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Air Quality Data for Metals 1976 from the National Air Surveillance Networks

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AIR QUALITY DATA FOR METALS

1976

FROM THE

NATIONAL AIR SURVEILLANCE NETWORKS

by

Raymond C. Rhodes and Donald H. Fair
Statistical and Technical Analysis Branch

J.E. Frazer, S.J. Long, W.A. Loseke, V.A. Wheeler and J.F. Walling
Analytical Chemistry Branch

ENVIRONMENTAL MONITORING AND SUPPORT LABORATORY
OFFICE OF RESEARCH AND DEVELOPMENT
U.S. ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NORTH CAROLINA 27711

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FOREWORD

Measurement and monitoring research efforts are designed to anticipate potential environmental problems, to support regulatory actions by developing an in-depth understanding of the nature and processes that impact health and the ecology, to provide innovative means of monitoring compliance with regulations and to evaluate the effectiveness of health and environmental protection efforts through the monitoring of long-term trends. The Environmental Monitoring and Support Laboratory, Research Triangle Park, North Carolina is responsible for development of: environmental monitoring technology and systems; agency-wide quality assurance programs for air pollution measurement systems; and technical support to the Agency's operating functions including the Office of Air, Noise and Radiation, the Office of Toxic Substances and the Office of Enforcement.

Data on concentrations of metallic ions in particulate matter from the National Air Surveillance Networks are listed in this report. It is planned that this report will be updated on an annual basis. Any changes in the introductory material (site descriptions, data table presentations, laboratory methodology, etc.) made by EPA will be included in future reports.

T.R. Hauser

Thomas R. Hauser
Director
Environmental Monitoring and
Support Laboratory

ABSTRACT

Particulate pollutant data gathered during calendar year 1976 by the cooperating stations of the National Air Surveillance Networks (NASN) provide the basis for listing the urban and nonurban concentrations of 11 metallic ions in suspended particulate matter.

The data are presented as a composite concentration value for each site for each of the four quarters of the calendar year; a yearly average is reported whenever valid data for all four quarters are obtained.

Four previous EPA publications, APTD-0978, APTD-1467, EPA 600/4-76-041 and EPA 600/4-78-059 list the concentrations of these metals in suspended particulate matter collected during 1966 and 1967, 1968 and 1969, 1970 through 1974 and 1975 respectively. In this report overall national summaries are compared for the years 1970 through 1976.

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The data reported in this publication could not have been gathered without the generous cooperation of the many state and local air pollution control agencies in the operation of the NASN stations. Also, gratitude is due each of the 10 EPA Regions who since 1973 have participated in this program by sending the high volume filters to the centralized laboratory of the Environmental Monitoring and Support Laboratory.

A large portion of the effort devoted to the extraction of filters and the routine operation of the spectrometer was contributed by Louis J. Pranger of the Analytical Chemistry Branch. His efforts are gratefully acknowledged.

The detailed computer tabulations of Table 5-1 were obtained by contract personnel of the Northrop Services, Incorporated.

The authors would like to thank all those who contributed their time and effort to this document.

SECTION 1

INTRODUCTION

ORGANIZATIONAL STRUCTURE

The Environmental Protection Agency (EPA), with the assistance and cooperation of state and local agencies, conducts a variety of air sampling activities to obtain information about the air quality in the United States. One such program, the National Air Surveillance Networks (NASN), has existed for over 20 years. The network has grown and undergone many modifications since its beginning, especially during the last 6 years. Table 1-1 catalogues these recent changes.

The first change, in sampling schedule, was brought about to encourage synoptic sampling with state/local ambient monitoring programs. In addition to assisting in the operation of the EPA sampling network, state and local air pollution control agencies administer their own air pollution control programs.

The second change, decentralization, was made to shift air monitoring responsibility from one centralized laboratory to 10 EPA regional laboratories. This modification was implemented over the 14 month period from December 1972 through January 1974. Moreover, in January 1974, the responsibilities of the 10 EPA Regional Offices were extended further to the overall management of the NASN sites. Additional responsibilities of the Regional Offices include weighing the filters and determining the concentrations of

TABLE 1-1. NASN NETWORK MODIFICATIONS

Month/Year	Change	Impact*
January 1972	Sample schedule changed from random biweekly to 12-day systematic samples, first sample collected 1/10/72.	All sites
December 1972	Decentralization, Region II	NJ, NY, PR
April 1973	Decentralization, Region I	CT, ME, MA, NH, RI, VT
December 1973	Decentralization, Regions V, VII, VIII, IX, X	IL, IN, MS, MN, OH, WI, IA, KS, MO, NE, CO, MT, ND, SD, UT, WY, AZ, CA, HI, NV, AK, ID, OR, WA
January 1974	Decentralization, Regions III, IV, VI	DE, DC, MD, PA, VA, WV, AL, FL, GA, KY, MS, NC, SC, TN, AR, LA, NM, OK, TX

*Abbreviations coincide with standard U.S. mail code designations for states.

total suspended particulates (TSP). Table 1-2 and Figure 1-1 indicate the locations of the Regional Offices and the geographic areas of responsibility.

The EPA regional laboratories send the filters to the Environmental Monitoring and Support Laboratory (EMSL) for routine trace constituent[1] analyses. The filters are then stored in the Filter Bank for future non-routine, special analyses as required.

Although pollutant monitoring was decentralized, the analysis and publication of the trace pollutant data remains the responsibility of one laboratory, the Environmental Monitoring and Support Laboratory (EMSL), Research Triangle Park, North Carolina. Prior to January 1974, filters also were weighed and analyzed for TSP by EMSL; however, since this date, the EPA regional laboratories have been performing these tasks. It should be noted that the weighing of the filters, before and after sample collection, are used for determination of TSP and are not used in the determination for metals. The particulates containing metals are assumed to be collected uniformly across the filter area.

SAMPLE COLLECTION

Air particulate samples were collected in 1976 at nearly 300 urban and 35 nonurban NASN sites located across the country. The urban sites are generally located within a city or town or adjacent suburbs. The nonurban sites were originally located in rural or remote areas, although with the passage of time, many of these rural areas, especially in the northeast, have become more heavily populated and thus are subject to increasing influences of spreading urbanization. Voluntary operation of each site is

[1]Metals, nonmetallic inorganic ions and benzo(a)pyrene (BaP).

maintained through the generous assistance of local or state agencies and individuals such as park rangers, firemen, or policemen.

Prior to 1972, 24-hour samples (beginning at midnight) were collected according to a biweekly (26 samples per year) modified random sampling schedule. The schedule was modified to ensure equal representation for each of the seven days of the week. Since January 10, 1972, the initial sampling date, samples have been collected every 12th day (30 or 31 samples per year). This sampling schedule eliminates the need for redesignating a new sampling schedule each year. In addition, it is easily implemented in the field.

DATA HANDLING AND ANALYSIS

Beginning with the 1974 samples, the responsibility for managing the NASN was given to each of the 10 EPA Regions (Table 1-2). Prior to that time one centralized laboratory located at Research Triangle Park, North Carolina, weighed and analyzed the high volume filters. The 10 EPA Regions send the TSP values to the National Aerometric Data Bank (NADB). The results of chemical analyses are published by EMSL and are sent to the NADB for archiving.

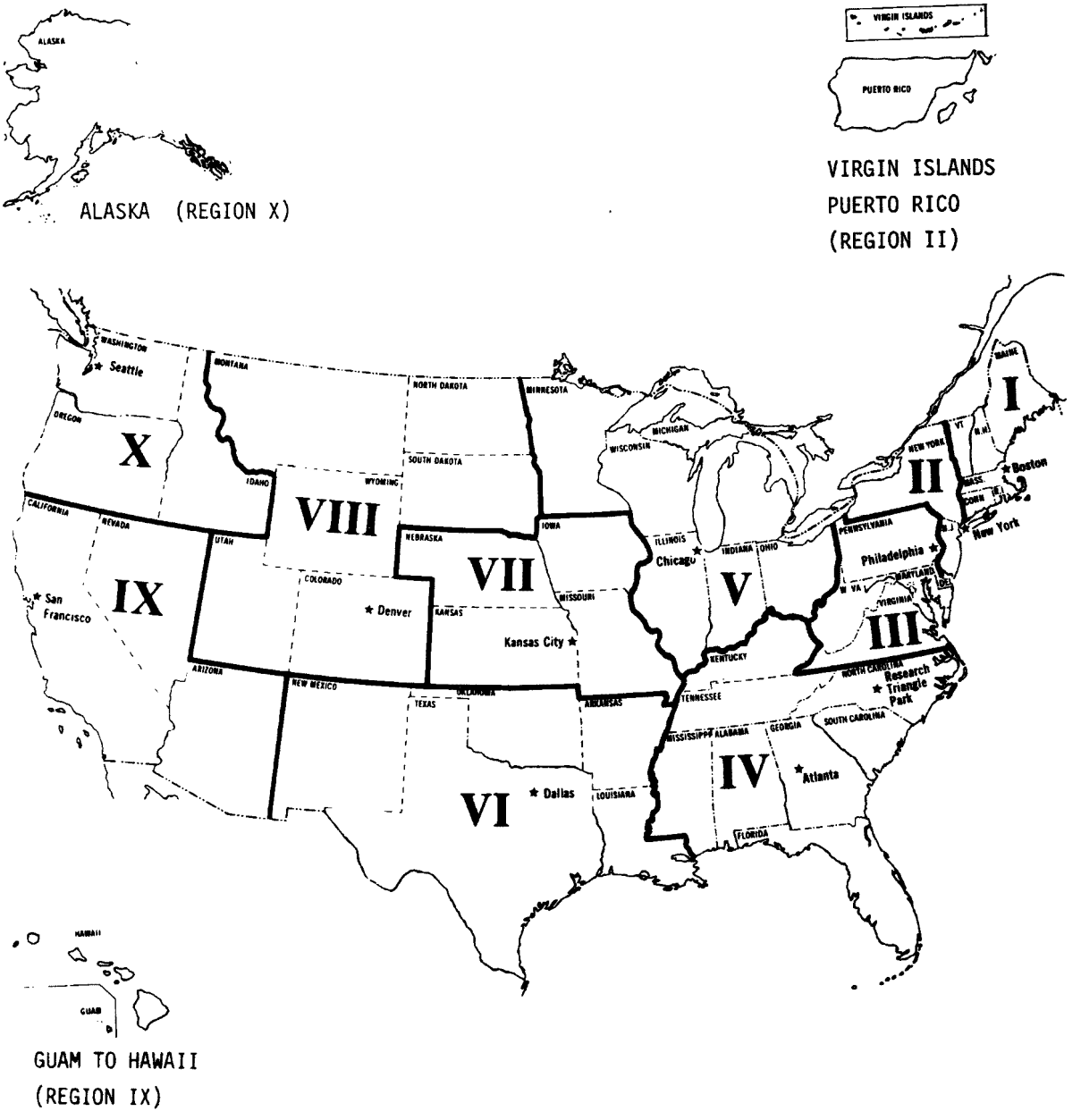
The metallic ion data reported herein were analyzed by EMSL and final tabulations were validated by the laboratory. The precision and bias of the data were determined using statistical analyses. The overall accuracy of the sampling data was evaluated to assist in the interpretation of the air quality summaries.

The air quality summaries include annual concentration data classified as urban and nonurban origin and compiled for the nation as a whole (Tables 4-1 and 4-2). The data for individual site locations are presented as quarterly values, and as annual averages where three or four quarterly values are available (Table 5-1),

TABLE 1-2. EPA REGIONS AND LOCATIONS OF REGIONAL OFFICES

Region	Regional Office Location
I	Boston, Massachusetts
II	New York, New York
III	Philadelphia, Pennsylvania
IV	Atlanta, Georgia
V	Chicago, Illinois
VI	Dallas, Texas
VII	Kansas City, Missouri
VIII	Denver, Colorado
IX	San Francisco, California
X	Seattle, Washington

Figure 1-1. EPA Regions and Regional Offices



SECTION 2

QUALITY CONTROL

INTRODUCTION

Beginning with a previous publication for samples of 1970 through 1974, estimates of analytical performance were given with each data table. This practice was continued for the 1975 report and is continued for this report for 1976 samples. This section presents the quality control information and the procedures for determining these analytical performance limits.

LIMITS OF DETECTION

The "limit of detection" for an instrumental analytical method is the minimum concentration of the constituent or species of interest which can be observed by the instrument and distinguished from instrumental noise with a specified degree of probability.[1] The limits of detection were determined by making repeated measurements (20 to 30) of the extractant liquid and calculating the standard deviation of the results, converted to equivalent units of $\mu g/m^3$. The limits of detection values were 3.3 times the standard deviation. These limits, therefore, are the upper 97.5 percent tolerance limits, at 95 percent confidence,[2] for the instrumental noise.

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[1] "Trace Analysis, Physical Methods," G.H. Morrison, Ed., Interscience Publishers, (1965), pages 2-3.

[2] "Experimental Statistics," Mary Natrella, NBS Handbook 91, Table T-15.

BLANK FILTER ANALYSES AND LIMITS OF DISCRIMINATION

The "limit of discrimination" is the minimum concentration unique to a given batch of filters and the measurement methods involved which can with a specified degree of probability be attributed to the particulate on the filter and not confused with the combined effect of the filter material itself and the measurement method.[1] The limit of discrimination is determined from the results of the analysis of blank filters, which include the combined contributions of the filter material and the measurement method.

For the years through 1974, analyses of blank filters were made by pooling the extracts from a large number of clean (or unexposed) filters, obtaining a single composite extract, and analyzing the extract periodically throughout the analysis period. Consequently, no estimate of homogeneity of the lot of filters was utilized in the processing of sample data.

One filter lot was used for both 1975 and 1976. From this lot, 27 composite samples of filters were obtained. Each composite arbitrarily contained material from five filters. A total of 17.5 square inches of filter material, or (17.5)÷5=3.50 square inches per filter, was used for each composite determination on each of these 27 extracts.

The average of the 27 determinations was statistically tested against zero using an estimated measure of instrument noise at zero concentration. If the average was not significantly different from zero, the average was considered as below the detection limits (BD), and was so

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[1] "Assessment of Arsenic Losses During Ashing: A Comparison of Two Methods Applied to Atmospheric Particulates," J.F. Walling, et al, JAPCA, Vol. 28, No. 11, November 1978.

indicated for beryllium, cadmium, cobalt, lead, and vanadium in Table 2-1. The average values for the remaining elements, which were significantly different from zero, are listed in Table 2-1 as the blank filter concentrations for routine sample analyses. All of the analyses of the blank filters were made prior to the analyses of the 1975 and 1976 samples, instead of during the analysis period for routine samples. These average blank values were subtracted from each sample result to obtain the amount of the element contained only in the particulate.

The limits of discrimination (LD) for 1975 and 1976 were obtained by multiplying the standard deviation of the 27 composite blank determinations by the factor 3.3.[1] For previous years (1970-1974), when only ten (10) blank analyses were made for each element, the use of the 3.3 factor provided 95%-95% tolerance limits.[2] For 1970-1974, therefore, the analytical limits of discrimination given in Table 2-2 represented the level below which 97.5% of all such blank determinations would fall with a confidence of 95%. However, for 1975 and 1976, when 27 blank analyses were made, the use of the 3.3 factor provides 95%-98% tolerance limits.[3] Thus, the analytical limits of discrimination given in Table 2-1 represents the level below which 99% of all such blank determinations would fall with a confidence of 95%.

It should be noted that except for beryllium and titanium, the analytical limits of discrimination for 1975 and 1976 are appreciably

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[1]Experimental Statistics, Handbook 91, NBS, page T-11.

[2]The 95%-95% tolerance limits include a two-tailed interval within which 95% of all individaul values should fall with a confidence of 95%.

[3]The 95%-98% tolerance limits include a two-tailed interval with which 98% of all individual values should fall with a confidence of 95%.

TABLE 2-1. BLANK FILTER ANALYSES AND LIMITS OF DISCRIMINATION

($\mu g/m^3$)*

Element	1975 and 1976 Blank Filter Concentration	Limits of Discrimination (LD)					
		1970	1971	1972	1973	1974	1975-1976
Beryllium	BD**	.00005	.00005	.00004	.00007	.00008	.00006
Cadmium	BD	.00023	.00023	.00019	.00027	.00036	.0064
Chromium	.0015	.00071	.00071	.00062	.00080	.00084	.0027
Cobalt	BD	.00069	.00069	.00052	.00076	.00063	.0039
Copper	.0024	.0011	.0011	.0012	.0010	.0012	.0057
Iron	.0956	.0082	.0082	.0059	.010	.010	.0450
Lead	BD	.022	.022	.015	.029	.014	.1177
Manganese	.0029	.00040	.00040	.00024	.00055	.00064	.0025
Nickel	.0007	.0014	.0014	.0012	.0017	.0019	.0091
Titanium	.0017	.0039	.0039	.0032	.0045	.0061	.0036
Vanadium	BD	.0021	.0021	.0017	.0025	.0028	.0099

*$\mu g/m^3$ are obtained by assuming an air volume of 2500 m^3.

**BD is below the limits of detection of the analytical instrumentation and is therefore considered as zero.

higher than for previous years. The 1975 and 1976 values are considered more realistic because the analyses of the blank filters for these years introduced for the first time (1) filter-to-filter differences and (2) variations from extraction-to-extraction, as exist for the analysis of exposed quarterly composite samples. Neither of these sources of variability was included in the determination of limits of discrimination for previous years.

PRECISION AND BIAS

Table 2-2 presents precision and bias information together with 95% confidence limits for individual reported values. All the data are expressed as percentages because precision and bias are usually concentration dependent.

Precision has been determined from the standard deviation of percent differences between analyses of duplicate composites.[1] Duplicate composites are treated in the same way with the identity of each being unknown to the analyst. Thus, the variability resulting from cutting and extracting, as well as analysis, is included in the precision estimate. An insufficient number of duplicate results above the LD were obtained for the 1975 and 1976 samples for cobalt. For cobalt, the precision value from the previous report for samples from the years 1970 through 1974 are presented in Table 2-2.

Bias is estimated through the use of spiked samples in which known amounts of the metallic ions are added to one of a pair of duplicate

[1]The standard deviation of the relative percent differences was divided by $\sqrt{2}$ to obtain the estimate of precision for an individual reported value.

TABLE 2-2. ANALYTICAL PRECISION, BIAS AND CONFIDENCE LIMITS
1976

Elements	Precision		Bias	95% Confidence Limits, %
	Replicate Extractions		% Loss = (100-% Rec.) %a	
	No. of Dup.	C_v, %[b]		
Be	6	29	16	16 ± 58
Cd	8	26	9	9 ± 52
Co	NA[c] (20)	NA (29)	14	14 ± 58
Cr	57	25	21	21 ± 50
Cu	95	25	28	28 ± 50
Fe	96	16	25	25 ± 32
Mn	94	11	29	29 ± 22
Ni	60	21	21	21 ± 42
Pb	87	14	14	14 ± 28
Ti	93	20	42	42 ± 40
V	29	11	21	21 ± 22

[a] From analyses of spiked samples for years 1970-1974.

[b] C_v - Coefficient of variation.

[c] NA - Not available, insufficient number of replicate tests with values above LD for 1976 samples. 1970-1974 values are shown in parentheses.

composite samples. In this way, the percentage recovery of the known addition can be determined. No spiked samples were analyzed during the analysis period for 1975 and 1976 samples, as they had been for previous years. The results of spiked samples from previous years are shown in Table 2-2 as the measure of bias for these years as well. These values are used as the basis for the determination of confidence limits given on top of each data table. However, since bias determinations were not made specifically for this calender year it is recognized that the measures of bias shown in Table 2-2 may be in error.

PERFORMANCE QUALITY ASSESSMENT

Precision and bias estimates have been combined as a 95% confidence limit. The approximate upper and lower confidence limit* (L_u and L_ℓ, respectively) are calculated as follows:

$$L_u = X(1 + B/100 + 1.96\ C_v/100) \quad (1a)$$

$$L_\ell = X(1 + B/100 - 1.96\ C_v/100) \quad (1b)$$

where X = the individual analysis value (a quarterly composite value)

B = bias, percent (percent loss)

C_v = coefficient of variation of individual analysis

For example, the first cadmium value above LD in Table 5-1 is .0109 $\mu g/m^3$ and the confidence limits are indicated as 9% ± 52%. The resulting confidence limits are:

*A more exact equation is presented in Appendix A of the 1975 Metals Report EPA-600/4-78-059.

$$L_u = .0109(1 + 9/100 + 52/100) = .0175\ \mu g/m^3 \quad (2a)$$

$$L_\ell = .0109(1 + 9/100 - 52/100) = .0062\ \mu g/m^3 \quad (2b)$$

The quarterly composite value is expected to be analytically correct within the above limits.

It must be emphasized that the estimates for data quality for the 1976 results may not reflect the actual situation. This is because these were the final samples analyzed using this instrumentation. The optical emission spectrometer used here was obsolete, with an increasing list of mechanical problems which could not be remedied adequately. Throughout the sample run, routine quality control standards were utilized to check performance but the limits were wide because the instrument was noisy. Biases would not have been discovered. Some duplicate samples were analyzed by another technique for one element, lead. A calibration error was discovered which resulted in an adjustment to these data of 19% (downward). The data in this publication have been corrected.

Data for subsequent years will be done by a more rapid and precise technique. Efficiency has been increased sufficiently that individual samples will be analyzed for the following years.

SECTION 3

LABORATORY METHODS

SAMPLING PROCEDURES

The mass of particulate matter per volume of air is determined by drawing air through a preweighed glass-fiber filter with a high volume (hi-vol) air sampler and then weighing the soiled filter. In order to obtain the flow rate, a calibrated rotameter is read at the start and finish of the sampling period, and the averaged value is used with a calibration table for that rotameter. The known sampling period (24 hours) and the measured flow rate allow for calculation of the volume of air sampled.

The hi-vol samplers, operating at approximately 1.7 cubic meters per minute, collect particulate matter from about 2500 cubic meters of air during the 24-hour sampling period. The filters used are 20.3 by 25.4 centimeter flash-fired glass-fiber filters, selected for low and uniform background concentrations of those substances to be measured.

As a precaution against pinholes or other flaws that could affect air flow, the filters are screened for imperfections on a light table. Prior to weighing, the filters are equilibrated for a minimum of 24 hours at a temperature of 24° Centigrade and a relative humidity of 50 percent or less. Because any crease in a filter can seriously affect the air flow, filters are weighed with a balance that permits

weighing without bending.

The filters are then distributed unfolded to the cooperating local agencies for the urban sites or to the designated participant responsible for operating the nonurban site. After sampling, the filters are folded along the lengthwise centerline with the collected particulate matter inside. They are then returned to a laboratory. The filter with the collected particulates is again equilibrated for at least 24 hours at a temperature of 24° Centigrade and a relative humidity of 50% or less, after which they are weighed to determine the amount of particulate matter that was collected.

METHODS OF METALS ANALYSIS

In the analysis for metals, quarterly filter composites are analyzed. A 2.5 by 18.0 centimeter strip is cut across the width from each contributing filter. The length of each strip utilized in the composite is determined by the number of filters included in the quarterly composite. (The total area is fixed at 113 square centimeters.) For example, if there were 5 valid samples in a quarter, a strip approximately 9 cm long would be cut from each filter. The 5-8 strips for the quarter are composited and ashed in an oxygen plasma to oxidize organic material. The metals are then extracted by refluxing for 3 hours with a mixture of nitric and hydrochloric acids.

Quantitative analysis is accomplished by measuring the intensity of the emission line for each metal as the sample extract is excited in an optical emission spectrometer, and by then comparing these measurements with a calibration curve obtained with standard solutions. For the 1976 samples, each reported value is the result of one deter-

mination made on each composite extract.

Data for samples collected prior to 1966 may not be directly comparable to the results presented in this report because samples taken from 1957 through 1965 were ashed in a muffle furnace at 500° Centigrade, causing the loss of varying amounts of the elements. For samples collected beginning in 1966, this deficiency has been corrected by ashing in an oxygen plasma at lower temperatures.

SECTION 4

NATIONAL SUMMARY OF AIR QUALITY MEASUREMENTS

The data in Tables 4-1 and 4-2 are cumulative frequency distributions by individual element of all quarterly results for urban and nonurban locations, respectively. Consider, for example, the line for urban 1976 lead. The first number, 670, gives the number of site quarters of lead data for the year. The next entry, minimum, is the lowest urban site quarter result of LD $\mu g/m^3$. Other entries, such as 1.74 under the 90th percentile column, are to be interpreted such that 90 percent of the 670 site-quarter results, i.e., .90x670 = 603, were equal to or less than 1.74 $\mu g/m^3$. The usual descriptive statistics, means and standard deviations (arithmetic and geometric) are shown in the last 4 columns. Comparisions among years within a pollutant provide a relative indication of trends. Some of the year-to-year variability in the national summary tables may be attributed to different sets of sites being used in the summarization depending upon which sites met the completeness criteria for valid data.

Since typical levels of some pollutants may be geographically dependent, the national frequency distribution is not helpful for judging the localized contribution and relative severity of these pollutants for an individual site. Therefore, local site analyses should be performed with data from surrounding sites within the same general geographical area.

TABLE 4-1. URBAN NATIONAL CUMULATIVE FREQUENCY DISTRIBUTIONS

Element	Year	No.	Min.	Percentiles 10	30	50	70	90	95	99	Max.	Arithmetic Mean	Arithmetic Std. Dev.	Geometric Mean	Geometric Std. Dev.
Beryllium*	1970	787	LD	LD	LD	LD	LD	0.2	0.3	0.6	2.9	--	--	--	--
	1971	742	LD	LD	LD	LD	LD	0.2	0.3	0.5	0.7	--	--	--	--
	1972	708	LD	LD	LD	LD	LD	LD	LD	LD	LD	--	--	--	--
	1973	559	LD	LD	LD	LD	LD	LD	LD	LD	LD	--	--	--	--
	1974	594	LD	LD	LD	LD	LD	LD	LD	LD	0.2	--	--	--	--
	1975	693	LD	LD	LD	LD	LD	0.1	0.1	0.2	1.4	--	--	--	--
	1976	670	LD	LD	LD	LD	LD	LD	0.1	0.3	1.5	--	--	--	--
Cadmium	1970	797	LD	LD	LD	LD	LD	.008	.012	.027	.099	--	--	--	--
	1971	717	LD	LD	LD	LD	LD	.010	.017	.059	.295	--	--	--	--
	1972	708	LD	LD	LD	LD	LD	.007	.011	.034	.112	--	--	--	--
	1973	559	LD	LD	LD	LD	LD	LD	.007	.012	.032	--	--	--	--
	1974	594	LD	LD	LD	LD	LD	.006	.009	.022	.077	--	--	--	--
	1975	695	LD	LD	LD	LD	LD	.011	.013	.030	.163	--	--	--	--
	1976	670	LD	LD	LD	LD	LD	.009	.014	.040	.071	--	--	--	--

*Expressed in ng/m^3.

(Continued)

TABLE 4-1 (Continued)

Element	Year	No.	Min.	Percentiles 10	30	50	70	90	95	99	Max.	Arithmetic Mean	Arithmetic Std. Dev.	Geometric Mean	Geometric Std. Dev.
Chromium	1970	797	LD	LD	LD	.006	.009	.017	.024	.046	.130	.008	.011	.006	2.86
	1971	717	LD	LD	LD	.007	.010	.019	.026	.057	.171	.009	.014	.008	2.97
	1972	708	LD	LD	.001	.004	.006	.011	.017	.040	.143	.006	.010	.004	3.17
	1973	559	LD	LD	LD	.004	.007	.015	.023	.074	.228	.007	.015	.004	3.62
	1974	594	LD	LD	.003	.005	.007	.012	.015	.035	.073	.006	.006	.005	2.37
	1975	695	LD	.003	.005	.006	.008	.013	.016	.045	.173	.008	.011	.007	2.76
	1976	670	LD	LD	LD	LD	.007	.013	.018	.043	1.109	--	--	--	--
Cobalt	1970	797	LD	LD	LD	LD	LD	LD	LD	LD	.014	--	--	--	--
	1971	717	LD	LD	LD	LD	LD	LD	LD	LD	.085	--	--	--	--
	1972	708	LD	LD	LD	LD	LD	LD	LD	LD	.042	--	--	--	--
	1973	559	LD	LD	LD	LD	LD	LD	LD	LD	.027	--	--	--	--
	1974	594	LD	LD	LD	LD	LD	LD	LD	LD	.029	--	--	--	--
	1975	695	LD	LD	LD	LD	LD	LD	.004	.009	.040	--	--	--	--
	1976	670	LD	LD	LD	LD	LD	LD	LD	.004	.124	--	--	--	--
Copper	1970	790	LD	.04	.06	.10	.16	.32	.50	.99	1.51	.15	.18	.10	2.57
	1971	715	LD	.04	.07	.10	.18	.37	.59	1.28	1.56	.18	.22	.11	2.62
	1972	706	LD	.03	.06	.09	.15	.35	.49	1.00	1.57	.16	.19	.10	2.60
	1973	555	LD	.03	.06	.09	.14	.34	.45	.79	1.44	.15	.17	.10	2.49
	1974	590	LD	.04	.08	.11	.17	.36	.51	.78	1.33	.17	.16	.12	2.26
	1975	695	.02	.06	.12	.18	.28	.52	.69	1.42	3.09	.26	.29	.18	2.45
	1976	670	LD	.06	.12	.17	.24	.45	.60	1.12	2.14	.23	.21	.17	2.20

(Continued)

TABLE 4-1 (Continued)

Element	Year	No.	Min.	Percentiles 10	30	50	70	90	95	99	Max.	Arithmetic Mean	Arithmetic Std. Dev.	Geometric Mean	Geometric Std. Dev.
Iron	1970	796	LD	0.6	1.1	1.4	1.9	3.2	4.2	6.4	14.2	1.7	1.3	1.38	1.98
	1971	717	LD	0.8	1.3	1.7	2.3	3.6	4.9	8.1	16.0	2.1	1.6	1.65	1.98
	1972	708	LD	0.5	0.8	1.0	1.4	2.2	2.8	4.1	6.4	1.2	0.8	1.04	1.83
	1973	558	LD	0.4	0.7	0.9	1.2	1.9	2.6	3.8	6.9	1.1	0.8	0.89	1.89
	1974	594	LD	0.4	0.7	0.9	1.2	1.9	2.4	3.9	6.2	1.1	0.7	0.89	1.87
	1975	695	LD	LD	0.7	1.0	1.3	2.0	2.7	4.5	7.9	1.2	0.8	0.99	1.86
	1976	670	LD	0.5	0.7	1.0	1.3	2.1	2.9	4.4	8.6	1.2	0.9	0.96	1.93
Lead	1970	797	LD	.47	.75	1.05	1.37	2.01	2.59	4.14	5.83	1.19	.80	.99	1.80
	1971	717	LD	.42	.71	1.01	1.42	2.21	2.86	4.38	6.31	1.23	.87	1.00	1.89
	1972	708	LD	.46	.72	.97	1.25	1.93	2.57	3.69	6.88	1.13	.78	.93	1.87
	1973	559	LD	.35	.58	.77	1.05	1.62	2.08	3.03	5.83	.92	.64	.76	1.87
	1974	594	.08	.36	.57	.75	1.00	1.61	1.97	3.16	4.09	.89	.57	.75	1.80
	1975	695	LD	.37	.58	.78	.96	1.54	2.02	3.15	4.94	.89	.59	.74	1.82
	1976	670	LD	.37	.58	.74	.96	1.41	1.72	3.07	4.54	.85	.55	.72	1.80
Manganese	1970	795	LD	.02	.03	.04	.06	.15	.23	.49	2.10	.07	.12	.04	3.13
	1971	716	LD	.02	.04	.05	.07	.16	.24	.46	1.95	.08	.11	.05	2.81
	1972	708	LD	.01	.02	.03	.04	.09	.12	.22	.86	.04	.06	.03	2.76
	1973	559	LD	.01	.02	.02	.04	.07	.11	.29	.56	.04	.05	.02	2.72
	1974	594	LD	.01	.02	.02	.04	.07	.11	.21	.35	.04	.04	.02	2.39
	1975	695	LD	.01	.02	.03	.04	.07	.10	.18	.72	.04	.04	.02	2.49
	1976	670	LD	.01	.02	.03	.04	.08	.12	.27	.74	.04	.05	.03	2.60

(Continued)

TABLE 4-1 (Continued)

Element	Year	No.	Min.	Percentiles 10	30	50	70	90	95	99	Max.	Arithmetic Mean	Arithmetic Std. Dev.	Geometric Mean	Geometric Std. Dev.
Nickel	1970	797	LD	LD	LD	LD	.019	.045	.066	.127	.277	--	--	--	--
	1971	717	LD	LD	LD	LD	.018	.045	.064	.126	.347	--	--	--	--
	1972	708	LD	LD	LD	LD	.013	.031	.045	.100	.268	--	--	--	--
	1973	559	LD	LD	LD	LD	.013	.036	.066	.133	.439	--	--	--	--
	1974	594	LD	LD	LD	LD	.012	.026	.034	.057	.639	--	--	--	--
	1975	695	LD	LD	LD	.012	.019	.032	.039	.062	.092	.014	.014	.01	2.34
	1976	670	LD	LD	LD	.014	.022	.038	.048	.079	.170	.017	.017	.01	2.32
Titanium	1970	797	LD	.02	.03	.04	.06	.09	.12	.18	.26	.05	.03	.04	1.85
	1971	716	LD	LD	LD	.03	.05	.09	.12	.20	.51	.04	.05	.02	2.66
	1972	707	LD	LD	.02	.03	.05	.08	.10	.14	.48	.04	.03	.03	2.21
	1973	559	LD	LD	.02	.04	.05	.08	.10	.14	.23	.04	.03	.03	2.01
	1974	593	LD	LD	.02	.03	.05	.07	.09	.14	.22	.04	.03	.03	2.06
	1975	695	.01	.01	.02	.03	.04	.08	.11	.16	.63	.04	.04	.03	2.35
	1976	670	LD	LD	.02	.02	.03	.05	.07	.14	.18	.03	.03	.02	2.12
Vanadium	1970	795	LD	LD	LD	LD	.029	.162	.244	.544	1.222	--	--	--	--
	1971	718	LD	LD	LD	LD	.026	.117	.204	.496	1.325	--	--	--	--
	1972	708	LD	LD	LD	LD	LD	.075	.100	.195	.858	--	--	--	--
	1973	559	LD	LD	LD	LD	LD	.057	.077	.151	.393	--	--	--	--
	1974	594	LD	LD	LD	LD	LD	.058	.083	.185	.248	--	--	--	--
	1975	695	LD	LD	LD	LD	.020	.050	.069	.152	.296	--	--	--	--
	1976	670	LD	LD	LD	LD	.020	.052	.067	.112	.169	--	--	--	--

TABLE 4-2. NONURBAN NATIONAL CUMULATIVE FREQUENCY DISTRIBUTIONS

Element	Year	No.	Min.	Percentiles 10	30	50	70	90	95	99	Max.	Arithmetic Mean	Arithmetic Std. Dev.	Geometric Mean	Geometric Std. Dev.
Beryllium*	1970	124	LD	LD	LD	LD	LD	LD	LD	.24	.24	--	--	--	--
	1971	97	LD	LD	LD	LD	LD	LD	LD	.16	.24	--	--	--	--
	1972	137	LD	LD	LD	LD	LD	LD	LD	LD	LD	--	--	--	--
	1973	100	LD	LD	LD	LD	LD	LD	LD	LD	LD	--	--	--	--
	1974	79	LD	LD	LD	LD	LD	LD	LD	LD	LD	--	--	--	--
	1975	99	LD	LD	LD	LD	LD	LD	.07	.16	.22	--	--	--	--
	1976	98	LD	LD	LD	LD	LD	LD	.09	.94	1.21	--	--	--	--
Cadmium	1970	124	LD	LD	LD	LD	LD	LD	LD	LD	LD	--	--	--	--
	1971	97	LD	LD	LD	LD	LD	LD	LD	LD	LD	--	--	--	--
	1972	137	LD	LD	LD	LD	LD	LD	LD	LD	LD	--	--	--	--
	1973	100	LD	LD	LD	LD	LD	LD	LD	LD	LD	--	--	--	--
	1974	79	LD	LD	LD	LD	LD	LD	LD	LD	LD	--	--	--	--
	1975	98	LD	LD	LD	LD	LD	LD	LD	.0128	.0144	--	--	--	--
	1976	98	LD	LD	LD	LD	LD	LD	.007	.0265	.0386	--	--	--	--
Chromium	1970	124	LD	LD	LD	LD	LD	.007	.017	.042	.075	--	--	--	--
	1971	97	LD	LD	LD	LD	.005	.007	.011	.034	.061	--	--	--	--
	1972	137	LD	LD	LD	LD	.002	.005	.006	.009	.039	--	--	--	--
	1973	100	LD	LD	LD	LD	.001	.007	.017	.039	.066	--	--	--	--
	1974	79	LD	LD	LD	LD	.002	.005	.008	.009	.009	--	--	--	--
	1975	98	LD	LD	LD	.003	.004	.007	.008	.011	.014	.003	.003	.0029	2.29
	1976	98	LD	LD	LD	LD	LD	.006	.010	.727	.754	--	--	--	--

