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NATIONAL PERSPECTIVE ON SEDIMENT QUALITY

REGIONAL AREAS

NATIONAL PERSPECTIVE ON SEDIMENT QUALITY

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1.0 OVERVIEW OF SEDIMENT CRITERIA DEVELOPMENT

1.1 INTRODUCTION

The purpose of this document is to provide an overview of the quality of freshwater and marine/estuarine sediments on a national basis and to provide assistance in focusing sediment criteria development efforts. It was originally developed for use by participants in an EPA-sponsored Sediment Criteria Development Workshop held on November 28-30, 1984. The primary sources of data for this overview were the EPA Storage and Retrieval (STORET) system computer file, the open literature and reports of limited availability produced by state and federal agencies.

1.2 RESPONSIBILITY OF THE CRITERIA AND STANDARDS DIVISION TO DEVELOP CRITERIA IN SUPPORT OF THE CLEAN WATER ACT (CWA)

The Criteria and Standards Division (CSD) of the Environmental Protection Agency (EPA) develops and revises criteria, regulations, standards and guidelines in support of the mandates of the CWA. The CSD has published water quality criteria for 65 priority pollutants and pollutant categories. These criteria are based on an assessment of water column pollutant concentration which, if not exceeded, will protect designated uses of a water body and 95 percent of the aquatic life from adverse effect. The EPA recognizes, however that, while ambient water quality criteria are an important component in assuring the health of an aquatic environment, contaminated sediments may be responsible for significant adverse effects on certain aquatic organisms in the presence of acceptable ambient water quality criteria.

EPA has authority[1] to pursue the development of sediment criteria in streams, lakes, and other "waters of the United States" under sections 104 and 304(a)(1) and (2) of the CWA as follows:

(1) Section 104 authorizes the Administrator to establish national programs for the prevention, reduction and elimination of pollution by conducting and promoting "the coordination and acceleration of

[1]EPA Memorandum, Catherine A. Winer to David K. Sabock, October 25, 1984.

research, investigations, experiments, training, demonstrations, surveys, and studies relating to the causes, effects, and extent, prevention, reduction, and elimination of pollution" and by publishing relevant information. Section 104(n)(1) specifically provides for the study of the effects of pollution, including sedimentation, in estuaries on aquatic life.

(2) Section 304(a)(1) directs the Administrator to develop and publish criteria for water quality accurately reflecting the latest scientific knowledge "on the kind and extent of all identifiable effects on health and welfare including, but not limited to, plankton, fish, shellfish, wildlife, plant life, shorelines, beaches, aesthetics, and recreation which may be expected from the presence of pollutants in any body of water, including groundwater ...on the concentration and dispersal of pollutants, or their byproducts ...on the effects of pollutants on biological community diversity, productivity and stability, including information of the factors affecting ...rates of organic and inorganic sedimentation for varying types of receiving waters."

(3) Section 304(a)(2) directs the Administrator to develop and publish information on, among other things, "the factors necessary for the protection and propagation of shellfish, fish, and wildlife for classes and categories of receiving waters ..."

The Office of the General Counsel (OGC) sees no difficulty in interpreting the phrase "pollutants in any body of water" to include pollutants in the substrate bed of those waters, where the pollutants may affect aquatic life. OGC recognizes a regulatory role in developing sediment criteria where the Administrator finds that including sediment criteria is necessary to meet the requirements of the Act to protect designated water uses. The office contends, furthermore, that "to the extent that sediment criteria could be developed which addressed the concerns of the section 404(b)(1) Guidelines (for discharge of dredged or fill material under the Clean Water Act) or ocean dumping criteria (under the Marine Protection, Research, and Sanctuaries Act), they would also be incorporated into those regulations."

1.3 STATUS OF SEDIMENT CRITERIA DEVELOPMENT

Sediment criteria development has evolved under the auspices of several institutions and regulatory agencies. The following section provides a summary of those approaches which are under consideration by regulatory agencies or

otherwise appear promising avenues to lead to formulation of defensible criteria. Other approaches not specifically enumerated in this document were introduced independently by workshop participants and received equal consideration during the course of the workshop. A summary document of the workshop proceedings has been prepared for the EPA (Battelle, Columbus Laboratories, 1985). More detailed discussions of the following approaches can be obtained from the "Background and Review Document on the Development of Sediment Criteria," (JRB Associates, 1984a) distributed to workshop participants on November 2, 1984.

1.3.1 Background Approach

The Background Approach establishes criteria on a relative basis. Concentration of a chemical in sediments of a particular site is compared to concentrations of the same chemical from reference sites where levels of the chemical of concern in the sediments are deemed to be acceptable. In determining suitable reference areas, consideration of assimilative capacity based on toxicological data is implied. The difficulties inherent in developing a technically and legally defensible method of selecting a "suitable" reference area or determining an "acceptable" level place limitations on the use of this approach. A modification of this approach has been applied to a dredge site designation in EPA Region X.

1.3.2 Water Quality Criteria Approach

The Water Quality Criteria Approach has been developed by EPA Region VI. The approach relies upon existing Water Quality Criteria data to assess acceptable levels of various chemicals in interstitial waters. Toxicological data used to establish the Water Quality Criteria, it should be noted, were derived from sediment-free bioassays primarily with nektonic organisms. The assumption, then, is made at the onset, that ingestion of or direct contact with sediment does not increase the body burden of chemicals in benthic

organisms above those obtainable strictly by absorption from surrounding waters. The methods for obtaining and analyzing interstitial water are still under development.

1.3.3 Sediment-Water Equilibrium Partitioning Approach

The Sediment-Water Equilibrium Partitioning Approach also relies upon the toxicological data available from established Water Quality Criteria. The approach is based on the assumption that the distribution of various chemicals among different compartments in the sediment is controlled by a continuous exchange among sediment, infauna, interstitial and overlying waters. The constants relating these concentrations at equilibrium are referred to as partition coefficients. Compound-specific partition coefficients are determined and used to predict the distribution of the compound between sediment and interstitial water. Because of the influence of organic carbon in the sediment on the distribution of many chemicals among phases, partition coefficients often are expressed in terms of organic carbon content of the sediment. Uncertainties about the effects of site-specific variations in physical/chemical factors on trace metal and organic chemical distributions among phases complicate quantification of these chemical distributions for use in defensible sediment criteria.

1.3.4 Sediment-Biota Equilibrium Partitioning Approach

Sediment quality criteria developed by the Sediment-Biota Equilibrium Partitioning approach establish a concentration of a chemical in the sediment below which benthic organisms would be unable to attain body burden of the chemical in excess of a permissible limit. Extensive body burden-effect data are necessary to establish permissible limits and both water-biota and biota-sediment partitioning processes must be quantified. The EPA/ERL Narragansett and the Corps of Engineers have advocated this approach for the assessment of hydrophobic or neutral organic compounds. The Food and Drug Administration has set action level limits for several pollutant chemicals in the edible tissues of commercial fisheries species.

1.3.5 Bioassay Approach

The Bioassay Approach establishes criteria based on dose-response relationships developed by exposing organisms to sediments containing known concentrations of chemicals and measuring biological parameters including mortality, sublethal effects and bioconcentration. This approach has the capacity to assess overall sources and rates of chemical uptake by organisms and has been used as a component of the assessment process for both coastal dredge and fill permits, ocean dumping permits, and for National Pollution Discharge Elimination System (NPDES) permits for offshore oil and gas drilling discharges.

1.4 GENERAL OVERVIEW APPROACH

This survey is, by the necessities of time and resource limitations, not intended as an exhaustive review of existing data sets. However, the text does provide an overview of the national sediment quality status and does highlight, to some extent, the weaknesses and strengths of the data and criteria used to characterize the quality of sediments. Both this document and the workshop summary document identify the need for and direction of a more extensive literature review.

Due to the differences in data quality and data availability for sediments in both freshwater and marine/estuarine sites, information has been presented in formats that best fit each data set. The STORET system provided extensive freshwater sediment chemistry data but little correlating data on biological effects. The marine data were less readily abundant and chiefly resulted from an arduous search of the available literature rather than of computer files. This latter search supplied more perspective on biota/sediment interactions and effects.

To standardize the inventory of the literature/computer searches, a tentative chemical concentration ranking system was established. Where available, numerical criteria specified by EPA or other federal entities were

used to establish a threshold level of the chemical in sediment. In the absence of established sediment quality criteria, preliminary threshold concentrations were used to assess the data. The derivation, shortcomings, and advantages of the use of these preliminary threshold concentrations are discussed in appropriate sections of this document, summarized in one section. Numerical ranges which represent multiples of the appropriate threshold concentration were arbitrarily designated as follows:

- Level 1--sediment concentrations less than the threshold value
- Level 2--1 to 3 times the threshold value
- Level 3--3 to 10 times the threshold value
- Level 4--greater than 10 times the threshold value.

2.0 INVENTORY SCOPE AND METHODOLOGY

The purpose of this effort was to compile a national inventory of both marine and freshwater data that indicate the concentration of various chemicals in the sediment. A total of 48 chemical contaminants were initially identified by the EPA Office of Water Regulations and Standards (OWRS) and Battelle. These 48 chemicals represented seven categories of major pollutant chemical classes. Existing data sources were then evaluated and used to provide a broad-based geographic perspective on the level of these chemicals in sediments throughout the United States.

2.1 CONTAMINANT CATEGORIZATION AND DERIVATION OF THRESHOLD VALUES

The chemicals shown in Table 2.1 represent a diverse group of naturally occurring and anthropogenic materials indicative of compounds that have been of increasing environmental concern. This listing is not intended to be exhaustive, but rather is illustrative of the types of chemical data available for sediments. The percent distribution of the seven contaminant categories is summarized in Figure 2.1.

The seven chemical categories identified in this document are:

- polynuclear aromatic hydrocarbons
- pesticides
- chlorinated hydrocarbons
- mononuclear aromatic hydrocarbons
- phthalate esters
- metals
- miscellaneous

Table 2.1 also lists the threshold concentrations used to judge differences in the levels of various chemicals in sediments. The majority of these values was calculated using the methodology of the Sediment-Water

TABLE 2.1. TOXICANTS CONSIDERED/THRESHOLD CONTAMINATION CONCENTRATIONS[a] (DENOTED ON A DRY WEIGHT BASIS)

(I) Polynuclear Aromatic Hydrocarbons (PAH)	
	mg/kg
benzo(a)pyrene	1800
naphthalene	42
phenanthrene	56
chrysene	460
pyrene	198
fluorene	28
acenaphthene	66
anthracene	44
benzo(a)anthracene	220
acenaphthalene	24
indeno(1,2,3-CD)pyrene	24,000
benzo(k)fluoranthene	5,000

(II) Pesticides	
	mg/kg
lindane	0.012
DDD	13
DDE	28
aldrin	0.021
isophorone	9.6
DDT	0.006
chlordane[b]	0.020
toxaphene[b]	0.020
heptachlor[b]	0.020

(III) Chlorinated Hydrocarbons (Except Pesticides)

	mg/kg
hexachloroethane	14.4
hexachlorobutadiene	1.28
tetrachloroethylene	1.8
trichloroethylene	6.4
dichlorobenzene	2.8
methyl chloride	1.92
methylene chloride	2
PCBs(c)	0.28

(IV) Monoaromatic Hydrocarbons

	mg/kg
toluene	10
benzene	1.36
ethylbenzene	5.6
nitrobenzene	6.6
dinitrotoluene	0.88

(V) Phthalates

	mg/kg
butylbenzyl phthalate	220
di-N-butylphthalate	2,000
diethylphthalate	1.28
dimethylphthalate	1.96

(VI) Metals	
	mg/kg
arsenic	33
cadmium	31
copper	136
lead	132
mercury(d)	0.8
zinc	760
chromium(e)	25
nickel(e)	20

(VII) Miscellaneous	
	mg/kg
cyanide(d)	0.1

(a) Threshold concentrations are those determined by EPA/OWRS unless otherwise stated; criteria for organic contaminants are calculated on the basis of 4 percent organic carbon content of sediment.

(b) U.S. Geological Survey, sediment alert levels.

(c) Based on criterion for hexachlorobiphenyl.

(d) The value of 0.8 was not corrected for organic carbon. Correction of this value would have resulted in a mercury concentration of 0.03, which is considerably lower than the concentration of this metal in most sediments.

(e) EPA Region V guidelines for designating contaminated versus non-contaminated sediments.

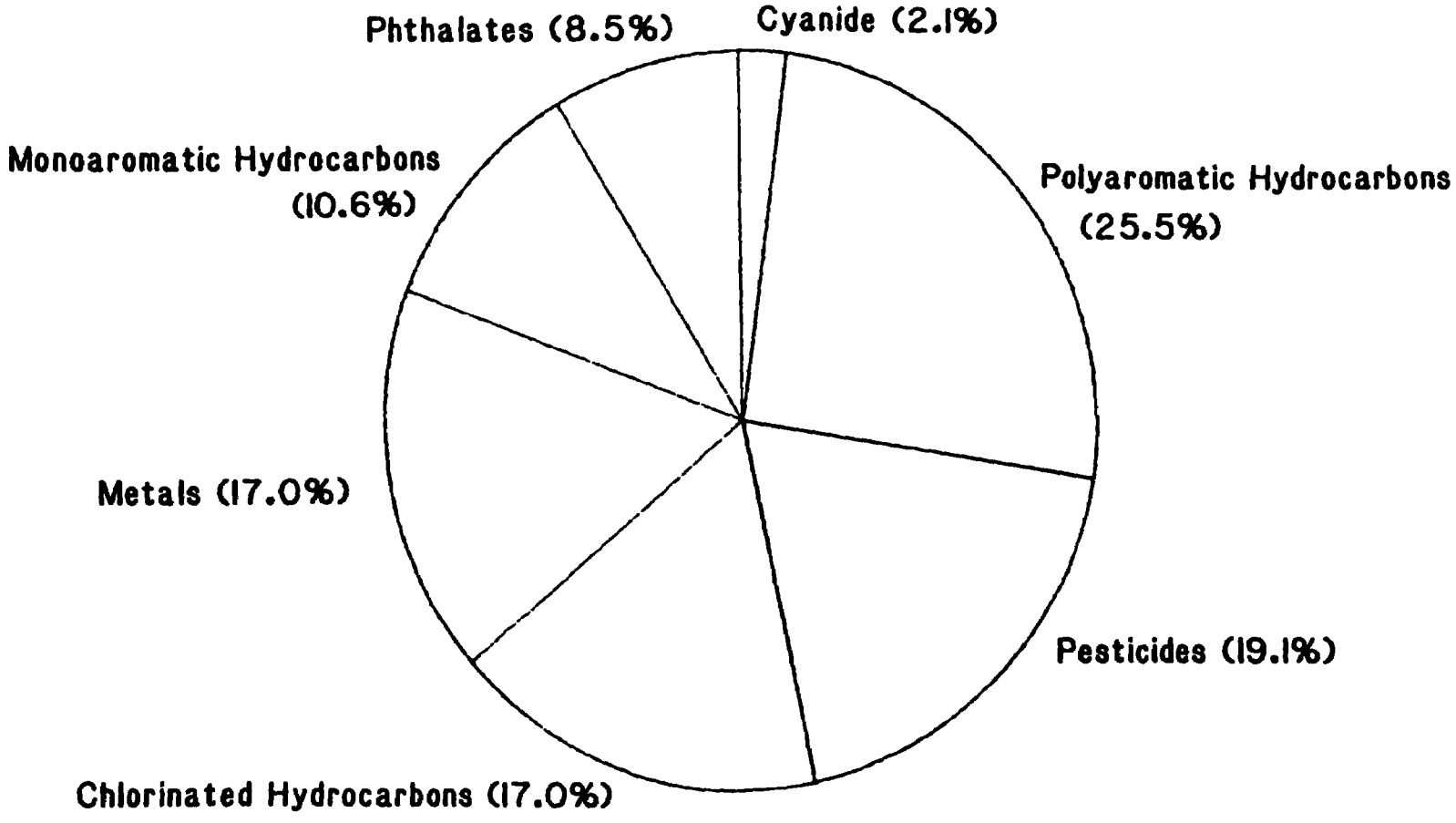


FIGURE 2.1. PERCENTAGE DISTRIBUTION OF INDIVIDUAL CHEMICALS AMONG CHEMICAL CATEGORIES

Equilibrium Partitioning Approach (Section 1.3.3 of this report) discussed in "Background and Review Document on the Development of Sediment Criteria" (JRB Associates, 1984a) and/or they were derived from the EPA document "Development and testing of the sediment-water equilibrium partitioning approach," (JRB Associates, 1984b). It is not the purpose of this overview to judge the adequacy of this approach for setting target concentrations vis-a-vis other alternatives but rather to assume that the values are useful and to apply them to the assessment of the ambient chemical measurements as described in Section 2.2.1.

In this approach, the assumption is made that the distribution of a chemical between the organic carbon phase of the sediment and the soluble phase in interstitial water in equilibrium with the solid phase is described by the organic carbon-water partition coefficient (K_{OC}) for the chemical. If the water quality criterion value for the chemical is taken to be the maximum acceptable concentration of the chemical in solution in the interstitial water, then the threshold concentration of the chemical in the bulk sediment is calculated based on the sediment organic carbon-normalized K_{OC} for the chemical.

The methodology for derivation of criteria using this approach is presented in the aforementioned document and was discussed during the workshop. The advantages and disadvantages of this methodology are listed below to permit the reader to form specific judgments regarding relevancy to biological thresholds.

Advantages

- The large toxicological data base incorporated in the EPA water quality criteria is directly utilized for sediment quality criteria. Sediment quality criteria can be readily developed for those compounds for which EPA water quality criteria are available and for those compounds which are assigned water quality criteria in the future.
- "First-cut" criteria are available that can then be verified by future field and laboratory studies.

Disadvantages

- No sediment criteria can be established for those compounds for which EPA water quality criteria have not been developed.
- The approach does not account for any increase in contaminant burden which may result from ingestion of or direct body contact with contaminated sediments above that which is attained simply by absorption from the interstitial/overlying water.
- The assumption of contaminant equilibrium between sediment and interstitial water, inherent in the approach, may not always hold in natural systems (Prahl and Carpenter, 1983).
- Criteria developed for trace metals have a very high associated uncertainty, making their regulatory application difficult.
- The method does not consider the effect of interstitial water dissolved organic carbon on partitioning and bioavailability of highly hydrophobic chemicals.

This approach does, however, allow a numerical "threshold" to be established against which available monitoring data can be compared. The non-judgmental use of this approach allows the distribution of the data set into percentiles "above" and "below" the threshold even though one might question the significance of the results relative to the observed integrity or lack of integrity of biological communities.

Threshold values derived from the sediment-water partitioning approach are based on the organic carbon content of the particular sediment. These values were adjusted to a whole sediment basis on the assumption that an average sediment contains 4 percent total organic carbon. Furthermore, the values are compared to the monitoring data on a dry weight equivalent basis. For several chemicals, where both acute and chronic water quality criterion values are available, the chronic values were selected for this exercise. The chemicals for which chronic values have been used are noted in the text.

The 4 percent value for average TOC is high for many freshwater and certainly most marine/estuarine sediments. A more typical value may be in the 1-2 percent range. If 2 percent TOC had been chosen for calculation of TOC-normalized sediment threshold concentrations for chemicals, the values in

Table 2.1 would have been half those listed. More sites would have been identified with sediment chemical concentrations above the threshold values.

However, a greater source of uncertainty in generating sediment threshold values using this method is the wide variation in published K_{OC} values for each chemical. K_{OC} values calculated for the same chemical by different investigators and/or under different physical/chemical parameter regimes may differ by several orders of magnitude. For instance, the threshold value for zinc originally was calculated as 19,000 $\pm$ 38,000 mg/kg, based on the uncertainty of the K_{OC} value for zinc. Because, TOC-based sediment normalization theory has been more completely validated for non-polar organic compounds than for heavy metals and polar organics, threshold values for non-polar organics (chemical classes I-V in Table 2.1) probably are more reliable than those for metals and cyanide.

Threshold values for six of the chemicals were not available from EPA sediment criterion developmental documents. Values for three pesticides, chlordane, toxaphene and heptachlor, were obtained from alert levels established by the U.S. Geological Survey. The establishment of the values of 0.02 mg/kg for these constituents was based on a decision to examine in greater detail 15-20 percent of the samples analyzed from heavily contaminated areas (JRB Associates, 1984b). No toxicological implications were intended.

Freshwater threshold values for two metals, chromium and nickel, and for cyanide were obtained from guidelines developed by EPA Region V. As in the case of the Geological Survey alert levels, these concentrations were intended for the classification of polluted sediments and are of limited applicability. Additional test data are required in order to judge the significance of the observed sediment contamination levels.

2.2 METHODS FOR DATA ACCESSION AND PRESENTATION

The methods used to evaluate the level of various chemicals in sediments of freshwaters, marine waters and estuaries was consistent to the extent

that the data search included the same chemicals and selected threshold values. The exception to this was chromium for which only marine data were available.

To compare the monitoring data, the concentrations were divided for convenience into four subranges--designated as "Level 1" (less than the threshold value), "Level 2 (1-3 times the threshold value), "Level 3" (3-10 times the threshold value), and "Level 4" (greater than 10 times the threshold value).

Additional information was compiled, where available, to place this information in perspective. Because of the differences in the amount of data available and the capability to computer process only part of the data base, the detailed methodologies for processing and interpreting the freshwater and marine/estuarine data are described in separate sections.

2.2.1 Freshwater Data Base

A very large data base was available for evaluation of contamination of sediments in streams, rivers, lakes and reservoirs. The EPA Storage and Retrieval (STORET) System was the primary source of data for this effort. Of the group of 48 chemicals identified initially, data on 22 were obtained from the STORET system and over 255,000 data records were processed. No attempt was made to judge the quality of these data or the accuracy and precision of the analytical techniques used to obtain them. Additional descriptive information on the site-specific biological implications of some parameters was obtained from appropriate journals and reports.

2.2.1.1 STORET Chemical Data

To gain some appreciation of the distributions of sediment chemical concentration data and to allow comparison of the various classification levels of the measured ambient concentrations, a graphical plot of the decimal

log of concentration versus cumulative frequency was prepared for each chemical. For plotting purposes, data points recorded as zero in the data base were assumed to represent values below the detection limit of the analytical technique. The percentage of such values was determined for each chemical in order to judge the proximity of the threshold concentration to the analytical limits.

As described previously, the concentration range above the Level 1 value was subdivided into several subranges. The statistical implications of setting a criterion at any of these points were compared against the national STORET data base. Most of the cumulative frequency plots contain between 5,000 and 20,000 data points for each chemical so the plots are described by smooth curves.

To provide additional perspective on the distribution of various chemicals in the nation's freshwater sediments, the median, 90th and 95th percentile concentrations were identified on the cumulative frequency plots. The threshold concentration values can be readily compared to these percentile points. A comparison of the data was also made against other proposed sediment quality criteria. This comparison permits observations to be made about the regulatory consequences of setting other threshold levels.

While the cumulative frequency plots provide a perspective of the percentage of sample sites that exceed the threshold, these plots give no indication of geographic distribution. National and regional maps have been prepared to illustrate these distributions.

The geographic distribution of sites with elevated concentrations of specific chemicals in sediments was evaluated by arranging the 200 highest concentration measurements for each chemical from highest to lowest. In cases where more than one analysis had been performed at a single site (as determined from identical station numbers), the arithmetic mean concentration was tabulated. When adjacent stations were reported that differed in location by only a few seconds of latitude or longitude, these data were judged to

represent the same site area. For a given site area, only the highest mean concentration was used for the maps. Tabular summaries show all of the individual sites comprising an area and are contained in the Appendix (Tables A-1 to A-22).

The mapped data are shown at two scales--national and regional. National maps for each of three groups of chemicals were developed to provide an overview of the distribution of high concentration sites around the country. This scale map is also useful to examine areas having potential problems because of the occurence of multiple chemicals. The national maps were further subdivided into regional maps on the basis of EPA Regions (Figure 2.2). The larger scale of these maps allows viewing the data for specific sites at greater resolution. The data symbols were placed on the maps at approximately the correct locations using longitude and latitude coordinates. Where multiple chemicals are present at the same place, the symbols were displaced slightly to improve the readability of the map.

2.2.1.2 Ancillary Chemical and Biological Data

To aid in the interpretation of the large amount of STORET data, the open literature was examined for general and site specific investigations of correlations between sediment pollutant burden and benthic community structure. The large number of parameters, the lack of case study data for many sites and chemicals, and the constraints of time precluded this activity from being much more than illustrative of the scope of the potential problem. This information is discussed after the presentation of the STORET data for metals, PCBs, and PAHs. No correlative data were found for the other chemicals.

2.2.2 Marine/Estuarine Data Base

Concentrations of various chemicals in marine and estuarine sediments were obtained from the published literature and from some literature with limited distributions. An additional set of unreferenced data points was derived from the STORET data file. All sediment concentration data were

FIGURE 2.2. DIVISION OF NATIONAL MAP INTO REGIONAL AREAS

entered on an IBM personal computer, and the data set was sorted to facilitate data presentation. While the data base presented in this report is not complete or even exhaustive, it does present a preliminary national perspective of the sediment quality status of marine and estuarine sites. Marine/estuarine data were placed on the national and regional maps in the same manner as the fresh water data.

2.2.2.1 STORET Chemical Data

Marine/estuarine STORET data were limited to median concentrations of various chemicals. No ranges of concentration were given and the data base was insufficient to manipulate data in the manner described for the freshwater data sets.

2.2.2.2 Data Identification

Due to time contraints, the literature search was limited to readily available journal articles and publications in the open literature, and included numerous reports from state and federal agencies.

Many additional data bases and sources of information were identified but were not included in this report due to the lead time necessary to access files. Notable among these data bases are: the Ocean Pollution Data and Information Data Network (OPDIN), and the National Oceanographic Data Center (NODC) Marine Toxic Substances and Pollutants Data File. Both systems were established by the National Oceanic and Atmospheric Administration (NOAA) to improve dissemination of data and information resulting from ocean pollution programs conducted or sponsored by the U.S.federal government. NODC provides a substantial quantity of data on toxic substances and pollutants in the marine environment. These data sets are generally limited to a few specific sites, i.e., Puget Sound, Gulf of Mexico, the New York Bight region, and Alaska. Both systems have automated data retrieval systems. Another important source of data for a more detailed review is an extensive computerized inventory of long-term monitoring programs prepared by Battelle for NOAA's Ocean

Assessments Division. This inventory includes marine pollution monitoring programs conducted by private organizations, state, and federal agencies for durations of at least two years. The inventory contains names and addresses, including phone numbers, of cognizant individuals, who may be approached with a request to submit published or unpublished reports which otherwise might be unavailable or difficult to obtain.

3.0 RESULTS AND DISCUSSION--FRESHWATER

The following sections are organized according to the chemical groups identified in Table 2.1. Plots of cumulative frequency versus concentration in sediments are presented for each chemical. Threshold, 3X and 10X threshold concentrations as well as 50, 90, and 95 percent frequency concentrations are included in each graph. To further aid in the comparison of chemicals to their respective threshold values, a summary table is provided within each section. Because the threshold values obtained via the sediment water partitioning approach (JRB Associates, 1984a) are tentative, alternative criteria are also shown and compared to the data. Additional comparative commentary is included to place these values in perspective, but the extent of this information is limited due to the nature of this study.

As described in Section 2, organic carbon based threshold values were determined for each of the chemical contaminants via the sediment-water partition coefficient approach outlined in the document, "Background and Review Document on the Development of Sediment Criteria," and then converted to a whole sediment basis on the assumption of a typical organic-carbon level of 4 percent.

3.1 METALS

STORET data for metal concentrations in sediments were quite extensive. With the exception of copper, the data base contained between 5,000 and 20,000 measurements for each metal. The copper data were restricted to wet weight determinations due to limitations in the STORET data transfer. The total STORET data base size for dry weight copper measurements is comparable to that for the other metals so that future evaluation of the STORET data base could utilize a more extensive data set.

The log concentration in sediments versus cumulative frequency plots for copper, lead, mercury, zinc, nickel, arsenic and cadmium are shown in Figures 3.1 to 3.7, respectively. These figures typically exhibit a sigmoid (S-)

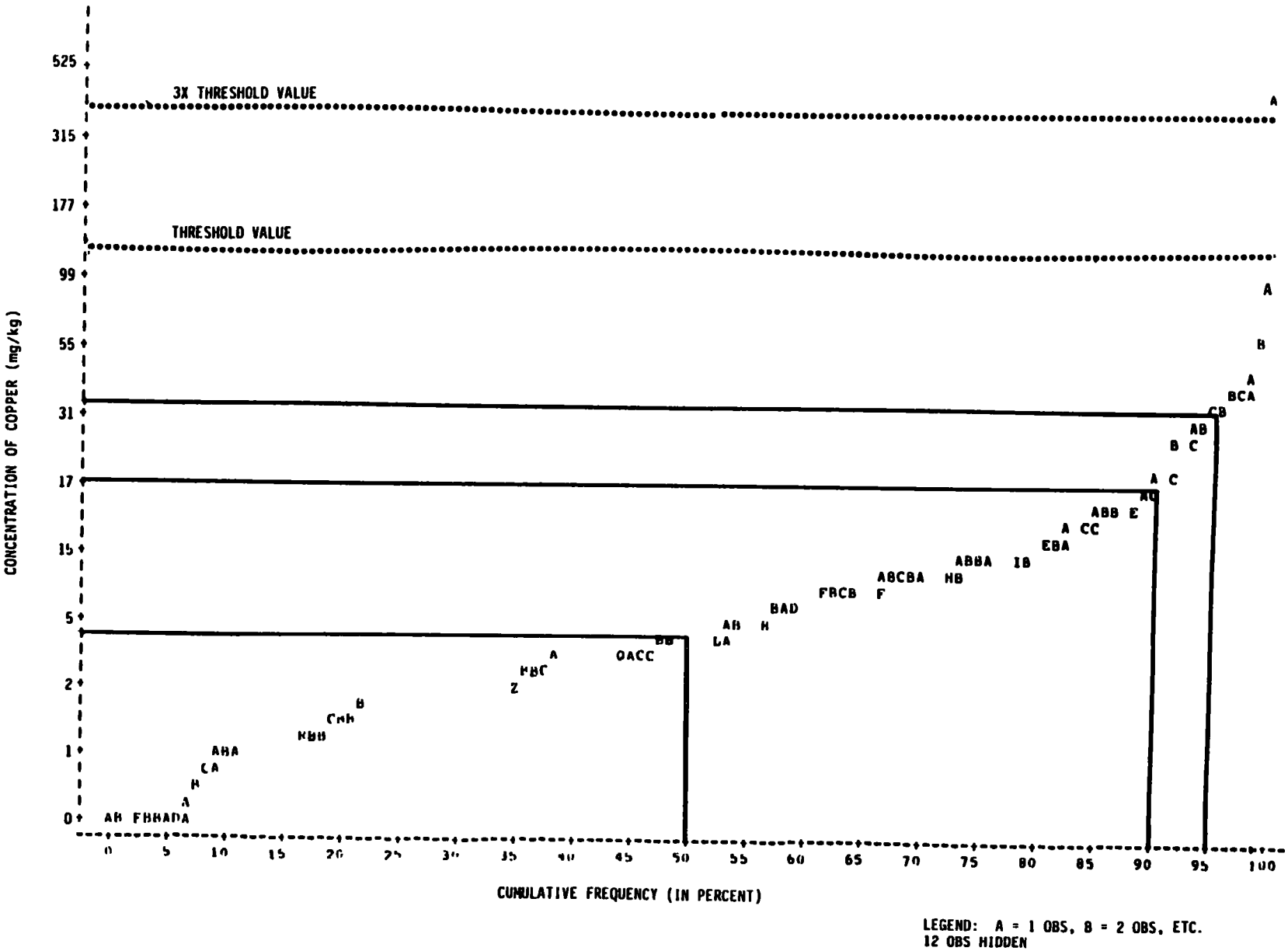


FIGURE 3.1 CUMULATIVE FREQUENCY PLOT FOR COPPER

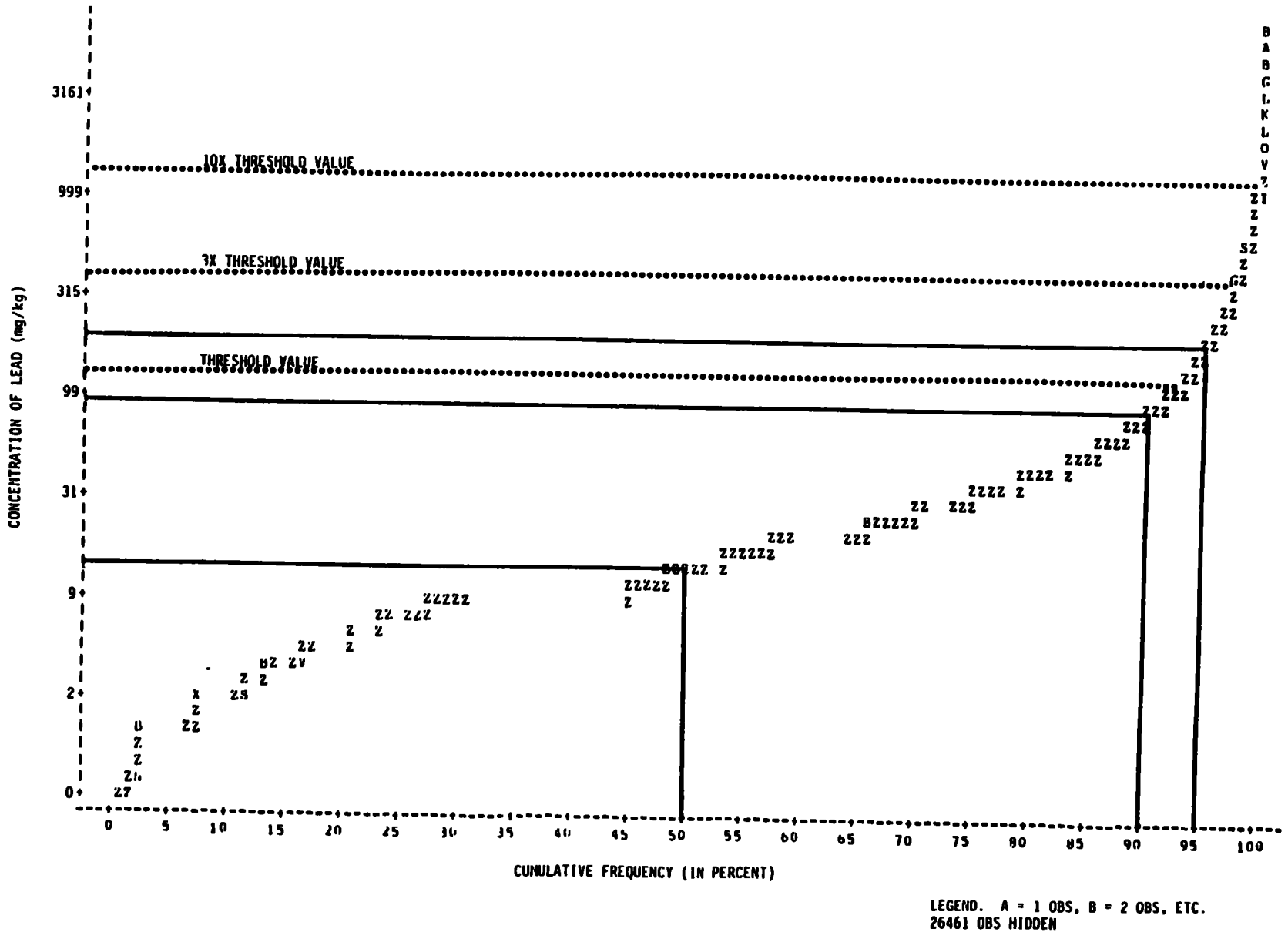


FIGURE 3.2 CUMULATIVE FREQUENCY PLOT FOR LEAD

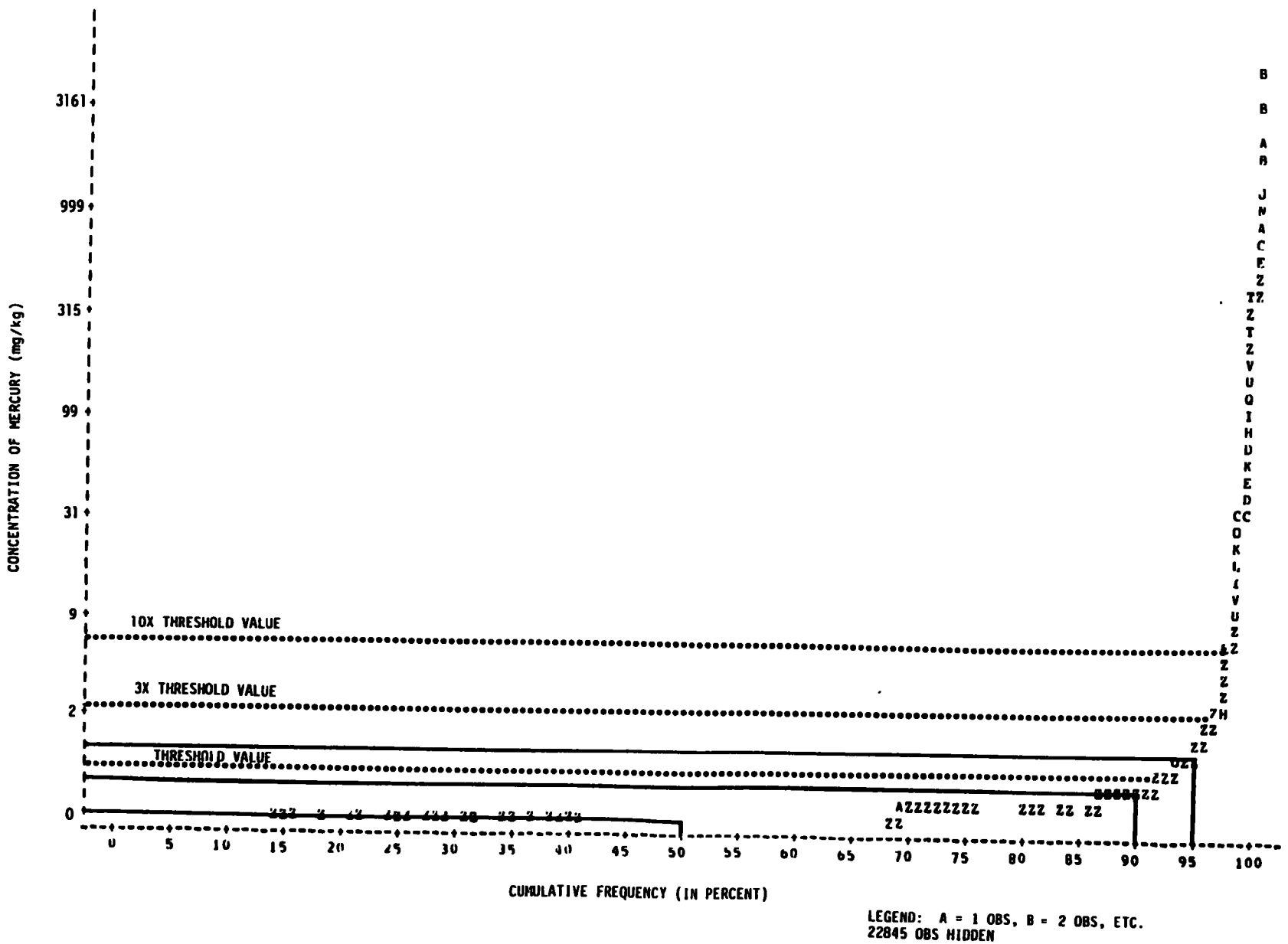


FIGURE 3.3 CUMULATIVE FREQUENCY PLOT FOR MERCURY

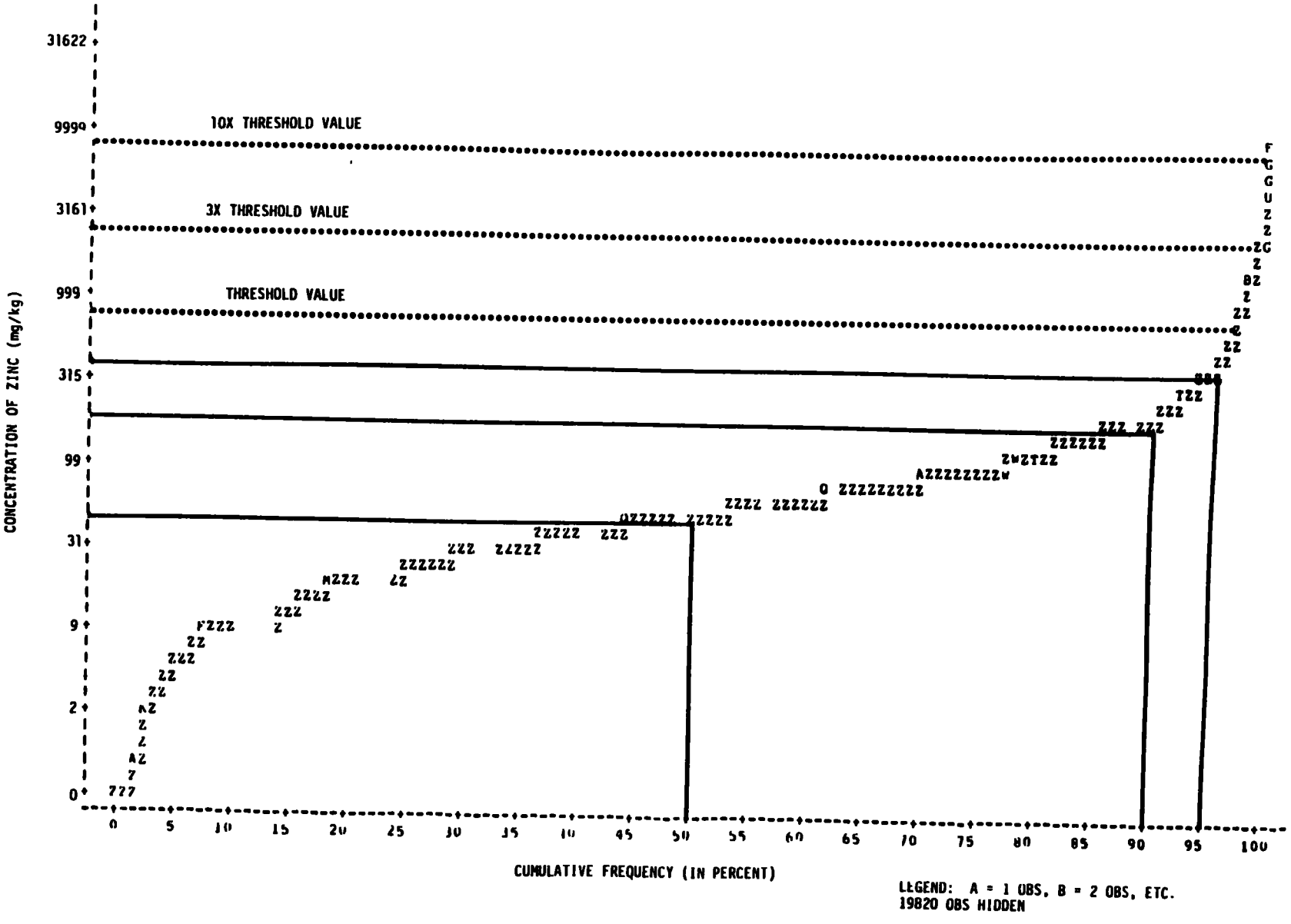


FIGURE 3.4 CUMULATIVE FREQUENCY PLOT FOR ZINC

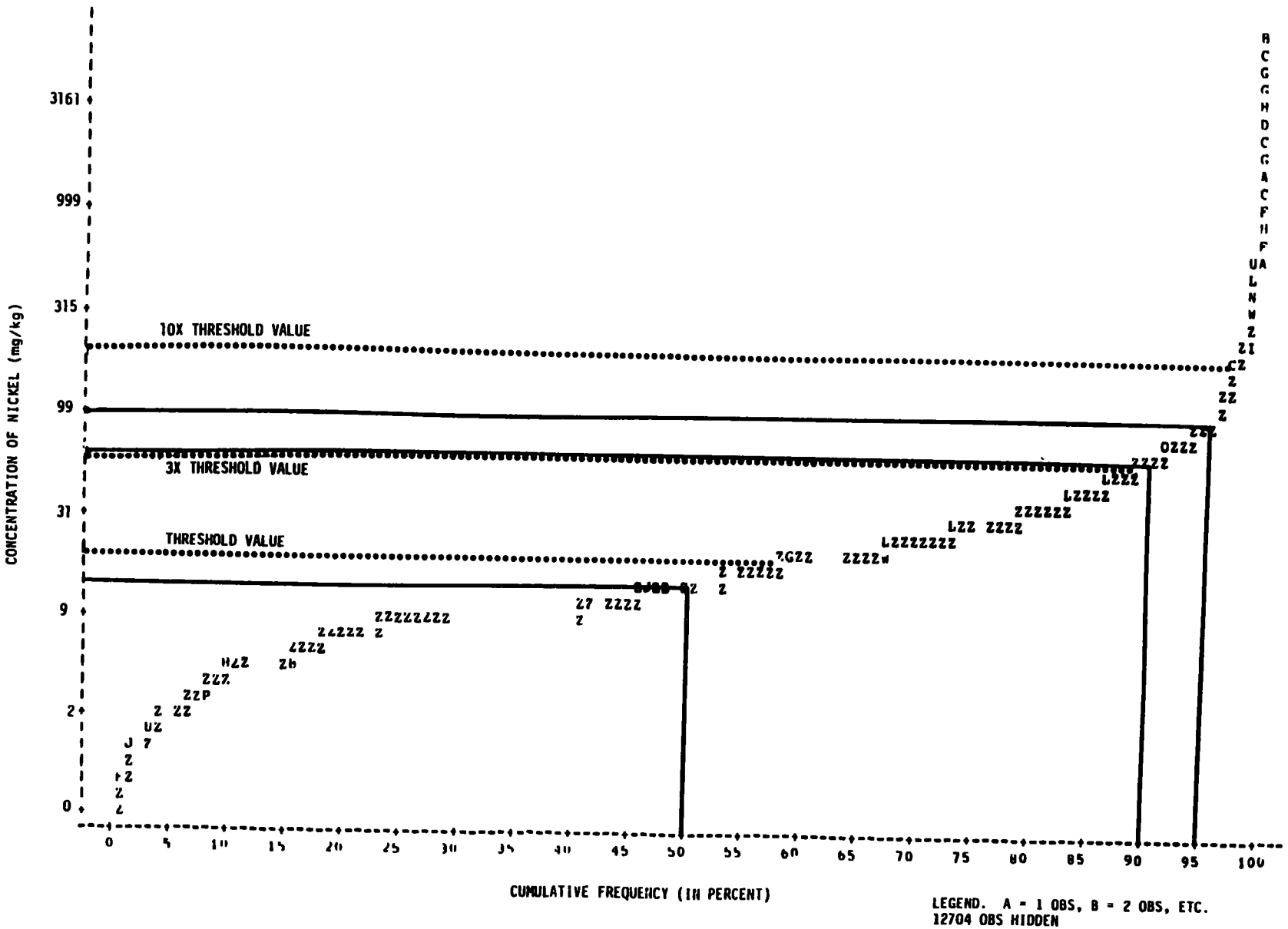


FIGURE 3.5 CUMULATIVE FREQUENCY PLOT FOR NICKEL

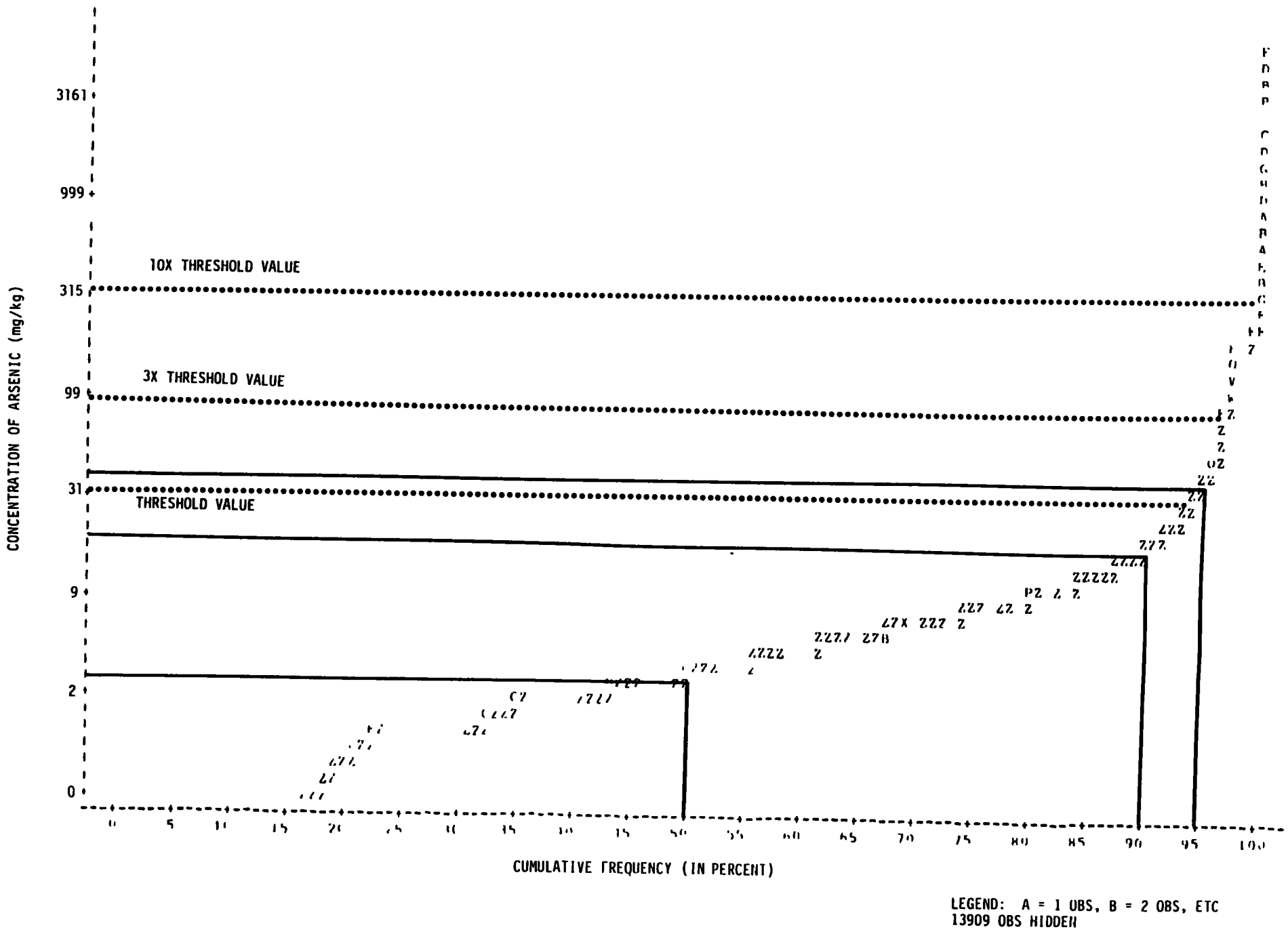


FIGURE 3.6 CUMULATIVE FREQUENCY PLOT FOR ARSENIC

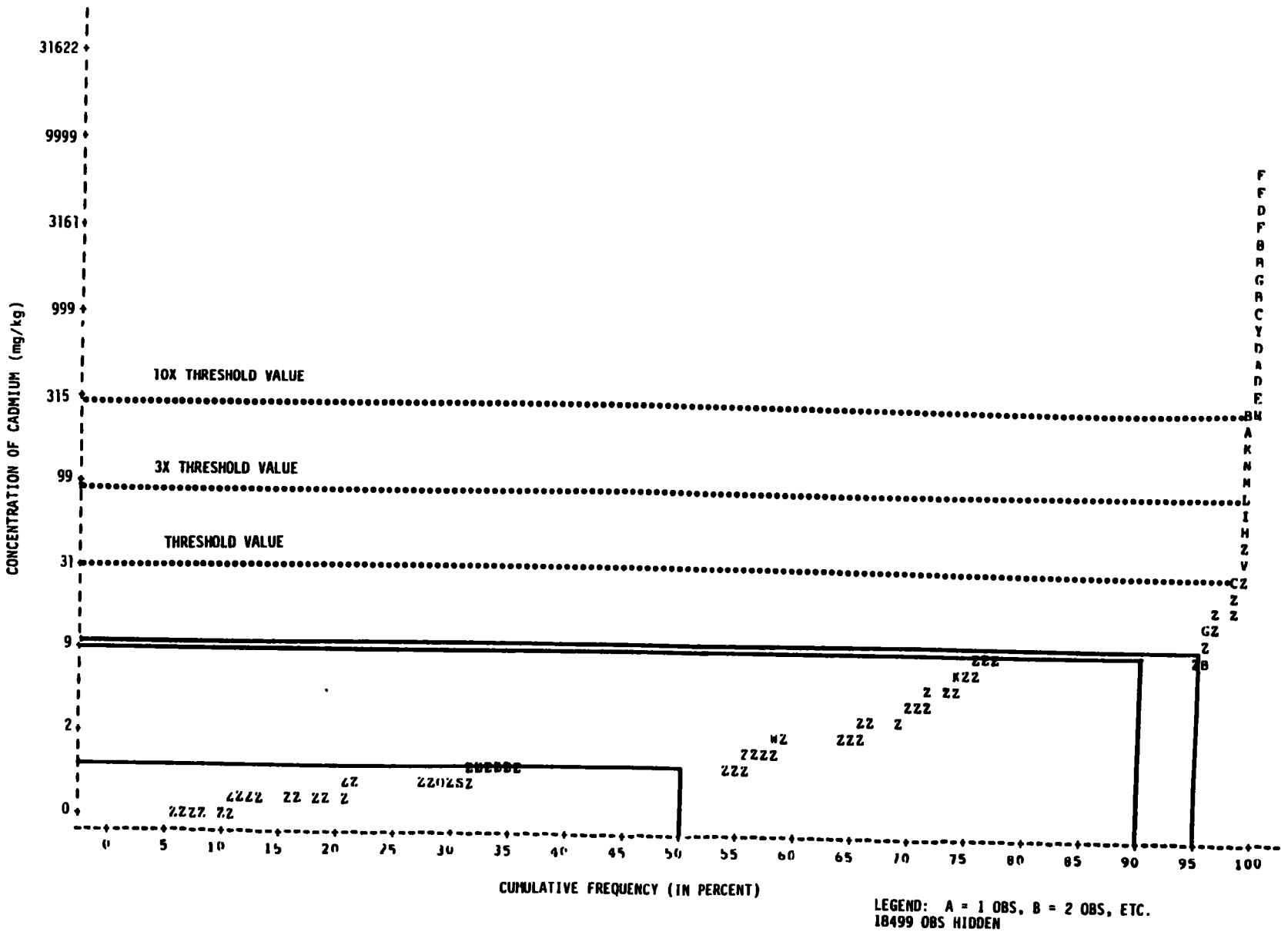


FIGURE 3.7 CUMULATIVE FREQUENCY PLOT FOR CADMIUM

shape on this type of plot. When transformed to a probability scale on the x-axis, the plots are nearly straight lines indicating log-normally distributed data. Table 3.1 provides a comparative summary of the data. The most striking aspect of this summary is the large percentage of data in the Level 1 range (less than threshold value). Irrespective of whether the preliminary thresholds concentrations derived from chemical partitioning represent valid and defensible biotic thresholds, the implication for a regulatory strategy conditional upon these levels are that very few areas would be considered sufficiently contaminated to require remedial action.

For each of the metals, a very small percentage of the data appears in Level 4 (more than ten times threshold value). A review of the readily available open literature, however, seems to indicate a need to carefully examine the rationale for establishing these threshold levels. For example, in a study of Portage Lake, environmental degradation was noted in an area where sediment metals concentrations averaged 589 mg/kg (Malueg, 1984). Also in the Little Grizzly Creek System in California, Malueg (1984) noted that ephemeropterans (mayflies) and plecopterans (stoneflies) were rare or absent from a location containing 2200 mg/kg of copper.

Bioconcentration may be another area of concern when evaluating the threshold values. Leland et al. (1978) describes a rural stream located in Illinois, which had low levels of cadmium and lead in the water but substantially elevated levels in the sediments and organisms. Leland states that "concentration factors increased in the order fish < sediment < aquatic insects < snails." Schuytema (1984) reports that although sediment-sorbed cadmium was observed to have little effect on Daphnia magna mortality, it may have a pronounced effect on benthic organisms that ingest large quantities of sediment relative to water intake.

For each of these metals, alternative threshold values have been suggested by EPA Region V and the USGS. In the subsequent discussion, the more conservative alternative threshold is the EPA value; the less conservative, the USGS sediment alert levels. For copper, 25 mg/kg and 2000 mg/kg represent the range of these other suggested threshold values. With a threshold value

TABLE 3.1. FRESHWATER DATA SUMMARY--METALS

	Threshold Concentration (mg/kg)	Total Number of Locations	Percent in Level 1	Percent in Level 2	Percent in Level 3	Percent in Level 4	Median Concentration (mg/kg)	95th Percentile Concentration (mg/kg)	Maximum Concentration (mg/kg)
Cu	136	300	99.9	none	0.1	none	4.0	32	493
Pb	132	32,024	92.5	5.0	1.5	1.0	16	199	19,000
Hg*	0.8	24,989	92	4.0	2.0	2.0	< 1.0	1.0	40,000
Zn	760	23,382	96	1.5	1.5	1.0	41	379	50,800
Ni	20	15,690	57	32	7.0	3.0	13	99	6,000
As	33	16,275	94	3.5	2.4	0.1	4.0	39	6,200
Cd	31	20,297	97.5	1.0	1.0	0.5	1.0	12	8,230

*The mercury and values were not corrected for organic carbon content.

of 2000 mg/kg, all the data would be classified as Level 1. A total of 8 percent of the STORET data appear in the Level 2 range with the lower threshold of 25 mg/kg.

For lead, 40 mg/kg and 500 mg/kg are the suggested threshold range endpoints. With a threshold level of 40 mg/kg, 21 percent of the data points were distributed in Levels 2, 3, and 4. With a threshold value of 500 mg/kg, 1 percent of the data were so distributed.

The alternate criteria for mercury span the range between 1 mg/kg and 20 mg/kg. At 1 mg/kg, 6 percent of the data points were above this designated threshold value. At 20 mg/kg, 2 percent of the sediments exceeded Level 1.

For zinc, 90 mg/kg and 5000 mg/kg were the limits of suggested threshold values. At 90 mg/kg, 31 percent of the sediments would be designated as greater than Level 1. At 5000 mg/kg, less than 0.01 percent of the data are above level 1.

The only alternative concentration for nickel was 2,000 mg/kg. At 2000 mg/kg, less than 0.2 percent of the data would be classified in a level other than Level 1.

For arsenic, 3 mg/kg and 200 mg/kg are two suggested threshold values. At 3 mg/kg, 62 percent of the sediments would be classified in Levels 2, 3, and 4. This percentage represents a significant number of sites and is suggestive of a definite need to evaluate this alternative threshold. At 200 mg/kg, only 3 percent of the data would be distributed in the higher three levels.

For cadmium, 6 mg/kg and 20 mg/kg were the two suggested threshold values. At 6 mg/kg, 26 percent of the data would fall in levels greater than one. At 20 mg/kg, 4 percent of the data would be classified in Levels 2, 3, and 4.

In general, for the metals examined, the vast majority of the data is classified in Level 1. The data in the upper three levels are distributed rather evenly with a slight increase in Level 2. Application of the lower range of alternative criteria would result in greater numbers of sites requiring regulatory scrutiny. As stated in Section 2.2, no freshwater STORET data were acquired for chromium, although such measurements are available within STORET.

3.2 POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)

STORET data for PAH concentration in sediments were judged to be adequate for assessment in terms of number of data points. The data base for each PAH typically consisted of approximately 400 measurements with the exception of the benzo(a)anthracene data base which consisted of approximately 1,500 measurements. Although it is the most-frequently analyzed PAH in water and sediments, benzo(a)pyrene is not here in the evaluation of freshwater sediments due to difficulties in accessing the appropriate data for this compound from STORET.

The log concentration versus cumulative frequency plots for acenaphthalene, anthracene, benzo(a)anthracene, fluorene, and phenanthrene are shown in Figures 3.8 to 3.12, respectively. The plots reflect the ubiquitous nature of PAHs in that a comparatively low percentage was below detection. A comparative summary of the data is provided in Table 3.2. The most striking aspect of this summary is that the vast majority of the data is classified in Level 1. The threshold values used to make this classification, however, must be proven defensible and biologically relevant. Median concentrations, the highest concentrations, and the concentrations below which 95 percent of the data falls are quite similar for all the PAHs shown in Table 3.2 with the exception of benzo(a)anthracene which exhibits even lower values.

PAHs are of environmental concern due to the carcinogenic and/or mutagenic properties of some of them. High incidences of tumors in carp and goldfish of the Lake Erie tributaries have been correlated with high concentrations of PAHs in sediment (Black et al., 1980). In laboratory studies, PAHs have induced tumors in fish as well as caused the production of carcinogenic metabolites (Neff, 1979). A high incidence of tumors was observed in Great Lakes fish that feed primarily on the bottom (Sonstegard, 1977).

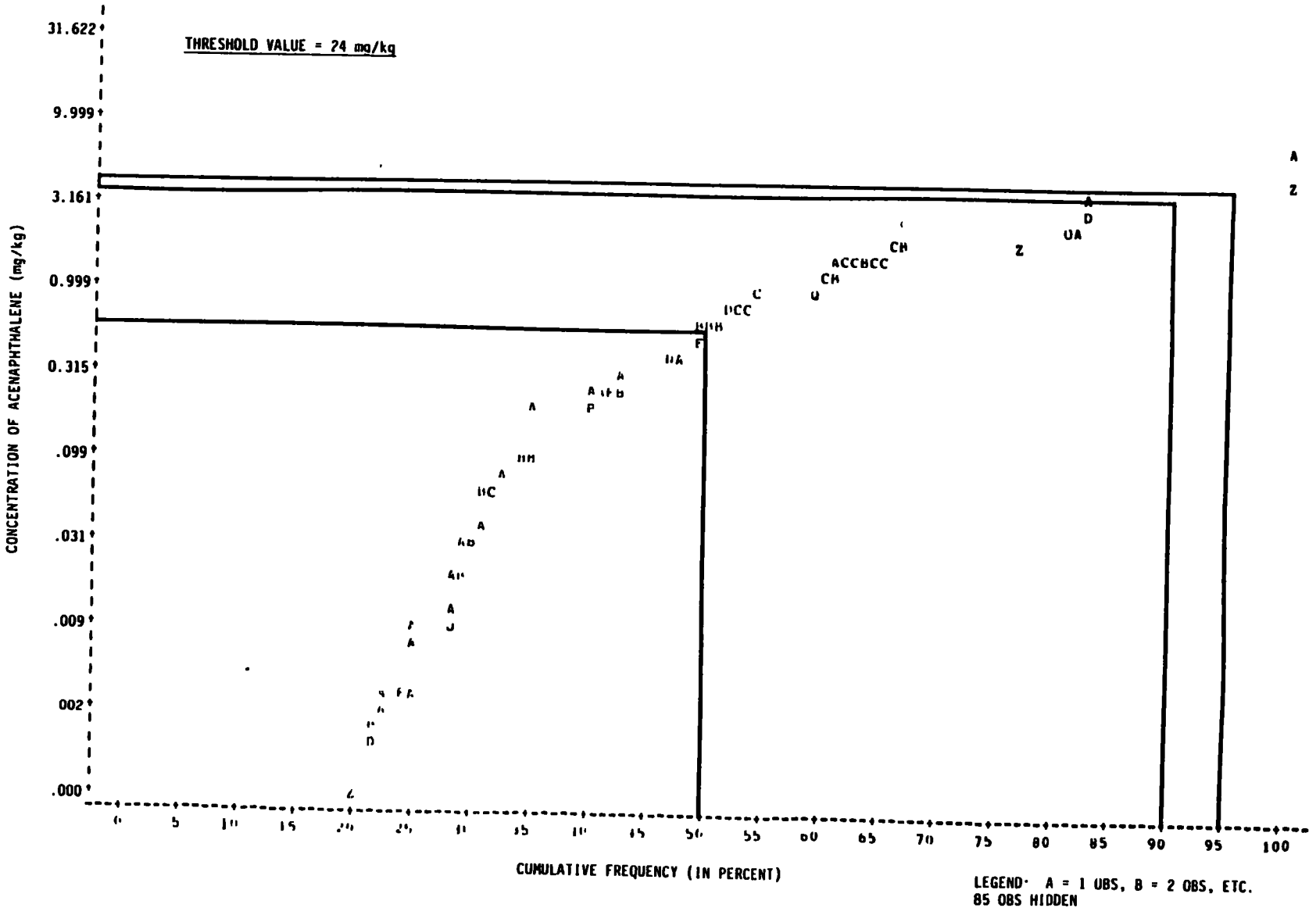


FIGURE 3.8 CUMULATIVE FREQUENCY PLOT FOR ACENAPHTHALENE

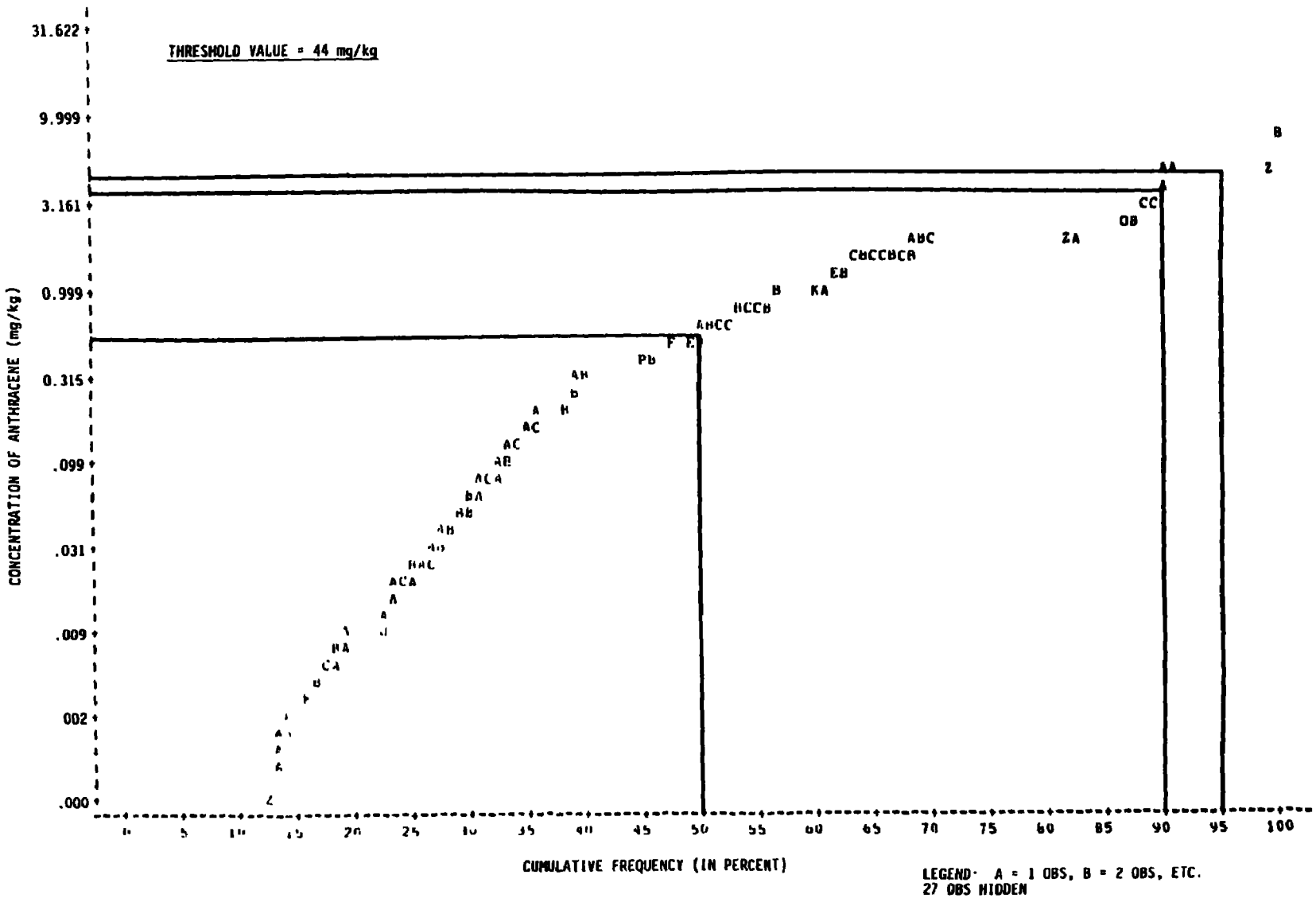


FIGURE 3.9 CUMULATIVE FREQUENCY PLOT FOR ANTHRACENE

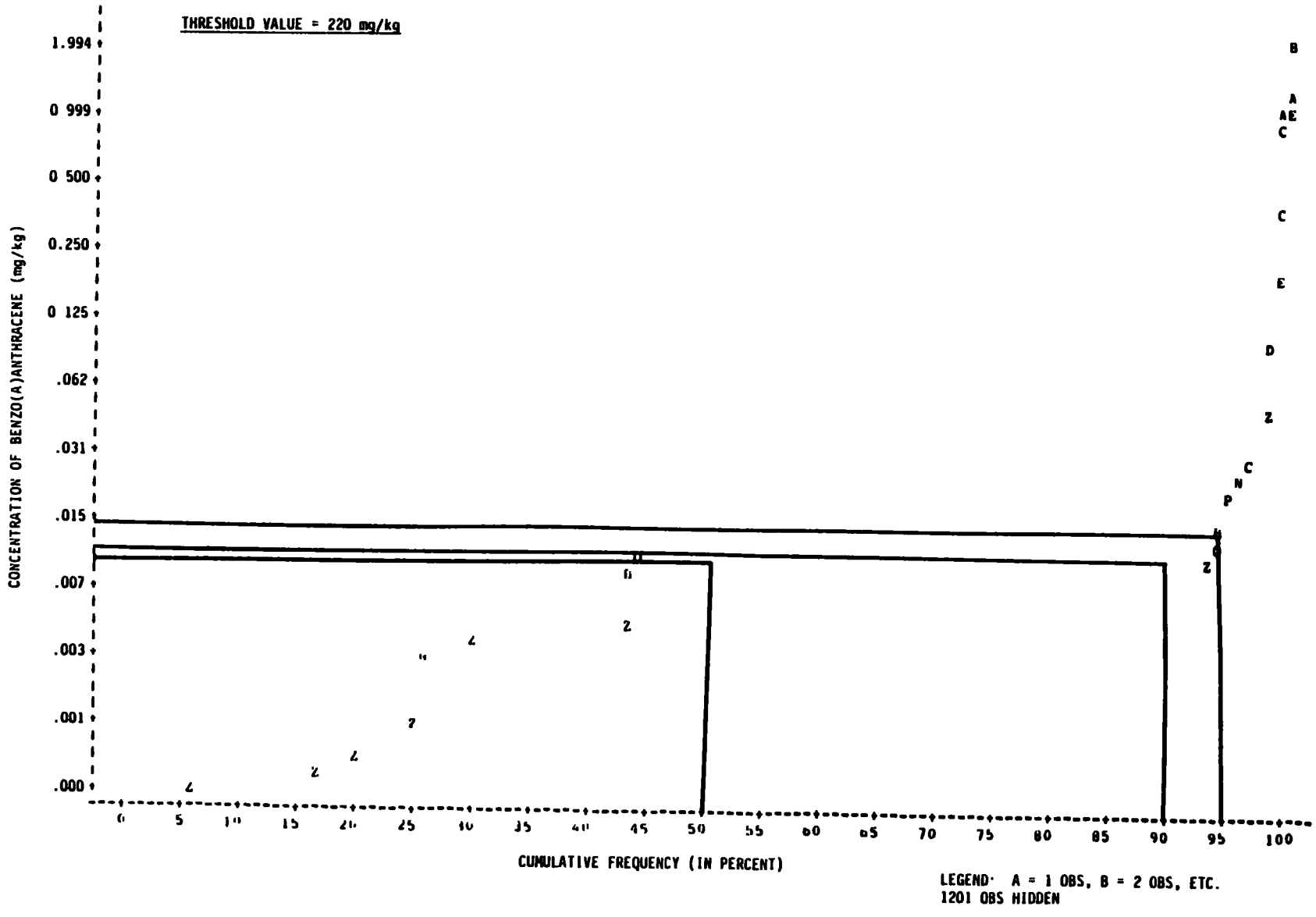


FIGURE 3.10 CUMULATIVE FREQUENCY PLOT FOR BENZO(A)ANTHRACENE

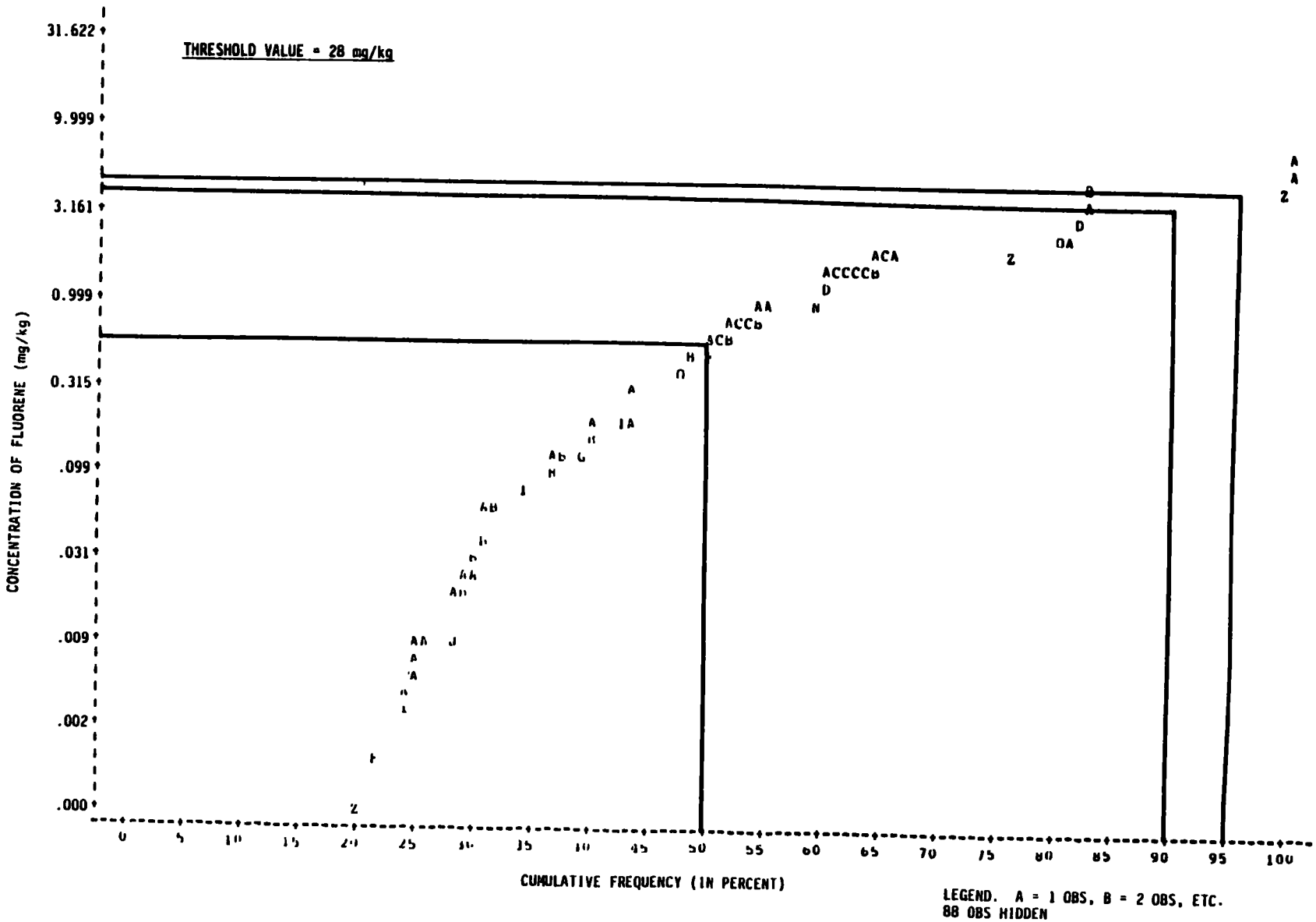


FIGURE 3.11 CUMULATIVE FREQUENCY PLOT FOR FLUORENE

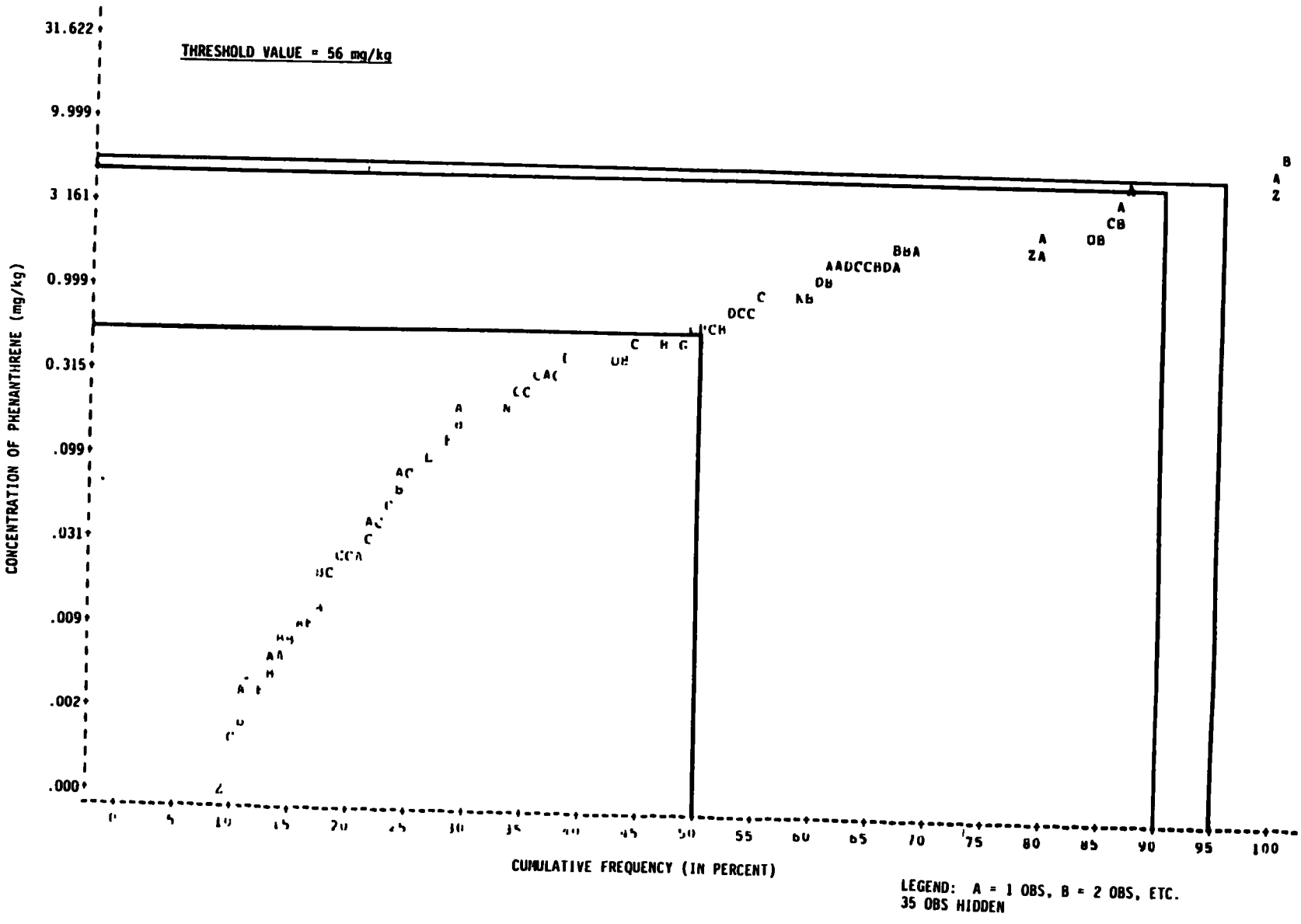


FIGURE 3.12 CUMULATIVE FREQUENCY PLOT FOR PHENANTHRENE

TABLE 3.2. FRESHWATER DATA SUMMARY--POLYNUCLEAR AROMATIC HYDROCARBONS

	Threshold (mg/kg)	Median Concentration (mg/kg)	95th Percentile Concentration (mg/kg)	Highest Concentration (mg/kg)
acenaphthalene	24	0.6	4.3	5.0
anthracene	44	0.5	4.5	17.0
benzo(a)anthracene	220	0.010	0.014	0.650
fluorene	28	0.6	4.5	6.3
phenanthrene	56	0.6	5.6	6.4

Bioaccumulation of PAHs within benthic organisms is also a major concern when determining appropriate PAH levels. While some invertebrates have inducible mixed function oxygenase systems capable of metabolizing PAHs, others may lack the appropriate enzymes for biotransformation. Oligochaete worms, chironomids, and amphipods may contain concentrations of PAHs in their tissues similar to those in the fine-grained organic rock sediment in which they live. The amphipod, Pontoporia hoyi, in Lake Michigan, have bioconcentration factors for PAH ranging from 10^4 to 10^5 with respect to the overlying water column (Eadie et al., 1982).

