GW - 80

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DANIEL B. STEPHENS & ASSOCIATES, INC.
ENVIRONMENTAL SCIENTISTS AND ENGINEERS

PCB INVESTIGATION
THOREAU MONITOR
WELLS 5-1B AND 5-6B

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Prepared for
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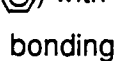
PCB INVESTIGATION, THOREAU MONITOR WELLS 5-1B AND 5-6B

PCB Chemistry and Nomenclature

Polychlorinated biphenyls (PCBs) have been prepared commercially since 1929, when Monsanto began marketing them for a variety of applications requiring a product with great chemical stability and/or a high dielectric constant. Following the discovery that PCBs are transferred throughout the food chain and concentrated in the fatty tissues of mammals, production of PCBs began to decline in the 1970s. Following the promulgation of strict regulations covering PCBs under the Toxic Substance Control Act (TSCA) in 1976, Monsanto ceased production in 1977, and virtually all U.S. production ceased by 1983 (Erickson, 1992).

PCBs are a class of non-polar semi-volatile organic compounds. They are produced by chlorination of the biphenyl molecule () with anhydrous chlorine gas (Cl_2) in the presence of a catalyst. Since there are 10 potential bonding sites on the 10 available carbon atoms, the resultant PCB molecule may possess anywhere from 1 to 10 chlorine atoms (monochlorobiphenyl → decachlorobiphenyl), each of which is referred to as an *homolog*.

With the exception of the fully chlorinated decachlorobiphenyl, each homolog includes several different *isomers*, depending on the positions of the chlorine atoms on the two benzene rings. Taking monochlorobiphenyl as an example, there are 3 possible isomers, corresponding to the 3 potential positions of the chlorine atom on the biphenyl structure. For dichlorobiphenyl (2 chlorines), there are 12 possible isomers, and so on, such that there are 209 unique PCB molecules theoretically possible. The 209 different PCB configurations, without regard to the number of chlorine atoms, are known as *congeners*. Table 1 gives the number of possible isomers (or congeners) for each PCB homolog. As an aside, monochlorobiphenyl is not a *poly*chlorinated biphenyl, technically speaking, but is classified as a PCB for practical reasons.

When PCBs are produced commercially, a mixture of congeners always results, since there is no way to absolutely control the positions of the chlorine atoms during chlorination of the biphenyl molecule. However, certain congeners are not produced in detectable quantities in commercial

mixtures, because they are statistically unlikely to be formed. For example, the pentachlorobiphenyl congener, with all five chlorine atoms on the same benzene ring and none on the other, is highly unlikely and therefore is not observed in mixtures of PCBs.

Monsanto produced the majority of the PCB products formerly sold in the U.S., and their technical mixtures were given the tradename "Aroclor", followed by a 4-digit number (e.g., 1242). The first two digits (12) refer to the chlorobiphenyl molecular structure, while the last two digits (42) give the weight percent of chlorine in the PCB mixture. Thus, Aroclor 1221 nominally contains 21% chlorine (by weight), while Aroclor 1242 contains 42% chlorine by weight. For reference, the pure monochlorobiphenyl homolog (3 isomers) would contain 18.9% Cl, and decachlorobiphenyl (1 isomer) would contain 71.2% Cl.

Table 1 provides the weight percent of chlorine in each PCB homolog, along with the relative percentages of each homolog in the commercially produced Aroclors. Note that the percentage of the different homologs in a particular Aroclor mixture is approximate and can vary slightly between batches and manufacturers. Note also that decachlorobiphenyl (DCB) does not occur in the commercial Aroclors, and for this reason, a known quantity of DCB is often added to samples during laboratory analysis as a spike (surrogate) to allow estimation of potential losses of PCBs during the analytical procedures.

Figure 1 is a histogram that displays the relative abundance of different PCB homologs in the seven commonly encountered Aroclors (using data from Table 1). Both Aroclor 1221 and 1242 have reportedly been used in the manufacture of lubricants used in turbine compressors for gas-transmission (Hutzinger et al., 1979)

Since the Aroclors are technical mixtures of numerous compounds, it is meaningless to speak of "the" melting point, boiling point, water solubility, and other such properties for an Aroclor. Nevertheless, average values for these physical properties can be useful, some of which are provided in Table 2. All of the Aroclors have low vapor pressures, very low water solubilities, and high resistance to biodegradation relative to other common organic compounds. One of the most important properties from an environmental perspective is the relative water solubility of the different Aroclors. Note that PCBs with the lowest degree of chlorination are more soluble than

those with more chlorine atoms. Also note that the less chlorinated PCBs are somewhat biodegradable, while the more highly chlorinated congeners are considered virtually non-biodegradable.

PCB Analytical Procedures

In recent years, PCBs have been analyzed almost exclusively using gas chromatography coupled with electron capture detection (GC/ECD). Although it is possible to use other detectors (e.g., mass spectrometer), the sensitivity is much greater using ECD; therefore the detection limit is much lower. The most commonly employed GC/ECD method is EPA Method 8080 (EPA, 1986), which allows a certain degree of flexibility for the analytical chemist.

In general, the GC/ECD method as applied to water involves the extraction of the water sample in methylene chloride (CH_2Cl_2). This separates the non-polar, relatively water-insoluble PCBs (if any) from the water itself, and causes them to be dissolved in the methylene chloride solvent. If necessary, the extract is then subjected to cleanup procedures designed to remove interfering substances such as other chlorinated organic compounds. The PCBs are then transferred to a non-chlorinated carrier solvent, usually hexane, prior to injection of the extract into the GC.

The GC column is essentially a long, very narrow, heated tube coated on the inside with a material (liquid-phase) which tends to retard the vapor-phase PCBs as they are carried through the column by an inert carrier gas, usually helium. Upon injection, the sample extract is immediately vaporized by the high temperature of the column. The GC column coating causes separation of the various congeners present in the sample, with the higher-molecular-weight PCBs generally, but not always, being retarded the most. By the time the PCBs reach the downstream end of the column, they have been almost completely separated into separate slugs, which *elute* as separate peaks on the chromatogram.

The downstream end of the GC column is connected to the ECD, which is extremely sensitive to chlorine atoms and gives an output current that is proportional to the quantity of chlorine passing by at any particular instant. Thus a chromatogram represents a time-concentration plot, with the X-axis indicating the *retention time* of a particular compound in the GC column, and the

Y-axis representing the concentration of the compound passing the detector at a given instant. In practice, the area under a peak is automatically computed, to allow calculation of the sample concentration. It is important to keep in mind that the exact retention times and order of elution for the various congeners depend on the column conditions employed (e.g., column type and temperature), and that different laboratories will not generally be using the same column conditions. Thus it is difficult to compare chromatograms generated by different laboratories.

One major change that has occurred since EPA Method 8080 was originally published is that nearly all laboratories now use a capillary GC column for the analysis of PCBs, instead of the larger-bore packed column recommended in the method reference. The use of the capillary column allows much better separation between peaks and therefore produces a superior chromatogram. Since capillary columns came into use several years ago, it has become possible, if still not routine, to identify individual PCB congeners, whereas with the older packed columns, it was inevitable that the peaks of many congeners would overlap.

The identification of PCB Aroclors in a sample, and their subsequent quantification in terms of concentration, involves a degree of subjective interpretation and judgment on the part of the analyst, since each Aroclor is a somewhat variable mixture of the different congeners. Pattern recognition, either visual or semi-automated, is the basis for identification of PCBs using GC/ECD. Method 8080 calls for comparison of the sample chromatogram with the chromatogram generated by injection of standard Aroclor solutions into the GC, under the same column conditions. The retention times of the various peaks serve as the key indication of a match between congeners present in both the sample and the standard, and the chromatographic pattern these peaks create is used to match the identity of the Aroclor in the sample with that of one of the standard Aroclors. In order to minimize the possibility of misidentification of chromatographic peaks, as determined by retention time, some laboratories use a second "dissimilar" GC column containing a different packing material for confirmation of chromatogram peaks and patterns.

PCB Weathering in the Environment

It is important to recognize that the mixture of PCB congeners present in a given environmental soil or ground-water sample may not necessarily match that of any of the commercially produced

Aroclors. This situation can result if (1) two or more Aroclor products have become mixed together such that the proportions of the congeners in the mixture is different than either of the two products, or (2) a single Aroclor product released into the environment has undergone differential degradation, partitioning between soil and ground water, or another separation mechanism which alters the ratios of the congeners present in the sample from that initially present in the PCB product. The alteration of PCB composition through environmental transformation processes is known as "weathering".

While it is generally accepted that weathering does lead to changes in PCB composition, the specific effects of weathering on PCB wastes are not well understood. It is known that the lower chlorine number congeners have higher vapor pressures, are more soluble in water, and more biodegradable, than more fully chlorinated congeners. Thus it would be expected that a weathered PCB source in the subsurface would tend to become enriched in the higher chlorine congeners, due to the preferential removal of the lighter fraction via volatilization, dissolution, and biodegradation. Several authors have stated that the monochloro- and dichloro-homologs are more mobile in the soil environment, due to their greater solubility (Callahan et al., 1979; Reece and Chapin, 1985). Thus it is possible, at least in theory, to achieve a chromatograph-like separation, or fractionation, of PCB congeners in the soil environment, based on differences in solubility. The actual environmental significance of the PCB fractionation phenomenon has yet to be established, however, for field sites.

Laboratory Study of PCBs in Thoreau Monitor Wells

Ground-water samples for this PCB study were collected from monitor wells 5-1B and 5-6B during the routine March, April, and October 1992 sampling events. Samples were collected in the normal manner using the dedicated bladder pumps, following the removal of approximately three casing volumes of water to purge the wells. The unpreserved ground-water samples for PCB analysis were submitted to the laboratory in new, pre-cleaned 1-liter glass bottles, kept cold in a cooler with ice. Dates of sample collection, receipt at the laboratory, extraction, and analysis are provided in Table 3.

A more rigorous analytical procedure was employed during the PCB analysis of these three sets of ground-water samples, in an attempt to clarify which Aroclors are present in monitor wells 5-1B and 5-6B. The laboratory analysis and interpretation were performed at ATI-Phoenix by PCB/pesticide chemist Mr. Yu Min She, in consultation with Organics Laboratory Supervisor Mike Barber. Details of the instrumental conditions used by ATI are provided in the Case Narratives preceding the ATI analytical reports (Attachment A). In addition to those procedures routinely employed for PCB analysis by EPA Method 8080, the following special procedures were performed by the laboratory:

- A known quantity of a surrogate compound, tetrachloro-meta-xylene (TCMX) was added to the ground water prior to the extraction step, in order to quantify any potential losses of analyte during the extraction or analysis procedures.

- For the March and April samples, aliquots of water from each well were spiked with Aroclor 1221 and 1242 prior to the extraction step, and the percent recovery of the spikes was calculated. The spiked samples are designated "matrix spike" (MS) on the laboratory reports.

- The March 1992 samples were pretreated with sulfuric acid (H_2SO_4) to remove other potentially interfering organic compounds. The designation "AW" (acid wash) on the laboratory reports indicates those samples subjected to the acid pretreatment.

- All samples were analyzed by EPA Method 8080 using two dissimilar GC columns for confirmation of PCB peaks.

- For the March and April samples, sample extracts from the two wells were first analyzed without dilution, then reanalyzed using a 5X dilution. The October samples were analyzed at 10X dilution.

- Output chromatographic data were interpreted manually by Mr. Yu Min She. Retention times for the various peaks were checked against those in the standard Aroclor 1221 and 1242 chromatograms. Based on the experience and judgment of the analyst, the sample

chromatogram was compared with the standard Aroclor chromatograms, and the identity of the Aroclor in the sample was determined as the closest match between sample and standard.

- Calculation of PCB concentrations was performed by selecting peaks with matching retention times on both the sample and standard chromatograms. The maximum number of acceptable peaks was used for the subsequent calculations. The sum of the peak areas (ΣA) for the selected peaks was compared with the cumulative area for these same peaks on a 4-point calibration curve constructed by analyzing the standard Aroclor at four different concentrations. The PCB concentration of the sample was then calculated, taking into account appropriate factors for sample volume, extract volume, extract dilution, and injection volume.

- A well-defined peak on both sample and standard chromatograms was selected arbitrarily, and the ratio of the other selected peaks to the area of this peak was calculated. The peak area ratios were compared between the samples and the standard to provide additional verification of Aroclor identity and to give an estimation of how closely the congener distribution in the sample matched that in the standard.

- Spiked samples (MS) for the March and April samples were analyzed in an identical manner to the unspiked samples, and the percent recovery of the known Aroclor spikes was calculated.

- An aliquot of the extract for the October 5-6B sample was analyzed by GC/MS to confirm the identities and concentrations of the Aroclors detected by straight GC Method 8080.

Conclusions Regarding Thoreau Monitor Wells 5-1B and 5-6B

The results of PCB analysis are shown in Table 4. The results show that the PCB mixture present in the ground water from Thoreau monitor wells 5-1B and 5-6B most closely matches Aroclor 1221. Consistent with previous results, the samples collected from well 5-6B contained approximately twice the PCB concentration as those from well 5-1B. The retention times for

sample chromatograph peaks match the retention times for the standard Aroclor 1221 peaks very well, however the peak area ratios are not well matched with the standard, indicating that the relative abundances of the congeners are different in the ground water and the standard. This is probably due to differential weathering of the PCB congeners in the soil.

Although Aroclors 1232, 1242, and 1016 have some congeners in common with Aroclor 1221, and therefore some common peaks on the chromatograms, approximately ⅓ to ½ of the major peaks for the heavier Aroclors are missing from the sample chromatograms. In addition, it was noted by ATI's PCB chemist that many of the peaks critical to the identification of Aroclor 1221 are only visible on the chromatograms when the sample extract was diluted. Therefore, misidentification and/or poor quantification of PCBs in the sample is possible if the sample extract is injected directly without dilution.

Based on examination of laboratory data generated for previous samples from these wells analyzed by Rocky Mountain Analytical Laboratory (RMAL), it appears that the injection of the undiluted sample extract is responsible for the reporting of several non-detect values for these wells in the past (e.g., January 9, 1992 samples). It was also noted that if the Aroclor 1221 peaks had not been detected, and if the PCB mixture in the sample had been interpreted as Aroclor 1242, then the apparent Aroclor 1242 concentration in the samples (based on the peak areas of the common peaks between 1221 and 1242) would be approximately 5 to 10% of the actual Aroclor 1221 concentration (Table 4).

Reported Aroclor 1242 concentrations in this range have previously been reported by Enseco-Houston, and DBS&A believes that these previous Aroclor 1242 "hits" are the result of not having looked for the Aroclor 1221 peaks that would have served to identify that PCB mixture. It is also significant that both ATI-Phoenix and RMAL are in agreement that the PCB mixture from the Thoreau monitor wells is Aroclor 1221, and both have expressed confidence in that identification. GC/MS analysis of the October 1992 ground-water sample from monitor well 5-6B also confirmed the presence of Aroclor 1221. We are therefore confident that PCB detected in ground-water samples from Thoreau monitor wells 5-1B and 5-6B most closely matches the Aroclor standards, although the PCB composition has been somewhat altered by environmental weathering processes.

References:

Callahan, M.A. et al. 1979. Water-Related Environmental Fate of 129 Priority Pollutants, EPA-440/4-79-029. Office of Water Planning and Standards, Office of Water and Waste Management, U.S. EPA, p. 36-1 to 36-18 (NTIS Doc. No. PB80-204373).

Erickson, M.D. 1992. Analytical Chemistry of PCBs. Lewis Publishers, 508 p.

Hunzinger, O., S. Safe, and V. Zitko. 1974. The Chemistry of PCBs. CRC Press, 269 p.

Reece, D.E. and R.I. Chapin. 1985. Example of the Influence of Degree of Chlorination on Subsurface Migration of Polychlorinated Biphenyls and Related Compounds. Proc. Southern Regional Ground Water Conf, NWWA, Sept. 18-19.

U.S. Environmental Protection Agency. 1986. Test Methods for Evaluating Solid Waste, 3rd Ed., EPA-SW-846.

TABLE 1. COMPOSITION OF PCB AROCLORS

PCB Homolog	No. of Congeners	Weight Percent Chlorine	Average Composition of Aroclors[1] (Weight Percent of Homolog)						
			1221	1232	1016[2]	1242	1248	1254	1260
Biphenyl	1	0	10						
Monochlorobiphenyl	3	19	50	26	2	1			
Dichlorobiphenyl	12	32	35	29	19	13	1		
Trichlorobiphenyl	24	41	4	24	57	45	21	1	
Tetrachlorobiphenyl	42	49	1	15	22	31	49	15	
Pentachlorobiphenyl	46	54				10	27	53	12
Hexachlorobiphenyl	42	59					2	26	42
Heptachlorbiphenyl	24	63						4	38
Octachlorobiphenyl	12	66							7
Nonochlorobiphenyl	3	69							1
Decachlorobiphenyl	1	71							

Source: Erickson, 1992

[1] Differences in sums of percent of various Aroclors from 100% is due to analytical uncertainty.

[2] Aroclor 1016 does not follow the conventional PCB nomenclature with respect to weight percent chlorine. Aroclor 1016 actually contains 41% Cl (similar to Aroclor 1242), but is formulated such that mixture is composed predominantly of the lower chlorine number homologs as compared with Aroclor 1242 (Callahan, 1979).

TABLE 2. PROPERTIES OF PCB AROCLORS

Property	Aroclor 1221	Aroclor 1232	Aroclor 1016	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
Chlorine content[1] (weight percent)	20.5 to 21.5	31.4 to 32.5	41	42	48	54	60
Density[1] (g/ml)	1.15	1.24	1.33	1.35	1.41	1.50	1.58
Aqueous solubility (mg/l)	[15.0][3]	[1.45][3]	0.42[3]	0.24[2]	0.052[2]	0.012[2]	0.003[2]
Approximate molecular wt.[2]	193.7	223.0	257.5	257.5	291.9	326.4	366.0
Vapor pressure[3] (mm Hg @ 25°C)	[6.7 x 10^{-3}]	[4.06 x 10^{-3}]	[4 x 10^{-4}]	4.06 x 10^{-4}	4.94 x 10^{-4}	7.71 x 10^{-5}	4.05 x 10^{-5}
log K_{ow}[3]	[2.8]	[3.2]	4.38	4.11	[5.75]	[6.03]	[7.14]

Notes: Since Aroclors are technical mixtures of different PCB congeners, the properties listed here represent average values for the mixture and may vary slightly depending on Aroclor composition.

Bracketed values are estimated.

1 Monsanto, 1974
2 Erickson, 1992
3 Callahan et al., 1979

TABLE 3. SAMPLE COLLECTION AND ANALYSIS DATES

March 1992	5-1B	5-6B	5-99[1] (5-1B)
Sample collection	3-18-92	3-18-92	3-18-92
Sample receipt	3-20-92	3-20-92	3-20-92
Sample extraction	3-31-92	3-31-92	3-31-92
Sample analysis	4-01-92	4-01-92	4-01-92

April 1992	5-1B	5-6B	5-99[1] (5-6B)
Sample collection	4-29-92	4-29-92	4-29-92
Sample receipt	4-30-92	4-30-92	4-30-92
Sample extraction	5-01-92	5-01-92	5-01-92
Sample analysis	5-08-92	5-08-92	5-08-92

October 1992	5-1B	5-6B	5-99[1] (5-6B)
Sample collection	10-14-92	10-14-92	10-14-92
Sample receipt	10-15-92	10-15-92	10-15-92
Sample extraction	10-15-92	10-15-92	10-15-92
Sample analysis	11-04-92	11-04-92	11-04-92

[1] Sample 5-99 represents blind field duplicate ground-water sample with fictitious sample number

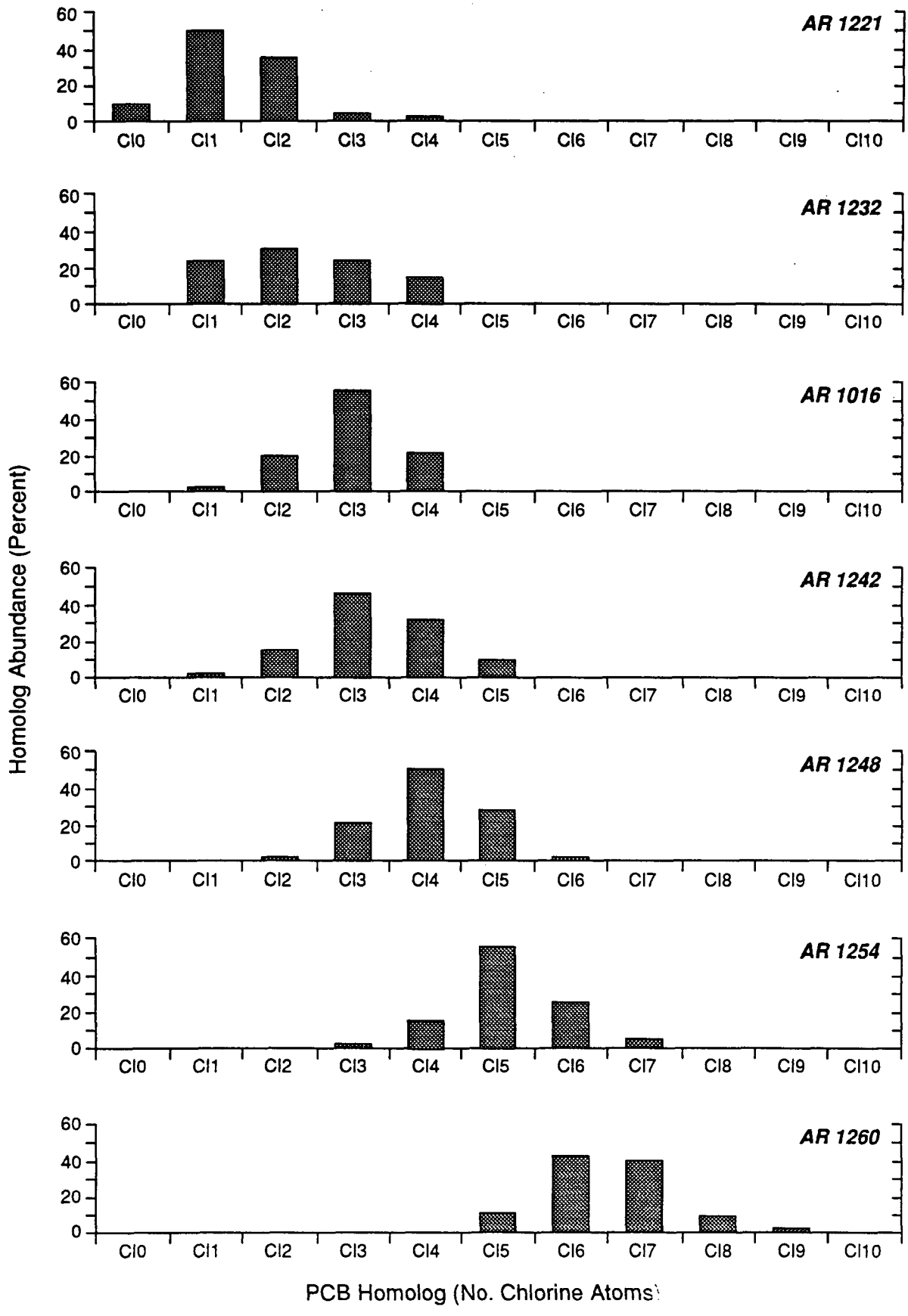
TABLE 4. ANALYTICAL RESULTS FOR SAMPLES AND MATRIX SPIKES

Sample No.	Sample Date	Aroclor 1221				Aroclor 1242			
		Sample Concentration (µg/l)	Spike Added (µg/l)	Spike Recovered (µg/l)	Percent Spike Recovery (µg/l)	Sample Concentration (µg/l)	Spike Added (µg/l)	Spike Recovered (µg/l)	Percent Spike Recovery (µg/l)
5-1B	3-18-92	54, 65[1]	20	25	125%	<0.5	20	20	100%
5-1B	4-29-92	71	20	18	90%	<0.5, 4.5[2]	10	12.1	121%
5-1B	10-14-92	82	--	--	--	<5.0	--	--	--
5-6B	3-18-92	140	40	40	100%	<0.5	10	11	110%
5-6B	4-29-92	150, 150[1]	20	22	110%	<0.5, 8.2[2]	10	9.5	95%
5-6B	10-14-92	280, 270[1], 270[3]	--	--	--	<5.0, <5.0[1]	--	--	--

[1] Result for blind duplicate sample (fictitious sample no. 5-99).

[2] Apparent Aroclor 1242 concentration due to PCB congeners present in both Aroclor 1221 and Aroclor 1242.

[3] Result for GC/MS analysis (all other values determined using GC Method 8080).



Relative Abundance of PCB Homologs in Aroclors

ATTACHMENT A

ANALYTICAL LABORATORY DATA

March 1992

Analytical Technologies, Inc.

Case Narrative
Accession #203824

As per our agreement with Mr. Jeff Forbes of D.B. Stephens & Associates, Inc., ATI has analyzed 11 samples for PCBs by EPA Method 8080. The samples were extracted using EPA method 3520 (Continuous Liquid-Liquid Extraction) and concentrated to a final volume of 10 ml. Additionally, two samples (203824-11, 12) were designated as matrix spike samples, and were spiked with both Aroclor 1221 and 1242. There was an initial misunderstanding of the spiking requirements, and the two spike samples were treated as MS/MSD. Sample 203824-11 was spiked with Aroclor 1221, and 20382-12 was spiked with Aroclor 1221.

The samples were analyzed by EPA Method 8080 using a Varian 4600 dual channel GC equipped with ECD detectors. The samples were injected through a Y-split injection port onto two columns. The primary column is a 30 meter megabore DB608, and the confirmation column is a 30 meter megabore DB5. The Aroclors were identified by pattern recognition and comparison to known standard material and ratios of the major peaks were calculated for additional confirmation.

Every attempt was made to avoid pitfalls common in PCB identification. Since many of the Aroclors have individual PCBs in common, misidentification is possible. By analyzing the samples at a dilution that keeps the peaks on scale, and analyzing standard material at the same concentration, it is possible to match the pattern for initial identification. By comparing the ratios of the standard material to those found in the sample, it can give additional confirmation to the unknown Aroclor. By examining the data from the primary and confirmation column, it is possible to detect small discrepancies between the different Aroclors. Some of these discrepancies are minute, but are important in the identification.

A problem encountered during analysis was inconsistent peak ratio's when compared to PCB standards. It is believed that this is a result of differing partitioning co-efficients between individual PCBs in the Aroclor mixture.

ATI's policy is to screen PCB samples and then to run at the appropriate dilution. This is done to keep peaks on scale and to prevent damage to the instrument. Due to Aroclor 1221 concentrations samples 5-6B and 5-1B were not run undiluted.

Analytical Technologies, Inc.

CLIENT : D.B. STEPHENS & ASSOCIATES
PROJECT # : 2105-1.1
PROJECT NAME : ENRON THOREA

DATE RECEIVED : 03/20/92
REPORT DATE : 04/16/92

ATI I.D. : 203824

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	TRIP BLANK	AQUEOUS	03/12/92
02	5-23B	AQUEOUS	03/17/92
03	5-24B	AQUEOUS	03/17/92
04	5-3B	AQUEOUS	03/17/92
05	5-17B	AQUEOUS	03/17/92
06	5-5B	AQUEOUS	03/17/92
07	5-22B	AQUEOUS	03/18/92
08	5-4B	AQUEOUS	03/18/92
09	5-99	AQUEOUS	03/18/92
10	5-16B	AQUEOUS	03/18/92
11	5-6B	AQUEOUS	03/18/92
12	5-1B	AQUEOUS	03/18/92
13	5-19B	AQUEOUS	03/19/92
14	5-2B	AQUEOUS	03/19/92
15	TRIP BLANK #2	AQUEOUS	03/12/92

----- TOTALS -----

MATRIX	# SAMPLES
AQUEOUS	15

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20382409

TEST : POLYCHLORINATED BIPHENYLS (EPA METHOD 608)

CLIENT	: D.B. STEPHENS & ASSOCIATES	DATE SAMPLED	: 03/18/92
PROJECT #	: 2105-1.1	DATE RECEIVED	: 03/20/92
PROJECT NAME	: ENRON THOREA	DATE EXTRACTED	: 03/24/92
CLIENT I.D.	: 5-99	DATE ANALYZED	: 03/31/92
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 5

COMPOUNDS	RESULTS
AROCLOR 1016	<2.5
AROCLOR 1221	65
AROCLOR 1232	<2.5
AROCLOR 1242	<2.5
AROCLOR 1248	<2.5
AROCLOR 1254	<2.5
AROCLOR 1260	<2.5
SURROGATE PERCENT RECOVERIES	
TCMX (%)	133

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20382411

EST : POLYCHLORINATED BIPHENYLS (EPA METHOD 608)

LIENT	: D.B. STEPHENS & ASSOCIATES	DATE SAMPLED	: 03/18/92
ROJECT #	: 2105-1.1	DATE RECEIVED	: 03/20/92
ROJECT NAME	: ENRON THOREA	DATE EXTRACTED	: 03/24/92
LIENT I.D.	: 5-6B	DATE ANALYZED	: 04/01/92
AMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 5

OMPOUNDS	RESULTS
ROCLOR 1016	<2.5
ROCLOR 1221	140
ROCLOR 1232	<2.5
ROCLOR 1242	<2.5
ROCLOR 1248	<2.5
ROCLOR 1254	<2.5
ROCLOR 1260	<2.5
SURROGATE PERCENT RECOVERIES	
CMX (%)	159

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20382412

'EST : POLYCHLORINATED BIPHENYLS (EPA METHOD 608)

:LIENT	: D.B. STEPHENS & ASSOCIATES	DATE SAMPLED	: 03/18/92
'ROJECT #	: 2105-1.1	DATE RECEIVED	: 03/20/92
'ROJECT NAME	: ENRON THOREA	DATE EXTRACTED	: 03/24/92
:LIENT I.D.	: 5-1B	DATE ANALYZED	: 04/01/92
:AMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 5

:OMPOUNDS	RESULTS
.ROCLOR 1016	<2.5
.ROCLOR 1221	54
.ROCLOR 1232	<2.5
.ROCLOR 1242	<2.5
.ROCLOR 1248	<2.5
.ROCLOR 1254	<2.5
.ROCLOR 1260	<2.5
SURROGATE PERCENT RECOVERIES	
'CMX (%)	154

Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D. : 203824

TEST : POLYCHLORINATED BIPHENYLS (EPA METHOD 608)

CLIENT : D.B. STEPHENS & ASSOCIATES
PROJECT # : 2105-1.1
PROJECT NAME : ENRON THOREA
REF I.D. : 20382411

DATE ANALYZED : 04/01/92
SAMPLE MATRIX : AQUEOUS
UNITS : UG/L

COMPOUNDS	SAMPLE RESULT	CONC. SPIKED	SPIKED SAMPLE	% REC.	DUP. SPIKED SAMPLE	DUP. % REC.	RPD
AROCLOR 1242	<0.5	10	11	110	NA	NA	NA
AROCLOR 1221	140	40	180	100	NA	NA	NA

% Recovery = $\frac{\text{(Spike Sample Result - Sample Result)}}{\text{Spike Concentration}} \times 100$

RPD (Relative % Difference) = $\frac{\text{(Spiked Sample Result - Duplicate Spike Sample Result)}}{\text{Average of Spiked Sample}} \times 100$

Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D. : 203824

TEST : POLYCHLORINATED BIPHENYLS (EPA METHOD 608)

CLIENT : D.B. STEPHENS & ASSOCIATES
PROJECT # : 2105-1.1
PROJECT NAME : ENRON THOREA
REF I.D. : 20382412

DATE ANALYZED : 04/01/92
SAMPLE MATRIX : AQUEOUS
UNITS : UG/L

COMPOUNDS	SAMPLE RESULT	CONC. SPIKED	SPIKED SAMPLE	% REC.	DUP. SPIKED SAMPLE	DUP. % REC.	RPD
AROCLOR 1221	54	20	79	125	NA	NA	NA
AROCLOR 1242	<0.5	20	20	100	NA	NA	NA

$$\text{Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$

Report on the analyses of PCB of 203824
for D. B. Stephens & Associates

Mike:

AR 1221 were found in Acc# -9, 11 and 12.
The retention time comparasions is listed below:

	5-1B Dupl. (5-99)	(5-6B)	(5-1B)	AR 1221, (min)	
Peak	203824-9	203824-11	203824-12	Std. 2.0 ppm	Std. 5.0 ppm
	7.29 / 2.51	7.27 / 1.27	7.28 / 4.10	7.28 / 0.52	7.28 / 0.41
	7.39 / 1.26	7.38 / 1.15	7.38 / 1.58	7.38 / 0.43	7.38 / 0.35
	7.65 / 2.21	7.63 / 2.88	7.63 / 2.40	7.63 / 3.57	7.64 / 3.63
	8.15 / 2.15	8.13 / 3.11	8.14 / 2.96	8.14 / 1.92	8.14 / 1.83
	8.36 / 7.23	8.34 / 15.22	8.35 / 7.70	8.35 / 9.30	8.36 / 6.63
	8.56 / 1.00	8.54 / 1.00	8.55 / 1.00	8.55 / 1.00	8.55 / 1.00
	9.51 / 3.36	9.49 / 1.50	9.50 / 5.26	9.44 / 0.50	9.45 / 0.53
	9.77 / 8.35	9.75 / 10.6	9.76 / 12.9	9.71 / 1.39	9.72 / 1.29
	11.54 / 2.08	11.52 / 1.09	11.52 / 2.40	11.52 / 0.66	11.53 / 0.64
	11.98 / 3.18	11.96 / 0.94	11.96 / 4.68	11.96 / 0.37	11.97 / 0.37

on DB-608, primary column.

The ratio of the peaks are listed above in red color.

The retention times of # 7 and # 8 are not matched very well between Stds and Samples, I did not use them.

The peaks used for the calculations above are the most of peaks on the chromatograph. The r.t are matched very well, but the ratio, for some unknown reasons, are bad.

AR 1016, 1232 and 1242 have some co-elution peaks.

retention time are very close, with some peaks before 10 minuts. But 1/2 ~ 1/3 of major peaks of them are missing.

The AR 1221 peaks in the sample can only see clearly when the sample was diluted to 5 times.

Therefore. The PCB in the samples is AR 1221 instead of AR 1242, AR 1206 or AR 1232.

The results of the special spikes are as following

#	203824 - 11 (5-6B)		203824 - 12 (5-1B)		
Spiked	AR 1221	1242	1221	AR 1242	
results	140 ug/L	< 0.5	54 ug/L	< 0.5 ug/L	
Added	40 ug/L	10 ug/L	20 ug/L	20 ug/L	
Sample	150 ug/L	16, 10.8*	79 ug/L	20 ug/L	
Rec.	25 %	160%, 110%	125%	100 %	
S. Sample	180 ug/L			21 ug/L	
recovery	100 %			105 %	
D	18			5	

*: modified, less the peaks ex

The common peaks for 1221, 1016, 1232, 1242, 1248 after 12 minuts are: 13.13 (min), 13.54, 13.99, 14.19 and 15.11. They are used for the calculations of 1242 Spiked in #-11 and #-12. And it is why we have to modify the numer in #-11 for 1242.

ym 4/1/92

PCB

000103

Cont. pg. 1 of

Pesticide/PCB Waters
608/614

Date: 3-24-92
Chemist: AR/KP

Box 9 : A1 - C2

The following samples were extracted by Continuous method, using 300 mls of methylene chloride at pH listed below. The extract was concentrated using a K/D apparatus, solvent exchanged and vialed at the volume listed below. (Reference: EPA Method 608)

Methylene chloride lot #: BC005

Hexane lot #: C42107

Surrogate spike: TCMX
Spike ID: EX-58-4
Concentration: 20 ug/ml
Expiration Date: 5-7-92
Amount Added: 100uL

Matrix spike:	Arochlor 1221	Arochlor 1242	Arochlor 1260
Spike ID:	F108S	F109S	EX-11-4
Concentration:	0.1mg/ml	0.1mg/ml	100 ug/ml
Expiration Date:			8-19-92
Amount Added:	200uL	100uL	50uL

Continuous on: 11:00 Total Time 18hrs

Spiking Witness: [signature]

Sample I.D.	Amount Extracted	Final Volume	Clean up	Initial pH	Client I.D.	Comments
BLANK	1000 mls	10 mls	N/A	7	—	—
203824-4	↓	↓	↓	↓	5-3B	
-5					5-17B	
-6					5-5B	
-7					5-22B	
-8					5-4B	
-9					5-9	
-10					5-16B	
-13					5-19B	
-14					5-2B	
203825-1					SP-1	
-2					SP-2	
-3					SP-3	900ml in bottle
203838-2	↓	↓			6-PW-1	
-3	~~500 ml~~ 250ml	~~5 ml~~ 2.5ml			6-PW-2	Only 250ml!
-4	1000 ml	10 ml			6-PW4	
203824-11MS	500 ml	5 ml			5-6B	Arochlor 1221 100ul spike
-11MSD	↓	↓	↓	↓	↓	↓

Cont.

(PCB)

Pesticide/(PCB Waters)
608/614

000104
Cont from 103

Date: 3-24-92
Chemist: AR

Box ____ : ____ - ____

The following samples were extracted by Continuous method, using 300 mls of methylene chloride at pH listed below. The extract was concentrated using a K/D apparatus, solvent exchanged and vialed at the volume listed below. (Reference: EPA Method 608)

Methylene chloride lot #: BC005 Hexane lot #: C42107

Surrogate spike: See pg. 103
Spike ID:
Concentration:
Expiration Date:
Amount Added:

Matrix spike: See pg. 103
Spike ID:
Concentration:
Expiration Date:
Amount Added:

Spiking Witness: Kyle Paulsen

Sample I.D.	Amount Extracted	Final Volume (KD)	Clean up	Initial pH	Client I.D.	Comments
203824-12MS	500ml	5ml	NONE	7	5-1B	50ul spike Aroclor 1242
-12MSD	↓	↓	↓	↓	↓	↓
BS	1000ml	10ml	↓	↓	—	Aroclor 1260
BSD	↓	↓	↓	↓	—	— ↓
LCS						

* All samples had headspace in bottles
* All samples were stored in clear glass except 203825-1,2,3 samples

3-26-92
(KD)

Pesticide PCB Water
608/614

Date: 3-31-92 Box 9 : D7 - E1
Chemist: AR

The following samples were extracted by Shake Out method, using 300 mls of methylene chloride at pH listed below. The extract was concentrated using a K/D apparatus, solvent exchanged and vialed at the volume listed below. (Reference: EPA Method 608)

Methylene chloride lot #: BC005 Hexane lot #: C42107

Surrogate spike:	TCMX	Matrix spike:	Aroclor 1221	Aroclor 1242
Spike ID:	EX-584	Spike ID:	F1086	F1095
Concentration:	20ng/uL	Concentration:	100ng/uL	100ng/uL
Expiration Date:	5-9-92	Expiration Date:		
Amount Added:	50uL	Amount Added:	100uL	50uL

Spiking Witness: [signature]

Sample I.D.	Amount Extracted	Final Volume	Clean up	Initial pH	Client I.D.	Comments
BLANK	500mls	5mls	3mls to acid wash	7		
203824-11					5-6B	
203824-12					5-1B	
203824-11MS					5-6B	Aroclor 1242
203824-12MS					5-1B	Aroclor 1221

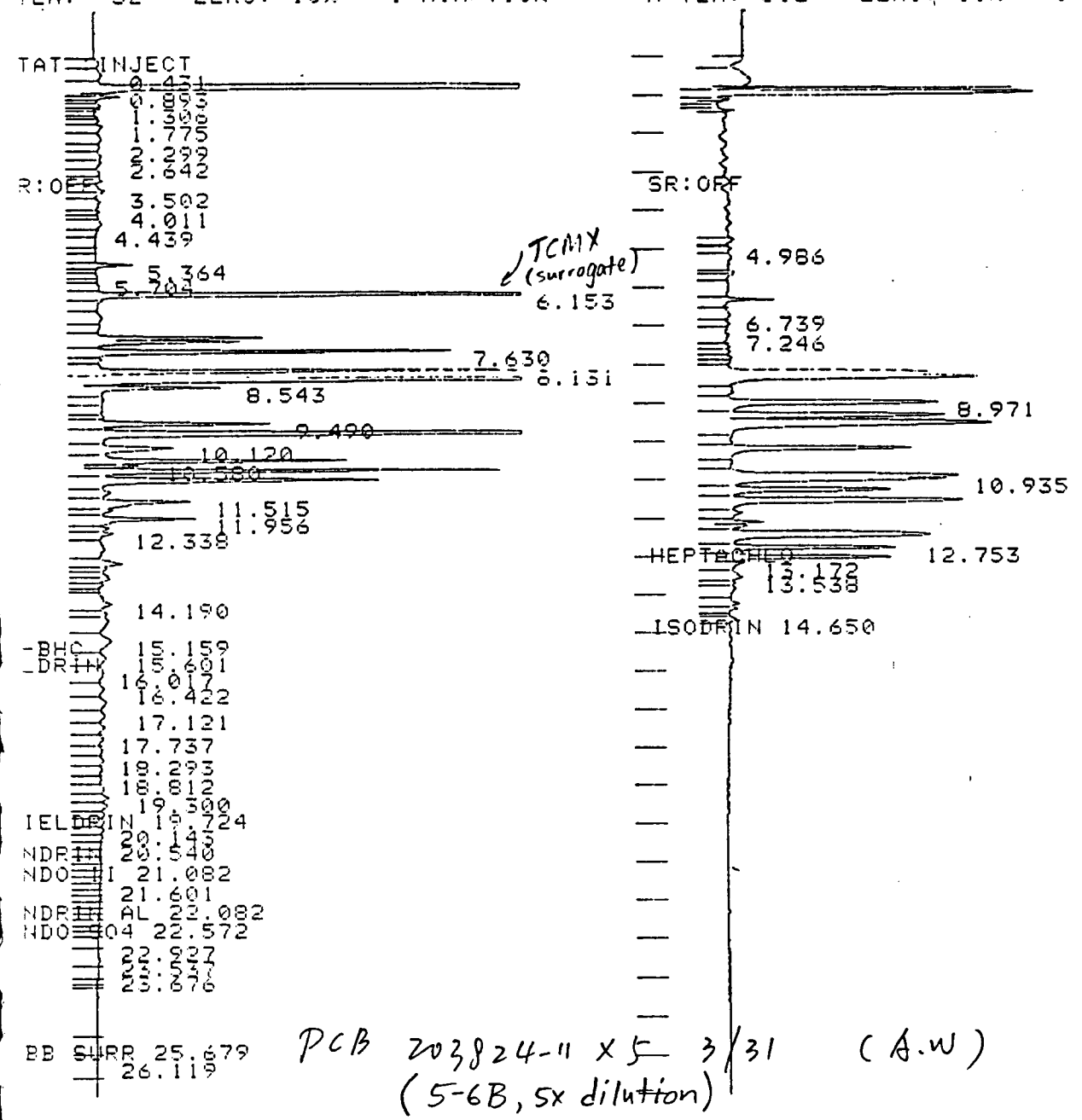
AR 3/31

Sample 203824-11, 12.

5-6B 5-1B

ART SPEED 0.6 CM/MIN
TEN: 32 ZERO: 10% 1 MIN/TICK

ATTEN: 512 ZERO: 10% 1 MIN/TICK



PCB 203824-11 x 5 3/31 (A.W)
(5-6B, 5x dilution)

TLE: PESTICIDES 0:52 1 APR 92

ANNEL NO: 2 SAMPLE: 20 METHOD: DB608

AK O	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.192		5404	VV	?	12.15
2		0.0000	3.442		5650	VV	?	11.90
3		0.0000	3.502		3320	VV	?	6.00
4		0.0000	3.737		6019	VV		15.45
5		0.0000	4.011		2241	VV	?	4.70
6		0.0000	4.158		2172	VV	?	5.80
7		0.0000	4.326		6161	VV	?	13.20
8		0.0000	4.439		237	VV	?	

TLE: PESTICIDES 0:52 1 APR 92

ANNEL NO: 2 SAMPLE: 20 METHOD: DB608

AK O	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.192		5404	VV	?	12.15
2		0.0000	3.442		5650	VV	?	11.90
3		0.0000	3.502		3320	VV	?	6.00
4		0.0000	3.737		6019	VV		15.45
5		0.0000	4.011		2241	VV	?	4.70
6		0.0000	4.158		2172	VV	?	5.80
7		0.0000	4.326		6161	VV	?	13.20
8		0.0000	4.439		2324	VV	?	
9		0.0000	4.814		1269	VV	?	4.65
10		0.0000	5.124		738	VV	?	10.80
11		0.0000	5.364		9651	VV		3.60
12		0.0000	5.461		595	VV	?	
13		0.0000	5.674		927	VV	?	9.30
14		0.0000	5.704		1069	VV	?	
15		0.0000	5.921		2567	Ratio	?	4.50
16		0.0000	6.153	TCMX	407957	VV	?	1.95
17		0.0000	6.311		2464	VV	?	1.70
18		0.0000	6.756		4250	VV	?	14.30
19		0.0000	6.973		1697	VV	?	3.20
20		0.0000	7.273		45514	1.31 VV 1.27		3.90
21		0.0000	7.375		41139	1.19 VV 1.15		4.30
22		0.0000	7.630		103337	2.98 2.88		4.00
23		0.0000	7.817		885	VV 3.11?		4.10
24		0.0000	8.131		111548	3.71 VV		1.95
25		0.0000	8.345		545903	15.8 15.22		4.10
26		0.0000	8.543		35864	1.04		4.05
27		0.0000	8.864		1350	VB	?	6.50
28		0.0000	9.302		815	BV		2.35
29	AR1221	0.0000	9.490		53796	1.55 1.50		4.30
30		0.0000	9.750		380521	11.0 10.6		3.90
31		0.0000	10.120		34801	VV		6.80
32		0.0000	10.460		78171	VV		4.05
33		0.0000	10.580		10254	VV	?	4.70
34		0.0000	10.724		117252	VV		3.90
35		0.0000	10.971		109033	VV		5.35
36		0.0000	11.270		6618	VV		6.50
37		0.0000	11.515		39184	1.13 VV 1.09		4.50
38		0.0000	11.733		5218	VV		5.40
39		0.0000	11.956		33898	0.98 VV 0.94		4.10
40	A BHC	0.0020	12.198	-0.002	3940	VV		4.45
41		0.0000	12.338		6317	VV		4.10
42		0.0000	12.754	ΣA=139704 (1~10)	7933	VV		9.50
43		0.0000	13.128		12332	VV		6.75
44		0.0000	13.256		4083	VV	?	7.25
45		0.0000	13.460		4858	VV	?	10.30
46	LINDANE	0.0031	13.530	0.030	5224	VV	?	5.90
47	B BHC	0.0040	13.688	-0.062	2644	VV		4.15
48		0.0000	14.190	ΣA=95387 (1-6, 9-10)	12850	VV		7.40
49		0.0000	14.440		6077	VV	?	7.50
50	HEPTACHLO	0.0150	14.647	0.047	14159	VV	?	23.65
51	D-BHC	0.0115	15.159	0.179	17714	VV		16.70
52	ALDRIN	0.0063	15.601	-0.099	9517	VV		15.95
53		0.0000	16.017		8126	VV		18.35
54		0.0000	16.422		6378	VV		11.80
55	ISODRIN	4.6929	16.780	-0.020	9597	VV		13.90
56		0.0000	17.121		7699	VV		12.20
57	HEPT EPOX	0.0040	17.426	-0.074	6003	VV		10.65
58		0.0000	17.737		4496	VV		8.65
59		0.0000	18.027		4630	VV		10.35
60		0.0000	18.293		5439	VV		9.50
61		0.0000	18.550		4177	VV		8.75
62	ENDO I	0.0025	18.812	0.112	3206	VV		7.85
63		0.0000	19.056		6020	VV	?	9.60
64	DDE	0.0057	19.300	0.000	8099	VV		10.30
65		0.0000	19.510		7628	VV	?	10.50
66		0.0000	19.724		5702	VV	?	7.40
67	DIELDRIN	0.0040	19.934	0.034	5669	VV	?	8.30

40	H BHC	0.0020	12.198		-0.002	3940	VV		4.45
41		0.0000	12.338			6317	VV		4.10
42		0.0000	12.754			7933	VV		9.50
43		0.0000	13.128			12332	VV		6.75
44		0.0000	13.256			4083	VV	?	7.25
45		0.0000	13.460			4858	VV	?	10.30
46	LINDANE	0.0031	13.530		0.030	5224	VV	?	5.90
47	B BHC	0.0040	13.688		-0.062	2644	VV		4.15
48		0.0000	14.190			12850	VV		7.40
49		0.0000	14.440			6077	VV	?	7.50
50	HEPTACHLO	0.0150	14.647		0.047	14159	VV	?	23.65
51	D-BHC	0.0115	15.159		0.179	17714	VV		16.70
52	ALDRIN	0.0063	15.601		-0.099	9517	VV		15.95
53		0.0000	16.017			8126	VV		18.35
54		0.0000	16.422			6378	VV		11.80
55	ISODRIN	4.6929	16.780		-0.020	9597	VV		13.90
56		0.0000	17.121			7699	VV		12.20
57	HEPT EPOX	0.0040	17.426		-0.074	6003	VV		10.65
58		0.0000	17.737			4496	VV		8.65
59		0.0000	18.027			4630	VV		10.35
60		0.0000	18.293			5439	VV		9.50
61		0.0000	18.550			4177	VV		8.75
62	ENDO I	0.0025	18.812		0.112	3206	VV		7.85
63		0.0000	19.056			6020	VV	?	9.60
64	DDE	0.0057	19.300		0.000	8099	VV		10.30
65		0.0000	19.510			7628	VV	?	10.50
66		0.0000	19.724			5702	VV	?	7.40
67	DIELDRIN	0.0040	19.934		0.034	5660	VV	?	8.20
68		0.0000	20.143			4848	VV	?	10.20
69		0.0000	20.332			4027	VV	?	8.70
70		0.0000	20.540			3348	VV		7.40
71		0.0000	20.719			3109	VV		7.00
72	ENDRIN	0.0063	20.903		0.053	3120	VV		7.00
73	DDD	0.0297	21.082		0.072	3071	VV		7.00
74		0.0000	21.252			1959	VV	?	3.95
75	ENDO II	0.0014	21.431		0.011	1653	VV		5.30
76		0.0000	21.601			1400	VV		5.15
77		0.0000	21.758			1304	VV		5.25
78		0.0000	21.926			1713	VV		5.25
79	DDT	0.0025	22.082		0.052	1252	VV	?	4.45
80		0.0000	22.242			973	VV	?	3.75
81	ENDRIN AL	0.0006	22.382		0.002	627	VV	?	3.15
82		0.0000	22.572			1017	VV		6.15
83		0.0000	22.642			706	VV	?	
84	ENDO SO4	0.0019	22.762		-0.038	1594	VV	?	15.80
85		0.0000	23.537			2899	VV	?	9.45
86		0.0000	23.676			1617	VB	?	33.60
87	HBB SURR	2.8060	25.679		0.189	1396	BV	?	21.20
88		0.0000	26.119			1162	VB	?	8.00
)TALS:		7.5994			0.486	2464880			

$\Sigma A = 1390704$ (1~10)

$\Sigma A = 958387$ (1-6, 9-10)

:TECTED PKS: 109 REJECTED PKS: 21

:VISOR: 1.00000 MULTIPLIER: 1.00000

)ISE: 18.2 OFFSET: 15

:CK: 16 VIAL: 2 INJ: 1

)TES:
DB608 PRIMARY COLUMN

$\frac{5}{0.05}$ gm

$$TCMX = \frac{407957 \times \frac{10}{0.1} \times 5}{128360 \times 100} = 159\%$$

AR1221 = 3.676 ug/ml × 5 ml / 0.5 L × 5 = 184 ug/L
(by curve, 10 peaks)

AR1221 = 2.899 × 5 / 0.5 × 5 = 145 ug/L ↑ reported
(by curve, 8 peaks)

:TLE: PESTICIDE CONFIRMATORY 0:52 1 APR 92

HANNEL NO: 1 SAMPLE: SAME METHOD: DB5

:AK	PEAK	RESULT	TIME	TIME	AREA	SEP	WID

(by curve, & peaks) ↑ reported

TLE: PESTICIDE CONFIRMATORY 0:52 1 APR 92

ANNEL NO: 1 SAMPLE: SAME METHOD: DB5

AK O	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	4.736		46886	BB	?	11.25
2		0.0000	4.986		18403	BB	?	3.80
3		0.0000	5.596		37965	BV	?	4.20
4		0.0000	5.635		28192	VB	?	6.90
5		0.0000	6.318		178774	BV		2.50
6		0.0000	6.739		84407	VV	?	16.75
7		0.0000	6.950		48456	VV	?	8.00
8		0.0000	7.246		80235	VV	?	6.00
9		0.0000	7.531		32878	VV	?	4.80
10		0.0000	7.596		38440	VV	?	
11		0.0000	7.828		44900	VV	?	7.00
12		0.0000	7.875		36161	VV	?	
13		0.0000	8.192		1206690	VV	?	6.10
14		0.0000	8.297		2133010	VV	?	6.30
15		0.0000	8.538		70348	VV	?	
16		0.0000	8.971		1666570	VV		7.30
17		0.0000	9.305		1578030	VV		7.10
18	A BHC	4.5428	9.501	0.071	2672230	VB		9.75
19	B BHC	5.3573	10.169	0.029	1245890	BB		6.15
20		0.0000	10.883		1661460	BV	?	7.10
21	LINDANE	2.5791	10.935	-0.085	1357430	VV	?	12.00
22		0.0000	11.247		1066930	VV		5.90
23		0.0000	11.519		1957820	VV		7.90
24		0.0000	11.849		89130	VV		4.75
25		0.0000	12.093		151586	VV		3.50
26		0.0000	12.189		93638	VV	?	4.80
27		0.0000	12.414		2051760	VV		9.50
28	HEPTACHLO	2.2783	12.753	0.043	1035570	VV		5.50
29		0.0000	13.001		972075	VV		5.20
30		0.0000	13.172		99862	VV	?	5.25
31		0.0000	13.538		128549	VV		9.10
32		0.0000	13.690		32480	VV	?	5.20
33	ALDRIN	0.1352	13.829	0.029	64360	VV	?	6.50
34		0.0000	14.232		54717	VV		3.85
35		0.0000	14.356		34853	VB		3.70
36	ISODRIN	57.3004	14.650	-0.010	36731	BB		5.30
TALS:		72.1931		0.077	22137100			

TECTED PKS: 42 REJECTED PKS: 6

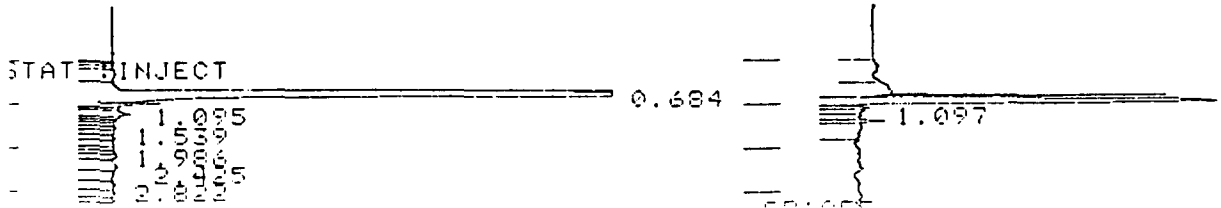
VISOR: 1.00000 MULTIPLIER: 1.00000

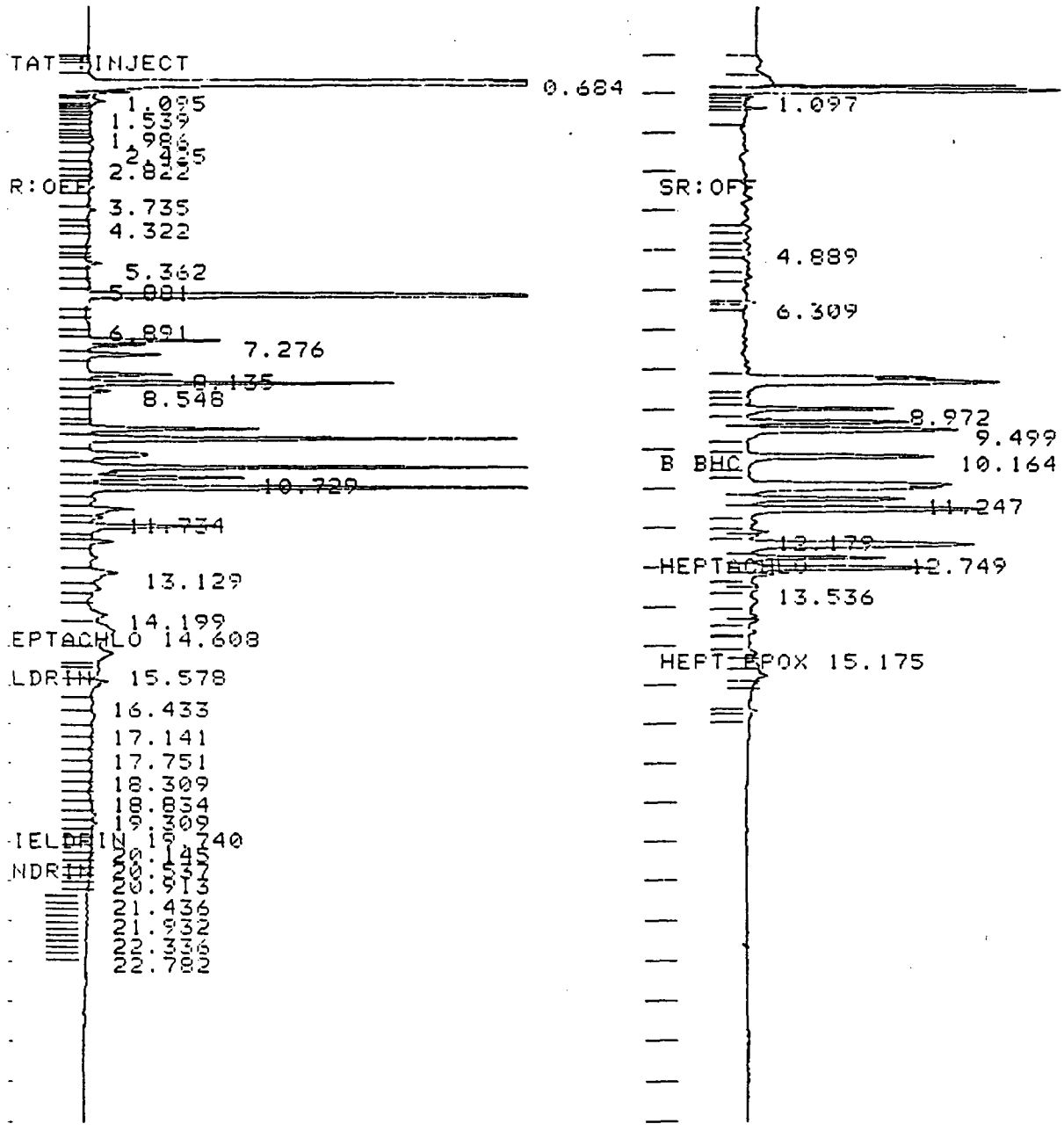
)ISE: 364.2 OFFSET: -103

ICK: 16 VIAL: 2 INJ: 1

ITES:
DB5 CONFIRMATORY COLUMN

HART SPEED 0.6 CM/MIN
TEN: 32 ZERO: 10% 1 MIN/TICK ATTEN: 512 ZERO: 10% 1 MIN/TICK





PCB 203824-12 x 5 3/31 (S.W)

$$TCMX = \frac{395812 \times \frac{5}{0.05} \times 5}{1283860 \times 100} = 154\%$$

TLE: PESTICIDES 1:27 1 APR 92

HANNEL NO: 2 SAMPLE: 21 METHOD: DB608

EAK NO	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		WI/2 (SEC)
1		0.0000	3.021		2057	VV	?	4.80
2		0.0000	3.197		1389	VV		3.65
3		0.0000	3.432		3997	VV		4.55
4		0.0000	3.735		2810	VV		4.80
5		0.0000	4.006		4006	VV		3.45
6		0.0000	4.322		1584	VV		4.15
7		0.0000	4.516		2920	VV	?	5.90
8		0.0000	4.627		3740	VV	?	8.20
9		0.0000	5.009		1198	VV		4.25
10		0.0000	5.081		523	VV	?	10.30

TLE: PESTICIDES 1:27 1 APR 92

ANNEL NO: 2 SAMPLE: 21 METHOD: DB608

AK NO	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.021		2057	VV	?	4.80
2		0.0000	3.197		1389	VV		3.65
3		0.0000	3.432		3997	VV		4.55
4		0.0000	3.735		2810	VV		4.80
5		0.0000	4.006		4006	VV		3.45
6		0.0000	4.322		1584	VV		4.15
7		0.0000	4.516		2920	VV	?	5.90
8		0.0000	4.627		3740	VV	?	8.20
9		0.0000	5.009		1198	VV		4.25
10		0.0000	5.081		523	VV	?	10.30
11		0.0000	5.362		6090	VV		3.80
12		0.0000	5.631		2938	VV	?	13.95
13		0.0000	5.881		3950	VV	?	12.60
14		0.0000	6.152	TCMX	395812	VV	?	1.95
15		0.0000	6.589		1460	VV	?	10.80
16		0.0000	6.891		5045	VV	?	12.10
17		0.0000	7.091		3238	Ratio	?	5.80
18		0.0000	7.276		44719	4.19 VV	?	2.35
19		0.0000	7.378		17242	1.58 VV	?	4.95
20		0.0000	7.634		26157	2.49 VV		4.50
21		0.0000	8.135		32304	2.99 VV		4.15
22		0.0000	8.349		84000	7.79 VV		3.70
23		0.0000	8.548		10910	1.00 VV		4.65
24		0.0000	8.875		6870	VV	?	11.90
25		0.0000	8.981		5671	VV	?	
26		0.0000	9.310		3857	VV	?	6.50
27		0.0000	9.497		57362	5.26 V		4.35
28		0.0000	9.755		140325	12.9 VV		4.20
29		0.0000	10.150		37798	VV		7.80
30		0.0000	10.466		145502	VV		3.85
31		0.0000	10.729		54560	VV		4.55
32		0.0000	10.986		170009	VV		4.20
33		0.0000	11.277		8860	VV	?	7.30
34		0.0000	11.521		26196	2.40 V	?	3.50
35		0.0000	11.734		7836	VV	?	6.40
36		0.0000	11.959		51046	4.68		4.45
37	A BHC	0.0019	12.204	0.004	3682	VV		4.85
38		0.0000	12.341		12919	VV		4.75
39		0.0000	12.754	ΣA = 490261	14945	VV		10.85
40		0.0000	13.129	(1~10)	28523	VV		9.90
41	LINDANE	0.0080	13.526	0.028	13396	VV	?	11.95
42	B BHC	0.0084	13.683	-0.067	5590	VV		3.45
43		0.0000	14.199		23750	VV	?	12.70
44	HEPTACHLO	0.0606	14.608	0.008	57183	VV		33.05
45	D-BHC	0.0233	15.179	0.199	35772	VV	?	22.35
46		0.0000	15.397		5587	VV	?	
47	ALDRIN	0.0117	15.578	ΣA = 59237 4	17696	VV	?	18.30
48		0.0000	15.894		23504	VV		11.15
49		0.0000	16.433	(1~6, 9, 15)	11111	VV	?	14.80
50	ISODRIN	7.2113	16.773	-0.027	14747	VV		19.45
51		0.0000	17.141		10722	VV	?	15.35
52	HEPT EPOX	0.0058	17.434	-0.066	8597	VV		12.65
53		0.0000	17.751		6558	VV		9.75
54		0.0000	18.047		6428	VV		11.90
55		0.0000	18.309		6904	VV		10.95
56		0.0000	18.560		5208	VV		8.95
57	ENDO I	0.0032	18.854	0.134	4177	VV		9.10
58		0.0000	19.070		6974	VV	?	10.80
59	DDE	0.0063	19.309	0.009	8919	VV	?	10.30
60		0.0000	19.517		8825	VV		9.10
61		0.0000	19.740		6193	VV	?	8.50
62	DIELDRIN	0.0042	19.933	0.033	5991	VV	?	8.50
63		0.0000	20.145		5213	VV	?	10.95
64		0.0000	20.342		4205	VV	?	8.20
65		0.0000	20.537		3569	VV	?	7.90
66		0.0000	20.722		3456	VV	?	6.95
67	ENDRIN	0.0063	20.913	0.063	3105	VV		6.40
68	DDD	0.0277	21.082	0.072	2863	VV		6.10
69		0.0000	21.252		1958	VV		3.80
70	ENDO II	0.0014	21.436	0.016	1667	VV	?	5.95
71		0.0000	21.605		1195	VV		4.20
72		0.0000	21.752		1205	VV		7.55

67	ENDRIN	0.0063	20.913	0.063	3105	VV		6.40
68	DDD	0.0277	21.082	0.072	2863	VV		6.10
69		0.0000	21.252		1958	VV		3.80
70	ENDO II	0.0014	21.436	0.016	1667	VV	?	5.95
71		0.0000	21.605		1195	VV		4.20
72		0.0000	21.757		1295	VV		5.75
73		0.0000	21.932		1300	VV		4.65
74	DDT	0.0023	22.092	0.062	1164	VV	?	5.30
75	ENDRIN AL	0.0010	22.235	-0.145	974	VV	?	4.90
76		0.0000	22.569		583	VV		7.30
77	ENDO SO4	0.0007	22.702	-0.098	563	VV	?	4.65
TALS:		7.3841		0.101	1760990			

TECTED PKS: 97 REJECTED PKS: 20

VISOR: 1.00000 MULTIPLIER: 1.00000

ISE: 18.2 OFFSET: 0

CK: 16 VIAL: 3 INJ: 1

TES:
DB608 PRIMARY COLUMN

AR1221 = 1.494 ug/ml x 5ml/0.5L x 5 = 74.7 ug/L
(by Curve, 10 peaks)

AR1221 = 1.099 x 5/0.5 x 5 = 54.4 ug/L
(by curve, 8 peaks) †
Reported.

