
11	08060136.11	RAW3:H6145271	08/06/01 23:01:33	AR1232 1205	
12	08060136.12	RAW3:H6145280	08/06/01 23:49:23	AR1242 1304	
13	08060136.13	RAW3:H7145288	08/07/01 00:37:11	AR1248 1101	
14	08060136.14	RAW3:H7145294	08/07/01 01:25:02	AR1254 9403 C	
15	08060136.15	RAW3:H7145300	08/07/01 02:12:49	0108L458-002	
16	08060136.16	RAW3:H7145308	08/07/01 03:00:39	01LE0921-MB1	
17	08060136.17	RAW3:H7145313	08/07/01 03:48:26	01LE0921-MB1S	
18	08060136.18	RAW3:H7145320	08/07/01 04:36:24	01LE0921-MB1S	
19	08060136.19	RAW3:H7145325	08/07/01 05:24:21	AR1660 2803 C	
20	08060136.20	RAW3:H7145332	08/07/01 06:12:17	0107L397-001	
21	08060136.21	RAW3:H7145337	08/07/01 07:00:30	0107L397-001S	
22	08060136.22	RAW3:H7145343	08/07/01 07:48:55	0107L397-001T	
23	08060136.23	RAW3:H7145349	08/07/01 08:37:20	0107L397-003	
24	08060136.24	RAW3:H7145355	08/07/01 09:25:23	01LE0915-MB1	
25	08060136.25	RAW3:H7145364	08/07/01 10:13:11	01LE0915-MB1S	
26	08060136.26	RAW3:H7145370	08/07/01 11:01:32	0107L410-001	
27	08060136.27	RAW3:H7145376	08/07/01 11:49:19	0107L410-001S	
28	08060136.28	RAW3:H7145381	08/07/01 12:37:28	0107L410-001T	
29	08060136.29	RAW3:H7145388	08/07/01 13:25:35	0107L410-004	
30	08060136.30	RAW3:H7145394	08/07/01 14:13:25	HEXANE	
31	08060136.31	RAW3:H7145400	08/07/01 15:01:13	AR1660 2803 C	
32	08060136.32	RAW3:H7145406 EG 8/16/01	08/07/01 15:49:18	0107L411-001	

COMMENTS

All Standards May Be Referenced To Standard Logbook #: 8048 8633

Millennium Project ID: N/A

LOGBOOK # 86086

REVIEWED BY/DATE: 8/16/01 MK

L-WI-022/A-02/01

PAGE # 080

INSTRUMENT ID:	COLUMN TYPE:	ANALYST: EU 8/16/01
DETECTOR TYPE: SEC	COLUMN SERIAL #: 1980	CALIBRATION DATE: ~~8/10/01~~ same
INJECT VOLUME:	OVEN TEMP PROGRAM:	METHOD / OP: 8081/8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvl SAMPLE # DESCRIPTION	DF	COMMENTS
33	08060136.33	RAW3:H7145411 EU 8/16/01	08/07/01 16:37:05	0107L411-002		All Standards May Be Referenced To Standard Logbook # 8048 8633
34	08060136.34	RAW3:H7145419	08/07/01 17:25:02	0107L411-003		
35	08060136.35	RAW3:H7145427	08/07/01 18:12:56	0107L411-004		Millennium Project ID: N/A
36	08060136.36	RAW3:H7145436	08/07/01 19:00:55	0107L411-005		
37	08060136.37	RAW3:H7145443	08/07/01 19:48:50	0107L411-006		
38	08060136.38	RAW3:H7145452	08/07/01 20:36:40	0107L416-001		
39	08060136.39	RAW3:H7145460	08/07/01 21:24:35	0107L416-004		
40	08060136.40	RAW3:H7145468	08/07/01 22:12:25	0107L416-007		
41	08060136.41	RAW3:H7145476	08/07/01 23:00:36	0107L416-010		
42	08060136.42	RAW3:H7145484	08/07/01 23:48:26	HEXANE		
43	08060136.43	RAW3:H8145492	08/08/01 00:36:14	AR1660 2803 C		
44	08060136.44	RAW3:H8145498	08/08/01 01:24:16	0107L416-013		
45	08060136.45	RAW3:H8145506	08/08/01 02:12:21	0107L416-016		
46	08060136.46	RAW3:H8145514	08/08/01 03:00:10	HEXANE		
47	08060136.47	RAW3:H8145520	08/08/01 03:47:58	AR1660 2803 C		
48	08060136.48	RAW3:H8145591	08/08/01 16:16:41	AR1660 2803 C		
49	08060136.49	RAW3:H8145598	08/08/01 17:04:38	0108L458-001		
50	08060136.50	RAW3:H8145607	08/08/01 17:52:27	01LE0923-MB1		
51	08060136.51	RAW3:H8145615	08/08/01 18:40:15	01LE0923-MB1S		
52	08060136.52	RAW3:H8145622	08/08/01 19:28:26	01LE0923-MB1T		
53	08060136.53	RAW3:H8145628	08/08/01 20:16:36	01LE0922-MB1		
54	08060136.54	RAW3:H8145637	08/08/01 21:04:25	01LE0922-MB1S		
55	08060136.55	RAW3:H8145645	08/08/01 21:52:38	0108L445-001		
56	08060136.56	RAW3:H8145652 EU 8/16/01	08/08/01 22:40:28	0108L445-001S		
57	08060136.57	RAW3:H8145658	08/08/01 23:28:24	0108L445-001T		
58	08060136.58	RAW3:H9145664	08/09/01 00:16:13	0108L445-001S		
59	08060136.59	RAW3:H9145668	08/09/01 01:04:49	HEXANE		
60	08060136.60	RAW3:H9145675	08/09/01 01:52:38	AR1660 2803 C		
61	08060136.61	RAW3:H9145681	08/09/01 02:40:35	0108L445-009		
62	08060136.62	RAW3:H9145686	08/09/01 03:29:49	0108L447-001		
63	08060136.63	RAW3:H9145693	08/09/01 04:17:55	0108L447-002		
64	08060136.64	RAW3:H9145698 EU 8/16/01	08/09/01 05:06:29	0108L447-003		

LOGBOOK # 8048

REVIEWED BY/DATE: MC 8/16/01

L-WI-022/A-02/01

PAGE # 081

INSTRUMENT ID:	COLUMN TYPE:	ANALYST: EU 8/16/01 MK
DETECTOR TYPE: See	COLUMN SERIAL #: pg 80	CALIBRATION DATE: ~~8/16/01~~ same
INJECT VOLUME:	OVEN TEMP PROGRAM:	METHOD / OP: 8081/8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvI SAMPLE # DESCRIPTION	DF	COMMENTS
65	08060136.65	RAW3:H9145705 EU 8/10/01	08/09/01 05:54:35	0108L447-004		All Standards May Be Referenced To Standard Logbook #: 8048 8633
66	08060136.66	RAW3:H9145711	08/09/01 06:42:24	0108L447-005		
67	08060136.67	RAW3:H9145717	08/09/01 07:30:19	HEXANE		Millennium Project ID N/A
68	08060136.68	RAW3:H9145722	08/09/01 08:18:08	AR1660 2803 C		
69	08060136.69	RAW3:H9145775	08/09/01 19:20:01	COND		
70	08060136.70	RAW3:H9145779	08/09/01 20:08:02	COND		
71	08060136.71	RAW3:H9145783	08/09/01 20:56:02	COND		
72	08060136.72	RAW3:H9145784	08/09/01 21:43:58	AR1660 2803 C		
73	08060136.73	RAW3:H9145787	08/09/01 22:31:55	0107L445-005		
74	08060136.74	RAW3:H9145788	08/09/01 23:20:01	HEXANE		
75	08060136.75	RAW3:HA145791 EU 8/10/01	08/10/01 00:07:51	AR1660 2803 C		

EU 8/10/01
End of Queue

LOGBOOK # 8080

REVIEWED BY/DATE: MK 8/16/01

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PAGE # 082

INSTRUMENT ID: 15	COLUMN TYPE: RTX-35	ANALYST: MK
DETECTOR TYPE: ECD	COLUMN SERIAL #: 5998-32	CALIBRATION DATE: 8/6/01
INJECT VOLUME: 2.0 mL split	OVEN TEMP PROGRAM: #1	METHOD / OP: 8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvl SAMPLE # DESCRIPTION	DF	COMMENTS
01	08130135.01	RAW3:HD145795 MK 8/24/01	08/13/01 14:57:00	AR1660 2803 C		All Standards May Be Referenced To Standard Logbook #: 8048 8633
02	08130135.02	RAW3:HE145799	08/14/01 08:28:33	AR1660 2803 C		
03	08130135.03	RAW3:HE145802	08/14/01 09:16:32	0107L383-003	50	Millennium Project ID: NA
04	08130135.04	RAW3:HE145803	08/14/01 10:04:21	0108L447-002	20	
05	08130135.05	RAW3:HE145805	08/14/01 10:52:25	0107L401-001	2	
06	08130135.06	RAW3:HE145808	08/14/01 11:41:08	0107L401-002	2	
07	08130135.07	RAW3:HE145810	08/14/01 12:29:46	0107L401-003	2	
08	08130135.08	RAW3:HE145811	08/14/01 13:18:24	0107L401-004	20	
09	08130135.09	RAW3:HE145813	08/14/01 14:06:20	0107L401-005	50	
10	08130135.10	RAW3:HE145816	08/14/01 14:54:22	0107L401-006	50	
11	08130135.11	RAW3:HE145819	08/14/01 15:42:24	0107L401-007	2	
12	08130135.12	RAW3:HE145824	08/14/01 16:31:14	0107L401-008		
13	08130135.13	RAW3:HE145825	08/14/01 17:19:37	HEXANE		
14	08130135.14	RAW3:HE145827	08/14/01 18:07:25	AR1660 2803 C		
15	08130135.15	RAW3:HE145829	08/14/01 18:55:24	0107L401-009	2	
16	08130135.16	RAW3:HE145832	08/14/01 19:44:02	0107L401-010	5	
17	08130135.17	RAW3:HE145834	08/14/01 20:31:59	0107L401-011	10	
18	08130135.18	RAW3:HE145836	08/14/01 21:20:07	0107L401-012	2	
19	08130135.19	RAW3:HE145838	08/14/01 22:09:10	0107L401-013	2	
20	08130135.20	RAW3:HE145839	08/14/01 22:57:18	0107L401-014	16	
21	08130135.21	RAW3:HE145841	08/14/01 23:45:14	0107L401-015	10	
22	08130135.22	RAW3:HF145843	08/15/01 00:33:14	HEXANE		
23	08130135.23	RAW3:HF145846	08/15/01 01:21:02	01LE0917-MB1		
24	08130135.24	RAW3:HF145848	08/15/01 02:08:50	01LE0917-MB1S		
25	08130135.25	RAW3:HF145849	08/15/01 02:57:10	01LE0917-MB1T		
26	08130135.26	RAW3:HF145851	08/15/01 03:45:13	AR1660 2803 C		
27	08130135.27	RAW3:HF145853	08/15/01 04:33:10	01LE0936-MB1		
28	08130135.28	RAW3:HF145855	08/15/01 05:20:58	01LE0936-MB1S		
29	08130135.29	RAW3:HF145857	08/15/01 06:09:07	01LE0936-MB1T		
30	08130135.30	RAW3:HF145859	08/15/01 06:57:17	0108L443-001		
31	08130135.31	RAW3:HF145862	08/15/01 07:45:16	0108L500-001	20	
32	08130135.32	RAW3:HF145863 MK 8/24/01	08/15/01 08:33:06	0108L500-002	20	

