A CORRELATION ANALYSIS OF VARIABLES AFFECTING AIRBORNE RADIOACTIVE PARTICULATE CONCENTRATION NEAR THE URAVAN URANIUM MILL

Prepared For

UNION CARBIDE CORPORATION, METALS DIVISION
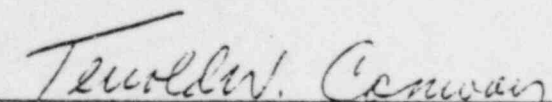
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1.0   INTRODUCTION

NUS Corporation was retained by the Union Carbide Corporation's Metals Division to provide radiological consulting services related to the operation of the Uravan Uranium Mill in Uravan, Colorado. [1,2] The objective of the Phase I work was to determine whether the environmental radiological doses due to the operation of the Uravan Uranium Mill were in compliance with 40 CFR 190, and, if the doses were determined to be excessive, identify the emission source(s) responsible. The results were presented in the Phase I report [3] which indicated that inhalation and external doses were in excess of 40 CFR 190 but not enough information was available to identify the sources responsible with any certainty. The objective of the Phase II work is to better identify the emission sources responsible for excess 40 CFR 190 doses offsite evaluated as part of the Phase I work and to separate the environmental considerations due to the current milling operations from those due to previous milling operations.   This work includes: 1) a correlation analysis of certain variables affecting the airborne radioactive particulate concentrations and 2) modeling the Uravan Uranium Mill airborne radioactive particulate emissions, incorporating results of the supplemental environmental measurements program. This report describes the correlation analysis, including the methodology and the results.

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2.0 SUMMARY AND CONCLUSIONS

A correlation analysis of certain variables that may affect airborne radioactive particulate concentrations near the Uravan Uranium Mill was performed to better identify the emission sources that may be contributing to inhalation doses in excess of 40 CFR 190 evaluated as part of the Phase I work. The correlation analysis was designed to determine if there were any significant relationships between airborne radioactive particulate concentrations and mill process and meteorological parameters using currently available data. A series of independent variables was correlated with dependent variables consisting of the weekly measured airborne concentrations of radioactive particulates (U-Nat, Th-230, Ra-226, and Pb-210), total particulates and V_2O_5, and the specific activities of the collected particulates at locations 1, 2, and 3 shown in Figure 1 for the period of May 1978 through April 1979. The concurrent independent variables included the process parameters of ore haul, ore feed, and yellowcake production rates; and the meteorological parameters of temperature, equivalent rainfall, snowfall, and snowcover collected onsite and wind speed and wind direction collected at Grand Junction.

The coefficient of determination, R^2, was used to measure how strong the relationship was between a given dependent variable and one or more independent variables. The coefficent of determination, R^2, represents the ratio of the variability of the dependent variable explained by the independent variables and the total variability of the dependent variable.

The correlation analysis was performed using the SAS Institute's Statistical Analysis Systems (SAS) computer package.[4] The output included the coefficient of determination and plot outputs of selected dependent variables. Additionally, slopes and intercepts of all dependent variables versus each independent variable were computed by the least squares method.

The results in general indicate a low correlation between the dependent and independent variables. The long data averaging time of one week, coupled with the lack of concurrent onsite data for wind speed, wind direction, and atmospheric stability class may explain the generally low correlation results.

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Figure 1   Map of Prin

URAVAN

RADIOACTIVE
DISPOSAL
AREA

ACTIVE

TAILINGS

PILES

OLD
TAILINGS
PILES

ACTIVE

TAILINGS

PILES

SPRAY AREA

LOCATED 7500 SW

MONITOR WELL

MONITOR WELL

MONITOR WELL

LEGEND

▲ HIGH VOLUME AIR
SAMPLER LOCATIONS

■ RADON GAS MONITORING
STATIONS

● MONITOR WELL

- - - - ACTIVE USED AREA
BOUNDARY

SCALE OF FEET
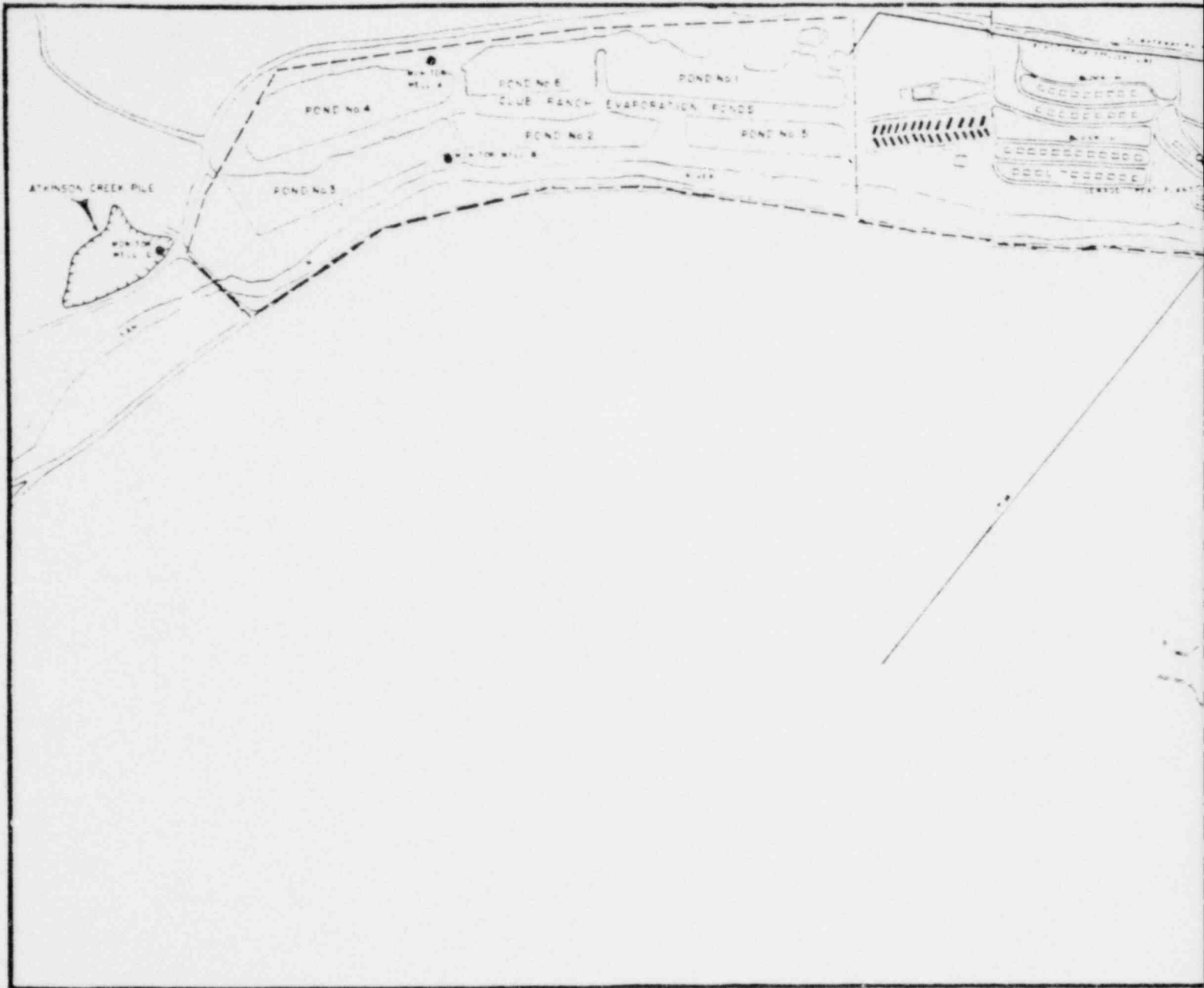
cipal Radiological Monitoring Locations

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The meteorological parameters showed a stronger correlation with the dependent variables in general than the process parameters did. Of the meteorological parameters, temperature showed the strongest correlation, followed by wind speed, wind direction, snowcover, equivalent rainfall, and snowfall. Of the process parameters, the ore feed rate had the strongest correlation, followed by the ore haul and yellowcake production rates.

In interpreting the results, consideration was given to the manner in which meteorological and process parameters would be expected to affect concentrations. Assuming that meteorological parameters like atmospheric stability and plume rise were constant and wind direction was in line from source to receptor, the following behavior would be expected based on field studies:

1. Concentrations due to stack sources should be proportional to process throughput and inversely proportional to wind speed. Precipitation would tend to increase concentrations due to washout of airborne particulates.

2. Concentrations due to wind erosion type fugitive dust sources should be roughly proportional to the wind speed squared, with a 12 mph threshold for wind erosion, and inversely proportional to the soil moisture content squared, decreasing as precipitation increases.

3. Concentrations due to vehicular fugitive dust should be proportional to the level of activity and inversely proportional to the moisture content squared, decreasing as precipitation increases.

The Pb-210 concentrations at all three locations decreased as the process parameters, temperature, and wind speed increased; increased as the equivalent rainfall, snowfall, and snowcover increased; and increased when winds were from the NE and NW quadrants. The Pb-210 concentrations appear to be less related to current onsite milling operations and more seasonally dependent than any other radionuclide of interest. The decrease in Pb-210 concentrations as process parameters and wind speed increase disfavors stack or dugitive dust sources.

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Elevated concentrations when temperatures are low may be related to more stable conditions and lower mixing heights that occur in fall and winter. This behavior would be consistent with a regional Rn-222 source of Pb-210 with increased concentrations under the more stable conditions and lower mixing heights of fall and winter and washout conditions. These factors reinforce the conclusion of the Phase I report that Pb-210 concentrations are strongly related to regional background.

The total particulate concentrations at all three locations showed a behavior opposite that for Pb-210 concentrations, tending to increase with the process parameters, decrease with precipitation factors, and increase when winds were from the SE and SW quadrants. The same behavior was observed in the V_2O_5 and Th-230 concentrations at locations 1 and 3, and Ra-226 concentrations at locations 2 and 3. The increase in concentrations with wind speed and decrease with precipitation tend to favor a fugitive dust sources. Low particulate concentrations in winter may be related to frozen ground and snowcover. At the same time, of the process parameters, ore feed rate had the stronger correlation.

Correlations associated with U-Nat concentrations were generally too low to be significant. However, the concentrations of U-Nat increased with the process parameters and precipitation, and decreased with wind speed at locations 2 and 3, indicating a stack emission source. The U-Nat concentrations at location 1 behaved in a manner similar to that of total particulates, indicating a fugitive dust source.

The specific activities of U-Nat, Th-230 and Ra-226 generally showed insignificant correlations with individual dependent variables, except for U-Nat at location 3. U-Nat specific activity at location 3 decreased with ore feed rate, temperature, and wind speed, and increased with precipitation. The decrease in specific activity as ore feed rate increases may reflect an increased ore to yellowcake ratio in the particulates.

Concentrations of all parameters except Pb-210 generally correlated best with winds from the SW quadrant. Significant correlations resulted when winds were

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from the tailings pile and ore handling operations in many cases. However, it is difficult to relate a significant wind direction and a specific source, since a given wind direction at Grand Junction may correspond to a quite different wind direction at Uravan because of the complex terrain.

Conclusions based on the correlation analysis beyond those outlined above become very difficult. The patterns described are evident from the data. However, taking the final step in source identification is hampered by inconsistencies or insignificant correlations of key variables.

The results of the correlation analysis could be improved with: 1) updates with additional onsite data as it becomes available, 2) use of concurrent onsite data for wind speed, wind direction, and atmospheric stability, and 3) incorporation of results from the supplemental environmental measurements program. Reduction of the data averaging time from one week to one day would be very beneficial, but perhaps not feasible. A combined variable approach to the correlation analysis in which independent variables were combined into equations similar to the Gaussian dispersion equation and then summed over the sources may significantly improve the correlation analysis. However, at this time it is recommended that no additional correlation analyses be undertaken until the results of the supplemental environmental measurements program are evaluated.

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3.0 CORRELATION ANALYSIS METHODOLOGY

3.1 Statistical Basis for Correlation Analysis

A correlation analysis has been performed in this study to measure how strong the relationship is between a given dependent variable, y, and one or more independent variables, x_1, x_2, . . . x_n. The first step in a correlation analysis is to establish a model describing the relationship between the dependent and independent variables. The simplest relationship between a dependent variable and a single independent variable is a linear one which can be written as:

$$y = B_0 + B_1 x \qquad (1)$$

where

y	=	dependent variable
x	=	independent variable
B_0	=	y intercept at $x_1 = 0$
B_1	=	slope of the line

This model states that all values of y lie exactly on a straight line and is therefore termed a deterministic model. Since experimental data rarely behave in this manner, this model can be rewritten as follows:

$$y = B_0 + B_1 x + e \qquad (2)$$

where

e = random error term

This model is referred to as the probabilistic model. A basic assumption of a probablistic model is that for a given value of x, the average value of e=0. Therefore, the expected value of y for a given x can be written as:

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$$\langle y \rangle = B_0 + B_1 x \qquad (3)$$

where

$\langle y \rangle$ = expected value of y

The difference between the observed value of y and the expected value of y is the random error term, e. Using the observed values of x and y, the values of B_0 and B_1 can be estimated so as to minimize the random error, e. This procedure is referred to as the method of least squares or simple linear regression analysis. This procedure can be extended to the general case involving an arbitrary number of independent variables in an equation for the dependent variable having both linear and non-linear terms. Such a procedure is called multiple regression analysis.

The correlation, or the degree of relationship, between variables measures how well the model established in a manner described above explains the relationship between variables. In the case of a single independent variable linear model, as in Eqn. (1), the variables are perfectly correlated if they satisfy the equation exactly. If there is no relationship between the variables, they are uncorrelated. In dealing with the scattering of sample data about lines or curves in a quantitative manner, it is necessary to devise measures of correlation. The strength of the relationship in the general case between a dependent variable, y, and one or more independent variables related by a given model is measured by the coefficient of determination, R^2. The coefficient of determination can be interpreted as:

$$R^2 = \left(\frac{\text{Variation explain by model}}{\text{Total variation}} \right) \qquad (4)$$

When the variables are perfectly correlated, $R^2 = 1$, and when no correlation exists, $R^2 = 0$. The correlation coefficient, r, is generally used to measure how strong the relationship is between variables represented by a single independent variable model. The calculational methods for r cannot be applied when more that one independent variable is involved. However, R^2 and r^2 are equivalent for a single independent variable model. For these reasons the coefficient of determination is generally used.

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The significance of a given value of R^2 can be tested in many ways. The Null Hypothesis assumes there is no relationship between the dependent and independent variables; that is, $R^2 = 0$. The curves presented in Figure 2 can be used to test the Null Hypothesis at a 95% confidence level in terms of the error degrees of freedom, which is equal to the number of observations minus the number of independent variables minus 1. The "significant" value of R^2 is obtained from the y-axis by selecting the error degrees of freedom on the x-axis and the proper curve for the number of independent variables. If the R^2 is greater than or equal to this value, it can be termed "significant." By disproving the Null Hypothesis (having an R^2 value higher than the significant value in Figure 2) it can be stated that there is some relationship between the dependent and independent variables, and that the relationship is "significant."

Caution should be exercised here in that an R^2 value that is determined to be "significant" using the Null Hypothesis may not necessarily be meaningful. The distinction between significance and meaningfulness is not a serious problem with small samples but can be so with large sample.[5] In large samples small values of R^2 may be tested as "significant." However, the small R^2 value, representing the ratio of the variation explained by the model and the total variation, may not be very meaningful or useful. For example, referring to Figure 2, with a sample size of 40 and 1 independent variable, an R^2 value of 0.1 would be "significant." However, only 10% of the total variability of the data can be accounted for by the model.

For detailed information on multiple regression and multiple correlation analyses the reader is referred to any standard text on statistical methods, such as References 5 and 6.

3.2   Application of Correlation Analysis in This Study

A correlation analysis was performed in this study of certain variables that may affect airborne radioactive particulate concentrations at the Uravan Uranium Mill site in an attempt to identify emission sources that may be contributing to

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COEFFICIENT OF DETERMINATION, R^2

1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0

n = 4
n = 3
n = 2
n = 1

0   10   20   30   40

ERROR DEGREES OF FREEDOM
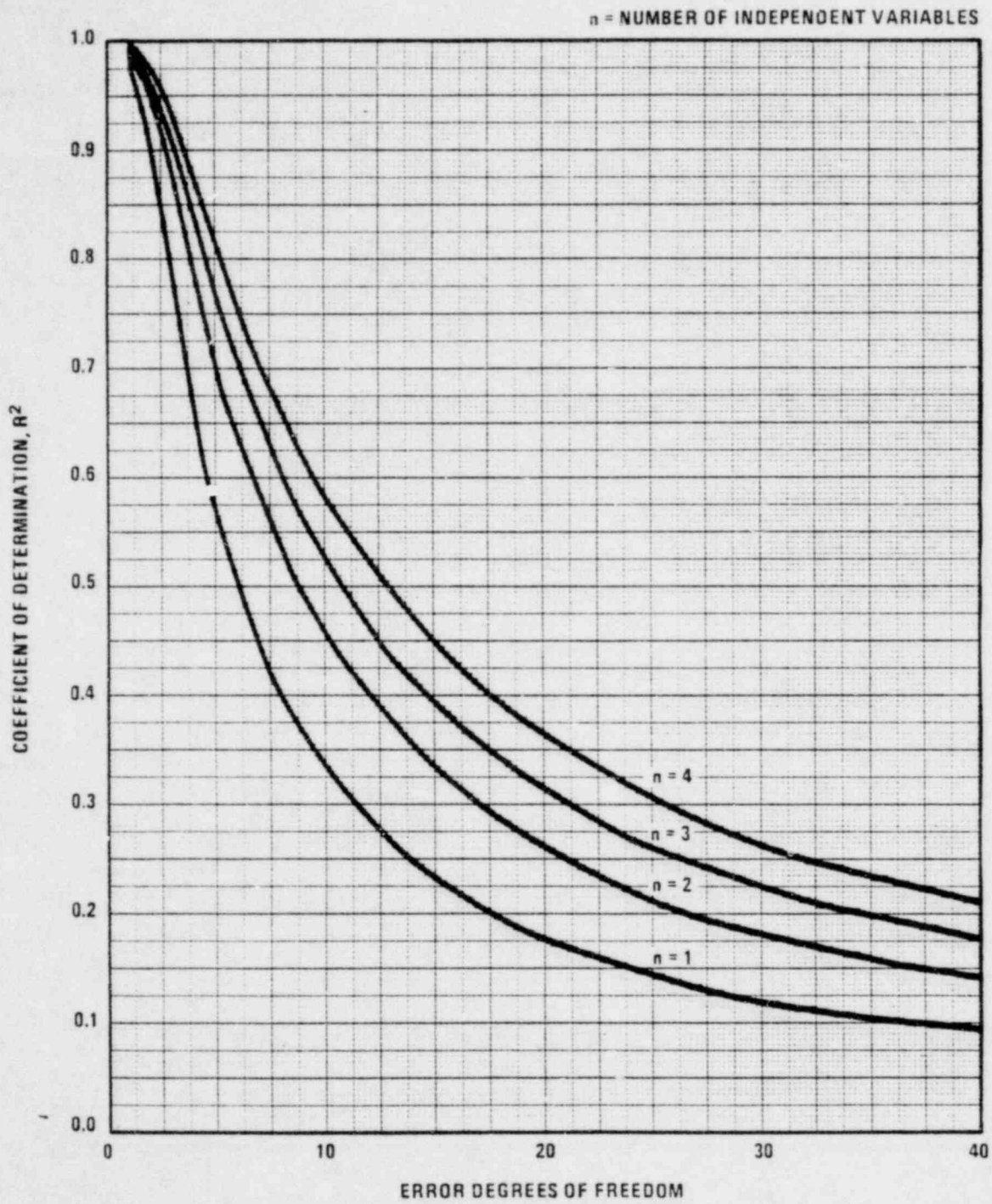
FIGURE 2
SIGNIFICANT VALUES OF R^2 (P = 0.05)

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inhalation doses in excess of 40 CFR 190 evaluated as part of the Phase I work. A spectrum of independent variables were correlated with weekly measured airborne concentrations of radioactive particulates (U-Nat, Th-230, Ra-226 and Pb-210), total particulates and V_2O_5, and the specific activities of the collected particulates at locations 1, 2, and 3 shown in Figure 1 for the period of May 1978 through April 1979. The two main groups of independent variables included concurrent mill process parameters and meteorological data from both Uravan and Grand Junction. The mill process parameters included the weekly ore haul rate to the mill, ore feed rate, and yellowcake production rate. Concurrent onsite meteorological data included the minimum, average, and maximum temperatures, equivalent rainfall, snowfall and snowcover. The best available wind data for the period was from Grand Junction which included daily maximum and average wind speed averaged over weekly periods and the resultant wind direction. Certain variables, such as wind speed, rainfall, and snowcover, were squared and cubed to generate additional variables.

The statistical analysis was performed using the SAS Institute's Statistical Analysis System (SAS) computer package on an IBM-370 computer system. The SAS RSQUARE procedure was used to calculate values of R^2. This procedure calculates values of R^2 for all possible linear combinations of the independent variables identified. These combinations include all linear models with from 1 to n independent variables, where n is identified.

The input data for the correlation analysis is presented in Appendix A which presents a list of the dependent and independent variables, an index of the weekly sampling periods, the concurrent meteorological and process data, and the monitoring data for locations 1,2, and 3. Initial RSQUARE screening runs were made for the dependent variables against the independent variables using all the monitoring data as orginally provided by Union Carbide. Then certain questionable monitoring data was deleted in an attempt to improve the correlation. Monitoring data for the first 8 weeks of the one year period was deleted because of high-volume air sampler operational problems, anomalously low Th-230 and Ra-226 levels, and no Pb-210 data. Samples with extremely low particulate loadings were rejected because of high volume air sampler problems in some cases and

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anomalously high specific activities which may be related to a radioactive analysis sensitivity problem on such low mass samples.

Using the deleted data set more detailed RSQUARE runs were may for key dependent variables and other dependent variables showing relatively high R^2 values. In order to assist in the interpretation of the data, the SAS PLOT procedure was used to produce graphs of much of the data. Slopes and intercepts (B_0 and B_1) for the single independent variable linear models were calculated by computer assisted hand calculations using the method of least squares.

3.3 Meteorological Parameters Affecting the Correlation Analysis

Before presenting the results in the next chapter, consideration should be given to the manner in which meteorological parameters affect concentrations from a given emission source in the context of the Gaussion dispersion equation. The concentration at a given ground level location downwind from a point source using a simplified Gaussian model without deposition or reflection is given by the following equation:[7]

$$\chi(x,y,o) = \frac{Q}{\pi \sigma_y \sigma_z u} \exp\left[-\frac{1}{2}\left(\frac{y}{\sigma_y}\right)^2\right] \exp\left[-\frac{1}{2}\left(\frac{H}{\sigma_z}\right)^2\right]$$

where

$\chi(x,y,o)$ =   ground level airborne concentration at coordinates (x,y), pCi/m^3

u   =   wind speed, m/sec

σ_y, σ_z =   dispersion parameters in x and y direction, m

Q   =   source term, pCi/sec

H   =   height of plume centerline (stack height plus plume rise), m

The dispersion parameters, σ_y and σ_z, increase as the downwind distance, x, increases, and as atmospheric stability conditions goes from very stable to very unstable conditions, resulting in a concentration decrease. Atmospheric stability conditions tend to be unstable when incoming solar radiation is high and wind speeds are low, less than 4 m/sec, such as on a sunny summer day with low wind speeds.[7] Neutral conditions prevail under cloudy conditions or at higher wind speeds. Stable conditions occur when incoming solar radiation and wind speeds are low, such as on a clear, calm summer night. Another important factor affecting dispersion is the mixing height which tends to have minimum and maximum extremes in the winter and summer seasons, respectively.[7] Concentrations generally increase as the mixing height decreases.

For a stack emission source, Q is relatively constant and independent of meteorological conditions with concentrations inversely proportional to wind speed. For fugitive dust emissions due to wind erosion, the source term, Q, roughly increases as the cube of the wind speed and inversely as the square of the soil moisture, with a threshold wind speed for wind erosion of approximately 12 mph.[8] The resulting concentrations therefore increase roughly with the wind speed squared. Fugitive dust due to vehicular traffic and material handling activities are considered to be proportional to the level of activity and inversely proportional to the square of the material moisture content.[9] The resulting concentrations are inversely proportional to wind speed. Precipitation is expected to increase ground-level concentrations from stack emission sources due to washout, but decrease concentrations due to fugitive dust sources through source control.

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4.0 RESULTS OF CORRELATION ANALYSIS

The results of the correlation analyses are presented and discussed in this chapter. The dependent and independent variable names used in the appendices and tables are identified in Appendix A. The results of the RSQUARE runs are presented in Appendices B,C, and D for locations 1,2, and 3, respectively. Plots of U-Nat, Th-230, Ra-226, and Pb-210 concentrations as a function of time and of selected independent variables, including average wind speed, minimum temperature, equivalent rainfall, and the ore haul, ore feed, and yellowcake production rates, are presented in Appendices E,F, and G for locations 1,2, and 3, respectively. The slope and intercept (B_o and B_1) for a single independent variable linear model determined by the method of least squares relating a given dependent variable to each independent variable are presented in Appendix H. The R^2 values determined to be "significant" for the single independent variable linear model along with the sign of the slope are presented in Tables I, II, and III for locations 1, 2, and 3, respectively.

Referring to Tables I, II, and III, the results in general indicate a low correlation between the dependent and independent variables. The long data averaging time of one week, coupled with the lack of concurrent onsite data for wind speed, wind direction, and atmospheric stability class may explain the generally low correlation results. The highest R^2 value for a single independent variable model was 0.552 for Pb-210 specific activity versus maximum temperature with a negative slope at location 2. R^2 values increase as the number of independent variables in the model increase, reaching a maximum of 0.737 at location 3 for Pb-210 specific activity in a linear model with 5 independent variables, including equivalent rainfall, snowcover, maximum daily wind speed, average wind speed squared, and maximum daily wind speed squared.

The meteorological parameters showed a stronger correlation with the dependent variables in general than the process parameters. Of the meteorological parameters, temperature showed the strongest correlation followed by wind speed, wind direction, snowcover, equivalent rainfall, and snowfall. Of the process parameters, the ore feed rate had the strongest correlation, followed by the ore

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TABLE I

SUMMARY OF SINGLE INDEPENDENT VARIABLE MODEL CORRELATION
ANALYSIS RESULTS FOR LOCATION 1

Independent[a] Variable	Results for Indicated Dependent Variable[a,b]											
	UCON	TCON	RCON	PCON	PART	V205	USPA	TSPA	RSPA	PSPA	VSPA	EQR
OHAUL	*	*	*	-0.157	+0.157	+0.182	*	*	*	-0.182	*	*
OFEED	*	+0.103	*	-0.169	+0.207	+0.227	*	*	*	-0.285	*	*
YELLOW	*	*	*	-0.127	*	+0.109	*	*	*	-0.155	*	*
TMIN	*	*	*	-0.206	*	*	*	*	*	-0.229	+0.111	*
TAVG	*	*	*	-0.208	*	*	*	*	*	-0.230	*	*
TMAX	*	*	*	-0.210	+0.117	*	*	*	*	-0.221	*	*
AWNDSP	*	+0.127	*	-0.179	+0.181	+0.249	*	*	*	-0.150	+0.110	*
AW2	*	+0.166	*	-0.201	+0.194	+0.274	*	*	*	-0.154	+0.103	*
AW3	*	+0.203	*	-0.191	+0.195	+0.294	*	*	*	-0.136	*	*
MWNDSP	*	+0.139	*	-0.200	+0.163	*	*	*	*	-0.148	+0.125	*
MW2	*	+0.152	*	-0.174	+0.179	+0.277	*	*	*	-0.128	+0.115	*
MW3	*	+0.163	+0.109	-0.147	+0.209	+0.291	*	*	*	-0.108	+0.103	*
RAIN	*	*	*	+0.111	-0.155	-0.301	+0.167	*	*	+0.157	*	*
RA2	*	*	*	*	*	*	+0.154	*	*	*	*	*
SNOW	*	*	*	*	*	-0.106	*	*	*	*	*	*
SN2	*	*	*	*	*	*	*	*	*	*	*	*
SCOV	*	*	*	*	-0.171	-0.224	*	*	*	*	-0.124	*
SC2	*	*	*	*	-0.143	-0.177	*	*	*	*	*	*
ODIR	*	+0.174	*	-0.123	+0.156	+0.247	*	*	*	*	+0.109	*
TDIR	*	+0.130	*	-0.127	*	+0.208	*	*	*	*	+0.131	*
YDIR	*	*	*	*	*	*	*	*	*	*	*	*
SEDIR	*	+0.175	*	*	*	*	*	*	*	*	*	*
SWDIR	*	*	*	-0.129	+0.152	+0.251	*	*	*	*	+0.116	*

a. The dependent and independent variable names are defined in Table A-1 of Appendix A

b. The data block presents the following information:

0.155 - Coefficient of determination, R^2. Tested to be statistically significant.

(-/+) - Sign preceeding value of R^2 indicates slope of the least squares fits line relating dependent and independent variables.

* - Value of R^2 tested to be statistically insignificant.

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TABLE II

SUMMARY OF SINGLE INDEPENDENT VARIABLE MODEL CORRELATION
ANALYSIS RESULTS FOR LOCATION 2

Independent[a] Variable	Results for Indicated Dependent Variable[a,b]											
	UCON	TCON	RCON	PCON	PART	V205	USPA	TSPA	RSPA	PSPA	VSPA	EQR
OHAUL	*	*	*	*	+0.155	*	*	*	*	-0.249	*	*
OFEED	*	+0.125	*	*	+0.229	*	*	*	*	-0.301	*	*
YELLOW	*	*	*	-0.110	*	*	*	*	*	-0.246	*	*
TMIN	*	*	*	-0.272	*	*	*	*	*	-0.540	*	*
TAVG	*	*	*	-0.241	+0.142	*	*	*	*	-0.543	*	*
TMAX	*	*	*	-0.216	+0.177	*	*	*	*	-0.552	*	*
AWNDSP	*	*	*	-0.225	*	*	*	*	*	-0.395	*	*
AW2	*	*	*	-0.238	*	*	*	*	*	-0.388	*	*
AW3	*	*	*	-0.231	*	*	*	*	*	-0.349	*	*
MWNDSP	*	*	+0.115	-0.237	*	*	*	*	*	-0.385	*	*
MW2	*	*	+0.120	-0.211	*	*	*	*	*	-0.346	*	*
MW3	*	*	+0.119	-0.182	*	*	*	*	*	-0.301	*	*
RAIN	+0.146	*	*	*	*	*	+0.168	*	*	+0.180	*	*
RA2	+0.136	*	*	*	*	*	*	*	*	*	*	*
SNOW	*	*	*	*	-0.186	*	*	*	*	+0.271	*	*
SN2	*	*	*	*	-0.146	*	*	*	*	+0.155	*	*
SCOV	*	*	*	*	-0.183	*	*	*	*	+0.287	*	*
SC2	*	*	*	*	-0.109	*	*	*	*	+0.159	*	*
ODIR	*	*	*	*	+0.115	*	*	*	*	*	*	*
TDIR	*	*	*	*	+0.139	*	*	*	*	-0.123	*	*
YDIR	*	*	*	*	*	*	*	*	*	*	*	*
SEDIR	*	*	*	*	*	*	*	*	-0.116	*	*	*
SWDIR	*	*	+0.285	*	*	*	*	*	+0.147	-0.230	*	*

a. The dependent and independent variable names are defined in Table A-1 of Appendix A

b. The data block presents the following information:

0.155 - Coefficient of determination, R^2. Tested to be statistically significant.

(-/+) - Sign preceeding value of R^2 indicates slope of the least squares fits line relating dependent and independent variables.

* - Value of R^2 tested to be statistically insignificant.

TABLE III

SUMMARY OF SINGLE INDEPENDENT VARIABLE MODEL CORRELATION
ANALYSIS RESULTS FOR LOCATION 3

Independent[a] Variable	Results for Indicated Dependent Variable[a,b]											
	UCON	TCON	RCON	PCON	PART	V205	USPA	TSPA	RSPA	PSPA	VSPA	EQR
OHAUL	*	*	+0.118	*	*	*	*	*	*	*	*	*
OFEED	*	*	*	*	+0.129	*	-0.120	*	*	-0.219	*	+0.109
YELLOW	*	*	*	*	*	*	*	*	*	-0.112	*	*
TMIN	-0.105	*	*	-0.166	*	*	-0.153	*	*	-0.454	*	*
TAVG	*	*	*	-0.115	*	*	-0.194	*	*	-0.448	*	+0.122
TMAX	*	+0.108	*	*	*	+0.124	-0.207	*	*	-0.425	*	+0.155
AWNDSP	-0.170	*	*	*	+0.138	*	-0.265	*	*	-0.410	*	+0.253
AW2	-0.148	+0.127	+0.152	*	+0.170	*	-0.267	*	*	-0.337	*	+0.342
AW3	-0.129	+0.172	+0.225	*	+0.196	*	-0.248	*	*	-0.265	*	+0.412
MWNDSP	-0.133	*	+0.116	-0.143	+0.115	*	-0.213	*	*	-0.396	*	+0.266
MW2	-0.132	*	+0.149	-0.118	+0.129	*	-0.211	*	*	-0.332	*	+0.305
MW3	-0.126	*	+0.182	*	+0.143	*	-0.201	*	*	-0.270	*	+0.339
RAIN	+0.118	*	*	*	*	*	+0.211	*	*	+0.109	*	-0.105
RA2	+0.174	*	*	*	*	*	+0.182	*	*	*	*	*
SNOW	*	-0.119	*	*	-0.152	*	+0.200	*	*	+0.199	*	*
SN2	*	-0.110	*	*	-0.123	*	+0.214	*	*	+0.114	*	*
SCOV	*	*	*	*	-0.129	*	+0.221	+0.108	+0.106	+0.418	*	*
SC2	*	*	*	*	*	*	+0.163	+0.142	+0.140	+0.322	+0.104	*
ODIR	*	*	*	*	*	*	*	*	*	*	*	*
TDIR	*	+0.218	+0.139	*	+0.135	+0.126	*	*	*	-0.121	*	+0.191
YDIR	*	*	*	*	*	*	*	*	*	*	*	*
SEDIR	*	*	*	*	*	*	*	*	*	*	*	*
SWDIR	*	+0.285	+0.130	*	+0.258	*	-0.203	*	*	-0.212	*	+0.330

a. The dependent and independent variable names are defined in Table A-1 of Appendix A

b. The data block presents the following information:

    0.155 -   Coefficient of determination, R^2. Tested to be statistically significant.

    (-/+) -   Sign preceeding value of R^2 indicates slope of the least squares fits line relating dependent and independent variables.

    * -   Value of R^2 tested to be statistically insignificant.

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haul and yellowcake production rates. It should be noted that an R^2 value approaching zero for a process parameters should not be disturbing, especially when the case is considered, for example when all process parameters are constant throughout the year. A nearby monitor would show a continuous variation in airborne concentrations throughout the year due to meteorological parameters governing the atmospheric dispersion of radioactive airborne emmissions. However, a correlation analysis in such a case would show that $R^2=0$ for process parameters.

The Pb-210 airborne concentrations and its specific activity at all three locations decreased as the ore haul, ore feed, and yellowcake production rates, temperature, and wind speed increased; increased as the equivalent rainfall, snowfall, and snowcover increased; and increased when winds were from the NE and NW quadrants. The Pb-210 concentrations appeared less related to current onsite milling operations and more seasonally dependent than any of the other radionuclides of interest. Pb-210 concentrations appeared to correlate best with temperature, especially at location 2. The negative correlation of Pb-210 with the process parameters and temperature may actually reflect a seasonal dependence in that process parameters and temperature reached minimum values in winter. The negative correlation with process parameters tends to eliminate current onsite milling operations as factors strongly affecting Pb-210 concentrations. The increase in Pb-210 concentrations as wind speed decreases disfavors a local fugitive dust source that may have been associated with prior onsite milling operations. These factors reinforce the conclusion of the Phase I report that Pb-210 concentrations may be strongly related to regional background. The negative correlation of the Pb-210 concentrations with temperature is consistent with the much lower mixing depths and more stable conditions that occur in fall and winter. If regional airborne Rn-222 were the principal source of the Pb-210, these conditions would lead to increased Pb-210 concentrations. The positive correlation with precipitation factors may indicate that washout may be increasing ground level concentrations. If the high volume air samplers are entraining rain droplets and snow, tending to increase measured airborne concentrations, the switchover to low volume air samplers may eliminate this behavior from the data. One argument against the regional source of Pb-210 is that Rn-222 exhalation from the ground

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should decrease in winter due to ground freezing and snowcover. There is evidence, however, that background Pb-210 concentrations at both the Pioneer-Uravan site near Slick Rock, Colorado and the Cyprus Hansen Project site in Fremont County, Colorado were higher in the winter that other times of the year.[10]

The total particulate concentrations at all three locations showed a behavior opposite that for Pb-210 concentrations. Concentrations of total particulates tended to increase with the process parameters, temperature, and wind speed, and decrease with precipitation. The same behavior was observed in the V_2O_5 and Th-230 concentrations at locations 1 and 3, and Ra-226 concentrations at locations 2 and 3. The increase in concentrations with wind speed and decrease with precipitation parameters tend to favor a fugitive dust source. Low particulate concentrations in the winter time from fugitive dust sources could be related to frozen ground and snowcover. At the same time, of the process parameters, the ore feed rate had the stronger correlation.

Th-230 concentrations at location 2 indicated on in-between behavior in which concentrations decreased as both wind speed and precipitation parameters increased. With a single independent variable model, Th-230 concentrations correlated best with the ore feed rate at this location.

Particulate, V_2O_5, Th-230, and Ra-226 concentrations generally correlated best with winds from the SW quadrant. Significant correlations resulted when wind were from the ore handling operations and tailings piles. However, it is difficult to relate significant wind directions and specific sources, since a given wind direction at Grand Junction may correspond to a quite different wind direction at Uravan because of the complex terrain.

Correlations associated with U-Nat concentrations were generally too low to be significant. The concentrations of U-Nat behaved in a manner that was opposite at locations 2 and 3 and similar at location 1 to that of the total particulates with some exceptions. The U-Nat concentrations increased with process parameters at all locations as did total particulates, except at location 3 where U-Nat

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concentrations decreased as the ore feed rate increased. Other exceptions are related to precipitation factors such that U-Nat concentrations tended to decrease with snow and snowcover at location 2 and increase with rain and snow at location 1. These conclusions are based on the slopes of the least square fit line, since the R^2 values for individual independent variables at locations 1 and 2 were found to be insignificant. However, multi-independent variable models resulted in significant R^2 values. The results for U-Nat concentrations are consistent with a stack emission source contributing at locations 2 and 3 and a fugitive dust source contributing at location 1, except for the behavior of the precipitation factors.

The specific activities of U-Nat, Th-230, and Ra-226 generally showed insignificant correlations with individual independent variables, except for U-Nat specific activities at location 3. U-Nat specific activity at location 3 decreased with ore feed rate, temperature, and wind speed, and increased with precipitation parameters. The decrease in specific activity as ore feed rate increased may reflect the effect of an increased ore to yellowcake ratio in the particulates.

Conclusions based on the correlation analysis beyond those presented above become very difficult. The patterns described above are evident from the data. However, taking the final step in source identification is hampered by inconsistencies or insignificant R^2 values for key variables.

The results of the correlation analysis could be improved with: 1) updates with additional onsite data as it becomes available, 2) use of concurrent onsite data for wind speed, wind direction, and atmospheric stability, and 3) incorporation of results from the supplemental environmental mearsurements program. Reduction of the data averaging time from one week to one day would be very beneficial. However, it is uncertain whether 24-hour high volume-air sampler filters would contain enough mass to meet the minimum sensitivity levels required for the radiochemical analysis.

A combined variable approach to the correlation analysis may be useful. The correlation analysis used in this study assumed models consisting of linear combinations of the variables. A combined variable model approach would try to

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combine the independent variables into equations similar to the Gaussian equation, and then summing over the number of sources. Fitting this type of equation to the data would also indicate the fractional contribution of each source. However, without concurrent onsite wind speed, wind direction, and atmospheric stability data this approach would not be feasible. NUS explored this approach in a preliminary manner by assuming stability class and wind direction were constant, but the results were not encouraging.

At this time it is recommended that no additonal correlation analyses be undertaken until the results of the supplemental environmental measurements programs are evaluated.

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5.0 REFERENCES

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APPENDIX A

CORRELATION ANALYSIS INPUT DATA

LIST OF DEPENDENT AND INDEPENDENT VARIABLE NAMES USED IN CORRELATION
ANALYSIS

Variable	Description
Dependent Variables	
PART	Total suspended particulates airborne concentration, g/m^3
V205	V_2O_5 airborne concentration, g/m^3
UCON	U-Nat airborne concentration, pCi/m^3
TCON	Th-230 airborne concentration, pCi/m^3
RCON	Ra-226 airborne concentration, pCi/m^3
PCON	Pb-210 airborne concentration, pCi/m^3
VSPA	V_2O_5 specific content of particulates, g/g
USPA	U-Nat specific activity of particulates, pCi/g
TSPA	Th-230 specific activity of particulates, pCi/g
RSPA	Ra-226 specific activity of particulates, pCi/g
PSPA	Pb-210 specific activity of particulates, pCi/g
EQR	Equilibrium ratio of particulates

$$\frac{\text{U-Nat Specific Activity}}{\text{Th-230 Specific Activity} + \text{Ra-226 Specific Activity}}$$

Independent Variables

C3S	Observation index normalized to individual data set after deletion of questionable data
WEEK	Index of time periods listed in Table 2
TMIN, TMAX, TAVE	Daily minimum, maximum, and average temperatures at Uravan averaged over each week
RAIN	Total equivalent rainfall at Uravan for each week, inches
RN2	Total equivalent rainfall squared at Uravan for each week, $(\text{inches})^2$
SNOW	Total snowfall at Uravan for each week, inches
SN2	Total snowfall squared at Uravan for each week, $(\text{inches})^2$
SCOV	Daily snowcover averaged over each week, inches
SC2	Daily snowcover squared averaged over each week, $(\text{inches})^2$
WDIR	Resultant wind direction at Grand Junction for each week, degrees
AWNDSP	Average weekly wind speed at Grand Junction, mph
AW2	Average weekly wind speed squared at Grand Junction, $(\text{mph})^2$

Independent Variables

AW3	Average weekly wind speed cubed at Grand Junction, $(\text{mph})^3$
MWNDSP	Daily maximum wind speed at Grand Junction averaged over each week, (mph)
MW2	Daily maximum wind speed squared at Grand Junction averaged over each week, $(\text{mph})^2$
MW3	Daily maximum wind speed cubed at Grand Junction averaged over each week, $(\text{mph})^3$
OHAUL	Weekly ore hauled to mill, tons/week
OFEED	Weekly ore feed to mill process, tons/week
YELLOW	Weekly yellowcake production rate, lbs/week
ODIR (i)	Cosine of angular difference between wind direction and direction from ore grinding stacks to monitoring location i
TDIR (i)	Cosine of angular difference between wind direction and direction from tailing pile center to monitoring location i
YDIR (i)	Cosine of angular difference between wind direction and direction from yellowcake dryer stack to monitoring location i
SEDIR	Cosine of angular difference between wind direction and SE direction (parallel to valley)
SWDIR	Cosine of angular difference between wind direction and SW direction (perpendicular to valley)

TABLE A-2

INDEX OF DATES FOR CORRELATION ANALYSIS INPUT DATA

Week	Dates	Week	Dates
1	5/15 - 5/22/78	26	11/6 - 11/13
2	5/22 - 5/30	27	11/13 - 11/20
3	5/30 - 6/5	28	11/20 - 11/27
4	6/5 - 6/12	29	11/27 - 12/4
5	6/12 - 6/19	30	12/4 - 12/11
6	6/19 - 6/26	31	12/11 - 12/18
7	6/26 - 7/3	32	12/18 - 12/25
8	7/3 -7/10	33	12/25 - 1/1/79
9	7/10 - 7/17	34	1/1 - 1/8
10	7/17 - 7/24	35	1/8 - 1/15
11	7/24 - 7/31	36	1/15 - 1/22
12	7/31 - 8/8	37	1/22 - 1/29
13	8/8 - 8/14	38	1/29 - 2/5
14	8/14 - 8/21	39	2/5 - 2/12

15	8/21 - 8/28	40	2/12 - 2/19
16	8/28 - 9/4	41	2/19 - 2/26
17	9/4 - 9/11	42	2/26 - 3/5
18	9/11 - 9/18	43	3/5 - 3/12
19	9/18 - 9/25	44	3/12 - 3/19
20	9/25 - 10/2	45	3/19 - 3/26
21	10/2 -10/9	46	3/26 - 4/2
22	10/9 - 10-/16	47	4/2 - 4/9
23	10-/16 - 10/23	48	4/9 - 4/16
24	10/23 - 10/30	49	4/16 - 4/23
25	10/30 - 11/6	50	4/23 - 4/30

ENVIRONMENTAL DATA

OBS	WEEK	TMIN	TMAX	TAVE	RAIN	SNOW	SCOV	WNDIR	AWNDSP	MWNDSP
1	1	42	91	52	0.35	0.0	0.0	165	8.5	24
2	2	47	82	64	0.20	0.0	0.0	186	8.9	25
3	3	48	81	64	0.02	0.0	0.0	349	6.8	20
4	4	49	83	63	0.02	0.0	0.0	21	7.3	22
5	5	50	93	72	0.00	0.0	0.0	199	7.8	20
6	6	54	95	74	0.00	0.0	0.0	199	7.2	19
7	7	55	91	73	0.31	0.0	0.0	157	9.2	23
8	8	50	94	72	0.00	0.0	0.0	150	8.0	20
9	9	57	98	79	0.30	0.0	0.0	136	9.4	18
10	10	62	96	79	0.12	0.0	0.0	118	8.2	19
11	11	62	101	82	0.00	0.0	0.9	122	7.9	17
12	12	54	98	76	0.09	0.0	0.0	118	8.7	20
13	13	62	95	78	0.11	0.0	0.0	107	10.0	24
14	14	51	91	71	0.00	0.0	0.0	273	8.9	20
15	15	56	99	73	0.00	0.0	0.0	129	9.5	17
16	16	53	94	74	0.00	0.0	0.0	128	9.4	18
17	17	53	93	73	0.06	0.0	0.0	146	10.0	20
18	18	46	82	64	0.98	0.0	0.0	2	9.2	18
19	19	39	77	58	0.02	0.0	0.0	303	7.2	17
20	20	43	87	65	0.00	0.0	0.0	88	6.7	14
21	21	35	83	59	0.00	0.0	0.0	132	5.8	13
22	22	36	84	60	0.00	0.0	0.0	130	5.9	14
23	23	43	64	54	0.03	0.0	0.0	92	7.0	16
24	24	33	60	46	1.10	0.0	0.0	94	5.1	14
25	25	37	62	50	0.75	0.0	0.0	106	5.7	19
26	26	36	55	46	1.04	0.0	0.0	148	7.1	19
27	27	27	48	38	0.18	0.4	0.0	74	3.8	11
28	28	33	52	42	0.27	0.0	0.0	359	6.0	16
29	29	24	42	33	0.80	7.5	1.1	90	5.9	12
30	30	4	25	14	0.59	5.3	4.9	90	4.5	13
31	31	4	30	17	0.76	1.5	4.1	85	3.7	12
32	32	17	37	28	0.20	0.0	3.1	25	4.3	14
33	33	16	40	29	0.00	0.0	3.0	23	3.6	11
34	34	11	32	22	0.20	5.1	3.9	31	2.2	10
35	35	13	34	24	0.31	5.0	8.2	33	2.7	12
36	36	23	42	32	0.50	3.2	7.5	46	2.9	13
37	37	8	32	20	0.46	4.8	7.0	18	2.7	13
38	38	5	34	20	0.00	1.9	10.3	28	1.5	11
39	39	9	41	24	0.00	0.0	8.4	20	0.9	11
40	40	22	54	38	0.06	0.9	5.3	360	2.3	15
41	41	24	45	34	0.36	7.4	6.1	74	4.9	15
42	42	26	48	37	0.00	0.1	4.3	9	6.3	14
43	43	25	60	42	0.00	0.0	0.4	14	7.3	14
44	44	29	58	44	0.34	0.0	0.0	8	8.3	17
45	45	31	53	42	0.64	0.0	0.0	81	6.8	14
46	46	35	55	45	0.65	4.3	0.1	358	9.6	22
47	47	30	64	47	0.02	0.0	0.0	117	6.9	17
48	48	32	65	48	0.06	0.0	0.0	33	9.1	20
49	49	35	76	56	0.00	0.0	0.0	170	11.0	24
50	50	42	73	58	0.04	0.0	0.0	11	8.0	22

PROCESS DATA

OBS	UHAUL	OFEED	YELLOW
1	9547	10064	37111
2	10252	10366	42490
3	9066	9285	40176
4	10188	9854	40394
5	10720	9540	38902
6	8776	8644	32415
7	9756	9629	36189
8	9617	9195	36205
9	8831	5668	30509
10	10064	8728	33067
11	9143	9743	31393
12	9028	9293	33634
13	10007	8626	31606
14	7668	8681	41956
15	8140	9115	23874
16	9776	8750	41786
17	9453	9067	40705
18	9552	9586	43344
19	8030	8894	41540
20	9961	9910	37244
21	7700	8280	34436
22	10293	9902	38098
23	9106	9340	35815
24	9441	9194	29817
25	10619	9837	33912
26	11390	9251	39870
27	9758	9650	40785
28	7541	9414	41499
29	6249	8705	36838
30	5962	5494	21705
31	6950	5761	23722
32	6912	7461	23164
33	9111	7559	39059
34	7364	8002	23792
35	8456	9342	27311
36	8184	5862	22994
37	7184	7570	26139
38	6803	7021	14966
39	10018	8740	37606
40	9744	8125	39764
41	7873	8216	47286
42	8108	7121	27984
43	12197	9224	33171
44	10826	8671	32230
45	8340	8126	30425
46	9633	9595	22990
47	10046	9033	31368
48	9678	9204	42977
49	10679	9867	35213
50	10347	9280	30271

ANALYTICAL DATA FOR LOCATION 1

OBS	WEEK	PART	V2O5	UCON	TCON	RCON	PCON	VSPA	USPA	TSPA	RSPA	PSPA	EGR

WIND DIRECTION DATA FOR LOCATION 1

OBS	YDIR	UDIR	TDIR	SEDIR	SWDIR
1	0.78801	0.06976	-0.34202	0.99985	0.01745
2	0.55919	-0.24192	-0.61566	0.95630	-0.29237
3	0.91566	-0.17365	-0.55919	0.97437	-0.22495
4	0.55919	-0.24192	-0.61566	0.95630	-0.29237
5	0.34073	-0.42262	-0.75471	0.88295	-0.46947
6	-0.15643	0.02952	0.84101	-0.74314	0.66913
7	0.70711	-0.05234	-0.45399	0.99452	-0.10453
8	0.88295	0.24192	-0.17365	0.98163	0.19081
9	0.03490	0.76604	0.96126	-0.60181	0.79864
10	-0.02452	0.15643	0.54464	-0.97815	0.20741
11	0.06976	-0.69466	-0.92718	0.68200	-0.73135
12	0.74314	0.00000	-0.40674	0.99863	-0.05234
13	0.71934	-0.05490	-0.43837	0.99619	-0.08716
14	0.13917	-0.64279	-0.89879	0.73135	-0.68200
15	0.17365	-0.61566	-0.88295	0.75471	-0.65606
16	0.37461	-0.43837	-0.76604	0.87462	-0.48481
17	0.64879	0.27564	-0.13917	0.97437	0.22495
18	-0.17365	-0.84805	-0.99027	0.48481	-0.87462
19	-0.99619	-0.73135	-0.34073	-0.71934	-0.69466
20	0.10453	-0.66913	-0.91355	0.70711	-0.70711
21	0.10453	-0.66913	-0.91355	0.70711	-0.70711
22	0.01745	-0.73135	-0.94552	0.64279	-0.76604
23	-0.79864	-0.98163	-0.81915	-0.24192	-0.97030
24	-0.71715	-0.98769	-0.83867	-0.20791	-0.97815
25	-0.61566	-0.99756	-0.93969	0.01745	-0.99985
26	-0.91355	-0.91355	-0.66913	-0.45399	-0.84101
27	-0.82904	-0.97030	-0.78801	-0.29237	-0.95630
28	-0.64879	-0.92718	-0.69466	-0.42262	-0.90631
29	-0.99452	-0.74314	-0.40674	-0.70711	-0.70711
30	-0.17365	-0.84805	-0.99027	0.48481	-0.87462
31	-0.96593	-0.83867	-0.54464	-0.58779	-0.80902
32	-0.93969	-0.88295	-0.61566	-0.51504	-0.85717
33	-0.97030	-0.82904	-0.52992	-0.60181	-0.79864
34	-0.05234	-0.77715	-0.96593	0.58779	-0.80902
35	-0.99756	-0.71934	-0.37461	-0.73135	-0.68200
36	0.54464	-0.25882	-0.62932	0.95106	-0.30902
37	-0.71715	-0.98769	-0.83867	-0.20791	-0.97815
38	0.99756	0.01566	0.24192	0.81915	0.57358
39	-0.95630	-0.85717	-0.57358	-0.55919	-0.82904

OBS	WEEK	PART	V205	UCON	TCON	RCON	PCON	VSPA	USPA	TSPA	RSPA	PSPA	EQR
1	9	38.20	0.3071	0.1920	0.0083	0.0051	0.0270	0.0080393	5026.2	217.28	133.508	706.81	0.069792
2	10	40.76	0.2562	0.2200	0.0113	0.3047	0.0263	0.0062856	5397.4	277.23	115.309	645.24	0.072727
3	11	.	.	.	.	.	.	.	.	.	.	.	.
4	12	55.08	0.2359	0.2370	0.0128	0.0044	0.0257	0.0042829	4302.8	232.39	79.884	466.59	0.072574
5	13	54.38	0.3396	0.1620	0.0173	0.0084	0.0254	0.0062449	2979.0	318.13	154.469	467.08	0.158642
6	14	54.94	0.2513	0.1190	0.0135	0.0283	0.0223	0.0045741	2166.0	245.72	515.107	405.90	0.351261
7	15	43.39	0.1818	0.1290	0.0132	0.0049	0.0138	0.0041899	2973.0	258.12	112.929	318.05	0.124806
8	16	48.84	0.2138	0.1570	0.0127	0.0054	0.0143	0.0043776	3214.6	260.03	110.565	292.79	0.115287
9	17	54.59	0.3266	0.1180	0.0233	0.0125	0.0306	0.0059828	2161.6	426.82	228.980	560.54	0.303390
10	18	43.78	0.4958	0.2540	0.0240	0.0139	0.0255	0.0113248	5801.7	566.47	317.497	582.46	0.152362
11	19	52.84	0.3654	0.2040	0.0212	0.0051	0.0277	0.0069152	3860.7	401.21	96.518	524.22	0.128922
12	20	54.95	0.2522	0.1250	0.0162	0.0044	0.0247	0.0045896	2274.8	294.81	80.073	449.50	0.164800
13	21	116.35	0.5138	0.1670	0.0212	0.0104	0.0774	0.0044160	1435.3	182.21	89.385	665.23	0.189222
14	22	133.87	0.5867	0.2900	0.0272	0.0113	0.0702	0.0043826	2166.3	203.18	84.410	.39	0.132759
15	23	94.28	0.4834	0.3200	0.0170	0.0101	0.0778	0.0051273	3394.1	180.31	107.128	.20	0.084687
16	24	44.05	0.2376	0.5360	0.0108	0.0043	0.0510	0.0053939	12168.0	245.18	97.516	207.78	0.028172
17	25	96.44	0.5194	0.6270	.	0.0085	0.0701	0.0053857	6501.5	.	88.138	726.88	.
18	26	46.81	0.3672	0.1850	0.0116	0.0088	0.0403	0.0078445	3952.1	247.81	187.994	− 860.93	0.110270
19	27	42.88	0.2987	0.2650	0.0790	0.0045	0.0526	0.0069660	6180.0	1842.35	104.944	1226.68	0.315094
20	28	47.49	0.4416	0.2130	0.0115	0.0098	0.0362	0.0092988	4485.2	242.16	206.359	− 762.27	0.100000
21	29	28.76	0.2092	0.1870	0.0059	0.0035	0.0588	0.0072740	6502.1	205.15	121.697	2044.51	0.050267
22	30	13.61	0.0783	0.3680	0.0032	0.0011	0.0240	0.0057531	27038.9	235.12	80.823	1763.41	0.011685
23	31	45.21	0.5501	0.1020	0.0154	0.0150	0.2010	0.0121677	2256.1	340.63	331.785	4445.92	0.298039
24	32	28.57	0.2577	0.1140	0.0072	0.0050	0.0415	0.0090200	3990.2	252.01	175.009	1452.57	0.107018
25	33	38.54	3.1506	0.1230	0.0076	0.0054	0.0520	0.0817488	3191.5	197.20	140.114	−1349.25	0.105691
26	34	42.02	0.2346	0.1420	0.0077	0.0049	0.1060	0.0055831	3379.3	183.25	116.611	− 2552.61	0.088732
27	35	26.24	0.1492	0.0716	0.0630	0.0032	0.0633	0.0056860	2728.7	2400.91	121.951	2412.35	0.924581
28	36	33.72	0.1943	0.1910	0.0066	0.0036	0.0412	0.0057622	5664.3	195.73	106.762	1221.83	0.053403
29	37	35.31	0.6238	0.1210	0.0111	0.0102	0.0590	0.0176664	3426.8	314.36	288.870	1670.91	0.176033
30	38	37.61	0.1655	0.1360	0.0090	0.0048	0.0608	0.0044004	3616.1	239.30	127.626	1616.59	0.101471
31	39	52.52	0.3133	0.6190	0.0198	0.0102	0.0656	0.0059653	11786.0	377.00	194.212	1249.05	0.048465
32	40	25.73	0.1239	0.1390	0.0060	0.0034	0.0288	0.0048154	5402.3	233.19	132.141	1119.32	0.067626
33	41	24.26	0.1218	0.4080	0.0080	0.0031	0.0248	0.0050206	16817.8	329.76	127.782	−1032.26	0.027206
34	42	36.50	0.1469	0.1220	0.0073	0.0052	0.0398	0.0040247	3342.5	200.00	142.466	−1090.41	0.102459
35	43	71.66	0.3685	0.0808	0.0130	0.0007	0.0504	0.0051423	1127.5	181.41	9.768	− 703.32	0.169554
36	44	51.85	0.3517	0.1350	0.0142	0.0095	0.0467	0.0067830	2603.7	273.87	183.221	− 900.68	0.175556
37	45	27.82	0.1343	0.7860	0.0062	0.0032	0.0325	0.0048275	28253.1	222.86	115.025	1168.22	0.011959
38	46	.	.	.	.	.	.	.	.	.	.	.	.
39	47	.	.	.	.	.	.	.	.	.	.	.	.
40	48	51.47	0.2775	0.2340	0.0176	0.0103	0.0303	0.0053915	4546.3	341.95	200.117	588.69	0.119231
41	49	.	.	.	.	.	.	.	.	.	.	.	.
42	50	.	.	.	.	.	.	.	.	.	.	.	.

