

US EPA ARCHIVE DOCUMENT

**TESTING OF THE
SAMPLED CHRONOLOGICAL INPUT MODEL
(SCIM) OPTION IN THE ENHANCED ISCST3
MODEL FOR USE IN THE HAZARDOUS WASTE
IDENTIFICATION RULE (HWIR)**

DRAFT

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PREFACE

In December of 1995, the Environmental Protection Agency (EPA) proposed to amend existing regulations for disposal of hazardous wastes under the Resource Conservation and Recovery Act (RCRA). The proposal outlined the Hazardous Waste Identification Rule (HWIR) that was designed to establish constituent specific exit levels for low risk solid wastes. Extensive reviews of the original proposal concluded that the technical assessment strategy in HWIR95 need to be revised to develop a sound technical basis for the rule prior to its promulgation. The next phase of HWIR (HWIR98) is a multimedia assessment strategy designed to develop and document the science and engineering foundation for the rule. To partly support this objective, improvements were made to an existing dispersion model to address the atmospheric transport and dispersion of the emissions from HWIR sources. This report discusses one of the options implemented in the dispersion model that provides for a relatively quick and reasonable assessment of long term pollutant impacts.

ACKNOWLEDGMENTS

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1.0 INTRODUCTION

One of the significant enhancements made to the ISCST3 model pertains to the implementation of the Sampled Chronological Input Model (SCIM) option. The SCIM option allows the sampling of a subset of the sequential hourly meteorological data based on a user-specified sampling interval. The purpose of this option is to allow the user to obtain a representative long-term estimate of pollutant impacts by only sampling a representative subset of the long-term meteorological data. Given that such an option is likely to introduce an added level of uncertainty, i.e., uncertainty in addition to those inherent to the model, a study was performed in an attempt to characterize the uncertainty introduced by the use of the SCIM option. This brief report presents the findings of that study.

The sensitivity testing of the model uncertainty was an ongoing process during the implementation of the SCIM option. Based on the results of the testing at various steps, as will be discussed in the following sections, the SCIM option was revised in order to reduce the uncertainty. The SCIM option implemented in the ISCST3 model as of the date of this report requires the following inputs from the user:

SCIM Start Hour -	This is the first hour that the user wants to be sampled. This hour is required to be no greater than 24, i.e., it must be on the first day in the meteorological data file.
SCIM Interval -	This is the number of hours that the user wants the model to skip when sampling the meteorological data. Although no restrictions are placed on this input, generally this number should be greater than 1. For example, the interval can be determined based on the formula $(24n + 1)$, where “n” is the number of days to skip.
Start Wet Hour -	The first wet hour to sample. This input must be less than or equal to the wet hour sampling frequency (see below). Also, generally this input must be greater than 0. An input of 0 is allowed when the wet sampling frequency is equal to 0.
Wet Sampling Frequency -	The number of wet hours to skip when sampling the meteorological data. An input of “0” for this parameter indicates that the user does not want to separately sample the wet hours.

In addition to the above required inputs, the user can optionally specify the following:

SCIM Output Filename -	The filename to which the model can write the sampled hours and the associated meteorological conditions.
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Note that although the “Start Wet Hour” and the “Wet Sampling Frequency” are required inputs, they are only used when calculating the wet deposition flux or accounting for plume depletion due to wet deposition. However, the user is not required to do wet hour sampling even when calculating wet deposition or accounting for wet depletion. The user has the option to specify values of 0 (zero) for these inputs which “turns off” the wet hour sampling option.

As mentioned above, the SCIM option evolved during the implementation process based on the results of the sensitivity testing of the model uncertainty. A brief chronological discussion of the testing of the SCIM option is presented in the following sections. Section 2 discusses the initial testing of the SCIM option, without the wet hour sampling. Section 3 discusses the introduction of the wet hour sampling as a part of the SCIM option. The discussions and the test results presented in Section 4 attempt to characterize the uncertainty associated with the use of the SCIM option. The introduction of the “start wet hour” as a part of the SCIM option, i.e., the input that allows the user to select the first wet hour to sample, is discussed in Section 5. Section 6 presents the results of a more detailed testing of one the sources (TANK) included in this study.

2.0 INITIAL TESTING OF THE SCIM OPTION

In accordance with the original work plan, the SCIM option was initially implemented with only the first two of the user inputs described in Section 1.0, i.e., the SCIM Start Hour and the SCIM Interval. Under this option, the model first calculated the pollutant impacts for a certain number of hours of meteorological data based simply on the user-specified start hour and a sampling interval. Then, the impacts were scaled up using the ratio of the total number of hours in the meteorological data file and the number of hours actually sampled. The resulting impacts were finally divided by the number of years represented in the meteorological data file to calculate annualized impacts that were representative of the long-term period.

Using this sampling scheme, modeling was conducted for a set of five sources, four meteorological stations (cities), and several SCIM intervals as shown below.

Sources	Meteorological Stations (City, State)	SCIM Intervals*
3000 x 3000 m area source, ground-level, particulate emissions with two particle sizes (Source id LAU)	Lake Charles, LA	No SCIM
	Pittsburgh, PA	25 hours
3000 x 3000 m area source, ground-level, particulate emissions with five particle sizes (Source id SCT)	Salem, OR	49 hours
	Tucson, AZ	97 hours
1000 x 1000 m area source, ground-level, gaseous emissions (Source id SI)		193 hours
20 x 20 m area source, elevated (3.7m height), gaseous emissions (Source id TANK)		
1200 x 1200 m area source, elevated (5.0m height), particulate emissions with four particle sizes (Source id WP)		

* “No SCIM” results were used for comparison with the results for the SCIM option. The four SCIM intervals listed above represent skipping of 1-, 2-, 4- and 8-days, respectively.

The five sources selected for this study were designed to be representative of possible HWIR sources. The source sizes were selected from the high end of the size distribution for each source category since larger units are expected to produce impacts farther downwind. The abbreviations used as source id’s represent the following:

- LAU - Landfill/Land Application Unit
- SCT - Spreading/Compacting/Tilling (at LAU)
- SI - Surface Impoundment
- TANK - Elevated Tank
- WP - Waste Pile

From these model runs, ANNUAL average concentrations, dry deposition fluxes and wet deposition fluxes were calculated at receptors placed on the sixteen 22.5° radials at several distances ranging from the edge of each area source to several kilometers from the source. An example of the ISCST3 model input file is presented below. Note that the initial SCIM option inputs did not include wet hour sampling.

```

CO STARTING
  TITLEONE  ISCST3 HWIR RUN - LF/LAU

  MODELOPT  RURAL  CONC  DDEP  WDEP  WETDPLT  SCIM
  AVERTIME  ANNUAL
  POLLUTID  PARTICLE
  TERRHGTS  FLAT
  RUNORNOT  RUN
  ERRORFIL  ERRORS.OUT
CO FINISHED

SO STARTING
  LOCATION  LAU      AREA      -1500.0  -1500.0
  SRCPARAM  LAU      1.0      0.0      3000.0  3000.0
  PARTDIAM  LAU      1.57     6.92
  MASSFRAX  LAU      0.4      0.6
  PARTDENS  LAU      1.00     1.00
  PARTSLIQ  LAU      0.829E-4 4.612E-4
  PARTSICE  LAU      0.276E-4 1.537E-4

  CONCUNIT  1.0     GRAMS/SEC  GRAMS/M**3
  DEPOUNIT  3.600   GRAMS/SEC  KILOGRAMS/M**2
  SRCGROUP  ALL
SO FINISHED

RE STARTING
RE GRIDPOLR POL1 STA
                ORIG  0.      0.
                DIST  1500  1750  2000  2250  2500  2750  3000
                DIST  3250  3500  3750  4000  4500  5000  5500  6000
                GDIR  16  22.5  22.5
RE GRIDPOLR POL1 END
RE FINISHED

ME STARTING
ME INPUTFIL  SALEM.MET
ME ANEMHGHT  6.1 METERS
ME SURFDATA  24232 1986 Salem,OR
ME UAIRDATA  24232 1986 Salem,OR
ME SCIMBYHR  1 25 LAU25.SME
ME FINISHED

OU STARTING
  RECTABLE  ALLAVE  FIRST
  MAXTABLE  ALLAVE  50
  POSTFILE  ANNUAL  ALL PLOT LAU25.SPT
OU FINISHED

```

As shown above, the POSTFILE option of the ISCST3 model was utilized for each model run to create an output file containing impacts at each receptor for each output type (CONC, DDEP, WDEP). Using this output file, tables of maximum impacts by distance were generated. Then for each source-city combination, graphs were generated showing plots of maximum modeled impacts versus distance from the center of the source. For comparison, the plots for the “No SCIM” as well as the SCIM options were drawn on the same graph. Initially, all three output types were included; however, it was found that the plots for the dry deposition fluxes were very similar to those for concentrations, while the plots for wet deposition fluxes were found to vary significantly from the concentration plots. The similarity between the plots for dry deposition fluxes and concentrations is reasonable considering that the concentrations were calculated at the ground-level and that the dry deposition flux is simply calculated by ISCST3 as the product of the ground-level concentration and the deposition velocity. Therefore, it was

decided that the graphs should be limited to show only the plots for the concentrations and the wet deposition fluxes.

Appendix A of this report contains the graphs for this step of the study. The solid line on each graph shows the plot for the “No SCIM” model run, and the dashed lines show the plots for the four SCIM intervals. From the graphs it can be seen that for the concentration plots, the results for the SCIM options agree reasonable well, especially at shorter distances (within a few hundred meters) from the edge of the area sources. The uncertainty was found to increase with increasing distance from the source. All four SCIM intervals showed generally similar behavior.

The plots for the maximum wet deposition fluxes showed significantly greater uncertainty when comparing the plots for the SCIM options to the “No SCIM” option. The uncertainty was especially large for Tucson which is a relatively dry city as compared to the other cities included in this study. Since the duration and frequency of precipitation events is low in Tucson (948 wet hours during the five years studied (1986-90)), the probability is high that the number of events sampled when using the SCIM option may not be representative of the actual conditions. Conversely, the uncertainty for Salem was the smallest of all cities studied because the precipitation events in that region are relatively frequent (4,211 wet hours during 1986-90). However, the uncertainties were deemed to be unacceptably large for all cities. Therefore, it was decided that the sampling of the meteorological data for the calculation of wet deposition fluxes needs to be addressed separately from concentrations and dry deposition fluxes.

3.0 INTRODUCTION OF WET HOUR SAMPLING

Given the results of the initial testing of the SCIM option (see Section 2.0) that showed significant uncertainties for wet deposition fluxes, it was decided that a separate sampling of the wet hours in the meteorological data is necessary to reduce the observed uncertainties. Initially, the sampling of all wet hours was considered; however, due to possible limitations on model runtime, it was decided to introduce a sampling frequency for the wet hours in the model, i.e., a user input that is separate from the SCIM interval discussed earlier in this report. This input would allow the user to sample the wet hours (based on an independent sampling frequency) in addition to the regular SCIM samples, thereby increasing the probability of calculating the wet deposition fluxes more accurately. For example, a wet hour sampling frequency of 4 would result in the sampling of every fourth wet hour during the meteorological data period.

When sampling the wet hours separately, the model keeps track of the concentrations and dry deposition fluxes for the regular SCIM samples and the wet samples separately, and calculates a composite, weighted average of these output types at the end of the sampling. Since it is likely that some of the regular SCIM samples may be the same as the sampled wet hours, the impacts calculated for the regular SCIM samples do not account for precipitation in order to avoid “double counting” of wet depletion effects. In other words, the impacts for the regular SCIM sampling are calculated to be representative of the dry hours, while the impacts for the wet hour sampling are calculated to be representative of the wet hours in the meteorological data period.

Four sampling frequencies were selected for testing of this feature: 1-, 2-, 4- and 8-hours. However, the tests were limited to three sources (Source id's LAU, SI and TANK) and two cities (Salem, OR and Tucson, AZ). These sources and cities were deemed to cover the range of conditions necessary for adequate testing of the effects of this feature. The tests were conducted in a similar manner as the tests described in Section 2.0, except that the modeling of each source-city combination was conducted four times, once for each wet hour sampling frequency.

Appendix B contains the graphs for this step of the testing. The graphs show a remarkable improvement in the plots for the maximum wet deposition fluxes without significantly affecting the concentration plots. Note that the graphs for the wet hour sampling frequency of 1-hour show no uncertainty in the wet deposition fluxes because a 1-hour frequency results in the sampling of every wet hour in the meteorological data file. By comparison, less frequent sampling show some uncertainties; the less frequent the sampling, the larger the uncertainty. A comparison of the results for Salem with Tucson shows greater uncertainty for Tucson. This was expected due to differences in the overall precipitation frequency between the two cities. This comparison suggests that while more frequent sampling may be required for Tucson to reduce uncertainty below a certain desired level, a less frequent sampling may suffice for Salem.

It should be noted that a 1-hour sampling frequency adds a significant number of hours to be sampled, thereby considerably increasing the model runtime. Smaller sampling frequencies

have the advantage of smaller runtimes, but they are likely to introduce some uncertainties. The user must consider the importance of the two factors for a given application when selecting the sampling frequency.

4.0 CHARACTERIZATION OF MODEL UNCERTAINTY

4.1 Error Bars

The tests described in Sections 2.0 and 3.0 were all based on the SCIM start hour of 1, which is only one of the possible 24 choices. In order to better characterize the uncertainty associated with the SCIM option, it was decided that all of the 24 start hours should be run, and that the range of the 24 values, i.e., error bars, be plotted on the graphs shown in Appendix B. The testing was limited to 4- and 8-day skipping for the regular SCIM sampling because, based on the above analyses, the 4- and 8-day skipping produced results that were as reasonable as 1- and 2-day skipping, while having the benefit of smaller runtimes. For the same reason, the wet hour sampling was also limited to 4- and 8-hour sampling frequencies. In order to demonstrate the benefit of wet hour sampling, model runs were also made with no wet hour sampling for comparison with the 4- and 8-hour wet sampling frequencies. The sources included in the test were LAU, SI and TANK. The cities included were Salem, OR, Tucson, AZ and Wichita, KS based on the total number of hours of precipitation. Salem represents the higher end of the range (4,211 hours of precipitation during the 5-year modeling period), Tucson represents the lower end (948 hours), and Wichita was in the middle (1,830 hours).

Appendix C provides the graphs for this step of the testing. Each graph contains the plots for concentrations and wet deposition fluxes. The plots shown in bold represent the maximum impacts by distance for the “No SCIM” run. The error bars show the highest, the lowest, and the average of the 24 maximum impacts at each distance for the SCIM runs (the average impacts are shown as tick marks on the error bars). The graphs show that for concentrations the error bars are small close to the source, and increase in size with increasing distance. This pattern is reasonable when considering that with increasing distance from the source, there is a higher probability for the sampled meteorology to either “miss” receptors at larger distances (as compared to shorter distances) or “catch” these receptors for a disproportionately high number of samples. The graphs also show that the error bars for concentrations do not significantly change when doing a separate wet hour sampling, thus confirming the observation made in the previous testing discussed in Section 3.0 that the concentration estimates are not significantly affected by the introduction of a separate wet hour sampling in the model. The separate wet hour sampling, however, has a remarkable affect on the error bars for the wet deposition fluxes. Note that the error bars are rather large for the wet deposition fluxes when there is no separate wet hour sampling, while they disappear when doing the separate wet hour sampling. Although the error bars disappeared due to the fact that the separate wet hour sampling results in the sampling of the same set of wet hours regardless of which start hour is selected for regular SCIM, what is important to note here is that the average of the 24 samples when doing the separate wet hour sampling agrees more reasonably with the “No SCIM” results as compared to not doing the separate wet hour sampling.

4.2 Frequency Distributions of SCIM-to-NoSCIM Impact Ratios

It was decided that the results from the modeling runs used to generate the above error bars should also be used to generate frequency distributions of SCIM-to-NoSCIM ratios to determine the general shape of the distributions. Initially, the SCIM-to-NoSCIM ratios were calculated using the maximum impacts by distance. Using these ratios, the frequency distributions were generated for each distance, as well as for all distances combined. Appendix D-1 presents an example of these frequency distributions; the example is for concentration ratios for Source id LAU for Tucson using 4-day skipping for regular SCIM and 4-hour wet sampling frequency. The distributions for all distances combined, as well as for several individual distances are provided. The distribution for all distances combined appears to be somewhat normal, but the distributions for the individual distances vary significantly with distance from the source and do not appear to exhibit any discernible shapes. However, it can be seen that the distributions are narrower and taller for shorter distances, and become wider and more flat with increasing distance. (Note that the height of each bar corresponds to the number of values that are less-than-or-equal-to the ratio shown under the bar, but greater than the ratio shown under the bar immediately to the left.)

Since spatial distribution of modeled impacts is important for risk assessment studies such as those planned under HWIR assessment, it was decided that the frequency distributions should be based on ratios of impacts that are paired in space, and not just on maximum impacts by distance. These frequency distributions were generated for all distances combined, and are presented in Appendix D-2.

For concentrations, the distributions are presented for four sources (LAU, SI, TANK and WP) and three cities (Salem, Tucson and Wichita). Since no significant differences were observed between 4-day and 8-day skipping, only the frequency distributions for 8-day skipping are presented. Also, since the concentration estimates were not significantly affected by separate wet hour sampling, the distributions for concentrations are only presented for no separate wet hour sampling (indicated by the notation “Wet Hour Sampling Frequency = NA” on the figures). However, for comparison sake, one example of 8-hour wet sampling frequency is also presented (for LAU for Wichita). As can be seen, the frequency distributions generally appear to be normal (bell-shaped) distributions centered at the ratio of 1.0. The only exceptions are the distributions for Source id TANK, for which they are relatively flat. Re-drawing the distributions for TANK using a different scale for the Ratio axis resulted in a more normal (bell) shape; however, they were not centered at the ratio of 1.0.

For wet deposition fluxes, the distributions are presented for three sources (LAU, SI and TANK) and three cities (Salem, Tucson and Wichita). Distributions are presented without separate wet hour sampling and with an 8-hour wet sampling frequency. Similar to the figures for concentrations, only the distributions for 8-day skipping are presented. The figures that correspond to no separate wet hour sampling show that the ratios are spread over the entire range on the X-axis and generally the distributions have no distinguishable shape. Also, a significant number of ratios were found to be equal to zero, which is indicative of the high probability of “missing” the precipitation events that correspond to some of the wind directions. By contrast,

the figures that correspond to the 8-hour wet sampling frequency show distributions that are centered at the ratio of 1.0 with very little spread, which indicates that by doing a separate wet hour sampling the chances of accurately estimating wet deposition fluxes are greatly increased, and correspondingly the uncertainty is greatly reduced. However, as was the case with the concentration distributions, the TANK source was found to be an exception. Also note that the distributions for Tucson show a generally larger spread as compared to Salem and Wichita. Therefore, for comparison, the distributions for Tucson were also generated using a 4-hour wet sampling frequency. When compared to the 8-hour wet sampling frequency, the distributions for the 4-hour wet sampling frequency have a smaller spread. This observation indicates that for cities which have low precipitation frequency, such as Tucson, more frequent sampling may be required to reduce the uncertainty.

4.3 Cumulative Probability Curves

The results from the modeling runs used to draw the error bars and frequency distributions above were also used to draw cumulative probability curves that show the probability for the SCIM results to be within a certain percentage of the “No SCIM” results. Appendix E shows these curves for both concentrations and wet deposition fluxes for three sources (LAU, SI and TANK) and three cities (Salem, Tucson and Wichita). Each graph contains the curves for both the 8-hour wet sampling (dashed line) and without separate wet hour sampling (solid line). For concentrations, the probability curves for Source id WP are also presented, but only for no wet hour sampling.

The curves show that while the separate wet hour sampling only has a small benefit for concentrations, it considerably decreases the uncertainty for the wet deposition fluxes.

5.0 INTRODUCTION OF THE START WET HOUR

In all of the tests discussed earlier in this report that involve separate wet hour sampling, a given sampling frequency (say 8-hour) resulted in the sampling of the same set of wet hours regardless of which of the 24 start hours was selected for the regular SCIM. As explained in Section 4.1, this was the reason for the disappearance of the error bars for the wet deposition fluxes. In order to study the uncertainty associated with the separate wet hour sampling, and also to provide the user more flexibility, an additional parameter was introduced that would allow the selection of the first wet hour to be sampled. For example, when doing 8-hour wet sampling, the user can select any of the first 8 wet hours to be the first sampled wet hour. Similarly, when doing 4-hour wet sampling, the user can select any of the first 4 wet hours to be the first sampled wet hour.

The testing in this step was conducted using the 8-day skipping and 8-hour wet sampling for four sources (LAU, SI, TANK and WP) and three cities (Salem, Tucson and Wichita). Each model run was repeated eight times, once for each of the eight starting wet hours. Appendix F presents the error bars, frequency distributions and the cumulative probability curves for these tests. The error bars are presented for both concentrations and wet deposition fluxes, while the frequency distributions and the cumulative probability curves are presented only for the wet deposition fluxes. Note that the error bars for concentrations are very small or non-existent because the same SCIM start hour was used for all samples (similar to what the error bars for wet deposition fluxes looked like in Appendix C). The frequency distributions are generally normal, with the TANK source being an exception. The TANK source also shows much greater uncertainty as compared to the other sources. Based on the observed results for the TANK source here, as well as in the previous sections of this report, it was decided that additional analyses should be conducted to help explain the atypical behavior exhibited by this source.

6.0 ADDITIONAL ANALYSES FOR THE TANK SOURCE

Based on the analyses presented in the previous sections of this report, it was observed that the TANK source exhibited atypical behavior as compared to the other sources studied. Therefore, further tests were conducted for this source in an attempt to explain this atypical behavior. The following tests were conducted:

- The source was modeled as a ground-level area source of the same size
- The source was modeled as an elevated area source with a 100 meter side
- The source was modeled as an elevated area source with a 500 meter side
- The source was modeled as an elevated area source with a 1000 meter side

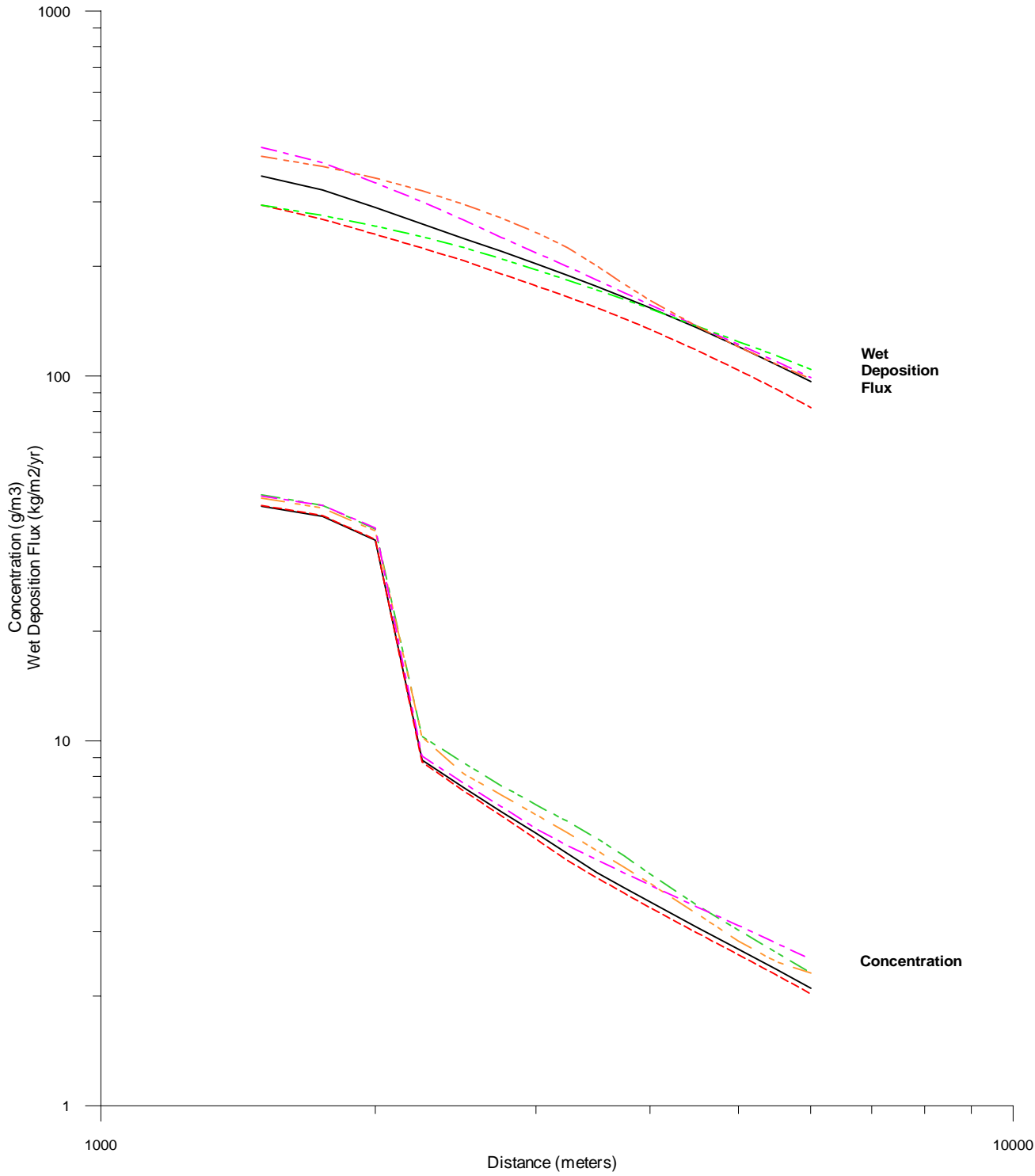
These tests were conducted using the 8-day skipping and 8-hour wet sampling for the SCIM start hour of 1 and each of the eight starting wet hours, i.e., the tests were conducted in a similar manner as those corresponding to Appendix F.

Appendix G presents the error bars, frequency distributions and the cumulative probability curves for these tests. The error bars are presented for both concentrations and wet deposition fluxes, while the frequency distributions and the cumulative probability curves are presented only for the wet deposition fluxes. For comparison, the graphs from Appendix F for the original TANK source are also presented in this appendix. From these figures it can be noted that the results for the ground-level source are the same as (or similar to) the results for the original TANK source. Therefore, it can be concluded that the elevation of the TANK source does not contribute to its atypical behavior. Comparisons of the error bars for the larger elevated sources with the error bars for the original TANK source show a slight improvement as the size of the source increases. Further comparisons between the frequency distributions and the probability curves show a noticeable improvement with increasing source size. When comparing the 1000-meter source to the original TANK source, the frequency distributions for the 1000-meter source are found to be closer to a bell shape and show a smaller spread, and the probability curves also show reduced uncertainty. From these results it appears that the relatively small size of the original TANK source (20m x 20m) may be the reason for the observed atypical behavior. This may be because the plume from a physically smaller source is smaller in width and, therefore, is more likely to “miss” impacting a relatively larger number of receptors as compared to a physically larger source. Given that this explanation points to an added level of uncertainty, more frequent sampling may be warranted to stay within acceptable margins of uncertainty for smaller area sources. While not included in this study, we would expect this increased uncertainty to also apply to point sources.

APPENDIX A

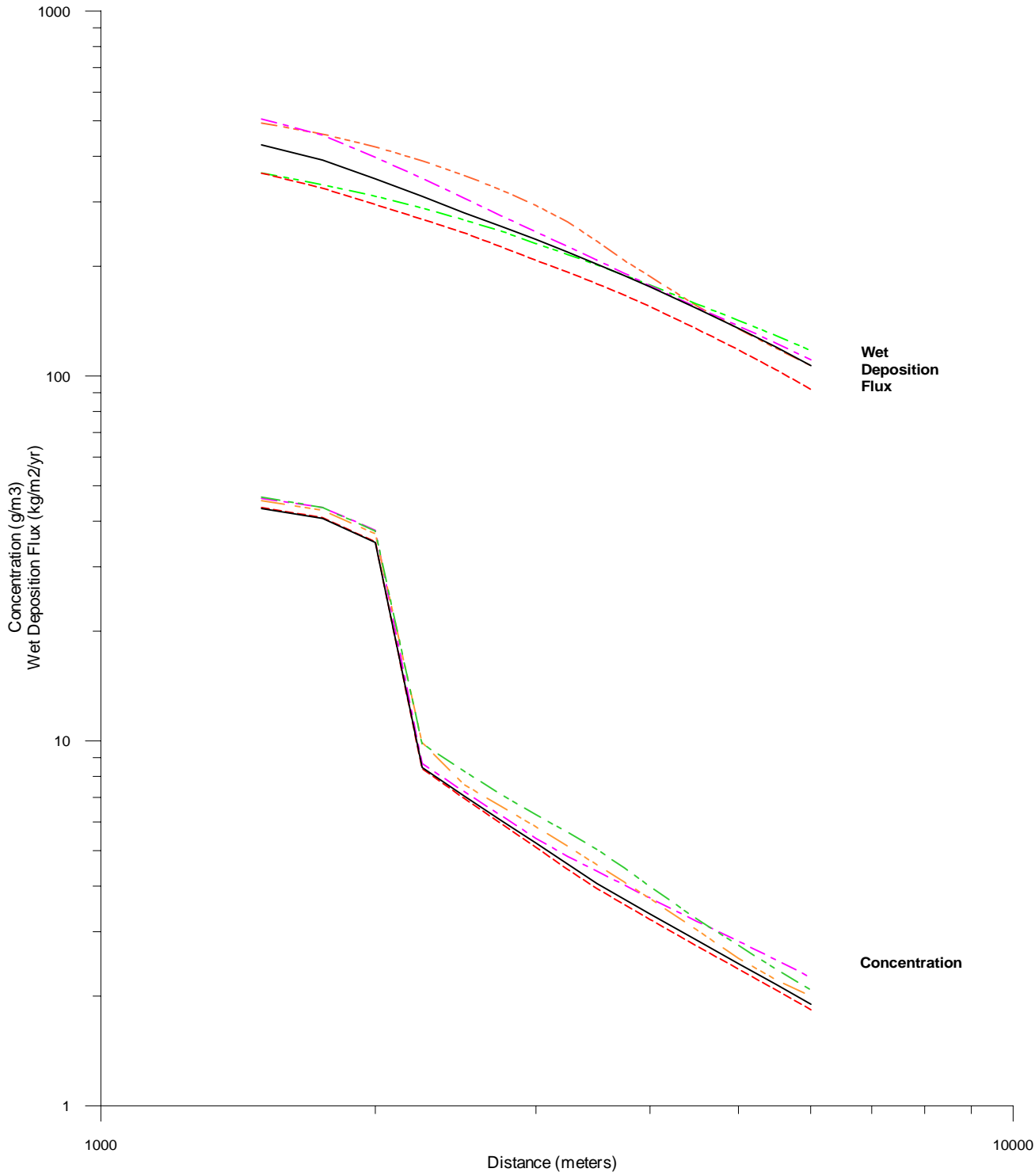
3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Salem

—	No SCIM
- - -	SCIM 25 Hours
- · - · -	SCIM 49 Hours
- · - - -	SCIM 97 Hours
- · - · - · -	SCIM 193 Hours



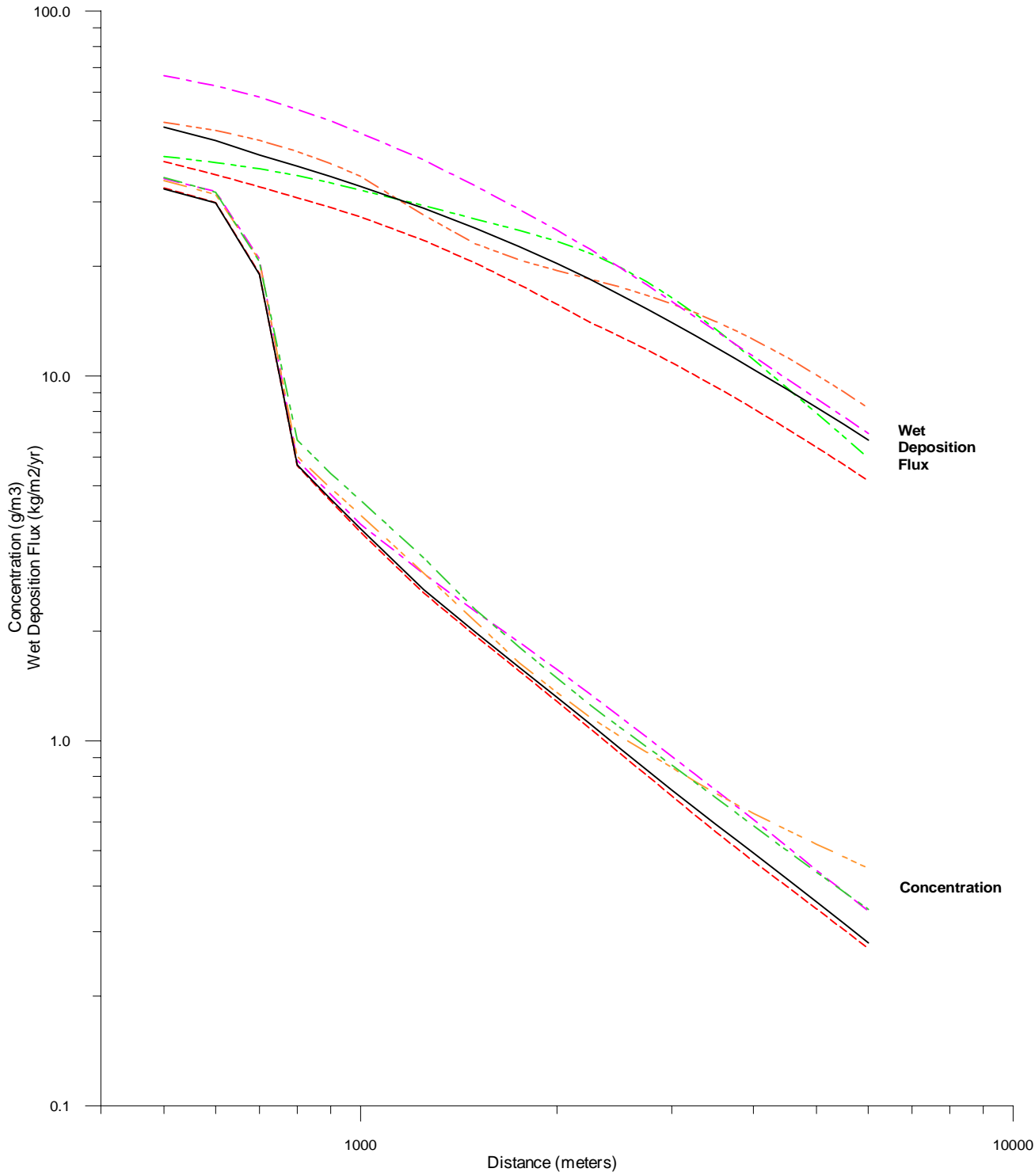
3000m Ground-Level Area Source (SCT)
5 Particle Sizes
Met Station: Salem

—	No SCIM
- - -	SCIM 25 Hours
- · -	SCIM 49 Hours
- · -	SCIM 97 Hours
- · -	SCIM 193 Hours



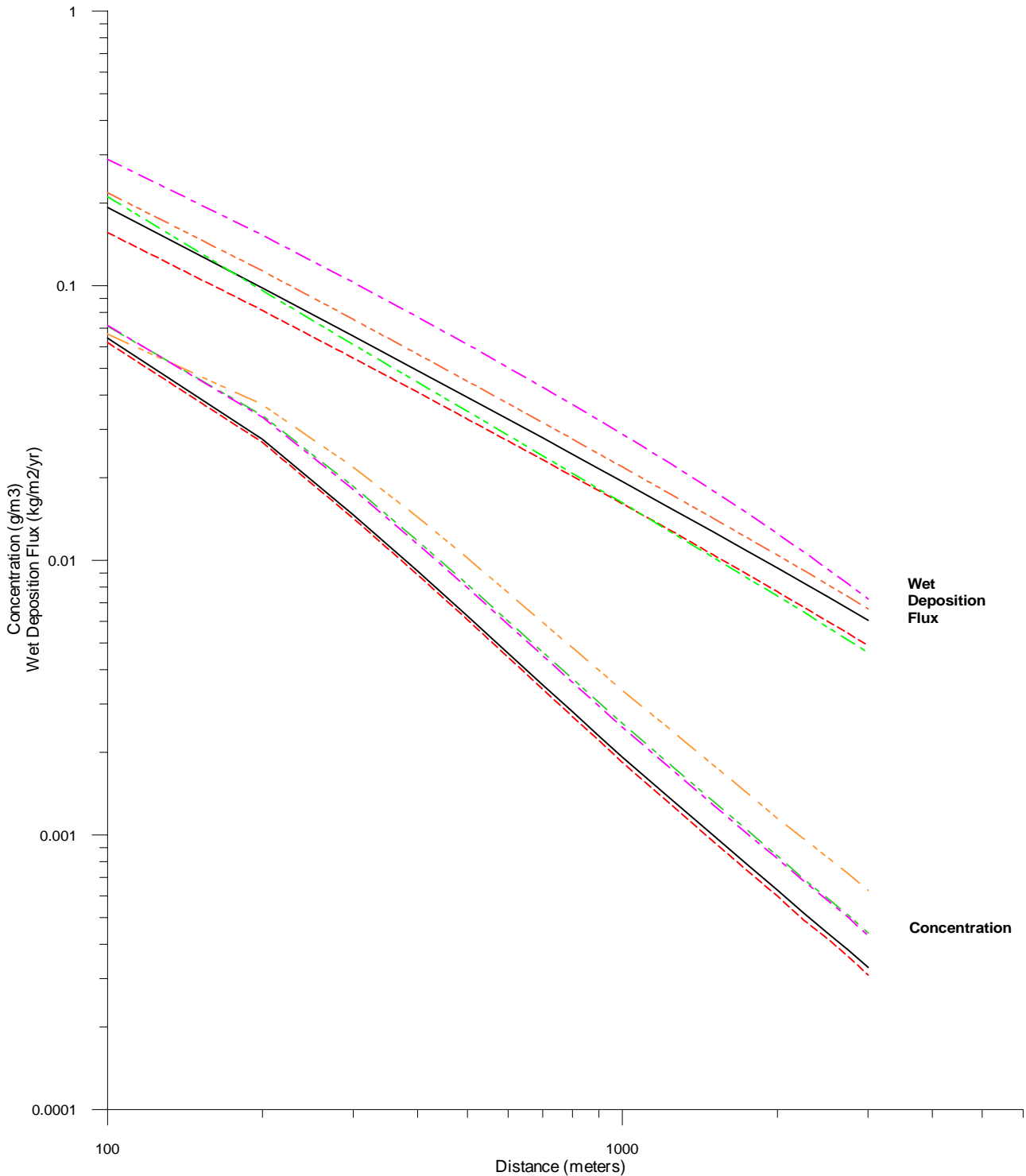
1000m Ground-Level Area Source (SI)
No Particles
Met Station: Salem

—	No SCIM
- - -	SCIM 25 Hours
- - -	SCIM 49 Hours
- - -	SCIM 97 Hours
- - -	SCIM 193 Hours



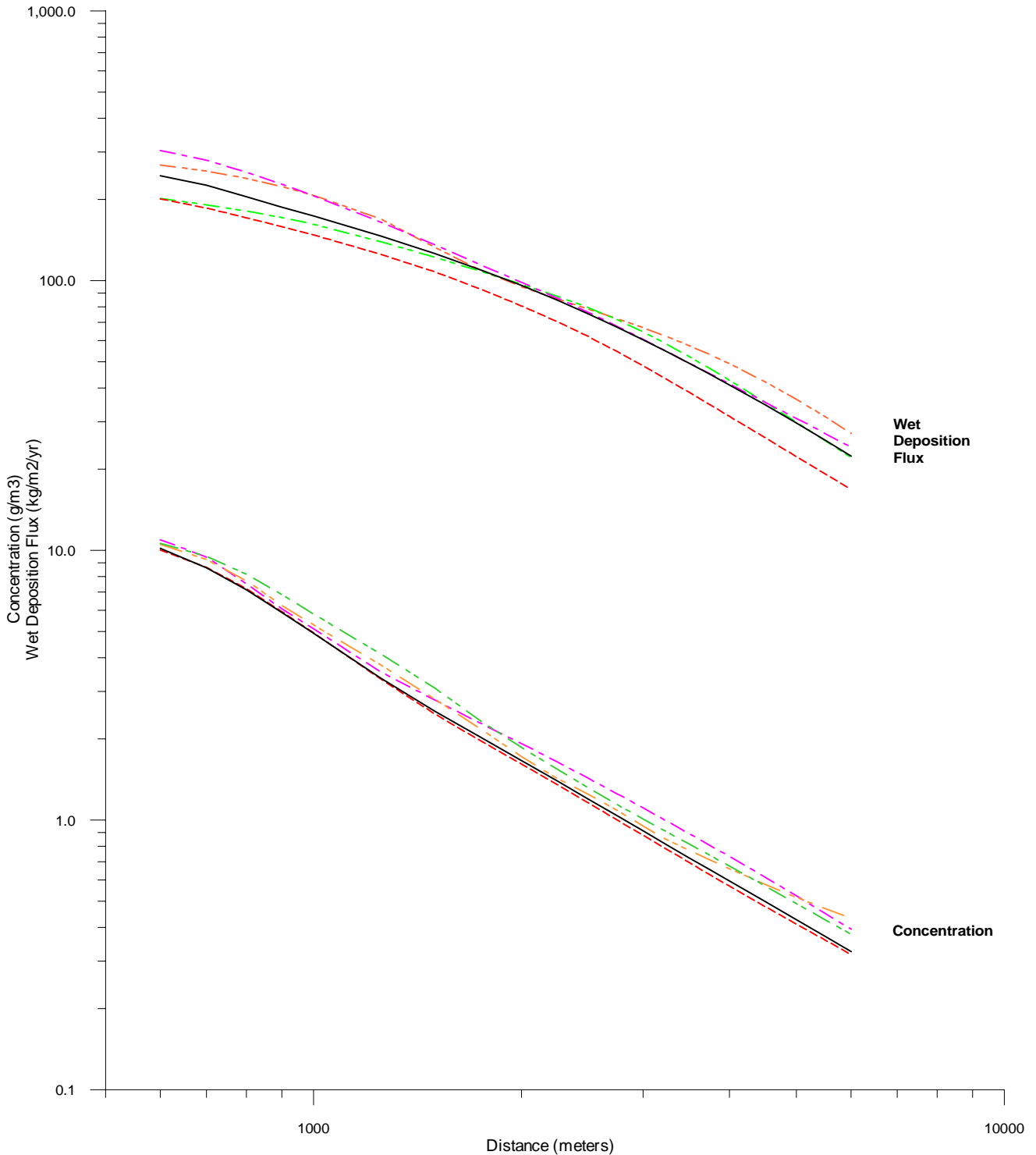
20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Salem

—	No SCIM
- - -	SCIM 25 Hours
- - -	SCIM 49 Hours
- - -	SCIM 97 Hours
- - -	SCIM 193 Hours



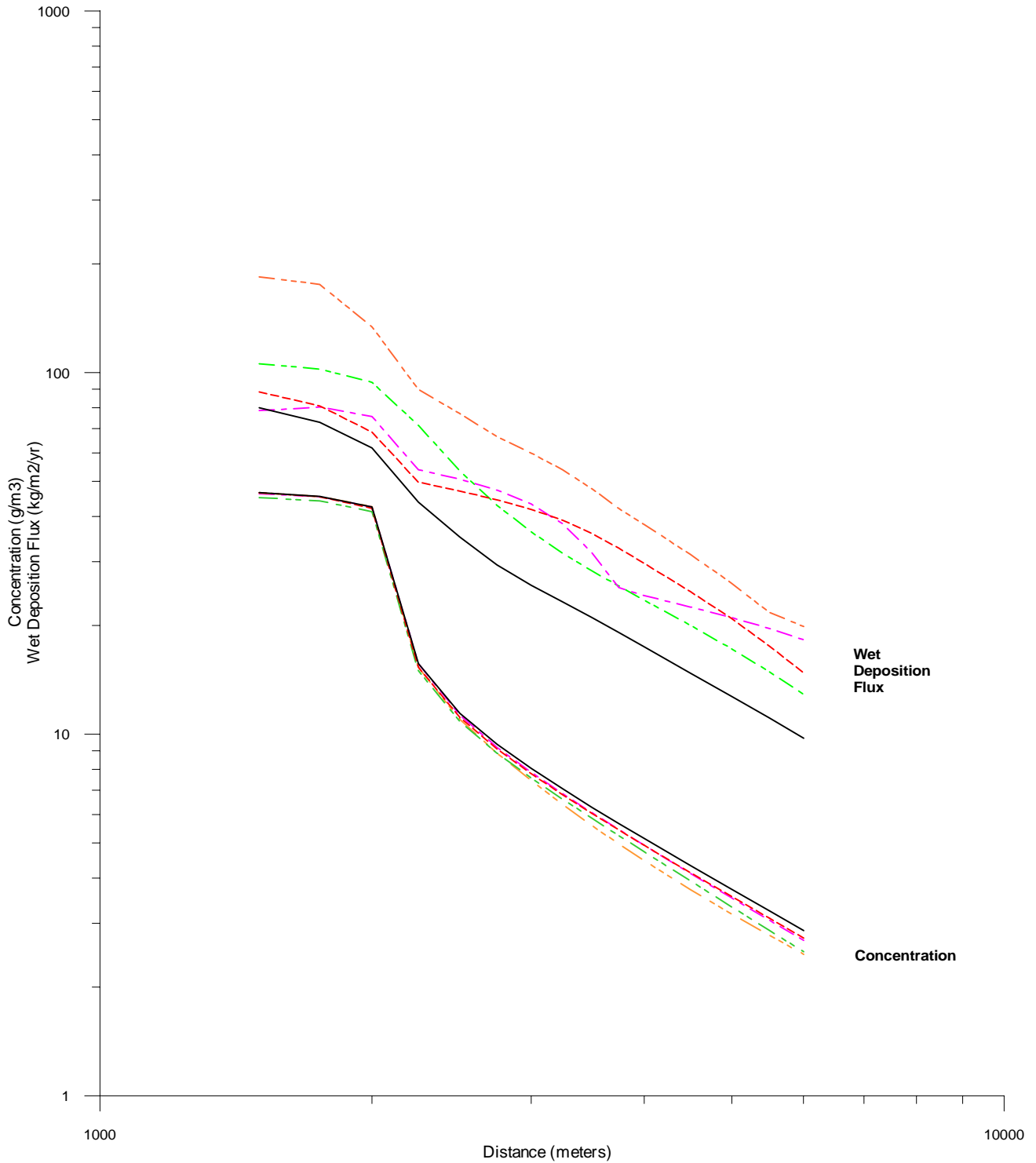
1200m Elevated (5m ht) Area Source (WP)
4 Particle Sizes
Met Station: Salem

—	No SCIM
- - -	SCIM 25 Hours
- · - · -	SCIM 49 Hours
- · - - -	SCIM 97 Hours
- · - · - · -	SCIM 193 Hours



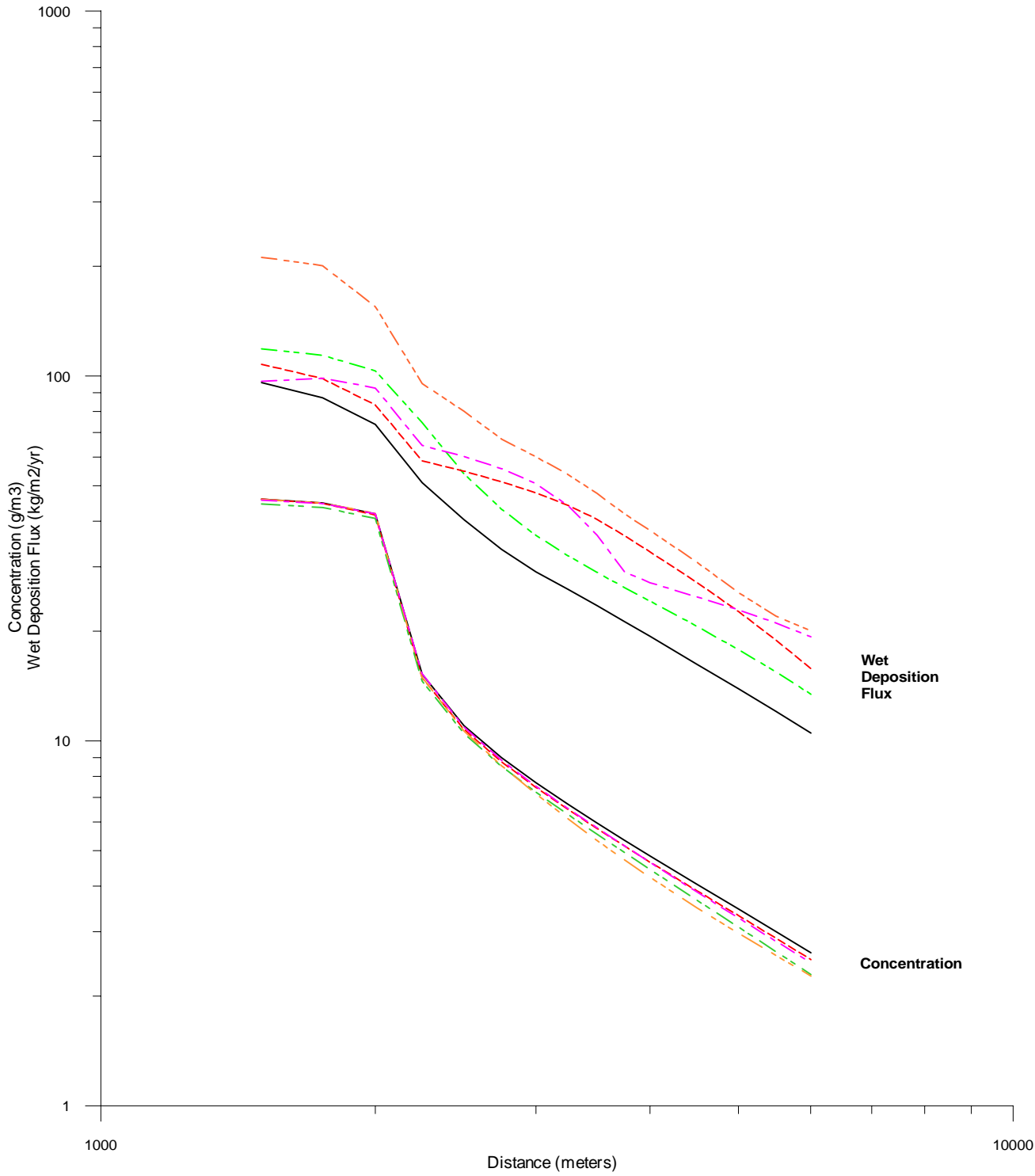
3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Tucson

_____	No SCIM
- - - - -	SCIM 25 Hours
- - - - -	SCIM 49 Hours
- - - - -	SCIM 97 Hours
- - - - -	SCIM 193 Hours



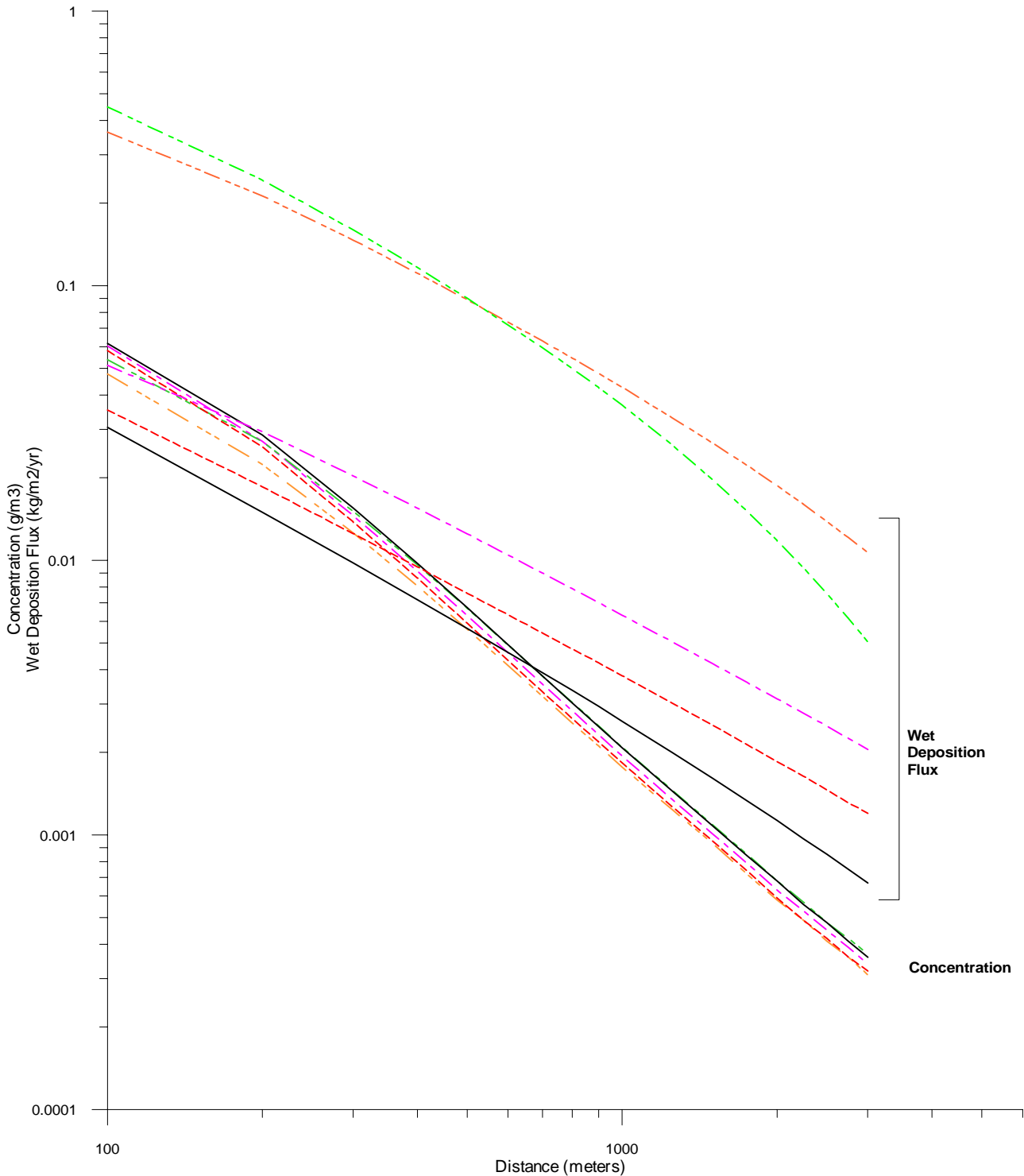
3000m Ground-Level Area Source (SCT)
5 Particle Sizes
Met Station: Tucson

—	No SCIM
- - -	SCIM 25 Hours
- - - -	SCIM 49 Hours
- - - - -	SCIM 97 Hours
- - - - - -	SCIM 193 Hours



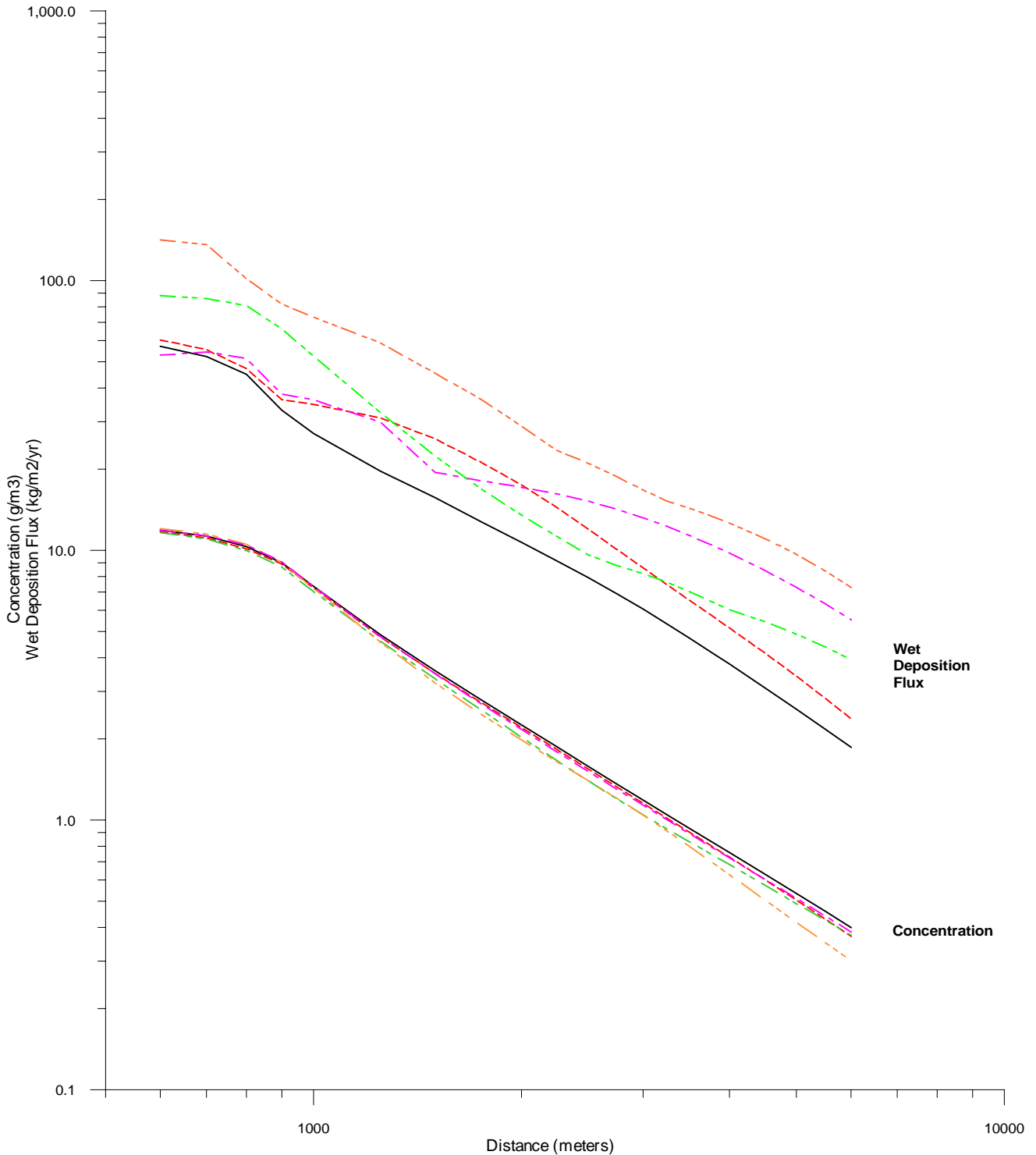
20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Tucson

—	No SCIM
- - -	SCIM 25 Hours
- - -	SCIM 49 Hours
- - -	SCIM 97 Hours
- - -	SCIM 193 Hours



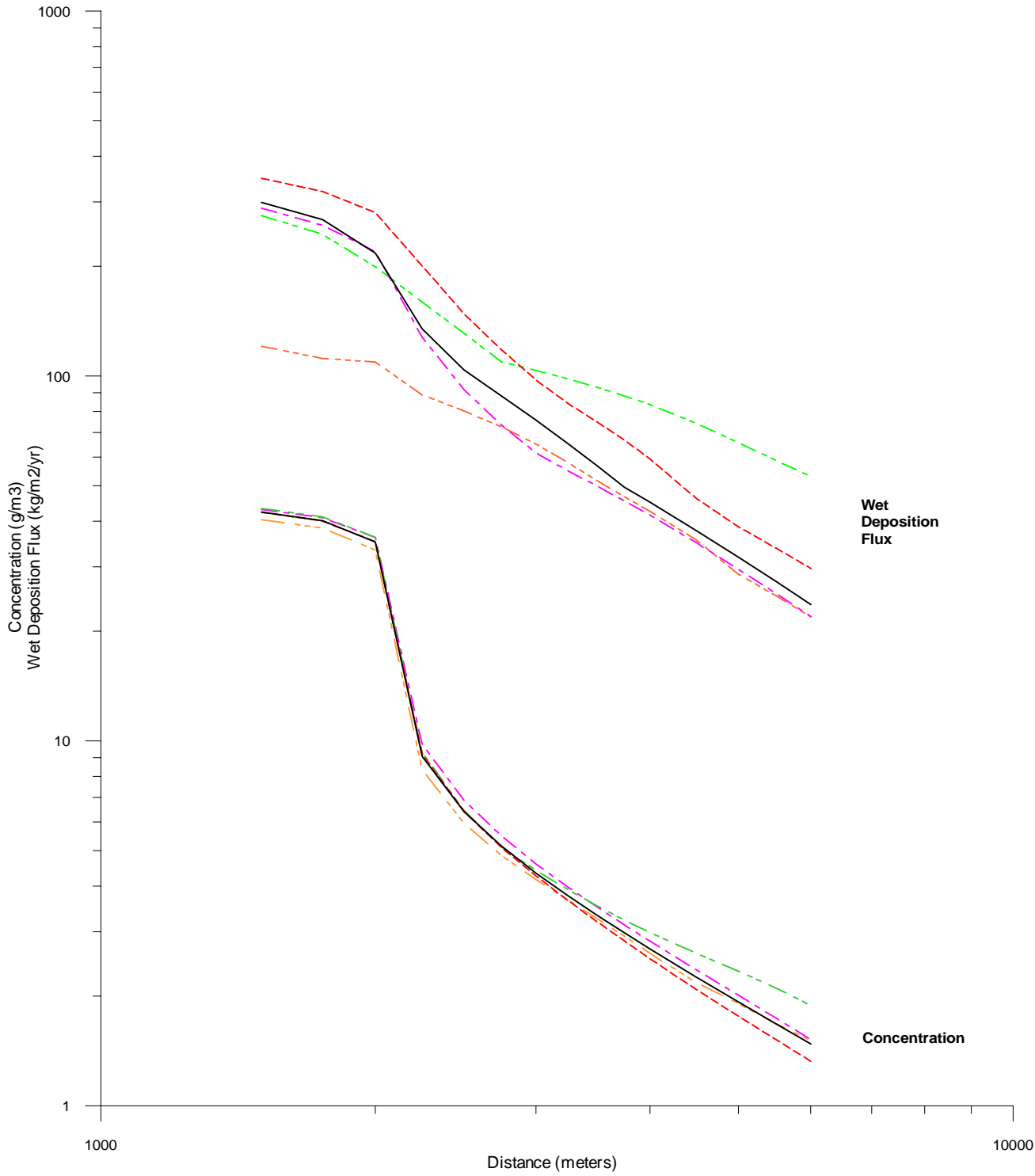
1200m Elevated (5m ht) Area Source (WP)
4 Particle Sizes
Met Station: Tucson

—	No SCIM
- - -	SCIM 25 Hours
- · - ·	SCIM 49 Hours
- · - ·	SCIM 97 Hours
- · - ·	SCIM 193 Hours



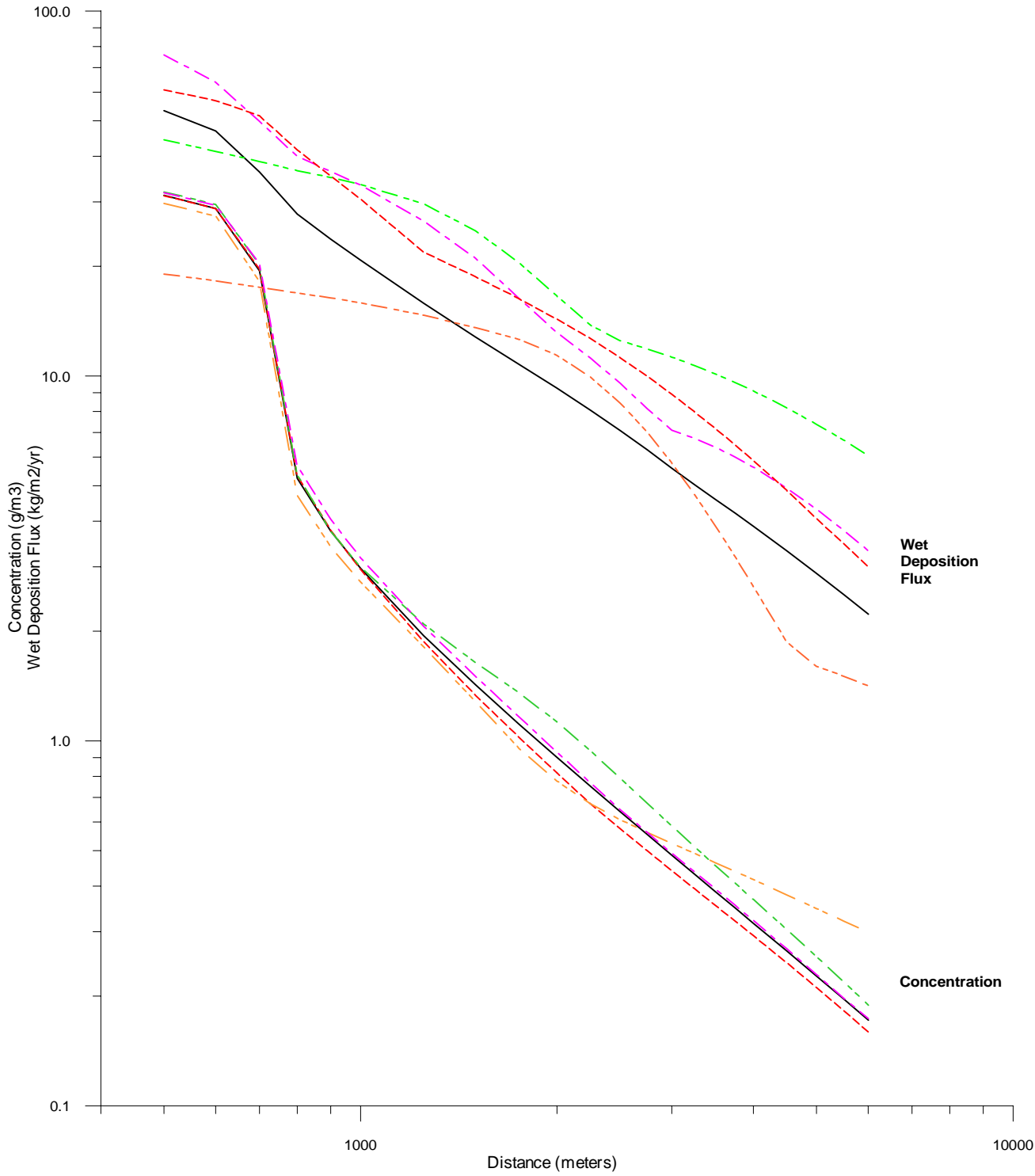
3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Lake Charles

—	No SCIM
- - -	SCIM 25 Hours
- - -	SCIM 49 Hours
- - -	SCIM 97 Hours
- - -	SCIM 193 Hours



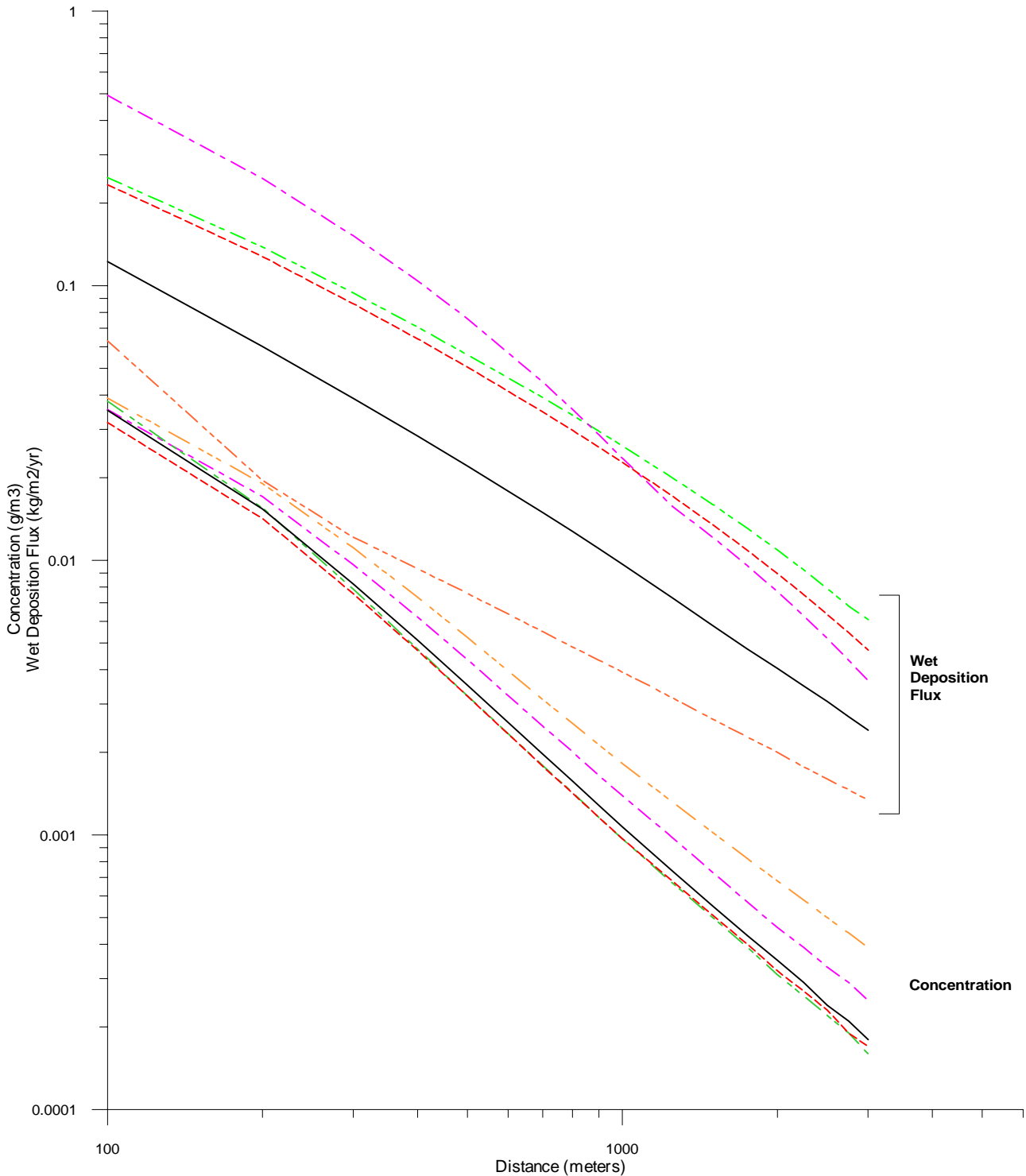
1000m Ground-Level Area Source (SI)
No Particles
Met Station: Lake Charles

—	No SCIM
- - -	SCIM 25 Hours
- - -	SCIM 49 Hours
- - -	SCIM 97 Hours
- - -	SCIM 193 Hours



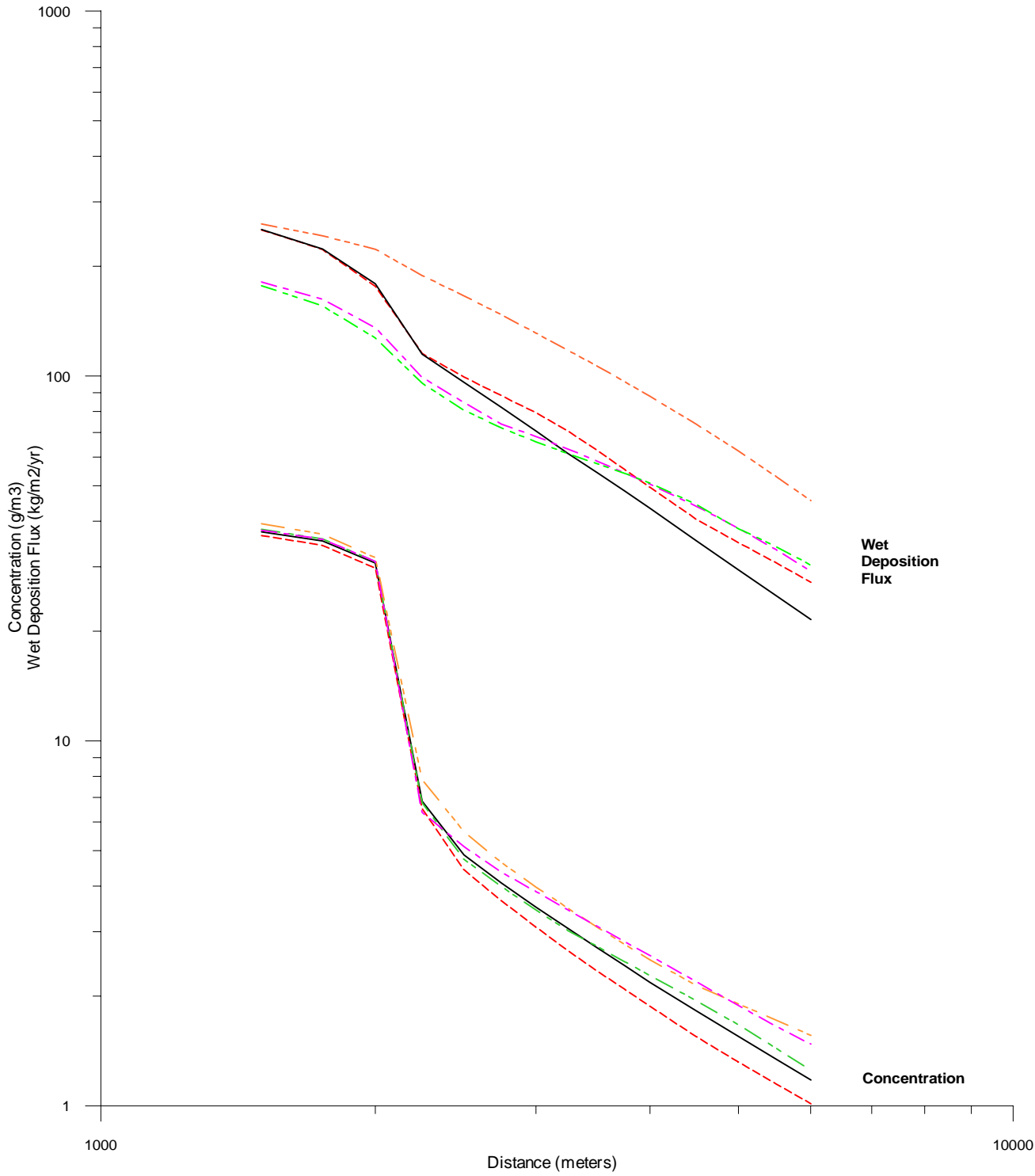
20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Lake Charles

—	No SCIM
- - -	SCIM 25 Hours
- - -	SCIM 49 Hours
- - -	SCIM 97 Hours
- - -	SCIM 193 Hours



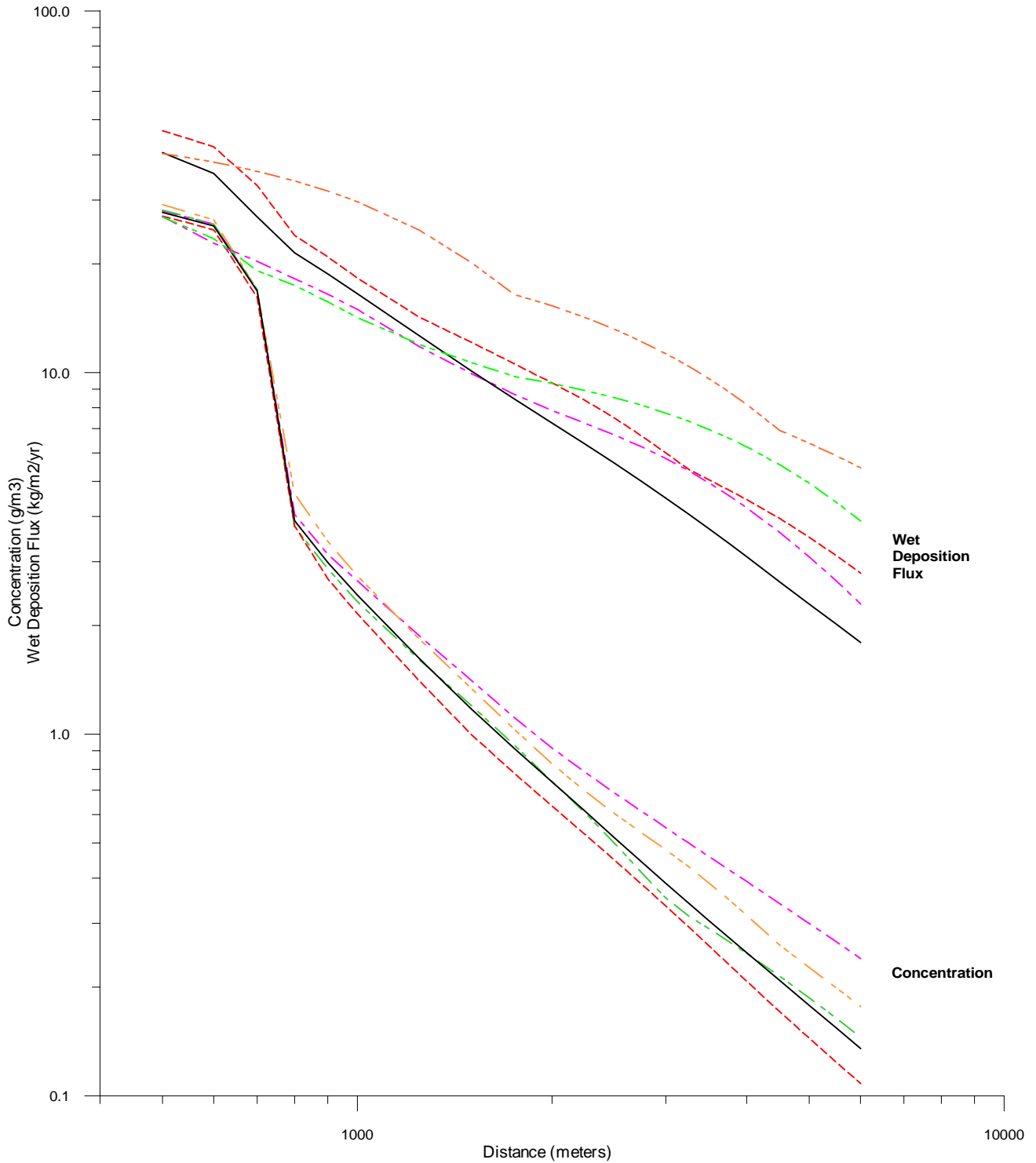
3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Pittsburgh

- No SCIM
- - - SCIM 25 Hours
- · - SCIM 49 Hours
- · - SCIM 97 Hours
- · - SCIM 193 Hours



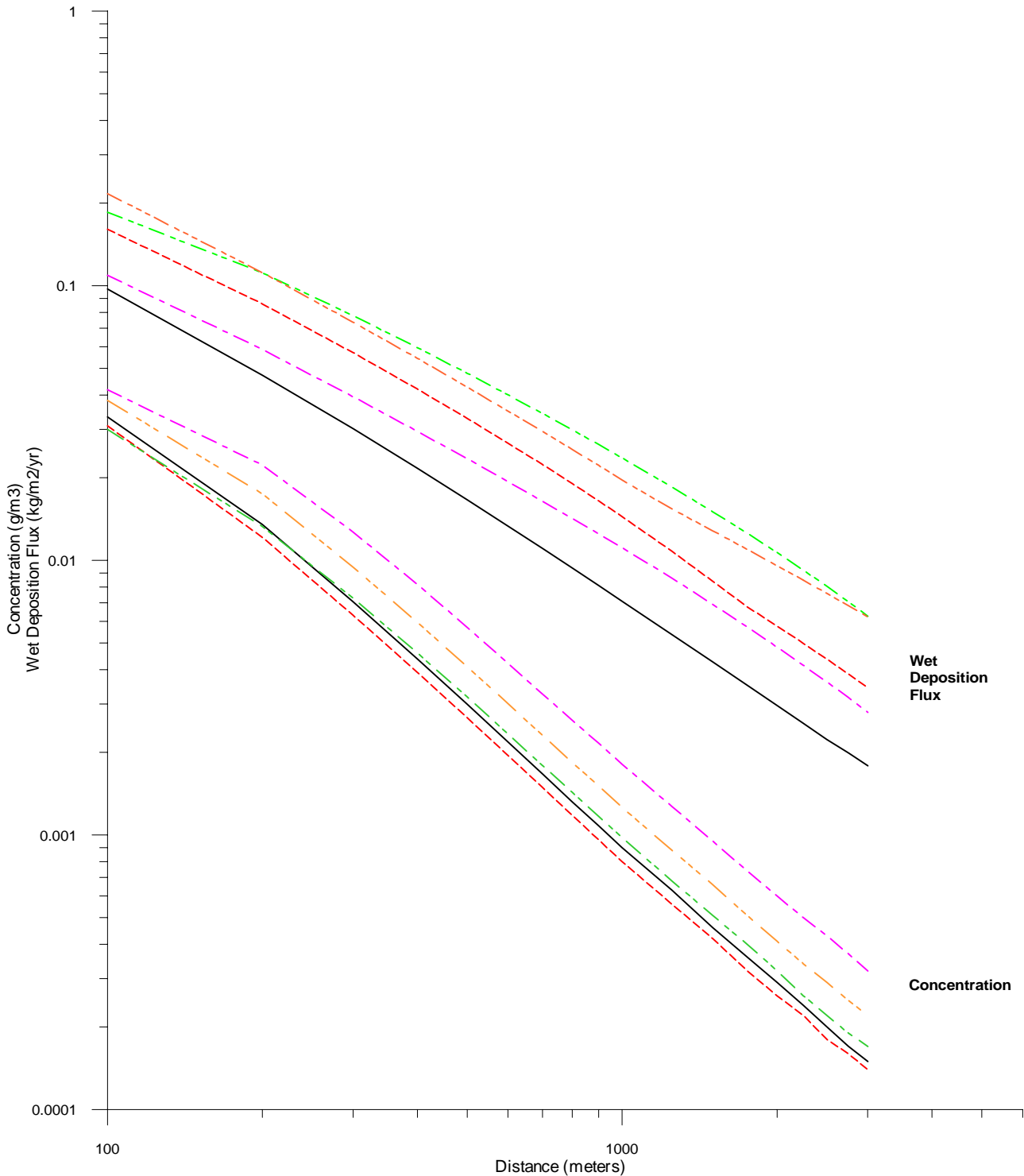
1000m Ground-Level Area Source (SI)
No Particles
Met Station: Pittsburgh

—	No SCIM
- - -	SCIM 25 Hours
- · - · -	SCIM 49 Hours
- · - - -	SCIM 97 Hours
- · - · - · -	SCIM 193 Hours



20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Pittsburgh

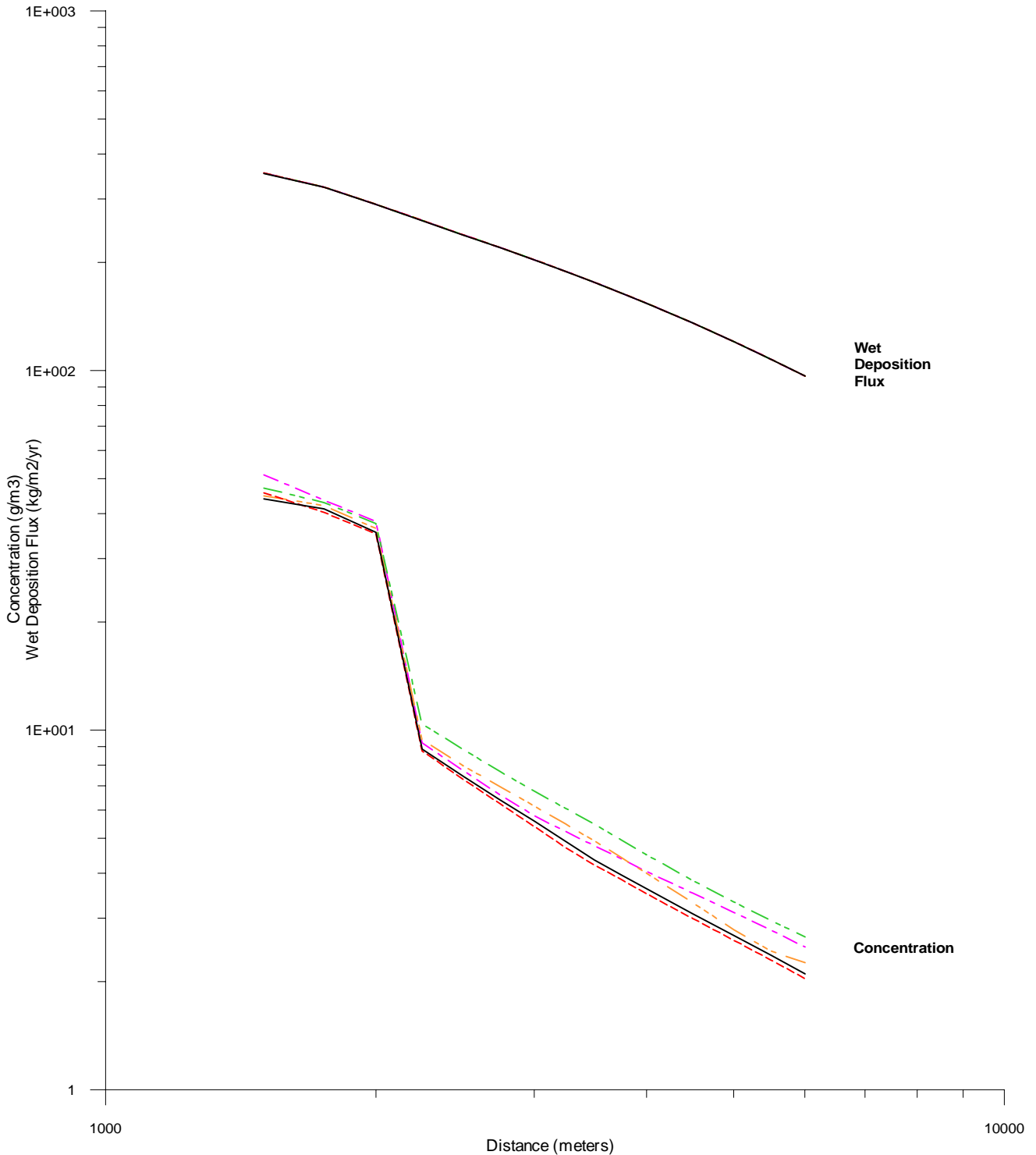
—	No SCIM
- - -	SCIM 25 Hours
- - -	SCIM 49 Hours
- - -	SCIM 97 Hours
- - -	SCIM 193 Hours



APPENDIX B

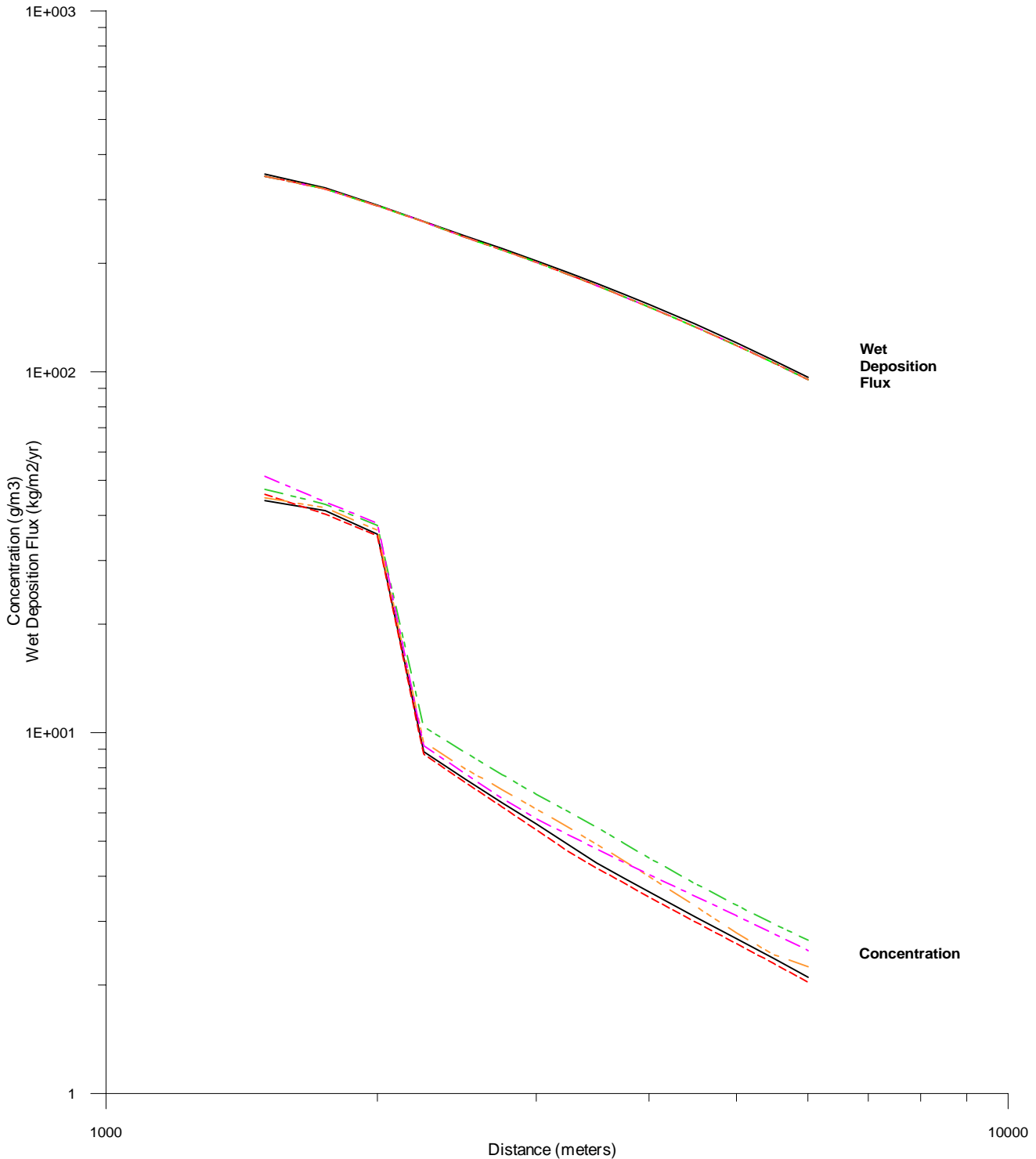
3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Salem
Wet Hour Sampling Frequency = 1

—	No SCIM
- - -	SCIM 25 Hours
- · - ·	SCIM 49 Hours
- · - · - ·	SCIM 97 Hours
- · - · - · - ·	SCIM 193 Hours



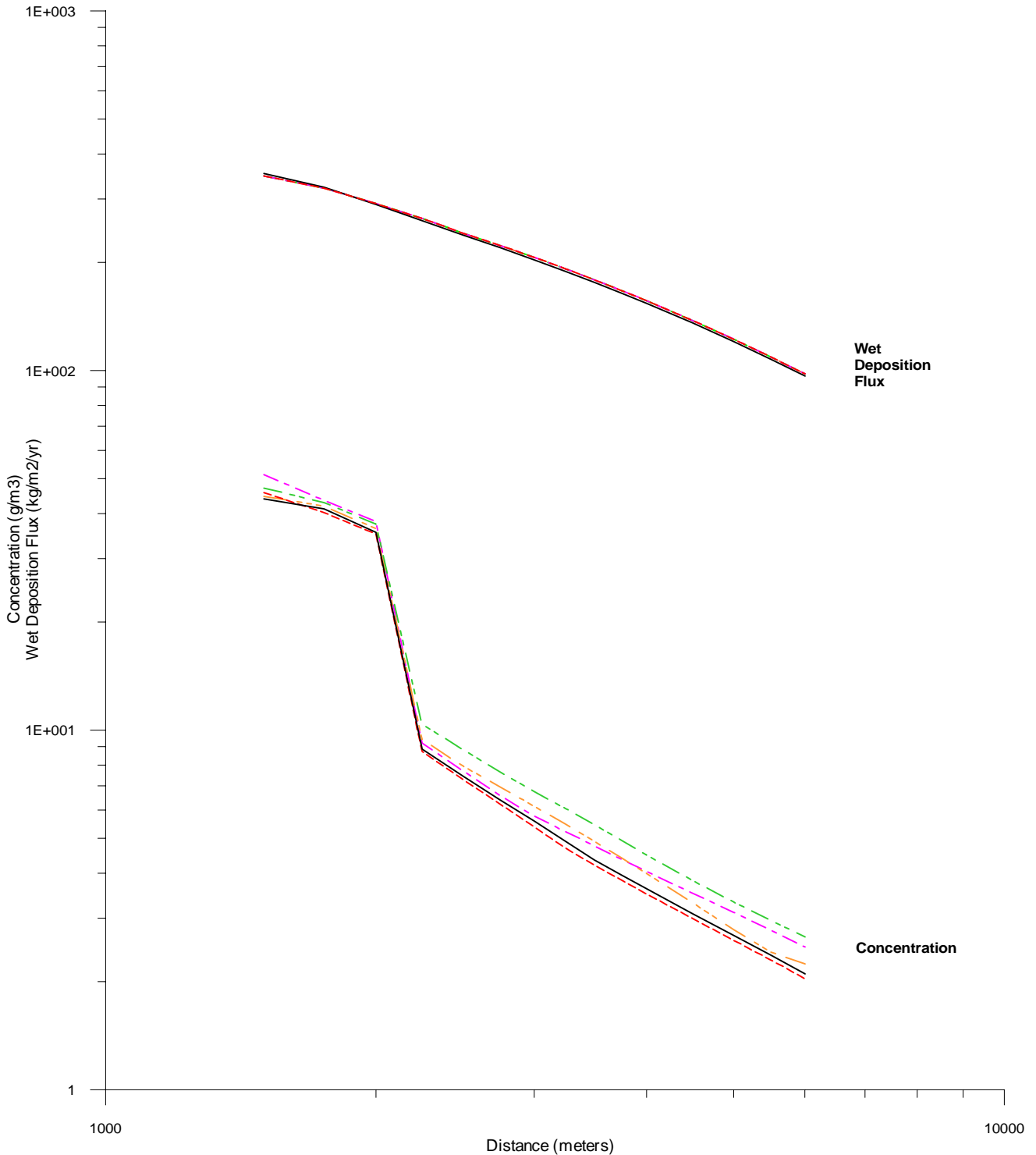
3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Salem
Wet Hour Sampling Frequency = 2

—	No SCIM
- - -	SCIM 25 Hours
- · - · -	SCIM 49 Hours
- · - · - · - · -	SCIM 97 Hours
- · - · - · - · - · -	SCIM 193 Hours



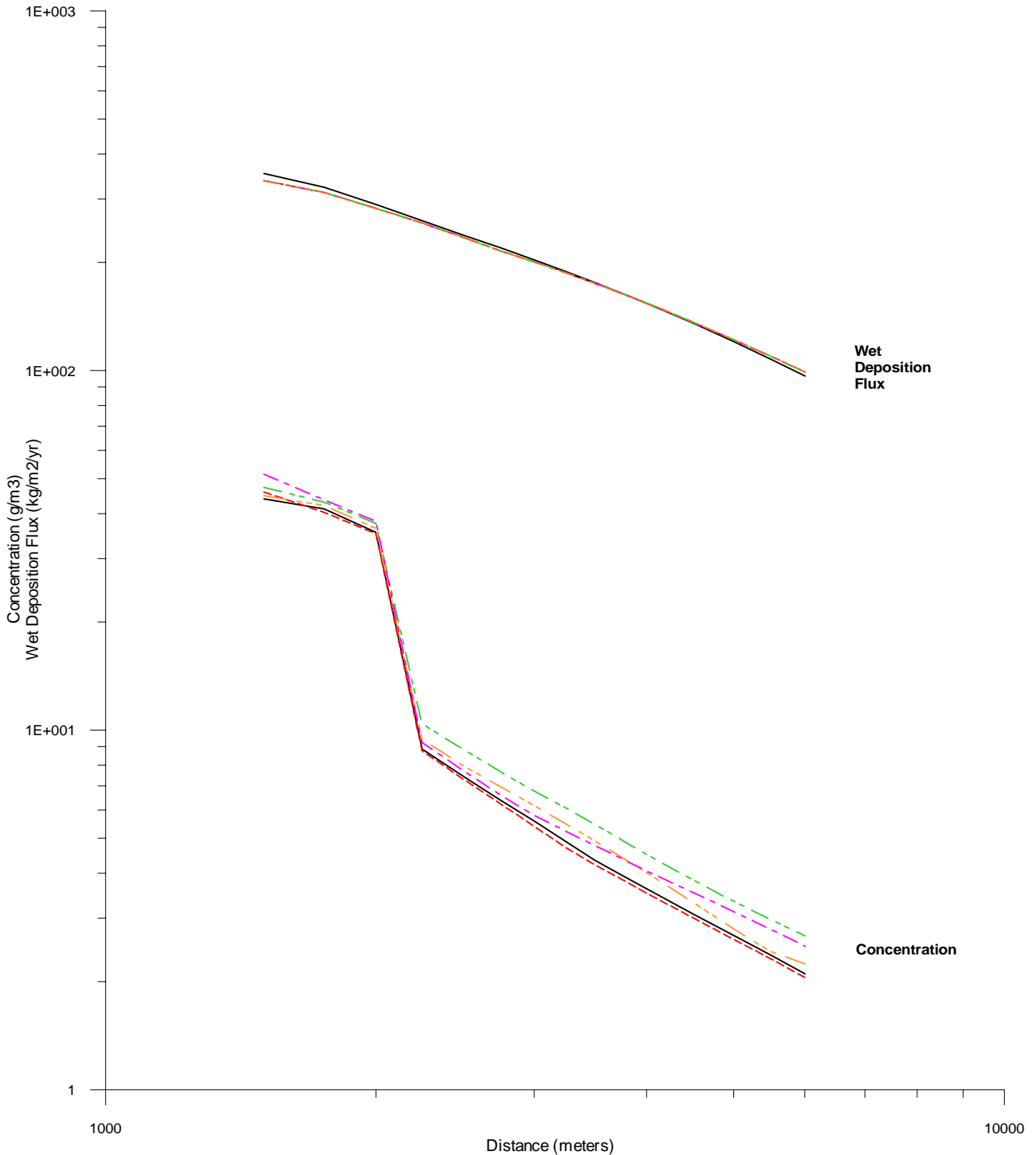
3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Salem
Wet Hour Sampling Frequency = 4

—————	No SCIM
- - - - -	SCIM 25 Hours
- · - · -	SCIM 49 Hours
- · - · -	SCIM 97 Hours
- · - · -	SCIM 193 Hours



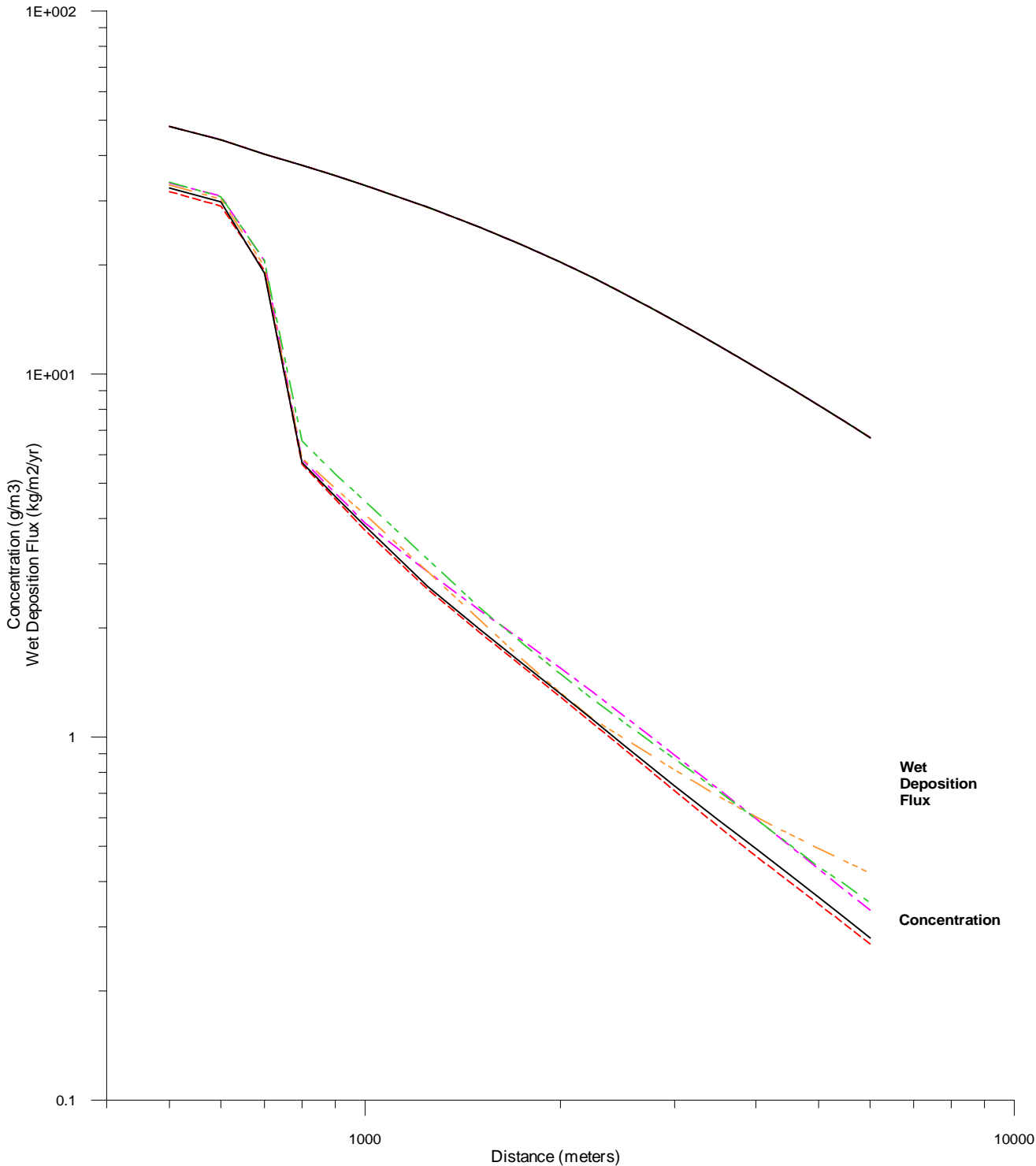
3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Salem
Wet Hour Sampling Frequency = 8

—	No SCIM
- - -	SCIM 25 Hours
- · - · -	SCIM 49 Hours
- · - · - · - · -	SCIM 97 Hours
- · - · - · - · - · -	SCIM 193 Hours



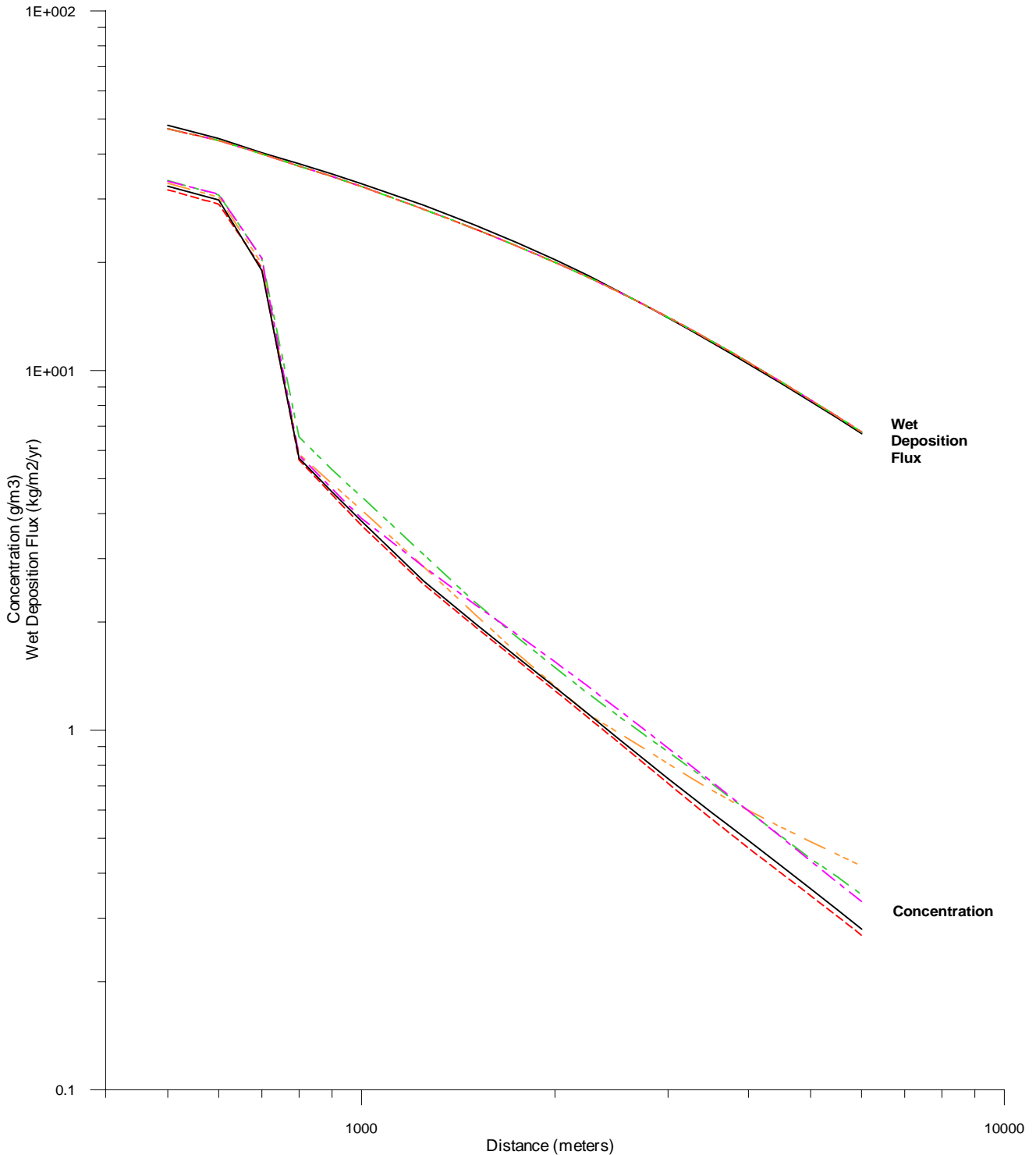
1000m Ground-Level Area Source (SI)
No Particles
Met Station: Salem
Wet Hour Sampling Frequency = 1

—	No SCIM
- - -	SCIM 25 Hours
- · - · -	SCIM 49 Hours
- · - - -	SCIM 97 Hours
- · - · - · -	SCIM 193 Hours



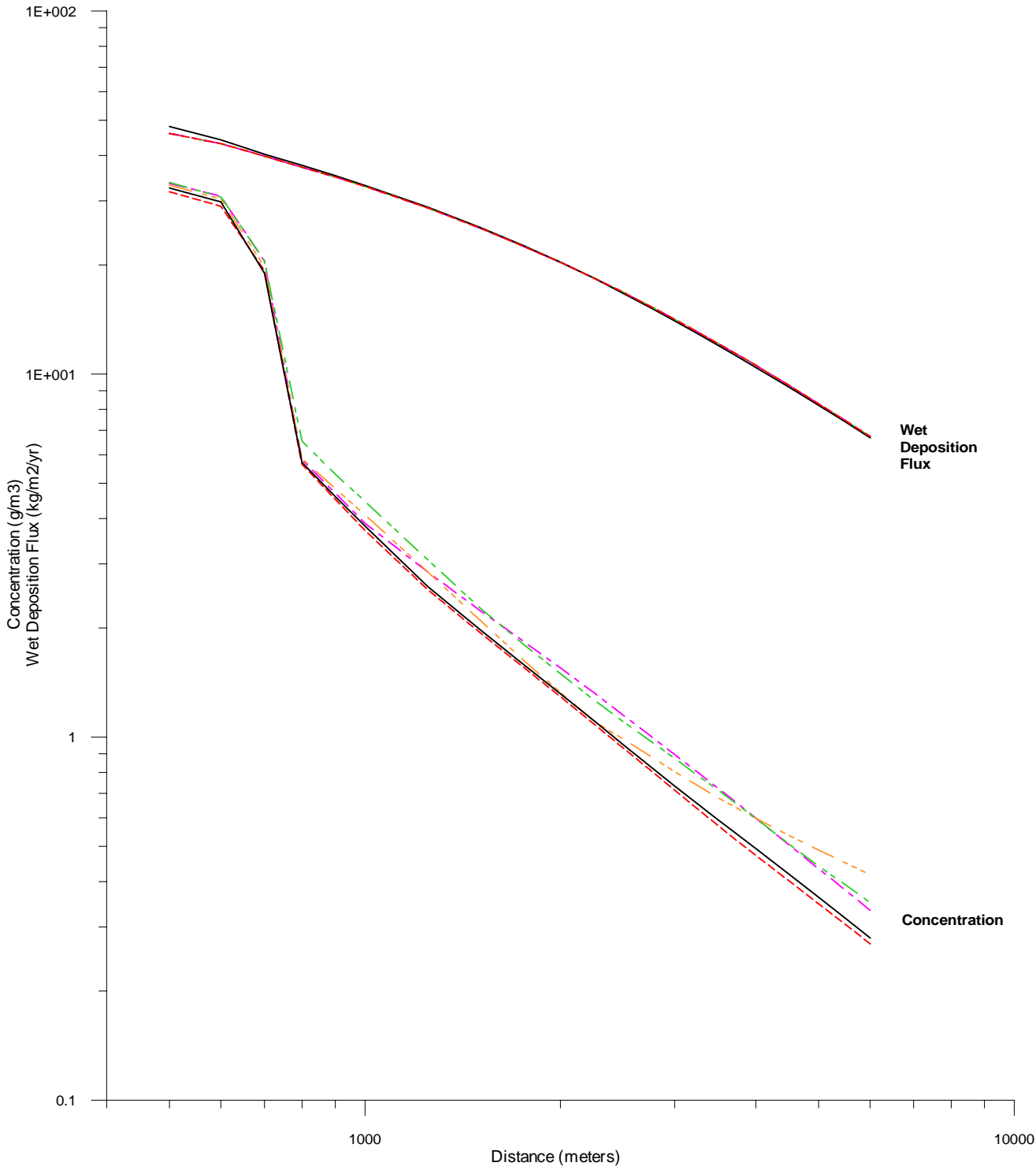
1000m Ground-Level Area Source (SI)
No Particles
Met Station: Salem
Wet Hour Sampling Frequency = 2

