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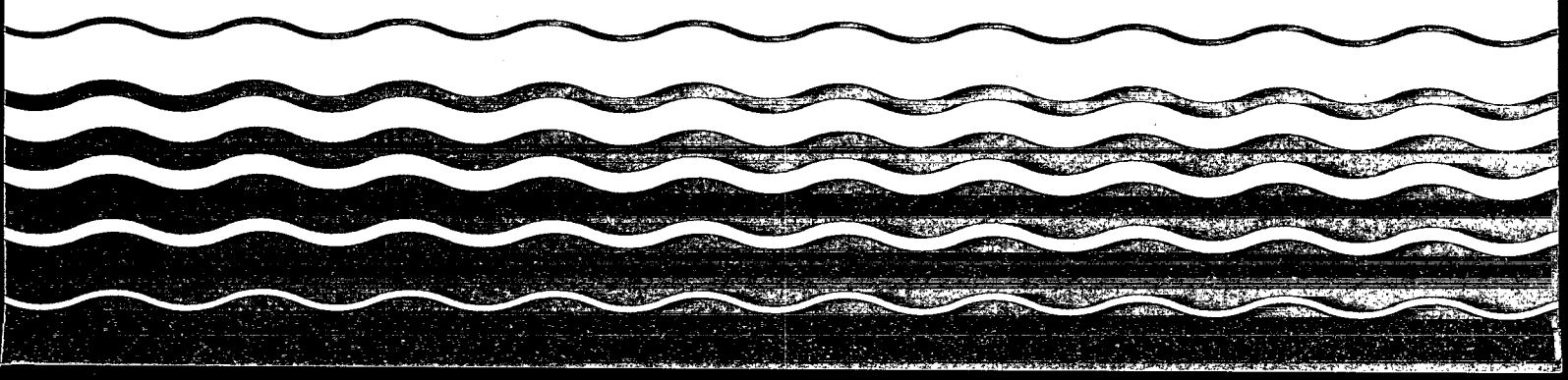

STATISTICAL SUPPORT DOCUMENT

FOR PROPOSED EFFLUENT LIMITATIONS GUIDELINES AND STANDARDS

FOR THE LANDFILLS POINT SOURCE CATEGORY

(EPA 821-B-97-006)

U.S. Environmental Protection Agency

Office of Water

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TABLE OF CONTENTS

1. Overview of BPT Statistical Analyses

The Development Document for Proposed Effluent Limitations Guidelines and Standards for the Landfills Point Source Category (EPA 821-R-97-022) describes the evaluation and selection of (a) pollutants of concern, (b) pollutants proposed for limitations, (c) treatment technology options, and (d) facilities and sample points for which effluent sampling data was used to develop the proposed limitations. In general, facilities are selected on the basis of the types of treatment systems in place and having treatable concentrations of pollutants in the waste stream influent to the treatment system. Sample points (for analyses leading to limitations, reported herein) are selected to obtain effluent from the treatment process or combination of processes representing BPT treatment.

This document discusses in detail how effluent sampling data for selected pollutants and facilities were used to develop the proposed BPT effluent limitations. The document provides an overview of the statistical analyses; describes the sources of data; describes the modified delta-lognormal distribution which was used to derive the proposed limitations; and evaluates an alternative statistical model which was considered in developing the limitations.

EPA proposed effluent limitations for two subcategories: Non-Hazardous (Subtitle D), and Hazardous (Subtitle C). For each subcategory, EPA evaluated a number of technology options, and proposed BPT limitations guidelines for one selected technology option in each subcategory. Proposed BAT treatment was based upon BPT treatment. The proposed BPT option for the Non-Hazardous subcategory was equalization plus biological treatment, and for the Hazardous subcategory the proposed option was equalization plus biological treatment plus metals precipitation. For the Non-Hazardous landfills subcategory, EPA proposed limitations for the following pollutants: alpha-terpineol, ammonia, benzoic acid, BOD_5, p-cresol, phenol, toluene, TSS, and zinc. For the Hazardous landfills subcategory, EPA proposed limitations for the following pollutants: alpha-terpineol, ammonia, aniline, arsenic, benzoic acid, BOD_5, chromium, naphthalene, p-cresol, phenol, pyridine, toluene, TSS, and zinc. Limits were also set for pH, not reported here, based on engineering judgement and common practice.

Having selected BPT facilities, sample points, and pollutants, calculations were made as follows, separately for each subcategory. Sampling data were aggregated, if necessary, by combining duplicates and grab samples, to produce one concentration value per day. Then daily sampling data were used to produce summary statistics and parameter estimates (long-term averages or LTAs, and variability factors or VFs) for each combination of facility, sample point, and pollutant. These statistics and estimates are referred to herein as "facility-specific statistics" or "facility-specific estimates". Then, for each pollutant, LTAs and VFs were combined (aggregated) for all facilities (usually there is only one effluent sampling point per facility at this stage of analysis). The median of the facility-specific LTAs was used as the (aggregate) long-term average for that pollutant within a subcategory. The average of the reported facility-specific VFs was used as the (aggregate) variability factor for that pollutant within a subcategory. Each Limitation is the product of an aggregate long-term average and an aggregate variability factor. Details of these statistical procedures and calculations are provided below.

Different variability factors must be estimated for different proposed frequencies of monitoring. Typical monitoring frequencies are daily (weekdays; about twenty days per month) and weekly (about four days per month). EPA establishes maximum limitations for monthly averages as well as for daily measurements. Herein, monthly average limitations were proposed for only one frequency of monitoring, either four or twenty days per month, for each pollutant.

2. Description of Data Sources

The data used to calculate the proposed limitations were derived from two sources: (1) EPA's sampling effort ("SCC" data), and (2) self-monitoring data submitted by landfill facilities in response to a detailed monitoring questionnaire ("DMQ").

"SCC" refers to EPA's Sample Control Center. The SCC data base contains the results of five-day sampling episodes, conducted or supervised by EPA. "Episode" describes a sampling program conducted on five consecutive days at a particular facility. These SCC sampling episodes were conducted at six facilities between April 1995 and September 1995. For SCC data, five analytical data values were available in most cases for each pollutant at each sampling point. Three of these facilities were selected to represent BPT treatment, and were used as a source of data for developing limitations (Appendix B).

For all pollutants but "oil & grease", each daily sample was a 24-hour composite sample (six grab samples were taken once every four hours over a 24-hour period, and were physically combined). Grab samples to be analyzed for "oil & grease" were taken on the same schedule, but were not physically combined; analytical data for these grab samples were arithmetically aggregated into a daily value as described later (however, no limitations were proposed and thus no statistics are presented herein for "oil & grease"). At one facility (identified as SCC number 4721), SCC samples were taken for only four consecutive days because the landfill used a batch treatment system that made four batch treatment runs each week.

The second source of data was self-monitoring data supplied by twenty-six facilities in response to a questionnaire ("DMQ", Detailed Monitoring Questionnaire) sent to selected facilities by EPA in 1995. This data covered one or more years in the range 1992-1994, depending on the facility and sampling point. The sampling frequency varied from daily to monthly depending on the facility, sampling point, and pollutant. The facilities to be surveyed were selected using information they supplied in the Detailed Questionnaire, and were chosen to represent possible BPT and BAT treatment technologies. Eight of these facilities were selected to represent BPT treatment, and were used as a source of data for developing limitations (Appendix B).

In some cases, data from these two sources (SCC and DMQ) were available for the same facility. In such cases, data from the two sources were analyzed separately when estimating averages and variability factors.

A listing of the data used to support BPT limitations development can be found in Appendix D. Extensive documentation of the data quality reviews can be found in the record for the notice of proposed rulemaking.

3. Description of Data Conventions

This section discusses the types of data in the landfills analytical data base and the hierarchy and procedures for data aggregation.

3.1 Data Review

The analytical sampling data in the analytical data bases were thoroughly reviewed by EPA. During this review, the integrity of each sample was assessed to ensure that all specifications of the sampling protocol were met. The reviewers determined that some samples should be excluded from the analyses. These samples were flagged in the data base in a field labeled "SCC Qualifier." Samples with flags of "EXCLUDE" or "DETECTED" (a value was detected but the concentration value was not recorded) were excluded from analyses.

Also, during the data review, several samples were qualified as greater than, ">", the concentration value reported in the data base. These samples were handled as right-censored samples in the analyses with a lower bound equal to the reported concentration.

An engineering review of the data base also was conducted and a few additional data values were excluded from the analyses for the reasons summarized in the record for the proposed rulemaking.

3.2 Data Types

The landfills analytical data base (from the SCC sampling effort and the questionnaire) contains the following three different types of samples delineated by certain qualifiers in the data base:

- **Noncensored (NC):** a measured value, i.e., a sample measured above the minimum level of detection for the specified analytical method

- **Nondetect (ND):** samples for which analytical measurement did not yield a concentration above the sample-specific detection limit. These detection limits were either the Minimum Level (ML), or, for metals, the Instrument Detection Limit (IDL). Statistical analyses used non-detect values as they were reported in datasets.

- **Right-censored (RC):** these samples were qualified with a greater than (>) sign, signifying that the reported value is considered a lower limit of the actual concentration.

The landfills effluent concentration data were characterized by a large number of measurements reported as below the detection limit (ND). These detection limits were sample specific and, for many pollutants, covered a wide range of values.

3.3 Data Aggregation

Data aggregation for the landfills analytical data was performed in two situations, (1) when there were multiple grab samples for a given pollutant, sample date and sample point, and (2) when duplicate samples (field duplicates) were collected.

In SCC sampling episodes, six grab samples were taken once every four hours over a 24-hour period. These were physically combined into one daily, 24-hour composite sample in the case of all analytes except oil & grease, for which the six grab samples were chemically analyzed separately. For oil & grease, analytical data for the grab samples were arithmetically aggregated into a daily value as described below.

Field duplicates are defined as samples collected at a particular sampling point at approximately the same time on a given day, assigned different sample numbers, and flagged as duplicates for a single episode number.

Data are aggregated in order to assign one concentration value to each sample point on a given sampling date. The arithmetic average of measurements for four grab samples, taken six hours apart over a 24-hour period, should approximate in value and precision a measurement made on a composite sample (a similar set of four grab samples combined physically before analysis). When samples have been collected in both these ways, a consistent and meaningful comparison of data requires arithmetic compositing (aggregation) of grab samples over the 24-hour period so these can be compared with physically composited sample data.

3.3.1 Data Aggregation Across Multiple Grabs and Field Duplicates

If a given sample date and sample point ("sample set") had both multiple grabs and field duplicates, the multiple grabs were aggregated first, then duplicates were aggregated. When all of the samples in a set were noncensored, detected samples, the arithmetic average of the samples was used. When one or more of the samples was nondetect or right-censored, the following methods were used to combine data. When a noncensored (NC) sample and a nondetected (ND) sample were combined, the sample was labeled mid-censored (MC), that is, a censored sample whose true value lies between two non-zero bounds (lower and upper). For instance, the lower bound of the average is probably not zero (since one of the samples was detected), but instead would equal the average of the NC and 0 (the lowest possible value of the nondetect). Similarly, the upper bound would equal the average of the NC and the detection limit of the ND (the highest possible value of the nondetect). Thus, the lower and upper bounds for this type of mid-censored data point are

lower: NC/2
upper: (NC + ND)/2

where the value of ND is the detection limit for the nondetected sample, and the value of NC is the observed concentration value. Tables 3-1 and 3-2 and the following two sections outline in greater detail the methods for combining multiple grabs and field duplicate samples, respectively, for the statistical analyses.

3.3.2 Aggregation of Multiple Grab Samples

If a sample set had both multiple grabs and field duplicates, the multiple grabs were aggregated first. Within the SCC database, three pollutants, Oil and Grease (as HEM), Total Petroleum hydrocarbon (as SGT-HEM), and Total Recoverable Oil and Grease, reported concentrations for multiple grab samples taken during one-day sampling periods.

Multiple grab samples were aggregated within each sampling day/sample point combination. The aggregation of the multiple grab samples was performed as identified in Table 3-1.

3.3.3 Aggregation of Duplicates

Another type of data aggregation for the Landfill SCC data was performed due to the identification of duplicates in the data base. The duplicates are assumed to be field duplicates, which are defined as one or

more samples collected for a particular sampling point at approximately the same time, assigned different sample numbers, and flagged as duplicates for a single episode number/sampling point. The aggregation method described in Table 3-2 was used.

Table 3-1.
Method for Averaging Lab Duplicate Samples

If observations are:	Label of "average"	Value of "average" is:
All NDs	ND	$\min(ND_1, ND_2)$
All NCs	NC	$(NC_1+NC_2)/2$
All RCs	RC	$\max(RC_1, RC_2)$
ND and NC	MC	lower bound: NC/2 upper bound: (ND+NC)/2
ND and RC	RC	((ND/2)+RC)/2
NC and RC: NC≥RC	NC	NC
NC and RC: NC<RC	RC	(NC+RC)/2

Table 3-2.
Method for Averaging Field Duplicate Samples

If observations are:	Label of "average"	Value of "average" is:
All NC	NC	$\Sigma NC_i/n$
All ND	ND	$\Sigma ND_i/n$
All RC	RC	$\Sigma RC_i/n$
All MC values	MC	lower bound: avg(MC_Ls) upper bound: avg(MC_Us)
NC and ND	MC	lower bound: NC/2 upper bound: (NC+ND)/2
NC and RC	RC	(NC + RC)/2
ND and RC	RC	((ND/2)+RC)/2
NC and MC	MC	lower bound: (MC_L+NC)/2 upper bound: (MC_U+NC)/2
MC and ND	MC	lower bound: MC_L/2 upper bound: (ND+MC_U)/2
MC and RC where $MC_U \geq RC$	MC	lower bound: RC upper bound: MC_U
MC and RC where $MC_U < RC$	MC	lower bound: MC_U upper bound: RC

NC = noncensored values
ND = nondetected values
RC = right-censored values
MC = mid-censored values (method uses a range in the calculations)
n = number of field duplicate samples

4. Statistical Methodology

4.1 Overview of Methodology and Applicability to the Landfills BPT Data Base

4.1.1 Basic Overview of Delta-lognormal Distribution

The lognormal distribution is often appropriate for modeling effluent data. However, the presence of nondetect and very low concentration measurements in the landfills effluent data led, for several reasons, to the consideration of a modification to the lognormal distribution in modeling such data. First, the lognormal model assumes that all concentration values are positively-valued. Second, the actual values of nondetects are not known, though each nondetect has a concentration somewhere between zero and the

reported detection limit. In this sense, nondetect measurements represent in statistical terms what are known as **censored** samples.

In general, censored samples are measurements bounded either by an upper or lower numerical limit for which the exact value is not known. Nondetects qualify in this framework as **left-censored** samples, which have an upper bound at the detection limit and a lower bound at zero. To model nondetects as left-censored samples under a strictly lognormal density model, it is necessary to assume that the exact (but unknown) values of these measurements follow the same lognormal distributional pattern as the rest of the detected measurements and that they are positively-valued (i.e., greater than zero).

For all these reasons, two reasonably simple modifications to the lognormal density model have been used by EPA for several years. The first modification is known as the classical delta-lognormal model, first used in economic analysis to model income and revenue patterns (see Aitchison and Brown, 1969). In this adaptation of the simple lognormal density, the model is expanded to include zero amounts. To do this, all positive (dollar) amounts are grouped together and fit to a lognormal density. Then all zero amounts are segregated into another group of measurements representing a discrete distributional "spike" at zero. The resulting mixed distribution, combining a continuous density portion with a discrete-valued spike, is known as the delta-lognormal distribution. The delta in the name refers to the percentage of the overall distribution contained in the spike at zero, that is, the percentage of zero amounts.

Kahn and Rubin (1989) further adapted the classical delta-lognormal model ("adapted model") to account for nondetect measurements in the same fashion that zero measurements were handled in the original delta-lognormal. Instead of zero amounts and non-zero, positive amounts, the data consisted of nondetects and detects. Rather than assuming that nondetects represented a spike of zero concentrations, these samples were allowed to have a single positive value, usually equal to the minimum level of the analytical method. Since each nondetect was assigned the same positive value, the distributional spike in this adapted model was located, not at zero, but at the minimum level. This adapted model was used in developing limitations for the OCPSF and pesticides manufacturing rulemaking.

In the adapted delta-lognormal model, the delta again referred to those measurements contained in the discrete spike, this time representing the proportion of nondetect values observed within the data set. By using this approach, computation of estimates for the population mean and variance could be done easily by hand, and nondetects were not assumed to follow the same distributional pattern as the detected measurements. The adapted delta-lognormal model can be expressed mathematically as

$$Pr\,(U \le u) = \begin{cases} (1-\delta)\ \Phi\left[(\log(u) - \mu)/\sigma\right] & \text{if} \quad 0 < u < D \\ \delta + (1-\delta)\ \Phi\left[(\log(D) - \mu)/\sigma\right] & \text{if} \quad u = D \\ \delta + (1-\delta)\ \Phi\left[(\log(u) - \mu)/\sigma\right] & \text{if} \quad u > D \end{cases} \qquad \textbf{(1.1)}$$

where δ represents the true proportion of nondetects (or the probability that any randomly drawn measurement will be a nondetect), D equals the minimum level value of the discrete spike assigned to all nondetects, $\Phi(\cdot)$ represents the standard normal cumulative distribution function, and μ and σ are the parameters of the lognormal density portion of the model. This model assumes that all nondetected values have a single detection limit D.

It is also possible to represent the adapted delta-lognormal model in another mathematical form, one in which it is particularly easy to derive formulas for the expected value (i.e., long-term average [LTA]) and

variance of the model. In this case, a random variable distributed according to the adapted delta-lognormal distribution can be represented as the stochastic combination of three other independent random variables. The first of these variables is an indicator variable, I_u, equal to 1 when the measurement u is a nondetect and equal to 0 when u is a detected value. The second variable, X_D, represents the value of a nondetect measurement (discrete). In the adapted delta-lognormal, this variable is always a constant equal to the concentration value assigned to each nondetect (i.e., equal to D in the adapted delta-lognormal model). In general, however, X_D need not be a constant, as will be seen below in the modified delta-lognormal model. The final random variable, X_C, represents the value of a detected measurement, and is distributed according to a lognormal distribution (continuous) with parameters μ and σ.

Using this formulation, a random variable from the adapted delta-lognormal model can be written as

$$U = I_u X_D + (1 - I_u) X_C \qquad \textbf{(1.2)}$$

and the expected value of U is then derived by substituting the expected value of each quantity in the right-hand side of the equation. Because the variables I_u, X_D, and X_C are mutually independent, this leads to the expression

$$E(U) = \delta E(X_D) + (1-\delta) E(X_C) = \delta D + (1-\delta)\exp(\mu + 0.5\sigma^2) \qquad \textbf{(1.3)}$$

where again δ is the probability that any random measurement will be nondetect and the exponentiated expression is the familiar mean of a lognormal distribution. In a similar fashion, the variance of the adapted delta-lognormal model can be established by squaring the expression for U above, taking expectations, and subtracting the square of E(U) to get

$$Var(U) = E(U^2) - [E(U)]^2 = \delta Var(X_D) + (1-\delta) Var(X_C) + \delta(1-\delta)[E(X_D) - E(X_C)]^2. \qquad \textbf{(1.4)}$$

Since, in the adapted delta-lognormal formulation, X_D is a constant, this expression can be reduced to the following:

$$Var(U) = (1-\delta)\exp(2\mu+\sigma^2)[\exp(\sigma^2) - (1-\delta)] + \delta(1-\delta)D[D - 2\exp(\mu + 0.5\sigma^2)]. \qquad \textbf{(1.5)}$$

In order to estimate the adapted delta-lognormal mean and variance from a set of observed sample measurements, it is necessary to derive sample estimates for the parameters δ, μ, and σ. δ is typically estimated by the observed proportion of nondetects in the data set. μ and σ are estimated using the logged values of the detected samples where μ is estimated using the arithmetic mean of the logged detected measurements and σ is estimated using the standard deviation of these same logged values; nondetects are not included in the calculations. Once the parameter estimates are obtained, they are used in the formulas above to derive the estimated adapted delta-lognormal mean and variance.

To calculate effluent limitations, it is also necessary to estimate upper percentiles from the underlying data model. Using the delta-lognormal formulation above in equation (1.1), letting U_α represent the $100*\alpha^{th}$ percentile of random variable U, and adopting the standard notation of z_s for the s^{th} percentile of the standard normal distribution, an arbitrary delta-lognormal percentile can be expressed as the following:

$$U_\alpha = \begin{cases} \exp(\mu+\sigma\, z_{\alpha/1-\delta}) & \text{if} \quad (1-\delta)\Phi((\log(D)-\mu)/\sigma) \geq \alpha \\ D & \text{if} \quad \delta+(1-\delta)\Phi((\log(D)-\mu)/\sigma) \geq \alpha \\ \exp(\mu+\sigma\, z_{\alpha-\delta/1-\delta}) & \text{if} \quad \delta+(1-\delta)\Phi((\log(D)-\mu)/\sigma) < \alpha \end{cases} \qquad \textbf{(1.6)}$$

The daily maximum limitations are established on the basis of an estimated upper 99th percentile from the underlying data model, so that 0.99 would be substituted for α in the above expression. To derive the daily VF for the 99th percentile based on the adapted delta-lognormal model, divide $U_{.99}$ in the expression above by the previous formula for the LTA, namely $U_{.99}/E(U)$.