WIND DIRECTION DATA FOR LOCATION 2

ANALYTICAL DATA FOR LOCATION 7

OBS	WEEK	PART	V205	UCON	TCON	RCON	PCON	VSPA	USPA	TSPA	RSPA	PSPA	FQR
1	0	62.31	0.7127	0.1450	0.0246	0.0230	0.0353	0.0114380	2327.07	394.80	378.75	566.52	0.33241
2	0	55.24	1.0318	0.0995	0.0327	0.0221	0.0631	0.0186785	1801.23	591.96	400.07	1142.29	0.55075
3	0	72.25	0.9721	0.1630	0.0370	0.0370	0.0585	0.0134547	2256.06	512.11	512.11	806.92	0.45399
4	0	58.91	0.9446	0.1040	0.0307	0.0385	0.0497	0.0160346	1765.40	521.13	504.29	843.66	0.60977
5	0	71.82	0.9107	0.0807	0.0341	0.0277	0.0655	0.0126803	1123.64	474.80	385.60	912.00	0.76580
6	0	69.71	0.5087	0.0518	0.0299	0.0303	0.0318	0.0044281	753.60	428.92	434.66	456.18	1.16216
7	0	77.67	0.5628	0.0738	0.0567	0.0270	0.0374	0.0072203	950.17	472.51	307.62	461.52	0.86514
8	0	103.79	1.5514	0.1620	0.0685	0.0803	0.0647	0.0149475	1560.84	659.00		625.37	
9	0	76.99	1.8651	0.1870	0.0951	0.0263	0.1070	0.0242252	2428.89	1235.23	1042.99	1348.79	0.93797
10	0	150.40	1.2963	0.1600	0.0976	0.0179	0.1720	0.0086190	1061.85	648.94	174.87	1103.62	0.77037
11	0	113.64	1.2860	0.1420	0.0367	0.0169	0.0169	0.0113768	1249.56	322.95	157.51	324.71	0.78951
12	0	133.09	1.6549	0.1520	0.0532	0.0059	0.1050	0.0123740	987.34	307.94	303.33	745.40	0.75076
13	0	129.92	2.1873	0.1260	0.0949	0.0158	0.0952	0.0168357	969.83	730.45	121.61	732.76	0.87457
14	0	115.00	1.5450	0.1280	0.0573	0.0547	0.1030	0.0134348	1113.04	498.26	475.65	895.65	0.87500
15	0	58.03	0.7670	0.0800	0.0216	0.0299	0.0150	0.0133173	1378.60	372.22	515.25	258.49	0.64575
16	0	62.52	0.8770	0.5030	0.0374	0.0305	0.0905	0.0133877	8005.43	598.21	487.84	1447.54	0.13499
17	0	79.14	1.0780	0.1220	0.0372	0.0224	0.0374	0.0150000	2991.57	517.57	523.70	540.06	0.26792
18	0	60.29	0.9660	0.1660	0.0344	0.0380	0.1010	0.0463592	1501.57	311.83	272.02	1276.22	0.00082
19	0	43.37	0.8826	0.2420	0.0188	0.0164	0.0502	0.0170094	2753.36	311.83	329.72	1821.92	0.21205
20	0	43.04	0.7416	0.2180	0.0175	0.0193	0.0700	0.0175229	5579.89	404.50	446.84	1806.93	0.13190
21	0	101.55	0.5086	0.1920	0.0264	0.0195	0.0806	0.0058946	5453.71	604.95	675.53	2520.93	0.19286
22	0	154.17	1.0604	0.1260	0.0683	0.0606	0.2560	0.0039333	1890.69	672.58	130.38	476.75	0.71502
23	0	28.11	0.0238	0.1810	0.0211	0.4174	0.0735	0.0099324	804.31	536.66	700.82	1865.45	0.33226
24	0	40.56	0.7016	0.0925	0.0368	0.0178	0.0530	0.0128312	3770.90	540.73	923.10	202.46	0.32925
25	0	22.77	0.4545	0.1700	0.0193	0.0200	0.1630	0.0172978	2268.45	461.21	493.17	2270.71	0.30166
26	0	33.83	1.5667	0.0626	0.0173	0.0101	0.0412	0.0199517	2280.57	475.84	419.17	1809.00	0.42046
27	0	66.80	0.5582	0.1940	0.0338	0.0325	0.0483	0.0463110	1850.49	750.99	960.69	1427.73	0.15941
28	0	81.07	0.5482	0.2510	0.0503	0.0521	0.1180	0.015841·	2904.19	999.11	779.94	1766.47	1.05011
29	0	62.14	0.7253	0.2790	0.0689	0.0845	0.1670	0.0152954	5587.76	752.99	673.49	2059.95	0.52784
30	0	40.57	0.2976	0.1020	0.0367	0.0130	0.0341	0.0116726	4039.27	850.78	477.95	1158.67	0.27064
31	0	44.02	0.2740	0.1560	0.0198	0.0141	0.0531	0.0073718	6911.07	590.60	322.02	844.35	0.26059
32	0	68.62	1.0626		0.0132	0.0290	0.0871	0.0062244	2817.19	299.86	320.31	1206.27	0.11756
33	0							0.0154853	2273.39	422.62	507.10	1269.31	0.26765
34														0.40897
35	0	69.18	0.3759	0.0530	0.0156	0.0195	0.0458	0.0054357	766.12	225.50	281.87	662.04	0.66226
36	0	122.68	0.8633	0.1770	0.0475	0.0468	0.0737	0.0070370	1442.78	387.19	381.48	800.75	0.53277
37	0	99.48	0.7753	0.1320	0.0554	0.0448	0.0458	0.0077035	1326.00	556.90	450.30	862.48	0.75909
38	0	269.54	0.9308	0.1290	0.1170	0.1790		0.0034867	478.59	434.07	664.09		2.29457

APPENDIX B

CORRELATION ANALYSIS RESULTS FOR LOCATION 1

2 OF THE   39 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N=   37   REGRESSION MODELS FOR DEPENDENT VARIABLE UCON

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00001108	SNOW	1	0.00787765	IDI
1	0.00316733	AW3	1	0.01692896	SED R
1	0.01135184	TMAX	1	0.02559864	SWD R
1	0.01274941	SN2	1	0.02768498	UDI
1	0.01410150	OHAUL	1	0.03155288	YDI
1	0.02272376	OFEED			
1	0.02324227	AW2			
1	0.02559864	SWDIR			
1	0.02599493	MW3			
1	0.03871170	SCOV			
1	0.03929052	TAVE			
1	0.03963027	MW2			
1	0.05143486	AWNDSP			
1	0.05295754	SC2			
1	0.05605669	MWNDSP			
1	0.06630840	RAIN			
1	0.07664511	YELLOW			
1	0.08746078	RA2			
1	0.09785918	THIN			

2	0.14460634	THIN SNOW
2	0.14609963	MW2 RA2
2	0.14684571	MWNDSP MW2
2	0.14789867	AWNDSP AW2
2	0.15064099	RAIN MWNDSP
2	0.15303436	RAIN AWNDSP
2	0.16427222	MWNDSP RA2
2	0.16777752	RAIN YELLOW
2	0.16823126	AWNDSP RA2
2	0.17094430	TAVE RAIN
2	0.17262928	THIN SN2
2	0.17295575	TAVE RA2
2	0.17777847	SNOW SN2
2	0.18217635	YELLOW RA2
2	0.23307000	THIN RAIN
2	0.23361227	THIN RA2
2	0.42250482	THIN TAVE
2	0.42677028	TMAX TAVE
2	0.42908596	THIN TMAX

3	0.43054476	TMAX TAVE AW3
3	0.43062113	THIN TMAX MW3
3	0.43203920	THIN TMAX OFEED
3	0.43211200	TMAX TAVE OHAUL
3	0.43272175	THIN TMAX AW3
3	0.43382404	TMAX TAVE SN2
3	0.43419359	THIN TMAX SN2
3	0.43480201	TMAX TAVE RAIN
3	0.43573697	THIN TMAX RAIN

N=   37   REGRESSION MODELS FOR DEPENDENT VARIABLE UCON

NUMBER IN   R-SQUARE   VARIABLES IN MODEL
  MODEL

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
3	0.43586783	TMIN TMAX OHAUL
3	0.44489123	TMIN TAVE RA2
3	0.45106507	TMAX TAVE RA2
3	0.45126315	TMIN TMAX RA2
3	0.45732670	TMIN TAVE YELLOW
3	0.45861846	TMAX TAVE SWDIR
3	0.46359543	TMIN TAVE SWDIR
3	0.46703375	TMIN TMAX SWDIR
3	0.46892577	TMIN TMAX YELLOW
3	0.47456885	TMAX TAVE YELLOW
4	0.47799929	TMAX TAVE YELLOW SC2
4	0.47808337	TMIN TMAX SWDIR AW2
4	0.47890698	TMIN TMAX SWDIR OHAUL
4	0.48070832	TMAX TAVE OFEED YELLOW
4	0.48110656	TMIN TAVE YELLOW RA2
4	0.48306616	TMIN TAVE SWDIR AW3
4	0.48334258	TMAX TAVE RAIN YELLOW
4	0.48346356	TMAX TAVE RAIN RA2
4	0.48388952	TMIN TAVE SWDIR YELLOW
4	0.48506411	TMIN TMAX RAIN RA2
4	0.48558214	TMAX TAVE SCOV YELLOW
4	0.48565207	TMIN TMAX SWDIR AW3
4	0.49198218	TMIN TMAX YELLOW RA2
4	0.49231652	TMAX TAVE SWDIR YELLOW
4	0.49243350	TMIN TMAX SWDIR YELLOW
4	0.49273491	TMIN TAVE SNOW SN2
4	0.49911442	TMAX TAVE YELLOW RA2
4	0.50539164	TMIN TMAX SNOW SN2
4	0.51236076	TMAX TAVE SNOW SN2
5	0.51578696	TMIN TMAX SCOV YELLOW RA2
5	0.51609301	TMIN TMAX SNOW SN2 RA2
5	0.51611775	TMAX TAVE RAIN SNOW SN2
5	0.51654708	TMAX TAVE SNOW AWNDSP SN2
5	0.51806679	TMIN TMAX SNOW SN2 SC2
5	0.51861033	TMAX TAVE SNOW SN2 AW3
5	0.51895971	TMAX TAVE SNOW SN2 AW2
5	0.52061902	TMIN TAVE SNOW SCOV SN2
5	0.52165843	TMIN TMAX RAIN YELLOW RA2
5	0.52347019	TMAX TAVE SNOW SN2 RA2
5	0.52429420	TMAX TAVE SNOW OFEED SN2
5	0.52588977	TMAX TAVE SNOW SN2 SC2
5	0.52747239	TMAX TAVE SCOV YELLOW RA2
5	0.52809397	TMAX TAVE RAIN YELLOW RA2
5	0.52809425	TMIN TAVE SNOW SWDIR SN2
5	0.53566061	TMIN TMAX SNOW SCOV SN2
5	0.53834494	TMIN TMAX SNOW SWDIR SN2
5	0.54013442	TMAX TAVE SNOW SWDIR SN2
5	0.54327013	TMAX TAVE SNOW SCOV SN2

1 OF THE   39 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N=   38   REGRESSION MODELS FOR DEPENDENT VARIABLE TCON

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.01187950	TMIN	1	0.00791513	SED R
1	0.01635669	SC2	1	0.07053554	YDI
1	0.02075931	TAVE	1	0.12979576	TDI
1	0.02130481	SN2	1	0.17408606	ODI
1	0.02340891	SNOW	1	0.17476346	SWD R
1	0.02379907	RA2			
1	0.02559764	TMAX			
1	0.03460529	SCOV			
1	0.03880744	RAIN			
1	0.04191833	YELLOW			
1	0.06136424	OHAUL			
1	0.10264571	OFEED			
1	0.12668768	AWNDSP			
1	0.13851633	MWNDSP			
1	0.15177640	MW2			
1	0.16253783	MW3			
1	0.16615971	AW2			
1	0.17476346	SWDIR			
1	0.20342167	AW3			

2	0.20717669	SNOW AW3
2	0.21154583	OHAUL AW3
2	0.21177527	SWDIR MW2
2	0.21224877	YELLOW AW3
2	0.21470373	SCOV AW3
2	0.21751581	SWDIR OFEED
2	0.22015534	SC2 AW3
2	0.22261234	SWDIR MW3
2	0.22488688	TMIN AWNDSP
2	0.22867417	AWNDSP AW3
2	0.23049464	SWDIR AW3
2	0.23074321	TMAX AW2
2	0.23813462	OFEED AW3
2	0.24926025	AW2 AW3
2	0.25329440	TAVE AW2
2	0.26698114	TMAX AW3
2	0.26189989	TMIN AW2
2	0.28530769	TAVE AW3
2	0.30473860	TMIN AW3

3	0.31476962	TMIN AWNDSP SWDIR
3	0.31508328	TAVE YELLOW AW3
3	0.31645888	TMAX SWDIR AW2
3	0.31783160	TMIN SWDIR MW2
3	0.31818896	OFEED AW2 AW3
3	0.32307138	TMIN SWDIR MW3
3	0.32419984	AWNDSP AW2 AW3
3	0.32767139	TMIN OHAUL AW3
3	0.33536655	TAVE SWDIR AW2

N= 38   REGRESSION MODELS FOR DEPENDENT VARIABLE TCON

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
3	0.33783382	TMIN YELLOW AW3
3	0.33914989	TAVE OFEED AW2
3	0.34248598	TMAX SWDIR AW3
3	0.34813583	TMIN SWDIR AW2
3	0.35531918	TMAX OFEED AW3
3	0.35620747	TAVE SWDIR AW3
3	0.36355696	TMIN SWDIR AW3
3	0.37261596	TMIN OFEED AW2
3	0.38204194	TAVE OFEED AW3
3	0.40511615	TMIN OFEED AW3
4	0.40545138	TMIN ONAUL OFEED AW3
4	0.40545967	TMIN TMAX OFEED AW3
4	0.40555524	TMIN OFEED AW3 MW3
4	0.40558307	TMIN RAIN OFEED AW3
4	0.40561110	TMIN OFEED YELLOW AW3
4	0.40576071	TMIN OFEED AW3 RA2
4	0.40593038	TMIN OFEED AW3 MW2
4	0.40630383	TMIN TAVE OFEED AW3
4	0.40641473	TMIN OFEED SN2 AW3
4	0.40641908	TMIN MWNOSP OFEED AW3
4	0.40769001	TMIN SCOV OFEED AW3
4	0.40942704	TMIN OFEED SC2 AW3
4	0.41076142	TMIN OFEED AW2 AW3
4	0.41164405	AWNOSP OFEED AW2 AW3
4	0.42177307	TAVE SWDIR OFEED AW2
4	0.42909701	TMAX SWDIR OFEED AW3
4	0.43390054	TMIN SWDIR OFEED AW2
4	0.45145701	TAVE SWDIR OFEED AW3
4	0.45722783	TMIN SWDIR OFEED AW3
5	0.45846112	AWNOSP OFEED SC2 AW2 AW3
5	0.45864277	TMIN RAIN SWDIR OFEED AW3
5	0.45893122	TMIN SWDIR OFEED YELLOW AW3
5	0.45906135	TMIN SWDIR OFEED AW3 MW2
5	0.45910045	TMIN MWNOSP SWDIR OFEED AW3
5	0.45927541	TMIN SWDIR OFEED AW3 MW3
5	0.45927954	TMIN TAVE SWDIR OFEED AW3
5	0.45959855	TAVE AWNOSP OFEED AW2 AW3
5	0.46060633	TMIN TMAX SWDIR OFEED AW3
5	0.46070145	TAVE SCOV SWDIR OFEED AW3
5	0.46106118	TMIN SWDIR OFEED AW3 RA2
5	0.46177714	TAVE SWDIR OFEED AW2 AW3
5	0.46233257	TMIN SWDIR OFEED AW2 AW3
5	0.46255883	TMIN SCOV SWDIR OFEED AW3
5	0.46386238	TAVE SWDIR OFEED SC2 AW3
5	0.46415537	TAVE RAIN SWDIR OFEED AW3
5	0.46420198	TMIN SWDIR OFEED SC2 AW3
5	0.46719755	TAVE SWDIR OFEED AW3 RA2
5	0.46050920	TMIN AWNOSP OFEED AW2 AW3

1 OF THE 39 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N= 36 REGRESSION MODELS FOR DEPENDENT VARIABLE RCON

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00024629	SNOW	1	0.00000047	SED R
1	0.00033838	YELLOW	1	0.00473543	YDI
1	0.00047396	SCOV	1	0.04157461	IDI
1	0.00055175	SW2	1	0.04277058	ODI
1	0.00096565	SC2	1	0.04425005	SWD R
1	0.00168912	TMAX			
1	0.00313540	TAVE			
1	0.00470602	RA2			
1	0.00476623	RAIN			
1	0.00778646	TMIN			
1	0.02752798	AWNDSP			
1	0.03309787	OFEED			
1	0.04425005	SWDIR			
1	0.04860515	AW2			
1	0.05010636	OHAUL			
1	0.07186011	MWNDSP			
1	0.07738979	AW3			
1	0.08987297	MW2			
1	0.10892055	MW3			
2	0.16105084	MWNDSP MW3			
2	0.16557532	TMAX AW2			
2	0.16835003	MW2 MW3			
2	0.16836270	TMAX MWNDSP			
2	0.17509875	AW2 AW3			
2	0.17683082	TMIN AWNDSP			
2	0.18894175	TMAX MW2			
2	0.19290725	TAVE AW2			
2	0.19641388	TAVE MWNDSP			
2	0.20487898	TMAX MW3			
2	0.21064146	TMAX AW3			
2	0.21483950	TAVE MW2			
2	0.22623525	TAIN AW2			
2	0.22751014	TAVE MW3			
2	0.23197659	TAVE AW3			
2	0.24000414	TMIN MWNDSP			
2	0.25410843	TMIN MW2			
2	0.25597918	TMIN AW3			
2	0.26170364	TMIN MW3			
3	0.28098097	TAVE OHAUL AW3			
3	0.28239544	TMIN OHAUL MW3			
3	0.28283337	TMIN OFEED AW2			
3	0.28375653	TMIN MWNDSP SWDIR			
3	0.28389663	TAVE SWDIR MW3			
3	0.28440712	TMIN AW2 MW2			
3	0.28527691	TMIN AWNDSP MW3			
3	0.29062277	TMIN AW2 MW3			
3	0.29371555	TMIN OFEED MW2			

N=   38   REGRESSION MODELS FOR DEPENDENT VARIABLE RCON

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
3	0.29382357	TAVE OFEED AW3
3	0.29391212	THIN MWNDSP AW3
3	0.29757749	THIN AW3 MW2
3	0.29388418	THIN SWDIR AW2
3	0.30043824	THIN AW3 MW3
3	0.30098503	THIN OFEED MW3
3	0.30154083	THIN OHAUL AW3
3	0.30924585	THIN SWDIR MW3
3	0.30957721	AWNDSP AW2 AW3
3	0.31959434	THIN OFEED AW3
4	0.33328164	THIN SCOV OFEED AW3
4	0.33453877	TMAX AWNDSP AW2 AW3
4	0.33511702	THIN OFEED AW2 MW3
4	0.33557169	THIN SWDIR OFEED AW3
4	0.33711446	AWNDSP SC2 AW2 AW3
4	0.33744475	THIN SWDIR OFEED MW2
4	0.33939440	THIN SWDIR OHAUL MW3
4	0.34517858	TAVE AWNDSP AW2 AW3
4	0.34608871	THIN MWNDSP OFEED AW3
4	0.34753236	THIN SWDIR OFEED MW3
4	0.34831484	THIN OFEED AW3 MW2
4	0.35050019	THIN OFEED AW3 MW3
4	0.35351455	THIN TMAX TAVE AW3
4	0.35899830	THIN TMAX TAVE MWNDSP
4	0.36430250	THIN TMAX TAVE MW2
4	0.36496409	AWNDSP OFEED AW2 AW3
4	0.36609876	THIN AWNDSP AW2 AW3
4	0.36704389	THIN TMAX TAVE MW3
4	0.37757100	AWNDSP OHAUL AW2 AW3
5	0.39711624	THIN TMAX TAVE MWNDSP AW3
5	0.39728089	THIN TMAX TAVE AW3 MW3
5	0.39735357	TAVE SNOW OFEED SN2 AW2
5	0.39877869	THIN AWNDSP MWNDSP AW2 AW3
5	0.39997187	THIN TMAX TAVE OFEED AW3
5	0.40321001	TAVE SNOW OFEED SN2 AW3
5	0.40804875	THIN SNOW AWNDSP OFEED SN2
5	0.41191157	TMAX AWNDSP OFEED AW2 AW3
5	0.41416631	TMAX AWNDSP OHAUL AW2 AW3
5	0.41862755	THIN SNOW OFEED SN2 AW3
5	0.42044471	THIN SNOW OFEED SN2 AW2
5	0.42250008	SCOV AWNDSP OHAUL AW2 AW3
5	0.42582249	TAVE AWNDSP OHAUL AW2 AW3
5	0.42751640	TAVE AWNDSP OFEED AW2 AW3
5	0.43346204	AWNDSP OFEED SC2 AW2 AW3
5	0.43659414	AWNDSP OHAUL SC2 AW2 AW3
5	0.43637797	SCOV AWNDSP OFEED AW2 AW3
5	0.44504622	THIN AWNDSP OHAUL AW2 AW3
5	0.45091655	THIN AWNDSP OFEED AW2 AW3

1 OF THE 39 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N= 38 REGRESSION MODELS FOR DEPENDENT VARIABLE PCON

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.01792394	SC2	1	0.00025345	SED R
1	0.03390047	SN2	1	0.02392060	YDI
1	0.05943741	RA2	1	0.12347535	UDI
1	0.06065626	SCOV	1	0.12702854	TDI
1	0.03926953	SNOW	1	0.12862706	SWD R
1	0.11140026	RAIN			
1	0.12784949	YELLOW			
1	0.12862766	SWDIR			
1	0.14682667	MW3			
1	0.15685506	OHAUL			
1	0.16891724	OFEED			
1	0.17353273	MW2			
1	0.17908689	AWNDSP			
1	0.19083786	AW3			
1	0.20003851	MWNDSP			
1	0.20105683	AW2			
1	0.20555435	TMIN			
1	0.20810697	TMAX			
1	0.21029027	TAVE			
2	0.25072373	SNOW SN2			
2	0.25119221	TMIN SC2			
2	0.25285054	TMAX YELLOW			
2	0.25323953	MWNDSP MW2			
2	0.25411624	TAVE YELLOW			
2	0.25578505	OHAUL AW3			
2	0.25605107	YELLOW AW2			
2	0.25615973	YELLOW AW3			
2	0.25784987	TMIN OFEED			
2	0.25978212	TMAX OFEED			
2	0.25986266	OHAUL AW2			
2	0.25992697	TAVE OFEED			
2	0.26117616	TMAX OHAUL			
2	0.26165671	RAIN MWNDSP			
2	0.26345310	TAVE OHAUL			
2	0.26373504	TMIN OHAUL			
2	0.26758299	MWNDSP OFEED			
2	0.27206526	OFEED AW2			
2	0.27302431	OFEED AW3			
3	0.31842004	TMAX YELLOW SC2			
3	0.31975956	TAVE OHAUL SC2			
3	0.32079212	RAIN MWNDSP MW3			
3	0.32148135	TMAX OFELD SC2			
3	0.32497699	RAIN MWNDSP MW2			
3	0.32874530	TMIN OHAUL SC2			
3	0.33058473	OFEED SC2 AW3			
3	0.33159418	TAVE OFEED SC2			
3	0.33232083	TAVE YELLOW SC2			

N=   38   REGRESSION MODELS FOR DEPENDENT VARIABLE PLON

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
3	0.33334034	AWNDSP OHAUL SC2
3	0.33390358	SNOW SN2 SC2
3	0.33535269	TMIN YELLOW SC2
3	0.33731636	SCOV OFEED AW2
3	0.33753515	TMIN OFEED SC2
3	0.33930254	YELLOW SC2 AW2
3	0.34367976	SCOV AWNDSP OFEED
3	0.35454049	AWNDSP YELLOW SC2
4	0.35917753	OFEED SC2 AW2
3	0.37834318	AWNDSP OFEED SC2
4	0.39057433	TMIN AWNDSP YELLOW SC2
4	0.39287726	AWNDSP OHAUL OFEED SC2
4	0.39291134	TMAX AWNDSP OFEED SC2
4	0.39377984	SCOV AWNDSP YELLOW SC2
4	0.39506184	TAVE AWNDSP OFEED SC2
4	0.39712205	OFEED SC2 AW2 AW3
4	0.39740471	MWNDSP OFEED SC2 MW3
4	0.39880618	TMAX SNOW SN2 SC2
4	0.39896869	TMIN AWNDSP OFEED SC2
4	0.40164285	AWNDSP OHAUL YELLOW SC2
4	0.40286097	SNOW SN2 SC2 MW2
4	0.40379809	MWNDSP OFEED SC2 MW2
4	0.40619838	TAVE SNOW SN2 SC2
4	0.40846664	AWNDSP OFEED YELLOW SC2
4	0.40984756	TMIN SNOW SN2 SC2
4	0.41440391	SNOW SN2 SC2 AW3
4	0.41817332	SNOW MWNDSP SN2 SC2
4	0.41939911	SNOW AWNDSP SN2 SC2
4	0.41984303	SNOW SN2 SC2 AW2
5	0.44002379	SNOW OHAUL SN2 SC2 AW3
5	0.44011142	OFEED SC2 AW3 MW2 MW3
5	0.44096011	RAIN SNOW MWNDSP SN2 SC2
5	0.44248659	AWNDSP MWNDSP OFEED SC2 MW3
5	0.44265961	TAVE SNOW OHAUL SN2 SC2
5	0.44333951	OFEED SC2 AW2 MW2 MW3
5	0.44572512	SNOW OFEED SN2 SC2 AW2
5	0.44609753	TMIN SNOW OHAUL SN2 SC2
5	0.44732134	AWNDSP MWNDSP OFEED SC2 MW2
5	0.44756140	SNOW SN2 SC2 MW2 MW3
5	0.44756864	SNOW OHAUL SN2 SC2 AW2
5	0.44993445	SNOW AWNDSP OFEED SN2 SC2
5	0.45011091	MWNDSP OFEED SC2 AW3 MW3
5	0.45068651	SNOW AWNDSP OHAUL SN2 SC2
5	0.45185068	MWNDSP OFEED SC2 AW2 MW3
5	0.45190154	SNOW MWNDSP SN2 SC2 MW3
5	0.45427646	SNOW MWNDSP SN2 SC2 MW2
5	0.45789310	MWNDSP OFEED SC2 AW3 MW2
5	0.45860781	MWNDSP OFEED SC2 AW2 MW2

1 OF THE   39 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N=   38   REGRESSION MODELS FOR DEPENDENT VARIABLE PART

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.05302279	TMIN	1	0.02757487	SED H
1	0.05861836	YELLOW	1	0.08593242	TDI
1	0.06873272	SN2	1	0.09788893	YDI
1	0.08146684	RA2	1	0.15160904	SWD H
1	0.09192071	TAVE	1	0.15559208	ODI
1	0.10005574	SNOW			
1	0.11725562	TMAX			
1	0.14275126	SC2			
1	0.15464822	RAIN			
1	0.15739754	OHAUL			
1	0.16318399	MWNDSP			
1	0.17075371	SCOV			
1	0.17949305	MW2			
1	0.18070583	AWNDSP			
1	0.19387386	AW2			
1	0.19477304	MW3			
1	0.20728288	OFEED			
1	0.20871299	AW3			
2	0.26234951	OFEED RA2			
2	0.26427275	RAIN MWNDSP			
2	0.26587793	RAIN AW2			
2	0.26695757	RAIN OHAUL			
2	0.26926629	MWNDSP OFEED			
2	0.26985225	RAIN AWNDSP			
2	0.27011246	OHAUL AW3			
2	0.27287211	RAIN AW3			
2	0.27616969	RAIN MW2			
2	0.27877634	AWNDSP OFEED			
2	0.28273042	OFEED MW2			
2	0.28734316	RAIN OFEED			
2	0.28823284	RAIN MW3			
2	0.29445591	OFEED AW2			
2	0.29738832	OFEED MW3			
2	0.29977784	RAIN SC2			
2	0.30660263	RAIN SCOV			
2	0.31543296	OFEED AW3			
3	0.34037800	RAIN SCOV OHAUL			
3	0.34096689	RAIN OFEED SC2			
3	0.34179058	OFEED AW2 AW3			
3	0.34181970	RAIN OFEED AW2			
3	0.34393457	RAIN OHAUL SC2			
3	0.34477070	RAIN SCOV MW3			
3	0.34538805	RAIN OFEED MW2			
3	0.34561522	TMIN TAVE MW3			
3	0.34651798	RAIN SC2 MW3			
3	0.34921189	TMIN TAVE AWNDSP			

N= 38   REGRESSION MODELS FOR DEPENDENT VARIABLE PART

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
3	0.34985520	TAVE OFEED AW3
3	0.35191436	TAVE RAIN SCOV
3	0.35508669	RAIN OFEED AW3
3	0.35732518	RAIN OFEED MW3
3	0.36387955	TMIN AWNDSP OFEED
3	0.37923167	TMIN RAIN SCOV
3	0.38136177	TMIN OFEED AW2
3	0.39329060	TMIN OFEED AW3
4	0.44498963	TMIN RAIN AWNDSP OFEED
4	0.44770461	TAVE RAIN SCOV MW3
4	0.44990484	TMIN RAIN SC2 MW2
4	0.45177532	TMIN TMAX OFEED AW2
4	0.45256513	TMIN TAVE OFEED MW3
4	0.45479730	TMIN TAVE SCOV MW3
4	0.45584082	TMIN TMAX OFEED AW3
4	0.45594891	TMIN TMAX AWNDSP OFEED
4	0.45806112	TMIN RAIN SCOV AW3
4	0.46125221	TMIN RAIN SC2 MW3
4	0.46204493	TMIN TAVE OFEED AW2
4	0.46507828	TMIN TAVE OFEED AW3
4	0.46836234	TMIN TAVE AWNDSP OFEED
4	0.47204054	TMIN RAIN SCOV MWNDSP
4	0.48395054	TMIN RAIN SCOV MW2
4	0.48884494	AWNDSP OFEED AW2 AW3
4	0.49493005	TMIN RAIN SCOV MW3
4	0.50205315	RAIN AWNDSP AW2 AW3
5	0.51495172	TMIN RAIN SCOV MW2 RA2
5	0.51559189	TMIN TMAX RAIN SCOV MW3
5	0.51701362	RAIN AWNDSP AW2 AW3 MW3
5	0.51886491	TMIN AWNDSP OFEED AW2 AW3
5	0.52204163	TMIN RAIN AWNDSP AW2 AW3
5	0.52219521	TMIN TAVE RAIN SCOV MW3
5	0.52248316	AWNDSP OFEED SN2 AW2 AW3
5	0.52522883	TMIN RAIN SCOV MW3 RA2
5	0.52564292	SNOW AWNDSP OFEED AW2 AW3
5	0.52975597	RAIN AWNDSP SC2 AW2 AW3
5	0.52988434	RAIN AWNDSP SN2 AW2 AW3
5	0.53538270	AWNDSP OHAUL AW2 AW3 RA2
5	0.54910643	RAIN SNOW AWNDSP AW2 AW3
5	0.55497595	AWNDSP OFEED AW2 AW3 RA2
5	0.57265188	RAIN SCOV AWNDSP AW2 AW3
5	0.60859830	RAIN AWNDSP OFEED AW2 AW3
5	0.61301435	RAIN AWNDSP OHAUL AW2 AW3
5	0.61918593	RAIN AWNDSP AW2 AW3 RA2

1 OF THE   39 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N=   38   REGRESSION MODELS FOR DEPENDENT VARIABLE V205

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.02838406	RA2	1	0.00360150	SED R
1	0.04675217	RAIN	1	0.07920112	YDI
1	0.07515705	SN2	1	0.20786572	TDI
1	0.08889980	TMAX	1	0.24647346	ODI
1	0.09261290	TMIN	1	0.25127617	SWD R
1	0.09473491	TAVE			
1	0.10565482	SNOW			
1	0.10886100	YELLOW			
1	0.17710328	SC2			
1	0.18189550	OHAUL			
1	0.22370641	SCOV			
1	0.22678026	OFEED			
1	0.24879618	AWNDSP			
1	0.27424434	AW2			
1	0.27688339	MWNDSP			
1	0.29103155	MW2			
1	0.29424768	AW3			
1	0.30062623	MW3			

2	0.32279788	AW3 MW3
2	0.32452204	SC2 MW2
2	0.32811075	SCOV AW3
2	0.33158004	OHAUL MW2
2	0.33386204	OHAUL AW2
2	0.33404625	YELLOW AW3
2	0.33593035	SCOV MW2
2	0.33723493	YELLOW MW3
2	0.34034363	SC2 MW3
2	0.34142649	AWNDSP OFEED
2	0.34264137	OHAUL MW3
2	0.35212365	SCOV MW3
2	0.35494993	OHAUL AW3
2	0.36559354	MWNDSP OFEED
2	0.36858506	OFEED AW2
2	0.37965878	OFEED MW2
2	0.39209336	OFEED MW3
2	0.39663020	OFEED AW3

3	0.41000855	TMIN SCOV MW2
3	0.41058914	OFEED AW3 MW3
3	0.41089402	TAVE SCOV MW3
3	0.41135122	TMIN AWNDSP OFEED
3	0.41313534	TAVE OFEED MW2
3	0.41591246	TMIN OFEED MW2
3	0.41682734	TMAX OFEED MW3
3	0.41895522	TAVE OFEED MW3
3	0.42049829	TMIN OFEED MW3
3	0.42092087	TMIN SCOV MW3

N=   38   REGRESSION MODELS FOR DEPENDENT VARIABLE V205

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
3	0.42421211	OFEED AW2 AW3
3	0.42958816	SCOV AW2 AW3
3	0.44534079	TMIN OFEED AW2
3	0.44881071	TMAX OFEED AW2
3	0.45207441	TAVE OFEED AW2
3	0.46325629	TMIN OFEED AW3
3	0.47373105	TAVE OFEED AW3
3	0.47514392	TMAX OFEED AW3
4	0.48220446	TMAX MWNDSP OFEED AW3
4	0.48290751	TMAX OFEED AW3 MW2
4	0.48416840	TMAX OHAUL OFEED AW3
4	0.48422961	TAVE MWNDSP OFEED AW3
4	0.48423112	TMAX OFEED AW3 MW3
4	0.48447688	TAVE OFEED AW3 MW2
4	0.48528709	TAVE OFEED AW3 MW3
4	0.48571103	TMIN OFEED SC2 AW3
4	0.48597693	TMAX SNOW OFEED AW3
4	0.48733543	TAVE OFEED SN2 AW3
4	0.48856936	AWNDSP OHAUL AW2 AW3
4	0.48946766	TMIN SCOV OFEED AW3
4	0.48998693	TMAX OFEED SC2 AW3
4	0.49258385	TMAX OFEED SN2 AW3
4	0.49323514	TAVE OFEED SC2 AW3
4	0.49425466	TMAX SCOV OFEED AW3
4	0.49850689	TAVE SCOV OFEED AW3
4	0.53757651	AWNDSP OFEED AW2 AW3
5	0.52376777	SCOV AWNDSP OHAUL AW2 AW3
5	0.52556305	TMIN SCOV OFEED AW2 AW3
5	0.53868624	AWNDSP OFEED YELLOW AW2 AW3
5	0.53893999	TAVE SCOV OFEED AW2 AW3
5	0.53998067	AWNDSP OFEED SC2 AW2 AW3
5	0.54127991	TMAX SCOV OFEED AW2 AW3
5	0.54153315	AWNDSP OFEED AW2 AW3 MW3
5	0.54193033	AWNDSP OFEED AW2 AW3 MW2
5	0.54248124	AWNDSP MWNDSP OFEED AW2 AW3
5	0.54428323	RAIN AWNDSP OFEED AW2 AW3
5	0.54480509	AWNDSP OFEED AW2 AW3 RA2
5	0.54720550	SCOV AWNDSP OFEED AW2 AW3
5	0.55669149	AWNDSP OHAUL OFEED AW2 AW3
5	0.55683584	SNOW AWNDSP OFEED AW2 AW3
5	0.55972746	AWNDSP OFEED SN2 AW2 AW3
5	0.56089593	TMIN AWNDSP OFEED AW2 AW3
5	0.56223880	TMAX AWNDSP OFEED AW2 AW3
5	0.56288504	TAVE AWNDSP OFEED AW2 AW3

2 OF THE   39 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N=   37   REGRESSION MODELS FOR DEPENDENT VARIABLE USPA

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00028137	TMAX	1	0.00087310	TDI
1	0.00049846	MW3	1	0.00314792	SWD H
1	0.00052935	AW3	1	0.00444704	ODI
1	0.00089766	AW2	1	0.02396684	YDI
1	0.00186367	SCOV	1	0.02651461	SED H
1	0.00315693	OHAUL			
1	0.00381453	MW2			
1	0.00488657	OFEED			
1	0.00863997	SC2			
1	0.01051242	MWNDSP			
1	0.01080403	AWNDSP			
1	0.01246930	TAVE			
1	0.02599932	YELLOW			
1	0.03510202	SNOW			
1	0.05690960	THIN			
1	0.07816591	SN2			
1	0.15426893	RA2			
1	0.16680345	RAIN			
2	0.18713068	RAIN SN2			
2	0.18771163	RAIN MW2			
2	0.19477794	YELLOW RA2			
2	0.19577958	RAIN AW2			
2	0.19631208	SN2 RA2			
2	0.20033832	RAIN MWNDSP			
2	0.20738423	TAVE RA2			
2	0.20761115	THIN SNOW			
2	0.21335814	RAIN AWNDSP			
2	0.21576278	TMAX RAIN			
2	0.21709914	RAIN YELLOW			
2	0.23556853	THIN SN2			
2	0.25270964	TAVE RAIN			
2	0.26113979	THIN RA2			
2	0.30951422	THIN RAIN			
2	0.43639923	TMAX TAVE			
2	0.46049804	THIN TMAX			
2	0.46810613	THIN TAVE			
3	0.48389679	TMAX TAVE RAIN			
3	0.48511181	THIN TMAX MW3			
3	0.48581612	THIN TAVE MW2			
3	0.48620616	THIN TMAX SNOW			
3	0.48652368	TMAX TAVE SN2			
3	0.48755680	TMAX TAVE RA2			
3	0.48794432	THIN TAVE AW3			
3	0.48876577	THIN TAVE OFEED			
3	0.48955836	THIN TMAX SCOV			
3	0.49185518	THIN TAVE SNOW			

N= 37   REGRESSION MODELS FOR DEPENDENT VARIABLE USPA

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
3	0.49206860	TMIN TAVE MW3
3	0.49578454	TMIN TAVE SCOV
3	0.50172757	TMIN TMAX RAIN
3	0.50391912	TMIN TMAX SN2
3	0.50620635	TMIN TMAX RA2
3	0.50724657	TMIN TAVE RAIN
3	0.50797605	TMIN TAVE SN2
3	0.51185840	TMIN TAVE RA2
4	0.53399450	TMIN TAVE OFEED RA2
4	0.53551597	TMIN TAVE MW3 RA2
4	0.53658919	TMIN TAVE RAIN SC2
4	0.53681082	TMIN TMAX SC2 RA2
4	0.53701066	TMIN TMAX SNOW RA2
4	0.53730723	TMIN TMAX RAIN SN2
4	0.53903829	TMAX TAVE SN2 RA2
4	0.54028692	TMIN TAVE RAIN SN2
4	0.54075672	TMIN TAVE SNOW RA2
4	0.54185550	TMAX TAVE RAIN SCOV
4	0.54257319	TMIN TAVE SC2 RA2
4	0.55161339	TMIN TMAX SN2 RA2
4	0.55249295	TMAX TAVE SCOV RA2
4	0.55417324	TMIN TAVE SN2 RA2
4	0.55842184	TMIN TMAX RAIN SCOV
4	0.56177838	TMIN TAVE RAIN SCOV
4	0.56982376	TMIN TMAX SCOV RA2
4	0.57306974	TMIN TAVE SCOV RA2
5	0.58783409	TMIN TMAX SCOV MW3 RA2
5	0.58806235	TMAX TAVE SCOV SN2 RA2
5	0.58893084	TMAX TAVE SNOW OFEED SN2
5	0.58939970	TMAX TAVE SCOV SC2 RA2
5	0.58976515	TMIN TAVE SNOW SCOV SN2
5	0.59076088	TMIN TAVE SCOV MW3 RA2
5	0.59180545	TMIN TMAX SNOW OFEED SN2
5	0.59294001	TMIN TMAX SNOW SCOV SN2
5	0.59358317	TMAX TAVE RAIN SCOV YELLOW
5	0.59796044	TMIN TAVE SCOV SC2 RA2
5	0.59853802	TMIN TMAX SCOV SC2 RA2
5	0.59906818	TMIN TAVE RAIN SCOV YELLOW
5	0.60023178	TMIN TMAX SCOV SN2 RA2
5	0.60049386	TMIN TMAX RAIN SCOV YELLOW
5	0.60152304	TMIN TAVE SCOV SN2 RA2
5	0.60496162	TMAX TAVE SCOV YELLOW RA2
5	0.61033500	TMIN TAVE SCOV YELLOW RA2
5	0.61223816	TMIN TMAX SCOV YELLOW RA2

1 OF THE   39 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N=   38   REGRESSION MODELS FOR DEPENDENT VARIABLE TSPA

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00003831	RA2	1	0.00009446	YDI
1	0.00003964	SN2	1	0.00504767	SED M
1	0.00049357	OHAUL	1	0.01800968	ODI
1	0.00118899	SNOW	1	0.02006796	SWD
1	0.00131539	RAIN	1	0.03028251	TDI
1	0.00168935	AWNDSP			
1	0.00287311	MWNDSP			
1	0.00328401	MW2			
1	0.00359185	MW3			
1	0.00386930	TMIN			
1	0.00393641	YELLOW			
1	0.00415436	TAVE			
1	0.00471196	TMAX			
1	0.00489837	OFEED			
1	0.00504696	AW2			
1	0.00784318	SCOV			
1	0.00951279	AW3			
1	0.01602028	SC2			

1 OF THE   39 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N=   38   REGRESSION MODELS FOR DEPENDENT VARIABLE RSPA

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00221681	NW3	1	0.00106882	TDI..
1	0.00408262	NW2	1	0.00607896	SWD.R
1	0.00458498	OHAUL	1	0.00681939	ODI..
1	0.00629345	MWNDSP	1	0.00702169	SED.R
1	0.01103852	AW3	1	0.01057623	YDI..
1	0.01290152	RA2			
1	0.01431683	SN2			
1	0.01967438	AW2			
1	0.02244214	OFEED			
1	0.02592657	AWNDSP			
1	0.02696574	YELLOW			
1	0.03433585	RAIN			
1	0.04532108	SNOW			
1	0.06222523	SC2			
1	0.07155686	THIN			
1	0.07180896	TAVE			
1	0.07229847	TMAX			
1	0.07836385	SCOV			

1 OF THE   39 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N=   38   REGRESSION MODELS FOR DEPENDENT VARIABLE P8PA

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.02993742	SN2			
1	0.04163188	SC2	1	0.00209812	SED R
1	0.08215639	SNOW	1	0.00990721	YDI
1	0.09267828	RA2	1	0.08012173	UDI
1	0.10114513	SCOV	1	0.08484741	SWD R
1	0.10813621	MW3	1	0.09384681	TDI
1	0.12839825	MW2			
1	0.13633711	AW3			
1	0.14790011	MWNDSP			
1	0.15020151	AWNDSP			
1	0.15409260	AW2			
1	0.15452906	YELLOW			
1	0.15712783	RAIN			
1	0.18216374	OHAUL			
1	0.22066444	TMAX			
1	0.22879850	TMIN			
1	0.22984665	TAVE			
1	0.28526205	OFEED			
2	0.29026043	SNOW OFEED			
2	0.29042510	RAIN OHAUL			
2	0.29463775	OFEED YELLOW			
2	0.29486655	TAVE OHAUL			
2	0.29858870	TMIN OHAUL			
2	0.29985637	TMIN RAIN			
2	0.30273937	OHAUL OFEED			
2	0.30785469	OFEED MW3			
2	0.31517269	OFEED MW2			
2	0.32242243	AWNDSP OFEED			
2	0.32345341	MWNDSP OFEED			
2	0.32932623	OFEED AW3			
2	0.33076263	OFEED AW2			
2	0.34513021	OFEED RA2			
2	0.34941152	TMAX OFEED			
2	0.35302914	TAVE OFEED			
2	0.35434015	TMIN OFEED			
2	0.35527424	RAIN OFEED			
3	0.37507321	RAIN OFEED MW2			
3	0.37536550	RAIN OFEED AW3			
3	0.37866909	RAIN AWNDSP OFEED			
3	0.37884397	RAIN OFEED AW2			
3	0.37950360	TMAX OFEED RA2			
3	0.38118082	TMAX SCOV OFEED			
3	0.38231776	TMAX RAIN OFEED			
3	0.38292684	RAIN MWNDSP OFEED			
3	0.38647080	TAVE OFEED RA2			
3	0.38737763	AWNDSP OFEED SC2			

N=   38   REGRESSION MODELS FOR DEPENDENT VARIABLE PSPA

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
3	0.39019554	TAVE RAIN OFEED
3	0.39174331	TMAX OFEED SC2
3	0.39352663	TAVE SCOV OFEED
3	0.39499129	TMIN OFEED RA2
3	0.40013215	TMIN SCOV OFEED
3	0.40073486	TMIN RAIN OFEED
3	0.40416843	TAVE OFEED SC2
3	0.41304285	TMIN OFEED SC2
4	0.41556211	TMIN RAIN OFEED SN2
4	0.41631418	RAIN MWNDSP OFEED MW3
4	0.41639645	TAVE OFEED SC2 RA2
4	0.41671525	TAVE RAIN OFEED SC2
4	0.41740651	TMIN OFEED SN2 SC2
4	0.41757725	TMIN OFFED SC2 AW3
4	0.41765691	TMIN RAIN OHAUL SN2
4	0.41818041	TAVE AWNDSP OFEED SC2
4	0.41855663	RAIN MWNDSP OFEED MW2
4	0.41865740	TAVE OFEED YELLOW SC2
4	0.41954378	TMIN SCOV OFEED RA2
4	0.42085885	TMIN OFEED SC2 AW2
4	0.42318774	TMIN RAIN SCOV OFEED
4	0.42324465	TMIN OHAUL OFEED SC2
4	0.42523858	TMIN AWNDSP OFEED SC2
4	0.42744651	TMIN OFFED YELLOW SC2
4	0.43116490	TMIN OFEED SC2 RA2
4	0.43349473	TMIN RAIN OFEED SC2
5	0.45843124	TMIN RAIN SNOW OFEED SC2
5	0.43890813	TMIN AWNDSP OFEED SC2 RA2
5	0.43967415	TMIN RAIN SNOW OHAUL OFEED
5	0.43968632	TMIN OHAUL OFEED SN2 SC2
5	0.43996149	TMIN AWNDSP OFEED YELLOW SC2
5	0.44066473	TMIN TMAX RAIN OFEED SC2
5	0.44072126	TMIN RAIN AWNDSP OFEED SC2
5	0.44221591	RAIN MWNDSP OFEED SC2 MW3
5	0.44248051	TMIN SNOW OFEED SN2 SC2
5	0.44259593	TMIN TAVE RAIN OFEED SC2
5	0.44261592	TMIN OFEED YELLOW SC2 RA2
5	0.44278292	TMIN OHAUL OFEED SC2 RA2
5	0.44396504	TMIN RAIN OHAUL OFEED SC2
5	0.44449441	TMIN RAIN OFEED SN2 SC2
5	0.44547110	RAIN MWNDSP OFEED SC2 MW2
5	0.44615560	TMIN RAIN OFEED YELLOW SC2
5	0.44780505	TMIN RAIN OHAUL OFEED SN2
5	0.45846350	RAIN SCOV OHAUL SN2 SC2

1 OF THE   39 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N=   38   REGRESSION MODELS FOR DEPENDENT VARIABLE VSPA

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00303558	RA2	1	0.00386107	SED R
1	0.01266311	RAIN	1	0.01148624	YDI
1	0.01773178	SN2	1	0.10901064	ODI
1	0.02519119	SNOW	1	0.11586808	SWD R
1	0.03386626	OHAUL	1	0.13154328	TDI
1	0.03531046	THAX			
1	0.05223923	OFEED			
1	0.06410424	TAVE			
1	0.06417835	YELLOW			
1	0.09373823	SC2			
1	0.09414795	AW3			
1	0.10328913	AW2			
1	0.10388965	MW3			
1	0.11034274	AWNDSP			
1	0.11148936	TMIN			
1	0.11547353	MW2			
1	0.12355569	SCOV			
1	0.12493783	MWNDSP			

N= 2 OF THE 39 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N= 37 REGRESSION MODELS FOR DEPENDENT VARIABLE FOR

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00127500	UDI
1	0.00186184	SWD H
1	0.00296800	YDI
1	0.00825005	TDI
1	0.00886645	SED H

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00001535	SNOW
1	0.00005747	MW2
1	0.00012597	YFLLOW
1	0.00021174	AW2
1	0.00027270	MW3
1	0.00038946	OFEED
1	0.00102634	MWNDSP
1	0.00151487	AW3
1	0.00248380	SN2
1	0.00315724	OHAUL
1	0.00613604	AWNDSP
1	0.01931882	RAIN
1	0.01959051	RA2
1	0.02210577	TMAX
1	0.03680164	SCOV
1	0.04098682	TAVE
1	0.04492292	SC2
1	0.07343419	TMIN
2	0.09913337	AW2 AW3
2	0.09920590	TAVE AW2
2	0.09959265	TMIN OFEED
2	0.10321655	TMIN OHAUL
2	0.10550248	TMIN SNOW
2	0.10720503	TMIN SN2
2	0.11359948	TMIN RA2
2	0.12122339	TAVE AW3
2	0.12653630	TMIN RATN
2	0.13075478	TMIN MWNDSP
2	0.13441002	TMIN MW2
2	0.13490882	TMIN AWNDSP
2	0.13531813	TMIN MW3
2	0.16978543	TMAX TAVE
2	0.17566551	TMIN AW2
2	0.18023474	TMIN TMAX
2	0.18408456	TMIN TAVE
2	0.19112560	TMIN AW3
3	0.22005420	TMIN OFEED AW3
3	0.22364298	TMIN TMAX AWNDSP
3	0.22413179	TMAX TAVE MWNDSP
3	0.22695072	TMAX TAVE MW3
3	0.22706246	TMAX TAVE MW2
3	0.22774262	TMIN TAVE AWNDSP
3	0.23402756	TMAX TAVE AW2
3	0.23753201	TMIN TMAX MWNDSP
3	0.23860656	TMIN TMAX MW3
3	0.23944791	TMIN TMAX MW2

N= 37   REGRESSION MODELS FOR DEPENDENT VARIABLE FOR

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
3	0.24143654	TMIN TAVE MWNDSP
3	0.24191017	TMIN TAVE MW3
3	0.24295316	TMIN TAVE MW2
3	0.24500133	TMAX TAVE AW3
3	0.24644075	TMIN TMAX AW2
3	0.24980017	TMIN TAVE AW2
3	0.25593787	TMIN TMAX AW3
3	0.25883933	TMIN TAVE AW3
4	0.26085526	TMIN TAVE RAIN AW3
4	0.26086902	TMIN TAVE AW2 AW3
4	0.26106213	TMIN TMAX SN2 AW3
4	0.26160595	TMIN TMAX SNOW AW3
4	0.26231915	TMIN TAVE AW3 MW3
4	0.26297377	TMIN TAVE AW3 MW2
4	0.26307044	TMIN TAVE SC2 AW3
4	0.26329136	TMIN TAVE SN2 AW3
4	0.26329374	TMIN TAVE MWNDSP AW3
4	0.26567564	TMIN TMAX OFEED AW2
4	0.26573707	TMIN TMAX OHAUL AW3
4	0.26745183	TMIN TMAX YELLOW AW3
4	0.26801005	TMIN TAVE OHAUL AW3
4	0.26805340	TMIN TAVE OFEED AW2
4	0.26865062	TMAX TAVE OFEED AW3
4	0.27159365	TMIN TAVE YELLOW AW3
4	0.27796403	TMIN TMAX OFEED AW3
4	0.27985314	TMIN TAVE OFEED AW3
5	0.28187705	TMIN TAVE MWNDSP OFEED AW3
5	0.28198129	TMIN TAVE OFEED AW3 RA2
5	0.28212298	TMAX TAVE SCOV OFEED AW3
5	0.28295198	TMIN TAVE OFEED SC2 AW3
5	0.28298666	TMIN TMAX OFEED AW2 AW3
5	0.28299882	TMIN TAVE OFEED SN2 AW3
5	0.28312092	TMIN TAVE YELLOW SC2 AW3
5	0.28314251	TMIN TAVE AWNDSP OFEED AW3
5	0.28364678	TMIN TAVE SCOV AWNDSP OFEED
5	0.28441521	TMIN TAVE OFEED AW2 AW3
5	0.28731946	TMIN TMAX OFEED SC2 AW2
5	0.28829487	TMIN TMAX SCOV OFEED AW2
5	0.28911734	TMIN TAVE OFEED SC2 AW2
5	0.29050507	TMIN TMAX OFEED SC2 AW3
5	0.29061975	TMIN TMAX SCOV OFEED AW3
5	0.29073545	TMIN TAVE SCOV OFEED AW2
5	0.29198614	TMIN TAVE OFEED SC2 AW3
5	0.29254745	TMIN TAVE SCOV OFEED AW3

APPENDIX C

CORRELATION ANALYSIS RESULTS FOR LOCATION 2

5 OF THE   42 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N=   37   REGRESSION MODELS FOR DEPENDENT VARIABLE UCON

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00008831	SN2	1	0.01034896	SWD R
1	0.00021170	SC2	1	0.01211737	TDI
1	0.00132766	MWNDSP	1	0.03378984	ODI
1	0.00165062	TMIN	1	0.04745940	YDI
1	0.00232212	MW2	1	0.05391884	SED R
1	0.00280268	SNOW			
1	0.00342149	SCOV			
1	0.00344992	MW3			
1	0.00576289	TAVE			
1	0.00888333	TMAX			
1	0.01034896	SWDIR			
1	0.01237008	OHAUL			
1	0.01253632	AWNDSP			
1	0.01335036	YELLOW			
1	0.02021716	AW2			
1	0.02596943	OFEED			
1	0.03005545	AW3			
1	0.13633016	RA2			
1	0.14601002	RAIN			
2	0.14620084	RAIN MW3			
2	0.14653643	RAIN RA2			
2	0.14791259	RAIN AWNDSP			
2	0.14809534	RAIN AW2			
2	0.14840780	RAIN SWDIR			
2	0.14844049	OHAUL RA2			
2	0.14935670	TAVE RAIN			
2	0.14938270	THIN RAIN			
2	0.14995847	TMAX RAIN			
2	0.15006439	SNOW RA2			
2	0.15008610	RAIN AW3			
2	0.15014859	RAIN SCOV			
2	0.16080683	RAIN SN2			
2	0.16312204	YELLOW RA2			
2	0.16894170	OFEED RA2			
2	0.17086336	RAIN OHAUL			
2	0.18282417	RAIN SNOW			
2	0.18489305	RAIN YELLOW			
2	0.20240148	RAIN OFEED			
3	0.20380452	RAIN SWDIR YELLOW			
3	0.20438405	RAIN SNOW AW3			
3	0.20462132	TAVE RAIN OFEED			
3	0.20476389	THIN RAIN OFEED			
3	0.20716552	RAIN OFEED YELLOW			
3	0.20864102	RAIN OFEED RA2			
3	0.20893514	RAIN MWNDSP OFEED			
3	0.20896296	RAIN OFEED SN2			
3	0.20967300	RAIN OFEED MW2			

N=   37   REGRESSION MODELS FOR DEPENDENT VARIABLE UCON

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
3	0.20982046	RAIN SCOV OFEED
3	0.21015935	RAIN OFEED MW3
3	0.21111196	RAIN SNOW YELLOW
3	0.21573060	RAIN SWDIR OFEED
3	0.21667270	RAIN OFEED SC2
3	0.21714682	RAIN OFEED AW2
3	0.21726445	RAIN SNOW OFEED
3	0.21812042	RAIN OFEED AW3
3	0.21982106	RAIN AWNDSP OFEED
3	0.23494799	RAIN SNOW SN2

4	0.25239914	RAIN SNOW AWNDSP YELLOW
4	0.25287235	RAIN SNOW YELLOW SC2
4	0.25361116	SNOW SN2 AW3 RA2
4	0.25513221	SNOW SN2 SC2 RA2
4	0.25992222	TMAX RAIN SNOW SN2
4	0.26069134	SNOW SN2 AW2 RA2
4	0.26195700	RAIN SNOW SN2 MW3
4	0.26387727	TAVE RAIN SNOW SN2
4	0.26393524	TMIN RAIN SNOW SN2
4	0.26451344	RAIN SNOW SN2 MW2
4	0.26646791	RAIN SNOW MWNDSP SN2
4	0.27177878	RAIN SNOW SWDIR SN2
4	0.27565959	SNOW AWNDSP SN2 RA2
4	0.28463523	RAIN AWNDSP AW2 AW3
4	0.29675211	RAIN SNOW SN2 AW3
4	0.30100873	RAIN SNOW SCOV SN2
4	0.30654022	RAIN SNOW SN2 AW2
4	0.32167613	RAIN SNOW SN2 SC2
4	0.32797682	RAIN SNOW AWNDSP SN2

5	0.33325411	RAIN SNOW SN2 SC2 MW2
5	0.33370271	RAIN SNOW SCOV SN2 RA2
5	0.33372078	RAIN SNOW SCOV AWNDSP SN2
5	0.33376504	RAIN SNOW MWNDSP SN2 SC2
5	0.33377717	RAIN SNOW AWNDSP SN2 MW3
5	0.33526063	RAIN SNOW AWNDSP SN2 MW2
5	0.33608325	RAIN SNOW SWDIR SN2 SC2
5	0.33649727	RAIN SNOW AWNDSP MWNDSP SN2
5	0.33710568	TMAX RAIN SNOW AWNDSP SN2
5	0.33762531	TAVE RAIN SNOW AWNDSP SN2
5	0.33784794	RAIN SNOW AWNDSP SN2 AW3
5	0.33823687	TMIN RAIN SNOW AWNDSP SN2
5	0.33995452	RAIN SNOW SN2 AW2 RA2
5	0.34485205	RAIN SNOW AWNDSP SN2 AW2
5	0.34625651	RAIN SNOW SN2 SC2 AW3
5	0.34747619	RAIN SNOW SN2 SC2 AW2
5	0.35258670	RAIN SNOW AWNDSP SN2 SC2
5	0.36178652	RAIN SNOW SN2 SC2 RA2
5	0.36767703	RAIN SNOW AWNDSP SN2 RA2

E OF THE 42 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N= 36 REGRESSION MODELS FOR DEPENDENT VARIABLE TCON

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00000026	THIN	1	0.00022892	SWD R
1	0.00012343	TMAX	1	0.00046503	SED R
1	0.00014838	TAVE	1	0.00050149	YDI
1	0.00022892	SWDIR	1	0.00056488	ODI
1	0.00146720	SC2	1	0.00053202	TDI
1	0.00181558	SCOV			
1	0.00316727	SNOW			
1	0.00420480	AW3			
1	0.00675656	AW2			
1	0.00701115	MW3			
1	0.00766485	SN2			
1	0.00866735	AWNDSP			
1	0.01148308	MW2			
1	0.01722405	MWNDSP			
1	0.02449504	RAIN			
1	0.03061894	RA2			
1	0.04367599	YELLOW			
1	0.05090046	OHAUL			
1	0.12489110	OFEED			
2	0.10513633	MWNDSP OHAUL			
2	0.12502671	OFEED SN2			
2	0.12511329	OFEED YELLOW			
2	0.12588766	OHAUL OFEED			
2	0.12952554	RAIN OFEED			
2	0.13017992	SNOW OFEED			
2	0.13291816	SWDIR OFEED			
2	0.14432251	OFEED RA2			
2	0.15264804	TMAX OFEED			
2	0.15345517	TAVE OFEED			
2	0.15735405	THIN OFEED			
2	0.15815547	OFEED AW3			
2	0.15866438	SCOV OFEED			
2	0.16221729	OFEED MW3			
2	0.16916562	OFEED SC2			
2	0.17298952	OFEED AW2			
2	0.17586303	OFEED MW2			
2	0.18386597	AWNDSP OFEED			
2	0.19069296	MWNDSP OFEED			
3	0.19335827	MWNDSP OFEED YELLOW			
3	0.19338204	AWNDSP MWNDSP OFEED			
3	0.19435356	SCOV MWNDSP OFEED			
3	0.19495772	MWNDSP SWDIR OFEED			
3	0.19664431	MWNDSP OFEED AW3			
3	0.19679429	RAIN MWNDSP OFEED			
3	0.19882696	MWNDSP OFEED SN2			
3	0.19917201	AWNDSP OFEED AW3			
3	0.20049341	MWNDSP OHAUL OFEED			

N=   36   REGRESSION MODELS FOR DEPENDENT VARIABLE TCON

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
3	0.20176119	OFEED MW2 RA2
3	0.20339589	MWNDSP OFEED SC2
3	0.20459553	OFEED AW2 RA2
3	0.20989842	AWNDSP OFEED RA2
3	0.21649006	MWNDSP OFEED RA2
3	0.22523562	OFEED AW2 AW3
3	0.24072863	OFEED MW2 MW3
3	0.24422344	MWNDSP OFEED MW3
3	0.24617465	MWNDSP OFEED MW2
3	0.25391648	SNOW OFEED SN2
4	0.25981173	TMIN SNOW OFEED SN2
4	0.26020478	TMAX SNOW OFEED SN2
4	0.26085574	MWNDSP SWDIR OFEED AW3
4	0.26127378	OFEED MW2 MW3 RA2
4	0.26130750	MWNDSP SWDIR OFEED MW2
4	0.26156907	SNOW OFEED SN2 AW3
4	0.26160140	RAIN MWNDSP OFEED RA2
4	0.26182285	SNOW OHAUL OFEED SN2
4	0.26336834	RAIN SNOW OFEED SN2
4	0.26343278	SNOW AWNDSP OFEED SN2
4	0.26350383	SNOW OFEED SN2 AW2
4	0.26386189	MWNDSP OFEED MW3 RA2
4	0.26511778	MWNDSP OFEED MW2 RA2
4	0.26951987	SNOW OFEED SN2 MW3
4	0.27373824	SNOW OFEED SN2 RA2
4	0.27526388	SNOW OFEED SN2 MW2
4	0.28204143	SNOW MWNDSP OFEED SN2
4	0.29287652	SNOW OFEED YELLOW SN2
4	0.30154073	AWNDSP OFEED AW2 AW3
5	0.30808205	RAIN OFEED MW2 MW3 RA2
5	0.30874305	RAIN SNOW OFEED SN2 RA2
5	0.30891121	SNOW OFEED YELLOW SN2 MW3
5	0.31053861	SNOW AWNDSP OFEED AW2 AW3
5	0.31133965	SNOW OFEED SN2 MW2 MW3
5	0.31175317	RAIN MWNDSP OFEED MW3 RA2
5	0.31200009	RAIN AWNDSP OFEED AW2 AW3
5	0.31257802	SNOW MWNDSP OFEED SN2 MW3
5	0.31306140	SNOW MWNDSP OFEED SN2 MW2
5	0.31388957	RAIN MWNDSP OFEED MW2 RA2
5	0.31591646	AWNDSP OHAUL OFEED AW2 AW3
5	0.31654855	AWNDSP OFEED SC2 AW2 AW3
5	0.31727256	SNOW OFEED YELLOW SN2 MW2
5	0.31812830	AWNDSP OFEED AW2 AW3 MW3
5	0.31877264	AWNDSP OFEED SN2 AW2 AW3
5	0.32404648	AWNDSP OFEED AW2 AW3 MW2
5	0.32506521	AWNDSP OFEED AW2 AW3 RA2
5	0.32670473	SNOW MWNDSP OFEED YELLOW SN2
5	0.33059222	AWNDSP MWNDSP OFEED AW2 AW3

5 OF THE 42 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N= 37 REGRESSION MODELS FOR DEPENDENT VARIABLE RCON

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00007381	OHAUL	1	0.00013919	ODI
1	0.00539425	RA2	1	0.00479885	YDI
1	0.01584565	RAIN	1	0.02170455	SED H
1	0.02803167	SC2	1	0.03866051	TDI
1	0.02821890	OFEED	1	0.28488216	SWD H
1	0.04393708	TMIN			
1	0.04531859	SCOV			
1	0.06025390	TAVE			
1	0.06501741	AWNDSP			
1	0.07430066	TMAX			
1	0.07853378	SN2			
1	0.08194368	AW2			
1	0.08415773	SNOW			
1	0.08739770	YELLOW			
1	0.08848044	AW3			
1	0.11503609	MWNDSP			
1	0.11893411	MW3			
1	0.12004294	MW2			
1	0.28488216	SWDIR			
2	0.15835201	YELLOW SN2			
2	0.28521542	SWDIR OFEED			
2	0.28572850	MWNDSP SWDIR			
2	0.28731849	SWDIR AW3			
2	0.28758819	RAIN SWDIR			
2	0.28777623	SWDIR MW2			
2	0.28840584	SWDIR RA2			
2	0.29035185	SWDIR MW3			
2	0.29056648	SWDIR AW2			
2	0.29178626	SWDIR SC2			
2	0.29204189	SWDIR YELLOW			
2	0.29268172	SCOV SWDIR			
2	0.29409049	SNOW SWDIR			
2	0.29498554	SWDIR OHAUL			
2	0.29745485	AWNDSP SWDIR			
2	0.30066157	SWDIR SN2			
2	0.31154505	TMAX SWDIR			
2	0.31859578	TAVE SWDIR			
2	0.32428907	TMIN SWDIR			
3	0.33468035	TMIN SWDIR RA2			
3	0.33783570	AWNDSP SWDIR MW3			
3	0.33944661	TMIN SWDIR AW2			
3	0.34027560	TMIN SWDIR YELLOW			
3	0.34278136	TMAX SWDIR MW2			
3	0.34370114	TMIN SWDIR AW3			
3	0.34933290	TMAX SNOW SWDIR			
3	0.34961418	TMAX SWDIR MW3			
3	0.35146877	TMAX SWDIR SN2			

N=   37   REGRESSION MODELS FOR DEPENDENT VARIABLE RCON

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
3	0.35559919	TAVE MWNDSP SWDIR
3	0.35820280	TAVE SNOW SWDIR
3	0.35859956	TAVE SWDIR SN2
3	0.35898008	TMIN SWDIR SN2
3	0.35932899	TMIN SNOW SWDIR
3	0.36645466	TAVE SWDIR MW2
3	0.37374578	TAVE SWDIR MW3
3	0.37914090	TMIN MWNDSP SWDIR
3	0.39174306	TMIN SWDIR MW2
3	0.39864005	TMIN SWDIR MW3
4	0.40502176	TAVE RAIN SWDIR MW3
4	0.40505693	TMIN SWDIR YELLOW MW2
4	0.40512403	TMIN SWDIR OFEED MW2
4	0.40648043	TAVE SNOW SWDIR MW2
4	0.40652213	TAVE SWDIR SN2 MW2
4	0.40798284	TMIN SWDIR MW2 RA2
4	0.41042491	TMIN MWNDSP SWDIR SN2
4	0.41104643	TMIN RAIN SWDIR MW2
4	0.41164640	TMIN SNOW MWNDSP SWDIR
4	0.41286007	TMIN SWDIR OFEED MW3
4	0.41361446	TMIN SWDIR MW3 RA2
4	0.41366846	TMIN SWDIR YELLOW MW3
4	0.41455316	TAVE SWDIR SN2 MW3
4	0.41537833	TAVE SNOW SWDIR MW3
4	0.41616874	TMIN RAIN SWDIR MW3
4	0.42333171	TMIN SWDIR SN2 MW2
4	0.42555742	TMIN SNOW SWDIR MW2
4	0.43097979	TMIN SWDIR SN2 MW3
4	0.43411293	TMIN SNOW SWDIR MW3
5	0.43820559	TAVE SNOW SWDIR MW3 RA2
5	0.43878579	TMIN RAIN SWDIR SN2 MW3
5	0.43891865	TAVE SNOW SWDIR OHAUL MW3
5	0.43893413	TMIN SNOW SWDIR YELLOW MW2
5	0.43956852	TMIN SNOW SWDIR MW2 MW3
5	0.44070405	TMIN SNOW MWNDSP SWDIR MW3
5	0.44072471	TMIN SWDIR SN2 MW3 RA2
5	0.44188530	TMIN RAIN SNOW SWDIR MW3
5	0.44207047	TMIN SNOW SWDIR OFEED MW3
5	0.44264678	TMIN SNOW MWNDSP SWDIR MW2
5	0.44277134	TMIN SWDIR OFEED SN2 MW3
5	0.44342916	TMIN SWDIR OHAUL SN2 MW2
5	0.44396332	TMIN SWDIR YELLOW SN2 MW2
5	0.44480953	TMIN SNOW SWDIR MW3 RA2
5	0.44918147	TMIN SNOW SWDIR YELLOW MW3
5	0.45024362	TMIN SWDIR OHAUL SN2 MW3
5	0.45056926	TMIN SNOW SWDIR OHAUL MW2
5	0.45377634	TMIN SWDIR YELLOW SN2 MW3
5	0.45863342	TMIN SNOW SWDIR OHAUL MW3

