FREEMAN CHEMICAL CORPORATION
SAUKVILLE, WISCONSIN

1989 ANNUAL REPORT

Prepared by:

HATCHER-SAYRE, INC.
Lexington, Kentucky
January 22, 1990

Job No. 0001-003

FREEMAN CHEMICAL CORPORATION
1989 ANNUAL REPORT

TABLE OF CONTENTS

FREEMAN CHEMICAL CORPORATION
1989 ANNUAL REPORT

TABLES

FREEMAN CHEMICAL CORPORATION
1989 ANNUAL REPORT

FIGURES

APPENDICES

FREEMAN CHEMICAL CORPORATION
SAUKVILLE, WISCONSIN
1989 ANNUAL REPORT

INTRODUCTION

As required by the current program at Freeman Chemical Corporation's Saukville Plant, quarterly groundwater monitoring for January 1989 (Winter quarter), April 1989 (Spring quarter), July 1989 (Summer quarter) and October 1989 (Fall quarter) was conducted. The October 1989 sampling period represents the annual sampling event. The collection of field data and groundwater sampling was conducted by CBC Environmental Services, Oak Creek, Wisconsin and the water quality analyses were conducted by Enseco/ERCO Laboratory, Cambridge, Massachusetts. Both water quality and field observation tests have been submitted to USEPA, WDNR and Freeman Chemical Corporation on a quarterly basis. The intent of this annual report is to summarize the data collected during the past year and to make pertinent evaluations and recommendations.

GROUNDWATER MONITORING

Water Levels

Table 1 lists the wells and laboratory analysis methods in the current groundwater monitoring program at Freeman Chemical Corporation's Saukville facility. Water level observations were recorded for each monitoring well in the current sampling program. These water level readings were used to construct quarterly water table surface maps for both the glacial and dolomite aquifers. These maps are included in Appendix A. During the sampling periods (quarters), several wells were dry or water levels could not be obtained due to mechanical difficulties; these wells are listed in Table 2. Freeman Chemical Corporation also maintains a daily record of running times for various pumping wells and this information is presented in Table 3.

The water table and potentiometric surface maps for both the glacial and dolomite aquifers were contoured using a statistical kriging method. Because groundwater elevations at this Site can reasonably be assumed to follow a linear pattern, these maps represent the groundwater surface of the aquifers underlying the Site. Only those wells associated with a particular aquifer are included in the database for groundwater elevation contouring. Figure 1 shows the location of the wells used and the particular aquifer which they monitor. A pullout version of Figure 1 located at the end of the Appendices may be referenced when viewing the potentiometric maps located in Appendix A.

Examination of the groundwater maps for the glacial aquifer shows the groundwater surface generally slopes downward to the

TABLE 1

GROUNDWATER MONITORING WELLS, SAMPLING FREQUENCY
AND LABORATORY ANALYSES METHOD NUMBER

QUARTERLY MONITORING

	LABORATORY ANALYSIS METHOD NUMBER			
GLACIAL WELLS	WINTER	SPRING	SUMMER	FALL
6A	624	624	624	624
14B	624	624	624	624
20	624	624	624	624/602
27	624	602	602	602
37	624	602	NA	NA
41	624	602	602	602
42	624	602	602	602
43	NA	NA	602	602
44	NA	NA	NA	NA
45	NA	NA	NA	NA
46	624	624	NA	624
47	624	602	602	624
48	NA	602	602	602
RANNEY COLLECTORS				
RC1	624	602	602	602
RC2	624	602	602	602
RC3	624	602	602	602
SHALLOW DOLOMITE WELLS				
3A	624	624	624	624
7	624	624	624	624
21A	NA	602	602	624
23	NA	624	624	624
24A	624	602	602	624
28	624	602	602	624
29	624	624	624	624
38	624	602	602	602
40	624	624	624	624
DEEP DOLOMITE WELLS				
MW1	624	624	624	NA
MW2	624	624	624	624
MW3	624	624	624	624
30	624	624	624	624
PW8	624	624	624	624

TABLE 1 (continued)

ANNUAL MONITORING

	LABORATORY ANALYSIS METHOD NUMBER			
GLACIAL WELLS	WINTER	SPRING	SUMMER	FALL
1A	NA	NA	NA	624
3B	NA	NA	NA	624
4A	NA	NA	NA	624
8	NA	NA	NA	624
16A	NA	NA	NA	624
18A	624	NA	NA	624
19A	624	NA	NA	624
SHALLOW DOLOMITE WELLS				
22	NA	NA	NA	624
25	NA	NA	NA	624
39	NA	NA	NA	624
DEEP DOLOMITE WELLS				
MW4	NA	NA	NA	624

TABLE 2

LIST OF GLACIAL WELLS FOR WHICH
WATER LEVEL DATA WERE UNAVAILABLE

QUARTER	DRY WELLS	MECHANICAL DIFFICULTIES
Winter 1989	44, 45	48
Spring 1989	44, 45	18A, 19A, 37
Summer 1989	44, 45, 46	18A, 19A
Fall 1989	44, 45	37

TABLE 3

SUMMARY OF WELL RUNNING TIMES

Below is a summary for the well operation (running times) of the various dolomite wells, glacial wells and Ranney Collectors for the calendar year of 1989. This information has been compiled by Freeman Chemical Corporation in conjunction with its daily monitoring of the systems.

WELL I.D.	TOTAL RUNNING TIME	WEEKLY AVERAGE	DAILY AVERAGE	LAST DATE OPERATION	COMMENTS
W28[1]	2791 hr 12 min	54 hr 42 min	7 hr 54 min	12/18/89	Consistent
W24[1]	344 hr 6 min	6 hr 48 min	1 hr	12/20/89	Runs daily
W21[1]	660 hr 18 min	12 hr 54 min	1 hr 54 min	12/20/89	Very consistent
W29[1]	3330 hr	65 hr 18 min	9 hr 24 min	12/20/89	Pumping continuous since August
RC1[2]	268 hr 24 min	5 hr 18 min	48 min	12/18/89	Sporodic depending on rainfall
RC2[2]	1156 hr 36 min	22 hr 42 min	3 hr 18 min	12/10/89	Not as consistent in cold weather months
RC3[2]	1857 hr 18 min	36 hr 24 min	5 hr 12 min	10/11/89	Ran great deal through April; not much recent
W31[2]	0 min	0 min	0 min	Never	Never ran
W32[2]	0 min	0 min	0 min	Never	Never ran
W33[2]	36 hr 42 min	42 min	6 min	12/10/89	Consistent but limited run times
W34[2]	2395 hr 18 min	47 hr	6 hr 48 min	12/17/89	Runs 16 hrs a day since July
W35[2]	10 hr 48 min	12 min	2 min	12/20/89	Few minutes daily since July
W37[2]	91 hr 36 min	1 hr 48 min	18 min	12/15/89	Intermittent pumping; occasional electrical problems

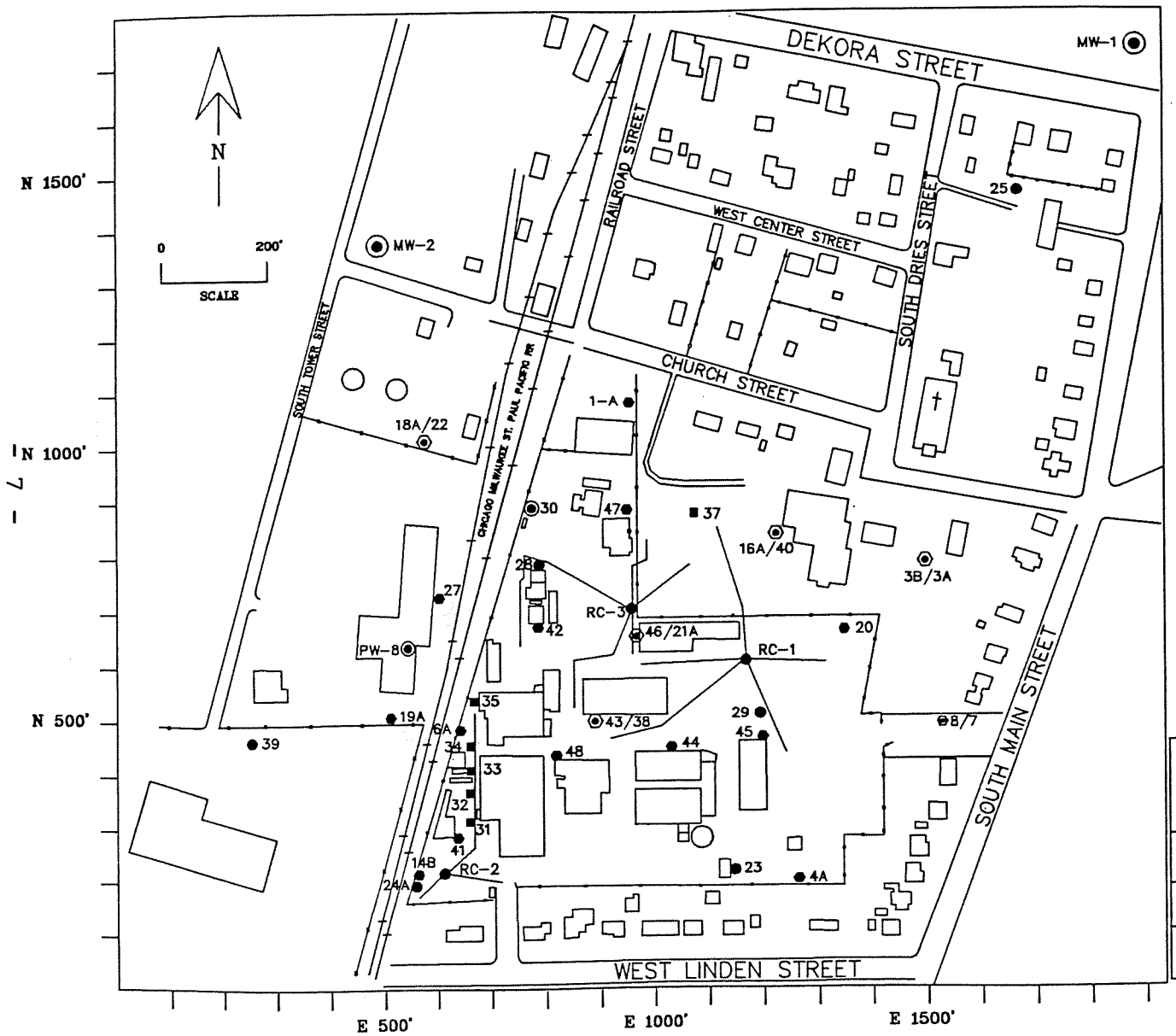
TABLE 3 (continued)

1. Combined average discharge rate for pumping dolomite Wells 21A, 24A, 28 and 29 = 2.8 gpm.

2. Combined average discharge rate for Ranney-type Collectors RC1, RC2 and RC3, and glacial overburden pumping Wells 31, 32, 33, 34, 35 and 37 = 2.25 gpm.

NOTE:
- The wells were listed as dolomite (28, 24, 21, 29) and Ranney Collectors (RC1, RC2 and RC3) and associated glacial wells (W31, W32, W33, W34, W35 and W37).
- The total running time represents the period of January 1, 1989 through December 20, 1989. Running times are recorded daily and reported appropriately.
- The weekly average accounts for the 51-week period beginning January 1, 1989.
- The daily average represents the 354 days elapsed during 1989 through December 20, 1989.
- The last date of operation represents the last known date a respective timer registered running time for the particular well.

It is important to understand that the above averages are under the "ideal" notion that there is running time each week and/or day. However, certain facts indicate that this is not always the case. For instance, the four dolomite wells (W28, W24, W29, W21) were shut off during the January, February and March frigid weather months to prevent pipe freeze-up other than for required quarterly groundwater sampling. Wells 31 and 32 have never shown any run time. All other wells have run at least some time during each of the months of 1989.



LEGEND

- DEEP DOLOMITE WELL
- SHALLOW DOLOMITE WELL
- GLACIAL OVERBURDEN WELL
- GLACIAL OVERBURDEN WITHDRAWAL WELL
- GLACIAL OVERBURDEN/SHALLOW DOLOMITE WELL NEST
- RANNEY TYPE COLLECTOR

FREEMAN CHEMICAL CO.
SAUKVILLE, WISCONSIN

FIGURE 1

MONITORING WELL LOCATION MAP

DATE: 1/26/90	JOB NO: 0001-003
HATCHER-SAYRE, INC.	
DRAWN BY: PDH	APPROVED BY: RDM

east toward the Milwaukee River. Deflections in the contours represent the induced changes in the glacial aquifer due to the pumping of the Ranney-type Collectors. As indicated in Table 3, pumping of the Ranney-type Collectors (RC1, RC2 and RC3) has not been continuous. This is attributed to fluctuating water levels in the glacial aquifer. The variability in the glacial water levels is at least partially attributable to variations in precipitation and water available for recharge to the glacial aquifer. The precipitation data for the Saukville plant are given in Table 4. The water table contour maps for the glacial aquifer show similar patterns to those included in the 1988 annual report. Because the contour interval was reduced from ten feet in the 1988 report to four feet, the suspected sinkhole collapse feature located on the eastern boundary of the Saukville Plant property became more pronounced. This area is represented by a bull's-eye water table low, and can be seen on the glacial water table maps for each quarter included in Appendix A.

The groundwater maps for the dolomite aquifer indicate the general groundwater gradient also slopes downward to the east, with contour deflections in the vicinity of pumping Well 30 due to drawdown of the groundwater surface of the dolomite aquifer. Well 30 has an average discharge rate of 381 gpm. Also minor localized deflections in the groundwater elevation contours appear around the shallow dolomite Wells 21, 24, 28 and 29. However, because these wells are not pumped at as great a discharge rate or as continuously, their effects on the potentiometric surface are less dramatic than that of Well 30. The potentiometric contour maps for the dolomite aquifer are generally similar to those included in the 1988 annual report. Well 30 continues to influence the groundwater system and water levels in the dolomite aquifer have increased, up about 5 feet from 1988.

Water Quality Data

The water quality data generated for the past year are included in Appendix B. These tables list the sample analyses results for the quarterly sampling events by well number. These data have been summarized in Tables 5 through 12. Additionally, the data for total VOC concentrations for both the glacial and dolomite wells are presented in Appendix C for the four sampling quarters of 1989. These maps depict the isoconcentration contours for the glacial and dolomite aquifers. It is important to note that VOC maps for the glacial aquifer do not include data for the Ranney-type collectors. Results reported for these three systems actually represent results for composite samples of groundwater collected from the various Ranney collection lines, each of which discharges to a control sump in each system. Consequently, water quality data cannot be accurately represented on the maps for these three collectors.