*Expressed in ng/m^3

(Continued)

TABLE 4-2 (Continued)

Element	Year	No.	Min.	Percentiles 10	30	50	70	90	95	99	Max.	Arithmetic Mean	Arithmetic Std. Dev.	Geometric Mean	Geometric Std. Dev.
Cobalt	1970	124	LD	LD	LD	LD	LD	LD	LD	LD	LD	--	--	--	--
	1971	97	LD	LD	LD	LD	LD	LD	LD	LD	LD	--	--	--	--
	1972	137	LD	LD	LD	LD	LD	LD	LD	LD	LD	--	--	--	--
	1973	100	LD	LD	LD	LD	LD	LD	LD	LD	LD	--	--	--	--
	1974	79	LD	LD	LD	LD	LD	LD	LD	LD	LD	--	--	--	--
	1975	98	LD	LD	LD	LD	LD	LD	LD	.005	.006	--	--	--	--
	1976	98	LD	LD	LD	LD	LD	LD	.000	.005	.008	--	--	--	--
Copper	1970	124	LD	.029	.056	.081	.164	.342	.526	1.053	1.195	.158	.188	.081	2.56
	1971	96	.014	.029	.086	.141	.208	.495	.648	.785	.880	.205	.196	.150	2.24
	1972	137	LD	.025	.058	.116	.193	.377	.660	.804	.812	.178	.183	.116	2.33
	1973	99	.011	.035	.075	.119	.219	.440	.571	.849	.983	.196	.196	.138	2.30
	1974	78	.023	.039	.081	.124	.238	.461	.643	.860	1.147	.208	.210	.147	2.31
	1975	98	.014	.066	.122	.176	.312	.627	1.040	3.717	4.068	.364	.637	.180	3.26
	1976	98	LD	.052	.095	.143	.202	.444	.536	.774	.791	.198	.172	.150	2.12
Iron	1970	124	LD	.13	.22	.32	.45	.68	.85	1.58	1.62	.38	.27	.31	1.90
	1971	97	.07	.18	.27	.43	.63	.90	1.04	1.52	2.80	.51	.38	.41	1.95
	1972	137	LD	.05	.12	.19	.31	.56	.68	1.06	1.15	.25	.22	.19	2.11
	1973	99	.01	.02	.11	.16	.21	.34	.47	.88	1.19	.19	.18	.14	2.19
	1974	79	LD	.04	.12	.19	.28	.47	.55	.65	.69	.24	.17	.19	1.92
	1975	98	LD	LD	LD	LD	LD	LD	LD	.67	.99	--	--	--	--
	1976	98	LD	.07	.17	.24	.31	.57	.84	1.40	1.41	.30	.27	.23	2.14

(Continued)

TABLE 4-2 (Continued)

Element	Year	No.	Min.	Percentiles 10	30	50	70	90	95	99	Max.	Arithmetic Mean	Arithmetic Std. Dev.	Geometric Mean	Geometric Std. Dev.
Lead	1970	124	LD	LD	LD	LD	LD	.267	.383	.628	1.471	--	--	--	--
	1971	85	LD	LD	LD	LD	LD	.127	.204	.783	1.134	--	--	--	--
	1972	137	LD	LD	LD	.107	.166	.294	.392	.950	1.048	.139	.169	.090	2.59
	1973	100	LD	LD	LD	LD	.132	.233	.392	.698	.939	--	--	--	--
	1974	79	LD	LD	.053	.087	.141	.221	.317	.496	.534	.111	.111	.083	2.30
	1975	98	LD	LD	LD	LD	.144	.255	.311	.431	.649	--	--	--	--
	1976	98	LD	LD	LD	LD	.150	.240	.285	.336	.483	--	--	--	--
Manganese	1970	124	LD	.003	.006	.012	.018	.035	.041	.066	.068	.015	.013	.012	2.11
	1971	97	LD	.003	.009	.013	.022	.032	.041	.064	.102	.018	.015	.013	2.09
	1972	137	LD	LD	LD	.003	.007	.016	.029	.039	.046	.007	.009	.003	2.81
	1973	100	LD	LD	LD	.002	.004	.011	.022	.030	.030	.004	.005	.002	2.79
	1974	79	LD	LD	.001	.004	.007	.017	.023	.027	.033	.006	.007	.004	2.52
	1975	98	LD	LD	.004	.006	.009	.014	.018	.031	.040	.007	.007	.015	2.19
	1976	98	LD	LD	.005	.007	.010	.025	.030	.036	.046	.010	.009	.010	2.21
Nickel	1970	124	LD	LD	LD	LD	LD	.019	.024	.076	.097	--	--	--	--
	1971	97	LD	LD	LD	LD	LD	LD	LD	.046	.083	--	--	--	--
	1972	137	LD	LD	LD	LD	LD	.009	.015	.076	.082	--	--	--	--
	1973	100	LD	LD	LD	LD	LD	.014	.059	.188	.280	--	--	--	--
	1974	79	LD	LD	LD	LD	LD	LD	.006	.020	.026	--	--	--	--
	1975	98	LD	LD	LD	LD	LD	.015	.024	.036	.105	--	--	--	--
	1976	98	LD	LD	LD	LD	LD	.012	.019	.038	.149	--	--	--	--

(Continued)

TABLE 4-2 (Continued)

Element	Year	No.	Min.	Percentiles 10	30	50	70	90	95	99	Max.	Arithmetic Mean	Arithmetic Std. Dev.	Geometric Mean	Geometric Std. Dev.
Titanium	1970	124	LD	LD	.007	.011	.015	.023	.028	.047	.093	.013	.011	.011	2.15
	1971	97	LD	LD	LD	LD	.028	.042	.049	.065	.069	--	--	--	--
	1972	137	LD	LD	.011	.024	.038	.054	.069	.081	.092	.027	.022	.024	2.04
	1973	100	LD	LD	.012	.027	.040	.054	.068	.076	.084	.028	.021	.024	1.93
	1974	78	LD	LD	LD	.016	.026	.043	.049	.053	.066	.020	.017	.014	2.09
	1975	98	LD	LD	.007	.010	.013	.035	.047	.131	.167	.016	.024	.014	2.95
	1976	98	LD	LD	.004	.007	.010	.015	.026	.068	.071	.009	.011	.010	2.55
Vanadium	1970	124	LD	LD	LD	LD	LD	.021	.035	.112	.112	--	--	--	--
	1971	97	LD	LD	LD	LD	LD	LD	.036	.114	.209	--	--	--	--
	1972	137	LD	LD	LD	LD	LD	LD	.025	.047	.205	--	--	--	--
	1973	100	LD	LD	LD	LD	LD	LD	LD	.028	.035	--	--	--	--
	1974	79	LD	LD	LD	LD	LD	LD	LD	.021	.023	--	--	--	--
	1975	98	LD	LD	LD	LD	LD	.017	.020	.027	.036	--	--	--	--
	1976	98	LD	LD	LD	LD	LD	LD	.014	.026	.026	--	--	--	--

SECTION 5

DATA TABLES

The data are arranged by urban and nonurban sites. Each monitoring site is assigned a unique code number as described in the SAROAD Station Coding Manual.*

Data are presented as quarterly composite and yearly average values expressed in micrograms (nanograms in the case of beryllium) per cubic meter of air. Quarterly composites are judged to be representative and are included in the tables (1) if there are at least five valid filters per quarter and (2) if one month lacks any valid samples, the other two months in that quarter have at least two valid samples. If only one quarterly composite has a "zero" concentration (shown as LD in the data tables), the yearly mean is calculated by replacing the LD with a value equal to one-half the LD shown in Table 2-1. If two or more quarters within a site year are below the analytical discrimination value, the yearly average is not calculated. Prior to the analysis of 1970 samples, the general procedure was to analyze for trace metal concentrations only when the entire year was valid, i.e., all 4 quarters were represented. This practice meant that the tables were complete without blanks. This

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*Fair, D.H. SAROAD Station Coding Manual. U.S. Environmental Protection Agency, Office of Air Programs, Research Triangle Park, North Carolina. Publication No. APTD-0907. February 1972.

procedure has been liberalized during the period since 1970 to allow for analyses of any valid quarters for a given station even though the entire year may not be represented.

Data table headings present the bias and precision information from Table 2-2. For example, the headings for beryllium include the following:

95% Confidence Limits	
Bias (%)	Precision (%)
16	±58

The bias and precision values can be used in equations (5a) and (5b) to compute upper and lower 95 percent confidence limits on the true concentration for a given reported concentration, i.e., for a given quarterly composite value. For example, the confidence limits for a reported beryllium concentration of .84 ng/m^3 would be:

$$L_u = X(1 + B/100 + 1.96\ C_v/100) \tag{5a}$$

$$= .84(1 + 16/100 + 58/100)$$

$$= 1.462\ \text{ng/m}^3$$

$$L_\ell = X(1 + B/100 - 1.96\ C_v/100) \tag{5b}$$

$$= .84(1 + 16/100 - 58/100)$$

$$= .487\ \text{ng/m}^3$$

Thus, the interval between .49 ng/m^3 and 1.46 ng/m^3 would be expected to include the true value with a confidence of 95 percent.

POLLUTANT : 12105 -BE- BERYLLIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : NG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .00006
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 16 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ALABAMA						
BIRMINGHAM						
SITE 003	76	LD	LD		LD	
GADSDEN						
SITE 001	76		LD	.2670	LD	
HUNTSVILLE						
SITE 001	76	LD	LD	.1988		
MOBILE						
SITE 001	76	LD	LD	.1640		
MONTGOMERY						
SITE 001	76	LD	.0611	LD	LD	
ALASKA						
ANCHORAGE						
SITE 003	76	LD			LD	
FAIRBANKS						
SITE 001	76		LD		LD	
ARIZONA						
DOUGLAS						
SITE 004	76	LD	LD			
PHOENIX						
SITE 002	76	LD	.3552	.3900		
TUCSON						
SITE 001	76	LD	.1037	.0892	LD	
ARKANSAS						
LITTLE ROCK						
SITE 001	76	LD	LD	1.1945		
TEXARKANA						
SITE 001	76	LD	LD	LD	LD	
WEST MEMPHIS						
SITE 001	76	.0891	.3075	1.4889	.8778	.6908

POLLUTANT : 12105 -BE- BERYLLIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : NG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .00006
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 16 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
CALIFORNIA						
ANAHEIM						
SITE 001	76	.0802	LD	.1496	LD	
BERKELEY						
SITE 001	76	LD	LD	LD	LD	
BURBANK						
SITE 002	76	LD	LD	LD	LD	
FRESNO						
SITE 002	76	.0604	LD		LD	
LONG BEACH						
SITE 001	76	LD	LD	LD	LD	
LOS ANGELES						
SITE 001	76	.0752	LD	.0837	LD	
OAKLAND						
SITE 001	76	LD	LD		LD	
ONTARIO						
SITE 001	76		LD	.1001	LD	
PASADENA						
SITE 002	76	LD	LD	LD	LD	
SACRAMENTO						
SITE 001	76	LD	LD	LD	LD	
SAN BERNARDINO						
SITE 001	76	LD	LD	LD	LD	
SAN DIEGO						
SITE 004	76	LD	LD	LD	LD	
SAN FRANCISCO						
SITE 001	76	LD	LD	LD	LD	
SAN JOSE						
SITE 004	76	LD	LD	LD	LD	

POLLUTANT : 12105 -BE- BERYLLIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : NG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .00006
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 16 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
CALIFORNIA						
SANTA ANA						
SITE 001	76	.0816	LD	LD	LD	
TORRANCE						
SITE 001	76	.0891	LD	LD	LD	
COLORADO						
DENVER						
SITE 001	76	LD	LD	LD	LD	
CONNECTICUT						
BRIDGEPORT						
SITE 001	76	LD	.1206	.0845	LD	
HARTFORD						
SITE 002	76	LD	LD	LD	LD	
NEW HAVEN						
SITE 001	76	LD	LD	LD	LD	
WATERBURY						
SITE 001	76	LD				
WATERBURY						
SITE 123	76		.0789	.1055	LD	
DELAWARE						
NEWARK						
SITE 001	76	LD	LD	LD	LD	
WILMINGTON						
SITE 002	76	LD	LD	.0636	LD	
DISTRICT OF COLUMBIA						
WASHINGTON						
SITE 001	76		.0894	.0917		
FLORIDA						
JACKSONVILLE						
SITE 002	76	LD		LD	LD	

POLLUTANT : 12105 -BE- BERYLLIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : NG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .00006
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 16 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
FLORIDA						
MIAMI						
SITE 002	76			.0686	LD	
ST PETERSBURG						
SITE 002	76				LD	
TAMPA						
SITE 002	76	LD				
GEORGIA						
ATLANTA						
SITE 001	76	LD	LD	.1078		
COLUMBUS						
SITE 001	76	LD	LD	LD	LD	
SAVANNAH						
SITE 001	76	LD	LD	LD	.0599	
HAWAII						
MAUNA LOA OBSERV						
SITE 002	76			LD		
HONOLULU						
SITE 001	76	.1246	.1067	.1143	LD	.1152
IDAHO						
BOISE CITY						
SITE 001	76			LD	LD	
ILLINOIS						
BLUE ISLAND						
SITE 001	76	LD	LD		LD	
CHICAGO						
SITE 001	76	LD		LD	LD	
MOLINE						
SITE 001	76	.0761	LD	LD	LD	
NORTH CHICAGO						
SITE 002	76	LD	LD	LD	LD	

POLLUTANT : 12105 -BE- BERYLLIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : NG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .00006
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 16 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ILLINOIS						
PEORIA						
SITE 001	76	LD	.0968	LD	.1326	
ROCK ISLAND						
SITE 001	76	.1134	LD	LD	.0842	
SPRINGFIELD						
SITE 001	76	LD	LD	LD		
INDIANA						
EAST CHICAGO						
SITE 001	76	LD	LD	LD	LD	
EVANSVILLE						
SITE 001	76	.0851	.0830	.0701	.1054	.0859
FORT WAYNE						
SITE 002	76	LD				
FORT WAYNE						
SITE 003	76			.0764		
GARY						
SITE 001	76	LD	.1825	.1164	.0852	.1280
HAMMOND						
SITE 002	76	.0696	.0919	LD	LD	
INDIANAPOLIS						
SITE 001	76	.0908	.0801	.0686		.0798
INDIANAPOLIS						
SITE 002	76				.0690	
NEW ALBANY						
SITE 002	76	LD	.0881	LD	.0940	
SOUTH BEND						
SITE 002	76	LD	LD	LD	LD	
TERRE HAUTE						
SITE 001	76	.0860	.0704	.0666	.0879	.0777

POLLUTANT : 12105 -BE- BERYLLIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : NG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .00006
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 16 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
IOWA						
CEDAR RAPIDS						
SITE 018	76	LD	LD	LD	LD	
DAVENPORT						
SITE 001	76	LD	LD	LD	LD	
DES MOINES						
SITE 001	76	LD	LD		LD	
DUBUQUE						
SITE 002	76	LD	LD	LD	LD	
DUBUQUE						
SITE 008	76	LD	LD	LD	LD	
WATERLOO						
SITE 004	76	LD	LD	LD	LD	
KANSAS						
KANSAS CITY						
SITE 002	76	.0592				
KANSAS CITY						
SITE 012	76	.0928	.1361	LD	.0825	.1038
KANSAS CITY						
SITE 015	76		LD	LD	.0816	
TOPEKA						
SITE 001	76	LD	LD	LD		
WICHITA						
SITE 001	76	LD	LD	LD	LD	
KENTUCKY						
ASHLAND						
SITE 002	76	.2375	.1043	.1754	.1694	.1717
BOWLING GREEN						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12105 -BE- BERYLLIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : NG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .00006
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 16 PRECISION (%) +- 58

LOCATION*	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
KENTUCKY						
COVINGTON						
SITE 001	76	LD	.0910	LD	LD	
LEXINGTON						
SITE 001	76	.1383	LD	LD		
LOUISVILLE						
SITE 002	76	.0783	LD	LD	.0899	
LOUISIANA						
BATON ROUGE						
SITE 002	76	LD		LD	LD	
IBERVILLE PAR						
SITE 002	76	LD	LD	LD	LD	
NEW ORLEANS						
SITE 002	76	LD	LD		LD	
SHREVEPORT						
SITE 001	76	LD	LD	LD		
MAINE						
PORTLAND						
SITE 004	76		LD			
MARYLAND						
BALTIMORE						
SITE 001	76	LD	.0789	.1271	LD	
MASSACHUSETTS						
BOSTON						
SITE 001	76		LD		LD	
CAMBRIDGE						
SITE 001	76		LD	LD	LD	
FALL RIVER						
SITE 001	76		LD	LD	LD	
NEW BEDFORD						
SITE 002	76		LD	LD	LD	

POLLUTANT : 12105 -BE- BERYLLIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : NG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .00006
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 16 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MASSACHUSETTS						
WORCESTER						
SITE 004	76		LD	LD	.0748	
MICHIGAN						
DETROIT						
SITE 001	76	LD	LD	LD	LD	
FLINT						
SITE 008	76	LD	LD			
GRAND RAPIDS						
SITE 001	76	LD	LD	LD	LD	
LANSING						
SITE 001	76	LD	LD	LD	LD	
SAGINAW						
SITE 001	76	LD	LD	LD	LD	
TRENTON						
SITE 004	76	LD	LD		LD	
MINNESOTA						
DULUTH						
SITE 001	76	LD	LD	LD		
MINNEAPOLIS						
SITE 001	76	LD				
MINNEAPOLIS						
SITE 027	76		LD	LD	LD	
ST PAUL						
SITE 031	76	LD	LD	LD	LD	
MISSISSIPPI						
JACKSON						
SITE 002	76	LD	LD	LD	LD	
MISSOURI						
ST LOUIS						
SITE 001	76	LD	LD		LD	

POLLUTANT : 12105 -BE- BERYLLIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : NG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .00006
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 16 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MONTANA						
HELENA						
SITE 001	76			LD	LD	
NEBRASKA						
LINCOLN						
SITE 002	76	LD	LD	LD	LD	
OMAHA						
SITE 030	76	.0660	LD	LD	LD	
NEVADA						
LAS VEGAS						
SITE 001	76			LD	LD	
RENO						
SITE 001	76			LD	LD	
NEW HAMPSHIRE						
CONCORD						
SITE 002	76	LD				
NEW JERSEY						
BAYONNE						
SITE 001	76		LD	LD		
CAMDEN						
SITE 001	76	LD	LD	LD		
CAMDEN CO						
SITE 003	76	LD		LD		
ELIZABETH						
SITE 002	76	LD	LD	LD		
GLASSBORO						
SITE 001	76		LD	LD		
JERSEY CITY						
SITE 001	76	LD	LD	LD		
NEWARK						
SITE 001	76	LD	LD	LD		

POLLUTANT : 12105 -BE- BERYLLIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : NG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .00006
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 16 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NEW JERSEY						
PATERSON						
SITE 001	76	LD	LD	LD		
PERTH AMBOY						
SITE 001	76	LD	LD	LD		
TRENTON						
SITE 001	76	LD	LD	LD		
NEW MEXICO						
ALBUQUERQUE						
SITE 001	76		LD		LD	
NEW YORK						
ALBANY						
SITE 001	76	LD				
BUFFALO						
SITE 001	76	LD		LD		
NEW YORK CITY						
SITE 014	76	LD	LD	LD		
NIAGARA FALLS						
SITE 001	76	LD	LD	LD		
ROCHESTER						
SITE 001	76	LD	LD	LD		
SYRACUSE						
SITE 001	76	LD	LD	LD		
UTICA						
SITE 001	76	LD	LD			
YONKERS						
SITE 001	76	LD	LD	LD		
NORTH CAROLINA						
CHARLOTTE						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12105 -BE- BERYLLIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : NG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .00006
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 16 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NORTH CAROLINA						
DURHAM						
SITE 006	76		.0597	LD	LD	
GREENSBORO						
SITE 009	76	LD	LD	LD	LD	
WINSTON-SALEM						
SITE 002	76	LD			LD	
OHIO						
AKRON						
SITE 014	76	LD	.0733	LD	.0877	
CANTON						
SITE 001	76	LD	LD	.0838	LD	
CINCINNATI						
SITE 001	76		.1216	.0834	.1004	.1018
CLEVELAND						
SITE 001	76	LD		.1719	LD	
COLUMBUS						
SITE 001	76	LD	.0974	LD	LD	
DAYTON						
SITE 001	76	LD	LD	.1332	.1517	
PORTSMOUTH						
SITE 002	76			.0900		
STEUBENVILLE						
SITE 012	76	.1575	.1088	.1710	.1287	.1415
TOLEDO						
SITE 001	76	LD	.0993	LD	LD	
YOUNGSTOWN						
SITE 001	76	LD	.1925	.1042	LD	

POLLUTANT : 12105 -BE- BERYLLIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : NG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .00006
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 16 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
OKLAHOMA						
CHEROKEE CO						
SITE 480	76				LD	
TULSA						
SITE 110	76	LD	LD	LD	LD	
OREGON						
PORTLAND						
SITE 001	76	LD	LD		LD	
PENNSYLVANIA						
ALLENTOWN						
SITE 001	76	LD	.0649	LD		
ALTOONA						
SITE 001	76	LD		LD	LD	
BETHLEHEM						
SITE 002	76	LD	.0825	LD	LD	
ERIE						
SITE 002	76	.5093	.1803	.0668	LD	.2521
HARRISBURG						
SITE 361	76		.0728	LD	LD	
HAZLETON						
SITE 001	76	.0963	.0774	LD	LD	
JOHNSTOWN						
SITE 803	76		.0990	LD	LD	
LANCASTER CITY						
SITE 002	76	LD	.0634	LD	LD	
PHILADELPHIA						
SITE 004	76	LD	.1059	LD	LD	
PITTSBURGH						
SITE 001	76	.0872	.1812	.1072	LD	.1252

POLLUTANT : 12105 -BE- BERYLLIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : NG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .00006
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 16 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
PENNSYLVANIA						
READING						
SITE 001	76	.0653	.0660	LD	LD	
SCRANTON						
SITE 001	76	LD	.0885	LD	LD	
WARMINSTER						
SITE 002	76	LD	.0624	LD	LD	
WEST CHESTER						
SITE 110	76	LD	LD	LD	LD	
WILKES-BARRE						
SITE 001	76	LD	.0824	LD	LD	
YORK						
SITE 322	76	LD	.0728		LD	
PUERTO RICO						
AMELIA						
SITE 001	76	LD		LD		
PONCE						
SITE 002	76	LD	LD	LD		
SEBANA SECA						
SITE 001	76	LD	LD	LD		
RHODE ISLAND						
EAST PROVIDENCE						
SITE 001	76	LD	LD	LD	LD	
PROVIDENCE						
SITE 001	76	LD	LD	LD	LD	
SOUTH CAROLINA						
COLUMBIA						
SITE 001	76	.0809	.0713	LD	LD	
GREENVILLE						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12105 -BE- BERYLLIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : NG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .00006
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 16 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
SOUTH DAKOTA						
SIOUX FALLS						
SITE 001	76	LD	LD	LD		
TENNESSEE						
CHATTANOOGA						
SITE 001	76	.1040	.0926	LD	.0621	.0862
KNOXVILLE						
SITE 002	76	.0968	.0929	LD	.0927	.0941
MEMPHIS						
SITE 001	76	LD	LD	LD	LD	
NASHVILLE						
SITE 001	76	LD	.0669	LD	.0971	
TEXAS						
AMARILLO						
SITE 002	76				LD	
AUSTIN						
SITE 010	76			LD	LD	
BEAUMONT						
SITE 001	76	LD	LD	LD		
CORPUS CHRISTI						
SITE 001	76	LD	LD	LD	LD	
DALLAS						
SITE 002	76		LD	LD		
FORT WORTH						
SITE 001	76	LD	LD	LD		
HOUSTON						
SITE 001	76	LD				
LUBBOCK						
SITE 001	76	LD			LD	

POLLUTANT : 12105 -BE- BERYLLIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : NG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .00006
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 16 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
TEXAS						
PASADENA						
SITE 002	76		LD		LD	
SAN ANTONIO						
SITE 034	76	LD	LD	LD		
WICHITA FALLS						
SITE 002	76	LD	LD	LD	LD	
UTAH						
OGDEN						
SITE 001	76	.0717	LD			
SALT LAKE CITY						
SITE 001	76	LD	LD	LD	LD	
VERMONT						
BURLINGTON						
SITE 003	76	LD	LD			
VIRGINIA						
DANVILLE						
SITE 001	76	.1905	.1996	LD	LD	
MCLEAN						
SITE 001	76		LD	LD	LD	
HAMPTON						
SITE 001	76	LD	LD	LD	LD	
LYNCHBURG						
SITE 002	76		.0843	LD	LD	
NORFOLK						
SITE 001	76	LD	.0631	LD	LD	
PORTSMOUTH						
SITE 001	76	LD	.1133	LD	LD	
RICHMOND						
SITE 002	76	LD	LD	LD	LD	

POLLUTANT : 12105 -BE- BERYLLIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : NG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .00006
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 16 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
VIRGINIA						
ROANOKE						
SITE 003	76	LD	.0641	LD	LD	
WASHINGTON						
SEATTLE						
SITE 001	76	LD	LD	LD	LD	
SPOKANE						
SITE 001	76	LD		LD	LD	
TACOMA						
SITE 001	76	LD	LD		LD	
WEST VIRGINIA						
CHARLESTON						
SITE 001	76	LD	.2693	LD	.1984	
HUNTINGTON						
SITE 005	76	LD		LD	.1023	
SOUTH CHARLESTON						
SITE 001	76	LD	.1685	.0785	.1300	.1257
WISCONSIN						
EAU CLAIRE						
SITE 002	76	LD	LD	LD	LD	
KENOSHA						
SITE 001	76	LD	LD	LD		
MADISON						
SITE 001	76	LD	LD	LD	LD	
MILWAUKEE						
SITE 001	76	LD				
MILWAUKEE						
SITE 099	76				LD	
RACINE						
SITE 002	76	LD	LD	LD	LD	

POLLUTANT : 12105 -BE- BERYLLIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : NG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .00006
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 16 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
WISCONSIN						
SUPERIOR						
SITE 001	76		LD		LD	
WYOMING						
CHEYENNE						
SITE 001	76				LD	

POLLUTANT : 12105 -BE- BERYLLIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : NG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .00006
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 16 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ARIZONA						
GRAND CANYON NAT P						
SITE 001	76	LD	.4090		LD	
ARKANSAS						
MONTGOMERY CO						
SITE 001	76	.0882	LD	.9407	1.2103	.7464
COLORADO						
MESA VERDE NAT PAR						
SITE 002	76	LD		LD	LD	
DELAWARE						
KENT CO						
SITE 001	76		.0854	LD		
FLORIDA						
HARDEE CO						
SITE 001	76	LD	.0660			
HIGHLANDS CO.						
SITE 002	76				LD	
HAWAII						
HAWAII CO						
SITE 001	76		LD	LD	LD	
HAWAII CO						
SITE 002	76	LD	LD			
IDAHO						
BUTTE CO						
SITE 001	76	LD				
INDIANA						
MONROE CO						
SITE 001	76		LD	LD	LD	
PARKE CO						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12105 -BE- BERYLLIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : NG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .00006
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 16 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MAINE						
ACADIA NAT PARK						
SITE 001	76	LD	LD	LD	LD	
MARYLAND						
CALVERT CO						
SITE 001	76	LD	.0776	LD		
MISSISSIPPI						
JACKSON CO						
SITE 001	76	LD	LD	LD	LD	
MISSOURI						
SHANNON CO						
SITE 002	76	LD	LD	LD	LD	
MONTANA						
GLACIER NAT PARK						
SITE 001	76	LD	LD		LD	
FORT HOWES						
SITE 008	76			LD	LD	
ASHLAND						
SITE 026	76	LD	LD	LD	LD	
NEBRASKA						
THOMAS CO						
SITE 001	76	LD	LD		LD	
NEVADA						
WHITE PINE CO						
SITE 001	76	LD		LD	LD	
NEW HAMPSHIRE						
COOS CO						
SITE 001	76		LD			
NEW YORK						
JEFFERSON CO						
SITE 001	76	LD	LD			

POLLUTANT : 12105 -BE- BERYLLIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : NG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .00006
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 16 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NORTH CAROLINA						
BUXTON						
SITE 002	76		LD			
PENNSYLVANIA						
CLARION CO						
SITE 001	76		.0985	LD	LD	
INDIANA CO						
SITE 002	76	LD			LD	
RHODE ISLAND						
WASHINGTON CO						
SITE 002	76	LD	LD	LD	LD	
SOUTH CAROLINA						
RICHLAND CO						
SITE 002	76	LD	LD	LD	LD	
SOUTH DAKOTA						
BLACK HILLS NAT FO						
SITE 001	76	LD	LD	LD	LD	
TENNESSEE						
CUMBERLAND CO						
SITE 001	76		.1014	LD	LD	
VERMONT						
ORANGE CO						
SITE 001	76	LD	LD	LD		
VIRGINIA						
SHENANDOAH NAT PAR						
SITE 001	76	LD	.0653		LD	
WYTHE CO						
SITE 001	76	LD	.0595	LD	LD	
WISCONSIN						
DOOR CO						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12105 -BE- BERYLLIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : NG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .00006
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 16 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
WYOMING						
YELLOWSTONE NAT PA						
SITE 001	76			LD	LD	

POLLUTANT : 12110 -CD- CADMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0064
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 09 PRECISION (%) +- 52

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ALABAMA						
BIRMINGHAM						
SITE 003	76	LD	LD		LD	
GADSDEN						
SITE 001	76		LD	LD	LD	
HUNTSVILLE						
SITE 001	76	LD	LD	LD		
MOBILE						
SITE 001	76	LD	LD	LD		
MONTGOMERY						
SITE 001	76	LD	LD	LD	LD	
ALASKA						
ANCHORAGE						
SITE 003	76	LD			LD	
FAIRBANKS						
SITE 001	76		LD		LD	
ARIZONA						
DOUGLAS						
SITE 004	76	LD	LD			
PHOENIX						
SITE 002	76	LD	LD	LD		
TUCSON						
SITE 001	76	LD	LD	.0109	.0290	
ARKANSAS						
LITTLE ROCK						
SITE 001	76	LD	LD	LD		
TEXARKANA						
SITE 001	76	LD	LD	LD	LD	
WEST MEMPHIS						
SITE 001	76	LD	LD	LD	.0123	

POLLUTANT : 12110 -CD- CADMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0064
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 09 PRECISION (%) +- 52

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
CALIFORNIA						
ANAHEIM						
SITE 001	76	LD	.0113	LD	LD	
BERKELEY						
SITE 001	76	LD	LD	LD	LD	
BURBANK						
SITE 002	76	LD	.0148	LD	LD	
FRESNO						
SITE 002	76	LD	LD		LD	
LONG BEACH						
SITE 001	76	LD	.0071	LD	LD	
LOS ANGELES						
SITE 001	76	LD	LD	LD	LD	
OAKLAND						
SITE 001	76	LD	LD		LD	
ONTARIO						
SITE 001	76		LD	LD	LD	
PASADENA						
SITE 002	76	LD	LD	LD	LD	
SACRAMENTO						
SITE 001	76	LD	LD	LD	LD	
SAN BERNARDINO						
SITE 001	76	LD	LD	LD	LD	
SAN DIEGO						
SITE 004	76	LD	LD	LD	LD	
SAN FRANCISCO						
SITE 001	76	LD	LD	LD	LD	
SAN JOSE						
SITE 004	76	LD	LD	LD	LD	

POLLUTANT : 12110 -CD- CADMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0064
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 09 PRECISION (%) +- 52

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
CALIFORNIA						
SANTA ANA						
SITE 001	76	LD	LD	.0152	LD	
TORRANCE						
SITE 001	76	LD	LD	LD	LD	
COLORADO						
DENVER						
SITE 001	76	LD	LD	LD	LD	
CONNECTICUT						
BRIDGEPORT						
SITE 001	76	LD	.0140	.0219	LD	
HARTFORD						
SITE 002	76	LD	LD	LD	LD	
NEW HAVEN						
SITE 001	76	LD	LD	LD	LD	
WATERBURY						
SITE 001	76	LD				
WATERBURY						
SITE 123	76		.0114	LD	LD	
DELAWARE						
NEWARK						
SITE 001	76	LD	.0403	LD	LD	
WILMINGTON						
SITE 002	76	LD	.0709	LD	LD	
DISTRICT OF COLUMBIA						
WASHINGTON						
SITE 001	76		LD	.0084		
FLORIDA						
JACKSONVILLE						
SITE 002	76	LD		.0224	LD	

POLLUTANT : 12110 -CD- CADMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0064
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 09 PRECISION (%) +- 52

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
FLORIDA						
MIAMI						
SITE 002	76			.0396	LD	
ST PETERSBURG						
SITE 002	76				LD	
TAMPA						
SITE 002	76	LD				
GEORGIA						
ATLANTA						
SITE 001	76	LD	LD	.0487		
COLUMBUS						
SITE 001	76	LD	LD	.0432	LD	
SAVANNAH						
SITE 001	76	LD	LD	LD	LD	
HAWAII						
MAUNA LOA OBSERV						
SITE 002	76			LD		
HONOLULU						
SITE 001	76	LD	LD	LD	LD	
IDAHO						
BOISE CITY						
SITE 001	76			LD	LD	
ILLINOIS						
BLUE ISLAND						
SITE 001	76	LD	LD		LD	
CHICAGO						
SITE 001	76	LD		LD	LD	
MOLINE						
SITE 001	76	LD	LD	LD	LD	
NORTH CHICAGO						
SITE 002	76	LD	LD	LD	LD	

POLLUTANT : 12110 -CD- CADMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0064
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 09 PRECISION (%) +- 52

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ILLINOIS						
PEORIA						
SITE 001	76	LD	LD	LD	LD	
ROCK ISLAND						
SITE 001	76	LD	LD	LD	.0129	
SPRINGFIELD						
SITE 001	76	LD	LD	LD		
INDIANA						
EAST CHICAGO						
SITE 001	76	LD	LD	.0120	LD	
EVANSVILLE						
SITE 001	76	LD	LD	LD	LD	
FORT WAYNE						
SITE 002	76	LD				
FORT WAYNE						
SITE 003	76			LD		
GARY						
SITE 001	76	.0095	LD	LD	LD	
HAMMOND						
SITE 002	76	LD	.0133	LD	LD	
INDIANAPOLIS						
SITE 001	76	LD	.0243	.0114		
INDIANAPOLIS						
SITE 002	76				LD	
NEW ALBANY						
SITE 002	76	LD	.0090	LD	LD	
SOUTH BEND						
SITE 002	76	LD	LD	.0111	LD	
TERRE HAUTE						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12110 -CD- CADMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0064
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 09 PRECISION (%) +- 52