—	No SCIM
- - -	SCIM 25 Hours
- · - · -	SCIM 49 Hours
- · - - -	SCIM 97 Hours
- · - · - · -	SCIM 193 Hours



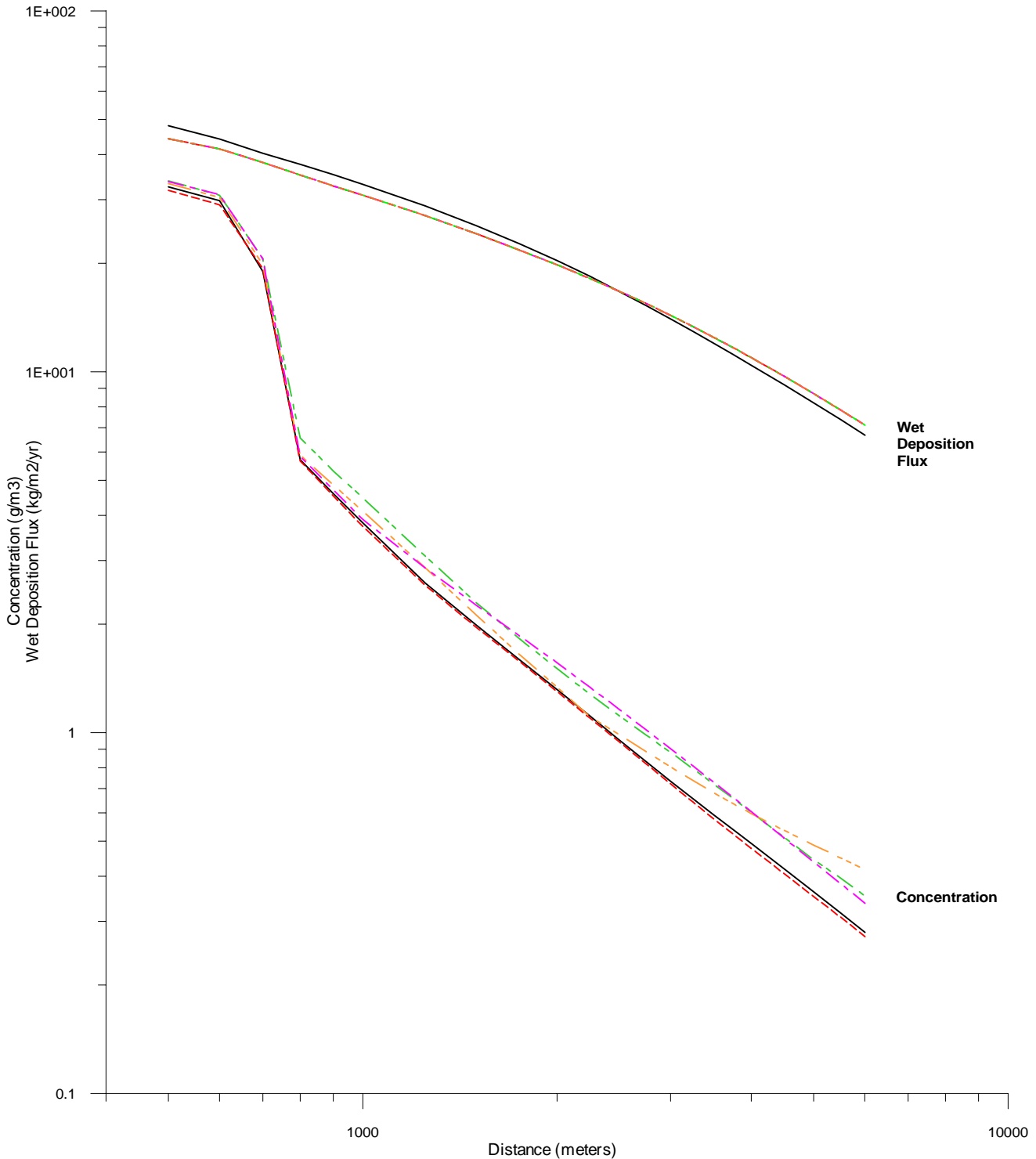
1000m Ground-Level Area Source (SI)
No Particles
Met Station: Salem
Wet Hour Sampling Frequency = 4

—	No SCIM
- - -	SCIM 25 Hours
- · - · -	SCIM 49 Hours
- · - · -	SCIM 97 Hours
- · - · -	SCIM 193 Hours



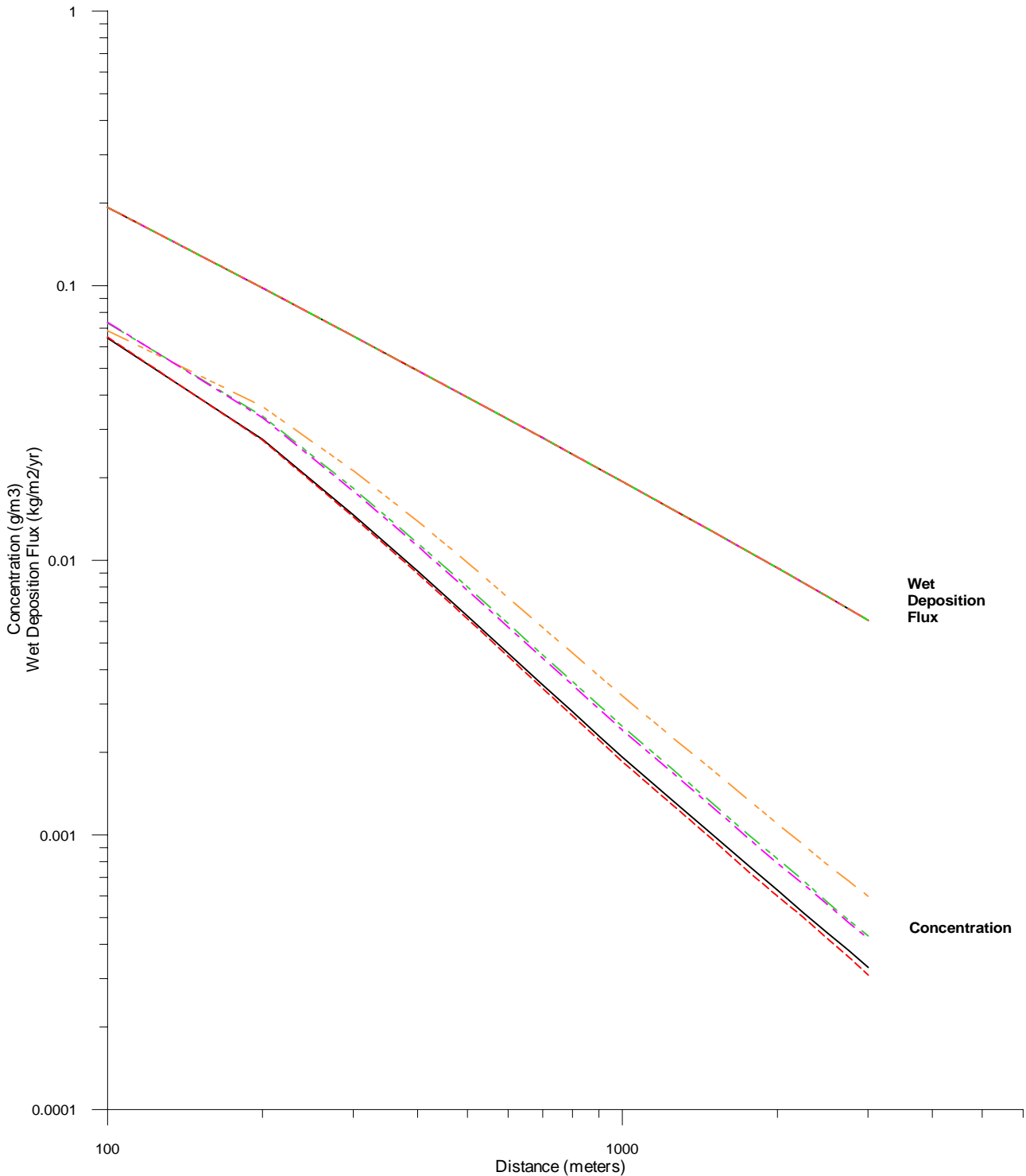
1000m Ground-Level Area Source (SI)
No Particles
Met Station: Salem
Wet Hour Sampling Frequency = 8

—	No SCIM
- - -	SCIM 25 Hours
- · - · -	SCIM 49 Hours
- · - · - · -	SCIM 97 Hours
- · - · - · - · -	SCIM 193 Hours



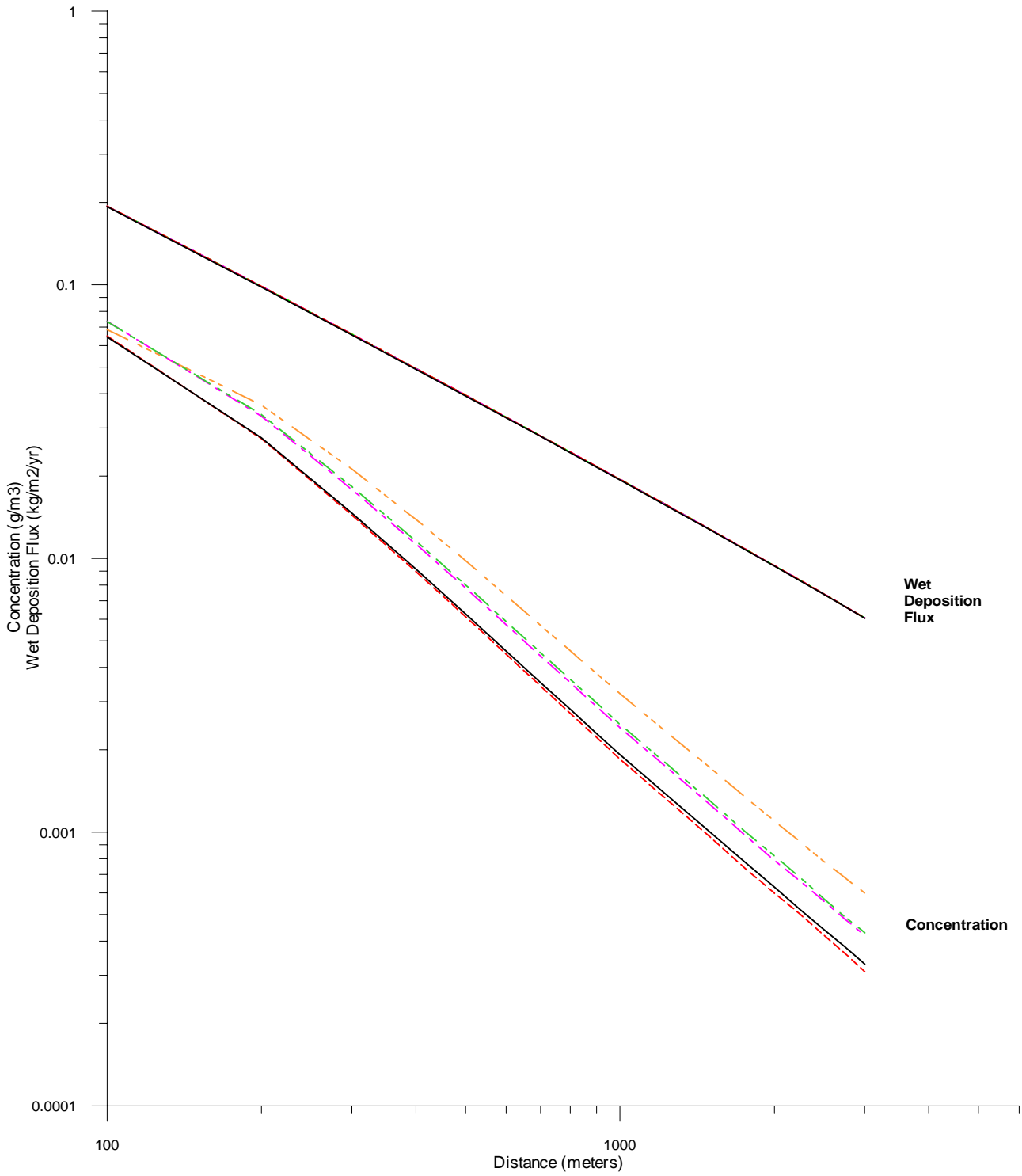
20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Salem
Wet Hour Sampling Frequency = 1

—	No SCIM
- - -	SCIM 25 Hours
- · - · -	SCIM 49 Hours
- · - · -	SCIM 97 Hours
- · - · -	SCIM 193 Hours



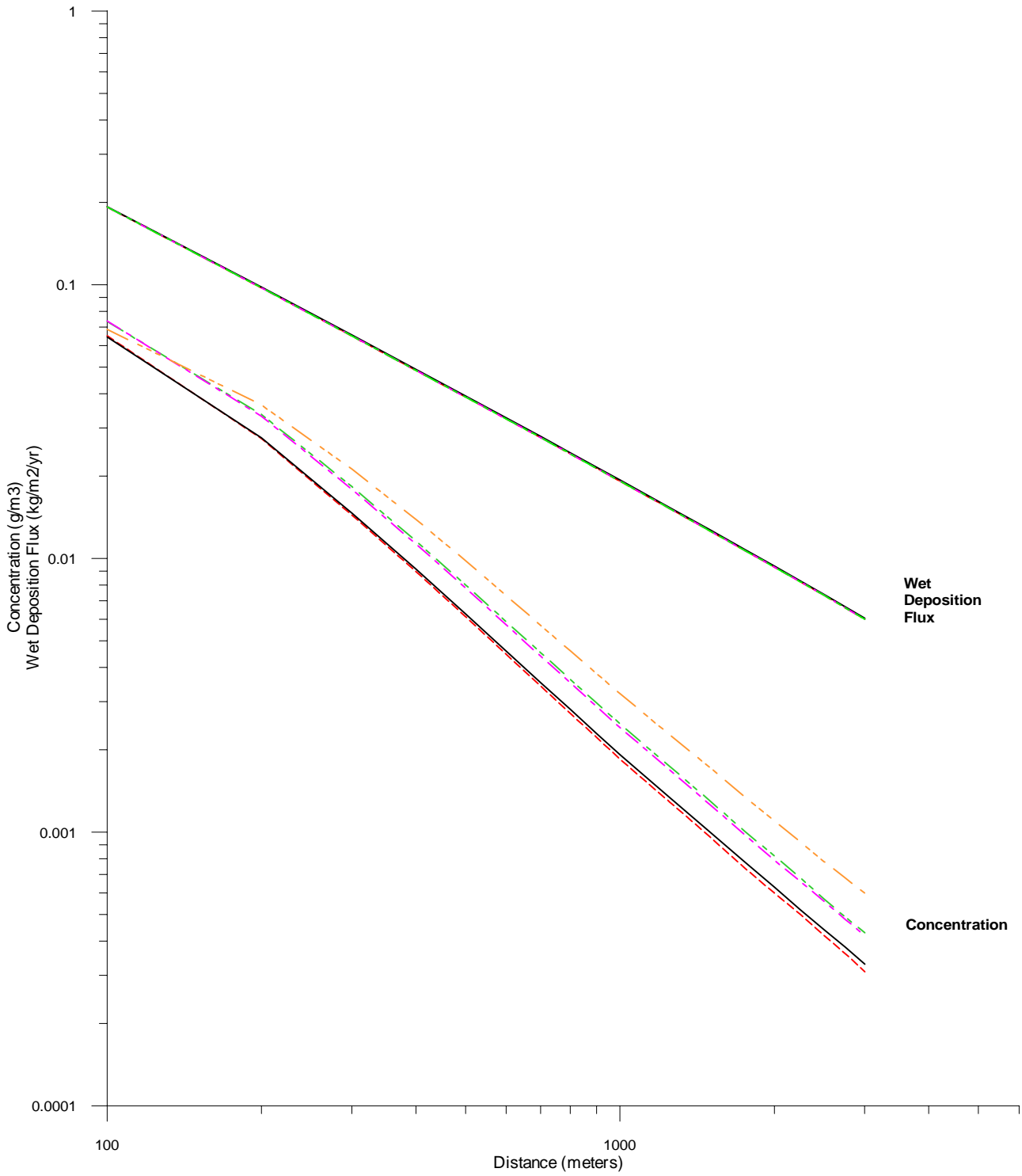
20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Salem
Wet Hour Sampling Frequency = 2

—————	No SCIM
- - - - -	SCIM 25 Hours
- · - · -	SCIM 49 Hours
- · - · -	SCIM 97 Hours
- · - · -	SCIM 193 Hours



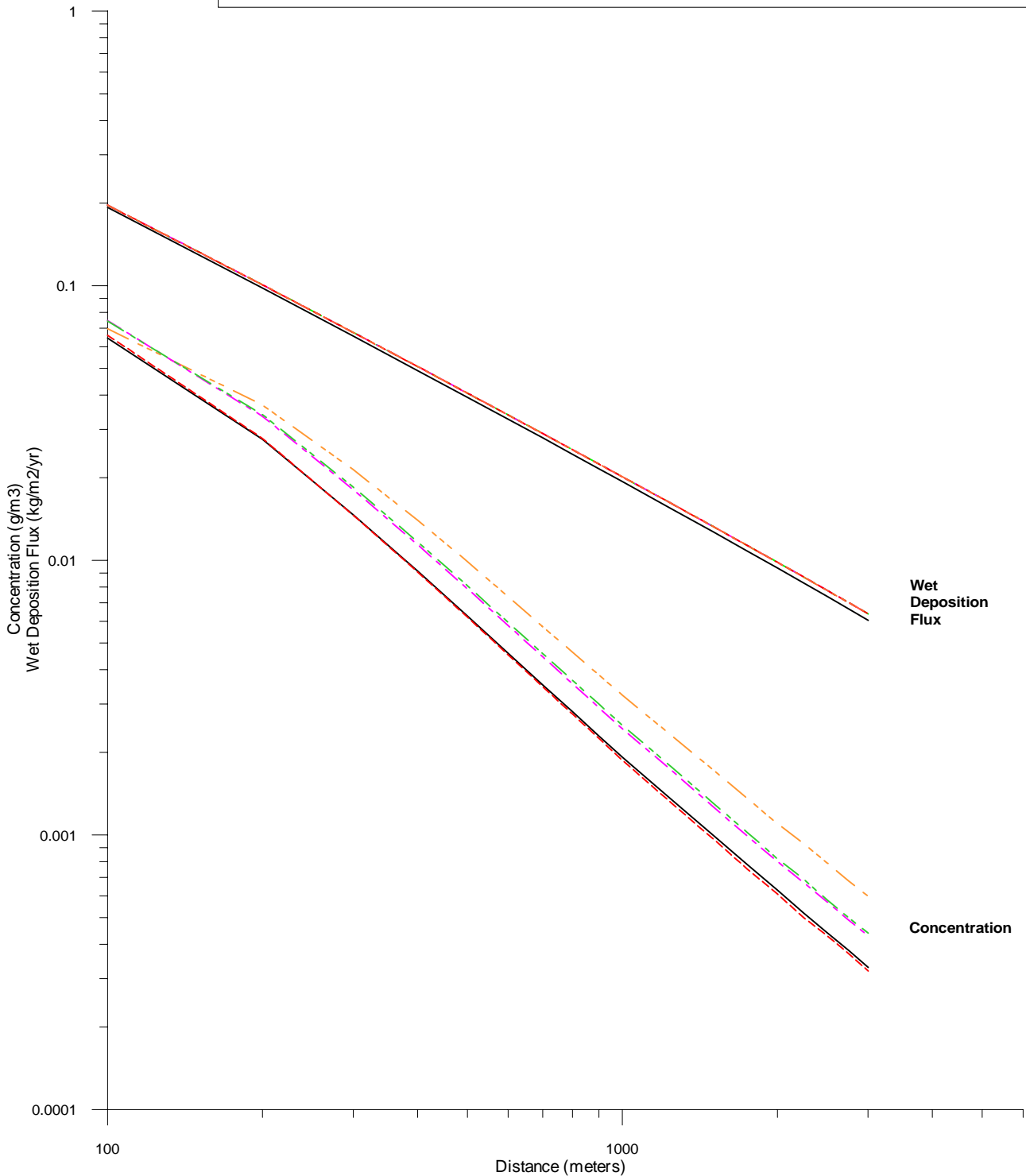
20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Salem
Wet Hour Sampling Frequency = 4

—————	No SCIM
- - - - -	SCIM 25 Hours
- · - · -	SCIM 49 Hours
- · - - -	SCIM 97 Hours
- · - · - · -	SCIM 193 Hours



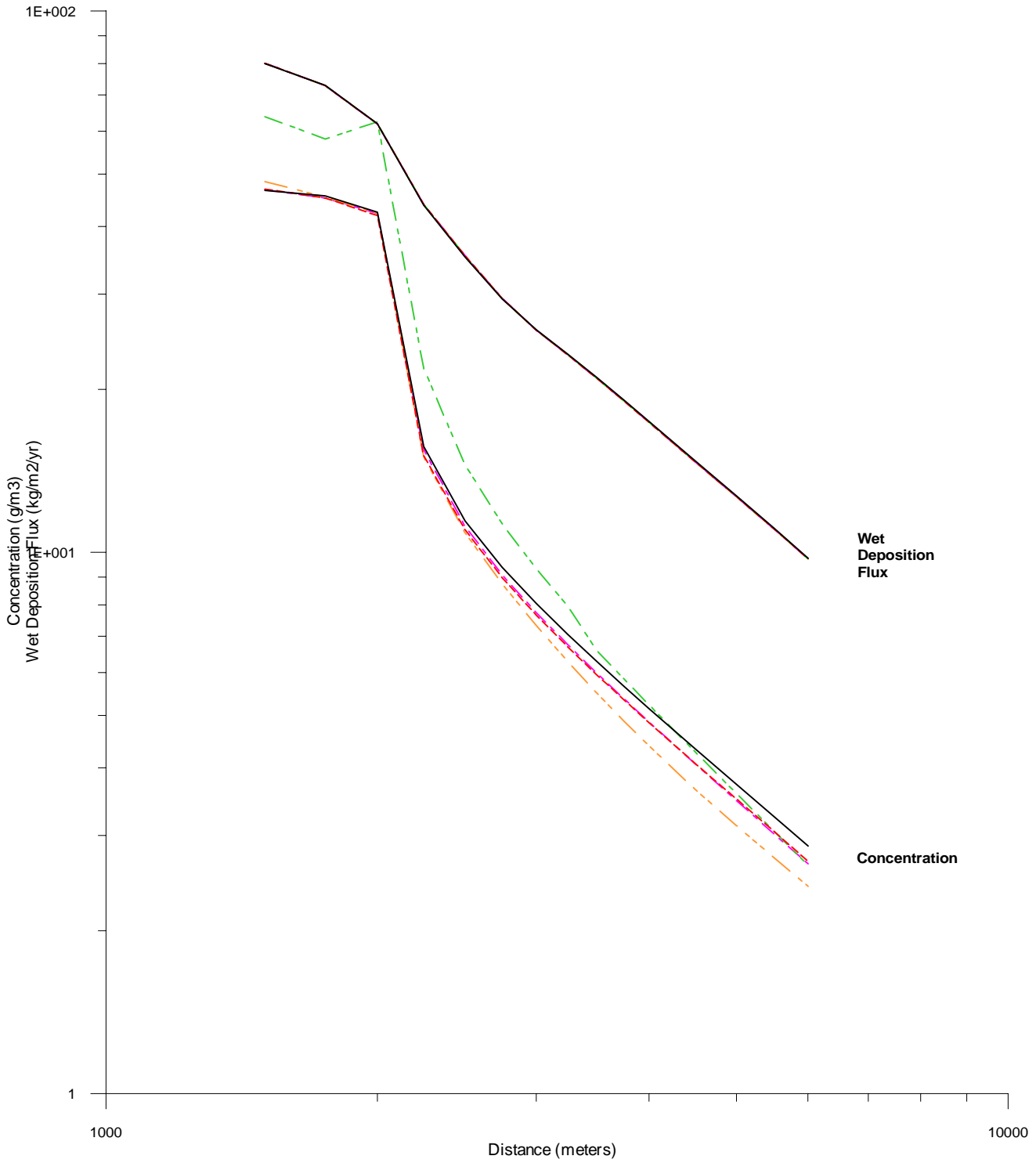
20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Salem
Wet Hour Sampling Frequency = 8

—	No SCIM
- - -	SCIM 25 Hours
- · - · -	SCIM 49 Hours
- · - - -	SCIM 97 Hours
- · - · - · -	SCIM 193 Hours



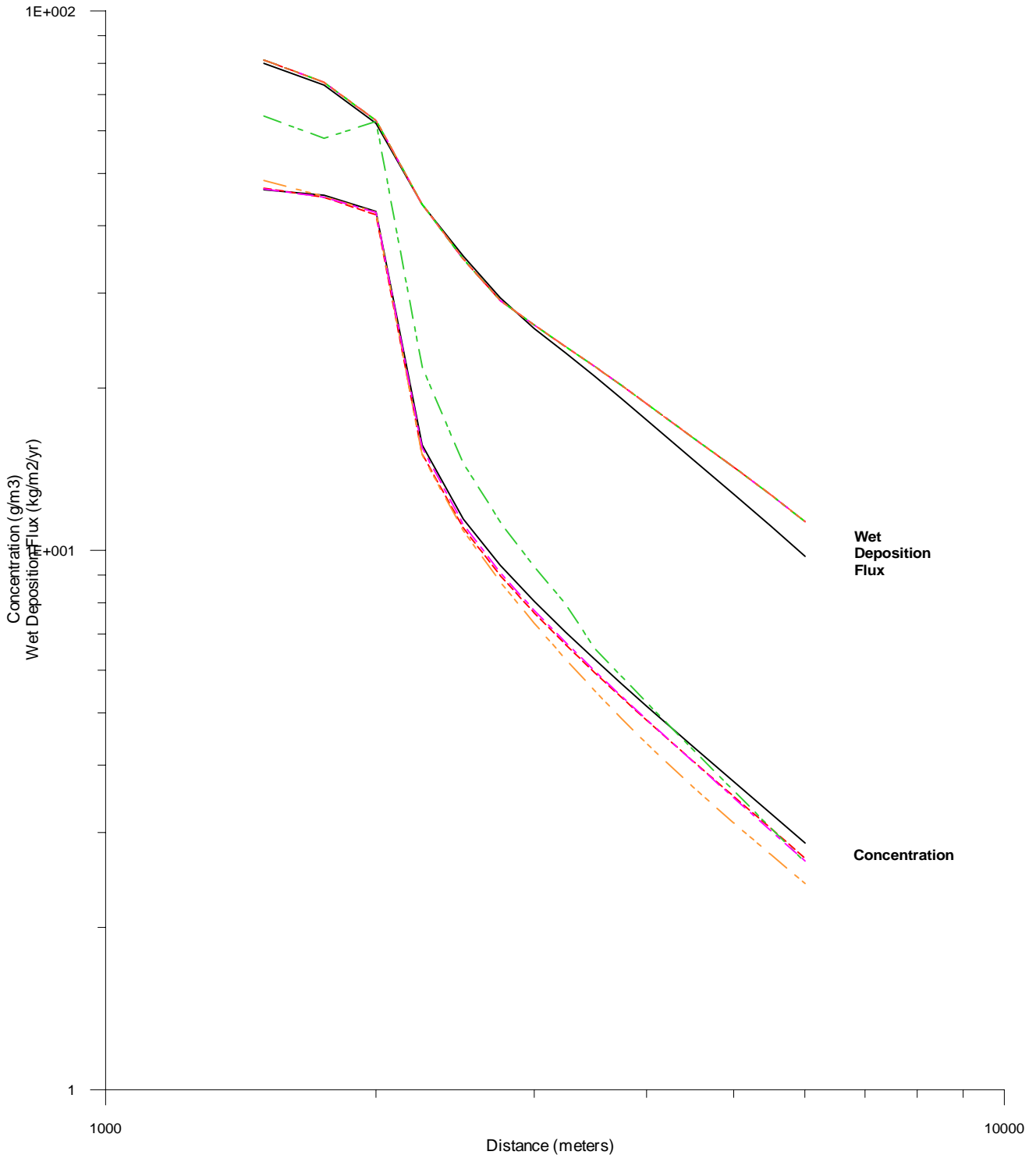
3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Tucson
Wet Hour Sampling Frequency = 1

—————	No SCIM
- - - - -	SCIM 25 Hours
- · - · -	SCIM 49 Hours
- · - - -	SCIM 97 Hours
- · - · -	SCIM 193 Hours



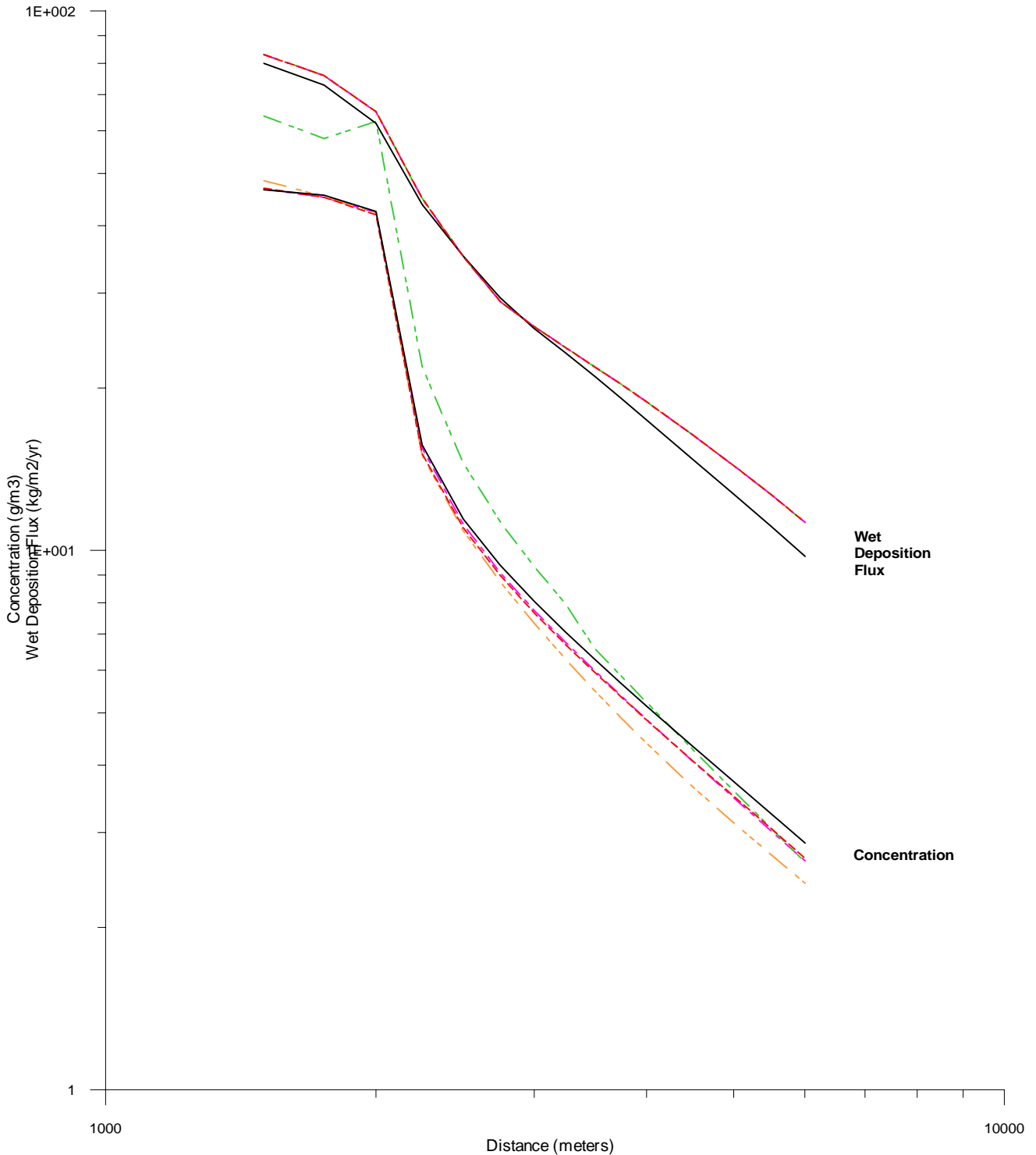
3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Tucson
Wet Hour Sampling Frequency = 2

—	No SCIM
- - -	SCIM 25 Hours
- · - · -	SCIM 49 Hours
- · - - -	SCIM 97 Hours
- · - · - · -	SCIM 193 Hours



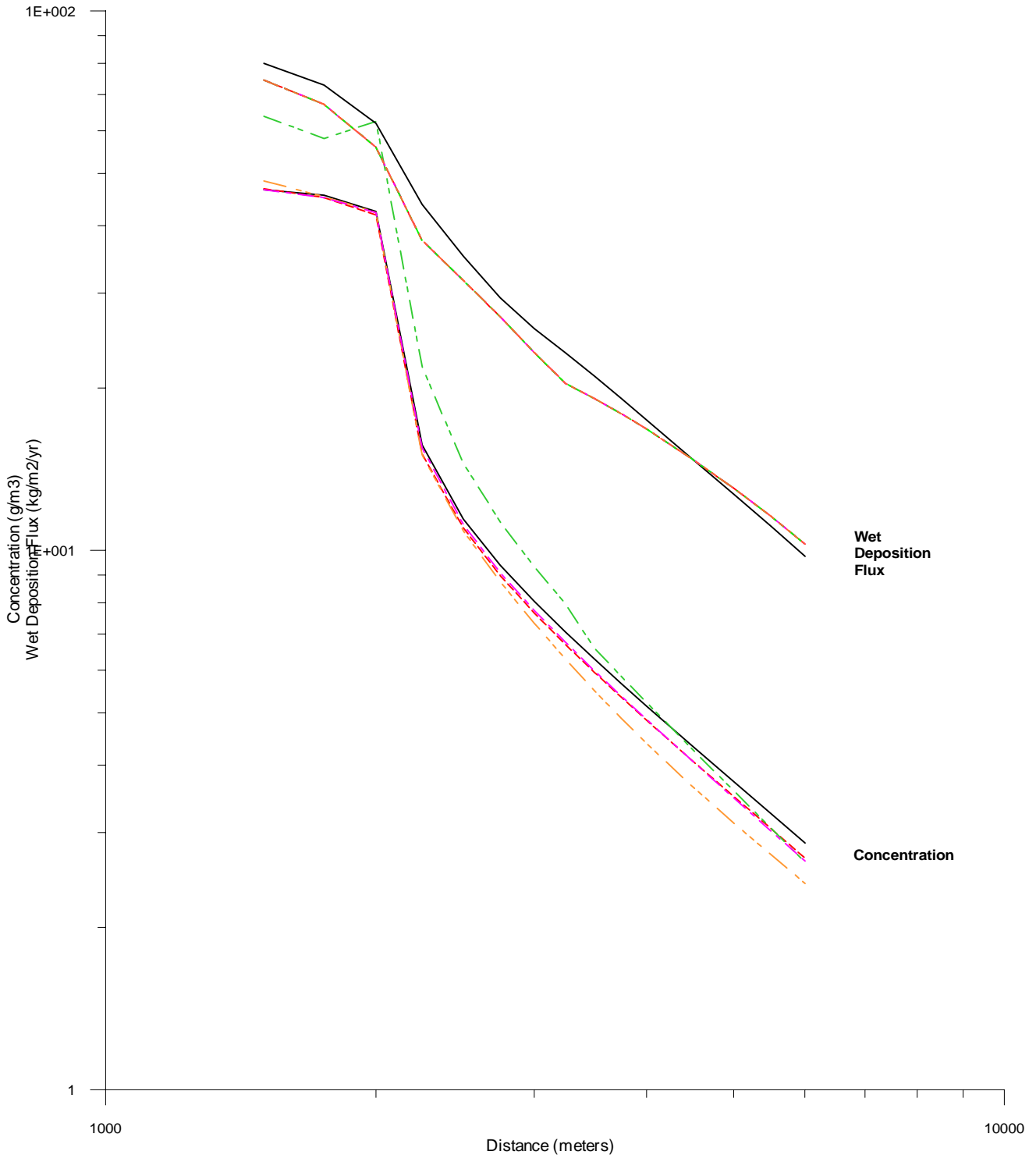
3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Tucson
Wet Hour Sampling Frequency = 4

—	No SCIM
- - -	SCIM 25 Hours
- · - · -	SCIM 49 Hours
- · - - -	SCIM 97 Hours
- · - · - · -	SCIM 193 Hours



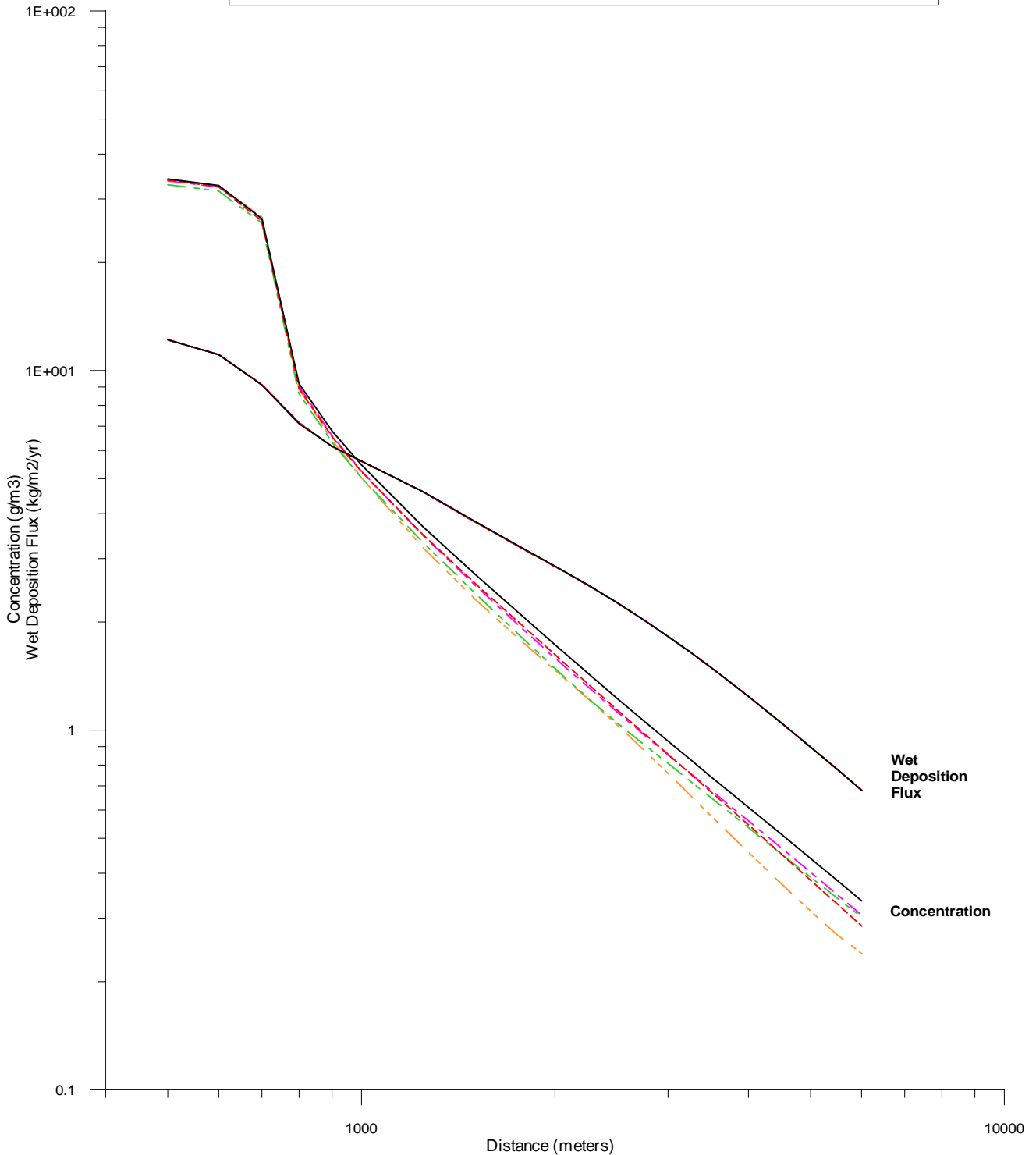
3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Tucson
Wet Hour Sampling Frequency = 8

—	No SCIM
- - -	SCIM 25 Hours
- · - · -	SCIM 49 Hours
- · - · -	SCIM 97 Hours
- · - · -	SCIM 193 Hours



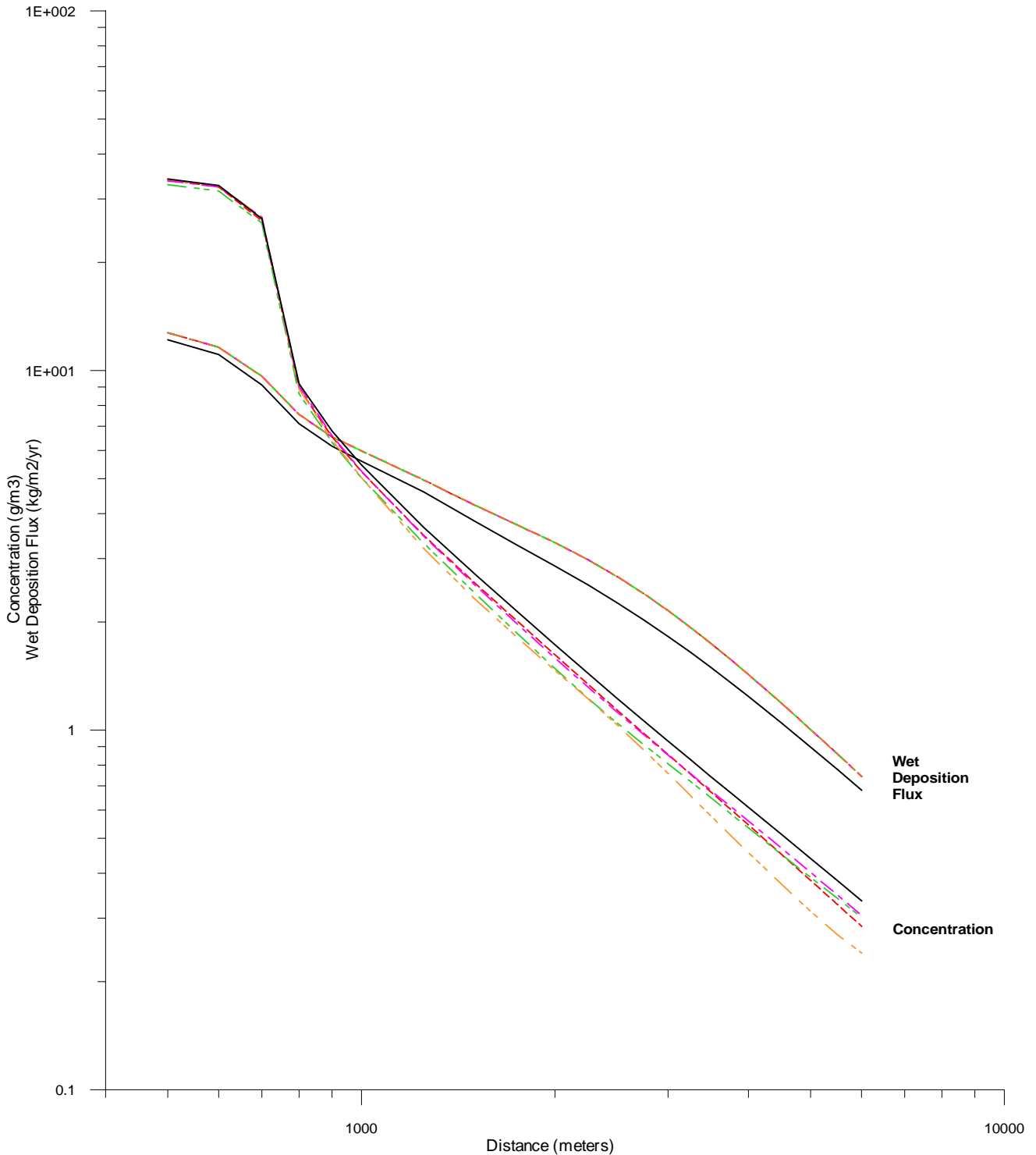
1000m Ground-Level Area Source (SI)
No Particles
Met Station: Tucson
Wet Hour Sampling Frequency = 1

—	No SCIM
- - -	SCIM 25 Hours
- - -	SCIM 49 Hours
- - -	SCIM 97 Hours
- - -	SCIM 193 Hours



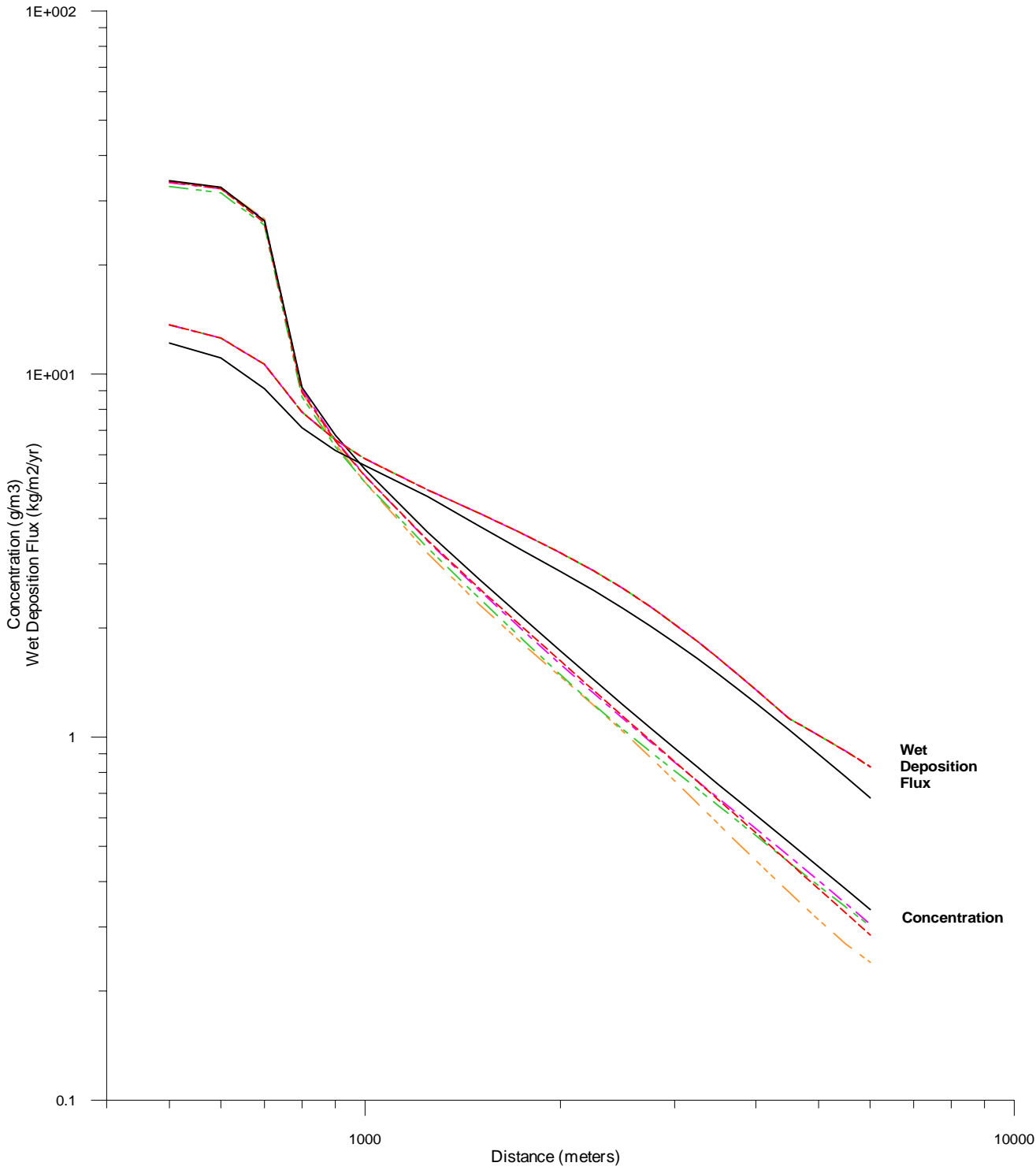
1000m Ground-Level Area Source (SI)
No Particles
Met Station: Tucson
Wet Hour Sampling Frequency = 2

—	No SCIM
- - -	SCIM 25 Hours
- · - · -	SCIM 49 Hours
- · - · -	SCIM 97 Hours
- · - · -	SCIM 193 Hours



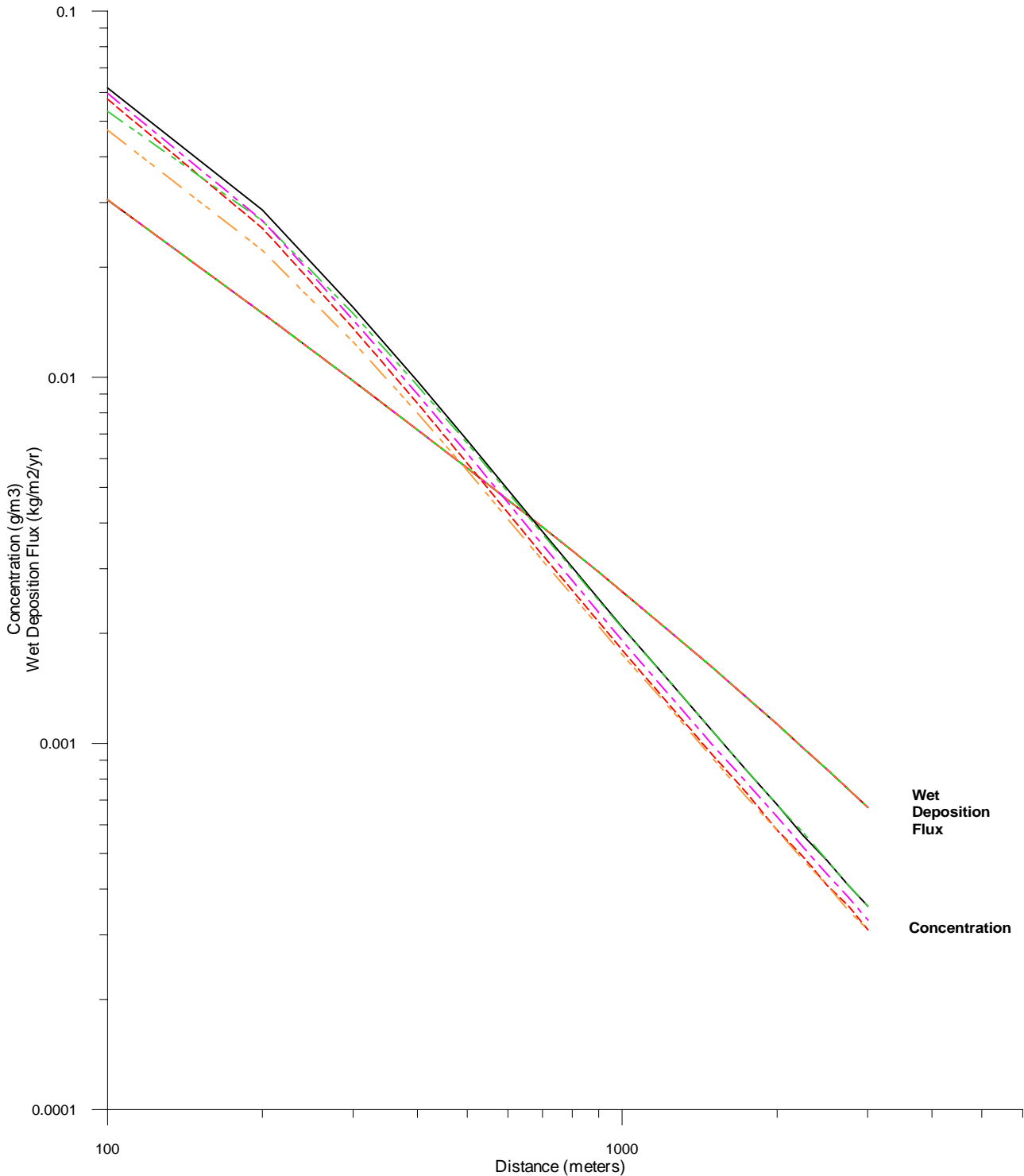
1000m Ground-Level Area Source (SI)
No Particles
Met Station: Tucson
Wet Hour Sampling Frequency = 4

—	No SCIM
- - -	SCIM 25 Hours
- · - · -	SCIM 49 Hours
- · - · -	SCIM 97 Hours
- · - · -	SCIM 193 Hours



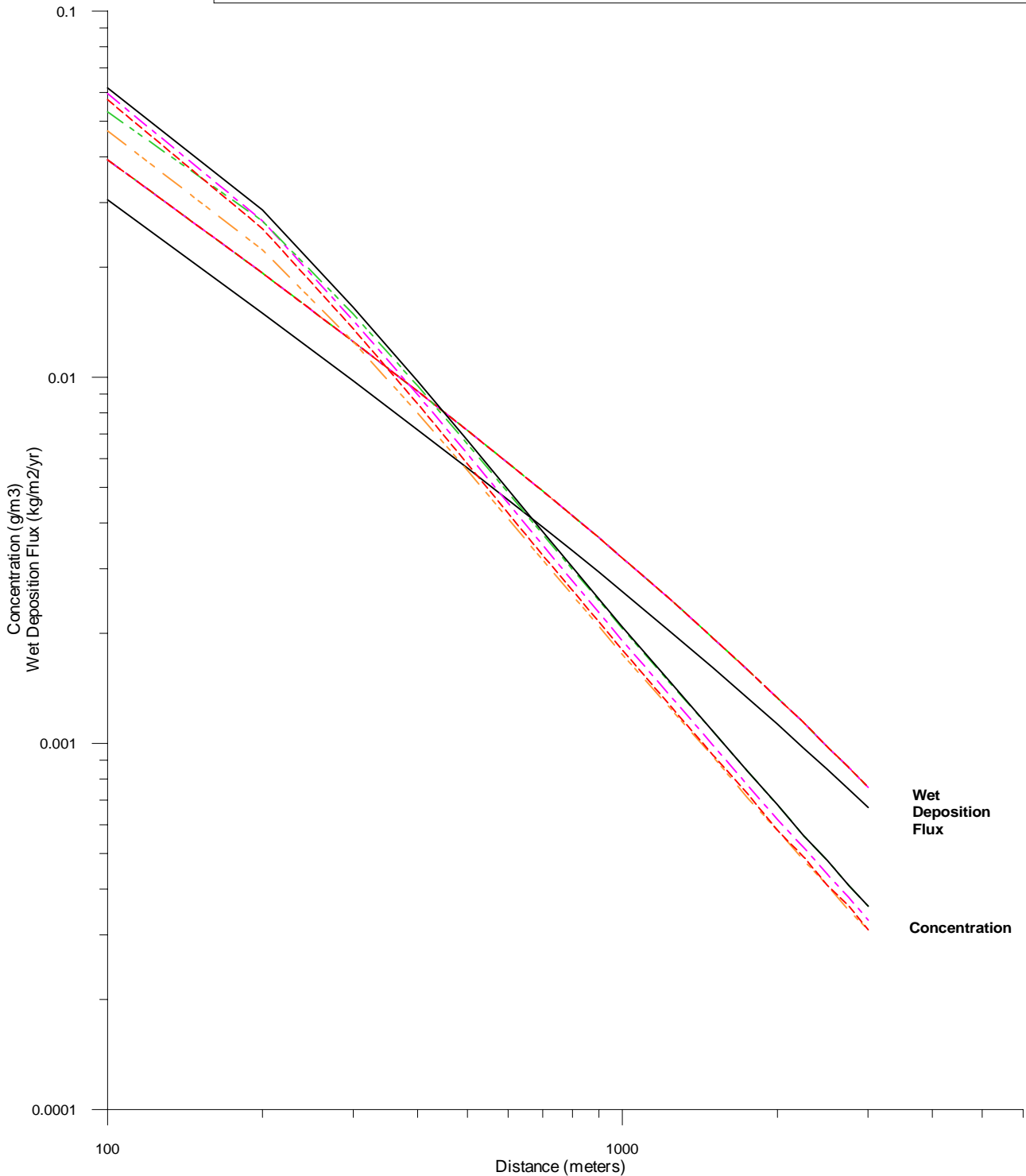
20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Tucson
Wet Hour Sampling Frequency = 1

—	No SCIM
- - -	SCIM 25 Hours
- · - · -	SCIM 49 Hours
- · - - -	SCIM 97 Hours
- · - · - · -	SCIM 193 Hours



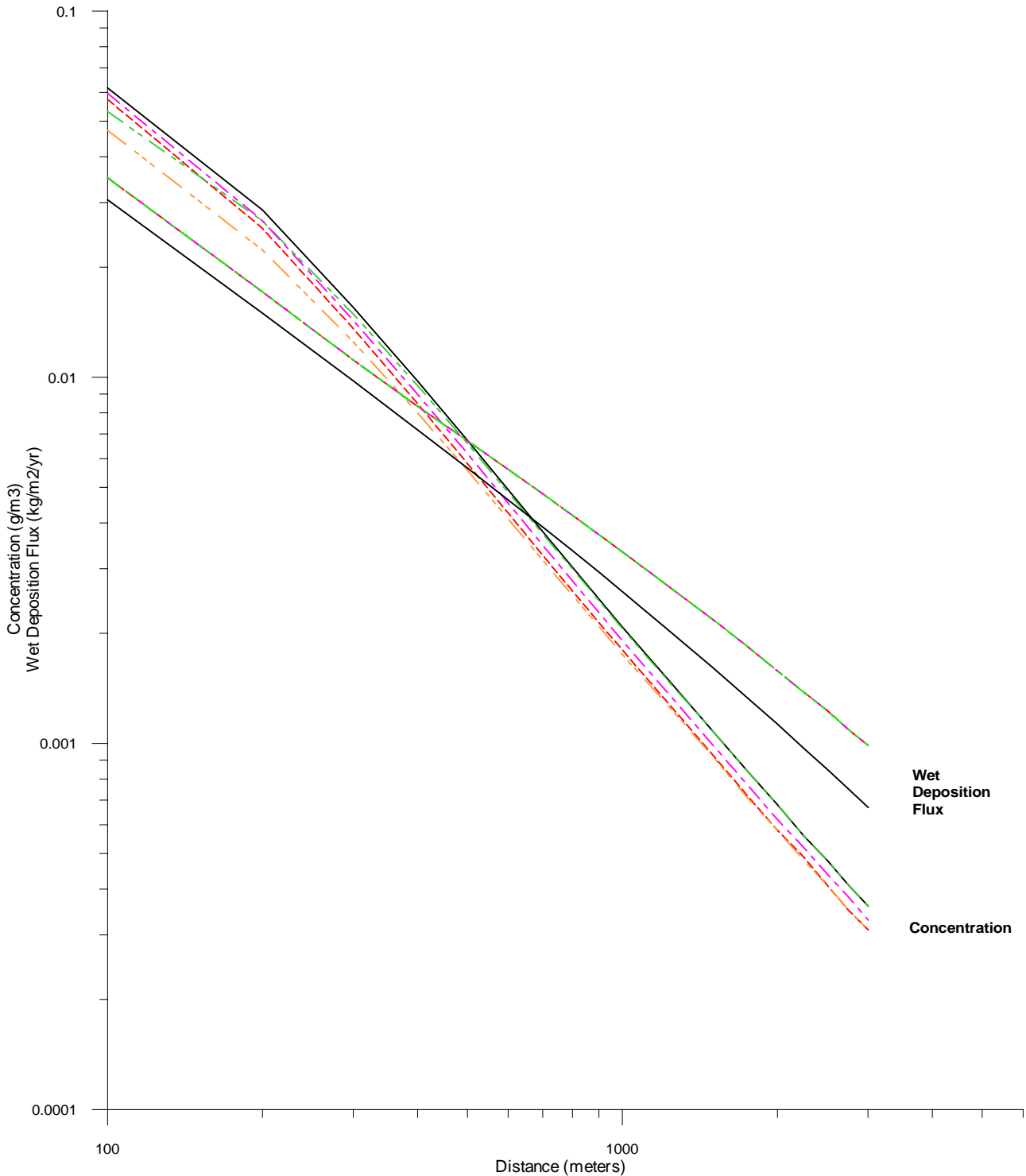
20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Tucson
Wet Hour Sampling Frequency = 2

—	No SCIM
- - -	SCIM 25 Hours
- · - · -	SCIM 49 Hours
- · - · - · - · -	SCIM 97 Hours
- · - · - · - · - · -	SCIM 193 Hours



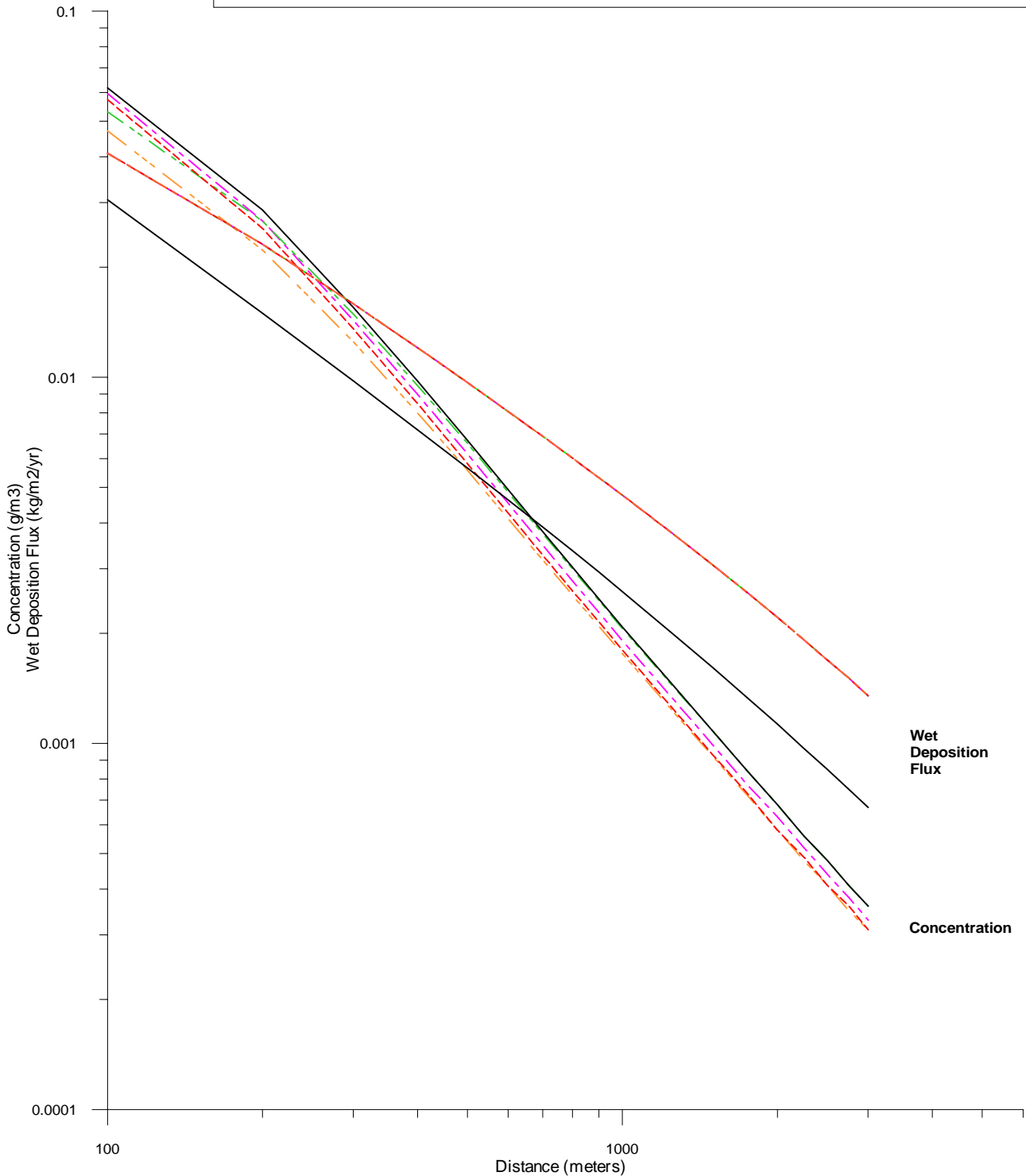
20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Tucson
Wet Hour Sampling Frequency = 4

_____	No SCIM
-----	SCIM 25 Hours
-----	SCIM 49 Hours
-----	SCIM 97 Hours
-----	SCIM 193 Hours



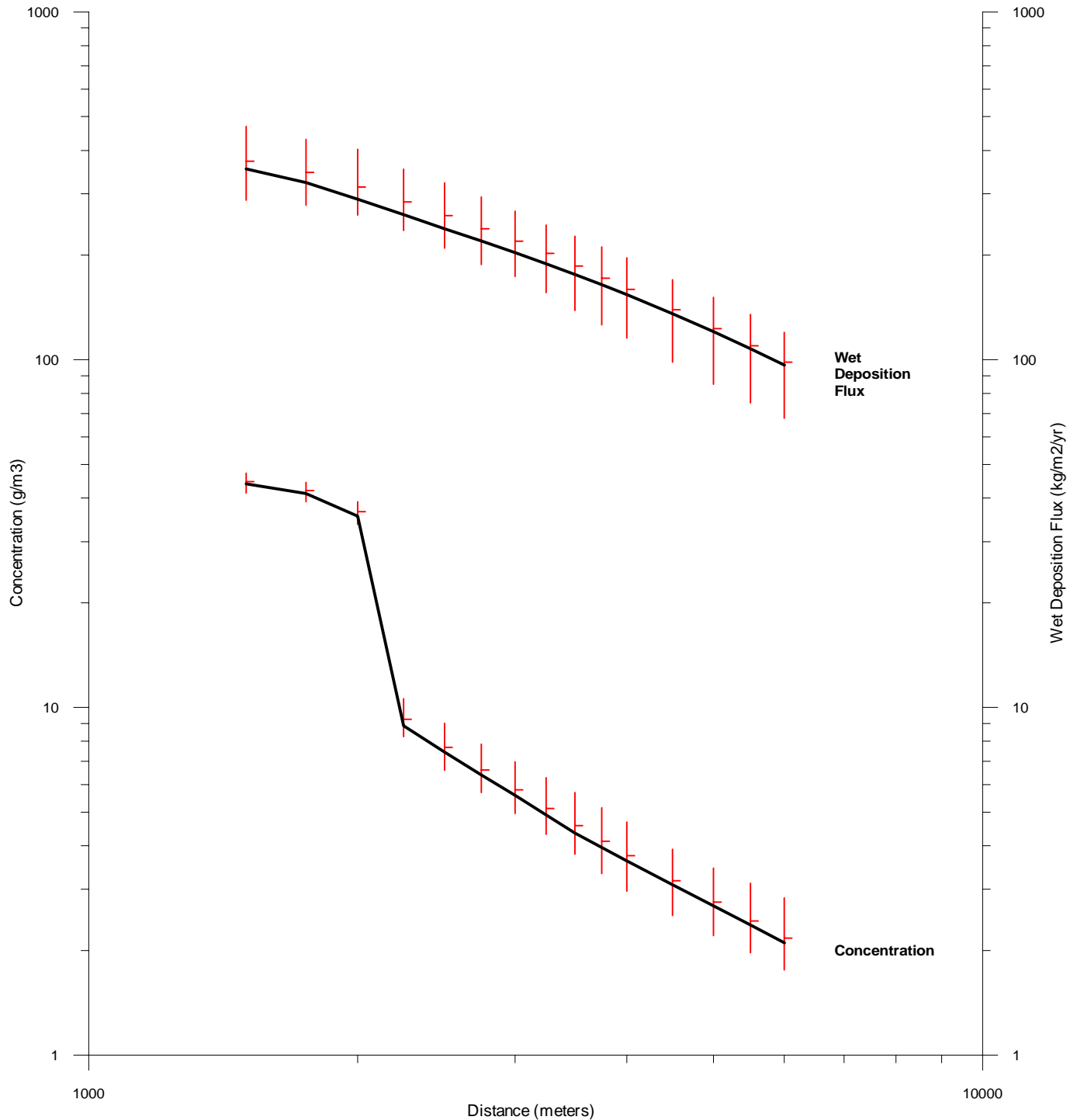
20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Tucson
Wet Hour Sampling Frequency = 8

—————	No SCIM
- - - - -	SCIM 25 Hours
- · - · -	SCIM 49 Hours
- · - · -	SCIM 97 Hours
- · - · -	SCIM 193 Hours



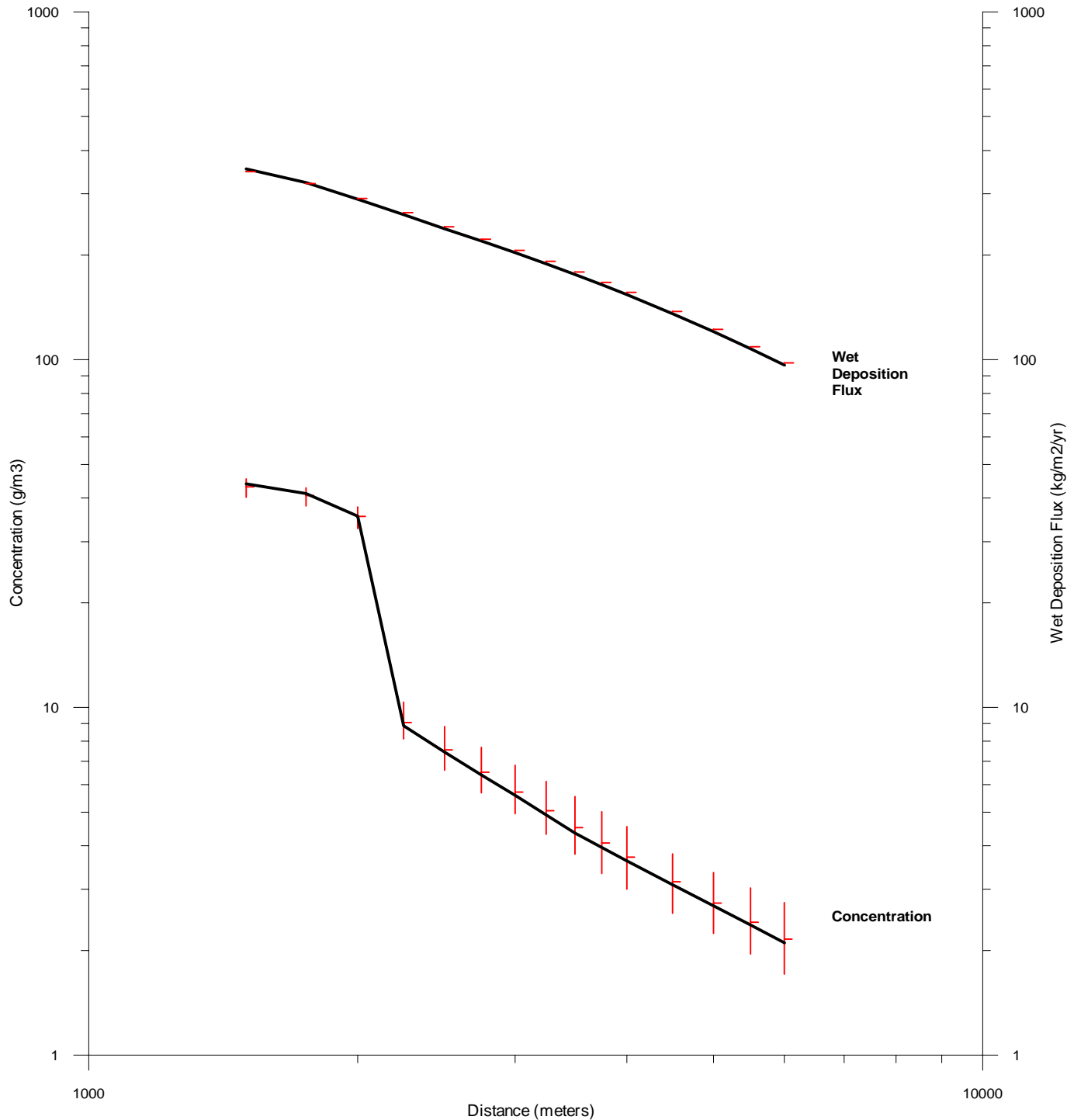
APPENDIX C

3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Salem
SCIM Interval = 97 hrs, Wet Hour Sampling Frequency = NA
— No SCIM
— Hi-Lo-Avg

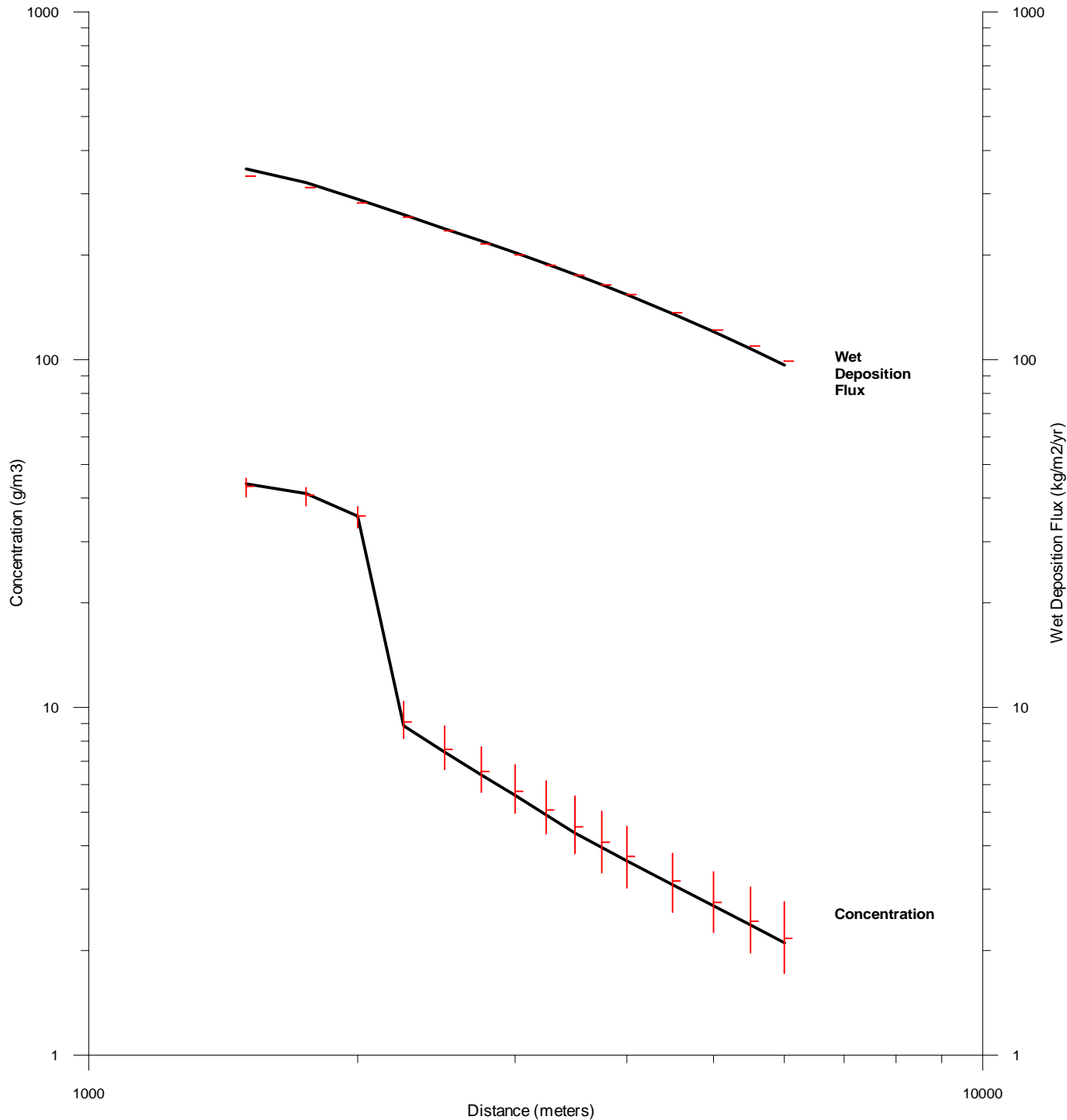


3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Salem
SCIM Interval = 97 hrs, Wet Hour Sampling Frequency = 4

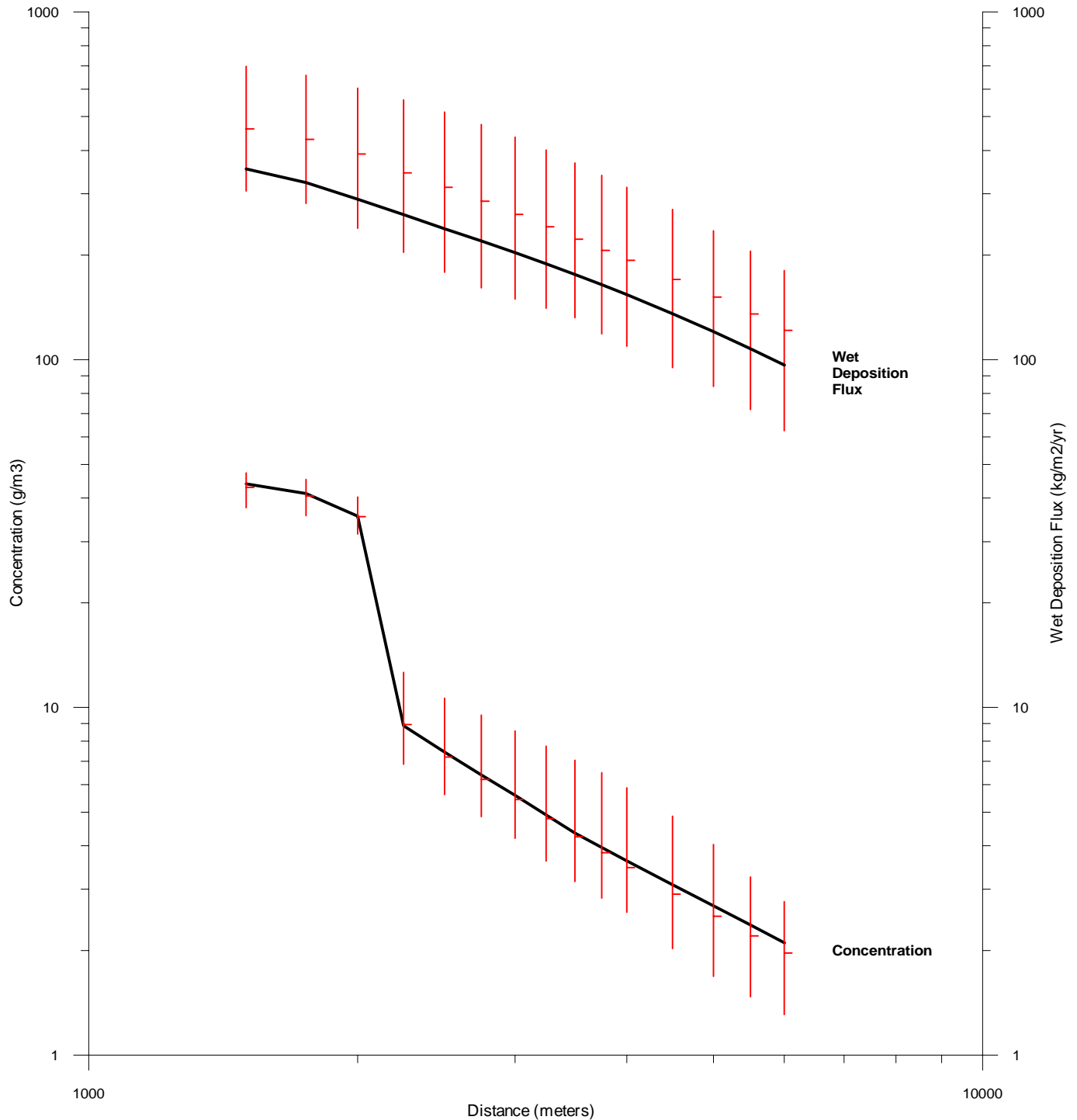
— No SCIM
— Hi-Lo-Avg



3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Salem
SCIM Interval = 97 hrs, Wet Hour Sampling Frequency = 8
— No SCIM
— Hi-Lo-Avg

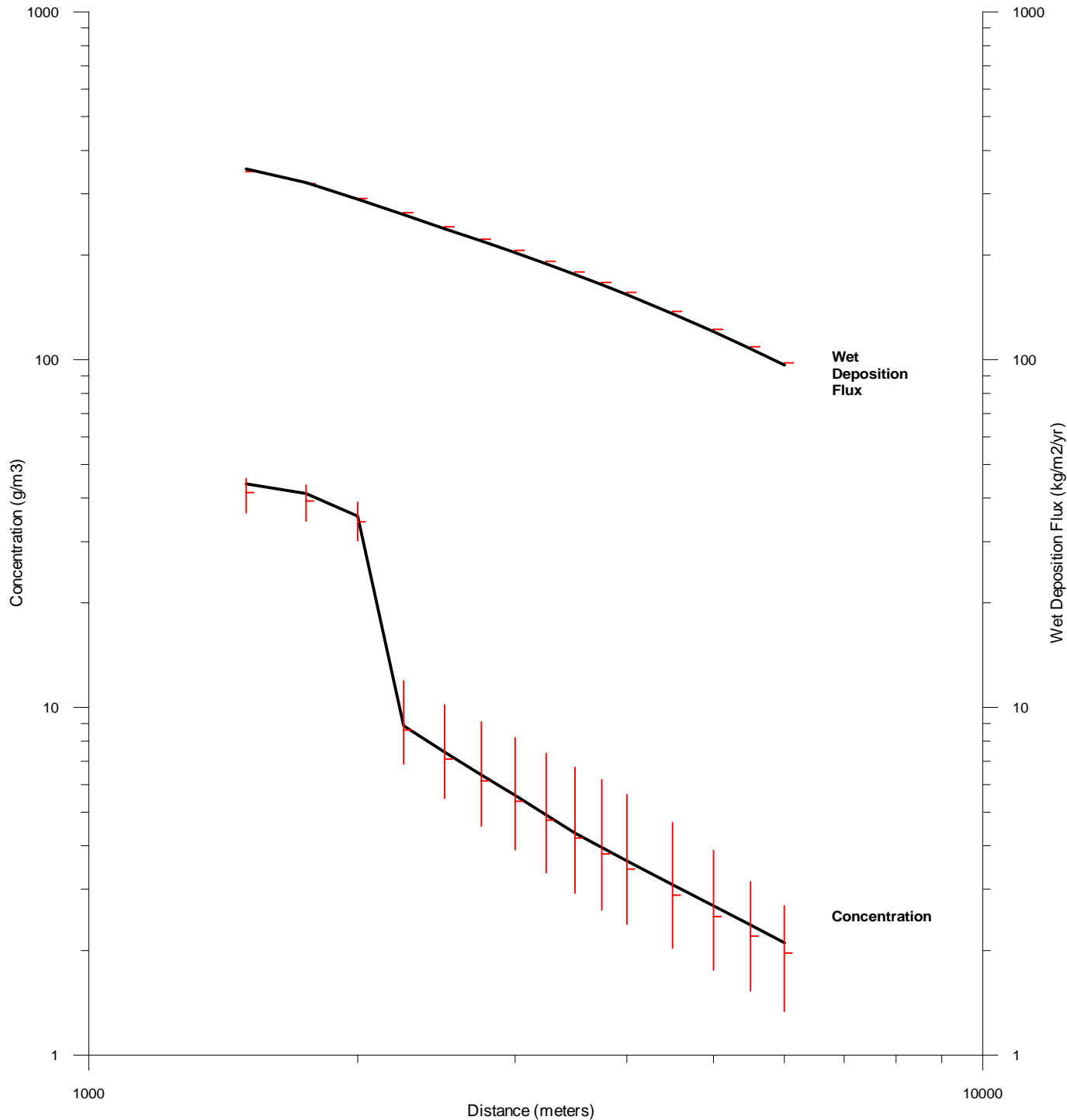


3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Salem
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = NA
— No SCIM
— Hi-Lo-Avg

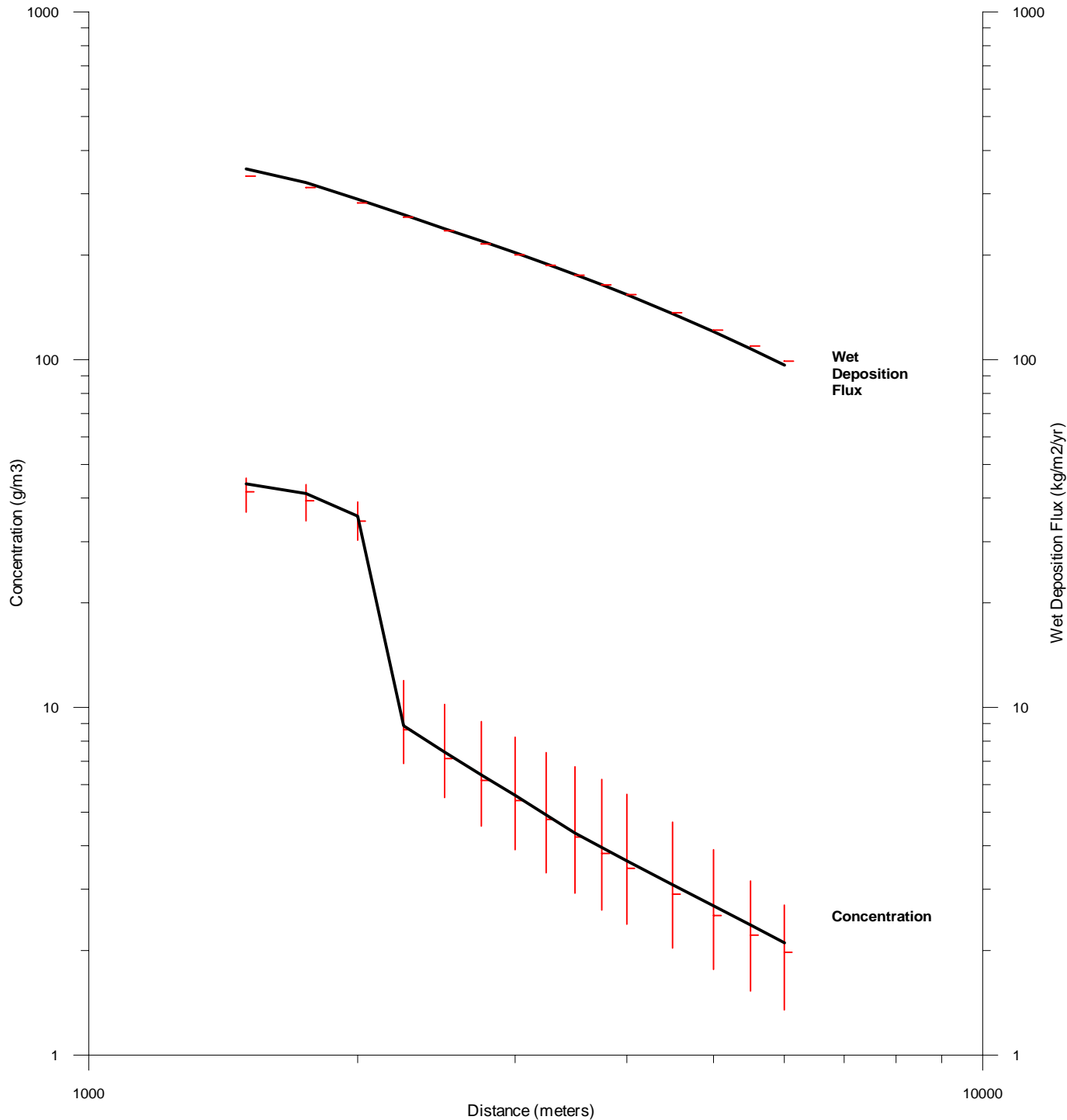


3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Salem
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 4

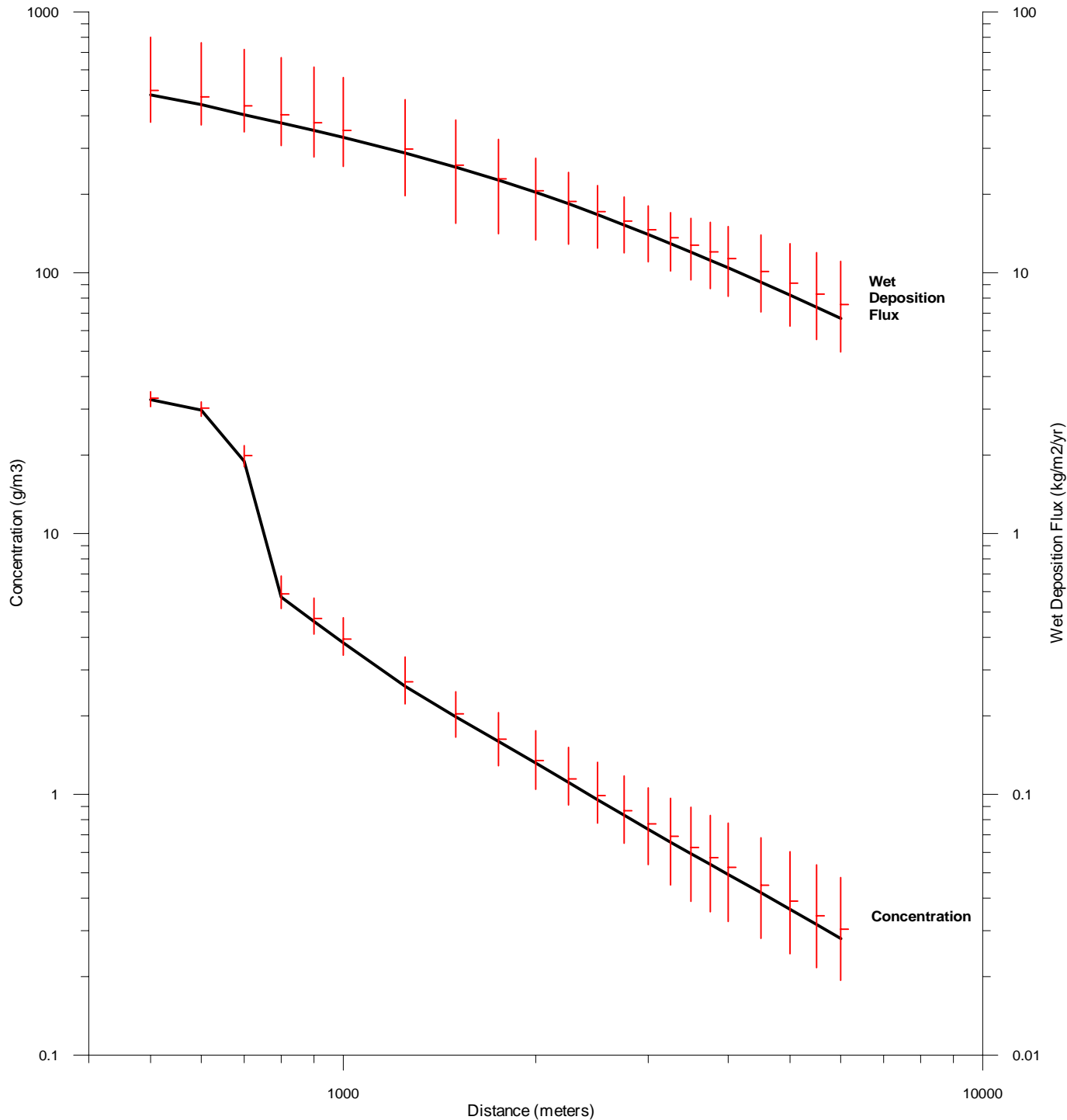
— No SCIM
— Hi-Lo-Avg



3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Salem
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
— No SCIM
— Hi-Lo-Avg

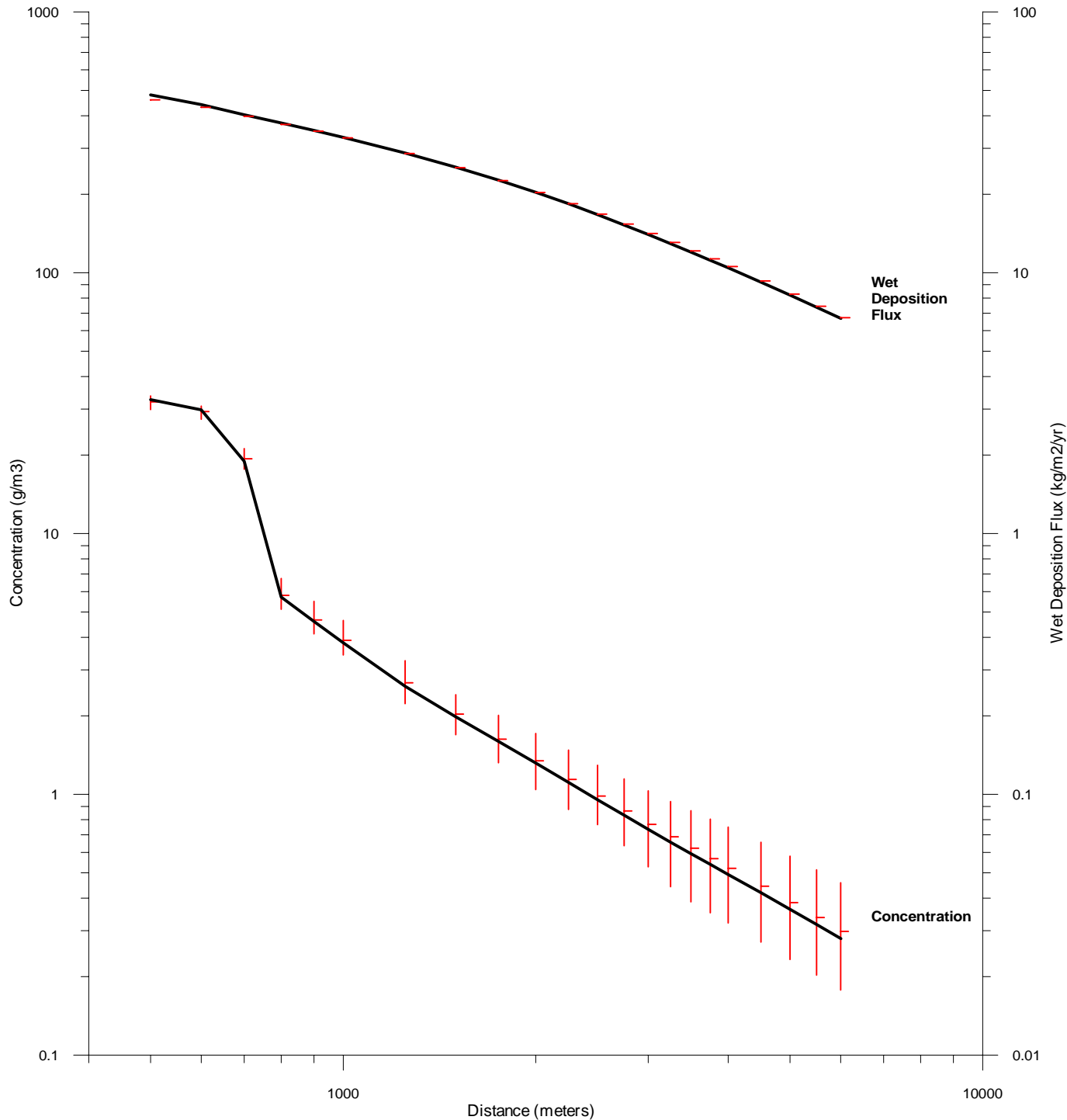


1000m Ground-Level Area Source (SI)
No Particles
Met Station: Salem
SCIM Interval = 97 hrs, Wet Hour Sampling Frequency = NA
— No SCIM
— Hi-Lo-Avg

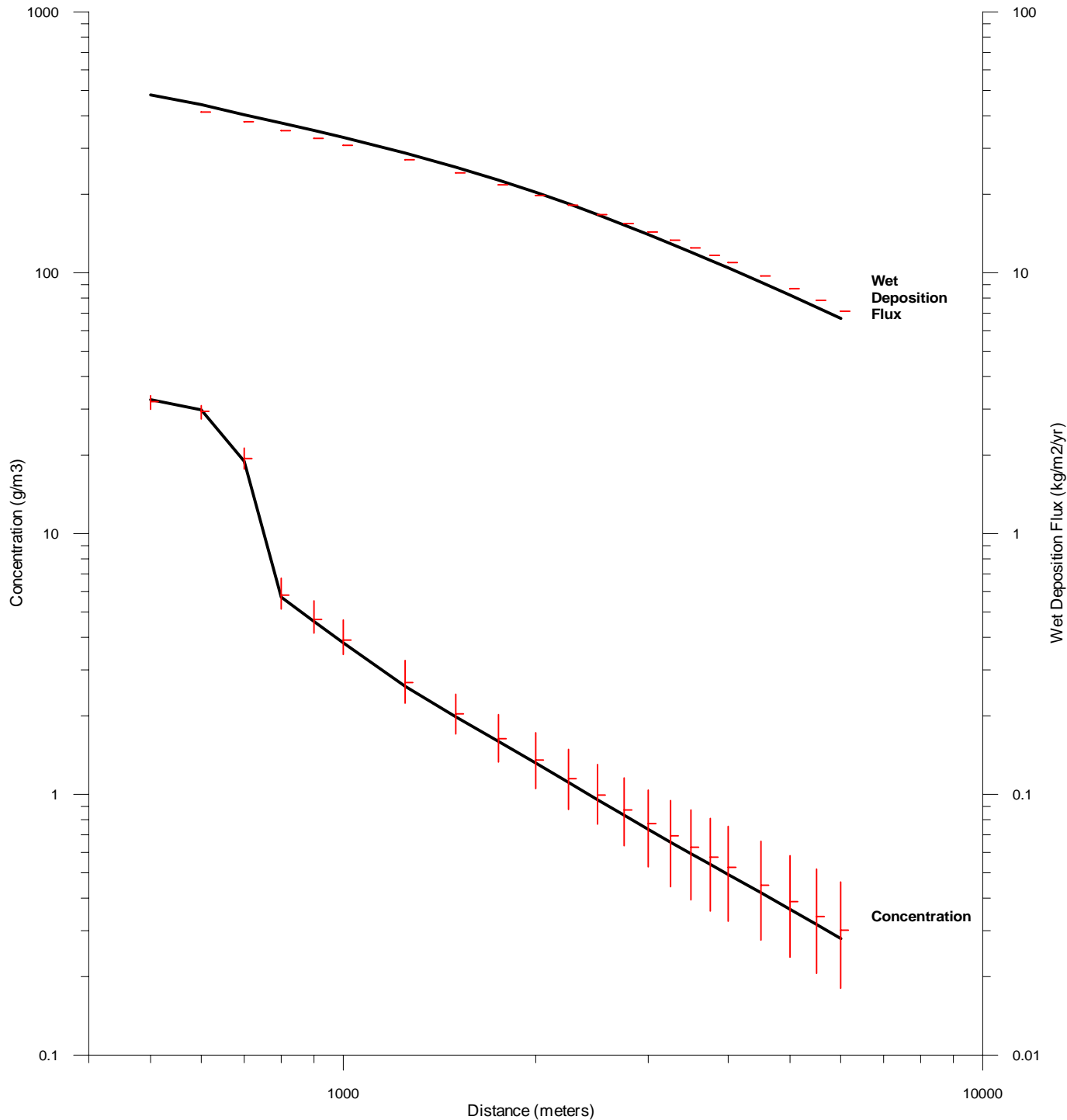


1000m Ground-Level Area Source (SI)
No Particles
Met Station: Salem
SCIM Interval = 97 hrs, Wet Hour Sampling Frequency = 4

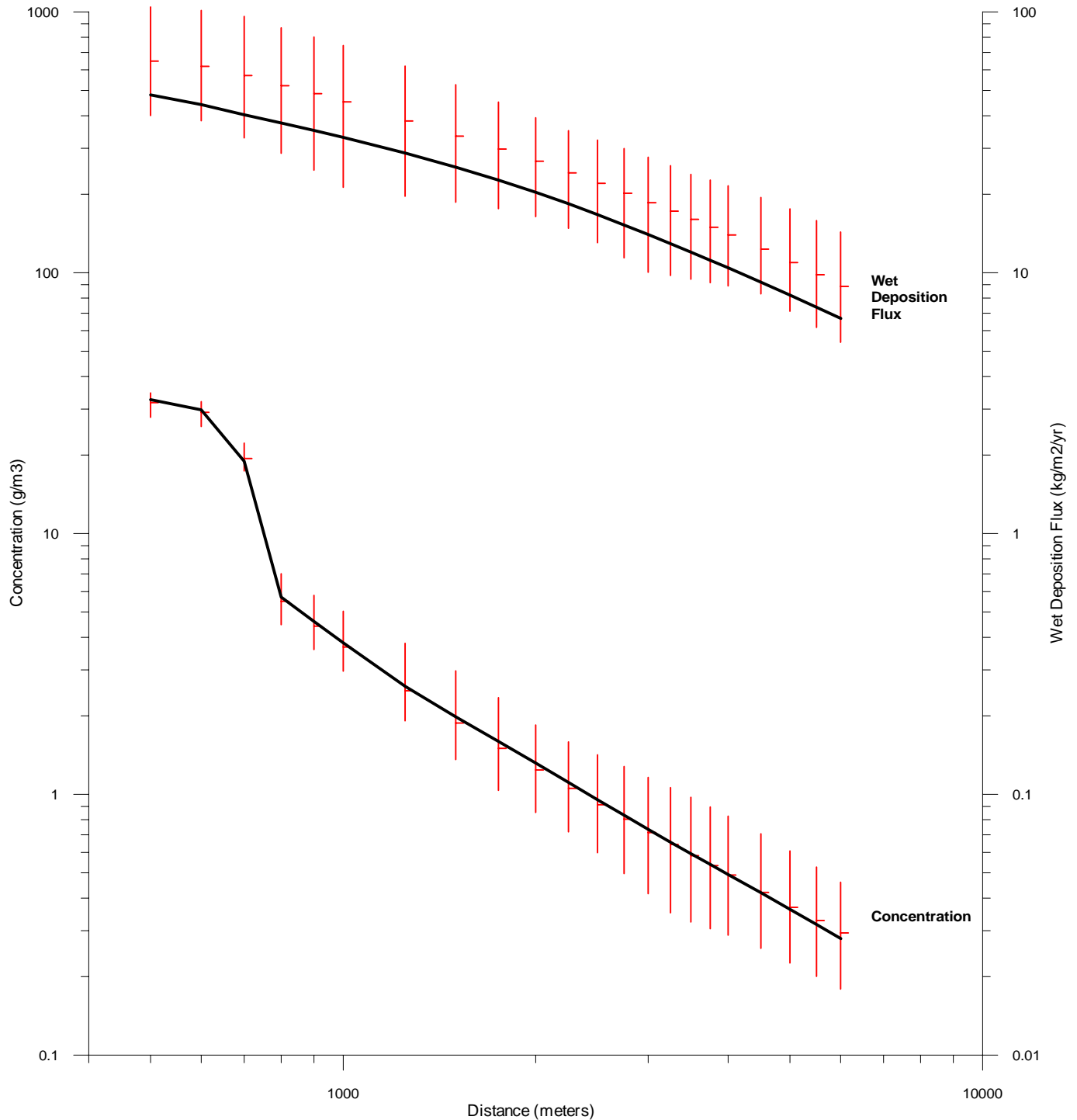
— No SCIM
— Hi-Lo-Avg



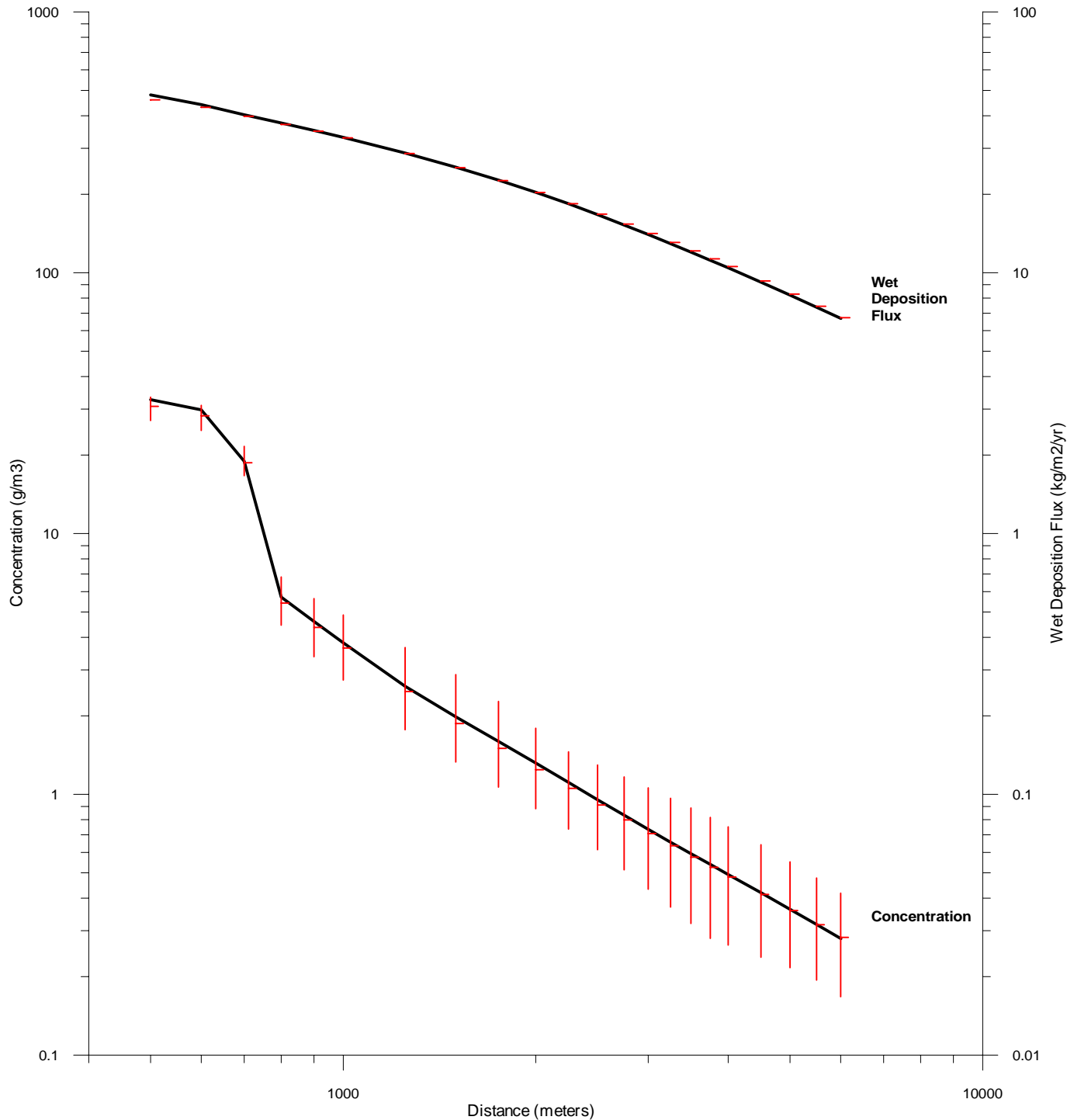
1000m Ground-Level Area Source (SI)
No Particles
Met Station: Salem
SCIM Interval = 97 hrs, Wet Hour Sampling Frequency = 8
— No SCIM
— Hi-Lo-Avg