Tables 5 and 6 list the VOCs detected and the total VOC concentrations respectively for each glacial well and sampling

TABLE 4

PRECIPITATION DATA FOR THE SAUKVILLE PLANT
FREEMAN CHEMICAL CORPORATION

	MONTHLY PRECIPITATION (IN)*		
MONTH	1987	1988	1989
January	0.97	2.01	0.67
February	0	0.87	1.01
March	2.74	0.82	2.71
April	4.2	3.43	0.9
May	4.01	0.44	3.49
June	1.2	0.89	1.88
July	7.63	1.28	4.01
August	6.55	1.88	5.15
September	2.89	5.48	1.44
October	1.69	1.68	1.74
November	2.51	4.4	0.49
December	4.00	2.08	0.2
TOTALS	38.39	25.26	23.69

YEAR	TOTAL PRECIPITATION (IN.)
1983**	37.47
1984**	39.60
1985**	37.29
1986**	42.17

* Recorded on daily basis from the best estimates, weather reports and the in-plant rain gauge, as noted by Saukville Plant employees.

** Data Source: National Climatic Data Center for the Milwaukee area.

TABLE 5 - VOCs DETECTED IN GLACIAL OVERBURDEN WELLS

WELL ID	WINTER	SPRING	SUMMER	FALL
1A	*	*	*	ND
3B	*	*	*	ND
4A	*	*	*	ND
6A	B,T,E,X	T,E,X	T,E,X	T,E,X
8	*	*	*	ND
14B	T,E,X	T,E,X	X	ND
16A	*	*	*	ND
18A	ND	*	*	ND
19A	1,2-DCE(TOTAL) TCE	*	*	TCE X
20	E,X	X	ND	ND
27	1,2-DCE(TOTAL) 1,1,1-TCA TCE	B	ND	B
37	T,E,X	1,2,4-TRIMETHYL-BENZENE N-PROPYLBENZENE B,T,E,X	PUMP OUT-OF-SERVICE	NO DATA
41	ND	B,T,X	B,T,E,X	E,X
42	B,T,E,X	1,2,4-TRIMETHYL-BENZENE B,T,E,X	1,2,4-TRIMETHYL-BENZENE N-PROPYLBENZENE B,T,E,X	B,T,E,X
43	DID NOT RECHARGE	DID NOT RECHARGE	STYRENE 1,2,4-TRIMETHYL-BENZENE N-PROPYLBENZENE B,T,E,X	T,E,X
44	DRY	DRY	DRY	DRY
45	DRY	DRY	DRY	DRY
46	T,E,X	X	DRY	ND
47	T,E,X	1,2,4-TRIMETHYL-BENZENE B,T,E,X	B,T,E,X	T,E,X
48	NO DATA	B	B	B,E,X

B,T,E,X = BENZENE, TOLUENE, ETHYLBENZENE, TOTAL XYLENES
TCA = TRICHLOROETHANE TCE = TRICHLOROETHENE DCE = DICHLOROETHENE
ND = NONE DETECTED * = SAMPLED ANNUALLY

TABLE 6 - TOTAL VOC CONCENTRATIONS IN THE GLACIAL OVERBURDEN WELLS (MICROGRAMS/LITER)

WELL ID	WINTER	SPRING	SUMMER	FALL
1A	*	*	*	ND
3B	*	*	*	ND
4A	*	*	*	ND
6A	211,500	160,000	215,000	184,000
8	*	*	*	ND
14B	61.7	956.7	14	ND
16A	*	*	*	ND
18A	ND	*	*	ND
19A	603	*	*	880
20	14.8	6.2	ND	ND
27	180.2	7	ND	29
37	152,000	204,600	PUMP OUT	NO DATA
41	ND	66	666.6	740
42	10,270	13,461	4,419	2,026
43	DID NOT RECHARGE	DID NOT RECHARGE	5,549.7	1,390
44	DRY	DRY	DRY	DRY
45	DRY	DRY	DRY	DRY
46	14,930	22	DRY	ND
47	633,000	849,200	162,900	3,320,000
48	NO DATA	1.6	2.3	59.8

ND = NONE DETECTED
* = SAMPLED ANNUALLY

quarter for 1989. All the annually sampled glacial wells (1A, 3B, 4A, 8, 16A, 18A, 19A) except 19A showed no detection of the parameters analyzed. Quarterly sampled Wells 6A, 14B, 27, 42, 43 and 46 indicate seasonal variation in total VOC concentrations with a general reduction in VOC concentrations for the year. Significant VOC concentrations were detected in Wells 37 and 47. The VOCs detected and the total VOC concentrations for the Ranney-type Collectors are listed in Tables 7 and 8, respectively. Although seasonal fluctuations in total VOC concentrations exist, review of the water quality data for these three collectors indicate a general reduction in VOCs.

The annually sampled glacial wells: 1A, 3B, 4A, 8, 16A and 18A have exhibited non-detectable or minor (less than 20 µg/L) concentrations since remediation began at the Saukville Plant. Wells 14B, 20 and 27 indicate overall continually decreasing concentrations. These wells (1A, 3B, 4A, 8, 16A, 18A, 14B, 20 and 27) are located around the perimeter of the Plant area and based upon the chemical analyses to date, indicate the limits of the contaminant plume in the glacial aquifer. The wells which lie within the area outlined by the above referenced wells fluctuate in contaminant concentration levels as the glacial aquifer varies in recharge. This flushing action explains the variable quarterly concentration levels of the parameters analyzed in these glacial wells and the Ranney-type Collectors (RC1, RC2 and RC3).

Tables 9 and 10 list the VOCs detected and the total VOC concentrations respectively for each shallow dolomite well and sampling quarter for 1989. All the annually sampled shallow dolomite wells (22, 25 and 39) except 22 showed no detection of VOCs. No VOCs were detected in the quarterly sampled Wells 7 and 40 for the year. Although seasonal fluctuations in concentration levels exist, general reduction of VOCs was indicated for Wells 3A, 21A, 24A, 29 and 38.

The VOCs detected and the total VOC concentrations for the deep dolomite wells are listed in Tables 11 and 12, respectively. Review of the water quality data indicates no VOCs detected in the Municipal Wells MW1, MW2, MW3 and MW4 and seasonal fluctuating but general reductions in VOC concentrations in Wells 30 and PW8.

The annually sampled dolomite Wells 22, 25, 39 and MW4 have exhibited non-detectable or minor (less than 10 µg/L) concentrations since remediation began. Additionally, Wells 3A, 7, 23, 24A, 28, 40, MW1, MW2, MW3, 30 and PW8 have shown either no detectable contamination, or decreasing and/or maximum concentration levels less than 400 µg/L since remediation began at the Saukville plant. The success of the areal reduction of contamination at the plant is related to the influence pumping Well 30 has had and continues to have upon the dolomite aquifer.

The yearly data for the Publicly Owned Treatment Works (POTW)

TABLE 7 - VOCs DETECTED IN RANNEY TYPE COLLECTORS

RANNEY COLLECTOR	WINTER	SPRING	SUMMER	FALL
RC-1	1,2-DCE(TOTAL) B,T,E,X	1,2,4-TRIMETHYL-BENZENE B,T,E,X	1,2,4-TRIMETHYL-BENZENE B,T,E,X	B,T,E,X
RC-2	1,2-DCE(TOTAL) B,T,E,X	1,2,4-TRIMETHYL-BENZENE B,T,E,X	1,2,4-TRIMETHYL-BENZENE B,T,E,X	B,T,E,X
RC-3	1,2-DCE(TOTAL) B,T,E,X	1,2,4-TRIMETHYL-BENZENE B,T,E,X	B,T,E,X	B,T,E,X

B = BENZENE
T = TOLUENE
E = ETHYLBENZENE
X = XYLENES(TOTAL)
DCE = DICHLOROETHENE

TABLE 8 - TOTAL VOC CONCENTRATIONS IN THE RANNEY TYPE COLLECTORS (MICROGRAMS/LITER)

RANNEY COLLECTOR	WINTER	SPRING	SUMMER	FALL
RC-1	111,900	32,285	62,560	64,300
RC-2	84,750	38,140	52,280	4,677
RC-3	147,300	130,880	89,280	131,500

TABLE 9 - VOCs DETECTED IN SHALLOW DOLOMITE WELLS

WELL ID	WINTER	SPRING	SUMMER	FALL
3A	B	ND	ND	ND
7	ND	ND	ND	ND
21A	NO DATA	B,T,E,X	1,2,4-TRIMETHYL-BENZENE B,T,E,X	B,T,E,X
22	*	*	*	1,2-DCA
23	NO DATA	ND	ND	2-BUTANONE
24A	VINYL CHLORIDE 1,2-DCE(TOTAL) TCE X	B,T,X	B,T	VINYL CHLORIDE 1,2-DCE(TOTAL)
25	*	*	*	ND
28	CARBON DISULFIDE B,T,E,X	B,T	B,T,E,X	B,T,E,X
29	B,T,E,X	E,X	B,T,E,X	B,E,X
38	B,E,X	B,T,E,X	B,E,X	B,E,X
39	*	*	*	ND
40	ND	ND	ND	ND

B = BENZENE
T = TOLUENE
E = ETHYLBENZENE
X = XYLENES(TOTAL)

TCE = TRICHLOROETHENE
DCE = DICHLOROETHENE
DCA = DICHLOROETHANE

ND = NONE DETECTED
* = SAMPLED ANNUALLY

TABLE 10 - TOTAL VOC CONCENTRATIONS IN THE SHALLOW DOLOMITE WELLS (MICROGRAMS/LITER)

WELL ID	WINTER	SPRING	SUMMER	FALL
3A	2.1	ND	ND	ND
7	ND	ND	ND	ND
21A	NO DATA	51,100	48,079	43,700
22	*	*	*	9.3
23	NO DATA	ND	ND	17
24A	190.2	53	12.1	25
25	*	*	*	ND
28	31.3	28	84.9	27.6
29	29,200	8,800	11,930	7,100
38	9,800	13,590	9,660	8,800
39	*	*	*	ND
40	ND	ND	ND	ND

ND = NONE DETECTED
* = SAMPLED ANNUALLY

TABLE 11 - VOCs DETECTED IN DEEP DOLOMITE WELLS

WELL ID	WINTER	SPRING	SUMMER	FALL
MW-1	ND	ND	ND	PUMP OUT
MW-2	ND	ND	ND	ND
MW-3	ND	ND	ND	ND
MW-4	*	*	*	ND
30	B,T,E,X	E,X	B,E,X	B,E,X
PW-8	CARBON DISULFIDE B,T,X	ND	CARBON DISULFIDE 2-BUTANONE	ND

B = BENZENE
T = TOLUENE
E = ETHYLBENZENE
X = XYLENES(TOTAL)
ND = NONE DETECTED
* = SAMPLED ANNUALLY

TABLE 12 - TOTAL VOC CONCENTRATIONS IN THE DEEP DOLOMITE WELLS (MICROGRAMS/LITER)

WELL ID	WINTER	SPRING	SUMMER	FALL
MW-1	ND	ND	ND	PUMP OUT
MW-2	ND	ND	ND	ND
MW-3	ND	ND	ND	ND
MW-4	*	*	*	ND
30	159.5	202	100	91
PW-8	8.9	ND	29	ND

ND = NONE DETECTED
* = SAMPLED ANNUALLY

TABLE 13
RESULTS OF CHEMICAL ANALYSES CONDUCTED ON THE
POTW INFLUENT, EFFLUENT AND SLUDGE SAMPLES

	VOCs DETECTED			
SAMPLE ID	WINTER	SPRING	SUMMER	FALL
Influent POTW	NA	Methylene Cl Acetone Toluene Xylenes	Acetone Toluene	Acetone 2-Butanone
Effluent POTW	NA	Methylene Cl	ND	Toluene
Sludge POTW	NA	Acetone	Toluene	Toluene

	TOTAL VOC CONCENTRATIONS (MG/L)			
	WINTER	SPRING	SUMMER	FALL
Influent POTW	NA	0.491	0.064	0.140
Effluent POTW	NA	0.044	ND	ND
Sludge POTW	NA	0.130	0.012	0.210

	PHENOLICS, TOTAL (MG/L)			
	WINTER	SPRING	SUMMER	FALL
Influent POTW	NA	0.02	0.05	0.02
Effluent POTW	NA	ND	ND	ND
Sludge POTW	NA	ND	0.3	0.04

sampling is listed in Table 13. The POTW influent, effluent and sludge were analyzed for Method 624 VOCs and total phenolics. Acetone, methylene chloride (found in the POTW influent samples) and possibly toluene and xylenes found in both the POTW influent and sludge samples are suspected laboratory or field contamination as field blanks taken at the POTW contained these compounds. Total phenolics were detected in the POTW influent and sludge samples while no phenolics were detected in the effluent.

As discussed in the Revised Project Plans, Tasks 3A, 3B and 3C for the Freeman Chemical Corporation, Saukville, Wisconsin document, submitted by Hatcher-Sayre, Inc., April 6, 1989, the annual report will include isoconcentration contour maps and trend analyses for the following individual parameters:

Methylene Chloride	Benzene
Acetone	4-methyl-2-pentanone
Trans-1,2-dichloroethene	Toluene
2-butanone	Ethylbenzene
	Total Xylenes

Both methylene chloride and acetone are attributable to laboratory and/or field contamination, as these compounds were detected in method or field blanks prepared by the laboratory or sampled by the field personnel. The compound 4-methyl-2-pentanone was not detected in any of the samples collected and analyzed during the 1989 sampling quarters. The parameter trans-1,2-dichloroethene, which is included in the parameter analysis for 1,2-dichloroethene (total), was detected in four samples collected during 1989 at three well locations. 2-butanone was detected in two samples and at two different well locations during the 1989 sampling quarters. Because isoconcentration and trend analyses for the concentration of the individual BTEX parameters essentially mirror the total VOC isoconcentration maps and trend analyses graphs (given in Appendices C and D, respectively), individual maps and graphs are not presented for these parameters.

Additionally, trichloroethene, 1,2-dichloroethane, vinyl chloride and carbon disulfide were detected in a limited number of samples and wells. The isoconcentration maps for these and for 1,2-dichloroethene (total) and 2-butanone are given in Appendix E. As seen on the isoconcentration maps, these non-BTEX compounds were detected only in the wells that are located on or near the Site boundary.

SUMMARY

Compared to 1988, groundwater in 1989 was about 2 feet and 5 feet higher in the glacial and dolomite aquifers, respectively. This increase appeared to be directly related to the local precipitation.

Groundwater generally appears to flow in an easterly direction toward the Milwaukee River. Local glacial groundwater flow is influenced by the Ranney Collectors, glacial pumping wells and an apparent sinkhole immediately east of the Site. The local dolomite groundwater flow is primarily affected by Well 30 which provides cooling water to the plant.

Both the glacial and dolomite remedial measures appear to be operating as planned, albeit very gradually. Over the past 2 to 3 years, a noticeable reduction in the areal extent of contamination can be observed. Essentially all of the outer boundary wells which originally indicated contamination have shown marked decreases in contaminant concentrations.