Alternative criteria were not readily available for PAHs. The only site specific information obtained in this review referred to the Great Lakes Region. Lake Superior had sediment concentrations that were ten times lower than the lower Great Lakes. Lake Michigan had the highest sediment concentrations. The available data correlate well with the hypothesis of localized urban sources.

3.3 PHTHALATE ESTERS

The quantity of STORET data for for phthalate ester concentrations in sediments was adequate. The data base for both esters consisted of approximately 400 measurements.

The log concentration versus cumulative frequency plots for diethylphthalate and dimethylphthalate are shown in Figures 3.13 and 3.14, respectively. The shapes of the plots reflect the ubiquitous nature of phthalate esters in the environment. There are few high concentration "hot spots" that would be indicative of industrial point sources. Table 3.3 provides a summary of the data. The most notable aspect in the summary is the lack of Level 4 range data.

The summary indicates that a significant number of sites are classified as Level 3 for diethylphthalate. Dimethylphthalate, on the other hand, contains a significant number of values in Level 2. In general, the data for both phthalates are similar in terms of the shape of the respective distributions.

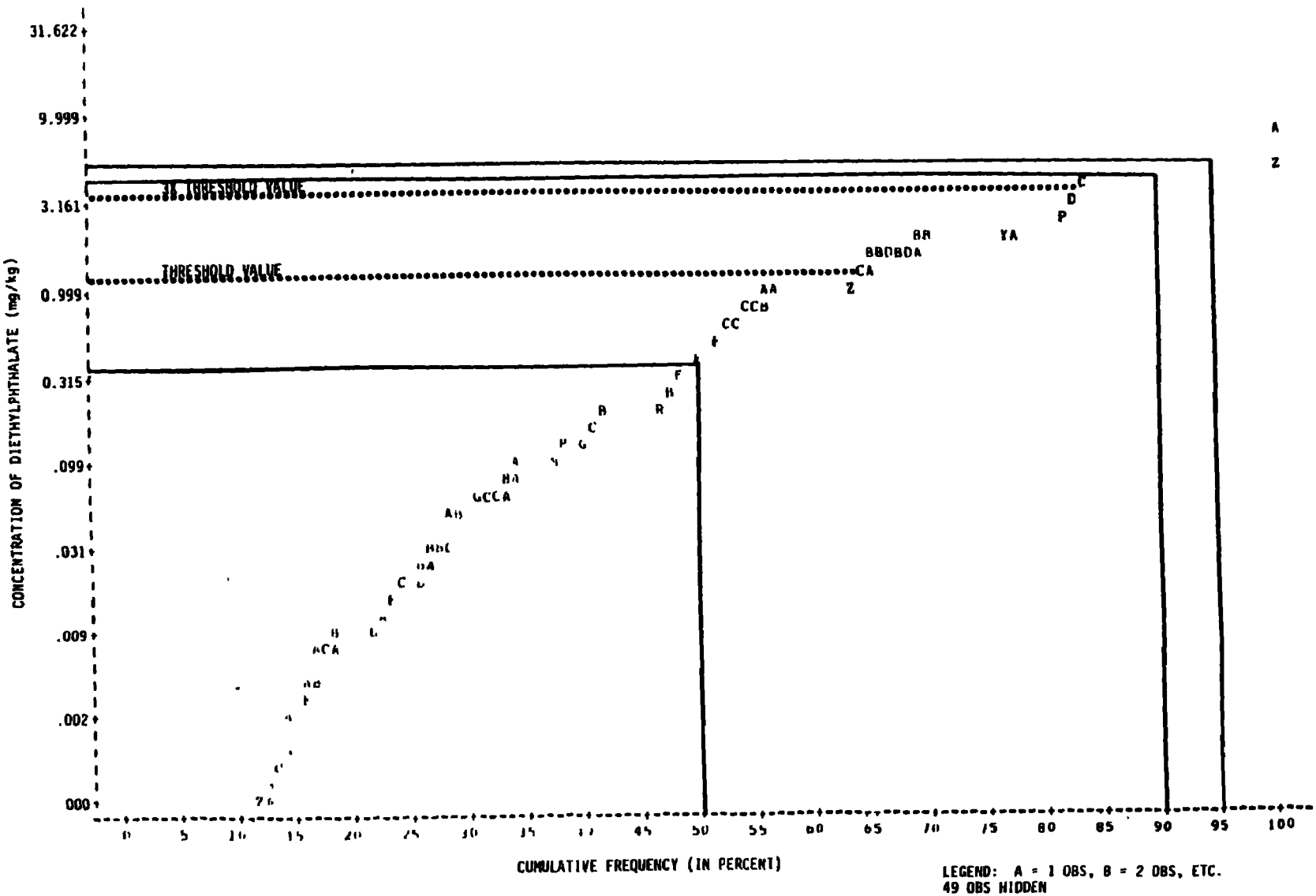


FIGURE 3.13 CUMULATIVE FREQUENCY PLOT FOR DIETHYLPHTHALATE

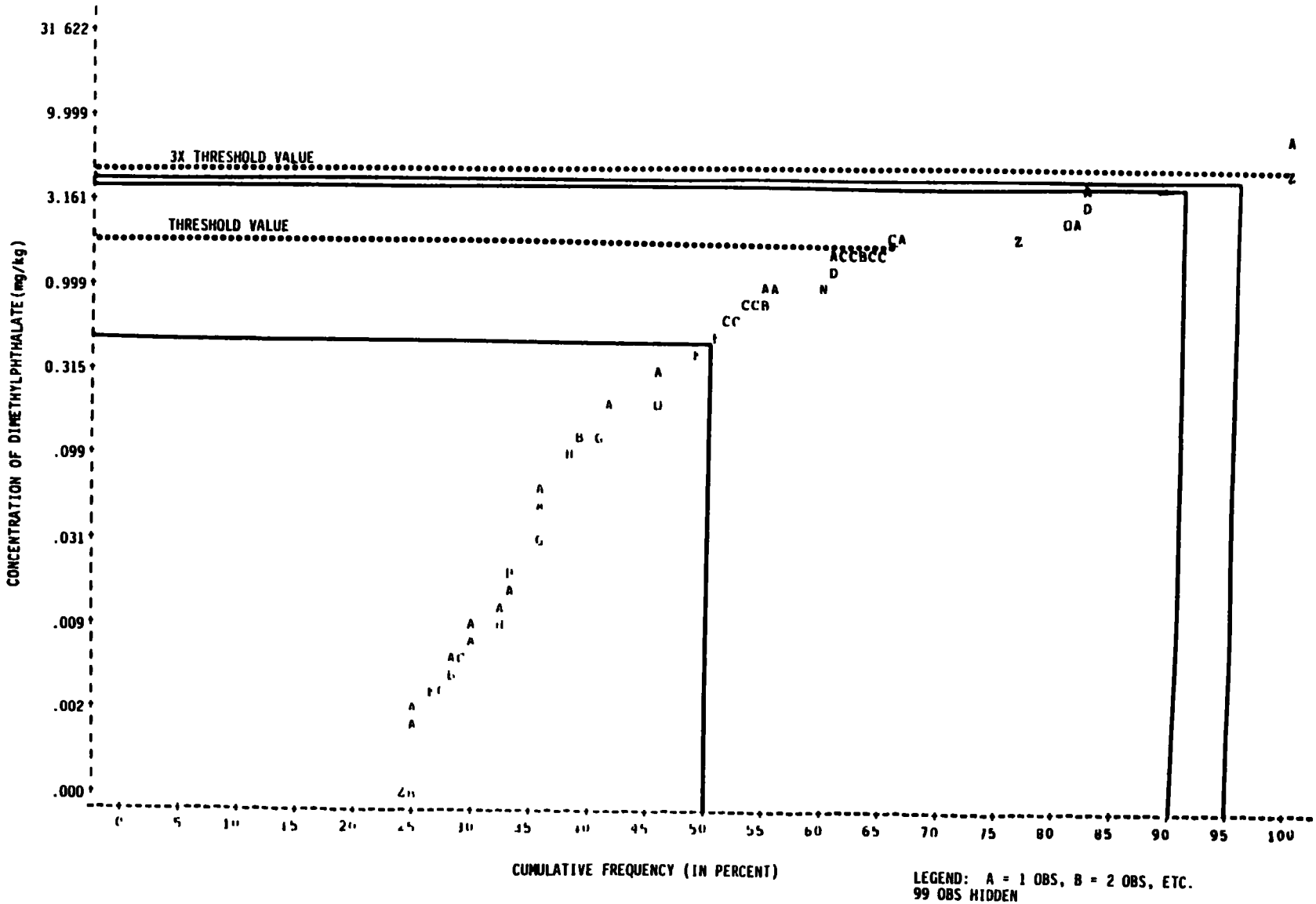


FIGURE 3.14 CUMULATIVE FREQUENCY PLOT FOR DIMETHYLPHTHALATE

TABLE 3.3. FRESHWATER DATA SUMMARY--PHTHALATE ESTERS

	Threshold Concentration (mg/kg)	Total Number of Locations	Percent in Level 1	Percent in Level 2	Percent in Level 3	Percent in Level 4	Median Concentration (mg/kg)	95th Percentile Concentration (mg/kg)	Highest Concentration (mg/kg)
diethylphthalate	1.28	368	64	20	16	none	0.40	5.62	5.80
dimethylphthalate	1.96	347	65	34	1	none	0.50	4.47	5.00

Alternative criteria were not available. Site specific information consisted mainly of studies in the middle and eastern United States where major phthalate ester producers and consumers are located. Although diethylphthalate and dimethylphthlate were not studied in these papers, results for other phthalates were similar to those contained in Table 3.3.

3.4 PESTICIDES

STORET data for pesticide concentrations in sediments were relatively extensive. The data base contained between 4,000 and 20,000 measurements for each pesticide.

The log concentration versus cumulative frequency plots for aldrin, chlordane, DDT, heptachlor, lindane and toxaphene are shown in Figures 3.15 to 3.20, respectively. The S-shaped plots transform into straight lines when the x-axis is a probability scale; thus, the data are distributed in a log-normal manner. Table 3.4 summarizes the pesticides data. In general, a very small percentage of sites is in Level 4.

In reviewing the data, several aspects are worthy of note. The median concentration is considerably less than the threshold value for all the pesticides. Chlordane, DDT, and toxaphene are of greatest interest because of the percent of observations in Level 2 column, the high values in the highest concentration column and the 95 percent concentration column. An alternative criterion of 0.02 mg/kg was proposed by the USGS for DDT. Using this criterion, 96 percent of the data falls in Level 1. Lindane also has an alternative criterion of 0.02 mg/kg which does not significantly change the distribution. Alternative criteria were not found for the other pesticides.

3.5 CHLORINATED HYDROCARBONS (EXCEPT PESTICIDES)

The only chlorinated hydrocarbons excluding pesticides for which STORET data could be obtained were the polychlorinated biphenyls (PCBs). PCB data are contained in STORET in several isomer or trade-name groupings. The most

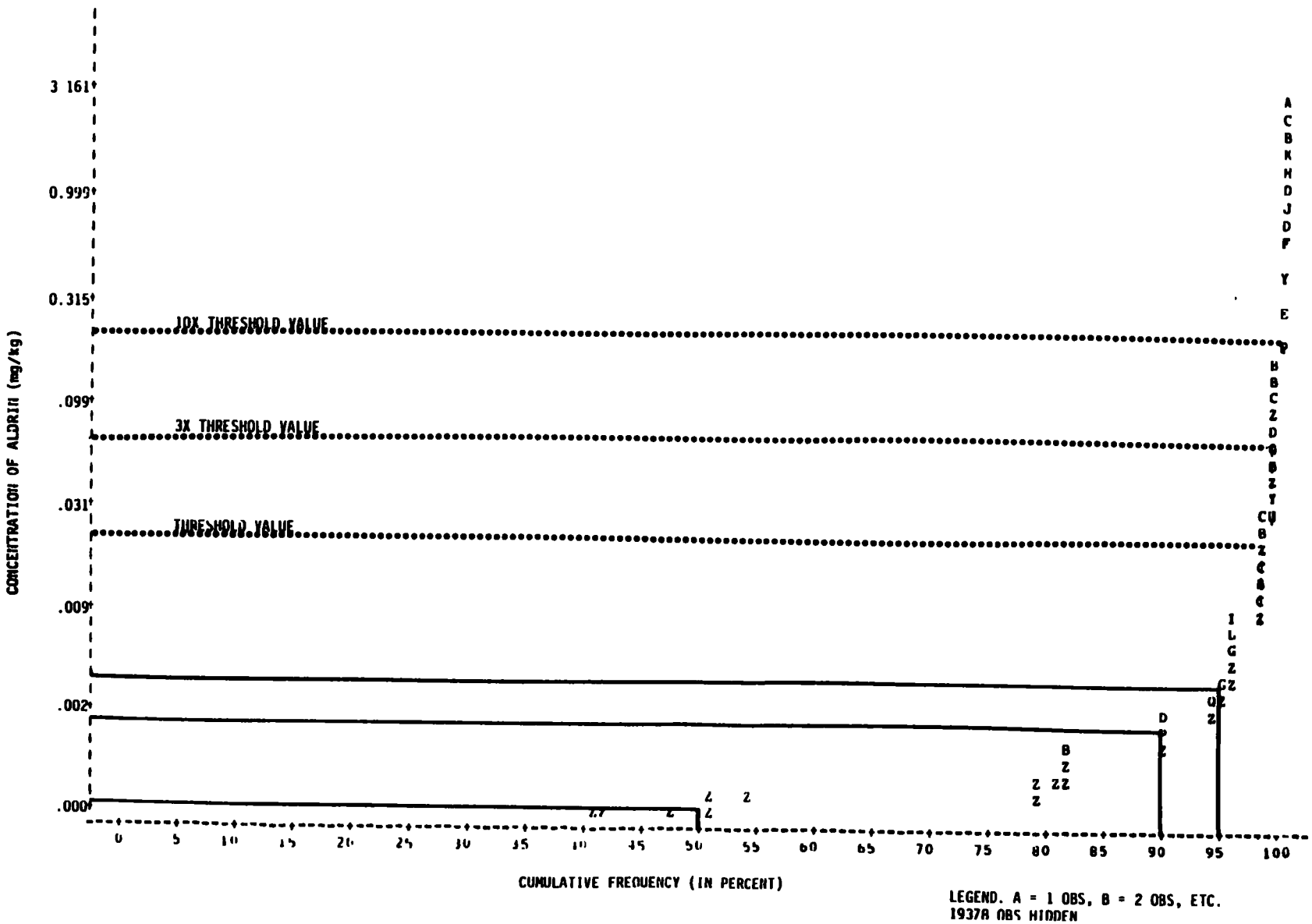


FIGURE 3.15 CUMULATIVE FREQUENCY PLOT FOR ALDRIN

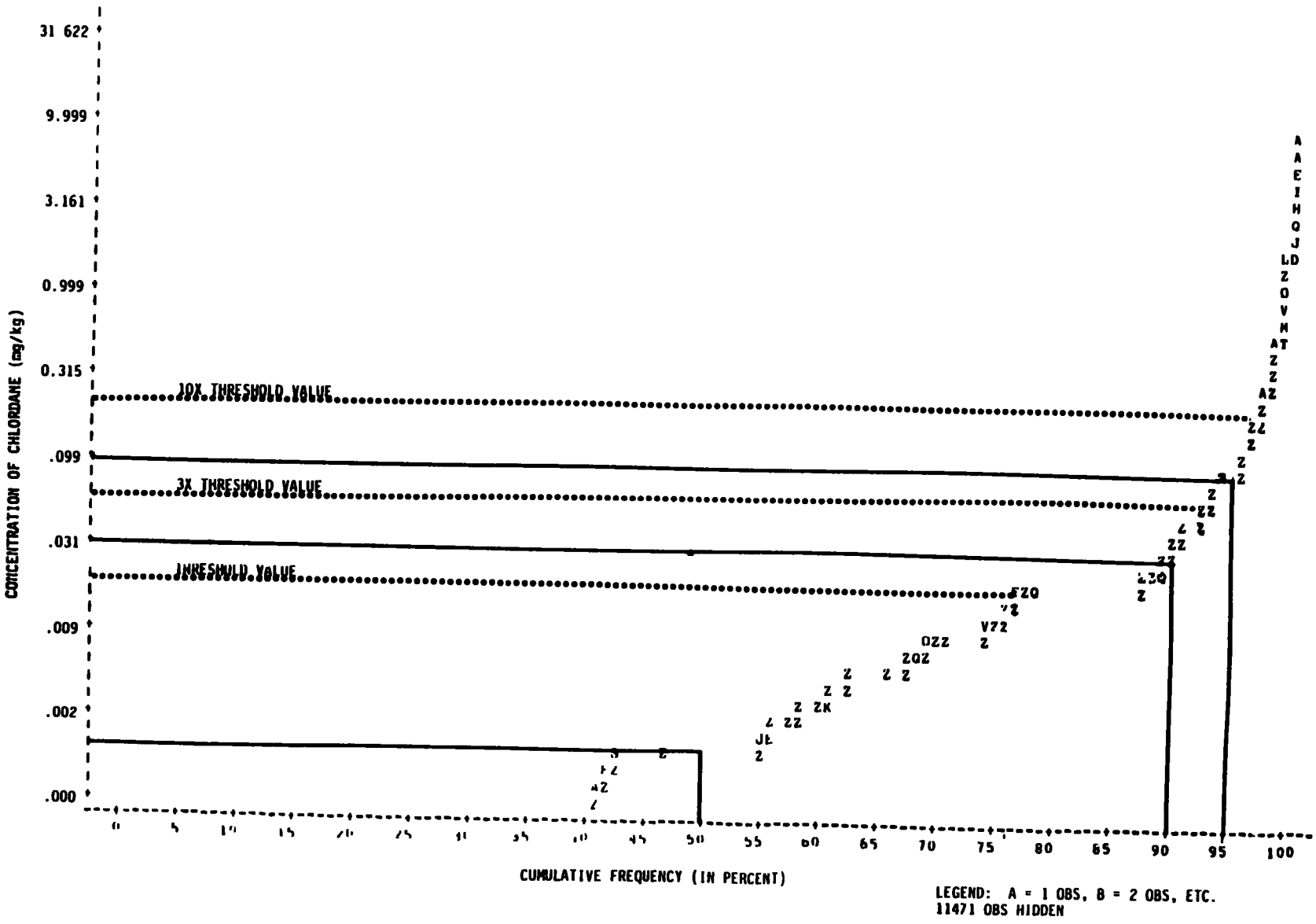


FIGURE 3.16 CUMULATIVE FREQUENCY PLOT FOR CHLORDANE

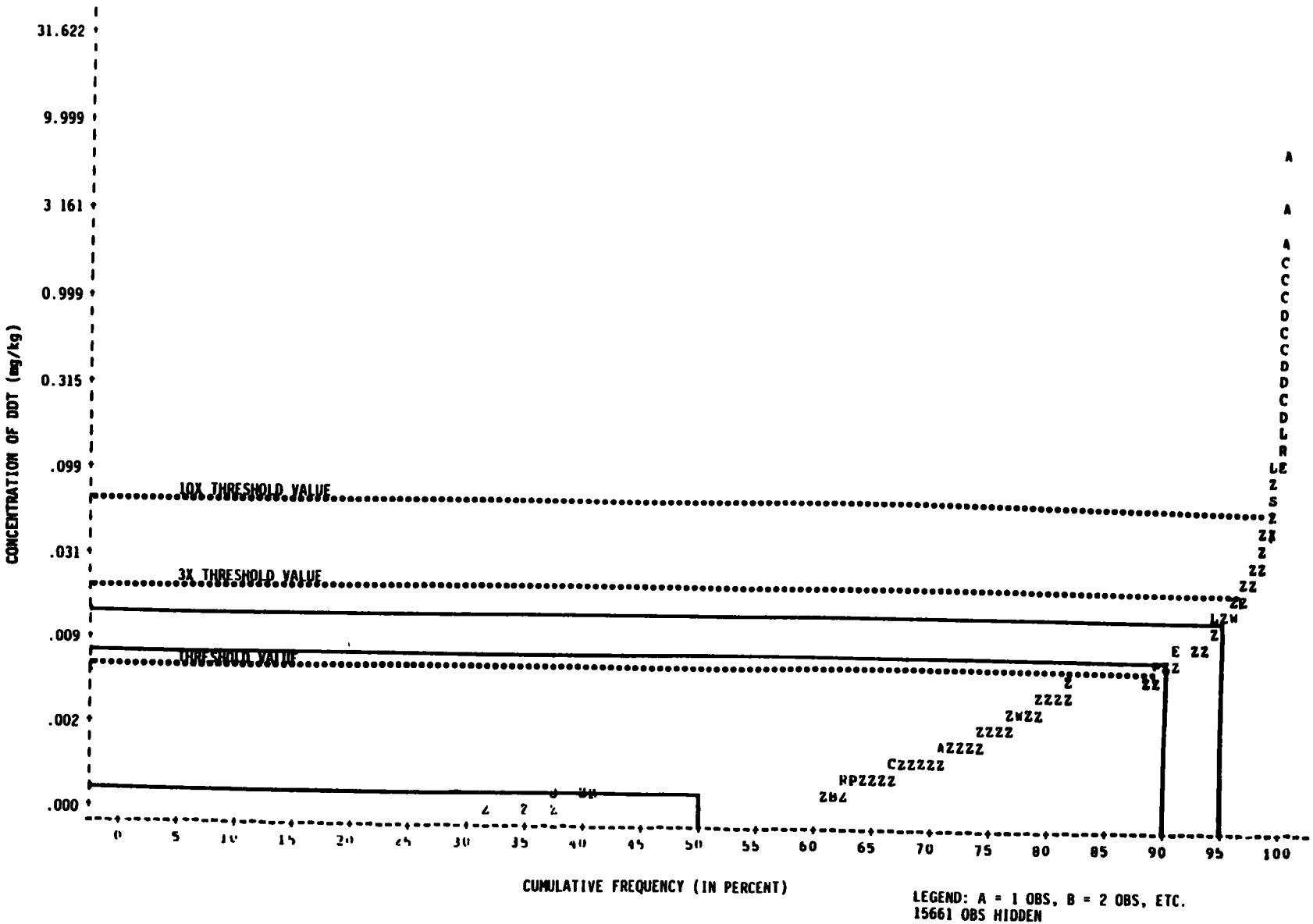


FIGURE 3.17 CUMULATIVE FREQUENCY PLOT FOR DDT

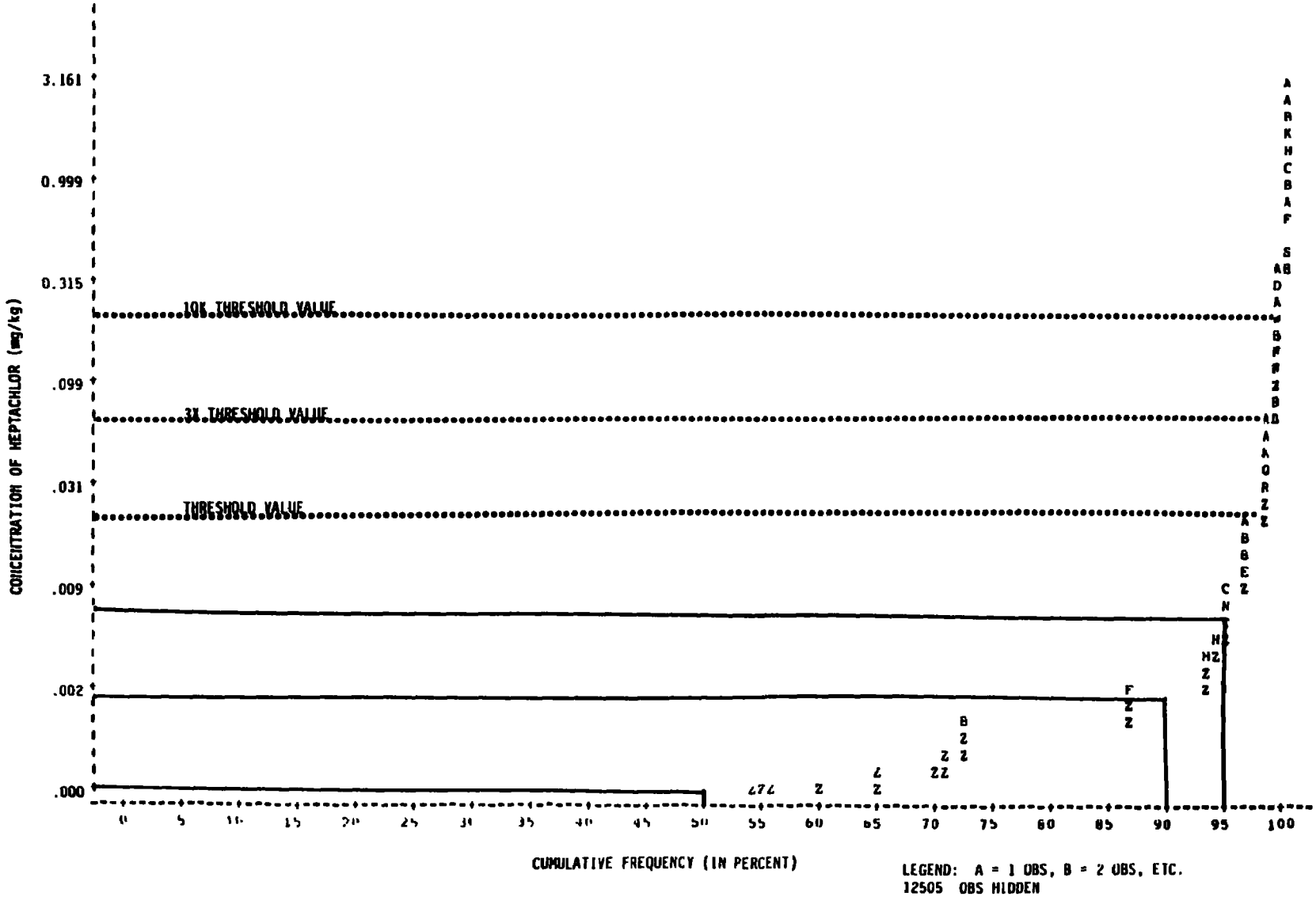


FIGURE 3.18 CUMULATIVE FREQUENCY PLOT FOR HEPTACHLOR

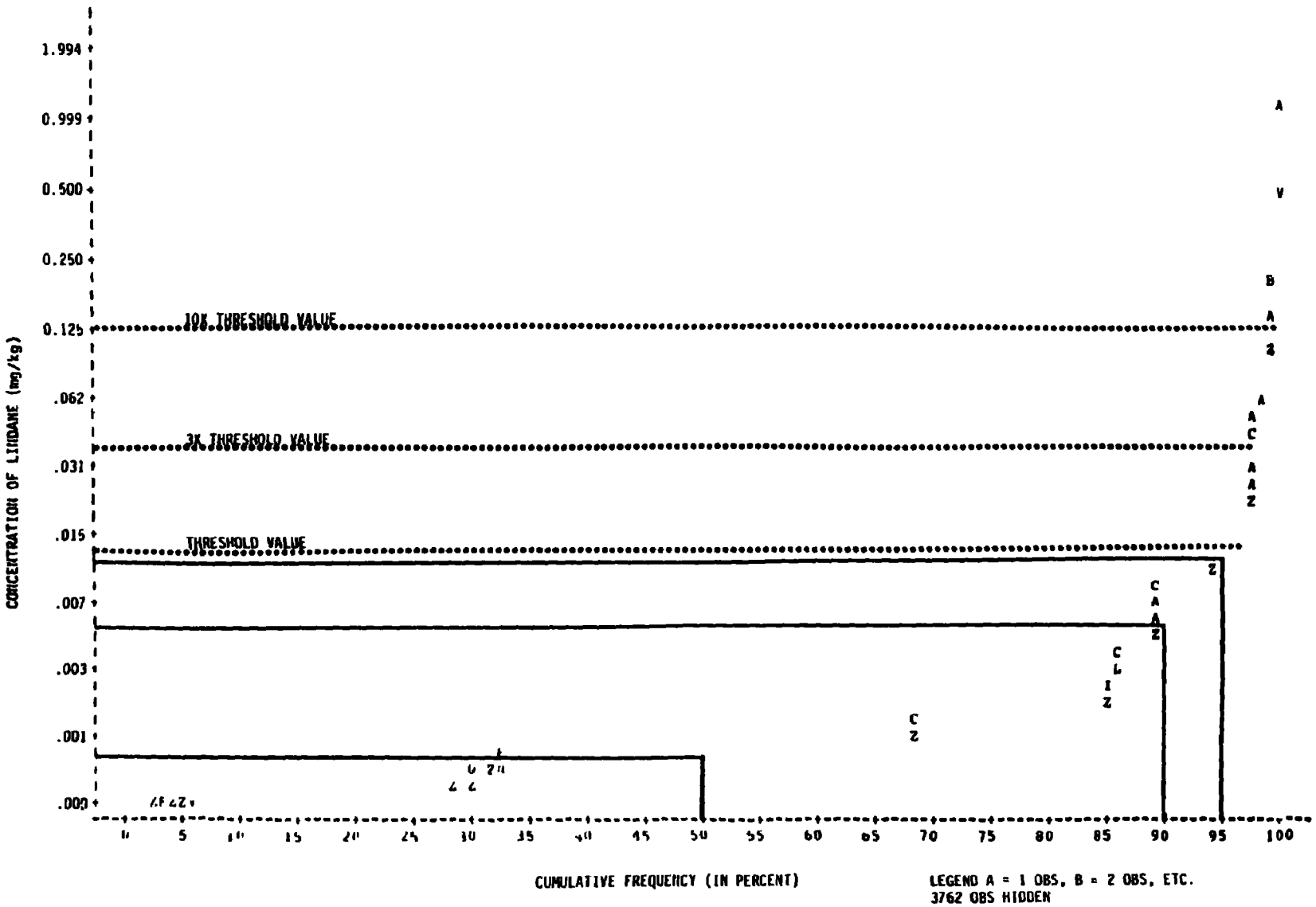


FIGURE 3.19 CUMULATIVE FREQUENCY PLOT FOR LINDANE

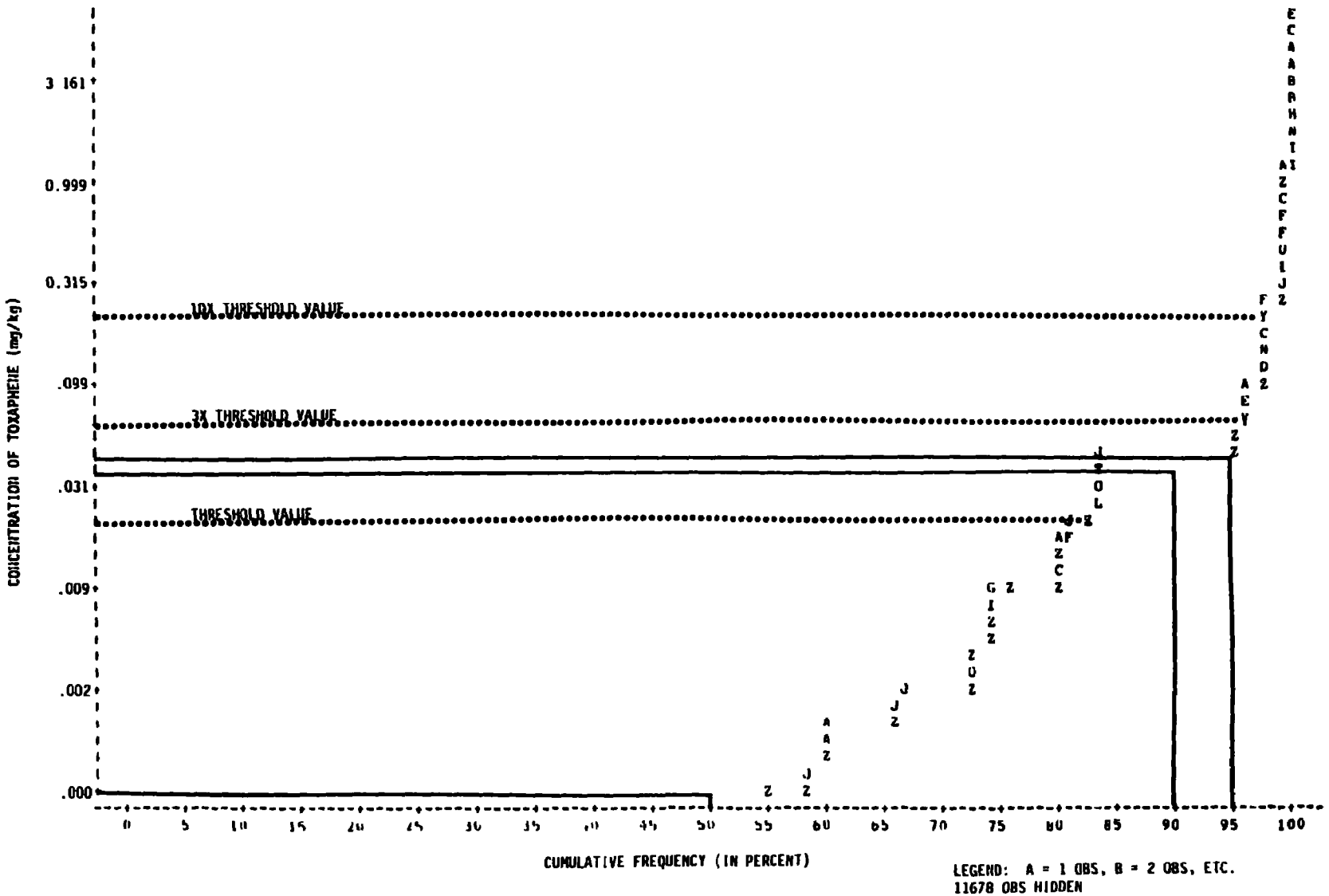


FIGURE 3.20 CUMULATIVE FREQUENCY PLOT FOR TOXAPHENE

TABLE 3.4. FRESHWATER DATA SUMMARY--PESTICIDES

	Threshold Concentration (mg/kg)	Total Number of Locations	Percent in Level 1	Percent in Level 2	Percent in Level 3	Percent in Level 4	Median Concentration (mg/kg)	95th Percentile Concentration (mg/kg)	Maximum Concentration (mg/kg)
aldrin	0.021	20,154	97	2	0.5	0.5	0.0001	0.003	1.97
chlordane	0.020	13,002	77	16	5	2	0.001	0.097	11.9
DDT	0.006	17,217	89	7	3	1	0.0004	0.015	15.0
heptachlor	0.020	13,264	98	1	0.5	0.5	--	0.006	1.97
lindane	0.0124	4,080	96	1	2	1.0	0.0006	0.012	1.19
toxaphene	0.020	12,653	82	14	2	2	--	0.044	19.5

useful grouping for the present survey was by the Aroclor type. Due to the large number of Aroclors commercially produced, only Aroclor 1016 (1221) data were evaluated. This particular mixture contains a greater percentage of the lower chlorinated analogs than do other Aroclor mixtures and is more water soluble. The threshold criterion for Aroclor 1016 (1221) derived using Pavlou's approach (JRB Associates, 1984a) would therefore be lower than for PCBs as a group. To maintain consistency between the freshwater and marine areas, a threshold value of 0.28 mg/kg, based on hexachlorobiphenyl, was arbitrarily applied.

The STORET data base for Aroclor 1016 (1221) in sediments consists of 917 measurements. The log concentration-cumulative frequency plot is shown in Figure 3.21. Approximately 18 percent of the data falls above Level 1. Seven percent of the stations are classified as Level 2, 8 percent of the stations are in the Level 3 range and 3 percent are in Level 4.

Once again, alternative EPA and USGS criteria for total PCBs have been proposed. These criteria range from 0.02 mg/kg to 10 mg/kg using the USGS and EPA criteria, respectively. At the lower end of this range, approximately 60 percent of the stations would have exceeded the Level 1 classification if this criterion were employed. At the upper end, only a small number of measurements (0.4 percent) would be classified as Level 2.

Considerable generic and site specific evidence has been accumulated regarding the toxic environmental effects of PCBs (Nisbet, 1976). *In situ* or *in vivo* studies that tested the effects of sediment-absorbed PCBs on biota were not found. Aquatic insects whose life stages include periods of time in or on the sediments appear to be very sensitive to PCB exposure. In this respect, it must be remembered that all of these toxicity data are based on aqueous concentrations and, therefore, may not be indicative of the toxicity of sediment-adsorbed PCB. However, sediment-adsorbed PCBs are available to freshwater and marine benthic organisms (Neff, 1984) and therefore can be expected to be toxic to them as well.

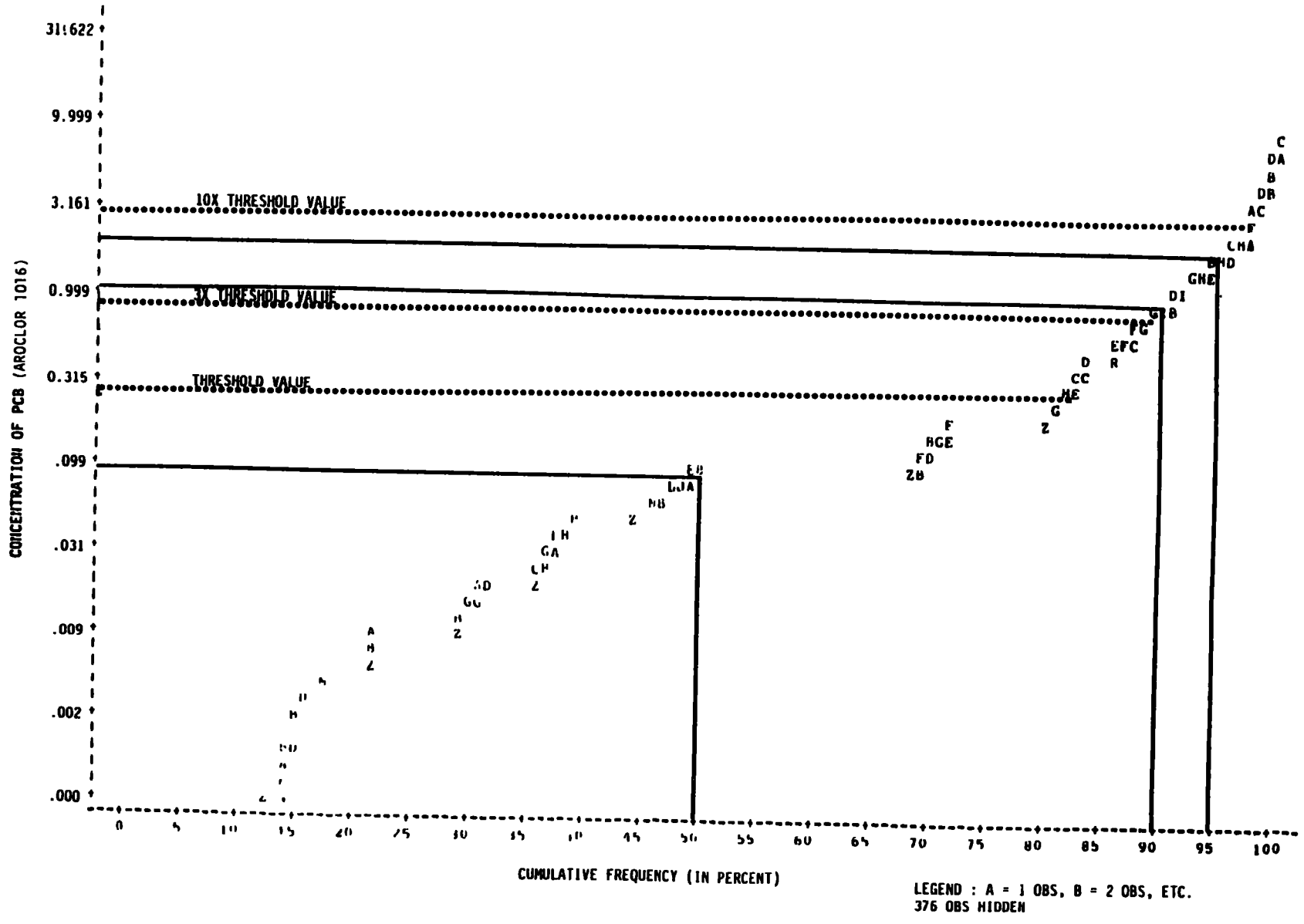


FIGURE 3.21 CUMULATIVE FREQUENCY PLOT FOR PCB

This data gap highlights two implications for the application of a chemical partitioning approach. One, if water quality criteria are to be used, the criteria should be specifically based on assays which include benthic organisms as one of the tested species. Two, solid phase bioassays should be considered as a way to assess ingestive routes of exposure. If such bioassays are economically or technically prohibitive, then it would seem reasonable from a regulatory standpoint to apply a factor to account for the percentage of uptake due to non-aqueous exposure.

3.6 MONOAROMATIC HYDROCARBONS

Insufficient STORET data were available to adequately analyze any compounds in this chemical category.

3.7 MISCELLANEOUS

The only chemical not easily classified into one of the other six categories was cyanide. Although usually thought of as a concern in the water column due to solubility as free cyanide or soluble complexes, there is nevertheless some tendency for cyanide to occur in some situations with cations of lower solubility, thereby allowing for the possibility of sediment accumulation.

The STORET data base consisted of 1,175 measurements of cyanide salts in sediments of which 63 percent were at or below the 0.1 mg/kg threshold (Figure 3.22). This value indicates a substantial portion of the STORET data base falls within Levels 2 and 3. These points are equally distributed between Levels 2 and 3. In addition, 17 percent of the data is classified in Level 4. Other criteria for cyanide have placed the threshold level as high as 100 mg/kg which would result in about 1.5 percent of the data being in the upper three levels.

The historical lack of concern about accumulation of cyanide in sediments has led to a paucity of field and laboratory research concerning the effects threshold appropriate to benthic organisms. In the limited review of the literature, no surveys were found that were indicative of what these threshold values might be.

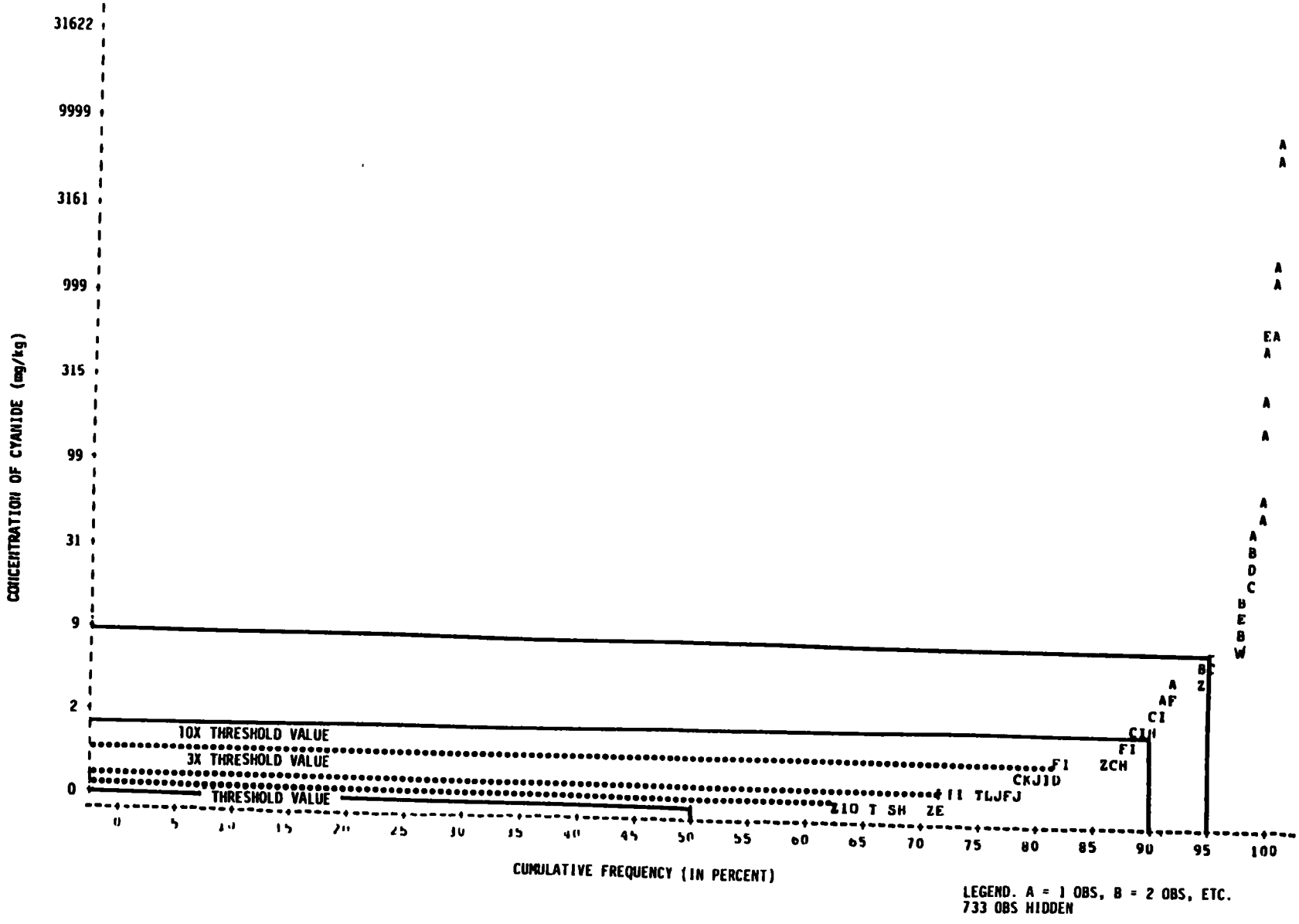


FIGURE 3.22 CUMULATIVE FREQUENCY PLOT FOR CYANIDE

4.0 RESULTS AND DISCUSSION--MARINE/ESTUARINE

To evaluate the status of sediment quality of various marine and estuarine locations, concentrations of chemicals of interest in sediments were compared with the defined sediment quality criteria discussed in Sections 2.1 and 2.2. The marine data base was treated in the same manner as the freshwater data base.

With special regard to the marine/estuarine data base, it is necessary to reiterate several disadvantages of the equilibrium partitioning approach to derive sediment quality criteria, identified by JRB Associates (1984b). These disadvantages include:

1. Synergistic interactions among various chemicals are not known, and are difficult to quantify;
2. The role of environmental variables (e.g., sediment organic carbon content, pH, and redox potential) on the chemical behavior of chemical pollutants in sediments often is understood and cannot be quantified;
3. The bioavailable fraction of the total sediment pollutant concentration frequently is unknown.

The following disadvantage could be added:

4. The carcinogenicity and mutagenicity of several PAH compounds is not taken into consideration (e.g., that of indeno(1,2,3-CD)pyrene and benzo(a)pyrene).

It should also be pointed out that severe biological effects have been documented in several cases. These effects could be attributed to sediment contamination, even though concentrations of individual pollutants did not reach alarming levels. As noted earlier, this discrepancy may be the result of an inherent problem in using non-site-specific sediment quality criteria and ignoring possible additive or synergistic actions among multiple contaminants. Several such instances have been documented in the Puget Sound and New York Bight regions (Mayer, 1982; Malins, 1980).

Biological effects data were better correlated with site-specific sediment pollutant concentration data in the marine/estuarine literature than for freshwater data sets. The limited number of marine/estuarine data points for each chemical do not permit the generation of cumulative frequency plots or extensive statistical analyses more suitable to the extensive freshwater chemical data sets. An enhanced tabulation of the marine/estuarine data provides an overall perspective of the sediment quality status in these environments.

4.1 METALS AND ORGANIC CONTAMINANTS

An estimation of the status of the sediment quality of various marine and estuarine sites in the continental United States was based on first-cut sediment quality criteria using the equilibrium partitioning approach as discussed in Section 2.1. As an exception, polynuclear aromatic hydrocarbon contamination was estimated using the background approach for sediment quality criteria. A sediment total PAH concentration of 1 ppm dry weight was chosen, in this case, as the cut-off value between non-polluted and slightly polluted sediments. Selection of this value was based upon data contained in a publication by Hites et al. (1980), entitled "Polycyclic Aromatic Hydrocarbons in Marine/Aquatic Sediments: Their Ubiquity." Provisional sediment quality criteria using the equilibrium partitioning approach are expressed on the basis of organic carbon, rather than total sediment mass.

As previously discussed, to allow comparison of these criteria with reported sediment concentrations of metals and organic contaminants, calculation of the sediment threshold concentrations were based on 4 percent organic carbon in sediments. This estimate of organic carbon content is on the high side for most marine sediments, and its use throughout this document has an important effect on the threshold values used to determine sediment quality status. If 2 percent organic carbon had been chosen as a national average, the threshold levels would have been half as high, and more sites would have been identified above the threshold value.

4.2 NATIONAL PERSPECTIVE

The results of this limited literature search on the national status of the sediment quality in marine/estuarine waters are summarized in three sets of figures--Figures 4.1, 4.2, and 4.3. These figures provide information to assist the reader in assessing the quality status of marine and estuarine sediments of coastal states for each of the various groups of chemicals. Chemical groups were merged were appropriate, to enhance data presentation. In Figures 4.1, 4.2 and 4.3, the concentration ranges are grouped and presented as symbols which denote the quality status of the various sites (See Section 2.2). Whenever a discrepancy was found in overlapping data sets, the data denoting a higher concentrations of the chemical were selected. In addition to visualizing the sediment quality status of specific marine and estuarine sites for various compounds, Figures 4.1, 4.2 and 4.3 also clearly indicate the general paucity of data for nationwide marine and estuarine areas, with the exception of certain classes of compounds such as PAH, PCB, and metals.

The complete data set for coastal sites is presented in Tables 4.1, 4.2 and 4.3. Sediments of marine/estuarine sites containing levels of chemical exceeding the threshold values identified in Table 2.1 were analyzed by including as much specific information as available in the data base. The numerical designations contained under the column headings (underlined in text) on Tables 4.1, 4.2, and 4.3 are indicated as follows:

- Sample location
- Name of the chemical, including a numerical value designating the category (Cat.) to which the chemical belongs, i.e., 1) polynuclear aromatic hydrocarbons; 2) pesticides; 3) other chlorinated hydrocarbons; 4) aromatic hydrocarbons; 5) phthalates; and 6) metals
- The chemical concentration, (Concentr.)including units in mg/kg dry weight; Range of values found, and an indication whether mean or median concentrations were used
- The concentration status (Stat.), identifying whether the sample location was characterized as level 2, 3, or 4, using criteria discussed in Sections 2.1 and 2.2.
- Any recorded biological effect: 1) tissue or whole organism concentrations of the chemicals, 2) a change in species diversity

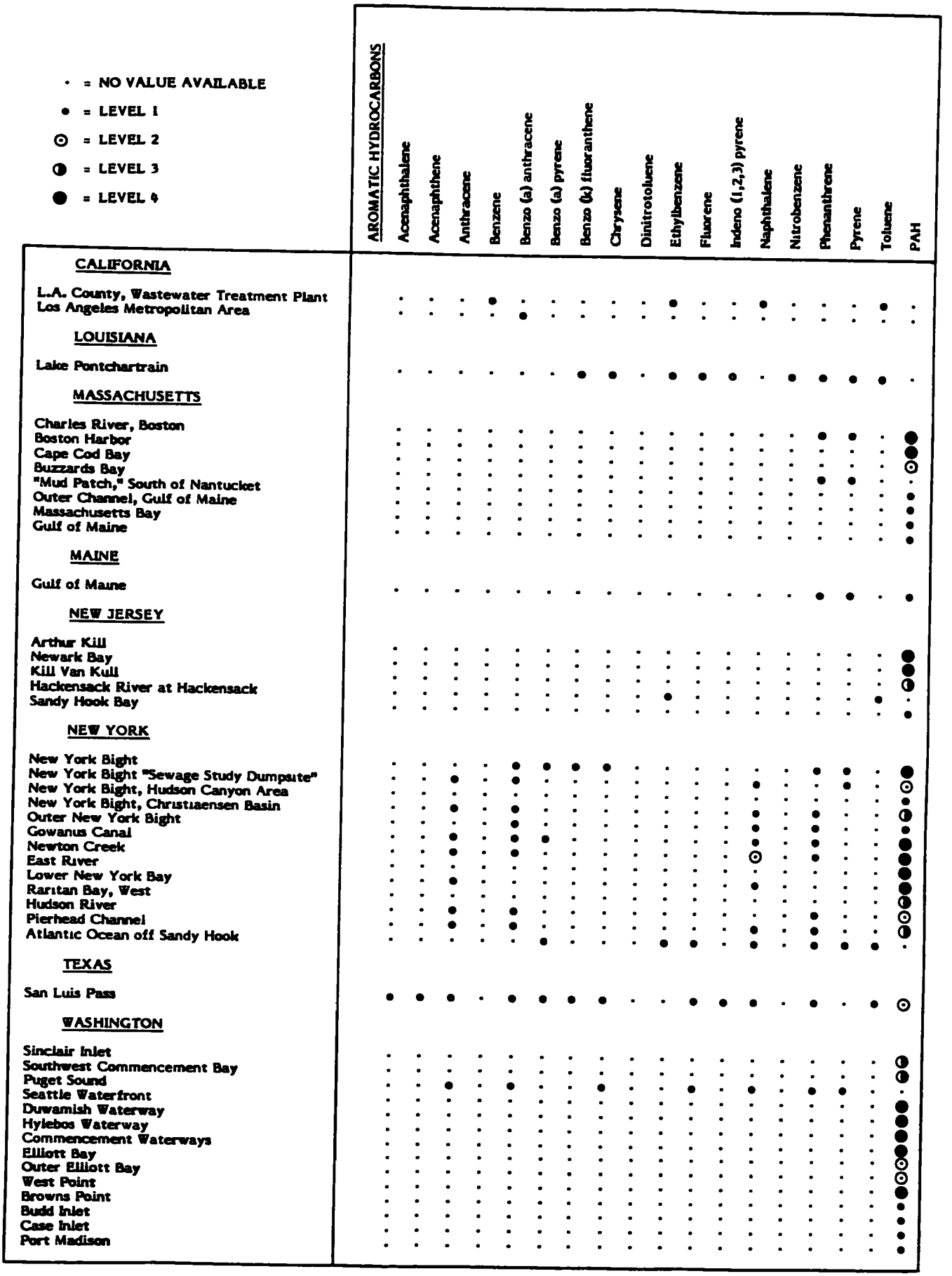


FIGURE 4.1. AROMATIC AND POLYNUCLEAR AROMATIC HYDROCARBONS

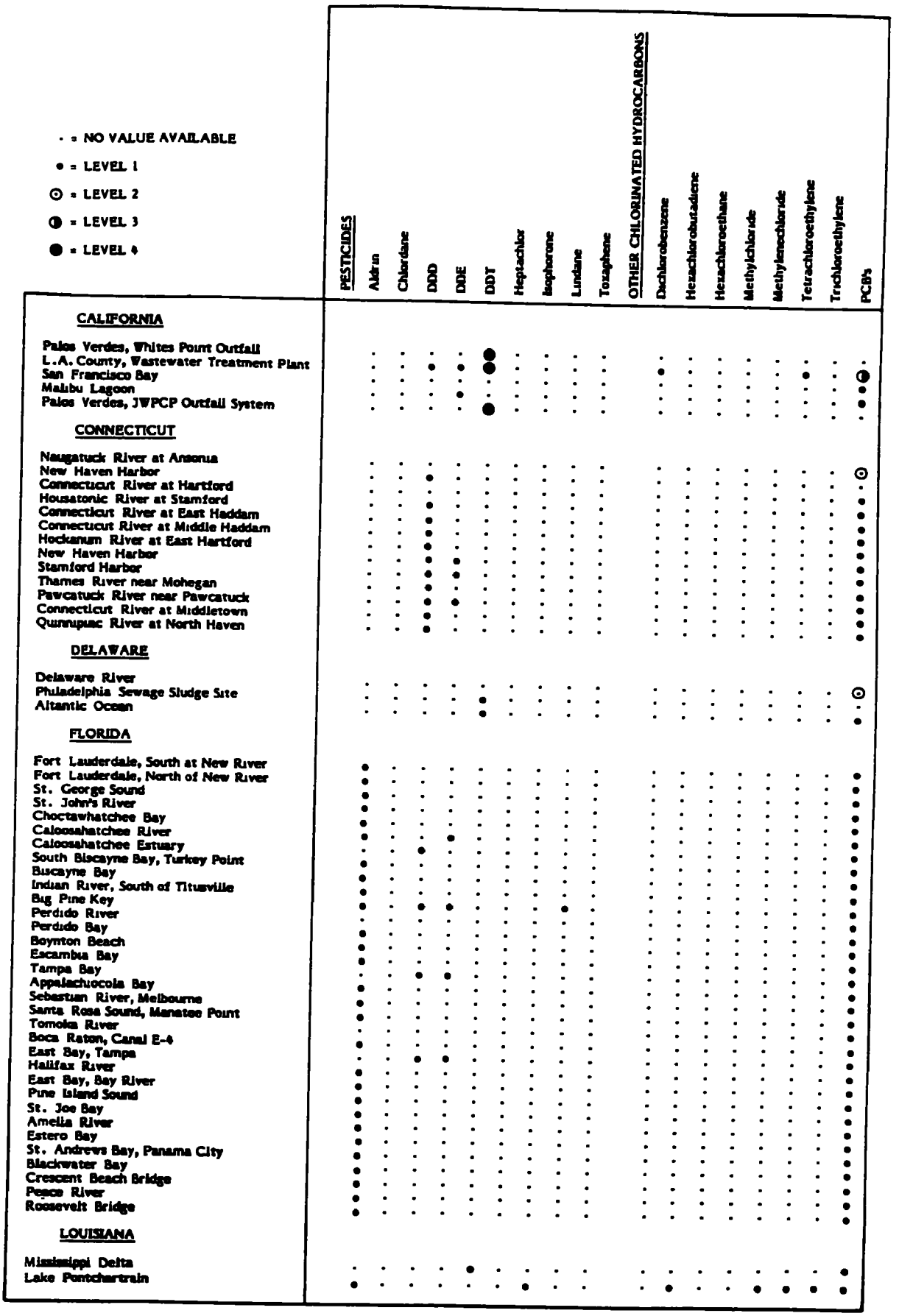


FIGURE 4.2. PESTICIDES AND OTHER CHLORINATED HYDROCARBONS

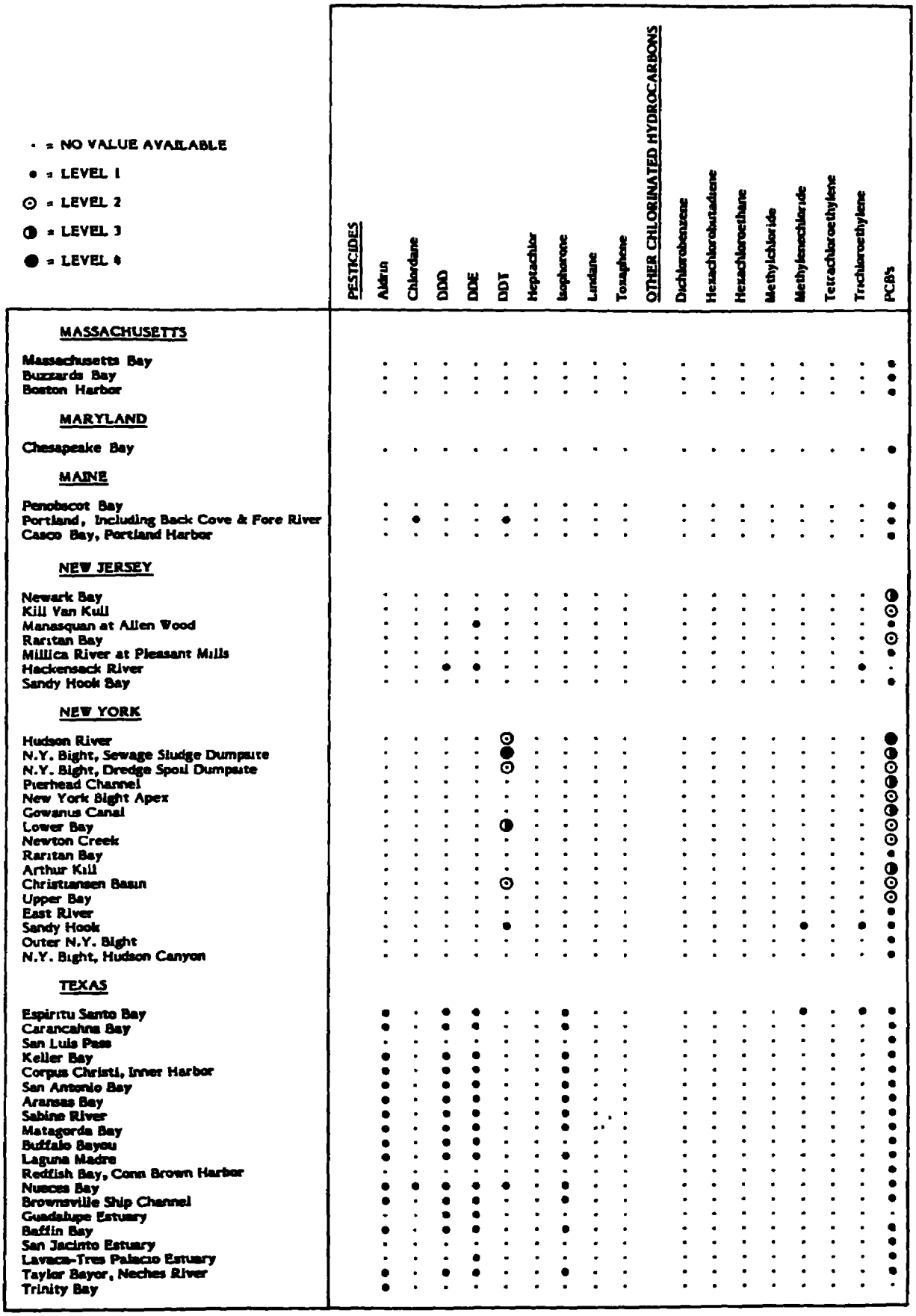


FIGURE 4.2. (Continued)

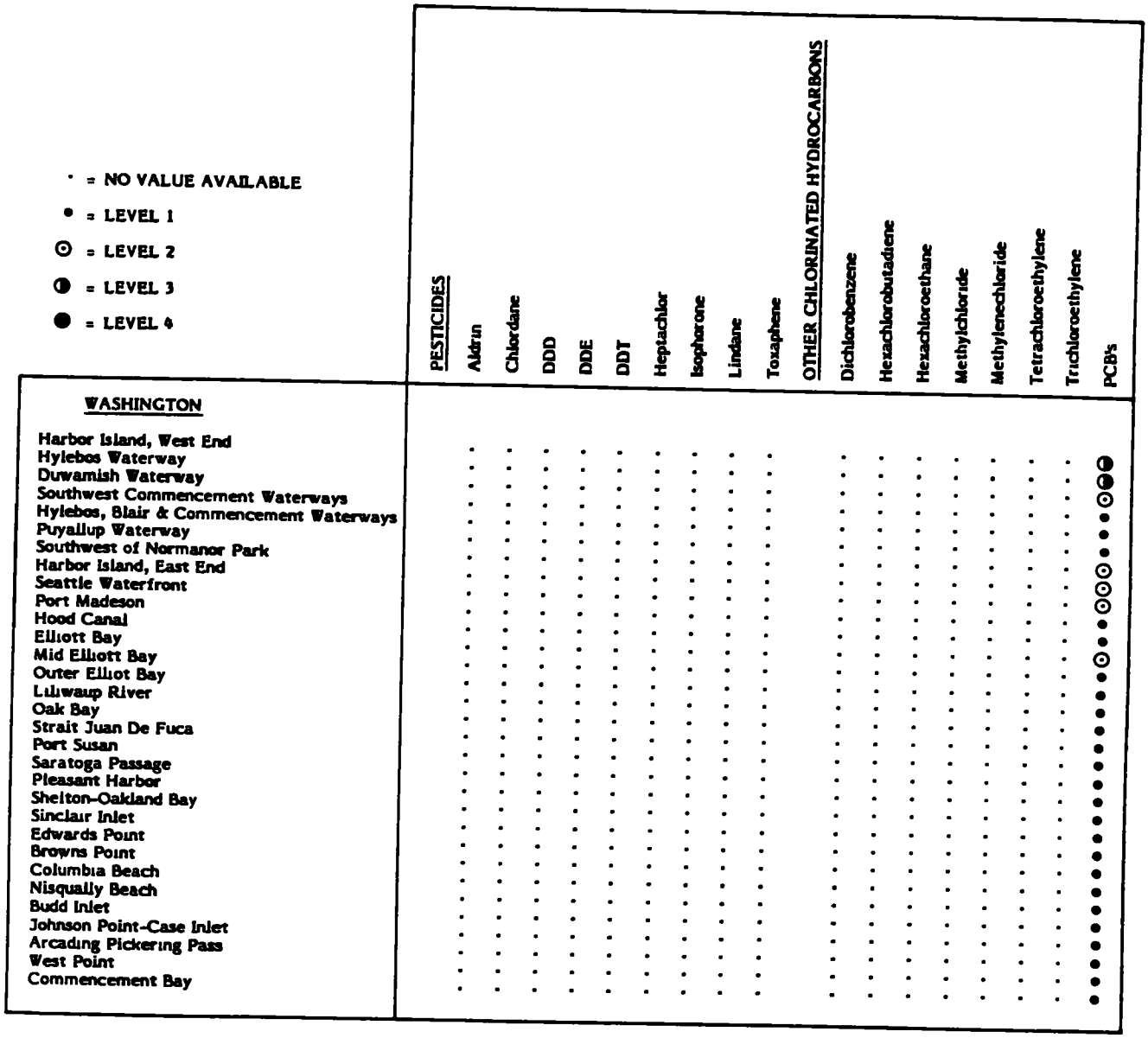


FIGURE 4.2. (Continued)

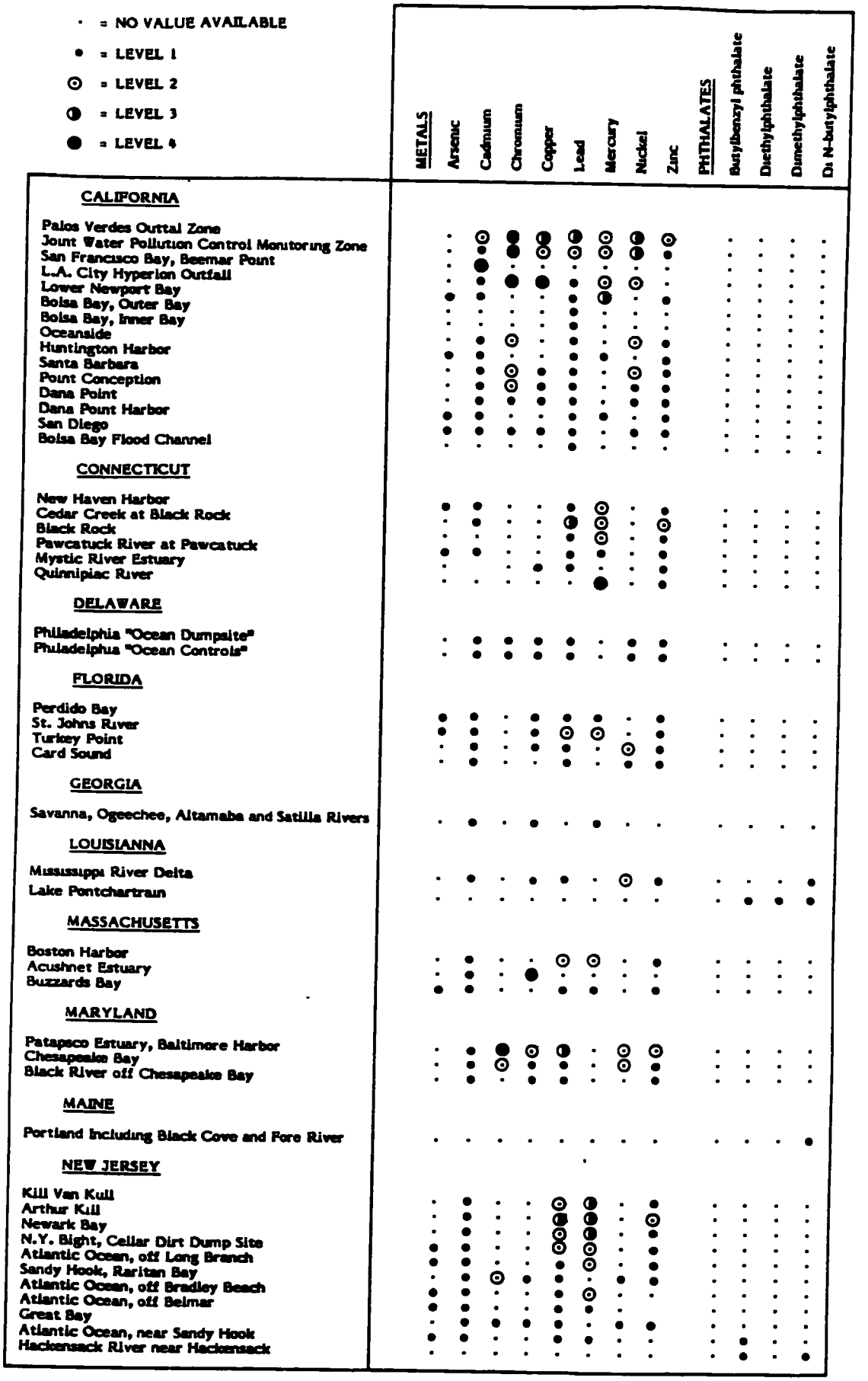


FIGURE 4.3. METALS AND PHTHALATES

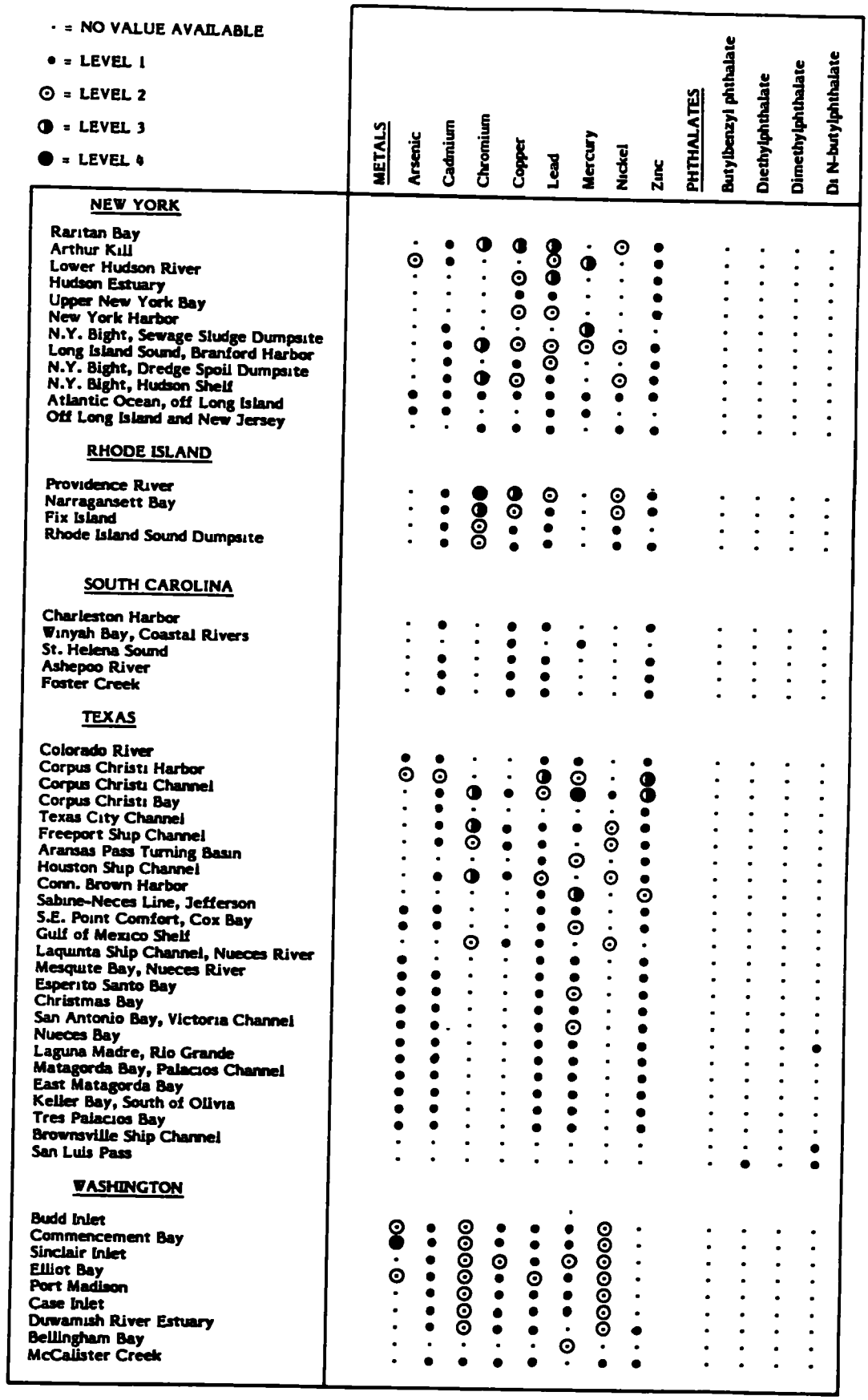


FIGURE 4.3. (Continued)

TABLE 4.1. COASTAL U.S. REGIONS CONTAINING SINGLE POLLUTANTS AT CONCENTRATIONS EXCEEDING PROVISIONAL SEDIMENT THRESHOLD VALUES BY MORE THAN TEN-FOLD (LEVEL 4)

STATE	LOCATION	CONTAMINANT	CONCENTR.	UNITS	MEAN	MED.	RANGE	CAT.	STAT.	EFFECT	REFERENCE
CA	L.A. COUNTY, WASTEWTR TREAT. PLANT	DDT	0.191	MG/KG	X			2	4	6	GOSSETT, R.W., 1983
CA	PALOS VERDES, WHITES POINT OUTFALL	DDT	0.66	MG/KG		X		2	4	1	YOUNG, D.R., 1982
CA	PALOS VERDES PENN., JWPCP OUTFALL SYST.	DDT	140	MG/KG		X	100-280	2	4	1	SMOKLER ET AL., 1979
CA	PALOS VERDES PENN., WHITES PT. OUTFALL	DDT	90	MG/KG		X	7.3-130	2	4	1	STEPHENSON ET AL., 1975
CA	SAN FRANCISCO BAY, BEEMAR POINT	CADMIUM	1000	MG/KG		X		6	4	6	STORET
CA	L.A. CITY, HYPERION OUTFALL	CHROMIUM	280	MG/KG	X		-1300	6	4	1	YOUNG, D.R., 1982
CA	JOINT WATER POLL. CONTRL. PNTRNG ZONE	CHROMIUM	510	MG/KG	X		-1500	6	4	1	YOUNG, D.R., 1982
CA	PALOS VERDES SHELF	CHROMIUM	1100	MG/KG		X	1000-1300	6	4	1	SHERWOOD, M.J , 1982
CT	QUINNIPIAC RIVER	MERCURY	322	MG/KG		X		6	4	6	STORET
MA	CHARLES RIVER, BOSTON	PAH	87	MG/KG				1	4	6	DEITER ET AL., 1981
MA	BOSTON HARBOR	PAH	12	MG/KG	X		24-880	1	4	1	BOEHM ET AL , 1984
MA	CHARLES RIVER, BOSTON	PAH	87	MG/KG	X			1	4	6	HITES ET AL., 1980
MA	CHARLES RIVER, BOSTON	PAH	120	MG/KG				1	4	1	WINDSOR, J.G & R.A. HITES, 1979
MA	ACUSHNET RIVER/NEW BEDFORD HBR	PCBS	181.00	MG/KG	X		5-900	3	4	1	HALL,ET AL,1983
MA	ACUSHNET RIVER	COPPER	7500	MG/KG		X	3000-7500	6	4	1	FORSTNER & WHITTMANN, 1979
MD	PATAPSCO ESTUARY. BALTIMORE HARBOR	CHROMIUM	490	MG/KG	X			6	4	6	HELZ, G.P., 1976
NJ	ARTHUR KILL	PAH	12	MG/KG	X			1	4	6	BOEHM, P D , 1980
NJ	NEWARK BAY	PAH	40	MG/KG	X			1	4	6	BOEHM, P.D , 1980
NJ	NEWARK BAY	PCBS	5.68	MG/KG	X		-	3	4	1	RUBINSTEIN, N I. ET AL., 1984
NY	NEW YORK BIGHT	PAH	76	MG/KG		X	4-4240	1	4	6	BOONS, C.B. & J P THOMAS, 1979
NY	EAST RIVER	PAH	49	MG/KG	X			1	4	6	BOEHM, P D., 1980
NY	NEWTON CREEK	TOTAL PAH	182	MG/KG	X			1	4	1	O'CONNOR ET AL., 1982
NY	GOWANUS CANAL	TOTAL PAH	16.4	MG/KG	X			1	4	1	O'CONNOR ET AL.. 1982
NY	LOWER BAY	TOTAL PAH	9.9	MG/KG	X			1	4	1	O'CONNOR ET AL., 1982
NY	SEWAGE SLUDGE DUMPSITE	DDT	0.084	MG/KG	X		.047-.120	2	4	1	O'CONNOR ET AL., 1982
NY	HUDSON RIVER (NY HBR TO KM 240)	PCBS	22.2	MG/KG	X		0.5-60	3	4	1	O'CONNOR ET AL., 1982
NY	HUDSON RIVER	PCBS	70	MG/KG			0.5-140	3	4	1	BOEHM ET AL., 1984
NY	HUDSON RIVER: NYC - INDIAN POINT	PCBS	5	MG/KG	X		0.5-26	3	4	6	BOPP ET AL., 1981
RI	PROVIDENCE RIVER	CHROMIUM	428	MG/KG	X			6	4	1	EISLER, R. ET AL., 1977
TX	CORPUS CHRISTI CHANNEL	MERCURY	18	MG/KG				6	4	1	NEFF, ET AL., 1978
WA	PUGET SOUND: COMMENCEMENT WATERWAYS	PAH	13	MG/KG	X		0.3-50.8	1	4	1	MALINS ET AL , 1980
WA	PUGET SOUND: DUWAMISH WATERWAY	PAH	10.5	MG/KG	X		1.59-29.3	1	4	1	MALINS ET AL., 1980
WA	PUGET SOUND. WEST POINT	PAH	44.7	MG/KG	X			1	4	1	MALINS ET AL., 1980
WA	PUGET SOUND: SEATTLE WATERFRONT	PAH	10.7	MG/KG	X		0.33-49.3	1	4	1	MALINS ET AL., 1980
WA	PUGET SOUND: HYLEBOS WATERWAY	PAH	16	MG/KG	X		0.83-47.2	1	4	1	MALINS ET AL., 1980
WA	PUGET SOUND: COMMENCEMENT BAY	ARSENIC	470	MG/KG	X		-	6	4	1	MALINS ET AL., 1980

TABLE 4.2. COASTAL U.S. REGIONS CONTAINING SINGLE POLLUTANTS AT CONCENTRATIONS EXCEEDING PROVISIONAL SEDIMENT THRESHOLD VALUES BY THREE- TO TEN-FOLD (LEVEL 3)