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
IOWA						
CEDAR RAPIDS						
SITE 018	76	.0131	LD	.0066	LD	
DAVENPORT						
SITE 001	76	LD	LD	LD	.0091	
DES MOINES						
SITE 001	76	LD	.0092		LD	
DUBUQUE						
SITE 002	76	LD	LD	LD	LD	
DUBUQUE						
SITE 008	76	LD	LD	LD	LD	
WATERLOO						
SITE 004	76	LD	LD	LD	LD	
KANSAS						
KANSAS CITY						
SITE 002	76	LD				
KANSAS CITY						
SITE 012	76	LD	LD	LD	LD	
KANSAS CITY						
SITE 015	76		LD	LD	LD	
TOPEKA						
SITE 001	76	LD	LD	LD		
WICHITA						
SITE 001	76	LD	LD	LD	.0072	
KENTUCKY						
ASHLAND						
SITE 002	76	.0535	LD	LD	.0136	
BOWLING GREEN						
SITE 001	76	LD	.0124	LD	LD	

POLLUTANT : 12110 -CD- CADMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0064
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 09 PRECISION (%) +- 52

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
KENTUCKY						
COVINGTON						
SITE 001	76	LD	.0082	LD	LD	
LEXINGTON						
SITE 001	76	LD	LD	LD		
LOUISVILLE						
SITE 002	76	LD	.0097	LD	LD	
LOUISIANA						
BATON ROUGE						
SITE 002	76	.0089		LD	LD	
IBERVILLE PAR						
SITE 002	76	.0098	LD	.0156	LD	
NEW ORLEANS						
SITE 002	76	LD	LD		.0114	
SHREVEPORT						
SITE 001	76	LD	LD	LD		
MAINE						
PORTLAND						
SITE 004	76		LD			
MARYLAND						
BALTIMORE						
SITE 001	76	LD	LD	LD	.0082	
MASSACHUSETTS						
BOSTON						
SITE 001	76		LD		LD	
CAMBRIDGE						
SITE 001	76		LD	LD	LD	
FALL RIVER						
SITE 001	76		LD	LD	LD	
NEW BEDFORD						
SITE 002	76		LD	LD	LD	

POLLUTANT : 12110 -CD- CADMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0064
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 09 PRECISION (%) +- 52

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MASSACHUSETTS						
WORCESTER						
SITE 004	76		LD	LD	LD	
MICHIGAN						
DETROIT						
SITE 001	76	LD	LD	LD	LD	
FLINT						
SITE 008	76	.0126	LD			
GRAND RAPIDS						
SITE 001	76	LD	LD	LD	LD	
LANSING						
SITE 001	76	LD	LD	LD	LD	
SAGINAW						
SITE 001	76	LD	LD	LD	LD	
TRENTON						
SITE 004	76	LD	.0084		LD	
MINNESOTA						
DULUTH						
SITE 001	76	LD	LD	LD		
MINNEAPOLIS						
SITE 001	76	LD				
MINNEAPOLIS						
SITE 027	76		LD	LD	LD	
ST PAUL						
SITE 031	76	LD	LD	LD	LD	
MISSISSIPPI						
JACKSON						
SITE 002	76	LD	LD	LD	.0106	
MISSOURI						
ST LOUIS						
SITE 001	76	.0227	.0317		.0184	.0243

POLLUTANT : 12110 -CD- CADMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0064
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 09 PRECISION (%) +- 52

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MONTANA						
HELENA						
SITE 001	76			.0309	.0398	
NEBRASKA						
LINCOLN						
SITE 002	76	LD	LD	LD	LD	
OMAHA						
SITE 030	76	LD	LD	LD	LD	
NEVADA						
LAS VEGAS						
SITE 001	76			LD	LD	
RENO						
SITE 001	76			LD	LD	
NEW HAMPSHIRE						
CONCORD						
SITE 002	76	LD				
NEW JERSEY						
BAYONNE						
SITE 001	76		LD	LD		
CAMDEN						
SITE 001	76	LD	LD	LD		
CAMDEN CO						
SITE 003	76	LD		LD		
ELIZABETH						
SITE 002	76	LD	.0083	.0082		
GLASSBORO						
SITE 001	76		LD	LD		
JERSEY CITY						
SITE 001	76	LD	.0083	.0068		
NEWARK						
SITE 001	76	.0069	LD	LD		

POLLUTANT : 12110 -CD- CADMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0064
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 09 PRECISION (%) +- 52

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NEW JERSEY						
PATERSON						
SITE 001	76	LD	LD	LD		
PERTH AMBOY						
SITE 001	76	LD	LD	LD		
TRENTON						
SITE 001	76	LD	LD	LD		
NEW MEXICO						
ALBUQUERQUE						
SITE 001	76		.0098		LD	
NEW YORK						
ALBANY						
SITE 001	76	LD				
BUFFALO						
SITE 001	76	LD		LD		
NEW YORK CITY						
SITE 014	76	LD	LD	LD		
NIAGARA FALLS						
SITE 001	76	LD	LD	LD		
ROCHESTER						
SITE 001	76	LD	LD	LD		
SYRACUSE						
SITE 001	76	LD	LD	LD		
UTICA						
SITE 001	76	LD	LD			
YONKERS						
SITE 001	76	LD	LD	LD		
NORTH CAROLINA						
CHARLOTTE						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12110 -CD- CADMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0064
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 09 PRECISION (%) +- 52

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NORTH CAROLINA						
DURHAM						
SITE 006	76		LD	LD	LD	
GREENSBORO						
SITE 009	76	LD	LD	LD	LD	
WINSTON-SALEM						
SITE 002	76	LD			LD	
OHIO						
AKRON						
SITE 014	76	LD	LD	LD	LD	
CANTON						
SITE 001	76	LD	LD	LD	LD	
CINCINNATI						
SITE 001	76		LD	LD	.0123	
CLEVELAND						
SITE 001	76	LD		LD	LD	
COLUMBUS						
SITE 001	76	LD	LD	LD	LD	
DAYTON						
SITE 001	76	LD	LD	LD	LD	
PORTSMOUTH						
SITE 002	76			LD		
STEUBENVILLE						
SITE 012	76	LD	LD	LD	LD	
TOLEDO						
SITE 001	76	LD	LD	LD	LD	
YOUNGSTOWN						
SITE 001	76	LD	LD	LD	.0157	

POLLUTANT : 12110 -CD- CADMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0064
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 09 PRECISION (%) +- 52

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
OKLAHOMA						
CHEROKEE CO						
SITE 480	76				.0114	
TULSA						
SITE 110	76	.0115	LD	LD	LD	
OREGON						
PORTLAND						
SITE 001	76	LD	LD		LD	
PENNSYLVANIA						
ALLENTOWN						
SITE 001	76	.0217	.0120	LD		
ALTOONA						
SITE 001	76	LD		LD	LD	
BETHLEHEM						
SITE 002	76	LD	.0199	LD	LD	
ERIE						
SITE 002	76	.0073	.0100	LD	LD	
HARRISBURG						
SITE 361	76		LD	LD	LD	
HAZLETON						
SITE 001	76	.0183	LD	LD	LD	
JOHNSTOWN						
SITE 803	76		.0088	LD	LD	
LANCASTER CITY						
SITE 002	76	LD	LD	LD	LD	
PHILADELPHIA						
SITE 004	76	LD	LD	LD	LD	
PITTSBURGH						
SITE 001	76	LD	.0109	LD	.0156	

POLLUTANT : 12110 -CD- CADMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0064
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 09 PRECISION (%) +- 52

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
PENNSYLVANIA						
READING						
SITE 001	76	LD	LD	.0096	LD	
SCRANTON						
SITE 001	76	LD	LD	.0167	LD	
WARMINSTER						
SITE 002	76	LD	LD	.0116	.0092	
WEST CHESTER						
SITE 110	76	LD	LD	LD	LD	
WILKES-BARRE						
SITE 001	76	LD	LD	.0104	LD	
YORK						
SITE 322	76	LD	LD		LD	
PUERTO RICO						
AMELIA						
SITE 001	76	.0113		LD		
PONCE						
SITE 002	76	LD	LD	LD		
SEBANA SECA						
SITE 001	76	LD	LD	LD		
RHODE ISLAND						
EAST PROVIDENCE						
SITE 001	76	LD	LD	LD	LD	
PROVIDENCE						
SITE 001	76	LD	LD	LD	LD	
SOUTH CAROLINA						
COLUMBIA						
SITE 001	76	.0074	.0089	LD	.0371	.0178
GREENVILLE						
SITE 001	76	.0144	.0173	LD	.0175	.0164

POLLUTANT : 12110 -CD- CADMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0064
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 09 PRECISION (%) +- 52

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
SOUTH DAKOTA						
SIOUX FALLS						
SITE 001	76	.0445	.0295	.0091		.0277
TENNESSEE						
CHATTANOOGA						
SITE 001	76	LD	LD	LD	LD	
KNOXVILLE						
SITE 002	76	LD	LD	LD	LD	
MEMPHIS						
SITE 001	76	.0073	LD	LD	LD	
NASHVILLE						
SITE 001	76	LD	LD	LD	LD	
TEXAS						
AMARILLO						
SITE 002	76				LD	
AUSTIN						
SITE 010	76			LD	LD	
BEAUMONT						
SITE 001	76	LD	.0184	LD		
CORPUS CHRISTI						
SITE 001	76	LD	.0102	LD	LD	
DALLAS						
SITE 002	76		LD	LD		
FORT WORTH						
SITE 001	76	LD	LD	LD		
HOUSTON						
SITE 001	76	LD				
LUBBOCK						
SITE 001	76	LD			LD	

POLLUTANT : 12110 -CD- CADMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0064
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 09 PRECISION (%) +- 52

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
TEXAS						
PASADENA						
SITE 002	76		LD		LD	
SAN ANTONIO						
SITE 034	76	LD	LD	LD		
WICHITA FALLS						
SITE 002	76	LD	LD	LD	LD	
UTAH						
OGDEN						
SITE 001	76	LD	LD			
SALT LAKE CITY						
SITE 001	76	LD	LD	LD	LD	
VERMONT						
BURLINGTON						
SITE 003	76	.0375	LD			
VIRGINIA						
DANVILLE						
SITE 001	76	LD	LD	LD	LD	
MCLEAN						
SITE 001	76		LD	LD	LD	
HAMPTON						
SITE 001	76	LD	LD	LD	LD	
LYNCHBURG						
SITE 002	76		LD	LD	LD	
NORFOLK						
SITE 001	76	LD	LD	LD	LD	
PORTSMOUTH						
SITE 001	76	LD	LD	LD	LD	
RICHMOND						
SITE 002	76	LD	LD	LD	LD	

POLLUTANT : 12110 -CD- CADMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0064
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 09 PRECISION (%) +- 52

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
VIRGINIA						
ROANOKE						
SITE 003	76	LD	LD	LD	LD	
WASHINGTON						
SEATTLE						
SITE 001	76	LD	LD	LD	LD	
SPOKANE						
SITE 001	76	LD		LD	LD	
TACOMA						
SITE 001	76	LD	LD		LD	
WEST VIRGINIA						
CHARLESTON						
SITE 001	76	LD	LD	.0116	LD	
HUNTINGTON						
SITE 005	76	LD		LD	LD	
SOUTH CHARLESTON						
SITE 001	76	LD	LD	LD	LD	
WISCONSIN						
EAU CLAIRE						
SITE 002	76	LD	LD	LD	LD	
KENOSHA						
SITE 001	76	LD	LD	LD		
MADISON						
SITE 001	76	.0157	LD	LD	LD	
MILWAUKEE						
SITE 001	76	LD				
MILWAUKEE						
SITE 099	76				LD	
RACINE						
SITE 002	76	LD	LD	LD	LD	

POLLUTANT : 12110 -CD- CADMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0064
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 09 PRECISION (%) +- 52

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
WISCONSIN						
SUPERIOR						
SITE 001	76		LD		LD	
WYOMING						
CHEYENNE						
SITE 001	76				LD	

POLLUTANT : 12110 -CD- CADMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0064
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 09 PRECISION (%) +- 52

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ARIZONA						
GRAND CANYON NAT P						
SITE 001	76	LD	LD		LD	
ARKANSAS						
MONTGOMERY CO						
SITE 001	76	LD	.0092	LD	LD	
COLORADO						
MESA VERDE NAT PAR						
SITE 002	76	LD		LD	LD	
DELAWARE						
KENT CO						
SITE 001	76		LD	LD		
FLORIDA						
HARDEE CO						
SITE 001	76	LD	LD			
HIGHLANDS CO.						
SITE 002	76				LD	
HAWAII						
HAWAII CO						
SITE 001	76		.0265	LD	LD	
HAWAII CO						
SITE 002	76	LD	LD			
IDAHO						
BUTTE CO						
SITE 001	76	LD				
INDIANA						
MONROE CO						
SITE 001	76		LD	LD	LD	
PARKE CO						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12110 -CD- CADMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0064
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 09 PRECISION (%) +- 52

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MAINE						
ACADIA NAT PARK						
SITE 001	76	LD	.0073	LD	LD	
MARYLAND						
CALVERT CO						
SITE 001	76	LD	LD	LD		
MISSISSIPPI						
JACKSON CO						
SITE 001	76	LD	LD	LD	LD	
MISSOURI						
SHANNON CO						
SITE 002	76	LD	LD	LD	LD	
MONTANA						
GLACIER NAT PARK						
SITE 001	76	LD	LD		LD	
FORT HOWES						
SITE 008	76			LD	LD	
ASHLAND						
SITE 026	76	LD	LD	LD	LD	
NEBRASKA						
THOMAS CO						
SITE 001	76	LD	LD		LD	
NEVADA						
WHITE PINE CO						
SITE 001	76	LD		LD	LD	
NEW HAMPSHIRE						
COOS CO						
SITE 001	76		LD			
NEW YORK						
JEFFERSON CO						
SITE 001	76	LD	LD			

POLLUTANT : 12110 -CD- CADMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0064
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 09 PRECISION (%) +- 52

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NORTH CAROLINA						
BUXTON						
SITE 002	76		LD			
PENNSYLVANIA						
CLARION CO						
SITE 001	76		LD	LD	LD	
INDIANA CO						
SITE 002	76	LD			LD	
RHODE ISLAND						
WASHINGTON CO						
SITE 002	76	LD	LD	LD	.0386	
SOUTH CAROLINA						
RICHLAND CO						
SITE 002	76	.0135	.0081	LD	LD	
SOUTH DAKOTA						
BLACK HILLS NAT FO						
SITE 001	76	LD	LD	LD	LD	
TENNESSEE						
CUMBERLAND CO						
SITE 001	76		LD	LD	LD	
VERMONT						
ORANGE CO						
SITE 001	76	LD	LD	LD		
VIRGINIA						
SHENANDOAH NAT PAR						
SITE 001	76	LD	LD		LD	
WYTHE CO						
SITE 001	76	LD	LD	LD	LD	
WISCONSIN						
DOOR CO						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12110 -CD- CADMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0064
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 09 PRECISION (%) +- 52

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
WYOMING						
YELLOWSTONE NAT PA						
SITE 001	76			LD	LD	

POLLUTANT : 12112 -CR- CHROMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0027
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ALABAMA						
BIRMINGHAM						
SITE 003	76	.0034	LD		.0057	
GADSDEN						
SITE 001	76		LD	.0160	.0046	
HUNTSVILLE						
SITE 001	76	LD	LD	.0137		
MOBILE						
SITE 001	76	LD	LD	.0116		
MONTGOMERY						
SITE 001	76	LD	.0053	.0036	.0032	.0040
ALASKA						
ANCHORAGE						
SITE 003	76	LD			.0048	
FAIRBANKS						
SITE 001	76		.0047		.0029	
ARIZONA						
DOUGLAS						
SITE 004	76	.0041	.0031			
PHOENIX						
SITE 002	76	LD	.0262	.0252		
TUCSON						
SITE 001	76	LD	.0094	.0078	LD	
ARKANSAS						
LITTLE ROCK						
SITE 001	76	LD	.0047	.9680		
TEXARKANA						
SITE 001	76	LD	.0067	.0132	LD	
WEST MEMPHIS						
SITE 001	76	LD	.1931	1.1093	.6213	.6412

POLLUTANT : 12112 -CR- CHROMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0027
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
CALIFORNIA						
ANAHEIM						
SITE 001	76	.0126	.0089	.0141	.0116	.0118
BERKELEY						
SITE 001	76	.0097	.0055	.0069	LD	.0074
BURBANK						
SITE 002	76	.0169	.0107	.0118	.0124	.0130
FRESNO						
SITE 002	76	.0097	.0058		.0046	.0067
LONG BEACH						
SITE 001	76	.0112	.0069	.0083	.0094	.0090
LOS ANGELES						
SITE 001	76	.0166	.0116	.0115	.0103	.0125
OAKLAND						
SITE 001	76	.0118	.0090		.0092	.0100
ONTARIO						
SITE 001	76		.0119	.0145	.0087	.0117
PASADENA						
SITE 002	76	.0072	.0067	.0098	.0037	.0069
SACRAMENTO						
SITE 001	76	.0063	.0068	.0066	.0068	.0066
SAN BERNARDINO						
SITE 001	76	.0216	.0192	.0105	.0034	.0137
SAN DIEGO						
SITE 004	76	.0097	.0063	.0091	.0038	.0072
SAN FRANCISCO						
SITE 001	76	.0057	.0071	.0052	.0038	.0055
SAN JOSE						
SITE 004	76	.0123	.0096	.0124	.0133	.0119

POLLUTANT : 12112 -CR- CHROMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0027
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
CALIFORNIA						
SANTA ANA						
SITE 001	76	.0132	.0050	.0128	LD	.0103
TORRANCE						
SITE 001	76	.0157	.0100	.0092	.0092	.0110
COLORADO						
DENVER						
SITE 001	76	LD	LD	LD	.0075	
CONNECTICUT						
BRIDGEPORT						
SITE 001	76	.0049	.0452	.0149	LD	.0217
HARTFORD						
SITE 002	76	.0036	.0171	.0158	.0044	.0102
NEW HAVEN						
SITE 001	76	.0045	.0074	.0118	.0044	.0070
WATERBURY						
SITE 001	76	.0089				
WATERBURY						
SITE 123	76		.0149	.0065	.0067	.0094
U ELAWARE						
NEWARK						
SITE 001	76	LD	.0101	LD	LD	
WILMINGTON						
SITE 002	76	.0089	.0078	.0127	.0053	.0087
DISTRICT OF COLUMBIA						
WASHINGTON						
SITE 001	76		.0080	.0076		
FLORIDA						
JACKSONVILLE						
SITE 002	76	.0043		.0079	.0039	.0054

POLLUTANT : 12112 -CR- CHROMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0027
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
FLORIDA						
MIAMI						
SITE 002	76			.0072	LD	
ST PETERSBURG						
SITE 002	76				LD	
TAMPA						
SITE 002	76	LD				
GEORGIA						
ATLANTA						
SITE 001	76	LD	.0069	.0101		
COLUMBUS						
SITE 001	76	LD	.0063	.0075	LD	
SAVANNAH						
SITE 001	76	.0062	.0428	.0054	.0043	.0147
HAWAII						
MAUNA LOA OBSERV						
SITE 002	76			.0084		
HONOLULU						
SITE 001	76	.0133	.0138	.0116	LD	.0129
IDAHO						
BOISE CITY						
SITE 001	76			.0059	LD	
ILLINOIS						
BLUE ISLAND						
SITE 001	76	.0087	.0133		.0055	.0092
CHICAGO						
SITE 001	76	.0118		.0048	.0068	.0078
MOLINE						
SITE 001	76	.0082	LD	LD	.0054	
NORTH CHICAGO						
SITE 002	76	.0058	.0034	LD	LD	

POLLUTANT : 12112 -CR- CHROMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0027
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ILLINOIS						
PEORIA						
SITE 001	76	.0089	.0182	LD	.0133	.0135
ROCK ISLAND						
SITE 001	76	.0100	.0035	LD	.0116	.0084
SPRINGFIELD						
SITE 001	76	.0072	LD	LD		
INDIANA						
EAST CHICAGO						
SITE 001	76	.0191	.0225	.0297	.0346	.0265
EVANSVILLE						
SITE 001	76	.0046	.0123	.0059	.0076	.0076
FORT WAYNE						
SITE 002	76	LD				
FORT WAYNE						
SITE 003	76			.0065		
GARY						
SITE 001	76	.0043	.0213	.0149	.0146	.0138
HAMMOND						
SITE 002	76	.0069	.0198	.0114	.0056	.0109
INDIANAPOLIS						
SITE 001	76	.0040	.0054	.0058		.0051
INDIANAPOLIS						
SITE 002	76				.0063	
NEW ALBANY						
SITE 002	76	LD	.0032	LD	.0033	
SOUTH BEND						
SITE 002	76	LD	.0046	LD	.0042	
TERRE HAUTE						
SITE 001	76	.0034	LD	LD	.0035	

POLLUTANT : 12112 -CR- CHROMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0027
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
IOWA						
CEDAR RAPIDS						
SITE 018	76	.0030	.0040	.0028	LD	.0033
DAVENPORT						
SITE 001	76	LD	.0043	.0032	.0050	.0042
DES MOINES						
SITE 001	76	LD	.0041		.0033	
DUBUQUE						
SITE 002	76	LD	.0031	LD	.0047	
DUBUQUE						
SITE 008	76	.0035	LD	.0038	LD	
WATERLOO						
SITE 004	76	.0040	LD	LD	.0035	
KANSAS						
KANSAS CITY						
SITE 002	76	.0049				
KANSAS CITY						
SITE 012	76	.0180	.0229	.0140	.0190	.0185
KANSAS CITY						
SITE 015	76		.0094	.0053	.0069	.0072
TOPEKA						
SITE 001	76	LD	.0035	LD		
WICHITA						
SITE 001	76	.0028	LD	.0029	LD	
KENTUCKY						
ASHLAND						
SITE 002	76	.0100	.0147	.0036	.0075	.0090
BOWLING GREEN						
SITE 001	76	LD	.0062	LD	.0034	

POLLUTANT : 12112 -CR- CHROMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0027
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
KENTUCKY						
COVINGTON						
SITE 001	76	.0047	.0097	LD	.0062	.0069
LEXINGTON						
SITE 001	76	.0038	.0061	LD		
LOUISVILLE						
SITE 002	76	.0054	.0092	.0041	.0066	.0063
LOUISIANA						
BATON ROUGE						
SITE 002	76	.0069		LD	LD	
IBERVILLE PAR						
SITE 002	76	.0057	LD	LD	.0036	
NEW ORLEANS						
SITE 002	76	.0043	.0051		.0043	.0046
SHREVEPORT						
SITE 001	76	.0034	.0062	.0053		.0050
MAINE						
PORTLAND						
SITE 004	76		.0038			
MARYLAND						
BALTIMORE						
SITE 001	76	.0282	.0717	.0301	.0047	.0337
MASSACHUSETTS						
BOSTON						
SITE 001	76		LD		LD	
CAMBRIDGE						
SITE 001	76		.0056	.0057	.0029	.0047
FALL RIVER						
SITE 001	76		LD	LD	LD	
NEW BEDFORD						
SITE 002	76		LD	LD	LD	

POLLUTANT : 12112 -CR- CHROMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0027
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MASSACHUSETTS						
WORCESTER						
SITE 004	76		LD	.0035	.0036	
MICHIGAN						
DETROIT						
SITE 001	76	LD	.0057	.0072	.0071	.0067
FLINT						
SITE 008	76	LD	LD			
GRAND RAPIDS						
SITE 001	76	LD	LD	LD	.0031	
LANSING						
SITE 001	76	LD	LD	.0032	.0033	
SAGINAW						
SITE 001	76	LD	.0046	LD	LD	
TRENTON						
SITE 004	76	LD	.0044		.0042	
MINNESOTA						
DULUTH						
SITE 001	76	LD	.0034	LD		
MINNEAPOLIS						
SITE 001	76	LD				
MINNEAPOLIS						
SITE 027	76		.0051	LD	LD	
ST PAUL						
SITE 031	76	LD	LD	LD	LD	
MISSISSIPPI						
JACKSON						
SITE 002	76	LD	.0050	LD	LD	
MISSOURI						
ST LOUIS						
SITE 001	76	.0043	.0028		.0063	.0045

POLLUTANT : 12112 -CR- CHROMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0027
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MONTANA						
HELENA						
SITE 001	76			LD	LD	
NEBRASKA						
LINCOLN						
SITE 002	76	LD	LD	LD	LD	
OMAHA						
SITE 030	76	.0058	LD	LD	.0035	
NEVADA						
LAS VEGAS						
SITE 001	76			LD	.0046	
RENO						
SITE 001	76			LD	.0043	
NEW HAMPSHIRE						
CONCORD						
SITE 002	76	.0031				
NEW JERSEY						
BAYONNE						
SITE 001	76		.0418	.0104		
CAMDEN						
SITE 001	76	.0075	.0087	.0111		.0091
CAMDEN CO						
SITE 003	76	.0032		.0039		
ELIZABETH						
SITE 002	76	.0070	.0052	.0055		.0059
GLASSBORO						
SITE 001	76		LD	LD		
JERSEY CITY						
SITE 001	76	.0074	.0111	.0192		.0126
NEWARK						
SITE 001	76	.0174	.0116	.0062		.0117

POLLUTANT : 12112 -CR- CHROMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0027
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NEW JERSEY						
PATERSON						
SITE 001	76	.0089	.0107	.0038		.0078
PERTH AMBOY						
SITE 001	76	.0065	.0042	.0033		.0047
TRENTON						
SITE 001	76	.0064	LD	.0035		
NEW MEXICO						
ALBUQUERQUE						
SITE 001	76		LD		.0063	
NEW YORK						
ALBANY						
SITE 001	76	LD				
BUFFALO						
SITE 001	76	.0038		.0173		
NEW YORK CITY						
SITE 014	76	.0075	.0158	.0072		.0102
NIAGARA FALLS						
SITE 001	76	.0069	.0305	.0128		.0167
ROCHESTER						
SITE 001	76	.0030	LD	.0096		
SYRACUSE						
SITE 001	76	.0038	.0036	.0038		.0037
UTICA						
SITE 001	76	LD	.0040			
YONKERS						
SITE 001	76	LD	LD	LD		
NORTH CAROLINA						
CHARLOTTE						
SITE 001	76	LD	.0067	LD	LD	

POLLUTANT : 12112 -CR- CHROMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0027
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NORTH CAROLINA						
DURHAM						
SITE 006	76		.0063	LD	.0051	
GREENSBORO						
SITE 009	76	LD	.0095	LD	.0034	
WINSTON-SALEM						
SITE 002	76	LD			LD	
OHIO						
AKRON						
SITE 014	76	.0033	.0063	.0052	.0044	.0048
CANTON						
SITE 001	76	.0215	.0291	.0318	.0034	.0215
CINCINNATI						
SITE 001	76		.0072	.0049	.0044	.0055
CLEVELAND						
SITE 001	76	.0034		.0094	.0049	.0059
COLUMBUS						
SITE 001	76	.0029	.0061	.0039	LD	.0043
DAYTON						
SITE 001	76	LD	.0060	.0085	.0065	.0070
PORTSMOUTH						
SITE 002	76			LD		
STEUBENVILLE						
SITE 012	76	.0145	.0263	.0582	.0154	.0286
TOLEDO						
SITE 001	76	LD	.0049	LD	.0037	
YOUNGSTOWN						
SITE 001	76	.0046	.0126	.0114	.0062	.0087

POLLUTANT : 12112 -CR- CHROMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0027
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
OKLAHOMA						
CHEROKEE CO						
SITE 480	76				LD	
TULSA						
SITE 110	76	LD	LD	LD	LD	
OREGON						
PORTLAND						
SITE 001	76	.0029	.0051		.0068	.0049
PENNSYLVANIA						
ALLENTOWN						
SITE 001	76	LD	.0118	LD		
ALTOONA						
SITE 001	76	.0037		LD	.0051	
BETHLEHEM						
SITE 002	76	.0052	.0169	.0078	.0048	.0087
ERIE						
SITE 002	76	.0050	.0101	.0055	.0038	.0061
HARRISBURG						
SITE 361	76		.0080	.0054	.0037	.0043
HAZLETON						
SITE 001	76	.0093	.0068	LD	LD	
JOHNSTOWN						
SITE 803	76		.0203	.0092	.0219	.0171
LANCASTER CITY						
SITE 002	76	.0033	.0071	.0039	.0058	.0050
PHILADELPHIA						
SITE 004	76	.0053	.0105	LD	.0045	.0068
PITTSBURGH						
SITE 001	76	.0126	.0283	.0162	.0073	.0161

POLLUTANT : 12112 -CR- CHROMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0027
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
PENNSYLVANIA						
READING						
SITE 001	76	.0060	.0100	.0055	.0058	.0068
SCRANTON						
SITE 001	76	.0044	.0095	LD	.0055	.0065
WARMINSTER						
SITE 002	76	.0051	.0086	.0046	.0059	.0061
WEST CHESTER						
SITE 110	76	LD	.0126	LD	LD	
WILKES-BARRE						
SITE 001	76	LD	.0073	LD	.0039	
YORK						
SITE 322	76	.0045	.0100		.0037	.0061
PUERTO RICO						
AMELIA						
SITE 001	76	LD		.0029		
PONCE						
SITE 002	76	LD	LD	LD		
SEBANA SECA						
SITE 001	76	.0047	LD	.0037		
RHODE ISLAND						
EAST PROVIDENCE						
SITE 001	76	LD	LD	LD	LD	
PROVIDENCE						
SITE 001	76	.0036	.0041	LD	.0044	.0040
SOUTH CAROLINA						
COLUMBIA						
SITE 001	76	.0077	.0068	LD	LD	
GREENVILLE						
SITE 001	76	.0053	.0054	LD	.0032	.0046

POLLUTANT : 12112 -CR- CHROMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0027
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
SOUTH DAKOTA						
SIOUX FALLS						
SITE 001	76	LD	LD	LD		
TENNESSEE						
CHATTANOOGA						
SITE 001	76	.0104	.0106	.0030	.0043	.0071
KNOXVILLE						
SITE 002	76	.0074	.0068	LD	.0037	.0060
MEMPHIS						
SITE 001	76	.0076	.0110	.0046	.0103	.0084
NASHVILLE						
SITE 001	76	.0078	.0091	LD	.0073	.0081
TEXAS						
AMARILLO						
SITE 002	76				LD	
AUSTIN						
SITE 010	76			LD	.0040	
BEAUMONT						
SITE 001	76	.0077	.0102	LD		
CORPUS CHRISTI						
SITE 001	76	LD	LD	LD	.0182	
DALLAS						
SITE 002	76		LD	LD		
FORT WORTH						
SITE 001	76	LD	LD	LD		
HOUSTON						
SITE 001	76	.0037				
LUBBOCK						
SITE 001	76	LD			.0042	

POLLUTANT : 12112 -CR- CHROMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0027
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
TEXAS						
PASADENA						
SITE 002	76		.0074		.0109	
SAN ANTONIO						
SITE 034	76	LD	LD	LD		
WICHITA FALLS						
SITE 002	76	LD	LD	LD	LD	
UTAH						
OGDEN						
SITE 001	76	.0038	LD			
SALT LAKE CITY						
SITE 001	76	.0043	.0040	.0039	.0064	.0047
VERMONT						
BURLINGTON						
SITE 003	76	LD	LD			
VIRGINIA						
DANVILLE						
SITE 001	76	LD	.0099	LD	LD	
MCLEAN						
SITE 001	76		LD	LD	LD	
HAMPTON						
SITE 001	76	LD	.0073	LD	.0049	
LYNCHBURG						
SITE 002	76		.0085	LD	LD	
NORFOLK						
SITE 001	76	LD	.0090	LD	.0058	
PORTSMOUTH						
SITE 001	76	LD	.0109	LD	LD	
RICHMOND						
SITE 002	76	LD	.0078	LD	.0043	

POLLUTANT : 12112 -CR- CHROMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0027
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
VIRGINIA						
ROANOKE						
SITE 003	76	LD	.0055	LD	LD	
WASHINGTON						
SEATTLE						
SITE 001	76	.0035	LD	LD	.0072	
SPOKANE						
SITE 001	76	LD		LD	.0035	
TACOMA						
SITE 001	76	LD	LD		LD	
WEST VIRGINIA						
CHARLESTON						
SITE 001	76	.0052	.0152	LD	.0091	.0098
HUNTINGTON						
SITE 005	76	.0169		.0123	.0231	.0174
SOUTH CHARLESTON						
SITE 001	76	LD	.0103	.0031	.0052	.0062
WISCONSIN						
EAU CLAIRE						
SITE 002	76	LD	LD	LD	LD	
KENOSHA						
SITE 001	76	LD	.0045	.0038		
MADISON						
SITE 001	76	LD	LD	LD	LD	
MILWAUKEE						
SITE 001	76	LD				
MILWAUKEE						
SITE 099	76				.0070	
RACINE						
SITE 002	76	LD	.0036	.0049	.0040	.0042

POLLUTANT : 12112 -CR- CHROMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0027
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
WISCONSIN						
SUPERIOR						
SITE 001	76		LD		.0045	
WYOMING						
CHEYENNE						
SITE 001	76				LD	

POLLUTANT : 12112 -CR- CHROMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0027
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ARIZONA						
GRAND CANYON NAT P						
SITE 001	76	LD	.0217		LD	
ARKANSAS						
MONTGOMERY CO						
SITE 001	76	LD	.0044	.7544	.7267	.4952
COLORADO						
MESA VERDE NAT PAR						
SITE 002	76	LD		LD	LD	
DELAWARE						
KENT CO						
SITE 001	76		.0052	LD		
FLORIDA						
HARDEE CO						
SITE 001	76	LD	.0047			
HIGHLANDS CO.						
SITE 002	76				LD	
HAWAII						
HAWAII CO						
SITE 001	76		.0043	.0050	LD	
HAWAII CO						
SITE 002	76	.0056	.0057			
IDAHO						
BUTTE CO						
SITE 001	76	.0071				
INDIANA						
MONROE CO						
SITE 001	76		LD	LD	LD	
PARKE CO						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12112 -CR- CHROMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0027
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MAINE						
ACADIA NAT PARK						
SITE 001	76	.0028	.0035	LD	.0043	.0035
MARYLAND						
CALVERT CO						
SITE 001	76	LD	.0053	LD		
MISSISSIPPI						
JACKSON CO						
SITE 001	76	LD	.0042	LD	LD	
MISSOURI						
SHANNON CO						
SITE 002	76	.0040	LD	LD	LD	
MONTANA						
GLACIER NAT PARK						
SITE 001	76	LD	LD		LD	
FORT HOWES						
SITE 008	76			LD	LD	
ASHLAND						
SITE 026	76	LD	LD	LD	LD	
NEBRASKA						
THOMAS CO						
SITE 001	76	LD	LD		LD	
NEVADA						
WHITE PINE CO						
SITE 001	76	LD		LD	LD	
NEW HAMPSHIRE						
COOS CO						
SITE 001	76		LD			
NEW YORK						
JEFFERSON CO						
SITE 001	76	.0130	LD			

POLLUTANT : 12112 -CR- CHROMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0027
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NORTH CAROLINA						
BUXTON						
SITE 002	76		.0621			
PENNSYLVANIA						
CLARION CO						
SITE 001	76		.0097	LD	LD	
INDIANA CO						
SITE 002	76	LD			.0076	
RHODE ISLAND						
WASHINGTON CO						
SITE 002	76	LD	LD	LD	LD	
SOUTH CAROLINA						
RICHLAND CO						
SITE 002	76	.0043	LD	LD	LD	
SOUTH DAKOTA						
BLACK HILLS NAT FO						
SITE 001	76	LD	LD	LD	LD	
TENNESSEE						
CUMBERLAND CO						
SITE 001	76		.0084	LD	.0033	
VERMONT						
ORANGE CO						
SITE 001	76	LD	LD	LD		
VIRGINIA						
SHENANDOAH NAT PAR						
SITE 001	76	.0044	.0042		LD	
WYTHE CO						
SITE 001	76	LD	.0058	LD	LD	
WISCONSIN						
DOOR CO						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12112 -CR- CHROMIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0027
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
WYOMING						
YELLOWSTONE NAT PA						
SITE 001	76			LD	LD	