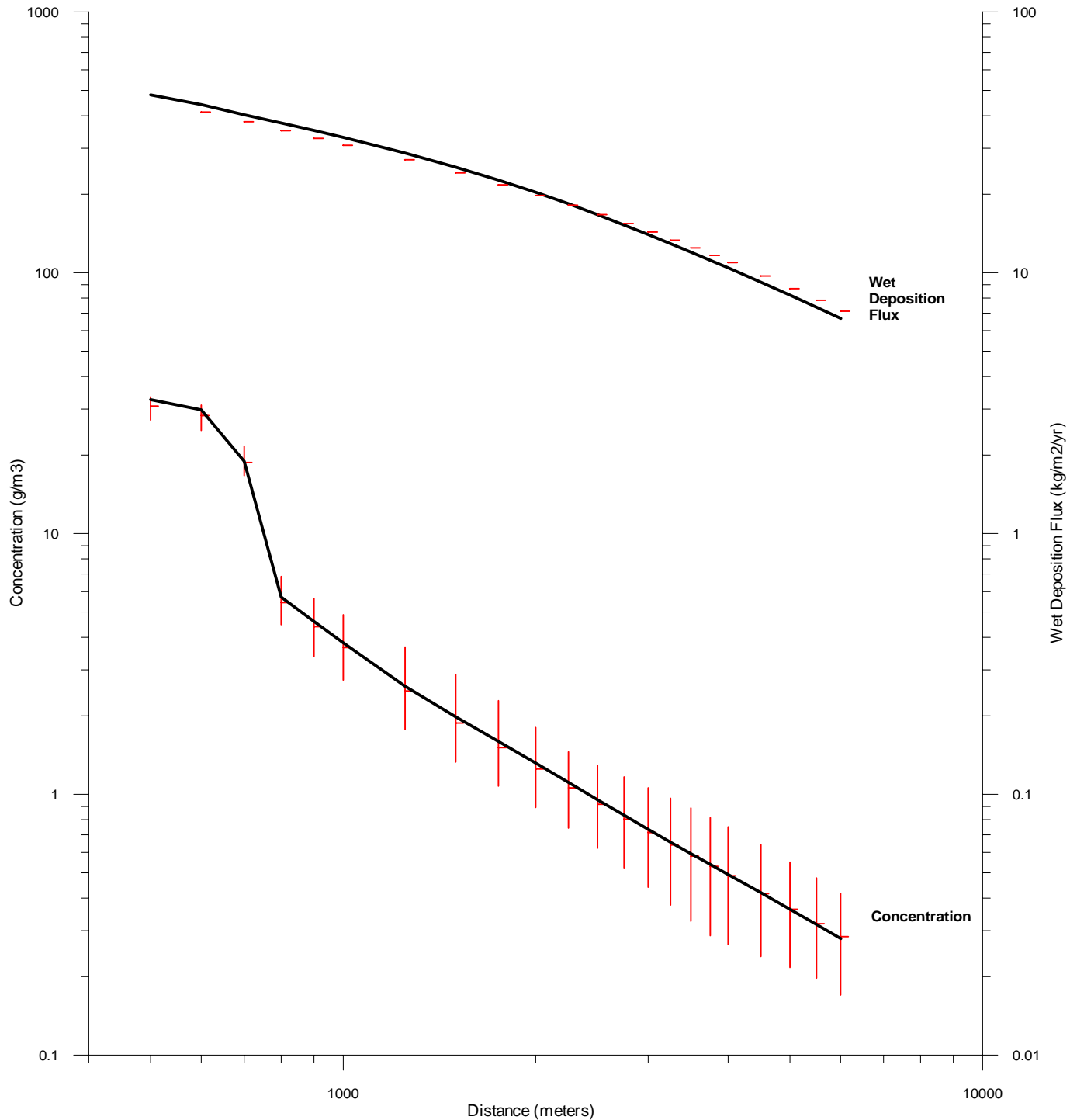
1000m Ground-Level Area Source (SI)
No Particles
Met Station: Salem
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = NA
— No SCIM
— Hi-Lo-Avg



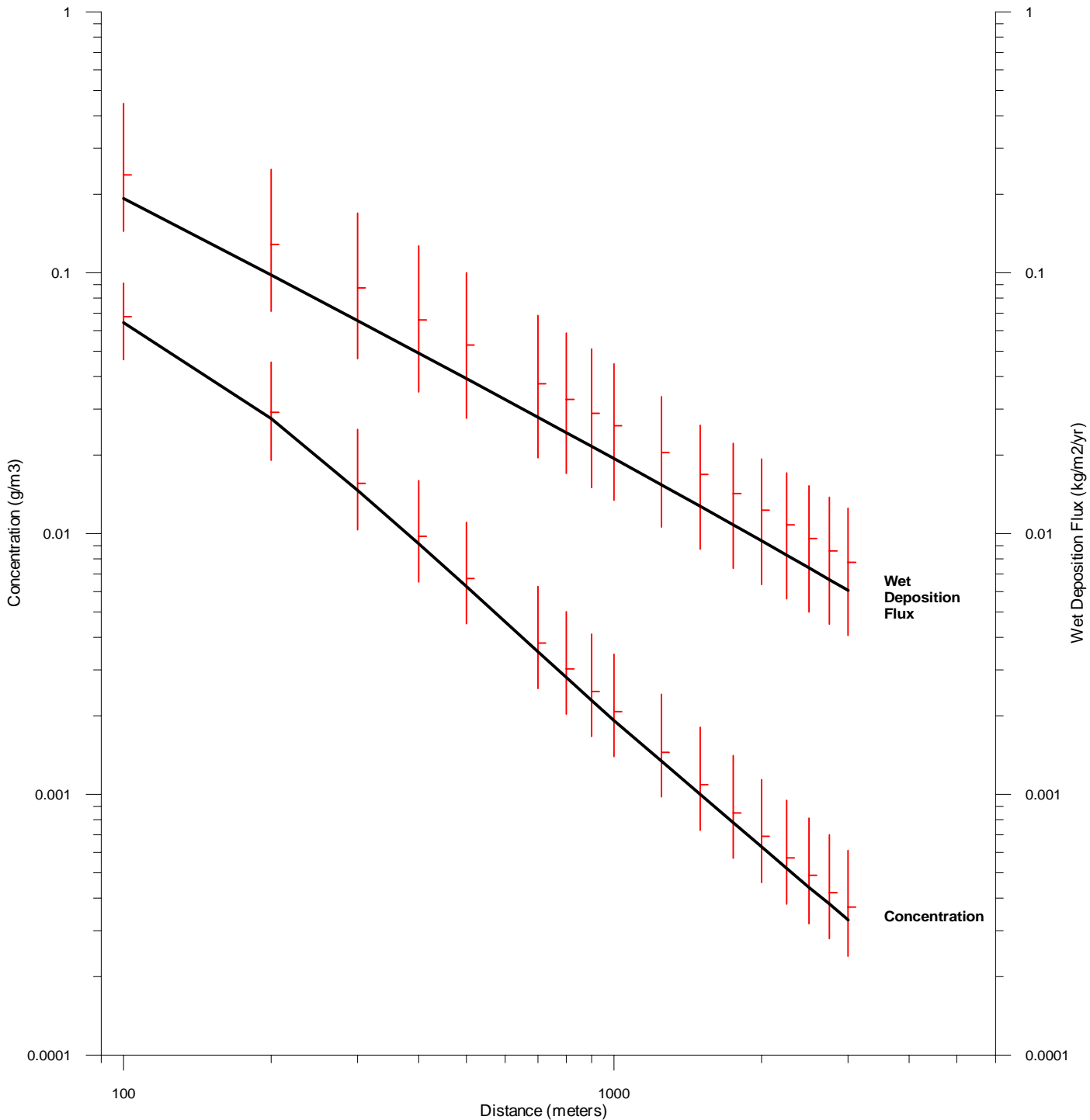
1000m Ground-Level Area Source (SI)
No Particles
Met Station: Salem
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 4
— No SCIM
— Hi-Lo-Avg



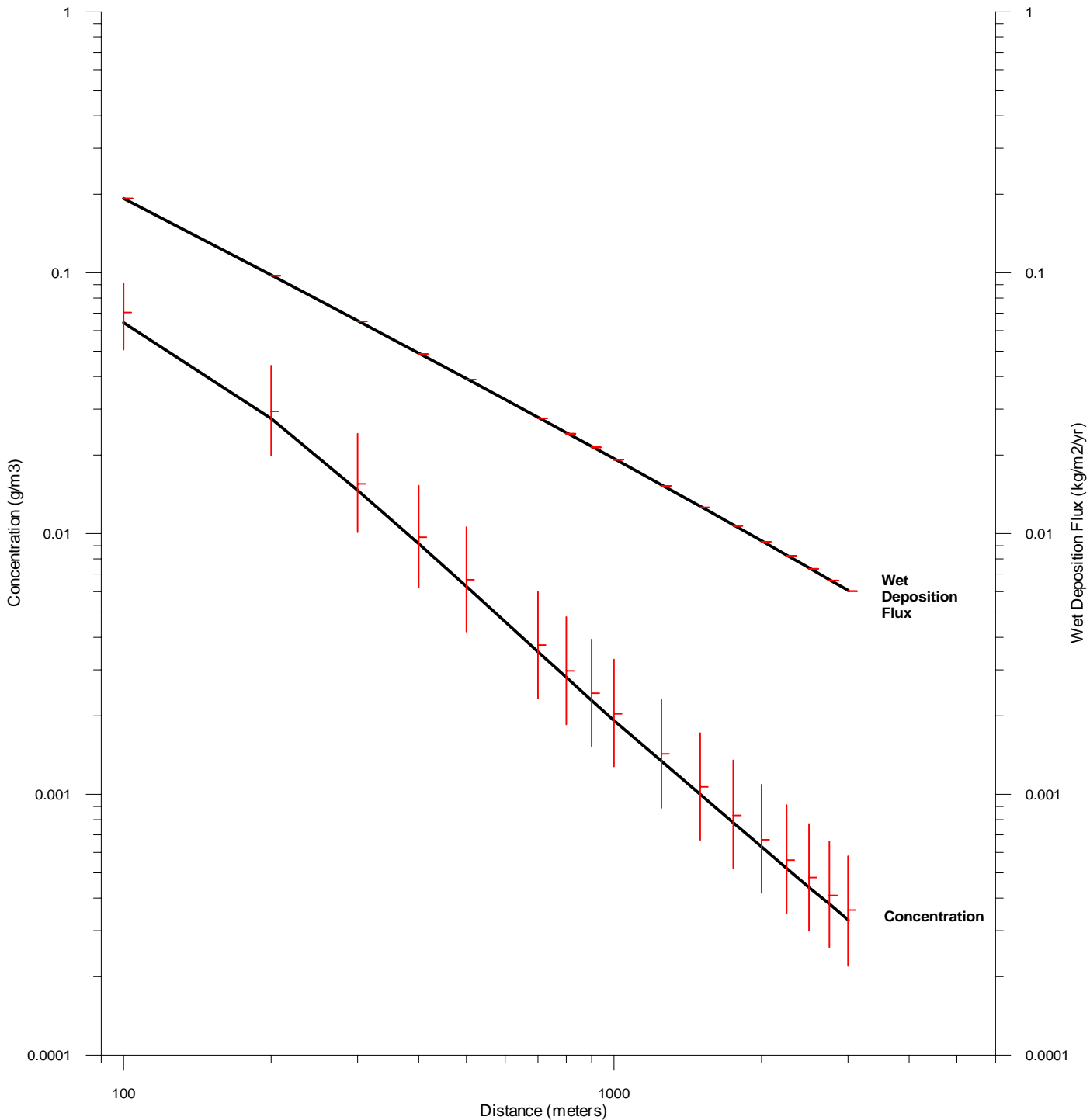
1000m Ground-Level Area Source (SI)
No Particles
Met Station: Salem
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
— No SCIM
— Hi-Lo-Avg



20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Salem
SCIM Interval = 97 hrs, Wet Hour Sampling Frequency = NA
— No SCIM
— Hi-Lo-Avg

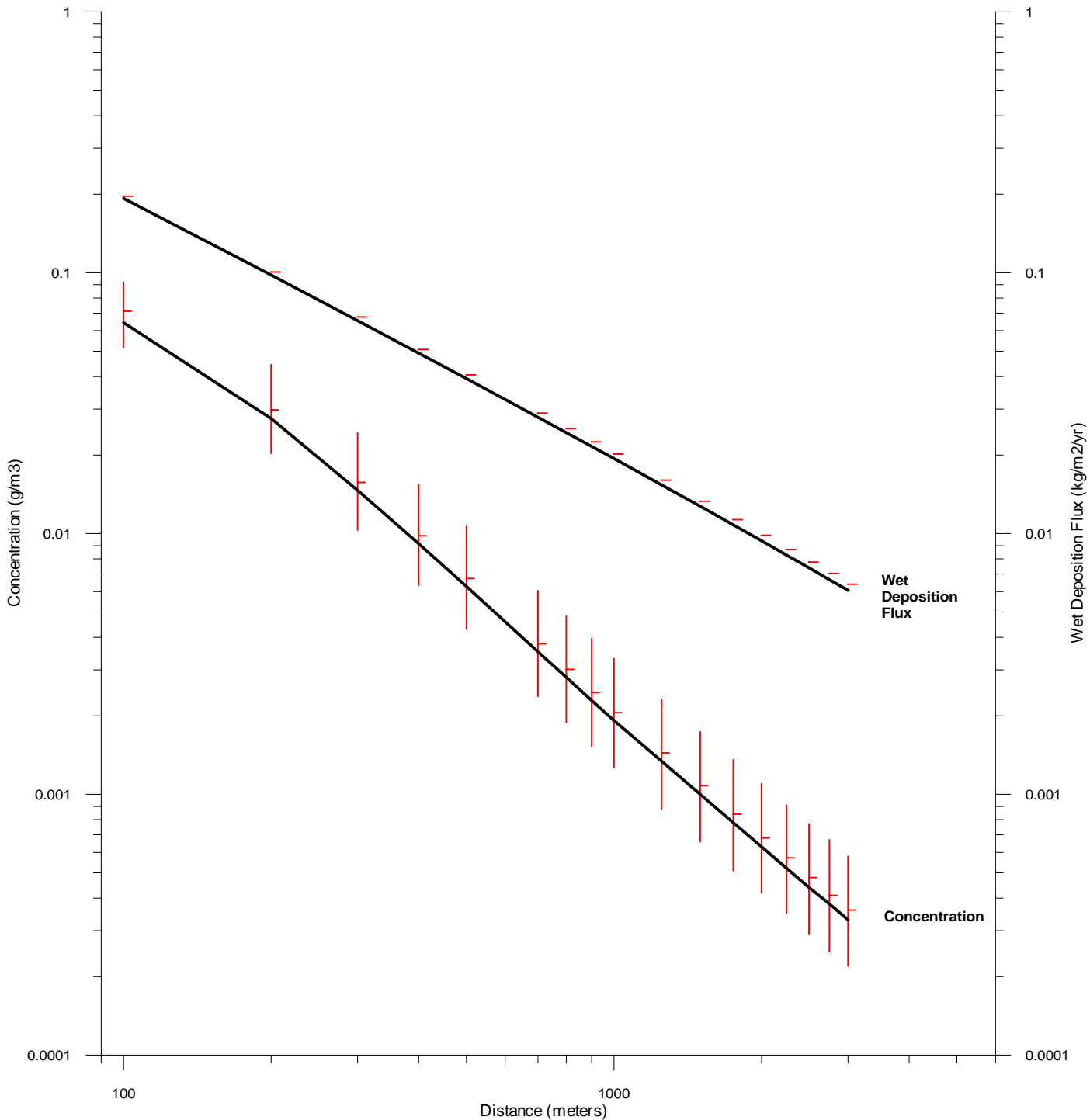


20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Salem
SCIM Interval = 97 hrs, Wet Hour Sampling Frequency = 4
— No SCIM
— Hi-Lo-Avg

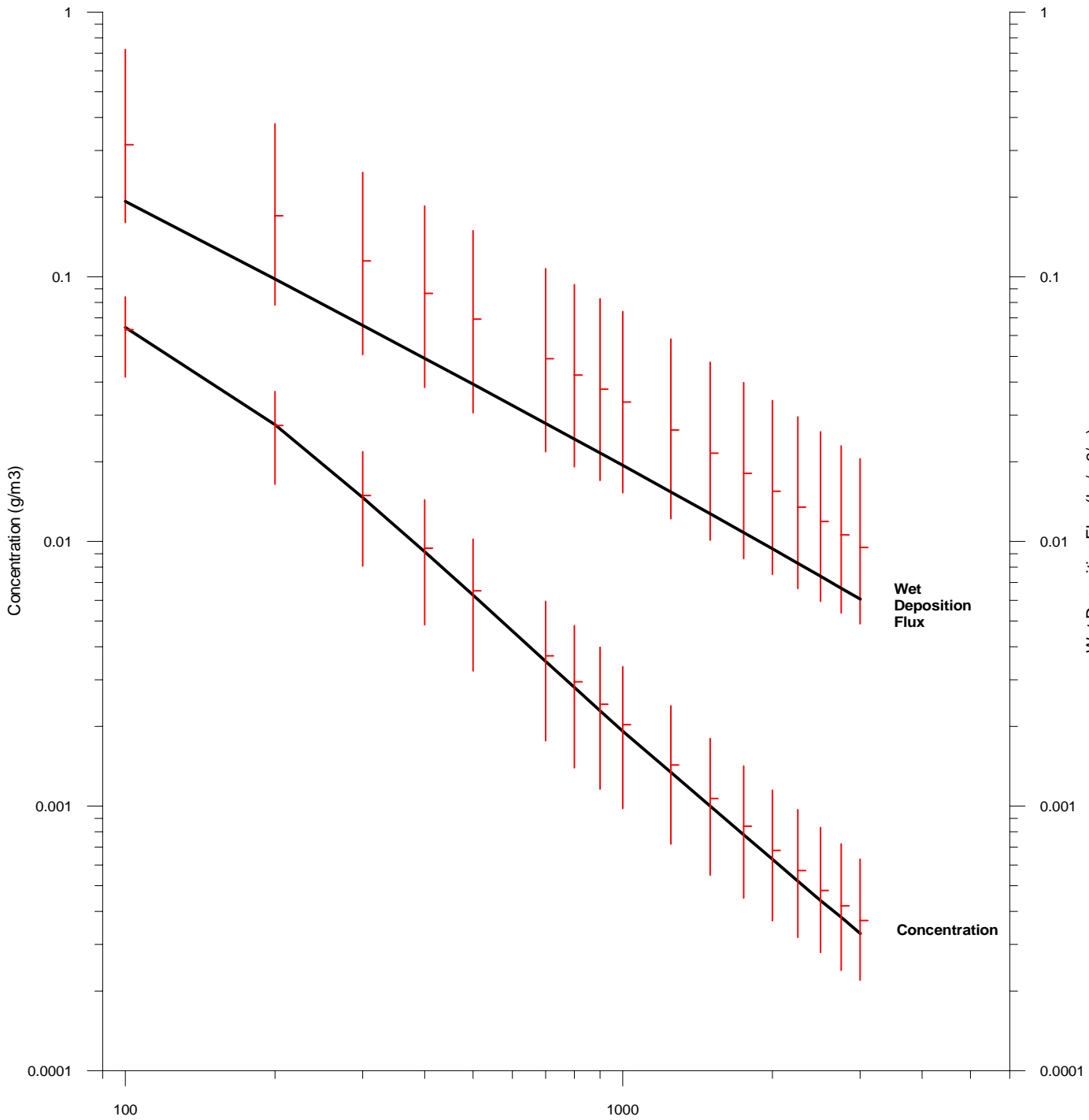


20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Salem
SCIM Interval = 97 hrs, Wet Hour Sampling Frequency = 8

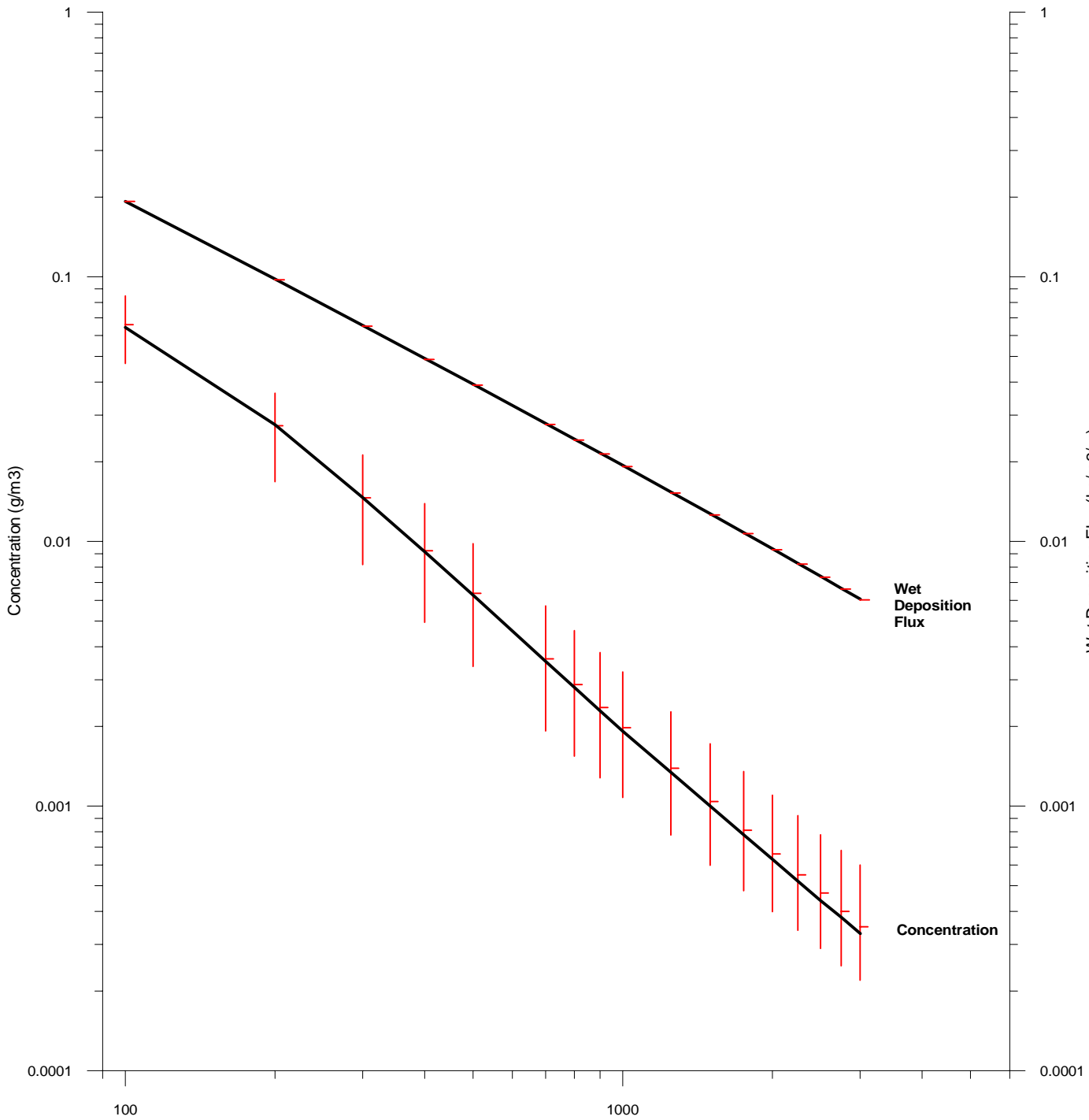
— No SCIM
— Hi-Lo-Avg



20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Salem
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = NA
— No SCIM
— Hi-Lo-Avg

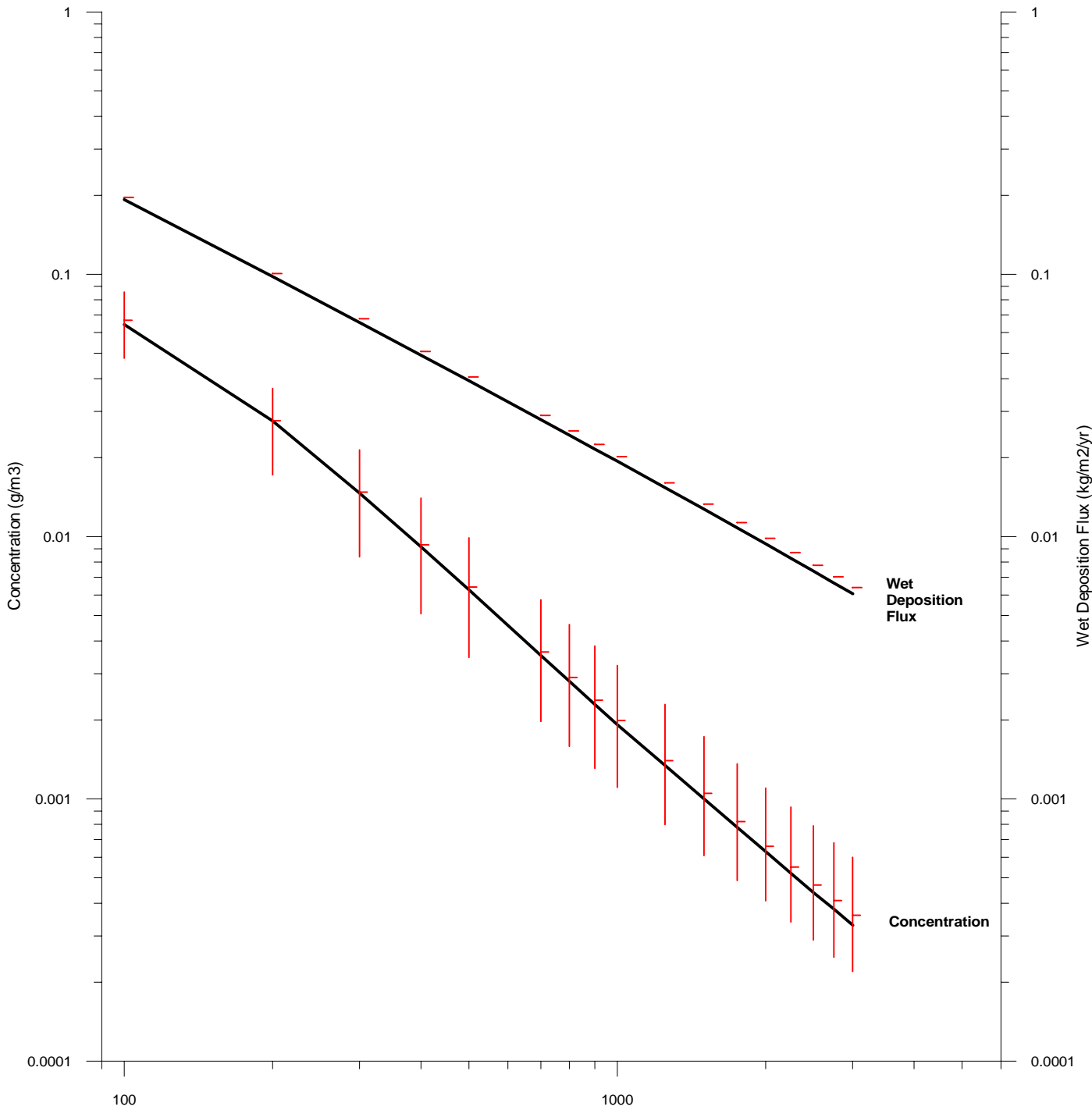


20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Salem
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 4
— No SCIM
— Hi-Lo-Avg

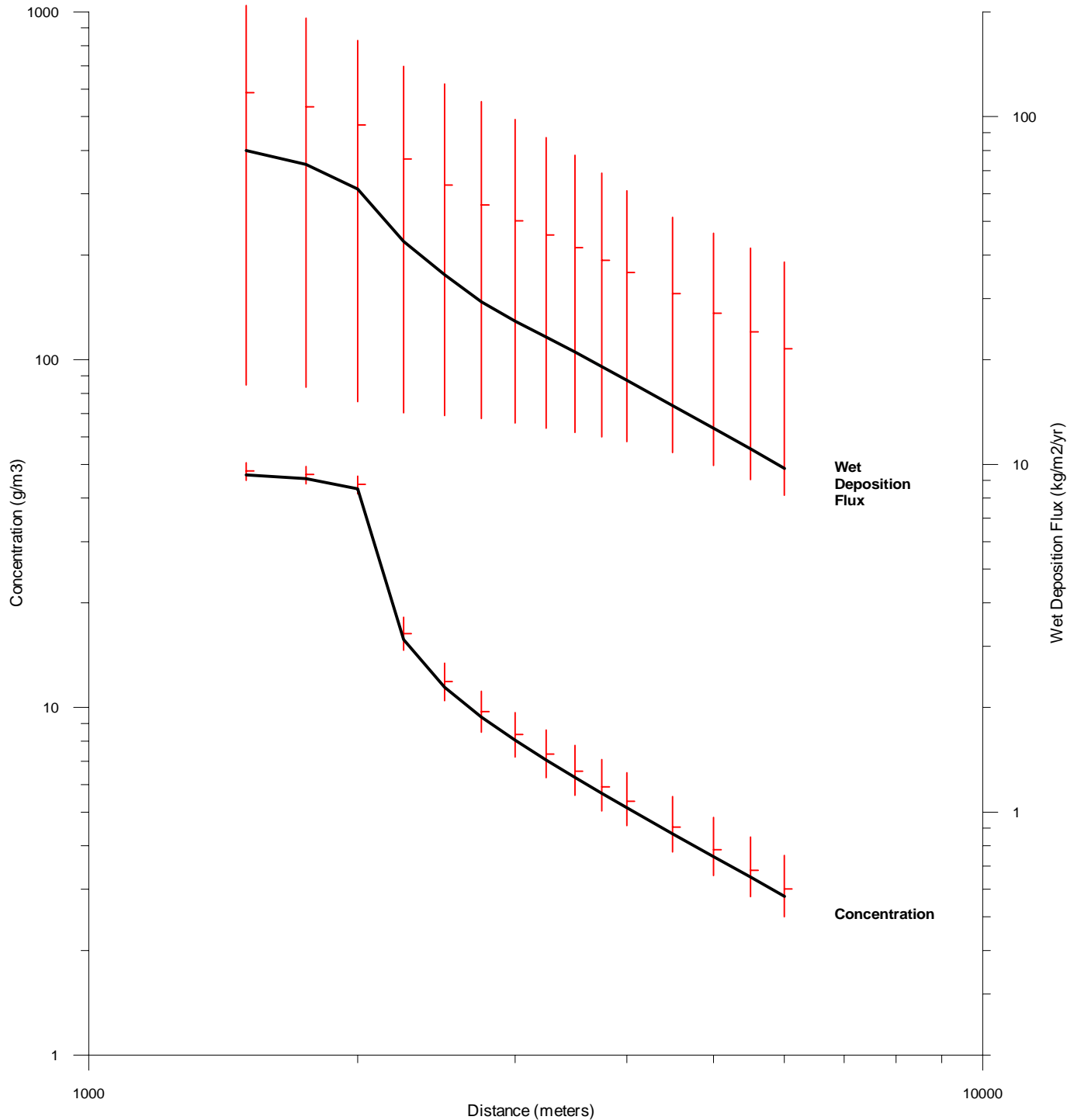


20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Salem
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8

— No SCIM
— Hi-Lo-Avg

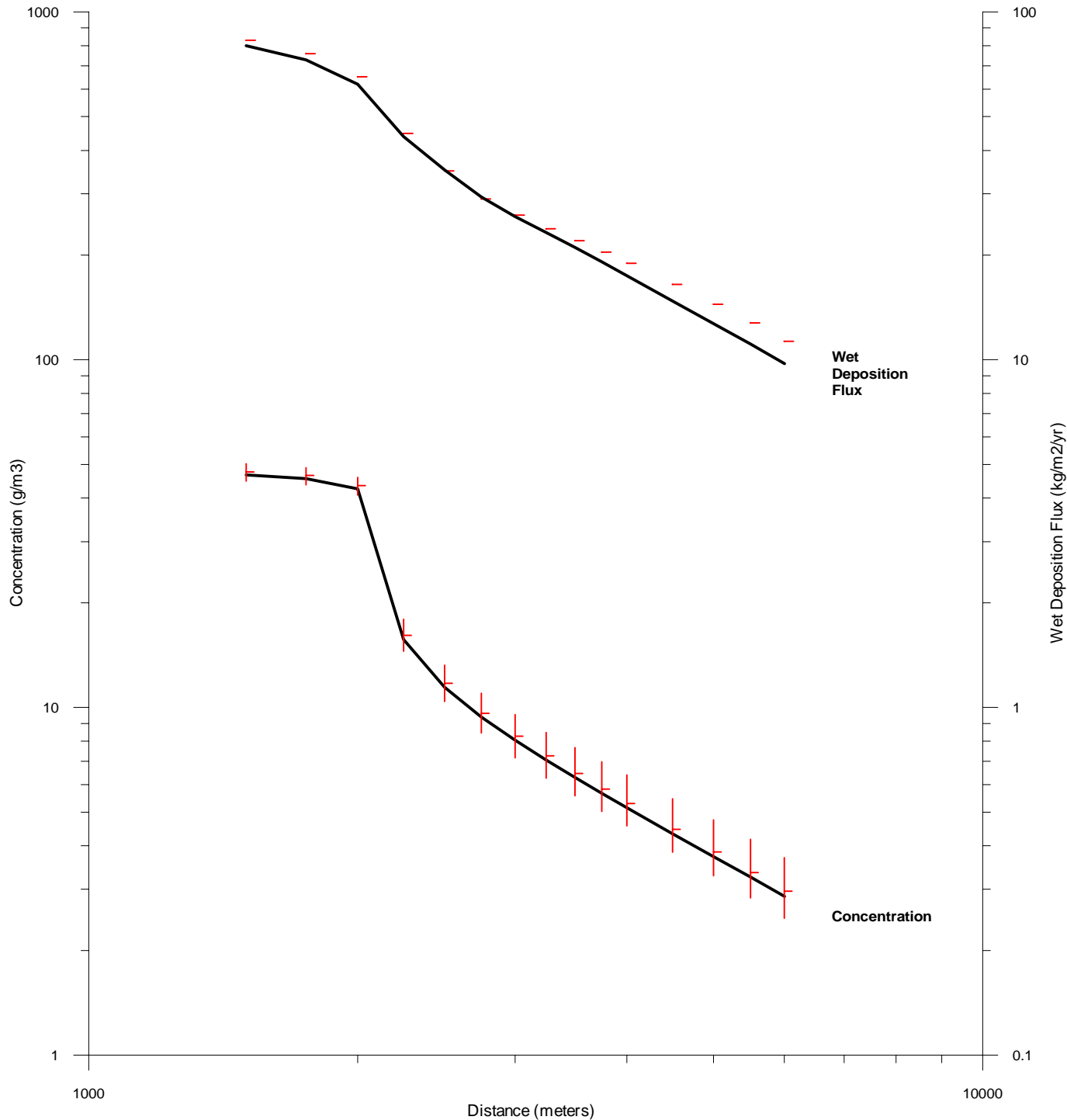


3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Tucson
SCIM Interval = 97 hrs, Wet Hour Sampling Frequency = NA
— No SCIM
— Hi-Lo-Avg

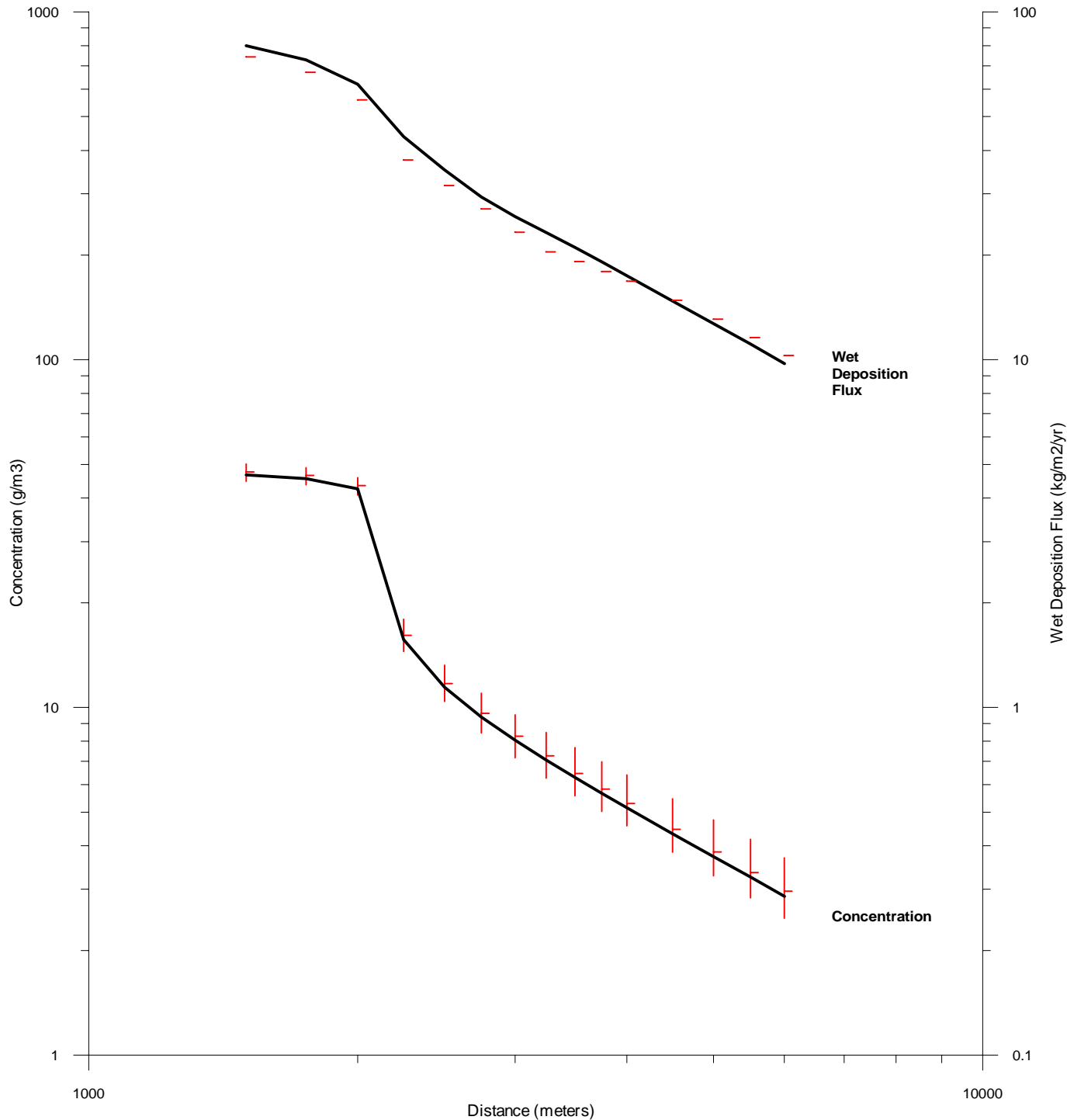


3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Tucson
SCIM Interval = 97 hrs, Wet Hour Sampling Frequency = 4

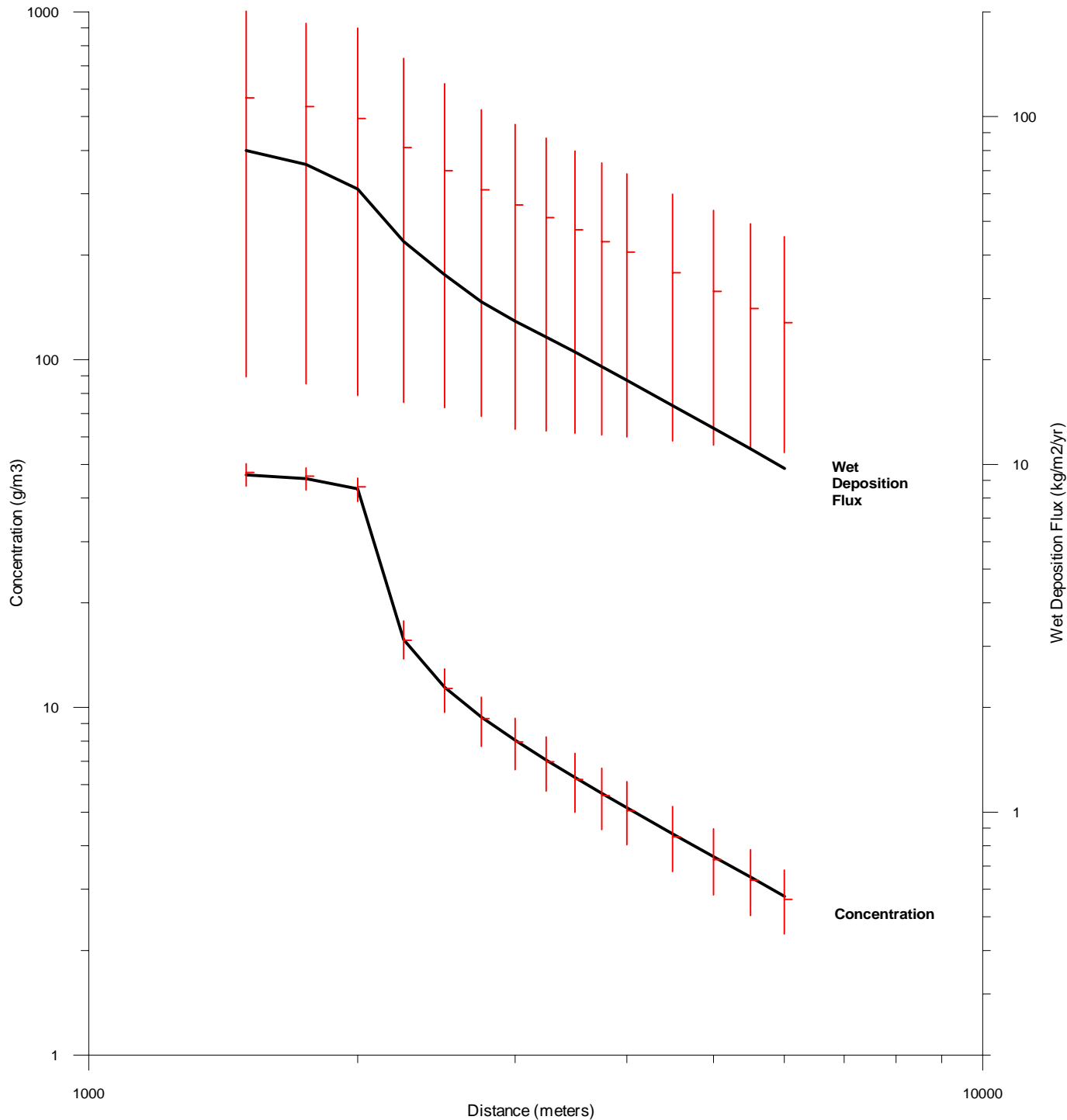
— No SCIM
— Hi-Lo-Avg



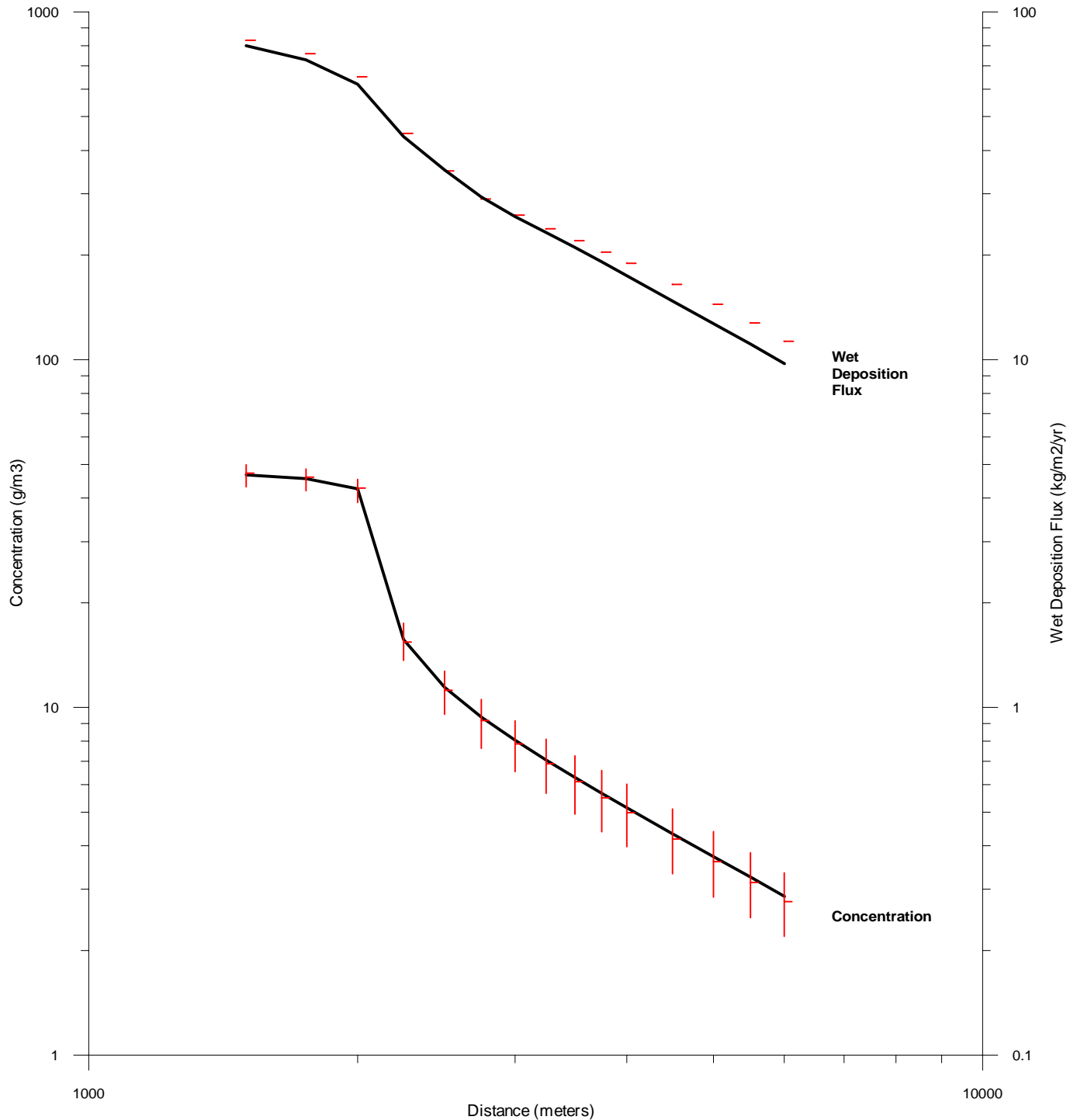
3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Tucson
SCIM Interval = 97 hrs, Wet Hour Sampling Frequency = 8
— No SCIM
— Hi-Lo-Avg



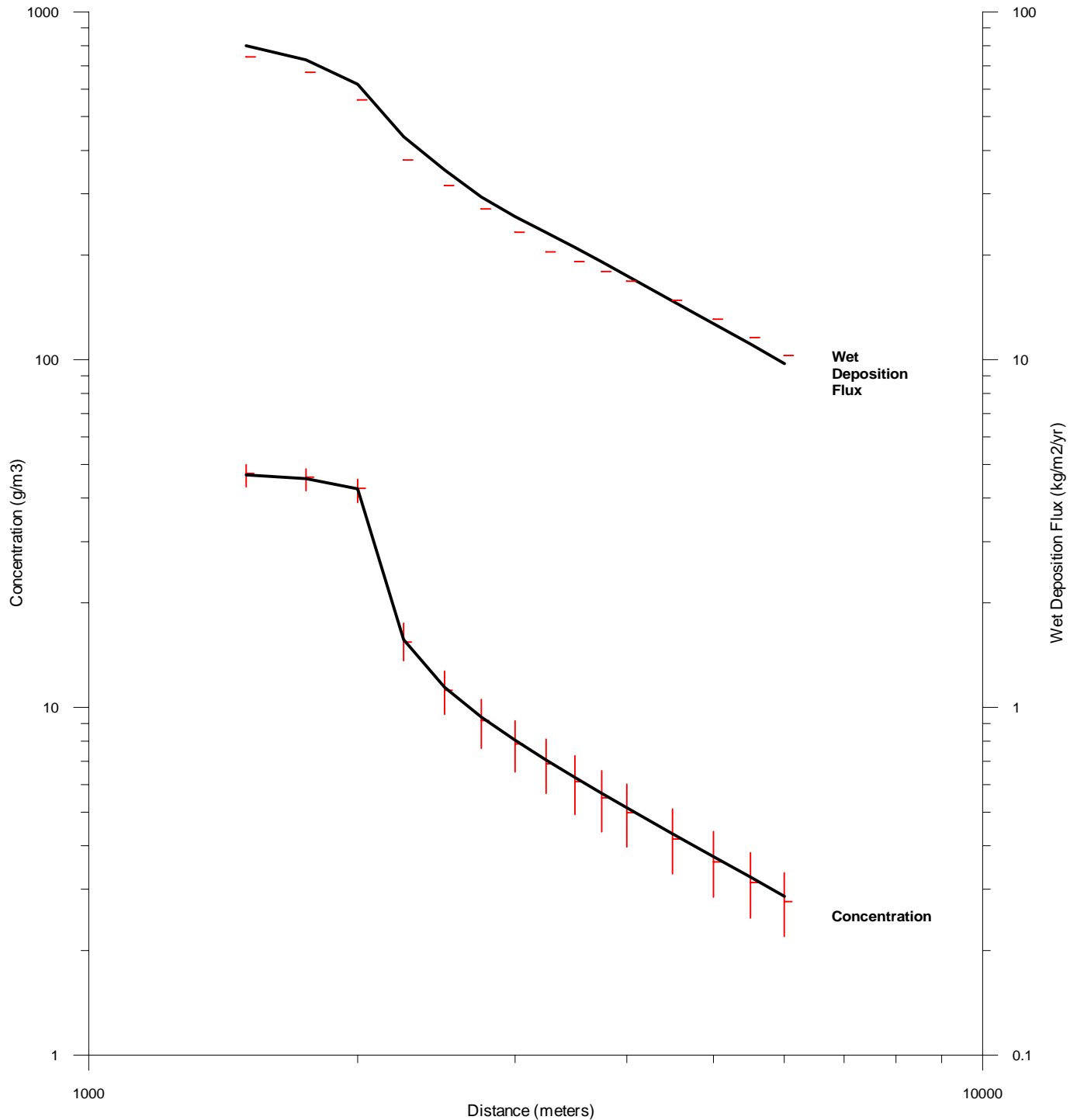
3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Tucson
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = NA
— No SCIM
— Hi-Lo-Avg



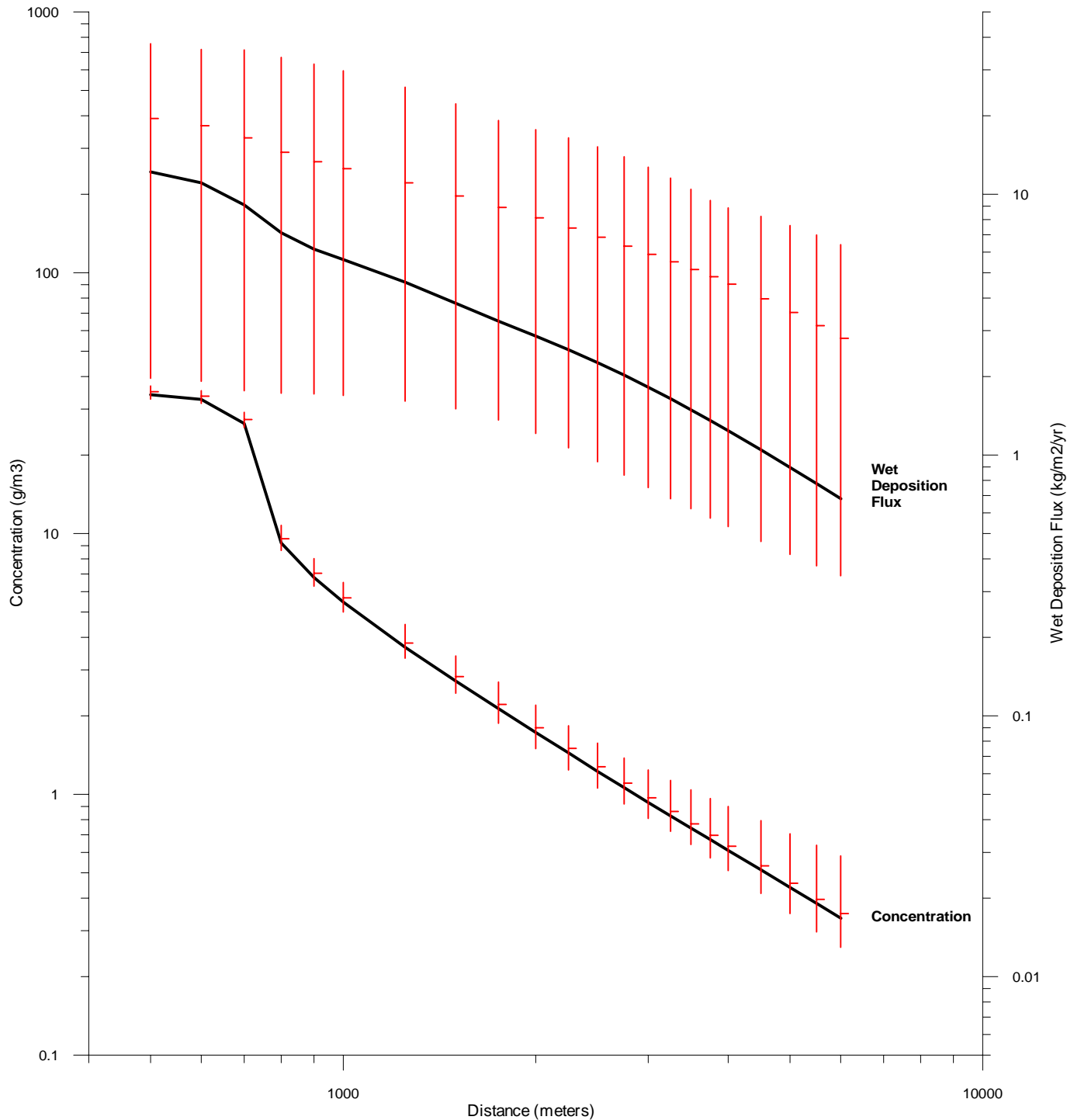
3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Tucson
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 4
— No SCIM
— Hi-Lo-Avg



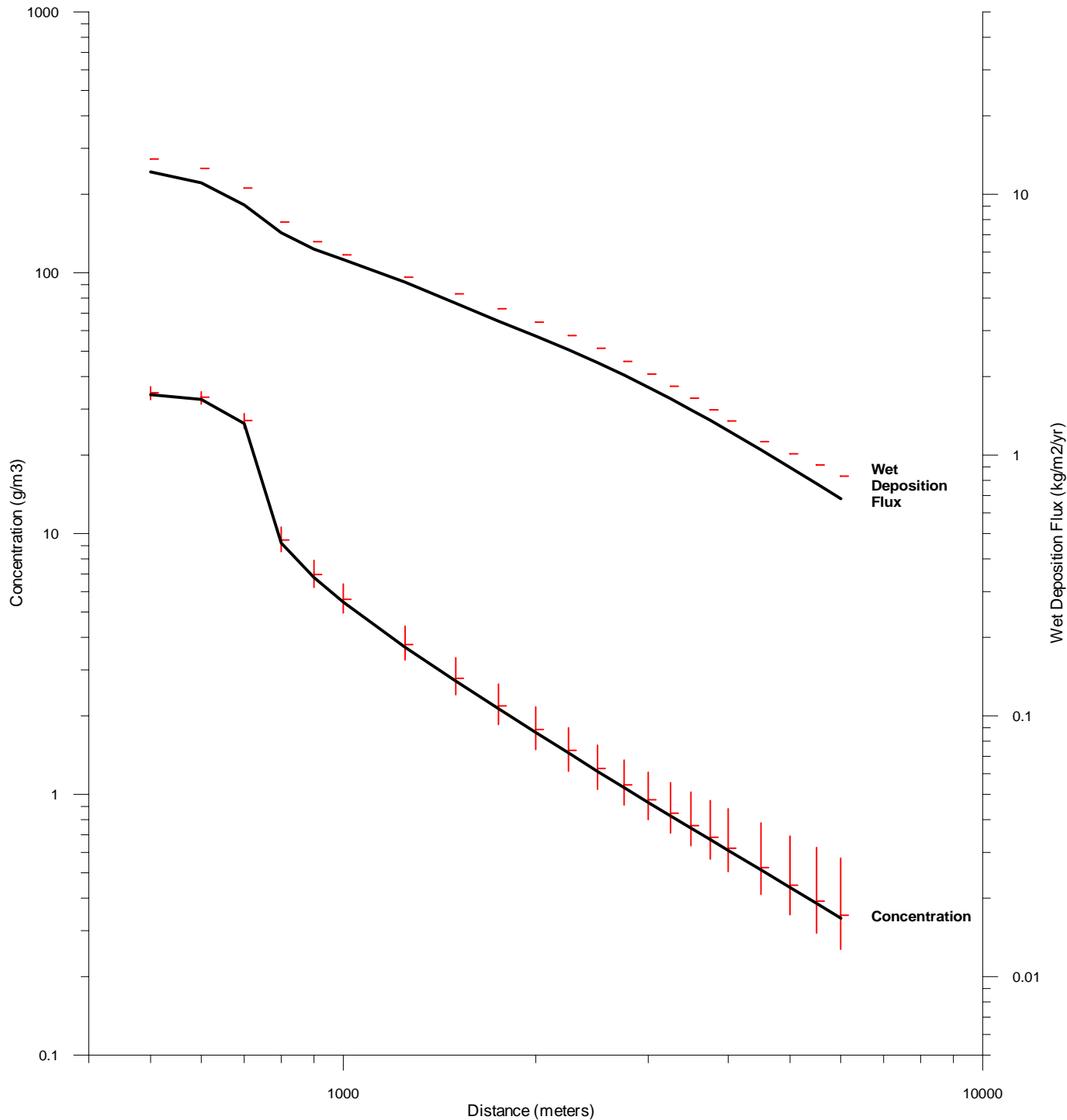
3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Tucson
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
— No SCIM
— Hi-Lo-Avg



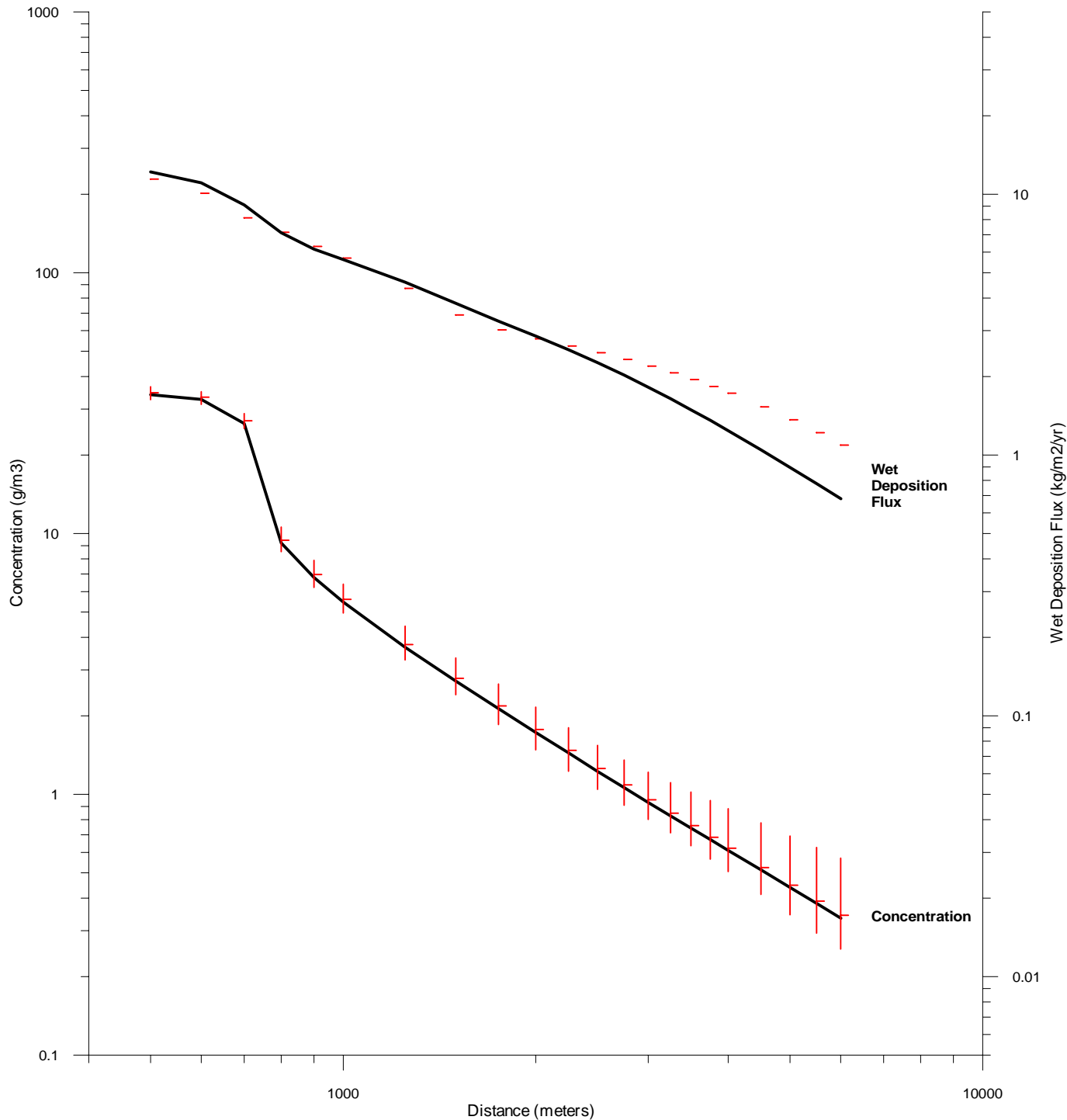
1000m Ground-Level Area Source (SI)
No Particles
Met Station: Tucson
SCIM Interval = 97 hrs, Wet Hour Sampling Frequency = NA
— No SCIM
— Hi-Lo-Avg



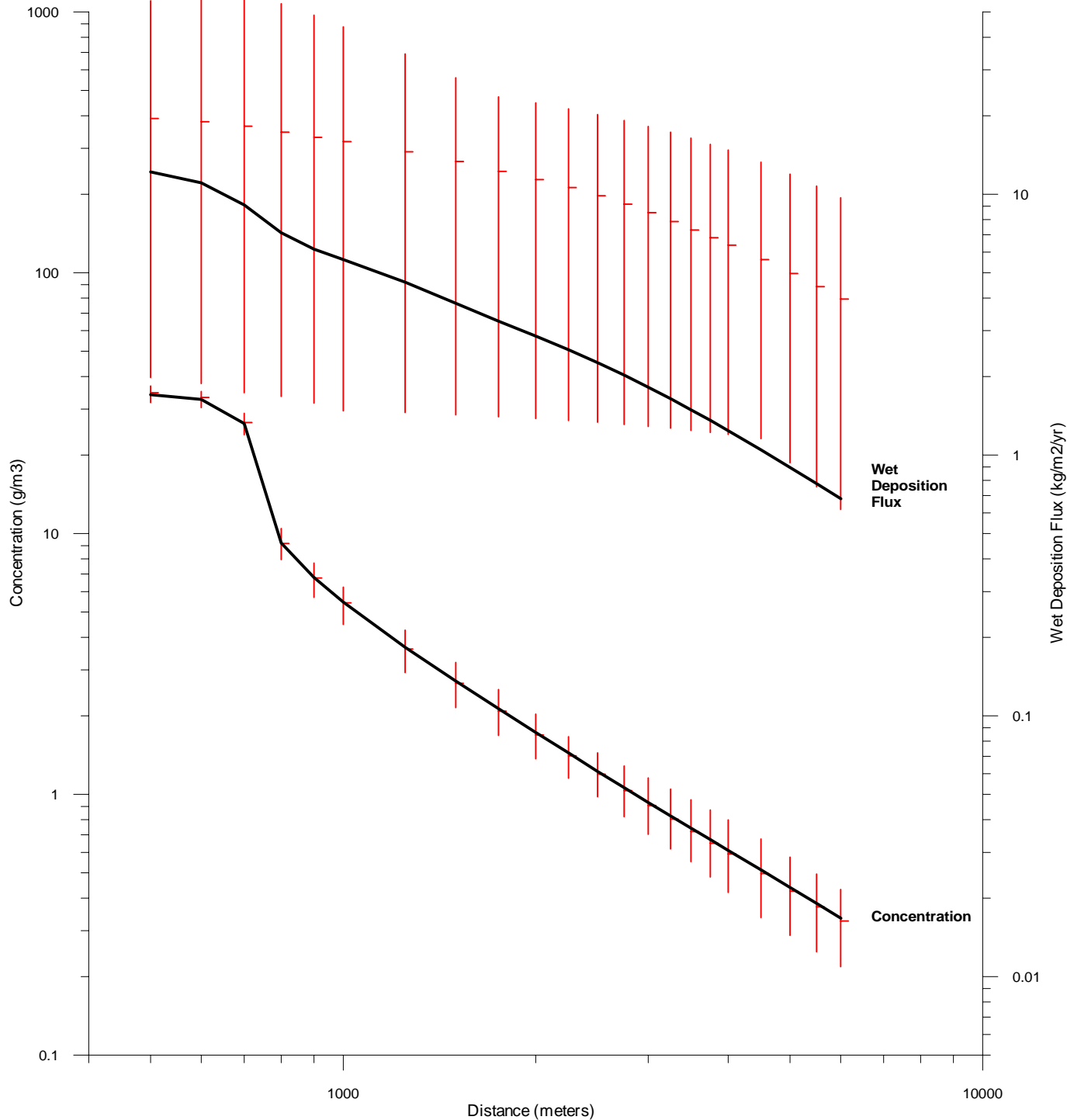
1000m Ground-Level Area Source (SI)
No Particles
Met Station: Tucson
SCIM Interval = 97 hrs, Wet Hour Sampling Frequency = 4
— No SCIM
— Hi-Lo-Avg



1000m Ground-Level Area Source (SI)
No Particles
Met Station: Tucson
SCIM Interval = 97 hrs, Wet Hour Sampling Frequency = 8
— No SCIM
— Hi-Lo-Avg

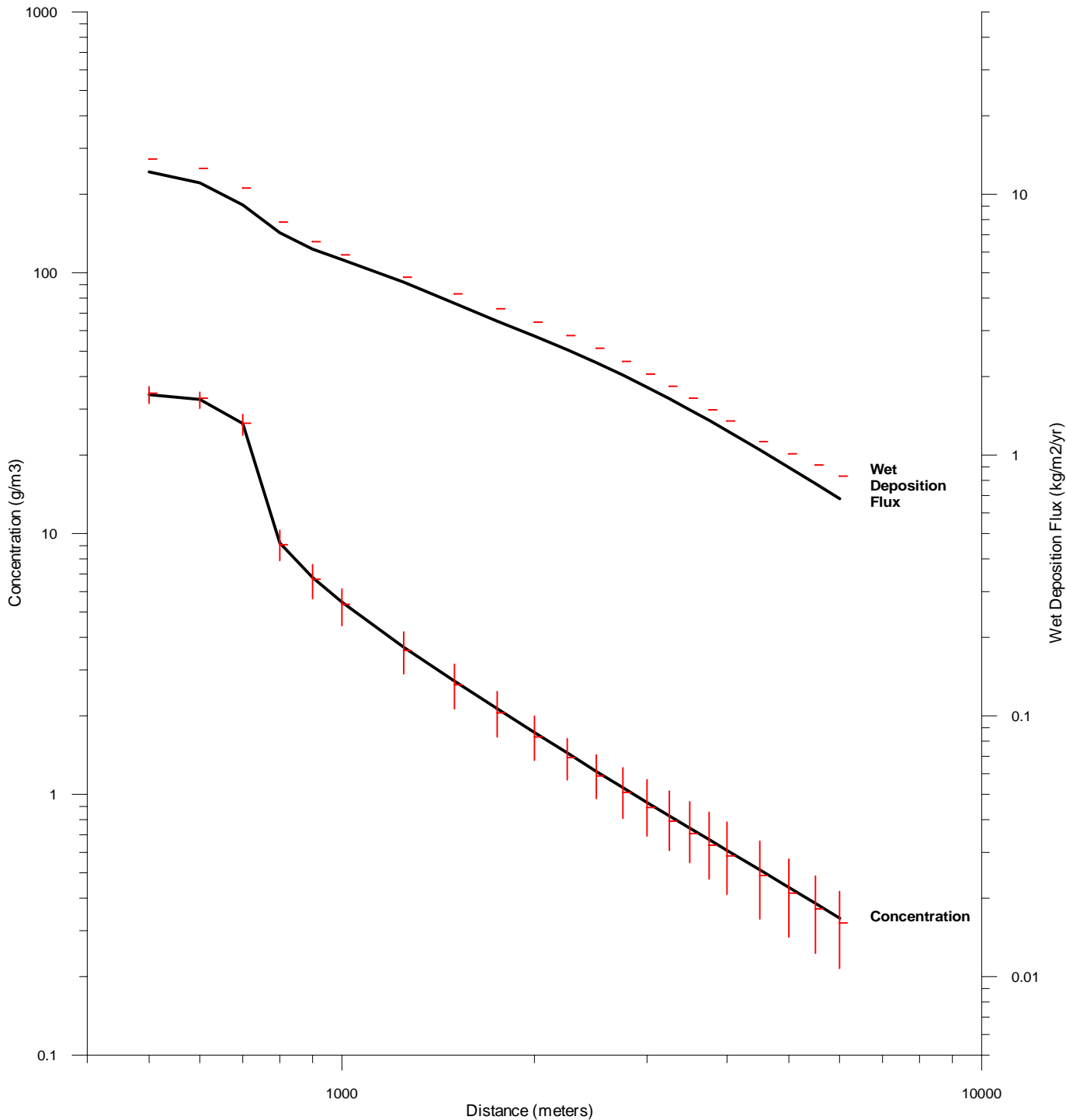


1000m Ground-Level Area Source (SI)
No Particles
Met Station: Tucson
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = NA
— No SCIM
— Hi-Lo-Avg

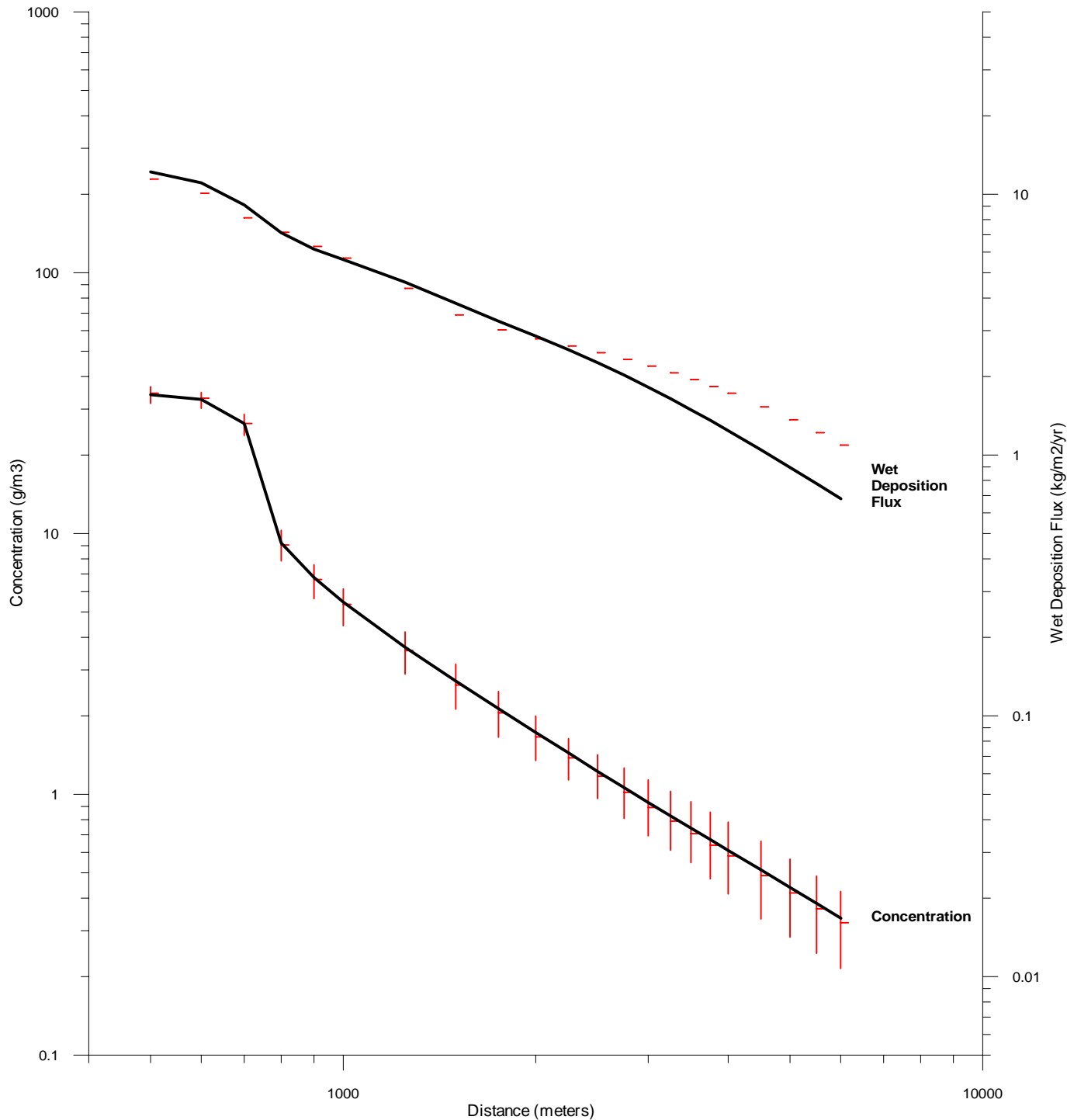


1000m Ground-Level Area Source (SI)
No Particles
Met Station: Tucson
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 4

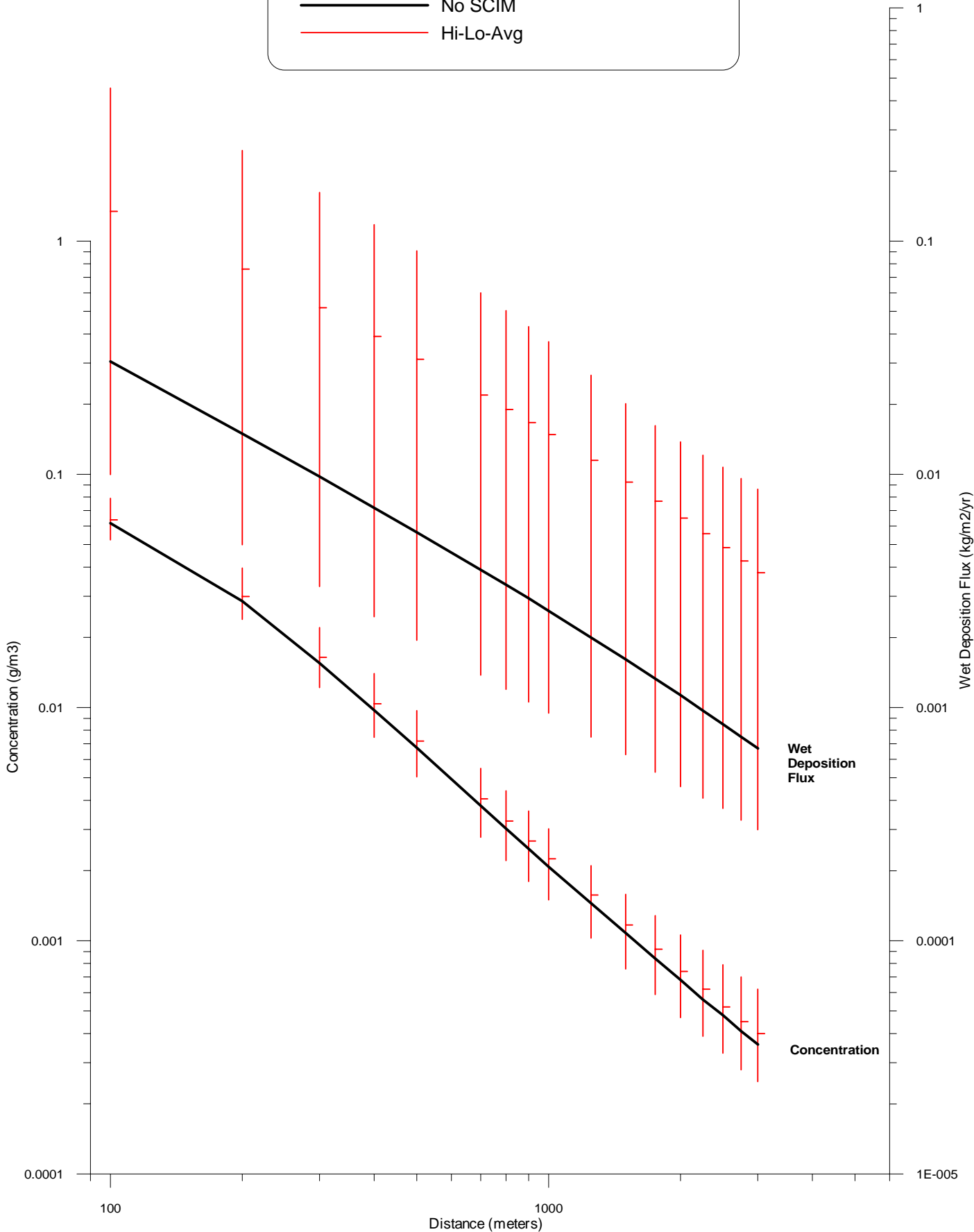
— No SCIM
— Hi-Lo-Avg



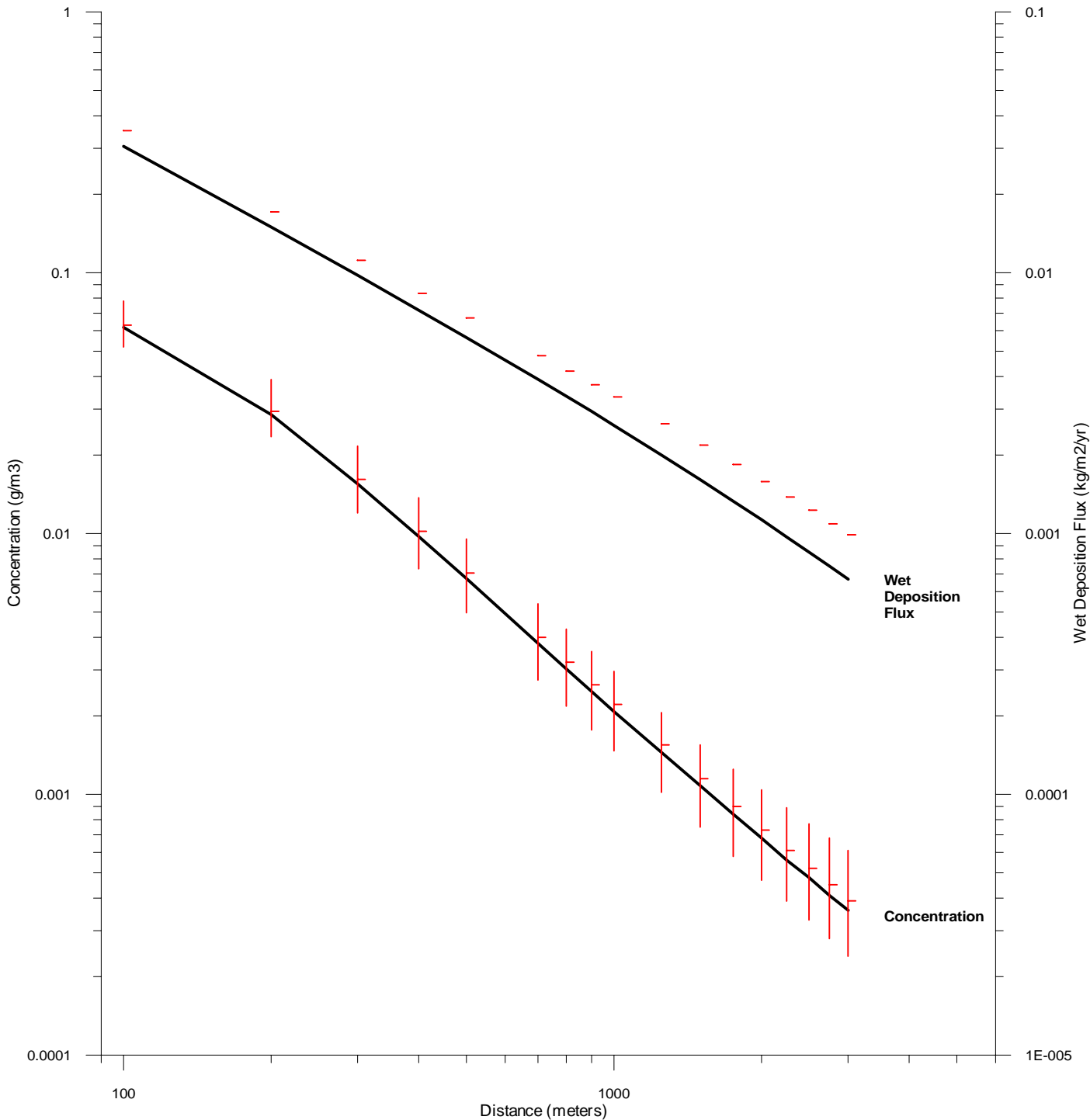
1000m Ground-Level Area Source (SI)
No Particles
Met Station: Tucson
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
— No SCIM
— Hi-Lo-Avg



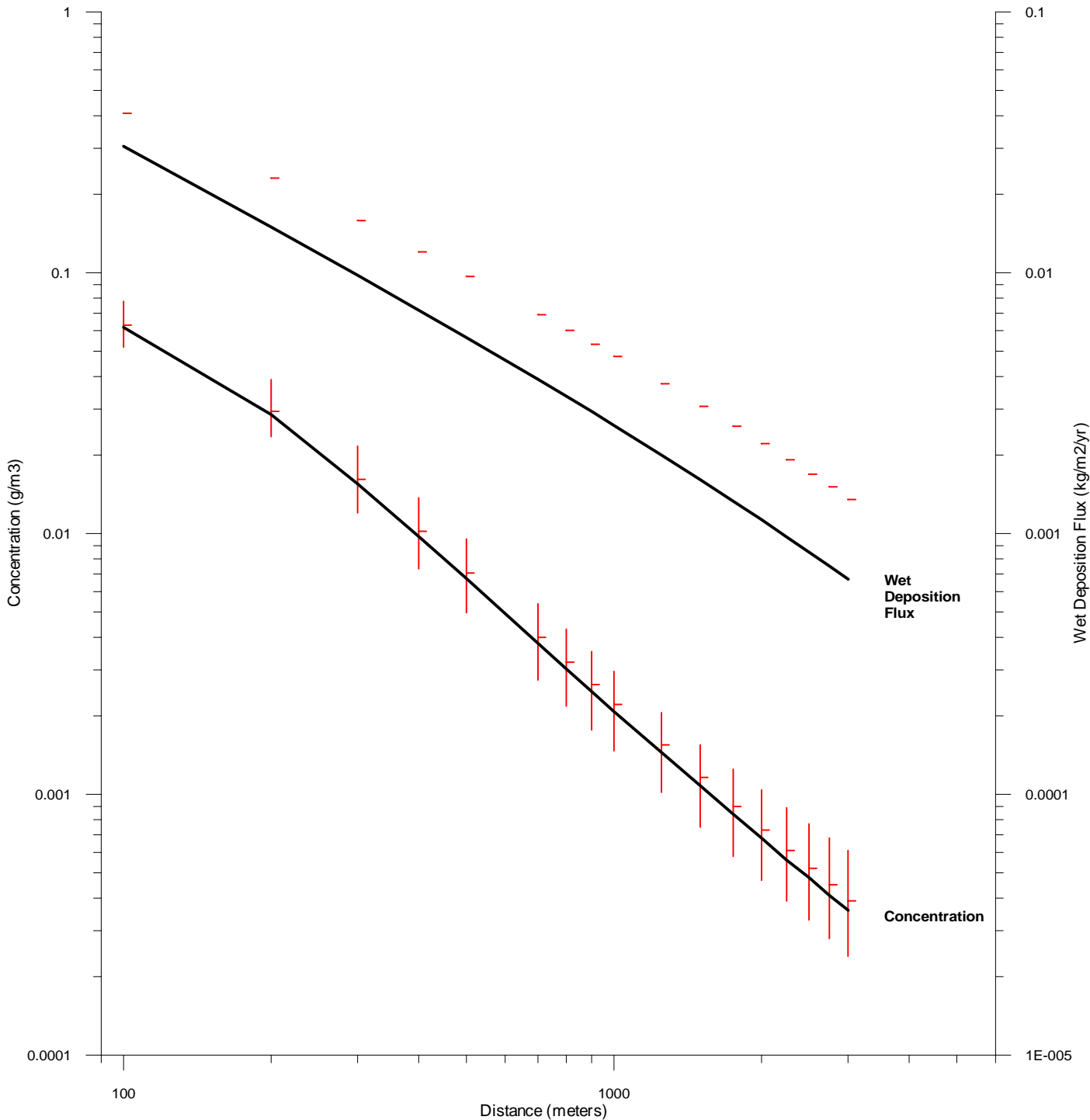
20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Tucson
SCIM Interval = 97 hrs, Wet Hour Sampling Frequency = NA
— No SCIM
— Hi-Lo-Avg



20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Tucson
SCIM Interval = 97 hrs, Wet Hour Sampling Frequency = 4
— No SCIM
— Hi-Lo-Avg

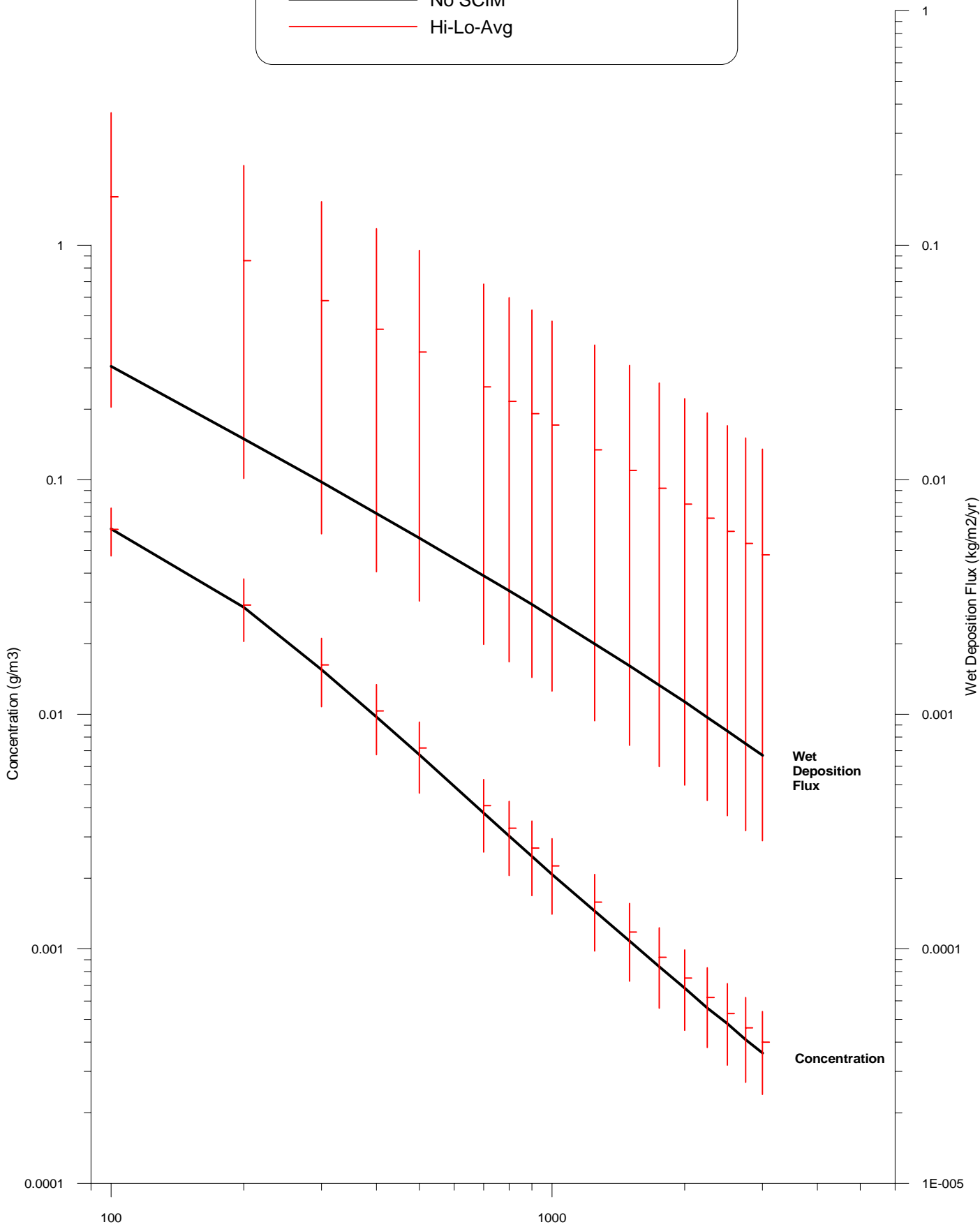


20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Tucson
SCIM Interval = 97 hrs, Wet Hour Sampling Frequency = 8
— No SCIM
— Hi-Lo-Avg



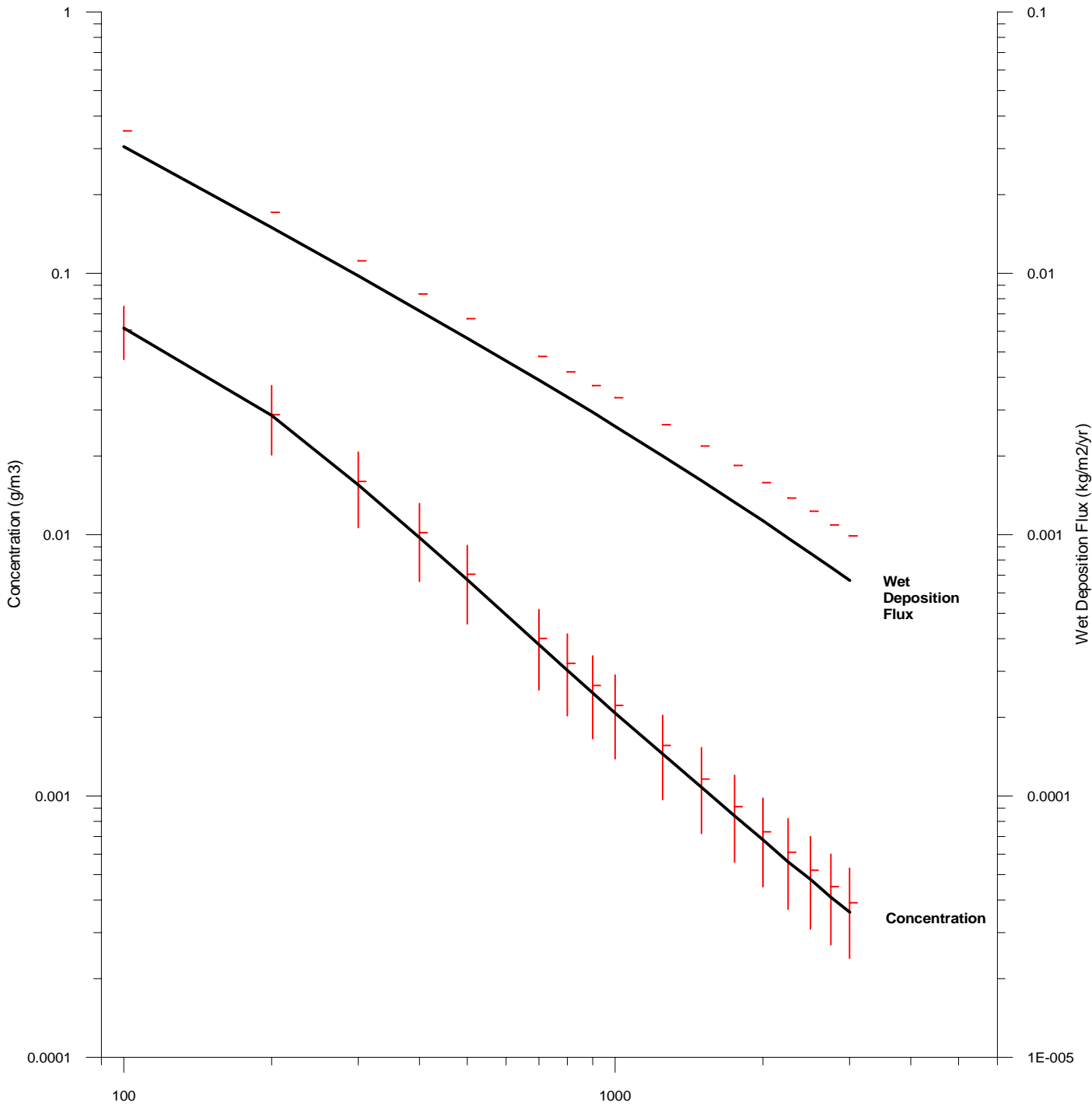
20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Tucson
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = NA

— No SCIM
— Hi-Lo-Avg

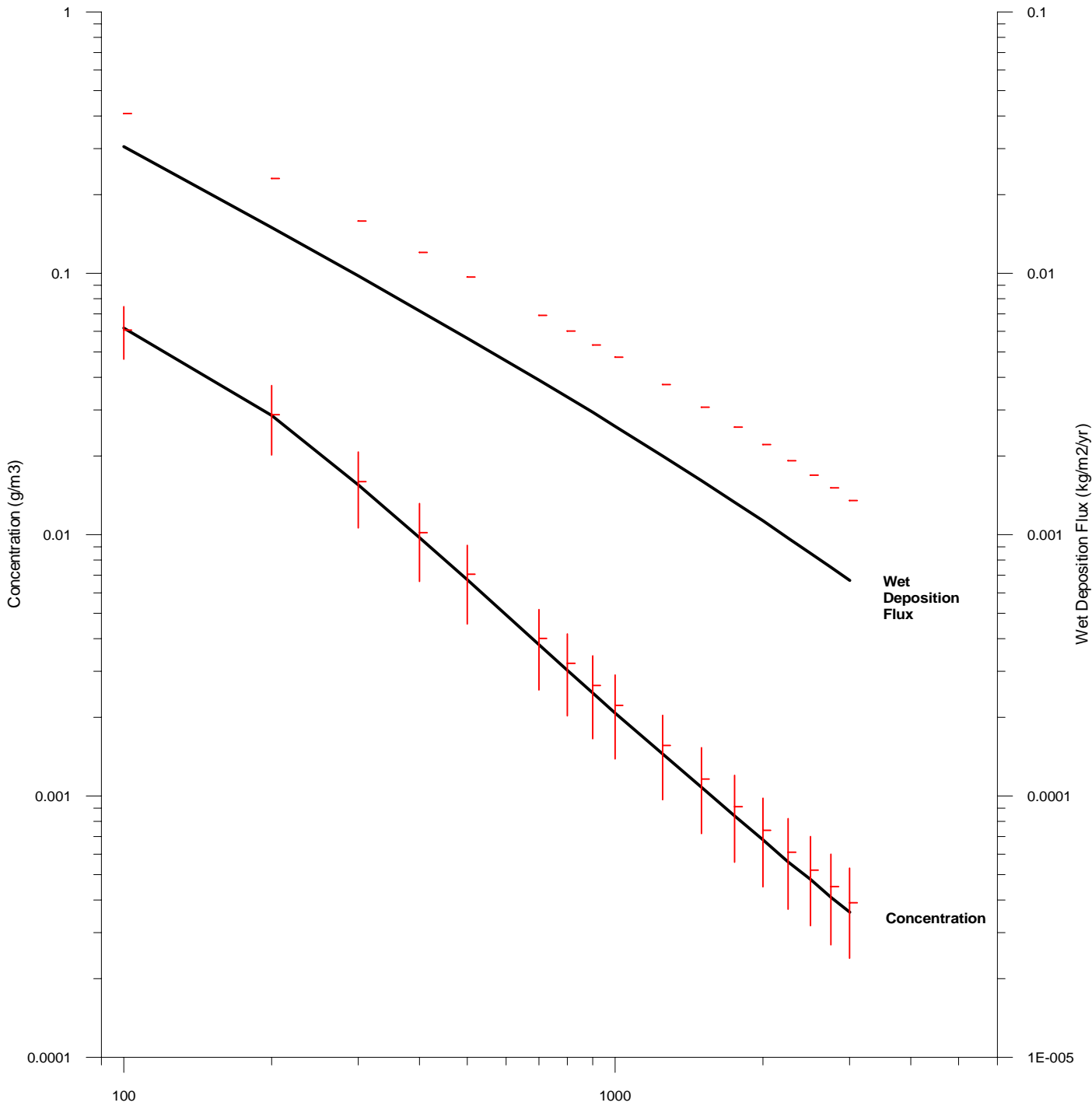


20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Tucson
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 4

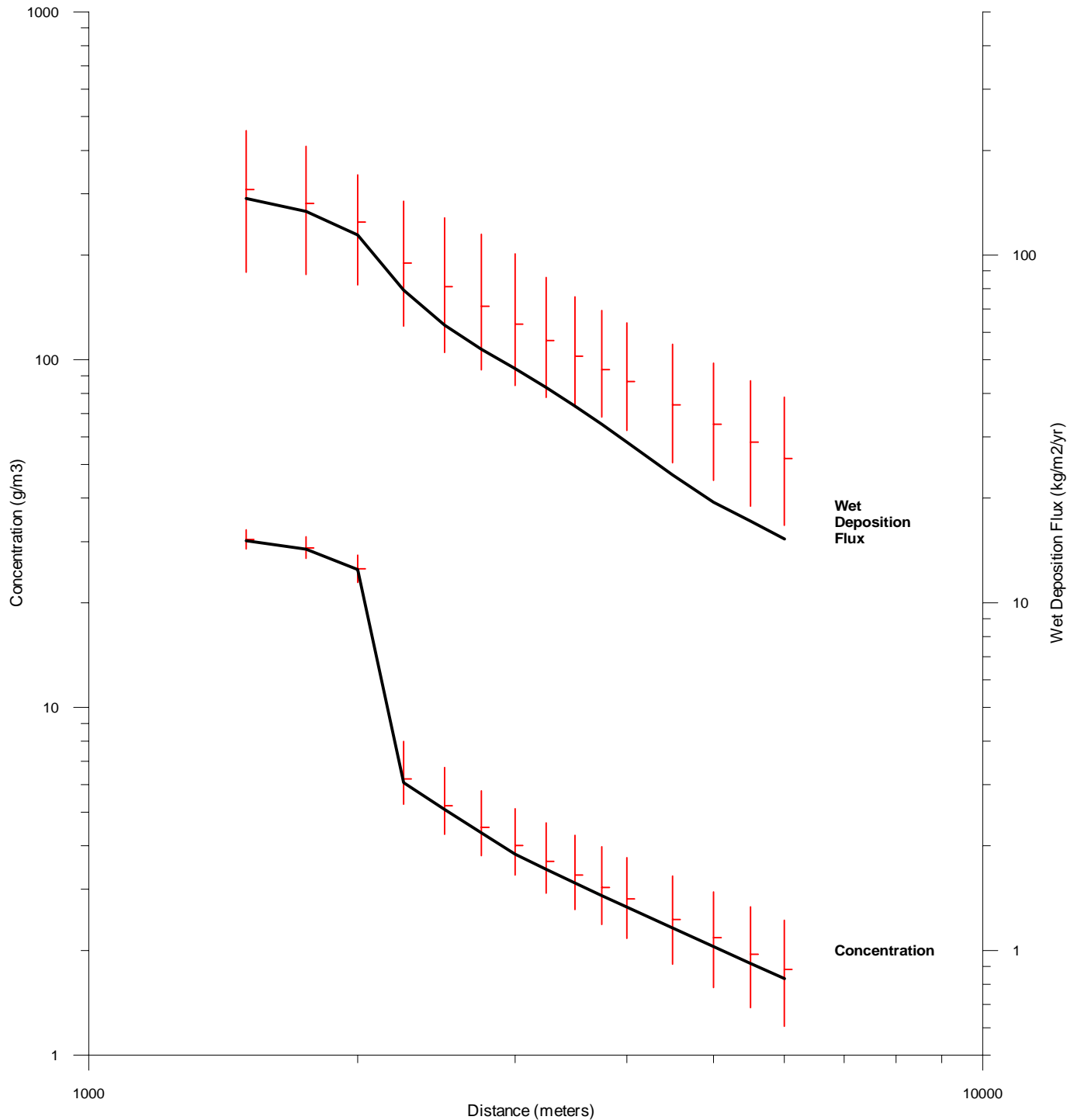
— No SCIM
— Hi-Lo-Avg



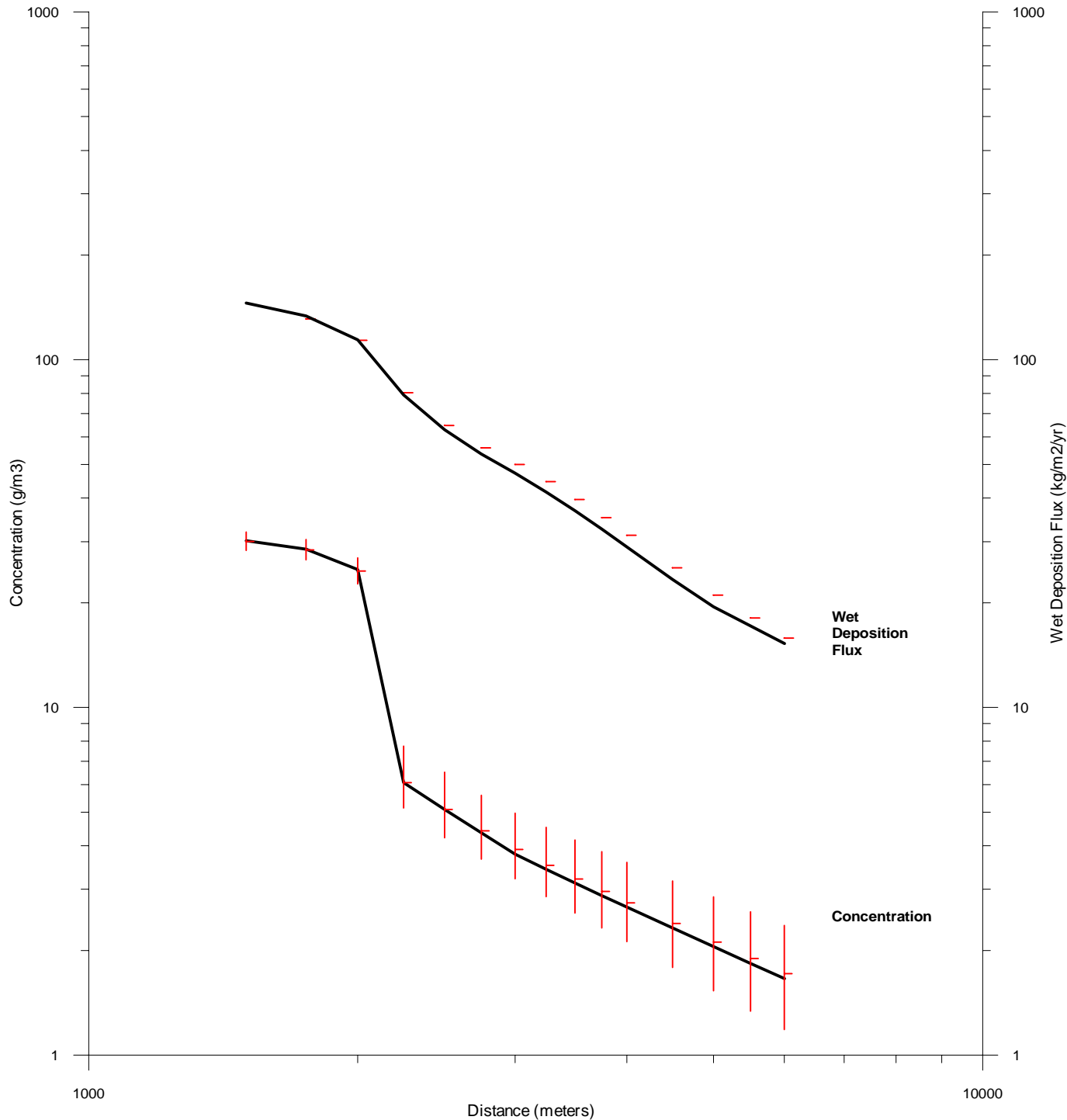
20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Tucson
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
— No SCIM
— Hi-Lo-Avg



3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Wichita
SCIM Interval = 97 hrs, Wet Hour Sampling Frequency = NA
— No SCIM
— Hi-Lo-Avg

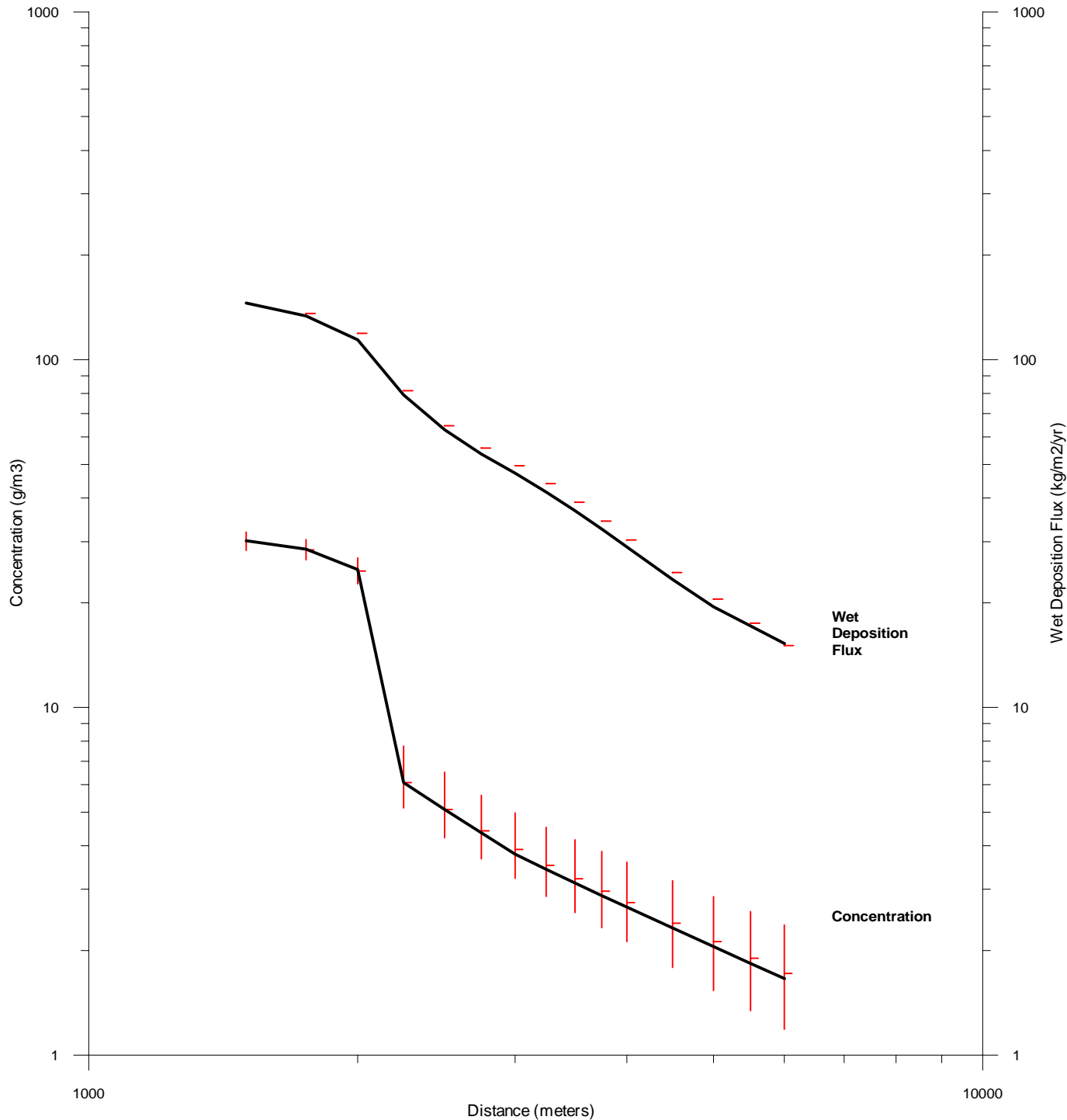


3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Wichita
SCIM Interval = 97 hrs, Wet Hour Sampling Frequency = 4
— No SCIM
— Hi-Lo-Avg

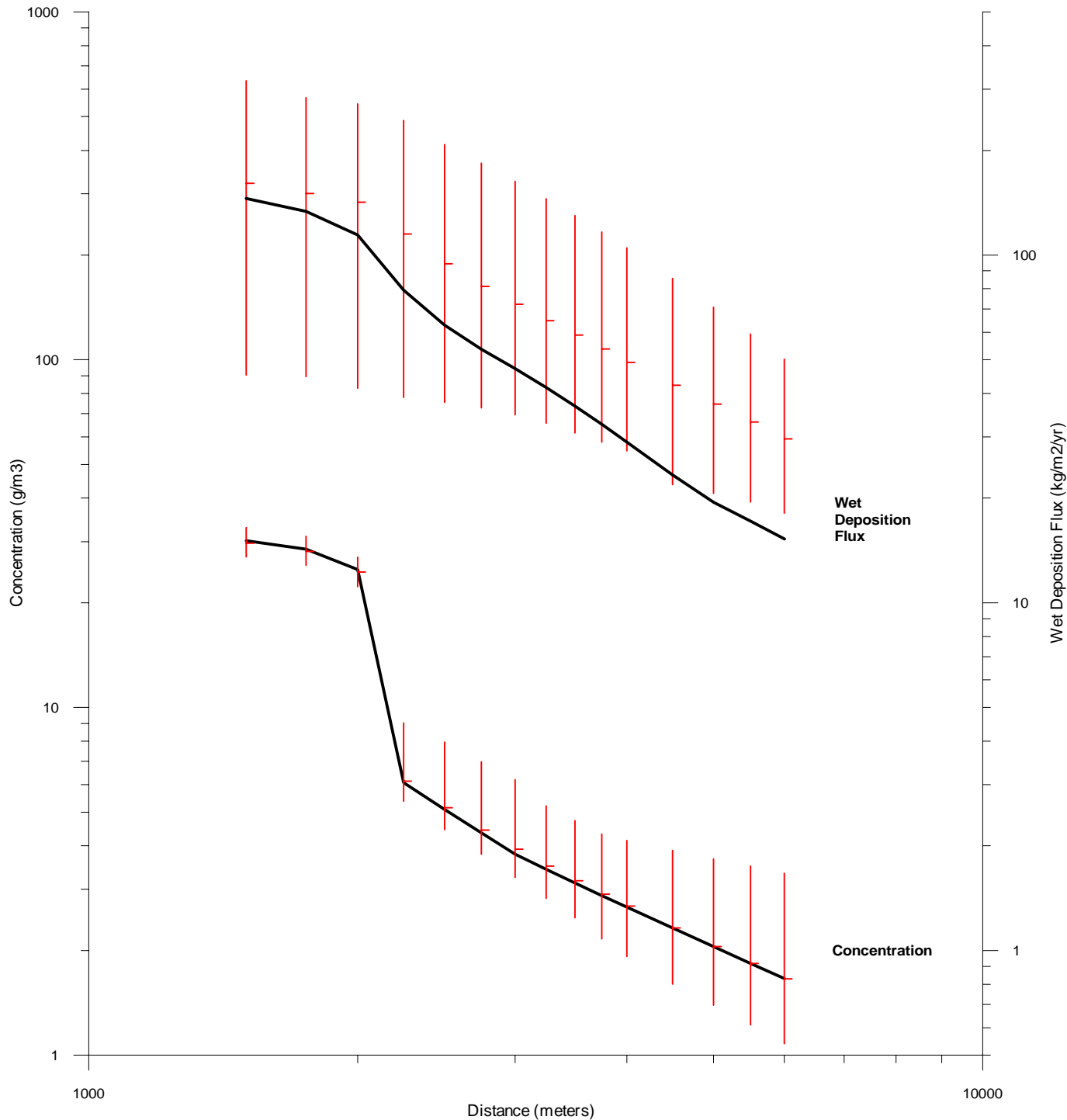


3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Wichita
SCIM Interval = 97 hrs, Wet Hour Sampling Frequency = 8