4.1.2 Modifications to the Adapted Delta-Lognormal Model

While the adapted delta-lognormal model has been used successfully for years by EPA in a variety of settings, the model makes three key assumptions about the observed data that are not satisfied within the landfills analytical data base. First, the discrete spike portion of the adapted delta-lognormal model is a fixed, single-valued probability mass associated (typically) with all the nondetect measurements. If all nondetect samples in the landfills data base had roughly the same reported detection limit, this assumption would be adequately satisfied. However, reported detection limits in the landfills analytical studies varied. Because of this variation in detection limits, a single-valued discrete spike could not adequately represent the set of nondetect measurements observed in the landfills data base and a modification to the model was considered.

Second, the adapted delta-lognormal model assumes that all of the detected measurements composing the continuous lognormal portion of the overall distribution are known completely; that is, the values are known concentration amounts, and there is no uncertainty associated with these values. When all the detected measurements have known amounts, the mean and standard deviation of the log-transformed detected values can be computed by hand, and the estimates can be plugged into the previous formulas to derive effluent limitations. In the landfills data base, however, not all the samples considered to be detects are associated with known numerical values. An example occurs for **mid-censored** samples. As discussed in Section 1.3.2.1, these samples are known to have a concentration between some lower bound (L) and some upper bound (U), but the exact value could not be determined.

Finally, the adapted delta-lognormal model sets all noncensored values below the detection (D) to the minimum level of the analytical method. For example, if the minimum level for TCDD was 10 ppq, then any noncensored samples reported below 10 ppq were set to 10 ppq. Many instances occurred in the landfills analytical studies where a noncensored value was reported below the minimum level of the analytical method.

The presence of detected measurements that are censored in some fashion, so that the exact values are indeterminate, makes it impossible to directly apply the adapted delta-lognormal model without further modifications. One approach that could be taken without changing the model would be to assign an "exact" measurement value to those samples that are censored. However, this tactic leads to arbitrary measurement value assignments and would have an uncertain and potentially arbitrary impact on the calculated estimates of the final model parameters, μ and σ. Instead of handling uncertain measurements in this fashion, the choice was made to modify the adapted delta-lognormal model to accommodate

censored samples as well as **noncensored** samples (i.e., those detected measurements associated with "exact" or known concentration values).

The necessity of these modifications became apparent upon examination of time series and probability plots for pollutants of concern in the landfills data base.

4.1.3 Modification of the Discrete Spike

To appropriately modify the adapted delta-lognormal model for the observed landfills data base, the first modification was made to the discrete, single-valued spike representing nondetect measurements. Because nondetect samples have varying detection limits, the spike of the delta-lognormal model has been **replaced** by a discrete distribution made up of multiple spikes. Each spike in this modification is associated with a distinct detection limit observed in the landfills data base. Thus, instead of assigning all nondetects to a single, fixed value, as in the adapted model, nondetects can be associated with multiple values depending on how the detection limits vary.

In particular, because the detection limit associated with a nondetect sample is considered to be an upper bound on the true value, which could range conceivably from 0 up to the detection limit, the modified delta-lognormal model used here assigns each nondetect sample to its reported detection limit.

Once each nondetect has been associated with its reported detection limit, the discrete "delta" portion of the modified model is estimated in a way similar to the adapted delta-lognormal distribution; only now, multiple spikes are constructed and linked to the distinct detection limits observed in the data set. In the adapted model, the parameter δ is estimated by computing the proportion of nondetects. In the modified model, δ again represents the proportion of nondetects, but is divided into the sum of smaller fractions, δ_i, each representing the proportion of nondetects associated with a particular and distinct detection limit. Thus, it can be written

$$\delta = \sum_i (\delta_i). \tag{1.7}$$

If D_i equals half the value of the i^{th} smallest distinct detection limit in the data set, and let the random variable X represent a randomly chosen nondetect sample, then the discrete distribution portion of the modified delta-lognormal model can be mathematically expressed as

$$Pr(X_D \le x) = \sum_{i:D_i \le x} \delta_i. \tag{1.8}$$

The mean and variance of this discrete distribution (unlike the adapted delta-lognormal) also can be computed with the variance of the modified spike being non-zero, using the following formulas:

$$E(X_D) = \frac{1}{\delta}\sum_i \delta_i D_i \quad \text{and} \quad Var(X_D) = \frac{1}{\delta^2}\sum_i \sum_{i<j} \sum_j \delta_i \delta_j (D_j - D_i)^2. \tag{1.9}$$

It is important to recognize that, while replacing the single discrete spike in the adapted delta-lognormal distribution with a more general discrete distribution of multiple spikes increases the complexity of the

model, the discrete portion with multiple spikes plays a role in limitations development identically parallel to the single spike case and offers flexibility for handling multiple observed detection limits.

4.1.4 Modification of the lognormal portion

To accommodate detected observations that are censored in some fashion, the lognormal portion of the adapted delta-lognormal model also has been modified. A lognormal density is still used to represent the set of detected measurements, but the manner of estimating the distributional parameters, μ and σ, has been changed to allow for censored observations. In general, the method typically used to estimate the parameters of the underlying lognormal density is known as maximum likelihood estimation (MLE). The MLE method is based on the assumption that a group of independent observations follows a particular distributional pattern, in this case the lognormal, and computing for each observed value the probability of its occurrence or "likelihood" under the assumed model. By multiplying the likelihoods of all the observations together, one can compute the overall likelihood of that particular group of data values.

Since the goal is to find the specific parameters of the distributional model that "best fit" or are most consistent with the observed data, and these parameters are unknown, the overall product of individual likelihoods becomes a function of the unknown parameters. Each time a different set of possible parameters is plugged into the likelihood function, a different numerical value for the overall likelihood results. The method used to find the best set of parameters relies on maximizing this overall likelihood or probability of occurrence, as a means of finding the specific probability distribution most consistent with the data. In other words, the best fitting distribution should be the one that has the best chance of generating the specific data observed.

In the case of the lognormal distribution, when none of the observed data is censored in any way, the general overall likelihood function (L.F.) can be written as

$$L.F. = \prod_i \frac{1}{x_i \sigma} \phi\left((\log(x_i) - \mu)/\sigma\right) = (2\pi)^{-\frac{n}{2}} \sigma^{-n} \frac{1}{\prod_i x_i} \exp\left[-\frac{1}{2\sigma^2}\sum_i (\log(x_i) - \mu)^2\right] \qquad \textbf{(1.10)}$$

where $\phi(\cdot)$ represents the standard normal probability density, and the x_i are the observed data values. To maximize this function with respect to the unknown parameters μ and σ, it is necessary to differentiate the right-hand side and equate the result to 0, first with respect to μ and then with respect to σ.

As noted previously, if none of the detected measurements are censored, as in the adapted model, calculation of the μ and σ estimates can be performed by hand using the log-transformed detected values. This is possible because, when each value x_i is known, the first derivatives of the likelihood function can be explicitly solved for the unknown parameters, μ and σ. In fact, the solutions are essentially just the mean and standard deviation, respectively, of the logged data values.

However, when some of the data observations are censored measurements and their values are not known explicitly, simple "closed-form" solutions to the derivatives of the likelihood function cannot be obtained. The likelihood function in this case has a slightly different form, depending on the pattern of censoring in the data, but is one that in general involves a mixture of standard normal densities and cumulative normal distribution terms.

Maximizing the overall likelihood in this case requires the use of iterative numerical "search" techniques, available via computer programs using a nonlinear maximization algorithm. The algorithm tests a series of plausible parameter choices in the likelihood function until it can determine the approximate choice that maximizes the overall probability of occurrence. The parameters that best maximize the overall likelihood are MLEs. Once the MLEs are determined, these parameter estimates can be used to compute estimates for the mean, variance, and upper-percentiles of either the continuous lognormal portion or the modified delta-lognormal model as a whole.

While the MLEs are unbiased estimates of the distributional parameters μ and σ, σ_{MLE} is a biased estimate for a sample. As such, σ_{MLE} is adjusted to an unbiased sample estimate by multiplying σ^2_{MLE} by (n/n-1), σ^2_{AMLE}. In particular, once MLEs for μ and σ are determined using a lognormal density likelihood, the mean and variance for the continuous portion of the modified delta-lognormal have exactly the same form as the usual mean and variance of a lognormal distribution estimated with all noncensored data. The only difference is that the MLEs for μ and σ_{AMLE} are used in place of the mean and standard deviation of the logged data values. Expressions for the mean and variance of the lognormal portion of the model then take the following form:

$$\hat{E}(X_C) = \exp(\mu_{MLE} + \frac{1}{2}\frac{n}{n-1}\sigma^2_{AMLE}) \quad \text{and}$$
$$\hat{V}(X_C) = (\exp(\frac{n}{n-1}\sigma^2_{AMLE}) - 1)\exp(2\mu_{MLE} + \frac{n}{n-1}\sigma^2_{AMLE}). \qquad \textbf{(1.11)}$$

4.2 Estimation Under the Modified Delta-Lognormal Model

Once the two basic modifications to the adapted delta-lognormal distribution are made, it is possible to fit a wide variety of observed effluent data sets to the modified model. Multiple detection limits for nondetects can be handled, as can detected samples with censored measurements. The same basic framework can be used even if there are no nondetect values or censored data. Thus, the modified delta-lognormal model offers a large degree of flexibility in modeling effluent data.

Combining the discrete portion of the model with the continuous portion, the cumulative probability distribution of the modified delta-lognormal model can be expressed as follows, where D_n denotes half of the largest distinct detection limit observed among the nondetects, and where the first summation is taken over all those values D_i that are less than u:

$$Pr(U \le u) = \begin{cases} \sum_{i:D_i<u} \delta_i + (1-\delta)\Phi\left[(\log(u)-\mu)/\sigma\right] & \text{if } u < D_n \\ \delta + (1-\delta)\Phi\left[(\log(u)-\mu)/\sigma\right] & \text{if } u \ge D_n \end{cases} \qquad \textbf{(1.12)}$$

Again, combining the discrete and continuous portions of the modified model, the expected value of the random variable U can be derived as a weighted sum of the expected values of the discrete and continuous lognormal portions of the distribution. This follows because the modified delta-lognormal random variable U can be expressed again as a combination of three other independent variables; that is,

$$U = I_u X_D + (1 - I_u) X_C \qquad \textbf{(1.13)}$$

where this time X_D represents a random nondetect from the discrete portion of the model, X_C represents a random detected measurement from the continuous lognormal portion (possibly a censored measurement), and I_u is an indicator variable signaling whether any particular random measurement is detected or not. Then the expected value and variance of U have forms somewhat similar to the standard delta-lognormal model, namely

$$E(U) = \sum_i \delta_i D_i + (1-\delta)\exp(\mu + 0.5\sigma^2) \tag{1.14}$$

$$Var(U) = \frac{\sum_{i<j}\sum_j \delta_i \delta_j (D_i - D_j)^2}{\delta} + (1-\delta)\exp(2\mu+\sigma^2)(\exp(\sigma^2)-1) + \delta(1-\delta)\left[\frac{\sum_i \delta_i D_i}{\delta} - \exp(\mu + 0.5\sigma^2)\right]^2 \tag{1.15}$$

where the D_i equal half the individual detection limits for the nondetects, the δ_i are the corresponding proportions of not detected values with detection limit $2D_i$, and $\delta = \Sigma\delta_i$.

4.2.1 Estimation of Long-Term Averages

For the purposes of estimating these long-term averages (equal to the expected value in the equation (1.14)),it was necessary to divide the landfills data sets into three groups based on their size (number of samples) and the type of samples in the subset. Thus, the computations differed for each of the following groups:

Group 1: Less than 2 detected samples (NC,MC), or less than 4 total samples

Group 2: Two or more detected samples (NC,MC), but less than 2 noncensored samples (NC)

Group 3: Two or more noncensored samples (NC), and 4 or more total samples.

For Group 1, the long-term averages were calculated as the arithmetic average of the samples, since the sample sizes for either the discrete portion or the continuous lognormal portion of the data were too small to allow distributional assumptions to be made. For the estimation of the long-term averages for Group 1, nondetects were set to the detection limits, NC values remained the same, and MC values were set to the midpoint between the upper and lower bounds.

For Group 2, the long-term averages were calculated using the formula for E(U) in equation (1.14). However, since the number of noncensored (NC) data values is one or none, the MLE method was replaced by simply estimating the μ and σ parameters with the mean and variance of the logged NC values, RC values, and MC midpoint values. The MLE method was not used because the information going into the likelihood function for censored data is specified as a range, and if these ranges are not augmented by two or more exact (noncensored) data values, then the algorithm may generate unreliable or nonconvergent estimates.

For Group 3, the long-term averages were calculated using the procedures outlined in the preceding section using equation (1.14) and the MLEs for μ and σ.

4.2.2 Estimation of Variability Factors, Percentiles, and Limitations

After determining estimated long-term average values for each pollutant at a particular sample point and facility, EPA developed 1-day variability factors (VF1) for each pollutant and either 4-day or 20-day monthly average variability factors (VF4 and VF20), dependent on the proposed frequency of monitoring.

Similar to the calculations for the long-term averages, the data were divided into the same three computation groups based on the number and type of samples in each data subset as follows:

Group 1: Less than 2 detected (NC,MC) samples, or less than 4 total samples. Upper percentiles and variability factors could not be computed using the modified delta-lognormal methodology.

Group 2: Two or more detected samples (NC,MC), but less than 2 noncensored samples (NC). The estimates of the parameters for the modified delta-lognormal distribution were calculated empirically in the log-domain using the detection limit for nondetects and the average of the upper and lower bounds for mid-censored values. Upper percentiles and variability factors were calculated using these estimated parameters.

Group 3: Two or more noncensored samples (NC), and 4 or more total samples. The estimates of the parameters for the modified delta-lognormal distribution of the data were calculated using maximum likelihood estimation in the log-domain incorporating all types of censoring. Upper percentiles and variability factors were calculated using these estimated parameters.

Several data subsets belong in Group 1, and therefore have no estimate for the 99th percentile and variability factor.

4.2.3 Estimation of Facility-Specific 1-Day Variability Factors and 99th Percentiles

The 1-day variability factors are a function of the long-term average, E(U), and the 99th percentile. An iterative approach was used in finding the 99th percentile of each data subset using the modified delta-lognormal methodology by first defining $D_0=0$, $\delta_0=0$, and $D_{k+1} = \infty$ as boundary conditions, where D_i equals the i^{th} smallest detection limit, and δ_i is the associated proportion of nondetects at the i^{th} detection limit. A cumulative distribution function, p, for each data subset was computed as a step function ranging from 0 to 1. The general form, for a given value c, is:

$$p = \sum_{i=0}^{m} \hat{\delta}_i + (1-\hat{\delta})\ \Phi\left[\frac{\log(c)-\hat{\mu}}{\hat{\sigma}}\right], \quad D_m \le c < D_{m+1},\ m=0,1,\ldots k \qquad \textbf{(1.16)}$$

where Φ is the standard normal cumulative distribution function. The following steps were completed to compute the estimated 99th percentile of each data subset:

1. k values of p at $c=D_m$, m=1,...k were computed and labeled p_m.

2. The smallest value of m, such that $p_m \geq 0.99$, was determined and labeled as p_j. If no such m existed, steps 3 and 4 were skipped and step 5 was computed instead.

3. Computed $p^* = p_j - \delta_j$.

4. If $p^* < 0.99$, then $P_{99} = D_j$,
   else if $p^* \geq 0.99$, then

$$\hat{P}99 = \exp\left[\hat{\mu} + \Phi^{-1}\left[\frac{\left(0.99 - \sum_{i=0}^{j-1} \hat{\delta}_i\right)}{(1-\hat{\delta})}\right]\hat{\sigma}\right]. \quad \textbf{(1.17)}$$

5. If no such m exists, such that $p_m \geq 0.99$ (m=1,...k), then

$$\hat{P}99 = \exp\left[\hat{\mu} + \Phi^{-1}\left[\frac{0.99 - \hat{\delta}}{(1-\hat{\delta})}\right]\hat{\sigma}\right]. \quad \textbf{(1.18)}$$

The daily variability factor, VF1, was then calculated as:

$$VF1 = \frac{\hat{P}99}{\hat{E}(U)} \quad \textbf{(1.19)}$$

4.2.4 Estimation of Facility-Specific 4-Day Variability Factors and 95th Percentiles of 4-Day Averages

It was necessary to calculate a variability factor for monthly averages based on the distribution of 4-day averages, because EPA is proposing that some pollutants will be monitored weekly (approximately 4 times a month). In order to calculate the 4-day variability factor (VF4), the assumption was made that the approximating distribution of $\bar{U}_4$, the sample mean for a random sample of 4 independent concentration values, also is derived from this modified delta-lognormal distribution, with the same mean as the distribution of the concentration values. The mean of this distribution of 4-day averages is (Kahn and Rubin, 1989):

$$E(\bar{U}_4) = \delta_4 E(\bar{X}_4)_D + (1-\delta_4)E(\bar{X}_4)_C \quad \textbf{(1.20)}$$

where $(X_4)_D$ denotes the mean of the discrete portion of the distribution of the average of four independent concentration values (i.e., when all observations are not detected), and $(X_4)_C$ denotes the mean of the continuous lognormal portion of the distribution.

First, it is assumed that the probability of detection (δ) on each of the four days is independent of that on the other days, since these samples are not taken on consecutive days and are therefore not correlated such that $\delta_4 = \delta^4$. Also, since $E(\bar{X}_4)_D = E(X_D)$, then

$$E(\bar{U}_4) = \delta^4 \sum_{i=1}^{k} \frac{\delta_i D_i}{\delta} + (1-\delta^4)\exp(\mu_4 + 0.5\sigma^2{}_4), \tag{1.21}$$

and since $E(\bar{U}_4) = E(U)$, then

$$\mu_4 = \log\left[\frac{E(U) - \delta^3 \sum_{i=1}^{k} \delta_i D_i}{(1-\delta^4)}\right] - 0.5\sigma^2{}_4. \tag{1.22}$$

The expression for $\sigma^2{}_4$ was derived from the following relationship:

$$Var(\bar{U}_4) = \delta_4 Var((\bar{X}_4)_D) + (1-\delta_4)Var((\bar{X}_4)_C) + \delta_4(1-\delta_4)[E(\bar{X}_4)_D - E(\bar{X}_4)_C]^2. \tag{1.23}$$

Since

$$Var((\bar{X}_4)_D) = \frac{Var(X_D)}{4}, \quad E(\bar{X}_4)_D = E(X_D), \quad and \quad \delta_4 = \delta^4 \tag{1.24}$$

then,

$$Var(\bar{U}_4) = \delta^4 \frac{Var(X_D)}{4} + (1-\delta^4)Var((\bar{X}_4)_C) + \delta^4(1-\delta^4)[E(X_D) - E(\bar{X}_4)_C]^2. \tag{1.25}$$

This further simplifies to

$$\begin{aligned} Var(\bar{U}_4) = {} & \frac{\delta^4 \sum_{i=1}^{k} \sum_{j=1}^{k} \delta_i \delta_j (D_i - D_j)^2}{4\delta^2} + (1-\delta^4)\exp(2\mu_4 + \sigma^2{}_4)[\exp(\sigma^2{}_4) - 1] \\ & + \delta^4(1-\delta^4)\left[\sum_{i=1}^{k} \frac{\delta_i D_i}{\delta} - \exp(\mu_4 + 0.5\sigma^2{}_4)\right]^2 \end{aligned} \tag{1.26}$$

and, furthermore,

$$\exp(\sigma^2_4) - 1 = \frac{\left[Var(\bar{U}_4) - \dfrac{\delta^2 \sum_{i=1}^{k} \sum_{j=1 \; i<j}^{k} \delta_i \delta_j (D_i - D_j)^2}{4} - \delta^2(1-\delta^4)\left[\sum_{i=1}^{k} \delta_i D_i - \delta \exp(\mu_4 + 0.5\sigma^2_4) \right]^2 \right]}{(1-\delta_4)\exp(2\mu_4 + \sigma^2_4)} \qquad \textbf{(1.27)}$$

Then, from (1.21) above,

$$\exp(\mu_4 + 0.5\sigma^2_4) = \frac{(E(\bar{U}_4) - \delta^3 \sum_{i=1}^{k} \delta_i D_i)}{(1-\delta^4)} = \frac{(E(U) - \delta^3 \sum_{i=1}^{k} \delta_i D_i)}{(1-\delta^4)}, \quad \text{since } E(\bar{U}_4) = E(U) \qquad \textbf{(1.28)}$$

and letting

$$\eta = E(U) - \delta^3 \sum_{i=1}^{k} \delta_i D_i, \quad \text{then} \quad \exp(\mu_4 + 0.5\sigma^2_4) = \frac{\eta}{(1-\delta^4)}. \qquad \textbf{(1.29)}$$

Furthermore,

$$\sigma^2_4 = \log\left[1 + \frac{\left[Var(\bar{U}_4) - \dfrac{\delta^2 \sum_{i=1}^{k} \sum_{j=1 \; i<j}^{k} \delta_i \delta_j (D_i - D_j)^2}{4} - \delta^2(1-\delta^4)\left(\sum_{i=1}^{k} \delta_i D_i - \dfrac{\delta \eta}{(1-\delta^4)} \right)^2 \right]}{\dfrac{(1-\delta^4)\eta^2}{(1-\delta^4)^2}} \right] \qquad \textbf{(1.30)}$$

Since $Var(\bar{U}_4) = Var(U)/4$, and by rearranging terms,

$$\sigma^2_4 = \log\left[1 + \frac{(1-\delta^4)\, Var(U)}{4\eta^2} - \frac{(1-\delta^4)\delta^2 \sum_{i=1}^{k} \sum_{j=1 \; i<j}^{k} \delta_i \delta_j (D_i - D_j)^2}{4\eta^2} - \frac{\delta^2 \left[\sum_{i=1}^{k} \delta_i D_i (1-\delta^4) - \delta \eta \right]^2}{\eta^2} \right] \qquad \textbf{(1.31)}$$

Thus, estimates of μ_4 and σ_4 were derived by using estimates of $\delta_1, \ldots \delta_k$ (sample proportion of nondetects at observed detection limits $D_1, \ldots D_k$), μ (MLE of logged values), and σ^2 (MLE logvariance) in the equations above.