TLE: PESTICIDE CONFIRMATORY 1:27 1 APR 92

ANNEL NO: 1 SAMPLE: SAME METHOD: DB5

AK O	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	4.452		53625	BB	?	3.10
2		0.0000	4.889		64500	BV	?	5.65
3		0.0000	5.008		52918	VV	?	17.10
4		0.0000	5.327		100918	VV	?	
5		0.0000	5.671		55350	VB	?	4.65
6		0.0000	6.309		40405	BB		2.60
7		0.0000	8.188		936716	BV	?	5.20
8		0.0000	8.292		2045950	VB	?	8.60
9		0.0000	8.972		790840	BV		4.55
10		0.0000	9.303		865885	VV		4.80
11	A BHC	2.8645	9.499	0.069	1684990	VB		7.45
12	B BHC	5.3369	10.164	0.024	1241140	BB		6.15
13		0.0000	10.883		1237790	BV	?	6.40
14	LINDANE	2.2585	10.949	-0.071	1188670	VV	?	7.85
15		0.0000	11.247		1006030	VV		5.65
16		0.0000	11.512		1896610	VV		7.75
17		0.0000	11.843		77897	VV		5.50
18		0.0000	12.086		95679	VV		3.85
19		0.0000	12.179		48271	VV	?	4.55
20		0.0000	12.415		2125650	VV		9.15
21	HEPTACHLO	1.5246	12.749	0.039	693003	VV		4.15
22		0.0000	12.992		1192490	VV		5.95
23		0.0000	13.169		163485	VV	?	4.65
24		0.0000	13.431		50688	VV	?	4.80
25		0.0000	13.536		78278	VV	?	6.30
26	ALDRIN	0.2864	13.844	0.044	136400	VV		8.55
27		0.0000	14.224		74267	VV		4.40
28		0.0000	14.349		49037	VV		4.50
29	ISODRIN	73.9799	14.634	-0.026	47423	VB		5.05
30	HEPT EPOX	0.1495	15.175	0.215	67969	BV		9.80
31		0.0000	15.528		119486	VV	?	11.80
32		0.0000	15.743		209348	VV	?	9.45
33	ENDO I	0.0838	15.893	-0.187	21487	VB	?	
34	DIELDRIN	0.1321	16.658	-0.112	48927	BB		4.35
TALS:		86.6162		-0.005	18562300			

32	0.0000	15.743		209348	VV	?	9.45
33 ENDO I	0.0838	15.893	-0.187	21487	VB	?	
34 DIELDRIN	0.1321	16.658	-0.112	48927	BB		4.35

TALS: 86.6162 -0.005 18562200

TECTED PKS: 40 REJECTED PKS: 6

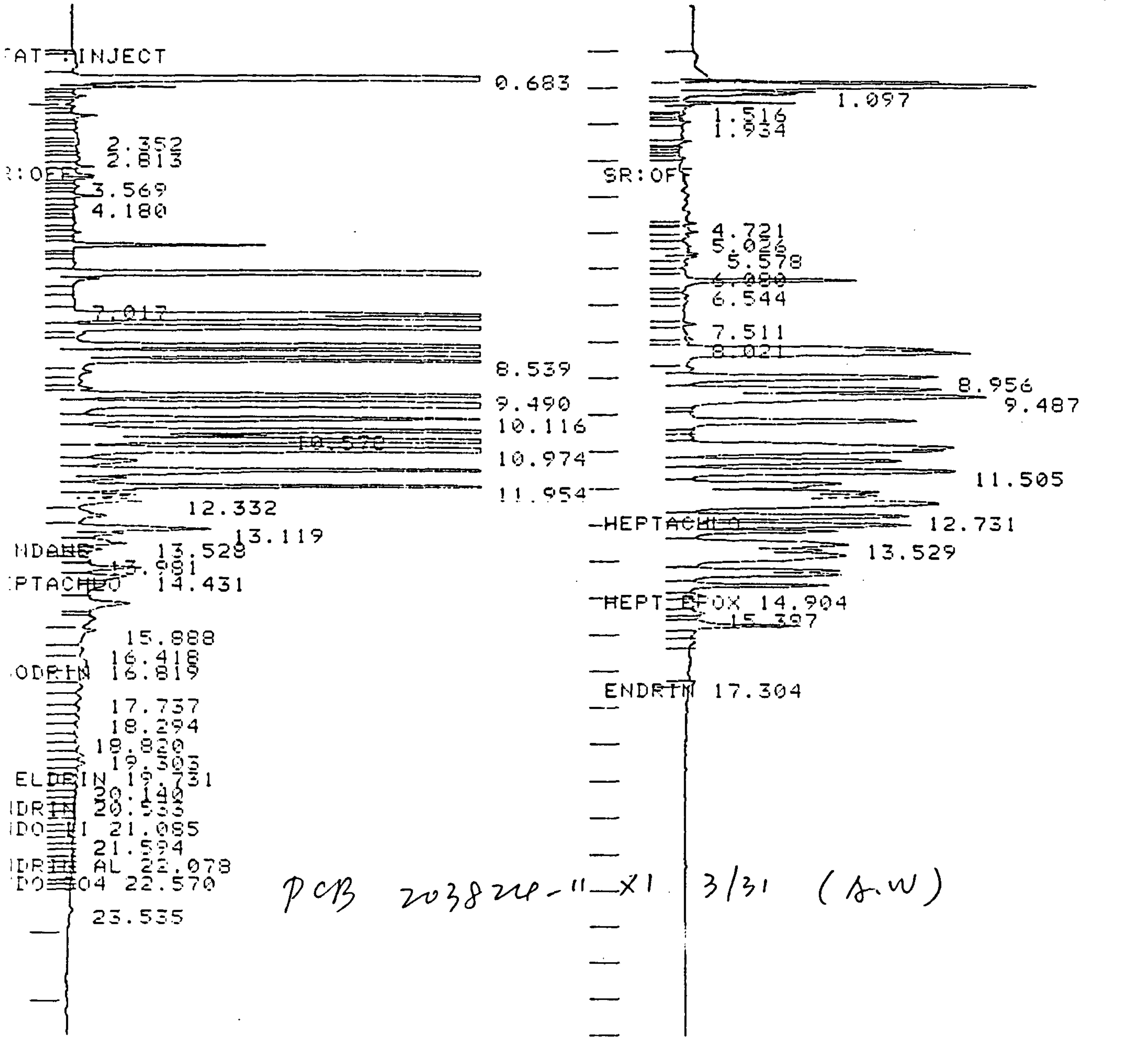
VISOR: 1.00000 MULTIPLIER: 1.00000

ISE: 364.2 OFFSET: 49

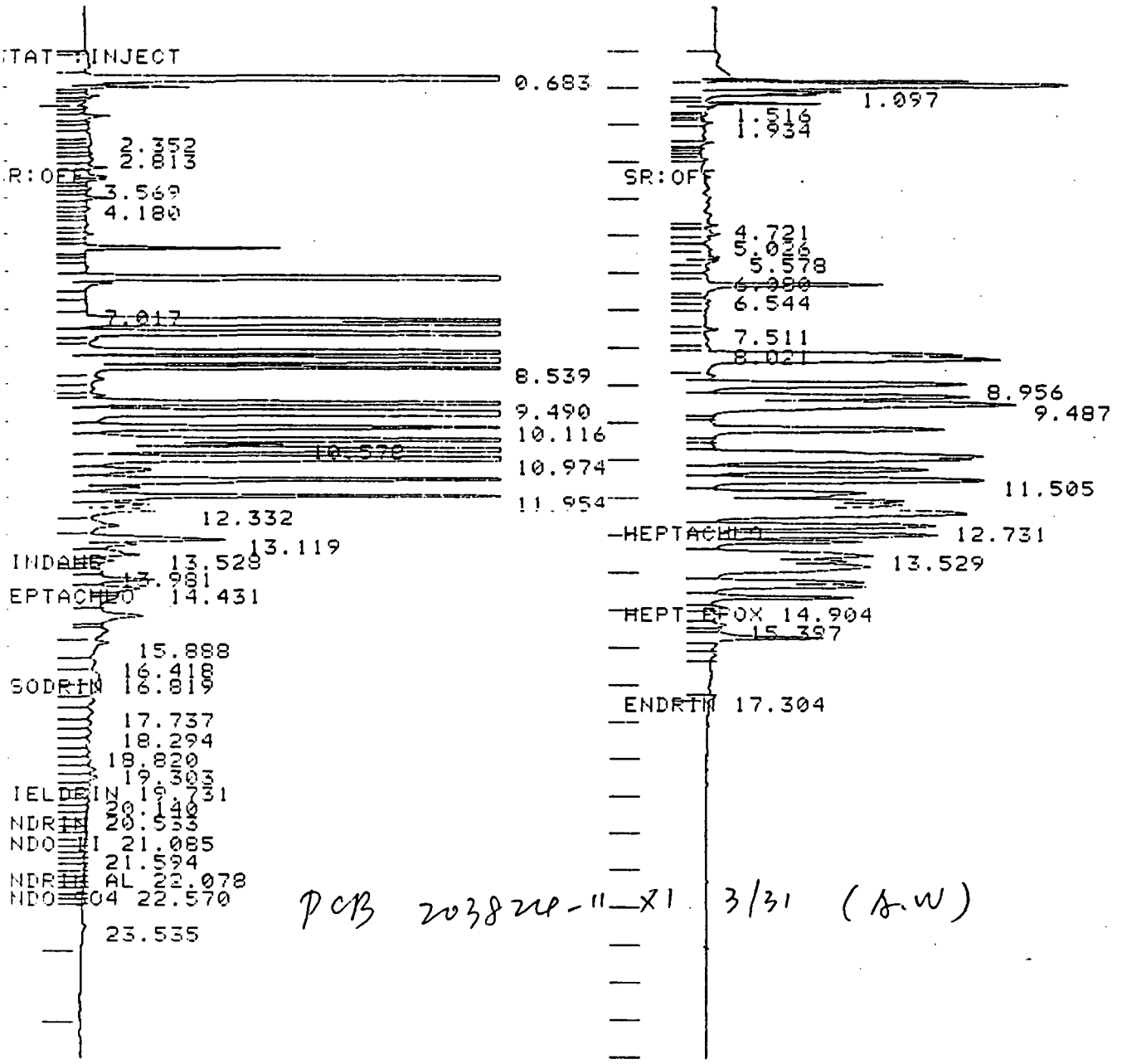
CK: 16 VIAL: 3 INJ: 1

TES:
DB5 CONFIRMATORY COLUMN

ART SPEED 0.6 CM/MIN
TEN: 32 ZERO: 10% 1 MIN/TICK ATTEN: 512 ZERO: 10% 1 MIN/TICK



PCB 2038 ... -11 X1 3/31 (A.W)



PCB 2038 24-11 X1 3/31 (S.W)

TLE: PESTICIDES 2:01 1 APR 92

ANNEL NO: 2 SAMPLE: 22 METHOD: DB608

AK O	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.192		13759	VV	?	2.50
2		0.0000	3.451		15345	VV	?	5.80
3		0.0000	3.502		8073	VV	?	4.55
4		0.0000	3.569		3922	VV	?	
5		0.0000	3.732		5953	VV	?	5.00
6		0.0000	3.782		4909	VV	?	
7		0.0000	4.001		12433	VV		4.00
8		0.0000	4.180		6636	VV		4.15
9		0.0000	4.315		6104	VV		5.30
10		0.0000	4.486		3910	VV	?	6.80
11		0.0000	4.561		4298	VV		5.15
12		0.0000	4.754		8586	VV		4.50
13		0.0000	4.818		4021	VV	?	

LE: PESTICIDES 2:01 1 APR 92

NNEL NO: 2 SAMPLE: 22 METHOD: DB608

K	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.192		13759	VV	?	2.50
2		0.0000	3.431		15345	VV	?	5.80
3		0.0000	3.502		8073	VV	?	4.55
4		0.0000	3.569		3922	VV	?	
5		0.0000	3.732		5953	VV	?	5.00
6		0.0000	3.782		4909	VV	?	
7		0.0000	4.001		12433	VV		4.00
8		0.0000	4.180		6636	VV		4.15
9		0.0000	4.315		6104	VV		5.30
0		0.0000	4.486		3910	VV	?	6.80
1		0.0000	4.561		4298	VV		5.15
2		0.0000	4.754		8586	VV		4.50
3		0.0000	4.818		4021	VV	?	
4		0.0000	5.006		7137	VV		5.15
5		0.0000	5.186		4009	VV	?	5.20
6		0.0000	5.356		54647	VV	?	1.85
7		0.0000	5.529		2420	VV	?	
8		0.0000	5.680		5118	VV	?	4.00
9		0.0000	5.867		10413	VV	?	6.90
0		0.0000	6.145	TCMX	1256860	VV		5.20
1		0.0000	6.307		17271	VV	?	5.50
2		0.0000	6.646		8308	VV		3.80
3		0.0000	7.017		12703	VV		3.90
4		0.0000	7.268		321709	VV		3.45
5		0.0000	7.370		309407	VV		3.70
6		0.0000	7.626		714112	VV		4.75
7		0.0000	7.807		10188	VV	?	4.10
8		0.0000	8.126		705135	VV	?	2.75
9		0.0000	8.340		1555430	VV		5.95
0		0.0000	8.539		255217	VV		3.40
1		0.0000	8.858		20416	VV	?	7.00
2		0.0000	9.120		13671	VV	?	5.70
3		0.0000	9.298		11888	VV	?	7.40
4		0.0000	9.490		385619	VV		4.15
5		0.0000	9.749		1456900	VV		6.25
6		0.0000	10.116		208336	VV		6.40
7		0.0000	10.460		570275	VV		4.35
8		0.0000	10.578		56194	VV	?	4.75
9		0.0000	10.725		771386	VV		4.80
0		0.0000	10.974		861880	VV		5.80
1		0.0000	11.261		48634	VV		8.95
2		0.0000	11.511		254883	VV		3.90
3		0.0000	11.730		25484	VV	?	6.80
4		0.0000	11.954		225722	VV		3.65
5	A BHC	0.0152	12.190	-0.010	30277	VV	?	6.20
6		0.0000	12.332		48715	VV		5.90
7		0.0000	12.749	ΣA= 618434	38937	VV	?	12.80
8		0.0000	13.119		81789	VV		7.75
9		0.0000	13.251		28807	VV	?	11.50
0	LINDANE	0.0240	13.528	0.028	40055	VV		10.05
1		0.0000	13.692		16786	VV	?	7.90
2	B BHC	0.0124	13.799	0.049	8220	VV	?	3.10
3		0.0000	13.981		15828	VV	?	12.20
4		0.0000	14.187		45532	VV	?	4.35
5		0.0000	14.431		40898	VV	?	8.30
6	HEPTACHLO	0.0142	14.589	-0.011	13435	VV	?	3.50
7		0.0000	14.649		37205	VV	?	0.30
8	D-BHC	0.0440	15.154	0.174	67551	VV	?	11.40
9		0.0000	15.415		9296	VV	?	2.70
0	ALDRIN	0.0223	15.560	-0.140	33809	VV	?	13.05
1		0.0000	15.888	ΣA=25075	36842	VV	?	26.85
2		0.0000	16.418		19799	VV	?	13.50
3	ISODRIN	15.3820	16.819	0.019	31456	VV	?	23.20
4		0.0000	17.138		21890	VV	?	10.30
5	HEPT EPOX	0.0109	17.425	-0.075	16320	VV	?	11.45
6		0.0000	17.737		15388	VV		14.95
7		0.0000	18.033		12139	VV		12.80
8		0.0000	18.294		11987	VV		11.30
9		0.0000	18.548		10209	VV		10.50
0	ENDO I	0.0065	18.820	0.120	8468	VV		11.05
1		0.0000	19.043		10785	VV	?	11.70
2	DDE	0.0092	19.303	0.003	13002	VV	?	12.50

60	ALDRIN	0.0225	15.560	-0.140	[illegible]	[illegible]		[illegible]
61		0.0000	15.888		36842	VV	?	26.85
62		0.0000	16.418		19799	VV	?	13.50
63	ISODRIN	15.3820	16.819	0.019	31456	VV	?	23.20
64		0.0000	17.138		21890	VV	?	10.30
65	HEPT EPOX	0.0109	17.425	-0.075	16320	VV	?	11.45
66		0.0000	17.737		15388	VV		14.95
67		0.0000	18.033		12139	VV		12.80
68		0.0000	18.294		11987	VV		11.30
69		0.0000	18.548		10209	VV		10.50
70	ENDO I	0.0065	18.820	0.120	8468	VV		11.05
71		0.0000	19.043		10785	VV	?	11.70
72	DDE	0.0092	19.303	0.003	13002	VV	?	12.50
73		0.0000	19.509		13355	VV	?	10.00
74		0.0000	19.731		8729	VV	?	4.40
75	DIELDRIN	0.0059	19.926	0.026	8474	VV		7.75
76		0.0000	20.140		8129	VV		8.80
77		0.0000	20.337		6856	VV		6.25
78		0.0000	20.533		5601	VV	?	8.10
79		0.0000	20.707		5628	VV	?	7.20
80	ENDRIN	0.0104	20.902	0.052	5099	VV	?	7.50
81	DDD	0.0484	21.085	0.075	5009	VV	?	6.80
82		0.0000	21.252		3500	VV	?	4.80
83	ENDO II	0.0027	21.428	0.008	3208	VV	?	6.40
84		0.0000	21.594		2834	VV	?	5.80
85		0.0000	21.763		2534	VV	?	5.00
86		0.0000	21.917		3334	VV	?	6.20
87	DDT	0.0047	22.078	0.048	2381	VV	?	5.10
88		0.0000	22.172		1984	VV	?	
89	ENDRIN AL	0.0013	22.328	-0.052	1335	VV	?	
90		0.0000	22.570		2407	VV	?	9.30
91		0.0000	22.652		1176	VV	?	
92	ENDO SO4	0.0017	22.762	-0.038	1402	VV	?	
93		0.0000	23.535		9612	VB	?	13.10

ΣA=250755

TALS: 15.6158 0.276 11127300

TECTED PKS: 113 REJECTED PKS: 20

VISOR: 1.00000 MULTIPLIER: 1.00000

ISE: 18.2 OFFSET: 19

ACK: 16 VIAL: 4 INJ: 1

TES:
DB608 PRIMARY COLUMN

AR1221 = 15.29 × 5/0.5 = 153 ug/L
(by curve)

$$TCMX = \frac{1256860 \times \frac{5}{0.05}}{1245340 \times 100} = 102\%$$

ITLE: PESTICIDE CONFIRMATORY 2:01 1 APR 92

HANNEL NO: 1 SAMPLE: SAME METHOD: DB5

EAK NO	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	4.721		50082	BB		2.75
2		0.0000	4.966		105368	BV		3.30
3		0.0000	5.026		45211	VV	?	14.80
4		0.0000	5.374		72176	VV	?	6.50
5		0.0000	5.578		117718	VV		3.45
6		0.0000	5.659		98173	VV	?	4.85
7		0.0000	5.874		41500	VV	?	6.30
8		0.0000	6.080		34296	VV	?	7.10
9		0.0000	6.307		1185880	VV		5.30
10		0.0000	6.544		13509	VV	?	7.70
11		0.0000	6.741		34741	VV		4.50
12		0.0000	6.879		37997	VB	?	8.45
13		0.0000	7.511		66503	BB		3.25
14		0.0000	8.021		27530	BV	?	8.60

'LE: PESTICIDE CONFIRMATORY 2:01 1 APR 92

ANNEL NO: 1 SAMPLE: SAME METHOD: DB5

K	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	4.721		50082	BB		2.75
2		0.0000	4.966		105368	BV		3.30
3		0.0000	5.026		45211	VV	?	14.80
4		0.0000	5.374		72176	VV	?	6.50
5		0.0000	5.578		117718	VV		3.45
6		0.0000	5.659		98173	VV	?	4.85
7		0.0000	5.874		41500	VV	?	6.30
8		0.0000	6.080		34296	VV	?	7.10
9		0.0000	6.307		1185880	VV		5.30
0		0.0000	6.544		13509	VV	?	7.70
1		0.0000	6.741		34741	VV		4.50
2		0.0000	6.879		37997	VB	?	8.45
3		0.0000	7.511		66503	BB		3.25
4		0.0000	8.021		27530	BV	?	8.60
5		0.0000	8.177		1743400	VV	?	7.70
6		0.0000	8.284		2662270	VV	?	9.50
7		0.0000	8.734		57904	VV	?	4.10
8		0.0000	8.956		2560520	VV		8.95
9		0.0000	9.290		2364350	VV		8.60
0	A BHC	6.7169	9.487	0.057	3951130	VV		11.05
1		0.0000	9.800		39031	VV	?	
2	B BHC	9.7131	10.155	0.015	2258860	VV		8.35
3	DBHC	0.0818	10.390	-0.020	45417	VV	?	
4		0.0000	10.627		60442	VV	?	5.70
5		0.0000	10.870		2811840	VV	?	12.80
6	LINDANE	3.6112	10.942	-0.078	1900630	VV	?	1.00
7		0.0000	11.232		2093440	VV		8.65
8		0.0000	11.505		2904830	VV		9.70
9		0.0000	11.845		1855580	VV		11.55
0		0.0000	12.081		1397750	VV	?	7.50
1		0.0000	12.182		1573940	VV	?	5.10
2		0.0000	12.398		3663500	VV	?	13.15
3	HEPTACHLO	4.6310	12.731	0.021	2105010	VV		8.55
4		0.0000	12.984		2067630	VV		8.45
5		0.0000	13.163		1082530	VV		5.65
6		0.0000	13.529		1937900	VV	?	11.40
7		0.0000	13.679		916436	VV	?	5.50
8	ALDRIN	5.1160	13.819	0.019	2436210	VV	?	16.65
9		0.0000	14.229		998933	VV	?	5.00
0		0.0000	14.345		1243660	VV	?	7.90
1	ISODRIN	1377.990	14.643	-0.017	883330	VV		5.00
2	HEPT EPOX	0.1551	14.904	-0.056	70496	VV		4.30
3		0.0000	15.135		127091	VV		7.05
4		0.0000	15.397		123233	VV	?	6.20
5		0.0000	15.500		73071	VV		2.60
6		0.0000	15.740		805759	VV		4.70
7		0.0000	15.878		63584	VV	?	
8	ENDO I	0.1931	16.201	0.121	49520	VB	?	8.90
9	ENDRIN	0.1336	17.304	-0.196	38165	BB		4.25

TALS: 1408.340 -0.134 50898100

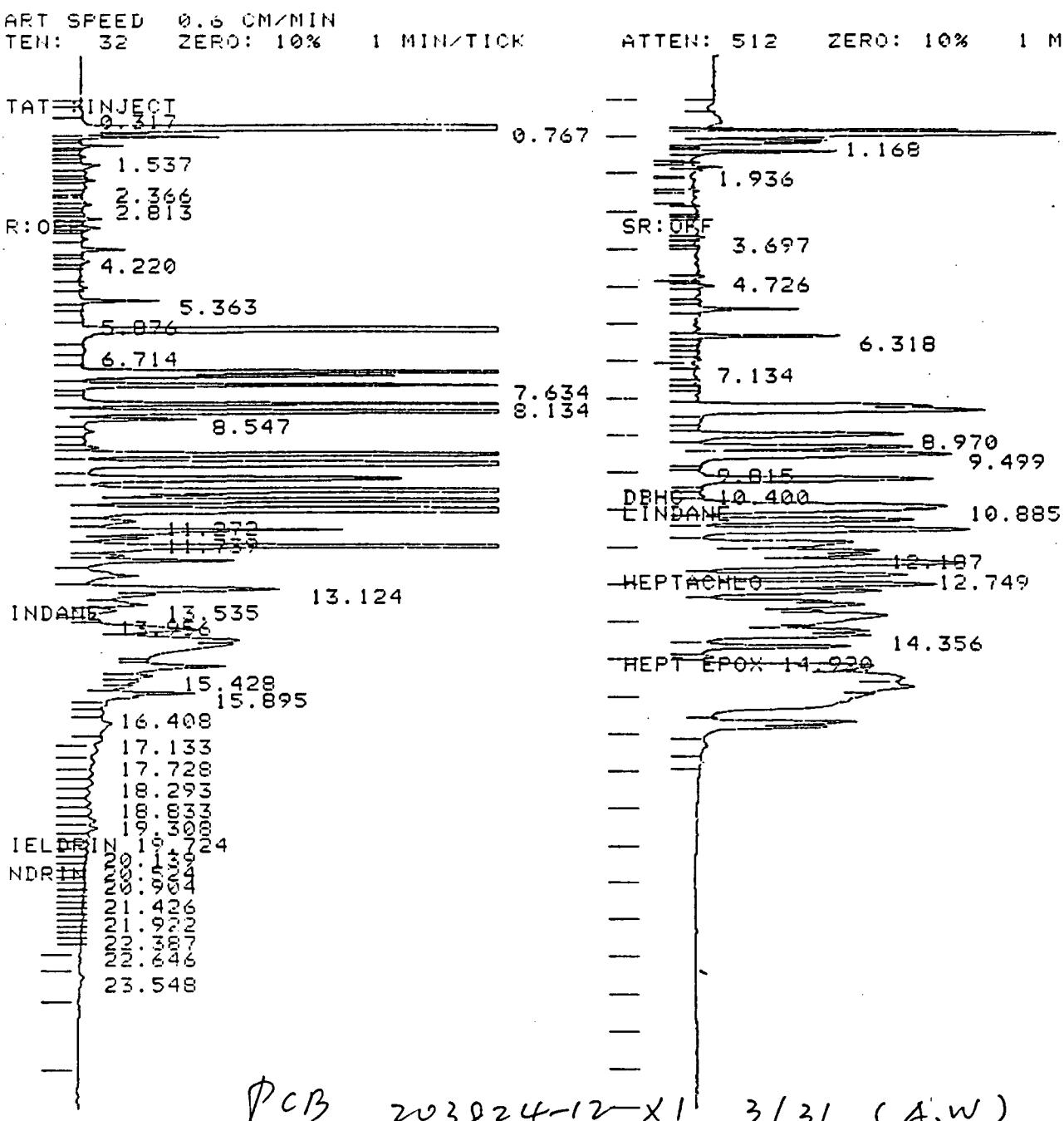
TECTED PKS: 65 REJECTED PKS: 16

VISOR: 1.00000 MULTIPLIER: 1.00000

ISE: 364.2 OFFSET: 437

CK: 16 VIAL: 4 INJ: 1

TES:
DB5 CONFIRMATORY COLUMN



PCB 203824-12-X1 3/31 (S.W)

$$TCMX = \frac{1278280 \times \frac{5}{0.5} \times \frac{1}{0.1}}{1245340 \times 100} = 103\%$$

TLE: PESTICIDES 2:36 1 APR 92

ANNEL NO: 2 SAMPLE: 23 METHOD: DB608

AK O	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.082		2839	VV	?	7.10
2		0.0000	3.194		7427	VV		3.75
3		0.0000	3.262		1923	VV	?	
4		0.0000	3.434		7282	VV		4.55
5		0.0000	3.502		2247	VV	?	3.90
6		0.0000	3.729		5103	VV		4.50
7		0.0000	4.006		14855	VV		3.40
8		0.0000	4.220		1214	VV	?	4.80
9		0.0000	4.320		4319	VV		5.45
10		0.0000	5.010		3385	BV		3.65
11		0.0000	5.363		22511	VV		3.40
12		0.0000	5.501		2839	VV	?	11.45

ANNEL NO: 2 SAMPLE: 23 METHOD: DB608

AK O	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		WI/2 (SEC)
1		0.0000	3.082		2839	VV	?	7.10
2		0.0000	3.194		7427	VV		3.75
3		0.0000	3.262		1923	VV	?	
4		0.0000	3.434		7282	VV		4.55
5		0.0000	3.502		2247	VV	?	3.90
6		0.0000	3.729		5103	VV		4.50
7		0.0000	4.006		14855	VV		3.40
8		0.0000	4.220		1214	VV	?	4.80
9		0.0000	4.320		4319	VV		5.45
10		0.0000	5.010		3385	BV		3.65
11		0.0000	5.363		22511	VV		3.40
12		0.0000	5.501		2839	VV	?	11.45
13		0.0000	5.876		5727	VV	?	8.40
14		0.0000	6.151	TCMX	1278280	VV		5.20
15		0.0000	6.714		8096	VV		11.30
16		0.0000	6.824		5478	VV	?	
17		0.0000	7.276		258114	VV		3.45
18		0.0000	7.379		92438	VV	?	4.00
19		0.0000	7.634		130424	VV		3.95
20		0.0000	7.812		3128	VV		1.65
21		0.0000	8.134		143738	VV		3.45
22		0.0000	8.350		551624	VV		4.05
23		0.0000	8.547		42357	VV		4.15
24		0.0000	8.871		11400	VV		7.80
25		0.0000	9.133		5923	VV		6.50
26		0.0000	9.309		8416	VV		5.10
27		0.0000	9.501		354990	VV		3.95
28		0.0000	9.756		834288	VV		5.05
29		0.0000	10.154		171498	VV		7.10
30		0.0000	10.470		827306	VV		4.70
31		0.0000	10.585		37252	VV	?	4.80
32		0.0000	10.733		348450	VV		3.85
33		0.0000	10.990		1083330	VV		5.60
34		0.0000	11.272		38374	VV		9.55
35		0.0000	11.520		119097	VV		4.55
36		0.0000	11.739		27332	VV	?	5.45
37		0.0000	11.964		339566	VV		3.55
38	A BHC	0.0093	12.206	0.006	18431	VV	?	6.60
39		0.0000	12.342		64870	VV		4.60
40		0.0000	12.760	ΣA = 2866 636	46533	VV		9.40
41		0.0000	13.124		117161	VV		8.10
42		0.0000	13.254		39802	VV	?	10.50
43	LINDANE	0.0261	13.535	0.035	43643	VV	?	10.30
44	B BHC	0.0397	13.692	-0.058	26407	VV	?	9.90
45		0.0000	13.956		9619	VV	?	9.20
46		0.0000	14.188		97977	VV		11.50
47		0.0000	14.483		117362	VV	?	12.80
48	HEPTACHLO	0.1979	14.584	-0.016	186685	VV	?	36.15
49	D-BHC	0.0148	14.971	-0.009	22734	VV	?	
50		0.0000	15.169		117277	VV		11.45
51		0.0000	15.428		42811	VV	?	5.80
52		0.0000	15.555		33140	VV	?	2.30
53	ALDRIN	0.0171	15.700	0.000	25887	VV	?	3.30
54		0.0000	15.895		78491	VV	?	3.85
55		0.0000	16.163		19854	VV	?	1.30
56		0.0000	16.408		22123	VV	?	10.05
57	ISODRIN	27.4451	16.703	-0.097	56125	VV	?	18.00
58		0.0000	17.133		22953	VV	?	7.15
59	HEPT EPOX	0.0148	17.414	-0.086	22054	VV	?	12.20
60		0.0000	17.728		18779	VV	?	14.60
61		0.0000	18.044		13129	VV	?	11.00
62		0.0000	18.293		14034	VV	?	11.70
63		0.0000	18.549		10413	VV	?	10.80
64	ENDO I	0.0078	18.833	0.133	10247	VV	?	14.50
65		0.0000	19.053		11437	VV	?	12.00
66	DDE	0.0097	19.308	0.008	13717	VV	?	13.80
67		0.0000	19.515		13361	VV	?	9.35
68		0.0000	19.724		8399	VV	?	7.80
69	DIELDRIN	0.0056	19.926	0.026	8066	VV	?	5.50
70		0.0000	20.139		7403	VV		7.85
71		0.0000	20.328		5923	VV		6.60
72		0.0000	20.524		5253	VV	?	7.80
73		0.0000	20.713		4921	VV	?	6.45
74	ENDRIN	0.0090	20.904	0.054	4405	VV	?	7.00

6	DDE	0.0097	19.308	0.008	13717	VV	?	10.80
7		0.0000	19.515		13361	VV	?	9.35
8		0.0000	19.724		8399	VV	?	7.80
9	DIELDRIN	0.0056	19.926	0.026	8066	VV	?	5.50
0		0.0000	20.139		7403	VV		7.85
1		0.0000	20.328		5923	VV		6.60
2		0.0000	20.524		5253	VV	?	7.80
3		0.0000	20.713		4921	VV	?	6.45
4	ENDRIN	0.0090	20.904	0.054	4405	VV	?	7.00
5	DDD	0.0390	21.082	0.072	4036	VV	?	5.80
6		0.0000	21.249		2653	VV	?	7.20
7	ENDO II	0.0020	21.426	0.006	2379	VV	?	7.20
8		0.0000	21.593		1825	VV	?	5.45
9		0.0000	21.757		1812	VV	?	6.20
0		0.0000	21.922		2355	VV		5.75
1	DDT	0.0028	22.077	0.047	1422	VV	?	4.10
2		0.0000	22.238		1023	VV		3.70
3	ENDRIN AL	0.0005	22.387	0.007	544	VV	?	2.15
4		0.0000	22.572		981	VV		5.35
5	ENDO SO4	0.0012	22.646	-0.154	970	VB	?	27.40
6		0.0000	23.548		4567	BB		8.95
ALS:		27.8424		-0.026	8208560			

ECTED PKS: 108 REJECTED PKS: 22

ISOR: 1.00000 MULTIPLIER: 1.00000

SE: 18.2 OFFSET: 9

K: 16 VIAL: 5 INJ: 1

$AR1221 = 7.253\ ng/ml \times 5ml/0.5L = 72.5\ ng/L$ (by curve)

ES:
B608 PRIMARY COLUMN

LE: PESTICIDE CONFIRMATORY 2:36 1 APR 92

NNEL NO: 1 SAMPLE: SAME METHOD: DB5

K	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.117		12459	BB		2.10
2		0.0000	3.697		25258	BB		2.50
3		0.0000	3.966		10199	BB	?	3.10
4		0.0000	4.726		45963	BB		3.45
5		0.0000	4.978		79324	BB		3.55
6		0.0000	5.385		36057	BV		4.95
7		0.0000	5.595		406732	VB		2.65
8		0.0000	6.318		668649	BV		4.00
9		0.0000	6.421		27155	VB	?	
0		0.0000	6.767		38524	BV	?	5.60
1		0.0000	6.960		41370	VV		3.90
2		0.0000	7.134		18134	VB	?	3.30
3		0.0000	7.537		24601	BB	?	2.35
4		0.0000	7.716		20622	BB	?	3.60
5		0.0000	8.190		1492230	BV	?	7.20
6		0.0000	8.295		2587280	VB	?	9.90
7		0.0000	8.970		1765890	BV		7.65
8		0.0000	9.305		1716030	VV		7.40
9	A BHC	4.6372	9.499	0.069	2727740	VV		9.65
0		0.0000	9.815		18353	VV	?	9.40
1	B BHC	9.3294	10.168	0.028	2169620	VV		8.25
2	DBHC	0.0588	10.400	-0.010	32694	VV	?	
3		0.0000	10.650		47376	VV	?	4.90
4		0.0000	10.885		2233440	VV	?	9.10
5	LINDANE	3.0734	10.953	-0.067	1617570	VV	?	1.20
6		0.0000	11.248		2020140	VV		8.50
		0.0000	11.515		2955290	VV		8.55

17		0.0000	8.970		1765890	BV		7.65
18		0.0000	9.305		1716030	VV		7.40
19	A BHC	4.6372	9.499	0.069	2727740	VV		9.65
20		0.0000	9.815		18353	VV	?	9.40
21	B BHC	9.3294	10.168	0.028	2169620	VV		8.25
22	DBHC	0.0588	10.400	-0.010	32694	VV	?	
23		0.0000	10.650		47376	VV	?	4.90
24		0.0000	10.885		2233440	VV	?	9.10
25	LINDANE	3.0734	10.953	-0.067	1617570	VV	?	1.20
26		0.0000	11.248		2020140	VV		8.50
27		0.0000	11.515		2855290	VV		9.55
28		0.0000	11.868		1790290	VV		11.10
29		0.0000	12.092		1295620	VV	?	6.90
30		0.0000	12.187		1359230	VV	?	3.70
31		0.0000	12.419		3798870	VV	?	9.00
32	HEPTACHLO	4.2196	12.749	0.039	1918010	VV		8.35
33		0.0000	12.995		2330180	VV		9.15
34		0.0000	13.172		1672240	VV	?	8.30
35		0.0000	13.448		663180	VV	?	4.90
36		0.0000	13.543		1621760	VV	?	7.20
37		0.0000	13.695		638724	VV	?	4.70
38	ALDRIN	7.4316	13.828	0.028	3538870	VV	?	18.85
39		0.0000	14.067		539820	VV	?	
40		0.0000	14.233		1481320	VV	?	10.00
41		0.0000	14.356		1450380	VV	?	9.20
42	ISODRIN	1741.750	14.650	-0.010	1116500	VV		5.90
43	HEPT EPOX	0.2020	14.920	-0.040	91821	VV		5.25
44		0.0000	15.162		2374870	VV	?	7.40
45		0.0000	15.492		3658030	VV	?	14.70
46		0.0000	15.727		3973000	VV	?	13.30
47	ENDO I	18.1587	15.894	-0.186	4656080	VV	?	26.25
48		0.0000	16.681		1219940	VV	?	5.80
49	DIELDRIN	2.6348	16.799	0.029	975838	VV	?	6.30
50	ENDRIN	0.5224	17.296	-0.204	149245	VV	?	18.75
51	ENDO II	0.4946	17.756	0.026	45798	VB	?	5.45
TALS:		1792.510		-0.298	65098300			

TECTED PKS: 65 REJECTED PKS: 14

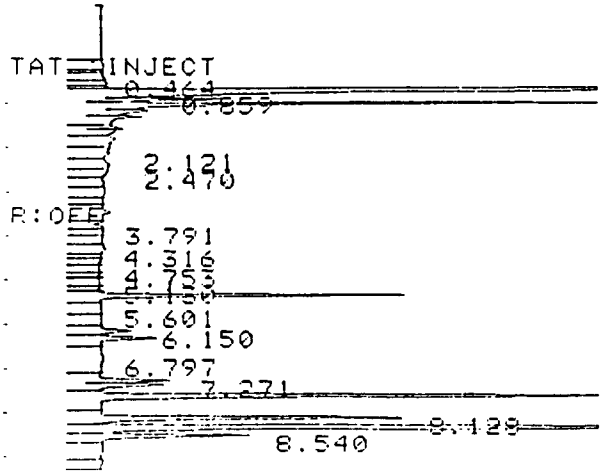
VISOR: 1.00000 MULTIPLIER: 1.00000

ISE: 364.2 OFFSET: 257

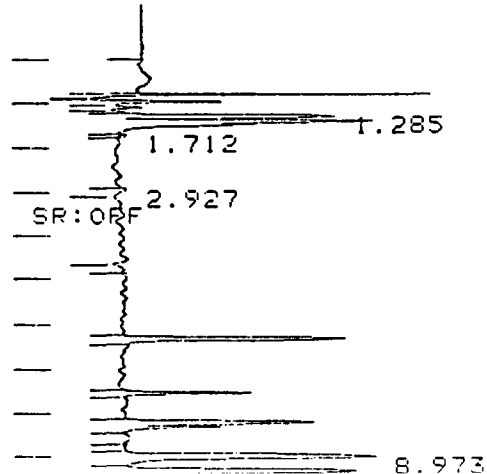
CK: 16 VIAL: 5 INJ: 1

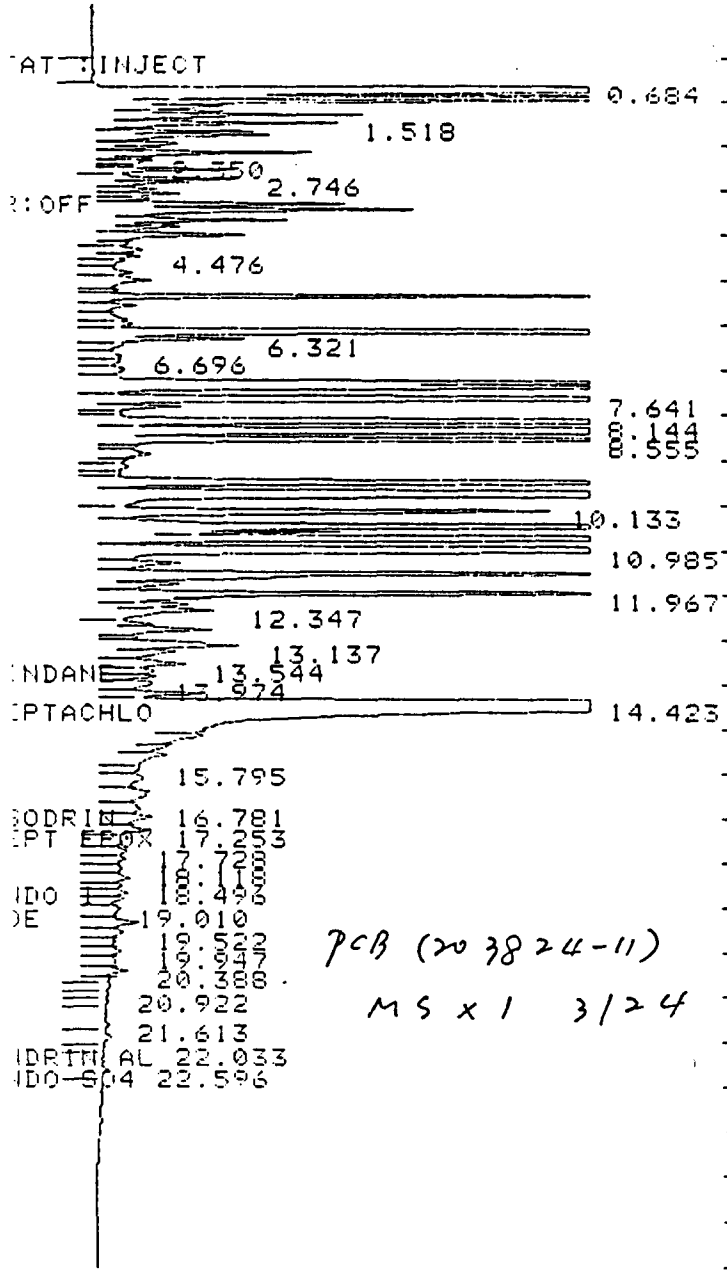
TES:
DB5 CONFIRMATORY COLUMN

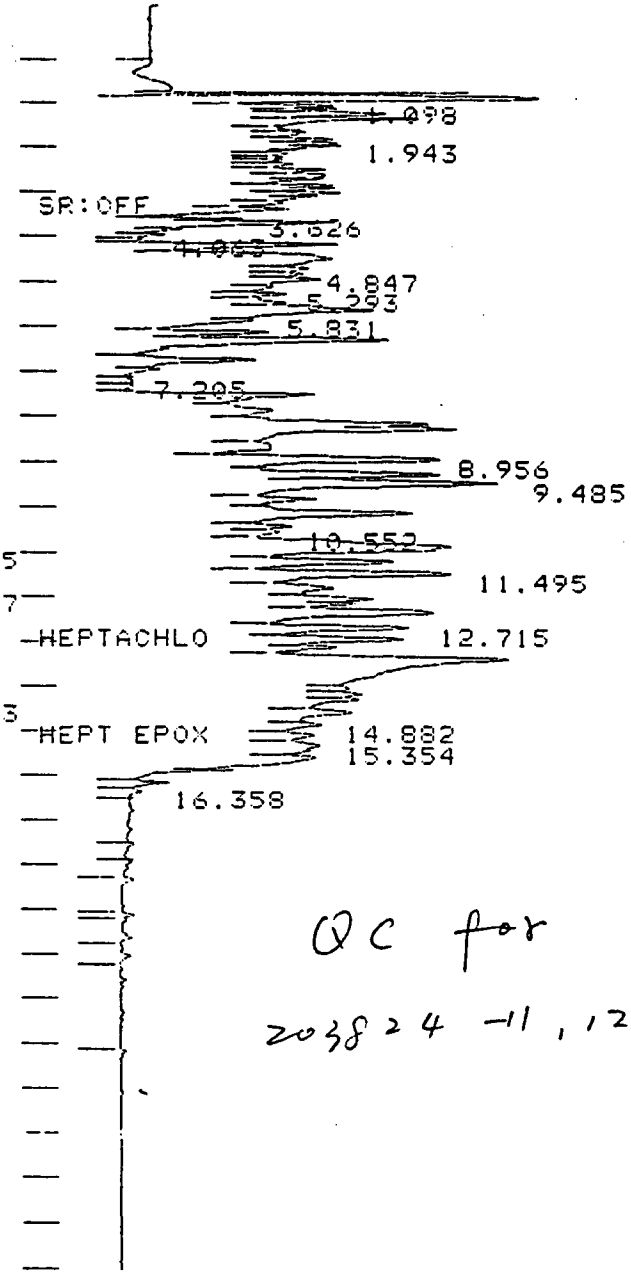
ART SPEED 0.6 CM/MIN
TEN: 32 ZERO: 10% 1 MIN/TICK



ATTEN: 512 ZERO: 10% 1 MIN/TICK







PCB (2038 24-11)
MS x 1 3/24

QC for
2038 24 -11, 12.

(AR 1221 spiked)

TLE: PESTICIDES 18:57 29 MAR 92

ANNEL NO: 2 SAMPLE: 14 METHOD: DB608

AK NO	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.077		22621	VV	?	3.90
2		0.0000	3.190		17086	VV	?	2.30
3		0.0000	3.314		69208	VV		4.55
4		0.0000	3.440		106797	VV		4.55
5		0.0000	3.672		51591	VV		3.50
6		0.0000	3.753		18183	VV	?	2.80
7		0.0000	3.823		26977	VV	?	2.95
8		0.0000	4.003		55335	VV		4.90
9		0.0000	4.187		12072	VV	?	4.10
10		0.0000	4.326		20460	VV	?	7.20
11		0.0000	4.476		16495	VV	?	4.50

TLE: PESTICIDES 18:57 29 MAR 92

ANNEL NO: 2 SAMPLE: 14 METHOD: DB608

AK	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		WI/2 (SEC)
1		0.0000	3.077		22621	VV	?	3.90
2		0.0000	3.190		17086	VV	?	2.30
3		0.0000	3.314		69208	VV		4.55
4		0.0000	3.440		106797	VV		4.55
5		0.0000	3.672		51591	VV		3.50
6		0.0000	3.753		18183	VV	?	2.80
7		0.0000	3.823		26977	VV	?	2.95
8		0.0000	4.003		55335	VV		4.90
9		0.0000	4.187		12072	VV	?	4.10
10		0.0000	4.326		20460	VV	?	7.20
11		0.0000	4.476		16495	VV	?	4.50
12		0.0000	4.570		13145	VV	?	3.60
13		0.0000	4.836		20841	VV	?	7.10
14		0.0000	5.012		31613	VV	?	5.60
15		0.0000	5.233		7177	VV	?	4.40
16		0.0000	5.369		154634	VV	0.18	2.90
17		0.0000	5.573		17329	VV		5.60
18		0.0000	5.885		16492	VV	?	7.00
19		0.0000	5.970		14622	VV	?	5.20
20		0.0000	6.156		1126570	VV	?	2.85
21		0.0000	6.321		42205	VV		4.75
22		0.0000	6.433		13284	VV	?	2.00
23		0.0000	6.696		14254	VV	?	6.70
24		0.0000	6.749		11633	VV	?	
25		0.0000	6.988		17119	VV	?	7.85
26		0.0000	7.282		303146	VV	0.36	3.50
27		0.0000	7.385		313434	VV	0.37	3.60
28		0.0000	7.641		846105	VV	1.00	5.05
29		0.0000	7.825		26420	VV		5.25
30		0.0000	7.940		7205	VV	?	2.80
31		0.0000	8.144		735096	VV	?	2.65
32		0.0000	8.355		1630670	VV	0.87	6.05
33		0.0000	8.555		310239	VV	1.93	3.55
34		0.0000	8.695		11120	VV	0.37 ?	2.20
35		0.0000	8.871		30468	VV	?	5.55
36		0.0000	8.955		10510	VV	?	
37		0.0000	9.131		16629	VV	?	5.40
38		0.0000	9.265		8598	VV	?	2.65
39		0.0000	9.505		360030	VV		4.15
40		0.0000	9.762		1395020	VV		6.10
41		0.0000	10.133		178611	VV		6.35
42		0.0000	10.475		510572	VV		4.10
43		0.0000	10.592		55376	VV	?	4.80
44		0.0000	10.738		701846	VV		4.80
45		0.0000	10.985		805560	VV		5.60
46		0.0000	11.278		42391	VV		8.85
47		0.0000	11.526		236377	VV		3.90
48		0.0000	11.749		32356	VV	?	9.60
49		0.0000	11.967		205802	VV		3.80
50		0.0000	12.067		25415	VV	?	5.40
51	A BHC	0.0156	12.210	0.010	31004	VV	?	6.90
52		0.0000	12.347		62968	VV	?	10.05
53		0.0000	12.669		20795	VV	?	12.40
54		0.0000	12.780		47128	VV		7.05
55		0.0000	12.934		12253	VV	?	4.10
56		0.0000	13.137		72548	VV	?	4.50
57		0.0000	13.269		38994	VV	?	13.40
58	LINDANE	0.0268	13.544	0.044	44897	VV	?	13.60
59	B BHC	0.0373	13.698	-0.052	61783	VV	?	7.00
60		0.0000	13.814		19190	VV	?	3.55
61		0.0000	13.974		32833	VV	?	8.10
62		0.0000	14.209		42221	VV	?	5.00
63	HEPTACHLO	3.2243	14.423	-0.177	3041800	VV		8.60
64	D-BHC	0.0493	15.124	0.144	75771	VV	?	3.80
65		0.0000	15.370		32883	VV	?	3.40
66		0.0000	15.567		56145	VV	?	7.30
67	ALDRIN	0.0141	15.795	0.095	21386	VV	?	
68		0.0000	16.073		42581	VV	?	9.40
69		0.0000	16.396		47330	VV	?	10.80

AR1221

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10)

ΣA = 4293322

ΣA = 458087

60		0.0000	13.814		19190	VV	?	3.55
61		0.0000	13.974		32833	VV	?	8.10
62		0.0000	14.209		42221	VV	?	5.00
63	HEPTACHLO	3.2243	14.423	-0.177	3041800	VV		8.60
64	D-BHC	0.0493	15.124	0.144	75771	VV	?	3.80
65		0.0000	15.370		32883	VV	?	3.40
66		0.0000	15.567		56145	VV	?	7.30
67	ALDRIN	0.0141	15.795	0.095	21386	VV	?	
68		0.0000	16.073		42581	VV	?	9.40
69		0.0000	16.396		47330	VV	?	10.80
70	ISODRIN	15.7839	16.781	-0.019	32278	VV	?	15.40
71		0.0000	16.970		33288	VV	?	9.30
72		0.0000	17.253		30084	VV	?	9.70
73	HEPT EPOX	0.0135	17.428	-0.072	20104	VV	?	5.10
74		0.0000	17.728		16436	VV	?	10.60
75		0.0000	17.901		13113	VV	?	5.45
76		0.0000	18.118		13873	VV	?	7.80
77		0.0000	18.331		17935	VV	?	9.45
78		0.0000	18.496		9025	VV	?	5.20
79	ENDO I	0.0096	18.657	-0.043	12554	VV	?	7.55
80		0.0000	18.784		10865	VV	?	4.60
81		0.0000	19.010		14442	VV	?	9.30
82	DDE	0.0140	19.313	0.013	19873	VV	?	7.40
83		0.0000	19.523		12815	VV	?	8.40
84		0.0000	19.727		7979	VV	?	5.95
85	DIELDRIN	0.0075	19.947	0.047	10661	VV	?	9.70
86		0.0000	20.188		10388	VV	?	10.05
87		0.0000	20.388		11348	VV		7.80
88		0.0000	20.501		3514	VV	?	
89		0.0000	20.707		5433	VV	?	5.00
90	ENDRIN	0.0071	20.922	0.072	3491	VV	?	3.60
91	DDD	0.0345	21.089	0.079	3574	VV	?	4.40
92	ENDO II	0.0071	21.613	0.193	8435	VV	?	8.00
93		0.0000	21.878		6380	VV	?	7.90
94	DDT	0.0027	22.033	0.003	1362	VV	?	
95	ENDO SO4	0.0040	22.596	-0.204	3396	VB	?	9.05
TALS:		19.2513		0.133	14816900			

TECTED PKS: 118 REJECTED PKS: 23

/ISOR: 1.00000 MULTIPLIER: 1.00000

ISE: 35.2 OFFSET: 12

CK: 16 VIAL: 11 INJ: 1

$AR\ 1221 = \frac{4293322}{630363} \times 2.0 \times 5/0.5 = 136\ ug/L$

TES:
DB608 PRIMARY COLUMN

$AR\ 1221 = 15.18 \times 5/0.5 = 152\ ug/L$
(by curve)

TLE: PESTICIDE CONFIRMATORY 18:57 29 MAR 92

ANNEL NO: 1 SAMPLE: SAME METHOD: DB5

PK NO	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.042		1005060	VV	?	5.10
2		0.0000	3.119		1155590	VV	?	2.30
3		0.0000	3.248		1037470	VV	?	2.60
4		0.0000	3.397		1296240	VV	?	5.30
5		0.0000	3.626		337428	VV	?	3.10
6		0.0000	3.709		1219340	VV		6.10
7		0.0000	3.843		247163	VV	?	4.95
8		0.0000	3.974		135326	VV	?	3.50
9		0.0000	4.063		56374	VV	?	5.00
10		0.0000	4.192		1319550	VV		5.95
11		0.0000	4.506		3208550	VV	?	14.30

LE: PESTICIDE CONFIRMATORY 18:57 29 MAR 92

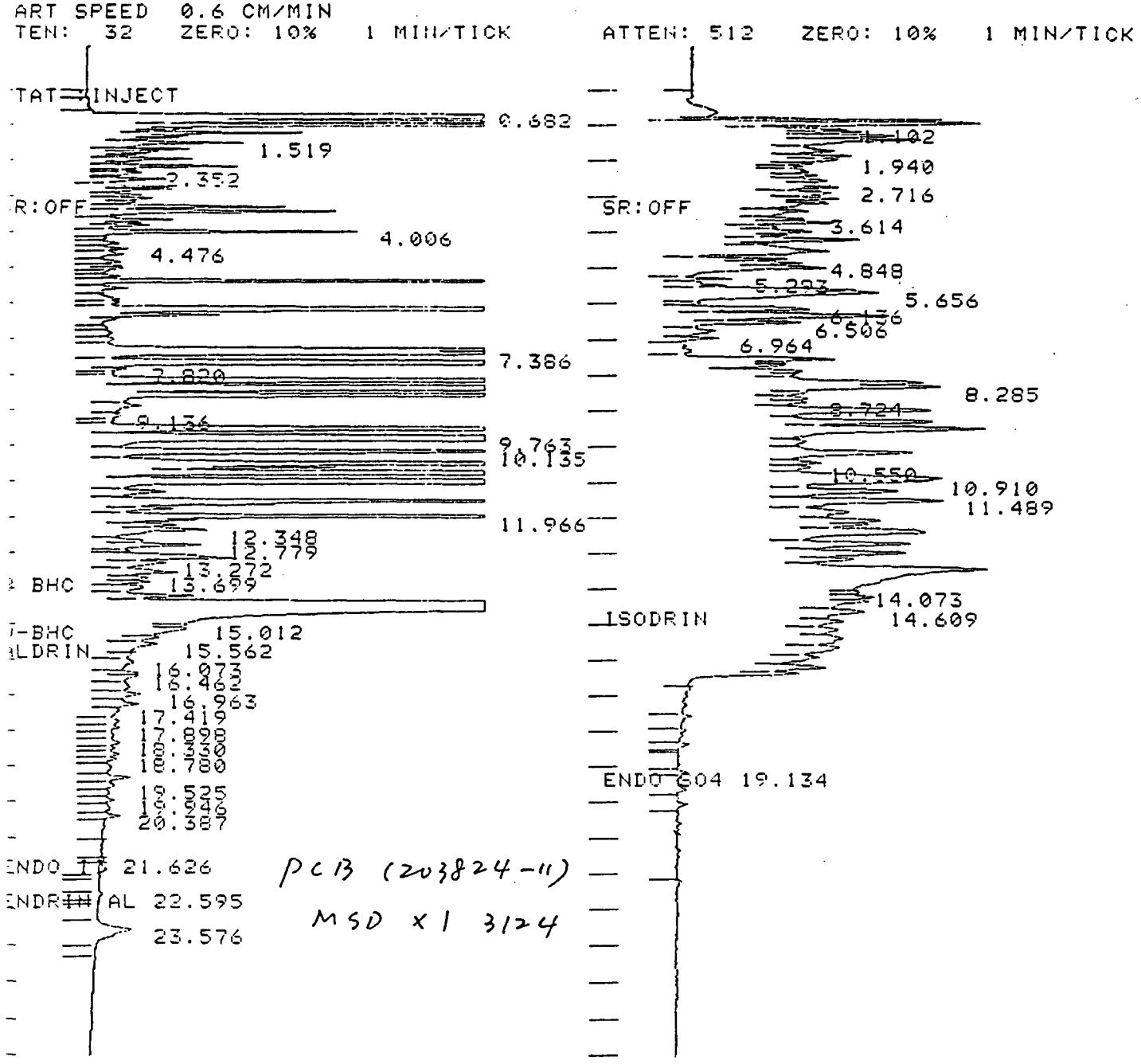
NNEL NO: 1 SAMPLE: SAME METHOD: DB5

K	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.042		1005060	VV	?	5.10
2		0.0000	3.119		1155590	VV	?	2.30
3		0.0000	3.248		1037470	VV	?	2.60
4		0.0000	3.397		1296240	VV	?	5.30
5		0.0000	3.626		337428	VV	?	3.10
6		0.0000	3.709		1219340	VV		6.10
7		0.0000	3.843		247163	VV	?	4.95
8		0.0000	3.974		135326	VV	?	3.50
9		0.0000	4.063		56374	VV	?	5.00
0		0.0000	4.192		1319550	VV		5.95
1		0.0000	4.506		3208550	VV	?	14.30
2		0.0000	4.729		1281000	VV	?	5.90
3		0.0000	4.847		986332	VV	?	3.90
4		0.0000	4.970		1611110	VV	?	6.00
5		0.0000	5.075		1197060	VV	?	
6		0.0000	5.293		977834	VV	?	5.70
7		0.0000	5.488		1354200	VV	?	14.60
8		0.0000	5.660		3097350	VV	?	20.80
9		0.0000	5.831		1115540	VV	?	20.70
0		0.0000	6.153		804034	VV		6.05
1		0.0000	6.314		2324030	VV		8.20
2		0.0000	6.761		878486	VV		5.55
3		0.0000	6.951		178829	VV		2.15
4		0.0000	7.205		45489	VV	?	5.90
5		0.0000	7.266		36803	VV	?	13.10
6		0.0000	7.531		1817140	VV	?	5.60
7		0.0000	7.876		1993790	VV	?	16.40
8		0.0000	8.179		2613470	VV	?	10.20
9		0.0000	8.290		3819490	VV	?	10.80
0		0.0000	8.643		2000270	VV	?	7.60
1		0.0000	8.956		3505100	VV	?	8.50
2		0.0000	9.290		3081440	VV	?	9.80
3	A BHC	8.0507	9.485	0.055	4735680	VV	?	12.45
4		0.0000	9.841		1880440	VV	?	9.00
5	B BHC	17.4603	10.152	0.012	4060530	VV		16.90
6	DBHC	2.2498	10.440	0.030	1249890	VV	?	7.30
7		0.0000	10.552		1210130	VV	?	3.10
8	LINDANE	10.8393	10.868	-0.152	5704880	VV	?	17.90
9		0.0000	11.221		2994010	VV	?	15.40
0		0.0000	11.495		3894990	VV		14.30
1		0.0000	11.819		2719260	VV	?	14.30
2		0.0000	12.060		2164450	VV	?	11.30
3		0.0000	12.159		1393970	VV	?	0.70
4		0.0000	12.377		4414090	VV	?	11.95
5	HEPTACHLO	6.6926	12.715	0.005	3042100	VV	?	11.50
6		0.0000	12.969		2766370	VV	?	11.60
7		0.0000	13.147		1761880	VV	?	5.70
8		0.0000	13.428		10899300	VV	?	12.40
9	ALDRIN	3.2596	14.069	0.269	1552170	VV	?	4.45
0		0.0000	14.201		1745280	VV	?	5.80
1		0.0000	14.315		2634650	VV	?	3.60
2	ISODRIN	4960.950	14.611	-0.049	3180090	VV	?	10.20
3	HEPT EPOX	4.8133	14.882	-0.078	2187870	VV	?	7.10
4		0.0000	15.118		2057370	VV	?	10.20
5		0.0000	15.354		3168380	VV	?	12.90
6		0.0000	15.628		2657870	VV	?	9.40
7		0.0000	15.883		514661	VV	?	4.10
8	ENDO I	0.7840	16.178	0.098	201023	VV		4.95
9		0.0000	16.358		59919	VB	?	6.60
0	DDT	0.3244	19.130	0.040	54982	BV		4.05
1		0.0000	19.625		91290	VV	?	4.85
2		0.0000	20.035		69379	VB		4.65
	ALS:	5015.420		0.230	120804000			

ECTED PKS: 83 REJECTED PKS: 21

ISOR: 1.00000 MULTIPLIER: 1.00000

SE: 844.9 OFFSET: 84



(AR 1221 Spikes)

ITLE: PESTICIDES 19:31 29 MAR 92

HANNEL NO: 2 SAMPLE: 15 METHOD: DB608

EAK NO	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.076		19478	VV	?	4.20
2		0.0000	3.185		18251	VV	?	6.60
3		0.0000	3.310		59738	VV	?	1.95
4		0.0000	3.437		84462	VV		3.95
5		0.0000	3.671		26330	VV		3.95
6		0.0000	3.751		13865	VV	?	3.70
7		0.0000	3.822		18436	VV	?	3.25

LE: PESTICIDES 19:31 29 MAR 92

NNEL NO: 2 SAMPLE: 15 METHOD: DB608

K	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.076		19478	VV	?	4.20
2		0.0000	3.185		18251	VV	?	6.60
3		0.0000	3.310		59738	VV	?	1.95
4		0.0000	3.437		84462	VV		3.95
5		0.0000	3.671		26330	VV		3.95
6		0.0000	3.751		13865	VV	?	3.70
7		0.0000	3.822		18436	VV	?	3.25
8		0.0000	4.006		81064	VV		3.50
9		0.0000	4.182		5975	VV	?	3.90
0		0.0000	4.326		11504	VV	?	6.50
1		0.0000	4.476		14098	VV	?	5.10
2		0.0000	4.629		17376	VV	?	5.55
3		0.0000	4.832		11854	VV	?	5.90
4		0.0000	4.952		8988	VV	?	5.90
5		0.0000	5.008		9156	VV	?	2.20
6		0.0000	5.082		6165	VV	?	1.10
7		0.0000	5.228		9269	VV		5.10
8		0.0000	5.366		180917	VV		2.85
9		0.0000	5.571		15946	VV		4.70
0		0.0000	5.880		14010	VV	?	7.20
1		0.0000	5.965		12539	VV	?	4.60
2		0.0000	6.155		1138690	VV	?	2.80
3		0.0000	6.319		12362	VV		4.60
4		0.0000	6.429		13280	VV	?	13.90
5		0.0000	6.699		6976	VV	?	7.10
6		0.0000	6.836		11750	VV	?	9.10
7		0.0000	6.996		13452	VV	?	8.30
8	AR 1221	0.0000	7.283		386454	VV	?	2.15
9		0.0000	7.386		391851	VV		4.00
0		0.0000	7.641		973726	VV		5.25
1		0.0000	7.820		12509	VV	?	3.30
2		0.0000	7.941		6704	VV	?	3.40
3		0.0000	8.143		850665	VV	?	2.80
4		0.0000	8.356		1783500	VV		6.25
5		0.0000	8.556		401737	VV		3.70
6		0.0000	8.872		40055	VV	?	30.00
7		0.0000	9.136		15227	VV	?	6.80
8		0.0000	9.266	ΣA=496885	7520	VV	?	2.50
9		0.0000	9.506		460018	VV		4.45
0		0.0000	9.763		1583780	VV		6.55
1		0.0000	10.135		230546	VV		6.20
2		0.0000	10.475		629641	VV		4.35
3		0.0000	10.592		68351	VV	?	4.65
4		0.0000	10.739		840319	VV		4.90
5		0.0000	10.986		982382	VV		6.10
6		0.0000	11.277		42840	VV		9.10
7		0.0000	11.526		308018	VV		3.80
8		0.0000	11.749		34958	VV	?	8.60
9		0.0000	11.966		272019	VV		3.60
0		0.0000	12.064		27501	VV	?	4.50
1	A BHC	0.0171	12.213	0.013	34071	VV	?	7.20
2		0.0000	12.348		68627	VV	?	8.40
3		0.0000	12.659	ΣA=536790	20769	VV	?	10.20
4		0.0000	12.779		51584	VV		6.65
5		0.0000	12.939	(1~6, 9, 10)	11642	VV	?	3.90
6		0.0000	13.137		81214	VV	?	4.15
7		0.0000	13.272		41875	VV	?	13.00
8	LINDANE	0.0289	13.543	0.043	48301	VV		10.10
9	B BHC	0.0365	13.699	-0.051	24266	VV	?	8.00
0		0.0000	13.811		19925	VV	?	5.00
1		0.0000	13.964		31778	VV	?	9.40
2		0.0000	14.204		49533	VV	?	6.40
3	HEPTACHLO	3.3662	14.414	-0.186	3175660	VV		8.70
4	D-BHC	0.0203	15.012	0.032	31108	VV	?	1.50
5		0.0000	15.124		79048	VV	?	5.35
6		0.0000	15.374		32825	VV	?	4.20
7		0.0000	15.562		55869	VV	?	8.15
8	ALDRIN	0.0136	15.789	0.089	20558	VV	?	
9		0.0000	16.073		40575	VV	?	11.30

54	D-BHC	0.0203	15.012	0.032	31108	VV	?	1.50
55		0.0000	15.134		79048	VV	?	5.35
56		0.0000	15.374		32825	VV	?	4.20
57		0.0000	15.562		55869	VV	?	8.15
58	ALDRIN	0.0136	15.789	0.089	20558	VV	?	
59		0.0000	16.073		40575	VV	?	11.30
70		0.0000	16.385		17722	VV	?	9.50
71		0.0000	16.462		23929	VV	?	2.60
72	ISODRIN	14.1712	16.776	-0.024	28980	VV	?	14.80
73		0.0000	16.963		29559	VV	?	10.35
74		0.0000	17.251		26832	VV	?	14.20
75	HEPT EPOX	0.0113	17.419	-0.081	16855	VV	?	6.40
76		0.0000	17.725		12723	VV	?	11.10
77		0.0000	17.898		10701	VV	?	7.00
78		0.0000	18.112		9326	VV	?	3.65
79		0.0000	18.330		13185	VV	?	11.70
80		0.0000	18.492		6166	VV	?	5.95
81	ENDO I	0.0071	18.657	-0.043	9255	VV	?	8.50
82		0.0000	18.780		7242	VV	?	5.05
83		0.0000	19.004		8397	VV	?	8.60
84	DDE	0.0105	19.310	0.010	14890	VV		10.55
85		0.0000	19.525		7232	VV	?	7.90
86		0.0000	19.743		3889	VV	?	5.90
87	DIELDRIN	0.0038	19.946	0.046	5380	VV	?	8.80
88		0.0000	20.193		4646	VV	?	9.80
89		0.0000	20.387		6002	VB		8.80
90	ENDO II	0.0011	21.626	0.206	1278	BV		4.75
91	DDT	0.0089	21.879	-0.151	4488	VB		7.45
92	ENDO SO4	0.0020	22.595	-0.205	1706	BB		5.65
93		0.0000	23.576		38732	BB		12.50
	ALS:	17.6985		-0.302	16444900			

ECTED PKS: 118 REJECTED PKS: 25

ISOR: 1.00000 MULTIPLIER: 1.00000

SE: 35.2 OFFSET: -1

K: 16 VIAL: 12 INJ: 1

ES:
B608 PRIMARY COLUMN

$$AR_{1221} = \frac{496885}{630363} \times 2.0 \times 5/0.5 = 158 \text{ ug/L}$$

$$AR_{1221} = 17.81 \times 5/0.5 = 178 \text{ ug/L}$$

(by curve)

LE: PESTICIDE CONFIRMATORY 19:31 29 MAR 92

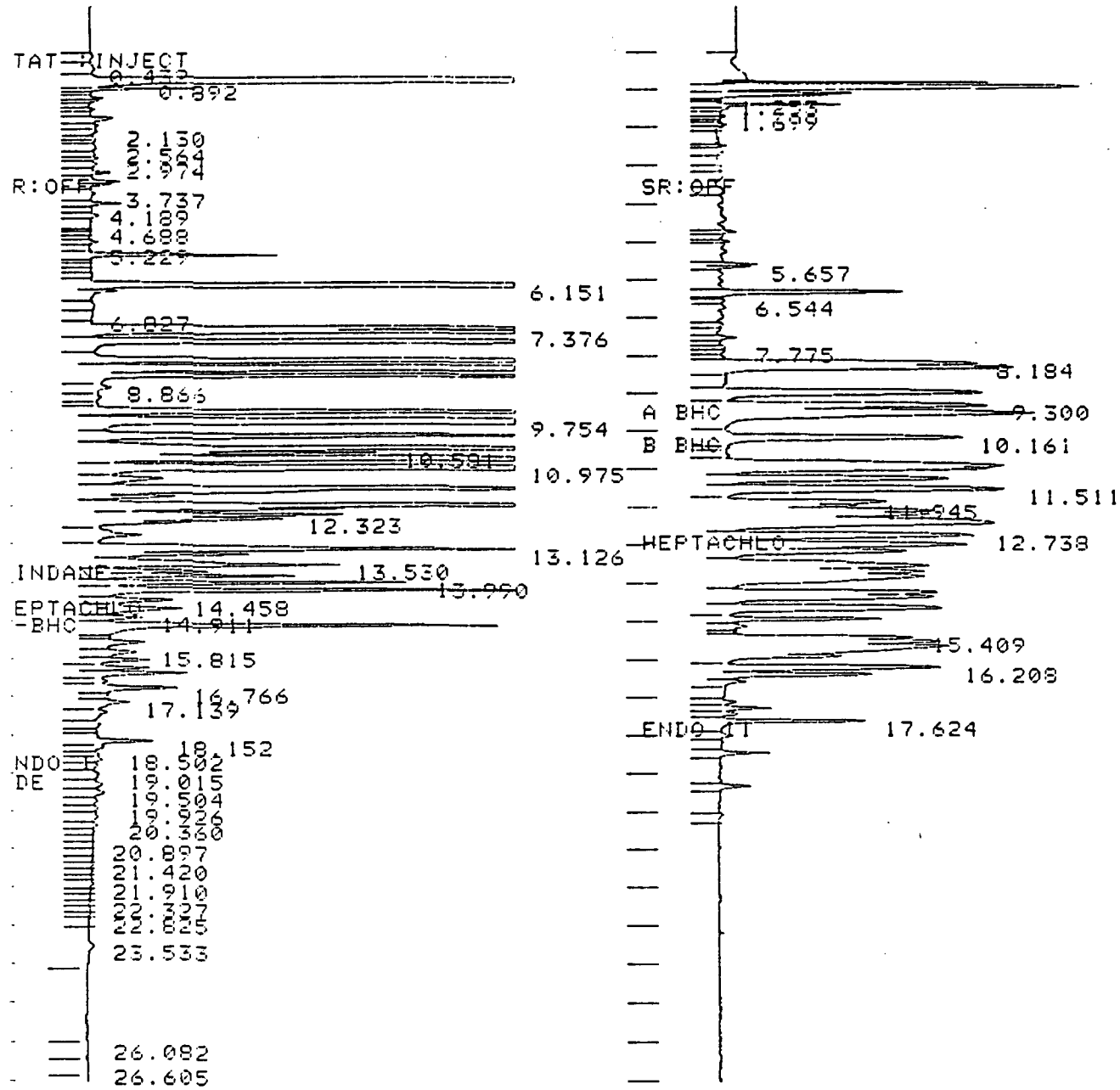
NNEL NO: 1 SAMPLE: SAME METHOD: DB5

#	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.039		965630	VV	?	5.10
2		0.0000	3.122		597984	VV	?	3.00
3		0.0000	3.170		1653680	VV	?	1.70
4		0.0000	3.395		1652630	VV	?	5.40
5		0.0000	3.614		707787	VV	?	5.30
6		0.0000	3.705		1189580	VV	?	5.25
7		0.0000	3.852		707287	VV	?	5.80
8		0.0000	3.967		1026220	VV	?	6.10
9		0.0000	4.061		570967	VV	?	2.10
0		0.0000	4.187		1518510	VV	?	6.80
1		0.0000	4.276		371479	VV	?	
2		0.0000	4.505		2436690	VV	?	14.15
3		0.0000	4.738		606844	VV	?	3.90
4		0.0000	4.848		818344	VV	?	6.20
5		0.0000	4.968		1584140	VV	?	10.20
6		0.0000	5.293		196692	VV		2.60
7		0.0000	5.480		318099	VV		7.35
8		0.0000	5.580		211214	VV	?	