POLLUTANT : 12113 -CO- COBALT
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0039
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ALABAMA						
BIRMINGHAM						
SITE 003	76	LD	LD		LD	
GADSDEN						
SITE 001	76		LD	LD	LD	
HUNTSVILLE						
SITE 001	76	LD	LD	.0043		
MOBILE						
SITE 001	76	LD	LD	LD		
MONTGOMERY						
SITE 001	76	LD	LD	LD	LD	
ALASKA						
ANCHORAGE						
SITE 003	76	LD			LD	
FAIRBANKS						
SITE 001	76		LD		LD	
ARIZONA						
DOUGLAS						
SITE 004	76	LD	LD			
PHOENIX						
SITE 002	76	LD	LD	LD		
TUCSON						
SITE 001	76	LD	LD	LD	LD	
ARKANSAS						
LITTLE ROCK						
SITE 001	76	LD	LD	LD		
TEXARKANA						
SITE 001	76	LD	LD	LD	LD	
WEST MEMPHIS						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12113 -CO- COBALT
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0039
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
CALIFORNIA						
ANAHEIM						
SITE 001	76	LD	LD	LD	LD	
BERKELEY						
SITE 001	76	LD	LD	LD	LD	
BURBANK						
SITE 002	76	LD	.0057	LD	LD	
FRESNO						
SITE 002	76	LD	LD		LD	
LONG BEACH						
SITE 001	76	LD	LD	LD	LD	
LOS ANGELES						
SITE 001	76	LD	LD	LD	LD	
OAKLAND						
SITE 001	76	LD	LD		LD	
ONTARIO						
SITE 001	76		LD	LD	LD	
PASADENA						
SITE 002	76	LD	LD	LD	LD	
SACRAMENTO						
SITE 001	76	LD	LD	LD	LD	
SAN BERNARDINO						
SITE 001	76	LD	LD	LD	LD	
SAN DIEGO						
SITE 004	76	LD	LD	LD	LD	
SAN FRANCISCO						
SITE 001	76	LD	LD	LD	LD	
SAN JOSE						
SITE 004	76	LD	LD	LD	LD	

POLLUTANT : 12113 -CO- COBALT
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0039
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
CALIFORNIA						
SANTA ANA						
SITE 001	76	LD	LD	LD	LD	
TORRANCE						
SITE 001	76	.0049	LD	LD	LD	
COLORADO						
DENVER						
SITE 001	76	LD	LD	LD	LD	
CONNECTICUT						
BRIDGEPORT						
SITE 001	76	LD	LD	LD	LD	
HARTFORD						
SITE 002	76	LD	LD	LD	LD	
NEW HAVEN						
SITE 001	76	LD	LD	LD	LD	
WATERBURY						
SITE 001	76	LD				
WATERBURY						
SITE 123	76		LD	LD	LD	
DELAWARE						
NEWARK						
SITE 001	76	LD	LD	LD	LD	
WILMINGTON						
SITE 002	76	LD	LD	LD	LD	
DISTRICT OF COLUMBIA						
WASHINGTON						
SITE 001	76		LD	LD		
FLORIDA						
JACKSONVILLE						
SITE 002	76	LD		LD	LD	

POLLUTANT : 12113 -CO- COBALT
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0039
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
FLORIDA						
MIAMI						
SITE 002	76			LD	LD	
ST PETERSBURG						
SITE 002	76				LD	
TAMPA						
SITE 002	76	LD				
GEORGIA						
ATLANTA						
SITE 001	76	LD	LD	LD		
COLUMBUS						
SITE 001	76	LD	LD	LD	LD	
SAVANNAH						
SITE 001	76	LD	LD	LD	LD	
HAWAII						
MAUNA LOA OBSERV						
SITE 002	76			LD		
HONOLULU						
SITE 001	76	.0055	LD	LD	LD	
IDAHO						
BOISE CITY						
SITE 001	76			LD	LD	
ILLINOIS						
BLUE ISLAND						
SITE 001	76	LD	LD		.0050	
CHICAGO						
SITE 001	76	LD		LD	LD	
MOLINE						
SITE 001	76	LD	LD	LD	LD	
NORTH CHICAGO						
SITE 002	76	LD	LD	LD	LD	

POLLUTANT : 12113 -CO- COBALT
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0039
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ILLINOIS						
PEORIA						
SITE 001	76	LD	LD	LD	LD	
ROCK ISLAND						
SITE 001	76	LD	LD	LD	LD	
SPRINGFIELD						
SITE 001	76	LD	LD	LD		
INDIANA						
EAST CHICAGO						
SITE 001	76	LD	LD	LD	LD	
EVANSVILLE						
SITE 001	76	LD	LD	LD	LD	
FORT WAYNE						
SITE 002	76	LD				
FORT WAYNE						
SITE 003	76			LD		
GARY						
SITE 001	76	LD	LD	LD	LD	
HAMMOND						
SITE 002	76	LD	LD	LD	LD	
INDIANAPOLIS						
SITE 001	76	LD	LD	LD		
INDIANAPOLIS						
SITE 002	76				LD	
NEW ALBANY						
SITE 002	76	LD	LD	LD	LD	
SOUTH BEND						
SITE 002	76	LD	LD	LD	LD	
TERRE HAUTE						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12113 -CO- COBALT
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0039
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
IOWA						
CEDAR RAPIDS						
SITE 018	76	LD	LD	LD	LD	
DAVENPORT						
SITE 001	76	LD	LD	LD	LD	
DES MOINES						
SITE 001	76	LD	LD		LD	
DUBUQUE						
SITE 002	76	LD	LD	LD	LD	
DUBUQUE						
SITE 008	76	LD	LD	LD	LD	
WATERLOO						
SITE 004	76	LD	LD	LD	LD	
KANSAS						
KANSAS CITY						
SITE 002	76	LD				
KANSAS CITY						
SITE 012	76	LD	LD	LD	LD	
KANSAS CITY						
SITE 015	76		LD	LD	LD	
TOPEKA						
SITE 001	76	LD	LD	LD		
WICHITA						
SITE 001	76	LD	LD	LD	LD	
KENTUCKY						
ASHLAND						
SITE 002	76	LD	LD	LD	.0041	
BOWLING GREEN						
SITE 001	76	LD	.0041	LD	LD	

POLLUTANT : 12113 -CO- COBALT
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0039
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
KENTUCKY						
COVINGTON						
SITE 001	76	LD	LD	LD	LD	
LEXINGTON						
SITE 001	76	LD	LD	LD		
LOUISVILLE						
SITE 002	76	LD	LD	LD	LD	
LOUISIANA						
BATON ROUGE						
SITE 002	76	LD		LD	LD	
IBERVILLE PAR						
SITE 002	76	LD	LD	LD	LD	
NEW ORLEANS						
SITE 002	76	LD	LD		LD	
SHREVEPORT						
SITE 001	76	LD	LD	LD		
MAINE						
PORTLAND						
SITE 004	76		LD			
MARYLAND						
BALTIMORE						
SITE 001	76	LD	LD	LD	LD	
MASSACHUSETTS						
BOSTON						
SITE 001	76		LD		LD	
CAMBRIDGE						
SITE 001	76		LD	LD	LD	
FALL RIVER						
SITE 001	76		LD	LD	LD	
NEW BEDFORD						
SITE 002	76		LD	LD	LD	

POLLUTANT : 12113 -CO- COBALT
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0039
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MASSACHUSETTS						
WORCESTER						
SITE 004	76		LD	LD	LD	
MICHIGAN						
DETROIT						
SITE 001	76	LD	LD	LD	LD	
FLINT						
SITE 008	76	LD	LD			
GRAND RAPIDS						
SITE 001	76	LD	LD	LD	LD	
LANSING						
SITE 001	76	LD	LD	LD	LD	
SAGINAW						
SITE 001	76	LD	LD	LD	LD	
TRENTON						
SITE 004	76	LD	LD		LD	
MINNESOTA						
DULUTH						
SITE 001	76	LD	LD	LD		
MINNEAPOLIS						
SITE 001	76	LD				
MINNEAPOLIS						
SITE 027	76		LD	LD	LD	
ST PAUL						
SITE 031	76	LD	LD	LD	LD	
MISSISSIPPI						
JACKSON						
SITE 002	76	LD	LD	LD	LD	
MISSOURI						
ST LOUIS						
SITE 001	76	LD	LD		LD	

POLLUTANT : 12113 -CO- COBALT
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0039
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MONTANA						
HELENA						
SITE 001	76			LD	LD	
NEBRASKA						
LINCOLN						
SITE 002	76	LD	LD	LD	LD	
OMAHA						
SITE 030	76	LD	LD	LD	LD	
NEVADA						
LAS VEGAS						
SITE 001	76			LD	LD	
RENO						
SITE 001	76			LD	LD	
NEW HAMPSHIRE						
CONCORD						
SITE 002	76	LD				
NEW JERSEY						
BAYONNE						
SITE 001	76		LD	LD		
CAMDEN						
SITE 001	76	LD	LD	LD		
CAMDEN CO						
SITE 003	76	LD		LD		
ELIZABETH						
SITE 002	76	LD	LD	LD		
GLASSBORO						
SITE 001	76		LD	LD		
JERSEY CITY						
SITE 001	76	LD	LD	LD		
NEWARK						
SITE 001	76	LD	LD	LD		

POLLUTANT : 12113 -CO- COBALT
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0039
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NEW JERSEY						
PATERSON						
SITE 001	76	LD	LD	LD		
PERTH AMBOY						
SITE 001	76	LD	LD	LD		
TRENTON						
SITE 001	76	LD	LD	LD		
NEW MEXICO						
ALBUQUERQUE						
SITE 001	76		LD		LD	
NEW YORK						
ALBANY						
SITE 001	76	LD				
BUFFALO						
SITE 001	76	LD		LD		
NEW YORK CITY						
SITE 014	76	LD	LD	LD		
NIAGARA FALLS						
SITE 001	76	LD	LD	LD		
ROCHESTER						
SITE 001	76	LD	LD	LD		
SYRACUSE						
SITE 001	76	LD	LD	LD		
UTICA						
SITE 001	76	LD	LD			
YONKERS						
SITE 001	76	LD	LD	LD		
NORTH CAROLINA						
CHARLOTTE						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12113 -CO- COBALT
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0039
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NORTH CAROLINA						
DURHAM						
SITE 006	76		LD	LD	LD	
GREENSBORO						
SITE 009	76	LD	LD	LD	LD	
WINSTON-SALEM						
SITE 002	76	LD			LD	
OHIO						
AKRON						
SITE 014	76	LD	LD	LD	LD	
CANTON						
SITE 001	76	LD	LD	LD	LD	
CINCINNATI						
SITE 001	76		LD	LD	LD	
CLEVELAND						
SITE 001	76	LD		LD	LD	
COLUMBUS						
SITE 001	76	LD	LD	LD	LD	
DAYTON						
SITE 001	76	LD	LD	LD	LD	
PORTSMOUTH						
SITE 002	76			LD		
STEUBENVILLE						
SITE 012	76	LD	LD	LD	LD	
TOLEDO						
SITE 001	76	LD	LD	LD	LD	
YOUNGSTOWN						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12113 -CO- COBALT
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0039
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
OKLAHOMA						
CHEROKEE CO						
SITE 480	76				LD	
TULSA						
SITE 110	76	LD	LD	LD	LD	
OREGON						
PORTLAND						
SITE 001	76	LD	LD		LD	
PENNSYLVANIA						
ALLENTOWN						
SITE 001	76	LD	LD	LD		
ALTOONA						
SITE 001	76	LD		LD	LD	
BETHLEHEM						
SITE 002	76	LD	LD	LD	LD	
ERIE						
SITE 002	76	LD	LD	LD	LD	
HARRISBURG						
SITE 361	76		LD	LD	LD	
HAZLETON						
SITE 001	76	.0051	LD	LD	LD	
JOHNSTOWN						
SITE 803	76		LD	LD	LD	
LANCASTER CITY						
SITE 002	76	LD	LD	LD	LD	
PHILADELPHIA						
SITE 004	76	LD	LD	LD	LD	
PITTSBURGH						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12113 -CO- COBALT
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0039
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
PENNSYLVANIA						
READING						
SITE 001	76	LD	LD	LD	LD	
SCRANTON						
SITE 001	76	LD	LD	LD	LD	
WARMINSTER						
SITE 002	76	LD	LD	LD	LD	
WEST CHESTER						
SITE 110	76	LD	LD	LD	LD	
WILKES-BARRE						
SITE 001	76	LD	LD	LD	LD	
YORK						
SITE 322	76	LD	LD		LD	
PUERTO RICO						
AMELIA						
SITE 001	76	LD		LD		
PONCE						
SITE 002	76	LD	LD	LD		
SEBANA SECA						
SITE 001	76	LD	LD	LD		
RHODE ISLAND						
EAST PROVIDENCE						
SITE 001	76	LD	LD	LD	LD	
PROVIDENCE						
SITE 001	76	LD	LD	LD	LD	
SOUTH CAROLINA						
COLUMBIA						
SITE 001	76	LD	LD	LD	LD	
GREENVILLE						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12113 -CO- COBALT
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0039
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
SOUTH DAKOTA						
SIOUX FALLS						
SITE 001	76	LD	LD	LD		
TENNESSEE						
CHATTANOOGA						
SITE 001	76	LD	LD	LD	LD	
KNOXVILLE						
SITE 002	76	LD	LD	LD	LD	
MEMPHIS						
SITE 001	76	LD	LD	LD	LD	
NASHVILLE						
SITE 001	76	LD	LD	LD	LD	
TEXAS						
AMARILLO						
SITE 002	76				LD	
AUSTIN						
SITE 010	76			LD	LD	
BEAUMONT						
SITE 001	76	LD	LD	LD		
CORPUS CHRISTI						
SITE 001	76	LD	LD	LD	LD	
DALLAS						
SITE 002	76		LD	LD		
FORT WORTH						
SITE 001	76	LD	LD	LD		
HOUSTON						
SITE 001	76	LD				
LUBBOCK						
SITE 001	76	LD			LD	

POLLUTANT : 12113 -CO- COBALT
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0039
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
TEXAS						
PASADENA						
SITE 002	76		LD		LD	
SAN ANTONIO						
SITE 034	76	LD	LD	LD		
WICHITA FALLS						
SITE 002	76	LD	LD	LD	LD	
UTAH						
OGDEN						
SITE 001	76	LD	LD			
SALT LAKE CITY						
SITE 001	76	LD	LD	LD	LD	
VERMONT						
BURLINGTON						
SITE 003	76	.1240	LD			
VIRGINIA						
DANVILLE						
SITE 001	76	LD	LD	LD	LD	
MCLEAN						
SITE 001	76		LD	LD	LD	
HAMPTON						
SITE 001	76	LD	LD	LD	LD	
LYNCHBURG						
SITE 002	76		LD	LD	LD	
NORFOLK						
SITE 001	76	LD	LD	LD	LD	
PORTSMOUTH						
SITE 001	76	LD	LD	LD	LD	
RICHMOND						
SITE 002	76	LD	LD	LD	LD	

POLLUTANT : 12113 -CO- COBALT
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0039
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
VIRGINIA						
ROANOKE						
SITE 003	76	LD	LD	LD	LD	
WASHINGTON						
SEATTLE						
SITE 001	76	LD	LD	LD	LD	
SPOKANE						
SITE 001	76	LD		LD	LD	
TACOMA						
SITE 001	76	LD	LD		LD	
WEST VIRGINIA						
CHARLESTON						
SITE 001	76	LD	LD	LD	LD	
HUNTINGTON						
SITE 005	76	LD		LD	LD	
SOUTH CHARLESTON						
SITE 001	76	LD	LD	LD	LD	
WISCONSIN						
EAU CLAIRE						
SITE 002	76	LD	.0065	LD	LD	
KENOSHA						
SITE 001	76	LD	LD	LD		
MADISON						
SITE 001	76	LD	LD	LD	LD	
MILWAUKEE						
SITE 001	76	LD				
MILWAUKEE						
SITE 099	76				LD	
RACINE						
SITE 002	76	LD	LD	LD	LD	

POLLUTANT : 12113 -CO- COBALT
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0039
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
WISCONSIN						
SUPERIOR						
SITE 001	76		LD		LD	
WYOMING						
CHEYENNE						
SITE 001	76				LD	

POLLUTANT : 12113 -CO- COBALT
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0039
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ARIZONA						
GRAND CANYON NAT P						
SITE 001	76	LD	LD		LD	
ARKANSAS						
MONTGOMERY CO						
SITE 001	76	LD	LD	LD	LD	
COLORADO						
MESA VERDE NAT PAR						
SITE 002	76	LD		LD	LD	
DELAWARE						
KENT CO						
SITE 001	76		LD	LD		
FLORIDA						
HARDEE CO						
SITE 001	76	LD	LD			
HIGHLANDS CO.						
SITE 002	76				LD	
HAWAII						
HAWAII CO						
SITE 001	76		LD	LD	LD	
HAWAII CO						
SITE 002	76	LD	LD			
IDAHO						
BUTTE CO						
SITE 001	76	LD				
INDIANA						
MONROE CO						
SITE 001	76		LD	LD	LD	
PARKE CO						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12113 -CO- COBALT
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0039
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MAINE						
ACADIA NAT PARK						
SITE 001	76	LD	LD	LD	LD	
MARYLAND						
CALVERT CO						
SITE 001	76	LD	LD	LD		
MISSISSIPPI						
JACKSON CO						
SITE 001	76	LD	LD	LD	LD	
MISSOURI						
SHANNON CO						
SITE 002	76	LD	LD	LD	LD	
MONTANA						
GLACIER NAT PARK						
SITE 001	76	LD	LD		LD	
FORT HOWES						
SITE 008	76			LD	LD	
ASHLAND						
SITE 026	76	LD	LD	LD	LD	
NEBRASKA						
THOMAS CO						
SITE 001	76	LD	LD		LD	
NEVADA						
WHITE PINE CO						
SITE 001	76	LD		LD	LD	
NEW HAMPSHIRE						
COOS CO						
SITE 001	76		LD			
NEW YORK						
JEFFERSON CO						
SITE 001	76	LD	LD			

POLLUTANT : 12113 -CO- COBALT
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0039
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NORTH CAROLINA						
BUXTON						
SITE 002	76		LD			
PENNSYLVANIA						
CLARION CO						
SITE 001	76		LD	LD	LD	
INDIANA CO						
SITE 002	76	LD			LD	
RHODE ISLAND						
WASHINGTON CO						
SITE 002	76	LD	LD	LD	LD	
SOUTH CAROLINA						
RICHLAND CO						
SITE 002	76	LD	LD	LD	LD	
SOUTH DAKOTA						
BLACK HILLS NAT FO						
SITE 001	76	LD	LD	LD	LD	
TENNESSEE						
CUMBERLAND CO						
SITE 001	76		.0048	LD	LD	
VERMONT						
ORANGE CO						
SITE 001	76	.0077	LD	LD		
VIRGINIA						
SHENANDOAH NAT PAR						
SITE 001	76	LD	LD		LD	
WYTHE CO						
SITE 001	76	LD	LD	LD	LD	
WISCONSIN						
DOOR CO						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12113 -CO- COBALT
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0039
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 58

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
WYOMING						
YELLOWSTONE NAT PA						
SITE 001	76			LD	LD	

POLLUTANT : 12114 -CU- COPPER
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0057
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 28 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ALABAMA						
BIRMINGHAM						
SITE 003	76	.1336	.0060		.1012	.0803
GADSDEN						
SITE 001	76		.0108	.1770	.1267	.1048
HUNTSVILLE						
SITE 001	76	.2122	.0083	.2931		.1712
MOBILE						
SITE 001	76	.2133	.0187	.5404		.2575
MONTGOMERY						
SITE 001	76	.2000	.2862	.3354	.1311	.2382
ALASKA						
ANCHORAGE						
SITE 003	76	.1513			.3580	
FAIRBANKS						
SITE 001	76		.0502		.0565	
ARIZONA						
DOUGLAS						
SITE 004	76	.7688	.5772			
PHOENIX						
SITE 002	76	.0700	.0572	.0580		.0617
TUCSON						
SITE 001	76	.3172	.2716	.2112	.2027	.2507
ARKANSAS						
LITTLE ROCK						
SITE 001	76	.0656	.1017	.0570		.0748
TEXARKANA						
SITE 001	76	.0325	.0849	.0802	.0516	.0623
WEST MEMPHIS						
SITE 001	76	.0462	.0954	.1412	.0570	.0850

POLLUTANT : 12114 -CU- COPPER
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0057
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 28 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
CALIFORNIA						
ANAHEIM						
SITE 001	76	.1823	.1457	.2014	.1201	.1624
BERKELEY						
SITE 001	76	.0544	.0679	.0480	LD	.0568
BURBANK						
SITE 002	76	.1215	.1639	.1244	.1486	.1396
FRESNO						
SITE 002	76	.1787	.0545		.1428	.1253
LONG BEACH						
SITE 001	76	.0719	.0438	.0668	.0873	.0675
LOS ANGELES						
SITE 001	76	.0922	.0860	.1673	.2197	.1413
OAKLAND						
SITE 001	76	.1068	.1507		.2134	.1570
ONTARIO						
SITE 001	76		.1941	.1321	.1525	.1596
PASADENA						
SITE 002	76	.8084	.4232	.1194	.1443	.3738
SACRAMENTO						
SITE 001	76	.3734	.3382	.1712	.2977	.2951
SAN BERNARDINO						
SITE 001	76	.3474	.6408	.5461	.6209	.5388
SAN DIEGO						
SITE 004	76	.3252	.3434	.1307	.1427	.2355
SAN FRANCISCO						
SITE 001	76	.0420	.1244	.0313	.0720	.0674
SAN JOSE						
SITE 004	76	.0664	.0636	.0556	.0837	.0673

POLLUTANT : 12114 -CU- COPPER
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0057
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 28 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
CALIFORNIA						
SANTA ANA						
SITE 001	76	.1813	.3437	.1004	.0853	.1777
TORRANCE						
SITE 001	76	.5585	.5931	.2166	.2603	.4071
COLORADO						
DENVER						
SITE 001	76	.2064	.2849	.4029	.4151	.3273
CONNECTICUT						
BRIDGEPORT						
SITE 001	76	.1878	.2250	.1366	.0696	.1548
HARTFORD						
SITE 002	76	.2112	.1257	.0903	.0630	.1226
NEW HAVEN						
SITE 001	76	.0884	.1136	.0726	.0842	.0897
WATERBURY						
SITE 001	76	.1131				
WATERBURY						
SITE 123	76		.1203	.0338	.0777	.0773
DELAWARE						
NEWARK						
SITE 001	76	.2178	.1092	.1231	.2834	.1834
WILMINGTON						
SITE 002	76	.2946	.1407	.2306	.1205	.1966
DISTRICT OF COLUMBIA						
WASHINGTON						
SITE 001	76		.0687	.0457		
FLORIDA						
JACKSONVILLE						
SITE 002	76	.2263		.1230	.1065	.1519

POLLUTANT : 12114 -CU- COPPER
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0057
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 28 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
FLORIDA						
MIAMI						
SITE 002	76			.1589	.2480	
ST PETERSBURG						
SITE 002	76				.1468	
TAMPA						
SITE 002	76	.1293				
GEORGIA						
ATLANTA						
SITE 001	76	.1809	.2331	.2281		.2140
COLUMBUS						
SITE 001	76	.1802	.3613	.2348	.0935	.2175
SAVANNAH						
SITE 001	76	.6736	.5050	.5016	.3578	.5095
HAWAII						
MAUNA LOA OBSERV						
SITE 002	76			.6442		
HONOLULU						
SITE 001	76	.1061	.0704	.0801	.0996	.0891
IDAHO						
BOISE CITY						
SITE 001	76			.4613	.0708	
ILLINOIS						
BLUE ISLAND						
SITE 001	76	.0983	.1316		.1797	.1365
CHICAGO						
SITE 001	76	.1629		.1719	.1332	.1560
MOLINE						
SITE 001	76	.1087	.1516	.1128	.0811	.1136
NORTH CHICAGO						
SITE 002	76	.2187	.5620	.5569	.1153	.3632

POLLUTANT : 12114 -CU- COPPER
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0057
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 28 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ILLINOIS						
PEORIA						
SITE 001	76	.1216	.2113	.3378	.0592	.1825
ROCK ISLAND						
SITE 001	76	.1156	.1286	.0539	.0722	.0926
SPRINGFIELD						
SITE 001	76	.1106	.1196	.0390		.0897
INDIANA						
EAST CHICAGO						
SITE 001	76	.2954	.3234	.4328	.3393	.3477
EVANSVILLE						
SITE 001	76	.2012	.2569	.2798	.1526	.2226
FORT WAYNE						
SITE 002	76	.1224				
FORT WAYNE						
SITE 003	76			.2815		
GARY						
SITE 001	76	.3935	.2236	.5398	.1791	.3340
HAMMOND						
SITE 002	76	.1706	.4108	.4285	.3761	.3465
INDIANAPOLIS						
SITE 001	76	.5913	.5716	.3156		.4928
INDIANAPOLIS						
SITE 002	76				.1418	
NEW ALBANY						
SITE 002	76	.5680	1.3981	.5559	.4875	.7524
SOUTH BEND						
SITE 002	76	.2428	.2203	.1509	.2680	.2205
TERRE HAUTE						
SITE 001	76	.2425	.2893	.3258	.2517	.2773

POLLUTANT : 12114 -CU- COPPER
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0057
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 28 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
IOWA						
CEDAR RAPIDS						
SITE 018	76	.0652	.2073	.0867	.3449	.1760
DAVENPORT						
SITE 001	76	.1304	.0740	.2073	.1267	.1346
DES MOINES						
SITE 001	76	.1038	.1600		.1240	.1293
DUBUQUE						
SITE 002	76	.1141	.1225	.1117	.0934	.1104
DUBUQUE						
SITE 008	76	.1059	.1014	.1397	.1097	.1142
WATERLOO						
SITE 004	76	.1352	.1776	.2398	.2252	.1945
KANSAS						
KANSAS CITY						
SITE 002	76	.1180				
KANSAS CITY						
SITE 012	76	.2511	.0852	.0567	.0855	.1196
KANSAS CITY						
SITE 015	76		.0738	.1531	.0968	.1079
TOPEKA						
SITE 001	76	.1328	.0932	.3130		.1797
WICHITA						
SITE 001	76	.1768	.1383	.3175	.2844	.2293
KENTUCKY						
ASHLAND						
SITE 002	76	.1677	.2013	.1845	.1946	.1870
BOWLING GREEN						
SITE 001	76	.1588	.1411	.0785	.1074	.1215

POLLUTANT : 12114 -CU- COPPER
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0057
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 28 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
KENTUCKY						
COVINGTON						
SITE 001	76	.1567	.3055	.3763	.2301	.2672
LEXINGTON						
SITE 001	76	.1597	.2688	.2155		.2147
LOUISVILLE						
SITE 002	76	.2618	.2043	.1206	.0727	.1649
LOUISIANA						
BATON ROUGE						
SITE 002	76	.1960		.0821	.0896	.1226
IBERVILLE PAR						
SITE 002	76	.2184	.3199	.0483	.0511	.1594
NEW ORLEANS						
SITE 002	76	.4026	.3660		.1445	.3044
SHREVEPORT						
SITE 001	76	.1706	.1930	.0881		.1506
MAINE						
PORTLAND						
SITE 004	76		.1279			
MARYLAND						
BALTIMORE						
SITE 001	76	.4304	.2560	.3055	.2513	.3108
MASSACHUSETTS						
BOSTON						
SITE 001	76		.0375		.0723	
CAMBRIDGE						
SITE 001	76		.2941	.1871	.1767	.2193
FALL RIVER						
SITE 001	76		.0607	.0795	.0316	.0573
NEW BEDFORD						
SITE 002	76		.1298	.1332	.1424	.1351

POLLUTANT : 12114 -CU- COPPER
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0057
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 28 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MASSACHUSETTS						
WORCESTER						
SITE 004	76		1.1240	1.3204	.4247	.9564
MICHIGAN						
DETROIT						
SITE 001	76	.1015	.1603	.1666	.1208	.1373
FLINT						
SITE 008	76	.2312	.1329			
GRAND RAPIDS						
SITE 001	76	.2227	.2423	.2242	.1765	.2164
LANSING						
SITE 001	76	.0288	.1587	.1682	.1040	.1149
SAGINAW						
SITE 001	76	.0492	.1105	.1392	.2093	.1271
TRENTON						
SITE 004	76	.1821	.3467		.1065	.2118
MINNESOTA						
DULUTH						
SITE 001	76	.1219	.1661	.2169		.1683
MINNEAPOLIS						
SITE 001	76	.2399				
MINNEAPOLIS						
SITE 027	76		.2537	.2759	.1216	.2171
ST PAUL						
SITE 031	76	.1470	.2015	.2347	.0816	.1662
MISSISSIPPI						
JACKSON						
SITE 002	76	.1877	.2040	.1396	.1184	.1624
MISSOURI						
ST LOUIS						
SITE 001	76	.2318	.1823		.1074	.1738

POLLUTANT : 12114 -CU- COPPER
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0057
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 28 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MONTANA						
HELENA						
SITE 001	76			.1434	.1115	
NEBRASKA						
LINCOLN						
SITE 002	76	.1209	.1043	.4121	.3433	.2452
OMAHA						
SITE 030	76	.1239	.1098	.2098	.1438	.1468
NEVADA						
LAS VEGAS						
SITE 001	76			.1083	.0959	
RENO						
SITE 001	76			.1415	.2069	
NEW HAMPSHIRE						
CONCORD						
SITE 002	76	.3730				
NEW JERSEY						
BAYONNE						
SITE 001	76		.1438	.2030		
CAMDEN						
SITE 001	76	.1893	.1497	.0958		.1449
CAMDEN CO						
SITE 003	76	.0371		.0446		
ELIZABETH						
SITE 002	76	.1063	.1425	.1391		.1293
GLASSBORO						
SITE 001	76		1.1762	.7290		
JERSEY CITY						
SITE 001	76	.1421	.1838	.2326		.1862
NEWARK						
SITE 001	76	.1719	.1735	.1635		.1696

POLLUTANT : 12114 -CU- COPPER
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0057
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 28 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NEW JERSEY						
PATERSON						
SITE 001	76	.0877	.0637	.0805		.0773
PERTH AMBOY						
SITE 001	76	.2309	.1795	.1467		.1857
TRENTON						
SITE 001	76	.1316	.6700	.0957		.2991
NEW MEXICO						
ALBUQUERQUE						
SITE 001	76		.2162		.0527	
NEW YORK						
ALBANY						
SITE 001	76	.0804				
BUFFALO						
SITE 001	76	.1212		.0463		
NEW YORK CITY						
SITE 014	76	.2992	.4856	.6048		.4632
NIAGARA FALLS						
SITE 001	76	.1959	.1961	.1328		.1749
ROCHESTER						
SITE 001	76	.0400	.0636	.0665		.0567
SYRACUSE						
SITE 001	76	.2874	.1661	.2363		.2299
UTICA						
SITE 001	76	.0884	.1005			
YONKERS						
SITE 001	76	.2941	.3192	.3671		.3268
NORTH CAROLINA						
CHARLOTTE						
SITE 001	76	.3345	.4771	.3239	.2162	.3379

POLLUTANT : 12114 -CU- COPPER
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0057
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 28 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NORTH CAROLINA						
DURHAM						
SITE 006	76		.4338	.5576	.3995	.4636
GREENSBORO						
SITE 009	76	.1566	.1658	.2067	.2543	.1959
WINSTON-SALEM						
SITE 002	76	.1577			.2743	
OHIO						
AKRON						
SITE 014	76	.2682	.3366	.5246	.3763	.3764
CANTON						
SITE 001	76	.1957	.1245	.1105	.0603	.1228
CINCINNATI						
SITE 001	76		.3525	.5089	.3337	.3984
CLEVELAND						
SITE 001	76	.3506		.2197	.1605	.2436
COLUMBUS						
SITE 001	76	.1224	.5054	.3768	.3842	.3472
DAYTON						
SITE 001	76	.0829	.5483	.6864	.6680	.4964
PORTSMOUTH						
SITE 002	76			.5114		
STEUBENVILLE						
SITE 012	76	.2911	.6377	.3754	.2549	.3898
TOLEDO						
SITE 001	76	.0509	.1775	.3342	.2299	.1981
YOUNGSTOWN						
SITE 001	76	.2281	.0683	.0606	.1158	.1182

POLLUTANT : 12114 -CU- COPPER
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0057
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 28 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
OKLAHOMA						
CHEROKEE CO						
SITE 480	76				.4870	
TULSA						
SITE 110	76	.1401	.1785	.2325	.3569	.2270
OREGON						
PORTLAND						
SITE 001	76	.8744	.8572		.6799	.8038
PENNSYLVANIA						
ALLENTOWN						
SITE 001	76	.0678	.1049	.1108		.0945
ALTOONA						
SITE 001	76	.1126		.1536	.1062	.1241
BETHLEHEM						
SITE 002	76	.3305	.2416	.1229	.0828	.1945
ERIE						
SITE 002	76	.1651	.1665	.1660	.0770	.1437
HARRISBURG						
SITE 361	76		.0907	.0897	.1040	.0711
HAZLETON						
SITE 001	76	1.4081	.2851	.1895	.1557	.5096
JOHNSTOWN						
SITE 803	76		.2348	.2587	.4372	.3102
LANCASTER CITY						
SITE 002	76	.2425	.1983	.2347	.2723	.2370
PHILADELPHIA						
SITE 004	76	.2605	.2259	.1787	.1511	.2041
PITTSBURGH						
SITE 001	76	.1374	.3092	.2807	.1981	.2314

POLLUTANT : 12114 -CU- COPPER
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0057
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 28 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
PENNSYLVANIA						
READING						
SITE 001	76	.3396	.1845	.2861	.2242	.2586
SCRANTON						
SITE 001	76	.0769	.0883	.3561	.1048	.1565
WARMINSTER						
SITE 002	76	.4588	.3148	.3490	.6930	.4539
WEST CHESTER						
SITE 110	76	.2875	.4047	.4242	.1928	.3273
WILKES-BARRE						
SITE 001	76	.0901	.0834	.2178	.1874	.1447
YORK						
SITE 322	76	.9446	.8066		.3211	.6908
PUERTO RICO						
AMELIA						
SITE 001	76	.4424		.1269		
PONCE						
SITE 002	76	.1851	.1149	.2089		.1696
SEBANA SECA						
SITE 001	76	1.3411	.6851	.6297		.8853
RHODE ISLAND						
EAST PROVIDENCE						
SITE 001	76	.4272	.1794	.1668	.0734	.2117
PROVIDENCE						
SITE 001	76	.1296	.1091	.1242	.0891	.1130
SOUTH CAROLINA						
COLUMBIA						
SITE 001	76	.3276	.4327	.3995	.3126	.3681
GREENVILLE						
SITE 001	76	.1894	.3461	.6219	.5433	.4252

POLLUTANT : 12114 -CU- COPPER
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0057
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 28 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
SOUTH DAKOTA						
SIOUX FALLS						
SITE 001	76	.0821	.0987	.1031		.0946
TENNESSEE						
CHATTANOOGA						
SITE 001	76	.0714	.0538	.0539	.0495	.0572
KNOXVILLE						
SITE 002	76	.3840	.4229	.3553	.2030	.3413
MEMPHIS						
SITE 001	76	.1075	.1996	.1152	.1391	.1404
NASHVILLE						
SITE 001	76	.2220	.2707	.2105	.4653	.2921
TEXAS						
AMARILLO						
SITE 002	76				.5632	
AUSTIN						
SITE 010	76			.4776	.2373	
BEAUMONT						
SITE 001	76	.0276	.0373	.0288		.0312
CORPUS CHRISTI						
SITE 001	76	.0131	LD	.0141	.0195	.0156
DALLAS						
SITE 002	76		.1504	.2307		
FORT WORTH						
SITE 001	76	.4874	.5773	.3061		.4569
HOUSTON						
SITE 001	76	.0606				
LUBBOCK						
SITE 001	76	.0305			.2455	