5 OF THE   42 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N=   37   REGRESSION MODELS FOR DEPENDENT VARIABLE PCON

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00472960	SN2	1	0.00004822	YDI
1	0.02684864	SNOW	1	0.00109427	SED R
1	0.03007655	SC2	1	0.00268007	ODI
1	0.04268376	OHAUL	1	0.02133559	TDI
1	0.06052124	RA2	1	0.08958430	SWD R
1	0.06121509	SCOV			
1	0.06484062	OFEED			
1	0.07540825	RAIN			
1	0.08958430	SWDIR			
1	0.10967414	YELLOW			
1	0.18242648	MW3			
1	0.21084138	MW2			
1	0.21552991	TMAX			
1	0.22549887	AWNDSP			
1	0.23111997	AW3			
1	0.23683652	MWNDSP			
1	0.23821638	AW2			
1	0.24105807	TAVE			
1	0.27230871	TMIN			

2	0.27681017	TMIN SWDIR
2	0.27737570	TMIN AW2
2	0.27737830	TMIN MW2
2	0.27817580	TMIN AW3
2	0.27820342	MWNDSP MW3
2	0.28069732	TMIN TMAX
2	0.28112073	MWNDSP MW2
2	0.28358132	MWNDSP RA2
2	0.28364393	TMIN MWNDSP
2	0.28451027	AWNDSP SC2
2	0.28525752	TMIN TAVE
2	0.28782941	TMIN SNOW
2	0.28812103	RAIN MWNDSP
2	0.28907135	TMIN YELLOW
2	0.29397730	TMIN RAIN
2	0.29425304	TMIN SN2
2	0.29794506	TMIN RA2
2	0.31465764	TMIN SC2
2	0.31967094	TMIN SCOV

3	0.33134234	TMIN SCOV OFEED
3	0.33215895	TMIN SCOV SN2
3	0.33231540	SCOV AWNDSP YELLOW
3	0.33257843	TMIN SCOV AW2
3	0.33321678	TMIN SN2 SC2
3	0.33406057	TMIN TAVE SC2
3	0.33409661	MWNDSP MW3 RA2
3	0.33463362	TMIN TAVE SCOV
3	0.33514571	TMIN TAVE RA2

N=   37   REGRESSION MODELS FOR DEPENDENT VARIABLE PCON

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
3	0.33642105	TMIN TMAX TAVE
3	0.33647238	TMIN AWNDSP SC2
3	0.33795822	RAIN MWNDSP MW3
3	0.33806159	MWNDSP MW2 RA2
3	0.34148084	TMIN TAVE RAIN
3	0.34219424	RAIN MWNDSP MW2
3	0.34328315	AWNDSP YELLOW SC2
3	0.34452159	TMIN SCOV AWNDSP
3	0.35278482	TMIN YELLOW SC2
3	0.35894597	TMIN SCOV YELLOW
4	0.37136985	TMIN TMAX YELLOW SC2
4	0.37171089	TMIN SNOW SCOV SN2
4	0.37259760	TMIN TMAX SCOV YELLOW
4	0.37307208	TMIN MWNDSP SC2 MW2
4	0.37364503	TMIN SCOV MWNDSP MW3
4	0.37514606	RAIN SNOW MWNDSP MW2
4	0.37538489	TMIN SCOV YELLOW AW2
4	0.37553393	RAIN SN2 MW2 MW3
4	0.37680445	TMIN SCOV MWNDSP MW2
4	0.37713171	TMIN TAVE SCOV YELLOW
4	0.37734053	TMIN TAVE YELLOW SC2
4	0.37939672	TMIN AWNDSP YELLOW SC2
4	0.38172436	TMIN TMAX TAVE SCOV
4	0.38315547	RAIN MWNDSP SN2 MW3
4	0.38601625	TMIN TMAX TAVE RA2
4	0.38739761	RAIN MWNDSP SN2 MW2
4	0.38895468	TMIN TMAX TAVE SC2
4	0.38925813	TMIN SCOV AWNDSP YELLOW
4	0.38986427	TMIN TMAX TAVE RAIN
5	0.40230481	TMIN SCOV AWNDSP YELLOW AW3
5	0.40254546	TMIN SCOV YELLOW AW2 AW3
5	0.40286923	TMIN TMAX TAVE RAIN SNOW
5	0.40334259	TMIN SCOV AWNDSP SWDIR YELLOW
5	0.40342372	TMIN SCOV MWNDSP YELLOW MW2
5	0.40399914	TMIN TAVE RAIN MWNDSP MW3
5	0.40426828	TMIN TMAX SCOV AWNDSP YELLOW
5	0.40488323	TMIN TMAX TAVE AWNDSP SC2
5	0.40554342	TMIN RAIN MWNDSP SN2 MW2
5	0.40622151	TMIN TMAX TAVE RAIN SN2
5	0.40696878	TMIN TAVE AWNDSP YELLOW SC2
5	0.40788913	TMIN TAVE RAIN MWNDSP MW2
5	0.40815779	TMIN TAVE SCOV AWNDSP YELLOW
5	0.40831572	TMIN TMAX TAVE SCOV RA2
5	0.41094589	TMIN TMAX TAVE SCOV YELLOW
5	0.41288803	TMIN TMAX TAVE RAIN SCOV
5	0.41354053	TMIN TMAX TAVE SC2 RA2
5	0.41943666	TMIN TMAX TAVE YELLOW SC2
5	0.42194826	TMIN TMAX TAVE RAIN SC2

5 OF THE   42 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N=   37   REGRESSION MODELS FOR DEPENDENT VARIABLE PART

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.01390937	AW3	1	0.08017659	SED R
1	0.01797479	RA2	1	0.08798603	SWD R
1	0.02133421	HW3	1	0.09173126	YDI
1	0.02470122	MW2	1	0.11512244	ODI
1	0.02781674	MWNDSP	1	0.13923236	IDI
1	0.02781778	AW2			
1	0.04647370	AWNDSP			
1	0.05498952	YELLOW			
1	0.06265097	RAIN			
1	0.08937450	TMIN			
1	0.10892794	SC2			
1	0.14166450	TAVE			
1	0.14588017	SN2			
1	0.15533010	OHAUL			
1	0.17739147	TMAX			
1	0.18280445	SCOV			
1	0.18637020	SNOW			
1	0.22869516	OFEED			
2	0.23928797	SCOV OHAUL			
2	0.24065487	OFEED RA2			
2	0.24224582	RAIN SCOV			
2	0.24677860	OFEED SC2			
2	0.24716739	SCOV SC2			
2	0.24883626	OHAUL OFEED			
2	0.25527893	RAIN OFEED			
2	0.26047011	TAVE OFEED			
2	0.26072819	TMAX TAVE			
2	0.26559380	SCOV OFEED			
2	0.27248409	TMIN TMAX			
2	0.27620627	TAVE AW3			
2	0.28184061	TMIN TAVE			
2	0.28319472	TMAX OFEED			
2	0.29415642	TMAX AW2			
2	0.30586381	SNOW OFEED			
2	0.30790647	OFEED SN2			
2	0.33829754	TMAX AW3			
3	0.36414984	TMAX SC2 AW3			
3	0.36508009	TMAX TAVE AW3			
3	0.36794149	TMAX AW2 AW3			
3	0.37057133	TMAX SN2 AW3			
3	0.37068469	TMIN TMAX AW3			
3	0.37089824	TMAX SCOV AWNDSP			
3	0.37843090	TMIN TAVE AW3			
3	0.37873404	TMIN TMAX SCOV			
3	0.38049604	TMAX SNOW AW3			
3	0.38237396	TMAX OFEED AW2			

N= 37   REGRESSION MODELS FOR DEPENDENT VARIABLE PART

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
3	0.38725260	TMIN TAVE SCOV
3	0.38868683	TMAX OHAUL AW3
3	0.39102075	TMAX SCOV AW2
3	0.39475960	TMAX TAVE OFEED
3	0.39721151	TMAX SCOV AW3
3	0.40711977	TMIN TMAX OFEED
3	0.40868400	YMAX OFEED AW3
3	0.41482177	TMIN TAVE OFEED
4	0.43986511	TMIN TAVE OFEED SC2
4	0.44009422	TMIN TAVE AWNDSP AW3
4	0.44219713	TMAX TAVE SCOV AWNDSP
4	0.44293898	TMIN TAVE AW2 AW3
4	0.44579498	TMIN TAVE OFEED AW2
4	0.44828066	TMIN TMAX SCOV OFEED
4	0.45009061	TMIN TMAX SCOV AWNDSP
4	0.45493592	TMIN TAVE SCOV AWNDSP
4	0.45578920	TMIN TAVE SCOV OFEED
4	0.45721878	TMAX TAVE OFEED AW3
4	0.46122791	TMAX TAVE SCOV AW2
4	0.46450268	TMIN TMAX OFEED AW3
4	0.46890262	TMAX TAVE SCOV AW3
4	0.46981678	TMIN TMAX SCOV AW2
4	0.47118168	TMIN TAVE OFEED AW3
4	0.47572335	TMIN TAVE SCOV AW2
4	0.47820081	TMIN TMAX SCOV AW3
4	0.48490840	TMIN TAVE SCOV AW3
5	0.50579701	TMAX TAVE SCOV SC2 AW2
5	0.50664742	TMAX TAVE SCOV OFEED AW3
5	0.50774441	TMIN TMAX SCOV OFEED AW2
5	0.50926121	TMIN TMAX SCOV OHAUL AW3
5	0.50942786	TMIN TAVE OFEED AW2 AW3
5	0.51062805	TMIN TMAX SCOV SC2 AW2
5	0.51111732	TMIN TAVE SCOV AW3 MW2
5	0.51233623	TMIN TAVE SCOV SC2 AW2
5	0.51327004	TMAX TAVE SCOV SC2 AW3
5	0.51337817	TMIN TAVE SCOV OFEED AW2
5	0.51347905	TMIN TAVE AWNDSP OFEED AW3
5	0.51436049	TMIN TAVE AWNDSP OFEED AW2
5	0.51487303	TMIN TAVE SCOV OHAUL AW3
5	0.51497318	TMIN TAVE SCOV AW3 MW3
5	0.51610384	TMIN TMAX SCOV OFEED AW3
5	0.51880802	TMIN TMAX SCOV SC2 AW3
5	0.52118599	TMIN TAVE SCOV SC2 AW3
5	0.52235329	TMIN TAVE SCOV OFEED AW3

ALL COMBINATION OF THE INDEPENDENT VARIABLES FOR LOCATION 2

5 OF THE   42 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N= 37   REGRESSION MODELS FOR DEPENDENT VARIABLE V205

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00557429	SNO M
1	0.01651552	TDI
1	0.01711170	SED M
1	0.01778020	YDI
1	0.01838861	UDI

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00119025	OFEED
1	0.00138136	SROV
1	0.00608155	RA2
1	0.00926552	OHAUL
1	0.01090266	SC2
1	0.01141345	TMAX
1	0.01402083	TAVE
1	0.01549129	AWNDSP
1	0.01591986	RAIN
1	0.01661750	TMIN
1	0.01866055	MW3
1	0.01962416	AW3
1	0.01994403	AW2
1	0.02370029	SN2
1	0.02473937	MW2
1	0.02783225	YELLOW
1	0.02812494	SNOW
1	0.03183226	MWNDSP
2	0.07287889	YELLOW AW2
2	0.07439017	TMIN YELLOW
2	0.07506708	TMIN SC2
2	0.07717685	SNOW MW3
2	0.07879268	SC2 AW2
2	0.07880435	SNOW AWNDSP
2	0.08167477	YELLOW MW2
2	0.08243431	MWNDSP SC2
2	0.08444478	SNOW AW3
2	0.08449937	MWNDSP SN2
2	0.08840147	SNOW AW2
2	0.09050172	TMAX SNOW
2	0.09135144	SNOW MW2
2	0.09179680	TMIN SNOW
2	0.09316937	TAVE SNOW
2	0.09371080	AWNDSP SC2
2	0.09614107	MWNDSP YELLOW
2	0.10683614	SNOW MWNDSP
3	0.13764507	MWNDSP SC2 MW2
3	0.15883005	YELLOW SN2 MW2
3	0.13915390	SNOW YELLOW MW2
3	0.13927402	YELLOW MW2 MW1
3	0.14000026	TMAX YELLOW SN2
3	0.14042909	TMIN YELLOW SN2
3	0.14235624	SNOW MW2 MW3
3	0.14300970	TAVE YELLOW SN2
3	0.14426702	MWNDSP YELLOW MW3
3	0.14475817	RAIN AWNDSP SC2

N= 37   REGRESSION MODELS FOR DEPENDENT VARIABLE V205

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
3	0.14606340	TMAX SNOW YELLOW
3	0.14743716	MWNDSP YELLOW MW2
3	0.14844522	TMIN SNOW YELLOW
3	0.14845341	SNOW MWNDSP MW3
3	0.15054668	TAVE SNOW YELLOW
3	0.15248952	SNOW MWNDSP MW2
3	0.16109655	MWNDSP YELLOW SN2
3	0.16304681	SNOW MWNDSP YELLOW
4	0.18064663	TAVE SNOW OFEED YELLOW
4	0.18106084	SNOW SC2 MW2 MW3
4	0.18145715	MWNDSP SN2 SC2 MW2
4	0.18182244	MWNDSP YELLOW SC2 MW3
4	0.18202923	SNOW MWNDSP SN2 MW3
4	0.18281286	SNOW OFEED YELLOW MW2
4	0.18602772	MWNDSP YELLOW SC2 MW2
4	0.18733783	SNOW MWNDSP SN2 MW2
4	0.18911503	SNOW MWNDSP SC2 MW3
4	0.19418224	SNOW MWNDSP SC2 MW2
4	0.19851313	MWNDSP OFEED YELLOW SN2
4	0.20694734	SNOW MWNDSP OFEED YELLOW
4	0.21805378	YELLOW SN2 MW2 MW3
4	0.22266060	MWNDSP YELLOW SN2 MW3
4	0.22366110	SNOW YELLOW MW2 MW3
4	0.22500776	MWNDSP YELLOW SN2 MW2
4	0.22914557	SNOW MWNDSP YELLOW MW3
4	0.23205137	SNOW MWNDSP YELLOW MW2
5	0.23737444	SNOW YELLOW SC2 MW2 MW3
5	0.23780629	TMIN SNOW MWNDSP YELLOW MW2
5	0.23840510	YELLOW SN2 SC2 MW2 MW3
5	0.23905492	TAVE SNOW MWNDSP YELLOW MW3
5	0.23956418	SNOW SCOV MWNDSP SC2 MW2
5	0.24168681	TMAX SNOW MWNDSP YELLOW MW3
5	0.24200145	TAVE SNOW MWNDSP YELLOW MW2
5	0.24403444	SNOW MWNDSP YELLOW SC2 MW3
5	0.24442245	MWNDSP YELLOW SN2 SC2 MW3
5	0.24458957	TMAX SNOW MWNDSP YELLOW MW2
5	0.24755611	MWNDSP YELLOW SN2 SC2 MW2
5	0.24761897	SNOW MWNDSP YELLOW SC2 MW2
5	0.25850293	OFEED YELLOW SN2 MW2 MW3
5	0.26369095	MWNDSP OFEED YELLOW SN2 MW3
5	0.26650396	MWNDSP OFEED YELLOW SN2 MW2
5	0.27239904	SNOW OFEED YELLOW MW2 MW3
5	0.27874268	SNOW MWNDSP OFEED YELLOW MW3
5	0.28229926	SNOW MWNDSP OFEED YELLOW MW2

ALL COMBINATION OF THE INDEPENDENT VARIABLES FOR LOCATION 2

5 OF THE   42 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N=   37   REGRESSION MODELS FOR DEPENDENT VARIABLE USPA

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00005504	TDI
1	0.00670641	ODI
1	0.01720934	YDI
1	0.02301225	SED H
1	0.04243404	SHD H

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00666720	YELLOW
1	0.01022899	SC2
1	0.02215664	SCOV
1	0.02724536	AWNDSP
1	0.03080023	MWNDSP
1	0.03524160	MW2
1	0.03750333	MW3
1	0.03983502	AW2
1	0.04843396	AW3
1	0.06021031	TMIN
1	0.06205706	OHAIL
1	0.06370518	OFEED
1	0.08580774	TAVE
1	0.09009303	SNOW
1	0.09706116	TMAX
1	0.09913026	RA2
1	0.10241270	SN2
1	0.16836751	RAIN
2	0.16837027	RAIN YELLOW
2	0.17060648	SN2 RA2
2	0.17690871	RAIN AWNDSP
2	0.17782612	RAIN AW2
2	0.17919137	RAIN AW3
2	0.18179569	RAIN BC2
2	0.18648019	RAIN MWNDSP
2	0.18870411	RAIN BCOV
2	0.18798864	RAIN MW2
2	0.18973953	TMIN RAIN
2	0.19849970	RAIN MW3
2	0.19453142	THAX RAIN
2	0.19486668	TAVF RAIN
2	0.19823028	RAIN SNOW
2	0.20012917	RAIN OFEED
2	0.20724184	RAIN SN2
2	0.20912112	RAIN OHAIL
2	0.22103801	RAIN RA2
3	0.22358619	RAIN YELLOW RA2
3	0.22427410	RAIN AWNDSP RA2
3	0.22453729	TMIN TMAX TAVE
3	0.22514646	RAIN AW2 RA2
3	0.22591872	RAIN SNOW RA2
3	0.22623599	RAIN SC2 RA2
3	0.22685129	RAIN AW3 RA2
3	0.22775692	RAIN SCOV RA2
3	0.22847256	RAIN OFEED SN2
3	0.22987441	RAIN OFEED RA2

N=   37   REGRESSION MODELS FOR DEPENDENT VARIABLE USPA

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
3	0.23015726	TMAX RAIN RA2
3	0.23032619	TMIN RAIN RA2
3	0.23174034	TAVE RAIN RA2
3	0.23334400	RAIN MWNDSP RA2
3	0.23345654	RAIN SN2 RA2
3	0.23554376	RAIN MW2 RA2
3	0.23687174	RAIN MW3 RA2
3	0.23727624	RAIN OHAUL RA2
4	0.24158501	RAIN OHAUL SN2 RA2
4	0.24171416	RAIN SN2 MW2 RA2
4	0.24182420	RAIN MWNDSP OHAUL RA2
4	0.24207888	RAIN OFEED SN2 RA2
4	0.24222968	TMIN TMAX TAVE OFEED
4	0.24262853	RAIN MWNDSP YELLOW RA2
4	0.24307951	RAIN SN2 MW3 RA2
4	0.24344503	RAIN OHAUL MW2 RA2
4	0.24407000	TMIN TMAX TAVE SN2
4	0.24462761	RAIN OHAUL MW3 RA2
4	0.24471686	RAIN YELLOW MW2 RA2
4	0.24538821	RAIN YELLOW MW3 RA2
4	0.24612429	RAIN OFEED YELLOW RA2
4	0.24870799	RAIN SNOW SN2 RA2
4	0.24888513	RAIN OHAUL YELLOW RA2
4	0.25826887	RAIN SNOW OFEED SN2
4	0.25849451	TMIN TMAX TAVE RA2
4	0.29418673	TMIN TMAX TAVE RAIN
5	0.27880662	TMIN TMAX TAVE OFEED RA2
5	0.27907202	RAIN SNOW SN2 SC2 RA2
5	0.28055936	RAIN SNOW OFEED SN2 RA2
5	0.28666096	RAIN SNOW SCOV SN2 RA2
5	0.29428539	TMIN TMAX TAVE RAIN AW3
5	0.29437305	TMIN TMAX TAVE RAIN YELLOW
5	0.29472680	TMIN TMAX TAVE RAIN SCOV
5	0.29497101	TMIN TMAX TAVE RAIN AW2
5	0.29525407	TMIN TMAX TAVE RAIN AWNDSP
5	0.29548158	TMIN TMAX TAVE RAIN SC2
5	0.30127638	TMIN TMAX TAVE RAIN SNOW
5	0.30338427	TMIN TMAX TAVE RAIN MWNDSP
5	0.30590739	TMIN TMAX TAVE RAIN SN2
5	0.30718620	TMIN TMAX TAVE RAIN OFEED
5	0.30725875	TMIN TMAX TAVE RAIN MW2
5	0.31045636	TMIN TMAX TAVE RAIN OHAUL
5	0.31058745	TMIN TMAX TAVE RAIN MW3
5	0.33334630	TMIN TMAX TAVE RAIN RA2

6 OF THE 42 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N= 36 REGRESSION MODELS FOR DEPENDENT VARIABLE TSPA

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00005345	RAIN	1	0.00558483	SED M
1	0.00206237	YELLOW	1	0.00717072	YDI
1	0.00356463	DYAUL	1	0.01096444	UDI
1	0.00717794	RA2	1	0.01679924	IDI
1	0.01416133	SN2	1	0.01759545	SWD M
1	0.02199676	OFEED			
1	0.02245921	THIN			
1	0.02498626	MW3			
1	0.02782070	AW3			
1	0.02794491	TAVE			
1	0.03175258	SNOW			
1	0.03268949	MW2			
1	0.03444599	TMAX			
1	0.03620482	SCDV			
1	0.03865021	AW2			
1	0.04150528	MWNDSP			
1	0.04715508	AWNDSP			
1	0.05382018	SC2			

5 OF THE   42 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N=   37   REGRESSION MODELS FOR DEPENDENT VARIABLE RSPA

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00000893	RA2	1	0.00081757	TDI
1	0.00005004	THIN	1	0.04251076	ODI
1	0.00008899	TAVE	1	0.09063114	YDI
1	0.00013437	THAX	1	0.11613525	SED R
1	0.00016751	RAIN	1	0.14701225	SWD R
1	0.00041522	SC2			
1	0.00134135	SCOV			
1	0.00325447	SNOW			
1	0.00625727	SN2			
1	0.00799592	OFEED			
1	0.01242875	AWND3P			
1	0.02750042	YELLOW			
1	0.02751978	AW2			
1	0.04113550	AW3			
1	0.04871853	OHAUL			
1	0.05065396	HWND8P			
1	0.05494592	MW2			
1	0.05597055	MW3			

5 OF THE   42 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N=   37   REGRESSION MODELS FOR DEPENDENT VARIABLE PSPA

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.09781112	RA2	1	0.01173660	SED R
1	0.15520169	SN2	1	0.02162541	YDI
1	0.15923026	SC2	1	0.05291052	UDI
1	0.18028626	RAIN	1	0.12297556	IDI
1	0.24560821	YELLOW	1	0.23001074	SWD R
1	0.24869960	OHAUL			
1	0.27050073	SNOW			
1	0.28663759	SCOV			
1	0.30105925	MW3			
1	0.30118050	OFEED			
1	0.34596153	MW2			
1	0.34919020	AW3			
1	0.38482475	MWNDSP			
1	0.38821235	AW2			
1	0.39475073	AWNDSP			
1	0.54018181	TMIN			
1	0.54333821	TMAX			
1	0.55238394	TAVE			
2	0.55786938	TMAX SNOW			
2	0.55800849	TAVE SN2			
2	0.56389548	TMAX RAIN			
2	0.56668813	TMIN SNOW			
2	0.56871618	TAVE SNOW			
2	0.57162904	TAVE RA2			
2	0.57676753	TMIN RA2			
2	0.58524545	TMAX OHAUL			
2	0.58553734	TAVE RAIN			
2	0.58610037	TMIN YELLOW			
2	0.58620789	TMIN OHAUL			
2	0.58982364	TMAX YELLOW			
2	0.59275649	TAVE OHAUL			
2	0.59642459	TAVE YELLOW			
2	0.59790581	TMIN OFEED			
2	0.60091317	TMIN RAIN			
2	0.60476736	TMAX OFEED			
2	0.60828264	TAVE OFEED			
3	0.61809824	TAVE OHAUL OFEED			
3	0.61843525	TAVE OFEED YELLOW			
3	0.61864921	TMIN OFEED SC2			
3	0.61878578	TMIN RAIN RA2			
3	0.61965786	TAVE OHAUL RA2			
3	0.62027395	TAVE SCOV OFEED			
3	0.62134671	TMAX OFEED RA2			
3	0.62346537	TAVE OFEED SC2			
3	0.62426940	TMAX RAIN OFEED			
3	0.62431967	TAVE RAIN YELLOW			

N= 37   REGRESSION MODELS FOR DEPENDENT VARIABLE PSPA

NUMBER IN   R-SQUARE   VARIABLES IN MODEL
MODEL

3   0.62829390   TAVE RAIN OHAUL
3   0.63005301   TMIN OHAUL RA2
3   0.63220575   TAVE OFEED RA2
3   0.63614491   TMIN RAIN YELLOW
3   0.63719460   TMIN OFEED RA2
3   0.63813940   TAVE RAIN OFEED
3   0.64527978   TMIN RAIN OHAUL
3   0.64936871   TMIN RAIN OFEED
----
4   0.65144936   TMIN RAIN OFEED SN2
4   0.65192730   TMIN RAIN SCOV OFEED
4   0.65210065   TMIN RAIN OFEED MW2
4   0.65236426   TMIN RAIN OHAUL AN3
4   0.65288030   TAVE RAIN MWNDSP OFEED
4   0.65315447   TMIN RAIN OFEED RA2
4   0.65340066   TMIN OHAUL OFEED RA2
4   0.65443628   TMIN RAIN MWNDSP MW3
4   0.65479425   TMIN RAIN SNOW OFEED
4   0.65605157   TMIN RAIN OFEED SC2
4   0.65669709   TMIN RAIN OFEED YELLOW
4   0.65720794   RAIN OFEED MW2 MW3
4   0.65736076   TMIN RAIN MWNDSP MW2
4   0.65827525   TMIN RAIN MWNDSP OFEED
4   0.66119809   TMIN RAIN OHAUL YELLOW
4   0.66336743   TMIN RAIN OHAUL OFEED
4   0.66478748   RAIN MWNDSP OFEED MW3
4   0.66923625   RAIN MWNDSP OFEED MW2
----
5   0.68075754   TAVE RAIN MWNDSP OHAUL MW3
5   0.68122003   RAIN MWNDSP OFEED MW2 RA2
5   0.68135912   RAIN SCOV MWNDSP SC2 MW2
5   0.68202817   TAVE MWNDSP OFEED MW2 RA2
5   0.68279984   TMAX RAIN OFEED MW2 MW3
5   0.68364005   TMIN MWNDSP OFEED MW2 RA2
5   0.68410553   TAVE RAIN MWNDSP OFEED MW2
5   0.68709303   TAVE RAIN OFEED MW2 MW3
5   0.68759737   TMIN RAIN OHAUL MW2 MW3
5   0.68840208   TMAX RAIN MWNDSP OFEED MW3
5   0.69107886   TMIN RAIN MWNDSP OHAUL MW3
5   0.69219637   TMAX RAIN MWNDSP OFEED MW2
5   0.69254097   TAVE RAIN MWNDSP OFEED MW3
5   0.69344720   TMIN RAIN OFEED MW2 MW3
5   0.69523327   TMIN RAIN MWNDSP OHAUL MW2
5   0.69639059   TAVE RAIN OFEED MW2 MW2
5   0.69858681   TMIN RAIN MWNDSP OFEED MW3
5   0.70233336   TMIN RAIN MWNDSP OFEED MW2

N= 37   5 OF THE   42 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

REGRESSION MODELS FOR DEPENDENT VARIABLE VSPA

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00025300	OHAUL
1	0.00025517	SC2
1	0.00204654	SN2
1	0.00215441	SNOW
1	0.00262479	RA2
1	0.00488778	RAIN
1	0.00602209	SCNV
1	0.00958813	YELLOW
1	0.02569801	OFEED
1	0.03233542	AW1
1	0.03495440	MW3
1	0.03503026	AWNDSP
1	0.03721386	AW2
1	0.04402760	TMIN
1	0.04428537	MW2
1	0.04653446	THAX
1	0.04661790	TAVE
1	0.05456958	MWNDSP

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.01947399	SNO M
1	0.01755354	SED M
1	0.04075407	YDI
1	0.04015706	ODI
1	0.04810718	TDI

6 OF THE   42 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N=   36   REGRESSION MODELS FOR DEPENDENT VARIABLE EQR

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00012012	AW3	1	0.00187452	SWD R
1	0.00027009	MW3	1	0.00472611	TDI
1	0.00051853	YELLOW	1	0.01131730	ODI
1	0.00052980	SN2	1	0.01531585	YDI
1	0.00068536	OHAUL	1	0.01692169	SED R
1	0.00124110	MW2			
1	0.00180514	AW2			
1	0.00256144	TMAX			
1	0.00298426	MWNDSP			
1	0.00327280	TAVE			
1	0.00476670	AWNDSP			
1	0.00609481	TMIN			
1	0.00944235	OFEED			
1	0.00956441	SNOW			
1	0.00980036	RAIN			
1	0.02007432	RA2			
1	0.02246973	SCOV			
1	0.03517418	SC2			
2	0.03800412	TMIN SC2			
2	0.03874938	SC2 MW2			
2	0.04010382	TMAX SC2			
2	0.04026266	YELLOW SC2			
2	0.04029677	TAVE SC2			
2	0.04040377	SC2 MW3			
2	0.04050008	SCOV RA2			
2	0.04323678	OHAUL SC2			
2	0.04401782	SCOV SC2			
2	0.04427902	SC2 AW2			
2	0.04454253	RAIN SC2			
2	0.04464915	AWNDSP SC2			
2	0.04536086	AW2 AW3			
2	0.04689228	SC2 AW3			
2	0.05139104	SC2 RA2			
2	0.06927239	SCOV OFEED			
2	0.07388547	OFEED SC2			
2	0.08463186	SNOW SN2			
3	0.08609243	AWNDSP AW2 AW3			
3	0.08633156	SCOV OFEED AW3			
3	0.08900003	SNOW SCOV SN2			
3	0.09160861	SNOW MWNDSP SN2			
3	0.09358306	SNOW SN2 MW2			
3	0.09519184	SNOW SN2 MW3			
3	0.09773639	TMIN SNOW SN2			
3	0.10342491	TAVE SNOW SN2			
3	0.10364209	TMAX SNOW SN2			
3	0.10434363	SNOW AWNDSP SN2			

N= 36   REGRESSION MODELS FOR DEPENDENT VARIABLE FOR

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
3	0.10522990	SNOW SN2 AW2
3	0.10630933	RAIN SNOW SN2
3	0.10647566	SNOW SN2 RA2
3	0.10686956	SNOW SN2 AW3
3	0.10869601	SNOW OHAUL SN2
3	0.12102826	TMIN TMAX TAVE
3	0.13653702	SNOW YELLOW SN2
3	0.19046145	SNOW OFEED SN2
4	0.15779895	SNOW YELLOW SN2 AW2
4	0.15817582	SNOW AWNDSP YELLOW SN2
4	0.15845250	SNOW YELLOW SN2 AW3
4	0.19049197	SNOW SCOV OFEED SN2
4	0.19061833	SNOW OHAUL OFEED SN2
4	0.19089141	SNOW OFEED SN2 SC2
4	0.19592070	TMIN SNOW OFEED SN2
4	0.19593125	SNOW MWNDSP OFEED SN2
4	0.19726816	SNOW OFEED SN2 MW2
4	0.19848117	SNO OFEED SN2 MW3
4	0.19909563	TAVE SNOW OFEED SN2
4	0.19926245	TMAX SNOW OFEED SN2
4	0.19944900	RAIN SNOW OFEED SN2
4	0.20100693	SNOW OFEED YELLOW SN2
4	0.20548900	SNOW OFEED SN2 RA2
4	0.21201590	SNOW OFEED SN2 AW2
4	0.21219313	SNOW AWNDSP OFEED SN2
4	0.21390155	SNOW OFEED SN2 AW3
5	0.21850466	SNOW OFEED SN2 SC2 AW3
5	0.21910649	RAIN SNOW OFEED SN2 AW3
5	0.21928981	TMIN SNOW OFEED SN2 AW3
5	0.21953261	SNOW MWNDSP OFEED SN2 AW2
5	0.22009118	SNOW OFEED SN2 AW3 MW2
5	0.22033600	SNOW SCOV OFEED SN2 AW3
5	0.22072901	RAIN SNOW AWNDSP OFEED SN2
5	0.22119243	SNOW SCOV OFEED SN2 AW2
5	0.22213538	SNOW OFEED SN2 AW2 RA2
5	0.22260293	SNOW MWNDSP OFEED SN2 AW3
5	0.22272968	SNOW OFEED SN2 AW3 RA2
5	0.22275701	SNOW OFEED YELLOW SN2 AW2
5	0.22342937	SNOW AWNDSP OFEED YELLOW SN2
5	0.22411254	SNOW OFEED YELLOW SN2 AW3
5	0.22452966	SNOW AWNDSP OFEED SN2 RA2
5	0.22453525	SNOW AWNDSP OFEED SN2 SC2
5	0.23010621	SNOW SCOV AWNDSP OFEED SN2
5	0.24562061	AWNDSP OFEED SC2 AW2 AW3

APPENDIX D

CORRELATION ANALYSIS RESULTS FOR LOCATION 3

2 OF THE 40 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N= 38 REGRESSION MODELS FOR DEPENDENT VARIABLE UCON

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00000396	OHAUL	1	0.00285729	SED R
1	0.00324553	OFEED	1	0.00474555	ODI
1	0.00656842	YELLOW	1	0.00675632	IDI
1	0.01189092	SNOW	1	0.01629613	YDI
1	0.02434360	S42	1	0.05439760	SWD R
1	0.05439760	SWDIR			
1	0.06598198	SC2			
1	0.07075820	SCOV			
1	0.07955220	TMAX			
1	0.09571482	TAVE			
1	0.10549842	TMIN			
1	0.11849103	RAIN			
1	0.12624596	MW3			
1	0.12949672	AW3			
1	0.13184887	MW2			
1	0.13347041	MWNDSP			
1	0.14818331	AW2			
1	0.16950342	AWNDSP			
1	0.17448899	RA2			
2	0.20046281	RAIN RA2			
2	0.20764892	AWNDSP OHAUL			
2	0.21102296	RAIN AW2			
2	0.21424479	SWDIR RA2			
2	0.21685912	TAVE RA2			
2	0.22264961	RAIN MW3			
2	0.22779744	RAIN MW2			
2	0.22865397	AWNDSP YELLOW			
2	0.22976473	RAIN MWNDSP			
2	0.23681533	TMIN RA2			
2	0.24103048	RAIN AWNDSP			
2	0.24518783	AW3 RA2			
2	0.25960054	SCOV RA2			
2	0.26115993	SC2 RA2			
2	0.26699155	AW2 RA2			
2	0.27993460	MW3 RA2			
2	0.28570827	MW2 RA2			
2	0.28830939	MWNDSP RA2			
2	0.30137146	AWNDSP RA2			
3	0.32465569	TAVE AWNDSP RA2			
3	0.32489797	YELLOW AW2 RA2			
3	0.32547994	RAIN AWNDSP YELLOW			
3	0.32643914	AWNDSP OHAUL RA2			
3	0.32653094	RAIN MWNDSP RA2			
3	0.32681350	OHAUL AW2 RA2			
3	0.32736131	YELLOW MW3 RA2			
3	0.32959281	RAIN SCOV RA2			
3	0.33121263	TMAX TAVE RA2			

N=   38   REGRESSION MODELS FOR DEPENDENT VARIABLE UCON

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
3	0.33309979	MWNDSP DHAUL RA2
3	0.33744994	AWNDSP AW3 RA2
3	0.34179511	YELLOW MW2 RA2
3	0.34440835	TMAX AWNDSP RA2
3	0.34714532	SCOV YELLOW RA2
3	0.34834641	YELLOW SC2 RA2
3	0.34848567	AWNDSP AW2 RA2
3	0.35308495	MWNDSP YELLOW RA2
3	0.35901886	RAIN AWNDSP RA2
3	0.37805908	AWNDSP YELLOW RA2

4	0.39431390	YELLOW SC2 MW3 RA2
4	0.39637777	TMAX AWNDSP AW2 RA2
4	0.39653433	RAIN SNOW SN2 SC2
4	0.39759913	AWNDSP AW2 MW3 RA2
4	0.39863428	TMAX TAVE AWNDSP RA2
4	0.39899992	RAIN AWNDSP AW2 RA2
4	0.39901686	YELLOW SC2 MW2 RA2
4	0.40144092	TMIN TMAX TAVE RA2
4	0.40230867	MWNDSP YELLOW SC2 RA2
4	0.40281807	TMAX AWNDSP YELLOW RA2
4	0.40852086	YELLOW AW2 AW3 RA2
4	0.40969667	RAIN AWNDSP YELLOW RA2
4	0.41361373	RAIN SNOW SCOV SN2
4	0.42778071	SNOW SN2 SC2 RA2
4	0.42920566	RAIN SNOW AWNDSP SN2
4	0.43979083	AWNDSP YELLOW AW3 RA2
4	0.45178207	AWNDSP YELLOW AW2 RA2
4	0.45195736	SNOW SCOV SN2 RA2
4	0.45355651	SNOW AWNDSP SN2 RA2

5	0.47073382	SNOW MWNDSP SN2 SC2 RA2
5	0.47081198	TMIN TMAX TAVE AWNDSP RA2
5	0.47098022	SNOW SCOV MWNDSP SN2 RA2
5	0.47215289	AWNDSP MWNDSP YELLOW AW3 RA2
5	0.47295475	RAIN AWNDSP YELLOW AW2 RA2
5	0.47803873	TMAX AWNDSP YELLOW AW2 RA2
5	0.48241969	AWNDSP YELLOW AW3 MW2 RA2
5	0.48449869	SNOW SCOV AWNDSP SN2 RA2
5	0.48797145	AWNDSP MWNDSP YELLOW AW2 RA2
5	0.48867499	AWNDSP YELLOW AW3 MW3 RA2
5	0.49194433	SNOW AWNDSP SN2 SC2 RA2
5	0.49866409	AWNDSP YELLOW AW2 MW2 RA2
5	0.50213984	RAIN SNOW SN2 AW2 AW3
5	0.50410382	AWNDSP YELLOW AW2 MW3 RA2
5	0.52562564	SNOW SN2 AW2 AW3 RA2
5	0.54783872	RAIN SNOW AWNDSP SN2 AW3
5	0.56234329	RAIN SNOW AWNDSP SN2 AW2
5	0.56770678	SNOW AWNDSP SN2 AW3 RA2
5	0.58079578	SNOW AWNDSP SN2 AW2 RA2

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2 OF THE 40 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N=   38   REGRESSION MODELS FOR DEPENDENT VARIABLE TCON

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.01081249	SC2	1	0.00487591	YDI
1	0.01583355	TMIN	1	0.05161566	ODI
1	0.03263354	PA2	1	0.06610597	SED H
1	0.03636259	SCOV	1	0.21760195	IDI
1	0.04600198	MWNDSP	1	0.28512943	SWD H
1	0.05605868	MW2			
1	0.05997487	YELLOW			
1	0.06112421	TAVE			
1	0.06507639	MW3			
1	0.07155961	OFEED			
1	0.07293156	AWNDSP			
1	0.07741510	OHAUL			
1	0.08665706	RAIN			
1	0.10786782	TMAX			
1	0.10996611	SN2			
1	0.11912587	SNOW			
1	0.12708443	AW2			
1	0.17203714	AW3			
1	0.28512943	SWDIR			
2	0.28632438	SWDIR MW3			
2	0.28929641	TMAX SWDIR			
2	0.29111927	SWDIR OFEED			
2	0.29117099	SWDIR AW3			
2	0.29123779	SWDIR MW2			
2	0.29924796	SWDIR OHAUL			
2	0.30018831	MWNDSP SWDIR			
2	0.30055713	AWNDSP SWDIR			
2	0.30098425	SNOW SWDIR			
2	0.30389306	SWDIR RA2			
2	0.30830849	SWDIR SN2			
2	0.30867812	TAVE SWDIR			
2	0.30958886	SCOV SWDIR			
2	0.32025623	SWDIR SC2			
2	0.32062116	RAIN SWDIR			
2	0.35694893	TMIN SWDIR			
2	0.43508281	TMAX TAVE			
2	0.44676605	TMIN TMAX			
2	0.45197452	TMIN TAVE			
3	0.50893811	TMAX TAVE MW3			
3	0.51573995	TMAX TAVE AWNDSP			
3	0.51608342	TMIN TMAX MWNDSP			
3	0.52037703	TMIN TAVE MWNDSP			
3	0.52354354	TMIN TMAX MW2			
3	0.52720012	TMIN TMAX MW3			
3	0.52770688	TMIN TAVE MW2			
3	0.53144561	TMIN TAVE MW3			
3	0.53193549	TMIN TMAX AWNDSP			

N = 38   REGRESSION MODELS FOR DEPENDENT VARIABLE TCON

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
3	0.53368983	THIN TAVE AWNDSP
3	0.56120638	THAX TAVE AW2
3	0.57107121	THIN TAVE SWDIR
3	0.57215404	THAX TAVE SWDIR
3	0.57445460	THIN THAX AW2
3	0.57457596	THIN THAX SWDIR
3	0.57482544	THIN TAVE AW2
3	0.58299807	THAX TAVE AW3
3	0.59408499	THIN TAVE AW3
3	0.59425286	THIN THAX AW3
4	0.60837953	THIN TAVE RAIN AW3
4	0.60860463	THIN THAX RAIN AW3
4	0.60974962	THAX TAVE AW3 RA2
4	0.60993622	THAX TAVE SWDIR OHAUL
4	0.61033407	THIN THAX SWDIR MW3
4	0.61048427	THIN THAX OHAUL AW3
4	0.61206215	THIN THAX YELLOW AW3
4	0.61523068	THIN TAVE YELLOW AW3
4	0.62216477	THAX TAVE OFEED AW3
4	0.62286058	THIN TAVE AW3 RA2
4	0.62325049	THIN THAX AW3 RA2
4	0.62792852	THAX TAVE SWDIR AW2
4	0.62833654	THIN TAVE SWDIR AW2
4	0.62963712	THIN TAVE OFEED AW3
4	0.63139248	THIN THAX OFEED AW3
4	0.63165325	THIN THAX SWDIR AW2
4	0.64557062	THIN TAVE SWDIR AW3
4	0.64628930	THAX TAVE SWDIR AW3
4	0.64929208	THIN THAX SWDIR AW3
5	0.65546719	THIN THAX SWDIR YELLOW AW3
5	0.65585215	THIN TAVE SWDIR OFEED AW2
5	0.65595317	THIN TAVE SWDIR AW3 RA2
5	0.65632816	THIN THAX SNOW SWDIR AW3
5	0.65699325	THIN TAVE AWNDSP SWDIR AW3
5	0.65805658	THAX TAVE SWDIR OFEED AW2
5	0.65964832	THIN THAX SWDIR AW3 RA2
5	0.65998401	THIN TAVE SWDIR AW2 AW3
5	0.66028680	THAX TAVE AWNDSP SWDIR AW3
5	0.66038706	THIN THAX SWDIR OFEED AW2
5	0.66111931	THIN THAX AWNDSP SWDIR AW3
5	0.66312743	THAX TAVE SWDIR AW2 AW3
5	0.66403917	THIN THAX SWDIR AW2 AW3
5	0.66440041	THIN TAVE SWDIR OHAUL AW3
5	0.67010698	THIN THAX SWDIR OHAUL AW3
5	0.67111092	THAX TAVE SWDIR OHAUL AW3
5	0.67633119	THIN TAVE SWDIR OFEED AW3
5	0.67972132	THAX TAVE SWDIR OFEED AW3
5	0.68109378	THIN THAX SWDIR OFEED AW3

3 OF THE   40 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N=   37   REGRESSION MODELS FOR DEPENDENT VARIABLE RCON

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00047944	THIN	1	0.02076421	YDI
1	0.00141411	SC2	1	0.05307374	ODI
1	0.00555986	YELLOW	1	0.06249407	SED H
1	0.00813843	RA2	1	0.16005004	SWD H
1	0.01157279	SCOV	1	0.15944609	IDI
1	0.01190588	TAVE			
1	0.02696566	TMAX			
1	0.03372230	RAIN			
1	0.05654859	OFEED			
1	0.07063649	SNOW			
1	0.07113001	SN2			
1	0.07946739	AWNDSP			
1	0.11623480	MWNDSP			
1	0.11845381	OHAUL			
1	0.13005663	SWDIR			
1	0.14908581	MW2			
1	0.15212994	AW2			
1	0.18220541	MW3			
1	0.22514865	AW3			
2	0.23249356	SNOW AW3			
2	0.23986935	SN2 AW3			
2	0.24494344	MWNDSP AW3			
2	0.25042233	OHAUL AW3			
2	0.26059384	THIN MW2			
2	0.26251397	TAVE AW2			
2	0.27465629	MWNDSP MW2			
2	0.28363217	MWNDSP MW3			
2	0.28761346	THIN MW3			
2	0.28963430	MW2 MW3			
2	0.29003633	SCOV AW3			
2	0.29140502	SC2 AW3			
2	0.29732931	TMAX AW3			
2	0.35935364	TAVE AW3			
2	0.36266578	AWNDSP AW2			
2	0.38082098	THIN AW2			
2	0.41239120	AWNDSP AW3			
2	0.45099167	AW2 AW3			
2	0.46191932	THIN AW3			
3	0.49285790	THIN TAVE MWNDSP			
3	0.49591648	OHAUL MW2 AW3			
3	0.49728163	THIN AWNDSP AW3			
3	0.49931944	THIN SWDIR AW3			
3	0.50319049	THIN TMAX MW2			
3	0.50346808	OFEED AW2 AW3			
3	0.51107017	THIN AW2 AW3			
3	0.52093104	THIN TMAX MW3			
3	0.52115904	THIN OFEED AW3			

N=   37   REGRESSION MODELS FOR DEPENDENT VARIABLE RCON

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
3	0.52138129	THIN TAVE MW2
3	0.52388600	THIN TMAX AW2
3	0.52479666	THIN SN2 AW3
3	0.53538141	THIN TAVE AW2
3	0.53706367	THIN SNOW AW3
3	0.53980027	THIN TAVE MW3
3	0.54067154	THIN OHAUL AW3
3	0.55268237	TMAX TAVE AW3
3	0.57072522	THIN TMAX AW3
3	0.58981990	THIN TAVE AW3

4	0.60065208	THIN TAVE OHAUL AW2
4	0.60130741	THIN TAVE MWNDSP AW3
4	0.60205834	THIN TAVE AWNDSP AW3
4	0.60284966	THIN TMAX SNOW AW3
4	0.60315111	TMAX TAVE OFEED AW3
4	0.60477988	THIN TMAX AW2 AW3
4	0.60553715	THIN TAVE SN2 AW3
4	0.60607283	THIN TAVE AW3 MW2
4	0.60864949	THIN TMAX AW3 RA2
4	0.60943162	THIN TMAX TAVE AW3
4	0.61077588	THIN TAVE SNOW AW3
4	0.61103141	THIN TAVE AW3 MW3
4	0.61375267	THIN TAVE AW2 AW3
4	0.62063046	TMAX TAVE OHAUL AW3
4	0.62084261	THIN TAVE AW3 RA2
4	0.62887335	THIN TMAX OFEED AW3
4	0.63726703	THIN TAVE OFEED AW3
4	0.64279157	THIN TMAX OHAUL AW3
4	0.64984483	THIN TAVE OHAUL AW3

5	0.65250406	THIN TAVE OHAUL AW3 MW3
5	0.65363262	THIN TAVE OFEED SN2 AW3
5	0.65383273	THIN TAVE SNOW OFEED AW3
5	0.65430745	THIN TAVE RAIN OHAUL AW3
5	0.65563387	THIN TMAX OHAUL OFEED AW3
5	0.65623100	THIN TAVE SWDIR OHAUL AW3
5	0.65641104	THIN TMAX OHAUL AW3 RA2
5	0.65711227	THIN TAVE AWNDSP OFEED AW3
5	0.65723141	THIN TAVE RAIN AW3 RA2
5	0.65873962	THIN TAVE AWNDSP OHAUL AW3
5	0.65913483	THIN TAVE AW2 AW3 RA2
5	0.66060962	THIN TMAX TAVE OHAUL AW3
5	0.66103353	THIN TAVE OFEED AW3 RA2
5	0.66250188	THIN TAVE OHAUL OFEED AW3
5	0.66493978	THIN TAVE OHAUL AW3 RA2
5	0.66549601	THIN TMAX OHAUL AW2 AW3
5	0.66860658	THIN TMAX OFEED AW2 AW3
5	0.67175323	THIN TAVE OHAUL AW2 AW3
5	0.67550312	THIN TAVE OFEED AW2 AW3

3 OF THE   40 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N=   37   REGRESSION MODELS FOR DEPENDENT VARIABLE PCON

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00019178	SNOW	1	0.00021281	YDI
1	0.00256899	SN2	1	0.00068346	ODI
1	0.00260795	SWDIR	1	0.00083259	SED R
1	0.00324698	OHAUL	1	0.00228302	TDI
1	0.01475011	RAIN	1	0.00260795	SWD R
1	0.01665829	YELLOW			
1	0.01959346	OFEED			
1	0.02235048	RA2			
1	0.04138488	SC2			
1	0.04826213	AW3			
1	0.05309466	SCOV			
1	0.06949690	AW2			
1	0.08008411	TMAX			
1	0.09568738	MW3			
1	0.10154908	AWNDSP			
1	0.11517219	TAVE			
1	0.11833680	MW2			
1	0.14307933	MWNDSP			
1	0.16644043	TMIN			
2	0.17313044	TMIN SC2			
2	0.17396752	MWNDSP SWDIR			
2	0.17569829	MWNDSP AW3			
2	0.17618341	TMIN MWNDSP			
2	0.17747876	MWNDSP SN2			
2	0.18199398	TAVE SWDIR			
2	0.18288724	TMIN SCOV			
2	0.19025726	TMIN OHAUL			
2	0.19515639	TMIN AW2			
2	0.19844202	MW2 MW3			
2	0.21045810	MWNDSP MW3			
2	0.21095705	TMIN AW3			
2	0.21991286	TMIN SNOW			
2	0.21908889	MWNDSP MW2			
2	0.22130164	TMIN SN2			
2	0.25080370	TMIN SWDIR			
2	0.27150648	TMAX TAVE			
2	0.27946494	TMIN TMAX			
2	0.28122331	TMIN TAVE			
3	0.29777716	MWNDSP SWDIR MW2			
3	0.29778056	TMIN TMAX SCOV			
3	0.29809200	TMIN TAVE OHAUL			
3	0.29819679	TMAX TAVE AW2			
3	0.29946434	TMIN TAVE SCOV			
3	0.30817271	TMAX TAVE AW3			
3	0.30975464	TMAX TAVE SWDIR			
3	0.31001649	TMIN TMAX AW2			
3	0.31252129	TMIN TAVE AW2			

N=   37   REGRESSION MODELS FOR DEPENDENT VARIABLE PCON

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
3	0.31465865	TMAX TAVE RAIN
3	0.31465958	TMIN TMAX SWDIR
3	0.31495313	TMIN TAVE SWDIR
3	0.32018040	TMIN TMAX AW3
3	0.32281428	TMIN TAVE AW3
3	0.32391958	TMAX TAVE RA2
3	0.32610638	TMIN TMAX RAIN
3	0.32855448	TMIN TAVE RAIN
3	0.33477280	TMIN TMAX RA2
3	0.33709095	TMIN TAVE RA2
4	0.34926035	TMIN TMAX SN2 RA2
4	0.34962905	TMIN MWNDSP OHAUL AW3
4	0.34992431	TMIN TAVE RAIN SN2
4	0.35062569	TMIN TAVE SN2 RA2
4	0.35109821	TMIN TMAX SWDIR RA2
4	0.35198119	TMIN TAVE SWDIR RA2
4	0.35386924	TMIN MWNDSP SWDIR MW2
4	0.35543813	TMAX TAVE AW2 RA2
4	0.35570401	TMAX TAVE RAIN AW3
4	0.35679693	TMIN SCOV AWNDSP AW2
4	0.35684993	TMIN TMAX RAIN AW2
4	0.36033936	TMIN TAVE RAIN AW2
4	0.37139146	TMIN TMAX AW2 RA2
4	0.37254386	TMIN TMAX RAIN AW3
4	0.37307858	TMAX TAVE AW3 RA2
4	0.37483224	TMIN TAVE AW2 RA2
4	0.37638670	TMIN TAVE RAIN AW3
4	0.38998145	TMIN TMAX AW3 RA2
4	0.39379503	TMIN TAVE AW3 RA2
5	0.40982346	TMIN TMAX SCOV AWNDSP AW2
5	0.41030985	TMAX TAVE RAIN MWNDSP AW3
5	0.41063157	TMIN TAVE SCOV AWNDSP AW2
5	0.41140849	TMIN MWNDSP SWDIR OHAUL MW3
5	0.41198842	TMIN TMAX AW2 AW3 PA2
5	0.41531085	TMIN MWNDSP SWDIR OHAUL MW2
5	0.41567343	TMIN TMAX AW3 MW2 RA2
5	0.41596142	TMIN TAVE AW2 AW3 RA2
5	0.41702391	TMIN TAVE AW3 MW2 PA2
5	0.41736493	TMIN TMAX AWNDSP AW3 RA2
5	0.41876705	TMIN TMAX RAIN MWNDSP AW3
5	0.41886754	TMIN MWNDSP SWDIR OHAUL AW3
5	0.41951712	TMIN TAVE RAIN MWNDSP AW3
5	0.42068744	TMIN TMAX AWNDSP AW2 RA2
5	0.42081223	TMIN TAVE AWNDSP AW3 RA2
5	0.42356707	TMIN TAVE AWNDSP AW2 RA2
5	0.42427007	TMAX TAVE MWNDSP AW3 RA2
5	0.43287182	TMIN TMAX MWNDSP AW3 RA2
5	0.43379167	TMIN TAVE MWNDSP AW3 RA2

2 OF THE 60 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N= 38

REGRESSION MODELS FOR DEPENDENT VARIABLE PART

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00018130	TDI
1	0.01209495	ODI
1	0.01961084	SED R
1	0.13475528	TDI
1	0.25309396	SND R

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.01960267	TMIN
1	0.02471647	YELLOW
1	0.03997514	RA2
1	0.05489994	TAVE
1	0.07901924	OHAUL
1	0.08588640	TMAX
1	0.08900488	RAIN
1	0.09608913	SC2
1	0.11526841	MWNDSP
1	0.12289064	SN2
1	0.12900269	SCOV
1	0.12836180	MW2
1	0.12947483	OFEED
1	0.13769659	AWNDSP
1	0.14286427	???
1	0.15215551	SNOW
1	0.16953489	AW2
1	0.16599737	AW7
2	0.21096557	OFEED AW2
2	0.21156721	RAIN MW3
2	0.21219649	SNOW OFEED
2	0.21958914	TAVE AW3
2	0.22066323	SN2 AW2
2	0.2200?801	AW2 AW3
2	0.22274949	SNOW MW3
2	0.22575201	SNOW AW2
2	0.22676500	RAIN AW3
2	0.23256730	TMIN AWNDSP
2	0.23838826	OFEED AW3
2	0.24329712	SN2 AW3
2	0.24951905	SNOW AW3
2	0.25408770	TMAX TAVE
2	0.27301905	TMIN AW2
2	0.27402204	TMIN TMAX
2	0.27923606	TMIN AW3
2	0.28685012	TMIN TAVE
3	0.41746867	TMAX TAVE MW3
3	0.42208336	TMIN TMAX SCOV
3	0.43335592	TMIN TAVE SCOV
3	0.44128524	TMAX TAVE AW3
3	0.44154565	TMIN TMAX MWNDSP
3	0.44573724	TMIN TMAX MW2
3	0.44684756	TMIN TMAX MW3
3	0.45026222	TMIN TAVE AWNDSP
3	0.45038025	TMAX TAVE AW2
3	0.45681820	TMIN TAVE MWNDSP

N= 38   REGRESSION MODELS FOR DEPENDENT VARIABLE PART

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
3	0.46061873	TMIN TAVE MW2
3	0.46162141	TMIN TAVE MW3
3	0.46171902	TMIN TMAX AW3
3	0.47016262	TMIN TAVE AW3
3	0.47389469	TMIN TMAX AW2
3	0.47916659	TMIN TMAX AWNDSP
3	0.48290425	TMIN TAVE AW2
3	0.49005363	TMIN TAVE AWNDSP
4	0.54087750	TMIN TMAX SCOV AW2
4	0.54139152	TMIN TAVE SC2 MW2
4	0.54165611	TMIN TMAX SCOV MW2
4	0.54493340	TMIN TAVE SCOV MWNDSP
4	0.54806479	TMIN TAVE SC2 MW3
4	0.54952360	TMIN TMAX SCOV MW3
4	0.54956496	TMIN TAVE SCOV AW2
4	0.55026800	TMIN TAVE SC2 AW3
4	0.55170119	TMIN TMAX OFEED AW3
4	0.55179413	TMIN TMAX AWNDSP OFEED
4	0.55453004	TMIN TMAX OFEED AW2
4	0.55485798	TMIN TAVE SCOV MW2
4	0.55799454	TMIN TAVE OFEED AW3
4	0.56051590	TMIN TAVE AWNDSP OFEED
4	0.56134416	TMIN TMAX SCOV AW3
4	0.56148701	TMIN TAVE OFEED AW3
4	0.56264833	TMIN TAVE SCOV MW3
4	0.56916736	TMIN TAVE SCOV AW3
5	0.58385971	TMIN TAVE SCOV AW3 MW3
5	0.58432659	TMIN TMAX SCOV AW2 AW3
5	0.58435487	TMIN TMAX OFEED SC2 AW2
5	0.58460889	TMIN TMAX SNOW OFEED AW3
5	0.58498572	TMIN TAVE OFEED SN2 AW2
5	0.585 -320	TMIN TAVE SNOW SCOV AW3
5	0.58 -8960	TMIN TMAX SNOW OFEED AW2
5	0.58788912	TMIN TAVE AWNDSP OFEED SN2
5	0.58921293	TMIN TAVE SCOV OFEED AW2
5	0.58945046	TMIN TAVE SNOW OFEED AW3
5	0.58992457	TMIN TAVE SNOW AWNDSP OFEED
5	0.59066078	TMIN TAVE SCOV AW2 AW3
5	0.59146870	TMIN TAVE SNOW OFEED AW2
5	0.59264693	TMIN TAVE OFEED SC2 AW2
5	0.60040545	TMIN TMAX SCOV OFEED AW3
5	0.60129521	TMIN TMAX OFEED SC2 AW3
5	0.60685213	TMIN TAVE SCOV OFEED AW3
5	0.60905127	TMIN TAVE OFEED SC2 AW3

2 OF THE 40 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N= 38 REGRESSION MODELS FOR DEPENDENT VARIABLE V205

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00002564	MWNDSP	1	0.05695013	YDI
1	0.00020264	MW2	1	0.06782562	ODI
1	0.00053387	MW3	1	0.07571357	SED R
1	0.00865716	SC2	1	0.08693988	SHD R
1	0.00911926	AWNDSP	1	0.12615125	TDI
1	0.01239514	AW2			
1	0.01245444	AW3			
1	0.02472452	RA2			
1	0.03159432	TMIN			
1	0.04209560	OHAUL			
1	0.04260456	YELLOW			
1	0.04263572	SCOV			
1	0.05056090	RAIN			
1	0.05610946	SN2			
1	0.06252097	SNOW			
1	0.08060286	TAVE			
1	0.10140116	OFEED			
1	0.12387147	TMAX			

2	0.13324565	OFEED MW3
2	0.13360093	OFEED MW2
2	0.13920595	TAVE AWNDSP
2	0.14264438	TAVE MW3
2	0.14507792	TMAX SC2
2	0.15214639	TMAX OFEED
2	0.15252943	TAVE MW2
2	0.15912095	SCOV SC2
2	0.16137460	TAVE MWNDSP
2	0. 91243	TMAX AW3
2	0.19468109	TMAX AW2
2	0.20276100	TMAX MW3
2	0.21487637	TMAX MW2
2	0.21565702	TMAX AWNDSP
2	0.22545289	TMAX MWNDSP
2	0.34865382	TMAX TAVE
2	0.36464580	TMIN TMAX
2	0.37251421	TMIN TAVE

3	0.38094588	TMIN TMAX MWNDSP
3	0.38101275	TMIN TMAX AW3
3	0.38163007	TMIN TMAX MW2
3	0.38171806	TMIN TMAX MW3
3	0.38208943	TMIN TMAX RA2
3	0.38259785	TMIN TAVE SCOV
3	0.38421151	TMIN TAVE AWNDSP
3	0.38720562	TMIN TMAX RAIN
3	0.38823604	TMIN TAVE MWNDSP
3	0.38852289	TMIN TAVE AW2

N= 38   REGRESSION MODELS FOR DEPENDENT VARIABLE V205

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
3	0.38900201	TMIN TAVE MW2
3	0.38908669	TMIN TAVE MW3
3	0.39024722	TMIN TAVE AW3
3	0.39076888	TMIN TAVE RA2
3	0.39641577	TMIN TAVE RAIN
3	0.40301297	TMAX TAVE OFEED
3	0.41779979	TMIN TMAX OFEED
3	0.42360455	TMIN TAVE OFEED
4	0.43327159	TMIN TMAX AWNDSP OFEED
4	0.43477746	TMIN TMAX OFEED AW3
4	0.43546981	TMIN TMAX OFEED AW2
4	0.43625220	TMIN TAVE OFEED RA2
4	0.43667598	TMAX TAVE OFEED MW3
4	0.43793235	TMAX TAVE OFEED MW2
4	0.43806212	TMAX TAVE MWNDSP OFEED
4	0.43955593	TMIN TAVE AWNDSP OFEED
4	0.44143257	TMIN TMAX RAIN OFEED
4	0.44185982	TMIN TAVE OFEED AW3
4	0.44233601	TMIN TAVE OFEED AW2
4	0.44825922	TMIN TAVE RAIN OFEED
4	0.44847491	TMIN TMAX OFEED MW3
4	0.44902831	TMIN TMAX MWNDSP OFEED
4	0.44935511	TMIN TMAX OFEED MW2
4	0.45338854	TMIN TAVE OFEED MW3
4	0.45380850	TMIN TAVE MWNDSP OFEED
4	0.45425359	TMIN TAVE OFEED MW2
5	0.46257156	TMIN TAVE SCOV SC2 AWP
5	0.46270145	TMIN TMAX MWNDSP OFEED RA2
5	0.46438957	TMIN TAVE RAIN OFEED AW3
5	0.46446801	TMAX TAVE RAIN OFEED MW2
5	0.46518531	TMIN TMAX SCOV AWNDSP SC2
5	0.46623402	TMAX TAVE RAIN MWNDSP OFEED
5	0.46642987	TMIN TAVE OFEED MW3 RA2
5	0.46669815	TMIN TAVE RAIN OFEED AW2
5	0.46782492	TMIN TAVE OFEED MW2 RA2
5	0.46802350	TMIN TAVE MWNDSP OFEED RA2
5	0.46815635	TMIN TAVE SCOV AWNDSP SC2
5	0.46817875	TMIN TAVE RAIN AWNDSP OFEED
5	0.47675601	TMIN TMAX RAIN OFEED MW3
5	0.47903180	TMIN TMAX RAIN OFEED MW2
5	0.48024538	TMIN TMAX RAIN MWNDSP OFEED
5	0.48256861	TMIN TAVE RAIN OFEED MW3
5	0.48483667	TMIN TAVE RAIN OFEED MW2
5	0.48589858	TMIN TAVE RAIN MWNDSP OFEED

WARNING: 2 OF THE   40 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N=   38   REGRESSION MODELS FOR DEPENDENT VARIABLE USPA

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00181692	YELLOW	1	0.00014004	SED R
1	0.05110078	OHAUL	1	0.00026817	ODI
1	0.12030954	OFEED	1	0.01635150	YDI
1	0.15340277	TMIN	1	0.05412875	IDI
1	0.16265677	SC2	1	0.20300241	SHD R
1	0.18229200	RA2			
1	0.19405466	TAVE			
1	0.20049766	SNOW			
1	0.20140485	MW3			
1	0.20676215	TMAX			
1	0.21090009	MW2			
1	0.21139548	RAIN			
1	0.21274531	MWNDSP			
1	0.21389063	SN2			
1	0.22116398	SCOV			
1	0.24803212	AW3			
1	0.26515324	AWNDSP			
1	0.26710843	AW2			