LOGBOOK # 8686

REVIEWED BY/DATE: 12/04/01

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INSTRUMENT ID: _____
DETECTOR TYPE: see
INJECT VOLUME: _____

COLUMN TYPE: P. 83
COLUMN SERIAL #: _____
OVEN TEMP PROGRAM: _____

ANALYST: MK
CALIBRATION DATE: 8/6/01
METHOD / OP: 8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvI SAMPLE # DESCRIPTION	DF	COMMENTS
33	08130135.33	RAW3:HF145868	08/15/01 09:20:53	0108L500-003	100	All Standards May Be Referenced To Standard Logbook #: 8048 8633
34	08130135.34	RAW3:HF145872	08/15/01 10:08:40	0108L500-004	20	
35	08130135.35	RAW3:HF145875	08/15/01 10:56:25	0108L500-005	50	Millennium Project ID: NA
36	08130135.36	RAW3:HF145877	08/15/01 11:44:12	0108L500-006	50	
37	08130135.37	RAW3:HF145881	08/15/01 12:32:00	HEXANE		
38	08130135.38	RAW3:HF145885	08/15/01 13:19:48	AR1660 2803 C		
39	08130135.39	RAW3:HF145889	08/15/01 14:07:52	0108L500-007	1000	
40	08130135.40	RAW3:HF145893	08/15/01 14:55:40	0108L500-008	1000	
41	08130135.41	RAW3:HF145898	08/15/01 15:43:26	0108L500-009	100	
42	08130135.42	RAW3:HF145902	08/15/01 16:31:14	HEXANE		
43	08130135.43	RAW3:HF145905	08/15/01 17:19:02	AR1660 2803 C		

MK 8/24/01

End of Queue

8/24/01 MK

LOGBOOK # 8686

REVIEWED BY/DATE: 12/24/01

L-WI-022/A-02/01

PAGE # 084

INSTRUMENT ID: 15
DETECTOR TYPE: ECD
INJECT VOLUME: 20uL spl:7

COLUMN TYPE: RTX-CLP2
COLUMN SERIAL #: 23004
OVEN TEMP PROGRAM: #1

ANALYST: MK
CALIBRATION DATE: 8/6/01
METHOD / OP: 8082

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#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvl SAMPLE # DESCRIPTION	DF
01	08130136.01	RAW3:HD145796 MK	08/13/01 14:57:00 8/24/01	AR1660 2803 C	
02	08130136.02	RAW3:HE145800	08/14/01 08:28:33	AR1660 2803 C	
03	08130136.03	RAW3:HE145801	08/14/01 09:16:32	0107L383-003	50
04	08130136.04	RAW3:HE145804	08/14/01 10:04:21	0108L447-002	20
05	08130136.05	RAW3:HE145806	08/14/01 10:52:26	0107L401-001	2
06	08130136.06	RAW3:HE145807	08/14/01 11:41:08	0107L401-002	2
07	08130136.07	RAW3:HE145809	08/14/01 12:29:47	0107L401-003	2
08	08130136.08	RAW3:HE145812	08/14/01 13:18:25	0107L401-004	20
09	08130136.09	RAW3:HE145814	08/14/01 14:06:20	0107L401-005	50
10	08130136.10	RAW3:HE145815	08/14/01 14:54:22	0107L401-006	50
11	08130136.11	RAW3:HE145820	08/14/01 15:42:24	0107L401-007	2
12	08130136.12	RAW3:HE145823	08/14/01 16:31:15	0107L401-008	
13	08130136.13	RAW3:HE145826	08/14/01 17:19:37	HEXANE	
14	08130136.14	RAW3:HE145828	08/14/01 18:07:26	AR1660 2803 C	
15	08130136.15	RAW3:HE145830	08/14/01 18:55:24	0107L401-009	2
16	08130136.16	RAW3:HE145831	08/14/01 19:44:03	0107L401-010	5
17	08130136.17	RAW3:HE145833	08/14/01 20:32:00	0107L401-011	10
18	08130136.18	RAW3:HE145835	08/14/01 21:20:06	0107L401-012	2
19	08130136.19	RAW3:HE145837	08/14/01 22:09:10	0107L401-013	2
20	08130136.20	RAW3:HE145840	08/14/01 22:57:18	0107L401-014	10
21	08130136.21	RAW3:HE145842	08/14/01 23:45:14	0107L401-015	10
22	08130136.22	RAW3:HF145844	08/15/01 00:33:14	HEXANE	
23	08130136.23	RAW3:HF145845	08/15/01 01:21:02	01LE0917-MB1	
24	08130136.24	RAW3:HF145847	08/15/01 02:08:50	01LE0917-MB1S	
25	08130136.25	RAW3:HF145850	08/15/01 02:57:10	01LE0917-MB1T	
26	08130136.26	RAW3:HF145852	08/15/01 03:45:13	AR1660 2803 C	
27	08130136.27	RAW3:HF145854	08/15/01 04:33:10	01LE0936-MB1	
28	08130136.28	RAW3:HF145856	08/15/01 05:20:59	01LE0936-MB1S	
29	08130136.29	RAW3:HF145858	08/15/01 06:09:08	01LE0936-MB1T	
30	08130136.30	RAW3:HF145860	08/15/01 06:57:18	0108L443-001	
31	08130136.31	RAW3:HF145861	08/15/01 07:45:16	0108L500-001	20
32	08130136.32	RAW3:HF145864 MK 8/24/01	08/15/01 08:33:06	0108L500-002	20

COMMENTS

All Standards May Be Referenced To Standard Logbook #: 8048 8633

Millennium Project ID: NA

LOGBOOK # 5682

REVIEWED BY/DATE: 8/24/01

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GC ANALYSIS LOG

INSTRUMENT ID:	COLUMN TYPE: P.85	ANALYST: MK
DETECTOR TYPE: SEC	COLUMN SERIAL #:	CALIBRATION DATE: 8/6/01
INJECT VOLUME:	OVEN TEMP PROGRAM:	METHOD / OP: 8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvI SAMPLE # DESCRIPTION	DF	COMMENTS
33	08130136.33	RAW3:HF145867 MK 8/24/01	08/15/01 09:20:52	0108L500-003	100	All Standards May Be Referenced To Standard Logbook #: 8048 8633
34	08130136.34	RAW3:HF145871	08/15/01 10:08:41	0108L500-004	20	
35	08130136.35	RAW3:HF145876	08/15/01 10:56:26	0108L500-005	50	Millennium Project ID: NA
36	08130136.36	RAW3:HF145878	08/15/01 11:44:12	0108L500-006	50	
37	08130136.37	RAW3:HF145882	08/15/01 12:32:00	HEXANE		
38	08130136.38	RAW3:HF145886	08/15/01 13:19:48	AR1660 2803 C		
39	08130136.39	RAW3:HF145890	08/15/01 14:07:52	0108L500-007	1000	
40	08130136.40	RAW3:HF145894	08/15/01 14:55:39	0108L500-008	1000	
41	08130136.41	RAW3:HF145897	08/15/01 15:43:26	0108L500-009	100	
42	08130136.42	RAW3:HF145901	08/15/01 16:31:14	HEXANE		
43	08130136.43	RAW3:HF145906 MK 8/24/01	08/15/01 17:19:02	AR1660 2803 C		

End of Queue

8/24/01 MK

LOGBOOK # 5686

REVIEWED BY/DATE: 8/24/01

L-WI-022/A-02/01

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Standard Prep Logs

Recra LabNet
Philadelphia

Logbook #: 6074

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ORGANIC PREPARATION UNIT
AMPULE STANDARDS TRACKING LOGBOOK

Compound Mix Name	Standard ID	Source	Lot #	CONC w/units	Volume/ Solvent	Receipt Date	Expiration Date	Reviewed By/Date	
B/N	60742101	Restek	A012925	750ug/ml	Methanol	3/12/01	1/02	BF 3/12/01	
BNA LCS	60742102	NSF	G32201-C	100ug/ml	MeOH	3/23/01	3/22/03	BF 3/23/01	A-J
PEST SURR MIX	60742103	Restek	A017786	200ug/ml	Acetone	3/29/01	6/03	BF 3/29/01	A-J
AR1254	60742104	Restek	A18671	1000ug/ml	hexane	3/29/01	6/05	P 5/25/01	A-E
BNATCLP	60742105	Supelco	LA97047	1000/1500ug	Acetone	3/29/01			A-B
TRIPHENYLPHOSPHATE	60742106	Chemservice	262-17C	2000ug/ml	Acetonitrile	4/2/01	4/02		
DCBP BF 4/11/01	60742107	Chemservice	251-108B	1000ug/ml	Hexane BF 4/11/01	~~11/02~~ 4/11/01	11/02		A-B
Toxaphene	60742108	Supelco	LA88511	200ug/ml	Isooctane	5/10/01	2/03		A-B
Chlordane	60742109	Supelco	LA92419	500ug/ml	Methanol	1	8/03		A-B
Diesel Fuel #2	60742110	Restek	A017704	50000ug/ml	Methylene Chloride	5/14/01	12/03		A,B
Pest Matrix Spike	60742111	Restek	A017362	2550ug/ml	Acetone	~~5/10/01~~ 5/14/01	9/03		A,B
B/N SURROGATE (LL)	60742112	Restek	A016727	1000ug/ml	Methylene Chloride	5/23/01	8/03		A-E
L/C ACID SURROGATE (LL)	60742113	RESTEK	A019075	1000-3000ug/ml	MeOH	5/23/01	12/04		A-E
~~BNA LCS~~ BF 6/21/01									
GPC CAL MIX	60742114	Restek	A07257	02-250 mg/ml	Methylene Chloride	6/21/01	10/07	BF 6/21/01	A-E
Grain Alcohol	60742115	GRAVES	—			6/27/01	—	BF 6/27/01	A-B