TLE: PESTICIDE CONFIRMATORY 19:31 29 MAR 92

ANNEL NO: 1 SAMPLE: SAME METHOD: DB5

AK O	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.039		965630	VV	?	5.10
2		0.0000	3.122		597984	VV	?	3.00
3		0.0000	3.170		1653680	VV	?	1.70
4		0.0000	3.395		1652630	VV	?	5.40
5		0.0000	3.614		707787	VV	?	5.30
6		0.0000	3.705		1189580	VV	?	5.25
7		0.0000	3.852		707287	VV	?	5.80
8		0.0000	3.967		1026220	VV	?	6.10
9		0.0000	4.061		570967	VV	?	2.10
10		0.0000	4.187		1518510	VV	?	6.80
11		0.0000	4.276		371479	VV	?	
12		0.0000	4.505		2436690	VV	?	14.15
13		0.0000	4.738		606844	VV	?	3.90
14		0.0000	4.848		818344	VV	?	6.20
15		0.0000	4.968		1584140	VV	?	10.20
16		0.0000	5.293		196692	VV		2.60
17		0.0000	5.480		319099	VV		7.35
18		0.0000	5.590		844914	VV	?	6.00
19		0.0000	5.656		2563430	VV	?	19.55
20		0.0000	5.929		135231	VV	?	
21		0.0000	6.136		1113550	VV		7.30
22		0.0000	6.306		2048020	VV		8.25
23		0.0000	6.506		906182	VV		6.00
24		0.0000	6.751		394262	VV	?	7.90
25		0.0000	6.964		194329	VV		3.80
26		0.0000	7.311		151344	VV	?	9.50
27		0.0000	7.519		1223270	VV	?	5.00
28		0.0000	7.600		422746	VV	?	
29		0.0000	7.657		815121	VV	?	
30		0.0000	7.866		980172	VV	?	7.60
31		0.0000	7.921		740513	VV	?	
32		0.0000	8.172		2616600	VV	?	11.30
33		0.0000	8.285		2689150	VV	?	12.50
34		0.0000	8.410		1220520	VV	?	
35		0.0000	8.629		1039970	VV	?	7.10
36		0.0000	8.724		1170520	VV	?	3.30
37		0.0000	8.950		3905000	VV	?	9.75
38		0.0000	9.283		2987680	VV	?	10.20
39	A BHC	8.6050	9.478	0.048	5061760	VV		12.15
40		0.0000	9.838		1703300	VV	?	5.80
41	B BHC	17.9185	10.145	0.005	4167100	VV	?	21.50
42	DBHC	2.3558	10.429	0.019	1308790	VV	?	7.10
43		0.0000	10.550		1311100	VV	?	4.90
44		0.0000	10.858		3584950	VV	?	14.60
45	LINDANE	4.5983	10.910	-0.110	2420150	VV	?	
46		0.0000	11.215		3130430	VV	?	13.80
47		0.0000	11.489		3939050	VV		15.90
48		0.0000	11.816		2800130	VV	?	14.40
49		0.0000	12.062		2281860	VV	?	10.30
50		0.0000	12.160		1386640	VV	?	1.30
51		0.0000	12.378		4488050	VV	?	12.30
52	HEPTACHLO	6.9441	12.715	0.005	3156410	VV	?	11.90
53		0.0000	12.968		2841410	VV	?	11.80
54		0.0000	13.145		1801070	VV	?	5.90
55		0.0000	13.427		10944900	VV	?	13.30
56	ALDRIN	3.2859	14.073	0.273	1564700	VV	?	5.20
57		0.0000	14.200		1786860	VV	?	6.10
58		0.0000	14.314		2631910	VV	?	3.80
59	ISODRIN	5068.390	14.609	-0.051	3248970	VV	?	10.40
60	HEPT EPOX	4.9694	14.981	-0.079	2273929	VV	?	7.15
61		0.0000	15.114		2198110	VV	?	10.10
62		0.0000	15.354		3291460	VV	?	11.70
63		0.0000	15.621		2755880	VV	?	9.90
64		0.0000	15.890		2159090	VV	?	5.70
65	ENDO I	7.0009	16.183	0.103	1795100	VV	?	9.50
66		0.0000	16.364		1007840	VB	?	8.70
67	END ALD	0.2151	18.351	0.071	58135	BB		4.25
68	DDT	0.3748	19.134	0.044	63526	BV		4.50
69		0.0000	19.625		107888	VV	?	4.60
70		0.0000	20.037		79706	VB		3.95
TAL S:		5124.660		0.328	126421000			



PCB 2028 24-11 MS x ✓ 3/31
ym

(AR 1242 spiked.)

TLE: PESTICIDES 4:21 1 APR 92

HANNEL NO: 2 SAMPLE: 26 METHOD: DB608

AK NO	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.197		10218	VV	?	2.25
2		0.0000	3.437		14638	VV	?	4.70
3		0.0000	3.506		7975	VV	?	3.65
4		0.0000	3.737		10182	VV	?	9.30
5		0.0000	4.009		11396	VV	?	2.15
6		0.0000	4.189		4912	VV	?	8.30
7		0.0000	4.323		6849	VV	?	7.70
8		0.0000	4.478		6934	VV		4.90
9		0.0000	4.688		1056	VV	?	1.00
10		0.0000	4.733		2001	VV	?	
		0.0000	4.773		1535	VV	?	

TLE: PESTICIDES 4:21 1 APR 92

ANNEL NO: 2 SAMPLE: 26 METHOD: DB608

AK O	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.197		10218	VV	?	2.25
2		0.0000	3.437		14638	VV	?	4.70
3		0.0000	3.506		7975	VV	?	3.65
4		0.0000	3.737		10182	VV	?	9.30
5		0.0000	4.009		11396	VV	?	2.15
6		0.0000	4.189		4912	VV	?	8.30
7		0.0000	4.323		6849	VV	?	7.70
8		0.0000	4.478		6934	VV		4.90
9		0.0000	4.688		1056	VV	?	1.00
10		0.0000	4.723		2001	VV	?	
11		0.0000	4.832		1525	VV	?	
12		0.0000	5.010		4574	VV	?	2.20
13		0.0000	5.229		3308	VV	?	3.50
14		0.0000	5.364		48938	VV		3.35
15		0.0000	5.490		1939	VV	?	
16		0.0000	5.661		2873	VV	?	6.60
17		0.0000	5.781		3453	VV		5.20
18		0.0000	5.891		4527	VV	?	5.40
19		0.0000	6.151		1224580	VV		5.10
20		0.0000	6.312		16016	VV	?	5.25
21		0.0000	6.709		9819	VV	?	13.10
22		0.0000	6.827		8553	VV	?	
23		0.0000	7.276		303063	VV		3.50
24		0.0000	7.376		292414	VV		3.70
25		0.0000	7.634		703202	VV		4.70
26		0.0000	8.133		681913	VV		4.45
27		0.0000	8.346		1536390	VV		5.95
28		0.0000	8.545		241197	VV		3.40
29		0.0000	8.866		19399	VV	?	20.75
30		0.0000	9.126		12122	VV	?	6.40
31		0.0000	9.303		4821	VV	?	4.00
32		0.0000	9.495		369746	VV		3.95
33		0.0000	9.754		1477540	VV		6.30
34		0.0000	10.125		208023	VV		6.05
35		0.0000	10.464		599348	VV		4.30
36		0.0000	10.581		80681	VV	?	4.35
37		0.0000	10.727		810875	VV		5.05
38		0.0000	10.975		1222320	VV		6.45
39		0.0000	11.264		47544	VV		8.65
40		0.0000	11.516		438070	VV		3.90
41		0.0000	11.733		33744	VV	?	5.95
42		0.0000	11.959		346091	VV		3.80
43		0.0000	12.057		70893	VV	?	4.70
44	A BHC	0.0467	12.211	0.011	92784	VV	?	4.80
45		0.0000	12.323		74534	VV	?	7.70
46		0.0000	12.419		34728	VV	?	5.40
47		0.0000	12.755		42392	VV		6.95
48		0.0000	13.126		209607	VV		4.75
49		0.0000	13.254		58319	VV	?	5.30
50	LINDANE	0.0750	13.530	0.030	125362	VV		6.95
51	B BHC	0.0622	13.696	-0.054	41296	VV	?	4.90
52		0.0000	13.806		65934	VV		4.30
53		0.0000	13.990		108555	VV		4.30
54	AR1242	0.0000	14.189		176319	VV		4.10
55		0.0000	14.458		45029	VV		6.85
56	HEPTACHLO	0.0606	14.679	0.079	57125	VV		7.40
57	D-BHC	0.0165	14.911	-0.069	25293	VV		6.30
58		0.0000	15.110		167135	VV		4.35
59		0.0000	15.416		7806	VV	?	2.80
60		0.0000	15.555		37373	VV	?	5.65
61	ALDRIN	0.0198	15.815	0.115	29944	VV		9.55
62		0.0000	16.020		29320	VV		5.75
63		0.0000	16.238		25165	VV		5.35
64		0.0000	16.375		40644	VV		5.10
65		0.0000	16.580		10339	VV	?	7.30
66	ISODRIN	22.2065	16.766	-0.034	45413	VV		5.60
67		0.0000	16.945		12172	VV	?	3.10
68		0.0000	17.139		29129	VV	?	5.65
69	HEPT EPOX	0.0126	17.395	-0.105	18785	VV	?	16.10
70		0.0000	17.718		12033	VV	?	11.00
71		0.0000	17.887		4902	VV		3.45

ΣA = 786978

786978 − 250755

from Sample at Same R.T.

51	B BHC	0.0622	13.696	-0.054	41296	VV	?	4.30
52		0.0000	13.806		65934	VV		4.30
53	AR1242	0.0000	13.990		108555	VV		4.30
54		0.0000	14.189		176319	VV		4.10
55		0.0000	14.458		45029	VV		6.85
56	HEPTACHLO	0.0606	14.679	0.079	57125	VV		7.40
57	D-BHC	0.0165	14.911	-0.069	25293	VV		6.30
58		0.0000	15.110		167135	VV		4.35
59		0.0000	15.416		7806	VV	?	2.80
60		0.0000	15.555		37373	VV	?	5.65
61	ALDRIN	0.0198	15.815	0.115	29944	VV		9.55
62		0.0000	16.020		29320	VV		5.75
63		0.0000	16.238		25165	VV		5.35
64		0.0000	16.375		40644	VV		5.10
65		0.0000	16.580		10339	VV	?	7.30
66	ISODRIN	22.2065	16.766	-0.034	45413	VV		5.60
67		0.0000	16.945		12172	VV	?	3.10
68		0.0000	17.139		29129	VV	?	5.65
69	HEPT EPOX	0.0126	17.395	-0.105	18785	VV	?	16.10
70		0.0000	17.718		12033	VV	?	11.00
71		0.0000	17.887		4903	VV		3.45
72		0.0000	18.152		33703	VV		5.10
73		0.0000	18.303		9974	VV	?	14.20
74		0.0000	18.502		6568	VV	?	8.30
75	ENDO I	0.0075	18.643	-0.057	9769	VV	?	8.40
76		0.0000	18.780		7913	VV	?	4.55
77		0.0000	19.015		12132	VV	?	10.70
78	DDE	0.0088	19.301	0.001	12517	VV	?	13.80
79		0.0000	19.504		13179	VV	?	12.15
80		0.0000	19.720		8596	VV		7.75
81	D ELDRIN	0.0057	19.926	0.026	8193	VV	?	9.60
82		0.0000	20.134		10577	VV		9.20
83		0.0000	20.360		7693	VV		7.75
84		0.0000	20.527		5116	VV		5.00
85		0.0000	20.707		5495	VV	?	7.30
86	ENDRIN	0.0098	20.897	0.047	4810	VV	?	7.95
87	DDD	0.0471	21.072	0.062	4877	VV	?	6.40
88		0.0000	21.243		3443	VV	?	4.50
89	ENDO II	0.0024	21.420	0.000	2885	VV	?	6.50
90		0.0000	21.588		3133	VV	?	6.20
91		0.0000	21.750		2159	VV	?	4.50
92		0.0000	21.910		3905	VV	?	7.30
93	DDT	0.0037	22.080	0.050	1847	VV	?	2.50
94		0.0000	22.231		1642	VV	?	2.65
95	ENDRIN AL	0.0011	22.327	-0.053	1151	VV	?	15.70
96		0.0000	22.569		1771	VV	?	7.10
97		0.0000	23.646		1105	VV	?	12.60
98	ENDO SO4	0.0020	22.825	0.025	1675	VV	?	5.75
99		0.0000	25.533		8617	VB		8.15
00		0.0000	26.082		1469	BV		10.95
01		0.0000	26.605		863	VB	?	14.30
TALS:		22.5880		0.074	12729900			

$\Sigma A = 786978$

$786978 - 250755 = 536223$

from Sample at Same R.T.

TECTED PKS: 121 REJECTED PKS: 20

VISOR: 1.00000 MULTIPLIER: 1.00000

ISE: 18.2 OFFSET: 19

CK: 16 VIAL: 8 INJ: 1

TES:
DB608 PRIMARY COLUMN

$AR1242 = \frac{786978}{497131} \times 1.0 \times 5/0.5 = 15.8$ ug/L

$AR1242 = \frac{536223}{497131} \times 1.0 \times 5/0.5 = 10.8$ ug/L

TLE: PESTICIDE CONFIRMATORY 4:21 1 APR 92

SAMPLE: SOME METHOD: DB5

TLE: PESTICIDE CONFIRMATORY 4:21 1 APR 92

HANNEL NO: 1 SAMPLE: SAME METHOD: DB5

AK NO	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.033		22078	BB	?	5.90
2		0.0000	3.671		55794	BB	?	1.30
3		0.0000	4.730		46148	BB	?	1.45
4		0.0000	4.979		23061	BB		3.00
5		0.0000	5.592		127967	BV	?	3.00
6		0.0000	5.657		112203	VB	?	3.30
7		0.0000	6.314		1073980	BB		5.45
8		0.0000	6.544		20513	BB		4.65
9		0.0000	7.186		27229	BB		5.55
10		0.0000	7.521		72518	BB		3.70
11		0.0000	7.775		25250	BV	?	4.20
12		0.0000	7.830		24458	VB	?	5.65
13		0.0000	8.184		1686490	BV	?	7.30
14		0.0000	8.288		2592550	VB	?	9.55
15		0.0000	8.965		2544970	BV		9.10
16		0.0000	9.300		2341950	VV		8.70
17	A BHC	6.8051	9.494	0.064	4003010	VV		11.20
18	B BHC	9.5422	10.161	0.021	2219110	VV		8.30
19	DBHC	0.0687	10.430	0.020	38179	VV	?	5.70
20		0.0000	10.645		69114	VV	?	3.40
21		0.0000	10.873		2645550	VV	?	10.90
22	LINDANE	3.7652	10.929	-0.091	1981690	VV	?	6.85
23		0.0000	11.240		2128250	VV		8.75
24		0.0000	11.511		2942770	VV		9.75
25		0.0000	11.849		1318050	VV	?	5.40
26		0.0000	11.945		603395	VV	?	0.30
27		0.0000	12.088		1592780	VV	?	8.60
28		0.0000	12.185		1591390	VV	?	4.00
29		0.0000	12.407		4042460	VV	?	14.10
30	HEPTACHLO	5.4051	12.738	0.028	2456880	VV		9.10
31		0.0000	12.991		2434810	VV		9.50
32		0.0000	13.169		1654160	VV	?	8.55
33		0.0000	13.536		2303790	VV	?	14.20
34		0.0000	13.687		1598460	VV	?	7.70
35	ALDRIN	5.7578	13.816	0.016	2741830	VV	?	20.15
36		0.0000	14.232		1600110	VV	?	7.00
37		0.0000	14.350		1896760	VV	?	11.40
38	ISODRIN	3527.400	14.644	-0.016	2261160	VV		9.55
39	HEPT EPOX	2.0396	14.923	-0.037	927105	VV		4.90
40		0.0000	15.120		214873	VV		7.45
41		0.0000	15.267		70375	VV	?	3.70
42		0.0000	15.409		1132100	VV	?	6.00
43		0.0000	15.514		1685070	VV	?	6.90
44		0.0000	15.641		3191620	VV	?	8.50
45		0.0000	15.907		844221	VV	?	7.45
46	ENDO I	7.4702	16.208	0.128	1915440	VV		8.35
47		0.0000	16.398		984363	VV		5.55
48		0.0000	16.582		164123	VV		4.80
49	DIELDRIN	0.1747	16.729	-0.041	64709	VV	?	31.70
50	DDE	0.2291	17.119	0.269	84856	VV		4.40
51		0.0000	17.286		241116	VV		3.55
52	ENDRIN	0.3128	17.431	-0.069	89373	VV		4.25
53	ENDO II	8.3137	17.624	-0.106	769790	VV		4.30
54	DDD	0.1732	17.996	0.036	52489	VB		4.10
55	END ALD	0.7060	18.455	0.175	190811	BB		2.90
56	DDT	0.9342	19.323	0.233	158341	BB		3.65
57		0.0000	20.070		23905	BB		4.25
TALS:		3579.100		0.630	67725600			

TECTED PKS: 72 REJECTED PKS: 15

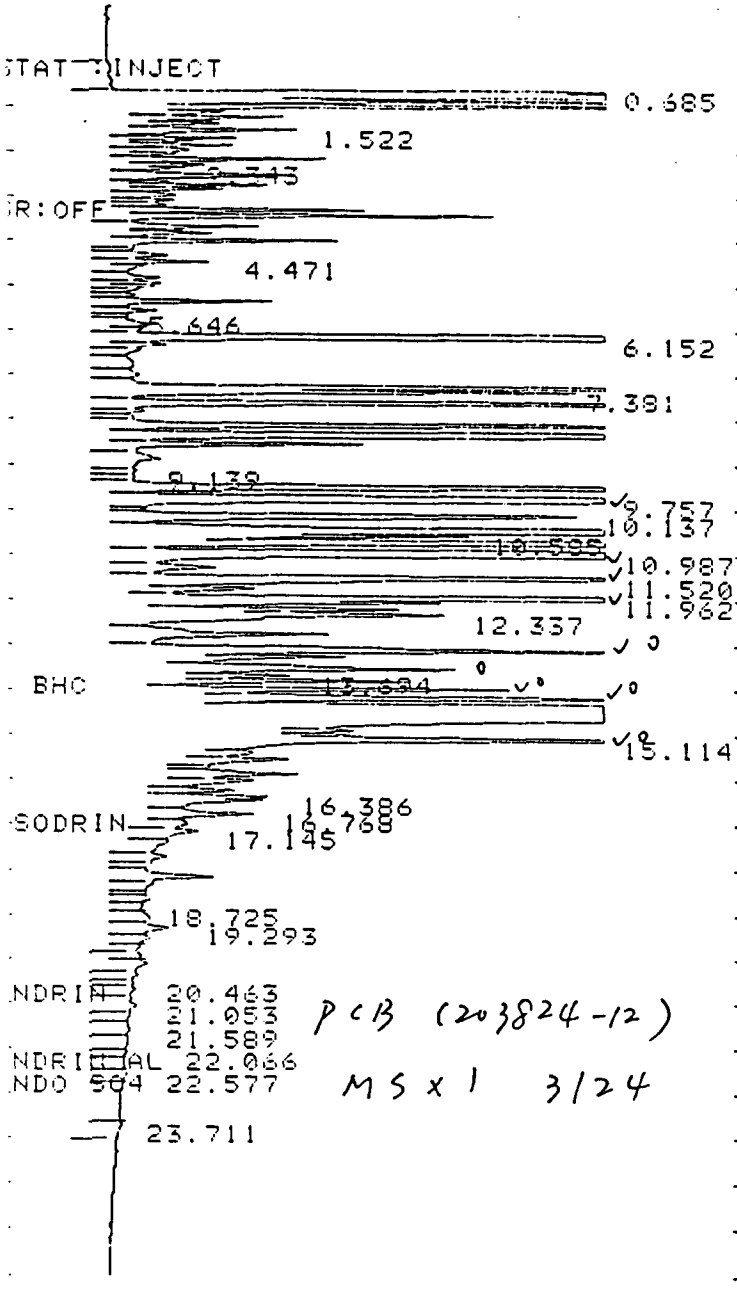
/ISOR: 1.00000 MULTIPLIER: 1.00000

ISE: 364.2 OFFSET: 55

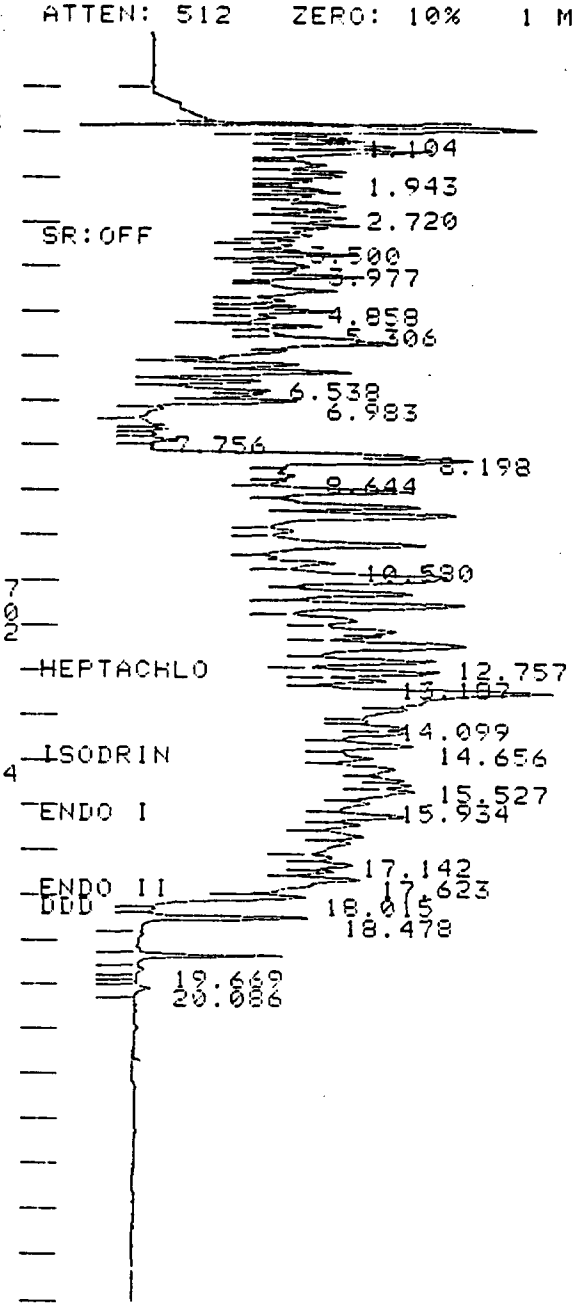
CK: 16 VIAL: 8 INJ: 1

TES:

HART SPEED 0.6 CM/MIN
TTEN: 32 ZERO: 10% 1 MIN/TICK



ATTEN: 512 ZERO: 10% 1 MIN/TICK



PCB (203824-12)
MS x 1 3/24

(AR 1242 spiked)

TLE: PESTICIDES 1:53 30 MAR 92

ANNEL NO: 2 SAMPLE: 26 METHOD: DB608

AK O	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		WI/2 (SEC)
1		0.0000	3.076		15125	VV	?	5.10
2		0.0000	3.187		16010	VV	?	4.75
3		0.0000	3.311		63541	VV		4.10
4		0.0000	3.437		96098	VV		3.75
5		0.0000	3.672		34826	VV		3.45
6		0.0000	3.749		12591	VV	?	2.30
7		0.0000	3.822		26205	VV	?	4.00
8		0.0000	4.004		59127	VV		3.80
9		0.0000	4.146		5617	VV	?	

TLE: PESTICIDES 1:53 30 MAR 92

ANNEL NO: 2 SAMPLE: 26 METHOD: DB608

AK O	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.076		15125	VV	?	5.10
2		0.0000	3.187		16010	VV	?	4.75
3		0.0000	3.311		63541	VV		4.10
4		0.0000	3.437		96098	VV		3.75
5		0.0000	3.672		34826	VV		3.45
6		0.0000	3.749		12591	VV	?	2.30
7		0.0000	3.822		26205	VV	?	4.00
8		0.0000	4.004		59127	VV		3.80
9		0.0000	4.146		5617	VV	?	
10		0.0000	4.330		19044	VV		6.25
11		0.0000	4.471		22712	VV		3.80
12		0.0000	4.566		11442	VV	?	2.80
13		0.0000	4.834		16011	VV	?	3.20
14		0.0000	4.948		11088	VV	?	5.10
15		0.0000	5.007		8953	VV	?	2.10
16		0.0000	5.083		6270	VV	?	1.65
17		0.0000	5.226		6316	VV	?	6.30
18		0.0000	5.361		37473	VV		3.55
19		0.0000	5.566		12426	VV		4.55
20		0.0000	5.646		3473	VV	?	
21		0.0000	5.876		14906	VV	?	7.10
22		0.0000	5.961		10472	VV	?	3.30
23		0.0000	6.152		1193220	VV	?	2.95
24		0.0000	6.316		15955	VV	?	7.65
25		0.0000	6.428		10872	VV	?	15.00
26		0.0000	6.786		16437	VV	?	13.60
27		0.0000	7.004		13091	VV	?	9.60
28		0.0000	7.279		247834	VV		3.45
29		0.0000	7.381		116724	VV	?	4.40
30		0.0000	7.635		219707	VV		3.65
31		0.0000	7.815		8259	VV	?	6.55
32		0.0000	7.950		5266	VV	?	6.80
33		0.0000	8.137		222890	VV		3.45
34		0.0000	8.352		847371	VV		4.65
35		0.0000	8.550		71062	VV		4.10
36		0.0000	8.868		32459	VV	?	22.65
37		0.0000	9.139		8418	VV	?	4.70
38		0.0000	9.261		6679	VV	Ratio	4.55
39		0.0000	9.500		357425	VV		4.00
40		0.0000	9.757		1051800	VV	2.82	5.50
41		0.0000	9.922		8364	VV	?	
42		0.0000	10.137		192870	VV		6.95
43		0.0000	10.470		861707	VV		4.80
44		0.0000	10.585		78290	VV	?	4.65
45		0.0000	10.731		528978	VV		4.45
46		0.0000	10.987		1402290	VV	3.76	6.45
47		0.0000	11.273		47149	VV		8.90
48	AR.242	0.0000	11.520		372363	VV	1.00	3.80
49		0.0000	11.741		51007	VV	?	7.35
50		0.0000	11.962		478953	VV	1.29	4.00
51		0.0000	12.064		75353	VV	?	5.20
52	A BHC	0.0433	12.218	0.018	86100	VV	?	5.10
53		0.0000	12.337		152759	VV	?	7.20
54		0.0000	12.768		102356	VV		5.40
55		0.0000	13.131		215410	VV	0.58	6.35
56		0.0000	13.286		88441	VV	?	7.55
57	LINDANE	0.0865	13.537	0.037	144643	VV		7.60
58	B BHC	0.0921	13.694	-0.056	61217	VV	?	8.20
59		0.0000	13.809		84773	VV		4.80
60		0.0000	13.994		123468	VV	0.33	4.75
61		0.0000	14.154		242180	VV	0.65	4.80
62	HEPTACHLO	4.0880	14.404	-0.196	3856590	VV		9.40
63		0.0000	14.909		79996	VV	?	5.10
64	D-BHC	0.0300	15.015	0.035	46015	VV	?	5.10
65		0.0000	15.114		300228	VV	0.81 ?	3.35
66		0.0000	15.404		62975	VV	?	6.10
67		0.0000	15.557		83238	VV	?	7.55
68	ALDRIN	0.0138	15.677	-0.033	20827	VV	?	

63		0.0000	14.909		79996	VV	?	5.10
64	D-BHC	0.0300	15.015	0.035	46015	VV	?	5.10
65		0.0000	15.114		300228	VV	?	3.35
66		0.0000	15.404		62975	VV	?	6.10
67		0.0000	15.557		83238	VV	?	7.55
68	ALDRIN	0.0138	15.677	-0.023	20827	VV	?	
69		0.0000	15.887		87614	VV	?	14.50
70		0.0000	16.020		67596	VV	?	6.50
71		0.0000	16.239		46141	VV	?	7.85
72		0.0000	16.386		46059	VV	?	7.90
73		0.0000	16.448		64410	VV	?	11.45
74	ISODRIN	34.9870	16.768	-0.032	71548	VV		10.95
75		0.0000	16.970		41076	VV	?	9.30
76		0.0000	17.145		49947	VV	?	8.00
77	HEPT EPOX	0.0266	17.378	-0.122	39756	VV	?	3.10
78		0.0000	17.701		26675	VV	?	9.45
79		0.0000	17.822		13777	VV	?	
80		0.0000	18.147		46882	VV		7.30
81		0.0000	18.249		20324	VV	?	
82		0.0000	18.455		6666	VV	?	
83		0.0000	18.648		16231	VV	?	7.40
84	ENDO I	0.0094	18.725	0.025	12275	VV	?	
85		0.0000	19.069		23088	VV	?	14.00
86	DDE	0.0206	19.293	-0.007	29236	VV	?	13.80
87		0.0000	19.529		18821	VV	?	7.60
88		0.0000	19.672		9291	VV	?	
89	DIELDRIN	0.0075	19.939	0.039	10646	VV	?	8.80
90		0.0000	20.107		18683	VV	?	8.55
91		0.0000	20.360		8382	VV	?	4.90
92		0.0000	20.463		5574	VV	?	
93	ENDRIN	0.0157	20.692	-0.158	7716	VV	?	6.80
94	DDD	0.1200	21.053	0.043	12425	VV	?	8.10
95		0.0000	21.184		5124	VV	?	
96	ENDO II	0.0060	21.589	0.169	7063	VV	?	3.35
97		0.0000	21.702		5465	VV	?	
98	DDT	0.0045	22.066	0.036	2257	VV	?	3.20
99		0.0000	22.177		1470	VV	?	
00	ENDRIN AL	0.0016	22.577	0.197	1569	VB	?	11.55
01		0.0000	23.711		1977	BB		7.25
TALS:		39.5526		0.005	15629400			

0.81

ΣA = 418692

ΣA = 1025929 (1~5)

TECTED PKS: 125 REJECTED PKS: 24

VISOR: 1.00000 MULTIPLIER: 1.00000

ISE: 35.2 OFFSET: 0

CK: 16 VIAL: 8 INJ: 1

TES:
DB608 PRIMARY COLUMN

$$AR1242 = \frac{418692}{1150899} \times 1.0 \text{ gm} \times 5/0.5 = 36.4 \text{ ug/L}$$

$$AR1242 = \frac{1025929}{507521} \times 1.0 \times 5/0.5 = 20.2 \text{ ug/L}$$

TLE: PESTICIDE CONFIRMATORY 1:53 30 MAR 92

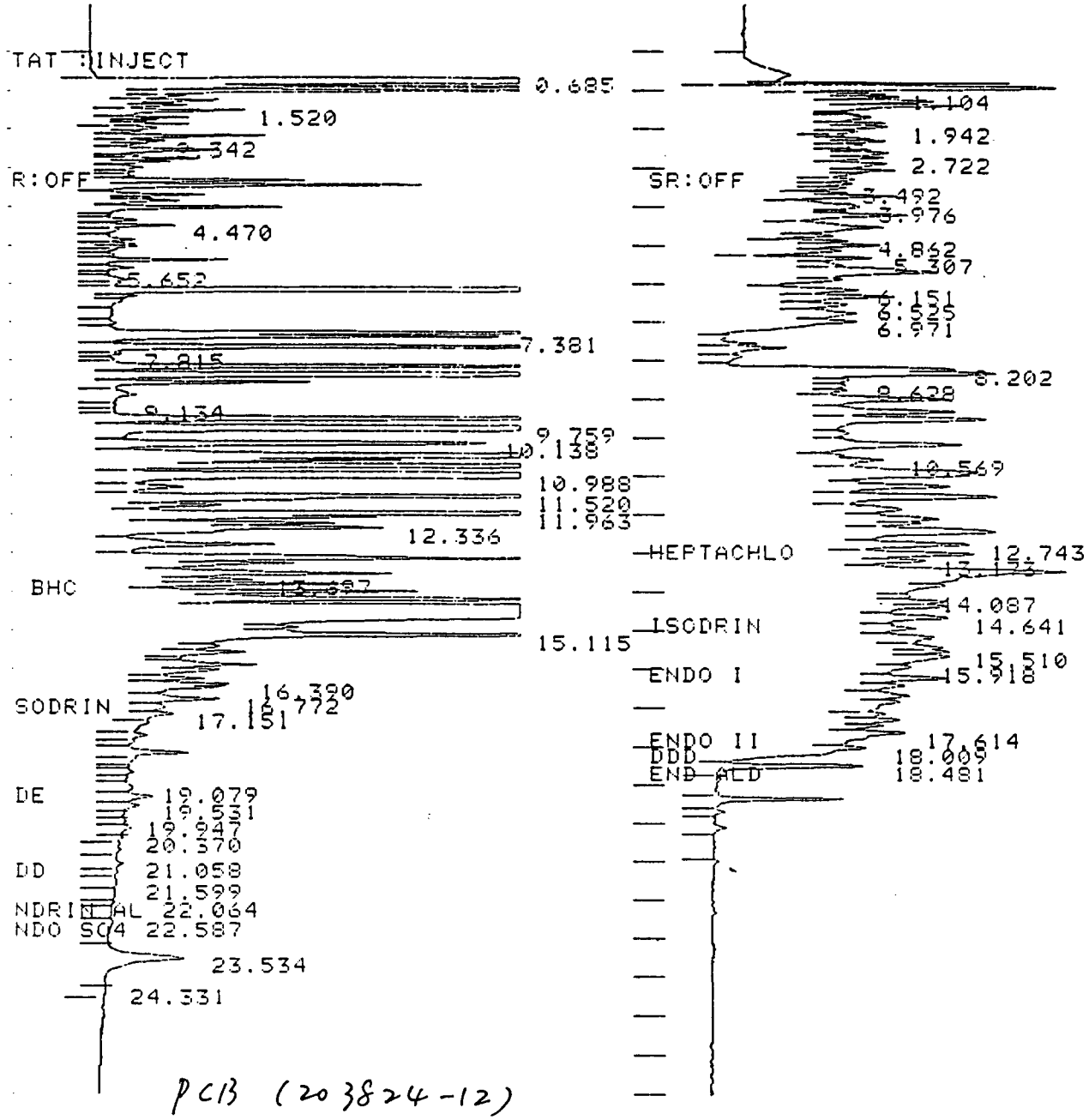
ANNEL NO: 1 SAMPLE: SAME METHOD: DB5

AK O	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.044		1303890	VV	?	5.30
2		0.0000	3.116		1219680	VV	?	1.10
3		0.0000	3.271		1328570	VV	?	5.30
4		0.0000	3.392		843610	VV	?	3.95
5		0.0000	3.500		1120240	VV	?	4.80
6		0.0000	3.624		710594	VV	?	4.50
7		0.0000	3.710		1499520	VV	?	5.80
8		0.0000	3.856		629137	VV	?	5.10
[illegible]		[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]

LE: PESTICIDE CONFIRMATORY 1:53 30 MAR 92

NNEL NO: 1 SAMPLE: SAME METHOD: DB5

K	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.044		1303890	VV	?	5.30
2		0.0000	3.116		1219680	VV	?	1.10
3		0.0000	3.271		1328570	VV	?	5.30
4		0.0000	3.392		843610	VV	?	3.95
5		0.0000	3.500		1120240	VV	?	4.80
6		0.0000	3.624		710594	VV	?	4.50
7		0.0000	3.710		1499520	VV	?	5.80
8		0.0000	3.856		629137	VV	?	5.10
9		0.0000	3.977		1551300	VV	?	10.10
0		0.0000	4.070		791123	VV	?	2.00
1		0.0000	4.196		1752850	VV	?	6.80
2		0.0000	4.286		480307	VV	?	
3		0.0000	4.514		2965330	VV	?	14.50
4		0.0000	4.735		1148800	VV	?	6.10
5		0.0000	4.858		895155	VV	?	5.40
6		0.0000	4.979		1451280	VV	?	7.10
7		0.0000	5.120		1315860	VV	?	4.80
8		0.0000	5.306		1152220	VV	?	5.70
9		0.0000	5.491		1204920	VV	?	11.80
0		0.0000	5.669		3582090	VV	?	13.20
1		0.0000	5.827		1226950	VV	?	
2		0.0000	5.991		418918	VV	?	
3		0.0000	6.160		1209330	VV	?	5.40
4		0.0000	6.323		1704210	VV		8.85
5		0.0000	6.538		877092	VV		6.70
6		0.0000	6.764		942115	VV	?	9.70
7		0.0000	6.831		735764	VV	?	1.40
8		0.0000	6.983		1186120	VV	?	7.50
9		0.0000	7.166		380201	VV		2.30
0		0.0000	7.540		270101	VV	?	14.40
1		0.0000	7.628		178557	VV		3.15
2		0.0000	7.756		179603	VV	?	5.90
3		0.0000	7.880		317980	VV		6.10
4		0.0000	8.198		1922190	VV	?	8.10
5		0.0000	8.305		3257980	VV	?	11.60
6		0.0000	8.644		2182340	VV	?	5.30
7		0.0000	8.757		1101750	VV	?	2.15
8		0.0000	8.976		3275080	VV	?	13.20
9		0.0000	9.312		3189200	VV	?	14.30
0	A BHC	7.6803	9.511	0.081	4517830	VV	?	18.30
1		0.0000	9.878		1630350	VV	?	7.80
2	B BHC	19.6574	10.179	0.039	4571500	VV	?	22.25
3	DBHC	5.2433	10.580	0.170	2912930	VV	?	18.50
4	LINDANE	10.3190	10.905	-0.115	5431080	VV	?	20.60
5		0.0000	11.259		3409810	VV	?	13.50
6		0.0000	11.529		3973480	VV	?	12.20
7		0.0000	11.848		2974880	VV	?	15.40
8		0.0000	12.097		2780230	VV	?	13.30
9		0.0000	12.171		1409690	VV	?	
0		0.0000	12.427		5033790	VV	?	14.00
1	HEPTACHLO	7.4982	12.757	0.047	3408270	VV	?	12.50
2		0.0000	13.008		3168100	VV	?	12.20
3		0.0000	13.187		2148690	VV	?	6.65
4		0.0000	13.467		8349700	VV	?	17.00
5	ALDRIN	7.6276	13.821	0.021	3632210	VV	?	2.60
6		0.0000	14.099		1423040	VV	?	3.20
7		0.0000	14.249		2212160	VV	?	9.10
8		0.0000	14.360		2889720	VV	?	4.90
9	ISODRIN	5664.140	14.656	-0.004	3630860	VV	?	12.45
0	HEPT EPOX	6.7737	14.933	-0.027	3078970	VV	?	8.00
1		0.0000	15.170		3638960	VV	?	12.50
2		0.0000	15.429		2161190	VV	?	9.90
3		0.0000	15.527		1941220	VV	?	4.15
4		0.0000	15.663		3759310	VV	?	6.10
5		0.0000	15.934		2837650	VV	?	4.95
6	ENDO I	12.1241	16.225	0.145	3108740	VV	?	11.10
7		0.0000	16.411		2193840	VV	?	6.10
8	DIELDRIN	7.1529	16.673	-0.097	2649240	VV	?	13.70
9	DDE	8.9137	16.821	-0.029	3301370	VV	?	4.20
0		0.0000	17.142		1544210	VV	?	7.50
1		0.0000	17.301		2009170	VV	?	7.45
2	ENDRIN	4.8327	17.436	-0.064	1380770	VV	?	2.80



PCB (203824-12)

MSD x 1 3/24

(SR 1242 spiked)

TLE: PESTICIDES 2:29 30 MAR 92

ANNEL NO: 2 SAMPLE: 27 METHOD: DB608

AK O	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.077		11342	VV	?	4.50
2		0.0000	3.187		13888	VV	?	4.95
3		0.0000	3.311		61443	VV		4.15
4		0.0000	3.437		93823	VV		5.75
5		0.0000	3.671		30729	VV		3.50
6		0.0000	3.751		12516	VV	?	3.30
7		0.0000	3.822		26923	VV	?	3.95
8		0.0000	4.003		57993	VV		3.75

TLE: PESTICIDES 2:29 30 MAR 92

ANNEL NO: 2 SAMPLE: 27 METHOD: DB608

NK	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.077		11342	VV	?	4.50
2		0.0000	3.187		13888	VV	?	4.95
3		0.0000	3.311		61443	VV		4.15
4		0.0000	3.437		93823	VV		3.75
5		0.0000	3.671		30729	VV		3.50
6		0.0000	3.751		12516	VV	?	3.30
7		0.0000	3.822		26923	VV	?	3.95
8		0.0000	4.003		57993	VV		3.75
9		0.0000	4.160		3986	VV	?	
0		0.0000	4.326		15439	VV		5.45
1		0.0000	4.470		21594	VV		3.60
2		0.0000	4.569		10272	VV	?	10.35
3		0.0000	4.835		16000	VV		4.70
4		0.0000	4.951		10002	VV	?	4.90
5		0.0000	5.011		11008	VV	?	7.50
6		0.0000	5.068		5681	VV	?	9.40
7		0.0000	5.227		6221	VV	?	5.70
8		0.0000	5.366		36784	VV		3.50
9		0.0000	5.571		12490	VV		4.30
0		0.0000	5.652		3803	VV	?	
1		0.0000	5.877		14366	VV	?	9.40
2		0.0000	5.962		8683	VV	?	2.70
3		0.0000	6.155		1143870	VV	?	2.90
4		0.0000	6.314		14209	VV	?	4.10
5		0.0000	6.441		17445	VV	?	4.65
6		0.0000	6.801		15793	VV	?	2.60
7		0.0000	7.011		10186	VV	?	8.60
8		0.0000	7.279		245193	VV	?	1.95
9		0.0000	7.381		114186	VV	?	4.15
0		0.0000	7.636		218883	VV		3.70
1		0.0000	7.815		8139	VV	?	6.55
2		0.0000	7.949		5148	VV	?	6.70
3		0.0000	8.137		225024	VV		3.35
4		0.0000	8.352		855887	VV		4.70
5		0.0000	8.549		70624	VV		4.10
6		0.0000	8.865		34371	VV	?	22.70
7		0.0000	9.134		9316	VV	?	4.90
8		0.0000	9.265		7105	VV	?	3.75
9		0.0000	9.501		359161	VV		3.90
0		0.0000	9.759		1073890	VV		5.60
1		0.0000	10.138		195394	VV		7.10
2		0.0000	10.470		886416	VV		4.90
3		0.0000	10.589		79899	VV	?	4.70
4		0.0000	10.732		539632	VV		4.45
5		0.0000	10.988		1434750	VV		6.60
6		0.0000	11.272		48549	VV		9.20
7		0.0000	11.520		380422	VV		3.95
8		0.0000	11.746		52042	VV	?	7.05
9		0.0000	11.963		502347	VV		4.15
0		0.0000	12.066		73816	VV	?	4.90
1	A BHC	0.0427	12.219	0.019	84920	VV	?	5.40
2		0.0000	12.336		156103	VV	?	7.05
3	AR1242	0.0000	12.767		105869	VV		5.65
4		0.0000	13.133		220014	VV		7.05
5		0.0000	13.264		89067	VV	?	7.55
6	LINDANE	0.0883	13.537	0.037	147587	VV		7.40
7	B BHC	0.0957	13.697	-0.053	63564	VV	?	8.50
8		0.0000	13.809		86763	VV		4.85
9		0.0000	13.996		124290	VV		5.10
0		0.0000	14.194		254241	VV		4.50
1	HEPTACHLO	3.9796	14.406	-0.194	3754310	VV		9.30
2	D-BHC	0.0529	14.912	-0.068	81237	VV	?	5.50
3		0.0000	15.115		339686	VV	?	3.40
4		0.0000	15.405		68105	VV	?	7.10
5		0.0000	15.562		84236	VV	?	7.15
6	ALDRIN	0.0158	15.708	0.008	23962	VV	?	1.80
7		0.0000	15.890		90255	VV	?	14.90
8		0.0000	16.018		71701	VV	?	6.80
9		0.0000	16.243		48696	VV	?	9.20
0		0.0000	16.390		47980	VV	?	8.40
1		0.0000	16.446		66519	VV	?	1.75

ΣA = 4329640

63		0.0000	15.115		339686	VV	?	5.40
64		0.0000	15.405		68105	VV	?	7.10
65		0.0000	15.562		84236	VV	?	7.15
66	ALDRIN	0.0158	15.708	0.008	23962	VV	?	1.80
67		0.0000	15.890		90255	VV	?	14.90
68		0.0000	16.018		71701	VV	?	6.80
69		0.0000	16.243		48696	VV	?	9.20
70		0.0000	16.390		47980	VV	?	8.40
71		0.0000	16.446		66519	VV	?	1.75
72	ISODRIN	38.9288	16.772	-0.028	79609	VV	?	12.90
73		0.0000	16.983		45295	VV	?	10.00
74		0.0000	17.151		56285	VV	?	7.80
75	HEPT EPOX	0.0308	17.387	-0.113	46030	VV	?	1.70
76		0.0000	17.705		30521	VV	?	9.05
77		0.0000	17.818		19053	VV	?	
78		0.0000	18.156		54846	VV		7.90
79		0.0000	18.263		25372	VV	?	
80		0.0000	18.469		9141	VV	?	
81	ENDO I	0.0151	18.653	-0.047	19755	VV	?	8.00
82		0.0000	18.795		16993	VV	?	3.75
83		0.0000	19.079		30183	VV	?	14.40
84	DDE	0.0259	19.302	0.002	36621	VV	?	12.30
85		0.0000	19.531		27348	VV	?	7.80
86		0.0000	19.677		14308	VV	?	
87	DIELDRIN	0.0104	19.947	0.047	14855	VV	?	8.10
88		0.0000	20.120		26363	VV	?	10.05
89		0.0000	20.370		13628	VV	?	2.90
90	ENDRIN	0.0448	20.700	-0.150	22006	VV	?	5.75
91	DDD	0.2104	21.058	0.048	21783	VV	?	8.70
92	ENDO II	0.0093	21.260	-0.160	10995	VV	?	4.15
93		0.0000	21.599		16389	VV	?	1.60
94		0.0000	21.703		13992	VV	?	
95	DDT	0.0134	22.064	0.034	6733	VV	?	2.20
96		0.0000	22.172		10057	VV	?	
97	ENDRIN AL	0.0189	22.587	0.207	19117	VV	?	9.70
98		0.0000	23.534		89781	VV		13.05
99		0.0000	24.331		1524	VB	?	3.10
OTALS:		43.5828		-0.411	15894400			

$\Sigma A = 4329640$

$\Sigma A = 1085818$ (1~5)

ETECTED PKS: 122 REJECTED PKS: 23

IVISOR: 1.00000 MULTIPLIER: 1.00000

OISE: 35.2 OFFSET: 1

ACK: 16 VIAL: 9 INJ: 1

OTES:
DB608 PRIMARY COLUMN

$AR1242 = \frac{4329640}{1150899} \times 1.0 \times 5/0.5 = 37.6 \text{ ug/L}$

$AR1242 = \frac{1085818}{507521} \times 1.0 \times 5/0.5 = 21.4 \text{ ug/L}$

ITLE: PESTICIDE CONFIRMATORY 2:29 30 MAR 92

HANNEL NO: 1 SAMPLE: SAME METHOD: DB5

PEAK NO	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.044		1107930	VV	?	5.30
2		0.0000	3.116		993684	VV	?	0.45
3		0.0000	3.277		1044310	VV	?	6.00
4		0.0000	3.391		808070	VV	?	3.85
5		0.0000	3.492		901933	VV	?	3.90
6		0.0000	3.625		577280	VV	?	4.60
7		0.0000	3.708		1304930	VV	?	5.65
8		0.0000	3.976		1823990	VV	?	14.70
9		0.0000	4.070		597942	VV	?	1.30
10		0.0000	4.196		1951320	VV	?	7.25

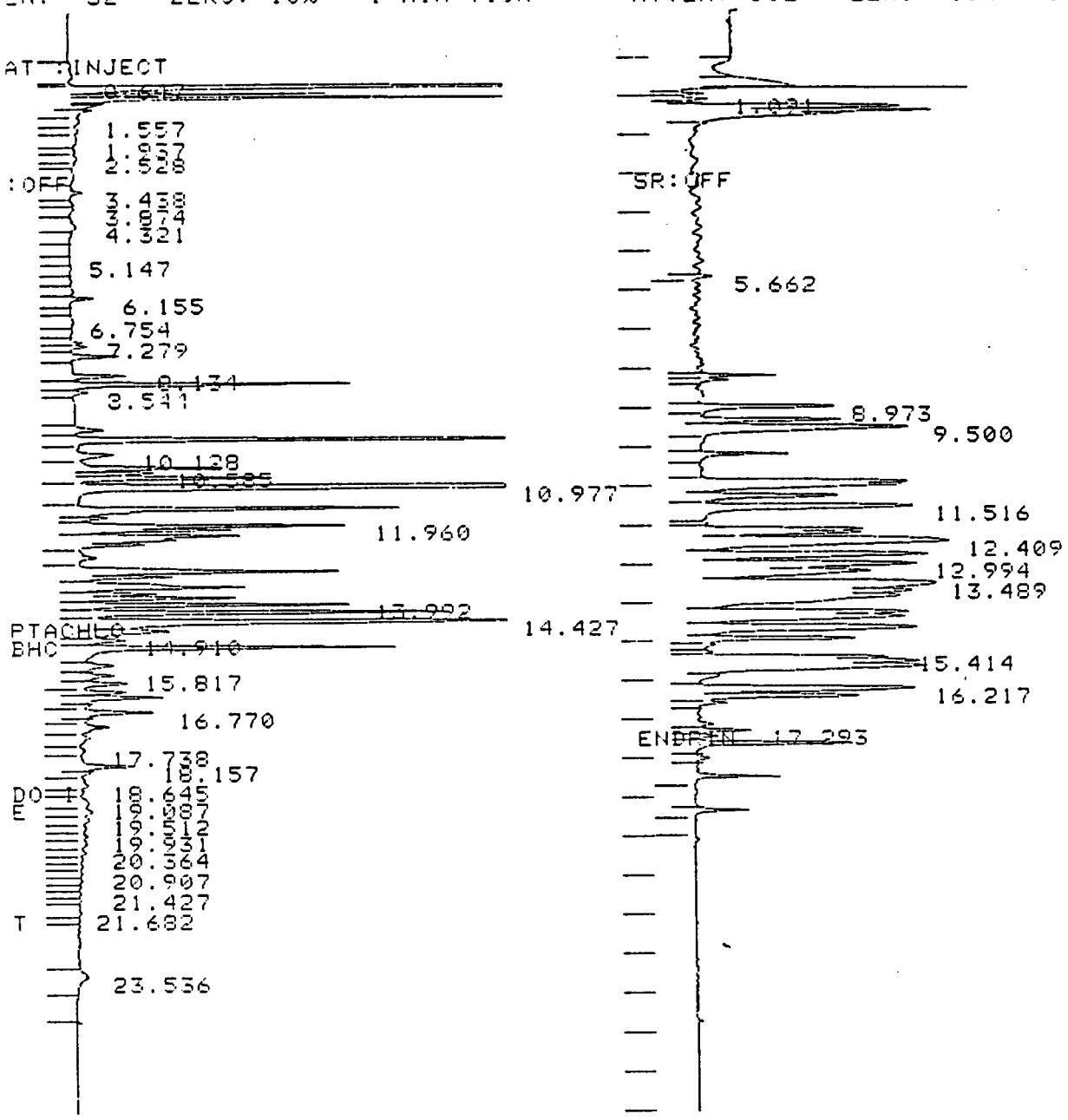
'LE: PESTICIDE CONFIRMATORY 2:29 30 MAR 92

ANNEL NO: 1 SAMPLE: SAME METHOD: DB5

K	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.044		1107930	VV	?	5.30
2		0.0000	3.116		993684	VV	?	0.45
3		0.0000	3.277		1044310	VV	?	6.00
4		0.0000	3.391		808070	VV	?	3.85
5		0.0000	3.492		901933	VV	?	3.90
6		0.0000	3.625		577280	VV	?	4.60
7		0.0000	3.708		1304930	VV	?	5.65
8		0.0000	3.976		1823990	VV	?	14.70
9		0.0000	4.070		597942	VV	?	1.20
0		0.0000	4.196		1951320	VV	?	7.25
1		0.0000	4.512		2485360	VV	?	14.30
2		0.0000	4.731		883740	VV	?	5.80
3		0.0000	4.862		710141	VV	?	5.30
4		0.0000	4.977		1257300	VV	?	6.90
5		0.0000	5.117		1150530	VV	?	5.65
6		0.0000	5.307		1051210	VV	?	4.80
7		0.0000	5.493		1039610	VV	?	8.00
8		0.0000	5.669		3152370	VV	?	14.70
9		0.0000	5.873		1213570	VV	?	3.75
0		0.0000	6.151		1556470	VV	?	11.10
1		0.0000	6.321		1722620	VV	?	7.30
2		0.0000	6.525		1259160	VV	?	9.05
3		0.0000	6.757		1935410	VV	?	14.10
4		0.0000	6.971		2059120	VV	?	20.25
5		0.0000	7.545		215066	VV		4.00
6		0.0000	7.652		513727	VV		6.20
7		0.0000	7.880		210904	VV	?	12.40
8		0.0000	8.202		1516940	VV	?	8.40
9		0.0000	8.302		2806440	VV	?	10.80
0		0.0000	8.475		1051940	VV	?	1.80
1		0.0000	8.628		1072710	VV	?	4.35
2		0.0000	8.740		1015180	VV	?	1.60
3		0.0000	8.970		3208900	VV	?	13.40
4		0.0000	9.305		2929510	VV	?	18.30
5	A BHC	7.2417	9.503	0.073	4259850	VV	?	11.05
6		0.0000	9.873		1574130	VV	?	8.00
7	B BHC	17.9255	10.170	0.030	4168730	VV		18.20
8	DBHC	5.0938	10.569	0.159	2829870	VV	?	19.50
9	LINDANE	9.6303	10.893	-0.127	5068590	VV	?	20.00
0		0.0000	11.247		3292490	VV	?	14.65
1		0.0000	11.515		3863280	VV		13.35
2		0.0000	11.837		2719850	VV	?	14.90
3		0.0000	12.086		2691030	VV	?	12.80
4		0.0000	12.159		1316500	VV	?	
5		0.0000	12.414		4843940	VV	?	15.30
6	HEPTACHLO	7.1283	12.743	0.033	3240140	VV	?	11.95
7		0.0000	12.994		3059140	VV	?	12.90
8		0.0000	13.173		2070300	VV	?	5.60
9		0.0000	13.452		8085670	VV	?	15.10
0	ALDRIN	7.0829	13.814	0.014	3372810	VV	?	2.95
1		0.0000	14.087		1437210	VV	?	3.30
2		0.0000	14.232		2103870	VV	?	7.90
3		0.0000	14.347		2810710	VV	?	4.20
4	ISODRIN	5374.170	14.641	-0.019	3444980	VV	?	12.20
5	HEPT EPOX	6.5157	14.918	-0.042	2961690	VV	?	8.30
6		0.0000	15.154		3522230	VV	?	12.90
7		0.0000	15.413		2160350	VV	?	10.40
8		0.0000	15.510		1786100	VV	?	4.50
9		0.0000	15.646		3646130	VV	?	7.40
0		0.0000	15.918		2781660	VV	?	5.40
1	ENDO I	11.9376	16.209	0.129	3060910	VV	?	11.25
2		0.0000	16.397		2125770	VV	?	5.30
3		0.0000	16.657		2634010	VV	?	14.10
4	DIELDRIN	8.8460	16.808	0.038	3276280	VV	?	5.15
5	DDE	4.0742	17.125	0.275	1508960	VV	?	6.30
6		0.0000	17.285		1994020	VV	?	7.90
7	ENDRIN	4.8644	17.427	-0.073	1389820	VV	?	2.85
8		0.0000	17.614		3911920	VV	?	9.00
9	DDD	8.4311	18.009	0.049	2554890	VV	?	6.55