STATE	LOCATION	CONTAMINANT	CONCENTR.	UNITS	MEAN	MED.	RANGE	CAT.	STAT.	EFFECT	REFERENCE
CA	L.A. COUNTY, WASTEWTR TREAT. PLANT	PCBS	0.934	MG/KG	X			3	3	6	GOSSETT, R.W., 1983
CA	PALOS VERDES PEN, LA COUNTY	CHROMIUM	260	MG/KG		X	109-1480	6	3	1	HERSHELMAN,GP.ET AL, 19E
CA	PALOS VERDES SHELF	COPPER	620	MG/KG		X	570-650	6	3	1	SHEPWOOD, M J., 1982
CA	PALOS VERDES SHELF	LEAD	410	MG/KG		X	360-440	6	3	1	SHERWOOD, M J., 1982
CA	LOWER NEWPORT BAY	MERCURY	3.5	MG/KG		X	1.2-5.7	6	3	6	STORET
CA	PALOS VERDES SHELF	NICKEL	81	MG/KG		X	76-91	6	3	1	SHERWOOD, M.J . 1982
CA	JOINT WATER POLL. CONTRL. MNTRNG ZONE	NICKEL	64	MG/KG	X		-130	6	3	1	YOUNG, D.R., 1982
CT	CEDAR CREEK AT BLACK ROCK	LEAD	430	MG/KG		X		6	3	6	STORET
NJ	KILL VAN KULL	PAH	8.7	MG/KG	X			1	3	6	BOEHM, P D., 1980
NJ	NEWARK BAY	PCBS	1.6	MG/KG	X	X		3	3	1	BOEHM ET AL , 1984
NJ	ARTHUR KILL	LEAD	1027	MG/KG	X			6	3	1,2	BRETELER,R , ET AL., 1985
NJ	ARTHUR KILL	MERCURY	4	MG/KG	X			6	3	1,2	BRETELER,R , ET AL., 1985
NJ	KILL VAN KULL	MERCURY	4	MG/KG	X			6	3	1,2	BRETELER,R , ET AL., 1985
NJ	NEWARK BAY	MERCURY	8	MG/KG	X			6	3	1,2	BRETELER,R., ET AL., 1985
NY	RARITAN BAY WEST	PAH	13	MG/KG	X			1	3	6	BOEHM, P.D., 1980
NY	NEW YORK BIGHT	PAH	5 8	MG/KG	X			1	3	6	HITES ET AL., 1980
NY	NEW YORY BIGHT REG: CHRISTIAENSEN BASIN	TOTAL PAH	6	MG/KG	X			1	3	1	O'CONNOR ET AL., 1982
NY	PIERMEAD CHANNEL	TOTAL PAH	3.2	MG/KG	X			1	3	1	O'CONNOR ET AL., 1982
NY	LOWER BAY	ODT	0 034	KG/KG	X			2	3	1	O'CONNOR ET AL , 1982
NY	NEW YORK BIGHT: SEWAGE SLUDGE DEPOSIT	PCBS	1.13	MG/KG		X	0.06-2.2	3	3	1	BOEHM ET AL., 1984
NY	PIERMEAD CHANNEL	PCBS	1	MG/KG	X			3	3	1	O'CONNOR ET AL , 1982
NY	GOWANUS CANAL	PCBS	2	MG/KG	X			3	3	1	O'CONNOR ET AL , 1982
NY	ARTHUR KILL	PCBS	1.7	MG/KG		X	0.32-3	3	3	1	BOEHM ET AL , 1984
NY	NEW YORK BIGHT SEWAGE SLUDGE DUMPSITE	PCBS	1.5	MG/KG				3	3	6	WEST, R H. & HATCHER, 1980
NY	SEWAGE SLUDGE DUMPSITE	PCBS	2	MG/KG	X			3	3	1	O'CONNOR ET AL ,982
NY	NEW YORK BIGHT	PCBS	0.92	MG/KG	X			3	3	1	ENGLER, P.M. ET AL., 1981
NY	NEW YORK BIGHT: DREDGE SITE	CHROMIUM	110	MG/KG	X		-310	6	3	6	YOUNG, D.R., 1982
NY	NEW YORK BIGHT "DREDGE SPOILS"	CHROMIUM	102	MG/KG	X		-	6	3	6	EISLER, P ET AL., 1977
NY	NEW YORK BIGHT "SEWAGE SITE"	CHROMIUM	102	MG/KG	X		-	6	3	6	EISLEP, R. ET AL , 1977
NY	RARITAN BAY	CHROMIUM	130	MG/KG			2-260	6	3	1,2	BRETELEP,R., ET AL., 1985
NY	NEW YORK BIGHT: SLUDGE SITE	CHROMIUM	110	MG/KG	X		-310	6	3	6	YOUNG, D.P., 1982
NY	NEW YORK BIGHT: SEWAGE SLUDGE	CHROMIUM	183	MG/KG	X			6	3	1,2,3	STEINLE ET AL., 1982
NY	NEW YORK BIGHT: DREDGE SPOIL DUMPSITE	CHROMIUM	101	MG/KG	X			6	3	1,2.3	STEINLE ET AL., 1982
NY	RARITAN BAY	COPPER	615	MG/KG			<1.6-1230	6	3	1,2	BRETELER,R., ET AL , 1985
NY	LOWER HUDSON RIVER	LEAD	830	MG/KG	X			6	3	1,2	BRETELEP,R , ET AL , 1985
NY	RARITAN BAY	LEAD	500	MG/KG			4-985	6	3	1,2	BRETELER,R , ET AL., 1985
NY	NEW YORK HARBOR	MERCURY	3.49	MG/KG		X	2.71-34.89	6	3	1	RUBINSTEIN, N.I. ET AL., 1983
NY	ARTHUR KILL	MERCURY	7.1	MG/KG		X	1.7-31	6	3	6	STORET
RI	NARRAGANSETT BAY	CHROMIUM	170	MG/KG	X			6	3	6	GOLDBERG ET AL., 1977
RI	PROVIDENCE RIVER	COPPER	1915	MG/KG	X			6	3	1	EISLER, P. ET AL., 1977
TX	TEXAS CITY CHANNEL	CHROMIUM	188	MG/KG				6	3	1	NEFF, ET AL., 1978
TX	HOUSTON SHIP CHANNEL	CHROMIUM	137	MG/KG				6	3	1	NEFF, ET AL , 1978
TX	CORPUS CHRISTI CHANNEL	CHROMIUM	82	MG/KG				6	3	1	NEFF, ET AL., 1978
TX	CORPUS CHRISTI, INNER HARBOR	LEAD	588	MG/KG		X		6	3	6	STORET
TX	CONN. BROWN HARBOR	MERCURY	4	MG/KG		X		6	3	6	STORET
TX	CORPUS CHRISTI CHANNEL	ZINC	4055	MG/KG				6	3	1	NEFF, ET AL., 1978
TX	CORPUS CHRISTI HARBOR	ZINC	5500	MG/KG	X		229-11000	6	3	6	EISLER, R. ET AL., 1977
WA	PUGET SOUND: SINCLAIR INLET	PAH	6.2	MG/KG	X		1.45-17.7	1	3	1	MALINS ET AL., 1980
WA	PUGET SOUND: SW COMMENCEMENT BAY	PAH	5.8	MG/KG	X		0.266-16.8	1	3	1	MALINS ET AL., 1980
WA	HYLEBOS, BLAIR, & COMMENCEMENT WTRWYS	PAH	9.371	MG/KG		X	1.805-28.5	1	3	1,2	RILEY ET AL., 1981
WA	HARBOR ISLAND, WEST END, PUGET SOUND	PCBS	2.5	MG/KG		X		3	3	6	STORET
WA	PUGET SOUND: HYLEBOS	PCBS	0.5	MG/KG	X		0.027-1.2	3	3	1	MALINS ET AL., 1980
WA	COMMENCEMENT BAY	ARSENIC	233	MG/KG		X	1.6-470	6	3	1	LONG, 1982

TABLE 4.3. COASTAL U.S. REGIONS CONTAINING SINGLE POLLUTANTS AT CONCENTRATIONS EXCEEDING PROVISIONAL SEDIMENT THRESHOLD VALUES BY ONE- TO THREE-FOLD (LEVEL 2)

STATE	LOCATION	CONTAMINANT	CONCENTR.	UNITS	MEAN	MED.	RANGE	CAT.	STAT.	EFFECT	REFERENCE
CA	PALOS VERDES SHELF	CADMIUM	52	MG/KG		X	4*-57	6	2	1	SHERWOOD, M.J., 1982
CA	OCEANSIDE	CHROMIUM	70.6	MG/KG	X			6	2	6	KATZ, A. & I.R. KAPLAN, 1981
CA	PALOS VERDES	CHROMIUM	47	MG/KG	X		37 0-52.5	6	2	6	KATZ, A. & I.R. KAPLAN, 1981
CA	POINT CONCEPTION	CHROMIUM	42.3	MG/KG	X			6	2	6	KATZ, A. & I.R. KAPLAN, 1981
CA	SANTA BARBARA	CHROMIUM	46.9	MG/KG	X		26.8-66.*	6	2	6	KATZ, A. & I.R. KAPLAN, 1981
CA	JOINT WATER POLL. CONTRL. MNTRNG ZONE	COPPER	280	MG/KG	X		-940	6	2	1	YOUNG, D.R., 1982
CA	L.A. CITY, HYPERION OUTFALL	COPPER	300	MG/KG	X		-1000	6	2	1	YOUNG, D.R., 1982
CA	PALOS VERDES PEN, LA COUNTY	COPPER	164	MG/KG		X	14-937	6	2	1	HERSHELMAN,GP.ET AL 1981
CA	JOINT WATER POLL. CONTRL. MNTRNG ZONE	LEAD	290	MG/KG	X		-580	6	2	1	YOUNG, D.P., 1982
CA	PALOS VERDES PEN, LA COUNTY	MERCURY	1	MG/KG		X	0 13-5.4	6	2	1	HERSHELMAN,GP ET AL, 1981
CA	LOWER NEWPORT BAY	MERCURY	1.2	MG/KG		X	0.3-5.7	6	2	6	STORET
CA	JOINT WATER POLL. CONTRL. MNTRNG ZONE	MERCURY	1.7	MG/KG	X		-5.4	6	2	1	YOUNG, D.R., 1982
CA	L.A. CITY, HYPERION OUTFALL	MERCURY	1 7	MG/KG	X		-6.1	6	2	1	YOUNG, D.R., 1982
CA	PALOS VERDES PEN, LA COUNTY	NICKEL	52	MG/KG		X	16-134	6	2	1	HERSHELMAN,GP ET AL, 1981
CA	SANTA BARBARA	NICKEL	21	MG/KG	X		14 0-29.3	6	2	6	KATZ, A. & I.R KAPLAN, 1981
CA	L.A. CITY, HYPERION OUTFALL	NICKEL	58	MG/KG	X		-170	6	2	1	YOUNG, D.R., 1982
CA	OCEANSIDE	NICKEL	23.7	MG/KG	X			6	2	6	KATZ, A. & I.R. KAPLAN, 1981
CA	PALOS VERDES SHELF	ZINC	1700	MG/KG		X	1600-1900	6	2	1	SHERWOOD, M J., 1982
CT	NAUGATUCK RIVER AT ANSONIA	PCBS	0.37	MG/KG		X		3	2	6	STORET
CT	NEW HAVEN	MERCURY	1 5	MG/KG			0.25-1.5	6	2	1	FORSTNER & WHITTMANN, 1979
CT	CEDAR CREEK AT BLACK ROCK	MERCURY	0.8	MG/KG		X		6	2	6	STORET
CT	BLACK ROCK	MERCURY	0.8	MG/KG		X		6	2	6	STORET
CT	CEDAR CREEK AT BLACK ROCK	ZINC	1500	MG/KG		X		6	2	6	STORET
DE	DELAWARE RIVER (MP 50)	PCBS	0.46	MG/KG	X			3	2	6	BOPP ET AL., 1981
FL	ST. JOHNS RIVER	LEAD	145	MG/KG		X		6	2	6	STORET
FL	ST. JOHNS RIVER	MERCURY	0 85	MG/KG		X		6	2	6	STORET
FL	TURKEY POINT	NICKEL	25	MG/KG	X			6	2	6	EISLER, R. ET AL., 1977
LA	MISSISSIPPI RIVER DELTA	NICKEL	42	MG/KG		X		6	2	6	PRESLEY, B.J ET AL., 1980
LA	MISSISSIPPI RIVER DELTA	NICKEL	40	MG/KG				6	2	6	PRESLEY, B.J. ET AL , 1980
MA	CAPE COD BAY	PAH	1 3	MG/KG	X			1	2	6	HITES ET AL., 1980
MA	BOSTON HARBOR	MERCURY	2 1	MG/KG		X	.300-6.700	6	2	6	STORET
MD	CHESAPEAKE BAY	CHROMIUM	25	MG/KG	X			6	2	1	HELTZ, G P , 1976
MD	PATAPSCO ESTUARY: BALTIMORE HARBOR	COPPER	340	MG/KG	X			6	2	6	HELZ, G R., 1976
MD	PATAPSCO ESTUARY: BALTIMORE HARBOR	LEAD	340	MG/KG	X			6	2	6	HELZ, G P., 1976
MD	CHESAPEAKE BAY	NICKEL	26	MG/KG	X			6	2	1	HELTZ. G P , 1976
MD	PATAPSCO ESTUARY' BALTIMORE HARBOR	NICKEL	36	MG/KG	X			6	2	6	HELZ, G.R., 1976
MD	PATAPSCO ESTUARY. BALTIMORE HARBOR	ZINC	990	MG/KG	X			6	2	6	HELZ, G.P., 1976
NJ	KILL VAN KULL	PCBS	0 37	MG/KG	X			3	2	6	BOEHM, P.D , 1980
NJ	NEWARK BAY	PCBS	0.39	MG/KG	X			3	2	6	BOEHM, P.D., 1980
NJ	SANDY HOOK/RARITAN BAY	CHROMIUM	53	MG/KG		X	38-55	6	2	1	SHERWOOD, M.J., 1982
NJ	NEWARK BAY	LEAD	267	MG/KG	X			6	2	1,2	BRETELEP,P., ET AL., 1985
NJ	NYB, CELLAR DIRT DUMP SITE	LEAD	200	MG/KG		X	126-280	6	2	6	STORET
NJ	KILL VAN KULL	LEAD	368	MG/KG	X			6	2	1,2	BRETELER,R., ET AL., 1985
NJ	ATL. OCEAN OFF LONG BRANCH	MERCURY	1.48	MG/KG		X	0.95-2 5	6	2	6	STORET
NJ	NYB, CELLAR DIRT DUMP SITE	MERCURY	2.3	MG/KG		X	1.3-3.3	6	2	6	STORET
NJ	ATL. OCEAN OFF BRADLEY BEACH	MERCURY	1.00	MG/KG		X		6	2	6	STORET
NJ	ARTHUR KILL	ZINC	847	MG/KG	X			6	2	1,2	BRETELER,R., ET AL., 1985
NY	NEWTON CREEK	NAPTHALENE	120	MG/KG				1	2	1	O'CONNOR ET AL., 1982
NY	SEWAGE SLUDGE DUMPSITE	TOTAL PAH	1.1	MG/KG	X			1	2	1	O'CONNOR ET AL., 1982
NY	HUD-RARITAN EST: 15KM N OF THE BATTERY	TOTAL PAH	2	MG/KG	X			1	2	1	O'CONNOR ET AL., 1982
NY	CHRISTIAENSEN BASIN	DDT	0.16	MG/KG	X			2	2	1	O'CONNOR ET AL., 1982
NY	HUDSON RIVER (FROM KM 15-66)	DDT	0.013	MG/KG	X		.010-.015	2	2	1	O'CONNOR ET AL , 1982
NY	DREDGED MATERIALS DUMPSITE	DDT	0.009	MG/KG	X			2	2	1	O'CONNOR ET AL., 1982
NY	NEW YORK BIGHT (SEWAGE SLUDGE DEPOSIT)	PCBS	0.4	MG/KG		X	060-2.2	3	2	6	BOEHM, P.D., 1981
NY	LOWER BAY	PCBS	0 7	MG/KG	X	X	-	3	2	1	BOEHM ET AL., 1984
NY	NEW YORK HARBOR	PCBS	0.715	MG/KG		X	0.46-7.28	3	2	1	RUBINSTEIN, N I. ET AL., 1983
NY	UPPER BAY	PCBS	0.27	MG/KG			0.13-0.40	3	2	1	BOEHM ET AL , 1984
NY	DREDGED MATERIALS DUMPSITE	PCBS	0.4	MG/KG	X			3	2	1	O'CONNOR ET AL., 1982
NY	CHRISTIAENSEN BASIN	PCBS	0.7	MG/KG	X		-	3	2	1	O'CONNOR ET AL., 1982
NY	NEWTON CREEK	PCBS	0.4	MG/KG	X			3	2	1	O'CONNOR ET AL., 1982
NY	CHRISTIANSEN BASIN	PCBS	0.75	MG/KG		X	0.05-1.5	3	2	1	BOEHM ET AL., 1984
NY	NEW YORK BIGHT (DREDGE SPOIL DEPOSIT)	PCBS	0.62	MG/KG		X	.003- 400	3	2	6	BOEHM, P D., 1981
NY	RARITAN BAY	PCBS	0.38	MG/KG		X	0.27-0 5	3	2	1	BOEHM ET AL., 1984
NY	ARTHUR KILL	ARSENIC	50	MG/KG		X	18-140	6	2	6	STORET
NY	NEW YORK BIGHT APEX DUMP AREA	CHROMIUM	52	MG/KG		X	44-55	6	2	1	SHERWOOD, M.J., 1982
NY	NEW YORK BIGHT: SLUDGE SITE	COPPER	140	MG/KG	X		-240	6	2	6	YOUNG, D.R., 1982
NY	LOWER HUDSON RIVER	COPPER	225	MG/KG	X			6	2	1,2	BRETELER,R., ET AL., 1985
NY	NEW YORK BIGHT "DREDGE SPOILS"	COPPER	142	MG/KG	X		8-395	6	2	6	EISLER, R ET AL., 1977
NY	NEW YORK BIGHT: SEWAGE SLUDGE	COPPER	220	MG/KG	X			6	2	1,2,3	STEIMLE ET AL., 1982
NY	UPPER NEW YORK BAY	COPPER	214	MG/KG	X			6	2	1,2	BRETELER,R., ET AL., 1985
NY	NEW YORK BIGHT "SEWAGE SITE"	COPPER	142	MG/KG	X		80-240	6	2	6	EISLER, R. ET AL., 1977
NY	NEW YORK BIGHT: DREDGE SITE	COPPER	140	MG/KG	X		-390	6	2	6	YOUNG, D.R., 1982

TABLE 4.3. (Continued).

STATE	LOCATION	CONTAMINANT	CONCENTR	UNITS	MEAN	MED.	RANGE	CAT.	STAT.	EFFECT	REFERENCE
NY	ARTHUR KILL	LEAD	340	MG/KG		X	220-1100	6	2	6	STORET
NY	NEW YORK BIGHT "DREDGE SPOILS"	LEAD	147	MG/KG	X		25-372	6	2	6	EISLER, R. ET AL., 1977
NY	LONG ISLAND SOUND BRANFORD HARBOR	LEAD	265	MG/KG	X			6	2	6	LYONS & FITZGERALD, 1980
NY	NEW YORK BIGHT "SEWAGE SITE"	LEAD	173	MG/KG	X		104-255	6	2	6	EISLER, R. ET AL., 1977
NY	NEW YORK BIGHT. SEWAGE SLUDGE	LEAD	157	MG/KG	X			6	2	1,2,3	STEIMLE ET AL., 1982
NY	NEW YORK BIGHT: DREDGE SITE	LEAD	140	MG/KG	X		-370	6	2	6	YOUNG, D R., 1982
NY	UPPER NEW YORK BAY	LEAD	171	MG/KG	X			6	2	1,2	BRETELER,R., ET AL., 1985
NY	NEW YORK BIGHT. SLUDGE SITE	LEAD	170	MG/KG	X		-260	6	2	6	YOUNG, D.R , 1982
NY	NEW YORK BIGHT SEWAGE SLUDGE DUMPSITE	MERCURY	1 51	MG/KG	X		0.18-4.90	6	2	1	TIMOTHY & GRAVES, 1982
NY	NEW YORK BIGHT: SEWAGE SLUDGE	NICKEL	29	MG/KG	X			6	2	1,2,3	STEIMLE ET AL., 1982
NY	NEW YORK BIGHT "SEWAGE SITE"	NICKEL	23	MG/KG	X		15-37	6	2	6	EISLEP, P. ET AL., 1977
NY	NEW YORK BIGHT "DPEDGE SPOILS"	NICKEL	23	MG/KG	X		3-35	6	2	6	EISLEP, P. ET AL , 1977
NY	NEW YORK BIGHT: DREDGE SPOIL DUMPSITE	NICKEL	29	MG/KG	X			6	2	1,2,3	STEIMLE ET AL., 1982
NY	NEW YORK BIGHT: DPEDGE SITE	NICKEL	24	MG/KG	X		-35	6	2	6	YOUNG, D.R., 1982
NY	RARITAN BAY	NICKEL	23	MG/KG			(2-50	6	2	1,2	BRETELER,R., ET AL., 1985
NY	NEW YORK BIGHT: SLUDGE SITE	NICKEL	24	MG/KG	X		-37	6	2	6	YOUNG, D.R , 1982
RI	NARRAGANSETT BAY	CHROMIUM	46	MG/KG	X		13-81	6	2	1	EISLER, R ET AL , 1977
RI	RHODE ISLAND SOUND DUMPSITE	CHROMIUM	32	MG/KG	X			6	2	1	EISLEP, R ET AL , 1977
RI	FIX ISLAND	CHROMIUM	45	MG/KG	X			6	2	1	EISLER, P ET AL., 1977
RI	NARRAGANSETT BAY	COPPER	200	MG/KG	X			6	2	6	GOLDBERG ET AL., 1977
RI	PROVIDENCE RIVER	LEAD	270	MG/KG	X			6	2	1	EISLER, P. ET AL., 1977
RI	NARPAGANSETT BAY	NICKEL	30	MG/KG	X			6	2	6	GOLDBERG ET AL , 1977
RI	PROVIDENCE RIVER	NICKEL	54	MG/KG	X			6	2	1	EISLER, R ET AL., 1977
TX	SAN LUIS PASS	PAH	2 068	MG/KG		X	0.430-28.850	1	2	6	LARSON ET AL , 1983
TX	CORPUS CHRISTI, INNER HARBOR	ARSENIC	35.9	MG/KG		X		6	2	6	STORET
TX	CORPUS CHRISTI HARBOR	CADMIUM	63	MG/KG	X		2.0-130.0	6	2	6	EISLER, R. ET AL., 1977
TX	GULF OF MEXICO SHELF	CHROMIUM	49	MG/KG	X		36-66	6	2	6	EISLER, R. ET AL., 1977
TX	FREEPORT SHIP CHANNEL	CHROMIUM	44	MG/KG				6	2	1	NEFF, ET AL., 1978
TX	HOUSTON SHIP CHANNEL	LEAD	207	MG/KG				6	2	1	NEFF, ET AL., 1978
TX	CORPUS CHRISTI CHANNEL	LEAD	316	MG/KG				6	2	1	NEFF, ET AL., 1978
TX	S.E. POINT COMFORT, COX BAY	MERCURY	1 1	MG/KG		X		6	2	6	STOPET
TX	ARANSAS PASS, TURNING BASIN	MERCURY	1	MG/KG		X		6	2	6	STORET
TX	SAN ANTONIO BAY, VICTORIA CHANNEL	MERCURY	2.36	MG/KG		X		6	2	6	STORET
TX	CORPUS CHRISTI, INNER HARBOR	MERCURY	2	MG/KG		X	1 0-5.0	6	2	6	STORET
TX	ESPERITO SANTO BAY	MERCURY	2.147	MG/KG		X		6	2	6	STORET
TX	ARANSAS PASS TURNING BASIN	MERCURY	1.35	MG/KG		X		6	2	6	STOPET
TX	FREEPORT SHIP CHANNEL	NICKEL	44	MG/KG				6	2	1	NEFF, ET AL., 1978
TX	TEXAS CITY CHANNEL	NICKEL	48	MG/KG				6	2	1	NEFF, ET AL., 1978
TX	HOUSTON SHIP CHANNEL	NICKEL	51	MG/KG				6	2	1	NEFF, ET AL., 1978
TX	GULF OF MEXICO SHELF	NICKEL	29	MG/KG	X		10-23	6	2	6	EISLER, R ET AL , 1977
TX	CORPUS CHRISTI, INNER HARBOR	ZINC	1970	MG/KG		X	339-8057	6	2	6	STORET
TX	FREEPORT SHIP CHANNEL	ZINC	201	MG/KG				6	2	1	NEFF, ET AL., 1978
WA	PUGET SOUND: OUTER ELLIOTT BAY	PAH	1.9	MG/KG	X		0.214-3.79	1	2	1	MALINS ET AL., 1980
WA	PUGET SOUND' ELIOTT BAY	PAH	1.3	MG/KG	X			1	2		MALINS ET AL , 1980
WA	PUGET SOUND, SW OF NORMANOR PARK	PCBS	0 33	MG/KG		X		3	2	6	STORET
WA	ELLIOTT BAY, PUGET SOUND	PCBS	0.3	MG/KG		X	0.13-1.4	3	2	6	STOPET
WA	PUGET SOUND: DUWAMISH WATERWAY	PCBS	0.3	MG/KG	X		0.099-0.67	3	2	1	MALINS ET AL., 1980
WA	PUGET SOUND: SEATTLE WATERFRONT	PCBS	0.3	MG/KG	X		0.16-0.69	3	2	1	MALINS ET AL., 1980
WA	HARBOR ISLAND, EAST END, PUGET SOUND	PCBS	0 576	MG/KG		X		3	2	6	STORET
WA	ELLIOT BAY	PCBS	0.325	MG/KG	X			3	2	6	LONG, 1982
WA	DUWAMISH WATERWAY, PUGET SOUND	PCBS	0.31	MG/KG		X	0.15-2.4	3	2	6	STORET
WA	PUGET SOUND: BUDD INLET	ARSENIC	98.5	MG/KG			57-140	6	2	1	MALINS ET AL., 1980
WA	PUGET SOUND: ELLIOTT BAY	ARSENIC	95	MG/KG		X	84-280	6	2	1	MALINS ET AL., 1980
WA	PUGET SOUND: SINCLAIR INLET	CHROMIUM	61	MG/KG		X	29-72	6	2	1	MALINS ET AL., 1980
WA	PUGET SOUND: COMMENCEMENT BAY	CHROMIUM	31	MG/KG		X	26-59	6	2	1	MALINS ET AL., 1980
WA	DUWAMISH RIVER ESTUARY	CHROMIUM	43	MG/KG		X	29-57	6	2	1	SHERWOOD, M.J., 1982
WA	PUGET SOUND: PORT MADISON	CHROMIUM	34.5	MG/KG	X		-	6	2	1	MALINS ET AL., 1980
WA	PUGET SOUND: CASE INLET	CHROMIUM	37	MG/KG	X		21-53	6	2	1	MALINS ET AL., 1980
WA	PUGET SOUND: ELLIOTT BAY	CHROMIUM	42.5	MG/KG		X	28-70	6	2	1	MALINS ET AL., 1980
WA	PUGET SOUND: BUDD INLET	CHROMIUM	49	MG/KG		X	35-50	6	2	1	MALINS ET AL., 1980
WA	PUGET SOUND: SINCLAIR INLET	COPPER	140	MG/KG		X	47-180	6	2	1	MALINS ET AL., 1980
WA	ELLIOT BAY	LEAD	310	MG/KG		X	2.3-630	6	2	1	LONG, 1982
WA	PUGET SOUND: SINCLAIR INLET	MERCURY	1.05	MG/KG		X	.32-1.2	6	2	1	MALINS ET AL., 1980
WA	BELLINGHAM BAY	MERCURY	1	MG/KG		X	0.02-1.9	6	2	1	LONG, 1982
WA	PUGET SOUND: COMMENCEMENT BAY	NICKEL	27	MG/KG		X	19-64	6	2	1	MALINS ET AL., 1980
WA	PUGET SOUND: BUDD INLET	NICKEL	45	MG/KG		X	35-48	6	2	1	MALINS ET AL., 1980
WA	PUGET SOUND. ELLIOTT BAY	NICKEL	45	MG/KG		X	24-58	6	2	1	MALINS ET AL., 1980
WA	PUGET SOUND: CASE INLET	NICKEL	33	MG/KG	X		19-47	6	2	1	MALINS ET AL., 1980
WA	PUGET SOUND. SINCLAIR INLET	NICKEL	47 5	MG/KG		X	36-53	6	2	1	MALINS ET AL., 1980
WA	PUGET SOUND: PORT MADISON	NICKEL	33	MG/KG	X		-	6	2	1	MALINS ET AL., 1980
WA	DUWAMISH RIVER ESTUARY	NICKEL	21	MG/KG		X	20-25	6	2	1	SHERWOOD, M.J., 1982

resulting from sediment contamination, 3) the elimination of a species as a result of sediment contamination, and 6) notation if biological effects were not mentioned in the publication or report

- Reference, allowing identification of the report using the bibliography included with this workshop document.

Table 4.1 includes the marine sites with the highest concentrations of the chemicals of interest, based on the presence of one or more chemicals considered in this report at levels exceeding ten times the preliminary sediment threshold value as defined in Table 2.1 of this report. These areas include the Puget Sound region in Washington; the Corpus Christi area in Texas; the Providence River in Rhode Island; the New York Harbor region; Baltimore Harbor in Maryland; Boston Harbor and the Charles River in Boston, and the Acushnet River in New Bedford, Massachusetts; Blackrock Harbor, Connecticut; and the California Sewage Sludge Outfall area off Palos Verdes Peninsula. Tables 4.2 and 4.3 are lists of coastal areas which contain contaminant levels exceeding threshold values by 3-10 fold and 1-3 fold, respectively. All sites are listed alphabetically by state. Based on this data set, areas of sediment quality concern appear to be localized; the vast majority of marine sites are relatively unpolluted or unstudied. A more extensive data search should be conducted to substantiate these preliminary conclusions.

5.0 GEOGRAPHIC DATA

5.1 OVERVIEW

As described in the methodology section, freshwater and marine/estuarine data were taken from the tabular listings and placed on maps at two scales - national and regional. The data shown on the maps consist of Level 4 and all or a portion of the Level 3 data. Map locations for the data points are approximate. The regional maps allow further spatial detail and resolution of areas containing densely clustered points.

5.2 FRESHWATER DATA

5.2.1 Metals

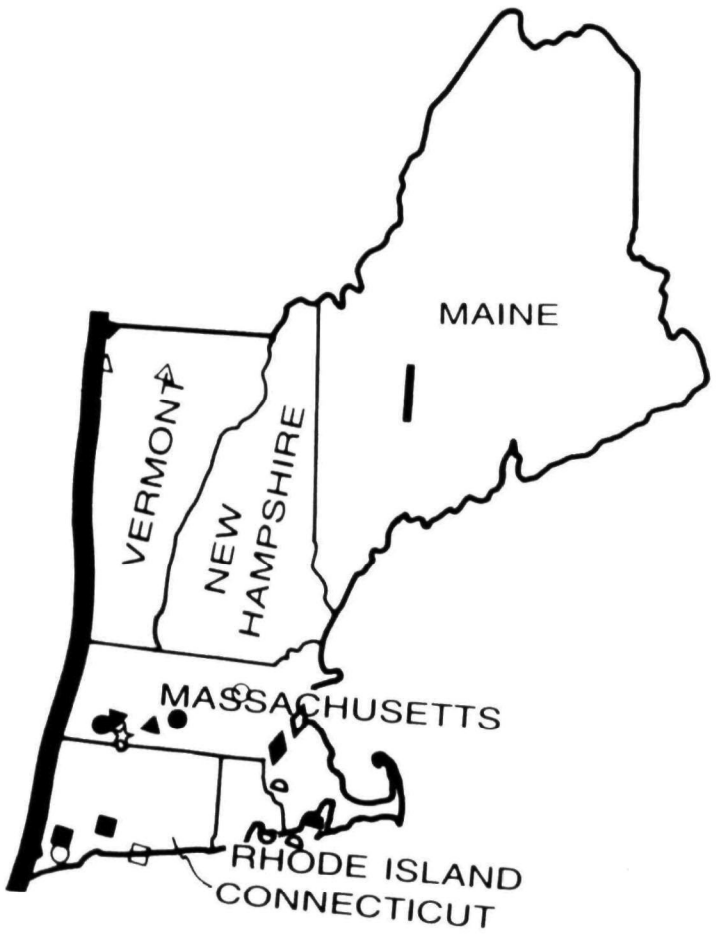
As will be apparent, the geographic distribution of the high concentration areas is distinctive for each of the contaminant groups. As Figure 5.1 shows, the metals data are predominantly in the eastern portion of the country. This distribution reflects the higher density of older urban areas and more industrialization. In particular, the major areas for the high metals concentrations are the following:

- The Northeastern coastal areas (EPA Regions I, II, and III) including portions of Massachusetts, Connecticut, downstate New York, New Jersey, southeastern Pennsylvania and Delaware. The clustering of data points in New York, New Jersey and Massachusetts may be viewed more clearly on the respective regional maps (Figures 5.2 and 5.3). With the exception of copper (which may be due to the smaller data base available for this chemical), all seven metals are present at a number of sites.

- Southern Michigan, central and eastern Ohio, western Indiana and Illinois in the Chicago area (EPA Region V). The clustering of points on the western and southwestern portions of Lake Erie is better viewed on the regional map for Region V (Figure 5.4).

- The Gulf and southeastern states (EPA Regions IV and VI) exhibit clustering of data but have a more dispersed distribution than the previously discussed regions. Tennessee, Florida and eastern Texas have the largest number of locations. Alabama, Georgia, Mississippi and New Mexico have relatively few locations (Figure 5.5).

FIGURE 5.1. CLASSIFICATION LEVELS FOR METALS



SYMBOL	CHEMICAL	RANGE (IN MG/KG)
●	Lead	1320-19000
○	Lead	396-1319
★	Arsenic	330-6800
☆	Arsenic	99-329
■	Mercury	8.0-40000
□	Mercury	2.4-7.9
▲	Zinc	7600-90000
△	Zinc	2280-7599
▼	Nickel	200-280000
▽	Nickel	60-199
⬬	Copper	1360-7500
⬭	Copper	408-1359
◆	Cadmium	310-19300
◇	Cadmium	93-309
⬬	Chromium	250-1100
⬭	Chromium	75-249

Closed Symbols Represent Level 4
Open Symbols Represent Level 3

Map Locations Are Approximate

SCALE

0 50 100 150 200 Miles

N

FIGURE 5.2. REGION I
CLASSIFICATION LEVELS FOR METALS

SYMBOL	CHEMICAL	RANGE (IN MG/KG)
●	Lead	1320-19000
○	Lead	396-1319
★	Arsenic	330-6800
☆	Arsenic	99-329
■	Mercury	8.0-40000
□	Mercury	2.4-7.9
▲	Zinc	7600-90000
△	Zinc	2280-7599
▼	Nickel	200-280000
▽	Nickel	60-199
⬬	Copper	1360-7500
⬭	Copper	408-1359
◆	Cadmium	310-19300
◇	Cadmium	93-309
▬	Chromium	250-1100
▭	Chromium	75-249

Closed Symbols Represent Level 4
Open Symbols Represent Level 3

Map Locations Are Approximate

SCALE

0 50 100 150 200 Miles

N

FIGURE 5.3. REGIONS II, III
CLASSIFICATION LEVELS FOR METALS

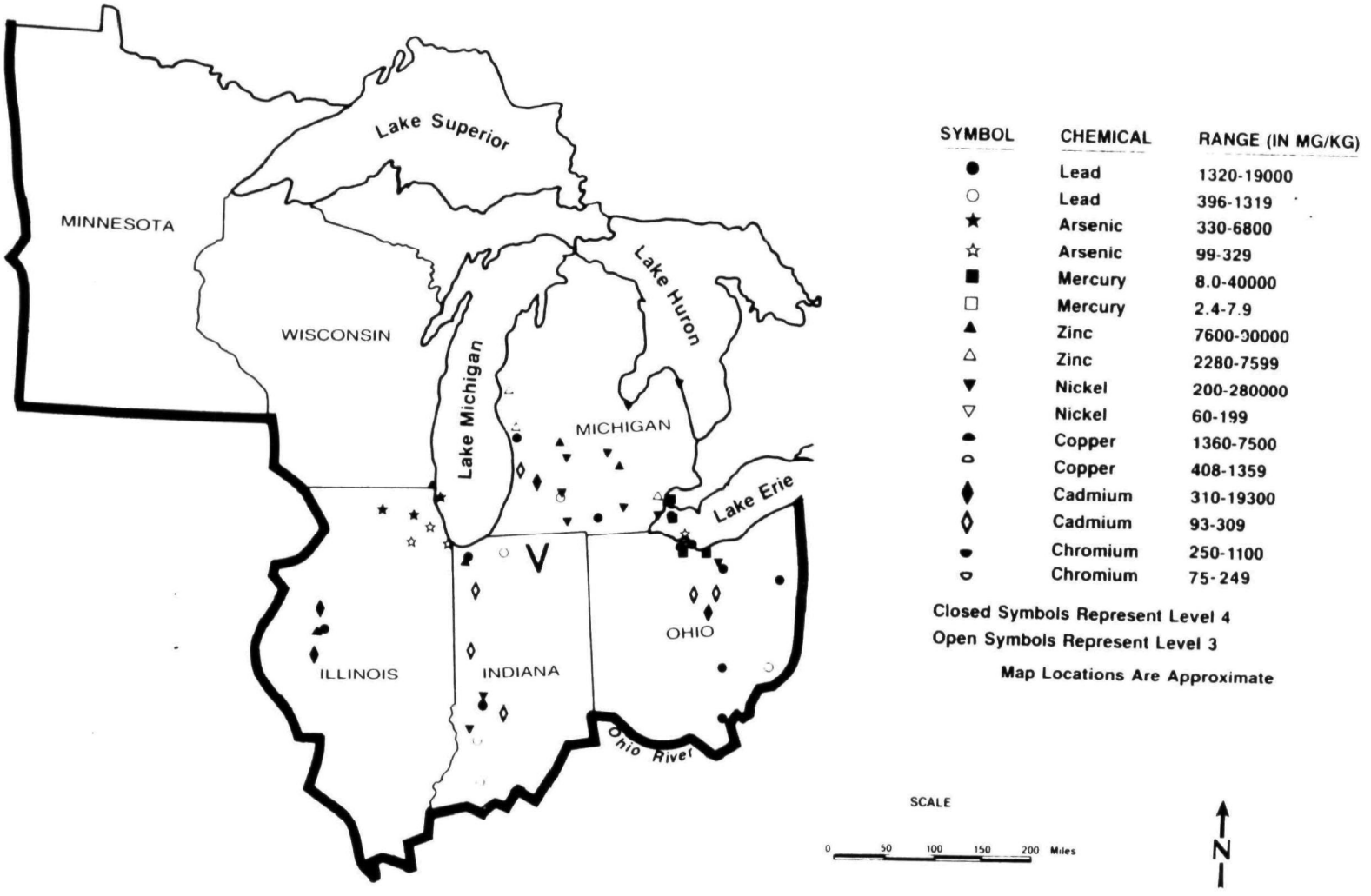
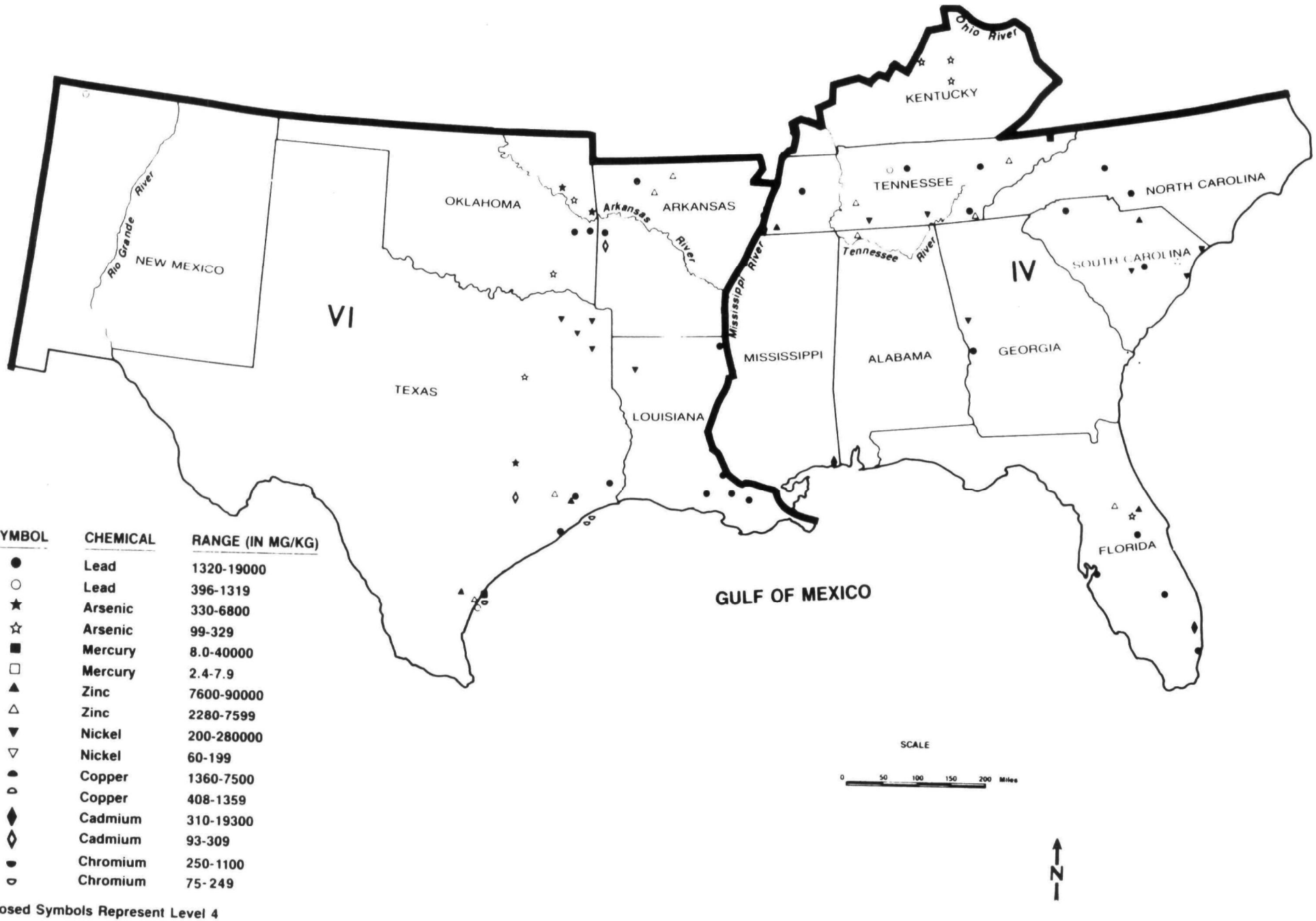


FIGURE 5.4. REGION V
CLASSIFICATION LEVELS FOR METALS



SYMBOL	CHEMICAL	RANGE (IN MG/KG)
●	Lead	1320-19000
○	Lead	396-1319
★	Arsenic	330-6800
☆	Arsenic	99-329
■	Mercury	8.0-40000
□	Mercury	2.4-7.9
▲	Zinc	7600-90000
△	Zinc	2280-7599
▼	Nickel	200-280000
▽	Nickel	60-199
⬬	Copper	1360-7500
⬭	Copper	408-1359
◆	Cadmium	310-19300
◇	Cadmium	93-309
▬	Chromium	250-1100
▭	Chromium	75-249

Closed Symbols Represent Level 4
Open Symbols Represent Level 3
Map Locations Are Approximate

FIGURE 5.5. REGIONS IV, VI CLASSIFICATION LEVELS FOR METALS

- Large sections of the central U.S. have no significant concentration of sites. These areas include EPA Regions VII and VIII. These areas are also relatively far from major urban-industrial centers (Figure 5.6).

- The Pacific Northwest (EPA Region X) has a cluster of sites in northern Idaho and eastern Washington along the Spokane River in the vicinity of Coeur d'Alene Lake (Figure 5.7).

- The southwestern U.S. (EPA Region IX) contains several clusters of points (Figure 5.8). One of these clusters is in southwestern Arizona, one is in Nevada in the vicinity of Lake Tahoe, the Truckee River, and Lahontan Reservoir and a third is in the Los Angeles area. Cadmium and mercury are found particularly in the Sacramento and San Joachin Valleys and the San Francisco Bay area.

5.2.2 Pesticides

The national geographic distribution of pesticide locations is shown in Figure 5.9. The data are more uniformly distributed across the country than was the case for the metals. The pesticides distribution appears to reflect heavy agricultural usage areas although manufacturing or disposal sites are also present. Specifically, the major areas for elevated pesticides concentrations are the following:

- New Jersey and western Pennsylvania have a large number of sites of high chlordane and DDT concentrations. This distribution probably reflects a combination of use and manufacturing areas (Figure 5.10); smaller numbers of points are shown in upper Maine, Vermont, and Massachusetts (Figure 5.11). Upstate New York also contains locations near Lake Ontario's southern shore.

- The largest concentration of sites in Region V is in Michigan. Chlordane, toxaphene, heptachlor and aldrin are the most common pesticide chemicals present particularly in the southwestern portion of the state and in the extreme northeastern portion near Lake Huron (Figure 5.12). Smaller clusters are present in northeast Ohio and the Chicago-Gary, Indiana industrial region.

- The southeast and Gulf Coast states contain the largest percentage of the locations, with the North and South Carolina, Georgia, areas along the Mississippi and in eastern Texas being the most tightly clustered (Figure 5.13).

- As was observed with the metals, the Great Plains and Rocky Mountain regions contain very few locations (Figure 5.14).

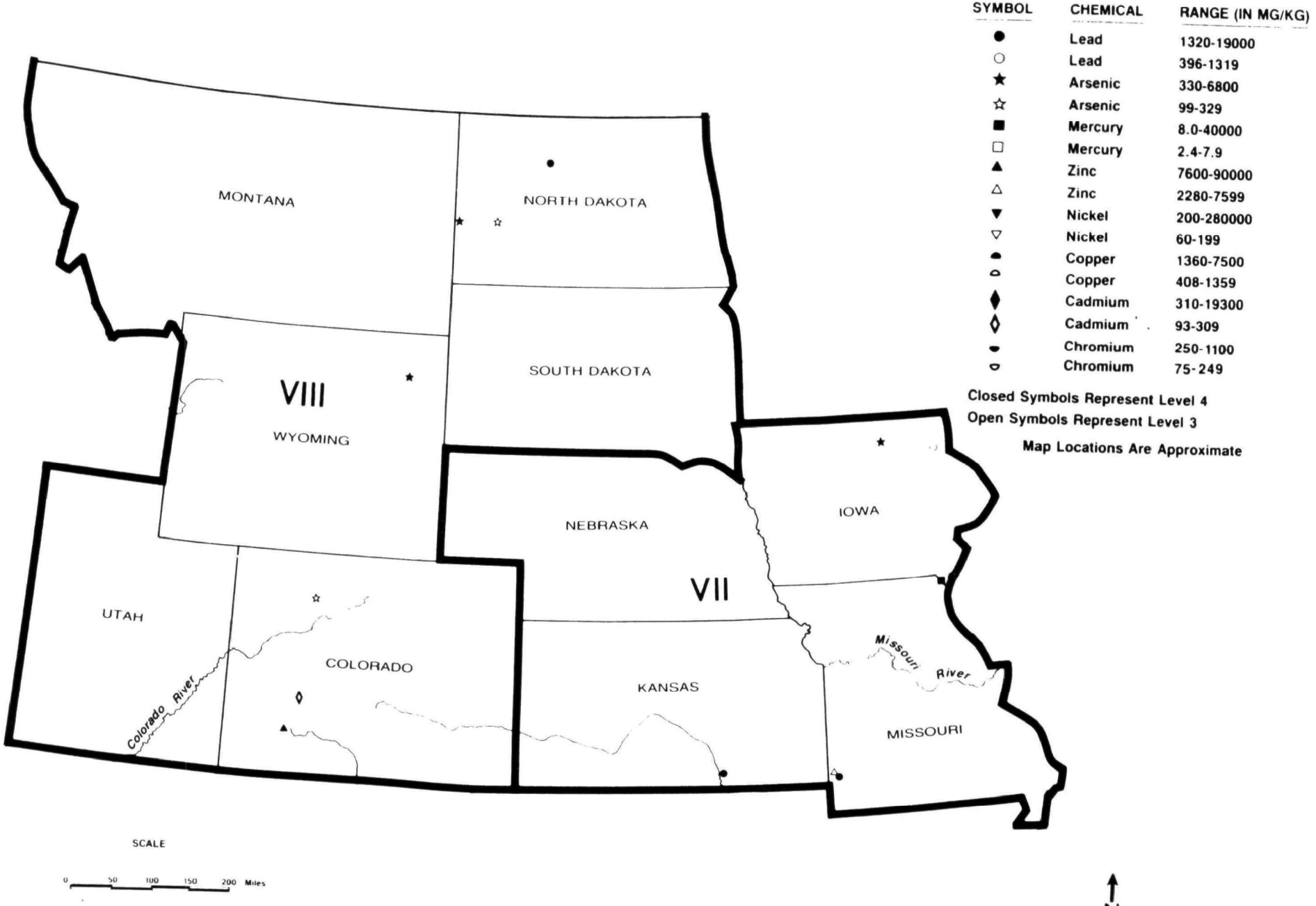
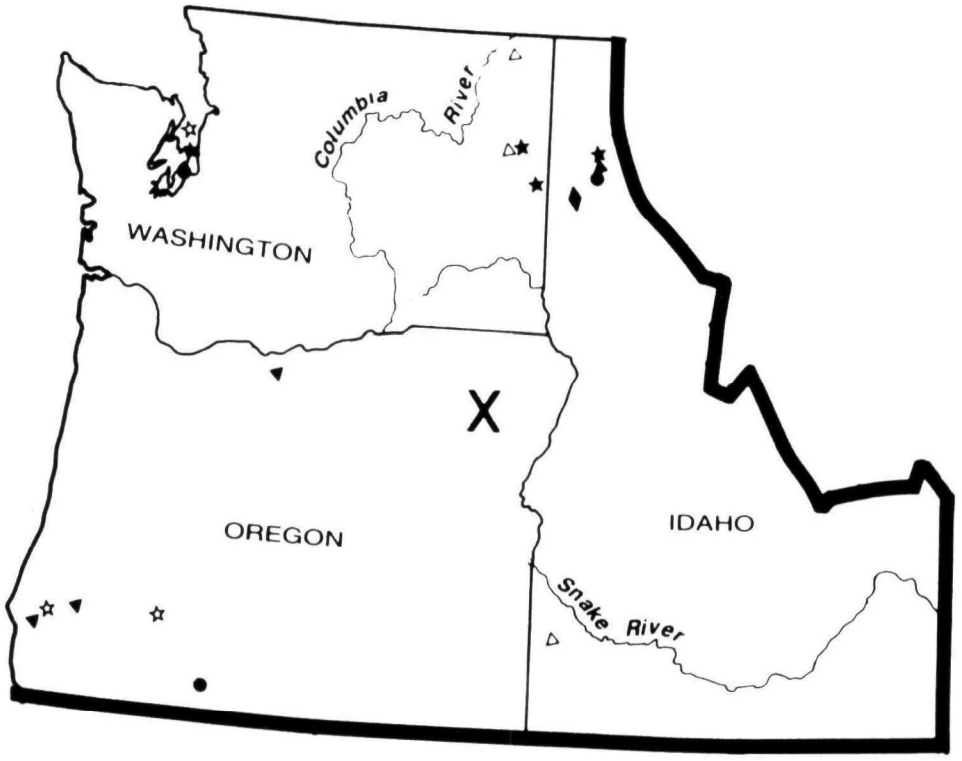


FIGURE 5.6. REGIONS VII, VIII CLASSIFICATION LEVELS FOR METALS



SYMBOL	CHEMICAL	RANGE (IN MG/KG)
●	Lead	1320-19000
○	Lead	396-1319
★	Arsenic	330-6800
☆	Arsenic	99-329
■	Mercury	8.0-40000
□	Mercury	2.4-7.9
▲	Zinc	7600-90000
△	Zinc	2280-7599
▼	Nickel	200-280000
▽	Nickel	60-199
◓	Copper	1360-7500
◒	Copper	408-1359
◆	Cadmium	310-19300
◇	Cadmium	93-309
⬬	Chromium	250-1100
⬭	Chromium	75-249

Closed Symbols Represent Level 4
Open Symbols Represent Level 3

Map Locations Are Approximate

SCALE

0 50 100 150 200 Miles

N

FIGURE 5.7. REGION X
CLASSIFICATION LEVELS FOR METALS

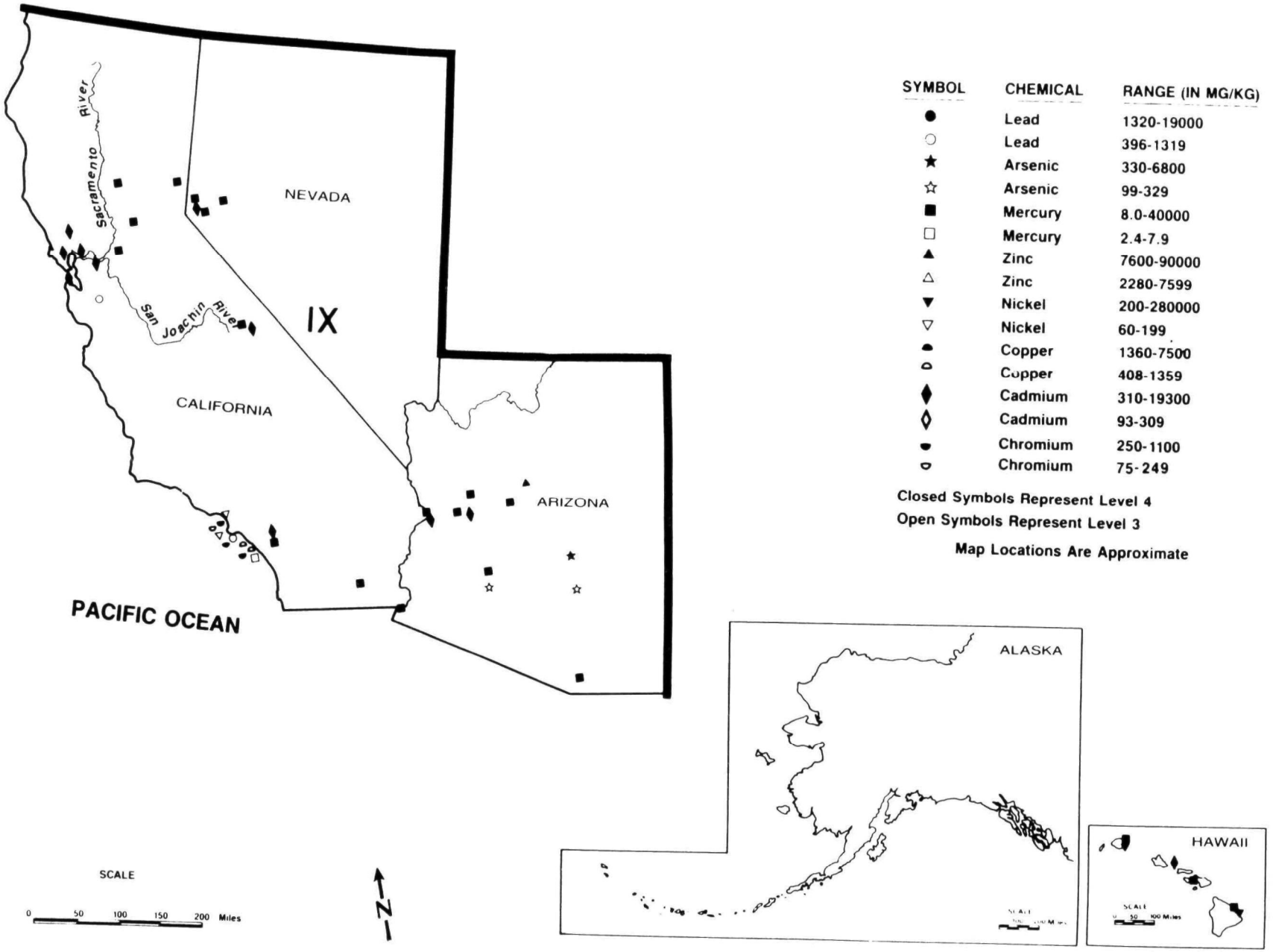


FIGURE 5.8. REGION IX
CLASSIFICATION LEVELS FOR METALS

FIGURE 5.9. CLASSIFICATION LEVELS FOR PESTICIDES

SYMBOL	CHEMICAL	RANGE (IN MG/KG)
●	Aldrin	0.210-25.66
○	Aldrin	0.063-0.209
★	Heptachlor	0.200-3.33
☆	Heptachlor	0.060-0.199
■	DDT	0.060-140.0
□	DDT	0.018-0.059
▲	Lindane	0.120-1.19
△	Lindane	0.036-0.119
▼	Chlordane	0.20-48.1
♦	Toxaphene	0.20-19.5

Closed Symbols Represent Level 4
Open Symbols Represent Level 3

Map Locations Are Approximate

SCALE

0 50 100 150 200 Miles

N

FIGURE 5.10. REGIONS II, III CLASSIFICATION LEVELS FOR PESTICIDES

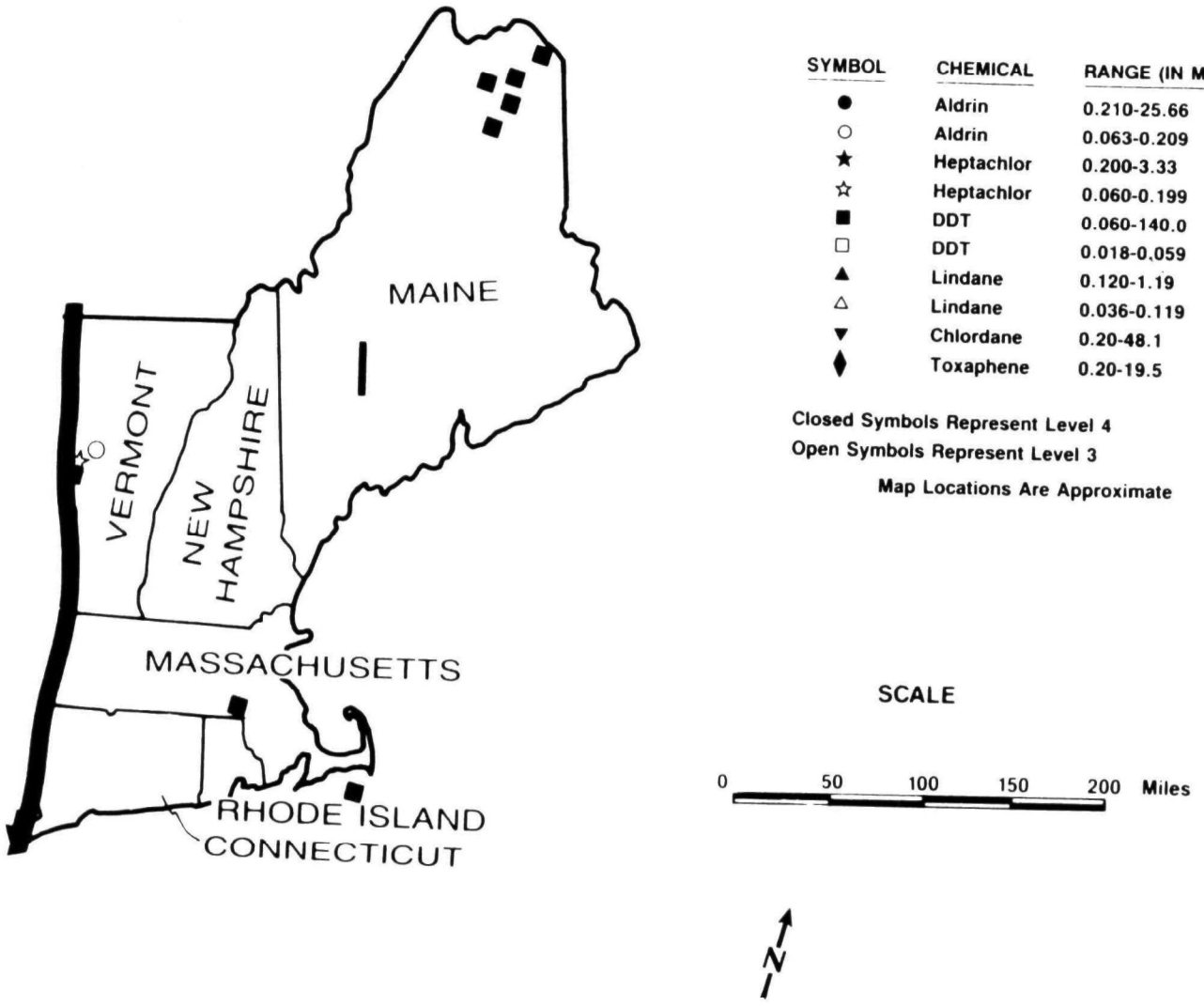


FIGURE 5.11. REGION I
CLASSIFICATION LEVELS FOR PESTICIDES

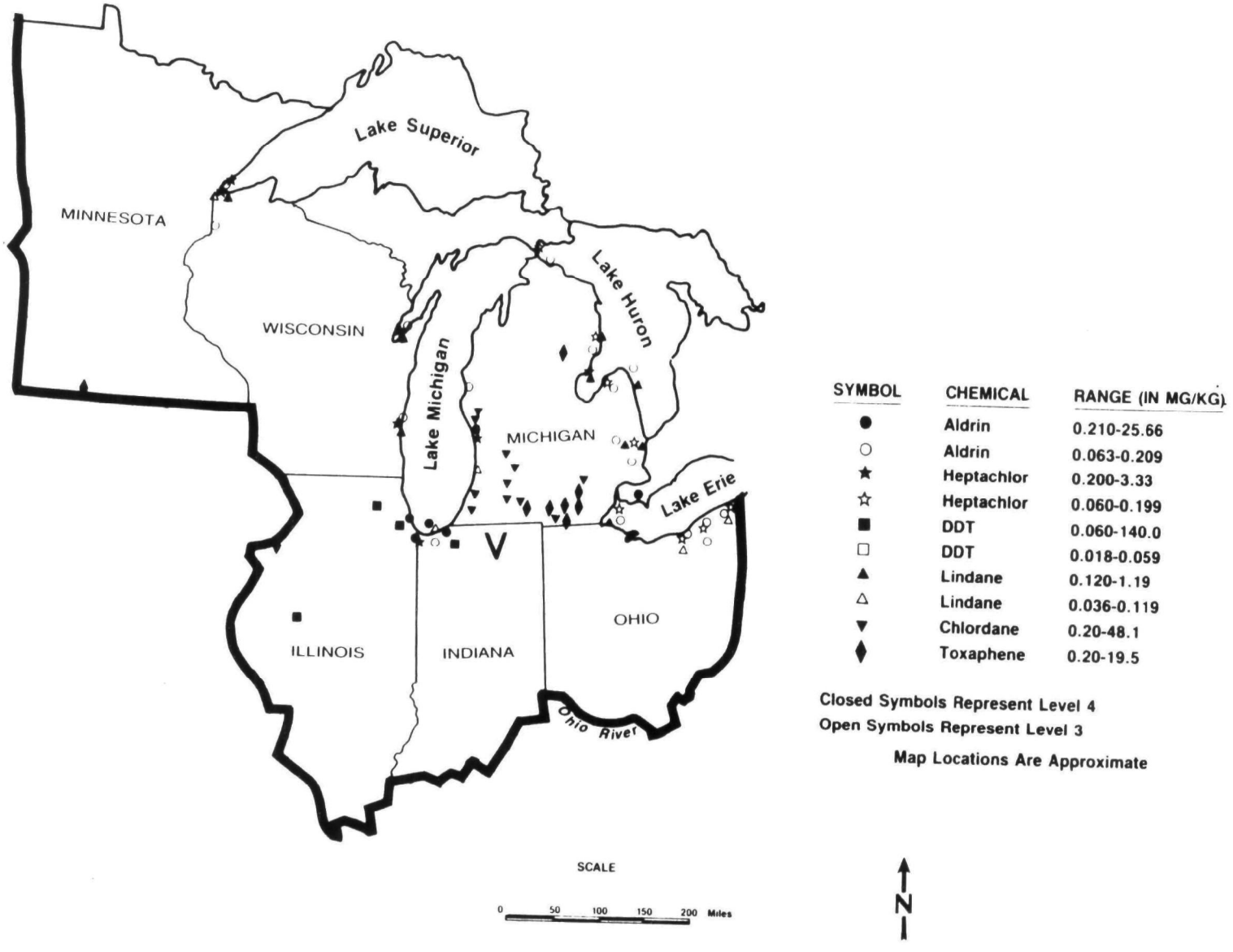
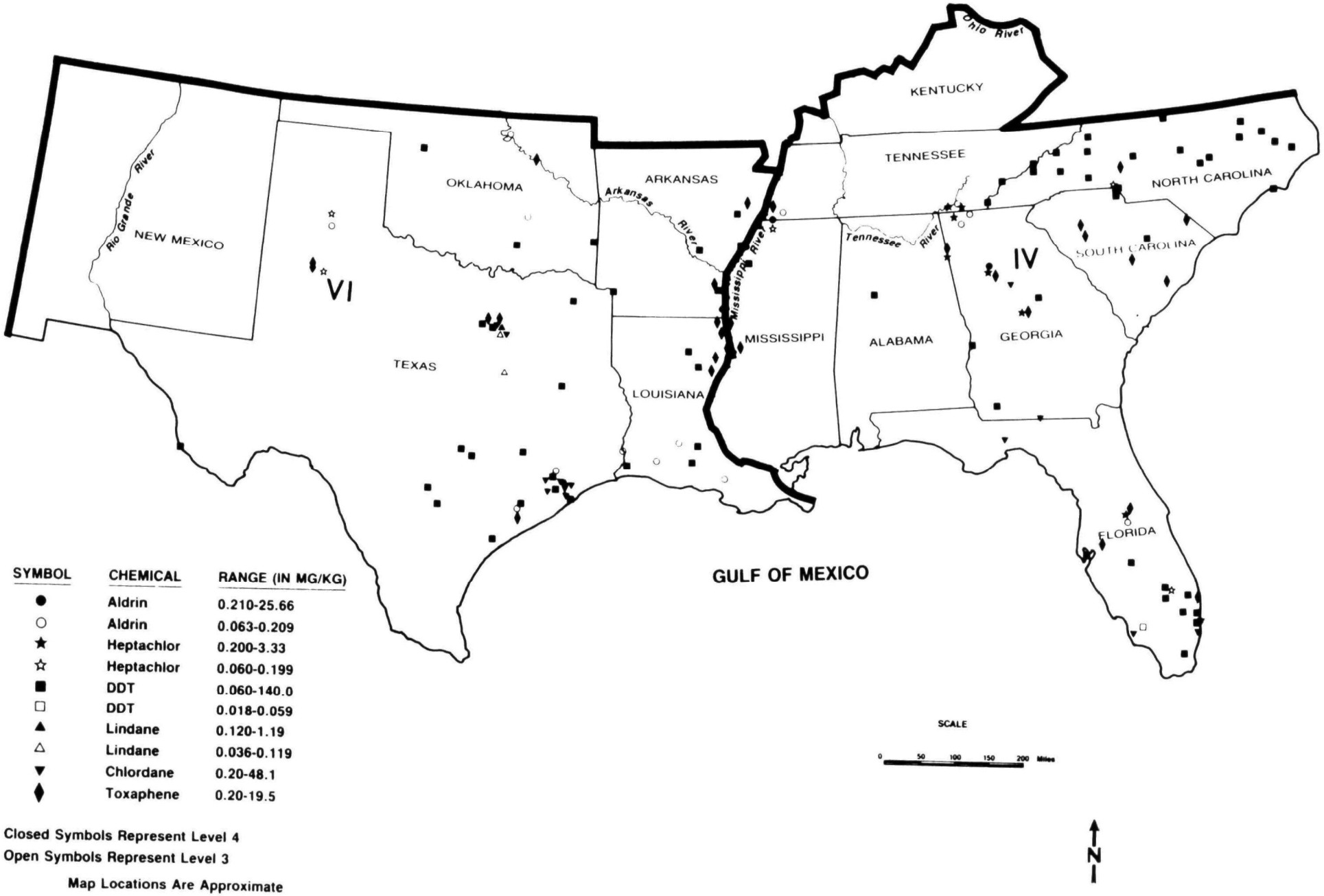


FIGURE 5.12. REGION V
CLASSIFICATION LEVELS FOR PESTICIDES



SYMBOL	CHEMICAL	RANGE (IN MG/KG)
●	Aldrin	0.210-25.66
○	Aldrin	0.063-0.209
★	Heptachlor	0.200-3.33
☆	Heptachlor	0.060-0.199
■	DDT	0.060-140.0
□	DDT	0.018-0.059
▲	Lindane	0.120-1.19
△	Lindane	0.036-0.119
▼	Chlordane	0.20-48.1
◆	Toxaphene	0.20-19.5

Closed Symbols Represent Level 4
Open Symbols Represent Level 3

Map Locations Are Approximate

FIGURE 5.13. REGIONS IV, VI
CLASSIFICATION LEVELS FOR PESTICIDES

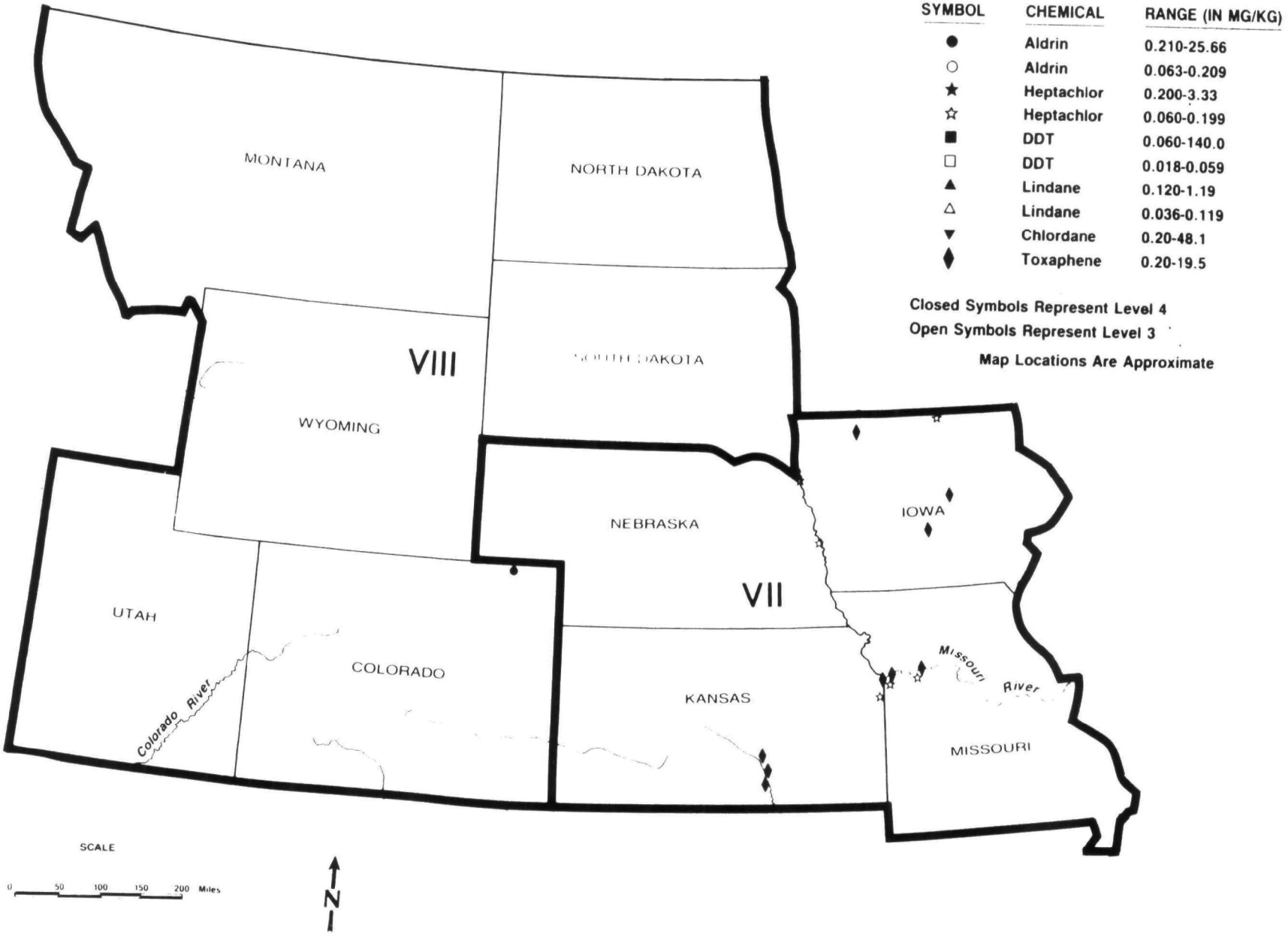


FIGURE 5.14. REGIONS VII, VIII
CLASSIFICATION LEVELS FOR PESTICIDES

- The Pacific Northwest locations are confined to a small number of points along the Columbia River (Figure 5.15).

- The states of California, Nevada and Arizona are densely clustered with locations in California around the American and San Joachin Rivers and the Los Angeles area (Figure 5.16). The Nevada locations are near Lake Tahoe, the Truckee River and the Lahontan Reservoir.

- Hawaii contains numerous locations with elevated concentrations of many of the pesticides.

5.2.3 Cyanide, PAHs, PCBs, and Phthalates

This grouping contained few data points. The chemicals are present at elevated concentrations in only a small number of areas (Figure 5.17). The two principal contaminants are cyanide and PCBs. The major regions for high concentrations of these chemicals are:

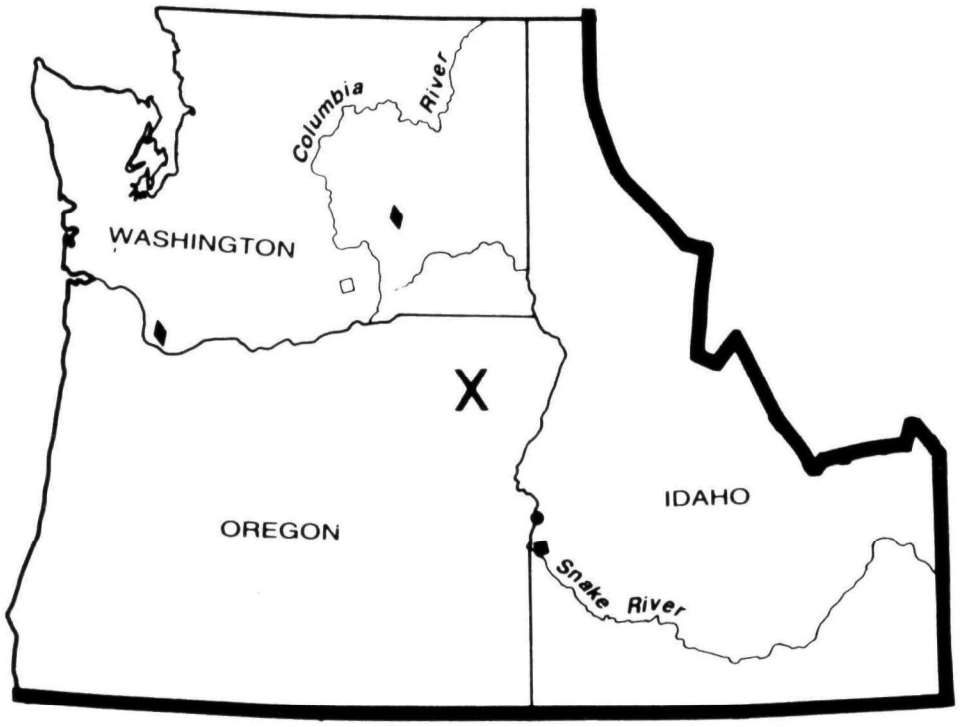
- New Jersey, Connecticut and Rhode Island contain the highest concentration of sites in the Northeast (Figures 5.18 and 5.19)

- Cyanide in the sediments of Michigan water bodies was frequently noted; PCBs and cyanide were found less frequently in northeastern Ohio and in the Chicago-Gary region (Figure 5.20)

- The southeastern U.S. contains a scattering of points, particularly PCBs and phthalates, but without clustering in a small area (Figure 5.21)

- Regions VII, VIII and X have almost no sites (Figures 5.22 and 5.23)

- Region X has a few sites scattered across Nevada, California and Arizona (Figure 5.24). Most of these are indicative of PCB contamination.