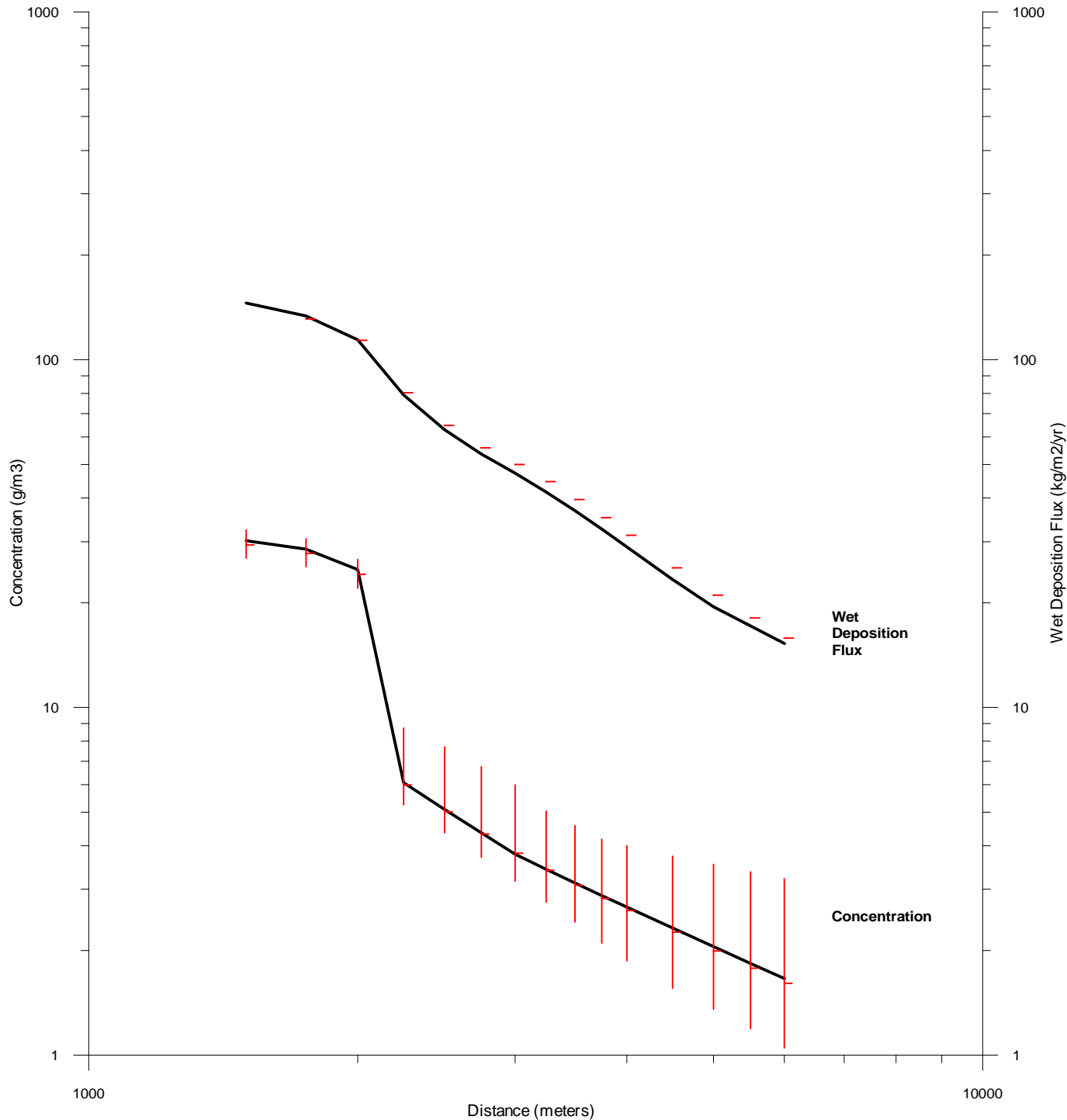
— No SCIM
— Hi-Lo-Avg



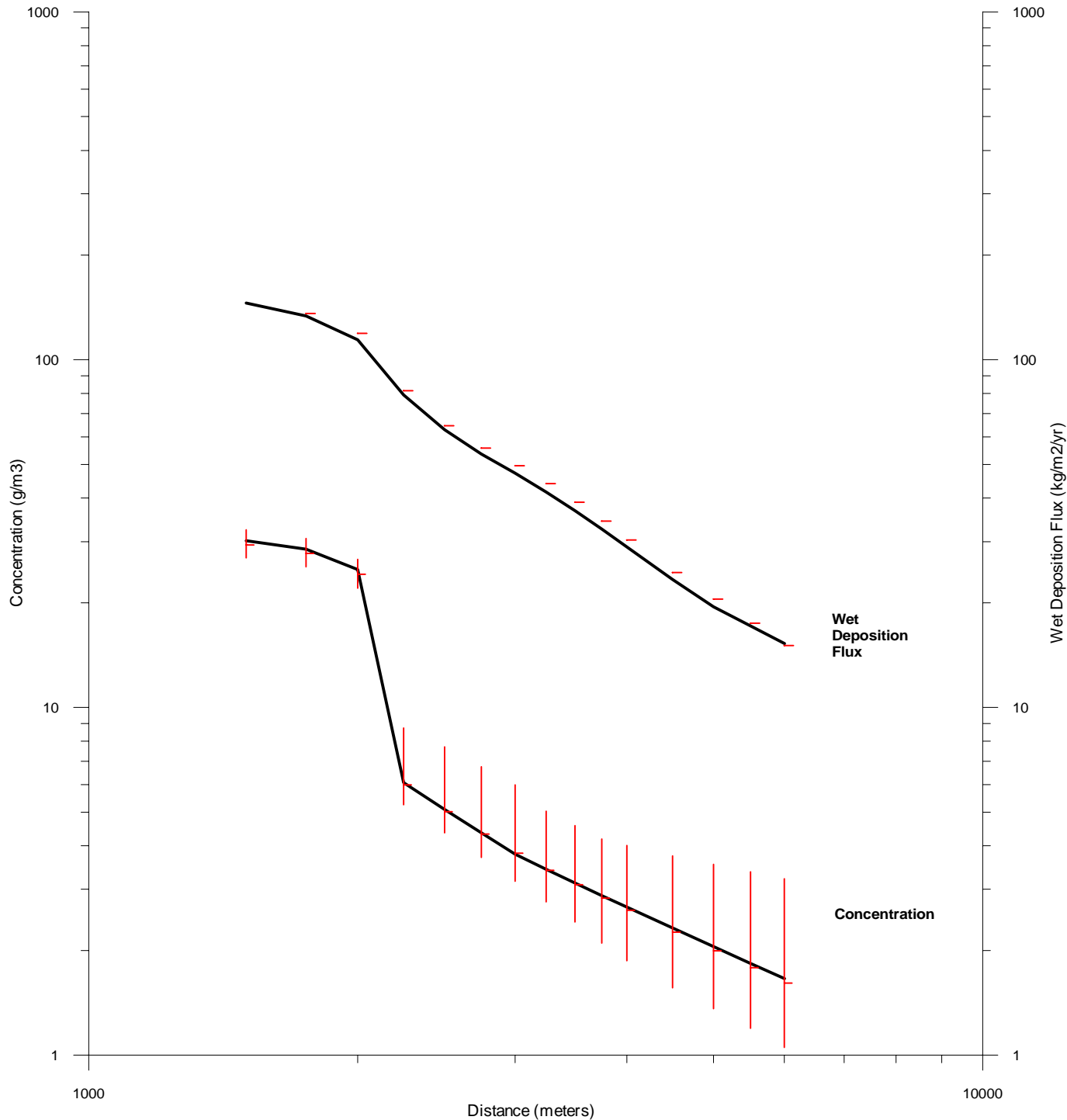
3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Wichita
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = NA
— No SCIM
— Hi-Lo-Avg



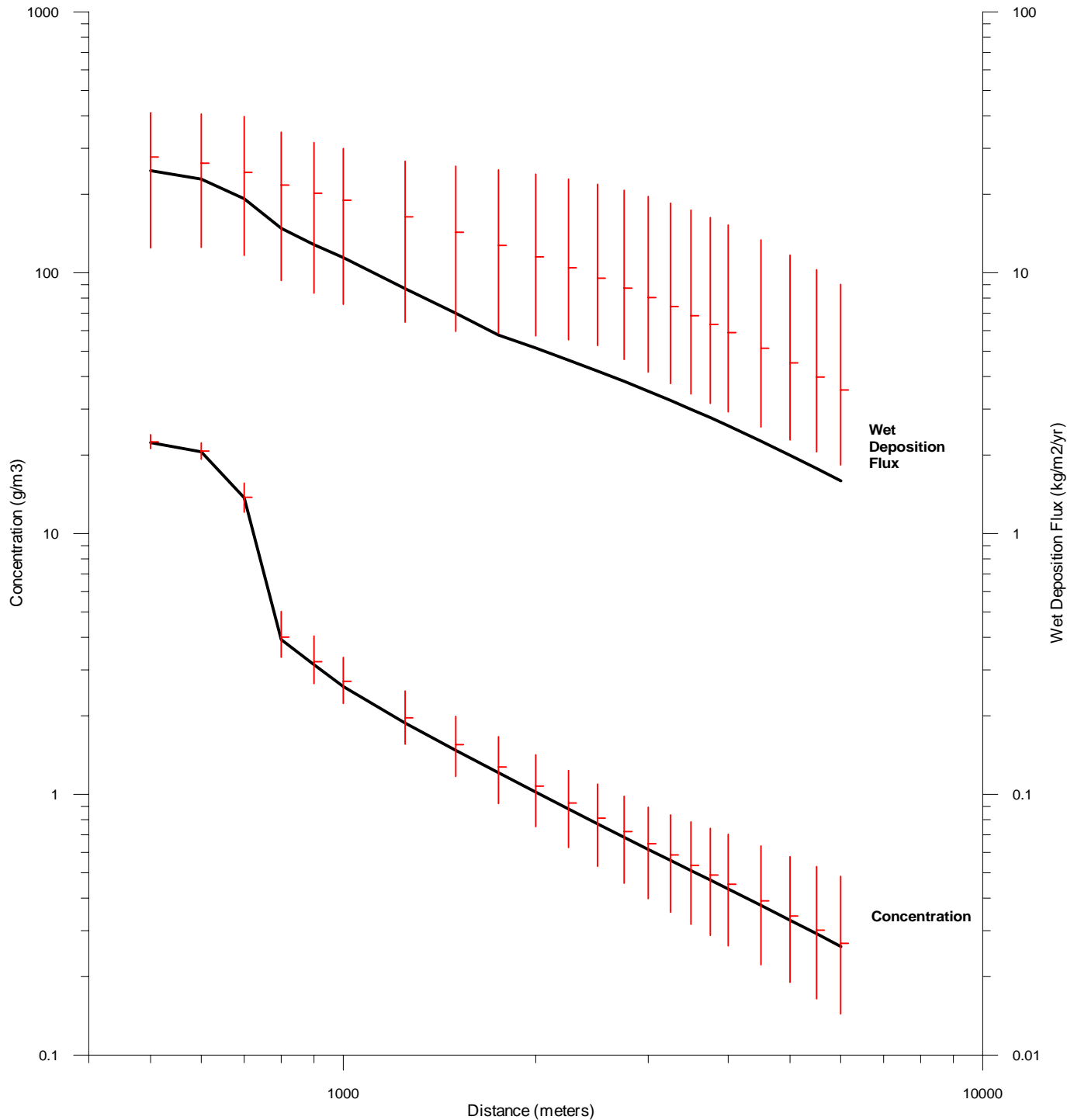
3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Wichita
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 4
— No SCIM
— Hi-Lo-Avg



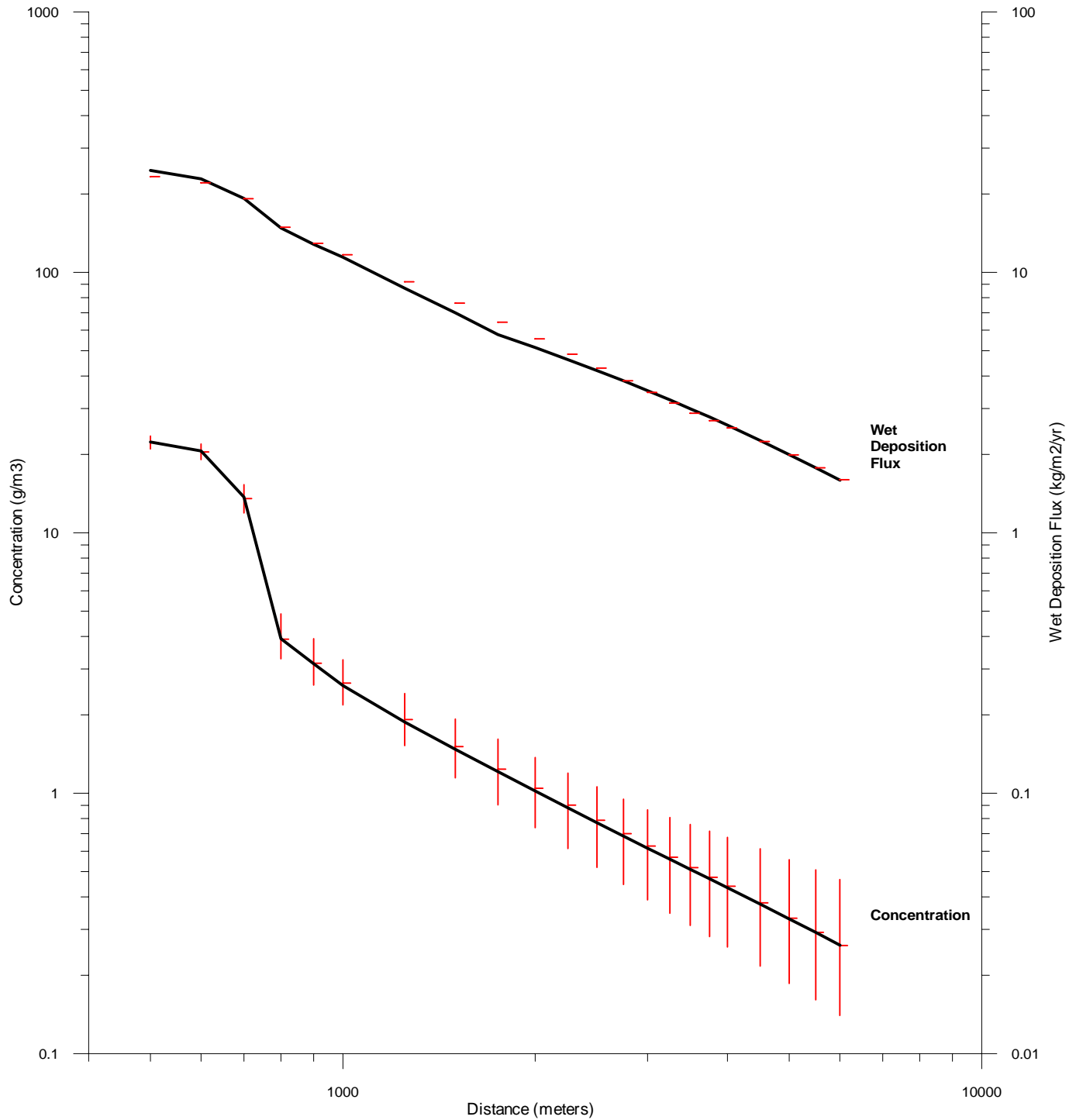
3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Wichita
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
— No SCIM
— Hi-Lo-Avg



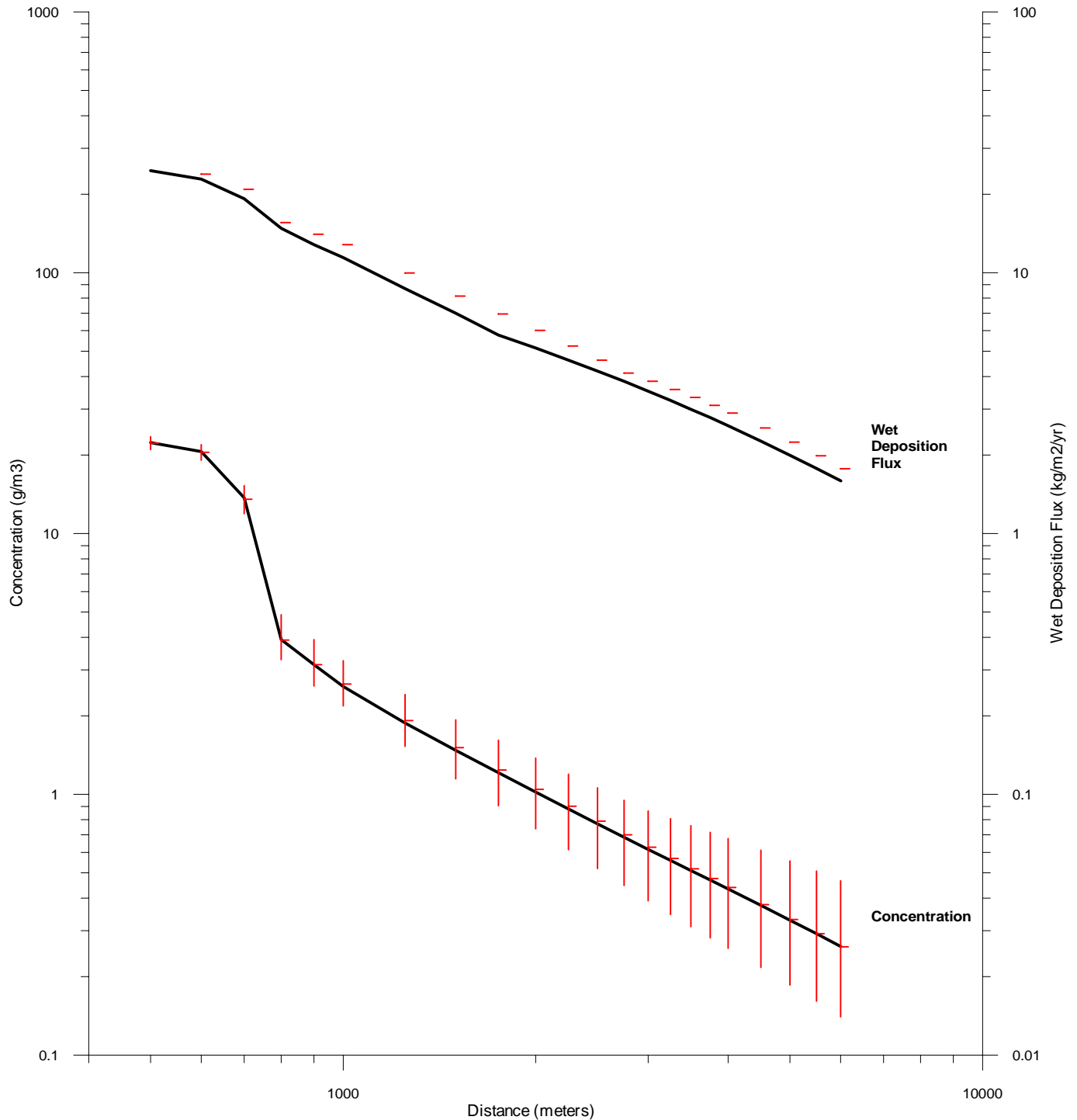
1000m Ground-Level Area Source (SI)
No Particles
Met Station: Wichita
SCIM Interval = 97 hrs, Wet Hour Sampling Frequency = NA
— No SCIM
— Hi-Lo-Avg



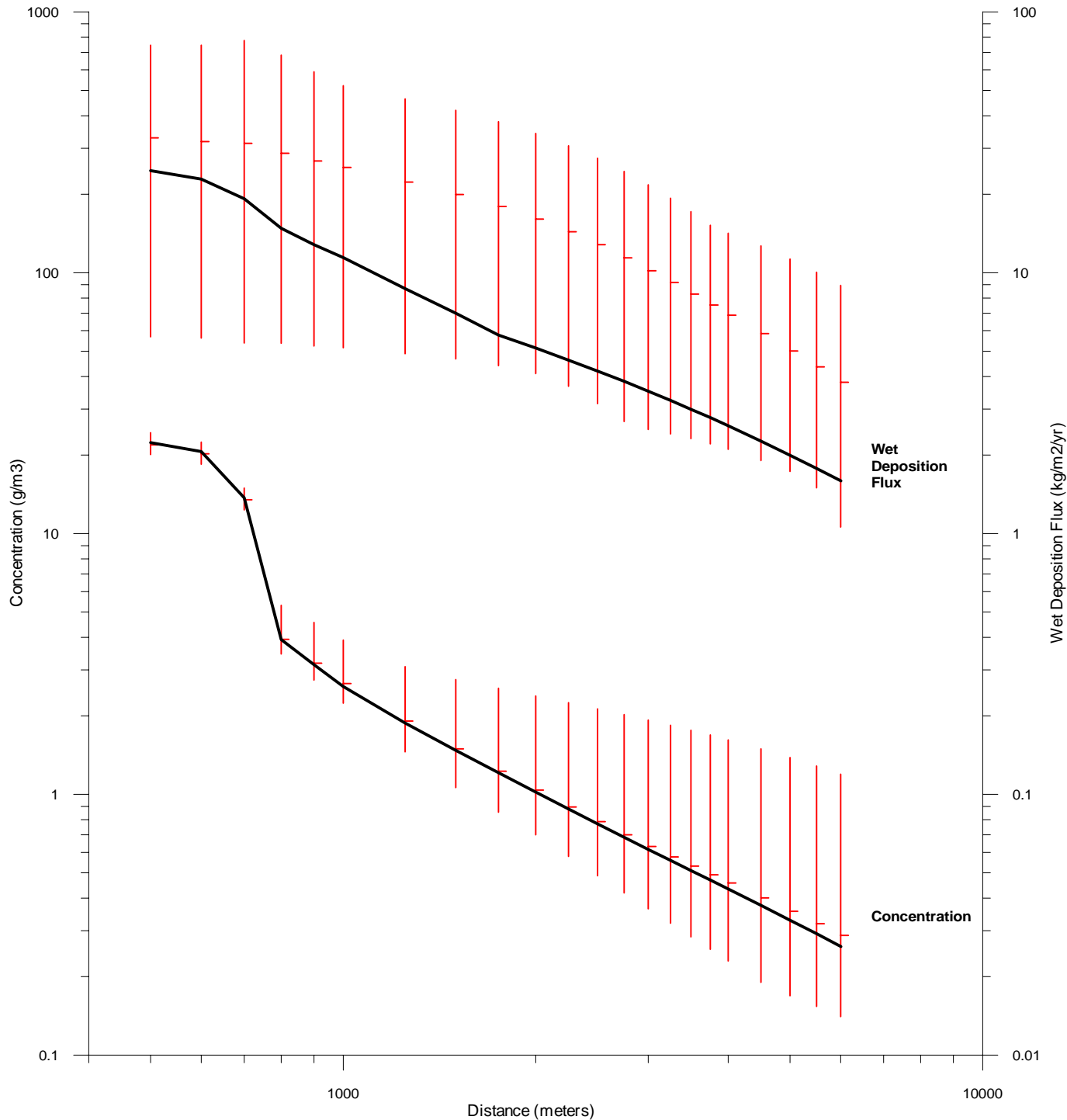
1000m Ground-Level Area Source (SI)
No Particles
Met Station: Wichita
SCIM Interval = 97 hrs, Wet Hour Sampling Frequency = 4
— No SCIM
— Hi-Lo-Avg



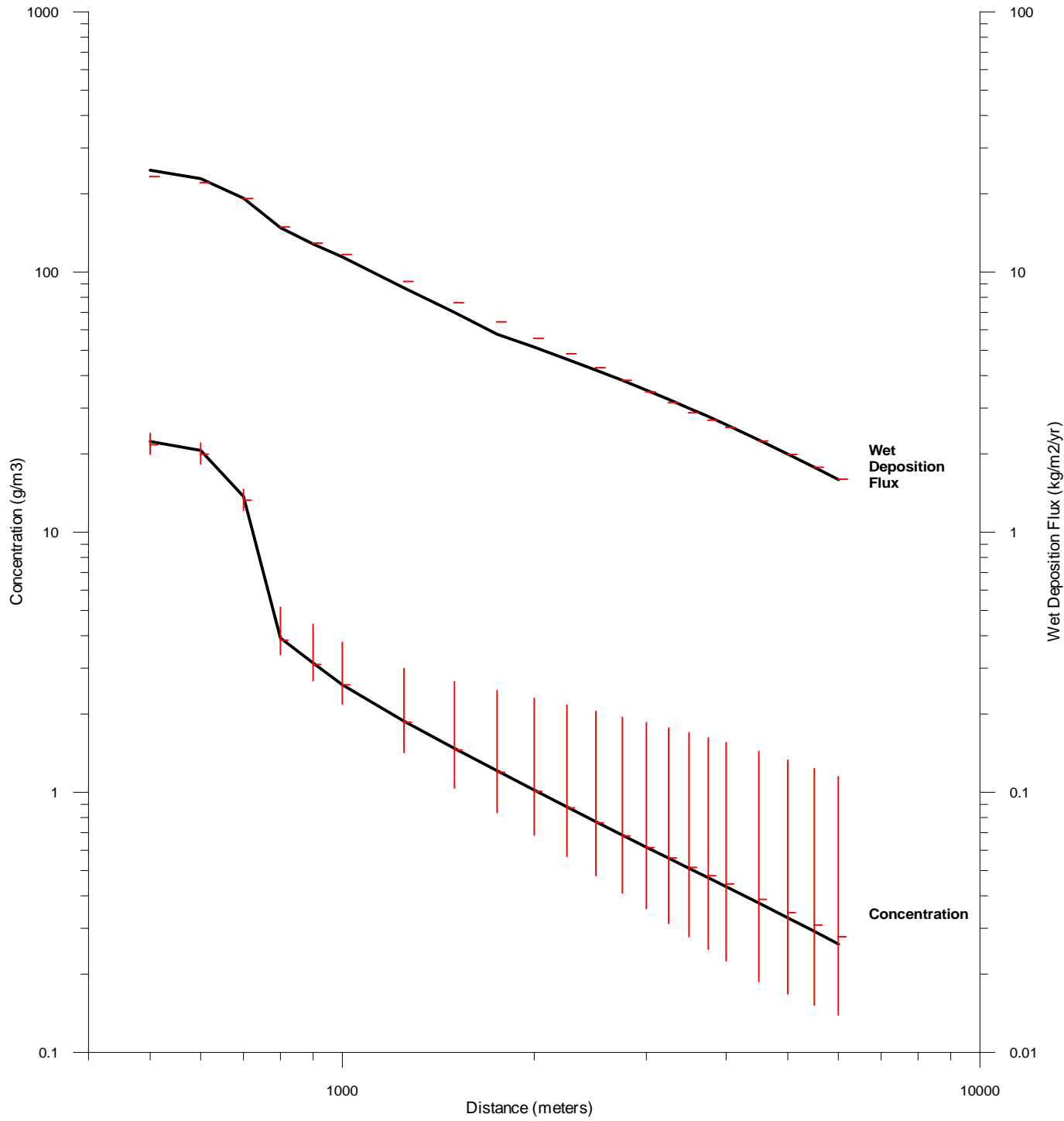
1000m Ground-Level Area Source (SI)
No Particles
Met Station: Wichita
SCIM Interval = 97 hrs, Wet Hour Sampling Frequency = 8
— No SCIM
— Hi-Lo-Avg



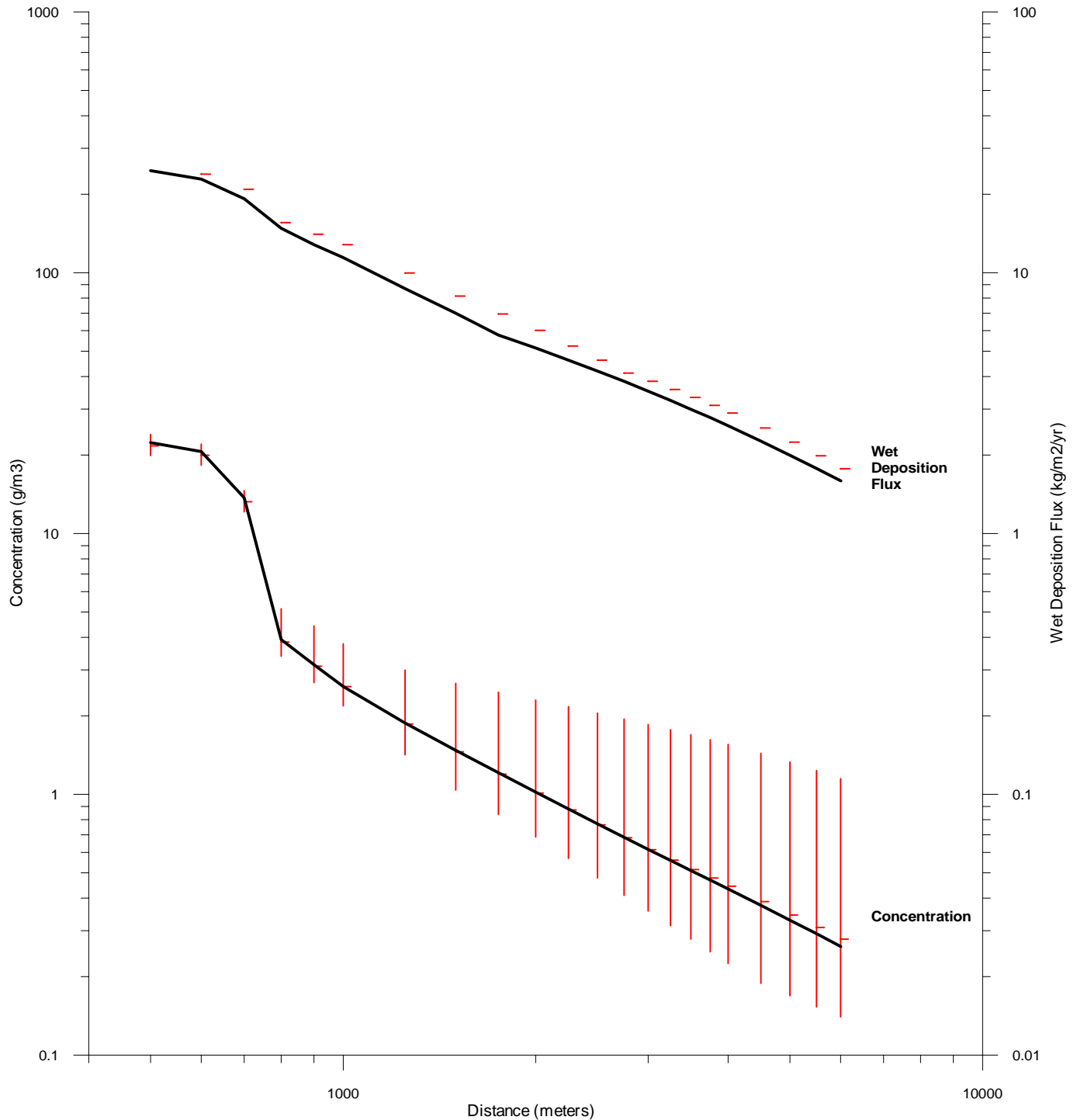
1000m Ground-Level Area Source (SI)
No Particles
Met Station: Wichita
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = NA
— No SCIM
— Hi-Lo-Avg



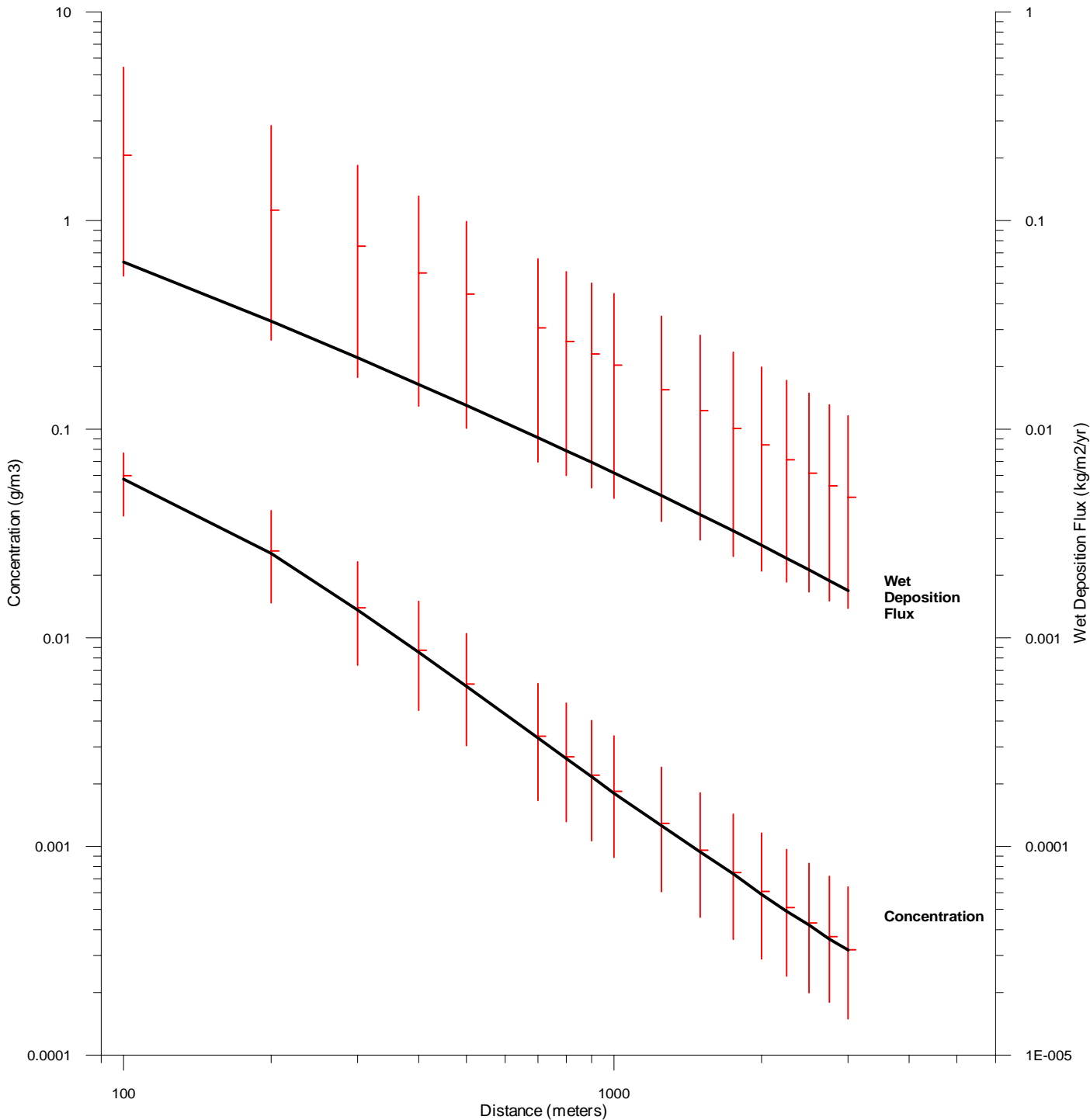
1000m Ground-Level Area Source (SI)
No Particles
Met Station: Wichita
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 4
— No SCIM
— Hi-Lo-Avg



1000m Ground-Level Area Source (SI)
No Particles
Met Station: Wichita
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
— No SCIM
— Hi-Lo-Avg

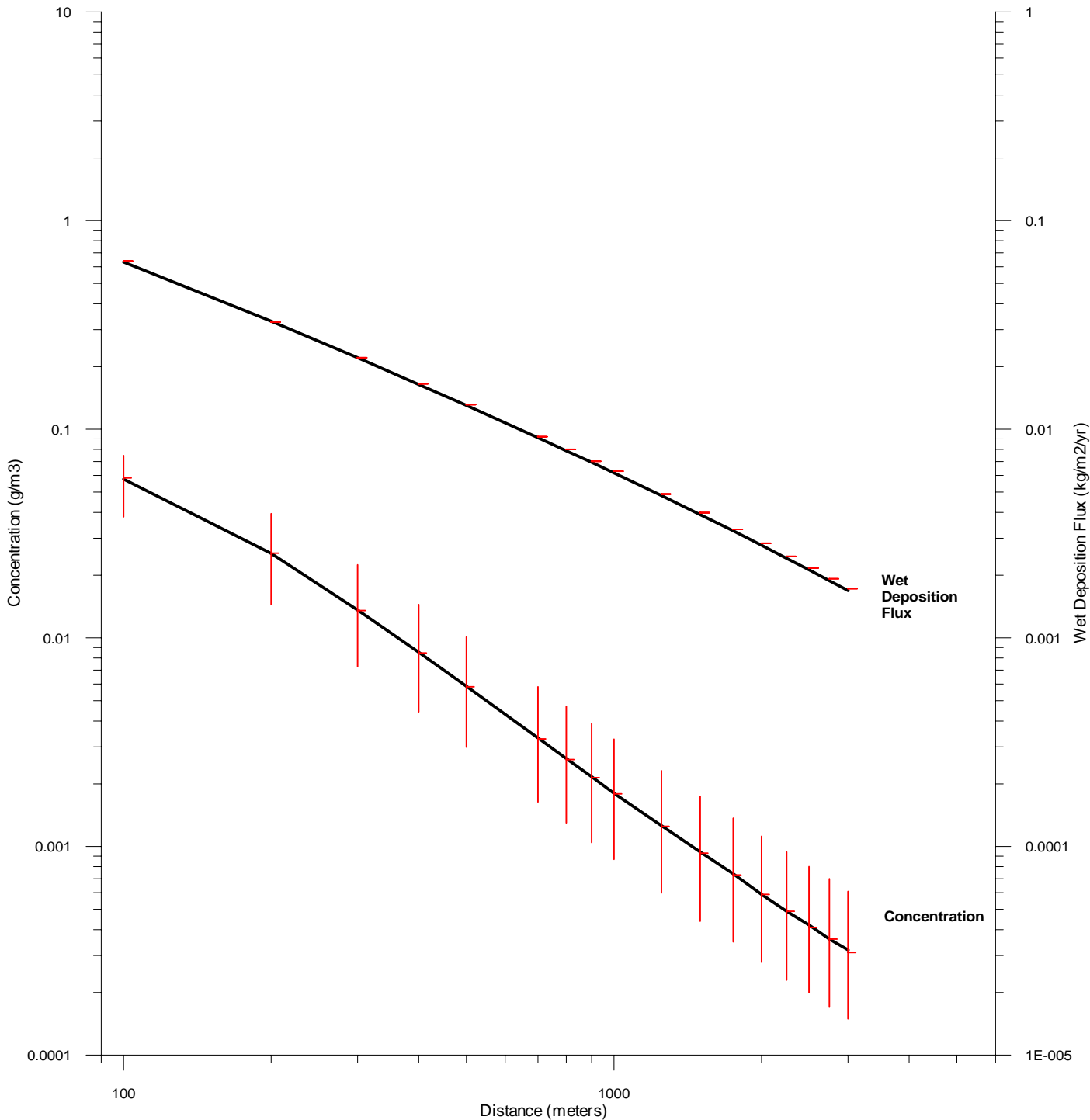


20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Wichita
SCIM Interval = 97 hrs, Wet Hour Sampling Frequency = NA
— No SCIM
— Hi-Lo-Avg

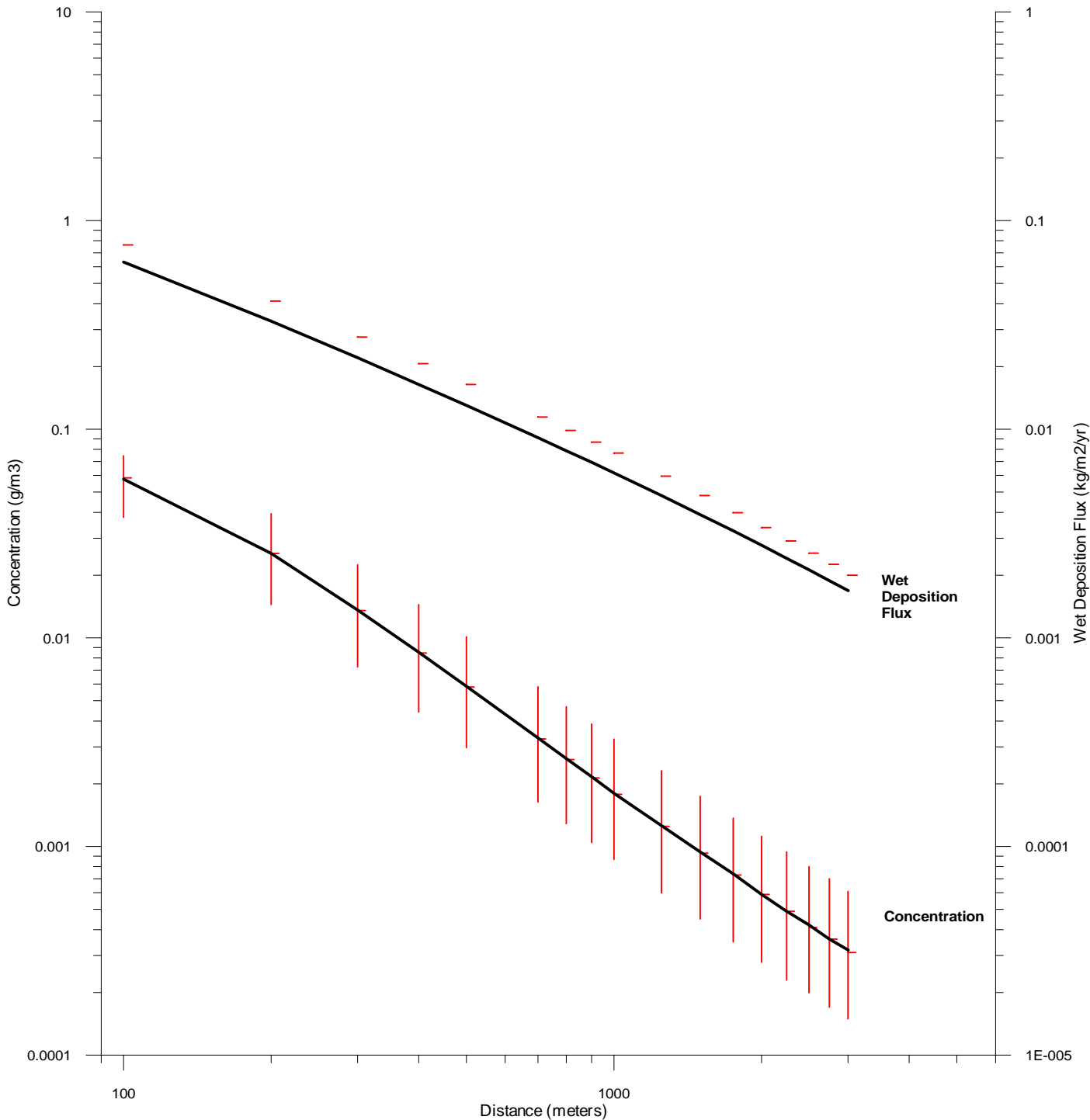


20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Wichita
SCIM Interval = 97 hrs, Wet Hour Sampling Frequency = 4

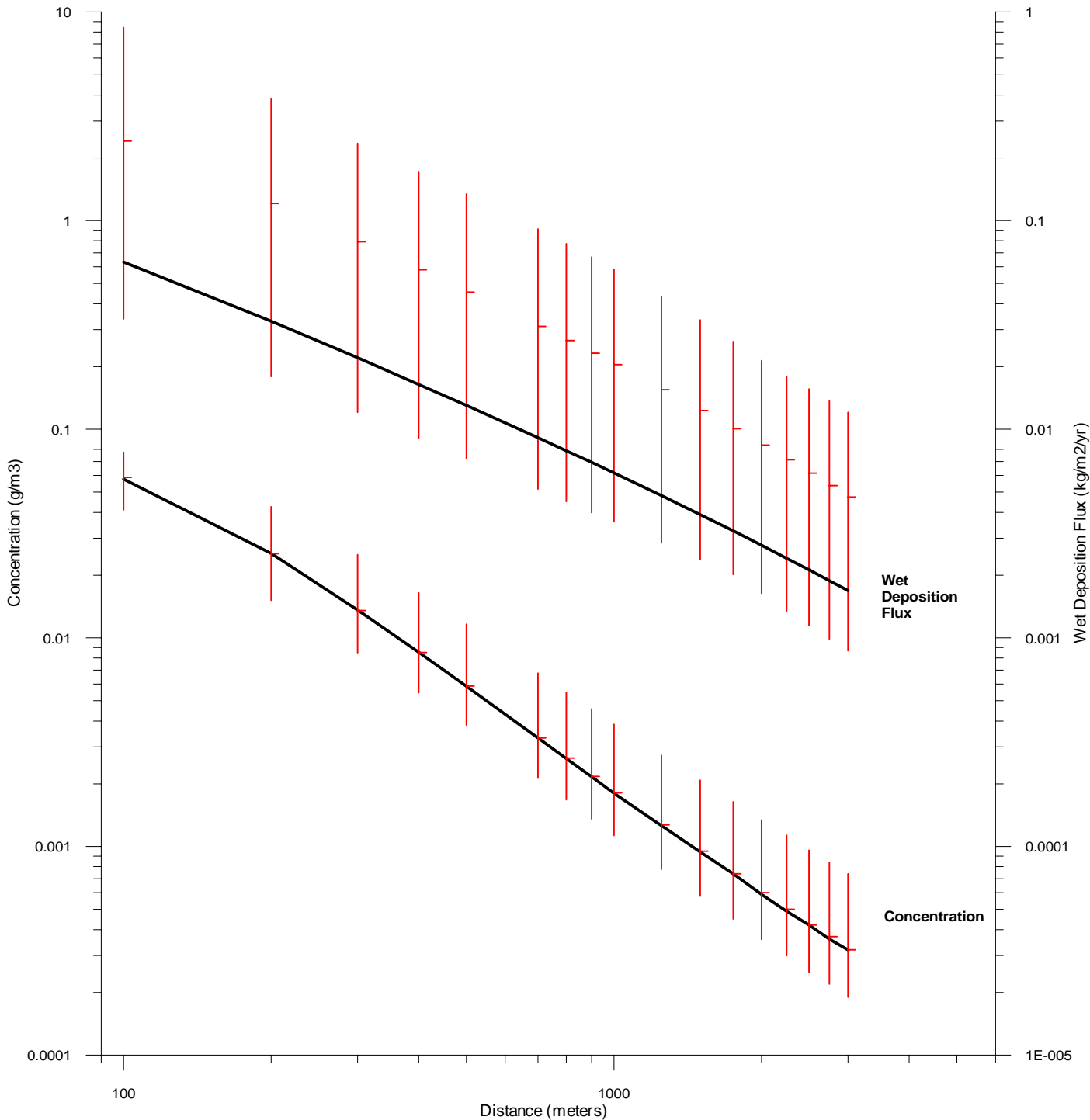
— No SCIM
— Hi-Lo-Avg



20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Wichita
SCIM Interval = 97 hrs, Wet Hour Sampling Frequency = 8
— No SCIM
— Hi-Lo-Avg

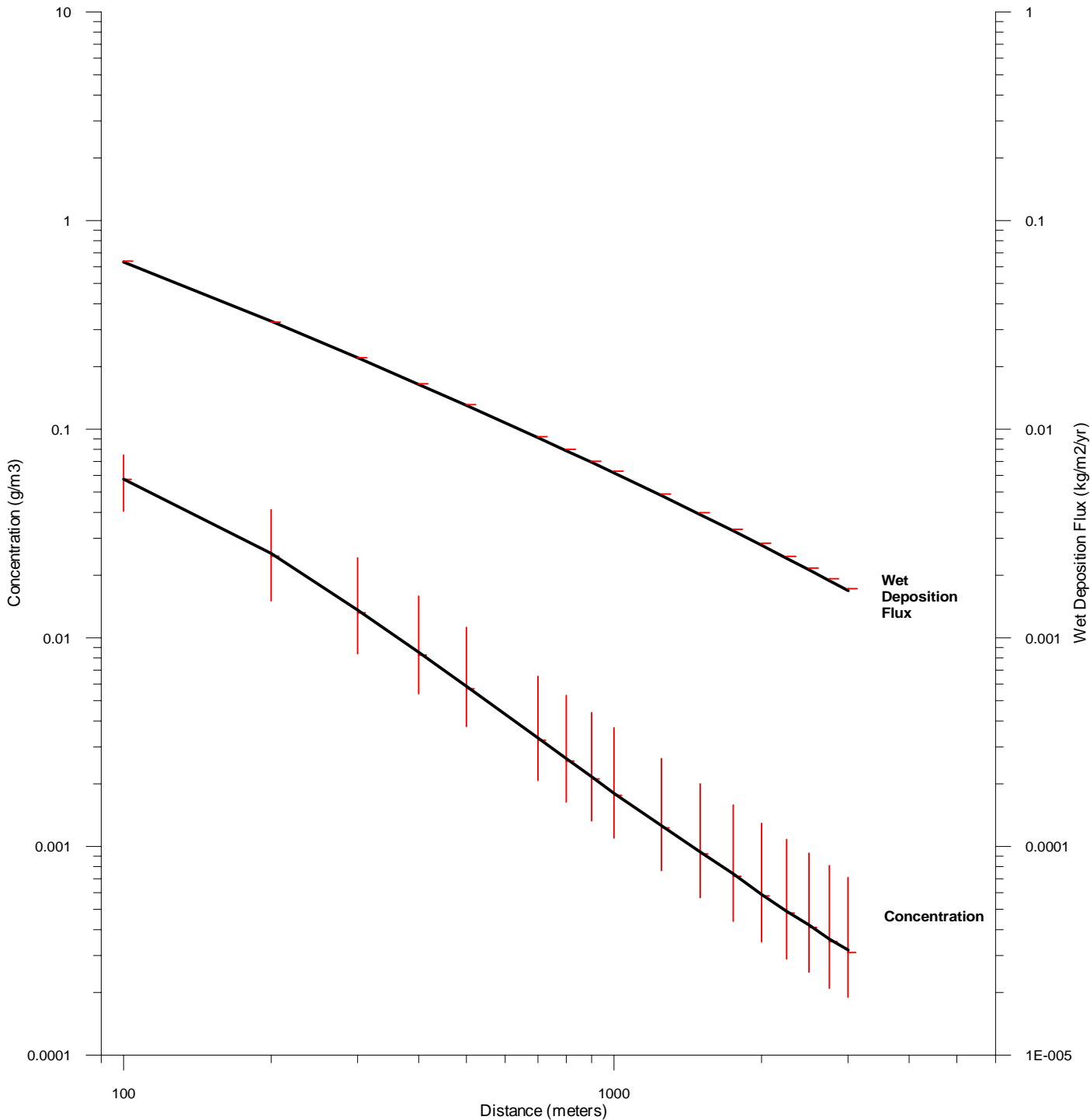


20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Wichita
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = NA
— No SCIM
— Hi-Lo-Avg

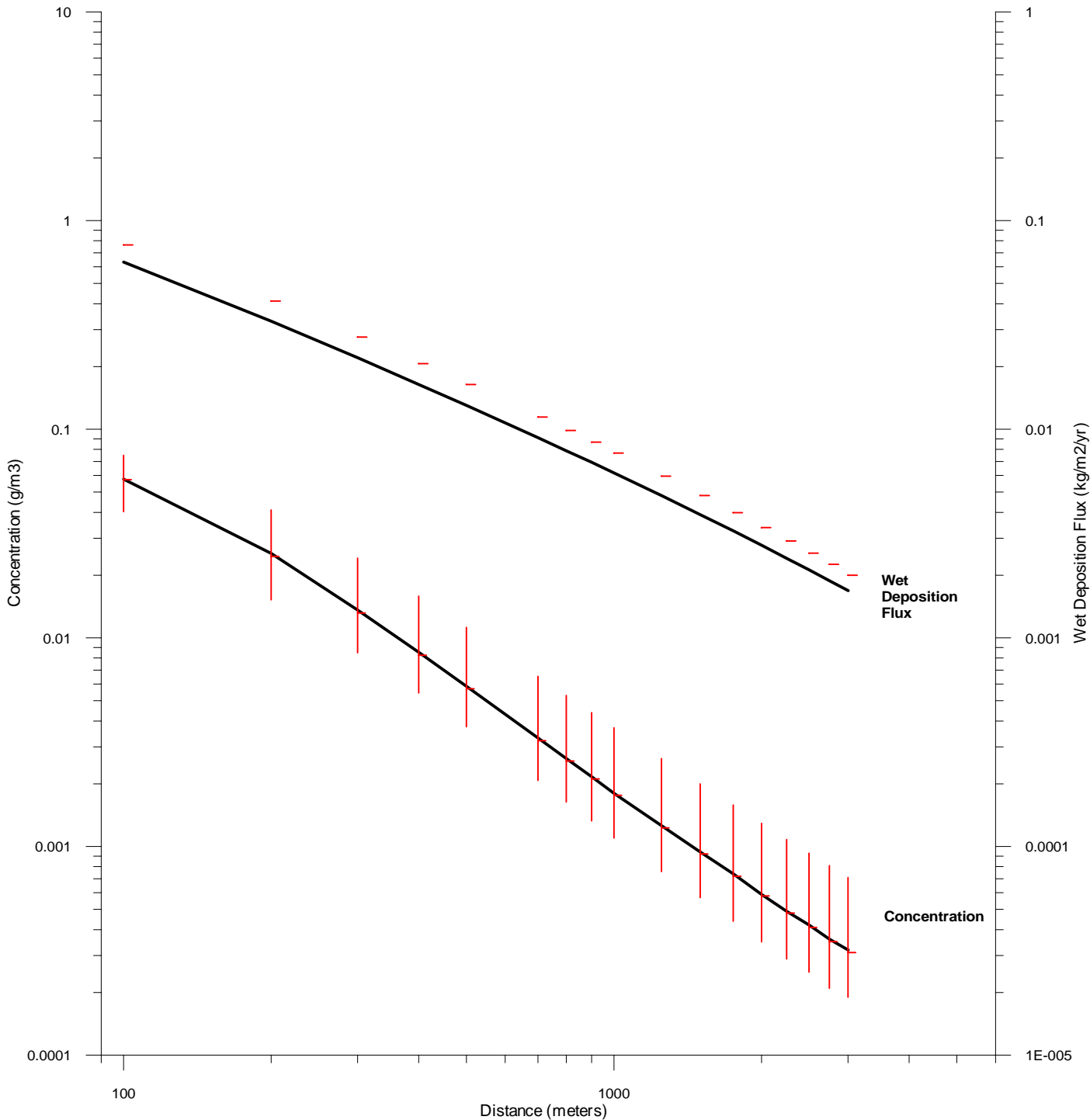


20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Wichita
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 4

— No SCIM
— Hi-Lo-Avg

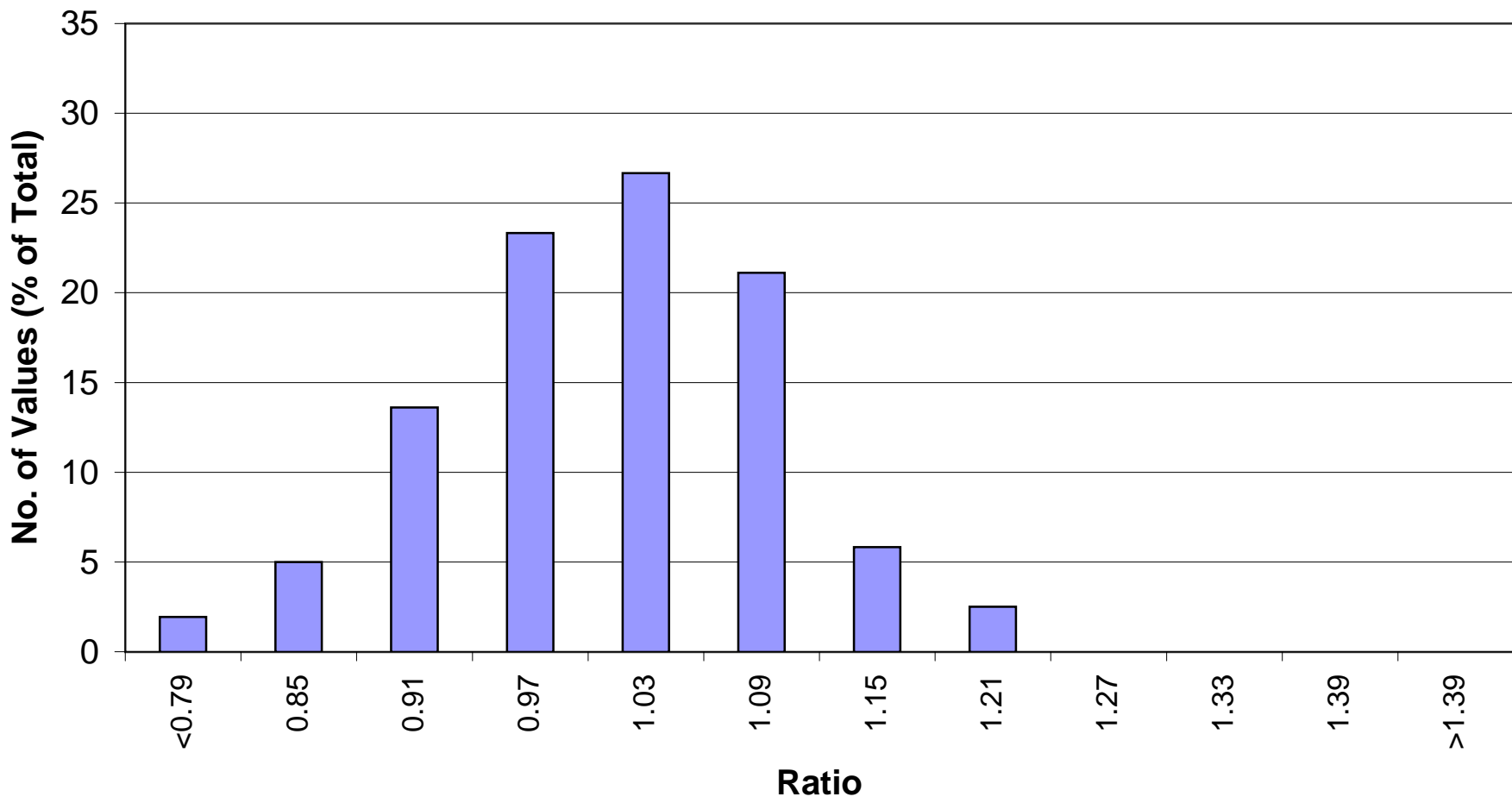


20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Wichita
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
— No SCIM
— Hi-Lo-Avg

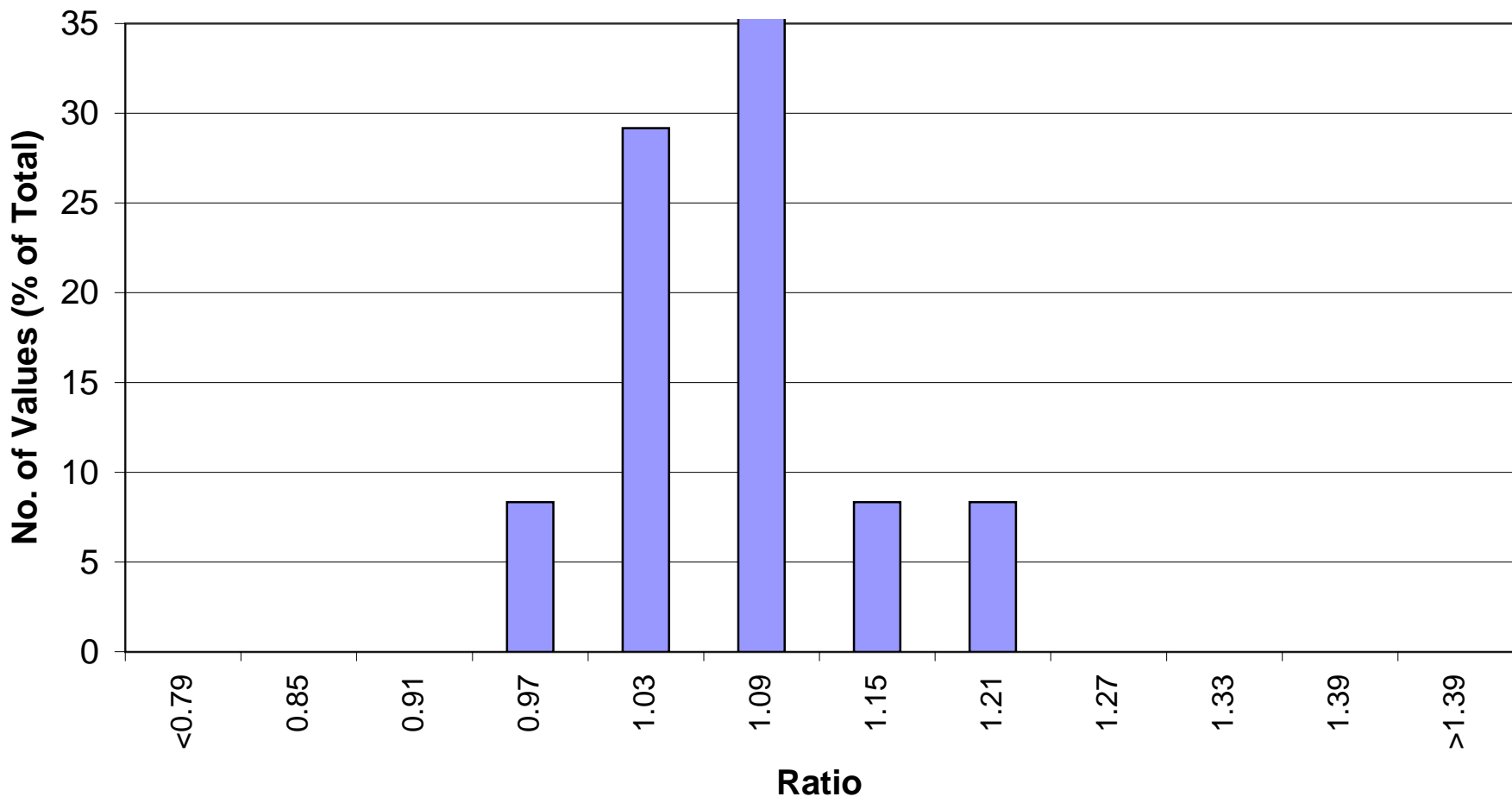


APPENDIX D-1

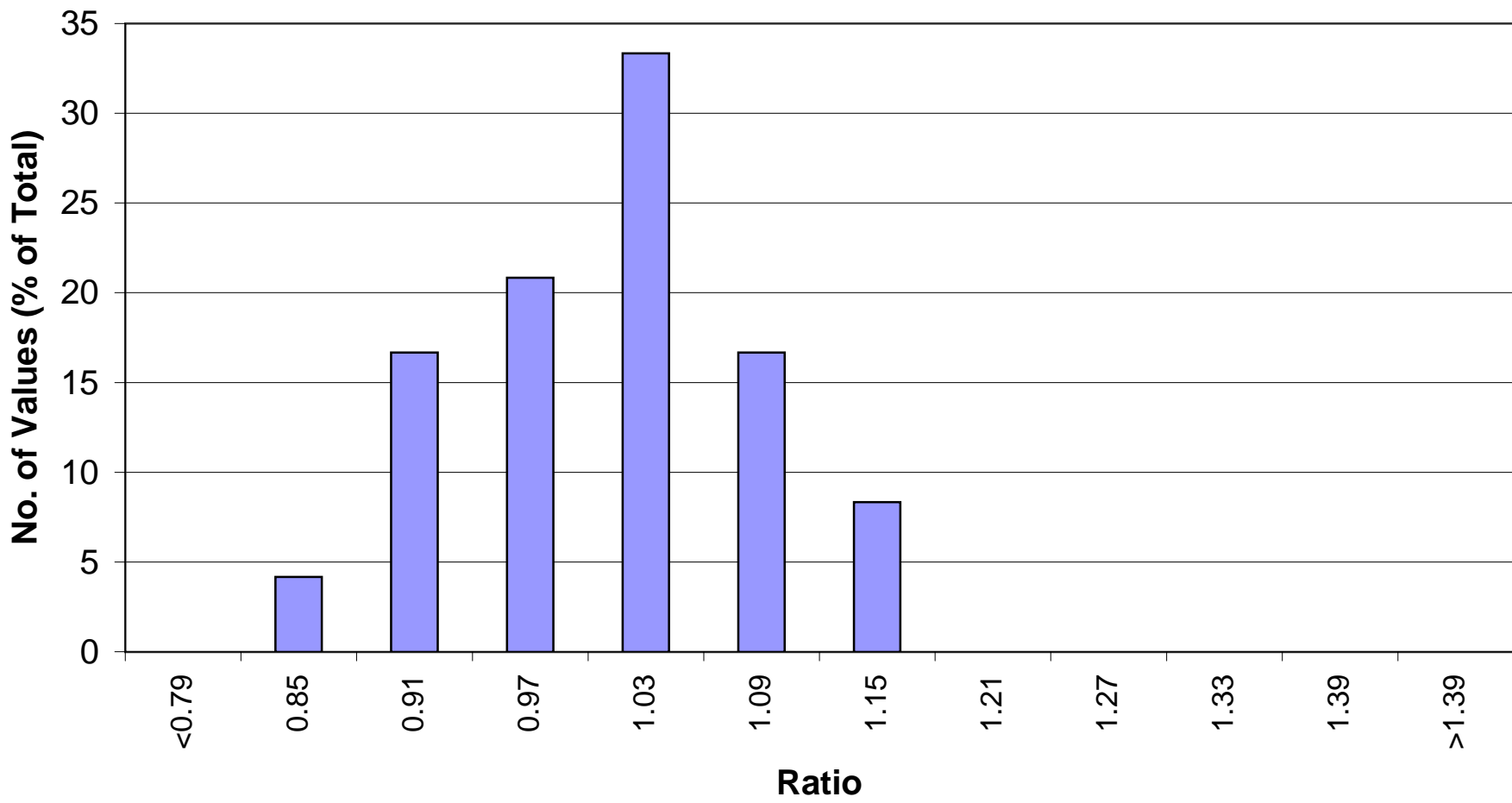
**Distribution of SCIM'd to NoSCIM Ratios, LAU, Tucson
 Concentration Ratios at All Distances
 SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 4**



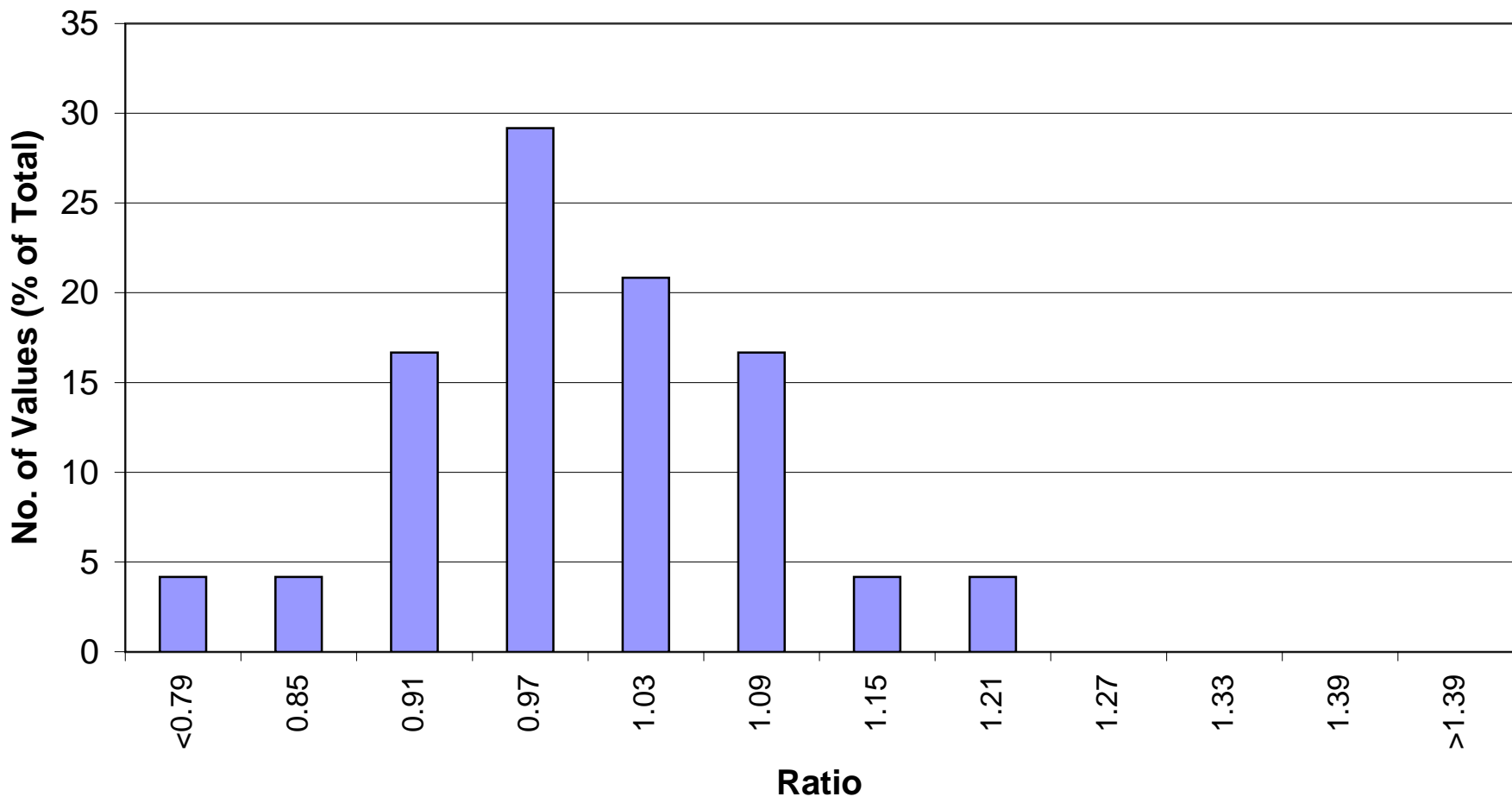
**Distribution of SCIM'd to NoSCIM Ratios, LAU, Tucson
 Concentration Ratios at 1500 m
 SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 4**



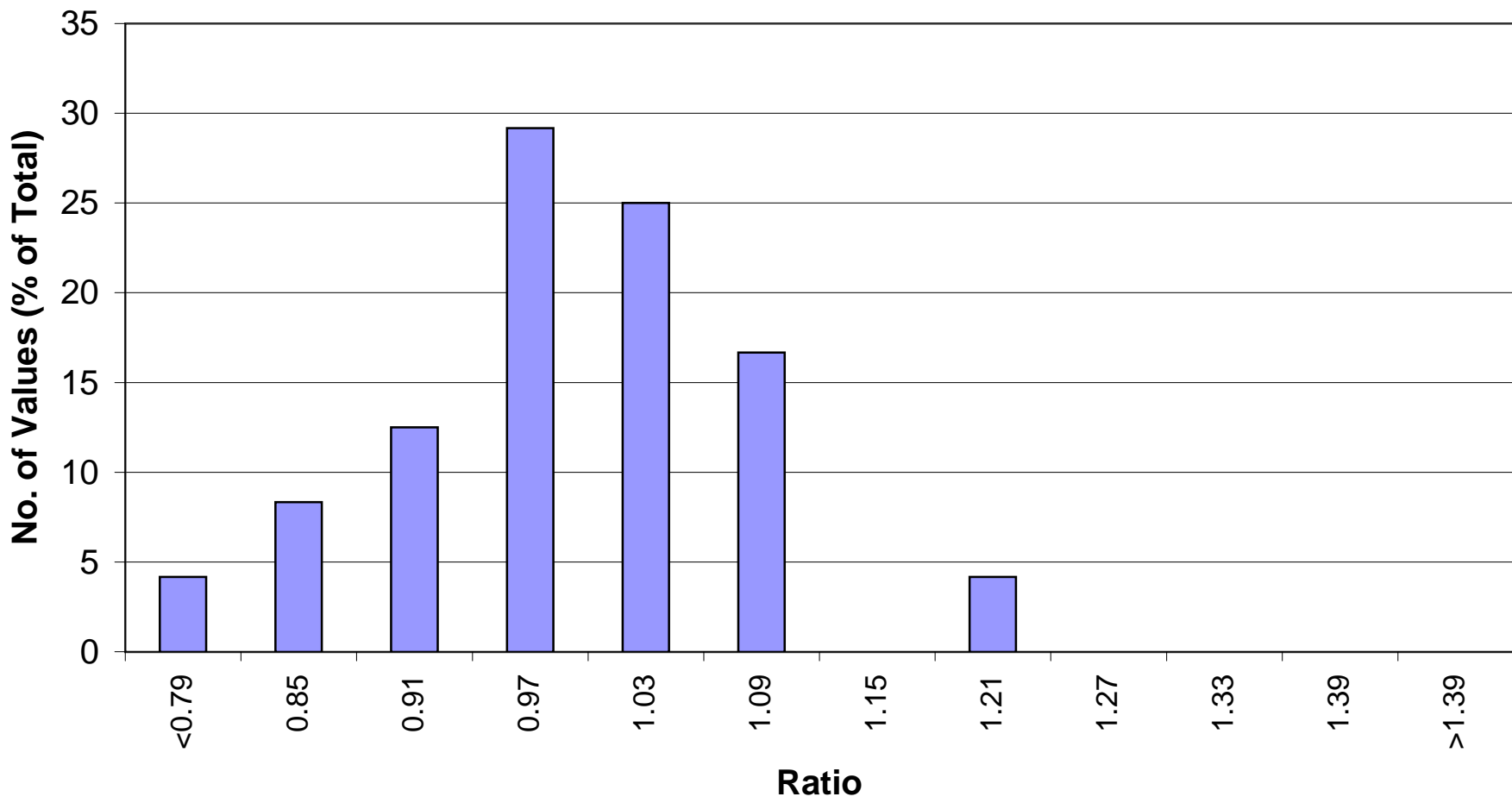
**Distribution of SCIM'd to NoSCIM Ratios, LAU, Tucson
Concentration Ratios at 2500 m
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 4**



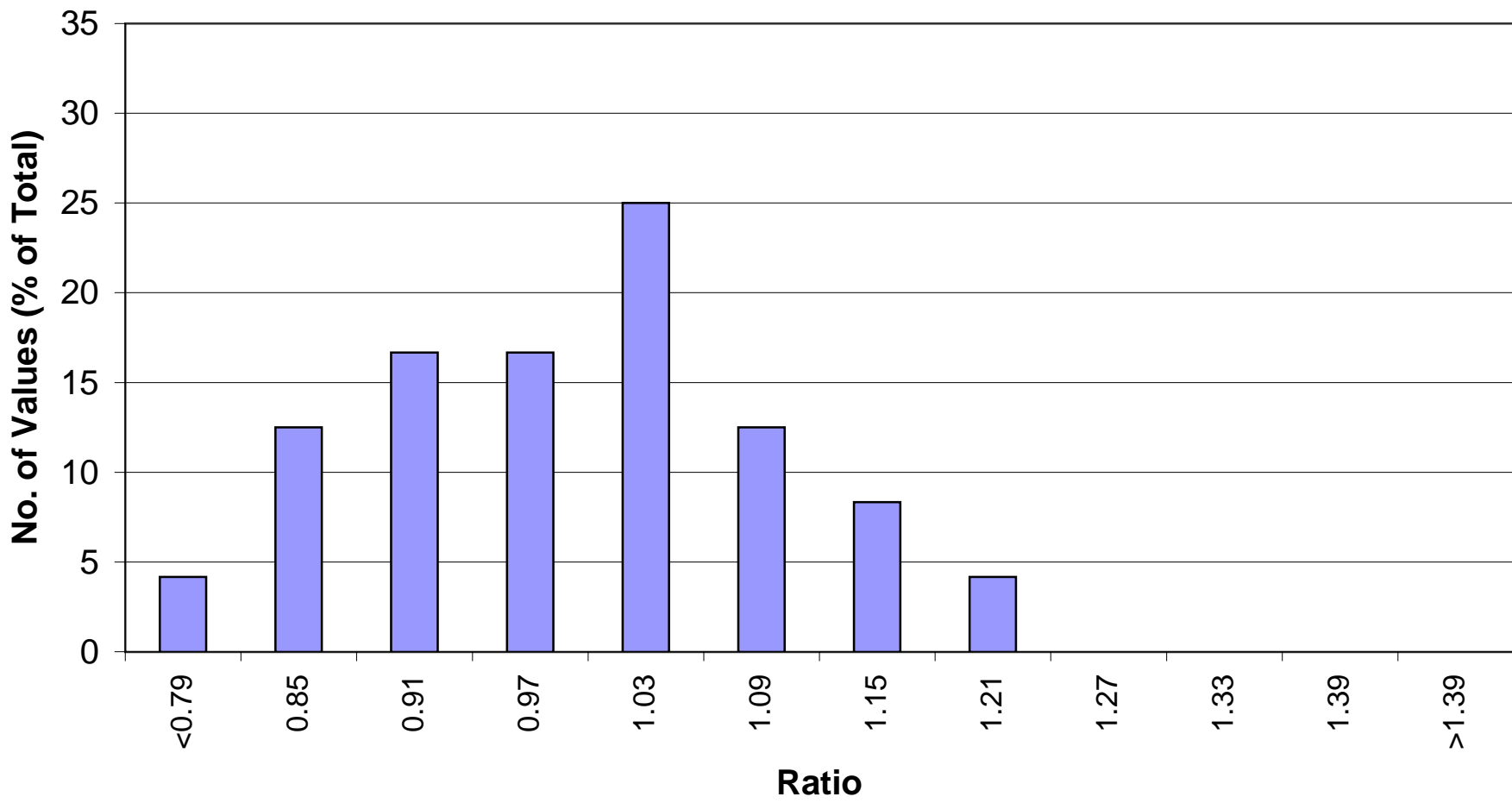
**Distribution of SCIM'd to NoSCIM Ratios, LAU, Tucson
Concentration Ratios at 3500 m
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 4**



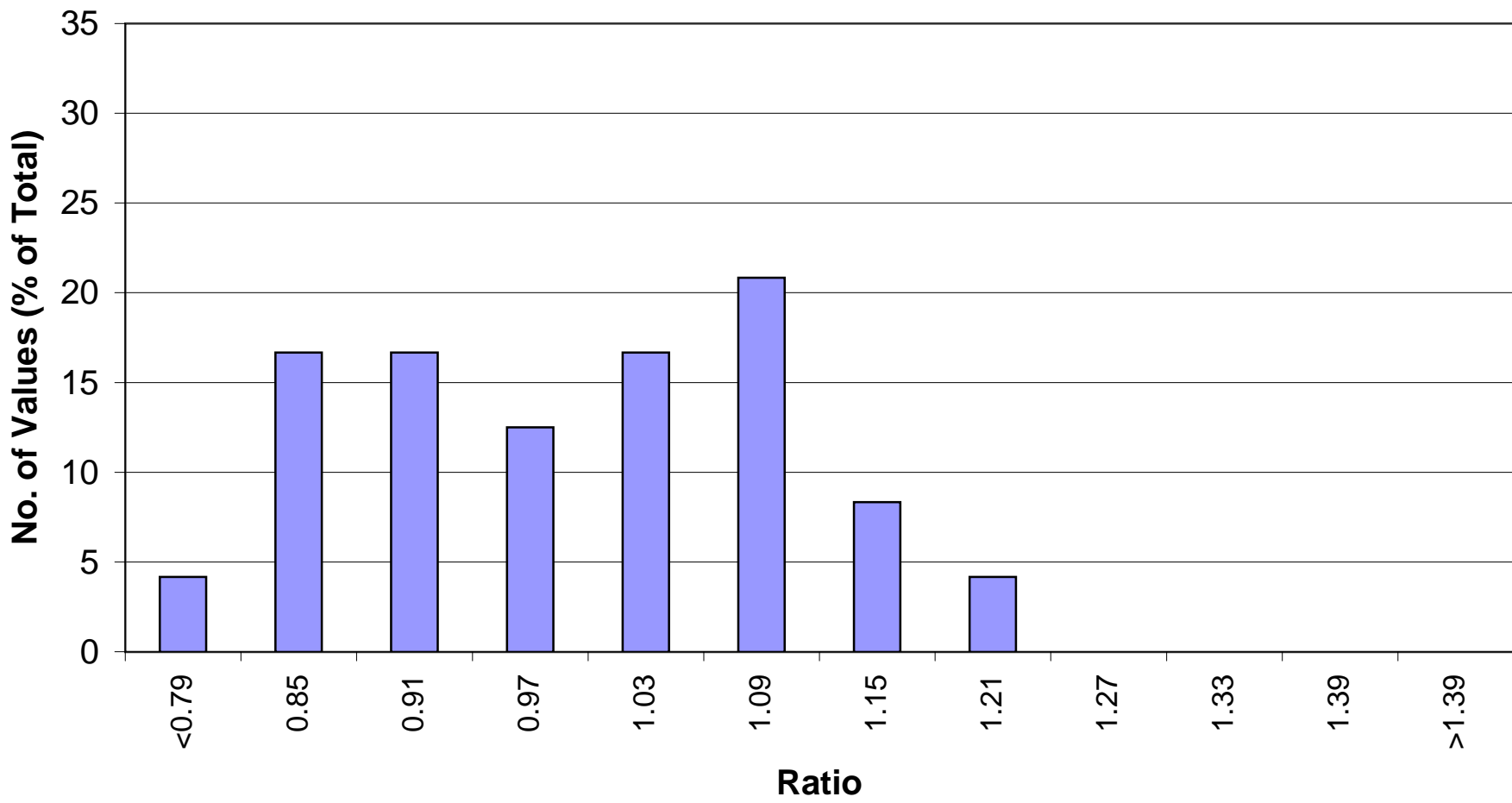
**Distribution of SCIM'd to NoSCIM Ratios, LAU, Tucson
Concentration Ratios at 4500 m
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 4**



**Distribution of SCIM'd to NoSCIM Ratios, LAU, Tucson
Concentration Ratios at 5500 m
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 4**

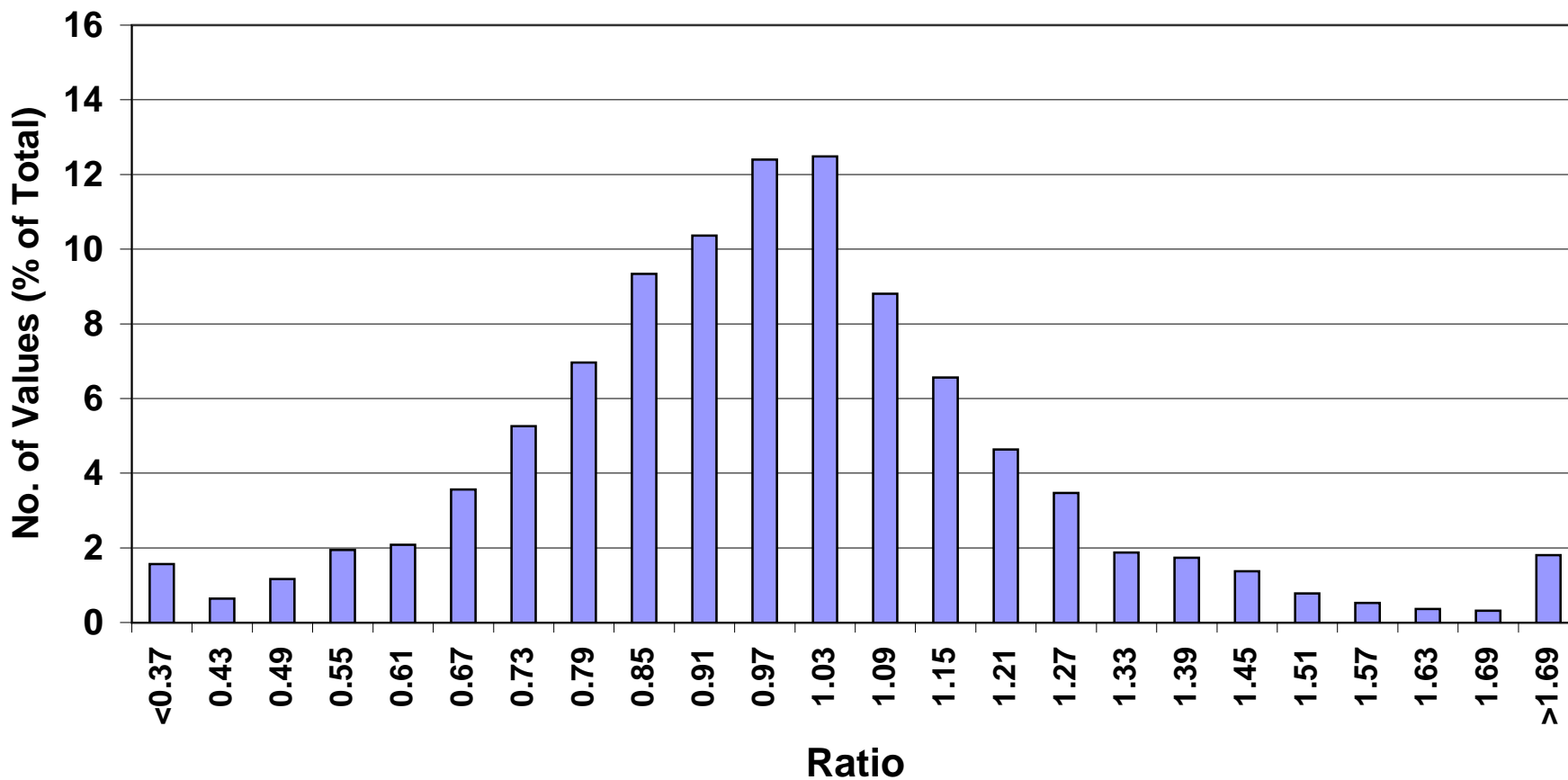


**Distribution of SCIM'd to NoSCIM Ratios, LAU, Tucson
Concentration Ratios at 6000 m
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 4**

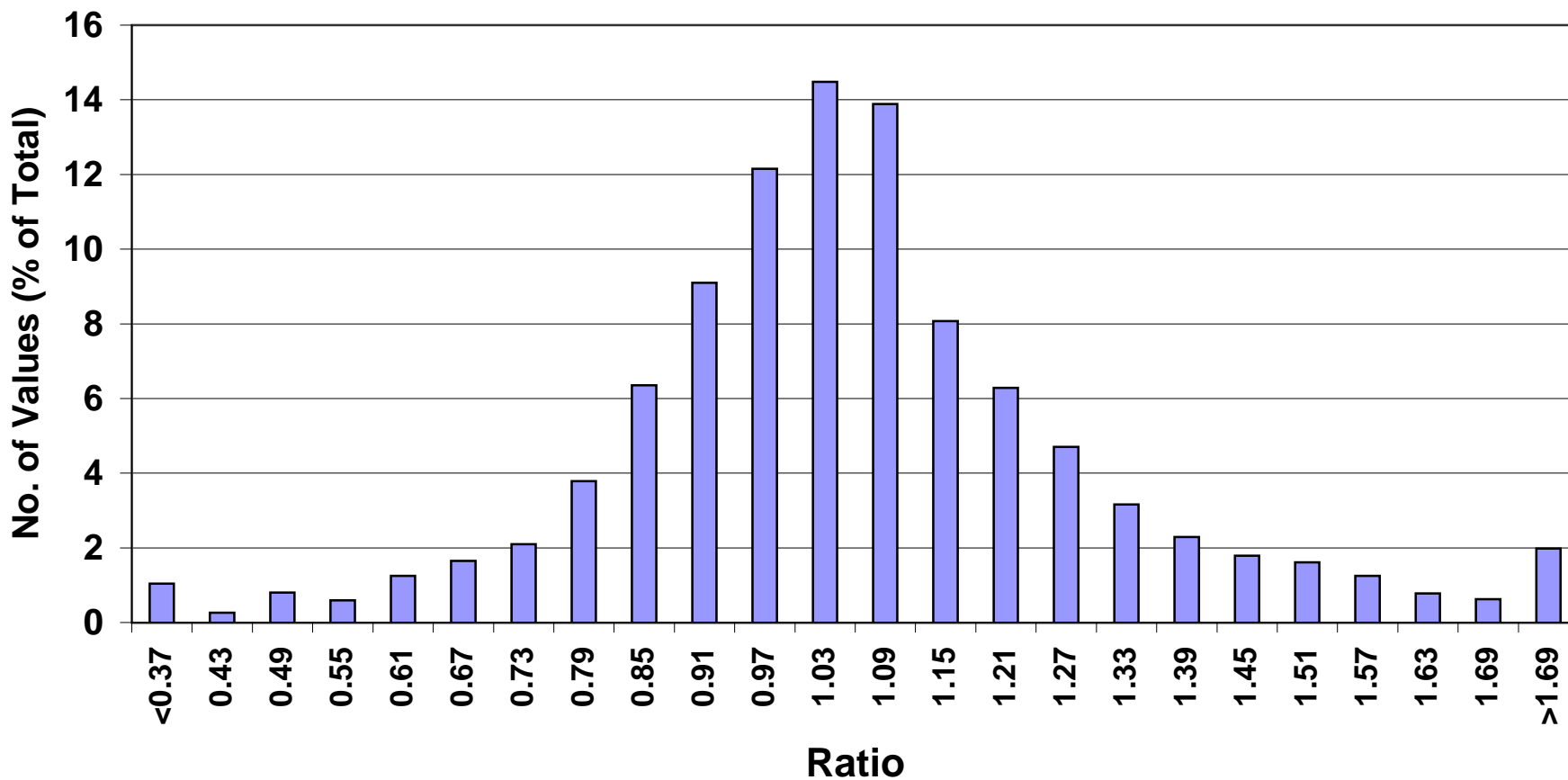


APPENDIX D-2

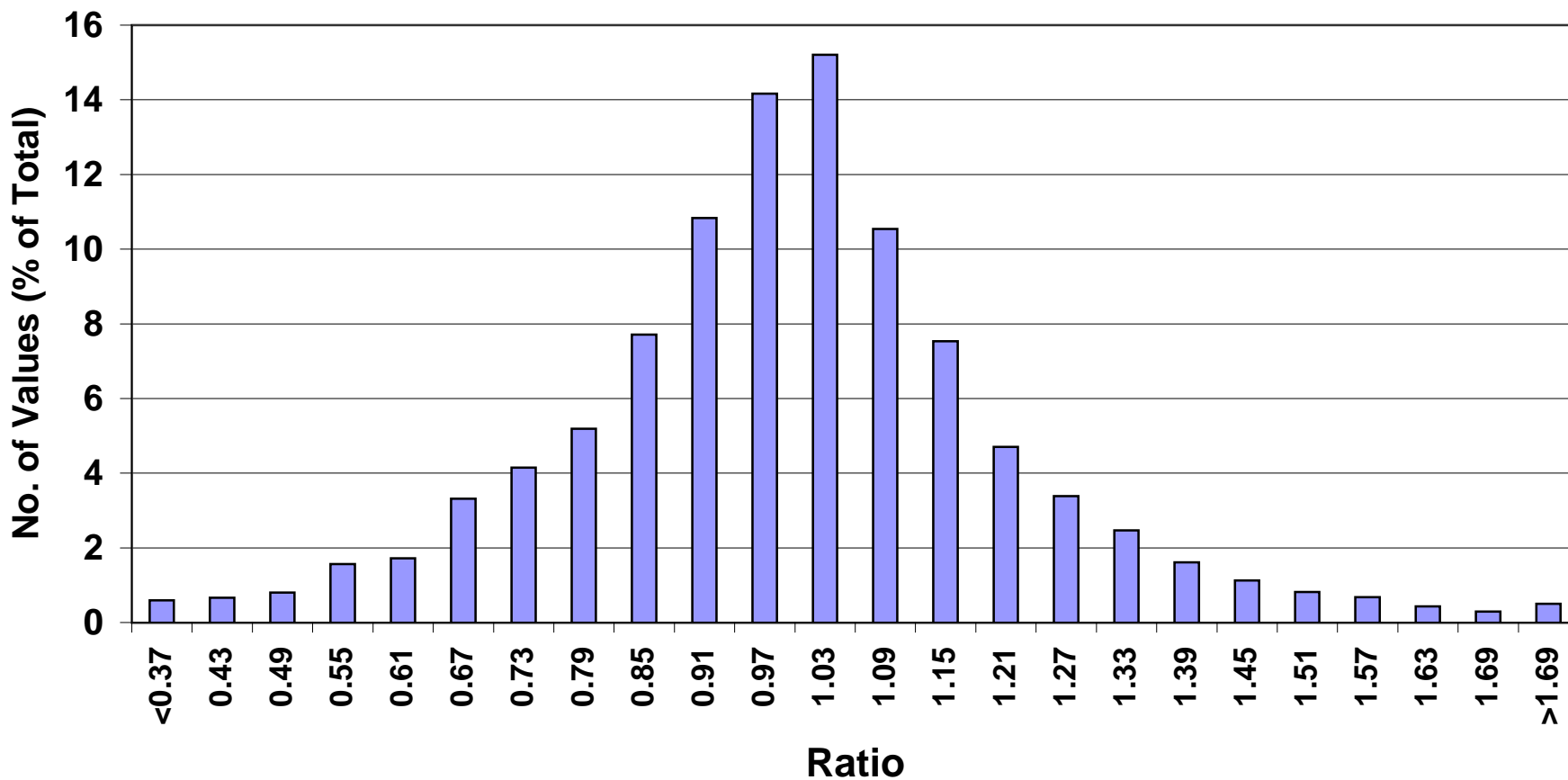
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
 LAU, Salem
 Concentration Ratios Paired in Space (Distance & Direction)
 SCIM Interval = 193 hrs, Wet Hour Sampling Freq = NA**



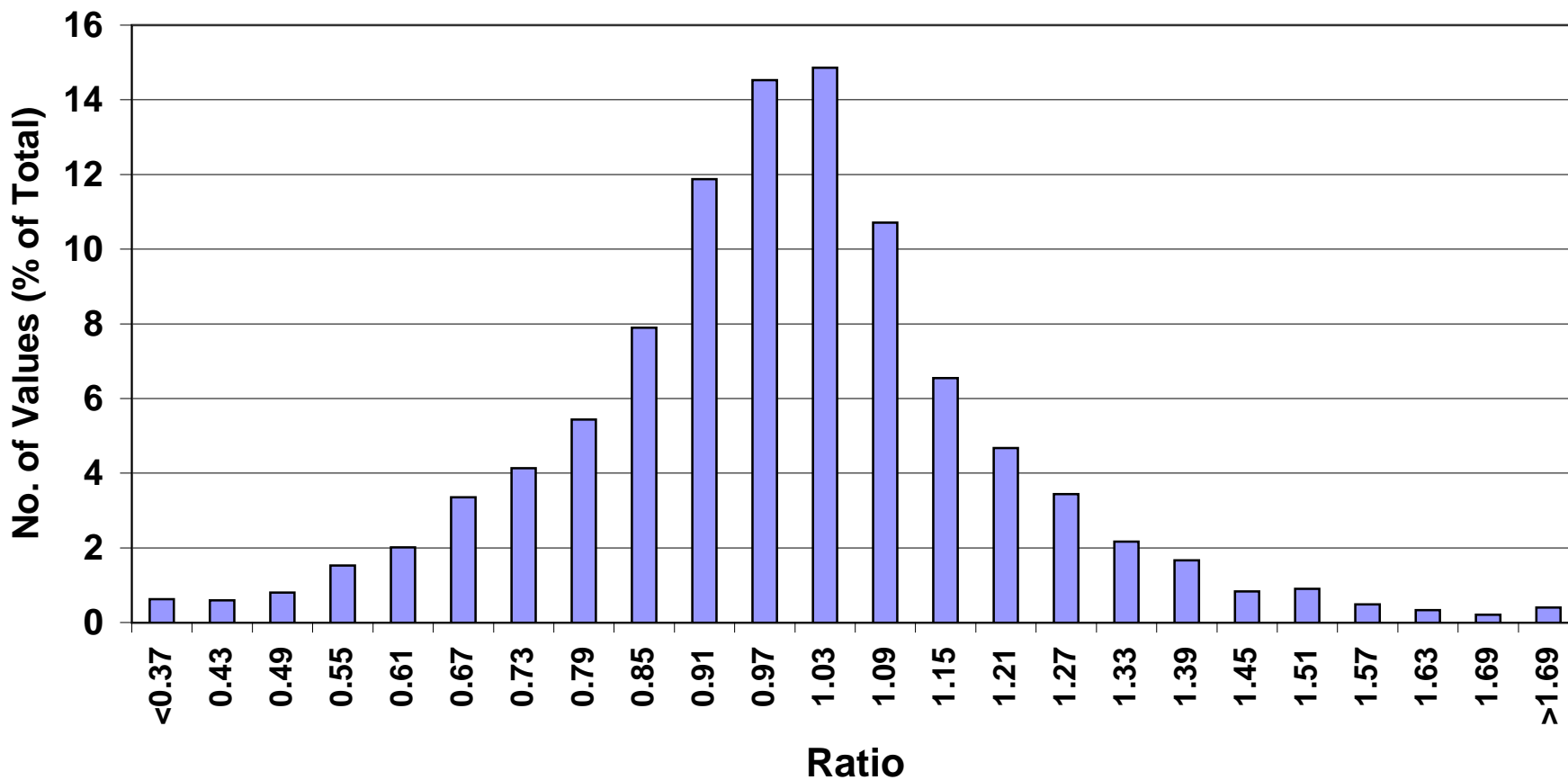
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
 LAU, Tucson
 Concentration Ratios Paired in Space (Distance & Direction)
 SCIM Interval = 193 hrs, Wet Hour Sampling Freq = NA**



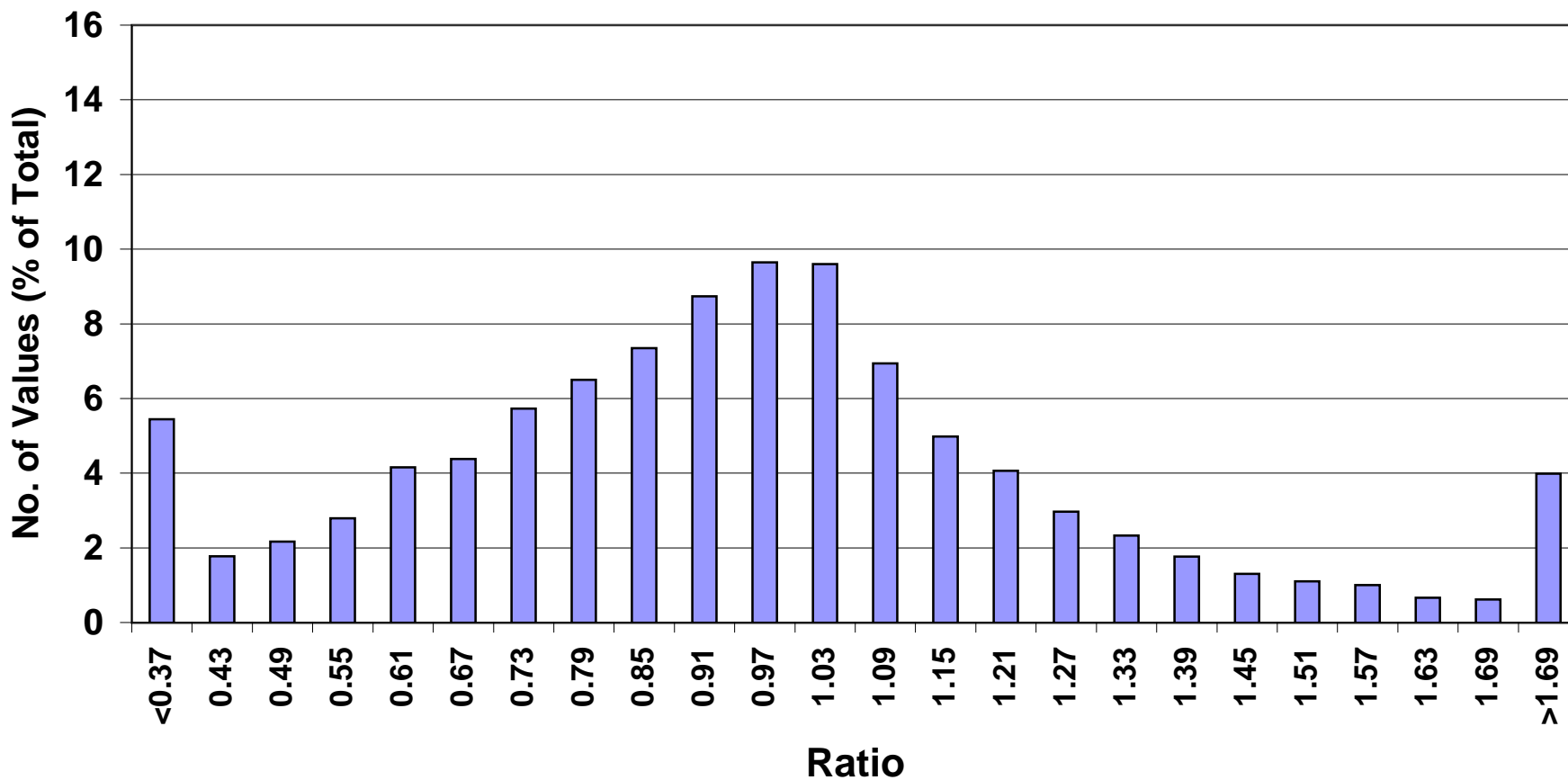
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
 LAU, Wichita
 Concentration Ratios Paired in Space (Distance & Direction)
 SCIM Interval = 193 hrs, Wet Hour Sampling Freq = NA**



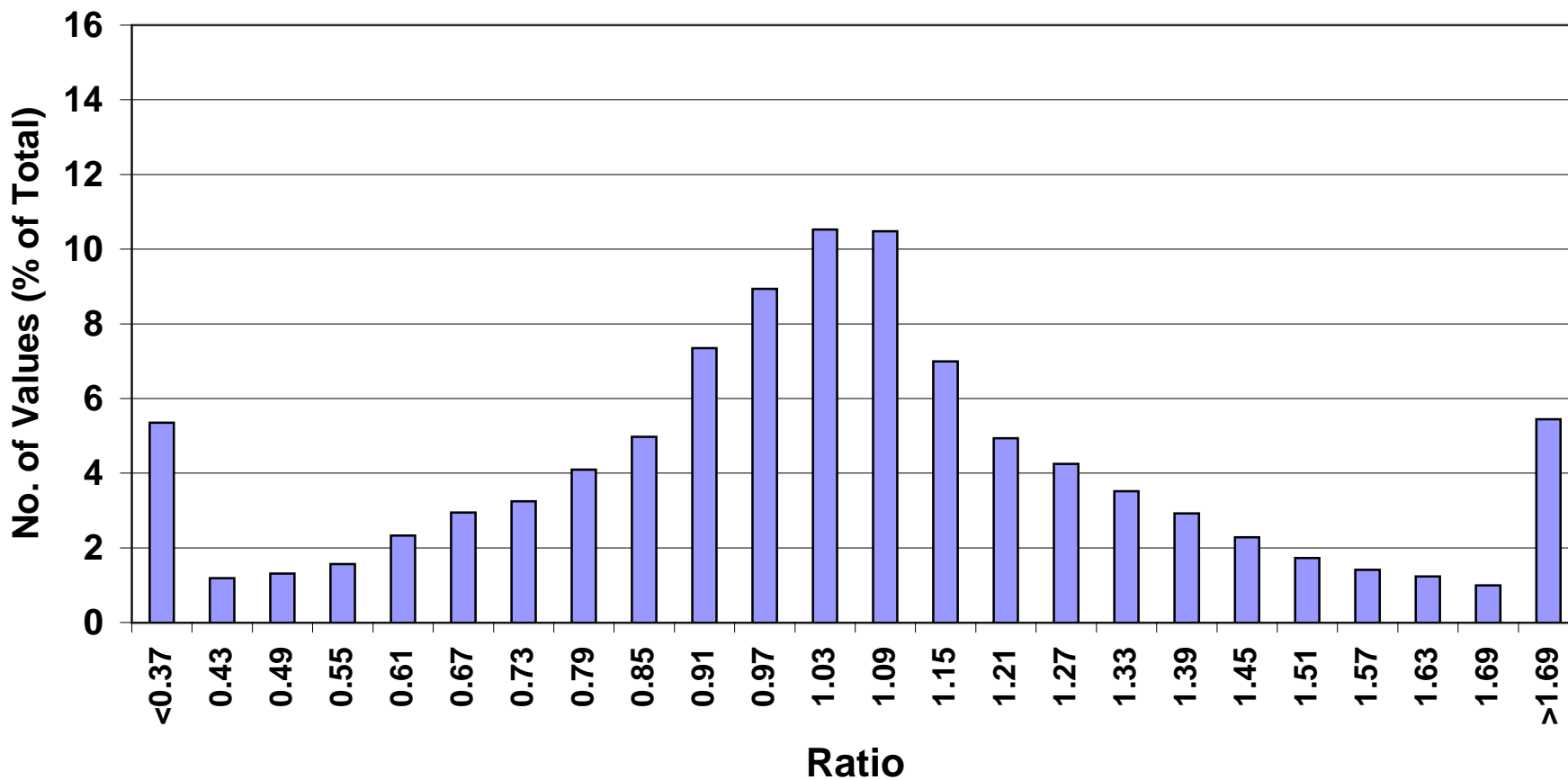
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
 LAU, Wichita
 Concentration Ratios Paired in Space (Distance & Direction)
 SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8**



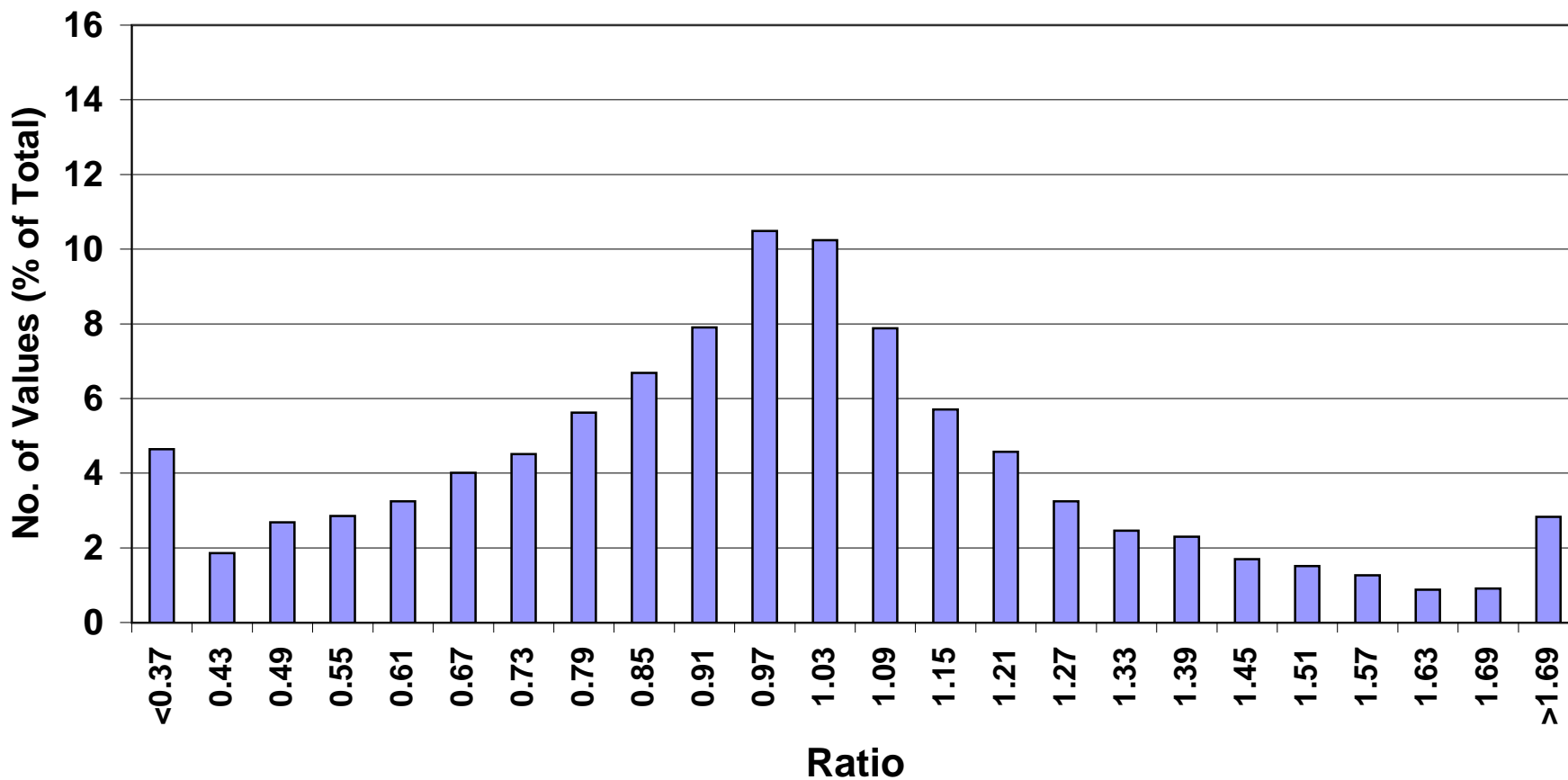
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
 SI, Salem
 Concentration Ratios Paired in Space (Distance & Direction)
 SCIM Interval = 193 hrs, Wet Hour Sampling Freq = NA**