2	0.34837321	SN2 AW3
2	0.35514879	RAIN AW3
2	0.35681755	MW3 RA2
2	0.36175642	SN2 AW2
2	0.36599560	AWNDSP SN2
2	0.36650900	MW2 RA2
2	0.36966891	MWNDSP RA2
2	0.37329407	AW2 RA2
2	0.37553666	RAIN MW3
2	0.37783704	SC2 RA2
2	0.37872663	RAIN AW2
2	0.38021499	RAIN SC2
2	0.38420875	RAIN MW2
2	0.38670272	RAIN MWNDSP
2	0.39311664	AWNDSP RA2
2	0.39790281	RAIN AWNDSP
2	0.41523045	RAIN SCOV
2	0.42924800	SCOV RA2

3	0.43988806	SCOV SC2 RA2
3	0.44038197	SN2 AW2 RA2
3	0.44060673	RAIN AWNDSP SN2
3	0.44153397	SNOW SCOV RA2
3	0.44184581	RAIN SCOV MWNDSP
3	0.44295687	RAIN AWNDSP YELLOW
3	0.44387800	SN2 SC2 RA2
3	0.44523506	TMIN SCOV RA2
3	0.44600940	RAIN SCOV MW2
3	0.44813634	RAIN SCOV MW3

N= 38   REGRESSION MODELS FOR DEPENDENT VARIABLE USPA

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
3	0.44854944	SCOV MWNDSP RA2
3	0.44945759	RAIN YELLOW SC2
3	0.45279713	SCOV MW2 RA2
3	0.45519655	SCOV MW3 RA2
3	0.45876142	AWNDSP SN2 RA2
3	0.46701952	SCOV SN2 RA2
3	0.49352016	RAIN SCOV YELLOW
3	0.49609520	SCOV YELLOW RA2
4	0.50563139	SCOV OHAUL YELLOW RA2
4	0.50774875	RAIN YELLOW SC2 MW3
4	0.50777092	RAIN SNOW SN2 SC2
4	0.50786337	SNOW SCOV YELLOW RA2
4	0.50968930	TMIN RAIN SCOV YELLOW
4	0.51016902	TMIN SCOV YELLOW RA2
4	0.51097758	RAIN YELLOW SC2 MW2
4	0.51122004	RAIN MWNDSP YELLOW SC2
4	0.51744301	SCOV MWNDSP YELLOW RA2
4	0.51852761	SCOV OFFEED YELLOW RA2
4	0.51934500	SCOV YELLOW MW2 RA2
4	0.51963866	SCOV YELLOW MW3 RA2
4	0.51963945	SCOV YELLOW SN2 RA2
4	0.52321699	RAIN SCOV MWNDSP YELLOW
4	0.52353338	RAIN SCOV YELLOW MW3
4	0.52430749	RAIN SCOV YELLOW RA2
4	0.55302783	RAIN SNOW SCOV SN2
4	0.55348546	SNOW SCOV SN2 RA2
5	0.56265228	TAVE SNOW SCOV SN2 RA2
5	0.56354183	SNOW SCOV SN2 MW3 RA2
5	0.56382380	RAIN SNOW SCOV MWNDSP SN2
5	0.56404892	TAVE RAIN SNOW SCOV SN2
5	0.56450226	TAVE RAIN SCOV MWNDSP YELLOW
5	0.56483977	TMIN TMAX TAVE AWNDSP RA2
5	0.56503053	TMAX RAIN SNOW SCOV SN2
5	0.56518519	RAIN SNOW SCOV SN2 MW2
5	0.56578525	TMIN RAIN SNOW SCOV SN2
5	0.56584622	RAIN SNOW SCOV SN2 MW3
5	0.56616768	TMIN SNOW SCOV SN2 MW3
5	0.56655832	TMIN TMAX TAVE RAIN AWNDSP
5	0.56657805	TMIN RAIN SCOV SN2 RA2
5	0.56759918	SNOW SCOV OFFEED SN2 RA2
5	0.57199262	TMIN TMAX TAVE RATN SCOV
5	0.57370394	TMIN RAIN SCOV YELLOW MW2
5	0.57849479	TMIN RAIN SCOV MWNDSP YELLOW
5	0.59024661	TMIN TMAX TAVE SCOV RA2

2 OF THE   40 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N=   38   REGRESSION MODELS FOR DEPENDENT VARIABLE TSPA

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00007175	TMAX	1	0.00116072	SWD R
1	0.00026314	RA2	1	0.01756219	TDI
1	0.00034733	SN2	1	0.02276908	YDI
1	0.00036269	YELLOW	1	0.02451787	SED R
1	0.00038453	OMAUL	1	0.02453054	ODI
1	0.00071570	RAIN			
1	0.00114433	AW3			
1	0.00207116	SNOW			
1	0.00337676	TAVE			
1	0.01163413	AW2			
1	0.01412848	TMIN			
1	0.01969882	MW3			
1	0.02306282	MW2			
1	0.02713331	MWNDSP			
1	0.02800773	OFEED			
1	0.04001064	AWNDSP			
1	0.10783267	SCOV			
1	0.14153060	SC2			

3 OF THE 40 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N= 37 REGRESSION MODELS FOR DEPENDENT VARIABLE RSPA

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00001146	RAIN
1	0.00009522	SNOW
1	0.00012591	MW3
1	0.00023531	MW2
1	0.00061932	RA2
1	0.00119688	AW2
1	0.00198492	MWNDSP
1	0.00214379	AW3
1	0.00627648	SN2
1	0.00760947	YELLOW
1	0.00995350	OHAUL
1	0.01357949	OFEED
1	0.01681708	TMAX
1	0.01929635	AWNDSP
1	0.02280098	TAVE
1	0.03039664	TMIN
1	0.10563294	SCOV
1	0.14025564	SC2

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00107091	TDI
1	0.00771441	SWD H
1	0.01157848	SED H
1	0.01313207	ODI
1	0.01902676	YDI

2 OF THE   40 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N=   38   REGRESSION MODELS FOR DEPENDENT VARIABLE VSPA

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00399167	RA2			
1	0.01608733	OFEED	1	0.00228074	SED N
1	0.01670365	YELLOW	1	0.00376239	ODI
1	0.01730149	TMAX	1	0.00514313	TDI
1	0.01915620	TAVE	1	0.01277592	YDI
1	0.02069850	TMIN	1	0.04205354	SWD R
1	0.02188696	OHAUL			
1	0.02279516	RAIN			
1	0.04236784	SN2			
1	0.05853462	AW3			
1	0.06031936	MWNDSP			
1	0.06214814	MW2			
1	0.06218243	MW3			
1	0.06971732	AW2			
1	0.07464740	SNOW			
1	0.08180657	AWNDSP			
1	0.08517333	SCOV			
1	0.10375375	SC2			

N= 37

3 OF THE   40 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

REGRESSION MODELS FOR DEPENDENT VARIABLE PSPA

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.00040009	YDI
1	0.01576047	ODI
1	0.02280009	SED M
1	0.12154030	IDI
1	0.21165739	SHD M

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.07366647	RA2
1	0.08186063	CHAUL
1	0.10919000	RAIN
1	0.11170016	YELLOW
1	0.11392423	SN2
1	0.19937127	SNOW
1	0.21860990	OFEED
1	0.26536850	AN3
1	0.26955256	MW3
1	0.32226715	SC2
1	0.33240704	MW2
1	0.33683711	AW2
1	0.39615449	MWNDSP
1	0.41017101	AWNDSP
1	0.41856155	SCOV
1	0.42453230	TMAX
1	0.44804040	TAVE
1	0.45401509	TMIN
2	0.47582512	TMIN RAIN
2	0.47628968	TMIN OFEED
2	0.48294709	TMIN SC2
2	0.48305322	TMIN MWNDSP
2	0.48437607	RAIN MWNDSP
2	0.48476282	TAVE SC2
2	0.48477777	TMAX MWNDSP
2	0.48886163	TMAX SCOV
2	0.48987347	SCOV MWNDSP
2	0.49115594	TAVE MWNDSP
2	0.49225418	AW2 AN3
2	0.49516138	TMIN SCOV
2	0.49555578	TAVE SCOV
2	0.51600588	RAIN SCOV
2	0.51946285	SCOV RA2
2	0.55133431	MW2 MW3
2	0.56612977	MWNDSP MW3
2	0.57488469	MWNDSP MW2
3	0.59139428	TAVE MW2 MW3
3	0.59168127	MWNDSP SC2 MW2
3	0.59217024	TMAX MW2 MW3
3	0.59502151	SCOV MWNDSP MW3
3	0.59628374	SCOV MWNDSP OFEED MW2
3	0.50721588	TMIN MWNDSP MW3
3	0.60321634	TAVE MWNDSP MW2
3	0.60403101	SCOV MWNDSP MW2
3	0.60427384	TMAX MWNDSP MW3
3	0.60490857	TMIN MWNDSP MW2

N= 37   REGRESSION MODELS FOR DEPENDENT VARIABLE PSPA

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
3	0.61115772	TAVE MWNDSP HW2
3	0.61131775	MW2 MW3 RA2
3	0.61228037	TMAX MWNDSP MW2
3	0.62732035	MWNDSP MW3 RA2
3	0.62959634	RAIN MW2 MW3
3	0.63709985	MWNDSP MW2 RA2
3	0.64599980	RAIN MWNDSP MW3
3	0.65619115	RAIN MWNDSP MW2
4	0.66084233	THIN RAIN MWNDSP MW2
4	0.66476978	RAIN SCOV MW2 MW3
4	0.66500377	RAIN MWNDSP AW2 MW2
4	0.66555224	MWNDSP SC2 MW2 RA2
4	0.66623027	RAIN MWNDSP OHAUL MW2
4	0.66740565	RAIN MWNDSP OFEED MW2
4	0.67033594	RAIN MWNDSP AW3 MW3
4	0.67088996	SCOV MWNDSP MW3 RA2
4	0.67106720	RAIN MWNDSP SC2 MW3
4	0.67487011	RAIN MWNDSP MW2 MW3
4	0.67518674	RAIN AWNDSP MWNDSP AW2
4	0.67823204	RAIN SCOV MWNDSP MW3
4	0.67853860	RAIN MWNDSP AW3 MW2
4	0.67976103	SCOV MWNDSP MW2 RA2
4	0.67998779	RAIN MWNDSP SC2 MW2
4	0.68130972	RAIN MWNDSP AW2 AW3
4	0.68272143	RAIN AWNDSP MWNDSP AW3
4	0.68748272	RAIN SCOV MWNDSP MW2
5	0.71534714	RAIN SCOV AWNDSP MWNDSP MW2
5	0.71555350	RAIN AWNDSP AW2 MW2 MW3
5	0.71684778	RAIN AWNDSP AW3 MW2 MW3
5	0.71832282	SCOV MWNDSP AW3 MW3 RA2
5	0.71885319	SCOV MWNDSP AW3 MW2 MW3
5	0.71940484	RAIN MWNDSP SC2 AW3 MW2
5	0.71955904	SCOV MWNDSP AW2 MW2 RA2
5	0.72028477	RAIN MWNDSP AW2 AW3 MW3
5	0.72096414	RAIN AWNDSP MWNDSP AW2 MW3
5	0.72300109	RAIN AWNDSP MWNDSP AW3 MW3
5	0.72343122	RAIN AWNDSP MWNDSP AW2 MW2
5	0.72370267	RAIN SCOV MWNDSP AW2 MW3
5	0.72413933	RAIN MWNDSP AW2 AW3 MW2
5	0.72434328	SCOV MWNDSP AW3 MW2 RA2
5	0.72595801	RAIN AWNDSP MWNDSP AW3 MW2
5	0.73072362	RAIN SCOV MWNDSP AW3 MW3
5	0.73121043	RAIN SCOV MWNDSP AW2 MW2
5	0.73704529	RAIN SCOV MWNDSP AW3 MW2

3 OF THE   40 OBSERVATIONS ARE NOT INCLUDED IN THIS ANALYSIS DUE TO MISSING VALUES.

N=   37   REGRESSION MODELS FOR DEPENDENT VARIABLE FOR

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL	NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
1	0.01056731	YELLOW	1	0.00006830	YDI
1	0.04650577	SC2	1	0.02211064	UDI
1	0.06142211	RA2	1	0.03340740	SED R
1	0.06967210	OHAUL	1	0.14064803	IDI
1	0.07219122	TMIN	1	0.33010337	SWD R
1	0.07754942	SNOW			
1	0.08365701	SN2			
1	0.08863024	SCOV			
1	0.10472578	RAIN			
1	0.10945763	OFEED			
1	0.12180455	TAVE			
1	0.15508940	TMAX			
1	0.25311759	AWNDSP			
1	0.26640192	MWNDSP			
1	0.30506077	MW2			
1	0.33889644	MW3			
1	0.34193465	AW2			
1	0.41246257	AW3			
2	0.41271151	AW3 MW2			
2	0.41322395	SNOW AW3			
2	0.41530382	AW3 MW3			
2	0.41592451	YELLOW AW3			
2	0.41903239	MWNDSP AW3			
2	0.42029417	SN2 AW3			
2	0.42077011	OFEED AW3			
2	0.42282759	AW3 RA2			
2	0.42497900	TMAX AW3			
2	0.43405379	SCOV AW3			
2	0.43554454	RAIN AW3			
2	0.43590383	SC2 AW3			
2	0.43994828	AWNDSP AW2			
2	0.44804031	TMIN AW2			
2	0.45011789	TAVE AW3			
2	0.47771820	AWNDSP AW3			
2	0.50171348	AW2 AW3			
2	0.50506795	TMIN AW3			
3	0.52756671	TMIN TMAX MWNDSP			
3	0.53391714	TMIN SN2 AW3			
3	0.53746371	TMIN RAIN AW3			
3	0.53819756	AWNDSP AW2 AW3			
3	0.54190409	OFEED AW2 AW3			
3	0.54534194	TMIN TAVE MWNDSP			
3	0.54796692	TMAX TAVE MW3			
3	0.54885786	TMIN OFEED AW3			
3	0.55730763	TMAX TAVE AW2			
3	0.55840657	TMIN TMAX MW2			

N= 37   REGRESSION MODELS FOR DEPENDENT VARIABLE FOR

NUMBER IN MODEL	R-SQUARE	VARIABLES IN MODEL
3	0.57560700	TMIN TAVE MW2
3	0.57811500	TMIN TMAX MW3
3	0.58234772	TMIN TMAX AW2
3	0.59309406	TMIN TAVE AW2
3	0.59502369	TMIN TAVE MW3
3	0.59581603	TMAX TAVE AW3
3	0.61683428	TMIN TMAX AW3
3	0.62637155	TMIN TAVE AW3
4	0.62683435	TMIN TAVE AWNDSP AW3
4	0.62724517	TMIN TAVE SCOV AW3
4	0.62725752	TMIN TAVE OHAUL AW3
4	0.62758823	TMIN TAVE AW2 MW2
4	0.62800398	TMIN TAVE AW3 RA2
4	0.62812220	TMIN TAVE SN2 AW3
4	0.62894131	TMIN TMAX MWNDSP AW3
4	0.63183015	TMIN TAVE AW2 AW3
4	0.63195665	TMAX TAVE OFEED AW3
4	0.63505060	TMIN TMAX AW3 MW2
4	0.63937757	TMIN TAVE AW2 MW3
4	0.64030336	TMIN TAVE MWNDSP AW3
4	0.64146004	TMIN TMAX AW3 MW3
4	0.64480920	TMIN TMAX TAVE AW3
4	0.64676146	TMIN TAVE AW3 MW2
4	0.65220363	TMIN TMAX OFEED AW3
4	0.65345753	TMIN TAVE AW3 MW3
4	0.66033268	TMIN TAVE OFEED AW3
5	0.66205226	TMIN TAVE AW3 MW2 MW3
5	0.66232702	TMIN TAVE OFEED SN2 AW3
5	0.66249068	TMIN TAVE AWNDSP OFEED AW3
5	0.66320100	TMIN TMAX TAVE AW2 MW3
5	0.66460429	TMIN TMAX OFEED AW2 AW3
5	0.66471909	TMIN TMAX OFEED AW3 MW3
5	0.66498813	TMIN TMAX OFEED YELLOW AW3
5	0.66509690	TMIN TAVE OHAUL OFEED AW3
5	0.66521624	TMIN TAVE MWNDSP OFEED AW3
5	0.66644325	TMIN TMAX AWNDSP AW2 AW3
5	0.66824818	TMIN TMAX TAVE AW3 MW2
5	0.66943313	TMIN TAVE OFEED AW3 MW2
5	0.67120862	TMIN TAVE OFEED YELLOW AW3
5	0.67190005	TMIN TAVE OFEED AW2 AW3
5	0.67466224	TMIN TMAX TAVE OFEED AW3
5	0.67477435	TMIN TAVE OFEED AW3 MW3
5	0.67568005	TMIN TMAX TAVE AW3 MW3
5	0.67689855	TMIN TAVE AWNDSP AW2 AW3

APPENDIX E

SELECTED ENVIRONMENTAL DATA PLOTS FOR LOCATION 1

PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION 1

PLOT OF UCON*WEEK   SYMBOL USED IS *

NOTE: 2 OBS HAD MISSING VALUES

PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION 1

PLOT OF TCON*WEEK   SYMBOL USED IS *
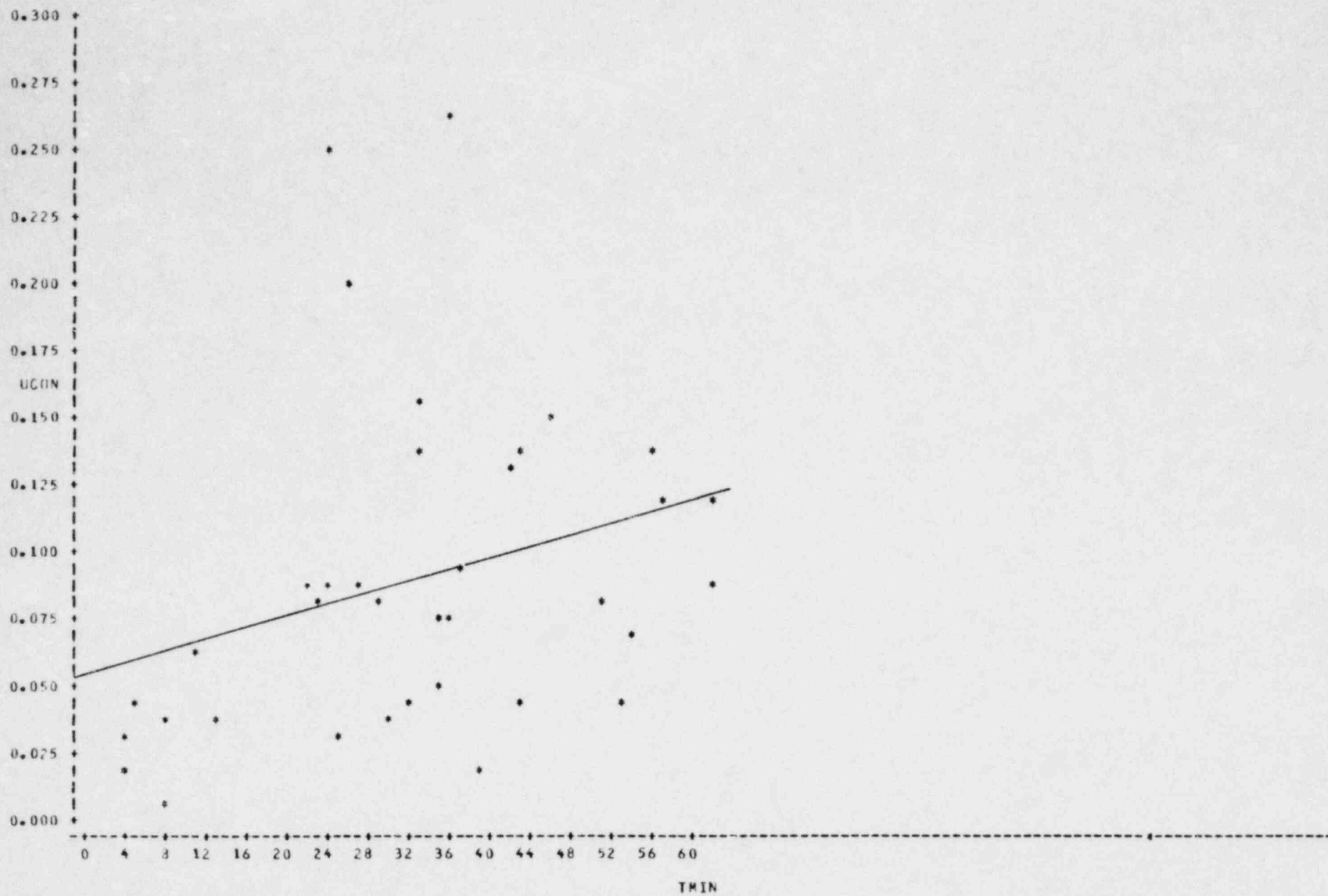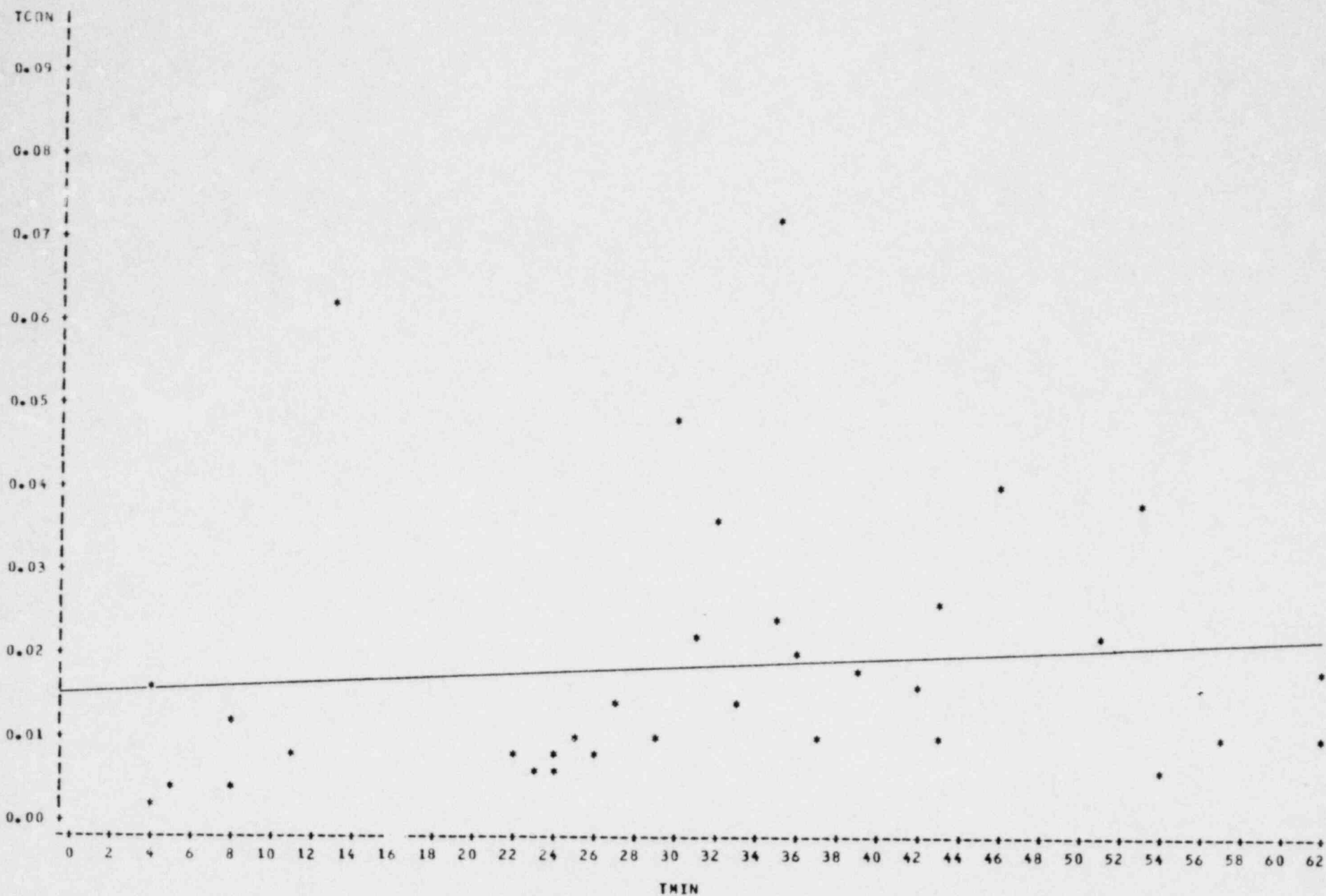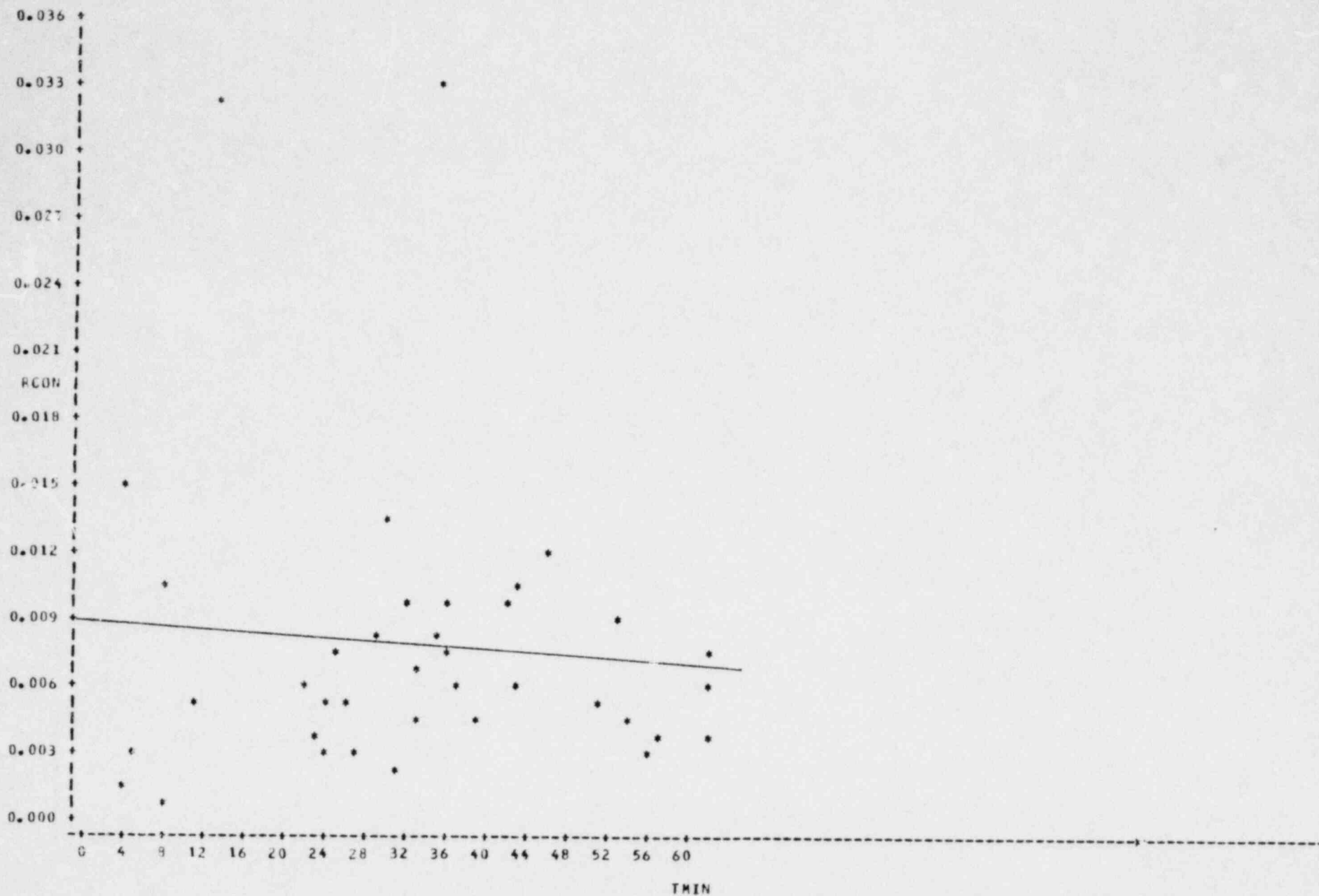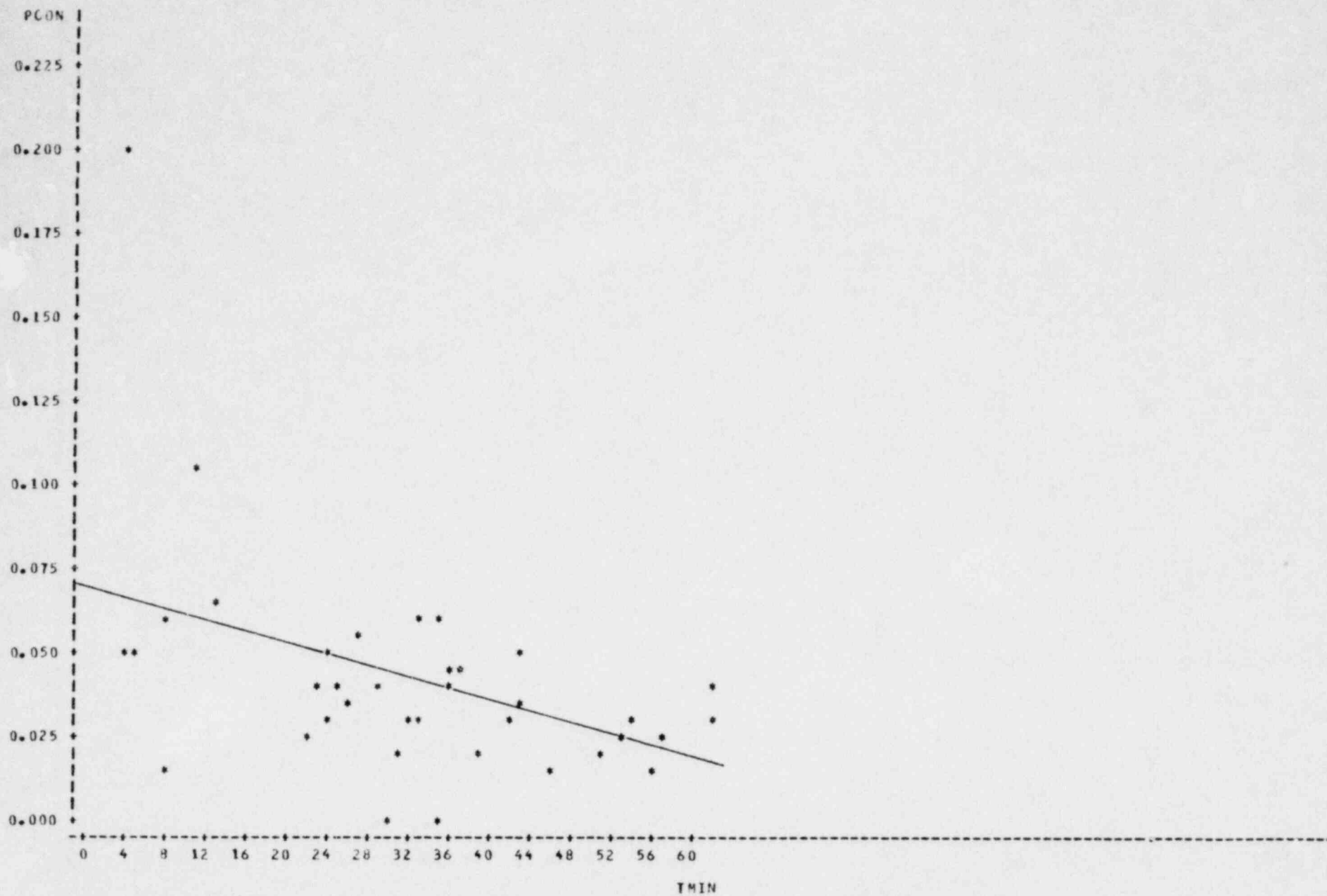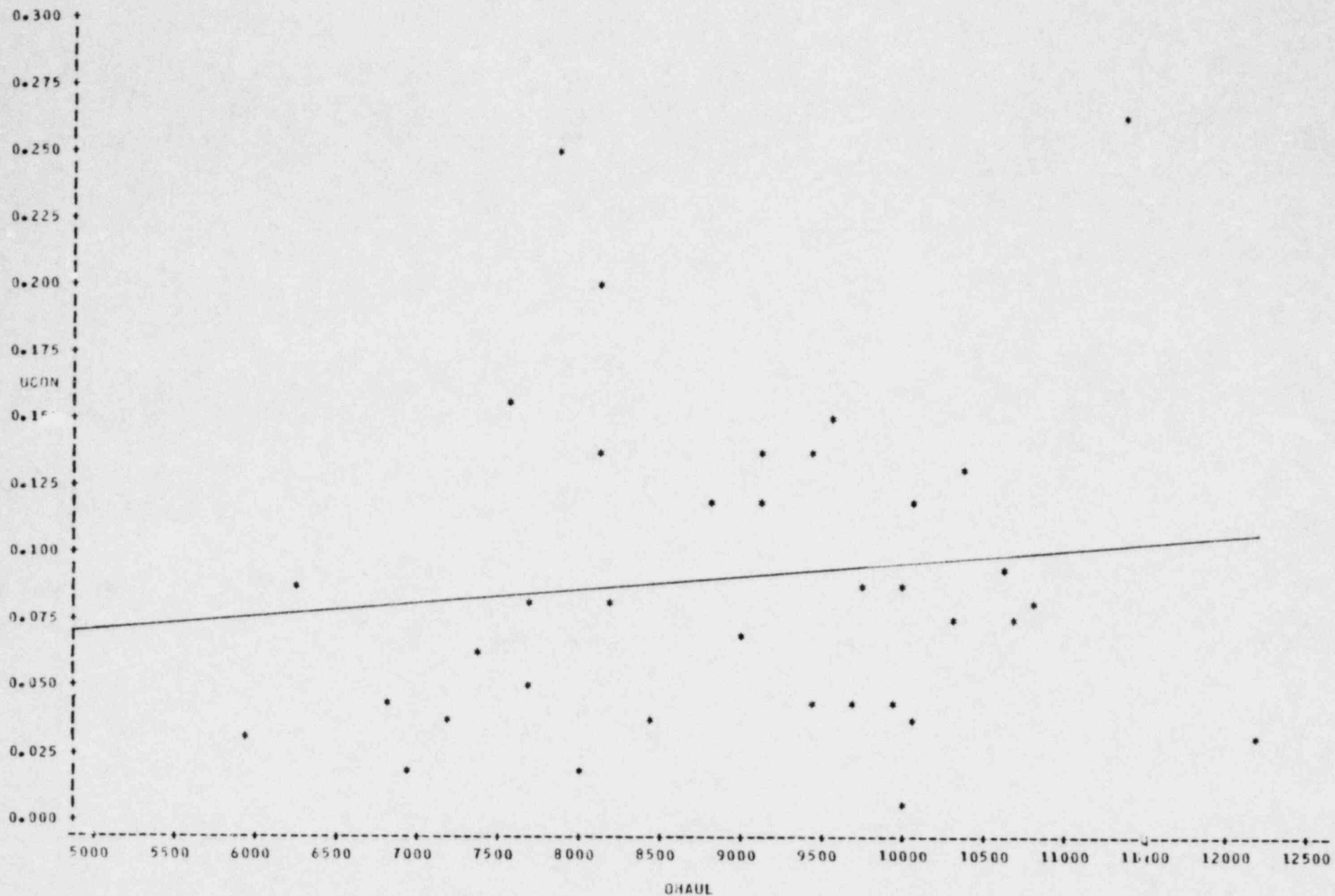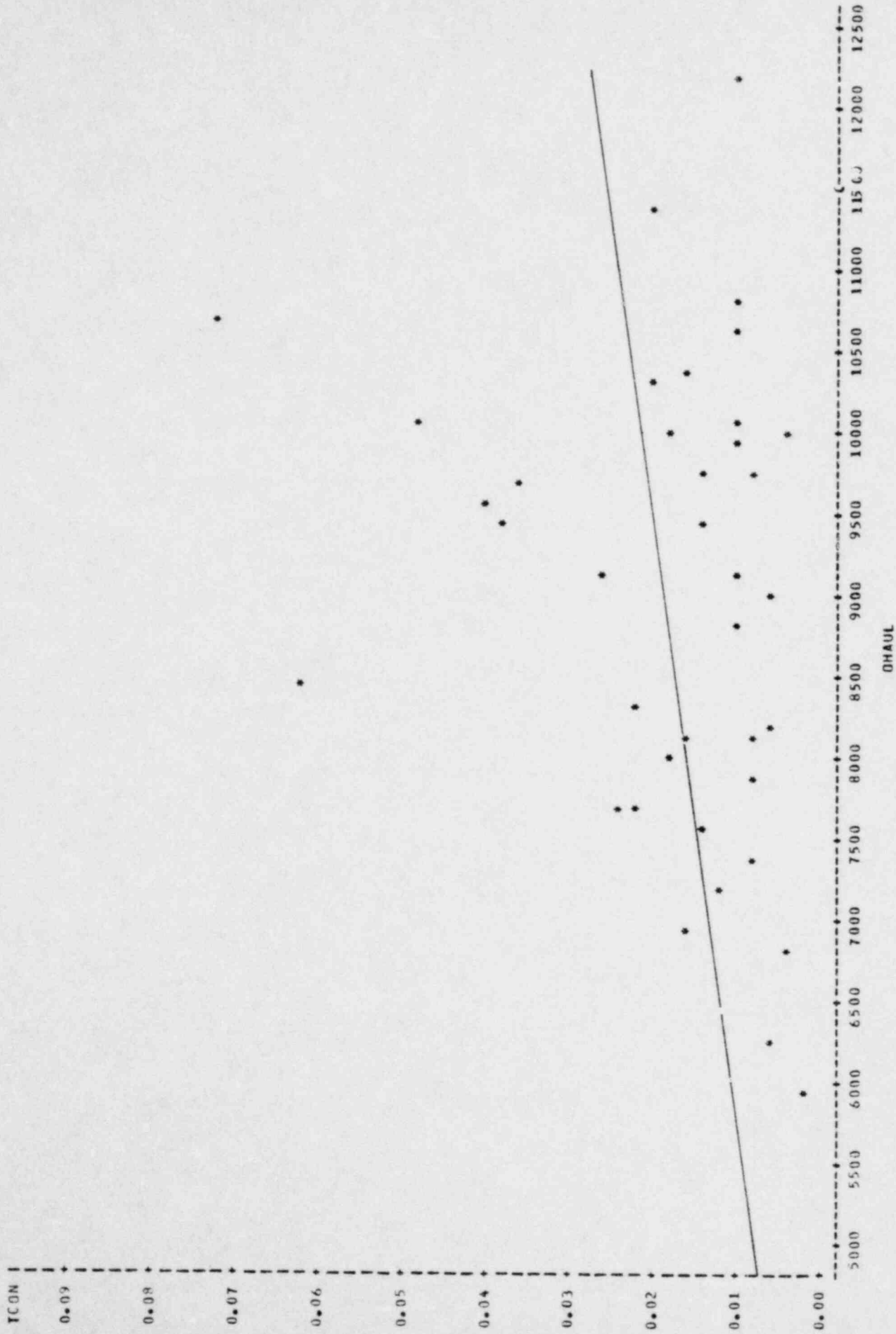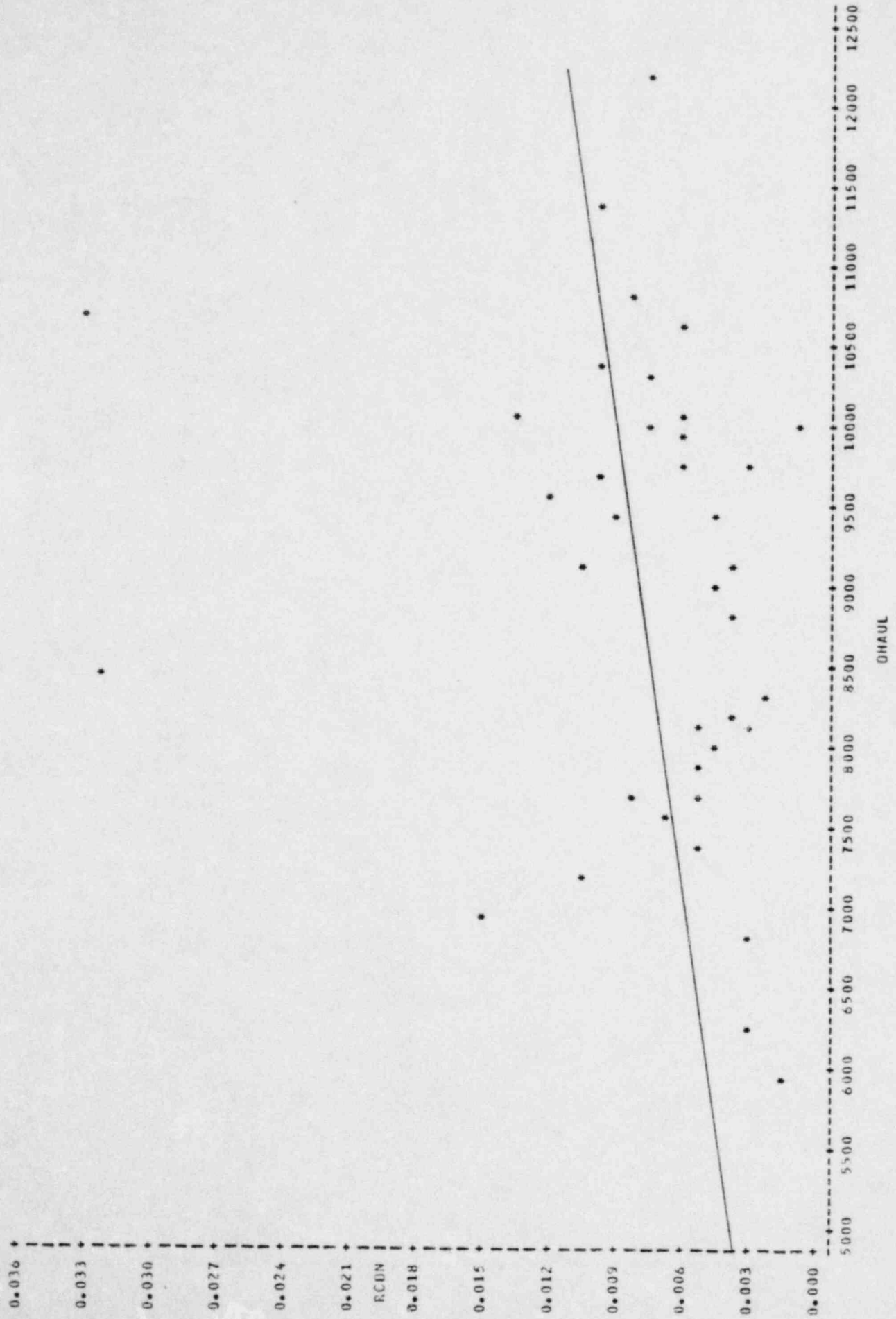
NOTE: 1 OBS HAD MISSING VALUES

PLOT OF RCON*WEEK   SYMBOL USED IS •

NOTE: 1 OBS HAD MISSING VALUES

PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION I
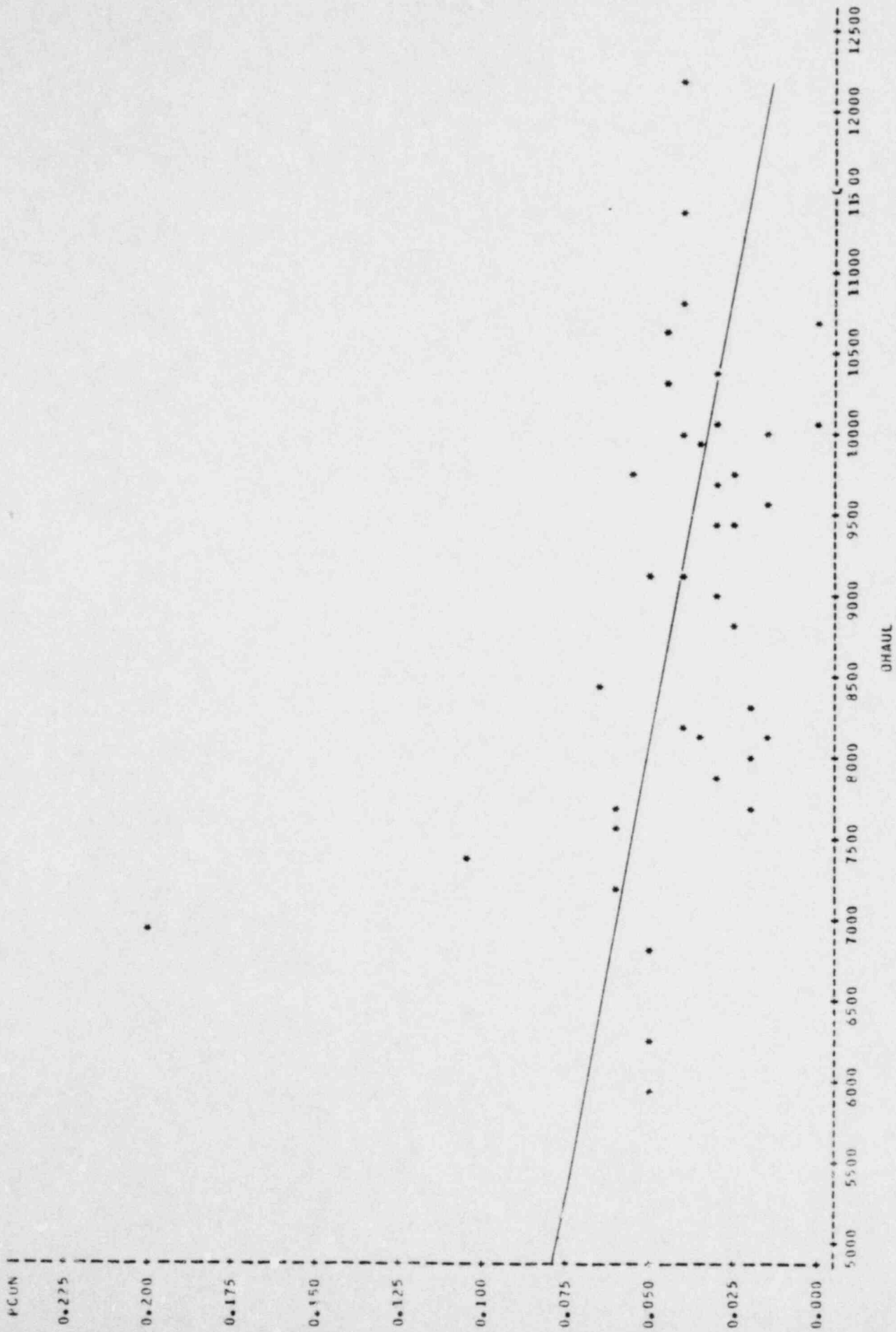
PLOT OF PCON*WEEK   SYMBOL USED IS *

NOTE: 1 OBS HAD MISSING VALUES

PLOT OF CONCENTRATIONS VS ENVORMENTAL FACTORS FOR LOCATION 1

PLOT OF UCON*AWNDSP   SYMBOL USED IS *

UCON

0.300
0.275
0.250
0.225
0.200
0.175
0.150
0.125
0.100
0.075
0.050
0.025
0.000

0.0 0.7 1.4 2.1 2.8 3.5 4.2 4.9 5.6 6.3 7.0 7.7 8.4 9.1 9.8 10.5
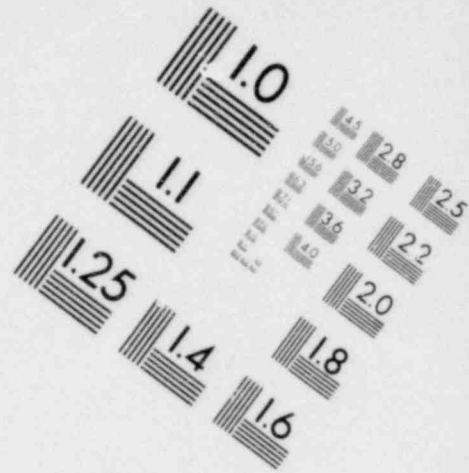
AWNDSP

NOTE: 2 OBS HAD MISSING VALUES   1 OBS HIDDEN

PLOT OF CONCENTRATIONS VS ENVIORMENTAL FACTORS FOR LOCATION 1

PLOT OF TCON*AWNDSP   SYMBOL USED IS *

NOTE: 1 OBS HAD MISSING VALUES

PLOT OF RCON*AWNDSP   SYMBOL USED IS *

AWNDSP

NOTE: 1 OBS HAD MISSING VALUES

PLOT OF PCON*AWNDSP   SYMBOL USED IS •

AWNDSP

NOTE: 1 OBS HAD MISSING VALUES

PLOT OF CONCENTRATIONS VS ENVIRONMENTAL FACTORS FOR LOCATION 1

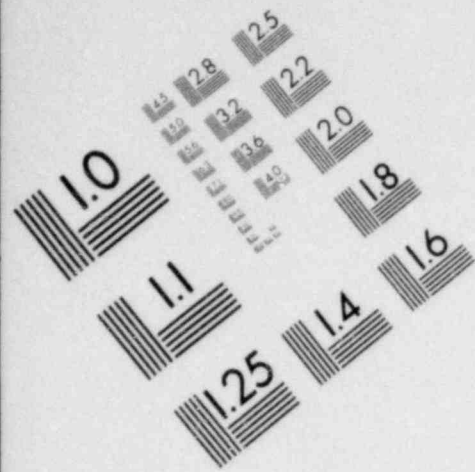PLOT OF UCON*RAIN   SYMBOL USED IS *

NOTE: 2 OBS HAD MISSING VALUES   3 OBS HIDDEN
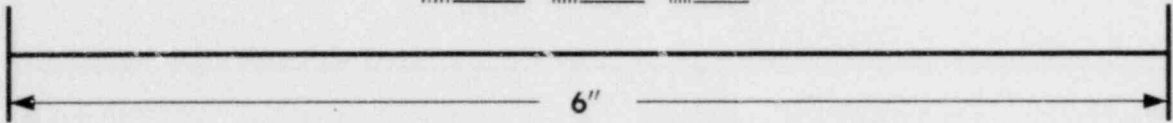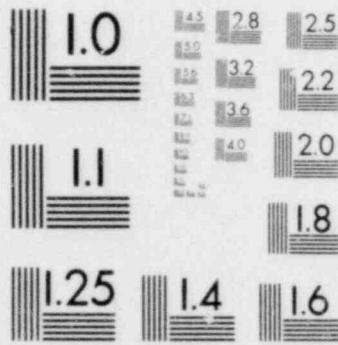
PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION I

PLOT OF TCON*RAIN   SYMBOL USED IS *
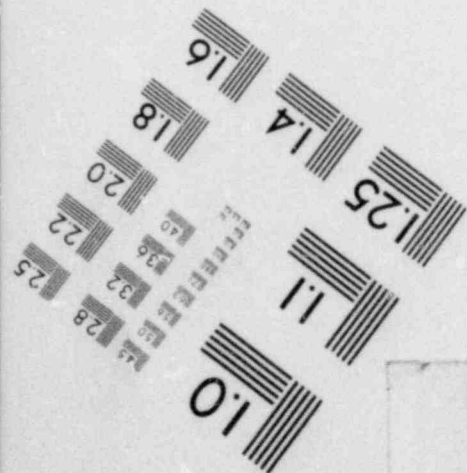

NOTE: 1 OBS HAD MISSING VALUES   3 OBS HIDDEN

PLOT OF RCON*RAIN   SYMBOL USED IS *

```
       0.036 +
             |
             |
             |
       0.033 +*
             |                                    *
             |
             |
       0.030 +
             |
             |
             |
       0.027 +
             |
             |
             |
       0.024 +
             |
             |
             |
       0.021 +
             |
        RCON |
             |
       0.018 +
             |
             |
             |
       0.015 +                                                              *
             |
             |   *
             |
       0.012 +      *
             |
             |  *
             |     *  *
       0.009 +     *                                       *
             |  *                        *
             |
             |
       0.006 ++*       *     *                *                      *
             |*   *       *                *
             |  *      *
             |*                   *              *                          *
       0.003 +*                      *                     *         *
             |                                          *
             |
             |*
       0.000 +
         -+--------+--------+--------+--------+--------+--------+--------+--------+--------+--------+--------+--------+--------+--------+--------+--------
        0.00     0.07     0.14     0.21     0.28     0.35     0.42     0.49     0.56     0.63     0.70     0.77     0.84     0.91     0.98     1.05

                                                        RAIN
```

NOTE: 1 OBS HAD MISSING VALUES   3 OBS HIDDEN

PLOT OF CONCENTRATIONS VS ENVIORMENTAL FACTORS FOR LOCATION 1

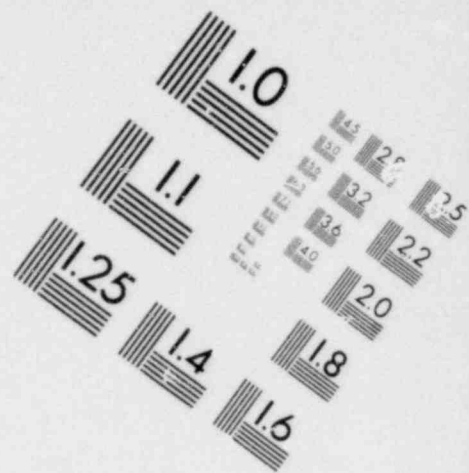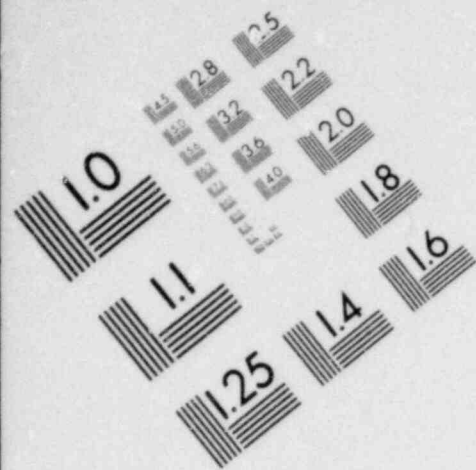PLOT OF PCON*RAIN   SYMBOL USED IS *

NOTE: 1 OBS HAD MISSING VALUES   4 OBS HIDDEN

PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION 1

PLOT OF UCON*TMIN   SYMBOL USED IS *

NOTE: 2 OBS HAD MISSING VALUES   1 OBS HIDDEN

PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION 1

PLOT OF TCON*TMIN   SYMBOL USED IS *

NOTE: 1 OBS HAD MISSING VALUES   3 OBS HIDDEN

PLOT OF RCON*TMIN   SYMBOL USED IS •

NOTE: 1 OBS HAD MISSING VALUES
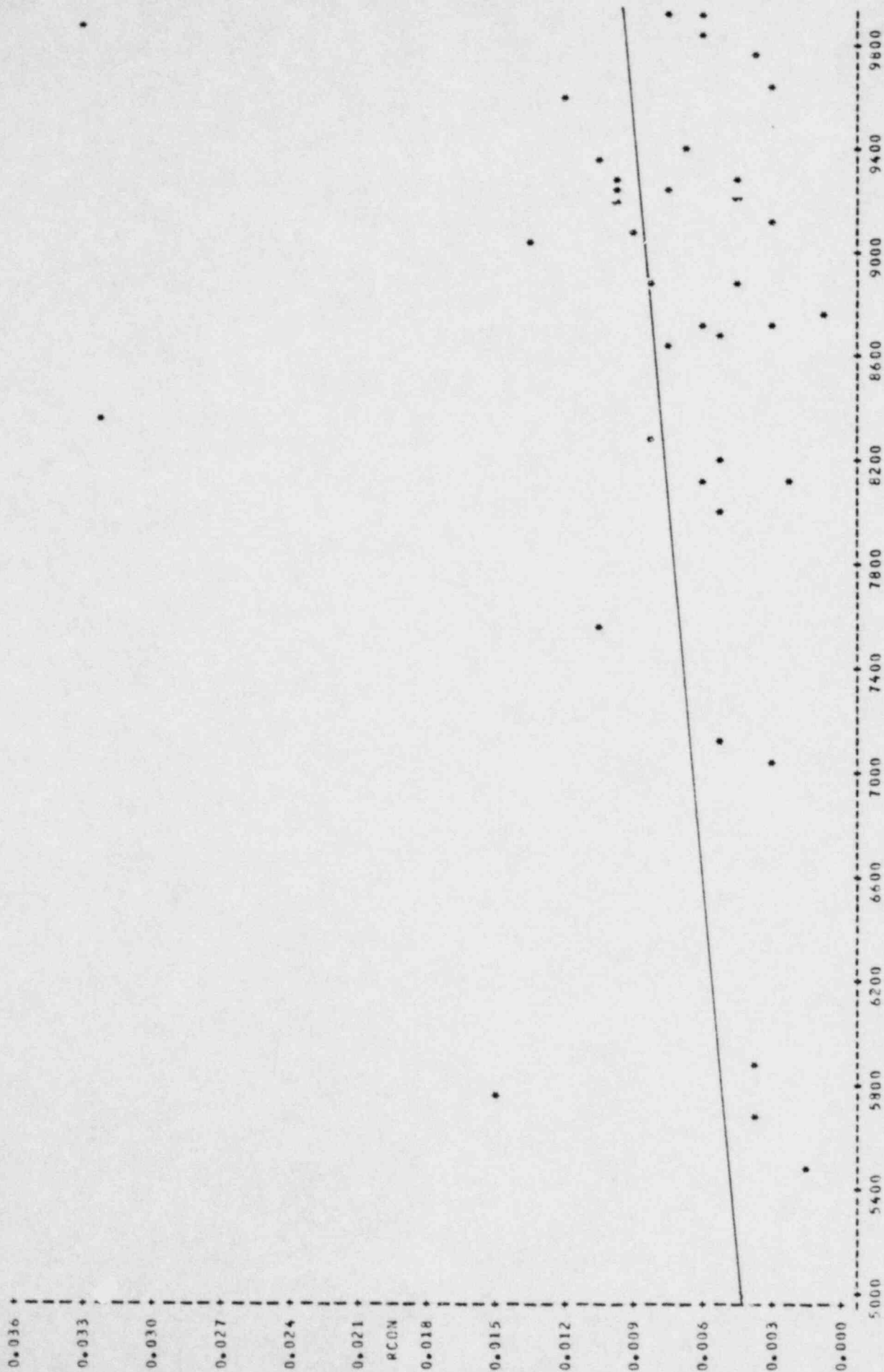
PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION I

PLOT OF PCON*TMIN   SYMBOL USED IS *

NOTE: 1 OBS HAD MISSING VALUES   1 OBS HIDDEN

PLOT OF UCON*DHAUL   SYMBOL USED IS *

DHAUL

NOTE: 2 OBS HAD MISSING VALUES   1 OBS HIDDEN

PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION 1

PLOT OF TCON*OHAUL   SYMBOL USED IS *

TCON |
0.09 +
      |
0.08 +
      |
0.07 +
      |
0.06 +
      |
0.05 +
      |
0.04 +
      |
0.03 +
      |
0.02 +
      |
0.01 +
      |
0.00 +
      ---+-------+-------+-------+-------+-------+-------+-------+-------+-------+-------+-------+-------+-------+-------+-------+
        5000   5500   6000   6500   7000   7500   8000   8500   9000   9500   10000   10500   11000   11500   12000   12500

                                                                        OHAUL

NOTE: 1 OBS HAD MISSING VALUES

PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION 1

PLOT OF RCON*OHAUL   SYMBOL USED IS *

OHAUL

NOTE: 1 OBS HAD MISSING VALUES

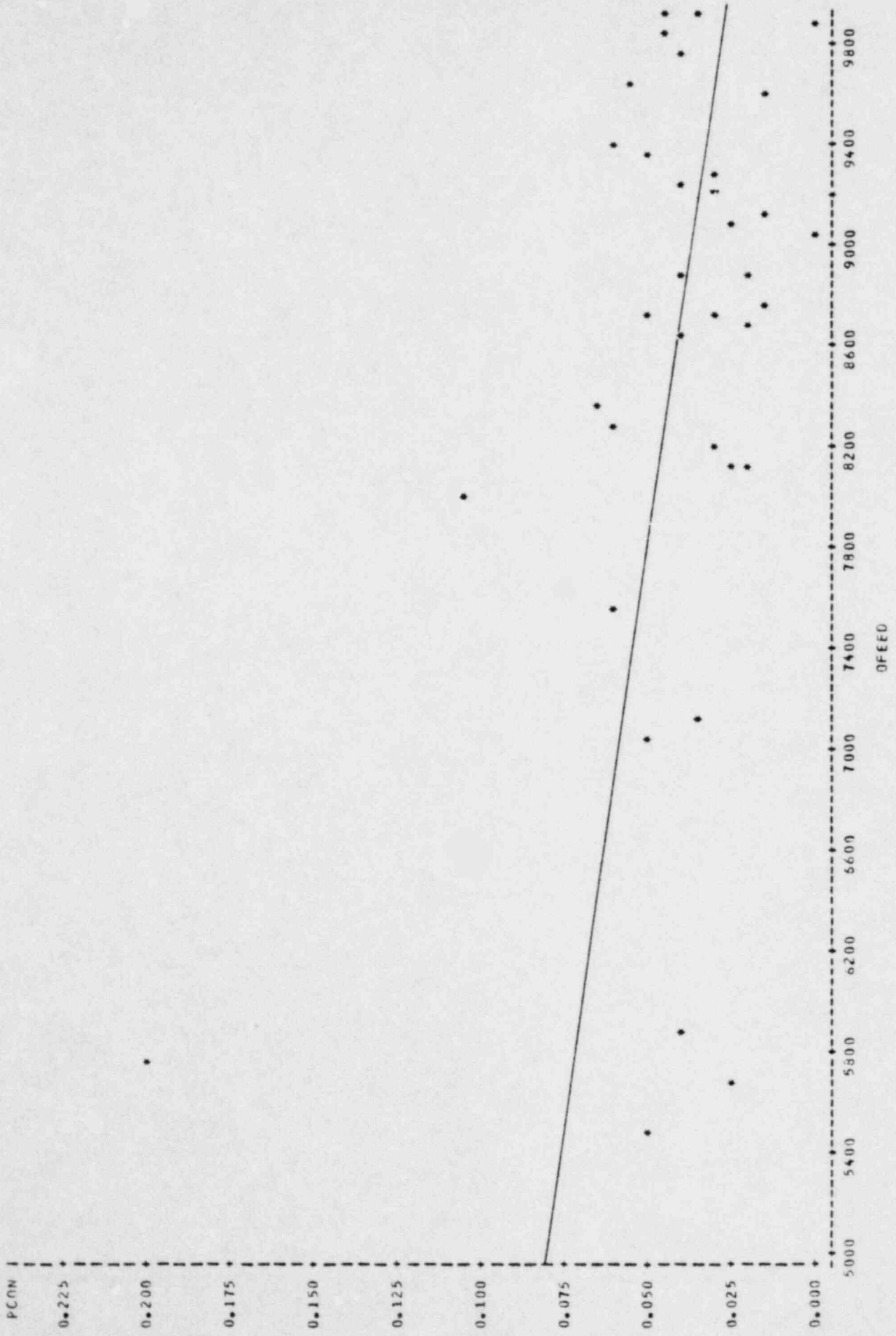PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION 1

PLOT OF PCON*OHAUL   SYMBOL USED IS *

NOTE: 1 OBS HAD MISSING VALUES

IMAGE EVALUATION
TEST TARGET (MT-3)