Extensive contamination still exists in the glacial aquifer in the vicinity of each Ranney Collector as well as the extreme northern portion of the Site (Well 47) which extends east to pumping Well 37. As indicated in Table 14, all of these areas as well as most of the other wells indicating contamination are comprised of the BTEX (Method 602) components. The only wells not containing 100% of the BTEX components are the off-site, upgradient wells to the west (i.e., PW8, 22, 27, 19A and 24A), Well 28 which can draw water from this off-site area and Well 23 (which can receive off-site water from south of the Site). All known on-site contamination, therefore, can effectively be measured by BTEX (Method 602).

The non-BTEX compounds detected during quarterly sampling/ analyses are listed in Table 15. This list excludes methylene chloride and acetone as these compounds are attributable to either laboratory or field contamination.

The glacial Wells 19A and 27, located near the western Site boundary, were the only glacial wells in which non-BTEX compounds were detected. These compounds include: 1,2-dichloroethene (total), trichloroethene and 1,1,1-trichloroethane. As discussed earlier, the glacial aquifer water table gradient slopes downward to the east, thus any contamination introduced into the glacial aquifer west of the Site could migrate to the east and be intercepted by wells 19A and 27.

The dolomite Wells 22, 23 24A, 28 and PW8, located near the southern and western boundaries of the Site, were the only dolomite wells in which non-BTEX compounds were detected. These compounds include: 1,2-dichloroethene (total), trichloroethene, vinyl chloride, 1,2-dichloroethane, carbon disulfide and 2-butanone. As noted earlier, the dolomite aquifer potentiometric surface gradient generally slopes downward to the east, and due to the drawdown of the dolomite aquifer within the radius of influence of pumping Well 30, groundwater from areas to the west and south of the Site could intersect the wells near the western and southern Site boundaries.

Additionally, as the compounds listed in Table 15 were not

TABLE 14 - TOTAL VOCs (624) VS BTEX COMPONENTS (602)
FOR WELLS ANALYZED BY METHOD 624
(MICROGRAMS/LITER)

WELL ID	WINTER		SPRING		SUMMER		FALL	
	TOTAL VOCs (624)	BTEX (602)	TOTAL VOCs (624)	BTEX (602)	TOTAL VOCs (624)	BTEX (602)	TOTAL VOCs (624)	BTEX (602)
GLACIAL WELLS								
1A	--	--	--	--	--	--	ND	ND
3B	--	--	--	--	--	--	ND	ND
4A	--	--	--	--	--	--	ND	ND
6A	211,500	211,000	160,000	160,000	215,000	215,000	184,000	184,000
8	--	--	--	--	--	--	ND	ND
14B	61.7	61.7	956.7	956.7	14	14	ND	ND
16A	--	--	--	--	--	--	ND	ND
18A	ND	ND	--	--	--	--	ND	ND
19A	603	ND	--	--	--	--	880	480
20	14.8	14.8	6.2	6.2	ND	ND	ND	ND
27	180.2	ND	--	--	--	--	--	--
37	152,000	152,000	--	--	--	--	--	--
41	ND	ND	--	--	--	--	--	--
42	10,270	10,270	--	--	--	--	--	--
46	14,930	14,930	22	22	--	--	ND	ND
47	633,000	633,000	--	--	--	--	3,320,000	3,320,000
SHALLOW DOLOMITE WELLS								
3A	2.1	2.1	ND	ND	ND	ND	ND	ND
7	ND	ND	ND	ND	ND	ND	ND	ND
21A	--	--	--	--	--	--	43,700	43,700
22	--	--	--	--	--	--	9.3	ND
23	--	--	ND	ND	ND	ND	17	ND
24A	190.2	1.7	--	--	--	--	25	ND
25	--	--	--	--	--	--	ND	ND
28	31.3	29.2	--	--	--	--	27.6	27.6
29	29,200	29,200	8,800	8,800	11,930	11,930	7,100	7,100
38	9,800	9,800	--	--	--	--	--	--
39	--	--	--	--	--	--	ND	ND
40	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 15

NON-BTEX COMPOUNDS DETECTED DURING 1989 SAMPLING QUARTERS

COMPOUND	FREQUENCY OF DETECTION	WELL ID/ # OF DETECTS	QUARTER/ CONCENTRATION (ug/L)
1,2-Dichloroethene (Total)	4/65	19A/1 27/1 24A/2	Winter/83 Winter/29 Winter/170; Fall/13
Trichloroethene	4/65	19A/2 27/1 24A/1	Winter/520; Fall/400 Winter/150 Winter/4.5
Vinyl Chloride	2/65	24A/2	Winter/14; Fall/12
1,1,1-Trichloroethane	1/65	27/1	Winter/1.2
1,2-Dichloroethane	1/65	22/1	Fall/9.3
Carbon Disulfide	3/65	28/1 PW8/2	Winter/2.1 Winter/4.0; Summer/17
2-Butanone	2/65	23/1 PW8/1	Fall/17 Summer/12

NOTE: Glacial Overburden Wells = 19A and 27
Shallow Dolomite Wells = 22, 23, 24A, 28
Deep Dolomite Well = PW8

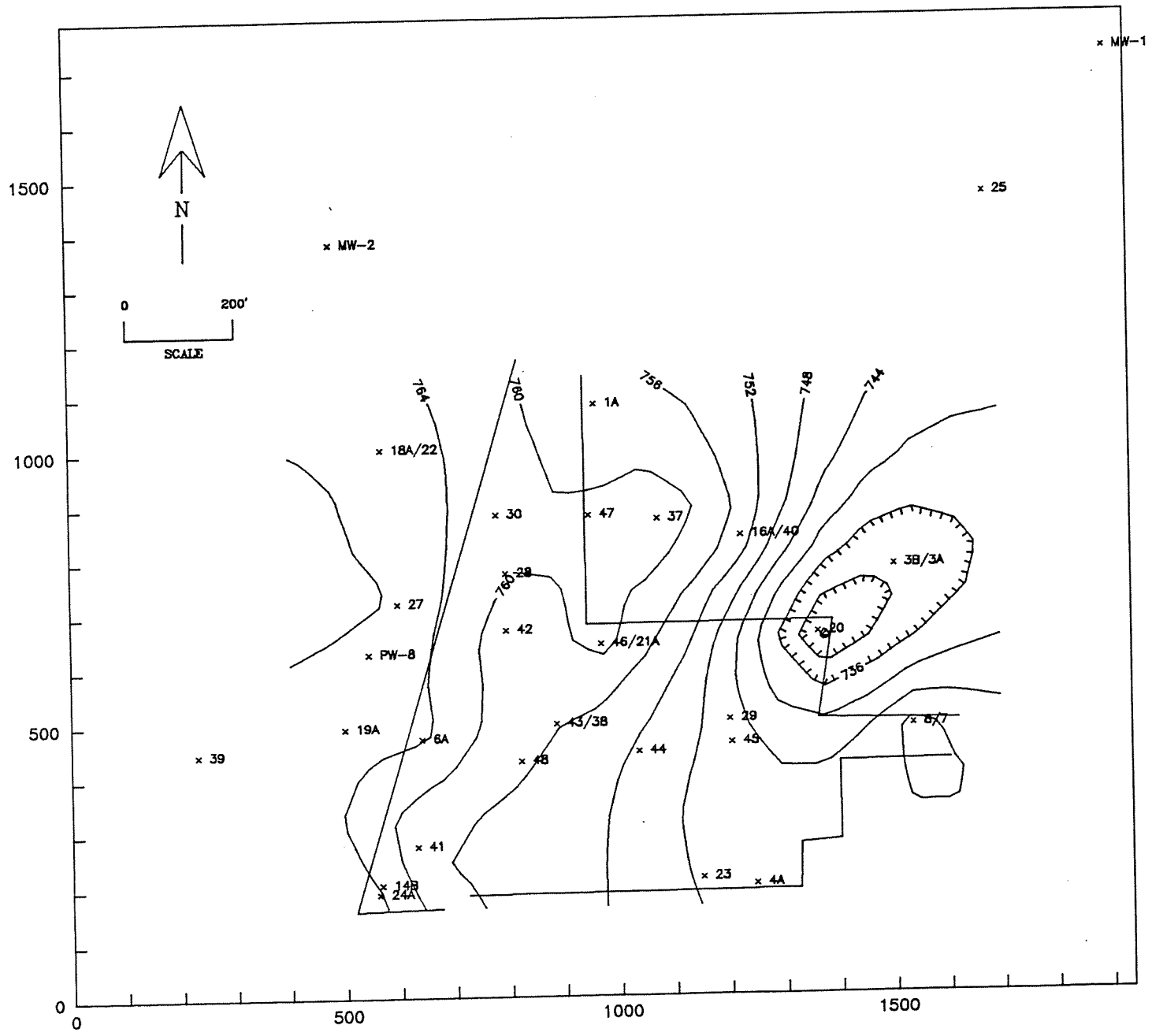
associated with products utilized by Freeman Chemical Saukville Plant, an off-site source for these compounds would explain their detection in the wells located near the Site boundary.

RECOMMENDATIONS

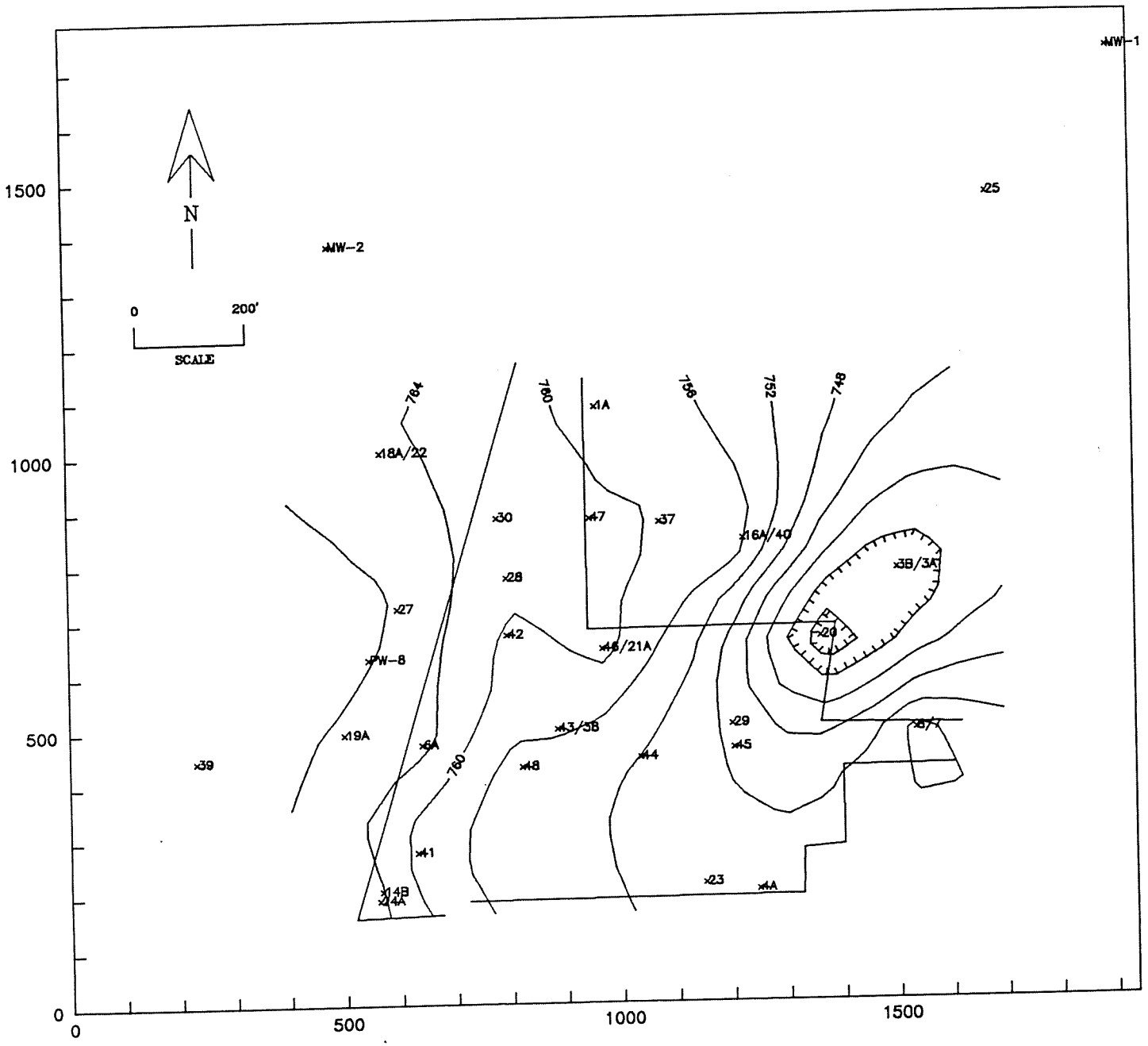
As the data indicate, the systems are operating to control the migration of the Site contaminants and slowly remove them from the soil and groundwater. It is evident that this remedial action, while effective, is going to take time to clean up. In fact, just reviewing the annual data does not show any obvious trends; it is only by reviewing the last 2 to 3 years of data that trends become observable. As a result of the considerable data base which has been generated to date and due to this planned long-term remediation and lack of observable trends over the short-term, we are recommending that the quarterly sampling currently scheduled be reduced to semi-annual sampling. Since changes are only observable after 1 or 2 years, this schedule allows for the more effective use of collected data. The data could still be utilized to show trends, isoconcentrations and effectiveness of the remediation systems without reducing the quality of the program.

Furthermore, since all of the on-site contamination is directly measurable by EPA Method 602 as shown by the last two to three years of data, it is recommended that Method 602 be utilized to analyze all wells except MW1, MW2, MW3, MW4, RC1, RC2, RC3, PW8, 22, 27, 19A, 24A, 23, 28 and 30. Since the above wells are subject to contamination from off-site and the Ranney Collectors are discharged to the Saukville POTW, these systems will continue to have VOCs analyzed by EPA Method 624. This change in methodology will not affect the quality of the data but will substantially reduce analytical costs.