RFW 21-21-008/Z-07/97

Lionville Laboratory Incorporated

LOGBOOK # 8697

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PREPARATION OF MIXTURE DILUTIONS (MULTI-COMPONENT) LOG

DATE/ANALYST		BF 7/31/01									
DILUTION MIX ID	////////	8697680I									
PARENT MIX ID	TCMX/DCBP	6074210 3117 / 6074210 7A									
PARENT VOLUME (w/units)	////////	2ml TCMX / 600ul DCBP									
TOTAL VOLUME (w/units)	////////	100ml									
SOLVENT		Acetone									
UNITS →		ug/ml									
COMPONENT ↓	PARENT↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓
Pest Surrogate Mix (TCMX DCBP)	200ug/ml	4/4									
DCBP	1000ug/ml	6									
TCMX DCBP		4/10									
EXPIRATION DATE		1/31/02									
DATE CONCENTRATION VERIFIED		8/1/01									
CRITERIA MET: YES / NO		Y									
UNIT LEADERS INITIALS:		BP									

QA-134-D-0701

REVIEWED BY/DATE: _____

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Lionville Laboratory Incorporated

LOGBOOK = 8697

PREPARATION OF STANDARD DILUTIONS (SINGLE COMPONENT)

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COMPOUNDS	STANDARD DILUTION I.D	PARENT STANDARD I.D.	PARENT CONC. (w/units)	PARENT VOLUME (mL)	TOTAL VOLUME (mL)	SOLVENT	PREPARED STANDARD CONCENTRATION (w/units)	DATE/ANALYST
AR1254	86971101	60742104B	10000ug/ml	~~750ul~~ 0.75 ml	50 ml	Acetone	15 ug/ml	BF 7/10/09
AR1254	86971102	60742404C	10000ug/ml	0.75	50 ml	Acetone	15 ug/ml	BF 7/11/09
P-Terphenyl	86971103	~~6004~~ 8505 0305	10000ug	0.50	100 ml	Acetone		BF 7/12/09
AR1254	86971104	86971102	15ug	5 ml	50 ml	Acetone		BF 7/12/09

QA-134-B-0601

REVIEWED BY/DATE _____

Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

NAME: EVAL

not used - Endrin degraded

Dilution Mix ID		80481501	80481502	80481503	80481504	80481505	80481506	80481507	~~80481508~~
Parent Mix ID-all parent mixes contain same conc. of analytes	→	61926401	61928801	61928801	61928801	84321501	84321601	84321601	84321601
Parent Volume (w/units)		2 mL	2 mL	2.5 mL	2.5 mL	2.5 mL	2.5 mL	2.5 mL	2.0 mL
Total Volume (w/units)		200 mL	200 mL	250 mL	250 mL	250 mL	250 mL	250 mL	200 mL
Solvent/Lot #		Hex/B5099	→	Hex B5099	hex B5099	hex T21313	→	→	Hex V05E62
Units →	ug/mL		→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
TCX	4.0	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
DCB	4.0	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
DDT	5.0	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Endrin	2.5	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
Date/ Analyst		BP 10/10/99	BP 12/1/99	BP 3/28/00	MK 7/28/00	MK 10/4/00	BP 4/7/00	MK 12/26/00	BS 6/8/01
Expiration Date		12/1/99	6/1/99	7/3/00	1/28/01	4/4/01	4/7/01	6/26/01	~~[illegible]~~ 8/31/01
Reviewed By/Date		BP 10/17/99	LK 10/21/99	LK 4/7/00	BP 8/4/00	BP 10/7/00	MK 1/28/00	LK 12/26/00	MK 6/8/01
Date Concentration Verified		NA	NA	NA	NA	NA	NA	NA	NA

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Stock Standard (Multi - Component)

NAME EUPAC stock
I.D.# 8432/1001

EXPIRATION DATE ~~10/7/01~~ BMM/W 8/8/01

DATE/ANALYST BMM/W

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent T21313	Component Concentration (w/units)
Endrin	6074157B	1000ug/mL	Amp	1.25mL	50mL	Hexane	2.5 ug/mL
DDT	6439204						5.0
TCX	6459290T	200ug/mL		1.0mL			4.0
DCB							

* Purity adjustment required if not greater than 95%

Reviewed By/Date: MK 10/17/00
(includes calculation verification)

RFW 21-21-008/P-06/97

LOGBOOK # 8432 PAGE # 016

Recra LabNet Philadelphia

GC ANALYSIS
Preparation of Working Standard (Multi - Component)

NAME: AR 1660

Dilution Mix ID		80480701	80480702	80480703	80480704	80480705	80480706	80480707	
Parent Mix ID-all parent mixes contain same conc. of analytes	~~6473190-1~~ 6192750-1	6192750-1	6192750-1	6192950-1	6192950-1	6192950-1	6192750-1	8432370-1	
Parent Volume (w/units)		5 mls	25mL	2.5mL	2.5mL	2.0mL	5.0mL	2.5mL	
Total Volume (w/units)		500mls	~~200~~ 250 mL (K 8/20)	250mL	250mL	200mL	500mL	~~200~~ 250 mL 6/15/01	
Solvent/Lot #	ug/mL	Hex/UN1208	→	→	→	→	→	→	→
Units →	Hex/UN1208	ug/mL	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
AR 1016	10.0	0.10	0.10	0.10	0.10	0.10	0.10	0.10	
AR 1260	10.0	1	0.10	~~0.01~~ 0.10	~~0.01~~ 0.10	0.10	0.10	0.10	
TCX	2.0	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
DCB	2.0	1	0.02	0.02	0.02	0.2	0.20	0.02	
Date/ Analyst		8/20/99 MB	2/9/00 MK	6/15/00 MK	9/9/00 MK	3/11/01	6/21/01	MK 6/15/01	
Expiration Date		2/20/00	~~8/9/00~~ 8/9/01	12/15/00 MK	3/9/01 MK	5/4/01	6/15/01	12/15/01	
Reviewed By/Date		8/20/99	2/12/00	6/16/00	9/9/00	MK 11/9/00	K 2/28/01	BS 6/15/01	
Date Concentration Verified		8/21/99	2/12/00	6/16/00	9/10/00	11/5/00	2/24/01		

BM 8/21/99

L-WI-008/Q-11/97

Logbook # 8048, Page# 007

Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

(Multi-level Calibration Standards)

EXPIRATION DATE: 12/15/01

NAME: AR 1660

ANALYST/DATE: BS 6/15/01

Dilution Mix ID		86332801	86332802	86332803	86332804	86332805			
Parent Mix ID	84323701								
Parent Volume (w/units)		400 mL	10 mL	20 mL	4.0 mL	10 mL			
Total Volume (w/units)		100 mL	→	→	→	→			
Solvent/Lot #	hexane V09E03		→	→	→	→	→	→	→
Units →	ug/mL		→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
AR 1016	10.0	0.04	0.10	0.20	0.40	1.0			
AR 1260	10.0	↓	↓	↓	↓	↓			
TCX	2.0	0.008 ~~0.008~~ MK 6/15/01	0.02	0.04	0.08	0.20			
DCB	2.0	↓	↓	↓	↓	↓			

BS 6/15/01

Date Concentration Verified/Initials: _____

Reviewed By/Date: MK 6/15/01
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Stock Standard (Multi - Component)

NAME AR1660
I.D.# 84323701

EXPIRATION DATE 6/15/02

DATE/ANALYST MK 6/15/01

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
AR1016	64392602	1000 µg/mL	Amp	1.0 mL	100 mL	hexane V09E03	10.0 µg/mL
AR1260	↓	↓	↓	↓	↓	↓	10.0 ↓
TCX	64392910	200 µg/mL	↓	↓	↓	↓	2.0 ↓
DCB	↓	↓	↓	↓	↓	↓	2.0 ↓

* Purity adjustment required if not greater than 95%

Reviewed By/Date: BS 6/15/01
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

NAME: Toxaphene

Dilution Mix ID		80481001	80481002	80481003	80481004	80481005			
Parent Mix ID-all parent mixes contain same conc. of analytes	61928001	61928001	61928001	61928001	64392203	84321801			
	—	—		—	—	—			
Parent Volume (w/units)		5.0mL	100uL ~~TC 9/13/99~~ DE 9/13/99	5.0mL	0.25mL	5.0mL			
Total Volume (w/units)		100mL	10ml	100mL	100mL	100mL			
Solvent/Lot #	Hex/BSCGG	→	→	→	→	→	→	→	→
Units →	ug/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Toxaphene	10.0	0.5	0.10	0.5	0.5	0.5			
TCX	2.0	0.1	0.02	0.1	0.1	0.1			
DEB	2.0	0.1	0.02	0.1	0.1	0.1			
Date/ Analyst		DE 9/13/99	DE 9/13/99	BP 9/14/00	MK 9/10/00	MK 3/20/01			
Expiration Date		3/13/00	3/13/00	9/13/00	3/16/01	7/16/01			
Reviewed By/Date		TC 9/13/99	MM 9/12/99	10/23/00	MM 9/11/00				
Date Concentration Verified		9/14/99	N/A	9/15/00	9/18/00				