In finding the estimated 95th percentile of the average of four observations, four nondetects, not all at the same detection limit, can generate an average that is not necessarily equal to D_1, D_2,..., or D_k. Consequently, more than k discrete points exist in the distribution of the 4-day averages. For example, the

average of four nondetects at k=2 detection limits are at the following discrete points with the associated probabilities:

i	D^*_i	δ^*_i
1	D_1	δ_1^4
2	$(3D_1+D_2)/4$	$4\delta_1^3\delta_2$
3	$(2D_1+2D_2)/4$	$6\delta_1^2\delta_2^2$
4	$(D_1+3D_2)/4$	$4\delta_1\delta_2^3$
5	D_2	δ_2^4

In general, when all four observations are not detected, and when k detection limits exist, the multinomial distribution can be used to determine associated probabilities, that is,

$$Pr\left[\bar{U}_4 = \frac{\sum_{i=1}^{k} u_i D_i}{4}\right] = \frac{4!}{u_1!u_2!\ldots u_k!}\prod_{i=1}^{k}\delta_i^{u_i}. \qquad \textbf{(1.32)}$$

The number of possible discrete points, k^*, for k=1,2,3,4, and 5, are given below:

k	k^*
1	1
2	5
3	15
4	35
5	70

To find the estimated 95th percentile of the distribution of the average of four observations, the same basic steps as used for the 99th percentile of the distribution of daily observations, were followed with the following changes:

1. Change P_{99} to P_{95}, and 0.99 to 0.95.
2. Change D_m to D_m^*, the weighted averages of the detection limits.
3. Change δ_i to δ_i^*.
4. Change k to k^*, the number of possible discrete points based on k detection limits.
5. Change the estimates of δ, μ, and σ to estimates of δ^4, μ_4, and σ_4, respectively.

Then, the estimate of the 95th percentile 4-day mean variability factor is as follows:

$$VF4 = \frac{\hat{P}95}{\hat{E}(U)}, \qquad since \quad E(\bar{U}_4) = E(U). \tag{1.33}$$

4.2.5 Estimation of Facility-Specific 20-Day Variability Factors and 95th Percentiles of 20-Day Averages

Because some pollutants (BOD_5 and TSS) were proposed to be monitored daily, the monthly average limitations assume that monitoring will be conducted for 20 days per month. Concentration values measured on consecutive days are likely to be positively correlated, which means that such concentration values tend to be similar. Accurate estimation of the variability factors would require making some allowance for autocorrelation. The effect of accounting for a positive autocorrelation is to increase the variability factor applied in calculating a limitation. For an autocorrelation of 0.5, the variability factor might be increased by 10% to 20% over its value when autocorrelation is zero (autocorrelation may range in value from zero to one). The SCC data consisted of only four or five consecutive daily measurements; the DMQ data consisted of data collected mostly at 1-week to 1-month intervals. Therefore, at this time EPA does not have sufficient data to reliably estimate autocorrelation between concentration values measured on consecutive days, and the variability factors do not make allowance for autocorrelation.

Thus, at this time it is assumed that the daily concentration values are effectively independent of one another, and

$$E(\bar{U}_{20}) = E(U) \qquad and \qquad V(\bar{U}_{20}) = \frac{V(U)}{20} \tag{1.34}$$

where E(U) and V(U) are calculated as in equations (x) and (y). Finally, since $\bar{U}_{20}$ is approximately normally distributed by the Central Limit Theorem, the estimate of the 95th percentile of a 20-day mean and the corresponding 20-day average variability factor (VF20) are approximately

$$\hat{P}95_{20} = \hat{E}(\bar{U}_{20}) + \Phi^{-1}(0.95) * (\hat{V}(\bar{U}_{20}))^{\frac{1}{2}} \tag{1.35}$$

and

$$VF20 = \frac{\hat{P}95_{20}}{E(\bar{U}_{20})} = \frac{\hat{P}95_{20}}{E(U)} \tag{1.36}$$

where $\Phi^{-1}(0.95)$ is the 95th quantile of the standard normal distribution.

4.2.6 Estimation of 30-Day Variability Factors and 95th Percentiles of 30-Day Averages

No pollutants are proposed for monitoring on 30 days per month. However, for completeness, Appendix C reports variability factors for 1-day, 4-day, 20-day, and 30-day averages. Therefore, the methodology for computing variability factors for 3-day averages is described here. As explained above, EPA does not have sufficient data with which to estimate and make allowance for autocorrelation, so the following methodology assumes zero autocorrelation.

Thus, at this time it is assumed that the consecutive measurement values are effectively independent of one another, and

$$E(\bar{U}_{30}) = E(U) \qquad and \qquad V(\bar{U}_{30}) = \frac{V(U)}{30} \tag{1.37}$$

where E(U) and V(U) are calculated as in equations (1) and (2). Finally, since $\bar{U}_{30}$ is approximately normally distributed by the Central Limit Theorem, the estimate of the 95th percentile of a 30-day mean and the corresponding 30-day average variability factor (VF30) are approximately

$$\hat{P}95_{30} = \hat{E}(\bar{U}_{30}) + \Phi^{-1}(0.95) * (\hat{V}(\bar{U}_{30}))^{\frac{1}{2}} \tag{1.38}$$

and

$$VF30 = \frac{\hat{P}95_{30}}{E(\bar{U}_{30})} = \frac{\hat{P}95_{30}}{E(U)} \tag{1.39}$$

where $\Phi^{-1}(0.95)$ is the 95th quantile of the standard normal distribution.

5. Estimation of Proposed Daily Maximum and Monthly Average Limitations

Proposed limitations were derived by the following steps, for each subcategory and pollutant, after final selection of a facility and sample point representing BPT treatment.

1. For a given pollutant, facility, and sampling point, sampling data (Appendix D) were aggregated (Section 3.3), if necessary, by combining duplicates and grab samples, to produce one concentration value per day (daily data). All digits reported for the data were retained.

2. Daily data were used to produce summary statistics and parameter estimates (long-term averages or LTAs, and variability factors or VFs, Section 4.2) for each combination of facility, sample point, and pollutant. These statistics and estimates are referred to herein as "facility-specific statistics" or "facility-specific estimates" (Appendix C), and were rounded to three significant figures before the next step.

3. For each pollutant, LTAs and VFs were combined (aggregated) for all facilities (usually there is only one effluent sampling point per facility at this stage of analysis). The median of the facility-specific LTAs was used as the (aggregate) long-term average for a given pollutant within a subcategory. The average of the reported facility-specific VFs was used as the (aggregate) variability factor for a given pollutant within a subcategory. Aggregate LTAs and VFs were rounded to three significant figures.

4. Each Limitation is the product of an aggregate long-term average and an aggregate variability factor (Appendix A). Limitations were rounded to two significant figures.

Monthly average limitations were proposed for only one frequency of monitoring for each pollutant, either 4 days or 20 days per month. Different VFs are calculated for different monitoring frequencies (Section 4.2).

If all or nearly all of the data for a pollutant were nondetects, EPA used the minimum level of the analytical method in place of the LTA, and transferred a variability factor (Appendix A) when one could not be estimated (Section 4.2.2). Some of the transferred variability factors were those reported for similar treatment systems at industrial facilities in the organic chemical industry (U.S. Environmental Protection Agency, 1987). In other cases, the variability factor for phenol, estimated using landfill effluent data, was transferred to other pollutants in Appendix A. Sources of transferred VFs, and instances of LTAs being set equal to minimum levels, are identified in the footnotes to Tables in Appendix A.

6. References

Aitchison, J., and Brown, J.A.C., 1969, *The Lognormal Distribution*. Cambridge: Cambridge University Press.

Kahn, H.D., and Rubin, M.B., 1989, Use of Statistical Methods in Industrial Water Pollution Control Regulations in the United States, *Environmental Monitoring and Assessment*, 12: 129-148

U. S. Environmental Protection Agency, 1987, Development Document for Effluent Limitations Guidelines and Standards for the Organic Chemicals, Plastics, and Synthetic Fibers Point Source Category. EPA 440/1-87/009, Volume I.

APPENDIX A. PROPOSED LIMITATIONS

This Appendix lists the proposed limitations and the aggregate Long Term Averages (LTAs) and variability factors (VFs) used to calculate each limitation.

Facilities representing BPT treatment were selected as described in the Development Document. All digits reported for the daily data (Appendix D) were used during calculations of facility-specific statistics, which were then reported with three significant figures (Appendix C). The median of the reported facility-specific long-term averages was used as the (aggregate) long-term average for that pollutant within a subcategory. The average of the reported facility-specific variability factors was used as the (aggregate) variability factor for that pollutant within a subcategory. These medians and averages were rounded to three significant digits. Each limitation is the product of an aggregate long-term average and an aggregate variability factor, and is rounded to two significant digits. Monthly average limitations were proposed for only one frequency of monitoring, either 4 days or 20 days per month, for each pollutant. The notation "n/a" ("not applicable") indicates that a monthly average limitation was not proposed for the corresponding monitoring frequency indicated at the head of the column.

TABLE A-1. PROPOSED LIMITATIONS FOR NON-HAZARDOUS SUBCATEGORY							
Pollutant	CAS number	Long-Term Average (mg/l)	Variability Factors			Proposed Limitations (mg/L)	
			Daily	Monthly, 4-day average	Monthly, 20-day average	Daily Maximum	Maximum Monthly Average
Alpha Terpineol	98555	0.0182**	3.26 [A]	1.60 [A]	n/a	0.059	0.029
Ammonia	7664417	1.43	4.09	1.75	n/a	5.9	2.5
Benzoic Acid	65850	0.0911**	2.49 [B]	1.42 [B]	n/a	0.23	0.13
BOD_5	C-002	24.1	6.55	n/a	1.67	160	40
P-Cresol	106445	0.0182**	2.49 [B]	1.42 [B]	n/a	0.046	0.026
Phenol	108952	0.0182**	2.49	1.42	n/a	0.045	0.026
Toluene	108883	0.0100*	7.95 [C]	2.57 [C]	n/a	0.080	0.026
TSS	C-009	20.1	4.41	n/a	1.33	89	27
Zinc	7440666	0.0682	2.97	1.60	n/a	0.20	0.11

* Set at the Minimum Level (ML) published for EPA Method 1624
** Set at the detection limit reported with these samples, and exceeds the ML

[A] Transferred - set at the value reported in OCPSF, subcategory I, for 2,4-dimethyl phenol
[B] Transferred - set at the value reported for phenol in this table
[C] Transferred - set at the value reported in OCPSF, subcategory I, for toluene

OCPSF: U. S. Environmental Protection Agency, 1987, Development Document for Effluent Limitations Guidelines and Standards for the Organic Chemicals, Plastics, and Synthetic Fibers Point Source Category. EPA 440/1-87/009, Volume I.

TABLE A-2. PROPOSED LIMITATIONS FOR HAZARDOUS SUBCATEGORY, DIRECT DISCHARGE							
Pollutant	CAS number	Long-Term Average (mg/l)	Variability Factors			Proposed Limitations (mg/L)	
			Daily	Monthly, 4-day average	Monthly, 20-day average	Daily Maximum	Maximum Monthly Average
Alpha Terpineol	98555	0.0100*	4.20 [A]	1.86 [A]	n/a	0.042	0.019
Ammonia	7664417	1.43	4.09	1.75	n/a	5.9	2.5
Aniline	62533	0.0100*	2.37 [B]	1.45 [B]	n/a	0.024	0.015
Arsenic	7440382	0.331	3.03	1.56	n/a	1.0	0.52
Benzene	71432	0.0100*	13.5 [C]	3.64 [C]	n/a	0.14	0.036
Benzoic Acid	65850	0.0500*	2.37 [B]	1.45 [B]	n/a	0.12	0.073
BOD_5	C-002	24.1	6.55	n/a	1.67	160	40
Chromium	7440473	0.244	3.54	1.62	n/a	0.86	0.40
Naphthalene	91203	0.0100*	5.89 [C]	2.16 [C]	n/a	0.059	0.022
P-Cresol	106445	0.0100*	2.37 [B]	1.45 [B]	n/a	0.024	0.015
Phenol	108952	0.0201	2.37	1.45	n/a	0.048	0.029
Pyridine	110861	0.0100*	7.18 [C]	2.45 [C]	n/a	0.072	0.025
Toluene	108883	0.0100*	7.95 [C]	2.57 [C]	n/a	0.080	0.026
TSS	C-009	20.1	4.41	n/a	1.33	89	27
Zinc	7440666	0.149	2.47	1.38	n/a	0.37	0.21

* Set at the Minimum Level (ML) reported for EPA Method 1624 or 1625, as appropriate

[A] Transferred - set at the value reported in OCPSF, subcategory I, for 2,4-dimethyl phenol
[B] Transferred - set at the value reported for phenol in this table
[C] Transferred - set at the value reported in OCPSF, subcategory I, for this analyte

OCPSF: U. S. Environmental Protection Agency, 1987, Development Document for Effluent Limitations Guidelines and Standards for the Organic Chemicals, Plastics, and Synthetic Fibers Point Source Category. EPA 440/1-87/009, Volume I.

TABLE A-3. PROPOSED LIMITATIONS FOR HAZARDOUS SUBCATEGORY, INDIRECT DISCHARGE							
Pollutant	CAS number	Long-Term Average (mg/l)	Variability Factors			Proposed Limitations (mg/L)	
			Daily	Monthly, 4-day average	Monthly, 20-day average	Daily Maximum	Maximum Monthly Average
Alpha Terpineol	98555	0.0100*	4.20 [A]	1.86 [A]	n/a	0.042	0.019
Ammonia	7664417	1.43	4.09	1.75	n/a	5.9	2.5
Aniline	62533	0.0100*	2.37 [B]	1.45 [B]	n/a	0.024	0.015
Benzoic Acid	65850	0.0500*	2.37 [B]	1.45 [B]	n/a	0.12	0.073
P-Cresol	106445	0.0100*	2.37 [B]	1.45 [B]	n/a	0.024	0.015
Toluene	108883	0.0100*	7.95 [C]	2.57 [C]	n/a	0.080	0.026

* Set at the Minimum Level (ML)

[A] Transferred - set at the value reported in OCPSF, subcategory I, for 2,4-dimethyl phenol
[B] Transferred - set at the value reported for phenol in table A-2 (Landfills, Hazardous, direct discharge)
[C] Transferred - set at the value reported in OCPSF, subcategory I, for this toluene

OCPSF: U. S. Environmental Protection Agency, 1987, Development Document for Effluent Limitations Guidelines and Standards for the Organic Chemicals, Plastics, and Synthetic Fibers Point Source Category. EPA 440/1-87/009, Volume I.

APPENDIX B
FACILITIES, SAMPLE POINTS, AND DATA SOURCES

Table B-1. Facilities, Sample Points (SP), and Data Sources (DMQ and SCC) Used to Develop Long-Term Averages and Variance Factors Upon Which Limitations Are Based.

Facilities and Sample Points Providing Data Used to Develop LTAs and VFs for Conventional, Non-conventional and Priority Pollutants in the Non-Hazardous Subcategory					
Questionnaire Facility ID	Questionnaire Effluent SP	DMQ Facility ID	DMQ Effluent SP	SCC Episode ID	SCC Effluent SP
16118	SP 002	17013	SP 002		
16132	SP 004	17023	SP 004		
16058	SP 001	17004	SP 001		
16120	SP 002	17015	SP 002		
16253	SP 002	17027	SP 002		
16122	SP 003	17016	SP 003	4626	SP 08
16041	SP 004	17002	SP 004	4721	SP 02
Facilities and Sample Points Used to Develop LTAs and VFs for Conventional, Non-conventional, and Priority Pollutants in the Hazardous Subcategory					
Questionnaire Facility ID	Questionnaire Effluent SP	DMQ Facility ID	DMQ Effluent SP	SCC Episode ID	SCC Effluent SP
16041	SP 004	17002	SP 004	4721	SP 02
16087	SP 003	17006	SP 005	4759	SP 03

APPENDIX C
FACILITY-SPECIFIC STATISTICS

This Appendix lists the facility-specific statistics which were used to calculate effluent limitations (Appendix A). The sources of data, data types, and procedures for aggregation and calculation are described in the main body of this document.

Hazardous Subcategory

Analyte	Cas_NO	Facility	N	ND	LTA (ug/l)	1-Day V.F.	4-Day V.F.	20-Day V.F.	30-Day V.F.
ALPHA-TERPINEOL	98555	E4721-02	4	4	10.0	.	.	.	.
ALPHA-TERPINEOL	98555	E4759-03	5	5	10.0	.	.	.	.
ANILINE	62533	E4721-02	4	4	10.0	.	.	.	.
ANILINE	62533	E4759-03	5	5	10.0	.	.	.	.
ARSENIC	7440382	E4721-02	4	0	577.0	1.99	1.29	1.12	1.10
ARSENIC	7440382	E4759-03	5	0	313.0	1.39	1.13	1.05	1.04
ARSENIC	7440382	17006-05	12	9	331.0	5.72	2.26	1.51	1.42
BENZENE	71432	E4721-02	4	4	10.0	.	.	.	.
BENZENE	71432	E4759-03	5	5	10.0	.	.	.	.
BENZOIC ACID	65850	E4721-02	4	4	50.0	.	.	.	.
BENZOIC ACID	65850	E4759-03	5	5	50.0	.	.	.	.
CHROMIUM (TOTAL)	7440473	E4721-02	4	0	46.5	1.23	1.08	1.03	1.03
CHROMIUM (TOTAL)	7440473	E4759-03	5	0	82.5	1.28	1.09	1.04	1.03
CHROMIUM (TOTAL)	7440473	17002-04	168	168	417.0	.	.	.	.
CHROMIUM (TOTAL)	7440473	17006-05	12	0	405.0	8.12	2.68	1.68	1.56
NAPHTHALENE	91203	E4721-02	4	4	10.0	.	.	.	.
NAPHTHALENE	91203	E4759-03	5	5	10.0	.	.	.	.
P-CRESOL	106445	E4721-02	4	4	10.0	.	.	.	.
P-CRESOL	106445	E4759-03	5	5	10.0	.	.	.	.
PHENOL	108952	E4721-02	4	4	10.0	.	.	.	.
PHENOL	108952	E4759-03	5	1	30.2	2.37	1.45	1.18	1.15
PYRIDINE	110861	E4721-02	4	4	10.0	.	.	.	.
PYRIDINE	110861	E4759-03	5	5	10.0	.	.	.	.
TOLUENE	108883	E4721-02	4	4	10.0	.	.	.	.
TOLUENE	108883	E4759-03	5	5	10.0	.	.	.	.
ZINC	7440666	E4721-02	4	0	85.7	1.55	1.17	1.07	1.06
ZINC	7440666	E4759-03	5	0	47.9	2.33	1.37	1.15	1.12
ZINC	7440666	17002-04	168	129	213.0	2.22	1.28	1.11	1.09
ZINC	7440666	17006-05	12	3	386.0	3.76	1.71	1.28	1.23

FLAG='L' indicates LTA calculated under delta-lognormal distribution
FLAG='M' indicates LTA calculated as arithmetic average concentration
(Using Full Detection Limit for Non-Detects)
Column abbreviations: "LTA,"long-term average; "V.F.," variability factor; "ND," non-detect; "Cas_NO,", CAS Number.