MICROCOPY RESOLUTION TEST CHART
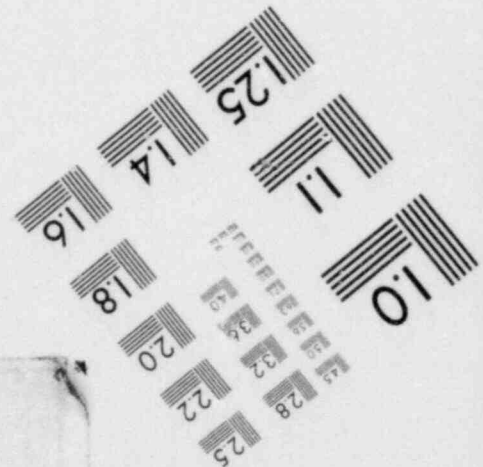
IMAGE EVALUATION
TEST TARGET (MT-3)
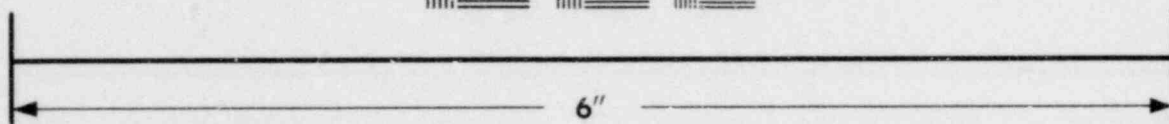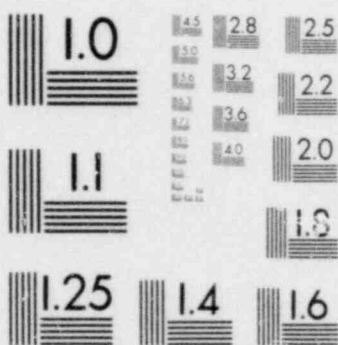
MICROCOPY RESOLUTION TEST CHART

PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION 1
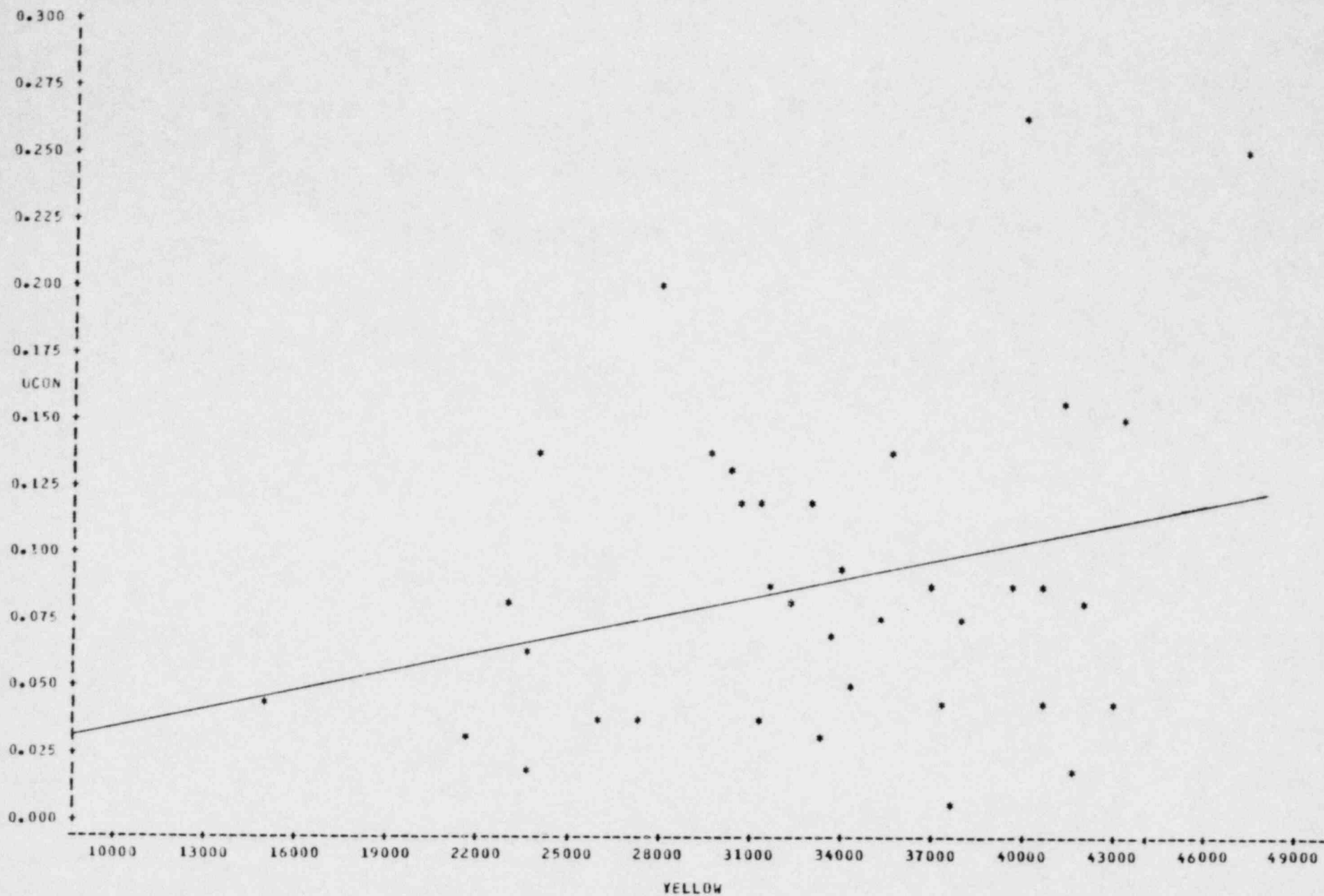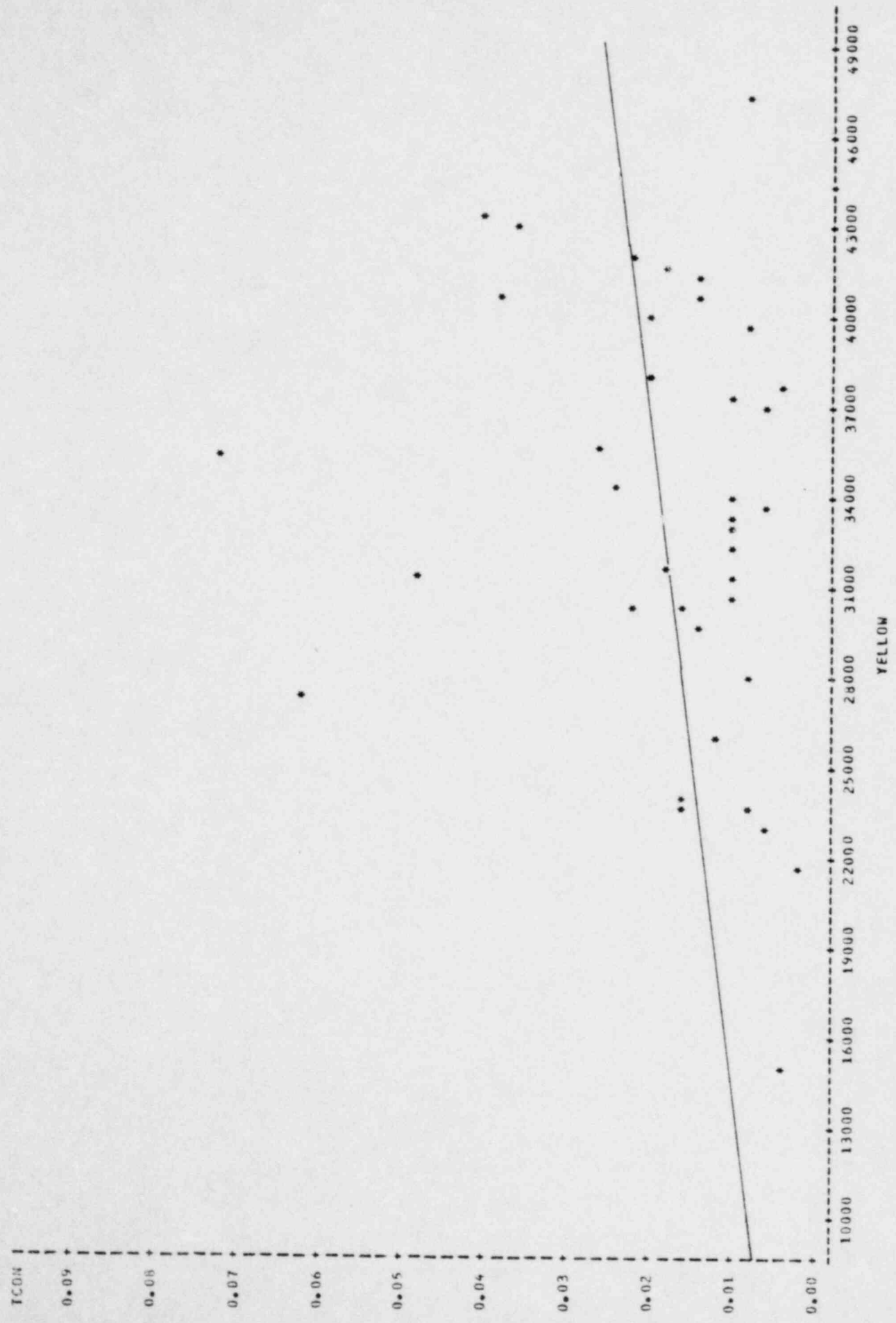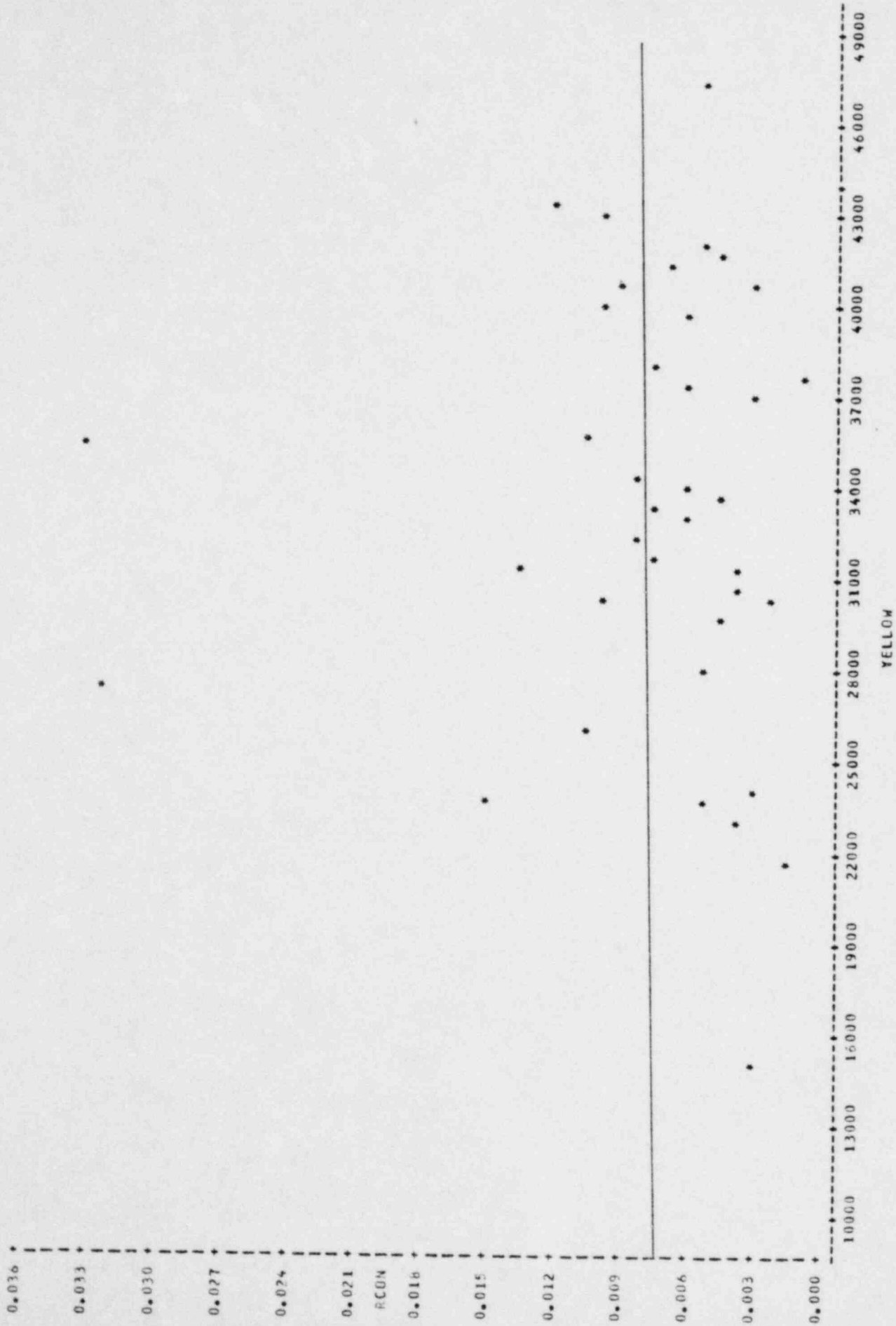
PLOT OF UCON*OFEED   SYMBOL USED IS *

NOTE: 2 OBS HAD MISSING VALUES

PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION 1

PLOT OF RCON*OFEED   SYMBOL USED IS *

NOTE: 1 OBS HAD MISSING VALUES

PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION 1

PLOT OF PCON*OFEED   SYMBOL USED IS *

PCON |
      |
0.225 +
      |
      |
      |
0.200 +
      | *
      |
0.175 +
      |
      |
      |
0.150 +
      |
      |
      |
0.125 +
      |
      |
      |
0.100 +
      | *
      |
      |
0.075 +
      |
      | *
      | *   *   *
0.050 +   *   *   *   *
      | *   *   *   *   *
      | *   * *   *   *
      | *   *   *   *   *
0.025 +   *   * *   *   *
      | *   *
      | *   *   *   *
      |--
0.000 +   *   *   *   *
      -+-------+-------+-------+-------+-------+-------+-------+-------+-------+-------+-------+-------+-
      5000   5400   5800   6200   5600   7000   7400   7800   8200   8600   9000   9400   9800

                                               OFEED

NOTE: 1 OBS HAD MISSING VALUES   3 OBS HIDDEN

PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION I

PLOT OF UCON*YELLOW   SYMBOL USED IS *

NOTE: 2 OBS HAD MISSING VALUES

PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION 1
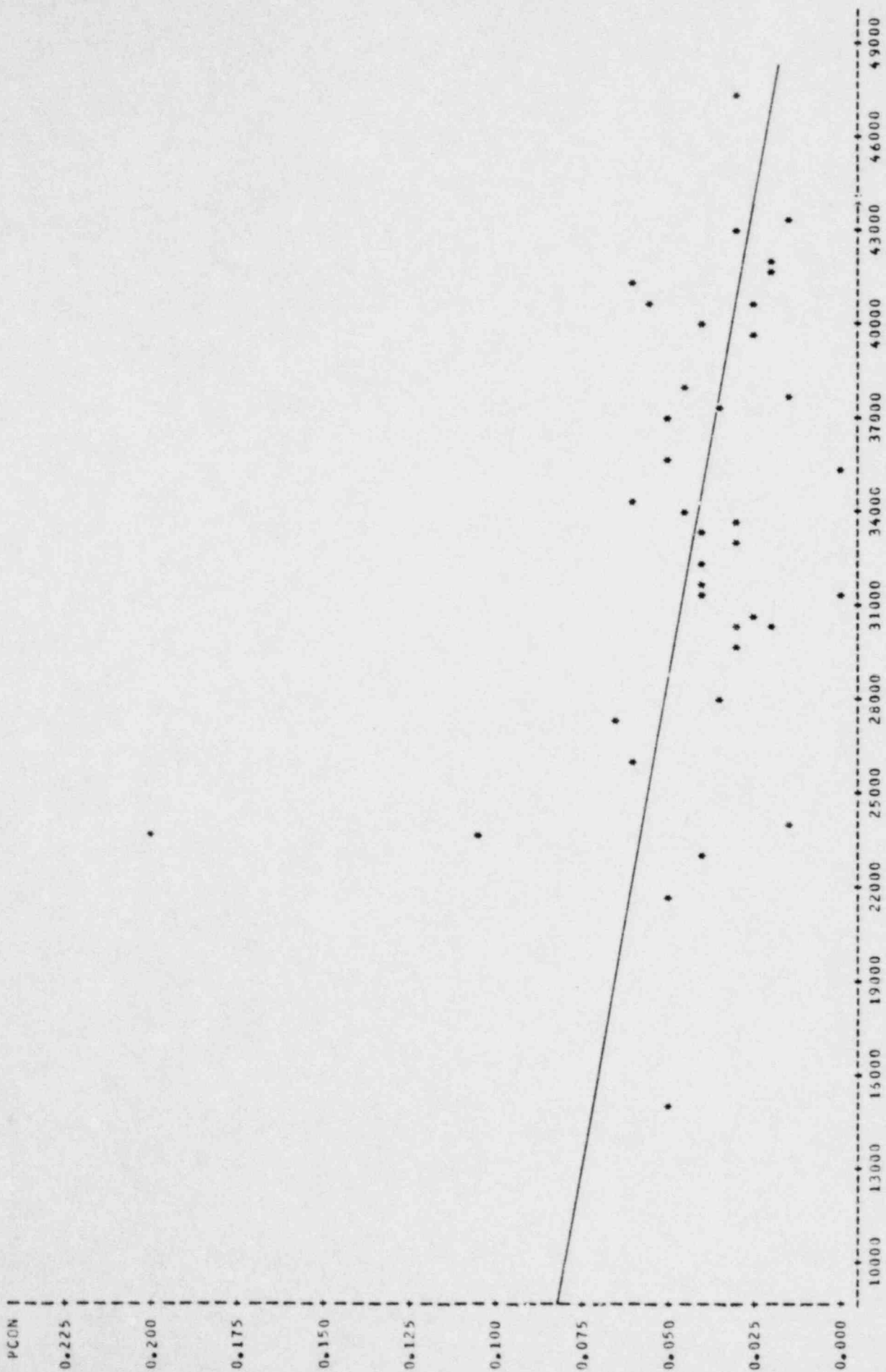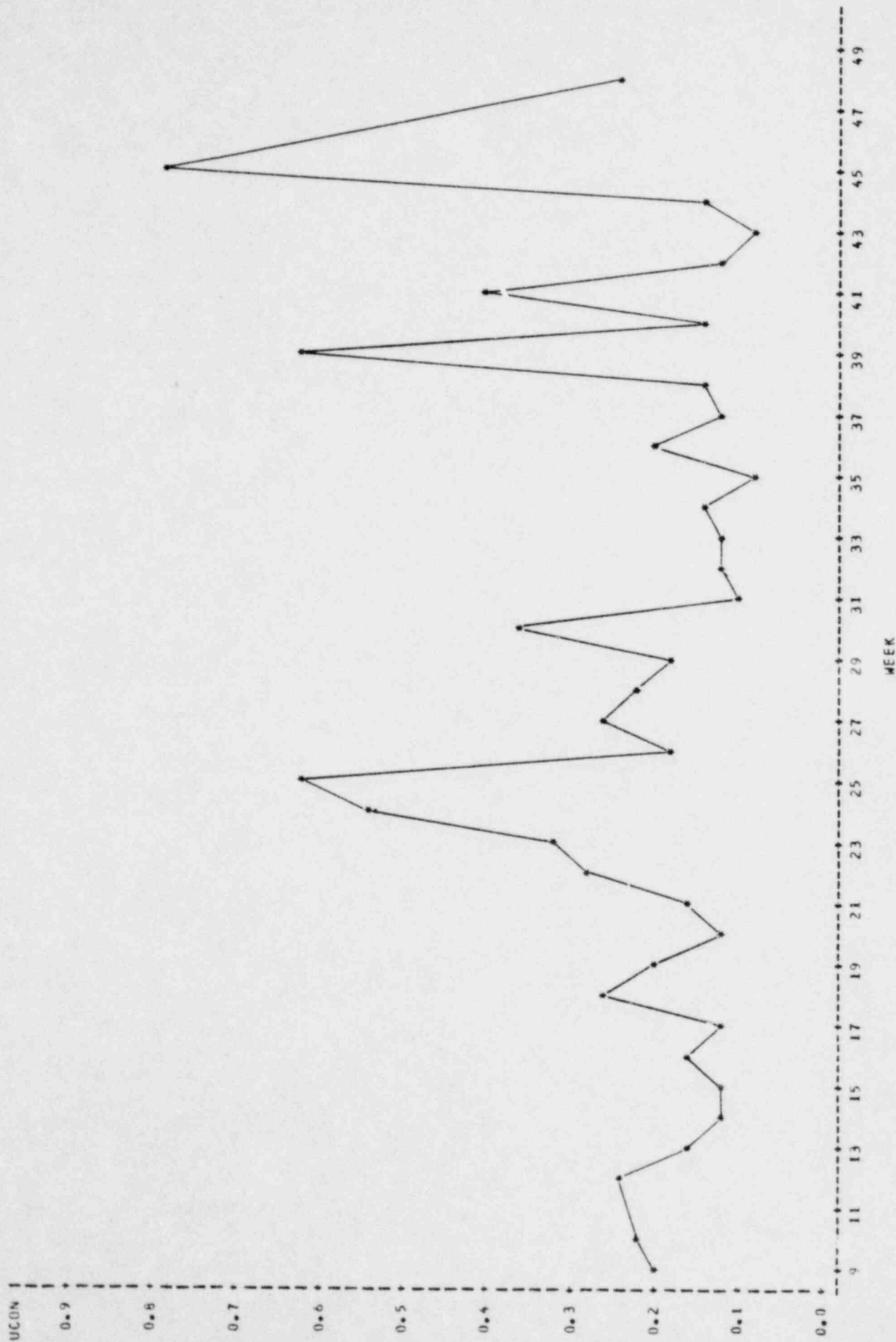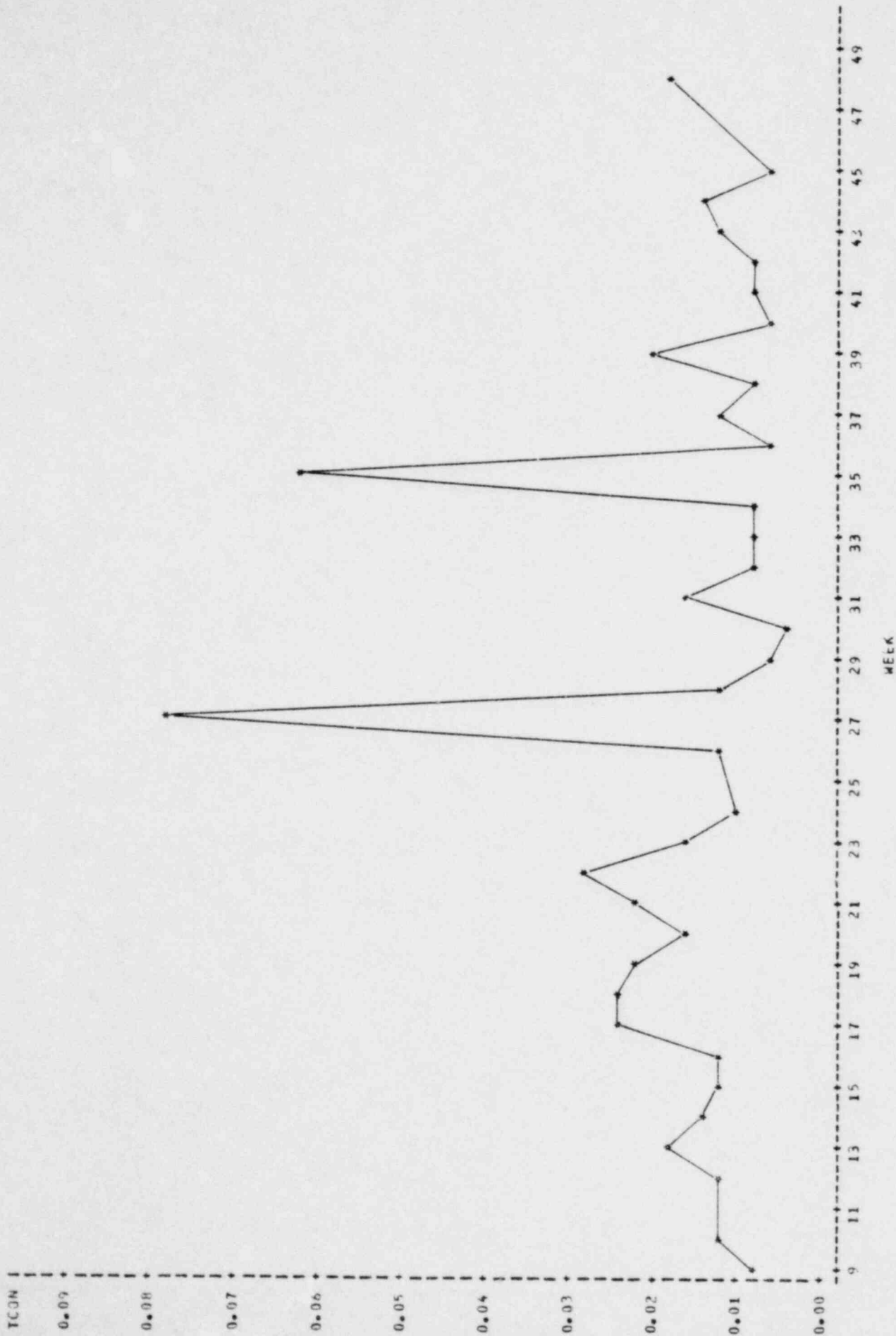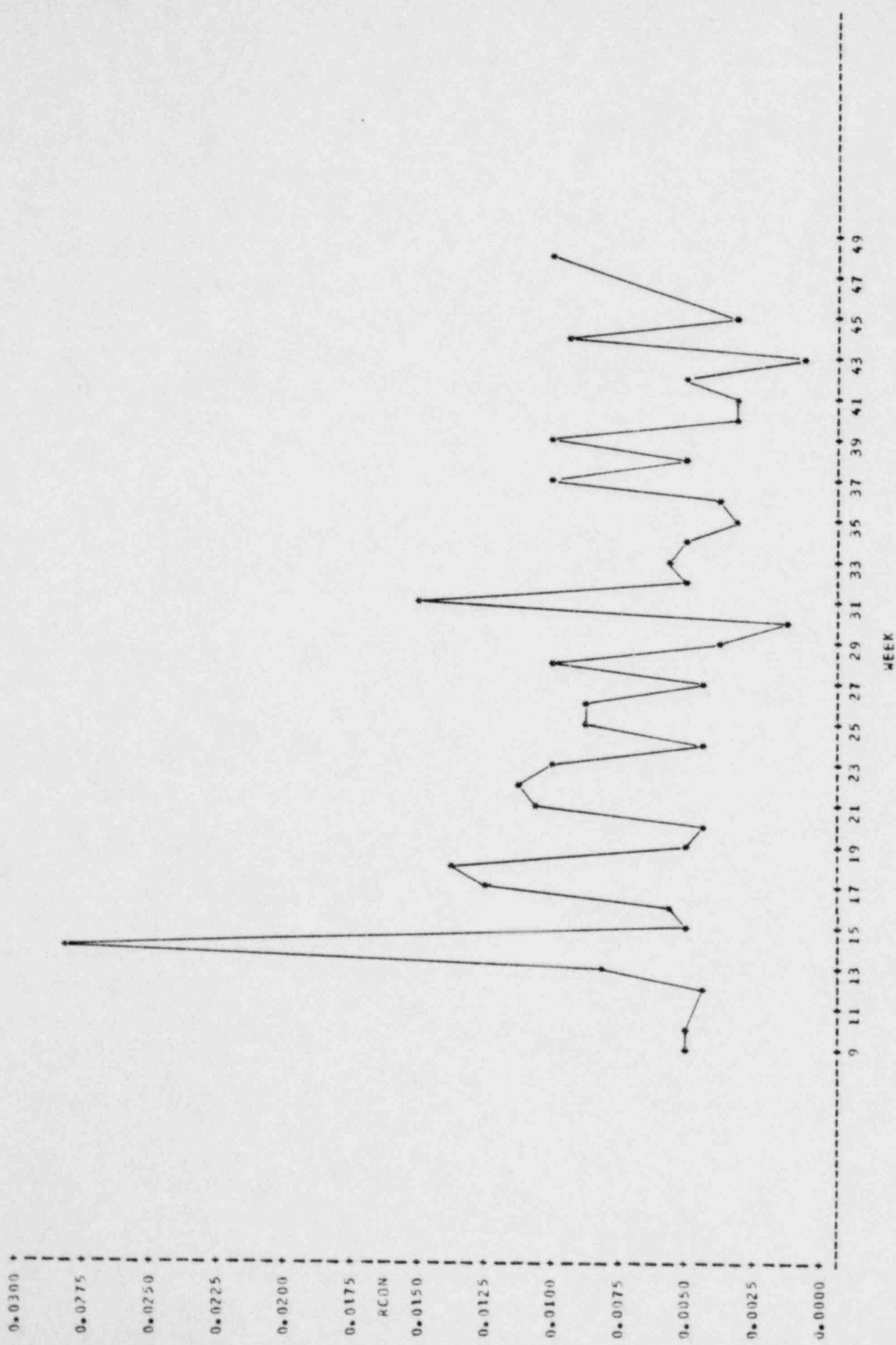
PLOT OF TCON*YELLOW   SYMBOL USED IS *

YELLOW

NOTE: 1 OBS HAD MISSING VALUES

PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION 1

PLOT OF RCON*YELLOW   SYMBOL USED IS *

NOTE: 1 OBS HAD MISSING VALUES

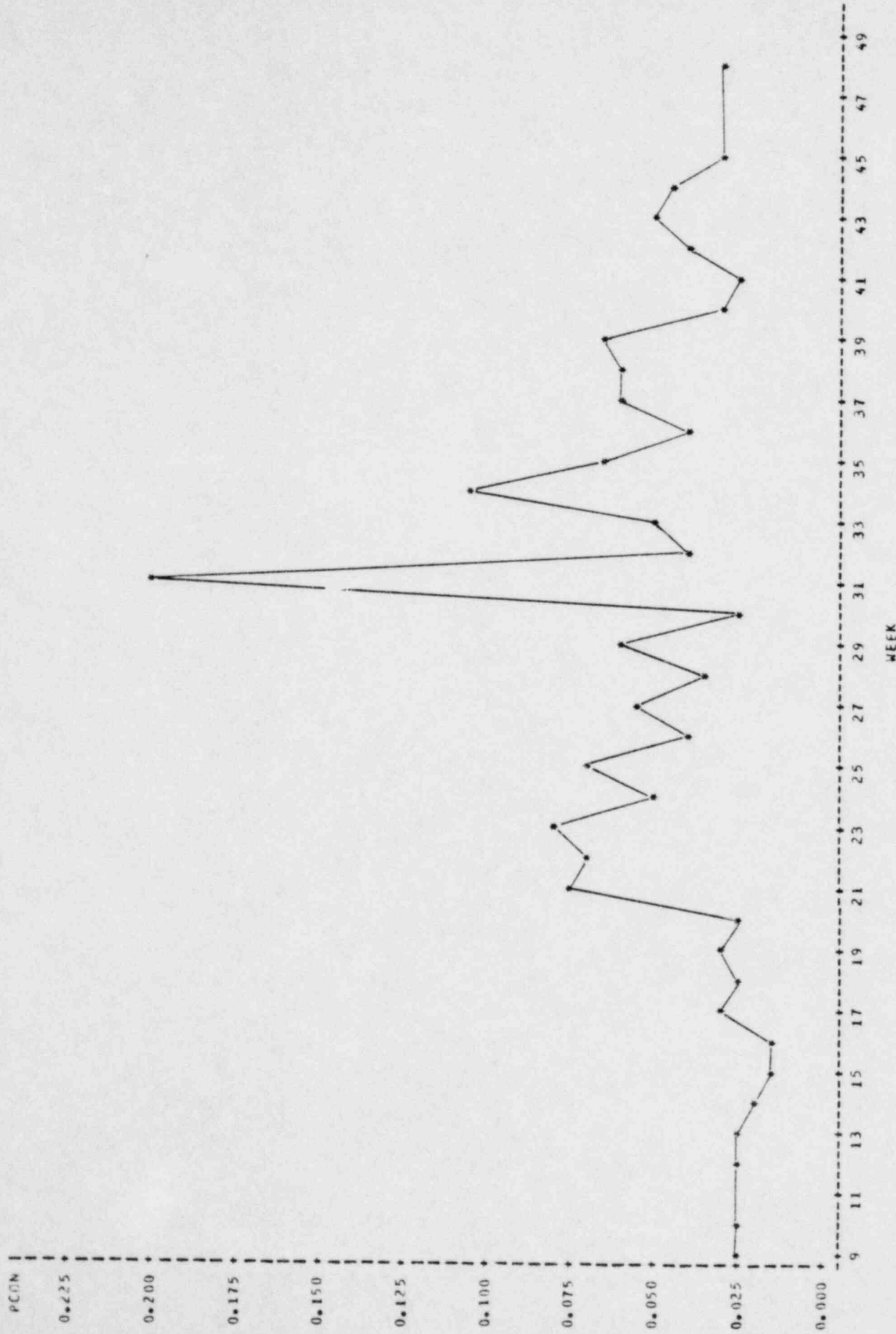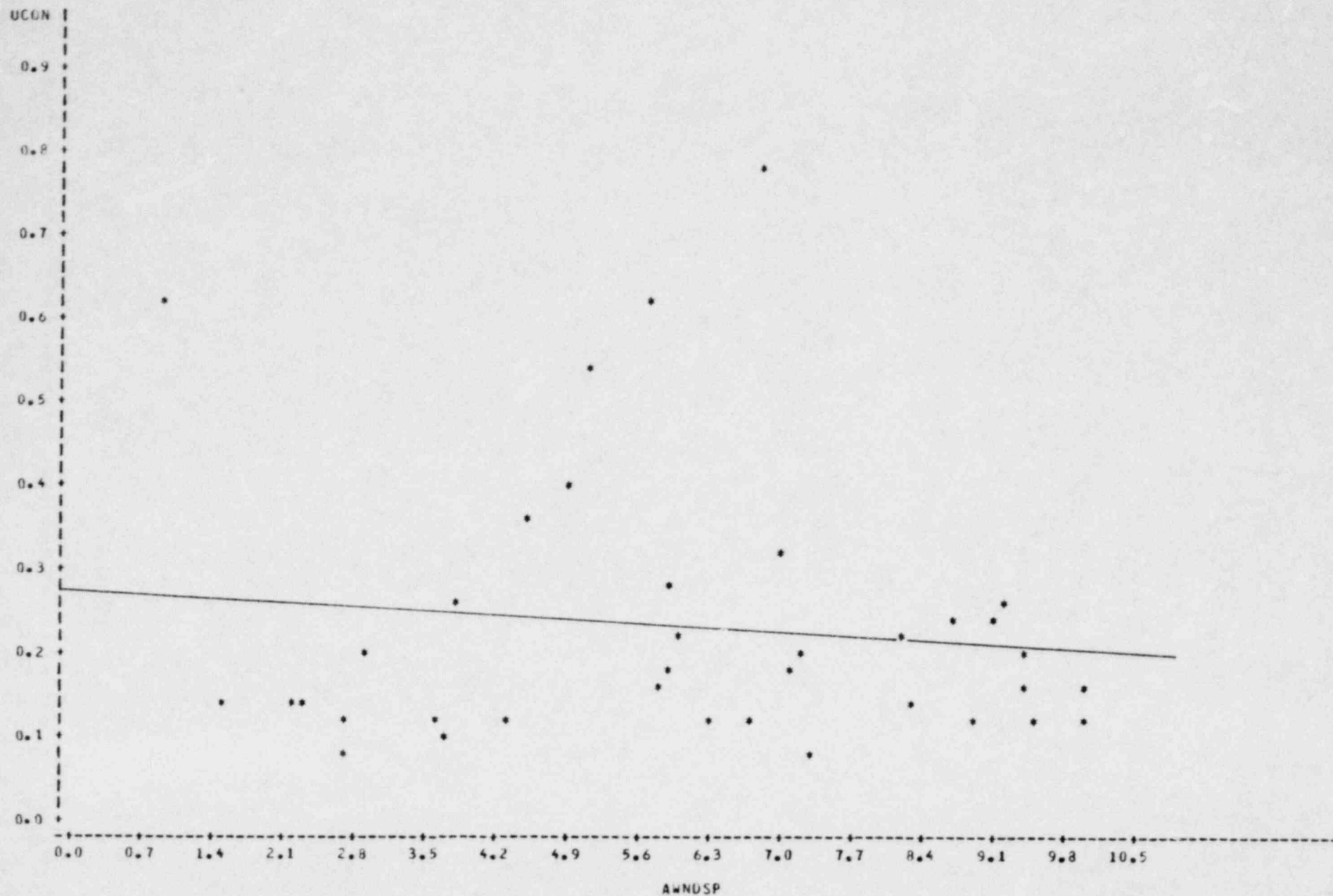PLOT OF CONCENTRATIONS VS ENVIRONMENTAL FACTORS FOR LOCATION I

PLOT OF PCON*YELLOW   SYMBOL USED IS *

PCON |
      |
0.225 +
      |
      |
      |
      |
0.200 +
      |
      |
      |
      |
0.175 +
      |
      |
      |
      |
0.150 +
      |
      |
      |
      |
0.125 +
      |
      |
      |
      |
0.100 +
      |
      |
      |
      |
0.075 +
      |
      |
      |
      |
0.050 +
      |
      |
      |
      |
0.025 +
      |
      |
      |
      |
0.000 +
       --+------+------+------+------+------+------+------+------+------+------+------+------+------+------+
      10000 13000 15000 19000 22000 25000 28000 31000 34000 37000 40000 43000 46000 49000

                                              YELLOW

NOTE: 1 OBS HAD MISSING VALUES

APPENDIX F

SELECTED ENVIRONMENTAL DATA PLOTS FOR LOCATION 2

PLOT OF CONCENTRATIONS VS ENVIORMENTAL FACTORS FOR LOCATION 2

PLOT OF UCON*WEEK   SYMBOL USED IS *
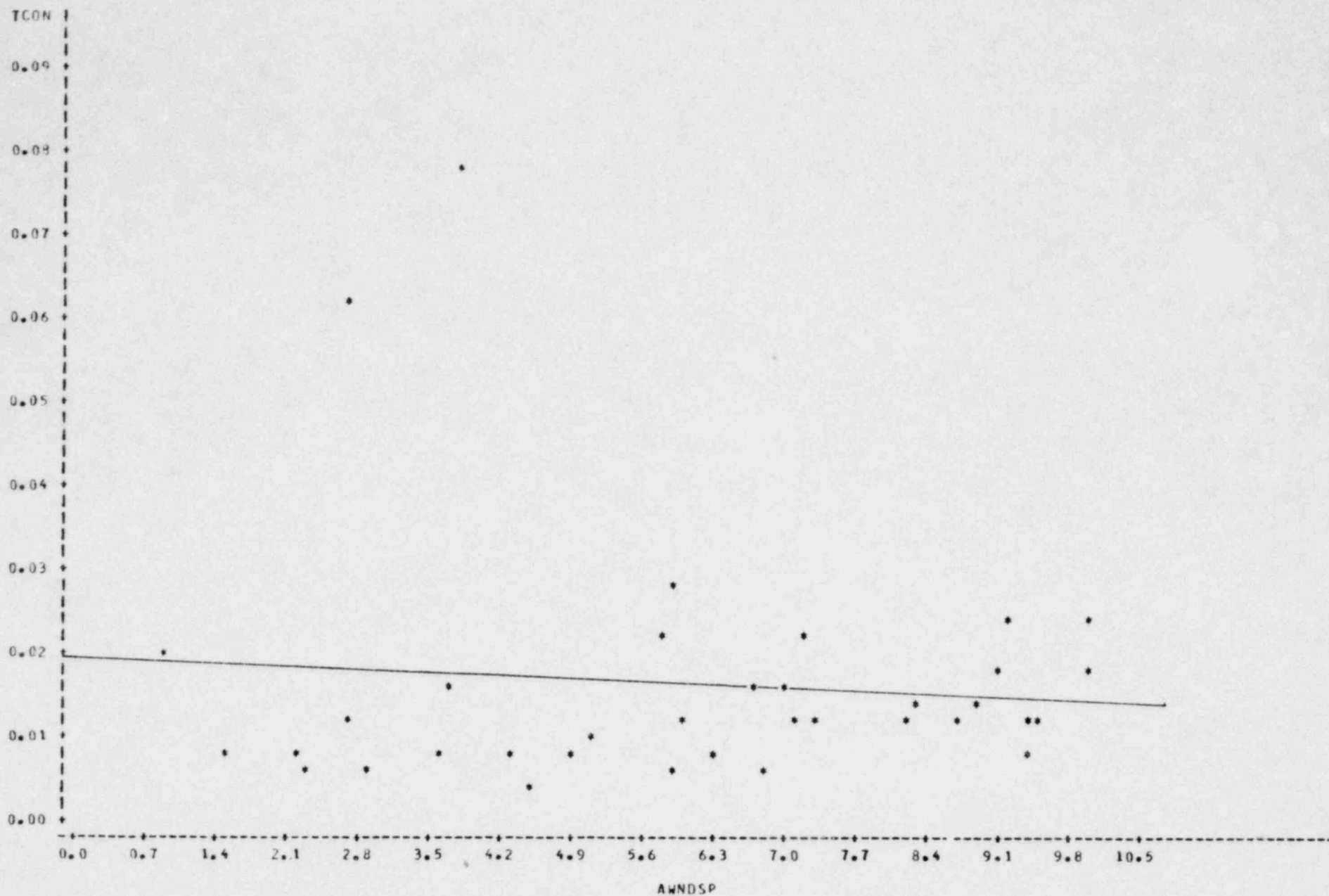

NOTE: 5 OBS HAD MISSING VALUES

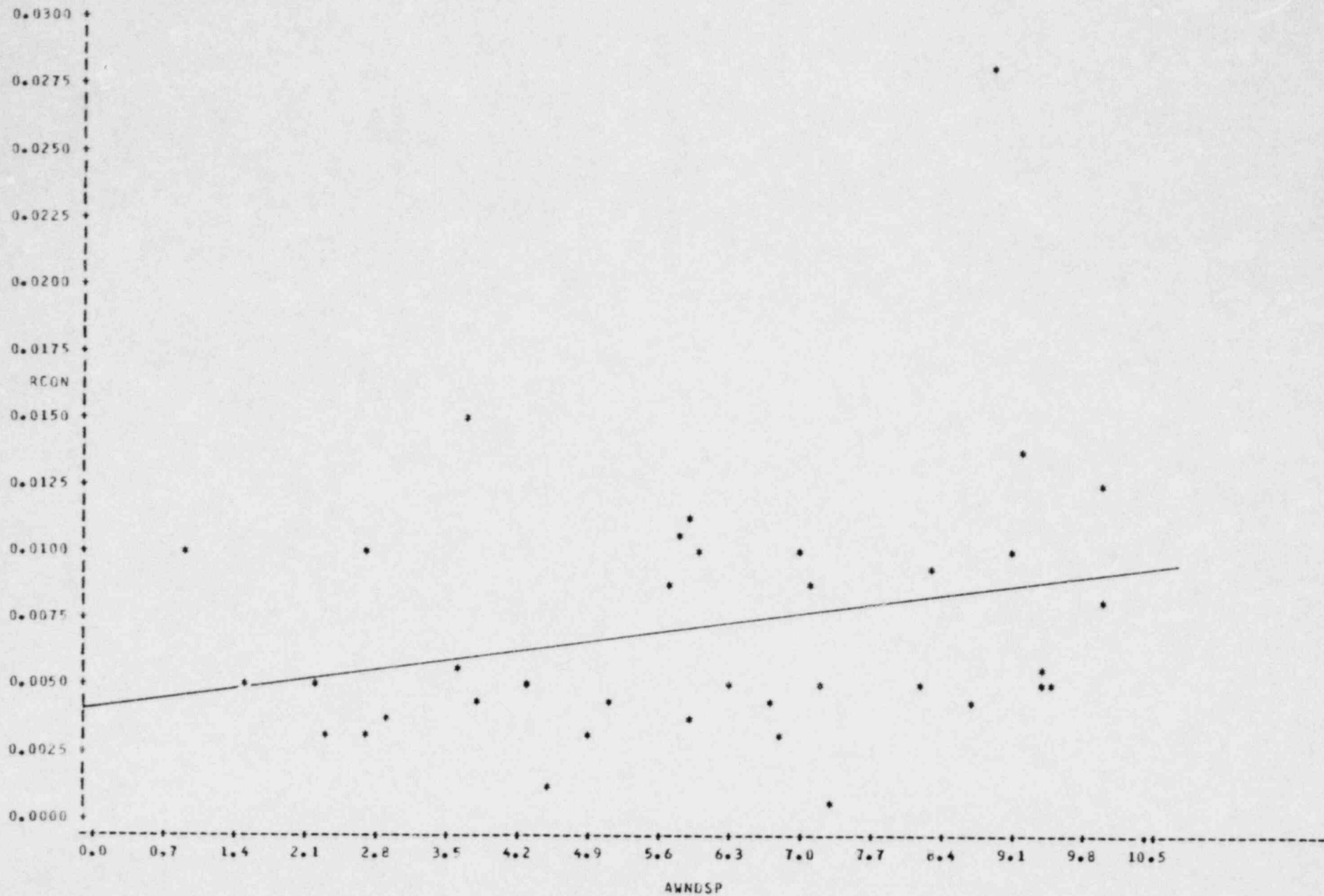PLOT OF CONCENTRATIONS VS ENVIORMENTAL FACTORS FOR LOCATION 2

PLOT OF TCON*WEEK   SYMBOL USED IS +

NOTE: 6 OBS HAD MISSING VALUES

PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION 2

PLOT OF RCON*WEEK   SYMBOL USED IS *

NOTE: 5 OBS HAD MISSING VALUES

PLOT OF CONCENTRATIONS VS ENVIORMENTAL FACTORS FOR LOCATION 2

PLOT OF PCON*WEEK   SYMBOL USED IS *

WEEK

NOTE: 5 OBS HAD MISSING VALUES

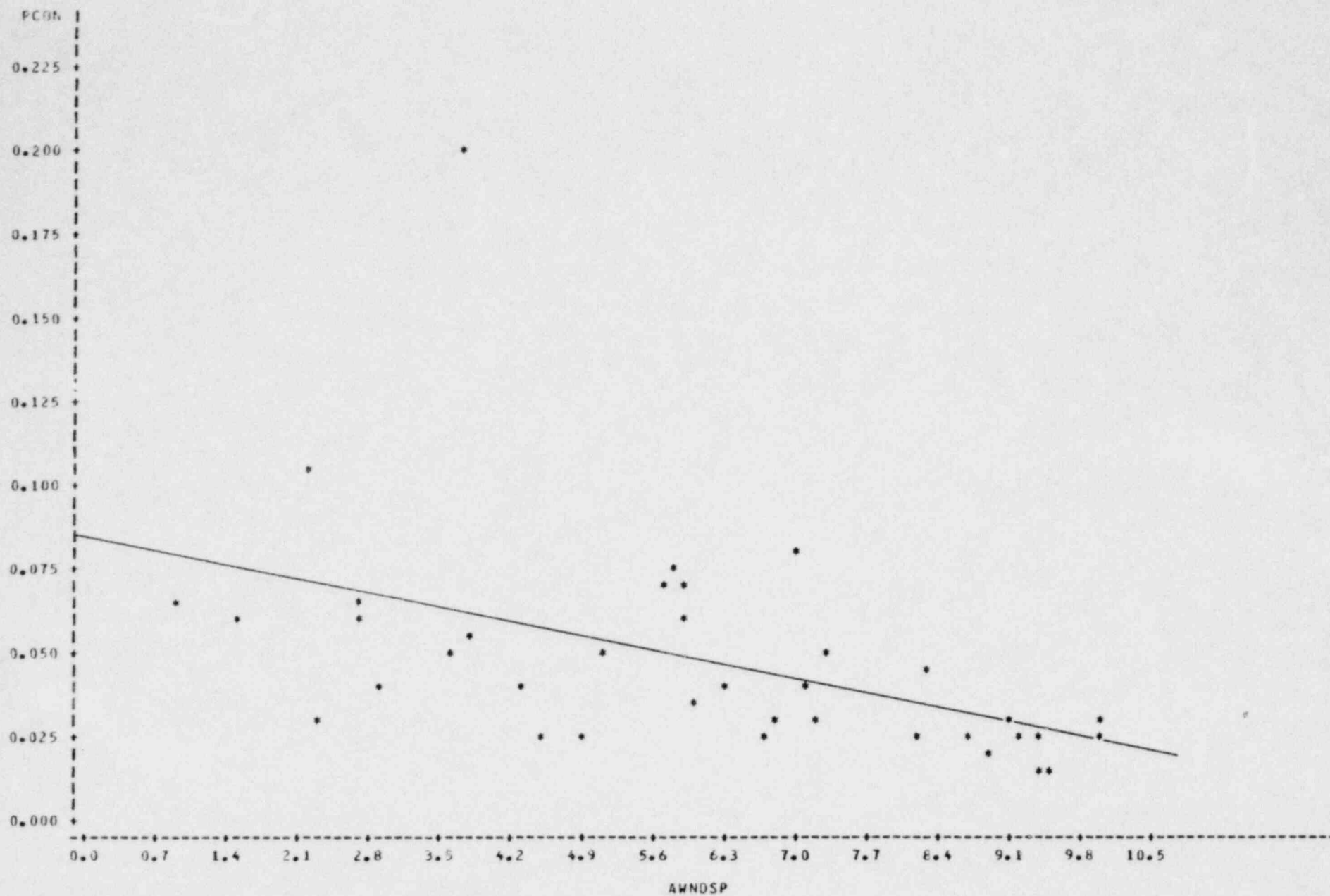PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION 2

PLOT OF UCON*AWNDSP   SYMBOL USED IS *

NOTE: 5 OBS HAD MISSING VALUES

PLOT OF CONCENTRATIONS VS ENVIRONMENTAL FACTORS FOR LOCATION 2

PLOT OF TCON*AWNDSP   SYMBOL USED IS *

NOTE: 6 OBS HAD MISSING VALUES

PLOT OF RCON*AWNDSP   SYMBOL USED IS *

AWNDSP

NOTE: 5 OBS HAD MISSING VALUES

PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION 2

PLOT OF PCON*AWNDSP   SYMBOL USED IS *

NOTE: 5 OBS HAD MISSING VALUES

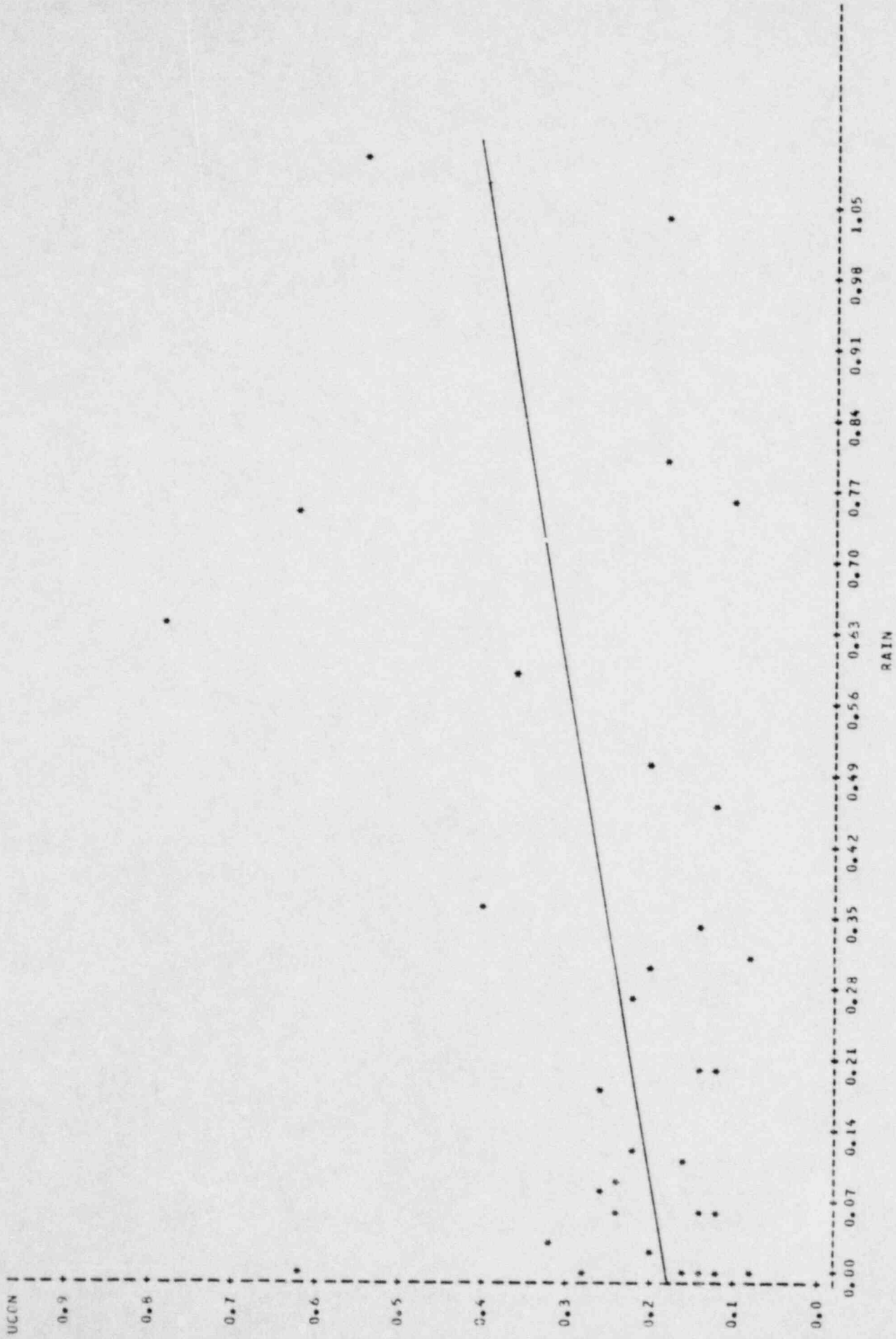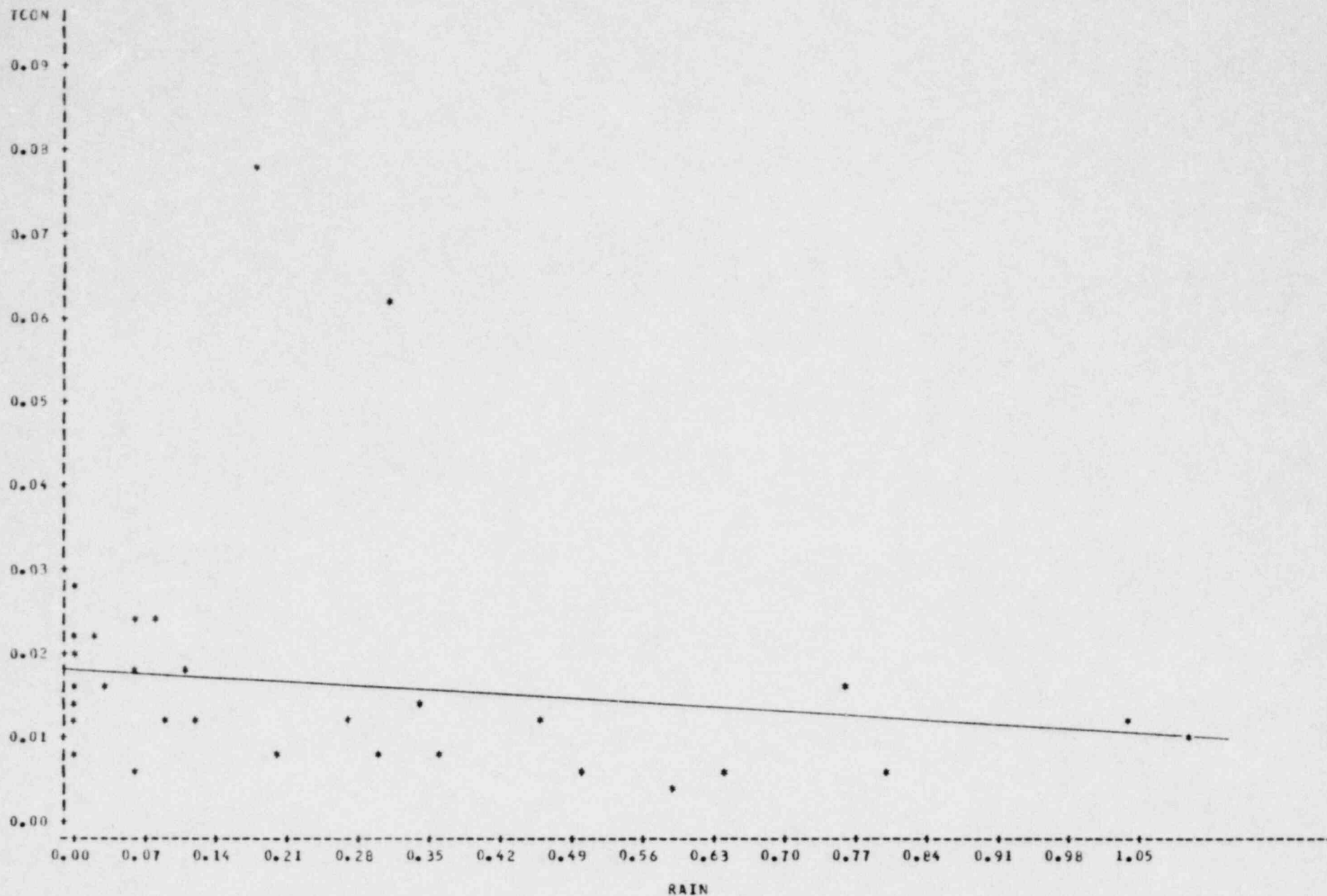PLOT OF CONCENTRATIONS VS ENVIRONMENTAL FACTORS FOR LOCATION 2

PLOT OF UCON*RAIN   SYMBOL USED IS *

RAIN

NOTE: 5 OBS HAD MISSING VALUES   5 OBS HIDDEN

PLOT OF CONCENTRATIONS VS ENVIORMENTAL FACTORS FOR LOCATION 2

PLOT OF TCON*RAIN   SYMBOL USED IS *

PLOT OF RCON*RAIN   SYMBOL USED IS *

RAIN

NOTE: 5 OBS HAD MISSING VALUES   4 OBS HIDDEN

PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION 2

PLOT OF PCON*RAIN   SYMBOL USED IS *

NOTE: 5 OBS HAD MISSING VALUES   4 OBS HIDDEN

PLOT OF UCON*TMIN   SYMBOL USED IS *

TMIN

NOTE: 5 OBS HAD MISSING VALUES

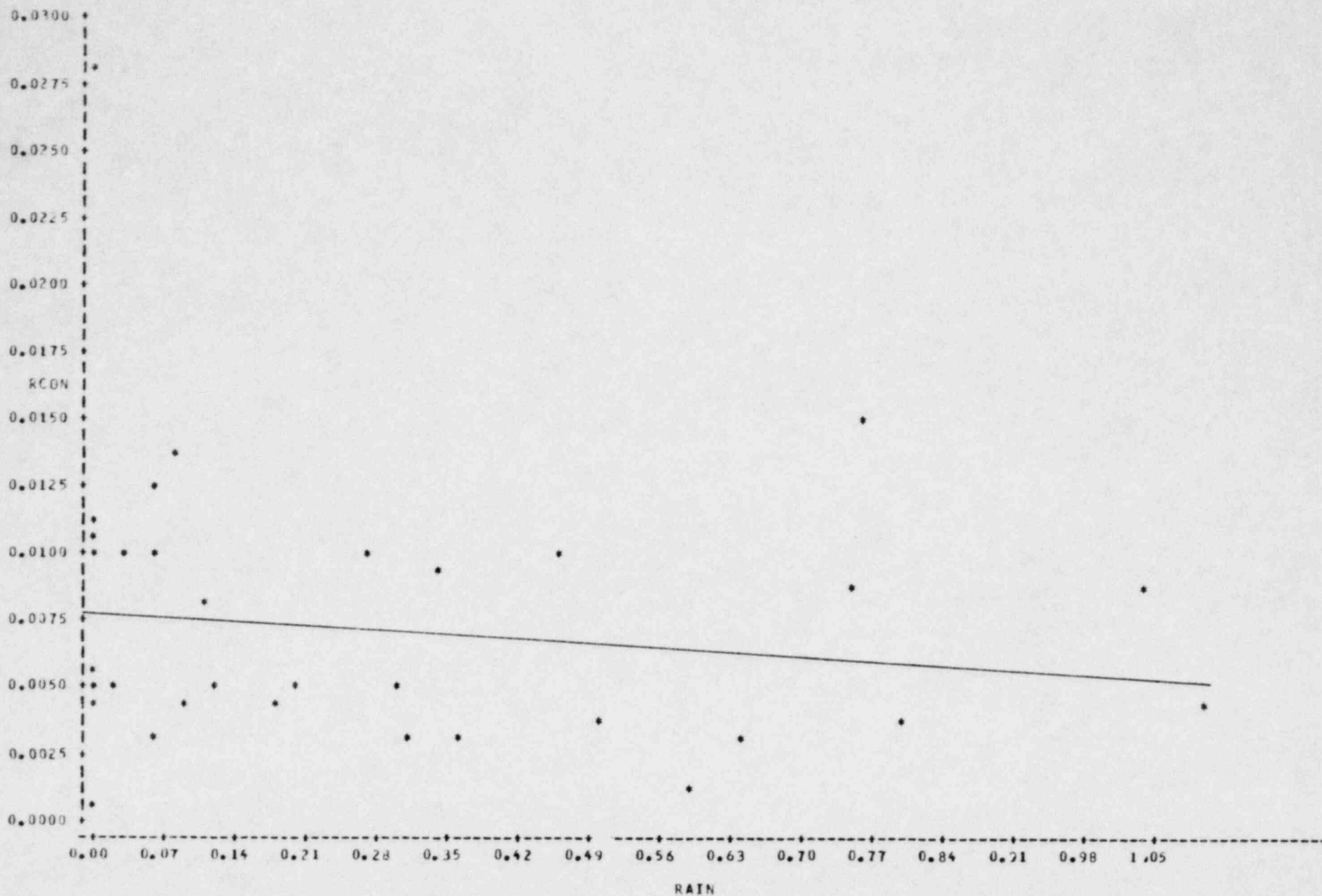PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION 2