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Recra LabNet Philadelphia

GC ANALYSIS
Preparation of Stock Standard (Multi - Component)

NAME Toxaphene
I.D.# 84321801

EXPIRATION DATE 9/16/01

DATE/ANALYST MK 10/27/00

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
Toxaphene	64392203	200 mg/mL	Amp	1.25 mL	25 mL	hexane T21313	10.0 mg/mL
TCX	64392908	200 mg/mL	↓	0.25 mL	↓	↓	2.0 mg/mL
DCB	↓	200 mg/mL	↓	↓	↓	↓	↓

MK 10/27/00

* Purity adjustment required if not greater than 95%

Reviewed By/Date: MM 10/27/00
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

NAME: AR1221

Dilution Mix ID		80481101	80481102A	80481103	80481104	80481105	80481106	80481107	80481108
Parent Mix ID-all parent mixes contain same conc. of analytes	61928101	61928101	61928101	61928101	61928101	61928101	84321101	84321101	84321101
Parent Volume (w/units)		2.0ml	100ul	2.0mL	100mL	2.0mL	2.0mL	100mL	2.0mL
Total Volume (w/units)		100ml	25mls	100mL	25mL	100mL	100mL	25mL	100mL
Solvent/Lot #	Hex 1B5099	→	→	→	→	→	→	→	→
Units →	ug/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
AR1221	10.0	0.20	0.04	~~0.0412~~	0.04	0.20	0.02	0.04	0.04
TCX	2.0	0.040	0.008	~~0.008~~	0.008	0.040	0.04	0.008	0.008
DCB	2.0	0.040	0.008	~~0.008~~	0.008	0.040	0.04	0.008	0.008
Date/ Analyst		9/13/00	9/13/99	9/13/00	3/14/00	3/14/00	3/6/01	3/23/01	MK 3/13/01
Expiration Date	* TG 9/13/99	9/13/00*	3/13/00	9/13/00	9/13/00	9/13/00	3/6/01	3/23/01	9/6/01
Reviewed By/Date		BP 9/13/99	BP 9/13/99		3/14/00	3/14/00	MK 3/6/01	MK 9/13/00	
Date Concentration Verified		9/14/99	NA		3/6/00	3/13/00	9/7/00	NA	

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Stock Standard (Multi - Component)

NAME AR1221
I.D.# 84321101

EXPIRATION DATE 9/6/01 (8/7/01)

DATE/ANALYST 8/9/00

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
AR1221	64392305	1000ug/mL	Y/N	1mL	100mL	Hexane T09251	10.0ug/mL
TCX	64392309	200ug/mL	↓	↓	↓	↓	2.0ug/mL
DCB	↓	↓	↓	↓	↓	↓	↓

* Purity adjustment required if not greater than 95%

Reviewed By/Date: MK 9/25/00
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS
Preparation of Working Standard (Multi - Component)

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NAME: AR1232

Dilution Mix ID		80481201	80481202C	80481203	80481204	80481205			
Parent Mix ID-all parent mixes contain same conc. of analytes	61928202	→	61928202	61928202	84321201	84321201			
Parent Volume (w/units)		1.0 100mL	500uL	1.0 mL	1.0 mL	1.0 mL			
Total Volume (w/units)		100mL	25mL	100mL	100mL	100mL			
Solvent/Lot #	Hex/B5099	→	→	→	→	→	→	→	→
Units →	ug/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
AR1232	10.0	0.10	0.20	0.10	0.10	0.10			
TCX	2.0	0.02	0.040	0.02	0.02	0.02			
DCB	2.0	0.02	0.040	0.02	0.02	0.02			
Date/ Analyst		9/13/99	9/13/99	9/14/00	9/13/00	3/16/01			
Expiration Date		3/13/00	3/13/00	9/14/00	3/15/01	9/16/01			
Reviewed By/Date		9/13/99	9/13/99	9/22/00	7/28/00				
Date Concentration Verified		9/14/99	9/14/99	9/15/00	9/7/00				

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Stock Standard (Multi - Component)

NAME AR1232
I.D.# 84321201

EXPIRATION DATE 9/15/01

DATE/ANALYST BP 9/15/00

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
AR1232	6439250P	1000 ug/mL	Ann	1.0 mL	100 mL	Hexane T09251	10.0 ug/mL
TCX	6439280P	200		1.0 mL			2.0
DCB							2.0

BP

* Purity adjustment required if not greater than 95%

Reviewed By/Date: MK 9/25/00
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS
Preparation of Working Standard (Multi - Component)

NAME: AR 1242

Dilution Mix ID		8048 1301	8048 1302	8048 1303	8048 1304				
Parent Mix ID-all parent mixes contain same conc. of analytes	6928301	→	6928301	~~6928301~~ 8432 1301	8432 1301				
Parent Volume (w/units)		1.0ml	1.0mL	1.0mL	1.0mL				
Total Volume (w/units)		100mL	100mL	100mL	100mL				
Solvent/Lot #	Hex B5099	→	→	→	→	→	→	→	→
Units →	US/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
AR 1242	10.0	0.10	0.10	0.10	0.10				
TCX	2.0	0.02	0.02	0.02	0.02				
DCB	1	1	0.02	0.02	0.02				
Date/ Analyst		9/13/99	9/12/00	mc 9/16/00	mc 3/20/01				
Expiration Date		3/13/00	9/12/00	3/16/01	9/16/01				
Reviewed By/Date		9/13/99	9/13/00	9/16/00					
Date Concentration Verified		9/14/99	9/13/00	9/16/00					

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Recra LabNet Philadelphia

GC ANALYSIS
Preparation of Stock Standard (Multi - Component)

NAME AR1242
I.D.# 84321301

EXPIRATION DATE 9/16/01

DATE/ANALYST BMP 9/16/00

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
AR1242	64392506	1000 ug/mL	Amp	1.00 mL	100 mL	Hexane T09251	10.0 ug/mL
TCX	64392810	200					2.0
DCB							2.0
		BMP					

* Purity adjustment required if not greater than 95%

Reviewed By/Date: MK 9/25/00
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

NAME: AR1248 ICAL

Dilution Mix ID		86331101							
Parent Mix ID-all parent mixes contain same conc. of analytes	84323601	→							
Parent Volume (w/units)		1mL							
Total Volume (w/units)		100mL							
Solvent/Lot #	hexane	V09E03	→	→	→	→	→	→	→
Units →	µg/mL		→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
AR1248	10.0	0.10							
TCX	2.0	0.02							
DCB	2.0	0.02							
Date/ Analyst		MK 6/9/01							
Expiration Date		12/9/01							
Reviewed By/Date		JC 6/11/01							
Date Concentration Verified									

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Stock Standard (Multi - Component)

NAME AR1248
I.D.# 84323E01

EXPIRATION DATE 6/9/02

DATE/ANALYST MK 6/9/01

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
AR1248	64392511	1000 mg/mL	Amp	1 mL	100.0	V09E03 hexane	10.0 mg/mL
TCX	64392909	200 mg/mL	Amp	↓	↓	↓	2.0 mg/mL
PCB	↓	↓	↓	↓	↓	↓	↓

* Purity adjustment required if not greater than 95%

Reviewed By/Date: JL 6/11/01
(includes calculation verification)

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GC ANALYSIS

Preparation of Working Standard (Multi - Component)

(Multi-level Calibration Standards)

NAME: AR1254 EXPIRATION DATE: 9/6/01 ANALYST/DATE: MK 3/13/01

Dilution Mix ID		80489401	80489402	80489403	80489404	80489405			
Parent Mix ID	6192100-01								
Parent Volume (w/units)		400mL	1.0mL	2.0mL	4.0mL	10.0mL			
Total Volume (w/units)		100mL	→	→	→	→			
Solvent/Lot #	Hexane T41E01	→	→	→	→	→	→	→	→
Units →	ug/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
AR1254	10.0	0.04	0.10	0.20	0.40	1.0			
TCX	2.0	0.008	0.02	0.04	0.08	0.20			
DCB	2.0	↓	↓	↓	↓	↓			

MK 3/13/01

Date Concentration Verified/Initials: _____

Reviewed By/Date: _____
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

NAME: AB1254

Dilution Mix ID		80480601		80480802	80480803	80480804			
Parent Mix ID-all parent mixes contain same conc. of analytes	61927601	→		61927601	6192100-01	6192100-01			
Parent Volume (w/units)		1.0mL		1.0mL	1.0mL	1.0			
Total Volume (w/units)		100ml		100mL	100mL	100mL			
Solvent/Lot #	HexIBS099	→	→	→	→	→	→	→	→
Units →	ug/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
AB1254	10.0	0.10		0.10	0.10	0.10			
TCX	2.0	0.02		0.02	0.02	0.02			
DCB	2.0	0.02		0.02	0.02	0.02			
			DC 9/3/99		BT 9/6/00	MK 3/13/01			
Date/ Analyst		DC 9/3/99		W 3/20/00	BT 9/6/00	MK 3/13/01			
Expiration Date		9/2/00 ~~3/2/00~~	(3/3/00)	9/2/00	3/6/01	9/6/01			
Reviewed By/Date		MA 1/19/00		BT 3/15/00	MK 9/7/00				
Date Concentration Verified		BT 9/5/99		BT 3/6/00	9/8/00				

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

(Multi-level Calibration Standards)

NAME: AR1254

EXPIRATION DATE: 3/6/01

ANALYST/DATE: BD 9/6/00

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Dilution Mix ID		80486501	80486502	80486503	80486504	80486505			
Parent Mix ID	61929R10001								
Parent Volume (w/units)		4.00 ml	1.0 mL	2.0 mL	4.0 mL	10.0 mL			
Total Volume (w/units)		100 mLs	→	→	→	→			
Solvent/Lot #	Hexane T09251	→	→	→	→	→	→	→	→
Units →	ug/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
AR1254	10.0	0.04	0.10	0.20	0.40	1.0			
TCX	2.0	0.008	0.02	0.04	0.08	0.20			
PCB	2.0	⊥	⊥	⊥	⊥	⊥			