RT SPEED 0.6 CM/MIN
EN: 32 ZERO: 10% 1 MIN/TICK

ATTEN: 512 ZERO: 10% 1 MIN/TICK



AR1242 1.0 ppm 3/23

'LE: PESTICIDES 3:04 30 MAR 92

ANNEL NO: 2 SAMPLE: 28 METHOD: DB608

AK	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		WI/2 (SEC)
1		0.0000	3.070		8325	VV	?	22.25
2		0.0000	3.438		7763	VV		4.35
3		0.0000	3.732		2838	VV	?	5.70
4		0.0000	3.874		3552	VV	?	5.00
5		0.0000	4.321		7549	VV		9.95
6		0.0000	4.432		2761	VB	?	17.80
7		0.0000	5.147		1217	BV		11.25
8		0.0000	5.381		2738	VV		10.65
9		0.0000	5.726		2482	VV	?	12.80
10		0.0000	5.972		3420	VV	?	13.20
		0.0000	6.135		8193	VV	?	2.35

LE: PESTICIDES 3:04 30 MAR 92

NNEL NO: 2 SAMPLE: 28 METHOD: DB608

K	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.070		8325	VV	?	22.25
2		0.0000	3.438		7763	VV		4.35
3		0.0000	3.732		2838	VV	?	5.70
4		0.0000	3.874		3552	VV	?	5.00
5		0.0000	4.321		7549	VV		9.95
6		0.0000	4.432		2761	VB	?	17.80
7		0.0000	5.147		1217	BV		11.25
8		0.0000	5.381		2738	VV		10.65
9		0.0000	5.726		2482	VV	?	12.80
0		0.0000	5.972		3420	VV	?	13.20
1		0.0000	6.155		8193	VV	?	2.35
2		0.0000	6.357		661	VV	?	
3		0.0000	6.754		3776	VV	?	14.40
4		0.0000	6.886		1640	VV	?	
5		0.0000	7.279		3165	VV	?	4.80
6		0.0000	7.376		4655	VV	?	4.50
7		0.0000	7.632		14212	VV		4.50
8		0.0000	8.134		15922	VV		4.20
9		0.0000	8.347		76892	VV		3.85
0		0.0000	8.544		4045	VB		5.00
1		0.0000	9.494		9838	BV		4.80
2		0.0000	9.756		161114	VV		3.95
3		0.0000	10.128		18834	VV		6.40
4		0.0000	10.465		49464	VV		4.20
5		0.0000	10.585		22611	VV	?	4.70
6		0.0000	10.724		66368	VV		4.70
7		0.0000	10.977		431693	VV		5.05
8		0.0000	11.519		113608	VV		4.10
9		0.0000	11.739		10696	VV	?	5.00
0		0.0000	11.960		87780	VV		4.20
1		0.0000	12.061		41119	VV	?	4.20
2	A BHC	0.0445	12.221	0.021	88407	VV		9.55
3		0.0000	12.423		20043	VV	?	4.35
4		0.0000	12.762		12574	VV		5.55
5		0.0000	13.129		106991	VV		4.75
6		0.0000	13.259		28972	VV	?	4.55
7	LINDANE	0.0465	13.532	0.032	77691	VV		6.75
8	B BHC	0.0347	13.701	-0.049	23039	VV	?	4.80
9		0.0000	13.809		49765	VV		4.40
0		0.0000	13.992		83563	VV		4.10
1		0.0000	14.191		119338	VV		4.20
2		0.0000	14.427		238903	VV		5.75
3	HEPTACHLO	0.0527	14.679	0.079	49698	VV	?	8.70
4	D-BHC	0.0134	14.910	-0.070	20583	VV		6.55
5		0.0000	15.109		119938	VV		4.40
6		0.0000	15.560		20358	VV		6.70
7	ALDRIN	0.0117	15.817	0.117	17658	VV		6.20
8		0.0000	16.023		20281	VV		5.20
9		0.0000	16.243	$\Sigma A = 507521$	17251	VV		4.95
0		0.0000	16.380		31412	VV		4.85
1		0.0000	16.574		5428	VV	?	4.20
2	ISODRIN	15.3908	16.770	-0.030	31474	VV	?	3.00
3		0.0000	16.919		3917	VV	?	
4		0.0000	17.143		17215	VV		5.90
5	HEPT EPOX	0.0059	17.405	-0.095	8810	VV		9.85
6		0.0000	17.738		4644	VV		9.70
7		0.0000	18.157		26267	VV		5.15
8		0.0000	18.301		5486	VV	?	4.95
9	ENDO I	0.0066	18.645	-0.055	8621	VV		13.65
0		0.0000	18.791		3038	VV	?	13.10
1		0.0000	19.087		9362	VV	?	15.20
2	DDE	0.0069	19.302	0.002	9812	VV	?	9.90
3		0.0000	19.512		7819	VV	?	7.15
4		0.0000	19.729		5478	VV	?	6.80
5	DIELDRIN	0.0033	19.931	0.031	4723	VV	?	7.00
6		0.0000	20.138		6629	VV	?	3.25
7		0.0000	20.364		4447	VV	?	8.35
8		0.0000	20.535		2478	VV	?	9.80
9		0.0000	20.716		2285	VV	?	8.35
0	ENDRIN	0.0039	20.907	0.057	1935	VV	?	7.15
		0.0185	21.091	0.071	1918	VV	?	6.35

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
60		0.0000	18.791		3038	VV	?	13.10
61		0.0000	19.087		9362	VV	?	15.20
62	DDE	0.0069	19.302	0.002	9812	VV	?	9.90
63		0.0000	19.512		7819	VV	?	7.15
64		0.0000	19.729		5478	VV	?	6.80
65	DIELDRIN	0.0033	19.931	0.031	4723	VV	?	7.00
66		0.0000	20.138		6629	VV	?	3.25
67		0.0000	20.364		4447	VV	?	8.35
68		0.0000	20.535		2478	VV	?	9.80
69		0.0000	20.716		2285	VV	?	8.35
70	ENDRIN	0.0039	20.907	0.057	1935	VV	?	7.15
71	DDD	0.0185	21.081	0.071	1918	VV	?	6.35
72		0.0000	21.183		1028	VV	?	16.20
73	ENDO II	0.0008	21.427	0.007	968	VV	?	5.85
74		0.0000	21.597		1860	VV		4.25
75		0.0000	21.682		1020	T	?	
76	DDT	0.0010	22.013	-0.017	501	VB	?	15.10
77		0.0000	23.536		9692	BB		12.00

)TALS: 15.6412 0.101 2521250

:TECTED PKS: 90 REJECTED PKS: 13

VISOR: 1.00000 MULTIPLIER: 1.00000

)ISE: 35.2 OFFSET: 39

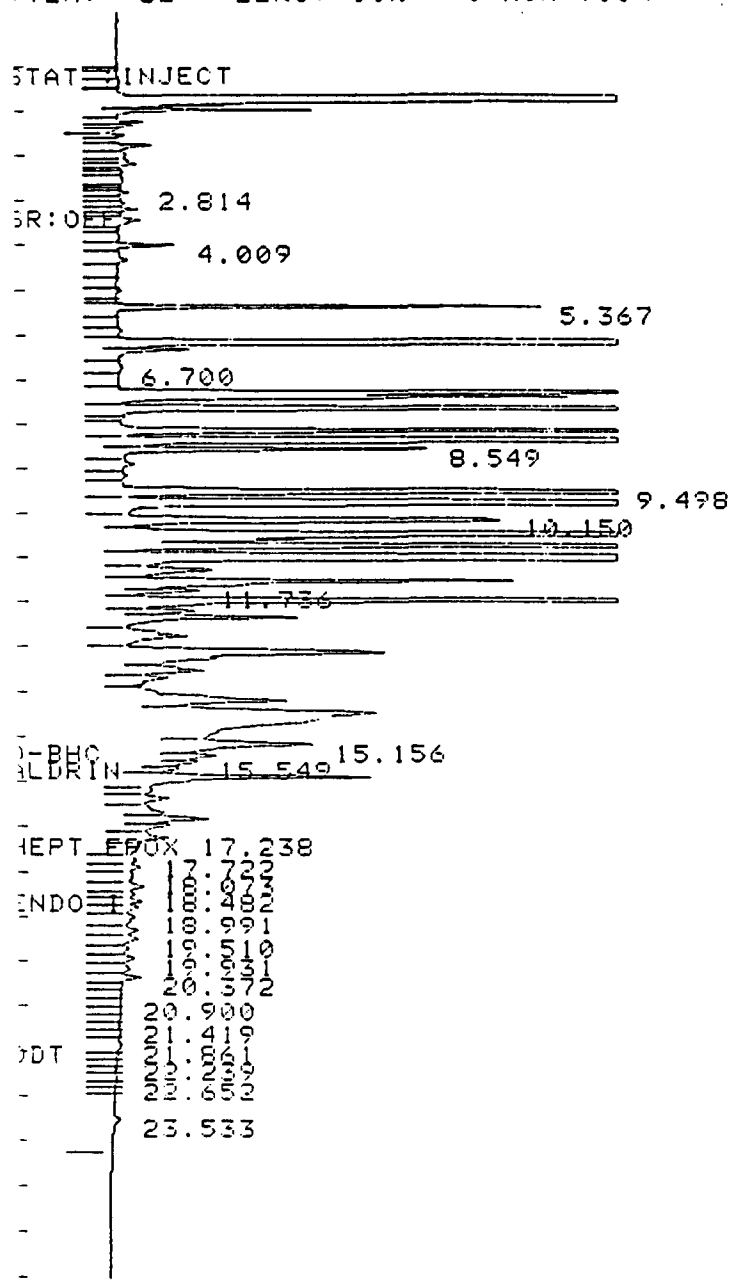
)CK: 16 VIAL: 10 INJ: 1

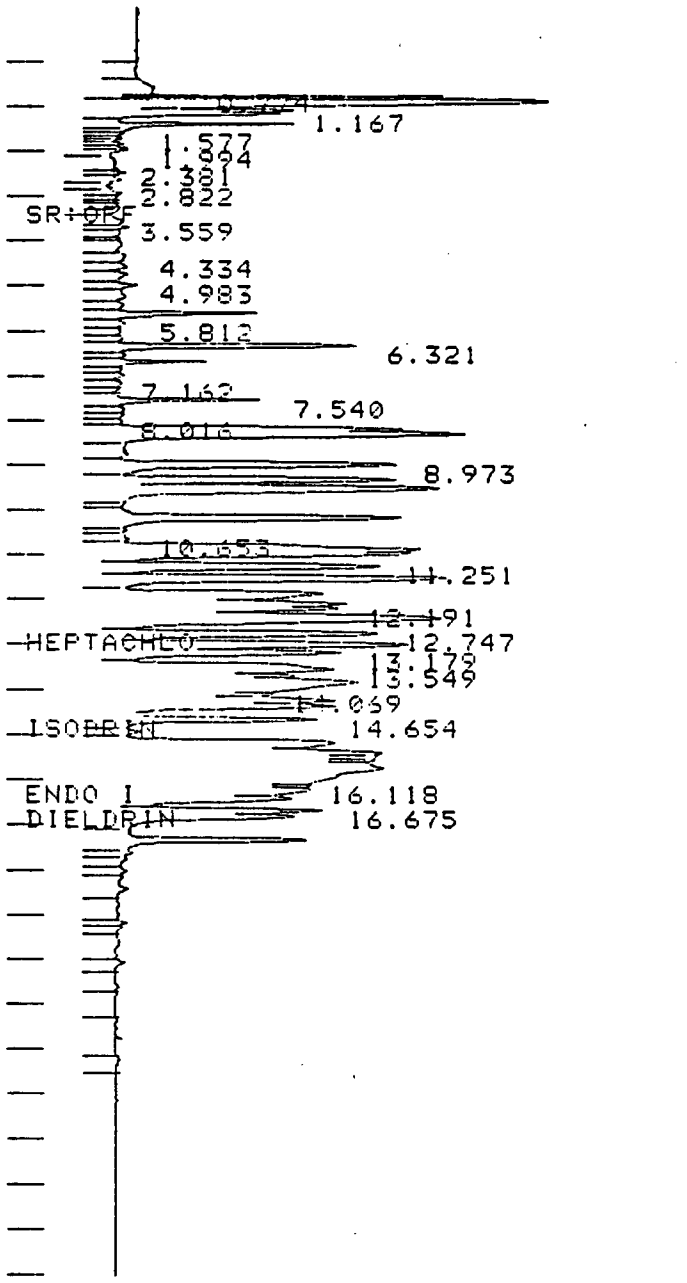
)TES:
DB608 PRIMARY COLUMN

TLE: PESTICIDE CONFIRMATORY 3:04 30 MAR 92

)ANNEL NO: 1 SAMPLE: SAME METHOD: DB5

:AK NO	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	5.662		75186	BB		3.70
2		0.0000	8.193		305681	BV		2.85
3		0.0000	8.300		116658	VB		4.00
4		0.0000	8.973		798300	BV		4.85
5		0.0000	9.309		783613	VV		5.05
6	A BHC	3.2440	9.500	0.070	1908690	VB		8.90
7	B BHC	1.4752	10.174	0.034	343069	BB		2.75
8		0.0000	10.886		1353580	BV	?	7.00
9	LINDANE	2.9322	10.929	-0.091	1543260	VV	?	14.70
10		0.0000	11.247		946111	VV		5.80
11		0.0000	11.516		1956830	VV		8.15
12		0.0000	11.888		41242	VV	?	
13		0.0000	12.098		894049	VV	?	5.00
14		0.0000	12.182		1065450	VV	?	7.90
15		0.0000	12.409		3383520	VV		12.55
16	HEPTACHLO	4.7028	12.745	0.035	2137610	VV		9.05
17		0.0000	12.994		2016840	VV		9.70
18		0.0000	13.173		1984860	VV	?	13.10
19		0.0000	13.489		3277300	VV	?	10.80
20		0.0000	13.690		1652210	VV	?	5.70
21	ALDRIN	6.0409	13.815	0.015	2876600	VV	?	5.00
22		0.0000	14.236		1524680	VV	?	6.90
23		0.0000	14.352		1942170	VV	?	11.90
24	ISODRIN	3622.480	14.645	-0.015	2322100	VV		10.00
25	HEPT EPOX	2.1611	14.926	-0.034	982300	VV		5.30
26		0.0000	15.049		118061	VV	?	13.20
27		0.0000	15.269		70352	VV		3.90
28		0.0000	15.414		1089920	VV	?	6.10
29		0.0000	15.515		1662470	VV	?	6.30





PCB 203824-12 MS x 1 3/31

(AR 1221 Spiked)

TLE: PESTICIDES 4:56 1 APR 92

ANNEL NO: 2 SAMPLE: 27 METHOD: DB608

AK NO	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.065		7429	VV	?	3.25
2		0.0000	3.193		10101	VV		5.15
3		0.0000	3.315		4620	VV	?	5.40
4		0.0000	3.434		18619	VV		9.80
5		0.0000	3.590		4486	VV	?	12.60
6		0.0000	3.835		9454	VV	?	13.40
7		0.0000	4.009		19113	VV		3.75
8		0.0000	4.319		15430	VV		13.70
9		0.0000	4.460		10780	VV		3.70

TLE: PESTICIDES 4:56 1 APR 92

ANNEL NO: 2 SAMPLE: 27 METHOD: DB608

AK O	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.065		7429	VV	?	3.25
2		0.0000	3.193		10101	VV		5.15
3		0.0000	3.315		4620	VV	?	5.40
4		0.0000	3.434		18619	VV		9.80
5		0.0000	3.590		4486	VV	?	12.60
6		0.0000	3.835		9454	VV	?	13.40
7		0.0000	4.009		19113	VV		3.75
8		0.0000	4.319		15430	VV		13.70
9		0.0000	4.460		10780	VV		2.70
10		0.0000	4.777		7096	VV	?	5.70
11		0.0000	5.016		7925	VV	?	6.70
12		0.0000	5.163		2517	VV	?	
13		0.0000	5.367		93310	VV	?	1.80
14		0.0000	5.688		8095	VV	?	11.00
15		0.0000	5.887		9284	VV	?	7.70
16		0.0000	6.156		1235550	VV	?	3.10
17		0.0000	6.318		27224	VV	?	3.85
18		0.0000	6.700		12972	VV	?	14.00
19		0.0000	6.836		10821	VV	?	
20		0.0000	7.281		307617	VV		3.55
21		0.0000	7.376		96276	VV	?	3.65
22		0.0000	7.635		335582	VV		3.95
23		0.0000	7.795		6007	VV	?	
24		0.0000	8.137		259892	VV		3.40
25		0.0000	8.350		829981	VV		4.65
26		0.0000	8.549		90527	VV		4.00
27		0.0000	8.871		17804	VV	?	10.60
28		0.0000	9.132		11363	VV	?	5.00
29		0.0000	9.498		376299	VV		4.20
30		0.0000	9.756		890494	VV		5.20
31	AR1221	0.0000	10.150		175889	VV		7.15
32		0.0000	10.468		861602	VV		4.75
33		0.0000	10.730		359938	VV		4.00
34		0.0000	10.986		1105410	VV		5.70
35		0.0000	11.272		53254	VV		8.45
36		0.0000	11.520		151835	VV		4.55
37		0.0000	11.736		29172	VV	?	5.70
38		0.0000	11.960		348999	VV		3.70
39	A BHC	0.0143	12.199	-0.001	28373	VV	?	6.60
40		0.0000	12.342		72129	VV		5.20
41		0.0000	12.756	ΣA=2420709	54311	VV		11.00
42		0.0000	13.113		182337	VV		8.20
43	LINDANE	0.0313	13.530	0.030	52368	VV	?	10.75
44	B BHC	0.0516	13.692	-0.058	34311	VV	?	19.25
45		0.0000	14.187		127278	VV		10.80
46	HEPTACHLO	0.4216	14.464	-0.136	397720	VV		23.70
47	D-BHC	0.0926	15.156	0.176	142270	VV		12.20
48		0.0000	15.419		50895	VV	?	6.00
49		0.0000	15.549		40020	VV	?	2.95
50	ALDRIN	0.0180	15.693	-0.007	27287	VV	?	2.10
51		0.0000	15.889		117917	VV	?	3.05
52		0.0000	16.165		22475	VV	?	2.70
53		0.0000	16.368		32571	VV	?	10.00
54		0.0000	16.689		36632	VV	?	22.40
55	ISODRIN	21.7189	16.825	0.025	44415	VV	?	9.70
56		0.0000	16.957		28669	VV	?	3.30
57		0.0000	17.238		37242	VV	?	10.40
58	HEPT EPOX	0.0155	17.401	-0.099	23136	VV	?	2.20
59		0.0000	17.722		15667	VV	?	10.20
60		0.0000	17.883		14893	VV	?	7.20
61		0.0000	18.073		16300	VV	?	9.55
62		0.0000	18.318		19439	VV	?	11.40
63		0.0000	18.482		10167	VV	?	6.20
64	ENDO I	0.0111	18.643	-0.057	14432	VV	?	8.80
65		0.0000	18.775		14731	VV	?	6.10
66		0.0000	18.991		18437	VV	?	7.40
67	DDE	0.0127	19.304	0.004	18052	VV	?	13.00
68		0.0000	19.510		16336	VV	?	8.25
69		0.0000	19.718		10250	VV		7.00
70	DIELDRIN	0.0095	19.931	0.031	13535	VV	?	9.80
71		0.0000	20.174		13352	VV	?	5.25
72		0.0000	20.372		14093	VV		7.80

66		0.0000	18.991		18437	VV	?	7.40
67	DDE	0.0127	19.304	0.004	18052	VV	?	13.00
68		0.0000	19.510		16336	VV	?	8.25
69		0.0000	19.718		10250	VV		7.00
70	DIELDRIN	0.0095	19.931	0.031	13535	VV	?	9.80
71		0.0000	20.174		13352	VV	?	5.25
72		0.0000	20.372		14093	VV		7.80
73		0.0000	20.522		6008	VV	?	2.40
74		0.0000	20.713		6795	VV		6.10
75	ENDRIN	0.0125	20.900	0.050	6167	VV	?	6.10
76	DDD	0.0579	21.078	0.068	5993	VV	?	6.65
77		0.0000	21.250		4547	VV	?	4.90
78	ENDO II	0.0032	21.419	-0.001	3823	VV	?	6.50
79		0.0000	21.596		4739	VV	?	8.00
80		0.0000	21.861		9328	VV	?	14.30
81	DDT	0.0058	22.076	0.046	2924	VV	?	3.20
82		0.0000	22.239		2273	VV	?	2.40
83	ENDRIN AL	0.0018	22.325	-0.055	1783	VV	?	
84		0.0000	22.572		2649	VV	?	8.30
85		0.0000	22.652		1572	VV	?	
86	ENDO SO4	0.0019	22.777	-0.023	1600	VV	?	
87		0.0000	23.533		11866	VB		13.75
TALS:		22.4802		-0.007	9656870			

TECTED PKS: 108 REJECTED PKS: 21

/ISOR: 1.00000 MULTIPLIER: 1.00000

ISE: 18.2 OFFSET: 25

CK: 16 VIAL: 9 INJ: 1

AR1221 = 6.892 × 5/0.5 = 68.9 mg/L
(3 points curve)

TES:
DB608 PRIMARY COLUMN

AR1221 = 7.945 × 5/0.5 = 79.4 mg/L
(4 points curve)
highest : 10.0 ppm)

TLE: PESTICIDE CONFIRMATORY 4:56 1 APR 92

ANNEL NO: 1 SAMPLE: SAME METHOD: DB5

PEAK NO	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.115		19794	VV	?	1.40
2		0.0000	3.253		77766	VV	?	5.60
3		0.0000	3.300		33822	VV	?	3.85
4		0.0000	3.559		71061	VV	?	1.90
5		0.0000	3.697		36682	VB	?	3.90
6		0.0000	3.966		7182	BB	?	2.30
7		0.0000	4.334		57644	BB	?	6.75
8		0.0000	4.737		116868	BV		8.05
9		0.0000	4.983		142784	VV		4.45
10		0.0000	5.215		140924	VV	?	8.25
11		0.0000	5.401		99607	VV	?	6.40
12		0.0000	5.601		636425	VV		3.65
13		0.0000	5.812		97297	VV	?	9.35
14		0.0000	5.911		64787	VV	?	
15		0.0000	6.162		67486	VV	?	7.75
16		0.0000	6.321		1338800	VV		5.95
17		0.0000	6.515		79139	VV	?	5.00
18		0.0000	6.677		313480	VV	?	1.35
19		0.0000	6.788		49413	VV	?	
20		0.0000	6.976		64069	VV	?	6.00
21		0.0000	7.162		57706	VV	?	6.20
22		0.0000	7.243		31123	VV	?	13.40
23		0.0000	7.540		580265	VV		3.40
24		0.0000	7.741		80842	VV	?	6.60
25		0.0000	7.808		66113	VV	?	

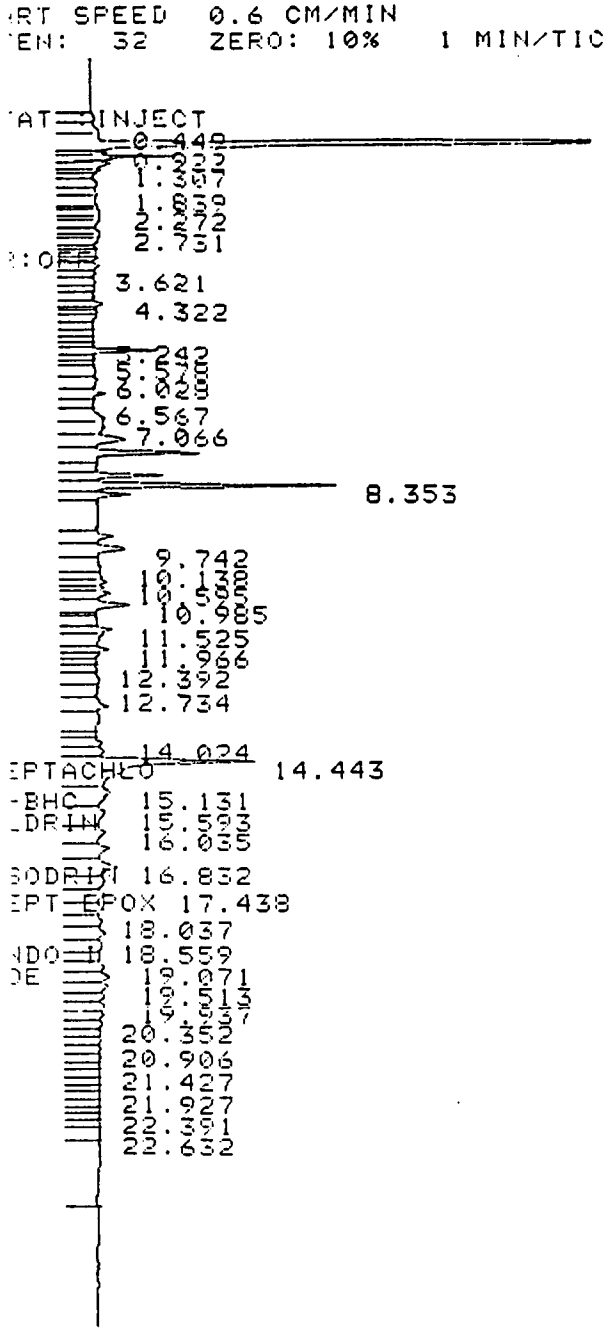
8		0.0000	4.737		116868	BV		8.05
9		0.0000	4.983		142784	VV		4.45
10		0.0000	5.215		140924	VV	?	8.25
11		0.0000	5.401		99607	VV	?	6.40
12		0.0000	5.601		636425	VV		3.65
13		0.0000	5.812		97297	VV	?	9.35
14		0.0000	5.911		64787	VV	?	
15		0.0000	6.162		67486	VV	?	7.75
16		0.0000	6.321		1338800	VV		5.95
17		0.0000	6.515		79139	VV	?	5.00
18		0.0000	6.677		313480	VV	?	1.35
19		0.0000	6.788		49413	VV	?	
20		0.0000	6.976		64069	VV	?	6.00
21		0.0000	7.162		57706	VV	?	6.20
22		0.0000	7.243		31123	VV	?	13.40
23		0.0000	7.540		580265	VV		3.40
24		0.0000	7.741		80842	VV	?	6.60
25		0.0000	7.808		66113	VV	?	
26		0.0000	8.016		57416	VV	?	6.00
27		0.0000	8.194		1569780	VV	?	7.30
28		0.0000	8.299		2805950	VV	?	10.05
29		0.0000	8.740		205176	VV	?	2.50
30		0.0000	8.973		2308560	VV	?	6.25
31		0.0000	9.308		2001520	VV		7.95
32	A BHC	5.5430	9.503	0.073	3260600	VV		10.65
33		0.0000	9.823		66272	VV	?	
34	B BHC	10.0259	10.170	0.030	2331600	VV		8.25
35	DBHC	0.1092	10.399	-0.011	60680	VV	?	
36		0.0000	10.653		138200	VV	?	3.20
37		0.0000	10.889		2539230	VV	?	13.60
38	LINDANE	3.6291	10.961	-0.059	1910040	VV	?	1.90
39		0.0000	11.251		2214250	VV		9.00
40		0.0000	11.520		2958320	VV		9.70
41		0.0000	11.872		2170380	VV	?	7.40
42		0.0000	12.095		1511730	VV	?	8.30
43		0.0000	12.191		1479920	VV	?	3.80
44		0.0000	12.421		4031980	VV	?	9.65
45	HEPTACHLO	4.6901	12.747	0.037	2131870	VV		8.90
46		0.0000	13.002		2415750	VV		9.40
47		0.0000	13.179		1777750	VV	?	9.05
48		0.0000	13.549		2541580	VV	?	14.70
49		0.0000	13.699		888704	VV	?	5.60
50	ALDRIN	7.9807	13.834	0.034	3800330	VV	?	10.50
51		0.0000	14.069		644715	VV	?	
52		0.0000	14.239		1655590	VV	?	10.30
53		0.0000	14.361		1705100	VV	?	6.00
54	ISODRIN	2218.740	14.654	-0.006	1422270	VV		7.05
55	HEPT EPOX	0.3463	14.929	-0.031	157403	VV	?	9.55
56		0.0000	15.177		2323640	VV	?	9.00
57		0.0000	15.398		1928470	VV	?	11.00
58		0.0000	15.437		1137950	VV	?	
59		0.0000	15.514		1197550	VV	?	
60		0.0000	15.730		6480650	VV	?	14.10
61	ENDO I	2.9054	16.118	0.038	744977	VV	?	1.10
62		0.0000	16.209		1811500	VV	?	3.60
63		0.0000	16.408		1612780	VV	?	5.05
64		0.0000	16.675		1339680	VV	?	5.50
65	DIELDRIN	4.0747	16.805	0.035	1509150	VV	?	11.05
66		0.0000	17.333		1338420	VV		6.15
67	ENDRIN	0.2887	17.613	0.113	82481	VV	?	3.20
68	ENDO II	0.7858	17.748	0.018	72759	VV	?	3.20
69	DDD	0.2040	18.015	0.055	61826	VV	?	5.90
70	END ALD	0.3988	18.408	0.128	107781	VB	?	8.55
71	DDT	0.2692	19.178	0.088	45625	BV		4.35
72		0.0000	19.243		26946	VB	?	12.10
73		0.0000	20.077		49122	BV		4.60
74	METHOXY"	0.1994	20.612	-0.148	19940	VB		4.20
75		0.0000	22.205		39319	BB		5.10
ALS:		2260.190		0.394	79024300			

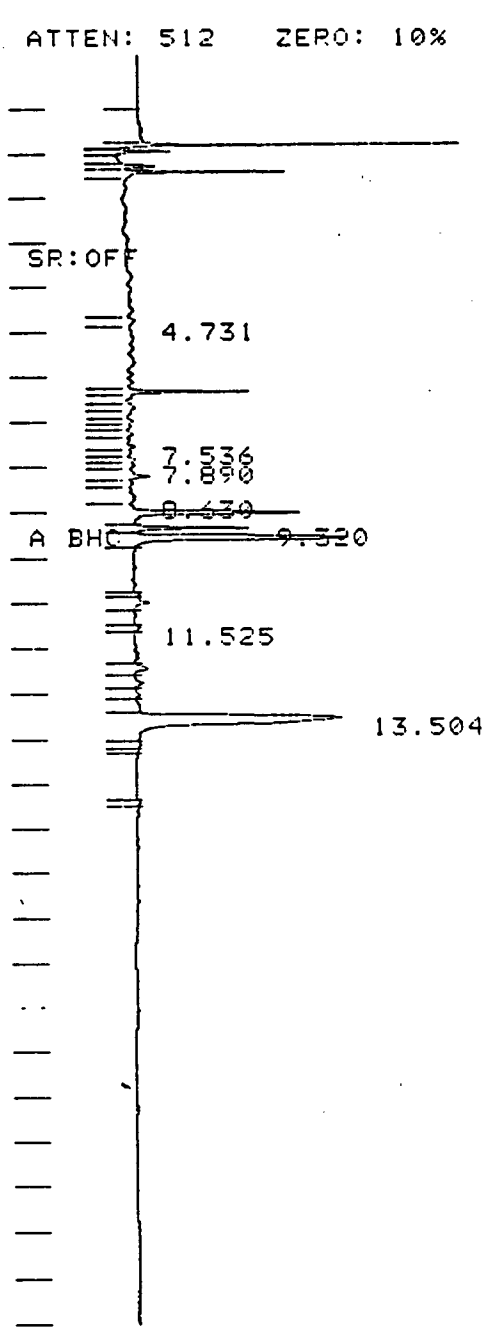
ECTED PKS: 94 REJECTED PKS: 19

ISOR: 1.00000 MULTIPLIER: 1.00000

SE: 364.2 OFFSET: -115

AK 1221 DTQ Curves.





SR 1221 0.5 ppm (Ultra)

TLE: PESTICIDES 17:54 31 MAR 92

ANNEL NO: 2 SAMPLE: 8 METHOD: DB608

AK NO	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.275		712	BB	?	3.50
2		0.0000	3.455		3492	BV		4.90
3		0.0000	3.621		2584	VV	?	4.35
4		0.0000	3.823		3358	VV		4.75
5		0.0000	3.912		1298	VB	?	
6		0.0000	4.322		2664	BV		4.30
7		0.0000	4.384		799	VV	?	
8		0.0000	4.518		1459	VV	?	5.40
9		0.0000	4.556		1456	VB	?	11.50

'LE: PESTICIDES 17:54 31 MAR 92

ANNEL NO: 2 SAMPLE: 8 METHOD: DB608

PK	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.275		712	BB	?	3.50
2		0.0000	3.455		3492	BV		4.90
3		0.0000	3.621		2584	VV	?	4.35
4		0.0000	3.823		3358	VV		4.75
5		0.0000	3.912		1298	VB	?	
6		0.0000	4.322		2664	BV		4.30
7		0.0000	4.384		799	VV	?	
8		0.0000	4.518		1459	VV	?	5.40
9		0.0000	4.556		1456	VB	?	11.50
10		0.0000	5.242		708	BV	?	4.90
11		0.0000	5.369		14035	VV		3.45
12		0.0000	5.526		1243	VV	?	6.70
13		0.0000	5.578		939	VV	?	
14		0.0000	5.853		3128	VV	?	14.00
15		0.0000	6.028		3831	VV	?	11.90
16		0.0000	6.325		3771	VV		3.95
17		0.0000	6.567		604	VV		7.90
18		0.0000	6.872		6324	VV	?	13.60
19		0.0000	7.066		8649	VV	?	4.30
20		0.0000	7.332		14792	VV	?	5.70
21		0.0000	7.636		26893	VB		4.40
22		0.0000	8.140		15663	BV		3.80
23		0.0000	8.353		56049	VV		3.80
24		0.0000	8.553		8134	VB		3.95
25		0.0000	9.448		4806	BV		4.40
26		0.0000	9.742		12208	VV		7.30
27		0.0000	10.138		2882	VV	?	5.70
28		0.0000	10.375		2122	VV	?	6.20
29		0.0000	10.469		3479	VV		5.10
30		0.0000	10.595		2078	VV	?	5.15
31		0.0000	10.728		5231	VV		5.30
32		0.0000	10.985		11963	VB		5.60
33		0.0000	11.525		4836	BV		4.75
34		0.0000	11.600		3569	VV	?	9.50
35		0.0000	11.966		3832	VV		4.05
36	A BHC	0.0005	12.068	-0.132	929	VV	?	3.20
37		0.0000	12.392		879	VV	?	5.50
38		0.0000	12.646		3352	VV	?	12.40
39		0.0000	12.734		2856	VV	?	26.60
40		0.0000	13.222		7150	VV		5.15
41	LINDANE	0.0034	13.527	0.027	5742	VV		14.35
42	B BHC	0.0008	13.817	0.067	561	VV		3.40
43		0.0000	14.024		3710	VV	?	6.50
44		0.0000	14.211		5337	VV	?	8.20
45	HEPTACHLO	0.0987	14.443	-0.157	93145	VV	?	4.30
46	D-BHC	0.0100	15.131	0.151	15408	VV	?	18.85
47	ALDRIN	0.0061	15.593	-0.107	9224	VV		14.60
48		0.0000	16.035		7905	VV		10.10
49		0.0000	16.396		8668	VV		8.40
50	ISODRIN	6.9306	16.832	0.032	14173	VV		9.25
51		0.0000	17.143		7487	VV	?	14.45
52	HEPT EPOX	0.0034	17.438	-0.062	5050	VV		10.70
53		0.0000	17.748		3560	VV		8.60
54		0.0000	18.037		3798	VV	?	8.10
55		0.0000	18.305		6232	VV	?	9.30
56		0.0000	18.559		5235	VV		13.35
57	ENDO I	0.0020	18.808	0.108	2626	VV		7.85
58		0.0000	19.071		5944	VV	?	11.70
59	DDE	0.0058	19.306	0.006	8236	VV		10.35
60		0.0000	19.513		7286	VV	?	12.25
61		0.0000	19.732		5271	VV	?	8.40
62	DIELDRIN	0.0035	19.937	0.037	5022	VV	?	9.10
63		0.0000	20.142		4707	VV	?	12.50
64		0.0000	20.352		3848	VV	?	9.95
65		0.0000	20.539		2516	VV	?	8.15
66		0.0000	20.716		2545	VV	?	8.25
67	ENDRIN	0.0045	20.906	0.056	2213	VV	?	7.75
68	DDD	0.0194	21.085	0.075	2004	VV		6.75
69		0.0000	21.258		1291	VV	?	5.55
70	ENDO II	0.0009	21.427	0.007	1075	VV		5.40
71		0.0000	21.604		879	VV		5.30
72		0.0000	21.786		748	VV		5.05

$\Sigma A = 112344$

65		0.0000	20.539		2516	VV	?	8.15
66		0.0000	20.716		2545	VV	?	8.25
67	ENDRIN	0.0045	20.906	0.056	2213	VV	?	7.75
68	DDD	0.0194	21.085	0.075	2004	VV		6.75
69		0.0000	21.258		1291	VV	?	5.55
70	ENDO II	0.0009	21.427	0.007	1075	VV		5.40
71		0.0000	21.604		879	VV		5.30
72		0.0000	21.766		748	VV		5.05
73		0.0000	21.927		1285	VV	?	7.05
74	DDT	0.0015	22.090	0.060	755	VV	?	5.15
75	ENDRIN AL	0.0005	22.577	0.197	528	VV	?	6.40
76	ENDO SO4	0.0012	22.632	-0.168	970	VB	?	34.20
TALS:		7.0928		0.197	509741			

TECTED PKS: 99 REJECTED PKS: 23

VISOR: 1.00000 MULTIPLIER: 1.00000

ISE: 18.2 OFFSET: 1

CK: 16 VIAL: 5 INJ: 1

TES:
DB608 PRIMARY COLUMN

TLE: PESTICIDE CONFIRMATORY 17:54 31 MAR 92

ANNEL NO: 1 SAMPLE: SAME METHOD: DB5

AK NO	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	4.731		44123	BB	?	1.40
2		0.0000	6.326		295767	BB	?	1.30
3		0.0000	6.674		34845	BB	?	6.50
4		0.0000	6.963		27126	BV	?	3.15
5		0.0000	7.028		21498	VV	?	13.20
6		0.0000	7.250		30136	VV		5.20
7		0.0000	7.536		42836	VV		4.10
8		0.0000	7.606		17904	VV	?	15.00
9		0.0000	7.828		38815	VV	?	5.60
10		0.0000	7.890		34264	VV	?	
11		0.0000	8.195		111042	VV		4.30
12		0.0000	8.352		18499	VV	?	3.90
13		0.0000	8.630		55736	VV	?	8.30
14		0.0000	8.984		764295	VV		4.35
15		0.0000	9.320		311860	VV		2.40
16	A BHC	2.2686	9.514	0.084	1334470	VB		6.70
17		0.0000	10.796		28401	BV		3.95
18	LINDANE	0.1800	10.971	-0.049	94734	VB		4.30
19		0.0000	11.525		36683	BB		3.75
20		0.0000	12.422		90346	BV		6.10
21	HEPTACHLO	0.1118	12.750	0.040	50812	VV		3.95
22		0.0000	13.004		23164	VB		4.55
23		0.0000	13.504		2243790	BV		12.25
24		0.0000	14.104		29732	VB		4.05
25		0.0000	15.390		19833	BB		4.20
TALS:		2.5604		0.075	5800710			

TECTED PKS: 29 REJECTED PKS: 4

VISOR: 1.00000 MULTIPLIER: 1.00000

ISE: 364.2 OFFSET: 175

K: 16 VIAL: 5 INJ: 1

ECTED PKS: 29 REJECTED PKS: 4

ISOR: 1.00000 MULTIPLIER: 1.00000

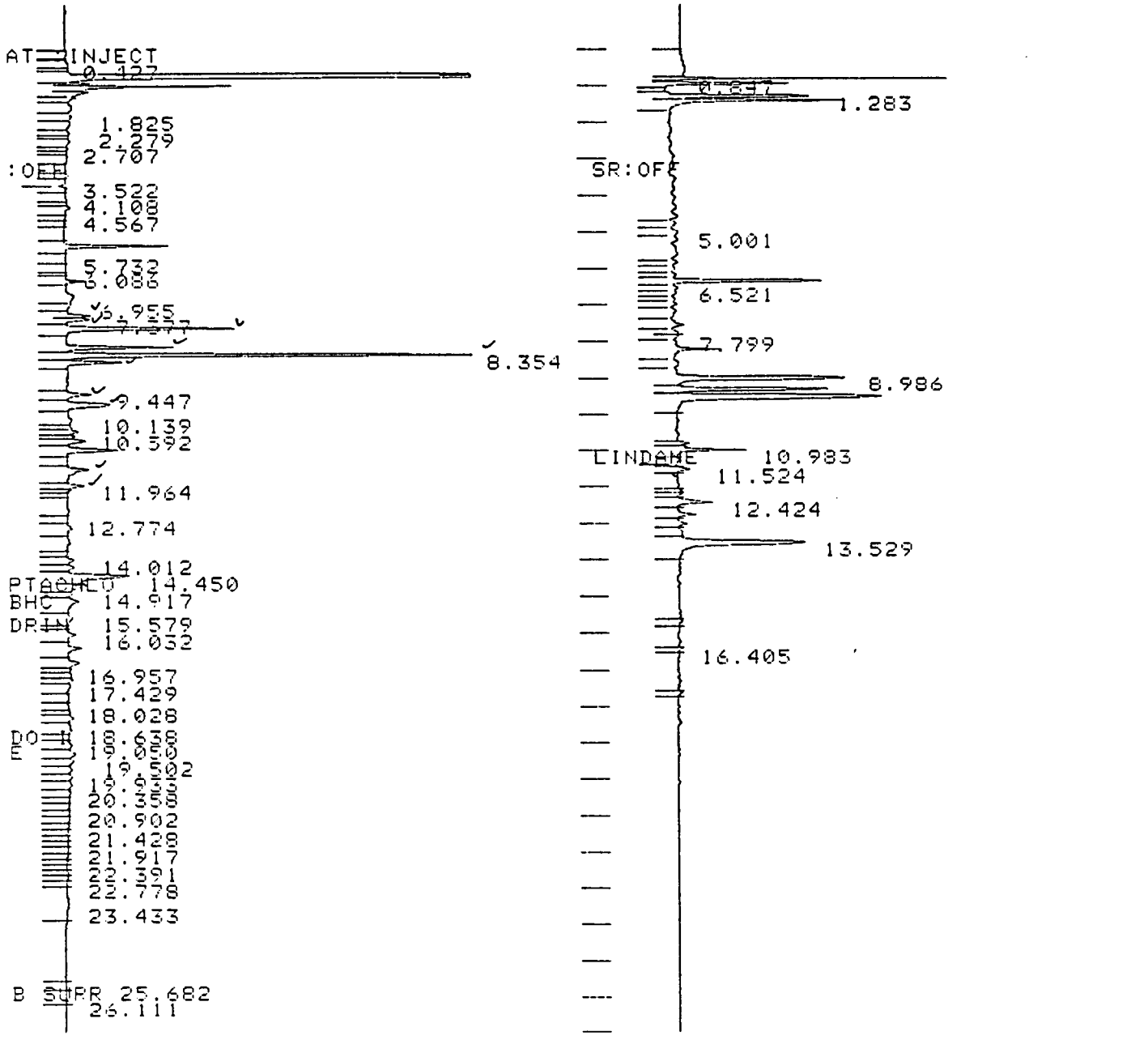
SE: 364.2 OFFSET: 175

K: 16 VIAL: 5 INJ: 1

ES:
B5 CONFIRMATORY COLUMN

RT SPEED 0.6 CM/MIN
EN: 32 ZERO: 10% 1 MIN/TICK

ATTEN: 512 ZERO: 10% 1 MIN/TICK



AR 1221 1.0 ppm

LE: PESTICIDES 18:29 31 MAR 92

NNEL NO: 2 SAMPLE: 9 METHOD: DB608

K	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.295		7511	VV	?	3.00
2		0.0000	3.442		5858	VV	?	2.85
3		0.0000	3.522		5130	VV	?	17.90
4		0.0000	3.786		4854	VV	?	4.70
5		0.0000	4.108		8295	VV	?	7.00
6		0.0000	4.223		3646	VV	?	5.60
7		0.0000	4.321		8275	VV		4.95
8		0.0000	4.567		2891	VV	?	3.70
9		0.0000	4.663		2386	VV	?	
0		0.0000	5.035		4263	VV	?	8.00
1		0.0000	5.368		30774	VV		3.55
2		0.0000	5.732		4041	VV	?	13.90
3		0.0000	5.986		4325	VV	?	4.00
4		0.0000	6.086		798	VV	?	
5		0.0000	6.323		7100	VV		4.05
6		0.0000	6.747		11448	VV	?	14.10
7		0.0000	6.955		4851	VV		2.30
8		0.0000	7.281		9645	VV	?	5.10
9		0.0000	7.377		8388	VV	?	5.95
0		0.0000	7.634		54796	VV		4.35
1		0.0000	8.140		32437	VV		4.00
2		0.0000	8.354		127386	VV		3.45
3		0.0000	8.554		16642	VB		4.45
4		0.0000	9.447		8395	BV		4.30
5		0.0000	9.717		22778	VV		7.30
6		0.0000	10.139		4307	VV		9.10
7		0.0000	10.370		2192	VV	?	5.70
8		0.0000	10.470		4411	VV		4.75
9		0.0000	10.592		2991	VV		4.70
0		0.0000	10.725		8007	VV		5.25
1		0.0000	10.985		21645	VB		5.45
2		0.0000	11.525		13010	BV		4.80
3		0.0000	11.964		6678	VV		4.20
4		0.0000	12.068		1776	VV	?	3.90
5	A BHC	0.0005	12.223	0.033	935	VV		3.85
6		0.0000	12.645		4849	VV	?	13.10
7		0.0000	12.774		1895	VV	?	20.00
8		0.0000	13.128		6577	VV		8.65
9	LINDANE	0.0041	13.533	0.033	6804	VV		12.45
0	B BHC	0.0016	13.818		1072	VV		3.55
1		0.0000	14.012		5234	VV		7.00
2		0.0000	14.203		6136	VV		7.90
3		0.0000	14.450		39236	VV		7.20
4	HEPTACHLO	0.0160	14.680	0.080	15125	VV	?	10.80
5	D-BHC	0.0026	14.917	-0.063	4031	VV	?	3.30
6		0.0000	15.122		13465	VV	?	9.40
7		0.0000	15.579		7549	VV		11.65
8	ALDRIN	0.0011	15.812	0.112	1638	VV		2.45
9		0.0000	16.032		7336	VV		6.85
0		0.0000	16.388		11298	VV		5.80
1	ISODRIN	5.3394	16.783	-0.017	10919	VV		9.05
2		0.0000	16.957		2907	VV	?	1.70
3		0.0000	17.138		4753	VV	?	9.00
4		0.0000	17.239		3197	VV	?	2.60
5	HEPT EPOX	0.0030	17.429	-0.071	4541	VV		10.05
6		0.0000	17.736		3186	VV		8.25
7		0.0000	18.028		2729	VV	?	10.10
8		0.0000	18.158		2910	VV	?	6.60
9		0.0000	18.307		5666	VV	?	9.45
0	ENDO I	0.0050	18.638	-0.062	6482	VV		13.90
1		0.0000	18.794		2508	VV	?	8.15
2		0.0000	19.050		5737	VV	?	10.50
3	DDE	0.0055	19.303	0.003	7854	VV	?	10.80
4		0.0000	19.502		6729	VV	?	12.95
5		0.0000	19.726		5119	VV	?	9.20
6	DIELDRIN	0.0034	19.933	0.033	4901	VV	?	8.50
7		0.0000	20.142		5516	VV	?	5.30
		0.0000	20.358		4057	VV		8.30
		0.0000	20.533		2600	VV	?	10.95

ΣA = 300155 (1~10)

ΣA = ~~289482~~ 268982 (1~6, 9, 10)

63	DDE	0.0055	19.303	0.003	7854	VV	?	10.80
64		0.0000	19.502		6729	VV	?	12.95
65		0.0000	19.726		5119	VV	?	9.20
66	DIELDRIN	0.0034	19.933	0.033	4901	VV	?	8.50
67		0.0000	20.142		5516	VV	?	5.30
68		0.0000	20.358		4057	VV		8.30
69		0.0000	20.532		2600	VV	?	10.95
70		0.0000	20.718		2462	VV	?	8.90
71	ENDRIN	0.0046	20.902	0.052	2249	VV		8.55
72	DDD	0.0201	21.079	0.069	2082	VV	?	8.30
73		0.0000	21.261		1264	VV	?	5.65
74	ENDO II	0.0008	21.428	0.008	906	VV		4.85
75		0.0000	21.597		950	VV		5.60
76		0.0000	21.763		734	VV	?	5.70
77		0.0000	21.917		1350	VV	?	7.70
78	DDT	0.0013	22.083	0.053	645	VV	?	4.40
79	ENDO SO4	0.0007	22.628	-0.172	611	VV	?	
80		0.0000	23.433		2440	VB	?	20.75
81	HBB SURR	1.8954	25.682	0.192	943	BV	?	14.20
82		0.0000	26.111		548	VB	?	10.60
	TALS:	7.3051		0.341	704605			

TECTED PKS: 104 REJECTED PKS: 22

VISOR: 1.00000 MULTIPLIER: 1.00000

ISE: 18.2 OFFSET: 16

CK: 16 VIAL: 6 INJ: 1

TES:
DB608 PRIMARY COLUMN

TLE: PESTICIDE CONFIRMATORY 18:29 31 MAR 92

ANNEL NO: 1 SAMPLE: SAME METHOD: DB5

AK NO	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	4.749		44963	BV	?	1.10
2		0.0000	5.001		39268	VB	?	4.00
3		0.0000	5.809		32890	BB	?	6.00
4		0.0000	6.163		33423	BV		6.40
5		0.0000	6.326		731845	VV		4.10
6		0.0000	6.521		53069	VV	?	6.30
7		0.0000	6.605		40364	VV	?	14.50
8		0.0000	6.827		30095	VV	?	5.00
9		0.0000	6.972		42694	VV	?	4.95
10		0.0000	7.155		63539	VV		7.40
11		0.0000	7.536		94947	VV		3.75
12		0.0000	7.749		47931	VV	?	6.30
13		0.0000	7.799		44002	VV	?	
14		0.0000	8.199		282715	VV		3.00
15		0.0000	8.555		53698	VV	?	11.70
16		0.0000	8.986		1251660	VV		6.05
17		0.0000	9.316		894249	VV		4.95
18	A BHC	3.1901	9.510	0.080	1876530	VB		8.05
19		0.0000	10.798		65279	BV		4.00
20	LINDANE	0.6261	10.983	-0.037	329502	VV		2.90
21		0.0000	11.253		23126	VB		4.25
22		0.0000	11.524		65939	BB		3.85
23		0.0000	12.099		22091	BV	?	4.30
24		0.0000	12.144		18656	VV	?	9.60
25		0.0000	12.424		226746	VV		5.25
26	HEPTACHLO	0.2091	12.750	0.040	95037	VV		3.85
27		0.0000	13.005		51259	VV		4.40

ISE: 364.2 OFFSET: -26

CK: 16 VIAL: 6 INJ: 1

TES:
DB5 CONFIRMATORY COLUMN

ART SPEED 0.6 CM/MIN
TEN: 32 ZERO: 10% 1 MIN/TICK

TAT INJECT
0.347
0.919
1.311
2.111
2.572
2.923
R:OFF
3.791
4.330
5.017
5.592
6.074
6.129
8.353
9.443
10.130
10.590
10.980
11.520
11.963
12.844
INDRIN 13.536
13.999
-BHC 14.914
15.810
SODRIN 16.543
17.135
18.013
DE 19.086
19.500
19.929
20.369
20.902
21.418
21.867
NDO 04 22.557

ATTEN: 512 ZERO: 10% 1 MIN/TICK

1.678
SR:OFF
6.700
7.533
8.979
10.983
12.433
13.541
14.374
15.411
ENDO 16.221
ENDRIN 17.618
END ALD 18.449

AR 1221 2.0 ppm

LE: PESTICIDES 19:03 31 MAR 92

NNEL NO: 2 SAMPLE: 10 METHOD: DB608

K	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.440		18566	VV		9.70
2		0.0000	3.648		6468	VV		7.05
3		0.0000	3.791		5350	VV	?	4.70
4		0.0000	3.870		14269	VV	?	
5		0.0000	4.330		6182	VV	?	7.60
6		0.0000	4.444		3182	VV		1.65
7		0.0000	4.557		3609	VV	?	5.30
8		0.0000	4.662		9993	VV		9.30
9		0.0000	5.017		4445	VV	?	8.50
0		0.0000	5.366		65442	VV	?	1.75
1		0.0000	5.592		2932	VV	?	7.10
2		0.0000	5.651		1894	VV	?	
3		0.0000	5.850		2899	VV	?	8.40
4		0.0000	5.893		2534	VV	?	
5		0.0000	6.074		2150	VV		3.00
6		0.0000	6.211		581	VV	?	4.60
7		0.0000	6.321		13433	VV		3.70
8		0.0000	6.931		5868	VV	?	14.20
9		0.0000	6.989		2082	VV	?	
0		0.0000	7.129		3208	Ratio		5:05
1		0.0000	7.279		17962	0.572	?	4.70
2		0.0000	7.377		14786	0.47V	?	4.95
3		0.0000	7.631		123552	3.9V		3.80
4		0.0000	8.136		66327	1.9V		3.95
5		0.0000	8.353		322013	9.3V		3.50
6		0.0000	8.550		34617	1.0V/B		4.15
7		0.0000	9.135		628	BB		4.15
8		0.0000	9.443		17361	0.5BV		4.25
9		0.0000	9.712		48062	1.3V		7.20
0		0.0000	10.130		6164	VV		7.40
1		0.0000	10.467		10203	VV		4.60
2		0.0000	10.590		5389	VV		4.45
3		0.0000	10.722		14914	VV		5.00
4		0.0000	10.980		43044	VB		5.45
5		0.0000	11.520		22887	0.6BV		4.70
6		0.0000	11.963		12774	0.3V		4.30
7		0.0000	12.063		3874	VV	?	4.50
8	A BHC	0.0012	12.220	0.020	2337	VV		4.20
9		0.0000	12.299		833	VV	?	8.10
0		0.0000	12.436		832	VV		3.50
1		0.0000	12.657		4280	VV		8.00
2		0.0000	12.844		1140	VV	?	12.10
3		0.0000	13.129		8684	VV		7.90
4		0.0000	13.260		1674	VV	?	3.95
5	LINDANE	0.0044	13.536	0.036	7285	VV		8.25
6	B BHC	0.0019	13.694	-0.056	1235	VV		2.85
7		0.0000	13.814		2061	VV		3.60
8		0.0000	13.999		7220	VV		5.10
9		0.0000	14.196		8270	VV		5.40
0		0.0000	14.449		37615	VV		6.80
1	HEPTACHLO	0.0192	14.682	0.082	18155	VV	?	8.25
2	D-BHC	0.0034	14.914	-0.066	5201	VV	?	7.45
3		0.0000	15.116		14708	VV		7.10
4		0.0000	15.562		7686	VV		9.40
5	ALDRIN	0.0019	15.810	0.110	2929	VV	?	6.00
6		0.0000	16.025		8599	VV		5.55
7		0.0000	16.238		1750	VV	?	4.70
8		0.0000	16.380		13430	VV	?	3.05
9		0.0000	16.543		1569	VV	?	
0	ISODRIN	6.0964	16.773	-0.027	12467	VV		6.10
1		0.0000	16.954		5793	VV	?	6.60
2		0.0000	17.135		4234	VV	?	7.50
3		0.0000	17.242		5712	VV	?	5.10
4	HEPT EPOX	0.0031	17.417	-0.083	4689	VV		10.75
5		0.0000	17.726		2925	VV		8.20
6		0.0000	17.893		1073	VV	?	4.80
7		0.0000	18.013		2078	VV	?	7.30
8		0.0000	18.154		4223	VV	?	7.60
9		0.0000	18.307		6196	VV	?	7.90
0		0.0000	18.495		3055	VV	?	7.80
1	ENDO I	0.0047	18.646	-0.054	6177	VV		7.15
2		0.0000	18.781		2561	VV	?	7.10
3		0.0000	19.082		5842	VV	?	14.40

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10)

ΣA = 680341 (1~10)

ΣA = 61498 (1-6, 9, 10)

[illegible]		[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
59		0.0000	16.543		1569	VV	?	
60	ISODRIN	6.0964	16.773	-0.027	12467	VV		6.10
61		0.0000	16.954		5793	VV	?	6.60
62		0.0000	17.135		4234	VV	?	7.50
63		0.0000	17.242		5712	VV	?	5.10
64	HEPT EPOX	0.0031	17.417	-0.083	4689	VV		10.75
65		0.0000	17.726		2925	VV		8.20
66		0.0000	17.893		1073	VV	?	4.80
67		0.0000	18.013		2078	VV	?	7.30
68		0.0000	18.154		4223	VV	?	7.60
69		0.0000	18.307		6196	VV	?	7.90
70		0.0000	18.495		3055	VV	?	7.80
71	ENDO I	0.0047	18.646	-0.054	6177	VV		7.15
72		0.0000	18.781		2561	VV	?	7.10
73		0.0000	19.086		5842	VV	?	14.40
74	DDE	0.0052	19.302	0.002	7308	VV	?	10.60
75		0.0000	19.500		6419	VV	?	5.55
76		0.0000	19.722		4699	VV	?	9.20
77	DIELDRIN	0.0032	19.929	0.029	4510	VV	?	9.40
78		0.0000	20.134		6148	VV	?	5.35
79		0.0000	20.349		4360	VV		7.40
80		0.0000	20.533		2377	VV	?	11.50
81		0.0000	20.716		2308	VV	?	8.80
82	ENDRIN	0.0042	20.902	0.052	2045	VV		6.95
83	DDD	0.0182	21.082	0.072	1888	VV		7.95
84		0.0000	21.255		1040	VV	?	5.80
85	ENDO II	0.0006	21.418	-0.002	728	VV		4.95
86		0.0000	21.597		936	VV		5.50
87		0.0000	21.742		555	VV		4.40
88	DDT	0.0026	21.867	-0.163	1284	VV	?	8.85
89	ENDRIN AL	0.0007	22.557	0.177	721	BV	?	5.60
90		0.0000	22.623		696	VV	?	
91	ENDO SO4	0.0007	22.759	-0.041	550	VB	?	
TALS:		6.1716		0.088	1212730			

ECTED PKS: 112 REJECTED PKS: 21

ISOR: 1.00000 MULTIPLIER: 1.00000

SE: 18.2 OFFSET: 8

K: 16 VIAL: 7 INJ: 1

ES:
B608 PRIMARY COLUMN

LE: PESTICIDE CONFIRMATORY 19:03 31 MAR 92

NNEL NO: 1 SAMPLE: SAME METHOD: DB5

K	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.872		124447	BB	?	
2		0.0000	5.674		23772	BB	?	4.90
3		0.0000	6.321		1046710	BB	?	3.40
4		0.0000	6.700		30594	BB		5.95
5		0.0000	7.533		164312	BB		2.60
6		0.0000	7.898		22146	BB	?	4.90
7		0.0000	8.198		823383	BB		4.70
8		0.0000	8.979		1645500	BV		7.20
9		0.0000	9.315		1280950	VV		6.20
0	A BHC	3.9383	9.510	0.080	2316660	VB		8.95
1		0.0000	10.806		233133	BV		2.85
2		0.0000	10.901		124525	VV	?	4.60
3	LINDANE	1.9761	10.983	-0.037	1040030	VV		5.50
4		0.0000	11.247		46096	VV	?	4.65

TLE: PESTICIDE CONFIRMATORY 19:03 31 MAR 92

ANNEL NO: 1 SAMPLE: SAME METHOD: DB5

AK O	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.872		124447	BB	?	
2		0.0000	5.674		23772	BB	?	4.90
3		0.0000	6.321		1046710	BB	?	3.40
4		0.0000	6.700		30394	BB		5.95
5		0.0000	7.533		164312	BB		2.60
6		0.0000	7.898		22146	BB	?	4.90
7		0.0000	8.198		823383	BB		4.70
8		0.0000	8.979		1645500	BV		7.20
9		0.0000	9.315		1280950	VV		6.20
10	A BHC	3.9383	9.510	0.080	2316660	VB		8.95
11		0.0000	10.806		233133	BV		2.85
12		0.0000	10.901		124525	VV	?	4.60
13	LINDANE	1.9761	10.983	-0.037	1040030	VV		5.50
14		0.0000	11.247		46096	VV	?	4.65
15		0.0000	11.535		200737	VB		2.70
16		0.0000	12.105		48149	BV	?	3.70
17		0.0000	12.192		43501	VV		3.30
18		0.0000	12.433		1190460	VV		6.65
19	HEPTACHLO	1.2014	12.760	0.050	546094	VV		3.45
20		0.0000	13.005		138468	VV		3.25
21	ALDRIN	2.7365	13.541	-0.259	1303110	VB		7.20
22		0.0000	14.244		26101	BV		3.90
23		0.0000	14.374		27540	VB		4.00
24	ISODRIN	41.5646	14.660	0.000	26644	BB	?	4.25
25		0.0000	15.411		15727	BV	?	4.65
26		0.0000	15.526		30370	VV		4.00
27		0.0000	15.668		48932	VB		4.40
28	ENDO I	0.1097	16.221	0.141	28134	BV		4.60
29		0.0000	16.410		43480	VV		4.00
30	DIELDRIN	0.0320	16.517	-0.253	11855	VB	?	42.30
31	ENDO II	0.4512	17.618	-0.112	41779	BB		4.15
32	END ALD	0.1550	18.449	0.169	41888	BB		6.30
33		0.0000	20.079		25826	BB		4.55
TALS:		52.1648		-0.221	12761100			

TECTED PKS: 41 REJECTED PKS: 8

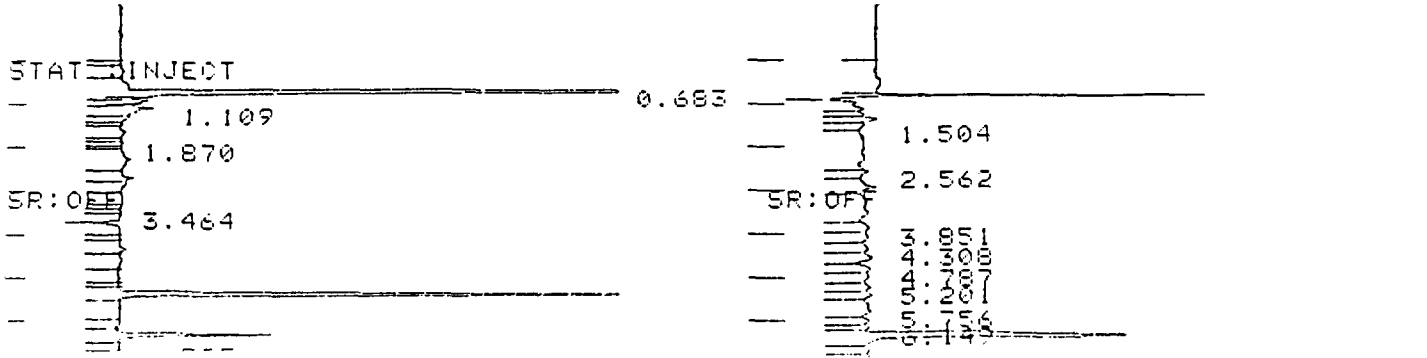
VISOR: 1.00000 MULTIPLIER: 1.00000

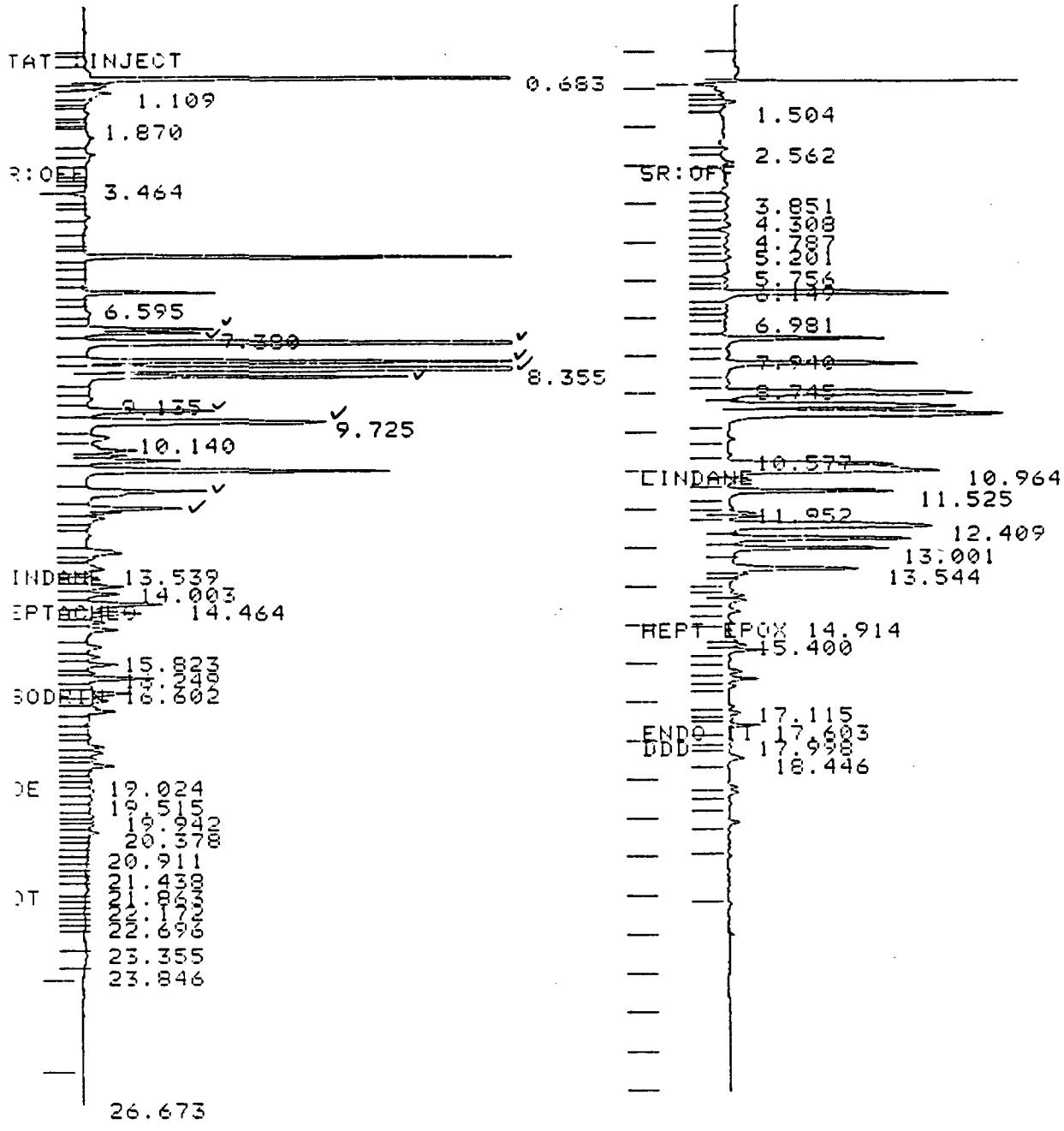
ISE: 364.2 OFFSET: 51

CK: 16 VIAL: 7 INJ: 1

TES:
DB5 CONFIRMATORY COLUMN

HART SPEED 0.6 CM/MIN
TTEN: 32 ZERO: 10% 1 MIN/TICK ATTEN: 512 ZERO: 10% 1 MIN/TICK





AR 1221 5.0 ppm

TLE: PESTICIDES 19:38 31 MAR 92

ANNEL NO: 2 SAMPLE: 11 METHOD: DB608

AK D	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.145		16431	VV	?	3.80
2		0.0000	3.287		7182	VV	?	5.40
3		0.0000	3.464		6793	VV	?	5.00
4		0.0000	3.502		12112	VV	?	19.50
5		0.0000	3.912		13960	VV	?	13.50
6		0.0000	3.976		8995	VV	?	
7		0.0000	4.333		21675	VV	?	14.40
8		0.0000	4.574		22568	VV		9.00
9		0.0000	4.981		15453	VV	?	5.70
?		0.0000	5.126		5388	VV	?	3.70

LE: PESTICIDES 19:38 31 MAR 92

NNEL NO: 2 SAMPLE: 11 METHOD: DB608

K	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		WI/2 (SEC)
1		0.0000	3.145		16431	VV	?	3.80
2		0.0000	3.287		7182	VV	?	5.40
3		0.0000	3.464		6793	VV	?	5.00
4		0.0000	3.502		12112	VV	?	19.50
5		0.0000	3.912		13960	VV	?	13.50
6		0.0000	3.976		8995	VV	?	
7		0.0000	4.333		21675	VV	?	14.40
8		0.0000	4.574		22568	VV		9.00
9		0.0000	4.981		15453	VV	?	5.70
0		0.0000	5.126		5388	VV	?	3.20
1		0.0000	5.369		209369	VV		3.00
2		0.0000	5.502		12445	VV	?	
3		0.0000	5.870		15723	VV	?	16.40
4		0.0000	6.041		12485	VV		6.60
5		0.0000	6.323		47093	VV		3.60
6		0.0000	6.595		10241	VV	?	10.60
7		0.0000	6.876		23827	VV	?	21.90
8		0.0000	7.081		12178	VV	?	3.25
9		0.0000	7.281		47890	VV		4.50
0		0.0000	7.380		41037	VV	?	4.35
1		0.0000	7.636		422787	VV		4.00
2		0.0000	8.140		213207	VV		3.50
3		0.0000	8.355		771260	VV		4.55
4		0.0000	8.552		116314	VV		4.00
5		0.0000	8.804		16790	VV	?	
6		0.0000	9.135		17727	VV		7.95
7		0.0000	9.447		61366	VV		4.95
8		0.0000	9.725		150384	VV		7.60
9		0.0000	10.140		26889	VV	?	10.40
0		0.0000	10.470		35059	VV		5.90
1		0.0000	10.593		17497	VV	?	4.00
2		0.0000	10.724		45589	VV	?	3.55
3		0.0000	10.981		141435	VV		5.30
4		0.0000	11.527		74652	VV		5.00
5		0.0000	11.966		42718	VV		4.90
6		0.0000	12.059		12356	VV	?	7.50
7	A BHC	0.0099	12.227	0.027	19732	VV	?	8.10
8		0.0000	12.434		7602	VV	?	1.90
9		0.0000	12.666		23217	VV		15.95
0		0.0000	13.124		32476	VV		10.10
1		0.0000	13.248		7637	VV	?	
2	LINDANE	0.0132	13.539		22119	VV	?	23.75
3	B BHC	0.0087	13.702	-0.048	5807	VV		4.30
4		0.0000	13.817		10751	VV		6.65
5		0.0000	14.003		20756	VV		5.90
6		0.0000	14.199		21573	VV		6.65
7		0.0000	14.464		43518	VV		6.70
8	HEPTACHLO	0.0366	14.689	0.089	34569	VV		7.00
9	D-BHC	0.0090	14.921	-0.059	13892	VV	?	10.05
0		0.0000	15.119		30595	VV		7.50
1		0.0000	15.569		17904	VV	?	9.30
2	ALDRIN	0.0082	15.823	0.123	12397	VV		9.60
3		0.0000	16.031		19924	VV		6.55
4		0.0000	16.249		7196	VV	?	7.60
5		0.0000	16.386		32000	VV		5.45
6		0.0000	16.602		8373	VV	?	8.30
7	ISODRIN	12.9800	16.779	-0.021	26544	VV		6.60
8		0.0000	16.962		16044	VV	?	6.70
9		0.0000	17.248		23583	VV	?	5.40
0	HEPT EPOX	0.0075	17.427	-0.073	11252	VV		9.80
1		0.0000	17.741		7209	VV	?	12.20
2		0.0000	17.901		7090	VV	?	7.40
3		0.0000	18.163		15308	VV	?	18.00
4		0.0000	18.317		13181	VV		7.45
5		0.0000	18.488		8063	VV		6.80
6	ENDO I	0.0136	18.657	-0.043	17756	VV		7.80
7		0.0000	18.777		6044	VV		0.80
8		0.0000	19.024		6527	VV	?	11.00
9		0.0000	19.056		6098	VV	?	