POLLUTANT : 12114 -CU- COPPER
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0057
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 28 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
TEXAS						
PASADENA						
SITE 002	76		.3722		.2369	
SAN ANTONIO						
SITE 034	76	.0334	.0417	.0782		.0511
WICHITA FALLS						
SITE 002	76	.1107	.2021	.1074	.1218	.1355
UTAH						
OGDEN						
SITE 001	76	.0593	.1058			
SALT LAKE CITY						
SITE 001	76	.1879	.1804	.1692	.2147	.1881
VERMONT						
BURLINGTON						
SITE 003	76	.7447	.3614			
VIRGINIA						
DANVILLE						
SITE 001	76	.0399	.0371	.0603	.0598	.0493
MCLEAN						
SITE 001	76		.2035	.2416	.1565	.2005
HAMPTON						
SITE 001	76	.0680	.0669	.0347	.0315	.0503
LYNCHBURG						
SITE 002	76		.1666	.2183	.1371	.1305
NORFOLK						
SITE 001	76	.1921	.2499	.1617	.1233	.1818
PORTSMOUTH						
SITE 001	76	.1508	.1894	.2046	.1215	.1666
RICHMOND						
SITE 002	76	.0883	.1565	.0916	.0206	.0893

POLLUTANT : 12114 -CU- COPPER
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0057
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 28 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
VIRGINIA						
ROANOKE						
SITE 003	76	.1096	.1600	.2013	.0776	.1371
WASHINGTON						
SEATTLE						
SITE 001	76	.3115	.2886	.8265	.7115	.5345
SPOKANE						
SITE 001	76	1.5664		2.1358	.9330	1.5451
TACOMA						
SITE 001	76	.4342	.4461		.3999	.4267
WEST VIRGINIA						
CHARLESTON						
SITE 001	76	.0362	.3460	.3528	.2359	.2427
HUNTINGTON						
SITE 005	76	.1878		.1232	.1317	.1476
SOUTH CHARLESTON						
SITE 001	76	.1367	.6081	.9336	.5770	.5639
WISCONSIN						
EAU CLAIRE						
SITE 002	76	.1927	.1572	.1357	.1106	.1491
KENOSHA						
SITE 001	76	.1627	.2747	.3986		.2787
MADISON						
SITE 001	76	.1339	.1960	.1578	.1432	.1577
MILWAUKEE						
SITE 001	76	.1157				
MILWAUKEE						
SITE 099	76				.0740	
RACINE						
SITE 002	76	.0959	.2389	.2287	.1819	.1864

POLLUTANT : 12114 -CU- COPPER
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0057
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 28 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
WISCONSIN						
SUPERIOR						
SITE 001	76		.2182		.1221	
WYOMING						
CHEYENNE						
SITE 001	76				.0139	

POLLUTANT : 12114 -CU- COPPER
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0057
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 28 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ARIZONA						
GRAND CANYON NAT P						
SITE 001	76	.0185	LD		.1326	
ARKANSAS						
MONTGOMERY CO						
SITE 001	76	.0204	.0413	.0719	.0562	.0475
COLORADO						
MESA VERDE NAT PAR						
SITE 002	76	.1269		.0606	.0559	.0811
DELAWARE						
KENT CO						
SITE 001	76		.1152	.2728		
FLORIDA						
HARDEE CO						
SITE 001	76	.4991	.7913			
HIGHLANDS CO.						
SITE 002	76				.1942	
HAWAII						
HAWAII CO						
SITE 001	76		.1048	.1184	.1005	.1079
HAWAII CO						
SITE 002	76	.2856	.2546			
IDAHO						
BUTTE CO						
SITE 001	76	.7742				
INDIANA						
MONROE CO						
SITE 001	76		.2671	.3802	.2972	.3148
PARKE CO						
SITE 001	76	.4236	.2526	.3739	.3483	.3496

POLLUTANT : 12114 -CU- COPPER
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0057
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 28 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MAINE						
ACADIA NAT PARK						
SITE 001	76	.1220	.0918	.1077	.1076	.1073
MARYLAND						
CALVERT CO						
SITE 001	76	.1110	.0947	.1055		.1037
MISSISSIPPI						
JACKSON CO						
SITE 001	76	.3103	.4928	.4432	.2240	.3676
MISSOURI						
SHANNON CO						
SITE 002	76	.1302	.1378	.1438	.1077	.1299
MONTANA						
GLACIER NAT PARK						
SITE 001	76	.0874	.1431		.0638	.0981
FORT HOWES						
SITE 008	76			.0516	.0147	
ASHLAND						
SITE 026	76	.0301	.0450	.0546	.0286	.0396
NEBRASKA						
THOMAS CO						
SITE 001	76	.1860	.1661		.1019	.1513
NEVADA						
WHITE PINE CO						
SITE 001	76	.0631		.0798	.0592	.0674
NEW HAMPSHIRE						
COOS CO						
SITE 001	76		.6428			
NEW YORK						
JEFFERSON CO						
SITE 001	76	.0801	.6697			

POLLUTANT : 12114 -CU- COPPER
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0057
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 28 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NORTH CAROLINA						
BUXTON						
SITE 002	76		.1775			
PENNSYLVANIA						
CLARION CO						
SITE 001	76		.2645	.4474	.1542	.2887
INDIANA CO						
SITE 002	76	.0887			.0608	
RHODE ISLAND						
WASHINGTON CO						
SITE 002	76	.0724	.2017	.2834	.1646	.1805
SOUTH CAROLINA						
RICHLAND CO						
SITE 002	76	.1549	.1937	.2136	.1661	.1821
SOUTH DAKOTA						
BLACK HILLS NAT FO						
SITE 001	76	.0870	.1846	.1864	.0952	.1383
TENNESSEE						
CUMBERLAND CO						
SITE 001	76		.0453	.1988	.1724	.1388
VERMONT						
ORANGE CO						
SITE 001	76	.1549	.0732	.0967		.1083
VIRGINIA						
SHENANDOAH NAT PAR						
SITE 001	76	.1106	.1515		.1563	.1395
WYTHE CO						
SITE 001	76	.1963	.2669	.2543	.0591	.1942
WISCONSIN						
DOOR CO						
SITE 001	76	.6729	.5315	.5365	.4445	.5464

POLLUTANT : 12114 -CU- COPPER
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0057
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 28 PRECISION (%) +- 50

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
WYOMING						
YELLOWSTONE NAT PA						
SITE 001	76			.1961	.1095	

POLLUTANT : 12126 -FE- IRON
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0447
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 25 PRECISION (%) +- 32

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ALABAMA						
BIRMINGHAM						
SITE 003	76	1.0942	.0573		1.5096	.8870
GADSDEN						
SITE 001	76		LD	.7373	2.1419	
HUNTSVILLE						
SITE 001	76	.6688	LD	.3168		
MOBILE						
SITE 001	76	.4861	LD	.6293		
MONTGOMERY						
SITE 001	76	.4557	.6494	.7336	.6603	.6248
ALASKA						
ANCHORAGE						
SITE 003	76	.0816			1.7342	
FAIRBANKS						
SITE 001	76		1.5647		.8793	
ARIZONA						
DOUGLAS						
SITE 004	76	2.4825	1.3704			
PHOENIX						
SITE 002	76	2.0504	1.7567	1.6946		1.8339
TUCSON						
SITE 001	76	1.3642	1.5254	.6671	1.1064	1.1658
ARKANSAS						
LITTLE ROCK						
SITE 001	76	.5003	.8701	.9190		.7631
TEXARKANA						
SITE 001	76	.5477	.7483	.8253	.7120	.7083
WEST MEMPHIS						
SITE 001	76	.4826	.8955	1.4726	1.3124	1.0408

POLLUTANT : 12126 -FE- IRON
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0447
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 25 PRECISION (%) +- 32

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
CALIFORNIA						
ANAHEIM						
SITE 001	76	1.3255	1.2585	1.3272	1.6996	1.4027
BERKELEY						
SITE 001	76	.4295	.6192	.3701	LD	.4729
BURBANK						
SITE 002	76	1.1106	1.4769	.9435	1.5828	1.2785
FRESNO						
SITE 002	76	1.6370	1.7229		2.1315	1.8305
LONG BEACH						
SITE 001	76	1.4412	.8453	.9526	1.8596	1.2747
LOS ANGELES						
SITE 001	76	1.7047	1.3107	1.0138	1.7292	1.4396
OAKLAND						
SITE 001	76	.8317	1.2794		1.3063	1.1391
ONTARIO						
SITE 001	76		2.6109	2.6300	3.7341	2.9917
PASADENA						
SITE 002	76	.8692	.9486	.9136	1.1266	.9645
SACRAMENTO						
SITE 001	76	.3137	1.0644	.9752	1.7955	1.0372
SAN BERNARDINO						
SITE 001	76	1.5831	2.5982	1.4800	1.4447	1.7765
SAN DIEGO						
SITE 004	76	1.2780	1.0440	.8762	1.4214	1.1549
SAN FRANCISCO						
SITE 001	76	.3704	.7388	.3763	1.1116	.6493
SAN JOSE						
SITE 004	76	.9589	.8687	1.1325	2.5763	1.3841

POLLUTANT : 12126 -FE- IRON
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0447
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 25 PRECISION (%) +- 32

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
CALIFORNIA						
SANTA ANA						
SITE 001	76	1.2953	1.0020	1.1457	1.0894	1.1331
TORRANCE						
SITE 001	76	1.5629	1.0918	.7046	1.3407	1.1750
COLORADO						
DENVER						
SITE 001	76	1.4051	.7096	.9340	2.4995	1.3871
CONNECTICUT						
BRIDGEPORT						
SITE 001	76	.8829	1.0929	.8123	.4475	.8089
HARTFORD						
SITE 002	76	.7639	.8819	.6756	.4369	.6896
NEW HAVEN						
SITE 001	76	.8757	.8667	.9216	.7019	.8415
WATERBURY						
SITE 001	76	1.8349				
WATERBURY						
SITE 123	76		1.5707	.4600	1.4808	1.1705
DELAWARE						
NEWARK						
SITE 001	76	.7750	1.1379	1.1271	1.2607	1.0752
WILMINGTON						
SITE 002	76	1.6167	.6375	.9201	.7283	.9757
DISTRICT OF COLUMBIA						
WASHINGTON						
SITE 001	76		.6048	.6254		
FLORIDA						
JACKSONVILLE						
SITE 002	76	.3884		.4231	.4606	.4240

POLLUTANT : 12126 -FE- IRON
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ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0447
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 25 PRECISION (%) +- 32

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
FLORIDA						
MIAMI						
SITE 002	76			.4005	.2596	
ST PETERSBURG						
SITE 002	76				.1909	
TAMPA						
SITE 002	76	.7081				
GEORGIA						
ATLANTA						
SITE 001	76	.5619	1.0812	.9887		.8773
COLUMBUS						
SITE 001	76	.7593	.6289	.4875	.3449	.5552
SAVANNAH						
SITE 001	76	2.4152	1.2194	.6371	.9682	1.3100
HAWAII						
MAUNA LOA OBSERV						
SITE 002	76			.7816		
HONOLULU						
SITE 001	76	.6199	.7462	.6701	.4059	.6105
IDAHO						
BOISE CITY						
SITE 001	76			.9538	.4697	
ILLINOIS						
BLUE ISLAND						
SITE 001	76	.9574	4.0786		1.6175	2.2178
CHICAGO						
SITE 001	76	1.1495		1.1975	2.0430	1.4633
MOLINE						
SITE 001	76	.7647	.9335	.6655	1.5269	.9727
NORTH CHICAGO						
SITE 002	76	.3210	1.2413	.9280	1.3996	.9725

POLLUTANT : 12126 -FE- IRON
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DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0447
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 25 PRECISION (%) +- 32

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ILLINOIS						
PEORIA						
SITE 001	76	1.3796	2.9123	1.8813	2.2461	2.1048
ROCK ISLAND						
SITE 001	76	.7756	1.0480	.8258	1.0117	.9153
SPRINGFIELD						
SITE 001	76	.5238	.9792	.4895		.6642
INDIANA						
EAST CHICAGO						
SITE 001	76	2.1536	6.0525	4.5568	5.5676	4.5826
EVANSVILLE						
SITE 001	76	.5476	1.1967	.9679	1.1202	.9581
FORT WAYNE						
SITE 002	76	.4362				
FORT WAYNE						
SITE 003	76			.7269		
GARY						
SITE 001	76	1.4748	8.5905	3.1048	3.9557	4.2815
HAMMOND						
SITE 002	76	1.4266	4.2447	1.7682	2.1325	2.3930
INDIANAPOLIS						
SITE 001	76	1.1456	1.5889	.9360		1.2235
INDIANAPOLIS						
SITE 002	76				1.3393	
NEW ALBANY						
SITE 002	76	.7820	1.0336	.8437	1.2690	.9821
SOUTH BEND						
SITE 002	76	.4969	1.1670	.7999	1.6407	1.0261
TERRE HAUTE						
SITE 001	76	.9222	1.3942	1.0867	1.1987	1.1505

POLLUTANT : 12126 -FE- IRON
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ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0447
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 25 PRECISION (%) +- 32

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
IOWA						
CEDAR RAPIDS						
SITE 018	76	.5800	1.0340	.7224	1.0073	.8359
DAVENPORT						
SITE 001	76	.8337	1.3037	.7328	1.6502	1.1301
DES MOINES						
SITE 001	76	1.0459	1.3958		1.7320	1.3912
DUBUQUE						
SITE 002	76	.5821	.6793	.5260	.6532	.6102
DUBUQUE						
SITE 008	76	.5424	.5322	.8026	.6327	.6275
WATERLOO						
SITE 004	76	1.3287	1.0243	1.0067	1.5054	1.2163
KANSAS						
KANSAS CITY						
SITE 002	76	1.4963				
KANSAS CITY						
SITE 012	76	2.4509	2.6585	1.4549	2.6621	2.3066
KANSAS CITY						
SITE 015	76		2.1883	1.8029	2.9598	2.3170
TOPEKA						
SITE 001	76	.8089	.6744	.8080		.7638
WICHITA						
SITE 001	76	.4515	.5942	.6617	1.0062	.6784
KENTUCKY						
ASHLAND						
SITE 002	76	3.6814	3.7016	2.6664	4.3647	3.6035
BOWLING GREEN						
SITE 001	76	.3840	.8597	.6134	.8652	.6806

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ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0447
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 25 PRECISION (%) +- 32

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
KENTUCKY						
COVINGTON						
SITE 001	76	1.1762	3.0224	1.8263	2.3404	2.0913
LEXINGTON						
SITE 001	76	.6686	.7118	.7416		.7073
LOUISVILLE						
SITE 002	76	1.0065	1.8681	1.4853	1.3411	1.4253
LOUISIANA						
BATON ROUGE						
SITE 002	76	.5734		.4684	.6276	.5565
IBERVILLE PAR						
SITE 002	76	.3734	.1964	.2481	.3009	.2797
NEW ORLEANS						
SITE 002	76	.5820	.5688		.5976	.5828
SHREVEPORT						
SITE 001	76	1.1622	1.7147	1.1302		1.3357
MAINE						
PORTLAND						
SITE 004	76		.7132			
MARYLAND						
BALTIMORE						
SITE 001	76	.9778	1.4989	1.3343	.9818	1.1982
MASSACHUSETTS						
BOSTON						
SITE 001	76		.6958		.5302	
CAMBRIDGE						
SITE 001	76		.5792	.4483	.3525	.4600
FALL RIVER						
SITE 001	76		.6355	.6341	.5431	.6042
NEW BEDFORD						
SITE 002	76		.4977	.2690	.2412	.3360

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95 PERCENT CONFIDENCE LIMITS
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LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MASSACHUSETTS						
WORCESTER						
SITE 004	76		.8493	.6036	.4591	.6373
MICHIGAN						
DETROIT						
SITE 001	76	.6897	2.0972	1.8451	2.6227	1.8137
FLINT						
SITE 008	76	.5091	.7592			
GRAND RAPIDS						
SITE 001	76	.3359	.7264	.7562	.8461	.6662
LANSING						
SITE 001	76	.2964	1.1882	1.1276	1.5626	1.0437
SAGINAW						
SITE 001	76	.5029	1.5468	1.2951	1.2461	1.1477
TRENTON						
SITE 004	76	.5165	1.9144		1.5497	1.3269
MINNESOTA						
DULUTH						
SITE 001	76	1.0066	1.6261	.9268		1.1865
MINNEAPOLIS						
SITE 001	76	.5016				
MINNEAPOLIS						
SITE 027	76		2.0271	1.0329	1.2928	1.4509
ST PAUL						
SITE 031	76	.9085	1.3835	1.1664	1.0289	1.1218
MISSISSIPPI						
JACKSON						
SITE 002	76	.5823	.6876	.5025	.9175	.6225
MISSOURI						
ST LOUIS						
SITE 001	76	1.2419	1.2944		1.7702	1.4355

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LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MONTANA						
HELENA						
SITE 001	76			.7524	.7159	
NEBRASKA						
LINCOLN						
SITE 002	76	.7557	.8722	.7213	1.1142	.8659
OMAHA						
SITE 030	76	.8677	.9163	1.0119	1.0855	.9704
NEVADA						
LAS VEGAS						
SITE 001	76			.7024	1.0455	
RENO						
SITE 001	76			1.0194	3.2211	
NEW HAMPSHIRE						
CONCORD						
SITE 002	76	.3539				
NEW JERSEY						
BAYONNE						
SITE 001	76		1.0157	1.1350		
CAMDEN						
SITE 001	76	1.2037	2.9510	1.1491		1.7679
CAMDEN CO						
SITE 003	76	.7036		.9090		
ELIZABETH						
SITE 002	76	.8195	1.1283	1.2368		1.0615
GLASSBORO						
SITE 001	76		.5279	.4357		
JERSEY CITY						
SITE 001	76	.7267	1.3052	1.1356		1.0558
NEWARK						
SITE 001	76	.7376	1.0245	.8785		.8802

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LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NEW JERSEY						
PATERSON						
SITE 001	76	.9652	.9121	.9022		.9265
PERTH AMBOY						
SITE 001	76	1.1732	1.4569	1.3856		1.3386
TRENTON						
SITE 001	76	1.5243	.7505	1.0385		1.1044
NEW MEXICO						
ALBUQUERQUE						
SITE 001	76		.9826		2.1846	
NEW YORK						
ALBANY						
SITE 001	76	.3265				
BUFFALO						
SITE 001	76	.9370		1.7232		
NEW YORK CITY						
SITE 014	76	.8204	1.3452	1.0697		1.0784
NIAGARA FALLS						
SITE 001	76	1.4239	1.7410	1.0136		1.3928
ROCHESTER						
SITE 001	76	.4727	1.1771	1.0592		.9030
SYRACUSE						
SITE 001	76	.5935	.6485	.7362		.6594
UTICA						
SITE 001	76	.6061	1.2068			
YONKERS						
SITE 001	76	.3843	.3657	.7874		.5125
NORTH CAROLINA						
CHARLOTTE						
SITE 001	76	.6291	.8706	.5532	.5877	.6602

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LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NORTH CAROLINA						
DURHAM						
SITE 006	76		1.1009	.8541	1.4233	1.1261
GREENSBORO						
SITE 009	76	.7174	.8365	.6331	.7534	.7351
WINSTON-SALEM						
SITE 002	76	.6955			1.2724	
OHIO						
AKRON						
SITE 014	76	1.0743	2.4773	1.8022	1.8073	1.7903
CANTON						
SITE 001	76	1.9114	3.5007	2.8372	.6577	2.2268
CINCINNATI						
SITE 001	76		1.9865	1.8810	1.6133	1.8269
CLEVELAND						
SITE 001	76	1.4906		2.9341	1.8457	2.0901
COLUMBUS						
SITE 001	76	.9473	1.9878	1.3254	1.5595	1.4550
DAYTON						
SITE 001	76	.6751	1.9839	1.5545	1.6745	1.4720
PORTSMOUTH						
SITE 002	76			.9022		
STEUBENVILLE						
SITE 012	76	3.3273	5.5110	3.5991	2.6991	3.7841
TOLEDO						
SITE 001	76	.7252	1.0595	.9398	1.0618	.9466
YOUNGSTOWN						
SITE 001	76	2.3237	5.7763	4.2350	3.2739	3.9022

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ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0447
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 25 PRECISION (%) +- 32

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
OKLAHOMA						
CHEROKEE CO						
SITE 480	76				.5877	
TULSA						
SITE 110	76	.6497	.9350	1.0672	.7659	.8545
OREGON						
PORTLAND						
SITE 001	76	.6533	.7076		.7557	.7055
PENNSYLVANIA						
ALLENTOWN						
SITE 001	76	1.1121	1.0230	.8696		1.0016
ALTOONA						
SITE 001	76	1.0646		.9052	1.3311	1.1003
BETHLEHEM						
SITE 002	76	3.0490	2.3953	1.8261	1.1604	2.1077
ERIE						
SITE 002	76	4.0944	1.9743	2.2177	.4328	2.1798
HARRISBURG						
SITE 361	76		2.1040	1.3571	1.2899	1.1878
HAZLETON						
SITE 001	76	4.1767	1.0395	.9560	.9656	1.7845
JOHNSTOWN						
SITE 803	76		4.2832	3.0193	4.2032	3.8352
LANCASTER CITY						
SITE 002	76	.8601	.9261	.7529	.8705	.8524
PHILADELPHIA						
SITE 004	76	1.4452	1.4060	1.0173	.7612	1.1574
PITTSBURGH						
SITE 001	76	2.7778	4.7343	2.6379	2.3094	3.1149

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LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
PENNSYLVANIA						
READING						
SITE 001	76	.7413	1.0114	.7687	.7833	.8262
SCRANTON						
SITE 001	76	2.2811	2.5559	2.2049	1.4742	2.1290
WARMINSTER						
SITE 002	76	1.2203	1.2224	1.8787	1.1515	1.3682
WEST CHESTER						
SITE 110	76	.6877	.9932	1.0999	.7670	.8870
WILKES-BARRE						
SITE 001	76	1.0151	1.2028	1.3692	1.1651	1.1881
YORK						
SITE 322	76	1.0014	1.1102		.6422	.9179
PUERTO RICO						
AMELIA						
SITE 001	76	.5650		1.3414		
PONCE						
SITE 002	76	.6990	1.3127	1.5765		1.1961
SEBANA SECA						
SITE 001	76	.7773	1.2759	1.1684		1.0739
RHODE ISLAND						
EAST PROVIDENCE						
SITE 001	76	.5840	.5988	.5774	.5481	.5771
PROVIDENCE						
SITE 001	76	.7368	.9033	.9559	.6417	.8094
SOUTH CAROLINA						
COLUMBIA						
SITE 001	76	1.7162	.8143	.6879	.6308	.9623
GREENVILLE						
SITE 001	76	.4207	.7277	.5487	.6196	.5792

POLLUTANT : 12126 -FE- IRON
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ANALYTICAL QUALITY
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95 PERCENT CONFIDENCE LIMITS
BIAS (%) 25 PRECISION (%) +- 32

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
SOUTH DAKOTA						
SIOUX FALLS						
SITE 001	76	.3904	.8250	.8582		.6912
TENNESSEE						
CHATTANOOGA						
SITE 001	76	1.8041	1.6641	1.1347	.9862	1.3973
KNOXVILLE						
SITE 002	76	.7516	.9635	.9275	.9676	.9026
MEMPHIS						
SITE 001	76	.7810	1.3429	.8474	1.1402	1.0279
NASHVILLE						
SITE 001	76	.9487	1.3440	.5334	2.1342	1.2401
TEXAS						
AMARILLO						
SITE 002	76				.6694	
AUSTIN						
SITE 010	76			.4902	.3719	
BEAUMONT						
SITE 001	76	.6470	.3971	.4780		.5074
CORPUS CHRISTI						
SITE 001	76	1.1486	.3400	.7951	.5409	.7062
DALLAS						
SITE 002	76		.7428	.8023		
FORT WORTH						
SITE 001	76	.8991	.7861	.7030		.7961
HOUSTON						
SITE 001	76	1.1766				
LUBBOCK						
SITE 001	76	1.4892			.9539	

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ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0447
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 25 PRECISION (%) +- 32

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
TEXAS						
PASADENA						
SITE 002	76		.7208		1.0736	
SAN ANTONIO						
SITE 034	76	1.1748	.4967	.7679		.8131
WICHITA FALLS						
SITE 002	76	1.2041	1.6162	.8534	.8890	1.1407
UTAH						
OGDEN						
SITE 001	76	.9022	.6967			
SALT LAKE CITY						
SITE 001	76	1.2809	.7932	1.4852	2.4662	1.5064
VERMONT						
BURLINGTON						
SITE 003	76	.8757	.9536			
VIRGINIA						
DANVILLE						
SITE 001	76	1.3888	1.2892	.6015	.4738	.9383
MCLEAN						
SITE 001	76		.6435	.6637	.6415	.6496
HAMPTON						
SITE 001	76	.5401	.8106	.6279	.6819	.6651
LYNCHBURG						
SITE 002	76		1.1408	.9774	.7999	.7295
NORFOLK						
SITE 001	76	.7312	.9372	.6022	1.5870	.9644
PORTSMOUTH						
SITE 001	76	1.1149	1.0732	.6025	.4613	.8130
RICHMOND						
SITE 002	76	.6982	.6050	.5770	.5302	.6026

POLLUTANT : 12126 -FE- IRON
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25°C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0447
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 25 PRECISION (%) +- 32

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
VIRGINIA						
ROANOKE						
SITE 003	76	.7895	.7227	.8902	.9499	.8381
WASHINGTON						
SEATTLE						
SITE 001	76	.7817	.6813	.7673	1.1947	.8563
SPOKANE						
SITE 001	76	1.8889		1.8259	1.1915	1.6354
TACOMA						
SITE 001	76	.9576	.3949		.2360	.5295
WEST VIRGINIA						
CHARLESTON						
SITE 001	76	1.2244	1.8643	.7276	1.4139	1.3076
HUNTINGTON						
SITE 005	76	2.8944		2.0649	3.0372	2.6655
SOUTH CHARLESTON						
SITE 001	76	.6132	1.4037	.8347	1.1168	.9921
WISCONSIN						
EAU CLAIRE						
SITE 002	76	.2968	.6394	.5173	.9407	.5986
KENOSHA						
SITE 001	76	.3963	1.0308	.7386		.7219
MADISON						
SITE 001	76	.3681	.7211	.5056	.9519	.6367
MILWAUKEE						
SITE 001	76	.4072				
MILWAUKEE						
SITE 099	76				.9352	
RACINE						
SITE 002	76	.2452	.9621	1.1350	1.2295	.8930

POLLUTANT : 12126 -FE- IRON
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0447
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 25 PRECISION (%) +- 32

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
WISCONSIN						
SUPERIOR						
SITE 001	76		.8908		1.3686	
WYOMING						
CHEYENNE						
SITE 001	76				.1822	

POLLUTANT : 12126 -FE- IRON
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0447
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 25 PRECISION (%) +- 32

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ARIZONA						
GRAND CANYON NAT P						
SITE 001	76	.2155	LD		.2355	
ARKANSAS						
MONTGOMERY CO						
SITE 001	76	.2065	.2912	.3567	.3512	.3014
COLORADO						
MESA VERDE NAT PAR						
SITE 002	76	.2512		.1236	.0866	.1538
DELAWARE						
KENT CO						
SITE 001	76		.2151	.2507		
FLORIDA						
HARDEE CO						
SITE 001	76	.1415	.2484			
HIGHLANDS CO.						
SITE 002	76				.0656	
HAWAII						
HAWAII CO						
SITE 001	76		LD	LD	LD	
HAWAII CO						
SITE 002	76	.0978	.2612			
IDAHO						
BUTTE CO						
SITE 001	76	.1484				
INDIANA						
MONROE CO						
SITE 001	76		.4430	.3682	.7063	.5058
PARKE CO						
SITE 001	76	.5161	.5662	.2342	.6393	.4890

POLLUTANT : 12126 -FE- IRON
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0447
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 25 PRECISION (%) +- 32

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MAINE						
ACADIA NAT PARK						
SITE 001	76	.1271	1.4076	.2459	1.4010	.7954
MARYLAND						
CALVERT CO						
SITE 001	76	.2553	.3774	.1397		.2575
MISSISSIPPI						
JACKSON CO						
SITE 001	76	.3610	.2083	.2457	.2132	.2571
MISSOURI						
SHANNON CO						
SITE 002	76	.1538	.1813	.3128	.5281	.2940
MONTANA						
GLACIER NAT PARK						
SITE 001	76	LD	.2027		.0779	
FORT HOWES						
SITE 008	76			.3139	LD	
ASHLAND						
SITE 026	76	.0687	.2969	.9771	.1730	.3789
NEBRASKA						
THOMAS CO						
SITE 001	76	.2303	.2730		.2719	.2584
NEVADA						
WHITE PINE CO						
SITE 001	76	.1751		.1745	.1972	.1823
NEW HAMPSHIRE						
COOS CO						
SITE 001	76		.1494			
NEW YORK						
JEFFERSON CO						
SITE 001	76	.1655	.2656			

POLLUTANT : 12126 -FE- IRON
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0447
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 25 PRECISION (%) +- 32

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NORTH CAROLINA						
BUXTON						
SITE 002	76		.4742			
PENNSYLVANIA						
CLARION CO						
SITE 001	76		.6655	.5135	.6199	.5996
INDIANA CO						
SITE 002	76	.8775			1.2634	
RHODE ISLAND						
WASHINGTON CO						
SITE 002	76	.1726	.4304	.3182	.1518	.2683
SOUTH CAROLINA						
RICHLAND CO						
SITE 002	76	.2394	.3650	.1144	.1825	.2253
SOUTH DAKOTA						
BLACK HILLS NAT FO						
SITE 001	76	.0538	.2410	.1683	LD	.1544
TENNESSEE						
CUMBERLAND CO						
SITE 001	76		.1188	.5338	.3966	.3497
VERMONT						
ORANGE CO						
SITE 001	76	.2122	.2935	.2013		.2357
VIRGINIA						
SHENANDOAH NAT PAR						
SITE 001	76	.3015	.4901		.1392	.3103
WYTHE CO						
SITE 001	76	.1685	.4525	.2893	.3042	.3036
WISCONSIN						
DOOR CO						
SITE 001	76	.1739	.2613	.2135	.8433	.3730

POLLUTANT : 12126 -FE- IRON
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0447
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 25 PRECISION (%) +- 32

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
WYOMING						
YELLOWSTONE NAT PA						
SITE 001	76			.1152	LD	

POLLUTANT : 12128 -PB- LEAD
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .11769
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 28

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ALABAMA						
BIRMINGHAM						
SITE 003	76	.7040	LD		1.4550	
GADSDEN						
SITE 001	76		LD	.6520	1.1960	
HUNTSVILLE						
SITE 001	76	.3770	LD	.4490		
MOBILE						
SITE 001	76	.5220	LD	1.2100		
MONTGOMERY						
SITE 001	76	.6310	.7940	.8560	1.4450	.9315
ALASKA						
ANCHORAGE						
SITE 003	76	.1410			1.7130	
FAIRBANKS						
SITE 001	76		.4370		1.9950	
ARIZONA						
DOUGLAS						
SITE 004	76	.5700	.2500			
PHOENIX						
SITE 002	76	1.1610	1.1380	1.0040		1.1010
TUCSON						
SITE 001	76	.6830	.6250	.3830	.9420	.6583
ARKANSAS						
LITTLE ROCK						
SITE 001	76	.6540	.9420	.9430		.8463
TEXARKANA						
SITE 001	76	.3540	.5200	.5770	.5970	.5120
WEST MEMPHIS						
SITE 001	76	.2910	.5680	.7680	1.0160	.6608

POLLUTANT : 12128 -PB- LEAD
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .11769
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 28

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
CALIFORNIA						
ANAHEIM						
SITE 001	76	2.2770	1.1090	1.6210	2.9950	2.0005
BERKELEY						
SITE 001	76	.8870	.7670	.6210	.1220	.5993
BURBANK						
SITE 002	76	1.5550	1.9990	1.1980	4.2760	2.2570
FRESNO						
SITE 002	76	1.6120	.5050		2.4680	1.5283
LONG BEACH						
SITE 001	76	2.2120	.7340	.9830	3.4360	1.8413
LOS ANGELES						
SITE 001	76	2.0400	1.6590	1.6470	4.0270	2.3433
OAKLAND						
SITE 001	76	.9920	.9340		2.2170	1.3810
ONTARIO						
SITE 001	76		1.2350	1.4960	1.7100	1.4803
PASADENA						
SITE 002	76	1.6550	.7960	1.2660	3.0730	1.6975
SACRAMENTO						
SITE 001	76	.7180	.6390	.6670	4.1920	1.5540
SAN BERNARDINO						
SITE 001	76	1.1300	.9910	1.0960	1.6950	1.2280
SAN DIEGO						
SITE 004	76	1.5000	.7060	.7190	2.9170	1.4605
SAN FRANCISCO						
SITE 001	76	.7510	1.3150	.6430	2.5710	1.3200
SAN JOSE						
SITE 004	76	2.1490	.9550	1.1830	4.5380	2.2063

POLLUTANT : 12128 -PB- LEAD
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .11769
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 28

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
CALIFORNIA						
SANTA ANA						
SITE 001	76	1.4430	1.0620	1.3620	1.8310	1.4245
TORRANCE						
SITE 001	76	1.6050	1.2150	.7010	3.1820	1.6758
COLORADO						
DENVER						
SITE 001	76	.7650	.4790	.7390	1.2840	.8168
CONNECTICUT						
BRIDGEPORT						
SITE 001	76	.9050	1.2950	1.3350	.8500-	1.0963
HARTFORD						
SITE 002	76	.6650	1.0730	1.0330	.9840	.9388
NEW HAVEN						
SITE 001	76	.6330	1.1460	1.3900	.7440	.9783
WATERBURY						
SITE 001	76	1.0980				
WATERBURY						
SITE 123	76		1.7430	.6250	1.9820	1.4500
DELAWARE						
NEWARK						
SITE 001	76	.4310	.5390	.5380	.8820	.5975
WILMINGTON						
SITE 002	76	1.1260	.9970	1.0950	1.2220	1.1100
DISTRICT OF COLUMBIA						
WASHINGTON						
SITE 001	76		.7150	.9470		
FLORIDA						
JACKSONVILLE						
SITE 002	76	.8100		.9530	.9510	.9047

POLLUTANT : 12128 -PB- LEAD
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .11769
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 28

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
FLORIDA						
MIAMI						
SITE 002	76			1.4540	1.3410	
ST PETERSBURG						
SITE 002	76				.5440	
TAMPA						
SITE 002	76	.6360				
GEORGIA						
ATLANTA						
SITE 001	76	.6470	1.2100	1.3900		1.0823
COLUMBUS						
SITE 001	76	.6120	.6500	.6790	.5330	.6185
SAVANNAH						
SITE 001	76	.6590	.5540	.4340	.5120	.5398
HAWAII						
MAUNA LOA OBSERV						
SITE 002	76			LD		
HONOLULU						
SITE 001	76	.9110	.6480	.9880	.9960	.8858
IDAHO						
BOISE CITY						
SITE 001	76			.7660	.5300	
ILLINOIS						
BLUE ISLAND						
SITE 001	76	.5470	.7620		.8910	.7333
CHICAGO						
SITE 001	76	.8830		1.0600	1.1830	1.0420
MOLINE						
SITE 001	76	.5170	.4670	.3570	.6560	.4993
NORTH CHICAGO						
SITE 002	76	.3510	.5870	.6310	.5920	.5403

POLLUTANT : 12128 -PB- LEAD
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .11769
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 28

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ILLINOIS						
PEORIA						
SITE 001	76	.6010	.8300	.6520	.8730	.7390
ROCK ISLAND						
SITE 001	76	.4900	.4580	.4610	.7040	.5283
SPRINGFIELD						
SITE 001	76	.4890	.4140	.3560		.4197
INDIANA						
EAST CHICAGO						
SITE 001	76	1.1530	1.4830	1.9450	1.5400	1.5303
EVANSVILLE						
SITE 001	76	.4440	.7640	.4590	.8640	.6328
FORT WAYNE						
SITE 002	76	.2940				
FORT WAYNE						
SITE 003	76			.7590		
GARY						
SITE 001	76	.6800	.7350	.8100	1.1890	.8535
HAMMOND						
SITE 002	76	.6120	.9600	.7360	.8890	.7993
INDIANAPOLIS						
SITE 001	76	.6530	1.0800	1.0780		.9370
INDIANAPOLIS						
SITE 002	76				.9980	
NEW ALBANY						
SITE 002	76	.6240	.8970	.8400	1.3260	.9218
SOUTH BEND						
SITE 002	76	.5550	.6970	.4530	.9300	.6588
TERRE HAUTE						
SITE 001	76	.4090	.6060	.5550	.5190	.5223