PLOT OF TCON*TMIN   SYMBOL USED IS *

NOTE: 6 OBS HAD MISSING VALUES   1 OBS HIDDEN

PLOT OF CONCENTRATIONS VS ENVIORMENTAL FACTORS FOR LOCATION 2
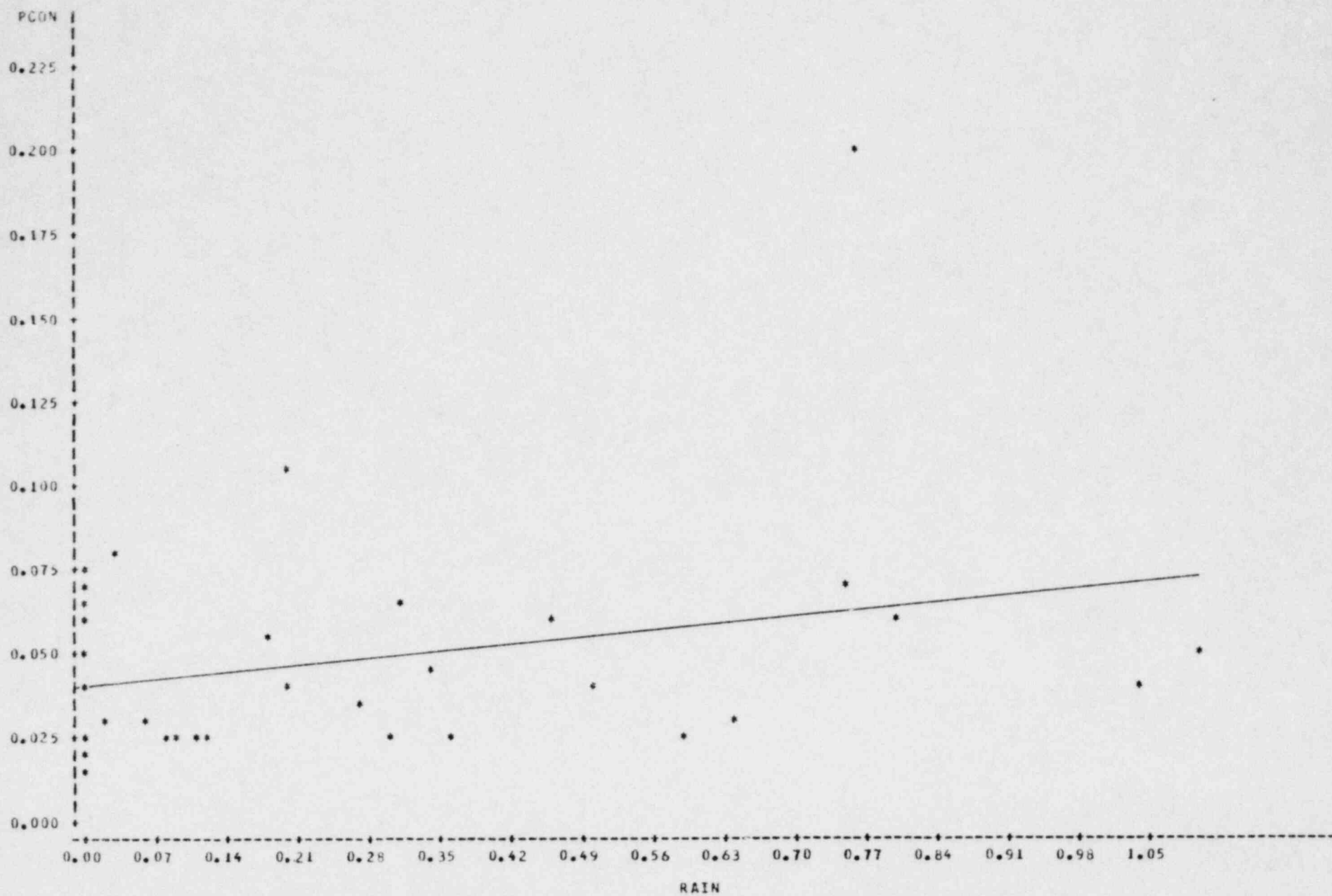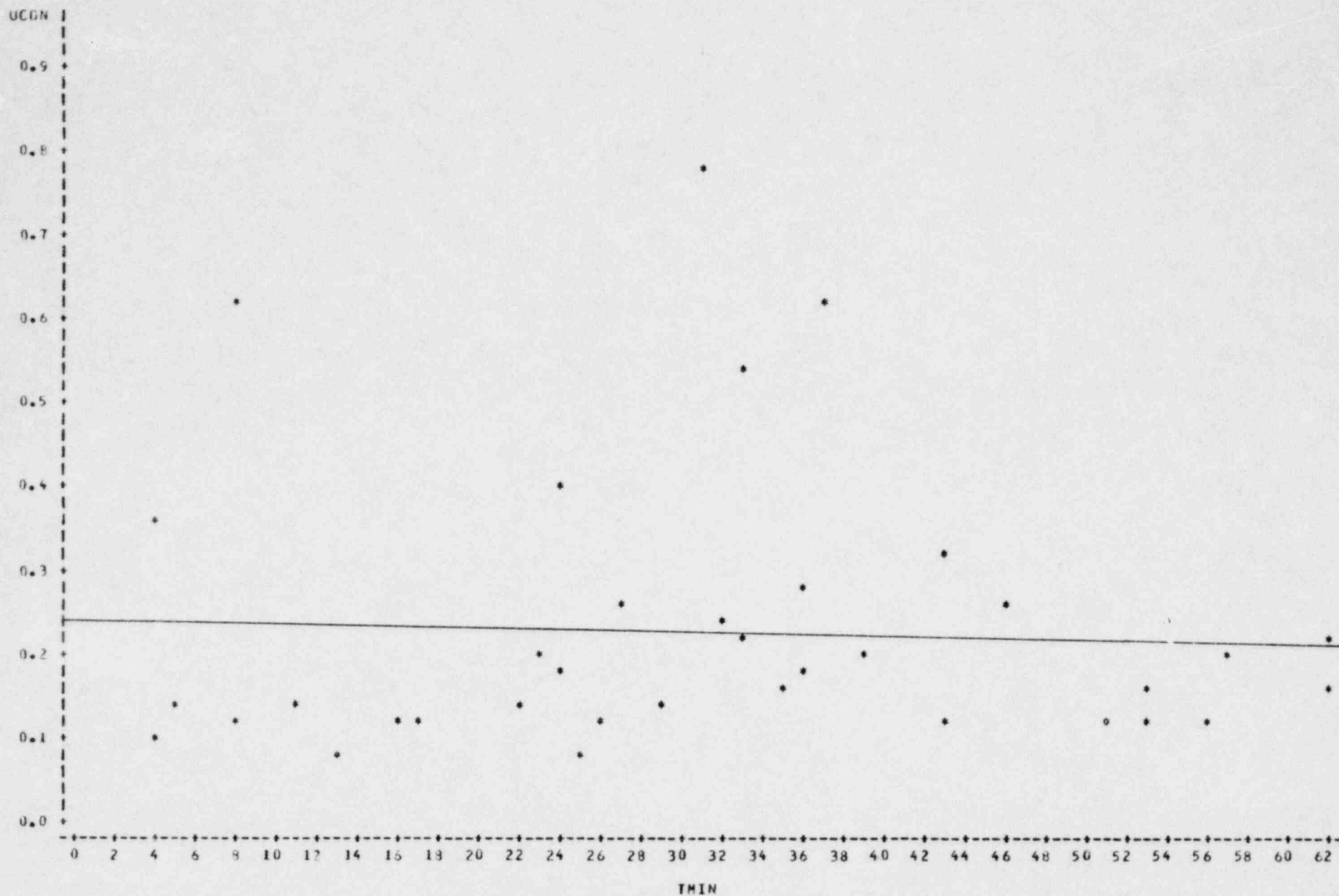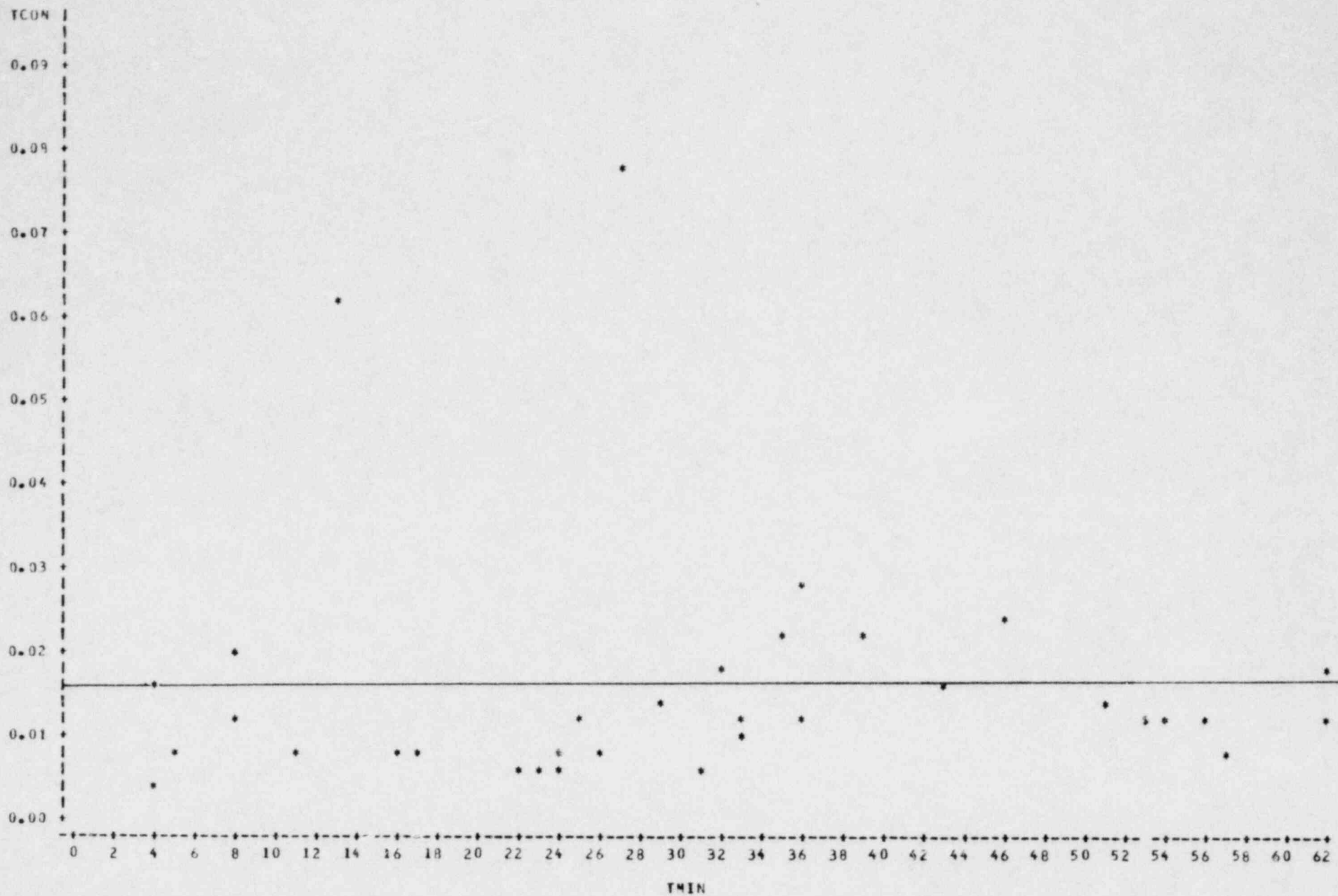
PLOT OF RCON*TMIN   SYMBOL USED IS *

NOTE: 5 OBS HAD MISSING VALUES   1 OBS HIDDEN

PLOT OF PCON*TMIN   SYMBOL USED IS *

```
PCON |
     |
0.225 +
     |
     |
     |
     |
0.200 +     *
     |
     |
     |
0.175 +
     |
     |
     |
0.150 +
     |
     |
     |
0.125 +
     |
     |
     |
0.100 +              *
     |
     |
     |
0.075 +                              *
     |                             *  *
     |        *       *                    *
     |     *    *          *
0.050 +            *      *      *
     |               *       *       *
     |         *         *  *
     |              *      * *      *
0.025 +   *           *      *  *    *   *  *     *    *
     |                    *         *
     |                            *    *
     |
0.000 +
     ----+----+----+----+----+----+----+----+----+----+----+----+----+----+--------------------------------+------
         0    4    8   12   16   20   24   28   32   36   40   44   48   52   56   60
```

                                                TMIN

NOTE: 5 OBS HAD MISSING VALUES   1 OBS HIDDEN

PLOT OF CONCENTRATIONS VS ENVORMENTAL FACTORS FOR LOCATION 2

PLOT OF UCON*OHAUL   SYMBOL USED IS *

UCON ┤

0.9 ┤

0.8 ┤

0.7 ┤

0.6 ┤

0.5 ┤

0.4 ┤

0.3 ┤

0.2 ┤

0.1 ┤

0.0 ┤
    └───
     5000 5500 6000 6500 7000 7500 8000 8500 9000 9500 10000 10500 11000 115 0 12000 12500

                                        OHAUL

PLOT OF CONCENTRATIONS VS ENVIRONMENTAL FACTORS FOR LOCATION 2

PLOT OF TCON*OHAUL   SYMBOL USED IS *

TCON |

OHAUL

NOTE: 6 OBS HAD MISSING VALUES

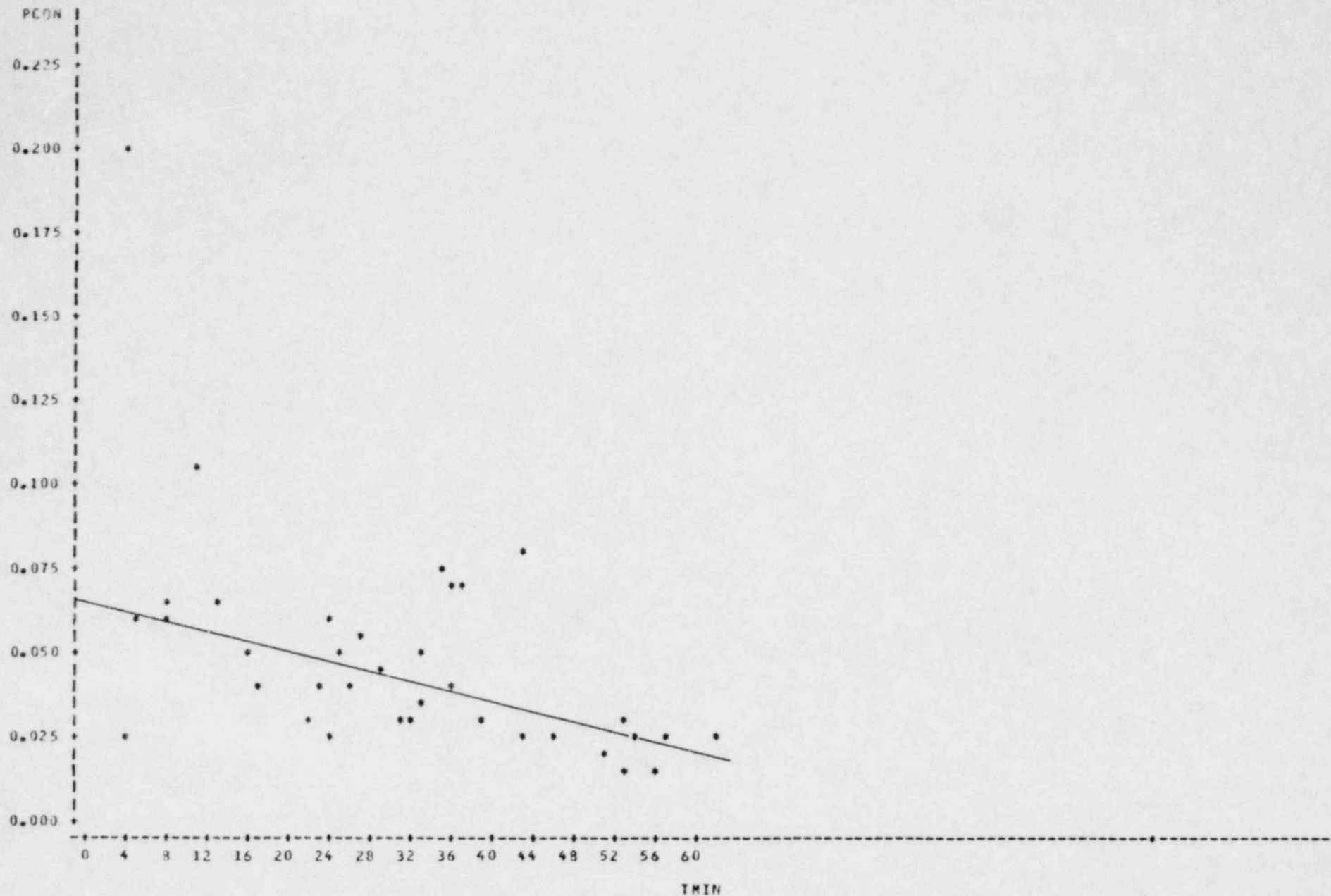PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION 2

PLOT OF RCON*OHAUL   SYMBOL USED IS *

```
0.0300 +
         |
0.0275 +
         |
0.0250 +
         |
0.0225 +
         |
0.0200 +
         |
0.0175 +                                      *
 RCON    |
0.0150 +
         |                         *
0.0125 +                                            *
         |                                        *
0.0100 +              *       *                *           *           *
         |             *                    *        *              *
0.0075 +--------------------------------------------------------------------------
         |                                            *        *           *
0.0050 +                      *    *   *        *  *        *        *
         |                       *              *              *
0.0025 +           *                                                           *
         |
0.0000 +----+----+----+----+----+----+----+----+----+----+----+----+----+----+----+
     5000  5500  6000  6500  7000  7500  8000  8500  9000  9500 10000 10500 11000 1 500 12000 12500

                                        OHAUL

NOTE:   5 OBS HAD MISSING VALUES    1 OBS HIDDEN
```
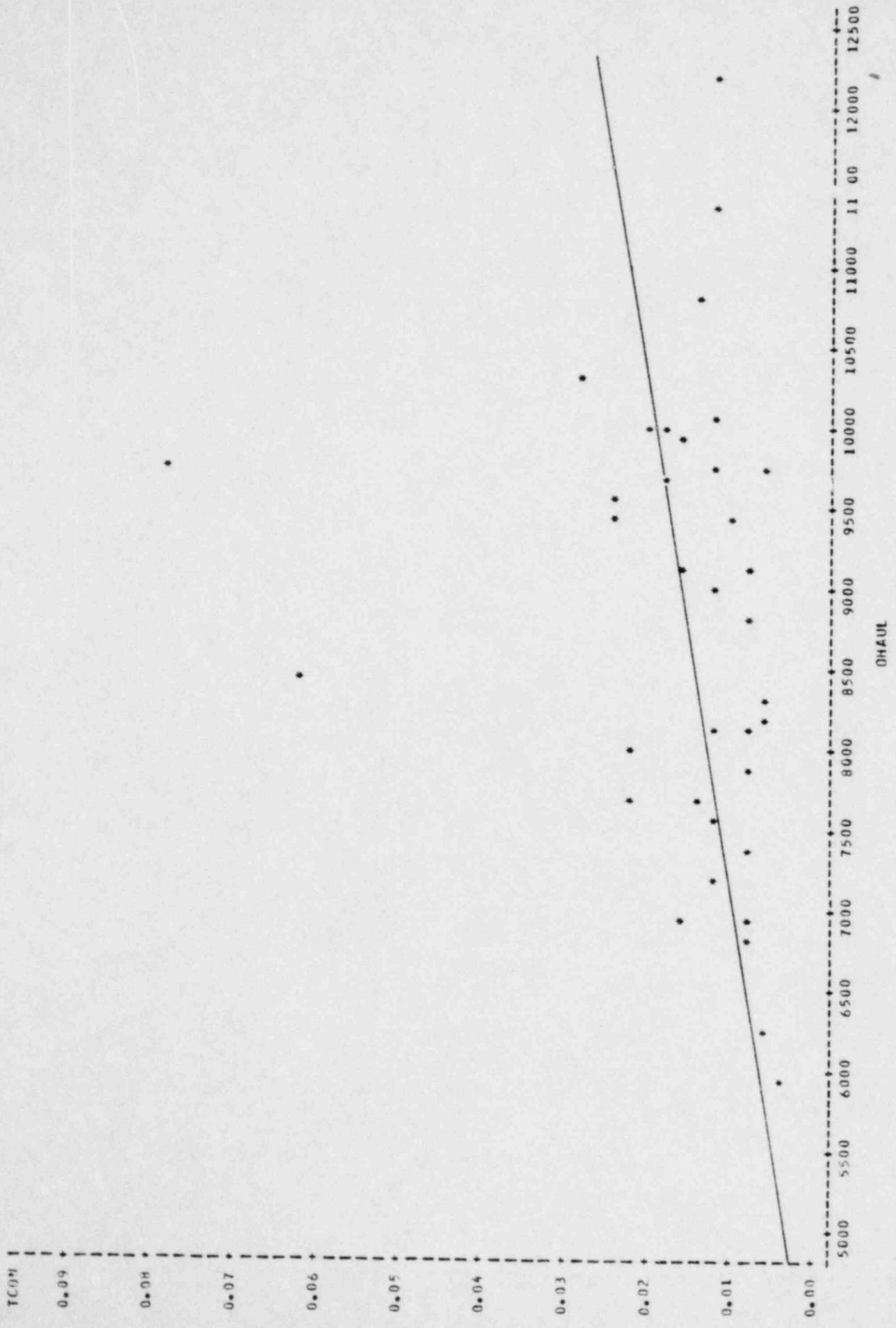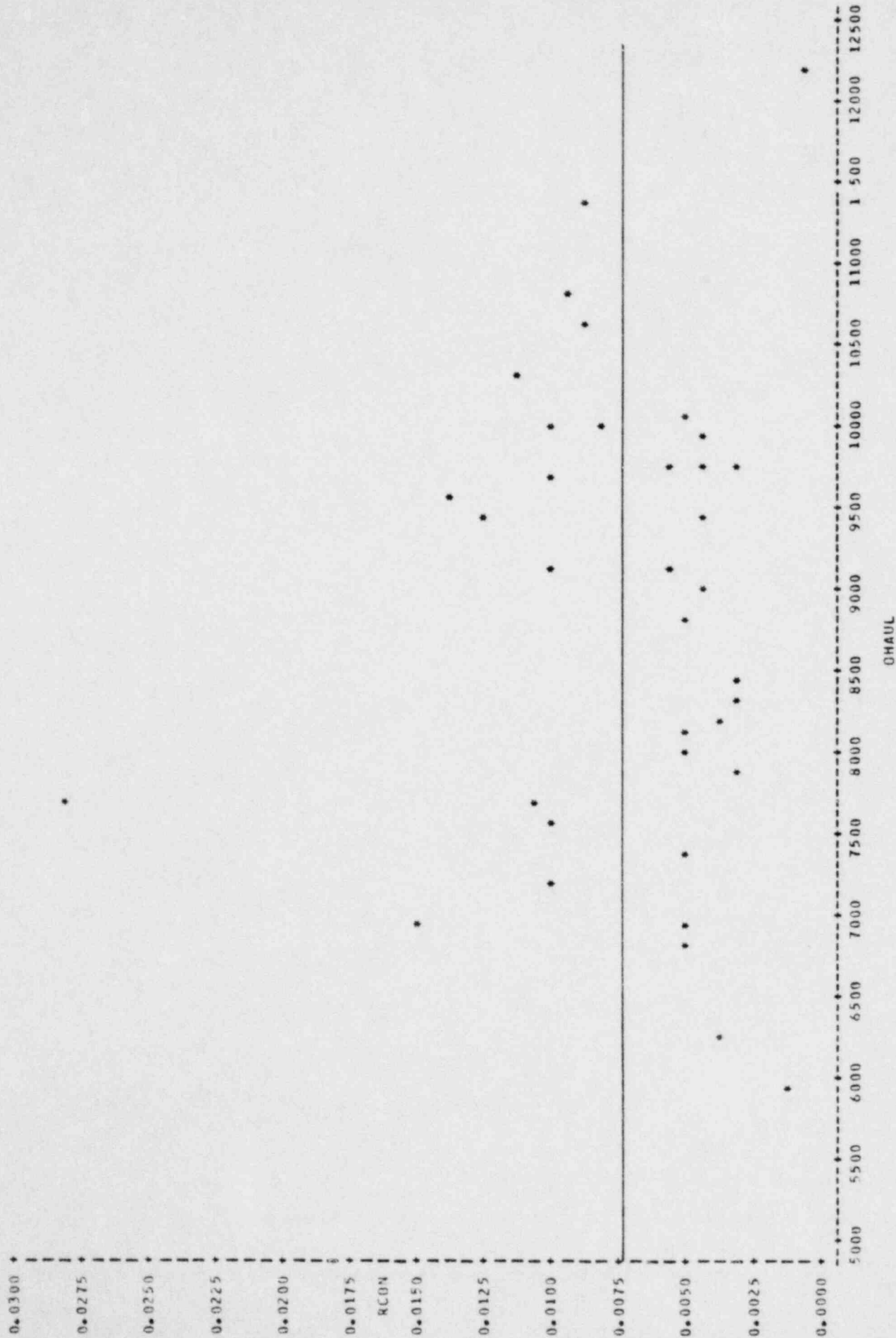
PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION 2

PLOT OF PCON*OHAUL   SYMBOL USED IS *

PCON |
     |
0.225 +
     |
0.200 +
     |
0.175 +
     |
0.150 +
     |
0.125 +
     |
0.100 +
     |
0.075 +
     |
0.050 +
     |
0.025 +
     |
0.000 +
      +----+----+----+----+----+----+----+----+----+----+----+----+----+----+----+----
     5000 5500 6000 6500 7000 7500 8000 8500 9000 9500 10000 10500 11000 11 00 12000 12500

                                              OHAUL

NOTE: 5 OBS HAD MISSING VALUES

PLOT OF CONCENTRATIONS VS ENVORMENTAL FACTORS FOR LOCATION 2

PLOT   JCON*OFEED   SYMBOL USED IS *

UCON

0.9

0.8

0.7

0.6

0.5

0.4

0.3

0.2

0.1

0.0

5000   5400   5800   6200   6600   7000   7400   7800   8200   8600   9000   9400   9800

OFEED

NOTE: 5 OBS HAD MISSING VALUES   1 OBS HIDDEN

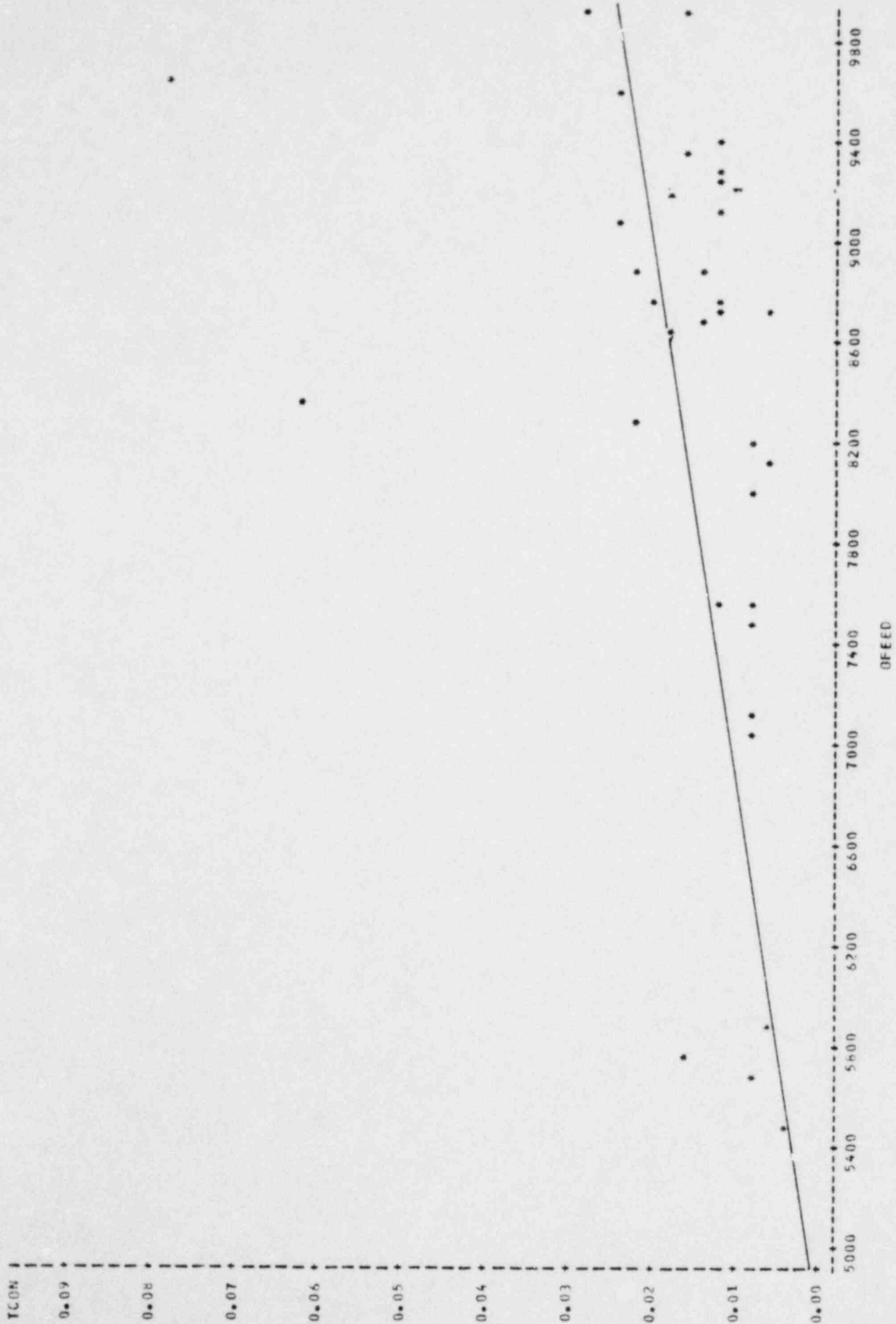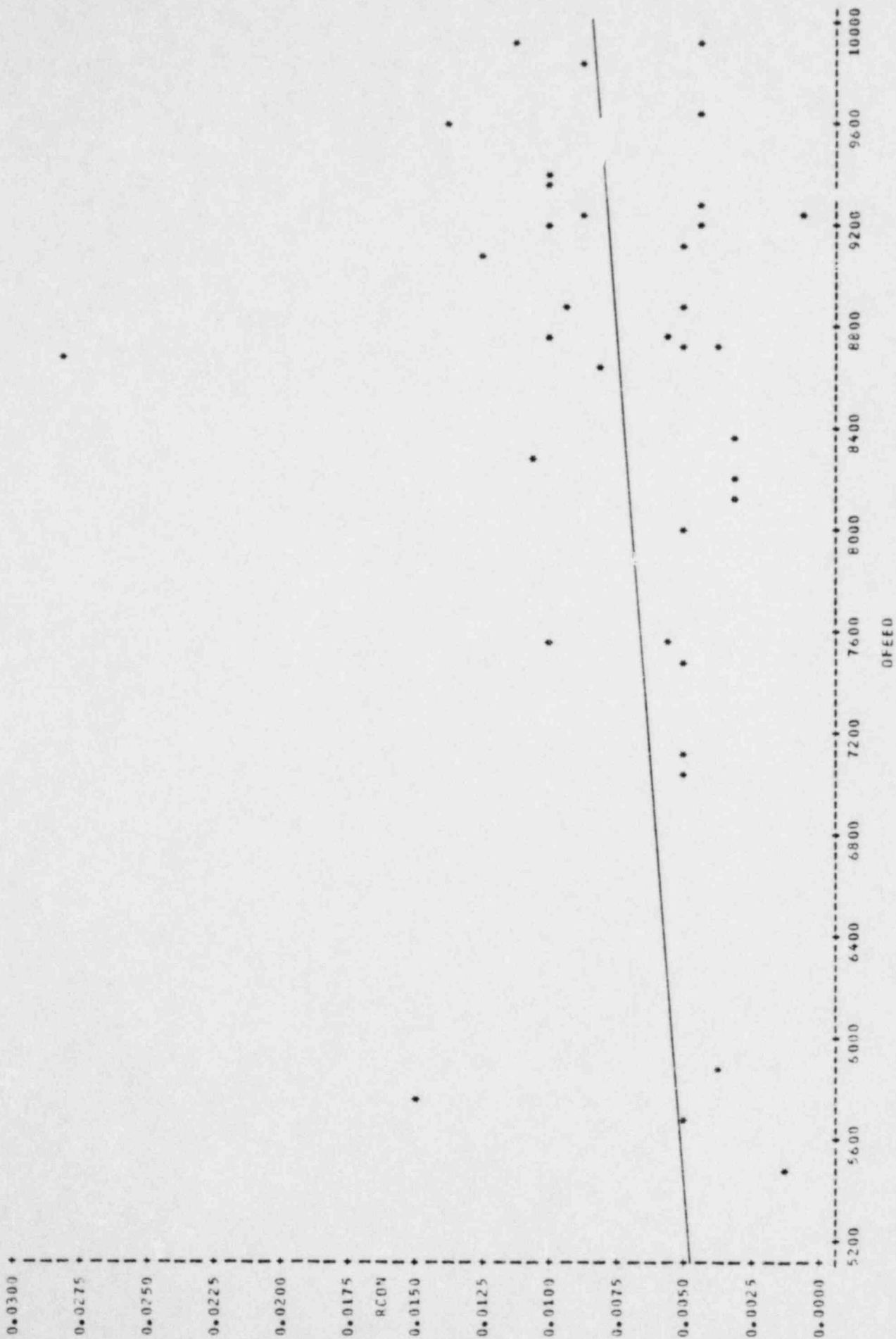PLOT OF CONCENTRATIONS VS ENVIORMENTAL FACTORS FOR LOCATION 2

PLOT OF TCON*OFEED   SYMBOL USED IS *

TCON |
      |
0.09 +
      |
      |
0.08 +
      |
      |
0.07 +   *
      |
      |
0.06 +
      | *
      |
0.05 +
      |
      |
0.04 +
      |
      | *   *
0.03 +
      | *
      |
0.02 +
      |
0.01 +
      |
      |
0.00 +
      +----+----+----+----+----+----+----+----+----+----+----+----+----+
     5000 5400 5800 6200 6600 7000 7400 7800 8200 8600 9000 9400 9800

                              OFEED

NOTE: 6 OBS HAD MISSING VALUES   2 OBS HIDDEN

PLOT OF RCON*OFEED   SYMBOL USED IS *

RCON

0.0300 +
0.0275 +
0.0250 +
0.0225 +
0.0200 +
0.0175 +
0.0150 +
0.0125 +
0.0100 +
0.0075 +
0.0050 +
0.0025 +
0.0000 +

5200   5600   6000   6400   6800   7200   7600   8000   8400   8800   9200   9600   10000

OFEED

NOTE: 5 OBS HAD MISSING VALUES   1 OBS HIDDEN

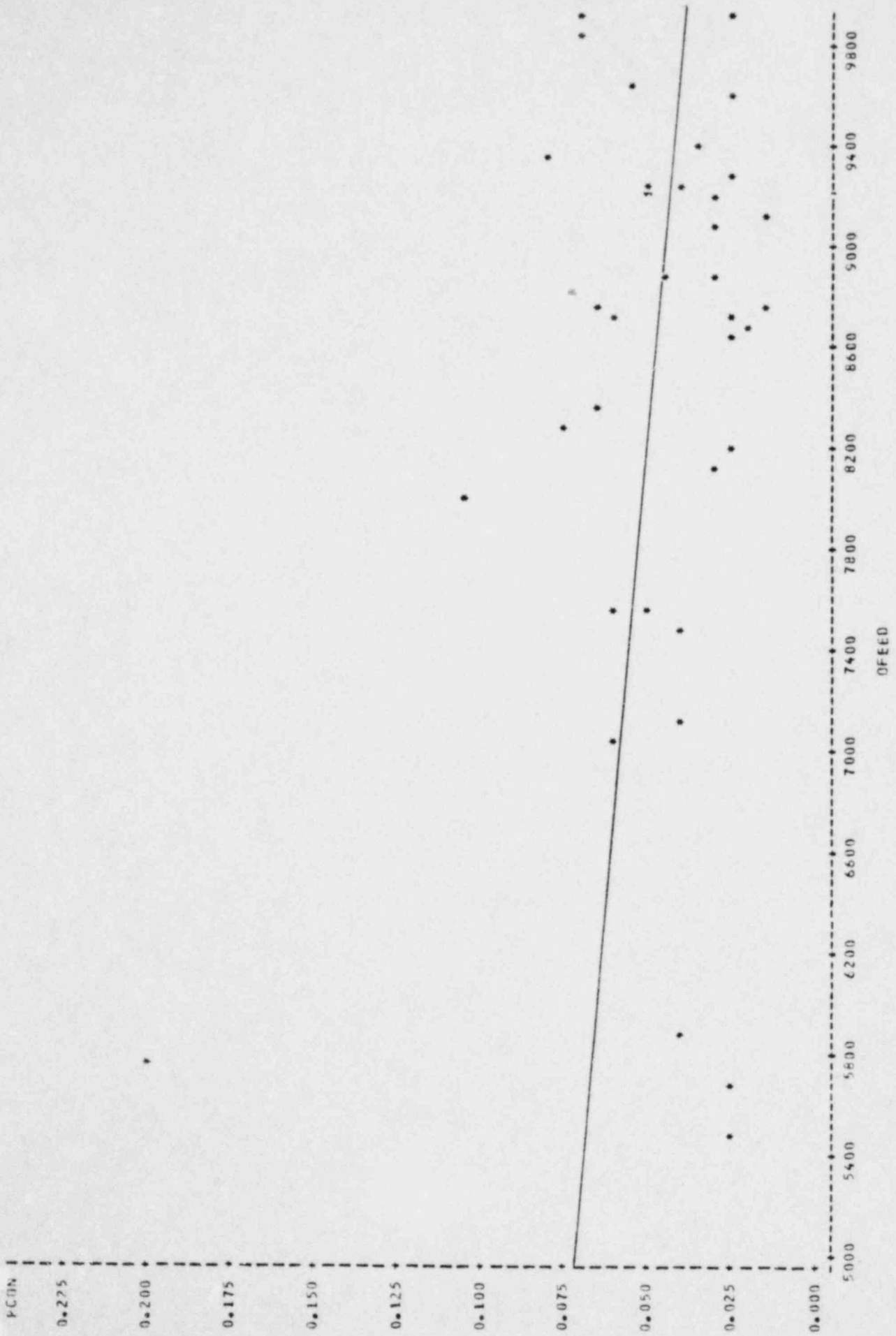PLOT OF CONCENTRATIONS VS ENVIORMENTAL FACTORS FOR LOCATION 2

PLOT OF PCON*OFEED   SYMBOL USED IS *

NOTE: 5 OBS HAD MISSING VALUES   1 OBS HIDDEN

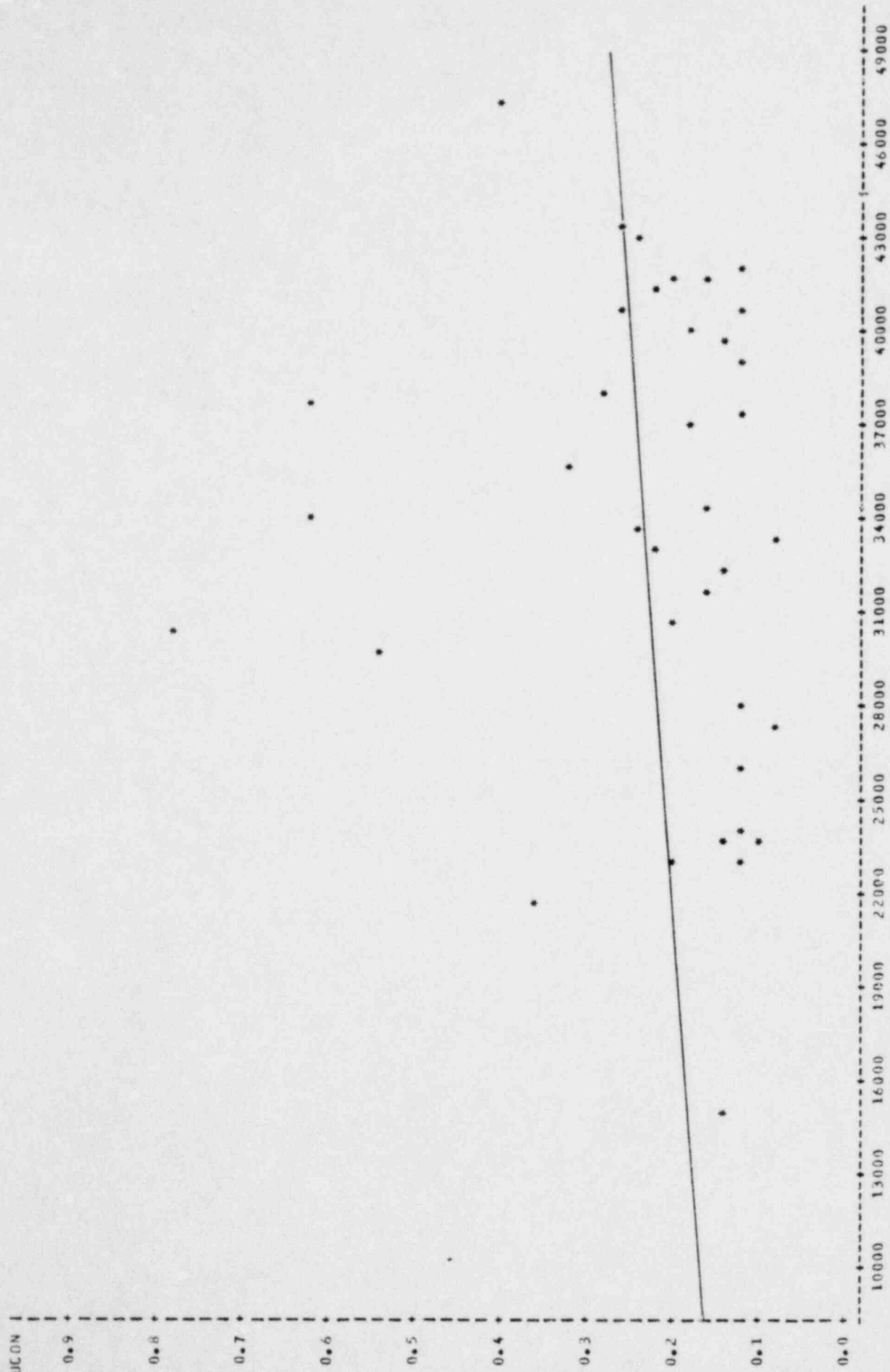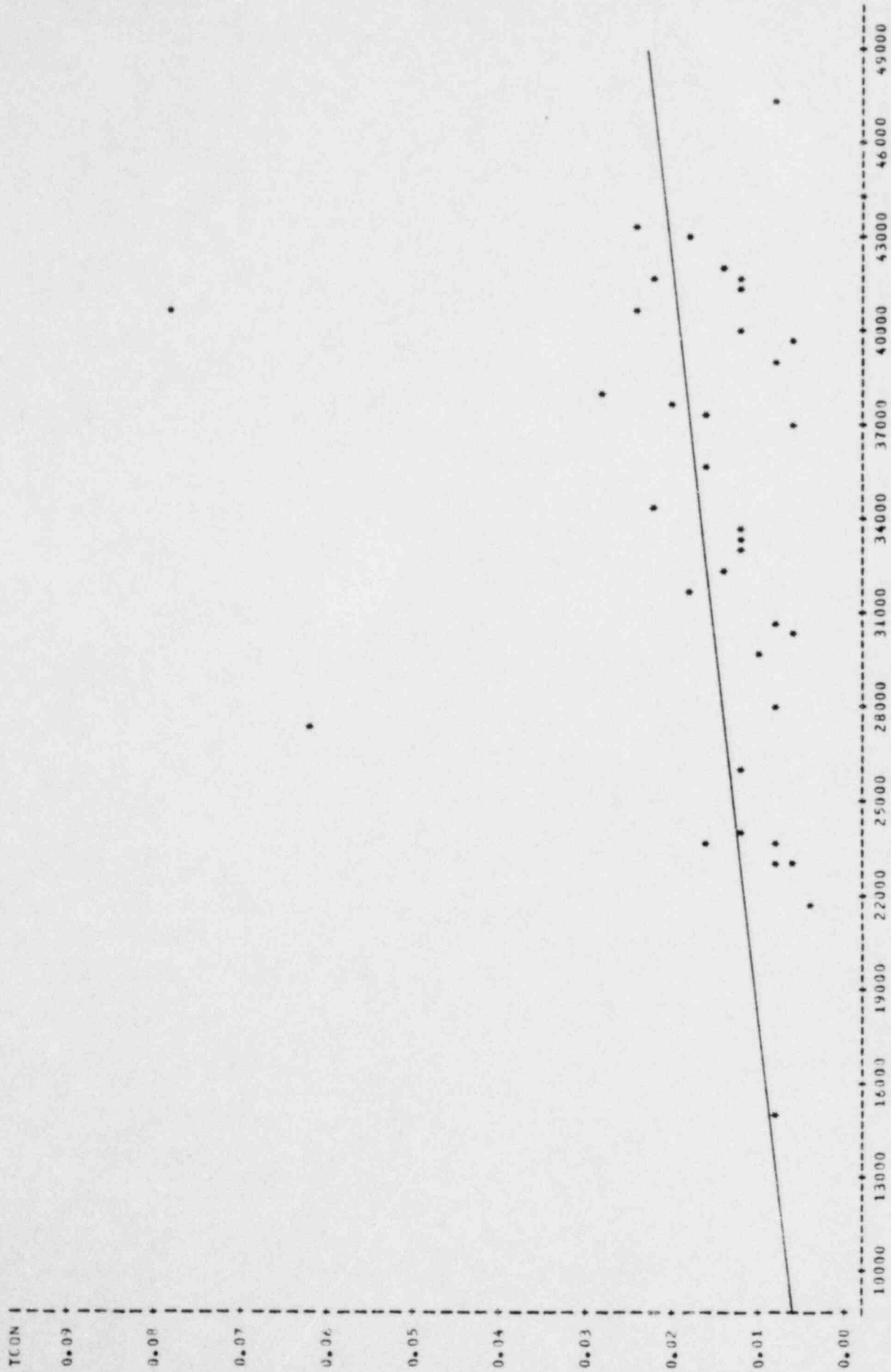PLOT OF CONCENTRATIONS VS ENVIRONMENTAL FACTORS FOR LOCATION 2

PLOT OF UCON*YELLOW   SYMBOL USED IS *

NOTE: 5 OBS HAD MISSING VALUES

PLOT OF CONCENTRATIONS VS ENVIRONMENTAL FACTORS FOR LOCATION 2

PLOT OF TCON*YELLOW   SYMBOL USED IS *

TCON |
0.09 +
0.08 +
0.07 +
0.06 +
0.05 +
0.04 +
0.03 +
0.02 +
0.01 +
0.00 +
     ---+-------+-------+-------+-------+-------+-------+-------+-------+-------+-------+-------+-------+-------+--
     10000   13000   16000   19000   22000   25000   28000   31000   34000   37000   40000   43000   46000   49000

                                                      YELLOW

NOTE: 6 OBS HAD MISSING VALUES

PLOT OF CONCENTRATIONS VS ENIVORNMENTAL FACTORS FOR LOCATION 2

PLOT OF RCON*YELLOW   SYMBOL USED IS *

NOTE: 5 OBS HAD MISSING VALUES

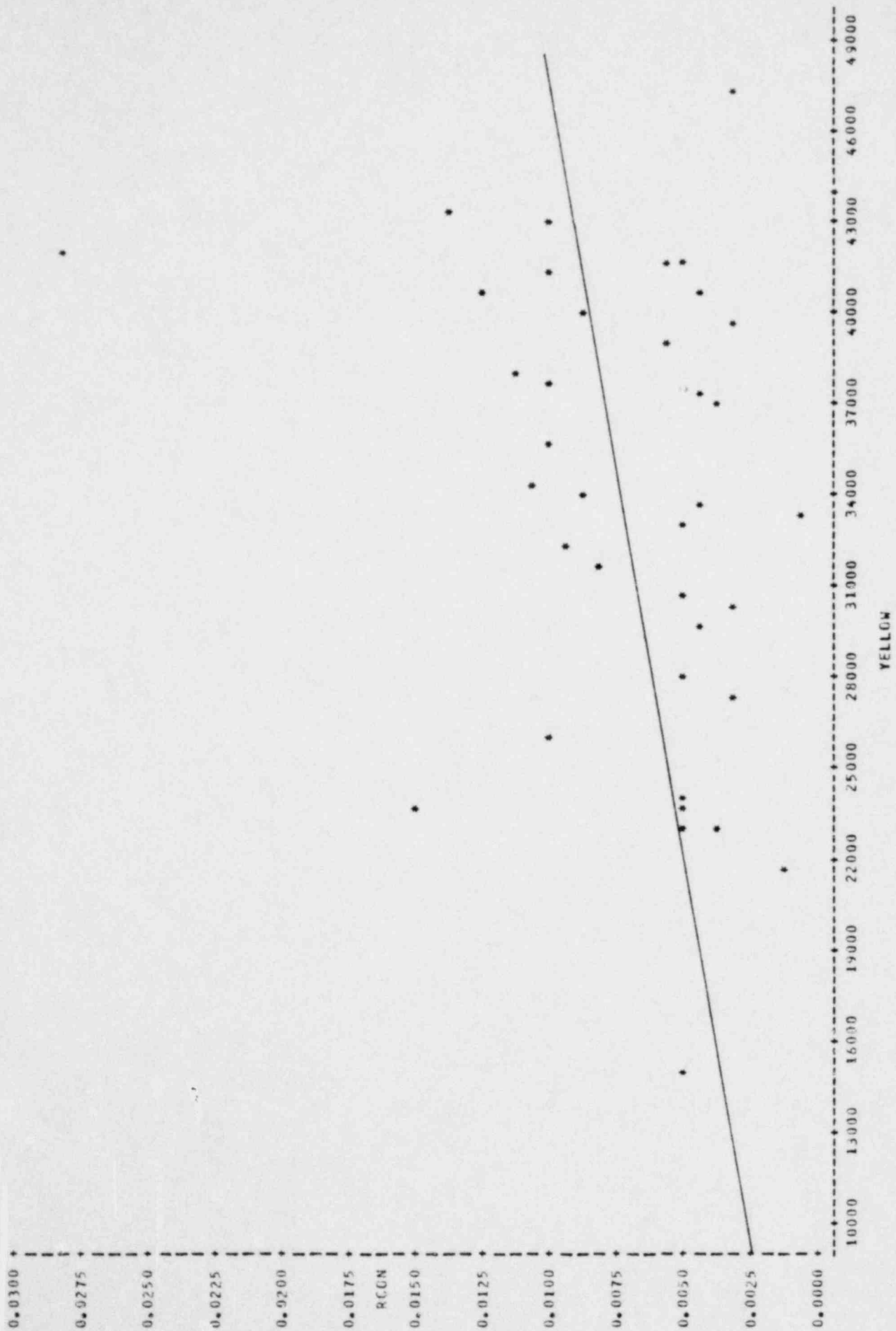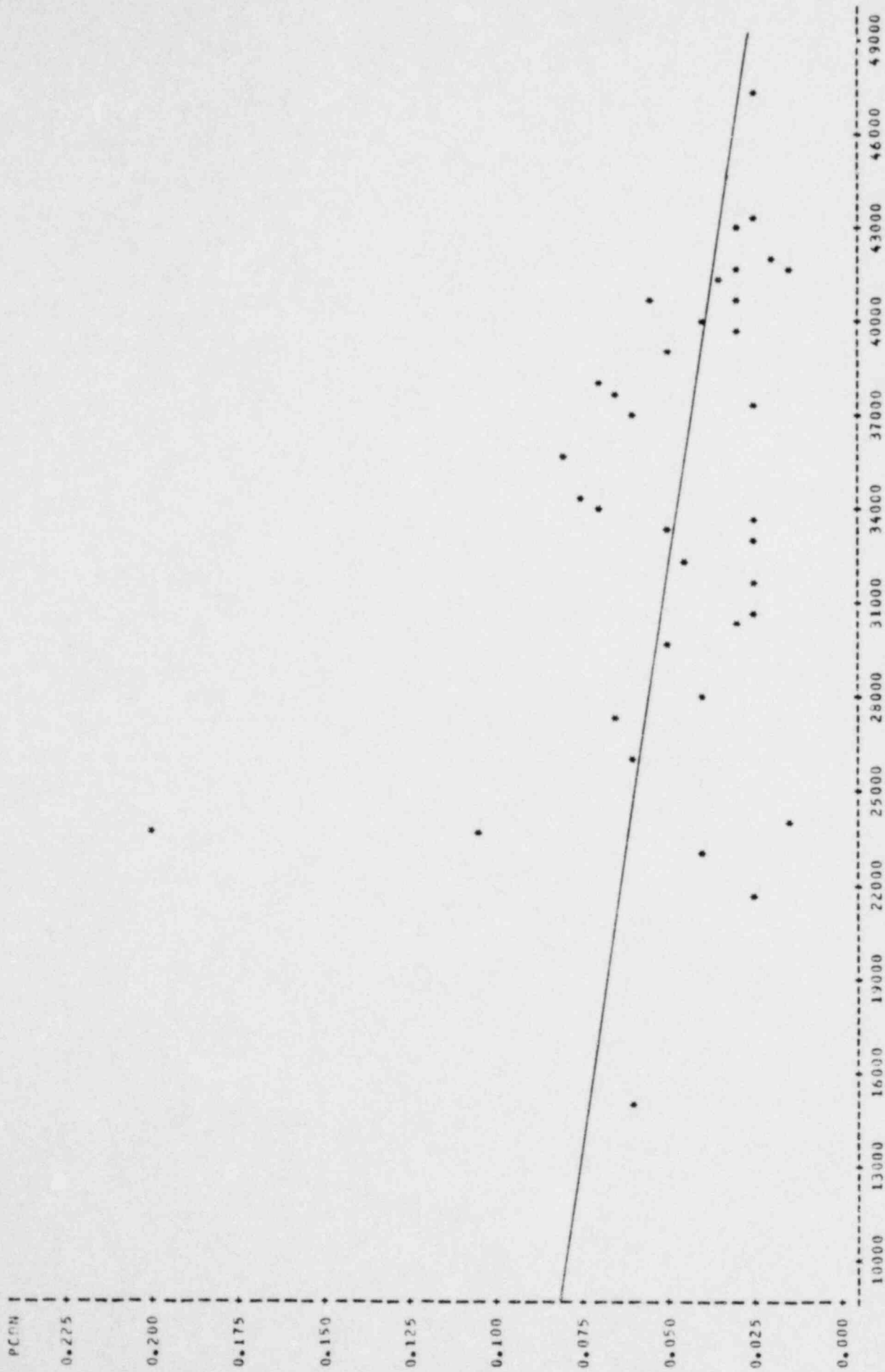PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION 2

PLOT OF PCON*YELLOW   SYMBOL USED IS *

YELLOW

NOTE: 5 OBS HAD MISSING VALUES   1 OBS HIDDEN

APPENDIX G

SELECTED ENVIRONMENTAL DATA PLOTS FOR LOCATION 3

PLOT OF CONCENTRATIONS VS ENVIRONMENTAL FACTORS FOR LOCATION 5

PLOT OF UCON*WEEK   SYMBOL USED IS +

NOTE: 2 OBS HAD MISSING VALUES

PLOT OF CONCENTRATIONS VS ENVIRONMENTAL FACTORS FOR LOCATION 3

PLOT OF TCON*WEEK   SYMBOL USED IS *

NOTE: 2 OBS HAD MISSING VALUES

PLOT OF CONCENTRATIONS VS ENVIORMENTAL FACTORS FOR LOCATION 3

PLOT OF RCON*WEEK   SYMBOL USED IS *

NOTE: 3 OBS HAD MISSING VALUES

PLOT OF CONCENTRATIONS VS ENVIRONMENTAL FACTORS FOR LOCATION 3

PLOT OF PCON*WEEK   SYMBOL USED IS *
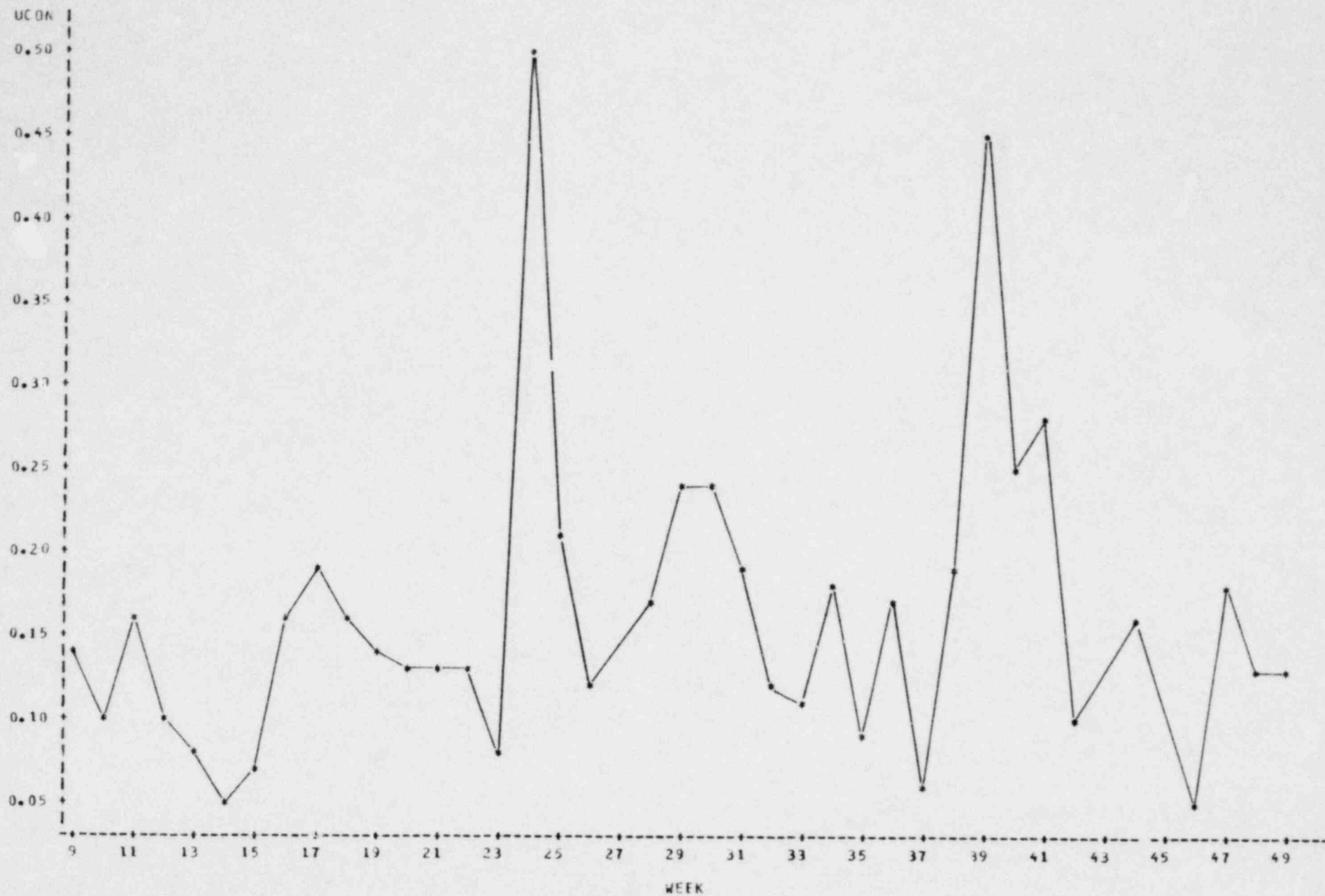

WEEK

NOTE: 3 OBS HAD MISSING VALUES

PLOT OF UCON*AWNDSP   SYMBOL USED IS *

NOTE: 2 OBS HAD MISSING VALUES

PLOT OF TCON*AWNDSP   SYMBOL USED IS •

AWNDSP

NOTE: 2 OBS HAD MISSING VALUES

PLOT OF RCON*AWNDSP   SYMBOL USED IS *

AWNDSP

NOTE: 3 OBS HAD MISSING VALUES

PLOT OF CONCENTRATIONS VS ENVIRONMENTAL FACTORS FOR LOCATION 3

PLOT OF PCON*AWNDSP   SYMBOL USED IS *

AWNDSP

NOTE: 3 OBS HAD MISSING VALUES

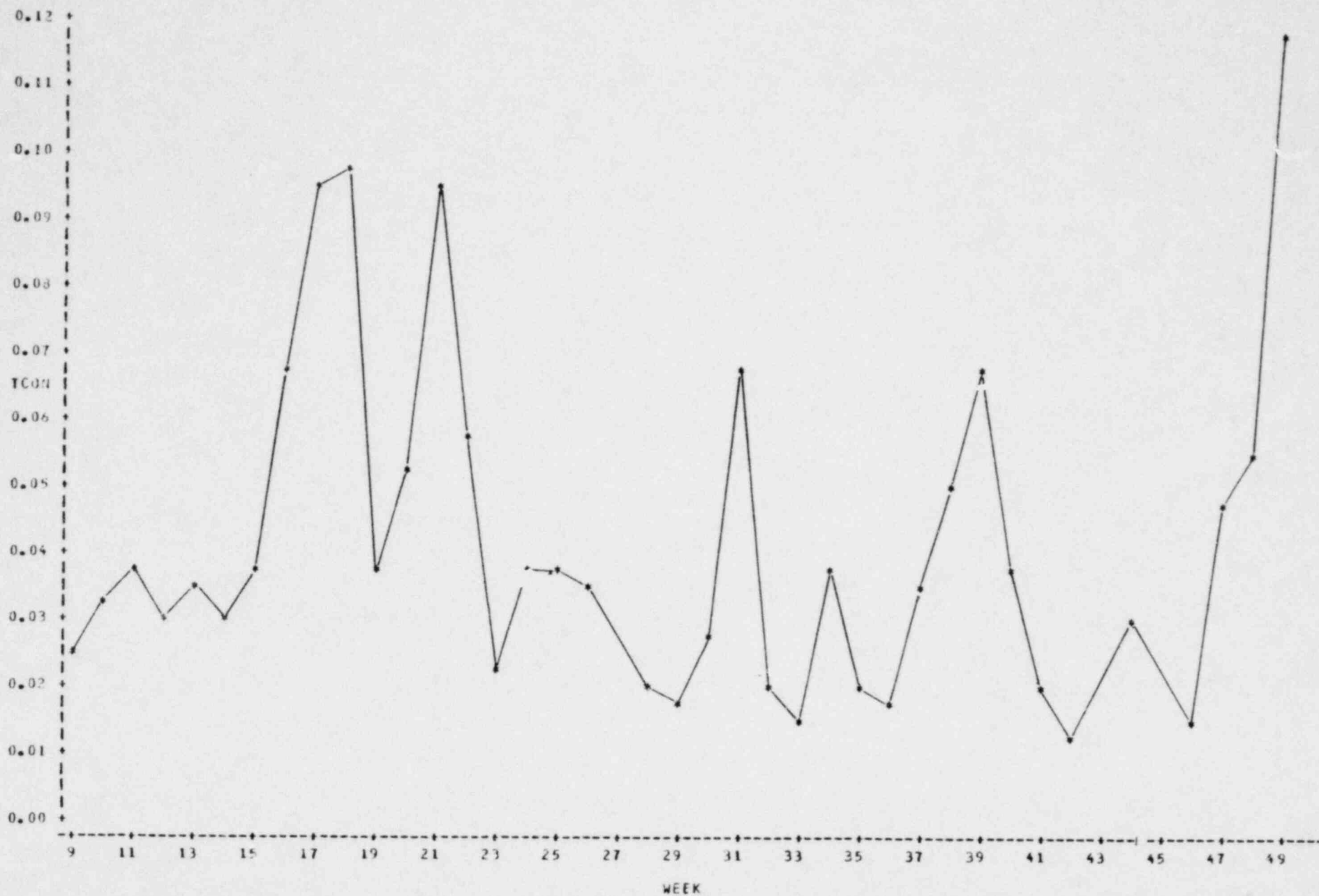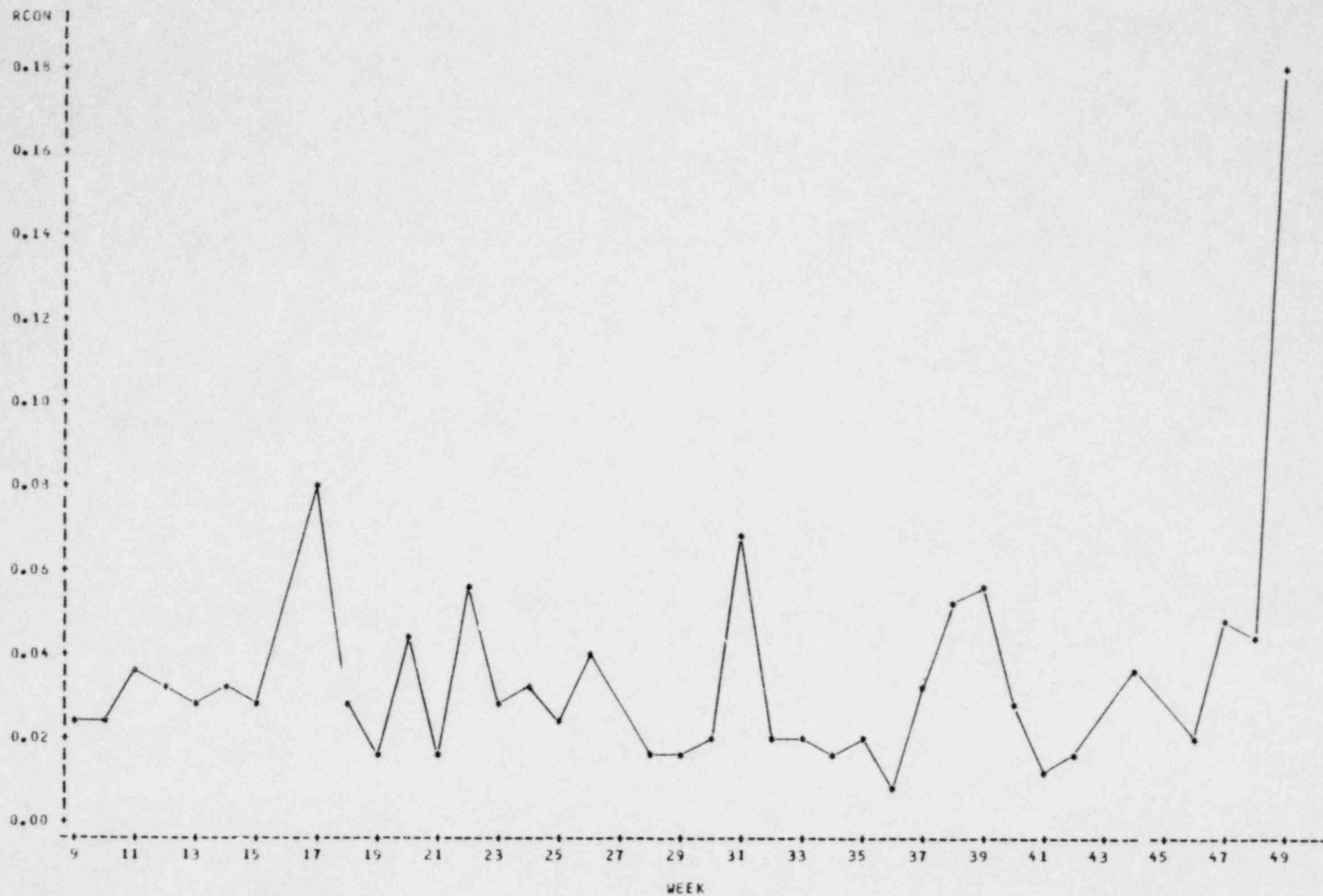PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION 3