Non-Hazardous Subcategory

Analyte	Cas_NO	Facility	N	ND	LTA (ug/l)	1-Day V.F.	4-Day V.F.	20-Day V.F.	30-Day V.F.
ALPHA-TERPINEOL	98555	E4626-08	5	5	18.2	.	.	.	.
AMMONIA NITROGEN	7664417	E4721-02	4	0	1,430.0	1.27	1.09	1.04	1.03
AMMONIA NITROGEN	7664417	17016-03	40	4	392.0	5.71	2.12	1.44	1.36
AMMONIA NITROGEN	7664417	17023-04	36	0	6,660.0	5.29	2.03	1.40	1.33
BENZOIC ACID	65850	E4626-08	5	5	91.1	.	.	.	.
BIOLOGICAL OXYGEN DEMAND	C-002	E4626-08	5	0	41,100.0	11.6	3.49	2.31	2.07
BIOLOGICAL OXYGEN DEMAND	C-002	E4721-02	4	0	47,600.0	2.23	1.35	1.14	1.12
BIOLOGICAL OXYGEN DEMAND	C-002	17004-01	10	2	24,100.0	11.8	3.45	2.25	2.02
BIOLOGICAL OXYGEN DEMAND	C-002	17013-02	32	0	48,100.0	5.54	2.08	1.42	1.34
BIOLOGICAL OXYGEN DEMAND	C-002	17015-02	53	7	4,330.0	3.29	1.60	1.24	1.19
BIOLOGICAL OXYGEN DEMAND	C-002	17023-04	36	15	15,700.0	8.18	2.63	1.66	1.54
BIOLOGICAL OXYGEN DEMAND	C-002	17027-02	36	26	6,420.0	3.22	2.34	1.67	1.55
P-CRESOL	106445	E4626-08	5	5	18.2	.	.	.	.
PHENOL	108952	E4626-08	5	5	18.2	.	.	.	.
PHENOL	108952	17013-02	3	2	11.0	.	.	.	.
PHENOL	108952	17015-02	46	2	27.8	2.49	1.42	1.17	1.14
TOLUENE	108883	17013-02	34	33	6.68	.	.	.	.
TOLUENE	108883	17016-03	18	18	4.72	.	.	.	.
TOLUENE	108883	17023-04	27	27	5.33	.	.	.	.
TOLUENE	108883	17027-02	7	7	1.57	.	.	.	.
TOTAL SUSPENDED SOLIDS	C-009	17015-02	77	0	13,700.0	3.77	1.70	1.27	1.22
TOTAL SUSPENDED SOLIDS	C-009	17027-02	36	2	26,400.0	5.04	1.98	1.38	1.31
ZINC	7440666	E4721-02	4	0	85.7	1.55	1.17	1.07	1.06
ZINC	7440666	17023-04	36	10	50.6	4.39	2.02	1.40	1.33

FLAG='L' indicates LTA calculated under delta-lognormal distribution
FLAG='M' indicates LTA calculated as arithmetic average concentration
(Using Full Detection Limit for Non-Detects)
Column abbreviations: "LTA,"long-term average; "V.F.," variability factor; "ND," non-detect; "Cas_NO,", CAS Number.

APPENDIX D
LISTING OF DATA USED TO DEVELOP EFFLUENT LIMITATIONS

This Appendix lists the data used to calculate facility-specific long-term averages and variability factors (Appendix C), which were used to calculate effluent limitations (Appendix A). The sources of data, data types, and procedures for aggregation and calculation are described in the main body of this document.

US EPA\ LANDFILLS ANALYTICAL DATABASE Appendix D

Subcategory=Hazardous

OBS	Pollutant	CAS Number	Facility	Sample Point	Sample Date	Concentration	Unit	Data Type
1	ALPHA-TERPINEOL	98555	E4721	02	05/02/95	10.00	UG/L	ND
2	ALPHA-TERPINEOL	98555	E4721	02	05/04/95	10.00	UG/L	ND
3	ALPHA-TERPINEOL	98555	E4721	02	05/05/95	10.00	UG/L	ND
4	ALPHA-TERPINEOL	98555	E4721	D02	05/05/95	10.00	UG/L	ND
5	ALPHA-TERPINEOL	98555	E4721	02	05/06/95	10.00	UG/L	ND
6	ALPHA-TERPINEOL	98555	E4759	03	08/07/95	10.00	UG/L	ND
7	ALPHA-TERPINEOL	98555	E4759	03	08/08/95	10.00	UG/L	ND
8	ALPHA-TERPINEOL	98555	E4759	03	08/09/95	10.00	UG/L	ND
9	ALPHA-TERPINEOL	98555	E4759	03	08/10/95	10.00	UG/L	ND
10	ALPHA-TERPINEOL	98555	E4759	D03	08/10/95	10.00	UG/L	ND
11	ALPHA-TERPINEOL	98555	E4759	03	08/11/95	10.00	UG/L	ND
12	ANILINE	62533	E4721	02	05/02/95	10.00	UG/L	ND
13	ANILINE	62533	E4721	02	05/04/95	10.00	UG/L	ND
14	ANILINE	62533	E4721	02	05/05/95	10.00	UG/L	ND
15	ANILINE	62533	E4721	D02	05/05/95	10.00	UG/L	ND
16	ANILINE	62533	E4721	02	05/06/95	10.00	UG/L	ND
17	ANILINE	62533	E4759	03	08/07/95	10.00	UG/L	ND
18	ANILINE	62533	E4759	03	08/08/95	10.00	UG/L	ND
19	ANILINE	62533	E4759	03	08/09/95	10.00	UG/L	ND
20	ANILINE	62533	E4759	03	08/10/95	10.00	UG/L	ND
21	ANILINE	62533	E4759	D03	08/10/95	10.00	UG/L	ND
22	ANILINE	62533	E4759	03	08/11/95	10.00	UG/L	ND
23	ARSENIC	7440382	E4721	02	05/02/95	361.00	UG/L	NC
24	ARSENIC	7440382	E4721	02	05/04/95	510.00	UG/L	NC
25	ARSENIC	7440382	E4721	02	05/05/95	520.00	UG/L	NC
26	ARSENIC	7440382	E4721	D02	05/05/95	846.00	UG/L	NC
27	ARSENIC	7440382	E4721	02	05/06/95	721.00	UG/L	NC
28	ARSENIC	7440382	E4759	03	08/07/95	256.00	UG/L	NC
29	ARSENIC	7440382	E4759	03	08/08/95	304.00	UG/L	NC
30	ARSENIC	7440382	E4759	03	08/09/95	343.00	UG/L	NC
31	ARSENIC	7440382	E4759	03	08/10/95	276.00	UG/L	NC
32	ARSENIC	7440382	E4759	D03	08/10/95	296.00	UG/L	NC
33	ARSENIC	7440382	E4759	03	08/11/95	371.00	UG/L	NC
34	ARSENIC	7440382	17006	05	01/20/93	53.00	UG/L	ND
35	ARSENIC	7440382	17006	05	02/10/93	53.00	UG/L	ND
36	ARSENIC	7440382	17006	05	03/17/93	53.00	UG/L	ND
37	ARSENIC	7440382	17006	05	04/20/93	53.00	UG/L	ND
38	ARSENIC	7440382	17006	05	05/05/93	53.00	UG/L	ND
39	ARSENIC	7440382	17006	05	06/22/93	53.00	UG/L	ND
40	ARSENIC	7440382	17006	05	07/09/93	910.00	UG/L	NC
41	ARSENIC	7440382	17006	05	08/13/93	647.00	UG/L	NC
42	ARSENIC	7440382	17006	05	09/17/93	270.00	UG/L	ND
43	ARSENIC	7440382	17006	05	10/26/93	53.00	UG/L	ND
44	ARSENIC	7440382	17006	05	11/05/93	270.00	UG/L	ND
45	ARSENIC	7440382	17006	05	12/22/93	1430.00	UG/L	NC
46	BENZENE	71432	E4721	02	05/02/95	10.00	UG/L	ND

US EPA\ LANDFILLS ANALYTICAL DATABASE Appendix D

Subcategory=Hazardous

OBS	Pollutant	CAS Number	Facility	Sample Point	Sample Date	Concentration	Unit	Data Type
47	BENZENE	71432	E4721	02	05/04/95	10.00	UG/L	ND
48	BENZENE	71432	E4721	02	05/05/95	10.00	UG/L	ND
49	BENZENE	71432	E4721	D02	05/05/95	10.00	UG/L	ND
50	BENZENE	71432	E4721	02	05/06/95	10.00	UG/L	ND
51	BENZENE	71432	E4759	03	08/07/95	10.00	UG/L	ND
52	BENZENE	71432	E4759	03	08/08/95	10.00	UG/L	ND
53	BENZENE	71432	E4759	03	08/09/95	10.00	UG/L	ND
54	BENZENE	71432	E4759	03	08/10/95	10.00	UG/L	ND
55	BENZENE	71432	E4759	D03	08/10/95	10.00	UG/L	ND
56	BENZENE	71432	E4759	03	08/11/95	10.00	UG/L	ND
57	BENZOIC ACID	65850	E4721	02	05/02/95	50.00	UG/L	ND
58	BENZOIC ACID	65850	E4721	02	05/04/95	50.00	UG/L	ND
59	BENZOIC ACID	65850	E4721	02	05/05/95	50.00	UG/L	ND
60	BENZOIC ACID	65850	E4721	D02	05/05/95	50.00	UG/L	ND
61	BENZOIC ACID	65850	E4721	02	05/06/95	50.00	UG/L	ND
62	BENZOIC ACID	65850	E4759	03	08/07/95	50.00	UG/L	ND
63	BENZOIC ACID	65850	E4759	03	08/08/95	50.00	UG/L	ND
64	BENZOIC ACID	65850	E4759	03	08/09/95	50.00	UG/L	ND
65	BENZOIC ACID	65850	E4759	03	08/10/95	50.00	UG/L	ND
66	BENZOIC ACID	65850	E4759	D03	08/10/95	50.00	UG/L	ND
67	BENZOIC ACID	65850	E4759	03	08/11/95	50.00	UG/L	ND
68	CHROMIUM (TOTAL)	7440473	E4721	02	05/02/95	47.30	UG/L	NC
69	CHROMIUM (TOTAL)	7440473	E4721	02	05/04/95	51.80	UG/L	NC
70	CHROMIUM (TOTAL)	7440473	E4721	02	05/05/95	41.50	UG/L	NC
71	CHROMIUM (TOTAL)	7440473	E4721	D02	05/05/95	42.30	UG/L	NC
72	CHROMIUM (TOTAL)	7440473	E4721	02	05/06/95	45.00	UG/L	NC
73	CHROMIUM (TOTAL)	7440473	E4759	03	08/07/95	68.20	UG/L	NC
74	CHROMIUM (TOTAL)	7440473	E4759	03	08/08/95	84.40	UG/L	NC
75	CHROMIUM (TOTAL)	7440473	E4759	03	08/09/95	87.90	UG/L	NC
76	CHROMIUM (TOTAL)	7440473	E4759	03	08/10/95	84.10	UG/L	NC
77	CHROMIUM (TOTAL)	7440473	E4759	D03	08/10/95	81.10	UG/L	NC
78	CHROMIUM (TOTAL)	7440473	E4759	03	08/11/95	88.90	UG/L	NC
79	CHROMIUM (TOTAL)	7440473	17002	04	01/03/94	440.00	UG/L	ND
80	CHROMIUM (TOTAL)	7440473	17002	04	01/08/94	440.00	UG/L	ND
81	CHROMIUM (TOTAL)	7440473	17002	04	01/09/94	440.00	UG/L	ND
82	CHROMIUM (TOTAL)	7440473	17002	04	01/10/94	440.00	UG/L	ND
83	CHROMIUM (TOTAL)	7440473	17002	04	01/12/94	440.00	UG/L	ND
84	CHROMIUM (TOTAL)	7440473	17002	04	01/13/94	440.00	UG/L	ND
85	CHROMIUM (TOTAL)	7440473	17002	04	01/14/94	440.00	UG/L	ND
86	CHROMIUM (TOTAL)	7440473	17002	04	01/16/94	440.00	UG/L	ND
87	CHROMIUM (TOTAL)	7440473	17002	04	01/19/94	440.00	UG/L	ND
88	CHROMIUM (TOTAL)	7440473	17002	04	01/21/94	440.00	UG/L	ND
89	CHROMIUM (TOTAL)	7440473	17002	04	01/23/94	440.00	UG/L	ND
90	CHROMIUM (TOTAL)	7440473	17002	04	01/25/94	440.00	UG/L	ND
91	CHROMIUM (TOTAL)	7440473	17002	04	01/26/94	440.00	UG/L	ND

US EPA\ LANDFILLS ANALYTICAL DATABASE Appendix D

Subcategory=Hazardous

OBS	Pollutant	CAS Number	Facility	Sample Point	Sample Date	Concentration	Unit	Data Type
92	CHROMIUM (TOTAL)	7440473	17002	04	01/28/94	440.00	UG/L	ND
93	CHROMIUM (TOTAL)	7440473	17002	04	01/30/94	440.00	UG/L	ND
94	CHROMIUM (TOTAL)	7440473	17002	04	02/01/94	440.00	UG/L	ND
95	CHROMIUM (TOTAL)	7440473	17002	04	02/02/94	440.00	UG/L	ND
96	CHROMIUM (TOTAL)	7440473	17002	04	02/04/94	440.00	UG/L	ND
97	CHROMIUM (TOTAL)	7440473	17002	04	02/06/94	440.00	UG/L	ND
98	CHROMIUM (TOTAL)	7440473	17002	04	02/09/94	440.00	UG/L	ND
99	CHROMIUM (TOTAL)	7440473	17002	04	02/13/94	440.00	UG/L	ND
100	CHROMIUM (TOTAL)	7440473	17002	04	02/16/94	440.00	UG/L	ND
101	CHROMIUM (TOTAL)	7440473	17002	04	02/17/94	440.00	UG/L	ND
102	CHROMIUM (TOTAL)	7440473	17002	04	02/18/94	440.00	UG/L	ND
103	CHROMIUM (TOTAL)	7440473	17002	04	02/21/94	440.00	UG/L	ND
104	CHROMIUM (TOTAL)	7440473	17002	04	02/23/94	440.00	UG/L	ND
105	CHROMIUM (TOTAL)	7440473	17002	04	02/25/94	440.00	UG/L	ND
106	CHROMIUM (TOTAL)	7440473	17002	04	02/28/94	440.00	UG/L	ND
107	CHROMIUM (TOTAL)	7440473	17002	04	03/02/94	440.00	UG/L	ND
108	CHROMIUM (TOTAL)	7440473	17002	04	03/03/94	440.00	UG/L	ND
109	CHROMIUM (TOTAL)	7440473	17002	04	03/07/94	440.00	UG/L	ND
110	CHROMIUM (TOTAL)	7440473	17002	04	03/08/94	440.00	UG/L	ND
111	CHROMIUM (TOTAL)	7440473	17002	04	03/10/94	440.00	UG/L	ND
112	CHROMIUM (TOTAL)	7440473	17002	04	03/11/94	440.00	UG/L	ND
113	CHROMIUM (TOTAL)	7440473	17002	04	03/13/94	440.00	UG/L	ND
114	CHROMIUM (TOTAL)	7440473	17002	04	03/14/94	440.00	UG/L	ND
115	CHROMIUM (TOTAL)	7440473	17002	04	03/16/94	440.00	UG/L	ND
116	CHROMIUM (TOTAL)	7440473	17002	04	03/18/94	440.00	UG/L	ND
117	CHROMIUM (TOTAL)	7440473	17002	04	03/20/94	440.00	UG/L	ND
118	CHROMIUM (TOTAL)	7440473	17002	04	03/21/94	440.00	UG/L	ND
119	CHROMIUM (TOTAL)	7440473	17002	04	03/23/94	440.00	UG/L	ND
120	CHROMIUM (TOTAL)	7440473	17002	04	03/25/94	440.00	UG/L	ND
121	CHROMIUM (TOTAL)	7440473	17002	04	03/29/94	440.00	UG/L	ND
122	CHROMIUM (TOTAL)	7440473	17002	04	03/30/94	440.00	UG/L	ND
123	CHROMIUM (TOTAL)	7440473	17002	04	04/01/94	440.00	UG/L	ND
124	CHROMIUM (TOTAL)	7440473	17002	04	04/05/94	440.00	UG/L	ND
125	CHROMIUM (TOTAL)	7440473	17002	04	04/06/94	440.00	UG/L	ND
126	CHROMIUM (TOTAL)	7440473	17002	04	04/08/94	440.00	UG/L	ND
127	CHROMIUM (TOTAL)	7440473	17002	04	04/11/94	440.00	UG/L	ND
128	CHROMIUM (TOTAL)	7440473	17002	04	04/13/94	440.00	UG/L	ND
129	CHROMIUM (TOTAL)	7440473	17002	04	04/14/94	440.00	UG/L	ND
130	CHROMIUM (TOTAL)	7440473	17002	04	04/16/94	440.00	UG/L	ND
131	CHROMIUM (TOTAL)	7440473	17002	04	04/19/94	440.00	UG/L	ND
132	CHROMIUM (TOTAL)	7440473	17002	04	04/21/94	440.00	UG/L	ND
133	CHROMIUM (TOTAL)	7440473	17002	04	04/23/94	440.00	UG/L	ND
134	CHROMIUM (TOTAL)	7440473	17002	04	04/26/94	440.00	UG/L	ND
135	CHROMIUM (TOTAL)	7440473	17002	04	04/27/94	440.00	UG/L	ND
136	CHROMIUM (TOTAL)	7440473	17002	04	04/30/94	440.00	UG/L	ND

US EPA\ LANDFILLS ANALYTICAL DATABASE Appendix D

Subcategory=Hazardous

OBS	Pollutant	CAS Number	Facility	Sample Point	Sample Date	Concentration	Unit	Data Type
137	CHROMIUM (TOTAL)	7440473	17002	04	05/02/94	440.00	UG/L	ND
138	CHROMIUM (TOTAL)	7440473	17002	04	05/04/94	440.00	UG/L	ND
139	CHROMIUM (TOTAL)	7440473	17002	04	05/11/94	440.00	UG/L	ND
140	CHROMIUM (TOTAL)	7440473	17002	04	05/12/94	440.00	UG/L	ND
141	CHROMIUM (TOTAL)	7440473	17002	04	05/14/94	440.00	UG/L	ND
142	CHROMIUM (TOTAL)	7440473	17002	04	05/16/94	440.00	UG/L	ND
143	CHROMIUM (TOTAL)	7440473	17002	04	05/18/94	440.00	UG/L	ND
144	CHROMIUM (TOTAL)	7440473	17002	04	05/19/94	440.00	UG/L	ND
145	CHROMIUM (TOTAL)	7440473	17002	04	05/21/94	440.00	UG/L	ND
146	CHROMIUM (TOTAL)	7440473	17002	04	05/23/94	440.00	UG/L	ND
147	CHROMIUM (TOTAL)	7440473	17002	04	05/25/94	440.00	UG/L	ND
148	CHROMIUM (TOTAL)	7440473	17002	04	05/27/94	440.00	UG/L	ND
149	CHROMIUM (TOTAL)	7440473	17002	04	05/31/94	440.00	UG/L	ND
150	CHROMIUM (TOTAL)	7440473	17002	04	06/02/94	440.00	UG/L	ND
151	CHROMIUM (TOTAL)	7440473	17002	04	06/04/94	440.00	UG/L	ND
152	CHROMIUM (TOTAL)	7440473	17002	04	06/07/94	440.00	UG/L	ND
153	CHROMIUM (TOTAL)	7440473	17002	04	06/09/94	440.00	UG/L	ND
154	CHROMIUM (TOTAL)	7440473	17002	04	06/11/94	440.00	UG/L	ND
155	CHROMIUM (TOTAL)	7440473	17002	04	06/14/94	440.00	UG/L	ND
156	CHROMIUM (TOTAL)	7440473	17002	04	06/16/94	440.00	UG/L	ND
157	CHROMIUM (TOTAL)	7440473	17002	04	06/17/94	440.00	UG/L	ND
158	CHROMIUM (TOTAL)	7440473	17002	04	06/18/94	440.00	UG/L	ND
159	CHROMIUM (TOTAL)	7440473	17002	04	06/21/94	440.00	UG/L	ND
160	CHROMIUM (TOTAL)	7440473	17002	04	06/22/94	440.00	UG/L	ND
161	CHROMIUM (TOTAL)	7440473	17002	04	06/23/94	440.00	UG/L	ND
162	CHROMIUM (TOTAL)	7440473	17002	04	06/24/94	440.00	UG/L	ND
163	CHROMIUM (TOTAL)	7440473	17002	04	06/28/94	440.00	UG/L	ND
164	CHROMIUM (TOTAL)	7440473	17002	04	06/30/94	440.00	UG/L	ND
165	CHROMIUM (TOTAL)	7440473	17002	04	07/01/94	440.00	UG/L	ND
166	CHROMIUM (TOTAL)	7440473	17002	04	07/04/94	440.00	UG/L	ND
167	CHROMIUM (TOTAL)	7440473	17002	04	07/06/94	440.00	UG/L	ND
168	CHROMIUM (TOTAL)	7440473	17002	04	07/07/94	440.00	UG/L	ND
169	CHROMIUM (TOTAL)	7440473	17002	04	07/09/94	440.00	UG/L	ND
170	CHROMIUM (TOTAL)	7440473	17002	04	07/12/94	440.00	UG/L	ND
171	CHROMIUM (TOTAL)	7440473	17002	04	07/13/94	440.00	UG/L	ND
172	CHROMIUM (TOTAL)	7440473	17002	04	07/15/94	440.00	UG/L	ND
173	CHROMIUM (TOTAL)	7440473	17002	04	07/18/94	440.00	UG/L	ND
174	CHROMIUM (TOTAL)	7440473	17002	04	07/20/94	440.00	UG/L	ND
175	CHROMIUM (TOTAL)	7440473	17002	04	07/21/94	440.00	UG/L	ND
176	CHROMIUM (TOTAL)	7440473	17002	04	07/22/94	440.00	UG/L	ND
177	CHROMIUM (TOTAL)	7440473	17002	04	07/23/94	440.00	UG/L	ND
178	CHROMIUM (TOTAL)	7440473	17002	04	07/26/94	440.00	UG/L	ND
179	CHROMIUM (TOTAL)	7440473	17002	04	07/27/94	440.00	UG/L	ND
180	CHROMIUM (TOTAL)	7440473	17002	04	07/29/94	440.00	UG/L	ND
181	CHROMIUM (TOTAL)	7440473	17002	04	07/30/94	440.00	UG/L	ND