Ratio

ΣA = ~~1880249~~ 1941615 (1~6, 9.10)

ΣA = 1729865 (1~6, 9.10)

3		0.0000	16.031		19924	VV		6.55
4		0.0000	16.249		7196	VV	?	7.60
5		0.0000	16.386		32000	VV		5.45
6		0.0000	16.602		8373	VV	?	8.30
7	ISODRIN	12.9800	16.779	-0.021	26544	VV		6.60
8		0.0000	16.962		16044	VV	?	6.70
9		0.0000	17.248		23583	VV	?	5.40
0	HEPT EPOX	0.0075	17.427	-0.073	11252	VV		9.80
1		0.0000	17.741		7209	VV	?	12.20
2		0.0000	17.901		7090	VV	?	7.40
3		0.0000	18.163		15308	VV	?	18.00
4		0.0000	18.317		13181	VV		7.45
5		0.0000	18.488		8063	VV		6.80
6	ENDO I	0.0136	18.657	-0.043	17756	VV		7.80
7		0.0000	18.777		6044	VV		0.80
8		0.0000	19.024		6527	VV	?	11.00
9		0.0000	19.056		6098	VV	?	
0	DDE	0.0080	19.308	0.008	11286	VV	?	11.40
1		0.0000	19.515		10222	VV		8.50
2		0.0000	19.736		7930	VV		8.80
3	DIELDRIN	0.0056	19.942	0.042	8065	VV	?	9.20
4		0.0000	20.072		5523	VV	?	5.60
5		0.0000	20.151		7808	VV		2.60
6		0.0000	20.378		9905	VV	?	10.30
7		0.0000	20.533		4558	VV	?	3.20
8		0.0000	20.718		5035	VV	?	6.30
9	ENDRIN	0.0093	20.911	0.061	4551	VV	?	7.20
0	DDD	0.0414	21.087	0.077	4289	VV	?	5.70
1		0.0000	21.262		3433	VV	?	5.45
2	ENDO II	0.0023	21.438	0.018	2668	VV	?	6.30
3		0.0000	21.599		3719	VV	?	8.00
4		0.0000	21.863		6785	VV	?	14.60
5	DDT	0.0042	22.084	0.054	2119	VV	?	2.20
6		0.0000	22.172		1924	VV	?	
7	ENDRIN AL	0.0015	22.390	0.010	1524	VV	?	3.20
8		0.0000	22.576		1616	VV	?	6.80
9		0.0000	22.696		1843	VV	?	3.60
0	ENDO SO4	0.0018	22.844	0.044	1478	VV	?	2.20
1		0.0000	23.355		5087	VV	?	15.50
2		0.0000	23.550		5044	VV	?	10.10
3		0.0000	23.846		1007	VB	?	
4		0.0000	26.673		1554	BB	?	40.35
TALS:		13.1608		0.348	3404590			

TECTED PKS: 109 REJECTED PKS: 15

/ISOR: 1.00000 MULTIPLIER: 1.00000

ISE: 18.2 OFFSET: 1

CK: 16 VIAL: 8 INJ: 1

TES:
DB608 PRIMARY COLUMN

TLE: PESTICIDE CONFIRMATORY 19:38 31 MAR 92

ANNEL NO: 1 SAMPLE: SAME METHOD: DB5

AK O	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.851		99409	BV	?	12.60
2		0.0000	3.946		107667	VV	?	25.40
3		0.0000	4.308		118163	VV	?	7.40
4		0.0000	4.536		153262	VV	?	5.60
5		0.0000	4.787		150751	VV	?	9.50
		0.0000	4.884		143256	VV	?	

ITLE: PESTICIDE CONFIRMATORY 19:38 31 MAR 92

HANNEL NO: 1 SAMPLE: SAME METHOD: DB5

EAK NO	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	3.851		99409	BV	?	12.60
2		0.0000	3.946		107667	VV	?	25.40
3		0.0000	4.308		118163	VV	?	7.40
4		0.0000	4.536		153262	VV	?	5.60
5		0.0000	4.787		150751	VV	?	9.50
6		0.0000	4.884		143856	VV	?	
7		0.0000	5.201		138350	VV	?	9.00
8		0.0000	5.391		150338	VV	?	7.70
9		0.0000	5.756		251351	VV	?	17.15
10		0.0000	5.980		113372	VV	?	8.00
11		0.0000	6.149		89356	VV	?	5.90
12		0.0000	6.321		1676040	VV	?	3.95
13		0.0000	6.679		97561	VV	?	8.70
14		0.0000	6.741		92395	VV	?	
15		0.0000	6.981		94944	VV	?	6.60
16		0.0000	7.296		155751	VV	?	5.90
17		0.0000	7.536		994339	VV	?	2.65
18		0.0000	7.940		176626	VV	?	9.60
19		0.0000	8.193		1600100	VV	?	4.20
20		0.0000	8.745		163670	VV	?	13.40
21		0.0000	8.972		2265940	VV	?	5.65
22		0.0000	9.305		1853430	VV		7.30
23	A BHC	5.3925	9.502	0.072	3172050	VV		10.00
24	B BHC	1.1202	10.172	0.032	260511	VV	?	7.10
25	DBHC	0.3862	10.577	0.167	214556	VV	?	6.50
26		0.0000	10.805		970122	VV	?	6.60
27	LINDANE	5.1863	10.964	-0.056	2729630	VV	?	14.90
28		0.0000	11.238		253282	VV	?	7.80
29		0.0000	11.525		1165730	VV		5.40
30		0.0000	11.952		143043	VV	?	6.30
31		0.0000	12.094		185167	VV	?	5.60
32		0.0000	12.177		201114	VV	?	3.20
33		0.0000	12.409		2105680	VV		9.05
34	HEPTACHLO	2.9352	12.747	0.037	1334200	VV		6.10
35		0.0000	13.001		1091890	VV		5.05
36		0.0000	13.544		1118590	VV		5.45
37		0.0000	13.654		148531	VV	?	
38	ALDRIN	0.2818	13.777	-0.023	134206	VV	?	
39		0.0000	14.093		81540	VV	?	5.60
40		0.0000	14.229		141267	VV	?	7.50
41		0.0000	14.354		166154	VV	?	6.90
42	ISODRIN	256.1720	14.637	-0.023	164213	VV	?	11.75
43	HEPT EPOX	0.2355	14.914	-0.046	107051	VV	?	5.00
44		0.0000	15.400		182130	VV	?	7.30
45		0.0000	15.509		134408	VV	?	5.95
46		0.0000	15.653		246224	VV		4.85
47		0.0000	15.874		80578	VV	?	3.40
48	ENDO I	0.5792	16.204	0.124	148503	VV	?	5.75
49		0.0000	16.394		192473	VV		5.30
50	DIELDRIN	0.2133	16.578	-0.192	79009	VV	?	6.30
51	DDE	0.3872	17.115	0.265	143402	VV	?	7.10
52		0.0000	17.278		108787	VV	?	7.10
53	ENDRIN	0.1426	17.428	-0.072	40730	VV	?	2.55
54		0.0000	17.603		203040	VV		4.70
55	DDD	0.2121	17.998	0.038	64278	VV	?	7.10
56	END ALD	0.1363	18.161	-0.119	36831	VV	?	2.65
57		0.0000	18.446		171287	VV		10.30
58	DDT	0.6398	19.185	0.095	108443	VV	?	8.70
59		0.0000	19.318		65466	VV	?	5.50
60		0.0000	19.603		35141	VV	?	6.10
61		0.0000	20.084		93722	VB	?	10.25
OTALS:		274.0200		0.299	28709700			

ETECTED PKS: 67 REJECTED PKS: 6

IVISOR: 1.00000 MULTIPLIER: 1.00000

OISE: 364.2 OFFSET: 174

ACK: 16 VIAL: 8 INJ: 1

3		0.0000	4.306			118183	VV	?	7.70
4		0.0000	4.536			153262	VV	?	5.60
5		0.0000	4.787			150751	VV	?	9.50
6		0.0000	4.884			143856	VV	?	
7		0.0000	5.201			138350	VV	?	9.00
8		0.0000	5.391			150338	VV	?	7.70
9		0.0000	5.756			251351	VV	?	17.15
10		0.0000		AR 1221			VV	?	8.00
11		0.0000		Ratio			VV	?	5.90
12		0.0000					VV	?	3.95
13		0.0000	① 7.279	0.52	0.41		VV	?	8.70
14		0.0000					VV	?	
15		0.0000	② 7.377	0.43	0.35		VV	?	6.60
16		0.0000					VV	?	5.90
17		0.0000	③ 7.631	3.57	3.63		VV	?	2.65
18		0.0000					VV	?	9.60
19		0.0000	④ 8.136	1.92	1.83		VV	?	4.20
20		0.0000	⑤ 8.353	9.30	6.63		VV	?	13.40
21		0.0000					VV	?	5.65
22		0.0000	⑥ 8.550	1.00	1.00		VV		7.30
23	A BHC	5.3925					VV		10.00
24	B BHC	1.1202	⑦ 9.443	0.50	0.53		VV	?	7.10
25	DBHC	0.3862					VV	?	6.50
26		0.0000	⑧ 9.712	1.39	1.29		VV	?	6.60
27	LINDANE	5.1863					VV	?	14.90
28		0.0000	⑨ 11.520	0.66	0.64		VV	?	7.80
29		0.0000					VV		5.40
30		0.0000	⑩ 11.963	0.37	0.37		VV	?	6.30
31		0.0000		(2.0 ppm)	(5.0 ppm)		VV	?	5.60
32		0.0000	12.177			201114	VV	?	3.20
33		0.0000	12.409			2105680	VV		9.05
34	HEPTACHLO	2.9352	12.747		0.037	1334200	VV		6.10
35		0.0000	13.001			1091890	VV		5.05
36		0.0000	13.544			1118590	VV		5.45
37		0.0000	13.654			148531	VV	?	
38	ALDF				-0.023	134206	VV	?	
39			AR 1221			81540	VV	?	5.60
40									
41									
42	ISO		C.		-0.02				
43	HEP			A	-0.04		C.		A.
44									
45			1.0 ppm	268982			1.0 ppm		300155
46									
47									
48	ENI	2.0	ppm	614918	0.12		2.0 ppm		680341
49									
50	DIE				-0.19				
51	DDI				0.26				
52			5.0 ppm				5.0 ppm		1941615
53	EN			1729865	-0.07				
54									
55	DD				0.03				
56	EN		R = 0.9999		-0.11		R = 0.9998		
57									
58	DI		(Peak 1~6, 9, 10)		0.05		(Peak 1~10)		
59									
60		0.0000	19.000						
61		0.0000	20.084						
TALS:		274.0200			0.299	28709700			

ETECTED PKS: 67 REJECTED PKS: 6

IVISOR: 1.00000 MULTIPLIER: 1.00000

ISE: 364.2 OFFSET: 174

CK: 16 VIAL: 8 INJ: 1

TES:
DB5 CONFIRMATORY COLUMN

*** SEE FILE FOR INSTRUCTIONS. METALS REPORT ug/L

DATE ANALYZED : _____ ANALYST INITIALS : _____

20382404 5-3B 03/17/92 04/01/92

PCB

*** DIL. FACTOR : 1 ***

01 - AROCLOR 1016	01 -	UG/L	(0.5
02 - AROCLOR 1221	02 -	UG/L	(0.5
03 - AROCLOR 1232	03 -	UG/L	(0.5
04 - AROCLOR 1242	04 -	UG/L	(0.5
05 - AROCLOR 1248	05 -	UG/L	(0.5
06 - AROCLOR 1254	06 -	UG/L	(0.5
07 - AROCLOR 1260	07 -	UG/L	(0.5
08 - ~~ISODRIN~~ (%) TCMX	08 - 97	%	

*** SPECIAL Q.C. ON 8080 # 11 & 12. SEE M. BARBER OF M. TYER.

DATE ANALYZED : 3/29/92 ANALYST INITIALS : ym

20382405 5-17B 03/17/92 04/01/92

PCB

*** DIL. FACTOR : 1 ***

01 - AROCLOR 1016	01 -	UG/L	(0.5
02 - AROCLOR 1221	02 -	UG/L	(0.5
03 - AROCLOR 1232	03 -	UG/L	(0.5
04 - AROCLOR 1242	04 -	UG/L	(0.5
05 - AROCLOR 1248	05 -	UG/L	(0.5
06 - AROCLOR 1254	06 -	UG/L	(0.5
07 - AROCLOR 1260	07 -	UG/L	(0.5
08 - ~~ISODRIN~~ (%) TCMX	08 - 96	%	

*** SPECIAL Q.C. ON 8080 # 11 & 12. SEE M. BARBER OF M. TYER.

DATE ANALYZED : 3/29/92 ANALYST INITIALS : ym

20382406 5-5B 03/17/92 04/01/92

PCB

*** DIL. FACTOR : 1 ***

01 - AROCLOR 1016	01 -	UG/L	(0.5
02 - AROCLOR 1221	02 -	UG/L	(0.5
03 - AROCLOR 1232	03 -	UG/L	(0.5
04 - AROCLOR 1242	04 -	UG/L	(0.5
05 - AROCLOR 1248	05 -	UG/L	(0.5
06 - AROCLOR 1254	06 -	UG/L	(0.5
07 - AROCLOR 1260	07 -	UG/L	(0.5
08 - ~~ISODRIN~~ (%) TCMX	08 - 93	%	

*** SPECIAL Q.C. ON 8080 # 11 & 12. SEE M. BARBER OF M. TYER.

DATE ANALYZED : 3/29/92 ANALYST INITIALS : ym

20382407 5-22B 03/18/92 04/01/92

PCB

*** DIL. FACTOR : 1 ***

01 - AROCLOR 1016	01 -	UG/L	(0.5
02 - AROCLOR 1221	02 -	UG/L	(0.5
03 - AROCLOR 1232	03 -	UG/L	(0.5
04 - AROCLOR 1242	04 -	UG/L	(0.5
05 - AROCLOR 1248	05 -	UG/L	(0.5
06 - AROCLOR 1254	06 -	UG/L	(0.5
07 - AROCLOR 1260	07 -	UG/L	(0.5
08 - ~~ISODRIN~~ (%) TCMX	08 - 97	%	

*** SPECIAL Q.C. ON 8080 # 11 & 12. SEE M. BARBER OF M. TYER.

DATE ANALYZED : 3/29/92 ANALYST INITIALS : ym

20382408 5-4B 03/18/92 04/01/92

PCB

*** DIL. FACTOR : 1 ***

01 - AROCLOR 1016	01 -	UG/L	(0.5
02 - AROCLOR 1221	02 -	UG/L	(0.5

*** SPECIAL Q.C. ON 8080 # 11 & 12. SEE M. BARBER OF M. TYER.
DATE ANALYZED : 3/29/92 ANALYST INITIALS : ym

20382408 5-4B 03/18/92 04/01/92

PCB

*** DIL. FACTOR : 1 ***

01 - AROCLOR 1016	01 - /	UG/L	(0.5
02 - AROCLOR 1221	02 - /	UG/L	(0.5
03 - AROCLOR 1232	03 - /	UG/L	(0.5
04 - AROCLOR 1242	04 - /	UG/L	(0.5
05 - AROCLOR 1248	05 - /	UG/L	(0.5
06 - AROCLOR 1254	06 - /	UG/L	(0.5
07 - AROCLOR 1260	07 - /	UG/L	(0.5
08 - ~~ISOBRIN~~ (%) TCMX	08 - 99	%	

*** SPECIAL Q.C. ON 8080 # 11 & 12. SEE M. BARBER OF M. TYER.
DATE ANALYZED : 3/29/92 ANALYST INITIALS : ym

20382409 5-9B 03/18/92 04/01/92

PCB

*** DIL. FACTOR : 5 ***

01 - AROCLOR 1016	01 - /	UG/L	(0.5
02 - AROCLOR 1221	02 - 65	UG/L	(0.5
03 - AROCLOR 1232	03 - /	UG/L	(0.5
04 - AROCLOR 1242	04 - /	UG/L	(0.5
05 - AROCLOR 1248	05 - /	UG/L	(0.5
06 - AROCLOR 1254	06 - /	UG/L	(0.5
07 - AROCLOR 1260	07 - /	UG/L	(0.5
08 - ~~ISOBRIN~~ (%) TCMX	08 - 133	%	

*** SPECIAL Q.C. ON 8080 # 11 & 12. SEE M. BARBER OF M. TYER.
DATE ANALYZED : 3/31/92 ANALYST INITIALS : ym

20382410 5-16B 03/18/92 04/01/92

PCB

*** DIL. FACTOR : 10 ***

01 - AROCLOR 1016	01 - /	UG/L	(0.5
02 - AROCLOR 1221	02 - /	UG/L	(0.5
03 - AROCLOR 1232	03 - /	UG/L	(0.5
04 - AROCLOR 1242	04 - /	UG/L	(0.5
05 - AROCLOR 1248	05 - /	UG/L	(0.5
06 - AROCLOR 1254	06 - /	UG/L	(0.5
07 - AROCLOR 1260	07 - /	UG/L	(0.5
08 - ~~ISOBRIN~~ (%) TCMX	08 - 123	%	

*** SPECIAL Q.C. ON 8080 # 11 & 12. SEE M. BARBER OF M. TYER.
DATE ANALYZED : 3/30/92 ANALYST INITIALS : ym

20382411 5-6B 03/18/92 04/01/92

PCB

*** DIL. FACTOR : 5 ***

01 - AROCLOR 1016	01 - /	UG/L	(0.5
02 - AROCLOR 1221	02 - 140	UG/L	(0.5
03 - AROCLOR 1232	03 - /	UG/L	(0.5
04 - AROCLOR 1242	04 - /	UG/L	(0.5
05 - AROCLOR 1248	05 - /	UG/L	(0.5
06 - AROCLOR 1254	06 - /	UG/L	(0.5
07 - AROCLOR 1260	07 - /	UG/L	(0.5
08 - ~~ISOBRIN~~ (%) TCMX	08 - 159	%	

*** SPECIAL Q.C. ON 8080 # 11 & 12. SEE M. BARBER OF M. TYER.
DATE ANALYZED : 4/1/92 ANALYST INITIALS : ym

20382412 5-1B 03/18/92 04/01/92

PCB

*** DIL. FACTOR : 5 ***

01 - AROCLOR 1016	01 - /	UG/L	(0.5
02 - AROCLOR 1221	02 - 54	UG/L	(0.5
03 - AROCLOR 1232	03 - /	UG/L	(0.5

07 - AROCLOR 1260 — 07 - ____ UG/L (0.5
08 - ~~ISODRIN~~ (%) TCMX — 08 - 159 %

*** SPECIAL Q.C. ON 8080 # 11 & 12. SEE M. BARBER OF M. TYER.

DATE ANALYZED : 4/1/92 ANALYST INITIALS : ym

20382412 5-1B 03/18/92 04/01/92

PCB

*** DIL. FACTOR : 5 ***

01 - AROCLOR 1016	01 - ____	UG/L	(0.5
02 - AROCLOR 1221	02 - 54	UG/L	(0.5
03 - AROCLOR 1232	03 - ____	UG/L	(0.5
04 - AROCLOR 1242	04 - ____	UG/L	(0.5
05 - AROCLOR 1248	05 - ____	UG/L	(0.5
06 - AROCLOR 1254	06 - ____	UG/L	(0.5
07 - AROCLOR 1260	07 - ____	UG/L	(0.5
08 - ~~ISODRIN~~ (%) TCMX	08 - 154	%	

*** SPECIAL Q.C. ON 8080 # 11 & 12. SEE M. BARBER OF M. TYER.

DATE ANALYZED : 4/1/92 ANALYST INITIALS : ym

20382413 5-19B 03/19/92 04/01/92

PCB

*** DIL. FACTOR : 1 ***

01 - AROCLOR 1016	01 - ____	UG/L	(0.5
02 - AROCLOR 1221	02 - ____	UG/L	(0.5
03 - AROCLOR 1232	03 - ____	UG/L	(0.5
04 - AROCLOR 1242	04 - ____	UG/L	(0.5
05 - AROCLOR 1248	05 - ____	UG/L	(0.5
06 - AROCLOR 1254	06 - ____	UG/L	(0.5
07 - AROCLOR 1260	07 - ____	UG/L	(0.5
08 - ~~ISODRIN~~ (%) TCMX	08 - 98	%	

*** SPECIAL Q.C. ON 8080 # 11 & 12. SEE M. BARBER OF M. TYER.

DATE ANALYZED : 3/30/92 ANALYST INITIALS : ym

20382414 5-2B 03/19/92 04/01/92

PCB

*** DIL. FACTOR : 1 ***

01 - AROCLOR 1016	01 - ____	UG/L	(0.5
02 - AROCLOR 1221	02 - ____	UG/L	(0.5
03 - AROCLOR 1232	03 - ____	UG/L	(0.5
04 - AROCLOR 1242	04 - ____	UG/L	(0.5
05 - AROCLOR 1248	05 - ____	UG/L	(0.5
06 - AROCLOR 1254	06 - ____	UG/L	(0.5
07 - AROCLOR 1260	07 - ____	UG/L	(0.5
08 - ~~ISODRIN~~ (%) TCMX	08 - 102	%	

very different after A.W. Cane.

*** SPECIAL Q.C. ON 8080 # 11 & 12. SEE M. BARBER OF M. TYER.

DATE ANALYZED : 3/31/92 ANALYST INITIALS : ym

20382501 SP-1 03/18/92 04/01/92

PCB

*** DIL. FACTOR : 1 ***

01 - AROCLOR 1016	01 - ____	UG/L	(0.5
02 - AROCLOR 1221	02 - ____	UG/L	(0.5
03 - AROCLOR 1232	03 - ____	UG/L	(0.5
04 - AROCLOR 1242	04 - ____	UG/L	(0.5
05 - AROCLOR 1248	05 - ____	UG/L	(0.5
06 - AROCLOR 1254	06 - ____	UG/L	(0.5
07 - AROCLOR 1260	07 - ____	UG/L	(0.5
08 - ~~ISODRIN~~ (%) TCMX	08 - 99	%	

*** RUSH ON 624 DUE 3/27/92.

DATE ANALYZED : 3/29/92 ANALYST INITIALS : ym

20382502 SP-2 03/18/92 04/01/92

PCB

*** DIL. FACTOR : 1 ***

REAGENT BLANK

Lab: GC

Test: (PCB)/PCBN/PCBO/PCBW

Blank#: _____

SAMPLES TO BE LINKED TO THIS REAGENT BLANK:

203824-11,12	

AR 1016		
AR 1221		
AR 1232		
AR 1242		
AR 1248		
AR 1254		
AR 1260		
TCMX	104	(8)

EXTRACTION DATE: 3-31-92 DATE ANALYZED: 4/1/92

EXTRACTION CHEMIST: AR ANALYST: ym

REAGENT BLANK

Lab: GC

Test: (PCB)/PCBN/PCBO/PCBW

Blank#: _____

SAMPLES TO BE LINKED TO THIS REAGENT BLANK:

203824-4,5,6,7,8,9,10,13,14

203825-1,2,3

203838-2,3,4

AR 1016	
AR 1221	
AR 1232	
AR 1242	
AR 1248	
AR 1254	
AR 1260	
TCMX	91 (%)

EXTRACTION DATE: 3-24-92 DATE ANALYZED: 3/29/92

EXTRACTION CHEMIST: AR/KP ANALYST: ym

QA/QC

Lab : GC

Test: (PCB)/PCBN/PCBO/PCBW

QC# : _____

SAMPLES TO BE LINKED TO THIS QC:

203824-4,5,6,7,8,9,10

203825-1,2,3

203838-2,3,4

203824-13,14

SAMPLE CHOSEN TO SPIKE (CIRCLE ONE): REAGENT BLANK / 203824-11

		AR 1260
SAMPLE RESULT:	ug/L	<0.5
SPIKE ADDED:	ug/L	5.0
SPIKE SAMPLE:	ug/L	5.1
RECOVERY(%):		102
DUPL.SPIKED SAMPLE:	ug/L	5.4
DUPLICATE RECOVERY(%):		108
RPD:		6

EXTRACTION DATE: 3-24-92 DATE ANALYZED: 3/29/92

EXTRACTION CHEMIST: AK/KP ANALYST: JM

QA/QC

Lab : GC

Test: (PCB)/PCBN/PCBO/PCBW

QC# : _____

SAMPLES TO BE LINKED TO THIS QC:

203824-4,5,6,7,8,9,10

SAMPLE CHOSEN TO SPIKE : REAGENT BLANK/ 203824-11 (5-6B)
(CIRCLE ONE)

SAMPLE RESULT: ug/L	1221 AR ~~1250~~ 140
SPIKE ADDED: ug/L	40
SPIKE SAMPLE:	150
RECOVERY(%):	25
DUPL.SPIKED SAMPLE:	180
DUPLICATE RECOVERY(%):	100
RPD:	18

EXTRACTION DATE: 3-24-92 DATE ANALYZED: 3/29/92

EXTRACTION CHEMIST: AL/KP ANALYST: Ym Ym

QA/QC

Lab : GC

Test: (PCB) PCBN/PCBO/PCBW

QC# : _____

SAMPLES TO BE LINKED TO THIS QC:

203824-11,12	

SAMPLE CHOSEN TO SPIKE : REAGENT BLANK/ (203824-11) ~~203824-12~~
(CIRCLE ONE) (5-6B)

1242
AR ~~1260~~

SAMPLE RESULT: ug/L	<0.5	
SPIKE ADDED: ug/L	10	
SPIKE SAMPLE: ug/L	16	(10.8) ← modified
RECOVERY(%):		
DUPL.SPIKED SAMPLE: ug/L		
DUPLICATE RECOVERY(%):		
RPD:		

EXTRACTION DATE: 3-31-92 DATE ANALYZED: 4/1/92

EXTRACTION CHEMIST: AR ANALYST: Jm

QA/QC

Lab : GC

Test: ~~PCB~~/PCBN/PCBO/PCBW

QC# : _____

SAMPLES TO BE LINKED TO THIS QC:

203825-1,2,3 _____

203838-2,3,4 _____

203824-13,14 _____

_____ _____

SAMPLE CHOSEN TO SPIKE : REAGENT BLANK/ 203824-12 (5-1B)
(CIRCLE ONE)

		1242 AR ~~1260~~
SAMPLE RESULT:	ug/L	< 0.5
SPIKE ADDED:	ug/L	20
SPIKE SAMPLE:	ug/L	20
RECOVERY(%):		100
DUPL.SPIKED SAMPLE:	ug/L	21
DUPLICATE RECOVERY(%):		105
RPD:		5

EXTRACTION DATE: 3-24-92 DATE ANALYZED: 3/30/92

EXTRACTION CHEMIST: AK/KP ANALYST: ym ym

QA/QC

Lab : GC

Test: (PCB)/PCBN/PCBO/PCBW

QC# : _____

SAMPLES TO BE LINKED TO THIS QC:

203824-11,12	_____
_____	_____
_____	_____
_____	_____

SAMPLE CHOSEN TO SPIKE : REAGENT BLANK/ ~~203824-11~~ 203824-12 (5-13)
(CIRCLE ONE)

	122/ AR ~~1260~~
SAMPLE RESULT: ug/L	54
SPIKE ADDED: ug/L	20
SPIKE SAMPLE: ug/L	79
RECOVERY(%):	_____
DUPL.SPIKED SAMPLE:	_____
DUPLICATE RECOVERY(%):	_____
RPD:	_____

EXTRACTION DATE: 7-31-92 DATE ANALYZED: 4/1/92

EXTRACTION CHEMIST: AR ANALYST: ypm

April 1992

Analytical Technologies, Inc.

Case Narrative
Accession #204963

As per our agreement with Mr. Jeff Forbes of D.B. Stephens & Associates, Inc., ATI has analyzed 11 samples for PCBs by EPA Method 8080. The samples were extracted using EPA method 3520 (Continuous Liquid-Liquid Extraction) and concentrated to a final volume of 10ml. Additionally, two samples (204987-7,8) were designated as matrix spike samples, and were spiked with both Aroclor 1221 and 1242. Sample 204987-9 was used as internal laboratory QC samples and was spiked with Aroclor 1260 as a matrix spike, and matrix spike duplicate sample. The results for matrix spike samples 204987-7,8 that were spiked with 1242 were difficult to calculate due to interference by Aroclor 1221. Some of the individual congeners are common to both Aroclors. An attempt was made to calculate a value for the peaks in the Aroclor 1242 range. These values have been flagged with an asterisk on the QC report. Sample 204987-10 was analyzed at a 10X dilution due to matrix interference.

The samples were analyzed by EPA Method 8080 using a Hewlett-Packard 5890 GC equipped with dual ECD detectors. The samples were injected through a Y-split injection port onto two columns. The primary column is a 30 meter megabore DB608, and the confirmation column is a 30 meter megabore DB5. The Aroclors were identified by pattern recognition and comparison to known standard material and ratios of the major peaks were calculated for additional confirmation.

Every attempt was made to avoid pitfalls common in PCB identification. Since many of the Aroclors have individual PCBs in common, misidentification is possible. By analyzing the samples at a dilution that keeps the peaks onscale, and analyzing standard material at the same concentration, it is possible to match the pattern for initial identification. By comparing the ratios of the standard material to those found in the sample, it can give additional confirmation to the unknown Aroclor. By examining the data from the primary and confirmation column, it is possible to detect small discrepencies between the different Aroclors. Some of these discrepencies are minute, but are important in the identification.

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20498707

TEST : POLYCHLORINATED BIPHENYLS (EPA METHOD 608)

CLIENT	: D.B. STEPHENS & ASSOCIATES	DATE SAMPLED	: 04/29/92
PROJECT #	: 2105-1.1	DATE RECEIVED	: 04/30/92
PROJECT NAME	: CONSENT DEC.	DATE EXTRACTED	: 05/01/92
CLIENT I.D.	: 5-1B	DATE ANALYZED	: 05/08/92
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
AROCLOR 1016	<0.5
AROCLOR 1221	71
AROCLOR 1232	<0.5
AROCLOR 1242	<0.5
AROCLOR 1248	<0.5
AROCLOR 1254	<0.5
AROCLOR 1260	<0.5
SURROGATE PERCENT RECOVERIES	
TCMX (%)	88

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20498708

TEST : POLYCHLORINATED BIPHENYLS (EPA METHOD 608)

CLIENT	: D.B. STEPHENS & ASSOCIATES	DATE SAMPLED	: 04/29/92
PROJECT #	: 2105-1.1	DATE RECEIVED	: 04/30/92
PROJECT NAME	: CONSENT DEC.	DATE EXTRACTED	: 05/01/92
CLIENT I.D.	: 5-6B	DATE ANALYZED	: 05/08/92
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
AROCLOR 1016	<0.5
AROCLOR 1221	150
AROCLOR 1232	<0.5
AROCLOR 1242	<0.5
AROCLOR 1248	<0.5
AROCLOR 1254	<0.5
AROCLOR 1260	<0.5
SURROGATE PERCENT RECOVERIES	
TCMX (%)	83

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20498709

TEST : POLYCHLORINATED BIPHENYLS (EPA METHOD 608)

CLIENT	: D.B. STEPHENS & ASSOCIATES	DATE SAMPLED	: 04/29/92
PROJECT #	: 2105-1.1	DATE RECEIVED	: 04/30/92
PROJECT NAME	: CONSENT DEC.	DATE EXTRACTED	: 05/01/92
CLIENT I.D.	: 5-99	DATE ANALYZED	: 05/08/92
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
AROCLOR 1016	<0.5
AROCLOR 1221	150
AROCLOR 1232	<0.5
AROCLOR 1242	<0.5
AROCLOR 1248	<0.5
AROCLOR 1254	<0.5
AROCLOR 1260	<0.5
SURROGATE PERCENT RECOVERIES	
TCMX (%)	89

Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D. : 20498707

TEST : POLYCHLORINATED BIPHENYLS (EPA METHOD 608)

CLIENT	: D.B. STEPHNS & ASSOCIATES		
PROJECT #	: 2105-1.1	DATE ANALYZED	: 05/08/92
PROJECT NAME	: CONSENT DEC.	SAMPLE MATRIX	: AQUEOUS
CLIENT I.D.	: 20498707	UNITS	: UG/L

COMPOUNDS	SAMPLE RESULTS	CONC. SPIKED	SPIKED SAMPLE	% REC.
AROCLOR 1242	4.5 *	10.0	16.6	121
AROCLOR 1221	71	20	89	90

* Co-eluted result

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$

Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D. : 20498708

TEST : POLYCHLORINATED BIPHENYLS (EPA METHOD 608)

CLIENT : D.B. STEPHNS & ASSOCIATES
PROJECT # : 2105-1.1
PROJECT NAME : CONSENT DEC.
CLIENT I.D. : 20498708

DATE ANALYZED : 05/08/92
SAMPLE MATRIX : AQUEOUS
UNITS : UG/L

COMPOUNDS	SAMPLE RESULTS	CONC. SPIKED	SPIKED SAMPLE	% REC.
AROCLOR 1242	8.2 *	10.0	17.7	95
AROCLOR 1221	151	20	173	110

* Co-eluted result

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$

Comments on the analyses of 204987-7,8. PCB.

1. AR 1221 only in the samples.
2. Co-eluted AR1242 calculated for the QC is not AR124 which is the co-elution peaks from AR1221.
3. The peaks retention time were shifted which are marked by ☆.

QC summary for 204987-7 (5-1B) & 204987-8 (5-6B)

Acc	AR 1221			AR1242		
	Added (ug/L)	Found (ug/L)	Rec. (%)	added (ug/L)	Found (ug/L)	Rec. (%)
4987-7	20	18	90	10.0	12.1	121
4987-8	20	22	110	10.0	9.5	95

5/13/92 ym

PESTICIDE/PCB WATERS
608/614/619/622/T808/R808/W808

Date: 5-1-92 Box 14 : F1 - H1

Chemist: F.D

The following samples were extracted by Continuous method, using 700 mls of methylene chloride at pH listed below. The extract was concentrated using a K-D apparatus, solvent exchanged and vialed at the volume listed below. (Reference: EPA Method 608, 614, 619)

Methylene chloride lot #: BC005 Hexane lot #: OU2107

		Matrix spike:	Aroclor 1260	Aroclor 1221	Aroclor 12
Surrogate spike:	TCMX				
Spike ID:	EX-58	Spike ID:	EX-11-4	F1086	F1095
Concentration:	20ug/ml	Concentration:	100ug/ml	100ug/ml	100 ug/ml
Expiration Date:	7-30-92	Expiration Date:	8-19-92		
Amount Added:	100ul	Amount Added:	50ul	100ul	50ul

Total Extraction Time: 18hrs Spiking Witness: Fred J. Dunite

Sample I.D.	Client I.D.	Amount Extracted	Final Volume Init.	Clean-Up Init.	Initial pH	Comments
Blank	—	1000ml	10mls	NA	7	
BS/BSD	—					
204987-2	5-3B					
-3	5-17B					
-4	5-5B					
-5	5-22B					
-6	5-4B					
-7	5-1B	500ml	5mls			50ul surr.
-8	5-6B					
-9	5-9					
-10	5-16B	1000ml	10mls			
-11	5-19B					
-12	5-2B					
204987-7MS1	—	500ml	5mls			1221 50ul surr. /1221
204987-7MS2	—					1242 /1242
204987-8MS1	—					1221 /1221
204987-8MS2	—					1242 /1242
204987-9MS	* —					50ul surr 15ul 4% (1260)
204987-9MSD	—					
LCS	—	1000ml	10mls			

5-4-92 (KD)

F1

REAGENT BLANK

Lab: GC

Test: PCB/PCBN/PCBO/PCBW

Blank#: _____

SAMPLES TO BE LINKED TO THIS REAGENT BLANK:

204987-2,3,4,5,6,7,8,9,10,11,12,#

AR 1016	
AR 1221	
AR 1232	
AR 1242	
AR 1248	
AR 1254	
AR 1260	
TCMX	94 (%)

5-14-92

EXTRACTION DATE: [redacted] DATE ANALYZED: 5/18/92

EXTRACTION CHEMIST: [redacted] ANALYST: ym

QA/QC

Lab : GC

Test: PCB/PCBN/PCBO/PCBW

QC# : _____

SAMPLES TO BE LINKED TO THIS QC:

204987-2,3,4,5,6,10,11,12 & 9

_____ _____

_____ _____

_____ _____

SAMPLE CHOSEN TO SPIKE : REAGENT BLANK / 204987-9
(CIRCLE ONE)

	AR 1260
SAMPLE RESULT: ug/L	<0.5
SPIKE ADDED: ug/L	5.0
SPIKE SAMPLE: ug/L	5.1
RECOVERY(%):	102
DUPL.SPIKED SAMPLE: ug/L	5.0
DUPLICATE RECOVERY(%):	100
RPD:	2

EXTRACTION DATE: 5-1-92 DATE ANALYZED: 5/8/92

EXTRACTION CHEMIST: KD/KP ANALYST: ym

QA/QC

Lab : GC

Test: PCB/PCBN/PCBO/PCBW

QC# : _____

SAMPLES TO BE LINKED TO THIS QC:

_____	_____
_____	_____
_____	_____
_____	_____

SAMPLE CHOSEN TO SPIKE : ~~REAGENT BLANK~~/ 204987-7
(CIRCLE ONE)

	1221 AR ~~1260~~
SAMPLE RESULT: ug/L	71
SPIKE ADDED: ug/L	20
SPIKE SAMPLE: ug/L	89
RECOVERY(%):	90
DUPL.SPIKED SAMPLE:	_____
DUPLICATE RECOVERY(%):	_____
RPD:	_____

EXTRACTION DATE: 4-1-92 DATE ANALYZED: 4/8/92

EXTRACTION CHEMIST: FD/KP ANALYST: ym

QA/QC

Lab : GC

Test: PCB/PCBN/PCBO/PCBW

QC# : _____

SAMPLES TO BE LINKED TO THIS QC:

_____	_____
_____	_____
_____	_____
_____	_____

SAMPLE CHOSEN TO SPIKE : ~~REAGENT BLANK~~/ 204987-7
(CIRCLE ONE)

		1242 AR ~~1260~~
SAMPLE RESULT:	ug/L	4.5 ★
SPIKE ADDED:	ug/L	10.0
SPIKE SAMPLE:	ug/L	16.6
RECOVERY(%):		121
DUPL.SPIKED SAMPLE:		_____
DUPLICATE RECOVERY(%):		_____
RPD:		_____

★: co-eluted result.

EXTRACTION DATE: 5-1-92 DATE ANALYZED: 5/8/92

EXTRACTION CHEMIST: JD/KP ANALYST: ym

QA/QC

Lab : GC

Test: PCB/PCBN/PCBO/PCBW

QC# : _____

SAMPLES TO BE LINKED TO THIS QC:

_____	_____
_____	_____
_____	_____
_____	_____

SAMPLE CHOSEN TO SPIKE : REAGENT BLANK/ 204987-8
(CIRCLE ONE)

		1221
		AR ~~1260~~
SAMPLE RESULT:	ug/L	151
SPIKE ADDED:	ug/L	20
SPIKE SAMPLE:	ug/L	173
RECOVERY(%):		110
DUPL.SPIKED SAMPLE:		_____
DUPLICATE RECOVERY(%):		_____
RPD:		_____

EXTRACTION DATE: 5-1-92 DATE ANALYZED: 5/8/92

EXTRACTION CHEMIST: JD/KP ANALYST: ym

QA/QC

Lab : GC

Test: PCB/PCBN/PCBO/PCBW

QC# : _____

SAMPLES TO BE LINKED TO THIS QC:

_____	_____
_____	_____
_____	_____
_____	_____

SAMPLE CHOSEN TO SPIKE : ~~REAGENT BLANK~~/ 204987-8
(CIRCLE ONE)

		1242 AR ~~1260~~
SAMPLE RESULT:	ug/L	8.2 ☆
SPIKE ADDED:	ug/L	10.0
SPIKE SAMPLE:	ug/L	17.7
RECOVERY(%):		95
DUPL.SPIKED SAMPLE:		
DUPLICATE RECOVERY(%):		
RPD:		

☆ : co-eluted result

EXTRACTION DATE: 5-1-92 DATE ANALYZED: 5/8/92

EXTRACTION CHEMIST: JDK ANALYST: jm

PCB 20498707-1, 8 x1
↓ x5

pirmary side

5-1B

**** EXTERNAL STANDARD TABLE ****

********** 05-08-1992 08:54:34 Version 5.1.2 **********

Sample Name: PCB 20498707X1 5/1 (5-1B) Data File: F:A8PST154

Date: 05-08-1992 07:38:07 Method: F:A8PST 05-04-1992 13:38:27 # 342

Interface: 2 Cycle#: 154 Operator YM Channel#: 0 Vial#: N.A.

Starting Peak Width: .2 Threshold: .05 Area Threshold: 5000

Instrument Type: HP 5890 Column Type: P:DB-608,C:DB-5

Solvent Description: HEXANE

Conditions: INIT.T:140C,INIT.TIME:0.5,RATE:6/MIN,FINAL T:275C.

Detector 0: ECD Detector 1: ECD

Misc. Information: ZERO:1-10,2-10,ATTN.:1-1,2-1 NELSON 3390

arting Delay: 0.00 Ending retention time: 30.00

ea reject: 5000 One sample per 0.402 sec.

ount injected: 1.00 Dilution factor: 1.00

mple Weight: 1.00000

K M	RET TIME	PEAK NAME	CONCENTRATION in UG/ML	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
	1.092		13223825.0000	57.7832%	13223825	957717	13.8	2			1.0000E+00
	1.233		792314.3800	3.4621%	792314	162412	4.9	2			1.0000E+00
	1.387		885722.0000	3.8703%	885722	122824	7.2	3			1.0000E+00
	1.715		46772.2030	0.2044%	46772	9958	4.7	4			1.0000E+00
	1.809		83309.3750	0.3640%	83309	9582	8.7	4			1.0000E+00
	2.097		33917.1680	0.1482%	33917	7540	4.5	2			1.0000E+00
	2.338		10340.6465	0.0452%	10341	3644	2.8	1			1.0000E+00
	2.553		13028.4180	0.0569%	13028	3888	3.4	1			1.0000E+00
	2.693		11245.1465	0.0491%	11245	2267	5.0	1			1.0000E+00
	2.968		20235.4746	0.0884%	20235	4602	4.4	2			1.0000E+00
	3.102		8411.8750	0.0368%	8412	2338	3.6	2			1.0000E+00
	3.384		24983.4961	0.1092%	24983	4711	5.3	1			1.0000E+00
	3.672		14355.8223	0.0627%	14356	2430	5.9	2			1.0000E+00
	3.772		13837.5938	0.0605%	13838	3216	4.3	2			1.0000E+00
	3.940		5709.2417	0.0249%	5709	1083	5.3	2			1.0000E+00
	4.067		5972.3130	0.0261%	5972	1901	3.1	1			1.0000E+00
	4.362		43734.4490	0.1911%	43734	9773	4.5	2			1.0000E+00
	4.509		64305.4800	0.2810%	64305	13921	4.6	2			1.0000E+00
	4.784		15184.1436	0.0663%	15184	4625	3.3	1			1.0000E+00
	4.958		7975.0522	0.0348%	7975	2679	3.0	1			1.0000E+00
	5.159		34122.1640	0.1491%	34122	7859	4.3	1			1.0000E+00
	5.527		16100.5020	0.0704%	16101	3265	4.9	1			1.0000E+00
	5.695		14574.5107	0.0637%	14575	4340	3.4	1			1.0000E+00
	6.097		9622.6992	0.0420%	9623	1899	5.1	2			1.0000E+00
	6.224		13212.8857	0.0577%	13213	2232	5.9	2			1.0000E+00
	6.680		36278.4920	0.1585%	36278	9159	4.0	1			1.0000E+00
	6.894		8113.9683	0.0355%	8114	1749	4.6	1			1.0000E+00
	7.203		11759.7061	0.0514%	11760	2726	4.3	1			1.0000E+00
	7.517	TCMX 88% =	804187.4400	3.5140%	804187	200827	4.0	2			1.0000E+00
	7.685		9239.8818	0.0404%	9240	2302	4.0	2			1.0000E+00
	8.683		197747.2500	0.8641%	197747	44931	4.4	2			1.0000E+00
	9.798		117602.0860	0.5139%	117602	24369	4.8	2			1.0000E+00

1/2 = 21

33	8.790	117602.0860	0.[illegible]139%	117602	24569	4.8	2			1.0000E+00
34	9.045	130015.6480	0.[illegible]681%	130016	27724	4.7	1			1.0000E+00
35	9.554	137863.0940	0.6024%	137863	31182	4.4	2			1.0000E+00
36	9.769	444070.5300	1.9404%	444071	101191	4.4	2			1.0000E+00
37	9.970 A-BHC	0.0104	0.0000%	49650	11248	4.4	2	37	0	2.1011E-07
38	10.291	5315.4956	0.0232%	5315	1159	4.6	2			1.0000E+00
39	10.914	291243.3400	1.2726%	291243	57026	5.1	2			1.0000E+00
40	11.162	489841.4400	2.1404%	489841	90882	5.4	2			1.0000E+00
41	11.571 B-BHC	0.0467	0.0000%	138251	18349	7.5	1	41	0	3.3812E-07
42	11.859	443214.0600	1.9367%	443214	102731	4.3	1			1.0000E+00
43	12.120	211052.8120	0.9222%	211053	45498	4.6	1			1.0000E+00
44	12.361 HEPTACHLOR	0.1090	0.0000%	613771	114928	5.3	1	44	0	1.7760E-07
45	12.877	129378.5860	0.5653%	129371	23000	5.6	2			1.0000E+00
46	13.105	31137.7656	0.1361%	31138	6557	4.7	2			1.0000E+00
47	13.306 ALDRIN	0.0462	0.0000%	228200	45986	5.0	1	47	0	2.0267E-07
48	13.681	65023.1020	0.2841%	65023	12580	5.2	1			1.0000E+00
49	14.057	71665.6250	0.3132%	71666	11813	6.1	2			1.0000E+00
50	14.231	7530.3647	0.0329%	7530	2180	3.5	2			1.0000E+00
51	14.358	15224.1426	0.0665%	15224	4186	3.6	1			1.0000E+00
52	14.559	35383.6410	0.1546%	35384	8560	4.1	1			1.0000E+00
53	14.814	21753.0254	0.0951%	21753	3822	6.5	1			1.0000E+00
54	15.303	87358.5470	0.3817%	87359	14836	5.9	2			1.0000E+00
55	15.437	30297.3848	0.1324%	30297	5731	5.3	2			1.0000E+00
56	15.611	3400546.8000	14.8591%	3400547	715168	4.7	2			1.0000E+00
57	16.194	56345.6170	0.2462%	56346	11173	5.0	2			1.0000E+00
58	16.355 ENDOSULFAN I	0.0086	0.0000%	39129	6003	6.5	2	58		2.1928E-07
59	16.583	21178.1641	0.0925%	21178	3324	6.4	2			1.0000E+00
60	16.737	7970.0649	0.0348%	7970	1901	4.2	2			1.0000E+00
61	17.031 4,4-DDE	0.0062	0.0000%	17905	4632	3.9	1	61		3.4351E-07
62	17.567	34961.5390	0.1528%	34962	6895	5.1	1			1.0000E+00
63	17.789	8760.7861	0.0383%	8761	2053	4.3	1			1.0000E+00
64	18.070	11549.2598	0.0505%	11549	2372	4.9	1			1.0000E+00
65	19.122	14967.0635	0.0654%	14967	1791	8.4	1			1.0000E+00
66	20.020 ENDRIN ALDEHYDE	0.0297	0.0000%	102470	16316	6.3	2	66	0	2.8999E-07
67	20.221	33743.7030	0.1474%	33744	5516	6.1	2			1.0000E+00
68	20.402 ENDOSULFAN SULFATE	0.0038	0.0000%	18843	2576	7.3	2	68	0	1.9991E-07
69	20.998	13803.4746	0.0603%	13803	2613	5.3	1			1.0000E+00
70	23.450	36298.3910	0.1586%	36298	1858	19.5	1			1.0000E+00

TOTAL AMOUNT = 22885228.0000

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
DBOFBP	7.13	DBOFBP
LINDANE	11.29	LINDANE
D-BHC	11.76	LINDANE
HEPTACHLOR EPOXIDE	15.14	HEPTACHLOR EPOXIDE
DIELDRIN	17.20	DIELDRIN
ENDRIN	18.33	ENDRIN
4,4-DDD	18.75	4,4-DDD
ENDOSULFAN II	18.89	ENDOSULFAN II
4,4-DDT	19.66	4,4-DDT
DBC	21.41	DBC
METHOXYCHLOR	22.48	METHOXYCHLOR
ENDRIN KETONE	22.72	ENDRIN KETONE

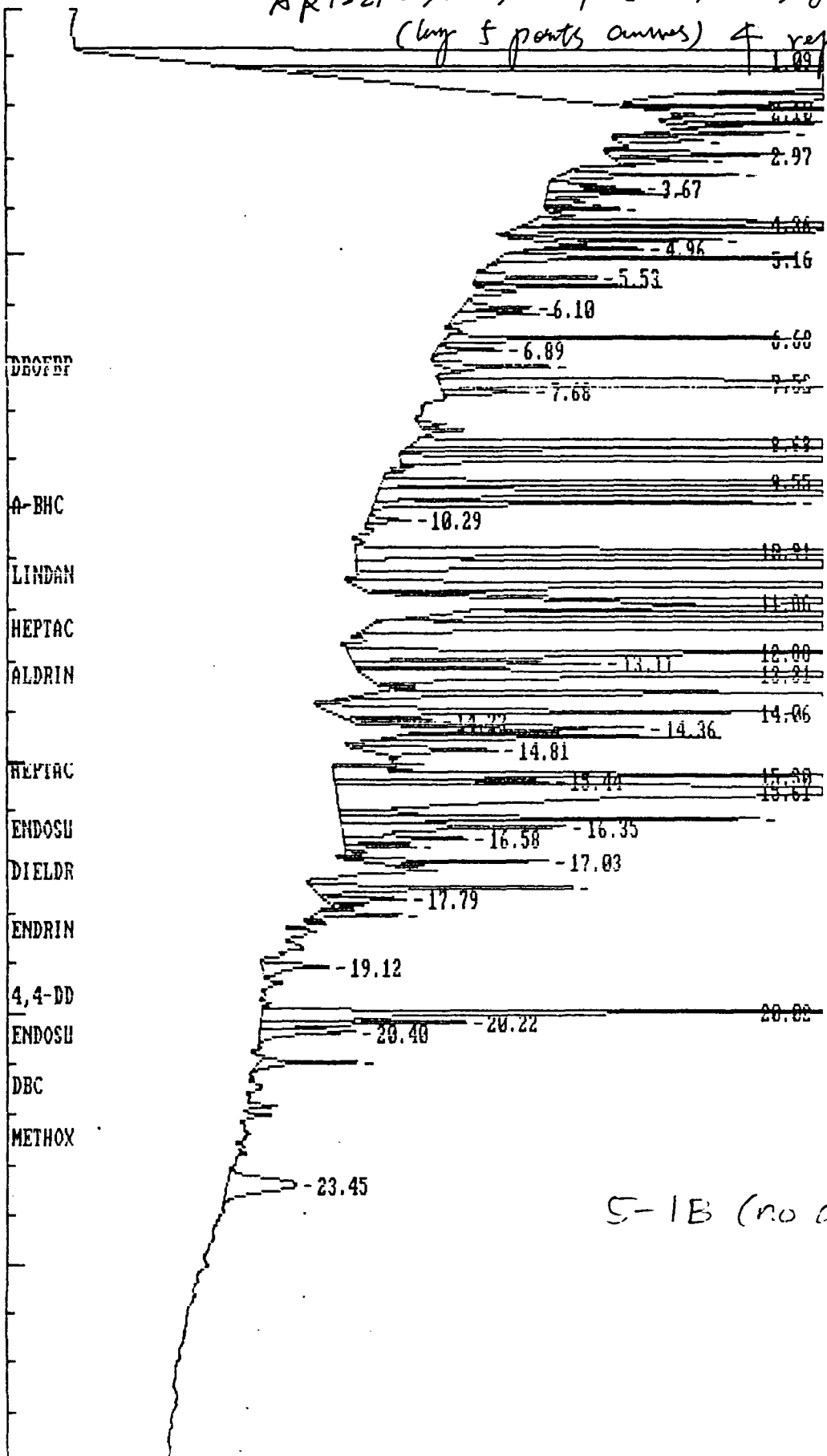
Data File = F:A8PST154.PTS Printed on 05-08-1992 at 08:55:03
Start time: 0.00 min. Stop time: 30.00 min. Offset: 0 mv.
Full Range: 20 millivolts.

AR1221
ΣA = 2857746
◆: R.T Shifted
Peaks co-eluted with AR1242
ΣA = 536109
AR1221 = 6.961 × 5/0.5 × 1 = 69.6 ng/L (by four points curves)
Co-eluted AR1232 = 0.4534 × 5/0.5 = 4.5 ng/L
AR1221 = 7.113 × 5/0.5 = 71.1 ng/L (by 5 points curves) & reported.

4-DDT	19.66	4,4-DDT
C	21.41	DBC
THOXYCHLOR	22.48	METHOXYCHLOR
DRIN KETONE	22.72	ENDRIN KETONE

ta File = F:A8PST154.PTS Printed on 05-08-1992 at 08:55:03
art time: 0.00 min. Stop time: 30.00 min. Offset: 0 mv.
11 Range: 20 millivolts

Ap1221 = 7.113 x5/0.5 = 71.1 ng/L
(long 5 points curves) 4 reported.