PLOT OF UCON*RAIN   SYMBOL USED IS *

NOTE: 2 OBS HAD MISSING VALUES   4 OBS HIDDEN

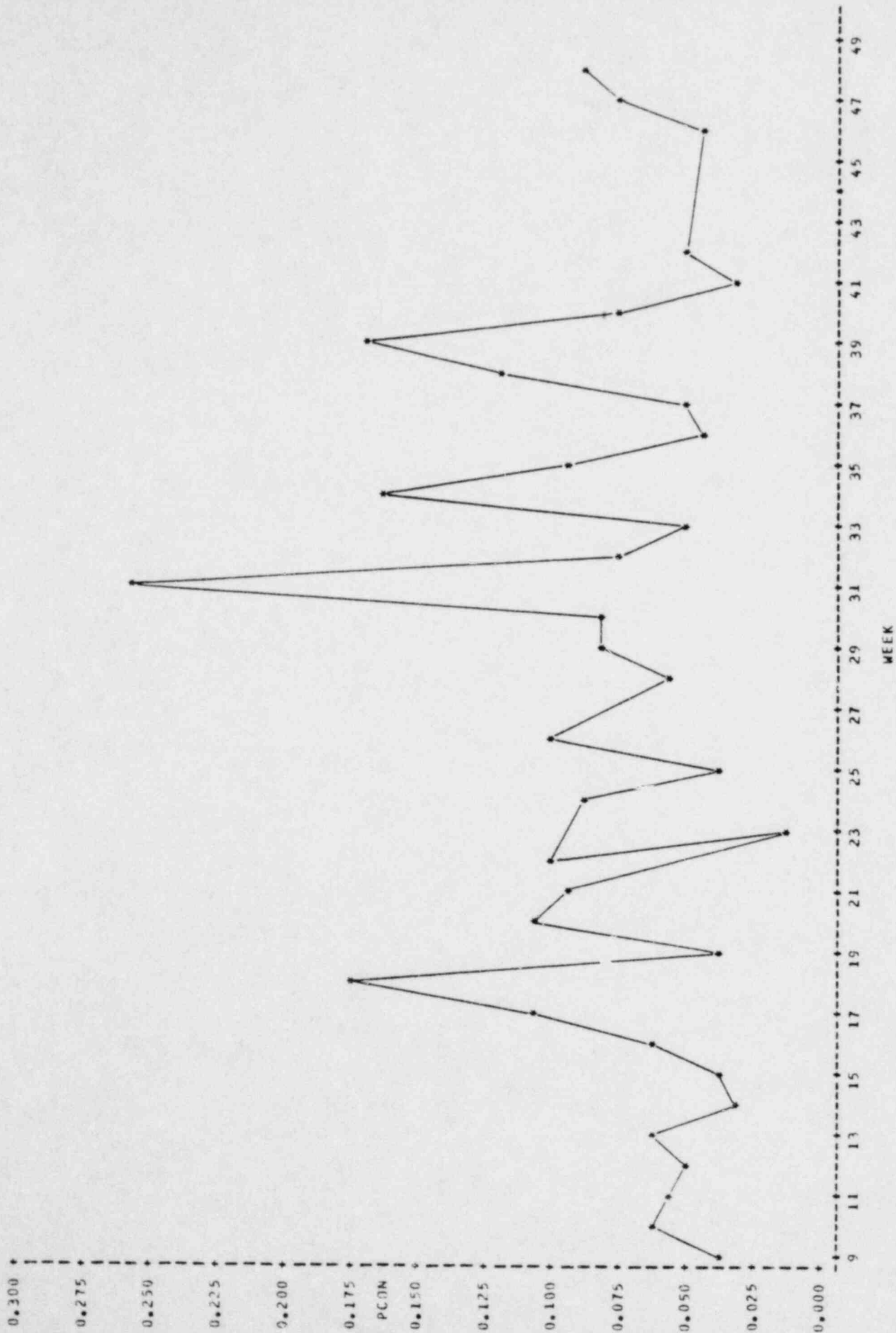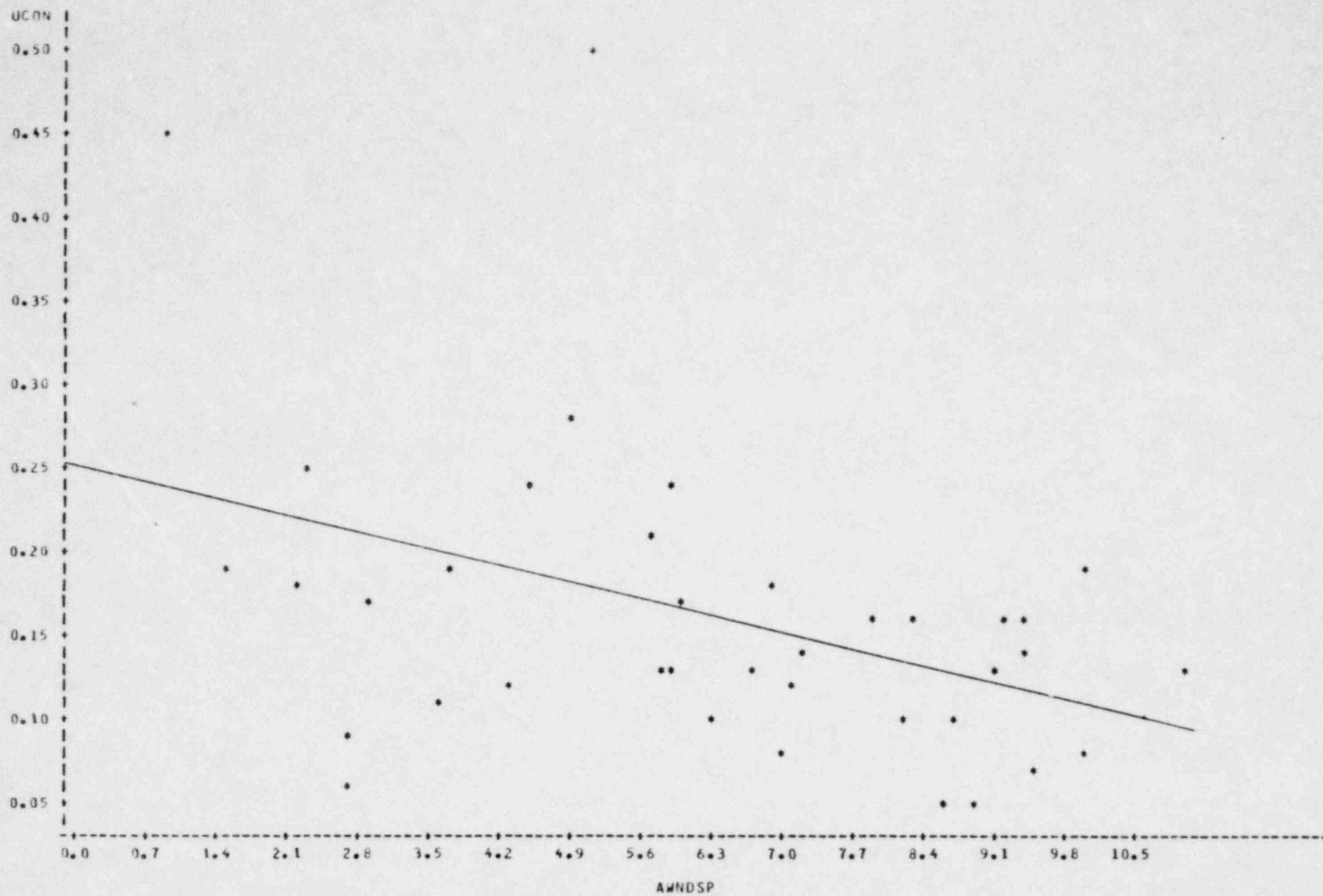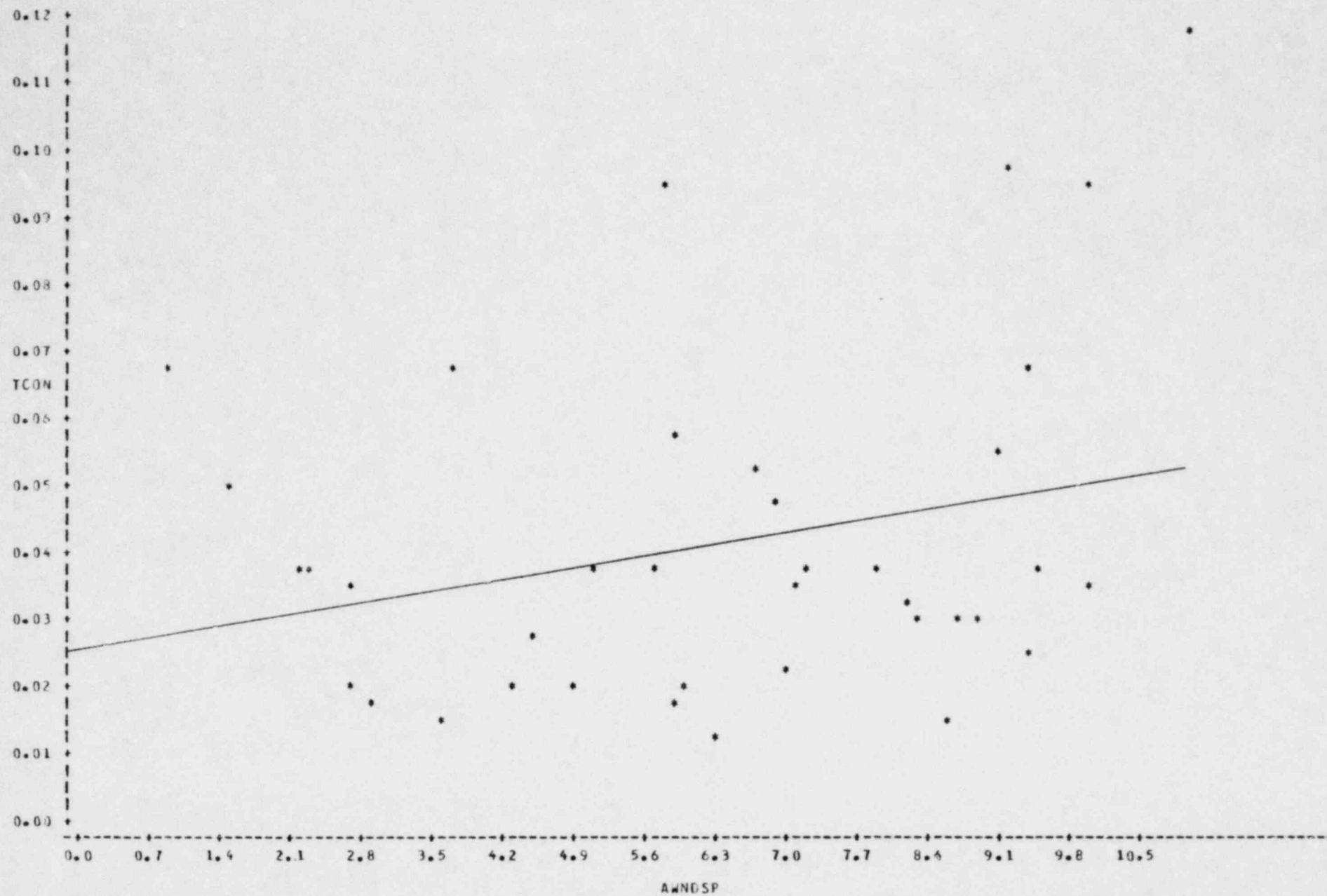PLOT OF CONCENTRATIONS VS ENVIRONMENTAL FACTORS FOR LOCATION 3

PLOT OF TCON*RAIN   SYMBOL USED IS *

```
     0.12 +
          |*
          |
          |
     0.11 +
          |
          |
     0.10 +
          |                *
          |*          *
          |
     0.09 +
          |
          |
     0.08 +
          |
          |
          |
     0.07 +
          |*                                                    *
TCON      |
          |
     0.06 +
          |*
          |      *
          |*
     0.05 ++*
          *
          |
          |
     0.04 +
          |* *    *                    *                                        *              *
          |         *                              *
          |          *
     0.03 ++*          *                    *                          *
          |                                                    *
          |          *
     0.02 +      *            *    *    *              *              *              *
          |                                                *
          |*
          |*                                      *
     0.01 +
          |
          |
     0.00 +
          -+-------+-------+-------+-------+-------+-------+-------+-------+-------+-------+-------+-------+-------+-------+-------+-------+--------
          0.00   0.07   0.14   0.21   0.28   0.35   0.42   0.49   0.56   0.63   0.70   0.77   0.84   0.91   0.98   1.05

                                                             RAIN
```
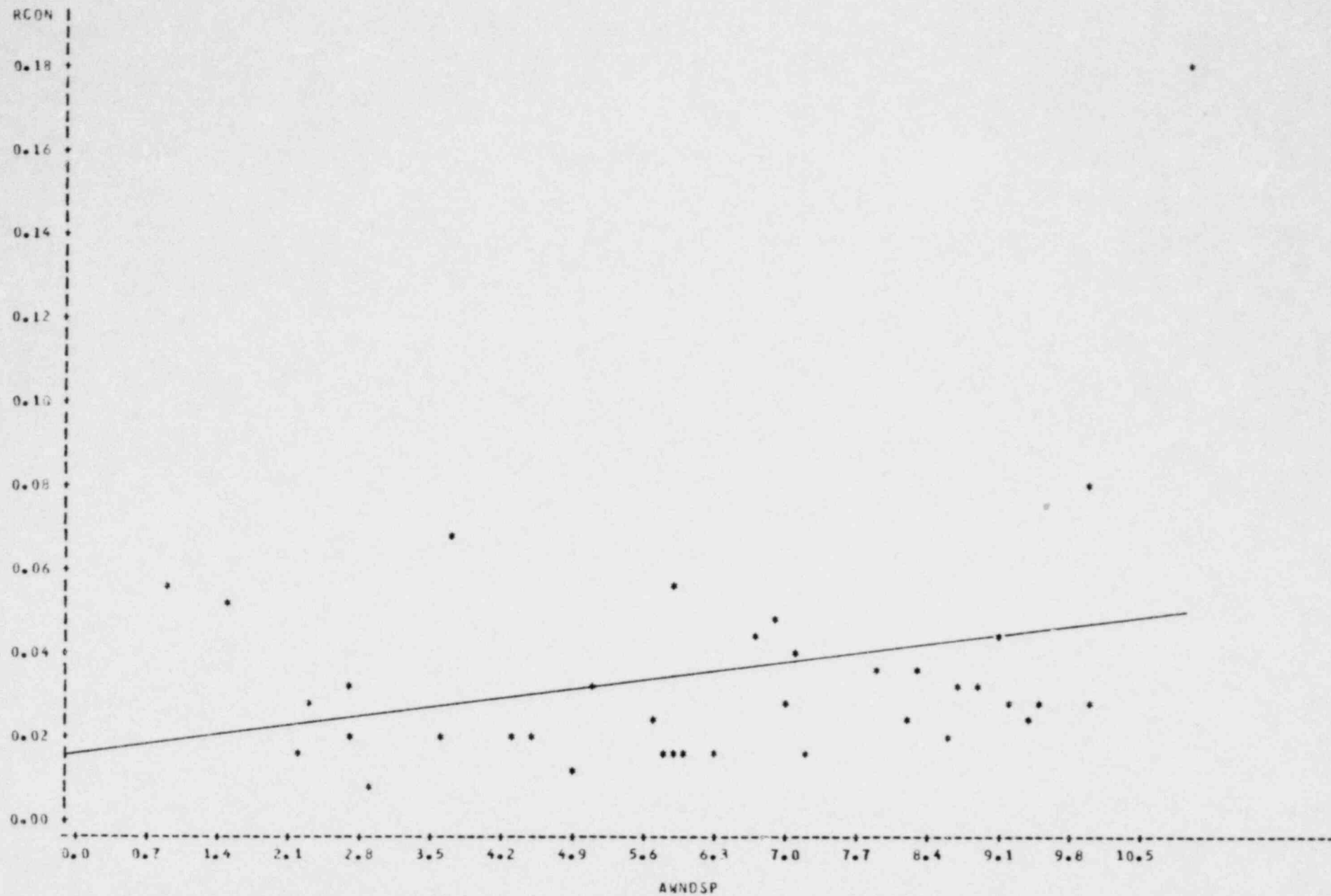
NOTE: 2 OBS HAD MISSING VALUES   2 OBS HIDDEN

PLOT OF CONCENTRATIONS VS ENVIRONMENTAL FACTORS FOR LOCATION 3

PLOT OF RCON*RAIN   SYMBOL USED IS *

RCON |
      |
0.18 +*
      |
      |
      |
0.16 + *
      |
      |
      |
0.14 +
      |
      |
      |
0.12 +
      |
      |
      |
0.10 +
      |
      |
      |
0.08 +   *
      |
      | *
      |
0.06 +   *
      | *
      | *
      | *   *
0.04 +   * * *   *
      | * *   *
      | * *   *
      | * *   *   *
0.02 +   * *   *
      | *   *
      | *
      |
0.00 +
      --+----+----+----+----+----+----+----+----+----+----+----+----+----+----+----+
      0.00 0.07 0.14 0.21 0.28 0.35 0.42 0.49 0.56 0.63 0.70 0.77 0.84 0.91 0.98 1.05
                                            RAIN

NOTE: 3 OBS HAD MISSING VALUES   2 OBS HIDDEN

PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION 3

PLOT OF PCON*RAIN   SYMBOL USED IS *

NOTE: 3 OBS HAD MISSING VALUES   1 OBS HIDDEN

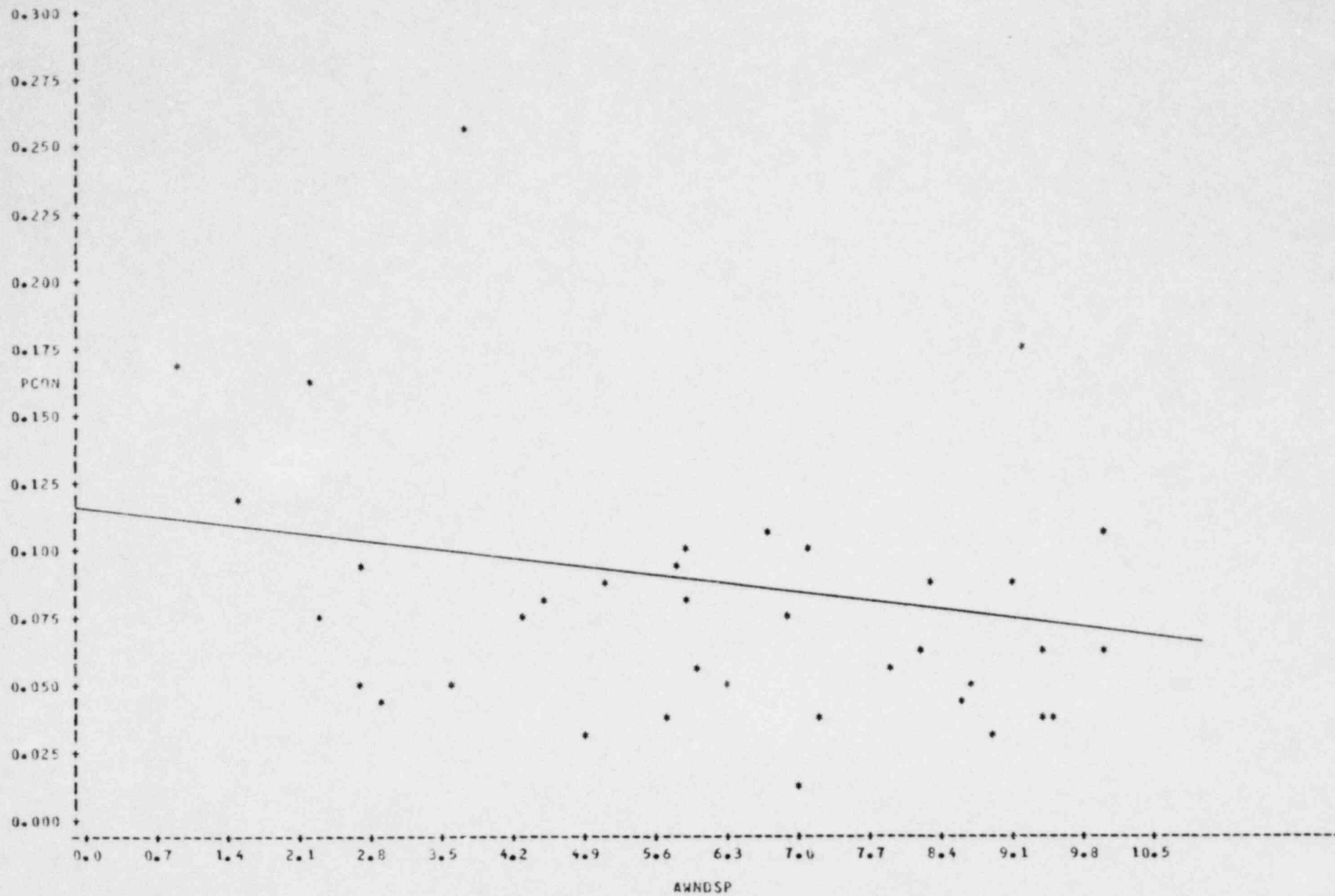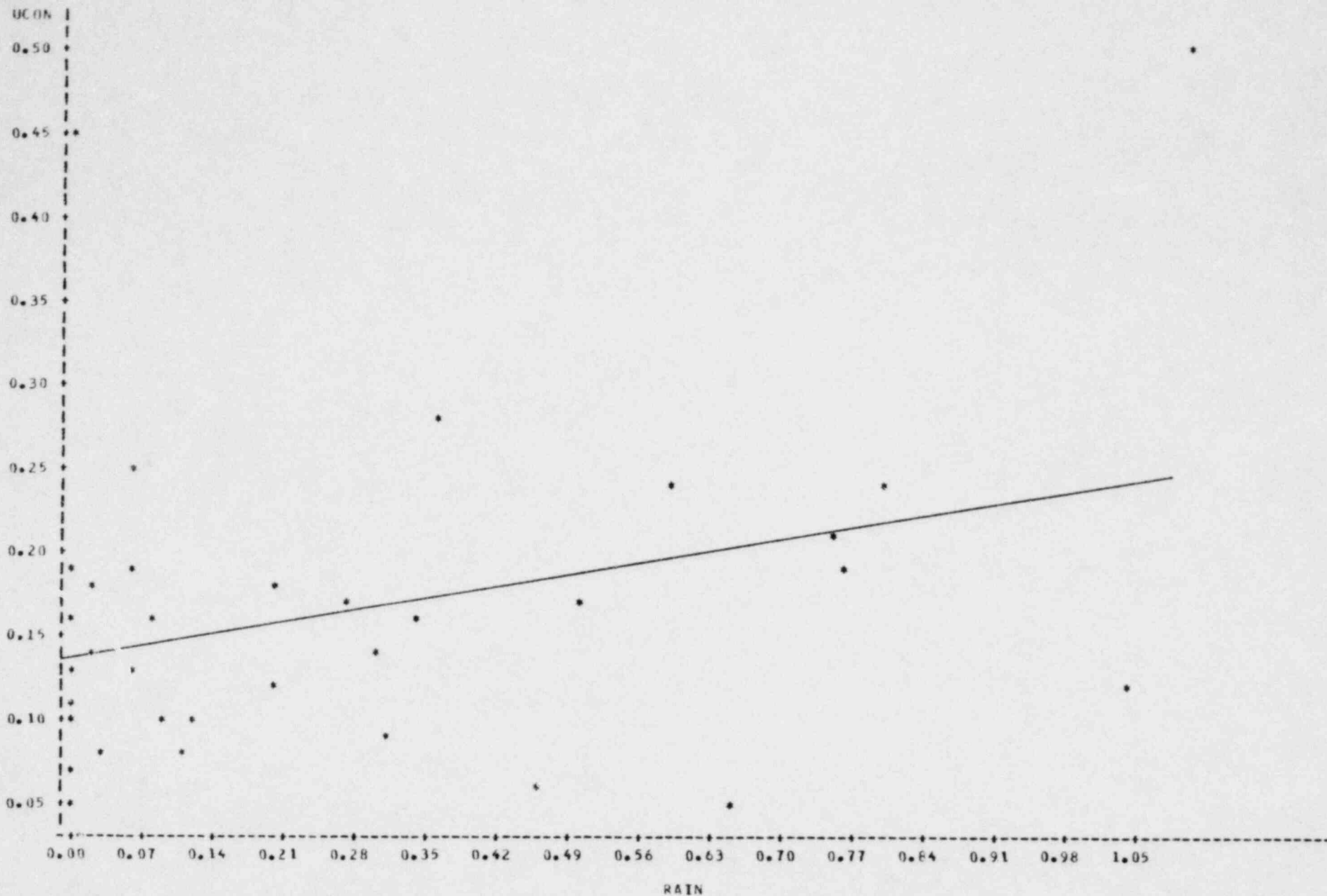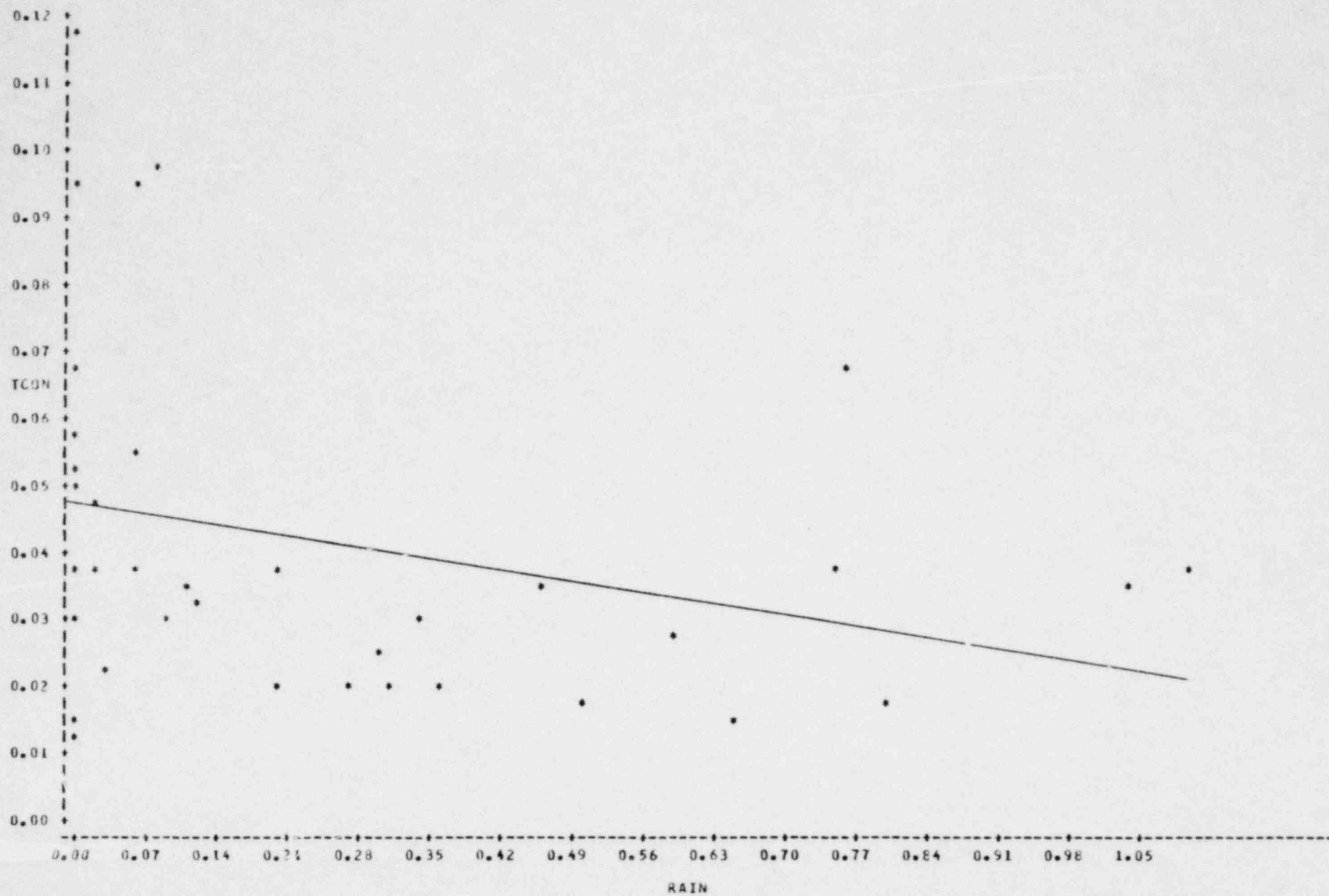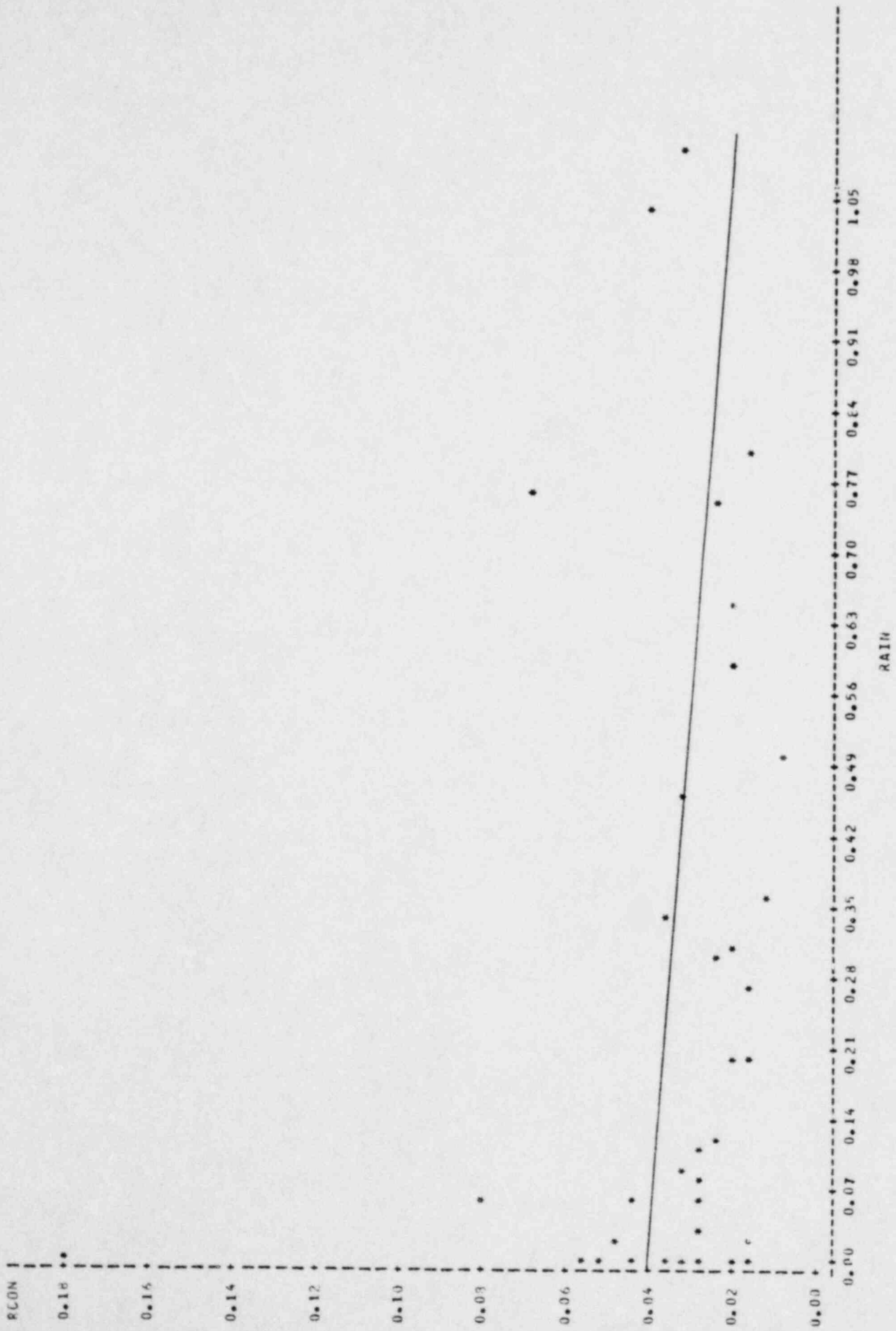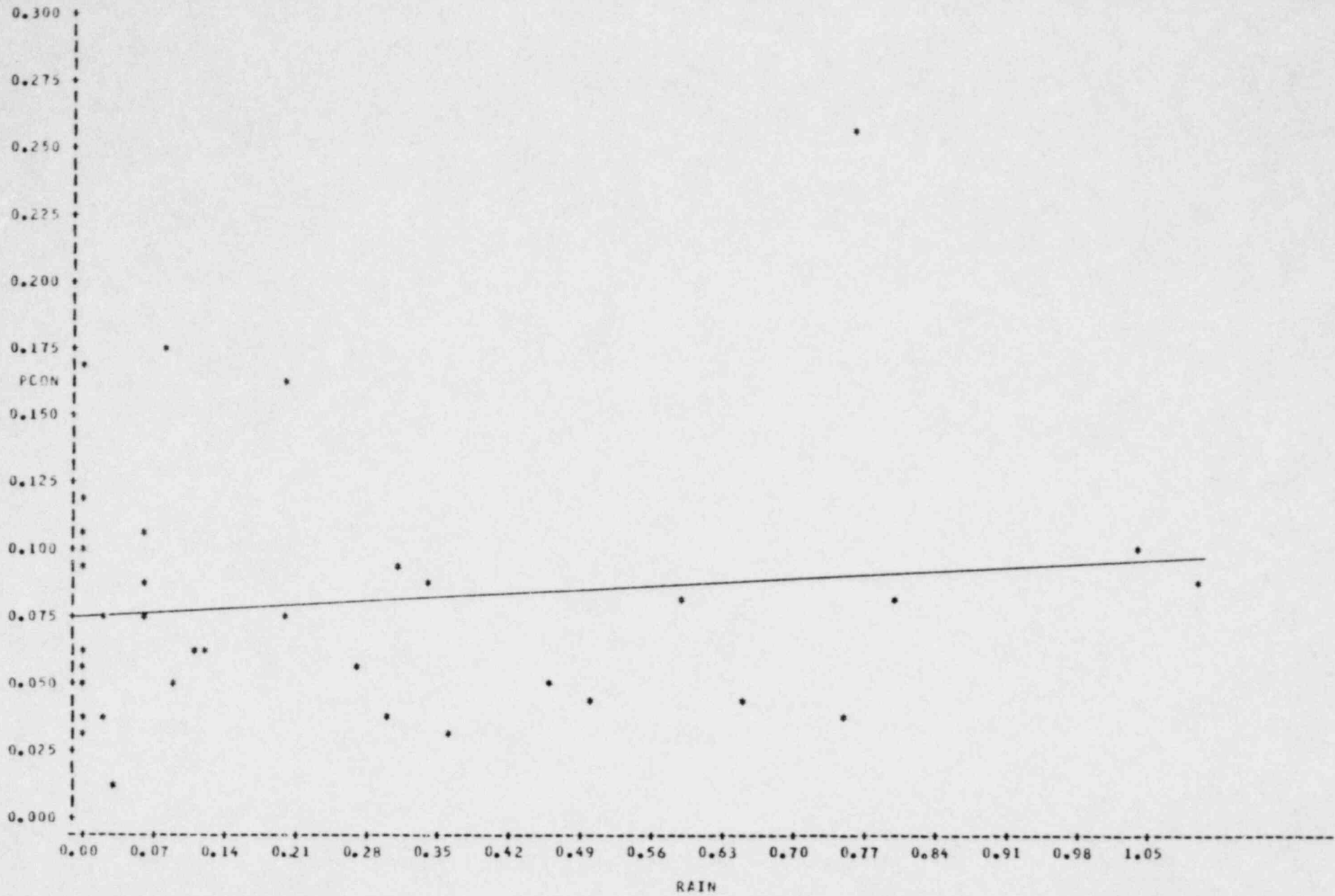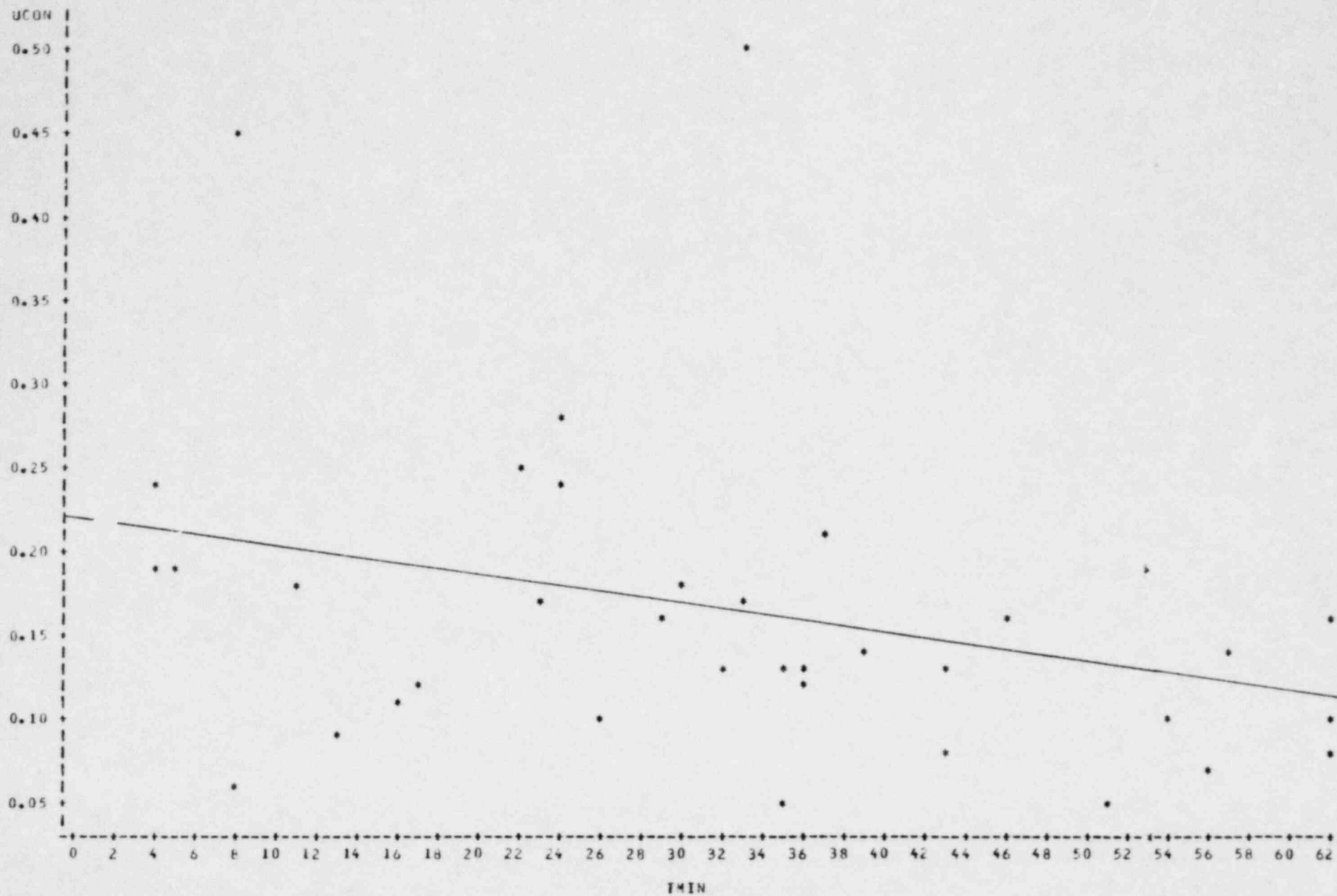PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION
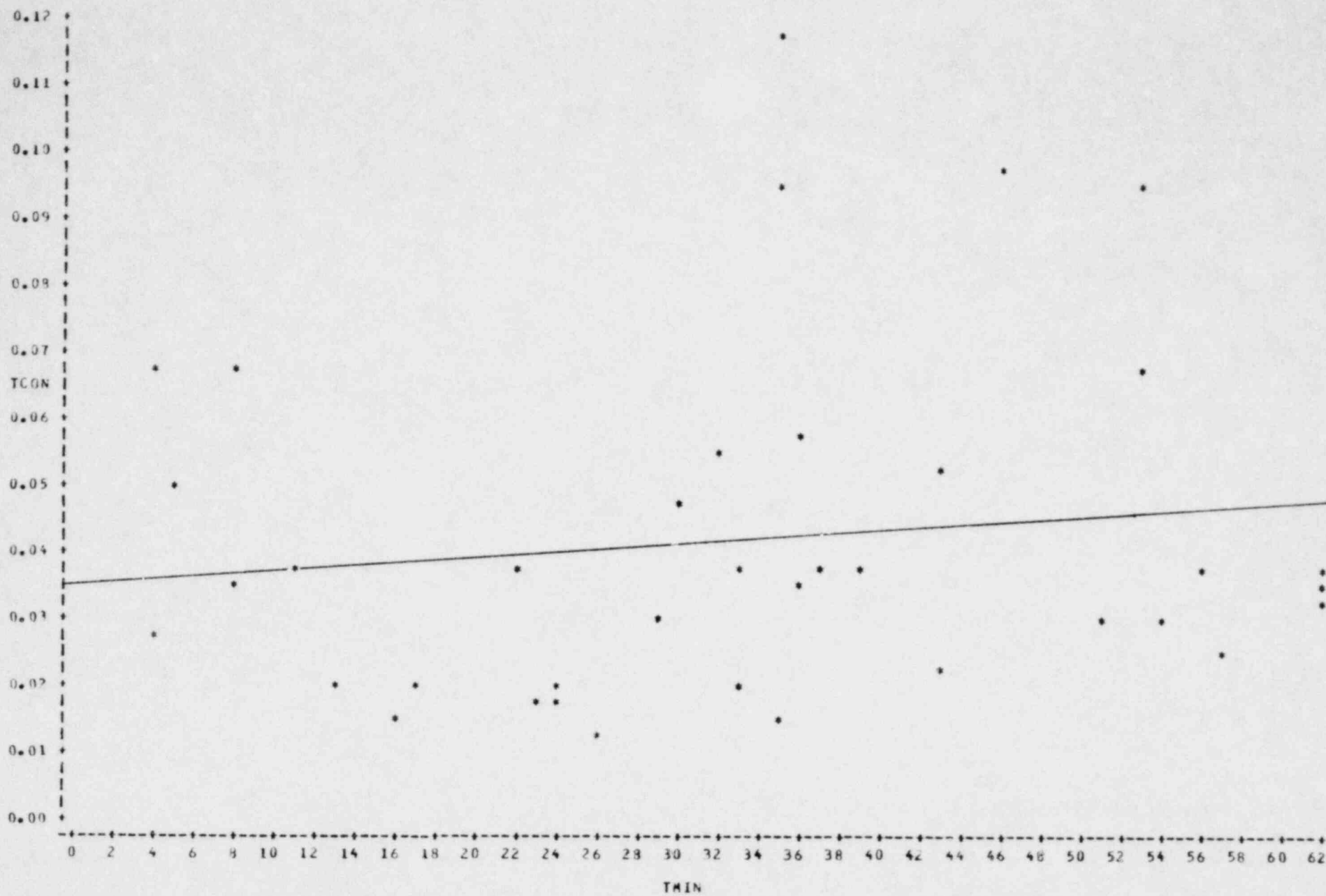
PLOT OF UCON*THIN   SYMBOL USED IS *

NOTE: 2 OBS HAD MISSING VALUES   1 OBS HIDDEN

PLOT OF TCON*THIN   SYMBOL USED IS *

NOTE: 2 OBS HAD MISSING VALUES

PLOT OF RCON*THIN   SYMBOL USED IS *

NOTE: 3 OBS HAD MISSING VALUES

PLOT OF PCON*THIN   SYMBOL USED IS •

```
0.300 +
      |
      |
0.275 +
      |
      |
      |                 •
0.250 +
      |
      |
      |
0.225 +
      |
      |
      |
0.200 +
      |
      |
      |
0.175 +                                                    •
 PCON |           •
      |             •
0.150 +
      |
      |
      |
0.125 +
      |         •
      |                   •
0.100 +                                    •
      |                                  •
      |                         •    •  •
0.075 +       •          •    •        •
      |                            •
      |           •        •        •
0.050 +       •        •      •                    •       •
      |                   •          •                  •
      |                      • •                •  •
0.025 +            •                        •
      |
      |
0.000 +
      |
      ---+----+----+----+----+----+----+----+----+----+----+----+----+----+----+----+-----------------------------------
         0    4    8   12   16   20   24   28   32   36   40   44   48   52   56   60
```

                                        THIN

NOTE: 3 OBS HAD MISSING VALUES   2 OBS HIDDEN

PLOT OF CONCENTRATIONS VS ENVIRONMENTAL FACTOR, FOR LOCATION 3

PLOT OF UCON*OHAUL   SYMBOL USED IS *

UCON |
0.50 +
     |
0.45 +
     |
0.40 +
     |
0.35 +
     |
0.30 +
     |
0.25 +
     |
0.20 +
     |
0.15 +
     |
0.10 +
     |
0.05 +
     |
     +----+----+----+----+----+----+----+----+----+----+----+----+----+
       5500 6000 6500 7000 7500 8000 8500 9000 9500 10000 10500 11000 11500

                                        OHAUL

NOTE: 2 OBS HAD MISSING VALUES

PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION 3
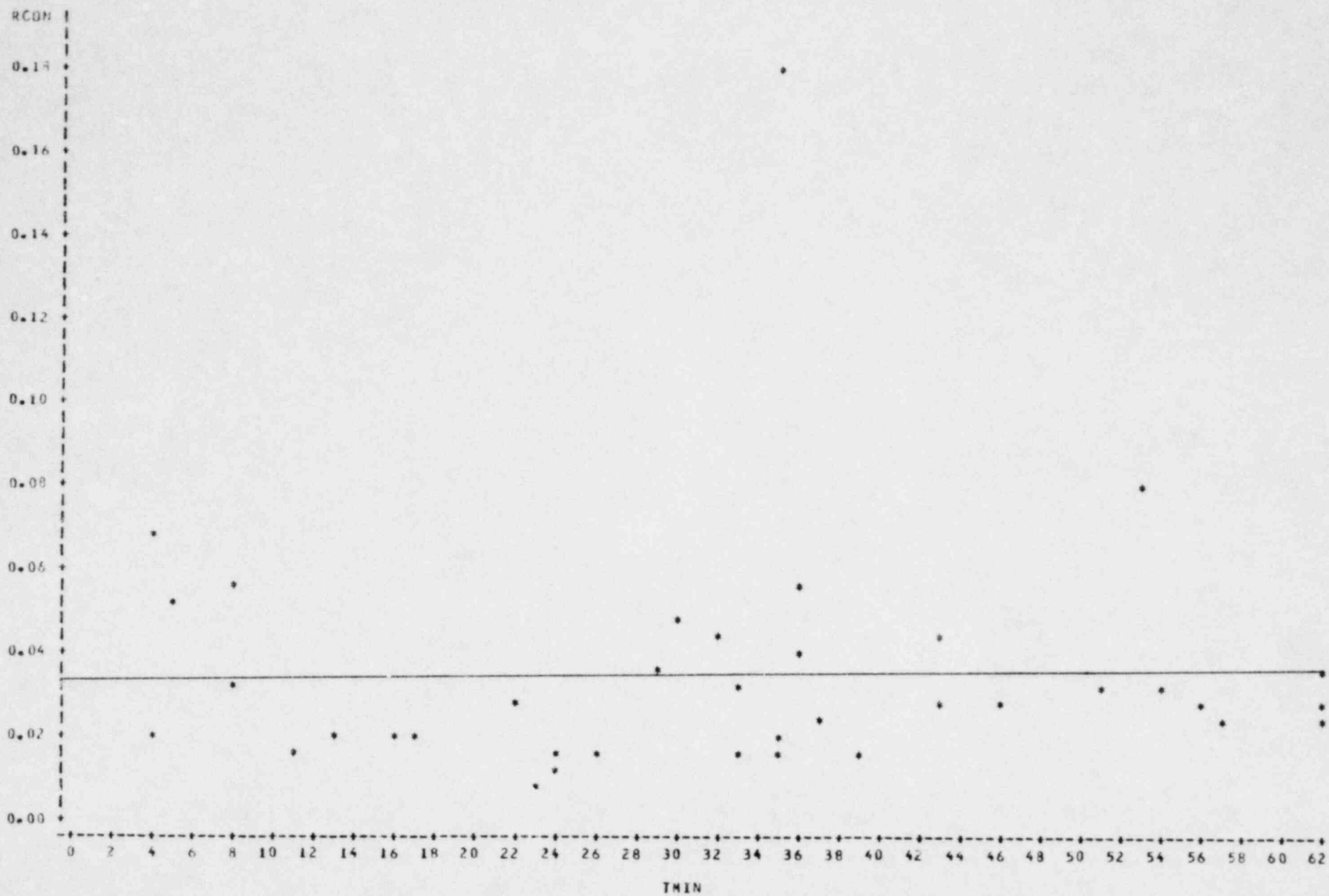
PLOT OF TCON*OHAUL   SYMBOL USED IS *

NOTE: 2 OBS HAD MISSING VALUES

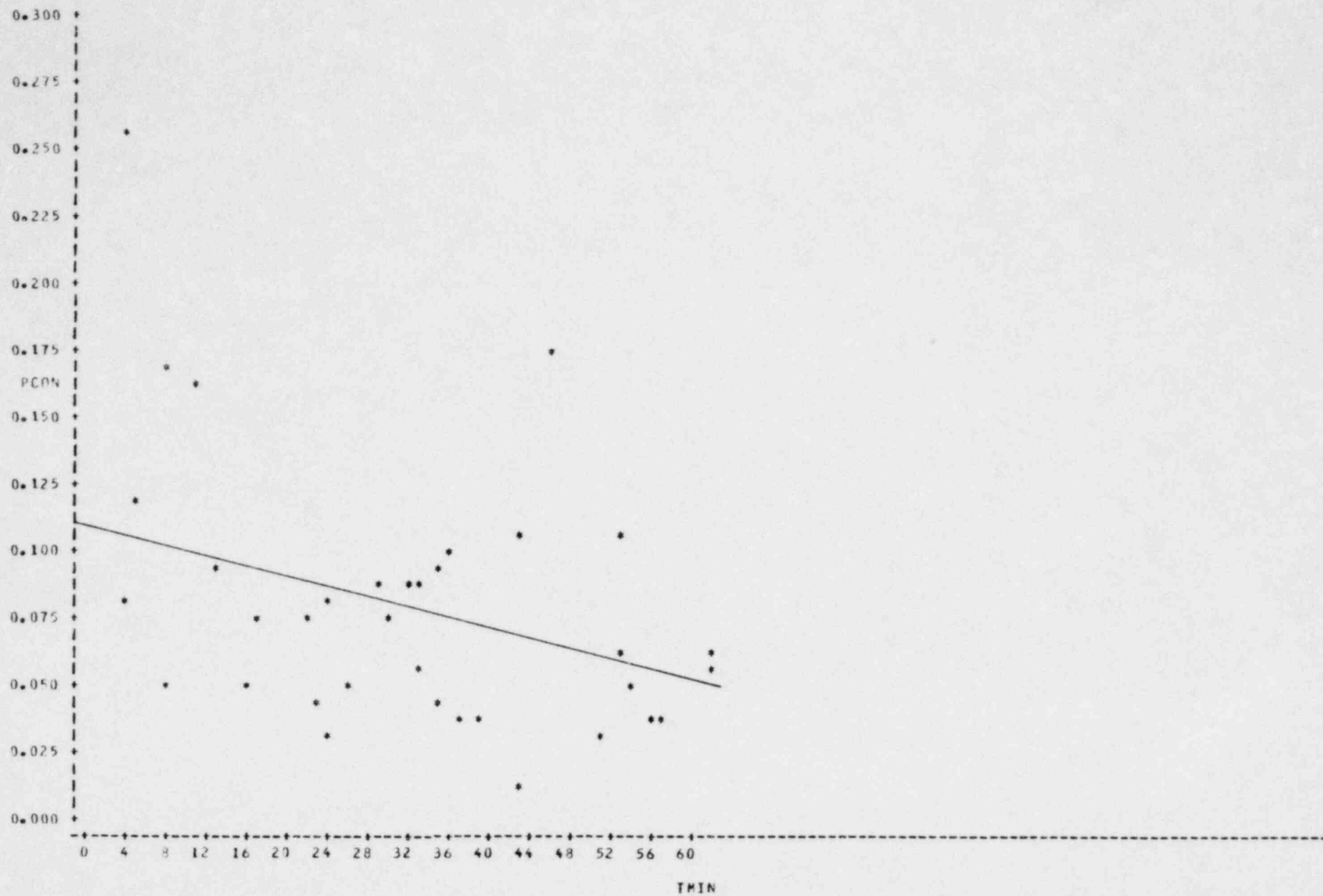PLOT OF CONCENTRATIONS VS ENVIRONMENTAL FACTORS FOR LOCATION 3

PLOT OF RCON*OHAUL   SYMBOL USED IS *

OHAUL

NOTE: 3 OBS HAD MISSING VALUES

PLOT OF UCON*OFEED   SYMBOL USED IS *

UCON |
0.50 +
0.45 +
0.40 +
0.35 +
0.30 +
0.25 +
0.20 +
0.15 +
0.10 +
0.05 +

5000   5400   5800   6200   6600   7000   7400   7800   8200   8600   9000   9400   9800

OFEED

NOTE: 2 OBS HAD MISSING VALUES   1 OBS HIDDEN

PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION 3

PLOT OF TCON*OFEED   SYMBOL USED IS *

TCON

0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00

5000   5400   5800   6200   6600   7000   7400   7800   8200   8600   9000   9400   9800

OFEED

NOTE: 2 OBS HAD MISSING VALUES   1 OBS HIDDEN

PLOT OF CONCENTRATIONS VS ENVIRONMENTAL FACTORS FOR LOCATION 4

PLOT OF RCON*OFEED   SYMBOL USED IS *

OFEED

NOTE: 3 OBS HAD MISSING VALUES

PLOT OF CONCENTRATIONS VS ENVIRONMENTAL FACTORS FOR LOCATION 3
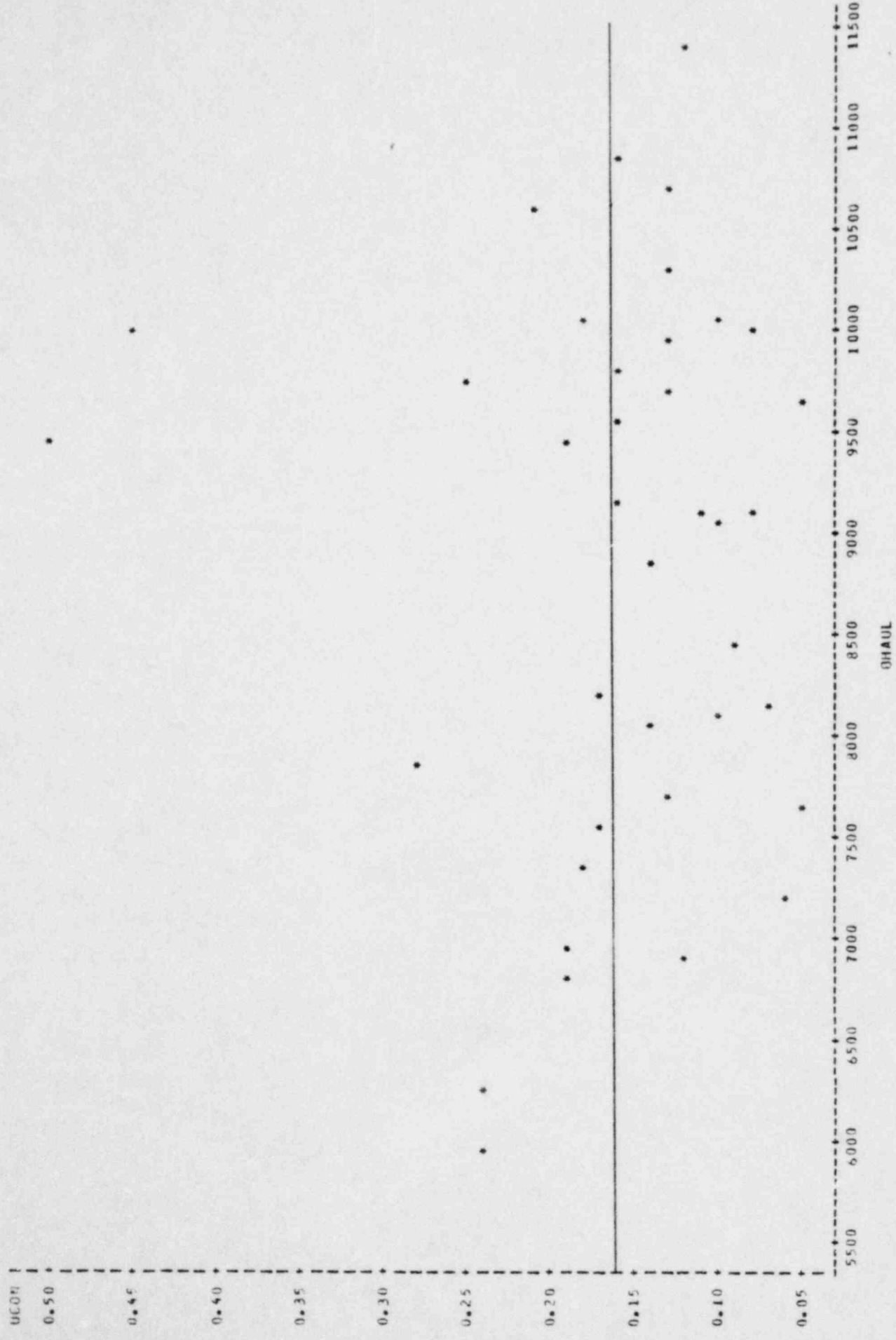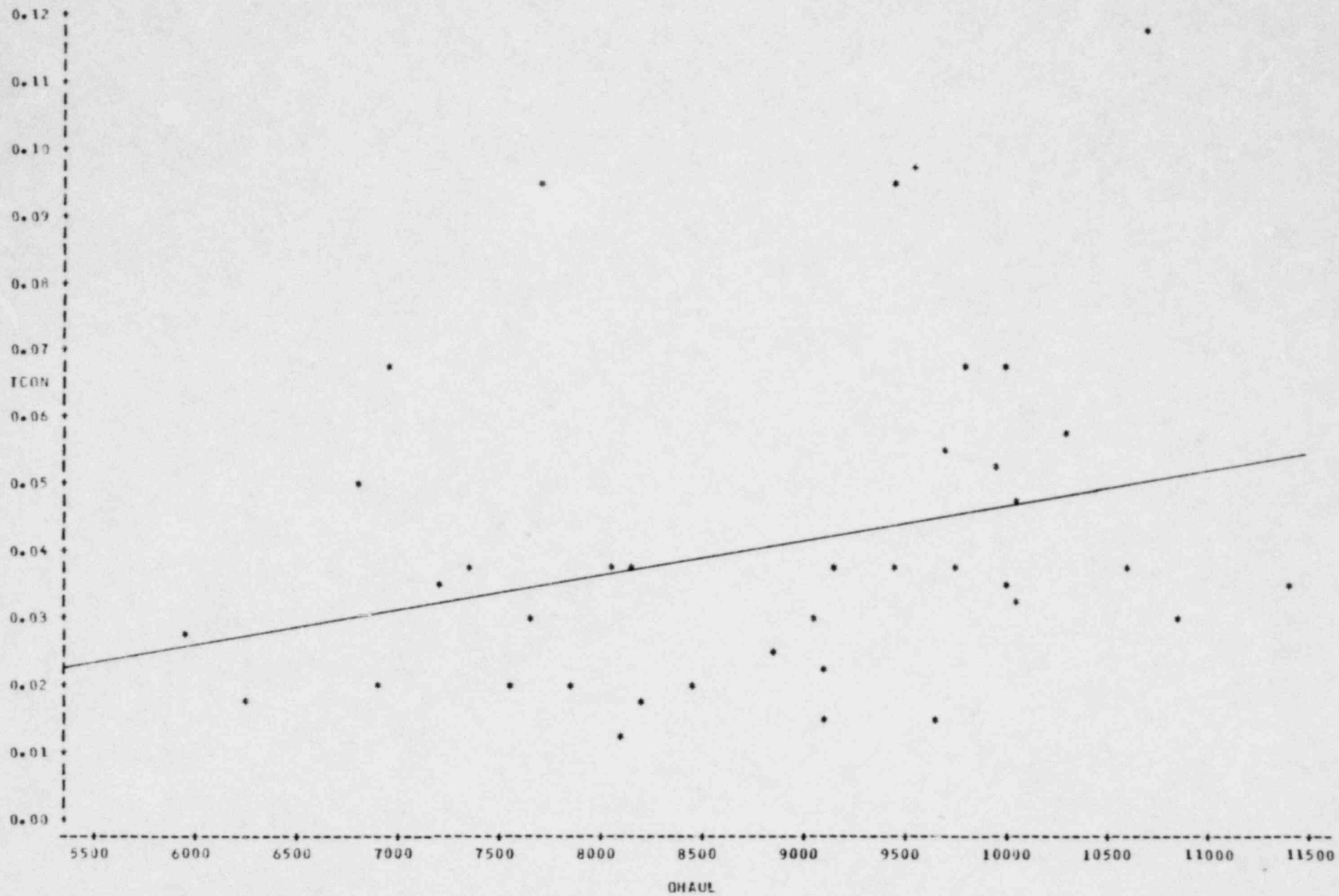
PLOT OF PCON*OFEED   SYMBOL USED IS *

```
0.300   +

0.275   +

0.250   +

0.225   +

0.200   +

0.175   +
PCON
0.150   +

0.125   +

0.100   +

0.075   +

0.050   +

0.025   +

0.000   +
        +------+------+------+------+------+------+------+------+------+------+------+------+------
        5000  5400  5800  6200  6600  7000  7400  7800  8200  8600  9000  9400  9800
                                            OFEED
```