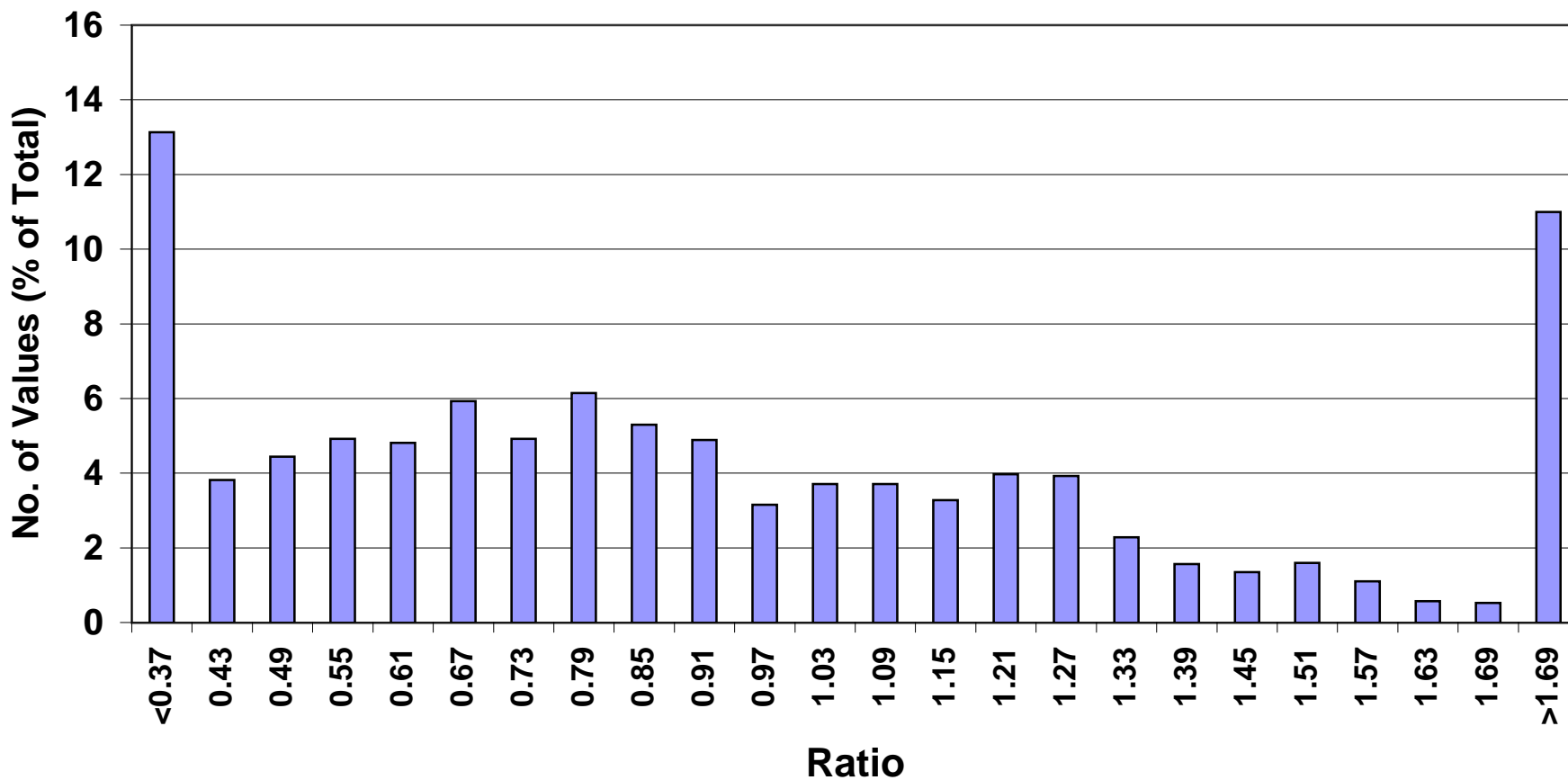
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
 SI, Tucson
 Concentration Ratios Paired in Space (Distance & Direction)
 SCIM Interval = 193 hrs, Wet Hour Sampling Freq = NA**



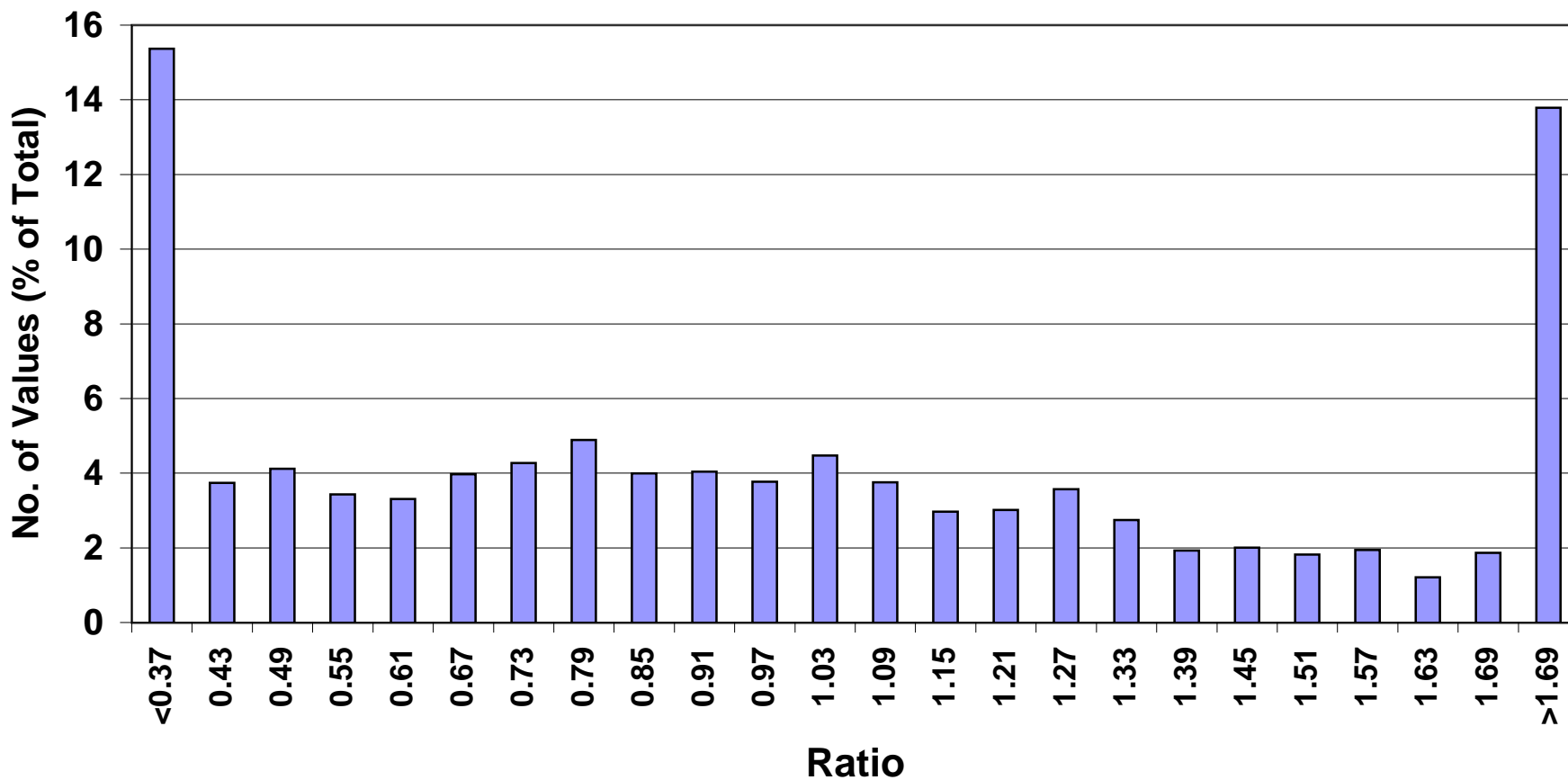
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
 SI, Wichita
 Concentration Ratios Paired in Space (Distance & Direction)
 SCIM Interval = 193 hrs, Wet Hour Sampling Freq = NA**



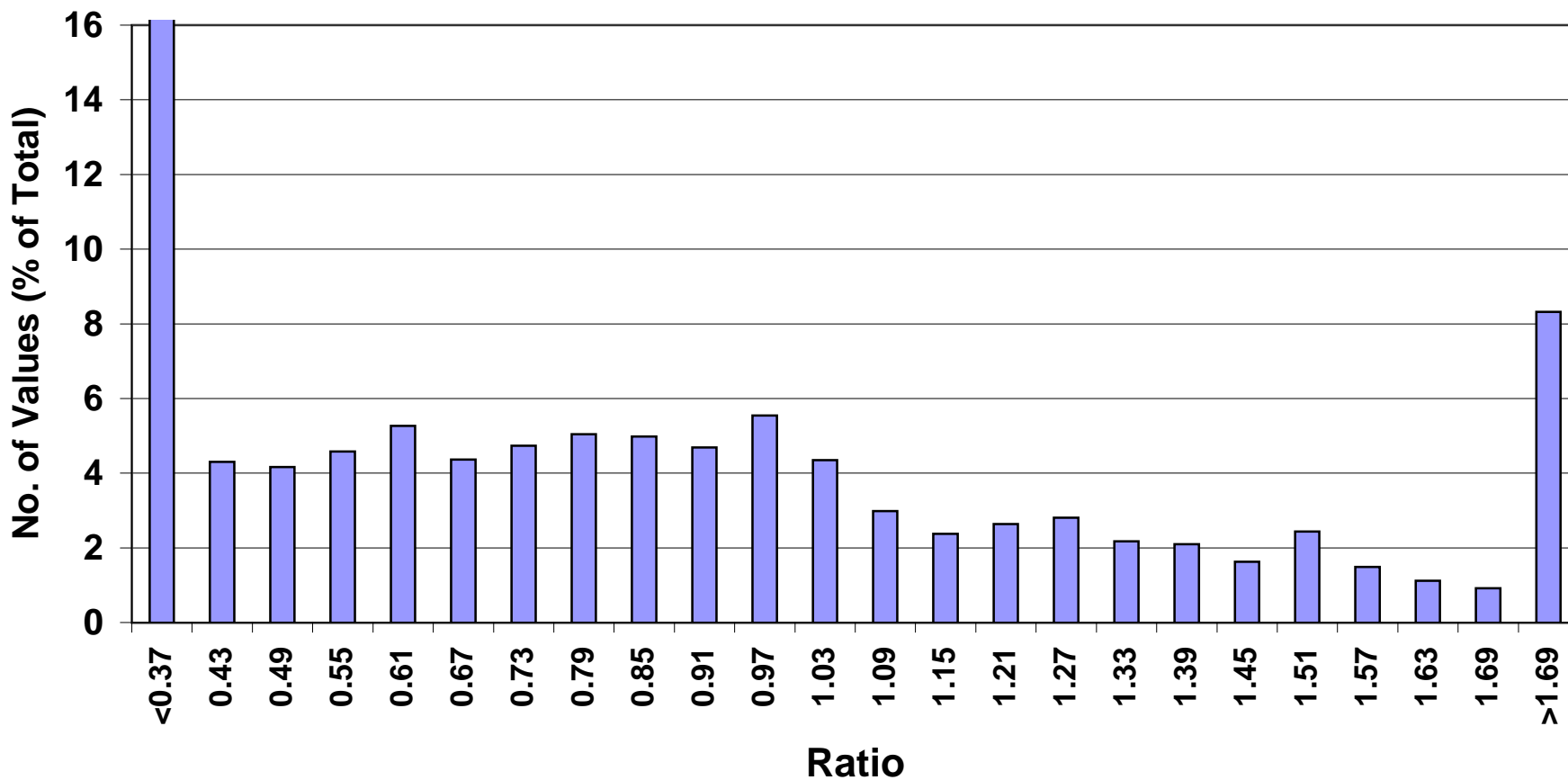
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
TANK, Salem
Concentration Ratios Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = NA**



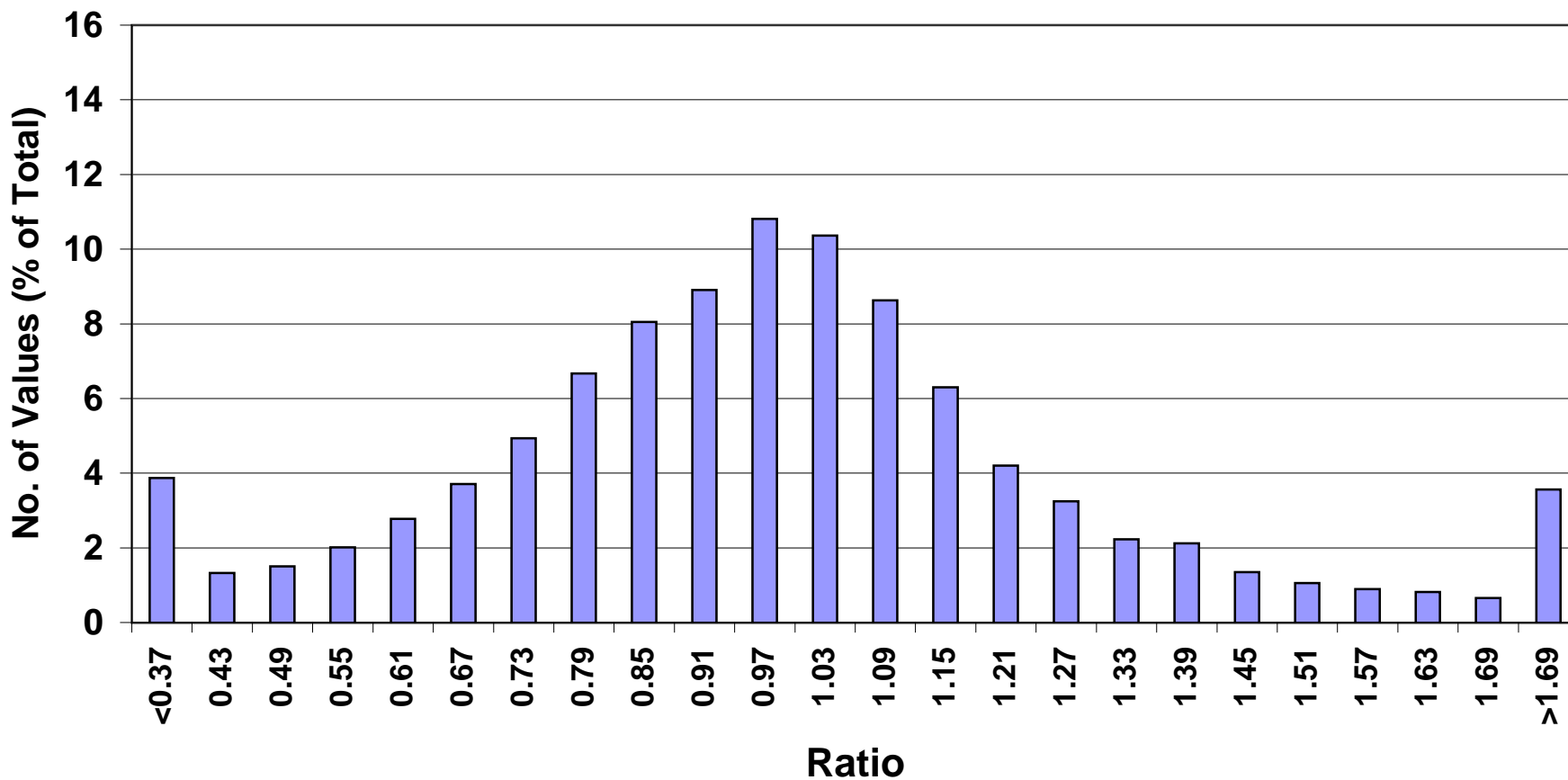
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
TANK, Tucson
Concentration Ratios Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = NA**



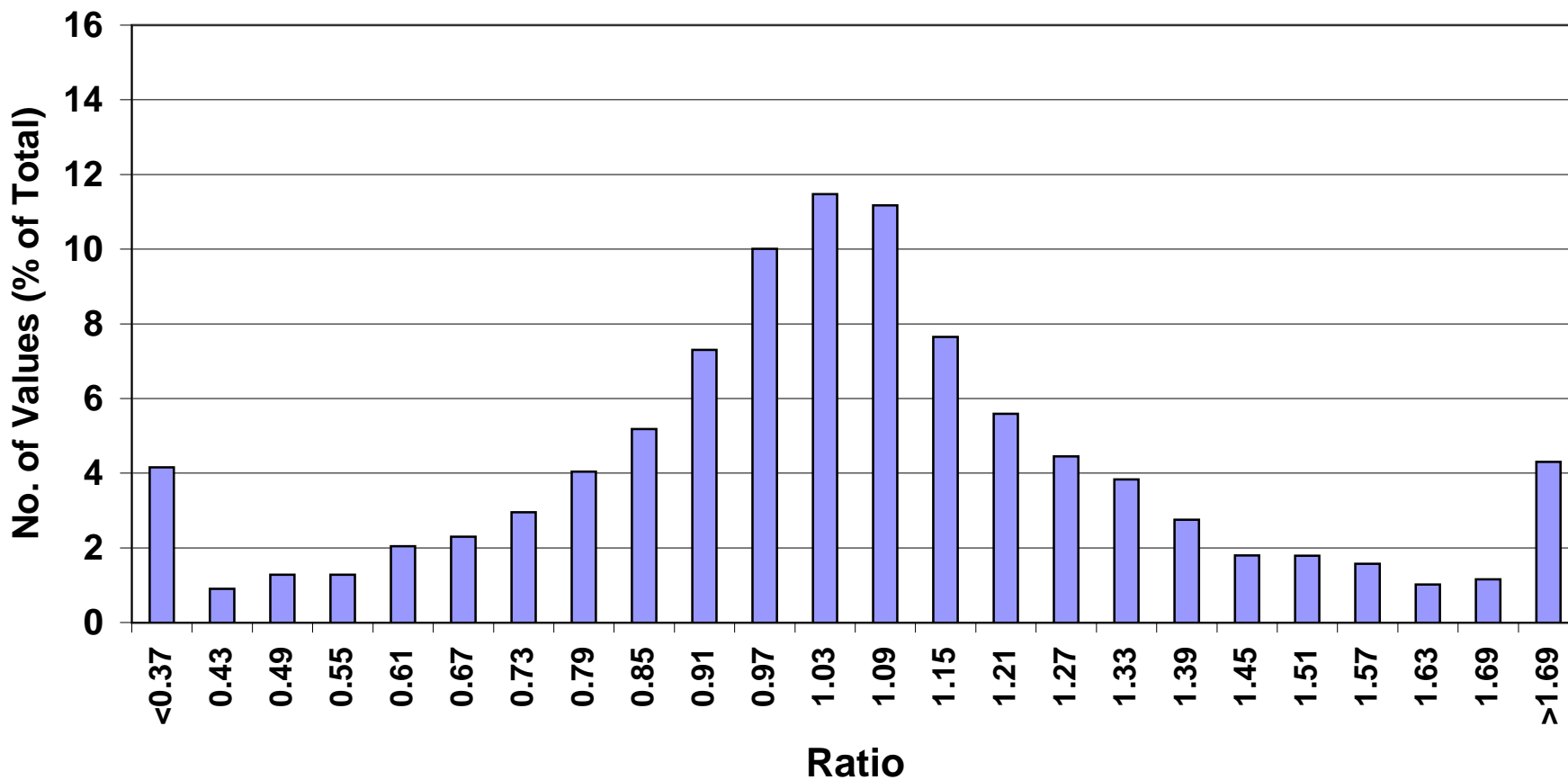
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
TANK, Wichita
Concentration Ratios Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = NA**



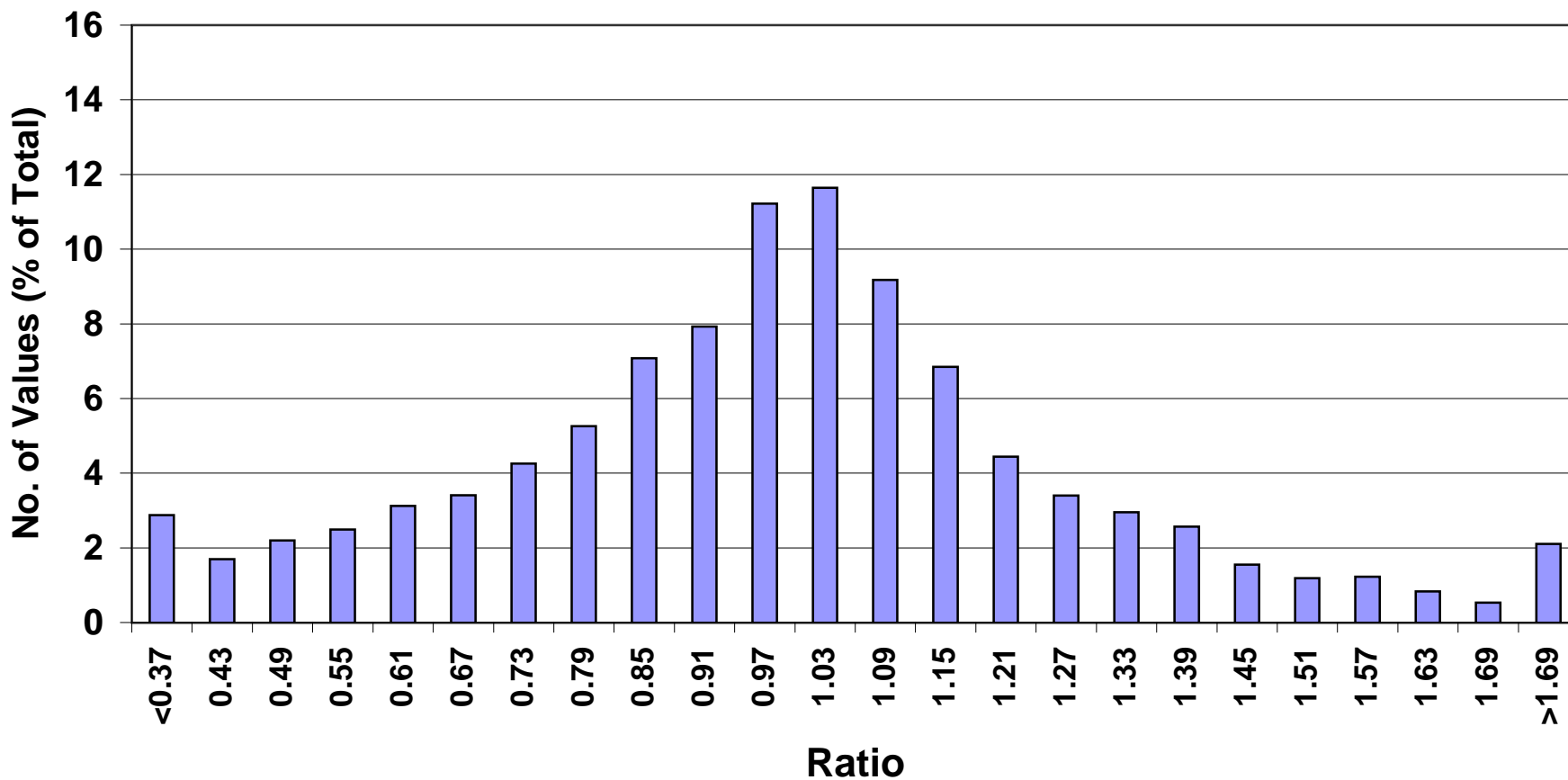
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
 WP, Salem
 Concentration Ratios Paired in Space (Distance & Direction)
 SCIM Interval = 193 hrs, Wet Hour Sampling Freq = NA**



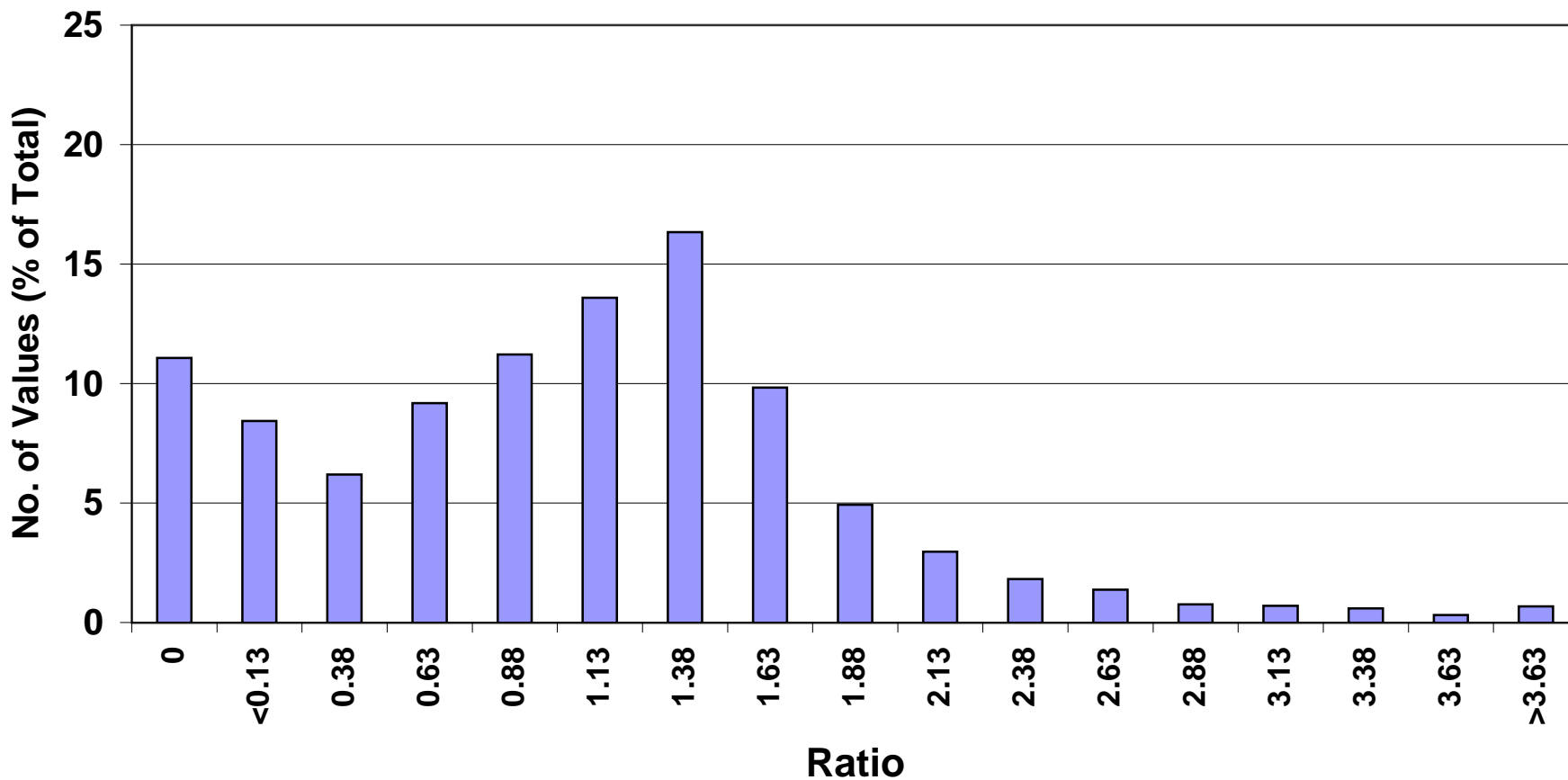
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
 WP, Tucson
 Concentration Ratios Paired in Space (Distance & Direction)
 SCIM Interval = 193 hrs, Wet Hour Sampling Freq = NA**



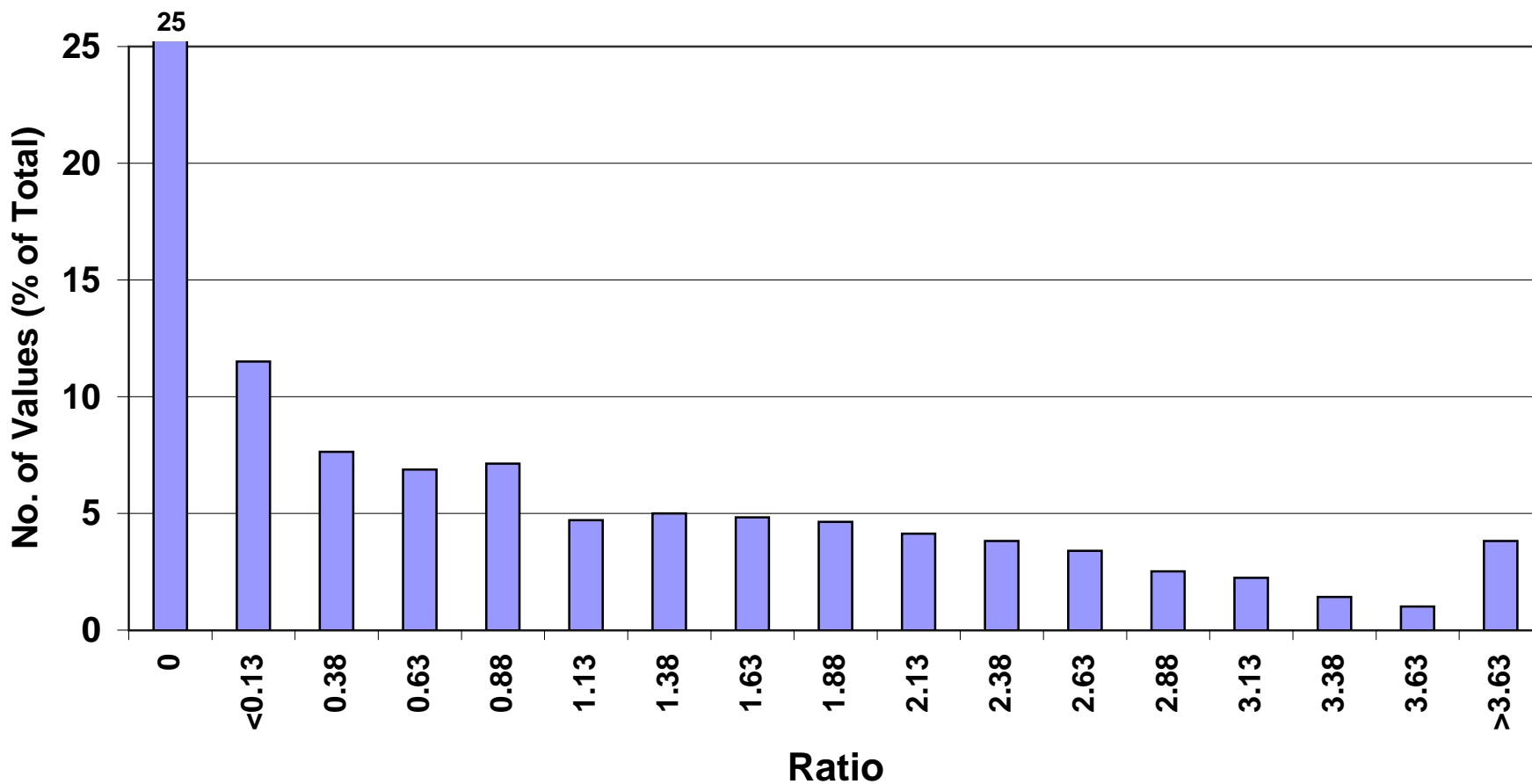
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
 WP, Wichita
 Concentration Ratios Paired in Space (Distance & Direction)
 SCIM Interval = 193 hrs, Wet Hour Sampling Freq = NA**



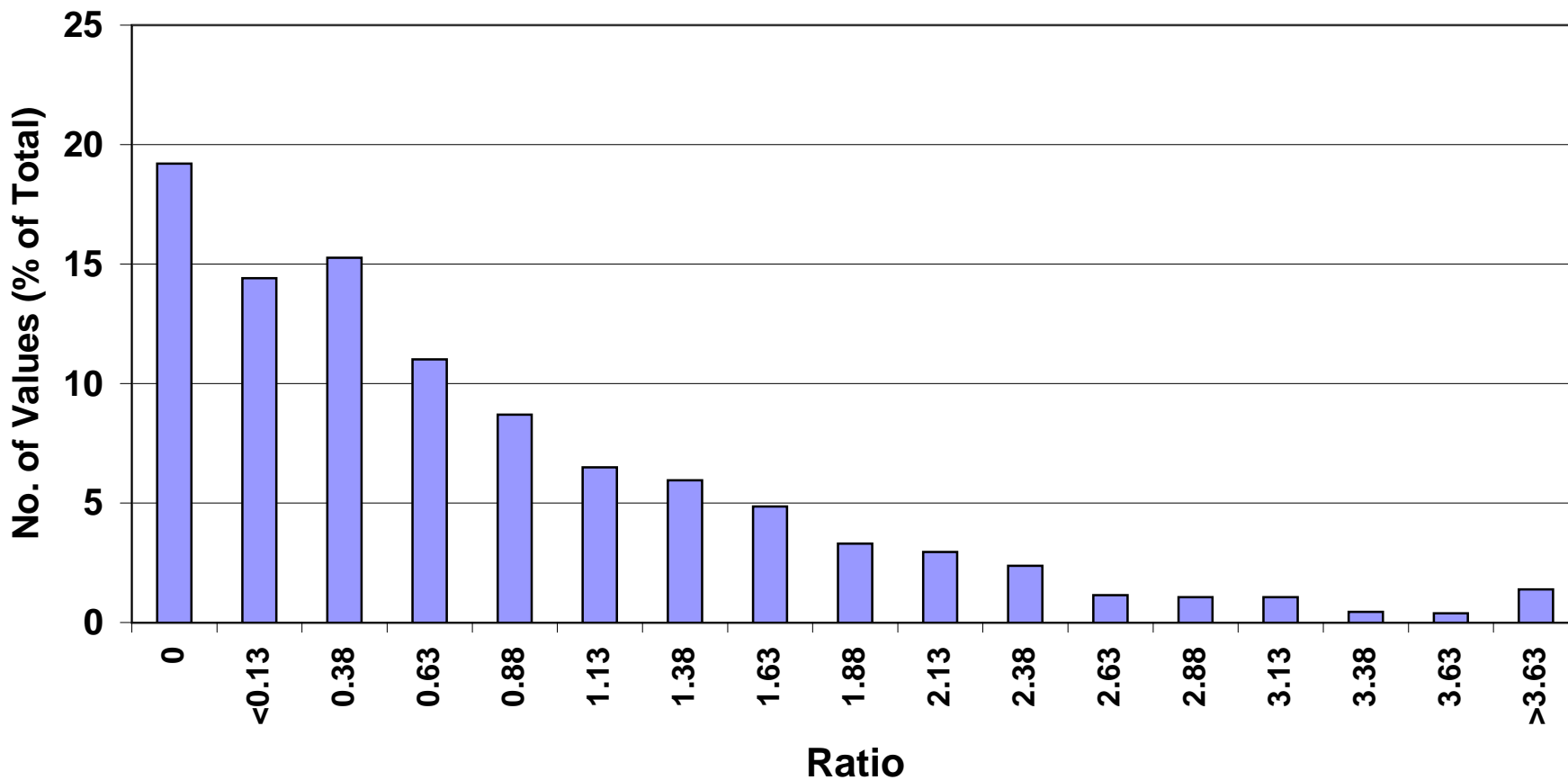
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
 LAU, Salem
 Ratios of Wet Fluxes Paired in Space (Distance & Direction)
 SCIM Interval = 193 hrs, Wet Hour Sampling Freq = NA**



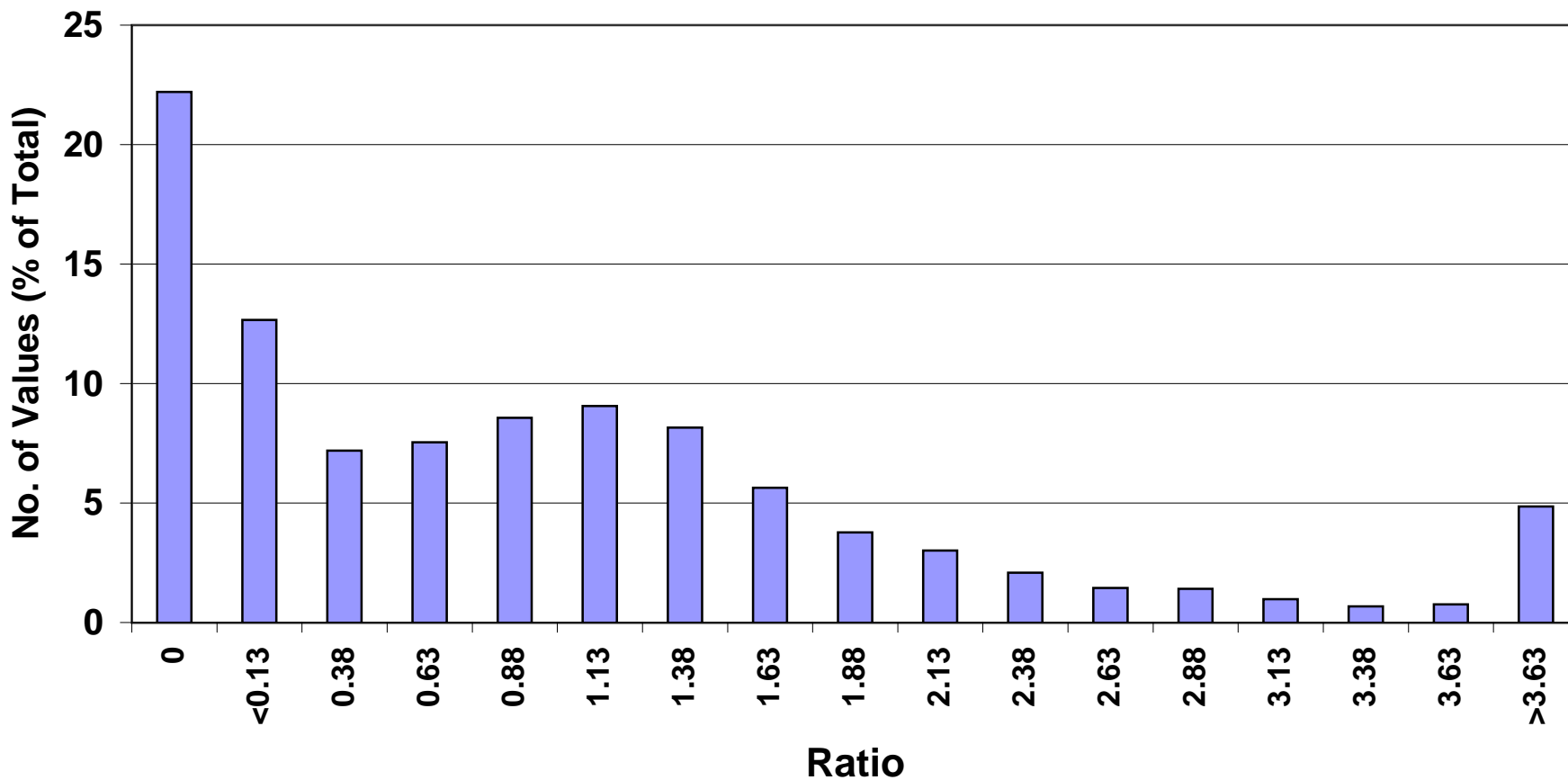
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
 LAU, Tucson
 Ratios of Wet Fluxes Paired in Space (Distance & Direction)
 SCIM Interval = 193 hrs, Wet Hour Sampling Freq = NA**



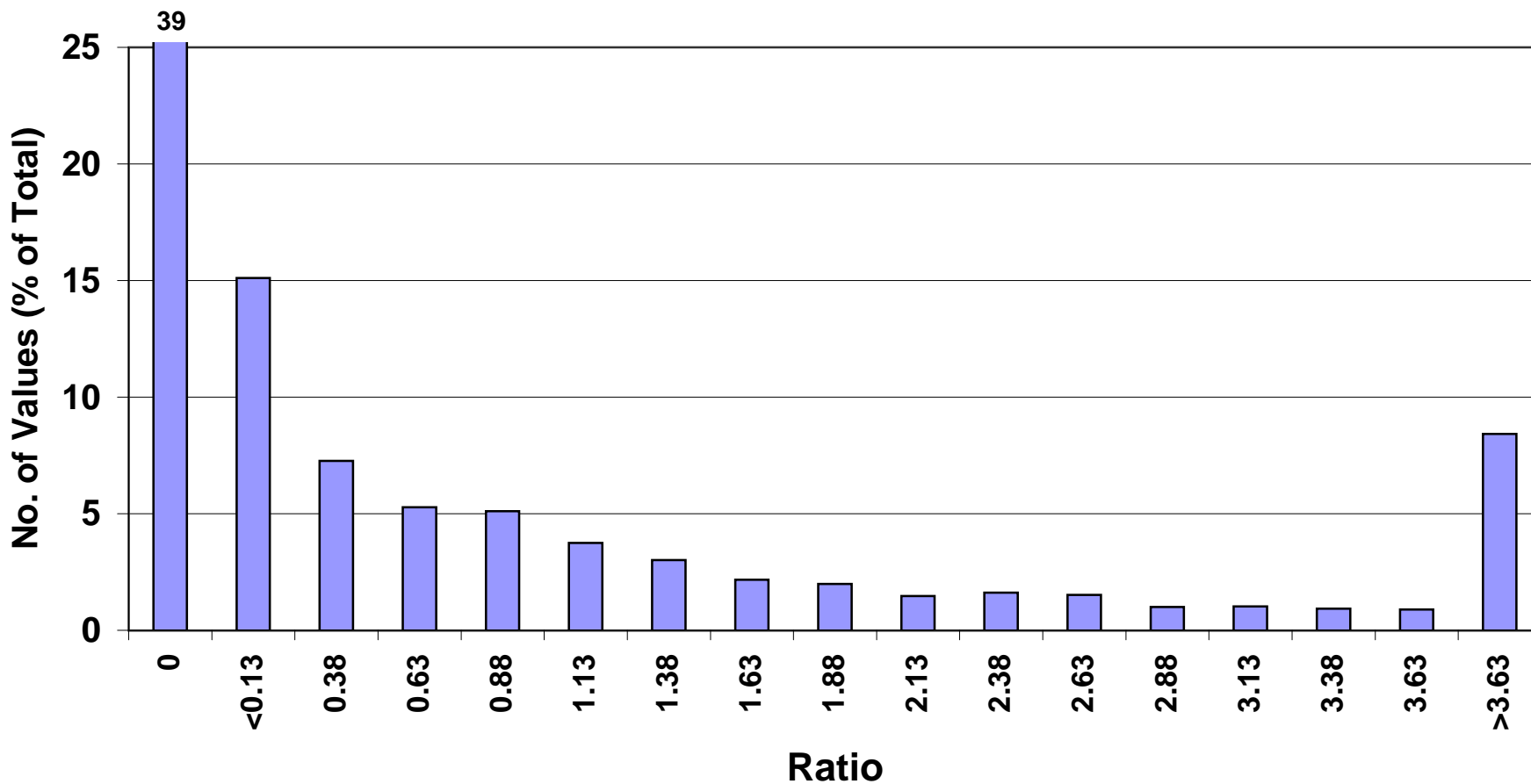
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
 LAU, Wichita
 Ratios of Wet Fluxes Paired in Space (Distance & Direction)
 SCIM Interval = 193 hrs, Wet Hour Sampling Freq = NA**



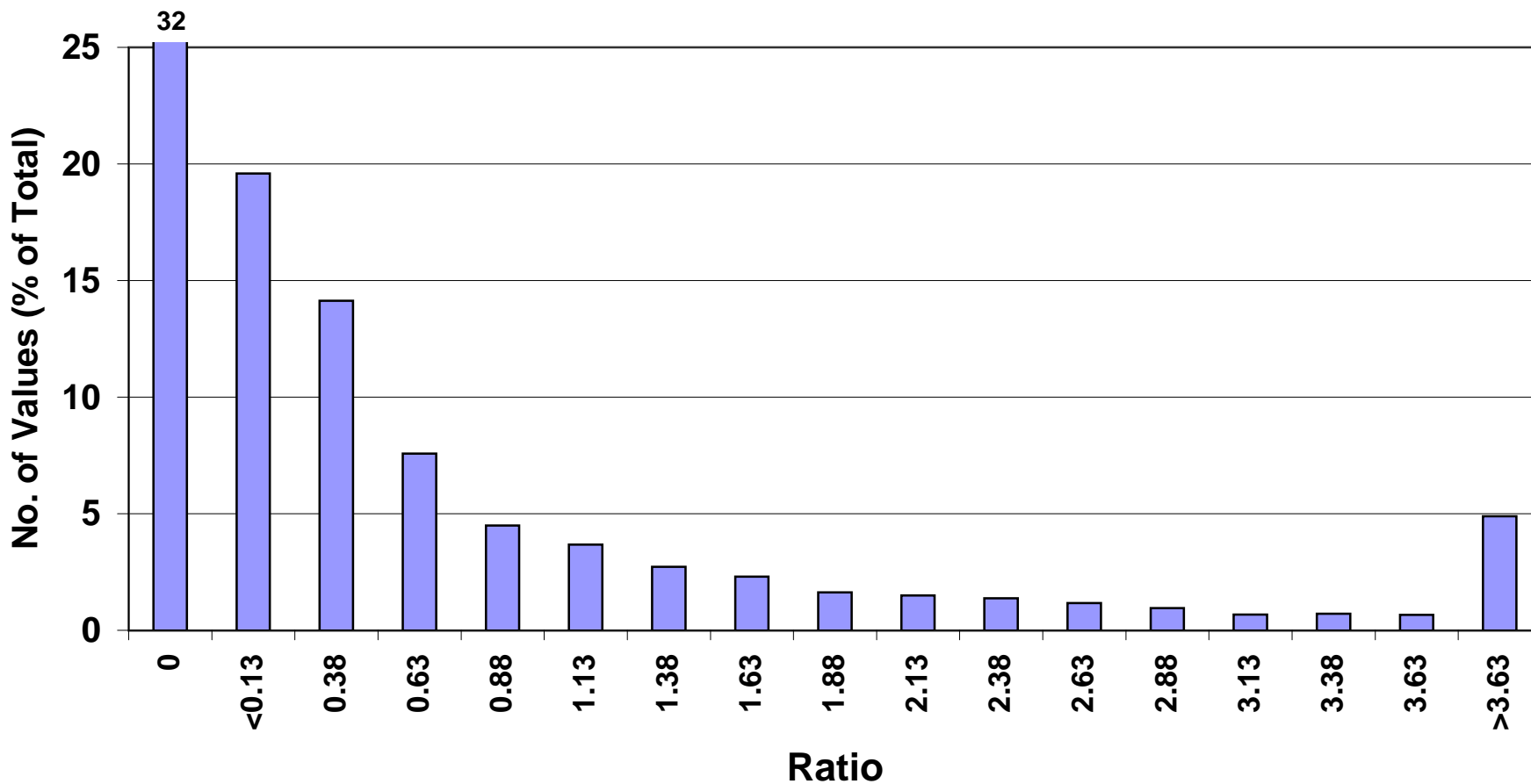
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
 SI, Salem
 Ratios of Wet Fluxes Paired in Space (Distance & Direction)
 SCIM Interval = 193 hrs, Wet Hour Sampling Freq = NA**



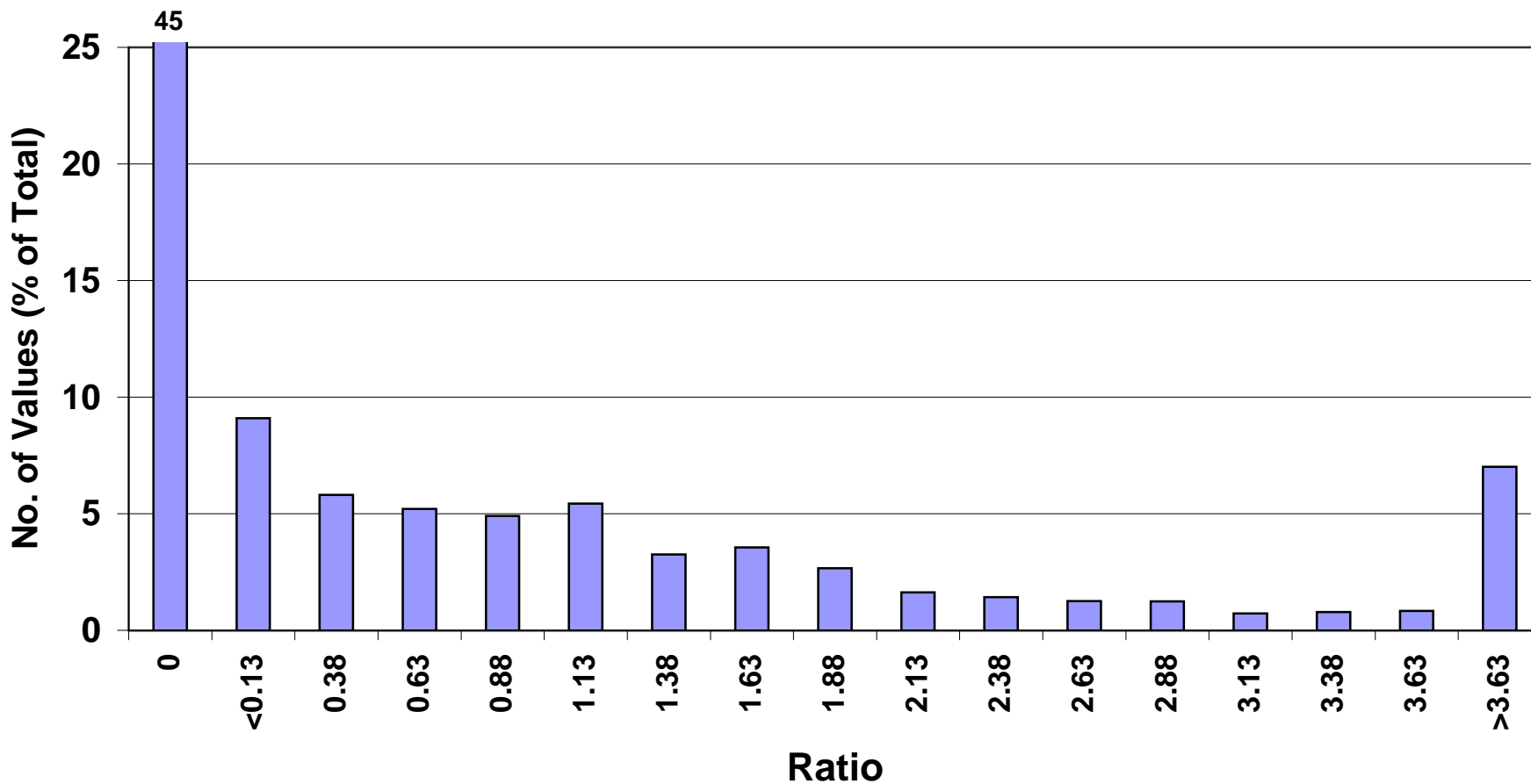
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
 SI, Tucson
 Ratios of Wet Fluxes Paired in Space (Distance & Direction)
 SCIM Interval = 193 hrs, Wet Hour Sampling Freq = NA**



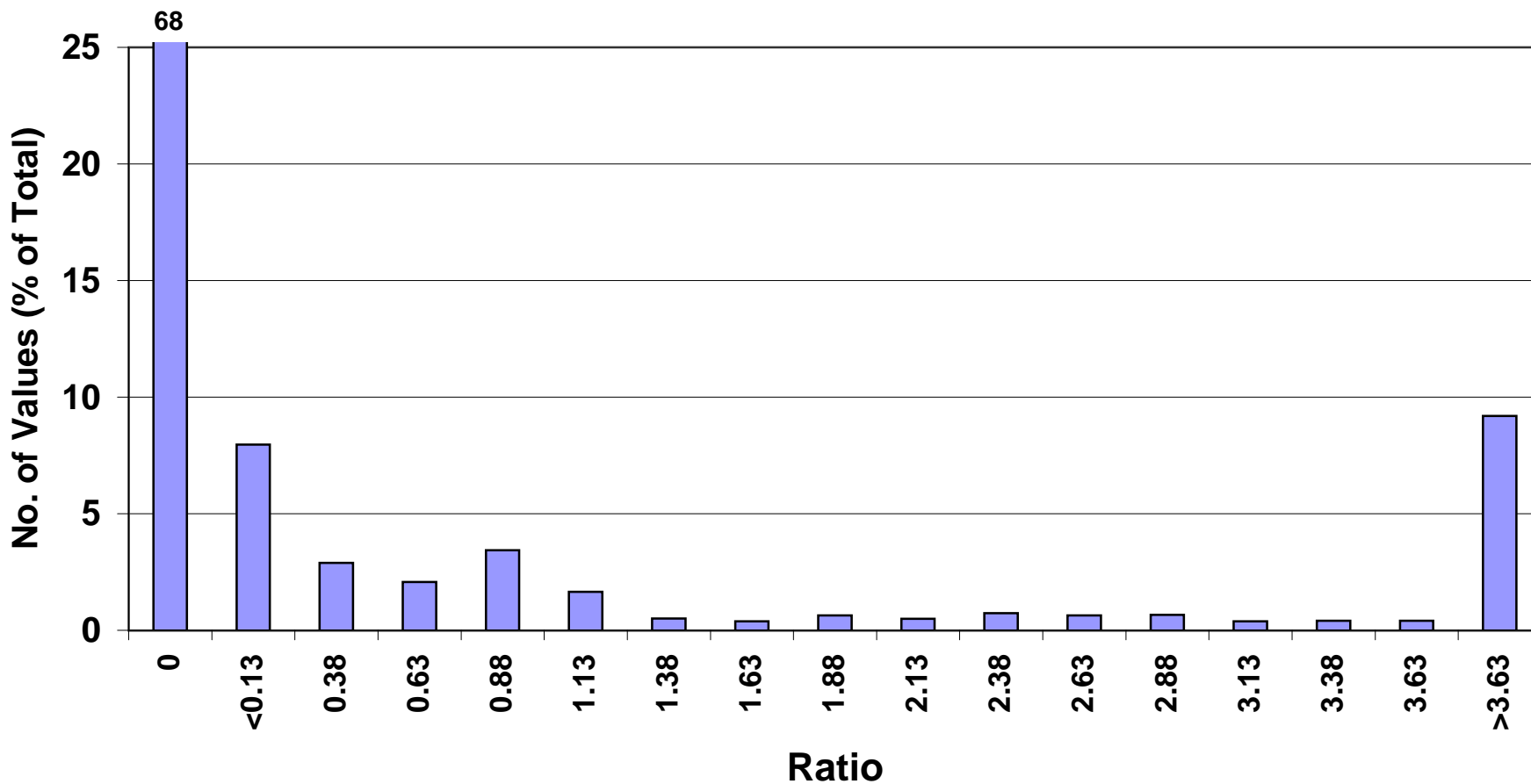
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
SI, Wichita
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = NA**



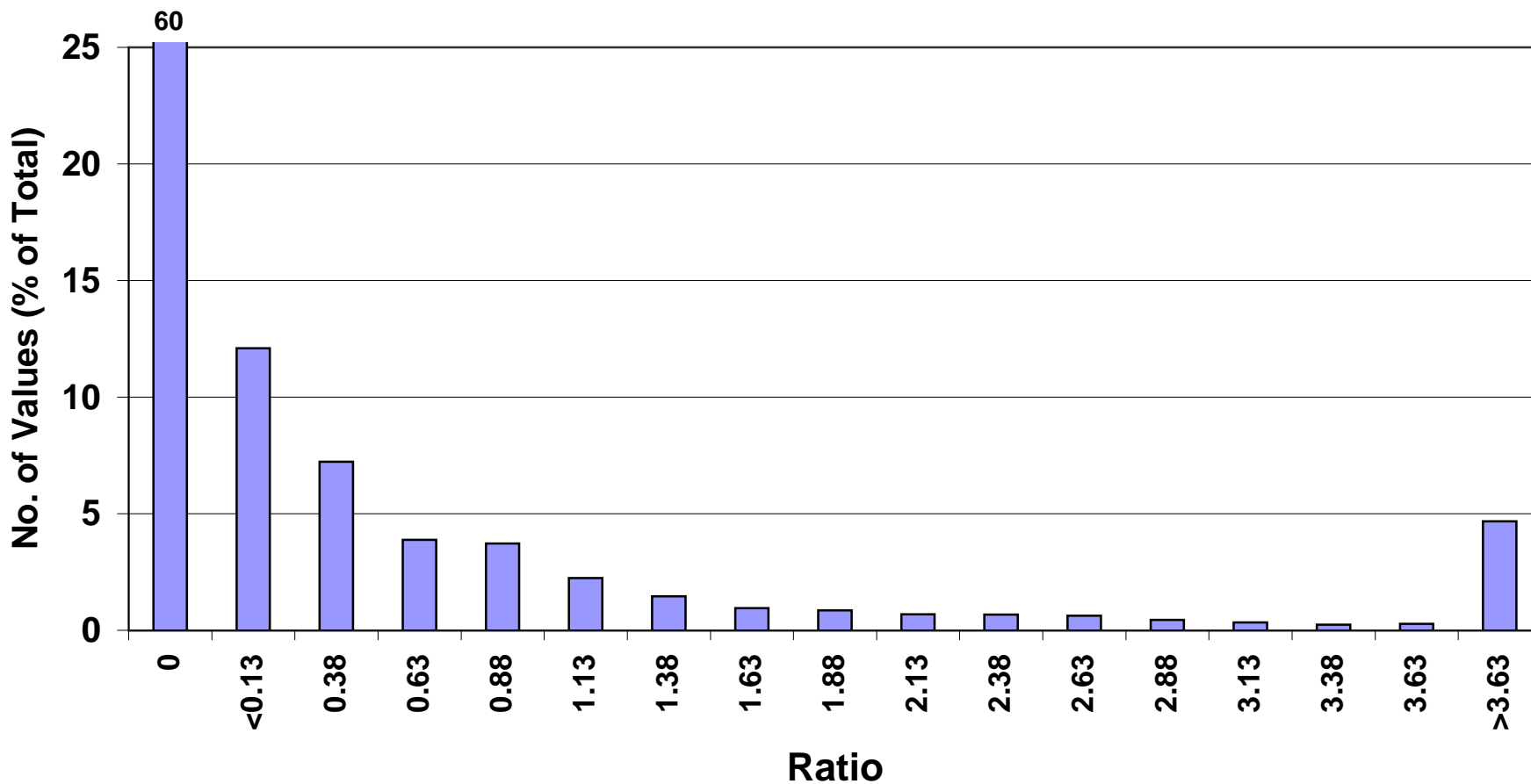
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
TANK, Salem
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = NA**



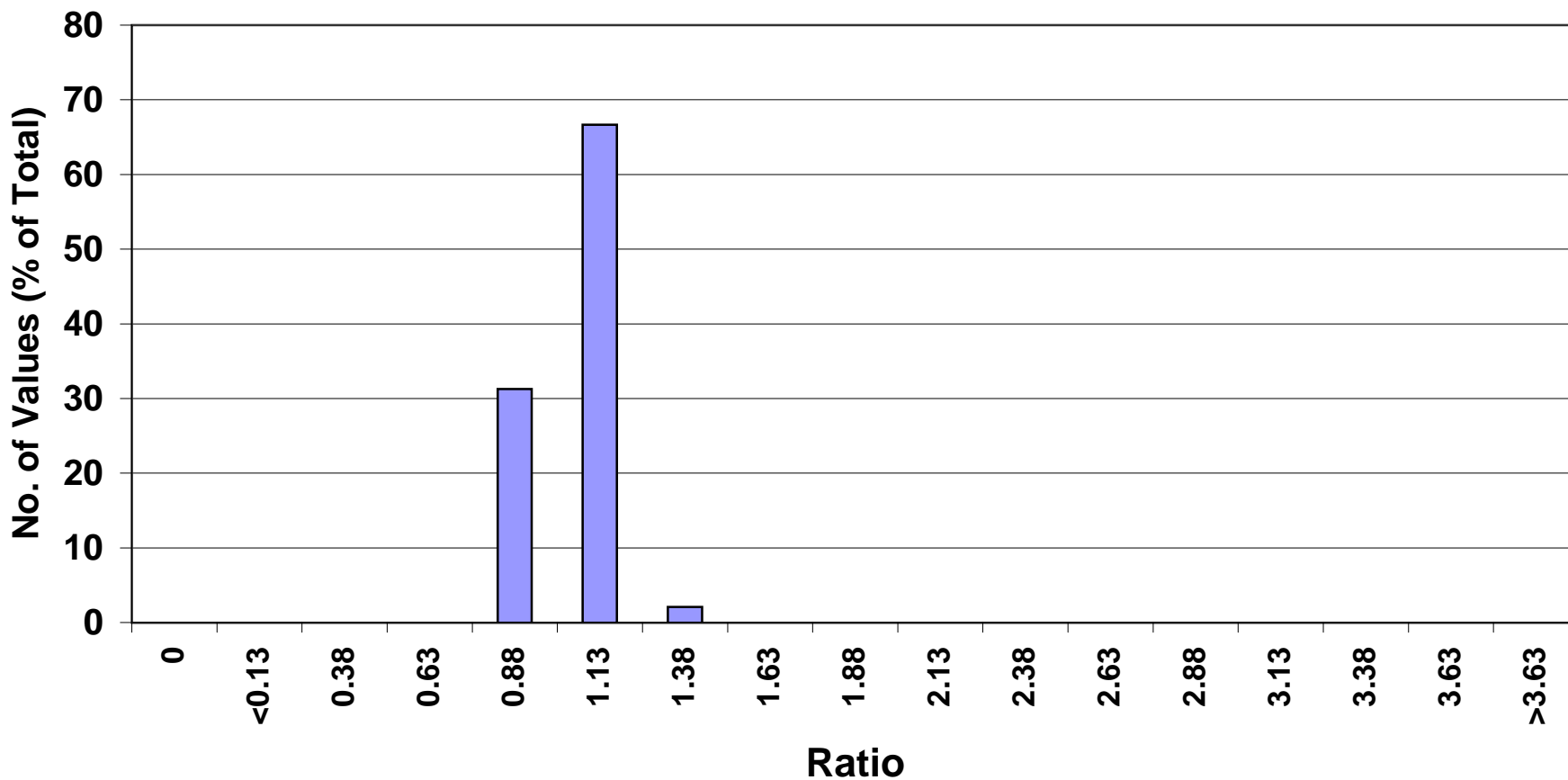
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
TANK, Tucson
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = NA**



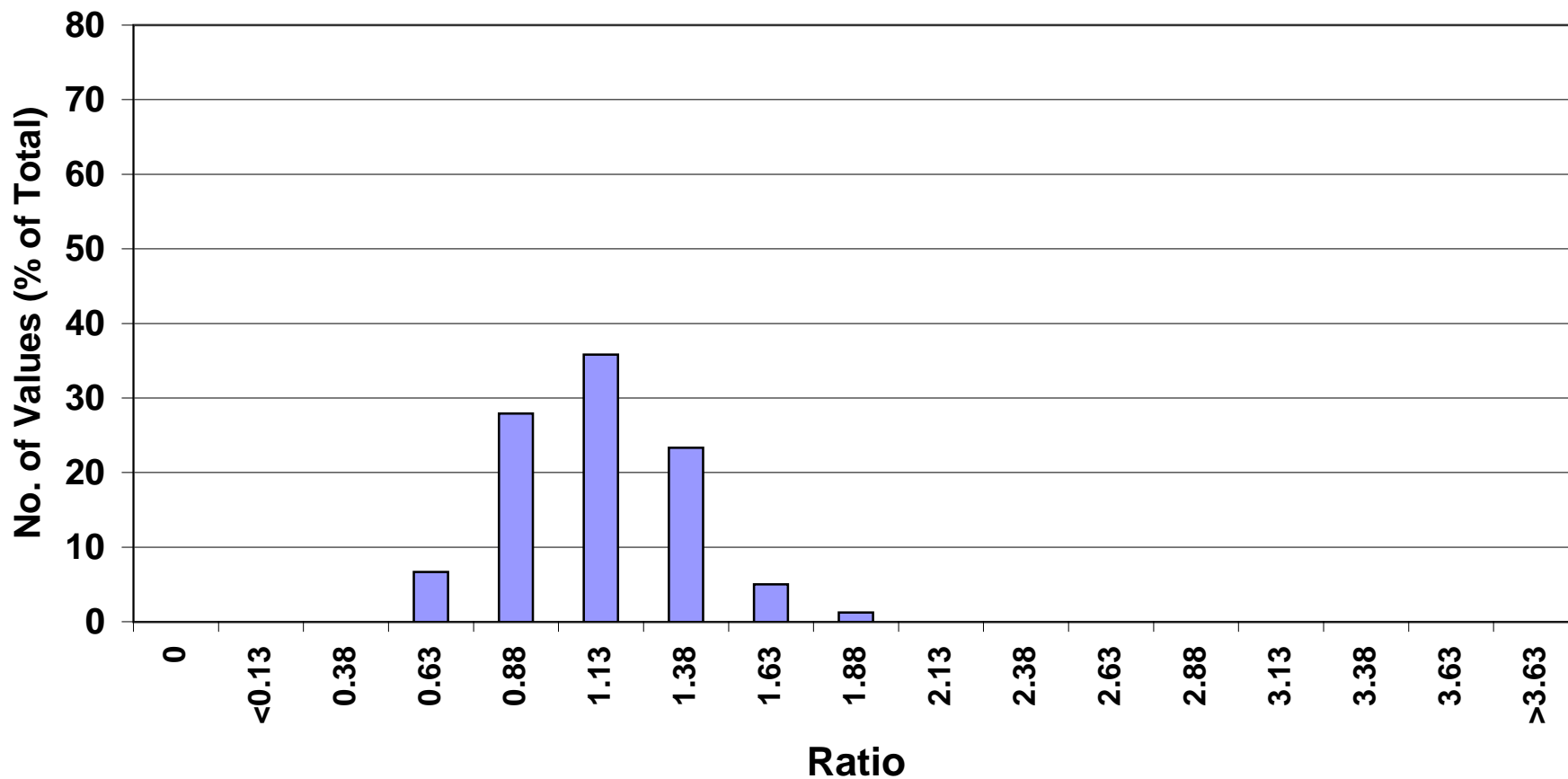
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
TANK, Wichita
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = NA**



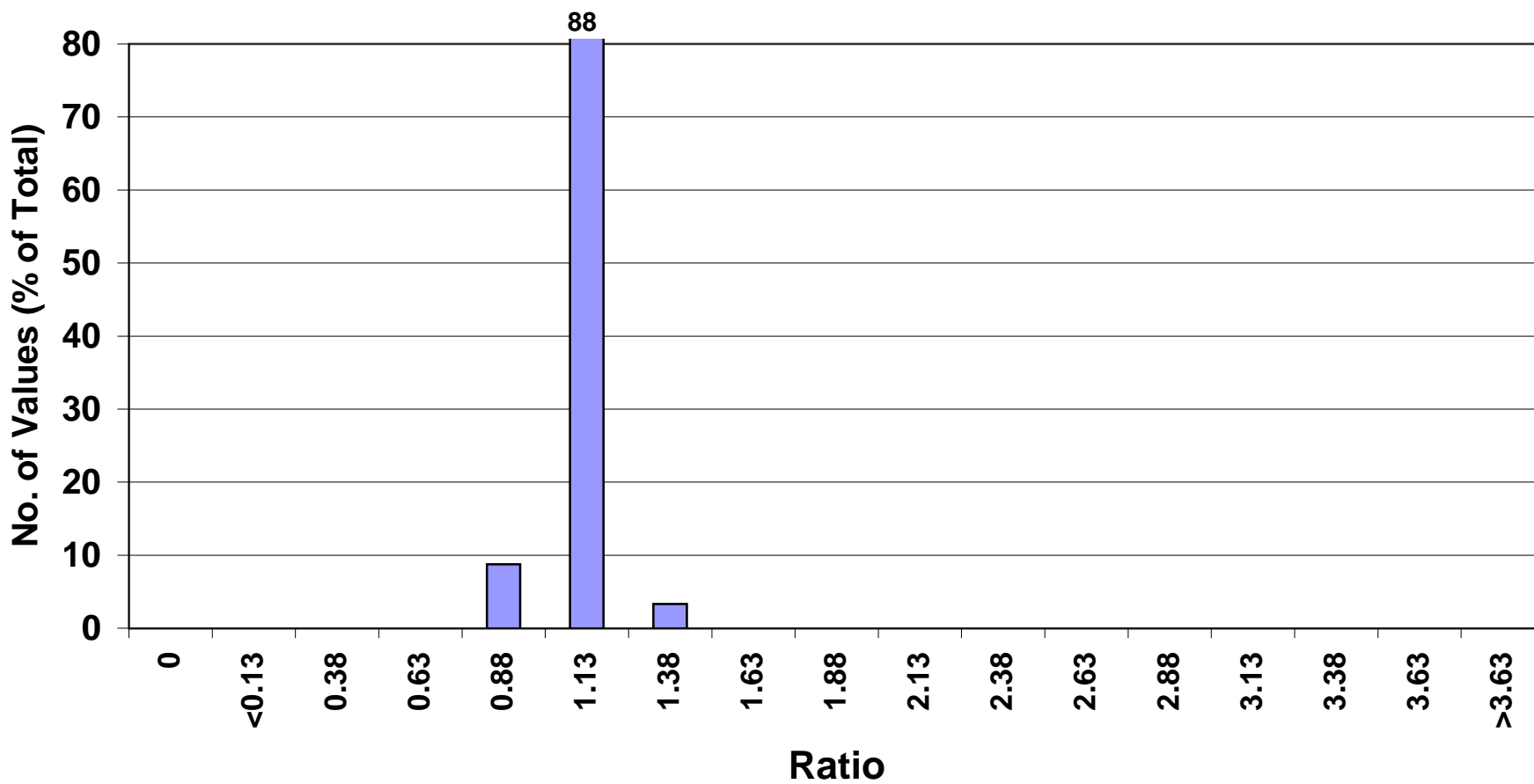
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
LAU, Salem
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8**



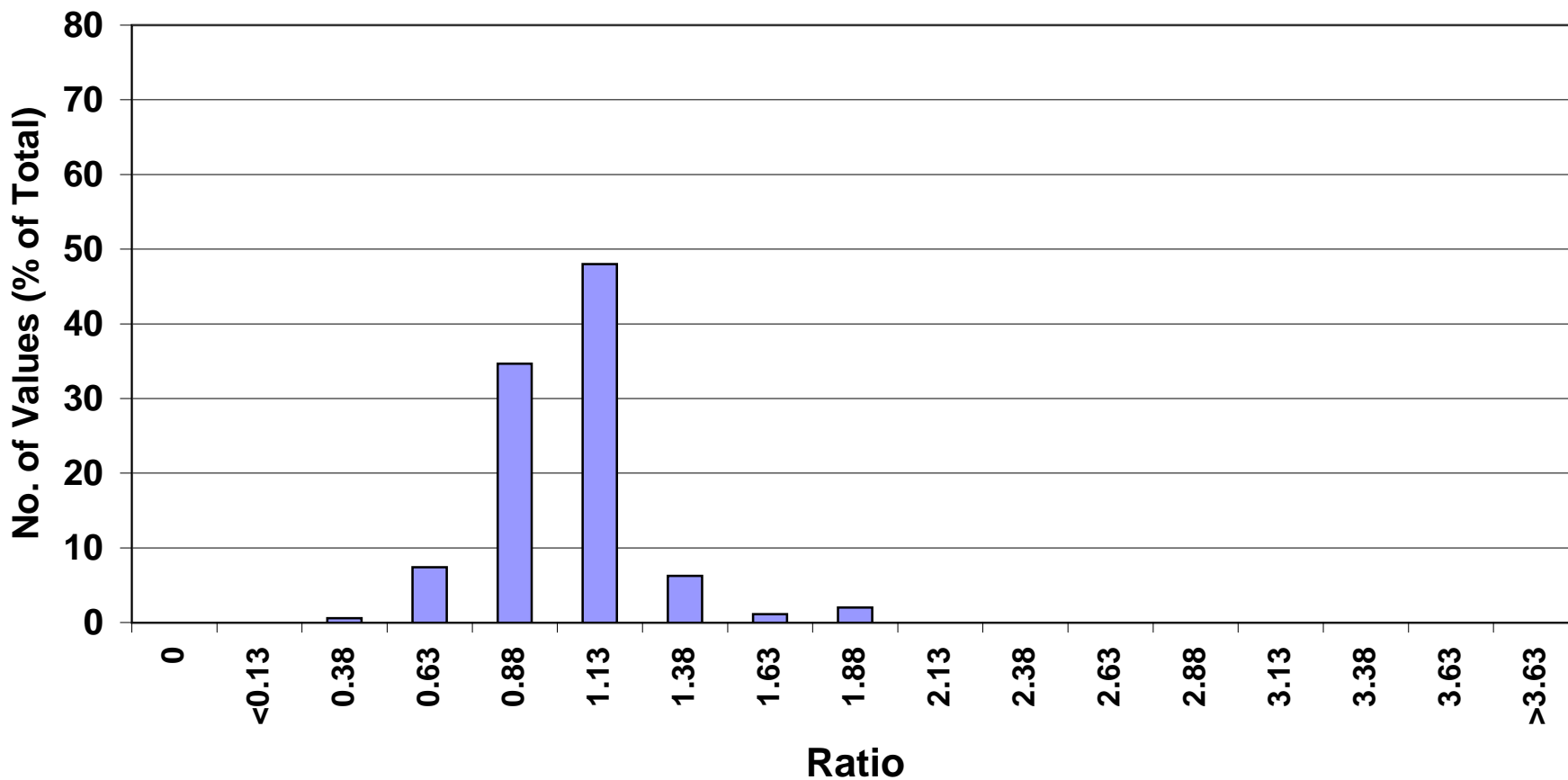
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
 LAU, Tucson
 Ratios of Wet Fluxes Paired in Space (Distance & Direction)
 SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8**



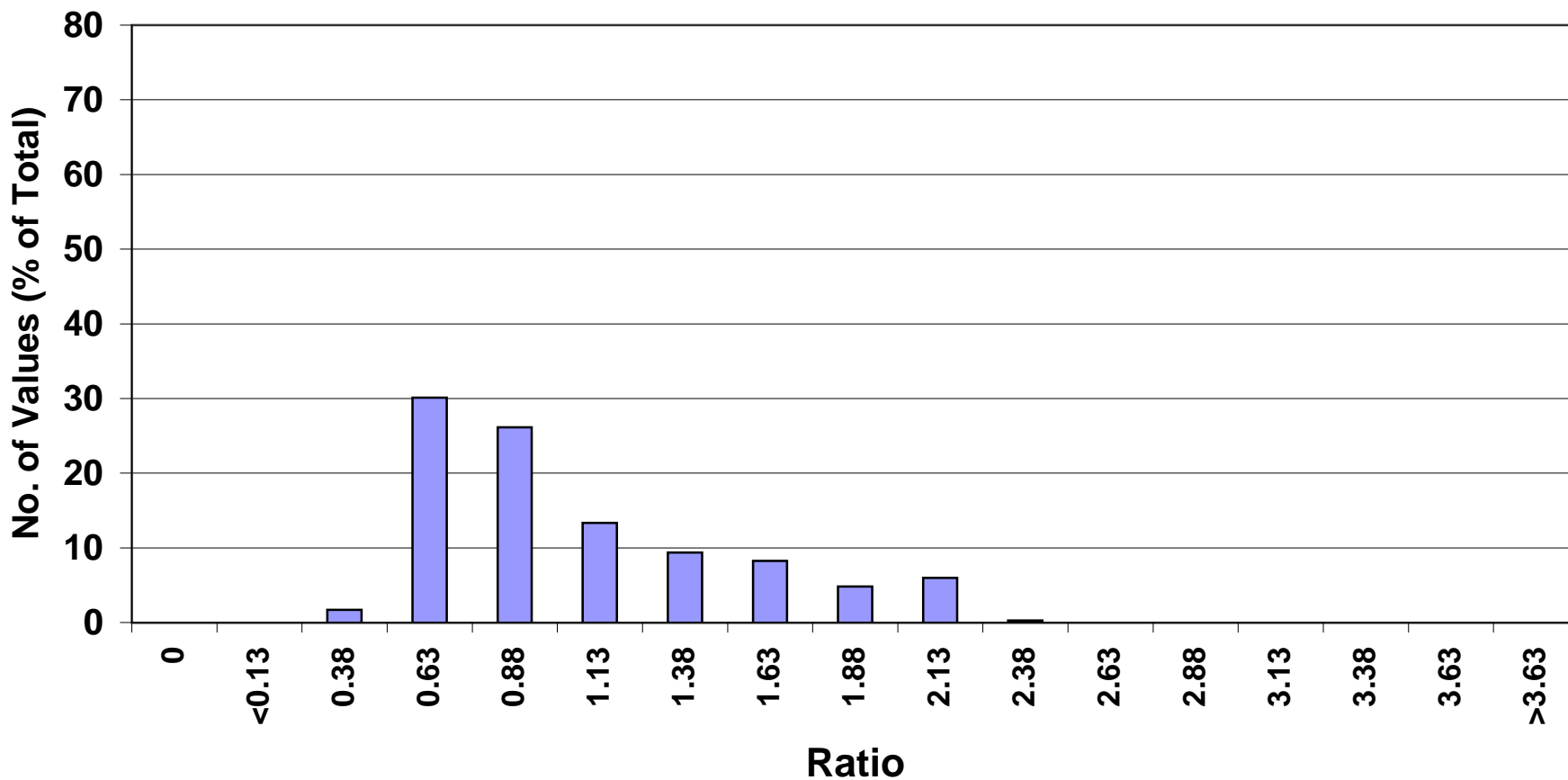
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
 LAU, Wichita
 Ratios of Wet Fluxes Paired in Space (Distance & Direction)
 SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8**



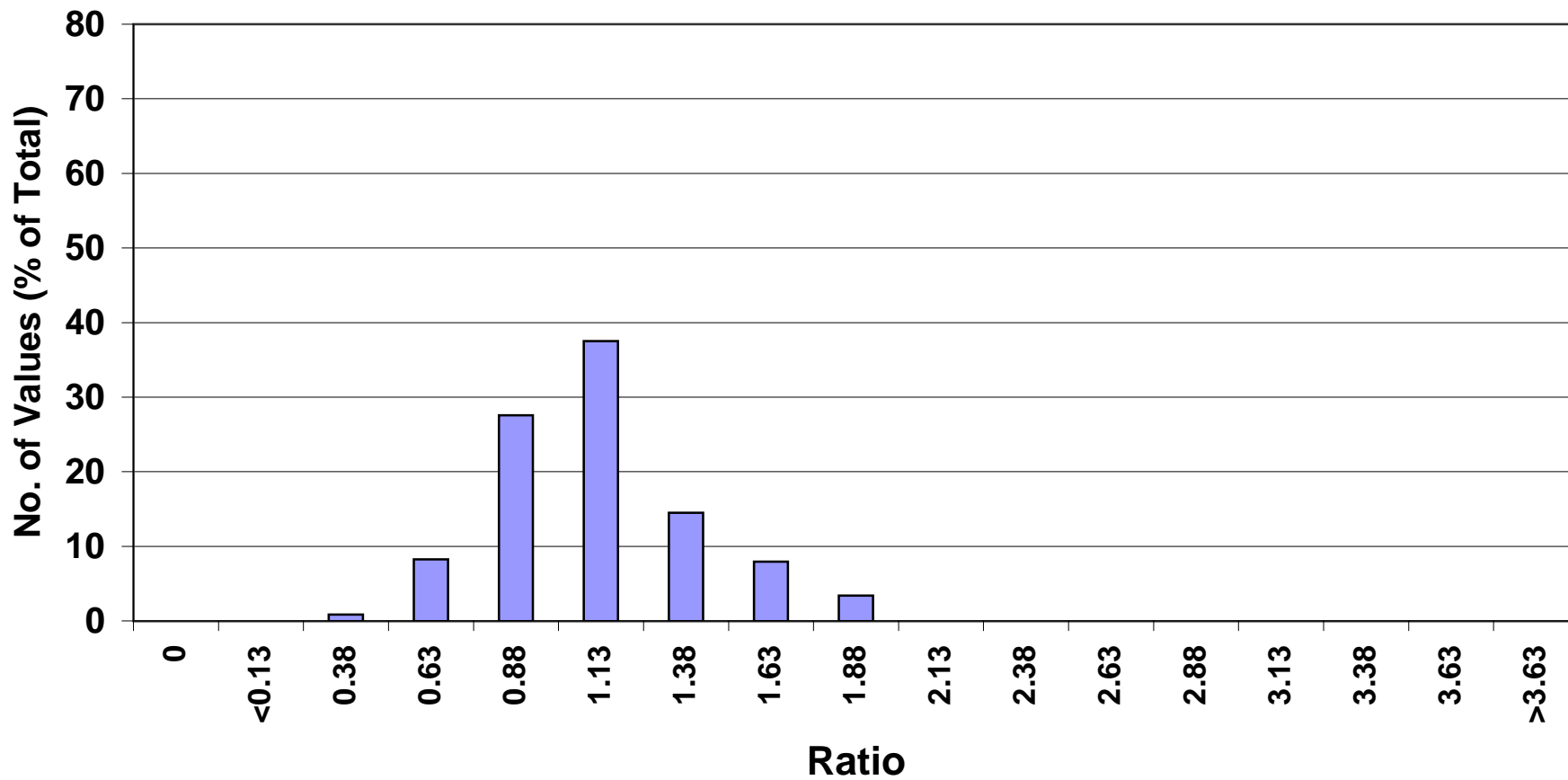
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
SI, Salem
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8**



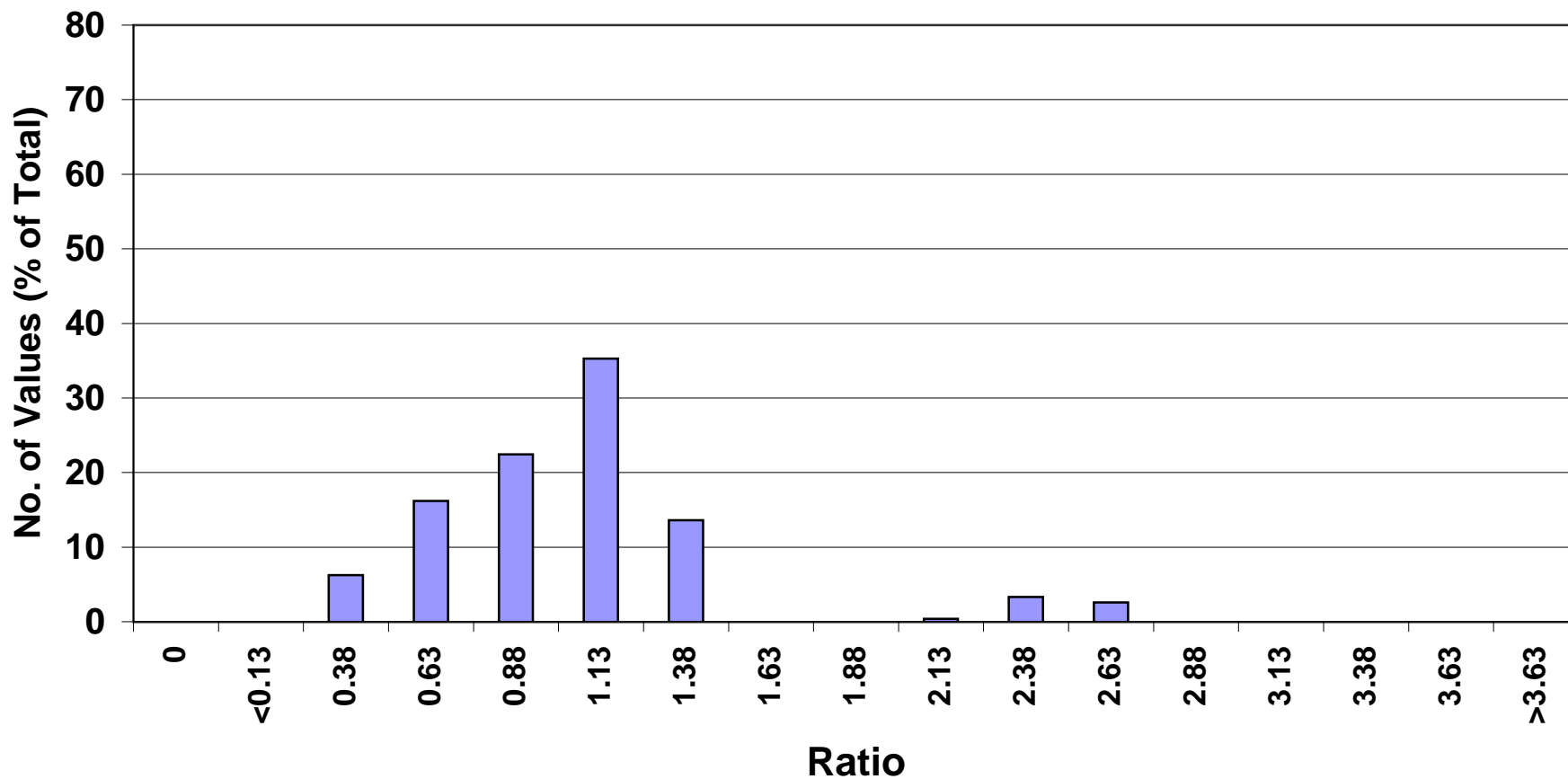
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
 SI, Tucson
 Ratios of Wet Fluxes Paired in Space (Distance & Direction)
 SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8**



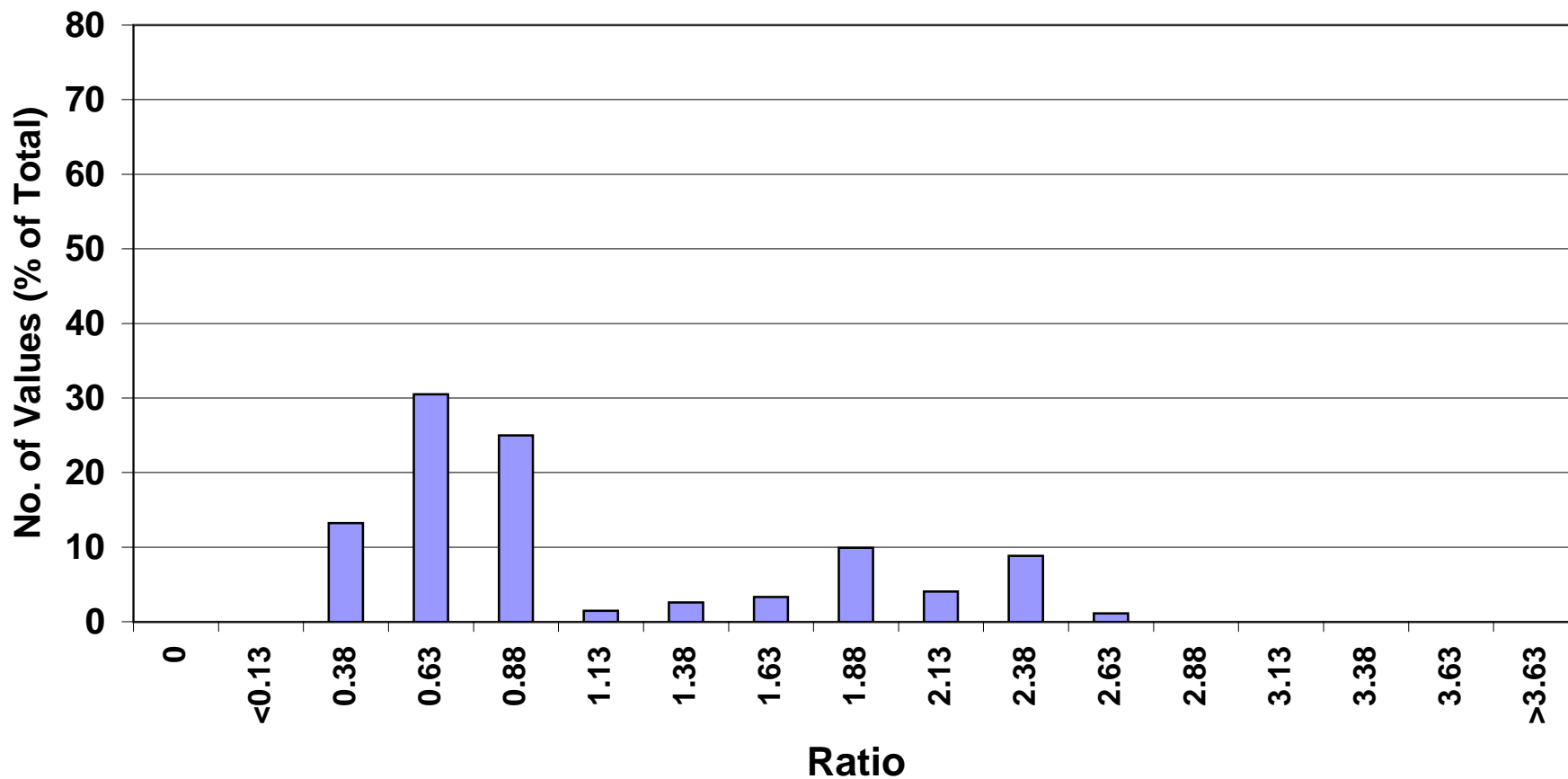
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
 SI, Wichita
 Ratios of Wet Fluxes Paired in Space (Distance & Direction)
 SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8**



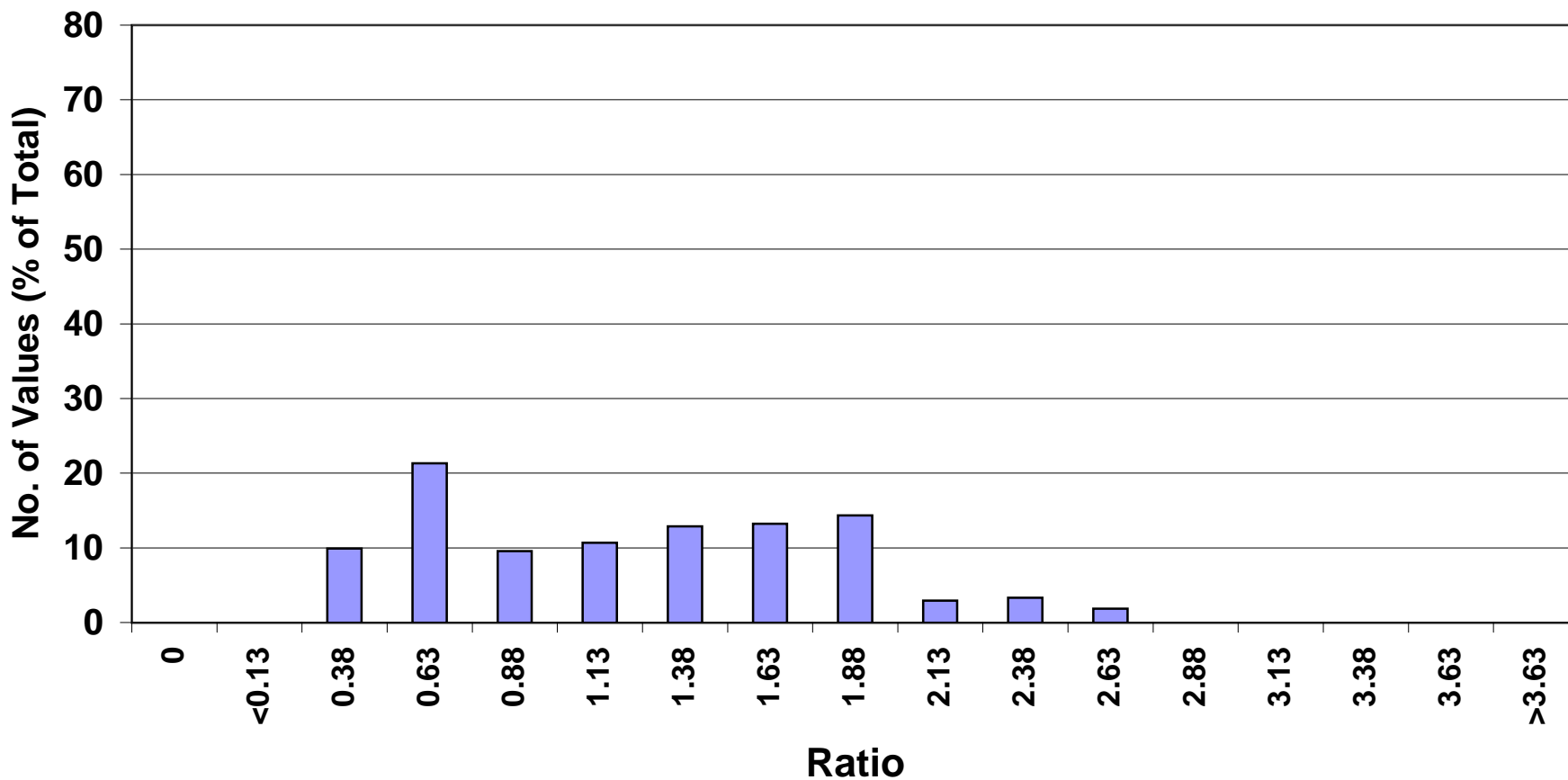
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
TANK, Salem
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8**



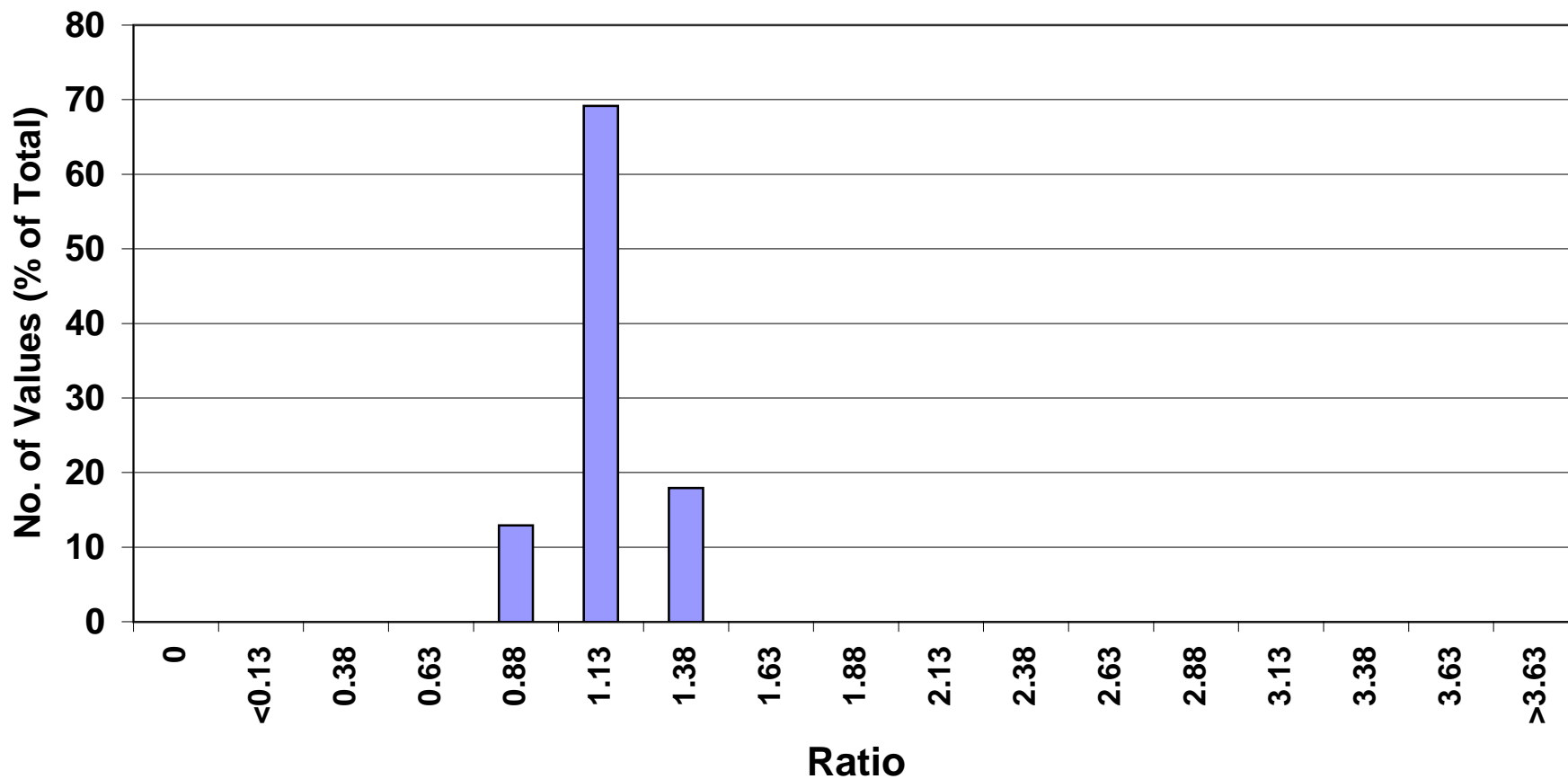
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
TANK, Tucson
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8**



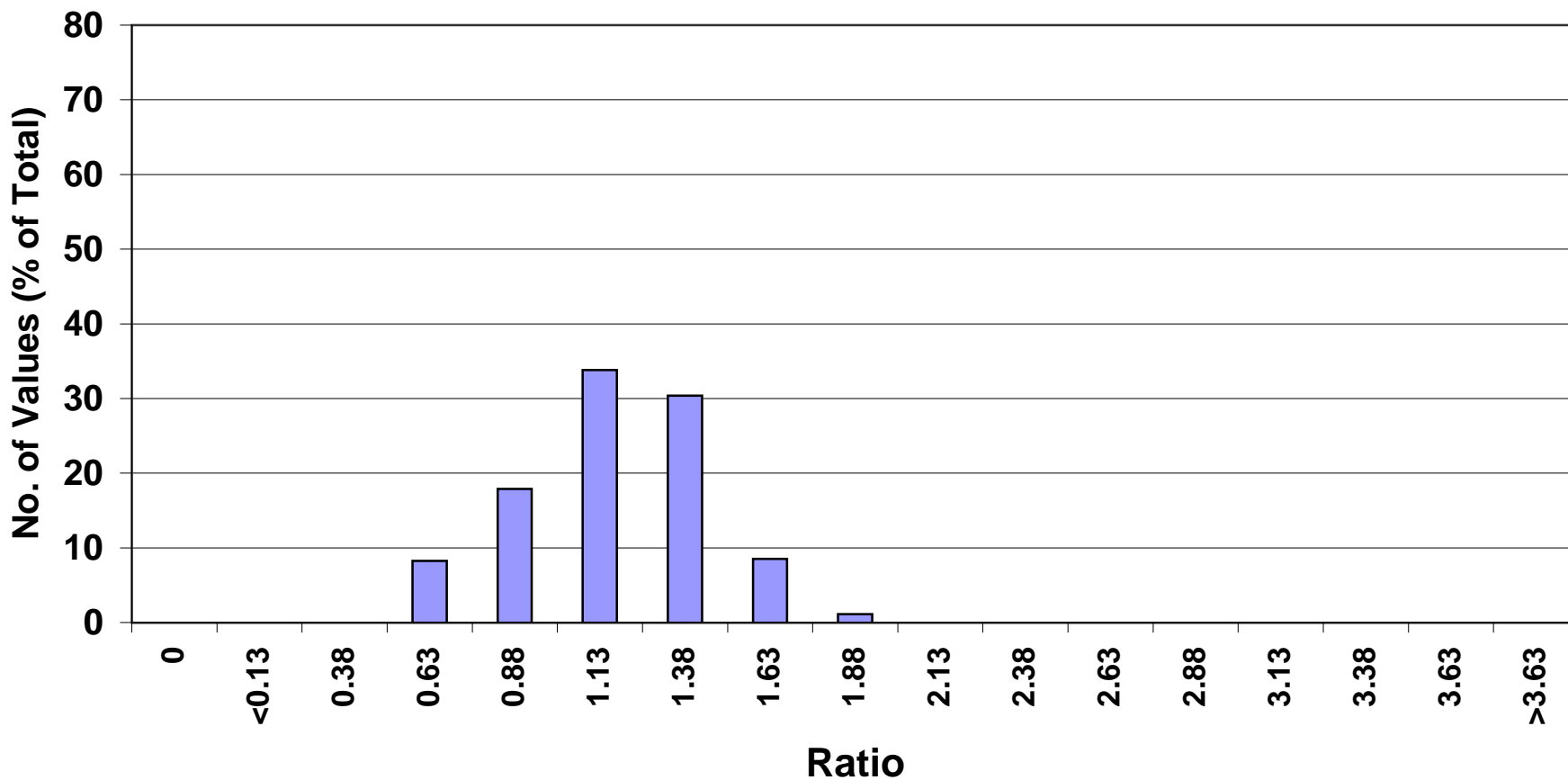
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
TANK, Wichita
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8**



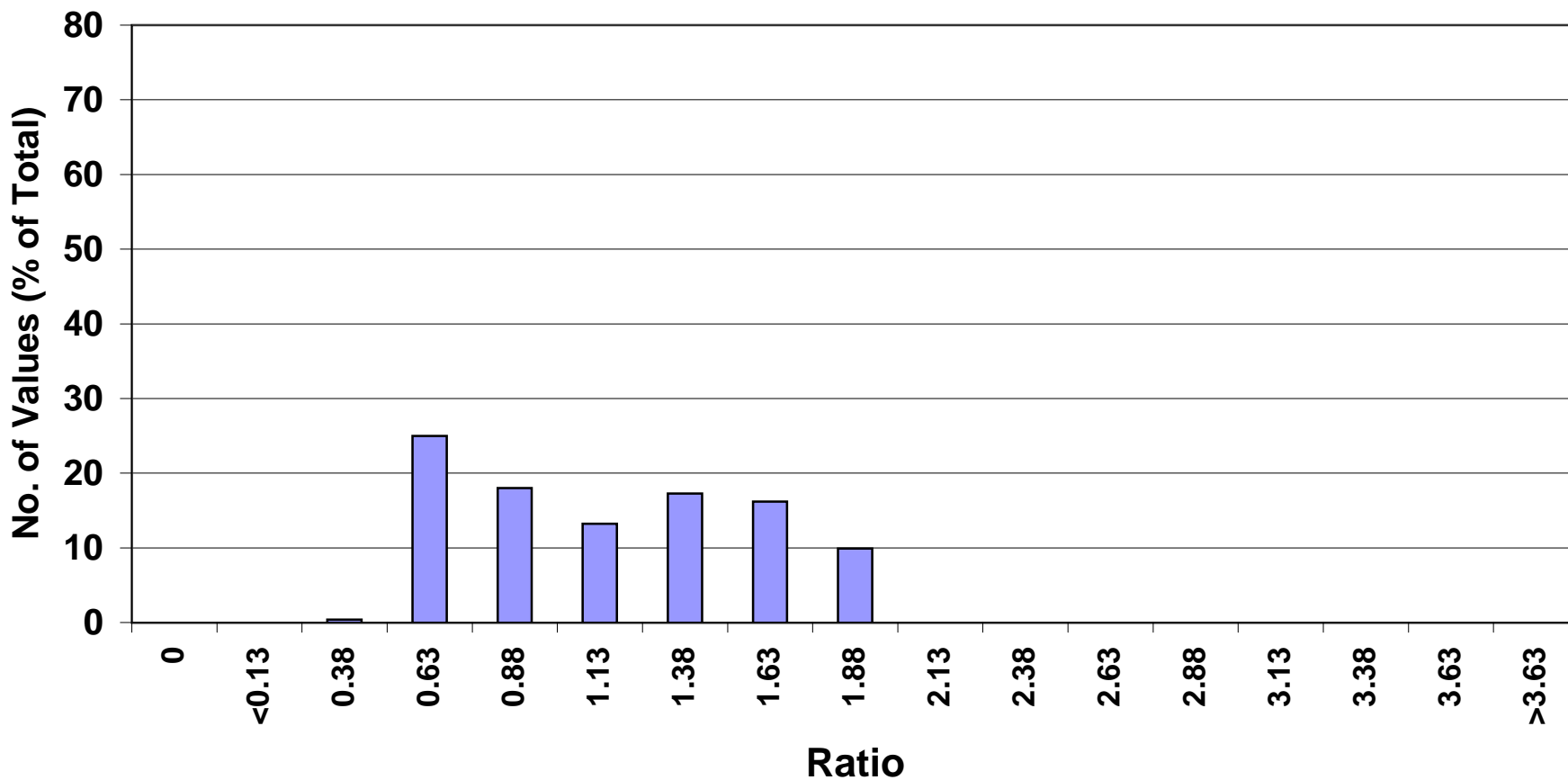
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
 LAU, Tucson
 Ratios of Wet Fluxes Paired in Space (Distance & Direction)
 SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 4**



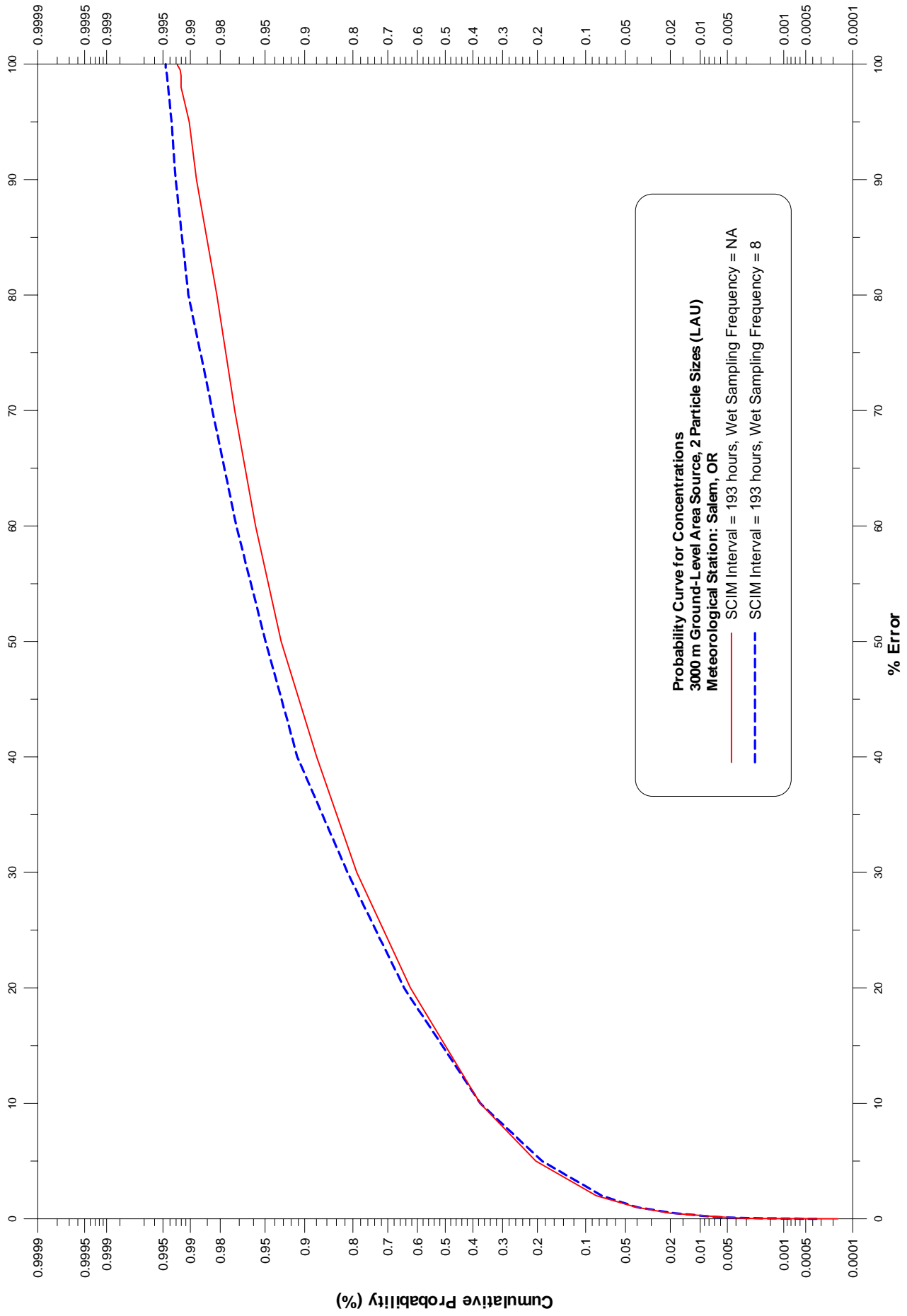
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
 SI, Tucson
 Ratios of Wet Fluxes Paired in Space (Distance & Direction)
 SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 4**