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○	Aldrin	0.063-0.209
★	Heptachlor	0.200-3.33
☆	Heptachlor	0.060-0.199
■	DDT	0.060-140.0
□	DDT	0.018-0.059
▲	Lindane	0.120-1.19
△	Lindane	0.036-0.119
▼	Chlordane	0.20-48.1
◆	Toxaphene	0.20-19.5

Closed Symbols Represent Level 4
Open Symbols Represent Level 3

Map Locations Are Approximate

SCALE

0 50 100 150 200 Miles

N

FIGURE 5.15. REGION X
CLASSIFICATION LEVELS FOR PESTICIDES

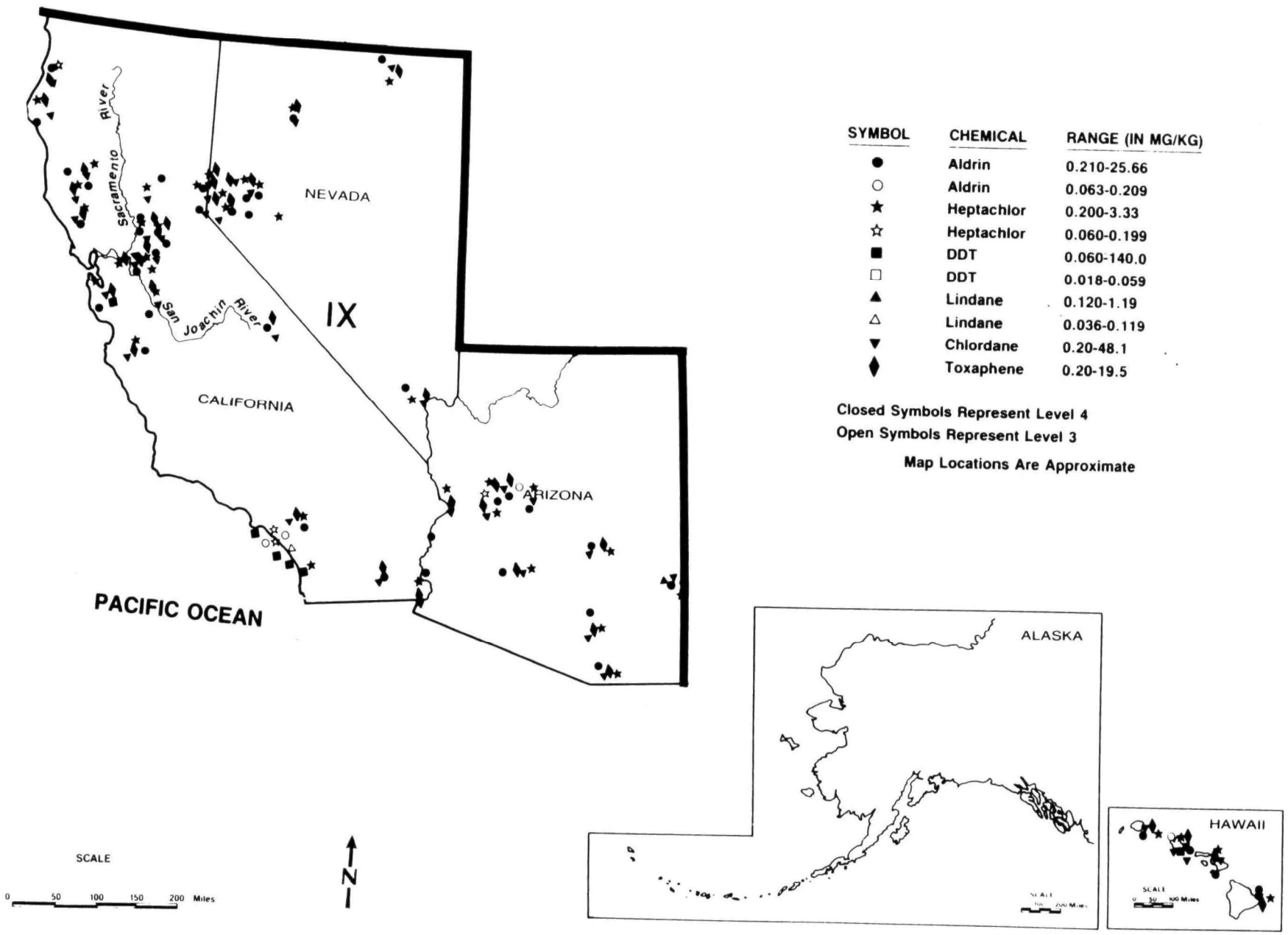


FIGURE 5.16. REGION IX
CLASSIFICATION LEVELS FOR PESTICIDES

FIGURE 5.17. CLASSIFICATION LEVELS FOR PHTHALATES, CYANIDE, PCB'S TOTAL PAH'S

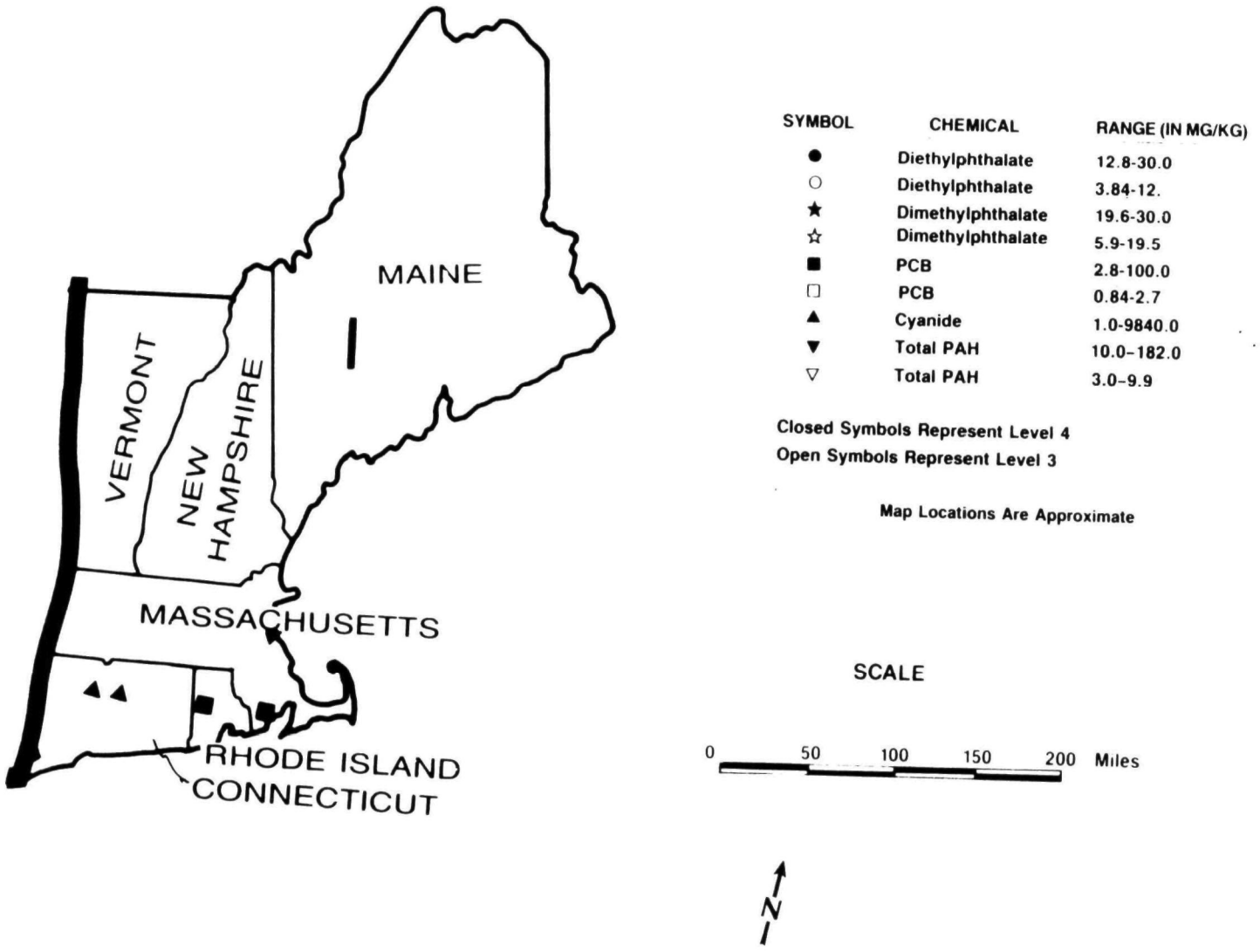


FIGURE 5.18. REGION I
CLASSIFICATION LEVELS FOR
PHTHALATES, CYANIDE, PCB'S TOTAL PAH'S

SYMBOL	CHEMICAL	RANGE (IN MG/KG)
●	Diethylphthalate	12.8-30.0
○	Diethylphthalate	3.84-12.
★	Dimethylphthalate	19.6-30.0
☆	Dimethylphthalate	5.9-19.5
■	PCB	2.8-100.0
□	PCB	0.84-2.7
▲	Cyanide	1.0-9840.0
▼	Total PAH	10.0-182.0
▽	Total PAH	3.0-9.9

Closed Symbols Represent Level 4
Open Symbols Represent Level 3

Map Locations Are Approximate

SCALE

0 50 100 150 200 Miles

N

FIGURE 5.19. REGIONS II, III CLASSIFICATION LEVELS FOR PHTHALATES, CYANIDE, PCB'S TOTAL PAH'S

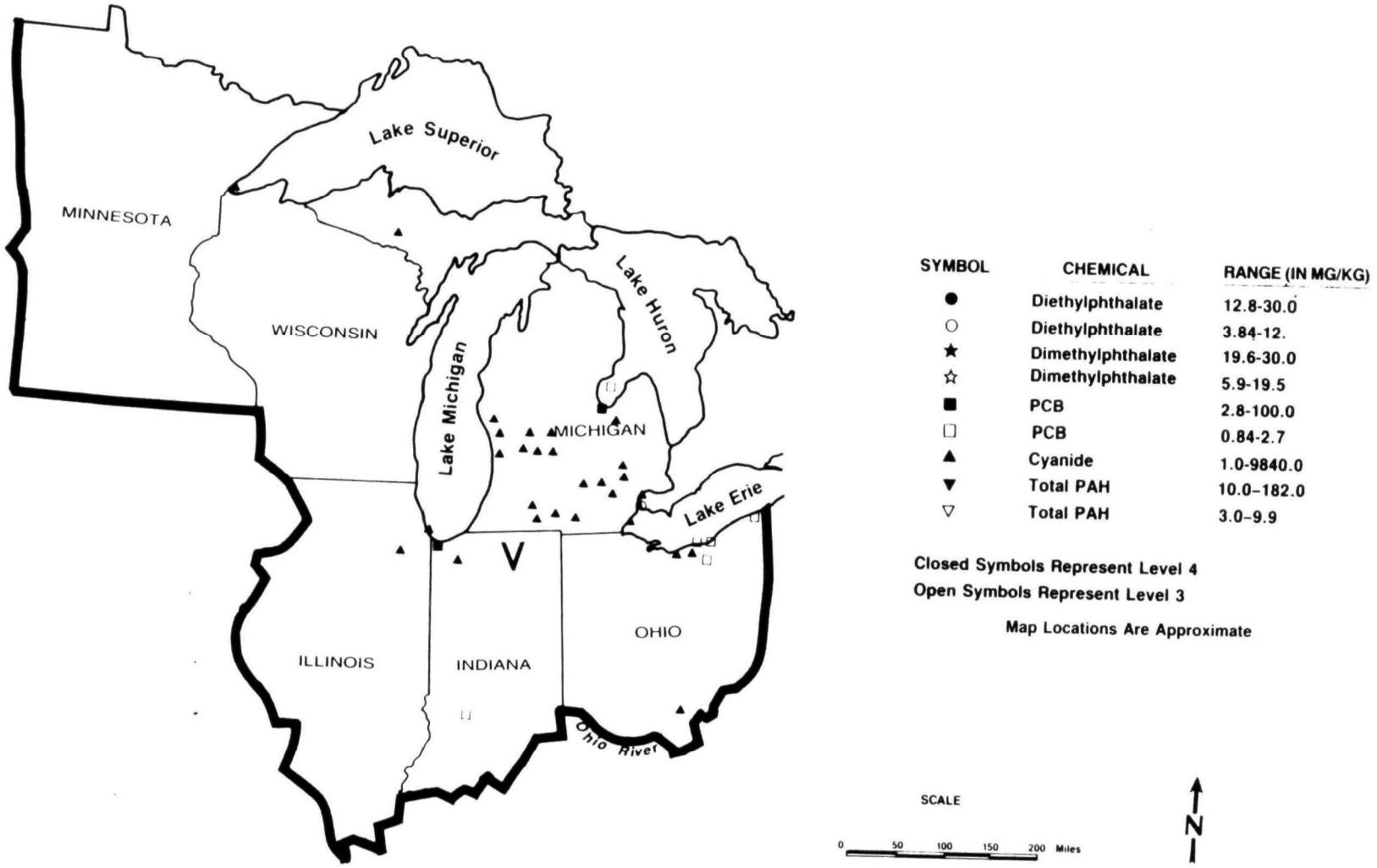
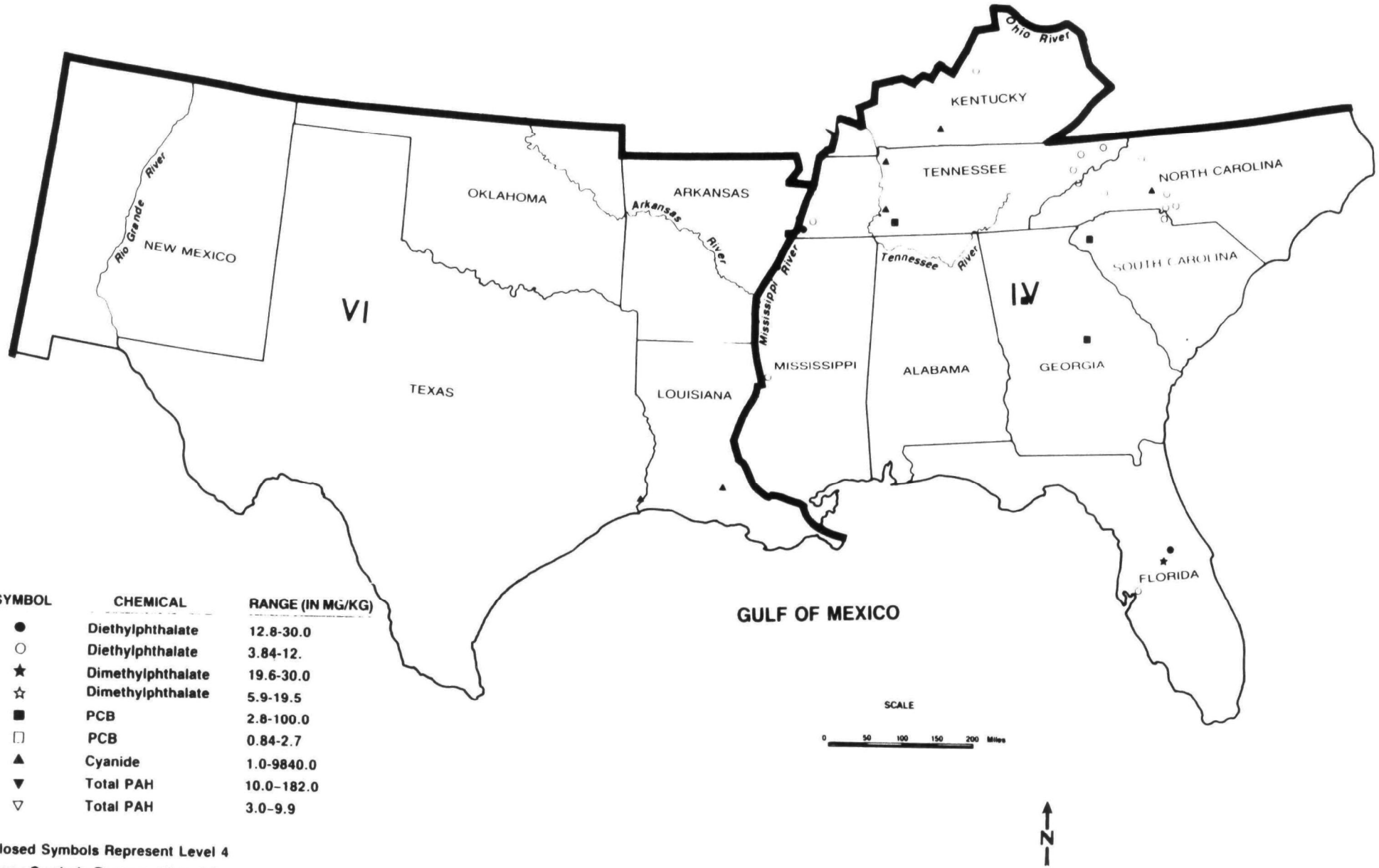


FIGURE 5.20. REGION V
CLASSIFICATION LEVELS FOR
PHTHALATES, CYANIDE, PCB'S TOTAL PAH'S



SYMBOL	CHEMICAL	RANGE (IN MG/KG)
●	Diethylphthalate	12.8-30.0
○	Diethylphthalate	3.84-12.
★	Dimethylphthalate	19.6-30.0
☆	Dimethylphthalate	5.9-19.5
■	PCB	2.8-100.0
□	PCB	0.84-2.7
▲	Cyanide	1.0-9840.0
▼	Total PAH	10.0-182.0
▽	Total PAH	3.0-9.9

Closed Symbols Represent Level 4

Open Symbols Represent Level 3

Map Locations Are Approximate

FIGURE 5.21. REGIONS IV, VI CLASSIFICATION LEVELS FOR PHTHALATES, CYANIDE, PCB'S TOTAL PAH'S

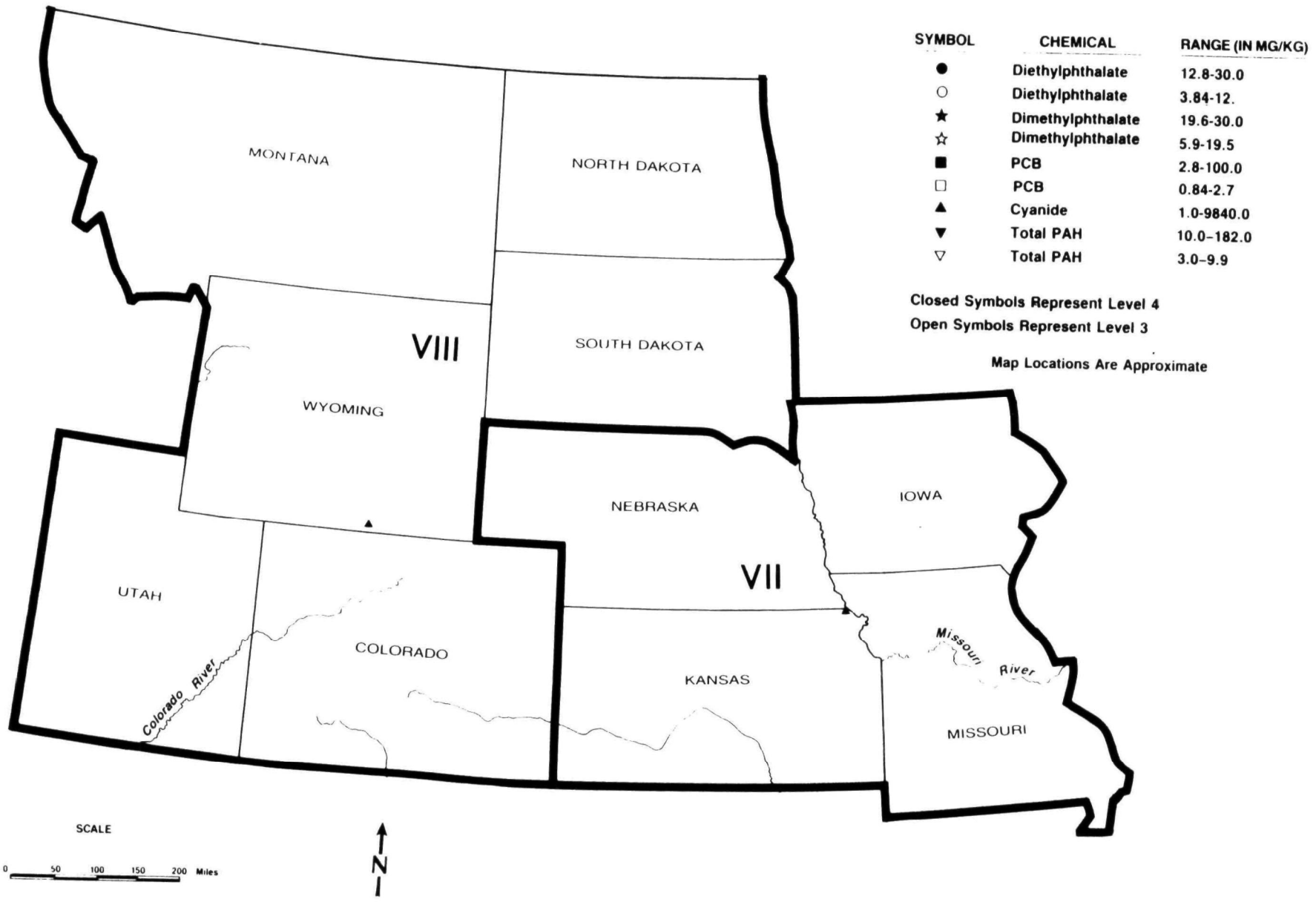


FIGURE 5.22. REGIONS VII, VIII CLASSIFICATION LEVELS FOR PHTHALATES, CYANIDE, PCB'S TOTAL PAH'S

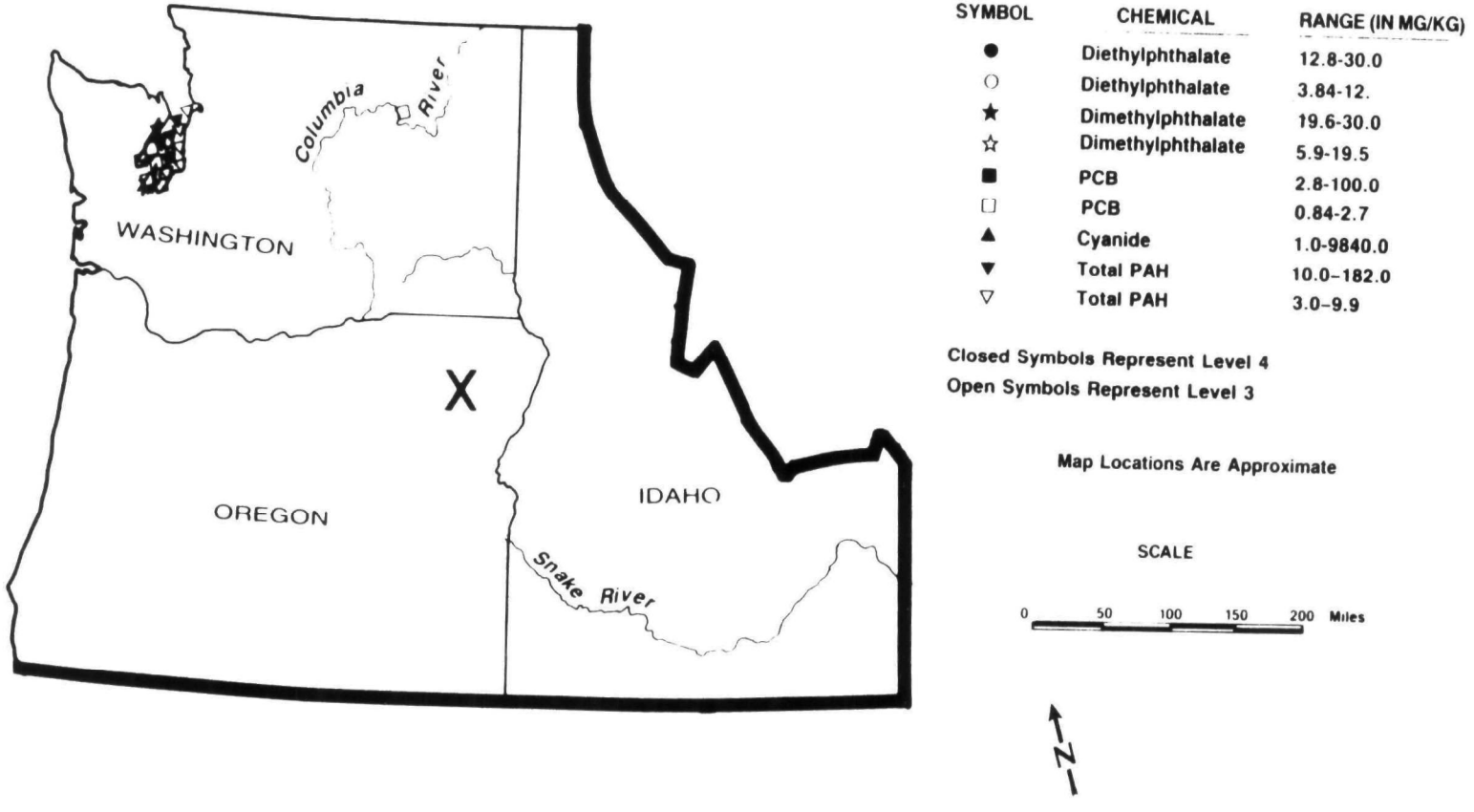


FIGURE 5.23. REGION X
CLASSIFICATION LEVELS FOR
PHTHALATES, CYANIDE, PCB'S TOTAL PAH'S

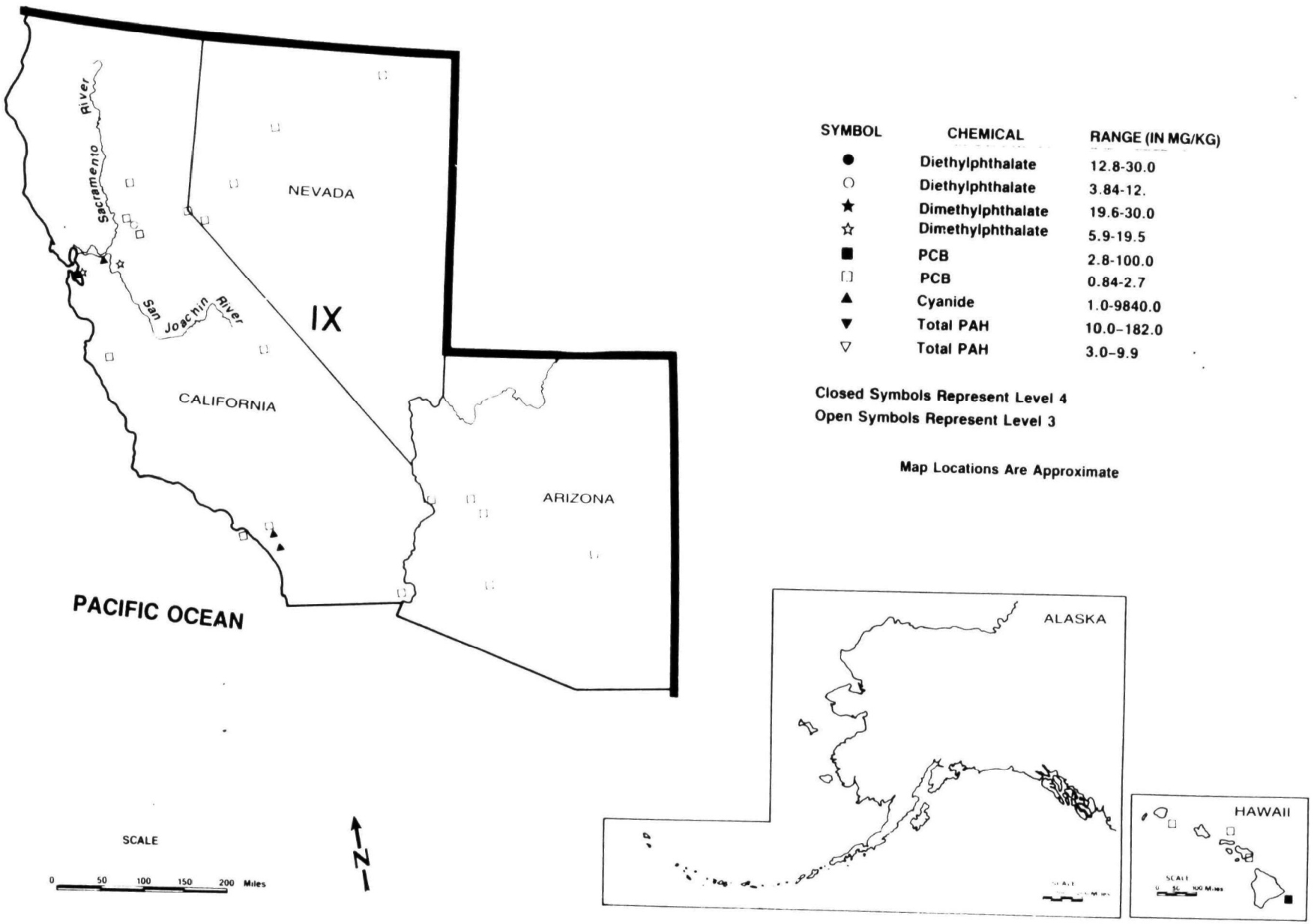


FIGURE 5.24. REGION IX
CLASSIFICATION LEVELS FOR
PHTHALATES, CYANIDE, PCB'S TOTAL PAH'S

6.0 OBSERVATIONS AND CONCLUSIONS

6.1 FRESHWATER

Several general conclusions can be drawn from the results of this survey:

- The national maps indicate a clustering of a variety of chemicals at certain sites rather than a general scattering of data. In general, coastal areas are the most noticeably affected regions. New York, New Jersey, Michigan, Arizona, Nevada, Washington and California contain areas which repeatedly appear on the national maps. This distribution indicates a broad spectrum of contamination within certain areas.

- The limited analyses of station-by-station data for the top 200 measurements indicate that: (1) areas are widely scattered around the country justifying development of sediment criteria on a national basis, and (2) the highest contamination levels for many chemicals represent potential "hot spots" rather than generally high concentrations over a broad area.

- Metal concentrations were, for the most part, classified in Level 1. Only nickel, which had 42 percent of the data in the upper three concentration levels, was an exception. In situ and bioassay data suggest a need to reevaluate water quality criterion derived threshold values.

- Almost all of the polynuclear aromatic hydrocarbon data were classified in Level 1. A wide span exists between the currently suggested threshold levels and even the highest observed concentrations. The biological impact data suggest a need to reevaluate threshold levels.

- A significant percentage of phthalate data fell in the higher classification levels--36 percent in the case of diethylphthalate and 35 percent for dimethylphthalate. However, no biological impact data were found to indicate a need to review threshold values.

- The vast majority of the pesticide data were in the Level 1 range. Chlordane, DDT, and toxaphene had 16, 7, and 14 percent of the data points in the Level 2 range, respectively. Biological impact data are needed to evaluate threshold levels.

- The PCB data were distributed with 18 percent of the data above Level 1 using the sediment-water partition approach. However, only 0.4 percent would be located in Level 2 at the highest proposed threshold value using alternative criteria. Biological impact data need further evaluation.

- Much of the available *in situ* or *in vivo* data were inappropriate to determine sediment related toxic effects because parallel measurements of chemical concentrations and biological species distribution on other biological effects have not been made.

6.2 MARINE/ESTUARINE WATERS

Based on the literature survey conducted to gain a national perspective of the sediment quality status of marine and estuarine sites, the following general conclusions can be drawn:

- Only a limited number of sites contained the chemicals of interest at high concentrations. This inventory include several of the Puget Sound waterways; Corpus Christi Harbor, Texas; the New York Harbor region; Baltimore Harbor; Boston Harbor and New Bedford Harbor, Massachusetts; Blackrock Harbor, Connecticut; and the California sewage outfall system of Palos Verdes and part of San Francisco Bay.

- Chemicals of major concern were those that exceeded the provisional sediment threshold values at several coastal locations. These chemicals include toxic metals, PAH, PCB, and DDT. Other chemicals in this inventory of coastal sites did not reach or exceed the first cut sediment threshold values.

- The marine/estuarine survey was based on a very limited data base. A more detailed literature search may reveal additional chemicals of major concern. Important data gaps in this review exist for the following compounds: PAH and other aromatic hydrocarbons outside the New York Harbor and Bight regions; several pesticides; all of the other chlorinated hydrocarbons except PCB; and all the phthalates.

- Threshold concentrations for chemicals in sediments based on sediment-water equilibrium partitioning are probably set too high for the majority of chemicals considered, most notably for PAH compounds and metals. This over-estimation was best illustrated by the discrepancy between biological effects observed in New York Bight sediments despite corresponding sediment contaminant concentrations of inventoried chemicals which rarely exceeded threshold biological effects levels.

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APPENDIX

TABLE GENERATION AND INTERPRETATION

The tables contained in this appendix were obtained from a computer tape listing STORET data on solid matrix samples for 25 chemicals. Although an attempt was made during the generation of the tape to eliminate all but the sediment data by elimination on the basis of sample type (sediment, sludge, and so on), a quick review of the tables will reveal that this process was not entirely successful. For example, the highest concentrations of several metals were clearly data on sewage treatment plant sludges that were not correctly classified within STORET. The data on the tape were sorted by chemical from the highest concentration to the lowest. These measurements were then manually examined to eliminate non-sediment data such as sludges and solid wastes of various types prior to map preparation.

The 200 highest analytical measurements were examined further to produce a set of concentration measurements at individual locations for transfer to the maps. The monitoring stations where multiple measurements were made are shown in the table as a single location with a mean concentration and the number of measurements (N). When transferring data to the maps, latitude and longitude coordinates were used to decide whether points represented a single contaminated area or multiple locations. If measurements were separated by less than a few seconds of latitude or longitude, they were represented as a single map point. For this reason, not all of the tables contain the same number of points as do the maps. Accuracy of transfer of the data to the maps was assured by cross-checking approximately 10 percent of the sites to determine that they were at the correct locations. In addition, there may be more data in the tables because a second computer run was made to compute data for additional locations than those sites used for the 200 highest measurements used to generate the maps.

TABLE A-1. FRESHWATER REGIONS CONTAINING ELEVATED SEDIMENT LEVELS OF COPPER. CONCENTRATIONS ARE IN mg/kg.

OBS	LOC	STATE	N	MEAN
1	100 YARDS NORTH OF HARBOR AVENUE	CALIFORNIA	1	493.000
2	LAKE RHODHISS NR ROTHERFORD COLLEGE	NORTH CAROLINA	1	61.000
3	DAYS C S OF TEXARKANA ARK	ARKANSAS	1	59.670
4	SOUTH OF SAN DIEGO CHA ENTRANCE	CALIFORNIA	1	44.150
5	LAKE RHODHISS @ VALDESE INACTIVE 79	NORTH CAROLINA	1	44.000
6	LAKE FRANCIS CASE NR DAM	SOUTH DAKOTA	1	44.000
7	LAKE RHODHISS @ SR1001 NR HATON NC	NORTH CAROLINA	2	41.500
8	LAKE RHODHISS NR ARMOUST INACTIVE 7	NORTH CAROLINA	1	41.000
9	LAKE OAHE NR DAM	SOUTH DAKOTA	1	36.000
10	CIMARRON RIVER NEAR GUTHRIE	OKLAHOMA	3	35.333
11	LAKE FRANCIS CASE NR FLM CREEK	SOUTH DAKOTA	1	35.000
12	LAKE OAHE NR POLLOCK SD	SOUTH DAKOTA	1	34.000
13	HOYLE CR NR HUTHERFORDTON CLC INACT	NORTH CAROLINA	4	32.750
14	LONG CREEK NEAR ROCKY RIVER SPRINGS	NORTH CAROLINA	1	32.000
15	PALMER CR @ SR1164 NR CATALOOCHEE 1	NORTH CAROLINA	1	31.000
16	LAKE SAKAKAWEA AT DAM	NORTH DAKOTA	1	30.000
17	MCCALLIARD CR NR VALDESE INACTIVE 7	NORTH CAROLINA	1	25.000
18	LAKE RHODHISS @ SR1501 NR DREXEL NC	NORTH CAROLINA	2	24.550
19	MISSOURI RIVER AT NEWTON NI	NORTH DAKOTA	1	20.000
20	DAYS CREEK SE OF TEXARKANA ARK	ARKANSAS	1	18.290
21	RICHARDSON CREEK @ SR 1600 NR BURNS	NORTH CAROLINA	1	17.000
22	LABES CR @ SR1612 NR KILKENS NC INA	NORTH CAROLINA	1	17.000
23	LOWER CR @ SR1501 NR MORGANTON NC M	NORTH CAROLINA	1	16.000
24	BIRD CREEK NEAR CATOOSA	OKLAHOMA	8	16.000
25	ST FRANCIS RIVER AT LAKE CITY AR	ARKANSAS	2	15.145
26	ROCKY RIVER NEAR NORWOOD, NC	NORTH CAROLINA	1	15.000
27	COTTONWOOD CREEK AT [illegible]ARD	OKLAHOMA	1	15.000
28	SHACKOVEN CREEK N OF SHACKOVER ARK	ARKANSAS	3	14.696
29	MIDCHANNEL NORTH OF RAY ISLE	CALIFORNIA	1	14.500
30	NOUGHFORK CR NR CATALOOCHEE NC INAC	NORTH CAROLINA	1	13.000
31	ROCKY R NEAR OAKBORO NC INACT-79081	NORTH CAROLINA	2	13.000
32	POTEAU RIVER NEAR HEAVENER	OKLAHOMA	2	11.500
33	CACHE RIVER @ BRADFIELD, ARK.	ARKANSAS	3	11.200
34	L'ANGUILLE RIVER NR MARIANNA ARK	ARKANSAS	1	10.370
35	OUACHITA RIVER NR MALVERN ARK	ARKANSAS	2	10.345
36	TYRONZA RIVER NEAR TWIST ARK	ARKANSAS	1	10.100
37	DUTCH BUFFALO CR @ NC HWY 200 INACT	NORTH CAROLINA	1	10.000
38	BAYOU METO NEAR LONOKE, ARK.	ARKANSAS	2	9.565
39	LITTLE CATALOOCHEE CR NR CATALOOCHE	NORTH CAROLINA	1	9.500
40	POTEAU RIVER NEAR FORT SMITH,ARK	OKLAHOMA	4	9.500
41	ARKANSAS RIVER NEAR MUSKOGEE	OKLAHOMA	2	9.000
42	ARKANSAS LOCK/DAM NEAR INOLA	OKLAHOMA	1	9.000
43	NEOSHO RIVER NEAR FT. GIBSON	OKLAHOMA	1	9.000
44	CALAHASH CR 1.2 MI US SR1164 INACT-	NORTH CAROLINA	1	8.639
45	100 YDS WEST OF BIG CANYON WASH	CALIFORNIA	1	8.525
46	KIAMICHI RIVER NEAR ANTLERS	OKLAHOMA	2	8.500
47	ILLINOIS RIVER NEAR TAHLEQUAH	OKLAHOMA	8	8.500
48	CARBON CREEK WEST OF CONWAY ARK	ARKANSAS	1	8.169
49	ST FRANCIS R N OF HELENA ARK	ARKANSAS	3	8.166
50	CATALOOCHEE CREEK NEAR CATALOOCHEE	NORTH CAROLINA	1	8.049
51	SUNSET BAY AT NAVY BUOYS	CALIFORNIA	1	8.029
52	DEER FORK NEAR HPGL.	OKLAHOMA	1	8.000
53	KIAMICHI RIVER NEAR CLAREMORE	OKLAHOMA	1	8.000
54	KIAMICHI RIVER NEAR INOLA	OKLAHOMA	1	8.000
55	ROCKY R @ SR1609 NR BURNSVILLE INAC	NORTH CAROLINA	3	7.7[illegible]
56	ARKANSAS RIVER NEAR PONCA CITY	OKLAHOMA	3	7.7[illegible]

TABLE A-1. (Continued)

OBS	LOC	STATE	N	MEAN
57	CANADIAN RIVER AT CALVIN	OKLAHOMA	4	7.75000
58	BIG BAYOU NR JIMOPE ARK	ARKANSAS	1	7.59960
59	LITTLE RIVER NR MARILA ARK	ARKANSAS	2	7.54900
60	MISSISSIPPI RIVER AT HAMFIELD	ARKANSAS	2	7.09900
61	BAYOU LOUTRE NR JUNCTION CITY AR	ARKANSAS	2	7.01400
62	MUD CREEK AT CATOOSA	OKLAHOMA	1	7.00000
63	DUNCAN CREEK SOUTH OF LEXINGTON	ARKANSAS	1	6.99900
64	ROCKY R @SR1449 NR DENEESE NC INACT	NORTH CAROLINA	1	6.99900
65	RED RIVER NEAR LAURIMA	OKLAHOMA	1	6.50000
66	MIAMICHI RIVER NEAR BIG CEDAR	OKLAHOMA	4	6.50000
67	BLUE RIVER NEAR BLUE	OKLAHOMA	1	6.00000
68	COW CREEK AT MAURIMA	OKLAHOMA	2	6.00000
69	SALT FORK OF ARKANSAS NEAR JET	OKLAHOMA	3	6.00000
70	RED RIVER NEAR DOLDRIDGE ARK	ARKANSAS	3	5.95933
71	BAYOU DEVIEN NR GIBSON, ARK.	ARKANSAS	3	5.71567
72	CACHE RIVER NR CA.H, ARK.	ARKANSAS	2	5.54900
73	BOEUF RIVER NR ARK-LA LINE	LOUISIANA	3	5.29933
74	WHITE R AT LED NO 1	ARKANSAS	2	5.19400
75	FORT HOWARD PAPER AT GREEN BAY, WI.	WISCONSIN	1	5.00000
76	RED RIVER AT DEKALB, TEX	TEXAS	1	5.00000
77	DEEP FORK NEAR ARCADIA	OKLAHOMA	1	5.00000
78	ARK RIVER AT MUSKRAT LOCK AND DAM	ARKANSAS	2	4.94950
79	NORTH CANADIAN RIVER NEAR HARDAH	OKLAHOMA	4	4.93750
80	BAYOU BARTHOLOMEW NR JONES LA	LOUISIANA	3	4.63567
81	RED RIVER AT ARTHUR CITY, TEX	OKLAHOMA	3	4.66667
82	50 YARDS U/S OF COAST HWY BRIDGE	CALIFORNIA	1	4.61900
83	LITTLE RIVER NEAR IDABEL	OKLAHOMA	3	4.33333
84	SPAVINAW C N OF CHEROKEE CITY AR	ARKANSAS	2	4.20400
85	LITTLE MISSOURI RIV NR BOUGHTON	ARKANSAS	3	4.06433
86	LITTLE RIVER NEAR HORATIO, ARK	ARKANSAS	1	4.00000
87	BIG PAPILLION C AT BELLEVUE OPAB	NEBRASKA	1	4.00000
88	MUFF CREEK NEAR MOUTH	WEST VIRGINIA	1	4.00000
89	OUACHITA RIVER NR PENCIL BLUFF	ARKANSAS	2	3.79900
90	MUDDY BOGGY CREEK NEAR PARRIS	OKLAHOMA	4	3.75000
91	ARKANSAS RIVER AT HALSTON	OKLAHOMA	3	3.66667
92	ARK RIVER NR FORT SMITH	ARKANSAS	2	3.59900
93	NW SW NW 15 10S 25E IM	OKLAHOMA	2	3.50000
94	SALINE RIVER NR FOUNTAIN HILL ARK	ARKANSAS	1	3.39900
95	WASHITA RIVER NEAR DURWOOD	OKLAHOMA	3	3.33333
96	NORTH CANADIAN RIVER AT WOODWARD	OKLAHOMA	3	3.33333
97	MT FORK NEAR HATFIELD ARK	ARKANSAS	1	3.30900
98	OUACHITA RIVER AT CLARKE PT. DAM	ARKANSAS	3	3.24900
99	ROCKY R @SR1146 NR ROCKSVILLE INAC	NORTH CAROLINA	1	3.19900
100	RED RIVER NEAR GAINSVILLE, TEX	OKLAHOMA	2	3.00000
101	ARKANSAS RIVER AT SAND SPRINGS	OKLAHOMA	5	3.00000
102	NORTH CANADIAN RIVER NR EL RENO	OKLAHOMA	4	3.00000
103	SALINE RIVER NR CALSSEIT ARK	ARKANSAS	1	2.96900
104	ARKANSAS RIVER NEAR HASKELL	OKLAHOMA	4	2.75000
105	LITTLE RIVER AT BRIGHT CITY	OKLAHOMA	4	2.50000
106	BLUE RIVER NEAR CORNELVILLE (CONTRO	OKLAHOMA	2	2.50000
107	CIMARRON RIVER NEAR BUFFALO	OKLAHOMA	4	2.50000
108	RED RIVER NEAR TERRAL	OKLAHOMA	3	2.33333
109	ILLINOIS RIVER NEAR GORE	OKLAHOMA	3	2.33333
110	ARKANSAS RIVER AT LOCK AND DAM 3	ARKANSAS	2	2.24900
111	NW NW SW 15 17N 13E IM	OKLAHOMA	2	2.00000
112	ARKANSAS R PELOW ARKENS FALLS LOCK	OKLAHOMA	2	2.00000

TABLE A-1. (Continued)

OBS	LOC	STATE	N	MEAN
113	DEEP FORK NEAR WELLSTON	OKLAHOMA	3	2.00000
114	CIMARRON RIVER AT PERKINS	OKLAHOMA	5	2.00000
115	OUACHITA RIVER AT FELSENTAL ARK	ARKANSAS	2	1.69950
116	ILLINOIS BAYOU NW OF DOVER ARK	ARKANSAS	1	1.73900
117	NORTH FORK OF THE RED RIVER NEAR HE	OKLAHOMA	3	1.66667
118	CANADIAN RIVER AT BRIDGEPORT	OKLAHOMA	3	1.66667
119	HURRICANE CREEK NR SARDIS ARK	ARKANSAS	3	1.54933
120	ARKANSAS RIVER AT DAVID D TERRY LOC	ARKANSAS	1	1.50000
121	SE SW SW SEC 12 9N 10E IM	OKLAHOMA	2	1.50000
122	CHIKASKIA RIVER NEAR BLACKWELL	OKLAHOMA	2	1.50000
123	WHITE RIVER @ OIL TROUGH, ARK.	ARKANSAS	1	1.49900
124	KINGS RIVER NR BERRYVILLE, ARK.	ARKANSAS	2	1.39995
125	MULBERRY RIVER AT INTERSTATE 40	ARKANSAS	1	1.28900
126	ARK RIVER NR DARDANELLE	ARKANSAS	1	1.17900
127	BIG PINEY CREEK AT HWY 164	ARKANSAS	1	1.15900
128	BAYOU DEVIEW NEAR BRASFIELD, ARK	ARKANSAS	2	1.04945
129	NORTH FORK RED RIVER NR HEADRICK	OKLAHOMA	1	1.00000
130	ROBT S KERR LOCK/DAM NR SALLISAW	OKLAHOMA	1	1.00000
131	CANADIAN RIVER NEAR WHITEFIELD	OKLAHOMA	1	1.00000
132	LITTLE RIVER NEAR SASAKWA	OKLAHOMA	1	1.00000

TABLE A-2. FRESHWATER REGIONS CONTAINING ELEVATED SEDIMENT LEVELS OF LEAD. CONCENTRATIONS ARE IN mg/kg.

OBS	LOC	STATE	N	MEAN
1	DANVILLE STP AT DANVILLE KY TO CLAR	KENTUCKY	1	72510.0
2	CONNECTICUT RIVER AT HOLYOKE, MA	MASSACHUSETTS	1	19000.0
3	ST JOSEPH RIVER N AT NAPLES, I	IDAHO	1	17500.0
4	LAKE JESSUP NR SYLVAN	FLORIDA	1	14000.0
5	NEW JERSEY ZINC 0004 OUTFALL	VIRGINIA	3	10333.3
6	HARLINGTON MUNICIPAL SLUDGE	IOWA	1	10300.0
7	BERNHART RUN AT READING, PA.	PENNSYLVANIA	2	10300.0
8	INDIAN CREEK STP AT CHARLOTTE NC TO	NORTH CAROLINA	3	10240.0
9	JAMES FORK NEAR HACKETT, ARK.	ARKANSAS	1	6000.0
10	NEW JERSEY ZINC 0004 OUTFALL	VIRGINIA	1	7500.0
11	COEUR D'ALENE RIVER AT ROSE LAKE	IDAHO	1	5500.0
12	2400F 294.0 PT ARTHUR BLK	NEW YORK	1	5100.0
13	LOST ELM HOLLOW AT JOPLIN, MO	MISSOURI	1	5000.0
14	BAYOU TECHE, AT OLIVIER, LA.	LOUISIANA	1	5000.0
15	B.F.GOODRICH-JUST BELOW MOUND ST.	OHIO	1	4600.0
16	COLUMBUS SO STP AT COLUMBUS GA CHAT	GEORGIA	1	4365.0
17	041 HARPER C NR HARRISBURG OH	OHIO	1	4200.0
18	HUBBINS SLOUGH US-441	FLORIDA	1	4142.6
19	CHARLES CITY STP DIGESTED SLUDGE	IOWA	6	4116.3
20	WILSON RESERVOIR	ALABAMA	1	4000.0
21	BRAZIL CREEK NEAR MAUD OK	OKLAHOMA	1	4000.0
22	ARKANSAS RIVER AT ARKANSAS CITY	KANSAS	1	3770.0
23	LAKE PROVIDENCE NORTH OF LAKE PROV	LOUISIANA	1	3500.0
24	LAKE WAPATO, SO THDS FR ASOTIN ST D	WASHINGTON	1	3300.0
25	MOBIL CANAL	TEXAS	1	3200.0
26	CODORUS CR AT NORTH YORK, PA.	PENNSYLVANIA	1	3200.0
27	GALLATIN STP AT GALLATIN TN TO CUMB	TENNESSEE	1	3180.0
28	BASIN 1	ILLINOIS	7	3022.9
29	LAKE WAPATO SO THDS FR ASOTIN ST DR	WASHINGTON	1	3000.0
30	BLUE CREEK NR BLOCKER, OK	OKLAHOMA	1	3000.0
31	BRAZIL CREEK NEAR RED OAK OK	OKLAHOMA	1	3000.0
32	MACANDREWS AND FORBES CO CAMDEN	NEW JERSEY	1	2900.0
33	TURKEY CR NR COAL CITY IND	INDIANA	1	2900.0
34	CONESTOGA R NR LANCASTER, PA.	PENNSYLVANIA	1	2600.0
35	MAPLE CREEK STP AT GREEN SC TO MAPL	SOUTH CAROLINA	2	2686.5
36	HUMBOLDT STP AT HUMBOLDT TN TO FORK	TENNESSEE	1	2665.0
37	LAKE ERIE OPEN STOREY POINT CAIB	MICHIGAN	1	2600.0
38	CHARLES CITY STP IAN SLUDGE	IOWA	6	2575.0
39	LAKE WAPATO, TOO THDS FR ASOTIN ST	WASHINGTON	1	2500.0
40	BAYOU GLOSSE TRIB AT FOSTDALE	LOUISIANA	1	2500.0
41	LAKE VERRET NR PIERRE PART	LOUISIANA	1	2500.0
42	SAN BERNARD R TIDAL @ CHURCHILL TRI	TEXAS	1	2470.0
43	LK WAPATO, OR WATER MAIN AQUEDUCT	WASHINGTON	1	2400.0
44	LAKE WAPATO, TOO THDS FR ASOTIN ST	WASHINGTON	1	2300.0
45	041 UNNAMED C NR R SPRINGFIELD OH	OHIO	1	2300.0
46	THIRD CREEK STP AT STATESVILLE NC T	NORTH CAROLINA	1	2290.0
47	L. BLACK CHU BRIDGE AVE; FRUITPORT	MUSKEGON CO., MI	1	2100.0
48	MPSI STP AT CAK RIDGE TN TO EAST TO	TENNESSEE	1	2074.0
49	ST JOSEPH R LANSING OR CHICAGO ST IN	MICHIGAN	1	2045.0
50	SAN JACINTO R-I10 BRIDGE	TEXAS	1	2039.0
51	SOURIS RIVER NR VELVILLE, ND	NORTH DAKOTA	1	2000.0
52	TALOKA CR TRIB NR TISDILEN CK	OKLAHOMA	1	2000.0
53	JAMES FORK NR WILLIAMS, OK	OKLAHOMA	1	2000.0
54	LAKE PROVIDENCE AT LAKE PROVIDENCE,	LOUISIANA	1	2000.0
55	LAKE MARION	SOUTH CAROLINA	1	1980.0
56	MISHACOQUILLAS CR AT BERWICK, PA.	PENNSYLVANIA	1	1900.0

TABLE A-2. (Continued)

OBS	LOC	STATE	N	MEAN
57	SILVER LAKE 100 FT FROM HIGH TENSI	MASSACHUSETTS	1	1690.00
58	OCOEE NO. 1 RESERVOIR	TENNESSEE	4	1650.00
59	GOWANUS CANAL NEAR 2ND.AV.HOOPLIN-	NEW YORK	1	1635.00
60			1	1630.00
61	KLAMATH RIVER NAT 97 BRIDGE	OREGON	1	1624.00
62	TRIPP CREEK STP AT STATESVILLE NC T	NORTH CAROLINA	1	1620.00
63	SILVER LAKE 75 FT FROM N SHORE	MASSACHUSETTS	1	1612.00
64	LK WAPATO, 70 YRDS FR WATER MAIN AC	WASHINGTON	1	1600.00
65	CLEVELAND STP AT CLEVELAND TN TO SC	TENNESSEE	2	1741.50
66	NEWTOWN CK SOUTH OF ENGLISH KILLS-O	NEW YORK	1	1722.00
67	SILVER LAKE 200 FT SW OF BUILDING	MASSACHUSETTS	1	1710.00
68	INDIANA HARBOR	INDIANA	1	1700.00
69	LAKE WAPATO, 70 YRDS FR WATER MAIN	WASHINGTON	1	1700.00
70	LAKE WAPATO, 70 YRDS FR WATER MAIN	WASHINGTON	1	1700.00
71	GOWANUS CANAL NEAR BOND ST.BROOKLYN	NEW YORK	1	1699.00
72	LK WAPATO, 125 YRDS FROM WATER MAIN	WASHINGTON	1	1600.00
73	NEWTOWN CK NORTH OF METROPOLITAN AV	NEW YORK	1	1600.00
74	POINCA CK AIPR 0.05 MI BLW CONF WITH	ARKANSAS	1	1600.00
75	UNN TRIB TO NAPP	VIRGINIA	1	1570.00
76	SILVER LAKE MIDDLE OF WEST END COV	MASSACHUSETTS	1	1560.00
77	NEWTOWN CREEK NEAR RADIO TOWERS-REV	NEW YORK	1	1523.00
78	GOWANUS CANAL BETWEEN 1ST.AND 2ND.S	NEW YORK	1	1505.00
79	LAKE WAPATO, ADJ TO AINSWORTH ST BR	WASHINGTON	1	1500.00
80	LAKE ERIE EAST OF STONEY POINT	MICHIGAN	3	1500.00
81	SAINT JOHS CREEK AT ST.PETERSBURG,F	FLORIDA	1	1500.00
82	ROCK CREEK NEAR RED OAK OK	OKLAHOMA	1	1500.00
83	GOWANUS CANAL NEAR PRESIDENT ST.BRO	NEW YORK	1	1490.00
84	LAKE WAPATO, ADJ TO AINSWORTH ST BR	WASHINGTON	1	1400.00
85	LK WAPATO, ADJ TO AINSWORTH ST BRA	WASHINGTON	1	1400.00
86	INDIANA HARBOR	INDIANA	1	1400.00
87	ROCK CREEK NEAR GETTYSBURG	PENNSYLVANIA	1	1400.00
88	DELAWARE R AT LAMBERTVILLE NJ	NEW JERSEY	1	1400.00
89	LITTLE RIVER CANAL AT 527 AT MIAMI	FLORIDA	1	1400.00
90	EVELYN BRANCH NEAR BATAVI, IL	ILLINOIS	1	1400.00
91	041 OLDTOWN C AT LOGAN OH	OHIO	1	1400.00
92	NEWTOWN CREEK NW OF MASPETH CREEK-O	NEW YORK	1	1383.00
93	TUSCUMBIA STP AT TUSCUMBIA AL TO SP	ALABAMA	1	1380.00
94	LAKE ERIE MAUMEE CHANNEL OLD DREDGE	OHIO	3	1366.67
95	BOWLING GREEN STP AT BOWLING GREEN	KENTUCKY	3	1351.33
96	BAYOU LA CARPE AT BOURA	LOUISIANA	2	1350.00
97	INDIANA HARBOR	INDIANA	1	1300.00
98	LK WAPATO, 125 YRDS FR WATER MAIN A	WASHINGTON	1	1300.00
99	ENGLISH KILLS SOUTH OF GRAND AVE-NI	NEW YORK	1	1300.00
100	LAKE ERIE NORTH OF PORT CLINTON HAR	OHIO	1	1300.00
101	LAKE PAPION	SOUTH CAROLINA	1	1290.00
102	GOWANUS CANAL NEAR UNION ST.BROOKLY	NEW YORK	1	1267.00
103	ECHO BAY HARBOR S.SIP SDP NEAR OF P	NEW YORK	1	1254.00
104	MASPUA RIVER AT PORT DEVENS, MA	MASSACHUSETTS	3	1233.33
105	ENGLISH KILLS CB-6 OF NEWTOWN CH-NI	NEW YORK	1	1202.00
106	POOR HOLE SWAMP AT S-30-50 SE CAMDEN	SOUTH CAROLINA	1	1200.00
107	LK WAPATO 100 YRDS FR AINSWORTH ST	WASHINGTON	1	1200.00
108	LAKE WAPATO, 125 YARDS FR WATER MA	WASHINGTON	1	1200.00
109	LAKE ERIE PO-ROE CHANNEL	MICHIGAN	1	1200.00
110	NEWTOWN CK 5K OF ERNST PRICE-QUEEN	NEW YORK	1	1200.00
111	POND CK NR COAL CITY, IND. SITE #1	INDIANA	1	1200.00
112	PARKSVILLE LAKE	TENNESSEE	2	1200.00

TABLE A-2. (Continued)

OBS	LOC	STATE	N	MEAN
113	L. BLACK CHA AIRLINE HWY; FRUITPORT	MUSKEGON CO., MI	1	1200.00
114	MUNA L SOUPT SW LITTLE BLACK CR; MO	MUSKEGON CO., MI	1	1162.00
115	CLEAR LAKE	INDIANA	1	1128.00
116	WESTCHESTER CREEK CHANNEL AT 51 FEE	NEW YORK	1	1116.00
117	LK WAPATO, APPX 200 YDS FE SOUTH 7	WASHINGTON	1	1100.00
118	US GYPSUM CO DARTFIELD MI	NEW YORK	1	1100.00
119	LK WAPATO 100 YDS FR AINSWORTH ST	WASHINGTON	1	1100.00
120	LAKE ERIE MONROE CHANNEL	MICHIGAN	1	1100.00
121	ASSISCUNK C NR BURLINGTON NJ	NEW JERSEY	1	1100.00
122	PATOKA R NR GLEZEN IND	INDIANA	1	1100.00
123	041 S F WOLF C NR WATERTOWN ON	OHIO	1	1100.00
124	PLASTER CRK SILVER CK STORM DRN IN	KENT CO., MI	1	1100.00
125	LAKE MARION	SOUTH CAROLINA	1	1050.00
126	LAKE ERIE MOUTH OF OTTAWA RIVER	MICHIGAN	2	1065.00
127	MUNA L TROUPT N. MUNA LK PRR MORTON	MUSKEGON CO., MI	1	1061.00
128	LAKE ERIE MAUMEE CHANNEL	OHIO	3	1046.67
129	LAKE ERIE MAUMEE CHANNEL	OHIO	4	1042.50
130	NORTH BRANCH RANCOCAS CREEK AT PEMB	NEW JERSEY	2	1035.00
131	LAKE ERIE MAUMEE CHANNEL NEW DREDGE	OHIO	3	1021.33
132	KLAMATH RIVER AT KENO BRIDGE	OREGON	2	1006.50
133	LAKE WAPATO, ADJACENT TO WILLOW ISL	WASHINGTON	1	1000.00
134	LAKE ERIE MOUTH OF RIVER RAISIN	MICHIGAN	1	1000.00
135	LAKE ERIE MAUMEE CHANNEL	OHIO	3	1000.00
136	FOREST CITY STP SLUDGE	IOWA	1	1000.00
137	TALOKA CREEK NEAR STILLER OK	OKLAHOMA	1	1000.00
138	SHUMWAY ARROYO NEAR WATERLOO, NM	NEW MEXICO	1	1000.00
139	GUADALUPE RIVER AT SAN JOSE, CALIF.	CALIFORNIA	1	1000.00
140	SPENCER CR TRIB, SITE 38 AT PLEASAN	INDIANA	1	1000.00
141	COLE DRAIN AT US-131&26TH ST; MUSK	MICHIGAN	1	1000.00
142	LAKE ERIE MONROE CHANNEL	MICHIGAN	3	993.33
143	FLUSHING CR.NORTHWEST AREA-AT HEND	NEW YORK	1	992.00
144	DELAPIN STP SLUDGE SITE	IOWA	1	990.00
145	LAKE ERIE BETWEEN DETROIT AND MORON	MICHIGAN	5	988.00
146	NASHVILLE CENTRAL STP AT NASHVILLE	TENNESSEE	1	981.00
147	LAKE ERIE MIDWAY ALONG THE WOODTICK	MICHIGAN	1	980.00
148	MANTUA C AT MITPAN NJ	NEW JERSEY	1	970.00
149	SHEIDRAKE RIVER AT MAMARONECK AVE	NEW YORK	1	970.00
150	LITTLE BLACK CR AT FIRST ST.; MUNTO	MUSKEGON CO., MI	1	960.00
151	LAKE ERIE EAST OF OTTER CREEK	MICHIGAN	1	950.00
152	FT. MADISON MUNICIPAL SLUDGE	IOWA	1	941.00
153	LK WAPATO, APPX 135 YDS FE SOUTH 7	WASHINGTON	1	940.00
154	LK WAPATO, APPX 135 YDS FR SOUTH 7	WASHINGTON	1	940.00
155	LAKE ERIE EAST OF CATAWBA ISLAND MI	OHIO	1	940.00
156	LITTLE CREEK	VIRGINIA	1	930.00
157	NEAR R.R1 STEAMBOAT LAND.SOUTH OF	NEW YORK	1	922.00
158	HUTCHINSON R CHANNEL NEAR PELHAM BA	NEW YORK	1	921.00
159	POTATO CR STP AT GRIFFIN GA TO POTA	GEORGIA	1	916.00
160	JEFFERSONTOWN STP AT JEFFERSONTOWN	KENTUCKY	1	912.00
161	NEWTOWN CR NORTH OF GREENPOINT AVE-	NEW YORK	1	910.20
162	LAKE ERIE NORTHEA T OF CONSUMER POR	MICHIGAN	2	905.00
163	PORTAGE CR AT MICHIGAN AVE; CITY OF	MICHIGAN	2	900.00
164	PORTAGE CR AT EAST MAIN ST.; CITY O	MICHIGAN	1	900.00
165	ST JOE T UPST HILLSDALE &WIP;HILLSD	MICHIGAN	1	895.00
166	LAKE ERIE TOLEDO WATER INTAKE CRIB	OHIO	4	885.00
167	LAKE ERIE SOUTHEAST OF KELLEYS ISLA	OHIO	1	880.00
168	HARRY CR STP NR THOMASVILLE NC TO H	NORTH CAROLINA	1	879.00

TABLE A-2. (Continued)

OBS	LOC	STATE	N	MEAN
169	HUTCHINSON RIVER CHANNEL SOUTH OF H	NEW YORK	1	878.000
170	LAKE ERIE MAUMEE CHANNEL TOLEDO HAI	OHIO	2	875.000
171	ECHO BAY HARBOR AT SDP EAST OF CLIF	NEW YORK	1	872.000
172	MIAMI CANAL AT NW.-S & S/S AT LAKE	FLORIDA	1	870.000
173	KALAMAZOO R. AT FULL STREET; CITY O	MICHIGAN	1	870.000
174	WILSON STP AT WILSON NC AT CONFLUENCE	NORTH CAROLINA	1	864.000
175	MONONGAHELA RIVER MILE 0.0	PENNSYLVANIA	1	860.000
176	ELIZABETHTON STP AT ELIZABETHTON TN	TENNESSEE	1	855.000
177	GRAHAM STP AT GRAHAM NC TO TOWN CRE	NORTH CAROLINA	1	851.000
178	JOPLIN CREEK AT JOPLIN, MO	MISSOURI	1	850.000
179	NEWARK BAY EAST SHORE PARALLEL TO S	NEW JERSEY	1	845.000
180	KALAMAZOO RIVER N OF ROSEL AVE;KALAM	MICHIGAN	1	840.000
181	PASSAIC R.NEWARK PT.REACH CHNL.NW.O	NEW JERSEY	1	830.000
182	SCHUYLKILL RIVER AT READE, PA.	PENNSYLVANIA	1	830.000
183	EASTSIDE STP AT HIGH POINT NC TO RI	NORTH CAROLINA	1	830.000
184	PARKSVILLE LAKE	TENNESSEE	1	830.000
185	12MI EAST OF SANDY HOOK ST PK	NEW JERSEY	1	820.000
186	LAKE ERIE SANDUSKY BAY WEST OF COAL	OHIO	1	820.000
187	MIDWEST MFG SLUDGE	IOWA	1	816.000
188	LA VARATO, APPR 135 TPDS FR SOUTH 7	WASHINGTON	1	810.000
189	ST JOSEPH R AT CO RD PR BRISTOL	INDIANA	1	810.000
190	RIO DE LA PLATA AT TOA ALTA, PR	PUERTO RICO	1	800.000

TABLE A-3. FRESHWATER REGIONS CONTAINING ELEVATED SEDIMENT LEVELS OF MERCURY. CONCENTRATIONS ARE IN mg/kg.

ORG	LOC	STATE	N	MEAN
1	ROUGE RIVER-OLD CHANNEL	MICHIGAN	1	40000.0
2	DETROIT RIVER	MICHIGAN	1	24000.0
3	DETROIT RIVER	MICHIGAN	1	15000.0
4	HILO BAY	HAWAII	1	5333.3
5	CARSON R. @ RIVERBED	NEVADA	1	5326.0
6	GILA RIVER AT GILLESPIE DAM	ARIZONA	1	3571.0
7	HONOLULU BAY	HAWAII	1	2179.0
8	ALAMO LAKE	ARIZONA	1	1577.0
9	LYNX LAKE	ARIZONA	1	1572.0
10	MOKELUMNE R AT WOODBRIDGE	CALIFORNIA	1	1466.0
11	YUBA RIVER NEAR MARYSVILLE	CALIFORNIA	1	1464.0
12	KAHULUI HARBOR	HAWAII	1	1443.0
13	AMERICAN R. AT ELKHORN ST.	CALIFORNIA	1	1400.0
14	TUOLUMNE RIVER AT TUOLUMNE CITY	CALIFORNIA	1	1307.0
15	BUFFALO CR AT AMERICAN RIVER	CALIFORNIA	1	1301.0
16	BOULDER CREEK AT MOUTH	ARIZONA	1	1359.0
17	OWENS R BL TINEMAHA RES.	CALIFORNIA	1	1312.0
18	SANTA ANA RIVER BELOW PRADO DAM	CALIFORNIA	1	1305.0
19	PATAGONIA LAKE	ARIZONA	1	1302.0
20	ALAMO R AB CALIFORNIA	CALIFORNIA	1	1279.0
21	BOULDER CREEK ABOVE WILDEN CREEK	ARIZONA	1	1276.0
22	SAN FRANCISCO R. AT CLIFTON	ARIZONA	1	1273.0
23	BOULDER CREEK BELOW MULHOLLAND WASH	ARIZONA	1	1272.0
24	AMERICAN R. AT WATTS AVE.	CALIFORNIA	1	1272.0
25	LAKE ERIE SANDUSKY BAY SOUTHWEST CO	OHIO	2	1250.0
26	COPPER CREEK AB BOULDER CREEK	ARIZONA	1	1241.0
27	LAKE TAHOE AT SAND HARBOR	NEVADA	1	1229.0
28	LAKE ERIE MAUMEE BAY NEAR TIP OF CL	OHIO	1	1200.0
29	LAHONTAN DAM	NEVADA	1	1186.0
30	COLORADO RIVER BELOW PARKER DAM	ARIZONA	1	1176.0
31	COLORADO R. @ YUMA	ARIZONA	1	1110.0
32	LAKE ERIE MOUTH OF SAND CREEK	OHIO	1	830.0
33	LAKE ERIE DAVIS RESOR INTAKE	OHIO	2	635.0
34	LAKE ERIE SANDUSKY BAY WEST OF COAL	OHIO	5	622.0
35	LAKE ERIE LYON STONEY POINT CHIB	MICHIGAN	2	540.0
36	LAKE ERIE MAUMEE CHANNEL	OHIO	5	516.0
37	LAKE ERIE SANDUSKY BAY EAST OF BAY	OHIO	1	510.0
38	LAKE ERIE EAST OF STONEY POINT	MICHIGAN	5	500.0
39	LAKE ERIE MAUMEE CHANNEL	OHIO	5	496.0
40	LAKE ERIE MAUMEE CHANNEL TOLEDO HAR	OHIO	5	494.0
41	LAKE ERIE HURON CHANNEL	MICHIGAN	5	486.0
42	LAKE ERIE NORTHEAST OF HURON BREAKW	OHIO	5	486.0
43	LAKE ERIE MAUMEE CHANNEL	OHIO	4	482.5
44	LAKE ERIE MOUTH OF SANDUSKY BAY	OHIO	1	480.0
45	LAKE ERIE SOUTHWEST OF MOUTH OF CUY	OHIO	1	480.0
46	LAKE ERIE BETWEEN HURON AND VERMILL	OHIO	5	478.0
47	LAKE ERIE MAUMEE CHANNEL OLD DREDGI	OHIO	4	465.0
48	LAKE ERIE MOUTH OF STONEY CREEK IN	MICHIGAN	2	460.0
49	LAKE ERIE MOUTH OF OTTER CREEK	MICHIGAN	1	460.0
50	LAKE ERIE MOUTH OF PORT CLINTON HAR	OHIO	4	460.0
51	LAKE ERIE MOUTH OF HURON RIVER	OHIO	5	460.0
52	LAKE ERIE MAUMEE CHANNEL NEW DREDGE	OHIO	5	456.0
53	LAKE ERIE NORTHEAST OF SANDUSKY BAY	OHIO	5	448.0
54	LAKE ERIE SANDUSKY BAY WEST OF MIDD	OHIO	5	444.0
55	LAKE ERIE EAST OF MARBLEHEAD	OHIO	5	416.0
56	LAKE ERIE TOLEDO WATER INTAKE CHIB	OHIO	4	413.0

TABLE A-3. (Continued)

OBS	LOC	STATE	N	MEAN
57	LAKE ERIE NE OF HURON HARBOR SPOT	OHIO	1	430.000
58	LAKE ERIE SANDUSKY BAY NEAR VENICE	OHIO	4	425.000
59	LAKE ERIE NORTH OF HURON MEADOWALL	OHIO	5	418.000
60	RED ROCK PLANT SOUTH SECT.AT BAY RD	NEW YORK	1	411.000
61	LAKE ERIE NORTHEAST OF CONSUMERS POW	MICHIGAN	4	407.500
62	LAKE ERIE MONROE CHANNEL	MICHIGAN	2	405.000
63	LAKE ERIE BETWEEN HAND CANAL AND CH	OHIO	1	400.000
64	LAKE ERIE MOUTH OF SWAN CREEK	MICHIGAN	4	392.500
65	LAKE ERIE SOUTH OF SANDY CREEK	MICHIGAN	1	390.000
66	LAKE ERIE NEAR TOLEDO NORTHEAST OF	OHIO	3	390.000
67	RED ROCK PLANT NORTH SECT.AT BAY RD	NEW YORK	1	389.000
68	LAKE ERIE SOUTHEAST OF KELLEYS ISLA	OHIO	2	380.000
69	LAKE ERIE SANDUSKY BAY SOUTH OF JOH	OHIO	2	380.000
70	LAKE ERIE EAST OF CATAWBA ISLAND RI	OHIO	5	378.000
71	LAKE ERIE NORTHEAST OF OLD WOMANS C	OHIO	5	370.000
72	LAKE ERIE MONROE CHANNEL	MICHIGAN	1	360.000
73	NOONE RESERVOIR	TENNESSEE	1	356.000
74	LAKE ERIE MOUTH OF RIVER RAISIN	MICHIGAN	2	340.000
75	LONG ISLAND SOUND	CONNECTICUT	1	322.000
76	LAKE ERIE NORTH OF HURON RIVER MOU	OHIO	5	318.000
77	LAKE ERIE BETWEEN DETROIT AND HURON	MICHIGAN	4	317.500
78	LAKE ERIE EAST OF CONSUMERS POWER PL	MICHIGAN	4	312.500
79	LAKE ERIE NORTH OF PORT CLINTON HAR	OHIO	4	310.000
80	LAKE ERIE NORTH OF COOLEY CREEK MOU	OHIO	1	310.000
81	LAKE ERIE NEAR SANDUSKY SUBMERGED C	OHIO	5	300.000
82	LAKE ERIE BETWEEN SANDUSKY AND HURO	OHIO	5	296.000
83	LAKE ERIE SANDUSKY BAY NEAR MUDDY C	OHIO	4	290.000
84	GREAT EGG HARBOR R TR 2 AT WINSLOW	NEW JERSEY	1	270.000
85	MISS. R. 1 MI. NORTH OF JACK CR.	IOWA	1	263.000
86	LAKE ERIE MOUTH OF MOUILLEE CREEK	MICHIGAN	1	260.000
87	LAKE ERIE DAVIS MESS OUTFALL	OHIO	1	260.000
88	LAKE ERIE MOUTH OF TOUSSAINT RIVER	OHIO	2	260.000
89	LAKE ERIE EAST OF OTTER CREEK	MICHIGAN	4	245.000
90	LAKE ERIE MOUTH OF MUDDY CREEK	MICHIGAN	3	243.333
91	HAMILL ROAD BRIDGE	TENNESSEE	1	240.000
92	LAKE ERIE MOUTH OF LAPLAISANCE CREE	MICHIGAN	5	234.000
93	LAKE ERIE ENTRANCE TO MUSKEGET CHAN	OHIO	5	222.000
94	LAKE ERIE EAST OF OTTER CREEK	MICHIGAN	1	220.000
95	LAKE ERIE TOLEDO EDISON MAYSHORE OU	OHIO	1	220.000
96	OREGON SCHOOL FOR GIRLS STP	WISCONSIN	1	220.000
97	LAKE ERIE EAST OF OTTER CREEK	MICHIGAN	1	210.000
98	LAKE ERIE NORTHEAST OF PORT CLINTON	OHIO	2	205.000
99	RICHLAND CREEK @ SR 1185 NEAR HIGH	NORTH CAROLINA	1	200.000
100	LAKE ERIE NEAR HURON SUBMERGED CRIB	OHIO	1	200.000
101	LAKE ERIE MOUTH OF OLD WOMANS CREEK	OHIO	1	200.000
102			1	193.200
103	LAKE ERIE MONROE POWER PLANT EFFLUE	MICHIGAN	4	192.500
104	LAKE ERIE WEST OF PORT CLINTON HARB	OHIO	1	190.000
105	LAKE ERIE MIDWAY ALONG THE MOUTRICK	MICHIGAN	3	190.000
106	SI COUER DALENE R AT ENAVILLE, I	IDAHO	1	190.000
107	BUFFALO HARBOR	TENNESSEE	1	190.000
108	MISS. R.-5 MI. OFF CHIMNEY CR. O	ILLINOIS	1	179.000
109	LAKE ERIE MOUTH OF OTTAWA RIVER	MICHIGAN	1	170.000

TABLE A-4. FRESHWATER REGIONS CONTAINING ELEVATED SEDIMENT LEVELS OF ZINC. CONCENTRATIONS ARE IN mg/kg.

OBS	LOC	STATE	N	MEAN
1	GALLATIN STP AT GALLATIN TN TO CUMB	TENNESSEE	1	46[illegible]000
2	THIRD CREEK STP AT STATESVILLE NC T	NORTH CAROLINA	1	1[illegible]4000
3	THIRD CREEK STP AT STATESVILLE NC T	NORTH CAROLINA	4	160[illegible]
4	ANACONDA CO. (BRASS DIV)	WISCONSIN	1	48000
5	FLAT RockWOOD CORP OUTFALL 001; LOW	MICHIGAN	1	39600
6	BITTER CREEK NEAR THE VERDE RIVER	ARIZONA	2	36000
7	LAKE JESSUP NE SECTION	FLORIDA	1	36000
8	SF COEUR D'ALENE R AT PINEVILLE, I	IDAHO	1	30000
9	HOOVER BALLBEARING-I.N. DITCH	MICHIGAN	1	25000
10	GENESEE MINE NEAR IDAHO	COLORADO	1	24000
11	DEWITT STP	NEBRASKA	1	23200
12	NEWTOWN CR SOUTH OF ENGLISH KILLS-C	NEW YORK	1	19930
13	HAYNES CREEK ON FLORIDIAN RD OLIPHA	NEW JERSEY	1	16000
14	HOOVER BALLBEARING-SETTLNG POND	MICHIGAN	1	16000
15	RED CEDAR TOOBY OPST OTISCO DISCHA	MICHIGAN	2	15500
16	BOWLING GREEN STP AT BOWLING GREEN	KENTUCKY	4	14992
17	JOHN DEERE SLUDGE	IOWA	1	13600
18	CONNECTICUT RIVER AT HOLYOKE, MA	MASSACHUSETTS	2	13250
19	HERCULES AREA HAZARDOUS WASTE SITE 1	TENNESSEE	1	13210
20	CLEAN LAKE @ CHANNEL MARKER 17	TEXAS	1	12540
21	NEWTOWN CR NORTH OF METROPOLITAN AV	NEW YORK	1	12060
22	CLEVELAND HARBOR	OHIO	1	11000
23	LR ROBINSON AT S-13-346 F NCDEE	SOUTH CAROLINA	1	11000
24	UNA TAIL TO RAPP	VIRGINIA	1	10700
25	INDIANA HARBOR	INDIANA	1	10000
26	FT. MADISON MUNICIPAL SLUDGE	IOWA	1	10000
27	BASIN 1	ILLINOIS	9	9678
28	ENGLISH KILLS CR-W OF NEWTOWN CR-RI	NEW YORK	1	9502
29	NEWTOWN CREEK NEAR RADIO TOWERS-LEV	NEW YORK	1	9317
30	INMAN CREEK STP AT CHARLOTTE NC TO	NORTH CAROLINA	3	9029
31	NEWTOWN CREEK NR OF MASPETH CREEK-C	NEW YORK	1	8615
32	WESTERN LITHOPLATE SLUDGE/CHAIN	MISSOURI	1	8500
33	CORPUS CHRISTI HARBOR - VILLA TURNI	TEXAS	1	8057
34	GLASS GULCH NR LANDING STRIP	IDAHO	1	8359
35	CLEVELAND STP AT CLEVELAND TN TO SO	TENNESSEE	2	8054
36	RIDGEST REG SLUDGE	IOWA	2	5835
37	GREENEVILLE STP AT GREENEVILLE TN T	TENNESSEE	1	5771
38	TARBORO STP AT TARBORO NC TO TAR RI	NORTH CAROLINA	1	5650
39	FLORHAM PARK, NJ STP	NEW JERSEY	2	5560
40	ASHEBORO STP AT ASHEBORO NC TO HACK	NORTH CAROLINA	1	5470
41	NEWTOWN CR SW OF PENNY BRIDGE-QUEEN	NEW YORK	1	5454
42	UNION CR STP AT JOHNSON CITY TN TO	TENNESSEE	1	5412
43	MEBANE STP AT MEBANE NC TO HOADAN C	NORTH CAROLINA	1	5330
44	ENGLISH KILLS SOUTH OF GRAND AVE-FI	NEW YORK	2	5310
45	COLUMBIA R. AT NORTHPORT WT.	WASHINGTON	1	5200
46	BRUSH CR STP AT JOHNSON CITY TN TO	TENNESSEE	1	5120
47	WILSON RESERVOIR	ALABAMA	1	5100
48	RUSSELLVILLE STP AT RUSSELLVILLE KY	KENTUCKY	1	4982
49	NASHVILLE CENTRAL STP AT NASHVILLE	TENNESSEE	1	4970
50	EVELYN FRANCIS AREA, ANTIOCH, IL	ILLINOIS	1	4960
51	L GRIFFIN FIDDLER CREEK CHANNEL I	FLORIDA	2	4840
52	FOURTH CR STP AT KNOXVILLE TN TO TE	TENNESSEE	1	4752
53	INDIANA HARBOR	INDIANA	1	4600
54	JEFFERSON CITY STP AT JEFFERSON CIT	TENNESSEE	1	4440
55	FORT LAYNE STP AT FORT PAYNE AL TO	ALABAMA	1	4297
56	WHITE CLAY CREEK AT DE RT . BRIDGE	DELAWARE	1	4251

TABLE A-4. (Continued)

OBS	LOC	STATE	A	MEAN
57	WEST STP AT OAK RIDGE TN TO EAST FO	TENNESSEE	2	4239.00
58	INDIANA HARBOR	INDIANA	1	4200.00
59	CARROLL DIGESTER COTTON SLUDGE	IOWA	1	4100.00
60	TUSCUMBIA STP AT TUSCUMBIA AL TO SI	ALABAMA	1	4100.00
61	BETHLEHEM STEEL CULVERT AT BURN ACR	INDIANA	1	4100.00
62	PARKSVILLE LAKE	TENNESSEE	2	4050.00
63	BLACK MINGO CK AT SC 41 NE ANDREWS	SOUTH CAROLINA	1	4000.00
64	BURLINGTON MUNICIPAL SLUDGE	IOWA	1	4000.00
65	NEWTOWN CREEK AT NEWTOWN BRIDGE-G	NEW YORK	1	3925.00
66	GREAT PEE DEE AT END OF CO RD85	SOUTH CAROLINA	1	3918.00
67	BURLINGTON STP AT BURLAN NC TO ELLEN	BURLINGTON	2	3900.00
68	FOREST CITY STP SLUDGE	IOWA	1	3700.00
69	P. MANQ. LAG OLD MAIN DISCH; P. MAN	MASON CO., MI	1	3700.00
70	MUNA L SCOFF SW LITTLE BLACK CK; MU	MUSKEGON CO., MI	1	3636.00
71	CORPUS CHRISTI-INNER H-HAVIG LEV	TEXAS	2	3600.00
72	MONTAGUE CHANNEL AR BR UPSTR JEFF A	MICHIGAN	1	3600.00
73	PUNCA CK APPR 0.05 MI BLW CONF WITH	ARKANSAS	1	3500.00
74	MONTAGUE CHANNEL SCOFF PNT SOUTH J	MICHIGAN	1	3500.00
75		TENNESSEE	1	3400.00
76	METAL POND TURNOUT	TENNESSEE	1	3400.00
77	MILAN STP AT MILAN TENN TO SOUP CRE	TENNESSEE	1	3318.00
78	NEWTOWN CK NORTH OF GREENPOINT AVE-	NEW YORK	1	3272.00
79	RED BANK STP AT RED BANK TN TO TENN	TENNESSEE	1	3266.00
80	OREGON SCHOOL FOR GIRLS STP	WISCONSIN	1	3230.00
81	ROCKY CREEK STP AT CHESTER SC TO RO	SOUTH CAROLINA	2	3215.00
82	HOGANS BRIDGE	TENNESSEE	2	3200.00
83	OCOEE NO. 1 RESERVOIR	TENNESSEE	1	3200.00
84	WILSON STP AT WILSON NC AT CONTENTI	NORTH CAROLINA	1	3095.00
85	ARROWHEAD RTN. LAKE (I)-BASIN 7	VERMONT	1	3050.00
86	MOUTH OF HUSH CK, 100 YDS UPST FROM	ARKANSAS	5	3047.80
87	INDIANA HARBOR	INDIANA	1	3000.00
88	PHILLIPS OFF SITE SLUDGE	KANSAS	1	3000.00
89	HOCK CREEK NEAR GETTYSBURG	PENNSYLVANIA	1	2950.00
90	COLE CR. 50 YDS ABV. CONF. WITH	TEXAS	1	2937.00
91	GROVER ST STP AT FAIRHAND AL TO TH	ALABAMA	1	2912.00
92	NASHVILLE CENTRAL STP AT NASHVILLE	TENNESSEE	3	2902.33
93	INDIANA HARBOR	INDIANA	2	2900.00
94	TUSCUMBIA STP AT TUSCUMBIA AL TO SP	ALABAMA	1	2890.00
95	WEST FORK RIVER AT ENTERPRISE, WV	WEST VIRGINIA	1	2880.00
96	D20.OWEST PA R @ ENTERPRISE WV	WEST VIRGINIA	1	2880.00
97	DANDRIDGE STP AT DANDRIDGE TN TO FR	TENNESSEE	1	2865.00
98	MINIMAL BRANCH AT CARTERVILLE, MO	MISSOURI	1	2800.00
99	CENTER CREEK AT GRONOGO, MO	MISSOURI	1	2800.00
100	TURKEY CREEK BELOW DURNEC, MO	MISSOURI	1	2800.00
101	JOPLIN CREEK AT JOPLIN, MO	MISSOURI	1	2800.00
102	TURKEY CREEK AT JOPLIN, MO	MISSOURI	1	2800.00
103	LONE ELM HOLLOW AT JOPLIN, MO	MISSOURI	1	2800.00
104	OELWEIN STP SLUDGE SITE	IOWA	1	2770.00
105	NORTH BUFFALO STP AT GREENSBORO NC	NORTH CAROLINA	1	2755.00
106	LAMOILLE R.-BASIN 7	VERMONT	1	2750.00
107	NORTH BUFFALO STP AT GREENSBORO NC	NORTH CAROLINA	1	2740.00
108	ECONCHATE STP AT MONTGOMERY AL TO A	ALABAMA	2	2732.00
109	MUNA L THOUFT R. PUNA LA PR" MONTOR	MUSKEGON CO., MI	1	2704.00
110	INDIANA HARBOR	INDIANA	1	2700.00
111	PRIMIX CITY STP AT PRIMIX CITY AL	ALABAMA	2	2673.00
112	MAPLE CREEK STP AT CREEK SC TO MAPL	SOUTH CAROLINA	1	2656.00

TABLE A-4. (Continued)

OBS	LOC	STATE	N	MEAN
113	BUNCOMBE CO STP AT ASHVILLE NC TO F	NORTH CAROLINA	1	2611.00
114	BROOKLYN STP	WISCONSIN	1	2610.00
115	DES MOINES STP DIGESTED SLUDGE	IOWA	1	2560.00
116	KINGSPORT STP AT KINGSPORT TN TO S	TENNESSEE	1	2540.00
117	CRESTVIEW STP AT CRESTVIEW FL TO TR	FLORIDA	1	2522.00
118	EAST RIDGE STP AT EAST RIDGE TN TO	TENNESSEE	2	2515.00
119	MTH OF CLABBER CK AT BUFFALO RIVER	ARKANSAS	1	2500.00
120	CENTER CREEK BELOW MINERAL BRANCH	MISSOURI	1	2560.00
121	CENTER CREEK BELOW URONOCO, MO	MISSOURI	1	2560.00
122	STANLEY STP AT STANLEY NC TO LITTLE	NORTH CAROLINA	1	2435.00
123	ELIZABETH RIVER	VIRGINIA	1	2430.00
124	FT RUCKER STP AT FT RUCKER AL TO CL	ALABAMA	1	2412.00
125	INDIANA HARBOR	INDIANA	1	2400.00
126	CENTER CREEK ABOVE CARL JUNCTION, M	MISSOURI	1	2400.00
127	CENTER CREEK NEAR SPRINGFIELD, MO.	MISSOURI	1	2400.00
128	EAST STP AT OAK RIDGE TN TO CLINCH	TENNESSEE	3	2357.33
129	JACKSONVILLE STP AT JACKSONVILLE AL	ALABAMA	1	2354.00
130	HARRIMAN STP AT HARRIMAN TN TO CARR	TENNESSEE	1	2345.00
131	TURKEY CREEK ABOVE JOPLIN, MO	MISSOURI	1	2300.00
132	TURKEY CREEK NEAR JOPLIN, MO	MISSOURI	1	2300.00
133	SAN MIGUEL RIVER AT NATURITA, CO.	COLORADO	1	2300.00
134	LONG LK NR TURTUR (SP R) RM 42.5	WASHINGTON	1	2300.00
135	SPOKANE INDUSTRIAL PARK STP EFF	WASHINGTON	2	2300.00
136	BUFFALO RIVER APPX 0.3 MI BELOW CAR	ARKANSAS	1	2285.00
137	N BRANCH ELIZABET	VIRGINIA	2	2270.00
138	ATHENS STP AT ATHENS AL TO SWAN CR	ALABAMA	1	2260.00
139	T E MAXON STP AT MEMPHIS TN TO MISS	TENNESSEE	1	2236.00
140	MOREHEAD CITY STP AT MOREHEAD CITY	NORTH CAROLINA	1	2233.00
141	ELIZABETH RIVER	VIRGINIA	3	2230.00
142	100 FEET SOUTH OF DAM	CALIFORNIA	2	2220.00
143	MAZOMANIE STP	WISCONSIN	1	2220.00
144	BELLINGHAM BAY	WASHINGTON	1	2211.00
145	DAVENPORT DIGESTED SLUDGE	IOWA	1	2200.00
146	CENTER CREEK AT CARL JUNCTION, MO	MISSOURI	1	2200.00
147	E. SIDE DAM AT SIENA HGTS (NR RAISI	MICHIGAN	1	2200.00
148	DRY CREEK STP AT NASHVILLE TN TO DR	TENNESSEE	1	2200.00
149	HOLLYWOOD STP AT HOLLYWOOD FLA TO A	FLORIDA	1	2184.00
150	DECORAH STP SLUDGE SITE	IOWA	1	2150.00
151	NEWTOWN CK WEST OF DUTCH KILLS	NEW YORK	1	2140.00
152	ROCKDALE STP	WISCONSIN	1	2130.00
153	LEBANON STP AT LEBANON TN TO HARTON	TENNESSEE	1	2120.00
154	HORSE CREEK STP AT WARNER ROBBINS G	GEORGIA	1	2122.00
155	100 FEET NORTH OF ISLAND	CALIFORNIA	2	2100.00
156	CHARTON STP	WISCONSIN	1	2100.00
157	VERDE RIVER NEAR PITTEN CREEK	ARIZONA	1	2100.00
158	SUGAR CREEK STP AT CHARLOTTE NC TO	NORTH CAROLINA	2	2092.50
159	ELIZABETHTON STP AT ELIZABETHTON TN	TENNESSEE	1	2086.00
160	ATHENS STP NO 2 AT ATHENS GA TO RIV	GEORGIA	1	2067.00
161	SW OF POST POINT BY 2.5 MILES	WASHINGTON	1	2050.00
162	EASTSIDE STP AT HIGH POINT NC TO RI	NORTH CAROLINA	1	2035.00
163	WOODEN ROCK CREEK AT MP12, 325, 11W	OREGON	1	2000.00
164	INDIANA HARBOR	INDIANA	1	2000.00
165	BAILEY CREEK MARSH	VIRGINIA	1	2000.00
166	BLACKSTONE RIVER AT MILLVILLE, MA	MASSACHUSETTS	1	2000.00
167	BLACKSTONE RIVER AT MANVILLE, RI	RHODE ISLAND	1	2000.00
168	DES PLAINES RIV AT JACKSON CR NR RI	ILLINOIS	1	2000.00

TABLE A-4. (Continued)

ORS	LOC	STATE	N	Mean
169	CORPUS CHRISTI INNER HARB AN NAVIGN	TEXAS	1	2030
170	ROANOKE STP AT ROANOKE RC TO ALBEMARLE	NORTH CAROLINA	1	2000
171	RED CEDAR JOINT DIST UTILITY DISC; MA	MICHIGAN	1	2000
172	LAROUILLE R.-BASIN 7	VERMONT	1	2000
173	MONGUAGON CREEK AT JEFFERSON AVE IN	MICHIGAN	1	2000
174	CORAMCHE STP DIGESTED SLUDGE	IOWA	1	1950
175	LAROILLE R.-BASIN 7	VERMONT	1	1950
176	POTATO CK STP AT GRIFFIN GA TO POTA	GEORGIA	1	1926
177	POACH CK APPR 0.05 MI ABV CONF WITH	ARKANSAS	1	1923
178	L RUSTIS MIDDLE	FLORIDA	1	1910
179	TSALA APOPA L NR SEC HENDERSON L	FLORIDA	1	1910
180	CEDTEN CREEK BELOW LAKESIDE, OR	MISSOURI	1	1900
181	MONGANTON STP AT MONGANTON NC TO NC	NORTH CAROLINA	1	1900
182	INTER-URBAN PORK M AT DUNE ACRES IN	INDIANA	1	1900
183	MILLINGTON NAVAL AIR STA STP AT MIL	TENNESSEE	1	1883
184	PASSAIC R.CONN.R.OF WALLINGTON ROAD	NEW JERSEY	1	1840
185	MOBZ STP AT MOBZ AL TO SLAT CREEK	ALABAMA	1	1830
186	PEAK CREEK	VIRGINIA	1	1830
187	TALLADEGA STP NO 1 AT TALLADEGA AL	ALABAMA	1	1810
188	CAHABA STP AT MONTGOMERY AL TO ALAB	ALABAMA	1	1810
189	PASSAIC R-LIFT BR. AT CENTER OF ST.	NEW JERSEY	1	1800
190	NEWARK BAY EAST SHORE PARALLEL TO S	NEW JERSEY	1	1800
191	PERMANENT ELEMENTS NO 1 SLUDGE	KANSAS	1	1800
192	CO DR 30 BELOW WWTP LAGOONS; MONROE	MICHIGAN	1	1800
193	ATHENS STP NO 2 AT ATHENS GA TO MID	GEORGIA	1	1800
194	KALAMAZOO RIVER N OF MOSEL AVE;KALAM	MICHIGAN	1	1800
195	ST CROIX R -LAMB COVE TO JOHNSON CO	MAINE	1	1799
196	GADSDEN WEST RIVER STP AT GADSDEN A	ALABAMA	1	1780
197	HARRY CK STP NR THOMASVILLE NC TO H	NORTH CAROLINA	1	1771
198	MUSCLE SHOALS STP AT MUSCLE SHOALS	ALABAMA	1	1748
199	SWEETWATER STP AT SWEETWATER TN TO	TENNESSEE	1	1741
200	GENEVA STP AT GENEVA AL TO PEA RIVE	ALABAMA	1	1730
201	ADDS CREEK APPR 1.4 MI ABV CONF WIT	ARKANSAS	1	1725
202	MANCHESTER STP DIGESTED SLUDGE	IOWA	1	1720
203	WEST PALM BEACH NEG STP AT WEST PAL	FLORIDA	1	1715

TABLE A-5. FRESHWATER REGIONS CONTAINING ELEVATED SEDIMENT LEVELS OF NICKEL. CONCENTRATIONS ARE IN mg/kg.