POLLUTANT : 12128 -PB- LEAD
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .11769
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 28

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
IOWA						
CEDAR RAPIDS						
SITE 018	76	.4650	.4410	.3520	.6680	.4815
DAVENPORT						
SITE 001	76	.5060	.5380	.4400	.9050	.5973
DES MOINES						
SITE 001	76	.4410	1.1840		1.0440	.8897
DUBUQUE						
SITE 002	76	.1840	.2480	.1760	.2170	.2063
DUBUQUE						
SITE 008	76	.2270	.1400	.2250	.2950	.2218
WATERLOO						
SITE 004	76	.3710	.4260	.4140	.5170	.4320
KANSAS						
KANSAS CITY						
SITE 002	76	.4290				
KANSAS CITY						
SITE 012	76	.3710	.7680	.4320	.9710	.6355
KANSAS CITY						
SITE 015	76		.8320	.5660	1.1650	.8543
TOPEKA						
SITE 001	76	.3190	.3130	.3320		.3213
WICHITA						
SITE 001	76	.3650	.4570	.4320	.5980	.4630
KENTUCKY						
ASHLAND						
SITE 002	76	1.4720	1.0060	1.3290	1.7250	1.3830
BOWLING GREEN						
SITE 001	76	.3160	.5490	.4570	.7400	.5155

POLLUTANT : 12128 -PB- LEAD
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .11769
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 28

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
KENTUCKY						
COVINGTON						
SITE 001	76	.5410	.7900	.7680	.8830	.7455
LEXINGTON						
SITE 001	76	.4530	.6420	.5680		.5543
LOUISVILLE						
SITE 002	76	.6180	1.3960	1.0010	.8780	.9733
LOUISIANA						
BATON ROUGE						
SITE 002	76	.7250		1.1750	1.7640	1.2213
IBERVILLE PAR						
SITE 002	76	LD	.1540	.2220	.2160	.1973
NEW ORLEANS						
SITE 002	76	.5680	.6740		1.0410	.7610
SHREVEPORT						
SITE 001	76	.5340	.8220	.7060		.6873
MAINE						
PORTLAND						
SITE 004	76		.5090			
MARYLAND						
BALTIMORE						
SITE 001	76	.6590	.8670	1.1460	.7780	.8625
MASSACHUSETTS						
BOSTON						
SITE 001	76		.7310		.7930	
CAMBRIDGE						
SITE 001	76		.6630	.7480	.6290	.6800
FALL RIVER						
SITE 001	76		.7580	.9770	.7590	.8313
NEW BEDFORD						
SITE 002	76		.4010	.3670	.2940	.3540

POLLUTANT : 12128 -PB- LEAD
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .11769
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 28

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MASSACHUSETTS						
WORCESTER						
SITE 004	76		.7450	.7810	.6030	.7097
MICHIGAN						
DETROIT						
SITE 001	76	.5610	.6810	.9650	.9880	.7988
FLINT						
SITE 008	76	.3720	.5270			
GRAND RAPIDS						
SITE 001	76	.6620	.7340	.8050	.9380	.7848
LANSING						
SITE 001	76	.2770	.3460	.4130	.5700	.4015
SAGINAW						
SITE 001	76	.4750	.4700	.4810	.3890	.4538
TRENTON						
SITE 004	76	.3680	.6180		.8050	.5970
MINNESOTA						
DULUTH						
SITE 001	76	.2090	.3310	.1330		.2243
MINNEAPOLIS						
SITE 001	76	1.2040				
MINNEAPOLIS						
SITE 027	76		.7940	.6870	1.0690	.8500
ST PAUL						
SITE 031	76	.9600	.9680	1.0890	.9410	.9895
MISSISSIPPI						
JACKSON						
SITE 002	76	.4120	.7300	.6110	1.2780	.7578
MISSOURI						
ST LOUIS						
SITE 001	76	.6600	.7450		1.1340	.8463

POLLUTANT : 12128 -PB- LEAD
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .11769
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 28

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MONTANA						
HELENA						
SITE 001	76			.5940	.6190	
NEBRASKA						
LINCOLN						
SITE 002	76	.2500	.3820	.3960	.4550	.3708
OMAHA						
SITE 030	76	.6770	.8750	.8070	1.0440	.8508
NEVADA						
LAS VEGAS						
SITE 001	76			1.0510	3.2280	
RENO						
SITE 001	76			.9560	3.0070	
NEW HAMPSHIRE						
CONCORD						
SITE 002	76	.3320				
NEW JERSEY						
BAYONNE						
SITE 001	76		.7920	1.1090		
CAMDEN						
SITE 001	76	.8900	.8850	1.0200		.9317
CAMDEN CO						
SITE 003	76	.4710		.8530		
ELIZABETH						
SITE 002	76	1.1040	1.2140	1.4320		1.2500
GLASSBORO						
SITE 001	76		.3970	.4670		
JERSEY CITY						
SITE 001	76	.8550	.9710	1.1350		.9870
NEWARK						
SITE 001	76	1.0920	1.3700	1.0770		1.1797

POLLUTANT : 12128 -PB- LEAD
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .11769
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 28

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NEW JERSEY						
PATERSON						
SITE 001	76	1.3080	1.2560	1.8550		1.4730
PERTH AMBOY						
SITE 001	76	.8050	.8260	.8620		.8310
TRENTON						
SITE 001	76	.7930	.4650	.7020		.6533
NEW MEXICO						
ALBUQUERQUE						
SITE 001	76		.3360		2.2300	
NEW YORK						
ALBANY						
SITE 001	76	.5340				
BUFFALO						
SITE 001	76	.6290		.9240		
NEW YORK CITY						
SITE 014	76	.7220	.9150	.9820		.8730
NIAGARA FALLS						
SITE 001	76	.3560	.4130	.3200		.3630
ROCHESTER						
SITE 001	76	.5290	.6520	.6780		.6197
SYRACUSE						
SITE 001	76	.5590	.7250	.7830		.6890
UTICA						
SITE 001	76	.4930	.7990			
YONKERS						
SITE 001	76	.7150	.4430	.9740		.7107
NORTH CAROLINA						
CHARLOTTE						
SITE 001	76	.5230	.9110	.5760	.6770	.6718

POLLUTANT : 12128 -PB- LEAD
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .11769
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 28

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NORTH CAROLINA						
DURHAM						
SITE 006	76		.9680	.7160	1.6550	1.1130
GREENSBORO						
SITE 009	76	.7660	.9400	.7370	1.2560	.9248
WINSTON-SALEM						
SITE 002	76	.5290			1.1840	
OHIO						
AKRON						
SITE 014	76	.3700	1.0160	.7670	.7730	.7315
CANTON						
SITE 001	76	.4240	.9780	.8850	.2510	.6345
CINCINNATI						
SITE 001	76		1.1800	.9450	1.1880	1.1043
CLEVELAND						
SITE 001	76	.5340		1.0590	.6480	.7470
COLUMBUS						
SITE 001	76	.5380	.9870	.8940	.7970	.8040
DAYTON						
SITE 001	76	.4300	1.2250	.9840	1.1510	.9475
PORTSMOUTH						
SITE 002	76			.5980		
STEUBENVILLE						
SITE 012	76	.7430	.8750	.6120	.6970	.7318
TOLEDO						
SITE 001	76	.4430	.5850	.7010	.7500	.6198
YOUNGSTOWN						
SITE 001	76	.5220	.8360	.7660	.6670	.6978

POLLUTANT : 12128 -PB- LEAD
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .11769
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 28

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
OKLAHOMA						
CHEROKEE CO						
SITE 480	76				.2120	
TULSA						
SITE 110	76	.6530	.6360	.7200	.5870	.6490
OREGON						
PORTLAND						
SITE 001	76	.7280	.6940		1.1030	.8417
PENNSYLVANIA						
ALLENTOWN						
SITE 001	76	.7580	.9820	.8890		.8763
ALTOONA						
SITE 001	76	.3870		.4510	.9520	.5967
BETHLEHEM						
SITE 002	76	.3930	1.0060	.6830	.8640	.7365
ERIE						
SITE 002	76	.2310	.3400	.3370	.1730	.2703
HARRISBURG						
SITE 361	76		.9460	.7630	1.1410	.7125
HAZLETON						
SITE 001	76	1.4190	.6150	.8260	.7550	.9038
JOHNSTOWN						
SITE 803	76		.8460	.7070	1.0660	.8730
LANCASTER CITY						
SITE 002	76	.6470	.6180	.8060	.7680	.7098
PHILADELPHIA						
SITE 004	76	.7850	1.0980	.8920	1.0210	.9490
PITTSBURGH						
SITE 001	76	.7180	1.7070	1.0310	1.0710	1.1318

POLLUTANT : 12128 -PB- LEAD
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .11769
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 28

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
PENNSYLVANIA						
READING						
SITE 001	76	.5220	.6300	.8600	.7080	.6800
SCRANTON						
SITE 001	76	1.0670	1.7780	2.6940	1.6930	1.8080
WARMINSTER						
SITE 002	76	1.0260	1.1010	1.5310	1.4510	1.2773
WEST CHESTER						
SITE 110	76	.4210	.4710	.6340	.5420	.5170
WILKES-BARRE						
SITE 001	76	.6210	.6050	.8190	.7300	.6938
YORK						
SITE 322	76	.6980	.8550		.7490	.7673
PUERTO RICO						
AMELIA						
SITE 001	76	1.1530		1.3380		
PONCE						
SITE 002	76	.8180	.7450	.7000		.7543
SEBANA SECA						
SITE 001	76	.6810	.6230	.5850		.6297
RHODE ISLAND						
EAST PROVIDENCE						
SITE 001	76	.6360	.7380	.7880	.7200	.7205
PROVIDENCE						
SITE 001	76	.7580	1.2380	1.3510	1.2150	1.1405
SOUTH CAROLINA						
COLUMBIA						
SITE 001	76	1.4610	.7290	1.0780	1.1760	1.1110
GREENVILLE						
SITE 001	76	.8060	1.0200	1.0720	1.6300	1.1320

POLLUTANT : 12128 -PB- LEAD
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .11769
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 28

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
SOUTH DAKOTA						
SIOUX FALLS						
SITE 001	76	.3070	.3820	.4630		.3840
TENNESSEE						
CHATTANOOGA						
SITE 001	76	.6420	.6830	.5100	.4820	.5793
KNOXVILLE						
SITE 002	76	.8160	.8620	1.1160	1.1330	.9818
MEMPHIS						
SITE 001	76	1.1790	2.5020	1.3600	2.0780	1.7798
NASHVILLE						
SITE 001	76	.7730	.9790	.5870	1.7140	1.0133
TEXAS						
AMARILLO						
SITE 002	76				.4000	
AUSTIN						
SITE 010	76			.6140	.8760	
BEAUMONT						
SITE 001	76	.5290	.5380	.8650		.6440
CORPUS CHRISTI						
SITE 001	76	.4230	.4680	.7510	.9190	.6403
DALLAS						
SITE 002	76		1.5320	1.4120		
FORT WORTH						
SITE 001	76	.5820	1.0830	.8950		.8533
HOUSTON						
SITE 001	76	1.6420				
LUBBOCK						
SITE 001	76	.3410			.6240	

POLLUTANT : 12128 -PB- LEAD
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .11769
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 28

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
TEXAS						
PASADENA						
SITE 002	76		.9040		1.2990	
SAN ANTONIO						
SITE 034	76	.6960	.9910	1.0720		.9197
WICHITA FALLS						
SITE 002	76	.2830	.3240	.6060	.9920	.5513
UTAH						
OGDEN						
SITE 001	76	.9780	.5520			
SALT LAKE CITY						
SITE 001	76	.9890	.8500	1.0440	2.2260	1.2773
VERMONT						
BURLINGTON						
SITE 003	76	.6960	.5650			
VIRGINIA						
DANVILLE						
SITE 001	76	.7040	.7040	.3860	.4430	.5593
MCLEAN						
SITE 001	76		.9170	.9650	.7380	.8733
HAMPTON						
SITE 001	76	.3380	.3250	.4770	.5560	.4240
LYNCHBURG						
SITE 002	76		.5870	.6030	.6240	.4535
NORFOLK						
SITE 001	76	.4390	.5640	.5520	.7870	.5855
PORTSMOUTH						
SITE 001	76	.7320	.5670	.5670	1.0530	.7298
RICHMOND						
SITE 002	76	.4900	.5390	.7190	.6340	.5955

POLLUTANT : 12128 -PB- LEAD
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .11769
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 28

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
VIRGINIA						
ROANOKE						
SITE 003	76	.6150	.8010	.7110	.9010	.7570
WASHINGTON						
SEATTLE						
SITE 001	76	1.1840	.9760	1.6610	2.3900	1.5528
SPOKANE						
SITE 001	76	.7040		.6410	1.0230	.7893
TACOMA						
SITE 001	76	1.2160	.5320		.5230	.7570
WEST VIRGINIA						
CHARLESTON						
SITE 001	76	.6490	.9890	.5180	1.1720	.8320
HUNTINGTON						
SITE 005	76	.6880		.9620	1.4270	1.0257
SOUTH CHARLESTON						
SITE 001	76	.4350	.6940	.6190	.5850	.5833
WISCONSIN						
EAU CLAIRE						
SITE 002	76	.2620	.2400	.1400	.3640	.2515
KENOSHA						
SITE 001	76	.3640	.3750	.4990		.4127
MADISON						
SITE 001	76	.3210	.5320	.4290	.6460	.4820
MILWAUKEE						
SITE 001	76	.5270				
MILWAUKEE						
SITE 099	76				.7140	
RACINE						
SITE 002	76	.2150	.3840	.4110	.5290	.3848

POLLUTANT : 12128 -PB- LEAD
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .11769
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 28

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
WISCONSIN						
SUPERIOR						
SITE 001	76		LD		.2650	
WYOMING						
CHEYENNE						
SITE 001	76				LD	

POLLUTANT : 12128 -PB- LEAD
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .11769
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 28

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ARIZONA						
GRAND CANYON NAT P						
SITE 001	76	LD	.2780		.2900	
ARKANSAS						
MONTGOMERY CO						
SITE 001	76	LD	LD	.1960	.3150	
COLORADO						
MESA VERDE NAT PAR						
SITE 002	76	LD		LD	LD	
DELAWARE						
KENT CO						
SITE 001	76		.1250	.1560		
FLORIDA						
HARDEE CO						
SITE 001	76	.2040	.1760			
HIGHLANDS CO.						
SITE 002	76				LD	
HAWAII						
HAWAII CO						
SITE 001	76		LD	LD	LD	
HAWAII CO						
SITE 002	76	LD	LD			
IDAHO						
BUTTE CO						
SITE 001	76	LD				
INDIANA						
MONROE CO						
SITE 001	76		.1340	.1550	.1480	.1457
PARKE CO						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12128 -PB- LEAD
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .11769
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 28

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MAINE						
ACADIA NAT PARK						
SITE 001	76	LD	LD	LD	LD	
MARYLAND						
CALVERT CO						
SITE 001	76	.2400	.1520	LD		
MISSISSIPPI						
JACKSON CO						
SITE 001	76	.2550	.1660	.2370	.2740	.2330
MISSOURI						
SHANNON CO						
SITE 002	76	LD	LD	LD	LD	
MONTANA						
GLACIER NAT PARK						
SITE 001	76	LD	LD		LD	
FORT HOWES						
SITE 008	76			LD	LD	
ASHLAND						
SITE 026	76	LD	LD	LD	LD	
NEBRASKA						
THOMAS CO						
SITE 001	76	LD	LD		LD	
NEVADA						
WHITE PINE CO						
SITE 001	76	LD		LD	LD	
NEW HAMPSHIRE						
COOS CO						
SITE 001	76		LD			
NEW YORK						
JEFFERSON CO						
SITE 001	76	LD	LD			

POLLUTANT : 12128 -PB- LEAD
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .11769
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 28

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NORTH CAROLINA						
BUXTON						
SITE 002	76		LD			
PENNSYLVANIA						
CLARION CO						
SITE 001	76		LD	.1430	.2340	
INDIANA CO						
SITE 002	76	.3360			.4830	
RHODE ISLAND						
WASHINGTON CO						
SITE 002	76	.1770	.2860	.3200	.1770	.2400
SOUTH CAROLINA						
RICHLAND CO						
SITE 002	76	.1610	.1740	.1500	.2520	.1843
SOUTH DAKOTA						
BLACK HILLS NAT FO						
SITE 001	76	LD	LD	LD	LD	
TENNESSEE						
CUMBERLAND CO						
SITE 001	76		LD	.1340	.1710	
VERMONT						
ORANGE CO						
SITE 001	76	.1360	LD	LD		
VIRGINIA						
SHENANDOAH NAT PAR						
SITE 001	76	.2130	.2080		.2250	.2153
WYTHE CO						
SITE 001	76	.1220	.1390	.1780	.1340	.1433
WISCONSIN						
DOOR CO						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12128 -PB- LEAD
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .11769
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 14 PRECISION (%) +- 28

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
WYOMING						
YELLOWSTONE NAT PA						
SITE 001	76			LD	LD	

POLLUTANT : 12132 -MN- MANGANESE
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0025
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 29 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ALABAMA						
BIRMINGHAM						
SITE 003	76	.0279	LD		.0810	
GADSDEN						
SITE 001	76		LD	.0297	.0865	
HUNTSVILLE						
SITE 001	76	.0220	LD	.0163		
MOBILE						
SITE 001	76	.0211	LD	.0255		
MONTGOMERY						
SITE 001	76	.0107	.0167	.0246	.0243	.0191
ALASKA						
ANCHORAGE						
SITE 003	76	LD			.0515	
FAIRBANKS						
SITE 001	76		.0277		.0246	
ARIZONA						
DOUGLAS						
SITE 004	76	.0503	.0316			
PHOENIX						
SITE 002	76	.0454	.0530	.0496		.0493
TUCSON						
SITE 001	76	.0300	.0393	.0158	.0335	.0297
ARKANSAS						
LITTLE ROCK						
SITE 001	76	.0135	.0343	.0363		.0280
TEXARKANA						
SITE 001	76	.0127	.0233	.0193	.0160	.0178
WEST MEMPHIS						
SITE 001	76	.0255	.0548	.0628	.0482	.0478

POLLUTANT : 12132 -MN- MANGANESE
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0025
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 29 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
CALIFORNIA						
ANAHEIM						
SITE 001	76	.0298	.0234	.0293	.0405	.0308
BERKELEY						
SITE 001	76	.0105	.0117	.0075	LD	.0099
BURBANK						
SITE 002	76	.0247	.0251	.0190	.0353	.0260
FRESNO						
SITE 002	76	.0364	.0317		.0519	.0400
LONG BEACH						
SITE 001	76	.0359	.0184	.0269	.0518	.0333
LOS ANGELES						
SITE 001	76	.0405	.0275	.0209	.0419	.0327
OAKLAND						
SITE 001	76	.0197	.0254		.0384	.0278
ONTARIO						
SITE 001	76		.0618	.0601	.0937	.0719
PASADENA						
SITE 002	76	.0208	.0212	.0170	.0287	.0219
SACRAMENTO						
SITE 001	76	.0063	.0242	.0208	.0506	.0255
SAN BERNARDINO						
SITE 001	76	.0371	.0601	.0374	.0379	.0431
SAN DIEGO						
SITE 004	76	.0342	.0390	.0252	.0433	.0354
SAN FRANCISCO						
SITE 001	76	.0067	.0160	.0062	.0282	.0143
SAN JOSE						
SITE 004	76	.0208	.0177	.0240	.0597	.0306

POLLUTANT : 12132 -MN- MANGANESE
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0025
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 29 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
CALIFORNIA						
SANTA ANA						
SITE 001	76	.0288	.0226	.0234	.0239	.0247
TORRANCE						
SITE 001	76	.0460	.0254	.0143	.0363	.0305
COLORADO						
DENVER						
SITE 001	76	.0593	.0192	.0249	.0658	.0423
CONNECTICUT						
BRIDGEPORT						
SITE 001	76	.0208	.0214	.0187	.0101	.0178
HARTFORD						
SITE 002	76	.0163	.0198	.0150	.0120	.0158
NEW HAVEN						
SITE 001	76	.0163	.0169	.0190	.0177	.0175
WATERBURY						
SITE 001	76	.0335				
WATERBURY						
SITE 123	76		.0302	.0076	.0343	.0240
DELAWARE						
NEWARK						
SITE 001	76	.0181	.0360	.0392	.0395	.0332
WILMINGTON						
SITE 002	76	.0997	.0241	.0346	.0279	.0466
DISTRICT OF COLUMBIA						
WASHINGTON						
SITE 001	76		.0134	.0130		
FLORIDA						
JACKSONVILLE						
SITE 002	76	.0135		.0111	.0141	.0129

POLLUTANT : 12132 -MN- MANGANESE
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0025
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 29 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
FLORIDA						
MIAMI						
SITE 002	76			.0076	.0054	
ST PETERSBURG						
SITE 002	76				.0055	
TAMPA						
SITE 002	76	.0135				
GEORGIA						
ATLANTA						
SITE 001	76	.0122	.0353	.0237		.0237
COLUMBUS						
SITE 001	76	.0205	.0180	.0155	.0139	.0170
SAVANNAH						
SITE 001	76	.0508	.0310	.0161	.0283	.0316
HAWAII						
MAUNA LOA OBSERV						
SITE 002	76			.0097		
HONOLULU						
SITE 001	76	.0084	.0107	.0101	.0050	.0086
IDAHO						
BOISE CITY						
SITE 001	76			.0242	.0123	
ILLINOIS						
BLUE ISLAND						
SITE 001	76	.0440	.1971		.0733	.1048
CHICAGO						
SITE 001	76	.0635		.0432	.0838	.0635
MOLINE						
SITE 001	76	.0424	.0552	.0352	.0866	.0549
NORTH CHICAGO						
SITE 002	76	.0125	.0481	.0307	.0538	.0363

POLLUTANT : 12132 -MN- MANGANESE
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0025
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 29 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ILLINOIS						
PEORIA						
SITE 001	76	.0717	.1741	.0985	.1197	.1160
ROCK ISLAND						
SITE 001	76	.0400	.0527	.0429	.0695	.0513
SPRINGFIELD						
SITE 001	76	.0210	.0402	.0215		.0276
INDIANA						
EAST CHICAGO						
SITE 001	76	.1215	.3446	.2711	.2746	.2530
EVANSVILLE						
SITE 001	76	.0180	.0430	.0454	.0357	.0355
FORT WAYNE						
SITE 002	76	.0158				
FORT WAYNE						
SITE 003	76			.0275		
GARY						
SITE 001	76	.0785	.3920	.1421	.1740	.1967
HAMMOND						
SITE 002	76	.0681	.2398	.1080	.1195	.1339
INDIANAPOLIS						
SITE 001	76	.0309	.0528	.0338		.0392
INDIANAPOLIS						
SITE 002	76				.0493	
NEW ALBANY						
SITE 002	76	.0182	.0372	.0300	.0439	.0323
SOUTH BEND						
SITE 002	76	.0208	.0511	.0243	.0705	.0417
TERRE HAUTE						
SITE 001	76	.0290	.0363	.0324	.0516	.0373

POLLUTANT : 12132 -MN- MANGANESE
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0025
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 29 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
IOWA						
CEDAR RAPIDS SITE 018	76	.0376	.0649	.0441	.0653	.0530
DAVENPORT SITE 001	76	.0331	.0535	.0406	.0903	.0544
DES MOINES SITE 001	76	.0308	.0556		.0796	.0553
DUBUQUE SITE 002	76	.0173	.0278	.0243	.0318	.0253
DUBUQUE SITE 008	76	.0209	.0194	.0377	.0315	.0274
WATERLOO SITE 004	76	.0602	.0474	.0455	.0746	.0569
KANSAS						
KANSAS CITY SITE 002	76	.0310				
KANSAS CITY SITE 012	76	.0328	.0462	.0404	.0660	.0464
KANSAS CITY SITE 015	76		.0513	.0483	.0679	.0558
TOPEKA SITE 001	76	.0224	.0238	.0288		.0250
WICHITA SITE 001	76	.0095	.0160	.0170	.0319	.0186
KENTUCKY						
ASHLAND SITE 002	76	.0675	.1311	.0817	.1901	.1176
BOWLING GREEN SITE 001	76	.0094	.0242	.0268	.0280	.0221

POLLUTANT : 12132 -MN- MANGANESE
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0025
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 29 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
KENTUCKY						
COVINGTON						
SITE 001	76	.0582	.0990	.0649	.1118	.0835
LEXINGTON						
SITE 001	76	.0204	.0229	.0248		.0227
LOUISVILLE						
SITE 002	76	.0264	.0582	.0463	.0459	.0442
LOUISIANA						
BATON ROUGE						
SITE 002	76	.0137		.0179	.0264	.0193
IBERVILLE PAR						
SITE 002	76	.0071	.0061	.0118	.0131	.0095
NEW ORLEANS						
SITE 002	76	.0244	.0123		.0228	.0198
SHREVEPORT						
SITE 001	76	.0191	.0345	.0232		.0256
MAINE						
PORTLAND						
SITE 004	76		.0189			
MARYLAND						
BALTIMORE						
SITE 001	76	.0378	.0758	.0651	.0368	.0539
MASSACHUSETTS						
BOSTON						
SITE 001	76		.0136		.0125	
CAMBRIDGE						
SITE 001	76		.0134	.0112	.0084	.0110
FALL RIVER						
SITE 001	76		.0143	.0156	.0115	.0138
NEW BEDFORD						
SITE 002	76		.0123	.0058	.0058	.0080

POLLUTANT : 12132 -MN- MANGANESE
METHOD : HI-VOL ATOMIC ABSORPTION
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DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0025
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 29 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MASSACHUSETTS						
WORCESTER						
SITE 004	76		.0178	.0135	.0092	.0135
MICHIGAN						
DETROIT						
SITE 001	76	.0328	.0972	.0914	.1313	.0882
FLINT						
SITE 008	76	.0197	.0327			
GRAND RAPIDS						
SITE 001	76	.0152	.0262	.0303	.0318	.0259
LANSING						
SITE 001	76	.0083	.0417	.0401	.0623	.0381
SAGINAW						
SITE 001	76	.0221	.0781	.0374	.0387	.0441
TRENTON						
SITE 004	76	.0348	.0861		.0656	.0622
MINNESOTA						
DULUTH						
SITE 001	76	.0075	.0369	.0197		.0214
MINNEAPOLIS						
SITE 001	76	.0130				
MINNEAPOLIS						
SITE 027	76		.0619	.0349	.0544	.0504
ST PAUL						
SITE 031	76	.0341	.0454	.0482	.0454	.0433
MISSISSIPPI						
JACKSON						
SITE 002	76	.0098	.0212	.0155	.0393	.0215
MISSOURI						
ST LOUIS						
SITE 001	76	.0334	.0545		.0880	.0586

POLLUTANT : 12132 -MN- MANGANESE
METHOD : HI-VOL ATOMIC ABSORPTION
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ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0025
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 29 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MONTANA						
HELENA						
SITE 001	76			.0195	.0213	
NEBRASKA						
LINCOLN						
SITE 002	76	.0103	.0212	.0210	.0392	.0229
OMAHA						
SITE 030	76	.0191	.0301	.0322	.0434	.0312
NEVADA						
LAS VEGAS						
SITE 001	76			.0163	.0237	
RENO						
SITE 001	76			.0220	.0839	
NEW HAMPSHIRE						
CONCORD						
SITE 002	76	.0079				
NEW JERSEY						
BAYONNE						
SITE 001	76		.0255	.0254		
CAMDEN						
SITE 001	76	.0315	.0750	.0463		.0509
CAMDEN CO						
SITE 003	76	.0219		.0393		
ELIZABETH						
SITE 002	76	.0249	.0260	.0280		.0263
GLASSBORO						
SITE 001	76		.0146	.0110		
JERSEY CITY						
SITE 001	76	.0179	.0283	.0246		.0236
NEWARK						
SITE 001	76	.0172	.0248	.0201		.0207

POLLUTANT : 12132 -MN- MANGANESE
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0025
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 29 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NEW JERSEY						
PATERSON						
SITE 001	76	.0248	.0223	.0237		.0236
PERTH AMBOY						
SITE 001	76	.0246	.0329	.0278		.0284
TRENTON						
SITE 001	76	.0288	.0221	.0281		.0263
NEW MEXICO						
ALBUQUERQUE						
SITE 001	76		.0275		.0653	
NEW YORK						
ALBANY						
SITE 001	76	.0142				
BUFFALO						
SITE 001	76	.0405		.0531		
NEW YORK CITY						
SITE 014	76	.0188	.0308	.0265		.0254
NIAGARA FALLS						
SITE 001	76	.0970	.1260	.0577		.0936
ROCHESTER						
SITE 001	76	.0136	.0304	.0268		.0236
SYRACUSE						
SITE 001	76	.0236	.0194	.0239		.0223
UTICA						
SITE 001	76	.0357	.0309			
YONKERS						
SITE 001	76	.0137	.0089	.0192		.0139
NORTH CAROLINA						
CHARLOTTE						
SITE 001	76	.0180	.0287	.0226	.0140	.0208

POLLUTANT : 12132 -MN- MANGANESE

X PAGES

METHOD : HI-VOL ATOMIC ABSORPTION

UNITS : UG/CU METER (25 C)

DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY

ANALYTICAL DISCRIMINATION LIMIT (LD) .0025

95 PERCENT CONFIDENCE LIMITS

BIAS (%) 29 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NORTH CAROLINA						
DURHAM						
SITE 006	76		.0246	.0196	.0318	.0253
GREENSBORO						
SITE 009	76	.0351	.0235	.0145	.0190	.0230
WINSTON-SALEM						
SITE 002	76	.0148			.0317	
OHIO						
AKRON						
SITE 014	76	.0381	.0681	.0461	.0635	.0540
CANTON						
SITE 001	76	.1579	.1387	.0947	.0199	.1028
CINCINNATI						
SITE 001	76		.0978	.0764	.0612	.0785
CLEVELAND						
SITE 001	76	.0783		.0803	.0824	.0803
COLUMBUS						
SITE 001	76	.0347	.0583	.0327	.0425	.0421
DAYTON						
SITE 001	76	.0208	.0557	.0524	.0546	.0459
PORTSMOUTH						
SITE 002	76			.0778		
STEUBENVILLE						
SITE 012	76	.1194	.1281	.1330	.0782	.1147
TOLEDO						
SITE 001	76	.0273	.0328	.0314	.0333	.0312
YOUNGSTOWN						
SITE 001	76	.2820	.1824	.1553	.1064	.1815

POLLUTANT : 12132 -MN- MANGANESE
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0025
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 29 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
OKLAHOMA						
CHEROKEE CO						
SITE 480	76				.0230	
TULSA						
SITE 110	76	.0257	.0421	.0548	.0309	.0384
OREGON						
PORTLAND						
SITE 001	76	.0255	.0491		.0769	.0505
PENNSYLVANIA						
ALLENTOWN						
SITE 001	76	.0431	.0381	.0350		.0387
ALTOONA						
SITE 001	76	.0255		.0234	.0336	.0275
BETHLEHEM						
SITE 002	76	.0885	.0726	.0686	.0706	.0751
ERIE						
SITE 002	76	.0360	.0503	.0711	.0213	.0447
HARRISBURG						
SITE 361	76		.0740	.0454	.0381	.0394
HAZLETON						
SITE 001	76	.2093	.0385	.0271	.0253	.0751
JOHNSTOWN						
SITE 803	76		.7413	.4897	.3773	.5361
LANCASTER CITY						
SITE 002	76	.0254	.0329	.0242	.0339	.0291
PHILADELPHIA						
SITE 004	76	.0395	.0656	.0462	.0240	.0438
PITTSBURGH						
SITE 001	76	.1331	.2331	.1257	.0884	.1451

POLLUTANT : 12132 -MN- MANGANESE
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0025
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 29 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
PENNSYLVANIA						
READING						
SITE 001	76	.0293	.0371	.0357	.0373	.0349
SCRANTON						
SITE 001	76	.0671	.0750	.0693	.0499	.0653
WARMINSTER						
SITE 002	76	.0335	.0403	.0557	.0479	.0444
WEST CHESTER						
SITE 110	76	.0200	.0486	.0300	.0265	.0313
WILKES-BARRE						
SITE 001	76	.0265	.0372	.0428	.0406	.0368
YORK						
SITE 322	76	.0367	.0759		.0289	.0472
PUERTO RICO						
AMELIA						
SITE 001	76	.0135		.0307		
PONCE						
SITE 002	76	.0176	.0338	.0376		.0297
SEBANA SECA						
SITE 001	76	.0185	.0350	.0283		.0273
RHODE ISLAND						
EAST PROVIDENCE						
SITE 001	76	.0240	.0127	.0124	.0134	.0156
PROVIDENCE						
SITE 001	76	.0146	.0190	.0192	.0152	.0170
SOUTH CAROLINA						
COLUMBIA						
SITE 001	76	.0610	.0245	.0174	.0168	.0299
GREENVILLE						
SITE 001	76	.0059	.0134	.0098	.0141	.0108

POLLUTANT : 12132 -MN- MANGANESE
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0025
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 29 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
SOUTH DAKOTA						
SIOUX FALLS						
SITE 001	76	.0352	.0712	.0846		.0637
TENNESSEE						
CHATTANOOGA						
SITE 001	76	.0890	.0744	.0443	.0407	.0621
KNOXVILLE						
SITE 002	76	.0260	.0544	.0414	.0491	.0427
MEMPHIS						
SITE 001	76	.0248	.0546	.0397	.0565	.0439
NASHVILLE						
SITE 001	76	.0375	.0505	.0228	.0917	.0506
TEXAS						
AMARILLO						
SITE 002	76				.0188	
AUSTIN						
SITE 010	76			.0131	.0112	
BEAUMONT						
SITE 001	76	.0220	.0184	.0167		.0190
CORPUS CHRISTI						
SITE 001	76	.0264	.0095	.0208	.0200	.0192
DALLAS						
SITE 002	76		.0257	.0225		
FORT WORTH						
SITE 001	76	.0233	.0212	.0202		.0216
HOUSTON						
SITE 001	76	.0313				
LUBBOCK						
SITE 001	76	.0293			.0259	

POLLUTANT : 12132 -MN- MANGANESE
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0025
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 29 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
TEXAS						
PASADENA						
SITE 002	76		.0410		.0773	
SAN ANTONIO						
SITE 034	76	.0260	.0128	.0238		.0209
WICHITA FALLS						
SITE 002	76	.0436	.0518	.0376	.0410	.0435
UTAH						
OGDEN						
SITE 001	76	.0216	.0172			
SALT LAKE CITY						
SITE 001	76	.0323	.0188	.0315	.0453	.0320
VERMONT						
BURLINGTON						
SITE 003	76	.0484	.0236			
VIRGINIA						
DANVILLE						
SITE 001	76	.0168	.0296	.0124	.0116	.0176
MCLEAN						
SITE 001	76		.0194	.0176	.0201	.0190
HAMPTON						
SITE 001	76	.0127	.0197	.0163	.0281	.0192
LYNCHBURG						
SITE 002	76		.0531	.0697	.0808	.0509
NORFOLK						
SITE 001	76	.0187	.0184	.0122	.0380	.0218
PORTSMOUTH						
SITE 001	76	.0255	.0213	.0125	.0110	.0176
RICHMOND						
SITE 002	76	.0166	.0152	.0177	.0195	.0173