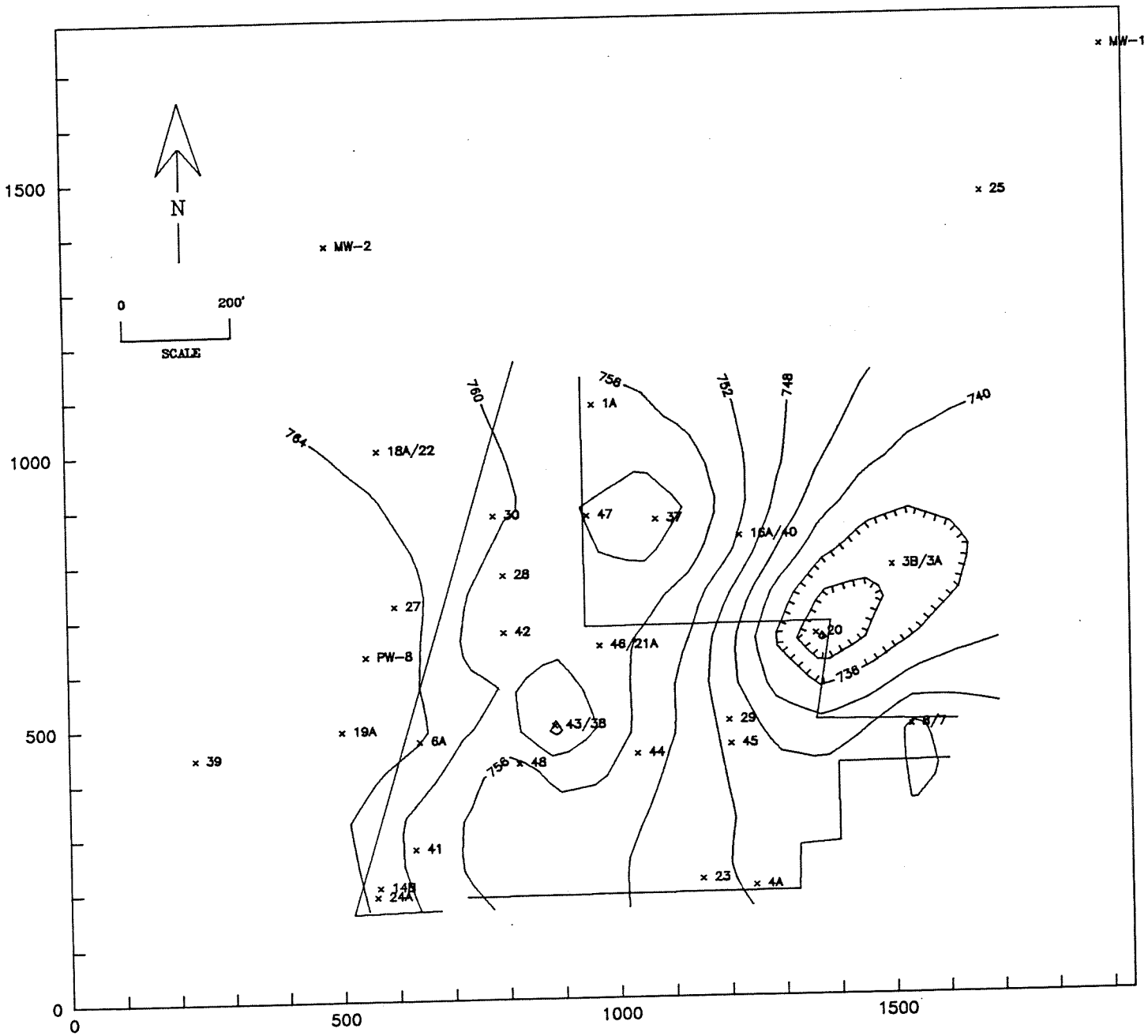
WATER TABLE ELEV. (FTAMSL) GLACIAL WELLS WINTER 1989



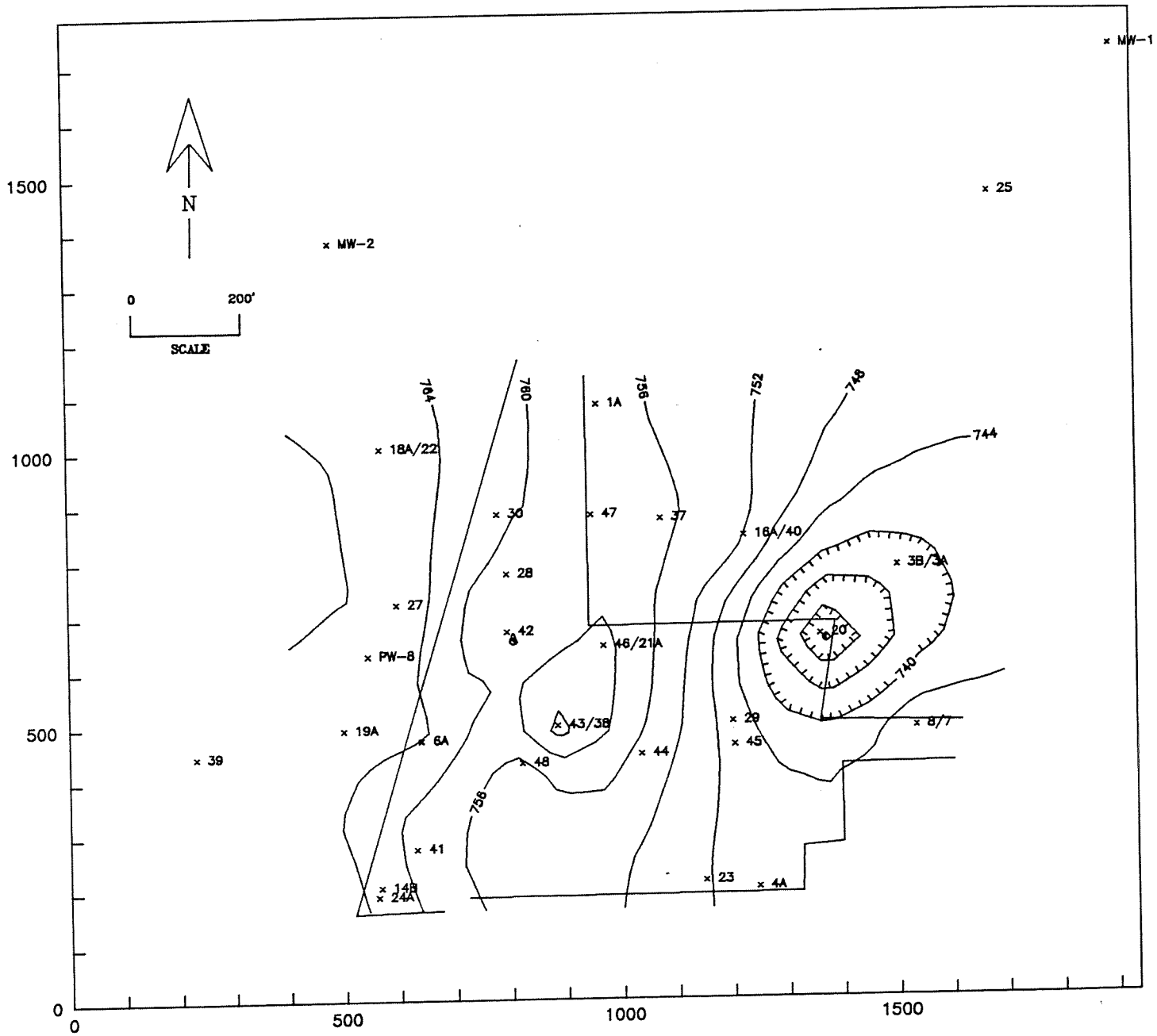
WATER TABLE ELEV. (FTAMSL) GLACIAL WELLS SPRING 1989



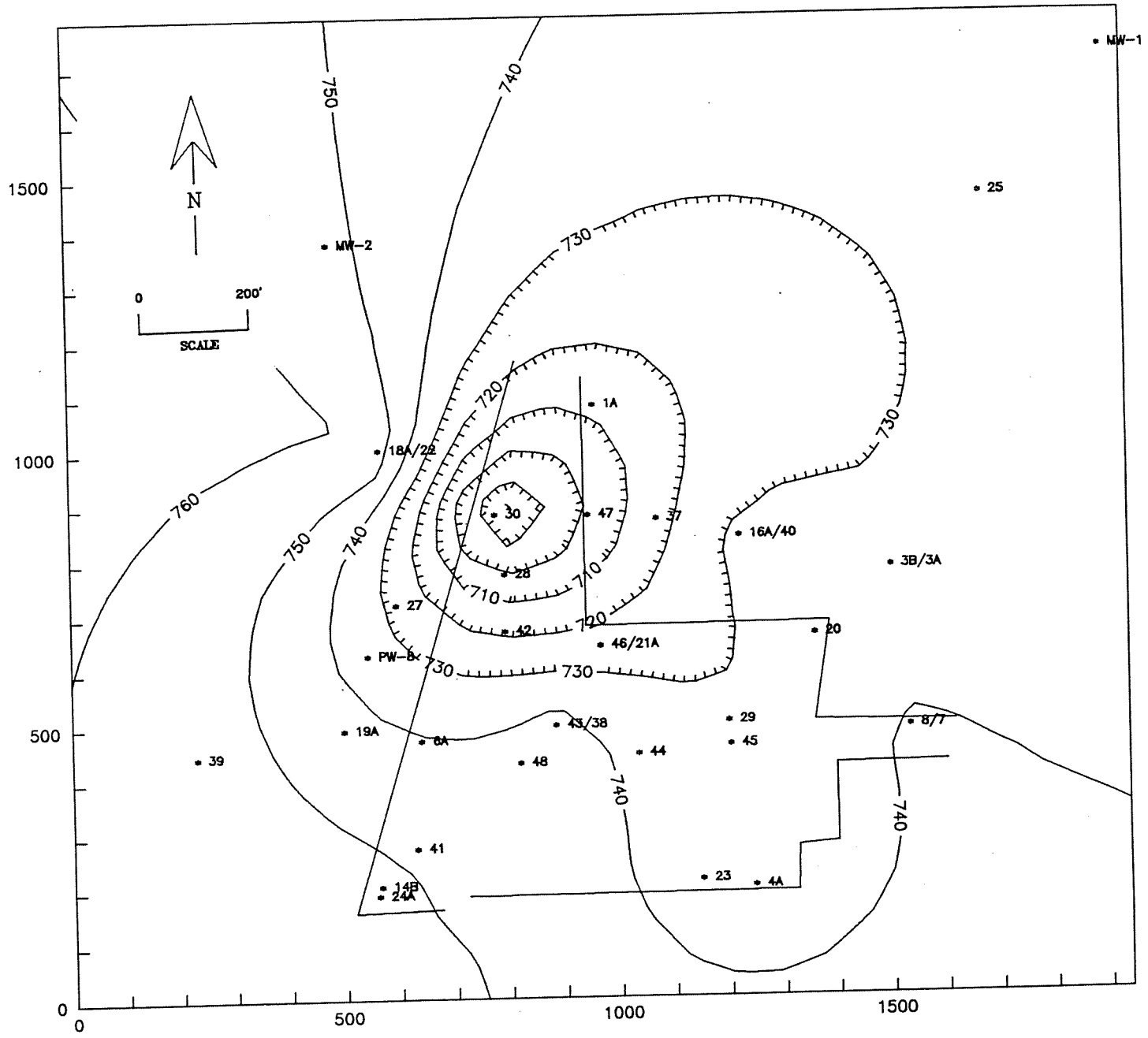
WATER TABLE ELEV. (FTAMSL) GLACIAL WELLS SUMMER 1989



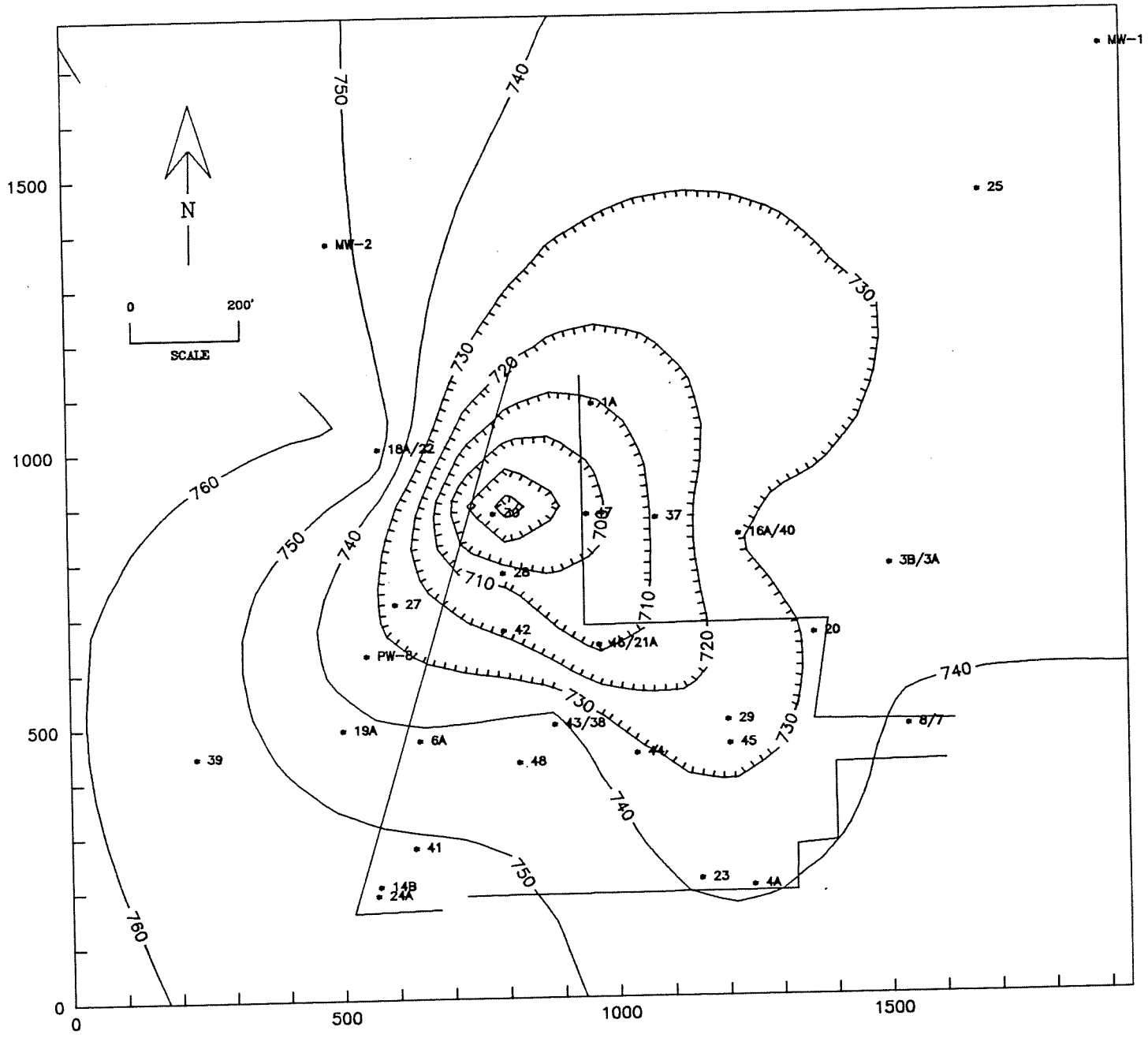
WATER TABLE ELEV. (AMSL) GLACIAL WELLS FALL 1989



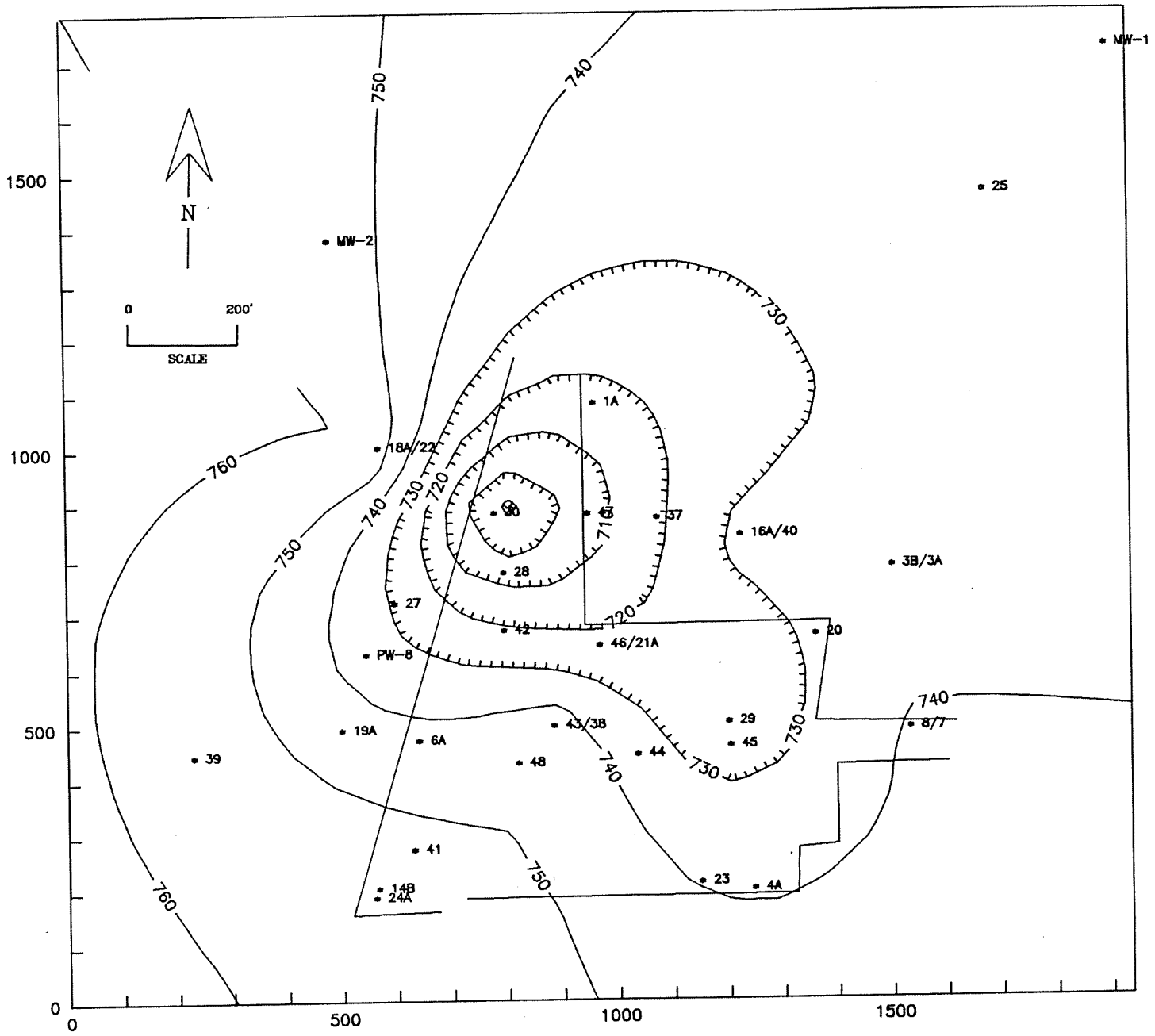
POTENTIOMETRIC SURFACE ELEV. (FTAMSL) DOLOMITE WELLS WINTER 1989



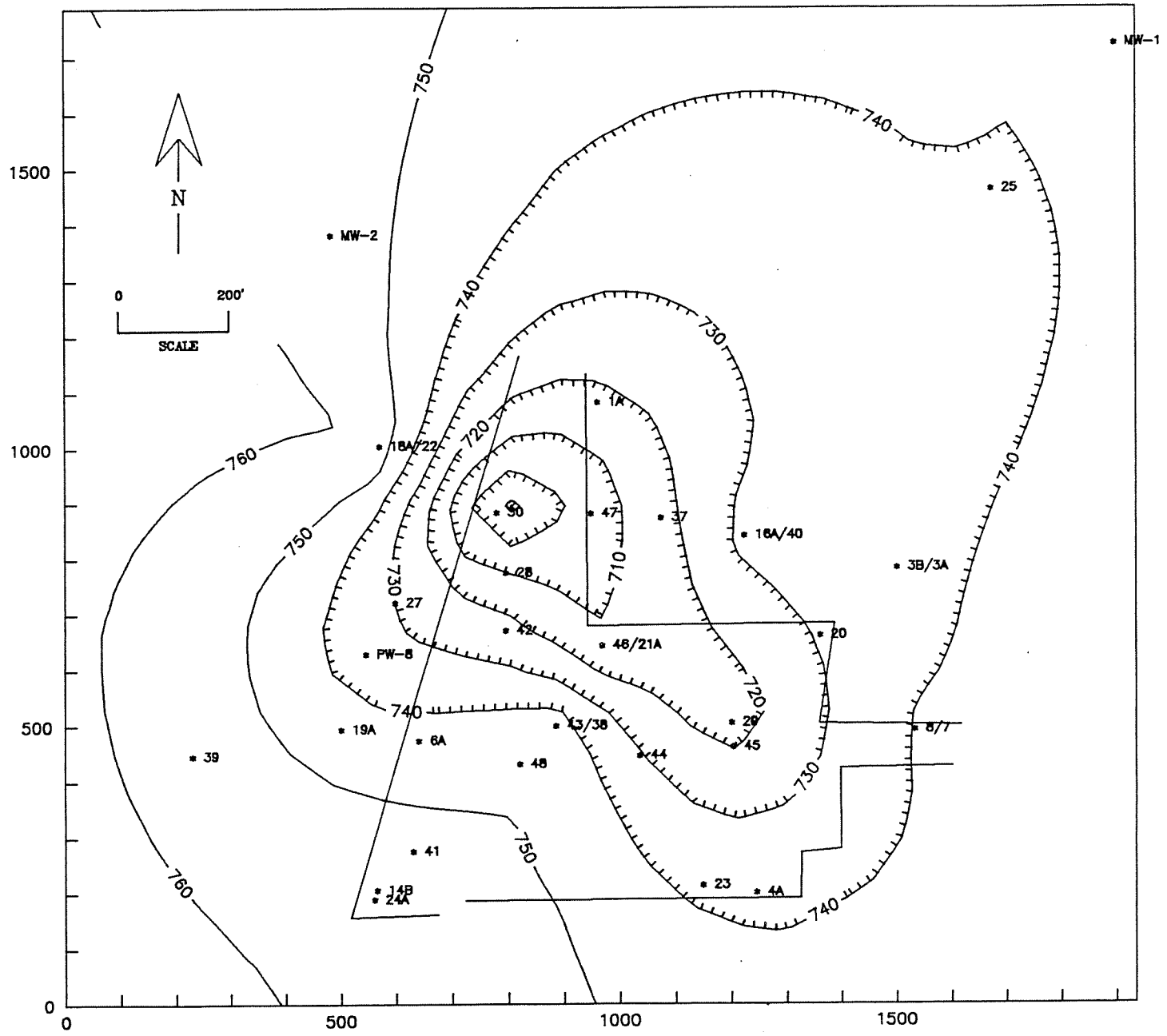
POTENTIOMETRIC SURFACE ELEV. (FTAMSL) DOLOMITE WELLS SPRING 1989



POTENTIOMETRIC SURFACE ELEV. (FTAMSL) DOLOMITE WELLS SUMMER 1989



POTENTIOMETRIC SURFACE ELEV. (FTAMSL) DOLOMITE WELLS FALL 1989



APPENDIX B

SUMMARY TABLES OF QUARTERLY SAMPLING RESULTS FOR THE GLACIAL AND DOLOMITE WELLS

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 1A

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624	ANNUAL	ANNUAL	ANNUAL	
CHLOROMETHANE				<10
BROMOMETHANE				<10
VINYL CHLORIDE				<10
CHLOROETHANE				<10
METHYLENE CHLORIDE				<25
ACETONE				<25
CARBON DISULFIDE				<5.
1,1-DICHLOROETHENE				<5.
1,1-DICHLOROETHANE				<5.
1,2-DICHLOROETHENE(TOTAL)				<5.
CHLOROFORM				<5.
1,2-DICHLOROETHANE				<5.
2-BUTANONE				<10
1,1,1-TRICHLOROETHANE				<5.
CARBON TETRACHLORIDE				<5.
VINYL ACETATE				<10
BROMODICHLOROMETHANE				<5.
1,2-DICHLOROPROPANE				<5.
CIS-1,3-DICHLOROPROPENE				<5.
TRICHLOROETHENE				<5.
DIBROMOCHLOROMETHANE				<5.
1,1,2-TRICHLOROETHANE				<5.
BENZENE				<5.
TRANS-1,3-DICHLOROPROPENE				<5.
BROMOFORM				<10
4-METHYL-2-PENTANONE				<10
2-HEXANONE				<5.
1,1,2,2-TETRACHLOROETHANE				<5.
TETRACHLOROETHENE				<5.
TOLUENE				<5.
CHLOROBENZENE				<5.
ETHYLBENZENE				<5.
STYRENE				<5.
XYLENE(TOTAL)				<5.
METHOD 602	NA	NA	NA	NA
BENZENE				
TOLUENE				
ETHYLBENZENE				
P-XYLENE				
CHLOROBENZENE				
M-XYLENE				
O-XYLENE				
STYRENE				
N-PROPYLBENZENE				
P-CHLOROTOLUENE				
1,2,4-TRIMETHYLBENZENE				
1,4-DICHLOROBENZENE				
1,3-DICHLOROBENZENE				
1,2-DICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE				
XYLENE(TOTAL)				

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 3B

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624	ANNUAL	ANNUAL	ANNUAL	
CHLOROMETHANE				<10
BROMOMETHANE				<10
VINYL CHLORIDE				<10
CHLOROETHANE				<10