5-1B (no dilution)

5-6B

***** EXTERNAL STANDARD TABLE *****

******************** 05-11-1992 07:46:09 Version 5.1.2 ************************

Sample Name: PCB 20498/08X1 5/1 (5-6B) , Data File: F:A8PST155 *
Date: 05-08-1992 08:31:52 Method: F:A8PST 05-04-1992 13:38:27 # 342 *
Interface: 2 Cycle#: 155 Operator YM Channel#: 0 Vial#: N.A. *
Starting Peak Width: .2 Threshold: .05 Area Threshold: 5000 *

****

Instrument Type: HP 5890 Column Type: P:DB-608,C:DB-5 *
Solvent Description: HEXANE *
Conditions: INIT.T:140C,INIT.TIME:0.5,RATE:6/MIN,FINAL T:275C. *
Detector 0: ECD Detector 1: ECD *
Misc. Information: ZERO:1-10,2-10,ATTN.:1-1,2-1 NELSON 3390 * *

****

Starting Delay: 0.00 Ending retention time: 30.00
Area reject: 5000 One sample per 0.402 sec.
Amount injected: 1.00 Dilution factor: 1.00
Sample Weight: 1.00000

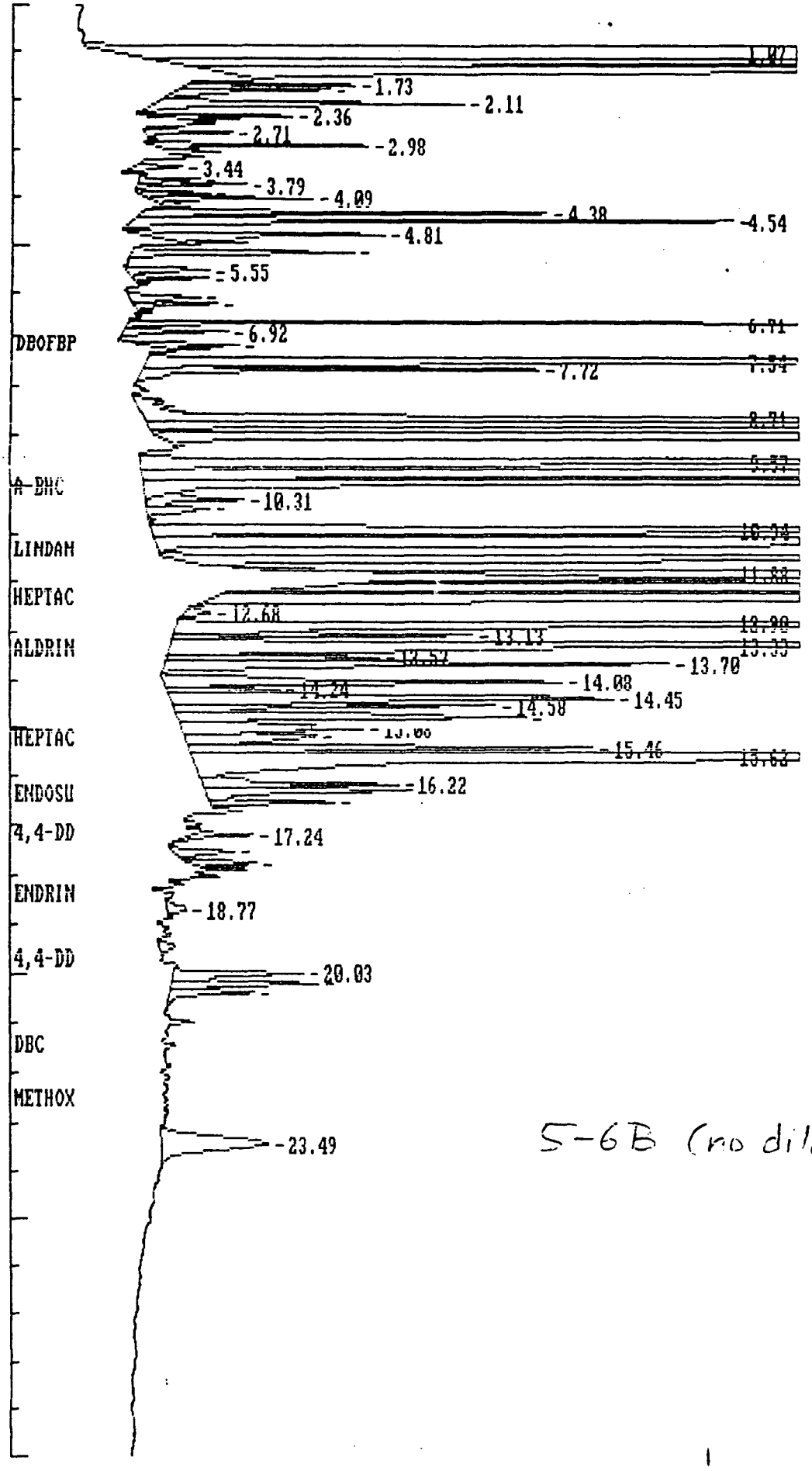
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/ML	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
1	1.072		10302113.0000	47.9474%	10302113	958732	10.7	2			1.0000E+00
2	1.246		436553.9100	2.0318%	436554	97762	4.5	2			1.0000E+00
3	1.394		379932.8800	1.7683%	379933	93505	4.1	2			1.0000E+00
4	1.729		16245.1221	0.0756%	16245	4694	3.5	2			1.0000E+00
5	1.822		21414.8555	0.0997%	21415	4222	5.1	2			1.0000E+00
6	2.111		42433.3120	0.1975%	42433	8656	4.9	2			1.0000E+00
7	2.358		9867.8945	0.0459%	9868	3253	3.0	1			1.0000E+00
8	2.714		10807.3682	0.0503%	10807	2352	4.6	1			1.0000E+00
9	2.981		25013.2441	0.1164%	25013	5806	4.3	1			1.0000E+00
10	3.437		7431.3599	0.0346%	7431	1390	5.3	1			1.0000E+00
11	3.698		5597.3413	0.0261%	5597	1697	3.3	2			1.0000E+00
12	3.786		12278.3994	0.0571%	12278	3003	4.1	2			1.0000E+00
13	3.980		6863.6729	0.0319%	6864	1789	3.8	2			1.0000E+00
14	4.087		13999.1289	0.0652%	13999	4365	3.2	2			1.0000E+00
15	4.382		49546.1600	0.2306%	49546	11258	4.4	2			1.0000E+00
16	4.536		82465.0000	0.3838%	82465	16669	4.9	2			1.0000E+00
17	4.811		32175.5020	0.1497%	32176	6450	5.0	1			1.0000E+00
18	5.186		31826.1406	0.1481%	31826	6161	5.2	1			1.0000E+00
19	5.554		11061.3193	0.0515%	11061	2256	4.9	2			1.0000E+00
20	5.722		6765.7734	0.0315%	6766	2030	3.3	2			1.0000E+00
21	6.124		10464.2109	0.0487%	10464	1942	5.4	2			1.0000E+00
22	6.251		13985.0273	0.0651%	13985	2309	6.1	2			1.0000E+00
23	6.707		130787.9610	0.6087%	130788	31180	4.2	2			1.0000E+00
24	6.921		13169.8467	0.0613%	13170	2901	4.5	2			1.0000E+00
25	7.229		7917.3901	0.0368%	7917	2136	3.7	1			1.0000E+00
26	7.537		751579.8800	3.4980%	751580	185356	4.1	2			1.0000E+00
27	7.718		53336.1050	0.2482%	53336	10995	4.9	2			1.0000E+00
28	8.710		265798.1200	1.2371%	265798	57654	4.6	2			1.0000E+00
29	8.811		321911.8800	1.4982%	321912	66715	4.8	2			1.0000E+00
30	9.065		528101.0000	2.4579%	528101	108803	4.9	1			1.0000E+00
31	9.574		521305.3800	2.4262%	521305	115951	4.5	2			1.0000E+00
32	9.789		1657811.2500	7.7157%	1657811	381453	4.3	2			1.0000E+00
33	9.990	A-BHC	0.0382	0.0000%	229888	4875[illegible]	4.7	3	33	0	1.6599E-07
34	10.311		17468.6562	0.0813%	17469	2642	6.6	4			1.0000E+00
35	10.499		12983.0049	0.0604%	12983	1715	7.6	2			1.0000E+00
36	10.941		353581.3100	1.6456%	353581	64072	5.5	2			1.0000E+00
37	11.182		1071522.0000	4.9870%	1071522	197284	5.4	2			1.0000E+00
38	11.544	B-BHC	0.0650	0.0000%	188166	26924	7.0	1	38	0	3.4553E-07
[illegible]	[illegible]		346883.5003	1.6141%	346884	83847	4.1	1			1.0000E+00

83% ~ 751579.8800 / 7,554,25

ΣA = 5889058

8R1221

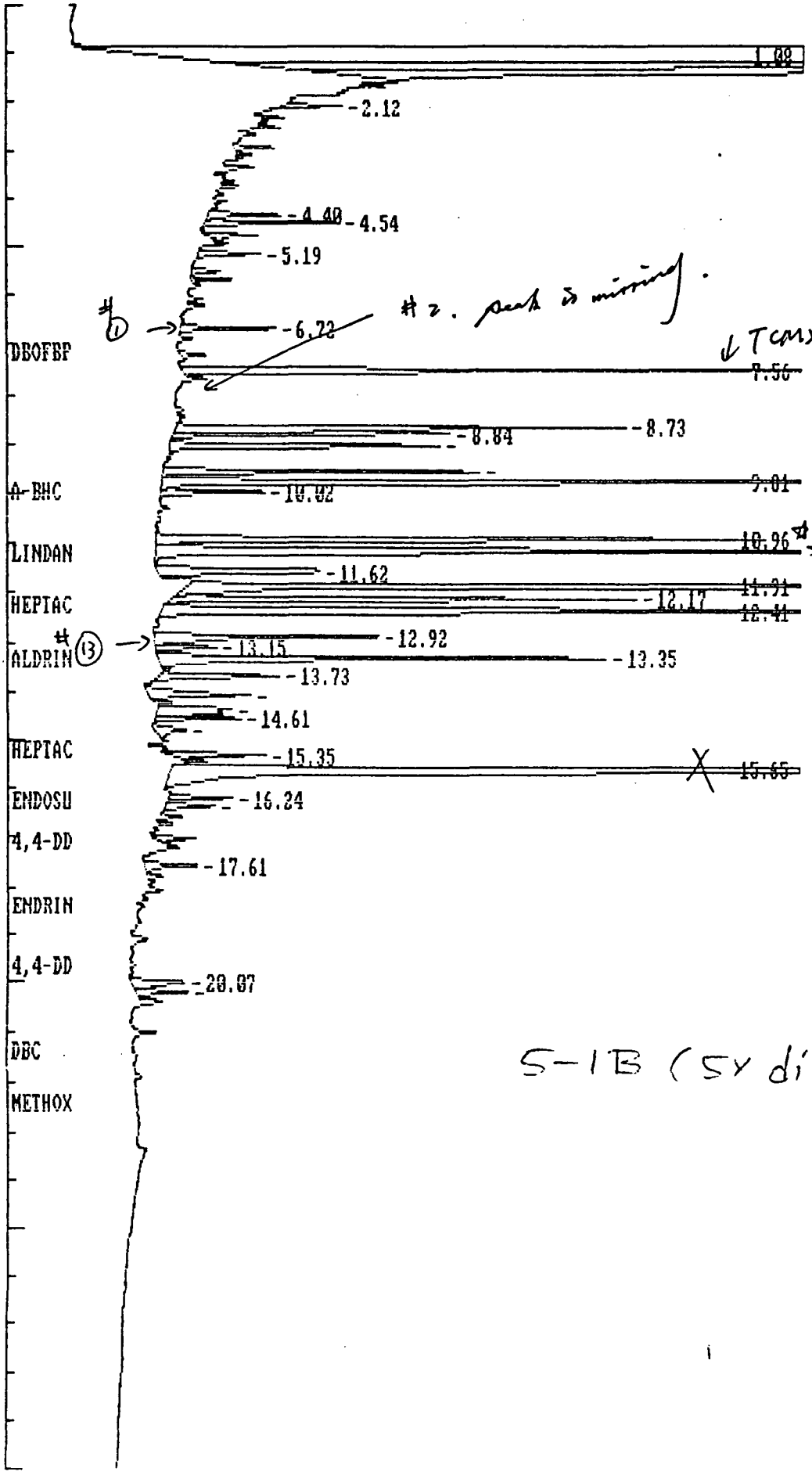
Cart time: 0.00 min. Stop time: 30.00 min.
Full Range: 20 millivolts



5-6B (no dilution)

METHOXYCHLOR 22.41 METHOXYCHLOR
ENDRIN KETONE 22.66 ENDRIN KETONE

Data File = F:A8PST170.PTS Printed on 05-11-1992 at 08:11:39
Start time: 0.00 min. Stop time: 30.00 min. Offset: 0 mv.
Full Range: 20 millivolts



5-1B (5x dilution)

5-6B (5x dilution)

***** EXTERNAL STANDARD TABLE *****

******************** 05-11-1992 08:12:41 Version 5.1.2 ********************

* Sample Name: RPCB 20498708X5 5/1 Data File: F:A8PST171 *
* Date: 05-08-1992 17:51:13 Method: F:A8PST 05-04-1992 13:38:27 # 342 *
* Interface: 2 Cycle#: 171 Operator YM Channel#: 0 Vial#: N.A. *
* Starting Peak Width: .2 Threshold: .05 Area Threshold: 5000 *

****

* Instrument Type: HP 5890 Column Type: P:DB-608,C:DB-5 *
* Solvent Description: HEXANE *
* Conditions: INIT.T:140C,INIT.TIME:0.5,RATE:6/MIN,FINAL T:275C. *
* Detector 0: ECD Detector 1: ECD *
* Misc. Information: ZERO:1-10,2-10,ATTN.:1-1,2-1 NELSON 3390 * *

****

Starting Delay: 0.00 Ending retention time: 30.00
Area reject: 5000 One sample per 0.402 sec.
Amount injected: 1.00 Dilution factor: 1.00
Sample Weight: 1.00000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/ML	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
1	1.005		8626410.0000	73.5253%	8626410	959234	9.0	2			1.0000E+00
2	1.253		254887.2970	2.1725%	254887	62397	4.1	2			1.0000E+00
3	1.394		240275.0000	2.0479%	240275	60382	4.0	2			1.0000E+00
4	2.124		9299.0645	0.0793%	9299	2266	4.1	1			1.0000E+00
5	2.988		5821.7642	0.0496%	5822	1340	4.3	1			1.0000E+00
6	4.388		10470.2344	0.0892%	10470	2352	4.5	2			1.0000E+00
7	4.543		21133.9824	0.1801%	21134	4319	4.9	2			1.0000E+00
8	4.817		7921.4102	0.0675%	7921	1599	5.0	1			1.0000E+00
9	5.186		7200.8252	0.0614%	7201	1388	5.2	1			1.0000E+00
)10	6.713		35959.3050	0.3065%	35959	8597	4.2	1			1.0000E+00
11	7.249		6254.6680	0.0533%	6255	684	9.1	2			1.0000E+00
12	7.551	TCMX 104% =	189281.4220 x5 = 946405	1.6133%	189281	47961	3.9	2			1.0000E+00
13	7.732		15537.4131	0.1324%	15537	3172	4.9	2			1.0000E+00
14	8.723		65857.2970	0.5613%	65857	15458	4.3	2			1.0000E+00
15	8.831		98070.2660	0.8359%	98070	20035	4.9	2			1.0000E+00
16	9.085		145931.6250	1.2438%	145932	30186	4.8	2			1.0000E+00
17	9.588		146931.8280	1.2523%	146932	32534	4.5	2			1.0000E+00
18	9.802		456746.1900	3.8930%	456746	102956	4.4	2			1.0000E+00
19	10.010		56497.8590	0.4815%	56498	12638	4.5	2			1.0000E+00
x20	10.955		101106.4690	0.8618%	101106	18484	5.5	2			1.0000E+00
x21	11.196		304873.7500	2.5985%	304874	56024	5.4	2			1.0000E+00
22	11.564	B-BHC	0.0130	0.0000%	46099	6813	6.8	1	22		2.8226E-07
23	11.899		91055.4140	0.7761%	91055	22245	4.1	1			1.0000E+00
24	12.161		127246.4690	1.0846%	127246	27242	4.7	1			1.0000E+00
25	12.395	HEPTACHLOR	0.0290	0.0000%	167676	28640	5.9	1	22	.4159	1.7309E-07
)26	12.918		54622.6950	0.4656%	54623	9538	5.7	2			1.0000E+00
27	13.145		10400.4062	0.0886%	10400	2113	4.9	2			1.0000E+00
28	13.346	ALDRIN	0.0154	0.0000%	69983	12346	5.7	2	28	0	2.1953E-07
29	13.722		31171.6836	0.2657%	31172	3623	8.6	2			1.0000E+00
30	14.110		16642.5996	0.1418%	16643	2373	7.0	1			1.0000E+00
31	14.472		19371.5762	0.1651%	19372	2427	8.0	1			1.0000E+00
32	14.861		13055.3525	0.1113%	13055	1966	6.6	1			1.0000E+00
33	15.484		11870.6895	0.1012%	11871	2561	4.6	2			1.0000E+00
34	15.651		529597.2500	4.5139%	529597	114609	4.6	2			1.0000E+00
35	16.361		5707.5962	0.0486%	5708	1086	5.3	1			1.0000E+00
36	20.261	ENDOSULFAN SULFATE	-0.0002	-0.0000%	5292	1020	5.2	1	28	-.4264	-3.9995E-08
37	23.611		15372.8828	0.1310%	15373	799	19.2	1			1.0000E+00

(AR1221)

☆: R.T. Shifted.

ΣA = ~~1776756~~ 1777056

YM

TOTAL AMOUNT = 11732581.0000

AR 1221 = 4.187 x5/0.5 x5 = 209 ug/L
(by curve)

2	1.253		254887.2970	2.1725%	254887	62397	4.1	2			1.0000E+00
3	1.394		240275.0000	2.0479%	240275	60382	4.0	2			1.0000E+00
4	2.124		9299.0645	0.0793%	9299	2266	4.1	1			1.0000E+00
5	2.988		5821.7642	0.0496%	5822	1340	4.3	1			1.0000E+00
6	4.388		10470.2344	0.0892%	10470	2352	4.5	2			1.0000E+00
7	4.543		21133.9824	0.1801%	21134	4319	4.9	2			1.0000E+00
8	4.817		7921.4102	0.0675%	7921	1599	5.0	1			1.0000E+00
9	5.186		7200.8252	0.0614%	7201	1388	5.2	1			1.0000E+00
10	6.713		35959.3050	0.3065%	35959	8597	4.2	1			1.0000E+00
11	7.249		6254.6680	0.0533%	6255	684	9.1	2			1.0000E+00
12	7.551		189281.4220	1.6133%	189281	47961	3.9	2			1.0000E+00
13	7.732		15537.4131	0.1324%	15537	3172	4.9	2			1.0000E+00
14	8.723		65857.2970	0.5613%	65857	15458	4.3	2			1.0000E+00
15	8.831		98070.2660	0.8359%	98070	20035	4.9	2			1.0000E+00
16	9.085		145931.6250	1.2438%	145932	30186	4.8	2			1.0000E+00
17	9.588		146931.8280	1.2523%	146932	32534	4.5	2			1.0000E+00
18	9.802		456746.1900	3.8930%	456746	102956	4.4	2			1.0000E+00
19	10.010		56497.8590	0.4815%	56498	12638	4.5	2			1.0000E+00
20	10.955		101106.4690	0.8618%	101106	18484	5.5	2			1.0000E+00
21	11.196		304873.7500	2.5985%	304874	56024	5.4	2			1.0000E+00
22	11.564	B-BHC	0.0130	0.0000%	46099	6813	6.8	1	22		2.8226E-07
23	11.899		91055.4140	0.7761%	91055	22245	4.1	1			1.0000E+00
24	12.161		127246.4690	1.0846%	127246	27242	4.7	1			1.0000E+00
25	12.395	HEPTACHLOR	0.0290	0.0000%	167676	28640	5.9	1	22	.4159	1.7309E-07
26	12.918		54622.6950	0.4656%	54623	9538	5.7	2			1.0000E+00
27	13.145		10400.4062	0.0886%	10400	2113	4.9	2			1.0000E+00
28	13.346	ALDRIN	0.0154	0.0000%	69983	12346	5.7	2	28	0	2.1953E-07
29	13.722		31171.6836	0.2657%	31172	3623	8.6	2			1.0000E+00
30	14.110		16642.5996	0.1418%	16643	2373	7.0	1			1.0000E+00
31	14.472		19371.5762	0.1651%	19372	2427	8.0	1			1.0000E+00
32	14.861		13055.3525	0.1113%	13055	1966	6.6	1			1.0000E+00
33	15.484		11870.6895	0.1012%	11871	2561	4.6	2			1.0000E+00
34	15.651		529597.2500	4.5139%	529597	114609	4.6	2			1.0000E+00
35	16.361		5707.5962	0.0486%	5708	1086	5.3	1			1.0000E+00
36	20.261	ENDOSULFAN SULFATE	-0.0002	-0.0000%	5292	1020	5.2	1	28	-.4264	-3.9995E-08
37	23.611		15372.8828	0.1310%	15373	799	19.2	1			1.0000E+00

TCMX 10%= 9.4475 ×5

*: R.T. shifted.

AR1221

ΣA = ~~177675~~ 1777056

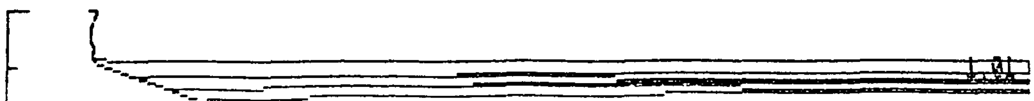
TOTAL AMOUNT = 11732581.0000

AR 1221 = 4.187 (by curve) ×5/0.5 ×5 = 209 ug/L

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
DBOFBP	7.13	DBOFBP
A-BHC	9.94	A-BHC
LINDANE	11.26	LINDANE
D-BHC	12.77	D-BHC
HEPTACHLOR EPOXIDE	15.19	HEPTACHLOR EPOXIDE
ENDOSULFAN I	16.28	ENDOSULFAN I
4,4-DDE	17.08	4,4-DDE
DIELDRIN	17.25	DIELDRIN
ENDRIN	18.38	ENDRIN
4,4-DDD	18.81	4,4-DDD
ENDOSULFAN II	18.95	ENDOSULFAN II
4,4-DDT	19.72	4,4-DDT
ENDRIN ALDEHYDE	19.97	ENDRIN ALDEHYDE
DBC	21.35	DBC
METHOXYCHLOR	22.42	METHOXYCHLOR
ENDRIN KETONE	22.66	ENDRIN KETONE

Data File = F:A8PST171.PTS Printed on 05-11-1992 at 08:12:59
Start time: 0.00 min. Stop time: 30.00 min. Offset: 0 mv.
Full Range: 20 millivolts



5-1B (5x dilution)

***** EXTERNAL STANDARD TABLE *****

********************* 05-11-1992 08:11:23 Version 5.1.2 *********************
* Sample Name: RPCB 2049870/X5 5/1 Data File: F:A8PST170 *
* Date: 05-08-1992 17:16:14 Method: F:A8PST 05-04-1992 13:38:27 # 342 *
* Interface: 2 Cycle#: 170 Operator YM Channel#: 0 Vial#: N.A. *
* Starting Peak Width: .2 Threshold: .05 Area Threshold: 5000 *
****
* Instrument Type: HP 5890 Column Type: P:DB-608,C:DB-5 *
* Solvent Description: HEXANE *
* Conditions: INIT.T:140C,INIT.TIME:0.5,RATE:6/MIN,FINAL T:275C. *
* Detector 0: ECD Detector 1: ECD *
* Misc. Information: ZERO:1-10,2-10,ATTN.:1-1,2-1 NELSON 3390 * *
****

Starting Delay: 0.00
Area reject: 5000
Amount injected: 1.00
Sample Weight: 1.00000

Ending retention time: 30.00
One sample per 0.402 sec.
Dilution factor: 1.00

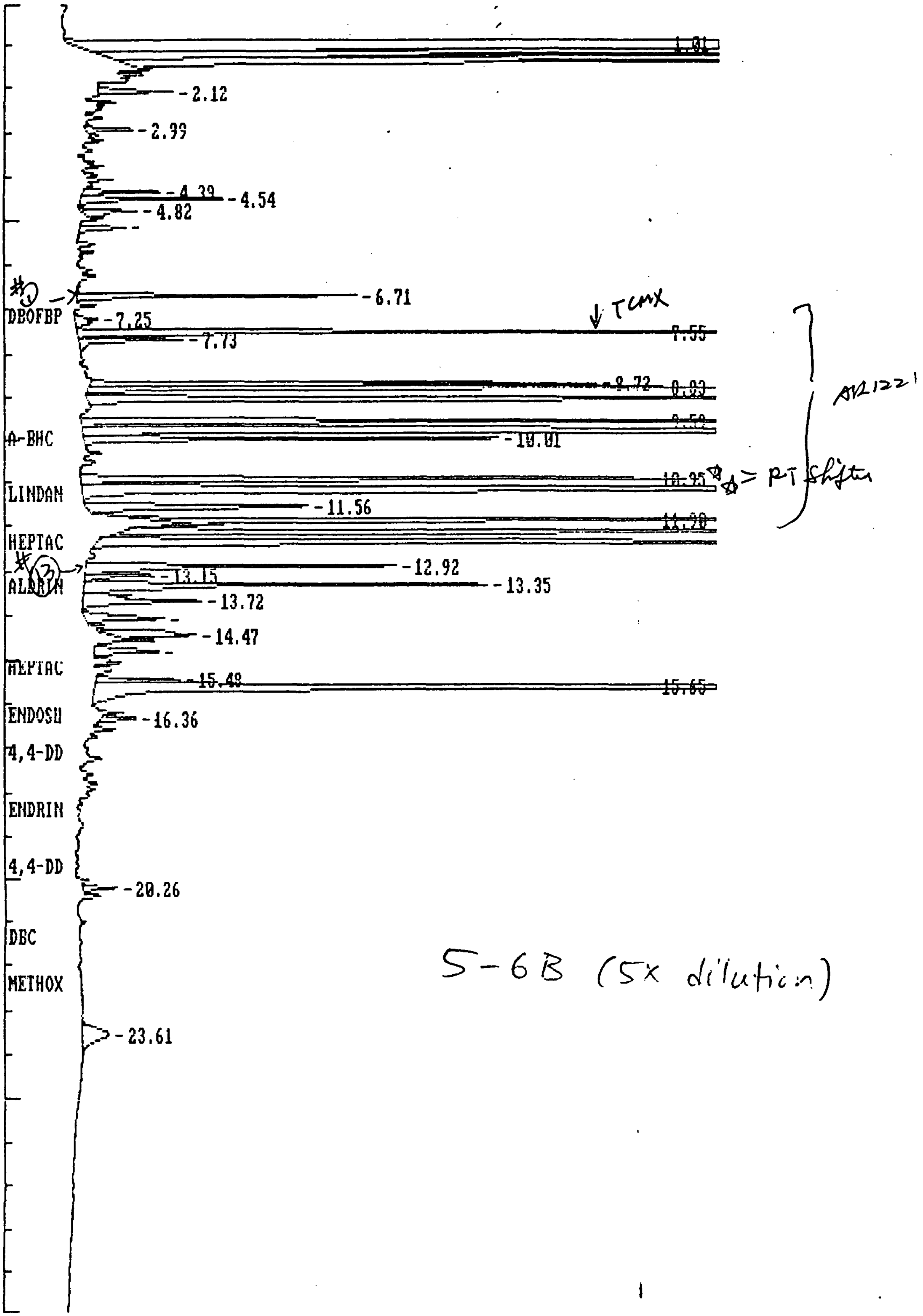
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/ML	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
1	1.079		11275193.0000	81.2325%	11275193	957323	11.8	2			1.0000E+00
2	1.253		366032.6600	2.6371%	366033	79687	4.6	2			1.0000E+00
3	1.400		287279.7500	2.0697%	287280	67859	4.2	2			1.0000E+00
4	2.124		5138.3579	0.0370%	5138	1665	3.1	1			1.0000E+00
6	[illegible].395		9447.9424	0.0681%	9448	2033	4.6	2			1.0000E+00
7	4.543		17005.6680	0.1225%	17006	3714	4.6	2			1.0000E+00
9	5.193		7894.8784	0.0569%	7895	1729	4.6	1			1.0000E+00
12	6.720		10496.6221	0.0756%	10497	2617	4.0	1			1.0000E+00
14	7.558		201093.8750	1.4488%	201094	50759	4.0	1			1.0000E+00
15	8.730		54429.2500	0.3921%	54429	12309	4.4	2			1.0000E+00
16	8.837		35154.4490	0.2533%	35154	7642	4.6	2			1.0000E+00
17	9.092		34937.0160	0.2517%	34937	7447	4.7	1			1.0000E+00
18	9.601		38229.7850	0.2754%	38230	8716	4.4	2			1.0000E+00
19	9.809		126695.0550	0.9128%	126695	28729	4.4	2			1.0000E+00
20	10.016		12588.6934	0.0907%	12589	2845	4.4	2			1.0000E+00
21	10.961		84652.8360	0.6099%	84653	16698	5.1	2			1.0000E+00
22	11.209	LINDANE	0.0257	0.0000%	142747	26123	5.5	2	22	0	1.8023E-07
23	11.618		34068.6950	0.2454%	34069	4423	7.7	1			1.0000E+00
24	11.986		136102.8750	0.9806%	136103	28981	4.7	2			1.0000E+00
25	12.167		60315.3280	0.4345%	60315	12781	4.7	2			1.0000E+00
26	12.408		168521.6250	1.2141%	168522	31465	5.4	1			1.0000E+00
27	12.924		34337.5980	0.2474%	34338	6198	5.5	2			1.0000E+00
28	13.152		7902.1709	0.0569%	7902	1688	4.7	2			1.0000E+00
29	13.353	ALDRIN	0.0135	0.0000%	60322	12283	4.9	1	29	0	2.2343E-07
30	13.728		17130.8281	0.1234%	17131	3349	5.1	1			1.0000E+00
31	14.110		17558.1543	0.1265%	17558	2778	6.3	1			1.0000E+00
32	14.412		18669.1445	0.1345%	18669	2054	9.1	2			1.0000E+00
33	14.606		10656.3672	0.0768%	10656	2366	4.5	2			1.0000E+00
34	14.861		5905.9829	0.0425%	5906	803	7.4	1			1.0000E+00
35	15.350		10944.4502	0.0788%	10944	2512	4.4	1			1.0000E+00
36	15.651		767599.7500	5.5302%	767600	164212	4.7	1			1.0000E+00
37	16.241	ENDOSULFAN I	0.0009	0.0000%	7253	1774	4.1	2	37	0	1.3073E-07
38	16.402		7047.6885	0.0508%	7048	1376	5.1	2			1.0000E+00
40	17.608		7719.2041	0.0556%	7719	1457	5.3	1			1.0000E+00
41	20.073		9391.6377	0.0677%	9392	1428	6.6	2			1.0000E+00
42	20.267	ENDOSULFAN SULFATE	0.0005	0.0000%	7678	1400	5.5	2	39	-.3762	6.3663E-08

TOTAL AMOUNT = 13880143.0000

PEAKS NOT FOUND IN THIS RUN

TCMX 110% = 201093.8750 x5 / 914475
AR1221 ΣA = 803106
*: R.T shift from Std.
AR1221 = 1.687 x 5/0.5 x 5 = 84.4 ug/L (by curve)

ata File = F:AOPST171.F15 Printed on 05-11-1992 at 08:12:55
tart time: 0.00 min. Stop time: 30.00 min. Offset: 0 mv.
ull Range: 20 millivolts



5-6B (5x dilution)

QC for 20498)-7,8

***** EXTERNAL STANDARD TABLE *****

********** 05-11-1992 07:57:11 Version 5.1.2 **********

Sample Name: PCB 20498707 MS1X1 5/1 Data File: F:A8PST162 *

Date: 05-08-1992 12:36:28 Method: F:A8PST 05-04-1992 13:38:27 # 342 *

Interface: 2 Cycle#: 162 Operator YM Channel#: 0 Vial#: N.A. *

Starting Peak Width: .2 Threshold: .05 Area Threshold: 5000 *

Instrument Type: HP 5890 Column Type: P:DB-608,C:DB-5 *

Solvent Description: HEXANE *

Conditions: INIT.T:140C,INIT.TIME:0.5,RATE:6/MIN,FINAL T:275C. *

Detector 0: ECD Detector 1: ECD *

Misc. Information: ZERO:1-10,2-10,ATTN.:1-1,2-1 NELSON 3390 * *

tarting Delay: 0.00 Ending retention time: 30.00

rea reject: 5000 One sample per 0.402 sec.

mount injected: 1.00 Dilution factor: 1.00

ample Weight: 1.00000

AK UM	RET TIME	PEAK NAME	CONCENTRATION in UG/ML	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
1	1.079		11130647.0000	53.4866%	11130647	958076	11.6	2			1.0000E+00
2	1.246		391684.2500	1.8822%	391684	91697	4.3	2			1.0000E+00
3	1.394		337808.2800	1.6233%	337808	80963	4.2	2			1.0000E+00
4	1.735		7815.8853	0.0376%	7816	2302	3.4	2			1.0000E+00
5	1.829		20504.4629	0.0985%	20504	3627	5.7	2			1.0000E+00
6	2.117		34486.9260	0.1657%	34487	7062	4.9	2			1.0000E+00
7	2.358		8357.3789	0.0402%	8357	2886	2.9	1			1.0000E+00
8	2.573		9336.8525	0.0449%	9337	3307	2.8	1			1.0000E+00
9	2.693		6585.1621	0.0316%	6585	1250	5.3	1			1.0000E+00
10	2.988		19373.2852	0.0931%	19373	4519	4.3	2			1.0000E+00
11	3.129		7523.1289	0.0362%	7523	2112	3.6	2			1.0000E+00
12	3.404		18845.7598	0.0906%	18846	3987	4.7	1			1.0000E+00
14	3.792		6359.8413	0.0306%	6360	1878	3.4	1			1.0000E+00
15	3.973		5099.7720	0.0245%	5100	1050	4.9	1			1.0000E+00
16	4.100		6013.1162	0.0289%	6013	1857	3.2	1			1.0000E+00
17	4.388		40690.0780	0.1955%	40690	9088	4.5	2			1.0000E+00
18	4.543		59921.7070	0.2879%	59922	12958	4.6	2			1.0000E+00
19	4.817		13799.4541	0.0663%	13799	4352	3.2	1			1.0000E+00
20	4.992		7543.1284	0.0362%	7543	2520	3.0	1			1.0000E+00
21	5.186		27009.1738	0.1298%	27009	5658	4.8	1			1.0000E+00
22	5.561		15692.4727	0.0754%	15692	3271	4.8	1			1.0000E+00
23	5.729		17428.3086	0.0837%	17428	4888	3.6	1			1.0000E+00
24	6.131		8130.3247	0.0391%	8130	1932	4.2	2			1.0000E+00
25	6.258		9379.2002	0.0451%	9379	2046	4.6	2			1.0000E+00
26	6.713		115189.0860	0.5535%	115189	22846	4.1	1			1.0000E+00
27	6.935		8145.7261	0.0391%	8146	1823	4.5	1			1.0000E+00
28	7.243		12162.9121	0.0584%	12163	2805	4.3	1			1.0000E+00
29	7.551		772228.6900	3.7108%	772229	189236	4.1	2			1.0000E+00
30	7.732		48898.3520	0.2350%	48898	10265	4.8	2			1.0000E+00
31	8.362		8972.4395	0.0431%	8972	1739	5.2	1			1.0000E+00
32	8.723		207159.7030	0.9955%	207160	46143	4.5	2			1.0000E+00
33	8.831		140543.3910	0.6754%	140543	29119	4.8	2			1.0000E+00
34	9.085		235345.2810	1.1309%	235345	49315	4.8	1			1.0000E+00
35	9.594		206964.5780	0.9945%	206965	46383	4.5	2			1.0000E+00
36	9.809		613590.1200	2.9485%	613590	138287	4.4	2			1.0000E+00
37	10.010		89957.6640	0.4323%	89958	20021	4.5	2			1.0000E+00
39	10.961		310576.4400	1.4924%	310576	55691	5.6	2			1.0000E+00
40	11.202		525582.3800	2.5256%	525582	90735	5.8	2			1.0000E+00
41	11.618		144545.3590	0.6946%	144545	18637	7.8	2			1.0000E+00
42	11.899		564836.8800	2.7142%	564837	106053	5.3	2			1.0000E+00

AP 1221

ΣA=3518688

25	6.258		9379.2002	0.0451%	9379	2046	4.6	2		1.0000E+00
26	6.713		115189.0860	0.5535%	115189	27846	4.1	1		1.0000E+00
27	6.935		8145.7261	0.0391%	8146	1823	4.5	1		1.0000E+00
28	7.243		12162.9121	0.0584%	12163	2805	4.3	1		1.0000E+00
29	7.551		772228.6900	3.7108%	772229	189236	4.1	2		1.0000E+00
30	7.732		48898.3520	0.2350%	48898	10265	4.8	2		1.0000E+00
31	8.362		8972.4395	0.0431%	8972	1739	5.2	1		1.0000E+00
32	8.723		207159.7030	0.9955%	207160	46543	4.5	2		1.0000E+00
33	8.831		140543.3910	0.6754%	140543	29119	4.8	2		1.0000E+00
34	9.085		235345.2810	1.1309%	235345	49315	4.8	1		1.0000E+00
35	9.594		206964.5780	0.9945%	206965	46383	4.5	2		1.0000E+00
36	9.809		613590.1200	2.9485%	613590	138287	4.4	2		1.0000E+00
37	10.010		89957.6640	0.4323%	89958	20021	4.5	2		1.0000E+00
39	10.961		310576.4400	1.4924%	310576	55691	5.6	2		1.0000E+00
40	11.202		525582.3800	2.5256%	525582	90735	5.8	2		1.0000E+00
41	11.618		144545.3590	0.6946%	144545	18637	7.8	2		1.0000E+00
42	11.899		564836.8800	2.7142%	564837	106053	5.3	2		1.0000E+00
43	12.161		242862.0780	1.1670%	242862	48272	5.0	2		1.0000E+00
44	12.402		629460.8800	3.0248%	629461	114118	5.5	2		1.0000E+00
45	12.924		152559.4530	0.7331%	152559	25863	5.9	2		1.0000E+00
46	13.152		36594.8520	0.1759%	36595	7163	5.1	2		1.0000E+00
47	13.346	ALDRIN	0.0516	0.0000%	255546	47672	5.4	3	47	0 2.0187E-07
48	13.594		13469.7061	0.0647%	13470	2887	4.7	4		1.0000E+00
49	13.728		81484.1560	0.3916%	81484	13761	5.9	2		1.0000E+00
50	14.104		74828.7580	0.3596%	74829	11423	6.6	2		1.0000E+00
51	14.278		10308.8379	0.0495%	10309	2489	4.1	2		1.0000E+00
52	14.405		73340.4770	0.3524%	73340	9528	7.7	2		1.0000E+00
53	14.606		44877.2700	0.2157%	44877	9718	4.6	2		1.0000E+00
54	14.861		22952.1914	0.1103%	22952	3408	6.7	1		1.0000E+00
55	15.343		71613.6410	0.3441%	71614	12785	5.6	2		1.0000E+00
56	15.484		21349.0215	0.1026%	21349	4760	4.5	2		1.0000E+00
57	15.651		2941293.2000	14.1339%	2941293	657620	4.5	1		1.0000E+00
58	16.241	ENDOSULFAN I	0.0106	0.0000%	47530	9355	5.1	2	58	0 2.2284E-07
59	16.395		35839.7580	0.1722%	35840	6146	5.8	2		1.0000E+00
60	16.629		15692.5352	0.0754%	15693	2935	5.3	2		1.0000E+00
61	16.777		9592.5244	0.0461%	9593	2248	4.3	2		1.0000E+00
62	17.072	4,4-DDE	0.0059	0.0000%	16771	4237	4.0	1	62	0 3.5040E-07
63	17.608		37952.8200	0.1824%	37953	6303	6.0	1		1.0000E+00
64	17.835		10471.6982	0.0503%	10472	2399	4.4	1		1.0000E+00
65	18.110		19531.5723	0.0939%	19532	3841	5.1	1		1.0000E+00
66	18.358	ENDRIN	0.0039	0.0000%	7582	1305	5.8	1	66	0 5.1377E-07
67	19.169		14835.6094	0.0713%	14836	1957	7.6	1		1.0000E+00
69	20.060	ENDRIN ALDEHYDE	0.0078	0.0000%	34905	5691	6.1	2	69	0 2.2253E-07
70	20.267		20098.4805	0.0966%	20098	3913	5.1	2		1.0000E+00
71	21.045		14432.5420	0.0694%	14433	2532	5.7	2		1.0000E+00

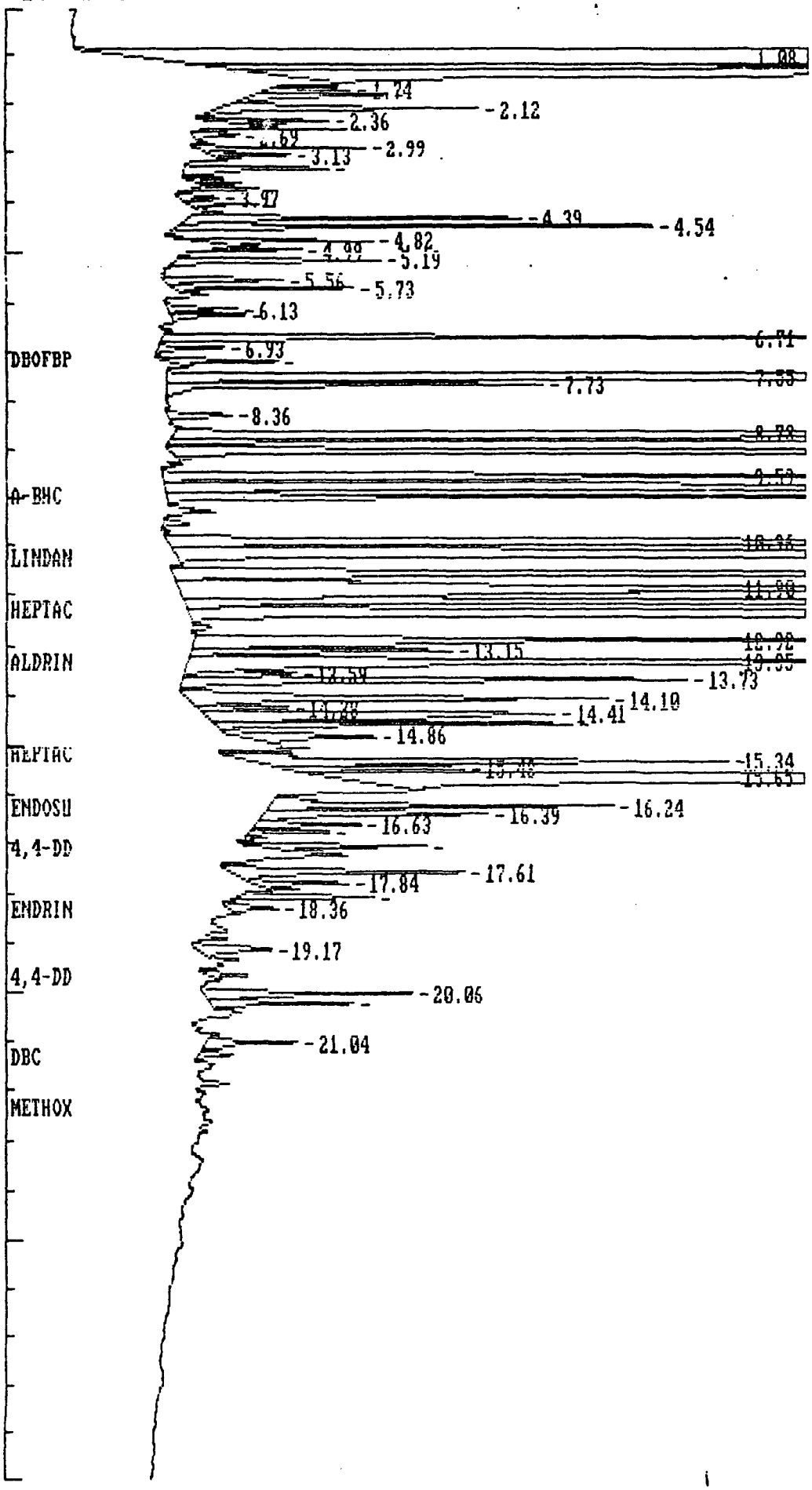
TOTAL AMOUNT = 20810170.0000

AR1221 = 8.859 × 5/0.5 = 88.6 mg/L

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
DBOFBP	7.13	DBOFBP
A-BHC	9.94	A-BHC
LINDANE	11.26	LINDANE
B-BHC	11.53	B-BHC
HEPTACHLOR	12.31	HEPTACHLOR
D-BHC	12.73	D-BHC
HEPTACHLOR EPOXIDE	15.19	HEPTACHLOR EPOXIDE
DIELDRIN	17.24	DIELDRIN
4,4-DDD	18.79	4,4-DDD
ENDOSULFAN II	18.93	ENDOSULFAN II
4,4-DDT	19.69	4,4-DDT
ENDOSULFAN SULFATE	20.44	ENDOSULFAN SULFATE
DBC	21.30	DBC
METHOXYCHLOR	22.36	METHOXYCHLOR

Start time: 0.00 min. Stop time: 30.00 min. Offset: 0 mV.
Full Range: 20 millivolts



***** EXTERNAL STANDARD TABLE *****

********** 05-11-1992 07:59:15 Version 5.1.2 **********

Sample Name: PCB 20498707 MS2X1 5/1 Data File: F:A8PST163

Date: 05-08-1992 13:11:28 Method: F:A8PST 05-04-1992 13:38:27 # 342

Interface: 2 Cycle#: 163 Operator YM Channel#: 0 Vial#: N.A.

Starting Peak Width: .2 Threshold: .05 Area Threshold: 5000

Instrument Type: HP 5890 Column Type: P:DB-608,C:DB-5

Solvent Description: HEXANE

Conditions: INIT.T:140C,INIT.TIME:0.5,RATE:6/MIN,FINAL T:275C.

Detector 0: ECD Detector 1: ECD

Misc. Information: ZERO:1-10,2-10,ATTN.:1-1,2-1 NELSON 3390

tarting Delay: 0.00 Ending retention time: 30.00

rea reject: 5000 One sample per 0.402 sec.

mount injected: 1.00 Dilution factor: 1.00

ample Weight: 1.00000

AK UM	RET TIME	PEAK NAME	CONCENTRATION in UG/ML	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
1	1.079		10745415.0000	50.1746%	10745415	958290	11.2	2			1.0000E+00
2	1.246		485806.2500	2.2684%	485806	107055	4.5	2			1.0000E+00
3	1.394		397687.9100	1.8570%	397688	98979	4.0	2			1.0000E+00
4	1.729		16828.4492	0.0786%	16828	5193	3.2	2			1.0000E+00
5	1.843		41005.6840	0.1915%	41006	7631	5.4	2			1.0000E+00
6	2.117		30414.1152	0.1420%	30414	8679	3.5	1			1.0000E+00
7	2.365		49468.9840	0.2310%	49469	14291	3.5	2			1.0000E+00
8	2.452		32214.1641	0.1504%	32214	7367	4.4	2			1.0000E+00
9	2.573		17512.9863	0.0818%	17513	4574	3.8	2			1.0000E+00
0	2.700		8687.1953	0.0406%	8687	1752	5.0	2			1.0000E+00
1	2.988		24167.7383	0.1128%	24168	5354	4.5	2			1.0000E+00
2	3.129		7240..312	0.0338%	7241	2051	3.5	2			1.0000E+00
3	3.410		26108.2422	0.1219%	26108	4874	5.4	2			1.0000E+00
4	3.698		19072.8281	0.0891%	19073	3842	5.0	2			1.0000E+00
5	3.792		17033.6699	0.0795%	17034	4454	3.8	2			1.0000E+00
6	3.973		7027.7515	0.0328%	7028	1372	5.1	2			1.0000E+00
7	4.100		13080.6152	0.0611%	13081	3414	3.8	2			1.0000E+00
8	4.355		208136.0310	0.9719%	208136	28761	7.2	2			1.0000E+00
9	4.536		59368.1410	0.2772%	59368	11557	5.1	2			1.0000E+00
0	4.817		22302.7598	0.1041%	22303	6852	3.3	1			1.0000E+00
1	4.992		8407.4277	0.0393%	8407	2827	3.0	1			1.0000E+00
2	5.186		29917.6191	0.1397%	29918	6368	4.7	1			1.0000E+00
3	5.561		6899.5264	0.0322%	6900	1387	5.0	1			1.0000E+00
4	5.729		19069.2734	0.0890%	19069	5337	3.6	1			1.0000E+00
5	6.131		8864.1504	0.0414%	8864	2149	4.1	2			1.0000E+00
6	6.258		10574.9619	0.0494%	10575	2357	4.5	2			1.0000E+00
7	6.713		48885.6640	0.2283%	48886	11882	4.1	2			1.0000E+00
8	6.935		8735.3975	0.0408%	8735	1997	4.4	2			1.0000E+00
9	7.243		11906.2354	0.0556%	11906	2666	4.5	1			1.0000E+00
0	7.551		803566.5000	3.7522%	803567	198063	4.1	2			1.0000E+00
1	7.732		31877.3203	0.1488%	31877	6606	4.8	2			1.0000E+00
2	8.362		9341.8770	0.0436%	9342	1467	6.4	2			1.0000E+00
3	8.723		215006.4380	1.0039%	215006	46573	4.6	2			1.0000E+00
4	8.831		142339.0470	0.6646%	142339	29518	4.8	2			1.0000E+00
5	9.085		172158.3590	0.8039%	172158	35379	4.9	2			1.0000E+00
6	9.286		23434.4766	0.1094%	23434	4769	4.9	2			1.0000E+00
7	9.594		178171.7660	0.8320%	178172	39569	4.5	2			1.0000E+00
8	9.802		559944.5000	2.6146%	559945	126279	4.4	2			1.0000E+00
9	10.010		65487.0700	0.3058%	65487	14455	4.5	2			1.0000E+00
0	10.331		9684.8584	0.0452%	9685	1372	7.1	2			1.0000E+00
1	10.955		310163.7200	1.4483%	310164	58891	5.3	2			1.0000E+00

35	9.085		172158.3590	0.8039%	172158	35379	4.9	2			1.0000E+00
36	9.286		23434.4766	0.1094%	23434	4769	4.9	2			1.0000E+00
37	9.594		178171.7660	0.8320%	178172	39569	4.5	2			1.0000E+00
38	9.802		559944.5000	2.6146%	559945	126279	4.4	2			1.0000E+00
39	10.010		65487.0700	0.3058%	65487	14455	4.5	2			1.0000E+00
40	10.331		9684.8584	0.0452%	9685	1372	7.1	2			1.0000E+00
41	10.955		310163.7200	1.4483%	310164	58891	5.3	2			1.0000E+00
42	11.202		685962.1900	3.2030%	685962	125503	5.5	2			1.0000E+00
43	11.571	B-BHC	0.0562	0.0000%	163999	21255	7.7	1	43	0	3.4251E-07
44	11.899		436643.9700	2.0389%	436644	106049	4.1	1			1.0000E+00
45	12.161		297386.7500	1.3886%	297387	62184	4.8	1			1.0000E+00
46	12.395	HEPTACHLOR	0.1605	0.0000%	900912	156834	5.7	1	43	.3577	1.7814E-07
47	12.918		274073.1900	1.2798%	274073	49094	5.6	2			1.0000E+00
48	13.145		44117.4140	0.2060%	44117	9438	4.7	2			1.0000E+00
49	13.346	ALDRIN	0.0432	0.0000%	212612	54268	3.9	1	49	0	2.0322E-07
50	13.588		65464.4220	0.3057%	65464	13972	4.7	2			1.0000E+00
51	13.715		135107.1720	0.6309%	135107	18450	7.3	2			1.0000E+00
52	14.104		89137.1480	0.4162%	89137	13186	6.8	2			1.0000E+00
53	14.278		11206.4668	0.0523%	11206	2711	4.1	2			1.0000E+00
54	14.465		207825.3440	0.9704%	207825	27039	7.7	2			1.0000E+00
55	14.599		90291.2270	0.4216%	90291	18023	5.0	2			1.0000E+00
56	14.861		130169.6800	0.6078%	130170	17899	7.3	2			1.0000E+00
57	15.015		37853.2110	0.1768%	37853	8217	4.6	2			1.0000E+00
58	15.109		74782.0160	0.3492%	74782	15087	5.0	2			1.0000E+00
59	15.289		188579.0160	0.8805%	188579	25384	7.4	2			1.0000E+00
60	15.477		159011.6090	0.7425%	159012	31392	5.1	2			1.0000E+00
61	15.651		3109699.5000	14.5204%	3109700	674996	4.6	3			1.0000E+00
62	15.933		63181.5120	0.2950%	63182	8739	7.2	4			1.0000E+00
63	16.234		75384.5080	0.3520%	75385	10691	7.1	2			1.0000E+00
64	16.355	ENDOSULFAN I	0.0353	0.0000%	150677	26168	5.8	2	64	0	2.3420E-07
65	16.629		18542.0996	0.0866%	18542	3424	5.4	2			1.0000E+00
66	16.784		23923.8379	0.1117%	23924	5307	4.5	2			1.0000E+00
67	17.065	4,4-DDE	0.0113	0.0000%	39142	6551	6.0	2	67	0	2.8820E-07
68	17.226	DIELDRIN	0.0123	0.0000%	45634	5980	7.6	2	68	0	2.6889E-07
69	17.420		19028.0176	0.0888%	19028	4222	4.5	2			1.0000E+00
70	17.581		65115.0820	0.3040%	65115	8903	7.3	2			1.0000E+00
71	17.916		47402.2340	0.2213%	47402	6287	7.5	2			1.0000E+00
72	18.110		14929.6143	0.0697%	14930	2568	5.8	2			1.0000E+00
73	18.278	ENDRIN	0.0057	0.0000%	14693	2936	5.0	2	68	-.4236	3.8946E-07
74	19.216		35607.1520	0.1663%	35607	5443	6.5	1			1.0000E+00
76	20.060	ENDRIN ALDEHYDE	0.0072	0.0000%	33131	5032	6.6	2	76	0	2.1706E-07
77	20.261		27278.9668	0.1274%	27279	4954	5.5	2			1.0000E+00
78	20.442	ENDOSULFAN SULFATE	0.0062	0.0000%	27139	4100	6.6	2	78	0	2.2855E-07
79	21.045		24419.8926	0.1140%	24420	4085	6.0	1			1.0000E+00
80	21.909		6883.0439	0.0321%	6883	1301	5.3	1			1.0000E+00
81	23.611		54034.8320	0.2523%	54035	3043	17.8	1			1.0000E+00

TOTAL AMOUNT = 21416060.0000

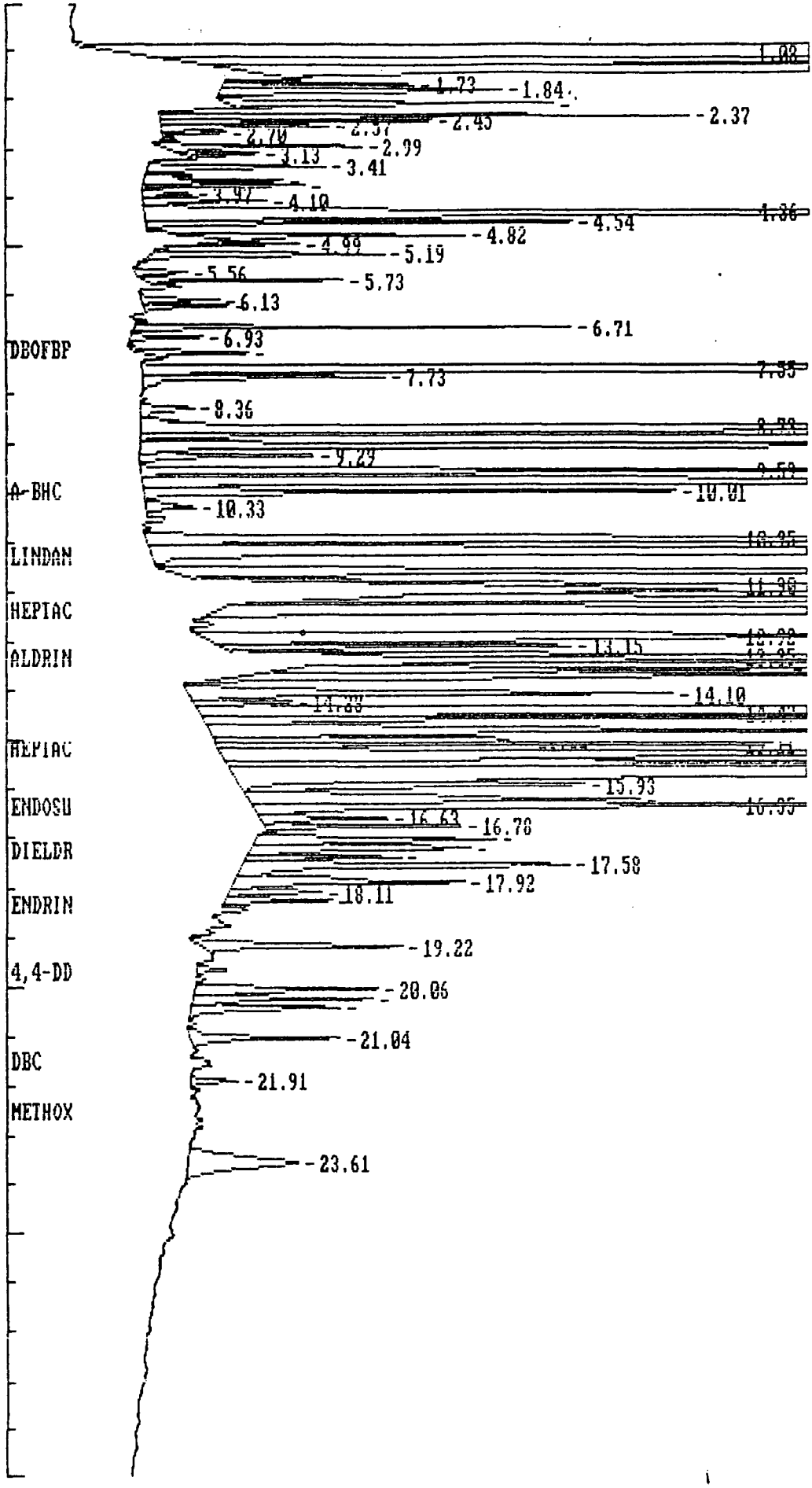
AR1242 = 1.662 × 5/0.5 = 16.6 mg/L

AR1242
ΣA = 1463194

PEAKS NOT FOUND IN THIS RUN

AME	ADJUSTED RET.TIME.	REFERENCE PEAK
BOFBP	7.13	DBOFBP
-BHC	9.94	A-BHC
INDANE	11.26	LINDANE
-BHC	12.77	D-BHC
EPTACHLOR EPOXIDE	15.19	HEPTACHLOR EPOXIDE
,4-DDD	18.78	4,4-DDD
NDOSULFAN II	18.92	ENDOSULFAN II
,4-DDT	19.69	4,4-DDT
BC	21.45	DBC
ETHOXYCHLOR	22.52	METHOXYCHLOR
NDRIN KETONE	22.77	ENDRIN KETONE

Full Range: 20 millivolts



***** EXTERNAL STANDARD TABLE *****

********** 05-11-1992 08:01:19 Version 5.1.2 **********

Sample Name: PCB 20498708 MS1X1 5/1 Data File: F:A8PST164

Date: 05-08-1992 13:46:25 Method: F:A8PST 05-04-1992 13:38:27 # 342

Interface: 2 Cycle#: 164 Operator YM Channel#: 0 Vial#: N.A.

Starting Peak Width: .2 Threshold: .05 Area Threshold: 5000

Instrument Type: HP 5890 Column Type: P:DB-608,C:DB-5

Solvent Description: HEXANE

Conditions: INIT.T:140C,INIT.TIME:0.5,RATE:6/MIN,FINAL T:275C.

Detector 0: ECD Detector 1: ECD

Misc. Information: ZERO:1-10,2-10,ATTN.:1-1,2-1 NELSON 3390

tarting Delay: 0.00 Ending retention time: 30.00

rea reject: 5000 One sample per 0.402 sec.

mount injected: 1.00 Dilution factor: 1.00

ample Weight: 1.00000

AK UN	RET TIME	PEAK NAME	CONCENTRATION in UG/ML	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
1	1.085		11520844.0000	49.3739%	11520844	959252	12.0	2			1.0000E+00
2	1.246		525626.5000	2.2528%	525627	124811	4.2	2			1.0000E+00
3	1.394		544357.6200	2.3331%	544358	114663	4.7	2			1.0000E+00
4	1.729		48482.1050	0.2078%	48482	12380	3.9	2			1.0000E+00
5	1.829		30653.7812	0.1314%	30654	5436	5.6	2			1.0000E+00
6	2.117		37185.4300	0.1594%	37185	10117	3.7	2			1.0000E+00
7	2.365		23406.0488	0.1003%	23406	7624	3.1	1			1.0000E+00
8	2.714		7673.7783	0.0329%	7674	1783	4.3	1			1.0000E+00
9	2.988		24119.2090	0.1034%	24119	5469	4.4	1			1.0000E+00
	3.444		8776.6523	0.0376%	8777	1871	4.7	1			1.0000E+00
	3.698		7733.7832	0.0331%	7734	2338	3.3	2			1.0000E+00
	3.792		20143.5039	0.0863%	20144	5501	3.7	2			1.0000E+00
	3.980		6924.8145	0.0297%	6925	1735	4.0	2			1.0000E+00
	4.094		17144.1387	0.0735%	17144	5358	3.2	2			1.0000E+00
	4.388		50749.8520	0.2175%	50750	11667	4.3	2			1.0000E+00
	4.536		70924.6950	0.3040%	70925	14443	4.9	2			1.0000E+00
	4.817		48231.7460	0.2067%	48232	8265	5.8	2			1.0000E+00
	4.992		14021.3457	0.0601%	14021	3308	4.2	2			1.0000E+00
	5.193		46514.4410	0.1994%	46514	9768	4.8	2			1.0000E+00
	5.554		11305.7725	0.0485%	11306	2290	4.9	2			1.0000E+00
	5.729		7845.0928	0.0336%	7845	2148	3.7	2			1.0000E+00
	6.131		10166.1660	0.0436%	10166	1815	5.6	2			1.0000E+00
	6.258		13601.2939	0.0583%	13601	2212	6.1	2			1.0000E+00
	6.713		193487.5940	0.8293%	193488	46768	4.1	2			1.0000E+00
	6.928		14600.8916	0.0626%	14601	2809	5.2	2			1.0000E+00
	7.243		6874.6021	0.0295%	6875	1803	3.8	1			1.0000E+00
	7.551		790623.7500	3.3885%	790624	195934	4.0	2			1.0000E+00
	7.725		76216.9690	0.3267%	76217	16562	4.6	2			1.0000E+00
	8.723		257674.2660	1.1044%	257674	58368	4.4	2			1.0000E+00
	8.824		328738.8100	1.4089%	328739	67458	4.9	2			1.0000E+00
	9.079		597944.4400	2.5627%	597944	124123	4.8	1			1.0000E+00
	9.588		554921.5000	2.3783%	554922	124192	4.5	2			1.0000E+00
	9.802		1743453.3800	7.4723%	1743453	403547	4.3	2			1.0000E+00
	10.010		238278.0940	1.0212%	238278	53880	4.4	2			1.0000E+00
	10.331		5706.7920	0.0245%	5707	1642	3.5	1			1.0000E+00
	10.539		10339.0635	0.0443%	10339	1589	6.5	1			1.0000E+00

AR 1221

ΣA = 6711310

18	4.992		14021.3457	0.0001%	14021	3300	4.2	2		1.0000E+00
19	5.193		46514.4410	0.1994%	46514	9768	4.8	2		1.0000E+00
20	5.554		11305.7725	0.0485%	11306	2290	4.9	2		1.0000E+00
21	5.729		7845.0928	0.0336%	7845	2148	3.7	2		1.0000E+00
22	6.131		10166.1660	0.0436%	10166	1815	5.6	2		1.0000E+00
23	6.258		13601.2939	0.0583%	13601	2212	6.1	2		1.0000E+00
24	6.713		193487.5940	0.8293%	193488	46768	4.1	2		1.0000E+00
25	6.928		14600.8916	0.0626%	14601	2809	5.2	2		1.0000E+00
26	7.243		6874.6021	0.0295%	6875	1803	3.8	1		1.0000E+00
27	7.551		790623.7500	3.3885%	790624	195984	4.0	2		1.0000E+00
28	7.725		76216.9690	0.3267%	76217	16502	4.6	2		1.0000E+00
30	8.723		257674.2660	1.1044%	257674	58368	4.4	2		1.0000E+00
31	8.824		328738.8100	1.4089%	328739	67458	4.9	2		1.0000E+00
32	9.079		597944.4400	2.5627%	597944	124123	4.8	1		1.0000E+00
33	9.588		554921.5000	2.3783%	554922	124192	4.5	2		1.0000E+00
34	9.802		1743453.3800	7.4723%	1743453	403543	4.3	2		1.0000E+00
35	10.010		238278.0940	1.0212%	238278	53880	4.4	2		1.0000E+00
36	10.331		5706.7920	0.0245%	5707	1642	3.5	1		1.0000E+00
37	10.539		10339.0635	0.0443%	10339	1589	6.5	1		1.0000E+00
38	10.955		363927.0900	1.5598%	363927	62490	5.8	2		1.0000E+00
39	11.196		1069733.6200	4.5848%	1069734	192991	5.5	2		1.0000E+00
40	11.564	B-BHC	0.0626	0.0000%	181480	26111	7.0	1	40	0 3.4478E-07
41	11.899		332542.2500	1.4252%	332542	81659	4.1	1		1.0000E+00
42	12.161		445668.0600	1.9101%	445668	95401	4.7	1		1.0000E+00
43	12.395	HEPTACHLOR	0.1106	0.0000%	622492	106819	5.8	1	40	.4159 1.7763E-07
44	12.697	D-BHC	0.0040	0.0000%	6152	896	6.9	1	44	0 6.5567E-07
45	12.918		218774.0780	0.9376%	218774	37056	5.9	2		1.0000E+00
46	13.145		40963.5390	0.1756%	40964	8116	5.0	2		1.0000E+00
47	13.346	ALDRIN	0.0549	0.0000%	272668	47615	5.7	2	47	0 2.0146E-07
48	13.588		31611.1191	0.1355%	31611	6172	5.1	2		1.0000E+00
49	13.722		89874.6800	0.3852%	89875	13626	6.6	2		1.0000E+00
50	14.104		71199.4300	0.3052%	71199	10318	6.9	1		1.0000E+00
51	14.278		5527.5000	0.0237%	5528	1757	3.1	1		1.0000E+00
52	14.405		15511.1699	0.0665%	15511	3744	4.1	1		1.0000E+00
53	14.599		22834.2031	0.0979%	22834	5723	4.0	1		1.0000E+00
54	14.861		53043.5000	0.2273%	53044	8158	6.5	1		1.0000E+00
55	15.109		23481.4980	0.1006%	23481	3629	6.5	2		1.0000E+00
56	15.283		20432.5684	0.0876%	20433	2645	7.7	2		1.0000E+00
57	15.484		43356.5200	0.1858%	43357	9786	4.4	2		1.0000E+00
58	15.651		2383962.2000	10.2175%	2383962	527457	4.5	2		1.0000E+00
59	16.241	ENDOSULFAN I	0.0062	0.0000%	29240	5038	5.8	2	59	0 2.1247E-07
60	16.361		42571.3480	0.1825%	42571	6568	6.5	2		1.0000E+00
61	16.609		21731.3535	0.0931%	21731	3697	5.9	2		1.0000E+00
62	16.777		9649.4951	0.0414%	9649	1819	5.3	2		1.0000E+00
63	17.259	DIELDRIN	0.0055	0.0000%	15566	2091	7.4	1	63	0 3.5086E-07
64	17.561		16060.3027	0.0688%	16060	2085	7.7	1		1.0000E+00
65	17.822		7809.2520	0.0335%	7809	1637	4.8	1		1.0000E+00
66	18.103		15910.7588	0.0682%	15911	3177	5.0	1		1.0000E+00
67	18.358	ENDRIN	0.0041	0.0000%	8209	1514	5.4	1	67	0 4.9412E-07
69	20.060	ENDRIN ALDEHYDE	0.0059	0.0000%	29124	4484	6.5	2	69	0 2.0223E-07
70	20.261		31493.4473	0.1350%	31493	4848	6.5	2		1.0000E+00
71	20.442	ENDOSULFAN SULFATE	0.0021	0.0000%	13058	1781	7.3	2	71	0 1.5840E-07
72	21.293		6087.4863	0.0261%	6087	1163	5.2	1		1.0000E+00
73	23.611		33985.8870	0.1457%	33986	1847	18.4	1		1.0000E+00

AR1221.
ΣA = 6711310

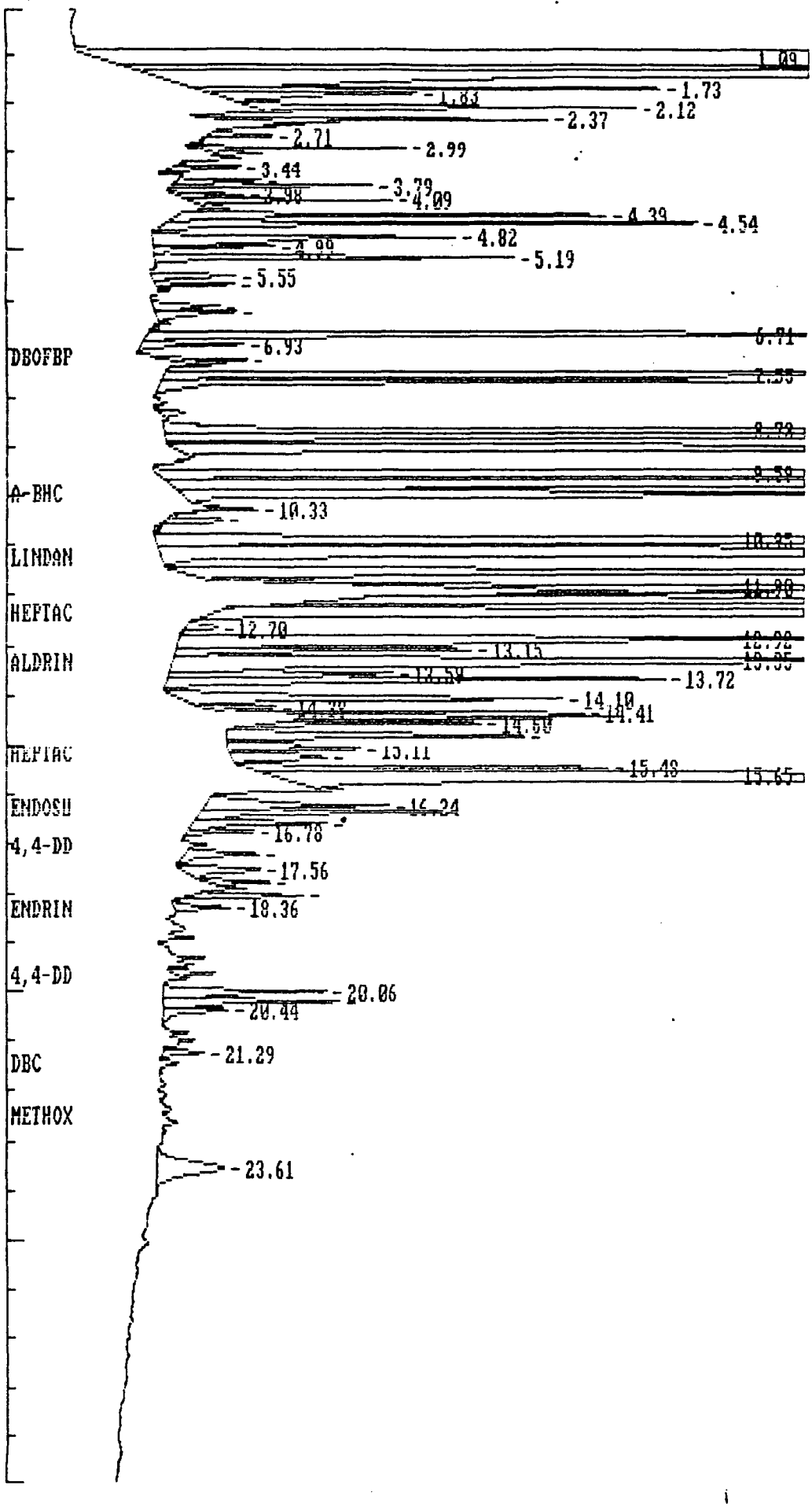
AR1221 = 17.29 × 5/0.5 = 173 ng/L

TOTAL AMOUNT = 23332242.0000

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
DBOFBP	7.13	DBOFBP
A-BHC	9.94	A-BHC
LINDANE	11.26	LINDANE
HEPTACHLOR EPOXIDE	15.19	HEPTACHLOR EPOXIDE
4,4-DDE	17.04	4,4-DDE

11 Range: 20 millivolts



***** EXTERNAL STANDARD TABLE *****

********** 05-11-1992 08:03:11 Version 5.1.2 **********

Sample Name: PCB 20498708 MS2X1 5/1 Data File: F:A8PST165

Date: 05-08-1992 14:21:26 Method: F:A8PST 05-04-1992 13:38:27 # 342

Interface: 2 Cycle#: 165 Operator YM Channel#: 0 Vial#: N.A.