ORDS	LOC	STATE	N	MEAN
1	FLAT RoCKWOOD CORP OUTFALL 001; LO.	MICHIGAN	1	21000
2	DEWITT STP	NEBRASKA	1	56000
3	HOOKER HALLENBARING-SETTLNG POND	MICHIGAN	1	20000
4	MARATHON BATTERY	NEW YORK	1	10500
5	MARATHON BATTERY	NEW YORK	1	7910
6	MARATHON BATTERY	NEW YORK	1	6080
7	SULPHUR RIVER NEAR TALCO, TEX.	TEXAS	1	6000
8	MAIDEN RIVER DOSTH POND DISCH.; CIT	MCDOWELL CO., NC	1	5800
9	SOUTH SULPHUR R NEAR COOPER, TEX	TEXAS	1	5500
10	MARATHON BATTERY	NEW YORK	1	5210
11	SULPHUR RIVER NEAR MAIDEN, TEXAS	TEXAS	1	5000
12	BOGGY BAYOU NR BELLEVILLE, LA	LOUISIANA	1	5000
13	RED CEDAR 100FT DPST UTILES DISC;MA	MICHIGAN	2	4700
14	FOUNDRY COVE	NEW YORK	1	4480
15	THIRD CREEK STP AT STATESVILLE NC T	NORTH CAROLINA	1	4400
16	LAWRENCEBURG MUS AT LAWRENCEBURG TE	TENNESSEE	1	4314
17	MANDY CR STP NR THOMASVILLE NC TO R	NORTH CAROLINA	1	4259
18	SULPHUR R NR DOUGLASSVILLE, TEX	TEXAS	1	4000
19	CYPRESS CREEK NR DAINGERFIELD, T	TEXAS	1	4000
20	CYPRESS CRK NR CEDAR SPRINGS, TE	TEXAS	1	4000
21	CYPRESS BAYOU NEAR SHREVEPORT, L	LOUISIANA	1	4000
22	MARATHON BATTERY	NEW YORK	10	3968
23	EAST STP AT OAK RIDGE TN TO CLINCH	TENNESSEE	1	3871
24	GALLATIN STP AT GALLATIN TN TO CUMB	TENNESSEE	1	3610
25	CYPRESS CREEK NR PITTSBURGH, TEX	TEXAS	1	3000
26	NEWTOWN CREEK NR OF RASPETH CREEK-O	NEW YORK	1	2983
27	MIDWEST MFG SLUDGE	IOWA	2	2805
28	WHITE OAK CREEK NEAR TALCO, TEX.	TEXAS	1	2500
29	THIRD CREEK STP AT STATESVILLE NC T	NORTH CAROLINA	2	2313
30	E.BR.BLK.R-JUST BELOW ROUND ST.	OHIO	1	2260
31	FOUNDRY COVE	NEW YORK	1	2180
32	NEWTOWN CREEK NEAR RADIO TOWERS-NEW	NEW YORK	1	2168
33	CONNECTICUT RIVER AT HOLYOKE, MA	MASSACHUSETTS	2	2110
34	LAKE O THE PINES NEAR JEFFERSON,	TEXAS	1	2000
35	NEWTOWN CR SOUTH OF ENGLISH HILLS-O	NEW YORK	1	1592
36	MONROE STP AT MONROE NC TO RICHARDS	NORTH CAROLINA	2	1561
37	CLEVELAND STP AT CLEVELAND TN TO SO	TENNESSEE	1	1394
38	ELIZABETHTON STP AT ELIZABETHTON TN	TENNESSEE	1	1383
39	ENGLISH HILLS CR-A OF NEWTOWN CR-RI	NEW YORK	1	1240
40	LAKE CITY STP AT LAKE CITY SC TO FL	SOUTH CAROLINA	1	1230
41	KOUNTH CR STP AT KNOXVILLE TN TO TE	TENNESSEE	1	1220
42	CO DR 30 AT BATTLION LK NO; BLOMSOM	MICHIGAN	1	1200
43	NEWTOWN CR SW OF PENNY BRIDGE-QUEEN	NEW YORK	1	1116
44	MARATHON BATTERY	NEW YORK	1	1080
45	FLAT R AT M-21 BRIDGE; LOWELL TWI S	MICHIGAN	1	990
46	ROCKY CREEK STP AT CHESTER SC TO RO	SOUTH CAROLINA	2	990
47	SCHUYLKILL R ABOVE TULPEHOCKEN CR A	PENNSYLVANIA	1	930
48	NEWTOWN CR NORTH OF GREENPOINT AVE-	NEW YORK	1	841
49	IRWIN CREEK STP AT CHARLOTTE NC TO	NORTH CAROLINA	2	820
50	RED CEDAR RIVER AT CHASEN RD; LEWOT	MICHIGAN	3	810
51	TRIBUTARY TO BIG CREEK 3.15	TENNESSEE	4	755
52	FOUNDRY COVE	NEW YORK	1	730
53	LEEDS STP AT LEEDS AL TO LITTLE CAN	ALABAMA	1	711
54	EASTSIDE STP AT HIGH POINT NC TO RI	NORTH CAROLINA	1	710
55	DATUM CI; ...51,345,11N	OREGON	1	700
56	FOSTER CR; 4511,345,12W	OREGON	1	700

TABLE A-5. (Continued)

OBS	LOC	STATE	N	MEAN
57	TRIB OF PORTER CR; SEC 2,3S,12W	OREGON	1	760.000
58	BRATTY CREEK AT SEC 31, 30S, 6W	OREGON	1	700.000
59	FLORHAM PARK, NJ STP	NEW JERSEY	1	700.000
60	NEWTOWN CREEK AT NEWTOWN CREEK-D	NEW YORK	1	700.000
61	CATOOSA STP AT ROSEDALE AT TO ALAR	ALABAMA	1	690.000
62	NEWTOWN CR WEST OF DUTCH KILLS	NEW YORK	1	678.300
63	CO DR 30 BELOW EAST LAGOONS; BRONSO	MICHIGAN	1	670.000
64	CO DR 30 BELOW BRONSON WWTP; BRONSO	MICHIGAN	1	670.000
65	RED CEDAR RIVER AT CHICORY RD, HAMI	MICHIGAN	2	650.000
66	E.FF. BLACK R. WASHINGTON AVE.	OHIO	1	640.000
67	KALAMAZOO R W FORT CUSTER WWTP, BROOK	MICHIGAN	1	580.000
68	HENDERSON STP AT HENDERSON KY TO OH	KENTUCKY	1	536.000
69	CANADA	CANADA	1	530.000
70	BOWLING GREEN STP AT BOWLING GREEN	KENTUCKY	1	525.000
71	SALINAS R -ABOVE BELINDA ST; BANGOR	MICHIGAN	1	510.000
72	WAYNESBORO STP AT WAYNESBORO GA TO	GEORGIA	1	510.000
73	S INK ROCK CR; SEC.335,12W	OREGON	1	500.000
74	TRIB OF ROGUE R; SEC5,35S,12W	OREGON	1	500.000
75	SPENCER CR TRIB, SITE 34 AT PLEASAN	INDIANA	2	500.000
76			6	488.500
77	WESTSIDE STP AT HIGH POINT NC TO RI	NORTH CAROLINA	1	480.000
78	NASHVILLE CENTRAL STP AT NASHVILLE	TENNESSEE	1	475.000
79	NASHVILLE CENTRAL STP AT NASHVILLE	TENNESSEE	1	475.333
80	FT. MADISON MUNICIPAL SLUDGE	IOWA	1	461.000
81	ROBA L SOUTH SW LITTLE BLACK CR; NO	MUSKEGON CO., MI	1	454.000
82	CODORUS CR AT NORTH YORK, PA.	PENNSYLVANIA	1	440.000
83	RID BR RED CEDAR R, OLD US-16; HAGO	MICHIGAN	2	400.000
84	MANAPEPE BAY	HAWAII	4	399.925
85	TRIB TO CHANNING CR AT SC-11 AL UTI	SOUTH CAROLINA	1	380.000
86	CONODOGUINET CR AT CAMDEN MAC RR M	PENNSYLVANIA	1	380.000
87	100R 88.0 ROCK HARBOR LIGHT	NEW YORK	2	374.500
88	ENGLISH KILLS SOUTH OF GRAND AVE-NI	NEW YORK	1	370.000
89	CHATTAHOOCHEE R AT SR 70] NR ALBOTT	GEORGIA	1	370.000
90	E. SIDE DRN AT SIENA HGTS DR; HAISI	MICHIGAN	1	370.000
91	SPENCER CR TRIB, SITE 4, @ PLEASAN	INDIANA	2	369.950
92	LAKE CHAMPLAIN S.W. OF WOODS ISLAND	VERMONT	1	362.000
93	ROCK CREEK NEAR GETTYSBURG	PENNSYLVANIA	1	360.000
94	LAKE CHAMPLAIN IN CUMBERLAND BAY	NEW YORK	1	359.000
95	RED CEDAR R. AT NICHOLSON RD; HANDY	MICHIGAN	2	355.000
96			15	353.480
97	NORTH CALLOWHANNA-h.d. DITCH	MICHIGAN	1	350.000
98	L. BLACK CHB AIRLINE HWY; PNUITPONT	MUSKEGON CO., MI	1	350.000
99	WESTLOCH		12	349.250
100	LYMAN STP AT LYMAN SC TO MIDDLE TIG	SOUTH CAROLINA	1	342.000
101	SUSQUEHANNA CR AT LEWISTOWN, PA.	PENNSYLVANIA	1	340.000
102	1090R 336.0 ROCK HARBOR LIGHT	NEW YORK	1	340.000
103	AUGUSTA CR AT AUGUSTA DRIVE; KOS. T	KALAMAZOO CO., MI	1	340.000
104	DES MOINES STP DIGESTED SLUDGE	IOWA	1	339.000
105	I		6	327.833
106	970R 55.0 ROCK HARBOR LIGHT	NEW YORK	1	320.000
107	BIBLE RUN AT LAB OF S-22-419 AT GRO	SOUTH CAROLINA	1	320.000
108	CONESTOGA R BR LANCASTER, PA.	PENNSYLVANIA	1	320.000
109	KALAMAZOO R IN R. ARBOR TRL; CUMST	MICHIGAN	1	320.000
110	L. BLACK CR DST SHERMAN RD;PNUITPON	MICHIGAN	1	320.000
111	KALAMAZOO R AT 30TH ST, CHARLESTON	MICHIGAN	1	316.000
112	R BR-OBITT: OVERFLOW SLUDGE BANK	OHIO	1	310.000

TABLE A-5. (Continued)

OBS	LOC	STATE	N	MEAN
113	DESCHUTES R. NEAR BIGGS,ORE.	OREGON	1	310.630
114	HILO BAY	HAWAII	8	307.625
115	COLLIS PROCESS WASTE SLUDGE	IOWA	1	306.000
116	ECONCHATE STP AT MONTGOMERY AL TO A	ALABAMA	2	304.500
117	LAFOLLETTE STP AT LAFOLLETTE TN TO	TENNESSEE	1	301.000
118	CRATER CR; NW19,33S,11W	OREGON	1	300.000
119	ROCK CR. NW30,33S,11W	OREGON	1	300.000
120	W FRK ROCK CR; NE7,33S,12W	OREGON	1	300.000
121	FOSTER CR. NE18,34S,11W	OREGON	1	300.000
122	LONE TREE CR; NW19,34S,11W	OREGON	1	300.000
123	NANCY CR; SW20,35S,11W	OREGON	1	300.000
124	MORRIS RODGERS CR; C11,35S,12W	OREGON	1	300.000
125	TRIB OF ROGUE R; SC10,35S,12W	OREGON	1	300.000
126	WALLACE CREEK AT SE33, 31S, 9W	OREGON	1	300.000
127	SALT CREEK AT NE35, 36S, 7W	OREGON	1	300.000
128	UNNAMED STREAM AT NE13, 30S, 7W	OREGON	1	300.000
129	LITTLE RVR & TOWN OF LITTLE RIVER	SOUTH CAROLINA	1	300.000
130	CONNECTICUT RIVER AT AGAWAM, MA	MASSACHUSETTS	1	300.000
131	TRIB NO 2 TO SPENCER CR TRIB AT PLE	INDIANA	1	300.000
132	INLET TO SOUTH LAKE & PLEASANTVILL	INDIANA	1	299.960
133	SHADES VALLEY STP AT BIRMINGHAM AL	ALABAMA	1	299.000
134	9000M 15.0 OLCOTT LIGHT PIER	NEW YORK	1	295.000
135	5800M 304.0 THIRTY MI. PT. LIGHT	NEW YORK	1	295.000
136	SYLACAUGA FIVE POINTS STP AT SYLACA	ALABAMA	1	292.000
137	WEST STP AT OAK RIDGE TN TO EAST FO	TENNESSEE	1	292.000
138	RED CEDAR 100YD DNST UTILEX DISC;WA	MICHIGAN	1	290.000
139	MONGUAGON CR@2ND BR DN UPSTM JEFF A	MICHIGAN	1	290.000
140	DETROIT RIVER LAKE ERIE CHANNELS	MICHIGAN	1	289.000
141	HARBOR BEACH	MICHIGAN	1	280.000
142	7600M 53.0 THIRTY MI. PT. LIGHT	NEW YORK	1	280.000
143	JORDAN CR @ BOWLING GREEN IN SITE	INDIANA	1	280.000
144			4	277.700
145	CONNEAUT HARBOR	OHIO	1	270.000
146	15200M 311.0 BRADDOCK PT. LIGHT	NEW YORK	1	270.000
147	RED CEDAR RIVER AT SIOUX RD; CONWAY	LIVINGSTON CO MI	1	270.000
148	ROOSEVELT LAKE SALT R. ARM	ARIZONA	1	265.600
149	6600M 291.0 OLCOTT LIGHT PIER	NEW YORK	1	265.000
150	CYPRESS CREEK STP AT FLORENCE AL TC	ALABAMA	1	262.000
151	HARBOR BEACH	MICHIGAN	1	260.000
152	IRONGRAULE R.S CONF. NORTH; STAMBAU	IRON CO., MI	1	260.000
153	KALAMAZOO R. AT 35TH STREET; COMSTO	MICHIGAN	1	260.000
154	TURKEY CR NR COAL CITY IND	INDIANA	1	260.000
155	L. BLACK CR@ HARVEY AVE; FRUITPORT	MUSKEGON CO., MI.	1	260.000
156	WEST PALM BEACH REG STP AT WEST PAL	FLORIDA	1	256.000
157	BEAVERDAM CREEK	VIRGINIA	1	256.000
158	LEON CR AT PRIVATE RD OFF QUINTA	TEXAS	1	250.000
159	9100M 18.0 ROCH HARBOR LIGHT	NEW YORK	1	250.000
160	NORTH BUFFALO STP AT GREENSBORO NC	NORTH CAROLINA	1	245.000
161	GREENEVILLE STP AT GREENEVILLE TN T	TENNESSEE	1	241.000
162	INDIANA HARBOR	INDIANA	1	240.000
163	130M 20.0 ROCH HARBOR LIGHT	NEW YORK	1	240.000
164	LITTLE BLACK CR AT FIRST ST.; NORTO	MUSKEGON CO., MI	1	240.000
165	BEAVERTON CR .7MI FR [illegible]	OREGON	1	237.000
166	NAWILIWILI BAY	HAWAII	1	236.900
167	HARBOR BEACH	MICHIGAN	1	236.000
168	MARATHON BATTERY	NEW YORK	1	236.000

TABLE A-5. (Continued)

OBS	LOC	STATE	N	MEAN
169	MARATHON BATTERY	NEW YORK	1	230
170	MONROE HARBOR	MICHIGAN	1	230
171	PIGEON CR AR BUCKSKIN IND SITE 819	INDIANA	1	230
172	LAKE CHAMPLAIN S.OF SOUTH HERO IS.	VERMONT	1	227
173	MILHAM STP AT MILHAM RC TO AGAWAM C	NORTH CAROLINA	1	222
174	ASHTABULA HARBOR, OHIO	OHIO	1	220
175	KANEOHE BAY	HAWAII	1	220
176	BLACK RIVER M.P. 10.8	OHIO	1	220

TABLE A-6. FRESHWATER REGIONS CONTAINING ELEVATED SEDIMENT LEVELS OF ARSENIC. CONCENTRATIONS ARE IN mg/kg.

OBS	LOC	STATE	N	MEAN
1	SALISBURY ARSENIC SLUDGE	IOWA	1	140000
2	SALISBURY WASTE DISPOSAL SITE	IOWA	1	[illegible]
3	WAUKEGAN STP SHERIDAN RD MILE AND R	ILLINOIS	1	19000
4	PRIMARY RETENTION POND	TEXAS	1	6000
5	LONG LK NR [illegible] RM 42.5	WASHINGTON	1	6200
6	SPOKANE INDUSTRIAL PARK STP EFF	WASHINGTON	2	6200
7	SP R @ UPR LONG LAKE RM 51.00	WASHINGTON	1	5800
8	INLAND EMPIRE PAPER EFF RM 82.6	WASHINGTON	1	5000
9	FLORHAM PARK, NJ STP	NEW JERSEY	10	3010
10	HILO BAY	HAWAII	12	2715
11	CHARLES CITY STP RAW SLUDGE	IOWA	6	2141
12	ELGIN SD IN ELGIN,ILL	ILLINOIS	1	2000
13	SW CORNER OF [illegible] LAKE	TEXAS	1	1800
14	CHARLES CITY STP DIGESTED SLUDGE	IOWA	6	1552
15	WILDWOOD PARK AT FOOT BRIDGE	IOWA	1	1460
16	ROOSEVELT LAKE SALT R. ARM	ARIZONA	1	798
17	SOUTHWEST BRANCH RANCOCAS ON MAIN S	NEW JERSEY	1	700
18	HINSDALE SD IN HINSDALE,ILL	ILLINOIS	1	600
19	SALISBURY SOIL SAMPLE	IOWA	1	550
20	[illegible] RIVER NEAR FT. GIBSON	OKLAHOMA	1	518
21	POTEAU RIVER NEAR FORT SMITH,ARK	OKLAHOMA	1	524
22	POTEAU RIVER NR FORT SMITH, AR	OKLAHOMA	1	524
23	TULPEHOCKEN CR. BL MARSH [illegible]	PENNSYLVANIA	4	410
24	ROCKFORD SD GRANT BOULEVARD SANDS R	ILLINOIS	1	400
25	DOWNERS GROVE S D MAPLE AVE WEST OF	ILLINOIS	1	400
26	SALISBURY GYPSUM SLUDGE	IOWA	1	400
27	BEAVER CREEK NR TROTTERS, ND	NORTH DAKOTA	1	400
28	[illegible] C NR [illegible] WY	WYOMING	1	370
29	SF COEUR DALENE R AT ENAVILLE, I	IDAHO	1	350
30	CHICAGO WEST SOUTH WEST MSD-IL	ILLINOIS	1	300
31	TRINITY R AT SH31 W OF TRINIDAD	TEXAS	1	300
32	GILA R AT KELVIN ARIZ	ARIZONA	1	300
33	ALAMO LAKE	ARIZONA	1	300
34	ILLINOIS RIVER NEAR GORE	OKLAHOMA	1	265
35	ILLINOIS R NR GORE,OK	OKLAHOMA	1	265
36	09F LAKE [illegible] WEST SHORE AT BAIT	FLORIDA	1	270
37	HILO BAY	HAWAII	1	260
38	GRASSY CREEK NEAR MOUNT HARRIS, CO.	COLORADO	1	250
39	COEUR DALENE RIVER AT ROSE LAKE	IDAHO	1	250
40	LAKE ERIE EAST OF MARBLEHEAD	OHIO	1	240
41		IOWA	1	239
42	SOUTH FORK BEARGRASS CREEK AT LOUIS	KENTUCKY	1	236
43	KIAMICHI RIVER NEAR ANTLERS	OKLAHOMA	1	230
44	DANVILLE STP AT DANVILLE KY TO CLAR	KENTUCKY	1	225
45	COLLIS PRODUCTS WASTE SLUDGE	IOWA	1	224
46	GILA RIVER AT GILLESPIE DAM	ARIZONA	1	223
47	LAKE ERIE SANDUSKY BAY WEST OF COAL	OHIO	1	221
48	SHAW POND MIDDLE	MASSACHUSETTS	1	211
49	HEART RIVER NR SOUTH HEART, ND	NORTH DAKOTA	1	210
50	SW TRIB [illegible] CR; [illegible],32S,3E	OREGON	1	200
51	[illegible] CR;[illegible],32S,3E	OREGON	1	210
52	MILLER CR; SW31,31S,3E	OREGON	1	200
53	[illegible] CR;[illegible]	OREGON	1	200
54	WOODRUFF CR; [illegible];31S;3E	OREGON	1	200
55	[illegible] CR; [illegible];31S;3E	OREGON	1	200
56	[illegible] CR; SW17;31S;3E	OREGON	1	200

TABLE A-6. (Continued)

ONO	LOC	STATE	N	PLAT
57	HOP CR; SW19;38,3E	OREGON	1	200
58	JIM CR; SC13,38S;2E	OREGON	1	200
59	LITTLEMITE CR; SW13,38S;2E	OREGON	1	200
60	TRIB OF LITTLEMITE CR, SW13,38S,2E	OREGON	1	200
61	LITTLE SUNSHINE CR; SC7;38S;3E	OREGON	1	200
62	ABBOTT CR; SC7;38S;3E	OREGON	1	200
63	SUNSHINE CR; NC7;38S;3E	OREGON	1	200
64	MCCALL CR; NW7;38S;3E	OREGON	1	200
65	TRIB OF ABBOTT CR; NW6;38S;3E	OREGON	1	200
66	W TRIB OF W FRK ABBOTT CR;NC30,30S,	OREGON	1	200
67	TRIB OF ABBOTT CR; SW30;30S;2E	OREGON	1	200
68	DEWITT CR; SW30;30S;2E	OREGON	1	200
69	TRIB OF ELK CR; SW27;32S;1E	OREGON	1	200
70	FLAT CR;SE28;32S;1E	OREGON	1	200
71	TRIB OF FLAT CR;NC20;32S;1E	OREGON	1	200
72	SHELL CR;NW27;32S;1E	OREGON	1	200
73	JONES CR; SC22;32S;1E	OREGON	1	200
74	TRIB OF ELK CR;NE27;32S;1E	OREGON	1	200
75	SUGARPINE CR; NC23,32S,1E	OREGON	1	200
76	DUDE CREEK BR COND ELK CR;NW24,32S,	OREGON	1	200
77	TRIB OF TIMBER CR;NE9;32S;1E	OREGON	1	200
78	TIMBER CR;NE9;32S;1E	OREGON	1	200
79	MAPA CR;NE9;32S;1E	OREGON	1	200
80	ELEMONA CR;NC10;32S;1E	OREGON	1	200
81	BEETLE CR,SW35,32S,1E	OREGON	1	200
82	TILSON CR,SE34,33S,1E	OREGON	1	200
83	SUGARPINE CR,SE34,33S,1E	OREGON	1	200
84	SUGARPINE CR,NC11,32S,1E	OREGON	1	200
85	SQUAW CR,C10,32S,2E	OREGON	1	200
86	BUTTON CR,C16,32S,2E	OREGON	1	200
87	E TRIB SQUAW CR; NW17,32S,2E	OREGON	1	200
88	ALDER CR, SE17,32S,2E	OREGON	1	200
89	BUTTON CR, NC21,32S,2E	OREGON	1	200
90	SE TRIB OF BUTTON CR, SE20,32S,2E	OREGON	1	200
91	TRIB OF JACKSON CR, NW10,30S,1E	OREGON	1	200
92	LUCK CR,C2,30S,1E	OREGON	1	200
93	TRIB OF JACKSON CR, EC2,30S,1E	OREGON	1	200
94	TRIB OF JACKSON CR, NC1,30S,1E	OREGON	1	200
95	BEAR CR, SC36,29S,1E	OREGON	1	200
96	THOMPSON CR, SE36,29S,1E	OREGON	1	200
97	TRIB OF JACKSON CR, NW6,30S,2E	OREGON	1	200
98	TRIB OF JACKSON CR, C4,30S,2E	OREGON	1	200
99	TRIB OF JACKSON CR, NC3,30S,2E	OREGON	1	200
100	ABBOTT CR, EC2,30S,2E	OREGON	1	200
101	FALCON CR, NW7,30S,3E	OREGON	1	200
102	FALCON CR,NW10,30S,1E	OREGON	1	200
103	MAPLE CR; SW19;30S;1E	OREGON	1	200
104	SQUAW CR, SE9,30S,1E	OREGON	1	200
105	TRIB OF BLACK CANYON CR, SW15,30S,1	OREGON	1	200
106	BLACK CANYON CR, NW22,30S,1E	OREGON	1	200
107	TRIB OF SQUAW CR, C23,30S,1E	OREGON	1	200
108	SQUAW CREEK SW24,30S,1E	OREGON	1	200
109	JORDAN CR, SW24,30S,1E	OREGON	1	200
110	SOUP CR, SE20,30S,1E	OREGON	1	200
111	WHISKEY CR, SW20,30S,1E	OREGON	1	200
112	DEEP CUT CR, NW17,30S,1E	OREGON	1	200

TABLE A-6. (Continued)

OBS	LOC	STATE	A	PEAK
113	[illegible] CR,R018,305,1R	OREGON	1	200
114	TRIB OF JACKSON CR, R018,305,1E	OREGON	1	200
115	SHANSON CREEK R018,325,2E	OREGON	1	200
116	BITTERLICK CR, R28,315,2E	OREGON	1	200
117	E FRK SHANSON CR,R07,325,2E	OREGON	1	200
118	TRIB OF ELK CR, R021,315,2E	OREGON	1	200
119	ELK CR, R021,315,2E	OREGON	1	200
120	TRIB OF ELK CR; R028,315,2E	OREGON	1	200
121	ELK CR R030,315,2E	OREGON	1	200
122	SQUAW CR R017,325,2E	OREGON	1	200
123	ELK CR, R00,325,2E	OREGON	1	200
124	BROOK CR,R028,325,2E	OREGON	1	200
125	BROOK CR,S09,325,2E	OREGON	1	200
126	E FRK BROOK CR; S04,325,2E	OREGON	1	200
127	N FK BROOK CR, R03,325,2E	OREGON	1	200
128	E FRK BROOK CR; R03,325,2E	OREGON	1	200
129	N TRIB BITTERLICK CR,R012,325,1E	OREGON	1	200
130	BITTERLICK CR, S30,315,1E	OREGON	1	200
131	MCCALL CR, S02,315,2E	OREGON	1	200
132	NEL FK CR, S011,315,2E	OREGON	1	200
133	LITTLE SUNSHINE CR, S011,315,2E	OREGON	1	200
134	S FRK COQUILLE R; S030,325,1E	OREGON	1	200
135	TRIB OF S FRK COQUILLE R; S7,335,11	OREGON	1	200
136	S FRK COQUILLE R; S07,335,11E	OREGON	1	200
137	SQUAW CR; R020,335,11W	OREGON	1	200
138	BROKEN OUT CR; S017,335,11W	OREGON	1	200
139	BEAR CR; R09,335,11W	OREGON	1	200
140	LOCKHART CR; R09,335,11W	OREGON	1	200
141	CRATER CR; R019,335,11E	OREGON	1	200
142	LAKE CR; S019,335,11E	OREGON	1	200
143	SAND CR; R030,335,11W	OREGON	1	200
144	ROCK CR; R030,335,11W	OREGON	1	200
145	S FRK ROCK CR; S027,335,12E	OREGON	1	200
146	N FRK ROCK CR; R027,335,12E	OREGON	1	200
147	BILLINGS CR; S07,345,11W	OREGON	1	200
148	FOSTER CR; R010,345,11W	OREGON	1	200
149	LONE TREE CR; R019,345,11E	OREGON	1	200
150	TWO MILE CR; S031,345,11W	OREGON	1	200
151	SLIDE CR; R031,345,11E	OREGON	1	200
152	WATER CR; S031,345,11W	OREGON	1	200
153	SHASTA COSTA CR; S05,355,11W	OREGON	1	200
154	TRIB OF ROGUE R; S07,355,11W	OREGON	1	200
155	FALL CR; R030,355,11W	OREGON	1	200
156	TRIB OF ILLINOIS R; C25,355,11E	OREGON	1	200
157	HARLEY CR; S028,355,11E	OREGON	1	200
158	TRIB OF ROGUE R; R012,355,12E	OREGON	1	200
159	TRIB OF ROGUE R; R015,355,12E	OREGON	1	200
160	TRIB OF MAIL BOX CR; S021,355,12E	OREGON	1	200
161	MAIL BOX CR; S021,355,12E	OREGON	1	200
162	FOSTER CR; R011,345,12W	OREGON	1	200
163	TRIB OF FOSTER CR; S1[illegible],345,12E	OREGON	1	200
164	TRIB OF SHASTA COSTA CR; S09,355,11	OREGON	1	200
165	TRIB OF SHASTA COSTA CR; S0[illegible],355,11	OREGON	1	200
166	TRIB OF SHASTA COSTA CR; S05,355,11	OREGON	1	200
167	TRIB OF SHASTA COSTA CR; S05,355,11	OREGON	1	200
168	BLUE JAY CR; R012,355,12W	OREGON	1	200

TABLE A-7. FRESHWATER REGIONS CONTAINING ELEVATED SEDIMENT LEVELS OF CADMIUM. CONCENTRATIONS ARE IN mg/kg.

OBS	LOC	STATE	N	MEAN
1	THIRD CREEK STP AT STATESVILLE NC 1	NORTH CAROLINA	1	46400.0
2	THIRD CREEK STP AT STATESVILLE NC 1	NORTH CAROLINA	2	23510.0
3	MARATHON BATTERY	NEW YORK	1	19300.0
4	MARATHON BATTERY	NEW YORK	1	11100.0
5	MIDWEST MFG SLUDGE	IOWA	2	9495.0
6	MARATHON BATTERY	NEW YORK	1	9260.0
7	CARSON R @ NEW EMPIRE	NEVADA	1	8230.0
8	BOULDER CREEK AT MOUTH	ARIZONA	1	8152.0
9	SANTA ANA RIVER BELOW PRADO DAM	CALIFORNIA	1	7032.0
10	COPPER CREEK AB BOULDER CREEK	ARIZONA	1	7000.0
11	PERMANENT PIGMENTS NO 1 SLUDGE	KANSAS	2	7300.0
12	COLORADO RIVER BELOW PARKER DAM	ARIZONA	1	7017.0
13	BOULDER CREEK BELOW BOULDER WASH	ARIZONA	1	6361.0
14	PERMANENT PIGMENTS NO 2 SLUDGE	KANSAS	2	5450.0
15	MARATHON BATTERY	NEW YORK	11	4884.2
16	FOUNDRY COVE	NEW YORK	1	4680.0
17	OWENS R BL TINEMAHA RES.	CALIFORNIA	1	3937.0
18	BOULDER CREEK ABOVE WILDEN CREEK	ARIZONA	1	3827.0
19	FOUNDRY COVE	NEW YORK	1	3000.0
20	RUSSELLVILLE STP AT RUSSELLVILLE KY	KENTUCKY	1	2202.0
21	MARATHON BATTERY	NEW YORK	1	2000.0
22	MERRIMACK RIVER AT FORT DEVENS, MA	MASSACHUSETTS	4	1912.5
23	MARATHON BATTERY	NEW YORK	1	1800.0
24	FOUNDRY COVE	NEW YORK	1	1560.0
25	MENOMONEE STP	WISCONSIN	2	1350.0
26	L. BLACK CR DST SHERMAN RD;FRUITPORT	MICHIGAN	2	1177.5
27	JOHN DEERE SLUDGE	IOWA	1	1050.0
28	MISS R ABOVE MOLI INTERCEPTOR	TENNESSEE	9	1000.0
29	MID-CHANNEL AT I-80 BRIDGE	CALIFORNIA	1	1000.0
30	BUOY FIG 4 SEC 87	CALIFORNIA	1	1000.0
31	MID-CHANNEL AT BENICIA BRIDGE	CALIFORNIA	1	1000.0
32	BUOY 84, 1 1/2 MI N EASTERN POINT	CALIFORNIA	1	1000.0
33	BUOY FIG SEC81 NW OF MEN ISLAND	CALIFORNIA	1	1000.0
34	BUOY FIG 4 SEC 80	CALIFORNIA	1	1000.0
35	BUOY FIG 4 SEC 817	CALIFORNIA	1	1000.0
36	BUOY FIG 4 SEC 825	CALIFORNIA	1	1000.0
37	BUOY 87	CALIFORNIA	1	1000.0
38	BUOY FIG 4 SEC 814	CALIFORNIA	1	1000.0
39	MID-CHANNEL OFF BERMAN POINT	CALIFORNIA	1	1000.0
40	MID-CHANNEL AT ANTIOCH BRIDGE	CALIFORNIA	1	1000.0
41	E.BR.BLK.R-JUST BELOW MOUND ST.	OHIO	1	990.0
42	CALLATIN STP AT CALLATIN TN TO CUMB	TENNESSEE	1	870.0
43	SF COEUR D'ALENE R AT PINEVILLE, I	IDAHO	1	810.0
44	L. BLACK CR@ HOLMAT AVE; FRUITPORT	MUSKEGON CO., MI	1	720.0
45	BASIN 1	ILLINOIS	10	578.0
46	MARATHON BATTERY	NEW YORK	1	560.0
47	E FK-OBITIS OVERFLOW SLUDGE BANK	OHIO	1	540.0
48	PASCAGOULA R NEAR BANKEN 46	MISSISSIPPI	1	415.0
49	MARATHON BATTERY	NEW YORK	1	413.0
50			2	402.6
51	PEDDIE PARK, NJ STP	NEW JERSEY	10	379.0
52	BERTRAM CREEK BR OF HASPETH CREEK-C	NEW YORK	1	363.0
53	NORTH BUFFALO STP AT GREEN POND NC	NORTH CAROLINA	1	350.0
54	DES MOINES STP DIGESTED SLUDGE	IOWA	1	330.0
55	EVELYN PRAIRIE NEAR INTANT, IL	ILLINOIS	1	320.0
56	NO END CON: AREA 2A, 1MI SW OF PT 2	FLORIDA	1	320.0

TABLE A-7. (Continued)

OBS	LOC	STATE	A	MEAN
57	ELIZABETHTON STP AT ELIZABETHTON TN	TENNESSEE	1	320.000
58	PEQUABUCK R AT FARMINGTON, CT	CONNECTICUT	1	220.030
59	L. PLACK CRK AIRLINE HWY; FRUITPORT	MUSKEGON CO., MI	1	220.000
60	BUNCOMBE CO STP AT ASHEVILLE NC TO F	NORTH CAROLINA	1	213.000
61	BOWLING GREEN STP AT BOWLING GREEN	KENTUCKY	3	204.667
62	CARROLL DIGESTER EDITOR SLUDGE	IOWA	1	203.000
63	TRIB NO 2 TO SPENCER CR TRIB AT ELK	INDIANA	1	200.000
64	200' BLW HANSHAW ORIFFS OVERFLOW	OHIO	1	200.000
65	SPENCER CR TRIB, STP N, W PLEASAN	INDIANA	1	199.900
66	BENTOWN CR SOUTH OF ENGLISH MILLS-O	NEW YORK	1	182.000
67	9100M 367.0 WILSON INDIANA PLN	NEW YORK	1	175.000
68	ENGLISH MILLS CR-N OF BENTOWN CR-NI	NEW YORK	1	162.200
69	BENTOWN CREEK NEAR RADIO TOWER-NEW	NEW YORK	1	161.700
70	CHARLES CITY STP DIGESTED SLUDGE	IOWA	6	150.333
71	CONNECTICUT RIVER AT HOLYOKE, MA	MASSACHUSETTS	1	150.000
72	P.MA. BLACK R. WASHINGTON AVE.	OHIO	1	140.000
73	BLACK RIVER M.P. 10.8	OHIO	1	130.000
74	EAST R @ ALMONT USGS	COLORADO	1	125.000
75	NORTH BUFFALO STP AT GREENSBORO NC	NORTH CAROLINA	1	125.000
76	CRAFTON STP	WISCONSIN	1	120.000
77	CLEAR CR AT FM 1887	TEXAS	1	113.000
78	850'ABOVE & BK DAM BELOW HANSHAW	OHIO	1	110.000
79	OPOSSUM RUN NR COVINGTON IN	INDIANA	1	110.000
80	LITTLE BLACK CR AT FIRST ST.; MONTO	MUSKEGON CO., MI	1	110.000
81	INTER-URBAN POND D AT DUNE ACRES IN	INDIANA	1	109.900
82	CHARLES CITY STP RAW SLUDGE	IOWA	6	108.167
83	CONNECTICUT RIVER AT AGAWAM, MA	MASSACHUSETTS	1	100.000
84	JAMES FORK NEAR HACKETT, ARK.	ARKANSAS	1	100.000
85	ENGLISH MILLS SOUTH OF CHAPD AVE-NI	NEW YORK	1	99.000
86	LANGSTON CR BL RD 253 C PLATING OUT	SOUTH CAROLINA	1	87.290
87	FT RUCKER STP AT FT RUCKER AL TO CL	ALABAMA	1	86.000
88	BENTOWN CR SW OF PENNY BRIDGE-QUEEN	NEW YORK	1	81.530
89	ATHENS STP NO 1 AT ATHENS GA TO ROB	GEORGIA	1	78.000
90	BENTOWN CR NORTH OF GREENRIDGE AVE-	NEW YORK	1	71.430
91	NOAI LAKE AT ROLLE LAKE, WI	WISCONSIN	1	70.000
92	E. SIDE DRN AT SIERRA HGTS LN; KALSI	MICHIGAN	1	66.000
93	ST JOSEPH R DRAIN OF CHICAGO ST IN	MICHIGAN	1	63.556
94	CORPUS CHRISTI HARBOR - VIOLA TURNI	TEXAS	1	61.790
95	CUYAHOGA HARBOR	OHIO	1	61.000
96	BLACKSTONE RIVER AT MILLVILLE, MA	MASSACHUSETTS	2	59.500
97	IRWIN CREEK STP AT CHARLOTTE NC TO	NORTH CAROLINA	3	58.667
98	QUEEN ST RT 10 BRIDGE 100 FT US PAR	CONNECTICUT	1	58.556
99	ADDS CR APPR 0.5 MI ABV POSCA CR CO	ARKANSAS	1	57.500
100		VIRGIN ISLANDS	1	56.000
101	CORPUS CHRISTI-INNER H-NAVIG BLV	TEXAS	1	55.000
102	BORA L 5000FT SW LITTLE BLACK CR; NO	MUSKEGON CO., MI	1	54.590
103	100 FEET SOUTH OF DAM	CALIFORNIA	2	54.000
104	MAULDIN ROAD STP AT GREENVILLE SC T	SOUTH CAROLINA	1	54.000
105	BORA L 100021 N. BORA LK PR" MORTON.	MUSKEGON CO., MI	1	54.000
106	MARATHON HATTERY	NEW YORK	1	53.000
107	24660 794.0 FT BELLIN PLN	NEW YORK	1	52.000
108	ST JOE R @ CENTRAL MILL POND; FATI	MICHIGAN	1	52.590
109	100 FEET NORTH OF ISLAND	CALIFORNIA	2	50.000
110	SOURIS RIVER NR VOLMER, MI	NORTH DAKOTA	1	50.000
111	TALUKA CR TRIB NR .ILLER CR	OKLAHOMA	1	50.000
112	NATCH GROSSE TETE AT MOSELDALE	LOUISIANA	1	50.000

TABLE A-7. (Continued)

OBS	LOC	STATE	N	MEAN
113	DANVILLE STP AT DANVILLE KY TO CLAR	KENTUCKY	1	50.0000
114	ARANSAS BAY INT CANAL + CHANNEL SO.	TEXAS	1	48.0000
115	GLEN COVE CH CHANNEL NO OF SEWAGE D	NEW YORK	1	47.8400
116	GLEN COVE CH CHANNEL SO OF PORT PA	NEW YORK	1	47.8400
117	WINTER GARDEN STP AT WINTER GARDEN	FLORIDA	1	47.0000
118	CLEVELAND HARBOR	OHIO	1	46.0000
119	LYON CK AT PRIVATE RD OFF LOUISA	TEXAS	1	46.0000
120	COEUR D'ALENE RIVER AT ROSE LAKE	IDAHO	1	45.0000
121	LONG LK NR TUMTUM (SR 4) NR 4..5	WASHINGTON	1	45.0000
122	CASEVILLE HARBOR,MICHIGAN	MICHIGAN	1	43.0000
123		IOWA	1	42.7500
124	HILO BAY	HAWAII	1	42.6660
125	US ARMY BLUEGRASS DEPOT AT LEXINGTO	KENTUCKY	1	41.0000
126	ROCKLAND HARBOR NORTH OF OWLS HEAD	MAINE	1	40.2900
127	COBBOSS CR AT NORTH TOWN, PA.	PENNSYLVANIA	1	40.0000
128	MUSSEL CREEK NEAR ALVORD TX	MONTANA	1	40.0000
129	MEADE R NR CORNVILLE, ARIZ.	ARIZONA	1	40.0000
130	CO DR 30 MELON KNTP LAGOONS; MONROO	MICHIGAN	1	40.0000
131	SUGAR CREEK STP AT CHARLOTTE NC 10	NORTH CAROLINA	2	40.0000
132	GLEN COVE CH CHANNEL AT SEWAGE DISP	NEW YORK	1	39.5100
133	GREENEVILLE STP AT GREENEVILLE TN T	TENNESSEE	1	38.0000
134	GLEN COVE CH CHANNEL NEAR SEWAGE DI	NEW YORK	1	37.0000
135	ASH POND OUTFLOW NR THORNE MILL, MO	MISSOURI	1	37.0000
136	UNNAMED TRIB UPST ST JOE R; FAYETTE	MICHIGAN	1	36.8900
137	TRIBTE A @ SR 34 56 OF HOUSTON IN ST	TEXAS	1	36.0000
138	HUNTSTOWN STP AT HUNTSTOWN TN	TENNESSEE	1	36.0000
139	SOUTH OF BUSH CR. 100 YDS UPST FROM	ARKANSAS	2	34.7500
140	NEWTOWN CREEK AT NEWTOWN BRIDGE-Q	NEW YORK	1	34.0000
141	L BLACK CR DNS FARMINGTON STP:FARMIN	MUSKEGON CO., MI	1	34.0000
142	?		3	33.3333
143	ILLINOIS RIVER AT CHESTER ISLAND, I	ILLINOIS	3	33.3333
144	ENIE HARBOR	PENNSYLVANIA	1	33.0000
145	5207402EAST MATAGORDA LS LINE 074 S	TEXAS	1	33.0000
146	WEST STP AT OAK RIDGE TN TO EAST FO	TENNESSEE	1	33.0000
147	1 MI S. OF PORTLAND	TEXAS	1	32.8900
148	TRIBUTARY TO GREEN RIVER 101.3	KENTUCKY	1	32.0000
149	TUSCUMBIA STP AT TUSCUMBIA AL TO SP	ALABAMA	1	31.0000
150	RED CEDAR R AT CCU RR BR; HARDT TWP	MICHIGAN	1	31.0000
151	CLEVELAND HARBOR	OHIO	1	31.0000
152	NEWTOWN CR WEST OF DUTCH HILLS	NEW YORK	1	30.6800
153	MUSK L 700FT WEST HENRY RD; MUNTON	MUSKEGON CO., MI	1	30.2900
154	MUSK L 1100FT EAST HENRY RD; MUNTON	MUSKEGON CO., MI	1	30.2900
155	INDIANA HARBOR	INDIANA	1	30.0000
156	CONARUS CHL OFF 13 ST PROJECT EXP-	NEW YORK	1	30.0000
157	FOREST CITY STP SLUDGE	IOWA	1	30.0000
158	SCHUYLKILL R AT RT BOCK POOL NR PHO	PENNSYLVANIA	1	30.0000
159	SHARP CREEK BELOW MICE LAKE AT RHI	WISCONSIN	1	30.0000
160	DES PLAINES RIVER AT ROMEOVILLE, IL	ILLINOIS	2	30.0000
161	DES PLAINES RIVER RT GRANT CK RD.CR	ILLINOIS	2	30.0000
162	UNN TRIB TO HAPP	VIRGINIA	1	30.0000
163	ST JOSEPH R AT MOORE RD; FAYETTE TW	MICHIGAN	1	29.6900
164	MUSK L 1200FT SER L BLACK CR; MUNTO	MUSKEGON CO., MI	1	29.5900
165	HUSTON HARBOR	PENNSYLVANIA	1	29.0000
166	SAVANNAH RIVER .5 MILE DOWNSTREAM S	GEORGIA	1	29.0000
167	OCONEE RIVER NEAR TAL ROAD 1000 SOU	GEORGIA	1	29.0000
168	SOUTH RIVER - SWAIPSAC SHOALS	GEORGIA	1	29.0000

TABLE A-7. (Continued)

OBS	LOC	STATE	N	MEAN
169	OCMULGEE RIVER NEAR MACON WATER INT	GEORGIA	1	29
170	OCMULGEE RIVER .6 MI DOWNSTREAM TOBE	GEORGIA	1	29
171	ALTAMAHA RIVER .6 MI DOWNSTREAM OF	GEORGIA	1	29
172	SATILLA R. GA HWYS 15 & 121	GEORGIA	1	29
173	SUWANNEE RIVER NEAR US HWY 441	GEORGIA	1	29
174	OCHLOCKNEE R. BRNG 3.7MI N.ST LN	GEORGIA	1	29
175	FLINT RIVER NEAR GA HWY 92	GEORGIA	1	29
176	FLINT RIVER NEAR PLANT MITCHELL WAT	GEORGIA	1	29
177	CHATTAHOOCHEE RIVER AT COBB CO WATR	GEORGIA	1	29
178	CHATTAHOOCHEE RIVER AT GA HWY 92	GEORGIA	1	29
179	CHATTAHOOCHEE RIVER NEAR GA HWY 91	GEORGIA	1	29

TABLE A-8. FRESHWATER REGIONS CONTAINING ELEVATED SEDIMENT LEVELS OF ACENAPHTHALENE. CONCENTRATIONS ARE IN µg/kg.

OBS	LOC	STATE	N	MEAN
1	T E MAXON STP AT MEMPHIS TN TO MISS	TENNESSEE	1	380000
2	MILLINGTON STP AT MILLINGTON TN TO	TENNESSEE	1	80000
3	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	30000
4	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	30000
5	MEMPHIS TENN AT HOLLYWOOD RD AREA S	TENNESSEE	1	20000
6	MEMPHIS TENN AT HOLLYWOOD RD AREA S	TENNESSEE	1	20000
7	SUISUN BAY S. OF MIDDLE GROUND	CALIFORNIA	1	10000
8	NEW YORK SLOUGH	CALIFORNIA	1	10000
9	S.F. AIRPORT INDUSTRIAL PLANT	CALIFORNIA	1	10000
10	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	10000
11	MEMPHIS TENN AT PRATSER POND AREA S	TENNESSEE	1	10000
12	MEMPHIS TENN AT PRATSER POND AREA S	TENNESSEE	1	10000
13	HOOKER HAMILL ROAD CULVERT	TENNESSEE	1	10000
14	TAMPA FL AT SYDNEY MINE HAZARDOUS W	FLORIDA	1	10000
15	TAMPA FL AT SYDNEY MINE HAZARDOUS W	FLORIDA	1	5000
16	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
17	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
18	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
19	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
20	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
21	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
22	SMITHS DUMP SITE AT BROOKS RT TO BL	KENTUCKY	1	5000
23	EAGLE LAKE NEAR VICKSBURG MS	MISSISSIPPI	1	5000
24	TENNESSEE EXPOSURE RISK SURVEY	NORTH CAROLINA	1	5000
25	PIGEON RIVER EXPOSURE RISK STUDY	NORTH CAROLINA	1	5000
26	CHEMTRONICS INC NHSI AT ASHEVILLE N	NORTH CAROLINA	1	5000
27	CHEMTRONICS INC NHSI AT ASHEVILLE N	NORTH CAROLINA	1	5000
28	ACADEMY DRUM NHS AT CHARLOTTE NC	NORTH CAROLINA	1	5000
29	ACADEMY DRUM NHS AT CHARLOTTE NC	NORTH CAROLINA	1	5000
30	ACADEMY DRUM NHS AT CHARLOTTE NC	NORTH CAROLINA	1	5600
31	ACADEMY DRUM NHS AT CHARLOTTE NC	NORTH CAROLINA	1	5000
32	OLD HWY 27 DUMP AT MT HOLLY NC	NORTH CAROLINA	1	5000
33	OLD HWY 27 DUMP AT MT HOLLY NC	NORTH CAROLINA	1	5000
34	JADCO HUGHES PROPERTY AT BELMONT NC	NORTH CAROLINA	1	5000
35	INDUSTRIAL CHEM CO PLANT SITE NR RO	SOUTH CAROLINA	1	5000
36	INDUSTRIAL CHEM CO AREA NEAR ROCK H	SOUTH CAROLINA	1	5000
37	INDUSTRIAL CHEM CO PLANT SITE NR RO	SOUTH CAROLINA	1	5000
38	INDUSTRIAL CHEM CO LANDFILL NR ROCK	SOUTH CAROLINA	1	5000
39	ETHYL CORPORATION CHEMICAL DIV AT O	SOUTH CAROLINA	1	5000
40	MEMPHIS TENN AT HOLLYWOOD RD AREA S	TENNESSEE	1	5000
41	MEMPHIS TENN AT WINSTON DR AREA SAM	TENNESSEE	1	5000
42	MEMPHIS TENN AT WINSTON DR AREA SAM	TENNESSEE	1	5000
43	MEMPHIS TENN AT WINSTON DR AREA SAM	TENNESSEE	1	5000
44	MEMPHIS TENN AT PRATSER POND AREA S	TENNESSEE	1	5000
45	MEMPHIS TENN AT PRATSER POND AREA S	TENNESSEE	1	5000
46	MEMPHIS TENN AT PRATSER POND AREA S	TENNESSEE	2	5000
47	MEMPHIS TENN AT PRATSER POND AREA S	TENNESSEE	2	5000
48	MEMPHIS TENN AT PRATSER POND AREA S	TENNESSEE	2	5000
49	MEMPHIS TENN AT PRATSER POND AREA S	TENNESSEE	2	5000
50	MEMPHIS TENN AT PRATSER POND AREA S	TENNESSEE	2	5000
51	MEMPHIS TENN AT PRATSER POND AREA S	TENNESSEE	2	5000
52	MEMPHIS TENN AT PRATSER POND AREA S	TENNESSEE	1	5000
53	MEMPHIS TENN AT PRATSER POND AREA S	TENNESSEE	2	5000
54	MEMPHIS TENN AT PRATSER POND AREA S	TENNESSEE	1	5000
55	MEMPHIS TENN AT PRATSER POND AREA S	TENNESSEE	2	5000
56	MEMPHIS TENN AT PRATSER POND AREA S	TENNESSEE	2	5000

TABLE A-8. (Continued)

Obs	Loc	State	N	Mean
57	TENNESSEE DIOXOUNE NISA SURVEY AT M	TENNESSEE	1	5000
58	TENNESSEE DIOXOUNE NISA SURVEY AT N	TENNESSEE	1	5000
59	TENNESSEE DIOXOUNE NISA SURVEY AT J	TENNESSEE	1	5000
60	MEMPHIS AREA HAZARDOUS WASTE SITE I	TENNESSEE	1	5000
61	MEMPHIS AREA HAZARDOUS WASTE SITE I	TENNESSEE	1	5000
62	MEMPHIS AREA HAZARDOUS WASTE SITE I	TENNESSEE	1	5000
63	MEMPHIS AREA HAZARDOUS WASTE SITE I	TENNESSEE	1	5000
64	WAILUKU BAY	HAWAII	1	2717
65	MUCK SLOUGH AT DELTA HY BRIDGE	CALIFORNIA	1	2500
66	SAN JOAQUIN R AT ANTIOCH RAMP	CALIFORNIA	1	2500
67	EEL RIVER AT MIO REAL, DAVIS STREET	CALIFORNIA	1	2500
68	LAS VEGAS WASH AT NORTH SHORE ROAD	NEVADA	1	2500
69	CALLVILLE BAY LAKE MEAD	NEVADA	1	2500
70	LAS VEGAS BAY LAKE MEAD	NEVADA	1	2500
71	SAN JOAQUIN RIVER AT STANISLAUS CO.	CALIFORNIA	1	2500
72	LAKE MENDOCINO AT HWY 20 BRIDGE	CALIFORNIA	1	2500
73	RUSSIAN RIVER AT UKIAH TREATMENT PL	CALIFORNIA	1	2500
74	RUSSIAN RIVER - MONTE RIO	CALIFORNIA	1	2500
75	MAD RIVER AT ESSEX LANE	CALIFORNIA	1	2500
76	SANTA CRUZ BELOW NUGLE ROAD WASTE W	ARIZONA	1	2500
77	TOPAZ LAKE	NEVADA	1	2500
78	HILO BAY	HAWAII	2	2138
79	SPOKANE R AT SPOKANE STP OUTFALL	WASHINGTON	2	2000
80	SPOKANE R 0.5 MI BL SPOKANE STP	WASHINGTON	2	2000
81	SPOKANE R 1.5 MI BL SPOKANE STP	WASHINGTON	2	2000
82	SPOKANE R AT POST FALLS ID	IDAHO	1	2000
83	SPOKANE R .5 MI ABV COEUR D'ALENE S	IDAHO	1	2000
84	SPOKANE R @ HW 95 .5 MI AB C D'ALEN	IDAHO	1	2000
85	SPOKANE RIVER 3.5 MI. BELOW COEUR D	IDAHO	1	2000
86	YAKIMA RIVER @ RNI 224 NR. RICHLAND	WASHINGTON	1	2000
87	NACHES R @ YAKIMA RUN. WTP INTAKE (	WASHINGTON	1	2000
88	NACHES R @ MOUTH @ TWIN BRIDGES NR	WASHINGTON	1	2000
89	COLUMBIA R @ PASCO WTP INTAKE (RM3)	WASHINGTON	1	2000
90	PONTNEUF R 1/4 MI ABV POCATELLO STP	IDAHO	1	2000
91	PONTNEUF R 1/4 MI BELOW POCATELLO S	IDAHO	1	2000
92	PONTNEUF R 3/4 MI BELOW POCATELLO S	IDAHO	1	2000
93	BATTISE SPRINGS 3/4 MI BELOW PUMPING	IDAHO	1	2000
94	RICHLAND WTP INTAKE (COLUMBIA R)	WASHINGTON	1	2000
95	SKOPONISH RIVER AT STATE HIGHWAY 10	WASHINGTON	1	2000
96	BIG QUILCENE RIVER AT PORT TOWNSEND	WASHINGTON	1	2000
97	WASHINGTON, HA, WATER SUPPLY	WASHINGTON	1	2000
98	HORSE CREEK AT U.S. 101 BRIDGE	WASHINGTON	1	2000
99	CLEAR LAKE @ RECREA, OREGON WATER I	OREGON	1	2000
100	EEL LAKE @ LAKESIDE, OREGON WATER I	OREGON	1	2000
101	CLEAR LAKE 3 SPRINGFIELD, OREGON WATE	OREGON	1	2000
102	RING CR. RESERVOIR @ COQUILLE WATER	OREGON	1	2000
103	MORRISVILLE AREA HAZARDOUS WASTE SI	NORTH CAROLINA	1	2000
104	ALAMO LAKE	ARIZONA	1	1971
105	ANTOON HILL (SOIL)	NEW IORK	1	1900
106	HUMBOLT RIVER @ IRIAT	NEVADA	1	1157
107	TUPA RIVER NEAR MANTSVILLE	CALIFORNIA	1	1930
108	AMERICAN R. AT FLORENCE ST.	CALIFORNIA	1	1750
109	BUFFALO CR AT AMERICAN RIVER	CALIFORNIA	1	1720
110	SALINAS RIVER AT GONZALES	CALIFORNIA	1	1695
111	MOULDER CREEK AT MOUTH	ARIZONA	1	1654
112	CARSON R. @ NIVERVILLE	NEVADA	1	1604

TABLE A-8. (Continued)

OBS	LOC	STATE	N	MEAN
113	OWENS R BL TINEMAHA RES.	CALIFORNIA	1	1640.00
114	SANTA ANA RIVER MEAD PEAK DAM	CALIFORNIA	1	1631.00
115	TRUCKEE RIVER AT FORGOOD	NEVADA	2	1617.50
116	BOULDER CREEK ABOVE WILDEN CREEK	ARIZONA	1	1594.00
117	AMERICAN R. ABOVE SUBASIDE RR	CALIFORNIA	1	1590.00
118	AMERICAN R. AT WATTS AVE.	CALIFORNIA	1	1590.00
119	COPPER CREEK AB BOULDER CREEK	ARIZONA	1	1551.00
120	GILA RIVER AT GILLESPIE DAM	ARIZONA	2	1513.00
121	LAHONTAN DAM	NEVADA	1	1483.00
122	COLORADO RIVER LEVON PARKER DAM	ARIZONA	1	1461.00
123	COLORADO R. @ YUMA	ARIZONA	1	1399.00
124	KAHULUI HARBOR	HAWAII	2	1292.00
125	PEARL HARBOR @, LOCK	HAWAII	1	1250.00
126	ALA WAI CANAL	HAWAII	1	1250.00
127	@. FORK ONTHEE RIVER @ ONTHEE	NEVADA	1	1250.00
128	CARSON R @ NEW EMPIRE	NEVADA	2	1209.00
129	S. FORK TOLT AT SEATTLE D.W. INTAKE	WASHINGTON	2	1200.00
130	CEDAR R. NR LANDSBURG (SEATTLE D.W.	WASHINGTON	2	1200.00
131	DUWAMISH RIVER NEAR KENT (AB 18.30)	WASHINGTON	2	1200.00
132	TRUCKEE RIVER AT FARAD	CALIFORNIA	3	1185.00
133	LAKE TAHOE AT SAND HARBOR	NEVADA	2	1114.50
134	SPOKANE R 0.5 MI AB SPOKANE STP	WASHINGTON	2	1014.50
135	SEDIMENT AB ADAIR WATER INTAKE	OREGON	1	1000.00
136	BEAVERTON CR AB TUALATIN PP	OREGON	1	1000.00
137	BEAVERTON CR .5MI BL TUALATIN PP	OREGON	1	1000.00
138	BEAVERTON CR @ TUALATIN OUTFALL	OREGON	1	1000.00
139	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	1000.00
140	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	1000.00
141	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	1000.00
142	PENSACOLA HAZARDOUS WASTE SITE BEUL	FLORIDA	1	1000.00
143	PENSACOLA HAZARDOUS WASTE SITE BEUL	FLORIDA	1	1000.00
144	MEMPHIS AREA HAZARDOUS WASTE SITE 1	TENNESSEE	1	1000.00
145	HARTLL ROAD BRIDGE	TENNESSEE	1	900.00
146	RAILROAD BRIDGE	TENNESSEE	1	890.00
147	ROOSEVELT LAKE SALT R. AAR	ARIZONA	2	874.65
148	ANTHON HILL (520)	NEW YORK	1	800.00
149	EAST 30TH. STREET BRIDGE	TENNESSEE	2	800.00
150	LENI LAKE	ARIZONA	1	786.10
151	MORTLUMNE R AT WOODBRIDGE	CALIFORNIA	1	733.10
152	BUCKEYE Canal @ LITCHFIELD	ARIZONA	1	725.00
153	TUOLUMNE RIVER AT TUOLUMNE CITY	CALIFORNIA	1	693.40
154	PATAGONIA LAKE	ARIZONA	1	651.00
155	ALAMO R NR CALIPATRIA	CALIFORNIA	1	639.30
156	SAN FRANCISCO R. AT CLIFTON	ARIZONA	1	636.90
157	CALCASIEU R AT POES LAKE	LOUISIANA	1	500.00
158	NECHES R SHIP BU OF PORT ARTHUR	TEXAS	2	500.00
159	OUACHITA R-CAMDEN WATER SUPPLY	ARKANSAS	1	500.00
160	RIO GRANDE RIVER AT ISLETA DIVERSIO	NEW MEXICO	2	500.00
161	ELLSO WATER INTAKE (COWLITZ R)	WASHINGTON	1	400.00
162	KALAMA WATER INTAKE (KALAMA R)	WASHINGTON	1	400.00
163	SNOHOMISH RIVER AT SNOHOMISH	WASHINGTON	1	400.00
164	PUYALLUP RIVER AT PUYALLUP	WASHINGTON	1	400.00
165	VASHON ISLAND : WELL 01 (01)	WASHINGTON	1	400.00
166	VASHON ISLAND : WELL 02 (02)	WASHINGTON	1	400.00
167	UNION R @ HAPPEATON RUN WATER INTAK	WASHINGTON	1	400.00
168	SAMMAMISH RIVER AT WOODINVILLE	WASHINGTON	1	400.00

TABLE A-8. (Continued)

OBS	LOC	STATE	N	MEAN
169	CHEHALIS R NR CENTRALIA	WASHINGTON	1	400.000
170	BF NEWAUKUM R @ CENTRALIA INTAKE	WASHINGTON	1	400.000
171	IOWA RIVER AT MARSHALLTOWN WTP	IOWA	2	262.000
172	TRIBUTARY TO CHATTANOOGA CREEK 0.3	TENNESSEE	1	260.000
173	LITTLE SIOUX R WEST OF SPENCER	IOWA	1	250.000
174	LITTLE SIOUX R AT LINN GROVE	IOWA	1	250.000
175	IOWA RIVER DWNST OF MARSHALLTOWN	IOWA	2	244.000
176	RAW WATER INTAKE AT DAVENPORT	IOWA	3	242.333
177	DUWAMISH R. BELOW RENTON STP (RM 9.	WASHINGTON	2	230.000
178	ARKANSAS R NEAR DEPOT KANSAS	KANSAS	1	200.000
179	ARKANSAS RIVER ABV	KANSAS	1	200.000
180	COWSKIN CREEK AT HOOVER ST S	KANSAS	1	200.000
181	LITTLE ARKANSAS R AT MAIN ST	KANSAS	1	200.000
182	AT GAGING STATION	GEORGIA	1	200.000
183		TENNESSEE	1	200.000
184		TENNESSEE	1	200.000
185	WILSON ROAD BRIDGE	TENNESSEE	1	200.000
186	TRIBUTARY TO CHATTANOOGA CREEK 2.2	TENNESSEE	1	200.000
187	POND NEAR TENNESSEE-GEORGIA STATE L	TENNESSEE	1	200.000
188	TRIBUTARY TO CHATTANOOGA CREEK 4.45	TENNESSEE	1	200.000
189	BOULDER CREEK BELOW MULHOLLAND WASH	ARIZONA	1	190.000
190	DOWNSTREAM SIDE RMT 280 RM	IOWA	3	174.000
191	SHELLROCK R. UPST OF NORTHWOOD	IOWA	2	171.000
192	DES MOINES R AT EUCLID AVE RM	IOWA	4	146.000
193	ST. LOUIS RIVER AT CLOQUET	MINNESOTA	1	110.000
194	CLAY CREEK AT ROUTE 104	CALIFORNIA	1	100.000
195	RIO LA PLATA RESERVOIR	PUERTO RICO	1	93.000
196	KCKA-RAW WATER SUPPLY RO R	KANSAS	1	92.000
197	KO WATER COMPANY WATER SUPPLY	MISSOURI	1	92.000
198	ROANOKE STREET CSO	WASHINGTON	1	76.790
199	RIO LA PLATA RESERVOIR	PUERTO RICO	1	66.000
200	T E MAXON STP AT MEMPHIS TN TO MISS	TENNESSEE	1	60.000
201	6 MILES EAST OF SANDY HOOK ST PK	NEW JERSEY	1	58.000
202	8.6MI EAST OF SANDY HOOK ST PK	NEW JERSEY	1	58.000
203	RIO LA PLATA RESERVOIR NEAR DAM	PUERTO RICO	1	41.000
204	DEPOT WAY REGULATOR CSO	WASHINGTON	1	29.790
205	7.4MI EAST OF SANDY HOOK ST PK	NEW JERSEY	1	28.000
206	JOHN P. FAZIO LANDFILL, BELLMAWR B.	NEW JERSEY	1	21.000
207	PA-250 SCIOTO BIG RUN RM 1 270 RM C	OHIO	1	20.000
208	WASTE DISPOSAL INC. NEWPORT,NJ	NEW JERSEY	1	17.000
209	MADISON PARK CSO	WASHINGTON	1	10.690
210	RAMAPO R NR DARLINGTON NJ	NEW JERSEY	1	10.000
211	NEAR SHARP RR NR OAKLAND NJ	NEW JERSEY	1	10.000

TABLE A-9. FRESHWATER REGIONS CONTAINING ELEVATED SEDIMENT LEVELS OF ANTHRACENE. CONCENTRATIONS ARE IN µg/kg.