METHYLENE CHLORIDE				<25
ACETONE				<25
CARBON DISULFIDE				<1.
1,1-DICHLOROETHENE				<1.
1,1-DICHLOROETHANE				<1.
1,2-DICHLOROETHENE(TOTAL)				<1.
CHLOROFORM				<1.
1,2-DICHLOROETHANE				<1.
2-BUTANONE				<10
1,1,1-TRICHLOROETHANE				<1.
CARBON TETRACHLORIDE				<1.
VINYL ACETATE				<10
BROMODICHLOROMETHANE				<1.
1,2-DICHLOROPROPANE				<1.
CIS-1,3-DICHLOROPROPENE				<1.
TRICHLOROETHENE				<1.
DIBROMOCHLOROMETHANE				<1.
1,1,2-TRICHLOROETHANE				<1.
BENZENE				<1.
TRANS-1,3-DICHLOROPROPENE				<1.
BROMOFORM				<1.
4-METHYL-2-PENTANONE				<10
2-HEXANONE				<10
1,1,2,2-TETRACHLOROETHANE				<1.
TETRACHLOROETHENE				<1.
TOLUENE				<1.
CHLOROBENZENE				<1.
ETHYLBENZENE				<1.
STYRENE				<1.
XYLENE(TOTAL)				<1.
METHOD 602	NA	NA	NA	NA
BENZENE				
TOLUENE				
ETHYLBENZENE				
P-XYLENE				
CHLOROBENZENE				
M-XYLENE				
O-XYLENE				
STYRENE				
N-PROPYLBENZENE				
P-CHLOROTOLUENE				
1,2,4-TRIMETHYLBENZENE				
1,4-DICHLOROBENZENE				
1,3-DICHLOROBENZENE				
1,2-DICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE				
XYLENE(TOTAL)				

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 4A

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624	ANNUAL	ANNUAL	ANNUAL	
CHLOROMETHANE				<10
BROMOMETHANE				<10
VINYL CHLORIDE				<10
CHLOROETHANE				<10
METHYLENE CHLORIDE				<25
ACETONE				<25
CARBON DISULFIDE				<5.
1,1-DICHLOROETHENE				<5.
1,1-DICHLOROETHANE				<5.
1,2-DICHLOROETHENE(TOTAL)				<5.
CHLOROFORM				<5.
1,2-DICHLOROETHANE				<5.
2-BUTANONE				<10
1,1,1-TRICHLOROETHANE				<5.
CARBON TETRACHLORIDE				<5.
VINYL ACETATE				<10
BROMODICHLOROMETHANE				<5.
1,2-DICHLOROPROPANE				<5.
CIS-1,3-DICHLOROPROPENE				<5.
TRICHLOROETHENE				<5.
DIBROMOCHLOROMETHANE				<5.
1,1,2-TRICHLOROETHANE				<5.
BENZENE				<5.
TRANS-1,3-DICHLOROPROPENE				<5.
BROMOFORM				<5.
4-METHYL-2-PENTANONE				<10
2-HEXANONE				<10
1,1,2,2-TETRACHLOROETHANE				<5.
TETRACHLOROETHENE				<5.
TOLUENE				<5.
CHLOROBENZENE				<5.
ETHYLBENZENE				<5.
STYRENE				<5.
XYLENE(TOTAL)				<5.
METHOD 602	NA	NA	NA	NA
BENZENE				
TOLUENE				
ETHYLBENZENE				
P-XYLENE				
CHLOROBENZENE				
M-XYLENE				
O-XYLENE				
STYRENE				
N-PROPYLBENZENE				
P-CHLOROTOLUENE				
1,2,4-TRIMETHYLBENZENE				
1,4-DICHLOROBENZENE				
1,3-DICHLOROBENZENE				
1,2-DICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE				
XYLENE(TOTAL)				