US EPA\ LANDFILLS ANALYTICAL DATABASE Appendix D

Subcategory=Hazardous

OBS	Pollutant	CAS Number	Facility	Sample Point	Sample Date	Concentration	Unit	Data Type
182	CHROMIUM (TOTAL)	7440473	17002	04	08/03/94	440.00	UG/L	ND
183	CHROMIUM (TOTAL)	7440473	17002	04	08/04/94	320.00	UG/L	ND
184	CHROMIUM (TOTAL)	7440473	17002	04	08/06/94	440.00	UG/L	ND
185	CHROMIUM (TOTAL)	7440473	17002	04	08/08/94	440.00	UG/L	ND
186	CHROMIUM (TOTAL)	7440473	17002	04	08/10/94	440.00	UG/L	ND
187	CHROMIUM (TOTAL)	7440473	17002	04	08/12/94	440.00	UG/L	ND
188	CHROMIUM (TOTAL)	7440473	17002	04	08/15/94	440.00	UG/L	ND
189	CHROMIUM (TOTAL)	7440473	17002	04	08/16/94	320.00	UG/L	ND
190	CHROMIUM (TOTAL)	7440473	17002	04	08/17/94	440.00	UG/L	ND
191	CHROMIUM (TOTAL)	7440473	17002	04	08/18/94	440.00	UG/L	ND
192	CHROMIUM (TOTAL)	7440473	17002	04	08/19/94	440.00	UG/L	ND
193	CHROMIUM (TOTAL)	7440473	17002	04	08/22/94	440.00	UG/L	ND
194	CHROMIUM (TOTAL)	7440473	17002	04	08/24/94	320.00	UG/L	ND
195	CHROMIUM (TOTAL)	7440473	17002	04	08/25/94	440.00	UG/L	ND
196	CHROMIUM (TOTAL)	7440473	17002	04	08/30/94	320.00	UG/L	ND
197	CHROMIUM (TOTAL)	7440473	17002	04	09/03/94	440.00	UG/L	ND
198	CHROMIUM (TOTAL)	7440473	17002	04	09/06/94	440.00	UG/L	ND
199	CHROMIUM (TOTAL)	7440473	17002	04	09/08/94	440.00	UG/L	ND
200	CHROMIUM (TOTAL)	7440473	17002	04	09/10/94	440.00	UG/L	ND
201	CHROMIUM (TOTAL)	7440473	17002	04	09/14/94	440.00	UG/L	ND
202	CHROMIUM (TOTAL)	7440473	17002	04	09/16/94	440.00	UG/L	ND
203	CHROMIUM (TOTAL)	7440473	17002	04	09/17/94	440.00	UG/L	ND
204	CHROMIUM (TOTAL)	7440473	17002	04	09/19/94	440.00	UG/L	ND
205	CHROMIUM (TOTAL)	7440473	17002	04	09/22/94	320.00	UG/L	ND
206	CHROMIUM (TOTAL)	7440473	17002	04	09/23/94	440.00	UG/L	ND
207	CHROMIUM (TOTAL)	7440473	17002	04	09/26/94	440.00	UG/L	ND
208	CHROMIUM (TOTAL)	7440473	17002	04	09/27/94	440.00	UG/L	ND
209	CHROMIUM (TOTAL)	7440473	17002	04	09/29/94	440.00	UG/L	ND
210	CHROMIUM (TOTAL)	7440473	17002	04	09/30/94	440.00	UG/L	ND
211	CHROMIUM (TOTAL)	7440473	17002	04	10/04/94	440.00	UG/L	ND
212	CHROMIUM (TOTAL)	7440473	17002	04	10/05/94	320.00	UG/L	ND
213	CHROMIUM (TOTAL)	7440473	17002	04	10/07/94	440.00	UG/L	ND
214	CHROMIUM (TOTAL)	7440473	17002	04	10/11/94	320.00	UG/L	ND
215	CHROMIUM (TOTAL)	7440473	17002	04	10/14/94	320.00	UG/L	ND
216	CHROMIUM (TOTAL)	7440473	17002	04	10/18/94	440.00	UG/L	ND
217	CHROMIUM (TOTAL)	7440473	17002	04	10/20/94	440.00	UG/L	ND
218	CHROMIUM (TOTAL)	7440473	17002	04	10/25/94	440.00	UG/L	ND
219	CHROMIUM (TOTAL)	7440473	17002	04	10/26/94	440.00	UG/L	ND
220	CHROMIUM (TOTAL)	7440473	17002	04	10/28/94	320.00	UG/L	ND
221	CHROMIUM (TOTAL)	7440473	17002	04	10/29/94	440.00	UG/L	ND
222	CHROMIUM (TOTAL)	7440473	17002	04	11/02/94	440.00	UG/L	ND
223	CHROMIUM (TOTAL)	7440473	17002	04	11/04/94	320.00	UG/L	ND
224	CHROMIUM (TOTAL)	7440473	17002	04	11/07/94	320.00	UG/L	ND
225	CHROMIUM (TOTAL)	7440473	17002	04	11/08/94	320.00	UG/L	ND
226	CHROMIUM (TOTAL)	7440473	17002	04	11/10/94	320.00	UG/L	ND

US EPA\ LANDFILLS ANALYTICAL DATABASE Appendix D

Subcategory=Hazardous

OBS	Pollutant	CAS Number	Facility	Sample Point	Sample Date	Concentration	Unit	Data Type
227	CHROMIUM (TOTAL)	7440473	17002	04	11/11/94	320.00	UG/L	ND
228	CHROMIUM (TOTAL)	7440473	17002	04	11/15/94	440.00	UG/L	ND
229	CHROMIUM (TOTAL)	7440473	17002	04	11/16/94	320.00	UG/L	ND
230	CHROMIUM (TOTAL)	7440473	17002	04	11/18/94	320.00	UG/L	ND
231	CHROMIUM (TOTAL)	7440473	17002	04	11/19/94	320.00	UG/L	ND
232	CHROMIUM (TOTAL)	7440473	17002	04	11/22/94	320.00	UG/L	ND
233	CHROMIUM (TOTAL)	7440473	17002	04	11/24/94	320.00	UG/L	ND
234	CHROMIUM (TOTAL)	7440473	17002	04	11/28/94	320.00	UG/L	ND
235	CHROMIUM (TOTAL)	7440473	17002	04	11/30/94	320.00	UG/L	ND
236	CHROMIUM (TOTAL)	7440473	17002	04	12/02/94	320.00	UG/L	ND
237	CHROMIUM (TOTAL)	7440473	17002	04	12/05/94	320.00	UG/L	ND
238	CHROMIUM (TOTAL)	7440473	17002	04	12/08/94	320.00	UG/L	ND
239	CHROMIUM (TOTAL)	7440473	17002	04	12/11/94	320.00	UG/L	ND
240	CHROMIUM (TOTAL)	7440473	17002	04	12/13/94	320.00	UG/L	ND
241	CHROMIUM (TOTAL)	7440473	17002	04	12/16/94	320.00	UG/L	ND
242	CHROMIUM (TOTAL)	7440473	17002	04	12/19/94	320.00	UG/L	ND
243	CHROMIUM (TOTAL)	7440473	17002	04	12/22/94	320.00	UG/L	ND
244	CHROMIUM (TOTAL)	7440473	17002	04	12/23/94	320.00	UG/L	ND
245	CHROMIUM (TOTAL)	7440473	17002	04	12/29/94	320.00	UG/L	ND
246	CHROMIUM (TOTAL)	7440473	17002	04	12/31/94	320.00	UG/L	ND
247	CHROMIUM (TOTAL)	7440473	17006	05	01/20/93	416.00	UG/L	NC
248	CHROMIUM (TOTAL)	7440473	17006	05	02/10/93	403.00	UG/L	NC
249	CHROMIUM (TOTAL)	7440473	17006	05	03/17/93	585.00	UG/L	NC
250	CHROMIUM (TOTAL)	7440473	17006	05	04/20/93	726.00	UG/L	NC
251	CHROMIUM (TOTAL)	7440473	17006	05	05/05/93	479.00	UG/L	NC
252	CHROMIUM (TOTAL)	7440473	17006	05	06/22/93	235.00	UG/L	NC
253	CHROMIUM (TOTAL)	7440473	17006	05	07/09/93	50.00	UG/L	NC
254	CHROMIUM (TOTAL)	7440473	17006	05	08/13/93	128.00	UG/L	NC
255	CHROMIUM (TOTAL)	7440473	17006	05	09/17/93	100.00	UG/L	NC
256	CHROMIUM (TOTAL)	7440473	17006	05	10/26/93	15.00	UG/L	NC
257	CHROMIUM (TOTAL)	7440473	17006	05	11/05/93	60.00	UG/L	NC
258	CHROMIUM (TOTAL)	7440473	17006	05	12/22/93	550.00	UG/L	NC
259	NAPHTHALENE	91203	E4721	02	05/02/95	10.00	UG/L	ND
260	NAPHTHALENE	91203	E4721	02	05/04/95	10.00	UG/L	ND
261	NAPHTHALENE	91203	E4721	02	05/05/95	10.00	UG/L	ND
262	NAPHTHALENE	91203	E4721	D02	05/05/95	10.00	UG/L	ND
263	NAPHTHALENE	91203	E4721	02	05/06/95	10.00	UG/L	ND
264	NAPHTHALENE	91203	E4759	03	08/07/95	10.00	UG/L	ND
265	NAPHTHALENE	91203	E4759	03	08/08/95	10.00	UG/L	ND
266	NAPHTHALENE	91203	E4759	03	08/09/95	10.00	UG/L	ND
267	NAPHTHALENE	91203	E4759	03	08/10/95	10.00	UG/L	ND
268	NAPHTHALENE	91203	E4759	D03	08/10/95	10.00	UG/L	ND
269	NAPHTHALENE	91203	E4759	03	08/11/95	10.00	UG/L	ND
270	P-CRESOL	106445	E4721	02	05/02/95	10.00	UG/L	ND
271	P-CRESOL	106445	E4721	02	05/04/95	10.00	UG/L	ND

US EPA\ LANDFILLS ANALYTICAL DATABASE Appendix D

Subcategory=Hazardous

OBS	Pollutant	CAS Number	Facility	Sample Point	Sample Date	Concentration	Unit	Data Type
272	P-CRESOL	106445	E4721	02	05/05/95	10.00	UG/L	ND
273	P-CRESOL	106445	E4721	D02	05/05/95	10.00	UG/L	ND
274	P-CRESOL	106445	E4721	02	05/06/95	10.00	UG/L	ND
275	P-CRESOL	106445	E4759	03	08/07/95	10.00	UG/L	ND
276	P-CRESOL	106445	E4759	03	08/08/95	10.00	UG/L	ND
277	P-CRESOL	106445	E4759	03	08/09/95	10.00	UG/L	ND
278	P-CRESOL	106445	E4759	03	08/10/95	10.00	UG/L	ND
279	P-CRESOL	106445	E4759	D03	08/10/95	10.00	UG/L	ND
280	P-CRESOL	106445	E4759	03	08/11/95	10.00	UG/L	ND
281	PHENOL	108952	E4721	02	05/02/95	10.00	UG/L	ND
282	PHENOL	108952	E4721	02	05/04/95	10.00	UG/L	ND
283	PHENOL	108952	E4721	02	05/05/95	10.00	UG/L	ND
284	PHENOL	108952	E4721	D02	05/05/95	10.00	UG/L	ND
285	PHENOL	108952	E4721	02	05/06/95	10.00	UG/L	ND
286	PHENOL	108952	E4759	03	08/07/95	45.70	UG/L	NC
287	PHENOL	108952	E4759	03	08/08/95	20.46	UG/L	NC
288	PHENOL	108952	E4759	03	08/09/95	36.44	UG/L	NC
289	PHENOL	108952	E4759	03	08/10/95	32.77	UG/L	NC
290	PHENOL	108952	E4759	D03	08/10/95	39.06	UG/L	NC
291	PHENOL	108952	E4759	03	08/11/95	10.00	UG/L	ND
292	PYRIDINE	110861	E4721	02	05/02/95	10.00	UG/L	ND
293	PYRIDINE	110861	E4721	02	05/04/95	10.00	UG/L	ND
294	PYRIDINE	110861	E4721	02	05/05/95	10.00	UG/L	ND
295	PYRIDINE	110861	E4721	D02	05/05/95	10.00	UG/L	ND
296	PYRIDINE	110861	E4721	02	05/06/95	10.00	UG/L	ND
297	PYRIDINE	110861	E4759	03	08/07/95	10.00	UG/L	ND
298	PYRIDINE	110861	E4759	03	08/08/95	10.00	UG/L	ND
299	PYRIDINE	110861	E4759	03	08/09/95	10.00	UG/L	ND
300	PYRIDINE	110861	E4759	03	08/10/95	10.00	UG/L	ND
301	PYRIDINE	110861	E4759	D03	08/10/95	10.00	UG/L	ND
302	PYRIDINE	110861	E4759	03	08/11/95	10.00	UG/L	ND
303	TOLUENE	108883	E4721	02	05/02/95	10.00	UG/L	ND
304	TOLUENE	108883	E4721	02	05/04/95	10.00	UG/L	ND
305	TOLUENE	108883	E4721	02	05/05/95	10.00	UG/L	ND
306	TOLUENE	108883	E4721	D02	05/05/95	10.00	UG/L	ND
307	TOLUENE	108883	E4721	02	05/06/95	10.00	UG/L	ND
308	TOLUENE	108883	E4759	03	08/07/95	10.00	UG/L	ND
309	TOLUENE	108883	E4759	03	08/08/95	10.00	UG/L	ND
310	TOLUENE	108883	E4759	03	08/09/95	10.00	UG/L	ND
311	TOLUENE	108883	E4759	03	08/10/95	10.00	UG/L	ND
312	TOLUENE	108883	E4759	D03	08/10/95	10.00	UG/L	ND
313	TOLUENE	108883	E4759	03	08/11/95	10.00	UG/L	ND
314	ZINC	7440666	E4721	02	05/02/95	66.20	UG/L	NC
315	ZINC	7440666	E4721	02	05/04/95	78.30	UG/L	NC
316	ZINC	7440666	E4721	02	05/05/95	95.70	UG/L	NC

US EPA\ LANDFILLS ANALYTICAL DATABASE Appendix D

Subcategory=Hazardous

OBS	Pollutant	CAS Number	Facility	Sample Point	Sample Date	Concentration	Unit	Data Type
317	ZINC	7440666	E4721	D02	05/05/95	89.30	UG/L	NC
318	ZINC	7440666	E4721	02	05/06/95	104.00	UG/L	NC
319	ZINC	7440666	E4759	03	08/07/95	37.70	UG/L	NC
320	ZINC	7440666	E4759	03	08/08/95	35.50	UG/L	NC
321	ZINC	7440666	E4759	03	08/09/95	28.70	UG/L	NC
322	ZINC	7440666	E4759	03	08/10/95	114.00	UG/L	NC
323	ZINC	7440666	E4759	D03	08/10/95	39.40	UG/L	NC
324	ZINC	7440666	E4759	03	08/11/95	57.50	UG/L	NC
325	ZINC	7440666	17002	04	01/03/94	320.00	UG/L	NC
326	ZINC	7440666	17002	04	01/08/94	400.00	UG/L	NC
327	ZINC	7440666	17002	04	01/09/94	230.00	UG/L	NC
328	ZINC	7440666	17002	04	01/10/94	310.00	UG/L	NC
329	ZINC	7440666	17002	04	01/12/94	270.00	UG/L	NC
330	ZINC	7440666	17002	04	01/13/94	220.00	UG/L	NC
331	ZINC	7440666	17002	04	01/14/94	250.00	UG/L	NC
332	ZINC	7440666	17002	04	01/16/94	260.00	UG/L	NC
333	ZINC	7440666	17002	04	01/19/94	240.00	UG/L	NC
334	ZINC	7440666	17002	04	01/21/94	190.00	UG/L	NC
335	ZINC	7440666	17002	04	01/23/94	210.00	UG/L	NC
336	ZINC	7440666	17002	04	01/25/94	340.00	UG/L	NC
337	ZINC	7440666	17002	04	01/26/94	300.00	UG/L	NC
338	ZINC	7440666	17002	04	01/28/94	210.00	UG/L	NC
339	ZINC	7440666	17002	04	01/30/94	190.00	UG/L	NC
340	ZINC	7440666	17002	04	02/01/94	190.00	UG/L	NC
341	ZINC	7440666	17002	04	02/02/94	180.00	UG/L	NC
342	ZINC	7440666	17002	04	02/04/94	180.00	UG/L	ND
343	ZINC	7440666	17002	04	02/06/94	180.00	UG/L	ND
344	ZINC	7440666	17002	04	02/09/94	200.00	UG/L	NC
345	ZINC	7440666	17002	04	02/13/94	200.00	UG/L	NC
346	ZINC	7440666	17002	04	02/16/94	1030.00	UG/L	NC
347	ZINC	7440666	17002	04	02/17/94	500.00	UG/L	NC
348	ZINC	7440666	17002	04	02/18/94	340.00	UG/L	NC
349	ZINC	7440666	17002	04	02/21/94	410.00	UG/L	NC
350	ZINC	7440666	17002	04	02/23/94	180.00	UG/L	ND
351	ZINC	7440666	17002	04	02/25/94	180.00	UG/L	ND
352	ZINC	7440666	17002	04	02/28/94	180.00	UG/L	ND
353	ZINC	7440666	17002	04	03/02/94	180.00	UG/L	ND
354	ZINC	7440666	17002	04	03/03/94	180.00	UG/L	ND
355	ZINC	7440666	17002	04	03/07/94	210.00	UG/L	NC
356	ZINC	7440666	17002	04	03/08/94	180.00	UG/L	ND
357	ZINC	7440666	17002	04	03/10/94	180.00	UG/L	ND
358	ZINC	7440666	17002	04	03/11/94	230.00	UG/L	NC
359	ZINC	7440666	17002	04	03/13/94	220.00	UG/L	NC
360	ZINC	7440666	17002	04	03/14/94	180.00	UG/L	ND
361	ZINC	7440666	17002	04	03/16/94	200.00	UG/L	NC

US EPA\ LANDFILLS ANALYTICAL DATABASE Appendix D

Subcategory=Hazardous

OBS	Pollutant	CAS Number	Facility	Sample Point	Sample Date	Concentration	Unit	Data Type
362	ZINC	7440666	17002	04	03/18/94	420.00	UG/L	NC
363	ZINC	7440666	17002	04	03/20/94	220.00	UG/L	NC
364	ZINC	7440666	17002	04	03/21/94	180.00	UG/L	ND
365	ZINC	7440666	17002	04	03/23/94	210.00	UG/L	NC
366	ZINC	7440666	17002	04	03/25/94	240.00	UG/L	NC
367	ZINC	7440666	17002	04	03/29/94	180.00	UG/L	ND
368	ZINC	7440666	17002	04	03/30/94	180.00	UG/L	ND
369	ZINC	7440666	17002	04	04/01/94	180.00	UG/L	ND
370	ZINC	7440666	17002	04	04/05/94	200.00	UG/L	NC
371	ZINC	7440666	17002	04	04/08/94	180.00	UG/L	ND
372	ZINC	7440666	17002	04	04/11/94	180.00	UG/L	ND
373	ZINC	7440666	17002	04	04/13/94	180.00	UG/L	ND
374	ZINC	7440666	17002	04	04/15/94	180.00	UG/L	ND
375	ZINC	7440666	17002	04	04/17/94	180.00	UG/L	ND
376	ZINC	7440666	17002	04	04/19/94	180.00	UG/L	ND
377	ZINC	7440666	17002	04	04/21/94	180.00	UG/L	ND
378	ZINC	7440666	17002	04	04/23/94	180.00	UG/L	ND
379	ZINC	7440666	17002	04	04/26/94	180.00	UG/L	ND
380	ZINC	7440666	17002	04	04/27/94	180.00	UG/L	ND
381	ZINC	7440666	17002	04	04/30/94	180.00	UG/L	ND
382	ZINC	7440666	17002	04	05/02/94	180.00	UG/L	ND
383	ZINC	7440666	17002	04	05/04/94	180.00	UG/L	ND
384	ZINC	7440666	17002	04	05/11/94	190.00	UG/L	NC
385	ZINC	7440666	17002	04	05/12/94	180.00	UG/L	ND
386	ZINC	7440666	17002	04	05/14/94	180.00	UG/L	ND
387	ZINC	7440666	17002	04	05/16/94	180.00	UG/L	ND
388	ZINC	7440666	17002	04	05/18/94	180.00	UG/L	ND
389	ZINC	7440666	17002	04	05/19/94	230.00	UG/L	NC
390	ZINC	7440666	17002	04	05/21/94	180.00	UG/L	ND
391	ZINC	7440666	17002	04	05/23/94	180.00	UG/L	ND
392	ZINC	7440666	17002	04	05/25/94	180.00	UG/L	ND
393	ZINC	7440666	17002	04	05/27/94	410.00	UG/L	NC
394	ZINC	7440666	17002	04	05/31/94	180.00	UG/L	ND
395	ZINC	7440666	17002	04	06/02/94	180.00	UG/L	ND
396	ZINC	7440666	17002	04	06/04/94	180.00	UG/L	ND
397	ZINC	7440666	17002	04	06/07/94	180.00	UG/L	ND
398	ZINC	7440666	17002	04	06/09/94	180.00	UG/L	ND
399	ZINC	7440666	17002	04	06/11/94	180.00	UG/L	ND
400	ZINC	7440666	17002	04	06/14/94	180.00	UG/L	ND
401	ZINC	7440666	17002	04	06/16/94	180.00	UG/L	ND
402	ZINC	7440666	17002	04	06/17/94	180.00	UG/L	ND
403	ZINC	7440666	17002	04	06/18/94	180.00	UG/L	ND
404	ZINC	7440666	17002	04	06/21/94	180.00	UG/L	ND
405	ZINC	7440666	17002	04	06/22/94	180.00	UG/L	ND
406	ZINC	7440666	17002	04	06/23/94	180.00	UG/L	ND