OBS	LOC	STATE	N	MEAN
1	GR AT VERNON INDIANA MI.0	INDIANA	2	410000
2	F E MAHON STP AT MEMPHIS TN TO MISS	TENNESSEE	1	360000
3	MILLINGTON STP AT MILLINGTON TN TO	TENNESSEE	1	80000
4	HOOKER HARRELL ROAD COVENT	TENNESSEE	1	33000
5	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	10000
6	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	30000
7	MEMPHIS TENN AT HOLLYWOOD RD AREA S	TENNESSEE	1	20000
8	MEMPHIS TENN AT HOLLYWOOD RD AREA S	TENNESSEE	1	20000
9	TRIBUTARY TO CHATTANOOGA CREEK 0.3	TENNESSEE	1	17000
10	HARRELL ROAD BRIDGE	TENNESSEE	1	17000
11	RAILROAD BRIDGE	TENNESSEE	1	15000
12	SUISUN BAY S. OF MIDDLE GROUND	CALIFORNIA	1	10000
13	PEA TOWN SLOUGH	CALIFORNIA	1	10000
14	S.F. AIRPORT INDUSTRIAL PLANT	CALIFORNIA	1	10000
15	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	10000
16	MEMPHIS TENN AT HOLLYWOOD RD AREA S	TENNESSEE	1	7400
17	EAST 39TH. STREET BRIDGE	TENNESSEE	2	6350
18	TAMPA FL AT STOREY MINE HAZARDOUS W	FLORIDA	1	5000
19	TAMPA FL AT STOREY MINE HAZARDOUS W	FLORIDA	1	5000
20	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
21	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
22	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
23	EAGLE LAKE NEAR VICKSBURG MS	MISSISSIPPI	1	5000
24	PIGEON RIVER EXPOSURE RISK STUDY	NORTH CAROLINA	1	5000
25	CHEMTRONICS INC NBS1 AT ASHEVILLE N	NORTH CAROLINA	1	5000
26	CHEMTRONICS INC NBS1 AT ASHEVILLE N	NORTH CAROLINA	1	5000
27	ACADEMY DRUM NWS AT CHARLOTTE NC	NORTH CAROLINA	1	5000
28	ACADEMY DRUM NWS AT CHARLOTTE NC	NORTH CAROLINA	1	5000
29	ACADEMY DRUM NWS AT CHARLOTTE NC	NORTH CAROLINA	1	5000
30	ACADEMY DRUM NWS AT CHARLOTTE NC	NORTH CAROLINA	1	5000
31	JADCO HUGHES PROPERTY AT BELMONT NC	NORTH CAROLINA	1	5000
32	INDUSTRIAL CHEM CO PLANT SITE NR RO	SOUTH CAROLINA	1	5000
33	INDUSTRIAL CHEM CO AREA NEAR ROCK H	SOUTH CAROLINA	1	5000
34	INDUSTRIAL CHEM CO PLANT SITE NR RO	SOUTH CAROLINA	1	5000
35	INDUSTRIAL CHEM CO LANDFILL NR ROCK	SOUTH CAROLINA	1	5000
36	ETHYL CORPORATION CHEMICAL DIV AT O	SOUTH CAROLINA	1	5000
37	MEMPHIS TENN AT WINSTON DR AREA SAM	TENNESSEE	1	5000
38	MEMPHIS TENN AT WINSTON DR AREA SAM	TENNESSEE	1	5000
39	MEMPHIS TENN AT WINSTON DR AREA SAM	TENNESSEE	1	5000
40	MEMPHIS TENN AT SHAYSEN POND AREA S	TENNESSEE	1	5000
41	MEMPHIS TENN AT SHAYSEN POND AREA S	TENNESSEE	1	5000
42	MEMPHIS AREA HAZARDOUS WASTE SITE 1	TENNESSEE	1	5000
43	MEMPHIS AREA HAZARDOUS WASTE SITE 1	TENNESSEE	1	5000
44	MEMPHIS AREA HAZARDOUS WASTE SITE 1	TENNESSEE	1	5000
45	TRIBUTARY TO CHATTANOOGA CREEK 2.2	TENNESSEE	1	4800
46	ARTHUR KILL (507)	NEW YORK	1	4600
47	DENBY HAY REGULATON CSO	WASHINGTON	1	3162
48	MEMPHIS AREA HAZARDOUS WASTE SITE 1	TENNESSEE	1	3000
49	WAHILAWAI BAY	HAWAII	1	2717
50	ROCK SLOUGH AT DELTA RD BRIDGE	CALIFORNIA	1	2500
51	SAN JOAQUIN R AT ANTIOCH RAMP	CALIFORNIA	1	2500
52	EEL RIVER AT MID DELL, DAVIS STREET	CALIFORNIA	1	2500
53	LAS VEGAS WASH AT NORTH 5MORE ROAD	NEVADA	1	2500
54	CALLVILLE BAY LAKE MEAD	NEVADA	1	2500
55	LAS VEGAS BAY LAKE MEAD	NEVADA	1	2500
56	SAN JOAQUIN RIVER AT STANISLAUS CO.	CALIFORNIA	1	2500

TABLE A-9. (Continued)

OBS	LOC	STATE	N	MEAN
57	LAKE HEADQUARTERS AT HWY 20 BRIDGE	CALIFORNIA	1	2500.00
58	RUSSIAN RIVER AT UKIAH TREATMENT PL	CALIFORNIA	1	2500.00
59	RUSSIAN RIVER - HOPLAND	CALIFORNIA	1	2500.00
60	RAD RIVER AT ESSEX LANE	CALIFORNIA	1	2500.00
61	SANTA CRUZ BELOW BOGEN ROAD WASTE W	ARIZONA	1	2500.00
62	TOPAZ LAKE	NEVADA	1	2500.00
63	HILO BAY	HAWAII	2	2138.00
64	HOUSTON SHIP CHANNEL AT THE TURNING	TEXAS	1	2000.00
65	SPOKANE R U.S MI AB SPOKANE STP	WASHINGTON	2	2000.00
66	SPOKANE R AT SPOKANE STP OUTFALL	WASHINGTON	2	2000.00
67	SPOKANE R 0.5 MI BL SPOKANE STP	WASHINGTON	2	2000.00
68	SPOKANE R 1.5 MI BL SPOKANE STP	WASHINGTON	2	2000.00
69	SPOKANE R AT POST FALLS ID	IDAHO	1	2000.00
70	SPOKANE R .5 MI ABV COEUR D'ALENE S	IDAHO	1	2000.00
71	SPOKANE R @ HWY 95 .3 MI AB C D'ALEN	IDAHO	1	2000.00
72	SPOKANE RIVER 3.5 MI. BELOW COEUR D	IDAHO	1	2000.00
73	YAKIMA RIVER @ HWY 2.4 MI. RICHLAND	WASHINGTON	1	2000.00
74	WACHES R @ YAKIMA RUN. WTR INTAKE (	WASHINGTON	1	2000.00
75	WACHES R @ MOUTH @ TWIN BRIDGES WA	WASHINGTON	1	2000.00
76	COLUMBIA R @ PASCO WTP INTAKE (HWY33	WASHINGTON	1	2000.00
77	PORTNEUF R 1/4 MI ABV POCATELLO STP	IDAHO	1	2000.00
78	PORTNEUF R 1/4 MI BELOW POCATELLO S	IDAHO	1	2000.00
79	PORTNEUF R 3/4 MI BELOW POCATELLO S	IDAHO	1	2000.00
80	BATTLE SPRINGS 3/4 MI BELOW PUMPING	IDAHO	1	2000.00
81	RICHLAND WTP INTAKE (COLUMBIA R)	WASHINGTON	1	2000.00
82	SKOKOMISH RIVER AT STATE HIGHWAY 10	WASHINGTON	1	2000.00
83	BIG QUILCENE RIVER AT PORT TOWNSEND	WASHINGTON	1	2000.00
84	MANCHESTER, WA. WATER SUPPLY	WASHINGTON	1	2000.00
85	HORSE CREEK AT U.S. 101 BRIDGE	WASHINGTON	1	2000.00
86	CLEAR LAKE @ RECETA, OREGON WATER I	OREGON	1	2000.00
87	EEL LAKE @ LAKESIDE, OREGON WATER I	OREGON	1	2000.00
88	CLEAR LAKE @ REEDSPORT, OREGON WATE	OREGON	1	2000.00
89	BIRA CR. RESERVOIR @ COQUILLE WATER	OREGON	1	2000.00
90	MORRISVILLE AREA HAZARDOUS WASTE SI	NORTH CAROLINA	1	2000.00
91	ALAMO LAKE	ARIZONA	1	1971.00
92		TENNESSEE	1	1900.00
93	HUMBOLT RIVER @ IMLAY	NEVADA	1	1857.00
94	YUBA RIVER NEAR MARYSVILLE	CALIFORNIA	1	1830.00
95	ARTHUR HILL (520)	NEW YORK	1	1800.00
96	AMERICAN R. AT ELKHORN ST.	CALIFORNIA	1	1750.00
97	BUFFALO CR AT AMERICAN RIVER	CALIFORNIA	1	1726.00
98	SALINAS RIVER AT GONZALES	CALIFORNIA	1	1698.00
99	BOULDER CREEK AT MOUTH	ARIZONA	1	1698.00
100	CARSON R. @ RIVERTON	NEVADA	1	1664.00
101	ONEAS R BL TIMBANA RES.	CALIFORNIA	1	1640.00
102	SANTA ANA RIVER BELOW PRADO DAM	CALIFORNIA	1	1631.00
103	TRUCKEE RIVER AT LOCKWOOD	NEVADA	2	1617.50
104	BOULDER CREEK ABOVE WILDER CREEK	ARIZONA	1	1594.00
105	AMERICAN R. ABOVE SUNRISE BR.	CALIFORNIA	1	1590.00
106	AMERICAN R. AT WATTS AVE.	CALIFORNIA	1	1590.00
107	COPPER CREEK AB BOULDER CREEK	ARIZONA	1	1551.00
108	GILA RIVER AT GILLESPIE DAM	ARIZONA	2	1513.00
109	LABONTAN DAM	NEVADA	1	1493.00
110	COLORADO RIVER BELOW PARKER DAM	ARIZONA	1	1461.00
111	ARTHUR KILL (506)	NEW YORK	1	1460.00
112		TENNESSEE	1	1460.00

TABLE A-9. (Continued)

OBS	LOC	STATE	N	MEAN
113	COLORADO R. @ YUMA	ARIZONA	1	1399.60
114	KAHULUI HARBOR	HAWAII	2	1292.00
115	PEARL HARBOR E. LOCH	HAWAII	1	1250.00
116	ALA WAI CANAL	HAWAII	1	1250.00
117	L. TOHO ONTARE RIVER @ ONTARE	NEVADA	1	1250.00
118	CARSON R @ DEN EMPIRE	NEVADA	2	1209.00
119	S. FORK TOLT AT SEATTLE D.W. INTAKE	WASHINGTON	2	1200.00
120	CEDAR R. BN LANDSBURG (SEATTLE D.W.	WASHINGTON	2	1200.00
121	DUWAMISH R. BELOW RENTON STP (RM 9.	WASHINGTON	2	1200.00
122	DUWAMISH RIVER NEAR KENT (RM 18.30)	WASHINGTON	2	1200.00
123	TRUCKEE RIVER AT FARAD	CALIFORNIA	3	1185.00
124	LAKE TAHOE AT SAND HARBOR	NEVADA	2	1119.50
125	0.6MI EAST OF SANDY HOOK ST PK	NEW JERSEY	1	1100.00
126	SEDIMENT BN ADAIR WATER INTAKE	OREGON	1	1000.00
127	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	1000.00
128	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	1000.00
129	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	1000.00
130	PENSACOLA HAZARDOUS WASTE SITE BEUL	FLORIDA	1	1000.00
131	PENSACOLA HAZARDOUS WASTE SITE BEUL	FLORIDA	1	1000.00
132	MEMPHIS AREA HAZARDOUS WASTE SITE 1	TENNESSEE	1	1000.00
133	ROOSEVELT LAKE SALT R. ARM	ARIZONA	2	874.65
134	QUEBRADA PRONTENA 600 M DOWNSTREAM	PUERTO RICO	1	820.00
135	LYNX LAKE	ARIZONA	1	786.10
136	ROBERTSONS R AT WOODBRIDGE	CALIFORNIA	1	733.10
137	BUCKEYE CANAL @ LITCHFIELD	ARIZONA	1	725.00
138	TUOLUMNE RIVER AT TUOLUMNE CITY	CALIFORNIA	1	693.40
139	PATAGONIA LAKE	ARIZONA	1	651.00
140	ALAMO R BN CALIFORNIA	CALIFORNIA	1	639.30
141	SAN FRANCISCO R. AT CLIFTON	ARIZONA	1	636.90
142	ASHTABULA HARBOR	OHIO	4	572.50
143	JOHN P. FAZIO LANDFILL, HELLMANN R.	NEW JERSEY	2	500.00
144	CALCASIEU R AT HOGS LAKE	LOUISIANA	1	500.00
145	NECHES R SHIP BU OF PORT ARTHUR	TEXAS	2	500.00
146	I-90 FREEWAY DRAIN --- LAKE WASHING	WASHINGTON	1	498.50
147	DES MOINES R AT EUCLID AVE BR	IOWA	2	490.00
148	TRIBUTARY TO CHATTANOOGA CREEK 0.45	TENNESSEE	1	490.00
149	DOWNSTREAM SIDE HWY 260 BR	IOWA	1	480.00
150	MAN WATER INTAKE AT DAVENPORT	IOWA	1	480.00
151	SHELLROCK R. UPST OF NORTHWOOD	IOWA	1	480.00
152	2000 FT. ABOVE L. POWNAL DAM TOXIC	VERMONT	1	410.00
153	ALLSO WATER INTAKE (COWLITZ R)	WASHINGTON	1	400.00
154	KALAMA WATER INTAKE (KALAMA R)	WASHINGTON	1	400.00
155	WOODLAND WATER INTAKE (LEWIS R)	WASHINGTON	1	400.00
156	SNOHOMISH RIVER AT SNOHOMISH	WASHINGTON	1	400.00
157	PUYALLUP RIVER AT PUYALLUP	WASHINGTON	1	400.00
158	VASHON ISLAND : WELL #1 (NE)	WASHINGTON	1	400.00
159	VASHON ISLAND : WELL #2 (SE)	WASHINGTON	1	400.00
160	UNION R @ BREMERTON MUN WATER INTAK	WASHINGTON	1	400.00
161	SAMMAMISH RIVER AT WOODINVILLE	WASHINGTON	1	400.00
162	CHEHALIS R BN CENTRALIA	WASHINGTON	1	400.00
163	NF CHEHALIS R @ CENTRALIA INTAKE	WASHINGTON	1	400.00
164	ARTHUR KILL (503)	NEW YORK	1	400.00
165	WASTE DISPOSAL INC. NEWPORT,NJ	NEW JERSEY	2	364.00
166	7.4MI EAST OF SANDY HOOK ST PK	NEW JERSEY	1	320.00
167	DUWAMISH RIVER S. OF HARBOR AVENUE	WASHINGTON	1	315.30
168	12MI EAST OF SANDY HOOK ST PK	NEW JERSEY	1	270.00

TABLE A-9. (Continued)

OBS	LOC	STATE	N	MEAN
169	PRINCETON DISPOSAL - SOUTH BRUNSWIC	NEW JERSEY	3	261.000
170	QUEBRADA FRONTERA 1200 M DOWNSTREAM	PUERTO RICO	1	240.000
171	QUEBRADA FRONTERA 2 M UPSTREAM FROM	PUERTO RICO	1	220.000
172	6 MILES EAST OF SANDY HOOK ST PK	NEW JERSEY	1	210.000
173	QUEBRADA FRONTERA 1050 M DOWNSTREAM	PUERTO RICO	1	206.000
174	BEAVERTON CR AB TERTRONIX EFF	OREGON	1	200.000
175	AT GAGING STATION	GEORGIA	1	490.000
176	WILSON ROAD BRIDGE	TENNESSEE	1	200.000
177	POND NEAR TENNESSEE-GEORGIA STATE L	TENNESSEE	1	200.000
178	BOULDER CREEK BELOW ROLLINGLAND RASH	ARIZONA	1	190.000
179	ADJACENT SOUTH SIDE OF HORN	NEW JERSEY	1	160.000
180	BEHIND BREAKWATER 2000 FT SOUTH OF	VERMONT	1	160.000
181	2.5MI SE OF ARMHOSE HORN	NEW JERSEY	1	140.000
182	4000 FT BELOW EAST CREEK RUTLAND TO	VERMONT	1	140.000
183	LAKE WASHINGTON NEAR CENTER	WASHINGTON	1	136.000
184	MURROCK STREET CSO	WASHINGTON	1	131.600
185	QUEBRADA FRONTERA 10 M BELOW ALCOLO	PUERTO RICO	1	114.000
186	1000 FT. BELOW N. POMBAL DAM AB TAR	VERMONT	1	110.000
187	MACK'S SANITARY LANDFILL - DEPTFORD	NEW JERSEY	2	108.500
188	CLAY CREEK AT HOUSE 104	CALIFORNIA	1	100.000
189	EAST BRANCH NED CLAY CREEK NEAR PIV	PENNSYLVANIA	1	83.000
190	WATER DISTRICT INTAKE BETWEEN PAMB	VERMONT	1	80.000
191	POWER LINE CROSSING 3.5 MI ABOVE PI	VERMONT	1	80.000
192	CLINTON R AT I-94 BRIDGE; HARRISON	MICHIGAN	1	61.000
193	T & HARON STP AT MEMPHIS TN TO MISS	TENNESSEE	1	60.000
194	SCHENECTADY CHEMICAL CORPORATION NO	NEW YORK	2	50.000
195	CARRAIZO (LAGO LOIZA) RESERVOIR NEA	PUERTO RICO	1	50.000
196	OFF LEHMAN PT AT IMC OUTFALL TOXIC	VERMONT	1	50.000
197	CARRAIZO (LAGO LOIZA) RESERVOIR	PUERTO RICO	1	48.000
198	9.5MI SOUTH OF ATLANTIC BEACH	NEW YORK	1	45.000
199	BEAVERTON CR .7MI BL TERTRONIX EFF	OREGON	1	40.000
200	MOUTH OF LAZY LADY ISLAND AT PMM 4	VERMONT	1	40.000
201	STORM DRAIN 7 --- LAKE WASHINGTON	WASHINGTON	1	35.790
202	BEAVERTON CR @ TERTRONIX OUTFALL	OREGON	1	30.000
203	ADJACENT TO ARRAYSE CHANNEL	NEW JERSEY	1	25.000
204	QUEBRADA FRONTERA 10 M BELOW NTE 3	PUERTO RICO	1	24.000
205	CLINTON R AT CROCKER ST BR; CITY OF	MICHIGAN	1	24.000
206	CEDAR RIVER AT MOUTH	WASHINGTON	1	23.790
207	IONAC CHEMICAL CORP, BIRMINGHAM, NJ	NEW JERSEY	3	23.000
208	SAMPAMISH RIVER AT MOUTH	WASHINGTON	1	22.290
209	CARRAIZO (LAGO LOIZA) RESERVOIR	PUERTO RICO	1	22.000
210	MADISON PARK CSO	WASHINGTON	1	20.390
211	BEAVERTON CR .5MI BL TERTRONIX EFF	OREGON	1	20.000
212	FR-250 SCIOTO BIG RUN BR I 270 BR C	OHIO	1	20.000
213	MONTLAKE STREET CSO	WASHINGTON	1	16.590
214	RAMAPO R AB DARLINGTON NJ	NEW JERSEY	1	10.000
215	BEAR SWAMP RB AB OAKLAND NJ	NEW JERSEY	1	10.000
216	FOX RIVER AT BRIGHTSTONE, WI	WISCONSIN	1	10.000
217	MANITOWOC RIVER AT MANITOWOC, WI	WISCONSIN	1	10.000
218	CLINTON R SPILLW HARPER AVE; CLINTO	MACOMB CO., MI	1	10.000

TABLE A-10. FRESHWATER REGIONS CONTAINING ELEVATED SEDIMENT LEVELS OF BENZO(A)ANTHRACENE. CONCENTRATIONS ARE IN µg/kg.

OBS	LOC	STATE	N	MEAN
1	QUEEN CITY DIS SITE MAPLE VALLEY/EC	WASHINGTON	1	14000.0
2	QUEEN CITY DIS SITE MAPLE VALLEY/PO	WASHINGTON	1	11000.0
3	QUEEN CITY DIS SITE MAPLE VALLEY/PO	WASHINGTON	1	2500.0
4	GLIDDEN PAINT CO AT ATLANTA GA TO A	GEORGIA	1	2500.0
5	HILO BAY	HAWAII	1	1250.0
6	IHP AT DENISON RAW WASTE	IOWA	1	1000.0
7	FARMALST RAW WASTE TO ANAEROBICS	IOWA	1	1000.0
8	FARMEST FINAL CLARIFIER EFF	IOWA	1	1000.0
9	YUBA RIVER NEAR MARYSVILLE	CALIFORNIA	2	650.0
10	LAHONTAN DAM	NEVADA	2	650.0
11	BOULDER CREEK AT PLOTH	ARIZONA	2	650.0
12	HUMBOLT RIVER @ IRLAY	NEVADA	2	637.5
13	BLUE RIVER AT STONEBRAIN	MISSOURI	1	400.0
14	BLUE RIVER SEDIMENT AT GUIDOTT)	MISSOURI	1	400.0
15	BLUE RIVER SEDIMENT AT I-435 RD	MISSOURI	1	400.0
16	BLUE RIVER AT MANCHESTER BRIDGE	MISSOURI	1	200.0
17	BLUE RIVER SEDIMENT AT 1n ST	MISSOURI	1	200.0
18	BLUE RIVER SEDIMENT AT 15 ST BR	MISSOURI	1	200.0
19	BLUE R. BR CONF./MISSOURI RIVER	MISSOURI	2	117.5
20	BLUE RIVER STATION 40 (BR-40)	MISSOURI	2	115.0
21	PHILLIPS ACAD SOUR WATER STRIP E	KANSAS	1	100.0
22	PHILLIPS RMS INFLUENT	KANSAS	1	100.0
23	MOBILE PAINT ORG CO MOBILE AL TO BJ	ALABAMA	1	100.0
24	ROCKY CREEK STP AT CHESTER SC TO RO	SOUTH CAROLINA	1	100.0
25	AMERICAN R. ABOVE SUNRISE DR	CALIFORNIA	1	50.0
26	BUFFALO CR AT AMERICAN RIVER	CALIFORNIA	1	50.0
27	AMERICAN R. AT ELDARTO ST.	CALIFORNIA	1	50.0
28	COLORADO RIVER BELOW PARKER DAM	ARIZONA	1	50.0
29	COLORADO R. @ YUMA	ARIZONA	1	50.0
30	BUCKEYE CANAL @ LITCHFIELD	ARIZONA	1	50.0
31	GILA RIVER AT GILLESPIE DAM	ARIZONA	1	50.0
32	ALAMO LAKE	ARIZONA	1	50.0
33	ALAMO R BR CALIPATRIA	CALIFORNIA	1	50.0
34	OWENS R BL TINEMAHA RES.	CALIFORNIA	1	50.0
35	SALINAS RIVER AT GONZALES	CALIFORNIA	1	50.0
36	SANTA ANA RIVER BELOW PRADO DAM	CALIFORNIA	1	50.0
37	PEARL HARBOR E. LOCH	HAWAII	1	50.0
38	ALA WAI CANAL	HAWAII	1	50.0
39	KANEOHE BAY	HAWAII	1	50.0
40	KAHULUI HARBOR	HAWAII	1	50.0
41	CARSON R. @ HAVENVIEW	NEVADA	1	50.0
42	CARSON R @ NEW EMPIRE	NEVADA	1	50.0
43	TOPAZ LAKE	NEVADA	1	50.0
44	E. FORK OWYHEE RIVER @ ONTARIO	NEVADA	1	50.0
45	COPPER CREEK AB BOULDER CREEK	ARIZONA	1	50.0
46	BOULDER CREEK ABOVE WILSON CREEK	ARIZONA	1	50.0
47	BOULDER CREEK BELOW ROSEMOLLAND WASH	ARIZONA	1	50.0
48	PHILLIPS ACAD SOUR WATER STRIP E	KANSAS	1	50.0
49	GOODYEAR-TOPEKA- FINAL LAGOON	KANSAS	1	50.0
50	ETHYL CORPORATION CHEMICAL DIV AT O	SOUTH CAROLINA	1	50.0
51	LOUSAHATCHIE INTERCEPTOR SEWERS NOR	TENNESSEE	1	50.0
52	HOOKER CHEM TACOMA (STAUFFER EFFLUE	WASHINGTON	1	30.0
53	BLUE RIVER STATION 60 (BR-60)	MISSOURI	1	30.0
54	BEL RIVER AT RIO BELL, DAVIS STREET	CALIFORNIA	1	25.0
55	LAS VEGAS WASH AT NORTH SHORE ROAD	NEVADA	1	25.0
56	WELL 181 NORTH ROGER ROAD OUTFALL R	ARIZONA	1	25.0

TABLE A-10. (Continued)

Obs	LOC	STATE	N	MEAN
57	CALLVILLE BAY LAKE HEAD	NEVADA	1	2
58	LAS VEGAS BAY LAKE HEAD	NEVADA	1	25
59	ROGER ROAD WASTE WATER PLANT OUTFALL	ARIZONA	1	25
60	SAN JOAQUIN RIVER AT STANISLAUS CO.	CALIFORNIA	1	25
61	RUSSIAN RIVER - HONTE RIO	CALIFORNIA	1	25
62	RED RIVER AT LOSCA LAKE	CALIFORNIA	1	25
63	TRUCKEE RIVER AT VERDOOD	NEVADA	1	25
64	SACRAMENTO CENTRAL TREATMENT PLANT	CALIFORNIA	1	25
65	LAKE TAHOE AT SAND HARBOR	NEVADA	1	25
66	AMERICAN R. AT WATTS AVE.	CALIFORNIA	1	25
67	ARMSTRONG CITY WATER SUPPLY	IOWA	1	20
68	ARMSTRONG WELL WATER SUPPLY	IOWA	1	20
69	TAMPA FL AT TAYLOR RD LANDFILL HAZ	FLORIDA	1	20
70	TAMPA FL AT TAYLOR RD LANDFILL HAZ	FLORIDA	1	20
71	TAMPA FL AT STUART MINE HAZARDOUS W	FLORIDA	1	20
72	TAMPA FL AT STUART MINE HAZARDOUS W	FLORIDA	1	20
73	TAMPA FL AT STUART MINE HAZARDOUS W	FLORIDA	1	20
74	MIDDLESBORO STP AT MIDDLESBORO KY T	KENTUCKY	1	20
75	ACADEMY DRUM HWS AT CHARLOTTE NC	SOUTH CAROLINA	1	20
76	ACADEMY DRUM HWS AT CHARLOTTE NC	SOUTH CAROLINA	1	20
77	ACADEMY DRUM HWS AT CHARLOTTE NC	SOUTH CAROLINA	1	20
78	ACADEMY DRUM HWS AT CHARLOTTE NC	SOUTH CAROLINA	1	20
79	ACADEMY DRUM HWS AT CHARLOTTE NC	SOUTH CAROLINA	1	20
80	ACADEMY DRUM HWS AT CHARLOTTE NC	SOUTH CAROLINA	1	20
81	ACADEMY DRUM HWS AT CHARLOTTE NC	SOUTH CAROLINA	1	20
82	ROCKY CREEK STP AT CHESTER SC TO BO	SOUTH CAROLINA	1	20
83	RANSEY LAGOON SLUDGE FROM CELL 1	MISSOURI	1	15
84	ETHYL CORPORATION CHEMICAL DIV AT O	SOUTH CAROLINA	1	15
85	VELSICOL CO DUMPSITE AREA IN HARDIN	TENNESSEE	1	13
86	VELSICOL CO DUMPSITE AREA IN HARDIN	TENNESSEE	1	13
87	DES MOINES STP EFFLUENT	IOWA	1	12
88	PLEASANT HILL IOWA STP CLAR EFF	IOWA	1	12
89	ALTOONA IOWA STP EFF BEFORE CL2	IOWA	2	12
90	ANKENY STP INDUSTRIAL EFFLUENT	IOWA	2	12
91	ANKENY STP DOMESTIC EFFLUENT	IOWA	2	12
92	URBANDALE STP EFFLUENT	IOWA	1	12
93	ANKENY EAST STP EFFLUENT	IOWA	1	12
94	DES MOINES R AT EUCLID AVE BR	IOWA	1	12
95	IOWA FUND AND FARM PERM. DIS 001	IOWA	2	12
96	POTOMAC R. AT GREAT FALLS, MD.	MARYLAND	1	10
97	RAPP. R. AT RT. 2,FALLS., VA.	VIRGINIA	1	10
98	RAPPAHANNOCK R. AT RT.2-301, VA	VIRGINIA	1	10
99	RAPPAHANNOCK R. AT RT.2-301, VA.	VIRGINIA	1	10
100	PATUXENT R. AT ROUTE 50, MD.	MARYLAND	1	10
101	DELAWARE R CAPE ST LITTLE TINICUM	PENNSYLVANIA	1	10
102	SCHUYLKILL R C 1 AT MOUTH	PENNSYLVANIA	1	10
103	DELAWARE R C 19 TORRESDALE	PENNSYLVANIA	2	10
104	DELAWARE R R 36 AT EDGEWTH CHANL	PENNSYLVANIA	1	10
105	DELAWARE R R 58 BLUNERLE BIRD	PENNSYLVANIA	2	10
106	DELAWARE R C 103 MOORE CHANNEL	PENNSYLVANIA	1	10
107	SCHUYLKILL R RTE 363 BR BRIZWOOD	PENNSYLVANIA	1	10
108	SCHUYLKILL R RTE 422 TR 2 FT STP	PENNSYLVANIA	1	10
109	PHILADELPHIA NE .31 UB	PENNSYLVANIA	1	10
110	READING STP IN	PENNSYLVANIA	1	10
111	INLAND COAL. CO STP EFFLUENT	MISSOURI	1	10
112	POTOMAC AT CHAIN BRIDGE, D.C.	WASHINGTON,D.C.	1	10

TABLE A-10. (Continued)

OBS	LOC	STATE	N	MEAN
114	POTOMAC R. BL 15 MI PT.OF ROCKS	MARYLAND	1	10
114	CONOWINGO DAM - TURBINE 3	MARYLAND	1	10
115	MONOCACY RIV AT AT 28 MONTH 113	MD	1	10
116	ARKANSAS R NEAR DERBY KANSAS	KANSAS	2	10
117	KANSAS CITY WATER TREATMENT PLT.	MISSOURI	1	10
118	JOHNSON CO WATER DIST NO1 INTAKE	KANSAS	1	10
119	MISSOURI RIVER AT PLATTSMOUTH	NEBRASKA	1	10
120	MISSOURI RIVER NEAR 1480 BRIDGE	NEBRASKA	2	10
121	PHILLIPS PETROLEUM CO	KANSAS	4	10
122	AMOCO-SC LIME SLUDGE DISC# 003	MISSOURI	3	10
123	MURRAY CHEMICAL CORPORATION	MISSOURI	2	10
124	EFFLUENT LAUNDRY DISCHARGE	KANSAS	1	10
125	LAKE CITY AAP INDUSTRIAL EFF.	MISSOURI	3	10
126	WESTERN LITOPLATE EFFLUENT	MISSOURI	1	10
127	WICHITA STP EFFLUENT	KANSAS	2	10
128	HAYSVILLE SOUTH STP EFFLUENT 001	KANSAS	2	10
129	HAYSVILLE SOUTH STP EFFLUENT 002	KANSAS	1	10
130	ARKANSAS RIVER ANT	KANSAS	1	10
131	ARKANSAS RIVER ANTH	KANSAS	2	10
132	COLEMAN CO-HYDRAULIC ST-001 DISC	KANSAS	1	10
133	BEECH AIRCRAFT 002 DISCHARGE	KANSAS	1	10
134	CESSNA WALLACE PLANT 001 DISCH	KANSAS	2	10
135	COLEMAN CO NORTH PLANT 001 DISCH	KANSAS	1	10
136	AM CYANAMID NEW 002 DISCHARGE	MISSOURI	1	10
137	VULCAN RJ BASIN	KANSAS	1	10
138	HALLMARK CARDS EFFLUENT #1	KANSAS	1	10
139	HALLMARK CARDS EFFLUENT #2	KANSAS	1	10
140	EPA REGION SEVEN LABORATORY	KANSAS	1	10
141	GOODYEAR TOPEKA NPDES OUTFALL 01	KANSAS	1	10
142	GOODYEAR TOPEKA NPDES OUTFI 002	KANSAS	1	10
143	GUNTERSVILLE RESERVOIR	ALABAMA	3	10
144	FIRESTONE TIRE CO PERMIT DIS 006	IOWA	1	10
145	FIRESTONE TIRE CO PERMIT DIS 008	IOWA	1	10
146	INDIAN CREEK @ MISSION ROAD BR.	KANSAS	2	10
147	INDIAN CR @ 111TH STREET BRIDGE	KANSAS	1	10
148	K.C. KANS. MAIN STP INFLUENT	KANSAS	3	10
149	K.C. KANS. MAIN STP EFFLUENT	KANSAS	3	10
150	MO R ABOVE MISSOURI CITY, MO	MISSOURI	1	10
151	BIG BLUE R STP @ KANSAS CITY, MO	MISSOURI	3	10
152	MO R WEST SIDE R C MO STP EFF	MISSOURI	3	10
153	ABSORBENT COTTON LINER WASTE	MISSOURI	1	10
154	CHRYSLER C&H PLANT-IND. WASTE	MISSOURI	1	10
155	BARITE CO STP EFFLUENT	MISSOURI	1	10
156	BISSELL POINT MAIN EFFLUENT	MISSOURI	2	10
157	BISSELL POINT ASH SEP EFF	MISSOURI	2	10
158	SUGAR CREEK STP EFFLUENT MSD	MISSOURI	1	10
159	SUGAR CREEK LAGOON EFFLUENT MSD	MISSOURI	1	10
160	VALLEY SEWER CO STP EFFLUENT	MISSOURI	1	10
161	FISHPOT CR STP EFFLUENT	MISSOURI	1	10
162	FENTON LAGOON EFFLUENT	MISSOURI	1	10
163	MANCHESTER STP EFFLUENT	MISSOURI	1	10
164	VALLEY PARK LAGOON EFFLUENT	MISSOURI	1	10
165	THIE COURT INDUSTRIAL STP INF.	MISSOURI	1	10
166	NORTH KC STP INFLUENT	MISSOURI	3	10
167	NORTH KC STP EFFLUENT	MISSOURI	3	10
168	BLUE RIVER STP BLUE R MAIN INF	MISSOURI	3	10

TABLE A-10. (Continued)

OBS	LOC	STATE	N	MEAN
169	MONONGAHELA RIVER AT PITTSBURG	PENNSYLVANIA	1	10
170	MAHONING R. AT NEILSVILLE	PENNSYLVANIA	1	10
171	SHENANGO R. AT PYMATUNING RES.	PENNSYLVANIA	1	10
172	SHENANGO RIVER AT SHARON	PENNSYLVANIA	1	10
173	CONNOQUENESSING CR. BELOW PUMP'D	PENNSYLVANIA	1	10
174	BEAVER RIVER AT EAST VALE	PENNSYLVANIA	1	10
175	ALLEGHENY R. AT FRANKLIN BRIDGE	PENNSYLVANIA	1	10
176	ALLEGHENY R. AT NEW KENSINGTON	PENNSYLVANIA	1	10
177	ALLEGHENY R. AT NATRONA GAGE	PENNSYLVANIA	1	10
178	KISKIMINETAS R. AT USGS 3-0085	PENNSYLVANIA	1	10
179	OHIO R. AT FAIRPORT BR. MP 28.0	PENNSYLVANIA	1	10
180	ALLEGHENY RIVER AT KITTANNING	PENNSYLVANIA	1	10
181	MONONGAHELA RIVER AT CHARLEROI	PENNSYLVANIA	2	10
182	NEAR MOUTH OF KISKIMINETAS R.	PENNSYLVANIA	1	10
183	MONONGAHELA R. AT ELIZABETH BRDG	PENNSYLVANIA	1	10
184		TENNESSEE	1	10
185		TENNESSEE	1	10
186	KANAWHA RIVER AT CHELYAN	WEST VIRGINIA	1	10
187	OHIO R. AT WHLG. WTP-COMPOSITE	WEST VIRGINIA	1	10
188	KANAWHA RIVER ABOVE MARMET DAM	WEST VIRGINIA	1	10
189	KANAWHA RIVER AT RT. 60 BRIDGE	WEST VIRGINIA	1	10
190	GUYANDOTTE R. AT BARBOURSVILLE	WEST VIRGINIA	1	10
191	OHIO R. ABOVE GALLIPOLIS DAM	WEST VIRGINIA	1	10
192	OHIO RIVER AT RIGER CREEK	WEST VIRGINIA	1	10
193	KANAWHA R. AT DUNBAR BRIDGE	WEST VIRGINIA	1	10
194	OHIO RIVER AT HANNIBAL DAM	WEST VIRGINIA	1	10
195	OHIO RIVER AT WILLOW ISLAND DAM	WEST VIRGINIA	1	10
196	OHIO RIVER AT HUNTINGTON INTAKE	WEST VIRGINIA	1	10
197	KANAWHA RIVER AT WINFIELD BRIDGE	WEST VIRGINIA	3	10

TABLE A-11. FRESHWATER REGIONS CONTAINING ELEVATED SEDIMENT LEVELS OF FLUORENE. CONCENTRATIONS ARE IN µg/kg.

OBS	LOC	STATE	N	MEAN
1	T P MASON STP AT MEMPHIS TN TO MISS	TENNESSEE	1	360000
2	BILLINGTON STP AT BILLINGTON TN TO	TENNESSEE	1	80000
3	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	30000
4	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	30000
5	MEMPHIS TENN AT HOLLYWOOD RD AREA S	TENNESSEE	1	20000
6	MEMPHIS TENN AT HOLLYWOOD RD AREA S	TENNESSEE	1	20000
7	BOOKER HAMILL ROAD CULVERT	TENNESSEE	1	19000
8	SUISUN BAY S. OF BIDDLE GROUND	CALIFORNIA	1	10000
9	NEW YORK SLOUGH	CALIFORNIA	1	10000
10	S.F. AIRPORT INDUSTRIAL PLANT	CALIFORNIA	1	10000
11	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	10000
12	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	1	10000
13	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	1	10000
14	TRIBUTARY TO CHATTANOOGA CREEK O.J	TENNESSEE	1	6300
15	TAMPA FL AT SYDNEY MINE HAZARDOUS W	FLORIDA	1	5000
16	TAMPA FL AT SYDNEY MINE HAZARDOUS W	FLORIDA	1	5000
17	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
18	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
19	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
20	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
21	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
22	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
23	SMITHS DUMP SITE AT BROOKS KY TO BL	KENTUCKY	1	5000
24	EAGLE LAKE NEAR VICKSBURG MS	MISSISSIPPI	1	5000
25	TENNESSEE EXPOSURE RISK SURVEY	NORTH CAROLINA	1	5000
26	PIGEON RIVER EXPOSURE RISK STUDY	NORTH CAROLINA	1	5000
27	CHEMTRONICS INC NUSI AT ASHEVILLE N	NORTH CAROLINA	1	5000
28	CHEMTRONICS INC NUSI AT ASHEVILLE N	NORTH CAROLINA	1	5000
29	ACADEMY DRUM NUS AT CHARLOTTE NC	NORTH CAROLINA	1	5000
30	ACADEMY DRUM NUS AT CHARLOTTE NC	NORTH CAROLINA	1	5000
31	ACADEMY DRUM NUS AT CHARLOTTE NC	NORTH CAROLINA	1	5000
32	ACADEMY DRUM NUS AT CHARLOTTE NC	NORTH CAROLINA	1	5000
33	OLD HWY 27 DUMP AT MT HOLLY NC	NORTH CAROLINA	1	5000
34	OLD HWY 27 DUMP AT MT HOLLY NC	NORTH CAROLINA	1	5000
35	JADCO HUGHES PROPERTY AT BELMONT NC	NORTH CAROLINA	1	5000
36	INDUSTRIAL CHEM CO PLANT SITE NR RO	SOUTH CAROLINA	1	5000
37	INDUSTRIAL CHEM CO AREA NEAR ROCK H	SOUTH CAROLINA	1	5000
38	INDUSTRIAL CHEM CO PLANT SITE NR RO	SOUTH CAROLINA	1	5000
39	INDUSTRIAL CHEM CO LANDFILL NR ROCK	SOUTH CAROLINA	1	5000
40	ETHYL CORPORATION CHEMICAL DIV AT O	SOUTH CAROLINA	1	5000
41	MEMPHIS TENN AT HOLLINGOD RD AREA S	TENNESSEE	1	5000
42	MEMPHIS TENN AT WINSTON DR AREA SAM	TENNESSEE	1	5000
43	MEMPHIS TENN AT WINSTON DR AREA SAM	TENNESSEE	1	5000
44	MEMPHIS TENN AT WINSTON DR AREA SAM	TENNESSEE	1	5000
45	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	1	5000
46	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	1	5000
47	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	2	5000
48	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	2	5000
49	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	2	5000
50	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	2	5000
51	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	2	5000
52	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	2	5000
53	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	1	5000
54	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	2	5000
55	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	1	5000
56	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	2	5000

TABLE A-11. (Continued)

OBS	LOC	STATE	N	MEAN
57	MEMPHIS TENN AT SHAWSEN POND AREA S	TENNESSEE	4	5000
58	TENNESSEE EXPOSURE RISK SURVEY AT A	TENNESSEE	1	5000
59	TENNESSEE EXPOSURE RISK SURVEY AT B	TENNESSEE	1	5000
60	TENNESSEE EXPOSURE RISK SURVEY AT J	TENNESSEE	1	5000
61	MEMPHIS AREA HAZARDOUS WASTE SITE 1	TENNESSEE	1	5000
62	MEMPHIS AREA HAZARDOUS WASTE SITE 1	TENNESSEE	1	5000
63	MEMPHIS AREA HAZARDOUS WASTE SITE 1	TENNESSEE	1	5000
64	RAILROAD BRIDGE	TENNESSEE	1	4800
65	HAMILL ROAD BRIDGE	TENNESSEE	1	9800
66	MEMPHIS AREA HAZARDOUS WASTE SITE 1	TENNESSEE	1	3000
67	KANEOHE BAY	HAWAII	1	2217
68	EAST 38TH. STREET BRIDGE	TENNESSEE	2	2600
69	ROCK SLOUGH AT DELTA RD BRIDGE	CALIFORNIA	1	2500
70	SAN JOAQUIN R AT ANTIOCH HARP	CALIFORNIA	1	2500
71	EEL RIVER AT RIO DELL, DAVIS STREET	CALIFORNIA	1	2500
72	LAS VEGAS WASH AT NORTH SHORE ROAD	NEVADA	1	2500
73	CALIHILLE BAY LAKE HEAD	NEVADA	1	2500
74	LAS VEGAS BAY LAKE HEAD	NEVADA	1	2500
75	SAN JOAQUIN RIVER AT STANISLAUS CO.	CALIFORNIA	1	2500
76	LAKE MENDOCINO AT HWY 20 BRIDGE	CALIFORNIA	1	2500
77	RUSSIAN RIVER AT UKIAH-TARATHANY RD	CALIFORNIA	1	2500
78	RUSSIAN RIVER - MONTE RIO	CALIFORNIA	1	2500
79	MAD RIVER AT RSSER LAKE	CALIFORNIA	1	2500
80	SANTA CRUZ BELOW ROGER ROAD WASTE M	ARIZONA	1	2500
81	TOPAZ LAKE	NEVADA	1	2500
82	HILO BAY	HAWAII	2	2136
83	SPOKANE R 0.5 MI AB SPOKANE STP	WASHINGTON	2	2000
84	SPOKANE R AT SPOKANE STP OUTFALL	WASHINGTON	2	2000
85	SPOKANE R 0.5 MI SPOKANE STP	WASHINGTON	2	2000
86	SPOKANE R 1.5 MI BL SPOKANE STP	WASHINGTON	2	2000
87	SPOKANE R AT POST FALLS ID	IDAHO	1	2000
88	SPOKANE R .5 MI ABV COEUR D'ALENE S	IDAHO	1	2000
89	SPOKANE R @ HWY 95 .3 MI AB C D'ALEN	IDAHO	1	2000
90	SPOKANE RIVER 3.5 MI. BELOW COEUR D	IDAHO	1	2000
91	YAKIMA RIVER @ HWY 224 BR. RICHLAND	WASHINGTON	1	2000
92	NACHES R @ YAKIMA GUM. NTH INTAKE (	WASHINGTON	1	2000
93	NACHES R @ SOUTH @ TWIN BRIDGES BR	WASHINGTON	1	2000
94	COLUMBIA R @ PASCO WTP INTAKE (HB3)	WASHINGTON	1	2000
95	PORTNEUF R 1/4 MI ABV POCATELLO STP	IDAHO	1	2000
96	PORTNEUF R 1/4 MI BELOW POCATELLO S	IDAHO	1	2000
97	PORTNEUF R 1/4 MI BELOW POCATELLO S	IDAHO	1	2000
98	BATTLE SPRINGS 3/4 MI BELOW PUMPING	IDAHO	1	2000
99	RICHLAND WTP INTAKE (COLUMBIA RI	WASHINGTON	1	2000
100	SEQUOMISH RIVER AT STATE HIGHWAY 10	WASHINGTON	1	2000
101	BIG QUILCENE RIVER AT PORT TOWNSEND	WASHINGTON	1	2000
102	MANCHESTER, WA. WATER SUPPLY	WASHINGTON	1	2000
103	MORSE CREEK AT U.S. 101 BRIDGE	WASHINGTON	1	2000
104	CLEAR LAKE @ MECCA, OREGON WATER I	OREGON	1	2000
105	EEL LAKE @ LAKESIDE, OREGON WATER I	OREGON	1	2000
106	CLEAR LAKE @ REEDSPORT, OREGON WATE	OREGON	1	2000
107	BEAR CR, BISENTOLA @ COQUILLE WATER	OREGON	1	2000
108	MORRISVILLE AREA HAZARDOUS WASTE SI	NORTH CAROLINA	1	2000
109	ALAMO LAKE	ARIZONA	1	1971
110	WINNEMUCCA RIVER @ INLET	NEVADA	1	1857
111	SUTRO WATER PLANT CANTONVILLE	CALIFORNIA	1	1830
112	AMERICAN R. AT ELDORADO ST.	CALIFORNIA	1	1750

TABLE A-11. (Continued)

OBS	LOC	STATE	N	MEAN
113	BUFFALO CK AT AMERICAN RIVER	CALIFORNIA	1	1720.00
114	SALINAS RIVER AT GONZALES	CALIFORNIA	1	1658.00
115	BOULDER CREEK AT MOUTH	ARIZONA	1	1598.00
116	CARSON R. @ RIVERVIEW	NEVADA	1	1564.00
117	OWENS R BL TINEMAHA RES.	CALIFORNIA	1	1540.00
118	SANTA ANA RIVER BELOW PRADO DAM	CALIFORNIA	1	1531.00
119	TRUCKEE RIVER AT LOCKWOOD	NEVADA	2	1517.50
120	BOULDER CREEK ABOVE WILDER CREEK	ARIZONA	1	1594.00
121	AMERICAN R. ABOVE SUNRISE FR	CALIFORNIA	1	1540.00
122	AMERICAN R. AT WATTS AVE.	CALIFORNIA	1	1540.00
123	COPPER CREEK AB BOULDER CREEK	ARIZONA	1	1551.00
124	GILA RIVER AT GILLESPIE DAM	ARIZONA	2	1513.00
125	LAHONTAN DAM	NEVADA	1	1483.00
126	COLORADO RIVER BELOW PARKER DAM	ARIZONA	1	1461.00
127	COLORADO R. @ YUMA	ARIZONA	1	1399.00
128	KAHULUI HARBOR	HAWAII	2	1292.00
129	PEARL HARBOR R. LOCK	HAWAII	1	1250.00
130	ALA WAI CANAL	HAWAII	1	1250.00
131	E. FORK QUINEE RIVER @ QUINEE	NEVADA	1	1250.00
132	CARSON R @ NEW EMPIRE	NEVADA	2	1209.00
133	S. FORK TOLT AT SEATTLE D.W. INTAKE	WASHINGTON	2	1200.00
134	CEDAR R. NR LANDSBURG (SEATTLE D.W.	WASHINGTON	2	1200.00
135	DUWAMISH R. BELOW RENTON STP (RM 9.	WASHINGTON	2	1200.00
136	DUWAMISH RIVER NEAR MOUTH (RM 10.30)	WASHINGTON	2	1200.00
137	TRUCKEE RIVER AT FARAD	CALIFORNIA	1	1185.00
138	LAKE TAHOE AT SAND HARBOR	NEVADA	2	1114.50
139	SEDIMENT NR ADAIR WATER INTAKE	OREGON	1	1000.00
140	BRIERTON CR .5MI BL TERRONIA STP	OREGON	1	1000.00
141	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	1000.00
142	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	1000.00
143	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	1000.00
144	PENSACOLA HAZARDOUS WASTE SITE BLVL	FLORIDA	1	1000.00
145	PENSACOLA HAZARDOUS WASTE SITE BLVL	FLORIDA	1	1000.00
146	MEMPHIS AREA HAZARDOUS WASTE SITE 1	TENNESSEE	1	1000.00
147	ROOSEVELT LAKE SALT R. ARM	ARIZONA	2	874.65
148	LYNX LAKE	ARIZONA	1	786.10
149	MORITURRE R AT WOODBRIDGE	CALIFORNIA	1	733.10
150	BUCKEYE CANAL @ LITCHFIELD	ARIZONA	1	725.00
151	DEBRI BAY REGULATOR CSO	WASHINGTON	1	709.00
152	TOOLUMNE RIVER AT TUOLUMNE CITY	CALIFORNIA	1	693.40
153	PATAGONIA LAKE	ARIZONA	1	651.00
154	ALAMO R NR CALIPATRIA	CALIFORNIA	1	639.30
155	SAN FRANCISCO R. AT CLIFTON	ARIZONA	1	636.90
156	CALCASIEU R AT ROSS LAKE	LOUISIANA	1	500.00
157	BRAZOS R SHOT RD OF PORT ARTHUR	TEXAS	2	500.00
158	OUACHITA R-CAMDEN WATER SUPPLY	ARKANSAS	1	500.00
159	RIO GRANDE RIVER AT ISLETA DIVERSIO	NEW MEXICO	2	500.00
160	I-90 FREEWAY DRAIN --- LAKE WASHING	WASHINGTON	1	469.00
161	ARTHUR KILL (50b)	NEW YORK	1	450.00
162	KELSO WATER INTAKE (CONLITZ R)	WASHINGTON	1	400.00
163	KALAMA WATER INTAKE (KALAMA R)	WASHINGTON	1	400.00
164	WOODLAND WATER INTAKE (LEWIS R)	WASHINGTON	1	400.00
165	SNOHOMISH RIVER AT SNOHOMISH	WASHINGTON	1	400.00
166	PUYALLUP RIVER AT PUYALLUP	WASHINGTON	1	400.00
167	VASHON ISLAND : WELL 01 (NE)	WASHINGTON	1	400.00
168	VASHON ISLAND : WELL 02 (SE)	WASHINGTON	1	400.00

TABLE A-11. (Continued)

OBS	LOC	STATE	N	MEAN
169	UNION R @ RENTON MUN WATER INTAK	WASHINGTON	1	400.000
170	SAMMAMISH RIVER AT WOODINVILLE	WASHINGTON	1	400.000
171	CHEHALIS R @ CENTRALIA	WASHINGTON	1	400.000
172	NF NEWAUKUM R @ CENTRALIA INTAKE	WASHINGTON	1	400.000
173	AT GAGING STATION	TENNESSEE	1	226.000
174		GEORGIA	1	200.000
175		TENNESSEE	1	200.000
176	WILSON ROAD BRIDGE	TENNESSEE	1	200.000
177	TRIBUTARY TO CHATTANOOGA CREEK 2.2	TENNESSEE	1	200.000
178	POND NEAR TENNESSEE-GEORGIA STATE L	TENNESSEE	1	200.000
179	TRIBUTARY TO CHATTANOOGA CREEK 4.45	TENNESSEE	1	200.000
180	BOULDER CREEK BELOW MULHOLLAND WASH	ARIZONA	1	190.800
181	7.4MI EAST OF SANDY HOOK ST PK	NEW JERSEY	1	185.000
182	ROANOKE STREET CSO	WASHINGTON	2	181.650
183	RAW WATER INTAKE AT DAVENPORT	IOWA	3	141.000
184	IOWA RIVER AT MARSHALLTOWN WTP	IOWA	2	131.000
185	LITTLE SIOUX R UPST OF SPENCER	IOWA	1	125.000
186	LITTLE SIOUX R AT LINN GROVE	IOWA	1	125.000
187	IOWA RIVER DWNST OF MARSHALLTOWN	IOWA	2	122.000
188	DES MOINES R AT EUCLID AVE BR	IOWA	4	113.000
189	0.4MI EAST OF SANDY HOOK ST PK	NEW JERSEY	1	110.000
190	SHELLROCK R. UPST OF HAMPTON	IOWA	2	100.500
191	CLAY CREEK AT ROUTE 104	CALIFORNIA	1	100.000
192	ARKANSAS R NEAR DERBY KANSAS	KANSAS	1	100.000
193	ARKANSAS RIVER ABV	KANSAS	1	100.000
194	COLEMAN CREEK AT HOOVER ST S	KANSAS	1	100.000
195	DOWNSTREAM SIDE MHI 260 BR	IOWA	3	97.000
196	JOHN P. FAZIO LANDFILL, BELLMAWR N.	NEW JERSEY	1	81.000
197	DUWAMISH RIVER S. OF HARBOR AVENUE	WASHINGTON	1	77.500
198	KCRW-RAW WATER SUPPLY NO 8	KANSAS	1	76.000
199	MO WATER COMPANY WATER SUPPLY	MISSOURI	1	76.000
200	PRINCETON DISPOSAL - SOUTH BRUNSWIC	NEW JERSEY	2	71.500
201	BADFORD STREET CSO	WASHINGTON	1	65.290
202	T E HARUM STP AT MEMPHIS TN TO MISS	TENNESSEE	1	60.000
203	WASTE DISPOSAL INC. NEWPORT,NJ	NEW JERSEY	1	57.000
204	MADISON PARK CSO	WASHINGTON	1	40.500
205	6 MILES EAST OF SANDY HOOK ST PK	NEW JERSEY	1	37.000
206	SCHENECTADY CHEMICAL CORPORATION NO	NEW YORK	1	34.000
207	STORM DRAIN 7 --- LAKE WASHINGTON	WASHINGTON	1	29.690
208	ELLIOT BAY NEAR CENTER	WASHINGTON	1	21.690
209	EAST BRANCH RED CLAY CREEK NEAR KIR	PENNSYLVANIA	1	20.000

TABLE A-12. FRESHWATER REGIONS CONTAINING ELEVATED SEDIMENT LEVELS OF PHENANTHRENE. CONCENTRATIONS ARE IN µg/kg.

OBS	LOC	STATE	R	MEAN
1	T J MAHON STP AT MEMPHIS TN TO MISS	TENNESSEE	1	380000
2	MILLINGTON STP AT MILLINGTON TN TO	TENNESSEE	1	80000
3	HOOKER HAMILL ROAD CULVERT	TENNESSEE	1	33000
4	TOPPS CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	30000
5	TOPPS CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	30000
6	MEMPHIS TENN AT HOLLYWOOD RD AREA S	TENNESSEE	1	20000
7	MEMPHIS TENN AT HOLLYWOOD RD AREA S	TENNESSEE	1	20000
8	TRIBUTARY TO CHATTANOOGA CREEK 0.3	TENNESSEE	1	17000
9	HAMILL ROAD BRIDGE	TENNESSEE	1	17000
10	RAILROAD BRIDGE	TENNESSEE	1	15000
11	TOPPS CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	10000
12	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	1	10000
13	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	1	10000
14	MEMPHIS TENN AT HOLLYWOOD RD AREA S	TENNESSEE	1	7400
15	ARTHUR KILL (SOI)	NEW YORK	1	6400
16	EAST 38TH. STREET BRIDGE	TENNESSEE	2	6356
17	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
18	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
19	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
20	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
21	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
22	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
23	SMITHS DUMP SITE AT HAZARD KY TO BL	KENTUCKY	1	5000
24	TENNESSEE EXPOSURE RISK SURVEY	NORTH CAROLINA	1	5000
25	PIGEON RIVER EXPOSURE RISK STUDY	NORTH CAROLINA	1	5000
26	CHEMTRONICS INC HWSI AT ASHEVILLE N	NORTH CAROLINA	1	5000
27	CHEMTRONICS INC HWSI AT ASHEVILLE N	NORTH CAROLINA	1	5000
28	OLD HWY 27 DUMP AT MT HOLLY NC	NORTH CAROLINA	1	5000
29	OLD HWY 27 DUMP AT MT HOLLY NC	NORTH CAROLINA	1	5000
30	JADCO HUGHES PROPERTY AT BELMONT NC	NORTH CAROLINA	1	5000
31	INDUSTRIAL CHEM CO PLANT SITE NR RO	SOUTH CAROLINA	1	5000
32	INDUSTRIAL CHEM CO AREA NEAR ROCK H	SOUTH CAROLINA	1	5000
33	INDUSTRIAL CHEM CO PLANT SITE NR RO	SOUTH CAROLINA	1	5000
34	INDUSTRIAL CHEM CO LANDFILL NR ROCK	SOUTH CAROLINA	1	5000
35	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	2	5000
36	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	2	5000
37	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	2	5000
38	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	2	5000
39	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	2	5000
40	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	2	5000
41	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	1	5000
42	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	2	5000
43	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	1	5000
44	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	2	5000
45	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	2	5000
46	TENNESSEE EXPOSURE RISK SURVEY AT N	TENNESSEE	1	5000
47	TENNESSEE EXPOSURE RISK SURVEY AT N	TENNESSEE	1	5000
48	TENNESSEE EXPOSURE RISK SURVEY AT J	TENNESSEE	1	5000
49	MEMPHIS AREA HAZARDOUS WASTE SITE I	TENNESSEE	1	5000
50	MEMPHIS AREA HAZARDOUS WASTE SITE I	TENNESSEE	1	5000
51	MEMPHIS AREA HAZARDOUS WASTE SITE I	TENNESSEE	1	5000
52	TRIBUTARY TO CHATTANOOGA CREEK 2.2	TENNESSEE	1	4600
53	MEMPHIS AREA HAZARDOUS WASTE SITE I	TENNESSEE	1	4000
54	WAHIAWA1 HAT	HAWAII	1	2717
55	ARTHUR KILL (SOC)	NEW YORK	1	2700
56	ROCK SLOUGH AT DELTA RD BRIDGE	CALIFORNIA	1	2500

TABLE A-12. (Continued)

OBS	LOC	STATE	N	MEAN
57	SAN JOAQUIN R AT ANTIOCH HARB	CALIFORNIA	1	2560.00
58	EEL RIVER AT HIC DELL, DAVIS STREET	CALIFORNIA	1	2500.00
59	LAS VEGAS WASH AT NORTH SHORE ROAD	NEVADA	1	2500.00
60	CALLVILLE BAY LAKE MEAD	NEVADA	1	2500.00
61	LAS VEGAS BAY LAKE MEAD	NEVADA	1	2500.00
62	SAN JOAQUIN RIVER AT STANISLAUS CO.	CALIFORNIA	1	2500.00
63	LAKE MENDOCINO AT HWY 20 BRIDGE	CALIFORNIA	1	2500.00
64	RUSSIAN RIVER AT UKIAH TREATMENT PL	CALIFORNIA	1	2500.00
65	RUSSIAN RIVER - MONTE RIO	CALIFORNIA	1	2500.00
66	MAD RIVER AT ESSEX LAKE	CALIFORNIA	1	2500.00
67	SANTA CRUZ BELOW MCGEE ROAD WASTE W	ARIZONA	1	2500.00
68	TOPAZ LAKE	NEVADA	1	2500.00
69	DEPOT BAY REGULATION CSO	WASHINGTON	1	2469.00
70	HILO BAY	HAWAII	2	2138.00
71	HOUSTON SHIP CHANNEL AT THE TURNING	TEXAS	1	2000.00
72	SPOKANE R 0.5 MI AB SPOKANE STP	WASHINGTON	2	2000.00
73	SPOKANE R AT SPOKANE STP OUTFALL	WASHINGTON	2	2000.00
74	SPOKANE R 0.5 BL SPOKANE STP	WASHINGTON	2	2000.00
75	SPOKANE R 1.5 MI BL SPOKANE STP	WASHINGTON	2	2000.00
76	SPOKANE R AT POST FALLS ID	IDAHO	1	2000.00
77	SPOKANE R .5 MI ABV COEUR D'ALENE S	IDAHO	1	2000.00
78	SPOKANE R @ HW 95 .3 MI AB C D'ALEN	IDAHO	1	2000.00
79	SPOKANE RIVER 4.5 MI. BELOW COEUR D	IDAHO	1	2000.00
80	YAKIMA RIVER @ HWY 224 BR. RICHLAND	WASHINGTON	1	2000.00
81	WALLULA R @ YAKIMA RUN. WTR INTAKE (	WASHINGTON	1	2000.00
82	WALLULA R @ MOUTH @ TWIN BRIDGES NR	WASHINGTON	1	2000.00
83	COLUMBIA R @ PASCO WTP INTAKE (RM33	WASHINGTON	1	2000.00
84	PORTNEUF R 1/4 MI ABV POCATELLO STP	IDAHO	1	2000.00
85	PORTNEUF R 1/4 MI BELOW POCATELLO S	IDAHO	1	2000.00
86	PORTNEUF R 3/4 MI BELOW POCATELLO S	IDAHO	1	2000.00
87	BATISE SPRINGS 3/4 MI BELOW PUMPING	IDAHO	1	2000.00
88	RICHLAND WTP INTAKE (COLUMBIA R)	WASHINGTON	1	2000.00
89	SKOKOMISH RIVER AT STATE HIGHWAY 10	WASHINGTON	1	2000.00
90	BIG QUILCENE RIVER AT PORT TOWNSEND	WASHINGTON	1	2000.00
91	MANCHESTER, WA. WATER SUPPLY	WASHINGTON	1	2000.00
92	HORSE CREEK AT U.S. 101 BRIDGE	WASHINGTON	1	2000.00
93	CLEAR LAKE @ MELETA, OREGON WATER I	OREGON	1	2000.00
94	EEL LAKE @ LAKESIDE, OREGON WATER I	OREGON	1	2000.00
95	CLEAR LAKE @ REEDSPORT, OREGON WATE	OREGON	1	2000.00
96	MINA CR. RESERVOIR @ COQUILLE WATER	OREGON	1	2000.00
97	MORRISVILLE AREA HAZARDOUS WASTE SI	NORTH CAROLINA	1	2000.00
98	ALAMO LAKE	ARIZONA	1	1971.00
99		TENNESSEE	1	1900.00
100	HUMBOLT RIVER @ INLAY	NEVADA	1	1857.00
101	YUBA RIVER NEAR MARYSVILLE	CALIFORNIA	1	1830.00
102	AMERICAN R. AT ELMANTO ST.	CALIFORNIA	1	1750.00
103	BUFFALO CR AT AMERICAN RIVER	CALIFORNIA	1	1726.00
104	SALINAS RIVER AT GONZALES	CALIFORNIA	1	1698.00
105	BOULDER CREEK AT SOUTH	ARIZONA	1	1628.00
106	CARSON R. @ RIVERTER	NEVADA	1	1664.00
107	OWENS R BL TINEMAHA RES.	CALIFORNIA	1	1640.00
108	SANTA ANA RIVER PRIOR PRADO DAM	CALIFORNIA	1	1631.00
109	TRUCKEE RIVER AT VERDI	NEVADA	2	1617.50
110	BOULDER CREEK ABOVE WILDER CREEK	ARIZONA	1	1594.00
111	AMERICAN R. ABOVE SUNRISE DR	CALIFORNIA	1	1590.00
112	AMERICAN R. AT WATTS AVE.	CALIFORNIA	1	1590.00

TABLE A-12. (Continued)

OBS	LOC	STATE	N	MEAN
113	COPPER CREEK AB TOULDER CREEK	ARIZONA	1	1551.00
114	GILA RIVER AT GILLESPIE DAM	ARIZONA	2	1513.00
115	ARTHUR KILL (520)	NEW YORK	1	1500.00
116	LAHONTAN DAM	NEVADA	1	1483.00
117	COLORADO RIVER BELOW PARKER DAM	ARIZONA	1	1401.00
118		TENNESSEE	1	1400.00
119	COLORADO R. @ YUMA	ARIZONA	1	1399.00
120	KAHULUI HARBOR	HAWAII	2	1292.00
121	PEARL HARBOR E. LOCK	HAWAII	1	1250.00
122	ALA WAI CANAL	HAWAII	1	1250.00
123	E.FORK CARSON RIVER @ CHURCH	NEVADA	1	1250.00
124	CARSON R @ NEW EMPIRE	NEVADA	2	1209.00
125	S. FORK TOLT AT SEATTLE D.W. INTAKE	WASHINGTON	2	1200.00
126	CEDAR R. NR LANDSBURG (SEATTLE D.W.	WASHINGTON	2	1200.00
127	DUWAMISH R. BELOW RENTON STP (MM 9.	WASHINGTON	2	1200.00
128	DUWAMISH RIVER NEAR KENT (MM 18.30)	WASHINGTON	2	1200.00
129	TRUCKEE RIVER AT FARAD	CALIFORNIA	3	1185.00
130	LAKE TAHOE AT SAND HARBOR	NEVADA	2	1114.50
131	8.6MI EAST OF SANDY HOOK ST PK	NEW JERSEY	1	1100.00
132	7.4MI EAST OF SANDY HOOK ST PK	NEW JERSEY	1	1050.00
133	ROANOKE STREET CSO	WASHINGTON	1	1001.00
134	SEDIMENT BK ADAIR WATER INTAKE	OREGON	1	1000.00
135	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	1000.00
136	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	1000.00
137	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	1000.00
138	PENSACOLA HAZARDOUS WASTE SITE BRUL	FLORIDA	1	1000.00
139	PENSACOLA HAZARDOUS WASTE SITE BRUL	FLORIDA	1	1000.00
140	MEMPHIS AREA HAZARDOUS WASTE SITE 1	TENNESSEE	1	1000.00
141	I-90 FREEWAY DRAIN --- LAKE WASHING	WASHINGTON	1	894.00
142	ROOSEVELT LAKE SALT R. ABV	ARIZONA	2	874.65
143	QUEBRADA FRONTERA 600 M DOWNSTREAM	PUERTO RICO	1	820.00
144	LYNX LAKE	ARIZONA	1	786.10
145	MOKELUMNE R AT WOODBRIDGE	CALIFORNIA	1	733.10
146	BUCKEYE CANAL @ LITCHFIELD	ARIZONA	1	725.00
147	TUOLUMNE RIVER AT TUOLUMNE CITY	CALIFORNIA	1	693.40
148	PATAGONIA LAKE	ARIZONA	1	651.00
149	WASTE DISPOSAL INC. KEYPORT,NJ	NEW JERSEY	1	640.00
150	ALAMO R NR CALIFORNIA	CALIFORNIA	1	639.30
151	SAN FRANCISCO R. AT CLIFTON	ARIZONA	1	636.90
152	ASHTABULA HARBOR	OHIO	4	572.50
153	JOHN P. FAZIO LANDFILL, BELLMAWR N.	NEW JERSEY	2	500.00
154	CALCASIEU R AT ROSS LAKE	LOUISIANA	1	500.00
155	NECHES R SHR7 RD OF PORT ARTHUR	TEXAS	2	500.00
156	TRIBUTARY TO CHATTANOOGA CREEK 4.45	TENNESSEE	1	490.00
157	DES MOINES R AT EUCLID AVE BR	IOWA	3	466.67
158	ACAN-NAW WATER SUPPLY RD R	KANSAS	1	480.00
159	MO WATER COMPANY WATER SUPPLY	MISSOURI	1	480.00
160	DOWNSTREAM SIDE HWY 280 BR	IOWA	2	470.00
161	ARTHUR KILL (504)	NEW YORK	1	470.00
162	2.5MI SE OF ABBROSE HORN	NEW JERSEY	1	460.00
163	RAW WATER INTAKE AT DAVENPORT	IOWA	2	457.50
164	MACK'S SANITARY LANDFILL - DEPTFORD	NEW JERSEY	3	400.00
165	KELSO WATER INTAKE (COWLITZ R)	WASHINGTON	1	400.00
166	KALAMA WATER INTAKE (KALAMA R)	WASHINGTON	1	400.00
167	WOODLAND WATER INTAKE (LEWIS R)	WASHINGTON	1	400.00
168	SNOHOMISH RIVER AT SNOHOMISH	WASHINGTON	1	400.00

TABLE A-12. (Continued)

OBS	LOC	STATE	N	MEAN
169	PUYALLUP RIVER AT PUYALLUP	WASHINGTON	1	400.000
170	VASHON ISLAND : WELL #1 (S1)	WASHINGTON	1	400.000
171	VASHON ISLAND : WELL #2 (S2)	WASHINGTON	1	400.000
172	UNION R @ RAINIER RUN WATER INTAK	WASHINGTON	1	400.000
173	SAMAMISH RIVER AT WOODINVILLE	WASHINGTON	1	400.000
174	CHEHALIS R NR CENTRALIA	WASHINGTON	1	400.000
175	NF NEWAUKUM R @ CENTRALIA INTAKE	WASHINGTON	1	400.000
176	PRINCETON DISPOSAL - SOUTH BRUNSWIC	NEW JERSEY	2	385.000
177	MADISON PARK CSO	WASHINGTON	1	381.600
178	ADJACENT SOUTH SIDE OF HOWE	NEW JERSEY	1	370.000
179	KAGAPO R NR DARLINGTON NJ	NEW JERSEY	1	370.000
180	NEAR SHARP DR NR OAKLAND NJ	NEW JERSEY	1	370.000
181	DUWAMISH RIVER S. OF HANDOI AVENUE	WASHINGTON	1	330.000
182	EAST BRANCH RED CLAY CREEK NEAR PIV	PENNSYLVANIA	1	310.000
183	SHELLROCK R. UPST OF NORTHWOOD	IOWA	2	302.500
184	HANFORD STREET CSO	WASHINGTON	1	294.200
185	CLINTON R AT I-94 BRIDGE; HARRISON	MICHIGAN	1	290.000
186	12R1 EAST OF SANDY HOOK ST PR	NEW JERSEY	1	270.000
187	9.5R1 SOUTH OF ATLANTIC BEACH	NEW YORK	1	260.000
188	QUEBRADA FRONTERA 1200 M DOWNSTREAM	PUERTO RICO	1	240.000
189	QUEBRADA FRONTERA 2 M UPSTREAM FROM	PUERTO RICO	1	220.000
190	CLINTON R AT CHICKEN ST NR; CITY OF	MICHIGAN	1	220.000
191	SCHENECTADY CHEMICAL CORPORATION RO	NEW YORK	2	205.000
192	QUEBRADA FRONTERA 1050 M DOWNSTREAM	PUERTO RICO	1	200.000
193	6 MILES EAST OF SANDY HOOK ST PK	NEW JERSEY	1	200.000
194	BEAVERTON CK AB TEATHOMIX IRR	OREGON	1	200.000
195	ARKANSAS R NEAR DENNY KANSAS	KANSAS	1	200.000
196	ARKANSAS RIVER AM1	KANSAS	1	200.000
197	COUSRIN CREEK AT HOOVER ST S	KANSAS	1	200.000
198	LITTLE ARKANSAS R AT NINS ST	KANSAS	1	200.000
199	PUMPTON R AT PACKANACK LAKE NJ	NEW JERSEY	1	200.000
200	AT GAGING STATION	GEORGIA	1	200.000
201	WILSON ROAD BRIDGE	TENNESSEE	1	200.000
202	POND NEAR TENNESSEE-GEORGIA STATE L	TENNESSEE	1	200.000
203	IOWA RIVER AT MARSHALLTOWN WTP	IOWA	2	199.500
204	BOULDER CREEK BELOW BULHOLLAND DASH	ARIZONA	1	190.800
205	IOWA RIVER DOWNST OF MARSHALLTOWN	IOWA	2	181.500
206	LAKE WASHINGTON NEAR CENTER	WASHINGTON	1	141.300
207	LITTLE SIOUX R UPST OF SPENCER	IOWA	1	125.000

TABLE A-13. FRESHWATER REGIONS CONTAINING ELEVATED SEDIMENT LEVELS OF DIETHYLPHTHALATE. CONCENTRATIONS ARE IN µg/kg.

OBS	LOC	STATE	N	MEAN
1	T J BARON STP AT MEMPHIS TN TO MISS	TENNESSEE	1	310000
2	MILLINGTON STP AT MILLINGTON TN TO	TENNESSEE	1	80000
3	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	50000
4	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	30000
5	MEMPHIS TENN AT HOLLYWOOD RD AREA S	TENNESSEE	1	20000
6	MEMPHIS TENN AT HOLLYWOOD RD AREA S	TENNESSEE	1	20000
7	SUISUN BAY S. OF MIDDLE GROUND	CALIFORNIA	1	10000
8	NEW YORK SLOUGH	CALIFORNIA	1	10000
9	S.F. AIRPORT INDUSTRIAL PLANT	CALIFORNIA	1	10000
10	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	10000
11	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	1	10000
12	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	1	10000
13	TAMPA FL AT SYDNEY MINE HAZARDOUS W	FLORIDA	1	10000
14	TAMPA FL AT SYDNEY MINE HAZARDOUS W	FLORIDA	1	5000
15	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
16	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
17	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
18	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
19	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
20	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
21	SMITHS DUMP SITE AT BROOKS KY TO BL	KENTUCKY	1	5000
22	EAGLE LAKE NEAR VICKSBURG MS	MISSISSIPPI	1	5000
23	TENNESSEE EXPOSURE RISK SURVEY	NORTH CAROLINA	1	5000
24	PIGEON RIVER EXPOSURE RISK STUDY	NORTH CAROLINA	1	5000
25	CHEMTRONICS INC HWSI AT ASHEVILLE N	NORTH CAROLINA	1	5000
26	CHEMTRONICS INC HWSI AT ASHEVILLE N	NORTH CAROLINA	1	5000
27	ACADEMY DRUM HWS AT CHARLOTTE NC	NORTH CAROLINA	1	5000
28	ACADEMY DRUM HWS AT CHARLOTTE NC	NORTH CAROLINA	1	5000
29	ACADEMY DRUM HWS AT CHARLOTTE NC	NORTH CAROLINA	1	5000
30	ACADEMY DRUM HWS AT CHARLOTTE NC	NORTH CAROLINA	1	5000
31	OLD HWY 27 DUMP AT MT HOLLY NC	NORTH CAROLINA	1	5000
32	OLD HWY 27 DUMP AT MT HOLLY NC	NORTH CAROLINA	1	5000
33	JADCO HUGHES PROPERTY AT BELMONT NC	NORTH CAROLINA	1	5000
34	INDUSTRIAL CHEM CO PLANT SITE NR RO	SOUTH CAROLINA	1	5000
35	INDUSTRIAL CHEM CO AREA NEAR ROCK H	SOUTH CAROLINA	1	5000
36	INDUSTRIAL CHEM CO PLANT SITE NR RO	SOUTH CAROLINA	1	5000
37	INDUSTRIAL CHEM CO LANDFILL NR ROCK	SOUTH CAROLINA	1	5000
38	ETHYL CORPORATION CHEMICAL DIV AT O	SOUTH CAROLINA	1	5000
39	MEMPHIS TENN AT HOLLYWOOD RD AREA S	TENNESSEE	1	5000
40	MEMPHIS TENN AT WINSTON DR AREA SAM	TENNESSEE	1	5000
41	MEMPHIS TENN AT WINSTON DR AREA SAM	TENNESSEE	1	5000
42	MEMPHIS TENN AT WINSTON DR AREA SAM	TENNESSEE	1	5000
43	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	1	5000
44	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	1	5000
45	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	1	5000
46	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	2	5000
47	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	2	5000
48	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	2	5000
49	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	2	5000
50	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	2	5000
51	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	2	5000
52	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	1	5000
53	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	2	5000
54	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	1	5000
55	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	2	5000
56	TENNESSEE EXPOSURE RISK SURVEY AT N	TENNESSEE	2	5000
			1	5000

TABLE A-13. (Continued)

OBS	LOC	STATE	A	B-AA
57	TENNESSEE EXPOSURE RISK SURVEY AT A	TENNESSEE	1	5000.00
58	TENNESSEE EXPOSURE RISK SURVEY AT J	TENNESSEE	1	5000.00
59	MEMPHIS AREA HAZARDOUS WASTE SITE I	TENNESSEE	1	5000.00
60	MEMPHIS AREA HAZARDOUS WASTE SITE J	TENNESSEE	1	5000.00
61	MEMPHIS AREA HAZARDOUS WASTE SITE I	TENNESSEE	1	5000.00
62	CLAY CREEK AT ROUTE 108	CALIFORNIA	1	4000.00
63	ROUGE R.@ WEST JEFFERSON AVE IN RIV	MICHIGAN	1	4000.00
64	MEMPHIS AREA HAZARDOUS WASTE SITE I	TENNESSEE	1	3000.00
65	KAWILIWILI BAY	HAWAII	1	2717.00
66	HOCA SLOUGH AT DELTA RD BRIDGE	CALIFORNIA	1	2500.00
67	SAN JOAQUIN R AT ANTIOCH MARK	CALIFORNIA	1	2500.00
68	EEL RIVER AT MIC DELL, DAVIS STREET	CALIFORNIA	1	2500.00
69	LAS VEGAS WASH AT NORTH SHORE ROAD	NEVADA	1	2500.00
70	CALIVILLE BAY LAKE MEAD	NEVADA	1	2500.00
71	LAS VEGAS BAY LAKE MEAD	NEVADA	1	2500.00
72	SAN JOAQUIN RIVER AT STANISLAUS CO.	CALIFORNIA	1	2500.00
73	LAKE MENDOCINO AT HWY 20 BRIDGE	CALIFORNIA	1	2500.00
74	RUSSIAN RIVER AT UKIAH TREATMENT PL	CALIFORNIA	1	2500.00
75	RUSSIAN RIVER - MONTE RIO	CALIFORNIA	1	2500.00
76	MAD RIVER AT ESSEX LANE	CALIFORNIA	1	2500.00
77	SANTA CRUZ BELOW ROGER ROAD WASTE W	ARIZONA	1	2500.00
78	TOPAZ LAKE	NEVADA	1	2500.00
79	HILO BAY	HAWAII	2	2138.00
80	SPOKANE R 0.5 MI AB SPOKANE STP	WASHINGTON	2	2000.00
81	SPOKANE R AT POST FALLS ID	IDAHO	1	2000.00
82	COLUMBIA R @ PASCO WTP INTAKE (RM3)	WASHINGTON	1	2000.00
83	PORTNEUF R 1/4 MI ABV POCATELLO STP	IDAHO	1	2000.00
84	PORTNEUF R 1/4 MI BELOW POCATELLO S	IDAHO	1	2000.00
85	PORTNEUF R 3/4 MI BELOW POCATELLO S	IDAHO	1	2000.00
86	BATISE SPRINGS 3/4 MI BELOW PUMPING	IDAHO	1	2000.00
87	HIGHLAND STP INTAKE (COLUMBIA R)	WASHINGTON	1	2000.00
88	S. FORK TOLT AT SEATTLE D.W. INTAKE	WASHINGTON	1	2000.00
89	DUWAMISH RIVER NEAR KENT (RM 18.30)	WASHINGTON	1	2000.00
90	SKOKOMISH RIVER AT STATE HIGHWAY 10	WASHINGTON	1	2000.00
91	HOH QUILLAYAK RIVER AT PORT TOWNSEND	WASHINGTON	1	2000.00
92	MANCHESTER, WA. WATER SUPPLY	WASHINGTON	1	2000.00
93	HORSE CREEK AT U.S. 101 BRIDGE	WASHINGTON	1	2000.00
94	CLEAR LAKE @ MECCTA, OREGON WATER I	OREGON	1	2000.00
95	EEL LAKE @ LAKESIDE, OREGON WATER I	OREGON	1	2000.00
96	CLEAR LAKE @ REEDSPORT, OREGON WATE	OREGON	1	2000.00
97	NINE CR. RESERVOIR @ COQUILLE WATER	OREGON	1	2000.00
98	MORRISVILLE AREA HAZARDOUS WASTE SI	NORTH CAROLINA	1	2000.00
99	ALAMO LAKE	ARIZONA	1	1971.00
100	HUMBOLT RIVER @ WELAT	NEVADA	1	1857.00
101	YUBA RIVER NEAR MARYSVILLE	CALIFORNIA	1	1836.00
102	AMERICAN R. AT ELVANTE ST.	CALIFORNIA	1	1796.00
103	BUFFALO CR AT AMERICAN RIVER	CALIFORNIA	1	1726.00
104	SALINAS RIVER AT GONZALES	CALIFORNIA	1	1691.00
105	BOULDER CREEK AT MOUTH	ARIZONA	1	1654.00
106	CARSON R. @ RIVERVIEW	NEVADA	1	1654.00
107	OWENS R AT TINEMAHA RES.	CALIFORNIA	1	1640.00
108	SANTA ANA RIVER BELOW PRADO DAM	CALIFORNIA	1	1631.00
109	TRUCKEE RIVER AT VISTA	NEVADA	1	1617.00
110	BOOTLEG CREEK ABOVE WALDEN CREEK	ARIZONA	1	1594.00
111	AMERICAN R. ABOVE SUNRISE TR	CALIFORNIA	1	1590.00
112	AMERICAN R. AT BATTS AVE.	CALIFORNIA	1	1590.00

TABLE A-13. (Continued)

OBS	LOC	STATE	N	MEAN
113	COPPER CREEK AB BOULDER CREEK	ARIZONA	1	1551.00
114	GILA RIVER AT GILLESPIE DAM	ARIZONA	2	1513.00
115	LAHONTAN DAM	NEVADA	1	1463.00
116	COLORADO RIVER BELOW PARKER DAM	ARIZONA	1	1461.00
117	COLORADO R. @ YUMA	ARIZONA	1	1399.00
118	KAHULUI HARBOR	HAWAII	2	1292.00
119	PEARL HARBOR E. LOCH	HAWAII	1	1250.00
120	ALA WAI CANAL	HAWAII	1	1250.00
121	E. FORK CARSON RIVER @ CENTER	NEVADA	1	1250.00
122	CARSON R @ NEW EMPIRE	NEVADA	2	1209.00
123	TRUCKEE RIVER AT FARAD	CALIFORNIA	3	1165.00
124	SPOKANE R U.S BL SPOKANE STP	WASHINGTON	2	1150.00
125	LAKE TAHOE AT SAND HARBOR	NEVADA	2	1114.50
126	SPOKANE R AT SPOKANE STP OUTFALL	WASHINGTON	2	1075.00
127	SPOKANE R 1.5 MI BL SPOKANE STP	WASHINGTON	2	1050.00
128	SEDIMENT BK ADAIR WATER INTAKE	OREGON	1	1000.00
129	BEAVERTON CK AB TERTROBIT PPP	OREGON	1	1000.00
130	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	1000.00
131	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	1000.00
132	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	1000.00
133	PENSACOLA HAZARDOUS WASTE SITE BRUL	FLORIDA	1	1000.00
134	PENSACOLA HAZARDOUS WASTE SITE BRUL	FLORIDA	1	1000.00
135	MEMPHIS AREA HAZARDOUS WASTE SITE 1	TENNESSEE	1	1000.00
136	CLINTON R SPILLW MARPYR AVE; CLINTO	MACOMB CO., MI	1	1000.00
137	CLINTON R AT CHOCARA ST BR; CITY OF	MICHIGAN	1	1000.00
138	CLINTON R AT I-94 BRIDGE; HARRISON	MICHIGAN	1	1000.00
139	CLINTON R@ NO. BOUND CRATIOT AVE IN	MACOMB CO., MI	1	1000.00
140	CLINTON R AT HARLIN RD BR; AVON TOW	MICHIGAN	1	1000.00
141	CLINTON R @ M-59 BRIDGE; PONTIAC TW	MICHIGAN	1	1000.00
142	CLINTON R 50 FT DWNSTR AUBURN WWTP,	MICHIGAN	1	1000.00
143	SALINE R AT MAPLE RD BRIDGE; SALINE	MICHIGAN	1	1000.00
144	SALINE RIVER AT MACON RD BR.; SALIN	MICHIGAN	1	1000.00
145	SALINE RIVER AT U.S. 12 BR.; SALINE	MICHIGAN	1	1000.00
146	SALINE R 100 FT DWNSTR OF WWTP; CIT	MICHIGAN	1	1000.00
147	ROUGE R AT ANN ARBOR TRAIL IN DEARB	MICHIGAN	1	1000.00
148	ROOSEVELT LAKE SALT R. ARM	ARIZONA	2	874.65
149	LYNX LAKE	ARIZONA	1	786.10
150	HUMBOLDT R AT WOODBRIDGE	CALIFORNIA	1	733.10
151	BUCKEYE CANAL @ LITCHFIELD	ARIZONA	1	725.00
152	TUOLUMNE RIVER AT TUOLUMNE CITY	CALIFORNIA	1	693.40
153	PATAGONIA LAKE	ARIZONA	1	651.00
154	ALAMO R AB CALIPATRIA	CALIFORNIA	1	639.30
155	SAN FRANCISCO R. AT CLIFTON	ARIZONA	1	636.90
156	CALCASIEU R AT KOJS LAKE	LOUISIANA	1	500.00
157	NECHES R SHIP NO 01 PORT ARTHUR	TEXAS	3	500.00
158	RIO GRANDE RIVER AT ISLETA DIVERSIO	NEW MEXICO	2	500.00
159	SNOHOMISH RIVER AT SNOHOMISH	WASHINGTON	1	460.00
160	PUYALLUP RIVER AT PUYALLUP	WASHINGTON	1	400.00
161	VASHON ISLAND : WELL #1 (MI)	WASHINGTON	1	400.00
162	SAMAMISH RIVER AT WOODINVILLE	WASHINGTON	1	400.00
163	SPOKANE R .5 MI ABV COEUR D'ALENE S	IDAHO	1	340.00
164	SPOKANE R @ HWY 95 .3 MI AB C D'ALEN	IDAHO	1	300.00
165	YAKIMA RIVER @ HWY 224 NR. RICHLAND	WASHINGTON	1	300.00
166	QUEBRADA FRONTERA 1050 M DOWNSTREAM	PUERTO RICO	1	240.00
167	DUWAMISH R. BELOW RENTON STP (KM 9.	WASHINGTON	2	235.00
168	SPOKANE RIVER 3.5 MI. BELOW COEUR D	IDAHO	1	200.00

TABLE A-13. (Continued)

OBS	LOC	STATE	N	MEAN
169	NACHES R @ YAKIMA RUN. 4TH INTAKE (	WASHINGTON	1	200.000
170	NACHES R @ MOUTH @ TWIN BRIDGES RR	WASHINGTON	1	200.000
171	AT GAGING STATION	GEORGIA	1	200.000
172		TENNESSEE	1	200.000
173		TENNESSEE	1	200.000
174	WILSON ROAD BRIDGE	TENNESSEE	1	200.000
175	EAST 38TH. STREET BRIDGE	TENNESSEE	2	200.000
176	RAILROAD BRIDGE	TENNESSEE	1	200.000
177	TRIBUTARY TO CHATTANOOGA CREEK 2.2	TENNESSEE	1	200.000
178	TRIBUTARY TO CHATTANOOGA CREEK 0.3	TENNESSEE	1	200.000
179	POND NEAR TENNESSEE-GEORGIA STATE L	TENNESSEE	1	200.000
180	HOOKER HARRILL ROAD CULVERT	TENNESSEE	1	200.000
181	TRIBUTARY TO CHATTANOOGA CREEK 0.45	TENNESSEE	1	200.000
182	HARRILL ROAD BRIDGE	TENNESSEE	1	200.000
183	BOULDER CREEK BELOW HOLHOLLAND WASH	ARIZONA	1	190.000
184	JOHN P. RIZZO LANDFILL, BELLMAWR B.	NEW JERSEY	2	170.000
185	MANASQUAN R AT SQUANKUM ON RT547	NEW JERSEY	1	160.000
186	MAN WATER INTAKE AT DAVENPORT	IOWA	2	158.500
187	DES MOINES R AT EUCLID AVE BR	IOWA	2	150.000
188	IOWA RIVER AT MARSHALLTOWN WTP	IOWA	2	131.000
189	PRINCETON DISPOSAL - SOUTH BRUNSWIC	NEW JERSEY	2	129.000
190	SHELLROCK R. UPST OF NORTHWOOD	IOWA	1	125.000
191	LITTLE SIOUX R UPST OF SPENCER	IOWA	1	125.000
192	LITTLE SIOUX R AT LINN GROVE	IOWA	1	125.000
193	IOWA RIVER UPST OF MARSHALLTOWN	IOWA	2	122.000
194	MACK'S SANITARY LANDFILL - DEPTFORD	NEW JERSEY	4	116.750
195	QUEBRADA FRONTERA 1200 M DOWNSTREAM	PUERTO RICO	1	110.000
196	CARRAIZO (LAGO LOIZA) RESERVOIR	PUERTO RICO	1	110.000
197	RIO LA PLATA RESERVOIR	PUERTO RICO	1	100.000
198	ARKANSAS R NEAR DERBY KANSAS	KANSAS	1	100.000
199	ARKANSAS RIVER ABL	KANSAS	1	100.000
200	CONSKIN CREEK AT HOOVER ST S	KANSAS	1	100.000
201	LITTLE ARKANSAS R AT MAIN ST	KANSAS	1	100.000
202	CARRAIZO (LAGO LOIZA) RESERVOIR NEA	PUERTO RICO	1	99.000
203	DOWNSTREAM SIDE MRI 200 RR	IOWA	3	90.333
204	12MI EAST OF SANDY HOOK ST PK	NEW JERSEY	1	80.000
205	2.5MI SE OF ARMROSE HORN	NEW JERSEY	1	75.000
206	SAMAMISH RIVER AT MOUTH	WASHINGTON	1	62.090
207	QUEBRADA FRONTERA 10 M BELOW RTE 3	PUERTO RICO	1	61.000
208	CEDAR R. RR LANDSBURG (SEATTLE D.W.	WASHINGTON	1	60.000
209	T E RAILROAD STR AT MEMPHIS TN TO MISS	TENNESSEE	1	60.000
210	CARRAIZO (LAGO LOIZA) RESERVOIR	PUERTO RICO	1	57.000
211	KCKP-RAW WATER SUPPLY MO R	KANSAS	1	56.000
212	MO WATER COMPANY WATER SUPPLY	MISSOURI	1	56.000

TABLE A-14. FRESHWATER REGIONS CONTAINING ELEVATED SEDIMENT LEVELS OF DIMETHYLPHTHALATE CONCENTRATIONS ARE IN µg/kg.