BD 9/6/00

Date Concentration Verified/Initials: BD 9/10/00

Reviewed By/Date: MK 9/26/00
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS
Preparation of Stock Standard (Multi - Component)

NAME AR1254 Stock
I.D.# 6192100-01

EXPIRATION DATE 9/6/01

DATE/ANALYST BM 9/6/00

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
AR1254	64392502	1000ug/mL	N	1.0mL	100mL	Hexane	10.0 ug/mL
TCX	64392310	800ug/mL	|	|	|	T09251	2.0
DCB	|	|	|	|	|	|	2.0 |
				BM 9/6/00			

* Purity adjustment required if not greater than 95%

Reviewed By/Date: MK 9/26/00
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

(Multi-level Calibration Standards)

NAME: INDA 8081 EXPIRATION DATE: 4/30/01 ANALYST/DATE: MK 10/30/00

Dilution Mix ID		80487301	80487302	80487303	80487304	80487305	80487306		
Parent Mix ID	61929101								
Parent Volume (w/units)		1.2 mL	3 mL	12.5 mL	10 mL	15 mL	5 mL 80487305		
Total Volume (w/units)		100 mL	100 mL	250 mL	100 mL	100 mL	MK 10/30 15 mL		
Solvent/Lot # hexane / T21313	→	→	→	→	→	→	→	→	→
Units → mg/mL	→	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Alpha-BHC	0.40 mg/mL	0.005	0.012	0.020	0.040	0.060	0.020		
Gamma-BHC									
Heptachlor									
Endosulfan I									
Dieldrin	0.80	0.010	0.024	0.040	0.080	0.120	0.040		
Endrin									
4,4'-DDD									
4,4'-DDT									
Methoxychlor	4.0	0.05	0.120	0.20	0.40	0.60	0.20		
TCX	0.8	0.01	0.024	0.04	0.08	0.12	0.04		
DCB	2.0	0.024	0.06	0.10	0.20	0.30	0.10		

Date Concentration Verified/Initials: MK 10/30/00

Reviewed By/Date: [illegible]
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

(Multi-level Calibration Standards)

NAME: INDA 8081 EXPIRATION DATE: 10/20/01 ANALYST/DATE: RS 4/20/01

Dilution Mix ID		80489801	80489802	80489803	80489804	80489805			
Parent Mix ID	84322901								
Parent Volume (w/units)		1.2mL	3 mL	12.5mL	10mL	15mL			
Total Volume (w/units)		100mL	100mL	250 mL	100 mL	100 mL			
Solvent/Lot # Hexane/V05E62	→	→	→	→	→	→	→	→	→
Units → ng/ml	→	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Alpha-BHC	0.40 ng/ml	0.005	0.012	0.020	0.040	0.060			
Gamma-BHC	↓	↓	↓	↓	↓	↓			
Heptachlor	↓	↓	↓	↓	↓	↓			
Endosulfan I	↓	↓	↓	↓	↓	↓			
Dieldrin	↓	↓	↓	↓	↓	↓			
Endrin	0.80 ng/ml	0.010	0.024	0.040	0.080	0.120			
4,4'-DDD	↓	↓	↓	↓	↓	↓			
4,4'-DDT	↓	↓	↓	↓	↓	↓			
Methoxychlor	4.0 ng/ml	0.05	0.120	0.20	0.40	0.60			
TCX	0.80 ng/ml	0.01	0.024	0.04	0.080	0.12			
DCB	2.0 ng/ml	0.024	0.06	0.10	0.20	0.30			

Date Concentration Verified/Initials: _____

Reviewed By/Date: MIC 4/20/01
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Stock Standard (Multi - Component)

NAME FNDA (8081) Stock
I.D.# 61929101

EXPIRATION DATE 4/18/04

DATE/ANALYST BM 4/18/00

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
Alpha BHC	64390311	80 ug/mL	Amp	1.0 mL	200 mL	B5099 Hexane	0.40 ug/mL
Gamma-BHC							
Heptachlor							
Endosulfan I							
Dieldrin		160 ug/mL					0.8
Endrin							
4,4'-DDD							
4,4'-DDT							
Methoxychlor		800 ug/mL					4.0
TCX		160 ug/mL					0.8
DCB		400 ug/mL					2.0

* Purity adjustment required if not greater than 95%

Reviewed By/Date: DE 5/2/00
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS
Preparation of Stock Standard (Multi - Component)

NAME INDA (CLOCS1) Stock
I.D.# C432290 1

EXPIRATION DATE 4/20/02

DATE/ANALYST BS 4/20/01

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
Alpha-BHC	6439310GA	80 mg/ml	APAP	1.0 mL	200 ml	VOS EGZ Hexane	0.40 µg/ml
Gamma-BHC							
Heptachlor							
Endosulfan I							
Dieldrin		160 µg/ml					0.8
Endrin							
4,4'-DDD							
4,4'-DDT							
Methoxychlor		800 µg/ml					4.0 ~~4.0~~ BS 4/20/01
TCX		160 µg/ml					~~4.0~~ 0.8
DCB		400 µg/ml					BS 4/20/01 0.8 20
							7.0

* Purity adjustment required if not greater than 95%

Reviewed By/Date: MIC 4/20/01
(includes calculation verification)

RFW 21-21-008/P-06/97

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

(Multi-level Calibration Standards)

NAME: INDB 8080 EXPIRATION DATE: 4/30/01 ANALYST/DATE: MK 2/9/01

Dilution Mix ID		80489201	80489202	80489203	80489204	80489205			
Parent Mix ID	61929301								
Parent Volume (w/units)		1.2mL	3.0mL	12.5mL	10mL	15mL			
Total Volume (w/units)		100mL	100mL	250mL	100mL	100mL			
Solvent/Lot # Hexane T22251		→	→	→	→	→	→	→	→
Units →	ug/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Beta-BHC	0.04	0.005	0.020	0.020	0.040	0.060			
Delta-BHC									
Aldrin									
Heat. Epoxide									
A. Chlordane									
G. Chlordane									
4,4'-DDE	0.08	0.010	0.024	0.04	0.080	0.120			
Endosulfan II									
Endrin Aldehyde									
Endosulfan Sulfate									
Endrin Ketone									
TCX									
DCB	2.0	0.024	0.060	0.100	0.200	0.300			

Date Concentration Verified/Initials: _____

Reviewed By/Date: _____
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

(Multi-level Calibration Standards)

NAME: INDB 8698 EXPIRATION DATE: 10/20/01 ANALYST/DATE: BS 4/20/01

Dilution Mix ID		80489901	80489902	80489903	80489904	80489905			
Parent Mix ID 84323001	84323001								
Parent Volume (w/units)		1.2mL	3mL	12.5mL	10 mL	15mL			
Total Volume (w/units)		100mL	100mL	250mL	100mL	100mL			
Solvent/Lot # Hexane/V05E62	→	→	→	→	→	→	→	→	→
Units →	ug/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Beta-BHC	0.04	0.005	0.012	0.020	0.040	0.060			
Delta-BHC	↓	↓	↓	↓	↓	↓			
Aldrin	↓	↓	↓	↓	↓	↓			
Hept. Epoxide	↓	↓	↓	↓	↓	↓			
A. Chlordane	↓	↓	↓	↓	↓	↓			
B. Chlordane	↓	↓	↓	↓	↓	↓			
4,4'-DDE	0.08	0.010	0.024	0.04	0.080	0.120			
Endosulfan II	↓	↓	↓	↓	↓	↓			
Endrin Aldehyde	↓	↓	↓	↓	↓	↓			
Endosulfan Sulfate	↓	↓	↓	↓	↓	↓			
Endrin Ketone	↓	↓	↓	↓	↓	↓			
TCX	↓	↓	↓	↓	↓	↓			
DCB	2.0	0.024	0.060	0.100	0.200	0.300			

Date Concentration Verified/Initials: _____

Reviewed By/Date: MIC 4/20/01
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Stock Standard (Multi - Component)

NAME INOB (8081) stock
I.D.# 61929301

EXPIRATION DATE 4/30/01

DATE/ANALYST BMP 5/9/00

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
Beta-BHC	64390406	80 ug/~~kg~~ mL	Amp	1 mL	200	Hexane	0.4 ug/mL
Delta-BHC						Lot-B5099	
Aldrin							
Hept. Epoxide							
A. Chlordane							
G. Chlordane							
4,4'-DDE		160 ug/~~kg~~ mL					0.8 ug/mL
Endosulfan II							
Endrin Aldehyde							
Endosulfan Sulfate							
Endrin Ketone							
TCX							
DCB		400 ug/~~kg~~ mL					2.0 ug/mL

Brasstrip

* Purity adjustment required if not greater than 95%

Reviewed By/Date: CLS 5/9/00
(includes calculation verification)

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GC ANALYSIS
Preparation of Stock Standard (Multi - Component)

NAME IN-DB (8081) Stock
I.D.# 64323001

EXPIRATION DATE 4/20/02

DATE/ANALYST BS 4/20/01

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
Beta-BHC	64313201A	80 ug/ml	Amp	1 ml	200 ml	VOSE62 Hexane	0.4 ug/ml
~~Delta-BHC~~							
Aldrin							
Hept. Epoxide							
A. Chlordane							
B. Chlordane							
4,4'-DDE		160 ug/ml					0.8 ug/ml
Endosulfan II							
Endrin Aldehyde							
Endosulfan Sulfate							
Endrine Ketone							
TCX							
DCB		400 ug/ml					20 ug/ml

* Purity adjustment required if not greater than 95%

Reviewed By/Date: MK 4/20/01
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

(Multi-level Calibration Standards) ug/mL

NAME: 3/90 Mix A

EXPIRATION DATE: ~~4/17/02~~ 10/17/01

ANALYST/DATE: MK 4/17/01

Dilution Mix ID		80489601	80489602	80489603					
Parent Mix ID	64392607 64392701								
Parent Volume (w/units)		63 uL	625 uL	1000 uL					
Total Volume (w/units)		100 mL	250 mL	100 mL					
Solvent/Lot # hexane		→	→	→	→	→	→	→	→
Units →	ug/mL		→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Alpha-BHC	8.0	0.005	0.020	0.080					
Gamma-BHC									
Heptachlor									
Endosulfan I									
Dieldrin	16.0	0.01	0.040	0.16					
Endrin									
4,4'-DDD									
4,4'-DDT									
methoxychlor	80.0	0.05	0.20	0.80					
TCX	8.0	0.005	0.02	0.08					
DCB	16.0	0.01	0.04	0.16					