POLLUTANT : 12132 -MN- MANGANESE
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0025
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 29 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
VIRGINIA						
ROANOKE						
SITE 003	76	.0192	.0259	.0323	.0406	.0295
WASHINGTON						
SEATTLE						
SITE 001	76	.0244	.0142	.0197	.0589	.0293
SPOKANE						
SITE 001	76	.0392		.0462	.0359	.0404
TACOMA						
SITE 001	76	.0458	.0130		.0110	.0233
WEST VIRGINIA						
CHARLESTON						
SITE 001	76	.0749	.1274	.0287	.0659	.0742
HUNTINGTON						
SITE 005	76	.2467		.1501	.1812	.1927
SOUTH CHARLESTON						
SITE 001	76	.0266	.0663	.0290	.0439	.0415
WISCONSIN						
EAU CLAIRE						
SITE 002	76	.0076	.0231	.0181	.0408	.0224
KENOSHA						
SITE 001	76	.0230	.0447	.0336		.0338
MADISON						
SITE 001	76	.0137	.0303	.0201	.0411	.0263
MILWAUKEE						
SITE 001	76	.0198				
MILWAUKEE						
SITE 099	76				.0484	
RACINE						
SITE 002	76	.0140	.0469	.0583	.0524	.0429

POLLUTANT : 12132 -MN- MANGANESE
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0025
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 29 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
WISCONSIN						
SUPERIOR						
SITE 001	76		.0625		.0893	
WYOMING						
CHEYENNE						
SITE 001	76				.0032	

POLLUTANT : 12132 -MN- MANGANESE
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0025
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 29 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ARIZONA						
GRAND CANYON NAT P						
SITE 001	76	.0050	LD		.0069	
ARKANSAS						
MONTGOMERY CO						
SITE 001	76	.0059	.0121	.0129	.0127	.0109
COLORADO						
MESA VERDE NAT PAR						
SITE 002	76	.0051		LD	LD	
DELAWARE						
KENT CO						
SITE 001	76		.0072	.0090		
FLORIDA						
HARDEE CO						
SITE 001	76	.0038	.0119			
HIGHLANDS CO.						
SITE 002	76				LD	
HAWAII						
HAWAII CO						
SITE 001	76		LD	LD	LD	
HAWAII CO						
SITE 002	76	LD	.0036			
IDAHO						
BUTTE CO						
SITE 001	76	LD				
INDIANA						
MONROE CO						
SITE 001	76		.0148	.0155	.0285	.0196
PARKE CO						
SITE 001	76	.0134	.0226	.0087	.0253	.0175

POLLUTANT : 12132 -MN- MANGANESE
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0025
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 29 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MAINE						
ACADIA NAT PARK						
SITE 001	76	.0039	.0360	.0063	.0355	.0204
MARYLAND						
CALVERT CO						
SITE 001	76	.0075	.0099	LD		
MISSISSIPPI						
JACKSON CO						
SITE 001	76	.0072	.0084	.0049	.0073	.0070
MISSOURI						
SHANNON CO						
SITE 002	76	.0047	.0106	.0172	.0311	.0159
MONTANA						
GLACIER NAT PARK						
SITE 001	76	LD	.0056		LD	
FORT HOWES						
SITE 008	76			.0069	LD	
ASHLAND						
SITE 026	76	LD	.0076	.0251	.0046	.0124
NEBRASKA						
THOMAS CO						
SITE 001	76	.0048	.0075		.0076	.0066
NEVADA						
WHITE PINE CO						
SITE 001	76	.0033		.0043	.0043	.0040
NEW HAMPSHIRE						
COOS CO						
SITE 001	76		.0075			
NEW YORK						
JEFFERSON CO						
SITE 001	76	.0187	.0096			

POLLUTANT : 12132 -MN- MANGANESE
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0025
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 29 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NORTH CAROLINA						
BUXTON						
SITE 002	76		.0295			
PENNSYLVANIA						
CLARION CO						
SITE 001	76		.0216	.0173	.0246	.0212
INDIANA CO						
SITE 002	76	.0305			.0459	
RHODE ISLAND						
WASHINGTON CO						
SITE 002	76	.0058	.0127	.0074	LD	.0086
SOUTH CAROLINA						
RICHLAND CO						
SITE 002	76	.0067	.0080	LD	.0059	.0069
SOUTH DAKOTA						
BLACK HILLS NAT FO						
SITE 001	76	LD	.0066	.0045	LD	
TENNESSEE						
CUMBERLAND CO						
SITE 001	76		.0043	.0143	.0161	.0116
VERMONT						
ORANGE CO						
SITE 001	76	.0127	.0083	.0057		.0089
VIRGINIA						
SHENANDOAH NAT PAR						
SITE 001	76	.0098	.0094		.0051	.0081
WYTHE CO						
SITE 001	76	.0053	.0125	.0099	.0088	.0091
WISCONSIN						
DOOR CO						
SITE 001	76	.0056	.0086	.0081	.0364	.0147

POLLUTANT : 12132 -MN- MANGANESE
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0025
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 29 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
WYOMING						
YELLOWSTONE NAT PA						
SITE 001	76			.0036	LD	

POLLUTANT : 12136 -NI- NICKEL
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0091
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 42

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ALABAMA						
BIRMINGHAM						
SITE 003	76	.0176	LD		.0109	
GADSDEN						
SITE 001	76		LD	.0308	LD	
HUNTSVILLE						
SITE 001	76	LD	LD	.0196		
MOBILE						
SITE 001	76	LD	LD	.0223		
MONTGOMERY						
SITE 001	76	LD	LD	LD	.0100	
ALASKA						
ANCHORAGE						
SITE 003	76	LD			LD	
FAIRBANKS						
SITE 001	76		LD		.0098	
ARIZONA						
DOUGLAS						
SITE 004	76	LD	LD			
PHOENIX						
SITE 002	76	LD	.0415	.0402		
TUCSON						
SITE 001	76	LD	LD	LD	LD	
ARKANSAS						
LITTLE ROCK						
SITE 001	76	LD	.0153	.0110		
TEXARKANA						
SITE 001	76	LD	LD	LD	LD	
WEST MEMPHIS						
SITE 001	76	LD	LD	.0161	LD	

POLLUTANT : 12136 -NI- NICKEL
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0091
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 42

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
CALIFORNIA						
ANAHEIM						
SITE 001	76	.0451	.0190	.0548	.0378	.0392
BERKELEY						
SITE 001	76	.0227	LD	.0123	LD	
BURBANK						
SITE 002	76	.0370	.0235	.0639	.0333	.0394
FRESNO						
SITE 002	76	.0192	LD		.0264	
LONG BEACH						
SITE 001	76	.0515	.0241	.0605	.0519	.0470
LOS ANGELES						
SITE 001	76	.0500	.0425	.0429	.0436	.0448
OAKLAND						
SITE 001	76	.0168	.0173		.0254	.0198
ONTARIO						
SITE 001	76		.0280	.0369	.0321	.0323
PASADENA						
SITE 002	76	.0302	.0283	.0354	.0225	.0291
SACRAMENTO						
SITE 001	76	LD	.0132	LD	.0129	
SAN BERNARDINO						
SITE 001	76	.0408	.0421	.0259	.0218	.0327
SAN DIEGO						
SITE 004	76	.0269	.0176	.0153	.0179	.0194
SAN FRANCISCO						
SITE 001	76	.0191	.0155	.0105	.0271	.0181
SAN JOSE						
SITE 004	76	.0207	.0157	.0195	.0364	.0231

POLLUTANT : 12136 -NI- NICKEL
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0091
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 42

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
CALIFORNIA						
SANTA ANA						
SITE 001	76	.0419	.0243	.0628	.0222	.0378
TORRANCE						
SITE 001	76	.0563	.0379	.0403	.0791	.0534
COLORADO						
DENVER						
SITE 001	76	LD	LD	LD	LD	
CONNECTICUT						
BRIDGEPORT						
SITE 001	76	.0273	.0446	.0421	.0187	.0332
HARTFORD						
SITE 002	76	.0236	.0242	.0249	.0466	.0298
NEW HAVEN						
SITE 001	76	.0262	.0301	.0353	.0540	.0364
WATERBURY						
SITE 001	76	.0202				
WATERBURY						
SITE 123	76		.0214	LD	.0241	
DELAWARE						
NEWARK						
SITE 001	76	.0255	.0256	.0186	.0313	.0253
WILMINGTON						
SITE 002	76	.0324	.0199	.0363	.0495	.0345
DISTRICT OF COLUMBIA						
WASHINGTON						
SITE 001	76		.0224	.0302		
FLORIDA						
JACKSONVILLE						
SITE 002	76	.0201		.0279	.0177	.0219

POLLUTANT : 12136 -NI- NICKEL
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0091
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 42

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
FLORIDA						
MIAMI						
SITE 002	76			.0152	LD	
ST PETERSBURG						
SITE 002	76				.0243	
TAMPA						
SITE 002	76	LD				
GEORGIA						
ATLANTA						
SITE 001	76	LD	.0097	.0137		
COLUMBUS						
SITE 001	76	LD	.0142	.0122	LD	
SAVANNAH						
SITE 001	76	.0140	.0787	.0110	.0222	.0315
HAWAII						
MAUNA LOA OBSERV						
SITE 002	76			.0170		
HONOLULU						
SITE 001	76	.0969	.0883	.0760	.0436	.0762
IDAHO						
BOISE CITY						
SITE 001	76			LD	LD	
ILLINOIS						
BLUE ISLAND						
SITE 001	76	.0209	.0280		.0220	.0236
CHICAGO						
SITE 001	76	.0554		LD	.0298	
MOLINE						
SITE 001	76	.0150	LD	.0115	.0197	.0154
NORTH CHICAGO						
SITE 002	76	LD	LD	LD	LD	

POLLUTANT : 12136 -NI- NICKEL
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0091
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 42

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ILLINOIS						
PEORIA						
SITE 001	76	LD	.0146	LD	LD	
ROCK ISLAND						
SITE 001	76	.0148	LD	.0207	.0443	.0266
SPRINGFIELD						
SITE 001	76	LD	LD	LD		
INDIANA						
EAST CHICAGO						
SITE 001	76	.0543	.0383	.0638	.0860	.0606
EVANSVILLE						
SITE 001	76	.0144	.0117	.0109	.0144	.0129
FORT WAYNE						
SITE 002	76	LD				
FORT WAYNE						
SITE 003	76			.0098		
GARY						
SITE 001	76	.0266	.0247	.0177	.0233	.0231
HAMMOND						
SITE 002	76	.0287	.0248	.0152	.0103	.0198
INDIANAPOLIS						
SITE 001	76	.0263	.0137	.0153		.0184
INDIANAPOLIS						
SITE 002	76				.0171	
NEW ALBANY						
SITE 002	76	.0141	.0119	LD	LD	
SOUTH BEND						
SITE 002	76	.0106	.0123	LD	.0116	.0115
TERRE HAUTE						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12136 -NI- NICKEL
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0091
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 42

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
IOWA						
CEDAR RAPIDS						
SITE 018	76	LD	.0185	.0110	LD	
DAVENPORT						
SITE 001	76	LD	.0094	LD	.0404	
DES MOINES						
SITE 001	76	LD	LD		LD	
DUBUQUE						
SITE 002	76	LD	.0108	LD	LD	
DUBUQUE						
SITE 008	76	.0104	.0119	.0112	LD	.0112
WATERLOO						
SITE 004	76	.0165	LD	LD	.0092	
KANSAS						
KANSAS CITY						
SITE 002	76	.0157				
KANSAS CITY						
SITE 012	76	.0159	.0192	.0103	.0124	.0145
KANSAS CITY						
SITE 015	76		.0110	LD	.0149	
TOPEKA						
SITE 001	76	LD	LD	LD		
WICHITA						
SITE 001	76	.0097	LD	LD	LD	
KENTUCKY						
ASHLAND						
SITE 002	76	.0426	.0357	.0096	.0217	.0274
BOWLING GREEN						
SITE 001	76	.0131	.0094	LD	.0096	.0107

POLLUTANT : 12136 -NI- NICKEL
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0091
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 42

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
KENTUCKY						
COVINGTON						
SITE 001	76	.0095	.0117	LD	.0162	.0125
LEXINGTON						
SITE 001	76	.0155	.0113	.0100		.0123
LOUISVILLE						
SITE 002	76	.0509	.0831	.0287	.0594	.0555
LOUISIANA						
BATON ROUGE						
SITE 002	76	.0283		LD	LD	
IBERVILLE PAR						
SITE 002	76	LD	LD	LD	LD	
NEW ORLEANS						
SITE 002	76	.0167	.0304		.0210	.0227
SHREVEPORT						
SITE 001	76	LD	LD	LD		
MAINE						
PORTLAND						
SITE 004	76		.0266			
MARYLAND						
BALTIMORE						
SITE 001	76	.0282	.0285	.0187	LD	.0251
MASSACHUSETTS						
BOSTON						
SITE 001	76		.0158		.0196	
CAMBRIDGE						
SITE 001	76		.0162	.0152	.0191	.0168
FALL RIVER						
SITE 001	76		.0115	.0148	.0230	.0164
NEW BEDFORD						
SITE 002	76		.0100	.0113	.0129	.0114

POLLUTANT : 12136 -NI- NICKEL
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0091
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 42

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MASSACHUSETTS						
WORCESTER						
SITE 004	76		.0113	.0119	.0282	.0171
MICHIGAN						
DETROIT						
SITE 001	76	LD	.0163	.0231	.0165	.0186
FLINT						
SITE 008	76	LD	LD			
GRAND RAPIDS						
SITE 001	76	LD	LD	LD	LD	
LANSING						
SITE 001	76	LD	LD	.0102	LD	
SAGINAW						
SITE 001	76	LD	.0140	LD	LD	
TRENTON						
SITE 004	76	LD	LD		LD	
MINNESOTA						
DULUTH						
SITE 001	76	LD	LD	LD		
MINNEAPOLIS						
SITE 001	76	LD				
MINNEAPOLIS						
SITE 027	76		LD	LD	LD	
ST PAUL						
SITE 031	76	.0116	LD	LD	LD	
MISSISSIPPI						
JACKSON						
SITE 002	76	LD	LD	LD	LD	
MISSOURI						
ST LOUIS						
SITE 001	76	.0106	LD		LD	

POLLUTANT : 12136 -NI- NICKEL
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0091
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 42

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MONTANA						
HELENA						
SITE 001	76			LD	LD	
NEBRASKA						
LINCOLN						
SITE 002	76	LD	LD	LD	LD	
OMAHA						
SITE 030	76	.0188	LD	LD	LD	
NEVADA						
LAS VEGAS						
SITE 001	76			LD	LD	
RENO						
SITE 001	76			LD	.0258	
NEW HAMPSHIRE						
CONCORD						
SITE 002	76	.0260				
NEW JERSEY						
BAYONNE						
SITE 001	76		.0235	.0333		
CAMDEN						
SITE 001	76	.0391	.0380	.0236		.0336
CAMDEN CO						
SITE 003	76	.0222		.0228		
ELIZABETH						
SITE 002	76	.0328	.0208	.0220		.0252
GLASSBORO						
SITE 001	76		LD	LD		
JERSEY CITY						
SITE 001	76	.0272	.0296	.0223		.0264
NEWARK						
SITE 001	76	.0360	.0180	.0135		.0225

POLLUTANT : 12136 -NI- NICKEL
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0091
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 42

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NEW JERSEY						
PATERSON						
SITE 001	76	.0370	.0115	.0155		.0213
PERTH AMBOY						
SITE 001	76	.0325	.0249	.0172		.0249
TRENTON						
SITE 001	76	.0627	.0197	.0118		.0314
NEW MEXICO						
ALBUQUERQUE						
SITE 001	76		LD		LD	
NEW YORK						
ALBANY						
SITE 001	76	.0561				
BUFFALO						
SITE 001	76	.0209		.0204		
NEW YORK CITY						
SITE 014	76	.0359	.0262	.0323		.0315
NIAGARA FALLS						
SITE 001	76	.0114	.0298	.0101		.0171
ROCHESTER						
SITE 001	76	.0093	LD	.0204		
SYRACUSE						
SITE 001	76	.0122	.0112	LD		
UTICA						
SITE 001	76	.0216	.0180			
YONKERS						
SITE 001	76	.0254	LD	.0151		
NORTH CAROLINA						
CHARLOTTE						
SITE 001	76	.0093	.0130	LD	.0092	.0105

POLLUTANT : 12136 -NI- NICKEL
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0091
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 42

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NORTH CAROLINA						
DURHAM						
SITE 006	76		.0152	LD	.0243	
GREENSBORO						
SITE 009	76	.0114	.0316	LD	.0145	.0192
WINSTON-SALEM						
SITE 002	76	LD			.0111	
OHIO						
AKRON						
SITE 014	76	LD	.0213	.0179	.0158	.0183
CANTON						
SITE 001	76	.0246	.0515	.0428	LD	.0396
CINCINNATI						
SITE 001	76		.0185	LD	.0128	
CLEVELAND						
SITE 001	76	LD		.0212	.0164	
COLUMBUS						
SITE 001	76	.0200	.0217	.0260	.0164	.0210
DAYTON						
SITE 001	76	.0099	LD	.0174	.0145	.0139
PORTSMOUTH						
SITE 002	76			.0221		
STEUBENVILLE						
SITE 012	76	.0268	.0183	.0186	.0158	.0199
TOLEDO						
SITE 001	76	LD	.0151	LD	.0179	
YOUNGSTOWN						
SITE 001	76	LD	.0276	.0158	.0148	.0194

POLLUTANT : 12136 -NI- NICKEL
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0091
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 42

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
OKLAHOMA						
CHEROKEE CO						
SITE 480	76				LD	
TULSA						
SITE 110	76	LD	LD	LD	LD	
OREGON						
PORTLAND						
SITE 001	76	.0711	.0339		.0503	.0518
PENNSYLVANIA						
ALLENTOWN						
SITE 001	76	.0290	.0401	.0172		.0288
ALTOONA						
SITE 001	76	.0102		LD	.0111	
BETHLEHEM						
SITE 002	76	.0194	.0513	.0196	.0310	.0303
ERIE						
SITE 002	76	.0112	.0352	.0172	.0133	.0192
HARRISBURG						
SITE 361	76		.0229	.0158	.0206	.0148
HAZLETON						
SITE 001	76	.0165	.0208	LD	.0231	.0201
JOHNSTOWN						
SITE 803	76		.0331	.0146	.0300	.0259
LANCASTER CITY						
SITE 002	76	.0255	.0200	.0097	.0233	.0196
PHILADELPHIA						
SITE 004	76	.0371	.0417	.0198	.0343	.0332
PITTSBURGH						
SITE 001	76	.0174	.0354	.0503	.0165	.0299

POLLUTANT : 12136 -NI- NICKEL
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0091
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 42

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
PENNSYLVANIA						
READING						
SITE 001	76	.0262	.0332	.0274	.0344	.0303
SCRANTON						
SITE 001	76	.0159	.0171	LD	.0176	.0169
WARMINSTER						
SITE 002	76	.0249	.0264	.0157	.0370	.0260
WEST CHESTER						
SITE 110	76	.0305	.0485	.0140	.0280	.0303
WILKES-BARRE						
SITE 001	76	.0135	.0134	LD	LD	
YORK						
SITE 322	76	.0280	.0403		.0248	.0310
PUERTO RICO						
AMELIA						
SITE 001	76	.0286		.0240		
PONCE						
SITE 002	76	LD	LD	LD		
SEBANA SECA						
SITE 001	76	.0262	.0137	.0217		.0205
RHODE ISLAND						
EAST PROVIDENCE						
SITE 001	76	.0219	LD	.0166	.0201	.0195
PROVIDENCE						
SITE 001	76	.0368	.0251	.0188	.0403	.0303
SOUTH CAROLINA						
COLUMBIA						
SITE 001	76	.0181	.0127	LD	LD	
GREENVILLE						
SITE 001	76	.0216	.0183	LD	.0209	.0203

POLLUTANT : 12136 -NI- NICKEL
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0091
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 42

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
SOUTH DAKOTA						
SIOUX FALLS						
SITE 001	76	LD	LD	LD		
TENNESSEE						
CHATTANOOGA						
SITE 001	76	.0253	.0194	.0093	.0152	.0173
KNOXVILLE						
SITE 002	76	.0168	.0128	LD	.0101	.0132
MEMPHIS						
SITE 001	76	.0154	.0186	LD	.0227	.0189
NASHVILLE						
SITE 001	76	.0158	.0139	LD	.0202	.0166
TEXAS						
AMARILLO						
SITE 002	76				LD	
AUSTIN						
SITE 010	76			LD	LD	
BEAUMONT						
SITE 001	76	.0149	.0265	LD		
CORPUS CHRISTI						
SITE 001	76	LD	LD	LD	.0195	
DALLAS						
SITE 002	76		LD	LD		
FORT WORTH						
SITE 001	76	LD	LD	LD		
HOUSTON						
SITE 001	76	LD				
LUBBOCK						
SITE 001	76	LD			LD	

POLLUTANT : 12136 -NI- NICKEL
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0091
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 42

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
TEXAS						
PASADENA						
SITE 002	76		LD		.0395	
SAN ANTONIO						
SITE 034	76	LD	LD	LD		
WICHITA FALLS						
SITE 002	76	LD	LD	LD	LD	
UTAH						
OGDEN						
SITE 001	76	LD	LD			
SALT LAKE CITY						
SITE 001	76	LD	LD	LD	.0098	
VERMONT						
BURLINGTON						
SITE 003	76	.0361	LD			
VIRGINIA						
DANVILLE						
SITE 001	76	.0140	.0247	LD	.0161	.0183
MCLEAN						
SITE 001	76		LD	LD	.0119	
HAMPTON						
SITE 001	76	.0110	.0190	.0148	.0219	.0167
LYNCHBURG						
SITE 002	76		.0143	LD	LD	
NORFOLK						
SITE 001	76	.0446	.0406	LD	.0466	.0439
PORTSMOUTH						
SITE 001	76	.0352	.0419	.0158	.0349	.0320
RICHMOND						
SITE 002	76	.0277	.0285	.0144	.0344	.0263

POLLUTANT : 12136 -NI- NICKEL
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0091
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 42

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
VIRGINIA						
ROANOKE						
SITE 003	76	LD	LD	LD	LD	
WASHINGTON						
SEATTLE						
SITE 001	76	.0379	.0112	LD	.0446	.0312
SPOKANE						
SITE 001	76	LD		LD	.0152	
TACOMA						
SITE 001	76	.0477	LD		.0106	
WEST VIRGINIA						
CHARLESTON						
SITE 001	76	.0143	.0209	LD	.0159	.0170
HUNTINGTON						
SITE 005	76	.1047		.0862	.1699	.1203
SOUTH CHARLESTON						
SITE 001	76	LD	.0169	LD	LD	
WISCONSIN						
EAU CLAIRE						
SITE 002	76	LD	LD	LD	LD	
KENOSHA						
SITE 001	76	LD	.0132	LD		
MADISON						
SITE 001	76	LD	LD	LD	LD	
MILWAUKEE						
SITE 001	76	LD				
MILWAUKEE						
SITE 099	76				.0149	
RACINE						
SITE 002	76	.0126	.0195	LD	.0146	.0156

POLLUTANT : 12136 -NI- NICKEL
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0091
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 42

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
WISCONSIN						
SUPERIOR						
SITE 001	76		LD		LD	
WYOMING						
CHEYENNE						
SITE 001	76				LD	

POLLUTANT : 12136 -NI- NICKEL
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0091
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 42

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ARIZONA						
GRAND CANYON NAT P						
SITE 001	76	LD	.0380		LD	
ARKANSAS						
MONTGOMERY CO						
SITE 001	76	LD	LD	LD	.0211	
COLORADO						
MESA VERDE NAT PAR						
SITE 002	76	LD		LD	LD	
DELAWARE						
KENT CO						
SITE 001	76		LD	LD		
FLORIDA						
HARDEE CO						
SITE 001	76	LD	.0098			
HIGHLANDS CO.						
SITE 002	76				LD	
HAWAII						
HAWAII CO						
SITE 001	76		LD	.0124	LD	
HAWAII CO						
SITE 002	76	.0113	.0195			
IDAHO						
BUTTE CO						
SITE 001	76	LD				
INDIANA						
MONROE CO						
SITE 001	76		LD	LD	LD	
PARKE CO						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12136 -NI- NICKEL
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0091
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 42

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MAINE						
ACADIA NAT PARK						
SITE 001	76	.0110	LD	LD	LD	
MARYLAND						
CALVERT CO						
SITE 001	76	.0154	.0125	LD		
MISSISSIPPI						
JACKSON CO						
SITE 001	76	LD	.0104	LD	LD	
MISSOURI						
SHANNON CO						
SITE 002	76	LD	LD	LD	LD	
MONTANA						
GLACIER NAT PARK						
SITE 001	76	LD	LD		LD	
FORT HOWES						
SITE 008	76			LD	LD	
ASHLAND						
SITE 026	76	LD	LD	LD	LD	
NEBRASKA						
THOMAS CO						
SITE 001	76	LD	LD		LD	
NEVADA						
WHITE PINE CO						
SITE 001	76	LD		LD	LD	
NEW HAMPSHIRE						
COOS CO						
SITE 001	76		LD			
NEW YORK						
JEFFERSON CO						
SITE 001	76	.0092	LD			

POLLUTANT : 12136 -NI- NICKEL
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0091
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 42

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NORTH CAROLINA						
BUXTON						
SITE 002	76		.1493			
PENNSYLVANIA						
CLARION CO						
SITE 001	76		.0242	LD	LD	
INDIANA CO						
SITE 002	76	.0175			.0198	
RHODE ISLAND						
WASHINGTON CO						
SITE 002	76	LD	LD	LD	LD	
SOUTH CAROLINA						
RICHLAND CO						
SITE 002	76	.0124	LD	LD	LD	
SOUTH DAKOTA						
BLACK HILLS NAT FO						
SITE 001	76	LD	LD	LD	LD	
TENNESSEE						
CUMBERLAND CO						
SITE 001	76		.0122	LD	LD	
VERMONT						
ORANGE CO						
SITE 001	76	LD	LD	LD		
VIRGINIA						
SHENANDOAH NAT PAR						
SITE 001	76	.0156	LD		.0123	
WYTHE CO						
SITE 001	76	LD	.0188	LD	LD	
WISCONSIN						
DOOR CO						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12136 -NI- NICKEL
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0091
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 42

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
WYOMING						
YELLOWSTONE NAT PA						
SITE 001	76			LD	LD	

POLLUTANT : 12161 -TI- TITANIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0036
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 42 PRECISION (%) +- 40

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ALABAMA						
BIRMINGHAM						
SITE 003	76	.0114	LD		.0174	
GADSDEN						
SITE 001	76		LD	.0134	.0162	
HUNTSVILLE						
SITE 001	76	.0122	LD	.0117		
MOBILE						
SITE 001	76	.0078	LD	.0116		
MONTGOMERY						
SITE 001	76	.0095	.0154	.0185	.0098	.0133
ALASKA						
ANCHORAGE						
SITE 003	76	.0067			.0846	
FAIRBANKS						
SITE 001	76		.0546		.0402	
ARIZONA						
DOUGLAS						
SITE 004	76	.0565	.0359			
PHOENIX						
SITE 002	76	.0877	.0546	.0717		.0713
TUCSON						
SITE 001	76	.0449	.0609	.0298	.0388	.0436
ARKANSAS						
LITTLE ROCK						
SITE 001	76	.0281	.0380	.0754		.0472
TEXARKANA						
SITE 001	76	.0115	.0142	.0130	.0067	.0114
WEST MEMPHIS						
SITE 001	76	.0298	.0491	.0326	.0713	.0457

POLLUTANT : 12161 -TI- TITANIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0036
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 42 PRECISION (%) +- 40

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
CALIFORNIA						
ANAHEIM						
SITE 001	76	.0704	.0648	.0692	.0781	.0706
BERKELEY						
SITE 001	76	.0114	.0174	.0112	LD	.0133
BURBANK						
SITE 002	76	.0612	.0618	.0424	.0737	.0598
FRESNO						
SITE 002	76	.0977	.1050		.0998	.1008
LONG BEACH						
SITE 001	76	.0755	.0360	.0411	.0994	.0630
LOS ANGELES						
SITE 001	76	.0718	.0562	.0456	.0580	.0579
OAKLAND						
SITE 001	76	.0148	.0287		.0212	.0216
ONTARIO						
SITE 001	76		.1372	.1469	.1783	.1541
PASADENA						
SITE 002	76	.0442	.0450	.0431	.0466	.0447
SACRAMENTO						
SITE 001	76	.0112	.0469	.0367	.0709	.0414
SAN BERNARDINO						
SITE 001	76	.0699	.1175	.0424	.0737	.0759
SAN DIEGO						
SITE 004	76	.0537	.0383	.0240	.0430	.0398
SAN FRANCISCO						
SITE 001	76	.0099	.0257	.0112	.0288	.0189
SAN JOSE						
SITE 004	76	.0334	.0320	.0373	.0670	.0424

POLLUTANT : 12161 -TI- TITANIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0036
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 42 PRECISION (%) +- 40

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
CALIFORNIA						
SANTA ANA						
SITE 001	76	.0669	.0526	.0568	.0506	.0567
TORRANCE						
SITE 001	76	.0802	.0542	.0305	.0554	.0551
COLORADO						
DENVER						
SITE 001	76	.0372	.0200	.0294	.0825	.0423
CONNECTICUT						
BRIDGEPORT						
SITE 001	76	.0302	.0481	.0298	.0155	.0309
HARTFORD						
SITE 002	76	.0287	.0318	.0203	.0132	.0235
NEW HAVEN						
SITE 001	76	.0321	.0231	.0252	.0241	.0261
WATERBURY						
SITE 001	76	.0772				
WATERBURY						
SITE 123	76		.0507	.0206	.0493	.0402
DELAWARE						
NEWARK						
SITE 001	76	.0247	.0380	.0370	.0318	.0329
WILMINGTON						
SITE 002	76	.0674	.0129	.0362	.0213	.0345
DISTRICT OF COLUMBIA						
WASHINGTON						
SITE 001	76		.0142	.0228		
FLORIDA						
JACKSONVILLE						
SITE 002	76	.0078		.0094	.0062	.0078

POLLUTANT : 12161 -TI- TITANIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0036
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 42 PRECISION (%) +- 40

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
FLORIDA						
MIAMI						
SITE 002	76			.0066	LD	
ST PETERSBURG						
SITE 002	76				LD	
TAMPA						
SITE 002	76	.0071				
GEORGIA						
ATLANTA						
SITE 001	76	.0186	.0338	.0331		.0285
COLUMBUS						
SITE 001	76	.0235	.0261	.0195	.0167	.0215
SAVANNAH						
SITE 001	76	.1606	.0570	.0312	.0411	.0725
HAWAII						
MAUNA LOA OBSERV						
SITE 002	76			.0853		
HONOLULU						
SITE 001	76	.1254	.1441	.1159	.0372	.1057
IDAHO						
BOISE CITY						
SITE 001	76			.0486	.0191	
ILLINOIS						
BLUE ISLAND						
SITE 001	76	.0121	.0373		.0303	.0266
CHICAGO						
SITE 001	76	.0134		.0185	.0349	.0223
MOLINE						
SITE 001	76	.0133	.0206	.0132	.0357	.0207
NORTH CHICAGO						
SITE 002	76	.0073	.0271	.0198	.0308	.0213

POLLUTANT : 12161 -TI- TITANIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0036
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 42 PRECISION (%) +- 40

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ILLINOIS						
PEORIA						
SITE 001	76	.0356	.0974	.0451	.0774	.0639
ROCK ISLAND						
SITE 001	76	.0206	.0265	.0159	.0233	.0216
SPRINGFIELD						
SITE 001	76	.0096	.0230	.0093		.0140
INDIANA						
EAST CHICAGO						
SITE 001	76	.0247	.0502	.0307	.0456	.0378
EVANSVILLE						
SITE 001	76	.0118	.0219	.0206	.0261	.0201
FORT WAYNE						
SITE 002	76	.0070				
FORT WAYNE						
SITE 003	76			.0126		
GARY						
SITE 001	76	.0120	.0811	.0418	.0511	.0465
HAMMOND						
SITE 002	76	.0203	.0550	.0250	.0335	.0335
INDIANAPOLIS						
SITE 001	76	.0252	.0363	.0200		.0272
INDIANAPOLIS						
SITE 002	76				.0351	
NEW ALBANY						
SITE 002	76	.0139	.0226	.0160	.0302	.0207
SOUTH BEND						
SITE 002	76	.0053	.0192	.0084	.0343	.0168
TERRE HAUTE						
SITE 001	76	.0173	.0317	.0240	.0208	.0235

POLLUTANT : 12161 -TI- TITANIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0036
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 42 PRECISION (%) +- 40

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
IOWA						
CEDAR RAPIDS						
SITE 018	76	.0080	.0155	.0087	.0126	.0112
DAVENPORT						
SITE 001	76	.0169	.0264	.0111	.0332	.0219
DES MOINES						
SITE 001	76	.0175	.0223		.0346	.0248
DUBUQUE						
SITE 002	76	.0104	.0136	.0060	.0132	.0108
DUBUQUE						
SITE 008	76	.0105	.0101	.0169	.0105	.0120
WATERLOO						
SITE 004	76	.0324	.0175	.0190	.0300	.0247
KANSAS						
KANSAS CITY						
SITE 002	76	.0271				
KANSAS CITY						
SITE 012	76	.0386	.0373	.0241	.0402	.0351
KANSAS CITY						
SITE 015	76		.0361	.0241	.0412	.0338
TOPEKA						
SITE 001	76	.0163	.0156	.0102		.0140
WICHITA						
SITE 001	76	.0087	.0091	.0113	.0232	.0131
KENTUCKY						
ASHLAND						
SITE 002	76	.0536	.0361	.0286	.0506	.0422
BOWLING GREEN						
SITE 001	76	.0094	.0176	.0090	.0187	.0137

POLLUTANT : 12161 -TI- TITANIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0036
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 42 PRECISION (%) +- 40

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
KENTUCKY						
COVINGTON						
SITE 001	76	.0177	.0294	.0114	.0265	.0213
LEXINGTON						
SITE 001	76	.0205	.0138	.0113		.0152
LOUISVILLE						
SITE 002	76	.0210	.0256	.0222	.0294	.0246
LOUISIANA						
BATON ROUGE						
SITE 002	76	.0138		.0098	.0074	.0103
IBERVILLE PAR						
SITE 002	76	.0093	LD	LD	.0082	
NEW ORLEANS						
SITE 002	76	.0116	.0080		.0102	.0099
SHREVEPORT						
SITE 001	76	.0179	.0166	.0101		.0149
MAINE						
PORTLAND						
SITE 004	76		.0280			
MARYLAND						
BALTIMORE						
SITE 001	76	.0257	.0405	.0383	.0161	.0302
MASSACHUSETTS						
BOSTON						
SITE 001	76		.0201		.0108	
CAMBRIDGE						
SITE 001	76		.0242	.0093	.0127	.0154
FALL RIVER						
SITE 001	76		.0213	.0189	.0222	.0208
NEW BEDFORD						
SITE 002	76		.0204	.0130	.0085	.0140

POLLUTANT : 12161 -TI- TITANIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25°C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0036
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 42 PRECISION (%) +- 40

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MASSACHUSETTS						
WORCESTER						
SITE 004	76		.0274	.0154	.0204	.0211
MICHIGAN						
DETROIT						
SITE 001	76	.0141	.0226	.0214	.0344	.0231
FLINT						
SITE 008	76	.0103	.0130			
GRAND RAPIDS						
SITE 001	76	.0065	.0121	.0147	.0215	.0137
LANSING						
SITE 001	76	.0045	.0228	.0196	.0321	.0198
SAGINAW						
SITE 001	76	.0082	.0246	.0174	.0205	.0177
TRENTON						
SITE 004	76	.0071	.0298		.0217	.0195
MINNESOTA						
DULUTH						
SITE 001	76	.0168	.0459	.0212		.0280
MINNEAPOLIS						
SITE 001	76	.0147				
MINNEAPOLIS						
SITE 027	76		.0396	.0173	.0260	.0276
ST PAUL						
SITE 031	76	.0234	.0291	.0197	.0232	.0239
MISSISSIPPI						
JACKSON						
SITE 002	76	.0072	.0144	.0074	.0140	.0108
MISSOURI						
ST LOUIS						
SITE 001	76	.1458	.0654		.1452	.1188