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 6A

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624				
CHLOROMETHANE	<25,000	<5,000	<25,000	<10,000
BROMOMETHANE	<25,000	<5,000	<25,000	<10,000
VINYL CHLORIDE	<25,000	<5,000	<25,000	<10,000
CHLOROETHANE	<25,000	<5,000	<25,000	<10,000
METHYLENE CHLORIDE	<62,000	<12,000	* 65,000	<25,000
ACETONE	<62,000	<12,000	<62,000	<25,000
CARBON DISULFIDE	<2,500	<2,500	<12,000	<5,000
1,1-DICHLOROETHENE	<2,500	<2,500	<12,000	<5,000
1,1-DICHLOROETHANE	<2,500	<2,500	<12,000	<5,000
1,2-DICHLOROETHENE(TOTAL)	<2,500	<2,500	<12,000	<5,000
CHLOROFORM	<2,500	<2,500	<12,000	<5,000
1,2-DICHLOROETHANE	<2,500	<2,500	<12,000	<5,000
2-BUTANONE	<25,000	<5,000	<25,000	<10,000
1,1,1-TRICHLOROETHANE	<2,500	<2,500	<12,000	<5,000
CARBON TETRACHLORIDE	<2,500	<2,500	<12,000	<5,000
VINYL ACETATE	<25,000	<5,000	<25,000	<10,000
BROMODICHLOROMETHANE	<2,500	<2,500	<12,000	<5,000
1,2-DICHLOROPROPANE	<2,500	<2,500	<12,000	<5,000
CIS-1,3-DICHLOROPROPENE	<2,500	<2,500	<12,000	<5,000
TRICHLOROETHENE	<2,500	<2,500	<12,000	<5,000
DIBROMOCHLOROMETHANE	<2,500	<2,500	<12,000	<5,000
1,1,2-TRICHLOROETHANE	<2,500	<2,500	<12,000	<5,000
BENZENE	2,500	<2,500	<12,000	<5,000
TRANS-1,3-DICHLOROPROPENE	<2,500	<2,500	<12,000	<5,000
BROMOFORM	<2,500	<2,500	<12,000	<5,000
4-METHYL-2-PENTANONE	<25,000	<5,000	<25,000	<10,000
2-HEXANONE	<25,000	<5,000	<25,000	<10,000
1,1,2,2-TETRACHLOROETHANE	<2,500	<2,500	<12,000	<5,000
TETRACHLOROETHENE	<2,500	<2,500	<12,000	<5,000
TOLUENE	74,000	61,000	79,000	70,000
CHLOROBENZENE	<2,500	<2,500	<12,000	<5,000
ETHYLBENZENE	25,000	20,000	26,000	22,000
STYRENE	<2,500	<2,500	<12,000	<5,000
XYLENE(TOTAL)	110,000	79,000	110,000	92,000
METHOD 602	NA	NA	NA	NA
BENZENE				
TOLUENE				
ETHYLBENZENE				
P-XYLENE				
CHLOROBENZENE				
M-XYLENE				
O-XYLENE				
STYRENE				
N-PROPYLBENZENE				
P-CHLOROTOLUENE				
1,2,4-TRIMETHYLBENZENE				
1,4-DICHLOROBENZENE				
1,3-DICHLOROBENZENE				
1,2-DICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE				
XYLENE(TOTAL)				

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 8

	CONCENTRATIONS (micrograms/L)			
COMPOUND	WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624	ANNUAL	ANNUAL	ANNUAL	
CHLOROMETHANE				<10
BROMOMETHANE				<10
VINYL CHLORIDE				<10
CHLOROETHANE				<10
METHYLENE CHLORIDE				<25
ACETONE				<25
CARBON DISULFIDE				<5.
1,1-DICHLOROETHENE				<5.
1,1-DICHLOROETHANE				<5.
1,2-DICHLOROETHENE(TOTAL)				<5.
CHLOROFORM				<5.
1,2-DICHLOROETHANE				<5.
2-BUTANONE				<10
1,1,1-TRICHLOROETHANE				<5.
CARBON TETRACHLORIDE				<5.
VINYL ACETATE				<10
BROMODICHLOROMETHANE				<5.
1,2-DICHLOROPROPANE				<5.
CIS-1,3-DICHLOROPROPENE				<5.
TRICHLOROETHENE				<5.
DIBROMOCHLOROMETHANE				<5.
1,1,2-TRICHLOROETHANE				<5.
BENZENE				<5.
TRANS-1,3-DICHLOROPROPENE				<5.
BROMOFORM				<5.
4-METHYL-2-PENTANONE				<10
2-HEXANONE				<10
1,1,2,2-TETRACHLOROETHANE				<5.
TETRACHLOROETHENE				<5.
TOLUENE				<5.
CHLOROBENZENE				<5.
ETHYLBENZENE				<5.
STYRENE				<5.
XYLENE(TOTAL)				<5.
METHOD 602	NA	NA	NA	NA
BENZENE				
TOLUENE				
ETHYLBENZENE				
P-XYLENE				
CHLOROBENZENE				
M-XYLENE				
O-XYLENE				
STYRENE				
N-PROPYLBENZENE				
P-CHLOROTOLUENE				
1,2,4-TRIMETHYLBENZENE				
1,4-DICHLOROBENZENE				
1,3-DICHLOROBENZENE				
1,2-DICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE				
XYLENE(TOTAL)				

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 14B

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624				
CHLOROMETHANE	<10	<10	<10	<10
BROMOMETHANE	<10	<10	<10	<10
VINYL CHLORIDE	<10	<10	<10	<10
CHLOROETHANE	<10	<10	<10	<10
METHYLENE CHLORIDE	<25	* 15,000	<25	<25
ACETONE	<25	<25	<25	<25
CARBON DISULFIDE	<1.	<5.	<5.	<5.
1,1-DICHLOROETHENE	<1.	<5.	<5.	<5.
1,1-DICHLOROETHANE	<1.	<5.	<5.	<5.
1,2-DICHLOROETHENE(TOTAL)	<1.	<5.	<5.	<5.
CHLOROFORM	<1.	<5.	<5.	<5.
1,2-DICHLOROETHANE	<1.	<5.	<5.	<5.
2-BUTANONE	<10	<10	<10	<10
1,1,1-TRICHLOROETHANE	<1.	<5.	<5.	<5.
CARBON TETRACHLORIDE	<1.	<5.	<5.	<5.
VINYL ACETATE	<10	<10	<10	<10
BROMODICHLOROMETHANE	<1.	<5.	<5.	<5.
1,2-DICHLOROPROPANE	<1.	<5.	<5.	<5.
CIS-1,3-DICHLOROPROPENE	<1.	<5.	<5.	<5.
TRICHLOROETHENE	<1.	<5.	<5.	<5.
DIBROMOCHLOROMETHANE	<1.	<5.	<5.	<5.
1,1,2-TRICHLOROETHANE	<1.	<5.	<5.	<5.
BENZENE	<1.	<5.	<5.	<5.
TRANS-1,3-DICHLOROPROPENE	<1.	<5.	<5.	<5.
BROMOFORM	<1.	<5.	<5.	<5.
4-METHYL-2-PENTANONE	<10	<10	<10	<10
2-HEXANONE	<10	<10	<10	<10
1,1,2,2-TETRACHLOROETHANE	<1.	<5.	<5.	<5.
TETRACHLOROETHENE	<1.	<5.	<5.	<5.
TOLUENE	1.7	6.7	<5.	<5.
CHLOROBENZENE	<1.	<5.	<5.	<5.
ETHYLBENZENE	12	250	<5.	<5.
STYRENE	<1.	<5.	<5.	<5.
XYLENE(TOTAL)	48	700	14	<5.
METHOD 602	NA	NA	NA	NA
BENZENE				
TOLUENE				
ETHYLBENZENE				
P-XYLENE				
CHLOROBENZENE				
M-XYLENE				
O-XYLENE				
STYRENE				
N-PROPYLBENZENE				
P-CHLOROTOLUENE				
1,2,4-TRIMETHYLBENZENE				
1,4-DICHLOROBENZENE				
1,3-DICHLOROBENZENE				
1,2-DICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE				
XYLENE(TOTAL)				

* - LAB CONTAMINATION

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 16A

	CONCENTRATIONS (micrograms/L)			
COMPOUND	WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624	ANNUAL	ANNUAL	ANNUAL	
CHLOROMETHANE				<10
BROMOMETHANE				<10
VINYL CHLORIDE				<10
CHLOROETHANE				<10
METHYLENE CHLORIDE				<25
ACETONE				<25
CARBON DISULFIDE				<1.
1,1-DICHLOROETHENE				<1.
1,1-DICHLOROETHANE				<1.
1,2-DICHLOROETHENE(TOTAL)				<1.
CHLOROFORM				<1.
1,2-DICHLOROETHANE				<1.
2-BUTANONE				<10
1,1,1-TRICHLOROETHANE				<1.
CARBON TETRACHLORIDE				<1.
VINYL ACETATE				<10
BROMODICHLOROMETHANE				<1.
1,2-DICHLOROPROPANE				<1.
CIS-1,3-DICHLOROPROPENE				<1.
TRICHLOROETHENE				<1.
DIBROMOCHLOROMETHANE				<1.
1,1,2-TRICHLOROETHANE				<1.
BENZENE				<1.
TRANS-1,3-DICHLOROPROPENE				<1.
BROMOFORM				<1.
4-METHYL-2-PENTANONE				<10
2-HEXANONE				<10
1,1,2,2-TETRACHLOROETHANE				<1.
TETRACHLOROETHENE				<1.
TOLUENE				<1.
CHLOROBENZENE				<1.
ETHYLBENZENE				<1.
STYRENE				<1.
XYLENE(TOTAL)				<1.
METHOD 602	NA	NA	NA	NA
BENZENE				
TOLUENE				
ETHYLBENZENE				
P-XYLENE				
CHLOROBENZENE				
M-XYLENE				
O-XYLENE				
STYRENE				
N-PROPYLBENZENE				
P-CHLOROTOLUENE				
1,2,4-TRIMETHYLBENZENE				
1,4-DICHLOROBENZENE				
1,3-DICHLOROBENZENE				
1,2-DICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE				
XYLENE(TOTAL)				

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 18A

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624		ANNUAL	ANNUAL	
CHLOROMETHANE	<10			<10
BROMOMETHANE	<10			<10
VINYL CHLORIDE	<10			<10
CHLOROETHANE	<10			<10
METHYLENE CHLORIDE	<25			<25
ACETONE	<25			<25
CARBON DISULFIDE	<1.			<1.
1,1-DICHLOROETHENE	<1.			<1.
1,1-DICHLOROETHANE	<1.			<1.
1,2-DICHLOROETHENE(TOTAL)	<1.			<1.
CHLOROFORM	<1.			<1.
1,2-DICHLOROETHANE	<1.			<1.
2-BUTANONE	<10			<10
1,1,1-TRICHLOROETHANE	<1.			<1.
CARBON TETRACHLORIDE	<1.			<1.
VINYL ACETATE	<10			<10
BROMODICHLOROMETHANE	<1.			<1.
1,2-DICHLOROPROPANE	<1.			<1.
CIS-1,3-DICHLOROPROPENE	<1.			<1.
TRICHLOROETHENE	<1.			<1.
DIBROMOCHLOROMETHANE	<1.			<1.
1,1,2-TRICHLOROETHANE	<1.			<1.
BENZENE	<1.			<1.
TRANS-1,3-DICHLOROPROPENE	<1.			<1.
BROMOFORM	<1.			<1.
4-METHYL-2-PENTANONE	<10			<10
2-HEXANONE	<10			<10
1,1,2,2-TETRACHLOROETHANE	<1.			<1.
TETRACHLOROETHENE	<1.			<1.
TOLUENE	<1.			<1.
CHLOROBENZENE	<1.			<1.
ETHYLBENZENE	<1.			<1.
STYRENE	<1.			<1.
XYLENE(TOTAL)	<1.			<1.
METHOD 602	NA	NA	NA	NA
BENZENE				
TOLUENE				
ETHYLBENZENE				
P-XYLENE				
CHLOROBENZENE				
M-XYLENE				
O-XYLENE				
STYRENE				
N-PROPYLBENZENE				
P-CHLOROTOLUENE				
1,2,4-TRIMETHYLBENZENE				
1,4-DICHLOROBENZENE				
1,3-DICHLOROBENZENE				
1,2-DICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE				
XYLENE(TOTAL)				

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 19A

	CONCENTRATIONS (micrograms/L)			
COMPOUND	WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624		ANNUAL	ANNUAL	
CHLOROMETHANE	<100			<250
BROMOMETHANE	<100			<250
VINYL CHLORIDE	<100			<250
CHLOROETHANE	<100			<250
METHYLENE CHLORIDE	<250			<620
ACETONE	<250			<620
CARBON DISULFIDE	<10			<120
1,1-DICHLOROETHENE	<10			<120
1,1-DICHLOROETHANE	<10			<120
1,2-DICHLOROETHENE(TOTAL)	83			<120
CHLOROFORM	<10			<120
1,2-DICHLOROETHANE	<10			<120
2-BUTANONE	<100			<250
1,1,1-TRICHLOROETHANE	<10			<120
CARBON TETRACHLORIDE	<10			<120
VINYL ACETATE	<100			<250
BROMODICHLOROMETHANE	<10			<120
1,2-DICHLOROPROPANE	<10			<120
CIS-1,3-DICHLOROPROPENE	<10			<120
TRICHLOROETHENE	520			400
DIBROMOCHLOROMETHANE	<10			<120
1,1,2-TRICHLOROETHANE	<10			<120
BENZENE	<10			<120
TRANS-1,3-DICHLOROPROPENE	<10			<120
BROMOFORM	<10			<120
4-METHYL-2-PENTANONE	<100			<250
2-HEXANONE	<100			<250
1,1,2,2-TETRACHLOROETHANE	<10			<120
TETRACHLOROETHENE	<10			<120
TOLUENE	<10			<120
CHLOROBENZENE	<10			<120
ETHYLBENZENE	<10			<120
STYRENE	<10			<120
XYLENE(TOTAL)	<10			480
METHOD 602	NA	NA	NA	NA
BENZENE				
TOLUENE				
ETHYLBENZENE				
P-XYLENE				
CHLOROBENZENE				
M-XYLENE				
O-XYLENE				
STYRENE				
N-PROPYLBENZENE				
P-CHLOROTOLUENE				
1,2,4-TRIMETHYLBENZENE				
1,4-DICHLOROBENZENE				
1,3-DICHLOROBENZENE				
1,2-DICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE				
XYLENE(TOTAL)				

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 20

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624				
CHLOROMETHANE	<10	<10	<10	<10
BROMOMETHANE	<10	<10	<10	<10
VINYL CHLORIDE	<10	<10	<10	<10
CHLOROETHANE	<10	<10	<10	<10
METHYLENE CHLORIDE	<25	* 9,800	* 390	<25
ACETONE	<25	* 53	<25	<25
CARBON DISULFIDE	<1.	<5.	<5.	<5.
1,1-DICHLOROETHENE	<1.	<5.	<5.	<5.
1,1-DICHLOROETHANE	<1.	<5.	<5.	<5.
1,2-DICHLOROETHENE(TOTAL)	<1.	<5.	<5.	<5.
CHLOROFORM	<1.	<5.	<5.	<5.
1,2-DICHLOROETHANE	<1.	<5.	<5.	<5.
2-BUTANONE	<10	<10	<10	<10
1,1,1-TRICHLOROETHANE	<1.	<5.	<5.	<5.
CARBON TETRACHLORIDE	<1.	<5.	<5.	<5.
VINYL ACETATE	<10	<10	<10	<10
BROMODICHLOROMETHANE	<1.	<5.	<5.	<5.
1,2-DICHLOROPROPANE	<1.	<5.	<5.	<5.
CIS-1,3-DICHLOROPROPENE	<1.	<5.	<5.	<5.
TRICHLOROETHENE	<1.	<5.	<5.	<5.
DIBROMOCHLOROMETHANE	<1.	<5.	<5.	<5.
1,1,2-TRICHLOROETHANE	<1.	<5.	<5.	<5.
BENZENE	<1.	<5.	<5.	<5.
TRANS-1,3-DICHLOROPROPENE	<1.	<5.	<5.	<5.
BROMOFORM	<1.	<5.	<5.	<5.
4-METHYL-2-PENTANONE	<10	<10	<10	<10
2-HEXANONE	<10	<10	<10	<10
1,1,2,2-TETRACHLOROETHANE	<1.	<5.	<5.	<5.
TETRACHLOROETHENE	<1.	<5.	<5.	<5.
TOLUENE	<1.	<5.	<5.	<5.
CHLOROBENZENE	<1.	<5.	<5.	<5.
ETHYLBENZENE	1.8	<5.	<5.	<5.
STYRENE	<1.	<5.	<5.	<5.
XYLENE(TOTAL)	13	6.2	<5.	<5.
METHOD 602	NA	NA	NA	
BENZENE				<1.
TOLUENE				<1.
ETHYLBENZENE				<1.
P-XYLENE				NA
CHLOROBENZENE				<1.
M-XYLENE				NA
O-XYLENE				NA
STYRENE				NA
N-PROPYLBENZENE				NA
P-CHLOROTOLUENE				NA
1,2,4-TRIMETHYLBENZENE				NA
1,4-DICHLOROBENZENE				<1.
1,3-DICHLOROBENZENE				<1.
1,2-DICHLOROBENZENE				<1.
1,2,4-TRICHLOROBENZENE				NA
XYLENE(TOTAL)				<1.