OBS	LOC	STATE	N	MEAN
1	T R MASON STP AT MEMPHIS TN TO MISS	TENNESSEE	1	360000
2	MILLINGTON STP AT MILLINGTON TN TO	TENNESSEE	1	80000
3	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	30000
4	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	30000
5	MEMPHIS TENN AT HOLLYWOOD RD AREA S	TENNESSEE	1	20000
6	MEMPHIS TENN AT HOLLYWOOD RD AREA S	TENNESSEE	1	20000
7	SUISUN BAY S. OF MIDDLE GROUND	CALIFORNIA	1	10000
8	NEW YORK SLOUGH	CALIFORNIA	1	10000
9	S.F. AIRMONT INDUSTRIAL PLANT	CALIFORNIA	1	10000
10	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	10000
11	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	1	10000
12	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	1	10000
13	TAMPA FL AT SIDNEY MINE HAZARDOUS W	FLORIDA	1	5000
14	TAMPA FL AT SIDNEY MINE HAZARDOUS W	FLORIDA	1	5000
15	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
16	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
17	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
18	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
19	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
20	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	5000
21	SMITHS DUMP SITE AT BROOKS KY TO BL	KENTUCKY	1	5000
22	EAGLE LAKE NEAR VICKSBURG MS	MISSISSIPPI	1	5000
23	TENNESSEE EXPOSURE RISK SURVEY	NORTH CAROLINA	1	5000
24	PIGEON RIVER EXPOSURE RISK STUDY	NORTH CAROLINA	1	5000
25	CHEMTRONICS INC RMSI AT ASHEVILLE N	NORTH CAROLINA	1	5000
26	CHEMTRONICS INC RMSI AT ASHEVILLE N	NORTH CAROLINA	1	5000
27	ACADEMY DRUM RMS AT CHARLOTTE NC	NORTH CAROLINA	1	5000
28	ACADEMY DRUM RMS AT CHARLOTTE NC	NORTH CAROLINA	1	5000
29	ACADEMY DRUM RMS AT CHARLOTTE NC	NORTH CAROLINA	1	5000
30	ACADEMY DRUM RMS AT CHARLOTTE NC	NORTH CAROLINA	1	5000
31	OLD RMT 27 DUMP AT MT HOLLY NC	NORTH CAROLINA	1	5000
32	OLD RMT 27 DUMP AT MT HOLLY NC	NORTH CAROLINA	1	5000
33	JADCO HUGHES PROPERTY AT BELMONT NC	NORTH CAROLINA	1	5000
34	INDUSTRIAL CHEM CO PLANT SITE NR RO	SOUTH CAROLINA	1	5000
35	INDUSTRIAL CHEM CO AREA NEAR ROCK H	SOUTH CAROLINA	1	5000
36	INDUSTRIAL CHEM CO PLANT SITE NR RO	SOUTH CAROLINA	1	5000
37	INDUSTRIAL CHEM CO LANDFILL NR ROCK	SOUTH CAROLINA	1	5000
38	ETHYL CORPORATION CHEMICAL DIV AT O	SOUTH CAROLINA	1	5000
39	MEMPHIS TENN AT HOLLYWOOD RD AREA S	TENNESSEE	1	5000
40	MEMPHIS TENN AT WINSTON DR AREA SAM	TENNESSEE	1	5000
41	MEMPHIS TENN AT WINSTON DR AREA SAM	TENNESSEE	1	5000
42	MEMPHIS TENN AT WINSTON DR AREA SAM	TENNESSEE	1	5000
43	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	1	5000
44	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	1	5000
45	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	2	5000
46	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	2	5000
47	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	2	5000
48	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	2	5000
49	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	2	5000
50	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	2	5000
51	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	1	5000
52	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	2	5000
53	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	1	5000
54	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	2	5000
55	MEMPHIS TENN AT PRAYSEN POND AREA S	TENNESSEE	2	5000
56	TENNESSEE EXPOSURE RISK SURVEY AT M	TENNESSEE	1	5000

TABLE A-14. (Continued)

OBS	LOC	STATE	N	MEAN
113	SANTA ANA RIVER BELOW PRADO DAM	CALIFORNIA	1	1631.00
114	TRUCKEE RIVER AT LOCKWOOD	NEVADA	2	1617.50
115	BOULDER CREEK ABOVE WILDEN CREEK	ARIZONA	1	1554.00
116	AMERICAN R. ABOVE SUNRISE BR	CALIFORNIA	1	1550.00
117	AMERICAN R. AT BAILS AVE.	CALIFORNIA	1	1550.00
118	COPPER CREEK AB BOULDER CREEK	ARIZONA	1	1551.00
119	GILA RIVER AT GILLESPIE DAM	ARIZONA	2	1514.00
120	LAHONTAN DAM	NEVADA	1	1463.00
121	COLORADO RIVER BELOW PARKER DAM	ARIZONA	1	1461.00
122	COLORADO R. @ YUMA	ARIZONA	1	1399.00
123	KAHULUI HARBOR	HAWAII	2	1252.00
124	PEARL HARBOR E. LOCH	HAWAII	1	1250.00
125	ALA WAI CANAL	HAWAII	1	1250.00
126	E. FORK CARSON RIVER @ CARSON	NEVADA	1	1250.00
127	CARSON R @ NEW EMPIRE	NEVADA	2	1209.00
128	CEDAR R. NR LANDSBURG (SEATTLE D.W.	WASHINGTON	2	1200.00
129	DUWAMISH R. BELOW RENTON STP (RM 9.	WASHINGTON	2	1200.00
130	DUWAMISH RIVER NEAR KENT (RM 16.30)	WASHINGTON	2	1200.00
131	TRUCKEE RIVER AT FARAD	CALIFORNIA	3	1185.00
132	LAKE TAHOE AT SAND HARBOR	NEVADA	2	1114.50
133	SEDIMENT NR ADAIR WATER INTAKE	OREGON	1	1000.00
134	BEAVERTON CK AB TEKTRONIX EFF	OREGON	1	1000.00
135	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	1000.00
136	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	1000.00
137	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	1000.00
138	PENSACOLA HAZARDOUS WASTE SITE BEUL	FLORIDA	1	1000.00
139	PENSACOLA HAZARDOUS WASTE SITE BEUL	FLORIDA	1	1000.00
140	MEMPHIS AREA HAZARDOUS WASTE SITE 1	TENNESSEE	1	1000.00
141	ROOSEVELT LAKE SALT R. ARM	ARIZONA	2	874.65
142	LYNX LAKE	ARIZONA	1	786.10
143	HOKELUMNE R AT WOODBRIDGE	CALIFORNIA	1	733.10
144	BUCKEYE CANAL @ LITCHFIELD	ARIZONA	1	725.00
145	TUOLUMNE RIVER AT TUOLUMNE CITY	CALIFORNIA	1	693.40
146	PATAGONIA LAKE	ARIZONA	1	651.00
147	ALAMO R NR CALIPATRIA	CALIFORNIA	1	639.30
148	SAN FRANCISCO R. AT CLIFTON	ARIZONA	1	636.90
149	CALLASIEU R AT MOSS LAKE	LOUISIANA	1	500.00
150	NECHES R SH87 NO OF PORT ARTHUR	TEXAS	3	500.00
151	RIO GRANDE RIVER AT ISLETA DIVERSIO	NEW MEXICO	2	500.00
152	KALAMA WATER INTAKE (KALAMA R)	WASHINGTON	1	400.00
153	WOODLAND WATER INTAKE (LEWIS R)	WASHINGTON	1	400.00
154	SNOHOMISH RIVER AT SNOHOMISH	WASHINGTON	1	400.00
155	PUYALLUP RIVER AT PUYALLUP	WASHINGTON	1	400.00
156	SAMMAMISH RIVER AT WOODINVILLE	WASHINGTON	1	400.00
157	CHEHALIS R NR CENTRALIA	WASHINGTON	1	400.00
158	NF NEWAUKUM R @ CENTRALIA INTAKE	WASHINGTON	1	400.00
159	S. FORK TOLT AT SEATTLE D.W. INTAKE	WASHINGTON	2	207.00
160	AT GAGING STATION	GEORGIA	1	200.00
161		TENNESSEE	1	200.00
162		TENNESSEE	1	200.00
163	WILSON ROAD BRIDGE	TENNESSEE	1	200.00
164	EAST 38TH. STREET BRIDGE	TENNESSEE	2	200.00
165	RAILROAD BRIDGE	TENNESSEE	1	200.00
166	TRIBUTARY TO CHATTANOOGA CREEK 2.2	TENNESSEE	1	200.00
167	TRIBUTARY TO CHATTANOOGA CREEK 0.3	TENNESSEE	1	200.00
168	POND NEAR TENNESSEE-GEORGIA STATE L	TENNESSEE	1	200.00

TABLE A-14. (Continued)

OBS	LOC	STATE	N	MEAN
169	HOOKER HARRILL ROAD CULVERT	TENNESSEE	1	200.000
170	TRIBUTARY TO CHATTANOOGA CREEK 4.45	TENNESSEE	1	200.000
171	HARRILL ROAD BRIDGE	TENNESSEE	1	200.000
172	BOULDER CREEK BELOW MULHOLLAND WASH	ARIZONA	1	190.000
173	IOWA RIVER AT MARSHALLTOWN WTP	IOWA	2	131.000
174	BEAVERTON CR .7MI BL TEKTRON EFF	OREGON	1	130.000
175	LITTLE SIOUX R UPST OF SPENCER	IOWA	1	125.000
176	LITTLE SIOUX R AT LINN GROVE	IOWA	1	125.000
177	IOWA RIVER DWNST OF MARSHALLTOWN	IOWA	2	122.000
178	RAW WATER INTAKE AT DAVENPORT	IOWA	3	115.000
179	CLAY CREEK AT ROUTE 104	CALIFORNIA	1	100.000
180	ARKANSAS R NEAR DERBY KANSAS	KANSAS	1	100.000
181	ARKANSAS RIVER AH1	KANSAS	1	100.000
182	CONSEIN CREEK AT HOOVER ST S	KANSAS	1	100.000
184	LITTLE ARKANSAS R AT NINS ST	KANSAS	1	100.000
185	DES MOINES R AT EUCLID AVE BR	IOWA	4	89.000
186	DOWNSTREAM SIDE HWY 280 BR	IOWA	3	81.000
187	SHELLROCK R. UPST OF NORTHWOOD	IOWA	2	76.500
188	T & MAIOR STP AT MEMPHIS IN TO MISS	TENNESSEE	1	60.000
189	BEVERTON CR .5MI BL TEKTRONIX EFF	OREGON	1	50.000
190	RCAR-RAW WATER SUPPLY NO 8	KANSAS	1	28.000
191	BEAVERTON CR @ TEKTRONIX OUTFALL	MISSOURI	1	28.000
192	FR-250 SCIOTO BIG RUN NB I 270 NB C	OREGON	1	20.000
193	ROANOKE STREET CSO	OHIO	1	20.000
194	RARAPO R NR DARLINGTON NJ	WASHINGTON	1	12.550
195	MEAR SWAMP BR NR OAKLAND NJ	NEW JERSEY	1	10.000
196	PORPTON R AT PACKANACK LAKE NJ	NEW JERSEY	1	10.000
197	FOX RIVER AT WAUKESHA, WI	NEW JERSEY	1	10.000
198	MANITOWOC RIVER AT MANITOWOC, WI	WISCONSIN	1	10.000
199	ST. JOSEPH RIVER AT NILES, MICH.	WISCONSIN	2	10.000
200	WILLAMETTE RIVER AT PORTLAND,OREG.	MICHIGAN	1	10.000
201	I-90 FREEWAY DRAIN --- LAKE WASHING	OREGON	1	10.000
202	DENNY WAY REGULATOR CSO	WASHINGTON	1	9.000
203	MADISON PARK CSO	WASHINGTON	1	6.399
204	SAMMAMISH RIVER AT MOUTH	WASHINGTON	1	5.500
205	STORM DRAIN 7 --- LAKE WASHINGTON	WASHINGTON	1	5.299
206	MANFORD STREET CSO	WASHINGTON	1	5.199
207	ELLIOT WAY MEAN CENTER	WASHINGTON	1	4.899
208	KELSO WATER INTAKE (COWLITZ R)	WASHINGTON	1	4.049
209	DUWAMISH RIVER --- S. END CHANNAL	WASHINGTON	1	4.000
		WASHINGTON	1	3.299

TABLE A-14. (Continued)

OBS	LOC	STATE	N	MEAN
57	TENNESSEE EXPOSURE RISK SURVEY AT K	TENNESSEE	1	5000
58	TENNESSEE EXPOSURE RISK SURVEY AT J	TENNESSEE	1	5000
59	MEMPHIS AREA HAZARDOUS WASTE SITE 1	TENNESSEE	1	5000
60	MEMPHIS AREA HAZARDOUS WASTE SITE 1	TENNESSEE	1	5000
61	MEMPHIS AREA HAZARDOUS WASTE SITE 1	TENNESSEE	1	5000
62	MEMPHIS AREA HAZARDOUS WASTE SITE 1	TENNESSEE	1	3000
63	WAHILAWILI BAY	HAWAII	1	2717
64	MOCK SLOUGH AT DELTA RD BRIDGE	CALIFORNIA	1	2500
65	SAN JOAQUIN R AT ANTIOCH HARB	CALIFORNIA	1	2500
66	EEL RIVER AT BIG BELL, DAVIS STREET	CALIFORNIA	1	2500
67	LAS VEGAS WASH AT NORTH SHORE ROAD	NEVADA	1	2500
68	CALLVILLE BAY LAKE MEAD	NEVADA	1	2500
69	LAS VEGAS BAY LAKE MEAD	NEVADA	1	2500
70	SAN JOAQUIN RIVER AT STANISLAUS CO.	CALIFORNIA	1	2500
71	LAKE MENDOCINO AT HWY 20 BRIDGE	CALIFORNIA	1	2500
72	RUSSIAN RIVER AT UKIAH TREATMENT PL	CALIFORNIA	1	2500
73	RUSSIAN RIVER - MONTE RIO	CALIFORNIA	1	2500
74	MAD RIVER AT ESSEX LANE	CALIFORNIA	1	2500
75	SANTA CRUZ BELOW ROGER ROAD WASTE W	ARIZONA	1	2500
76	TOPAZ LAKE	NEVADA	1	2500
77	HILO BAY	HAWAII	2	2130
78	SPOKANE R 0.5 MI AB SPOKANE STP	WASHINGTON	2	2000
79	SPOKANE R AT SPOKANE STP OUTFALL	WASHINGTON	2	2000
80	SPOKANE R 0.5 MI BL SPOKANE STP	WASHINGTON	2	2000
81	SPOKANE R 1.5 MI BL SPOKANE STP.	WASHINGTON	2	2000
82	SPOKANE R AT POST FALLS ID	IDAHO	1	2000
83	SPOKANE R .5 MI ABV COEUR D'ALENE R	IDAHO	1	2000
84	SPOKANE R @ HWY 95 .3 MI AB C D'ALEN	IDAHO	1	2000
85	SPOKANE RIVER 3.5 MI. BELOW COEUR D	IDAHO	1	2000
86	YAKIMA RIVER @ HWY 224 NR. RICHLAND	WASHINGTON	1	2000
87	NACHES R @ YAKIMA RUN. WTR INTAKE (	WASHINGTON	1	2000
88	NACHES R @ MOUTH @ TWIN BRIDGES BR	WASHINGTON	1	2000
89	COLUMBIA R @ PASCO WTP INTAKE (HWY	WASHINGTON	1	2000
90	PORTNEUF R 1/4 MI ABV POCATELLO STP	IDAHO	1	2000
91	PORTNEUF R 1/4 MI BELOW POCATELLO S	IDAHO	1	2000
92	PORTNEUF R 3/4 MI BELOW POCATELLO S	IDAHO	1	2000
93	BATISE SPRINGS 3/4 MI BELOW PUMPING	IDAHO	1	2000
94	RICHLAND WTP INTAKE (COLUMBIA R)	WASHINGTON	1	2000
95	SKOKOMISH RIVER AT STATE HIGHWAY 10	WASHINGTON	1	2000
96	BIG QUILCENE RIVER AT PORT TOWNSEND	WASHINGTON	1	2000
97	MANCHESTER, WA. WATER SUPPLY	WASHINGTON	1	2000
98	HORSE CREEK AT U.S. 101 BRIDGE	WASHINGTON	1	2000
99	CLEAR LAKE @ VELDA, OREGON WATER I	OREGON	1	2000
100	EEL LAKE @ LAKESIDE, OREGON WATER I	OREGON	1	2000
101	CLEAR LAKE @ HEALDSPORT, OREGON WATE	OREGON	1	2000
102	MINK CR. RESERVOIR @ COQUILLE WATER	OREGON	1	2000
103	MORRISVILLE AREA HAZARDOUS WASTE SI	NORTH CAROLINA	1	2000
104	ALAMO LAKE	ARIZONA	1	1971
105	HUMBOLT RIVER @ INTAK	NEVADA	1	1652
106	YUBA RIVER NEAR MARYSVILLE	CALIFORNIA	1	1630
107	AMERICAN R. AT ELVARTO ST.	CALIFORNIA	1	1750
108	BUFFALO CR AT AMERICAN RIVER	CALIFORNIA	1	1726
109	SALINAS RIVER AT GONZALES	CALIFORNIA	1	1698
110	BOULDER CREEK AT SOUTH	ARIZONA	1	1696
111	CARSON R. @ RIVERSIDE	NEVADA	1	1664
112	OWENS R BL TINEMAHA RES.	CALIFORNIA	1	1640

TABLE A-15. FRESHWATER REGIONS CONTAINING ELEVATED SEDIMENT LEVELS OF ALDRIN. CONCENTRATIONS ARE IN µg/kg.

OBS	LOC	STATE	N	MEAN
1		COLORADO		19285.0
2	HILO BAY	HAWAII	1	3333.0
3	WAILUKU BAY	HAWAII	1	2717.0
4	BELMONT STP-- GREASE PIT, INDPLS	INDIANA	1	2500.0
5	ALAPO LAKE	ARIZONA	1	1971.0
6	HUMBOLT RIVER @ IMLAY	NEVADA	1	1857.0
7	YUBA RIVER NEAR MARYSVILLE	CALIFORNIA	1	1830.0
8	AMERICAN R. AT ELVARTO ST.	CALIFORNIA	1	1750.0
9	BUFFALO CR AT AMERICAN RIVER	CALIFORNIA	1	1720.0
10	SALINAS RIVER AT GONZALES	CALIFORNIA	1	1696.0
11	BOULDER CREEK AT MOUTH	ARIZONA	1	1696.0
12	CARSON R. @ RIVERVIEW	NEVADA	1	1664.0
13	OWENS R BL TIBERNABA RES.	CALIFORNIA	1	1640.0
14	SANTA ANA RIVER BELOW PRADO DAM	CALIFORNIA	1	1631.0
15	BOULDER CREEK ABOVE WILDER CREEK	ARIZONA	1	1594.0
16	AMERICAN R. ABOVE SUNRISE IN	CALIFORNIA	1	1590.0
17	AMERICAN R. AT WATTS AVE.	CALIFORNIA	1	1590.0
18	COPPER CREEK AB BOULDER CREEK	ARIZONA	1	1551.0
19	LAHONTAN DAM	NEVADA	1	1461.0
20	COLORADO RIVER BELOW PARKER DAM	ARIZONA	1	1461.0
21	COLORADO R. @ YUMA	ARIZONA	1	1399.0
22	PEARL HARBOR E. LOCK	HAWAII	1	1350.0
23	ALA WAI CANAL	HAWAII	1	1250.0
24	E. FORK CARSON RIVER @ CARSON	NEVADA	1	1250.0
25	GILA RIVER AT GILLESPIE DAM	ARIZONA	2	1132.0
26	ESCANABA RIVER UPSTREAM 0.1 MI.	MICHIGAN	1	1030.0
27	NR MOUTH OF CYPRESS BAYOU, N OF	LOUISIANA	1	1000.0
28	INDIANA HARBOR	INDIANA	1	1000.0
29	ST CLAIR RIVER	MICHIGAN	1	1000.0
30	ST CLAIR RIVER	MICHIGAN	1	1000.0
31	ST CLAIR RIVER	MICHIGAN	1	1000.0
32	ST CLAIR RIVER	MICHIGAN	1	1000.0
33	ST CLAIR RIVER	MICHIGAN	1	1000.0
34	SANDY CR NR ABC COMPOUNDING CO AT A	GEORGIA	1	1000.0
35	KAHULUI HARBOR	HAWAII	2	917.0
36	INDIANA HARBOR	INDIANA	1	900.0
37	MEMPHIS AREA HAZARDOUS WASTE SITE 1	TENNESSEE	1	900.0
38	CARSON R @ NEW EMPIRE	NEVADA	2	892.0
39	SNAKE RIVER AT NYSSA, OR	OREGON	1	888.4
40	LAKE TAHOE AT SAND HARBOR	NEVADA	2	802.0
41	LYNX LAKE	ARIZONA	1	786.1
42	MOKELUMNE R AT WOODBRIDGE	CALIFORNIA	1	733.1
43	INDIANA HARBOR	INDIANA	1	700.0
44	TUOLUMNE RIVER AT TUOLUMNE CITY	CALIFORNIA	1	693.4
45	PATAGONIA LAKE	ARIZONA	1	651.0
46	ALAMO R NR CALIPATRIA	CALIFORNIA	1	634.3
47	SAN FRANCISCO R. AT CLIFTON	ARIZONA	1	636.9
48	ROOSEVELT LAKE SALT R. ARM	ARIZONA	1	521.1
49	INDIANA HARBOR	INDIANA	1	500.0
50	INDIANA HARBOR	INDIANA	1	500.0
51	INDIANA HARBOR	INDIANA	1	500.0
52	INDIANA HARBOR	INDIANA	1	500.0
53	INDIANA HARBOR	INDIANA	1	500.0
54	ROCK SLOUGH AT DELTA CO BRIDGE	CALIFORNIA	1	500.0
55	SAN JOAQUIN R AT ANTIOCH HARB	CALIFORNIA	1	500.0
56	EEL RIVER AT MIC DELL, DAVIS STREET	CALIFORNIA	1	500.0

TABLE A-15. (Continued)

OBS	LOC	STATE	N	MEAN
57	LAS VEGAS WASH AT NORTH SHORE ROAD	NEVADA	1	500.000
58	CALLVILLE BAY LAKE MEAD	NEVADA	1	500.000
59	LAS VEGAS BAY LAKE MEAD	NEVADA	1	500.000
60	LAKE PILLSBURY NEAR SCOTT R DAM	CALIFORNIA	1	500.000
61	SAN JOAQUIN RIVER AT STANISLAUS CO.	CALIFORNIA	1	500.000
62	LAKE MENDOCINO AT HWY 20 BRIDGE	CALIFORNIA	1	500.000
63	RUSSIAN RIVER AT UKIAH TREATMENT PL	CALIFORNIA	1	500.000
64	RUSSIAN RIVER - MONTE RIO	CALIFORNIA	1	500.000
65	MAD RIVER AT ESSEX LANE	CALIFORNIA	1	500.000
66	SANTA CRUZ BELOW ROGER ROAD WASTE W	ARIZONA	1	500.000
67	L. BLACK CRK EVANSTON RD; MUSKEGON	MICHIGAN	1	500.000
68	LITTLE BEAR CR. AT RUSSEL RD; DALTO	MICHIGAN	1	500.000
69	LITTLE BEAR CRK RIVER RD.; DALTON T	MICHIGAN	1	500.000
70	LITTLE BEAR CR. AT GILES RI; MUSKEG	MICHIGAN	1	500.000
71	SUISUN BAY S. OF MIDDLE GROUND	CALIFORNIA	1	330.000
72	NEW YORK SLOUGH	CALIFORNIA	1	330.000
73	S.F. AIRPORT INDUSTRIAL PLANT	CALIFORNIA	1	330.000
74	INDIANA HARBOR	INDIANA	1	300.000
75	INDIANA HARBOR	INDIANA	2	300.000
76	T & MASON STP AT MEMPHIS TN TO MISS	TENNESSEE	1	300.000
77	TRUCKEE RIVER AT LOCKWOOD	NEVADA	2	287.000
78	TRUCKEE RIVER AT FARAD	CALIFORNIA	2	286.000
79	GRANT PARK WISCONSIN	MINNESOTA	2	200.000
80	AT GAGING STATION	GEORGIA	1	200.000
81	BILLINGTON STP AT BILLINGTON TN TO	TENNESSEE	1	200.000
82		TENNESSEE	1	200.000
83		TENNESSEE	1	200.000
84	WILSON ROAD BRIDGE	TENNESSEE	1	200.000
85	EAST 38TH. STREET BRIDGE	TENNESSEE	1	200.000
86	RAILROAD BRIDGE	TENNESSEE	2	200.000
87	TRIBUTARY TO CHATTANOOGA CREEK 2.2	TENNESSEE	1	200.000
88	TRIBUTARY TO CHATTANOOGA CREEK 0.3	TENNESSEE	1	200.000
89	POND NEAR TENNESSEE-GEORGIA STATE L	TENNESSEE	1	200.000
90	HOOKER HAMILL ROAD CULVERT	TENNESSEE	1	200.000
91	TRIBUTARY TO CHATTANOOGA CREEK 4.85	TENNESSEE	1	200.000
92	HAMILL ROAD BRIDGE	TENNESSEE	1	200.000
93	BOULDER CREEK BELOW MULHOLLAND WASH	ARIZONA	1	190.000
94	BRAYS BAYOU AT SCOTT STREET, AT HOU	TEXAS	1	190.000
95	LAKE PALOUNDE, ABOUT 10 MI. NE O	LOUISIANA	1	150.000
96	PASSAIC RIVER NEAR CHATHAM NJ	NEW JERSEY	1	149.900
97	OFF LARRAB PT AT IPC OUTFALL TOXIC	VERMONT	1	130.000
98	ARKANSAS RIVER NEAR PONCA CITY	OKLAHOMA	1	125.000
99	BAYOU DESCANNES, AT HWY 104 CROS	LOUISIANA	1	110.000
100	TURTLE CREEK NR PALACIOS, TEXAS	TEXAS	1	105.900
101	SABINE RIVER NR ORANGE, TEX.	TEXAS	1	101.000
102	ASHTABULA HARBOR, OHIO	OHIO	1	100.000
103	ASHTABULA HARBOR, OHIO	OHIO	1	100.000
104	ASHTABULA HARBOR, OHIO	OHIO	1	100.000
105	ASHTABULA HARBOR, OHIO	OHIO	1	100.000
106	ASHTABULA HARBOR, OHIO	OHIO	1	100.000
107	ASHTABULA HARBOR, OHIO	OHIO	1	100.000
108	ASHTABULA HARBOR, OHIO	OHIO	1	100.000
109	ASHTABULA HARBOR, OHIO	OHIO	1	100.000
110	ASHTABULA HARBOR, OHIO	OHIO	1	100.000
111	BLACK RIVER, MICHIGAN	WISCONSIN	1	100.000
112	BLACK RIVER, MICHIGAN	WISCONSIN	1	100.000

TABLE A-15. (Continued)

OBS	LOC	STATE	N	MEAN
113	CASTVILLE HARBOR,MICHIGAN	MICHIGAN	1	100.000
114	CLEVELAND HARBOR	OHIO	1	100.000
115	CLEVELAND HARBOR	OHIO	1	100.000
116	BELL CITY DRAINAGE CANAL	LOUISIANA	1	100.000
117	HARRISVILLE HARBOR	MICHIGAN	1	100.000
118	INDIANA HARBOR	INDIANA	1	100.000
119	INDIANA HARBOR	INDIANA	1	100.000
120	INDIANA HARBOR	INDIANA	1	100.000
121	IROQUOQUOIT BAY	NEW YORK	1	100.000
122	IRONDEQUOIT BAY	NEW YORK	1	100.000
123	LES CHANDEAUX ISLANDS CHANNELS	MICHIGAN	1	100.000
124	LES CHANDEAUX ISLANDS CHANNELS	MICHIGAN	1	100.000
125	LITTLE SALMON RIVER	NEW YORK	1	100.000
126	MONROE HARBOR	MICHIGAN	1	100.000
127	MONROE HARBOR	MICHIGAN	1	100.000
128	OGDENSBURG	NEW YORK	1	100.000
129	PENSAUKEE HARBOR	WISCONSIN	1	100.000
130	POINT LOOKOUT HARBOR	MICHIGAN	1	100.000
131	PORT WASHINGTON	WISCONSIN	1	100.000
132	IRVINE AVENUE BRIDGE	CALIFORNIA	1	100.000
133	CAMPUS DRIVE BRIDGE	CALIFORNIA	1	100.000
134	SAINT LOUIS RIVER	WISCONSIN	2	100.000
135	SAINT LOUIS RIVER	WISCONSIN	1	100.000
136	SAINT LOUIS RIVER	WISCONSIN	2	100.000
137	SAINT LOUIS RIVER	WISCONSIN	2	100.000
138	SAINT LOUIS RIVER	WISCONSIN	1	100.000
139	SAINT LOUIS RIVER	WISCONSIN	2	100.000
140	CLEVELAND HARBOR	OHIO	1	100.000
141	CLEVELAND HARBOR	OHIO	2	100.000
142	MEMPHIS TENN AT HOLLYWOOD RD AREA 5	TENNESSEE	1	100.000
143	P. MARQ. LK-N CENT PORTION; P. MARQ	MASON CO., MI	1	100.000
144	P. MARQ. LK@ OLD WWTP DISCH; P. MAR	MASON CO., MI	1	100.000
145	PERE MARQUETTE LK-CENTER; P. MARQ.	MASON CO., MI	1	100.000
146	P. MARQ. LK NEAR DOW CHEM; P. MARQ.	MASON CO., MI	1	100.000
147	P. MARQ. LK IN SE PORTION; P. MARQ.	MICHIGAN	1	100.000
148	P. MARQ. LK IN SW PORTION; P. MARQ.	MASON CO., MI	1	100.000
149	DULUTH HARBOR	MINNESOTA	1	100.000
150	DULUTH HARBOR	WISCONSIN	1	100.000
151	DULUTH HARBOR	WISCONSIN	1	100.000
152	DULUTH HARBOR	WISCONSIN	1	100.000
153	DULUTH HARBOR	WISCONSIN	1	100.000
154	DULUTH HARBOR	WISCONSIN	1	100.000
155	DULUTH HARBOR	WISCONSIN	1	100.000
156	LAKE MACKENZIE, FIRST TURN FROM	TEXAS	3	79.333
157	CANADIAN RIVER AT CALVIN	OKLAHOMA	1	76.000
158	KALIHI STREAM AT KALIHI, OAHU, HI	HAWAII	4	74.480
159	AT POLO DAY DRIVE BRIDGE	CALIFORNIA	2	70.000
160	CLEVELAND HARBOR	OHIO	1	70.000
161	CLEVELAND HARBOR	OHIO	1	70.000
162	CLEVELAND HARBOR	OHIO	2	70.000
163	CLEVELAND HARBOR	OHIO	1	70.000
164	CLEVELAND HARBOR	OHIO	1	70.000
165	CLEVELAND HARBOR	OHIO	1	70.000
166	CLEVELAND HARBOR	OHIO	1	70.000
167	CLEVELAND HARBOR	OHIO	2	70.000
168	CLEVELAND HARBOR	OHIO	1	70.000

TABLE A-15. (Continued)

OBS	LOC	STATE	N	MEAN
169	REELY CREEK NR HIGHLAND, FLA.	FLORIDA	1	65.9990
170	JADCO HUGHES PROPERTY AT BELMONT NC	NORTH CAROLINA	1	60.0000
171	E-2F CANAL AT CITAT HOOPE TO NR BOC	FLORIDA	1	53.0000
172	LAKE VERMET, NORTH END : 10 MI.	LOUISIANA	1	50.0000
173	CLEVELAND HARBOR	OHIO	1	50.0000
174	CLEVELAND HARBOR	OHIO	1	50.0000
175	CLEVELAND HARBOR	OHIO	1	50.0000
176	CLEVELAND HARBOR	OHIO	1	50.0000
177	CLEVELAND HARBOR	OHIO	1	50.0000
178	CLEVELAND HARBOR	OHIO	2	50.0000
179	CLEVELAND HARBOR	OHIO	1	50.0000
180	CLEVELAND HARBOR	OHIO	1	50.0000
181	CLEVELAND HARBOR	OHIO	1	50.0000
182	GRAND PONTAGE,MINNESOTA	MINNESOTA	1	50.0000
183	GRAND PONTAGE,MINNESOTA	MINNESOTA	1	50.0000
184	GRAND PONTAGE,MINNESOTA	MINNESOTA	1	50.0000
185	GRAND PONTAGE,MINNESOTA	MINNESOTA	2	50.0000
186	4000 FT BELOW EAST CREEK RUTLAND TO	VERMONT	1	50.0000
187	TOPAZ LAKE	NEVADA	1	50.0000
188	GULF INT. COAST. WATERWAY AT BIG	TEXAS	1	50.0000
189	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	50.0000
190	CLEVELAND HARBOR	OHIO	1	50.0000
191	KANSAS CITY WATER TREATMENT PLT.	MISSOURI	1	45.0000
192	MISSOURI RIVER NEAR I480 BRIDGE	NEBRASKA	1	45.0000
193	MISSOURI RIVER AT SIOUX CITY	IOWA	1	45.0000
194	ACME-MAM WATER SUPPLY NO H	KANSAS	1	45.0000
195	MO WATER COMPANY WATER SUPPLY	MISSOURI	1	45.0000
196	CIMARRON RIVER NEAR GUTHRIE	OKLAHOMA	1	42.7900
197	BAYOU SIGUR, S OF PARISH RT. CHU	LOUISIANA	1	40.0000
198	BAYOU DESCANNES, AT HWY 97 CROSS	LOUISIANA	1	40.0000
199	BAYOU PLAQUEMINE AT HWY 15 CROSS	LOUISIANA	1	40.0000
200	UPSTREAM OF P08-P05 CONFLUENCE	CALIFORNIA	1	40.0000
201	100 FEET SOUTH OF DAM	CALIFORNIA	1	40.0000
202	KY RIVER AT HEIDELBERG LOCK #14	KENTUCKY	1	40.0000
203	3 MI BELOW N. BENNINGTON AT SUDOR V	VERMONT	1	40.0000
204	1000 FT. BELOW N. POWNAL DAM AN TAR	VERMONT	1	40.0000
205	4000 FT. ABOVE N. POWNAL DAM TOXIC	VERMONT	1	40.0000
206	NORTH OF LAZY LADY ISLAND AT PRR 4	VERMONT	1	40.0000
207	BEHIND BREAKWATER 2000 FT SOUTH OF	VERMONT	1	40.0000
208	WATER DISTRICT INTAKE BETWEEN PARK	VERMONT	1	40.0000
209	POWER LINE CROSSING 1.5 MI ABOVE PI	VERMONT	1	40.0000
210	1000 FT BELOW RT 7 BRIDGE IN ST JOH	VERMONT	1	40.0000
211	OLD RT 11 BRG ABOVE GOULDS MILL S O	VERMONT	1	40.0000
212	LITTLE ARKANSAS R AT ARKS CT	KANSAS	1	40.0000
213	TRINITY R AT RELT LINE RD	TEXAS	1	40.0000
214	MEMPHIS TENN AT HOLLYWOOD RD AREA S	TENNESSEE	1	40.0000
215	MEMPHIS TENN AT HOLLYWOOD RD AREA S	TENNESSEE	1	40.0000
216	POTEAU RIVER NEAR FORT SMITH,ARK	OKLAHOMA	1	37.0000
217	SHELLROCK R. WEST OF HUMBOLDT	IOWA	1	36.0000
218	STAUFFER CHEMICAL -- OWLINGS ALUM F	OREGON	1	35.0000
219	STURGEON RIVER UPSTREAM 0.25 MI.	MICHIGAN	1	35.0000
220	MILLERSBRANCH BAYOU 1/4 MI DOWNST	TEXAS	1	33.0000
221	COOPER R AT MARLBORO RD AT LINDENAU	NEW JERSEY	1	32.0000
222	HOLLAND HARBOR, MICHIGAN	MICHIGAN	1	30.0000
223	HOLLAND HARBOR, MICHIGAN	MICHIGAN	1	30.0000
224	HOLLAND HARBOR, MICHIGAN	MICHIGAN	1	30.0000

TABLE A-16. FRESHWATER REGIONS CONTAINING ELEVATED SEDIMENT LEVELS OF CHLORDANE. CONCENTRATIONS ARE IN µg/kg.

OBS	LOC	STATE	N	MEAN
1	EIGHT MILE CREEK STP AT PRITCHARD A	ALABAMA	1	150000
2	SIMS BAYOU AT SH 35	TEXAS	1	48100
3	MORRISTOWN STP AT MORRISTOWN TN	TENNESSEE	1	30000
4	CHEMTRONICS INC WEST AT ASHEVILLE N	NORTH CAROLINA	1	20000
5	CAHABA RIVER STP AT BIRMINGHAM AL I	ALABAMA	1	18000
6	VALLEY CR STP AT BESSEMER AL TO VAL	ALABAMA	1	16450
7	ALBERTVILLE WEST SIDE STP AT ALBERT	ALABAMA	1	16000
8	STRAWBRIDGE LAKE/LOWER LAKE COMPOSI	NEW JERSEY	1	11690
9	LAFOLLETTE STP AT LAFOLLETTE TN TO	TENNESSEE	1	11540
10	KINGSPORT STP AT KINGSPORT TN TO S	TENNESSEE	1	11140
11	OAK CREEK AT NORTH EIGHT ST. IN BENT	MICHIGAN	2	10750
12	SNAKE RIVER AT NYSSA, OR	OREGON	1	9569
13	NO LAUDERDALE STP AT NO LAUDERDALE	FLORIDA	1	7000
14	WEST STP AT OAK RIDGE TN TO EAST FO	TENNESSEE	2	6060
15	POTATO CR STP AT GRIFFIN GA TO POTA	GEORGIA	1	6000
16	EAST RIDGE STP AT EAST RIDGE TN TO	TENNESSEE	1	5860
17	NO LAUDERDALE STP AT NO LAUDERDALE	FLORIDA	1	5790
18	WESTSIDE STP AT HIGH POINT NC TO RI	NORTH CAROLINA	1	5210
19	EAST STP AT OAK RIDGE TN TO CLINCH	TENNESSEE	2	5000
20	TUSCUMBIA STP AT TUSCUMBIA AL TO SP	ALABAMA	1	5000
21	HARDY CR STP NO THOMASVILLE NC TO H	NORTH CAROLINA	1	5000
22	106 & POMP DEM RIVER AT FT LAUDERDA	FLORIDA	1	4999
23	GALLATIN STP AT GALLATIN TN TO CUMB	TENNESSEE	1	4950
24	MEBANE BRIDGE STP AT EDEN NC TO DAN	NORTH CAROLINA	1	4650
25	BEECH CR STP AT JOHNSON CITY TN TO	TENNESSEE	1	4590
26	BELMONT STP-- GREASE PIT, INDPLS	INDIANA	1	4430
27	CEDARTOWN STP AT CEDARTOWN GA TO BI	GEORGIA	1	4060
28	DANDRIDGE STP AT DANDRIDGE TN TO FR	TENNESSEE	1	4000
29	BRAINERD STP AT CHATTANOOGA TN TO S	TENNESSEE	1	3995
30	NO LAUDERDALE STP AT NO LAUDERDALE	FLORIDA	1	3900
31	PATTON CR STP AT BIRMINGHAM AL TO P	ALABAMA	2	3600
32	HOLLYWOOD STP AT HOLLYWOOD FLA TO A	FLORIDA	1	3600
33	FOURTH CR STP AT KNOXVILLE TN TO TE	TENNESSEE	2	3591
34	FT RUCKER STP AT FT RUCKER AL TO CL	ALABAMA	1	3500
35	SWEETWATER STP AT SWEETWATER TN TO	TENNESSEE	1	3490
36	HENDERSON STP AT HENDERSON KY TO OH	KENTUCKY	1	3400
37	GREENEVILLE STP AT GREENEVILLE TN T	TENNESSEE	2	3350
38	HILO BAY	HAWAII	1	3333
39	MOODY AIR FORCE BASE AT VALDOSTA GA	GEORGIA	1	3250
40	MEMPHIS TENN AT HOLLYWOOD RD AREA S	TENNESSEE	1	3200
41	PHENIX CITY STP AT PHENIX CITY AL	ALABAMA	2	3196
42	HARFORTCH LAKE/LOWER AREA COMPOSITE	NEW JERSEY	1	3103
43	SYLACAUGA FIVE POINTS STP AT SYLACA	ALABAMA	1	3060
44	NORTHSIDE STP AT DURHAM NC TO ELLER	NORTH CAROLINA	1	3060
45	LAFAYETTE STP AT LAFAYETTE GA TO CH	GEORGIA	1	3000
46	TRION STP AT TRION GA TO CHATTOOGA	GEORGIA	1	3000
47	TROY EASTSIDE STP AT TROY AL TO BAL	ALABAMA	1	2900
48	NEUSE RIVER STP AT RALEIGH NC TO MI	NORTH CAROLINA	1	2900
49	MANILIWILI BAY	HAWAII	1	2717
50	GENEVA STP AT GENEVA AL TO PEA RIVE	ALABAMA	1	2660
51	LEEDS STP AT LEEDS AL TO LITTLE CAH	ALABAMA	1	2530
52	TALLADEGA STP NO 1 AT TALLADEGA AL	ALABAMA	1	2520
53	SMYRNTVILLE STP AT SMYRNTVILLE TN T	TENNESSEE	1	2460
54	HARRIMAN STP AT HARRIMAN TN TO CANE	TENNESSEE	1	2310
55	SHAWS VALLEY STP AT BIRMINGHAM AL	ALABAMA	1	2300
56	GILA RIVER AT GILLESPIE DAM	ARIZONA	1	2232

TABLE A_16. (Continued)

OBS	LOC	STATE	#	MEAN
57	ATHENS STP NO 2 AT ATHENS GA TO PIE	GEORGIA	1	2210.00
58	SAND CK OFF END SMALLRIDGE :T; BENTO	MICHIGAN	2	2050.00
59	ATHENS STP NO 1 AT ATHENS GA TO NOR	GEORGIA	1	2040.00
60	AUBURN SOUTHSIDE STP AT AUBURN AL	ALABAMA	2	2040.00
61	CLEMSON STP AT CLEMSON SC TO LAKE H	SOUTH CAROLINA	1	2020.00
62	DRY CREEK STP AT NASHVILLE TN TO CH	TENNESSEE	1	2000.00
63	ALAMO LAKE	ARIZONA	1	1971.00
64	JACKSONVILLE STP AT JACKSONVILLE AL	ALABAMA	1	1960.00
65	HUMBOLT RIVER @ IMLAY	NEVADA	1	1857.00
66	YUBA RIVER NEAR MARYSVILLE	CALIFORNIA	1	1830.00
67	KAHULUI HARBOR	HAWAII	1	1801.00
68	AMERICAN R. AT ELVANTO ST.	CALIFORNIA	1	1750.00
69	BUFFALO CK AT AMERICAN RIVER	CALIFORNIA	1	1726.00
70	CARSON R @ NEW EMPIRE	NEVADA	1	1714.00
71	SALINAS RIVER AT GONZALES	CALIFORNIA	1	1698.00
72	BOULDER CREEK AT MOUTH	ARIZONA	1	1698.00
73	CARSON R. @ RIVERVIEW	NEVADA	1	1664.00
74	OWENS R BL TINEMAHA RES.	CALIFORNIA	1	1640.00
75	SANTA ANA RIVER BELOW PRADO DAM	CALIFORNIA	1	1631.00
76	BOULDER CREEK ABOVE WILDER CREEK	ARIZONA	1	1594.00
77	AMERICAN R. ABOVE SUNRISE DR	CALIFORNIA	1	1590.00
78	AMERICAN R. AT WATTS AVE.	CALIFORNIA	1	1590.00
79	COPPER CREEK AB BOULDER CREEK	ARIZONA	1	1551.00
80	LAKE TAHOE AT SAND HARBOR	NEVADA	1	1535.00
81	NO LAUDERDALE STP AT NO LAUDERDALE	FLORIDA	1	1500.00
82	LAHONTAN DAM	NEVADA	1	1483.60
83	WHITES CK STP AT NASHVILLE TN TO CU	TENNESSEE	2	1470.00
84	COLORADO RIVER BELOW PARKER DAM	ARIZONA	1	1461.00
85	GADSDEN EAST MIV STP AT GADSDEN AL	ALABAMA	1	1450.00
86	TOWN CREEK STP AT JASPER AL TO TOWN	ALABAMA	1	1400.00
87	COLORADO R. @ YUMA	ARIZONA	1	1349.00
88	SAND CREEK AT TERRITORIAL RD; BENTO	MICHIGAN	1	1300.00
89	PEARL HARBOR E. LOCK	HAWAII	1	1250.00
90	ALA WAI CANAL	HAWAII	1	1250.00
91	E. FORK CARSON RIVER @ CARSON	NEVADA	1	1250.00
92	ST JOE R EAST HILLSDALE WWTP;HILLSD	MICHIGAN	1	1110.00
93	WALESBORO STP AT WADESBORO NC TO BR	NORTH CAROLINA	1	1090.00
94	BASIN 1	ILLINOIS	11	1057.27
95	TARBORO STP AT TARBORO NC TO TAR RI	NORTH CAROLINA	2	1005.00
96	CANYON LK IN NW BASIN, HASTINGS TWP	MICHIGAN	1	1000.00
97	LONG LK IN CENT BASIN, HOPE TWP, SE	MICHIGAN	1	1000.00
98	PINE LK IN NE BASIN, PRAIRIEVILLE T	MICHIGAN	1	1000.00
99	BIG PORTAGE LAKE-SOUTH BASIN; DEATI	MICHIGAN	1	1000.00
100	PROSPECT C AT RNA LA NR SARATOGA CA	CALIFORNIA	1	999.90
101	ROOSEVELT LAKE SALT R. ARM	ARIZONA	1	963.30
102	DAVIS CK AT MILLER STREET; COMSTOCK	KALAMAZOO CO.,MI	1	960.00
103	DAVIS CK AT OLMSTEAD STREET; COMSTO	MICHIGAN	1	960.00
104	TOMPKINSVILLE STP AT TOMPKINSVILLE	KENTUCKY	1	910.00
105	JEFFERSON CITY STP AT JEFFERSON CIT	TENNESSEE	1	900.00
106	SOUTH RIVER - SNAPPING SHOALS	GEORGIA	1	891.00
107	LAKE CITY STP AT LAKE CITY SC TO LI	SOUTH CAROLINA	1	870.00
108	PLASTER CK AT MARKET AVE; CITY OF G	MICHIGAN	1	830.00
109	PAW PAW R AT NORTH SHORE DR; BENTON	MICHIGAN	1	820.67
110	KALIHI STREAM AT KALIHI, OAHU, HI	HAWAII	6	820.15
111	ORANGEBURG STP AT ORANGEBURG SC TO	SOUTH CAROLINA	1	800.00
112	E BR ANTIETAM CR NEAR WAYNESBORO	PENNSYLVANIA	1	800.00

TABLE A-16. (Continued)

OBS	LOC	STATE	N	MEAN
113	FIVE MILE CK STP AT BIRMINGHAM AL	ALABAMA	1	800.000
114	LYNN LAKE	ARIZONA	1	766.100
115	BRAYS BAYOU AT SCOTT STREET, AT HOU	TEXAS	4	775.000
116	MORELUMNE R AT WOODBRIDGE	CALIFORNIA	1	733.100
117	TUOLUMNE RIVER AT TUOLUMNE CITY	CALIFORNIA	1	693.400
118	BELMONT STP-MAN PRIMARY SLUDGE , IN	INDIANA	1	690.000
119	BRAYS BAYOU AT HOUSTON, TEX.	TEXAS	10	685.880
120	BOWLING GREEN STP AT BOWLING GREEN	KENTUCKY	1	680.000
121	PATAGONIA LAKE	ARIZONA	1	651.000
122	ATHENTVILLE EAST SIDE STP AT ATHENS	ALABAMA	1	650.000
123	TAMPA FL AT STUART HWY HAZARDOUS W	FLORIDA	1	650.000
124	ALAMO R NR CALIPATRIA	CALIFORNIA	1	639.300
125	SAN FRANCISCO R. AT CLIFTON	ARIZONA	1	616.900
126	PASSAIC RIVER NEAR CHATHAM NJ	NEW JERSEY	2	625.950
127	LAKE MUNSON NEAR TALLAHASSEE,FLA STP	FLORIDA	1	600.000
128	MONROE STP AT MONROE NC TO RICHARDS	NORTH CAROLINA	1	600.000
129	PASSAIC R AT HARRISON NJ	NEW JERSEY	2	594.950
130	GORDON RIVER AT NAPLES,FLA	FLORIDA	3	589.633
131	BRICKHOUSE GULLY AT COSTA RICA ST.,	TEXAS	4	587.500
132	HOUSTON SHIP CHANNEL AT TABC ESW	TEXAS	1	587.000
133	POMPANO CA AT POMPANO BEACH FLA	FLORIDA	3	573.267
134	HUNTING BAYOU AT I-10 610 HOUSTON, T	TEXAS	1	559.900
135	SIMS BAYOU AT HOUSTON, TEX.	TEXAS	3	556.667
136	ST JOE & OPST HILLSDALE WWTP;HILLSD	MICHIGAN	1	540.000
137	LOWER OVERPECK LAKE/SURFACE COMPOST	NEW JERSEY	1	536.900
138	OTHER WATERS IN LUMMOCK	TEXAS	1	535.600
139	GRAHAM STP AT GRAHAM NC TO TOWN BRA	NORTH CAROLINA	1	530.000
140	SHELDRAKE R AT QUAKER RIDGE RD NEW	NEW YORK	1	530.000
141	WAIAELE STREAM AT WAIPAHU, OAHU, HI	HAWAII	4	517.700
142	HACKENSACK R AT HACKENSACK NJ	NEW JERSEY	2	514.950
143	TRINITY R AT BELT LINE RD	TEXAS	1	510.000
144	ROCK SLOUGH AT DELTA RD BRIDGE	CALIFORNIA	1	500.000
145	SAN JOAQUIN R AT ANTIOCH HARP	CALIFORNIA	1	500.000
146	EEL RIVER AT HIO DELL, DAVIS STREET	CALIFORNIA	1	500.000
147	LAS VEGAS WASH AT NORTH BOULDER ROAD	NEVADA	1	500.000
148	CALLVILLE BAY LAKE MEAD	NEVADA	1	500.000
149	LAS VEGAS BAY LAKE MEAD	NEVADA	1	500.000
150	LAKE PILLSBURY NEAR SCOTT R DAM	CALIFORNIA	1	500.000
151	SAN JOAQUIN RIVER AT STANISLAUS CO.	CALIFORNIA	1	500.000
152	LAKE MENDOCINO AT HWY 20 BRIDGE	CALIFORNIA	1	500.000
153	RUSSIAN RIVER AT UKIAH TREATMENT PL	CALIFORNIA	1	500.000
154	RUSSIAN RIVER - MONTE RIO	CALIFORNIA	1	500.000
155	RAD RIVER AT ESSEX LAKE	CALIFORNIA	1	500.000
156	TRUCKEE RIVER AT FANAL	CALIFORNIA	1	500.000
157	TRUCKEE RIVER AT LOCKWOOD	NEVADA	1	500.000
158	SANTA CRUZ BELOW ROGERS ROAD WASTE W	ARIZONA	1	500.000
159	ARMANDS CH. BELOW STP	VIRGINIA	1	500.000
160	L. BLACK CRK EVANSTON RD; MUSKEGON	MICHIGAN	1	500.000
161	LITTLE BEAR CK. AT MUSSEL RD; DALTO	MICHIGAN	1	500.000
162	LITTLE BEAR CRK RIVER RD.; DALTON T	MICHIGAN	1	500.000
163	LITTLE BEAR CK. AT GILES RD; MUSKEG	MICHIGAN	1	500.000
164	MEMPHIS TRAN AT HOLLYWOOD RD AREA S	TENNESSEE	1	460.000
165	TRINITY RIVER BELOW DALLAS, TEX.	TEXAS	4	449.925
166	CHATTAHOOCHEE RIVER AT LAGRANGE GAT	GEORGIA	1	441.000
167	TRINITY RIVER NEAR LOSSEN, TEXAS	TEXAS	1	439.900
168	DES PLAINES RIVER AT ROCKDALE, IL	ILLINOIS	1	430.000

TABLE A-16. (Continued)

OBS	LOC	STATE	N	MEAN
169	HAZELWOOD STP AT HAYNESVILLE NC TO	NORTH CAROLINA	1	430.000
170	ANTIETAM C AT HAGERSTOWN, MD	MARYLAND	1	429.900
171	PLANTATION CA @ NW 65TH AVE PLANTAT	FLORIDA	2	414.950
172	LITTLE ARKANSAS R AT BIRD ST	KANSAS	1	400.000
173	BIG BLUE R. BLW NEW CASTLE, IND	INDIANA	1	400.000
174	LK CHEMUNG IN CENTRAL BASIN.; GENOA	MICHIGAN	1	400.000
175	ORR LAKE IN WEST BASIN; HARLOND INP	MICHIGAN	1	400.000
176	WOODLAND LK-SOUTHEAST BASIN; BRIGHT	MICHIGAN	1	400.000
177	N NEW RIVER CANAL BL NGS-4 AR SOUTH	FLORIDA	1	399.900
178	ST JOSEPH R@ WWTP SCHO DR RR;HILLSD	MICHIGAN	1	390.000
179	BUFFALO BAYOU AT HOUSTON, TEX.	TEXAS	1	389.900
180	BERRY BAYOU AT FOREST OAKS ST. AT H	TEXAS	1	389.900
181	ASSUNPINK CREEK AT TRENTON NJ	NEW JERSEY	1	380.000
182	COLORADO R-ABOVE TIDAL-TOWN LAKE @	TEXAS	1	380.000
183	PLANTATION RD CA AT S-33 RR FT LAUD	FLORIDA	1	379.900
184	BELGARD BAYOU AT BOARD ROAD NEAR HO	TEXAS	1	379.900
185	PAW PAW R AT END OF GRAHAM ST. IN H	BERRIEN CO., MI	1	370.000
186	SIBS BAYOU AT MIMAR CLARKE ST., HOU	TEXAS	2	369.950
187	BEAR CREEK AT ST. PETERSBURG, FLA.	FLORIDA	1	360.000
188	NIVANNA RIVER	VIRGINIA	1	360.000
189	SYCAMORE CR DNSTR MASON WWTP; VEVAY	MICHIGAN	1	350.000
190	MANASQUAN RIVER AT SQUANKUM NJ	NEW JERSEY	1	349.900
191	LAKE LANIER AT INFLOW OF FLAT CREEK	GEORGIA	1	343.800
192	HOU SHIP CHANNEL-CONF W SIBS BAY	TEXAS	1	335.000

TABLE A-17. FRESHWATER REGIONS CONTAINING ELEVATED SEDIMENT LEVELS OF DDT. CONCENTRATIONS ARE IN µg/kg.

OBS	LOC	STATE	N	MEAN
1	FCD STATION LOK 9 ON LAKE OKEECHOBE	FLORIDA	1	110000
2	ESCANABA RIVER UPSTREAM 0.1 MI.	MICHIGAN	1	17400
3	FCD STATION LOK 6 ON LAKE OKEECHOBE	FLORIDA	1	15000
4	FCD STATION LOK 3 ON LAKE OKEECHOBE	FLORIDA	1	7400
5	BELMONT STP-- GREASE PIT, INDPLS	INDIANA	1	3700
6	FCD STATION LOK 4 ON LAKE OKEECHOBE	FLORIDA	1	2200
7	STRAWBRIDGE LAKE/LOWER LAKE COMPOSI	NEW JERSEY	1	2120
8	MILL CK AT MANAHAWKIN NJ	NEW JERSEY	1	1900
9	SNAKE RIVER AT NYSSA, OR	OREGON	1	1759
10	ANTIETAM C AT HAGERSTOWN, MD	MARYLAND	2	1420
11	BLACKWATER RIVER	MAINE	1	1300
12	LITTLE WHITEOAK BAYOU AT HOUSTON,TE	TEXAS	1	1199
13	STURGEON RIVER UPSTREAM 0.25 MI.	MICHIGAN	1	968
14	BEAVER POND BROOK	MAINE	1	905
15	CON AREA NO 1 MELON S-5A NR LOXAHA	FLORIDA	1	860
16	BEAVER POND BROOK	MAINE	1	815
17	BECHER R AT ALTO AT HWY 69 BRIDG	TEXAS	2	775
18	EAST BRANCH BASS RIVER NEAR NEW GRE	NEW JERSEY	1	690
19	SULPHUR RIVER BR TALCO, TEX.	TEXAS	2	677
20	SHIELDS BROOK	MAINE	1	605
21	SQUANKUM R AT MALAGA RD BR WILLIAMS	NEW JERSEY	2	600
22	E BR ANTIETAM CR NEAR WAYNESBORO	PENNSYLVANIA	1	500
23	LEON CR AT PRIVATE RD OFF QUINTA	TEXAS	2	464
24	BAYOU BARTHOLOMEW NEAR MCGEHEE, ARK	ARKANSAS	1	450
25	E-2E CANAL AT CLINT MOORE RD NR BOC	FLORIDA	1	426
26	TRINITY R AT BELT LINE RD	TEXAS	1	400
27	COLORADO R-ABOVE TIDAL-TOWN LAKE @	TEXAS	1	380
28	FLINT R. .6MI DWN FWS STATE DUCK	GEORGIA	1	364
29	CHATTAHOOCHEE RIVER DOWNSTREAM OF O	GEORGIA	1	293
30	WHITEFISH R. UPSTREAM 0.50. MILE	MICHIGAN	1	280
31	OUACHITA RIVER AT MONROE, LA.	LOUISIANA	1	260
32	WHIPPANY RIVER AT MORRISTOWN NJ	NEW JERSEY	1	220
33	STONY BR ALEXANDER RD AT PRINCETON	NEW JERSEY	1	210
34	TOMS R AT TOMS R NJ	NEW JERSEY	1	200
35	BECK BAYOU NEAR HUGHES, ARK.	ARKANSAS	1	200
36	BRAYS BAYOU AT SCOTT STREET, AT HOU	TEXAS	2	196
37	ANTIETAM C BL HAGERSTOWN, MD	MARYLAND	1	190
38	HUNTING BAYOU FALLS ST HOUSTON TX	TEXAS	4	189
39	BETHEL LAKE/SURFACE COMPOSITE	NEW JERSEY	1	185
40	SCHUYLKILL RIVER AT PHILADELPHIA, P	PENNSYLVANIA	1	180
41	STERLING BROOK	MAINE	1	178
42	LINCOLN PARK/UPPER LAKE COMPOSITE S	NEW JERSEY	1	171
43	ST. CHARLES RD BR	ILLINOIS	1	170
44	RIO GRANDE 7.8 MI UPSTREAM RIO GRAC	TEXAS	1	170
45	10B HILLSBORO CA AB SIC NR ANDYTOWN	FLORIDA	1	170
46	MCDONALDS BRANCH IN LEBANON STATE F	NEW JERSEY	1	160
47	10F R PONK NEB R BLVD AT FT LA	FLORIDA	1	160
48	GREAT EGG HARBOR R NR SICKLERVILLE	NEW JERSEY	1	157
49	VIOLETTE STREAM	MAINE	1	150
50	BUCKLEBURRY BROOK	MAINE	1	154
51	UNCOLCUS STREAM	MAINE	1	145
52	WEST BRANCH BEAVER BROOK	MAINE	1	147
53	HARRINGTON LAKE/LOWER AREA COMPOSITE	NEW JERSEY	1	147
54	INSLAYTOWN LAKE/SURFACE COMPOSITE	NEW JERSEY	1	146
55	HONEYSUCK LAKE NEAR HUGHES, ARK.	ARKANSAS	1	140
56	MILLSMORE CANAL AT US 441 AT ORENDA	FLORIDA	1	140

TABLE A-17. (Continued)

OBS	LOC	STATE	N	MEAN
57	SMITH BROOK	MAINE	1	139.000
58	OFF LAPRAW PT AT IHC OUTFALL TOXIC	VERMONT	1	130.000
59	WESTCUSA CR AT WEST CREEK NJ	NEW JERSEY	1	130.000
60	HAMMONTON CREEK AT WESCOATVILLE NJ	NEW JERSEY	1	130.000
61	BASIN 1	ILLINOIS	4	126.000
62	N FORK OF TRINITY R AT DALLAS, A	TEXAS	1	127.000
63	10b N MFB N CA Ab BOL LAF AB PT LAU	FLORIDA	3	126.567
64	LINCOLN PARK/CENTER LAKE COMPOSITE	NEW JERSEY	1	121.700
65	CROSSWICKS C AT GROVEVILLE NJ	NEW JERSEY	1	120.000
66	DELAWARE RIVER AT CHESTER PA	PENNSYLVANIA	1	120.000
67	10b HILLSBORO CA AT RGLINY RL Ba BA	FLORIDA	1	120.000
68	LAKE TUSCALOOSA AT HILLTOP ESTATES	ALABAMA	1	120.000
69	SHELDRAKE R AT QUAKER RIDGE RD NEW	NEW YORK	1	120.000
70	CAMIUS DRIVE BRIDGE	CALIFORNIA	3	118.667
71	STRIBIL ARM @ HITCHCOCK RD MICH CI	INDIANA	2	116.000
72	CEDAR RIVER 0.2b MILE UPSTREAM	MICHIGAN	1	112.000
73	CHOCOLATE BAYOU NR PORT LAVACA, TEX	TEXAS	4	110.720
74	L'ANGUILLE RIVER NR COLT, ARK.	ARKANSAS	1	110.000
75	PROSPECT C AT RBA 1A BR SABATOGA CA	CALIFORNIA	1	109.900
76	FOURMILE BROOK	MAINE	1	109.000
77	MOSQUITO BROOK	MAINE	1	107.600
78	MUD BROOK	MAINE	1	105.000
79	EAST BAY 6 AT TAMPA, FLA MI	FLORIDA	1	104.900
80	EL CAMPO - BR ON SH 71	TEXAS	2	102.000
81	LITTLE GODDARD BROOK	MAINE	1	101.000
82	LAKE PROVIDENCE NORTH OF LAKE PROV	LOUISIANA	3	100.333
83	AT BACK BAY DRIVE BRIDGE	CALIFORNIA	1	100.000
84	CHACKEN JACK SLOUGH DRAINAGE CGL	FLORIDA	1	100.000
85	LITTLE RIVER AT US AT 441 BR MILLED	GEORGIA	1	99.990
86	PECUEA CREEK TRIBUTARY NEAR STRASBU	PENNSYLVANIA	1	97.000
87	LAKE PROVIDENCE AT LAKE PROVIDENCE,	LOUISIANA	1	97.000
88	OTTER BROOK	MAINE	1	96.500
89	TUCKERTON CREEK AT TUCKERTON NJ	NEW JERSEY	1	94.000
90	MAIN DITCH FLAT BAYOU NEAR ALTH	ARKANSAS	1	94.000
91	BIG CREEK NEAR POPLAR GROVE, ARK.	ARKANSAS	3	93.627
92	VERMILION R.(BAYOU VERMILION) NR.CA	LOUISIANA	1	93.000
93	BRICKHOUSE GULLY AT COSTA RICA ST.,	TEXAS	6	92.832
94	MILLSTONE RIVER AT BLACKWELLS MILLS	NEW JERSEY	1	92.000
95	HUNTING BAYOU AT I-H 610 HOUSTON, T	TEXAS	3	91.967
96	BROAD RIVER @ US HWY 221A NR CLIFFS	NORTH CAROLINA	1	90.000
97	MAN RIVER NEAR SARAPAHAW NC	NORTH CAROLINA	1	90.000
98	CAPE FEAR RIVER AT ELLINGTON NC CO	NORTH CAROLINA	1	90.000
99	WILSON CREEK NEAR GRACE NC	NORTH CAROLINA	1	90.000
100	CATAWBA RIVER @ S BELMONT - CROSS R	NORTH CAROLINA	1	90.000
101	SUGAR CREEK NEAR FORT MILL, SC	NORTH CAROLINA	1	90.000
102	FRENCH BROAD R ASHEVILLE NC CROSS	NORTH CAROLINA	1	90.000
103	FRENCH BROAD RIVER AT MARSHALL	NORTH CAROLINA	1	90.000
104	CATALOOCHEE CREEK NEAR CATALOOCHEE	NORTH CAROLINA	1	90.000
105	PIGEON RIVER AT WAYNESVILLE NC	NORTH CAROLINA	2	90.000
106	HOLLOWBUCKET R AT POPLAR NC	NORTH CAROLINA	1	90.000
107	HIWASSEE RIVER AT HIWASSEE DAM, NC	NORTH CAROLINA	1	90.000
108	LITTLE TENNESSEE RIVER AT FRANCO NC	NORTH CAROLINA	1	90.000
109	MACON RIVER AT FINLEY NC	NORTH CAROLINA	1	90.000
110	BRUSH R BR CLAYTON NC	NORTH CAROLINA	1	90.000
111	NEW RIVER AT ARVILLA NC	NORTH CAROLINA	1	90.000
112	WATAUGA RIVER NEAR SUGAR GROVE NC	NORTH CAROLINA	1	90.000

TABLE A-17. (Continued)

OBS	LOC	STATE	N	MEAN
113	PAR RIVER NEAR MAYFIELD, NC	NORTH CAROLINA	1	90.0000
114	ROANOKE RIVER NEAR SCOTLAND NECK, N	NORTH CAROLINA	1	90.0000
115	ROANOKE RIVER AT SARS SOUCI NC	NORTH CAROLINA	1	90.0000
116	TAR RIVER AT TARBORO NC	NORTH CAROLINA	1	90.0000
117	BATH CREEK @ NC HWY 92 NEAR BATH NC	NORTH CAROLINA	1	90.0000
118	PAMLICO SOUND AT GREAT ISLAND, NC	NORTH CAROLINA	1	90.0000
119	ROGUE SOUND AT EMERALD ISLE NC	NORTH CAROLINA	1	90.0000
120	YADKIN R AT YADKIN COLLEGE	NORTH CAROLINA	1	90.0000
121	SULPHUR CR EASTBAY RD SUNNYSIDE WA	WASHINGTON	1	90.0000
122	SQUAW SWAMP BROOK AT BAUMBERT RD, M	MASSACHUSETTS	1	90.0000
123	CLINCH RIVER	VIRGINIA	1	90.0000
124	BAYOU TECHE AT ARNAUDVILLE, LA.	LOUISIANA	1	86.0000
125	BLACK BROOK	MAINE	2	85.5000
126	PEGAN BROOK AT NATICK, MA	MASSACHUSETTS	1	85.0000
127	VERMILION RIVER AT SR 3073 AT LAFAY	LOUISIANA	1	81.0000
128	SOUTH BRANCH OTTER BROOK	MAINE	1	80.0000
129	HOU SHIP CHANNEL-CONF U GREENS R	TEXAS	2	78.6500
130	CRYSTAL L SITE 1 2800 FT N OF E BCH	ILLINOIS	2	78.0000
131	CRYSTAL L SITE 2 200 FT BEFORE SR P	ILLINOIS	1	78.0000
132	COLORADO RIVER AT BASTROP	TEXAS	1	77.5000
133	LEON CREEK AT SR 13	TEXAS	1	77.0000
134	IRVINE AVENUE BRIDGE	CALIFORNIA	2	75.0000
135	BIG SUNFLOWER RIVER AT CLARKSDALE,	MISSISSIPPI	1	74.0000
136	NORTH CANADIAN RIVER AT WOODWARD	OKLAHOMA	1	74.0000
137	WEST PALM BEACH C ABV S-5A,NR LOXA	FLORIDA	2	73.0000
138	SAN ANTONIO RIVER NR ELMENDORF, TEX	TEXAS	1	71.0000
139	SCALE ONE SWAMP NEAR BISHOPVILLE,SC	SOUTH CAROLINA	2	67.4950
140	BRAZOS R AT WASHINGTON AT US 90	TEXAS	1	67.0000
141	CYPRESS CANAL C AT S-47A, NR POMPA	FLORIDA	1	66.9900
142	SNAKE BROOK AT MAYLAND, MA	MASSACHUSETTS	1	65.0000
143	DAVIDSONS MILL POND/LOWER PEA SUBP	NEW JERSEY	1	64.5700
144	BOEUF RIVER NEAR FT. NECESSITY	LOUISIANA	2	64.5000
145	BLUE RIVER NEAR CORNERVILLE (CONTRO	OKLAHOMA	1	64.0000
146	BRAYS BAYOU AT HOUSTON, TEX.	TEXAS	3	63.6600
147	SUSQUEHANNA R AT COLUMBIA, PA.	PENNSYLVANIA	1	63.0000
148	G DRAIN NR ALANO RIVER	CALIFORNIA	1	63.0000
149	WAIKELE STREAM AT WAIPAHU, OAHU, HA	HAWAII	2	62.5000
150	AT US 271	TEXAS	1	62.0000
151	MORRISONG CR. @ WEST READING PA	PENNSYLVANIA	1	61.9900
152	BIG CREEK AT POPLAR GROVE, ARK.	ARKANSAS	1	61.9900
153	SPRING LAKE CORP	NEW JERSEY	1	61.0000
154	ADAPS BAYOU AT RR1006 IN ORANGE	TEXAS	1	60.0000
155	KIAMICHI RIVER NEAR BIG CEDAR	OKLAHOMA	1	60.0000
156	CLEAR CREEK-ABOVE TIDAL @ FM 2351	TEXAS	1	60.0000
157	CARNEGIE LK AT BOATHOUSE AT PRINCET	NEW JERSEY	2	59.9900
158	PASSAIC RIVER NEAR MILLINGTON NJ	NEW JERSEY	1	59.0000
159	SIMS BAYOU AT NIHAM CLARK ST., HOU	TEXAS	1	57.5900
160	108 N FORK NEW RIVER AT FT LAUDERDA	FLORIDA	1	57.4900
161	BUFFALO BAYOU AT HOUSTON, TEX.	TEXAS	1	57.0000
162	10h GOLDEN GATE TRIB CA NR NAPLES F	FLORIDA	1	56.0000
163	DOCTORS CREEK AT ALLENTOWN NJ	NEW JERSEY	1	55.6000
164	NR PENNSAUKEN CREEK NR ROBBINSTOWN N	NEW JERSEY	1	55.0000
165	DID 16 DRAIN AT SUNNYSIDE WASH	WASHINGTON	1	55.0000
166	PORPTON R AT PAGANACK LAKE NJ	NEW JERSEY	1	54.0000
167	CROSSWICKS CR AT ROCKAPIN RD NR COO	NEW JERSEY	1	54.0000
168	SAUGATUCK R NR REDDING, CT	CONNECTICUT	1	53.5900

TABLE A-17. (Continued)

OBS	LOC	STATE	N	MEAN
169	ANTIETAM C NR SHARPSBURG, MD	MARYLAND	1	53.9900
170	101 CA-13 FEEDER CA AT 10TH AVE FT	FLORIDA	1	53.9900
171	ALLEGHENY R AT 6TH BRIDGE, PA.	PENNSYLVANIA	1	53.0000
172	CEDAR BAYOU ABOVE CEDAR BAYOU JN HI	TEXAS	1	53.0000
173	MILLHOUSE SWAMP DRN, HAMTHORNE LA.	MASSACHUSETTS	1	53.0000
174	VERONA LAKE/LOWER COMPOSITE SURFACE	NEW JERSEY	1	52.9900
175	YELLOW BR AT COLTS NECK NJ	NEW JERSEY	1	52.0000
176	COOPER R AT CAMDEN NJ	NEW JERSEY	1	52.0000
177	BAYOU MACON NEAR ARBOURNE, LOUISIA	LOUISIANA	1	52.0000
178	BAYOU COURTABLEAU AT WASHINGTON, LA	LOUISIANA	1	52.0000
179	LEAF BAYOU NEAR BOYLE, MISS.	MISSISSIPPI	1	51.0000
180	OTHER WATERS IN LUBBOCK	TEXAS	1	51.0000
181	MIDCHANNEL SOUTH OF BAY ISLE	CALIFORNIA	1	50.0000
182	MIDCHANNEL, EAST OF 28TH STREET	CALIFORNIA	1	50.0000
183	MIDBASIN 2 OF NEWPORT BRIDGE	CALIFORNIA	1	50.0000
184	4000 FT BELOW EAST CREEK HOTLAND TO	VERMONT	1	50.0000
185	TRINITY R @ SH 34 SE OF ROSSER IN FT	TEXAS	1	50.0000
186	TRINITY R SO LOOP SH12 N/DALLAS	TEXAS	1	50.0000
187	CHATTAHOOCHEE RIVER AT GA HWY 92	GEORGIA	1	50.0000
188	106 FIRST ST DRAIN DITCH MIAMI INT	FLORIDA	1	50.0000
189	DUNCAN CK, NEAR SOUTH	VIRGINIA	1	49.9900
190	CHENNYSTONE CNK	VIRGINIA	1	49.9900
191	SAN JOSE LAGOON NO 3 AT SAN JUAN,	PUERTO RICO	1	49.9900
192	CEDAR BAYOU AT CINT ROAD OFF FNOR 1	TEXAS	2	49.2500
193	HOU SHIP CHANNEL-CONF W SIMS BAY	TEXAS	1	49.1500
194	LOWER ECHO LAKE/SURFACE COMPOSITE	NEW JERSEY	1	48.0900
195	SOUTH RIVER - SHAPPING SHOALS	GEORGIA	2	48.0000
196	POMPTON R AT TWO BRIDGES NJ	NEW JERSEY	1	47.9900
197	VILLAGE CREEK NR NEWPORT, ARK.	ARKANSAS	1	47.9900
198	BAYOU BITO NEAR LONDAL, ARK.	ARKANSAS	1	47.9900
199	MANAQUE R AT MANAQUE NJ	NEW JERSEY	1	47.0000
200	@ FNK DRL AT FNK BRAZOS R AT BRDG O	TEXAS	1	47.0000
201	FCD STATION LOK 6 ON LAKE OKEECHOBE	FLORIDA	1	47.0000
202	PASSAIC RIVER NEAR CHATHAM NJ	NEW JERSEY	1	46.9900
203	DELAWARE RIVER AT PALMYRA NJ	NEW JERSEY	1	45.0000
204	POWOW RIVER AT OUTLET OF GREAT P.	NEW HAMPSHIRE	1	44.0000

TABLE A-18. FRESHWATER REGIONS CONTAINING ELEVATED SEDIMENT LEVELS OF HEPTACHLOR. CONCENTRATIONS ARE IN µg/kg.