POLLUTANT : 12161 -TI- TITANIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0036
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 42 PRECISION (%) +- 40

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MONTANA						
HELENA						
SITE 001	76			.0293	.0323	
NEBRASKA						
LINCOLN						
SITE 002	76	.0166	.0200	.0150	.0217	.0183
OMAHA						
SITE 030	76	.0316	.0164	.0204	.0227	.0228
NEVADA						
LAS VEGAS						
SITE 001	76			.0246	.0291	
RENO						
SITE 001	76			.0519	.1704	
NEW HAMPSHIRE						
CONCORD						
SITE 002	76	.0143				
NEW JERSEY						
BAYONNE						
SITE 001	76		.0191	.0238		
CAMDEN						
SITE 001	76	.0171	.0500	.0237		.0303
CAMDEN CO						
SITE 003	76	.0186		.0247		
ELIZABETH						
SITE 002	76	.0272	.0246	.0256		.0258
GLASSBORO						
SITE 001	76		.0116	.0115		
JERSEY CITY						
SITE 001	76	.0139	.0268	.0182		.0196
NEWARK						
SITE 001	76	.0147	.0172	.0151		.0157

POLLUTANT : 12161 -TI- TITANIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0036
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 42 PRECISION (%) +- 40

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NEW JERSEY						
PATERSON						
SITE 001	76	.0251	.0235	.0207		.0231
PERTH AMBOY						
SITE 001	76	.0466	.0682	.0345		.0498
TRENTON						
SITE 001	76	.0233	.0154	.0111		.0166
NEW MEXICO						
ALBUQUERQUE						
SITE 001	76		.0372		.0804	
NEW YORK						
ALBANY						
SITE 001	76	.0041				
BUFFALO						
SITE 001	76	.0148		.0165		
NEW YORK CITY						
SITE 014	76	.0140	.0223	.0182		.0182
NIAGARA FALLS						
SITE 001	76	.0218	.0625	.0379		.0407
ROCHESTER						
SITE 001	76	.0087	.0155	.0181		.0141
SYRACUSE						
SITE 001	76	.0085	.0074	.0066		.0075
UTICA						
SITE 001	76	.0080	.0116			
YONKERS						
SITE 001	76	.0095	.0060	.0139		.0098
NORTH CAROLINA						
CHARLOTTE						
SITE 001	76	.0297	.0428	.0196	.0289	.0303

POLLUTANT : 12161 -TI- TITANIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0036
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 42 PRECISION (%) +- 40

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NORTH CAROLINA						
DURHAM						
SITE 006	76		.0452	.0262	.0461	.0392
GREENSBORO						
SITE 009	76	.0336	.0398	.0273	.0357	.0341
WINSTON-SALEM						
SITE 002	76	.0465			.0761	
OHIO						
AKRON						
SITE 014	76	.0172	.0338	.0211	.0264	.0246
CANTON						
SITE 001	76	.0166	.0198	.0273	.0093	.0183
CINCINNATI						
SITE 001	76		.0266	.0220	.0272	.0253
CLEVELAND						
SITE 001	76	.0263		.0525	.0220	.0336
COLUMBUS						
SITE 001	76	.0116	.0230	.0142	.0162	.0163
DAYTON						
SITE 001	76	.0131	.0287	.0225	.0312	.0239
PORTSMOUTH						
SITE 002	76			.0143		
STEUBENVILLE						
SITE 012	76	.0624	.0750	.1282	.0470	.0782
TOLEDO						
SITE 001	76	.0151	.0198	.0132	.0156	.0159
YOUNGSTOWN						
SITE 001	76	.0295	.0522	.0352	.0258	.0357

POLLUTANT : 12161 -TI- TITANIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0036
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 42 PRECISION (%) +- 40

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
OKLAHOMA						
CHEROKEE CO						
SITE 480	76				.0095	
TULSA						
SITE 110	76	.0102	.0161	.0107	.0151	.0130
OREGON						
PORTLAND						
SITE 001	76	.0520	.0452		.0294	.0422
PENNSYLVANIA						
ALLENTOWN						
SITE 001	76	.0129	.0171	.0133		.0144
ALTOONA						
SITE 001	76	.0187		.0094	.0198	.0160
BETHLEHEM						
SITE 002	76	.0154	.0245	.0176	.0085	.0165
ERIE						
SITE 002	76	.0947	.0385	.0304	.0051	.0422
HARRISBURG						
SITE 361	76		.0221	.0147	.0092	.0115
HAZLETON						
SITE 001	76	.0473	.0151	.0099	.0125	.0212
JOHNSTOWN						
SITE 803	76		.0348	.0261	.0431	.0347
LANCASTER CITY						
SITE 002	76	.0141	.0230	.0152	.0186	.0177
PHILADELPHIA						
SITE 004	76	.0193	.0329	.0129	.0118	.0192
PITTSBURGH						
SITE 001	76	.0470	.0731	.0399	.0391	.0498

POLLUTANT : 12161 -TI- TITANIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0036
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 42 PRECISION (%) +- 40

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
PENNSYLVANIA						
READING						
SITE 001	76	.0121	.0219	.0117	.0141	.0150
SCRANTON						
SITE 001	76	.0240	.0290	.0139	.0150	.0205
WARMINSTER						
SITE 002	76	.0275	.0355	.0417	.0251	.0325
WEST CHESTER						
SITE 110	76	.0170	.0252	.0151	.0179	.0188
WILKES-BARRE						
SITE 001	76	.0096	.0137	.0075	.0128	.0109
YORK						
SITE 322	76	.0220	.0312		.0122	.0218
PUERTO RICO						
AMELIA						
SITE 001	76	.0208		.0324		
PONCE						
SITE 002	76	.0181	.0390	.0436		.0336
SEBANA SECA						
SITE 001	76	.0186	.0385	.0309		.0293
RHODE ISLAND						
EAST PROVIDENCE						
SITE 001	76	.0113	.0187	.0148	.0136	.0146
PROVIDENCE						
SITE 001	76	.0270	.0319	.0240	.0189	.0255
SOUTH CAROLINA						
COLUMBIA						
SITE 001	76	.0486	.0277	.0193	.0159	.0279
GREENVILLE						
SITE 001	76	.0200	.0267	.0184	.0206	.0214

POLLUTANT : 12161 -TI- TITANIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0036
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 42 PRECISION (%) +- 40

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
SOUTH DAKOTA						
SIOUX FALLS						
SITE 001	76	.0070	.0133	.0143		.0115
TENNESSEE						
CHATTANOOGA						
SITE 001	76	.0280	.0310	.0226	.0173	.0247
KNOXVILLE						
SITE 002	76	.0155	.0196	.0185	.0149	.0171
MEMPHIS						
SITE 001	76	.0163	.0285	.0116	.0205	.0192
NASHVILLE						
SITE 001	76	.0147	.0328	.0064	.0345	.0221
TEXAS						
AMARILLO						
SITE 002	76				.0182	
AUSTIN						
SITE 010	76			.0135	.0267	
BEAUMONT						
SITE 001	76	.0176	.0054	.0089		.0106
CORPUS CHRISTI						
SITE 001	76	.0297	LD	.0217	.0132	.0215
DALLAS						
SITE 002	76		.0298	.0093		
FORT WORTH						
SITE 001	76	.0166	.0077	.0096		.0113
HOUSTON						
SITE 001	76	.0218				
LUBBOCK						
SITE 001	76	.0331			.0199	

POLLUTANT : 12161 -TI- TITANIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0036
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 42 PRECISION (%) +- 40

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
TEXAS						
PASADENA						
SITE 002	76		.0119		.0147	
SAN ANTONIO						
SITE 034	76	.0280	.0095	.0148		.0174
WICHITA FALLS						
SITE 002	76	.0973	.0378	.0136	.0159	.0412
UTAH						
OGDEN						
SITE 001	76	.0192	.0163			
SALT LAKE CITY						
SITE 001	76	.0349	.0227	.0324	.0357	.0314
VERMONT						
BURLINGTON						
SITE 003	76	.0176	.0231			
VIRGINIA						
DANVILLE						
SITE 001	76	.0650	.0565	.0232	.0190	.0409
MCLEAN						
SITE 001	76		.0184	.0188	.0240	.0204
HAMPTON						
SITE 001	76	.0188	.0317	.0176	.0233	.0229
LYNCHBURG						
SITE 002	76		.0620	.0143	.0164	.0232
NORFOLK						
SITE 001	76	.0170	.0315	.0182	.0536	.0301
PORTSMOUTH						
SITE 001	76	.0311	.0347	.0141	.0139	.0235
RICHMOND						
SITE 002	76	.0268	.0250	.0153	.0174	.0211

POLLUTANT : 12161 -TI- TITANIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0036
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 42 PRECISION (%) +- 40

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
VIRGINIA						
ROANOKE						
SITE 003	76	.0133	.0140	.0132	.0159	.0141
WASHINGTON						
SEATTLE						
SITE 001	76	.0299	.0251	.0263	.0245	.0265
SPOKANE						
SITE 001	76	.1653		.1210	.0635	.1166
TACOMA						
SITE 001	76	.0309	.0181		.0081	.0190
WEST VIRGINIA						
CHARLESTON						
SITE 001	76	.0269	.0476	.0153	.0334	.0308
HUNTINGTON						
SITE 005	76	.0236		.0208	.0365	.0270
SOUTH CHARLESTON						
SITE 001	76	.0150	.0365	.0167	.0364	.0262
WISCONSIN						
EAU CLAIRE						
SITE 002	76	.0083	.0227	.0168	.0292	.0193
KENOSHA						
SITE 001	76	.0059	.0201	.0132		.0131
MADISON						
SITE 001	76	.0068	.0140	.0127	.0211	.0137
MILWAUKEE						
SITE 001	76	.0053				
MILWAUKEE						
SITE 099	76				.0161	
RACINE						
SITE 002	76	LD	.0141	.0118	.0170	.0143

POLLUTANT : 12161 -TI- TITANIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0036
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 42 PRECISION (%) +- 40

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
WISCONSIN						
SUPERIOR						
SITE 001	76		.0129		.0231	
WYOMING						
CHEYENNE						
SITE 001	76				.0051	

POLLUTANT : 12161 -TI- TITANIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0036
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 42 PRECISION (%) +- 40

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ARIZONA						
GRAND CANYON NAT P						
SITE 001	76	.0113	LD		.0060	
ARKANSAS						
MONTGOMERY CO						
SITE 001	76	.0147	.0134	.0123	.0347	.0188
COLORADO						
MESA VERDE NAT PAR						
SITE 002	76	.0048		.0051	LD	
DELAWARE						
KENT CO						
SITE 001	76		.0061	.0100		
FLORIDA						
HARDEE CO						
SITE 001	76	LD	.0069			
HIGHLANDS CO.						
SITE 002	76				LD	
HAWAII						
HAWAII CO						
SITE 001	76		.0039	.0070	LD	
HAWAII CO						
SITE 002	76	.0125	.0273			
IDAHO						
BUTTE CO						
SITE 001	76	.0092				
INDIANA						
MONROE CO						
SITE 001	76		.0104	.0094	.0174	.0124
PARKE CO						
SITE 001	76	.0125	.0101	.0043	.0124	.0098

POLLUTANT : 12161 -TI- TITANIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0036
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 42 PRECISION (%) +- 40

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MAINE						
ACADIA NAT PARK						
SITE 001	76	LD	.0677	.0110	.0712	.0500
MARYLAND						
CALVERT CO						
SITE 001	76	.0093	.0151	LD		
MISSISSIPPI						
JACKSON CO						
SITE 001	76	.0074	.0059	.0052	.0039	.0056
MISSOURI						
SHANNON CO						
SITE 002	76	.0043	.0039	.0069	.0100	.0063
MONTANA						
GLACIER NAT PARK						
SITE 001	76	LD	.0096		LD	
FORT HOWES						
SITE 008	76			.0076	LD	
ASHLAND						
SITE 026	76	LD	LD	.0252	.0045	
NEBRASKA						
THOMAS CO						
SITE 001	76	.0068	.0083		.0069	.0073
NEVADA						
WHITE PINE CO						
SITE 001	76	.0082		.0058	.0075	.0072
NEW HAMPSHIRE						
COOS CO						
SITE 001	76		LD			
NEW YORK						
JEFFERSON CO						
SITE 001	76	.0073	.0059			

POLLUTANT : 12161 -TI- TITANIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0036
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 42 PRECISION (%) +- 40

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NORTH CAROLINA						
BUXTON						
SITE 002	76		.0108			
PENNSYLVANIA						
CLARION CO						
SITE 001	76		.0135	.0084	.0113	.0111
INDIANA CO						
SITE 002	76	.0150			.0258	
RHODE ISLAND						
WASHINGTON CO						
SITE 002	76	.0057	.0145	.0144	LD	.0115
SOUTH CAROLINA						
RICHLAND CO						
SITE 002	76	.0126	.0211	LD	.0080	.0139
SOUTH DAKOTA						
BLACK HILLS NAT FO						
SITE 001	76	LD	.0071	.0049	LD	
TENNESSEE						
CUMBERLAND CO						
SITE 001	76		.0049	.0091	.0106	.0082
VERMONT						
ORANGE CO						
SITE 001	76	LD	.0054	LD		
VIRGINIA						
SHENANDOAH NAT PAR						
SITE 001	76	.0106	.0368		LD	
WYTHE CO						
SITE 001	76	LD	.0124	LD	LD	
WISCONSIN						
DOOR CO						
SITE 001	76	LD	.0050	.0041	.0205	.0099

POLLUTANT : 12161 -TI- TITANIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0036
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 42 PRECISION (%) +- 40

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
WYOMING						
YELLOWSTONE NAT PA						
SITE 001	76			.0053	LD	

POLLUTANT : 12164 - V- VANADIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0099
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ALABAMA						
BIRMINGHAM						
SITE 003	76	LD	LD		LD	
GADSDEN						
SITE 001	76		LD	LD	.0136	
HUNTSVILLE						
SITE 001	76	LD	LD	LD		
MOBILE						
SITE 001	76	LD	LD	LD		
MONTGOMERY						
SITE 001	76	LD	LD	LD	LD	
ALASKA						
ANCHORAGE						
SITE 003	76	LD			.0166	
FAIRBANKS						
SITE 001	76		LD		LD	
ARIZONA						
DOUGLAS						
SITE 004	76	LD	LD			
PHOENIX						
SITE 002	76	LD	.0151	LD		
TUCSON						
SITE 001	76	LD	LD	LD	LD	
ARKANSAS						
LITTLE ROCK						
SITE 001	76	LD	LD	LD		
TEXARKANA						
SITE 001	76	LD	LD	LD	LD	
WEST MEMPHIS						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12164 - V- VANADIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0099
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
CALIFORNIA						
ANAHEIM						
SITE 001	76	.0258	LD	.0271	.0212	.0247
BERKELEY						
SITE 001	76	LD	LD	LD	LD	
BURBANK						
SITE 002	76	.0133	LD	.0161	.0128	.0141
FRESNO						
SITE 002	76	.0116	LD		.0127	
LONG BEACH						
SITE 001	76	.0288	LD	.0357	.0235	.0293
LOS ANGELES						
SITE 001	76	.0215	.0139	.0172	.0164	.0173
OAKLAND						
SITE 001	76	.0103	LD		.0166	
ONTARIO						
SITE 001	76		.0172	.0176	.0195	.0181
PASADENA						
SITE 002	76	.0141	.0115	.0176	LD	.0144
SACRAMENTO						
SITE 001	76	LD	LD	LD	LD	
SAN BERNARDINO						
SITE 001	76	.0152	.0111	.0109	.0104	.0119
SAN DIEGO						
SITE 004	76	.0118	.0108	.0215	.0136	.0144
SAN FRANCISCO						
SITE 001	76	LD	LD	LD	.0191	
SAN JOSE						
SITE 004	76	LD	LD	LD	.0147	

POLLUTANT : 12164 - V- VANADIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0099
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
CALIFORNIA						
SANTA ANA						
SITE 001	76	.0244	LD	.0248	LD	
TORRANCE						
SITE 001	76	.0275	.0178	.0202	.0270	.0231
COLORADO						
DENVER						
SITE 001	76	LD	LD	LD	LD	
CONNECTICUT						
BRIDGEPORT						
SITE 001	76	.0414	.0255	.0253	.0231	.0288
HARTFORD						
SITE 002	76	.0644	.0286	.0315	.0826	.0518
NEW HAVEN						
SITE 001	76	.0781	.0421	.0531	.1156	.0722
WATERBURY						
SITE 001	76	.0379				
WATERBURY						
SITE 123	76		.0233	LD	.0385	
DELAWARE						
NEWARK						
SITE 001	76	.0349	.0347	.0338	.0561	.0399
WILMINGTON						
SITE 002	76	.0407	.0177	.0365	.0545	.0374
DISTRICT OF COLUMBIA						
WASHINGTON						
SITE 001	76		.0221	.0420		
FLORIDA						
JACKSONVILLE						
SITE 002	76	.0403		.0491	.0348	.0414

POLLUTANT : 12164 - V- VANADIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0099
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
FLORIDA						
MIAMI						
SITE 002	76			LD	.0205	
ST PETERSBURG						
SITE 002	76				.0767	
TAMPA						
SITE 002	76	.0126				
GEORGIA						
ATLANTA						
SITE 001	76	LD	LD	LD		
COLUMBUS						
SITE 001	76	LD	LD	LD	LD	
SAVANNAH						
SITE 001	76	.0528	.0355	.0186	.0619	.0422
HAWAII						
MAUNA LOA OBSERV						
SITE 002	76			LD		
HONOLULU						
SITE 001	76	.0800	.0829	.0666	.0396	.0673
IDAHO						
BOISE CITY						
SITE 001	76			LD	LD	
ILLINOIS						
BLUE ISLAND						
SITE 001	76	.0147	.0232		.0133	.0171
CHICAGO						
SITE 001	76	.0361		LD	.0292	
MOLINE						
SITE 001	76	LD	LD	LD	LD	
NORTH CHICAGO						
SITE 002	76	LD	LD	LD	LD	

POLLUTANT : 12164 - V- VANADIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0099
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ILLINOIS						
PEORIA						
SITE 001	76	LD	LD	LD	LD	
ROCK ISLAND						
SITE 001	76	LD	LD	LD	LD	
SPRINGFIELD						
SITE 001	76	LD	LD	LD		
INDIANA						
EAST CHICAGO						
SITE 001	76	.0485	LD	.0169	.0573	.0409
EVANSVILLE						
SITE 001	76	LD	LD	LD	LD	
FORT WAYNE						
SITE 002	76	LD				
FORT WAYNE						
SITE 003	76			LD		
GARY						
SITE 001	76	LD	LD	LD	.0136	
HAMMOND						
SITE 002	76	.0157	LD	LD	LD	
INDIANAPOLIS						
SITE 001	76	LD	LD	LD		
INDIANAPOLIS						
SITE 002	76				LD	
NEW ALBANY						
SITE 002	76	LD	LD	LD	LD	
SOUTH BEND						
SITE 002	76	LD	.0135	LD	.0120	
TERRE HAUTE						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12164 - V- VANADIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0099
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
IOWA						
CEDAR RAPIDS						
SITE 018	76	LD	LD	LD	LD	
DAVENPORT						
SITE 001	76	LD	LD	LD	LD	
DES MOINES						
SITE 001	76	LD	LD		LD	
DUBUQUE						
SITE 002	76	LD	LD	LD	LD	
DUBUQUE						
SITE 008	76	LD	LD	LD	LD	
WATERLOO						
SITE 004	76	LD	LD	LD	LD	
KANSAS						
KANSAS CITY						
SITE 002	76	.0161				
KANSAS CITY						
SITE 012	76	.0156	.0118	.0110	.0162	.0137
KANSAS CITY						
SITE 015	76		LD	LD	.0109	
TOPEKA						
SITE 001	76	LD	LD	LD		
WICHITA						
SITE 001	76	LD	LD	LD	LD	
KENTUCKY						
ASHLAND						
SITE 002	76	LD	LD	LD	LD	
BOWLING GREEN						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12164 - V- VANADIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0099
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
KENTUCKY						
COVINGTON						
SITE 001	76	LD	LD	LD	LD	
LEXINGTON						
SITE 001	76	LD	LD	LD		
LOUISVILLE						
SITE 002	76	LD	LD	LD	LD	
LOUISIANA						
BATON ROUGE						
SITE 002	76	LD		LD	LD	
IBERVILLE PAR						
SITE 002	76	LD	LD	LD	LD	
NEW ORLEANS						
SITE 002	76	LD	LD		LD	
SHREVEPORT						
SITE 001	76	LD	LD	LD		
MAINE						
PORTLAND						
SITE 004	76		.0716			
MARYLAND						
BALTIMORE						
SITE 001	76	.0509	.0390	.0586	.0358	.0461
MASSACHUSETTS						
BOSTON						
SITE 001	76		.0310		.0557	
CAMBRIDGE						
SITE 001	76		.0456	.0216	.0353	.0342
FALL RIVER						
SITE 001	76		.0300	.0218	.0594	.0371
NEW BEDFORD						
SITE 002	76		.0316	.0146	.0258	.0240

POLLUTANT : 12164 - V- VANADIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0099
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MASSACHUSETTS						
WORCESTER						
SITE 004	76		.0250	.0215	.0439	.0301
MICHIGAN						
DETROIT						
SITE 001	76	LD	LD	LD	LD	
FLINT						
SITE 008	76	LD	LD			
GRAND RAPIDS						
SITE 001	76	LD	LD	LD	LD	
LANSING						
SITE 001	76	LD	LD	LD	LD	
SAGINAW						
SITE 001	76	LD	LD	LD	LD	
TRENTON						
SITE 004	76	LD	LD		LD	
MINNESOTA						
DULUTH						
SITE 001	76	LD	LD	LD		
MINNEAPOLIS						
SITE 001	76	LD				
MINNEAPOLIS						
SITE 027	76		LD	LD	LD	
ST PAUL						
SITE 031	76	.0125	LD	LD	.0139	
MISSISSIPPI						
JACKSON						
SITE 002	76	LD	LD	LD	LD	
MISSOURI						
ST LOUIS						
SITE 001	76	LD	LD		LD	

POLLUTANT : 12164 - V- VANADIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0099
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MONTANA						
HELENA						
SITE 001	76			LD	LD	
NEBRASKA						
LINCOLN						
SITE 002	76	LD	LD	LD	.0113	
OMAHA						
SITE 030	76	LD	LD	LD	LD	
NEVADA						
LAS VEGAS						
SITE 001	76			LD	LD	
RENO						
SITE 001	76			LD	.0168	
NEW HAMPSHIRE						
CONCORD						
SITE 002	76	.0578				
NEW JERSEY						
BAYONNE						
SITE 001	76		.0406	.0474		
CAMDEN						
SITE 001	76	.0573	.0492	.0368		.0478
CAMDEN CO						
SITE 003	76	.0323		.0286		
ELIZABETH						
SITE 002	76	.0580	.0342	.0355		.0426
GLASSBORO						
SITE 001	76		LD	.0135		
JERSEY CITY						
SITE 001	76	.0516	.0469	.0352		.0446
NEWARK						
SITE 001	76	.0542	.0216	.0173		.0310

POLLUTANT : 12164 - V- VANADIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0099
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NEW JERSEY						
PATERSON						
SITE 001	76	.0604	.0116	.0249		.0323
PERTH AMBOY						
SITE 001	76	.0496	.0238	.0217		.0317
TRENTON						
SITE 001	76	.0475	.0143	.0144		.0254
NEW MEXICO						
ALBUQUERQUE						
SITE 001	76		LD		LD	
NEW YORK						
ALBANY						
SITE 001	76	.1590				
BUFFALO						
SITE 001	76	.0170		LD		
NEW YORK CITY						
SITE 014	76	.0684	.0339	.0391		.0471
NIAGARA FALLS						
SITE 001	76	.0197	LD	LD		
ROCHESTER						
SITE 001	76	.0146	.0190	.0287		.0208
SYRACUSE						
SITE 001	76	.0163	.0107	.0103		.0124
UTICA						
SITE 001	76	.0651	.0366			
YONKERS						
SITE 001	76	.0628	.0230	.0371		.0410
NORTH CAROLINA						
CHARLOTTE						
SITE 001	76	.0380	.0301	.0220	.0351	.0313

POLLUTANT : 12164 - V- VANADIUM
METHOD : HI-VOL ATOMIC ABSORPTION
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ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0099
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NORTH CAROLINA						
DURHAM						
SITE 006	76		.0298	.0450	.1086	.0611
GREENSBORO						
SITE 009	76	.0423	.0254	.0316	.0402	.0349
WINSTON-SALEM						
SITE 002	76	.0266			.0669	
OHIO						
AKRON						
SITE 014	76	LD	LD	LD	LD	
CANTON						
SITE 001	76	LD	LD	LD	LD	
CINCINNATI						
SITE 001	76		LD	LD	LD	
CLEVELAND						
SITE 001	76	LD		LD	LD	
COLUMBUS						
SITE 001	76	LD	LD	LD	LD	
DAYTON						
SITE 001	76	LD	LD	LD	LD	
PORTSMOUTH						
SITE 002	76			LD		
STEUBENVILLE						
SITE 012	76	LD	.0143	.0141	LD	
TOLEDO						
SITE 001	76	LD	LD	LD	LD	
YOUNGSTOWN						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12164 - V- VANADIUM
METHOD : HI-VOL ATOMIC ABSORPTION
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DATA TYPE : QUARTERLY COMPOSITE - URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0099
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
OKLAHOMA						
CHEROKEE CO						
SITE 480	76				LD	
TULSA						
SITE 110	76	LD	LD	LD	LD	
OREGON						
PORTLAND						
SITE 001	76	.0517	.0223		.0228	.0323
PENNSYLVANIA						
ALLENTOWN						
SITE 001	76	.0872	.0497	.0599		.0656
ALTOONA						
SITE 001	76	LD		LD	LD	
BETHLEHEM						
SITE 002	76	.0386	.0680	.0506	.0412	.0496
ERIE						
SITE 002	76	LD	LD	LD	LD	
HARRISBURG						
SITE 361	76		.0257	.0336	.0474	.0267
HAZLETON						
SITE 001	76	.0205	LD	LD	LD	
JOHNSTOWN						
SITE 803	76		LD	LD	LD	
LANCASTER CITY						
SITE 002	76	.0736	.0294	.0277	.0561	.0467
PHILADELPHIA						
SITE 004	76	.0474	.0353	.0331	.0588	.0437
PITTSBURGH						
SITE 001	76	LD	.0158	LD	LD	

POLLUTANT : 12164 - V- VANADIUM
METHOD : HI-VOL ATOMIC ABSORPTION
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ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0099
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
PENNSYLVANIA						
READING						
SITE 001	76	.0536	.0638	.0720	.0761	.0664
SCRANTON						
SITE 001	76	.0206	.0167	LD	.0198	.0190
WARMINSTER						
SITE 002	76	.0416	.0291	.0229	.0622	.0390
WEST CHESTER						
SITE 110	76	.0578	.0276	.0237	.0457	.0387
WILKES-BARRE						
SITE 001	76	.0206	LD	LD	LD	
YORK						
SITE 322	76	.0739	.0878		.0711	.0776
PUERTO RICO						
AMELIA						
SITE 001	76	.0697		.0834		
PONCE						
SITE 002	76	LD	.0251	.0163		
SEBANA SECA						
SITE 001	76	.0556	.0313	.0306		.0392
RHODE ISLAND						
EAST PROVIDENCE						
SITE 001	76	.0626	.0264	.0343	.0572	.0451
PROVIDENCE						
SITE 001	76	.1119	.0742	.0462	.1412	.0934
SOUTH CAROLINA						
COLUMBIA						
SITE 001	76	.0356	LD	.0154	.0413	.0308
GREENVILLE						
SITE 001	76	.0491	.0445	.0563	.0761	.0565

POLLUTANT : 12164 - V- VANADIUM
METHOD : HI-VOL ATOMIC ABSORPTION
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ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0099
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
SOUTH DAKOTA						
SIOUX FALLS						
SITE 001	76	LD	LD	LD		
TENNESSEE						
CHATTANOOGA						
SITE 001	76	LD	LD	LD	.0107	
KNOXVILLE						
SITE 002	76	LD	LD	LD	LD	
MEMPHIS						
SITE 001	76	LD	LD	LD	.0176	
NASHVILLE						
SITE 001	76	LD	LD	LD	LD	
TEXAS						
AMARILLO						
SITE 002	76				LD	
AUSTIN						
SITE 010	76			.0140	.0152	
BEAUMONT						
SITE 001	76	LD	LD	LD		
CORPUS CHRISTI						
SITE 001	76	LD	LD	.0170	.0183	
DALLAS						
SITE 002	76		LD	LD		
FORT WORTH						
SITE 001	76	LD	LD	LD		
HOUSTON						
SITE 001	76	LD				
LUBBOCK						
SITE 001	76	LD			LD	

POLLUTANT : 12164 - V- VANADIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
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ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0099
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
TEXAS						
PASADENA						
SITE 002	76		LD		LD	
SAN ANTONIO						
SITE 034	76	LD	LD	LD		
WICHITA FALLS						
SITE 002	76	LD	LD	LD	LD	
UTAH						
OGDEN						
SITE 001	76	LD	LD			
SALT LAKE CITY						
SITE 001	76	.0113	LD	LD	.0110	
VERMONT						
BURLINGTON						
SITE 003	76	.0463	.0130			
VIRGINIA						
DANVILLE						
SITE 001	76	.0267	.0307	.0160	.0242	.0244
MCLEAN						
SITE 001	76		LD	.0195	.0210	
HAMPTON						
SITE 001	76	.0419	.0214	.0409	.0543	.0396
LYNCHBURG						
SITE 002	76		.0103	LD	LD	
NORFOLK						
SITE 001	76	.1117	.1266	.0612	.1648	.1161
PORTSMOUTH						
SITE 001	76	.1688	.0989	.0496	.0971	.1036
RICHMOND						
SITE 002	76	.1402	.0873	.0628	.1119	.1006

POLLUTANT : 12164 - V- VANADIUM
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ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0099
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
VIRGINIA						
ROANOKE						
SITE 003	76	LD	LD	LD	.0183	
WASHINGTON						
SEATTLE						
SITE 001	76	.0261	LD	LD	.0220	
SPOKANE						
SITE 001	76	.0136		LD	.0111	
TACOMA						
SITE 001	76	.0336	LD		LD	
WEST VIRGINIA						
CHARLESTON						
SITE 001	76	LD	LD	LD	LD	
HUNTINGTON						
SITE 005	76	LD		LD	LD	
SOUTH CHARLESTON						
SITE 001	76	LD	LD	LD	LD	
WISCONSIN						
EAU CLAIRE						
SITE 002	76	LD	LD	LD	LD	
KENOSHA						
SITE 001	76	LD	LD	LD		
MADISON						
SITE 001	76	LD	LD	LD	LD	
MILWAUKEE						
SITE 001	76	LD				
MILWAUKEE						
SITE 099	76				LD	
RACINE						
SITE 002	76	LD	LD	LD	LD	

POLLUTANT : 12164 - V- VANADIUM
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ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0099
95 PERCENT CONFIDENCE LIMITS
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LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
WISCONSIN						
SUPERIOR						
SITE 001	76		LD		LD	
WYOMING						
CHEYENNE						
SITE 001	76				LD	

POLLUTANT : 12164 - V- VANADIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0099
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
ARIZONA						
GRAND CANYON NAT P						
SITE 001	76	LD	LD		LD	
ARKANSAS						
MONTGOMERY CO						
SITE 001	76	LD	LD	LD	.0258	
COLORADO						
MESA VERDE NAT PAR						
SITE 002	76	LD		LD	LD	
DELAWARE						
KENT CO						
SITE 001	76		LD	.0207		
FLORIDA						
HARDEE CO						
SITE 001	76	LD	LD			
HIGHLANDS CO.						
SITE 002	76				.0120	
HAWAII						
HAWAII CO						
SITE 001	76		LD	LD	LD	
HAWAII CO						
SITE 002	76	LD	.0134			
IDAHO						
BUTTE CO						
SITE 001	76	LD				
INDIANA						
MONROE CO						
SITE 001	76		LD	LD	LD	
PARKE CO						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12164 - V- VANADIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0099
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
MAINE						
ACADIA NAT PARK						
SITE 001	76	LD	LD	LD	LD	
MARYLAND						
CALVERT CO						
SITE 001	76	.0261	.0134	LD		
MISSISSIPPI						
JACKSON CO						
SITE 001	76	LD	LD	LD	LD	
MISSOURI						
SHANNON CO						
SITE 002	76	LD	LD	LD	LD	
MONTANA						
GLACIER NAT PARK						
SITE 001	76	LD	LD		LD	
FORT HOWES						
SITE 008	76			LD	LD	
ASHLAND						
SITE 026	76	LD	LD	LD	LD	
NEBRASKA						
THOMAS CO						
SITE 001	76	LD	LD		LD	
NEVADA						
WHITE PINE CO						
SITE 001	76	LD		LD	LD	
NEW HAMPSHIRE						
COOS CO						
SITE 001	76		LD			
NEW YORK						
JEFFERSON CO						
SITE 001	76	.0150	.0111			

POLLUTANT : 12164 - V- VANADIUM
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ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0099
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
NORTH CAROLINA						
BUXTON						
SITE 002	76		LD			
PENNSYLVANIA						
CLARION CO						
SITE 001	76		LD	LD	LD	
INDIANA CO						
SITE 002	76	LD			LD	
RHODE ISLAND						
WASHINGTON CO						
SITE 002	76	.0144	LD	LD	LD	
SOUTH CAROLINA						
RICHLAND CO						
SITE 002	76	.0214	LD	LD	LD	
SOUTH DAKOTA						
BLACK HILLS NAT FO						
SITE 001	76	LD	LD	LD	LD	
TENNESSEE						
CUMBERLAND CO						
SITE 001	76		LD	LD	LD	
VERMONT						
ORANGE CO						
SITE 001	76	LD	LD	LD		
VIRGINIA						
SHENANDOAH NAT PAR						
SITE 001	76	LD	LD		LD	
WYTHE CO						
SITE 001	76	LD	LD	LD	LD	
WISCONSIN						
DOOR CO						
SITE 001	76	LD	LD	LD	LD	

POLLUTANT : 12164 - V- VANADIUM
METHOD : HI-VOL ATOMIC ABSORPTION
UNITS : UG/CU METER (25 C)
DATA TYPE : QUARTERLY COMPOSITE - NON-URBAN

ANALYTICAL QUALITY
ANALYTICAL DISCRIMINATION LIMIT (LD) .0099
95 PERCENT CONFIDENCE LIMITS
BIAS (%) 21 PRECISION (%) +- 22

LOCATION	YR	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	YR. AVG.
WYOMING						
YELLOWSTONE NAT PA						
SITE 001	76			LD	LD	

TECHNICAL REPORT DATA
(Please read Instructions on the reverse before completing)

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4. TITLE AND SUBTITLE AIR QUALITY DATA FOR METALS 1976 FROM THE NATIONAL AIR SURVEILLANCE NETWORKS		5. REPORT DATE August 1979
		6. PERFORMING ORGANIZATION CODE
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16. ABSTRACT

Particulate pollutant data gathered during calendar year 1976 by the cooperating stations of the National Air Surveillance Networks (NASN) provide the basis for listing the urban and nonurban concentrations of 11 metallic ions in suspended particulate matter.

The data are presented as a composite concentration value for each site for each of the four quarters of the calendar year; a yearly average is reported whenever valid data for all four quarters are obtained.

Four previous EPA publications, APTD-0978, APTD-1467, EPA 600/4-76-041 and EPA 600/4-78-059 list the concentrations of these metals in suspended particulate matter collected during 1966 and 1967, 1968 and 1969, 1970 through 1974 and 1975 respectively. In this report overall national summaries are compared for the years 1970 through 1976.

17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
Metals containing organic compounds Air pollution Monitors Quality control	NASN	68A 43F

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