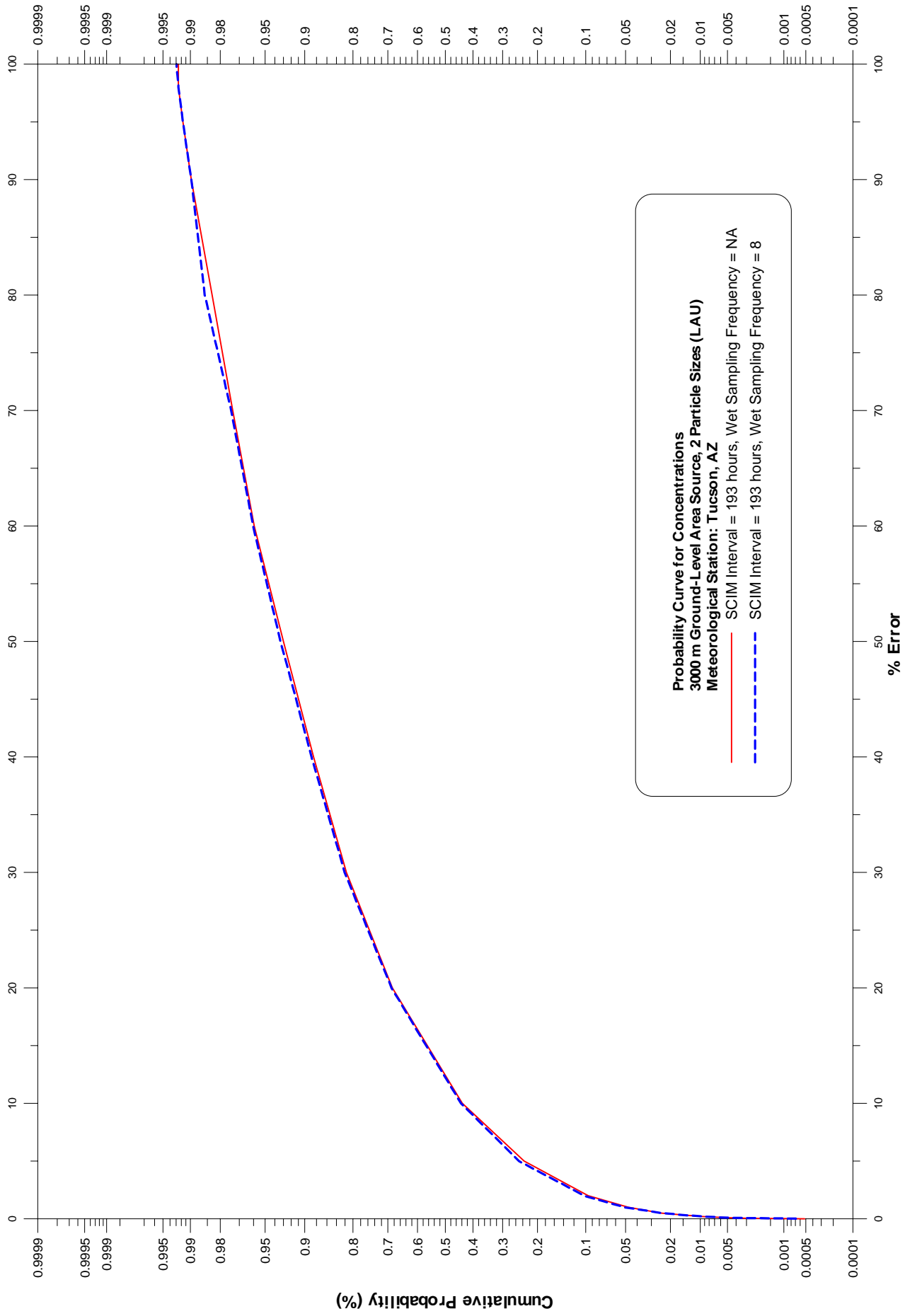


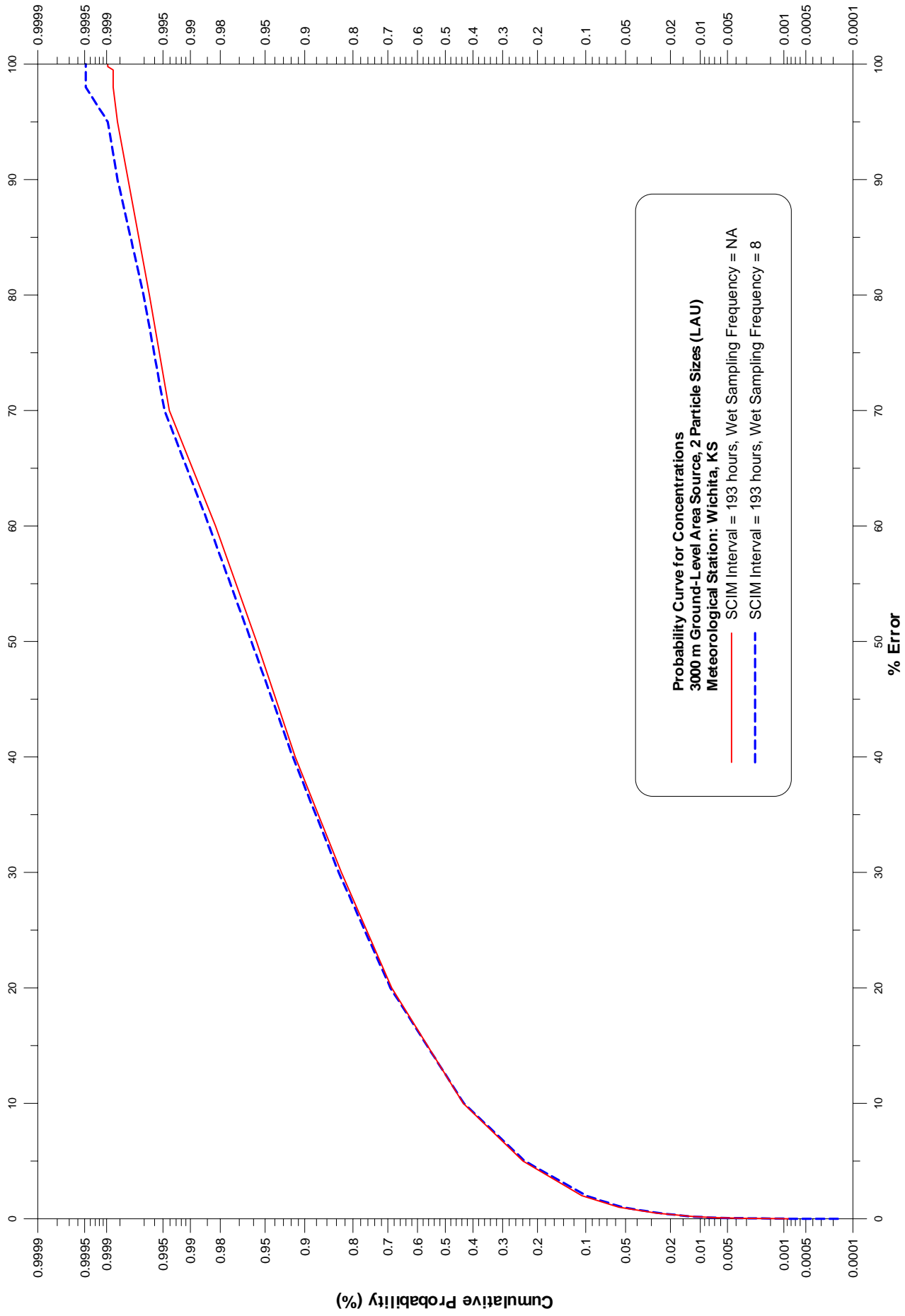
**Distribution of SCIM'd to NoSCIM Ratios at All Distances
TANK, Tucson
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 4**

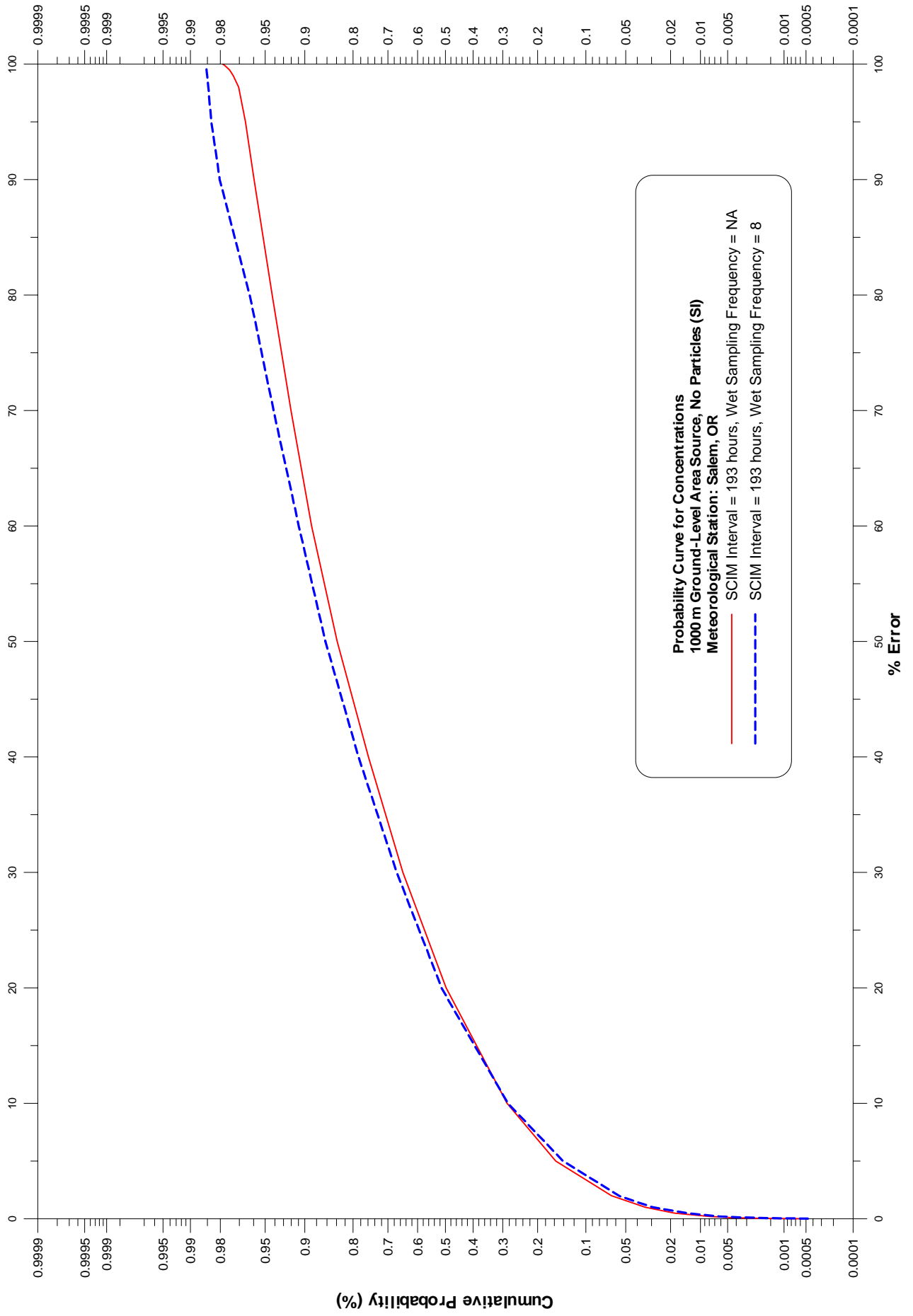


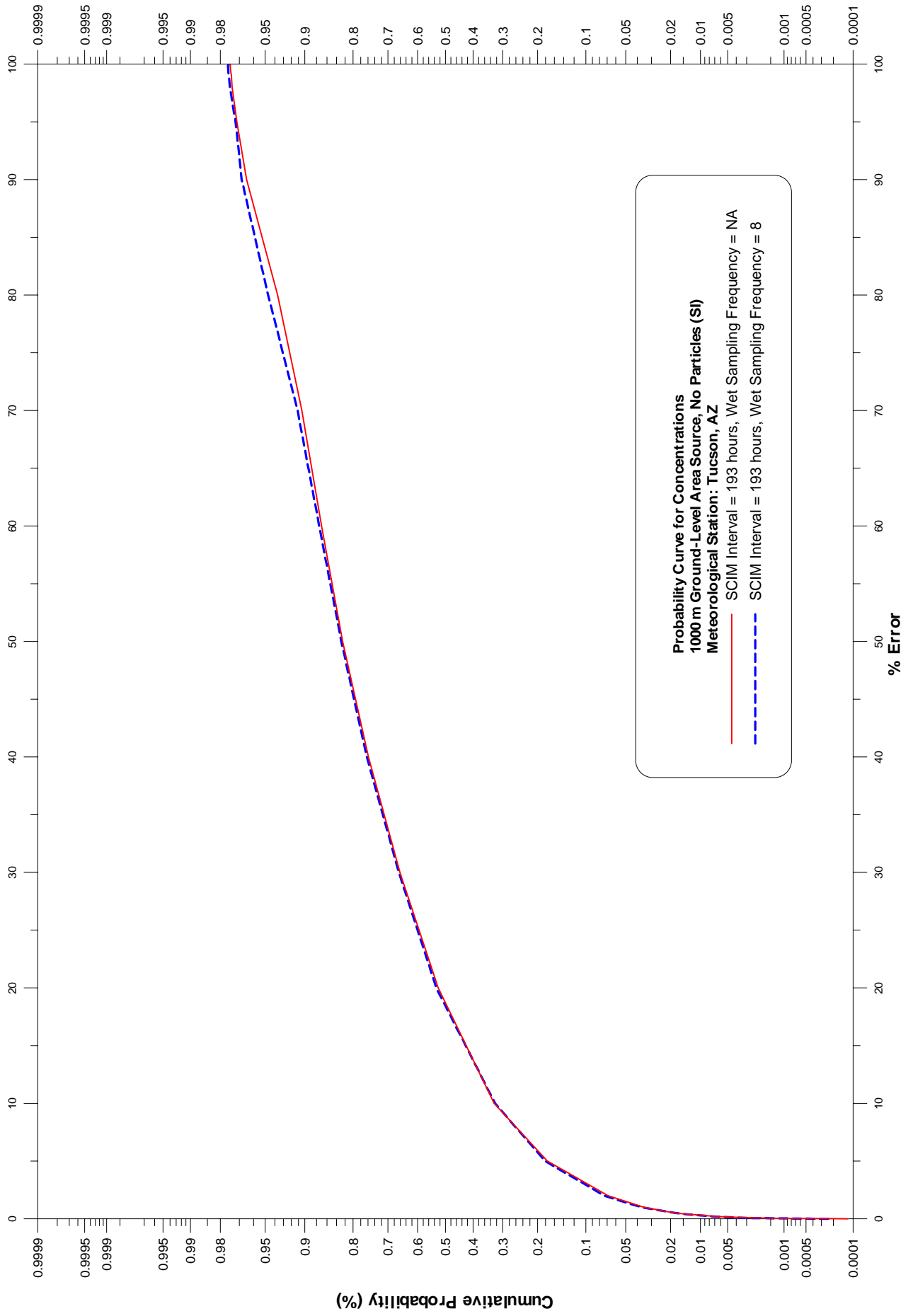
APPENDIX E

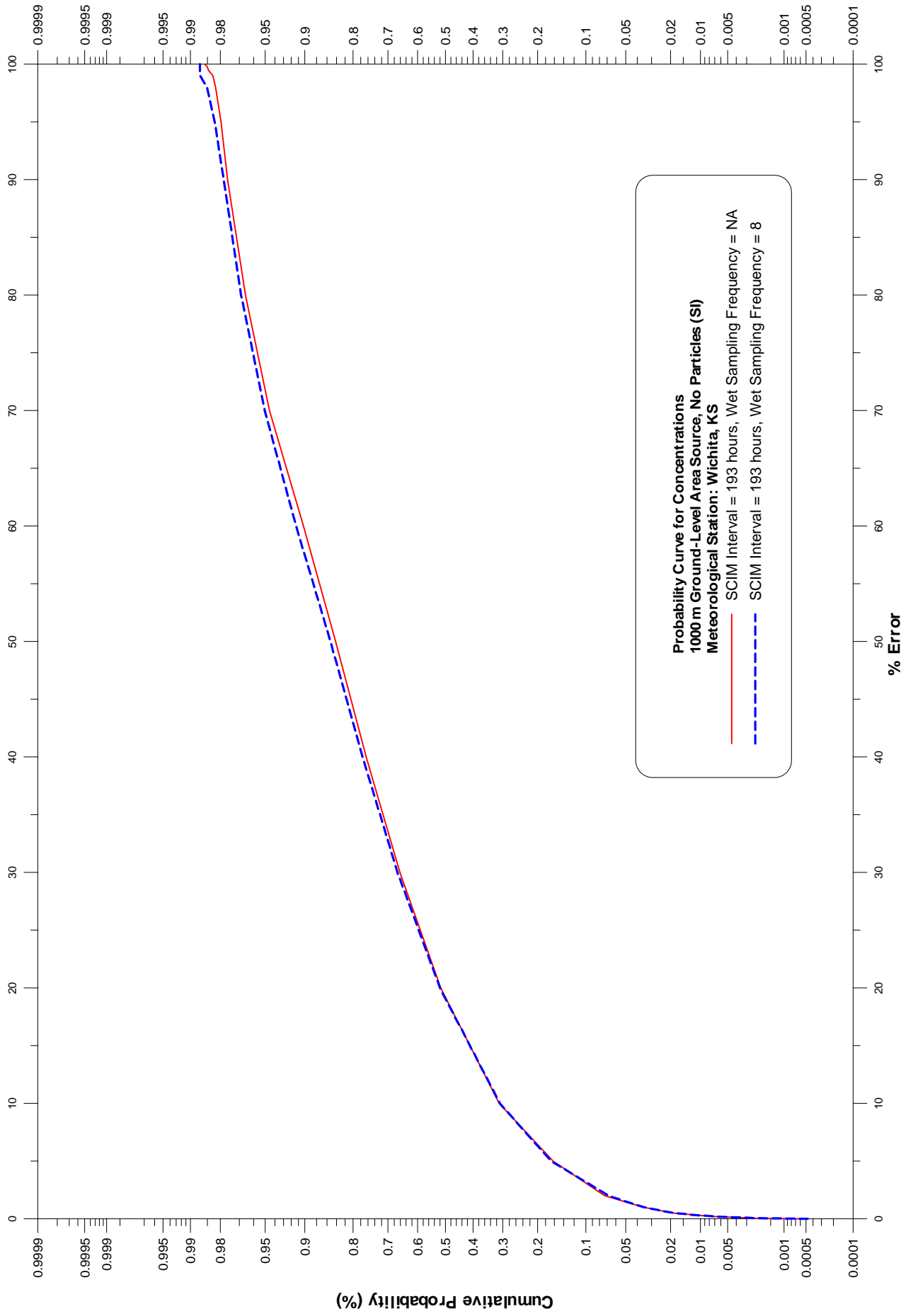


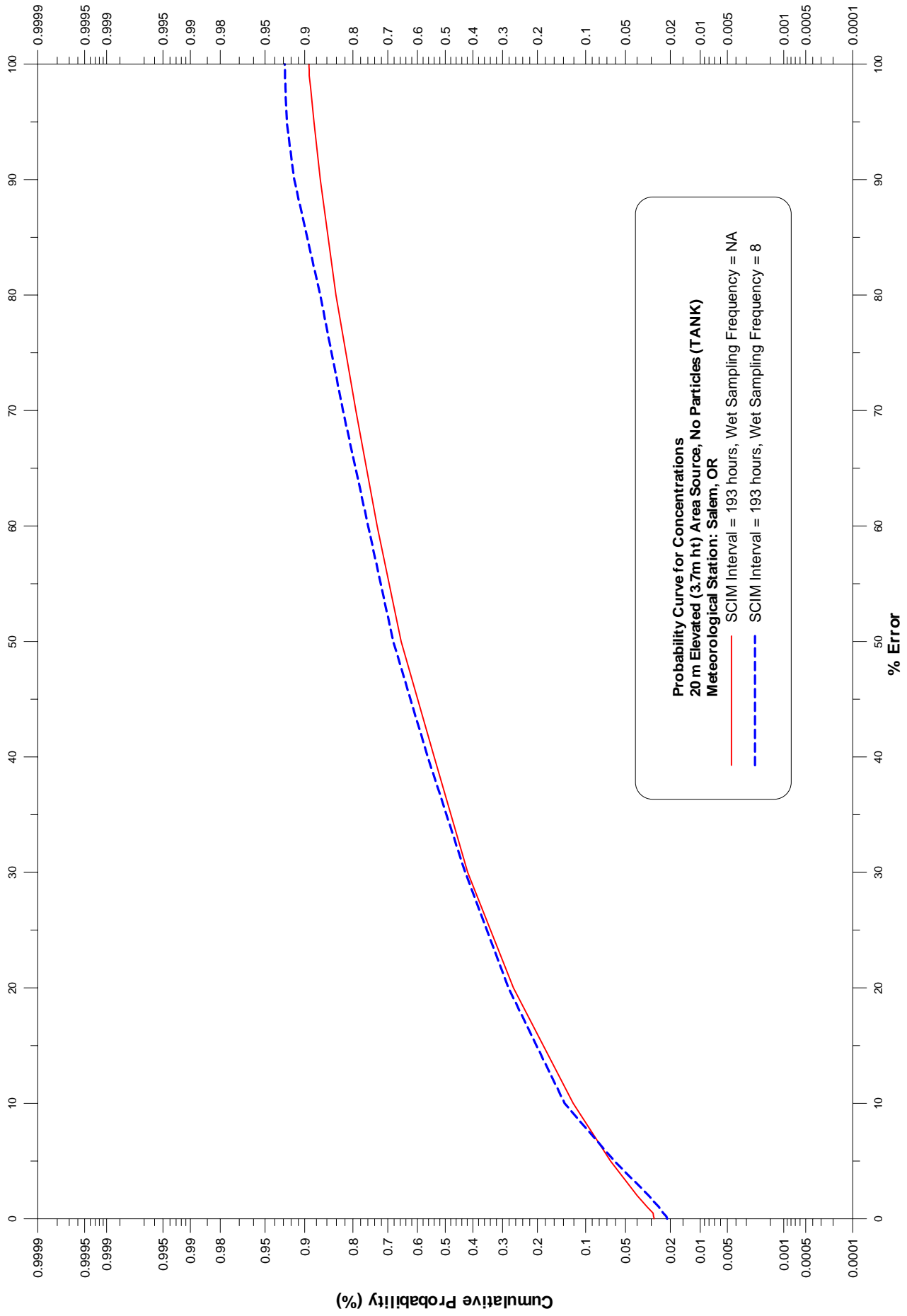


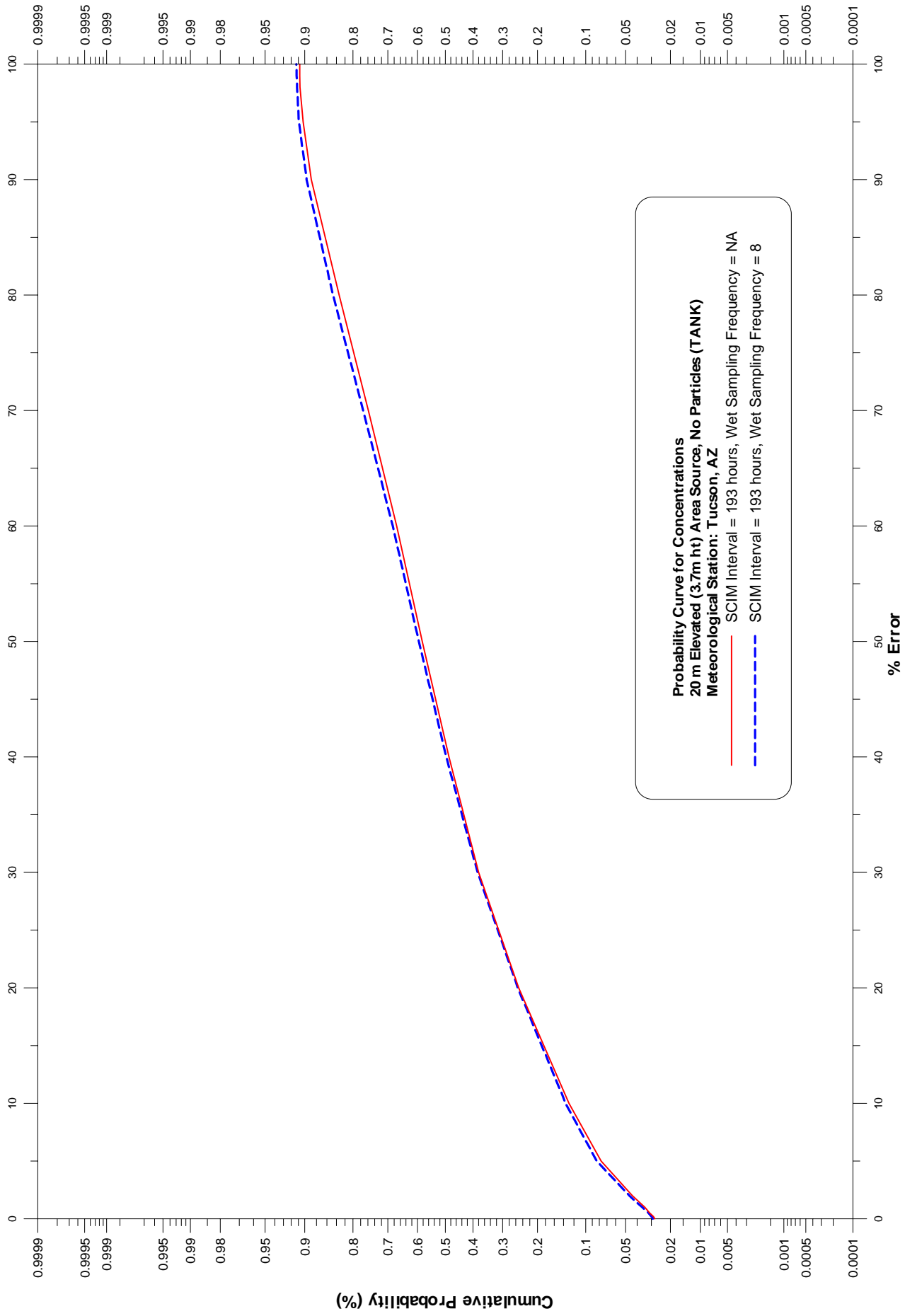


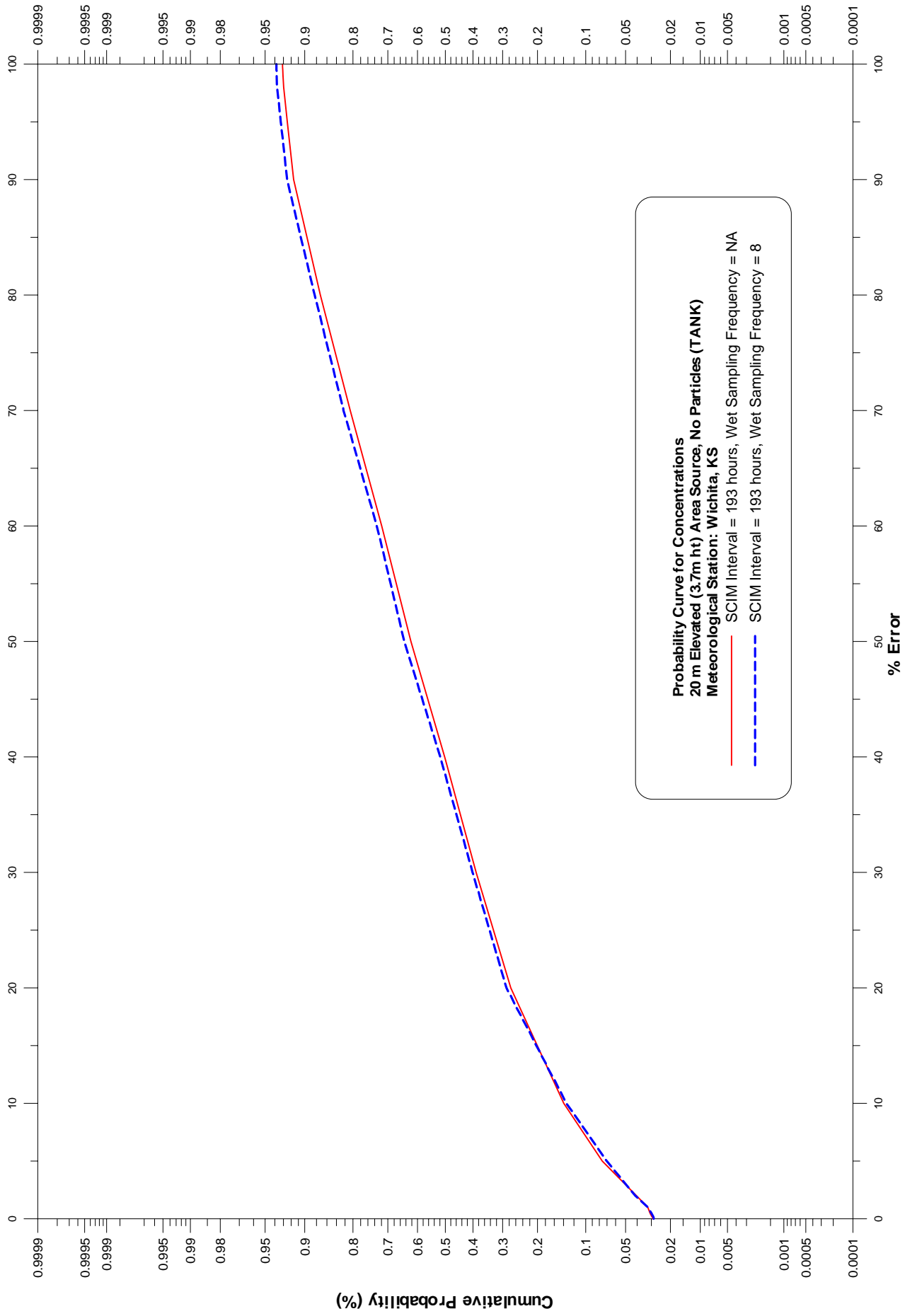


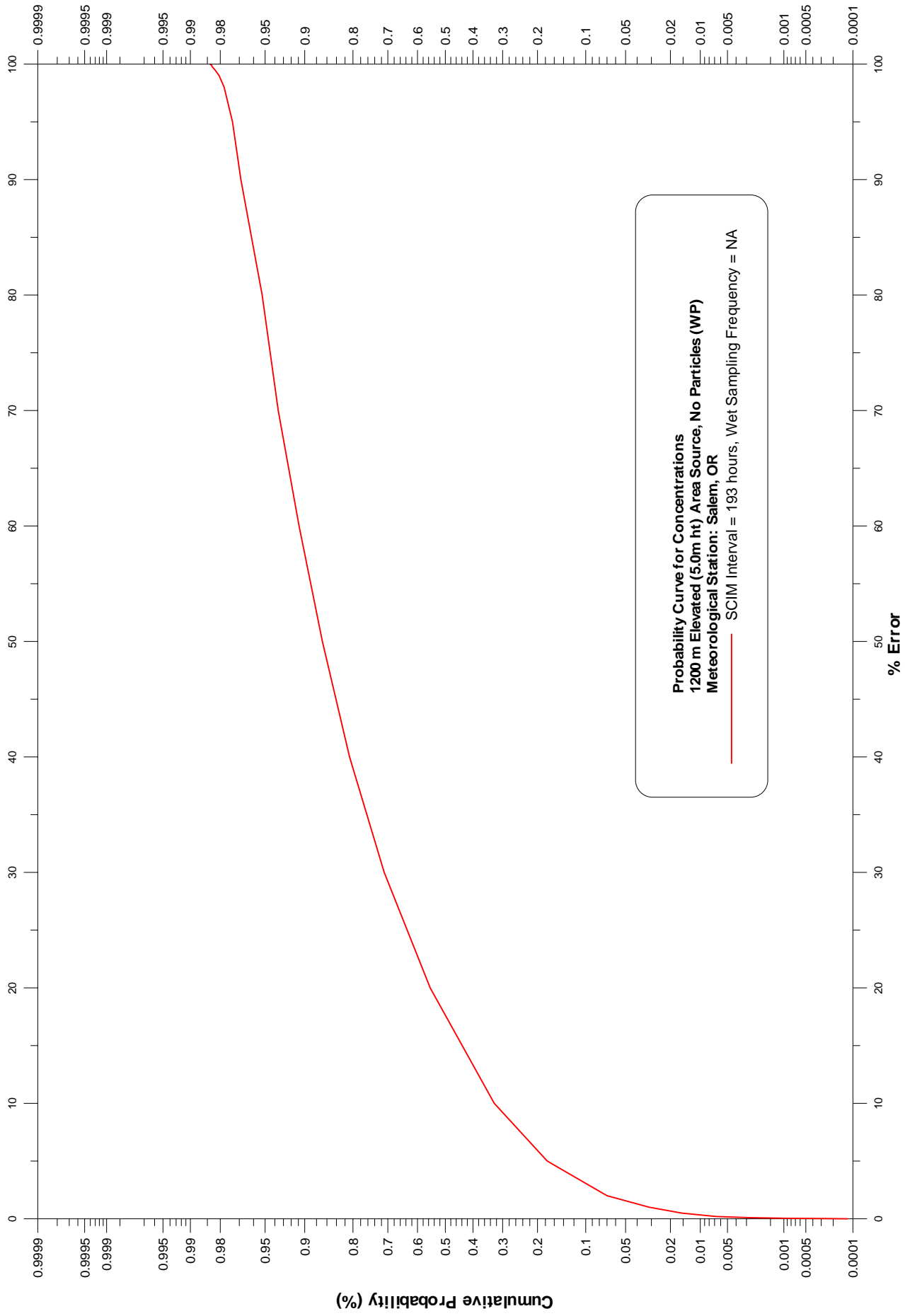


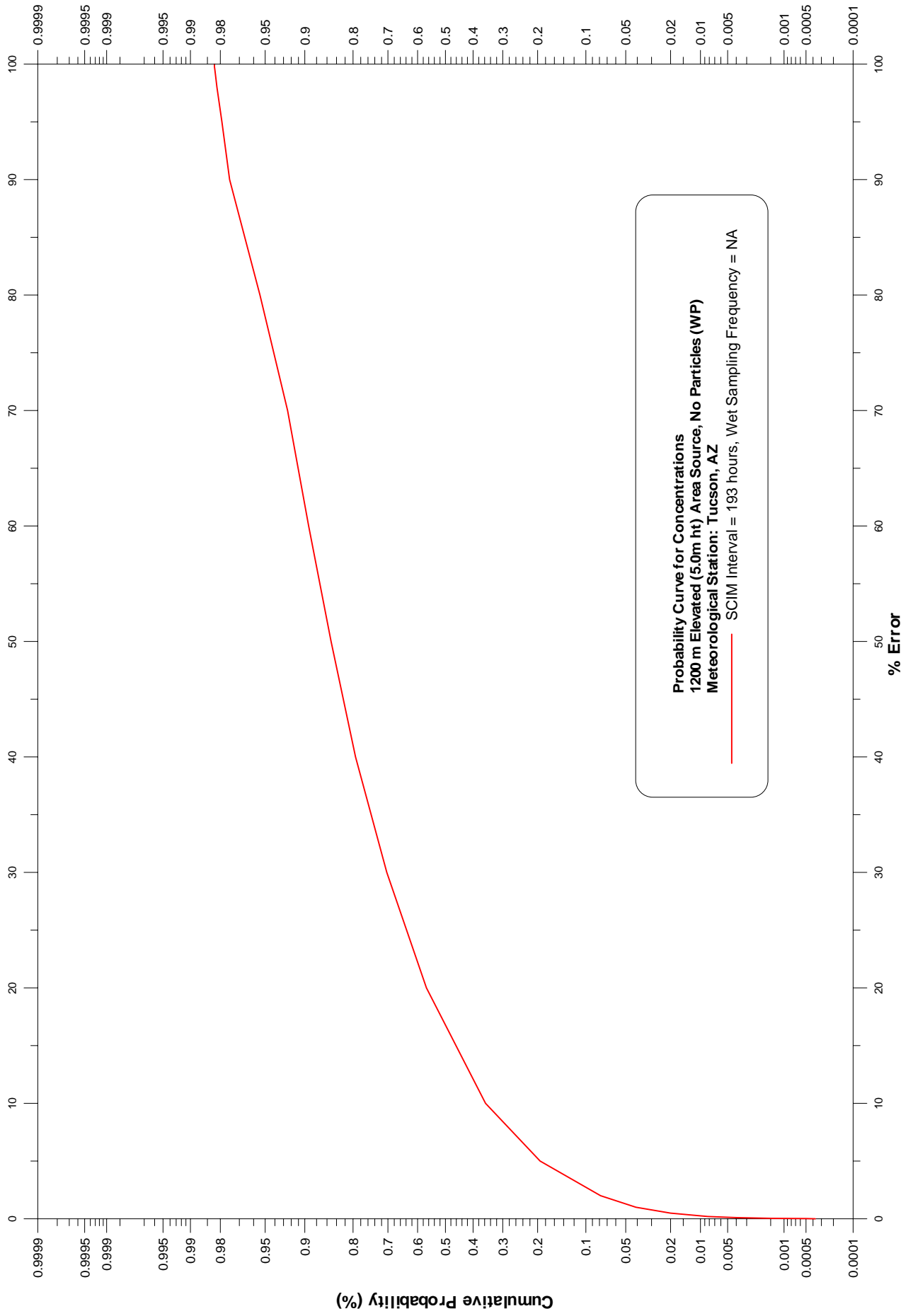


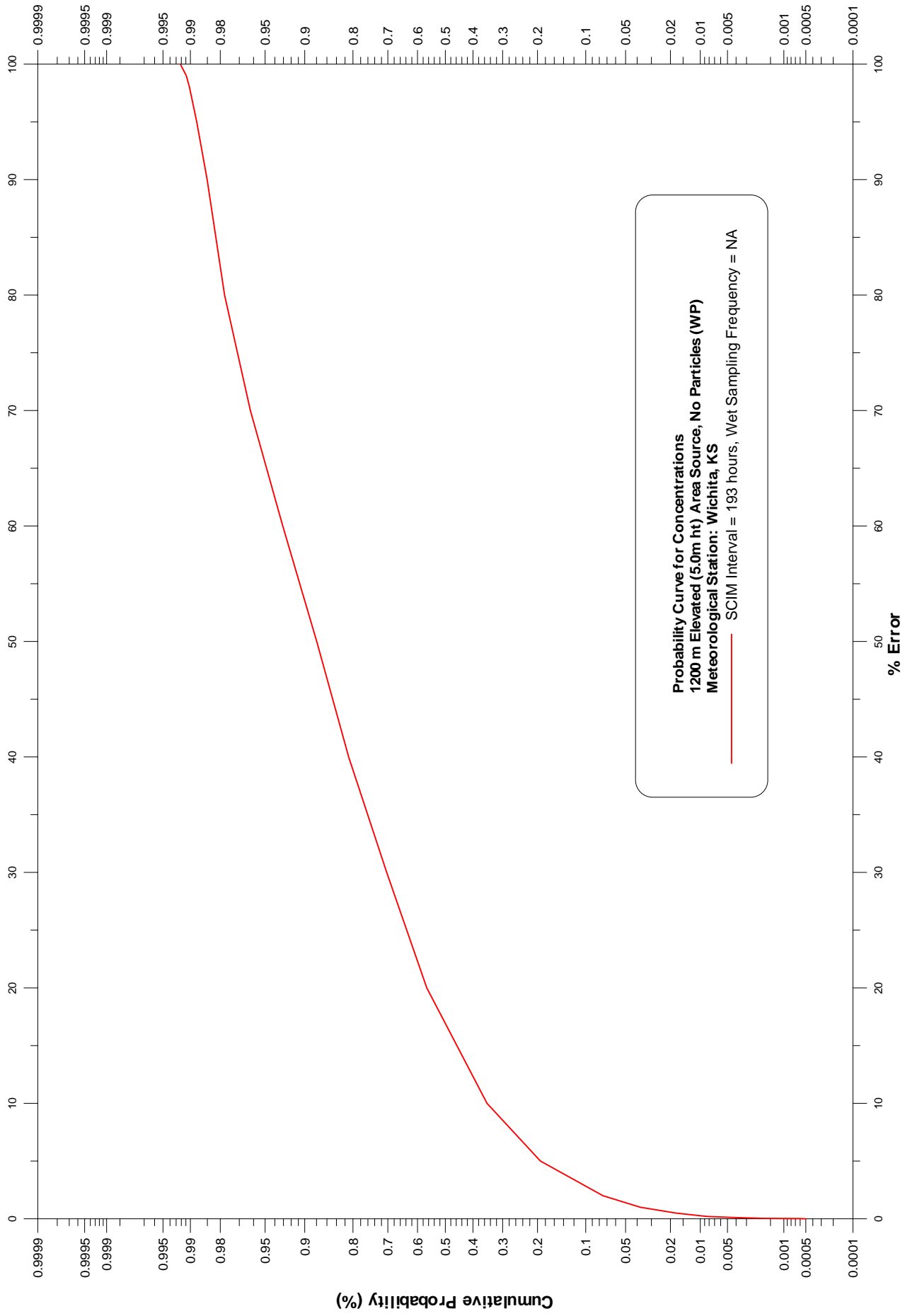


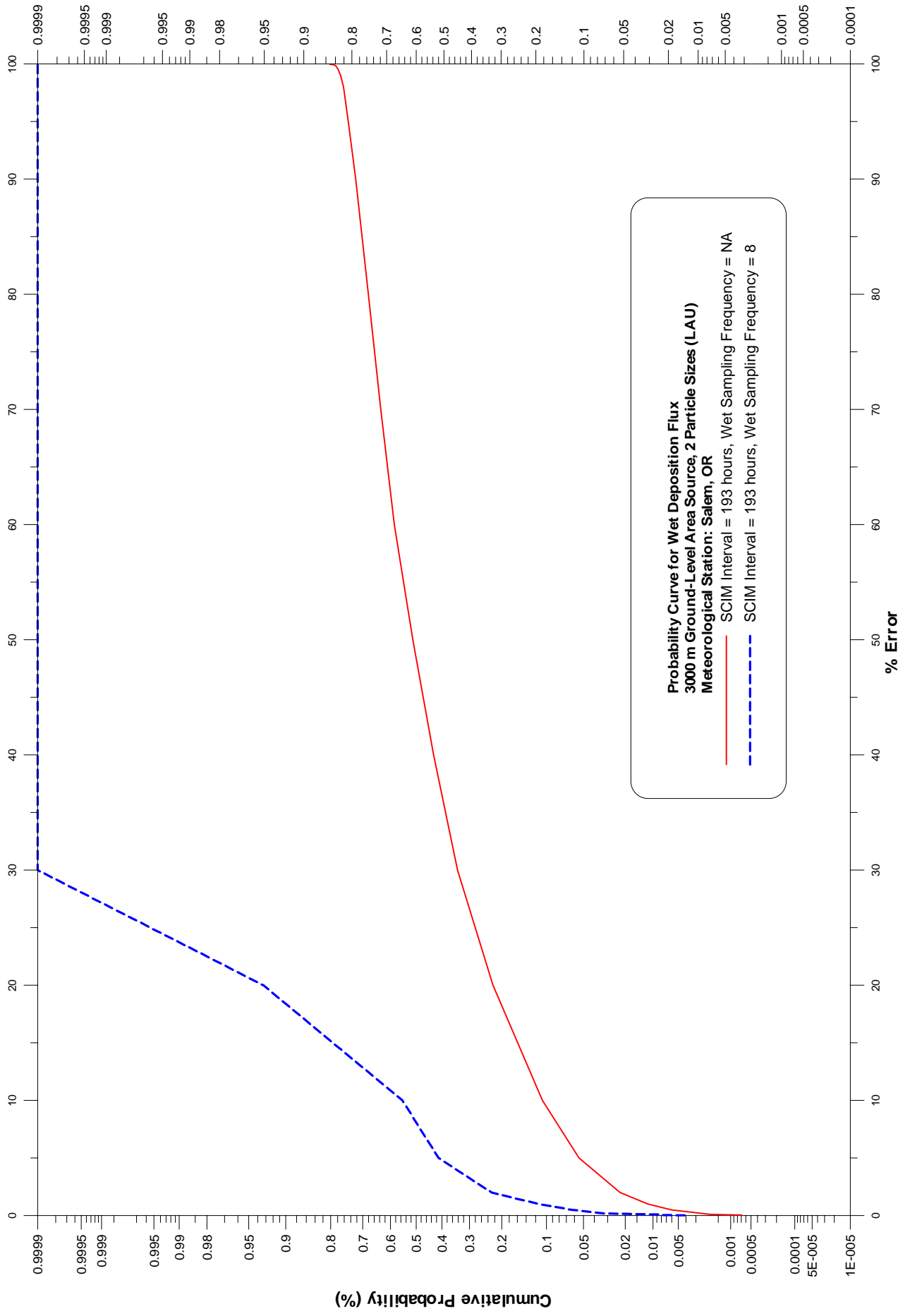


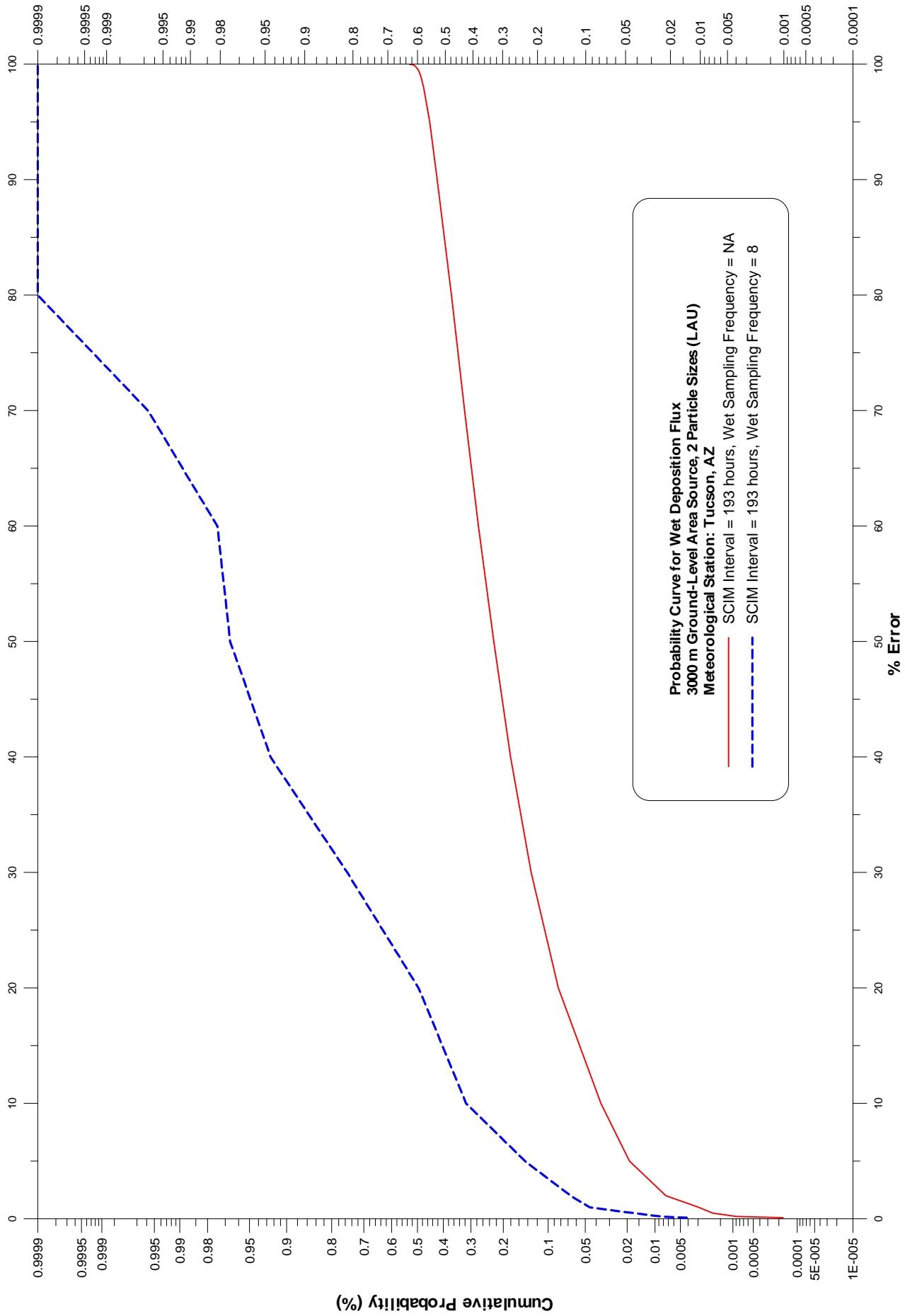


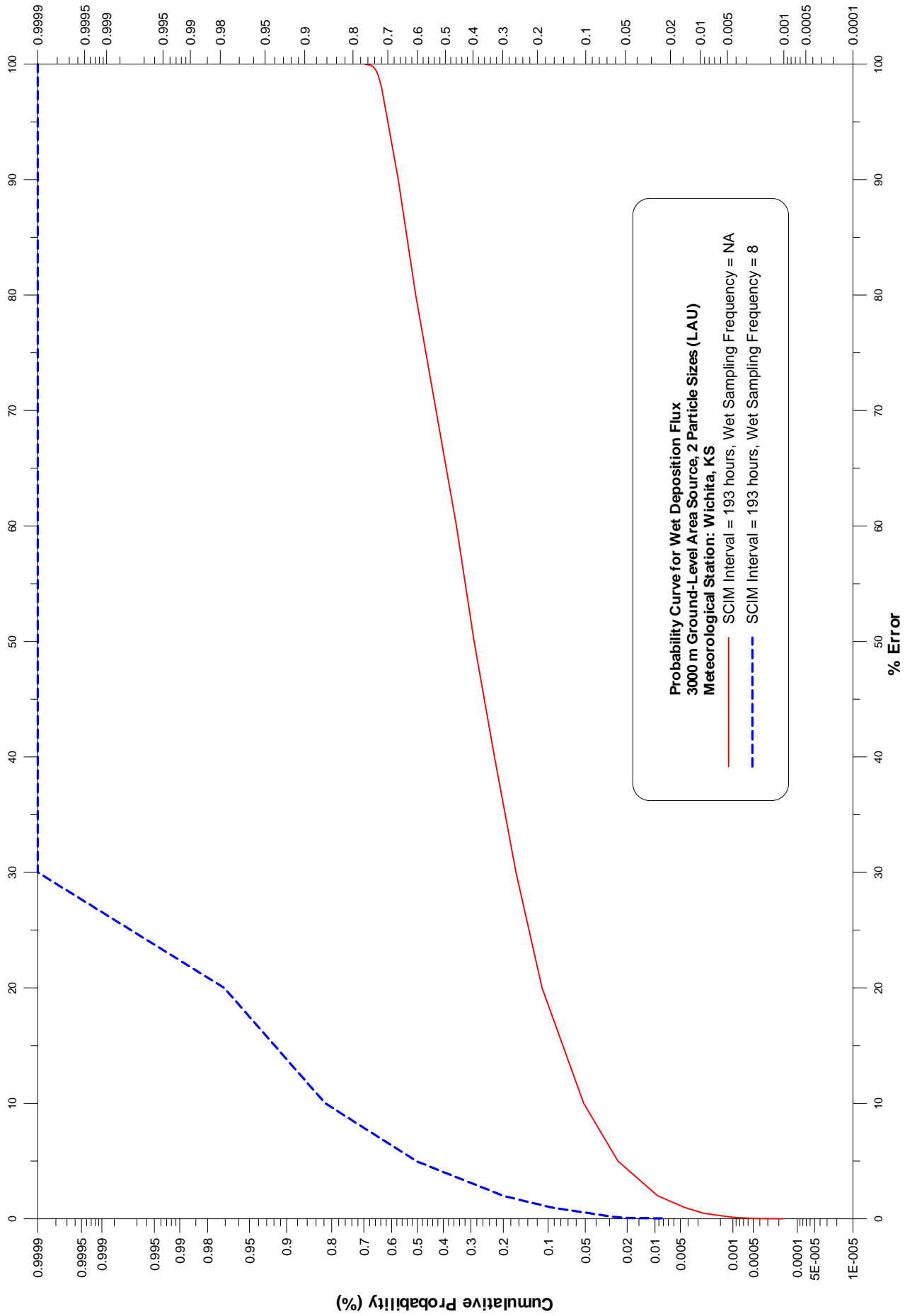


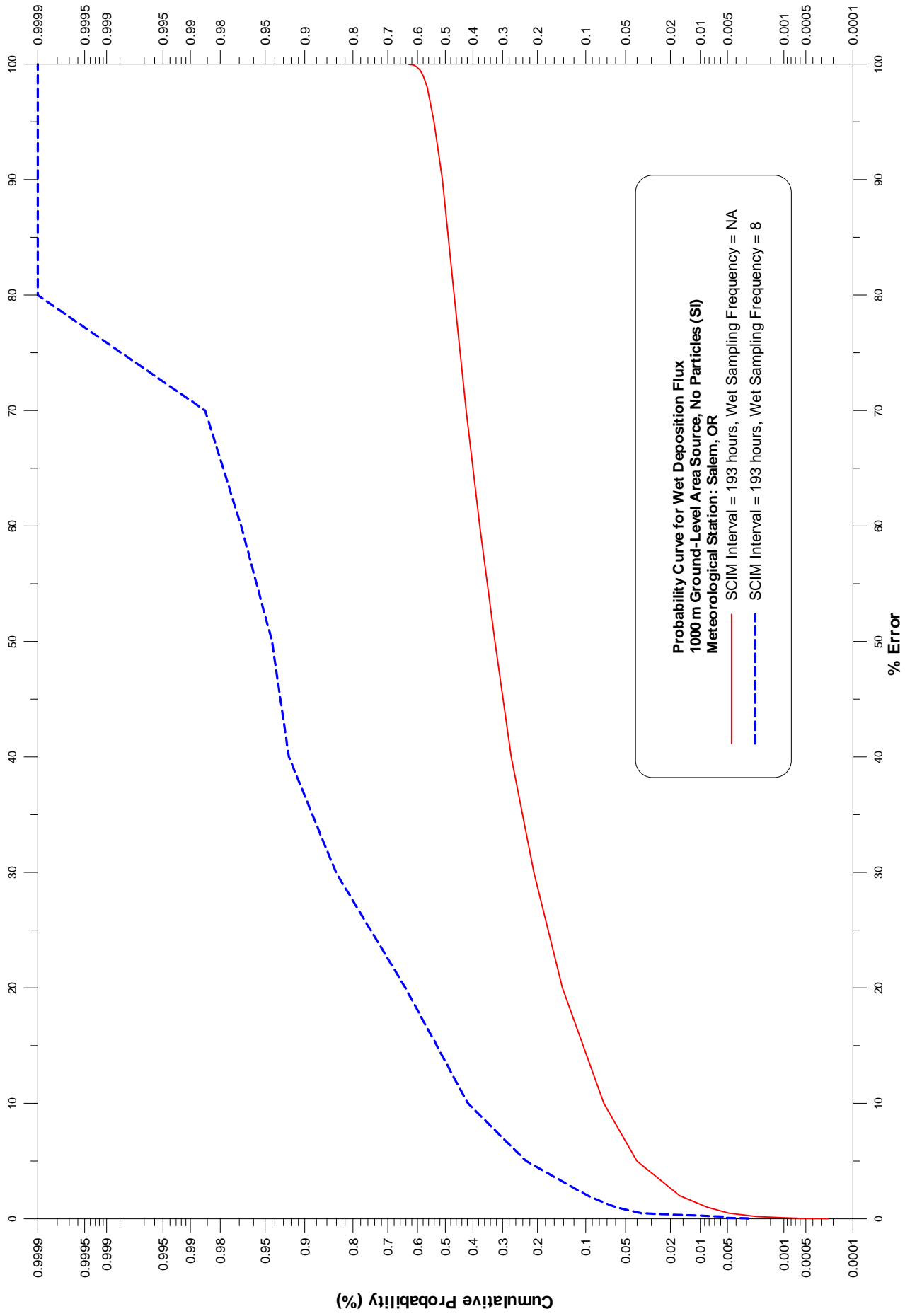


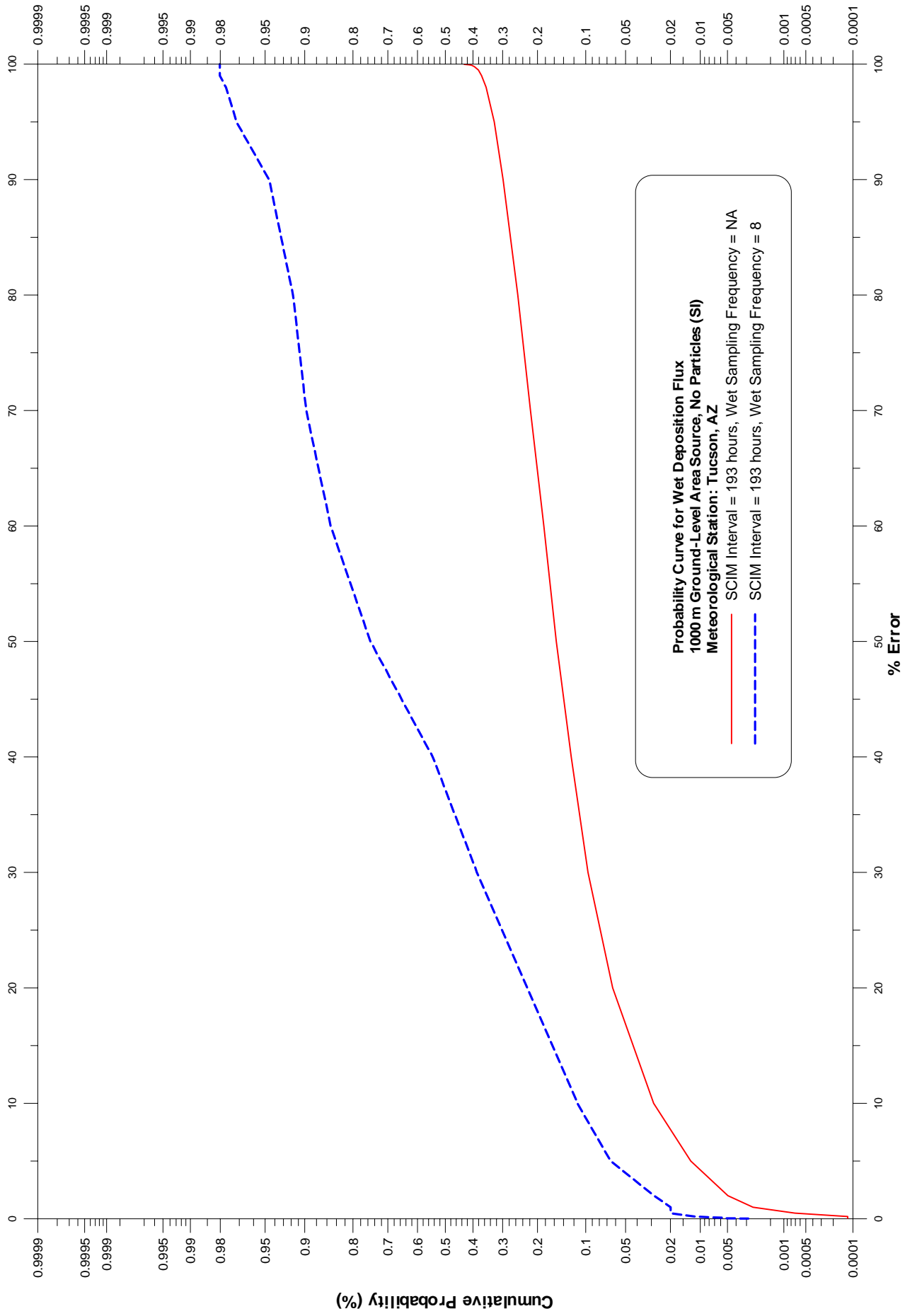


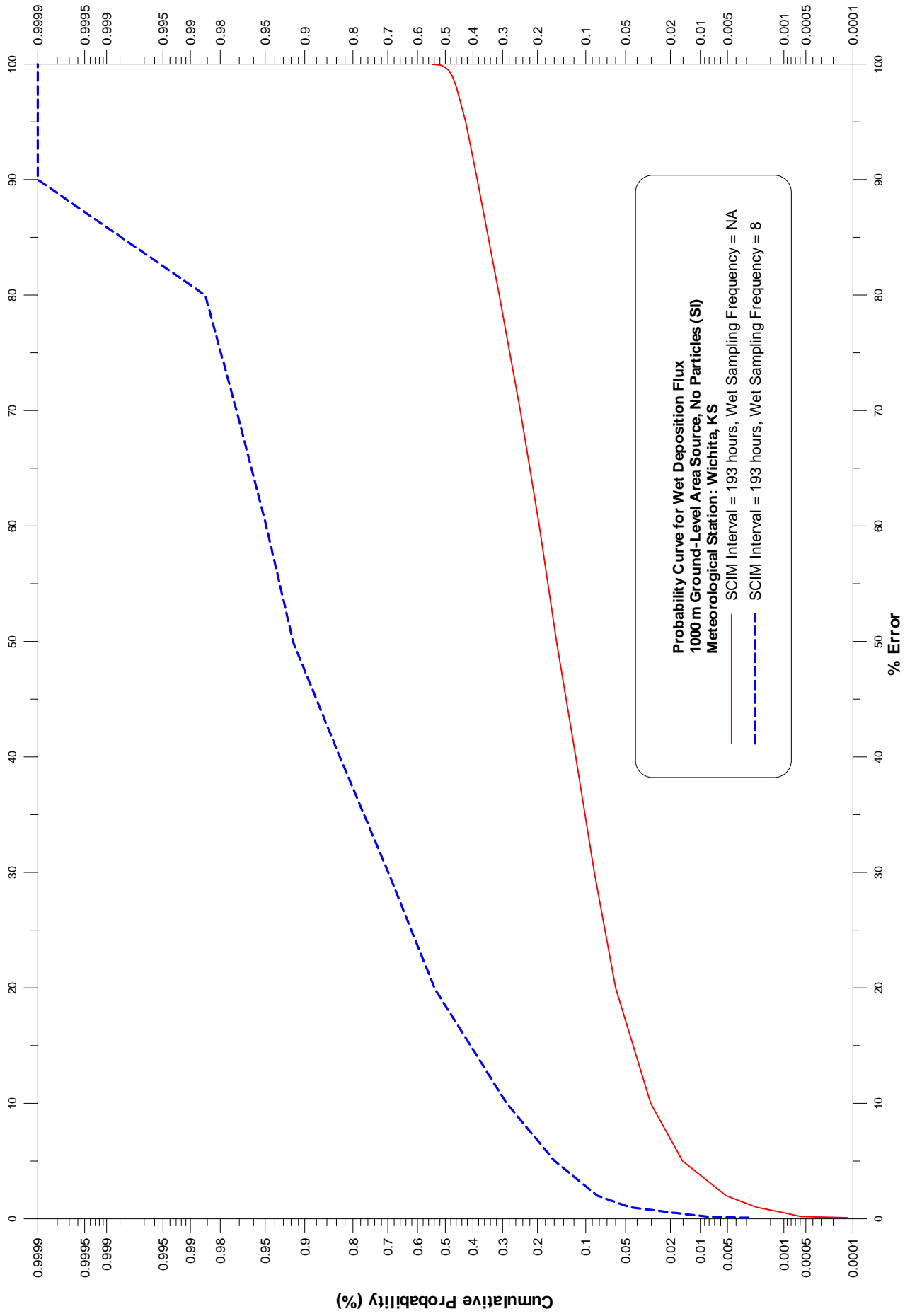


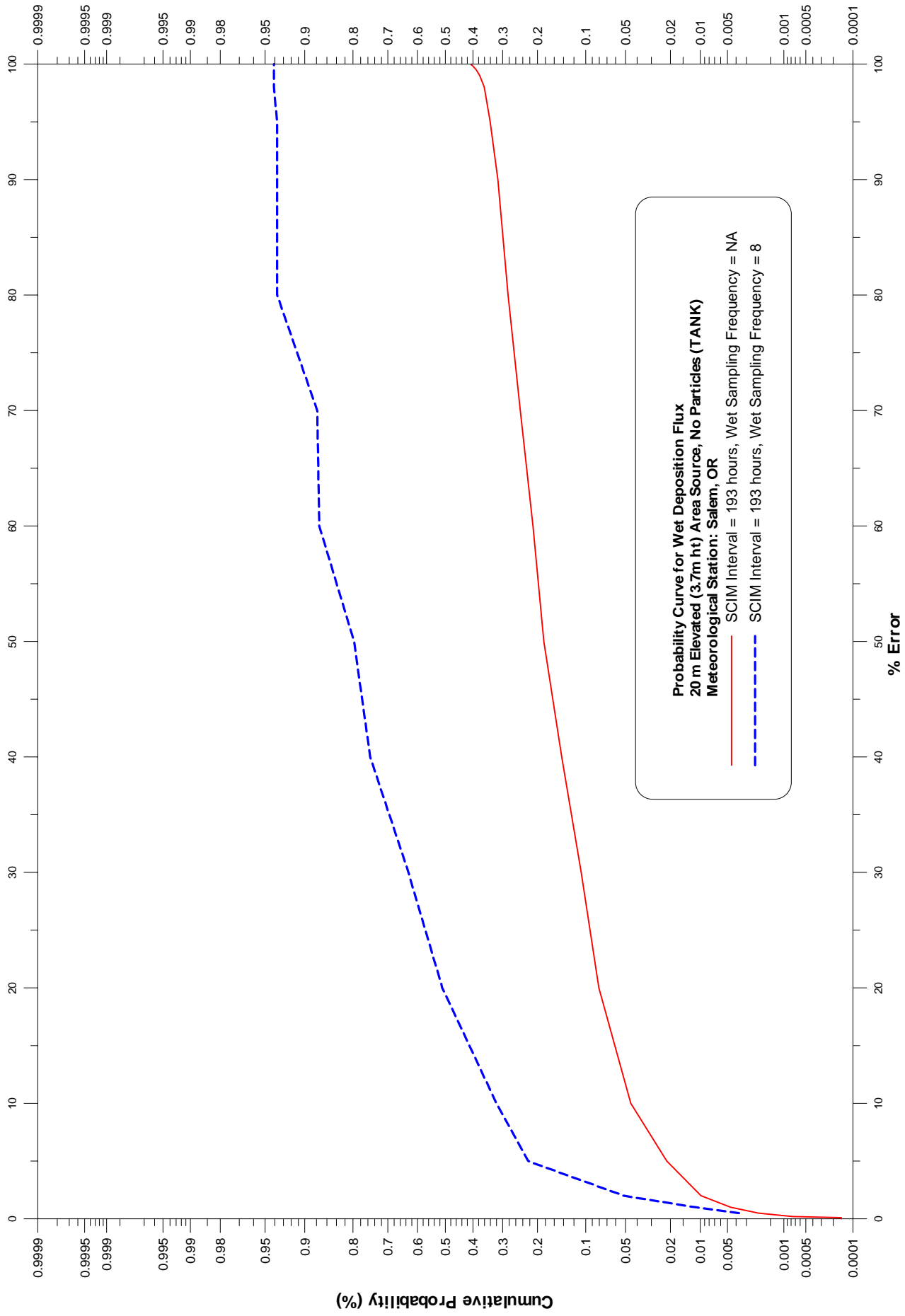


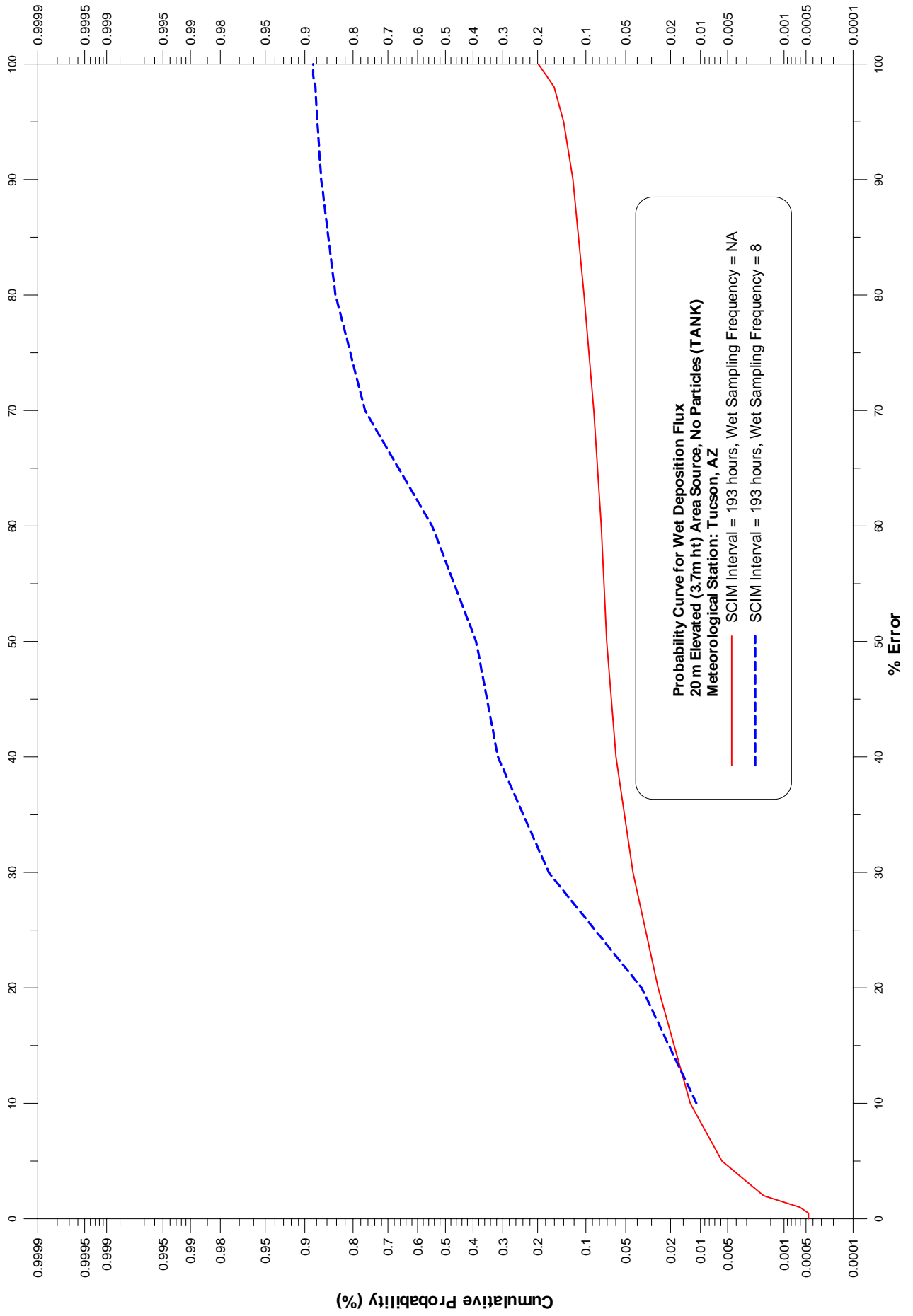


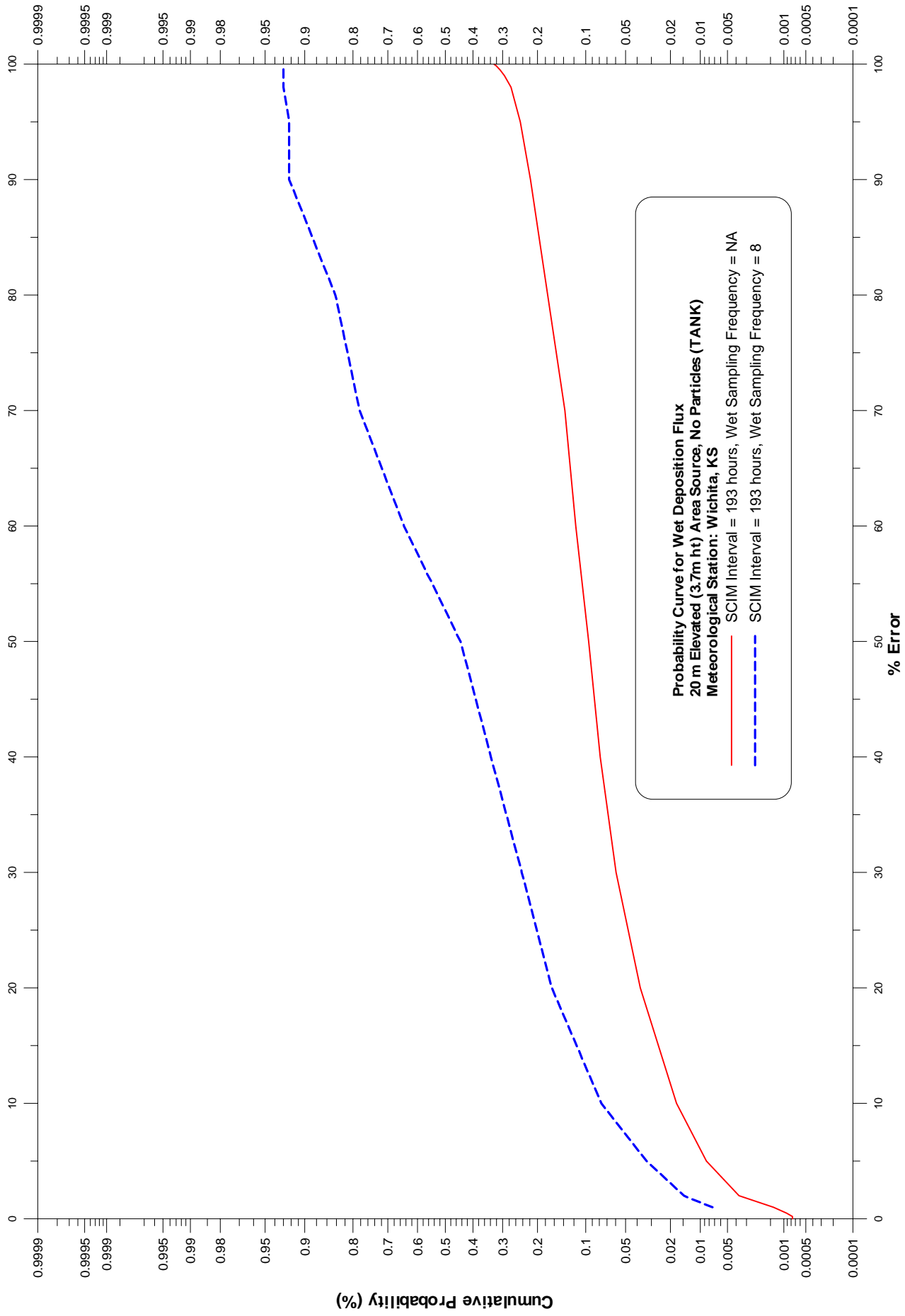








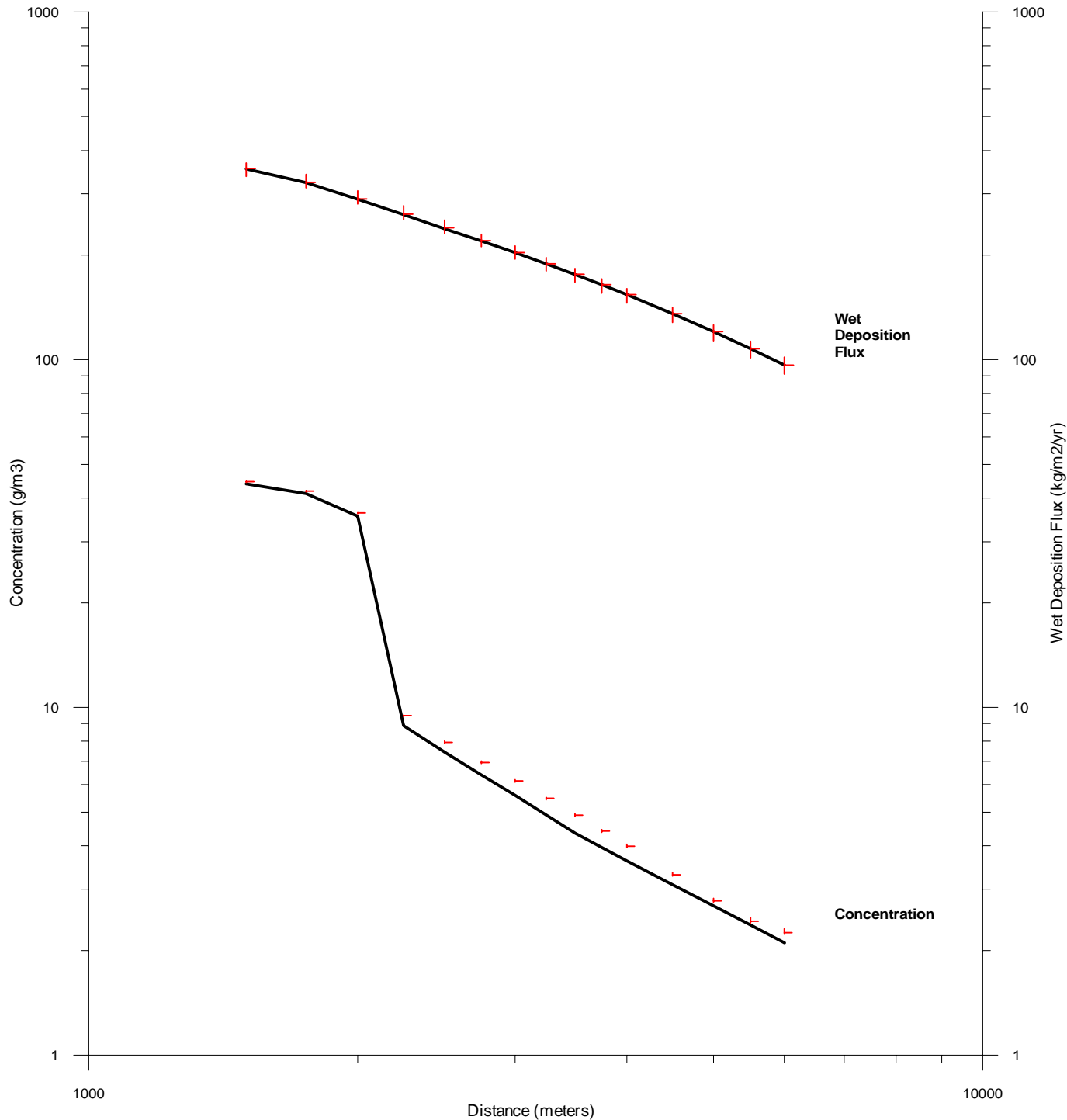




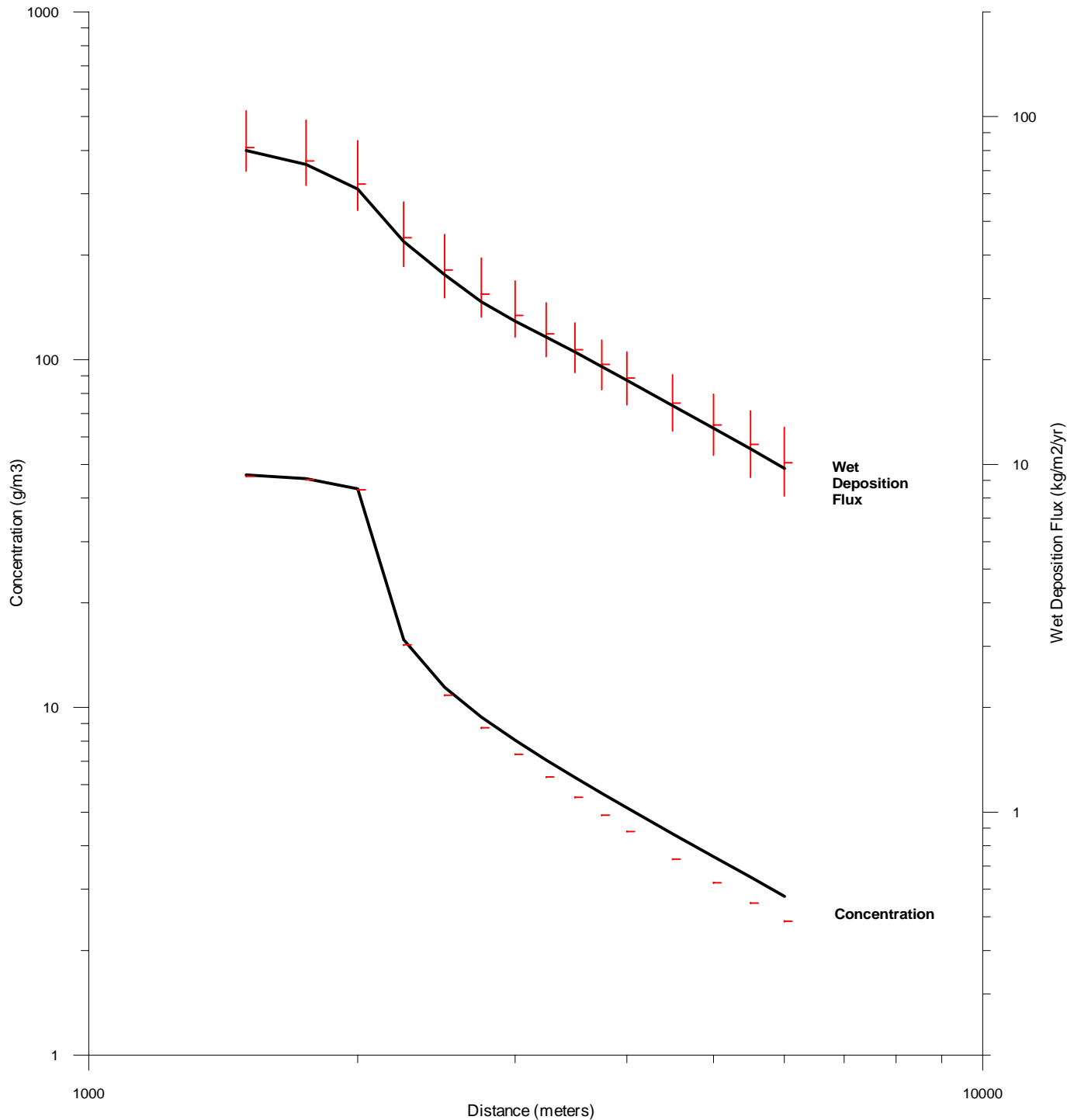
APPENDIX F

3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Salem
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
EIGHT WET SCIM'ING SAMPLES

— No SCIM
— Hi-Lo-Avg

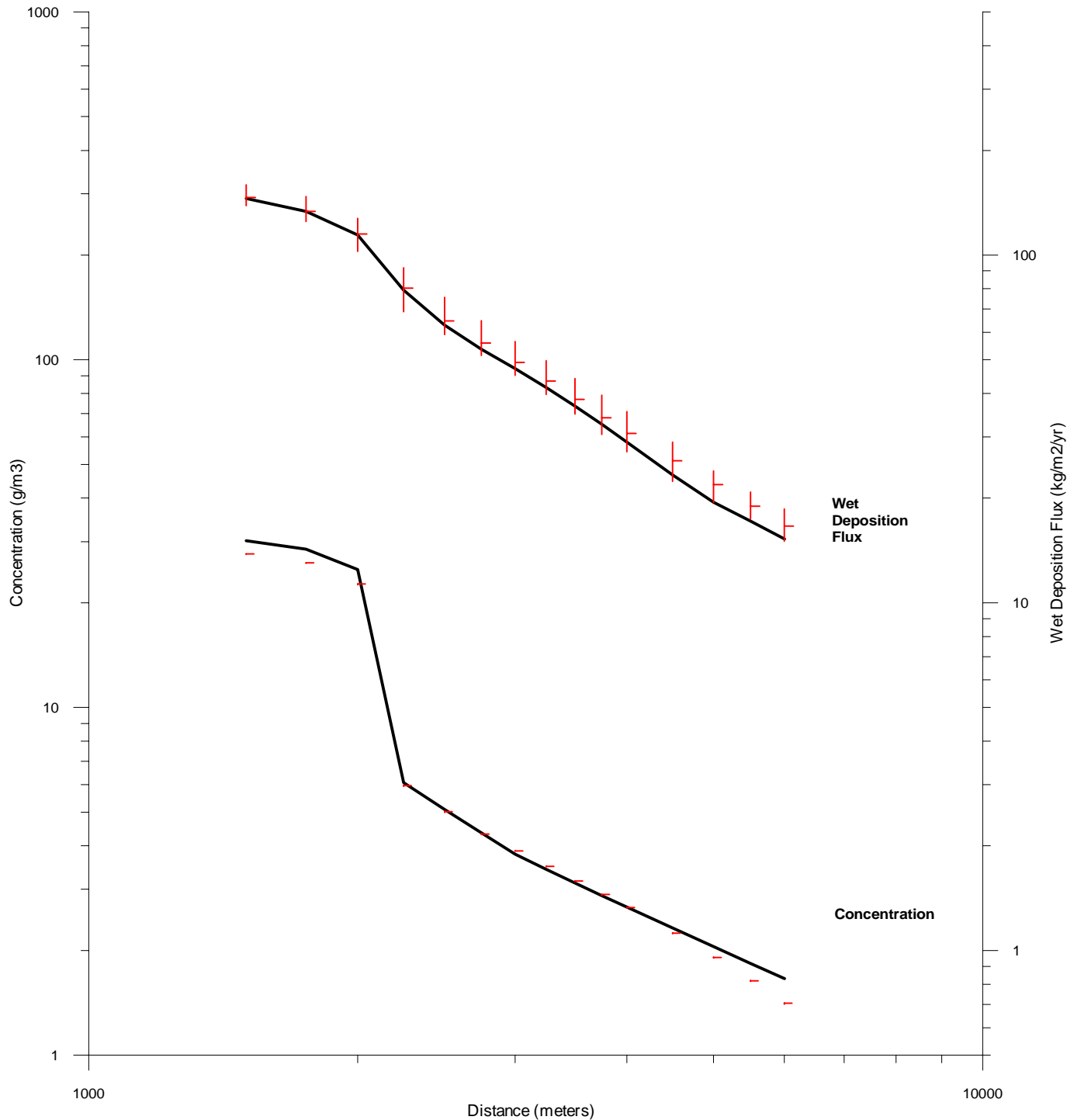


3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Tucson
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
EIGHT WET SCIM'ING SAMPLES
— No SCIM
— Hi-Lo-Avg

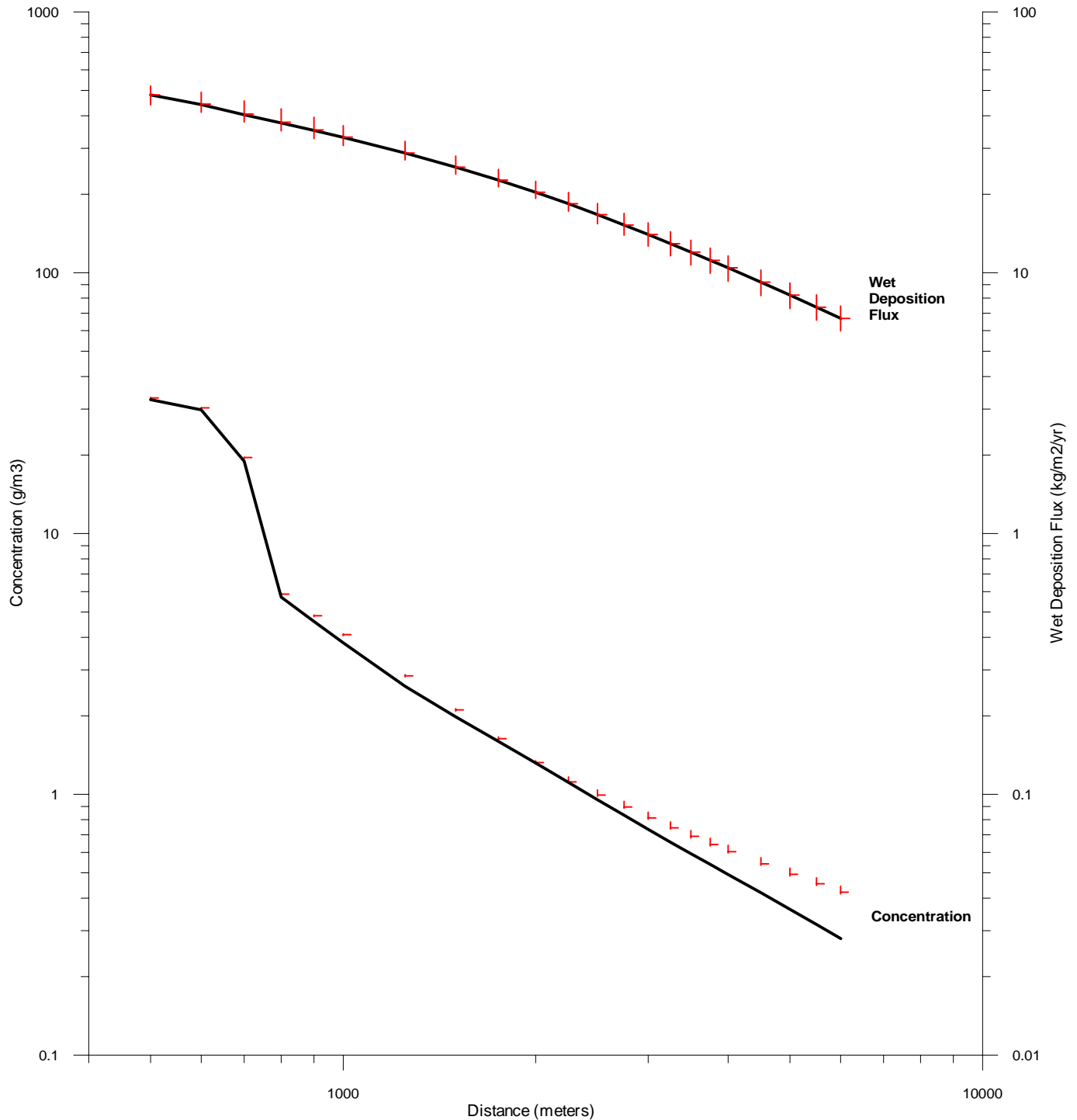


3000m Ground-Level Area Source (LAU)
2 Particle Sizes
Met Station: Wichita
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
EIGHT WET SCIM'ING SAMPLES

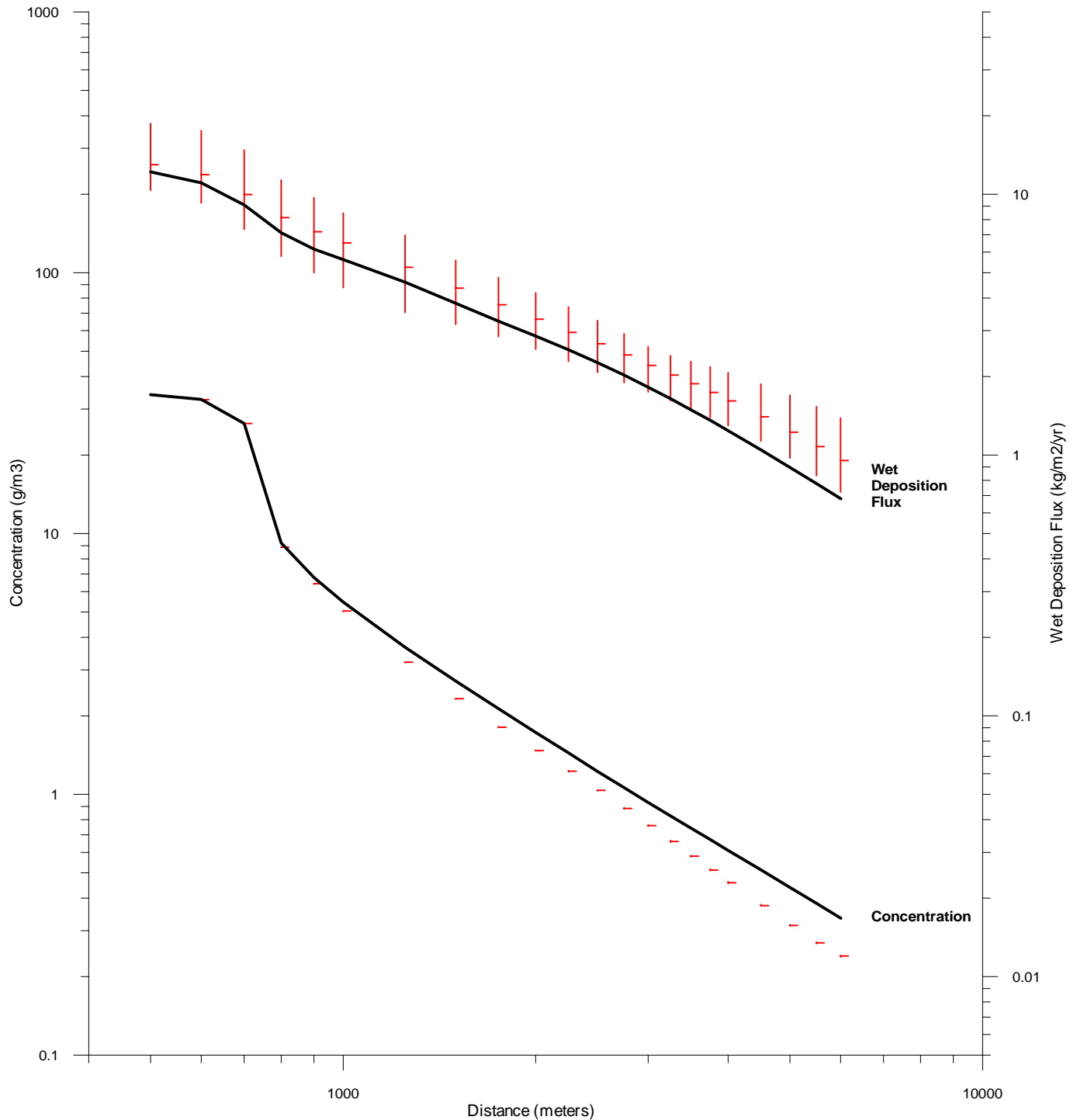
— No SCIM
— Hi-Lo-Avg



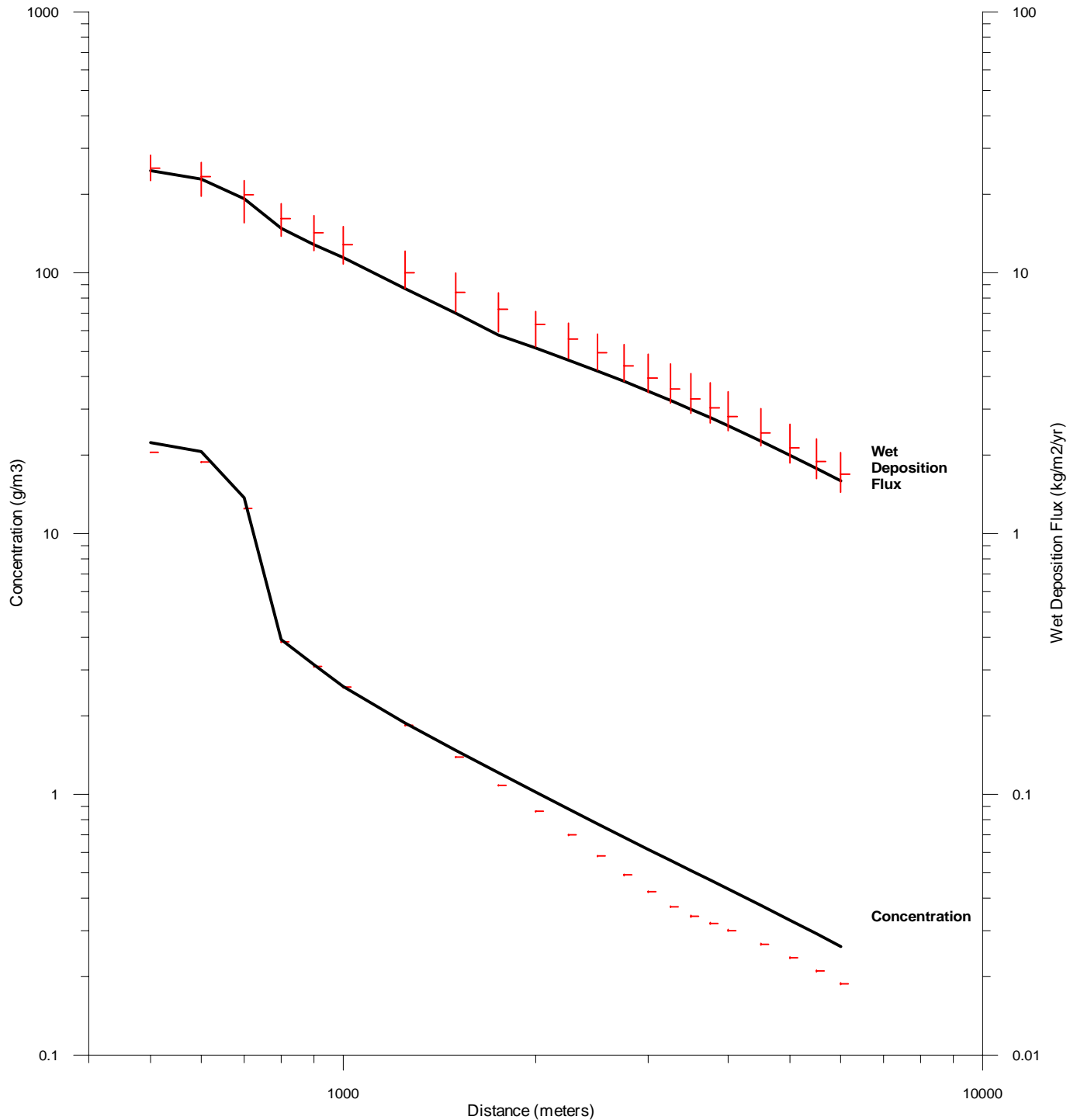
1000m Ground-Level Area Source (SI)
No Particles
Met Station: Salem
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
EIGHT WET SCIM'ING SAMPLES
— No SCIM
— Hi-Lo-Avg



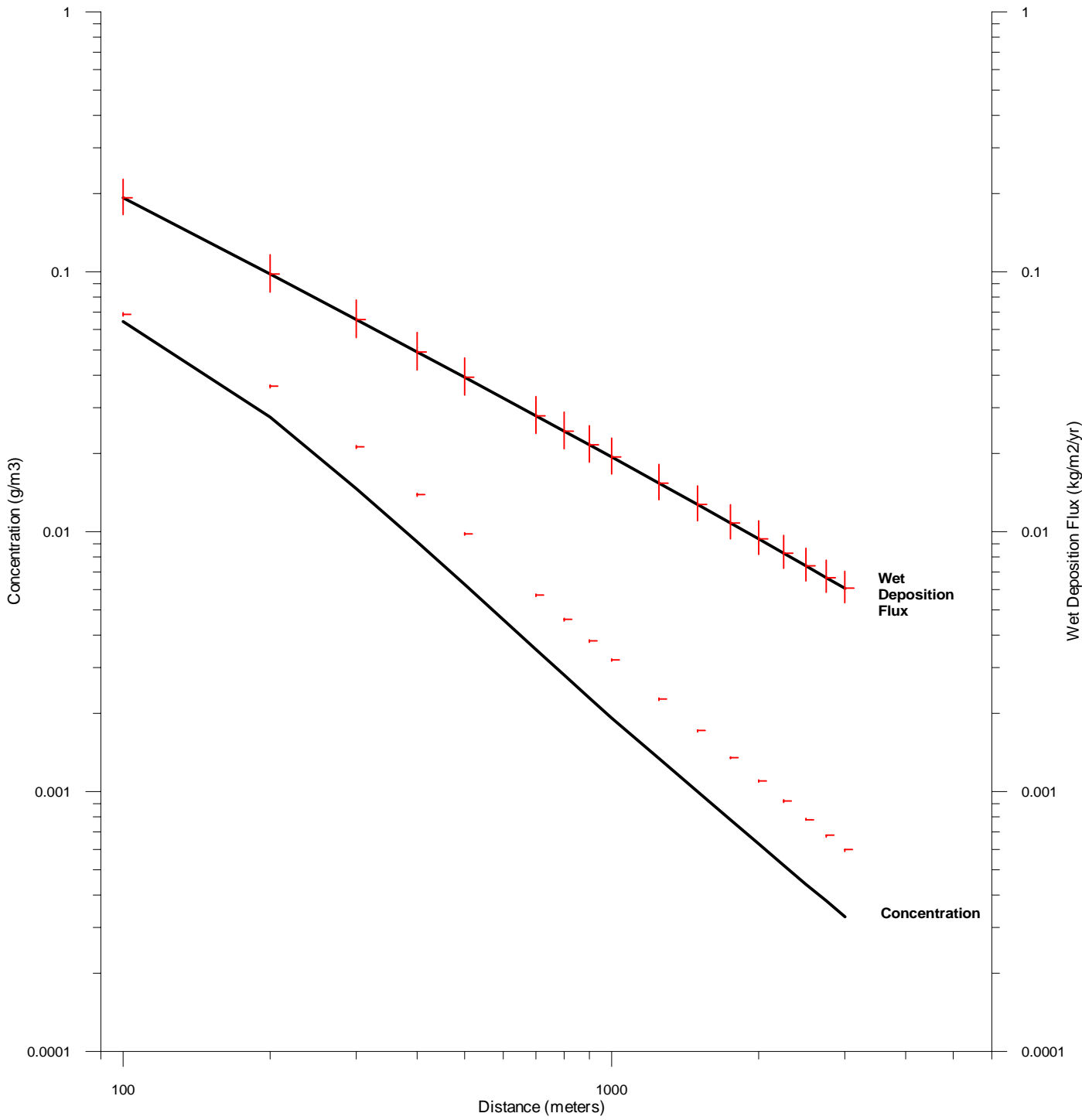
1000m Ground-Level Area Source (SI)
No Particles
Met Station: Tucson
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
EIGHT WET SCIM'ING SAMPLES
— No SCIM
— Hi-Lo-Avg



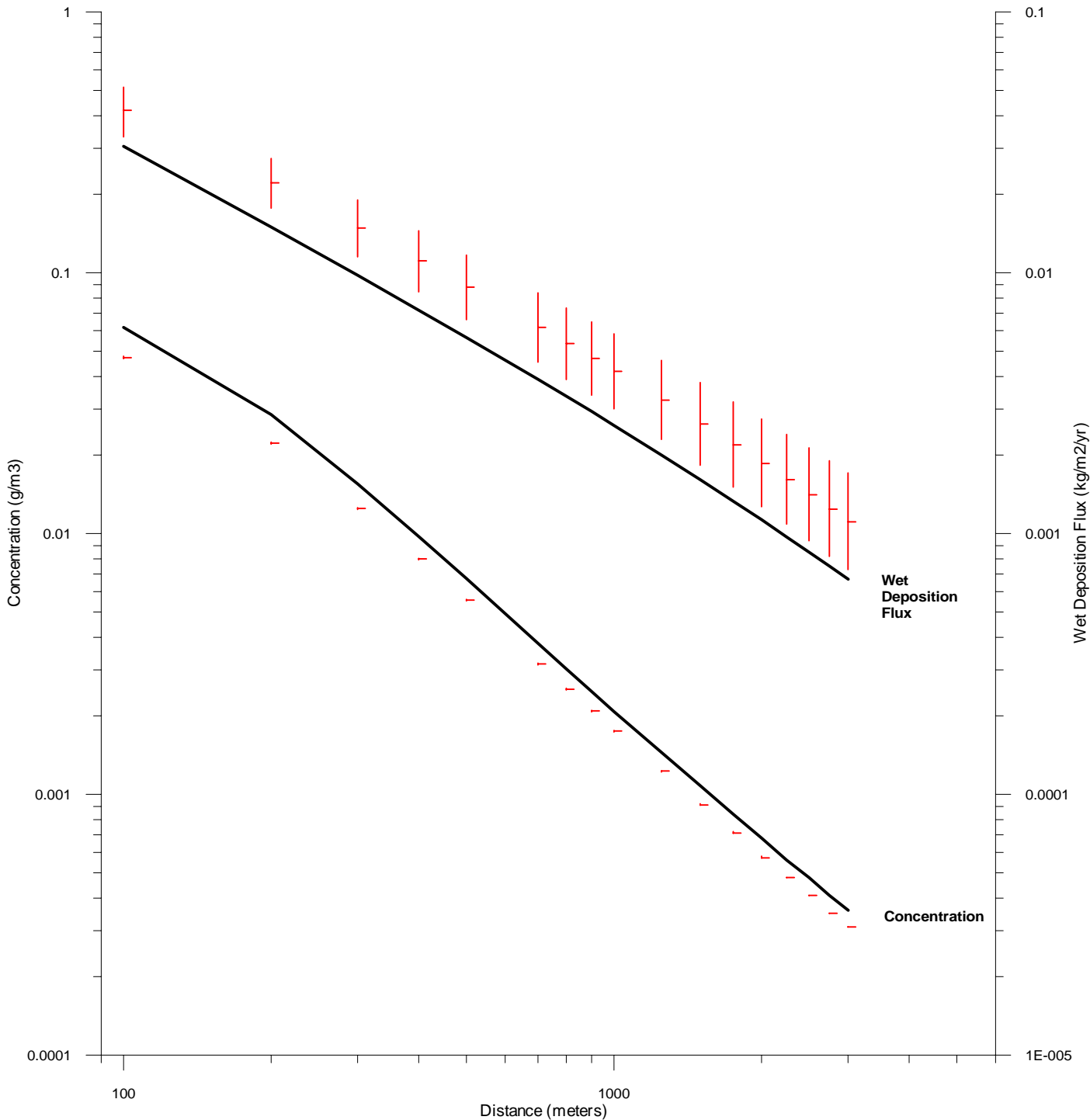
1000m Ground-Level Area Source (SI)
No Particles
Met Station: Wichita
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
EIGHT WET SCIM'ING SAMPLES
— No SCIM
— Hi-Lo-Avg



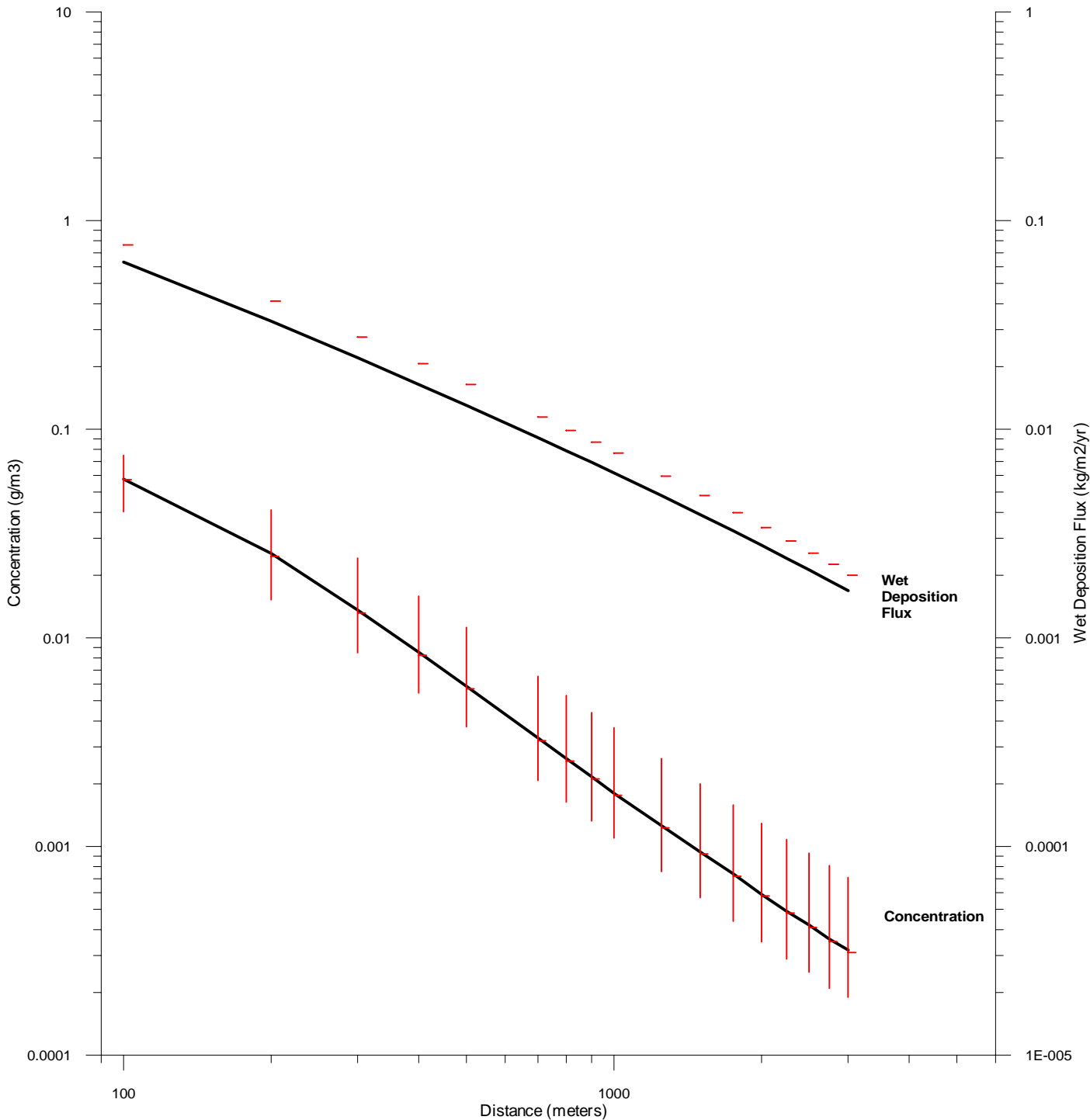
20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Salem
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
EIGHT WET SCIM'ING SAMPLES
— No SCIM
— Hi-Lo-Avg