NOTE: 3 OBS HAD MISSING VALUES   2 OBS HIDDEN

PLOT OF CONCENTRATIONS VS ENVIRONMENTAL FACTORS FOR LOCATION 3

PLOT OF UCON*YELLOW   SYMBOL USED IS *

NOTE: 2 OBS HAD MISSING VALUES

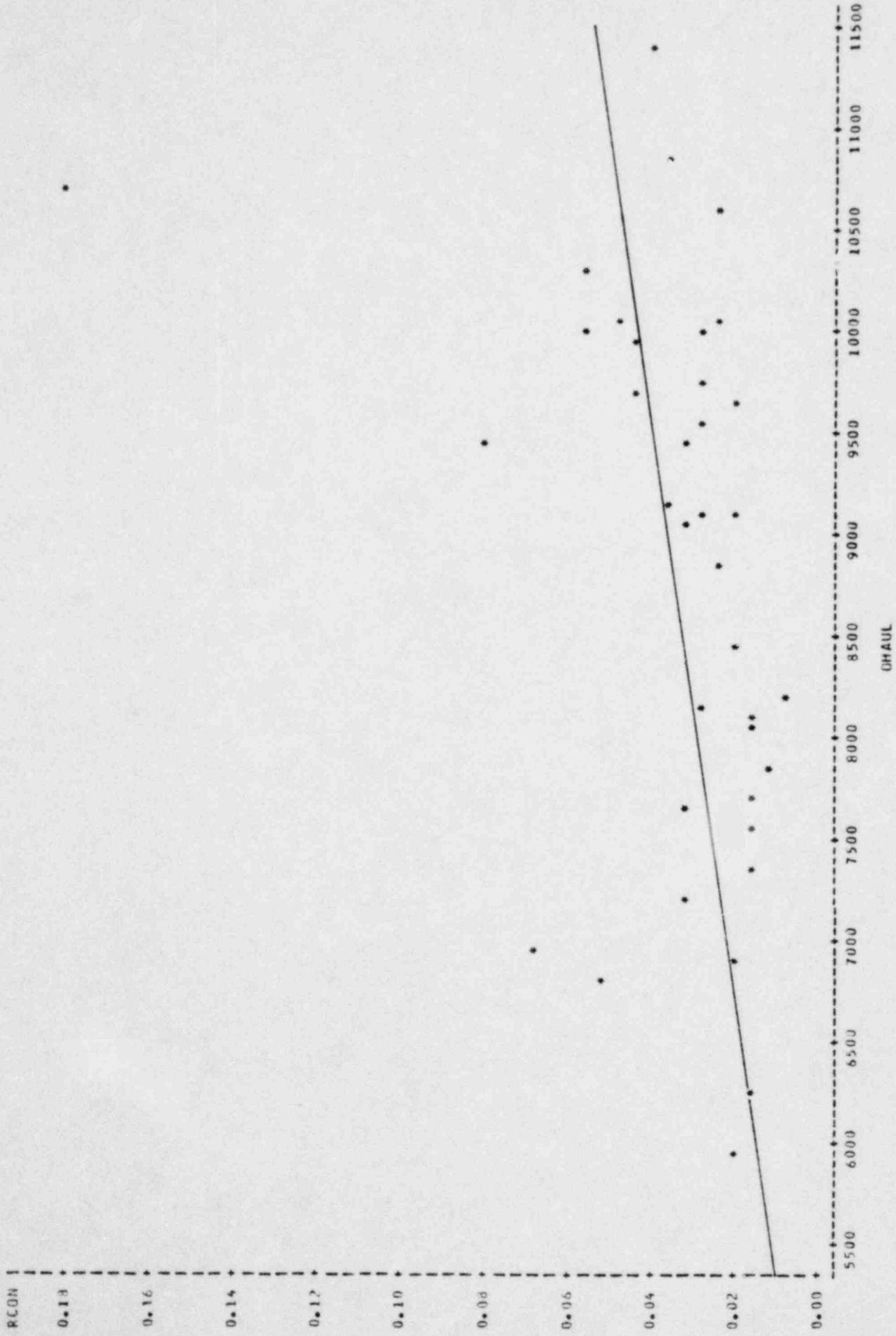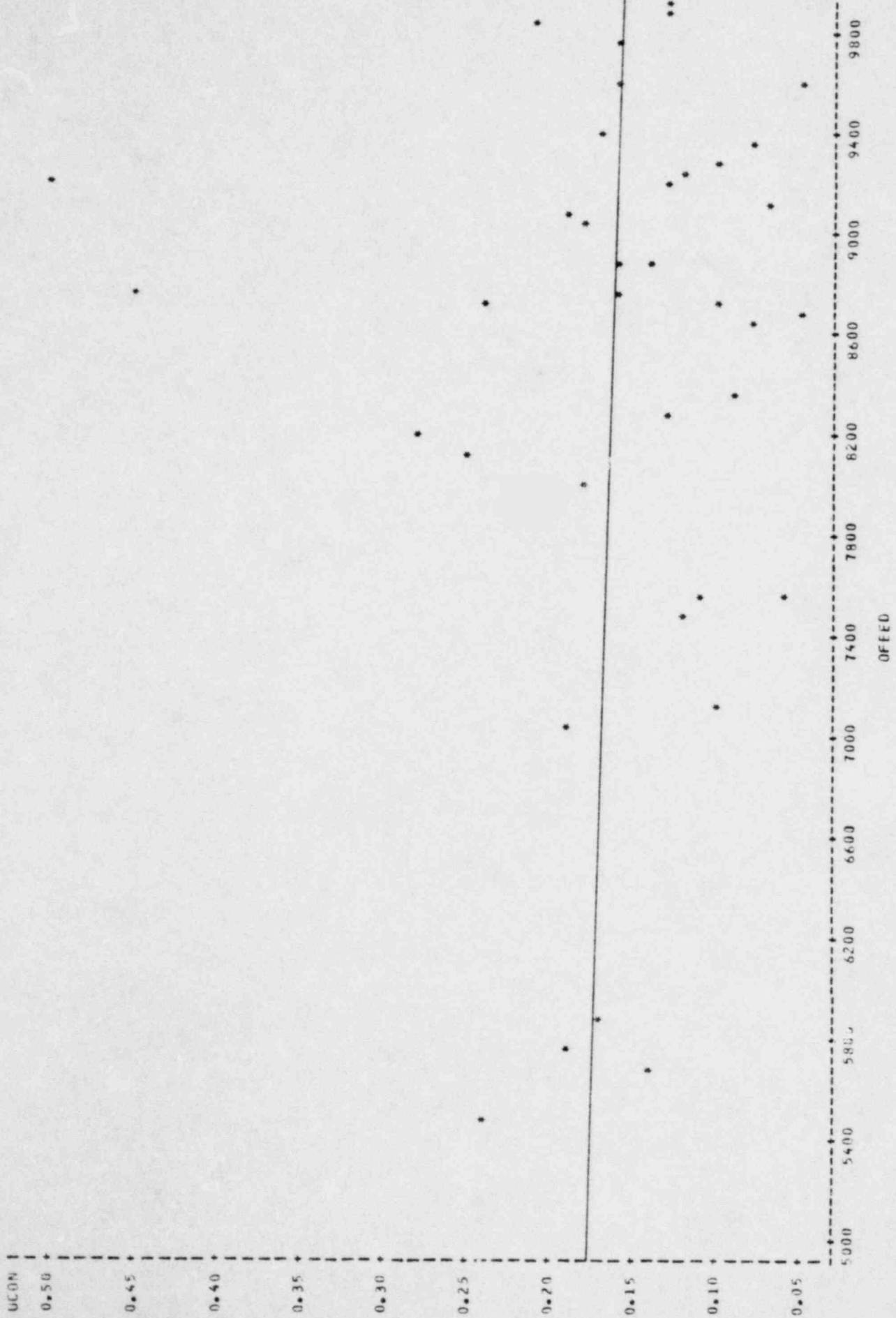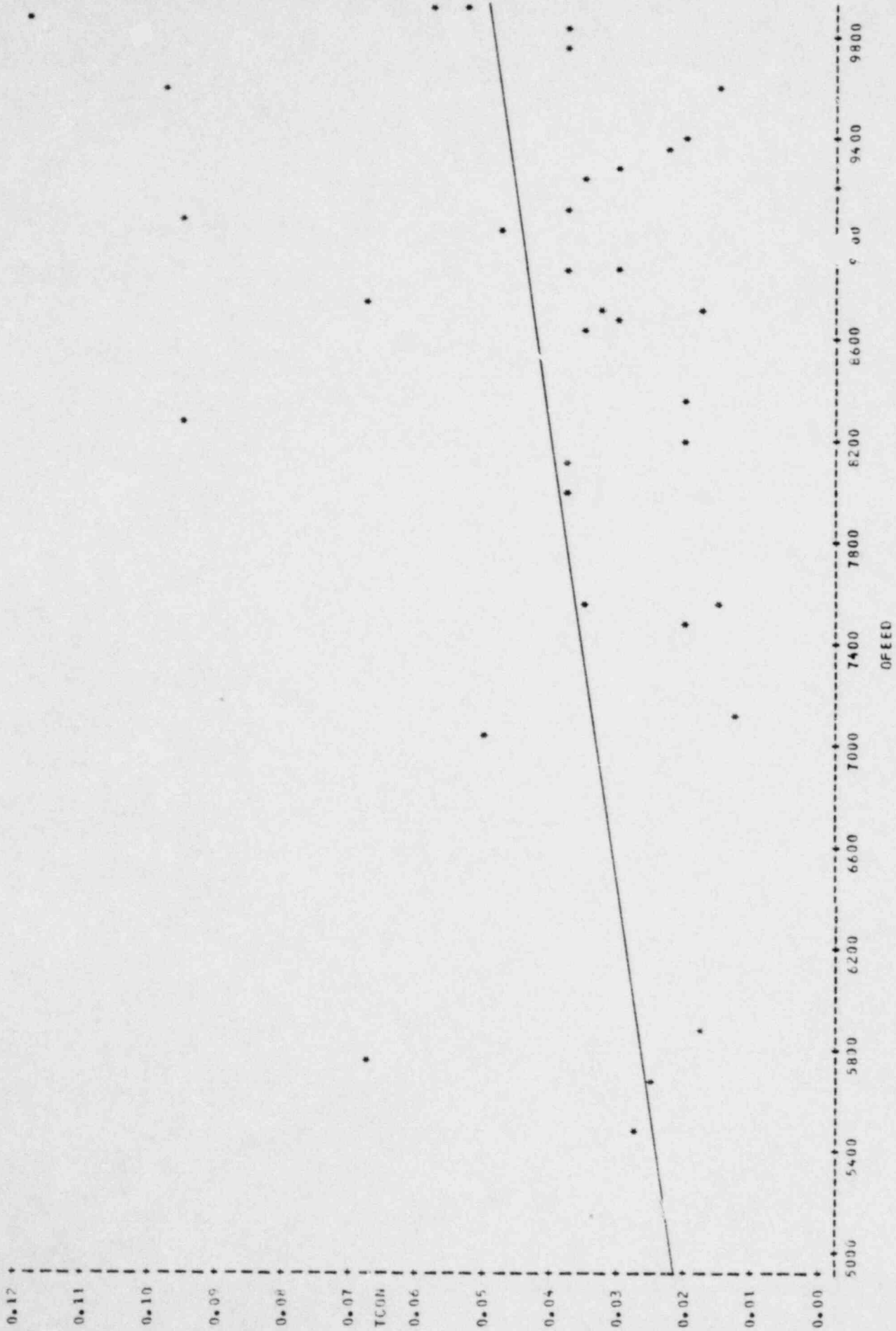PLOT OF CONCENTRATIONS VS ENVIRONMENTAL FACTORS FOR LOCATION 3

PLOT OF TCON*YELLOW   SYMBOL USED IS *

YELLOW

NOTE: 2 OBS HAD MISSING VALUES

PLOT OF CONCENTRATIONS VS ENIVORMENTAL FACTORS FOR LOCATION 3

PLOT OF RCON*YELLOW   SYMBOL USED IS *

PCON |
0.18 +   *
     |
0.16 +
     |
0.14 +
     |
0.12 +
     |
0.10 +
     | *
0.08 +
     | *
0.06 +   *   *   *
     | *   *   *
0.04 + *   *   *
     |
0.02 +
     |
0.00 +
     ----+----+----+----+----+----+----+----+----+----+----+----+----+----+
     10000 13000 16000 19000 22000 25000 28000 31000 34000 37000 40000 43000 46000 49000
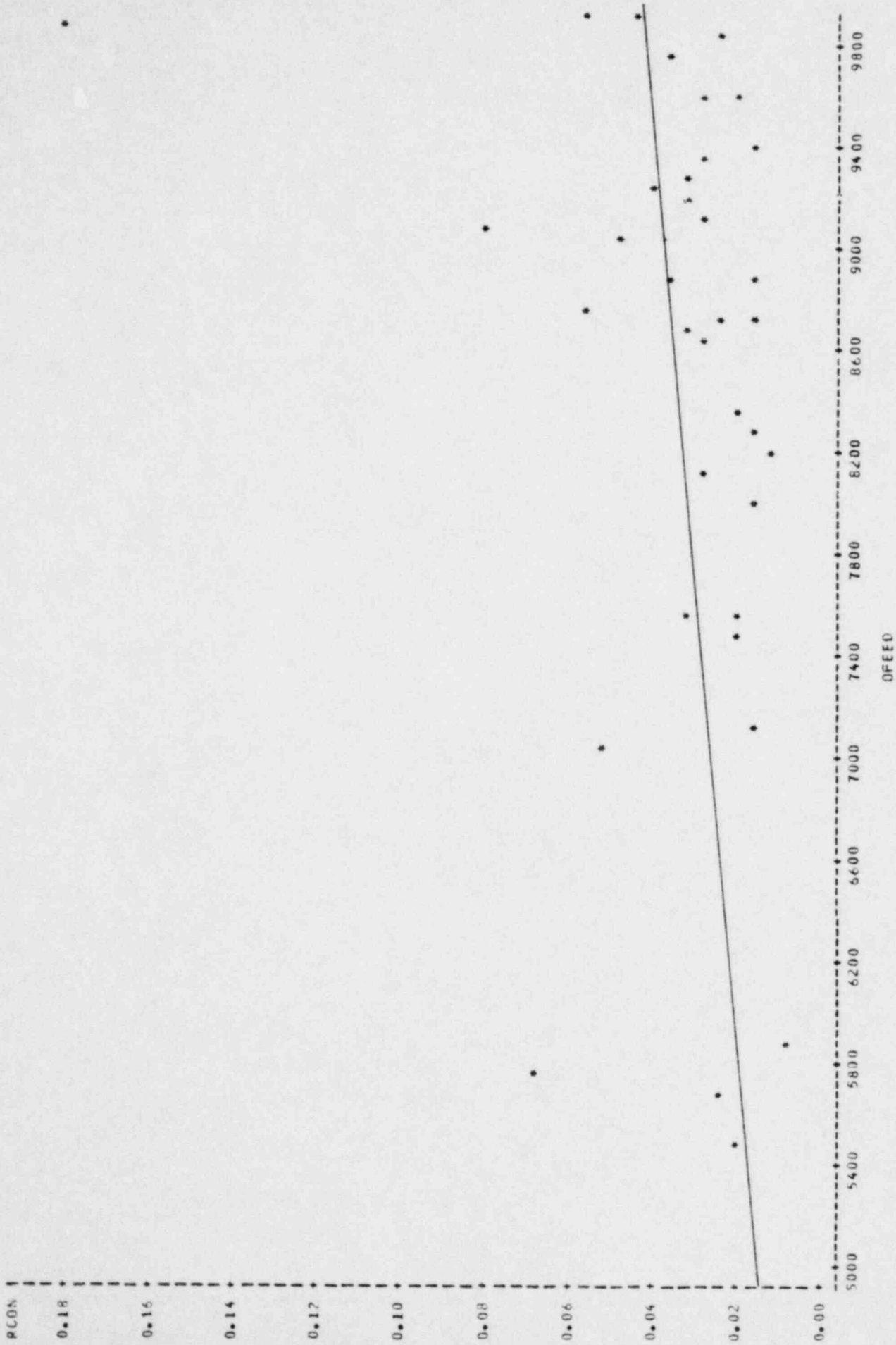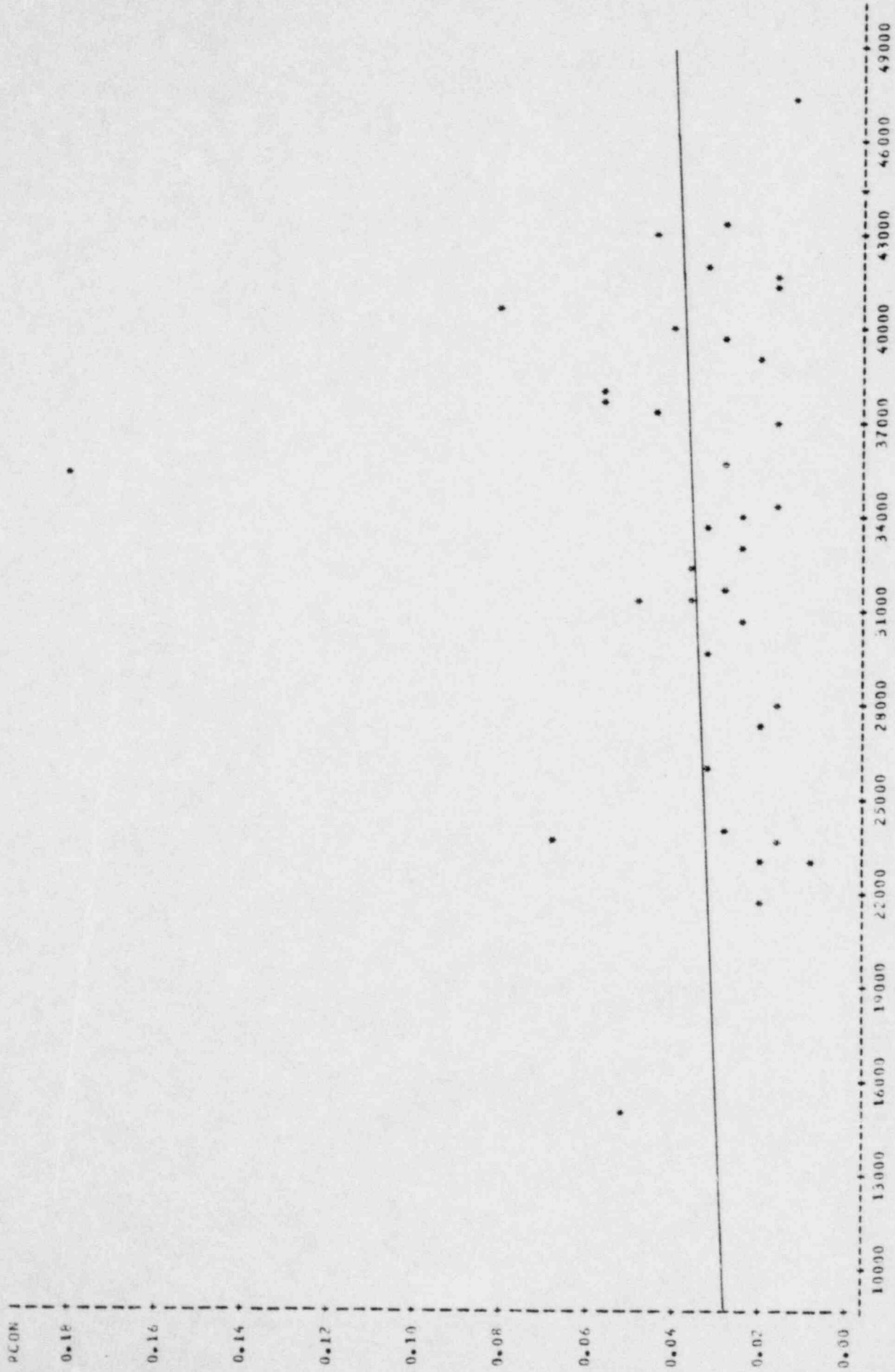
                                        YELLOW

NOTE: 3 OBS HAD MISSING VALUES   1 OBS HIDDEN

PLOT OF CONCENTRATIONS VS ENVIRONMENTAL FACTORS FOR LOCATION 3
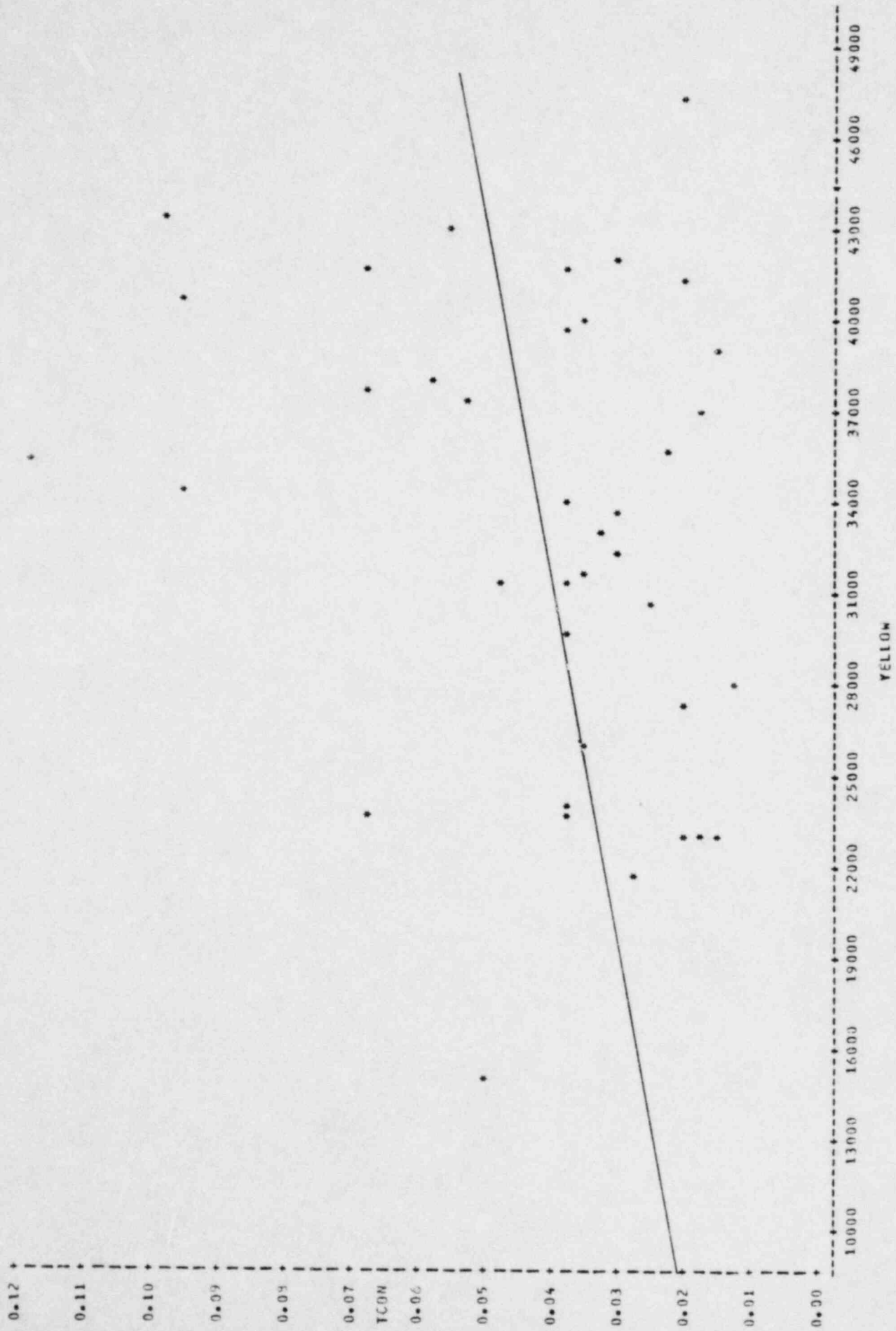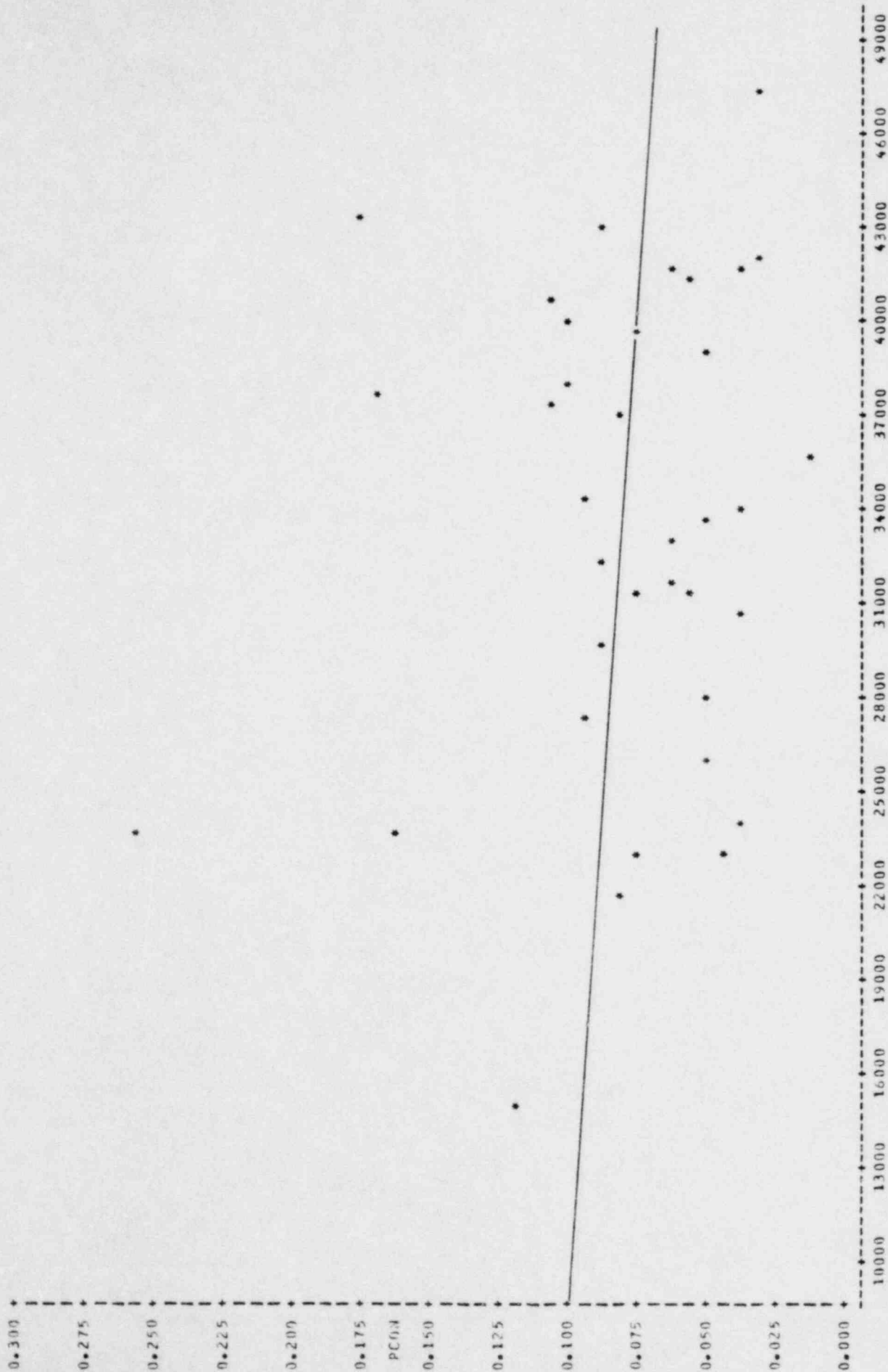
PLOT OF PCON*YELLOW   SYMBOL USED IS *

NOTE: 3 OBS HAD MISSING VALUES   1 OBS HIDDEN

APPENDIX H

SLOPES AND INTERCEPTS FOR LEAST SQUARES FIT OF DEPENDENT VERSUS INDEPENDENT VARIABLES

VALUES OF B(0) **LOCATION 1**

	PART	V205	UCON	TCON	RCON	PCON
TMIN	4.324E 01	2.174E-01	5.255E-02	1.502E-02	8.980E-03	7.077E-02
TMAX	3.114E 01	1.755E-01	7.165E-02	1.135E-02	8.530E-03	8.325E-02
TAVE	3.533E 01	1.882E-01	5.011E-02	1.278E-02	8.741E-03	7.370E-02
RAIN	6.332E 01	3.561E-01	7.783E-02	2.184E-02	8.170E-03	3.279E-02
SNOW	5.954E 01	3.557E-01	8.941E-02	1.265E-02	7.754E-03	3.531E-02
SCOV	6.008E 01	3.645E-01	7.292E-02	1.958E-02	7.402E-03	3.517E-02
WHDR	5.107E 01	2.466E-01	7.379E-02	1.552E-02	7.712E-03	4.959E-02
WIND	2.953E 01	1.104E-01	5.722E-02	4.252E-03	5.135E-03	7.466E-02
MIND	1.038E 01	-9.039E-02	2.721E-02	-7.370E-03	-1.025E-04	1.053E-01
OHAL	-5.373E 00	-1.491E-01	4.554E-02	-5.743E-03	-1.492E-03	1.218E-01
OFED	-2.537E 01	-2.768E-01	2.632E-02	-1.710E-02	-3.827E-04	1.362E-01
YELO	2.655E 01	4.733E-02	1.197E-02	3.281E-03	1.229E-03	9.636E-02
SN2	5.335E 01	3.467E-01	8.657E-02	1.240E-02	7.875E-03	3.876E-02
SC2	5.335E 01	3.532E-01	9.331E-02	1.391E-02	7.433E-03	3.801E-02
A12	3.910E 01	1.875E-01	7.622E-02	8.993E-03	5.637E-03	6.291E-02
A13	1.352E 01	2.173E-01	3.317E-02	1.052E-02	5.734E-03	5.725E-02
L12	3.122E 01	1.137E-01	6.336E-02	5.003E-03	3.412E-03	7.119E-02
A13	3.929E 01	1.831E-01	7.544E-02	2.228E-03	4.604E-03	5.952E-02
RA2	5.936E 01	3.418E-01	8.052E-02	1.970E-02	8.052E-03	3.710E-02
YDIR	5.951E 01	3.320E-01	9.034E-02	1.894E-02	7.821E-03	4.070E-02
ODIR	6.450E 01	4.058E-01	9.826E-02	2.431E-02	9.052E-03	3.101E-02
TDOR	6.333E 01	4.172E-01	9.534E-02	2.475E-02	9.335E-03	2.829E-02
SEDR	5.335E 01	3.214E-01	8.655E-02	1.786E-02	7.805E-03	4.113E-02
SWDR	6.442E 01	4.105E-01	9.834E-02	2.451E-02	9.135E-03	3.027E-02

VALUES OF B(0) **LOCATION 1**

	USPA	TSPA	RSPA	PSPA	VSPA	EQR
TMIN	1.163E 03	3.692E 02	2.228E 02	2.126E 03	4.404E-03	8.132E-01
TMAX	1.681E 03	3.881E 02	2.550E 02	2.583E 03	4.699E-03	7.452E-01
TAVE	1.399E 03	3.793E 02	2.424E 02	2.428E 03	4.474E-03	7.948E-01
RAIN	1.352E 03	3.279E 02	1.259E 02	5.741E 02	5.661E-03	5.640E-01
SNOW	1.618E 03	3.308E 02	1.310E 02	7.750E 02	6.032E-03	5.015E-01
SCOV	1.705E 03	3.199E 02	1.182E 02	7.144E 02	6.170E-03	4.693E-01
WHDR	1.511E 03	3.190E 02	1.632E 02	1.210E 03	4.775E-03	5.429E-01
WIND	1.435E 03	3.088E 02	2.023E 02	2.106E 03	4.105E-03	6.112E-01
MIND	1.136E 03	2.714E 02	1.969E 02	3.045E 03	2.445E-03	5.847E-01
OHAL	2.164E 03	2.982E 02	2.070E 02	4.222E 03	3.355E-03	3.007E-01
OFED	2.340E 03	2.014E 02	2.982E 02	5.500E 03	2.327E-03	4.222E-01
YELO	8.131E 02	2.554E 02	2.575E 02	3.236E 03	3.247E-03	4.721E-01
SN2	1.532E 03	3.364E 02	1.324E 02	8.655E 02	5.978E-03	5.153E-01
SC2	1.741E 03	3.171E 02	1.249E 02	8.249E 02	6.054E-03	4.695E-01
A12	1.635E 03	3.072E 02	1.763E 02	1.568E 03	4.320E-03	5.150E-01
A13	1.770E 03	3.061E 02	1.535E 02	1.464E 03	5.106E-03	4.775E-01
SN2	1.573E 03	3.015E 02	1.668E 02	1.924E 03	4.225E-03	5.123E-01
A13	1.699E 03	3.120E 02	1.565E 02	1.544E 03	4.831E-03	4.886E-01
RA2	1.494E 03	3.348E 02	1.331E 02	7.573E 02	5.790E-03	5.441E-01
YDIR	1.763E 03	3.360E 02	1.449E 02	9.413E 02	5.844E-03	4.987E-01
ODIR	1.811E 03	3.585E 02	1.351E 02	6.432E 02	6.503E-03	5.209E-01
TDOR	1.699E 03	3.887E 02	1.415E 02	5.342E 02	6.741E-03	5.605E-01
SEDR	1.663E 03	3.433E 02	1.515E 02	9.343E 02	5.903E-03	5.236E-01
SWDR	1.802E 03	3.720E 02	1.352E 02	6.182E 02	6.555E-03	5.258E-01

	PART	V20R	JCON	TCON	RCON	PCON
TMIN	3.439E-01	3.264E-03	1.109E-03	1.024E-04	-3.532E-05	-8.469E-04
TMAX	3.321E-01	2.355E-03	2.739E-04	1.107E-04	-1.211E-05	-6.571E-04
TAVE	3.943E-01	2.833E-03	5.038E-04	1.162E-04	-1.924E-05	-7.700E-04
RAIN	-3.172E 01	-1.242E-01	5.000E-02	-7.917E-03	-1.430E-03	3.498E-02
SNOW	-3.643E 00	-2.650E-02	9.001E-05	-1.093E-03	4.774E-05	4.443E-03
SCOV	-2.752E 00	-2.336E-02	-1.225E-03	-7.032E-04	2.403E-04	3.712E-03
WNDR	3.969E-02	7.060E-04	9.503E-05	2.582E-05	8.552E-07	-7.363E-05
AWND	4.105E 00	3.409E-02	5.125E-03	2.132E-03	4.232E-04	-5.276E-03
MWND	2.835E 00	2.613E-02	3.901E-03	1.520E-03	4.969E-04	-4.052E-03
OTAL	6.960E-03	5.295E-05	4.334E-06	2.695E-06	1.037E-05	-8.969E-06
OFED	9.523E-03	7.050E-05	7.385E-06	4.156E-06	9.534E-07	-1.110E-05
YELO	8.543E-04	8.336E-05	2.317E-06	4.533E-07	1.734E-03	-1.648E-06
SN2	-4.672E-01	-3.472E-03	4.737E-04	-1.020E-04	-1.110E-05	4.254E-04
SC2	-3.018E-01	-2.487E-03	-3.348E-04	-4.505E-05	3.397E-05	3.016E-04
AN2	3.516E-01	2.960E-03	2.347E-04	2.012E-04	4.650E-05	-4.622E-04
AN3	3.440E-02	2.871E-04	1.687E-05	2.106E-05	5.533E-06	-4.245E-05
MN2	8.331E-02	7.959E-04	9.749E-05	5.036E-05	1.651E-05	-1.121E-04
MN3	3.473E-03	3.054E-05	2.932E-06	1.267E-06	6.859E-07	-3.892E-06
RA2	-2.466E 01	-1.030E-01	6.039E-02	-8.267E-03	-1.565E-03	2.720E-02
YDIR	1.132E 01	7.523E-02	1.564E-02	5.221E-03	9.843E-04	-7.541E-03
ODIR	1.273E 01	1.764E-01	1.963E-02	1.293E-02	2.740E-03	-2.275E-02
TOOR	1.554E 01	1.710E-01	1.113E-02	1.184E-02	2.854E-03	-2.439E-02
SEDR	6.122E 00	1.572E-02	1.122E-02	2.042E-03	6.746E-06	7.605E-04
SNDR	1.934E 01	1.808E-01	1.919E-02	1.321E-02	2.831E-03	-2.359E-02

	JSPA	TSPA	RSPA	PSPA	VSPA	EUR
TMIN	1.733E 01	-1.012E 00	-2.293E 00	-3.525E 01	4.368E-05	-9.341E-03
TMAX	3.998E-01	-8.223E-01	-1.597E 00	-2.549E 01	1.810E-05	-3.785E-03
TAVE	5.972E 00	-9.000E-01	-1.972E 00	-3.032E 01	2.843E-05	-5.998E-03
RAIN	1.525E 03	3.161E 01	8.511E 01	1.565E 03	7.885E-04	-2.625E-01
SNOW	1.038E 02	4.264E 00	1.387E 01	1.605E 02	-1.573E-04	1.030E-03
SCOV	1.946E 01	9.479E 00	1.713E 01	1.459E 02	-1.902E-04	1.954E-02
WNDR	1.130E 00	1.486E-01	-1.473E-01	-2.263E 00	9.625E-06	-3.569E-04
AWND	4.814E 01	4.262E 00	-8.798E 00	-1.320E 02	2.769E-04	-1.721E-02
MWND	3.452E 01	4.038E 00	-3.150E 00	-1.312E 02	2.141E-04	-5.133E-03
OTAL	-4.737E-02	4.184E-03	-5.120E-03	-3.641E-01	2.737E-07	2.248E-05
OFED	-1.020E-02	1.572E-02	-1.773E-02	-5.433E-01	4.127E-07	9.403E-06
YELO	2.755E-02	2.405E-03	-3.317E-03	-6.325E-02	7.307E-08	9.134E-07
SN2	2.404E 01	-1.210E-01	1.211E 00	1.505E 01	-2.057E-05	-2.034E-03
SC2	-1.543E-01	1.672E 00	1.277E 00	1.193E 01	-1.907E-05	2.923E-03
AN2	1.147E 00	6.091E-01	-6.337E-01	-1.524E 01	2.215E-06	-2.642E-04
AN3	-8.307E-02	7.385E-02	-4.476E-02	-1.352E 00	1.924E-06	6.669E-05
MN2	6.199E-01	1.283E-01	-7.535E-02	-3.632E 00	6.115E-06	-3.509E-05
MN3	3.453E-03	5.063E-03	-2.026E-03	-1.258E-01	2.189E-07	2.970E-06
RA2	1.544E 03	5.744E 00	5.553E 01	1.279E 03	4.110E-04	-2.780E-01
YDIR	2.303E 02	3.941E 00	-2.198E 01	-1.823E 02	3.570E-04	-4.680E-02
ODIR	1.612E 02	7.226E 01	-2.343E 01	-6.904E 02	1.430E-03	4.093E-02
TOOR	-7.592E 02	9.902E 01	-9.804E 00	-7.895E 02	1.658E-03	1.107E-01
SEDR	2.397E 02	-2.322E 01	-1.754E 01	8.243E 01	-1.935E-04	-7.948E-02
SNDR	1.379E 02	7.750E 01	-2.243E 01	-7.219E 02	1.497E-03	5.033E-02

VALUES OF B(0) LOCATION 2

	PART	V20S	BCON	TCON	RCON	PCON
LMIN	3.574E 01	4.225E-01	2.450E-01	1.602E-02	5.252E-03	3.004E-02
LMAX	2.201E 01	5.227E-01	2.737E-01	1.557E-02	3.703E-03	8.335E-02
LAVE	2.772E 01	5.174E-01	2.519E-01	1.562E-02	4.310E-03	8.586E-02
RAIN	5.464E 01	4.313E-01	1.810E-01	1.792E-02	7.131E-03	4.033E-02
SNOW	5.517E 01	4.244E-01	2.370E-01	1.554E-02	7.975E-03	4.489E-02
SCOV	5.592E 01	3.906E-01	2.536E-01	1.573E-02	8.023E-03	4.308E-02
WIDR	4.755E 01	4.455E-01	2.416E-01	1.573E-02	5.325E-03	5.328E-02
AWND	3.731E 01	5.216E-01	2.751E-01	1.224E-02	4.275E-03	8.390E-02
MWND	3.065E 01	7.312E-01	2.501E-01	2.499E-02	-5.303E-04	1.216E-01
OTAL	-9.623E 00	9.610E-02	1.207E-01	-4.224E-03	7.480E-03	8.920E-02
OFED	-3.292E 01	4.991E-01	4.549E-02	-2.044E-02	1.351E-03	1.064E-01
YELO	2.332E 01	2.025E-02	1.475E-01	2.555E-03	6.383E-04	9.538E-02
S12	5.359E 01	4.142E-01	2.317E-01	1.667E-02	7.826E-03	4.673E-02
SC2	5.415E 01	4.055E-01	2.499E-01	1.595E-02	7.800E-03	4.535E-02
A12	4.335E 01	4.775E-01	2.651E-01	1.779E-02	5.225E-03	7.016E-02
A13	4.649E 01	4.545E-01	2.530E-01	1.713E-02	5.530E-03	6.467E-02
M12	4.075E 01	5.563E-01	2.506E-01	1.957E-02	3.269E-03	8.227E-02
M13	4.413E 01	4.318E-01	2.470E-01	1.793E-02	4.625E-03	6.391E-02
RA2	5.149E 01	4.024E-01	1.993E-01	1.743E-02	7.419E-03	4.330E-02
YOTR	4.734E 01	3.971E-01	2.239E-01	1.603E-02	7.336E-03	4.166E-02
ODIR	4.950E 01	3.826E-01	2.320E-01	1.611E-02	7.213E-03	4.773E-02
TOOR	5.276E 01	3.590E-01	2.390E-01	1.624E-02	7.577E-03	4.596E-02
SEDR	4.727E 01	5.030E-01	2.125E-01	1.501E-02	7.464E-03	4.735E-02
SWDR	5.741E 01	3.503E-01	2.145E-01	1.634E-02	1.005E-02	3.718E-02

VALUES OF B(0) LOCATION 2

	JSPA	TSPA	RSPA	PSPA	VSPA	EQR
LMIN	8.654E 03	4.933E 02	1.509E 02	2.135E 03	1.342E-02	1.687E-01
LMAX	1.039E 04	5.354E 02	1.493E 02	2.541E 03	1.557E-02	1.648E-01
LAVE	1.005E 04	5.422E 02	1.501E 02	2.479E 03	1.485E-02	1.562E-01
RAIN	3.301E 03	3.738E 02	1.511E 02	3.215E 02	9.163E-03	1.607E-01
SNOW	4.345E 03	3.295E 02	1.549E 02	8.803E 02	8.756E-03	1.351E-01
SCOV	5.526E 03	3.135E 02	1.520E 02	3.154E 02	7.659E-03	1.218E-01
WIDR	6.357E 03	4.222E 02	1.223E 02	1.393E 03	1.058E-02	1.527E-01
AWND	8.168E 03	5.898E 02	1.238E 02	2.242E 03	1.390E-02	1.574E-01
MWND	1.077E 04	7.833E 02	5.831E 01	3.352E 03	2.201E-02	2.005E-01
OTAL	1.510E 04	2.105E 02	2.737E 02	3.495E 03	9.572E-03	1.478E-01
OFED	1.661E 04	-3.693E 01	2.087E 02	4.128E 03	2.259E-02	7.239E-02
YELO	3.051E 03	2.833E 02	8.520E 01	2.440E 03	2.948E-03	1.502E-01
S12	1.994E 03	3.431E 02	1.552E 02	7.592E 02	8.697E-03	1.418E-01
SC2	5.754E 03	3.148E 02	1.523E 02	9.295E 02	8.455E-03	1.232E-01
A12	1.539E 03	4.913E 02	1.311E 02	1.782E 03	1.134E-02	1.513E-01
A13	1.211E 03	4.500E 02	1.324E 02	1.594E 03	1.037E-02	1.439E-01
M12	3.455E 03	5.517E 02	1.037E 02	2.156E 03	1.451E-02	1.651E-01
M13	1.522E 03	4.742E 02	1.198E 02	1.748E 03	1.200E-02	1.532E-01
RA2	4.125E 03	3.904E 02	1.522E 02	9.504E 02	8.802E-03	1.583E-01
YOTR	5.652E 03	3.721E 02	1.585E 02	1.122E 03	9.052E-03	1.492E-01
ODIR	5.835E 03	3.707E 02	1.523E 02	1.097E 03	8.483E-03	1.442E-01
TOOR	5.325E 03	3.494E 02	1.511E 02	9.238E 02	7.442E-03	1.392E-01
SEDR	5.532E 03	3.814E 02	1.624E 02	1.123E 03	9.295E-03	1.518E-01
SWDR	4.500E 03	3.095E 02	1.891E 02	6.905E 02	6.573E-03	1.509E-01

PART	V205	UCON	TCON	RCON	PCON
FMIN	4.353E-01	-3.699E-03	-3.955E-04	4.345E-07	6.173E-05	-1.015E-03
FMAX	4.471E-01	-2.284E-03	-6.690E-04	6.955E-06	5.623E-05	-6.587E-04
FAVE	4.577E-01	-2.700E-03	-6.308E-04	3.933E-06	6.175E-05	-4.154E-04
RAIN	-1.775E 01	-1.762E-01	2.016E-01	-7.553E-03	-2.010E-03	2.395E-02
SJOM	-4.737E 00	-3.664E-02	-3.925E-03	-3.694E-04	-6.511E-04	2.428E-03
SCOV	-3.711E 00	-4.702E-03	-1.402E-02	-3.280E-04	-4.672E-04	2.477E-03
WARM	1.374E-02	-5.968E-04	-3.450E-05	-5.761E-06	1.747E-05	-9.752E-05
AJNO	2.035E 00	-2.315E-02	-7.065E-03	-5.183E-04	4.372E-04	-5.990E-03
JATO	1.234E 00	-2.502E-02	-1.303E-03	-6.325E-04	5.039E-04	-4.313E-03
OIAL	6.715E-03	3.232E-05	1.267E-05	2.318E-06	-2.955E-03	-4.705E-06
OFED	2.831E-03	-1.323E-05	2.215E-05	4.374E-06	6.920E-06	-6.295E-06
YELO	7.665E-04	1.075E-05	2.525E-06	4.023E-07	1.956E-07	-1.447E-06
S42	-5.572E-01	-5.221E-03	1.031E-04	-3.707E-05	-9.752E-05	1.582E-04
SC2	-3.347E-01	-2.093E-03	-1.479E-03	1.252E-05	-4.902E-05	1.997E-04
A42	1.329E-01	-2.217E-03	-7.513E-04	-3.367E-05	4.615E-05	-5.196E-04
A43	9.135E-03	-2.150E-04	-9.023E-05	-2.983E-06	4.690E-06	-5.004E-05
W42	3.532E-02	-7.078E-04	-7.357E-05	-1.465E-05	1.502E-05	-1.401E-04
443	1.311E-03	-2.417E-05	-3.525E-06	-4.495E-07	6.267E-07	-5.124E-06
RA2	-1.117E 01	-1.281E-01	2.058E-01	-3.832E-03	-1.239E-03	2.740E-02
YOIR	1.034E 01	-7.403E-02	5.240E-02	4.785E-04	-7.171E-04	3.321E-04
OOIR	1.217E 01	-9.587E-02	4.409E-02	5.084E-04	8.567E-05	-2.482E-03
FOOR	1.460E 01	-7.911E-02	2.880E-02	5.509E-04	1.553E-03	-7.639E-03
SEOR	1.026E 01	-9.339E-02	5.624E-02	4.557E-04	-1.030E-03	1.602E-03
SMDR	1.519E 01	-5.034E-02	-3.483E-02	4.568E-04	5.533E-03	-2.048E-02

VALUES OF B(I) LOCATION 2

	USPA	TSPA	RSPA	PSPA	VSPA	EQR
FMIN	-8.335E 01	-3.850E 00	3.777E-02	-3.427E 01	-1.561E-04	-7.752E-04
FMAX	-3.178E 01	-3.471E 00	4.513E-02	-2.506E 01	-1.170E-04	-3.376E-04
FAVE	-9.001E 01	-3.661E 00	4.299E-02	-2.958E 01	-1.371E-04	-4.739E-04
RAIN	3.904E 03	-1.054E 01	3.746E 00	1.073E 03	-2.818E-03	-6.567E-02
SJOM	8.229E 02	3.494E 01	-2.320E 00	1.347E 02	-2.630E-04	7.611E-03
SCOV	1.532E 02	3.004E 01	5.808E-02	1.494E 02	4.229E-04	1.184E-02
WARM	-1.752E 00	-4.592E-01	2.748E-01	-2.754E 00	-1.965E-05	-8.014E-05
AJNO	-3.352E 02	-3.512E 01	3.859E 00	-1.399E 02	-9.027E-04	-3.885E-03
JATO	-3.211E 02	-2.702E 01	6.103E 00	-1.470E 02	-8.833E-04	-3.691E-03
OIAL	-1.050E 00	1.833E-02	-1.379E-02	-2.721E-01	-1.335E-07	-4.382E-07
OFED	-1.233E 00	5.434E-02	-6.741E-03	-3.613E-01	-1.634E-06	8.528E-06
YELO	-5.600E-02	2.515E-03	1.938E-03	-5.128E-02	1.636E-07	-4.325E-07
S42	1.362E 02	3.517E 00	-4.992E-01	2.171E 01	-3.978E-05	3.582E-04
SC2	7.331E 00	4.632E 00	-6.438E 00	1.395E 00	-4.652E-07	1.754E-03
A42	-3.931E 01	-2.771E 00	4.847E-01	-1.589E 01	-7.352E-05	-1.698E-04
A43	-4.233E 00	-2.296E-01	5.724E-02	-1.474E 00	-7.157E-06	3.304E-07
W42	-1.050E 01	-7.415E-01	1.963E-01	-4.302E 00	-2.455E-05	-3.556E-05
443	-4.394E-01	-2.535E-02	7.739E-03	-1.577E-01	-8.577E-07	-2.236E-06
RA2	6.439E 03	-1.278E 02	-9.127E-01	3.343E 02	-2.132E-03	-3.369E-02
YOIR	1.161E 03	-5.406E 01	-3.955E 01	-1.685E 02	-3.691E-03	-3.232E-02
OOIR	7.264E 02	-6.692E 01	-2.706E 01	-2.643E 02	-3.933E-03	-2.830E-02
FOOR	-7.101E 01	-9.003E 01	-4.104E 00	-4.395E 02	-4.335E-03	-2.069E-02
SEOR	1.359E 03	-4.832E 01	-4.523E 01	-1.257E 02	-3.537E-03	-3.419E-02
SMDR	-2.602E 03	-1.197E 02	7.201E 01	-7.865E 02	-3.652E-03	1.338E-02

	PART	V205	JCO1	TCON	RCON	PCON
TMIN	6.233E 01	7.331E-01	2.199E-01	3.562E-02	3.367E-02	1.162E-01
TMAX	4.590E 01	5.125E-01	2.326E-01	1.925E-02	2.214E-02	1.153E-01
TAVE	5.620E 01	6.335E-01	2.308E-01	2.672E-02	2.738E-02	1.176E-01
RAIN	9.135E 01	1.016E 00	1.374E-01	4.760E-02	3.910E-02	7.517E-02
SNOW	9.100E 01	9.993E-01	1.567E-01	4.655E-02	3.915E-02	7.940E-02
SCOV	9.211E 01	1.014E 00	1.600E-01	4.625E-02	3.726E-02	7.577E-02
WIDW	7.027E 01	9.343E-01	1.769E-01	3.865E-02	3.465E-02	8.938E-02
AWND	4.230E 01	8.397E-01	2.516E-01	2.556E-02	1.595E-02	1.154E-01
WND	1.343E 01	9.486E-01	3.123E-01	1.749E-02	-8.375E-03	1.531E-01
OTAL	-7.355E-01	3.467E-01	1.511E-01	-4.247E-03	-2.911E-02	9.743E-02
OFED	-3.130E 01	-4.232E-02	1.990E-01	-5.623E-03	-1.230E-02	1.259E-01
YELO	5.017E 01	5.356E-01	1.292E-01	1.426E-02	2.533E-02	1.064E-01
SN2	8.351E 01	9.867E-01	1.556E-01	4.562E-02	3.846E-02	8.089E-02
SC2	8.390E 01	9.730E-01	1.513E-01	4.423E-02	3.623E-02	7.815E-02
AN2	5.433E 01	8.681E-01	2.133E-01	2.377E-02	1.898E-02	9.194E-02
AN3	5.951E 01	8.844E-01	1.989E-01	3.016E-02	2.015E-02	9.153E-02
WN2	4.535E 01	9.526E-01	2.372E-01	2.833E-02	1.042E-02	1.180E-01
WN3	5.616E 01	9.533E-01	2.111E-01	3.212E-02	1.690E-02	1.028E-01
RA2	8.517E 01	9.757E-01	1.416E-01	4.420E-02	3.623E-02	7.592E-02
YOIR	8.173E 01	8.821E-01	1.544E-01	4.007E-02	3.229E-02	8.021E-02
ODIR	7.923E 01	8.887E-01	1.595E-01	3.924E-02	3.216E-02	8.027E-02
TJOR	8.467E 01	9.700E-01	1.598E-01	4.412E-02	3.735E-02	7.920E-02
SEDR	7.904E 01	8.934E-01	1.604E-01	3.932E-02	3.233E-02	8.024E-02
SWDR	1.021E 02	1.057E 00	1.427E-01	5.406E-02	4.442E-02	7.732E-02

	JSPA	TSPA	RSPA	PSPA	VSPA	EQR
TMIN	3.225E 03	5.777E 02	5.247E 02	1.382E 03	1.517E-02	3.718E-01
TMAX	4.917E 03	5.359E 02	5.176E 02	2.150E 03	1.575E-02	1.666E-01
TAVE	4.534E 03	5.595E 02	5.242E 02	2.060E 03	1.553E-02	2.521E-01
RAIN	1.340E 03	5.356E 02	4.511E 02	7.346E 02	1.231E-02	6.596E-01
SNOW	2.061E 03	5.262E 02	4.517E 02	9.232E 02	1.203E-02	6.218E-01
SCOV	2.073E 03	5.016E 02	4.156E 02	7.290E 02	1.186E-02	6.248E-01
WIDW	3.110E 03	5.857E 02	5.235E 02	1.423E 03	1.540E-02	4.367E-01
AWND	4.332E 03	6.268E 02	5.163E 02	2.024E 03	1.304E-02	1.158E-01
WND	5.525E 03	6.807E 02	4.907E 02	2.351E 03	2.111E-02	-3.312E-01
OTAL	5.394E 03	5.573E 02	3.188E 02	2.234E 03	2.016E-02	-9.338E-02
OFED	7.233E 03	1.690E 02	5.149E 02	3.044E 03	1.952E-02	-3.408E-01
YELO	2.904E 03	5.142E 02	5.294E 02	1.990E 03	1.732E-02	4.060E-01
SN2	2.126E 03	5.330E 02	4.582E 02	1.047E 03	1.249E-02	6.144E-01
SC2	2.240E 03	5.025E 02	4.179E 02	9.960E 02	1.200E-02	5.955E-01
AN2	3.276E 03	5.620E 02	4.606E 02	1.533E 03	1.572E-02	2.461E-01
AN3	3.501E 03	5.382E 02	4.404E 02	1.480E 03	1.510E-02	2.958E-01
WN2	4.527E 03	6.003E 02	4.575E 02	1.230E 03	1.721E-02	8.174E-02
WN3	3.333E 03	5.738E 02	4.472E 02	1.616E 03	1.536E-02	2.239E-01
RA2	2.095E 03	5.331E 02	4.478E 02	1.053E 03	1.223E-02	6.138E-01
YOIR	2.373E 03	5.108E 02	4.325E 02	1.147E 03	1.263E-02	5.529E-01
ODIR	2.525E 03	5.175E 02	4.410E 02	1.169E 03	1.293E-02	5.394E-01
TJOR	2.444E 03	5.367E 02	4.521E 02	1.083E 03	1.307E-02	5.959E-01
SEDR	2.547E 03	5.194E 02	4.430E 02	1.170E 03	1.304E-02	5.379E-01
SWDR	1.744E 03	5.376E 02	4.340E 02	3.672E 02	1.182E-02	7.552E-01

	PMAX	V2OS	J2OH	T2OH	R2OH	PC2H
TMIN	3.512E-01	4.549E-03	-1.741E-03	1.591E-04	3.676E-05	-1.103E-03
TMAX	5.575E-01	6.536E-03	-1.105E-03	3.534E-04	2.025E-04	-5.615E-04
TAVE	5.222E-01	6.200E-03	-1.415E-03	3.104E-04	1.567E-04	-7.145E-04
RATH	-4.223E-01	-3.163E-01	1.029E-01	-2.396E-02	-1.633E-02	1.432E-02
SDOM	-1.771E 00	-4.917E-02	4.490E-03	-3.202E-03	-3.360E-03	2.889E-04
SCOV	-5.222E 00	-4.162E-02	1.252E-03	-2.496E-03	-1.056E-03	1.603E-03
AMDR	-3.575E-02	3.522E-05	-1.202E-04	-2.590E-05	-1.702E-05	-3.914E-05
AMRD	6.131E 00	1.566E-02	-1.414E-02	2.647E-03	3.032E-03	-5.164E-03
APRG	4.256E 00	-6.222E-04	-9.390E-03	1.514E-03	2.101E-03	-5.260E-03
OTAL	9.305E-03	6.561E-05	1.361E-01	5.202E-06	1.256E-05	-2.012E-06
OFED	1.330E-02	1.143E-04	-4.338E-06	5.554E-05	5.514E-05	-5.478E-06
YELD	2.401E-04	1.214E-05	9.033E-07	3.282E-07	2.375E-01	-1.023E-07
SN2	-1.101E 00	-7.302E-03	1.019E-03	-5.725E-04	-1.200E-04	-1.669E-04
SC2	-6.523E-01	-2.930E-03	-1.033E-03	-2.151E-04	3.455E-04	1.360E-04
A42	5.035E-01	1.497E-03	2.548E-05	2.755E-05	3.922E-05	-4.031E-04
A43	5.108E-02	1.414E-04	-2.778E-04	3.022E-05	9.110E-05	-3.290E-05
A72	1.330E-01	-5.202E-05	-2.028E-05	4.074E-05	3.893E-06	-1.461E-04
A73	-3.307E-03	-3.191E-06	1.321E-01	2.026E-04	2.395E-02	-5.108E-06
RA2	-3.070E-01	-2.375E-01	1.894E-02	-4.048E-03	6.645E-03	-1.092E-03
VDIR	-2.675E-01	1.362E-01	9.231E-03	3.404E-01	9.634E-03	-1.784E-03
VDIR	1.124E 00	1.676E-01	-1.123E-02	1.758E-02	1.603E-02	-3.440E-03
DDOR	2.445E-01	2.328E-01	1.075E-01	9.348E-03	1.033E-02	-1.944E-03
SEDR	8.922E 00	1.130E-01	-4.349E-02	2.134E-02	2.080E-02	-5.109E-03
STDR	4.528E-01	2.625E-01				

	USPA	TSPA	USPA	PSPA	VSPA	EOR
TMIN	-4.404E-01	-1.403E 00	-2.276E 00	-2.250E-01	-6.052E-05	5.716E-03
TMAX	-3.738E-01	-7.313E-02	-1.067E 00	-1.597E-01	-4.046E-05	6.226E-03
TAVE	-4.227E-01	-5.852E-01	-1.544E 00	-1.911E-01	-4.963E-05	6.421E-03
RATH	2.460E-03	-1.746E-01	-2.211E-01	5.154E-02	3.513E-03	-3.263E-01
SDOM	3.359E-02	4.127E 00	-3.318E-01	1.150E-02	8.830E-04	-4.719E-02
SCOV	2.534E-02	1.639E-01	1.824E-01	1.124E-02	7.221E-04	-3.417E-02
AMDR	-4.713E 00	-4.489E-01	-6.019E-01	-2.412E 00	-1.336E-05	6.279E-04
AMRD	-3.711E-02	-1.513E-01	-1.062E-01	-1.430E 02	-7.710E-04	5.311E-02
APRG	-2.413E-02	-9.324E 00	-2.513E 00	-1.563E 02	-4.055E-04	5.519E-02
OTAL	-3.234E-01	-2.945E-03	1.497E-02	-1.247E-01	-7.913E-01	7.432E-05
OFED	-5.543E-01	-2.307E-02	-1.242E-02	-2.260E-01	-7.542E-07	1.067E-04
YELD	-1.102E-02	5.164E-04	-2.392E-03	-2.561E-02	-1.249E-07	4.124E-06
SC2	6.315E-01	-2.671E-01	-1.130E 00	1.372E-01	1.051E-04	-7.834E-03
SC2	2.558E-01	2.492E 00	2.750E 00	1.201E-01	1.013E-04	-2.337E-03
A42	-3.052E 00	-2.511E-01	-2.175E-01	-1.953E 01	-5.333E-05	6.725E-03
A43	-1.312E 00	-1.246E-02	-2.148E-02	-2.521E-01	-5.039E-06	6.266E-04
A72	-1.312E 00	-2.554E-03	-2.571E-02	-3.025E 00	-1.497E-01	1.784E-03
A73	-2.124E-01	-3.240E-03	1.102E-04	-1.052E-01	-5.661E-01	1.133E-05
RA2	2.334E-01	-1.130E-01	1.124E 01	5.470E 02	1.559E-03	-3.262E-01
VDIR	3.731E 02	4.232E 01	4.521E 01	-1.869E 01	1.316E-03	-1.749E-04
VDIR	-4.629E-01	4.547E 01	3.424E 01	-1.060E 02	-3.091E 02	7.354E-02
DDOR	-3.326E 02	4.065E 01	1.001E-01	-3.091E 02	-7.124E-...	2.450E-01
SEDR	-3.326E 02	4.594E 01	3.151E 01	-1.258E 02	4.961E-04	2.594E-02
SUDR	-1.733E 01	1.390E 01	-3.601E 01	-5.844E 02	-3.001E-03	-4.492E-01

Dr. T. J. Kagetsu
Assistant Director, Engineering
Metals Division
Union Carbide Corporation
P. O. Box 97
Niagara Falls, N. Y. 14302

Dear Mr. Kagetsu:

The preliminary cost estimates for construction of proposed tailings and effluent disposal sites at Spring Creek Mesa, Uravan, Colorado are enclosed.

Additional field investigations and completion of recommendations for further investigations described in the Geotechnical Investigation Report for Spring Creek Mesa, May 1980 are deemed necessary to establish construction costs for budgeting purposes or contract prices.

Very truly yours,

Elwin F Axtmann, P.E.

E. F. Axtmann
Project Engineer

EFA:jcn

Encl: a/s

16693

INTERNATIONAL ENGINEERING COMPANY, INC.

Estimate Summary

JOB NO & TITLE TAILINGS & EFFLUENT DISPOSAL
TYPE OF ESTIMATE Preliminary
CLIENT Union Carbide Corporation
PREPARED BY EFA **DATE** 5/20/80
JOB LOCATION Uravan, Colorado
CHECKED BY **SHEET** 1 **OF** 2

NO	DESCRIPTION	QUANTITY	UNIT	UNIT COSTS	AMOUNT	TOTALS	REMARKS
	Effluent Pond - West Mesa Area						
	Clear and Grub	264	acres	50.00	13,200		
	Strip and Stockpile	640,000	C.Y.	0.80	512,000		Stockpile
	Excavation & Stockpile	3,480,000	C.Y.	1.00	3,480,000		* Future Reclamation Material
	Construct Embankment	1,900,000	C.Y.	2.50	4,750,000		Borrow from Excavation
	Pond Lining - Impervious	1,250,000	C.Y.	3.00	3,750,000		Borrow Matl.' from Excavat
	Pond Lining - Protection	675,000	C.Y.	2.50	1,687,500		Matl.' from Excavation
	Direct Construction					14,192,700	
	Contingency 25%					3,548,175	
	Construction Costs					17,740,875	
	Engineering Cost 15%					2,128,905		15% Direct Construction
	TOTAL COST					19,869,780	

*NOTE: Excavation to construct the Effluent Pond at the West Mesa site would result in 4.1 million cubic yards of stockpiled material available for construction of the tailings disposal site or future reclamation work.

INTERNATIONAL ENGINEERING COMPANY, INC.

Estimate Summary

JOB NO & TITLE TAILINGS & EFFLUENT DISPOSAL

CLIENT Union Carbide Corporation

JOB LOCATION Uravan, Colorado

TYPE OF ESTIMATE Preliminary

PREPARED BY EFA **DATE** 5/20/80

CHECKED BY **SHEET** 2 OF 2

NO	DESCRIPTION	QUANTITY	UNIT	UNIT COSTS	AMOUNT	TOTALS	REMARKS
	TAILINGS DISPOSAL - AIRSTRIP Area (9.0 Million Tons)						
	Clear and Grub	255	acres	50.00	12,750		Future Reclamation
	Strip and Stockpile	600,000	C.Y.	0.80	480,000		From Excavation or Borrow Area
	Construct Embankment	840,000	C.Y.	2.50	2,100,000		From Borrow Area
	Pond Liner - Impervious	532,000	C.Y.	*3.25	1,729,000		From Excavation or Borrow Area
	Pond Liner - Protection	525,000	C.Y.	2.50	1,312,500		
	Direct Construction					5,634,250	
	Contingency 25%					1,408,563	
	Construction Costs					7,042,813	
	Engineering Cost 15%					845,138	15% Direct Construction
	TOTAL COST					7,887,950	

*NOTE: Material to construct the Tailings Disposal Pond impervious liner will be obtained from the designated Borrow Area. Unit Costs are slightly higher than the Effluent Pond construction at West Mesa site.

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