Date Concentration Verified/Initials: _____

Reviewed By/Date: _____
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

(Multi-level Calibration Standards)

NAME: 3/90 Mix B

EXPIRATION DATE: ~~10/17/02~~ 10/17/01

ANALYST/DATE: 4/17/01 MK

Dilution Mix ID		80489701	80489702	80489703					
Parent Mix ID	6439 2407 6439 2408								
Parent Volume (w/units)		63 mL	625 mL	1000 mL					
Total Volume (w/units)		100 mL	250 mL	100 mL					
Solvent/Lot #	hexane		→	→	→	→	→	→	→
Units →	ug/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Beta-BHC	8.0	0.005	0.02	0.08					
Delta-BHC									
Aldrin									
Heptachlor Epoxide									
Alpha Chlordane									
Gamma Chlordane									
4,4'-DDE	16.0	0.01	0.04	0.16					
Endosulfan II									
Endrin Aldehyde									
Endrin Ketone									
Endosulfan Sulfate									
TCX	8.0	0.005	0.02	0.08					
DCB	16.0	0.01	0.04	0.16					

Date Concentration Verified/Initials: _____

Reviewed By/Date: _____
(includes calculation verification)

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GC ANALYSIS
Preparation of Working Standard (Multi - Component)

NAME: PEM

Dilution Mix ID		80482101	80482102	80482103	80482104	80482105	80482106		
Parent Mix ID-all parent mixes contain same conc. of analytes		64391905	64391905	64391905	64391905	85650205A	85650205A		
Parent Volume (w/units)		100mL	100mL	100mL	100mL	100mL	100mL		
Total Volume (w/units)		10mL	10mL	10mL	10mL	10mL	10mL		
Solvent/Lot #	Hexane	T22251	→	→	→	→	→	→	→
Units →			→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Alpha-BHC	1.0	0.01	0.01	0.01	0.01	0.01	0.01		
Beta-BHC	1.0	↓	↓	↓	↓	↓	↓		
Gamma-BHC	1.0	↓	↓	↓	↓	↓	↓		
Endrin	5.0	0.05	0.05	0.05	0.05	0.05	0.05		
4,4'-DDT	10.0	0.10	0.10	0.10	0.10	0.10	0.10		
methoxychlor	25.0	0.25	0.25	0.25	0.25	0.25	0.25		
TCX	2.0	0.02	0.02	0.02	0.02	0.02	0.02		
DCB	2.0	0.02	0.02	0.02	0.02	0.02	0.02		
Date/ Analyst		MK 12/21/00	MK 1/3/01	MK 1/15/01	MK 1/19/01	MK 3/20/01	MK 4/17/01		
Expiration Date		12/29/00	1/11/01	1/23/01	1/27/01	3/28/01	4/25/01		
Reviewed By/Date		LK 12/21/00	MB 01/03/01	LK 1/15/01	LK 1/23/01				
Date Concentration Verified		NA	NA	NA	NA				

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GC ANALYSIS
STANDARD RECEIPT LOG

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
pesticid Standard Mix B (3/90)	4/3/98	64390301	CAT # 32004 Lot # A009376 & A009377 MFG Exp May 1999	99%	hex	1ml	8µg/ml - 16µg/ml	4/2/99	4/3/98 PK / Expired	4/20/99
ENDRIN	4/22/98	64390302	ULTRA SCIENTIFIC EPA 1119 MFG Exp LOT H0705 2/2002	AMP	MeOH	1mL	1000 µg/mL TE 4/22/98	4/22/99 ~~2/2002~~	4/22/98 GS / 4/22/98 GS	4/3/98 PK
⊥	4/22/98	64390303	ULTRA SCIENTIFIC EPA - 1119 MFG Exp LOT H0705 2/2002	⊥	⊥	⊥	⊥	3/22/00 ~~2/2002~~	4/22/98 GS / 3/22/99	3/22/99
4,4'- DDT	⊥	64390304	ULTRA SCIENTIFIC EPA - 1099 MFG Exp 12/99 LOT E - 0086	AMP	MeOH	1mL	5000 µg/mL TE 4/22/98	4/22/99 ~~12/1999~~	4/22/98 GS / 4/22/98 GS	4/3/98 PK
⊥	⊥	64390305	⊥ MFG Exp 12/99	⊥	⊥	⊥	⊥ TE 4/22/98	12/99 ~~12/1999~~	4/22/98 GS / 3/22/99	3/22/99
AR 1016	⊥	64390306	RESTEK # 32006 LOT A009070 MANU exp 6/2000	⊥	HEXANE	1mL	1000 µg/mL	9/11/99	4/22/98 GS / 9/11/98	9/14/98
AR1260	⊥	64390307	RESTEK 32012 LOT A010401 manu exp 1/2001	⊥	⊥	⊥	1000 µg/mL	8/4/00	4/22/98 GS / 8/4/99	8/11/99 PK
AR1221	⊥	64390308	RESTEK # 32007 LOT A010712 manu exp 2/2001	⊥	⊥	⊥	1000 µg/mL	9/22/99	4/22/98 GS / 9/22/98	9/22/98
Custom Pesticide Mix A	4/29/98	64390309	RESTEK #50801 LOT A010168 MFG Exp 4/2001	AMP	tol/Hex	1ml	80-800 ug/ml	4/30/99	4/29/98 / 4/30/98	4/30/98
⊥	⊥	64390310	⊥	⊥	⊥	⊥	⊥	4/20/00	4/29/98 / 4/20/99	4/20/99
⊥	⊥	64390311	⊥	⊥	⊥	⊥	⊥	4/18/01	4/29/98 / 4/18/00	4/20/00

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GC ANALYSIS
STANDARD RECEIPT LOG

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
CUSTOM PESTICIDE MIX A	4/29/98	64390401	RESTEK #50801 LOT A0109168 MFG EXP 9/2001	Amp	Tol/Hex	1ml	80-600 ug/ml	5/12/99	DR 4/29/98 BAP 5/12/99	DR 5/14/98
↓	↓	64390402	↓	↓	↓	↓	↓		DR 4/29/98	
CUSTOM PESTICIDE MIX B	4/29/98	64390403	RESTEK #50802 LOT A0109169 MFG EXP 4/2001	Amp	Tol/Hex	1mL	80-400 ug/ml	7/27/99	DR 4/29/98 DR 7/27/98	7/22/98
↓	↓	64390404	↓	↓	↓	↓	↓	5/20/00	DR 4/29/98 JCL 5/20/99	6/1/99
↓	↓	TE DR 4/29/98 4 64390805	↓	↓	↓	↓	↓	11/20/00	DR 4/29/98 BAP 11/20/99	11/30/99
↓	↓	64390406	↓	↓	↓	↓	↓	4/30/00 01	DR 4/29/98 BAP 5/9/00	
↓	↓	64390407	↓	↓	↓	↓	↓		DR 4/29/98	
Dalapon	5/15/98	64390408	ACCU STD R140510X lot A7040393 MFG EXP 6/1/99	Amp	MeOH	1ml	1.0mg/ml	5/16/99	DRS 5/15/98 CM 5/15/99	DR 7/27/98
Dalapon	5/15/98	64390409	↓	↓	↓	↓	↓	6/1/99	DRS 5/15/98 BAP 11/12/98	11/13/98
AR 1260	5/15/98	64390410	RESTEK Cat 32081 LOT A0104 4 EXP 11/00	Amp	Transformer OIL	1mL	50mg/Kg	5/20/99	DRS 5/15/98 CG 5/20/98	DR 5/21/98
AR 1254	5/15/98	64390411	RESTEK Cat 32085 LOT A0101 33 EXP 1/01	↓	↓	↓	↓	5/20/99	DRS 5/15/98 CG 5/20/98	DR 5/21/98

Recra LabNet Philadelphia

GC ANALYSIS
STANDARD RECEIPT LOG

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Pesticide Surrogate	8/20/99	64391801	Restek exp 3/02 Cat # 3200 Lot # A013427	Amp	Acetone	1 mL	200 ug/mL	9/12/00	MGB 8/20/99 RC 9/13/99	9/13/99
		64391802						9/12/00	MGB 8/20/99 RC 9/13/99	9/13/99
		64391803						12/1/00	MGB 8/20/99 12/21/99	UK 12/21/99
		64391804						3/12/01	MGB 8/20/99 3/12/00	MK 6/6/00
		64391805						6/6/01	MGB 8/20/99 MK 6/6/00	6/6/00
		64391806						6/15/01	MGB 8/20/99 MK 6/6/00	6/6/00
		64391807						9/13/00	MGB 8/20/99 RC 9/13/99	9/13/99
		64391808						9/13/00	MGB 8/20/99 RC 9/13/99	9/13/99
		64391809						9/13/00	MGB 8/20/99 RC 9/13/99	9/13/99
		64391810							MGB 8/20/99	
Thionazin	8/20/99	64391811	Restek 7/15/00 P1715-PX Lot # A1030137	Amp	MeOH	1mL	1000 ug/mL	7/15/00	MGB 8/20/99 12/21/99	UK 12/21/99

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GC ANALYSIS
STANDARD RECEIPT LOG