Starting Peak Width: .2 Threshold: .05 Area Threshold: 5000

Instrument Type: HP 5890 Column Type: P:DB-608,C:DB-5

Solvent Description: HEXANE

Conditions: INIT.T:140C,INIT.TIME:0.5,RATE:6/MIN,FINAL T:275C.

Detector 0: ECD Detector 1: ECD

Misc. Information: ZERO:1-10,2-10,ATTN.:1-1,2-1 NELSON 3390

Starting Delay: 0.00 Ending retention time: 30.00

Area reject: 5000 One sample per 0.402 sec.

Amount injected: 1.00 Dilution factor: 1.00

Sample Weight: 1.00000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/ML	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
1	1.092		11728032.0000	47.6422%	11728032	958856	12.2	2			1.0000E+00
2	1.246		514537.9100	2.0902%	514538	118430	4.3	2			1.0000E+00
3	1.394		507489.5300	2.0615%	507490	106013	4.8	2			1.0000E+00
4	1.729		32175.0391	0.1307%	32175	8235	3.9	2			1.0000E+00
5	1.829		23299.8320	0.0946%	23300	5791	4.0	2			1.0000E+00
6	2.117		33397.1560	0.1357%	33397	9078	3.7	1			1.0000E+00
7	2.358		15676.5938	0.0637%	15677	5336	2.9	1			1.0000E+00
8	2.714		11224.2422	0.0456%	11224	2529	4.4	1			1.0000E+00
9	2.988		23550.7695	0.0957%	23551	5449	4.3	1			1.0000E+00
10	3.444		8442.0000	0.0343%	8442	1718	4.9	1			1.0000E+00
11	3.705		7032.9902	0.0286%	7033	2180	3.2	2			1.0000E+00
12	3.792		15603.8311	0.0634%	15604	4209	3.7	2			1.0000E+00
13	3.987		6968.3057	0.0283%	6968	1703	4.1	2			1.0000E+00
14	4.094		14929.8408	0.0606%	14930	4723	3.2	2			1.0000E+00
15	4.388		68961.3590	0.2801%	68961	12678	5.4	2			1.0000E+00
16	4.536		68582.1410	0.2786%	68582	14036	4.9	2			1.0000E+00
17	4.817		32849.8320	0.1334%	32850	6653	4.9	1			1.0000E+00
18	5.193		31380.5234	0.1275%	31381	6484	4.8	1			1.0000E+00
19	5.561		10777.2188	0.0438%	10777	2214	4.9	2			1.0000E+00
20	5.729		7360.0171	0.0299%	7360	2083	3.5	2			1.0000E+00
21	6.131		5446.8989	0.0221%	5447	1228	4.4	1			1.0000E+00
22	6.713		121208.6090	0.4924%	121209	29199	4.2	2			1.0000E+00
23	6.928		13418.4082	0.0545%	13418	2703	5.0	2			1.0000E+00
24	7.243		6724.6562	0.0273%	6725	1772	3.8	1			1.0000E+00
25	7.551		763697.1200	3.1023%	763697	189324	4.0	2			1.0000E+00
26	7.732		50290.5780	0.2043%	50291	10812	4.7	2			1.0000E+00
28	8.723		233498.3910	0.9485%	233498	55007	4.2	2			1.0000E+00
29	8.831		310580.4700	1.2617%	310580	63427	4.9	2			1.0000E+00
30	9.079		516189.5300	2.0969%	516190	106820	4.8	1			1.0000E+00
31	9.588		507595.4700	2.0620%	507595	113159	4.5	2			1.0000E+00
32	9.802		1627669.8800	6.6120%	1627670	374345	4.3	2			1.0000E+00
33	10.010		206708.7810	0.8397%	206709	46512	4.4	2			1.0000E+00
34	10.331		5658.5522	0.0230%	5659	1588	3.6	1			1.0000E+00
35	10.532		8600.5889	0.0349%	8601	1421	6.1	1			1.0000E+00
36	10.955		348294.8100	1.4149%	348295	63263	5.5	2			1.0000E+00
37	11.202		1128618.2500	4.5847%	1128618	209753	5.4	2			1.0000E+00
38	11.564	B-BHC	0.0704	0.0000%	202766	28593	7.1	2	38	0	3.4701E-07
39	11.899		487120.4100	1.9788%	487120	98203	5.0	2			1.0000E+00
40	12.006		82589.2270	0.3355%	82589	21810	3.8	2			1.0000E+00
41	12.161		534183.2500	2.1700%	534183	106968	5.0	2			1.0000E+00

37	11.202		1128618.2500	4.5847%	1128618	209753	5.4	2			1.0000E+00
38	11.564	B-BHC	0.0704	0.0000%	202766	28593	7.1	2	38	0	3.4701E-07
39	11.899		487120.4100	1.9788%	487120	98203	5.0	2			1.0000E+00
40	12.006		82589.2270	0.3355%	82589	21810	3.8	2			1.0000E+00
41	12.161		534183.2500	2.1700%	534183	106968	5.0	2			1.0000E+00
42	12.395	HEPTACHLOR	0.1529	0.0000%	858730	142181	6.0	3	38	.4159	1.7809E-07
43	12.697	D-BHC	0.0045	0.0000%	8636	1140	7.6	4	43	0	5.1809E-07
44	12.918		302282.5300	1.2279%	302283	53635	5.6	2			1.0000E+00
45	13.145		44546.6520	0.1810%	44547	9675	4.6	2			1.0000E+00
46	13.346	ALDRIN	0.0379	0.0000%	185173	48010	3.9	1	46	0	2.0441E-07
47	13.588		77184.3910	0.3135%	77184	16203	4.8	2			1.0000E+00
48	13.715		136803.6560	0.5557%	136804	17621	7.8	2			1.0000E+00
49	14.110		87537.6880	0.3556%	87538	12131	7.2	2			1.0000E+00
50	14.278		12892.1777	0.0524%	12892	2976	4.3	2			1.0000E+00
51	14.465		226518.9380	0.9202%	226519	30241	7.5	2			1.0000E+00
52	14.599		90255.6640	0.3666%	90256	16559	5.5	2			1.0000E+00
53	14.861		166659.8750	0.6770%	166660	22700	7.3	2			1.0000E+00
54	15.021		48008.7700	0.1950%	48009	10199	4.7	2			1.0000E+00
55	15.109		90130.8360	0.3661%	90131	18320	4.9	2			1.0000E+00
56	15.283		146920.0470	0.5968%	146920	26261	5.6	2			1.0000E+00
57	15.477		184754.6880	0.7505%	184755	36263	5.1	2			1.0000E+00
58	15.651		2454885.8000	9.9724%	2454886	527949	4.6	3			1.0000E+00
59	15.939		65510.5940	0.2661%	65511	8870	7.4	4			1.0000E+00
60	16.241		58132.3790	0.2361%	58132	6292	9.2	2			1.0000E+00
61	16.355	ENDOSULFAN I	0.0391	0.0000%	166504	30818	5.5	3	61	0	2.3470E-07
62	16.609		26594.9453	0.1080%	26595	4290	6.2	4			1.0000E+00
63	16.784		34309.4800	0.1394%	34309	5610	6.1	2			1.0000E+00
64	17.025		28140.5527	0.1143%	28141	4313	6.5	2			1.0000E+00
65	17.226	DIELDRIN	0.0107	0.0000%	38712	5836	6.6	2	65	0	2.7648E-07
66	17.420		25358.1914	0.1030%	25358	5205	4.9	2			1.0000E+00
67	17.554		47698.8090	0.1938%	47699	8217	5.8	2			1.0000E+00
68	17.916		56630.0200	0.2300%	56630	6899	8.2	2			1.0000E+00
69	18.110		12698.8164	0.0516%	12699	2078	6.1	2			1.0000E+00
70	18.278	ENDRIN	0.0056	0.0000%	14280	2850	5.0	2	65	-.4236	3.9329E-07
71	18.800	4,4-DDD	0.0033	0.0000%	5442	482	11.3	1	71	0	6.0639E-07
72	19.222		23647.0469	0.0961%	23647	4978	4.8	1			1.0000E+00
74	20.060	ENDRIN ALDEHYDE	0.0049	0.0000%	26083	4039	6.5	2	74	0	1.8793E-07
75	20.261		33578.6330	0.1364%	33579	5210	6.4	2			1.0000E+00
76	20.442	ENDOSULFAN SULFATE	0.0024	0.0000%	14193	2050	6.9	2	76	0	1.6921E-07
77	21.045		5125.1108	0.0208%	5125	841	6.1	1			1.0000E+00
78	23.618		9756.9424	0.0396%	9757	557	17.5	1			1.0000E+00

AR1242.
$\Sigma A = 15\,46129$

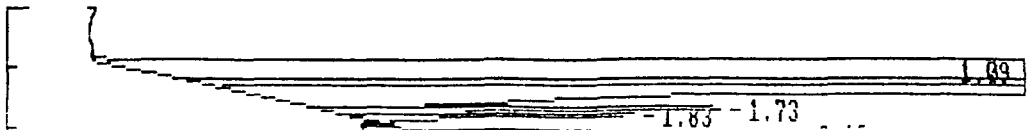
TOTAL AMOUNT = 24616920.0000

$AR1242 = 1.771 \times 5/0.5 = 17.7$ mg/L

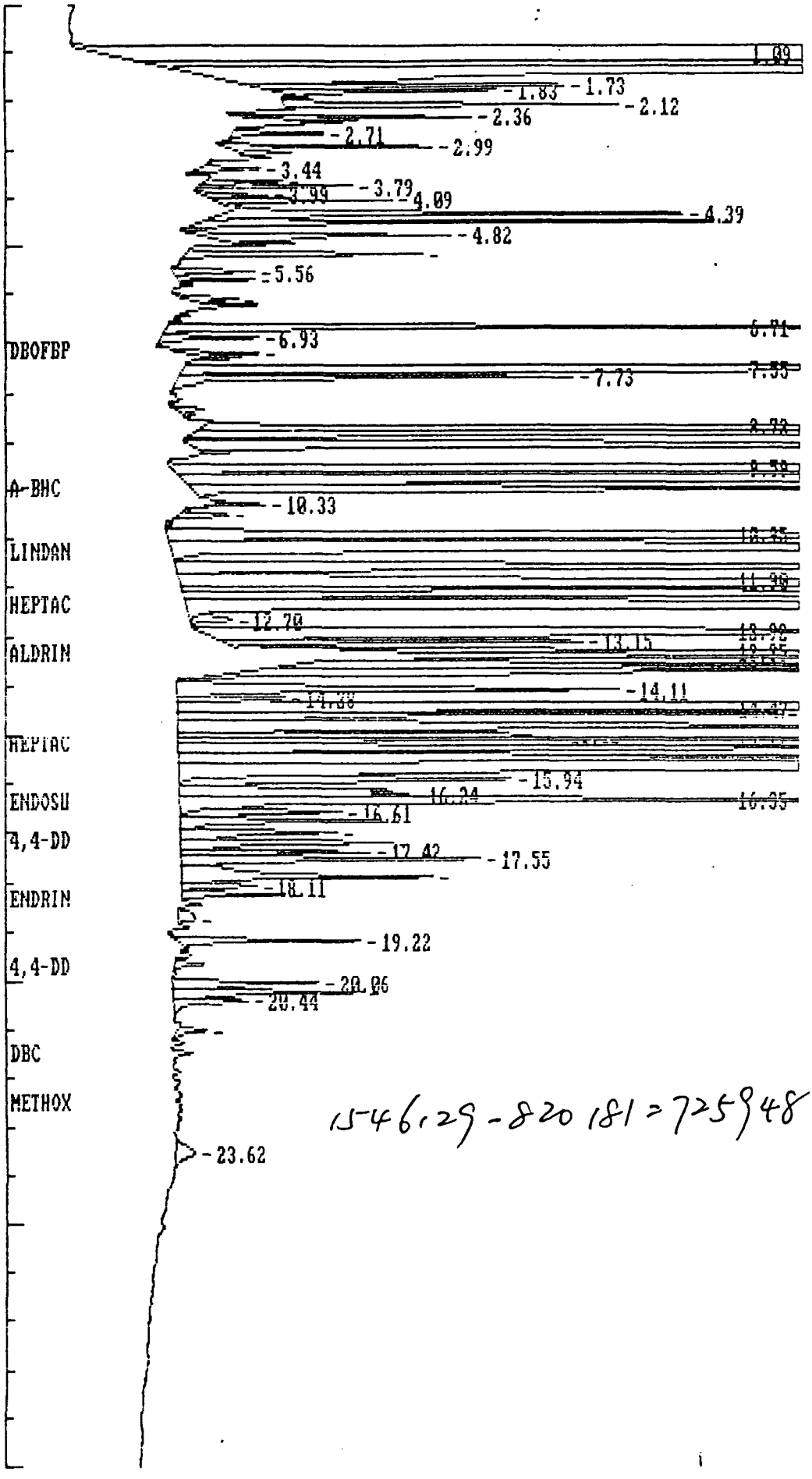
PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
DBOFBP	7.13	DBOFBP
A-BHC	9.94	A-BHC
LINDANE	11.26	LINDANE
HEPTACHLOR EPOXIDE	15.19	HEPTACHLOR EPOXIDE
4,4-DDE	17.16	4,4-DDE
ENDOSULFAN II	18.94	ENDOSULFAN II
4,4-DDT	19.69	4,4-DDT
DBC	21.45	DBC
METHOXYCHLOR	22.52	METHOXYCHLOR
ENDRIN KETONE	22.77	ENDRIN KETONE

Data File = F:A8PST165.PTS Printed on 05-11-1992 at 08:03:30
Start time: 0.00 min. Stop time: 30.00 min. Offset: 0 mv.
Full Range: 20 millivolts



tart time: 0.00 min. Stop time: 30.00 min. Offset: 0 mv.
ull Range: 20 millivolts



15-46,29 - 820 181 = 725948

AR 1221
AR 1242 Std. Curves

Primary Side

***** EXTERNAL STANDARD TABLE *****

********** 05-07-1992 09:49:42 Version 5.1.2 **********

* Sample Name: AR 1221 0.5PPM (ULTRA) Data File: F:A8PST112 *
* Date: 05-07-1992 07:09:50 Method: F:A8PST 05-04-1992 13:38:27 # 342 *
* Interface: 2 Cycle#: 112 Operator YM Channel#: 0 Vial#: N.A. *
* Starting Peak Width: .2 Threshold: .05 Area Threshold: 5000 *

* Instrument Type: HP 5890 Column Type: P:DB-608,C:DB-5 *
* Solvent Description: HEXANE *
* Conditions: INIT.T:140C,INIT.TIME:0.5,RATE:6/MIN,FINAL T:275C. *
* Detector 0: ECD Detector 1: ECD *
* Misc. Information: ZERO:1-10,2-10,ATTN.:1-1,2-1 NELSON 3390 * *

Starting Delay: 0.00 Ending retention time: 30.00
Area reject: 5000 One sample per 0.402 sec.
Amount injected: 1.00 Dilution factor: 1.00
Sample Weight: 1.00000

	PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/ML	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
	1	0.918		1308529.3808	67.6989%	1308529	303017	4.3	1			1.0000E+00
	2	1.240		175110.9060	9.0597%	175111	47345	3.7	2			1.0000E+00
	3	1.387		177323.7190	9.1741%	177324	46111	3.8	2			1.0000E+00
	4	4.516		5212.7339	0.2697%	5213	1060	4.9	1			1.0000E+00
⑤	5	6.687		31048.0684	1.6063%	31048	7312	4.2	1			1.0000E+00
⑥	6	7.705		12276.6787	0.6352%	12277	2866	4.3	1			1.0000E+00
⑦	7	8.697		6335.2373	0.3278%	6335	1412	4.5	2			1.0000E+00
⑧	8	8.804		10925.2363	0.5652%	10925	2443	4.5	2			1.0000E+00
⑨	9	9.052		40506.3240	2.0957%	40506	8403	4.8	1			1.0000E+00
⑩	10	9.561		28962.2031	1.4984%	28962	6521	4.4	2			1.0000E+00
⑪	11	9.775		83418.8838	4.3158%	83419	18668	4.5	2			1.0000E+00
⑫	12	9.983	A-BHC	0.0048	0.0000%	13066	2964	4.4	2	12	0	3.6768E-07
⑬	13	10.861		10942.0381	0.5661%	10942	2255	4.9	2			1.0000E+00
⑭	14	11.115		28401.7031	1.4694%	28402	4244	6.7	2			1.0000E+00
⑮	15	12.120		5174.5439	0.2677%	5175	974	5.3	1			1.0000E+00
⑯	16	12.361	HEPTACHLOR	0.0023	0.0000%	18757	3158	5.9	1	16	0	1.2374E-07
⑰	17	12.891		8698.2754	0.4500%	8698	1558	5.6	1			1.0000E+00

ΣA = 165203 (1,2, 5, 6, 8~10)

ΣA = 298512 (1~13)

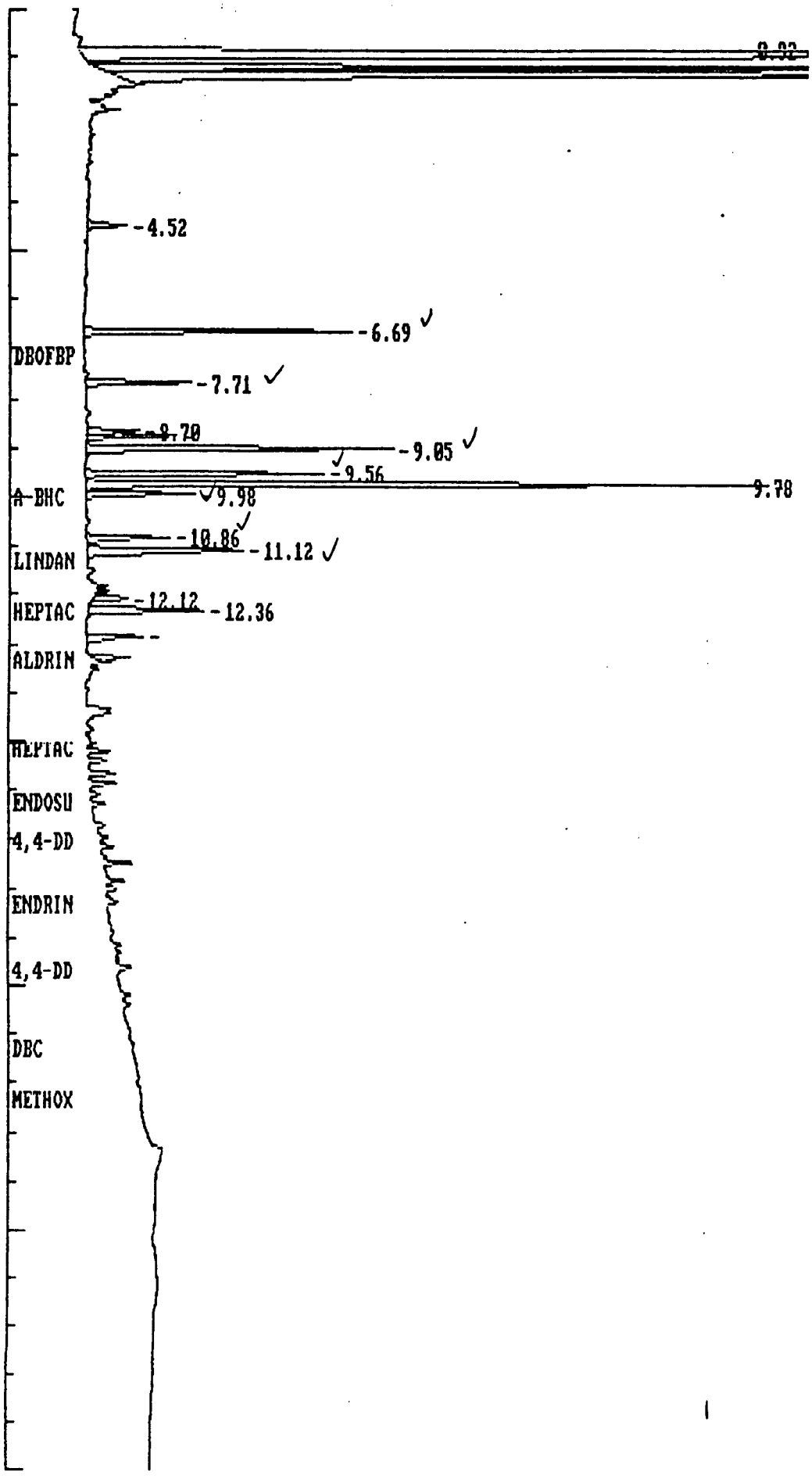
TOTAL AMOUNT = 1932866.0000

ΣA = 141784 (1, 3~6, 8, 9)

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
DBOFBP	7.13	DBOFBP
LINDANE	11.31	LINDANE
B-BHC	11.58	B-BHC
D-BHC	12.79	D-BHC
ALDRIN	13.32	ALDRIN
HEPTACHLOR EPOXIDE	15.16	HEPTACHLOR EPOXIDE
ENDOSULFAN I	16.25	ENDOSULFAN I
4,4-DDE	17.05	4,4-DDE
DIELDRIN	17.21	DIELDRIN
ENDRIN	18.34	ENDRIN
4,4-DDD	18.77	4,4-DDD
ENDOSULFAN II	18.91	ENDOSULFAN II
4,4-DDT	19.68	4,4-DDT
ENDRIN ALDEHYDE	19.93	ENDRIN ALDEHYDE
ENDOSULFAN SULFATE	20.31	ENDOSULFAN SULFATE

Data File = F:A8PST112.PTS Printed on 05-07-1992 at 09:50:00
Start time: 0.00 min. Stop time: 30.00 min. Offset: 0 mv.
Full Range: 20 millivolts



***** EXTERNAL STANDARD TABLE *****

********** 05-07-1992 09:50:46 Version 5.1.2 **********

* Sample Name: AR 1221 1.0PPM (ULTRA) Data File: F:A8PST113 *
* Date: 05-07-1992 07:44:47 Method: F:A8PST 05-04-1992 13:38:27 # 342 *
* Interface: 2 Cycle#: 113 Operator YM Channel#: 0 Vial#: N.A. *
* Starting Peak Width: .2 Threshold: .05 Area Threshold: 5000 *

* Instrument Type: HP 5890 Column Type: P:DB-608,C:DB-5 *
* Solvent Description: HEXANE *
* Conditions: INIT.T:140C,INIT.TIME:0.5,RATE:6/MIN,FINAL T:275C. *
* Detector 0: ECD Detector 1: ECD *
* Misc. Information: ZERO:1-10,2-10,ATTN.:1-1,2-1 NELSON 3390 * *

Starting Delay: 0.00 Ending retention time: 30.00
Area reject: 5000 One sample per 0.402 sec.
Amount injected: 1.00 Dilution factor: 1.00
Sample Weight: 1.00000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/ML	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
1	0.918		1547985.2500	65.0736%	1547985	303332	5.1	1			1.0000E+00
2	1.246		161928.0470	6.8071%	161928	44510	3.6	2			1.0000E+00
3	1.387		164345.4220	6.9087%	164345	42915	3.8	2			1.0000E+00
5	6.693		54196.4340	2.2783%	54196	12779	4.2	1			1.0000E+00
6	7.712		21720.6641	0.9131%	21721	4991	4.4	1			1.0000E+00
7	8.703		11397.5547	0.4791%	11398	2661	4.3	2			1.0000E+00
8	8.811		20202.8867	0.8493%	20203	4326	4.7	2			1.0000E+00
9	9.058		73321.7890	3.0823%	73322	15070	4.9	2			1.0000E+00
10	9.568		51898.9300	2.1817%	51899	11575	4.5	2			1.0000E+00
11	9.782		145382.5160	6.1115%	145383	32532	4.5	2			1.0000E+00
12	9.990	A-BHC	0.0066	0.0000%	24720	5525	4.5	2	12	0	2.6686E-07
13	10.867		19911.0352	0.8370%	19911	4059	4.9	2			1.0000E+00
14	11.122		49966.6170	2.1005%	49967	7378	6.8	2			1.0000E+00
15	12.127		9871.3115	0.415 %	9871	1887	5.2	1			1.0000E+00
16	12.368	HEPTACHLOR	0.0052	0.000 %	34794	5763	6.0	1	12	0	1.4935E-07
17	12.898		16517.9785	0.6944%	16518	2901	5.7	1			1.0000E+00
18	13.326	ALDRIN	0.0029	0.0000%	6002	1590	3.8	1	18	0	4.7873E-07
19	14.378		9354.9424	0.3933%	9355	1137	8.2	1			1.0000E+00
20	15.263	HEPTACHLOR EPOXIDE	0.0002	0.0000%	5329	1198	4.4	2	20	0	3.6593E-08
22	15.712		6740.2837	0.2833%	6740	1370	4.9	2			1.0000E+00
23	15.913		7427.7544	0.3122%	7428	1416	5.2	2			1.0000E+00
24	17.521		6653.9043	0.2797%	6654	1465	4.5	1			1.0000E+00

ΣA = 2957136 (1,2,5,6,8~10)

ΣA = 533903 12 (1~13)

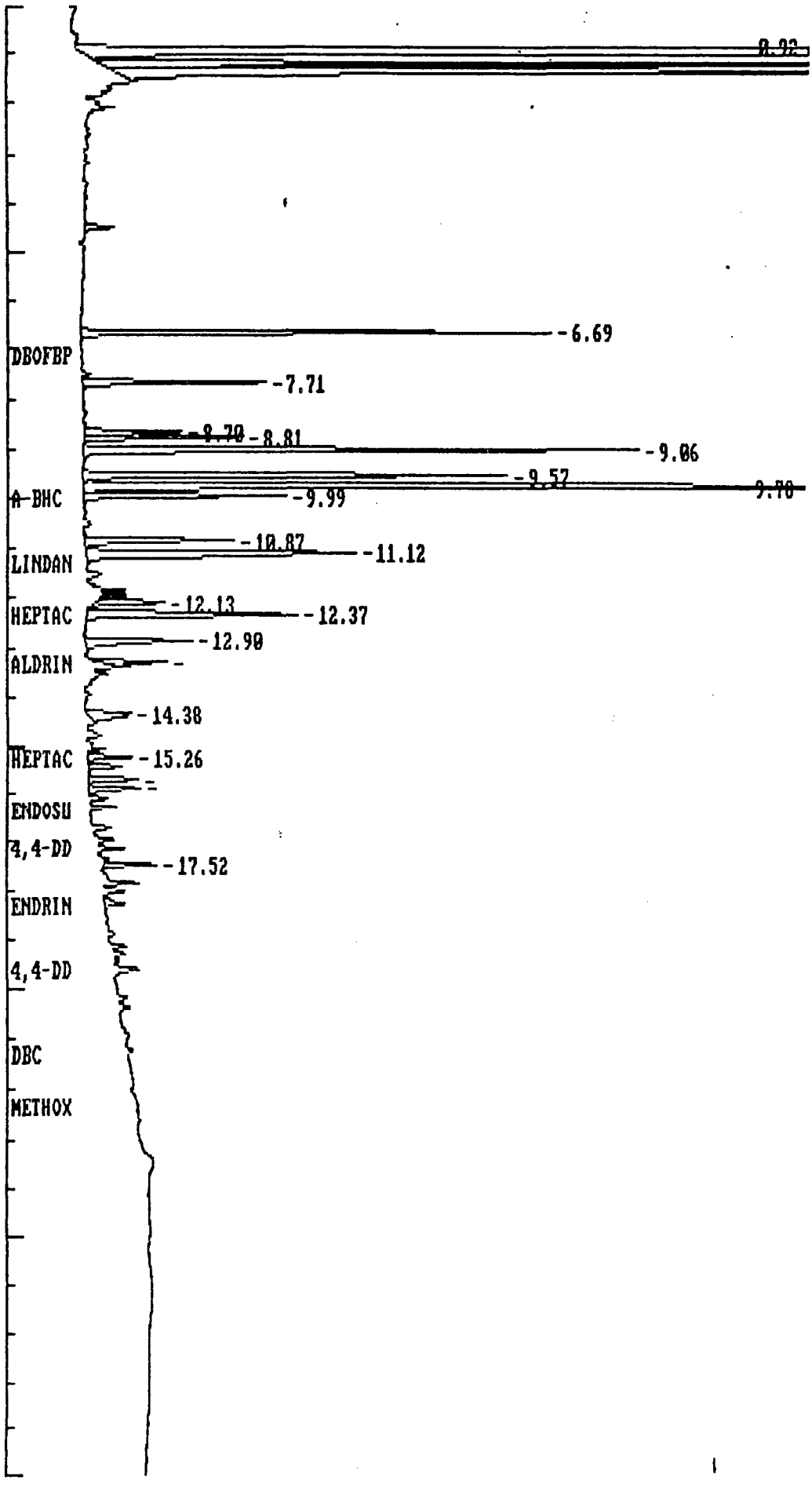
ΣA = 255649 (1,3~6,8,9)

TOTAL AMOUNT = 2378823.0000

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
DBOFBP	7.13	DBOFBP
LINDANE	11.32	LINDANE
B-BHC	11.59	B-BHC
D-BHC	12.79	D-BHC
ENDOSULFAN I	16.36	ENDOSULFAN I
4,4-DDE	17.17	4,4-DDE
DIELDRIN	17.33	DIELDRIN
ENDRIN	18.33	ENDRIN
4,4-DDD	18.76	4,4-DDD
ENDOSULFAN II	18.90	ENDOSULFAN II
4,4-DDT	19.67	4,4-DDT

tart time: 0.00 min. Stop time: 30.00 min. Offset: 0 mV.
ull Range: 20 millivolts



***** EXTERNAL STANDARD TABLE *****

********** 05-07-1992 09:51:50 Version 5.1.2 **********

* Sample Name: AR 1221 2.0PPM (ULTRA) Data File: F:A8PST114 *
* Date: 05-07-1992 08:19:49 Method: F:A8PST 05-04-1992 13:38:27 # 342 *
* Interface: 2 Cycle#: 114 Operator YM Channel#: 0 Vial#: N.A. *
* Starting Peak Width: .2 Threshold: .05 Area Threshold: 5000 *

* Instrument Type: HP 5890 Column Type: P:DB-608,C:DB-5 *
* Solvent Description: HEXANE *
* Conditions: INIT.T:140C,INIT.TIME:0.5,RATE:6/MIN,FINAL T:275C. *
* Detector 0: ECD Detector 1: ECD *
* Misc. Information: ZERO:1-10,2-10,ATTN.:1-1,2-1 NELSON 3390 * *

Starting Delay: 0.00 Ending retention time: 30.00
Area reject: 5000 One sample per 0.402 sec.
Amount injected: 1.00 Dilution factor: 1.00
Sample Weight: 1.00000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/ML	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
1	0.918		1023934.2500	42.7734%	1023934	299404	3.4	1			1.0000E+00
2	1.246		188636.5000	7.8808%	188637	50759	3.7	2			1.0000E+00
3	1.387		191448.4840	7.9975%	191448	48612	3.9	2			1.0000E+00
4	6.693		97975.0390	4.0928%	97975	23121	4.2	1			1.0000E+00
5	7.712		39193.9960	1.6373%	39194	8929	4.4	1			1.0000E+00
6	8.703		21806.1270	0.9109%	21806	5140	4.2	2			1.0000E+00
7	8.811		37325.2730	1.5593%	37325	7875	4.7	2			1.0000E+00
8	9.058		137021.7030	5.7239%	137022	28046	4.9	1			1.0000E+00
9	9.568		95533.4690	3.9908%	95533	21291	4.5	2			1.0000E+00
10	9.782		263051.6600	10.9886%	263052	58660	4.5	2			1.0000E+00
11	9.990	A-BHC	0.0101	0.0000%	47213	10618	4.4	2	11	0	2.1381E-07
12	10.867		37360.5510	1.5607%	37361	7484	5.0	2			1.0000E+00
13	11.122		91869.9690	3.8377%	91870	13010	7.1	2			1.0000E+00
14	11.879		7084.9673	0.2960%	7085	1752	4.0	2			1.0000E+00
15	11.986		7853.4658	0.3281%	7853	1884	4.2	2			1.0000E+00
16	12.134		22824.4180	0.9535%	22824	3953	5.8	2			1.0000E+00
17	12.368	HEPTACHLOR	0.0109	0.0000%	66426	10881	6.1	1	11	0	1.6361E-07
18	12.898		32428.1348	1.3546%	32428	5658	5.7	1			1.0000E+00
19	13.326	ALDRIN	0.0040	0.0000%	11817	3158	3.7	1	19	0	3.3923E-07
20	14.378		17739.8594	0.7411%	17740	2214	8.0	1			1.0000E+00
21	14.834		5041.0801	0.2106%	5041	828	6.1	1			1.0000E+00
22	15.263	HEPTACHLOR EPOXIDE	0.0014	0.0000%	10787	2393	4.5	2	22	0	1.2979E-07
23	15.457		8959.3740	0.3743%	8959	1905	4.7	2			1.0000E+00
24	15.718		13392.3789	0.5594%	13392	2722	4.9	2			1.0000E+00
25	15.913		14917.2529	0.6231%	14917	2782	5.4	2			1.0000E+00
27	16.328	ENDOSULFAN I	0.0008	0.0000%	6672	1482	4.5	2	27	0	1.2126E-07
28	16.757		5472.5518	0.2286%	5473	1045	5.2	2			1.0000E+00
29	16.998		5560.5522	0.2323%	5561	999	5.6	2			1.0000E+00
30	17.192	4,4-DDE	0.0036	0.0000%	7478	1583	4.7	2	27	.3422	4.8564E-07
31	17.527		13309.0146	0.5560%	13309	2893	4.6	1			1.0000E+00
32	17.889		8136.4800	0.3399%	8136	1808	4.5	1			1.0000E+00
33	18.070		5982.9663	0.2499%	5983	1175	5.1	1			1.0000E+00
34	18.338	ENDRIN	0.0037	0.0000%	6772	1156	5.9	1	34	0	5.4447E-07
36	19.664	4,4-DDT	0.0032	0.0000%	7909	1374	5.8	1	34	0	4.1091E-07

TOTAL AMOUNT = 2393859.5000

ΣA = 546168 (1,2,5,6,8~10)

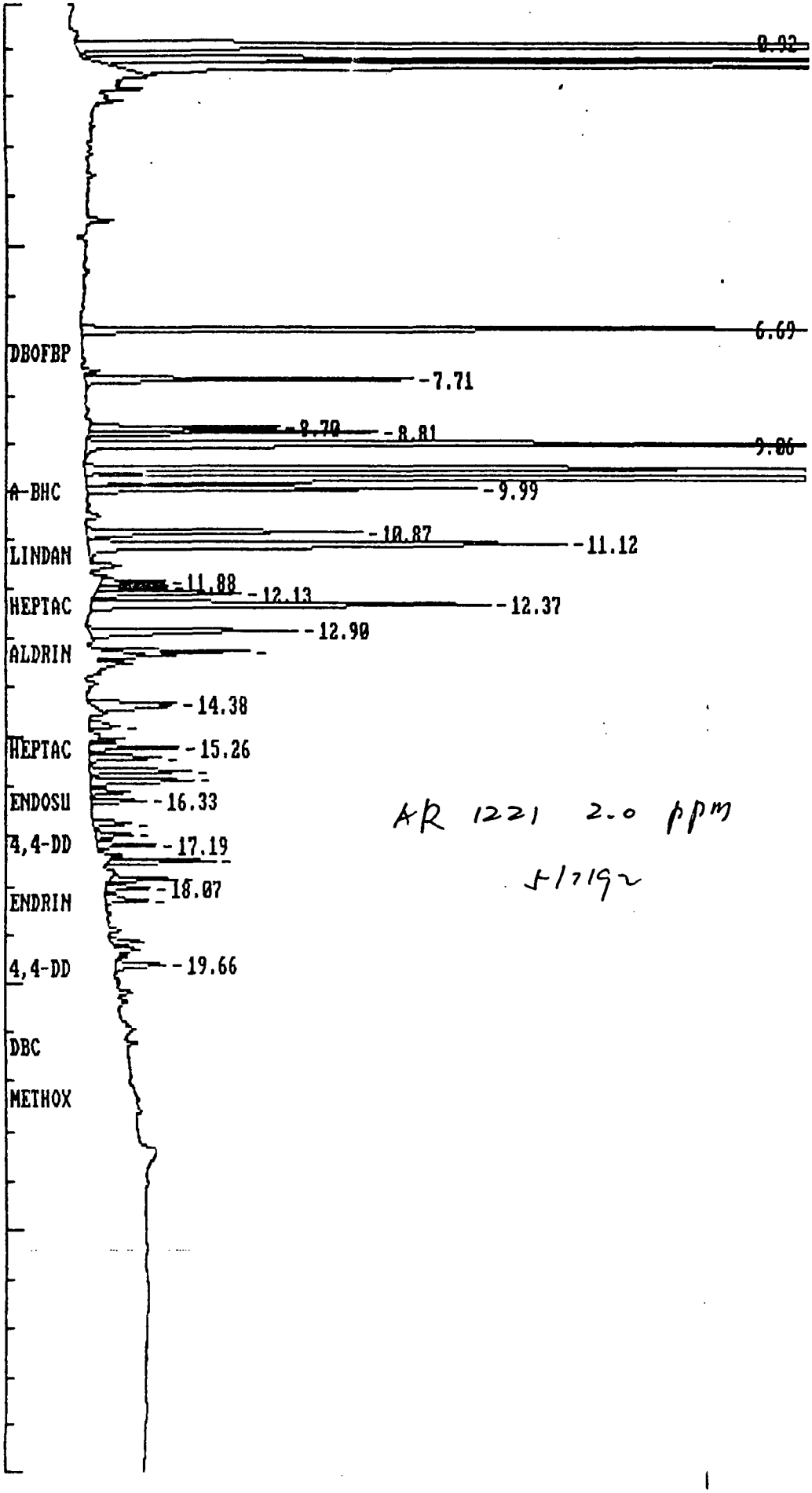
ΣA = 990029 (1~13)

ΣA = 474235 (1,3,26,8,9)

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
DBOFBP	7.13	DBOFBP

Full Range: 20 millivolts



AR 1221 2.0 ppm

5/7/92

***** EXTERNAL STANDARD TABLE *****

********** 05-07-1992 09:53:01 Version 5.1.2 **********

Sample Name: AR 1221 5.0PPM (ULTRA) Data File: F:A8PST115

Date: 05-07-1992 08:54:43 Method: F:A8PST 05-04-1992 13:38:27 # 342

Interface: 2 Cycle#: 115 Operator YM Channel#: 0 Vial#: N.A.

Starting Peak Width: .2 Threshold: .05 Area Threshold: 5000

Instrument Type: HP 5890 Column Type: P:DB-608,C:DB-5

Solvent Description: HEXANE

Conditions: INIT.T:140C,INIT.TIME:0.5,RATE:6/MIN,FINAL T:275C.

Detector 0: ECD Detector 1: ECD

Misc. Information: ZERO:1-10,2-10,ATTN.:1-1,2-1 NELSON 3390

Starting Delay: 0.00 Ending retention time: 30.00

Area reject: 5000 One sample per 0.402 sec.

Amount injected: 1.00 Dilution factor: 1.00

Sample Weight: 1.00000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/ML	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
1	0.918		944892.1900	26.8702%	944892	279793	3.4	1			1.0000E+00
2	1.246		187427.2340	5.3299%	187427	49642	3.8	2			1.0000E+00
3	1.394		195541.9060	5.5607%	195542	48337	4.0	2			1.0000E+00
4	1.883		18836.7148	0.5357%	18837	5249	3.6	1			1.0000E+00
6	6.700		201480.0000	5.7295%	201480	47808	4.2	1			1.0000E+00
8	7.712		78705.4840	2.2382%	78705	18152	4.3	2			1.0000E+00
9	8.710		48274.3790	1.3728%	48274	11134	4.3	2			1.0000E+00
10	8.811		73332.4530	2.0854%	73332	15572	4.7	2			1.0000E+00
11	9.058		289512.7800	8.2330%	289513	59378	4.9	1			1.0000E+00
12	9.574		198877.0620	5.6555%	198877	44271	4.5	2			1.0000E+00
13	9.789		540943.5000	15.3830%	540944	120995	4.5	2			1.0000E+00
14	9.990	A-BHC	0.0188	0.0000%	103871	23098	4.5	2	14	0	1.8073E-07
15	10.559		5571.9209	0.1585%	5572	956	5.8	1			1.0000E+00
16	10.874		77937.0860	2.2163%	77937	15332	5.1	2			1.0000E+00
17	11.122		188010.6250	5.3465%	188011	25723	7.3	2			1.0000E+00
18	11.551	B-BHC	0.0015	0.0000%	14556	2064	7.1	2	18	0	1.0364E-07
19	11.886		27726.9082	0.7885%	27727	4771	5.8	2			1.0000E+00
20	11.993		21384.3652	0.6081%	21384	4770	4.5	2			1.0000E+00
21	12.134		54723.8200	1.5562%	54724	8992	6.1	2			1.0000E+00
22	12.375	HEPTACHLOR	0.0250	0.0000%	145200	23408	6.2	2	18	.3693	1.7212E-07
23	12.904		71303.5470	2.0277%	71304	12234	5.8	1			1.0000E+00
24	13.333	ALDRIN	0.0069	0.0000%	26815	7041	3.8	1	24	0	2.5868E-07
25	13.574		11313.2852	0.3217%	11313	2147	5.3	1			1.0000E+00
26	14.385		9131.4307	0.2597%	9131	2312	4.0	1			1.0000E+00
27	14.840		11823.0215	0.3362%	11823	1939	6.1	1			1.0000E+00
28	15.095		7390.3682	0.2102%	7390	1912	3.9	1			1.0000E+00
29	15.269		24149.2969	0.6867%	24149	5269	4.6	2			1.0000E+00
30	15.464		20347.2812	0.5786%	20347	4292	4.7	2			1.0000E+00
31	15.718		30073.2070	0.8552%	30073	5917	5.1	2			1.0000E+00
32	15.919		33859.9730	0.9629%	33860	6148	5.5	2			1.0000E+00
33	16.147		11345.8789	0.3226%	11346	2442	4.6	2			1.0000E+00
34	16.335	ENDOSULFAN I	0.0030	0.0000%	15772	3452	4.6	2	34	0	1.8944E-07
35	16.763		13153.4150	0.3740%	13153	2484	5.3	2			1.0000E+00
36	16.998		13197.8115	0.3753%	13198	2323	5.7	2			1.0000E+00
37	17.199	DIELDRIN	0.0060	0.0000%	17953	3673	4.9	2	37	0	3.3432E-07
38	17.407		7396.2036	0.2103%	7396	1493	5.0	2			1.0000E+00
39	17.534		35549.3630	1.0109%	35549	7154	5.0	2			1.0000E+00
40	17.889		31048.4199	0.8829%	31048	4556	6.8	2			1.0000E+00
41	18.077		15751.1143	0.4479%	15751	2880	5.5	2			1.0000E+00
42	18.338	ENDRIN	0.0062	0.0000%	16604	2734	6.1	2	42	0	3.7420E-07
44	19.195		9882.1279	0.2810%	[illegible]	[illegible]	[illegible]				1.0000E+00
45	19.363		6615.3374	0.1881%							1.0000E+00

ΣA = 1138394 (1,2,5,6,8~10)

ΣA = 2021 2 (1~13)

ΣA = 993284 (1,3~6,8,9)

AR1221

30	15.464	20347.2812	0.5786%	20347	4292	4.7 2		1.0000E+00
31	15.718	30073.2070	0.8552%	30073	5917	5.1 2		1.0000E+00
32	15.919	33859.9730	0.9629%	33860	6148	5.5 2		1.0000E+00
33	16.***	11345.8789	0.3226%	11346	2442	4.6 2		1.0000E+00
34	1(			15772				.944E-07
35	1(			13153				1000E+00
36	1(			13198				1000E+00
37	1			17953				1432E-07
38	1			7396				1000E+00
39	1			35549				1000E+00
40	1			31048				1000E+00
41	1			15751				1000E+00
42	1			16604				7420E-07
44	1			9882				0000E+00
45	1			6615				0000E+00
46				18041				4393E-07

AR1221
(1.2,5,6,8~10)

C. (ppm)	A
0.5	165203
1.0	295736
2.0	546168
5.0	1138394

R = 0.9982

AR1221
(1~13)

C. (ppm)	A.
0.5	298512
1.0	533903
2.0	990029
5.0	2072172
10.0	3933727

R = 0.9995

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AR1221
(1,3~6,8.9)

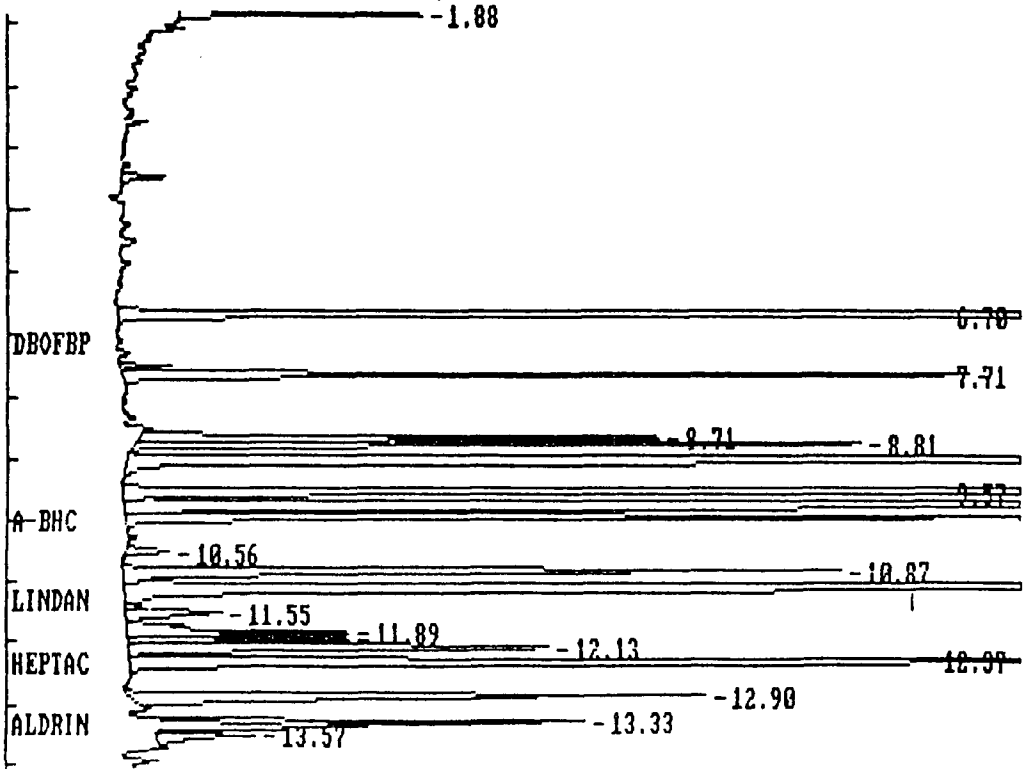
C. (ppm)	A
0.5	141784
1.0	255649
2.0	474235
5.0	993284

R = 0.9982

AR1221
(1~13)

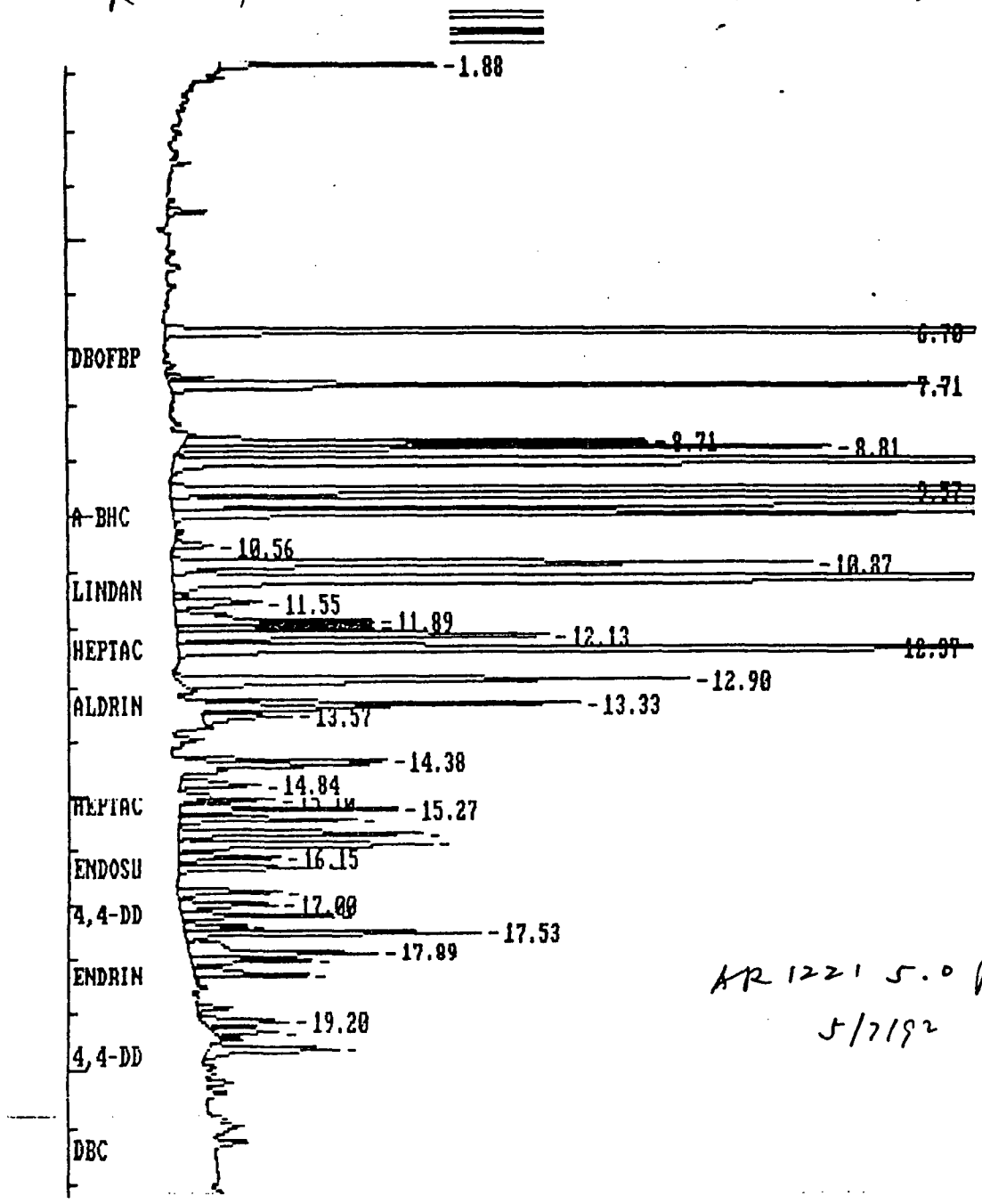
C. (ppm)	A.
0.5	298512
1.0	533903
2.0	990029
5.0	2072172

R = 0.9983



R = 0.9982

R = 0.9983



AR 1221 5.0 ppm

5/7/92

***** EXTERNAL STANDARD TABLE *****

********************** 05-13-1992 09:16:49 Version 5.1.2 ************************

* Sample Name: AR1221 10.0PPM 5/13 Data File: F:A9PST63 *

* Date: 05-13-1992 08:39:53 Method: F:A9PST 05-11-1992 15:49:33 # 344 *

* Interface: 2 Cycle#: 63 Operator YM Channel#: 0 Vial#: N.A. *

* Starting Peak Width: .2 Threshold: .05 Area Threshold: 5000 *

* Instrument Type: HP 5890 Column Type: P:DB-608,C:DB-5 *

* Solvent Description: HEXANE *

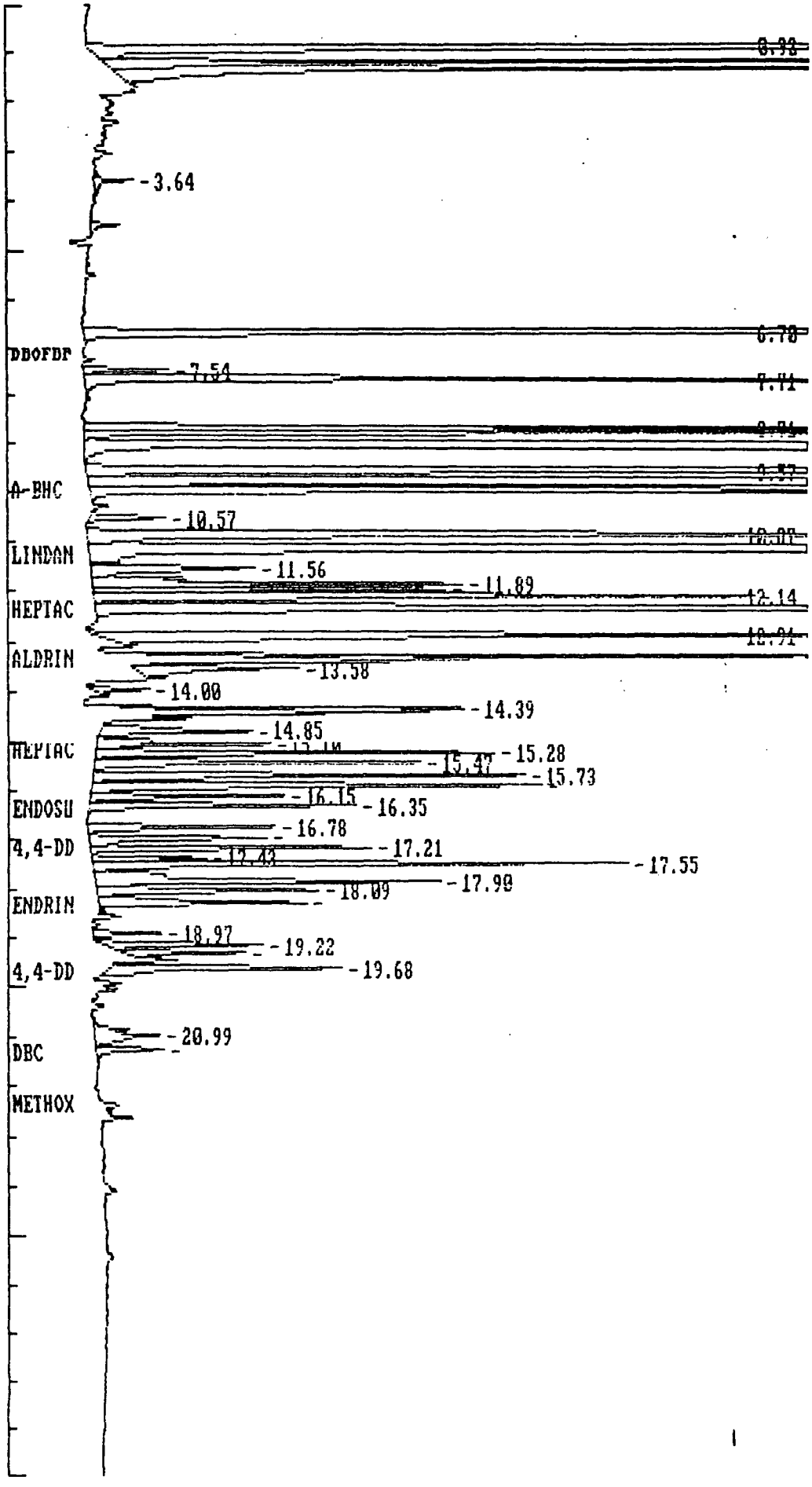
* Conditions: INIT.T:140C,INIT.TIME:0.5,RATE:6/MIN,FINAL T:275C. *

* Detector 0: ECD Detector 1: ECD *

* Misc. Information: ZERO:1-10,2-10,ATTN.:1-1,2-1 NELSON 3390 * *

Ending retention time: 30.00

tart time: 0.00 min. Stop time: 30.00 min. Offset: 0 mv.
ull Range: 20 millivolts



***** EXTERNAL STANDARD TABLE *****

********** 05-08-1992 07:34:03 Version 5.1.2 **********

Sample Name: AR 1242 0.2PPM (ULTRA) Data File: F:A8PST117

Date: 05-07-1992 10:04:29 Method: F:A8PST 05-04-1992 13:38:27 # 342

Interface: 2 Cycle#: 117 Operator YM Channel#: 0 Vial#: N.A.

Starting Peak Width: .2 Threshold: .05 Area Threshold: 5000

Instrument Type: HP 5890 Column Type: P:DB-608,C:DB-5

Solvent Description: HEXANE

Conditions: INIT.T:140C,INIT.TIME:0.5,RATE:6/MIN,FINAL T:275C.

Detector 0: ECD Detector 1: ECD

Misc. Information: ZERO:1-10,2-10,ATTN.:1-1,2-1 NELSON 3390

tarting Delay: 0.00 Ending retention time: 30.00

rea reject: 5000 One sample per 0.402 sec.

mount injected: 1.00 Dilution factor: 1.00

ample Weight: 1.00000

AK IUM	RET TIME	PEAK NAME	CONCENTRATION in UG/ML	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
1	0.925		1030848.6200	54.5153%	1030849	290754	3.5	1			1.0000E+00
2	1.253		198322.7810	10.4881%	198323	52354	3.8	2			1.0000E+00
3	1.394		203892.1090	10.7826%	203892	51207	4.0	2			1.0000E+00
4	1.889		6278.6372	0.3320%	6279	1774	3.5	1			1.0000E+00
6	9.594		5299.9683	0.2803%	5300	1222	4.3	1			1.0000E+00
7	9.809		24169.6484	1.2782%	24170	5503	4.4	1			1.0000E+00
9	11.202		48791.8710	2.5803%	48792	9398	5.2	2			1.0000E+00
0	11.899		7344.7412	0.3884%	7345	2069	3.5	1			1.0000E+00
1	12.161		18796.2891	0.9940%	18796	3801	4.9	1			1.0000E+00
2	12.388		90484.7730	4.7852%	90485	14588	6.2	1			1.0000E+00
3	12.918		33760.7660	1.7854%	33761	6705	5.0	1			1.0000E+00
4	13.346	ALDRIN	0.0061	0.0000%	22587	4961	4.6	2	14	0	2.7056E-07
5	13.440		19334.8379	1.0225%	19335	4527	4.3	2			1.0000E+00
6	13.588		10710.8887	0.5664%	10711	2798	3.8	1			1.0000E+00
7	14.472		31882.2188	1.6861%	31882	5170	6.2	1			1.0000E+00
8	14.861		20915.6582	1.1061%	20916	3340	6.3	1			1.0000E+00
9	15.115	HEPTACHLOR EPOXIDE	0.0040	0.0000%	22465	3594	6.3	2	14	-.4731	1.7709E-07
0	15.283		29497.1152	1.5599%	29497	6459	4.6	2			1.0000E+00
1	15.477		34280.9260	1.8129%	34281	7191	4.8	2			1.0000E+00
2	15.738		10253.4746	0.5422%	10253	2117	4.8	2			1.0000E+00
3	15.939		12802.8584	0.6771%	12803	2248	5.7	2			1.0000E+00
4	16.160		5428.4639	0.2871%	5428	1216	4.5	2			1.0000E+00
5	16.355	ENDOSULFAN I	0.0059	0.0000%	27982	5927	4.7	2	25	0	2.1126E-07
6	16.784		6568.7290	0.3474%	6569	1212	5.4	2			1.0000E+00
7	17.018		6986.2324	0.3695%	6986	1181	5.9	2			1.0000E+00
8	17.219	DIELDRIN	0.0036	0.0000%	7416	1547	4.8	2	28	0	4.8756E-07
9	17.420		5821.0923	0.3078%	5821	1259	4.6	2			1.0000E+00
0	17.554		12664.0615	0.6697%	12664	2647	4.8	2			1.0000E+00
1	17.909		9516.9482	0.5033%	9517	2054	4.6	1			1.0000E+00
2	19.216		6281.8530	0.3322%	6282	1379	4.6	1			1.0000E+00

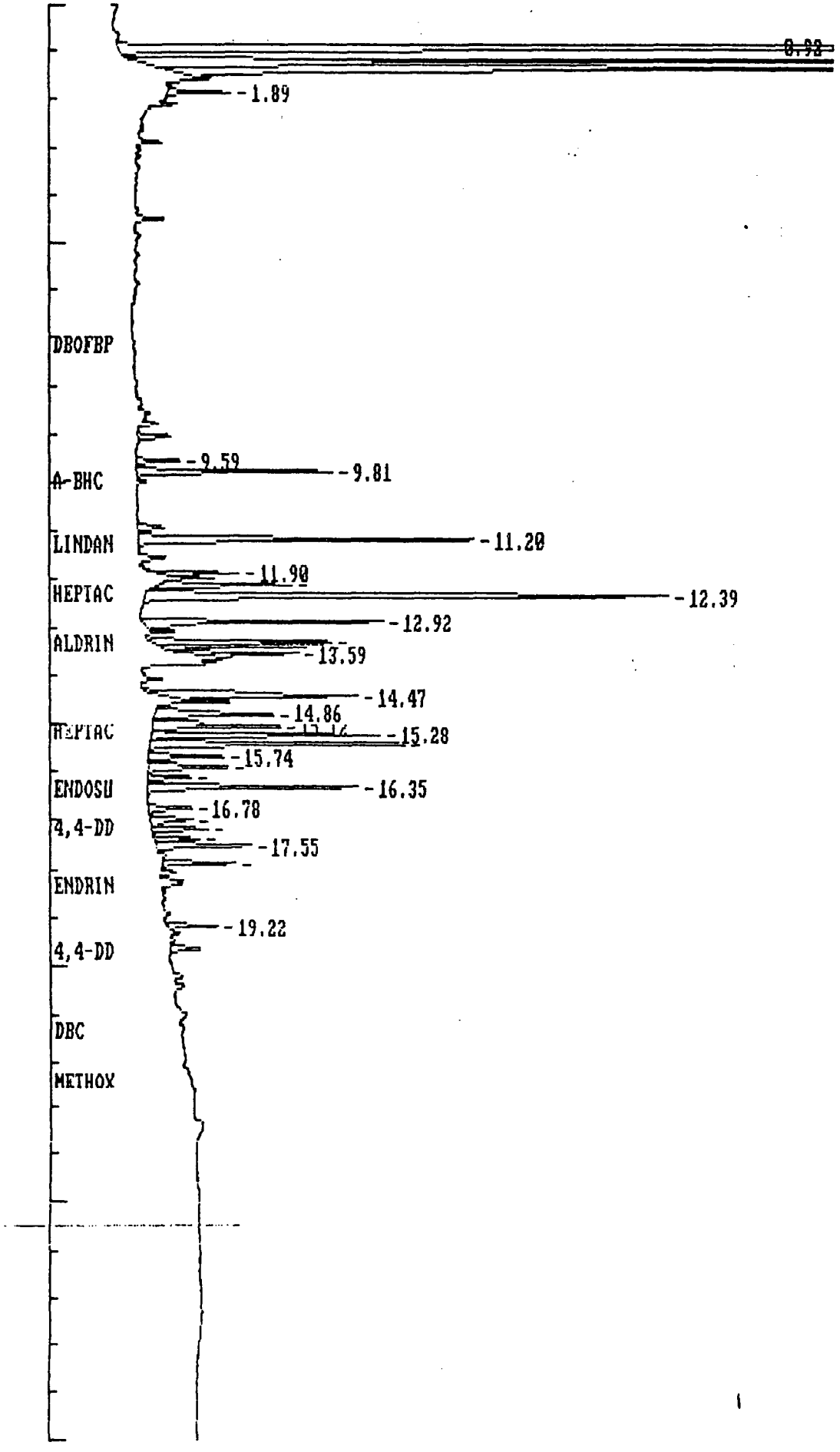
$\Sigma A = 234082$

TOTAL AMOUNT = 1890935.6200

PEAKS NOT FOUND IN THIS RUN

AME	ADJUSTED RET.TIME.	REFERENCE PEAK
BOFBP	7.13	DBOFBP
-BHC	9.94	A-BHC
INDANE	11.26	LINDANE
-BHC	11.53	B-BHC
EPTACHLOR	12.31	HEPTACHLOR

Data File = F:A8P5111?.PIS Printed on 05-08-1992 at 07:34:21
Start time: 0.00 min. Stop time: 30.00 min. Offset: 0 mv.
Full Range: 20 millivolts



***** EXTERNAL STANDARD TABLE *****

********** 05-08-1992 07:35:08 Version 5.1.2 **********

Sample Name: AR 1242 0.5PPM (ULTRA) Data File: F:A8PST118

Date: 05-07-1992 10:39:23 Method: F:A8PST 05-04-1992 13:38:27 # 342

Interface: 2 Cycle#: 118 Operator YM Channel#: 0 Vial#: N.A.