US EPA\ LANDFILLS ANALYTICAL DATABASE Appendix D

Subcategory=Hazardous

OBS	Pollutant	CAS Number	Facility	Sample Point	Sample Date	Concentration	Unit	Data Type
407	ZINC	7440666	17002	04	06/24/94	180.00	UG/L	ND
408	ZINC	7440666	17002	04	06/28/94	180.00	UG/L	ND
409	ZINC	7440666	17002	04	06/30/94	180.00	UG/L	ND
410	ZINC	7440666	17002	04	07/01/94	180.00	UG/L	ND
411	ZINC	7440666	17002	04	07/04/94	180.00	UG/L	ND
412	ZINC	7440666	17002	04	07/06/94	180.00	UG/L	ND
413	ZINC	7440666	17002	04	07/07/94	180.00	UG/L	ND
414	ZINC	7440666	17002	04	07/09/94	180.00	UG/L	ND
415	ZINC	7440666	17002	04	07/12/94	180.00	UG/L	ND
416	ZINC	7440666	17002	04	07/13/94	180.00	UG/L	ND
417	ZINC	7440666	17002	04	07/15/94	180.00	UG/L	ND
418	ZINC	7440666	17002	04	07/18/94	180.00	UG/L	ND
419	ZINC	7440666	17002	04	07/20/94	190.00	UG/L	NC
420	ZINC	7440666	17002	04	07/21/94	180.00	UG/L	ND
421	ZINC	7440666	17002	04	07/22/94	180.00	UG/L	ND
422	ZINC	7440666	17002	04	07/23/94	180.00	UG/L	ND
423	ZINC	7440666	17002	04	07/26/94	180.00	UG/L	ND
424	ZINC	7440666	17002	04	07/27/94	180.00	UG/L	ND
425	ZINC	7440666	17002	04	07/29/94	180.00	UG/L	ND
426	ZINC	7440666	17002	04	07/30/94	180.00	UG/L	ND
427	ZINC	7440666	17002	04	08/03/94	180.00	UG/L	ND
428	ZINC	7440666	17002	04	08/04/94	240.00	UG/L	ND
429	ZINC	7440666	17002	04	08/06/94	180.00	UG/L	ND
430	ZINC	7440666	17002	04	08/08/94	180.00	UG/L	ND
431	ZINC	7440666	17002	04	08/10/94	180.00	UG/L	ND
432	ZINC	7440666	17002	04	08/12/94	180.00	UG/L	ND
433	ZINC	7440666	17002	04	08/13/94	240.00	UG/L	ND
434	ZINC	7440666	17002	04	08/14/94	180.00	UG/L	ND
435	ZINC	7440666	17002	04	08/15/94	180.00	UG/L	ND
436	ZINC	7440666	17002	04	08/16/94	240.00	UG/L	ND
437	ZINC	7440666	17002	04	08/17/94	180.00	UG/L	ND
438	ZINC	7440666	17002	04	08/18/94	180.00	UG/L	ND
439	ZINC	7440666	17002	04	08/19/94	180.00	UG/L	ND
440	ZINC	7440666	17002	04	08/22/94	180.00	UG/L	ND
441	ZINC	7440666	17002	04	08/24/94	240.00	UG/L	ND
442	ZINC	7440666	17002	04	08/25/94	180.00	UG/L	ND
443	ZINC	7440666	17002	04	08/30/94	260.00	UG/L	NC
444	ZINC	7440666	17002	04	09/03/94	180.00	UG/L	ND
445	ZINC	7440666	17002	04	09/06/94	180.00	UG/L	ND
446	ZINC	7440666	17002	04	09/08/94	180.00	UG/L	ND
447	ZINC	7440666	17002	04	09/10/94	180.00	UG/L	ND
448	ZINC	7440666	17002	04	09/14/94	250.00	UG/L	NC
449	ZINC	7440666	17002	04	09/16/94	180.00	UG/L	ND
450	ZINC	7440666	17002	04	09/17/94	200.00	UG/L	NC
451	ZINC	7440666	17002	04	09/19/94	180.00	UG/L	ND

US EPA\ LANDFILLS ANALYTICAL DATABASE Appendix D

Subcategory=Hazardous

OBS	Pollutant	CAS Number	Facility	Sample Point	Sample Date	Concentration	Unit	Data Type
452	ZINC	7440666	17002	04	09/22/94	240.00	UG/L	ND
453	ZINC	7440666	17002	04	09/23/94	180.00	UG/L	ND
454	ZINC	7440666	17002	04	09/26/94	180.00	UG/L	ND
455	ZINC	7440666	17002	04	09/27/94	180.00	UG/L	ND
456	ZINC	7440666	17002	04	09/29/94	180.00	UG/L	ND
457	ZINC	7440666	17002	04	09/30/94	180.00	UG/L	ND
458	ZINC	7440666	17002	04	10/04/94	180.00	UG/L	ND
459	ZINC	7440666	17002	04	10/05/94	240.00	UG/L	ND
460	ZINC	7440666	17002	04	10/07/94	180.00	UG/L	ND
461	ZINC	7440666	17002	04	10/11/94	180.00	UG/L	ND
462	ZINC	7440666	17002	04	10/14/94	180.00	UG/L	ND
463	ZINC	7440666	17002	04	10/18/94	180.00	UG/L	ND
464	ZINC	7440666	17002	04	10/20/94	240.00	UG/L	ND
465	ZINC	7440666	17002	04	10/25/94	180.00	UG/L	ND
466	ZINC	7440666	17002	04	10/26/94	180.00	UG/L	ND
467	ZINC	7440666	17002	04	10/28/94	240.00	UG/L	ND
468	ZINC	7440666	17002	04	10/29/94	180.00	UG/L	ND
469	ZINC	7440666	17002	04	11/02/94	180.00	UG/L	ND
470	ZINC	7440666	17002	04	11/04/94	240.00	UG/L	ND
471	ZINC	7440666	17002	04	11/07/94	240.00	UG/L	ND
472	ZINC	7440666	17002	04	11/08/94	240.00	UG/L	ND
473	ZINC	7440666	17002	04	11/10/94	240.00	UG/L	ND
474	ZINC	7440666	17002	04	11/11/94	240.00	UG/L	ND
475	ZINC	7440666	17002	04	11/15/94	180.00	UG/L	ND
476	ZINC	7440666	17002	04	11/16/94	240.00	UG/L	ND
477	ZINC	7440666	17002	04	11/18/94	240.00	UG/L	ND
478	ZINC	7440666	17002	04	11/19/94	240.00	UG/L	ND
479	ZINC	7440666	17002	04	11/22/94	240.00	UG/L	ND
480	ZINC	7440666	17002	04	11/28/94	240.00	UG/L	ND
481	ZINC	7440666	17002	04	11/30/94	240.00	UG/L	ND
482	ZINC	7440666	17002	04	12/02/94	240.00	UG/L	ND
483	ZINC	7440666	17002	04	12/05/94	240.00	UG/L	ND
484	ZINC	7440666	17002	04	12/08/94	240.00	UG/L	ND
485	ZINC	7440666	17002	04	12/11/94	240.00	UG/L	ND
486	ZINC	7440666	17002	04	12/13/94	240.00	UG/L	ND
487	ZINC	7440666	17002	04	12/16/94	240.00	UG/L	ND
488	ZINC	7440666	17002	04	12/19/94	240.00	UG/L	ND
489	ZINC	7440666	17002	04	12/22/94	240.00	UG/L	ND
490	ZINC	7440666	17002	04	12/23/94	240.00	UG/L	ND
491	ZINC	7440666	17002	04	12/29/94	240.00	UG/L	ND
492	ZINC	7440666	17002	04	12/31/94	240.00	UG/L	ND
493	ZINC	7440666	17006	05	01/20/93	366.00	UG/L	NC
494	ZINC	7440666	17006	05	02/10/93	255.00	UG/L	NC
495	ZINC	7440666	17006	05	03/17/93	169.00	UG/L	NC
496	ZINC	7440666	17006	05	04/20/93	495.00	UG/L	NC

Subcategory=Hazardous

OBS	Pollutant	CAS Number	Facility	Sample Point	Sample Date	Concentration	Unit	Data Type
497	ZINC	7440666	17006	05	05/05/93	412.00	UG/L	NC
498	ZINC	7440666	17006	05	06/22/93	1080.00	UG/L	NC
499	ZINC	7440666	17006	05	07/09/93	250.00	UG/L	ND
500	ZINC	7440666	17006	05	08/13/93	170.00	UG/L	NC
501	ZINC	7440666	17006	05	09/17/93	390.00	UG/L	NC
502	ZINC	7440666	17006	05	10/26/93	50.00	UG/L	ND
503	ZINC	7440666	17006	05	11/05/93	250.00	UG/L	ND
504	ZINC	7440666	17006	05	12/22/93	670.00	UG/L	NC

Subcategory=Non-Hazardous

OBS	Pollutant	CAS Number	Facility	Sample Point	Sample Date	Concentration	Unit	Data Type
505	ALPHA-TERPINEOL	98555	E4626	08	08/08/94	10.00	UG/L	ND
506	ALPHA-TERPINEOL	98555	E4626	08	08/09/94	50.50	UG/L	ND
507	ALPHA-TERPINEOL	98555	E4626	08	08/10/94	11.10	UG/L	ND
508	ALPHA-TERPINEOL	98555	E4626	D08	08/10/94	10.00	UG/L	ND
509	ALPHA-TERPINEOL	98555	E4626	08	08/11/94	10.00	UG/L	ND
510	ALPHA-TERPINEOL	98555	E4626	08	08/12/94	10.00	UG/L	ND
511	AMMONIA NITROGEN	7664417	E4721	02	05/02/95	1340.00	UG/L	NC
512	AMMONIA NITROGEN	7664417	E4721	02	05/04/95	1560.00	UG/L	NC
513	AMMONIA NITROGEN	7664417	E4721	02	05/05/95	1270.00	UG/L	NC
514	AMMONIA NITROGEN	7664417	E4721	D02	05/05/95	1270.00	UG/L	NC
515	AMMONIA NITROGEN	7664417	E4721	02	05/06/95	1560.00	UG/L	NC
516	AMMONIA NITROGEN	7664417	17016	03	01/04/94	400.00	UG/L	NC
517	AMMONIA NITROGEN	7664417	17016	03	01/11/94	1200.00	UG/L	NC
518	AMMONIA NITROGEN	7664417	17016	03	01/18/94	300.00	UG/L	NC
519	AMMONIA NITROGEN	7664417	17016	03	01/25/94	200.00	UG/L	NC
520	AMMONIA NITROGEN	7664417	17016	03	02/15/94	300.00	UG/L	NC
521	AMMONIA NITROGEN	7664417	17016	03	03/01/94	100.00	UG/L	ND
522	AMMONIA NITROGEN	7664417	17016	03	03/08/94	400.00	UG/L	NC
523	AMMONIA NITROGEN	7664417	17016	03	03/15/94	210.00	UG/L	NC
524	AMMONIA NITROGEN	7664417	17016	03	03/22/94	100.00	UG/L	NC
525	AMMONIA NITROGEN	7664417	17016	03	03/29/94	300.00	UG/L	NC
526	AMMONIA NITROGEN	7664417	17016	03	04/05/94	200.00	UG/L	NC
527	AMMONIA NITROGEN	7664417	17016	03	04/12/94	100.00	UG/L	NC
528	AMMONIA NITROGEN	7664417	17016	03	04/19/94	400.00	UG/L	NC
529	AMMONIA NITROGEN	7664417	17016	03	04/26/94	100.00	UG/L	NC
530	AMMONIA NITROGEN	7664417	17016	03	05/03/94	200.00	UG/L	NC
531	AMMONIA NITROGEN	7664417	17016	03	05/10/94	200.00	UG/L	NC
532	AMMONIA NITROGEN	7664417	17016	03	05/17/94	100.00	UG/L	ND
533	AMMONIA NITROGEN	7664417	17016	03	05/24/94	310.00	UG/L	NC
534	AMMONIA NITROGEN	7664417	17016	03	05/31/94	310.00	UG/L	NC

Subcategory=Non-Hazardous

OBS	Pollutant	CAS Number	Facility	Sample Point	Sample Date	Concentration	Unit	Data Type
535	AMMONIA NITROGEN	7664417	17016	03	06/07/94	200.00	UG/L	NC
536	AMMONIA NITROGEN	7664417	17016	03	06/14/94	200.00	UG/L	NC
537	AMMONIA NITROGEN	7664417	17016	03	06/21/94	100.00	UG/L	NC
538	AMMONIA NITROGEN	7664417	17016	03	06/28/94	100.00	UG/L	NC
539	AMMONIA NITROGEN	7664417	17016	03	07/05/94	1100.00	UG/L	NC
540	AMMONIA NITROGEN	7664417	17016	03	07/12/94	100.00	UG/L	ND
541	AMMONIA NITROGEN	7664417	17016	03	07/20/94	400.00	UG/L	NC
542	AMMONIA NITROGEN	7664417	17016	03	07/26/94	100.00	UG/L	NC
543	AMMONIA NITROGEN	7664417	17016	03	08/09/94	100.00	UG/L	NC
544	AMMONIA NITROGEN	7664417	17016	03	09/06/94	100.00	UG/L	ND
545	AMMONIA NITROGEN	7664417	17016	03	09/13/94	500.00	UG/L	NC
546	AMMONIA NITROGEN	7664417	17016	03	09/20/94	6900.00	UG/L	NC
547	AMMONIA NITROGEN	7664417	17016	03	09/27/94	200.00	UG/L	NC
548	AMMONIA NITROGEN	7664417	17016	03	10/04/94	200.00	UG/L	NC
549	AMMONIA NITROGEN	7664417	17016	03	10/11/94	100.00	UG/L	NC
550	AMMONIA NITROGEN	7664417	17016	03	10/18/94	1100.00	UG/L	NC
551	AMMONIA NITROGEN	7664417	17016	03	10/25/94	500.00	UG/L	NC
552	AMMONIA NITROGEN	7664417	17016	03	11/01/94	400.00	UG/L	NC
553	AMMONIA NITROGEN	7664417	17016	03	11/15/94	200.00	UG/L	NC
554	AMMONIA NITROGEN	7664417	17016	03	12/06/94	200.00	UG/L	NC
555	AMMONIA NITROGEN	7664417	17016	03	12/20/94	1000.00	UG/L	NC
556	AMMONIA NITROGEN	7664417	17023	04	01/06/94	7190.00	UG/L	NC
557	AMMONIA NITROGEN	7664417	17023	04	01/14/93	7600.00	UG/L	NC
558	AMMONIA NITROGEN	7664417	17023	04	01/24/92	9700.00	UG/L	NC
559	AMMONIA NITROGEN	7664417	17023	04	02/03/94	7460.00	UG/L	NC
560	AMMONIA NITROGEN	7664417	17023	04	02/19/92	7800.00	UG/L	NC
561	AMMONIA NITROGEN	7664417	17023	04	02/24/93	8120.00	UG/L	NC
562	AMMONIA NITROGEN	7664417	17023	04	03/12/93	7370.00	UG/L	NC
563	AMMONIA NITROGEN	7664417	17023	04	03/15/94	8450.00	UG/L	NC
564	AMMONIA NITROGEN	7664417	17023	04	03/18/92	9200.00	UG/L	NC
565	AMMONIA NITROGEN	7664417	17023	04	04/11/94	11600.00	UG/L	NC
566	AMMONIA NITROGEN	7664417	17023	04	04/14/92	11800.00	UG/L	NC
567	AMMONIA NITROGEN	7664417	17023	04	04/28/93	7450.00	UG/L	NC
568	AMMONIA NITROGEN	7664417	17023	04	05/13/92	10900.00	UG/L	NC
569	AMMONIA NITROGEN	7664417	17023	04	05/16/94	8320.00	UG/L	NC
570	AMMONIA NITROGEN	7664417	17023	04	05/17/93	7460.00	UG/L	NC
571	AMMONIA NITROGEN	7664417	17023	04	06/09/94	4070.00	UG/L	NC
572	AMMONIA NITROGEN	7664417	17023	04	06/14/93	5850.00	UG/L	NC
573	AMMONIA NITROGEN	7664417	17023	04	06/17/92	6980.00	UG/L	NC
574	AMMONIA NITROGEN	7664417	17023	04	07/07/93	3530.00	UG/L	NC
575	AMMONIA NITROGEN	7664417	17023	04	07/11/94	360.00	UG/L	NC
576	AMMONIA NITROGEN	7664417	17023	04	07/13/92	8100.00	UG/L	NC
577	AMMONIA NITROGEN	7664417	17023	04	08/10/93	1650.00	UG/L	NC
578	AMMONIA NITROGEN	7664417	17023	04	08/10/94	710.00	UG/L	NC
579	AMMONIA NITROGEN	7664417	17023	04	08/19/92	7500.00	UG/L	NC

Subcategory=Non-Hazardous

OBS	Pollutant	CAS Number	Facility	Sample Point	Sample Date	Concentration	Unit	Data Type
580	AMMONIA NITROGEN	7664417	17023	04	09/01/94	2020.00	UG/L	NC
581	AMMONIA NITROGEN	7664417	17023	04	09/08/93	1150.00	UG/L	NC
582	AMMONIA NITROGEN	7664417	17023	04	09/16/92	5900.00	UG/L	NC
583	AMMONIA NITROGEN	7664417	17023	04	10/10/94	1770.00	UG/L	NC
584	AMMONIA NITROGEN	7664417	17023	04	10/11/93	920.00	UG/L	NC
585	AMMONIA NITROGEN	7664417	17023	04	10/12/92	7100.00	UG/L	NC
586	AMMONIA NITROGEN	7664417	17023	04	11/01/93	1060.00	UG/L	NC
587	AMMONIA NITROGEN	7664417	17023	04	11/09/92	7400.00	UG/L	NC
588	AMMONIA NITROGEN	7664417	17023	04	11/15/94	2930.00	UG/L	NC
589	AMMONIA NITROGEN	7664417	17023	04	12/01/93	2850.00	UG/L	NC
590	AMMONIA NITROGEN	7664417	17023	04	12/08/94	3730.00	UG/L	NC
591	AMMONIA NITROGEN	7664417	17023	04	12/16/92	5800.00	UG/L	NC
592	BENZOIC ACID	65850	E4626	08	08/08/94	50.00	UG/L	ND
593	BENZOIC ACID	65850	E4626	08	08/09/94	252.50	UG/L	ND
594	BENZOIC ACID	65850	E4626	08	08/10/94	55.50	UG/L	ND
595	BENZOIC ACID	65850	E4626	D08	08/10/94	50.00	UG/L	ND
596	BENZOIC ACID	65850	E4626	08	08/11/94	50.00	UG/L	ND
597	BENZOIC ACID	65850	E4626	08	08/12/94	50.00	UG/L	ND
598	BIOLOGICAL OXYGEN DEMAND	C-002	E4626	08	08/08/94	43000.00	UG/L	RC
599	BIOLOGICAL OXYGEN DEMAND	C-002	E4626	08	08/09/94	18000.00	UG/L	NC
600	BIOLOGICAL OXYGEN DEMAND	C-002	E4626	08	08/10/94	1000.00	UG/L	NC
601	BIOLOGICAL OXYGEN DEMAND	C-002	E4626	D08	08/10/94	2000.00	UG/L	NC
602	BIOLOGICAL OXYGEN DEMAND	C-002	E4626	08	08/11/94	4000.00	UG/L	NC
603	BIOLOGICAL OXYGEN DEMAND	C-002	E4626	08	08/12/94	17000.00	UG/L	NC
604	BIOLOGICAL OXYGEN DEMAND	C-002	E4721	02	05/02/95	32000.00	UG/L	NC
605	BIOLOGICAL OXYGEN DEMAND	C-002	E4721	02	05/04/95	41000.00	UG/L	NC
606	BIOLOGICAL OXYGEN DEMAND	C-002	E4721	02	05/05/95	29000.00	UG/L	NC
607	BIOLOGICAL OXYGEN DEMAND	C-002	E4721	D02	05/05/95	49000.00	UG/L	NC
608	BIOLOGICAL OXYGEN DEMAND	C-002	E4721	02	05/06/95	76000.00	UG/L	NC
609	BIOLOGICAL OXYGEN DEMAND	C-002	17004	01	01/01/94	6000.00	UG/L	NC
610	BIOLOGICAL OXYGEN DEMAND	C-002	17004	01	01/25/93	8000.00	UG/L	NC
611	BIOLOGICAL OXYGEN DEMAND	C-002	17004	01	02/16/93	240000.00	UG/L	NC
612	BIOLOGICAL OXYGEN DEMAND	C-002	17004	01	02/27/92	14000.00	UG/L	NC
613	BIOLOGICAL OXYGEN DEMAND	C-002	17004	01	03/31/93	19000.00	UG/L	NC
614	BIOLOGICAL OXYGEN DEMAND	C-002	17004	01	04/01/94	2070.00	UG/L	NC
615	BIOLOGICAL OXYGEN DEMAND	C-002	17004	01	05/12/93	3000.00	UG/L	NC
616	BIOLOGICAL OXYGEN DEMAND	C-002	17004	01	06/24/93	1000.00	UG/L	ND
617	BIOLOGICAL OXYGEN DEMAND	C-002	17004	01	07/27/93	1000.00	UG/L	ND
618	BIOLOGICAL OXYGEN DEMAND	C-002	17004	01	10/01/93	3000.00	UG/L	NC
619	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	01/11/93	53000.00	UG/L	NC
620	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	01/19/94	23200.00	UG/L	NC
621	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	01/26/93	17000.00	UG/L	NC
622	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	02/09/93	30000.00	UG/L	NC
623	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	02/18/94	23200.00	UG/L	NC
624	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	02/23/93	70000.00	UG/L	NC