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Endrin	8/20/99	64392001	Restek Exp 7/00 Cat# 32219 Lot# A011777	Amp	methanol	1mL	1000 ug/mL	7/31/00	MOB 8/20/99 BM 12/6/99	12/13/99
2,4 DDD	8/20/99	64392002	Restek Exp 9/00 Cat# 32098 Lot# A010764	Amp	methanol	1mL	1000 ug/mL		MOB 8/20/99	
2,4 DDT	8/20/99	64392003	Restek Exp 11/01 Cat# 32200 Lot# A012353	Amp	methanol	1mL	1000 ug/mL		MOB 8/20/99	
4,4 DDT	8/20/99	64392004	Restek Cat# 32203 Lot# A011670	Amp	methanol	1mL	1000 ug/mL	12/1/00	MOB 8/20/99 BM 12/1/99	12/21/99
Aroclor 1232	8/20/99	64392005	Restek Exp 10/01 Cat# 32008 Lot# A012024	Amp	hexane	1mL	1000 ug/mL	9/13/00	MOB 8/20/99 DE 9/13/99	9/17/99
Toxaphene	8/20/99	64392006	Restek Exp 1/02 Cat# 32005 Lot# A013150	Amp	hexane	1mL	1000 ug/mL	9/13/00	MOB 8/20/99 DE 9/13/99	9/18/99
Malathion	8/20/99	64392007	Accu Exp 9/1/00 Cat# P0605 10X Lot# A9030418	Amp	MeOH	1mL	1000 ug/mL	9/1/00	MOB 8/20/99 BM 9/7/99	9/7/99
Dursban	8/20/99	64392008	Accu Exp 9/1/00 Cat# P0945 10X Lot# A9080012	Amp	MeOH	1mL	1000 ug/mL		MOB 8/20/99	
Diazinon	8/20/99	64392009	Accu Exp 12/00 Cat# P0335 10X Lot# A8080148-1A	Amp	MeOH	1mL	1000 ug/mL	12/1/00	MOB 8/20/99 BM 2/10/00	2/15/00
Parathion	8/20/99	64392010	Accu Exp 9/1/00 Cat# P0705-10X Lot# A7100234	Amp	MeOH	1mL	1000 ug/mL	9/1/00	MOB 8/20/99 BM 11/30/99	12/1/99
Fenatrol	9/22/99	64392011	Accu Exp 10/1/00 Cat# P-3195 Lot# A8120034	Amp	MeOH	1mL	1000 ug/mL	9/22/00	BM 9/22/99 BM 9/23/99	10/4/99

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GC ANALYSIS
STANDARD RECEIPT LOG

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Methoxychlor	3/1/00	6439 2301	Restek Lot# A015227 Exp 11/01 Cat# 32237	Amp	MeOH	1mL	100 ug/mL	3/17/01	BMP 3/1/00 BMP 3/17/00	MK 9/20/00
Endrin	3/1/00	6439 2302	Restek Lot# A013412 Exp 2/01 Cat# 32219	Amp	MeOH	1mL	1000 ug/mL	3/17/01	BMP 3/1/00 BMP 3/17/00	MK 9/20/00
Hexachlorobenzene	3/1/00	6439 2303	Restek Lot# A014257 Exp 9/03 Cat# 32231	Amp	Ace	1mL	100 ug/mL		BMP 3/1/00 ~~BMP 3/17/00~~	MK 9/20/00
Hexachlorocyclopentadiene	3/1/00	6439 2304	Restek Lot# A014257 Exp 9/03 Cat# 32231	Amp	MeOH	1mL	100 ug/mL		BMP 3/1/00	
Propachlor	3/1/00	6439 2305	Restek Lot# A014225 Exp 9/03 Cat# 32235	Amp	MeOH	1mL	100 ug/mL		BMP 3/1/00 BMP 3/17/00	MK 9/20/00
Trifluralin	3/1/00	6439 2306	Restek Lot# - A014204 Exp 9/03 Cat# - 32238	Amp	MeOH	1mL	100 ug/mL	3/1/01	BMP 3/1/00 BMP 3/20/00	MK 9/20/00
Pesticide Surrogate	5/9/00	6439 2307	Restek Exp 11/02 Cat# 32000 Lot# A015908	Amp	Ace	1mL	2000 ug/mL		BMP 5/9/00	Taken by OSPW
		6439 2308							BMP 5/9/00	Taken by OSPW
		6439 2309						9/6/01	BMP 9/6/00 BMP 9/6/00	MK 9/20/00
		6439 2310						9/6/01	BMP 9/6/00 BMP 9/6/00	MK 9/20/00
		6439 2311							BMP 9/6/00	Taken by OSPW

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GC ANALYSIS
STANDARD RECEIPT LOG

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Florisil Check (2%-Exp)	2/16/00	64392201	Restex Exp 9/2000 Cat # 32017 Lot # A009055	Amp	Ace	1mL	100 ug/mL		BTP 2/16/00	
Chlordane	2/16/00	64392202	Supelco Exp 5/01 4-8881 Lot # LA73973	Amp	MeOH	1mL	500 ug/mL		BTP 2/16/00	
Toxaphene	2/16/00	64392203	Supelco 49135-U Lot LA74272	Amp	Isooctane	10mL	200 ug/mL	9/14/01	BTP 2/16/00 BTP 2/16/00	
Butachlor	3/1/00	64392204	Accu Exp 3/1/01 Lot - A908 0013 P-1915	Amp	MeOH	1mL	100 ug/mL	3/1/01	BTP 3/1/00 BTP 3/1/00	WS 5/6/00
1,3-Dimethyl-2-nitrobenzene	3/1/00	64392205	CS Exp 7/01 Lot 237-70A P20515	Amp	MTBE	5mL	2000 ug/mL	5/4/01	BTP 3/1/00 BTP 5/4/00	LGT 6/6/00
Simazine	3/1/00	64392206	Restek Exp 7/01 Cat # - 32036 Lot # A014046	Amp	Ace	1mL	100 ug/mL	5/4/01	BTP 3/1/00 BTP 5/4/00	WS 6/6/00
Aldrin	3/1/00	64392207	Restek Exp 11/00 Cat # 32005 Lot # A012564	Amp	MeOH	1mL	100 ug/mL	11/1/00	BTP 3/1/00 BTP 3/1/00	MK 9/20/00
Dieldrin	3/1/00	64392208	Restek Exp 11/02 Cat # 32018 Lot # A014949	Amp	MeOH	1mL	100 ug/mL	3/17/01	BTP 3/1/00 BTP 3/1/00	MK 9/20/00
Heptachlor	3/1/00	64392209	Restek Exp 12/00 Cat # 32228 Lot # A010002	Amp	MeOH	1mL	100 ug/mL	12/1/00	BTP 3/1/00 BTP 3/17/00	MK 9/20/00
Heptachlor Epoxide	3/1/00	64392210	Restek Exp 1/02 Cat # - 32030 Lot # A012043	Amp	MeOH	1mL	100 ug/mL	3/17/01	BTP 3/1/00 BTP 3/17/00	MK 9/20/00
G-BHC	3/1/00	64392211	Restek Exp 4/01 Lot # A013880 Cat # 32020	Amp	MeOH	1mL	1000 ug/mL	3/17/01	BTP 3/1/00 BTP 3/17/00	MK 9/20/00

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GC ANALYSIS
STANDARD RECEIPT LOG

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Resolution mix	5/9/00	64392501	Restek Lot# A014835 Exp 6/02 Cat# 32023	Amp	Hex	1mL	1-10ug/mL		BP 5/9/00	
AR1254	5/9/00	64392502	Restek Exp 12/03 Lot# - A014411 Cat# - 32011	Amp	Hex	1mL	1000ug/mL	9/6/01	BP 5/9/00 / BP 7/6/00	MK 9/26/00
AR1254	5/9/00	64392503	⊥	⊥	⊥	⊥	⊥	8/14/01	BP 5/9/00 / BF 8/14/00	BP 8/18/00
AR1221	5/9/00	64392504	Restek Exp 3/03 Lot# A014085 Cat# 32067	Amp	Hex	1mL	1000ug/mL	9/6/01	BP 5/9/00 / BP 9/6/00	MK 9/26/00
⊥	⊥	64392505	⊥	⊥	⊥	⊥	⊥		BP 5/9/00 / BP	
AR1242	5/9/00	64392506	Restek Exp 5/03 Lot# A015939 Cat# 32009	Amp	Hex	1mL	1000ug/mL	9/16/01	BP 5/9/00 / BP 9/16/00	MK 9/26/00
AR1242	⊥	64392507	⊥	⊥	⊥	⊥	⊥		BP 5/9/00	
AR1232	5/9/00	64392508	Restek Cat# 32008 Exp 1/02 Lot# A015365	Amp	Hex	1mL	1000ug/mL		BP 5/9/00	
AR1232	⊥	64392509	⊥	⊥	⊥	⊥	⊥	9/15/01	BP 5/9/00 / BP 9/15/00	MK 9/26/00
AR1248	5/9/00	64392510	Restek Exp 6/02 Lot# A014102 Cat# 32010	Amp	Hex	1mL	1000ug/mL	6/6/01	BP 5/9/00 / MK 6/6/00	BP 8/11/00
⊥	5/9/00	64392511	⊥	⊥	⊥	⊥	⊥		BP 5/9/00	

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Recra LabNet Philadelphia

GC ANALYSIS
STANDARD RECEIPT LOG

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Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
AR1016/AR1260	5/9/00	6439 2601	Restek Exp 9/02 Cat - 32039 Lot - A015371	Amp	Hex	1mL	1000ug/mL	6/15/01	BP 5/9/00 MK 6/15/00 BP 5/9/00	MK 6/16/00
⊥	5/9/00	6439 2602	⊥	⊥	⊥	1mL	1000ug/mL			
390 mixA	5/9/00	6439 2603	Restek Exp 10/02 Cat# 32003 Lot# A014244	Amp	Hex	1mL	8-80ug/mL	5/28/01	BP 5/9/00 BP 5/25/00	MK 8/15/00
		6439 2604						⊥	BP 5/9/00 BP 5/28/00 BP 5/9/00	⊥
		6439 2605								
		6439 2606							BP 5/9/00	
		6439 2607							BP 5/9/00	
		6439 2608							BP 5/9/00	
		6439 2609							BP 5/9/00	
		6439 2610							BP 5/9/00	
		6439 2611							BP 5/9/00	

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GC ANALYSIS
STANDARD RECEIPT LOG