OBS	LOC	STATE	N	MEAN
1	HILO BAY	HAWAII	1	5335.00
2	KANEOHE BAY	HAWAII	1	2717.00
3	ALAPO LAKE	ARIZONA	1	1971.00
4	HUMBOLT RIVER @ IMLAY	NEVADA	1	1857.00
5	YUBA RIVER NEAR MARYSVILLE	CALIFORNIA	1	1830.00
6	AMERICAN R. AT ELVARETO ST.	CALIFORNIA	1	1750.00
7	BUFFALO CR AT AMERICAN RIVER	CALIFORNIA	1	1726.00
8	SALINAS RIVER AT GONZALES	CALIFORNIA	1	1698.00
9	BOULDER CREEK AT MOUTH	ARIZONA	1	1698.00
10	CARSON R. @ RIVERVIEW	NEVADA	1	1664.00
11	OWENS R BL TINEMAHA RES.	CALIFORNIA	1	1640.00
12	SANTA ANA RIVER BELOW PRADO DAM	CALIFORNIA	1	1631.00
13	BOULDER CREEK ABOVE WILDEN CREEK	ARIZONA	1	1594.00
14	AMERICAN R. ABOVE SUNRISE BR	CALIFORNIA	1	1590.00
15	AMERICAN R. AT WATTS AVE.	CALIFORNIA	1	1590.00
16	COPPER CREEK AB BOULDER CREEK	ARIZONA	1	1551.00
17	LAHONTAN DAM	NEVADA	1	1483.00
18	COLORADO RIVER BELOW PARKER DAM	ARIZONA	1	1461.00
19	COLORADO R. @ YUMA	ARIZONA	1	1399.00
20	PEARL HARBOR E. LOCK	HAWAII	1	1250.00
21	ALA WAI CANAL	HAWAII	1	1250.00
22	E. FORK CARSON RIVER @ CARSON	NEVADA	1	1250.00
23	GILA RIVER AT GILLESPIE DAM	ARIZONA	2	1132.00
24	INDIANA HARBOR	INDIANA	1	1000.00
25	KAHULUI HARBOR	HAWAII	2	917.00
26	CARSON R @ NEW EMPIRE	NEVADA	2	892.00
27	LAKE TAHOE AT SAND HARBOR	NEVADA	2	862.00
28	LYNX LAKE	ARIZONA	1	786.10
29	MORELUMNE R AT WOODBRIDGE	CALIFORNIA	1	733.10
30	INDIANA HARBOR	INDIANA	1	700.00
31	TUOLUMNE RIVER AT TUOLUMNE CITY	CALIFORNIA	1	693.40
32	PATAGONIA LAKE	ARIZONA	1	651.00
33	ALAMO R NR CALIPATRIA	CALIFORNIA	1	639.30
34	SAN FRANCISCO R. AT CLIFTON	ARIZONA	1	636.90
35	ROOSEVELT LAKE SALT R. ARM	ARIZONA	2	521.15
36	ROCK SLOUGH AT DELTA RD BRIDGE	CALIFORNIA	1	500.00
37	SAN JOAQUIN R AT ANTIOCH HARB	CALIFORNIA	1	500.00
38	EEL RIVER AT RIO DELL, DAVIS STREET	CALIFORNIA	1	500.00
39	LAS VEGAS WASH AT NORTH SHORE ROAD	NEVADA	1	500.00
40	CALLVILLE BAY LAKE MEAD	NEVADA	1	500.00
41	LAS VEGAS BAY LAKE MEAD	NEVADA	1	500.00
42	LAKE PILLSBURY NEAR SCOTT L DAM	CALIFORNIA	1	500.00
43	SAN JOAQUIN RIVER AT STANISLAUS CO.	CALIFORNIA	1	500.00
44	LAKE MENDOCINO AT HWY 20 BRIDGE	CALIFORNIA	1	500.00
45	RUSSIAN RIVER AT UKIAH TREATMENT PL	CALIFORNIA	1	500.00
46	RUSSIAN RIVER - NORTH RIO	CALIFORNIA	1	500.00
47	MAD RIVER AT BLUE LAKE	CALIFORNIA	1	500.00
48	SANTA CRUZ BELOW NOGALES WASTE W	ARIZONA	1	500.00
49	L. BLACK CRK EVANSTON RD; MUSKEGON	MICHIGAN	1	500.00
50	LITTLE BEAR CR. AT RUSSEL RD; DALTO	MICHIGAN	1	500.00
51	LITTLE BEAR CRK RIVER RD.; DALTON T	MICHIGAN	1	500.00
52	LITTLE BEAR CR. AT GILES RD, MUSKEG	MICHIGAN	1	500.00
53	SAFETY CH AB ABC COMPOUNDING CO AT A	GEORGIA	1	400.00
54	BERMITE AREA HAZARDOUS WASTE SITE I	TENNESSEE	1	400.00
55	INDIANA HARBOR	INDIANA	1	350.00
56	TRUCKEE RIVER AT FARAD	CALIFORNIA	2	337.00

TABLE A-18. (Continued)

OBS	LOC	STATE	N	MEAN
57	SUISUN BAY S. OF MIDDLE GROUND	CALIFORNIA	1	330.000
58	NEW YORK SLOUGH	CALIFORNIA	1	330.000
59	S.F. AIRPORT INDUSTRIAL PLANT	CALIFORNIA	1	330.000
60	T E MAXON STP AT MEMPHIS TN TO MISS	TENNESSEE	1	300.000
61	TRUCKEE RIVER AT LOCKWOOD	NEVADA	2	287.000
62	PENSAUKEE HARBOR	WISCONSIN	1	200.000
63	PORT WASHINGTON	WISCONSIN	1	200.000
64	SAINT LOUIS RIVER	WISCONSIN	1	200.000
65	SAINT LOUIS RIVER	WISCONSIN	2	200.000
66	SAINT LOUIS RIVER	WISCONSIN	1	200.000
67	OCMULGEE RIVER NEAR MACON WATER INT	GEORGIA	1	200.000
68	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	200.000
69	AT GAGING STATION	GEORGIA	1	200.000
70	COOSA RIVER AT GA/ALA ST LINE NEAR	GEORGIA	1	200.000
71	BILLINGTON STP AT BILLINGTON TN TO	TENNESSEE	1	200.000
72		TENNESSEE	1	200.000
73		TENNESSEE	1	200.000
74	WILSON ROAD BRIDGE	TENNESSEE	1	200.000
75	EAST 38TH. STREET BRIDGE	TENNESSEE	2	200.000
76	RAILROAD BRIDGE	TENNESSEE	1	200.000
77	TRIBUTARY TO CHATTANOOGA CREEK 2.2	TENNESSEE	1	200.000
78	TRIBUTARY TO CHATTANOOGA CREEK 0.3	TENNESSEE	1	200.000
79	POND NEAR TENNESSEE-GEORGIA STATE L	TENNESSEE	1	200.000
80	HOOKER HARRILL ROAD CULVERT	TENNESSEE	1	200.000
81	TRIBUTARY TO CHATTANOOGA CREEK 0.45	TENNESSEE	1	200.000
82	HARRILL ROAD BRIDGE	TENNESSEE	1	200.000
83	BOULDER CREEK BELOW HOLLYWOOD MASH	ARIZONA	1	190.800
84	INDIANA HARBOR	INDIANA	1	150.000
85	KANSAS CITY WATER TREATMENT PLT.	MISSOURI	1	150.000
86	MISSOURI RIVER NEAR I480 BRIDGE	NEBRASKA	1	150.000
87	MISSOURI RIVER AT SIOUX CITY	IOWA	1	150.000
88	KCKN-MAW WATER SUPPLY MO R	KANSAS	1	150.000
89	MO WATER COMPANY WATER SUPPLY	MISSOURI	1	150.000
90	LAKE MACKENZIE, FIRST TURN FROM	TEXAS	2	145.000
91	OFF LAPRAN PT AT IPC OUTFALL TOXIC	VERMONT	1	130.000
92	FCD STATION LOK 9 ON LAKE OKEECHOBE	FLORIDA	1	130.000
93	BUFFALO SPRINGS LAKE	TEXAS	1	120.000
94	SHELLROCK R. UPST OF NORTHWOOD	IOWA	1	120.000
95	FCD STATION LOK 3 ON LAKE OKEECHOBE	FLORIDA	1	110.000
96	ASHTABULA HARBOR, OHIO	OHIO	1	100.000
97	ASHTABULA HARBOR, OHIO	OHIO	1	100.000
98	ASHTABULA HARBOR, OHIO	OHIO	1	100.000
99	ASHTABULA HARBOR, OHIO	OHIO	1	100.000
100	ASHTABULA HARBOR, OHIO	OHIO	1	100.000
101	ASHTABULA HARBOR, OHIO	OHIO	1	100.000
102	ASHTABULA HARBOR, OHIO	OHIO	1	100.000
103	ASHTABULA HARBOR, OHIO	OHIO	1	100.000
104	ASHTABULA HARBOR, OHIO	OHIO	1	100.000
105	BLACK RIVER, MICHIGAN	WISCONSIN	1	100.000
106	BLACK RIVER, MICHIGAN	WISCONSIN	1	100.000
107	CASTVILLE HARBOR,MICHIGAN	MICHIGAN	1	100.000
108	CLEVELAND HARBOR	OHIO	1	100.000
109	CLEVELAND HARBOR	OHIO	1	100.000
110	HARRISVILLE HARBOR	MICHIGAN	1	100.000
111	INDIANA HARBOR	INDIANA	1	100.000
112	INDIANA HARBOR	INDIANA	1	100.000

TABLE A-18. (Continued)

OBS	LOC	STATE	N	MEAN
113	INDIANA HARBOR	INDIANA	1	100.000
114	INDIANA HARBOR	INDIANA	1	100.000
115	INDIANA HARBOR	INDIANA	2	100.000
116	INDIANA HARBOR	INDIANA	1	100.000
117	INDIANA HARBOR	INDIANA	1	100.000
118	INDIANA HARBOR	INDIANA	1	100.000
119	INDIANA HARBOR	INDIANA	1	100.000
120	IRONDEQUOIT BAY	NEW YORK	1	100.000
121	IRONDEQUOIT BAY	NEW YORK	1	100.000
122	LES CHANEAUX ISLANDS CHANNELS	MICHIGAN	1	100.000
123	LES CHANEAUX ISLANDS CHANNELS	MICHIGAN	1	100.000
124	LITTLE SALMON RIVER	NEW YORK	1	100.000
125	MONROE HARBOR	MICHIGAN	1	100.000
126	MONROE HARBOR	MICHIGAN	1	100.000
127	OGDENSBURG	NEW YORK	1	100.000
128	POINT LOOKOUT HARBOR	MICHIGAN	1	100.000
129	SAINT LOUIS RIVER	WISCONSIN	2	100.000
130	SAINT LOUIS RIVER	WISCONSIN	2	100.000
131	SAINT LOUIS RIVER	WISCONSIN	2	100.000
132	CLEVELAND HARBOR	OHIO	1	100.000
133	CLEVELAND HARBOR	OHIO	2	100.000
134	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	100.000
135	MEMPHIS TENN AT HOLLYWOOD RD AREA S	TENNESSEE	1	100.000
136	DULUTH HARBOR	MINNESOTA	1	100.000
137	DULUTH HARBOR	WISCONSIN	1	100.000
138	DULUTH HARBOR	WISCONSIN	1	100.000
139	DULUTH HARBOR	WISCONSIN	1	100.000
140	DULUTH HARBOR	WISCONSIN	1	100.000
141	DULUTH HARBOR	WISCONSIN	1	100.000
142	DULUTH HARBOR	WISCONSIN	1	100.000
143	DULUTH HARBOR	WISCONSIN	1	100.000
144	AT BACK BAY DRIVE BRIDGE	CALIFORNIA	2	70.000
145	CLEVELAND HARBOR	OHIO	1	70.000
146	CLEVELAND HARBOR	OHIO	1	70.000
147	CLEVELAND HARBOR	OHIO	2	70.000
148	CLEVELAND HARBOR	OHIO	1	70.000
149	CLEVELAND HARBOR	OHIO	1	70.000
150	CLEVELAND HARBOR	OHIO	1	70.000
151	CLEVELAND HARBOR	OHIO	1	70.000
152	CLEVELAND HARBOR	OHIO	2	70.000
153	CLEVELAND HARBOR	OHIO	1	70.000
154	JADCO HUGHES PROPERTY AT BELMONT NC	NORTH CAROLINA	1	60.000
155	LAKE VERRET, NORTH END : 10 MI.	LOUISIANA	1	50.000
156	GRAND PORTAGE,MINNESOTA	MINNESOTA	1	50.000
157	GRAND PORTAGE,MINNESOTA	MINNESOTA	1	50.000
158	GRAND PORTAGE,MINNESOTA	MINNESOTA	1	50.000
159	GRAND PORTAGE,MINNESOTA	MINNESOTA	2	50.000
160	9000 FT BELOW EAST CREEK RUTLAND TO	VERMONT	1	50.000
161	TOPAZ LAKE	NEVADA	1	50.000
162	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	50.000
163	BASIN 1	ILLINOIS	1	46.000
164	CAMPUS DRIVE BRIDGE	CALIFORNIA	3	46.667
165	UPSTREAM OF FOR-POS CONFLUENCE	CALIFORNIA	1	40.000
166	100 FEET SOUTH OF DAM	CALIFORNIA	1	40.000
167	3 MI BELOW N. BENNINGTON AT SODOM V	VERMONT	1	40.000
168	1000 FT. BELOW N. POWNAL DAM AA TAN	VERMONT	1	40.000

TABLE A-18. (Continued)

Obs	LOC	STATE	N	MEAN
169	2000 FT. ABOVE B. POWNAL DAM TOXIC	VERMONT	1	40.0000
170	NORTH OF LAST LADY ISLAND AT FRM 4	VERMONT	1	40.0000
171	BEHIND MHLAKWATIK 2000 FT SOUTH OF	VERMONT	1	40.0000
172	WATER DISTRICT INTAKE BETWEEN PARO	VERMONT	1	40.0000
173	POWER LINE CROSSING 1.5 MI ABOVE PI	VERMONT	1	40.0000
174	1000 FT BELOW RT 2 BRIDGE IN ST JOH	VERMONT	1	40.0000
175	OLD RT 11 BRG ABOVE GOULDS MILL S O	VERMONT	1	40.0000
176	LITTLE ARKANSAS R AT MINS ST	KANSAS	1	40.0000
177	TRINITY R AT BELT LINE RD	TEXAS	1	40.0000
178	MEMPHIS TENN AT HOLLYWOOD RD AREA S	TENNESSEE	1	40.0000
179	MEMPHIS TENN AT HOLLYWOOD RD AREA S	TENNESSEE	1	40.0000
180	STAUFFER CHEMICAL -- UNLINED ALUM P	OREGON	1	35.0000
181	N PALM BCH C 200 FT	FLORIDA	1	32.5000
182	IRVINE AVENUE BRIDGE	CALIFORNIA	7	31.4286
183	HOLLAND HARBOR, MICHIGAN	MICHIGAN	1	30.0000
184	HOLLAND HARBOR, MICHIGAN	MICHIGAN	1	30.0000
185	HOLLAND HARBOR, MICHIGAN	MICHIGAN	1	30.0000
186	HOLLAND HARBOR, MICHIGAN	MICHIGAN	1	30.0000
187	HOLLAND HARBOR, MICHIGAN	MICHIGAN	1	30.0000
188	HOLLAND HARBOR, MICHIGAN	MICHIGAN	1	30.0000
189	HOLLAND HARBOR, MICHIGAN	MICHIGAN	1	30.0000
190	HOLLAND HARBOR, MICHIGAN	MICHIGAN	1	30.0000
191	HOLLAND HARBOR, MICHIGAN	MICHIGAN	2	30.0000
192	HOLLAND HARBOR, MICHIGAN	MICHIGAN	1	30.0000
193	HOLLAND HARBOR, MICHIGAN	MICHIGAN	1	30.0000
194	HOLLAND HARBOR, MICHIGAN	MICHIGAN	1	30.0000
195	DES MOINES R AT EUCLID AVE BR	IOWA	1	30.0000
196	BUCKEYE CANAL @ LITCHFIELD	ARIZONA	1	29.0000
197	N.P. LK-N. CENTRAL BASIN; SEC 28 OF	CRAWFORD CO., MI	1	25.0000
198	EDEY LK-NORTHWEST BASIN; SEC 21, OF	DICKINSON CO. MI	1	25.0000
199	ELLEN LK-S. CENTRAL BASIN; SEC 35,	IRON CO., MI	1	25.0000
200	EMILY LAKE-CENTRAL BASIN; SEC 24 OF	MICHIGAN	1	25.0000
201	FIRE LK-S. CENTRAL BASIN; SEC 20 OF	MICHIGAN	1	25.0000
202	INDIAN LAKE-CENTRAL BASIN; STARBAUG	IRON CO., MI	1	25.0000
203	LONG LK IN CENT. BASIN;CRYSTAL FALL	MICHIGAN	1	25.0000
204	BODI LK-N. CENTRAL BASIN; SEC 29 OF	MICHIGAN	1	25.0000
205	CULHANE LK-NORTHEAST BASIN; SEC 30	MICHIGAN	1	25.0000
206	JENSEN LAKE IN WEST BASIN; MANTIKI	MECOSTA CO., MI	1	25.0000
207	LONG LAKE-CENTRAL BASIN; SEC 19 OF	ALGONIMEE CO. MI	1	25.0000
208	L. WHITEFISH LK-CENT. BASIN; PARASO	MONTCALM CO., MI	1	25.0000
209	LK FIFTEEN-CENTRAL BASIN; SEC 15 OF	MICHIGAN	1	25.0000
210	FOX LAKE IN CENTRAL BASIN; DALTON T	MUSKEGON CO., MI	1	25.0000
211	BEAUFORD LK-N.CENTRAL BASIN; OTSEGO	OTSEGO CO., MI	1	25.0000
212	GUTHRIE LK-N. CENTRAL BASIN; OTSEGO	OTSEGO CO., MI	1	25.0000
213	NETTIE LAKE-S. EAST BASIN; SEC 32 O	PRESQUE IS CO MI	1	25.0000
214	NIGGINS LAKE IN NORTHWEST BASIN; LI	MICHIGAN	1	25.0000
215	FISHERS LAKE-N. CENTRAL BASIN; PARA	ST. JOSEPH CO MI	1	25.0000
216	DODGE LAKE IN WEST BASIN; HIAWATHA	MICHIGAN	1	25.0000
217	BOOT LK-S.CENTRAL BASIN, SEC 26 OF	SCHOOLCRAFT CO.	1	25.0000
218	ISLAND LAKE-S.WEST BASIN; HIAWATHA	SCHOOLCRAFT CO.	1	25.0000
219	ROUND LAKE IN S.EAST BASIN; KELLEY	VAN BUREN CO. MI	1	25.0000
220	RUSH LAKE IN CENTRAL BASIN, HANSON	VAN BUREN CO. MI	1	25.0000
221	SCOTT LAKE-S.CENTRAL BASIN; HALLOCK	VAN BUREN CO. MI	1	25.0000
222	SHAFER LK-N.CENTRAL BASIN; LAWRENCE	VAN BUREN CO. MI	1	25.0000

TABLE A-19. FRESHWATER REGIONS CONTAINING ELEVATED SEDIMENT LEVELS OF LINDANE CONCENTRATIONS ARE IN µg/kg

OBS	LOC	STATE	N	MEAN
1	TRINITY R AT GULF LINE RD	TEXAS	1	11.9
2	BLACK RIVER, MICHIGAN	WISCONSIN	1	500
3	BLACK RIVER, MICHIGAN	WISCONSIN	1	500
4	CASEVILLE HARBOR,MICHIGAN	MICHIGAN	1	500
5	HARRISVILLE HARBOR	MICHIGAN	1	500
6	INDERDEQUOIT BAY	NEW YORK	1	500
7	INDERDEQUOIT BAY	NEW YORK	1	500
8	LES CHANEAUX ISLANDS CHANNELS	MICHIGAN	1	500
9	LES CHANEAUX ISLANDS CHANNELS	MICHIGAN	1	500
10	LITTLE SALMON RIVER	NEW YORK	1	500
11	MORAOR HARBOR	MICHIGAN	1	500
12	MORAOR HARBOR	MICHIGAN	1	500
13	OLDERSHORE	NEW YORK	1	500
14	PERSAUKEE HARBOR	WISCONSIN	1	500
15	POINT LOOKOUT HARBOR	MICHIGAN	1	500
16	PORT WASHINGTON	WISCONSIN	1	500
17	DULUTH HARBOR	MINNESOTA	1	500
18	DULUTH HARBOR	WISCONSIN	1	500
19	DULUTH HARBOR	WISCONSIN	1	500
20	DULUTH HARBOR	WISCONSIN	1	500
21	DULUTH HARBOR	WISCONSIN	1	500
22	DULUTH HARBOR	WISCONSIN	1	500
23	DULUTH HARBOR	WISCONSIN	1	500
24	GRANT PARK WISCONSIN	MINNESOTA	2	200
25	BRAINERD STP AT CHATTANOOGA TN TO S	TENNESSEE	1	160
26	SYLACAUGA FIVE POINTS STP AT SYLACA	ALABAMA	1	110
27	ASHTABULA HARBOR, OHIO	OHIO	1	100
28	ASHTABULA HARBOR, OHIO	OHIO	1	100
29	ASHTABULA HARBOR, OHIO	OHIO	1	100
30	ASHTABULA HARBOR, OHIO	OHIO	1	100
31	ASHTABULA HARBOR, OHIO	OHIO	1	100
32	ASHTABULA HARBOR, OHIO	OHIO	1	100
33	ASHTABULA HARBOR, OHIO	OHIO	1	100
34	ASHTABULA HARBOR, OHIO	OHIO	1	100
35	ASHTABULA HARBOR, OHIO	OHIO	1	100
36	CLEVELAND HARBOR	OHIO	1	100
37	CLEVELAND HARBOR	OHIO	1	100
38	HOLLAND HARBOR, MICHIGAN	MICHIGAN	1	100
39	HOLLAND HARBOR, MICHIGAN	MICHIGAN	1	100
40	HOLLAND HARBOR, MICHIGAN	MICHIGAN	1	100
41	HOLLAND HARBOR, MICHIGAN	MICHIGAN	1	100
42	HOLLAND HARBOR, MICHIGAN	MICHIGAN	1	100
43	HOLLAND HARBOR, MICHIGAN	MICHIGAN	1	100
44	HOLLAND HARBOR, MICHIGAN	MICHIGAN	1	100
45	HOLLAND HARBOR, MICHIGAN	MICHIGAN	1	100
46	HOLLAND HARBOR, MICHIGAN	MICHIGAN	2	100
47	HOLLAND HARBOR, MICHIGAN	MICHIGAN	1	100
48	HOLLAND HARBOR, MICHIGAN	MICHIGAN	1	100
49	HOLLAND HARBOR, MICHIGAN	MICHIGAN	1	100
50	INDIANA HARBOR	INDIANA	1	100
51	INDIANA HARBOR	INDIANA	1	100
52	INDIANA HARBOR	INDIANA	1	100
53	INDIANA HARBOR	INDIANA	1	100
54	INDIANA HARBOR	INDIANA	1	100
55	INDIANA HARBOR	INDIANA	1	100
56	INDIANA HARBOR	INDIANA	1	100

TABLE A-19. (Continued)

OBS	LOC	STATE	A	MEAN
57	INDIANA HARBOR	INDIANA	1	100.000
58	INDIANA HARBOR	INDIANA	2	100.000
59	INDIANA HARBOR	INDIANA	1	100.000
60	INDIANA HARBOR	INDIANA	1	100.000
61	INDIANA HARBOR	INDIANA	1	100.000
62	INDIANA HARBOR	INDIANA	1	100.000
63	SAINT LOUIS RIVER	WISCONSIN	2	100.000
64	SAINT LOUIS RIVER	WISCONSIN	1	100.000
65	SAINT LOUIS RIVER	WISCONSIN	2	100.000
66	SAINT LOUIS RIVER	WISCONSIN	2	100.000
67	SAINT LOUIS RIVER	WISCONSIN	1	100.000
68	SAINT LOUIS RIVER	WISCONSIN	2	100.000
69	VALLEY CK STP AT BESSEMER AL TO VAL	ALABAMA	1	100.000
70	CLEVELAND HARBOR	OHIO	1	100.000
71	CLEVELAND HARBOR	OHIO	2	100.000
72	CLEMSON STP AT CLEMSON SC TO LAKE H	SOUTH CAROLINA	1	100.000
73	MAPLE CREEK STP AT GREER SC TO MAIL	SOUTH CAROLINA	1	100.000
74	DRY CREEK STP AT NASHVILLE TN TO DR	TENNESSEE	1	100.000
75	WHITES CK STP AT NASHVILLE TN TO CU	TENNESSEE	1	100.000
76	NASHVILLE CENTRAL STP AT NASHVILLE	TENNESSEE	1	100.000
77	WHITE ROCK LAKE NEAR DAM	TEXAS	1	66.670
78	NAVARRO MILLS RESERV NEAR DAM	TEXAS	1	52.550
79	AT BACK BAY DRIVE BRIDGE	CALIFORNIA	5	40.000
80	PIER IN COOPER RVR AT END OF RICE R	SOUTH CAROLINA	1	29.390
81	GRAPEVINE RESERV NEAR DAM	TEXAS	1	27.980
82	CAMPUS DRIVE BRIDGE	CALIFORNIA	8	27.500
83	IRVINE AVENUE BRIDGE	CALIFORNIA	9	26.667
84	UPSTREAM OF F06-P05 CONFLUENCE	CALIFORNIA	4	25.000
85	100 FEET SOUTH OF DAM	CALIFORNIA	4	25.000
86	BARDWELL RESERV NEAR DAM	TEXAS	1	20.800
87	AT OLD LAUNCH RAMP	CALIFORNIA	2	20.000
88	AT JAMBOREE,NORTH OF MAIN	CALIFORNIA	1	20.000
89	CLEVELAND HARBOR	OHIO	1	20.000
90	CLEVELAND HARBOR	OHIO	1	20.000
91	CLEVELAND HARBOR	OHIO	2	20.000
92	CLEVELAND HARBOR	OHIO	1	20.000
93	CLEVELAND HARBOR	OHIO	1	20.000
94	CLEVELAND HARBOR	OHIO	1	20.000
95	CLEVELAND HARBOR	OHIO	1	20.000
96	CLEVELAND HARBOR	OHIO	1	20.000
97	CLEVELAND HARBOR	OHIO	1	20.000
98	CLEVELAND HARBOR	OHIO	2	20.000
99	CLEVELAND HARBOR	OHIO	1	20.000
100	CLEVELAND HARBOR	OHIO	1	20.000
101	AT FLOATING DOCK	CALIFORNIA	1	20.000
102	EAST OF LAUNCH RAMP - MIDCHANNEL	CALIFORNIA	4	20.000
103	100 YARDS SOUTH OF OLD PIER	CALIFORNIA	2	20.000
104	WEST BASIN, MIDCHANNEL, MIDBASIN	CALIFORNIA	4	20.000
105	AT GOLDEN WEST STREET BRIDGE	CALIFORNIA	6	20.000
106	ENTRANCE OF BOLSA CHICA CHANNEL	CALIFORNIA	5	20.000
107	CHRISTIANA BAY, MIDBASIN	CALIFORNIA	2	20.000
108	SUNSET BAY AT NAVY BUOYS	CALIFORNIA	1	20.000
109	100 YARDS NORTH OF WARREN AVENUE	CALIFORNIA	4	20.000
110	MIDCHANNEL NORTH OF BAY ISLE	CALIFORNIA	6	20.000
111	MIDCHANNEL, EAST OF 26TH STREET	CALIFORNIA	7	20.000
112	MIDBASIN E OF NEWPORT BRIDGE	CALIFORNIA	6	20.000

TABLE A-19. (Continued)

OBS	LOC	STATE	N	MEAN
113	100 FT N. OF SULPHUR CREEK INLET	CALIFORNIA	2	20.0000
114	100 FEET NORTH OF ISLAND	CALIFORNIA	3	20.0000
115	N. LAKE EXTENSION OF BIKE PATH	CALIFORNIA	1	20.0000
116	AT CROWN VALLEY PARKWAY BRIDGE	CALIFORNIA	2	20.0000
117	U/S LAKE AT BRIDGE	CALIFORNIA	1	20.0000
118	PACIFIC COAST HIGHWAY	CALIFORNIA	2	20.0000
119	DEL OBISPO STREET BRIDGE	CALIFORNIA	2	20.0000
120	100 YDS WEST OF BIG CANYON WASH	CALIFORNIA	6	20.0000
121	50 YARDS U/S OF COAST HWY BRIDGE	CALIFORNIA	1	20.0000
122	100 YARDS E OF NORTH STAR BEACH	CALIFORNIA	6	20.0000
123	SOUTH OF SAN DIEGO CHA ENTRANCE	CALIFORNIA	6	20.0000
124	AT GRAHAM STREET BRIDGE	CALIFORNIA	7	20.0000
125	LEEDS STP AT LEEDS AL TO LITTLE CAN	ALABAMA	1	20.0000
126	CLEAR CREEK-ABOVE FIDAL # FM 2351	TEXAS	1	20.0000
127	BROWN CR STP AT JOHNSON CITY TN TO	TENNESSEE	1	20.0000
128	AT TULSA AVENUE EXTENSION BRIDGE	CALIFORNIA	8	17.5000
129	ALISO CREEK AT GOLF COURSE	CALIFORNIA	3	16.6667
130	U/S PACIFIC COAST HIGHWAY	CALIFORNIA	5	16.0000
131	WEISER R @ WEISER - HWY 30A	IDAHO	1	10.0000
132	SNAKE RIVER AT WEISER IDAHO	IDAHO	1	10.0000
133	COEUR D'ALENE RIVER AT ROSE LAKE	IDAHO	1	10.0000
134	PAYETTE RIVER AT PAYETTE-HWY 95	IDAHO	1	10.0000
135	CLARK FORK AT CLARK FORK IDAHO	IDAHO	1	10.0000
136	KOOTENAI RIVER AT COPELAND IDAHO	IDAHO	1	10.0000
137	SPOKANE RIVER BLW POST FALLS DAM	IDAHO	1	10.0000
138	SF COEUR D'ALENE R AT ENAVILLE, I	IDAHO	1	10.0000

TABLE A-20. FRESHWATER REGIONS CONTAINING ELEVATED SEDIMENT LEVELS OF TOXAPHENE CONCENTRATIONS ARE IN µg/kg

OBS	LOC	STATE	N	MEAN
1	MARC OVER MEADY CK ON SEC RD 46	SOUTH CAROLINA	1	19500.0
2	SALUDA RVR AT SC 34 ESE 96 MI LK GR	SOUTH CAROLINA	1	18120.0
3	T P MAXON STP AT MEMPHIS TN TO MISS	TENNESSEE	1	10000.0
4	KANSAS CITY WATER TREATMENT PLT.	MISSOURI	1	6500.0
5	MISSOURI RIVER NEAR I480 BRIDGE	NEBRASKA	1	6500.0
6	MISSOURI RIVER AT SIOUX CITY	IOWA	1	6500.0
7	KCKB-KAW WATER SUPPLY MO R	KANSAS	1	6500.0
8	MO WATER COMPANY WATER SUPPLY	MISSOURI	1	6500.0
9	LITTLE ARKANSAS R AT MAIN ST	KANSAS	1	6000.0
10	CASHS CREEK NEAR MISSING, TEX.(DIS	TEXAS	1	5999.0
11	MEMPHIS ARMA HAZARDOUS WASTE SITE 1	TENNESSEE	1	5000.0
12	PIER IN COOPER RVR AT END OF RICE R	SOUTH CAROLINA	1	4159.0
13	HILO BAY	HAWAII	1	3333.0
14	MILLINGTON STP AT MILLINGTON TN TO	TENNESSEE	1	3000.0
15	SHELLROCK R. UPST OF NORTHWOOD	IOWA	2	2750.0
16	WAILUKU BAY	HAWAII	1	2717.0
17	E-2I CANAL AT CLINT MOORE RD NR BOC	FLORIDA	1	2700.0
18	GILA RIVER AT GILLESPIE DAM	ARIZONA	1	2232.0
19	TRINITY R AT BELT LINE RD	TEXAS	1	2000.0
20	OGEMAW CREEK AT M-76 NR; WEST BRANC	MICHIGAN	1	2000.0
21	OGEMAW CREEK AT S VALLEY RD BR IN S	MICHIGAN	1	2000.0
22	OGEMAW CR OFF BROOKSIDE CEM; W. BRA	MICHIGAN	1	2000.0
23	OGEMAW CR 1/2 MI UPSTR OF M-76; N B	MICHIGAN	1	2000.0
24	ALAMO LAKE	ARIZONA	1	1971.0
25	HUMBOLT RIVER @ IMLAY	NEVADA	1	1857.0
26	YUBA RIVER NEAR MARYSVILLE	CALIFORNIA	1	1830.0
27	KAHULUI HARBOR	HAWAII	1	1803.0
28	LAKE PROVIDENCE, UPPER END	LOUISIANA	1	1800.0
29	AMERICAN R. AT ELVARIO ST.	CALIFORNIA	1	1750.0
30	BUFFALO CR AT AMERICAN RIVER	CALIFORNIA	1	1726.0
31	CARSON R @ NEW EMPIRE	NEVADA	1	1714.0
32	SALINAS RIVER AT GONZALES	CALIFORNIA	1	1698.0
33	BOULDER CREEK AT MOUTH	ARIZONA	1	1698.0
34	CARSON R. @ RIVERVIEW	NEVADA	1	1664.0
35	OWENS R NR TINEMAHA RES.	CALIFORNIA	1	1640.0
36	SANTA ANA RIVER BELOW PRADO DAM	CALIFORNIA	1	1631.0
37	BOULDER CREEK ABOVE WILDER CREEK	ARIZONA	1	1594.0
38	AMERICAN R. ABOVE SUNRISE BR	CALIFORNIA	1	1590.0
39	AMERICAN R. AT WATTS AVE.	CALIFORNIA	1	1590.0
40	COPPER CREEK AB BOULDER CREEK	ARIZONA	1	1551.0
41	LAKE TAHOE AT SAND HARBOR	NEVADA	1	1535.0
42	LAHONTAN DAM	NEVADA	1	1463.0
43	COLORADO RIVER BELOW PARKER DAM	ARIZONA	1	1461.0
44	LITTLE PEE DEE RVR BL JCT WITH MARL	SOUTH CAROLINA	1	1400.0
45	COLORADO R. @ YUMA	ARIZONA	1	1399.0
46	DES MOINES R AT EUCLID AVE BR	IOWA	1	1300.0
47	BEAR BAYOU NEAR HUGHES, ARK.	ARKANSAS	1	1.99.0
48	BAYOU BARTHOLOMEW NEAR MCGEHEE, ARK	ARKANSAS	2	1289.5
49	PEARL HARBOR E. LOCH	HAWAII	1	1250.0
50	ALA WAI CANAL	HAWAII	1	1250.0
51	E. FORK CHINEE RIVER @ CHYNEE	NEVADA	1	1150.0
52	ARKANSAS R NEAR D.HOY KANSAS	KANSAS	1	1100.0
53	ARKANSAS RIVER ENI	KANSAS	1	1.00.0
54	COWSKIN CREEK AT FLOWER ST S	KANSAS	1	1.00.0
55	HALFWAY SWI CK RD 43 SMI E OF ST PA	SOUTH CAROLINA	1	1190.0
56	TURKEY CK AT LA-120 CROSSING	LOUISIANA	1	1000.0

TABLE A-20. (Continued)

Obs	LOC	STATE	N	MEAN
57	CLEAR CREEK-ABOVE TIDAL @ FM 2351	TEXAS	1	1000.00
58	DRAIN 30 OFF DUNN LAK ROAD; BRONSON	MICHIGAN	1	1000.00
59	CO DR 30 AT PATTERSON IN RD, BRONSON	MICHIGAN	1	1000.00
60	CO DRN 30 OFF INDUSTRIAL RD; BRONSO	MICHIGAN	1	1000.00
61	CO DR 30 BELOW WWTP LAGOONS; BRONSO	MICHIGAN	1	1000.00
62	CO DR 30 BELOW BRONSON WWTP; BRONSO	MICHIGAN	1	1000.00
63	ST JOSEPH R AT MOORE RD; FAYETTE TW	MICHIGAN	1	1000.00
64	ST JOSEPH R DWNSTR OF CHICAGO ST IN	MICHIGAN	1	1000.00
65	ST JOSEPH R@ WWTP STRM DR RR;HILLSD	MICHIGAN	1	1000.00
66	UNNAMED TRIBU HILLSDALE RD DR;FAYET	MICHIGAN	1	1000.00
67	BEEBE CREEK AT MOORE RD DR, FAYETTE	MICHIGAN	1	1000.00
68	ST JOE R ABV JONESVILLE WWTP; FAYET	MICHIGAN	1	1000.00
69	BEAN CREEK AT US-127 BR; PITTSFORD	MICHIGAN	1	1000.00
70	BEAN CREEK AT NELSON ROAD; HUDSON T	MICHIGAN	1	1000.00
71	N. RAISIN AT SUTTON RD; RAISIN TWP,	MICHIGAN	1	1000.00
72	BLACK CR AT LYONS HWY; FAIRFIELD TW	MICHIGAN	1	1000.00
73	BLACK CREEK AT TEMPLE HWY; FAIRFIELD	MICHIGAN	1	1000.00
74	BLACK CREEK AT HORSE HWY; FAIRFIELD	MICHIGAN	1	1000.00
75	RAISIN RIVER AT MILL ROAD; RAISIN T	LENAWEE CO., MI	1	1000.00
76	BLACK CR AT SAND CREEK HWY IN CITY	MICHIGAN	1	1000.00
77	BLACK CR AT M-52 BRIDGE; FAIRFIELD	MICHIGAN	1	1000.00
78	BEAN CREEK AT MECHANIC ST BR, IN HU	MICHIGAN	1	1000.00
79	BEAN CREEK AT US-127 BR; HUDSON TWP	MICHIGAN	1	1000.00
80	WESTON DRAIN AT MOUTH; FAIRFIELD TW	MICHIGAN	1	1000.00
81	E BR BLACK R UPSTRM 104TH AVE; ZEEL	MICHIGAN	1	1000.00
82	N BR BLACK R AT 106TH AVE BR; HOLLA	MICHIGAN	1	1000.00
83	W BR BLACK R AT M-21 BR; HOLLAND TW	MICHIGAN	1	1000.00
84	RAISIN R. AT AUSTIN RD.; MANCHESTER	MICHIGAN	1	1000.00
85	R RAISIN AT SHARON VALLEY RD; SHARO	WASHTENAW CO., MI	1	1000.00
86	RAISIN R AT DUNCAN ST BRIDGE IN MAN	MICHIGAN	1	1000.00
87	RAISIN RR BR OFF AUSTIN RD; BRIDGEW	MICHIGAN	1	1000.00
88	ROOSEVELT LAKE SALT R. ARM	ARIZONA	1	963.30
89	BAYOU MACON 3 MI E OF DARBYS	LOUISIANA	2	840.00
90	TENSAS RIVER AT TENDAL, LOUISIANA	LOUISIANA	1	814.40
91	BAYOU MONNE LOCK AT GRAHAM'S REI	LOUISIANA	1	800.00
92	LYNX LAKE	ARIZONA	1	786.10
93	NR. MOUTH OF DEER CR., ABOUT 10	LOUISIANA	2	750.00
94	MORELUMNE R AT WOODBRIDGE	CALIFORNIA	1	733.10
95	TUOLUMNE RIVER AT TUOLUMNE CITY	CALIFORNIA	1	693.40
96	PATAGONIA LAKE	ARIZONA	1	651.00
97	TAMIA FL AT STUDLEY DIKE HAZARDOUS W	FLORIDA	1	650.00
98	ALAMO R NR CALIPATRIA	CALIFORNIA	1	639.30
99	SAN FRANCISCO R. AT CLIFTON	ARIZONA	1	636.40
100	RAW WATER INTAKE AT DAVENPORT	IOWA	1	600.00
101	OCMULGEE RIVER BEAN MACON WATER INT	GEORGIA	1	600.00
102	SANDY CR BR ABC CONFOUNDING CO AT A	GEORGIA	1	600.00
103	COOSA RIVER AT GA/ALA ST LINE BEAR	GEORGIA	1	660.00
104	ACADEMY DRAIN B&S AT CHARLOTTE NC	NORTH CAROLINA	1	600.00
105	NR MOUTH OF CYPRESS BAYOU, N OF ...	LOUISIANA	3	550.00
106	BAYOU MACON 3 MI E OF CHONVILLE	LOUISIANA	1	530.00
107	ROCK SLOUGH AT DELTA RD BRIDGE	CALIFORNIA	1	500.00
108	SAN JOAQUIN R AT ANTIOCH MARK	CALIFORNIA	1	500.00
109	EEL RIVER AT HIG DELL, DAVIS STREET	CALIFORNIA	1	500.00
110	LAS VEGAS WASH AT NORTH SHORE ROAD	NEVADA	1	500.00
111	CALIVILLE BAY LAKE HEAD	NEVADA	1	500.00
112	LAS VEGAS BAY LAKE HEAD	NEVADA	1	500.00

TABLE A-20. (Continued)

Obs	LOC	STATE	N	MEAN
113	LAKE PILLSBURY NEAR SCOTT R DAM	CALIFORNIA	1	500.000
114	SAN JOAQUIN RIVER AT STANISLAUS CO.	CALIFORNIA	1	500.000
115	LAKE MENDOCINO AT HWY 20 BRIDGE	CALIFORNIA	1	500.000
116	RUSSIAN RIVER AT UKIAH TREATMENT PL	CALIFORNIA	1	500.000
117	RUSSIAN RIVER - MONTE RIO	CALIFORNIA	1	500.000
118	RAD RIVER AT FSSEX LANE	CALIFORNIA	1	500.000
119	TRUCKEE RIVER AT FARAD	CALIFORNIA	1	500.000
120	TRUCKEE RIVER AT LOCKWOOD	NEVADA	1	500.000
121	SANTA CRUZ BELOW ROGERS ROAD WASTE W	ARIZONA	1	500.000
122	OTHER WATERS IN LUBBOCK	TEXAS	1	500.000
123	SANDY CR NR ABC COMPOUNDING CO AT A	GEORGIA	1	500.000
124	EAGLE LAKE NEAR VICKSBURG MS	MISSISSIPPI	1	500.000
125	CALABAZAS C TRIB AT MT EDEN ROAD NR	CALIFORNIA	1	449.900
126	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	400.000
127	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	400.000
128	MEMPHIS AREA HAZARDOUS WASTE SITE I	TENNESSEE	1	400.000
129	WILSON CR AT S-29-101	SOUTH CAROLINA	1	381.000
130	LAKE PROVIDENCE- BELOW JCT LA-2 & D	LOUISIANA	1	379.000
131	STAUFFER CHEMICAL -- UNLINED ALUM P	OREGON	1	350.000
132	ST. FRANCIS RIVER AT PARKIN, ARK.	ARKANSAS	2	332.500
133	DOWNSTREAM SIDE HWY 200 BR	IOWA	1	300.000
134	IOWA RIVER AT MARSHALLTOWN WTP	IOWA	1	300.000
135	LITTLE SIOUX R UPST OF SPENCER	IOWA	1	300.000
136	LITTLE SIOUX R AT LINN GROVE	IOWA	1	300.000
137	MEMPHIS TENN AT HOLLYWOOD RD AREA S	TENNESSEE	1	300.000
138	MEMPHIS TENN AT HOLLYWOOD RD AREA S	TENNESSEE	1	300.000
139	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	1	300.000
140	MEMPHIS TENN AT FRAYSER POND AREA S	TENNESSEE	1	300.000
141	MEMPHIS AREA HAZARDOUS WASTE SITE A	TENNESSEE	1	300.000
142	NEAR MOUTH OF CARP BAYOU, 1 MI N	LOUISIANA	1	260.000
143	CLEAR FORK OF TRINITY R AT FORT	TEXAS	1	259.000
144	LIND COULEE WASTEWAY	WASHINGTON	27	250.000
145	RINGOLD WASTEWAY- ENTERS COLUMBIA R	WASHINGTON	29	250.000
146	CRAB CREEK LATERAL WASTEWAY NEAR CO	WASHINGTON	27	250.000
147	FRENCHMAN HILLS WASTEWAY NR POTHOLE	WASHINGTON	15	250.000
148	TRINITY R SO LOOP 9812 B/DALLAS	TEXAS	1	250.000
149	ARKANSAS RIVER AT SAND SPRINGS	OKLAHOMA	1	250.000

TABLE A-21. FRESHWATER REGIONS CONTAINING ELEVATED SEDIMENT LEVELS OF PCB CONCENTRATIONS ARE IN µg/kg

OBS	LOC	STATE	N	MEAN
1	GORDON SERVICES CO AT GORDON GA TO	GEORGIA	1	160000
2	WAYNESBORO TN HAZARDOUS WASTE SAMPL	TENNESSEE	1	90000
3	INDIANA HARBOR	INDIANA	1	25700
4	INDIANA HARBOR	INDIANA	1	21300
5	INDIANA HARBOR	INDIANA	1	20900
6	INDIANA HARBOR	INDIANA	2	20500
7	TOWN CREEK AT COUNTY ROAD 23 BRIDGE	SOUTH CAROLINA	1	18390
8	LAKE HARTWELL 12 MI CK AT SC HWY 13	SOUTH CAROLINA	1	13900
9	HUDSON R PEEKSKILL BAY	NEW YORK	1	10200
10	SANDY CK NR ABC COMPOUNDING CO AT A	GEORGIA	1	10000
11	INDIANA HARBOR	INDIANA	1	9500
12	ATHENS STP NO 2 AT ATHENS GA TO RID	GEORGIA	2	9150
13	SAGINAW RIVER	MICHIGAN	1	9100
14	SAGINAW RIVER	MICHIGAN	1	8800
15	HUDSON R FOUNDRY COVE	NEW YORK	1	8500
16	WEB	MICHIGAN	1	8100
17	RARITAN RIVER INSTREAM AT NINMUC LA	NEW JERSEY	1	7600
18	INDIANA HARBOR	INDIANA	1	6500
19	ATHENS STP NO 1 AT ATHENS GA TO NOR	GEORGIA	1	6500
20	INDIANA HARBOR	INDIANA	1	5600
21	T M MASON STP AT MEMPHIS TN TO MISS	TENNESSEE	1	5000
22	MEMPHIS AREA HAZARDOUS WASTE SITE I	TENNESSEE	1	5000
23	SAGINAW RIVER	MICHIGAN	1	4900
24	SAGINAW RIVER	MICHIGAN	1	4700
25	INDIANA HARBOR	INDIANA	1	4400
26	WEB	MICHIGAN	1	4000
27	IRWIN CREEK STP AT CHARLOTTE NC TO	SOUTH CAROLINA	1	4000
28	SAGINAW RIVER	MICHIGAN	1	3800
29	INDIANA HARBOR	INDIANA	1	3400
30	HILO BAY	HAWAII	1	3333
31	HUDSON R CAVEN POINT	NEW YORK	1	3300
32	SAGINAW RIVER	MICHIGAN	1	3200
33	LAKE HARTWELL SENECA R 1.1 MI NW AB	SOUTH CAROLINA	1	3120
34	LAKE HARTWELL SENECA R 0.1 MI DNST	SOUTH CAROLINA	1	2990
35	1400 FT UPSTRM MANN PKWY BRIDGE SEE	RHODE ISLAND	2	2846
36	WAHILIMILI BAY	HAWAII	1	2717
37	TOWN CREEK AT COUNTY ROAD 32 BRIDGE	SOUTH CAROLINA	1	2710
38	SAGINAW RIVER	MICHIGAN	1	2700
39	WESTINGHOUSE MAIN SEWER	INDIANA	1	2630
40	SAGINAW BAY	MICHIGAN	1	2600
41	SAGINAW RIVER	MICHIGAN	1	2600
42	WEB	MICHIGAN	1	2600
43	LAKE HARTWELL SENECA R 0.1 MI DNSTR	SOUTH CAROLINA	1	2600
44	ATHENS STP NO 1 AT ATHENS GA TO NOR	GEORGIA	1	2400
45	12-MILE CK AT SC HWY 183 BRIDGE	SOUTH CAROLINA	1	2380
46	GILA RIVER AT GILLESPIE DAM	ARIZONA	1	2232
47	LAKE HARTWELL SENECA RIVER 1.0 MI D	SOUTH CAROLINA	1	2220
48	WEB	MICHIGAN	1	2200
49	SAGINAW RIVER	MICHIGAN	1	2200
50	SAGINAW RIVER	MICHIGAN	1	2000
51	ALAPO LAKE	ARIZONA	1	1971
52	HUMBOLT RIVER @ IMLAY	NEVADA	1	1857
53	YUBA RIVER NEAR MARYSVILLE	CALIFORNIA	1	1810
54	KAHOLUI HARBOR	HAWAII	1	1803
55	SAGINAW RIVER	MICHIGAN	1	1800
56	AMERICAN R. AT ELVANTO ST.	CALIFORNIA	1	1750

TABLE A-21. (Continued)

OBS	LOC	STATE	N	MEAN
57	BUFFALO CR AT AMERICAN RIVER	CALIFORNIA	1	1776.00
58	CARSON R @ NEW EMPIRE	NEVADA	1	1714.00
59	SALINAS RIVER AT GONZALES	CALIFORNIA	1	1698.00
60	BOULDER CREEK AT MOUTH	ARIZONA	1	1658.00
61	CARSON R. @ RIVERVIEW	NEVADA	1	1664.00
62	LAKE HARTWELL 12 MI CR AT MAN BRIDG	SOUTH CAROLINA	1	1660.00
63	OWENS R BL TINEMAHA RES.	CALIFORNIA	1	1640.00
64	SANTA ANA RIVER BELOW PRADO DAM	CALIFORNIA	1	1631.00
65	SAGINAW BAY	MICHIGAN	1	1600.00
66	BOULDER CREEK ABOVE WILDEN CREEK	ARIZONA	1	1594.00
67	AMERICAN R. ABOVE SUNRISE MK	CALIFORNIA	1	1590.00
68	AMERICAN R. AT WATTS AVE.	CALIFORNIA	1	1590.00
69	COPPER CREEK AB BOULDER CREEK	ARIZONA	1	1551.00
70	LAKE TAHOE AT SAND HARBOR	NEVADA	1	1535.00
71	INDIANA HARBOR	INDIANA	1	1500.00
72	SAGINAW BAY	MICHIGAN	1	1500.00
73	SAGINAW RIVER	MICHIGAN	1	1500.00
74	LAHONTAN DAM	NEVADA	1	1463.00
75	COLORADO RIVER BELOW PARKER DAM	ARIZONA	1	1461.00
76	INDIANA HARBOR	INDIANA	1	1400.00
77	SAGINAW RIVER	MICHIGAN	1	1400.00
78	COLORADO R. @ YUMA	ARIZONA	1	1399.00
79	CLEVELAND HARBOR	OHIO	1	1320.00
80	SAGINAW RIVER	MICHIGAN	1	1300.00
81	PEARL HARBOR R. LOCK	HAWAII	1	1250.00
82	ALA WAI CANAL	HAWAII	1	1250.00
83	E. FORK CARSON RIVER @ CARSON	NEVADA	1	1250.00
84	SAGINAW BAY	MICHIGAN	1	1200.00
85	SAGINAW RIVER	MICHIGAN	1	1200.00
86	SAGINAW RIVER	MICHIGAN	1	1200.00
87	SAGINAW BAY	MICHIGAN	1	1100.00
88	ASHTABULA HARBOR, OHIO	OHIO	1	1000.00
89	SAGINAW BAY	MICHIGAN	1	1000.00
90	SAGINAW RIVER	MICHIGAN	1	1000.00
91	SAGINAW RIVER	MICHIGAN	1	1000.00
92	SAGINAW RIVER	MICHIGAN	1	1000.00
93	BILLINGTON STP AT BILLINGTON TN TO	TENNESSEE	1	1000.00
94	CLEVELAND HARBOR	OHIO	1	980.00
95	CLEVELAND HARBOR	OHIO	1	971.00
96	ROOSEVELT LAKE SALT R. ABB	ARIZONA	1	963.30
97	CLEVELAND HARBOR	OHIO	1	903.00
98	SAGINAW BAY	MICHIGAN	1	900.00
99	SAGINAW BAY	MICHIGAN	1	900.00
100	CLEVELAND HARBOR	OHIO	2	897.00
101	CLEVELAND HARBOR	OHIO	1	896.00
102	CLEVELAND HARBOR	OHIO	1	882.00
103	CLEVELAND HARBOR	OHIO	1	855.00
104	LAKE HARTWELL KEOWEE R 1.0 MI UPSTR	SOUTH CAROLINA	1	840.00
105	CLEVELAND HARBOR	OHIO	2	819.00
106	SAGINAW BAY	MICHIGAN	1	800.00
107	SAGINAW RIVER	MICHIGAN	1	800.00
108	LYNX LAKE	ARIZONA	1	786.10
109	CLEVELAND HARBOR	OHIO	1	784.00
110	CLEVELAND HARBOR	OHIO	1	764.00
111	HUDSON R _ STONY POINT	NEW YORK	1	740.00
112	CLEVELAND HARBOR	OHIO	2	735.00

TABLE A-21. (Continued)

OBS	LOC	STATE	N	MEAN
113	MOKELUMNE R AT WOODBRIDGE	CALIFORNIA	1	733.100
114	OGDENSBURG	NEW YORK	1	700.000
115	SAGINAW BAY	MICHIGAN	1	700.000
116	SAGINAW RIVER	MICHIGAN	1	700.000
117	TUOLUMNE RIVER AT TUOLUMNE CITY	CALIFORNIA	1	693.400
118	CLEVELAND HARBOR	OHIO	1	683.000
119	CLEVELAND HARBOR	OHIO	1	660.000
120	PATAGONIA LAKE	ARIZONA	1	651.000
121	ALAMO R NR CALIPATRIA	CALIFORNIA	1	639.300
122	SAN FRANCISCO R. AT CLIFTON	ARIZONA	1	636.900
123	LAKE HARTWELL TUGALOO R AT PAYNES C	GEORGIA	1	610.000
124	SAGINAW BAY	MICHIGAN	1	600.000
125	SAGINAW RIVER	MICHIGAN	1	600.000
126	CLEVELAND HARBOR	OHIO	1	547.000
127	SAINT LOUIS RIVER	MISCONSIN	1	500.000
128	SAGINAW RIVER	MICHIGAN	1	500.000
129	HOCK SLOUGH AT DELTA RD BRIDGE	CALIFORNIA	1	500.000
130	SAN JOAQUIN R AT ANTIOCH HAMP	CALIFORNIA	1	500.000
131	EEL RIVER AT RIO DELL, DAVIS STREET	CALIFORNIA	1	500.000
132	LAS VEGAS WASH AT SOUTH SHORE ROAD	NEVADA	1	500.000
133	CALLVILLE BAY LAKE MEAD	NEVADA	1	500.000
134	LAS VEGAS BAY LAKE MEAD	NEVADA	1	500.000
135	LAKE PILLSBURY NEAR SCOTT D DAM	CALIFORNIA	1	500.000
136	SAN JOAQUIN RIVER AT STANISLAUS CO.	CALIFORNIA	1	500.000
137	LAKE MENDOCINO AT HWY 20 BRIDGE	CALIFORNIA	1	500.000
138	RUSSIAN RIVER AT UKIAH TREATMENT PL	CALIFORNIA	1	500.000
139	RUSSIAN RIVER - MONTE RIO	CALIFORNIA	1	500.000
140	RAD RIVER AT ESSEX LANE	CALIFORNIA	1	500.000
141	TRUCKEE RIVER AT VARAD	CALIFORNIA	1	500.000
142	TRUCKEE RIVER AT LOCKWOOD	NEVADA	1	500.000
143	SANTA CRUZ BELOW ROGER ROAD WASTE W	ARIZONA	1	500.000
144	CLEVELAND HARBOR	OHIO	1	482.000
145	CLEVELAND HARBOR	OHIO	1	466.000
146	LAKE HARTWELL CONEROSS CR AT COUNTY	SOUTH CAROLINA	1	450.000
147	CLEVELAND HARBOR	OHIO	1	442.000
148	CLEVELAND HARBOR	OHIO	1	436.000
149	CLEVELAND HARBOR	OHIO	3	409.667
150	SAGINAW RIVER	MICHIGAN	1	400.000
151	LITTLE ARKANSAS R AT DIKS ST	KANSAS	1	400.000
152	STAUFFER CHEMICAL -- OBLINED ALUM P	OREGON	1	350.000
153	CLEVELAND HARBOR	OHIO	1	349.000
154	RED RIVER MAIN & FIRST AT FARGO	MINNESOTA	1	332.000
155	CLEVELAND HARBOR	OHIO	1	320.000
156	LAKE HARTWELL 12 MI CR AT COUNTY RD	SOUTH CAROLINA	1	320.000
157	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	300.000
158	TOWER CHEMICAL CO AREA HAZARDOUS WA	FLORIDA	1	300.000
159	MEMPHIS TENN AT HOLLYWOOD RD AREA S	TENNESSEE	1	300.000
160	MEMPHIS TENN AT HOLLYWOOD RD AREA S	TENNESSEE	1	300.000
161	MEMPHIS AREA HAZARDOUS WASTE SITE I	TENNESSEE	1	300.000
162	MEMPHIS AREA HAZARDOUS WASTE SITE I	TENNESSEE	1	300.000
163	CLEVELAND HARBOR	OHIO	1	290.000
164	SANDUSKY HARBOR	OHIO	1	290.000
165	12-MILE CR AT SC HWY 137 BRIDGE	SOUTH CAROLINA	1	270.000
166	LAKE HARTWELL SENECA R MID STRM AT	SOUTH CAROLINA	1	260.000
167	INDUSTRIAL CHEM CO PLANT SITE NR RO	SOUTH CAROLINA	1	240.000
168	INDUSTRIAL CHEM CO LANDFILL NR ROCK	SOUTH CAROLINA	1	240.000

TABLE A-21. (Continued)

OBS	LOC	STATE	N	MEAN
169	TAMPA FL AT SYDNEY MINE HAZARDOUS W	FLORIDA	1	230
170	N FK 12MILE CK AT COUNTY RD 156 BRI	SOUTH CAROLINA	1	230
171	LAKE: TETONKA AT WAYZATA	MINNESOTA	1	211
172	SAINT LOUIS RIVER	WISCONSIN	1	210
173	CLEVELAND HARBOR	OHIO	1	207
174	MIDCHANNEL NORTH OF BAY ISLE	CALIFORNIA	2	200
175	MIDCHANNEL, EAST OF 28TH STREET	CALIFORNIA	2	200
176	MIDBASIN E OF NEWPORT BRIDGE	CALIFORNIA	2	200
177	PENSAUKEE HARBOR	WISCONSIN	1	200
178	PORT WASHINGTON	WISCONSIN	1	200
179	IRVINE AVENUE BRIDGE	CALIFORNIA	2	200
180	CAMPUS DRIVE BRIDGE	CALIFORNIA	2	200
181	SAGINAW RIVER	MICHIGAN	1	200
182	KANSAS CITY WATER TREATMENT PLT.	MISSOURI	1	200
183	MISSOURI RIVER NEAR I480 BRIDGE	NEBRASKA	1	200
184	MISSOURI RIVER AT SIOUX CITY	IOWA	1	200
185	KCAK-KAN WATER SUPPLY MO R	KANSAS	1	200
186	MO WATER COMPANY WATER SUPPLY	MISSOURI	1	200
187	ASHLAND STP AT ASHLAND AL TO HORSEY	ALABAMA	1	200
188	JACKSONVILLE STP AT JACKSONVILLE AL	ALABAMA	1	200
189	DRAIN 30 OFF HUBB OAK ROAD; BRONSON	MICHIGAN	1	200
190	CO DR 30 AT MATTESON LK RD; BRONSON	MICHIGAN	1	200
191	CO DRN 30 OFF INDUSTRIAL RD; BRONSO	MICHIGAN	1	200
192	CO DR 30 BELOW BNTP LAGOONS; BRONSO	MICHIGAN	1	200
193	CO DR 30 BELOW BRONSON BNTP; BRONSO	MICHIGAN	1	200
194	AT GAGING STATION	GEORGIA	1	200
195	MOODY AIR FORCE BASE AT VALDOSTA GA	GEORGIA	1	200
196	BEAR CREEK AT US-127 BR; PITTSFORD	MICHIGAN	1	200
197	MONTSIDE STP AT DURHAM NC TO FLEAK	SOUTH CAROLINA	1	200
198	TARBORO STP AT TARBORO NC TO TAR RI	NORTH CAROLINA	2	200
199	WADESBORO STP AT WADESBORO NC TO BE	NORTH CAROLINA	1	200
200	MAPLE CREEK STP AT GREER SC TO MAPL	SOUTH CAROLINA	1	200
201	BEAR CREEK AT NELSON ROAD; HUDSON T	MICHIGAN	1	200
202	N. RAISIN AT SUTTON RD; RAISIN TWP,	MICHIGAN	1	200
203	BLACK CK AT LYONS HWY; FAIRFIELD TW	MICHIGAN	1	200
204	BLACK CREEK AT TERRY HWY; FAIRFIELD	MICHIGAN	1	200
205	BLACK CREEK AT, BORSE HWY; FAIRFIELD	MICHIGAN	1	200
206	RAISIN RIVER AT MILL ROAD; RAISIN T	LENAWEE CO., MI	1	200
207	BLACK CK AT SAND CREEK HWY IN CITY	MICHIGAN	1	200
208	BLACK CK AT M-52 BRIDGE; FAIRFIELD	MICHIGAN	1	200
209	BEAR CREEK AT MECHANIC ST BR; IN HU	MICHIGAN	1	200
210	BEAR CREEK AT US-127 BR; HUDSON TWP	MICHIGAN	1	200
211	WESTON DRAIN AT MOUTH; FAIRFIELD TW	MICHIGAN	1	200
212	BRUSH CK STP AT JOHNSON CITY TN TO	TENNESSEE	1	200
213	EAST STP AT OAK RIDGE TN TO CLINCH	TENNESSEE	1	200
214	WEST STP AT OAK RIDGE TN TO EAST FO	TENNESSEE	2	200
215	MEMPHIS TENN AT HOLLYWOOD RD AREA 5	TENNESSEE	1	200
216		TENNESSEE	1	200
217		TENNESSEE	1	200
218	WILSON ROAD BRIDGE	TENNESSEE	1	200
219	EAST 30TH. STREET BRIDGE	TENNESSEE	2	200
220	RAILROAD BRIDGE	TENNESSEE	1	200
221	TRIBUTARY TO CHATTANOOGA CREEK 2.4	TENNESSEE	1	200
222	TRIBUTARY TO CHATTANOOGA CREEK 0.3	TENNESSEE	1	200
223	POND NEAR TENNESSEE-GEORGIA STATE L	TENNESSEE	1	200
224	OGEMAW CREEK AT M-76 BR; WEST BRANC	MICHIGAN	1	200

TABLE A-21. (Continued)

OBS	LOC	STATE	N	MEAN
225	OGEMAW CREEK AT S VALLEY RD BR IN M	MICHIGAN	1	200
226	OGEMAW CR OFF BROOKSIDE CEM; N. BRA	MICHIGAN	1	200
227	OGEMAW CR 1/2 MI UNSTR OF M-76; N B	MICHIGAN	1	200
228	N BR BLACK R UPSTRM 104TH AVE; ZEEL	MICHIGAN	1	200
229	N BR BLACK R AT 106TH AVE BR; HOLLA	MICHIGAN	1	200
230	N BR BLACK R AT M-21 BR; HOLLAND TW	MICHIGAN	1	200
231	RAISIN R. AT AUSTIN RD.; MANCHESTER	MICHIGAN	1	200
232	R RAISIN AT SHARON VALLEY RD; SHARO	WASHTENAW CO.,MI	1	200
233	RAISIN R AT DUNLAP ST BRIDGE IN MAN	MICHIGAN	1	200
234	RAISIN R@ BR OFF AUSTIN RD; BRIDGEW	MICHIGAN	1	200

TABLE A-22. FRESHWATER REGIONS CONTAINING ELEVATED SEDIMENT LEVELS OF CYANIDE. CONCENTRATIONS ARE IN mg/kg.

OBS	LOC	STATE	N	MEAN
1	QUEEN ST RT 10 BRIDGE 100 FT US PAR	CONNECTICUT	1	9840.00
2	COLLIS PROCESS WASTE SLUDGE	IOWA	1	8500.00
3	MIDDLE ST BRIDGE .5 MI DS EAST BANK	CONNECTICUT	1	1850.00
4	WOODFORD AVE BRIDGE 75 FT DS WESTBA	CONNECTICUT	1	1500.00
5	CURTISS ST. BRIDGE BEHIND FURNHOUSE	CONNECTICUT	1	770.00
6	JOHN DEERE SLUDGE	IOWA	1	770.00
7	MIDDLE ST BRIDGE 50 FT DS BRISTOL	CONNECTICUT	1	760.00
8	LAZY LANE BRIDGE WEST BANK 150 FT D	CONNECTICUT	1	690.00
9	RED CEDAR 100FT UPST UTILITY DISC;MA	MICHIGAN	2	422.00
10	NECHES R SH87 BD OF PORT ARTHUR	TEXAS	4	377.33
11	CROOKED ST BRIDGE .2 MI DS SOUTH BA	CONNECTICUT	1	320.00
12	FT DODGE DIGESTED SLUDGE	IOWA	1	200.00
13	ATLANTIC STP DIGESTED SLUDGE	IOWA	1	73.00
14	ENCAMPMENT RIVER WATER VALLEY	WYOMING	1	59.00
15	DES MOINES STP DIGESTED SLUDGE	IOWA	1	54.00
16	COMANCHE STP DIGESTED SLUDGE	IOWA	1	36.00
17	WALNUT C AT NEOSHO, KS	KANSAS	1	30.99
18	FLAT ROBTWOOD CORP OUTFALL 002; LOW	MICHIGAN	1	30.00
19	DES PLAINES RIVER AT ROCKDALE, IL	ILLINOIS	3	29.67
20	SIDNEY STP SLUDGE	IOWA	1	26.00
21	CLEVELAND HARBOR	OHIO	1	22.00
22	ORE LAKE IN WEST BASIN; HARBORG TWP	MICHIGAN	1	20.00
23	LORAIN,OHIO	OHIO	1	17.69
24	KNOKUK STP DIGESTED SLUDGE	IOWA	1	15.00
25	CO DR 30 BELOW WWTP LAGOONS; BRONSO	MICHIGAN	1	15.00
26	CO DR 30 BELOW BRONSON WWTP; BRONSO	MICHIGAN	1	15.00
27	CLEVELAND HARBOR	OHIO	1	14.00
28	CLEVELAND HARBOR	OHIO	1	14.00
29	CLEVELAND HARBOR	OHIO	1	12.00
30	RED CEDAR R. AT VAN BUREN RD; HANDY	MICHIGAN	1	11.00
31	JORDAN LK-SOUTHWEST BASIN; WOODLAND	MICHIGAN	1	10.00
32	CROOKED LK(UP PT)-SW BASIN;PRAIRIEV	MICHIGAN	1	10.00
33	MORRISON LAKE-N.WEST BASIN; GINABU	MICHIGAN	1	10.00
34	DIAMOND LAKE-EAST BASIN; PLAN TWP.	MICHIGAN	1	10.00
35	FISH LAKE IN CENTRAL BASIN; MARCELL	MICHIGAN	1	10.00
36	LONG LAKE IN WEST BASIN; ORLEANS TW	MICHIGAN	1	10.00
37	BARTON LAKE-WEST BASIN; SCHOOLCRAFT	MICHIGAN	1	10.00
38	LONG LAKE-CENTRAL BASIN; PAVILION T	MICHIGAN	1	10.00
39	LINCOLN LAKE-CENTRAL BASIN, SPENCER	MICHIGAN	1	10.00
40	MURRAY LAKE IN EAST BASIN; GRATTAN	MICHIGAN	1	10.00
41	MURRAY LAKE IN SW BASIN; GRATTAN TW	MICHIGAN	1	10.00
42	RED CEDAR JUST DNST UTILITY DISC; MA	MICHIGAN	1	10.00
43	GALLAGHER LK IN N-EAST BASIN, HARBU	MICHIGAN	1	10.00
44	WHITEFORD LK IN S-CENT BASIN, HARBU	MICHIGAN	1	10.00
45	STRAWBERRY LK IN NW BASIN, HARBURG	MICHIGAN	1	10.00
46	LAKE MACATAWA IN WEST BASIN; PARK T	MICHIGAN	1	10.00
47	LONG LAKE IN CENTRAL BASIN; COLON T	MICHIGAN	1	10.00
48	PALMER LAKE IN CENTRAL BASIN; COLON	MICHIGAN	1	10.00
49	DAVENPORT DIGESTED SLUDGE	IOWA	1	9.10
50	MORRISON LK IN CENTRAL BASIN, GINAB	MICHIGAN	1	8.00
51	STRAWBERRY LK IN W-CENT BASIN HARBU	MICHIGAN	1	8.00
52	MONROE HARBOR	MICHIGAN	1	7.60
53	EAST LAKE LAKE-N.E. BASIN; HARBURG	MICHIGAN	2	7.50
54	STRAWBERRY LK IN E-CENT BASIN HARBU	MICHIGAN	2	7.50
55	ALLEGHENY R. AT NEW KENSINGTON	PENNSYLVANIA	1	7.40
56	FLAT ROBTWOOD CORP OUTFALL 001; LOW	MICHIGAN	1	7.20

TABLE A-22. (Continued)

OBS	LOC	STATE	N	MEAN
57	DES PLAINES RIVER AB CEDAR CR NR RI	ILLINOIS	1	7.00000
58	L. BLACK CR OST SHERMAN RD;FRUITPORT	MICHIGAN	2	6.84950
59	RED CEDAR [OUTD OWST UTILEX DISC;MA	MICHIGAN	1	6.19900
60	CHASE LK N-CENT BASIN, GINARD TWP,	MICHIGAN	2	6.00000
61	NORTH LK IN CENTRAL BASIN, COLDWATER	MICHIGAN	2	6.00000
62	SOUTH LK IN N-WEST BASIN, COLDWATER	MICHIGAN	2	6.00000
63	LORAIN,OHIO	OHIO	1	5.59900
64	KANAWHA RIVER AT CHELYAN	WEST VIRGINIA	1	5.59900
65	LITTLE BLACK CR AT FIRST ST.; NORTO	MUSKEGON CO., MI	1	5.50000
66	L. BLACK CR@ BRDWAY AVE; FRUITPORT	MUSKEGON CO., MI	1	5.50000
67	LORAIN,OHIO	OHIO	1	5.00000
68	CANTEN LK IN NW BASIN, HASTINGS TWP	MICHIGAN	1	5.00000
69	LONG LK IN CENT BASIN, HOPE TWP, SE	MICHIGAN	1	5.00000
70	PINE LK IN NE BASIN, PRAIRIEVILLE T	MICHIGAN	1	5.00000
71	MARBLE LAKE IN SOUTH BASIN; QUINCY	MICHIGAN	1	5.00000
72	MARBLE LAKE IN NORTH BASIN; QUINCY	MICHIGAN	1	5.00000
73	CO DR 30 AT MATTESON LK RD; BRONSON	MICHIGAN	1	5.00000
74	DUCK LAKE IN CENTRAL BASIN; CLARENC	MICHIGAN	1	5.00000
75	LK. PONEBAH IN NORTHWEST BASIN; FENT	MICHIGAN	1	5.00000
76	LONG LAKE IN SOUTH BASIN; READING T	MICHIGAN	1	5.00000
77	HEMLOCK LAKE IN WEST BASIN; READING	MICHIGAN	1	5.00000
78	PLEASANT LA-N.CENT. BASIN; HENRIETT	MICHIGAN	1	5.00000
79	PONTAGA LAKE IN CENTRAL BASIN; WAYE	MICHIGAN	1	5.00000
80	DEVILS LAKE N-CENT BASIN WOODSTOCK	MICHIGAN	1	5.00000
81	ALLENS LAKE N-CENT BASIN; CAMBRIDGE	MICHIGAN	1	5.00000
82	LIBERTY LK IN S.E. BASIN, GREENOAK	MICHIGAN	1	5.00000
83	SANDY BOTTOM LK IN N.E BASIN, GREEN	MICHIGAN	1	5.00000
84	WHITEFISH LAKE IN SE BASIN; PIERSON	MICHIGAN	1	5.00000
85	L. WHITEFISH LA-CENT. BASIN; PIERSO	MONTCALM CO., MI	1	5.00000
86	FREMONT LA-NORTHCENT BASIN;SHERIDAN	MICHIGAN	1	5.00000
87	HESS LAKE IN CENTRAL BASIN; BROOKS	MICHIGAN	1	5.00000
88	KENT LA-SOUTHWEST BASIN; MILFORD TW	MICHIGAN	1	5.00000
89	CRESCENT LA-SOUTH BASIN; WATERFORD	MICHIGAN	1	5.00000
90	CRESCENT LA-NORTH BASIN; WATERFORD	MICHIGAN	1	5.00000
91	BIG PONTAGE LAKE-SOUTH BASIN; OKAYE	MICHIGAN	1	5.00000
92	OTTUMWA STP DIGESTED SLUDGE	IOWA	1	4.79900
93	ZUBEY LK IN N-CENT BASIN, HAMBURG T	MICHIGAN	1	4.00000
94	KANAWHA RIVER AT WINFIELD DAM	WEST VIRGINIA	1	4.00000
95	LORAIN,OHIO	OHIO	1	3.69900
96	L. BLACK CR@ AIRLINE HWY; FRUITPORT	MUSKEGON CO., MI	1	3.59900
97	100 FEET SOUTH OF DAM	CALIFORNIA	1	3.49900
98	FLAT R AT M-21 BRIDGE; LOWELL TWP S	MICHIGAN	1	3.19900
99	100 FEET NORTH OF ISLAND	CALIFORNIA	1	3.09900
100	LORAIN,OHIO	OHIO	1	3.09900
101	DELAWARE R.C 19 TOWNSENDALE	PENNSYLVANIA	1	3.00000
102	DELAWARE R R 36 FL EDGEMTH CHANL	PENNSYLVANIA	1	3.00000
103	100 FT S. OF SULPHUR CREEK INLET	CALIFORNIA	1	3.00000
104	DUBUQUE MAIN STP INFLUENT	IOWA	1	3.00000
105	ILLINOIS RIVER AT DRESDEN ISLAND, I	ILLINOIS	1	3.00000
106	U/S LAKE AT BRIDGE	CALIFORNIA	1	2.79900
107	RED CEDAR RIVER AT GREGORY RD; HAND	MICHIGAN	2	2.74900
108	FAIRPORT	OHIO	1	2.59900
109	NEW YORK SLOUGH	CALIFORNIA	1	2.59900
110	MID DR RED CEDAR R, OLD US-16; HAND	MICHIGAN	2	2.44900
111	FAIRPORT	OHIO	1	2.29900
112	LORAIN,OHIO	OHIO	1	2.29900

TABLE A-22. (Continued)

Obs	LOC	STATE	#	MEAN
113	L. BLACK CNR ROBERTS ST; MUSKEGON T	MICHIGAN	1	2.29900
114	S.P. AIRPORT INDUSTRIAL PLANT	CALIFORNIA	1	2.20900
115	LONG CR NR SPENCER NTR NC INACT-750	NORTH CAROLINA	1	2.19900
116	FAIRPORT	OHIO	1	2.19900
117	SUPERIOR HARBOR	WISCONSIN	1	2.19900
118	SUISUN BAY S. OF MIDDLE GROUND	CALIFORNIA	1	2.19900
119	PLASTAR CRK SILVER CR STORM DRN IN	KENT CO., MI	1	2.09900
120	SUSQUEHANNA R AT HALLSTEAD, PA.	PENNSYLVANIA	1	2.00000
121	MILL CR. WEST ST.	OHIO	1	2.00000
122	NIPSCO DITCH @ DUNE ACRES, IND.	INDIANA	1	2.00000
123	KINTZELE DIT AT US HWY 12 AT PINES	INDIANA	1	2.00000
124	L BLACK CR UPST SHERMAN RD; MUSK TW	MICHIGAN	1	2.00000
125	S FORK CATAWBA R AT LABORATORY INAC	NORTH CAROLINA	1	1.89900
126	PLASTER CRK REFRIGERATOR DR; CITY OF	KENT CO., MI	1	1.89900
127	L BLACK CR DWST HEATING STAR; MUSK	MICHIGAN	1	1.89900
128	MANCHESTER STP DIGESTED SLUDGE	IOWA	1	1.69900
129	RED CEDAR R. AT NICHOLSON RD; HANDY	MICHIGAN	1	1.69900
130	DELAWARE R R 58 FLORENCE BRDG	PENNSYLVANIA	1	1.59900
131	SUPERIOR HARBOR	WISCONSIN	1	1.59900
132	S FK CATAWBA R @ SPENCER MTN NC INA	NORTH CAROLINA	1	1.50000
133	FAIRPORT	OHIO	1	1.50000
134	TORCH LK IN CENT BASIN, SCHOOLCR TW	MICHIGAN	1	1.50000
135	S FORK CTB R NR CHARLOTTE INACT-730	NORTH CAROLINA	2	1.39950
136	BEAR CR AT RR CROSSING 1.05MI US RO	PENNSYLVANIA	1	1.39900
137	ROUGE R.@ WEST JEFFERSON AVE IN MIV	MICHIGAN	1	1.39900
138	CALUMET HARBOR & RIVER	ILLINOIS	1	1.29900
139	HENRY FORK R NR BRCKSFORD INACT-800	NORTH CAROLINA	1	1.29900
140	CLARK CREEK AT LINCOLNTON	NORTH CAROLINA	1	1.29900
141	CLARK CRFEK AT NEWTON NC INACTIVE 7	NORTH CAROLINA	1	1.19900
142	S FORK CTB R AT BARDINS NC INACT-73	NORTH CAROLINA	1	1.19900
143	DELAWARE R OWFL ST LITTLE TINICUM	PENNSYLVANIA	1	1.19900
144	SCHUYLKILL R C 1 AT MOUTH	PENNSYLVANIA	1	1.19900
145	DELAWARE R C 103 MOOR CHANNEL	PENNSYLVANIA	1	1.19900
146	SCHUYLKILL R RTE 363 BR BRIDGWOOD	PENNSYLVANIA	1	1.19900
147	FAIRPORT	OHIO	1	1.19900
148	CASS R DWST FRANKENMUTH MNTP; FRANK	MICHIGAN	1	1.19900
149	EVANSDALE STP SLUDGE	IOWA	1	1.15900
150	PLASTER CR ABOVE CHICAGO DR; CITY O	KENT CO., MI	1	1.09900
151	SUPERIOR HARBOR	WISCONSIN	1	1.00000
152	VERMILION HARBOR	OHIO	1	1.00000
153	VERMILION HARBOR	OHIO	1	1.00000
154	DES PLAINES RIV AB JACKSON CR NR RI	ILLINOIS	1	1.00000
155	DES PLAINES RIVER BL GRANT CR NR CH	ILLINOIS	1	1.00000
156	MARSEILLES CANAL AT MARSEILLES, IL	ILLINOIS	4	1.00000
157	VERMILION R.(BAYOU VERMILION) NR.CA	LOUISIANA	1	1.00000
158	DRAIN 30 OFF BUBB OAK ROAD; BRONSON	MICHIGAN	1	1.00000
159	CO DRN 30 OFF INDUSTRIAL RD; BRONSO	MICHIGAN	1	1.00000
160	THIS TO THR 9.0	KENTUCKY	1	1.00000
161	KENTUCKY	KENTUCKY	1	1.00000
162	PLASTER CR AT BARKLY AVE; CITY OF G	MICHIGAN	1	1.00000
163	BETHLEHEM STEEL CULVERT AT DUNE ACR	INDIANA	1	1.00000
164	INTER-DUNAL POND 6 AT DUNE ACRES IN	INDIANA	2	1.00000
165	MARKOWITZ DITCH AT PORTER, INDIANA	INDIANA	1	1.00000
166	LAKE LAURA IMP. NR WALNUT GROVE,MN	MINNESOTA	1	1.00000
167	WEBBER IMPOUNDMENT NR CANT SD	MINNESOTA	1	1.00000
168	KENTUCKY RESERVOIR	TENNESSEE	2	1.00000

TABLE A-22. (Continued)

OBS	LOC	STATE	N	MEAN
169	KENTUCKY RESERVOIR	TENNESSEE	3	1.00000
170	KENTUCKY RESERVOIR	TENNESSEE	3	1.00000
171	KENTUCKY RESERVOIR	TENNESSEE	2	1.00000
172	TRIB. TO BIG SANDY RIVER 26.57	TENNESSEE	1	1.00000
173	KENTUCKY RESERVOIR	TENNESSEE	1	1.00000
174	TRIB. TO TRM 185.90	TENNESSEE	1	1.00000
175	TRIB. TO TRM 169.20	TENNESSEE	1	1.00000
176	TRIB. TO TRM 168.3	TENNESSEE	1	1.00000
177	TRIB. TO TRM 150.00	TENNESSEE	1	1.00000
178	TRIB. TO TRM 148.60	TENNESSEE	1	1.00000
179	TRIB. TO TRM 147.10	TENNESSEE	1	1.00000
180	TRIB. TO TRM 179.40	TENNESSEE	1	1.00000
181	RED CEDAR R AT CR0 RR BR; HANDY TWP	MICHIGAN	1	0.93990
182	LORAIN,OHIO	OHIO	1	0.90990
183	ASHTABULA HARBOR, OHIO	OHIO	1	0.89990
184	PLASTER CR AT BUCHANAN RD; BYRONG	KENT CO., MI	1	0.89990
185	CASS R 100' BLW CASS CITY WWTP;NOVE	MICHIGAN	1	0.89990
186	FAIRPORT	OHIO	1	0.83990
187	RED CEDAR RIVER AT STON RD; CONWAY	LIVINGSTON CO MI	2	0.81990
188	CHICOPEE MA. 50 FT ABOVE CONFL OF C	MASSACHUSETTS	1	0.80990
189	SUPERIOR HARBOR	WISCONSIN	1	0.80990
190	ASHTABULA HARBOR, OHIO	OHIO	1	0.79990
191	CHICOPEE MA. AT CHICOPEE ST-CLINTON	MASSACHUSETTS	1	0.79990
192	CASS RR INDIANFIELDS PARK; INDIANFL	MICHIGAN	1	0.79990
193	SALINE RIVER AT MACON RD BR.; SALIN	MICHIGAN	1	0.79990
194	CLAM RIVER AT HAYDES ROAD; HARING T	MICHIGAN	1	0.79990
195	CALCASIEU R AT MOSS LAKE	LOUISIANA	1	0.76990
196	CHICOPEE MA. 100 FT ABOVE RT 91 BRD	MASSACHUSETTS	1	0.68990
197	LORAIN,OHIO	OHIO	1	0.65990
198	PALMER MA. 100 FT ABOVE MAIN ST BRI	MASSACHUSETTS	1	0.61990
199	MONSON MA. 1000 FT ABOVE CONFL WITH	MASSACHUSETTS	1	0.59990
200	RED CEDAR RIVER AT GRABEN RD; LABOT	MICHIGAN	1	0.59990
201	MILL CR. CRESCENTVILLE RD.	OHIO	1	0.59990
202	CLAM R AT BOOM RD BRIDGE; HARING TW	MICHIGAN	1	0.59990
203	IOWA CITY STP-AMMONIC DIGESTER	IOWA	1	0.57990
204	LORAIN,OHIO	OHIO	1	0.55990
205	MEMPHIS TENN AT WINSTON DR AREA SAM	TENNESSEE	1	0.55990
206	PALMER MA. 200 FT ABOVE RR BRDG AND	MASSACHUSETTS	1	0.53990
207	SUPERIOR HARBOR	WISCONSIN	1	0.53990
208	FAIRPORT	OHIO	1	0.51990
209	L. BLACK CR AT HANLEY ST; MUSKEGON	MICHIGAN	1	0.51990
210	SPRINGFIELD MA. 1000 FT BELOW SOUTH	MASSACHUSETTS	1	0.50990
211	ST. JOSEPH RIVER, MICHIGAN.. SEE PA	MICHIGAN	1	0.50000
212	DETROIT RIVER, DETROIT,MI.--SEE PAR	MICHIGAN	1	0.50000
213	MISSISSIPPI RIVER M.M. 163	LOUISIANA	1	0.50000
214	PLASTER CR AT NELSON AVE.; KENTWOOD	KENT CO., MI	1	0.50000
215	CASS R 1000 DWST PASSUN WWTP; TUSCO	MICHIGAN	1	0.50000
216	FAIRPORT	OHIO	1	0.48990
217	SANDUSKY HARBOR	OHIO	1	0.48990
218	AGAWAM MA. 900 FT ABOVE CONFL OF CO	MASSACHUSETTS	1	0.48990
219	PORT SANILAC HARBOR	MICHIGAN	1	0.47990
220	PALMER MA. 600 FT BELOW RR BRDG AND	MASSACHUSETTS	1	0.47990
221	SPRINGFIELD MA. 100 FT ABOVE CONFL	MASSACHUSETTS	1	0.47990
222	MAINT M. AT INTERNATIONAL FALLS	MINNESOTA	1	0.45990
223	LES CHENEAUX ISLAND CHANNELS	MICHIGAN	1	0.43990
224	SANDUSKY HARBOR	OHIO	1	0.43990