US EPA\ LANDFILLS ANALYTICAL DATABASE Appendix D

Subcategory=Non-Hazardous

OBS	Pollutant	CAS Number	Facility	Sample Point	Sample Date	Concentration	Unit	Data Type
625	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	03/15/93	34000.00	UG/L	NC
626	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	03/17/94	115000.00	UG/L	NC
627	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	03/29/93	29000.00	UG/L	NC
628	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	04/12/93	19000.00	UG/L	NC
629	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	04/13/94	22900.00	UG/L	NC
630	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	04/26/93	44000.00	UG/L	NC
631	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	05/03/94	189000.00	UG/L	NC
632	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	05/14/93	62800.00	UG/L	NC
633	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	05/24/94	64400.00	UG/L	NC
634	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	05/25/93	38400.00	UG/L	NC
635	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	06/15/93	32000.00	UG/L	NC
636	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	06/20/94	44000.00	UG/L	NC
637	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	07/06/94	10200.00	UG/L	NC
638	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	08/24/94	5000.00	UG/L	NC
639	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	09/01/93	26000.00	UG/L	NC
640	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	09/22/94	64000.00	UG/L	NC
641	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	10/05/93	62400.00	UG/L	NC
642	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	10/12/94	7300.00	UG/L	NC
643	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	10/18/93	125000.00	UG/L	NC
644	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	10/26/94	19400.00	UG/L	NC
645	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	11/04/93	64800.00	UG/L	NC
646	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	12/01/93	99800.00	UG/L	NC
647	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	12/01/94	17800.00	UG/L	NC
648	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	12/13/94	5400.00	UG/L	NC
649	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	12/20/93	32300.00	UG/L	NC
650	BIOLOGICAL OXYGEN DEMAND	C-002	17013	02	12/28/94	5900.00	UG/L	NC
651	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	01/05/94	2800.00	UG/L	NC
652	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	01/12/94	4800.00	UG/L	NC
653	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	01/19/94	12000.00	UG/L	NC
654	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	01/26/94	4400.00	UG/L	NC
655	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	02/02/94	5500.00	UG/L	NC
656	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	02/09/94	3300.00	UG/L	NC
657	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	02/17/94	3600.00	UG/L	NC
658	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	02/23/94	3800.00	UG/L	NC
659	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	03/02/94	24000.00	UG/L	NC
660	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	03/09/94	4100.00	UG/L	NC
661	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	03/16/94	4000.00	UG/L	NC
662	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	03/23/94	3300.00	UG/L	NC
663	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	03/30/94	2200.00	UG/L	NC
664	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	04/06/94	2400.00	UG/L	NC
665	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	04/13/94	2700.00	UG/L	NC
666	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	04/20/94	2800.00	UG/L	NC
667	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	04/27/94	4700.00	UG/L	NC
668	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	05/04/94	4500.00	UG/L	NC
669	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	05/11/94	3000.00	UG/L	NC

Subcategory=Non-Hazardous

OBS	Pollutant	CAS Number	Facility	Sample Point	Sample Date	Concentration	Unit	Data Type
670	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	05/17/94	5100.00	UG/L	NC
671	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	05/26/94	4400.00	UG/L	NC
672	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	06/01/94	2600.00	UG/L	NC
673	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	06/08/94	22000.00	UG/L	NC
674	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	06/15/94	7100.00	UG/L	NC
675	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	06/22/94	2300.00	UG/L	NC
676	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	06/29/94	3900.00	UG/L	NC
677	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	07/06/94	2100.00	UG/L	NC
678	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	07/13/94	2000.00	UG/L	NC
679	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	07/20/94	3200.00	UG/L	NC
680	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	07/27/94	2000.00	UG/L	ND
681	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	08/03/94	2000.00	UG/L	ND
682	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	08/10/94	2000.00	UG/L	ND
683	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	08/17/94	2000.00	UG/L	ND
684	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	08/25/94	2000.00	UG/L	ND
685	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	08/31/94	2000.00	UG/L	ND
686	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	09/07/94	16000.00	UG/L	NC
687	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	09/08/94	5000.00	UG/L	NC
688	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	09/14/94	3400.00	UG/L	NC
689	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	09/21/94	2600.00	UG/L	NC
690	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	09/28/94	2400.00	UG/L	NC
691	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	10/06/94	3500.00	UG/L	NC
692	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	10/12/94	3400.00	UG/L	NC
693	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	10/19/94	3200.00	UG/L	NC
694	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	10/26/94	2000.00	UG/L	ND
695	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	11/02/94	2100.00	UG/L	NC
696	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	11/09/94	4400.00	UG/L	NC
697	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	11/16/94	4300.00	UG/L	NC
698	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	11/22/94	3700.00	UG/L	NC
699	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	11/30/94	2700.00	UG/L	NC
700	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	12/07/94	5000.00	UG/L	NC
701	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	12/14/94	3600.00	UG/L	NC
702	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	12/21/94	6200.00	UG/L	NC
703	BIOLOGICAL OXYGEN DEMAND	C-002	17015	02	12/28/94	3100.00	UG/L	NC
704	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	01/06/94	10000.00	UG/L	NC
705	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	01/14/93	600.00	UG/L	ND
706	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	01/24/92	54900.00	UG/L	NC
707	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	02/03/94	18000.00	UG/L	NC
708	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	02/19/92	112000.00	UG/L	NC
709	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	02/24/93	37000.00	UG/L	NC
710	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	03/12/93	33000.00	UG/L	NC
711	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	03/15/94	5000.00	UG/L	ND
712	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	03/18/92	82700.00	UG/L	NC
713	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	04/11/94	5000.00	UG/L	ND
714	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	04/14/92	37200.00	UG/L	NC

US EPA\ LANDFILLS ANALYTICAL DATABASE Appendix D

Subcategory=Non-Hazardous

OBS	Pollutant	CAS Number	Facility	Sample Point	Sample Date	Concentration	Unit	Data Type
715	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	04/28/93	5000.00	UG/L	ND
716	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	05/13/92	24900.00	UG/L	NC
717	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	05/16/94	5000.00	UG/L	ND
718	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	05/17/93	5000.00	UG/L	ND
719	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	06/09/94	5000.00	UG/L	ND
720	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	06/14/93	5000.00	UG/L	ND
721	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	06/17/92	3290.00	UG/L	NC
722	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	07/07/93	5000.00	UG/L	ND
723	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	07/11/94	5000.00	UG/L	ND
724	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	07/13/92	4800.00	UG/L	NC
725	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	08/10/93	5000.00	UG/L	ND
726	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	08/10/94	5000.00	UG/L	ND
727	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	08/19/92	5000.00	UG/L	NC
728	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	09/01/94	6000.00	UG/L	NC
729	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	09/08/93	5000.00	UG/L	ND
730	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	09/16/92	6100.00	UG/L	NC
731	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	10/10/94	5000.00	UG/L	NC
732	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	10/11/93	5000.00	UG/L	ND
733	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	10/12/92	7000.00	UG/L	NC
734	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	11/01/93	6000.00	UG/L	NC
735	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	11/09/92	7500.00	UG/L	NC
736	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	11/15/94	5000.00	UG/L	ND
737	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	12/01/93	6000.00	UG/L	NC
738	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	12/08/94	5000.00	UG/L	NC
739	BIOLOGICAL OXYGEN DEMAND	C-002	17023	04	12/16/92	27500.00	UG/L	NC
740	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	01/05/94	2200.00	UG/L	NC
741	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	01/08/92	3000.00	UG/L	ND
742	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	01/13/93	3000.00	UG/L	ND
743	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	02/03/93	3000.00	UG/L	ND
744	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	02/05/92	3000.00	UG/L	ND
745	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	02/09/94	5900.00	UG/L	NC
746	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	03/02/94	3000.00	UG/L	ND
747	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	03/03/93	3000.00	UG/L	ND
748	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	03/04/92	3000.00	UG/L	ND
749	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	04/01/92	6000.00	UG/L	ND
750	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	04/14/93	3000.00	UG/L	ND
751	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	04/14/94	3000.00	UG/L	ND
752	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	05/06/92	3000.00	UG/L	ND
753	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	05/11/94	3000.00	UG/L	ND
754	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	05/12/93	2000.00	UG/L	ND
755	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	06/01/94	8400.00	UG/L	NC
756	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	06/02/93	3000.00	UG/L	ND
757	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	06/03/92	3000.00	UG/L	ND
758	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	07/07/93	15600.00	UG/L	NC
759	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	07/08/92	12000.00	UG/L	NC

Subcategory=Non-Hazardous

OBS	Pollutant	CAS Number	Facility	Sample Point	Sample Date	Concentration	Unit	Data Type
760	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	07/12/94	3000.00	UG/L	ND
761	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	08/03/94	3000.00	UG/L	ND
762	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	08/05/92	3000.00	UG/L	ND
763	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	08/11/93	70800.00	UG/L	ND
764	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	09/02/92	3000.00	UG/L	ND
765	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	09/06/94	3000.00	UG/L	ND
766	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	09/08/93	6000.00	UG/L	ND
767	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	10/04/94	3000.00	UG/L	ND
768	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	10/07/92	4800.00	UG/L	NC
769	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	10/13/93	3000.00	UG/L	ND
770	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	11/03/93	13100.00	UG/L	NC
771	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	11/09/94	3000.00	UG/L	ND
772	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	11/11/92	8800.00	UG/L	NC
773	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	12/01/93	2000.00	UG/L	ND
774	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	12/02/92	4000.00	UG/L	NC
775	BIOLOGICAL OXYGEN DEMAND	C-002	17027	02	12/06/94	4000.00	UG/L	NC
776	P-CRESOL	106445	E4626	08	08/08/94	10.00	UG/L	ND
777	P-CRESOL	106445	E4626	08	08/09/94	50.50	UG/L	ND
778	P-CRESOL	106445	E4626	08	08/10/94	11.10	UG/L	ND
779	P-CRESOL	106445	E4626	D08	08/10/94	10.00	UG/L	ND
780	P-CRESOL	106445	E4626	08	08/11/94	10.00	UG/L	ND
781	P-CRESOL	106445	E4626	08	08/12/94	10.00	UG/L	ND
782	PHENOL	108952	E4626	08	08/08/94	10.00	UG/L	ND
783	PHENOL	108952	E4626	08	08/09/94	50.50	UG/L	ND
784	PHENOL	108952	E4626	08	08/10/94	11.10	UG/L	ND
785	PHENOL	108952	E4626	D08	08/10/94	10.00	UG/L	ND
786	PHENOL	108952	E4626	08	08/11/94	10.00	UG/L	ND
787	PHENOL	108952	E4626	08	08/12/94	10.00	UG/L	ND
788	PHENOL	108952	17013	02	05/14/93	13.00	UG/L	NC
789	PHENOL	108952	17013	02	12/13/94	10.00	UG/L	ND
790	PHENOL	108952	17013	02	12/28/94	10.00	UG/L	ND
791	PHENOL	108952	17015	02	02/17/94	28.00	UG/L	NC
792	PHENOL	108952	17015	02	02/23/94	5.00	UG/L	ND
793	PHENOL	108952	17015	02	03/02/94	17.00	UG/L	NC
794	PHENOL	108952	17015	02	03/09/94	15.00	UG/L	NC
795	PHENOL	108952	17015	02	03/23/94	25.00	UG/L	NC
796	PHENOL	108952	17015	02	03/30/94	26.00	UG/L	NC
797	PHENOL	108952	17015	02	04/05/94	32.00	UG/L	NC
798	PHENOL	108952	17015	02	04/13/94	30.00	UG/L	NC
799	PHENOL	108952	17015	02	04/20/94	45.00	UG/L	NC
800	PHENOL	108952	17015	02	04/27/94	31.00	UG/L	NC
801	PHENOL	108952	17015	02	05/04/94	40.00	UG/L	NC
802	PHENOL	108952	17015	02	05/11/94	23.00	UG/L	NC
803	PHENOL	108952	17015	02	05/17/94	25.00	UG/L	ND
804	PHENOL	108952	17015	02	05/26/94	41.00	UG/L	NC

US EPA\ LANDFILLS ANALYTICAL DATABASE Appendix D

Subcategory=Non-Hazardous

OBS	Pollutant	CAS Number	Facility	Sample Point	Sample Date	Concentration	Unit	Data Type
805	PHENOL	108952	17015	02	06/01/94	40.00	UG/L	NC
806	PHENOL	108952	17015	02	06/08/94	44.00	UG/L	NC
807	PHENOL	108952	17015	02	06/15/94	32.00	UG/L	NC
808	PHENOL	108952	17015	02	06/22/94	44.00	UG/L	NC
809	PHENOL	108952	17015	02	06/29/94	31.00	UG/L	NC
810	PHENOL	108952	17015	02	07/06/94	16.00	UG/L	NC
811	PHENOL	108952	17015	02	07/13/94	27.00	UG/L	NC
812	PHENOL	108952	17015	02	07/20/94	27.00	UG/L	NC
813	PHENOL	108952	17015	02	07/27/94	25.00	UG/L	NC
814	PHENOL	108952	17015	02	08/03/94	12.00	UG/L	NC
815	PHENOL	108952	17015	02	08/10/94	18.00	UG/L	NC
816	PHENOL	108952	17015	02	08/17/94	13.00	UG/L	NC
817	PHENOL	108952	17015	02	08/25/94	19.00	UG/L	NC
818	PHENOL	108952	17015	02	08/31/94	14.00	UG/L	NC
819	PHENOL	108952	17015	02	09/07/94	14.00	UG/L	NC
820	PHENOL	108952	17015	02	09/08/94	18.00	UG/L	NC
821	PHENOL	108952	17015	02	09/14/94	27.00	UG/L	NC
822	PHENOL	108952	17015	02	09/21/94	19.00	UG/L	NC
823	PHENOL	108952	17015	02	09/28/94	18.00	UG/L	NC
824	PHENOL	108952	17015	02	10/06/94	32.00	UG/L	NC
825	PHENOL	108952	17015	02	10/12/94	27.00	UG/L	NC
826	PHENOL	108952	17015	02	10/19/94	31.00	UG/L	NC
827	PHENOL	108952	17015	02	10/26/94	31.00	UG/L	NC
828	PHENOL	108952	17015	02	11/02/94	49.00	UG/L	NC
829	PHENOL	108952	17015	02	11/09/94	27.00	UG/L	NC
830	PHENOL	108952	17015	02	11/16/94	28.00	UG/L	NC
831	PHENOL	108952	17015	02	11/22/94	34.00	UG/L	NC
832	PHENOL	108952	17015	02	11/30/94	27.00	UG/L	NC
833	PHENOL	108952	17015	02	12/07/94	74.00	UG/L	NC
834	PHENOL	108952	17015	02	12/14/94	37.00	UG/L	NC
835	PHENOL	108952	17015	02	12/21/94	9.00	UG/L	NC
836	PHENOL	108952	17015	02	12/28/94	28.00	UG/L	NC
837	TOLUENE	108883	17013	02	01/11/93	5.00	UG/L	ND
838	TOLUENE	108883	17013	02	01/26/93	10.00	UG/L	ND
839	TOLUENE	108883	17013	02	02/01/93	5.00	UG/L	ND
840	TOLUENE	108883	17013	02	02/09/93	10.00	UG/L	ND
841	TOLUENE	108883	17013	02	02/18/94	5.00	UG/L	ND
842	TOLUENE	108883	17013	02	02/23/93	5.00	UG/L	ND
843	TOLUENE	108883	17013	02	03/08/93	52.00	UG/L	NC
844	TOLUENE	108883	17013	02	03/15/93	5.00	UG/L	ND
845	TOLUENE	108883	17013	02	03/17/94	5.00	UG/L	ND
846	TOLUENE	108883	17013	02	03/24/93	5.00	UG/L	ND
847	TOLUENE	108883	17013	02	03/29/93	5.00	UG/L	ND
848	TOLUENE	108883	17013	02	04/12/93	5.00	UG/L	ND
849	TOLUENE	108883	17013	02	04/13/93	5.00	UG/L	ND

Subcategory=Non-Hazardous

OBS	Pollutant	CAS Number	Facility	Sample Point	Sample Date	Concentration	Unit	Data Type
850	TOLUENE	108883	17013	02	04/13/94	5.00	UG/L	ND
851	TOLUENE	108883	17013	02	04/26/93	5.00	UG/L	ND
852	TOLUENE	108883	17013	02	05/03/94	5.00	UG/L	ND
853	TOLUENE	108883	17013	02	05/14/93	5.00	UG/L	ND
854	TOLUENE	108883	17013	02	05/24/94	5.00	UG/L	ND
855	TOLUENE	108883	17013	02	06/15/93	5.00	UG/L	ND
856	TOLUENE	108883	17013	02	06/20/94	5.00	UG/L	ND
857	TOLUENE	108883	17013	02	07/06/94	5.00	UG/L	ND
858	TOLUENE	108883	17013	02	08/24/94	5.00	UG/L	ND
859	TOLUENE	108883	17013	02	09/01/93	5.00	UG/L	ND
860	TOLUENE	108883	17013	02	09/22/94	5.00	UG/L	ND
861	TOLUENE	108883	17013	02	10/05/93	5.00	UG/L	ND
862	TOLUENE	108883	17013	02	10/12/94	5.00	UG/L	ND
863	TOLUENE	108883	17013	02	10/18/93	5.00	UG/L	ND
864	TOLUENE	108883	17013	02	10/26/94	5.00	UG/L	ND
865	TOLUENE	108883	17013	02	11/04/93	5.00	UG/L	ND
866	TOLUENE	108883	17013	02	12/01/93	5.00	UG/L	ND
867	TOLUENE	108883	17013	02	12/01/94	5.00	UG/L	ND
868	TOLUENE	108883	17013	02	12/13/94	5.00	UG/L	ND
869	TOLUENE	108883	17013	02	12/20/93	5.00	UG/L	ND
870	TOLUENE	108883	17013	02	12/28/94	5.00	UG/L	ND
871	TOLUENE	108883	17016	03	01/05/94	5.00	UG/L	ND
872	TOLUENE	108883	17016	03	01/12/94	5.00	UG/L	ND
873	TOLUENE	108883	17016	03	02/16/94	5.00	UG/L	ND
874	TOLUENE	108883	17016	03	03/02/94	5.00	UG/L	ND
875	TOLUENE	108883	17016	03	03/16/94	5.00	UG/L	ND
876	TOLUENE	108883	17016	03	04/06/94	5.00	UG/L	ND
877	TOLUENE	108883	17016	03	04/20/94	5.00	UG/L	ND
878	TOLUENE	108883	17016	03	05/04/94	5.00	UG/L	ND
879	TOLUENE	108883	17016	03	05/25/94	5.00	UG/L	ND
880	TOLUENE	108883	17016	03	06/08/94	5.00	UG/L	ND
881	TOLUENE	108883	17016	03	06/22/94	0.01	UG/L	ND
882	TOLUENE	108883	17016	03	07/06/94	5.00	UG/L	ND
883	TOLUENE	108883	17016	03	07/20/94	5.00	UG/L	ND
884	TOLUENE	108883	17016	03	08/10/94	5.00	UG/L	ND
885	TOLUENE	108883	17016	03	09/07/94	5.00	UG/L	ND
886	TOLUENE	108883	17016	03	09/21/94	5.00	UG/L	ND
887	TOLUENE	108883	17016	03	10/05/94	5.00	UG/L	ND
888	TOLUENE	108883	17016	03	10/19/94	5.00	UG/L	ND
889	TOLUENE	108883	17023	04	01/06/94	5.00	UG/L	ND
890	TOLUENE	108883	17023	04	01/24/92	1.00	UG/L	ND
891	TOLUENE	108883	17023	04	02/03/94	5.00	UG/L	ND
892	TOLUENE	108883	17023	04	02/19/92	1.00	UG/L	ND
893	TOLUENE	108883	17023	04	02/24/93	10.00	UG/L	ND
894	TOLUENE	108883	17023	04	03/12/93	10.00	UG/L	ND