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Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Simazine	8/1/00	6439280	Restek Exp 7/01 Lot - A014249	Amp	Ace	1mL	1000ug/mL		BM 8/1/00	
1,3-Dinitrobenzene	8/1/00	6439280 2	ChemService Lot 237-70A	Amp	MTBE	5mL	2000ug/mL		BM 8/2/00	
↓	↓	6439283	↓ Exp 7/01	↓	↓	↓	↓		BM 8/2/00	
Parathion	8/1/00	6439280 4	Accu Exp 8/1/01 Lot - A012000	Amp	MeOH	2@ 1mL	1000ug/mL	8/1/01	BM 8/2/00 BM 8/2/00	MK 8/29/00
Malathion	9/6/00	6439285	Chemservice Exp 11/01 Lot - 241-66B Cat# F21185	Amp	Tol.	5mL	1000ug/mL	9/6/01	BM 9/6/00 BM 9/6/00	MK 9/26/00
Diazinon	9/6/00	6439286	Chemservice Exp 10/01 Lot - 241-49C Cat# - F20685	Amp	Tol.	5mL	1000ug/mL	9/6/01	BM 9/6/00 BM 9/6/00	MK 9/26/00
Disulfoton	9/6/00	6439287	Chemservice Exp 10/01 Lot - 230-86A Cat# - F9935	Amp	Tol.	5mL	1000ug/mL	9/6/01 Alt Exp 10/31/01	BM 9/6/00 BM 9/6/00	MK 9/26/00
Guthion (Azinphos methyl)	9/6/00	6439288	Chemservice Exp 11/01 Lot - 244-104B CAT # - F20555	Amp	Tol	5mL	1000ug/mL	9/6/01	BM 9/6/00 BM 9/6/00	MK 9/26/00
Surrogate	9/9/00	6439289	Restek Cat# 32201 Lot# - A015908 Exp 11/02	Amp	Ace	1mL	200 ug/mL	9/15/01	BM 9/9/00 BM 9/15/00	MK 9/26/00
↓	↓	6439290	↓	↓	↓	↓	↓	9/16/01	BM 9/9/00 BM 9/16/00	MK 9/26/00

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GC ANALYSIS
STANDARD RECEIPT LOG

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Simazine	10/1/00	64392901	Accu P-0365-1ux Exp 10/1/01 Lot# A0090230	Amp	MeOH	1000 ug/mL	1 mL	1	BP 10/1/00	
Atrazine	10/1/00	64392902	Accu (P-1055) Exp 10/1/01 Lot# A70040407	Amp	MeOH	1mL	100 ug/mL		BP 10/1/00	
Alachlor	10/1/00	64392903	Accu (P-1085) Exp 10/1/01 Lot# B0030432	Amp	MeOH	1mL	100 ug/mL	10/	BP 10/1/00	
~~Metolachlor~~ Metribuzin	10/1/00	64392904	Accu (P-0895) Exp 10/1/01 Lot# B0040337-1A	Amp	MeOH	1mL	100 ug/mL		BP 10/1/00	
Butachlor	10/1/00	64392905	Accu (P-1915) Exp 10/1/01 Lot A9080043	Amp	MeOH	1mL	100 ug/mL		BP 10/1/00	
Metolachlor	10/1/00	64392906	Accu (P-0585-1ux) Exp 10/1/01 Lot B0890226	Amp	MeOH	1mL	1000 ug/mL		BP 10/1/00	
Surrogate	10/5/00	64392907	Restek Cat# 32000 Exp 4/03 Lot# A0160801	Amp	Ace	1mL	200 ug/mL	Exp 10/7/01	BP 10/5/00 BP 10/7/00	MK 10/27/00
		64392908						Exp 4/27/01	BP 10/5/00 MK 10/27/00	
		64392909							BP 10/5/00	
		64392910							BP 10/5/00	
		64392911							BP 10/5/00	

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GC ANALYSIS
STANDARD RECEIPT LOG

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Heptachlor	10/26/01	64393104	Chem Service FP05 Lot-244-70B Exp 10/01	Amp	MeOH	5mL	100ug/mL	10/27/01	[illegible] / [illegible]	MK 10/27/01
Hept. Epoxide	10/26/01	64393102	Chem Service FP05 Lot-251-37A Exp 3/02	Amp	MeOH	5mL	100ug/mL	10/27/01	[illegible] / [illegible]	MK 10/27/01
Endrin	10/26/01	64393103	Chem Service Lot 247-41B Exp 10/01	Amp	MeOH	5mL	100ug/mL	10/27/01	[illegible] / [illegible]	MK 10/27/01
Aldrin	10/26/01	64393104	Chem Service Lot 241-31A Exp 9/01	Amp	MeOH	5mL	100ug/mL	9/30/01	[illegible] / [illegible]	MK 10/27/01
Hexachlorobenzene	10/26/01	64393105	Chem Service FP5 Lot 242-32B Exp 11/01	Amp	MeOH	5mL	100ug/mL	10/27/01	[illegible] / [illegible]	MK 10/27/01
Custom Test Mix A	4/18/01	64393106A	Restek lot# A019341 exp 4/04 cat# 50801	Amp	Tol/Hex	1mL	80-800ug/mL	4/20/02	MK 4/18/01 / BS 4/20/01	MK 4/21/01
		64393106B							MK 4/18/01	
		64393106C							MK 4/18/01	
		64393106D							MK 4/18/01	
		64393106E							MK 4/18/01	

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Recra LabNet Philadelphia

GC ANALYSIS
STANDARD RECEIPT LOG

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Custom Pest Mix B	4/18/01	64393201 A	Restek Lot# A019342 Cat# 50802 exp 4/04	Amp	Tol/Hex	1mL	80-400ug/mL	4/20/02	MK 4/18/01 BS 4/20/01	4/21/01 MK
		64393201 B							MK 4/18/01	
		64393201 C							MK 4/18/01	
		64393201 D							MK 4/18/01	
		64393201 E							MK 4/18/01	

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Preparation Logs

Lionville Laboratory, Inc.

SOIL EXTRACTABLES

Logbook # 8672

Extract Date: 8/3/01 Extraction Batch #: 01LE0922

Analyst: MB Test: OPCB Method: 50X Solvent: DCM/Hex AAPrep: 8/3/01

	RFW #	Mtx	pH	Initial Wt/Vol (g/mL)	Surr/ Spike Mult	Pre GPC Vol (ml)	After GPC Vol (ml)	Split Mult
1	0108L445-001	S	NA	30.1	1	NA	10.0	1.0
2	-005	S		30.5	1			
3	-009	S		30.0	1			
	0108L447-001	S		30.2	1			
4	0108L445001MS	S		30.4	1			
5	445-001MSD	S		30.8	1			
6	-002	S		30.0	1			
7	-003	S		30.0	1			
8	-004	S		30.0	1			
9	-005	S		30.0	1			
10	B	S		30.0	1			
11	BS	S		30.0	1			
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

MB 8/3/01

DCM Solvent Lot: V19525
Acetone Solvent Lot: —
Hexane Solvent Lot: 41121
Ether Solvent Lot: —
Sodium Sulfate Lot: 8403-300
Other: —

Extraction Information

(Date/Analyst)
Start time: BF 8/3/01 1:00
End time: MB 8/4/01 10:00
Filtration: —
Boildown: —
Blowdown: —
GPC Ready: —
GPC Cleanup: —
GPC #: —
After GPC Boildown: —
After GPC Blowdown: —
Acid/Florisil Cleanup: (circle)
Ch. 8/8/01 EG
Prep Sheet: 8/8/01 EG
GPC Lab ID #: —
Florisil Lot #: —
Florisil Lab ID #: —
Acid Lot #: VIDd
Balance #: B9
Balance Cal Check Y/NA (circle)
pH Meter Calibrated Y/NA (circle)

Spiked by: BF

Surrogate: 100L8080 PCB
8697L8012 4.10ug/mL

Spike: 250L AR1254 15ug/mL
8697L102

Witness: —

Pipette ID: YP03074

Pipette ID: L

This Page Reviewed By/Date: 8/8/01 EG

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Lionville Laboratory, Inc.

SAMPLE EXTRACTION RECORD

Sheet no.: 1

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Extract. Date: 08/03/01 Extraction Batch No: 01LE0922 Analyst: MB Method: ****

Test: OPCB Cleanup Date: 08/08/01 Analyst: EG Client: LANL REQ #9469R

LIMS Report Date: 08/08/01 Solvent: DCM, HEX Adsorbent: ACID

Sample No:	Client Name / Client ID	pH	Initial WT/VOL	Surr. Mult.	Spike Mult.	Final VOL	Final VOL	Split Mult.	GPC Y/N	% Solids	C/D FACTOR
0108L445-	LANL REQ #9469R										
001	RE16-01-4024 03	7	30.1	1.0		10		1.0	N	82.96	400.5
001 -S	RE16-01-4024 03	7	30.4	1.0	1.0	10		1.0	N	82.96	396.5
001 -T	RE16-01-4024 03	7	30.8	1.0	1.0	10		1.0	N	82.96	391.4
005	RE16-01-4025 03	7	30.5	1.0		10		1.0	N	83.74	391.5
009	RE16-01-4026 03	7	30.0	1.0		10		1.0	N	86.10	387.1
0108L447-	LANL REQ #9477R										
001	RC39-01-0001 02	7	30.2	1.0		10		1.0	N	94.05	352.1
002	RC39-01-0002 02	7	30.0	1.0		10		1.0	N	95.18	350.2
003	RC39-01-0003 02	7	30.0	1.0		10		1.0	N	93.30	357.3
004	RC39-01-0004 02	7	30.0	1.0		10		1.0	N	94.15	354.0
005	RC39-01-0005 02	7	30.0	1.0		10		1.0	N	94.88	351.3
01LE0922-MB1	PBLKMY	7	30.0	1.0		10		1.0	N	100.00	333.3
01LE0922-MB1 -S	PBLKMY	7	30.0	1.0	1.0	10		1.0	N	100.00	333.3

Comments:
Surrogate: 100 UL 8080 PSUR 86976801 @ 4-10 UG/ML
Spike: 250 UL AR1254 86971102 @ 15 UG/ML

Extracts Transferred	Relinquished By	Date Time	Received By	Date Time	Reason for Transfer
all	EG	8/8/01 1523	MK	8/8/01 1523	GC

End of Package