20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Tucson
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
EIGHT WET SCIM'ING SAMPLES
— No SCIM
— Hi-Lo-Avg

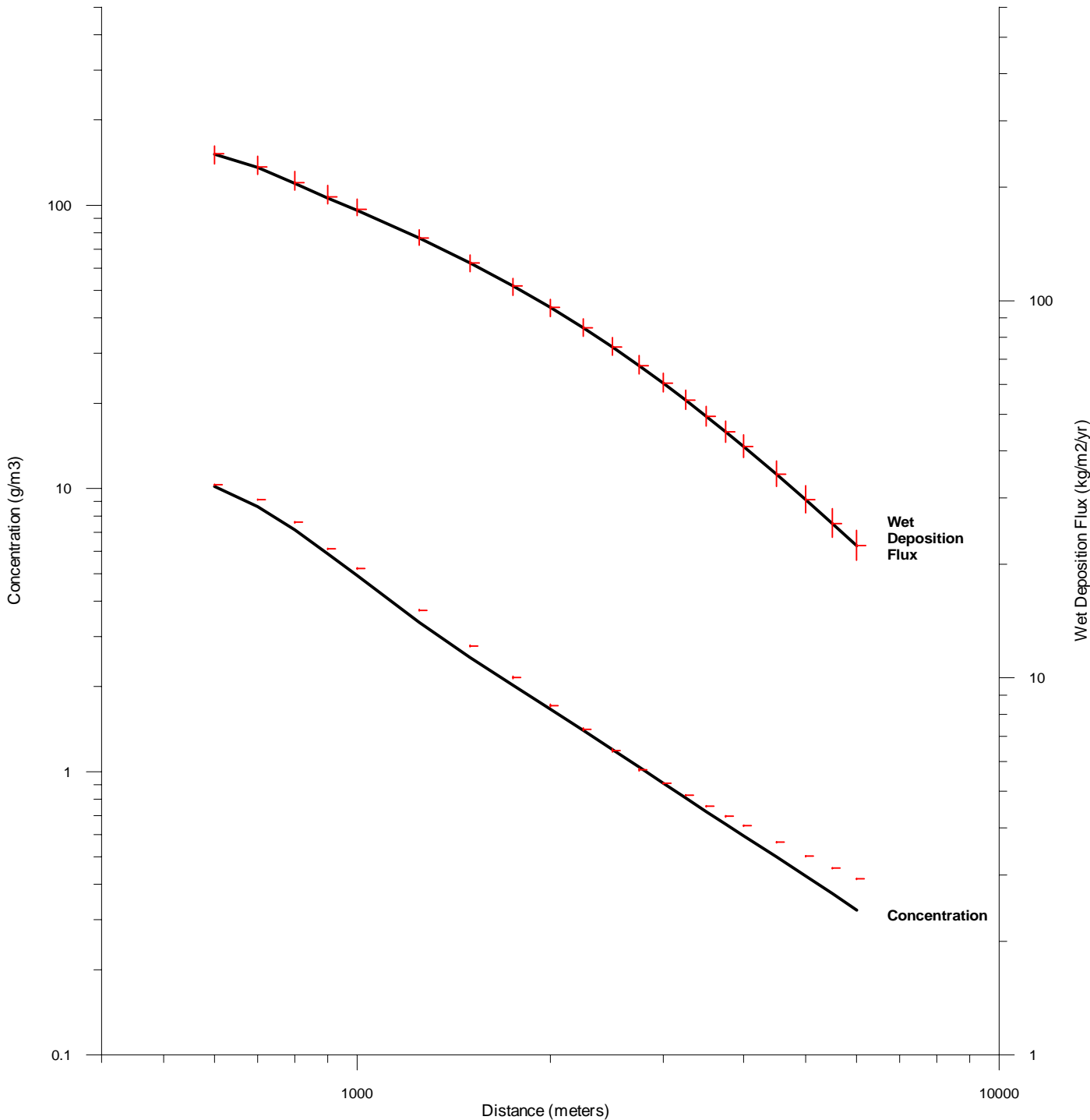


20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Wichita
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
— No SCIM
— Hi-Lo-Avg

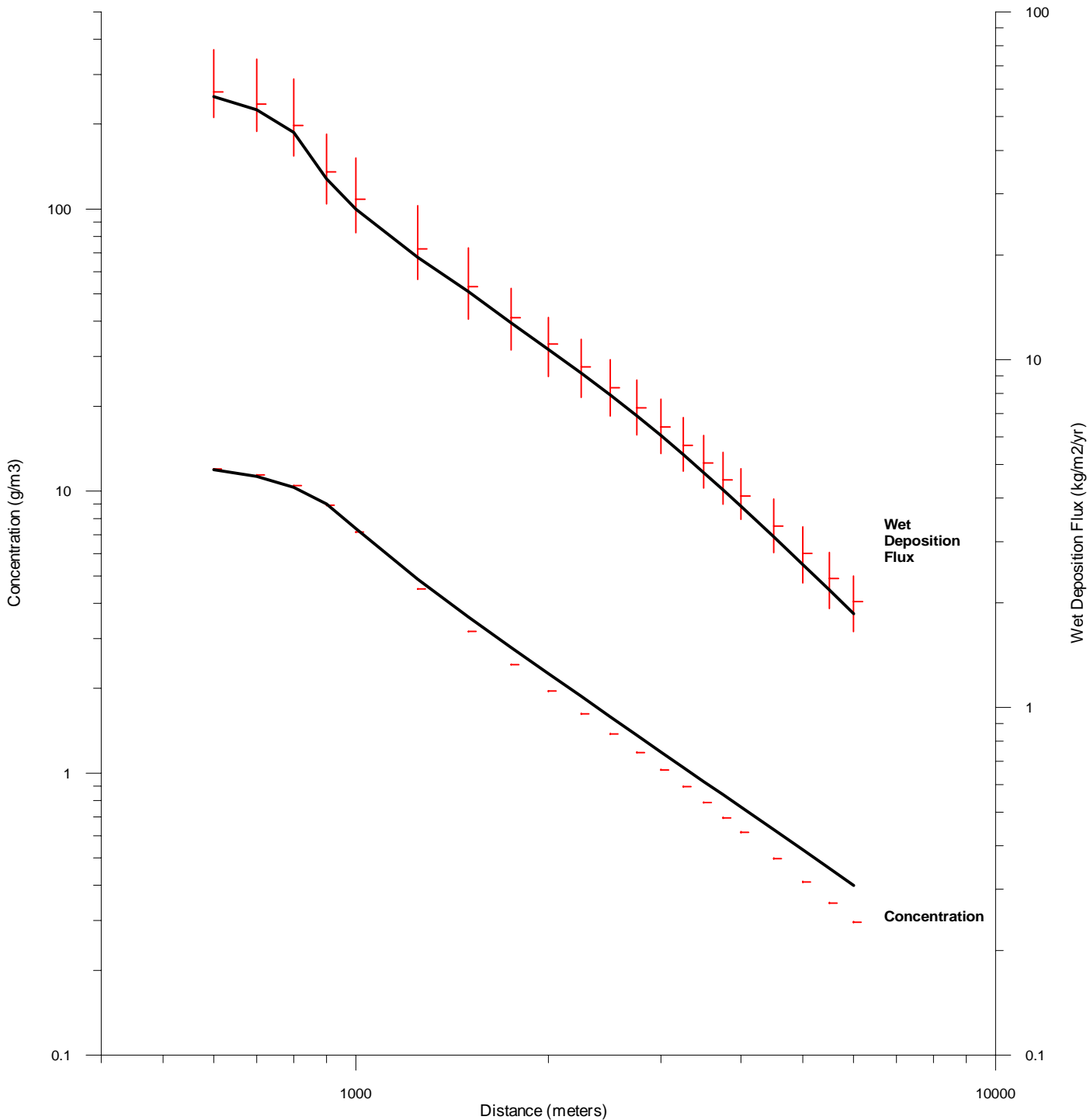


1200m Elevated (5.0m ht) Area Source (WP)
4 Particle Sizes
Met Station: Salem
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
EIGHT WET SCIM'ING SAMPLES

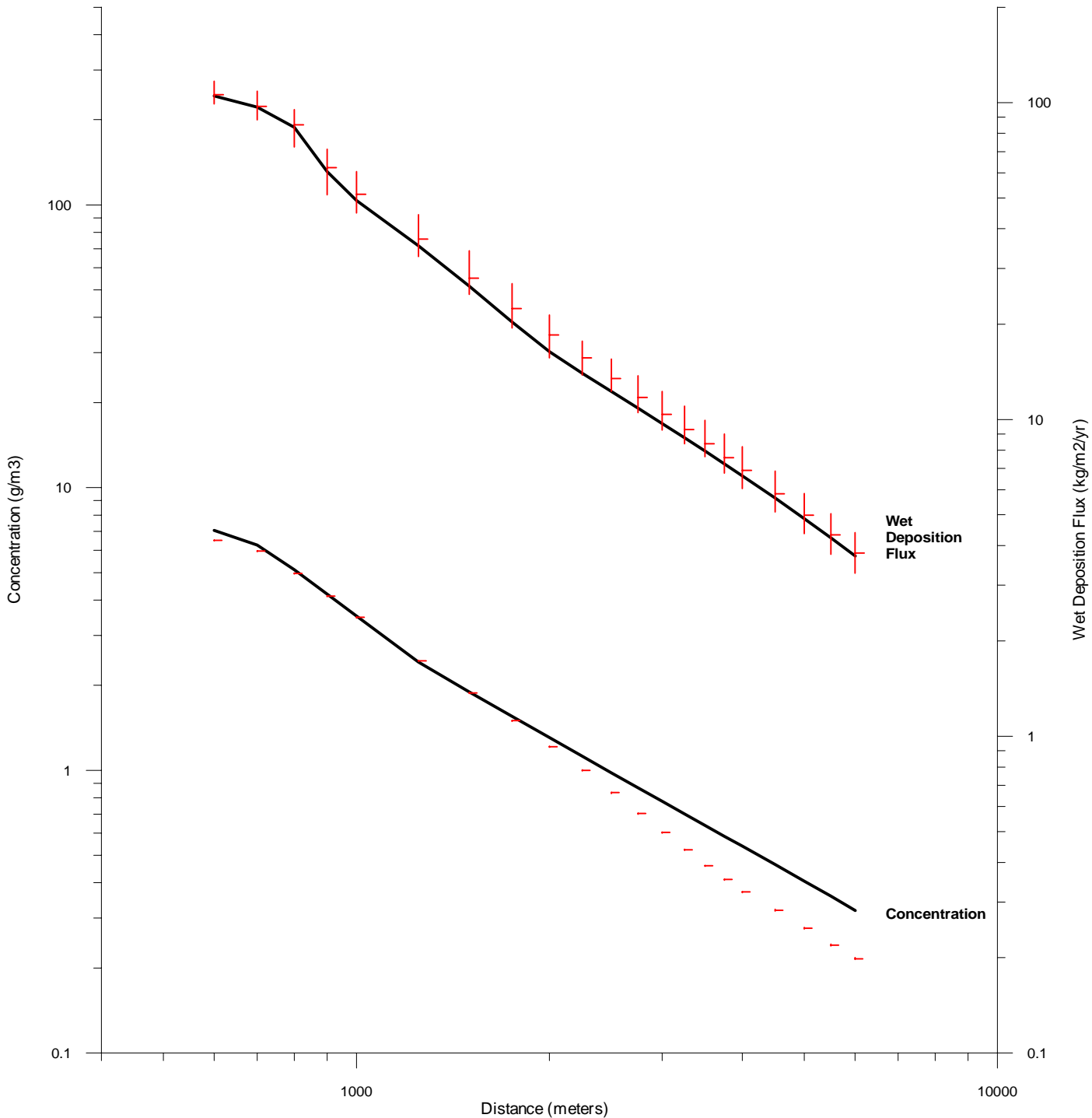
— No SCIM
— Hi-Lo-Avg



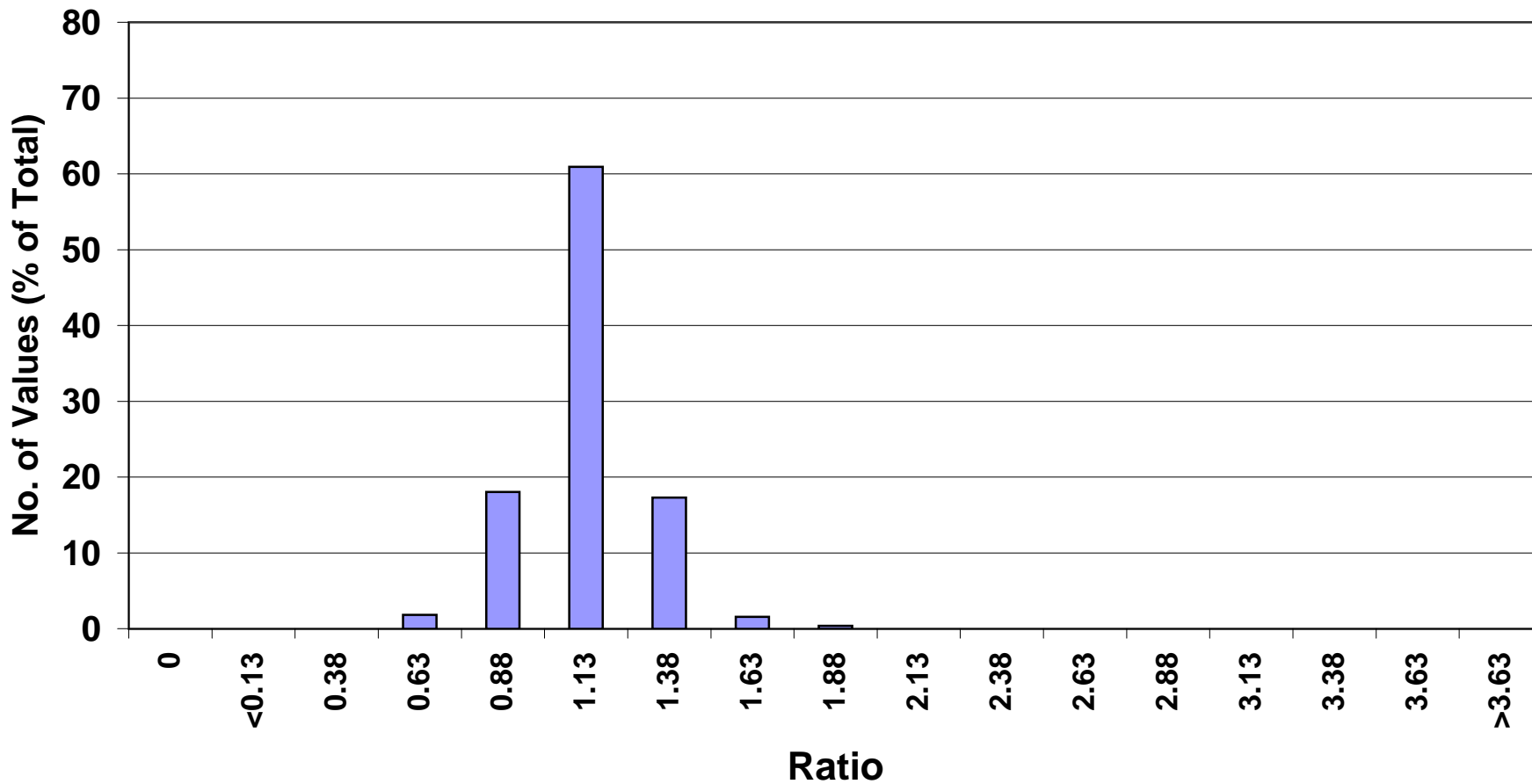
1200m Elevated (5.0m ht) Area Source (WP)
4 Particle Sizes
Met Station: Tucson
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
EIGHT WET SCIM'ING SAMPLES
— No SCIM
— Hi-Lo-Avg



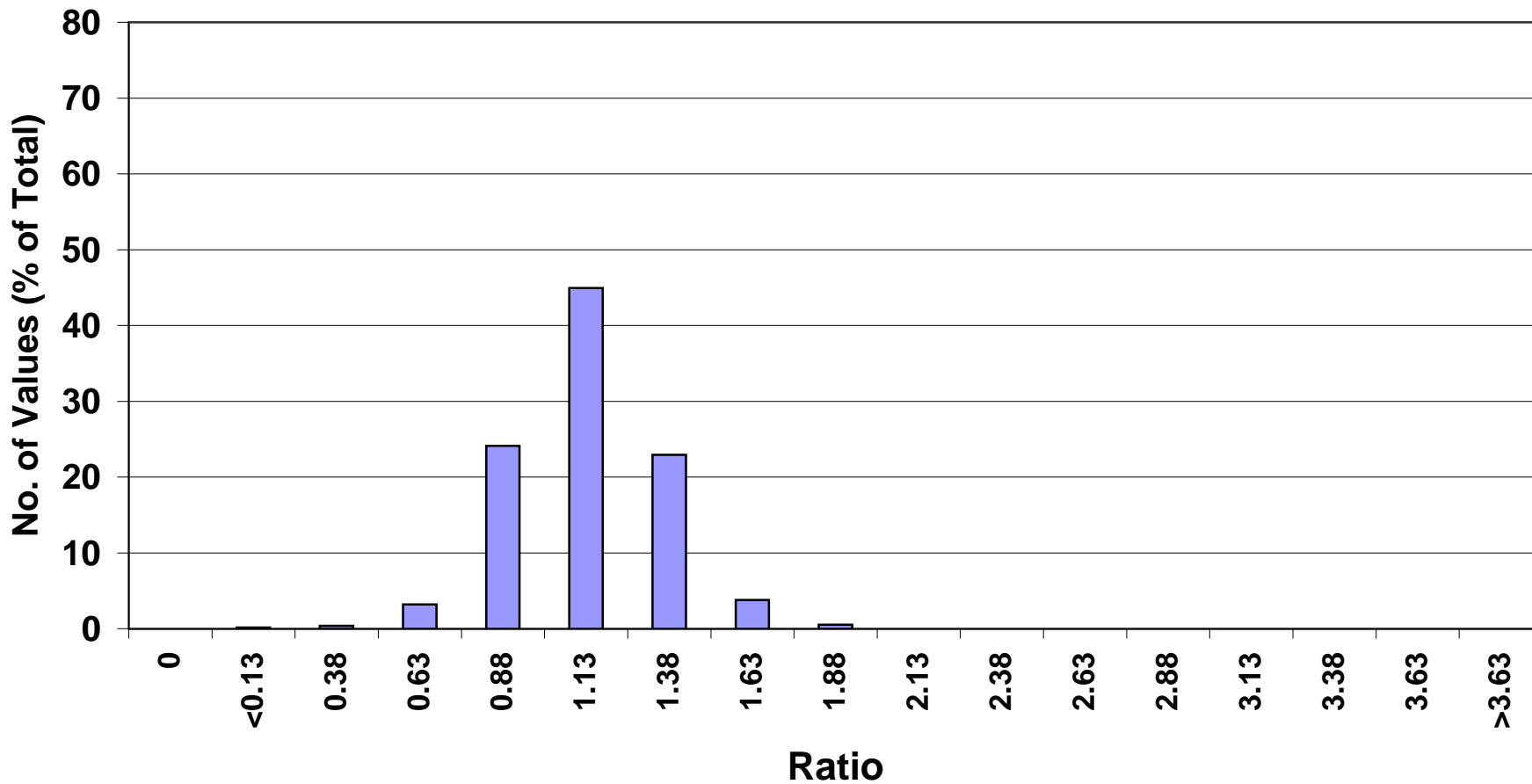
1200m Elevated (5.0m ht) Area Source (WP)
4 Particle Sizes
Met Station: Wichita
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
EIGHT WET SCIM'ING SAMPLES
— No SCIM
— Hi-Lo-Avg



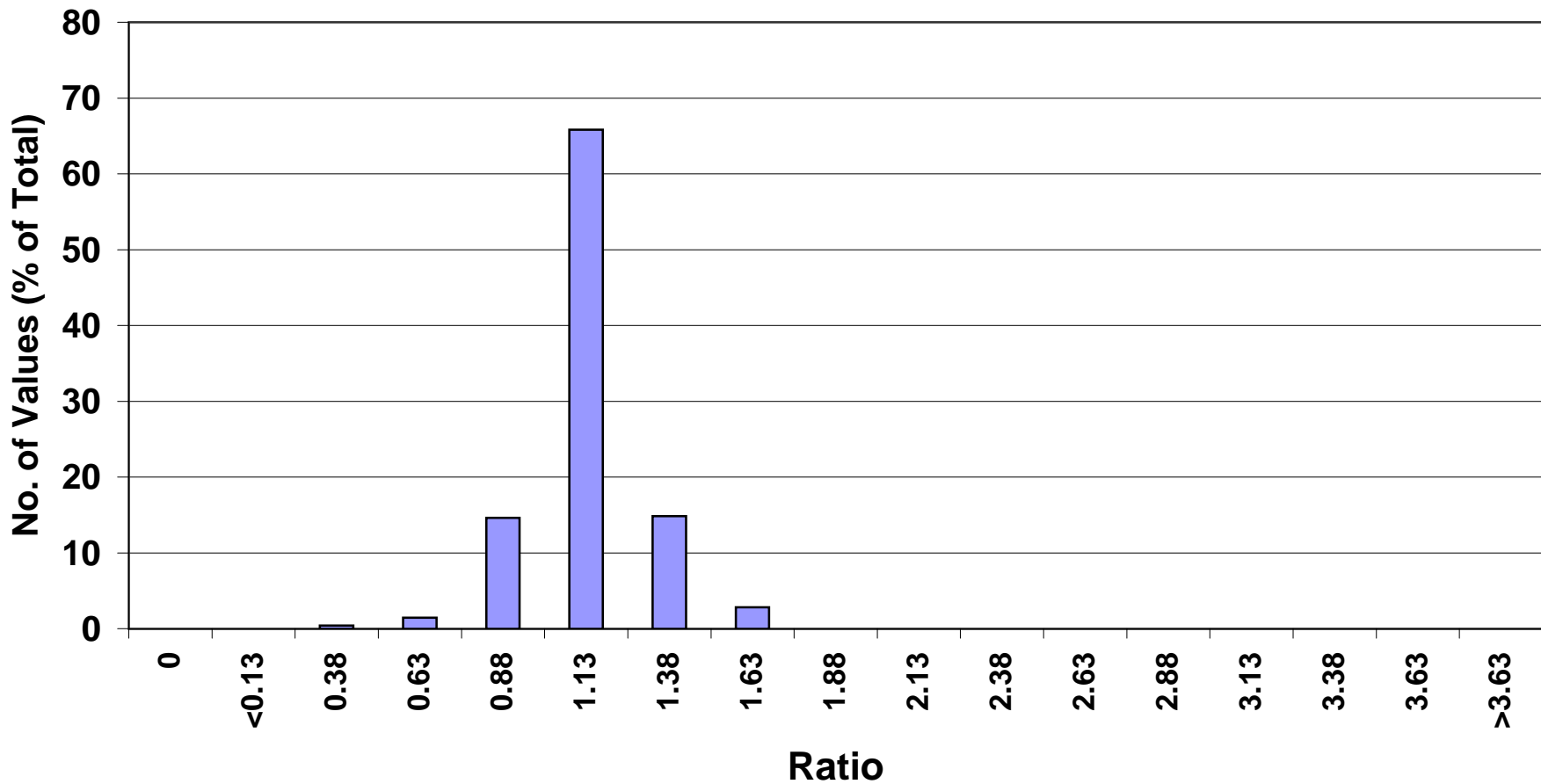
Distribution of SCIM'd to NoSCIM Ratios at All Distances
LAU, Salem
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8
EIGHT WET SCIM'ING SAMPLES



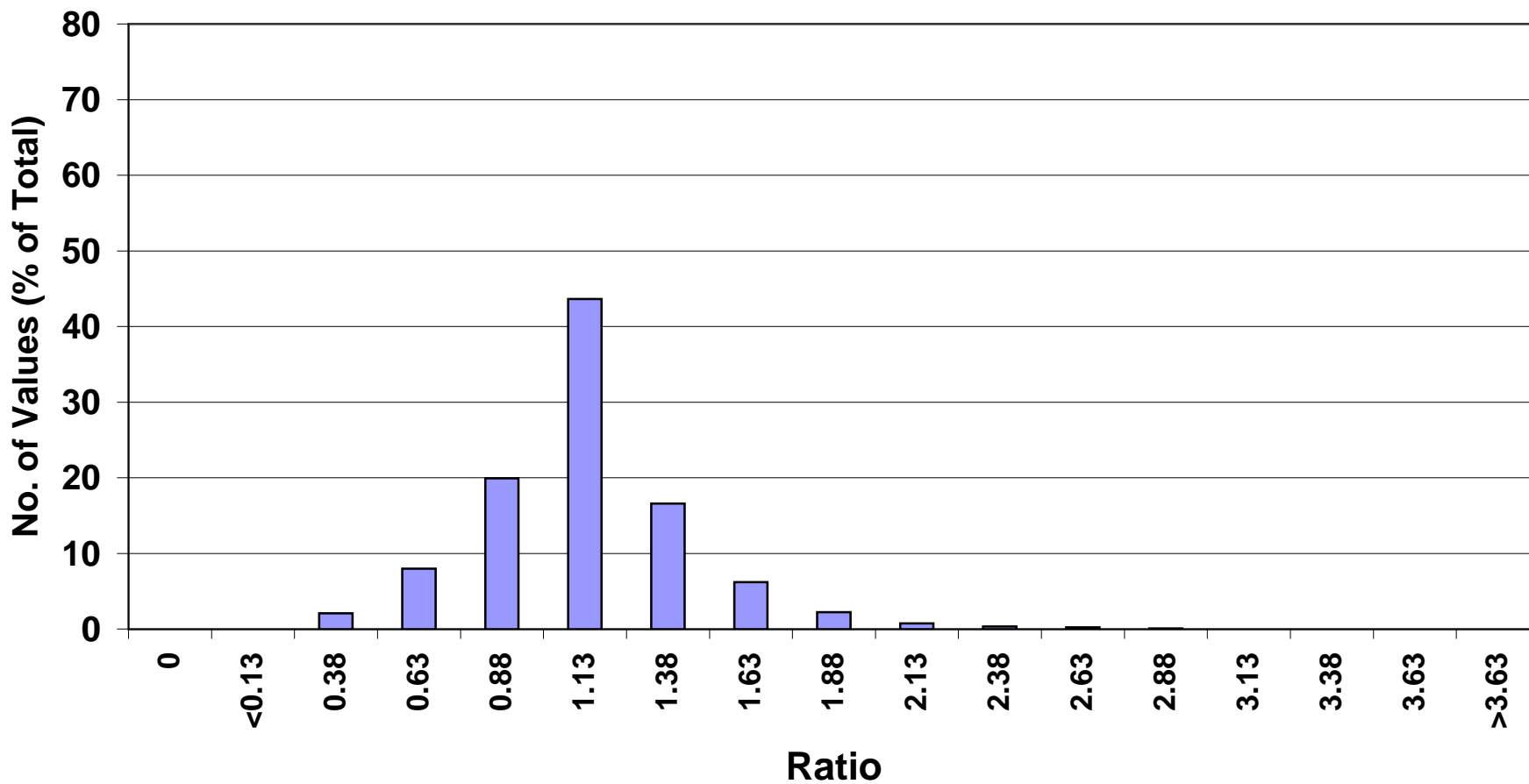
Distribution of SCIM'd to NoSCIM Ratios at All Distances
LAU, Tucson
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8
EIGHT WET SCIM'ING SAMPLES



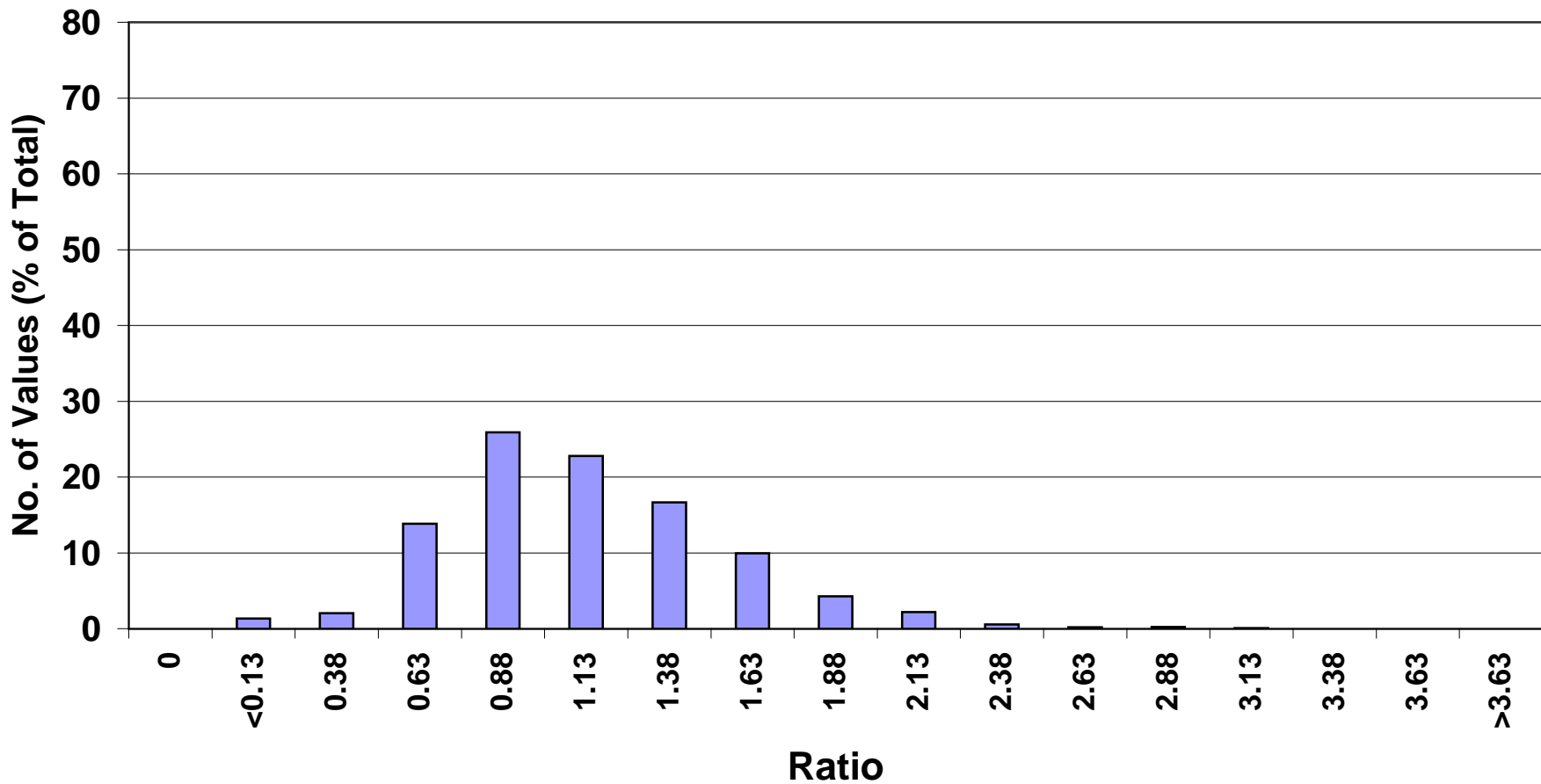
Distribution of SCIM'd to NoSCIM Ratios at All Distances
LAU, Wichita
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8
EIGHT WET SCIM'ING SAMPLES



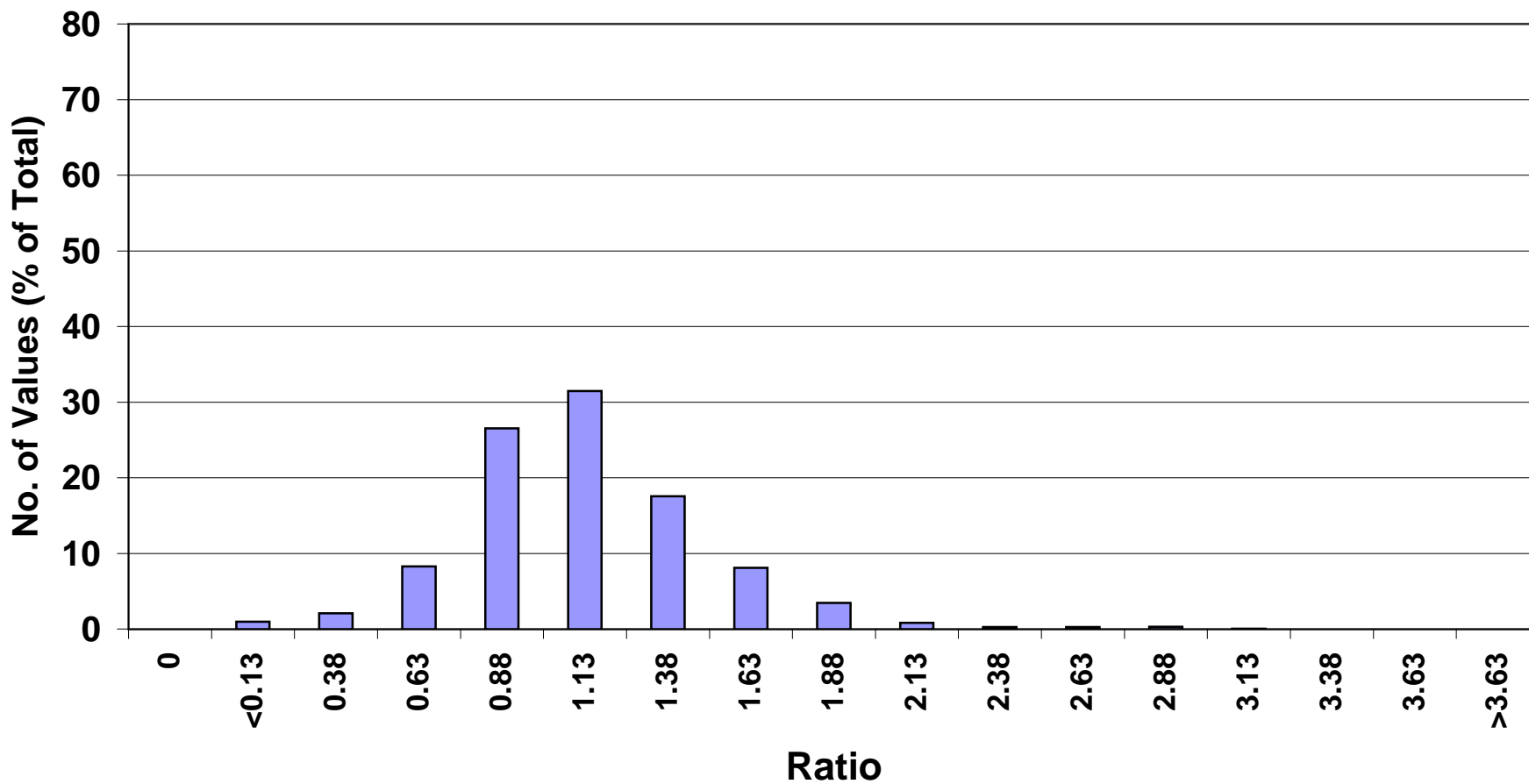
Distribution of SCIM'd to NoSCIM Ratios at All Distances
SI, Salem
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8
EIGHT WET SCIM'ING SAMPLES



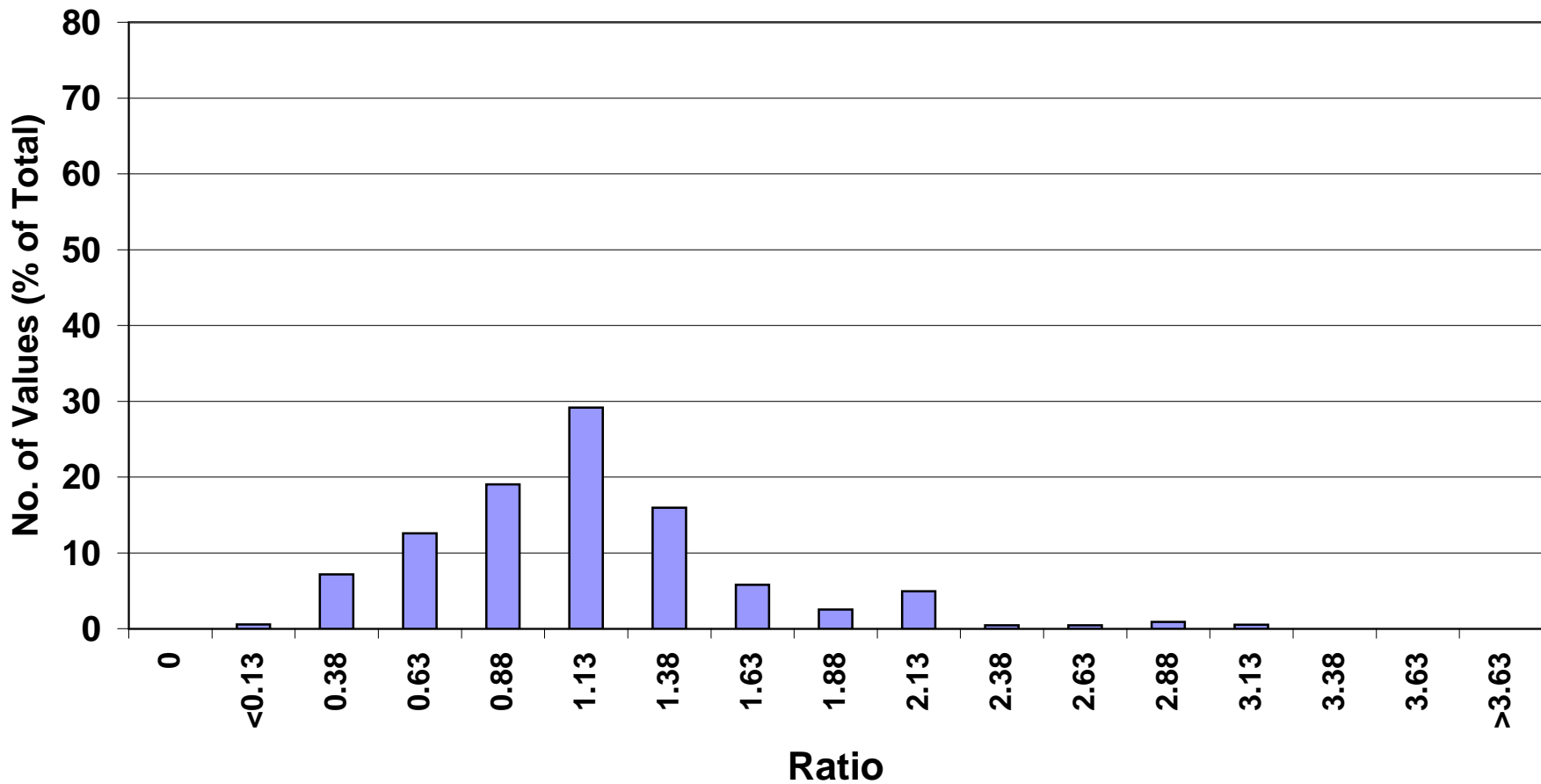
Distribution of SCIM'd to NoSCIM Ratios at All Distances
SI, Tucson
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8
EIGHT WET SCIM'ING SAMPLES



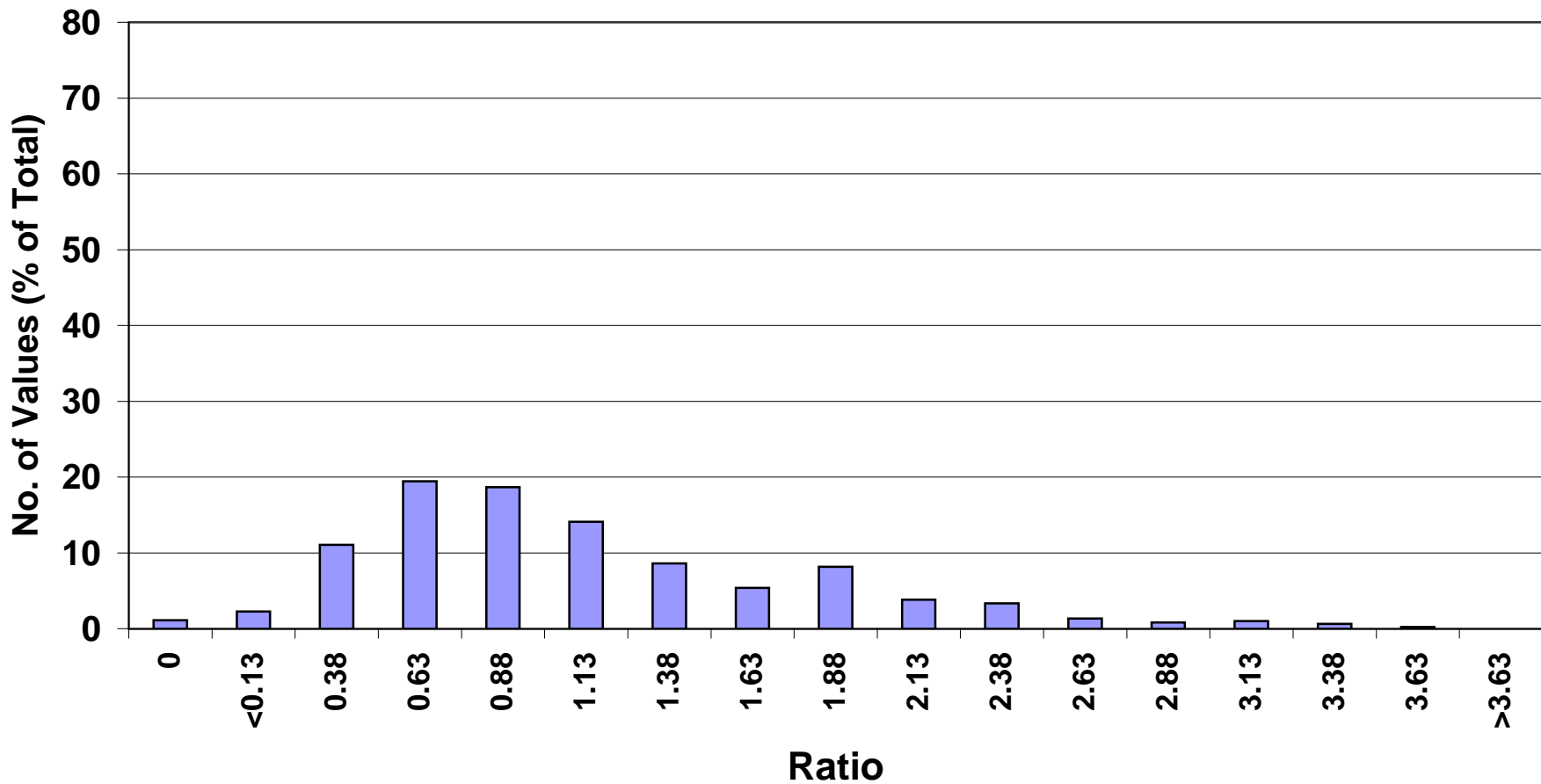
Distribution of SCIM'd to NoSCIM Ratios at All Distances
SI, Wichita
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8
EIGHT WET SCIM'ING SAMPLES



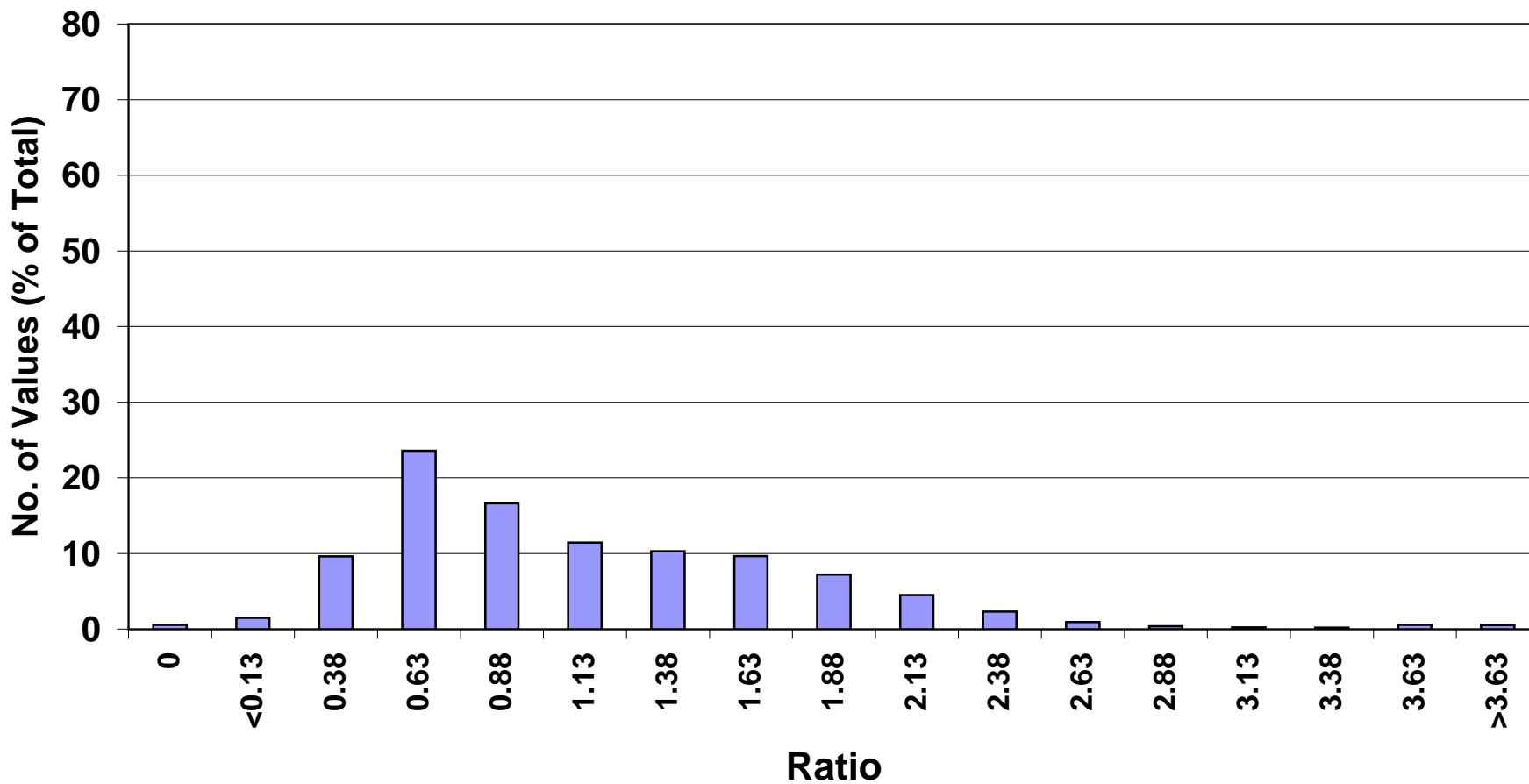
Distribution of SCIM'd to NoSCIM Ratios at All Distances
TANK, Salem
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8
EIGHT WET SCIM'ING SAMPLES



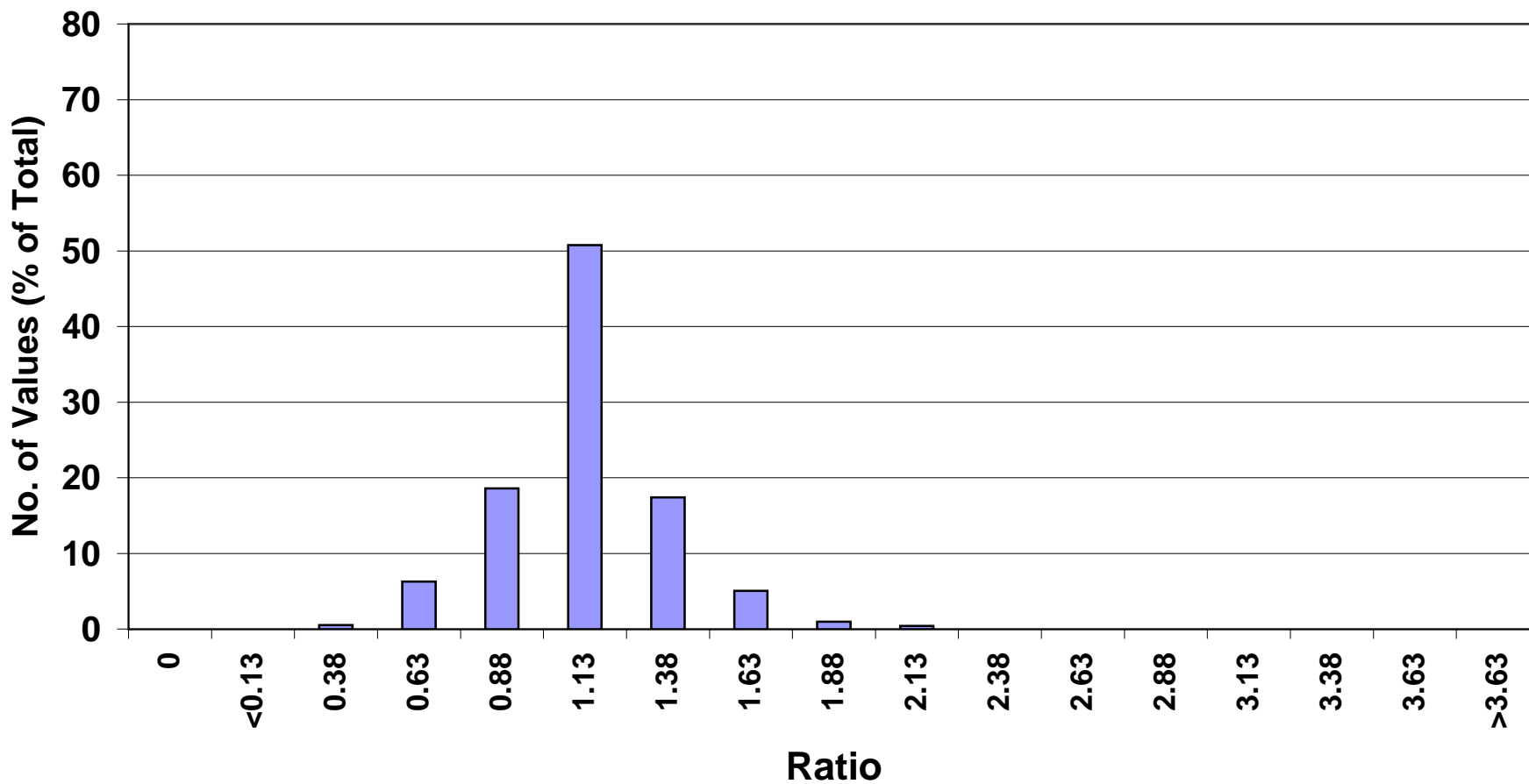
Distribution of SCIM'd to NoSCIM Ratios at All Distances
 TANK, Tucson
 Ratios of Wet Fluxes Paired in Space (Distance & Direction)
 SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8
 EIGHT WET SCIM'ING SAMPLES



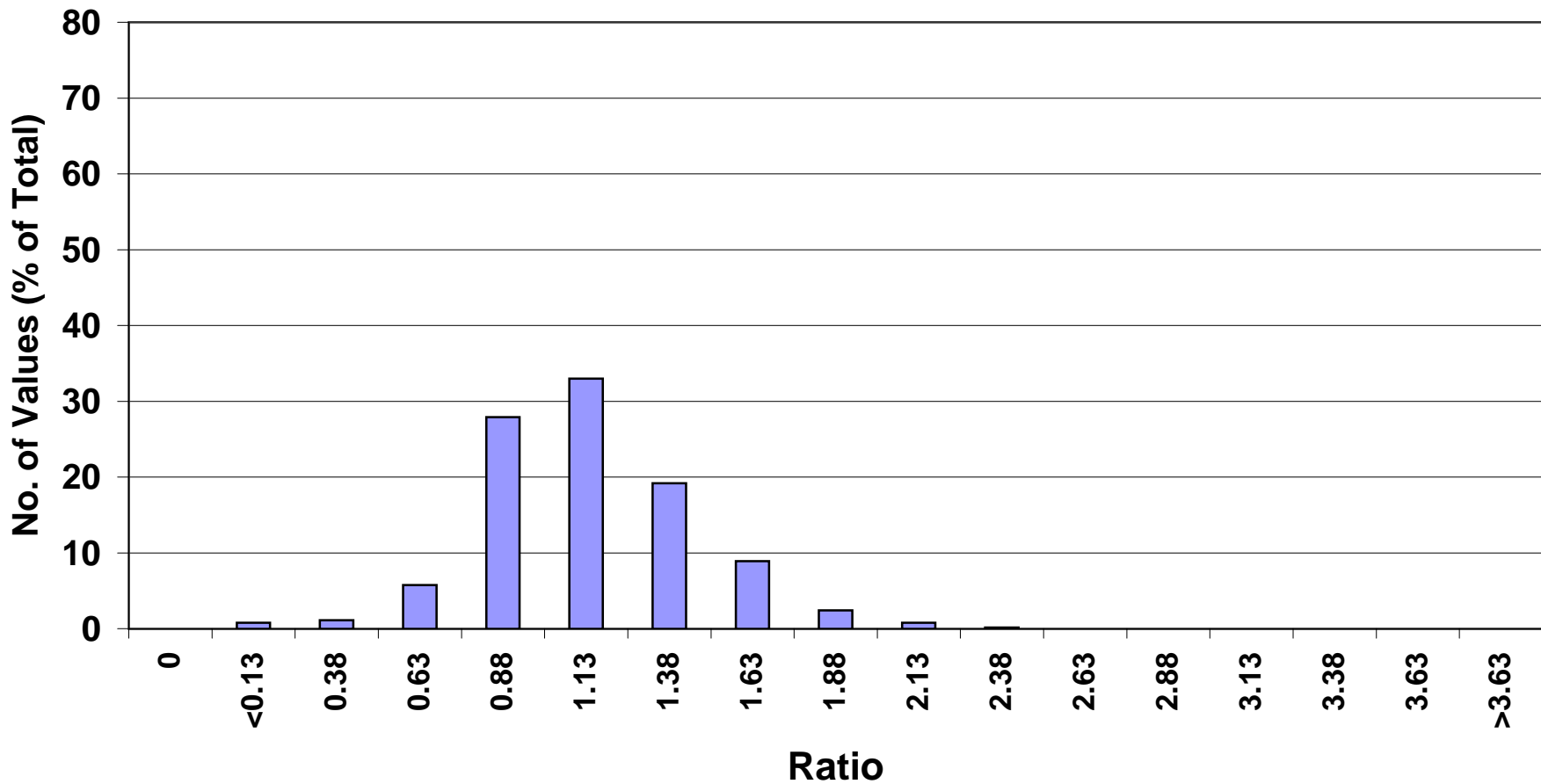
Distribution of SCIM'd to NoSCIM Ratios at All Distances
TANK, Wichita
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8
EIGHT WET SCIM'ING SAMPLES



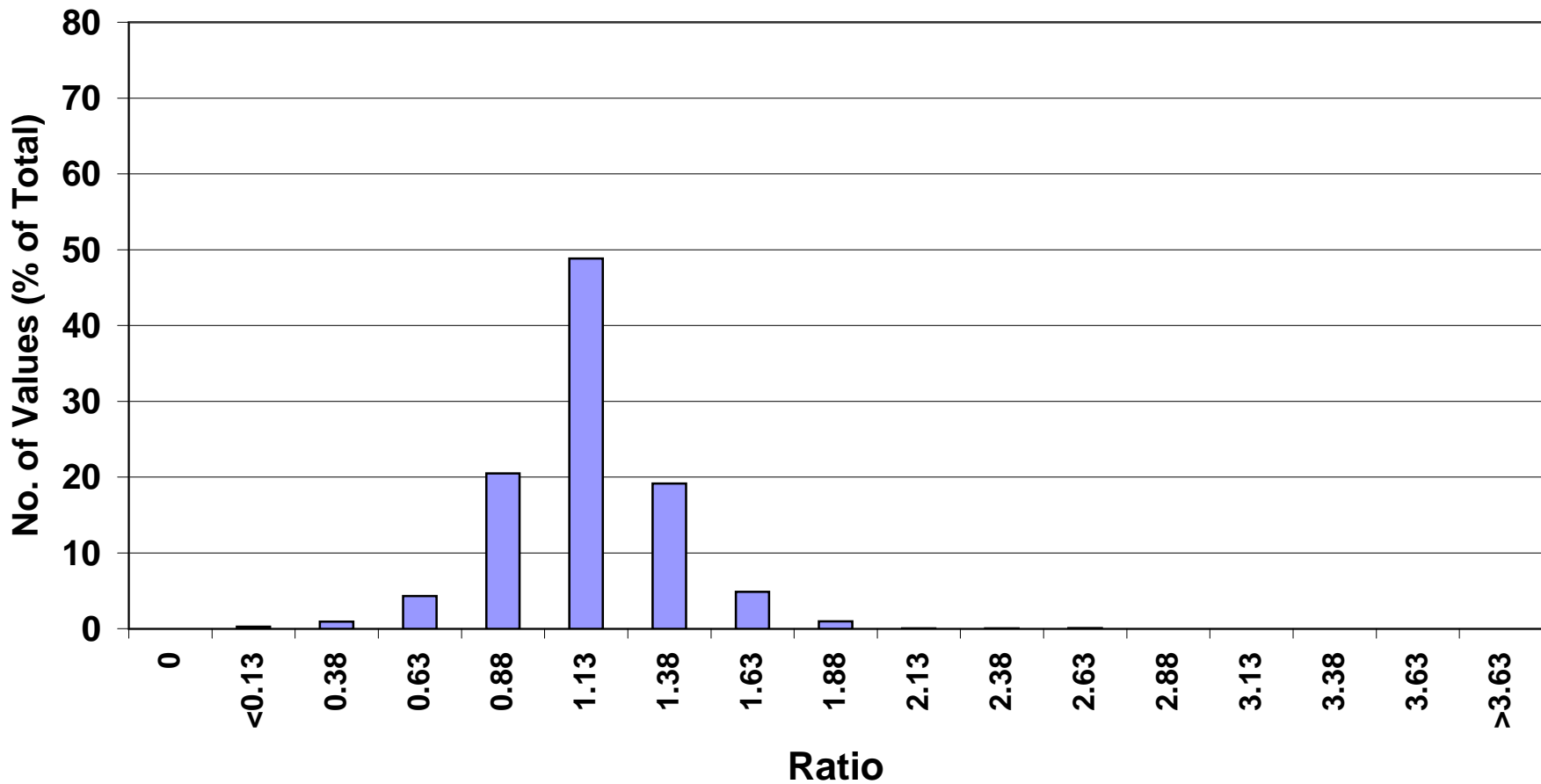
Distribution of SCIM'd to NoSCIM Ratios at All Distances
WP, Salem
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8
EIGHT WET SCIM'ING SAMPLES

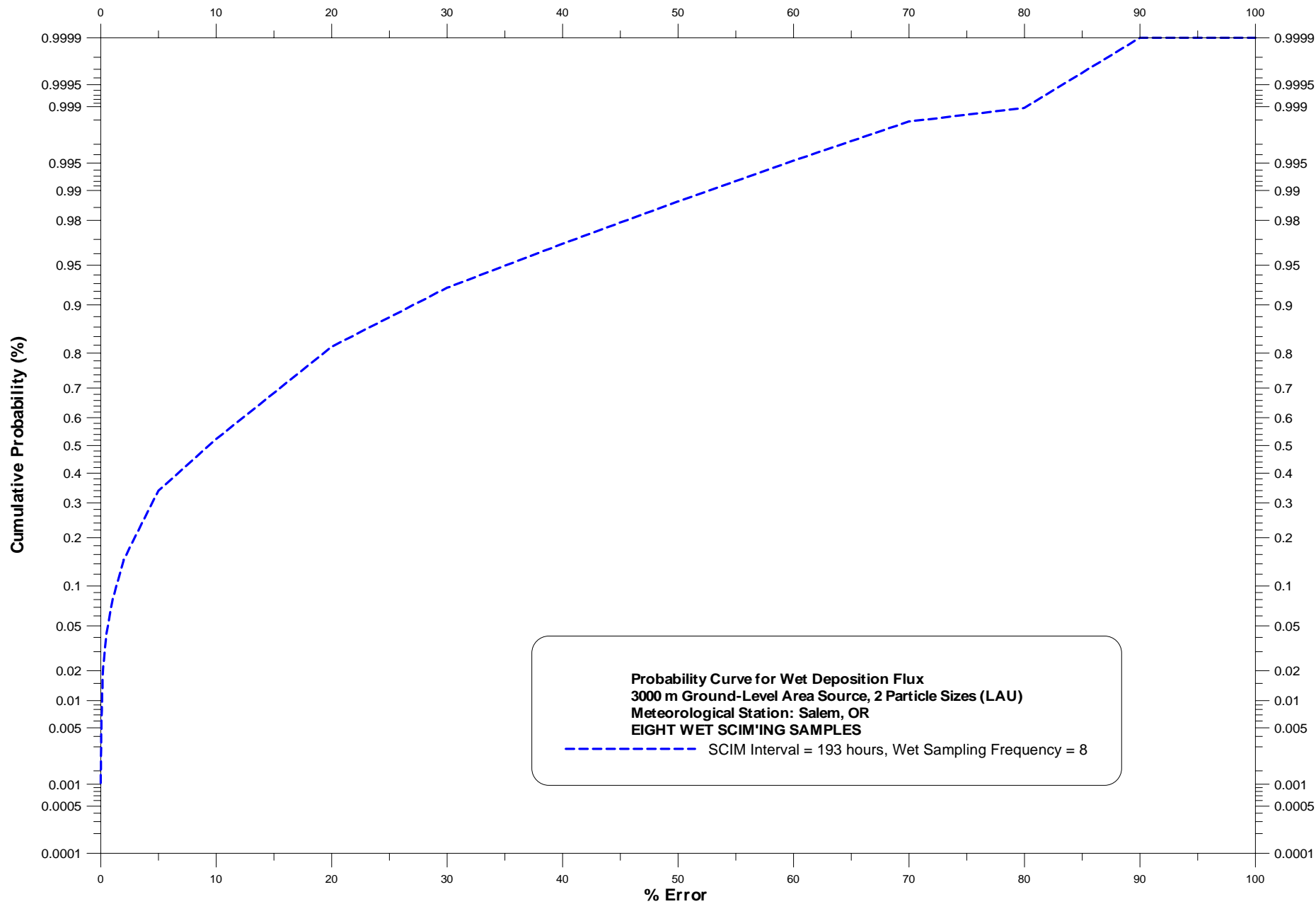


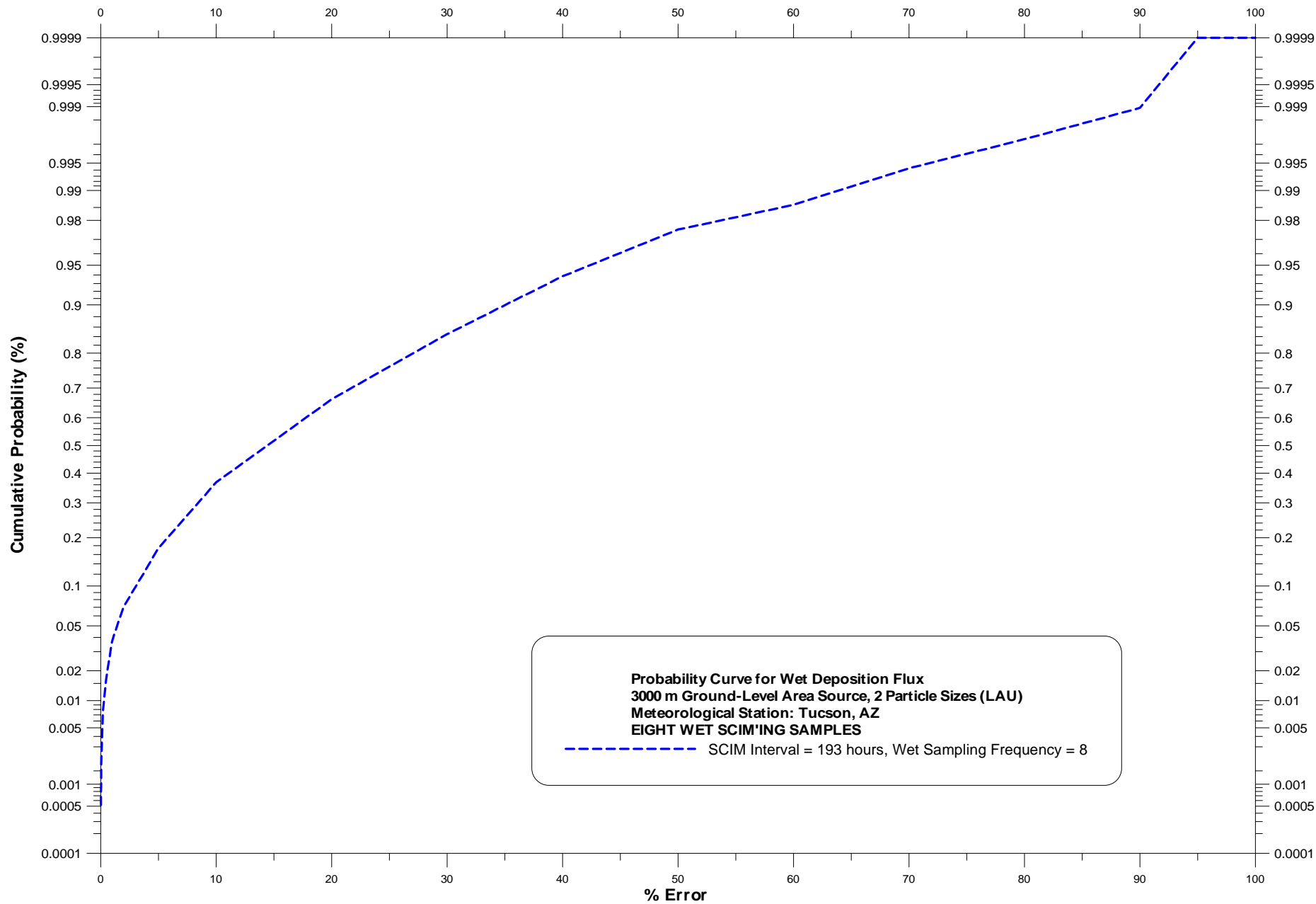
Distribution of SCIM'd to NoSCIM Ratios at All Distances
WP, Tucson
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8
EIGHT WET SCIM'ING SAMPLES

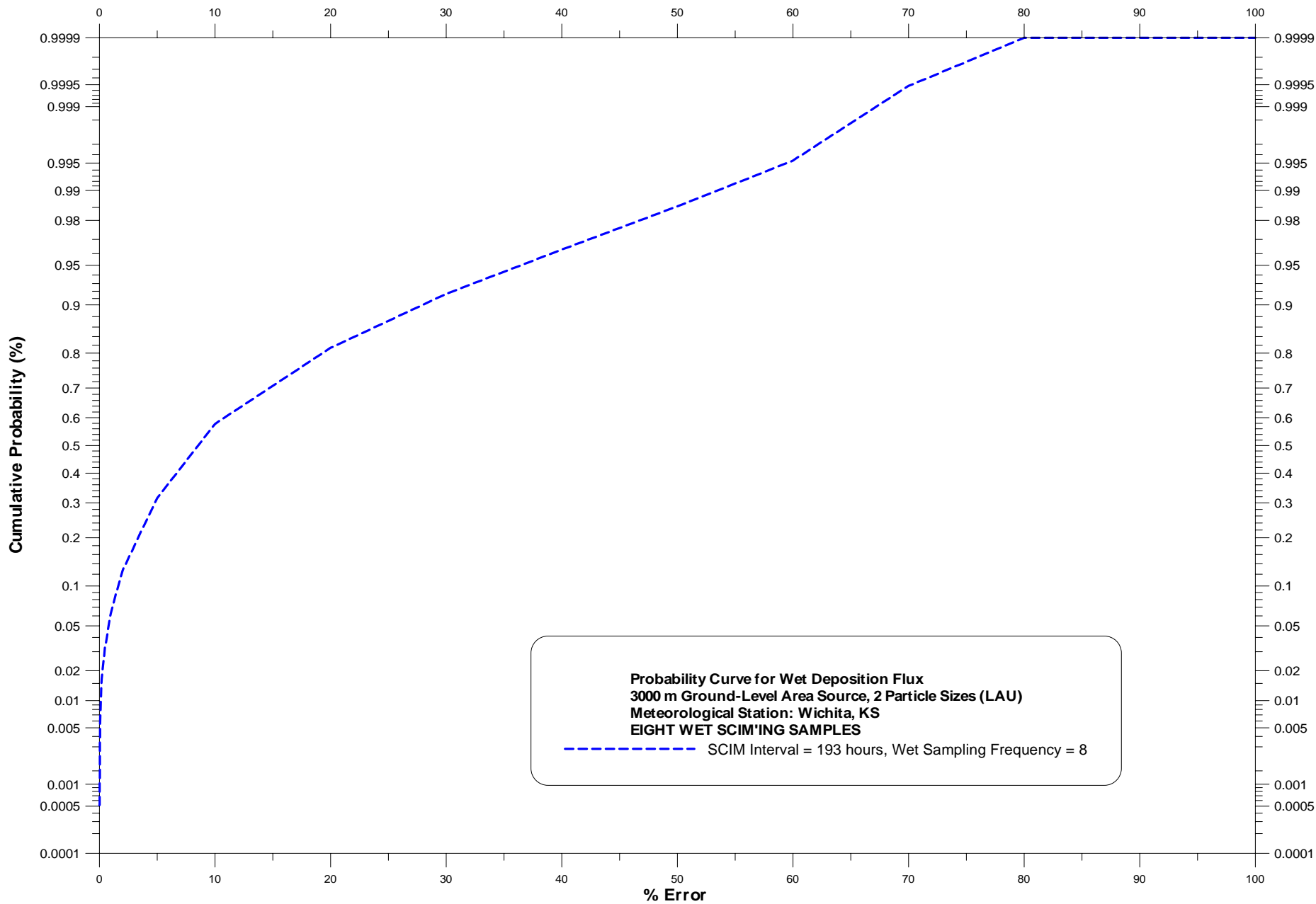


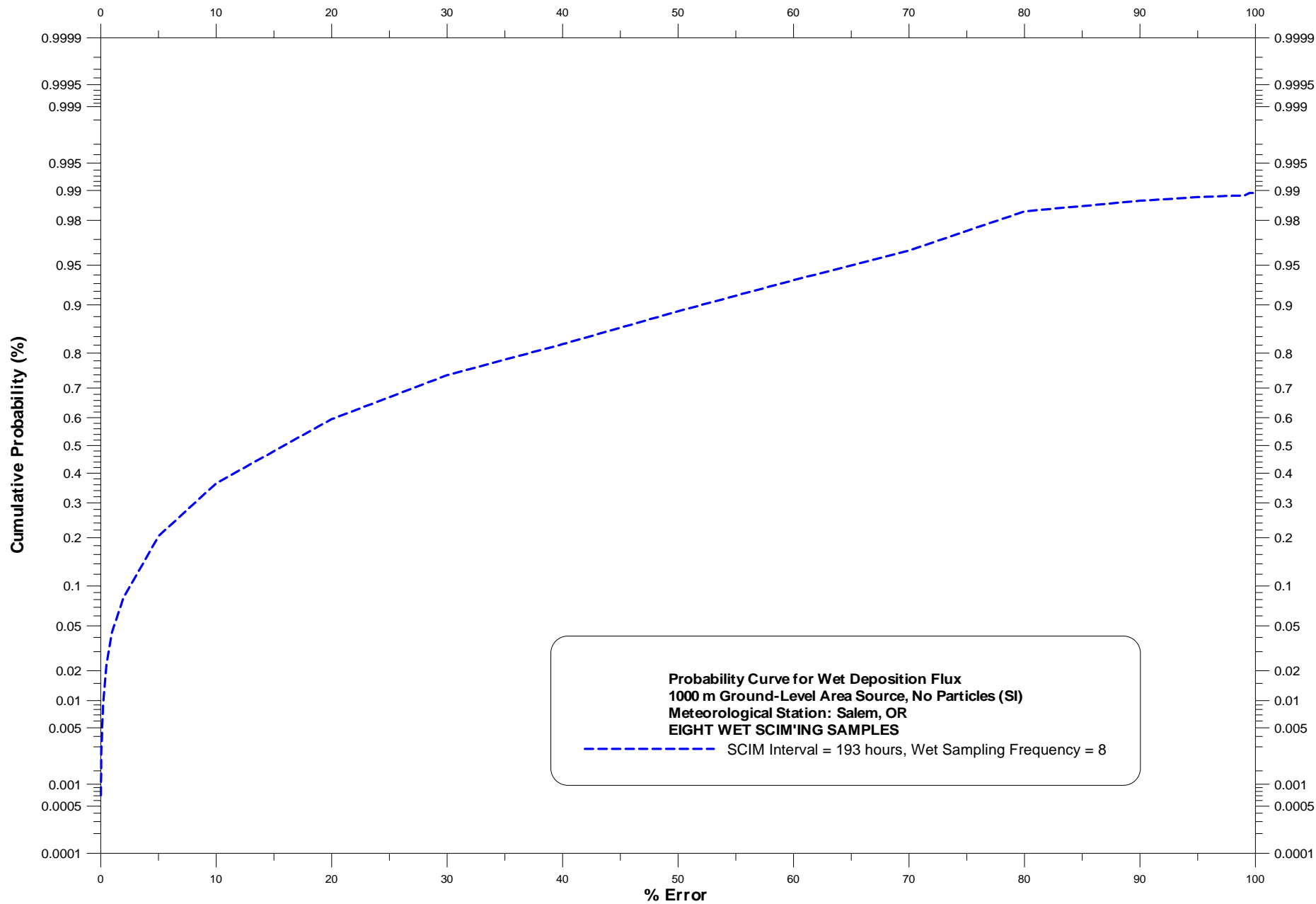
Distribution of SCIM'd to NoSCIM Ratios at All Distances
WP, Wichita
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8
EIGHT WET SCIM'ING SAMPLES

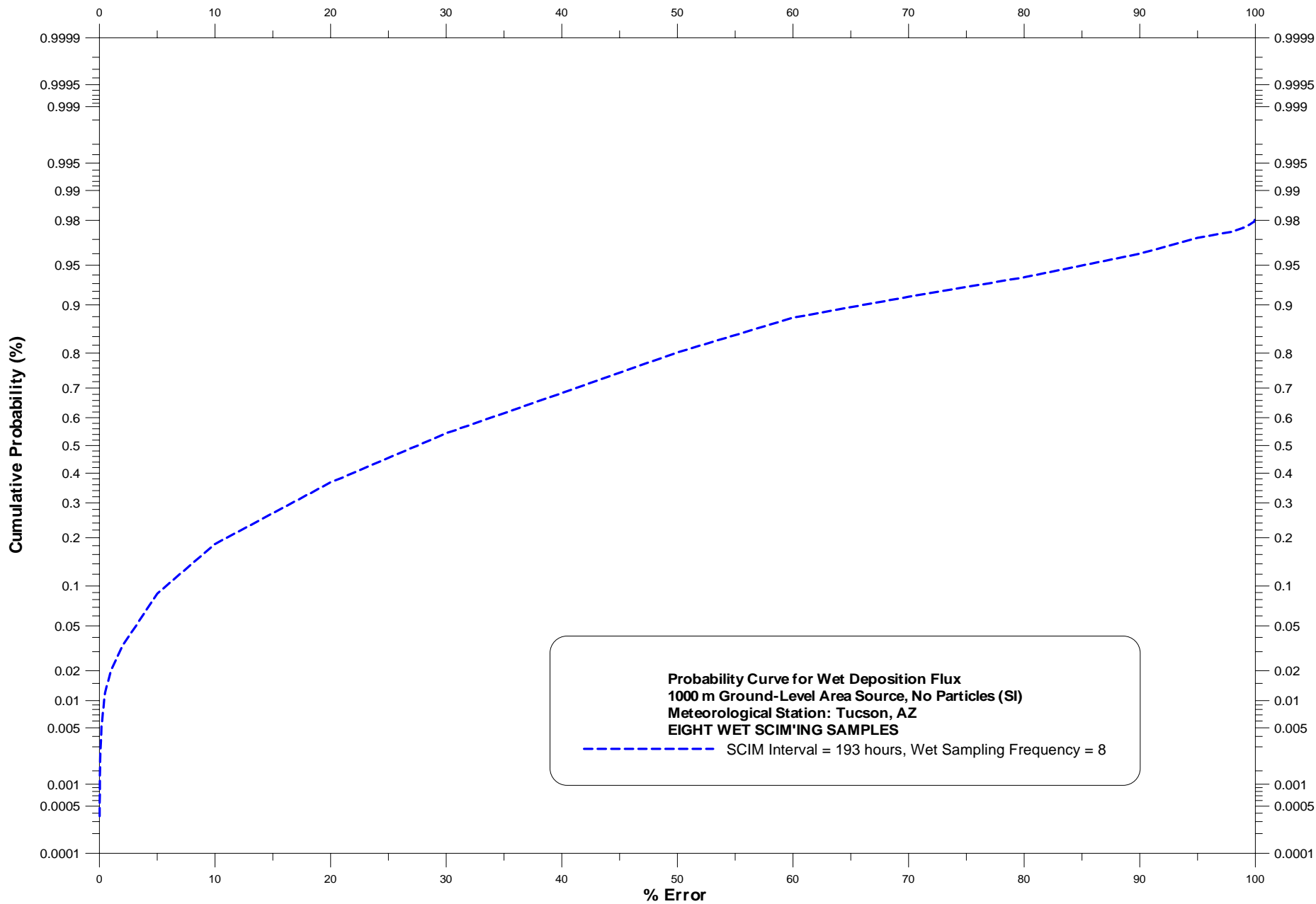


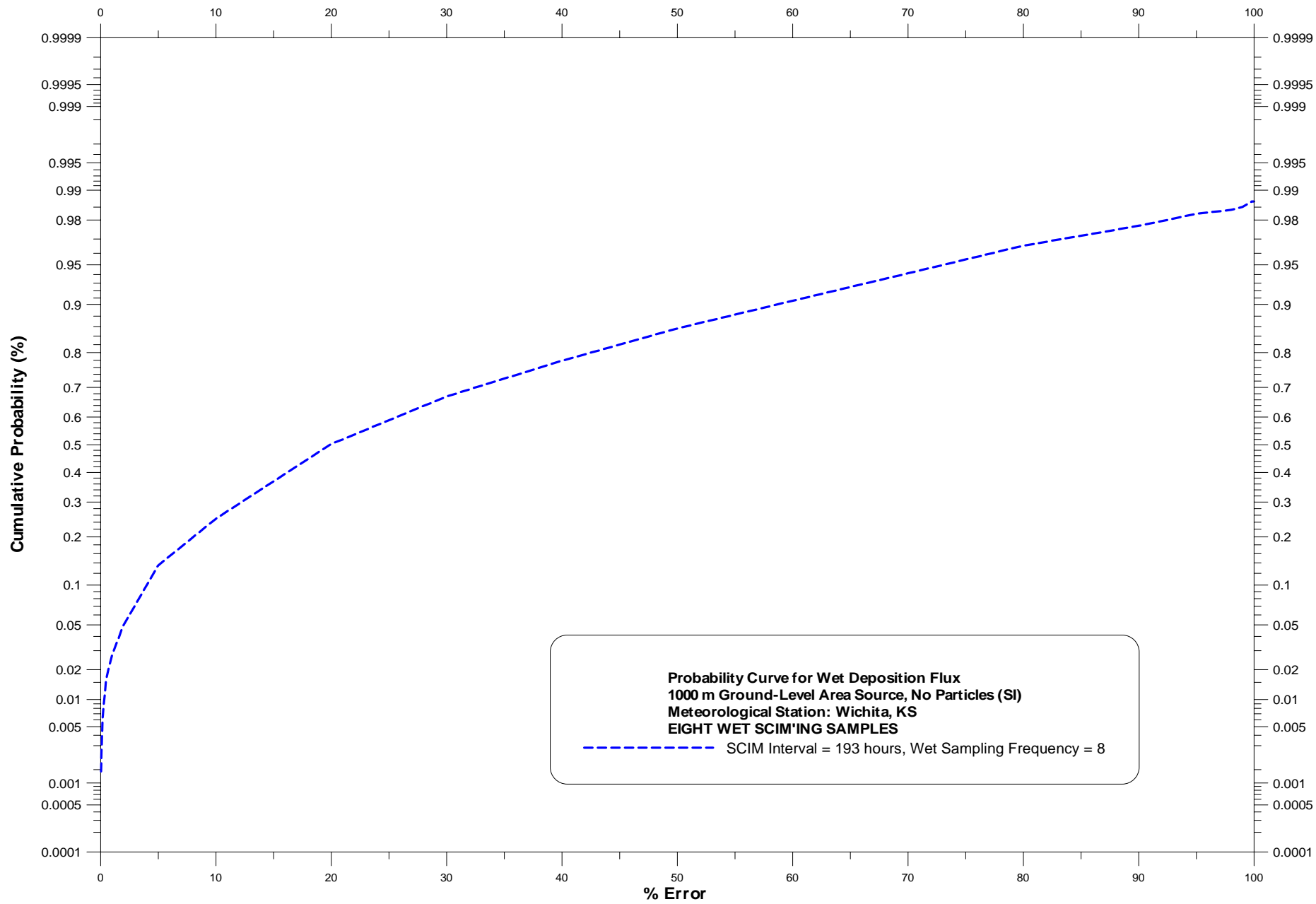


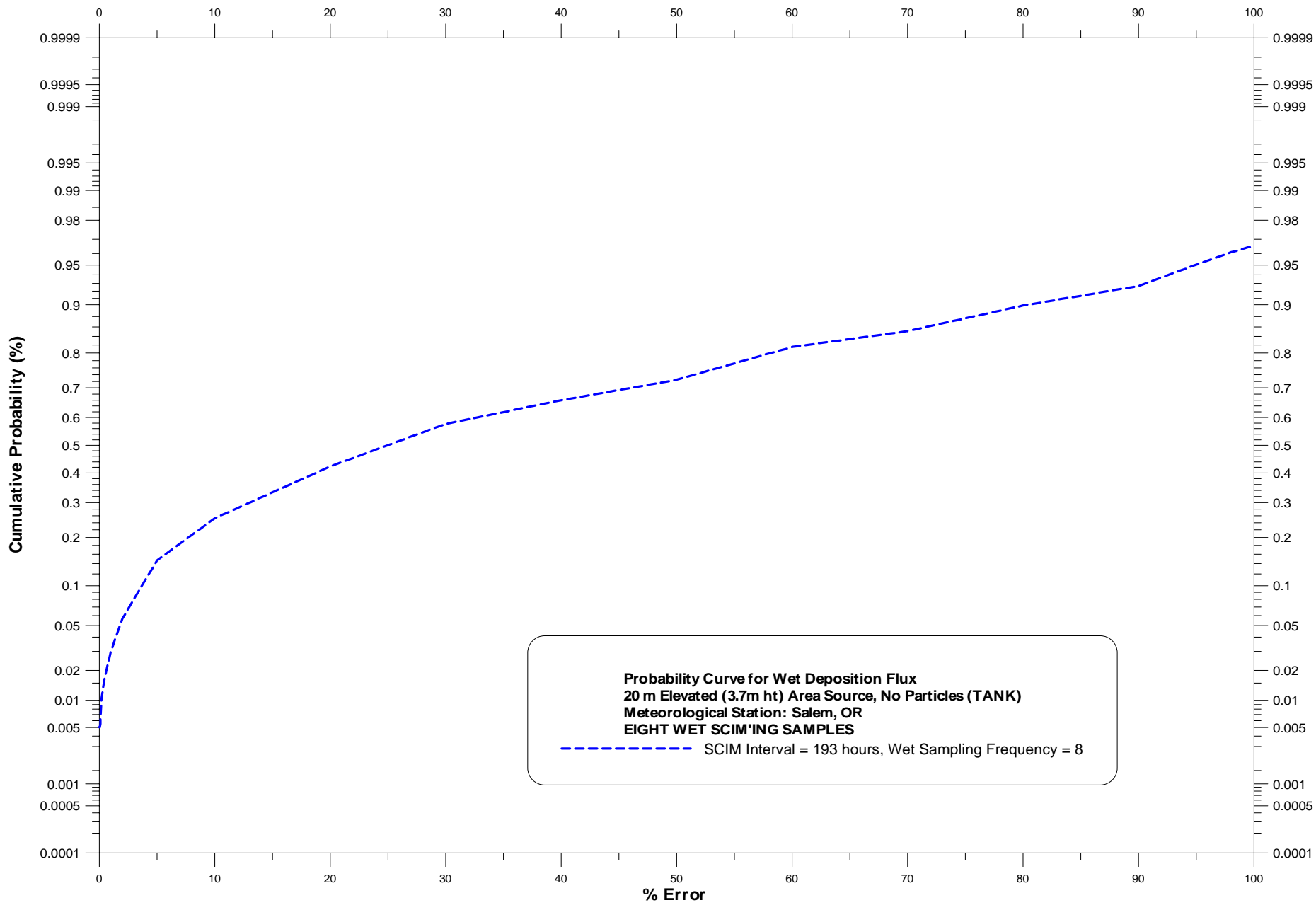


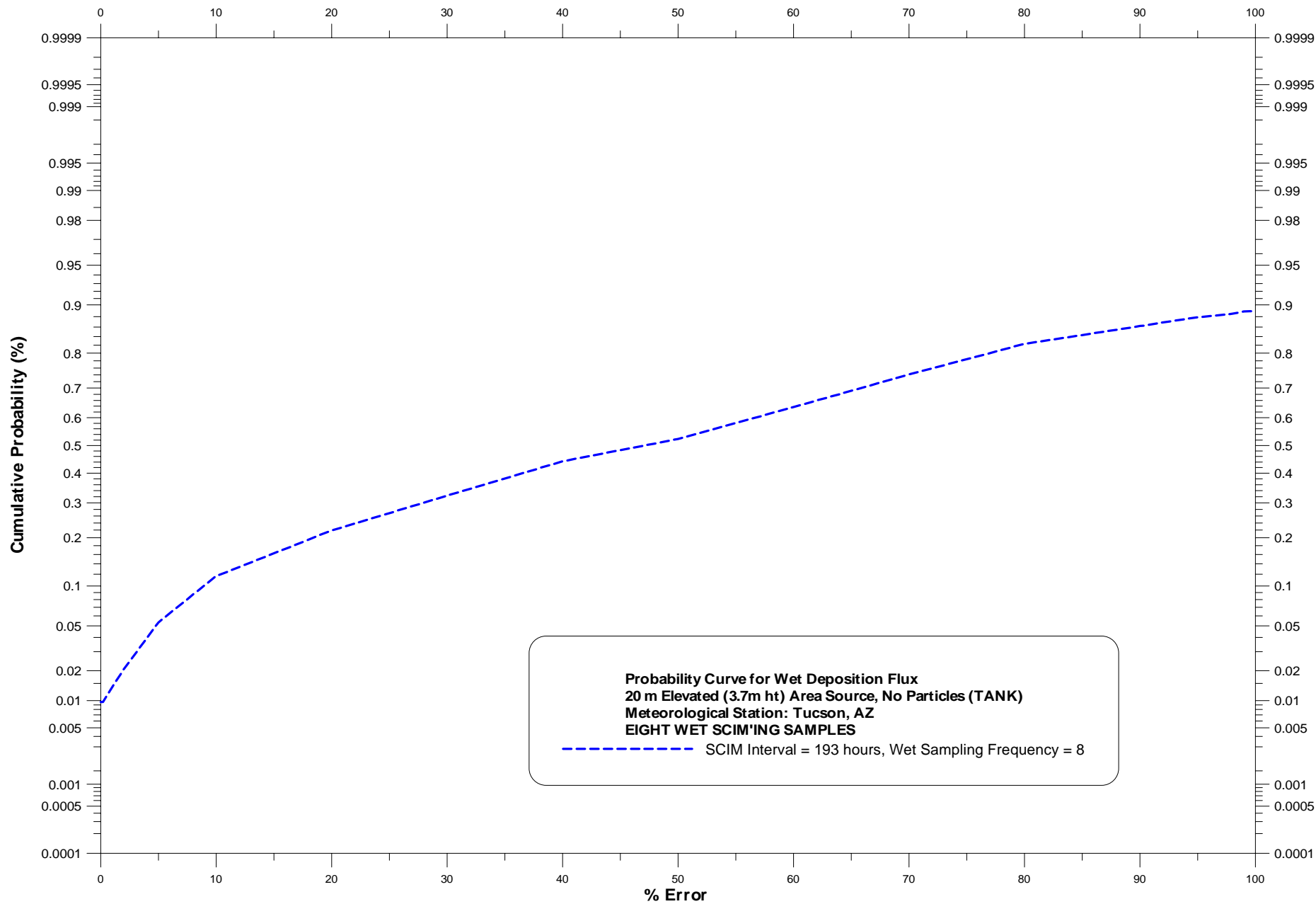


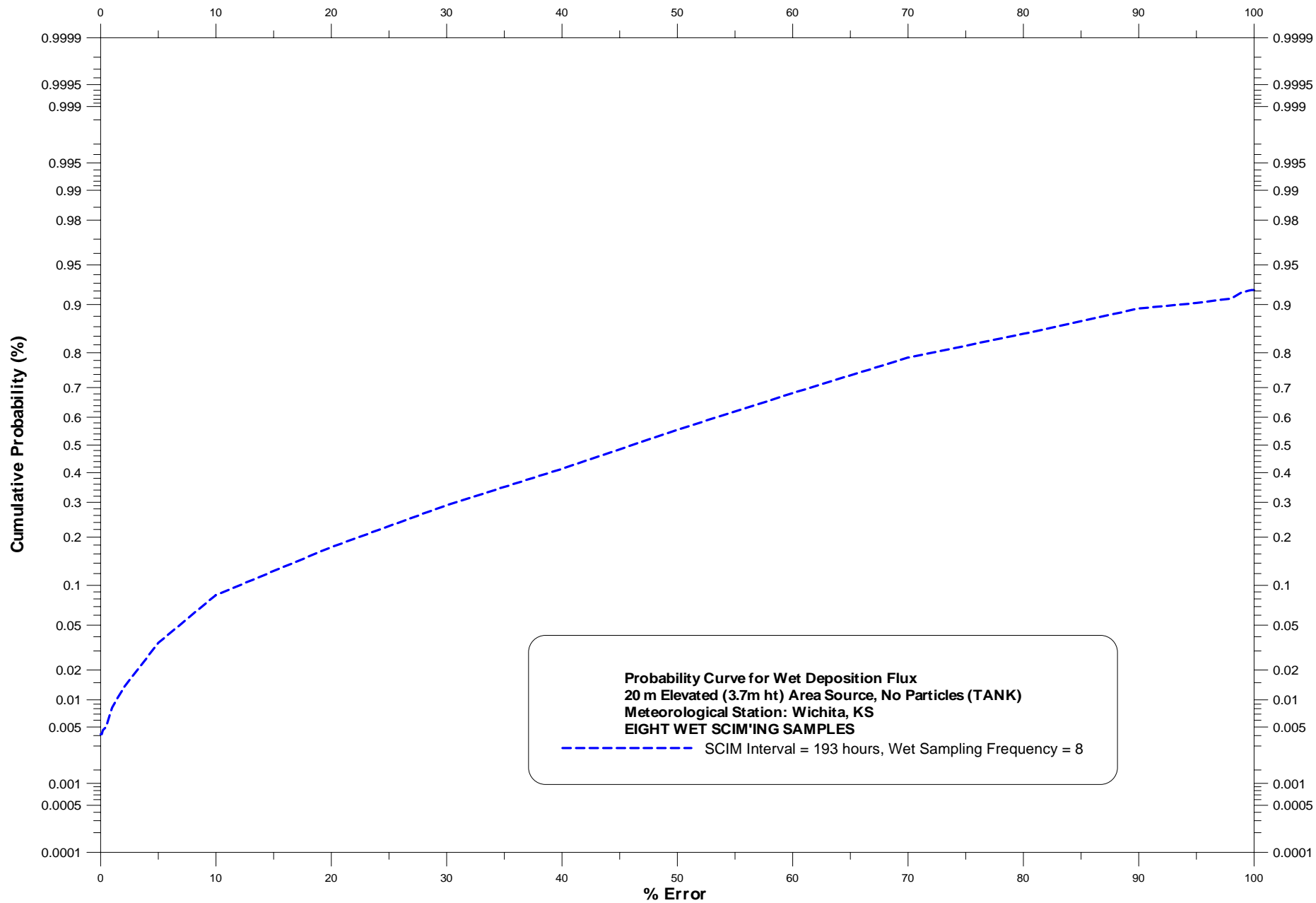


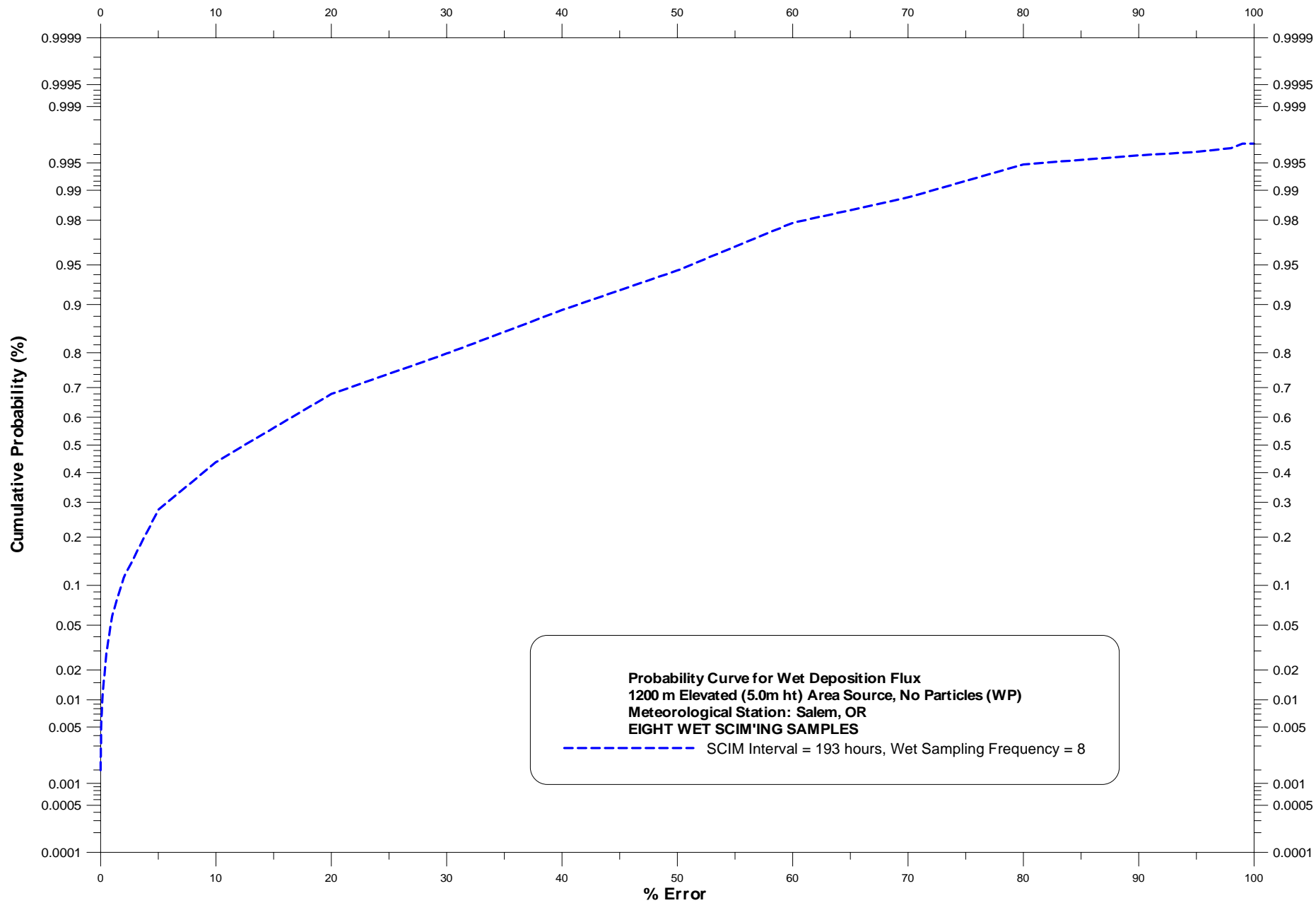


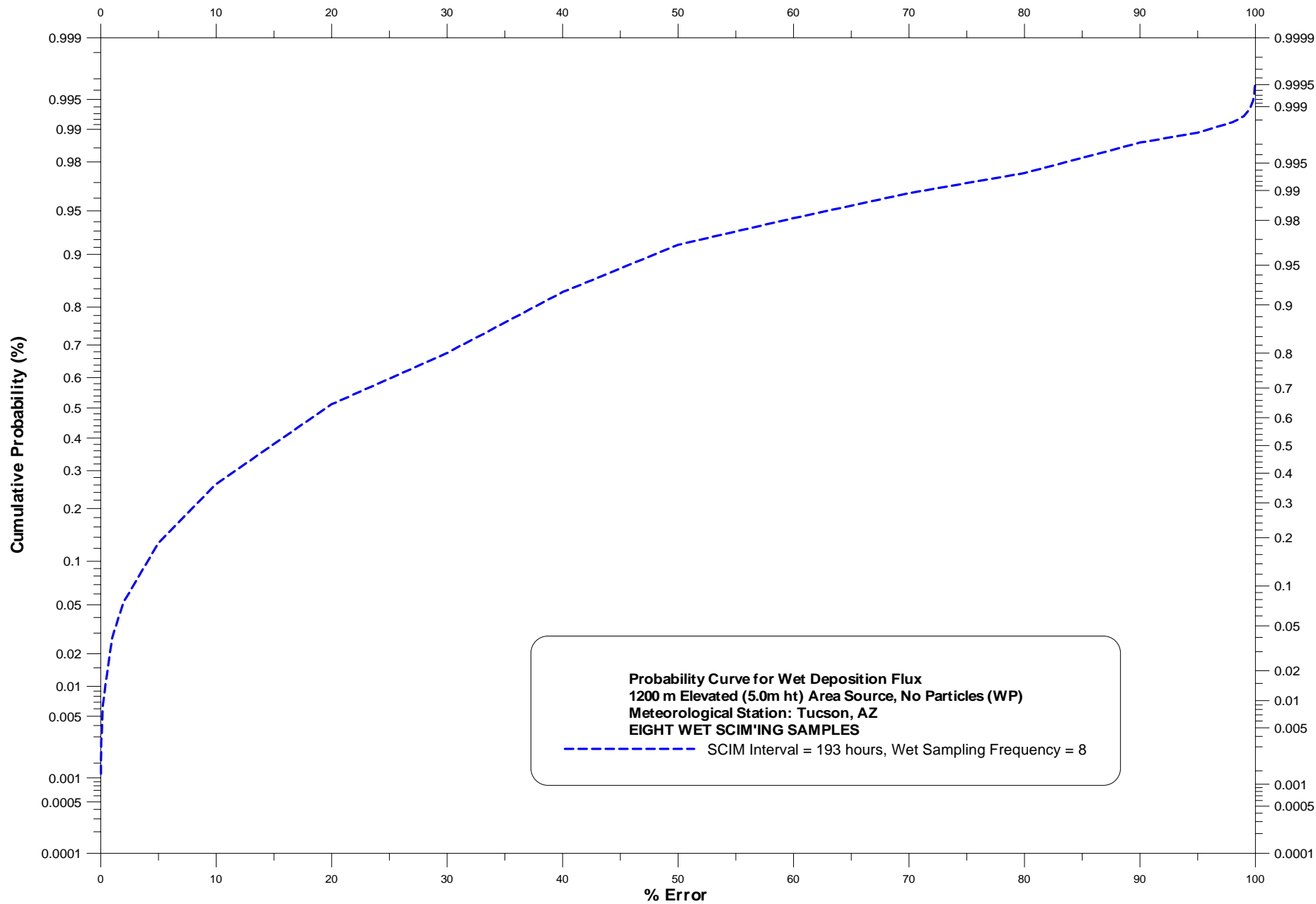


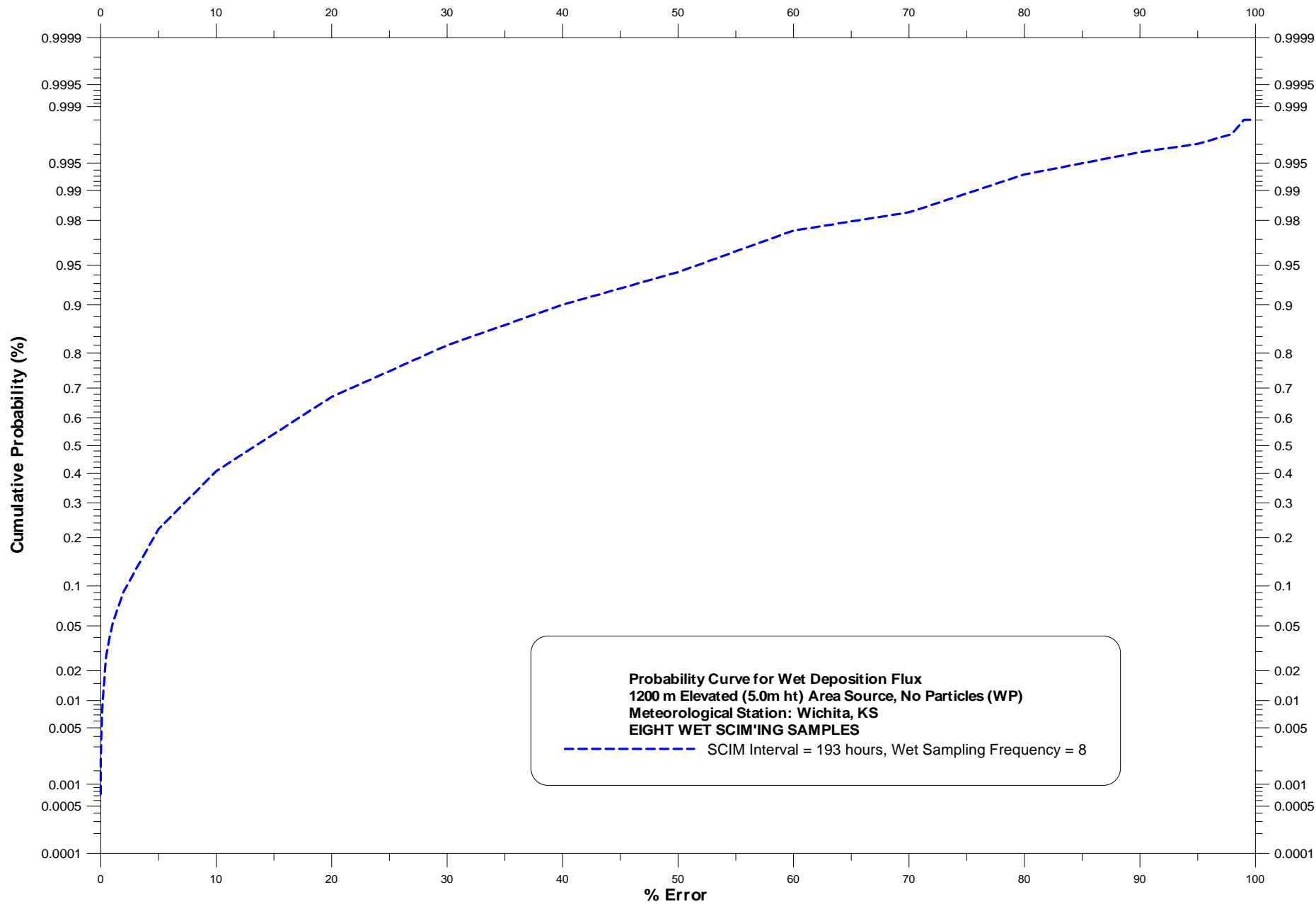






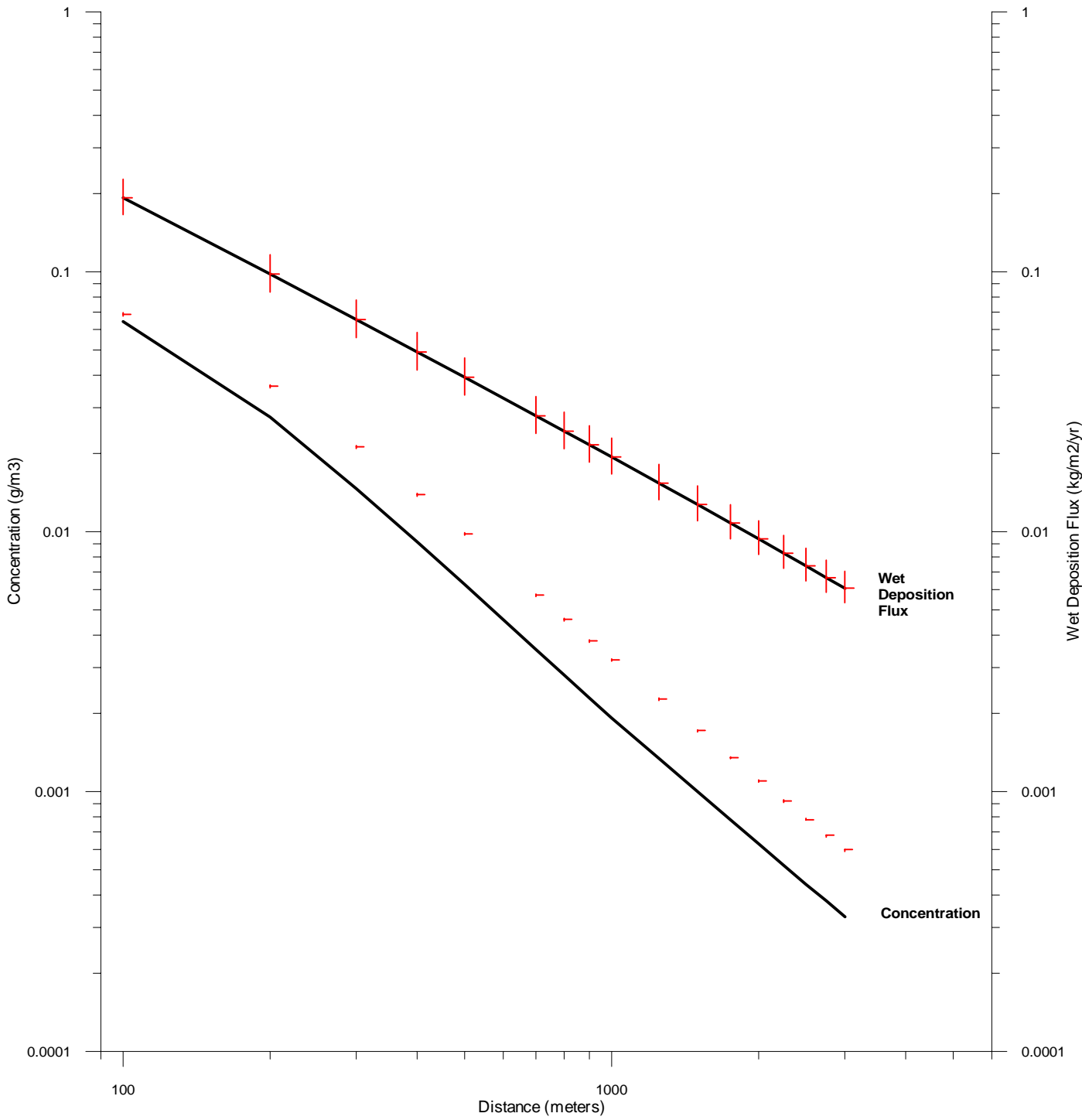






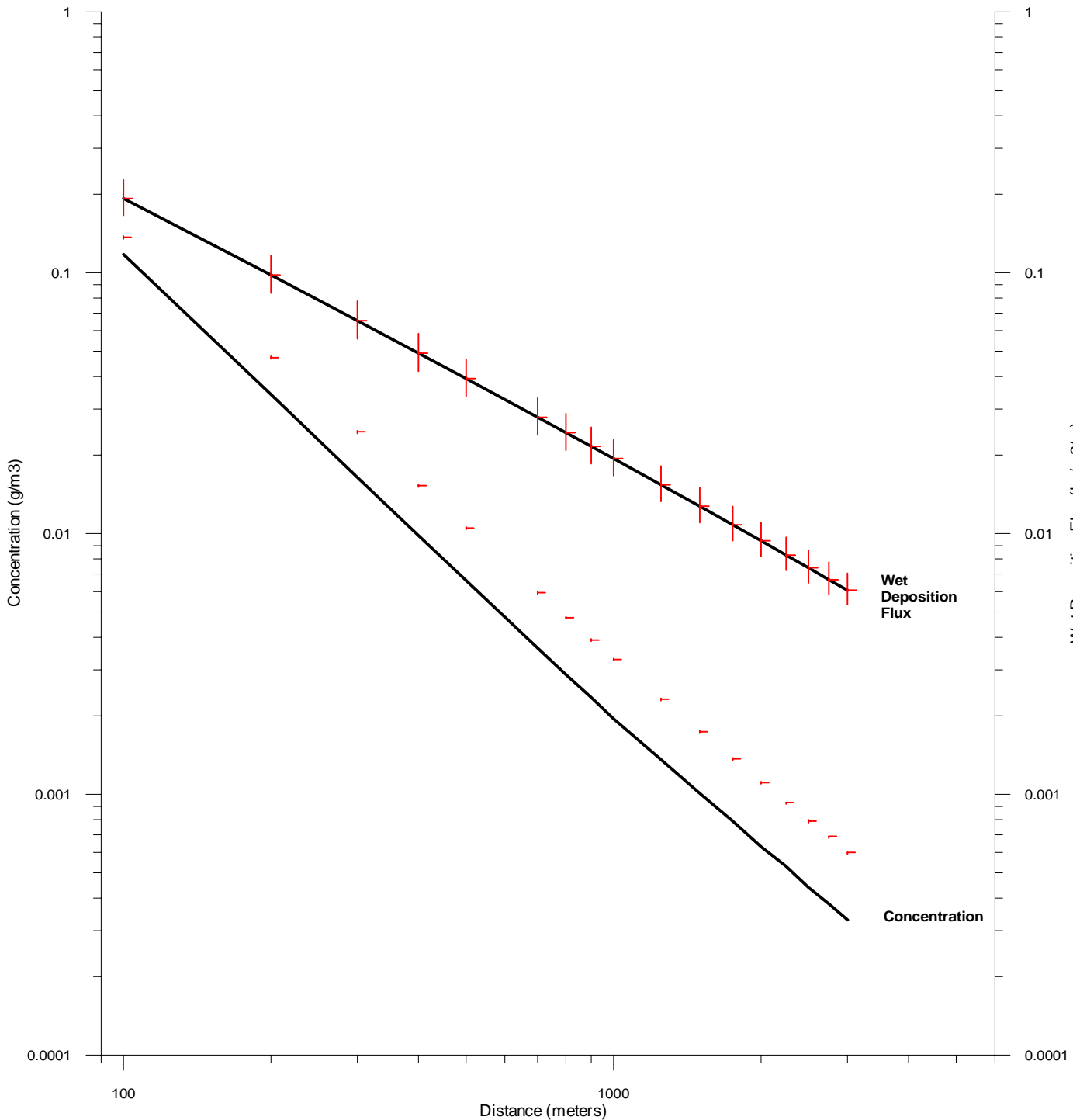
APPENDIX G

20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Salem
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
EIGHT WET SCIM'ING SAMPLES
— No SCIM
— Hi-Lo-Avg