US EPA\ LANDFILLS ANALYTICAL DATABASE Appendix D

Subcategory=Non-Hazardous

OBS	Pollutant	CAS Number	Facility	Sample Point	Sample Date	Concentration	Unit	Data Type
895	TOLUENE	108883	17023	04	03/15/94	5.00	UG/L	ND
896	TOLUENE	108883	17023	04	03/18/92	1.00	UG/L	ND
897	TOLUENE	108883	17023	04	04/11/94	5.00	UG/L	ND
898	TOLUENE	108883	17023	04	04/14/92	1.00	UG/L	ND
899	TOLUENE	108883	17023	04	04/28/93	10.00	UG/L	ND
900	TOLUENE	108883	17023	04	05/16/94	5.00	UG/L	ND
901	TOLUENE	108883	17023	04	05/17/93	10.00	UG/L	ND
902	TOLUENE	108883	17023	04	06/09/94	5.00	UG/L	ND
903	TOLUENE	108883	17023	04	06/14/93	10.00	UG/L	ND
904	TOLUENE	108883	17023	04	07/07/93	5.00	UG/L	ND
905	TOLUENE	108883	17023	04	07/11/94	5.00	UG/L	ND
906	TOLUENE	108883	17023	04	08/10/93	5.00	UG/L	ND
907	TOLUENE	108883	17023	04	08/10/94	5.00	UG/L	ND
908	TOLUENE	108883	17023	04	09/01/94	5.00	UG/L	ND
909	TOLUENE	108883	17023	04	09/08/93	5.00	UG/L	ND
910	TOLUENE	108883	17023	04	10/10/94	5.00	UG/L	ND
911	TOLUENE	108883	17023	04	10/11/93	5.00	UG/L	ND
912	TOLUENE	108883	17023	04	11/01/93	5.00	UG/L	ND
913	TOLUENE	108883	17023	04	11/15/94	5.00	UG/L	ND
914	TOLUENE	108883	17023	04	12/01/93	5.00	UG/L	ND
915	TOLUENE	108883	17023	04	12/08/94	5.00	UG/L	ND
916	TOLUENE	108883	17027	02	02/05/92	1.00	UG/L	ND
917	TOLUENE	108883	17027	02	04/26/93	1.00	UG/L	ND
918	TOLUENE	108883	17027	02	04/26/94	1.00	UG/L	ND
919	TOLUENE	108883	17027	02	05/06/92	1.00	UG/L	ND
920	TOLUENE	108883	17027	02	10/04/94	5.00	UG/L	ND
921	TOLUENE	108883	17027	02	10/07/92	1.00	UG/L	ND
922	TOLUENE	108883	17027	02	10/13/93	1.00	UG/L	ND
923	TOTAL SUSPENDED SOLIDS	C-009	17015	02	01/05/94	10000.00	UG/L	NC
924	TOTAL SUSPENDED SOLIDS	C-009	17015	02	01/12/94	13000.00	UG/L	NC
925	TOTAL SUSPENDED SOLIDS	C-009	17015	02	01/19/94	12000.00	UG/L	NC
926	TOTAL SUSPENDED SOLIDS	C-009	17015	02	01/26/94	22000.00	UG/L	NC
927	TOTAL SUSPENDED SOLIDS	C-009	17015	02	02/02/94	24000.00	UG/L	NC
928	TOTAL SUSPENDED SOLIDS	C-009	17015	02	02/09/94	18500.00	UG/L	NC
929	TOTAL SUSPENDED SOLIDS	C-009	17015	02	02/17/94	46000.00	UG/L	NC
930	TOTAL SUSPENDED SOLIDS	C-009	17015	02	02/23/94	19000.00	UG/L	NC
931	TOTAL SUSPENDED SOLIDS	C-009	17015	02	03/02/94	65000.00	UG/L	NC
932	TOTAL SUSPENDED SOLIDS	C-009	17015	02	03/05/94	20000.00	UG/L	NC
933	TOTAL SUSPENDED SOLIDS	C-009	17015	02	03/06/94	20000.00	UG/L	NC
934	TOTAL SUSPENDED SOLIDS	C-009	17015	02	03/07/94	16000.00	UG/L	NC
935	TOTAL SUSPENDED SOLIDS	C-009	17015	02	03/08/94	17000.00	UG/L	NC
936	TOTAL SUSPENDED SOLIDS	C-009	17015	02	03/09/94	19000.00	UG/L	NC
937	TOTAL SUSPENDED SOLIDS	C-009	17015	02	03/10/94	17000.00	UG/L	NC
938	TOTAL SUSPENDED SOLIDS	C-009	17015	02	03/13/94	10000.00	UG/L	NC
939	TOTAL SUSPENDED SOLIDS	C-009	17015	02	03/14/94	10000.00	UG/L	NC

Subcategory=Non-Hazardous

OBS	Pollutant	CAS Number	Facility	Sample Point	Sample Date	Concentration	Unit	Data Type
940	TOTAL SUSPENDED SOLIDS	C-009	17015	02	03/15/94	12000.00	UG/L	NC
941	TOTAL SUSPENDED SOLIDS	C-009	17015	02	03/16/94	15000.00	UG/L	NC
942	TOTAL SUSPENDED SOLIDS	C-009	17015	02	03/17/94	14000.00	UG/L	NC
943	TOTAL SUSPENDED SOLIDS	C-009	17015	02	03/19/94	8000.00	UG/L	NC
944	TOTAL SUSPENDED SOLIDS	C-009	17015	02	03/20/94	6000.00	UG/L	NC
945	TOTAL SUSPENDED SOLIDS	C-009	17015	02	03/21/94	6000.00	UG/L	NC
946	TOTAL SUSPENDED SOLIDS	C-009	17015	02	03/23/94	8000.00	UG/L	NC
947	TOTAL SUSPENDED SOLIDS	C-009	17015	02	03/24/94	5000.00	UG/L	NC
948	TOTAL SUSPENDED SOLIDS	C-009	17015	02	03/25/94	3000.00	UG/L	NC
949	TOTAL SUSPENDED SOLIDS	C-009	17015	02	03/26/94	4000.00	UG/L	NC
950	TOTAL SUSPENDED SOLIDS	C-009	17015	02	03/27/94	4000.00	UG/L	NC
951	TOTAL SUSPENDED SOLIDS	C-009	17015	02	03/28/94	3000.00	UG/L	NC
952	TOTAL SUSPENDED SOLIDS	C-009	17015	02	03/29/94	4000.00	UG/L	NC
953	TOTAL SUSPENDED SOLIDS	C-009	17015	02	03/30/94	4000.00	UG/L	NC
954	TOTAL SUSPENDED SOLIDS	C-009	17015	02	03/31/94	2000.00	UG/L	NC
955	TOTAL SUSPENDED SOLIDS	C-009	17015	02	04/06/94	7000.00	UG/L	NC
956	TOTAL SUSPENDED SOLIDS	C-009	17015	02	04/13/94	7000.00	UG/L	NC
957	TOTAL SUSPENDED SOLIDS	C-009	17015	02	04/20/94	9000.00	UG/L	NC
958	TOTAL SUSPENDED SOLIDS	C-009	17015	02	04/27/94	14000.00	UG/L	NC
959	TOTAL SUSPENDED SOLIDS	C-009	17015	02	05/04/94	18000.00	UG/L	NC
960	TOTAL SUSPENDED SOLIDS	C-009	17015	02	05/11/94	5000.00	UG/L	NC
961	TOTAL SUSPENDED SOLIDS	C-009	17015	02	05/17/94	12000.00	UG/L	NC
962	TOTAL SUSPENDED SOLIDS	C-009	17015	02	05/26/94	15000.00	UG/L	NC
963	TOTAL SUSPENDED SOLIDS	C-009	17015	02	06/01/94	12000.00	UG/L	NC
964	TOTAL SUSPENDED SOLIDS	C-009	17015	02	06/08/94	19000.00	UG/L	NC
965	TOTAL SUSPENDED SOLIDS	C-009	17015	02	06/15/94	16000.00	UG/L	NC
966	TOTAL SUSPENDED SOLIDS	C-009	17015	02	06/22/94	15000.00	UG/L	NC
967	TOTAL SUSPENDED SOLIDS	C-009	17015	02	06/29/94	9000.00	UG/L	NC
968	TOTAL SUSPENDED SOLIDS	C-009	17015	02	07/06/94	11000.00	UG/L	NC
969	TOTAL SUSPENDED SOLIDS	C-009	17015	02	07/13/94	3000.00	UG/L	NC
970	TOTAL SUSPENDED SOLIDS	C-009	17015	02	07/20/94	17000.00	UG/L	NC
971	TOTAL SUSPENDED SOLIDS	C-009	17015	02	07/27/94	8000.00	UG/L	NC
972	TOTAL SUSPENDED SOLIDS	C-009	17015	02	08/03/94	8000.00	UG/L	NC
973	TOTAL SUSPENDED SOLIDS	C-009	17015	02	08/10/94	6000.00	UG/L	NC
974	TOTAL SUSPENDED SOLIDS	C-009	17015	02	08/17/94	6000.00	UG/L	NC
975	TOTAL SUSPENDED SOLIDS	C-009	17015	02	08/25/94	3000.00	UG/L	NC
976	TOTAL SUSPENDED SOLIDS	C-009	17015	02	08/31/94	6000.00	UG/L	NC
977	TOTAL SUSPENDED SOLIDS	C-009	17015	02	09/07/94	11000.00	UG/L	NC
978	TOTAL SUSPENDED SOLIDS	C-009	17015	02	09/08/94	14000.00	UG/L	NC
979	TOTAL SUSPENDED SOLIDS	C-009	17015	02	09/14/94	15000.00	UG/L	NC
980	TOTAL SUSPENDED SOLIDS	C-009	17015	02	09/21/94	10000.00	UG/L	NC
981	TOTAL SUSPENDED SOLIDS	C-009	17015	02	09/28/94	10000.00	UG/L	NC
982	TOTAL SUSPENDED SOLIDS	C-009	17015	02	10/06/94	11000.00	UG/L	NC
983	TOTAL SUSPENDED SOLIDS	C-009	17015	02	10/12/94	9000.00	UG/L	NC
984	TOTAL SUSPENDED SOLIDS	C-009	17015	02	10/19/94	9000.00	UG/L	NC

US EPA\ LANDFILLS ANALYTICAL DATABASE Appendix D

Subcategory=Non-Hazardous

OBS	Pollutant	CAS Number	Facility	Sample Point	Sample Date	Concentration	Unit	Data Type
985	TOTAL SUSPENDED SOLIDS	C-009	17015	02	10/26/94	10000.00	UG/L	NC
986	TOTAL SUSPENDED SOLIDS	C-009	17015	02	11/02/94	20000.00	UG/L	NC
987	TOTAL SUSPENDED SOLIDS	C-009	17015	02	11/09/94	28000.00	UG/L	NC
988	TOTAL SUSPENDED SOLIDS	C-009	17015	02	11/16/94	5000.00	UG/L	NC
989	TOTAL SUSPENDED SOLIDS	C-009	17015	02	11/22/94	10000.00	UG/L	NC
990	TOTAL SUSPENDED SOLIDS	C-009	17015	02	11/30/94	11000.00	UG/L	NC
991	TOTAL SUSPENDED SOLIDS	C-009	17015	02	12/07/94	27000.00	UG/L	NC
992	TOTAL SUSPENDED SOLIDS	C-009	17015	02	12/14/94	30000.00	UG/L	NC
993	TOTAL SUSPENDED SOLIDS	C-009	17015	02	12/21/94	32000.00	UG/L	NC
994	TOTAL SUSPENDED SOLIDS	C-009	17015	02	12/23/94	18000.00	UG/L	NC
995	TOTAL SUSPENDED SOLIDS	C-009	17015	02	12/24/94	14000.00	UG/L	NC
996	TOTAL SUSPENDED SOLIDS	C-009	17015	02	12/28/94	14000.00	UG/L	NC
997	TOTAL SUSPENDED SOLIDS	C-009	17015	02	12/29/94	18000.00	UG/L	NC
998	TOTAL SUSPENDED SOLIDS	C-009	17015	02	12/30/94	16000.00	UG/L	NC
999	TOTAL SUSPENDED SOLIDS	C-009	17015	02	12/31/94	21000.00	UG/L	NC
1000	TOTAL SUSPENDED SOLIDS	C-009	17027	02	01/05/94	31200.00	UG/L	NC
1001	TOTAL SUSPENDED SOLIDS	C-009	17027	02	01/08/92	13000.00	UG/L	NC
1002	TOTAL SUSPENDED SOLIDS	C-009	17027	02	01/13/93	11500.00	UG/L	NC
1003	TOTAL SUSPENDED SOLIDS	C-009	17027	02	02/03/93	48500.00	UG/L	NC
1004	TOTAL SUSPENDED SOLIDS	C-009	17027	02	02/05/92	18000.00	UG/L	NC
1005	TOTAL SUSPENDED SOLIDS	C-009	17027	02	02/09/94	12400.00	UG/L	NC
1006	TOTAL SUSPENDED SOLIDS	C-009	17027	02	03/02/94	57000.00	UG/L	NC
1007	TOTAL SUSPENDED SOLIDS	C-009	17027	02	03/03/93	51500.00	UG/L	NC
1008	TOTAL SUSPENDED SOLIDS	C-009	17027	02	03/04/92	5000.00	UG/L	NC
1009	TOTAL SUSPENDED SOLIDS	C-009	17027	02	04/01/92	8000.00	UG/L	NC
1010	TOTAL SUSPENDED SOLIDS	C-009	17027	02	04/14/93	33500.00	UG/L	NC
1011	TOTAL SUSPENDED SOLIDS	C-009	17027	02	04/14/94	34000.00	UG/L	NC
1012	TOTAL SUSPENDED SOLIDS	C-009	17027	02	05/06/92	12000.00	UG/L	NC
1013	TOTAL SUSPENDED SOLIDS	C-009	17027	02	05/11/94	18500.00	UG/L	NC
1014	TOTAL SUSPENDED SOLIDS	C-009	17027	02	05/12/93	33500.00	UG/L	NC
1015	TOTAL SUSPENDED SOLIDS	C-009	17027	02	06/01/94	23000.00	UG/L	NC
1016	TOTAL SUSPENDED SOLIDS	C-009	17027	02	06/02/93	27600.00	UG/L	NC
1017	TOTAL SUSPENDED SOLIDS	C-009	17027	02	06/03/92	5000.00	UG/L	NC
1018	TOTAL SUSPENDED SOLIDS	C-009	17027	02	07/07/93	33600.00	UG/L	NC
1019	TOTAL SUSPENDED SOLIDS	C-009	17027	02	07/08/92	24000.00	UG/L	NC
1020	TOTAL SUSPENDED SOLIDS	C-009	17027	02	07/12/94	50000.00	UG/L	NC
1021	TOTAL SUSPENDED SOLIDS	C-009	17027	02	08/03/94	49000.00	UG/L	NC
1022	TOTAL SUSPENDED SOLIDS	C-009	17027	02	08/05/92	16000.00	UG/L	NC
1023	TOTAL SUSPENDED SOLIDS	C-009	17027	02	08/11/93	97000.00	UG/L	NC
1024	TOTAL SUSPENDED SOLIDS	C-009	17027	02	09/02/92	24000.00	UG/L	NC
1025	TOTAL SUSPENDED SOLIDS	C-009	17027	02	09/06/94	4000.00	UG/L	NC
1026	TOTAL SUSPENDED SOLIDS	C-009	17027	02	09/08/93	23000.00	UG/L	NC
1027	TOTAL SUSPENDED SOLIDS	C-009	17027	02	10/04/94	4000.00	UG/L	NC
1028	TOTAL SUSPENDED SOLIDS	C-009	17027	02	10/07/92	34000.00	UG/L	NC
1029	TOTAL SUSPENDED SOLIDS	C-009	17027	02	10/13/93	18000.00	UG/L	NC

Subcategory=Non-Hazardous

OBS	Pollutant	CAS Number	Facility	Sample Point	Sample Date	Concentration	Unit	Data Type
1030	TOTAL SUSPENDED SOLIDS	C-009	17027	02	11/03/93	22000.00	UG/L	NC
1031	TOTAL SUSPENDED SOLIDS	C-009	17027	02	11/09/94	2000.00	UG/L	ND
1032	TOTAL SUSPENDED SOLIDS	C-009	17027	02	11/11/92	26400.00	UG/L	NC
1033	TOTAL SUSPENDED SOLIDS	C-009	17027	02	12/01/93	3600.00	UG/L	NC
1034	TOTAL SUSPENDED SOLIDS	C-009	17027	02	12/02/92	20000.00	UG/L	NC
1035	TOTAL SUSPENDED SOLIDS	C-009	17027	02	12/06/94	4000.00	UG/L	ND
1036	ZINC	7440666	E4721	02	05/02/95	66.20	UG/L	NC
1037	ZINC	7440666	E4721	02	05/04/95	78.30	UG/L	NC
1038	ZINC	7440666	E4721	02	05/05/95	95.70	UG/L	NC
1039	ZINC	7440666	E4721	D02	05/05/95	89.30	UG/L	NC
1040	ZINC	7440666	E4721	02	05/06/95	104.00	UG/L	NC
1041	ZINC	7440666	17023	04	01/06/94	230.00	UG/L	NC
1042	ZINC	7440666	17023	04	01/14/93	34.60	UG/L	NC
1043	ZINC	7440666	17023	04	01/24/92	18.50	UG/L	NC
1044	ZINC	7440666	17023	04	02/03/94	80.00	UG/L	NC
1045	ZINC	7440666	17023	04	02/19/92	1.00	UG/L	ND
1046	ZINC	7440666	17023	04	02/24/93	27.00	UG/L	ND
1047	ZINC	7440666	17023	04	03/12/93	30.00	UG/L	NC
1048	ZINC	7440666	17023	04	03/15/94	90.00	UG/L	NC
1049	ZINC	7440666	17023	04	03/18/92	87.80	UG/L	NC
1050	ZINC	7440666	17023	04	04/11/94	50.00	UG/L	NC
1051	ZINC	7440666	17023	04	04/14/92	14.00	UG/L	NC
1052	ZINC	7440666	17023	04	04/28/93	40.00	UG/L	NC
1053	ZINC	7440666	17023	04	05/13/92	5.00	UG/L	NC
1054	ZINC	7440666	17023	04	05/16/94	40.00	UG/L	NC
1055	ZINC	7440666	17023	04	05/17/93	10.00	UG/L	ND
1056	ZINC	7440666	17023	04	06/09/94	30.00	UG/L	NC
1057	ZINC	7440666	17023	04	06/14/93	80.00	UG/L	NC
1058	ZINC	7440666	17023	04	06/17/92	14.70	UG/L	NC
1059	ZINC	7440666	17023	04	07/07/93	40.00	UG/L	NC
1060	ZINC	7440666	17023	04	07/11/94	100.00	UG/L	ND
1061	ZINC	7440666	17023	04	07/13/92	7.20	UG/L	NC
1062	ZINC	7440666	17023	04	08/10/93	30.00	UG/L	NC
1063	ZINC	7440666	17023	04	08/10/94	40.00	UG/L	ND
1064	ZINC	7440666	17023	04	08/19/92	12.50	UG/L	NC
1065	ZINC	7440666	17023	04	09/01/94	25.00	UG/L	ND
1066	ZINC	7440666	17023	04	09/08/93	20.00	UG/L	NC
1067	ZINC	7440666	17023	04	09/16/92	10.00	UG/L	ND
1068	ZINC	7440666	17023	04	10/10/94	200.00	UG/L	ND
1069	ZINC	7440666	17023	04	10/11/93	80.00	UG/L	NC
1070	ZINC	7440666	17023	04	10/12/92	10.30	UG/L	NC
1071	ZINC	7440666	17023	04	11/01/93	20.00	UG/L	NC
1072	ZINC	7440666	17023	04	11/09/92	22.10	UG/L	NC
1073	ZINC	7440666	17023	04	11/15/94	100.00	UG/L	ND
1074	ZINC	7440666	17023	04	12/01/93	80.00	UG/L	NC
1075	ZINC	7440666	17023	04	12/08/94	100.00	UG/L	ND
1076	ZINC	7440666	17023	04	12/16/92	21.70	UG/L	NC