* = LAB CONTAMINATION

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 27

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624		NA	NA	NA
CHLOROMETHANE	<10			
BROMOMETHANE	<10			
VINYL CHLORIDE	<10			
CHLOROETHANE	<10			
METHYLENE CHLORIDE	<25			
ACETONE	<25			
CARBON DISULFIDE	<1.			
1,1-DICHLOROETHENE	<1.			
1,1-DICHLOROETHANE	<1.			
1,2-DICHLOROETHENE(TOTAL)	29			
CHLOROFORM	<1.			
1,2-DICHLOROETHANE	<1.			
2-BUTANONE	<10			
1,1,1-TRICHLOROETHANE	1.2			
CARBON TETRACHLORIDE	<1.			
VINYL ACETATE	<10			
BROMODICHLOROMETHANE	<1.			
1,2-DICHLOROPROPANE	<1.			
CIS-1,3-DICHLOROPROPENE	<1.			
TRICHLOROETHENE	150			
DIBROMOCHLOROMETHANE	<1.			
1,1,2-TRICHLOROETHANE	<1.			
BENZENE	<1.			
TRANS-1,3-DICHLOROPROPENE	<1.			
BROMOFORM	<1.			
4-METHYL-2-PENTANONE	<10			
2-HEXANONE	<10			
1,1,2,2-TETRACHLOROETHANE	<1.			
TETRACHLOROETHENE	<1.			
TOLUENE	<1.			
CHLOROBENZENE	<1.			
ETHYLBENZENE	<1.			
STYRENE	<1.			
XYLENE(TOTAL)	<1.			
METHOD 602	NA			
BENZENE		7.0	<1.	29
TOLUENE		<1.	<1.	<1.
ETHYLBENZENE		<1.	<1.	<1.
P-XYLENE		<1.	<1.	NA
CHLOROBENZENE		<1.	<1.	<1.
M-XYLENE		<1.	<1.	NA
O-XYLENE		<1.	<1.	NA
STYRENE		<1.	<1.	NA
N-PROPYLBENZENE		<1.	<1.	NA
P-CHLOROTOLUENE		<1.	<1.	NA
1,2,4-TRIMETHYLBENZENE		<1.	<1.	NA
1,4-DICHLOROBENZENE		<1.	<1.	<1.
1,3-DICHLOROBENZENE		<1.	<1.	<1.
1,2-DICHLOROBENZENE		<1.	<1.	<1.
1,2,4-TRICHLOROBENZENE		<1.	<1.	NA
XYLENE(TOTAL)		NA	NA	<1.

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 37

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624		NA	NA	NA
CHLOROMETHANE	<10,000			
BROMOMETHANE	<10,000			
VINYL CHLORIDE	<10,000			
CHLOROETHANE	<10,000			
METHYLENE CHLORIDE	<25,000			
ACETONE	<25,000			
CARBON DISULFIDE	<1,000			
1,1-DICHLOROETHENE	<1,000			
1,1-DICHLOROETHANE	<1,000			
1,2-DICHLOROETHENE(TOTAL)	<1,000			
CHLOROFORM	<1,000			
1,2-DICHLOROETHANE	<1,000			
2-BUTANONE	<10,000			
1,1,1-TRICHLOROETHANE	<1,000			
CARBON TETRACHLORIDE	<1,000			
VINYL ACETATE	<10,000			
BROMODICHLOROMETHANE	<1,000			
1,2-DICHLOROPROPANE	<1,000			
CIS-1,3-DICHLOROPROPENE	<1,000			
TRICHLOROETHENE	<1,000			
DIBROMOCHLOROMETHANE	<1,000			
1,1,2-TRICHLOROETHANE	<1,000			
BENZENE	<1,000			
TRANS-1,3-DICHLOROPROPENE	<1,000			
BROMOFORM	<1,000			
4-METHYL-2-PENTANONE	<10,000			
2-HEXANONE	<10,000			
1,1,2,2-TETRACHLOROETHANE	<1,000			
TETRACHLOROETHENE	<1,000			
TOLUENE	53,000			
CHLOROBENZENE	<1,000			
ETHYLBENZENE	17,000			
STYRENE	<1,000			
XYLENE(TOTAL)	82,000			
METHOD 602	NA		PUMP OUT	NA
BENZENE		900		
TOLUENE		69,000		
ETHYLBENZENE		21,000		
P-XYLENE		21,000		
CHLOROBENZENE		<50		
M-XYLENE		60,000		
O-XYLENE		31,000		
STYRENE		<50		
N-PROPYLBENZENE		100		
P-CHLOROTOLUENE		<50		
1,2,4-TRIMETHYLBENZENE		1,600		
1,4-DICHLOROBENZENE		<50		
1,3-DICHLOROBENZENE		<50		
1,2-DICHLOROBENZENE		<50		
1,2,4-TRICHLOROBENZENE		<50		
XYLENE(TOTAL)		NA		

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 41

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624		NA	NA	NA
CHLOROMETHANE	<10			
BROMOMETHANE	<10			
VINYL CHLORIDE	<10			
CHLOROETHANE	<10			
METHYLENE CHLORIDE	<25			
ACETONE	<25			
CARBON DISULFIDE	<1.			
1,1-DICHLOROETHENE	<1.			
1,1-DICHLOROETHANE	<1.			
1,2-DICHLOROETHENE(TOTAL)	<1.			
CHLOROFORM	<1.			
1,2-DICHLOROETHANE	<1.			
2-BUTANONE	<10			
1,1,1-TRICHLOROETHANE	<1.			
CARBON TETRACHLORIDE	<1.			
VINYL ACETATE	<10			
BROMODICHLOROMETHANE	<1.			
1,2-DICHLOROPROPANE	<1.			
CIS-1,3-DICHLOROPROPENE	<1.			
TRICHLOROETHENE	<1.			
DIBROMOCHLOROMETHANE	<1.			
1,1,2-TRICHLOROETHANE	<1.			
BENZENE	<1.			
TRANS-1,3-DICHLOROPROPENE	<1.			
BROMOFORM	<1.			
4-METHYL-2-PENTANONE	<10			
2-HEXANONE	<10			
1,1,2,2-TETRACHLOROETHANE	<1.			
TETRACHLOROETHENE	<1.			
TOLUENE	<1.			
CHLOROBENZENE	<1.			
ETHYLBENZENE	<1.			
STYRENE	<1.			
XYLENE(TOTAL)	<1.			
METHOD 602	NA			
BENZENE		1.6	5.8	<5.
TOLUENE		8.0	8.6	<5.
ETHYLBENZENE		<1.	230	220
P-XYLENE		22	130	NA
CHLOROBENZENE		<1.	<1.	<5.
M-XYLENE		31	280	NA
O-XYLENE		3.4	12	NA
STYRENE		<1.	<1.	NA
N-PROPYLBENZENE		<1.	<1.	NA
P-CHLOROTOLUENE		<1.	<1.	NA
1,2,4-TRIMETHYLBENZENE		<1.	<1.	NA
1,4-DICHLOROBENZENE		<1.	<1.	<5.
1,3-DICHLOROBENZENE		<1.	<1.	<5.
1,2-DICHLOROBENZENE		<1.	<1.	<5.
1,2,4-TRICHLOROBENZENE		<1.	<1.	NA
XYLENE(TOTAL)		NA	NA	520

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 42

	CONCENTRATIONS (micrograms/L)			
COMPOUND	WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624		NA	NA	NA
CHLOROMETHANE	<500			
BROMOMETHANE	<500			
VINYL CHLORIDE	<500			
CHLOROETHANE	<500			
METHYLENE CHLORIDE	<1200			
ACETONE	<1200			
CARBON DISULFIDE	<50			
1,1-DICHLOROETHENE	<50			
1,1-DICHLOROETHANE	<50			
1,2-DICHLOROETHENE(TOTAL)	<50			
CHLOROFORM	<50			
1,2-DICHLOROETHANE	<50			
2-BUTANONE	<500			
1,1,1-TRICHLOROETHANE	<50			
CARBON TETRACHLORIDE	<50			
VINYL ACETATE	<500			
BROMODICHLOROMETHANE	<50			
1,2-DICHLOROPROPANE	<50			
CIS-1,3-DICHLOROPROPENE	<50			
TRICHLOROETHENE	<50			
DIBROMOCHLOROMETHANE	<50			
1,1,2-TRICHLOROETHANE	<50			
BENZENE	1,300			
TRANS-1,3-DICHLOROPROPENE	<50			
BROMOFORM	<50			
4-METHYL-2-PENTANONE	<500			
2-HEXANONE	<500			
1,1,2,2-TETRACHLOROETHANE	<50			
TETRACHLOROETHENE	<50			
TOLUENE	5,400			
CHLOROBENZENE	<50			
ETHYLBENZENE	970			
STYRENE	<50			
XYLENE(TOTAL)	2,600			
METHOD 602	NA			
BENZENE		1,100	1,100	920
TOLUENE		4,700	1,100	89
ETHYLBENZENE		910	270	77
P-XYLENE		1,300	360	NA
CHLOROBENZENE		<5.0	<1.	<10
M-XYLENE		3,300	810	NA
O-XYLENE		2,100	760	NA
STYRENE		<5.0	<1.	NA
N-PROPYLBENZENE		<5.0	6.0	NA
P-CHLOROTOLUENE		<5.0	<1.	NA
1,2,4-TRIMETHYLBENZENE		51	13	NA
1,4-DICHLOROBENZENE		<5.0	<1.	<10
1,3-DICHLOROBENZENE		<5.0	<1.	<10
1,2-DICHLOROBENZENE		<5.0	<1.	<10
1,2,4-TRICHLOROBENZENE		<5.0	<1.	NA
XYLENE(TOTAL)		NA	NA	940

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 43

	CONCENTRATIONS (micrograms/L)			
COMPOUND	WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624	NA	NA	NA	NA
CHLOROMETHANE				
BROMOMETHANE				
VINYL CHLORIDE				
CHLOROETHANE				
METHYLENE CHLORIDE				
ACETONE				
CARBON DISULFIDE				
1,1-DICHLOROETHENE				
1,1-DICHLOROETHANE				
1,2-DICHLOROETHENE(TOTAL)				
CHLOROFORM				
1,2-DICHLOROETHANE				
2-BUTANONE				
1,1,1-TRICHLOROETHANE				
CARBON TETRACHLORIDE				
VINYL ACETATE				
BROMODICHLOROMETHANE				
1,2-DICHLOROPROPANE				
CIS-1,3-DICHLOROPROPENE				
TRICHLOROETHENE				
DIBROMOCHLOROMETHANE				
1,1,2-TRICHLOROETHANE				
BENZENE				
TRANS-1,3-DICHLOROPROPENE				
BROMOFORM				
4-METHYL-2-PENTANONE				
2-HEXANONE				
1,1,2,2-TETRACHLOROETHANE				
TETRACHLOROETHENE				
TOLUENE				
CHLOROBENZENE				
ETHYLBENZENE				
STYRENE				
XYLENE(TOTAL)				
METHOD 602	NA	NA		
BENZENE			750	<10
TOLUENE			1,500	30
ETHYLBENZENE			420	160
P-XYLENE			540	NA
CHLOROBENZENE			<1.	<10
M-XYLENE			1,400	NA
O-XYLENE			880	NA
STYRENE			16	NA
N-PROPYLBENZENE			6.7	NA
P-CHLOROTOLUENE			<1.	NA
1,2,4-TRIMETHYLBENZENE			37	NA
1,4-DICHLOROBENZENE			<1.	<10
1,3-DICHLOROBENZENE			<1.	<10
1,2-DICHLOROBENZENE			<1.	<10
1,2,4-TRICHLOROBENZENE			<1.	NA
XYLENE(TOTAL)			NA	1,200

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 44

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624	DRY	DRY	DRY	DRY
CHLOROMETHANE				
BROMOMETHANE				
VINYL CHLORIDE				
CHLOROETHANE				
METHYLENE CHLORIDE				
ACETONE				
CARBON DISULFIDE				
1,1-DICHLOROETHENE				
1,1-DICHLOROETHANE				
1,2-DICHLOROETHENE(TOTAL)				
CHLOROFORM				
1,2-DICHLOROETHANE				
2-BUTANONE				
1,1,1-TRICHLOROETHANE				
CARBON TETRACHLORIDE				
VINYL ACETATE				
BROMODICHLOROMETHANE				
1,2-DICHLOROPROPANE				
CIS-1,3-DICHLOROPROPENE				
TRICHLOROETHENE				
DIBROMOCHLOROMETHANE				
1,1,2-TRICHLOROETHANE				
BENZENE				
TRANS-1,3-DICHLOROPROPENE				
BROMOFORM				
4-METHYL-2-PENTANONE				
2-HEXANONE				
1,1,2,2-TETRACHLOROETHANE				
TETRACHLOROETHENE				
TOLUENE				
CHLOROBENZENE				
ETHYLBENZENE				
STYRENE				
XYLENE(TOTAL)				
METHOD 602	NA	NA	NA	NA
BENZENE				
TOLUENE				
ETHYLBENZENE				
P-XYLENE				
CHLOROBENZENE				
M-XYLENE				
O-XYLENE				
STYRENE				
N-PROPYLBENZENE				
P-CHLOROTOLUENE				
1,2,4-TRIMETHYLBENZENE				
1,4-DICHLOROBENZENE				
1,3-DICHLOROBENZENE				
1,2-DICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE				
XYLENE(TOTAL)				