Starting Peak Width: .2 Threshold: .05 Area Threshold: 5000

Instrument Type: HP 5890 Column Type: P:DB-608,C:DB-5

Solvent Description: HEXANE

Conditions: INIT.T:140C,INIT.TIME:0.5,RATE:6/MIN,FINAL T:275C.

Detector 0: ECD Detector 1: ECD

Misc. Information: ZERO:1-10,2-10,ATTN.:1-1,2-1 NELSON 3390

Starting Delay: 0.00 Ending retention time: 30.00

Area reject: 5000 One sample per 0.402 sec.

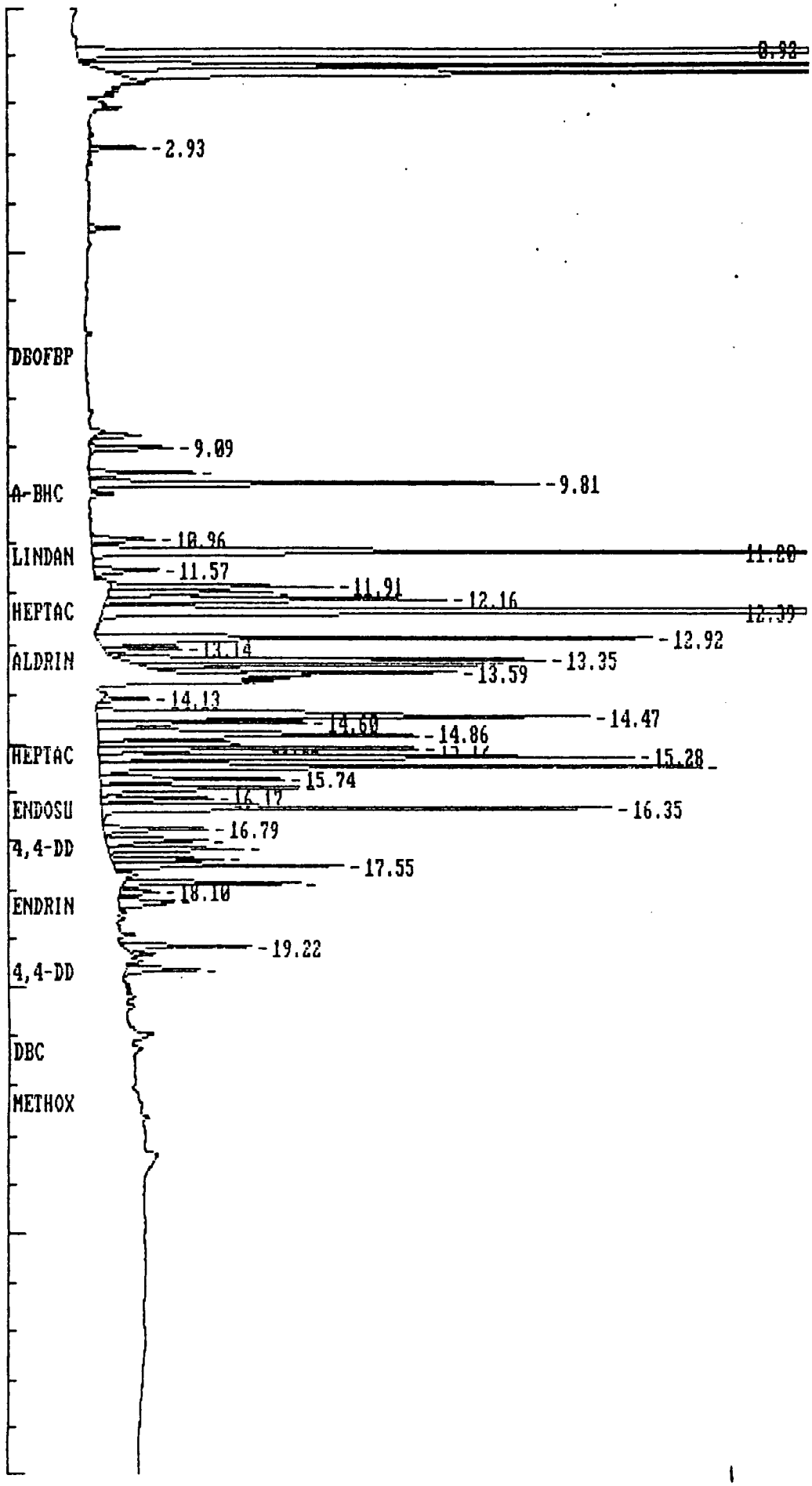
Amount injected: 1.00 Dilution factor: 1.00

Sample Weight: 1.00000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/ML	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
1	0.925		1142096.5000	44.2185%	1142097	300779	3.8	1			1.0000E+00
2	1.253		195517.0310	7.5698%	195517	52939	3.7	2			1.0000E+00
3	1.394		198129.0160	7.6709%	198129	50594	3.9	2			1.0000E+00
4	2.935		5165.7002	0.2000%	5166	1520	3.4	1			1.0000E+00
7	9.092		10884.1504	0.4214%	10884	2252	4.8	1			1.0000E+00
8	9.594		12669.4326	0.4905%	12669	2906	4.4	1			1.0000E+00
9	9.809		53751.2190	2.0811%	53751	12230	4.4	1			1.0000E+00
10	10.961		9713.9658	0.3761%	9714	1740	5.6	2			1.0000E+00
11	11.202		106307.4450	4.1159%	106307	20286	5.2	2			1.0000E+00
12	11.571	B-BHC	-0.0000	-0.0000%	10469	1768	5.9	1	12	0	-2.9731E-09
13	11.906		26281.3594	1.0175%	26281	6114	4.3	2			1.0000E+00
14	12.013		19812.0312	0.7671%	19812	4506	4.4	2			1.0000E+00
15	12.161		49576.9770	1.9195%	49577	9325	5.3	2			1.0000E+00
16	12.388	HEPTACHLOR	0.0345	0.0000%	198237	31445	6.3	2	12	.3035	1.7404E-07
17	12.924		80126.4920	3.1023%	80126	15078	5.3	2			1.0000E+00
18	13.139		9059.6230	0.3508%	9060	2054	4.4	2			1.0000E+00
19	13.353	ALDRIN	0.0116	0.0000%	50760	11371	4.5	2	19	0	2.2874E-07
20	13.440		43751.4060	1.6939%	43751	9888	4.4	2			1.0000E+00
21	13.594		23783.7285	0.9208%	23784	6100	3.9	1			1.0000E+00
22	14.130		5838.2461	0.2260%	5838	1315	4.4	1			1.0000E+00
23	14.472		91974.8520	3.5610%	91975	13439	6.8	2			1.0000E+00
24	14.599		29392.6699	1.1380%	29393	5755	5.1	2			1.0000E+00
25	14.861		61161.0120	2.3680%	61161	8764	7.0	2			1.0000E+00
26	15.021		19767.3008	0.7653%	19767	4154	4.8	2			1.0000E+00
27	15.115		41074.1370	1.5903%	41074	8775	4.7	2			1.0000E+00
28	15.283		71044.8980	2.7506%	71045	14582	4.9	2			1.0000E+00
29	15.477		82911.0860	3.2101%	82911	16417	5.1	2			1.0000E+00
30	15.738		26825.7500	1.0386%	26826	5042	5.3	2			1.0000E+00
31	15.939		32864.8440	1.2724%	32865	5454	6.0	2			1.0000E+00
32	16.167		14704.1738	0.5693%	14704	3044	4.8	2			1.0000E+00
33	16.355	ENDOSULFAN I	0.0152	0.0000%	66608	13913	4.8	2	33	0	2.2759E-07
34	16.790		15199.0049	0.5885%	15199	2856	5.3	2			1.0000E+00
35	17.018		16044.7998	0.6212%	16045	2766	5.8	2			1.0000E+00
36	17.219	DIELDRIN	0.0059	0.0000%	17463	3696	4.7	2	36	0	3.3734E-07
37	17.427		13947.4346	0.5400%	13947	3052	4.6	2			1.0000E+00
38	17.554		30403.6055	1.1771%	30404	6300	4.8	2			1.0000E+00
39	17.909		22758.2383	0.8811%	22758	4843	4.7	1			1.0000E+00
40	18.097		5355.4443	0.2073%	5355	1083	4.9	1			1.0000E+00

$\Sigma A = 589444$

ull Range: 20 millivolts



***** EXTERNAL STANDARD TABLE *****

********** 05-08-1992 07:36:18 Version 5.1.2 **********

Sample Name: AR 1242 1.0PPM (ULTRA) Data File: F:A8PST119

Date: 05-07-1992 11:14:19 Method: F:A8PST 05-04-1992 13:38:27 # 342

Interface: 2 Cycle#: 119 Operator YM Channel#: 0 Vial#: N.A.

Starting Peak Width: .2 Threshold: .05 Area Threshold: 5000

Instrument Type: HP 5890 Column Type: P:DB-608,C:DB-5

Solvent Description: HEXANE

Conditions: INIT.T:140C,INIT.TIME:0.5,RATE:6/MIN,FINAL T:275C.

Detector 0: ECD Detector 1: ECD

Misc. Information: ZERO:1-10,2-10,ATTN.:1-1,2-1 NELSON 3390

Starting Delay: 0.00 Ending retention time: 30.00

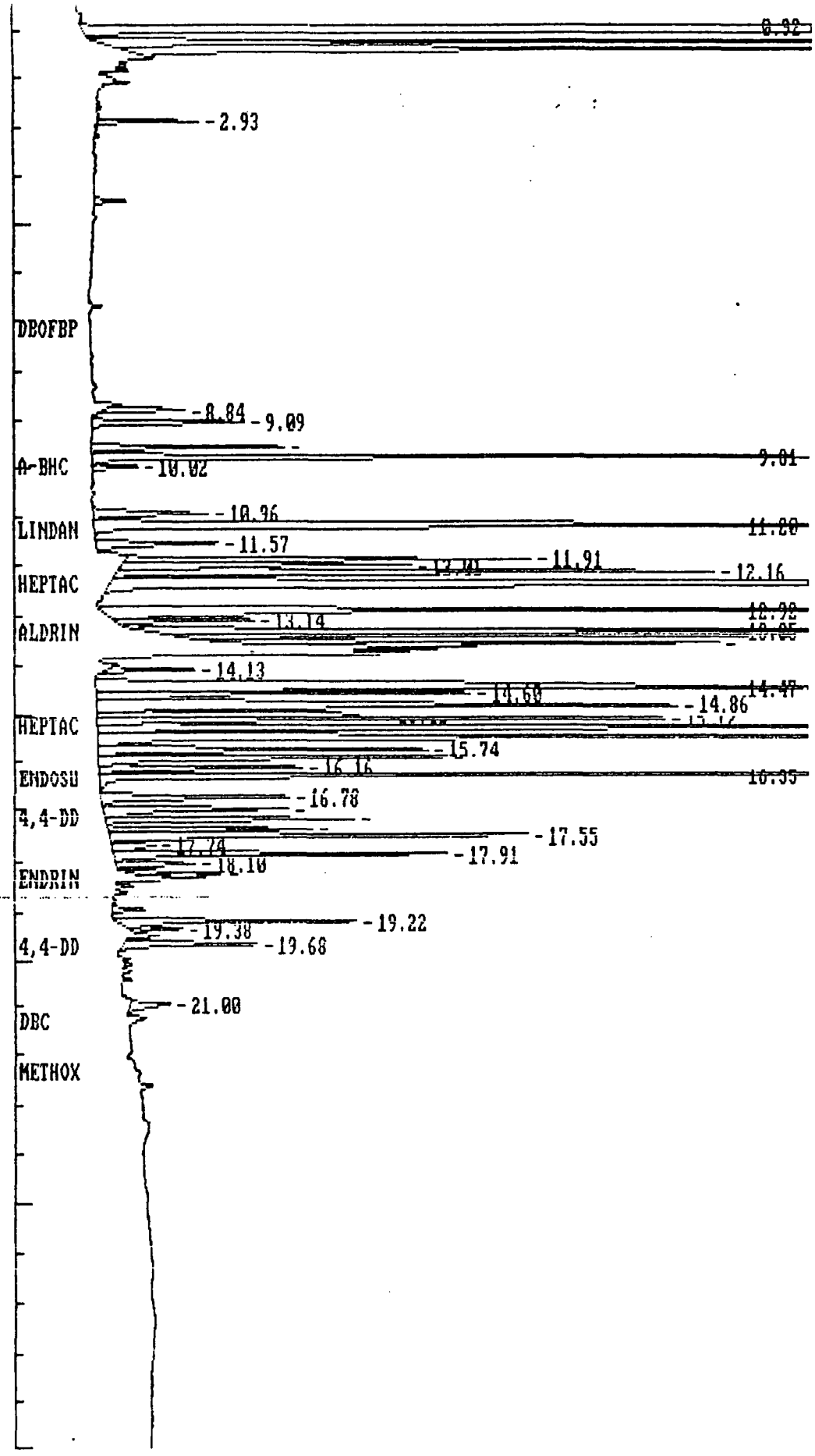
Area reject: 5000 One sample per 0.402 sec.

Amount injected: 1.00 Dilution factor: 1.00

Sample Weight: 1.00000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/ML	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
1	0.925		1238656.8800	35.0738%	1238657	300780	4.1	1			1.0000E+00
2	1.253		192740.8280	5.4577%	192741	52386	3.7	2			1.0000E+00
3	1.400		197804.1880	5.6010%	197804	50625	3.9	2			1.0000E+00
4	2.935		9507.9033	0.2692%	9508	2784	3.4	1			1.0000E+00
6	8.837		9106.9082	0.2579%	9107	2225	4.1	1			1.0000E+00
7	9.092		20258.3887	0.5736%	20258	4167	4.9	1			1.0000E+00
8	9.594		23332.2070	0.6607%	23332	5283	4.4	2			1.0000E+00
9	9.809		94821.7500	2.6850%	94822	21263	4.5	2			1.0000E+00
10	10.016		5637.5225	0.1596%	5638	1246	4.5	2			1.0000E+00
11	10.961		17932.6309	0.5078%	17933	3174	5.6	2			1.0000E+00
12	11.202		183073.6090	5.1839%	183074	34663	5.3	2			1.0000E+00
13	11.571	B-BHC	0.0034	0.0000%	19870	3345	5.9	1	13	0	1.7163E-07
14	11.906		47845.5780	1.3548%	47846	11107	4.3	2			1.0000E+00
15	12.013		35328.4570	1.0004%	35328	7965	4.4	2			1.0000E+00
16	12.161		87633.3910	2.4814%	87633	16334	5.4	2			1.0000E+00
17	12.388	HEPTACHLOR	0.0604	0.0000%	342619	54618	6.3	1	13	.3035	1.7626E-07
18	12.918		140789.4530	3.9866%	140789	26207	5.4	2			1.0000E+00
19	13.139		16578.6680	0.4694%	16579	3738	4.4	2			1.0000E+00
20	13.353	ALDRIN	0.0202	0.0000%	94861	20154	4.7	2	20	0	2.1315E-07
21	13.440		69360.8670	1.9640%	69361	16823	4.1	2			1.0000E+00
22	13.594		40656.8750	1.1512%	40657	10296	3.9	1			1.0000E+00
23	14.130		10964.5254	0.3105%	10965	2456	4.5	1			1.0000E+00
24	14.472		157451.0620	4.4584%	157451	23064	6.8	2			1.0000E+00
25	14.599		55190.0980	1.5628%	55190	10266	5.4	2			1.0000E+00
26	14.861		111877.1170	3.1679%	111877	15890	7.0	2			1.0000E+00
27	15.021		34290.3950	0.9710%	34290	7712	4.4	2			1.0000E+00
28	15.115		75587.7580	2.1403%	75588	15528	4.9	2			1.0000E+00
29	15.283		123339.0780	3.4925%	123339	25169	4.9	2			1.0000E+00
30	15.477		145966.3440	4.1332%	145966	28398	5.1	2			1.0000E+00
31	15.738		48419.8010	1.3711%	48420	9059	5.3	2			1.0000E+00
32	15.939		59897.9260	1.6961%	59898	9595	6.2	2			1.0000E+00
33	16.160		27653.4043	0.7830%	27653	5590	4.9	2			1.0000E+00
34	16.355	ENDOSULFAN I	0.0279	0.0000%	120003	24726	4.9	2	34	0	2.3286E-07
35	16.784		27994.8652	0.7927%	27995	5190	5.4	2			1.0000E+00
36	17.018		29755.2500	0.8426%	29755	5101	5.8	2			1.0000E+00
37	17.219	DIELDRIN	0.0093	0.0000%	32495	6853	4.7	2	37	0	2.8605E-07
38	17.420		26293.4395	0.7445%	26293	5616	4.7	2			1.0000E+00

ΣA = 1010531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12.16
HEPTAC
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ALDRIN
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ENDOSU
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DBC
METHOX

***** EXTERNAL STANDARD TABLE *****

********** 05-08-1992 07:37:34 Version 5.1.2 **********

* Sample Name: AR 1242 2.0PPM (ULTRA) Data File: F:A8PST120 *
* Date: 05-07-1992 11:49:11 Method: F:A8PST 05-04-1992 13:38:27 # 342 *
* Interface: 2 Cycle#: 120 Operator YM Channel#: 0 Vial#: N.A. *
* Starting Peak Width: .2 Threshold: .05 Area Threshold: 5000 *

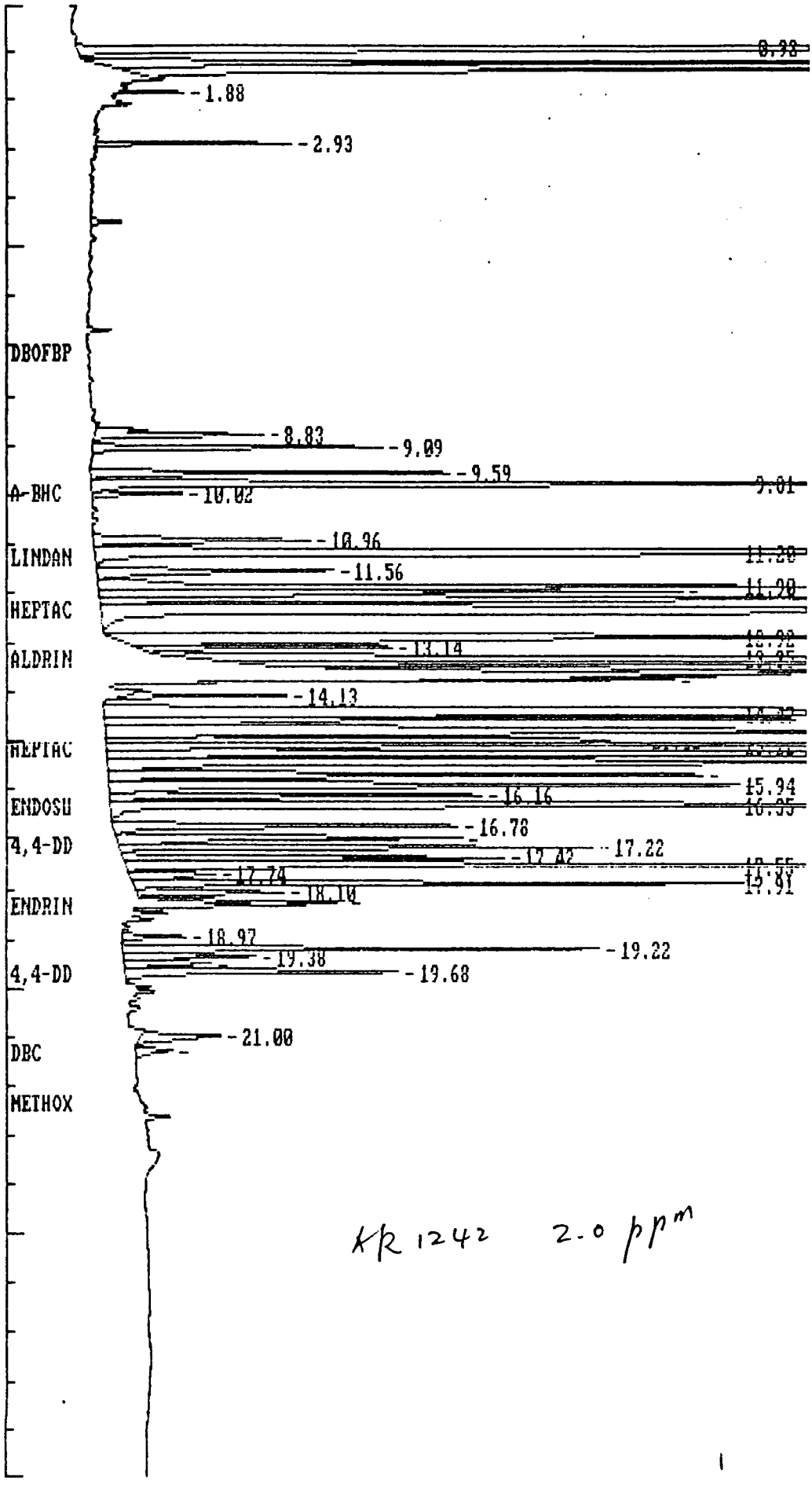
* Instrument Type: HP 5890 Column Type: P:DB-608,C:DB-5 *
* Solvent Description: HEXANE *
* Conditions: INIT.T:140C,INIT.TIME:0.5,RATE:6/MIN,FINAL T:275C. *
* Detector 0: ECD Detector 1: ECD *
* Misc. Information: ZERO:1-10,2-10,ATTN.:1-1,2-1 NELSON 3390 * *

Starting Delay: 0.00 Ending retention time: 30.00
Area reject: 5000 One sample per 0.402 sec.
Amount injected: 1.00 Dilution factor: 1.00
Sample Weight: 1.00000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/ML	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
1	0.925		1001905.4400	20.7076%	1001905	290345	3.5	1			1.0000E+00
2	1.253		197281.1880	4.0775%	197281	52543	3.8	2			1.0000E+00
3	1.400		201949.0470	4.1739%	201949	50563	4.0	2			1.0000E+00
4	1.883		5449.1104	0.1126%	5449	1853	2.9	1			1.0000E+00
5	2.935		18146.2812	0.3751%	18146	5372	3.4	1			1.0000E+00
7	8.831		27313.6895	0.5645%	27314	4613	5.9	1			1.0000E+00
8	9.085		38447.6840	0.7946%	38448	7895	4.9	1			1.0000E+00
9	9.594		43539.4920	0.8999%	43539	9773	4.5	2			1.0000E+00
10	9.809		170418.7030	3.5223%	170419	38226	4.5	2			1.0000E+00
11	10.016		11118.8057	0.2298%	11119	2447	4.5	2			1.0000E+00
12	10.961		33698.2930	0.6965%	33698	5906	5.7	2			1.0000E+00
13	11.202		326495.5300	6.7481%	326496	61787	5.3	2			1.0000E+00
14	11.564	B-BHC	0.0109	0.0000%	40229	6458	6.2	2	14	0	2.7003E-07
15	11.899		109652.6020	2.2663%	109653	22378	4.9	2			1.0000E+00
16	12.006		71293.6020	1.4735%	71294	15867	4.5	2			1.0000E+00
17	12.161		172822.8750	3.5719%	172823	30638	5.6	2			1.0000E+00
18	12.388	HEPTACHLOR	0.1118	0.0000%	629269	98645	6.4	2	14	.3616	1.7764E-07
19	12.918		255384.3750	5.2783%	255384	47074	5.4	2			1.0000E+00
20	13.139		30034.6270	0.6208%	30035	6761	4.4	2			1.0000E+00
21	13.346	ALDRIN	0.0347	0.0000%	169151	37591	4.5	2	21	0	2.0528E-07
22	13.434		127502.2890	2.6352%	127502	29209	4.4	2			1.0000E+00
23	13.588		71064.3590	1.4688%	71064	18637	3.8	1			1.0000E+00
24	13.795		21632.8262	0.4471%	21633	6468	3.3	1			1.0000E+00
25	14.130		20411.1055	0.4219%	20411	4521	4.5	1			1.0000E+00
26	14.472		281945.1600	5.8273%	281945	40849	6.9	2			1.0000E+00
27	14.599		100471.9770	2.0766%	100472	18810	5.3	2			1.0000E+00
28	14.861		207938.0620	4.2977%	207938	29433	7.1	2			1.0000E+00
29	15.021		65302.0310	1.3497%	65302	14299	4.6	2			1.0000E+00
30	15.115	HEPTACHLOR EPOXIDE	0.0291	0.0000%	136055	27847	4.9	2	21	-.4731	2.1356E-07
31	15.283		219549.1720	4.5377%	219549	44509	4.9	2			1.0000E+00
32	15.477		262771.8100	5.4310%	262772	50833	5.2	2			1.0000E+00
33	15.738		87642.6880	1.8114%	87643	16192	5.4	2			1.0000E+00
34	15.939		108273.9300	2.2378%	108274	17163	6.3	2			1.0000E+00
35	16.160		50513.1090	1.0440%	50513	10155	5.0	2			1.0000E+00
36	16.355	ENDOSULFAN I	0.0520	0.0000%	220632	45828	4.8	2	36	0	2.3586E-07
37	16.784		51623.6600	1.0670%	51624	9405	5.5	2			1.0000E+00
38	17.018		55223.9100	1.1414%	55224	9426	5.9	2			1.0000E+00
39	17.219	DIELDRIN	0.0157	0.0000%	68960	12908	4.7	2	39	0	2.5823E-07
40	17.420		49281.6410	1.0186%	49282	10393	4.7	2			1.0000E+00
41	17.547		104733.9450	2.1647%	104734	21137	5.0	2			1.0000E+00
42	17.742		13184.2578	0.2708%	13184	2347	5.6	2			1.0000E+00

ΣA = 1824490

tart time: 0.00 min. Stop time: 30.00 min. Offset: 0 mv.
ull Range: 20 millivolts



KR 1242 2.0 ppm

***** EXTERNAL STANDARD TABLE *****

********** 05-08-1992 07:39:22 Version 5.1.2 **********

Sample Name: AR 1242 5.0PPM (ULTRA) Data File: F:A8PST121

Date: 05-07-1992 12:24:20 Method: F:A8PST 05-04-1992 13:38:27 # 342

Interface: 2 Cycle#: 121 Operator YM Channel#: 0 Vial#: N.A.

Starting Peak Width: .2 Threshold: .05 Area Threshold: 5000

Instrument Type: HP 5890 Column Type: P:DB-608,C:DB-5

Solvent Description: HEXANE

Conditions: INIT.T:140C,INIT.TIME:0.5,RATE:6/MIN,FINAL T:275C.

Detector 0: ECD Detector 1: ECD

Misc. Information: ZERO:1-10,2-10,ATTN.:1-1,2-1 NELSON 3390

Starting Delay: 0.00 Ending retention time: 30.00

Area reject: 5000 One sample per 0.402 sec.

Amount injected: 1.00 Dilution factor: 1.00

Sample Weight: 1.00000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/ML	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
1	0.925		1106211.1200	12.2339%	1106211	297467	3.7	1			1.0000E+00
2	1.253		197502.7500	2.1842%	197503	53255	3.7	2			1.0000E+00
3	1.400		200598.0620	2.2185%	200598	50774	4.0	2			1.0000E+00
4	2.131		5561.2681	0.0615%	5561	846	6.6	1			1.0000E+00
5	2.935		43223.8440	0.4780%	43224	12758	3.4	1			1.0000E+00
6	6.720		6639.4321	0.0734%	6639	1591	4.2	1			1.0000E+00
7	8.730		15120.8281	0.1672%	15121	3639	4.2	2			1.0000E+00
8	8.837		48223.2420	0.5333%	48223	10049	4.8	2			1.0000E+00
9	9.092		88039.5080	0.9737%	88040	17919	4.9	2			1.0000E+00
10	9.594		96468.6480	1.0669%	96469	21459	4.5	2			1.0000E+00
11	9.809		365367.4400	4.0407%	365367	81728	4.5	2			1.0000E+00
12	10.016		27006.4102	0.2987%	27006	5914	4.6	2			1.0000E+00
13	10.961		75001.0550	0.8295%	75001	13037	5.8	2			1.0000E+00
14	11.202		691836.8800	7.6512%	691837	131645	5.3	2			1.0000E+00
15	11.571	B-BHC	0.0307	0.0000%	94537	15122	6.3	2	15	0	3.2520E-07
16	11.906		251675.2190	2.7833%	251675	50631	5.0	2			1.0000E+00
17	12.013		153855.1720	1.7015%	153855	34338	4.5	2			1.0000E+00
18	12.161		370417.6900	4.0966%	370418	66050	5.6	2			1.0000E+00
19	12.395	HEPTACHLOR	0.2433	0.0000%	1362589	216977	6.3	2	15	.3577	1.7854E-07
20	12.924		554406.4400	6.1313%	554406	100935	5.5	2			1.0000E+00
21	13.139		63320.7030	0.7003%	63321	14548	4.4	2			1.0000E+00
22	13.346	ALDRIN	0.0766	0.0000%	383617	82859	4.6	2	22	0	1.9965E-07
23	13.440		254368.8440	2.8131%	254369	61383	4.1	2			1.0000E+00
24	13.594		154621.0620	1.7100%	154621	39544	3.9	1			1.0000E+00
25	13.802		47508.3590	0.5254%	47508	14719	3.2	1			1.0000E+00
26	14.130		63528.8670	0.7026%	63529	10972	5.8	1			1.0000E+00
27	14.472		597058.8100	6.6030%	597059	87806	6.8	2			1.0000E+00
28	14.599		221278.0940	2.4472%	221278	40939	5.4	2			1.0000E+00
29	14.861		465082.4100	5.1435%	465082	65982	7.0	2			1.0000E+00
30	15.021		145351.4220	1.6075%	145351	32641	4.5	2			1.0000E+00
31	15.115	HEPTACHLOR EPOXIDE	0.0646	0.0000%	297192	60248	4.9	2	22	-.4731	2.1747E-07
32	15.283		466038.8800	5.1541%	466039	94784	4.9	2			1.0000E+00
33	15.477		568464.7500	6.2868%	568465	110487	5.1	2			1.0000E+00
34	15.738		186292.0470	2.0603%	186292	34441	5.4	2			1.0000E+00
35	15.939		232899.5310	2.5757%	232900	36612	6.4	2			1.0000E+00
36	16.167		112301.2660	1.2420%	112301	22271	5.0	2			1.0000E+00
37	16.355	ENDOSULFAN I	0.1162	0.0000%	488786	101733	4.8	2	37	0	2.3782E-07
38	16.784		112948.3750	1.2491%	112948	20422	5.5	2			1.0000E+00
39	17.025		123575.1800	1.3667%	123575	20527	6.0	2			1.0000E+00
40	17.219	DIELDRIN	0.0334	0.0000%	138865	29019	4.8	2	40	0	2.4041E-07
41	17.420		109455								1.0000E+00

ΣA = 3975267

24	13.594	154621.0620	1.7100%	154621	39544	3.9	1			1.0000E+00
25	13.802	47508.3590	0.5254%	47508	14719	3.2	1			1.0000E+00
26	14.130	63528.8670	0.7026%	63529	10972	5.8	1			1.0000E+00
27	14.472	597058.8100	6.6030%	597059	87806	6.8	2			1.0000E+00
28	14.599	221278.0940	2.4472%	221278	40939	5.4	2			1.0000E+00
29	14.861	465082.4100	5.1435%	465082	65982	7.0	2			1.0000E+00
30	15.021	145351.4220	1.6075%	145351	32641	4.5	2			1.0000E+00
31	15.115 HEPTACHLOR EPOXIDE	0.0646	0.0000%	297192	60248	4.9	2	22	-.4731	2.1747E-07
32	15.283	466038.8800	5.1541%	466039	94784	4.9	2			1.0000E+00
33	15.477	568464.7500	6.2868%	568465	110487	5.1	2			1.0000E+00
34	15.738	186292.0470	2.0603%	186292	34441	5.4	2			1.0000E+00
35	15.939	232899.5310	2.5757%	232900	36612	6.4	2			1.0000E+00
36	16.167	112301.2660	1.2420%	112301	22271	5.0	2			1.0000E+00
37	16.355 ENDOSULFAN I	0.1162	0.0000%	488786	101733	4.8	2	37	0	2.3782E-07
38	16.784	112948.3750	1.2491%	112948	20422	5.5	2			1.0000E+00
39	17.025	123575.1800	1.3667%	123575	20527	6.0	2			1.0000E+00
40	17.219 DIELORIN	0 [illegible]	[illegible]	[illegible]	29819	4.8	2	40	0	2.4041E-07
41	17.420	109455								1.0000E+00
42	17.554	233311								1.0000E+00
43	17.742	30368								1.0000E+00
44	17.909	184580								1.0000E+00
45	18.097	47013								1.0000E+00
46	18.284 ENDRIN							48	-.3484	3.2823E-07
47	18.512	977								1.0000E+00
48	18.646	899								1.0000E+00
49	18.974 ENDOSULFAN II							49	0	2.1846E-07
50	19.222	14594								1.0000E+00
51	19.376	4832								1.0000E+00
52	19.517	3298								1.0000E+00
53	19.685 4,4-DDT							53	0	3.0120E-07
54	20.000 ENDRIN ALDEHYDE	-1						54	0	-1.6830E-07
55	20.113	794								1.0000E+00
56	20.998	5431								1.0000E+00
57	21.293 DBC	1737						54	-.3955	1.0000E+00
58	22.680 ENDRIN KETONE	.....	.....	....	...	...	.	58	0	8.5270E-08

ΣA = 3975267

AR1242

C. (ppm)	A.
0.2	234082
0.5	569444
1.0	1010531
2.0	1824490
5.0	3975267

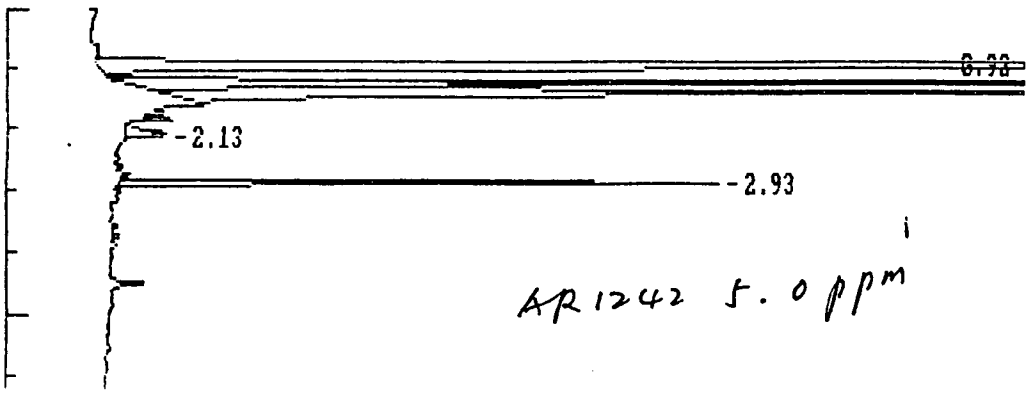
R = 0.9985

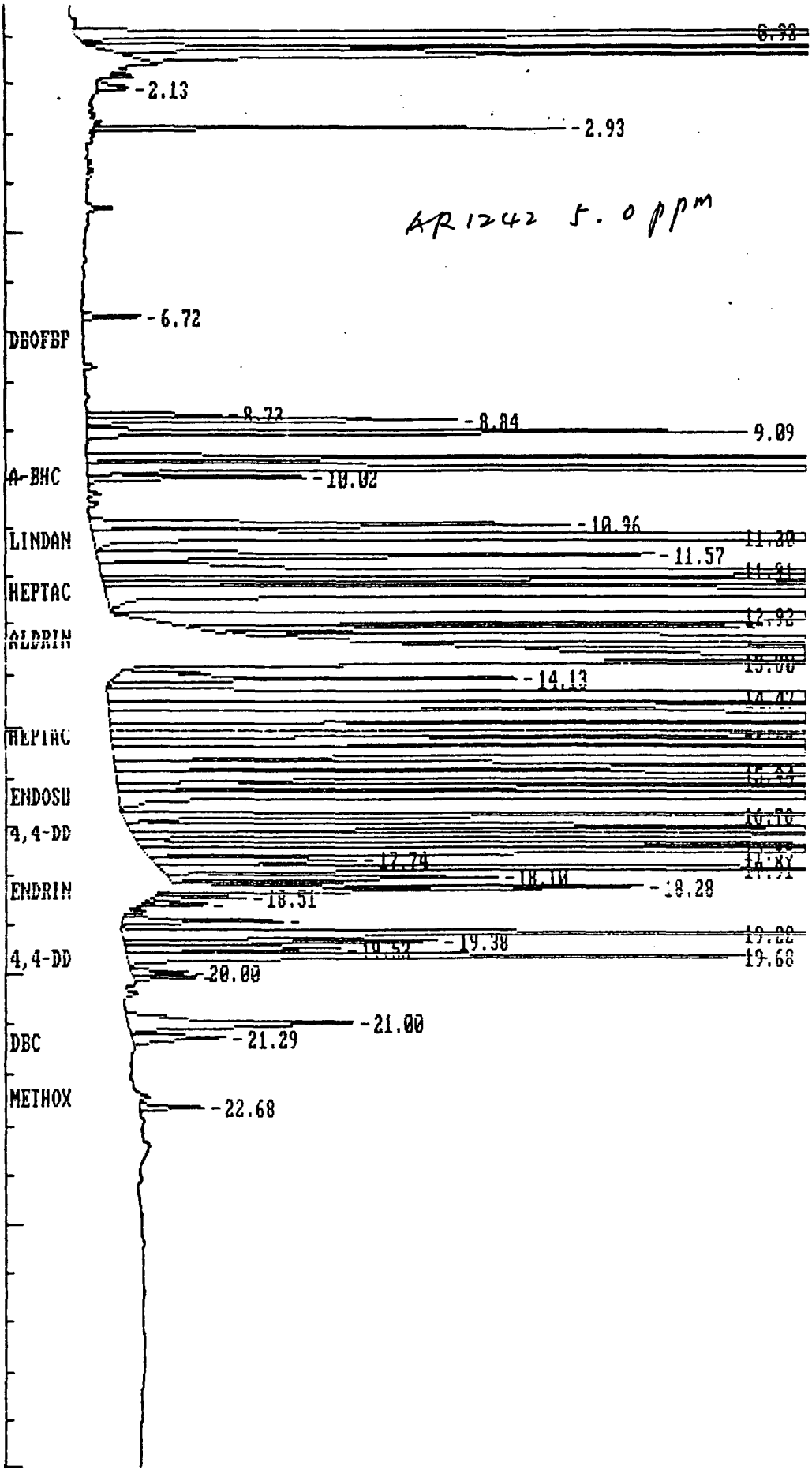
TOTAL AMOUNT = 9042174.0000

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
DBOFBP	7.13	DBOFBP
A-BHC	9.94	A-BHC
LINDANE	11.26	LINDANE
D-BHC	12.77	D-BHC
4,4-DDE	17.16	4,4-DDE
4,4-DDD	18.78	4,4-DDD
ENDOSULFAN SULFATE	20.37	ENDOSULFAN SULFATE
METHOXYCHLOR	22.45	METHOXYCHLOR

Data File = F:A8PST121.PTS Printed on 05-08-1992 at 07:39:44
Start time: 0.00 min. Stop time: 30.00 min. Offset: 0 mv.
Full Range: 20 millivolts




AR1242 5.0 ppm
-2.13
-2.93
-6.72
DBOFBP
-8.84
9.09
A-BHC
-10.02
-10.96
LINDAN
-11.57
HEPTAC
ALDRIN
-14.13
HEPTHC
ENDOSU
4,4-DD
-17.74
-18.28
ENDRIN
-18.51
-19.38
4,4-DD
-20.00
-21.00
DBC
-21.29
METHOX
-22.68

October 1992

Analytical Technologies, Inc.

Client: Daniel B. Stephens and Associates
Project Name: Enron Thoreau
Project #: 2105 2.1/060-1860-100-247-0286-J31020-50500-ENVR
ATI Accession: 210737

Aroclor 1221 was found in 5-01B, 5-06B, and 5-99. Analytical reasoning for determining Aroclor is 1221 and not 1242.

1. The samples have a major peak at the retention time of 9.54 min. This peak can be found in both AR1221 and AR1242. The appendix I shows the comparison of 5-01B, 0.5 ppm AR1221 and 1.0 ppm AR1242. The area of the common peak at 9.54 min. is about the same. While the peak is common for both Aroclors, by comparing the pattern it is not difficult to recognize that it is aroclor 1221.

2. Comparison of peak area ratios during Aroclor retention periods.

	The total area from retention time A. A = 6.49 ~ 12.64 min (Retention time of most AR1221 peaks)	The total area from retention time B. B= 12.64 ~ 19.40 min (Retention time of most AR1242 peaks)	A/B
AR1221 (0.5 ppm)	360732	183979	2.0
210737-02	830261	103718	8.0
AR1242 (1.0 ppm)	1683842	2368249	0.7

Based on 1 and 2, it is shown that most peaks present in the sample match AR1221 instead of AR1242. The sample is missing ~ 60% of the peaks present in the AR1242 standard. A greater proportion of the sample's peak area is found during the retention time of AR1221.

3. Appendix II shows the result from the GC/MS analysis of 5-06B. The GC/MS also identifies the aroclor as 1221. The GC result is AR1221 at 280 ug/L, GC/MS is AR1221 at 270 ug/L.

Analytical Technologies, Inc.

CLIENT: DANIEL B. STEPHENS & ASSOC.
ATI ACCESSION #: 210737

ATI'S DETECTION LIMITS FOR METHOD 608 - AQUEOUS
1X DILUTION

COMPOUND	DETECTION LIMIT (UG/L)
AROCLOR 1016	0.5
AROCLOR 1221	0.5
AROCLOR 1232	0.5
AROCLOR 1242	0.5
AROCLOR 1248	0.5
AROCLOR 1254	0.5
AROCLOR 1260	0.5

ATI'S DETECTION LIMITS FOR METHOD 608 - AQUEOUS
10X DILUTION

COMPOUND	DETECTION LIMIT (UG/L)
AROCLOR 1016	5.0
AROCLOR 1221	5.0
AROCLOR 1232	5.0
AROCLOR 1242	5.0
AROCLOR 1248	5.0
AROCLOR 1254	5.0
AROCLOR 1260	5.0

Analytical Technologies, Inc.

CLIENT : D.B. STEPHENS & ASSOCIATES
PROJECT # : 2105 2.1
PROJECT NAME : ENRON

DATE RECEIVED : 10/15/92
REPORT DATE : 11/10/92

ATI I.D. : 210737

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	5-02B	AQUEOUS	10/14/92
02	5-01B	AQUEOUS	10/14/92
03	5-06B	AQUEOUS	10/14/92
04	5-99	AQUEOUS	10/14/92
05	TRIP BLANK	AQUEOUS	10/14/92

----- TOTALS -----

MATRIX	# SAMPLES
AQUEOUS	5

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 21073702

TEST : POLYCHLORINATED BIPHENYLS (EPA METHOD 608)

CLIENT	: D.B. STEPHENS & ASSOCIATES	DATE SAMPLED	: 10/14/92
PROJECT #	: 2105 2.1	DATE RECEIVED	: 10/15/92
PROJECT NAME	: ENRON	DATE EXTRACTED	: 10/15/92
CLIENT I.D.	: 5-01B	DATE ANALYZED	: 11/04/92
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 10

COMPOUNDS	RESULTS
AROCLOR 1016	<5.0
AROCLOR 1221	82
AROCLOR 1232	<5.0
AROCLOR 1242	<5.0
AROCLOR 1248	<5.0
AROCLOR 1254	<5.0
AROCLOR 1260	<5.0
SURROGATE PERCENT RECOVERIES	
TCMX (%)	103

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 21073703

TEST : POLYCHLORINATED BIPHENYLS (EPA METHOD 608)

CLIENT	: D.B. STEPHENS & ASSOCIATES	DATE SAMPLED	: 10/14/92
PROJECT #	: 2105 2.1	DATE RECEIVED	: 10/15/92
PROJECT NAME	: ENRON	DATE EXTRACTED	: 10/15/92
CLIENT I.D.	: 5-06B	DATE ANALYZED	: 11/04/92
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 10

COMPOUNDS	RESULTS
AROCLOR 1016	<5.0
AROCLOR 1221	280
AROCLOR 1232	<5.0
AROCLOR 1242	<5.0
AROCLOR 1248	<5.0
AROCLOR 1254	<5.0
AROCLOR 1260	<5.0
SURROGATE PERCENT RECOVERIES	
TCMX (%)	103

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 21073704

TEST : POLYCHLORINATED BIPHENYLS (EPA METHOD 608)

CLIENT	: D.B. STEPHENS & ASSOCIATES	DATE SAMPLED	: 10/14/92
PROJECT #	: 2105 2.1	DATE RECEIVED	: 10/15/92
PROJECT NAME	: ENRON	DATE EXTRACTED	: 10/15/92
CLIENT I.D.	: 5-99	DATE ANALYZED	: 11/04/92
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 10

COMPOUNDS	RESULTS
AROCLOR 1016	<5.0
AROCLOR 1221	270
AROCLOR 1232	<5.0
AROCLOR 1242	<5.0
AROCLOR 1248	<5.0
AROCLOR 1254	<5.0
AROCLOR 1260	<5.0
SURROGATE PERCENT RECOVERIES	
TCMX (%)	109

Ag.56 = 1485-7

AR1242
1.0 ppm

Ag.54 = 109376

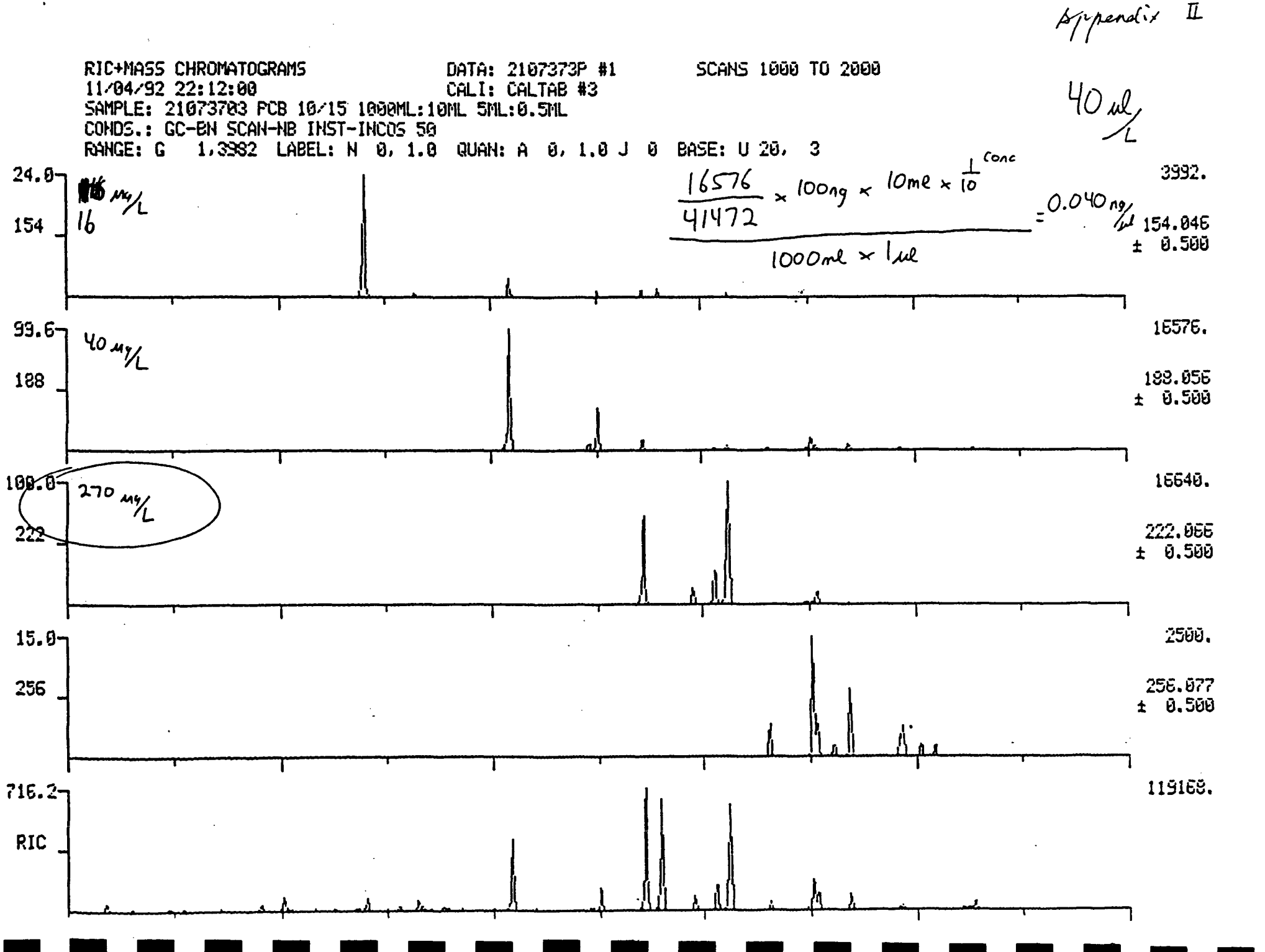
PCB
2107370 x 10 10/15

Ag.53 = 123222

AR1221
0.5 ppm

Appendix I

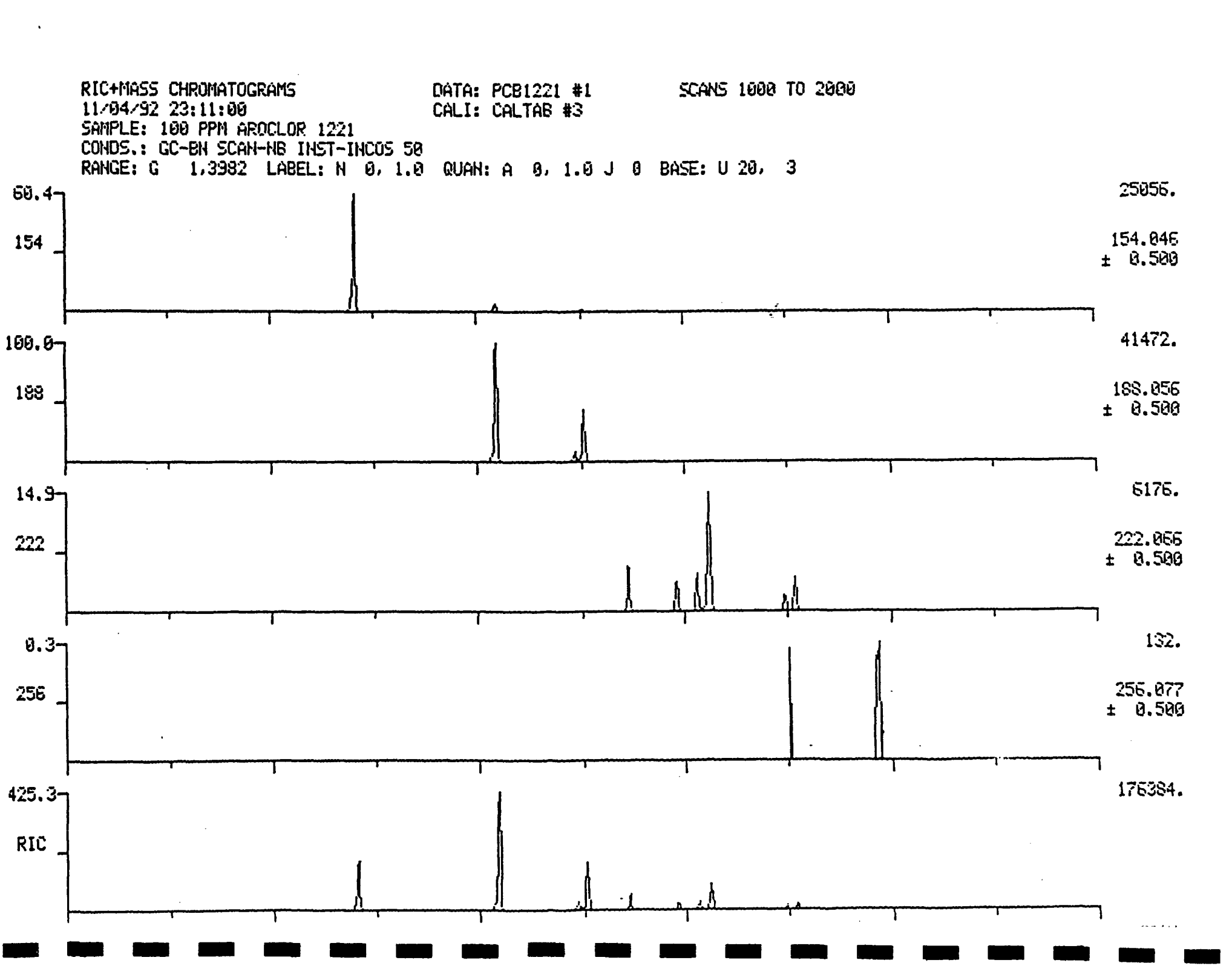
Appendix II

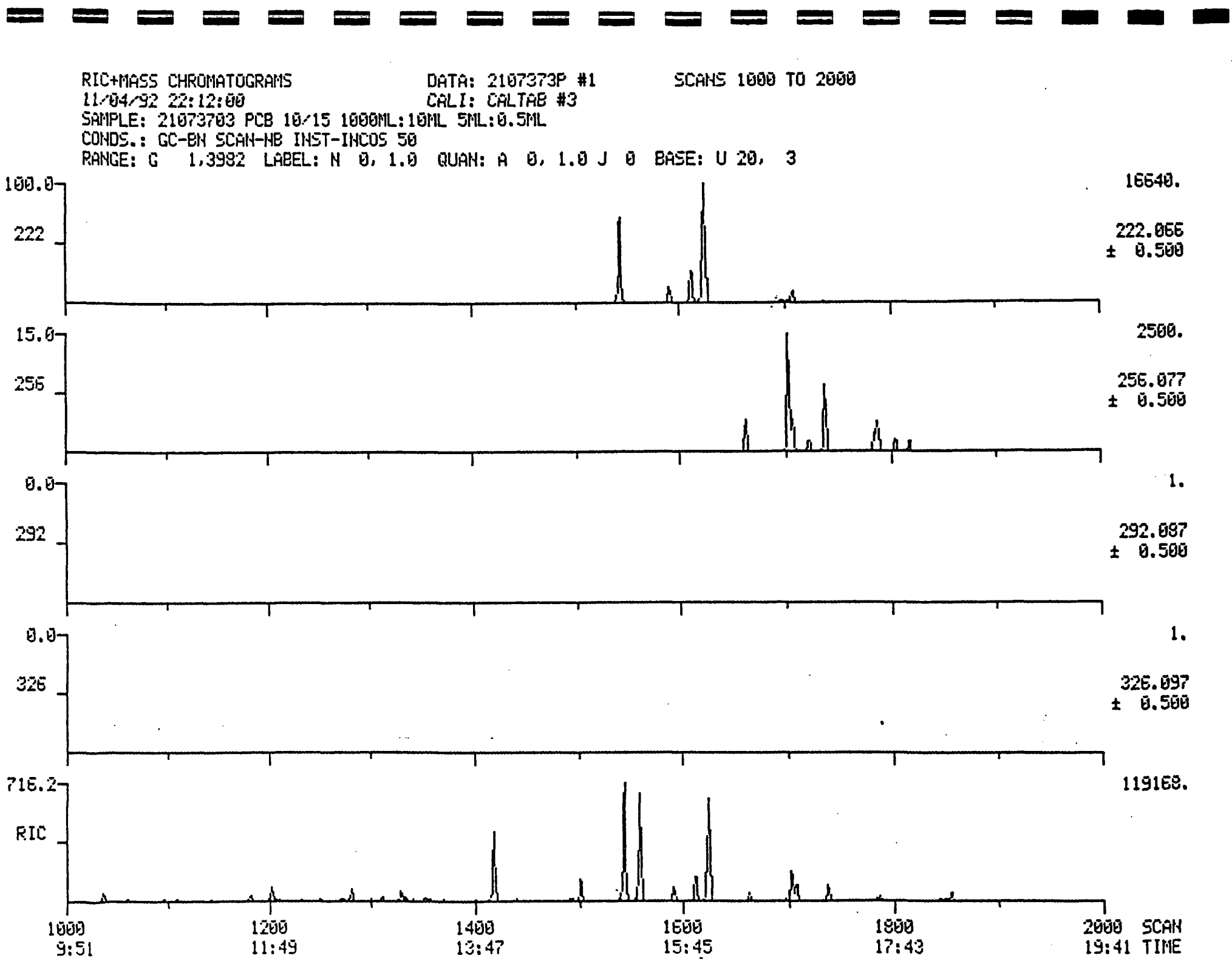


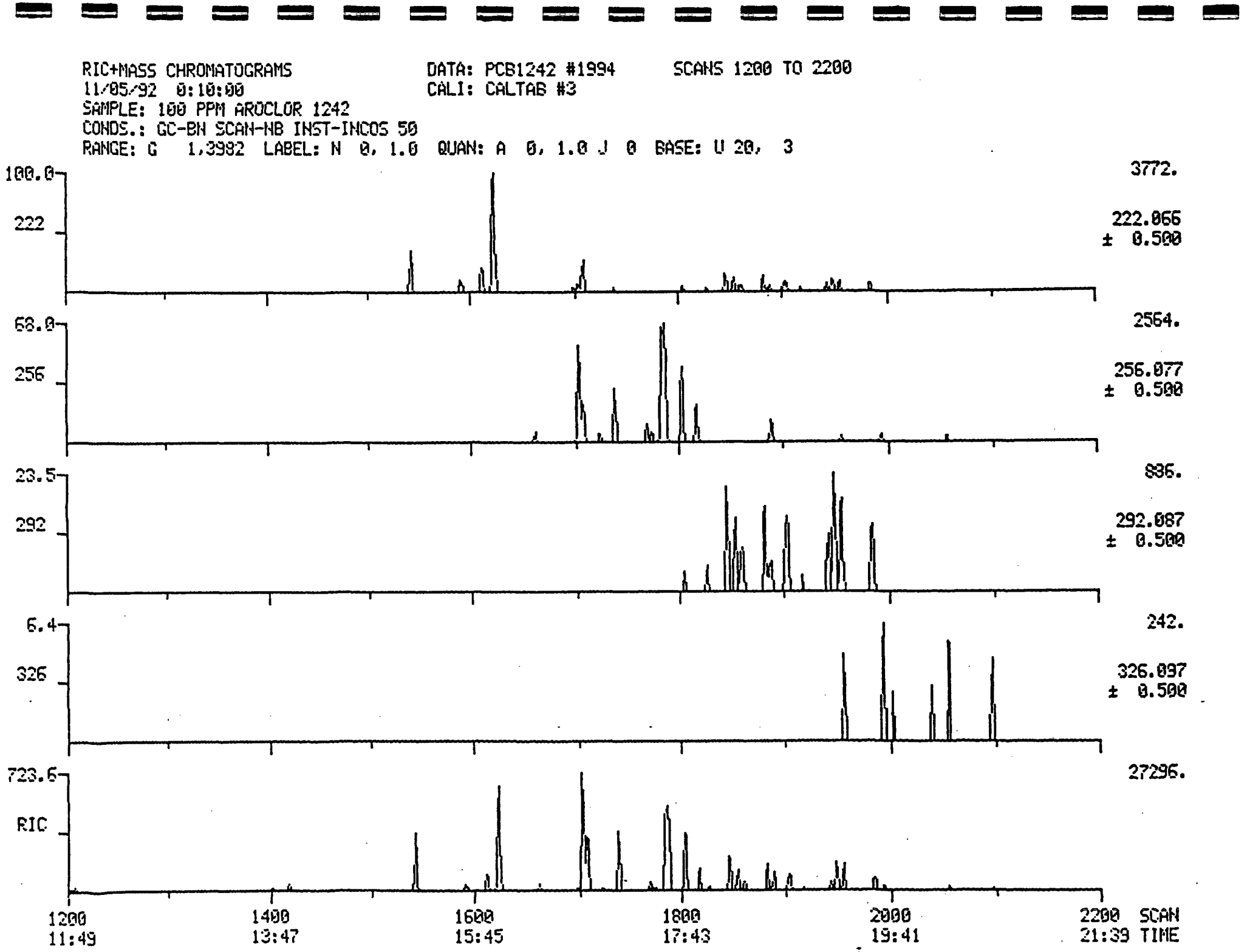
40 µl/L

$$\frac{16576}{41472} \times 100ng \times 10ml \times \frac{1}{10}^{Conc} = 0.040\ ng/\mu l$$

$$1000ml \times 1\mu l$$


RIC+MASS CHROMATOGRAMS
11/04/92 23:11:00
SAMPLE: 100 PPM AROCLOR 1221
CONDS.: GC-BN SCAN-NB INST-INCOS 50
RANGE: G 1.3982 LABEL: N 0, 1.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
DATA: PCB1221 #1
CALI: CALTAB #3
SCANS 1000 TO 2000
60.4
154
25056.
154.046
± 0.500
100.0
188
41472.
188.056
± 0.500
14.9
222
6176.
222.066
± 0.500
0.3
256
132.
256.077
± 0.500
425.3
RIC
176384.


RIC+MASS CHROMATOGRAMS
11/04/92 22:12:00
DATA: 2107373P #1
CALI: CALTAB #3
SCANS 1000 TO 2000
SAMPLE: 21073703 PCB 10/15 1000ML:10ML 5ML:0.5ML
CONDS.: GC-BN SCAN-NB INST-INCOS 50
RANGE: G 1,3982 LABEL: N 0, 1.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
100.0
222
16640.
222.066
± 0.500
15.0
256
2500.
256.077
± 0.500
0.0
292
1.
292.087
± 0.500
0.0
326
1.
326.097
± 0.500
716.2
RIC
119168.
1000
9:51
1200
11:49
1400
13:47
1600
15:45
1800
17:43
2000 SCAN
19:41 TIME


RIC+MASS CHROMATOGRAMS
11/05/92 0:10:00
SAMPLE: 100 PPM AROCLOR 1242
CONDS.: GC-BN SCAN-NB INST-INCOS 50
RANGE: G 1.3982 LABEL: N 0, 1.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
DATA: PCB1242 #1994
CALI: CALTAB #3
SCANS 1200 TO 2200
100.0
222
3772.
222.066
± 0.500
68.0
256
2564.
256.077
± 0.500
23.5
292
886.
292.087
± 0.500
6.4
326
242.
326.097
± 0.500
723.5
RIC
27296.
1200
11:49
1400
13:47
1600
15:45
1800
17:43
2000
19:41
2200 SCAN
21:39 TIME