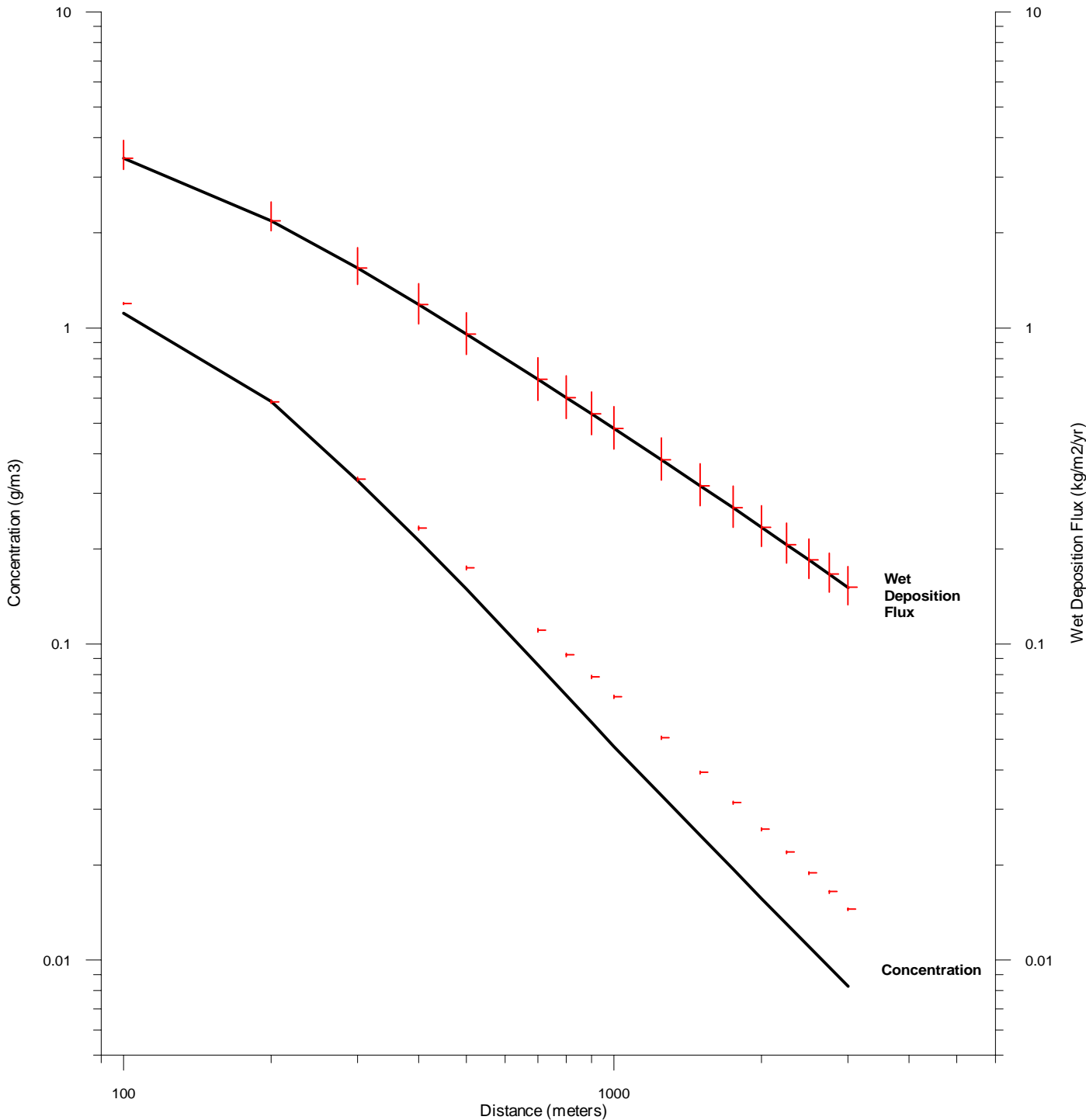


20m Ground-Level Area Source (TANK_Grd Level)
No Particles
Met Station: Salem
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
EIGHT WET SCIM'ING SAMPLES

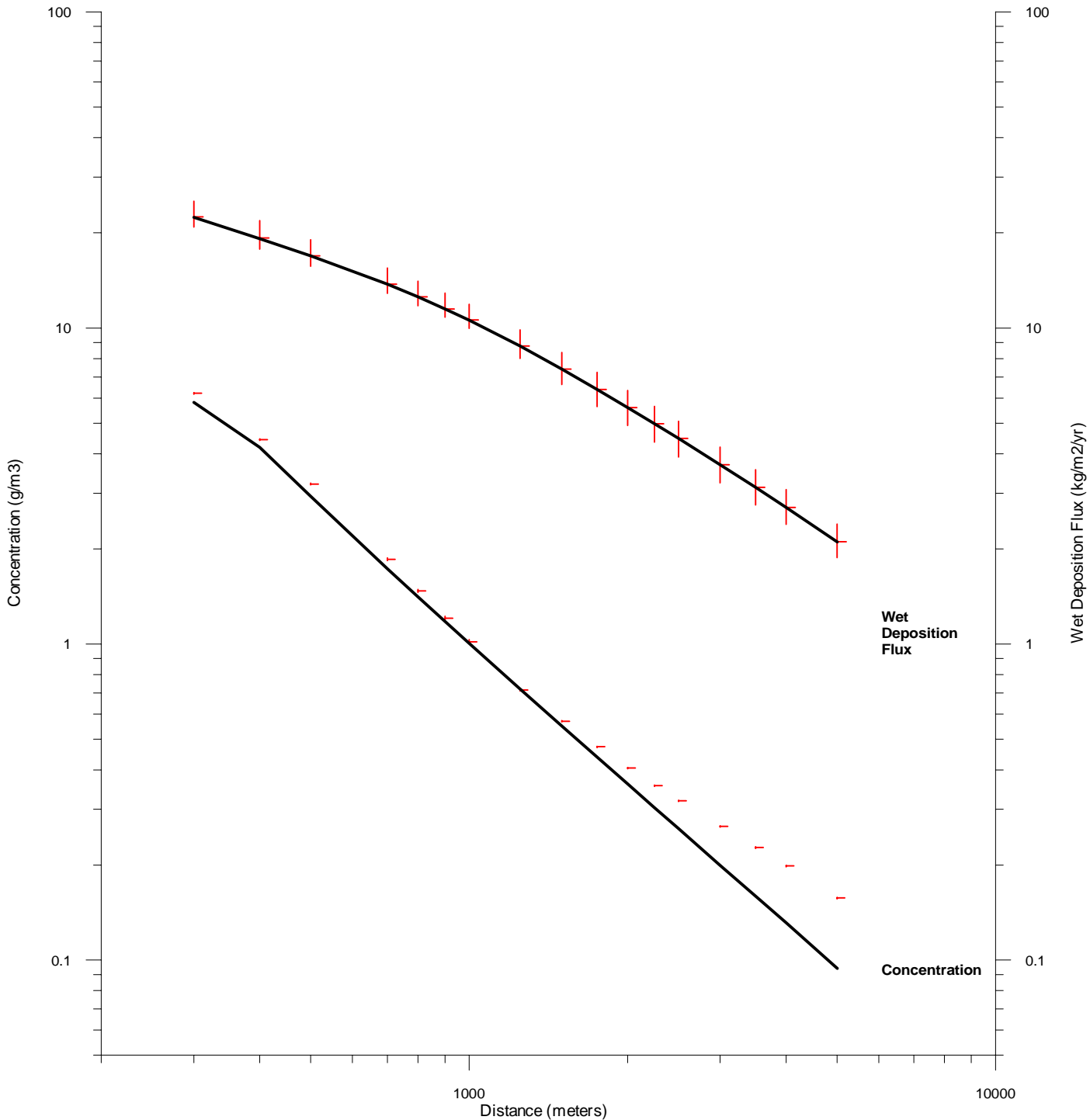
— No SCIM
— Hi-Lo-Avg



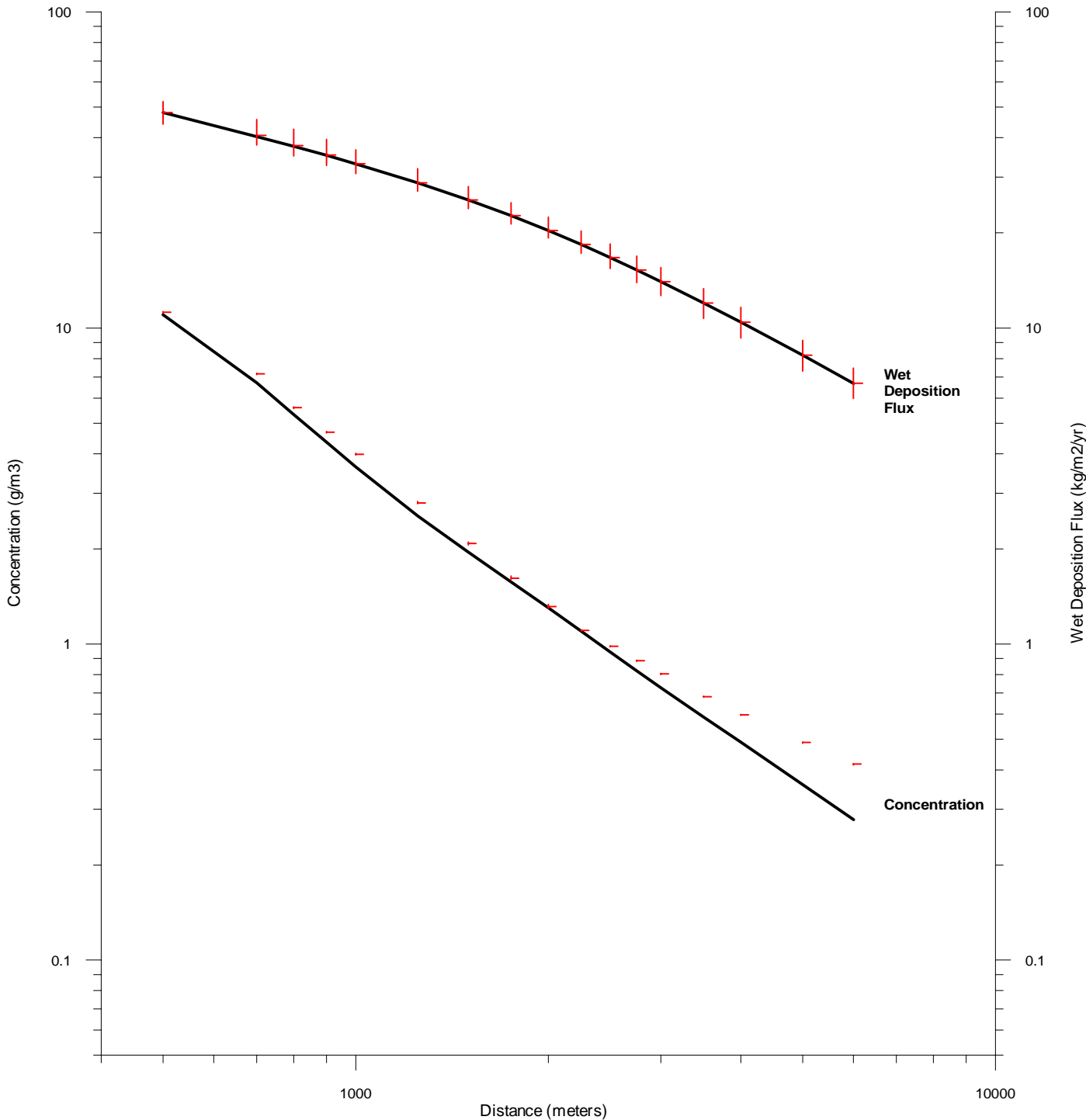
100m Elevated (3.7m ht) Area Source (TANK_100m)
No Particles
Met Station: Salem
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
EIGHT WET SCIM'ING SAMPLES
— No SCIM
— Hi-Lo-Avg



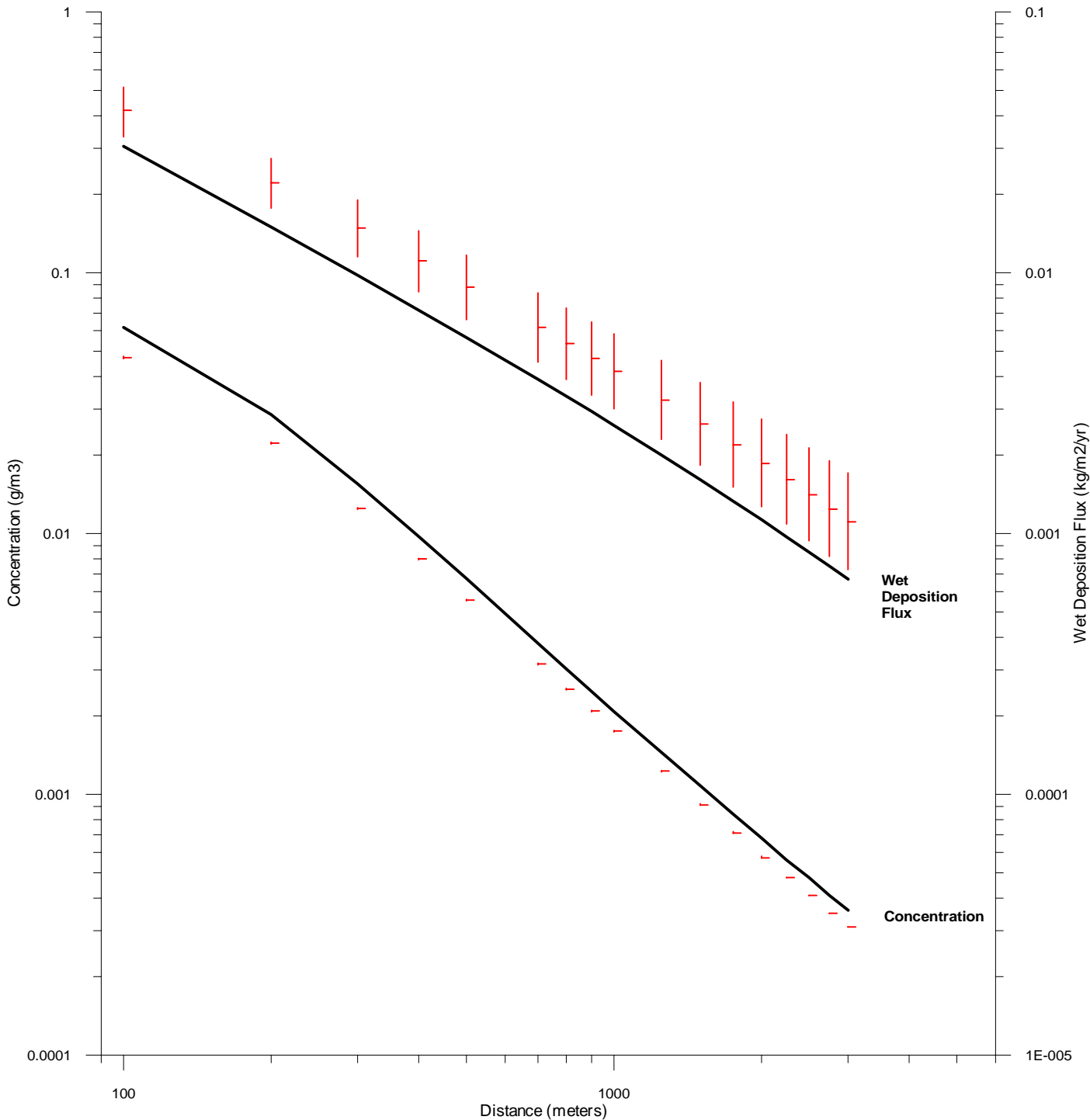
500m Elevated (3.7m ht) Area Source (TANK_500m)
No Particles
Met Station: Salem
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
EIGHT WET SCIM'ING SAMPLES
— No SCIM
— Hi-Lo-Avg



1000m Elevated (3.7m ht) Area Source (TANK_1000m)
No Particles
Met Station: Salem
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
EIGHT WET SCIM'ING SAMPLES
— No SCIM
— Hi-Lo-Avg

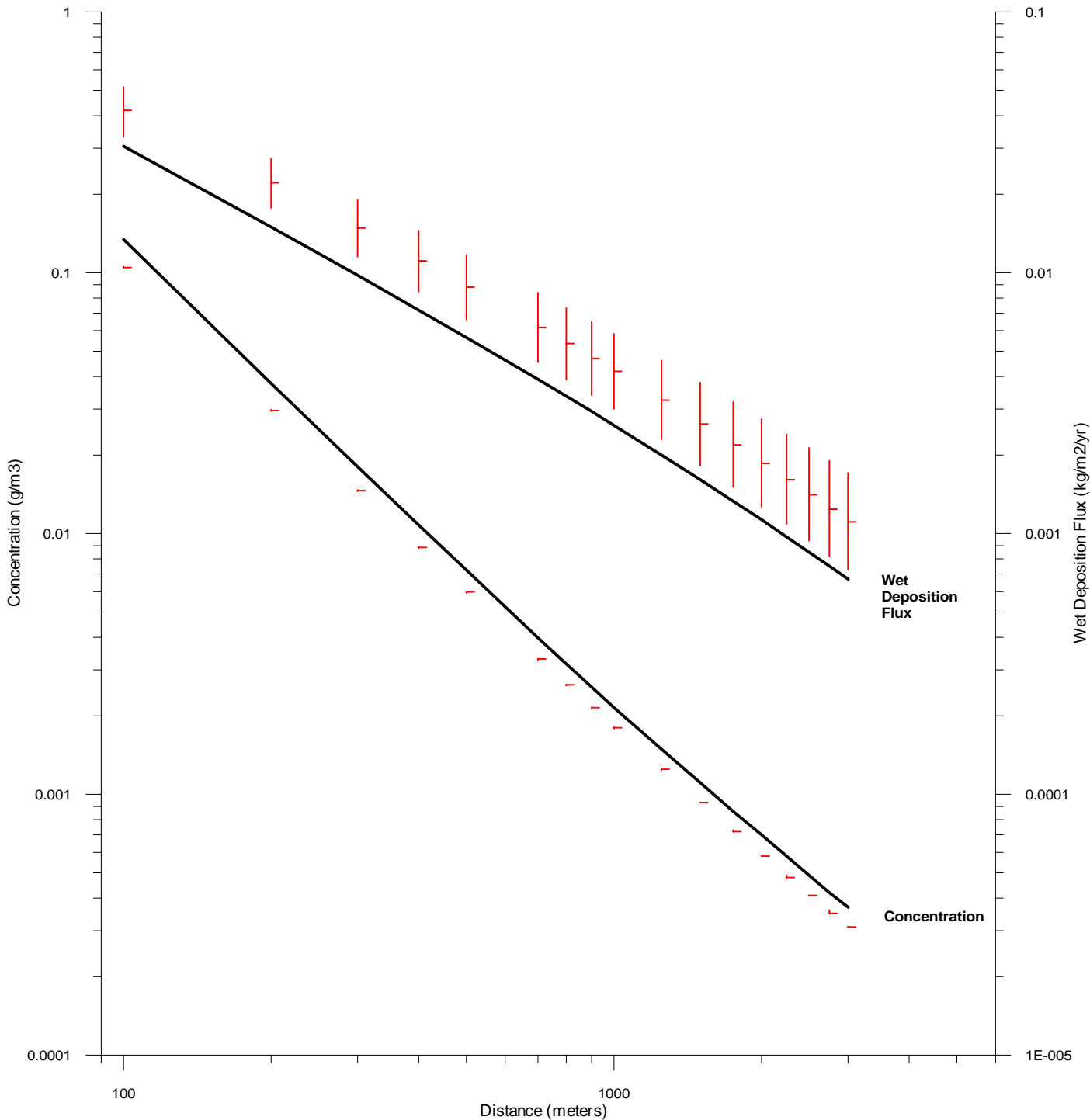


20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Tucson
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
EIGHT WET SCIM'ING SAMPLES
— No SCIM
— Hi-Lo-Avg

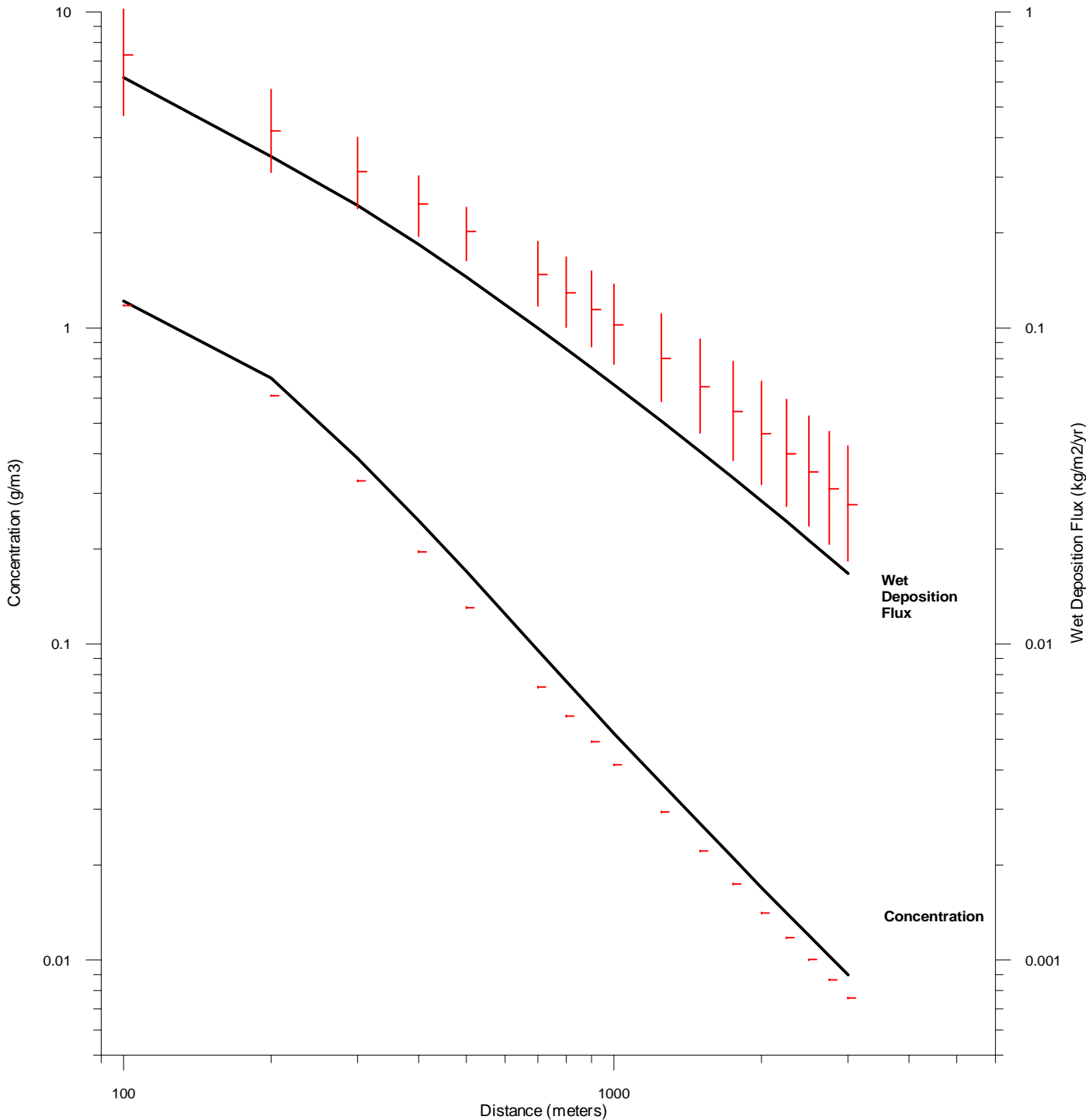


20m Ground Level Area Source (TANK _ Grd Level)
No Particles
Met Station: Tucson
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
EIGHT WET SCIM'ING SAMPLES

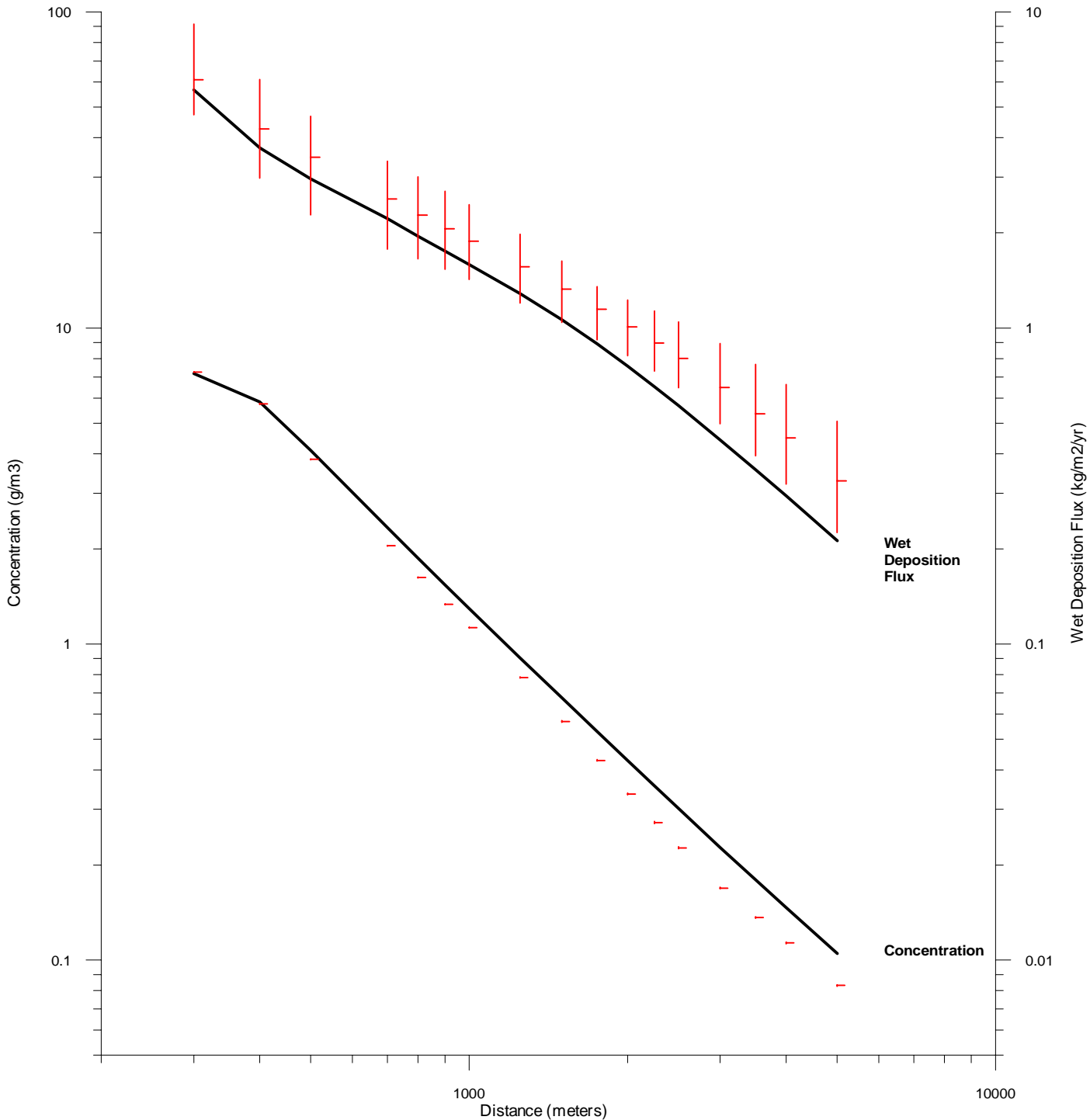
— No SCIM
— Hi-Lo-Avg



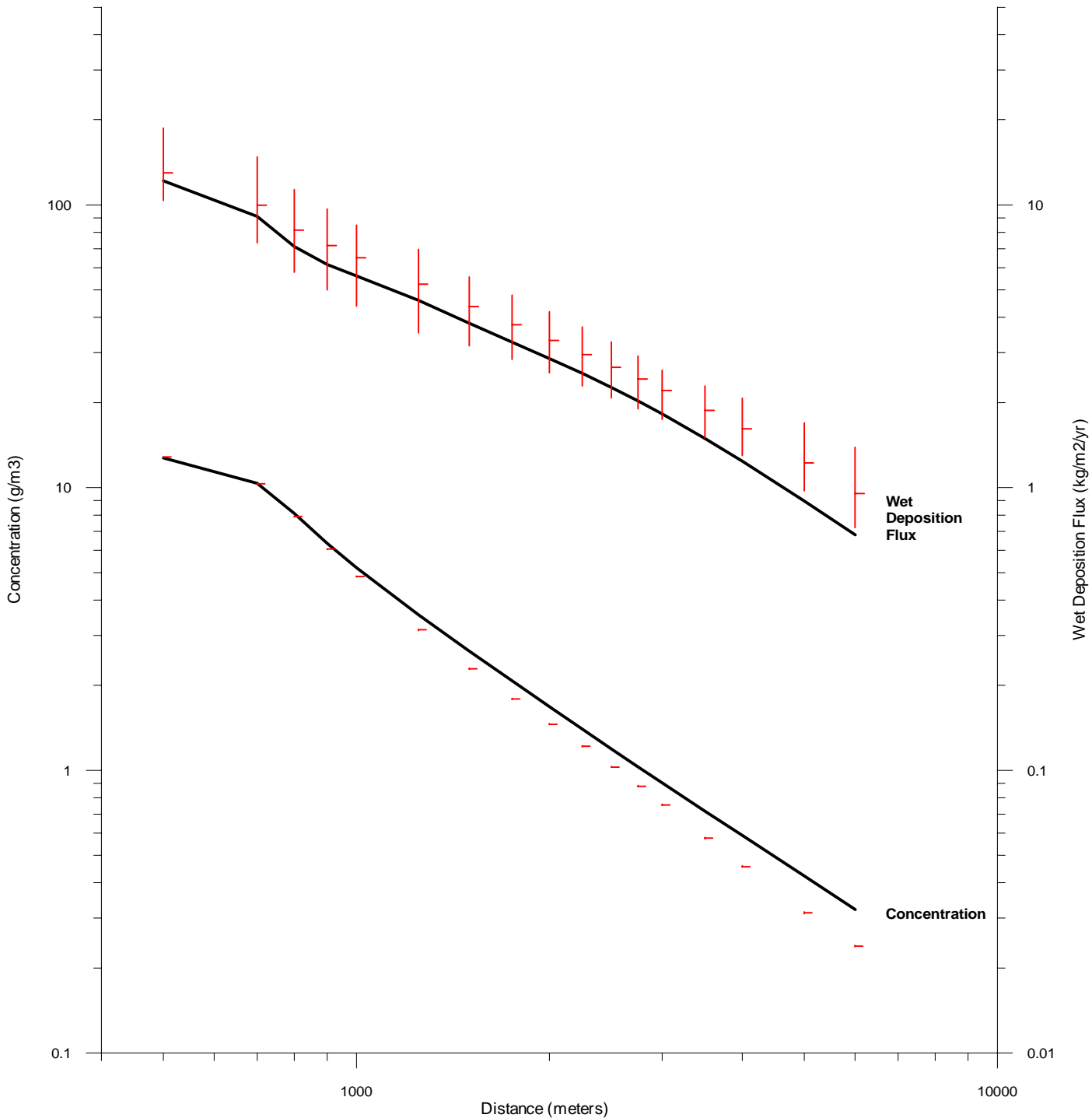
100m Elevated (3.7m ht) Area Source (TANK_100m)
No Particles
Met Station: Tucson
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
EIGHT WET SCIM'ING SAMPLES
— No SCIM
— Hi-Lo-Avg



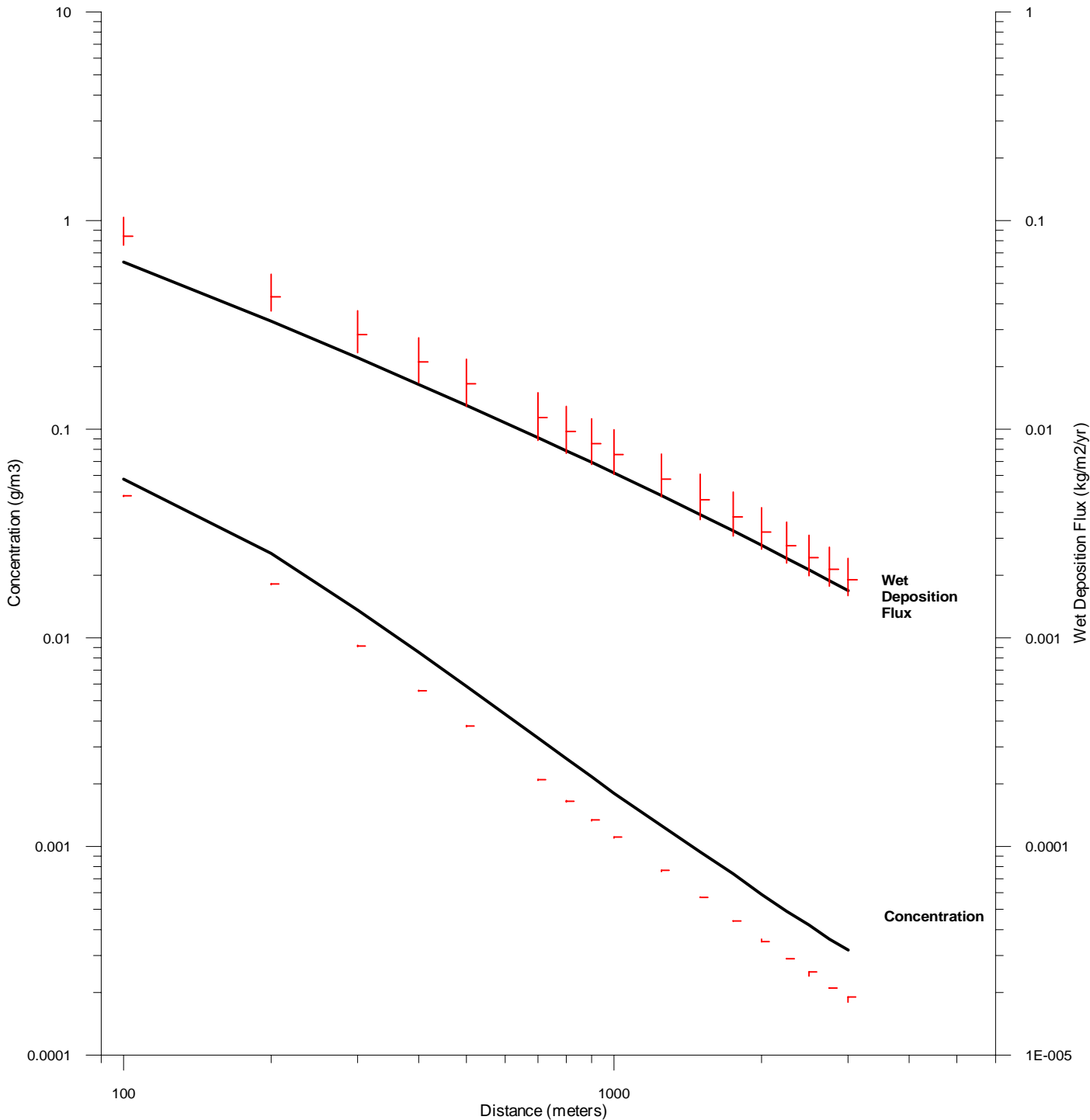
500m Elevated (3.7m ht) Area Source (TANK_500m)
No Particles
Met Station: Tucson
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
EIGHT WET SCIM'ING SAMPLES
— No SCIM
— Hi-Lo-Avg



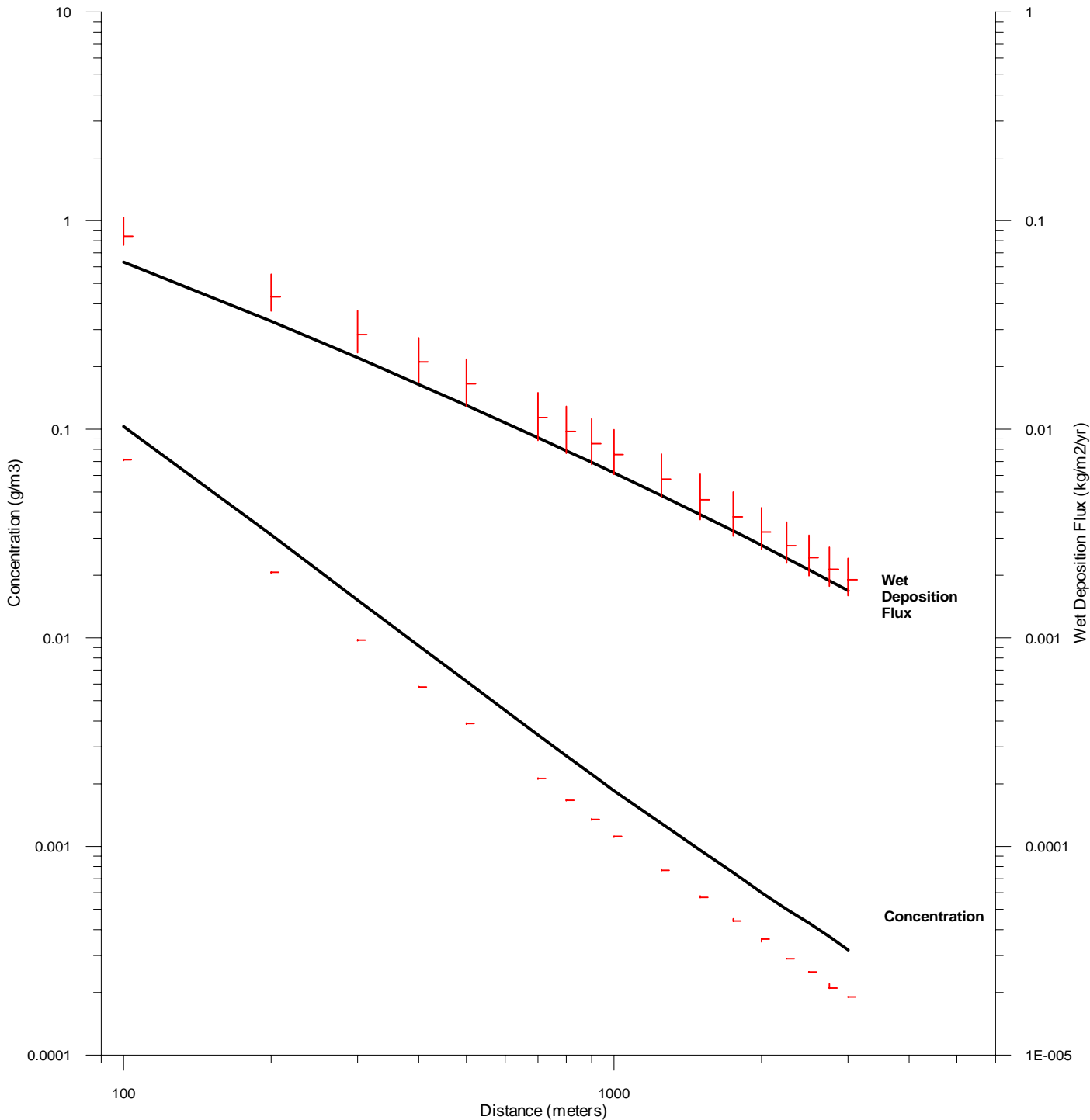
1000m Elevated (3.7m ht) Area Source (TANK_1000m)
No Particles
Met Station: Tucson
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
EIGHT WET SCIM'ING SAMPLES
— No SCIM
— Hi-Lo-Avg



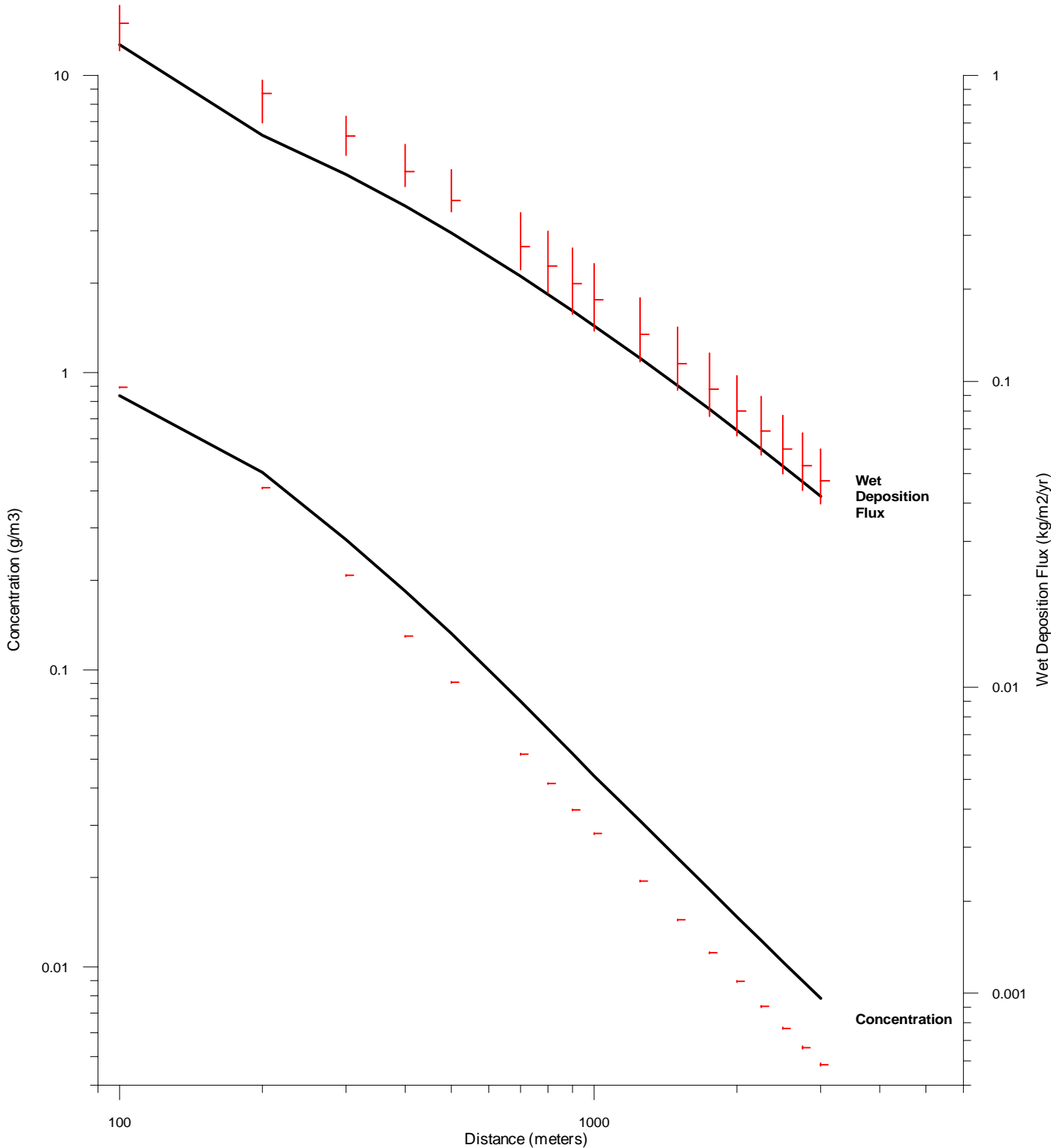
20m Elevated (3.7m ht) Area Source (TANK)
No Particles
Met Station: Wichita
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
EIGHT WET SCIM'ING SAMPLES
— No SCIM
— Hi-Lo-Avg



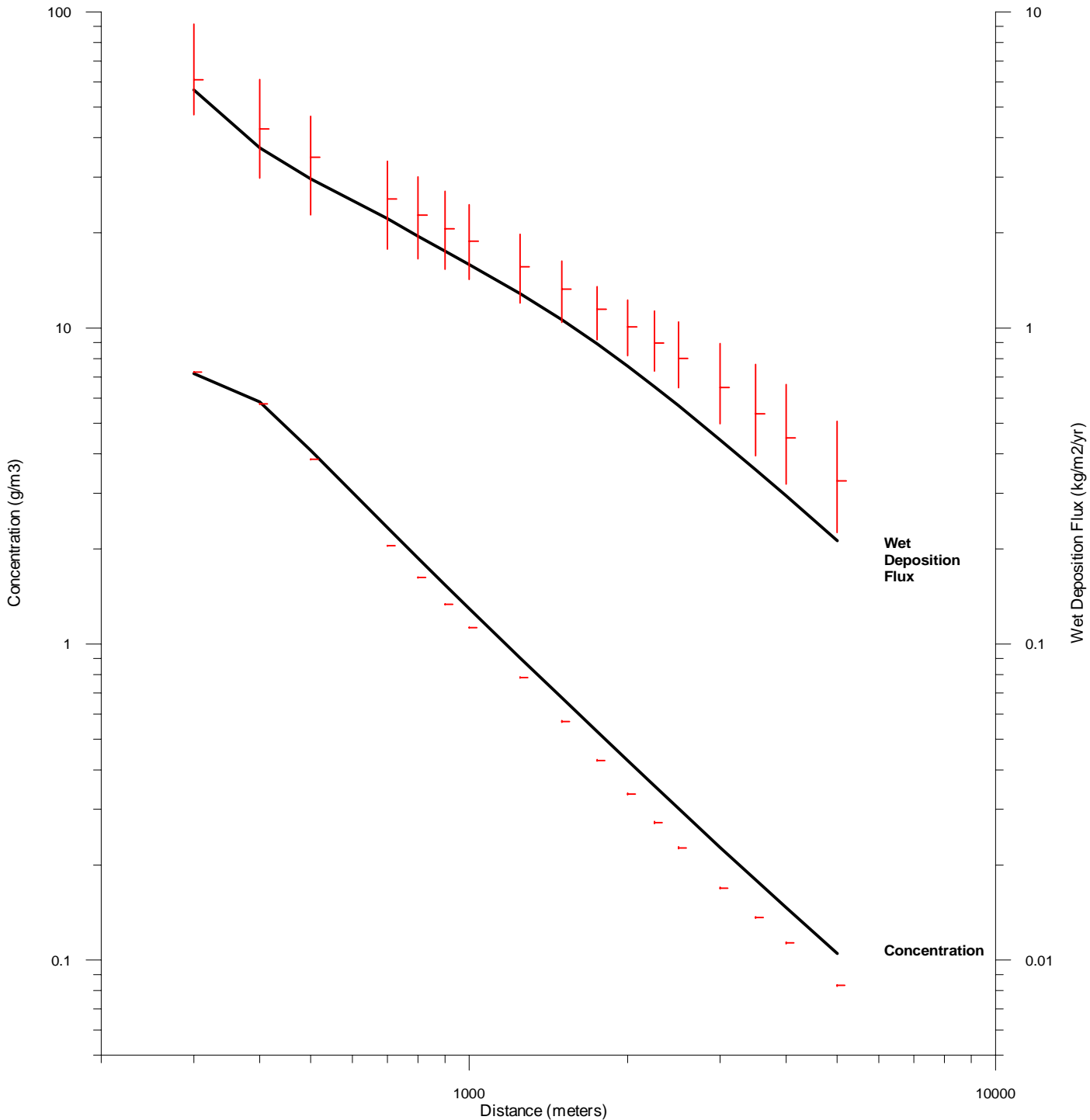
20m Ground-Level Area Source (TANK_Grd Level)
No Particles
Met Station: Wichita
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
EIGHT WET SCIM'ING SAMPLES
— No SCIM
— Hi-Lo-Avg



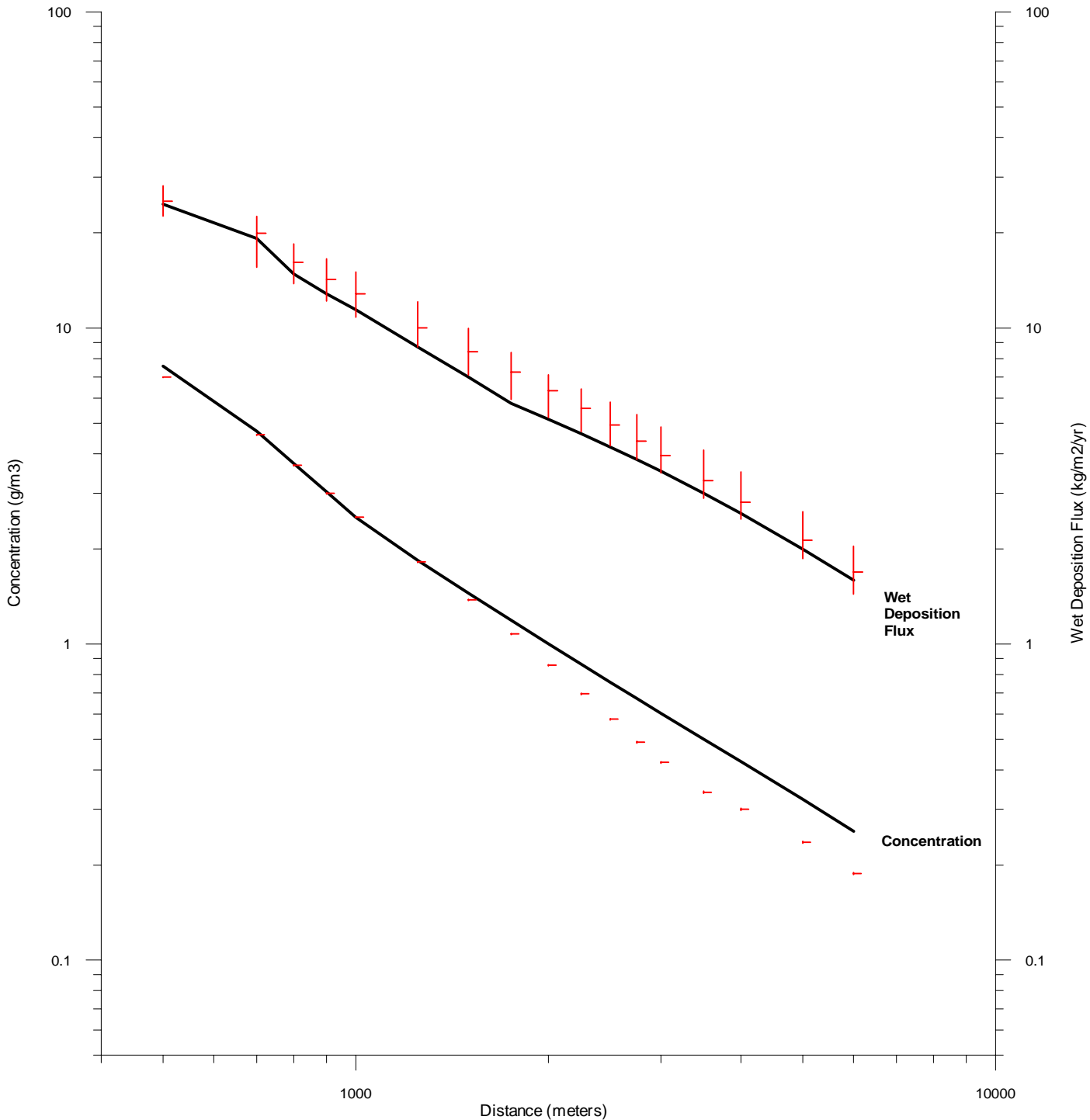
100m Elevated (3.7m ht) Area Source (TANK_100m)
No Particles
Met Station: Wichita
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
EIGHT WET SCIM'ING SAMPLES
— No SCIM
— Hi-Lo-Avg



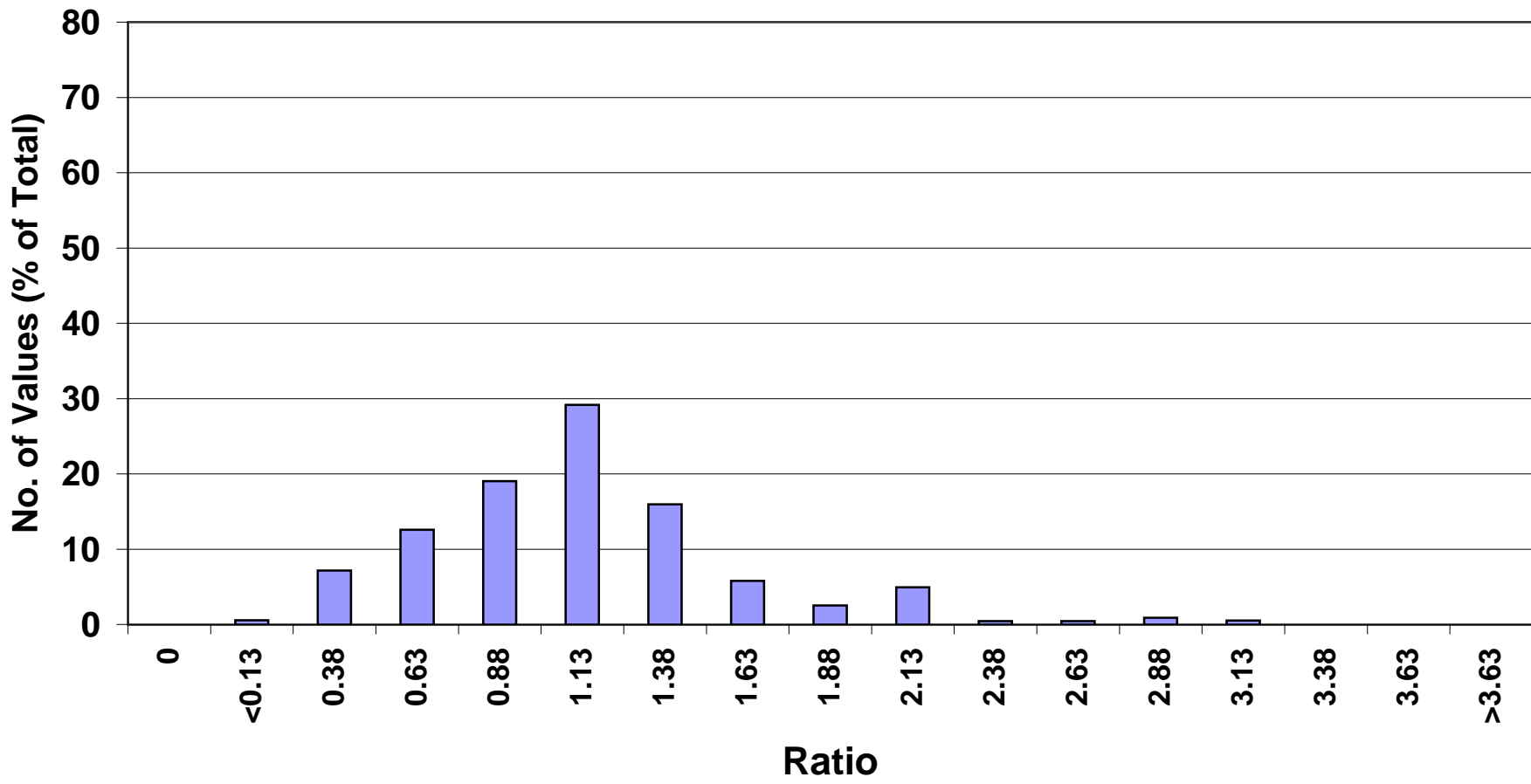
500m Elevated (3.7m ht) Area Source (TANK_500m)
No Particles
Met Station: Tucson
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
EIGHT WET SCIM'ING SAMPLES
— No SCIM
— Hi-Lo-Avg



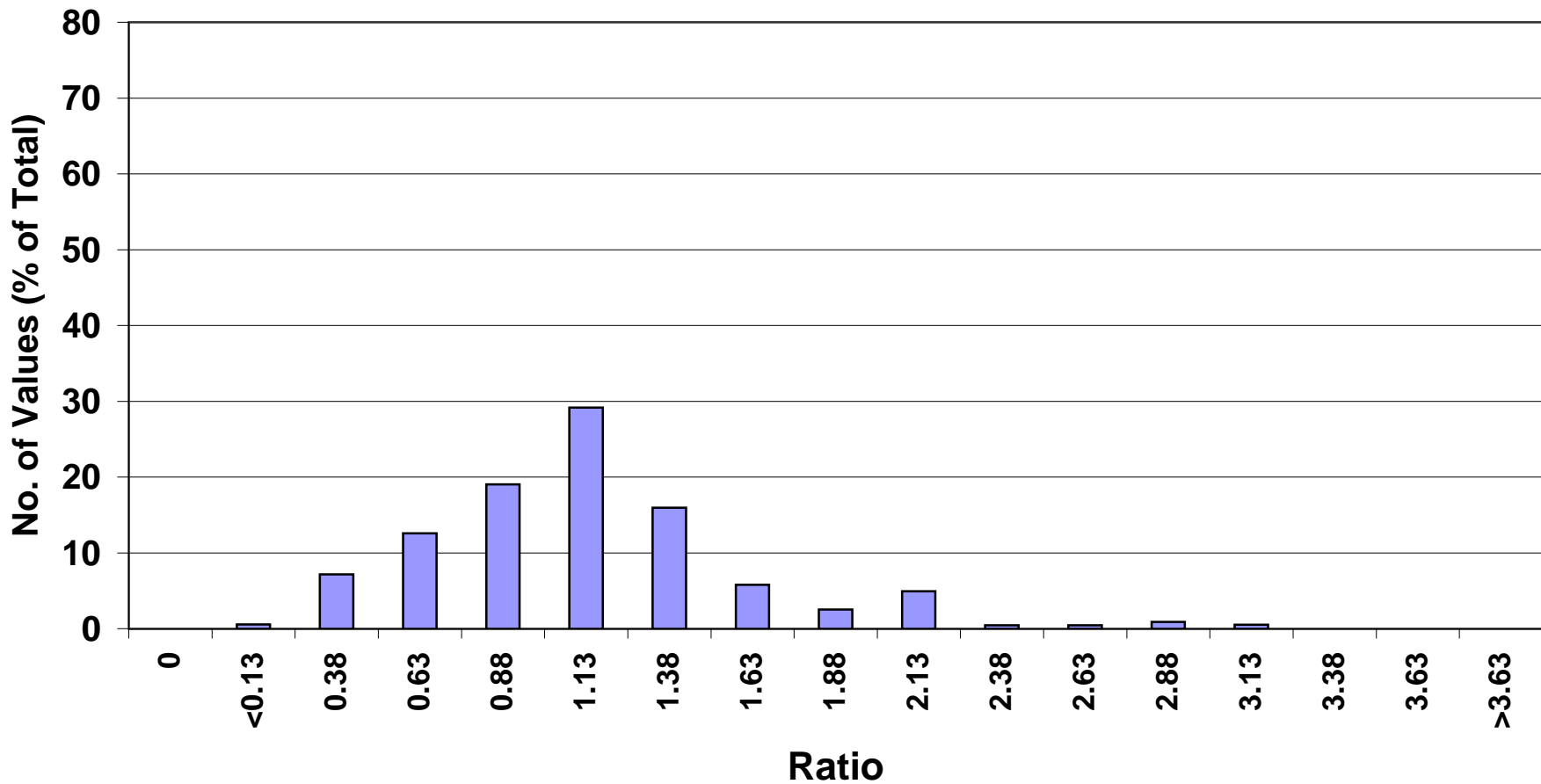
1000m Elevated (3.7m ht) Area Source (TANK_1000m)
No Particles
Met Station: Wichita
SCIM Interval = 193 hrs, Wet Hour Sampling Frequency = 8
EIGHT WET SCIM'ING SAMPLES
— No SCIM
— Hi-Lo-Avg



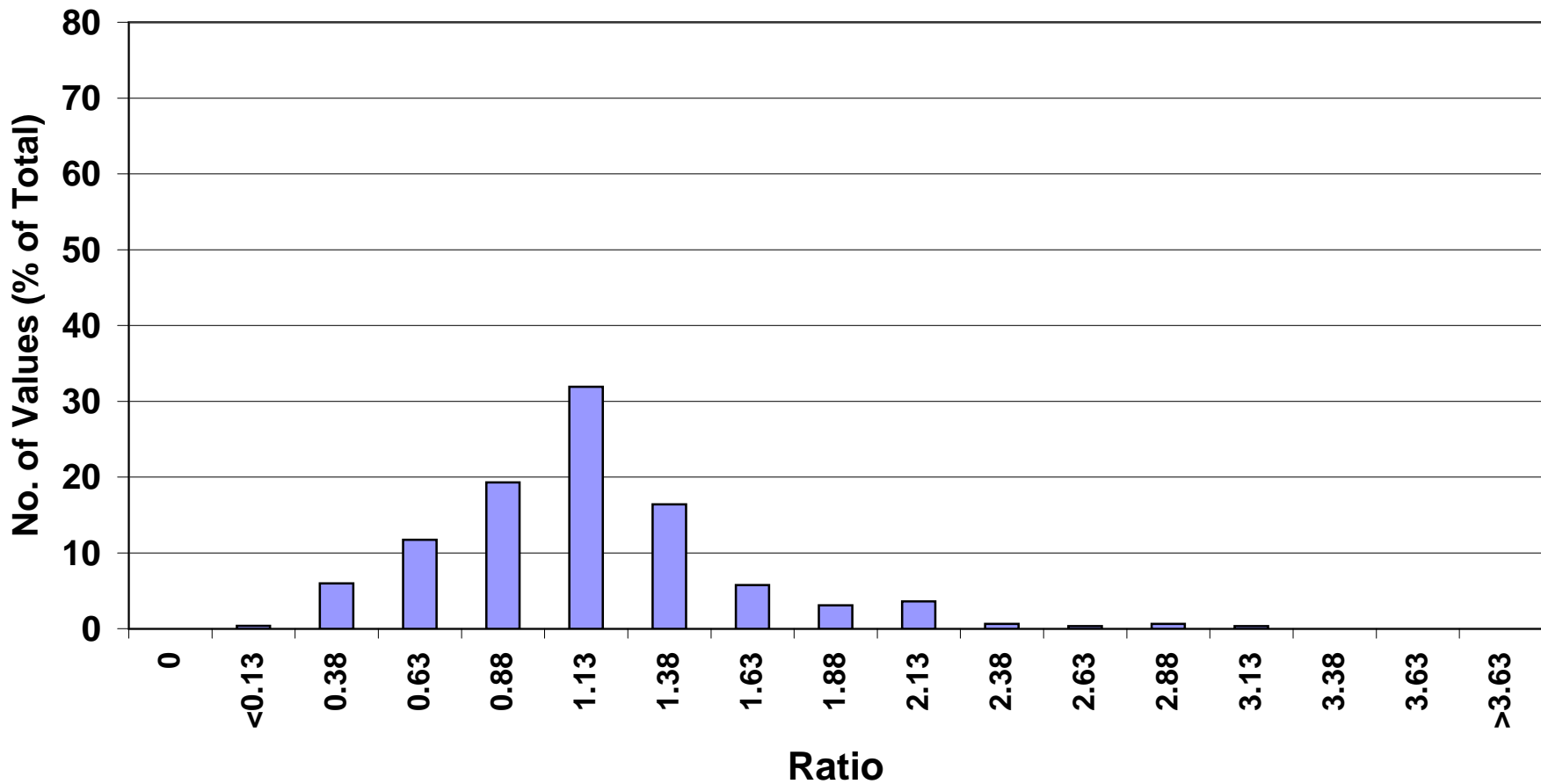
Distribution of SCIM'd to NoSCIM Ratios at All Distances
TANK, Salem
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8
EIGHT WET SCIM'ING SAMPLES



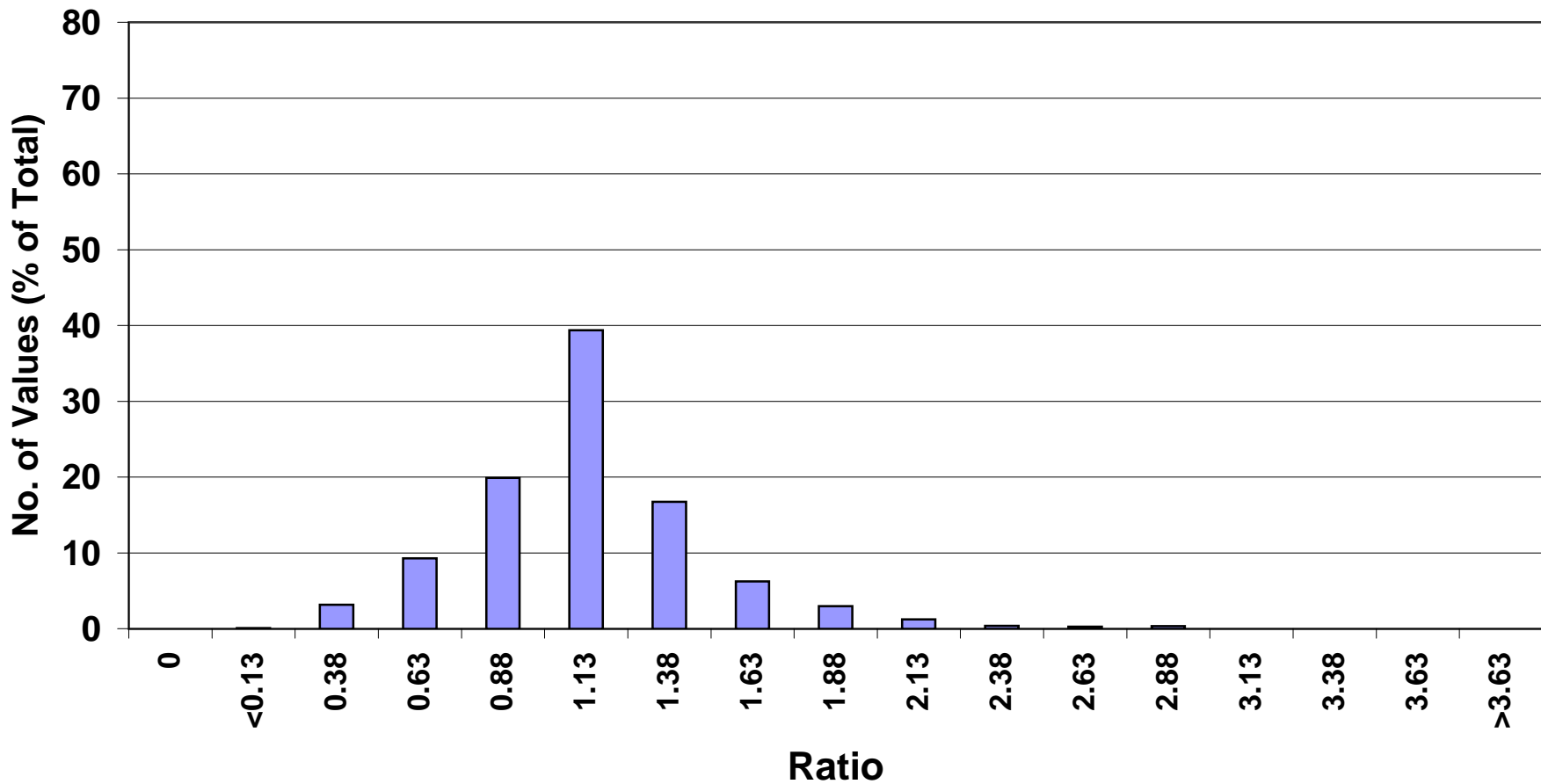
Distribution of SCIM'd to NoSCIM Ratios at All Distances
TANK_Ground Level (No Particles), Salem
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8
EIGHT WET SCIM'ING SAMPLES



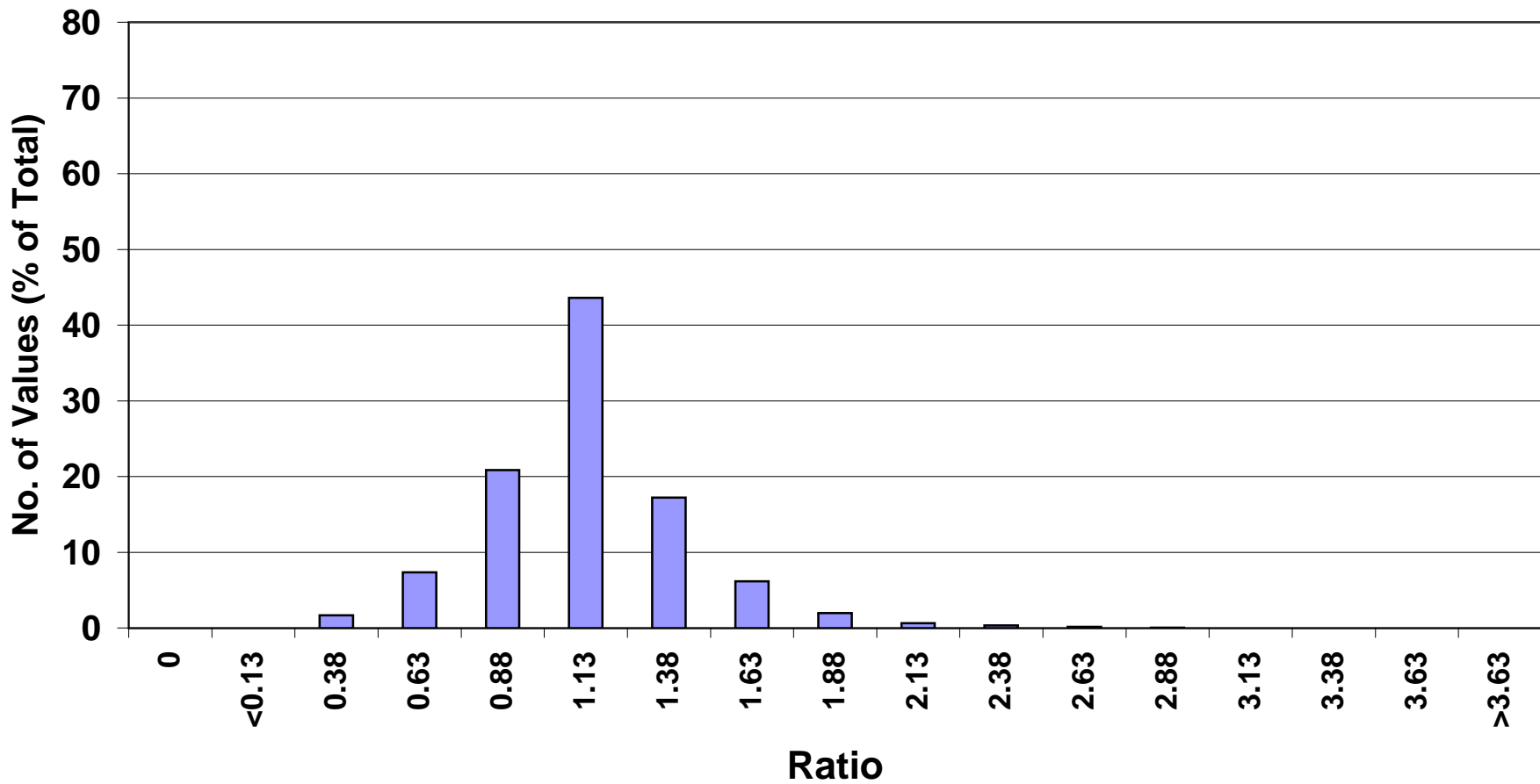
Distribution of SCIM'd to NoSCIM Ratios at All Distances
TANK_100m (Elevated, No Particles), Salem
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8
EIGHT WET SCIM'ING SAMPLES



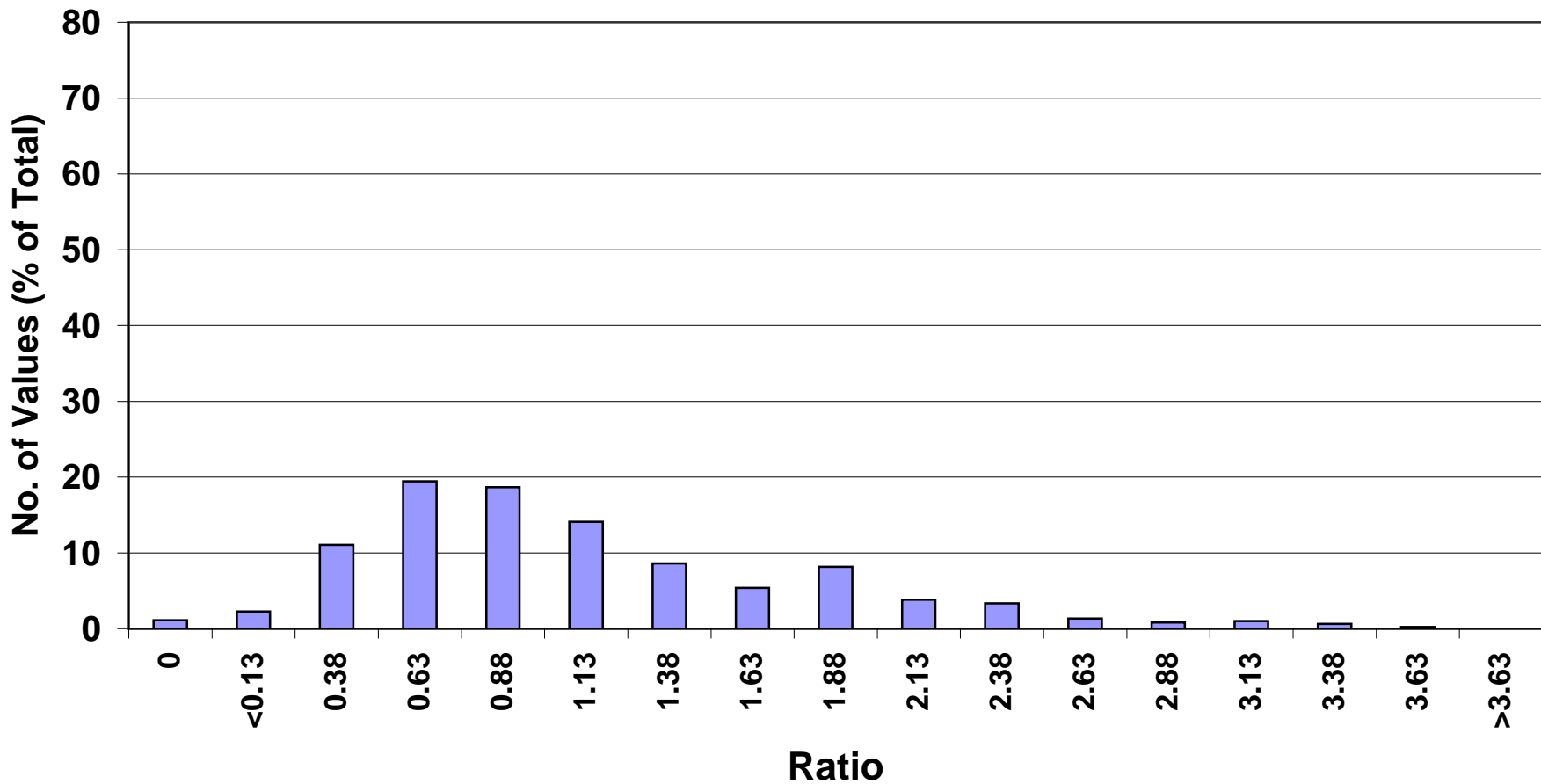
Distribution of SCIM'd to NoSCIM Ratios at All Distances
TANK_500m (Elevated, No Particles), Salem
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8
EIGHT WET SCIM'ING SAMPLES



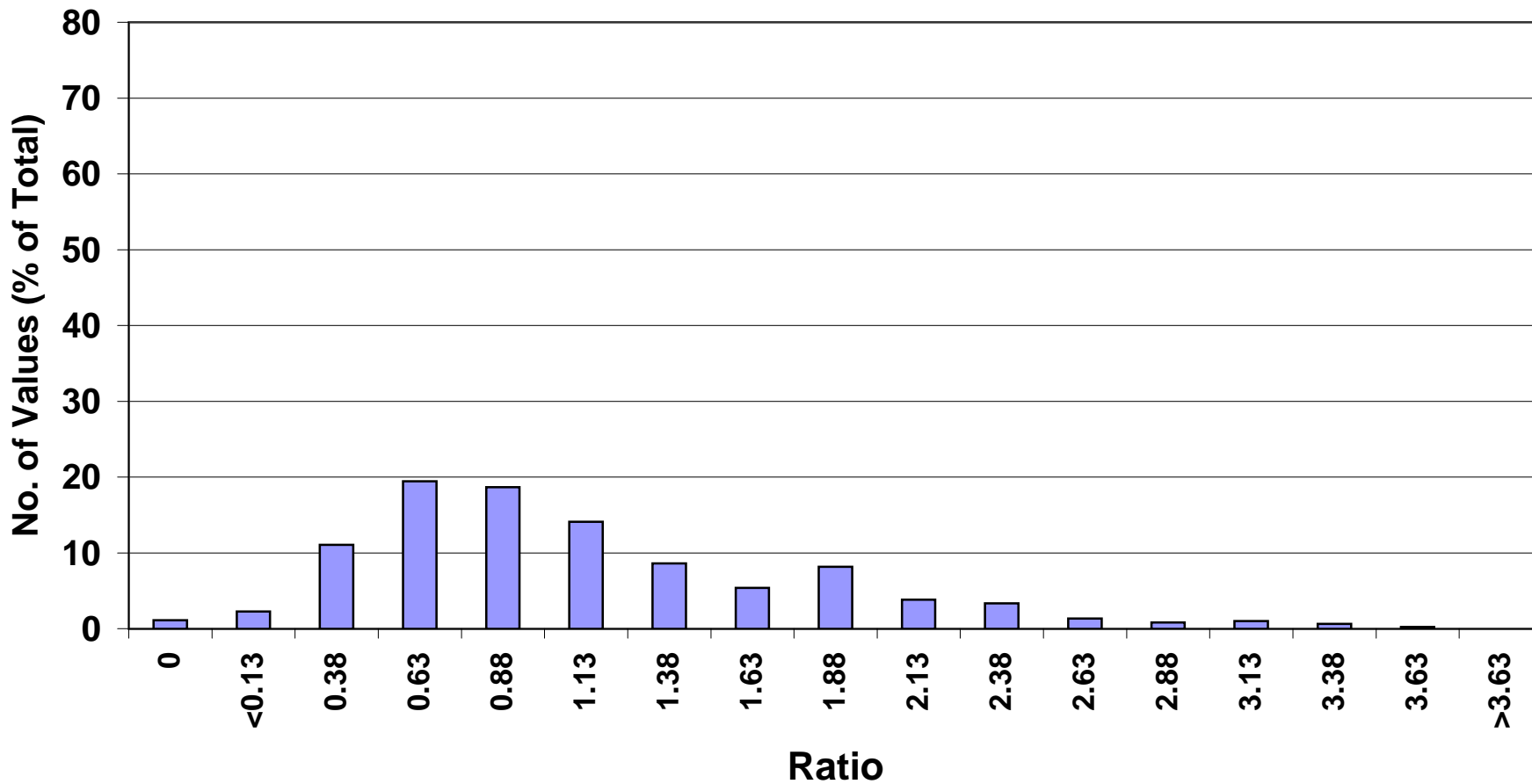
Distribution of SCIM'd to NoSCIM Ratios at All Distances
TANK_1000m (Elevated, No Particles), Salem
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8
EIGHT WET SCIM'ING SAMPLES



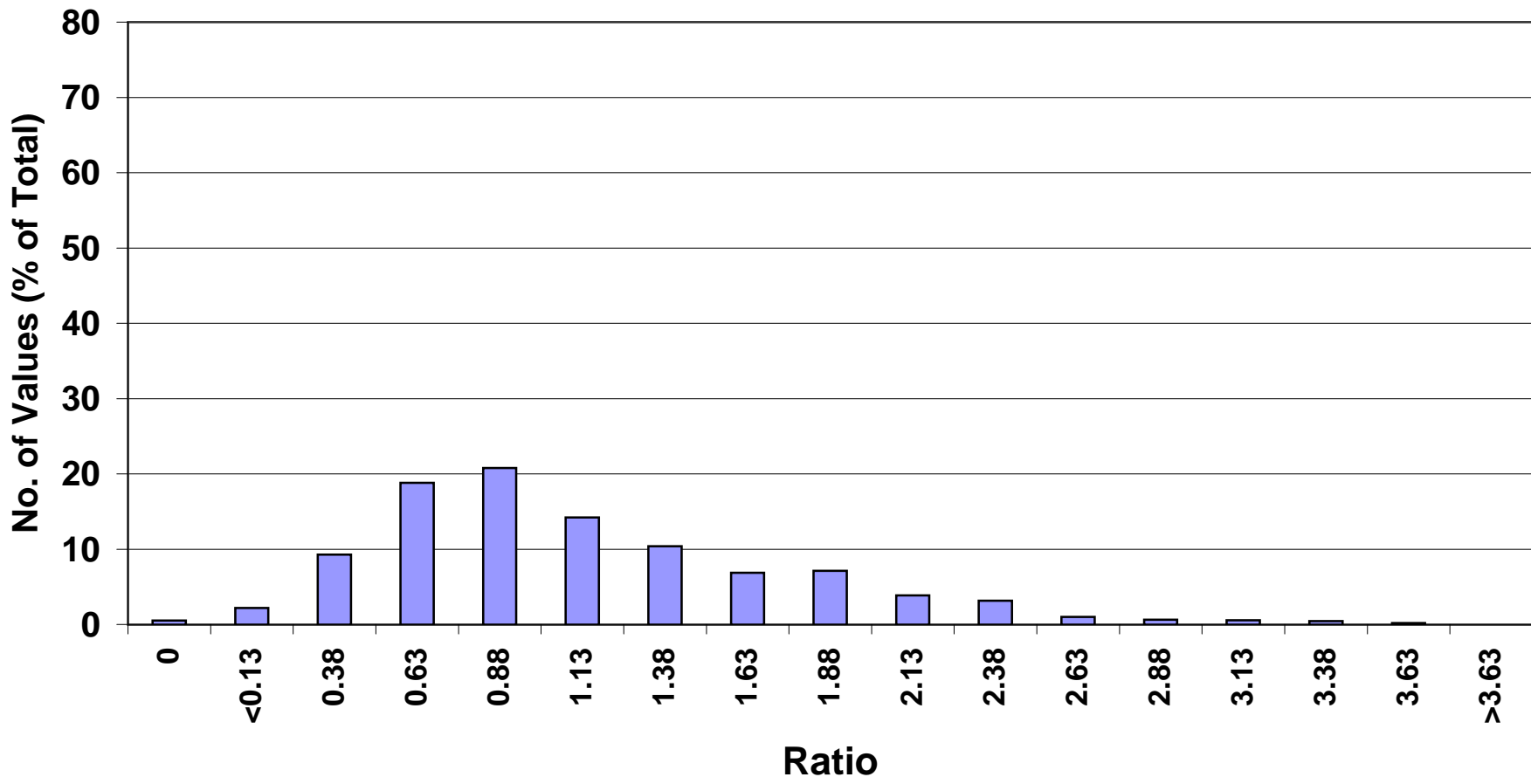
Distribution of SCIM'd to NoSCIM Ratios at All Distances
TANK, Tucson
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8
EIGHT WET SCIM'ING SAMPLES



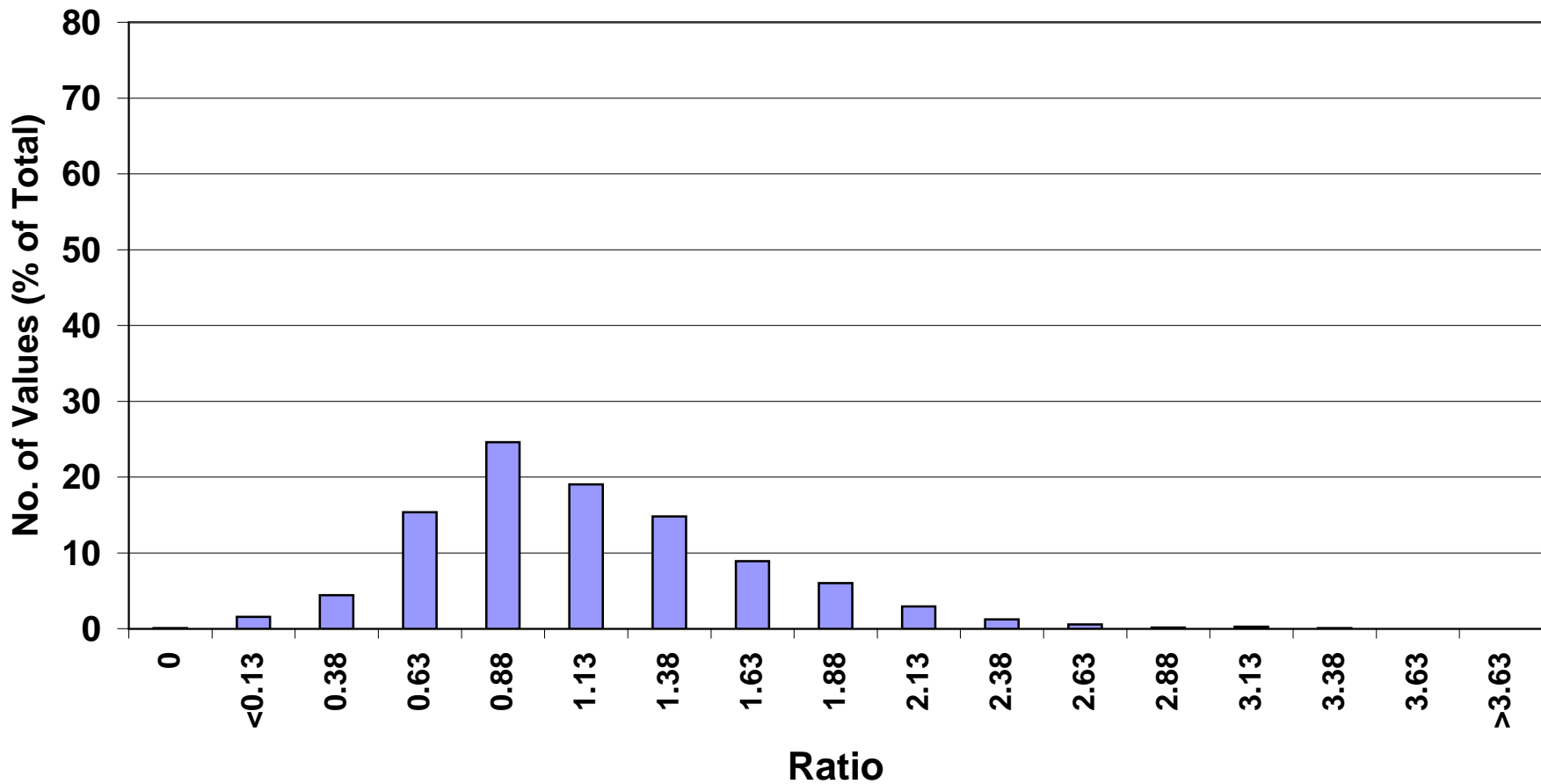
Distribution of SCIM'd to NoSCIM Ratios at All Distances
TANK_Ground Level (No Particles), Tucson
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8
EIGHT WET SCIM'ING SAMPLES



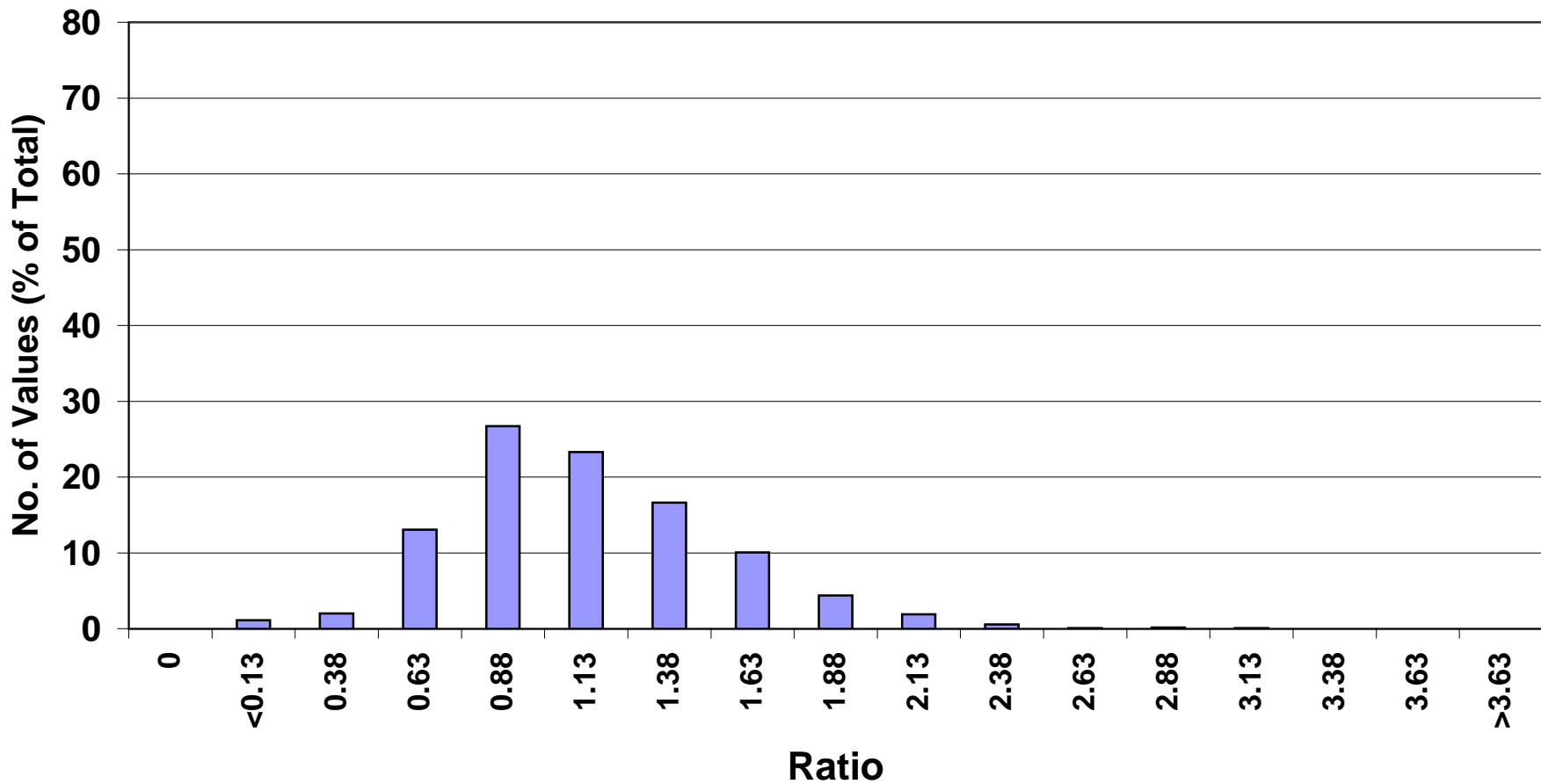
Distribution of SCIM'd to NoSCIM Ratios at All Distances
TANK_100m (Elevated, No Particles), Tucson
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8
EIGHT WET SCIM'ING SAMPLES



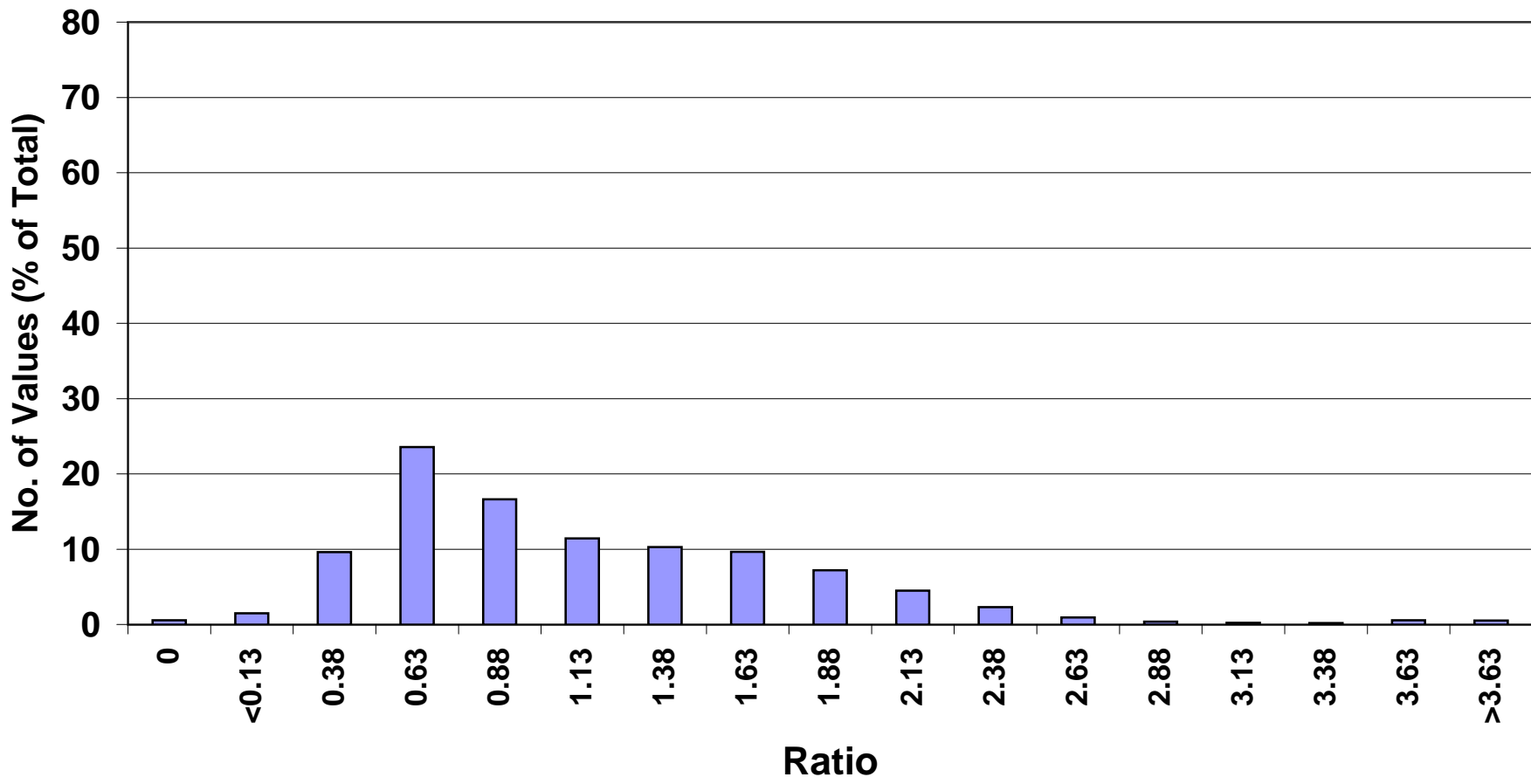
Distribution of SCIM'd to NoSCIM Ratios at All Distances
TANK_500m (Elevated, No Particles), Tucson
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8
EIGHT WET SCIM'ING SAMPLES



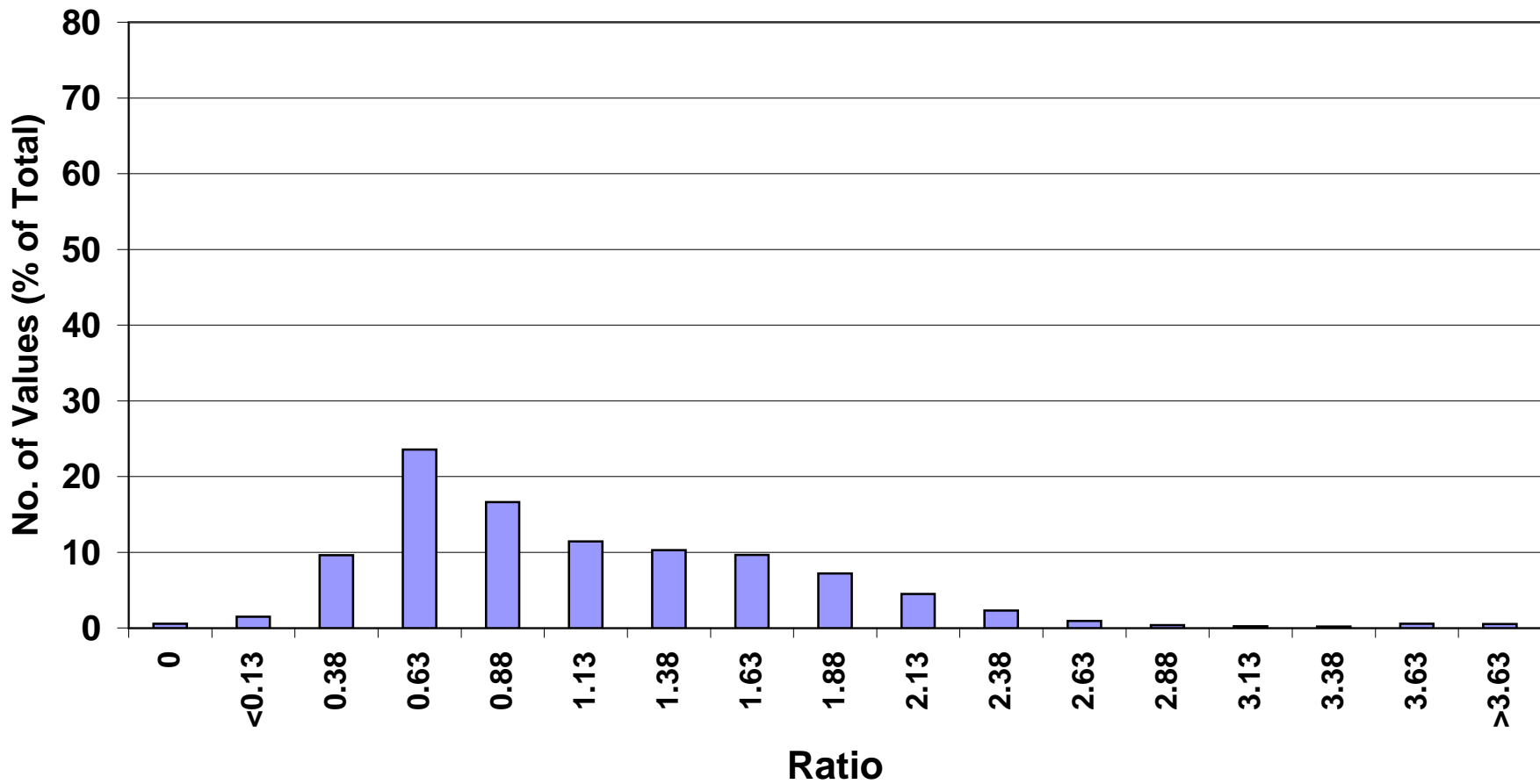
Distribution of SCIM'd to NoSCIM Ratios at All Distances
 TANK_1000m (Elevated, No Particles), Tucson
 Ratios of Wet Fluxes Paired in Space (Distance & Direction)
 SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8
 EIGHT WET SCIM'ING SAMPLES



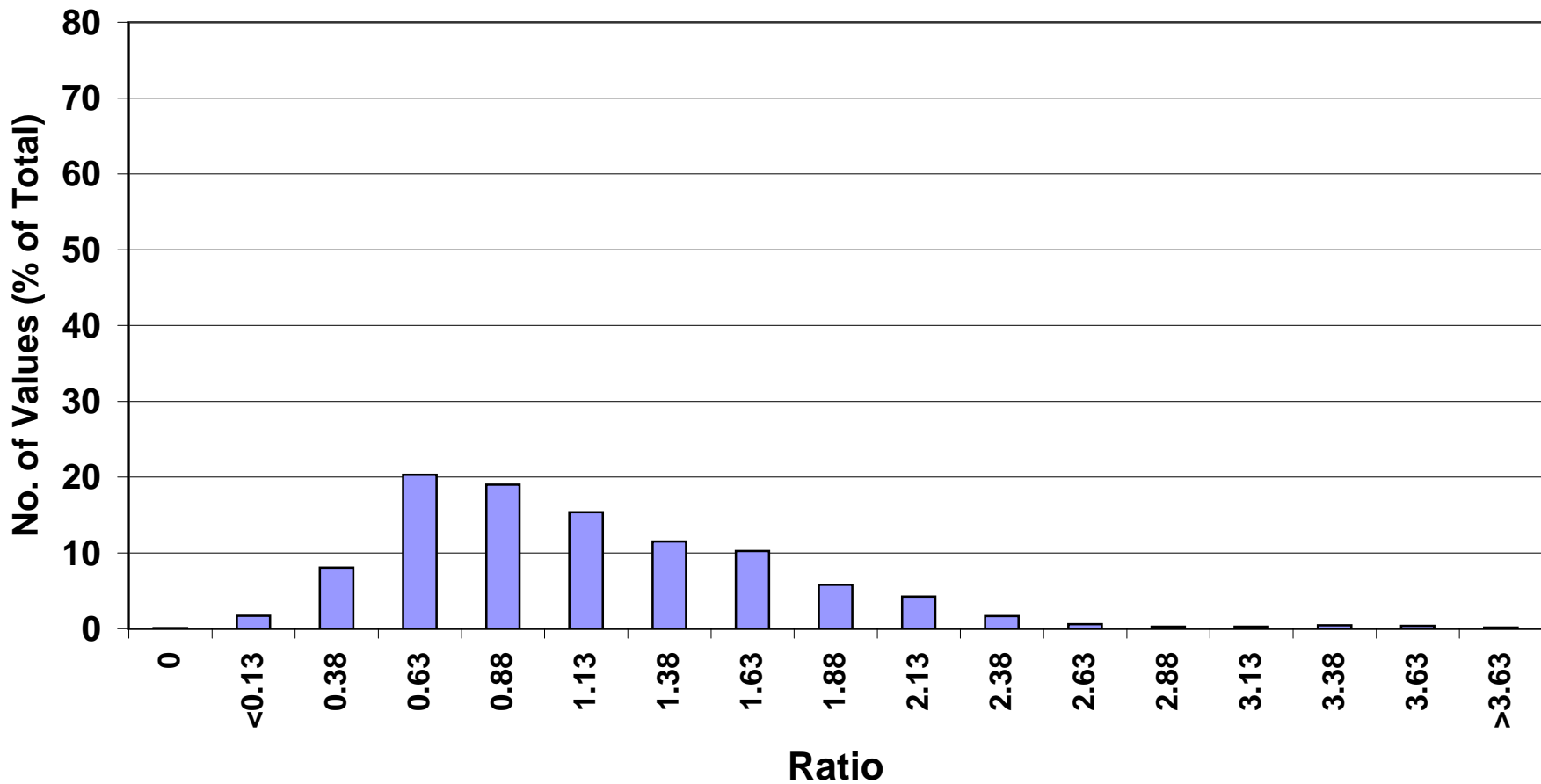
Distribution of SCIM'd to NoSCIM Ratios at All Distances
TANK, Wichita
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8
EIGHT WET SCIM'ING SAMPLES



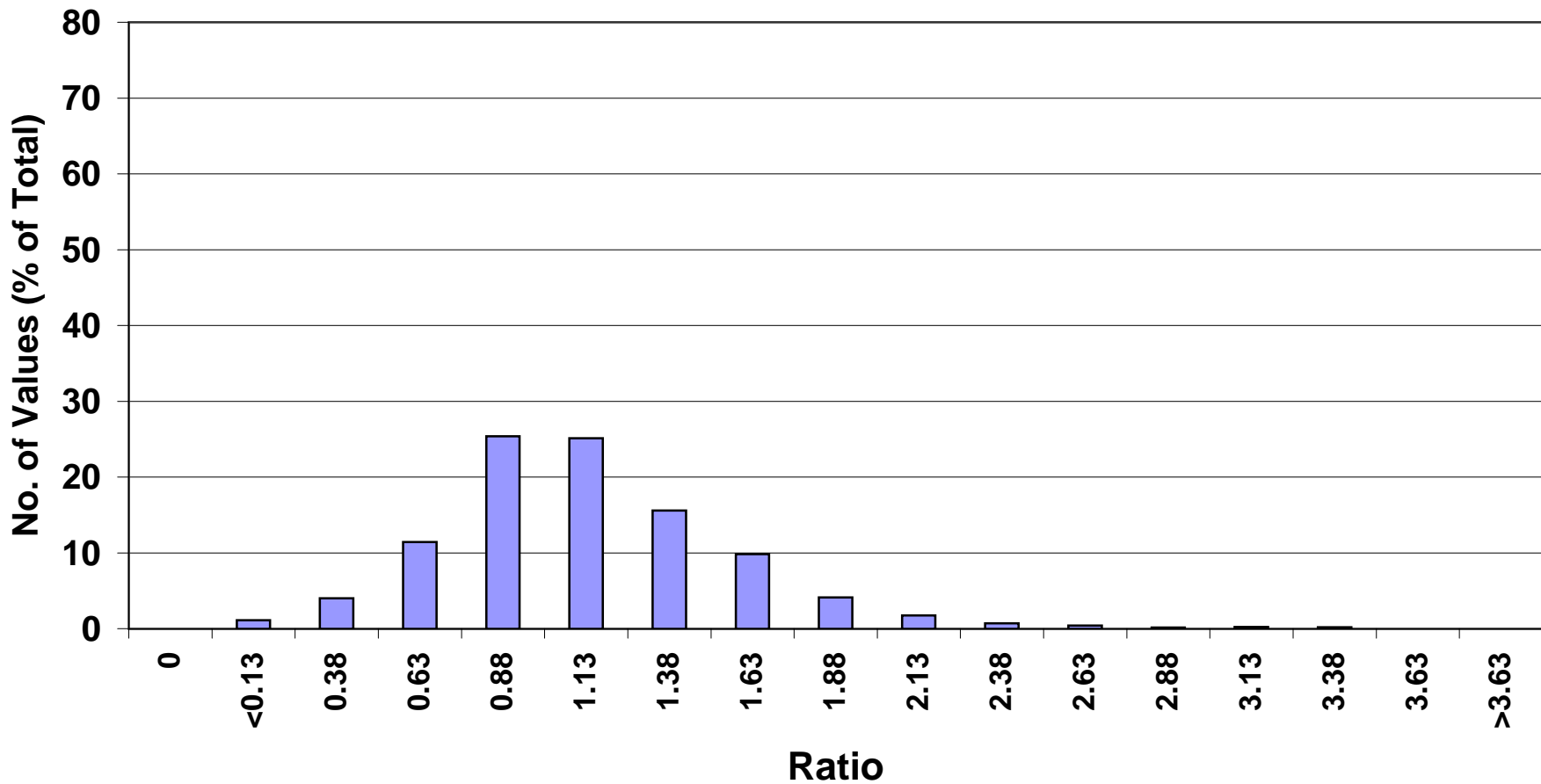
Distribution of SCIM'd to NoSCIM Ratios at All Distances
TANK_Ground Level (No Particles), Wichita
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8
EIGHT WET SCIM'ING SAMPLES



Distribution of SCIM'd to NoSCIM Ratios at All Distances
 TANK_100m (Elevated, No Particles), Wichita
 Ratios of Wet Fluxes Paired in Space (Distance & Direction)
 SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8
 EIGHT WET SCIM'ING SAMPLES



Distribution of SCIM'd to NoSCIM Ratios at All Distances
TANK_500m (Elevated, No Particles), Wichita
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8
EIGHT WET SCIM'ING SAMPLES



Distribution of SCIM'd to NoSCIM Ratios at All Distances
TANK_1000m (Elevated, No Particles), Wichita
Ratios of Wet Fluxes Paired in Space (Distance & Direction)
SCIM Interval = 193 hrs, Wet Hour Sampling Freq = 8
EIGHT WET SCIM'ING SAMPLES