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 45

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624	DRY	DRY	DRY	DRY
CHLOROMETHANE				
BROMOMETHANE				
VINYL CHLORIDE				
CHLOROETHANE				
METHYLENE CHLORIDE				
ACETONE				
CARBON DISULFIDE				
1,1-DICHLOROETHENE				
1,1-DICHLOROETHANE				
1,2-DICHLOROETHENE(TOTAL)				
CHLOROFORM				
1,2-DICHLOROETHANE				
2-BUTANONE				
1,1,1-TRICHLOROETHANE				
CARBON TETRACHLORIDE				
VINYL ACETATE				
BROMODICHLOROMETHANE				
1,2-DICHLOROPROPANE				
CIS-1,3-DICHLOROPROPENE				
TRICHLOROETHENE				
DIBROMOCHLOROMETHANE				
1,1,2-TRICHLOROETHANE				
BENZENE				
TRANS-1,3-DICHLOROPROPENE				
BROMOFORM				
4-METHYL-2-PENTANONE				
2-HEXANONE				
1,1,2,2-TETRACHLOROETHANE				
TETRACHLOROETHENE				
TOLUENE				
CHLOROBENZENE				
ETHYLBENZENE				
STYRENE				
XYLENE(TOTAL)				
METHOD 602	NA	NA	NA	NA
BENZENE				
TOLUENE				
ETHYLBENZENE				
P-XYLENE				
CHLOROBENZENE				
M-XYLENE				
O-XYLENE				
STYRENE				
N-PROPYLBENZENE				
P-CHLOROTOLUENE				
1,2,4-TRIMETHYLBENZENE				
1,4-DICHLOROBENZENE				
1,3-DICHLOROBENZENE				
1,2-DICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE				
XYLENE(TOTAL)				

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 46

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624			DRY	
CHLOROMETHANE	<1,000	<10		<10
BROMOMETHANE	<1,000	<10		<10
VINYL CHLORIDE	<1,000	<10		<10
CHLOROETHANE	<1,000	<10		<10
METHYLENE CHLORIDE	<2,500	<25		<25
ACETONE	<2,500	<25		<25
CARBON DISULFIDE	<100	<5.		<1.
1,1-DICHLOROETHENE	<100	<5.		<1.
1,1-DICHLOROETHANE	<100	<5.		<1.
1,2-DICHLOROETHENE(TOTAL)	<100	<5.		<1.
CHLOROFORM	<100	<5.		<1.
1,2-DICHLOROETHANE	<100	<5.		<1.
2-BUTANONE	<1,000	<10		<10
1,1,1-TRICHLOROETHANE	<100	<5.		<1.
CARBON TETRACHLORIDE	<100	<5.		<1.
VINYL ACETATE	<1,000	<10		<10
BROMODICHLOROMETHANE	<100	<5.		<1.
1,2-DICHLOROPROPANE	<100	<5.		<1.
CIS-1,3-DICHLOROPROPENE	<100	<5.		<1.
TRICHLOROETHENE	<100	<5.		<1.
DIBROMOCHLOROMETHANE	<100	<5.		<1.
1,1,2-TRICHLOROETHANE	<100	<5.		<1.
BENZENE	<100	<5.		<1.
TRANS-1,3-DICHLOROPROPENE	<100	<5.		<1.
BROMOFORM	<100	<5.		<1.
4-METHYL-2-PENTANONE	<1,000	<10		<10
2-HEXANONE	<1,000	<10		<10
1,1,2,2-TETRACHLOROETHANE	<100	<5.		<1.
TETRACHLOROETHENE	<100	<5.		<1.
TOLUENE	930	<5.		<1.
CHLOROBENZENE	<100	<5.		<1.
ETHYLBENZENE	2,000	<5.		<1.
STYRENE	<100	<5.		<1.
XYLENE(TOTAL)	12,000	22		<1.
METHOD 602	NA	NA	NA	NA
BENZENE				
TOLUENE				
ETHYLBENZENE				
P-XYLENE				
CHLOROBENZENE				
M-XYLENE				
O-XYLENE				
STYRENE				
N-PROPYLBENZENE				
P-CHLOROTOLUENE				
1,2,4-TRIMETHYLBENZENE				
1,4-DICHLOROBENZENE				
1,3-DICHLOROBENZENE				
1,2-DICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE				
XYLENE(TOTAL)				

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 47

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624		NA	NA	
CHLOROMETHANE	<50,000			<200,000
BROMOMETHANE	<50,000			<200,000
VINYL CHLORIDE	<50,000			<200,000
CHLOROETHANE	<50,000			<200,000
METHYLENE CHLORIDE	<120,000			<500,000
ACETONE	<120,000			<500,000
CARBON DISULFIDE	<5,000			<100,000
1,1-DICHLOROETHENE	<5,000			<100,000
1,1-DICHLOROETHANE	<5,000			<100,000
1,2-DICHLOROETHENE(TOTAL)	<5,000			<100,000
CHLOROFORM	<5,000			<100,000
1,2-DICHLOROETHANE	<5,000			<100,000
2-BUTANONE	<50,000			<200,000
1,1,1-TRICHLOROETHANE	<5,000			<100,000
CARBON TETRACHLORIDE	<5,000			<100,000
VINYL ACETATE	<50,000			<200,000
BROMODICHLOROMETHANE	<5,000			<100,000
1,2-DICHLOROPROPANE	<5,000			<100,000
CIS-1,3-DICHLOROPROPENE	<5,000			<100,000
TRICHLOROETHENE	<5,000			<100,000
DIBROMOCHLOROMETHANE	<5,000			<100,000
1,1,2-TRICHLOROETHANE	<5,000			<100,000
BENZENE	<5,000			<100,000
TRANS-1,3-DICHLOROPROPENE	<5,000			<100,000
BROMOFORM	<5,000			<100,000
4-METHYL-2-PENTANONE	<50,000			<200,000
2-HEXANONE	<50,000			<200,000
1,1,2,2-TETRACHLOROETHANE	<5,000			<100,000
TETRACHLOROETHENE	<5,000			<100,000
TOLUENE	40,000			160,000
CHLOROBENZENE	<5,000			<100,000
ETHYLBENZENE	83,000			460,000
STYRENE	<5,000			<100,000
XYLENE(TOTAL)	510,000			2,700,000
METHOD 602	NA			NA
BENZENE		1,400	1,900	
TOLUENE		140,000	21,000	
ETHYLBENZENE		420,000	20,000	
P-XYLENE		63,000	22,000	
CHLOROBENZENE		<100	<1,000	
M-XYLENE		130,000	67,000	
O-XYLENE		91,000	31,000	
STYRENE		<100	<1,000	
N-PROPYLBENZENE		<100	<1,000	
P-CHLOROTOLUENE		<100	<1,000	
1,2,4-TRIMETHYLBENZENE		3,800	<1,000	
1,4-DICHLOROBENZENE		<100	<1,000	
1,3-DICHLOROBENZENE		<100	<1,000	
1,2-DICHLOROBENZENE		<100	<1,000	
1,2,4-TRICHLOROBENZENE		<100	<1,000	
XYLENE(TOTAL)		NA	NA	

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 48

	CONCENTRATIONS (micrograms/L)			
COMPOUND	WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624	NA	NA	NA	NA
CHLOROMETHANE				
BROMOMETHANE				
VINYL CHLORIDE				
CHLOROETHANE				
METHYLENE CHLORIDE				
ACETONE				
CARBON DISULFIDE				
1,1-DICHLOROETHENE				
1,1-DICHLOROETHANE				
1,2-DICHLOROETHENE(TOTAL)				
CHLOROFORM				
1,2-DICHLOROETHANE				
2-BUTANONE				
1,1,1-TRICHLOROETHANE				
CARBON TETRACHLORIDE				
VINYL ACETATE				
BROMODICHLOROMETHANE				
1,2-DICHLOROPROPANE				
CIS-1,3-DICHLOROPROPENE				
TRICHLOROETHENE				
DIBROMOCHLOROMETHANE				
1,1,2-TRICHLOROETHANE				
BENZENE				
TRANS-1,3-DICHLOROPROPENE				
BROMOFORM				
4-METHYL-2-PENTANONE				
2-HEXANONE				
1,1,2,2-TETRACHLOROETHANE				
TETRACHLOROETHENE				
TOLUENE				
CHLOROBENZENE				
ETHYLBENZENE				
STYRENE				
XYLENE(TOTAL)				
METHOD 602	NA			
BENZENE		1.6	2.3	5.3
TOLUENE		<1.	<1.	<1.
ETHYLBENZENE		<1.	<1.	6.5
P-XYLENE		<1.	<1.	NA
CHLOROBENZENE		<1.	<1.	<1.
M-XYLENE		<1.	<1.	NA
O-XYLENE		<1.	<1.	NA
STYRENE		<1.	<1.	NA
N-PROPYLBENZENE		<1.	<1.	NA
P-CHLOROTOLUENE		<1.	<1.	NA
1,2,4-TRIMETHYLBENZENE		<1.	<1.	NA
1,4-DICHLOROBENZENE		<1.	<1.	<1.
1,3-DICHLOROBENZENE		<1.	<1.	<1.
1,2-DICHLOROBENZENE		<1.	<1.	<1.
1,2,4-TRICHLOROBENZENE		<1.	<1.	NA
XYLENE(TOTAL)		NA	NA	48

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - RC-1

	CONCENTRATIONS (micrograms/L)			
COMPOUND	WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624		NA	NA	NA
CHLOROMETHANE	<5,000			
BROMOMETHANE	<5,000			
VINYL CHLORIDE	<5,000			
CHLOROETHANE	<5,000			
METHYLENE CHLORIDE	<12,000			
ACETONE	<12,000			
CARBON DISULFIDE	<500			
1,1-DICHLOROETHENE	<500			
1,1-DICHLOROETHANE	<500			
1,2-DICHLOROETHENE(TOTAL)	3,800			
CHLOROFORM	<500			
1,2-DICHLOROETHANE	<500			
2-BUTANONE	<5,000			
1,1,1-TRICHLOROETHANE	<500			
CARBON TETRACHLORIDE	<500			
VINYL ACETATE	<5,000			
BROMODICHLOROMETHANE	<500			
1,2-DICHLOROPROPANE	<500			
CIS-1,3-DICHLOROPROPENE	<500			
TRICHLOROETHENE	<500			
DIBROMOCHLOROMETHANE	<500			
1,1,2-TRICHLOROETHANE	<500			
BENZENE	1,100			
TRANS-1,3-DICHLOROPROPENE	<500			
BROMOFORM	<500			
4-METHYL-2-PENTANONE	<5,000			
2-HEXANONE	<5,000			
1,1,2,2-TETRACHLOROETHANE	<500			
TETRACHLOROETHENE	<500			
TOLUENE	27,000			
CHLOROBENZENE	<500			
ETHYLBENZENE	13,000			
STYRENE	<500			
XYLENE(TOTAL)	67,000			
METHOD 602	NA			
BENZENE		250	560	1,000
TOLUENE		6,400	15,000	9,300
ETHYLBENZENE		3,400	6,900	7,000
P-XYLENE		4,500	7,800	NA
CHLOROBENZENE		<10	<25	<25
M-XYLENE		12,000	22,000	NA
O-XYLENE		5,500	9,700	NA
STYRENE		<10	<25	NA
N-PROPYLBENZENE		25	130	NA
P-CHLOROTOLUENE		<10	<25	NA
1,2,4-TRIMETHYLBENZENE		210	470	NA
1,4-DICHLOROBENZENE		<10	<25	<25
1,3-DICHLOROBENZENE		<10	<25	<25
1,2-DICHLOROBENZENE		<10	<25	<25
1,2,4-TRICHLOROBENZENE		<10	<25	NA
XYLENE(TOTAL)		NA	NA	47,000

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - RC-2

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624		NA	NA	NA
CHLOROMETHANE	<2,500			
BROMOMETHANE	<2,500			
VINYL CHLORIDE	<2,500			
CHLOROETHANE	<2,500			
METHYLENE CHLORIDE	<6,200			
ACETONE	<6,200			
CARBON DISULFIDE	<250			
1,1-DICHLOROETHENE	<250			
1,1-DICHLOROETHANE	<250			
1,2-DICHLOROETHENE(TOTAL)	3,200			
CHLOROFORM	<250			
1,2-DICHLOROETHANE	<250			
2-BUTANONE	<2,500			
1,1,1-TRICHLQROETHANE	<250			
CARBON TETRACHLORIDE	<250			
VINYL ACETATE	<2,500			
BROMODICHLOROMETHANE	<250			
1,2-DICHLOROPROPANE	<250			
CIS-1,3-DICHLOROPROPENE	<250			
TRICHLOROETHENE	<250			
DIBROMOCHLOROMETHANE	<250			
1,1,2-TRICHLOROETHANE	<250			
BENZENE	650			
TRANS-1,3-DICHLOROPROPENE	<250			
BROMOFORM	<250			
4-METHYL-2-PENTANONE	<2,500			
2-HEXANONE	<2,500			
1,1,2,2-TETRACHLOROETHANE	<250			
TETRACHLOROETHENE	<250			
TOLUENE	19,000			
CHLOROBENZENE	<250			
ETHYLBENZENE	9,900			
STYRENE	<250			
XYLENE(TOTAL)	52,000			
METHOD 602	NA			
BENZENE		730	1,700	27
TOLUENE		7,200	15,000	310
ETHYLBENZENE		2,800	5,000	540
P-XYLENE		5,000	5,500	NA
CHLOROBENZENE		<50	<200	<25
M-XYLENE		15,000	17,000	NA
O-XYLENE		7,100	7,800	NA
STYRENE		<50	<200	NA
N-PROPYLBENZENE		<50	<200	NA
P-CHLOROTOLUENE		<50	<200	NA
1,2,4-TRIMETHYLBENZENE		310	280	NA
1,4-DICHLOROBENZENE		<50	<200	<25
1,3-DICHLOROBENZENE		<50	<200	<25
1,2-DICHLOROBENZENE		<50	<200	<25
1,2,4-TRICHLOROBENZENE		<50	<200	NA
XYLENE(TOTAL)		NA	NA	3,800

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - RC-3

	CONCENTRATIONS (micrograms/L)			
COMPOUND	WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624		NA	NA	NA
CHLOROMETHANE	<5,000			
BROMOMETHANE	<5,000			
VINYL CHLORIDE	<5,000			
CHLOROETHANE	<5,000			
METHYLENE CHLORIDE	<12,000			
ACETONE	<12,000			
CARBON DISULFIDE	<500			
1,1-DICHLOROETHENE	<500			
1,1-DICHLOROETHANE	<500			
1,2-DICHLOROETHENE(TOTAL)	4,900			
CHLOROFORM	<500			
1,2-DICHLOROETHANE	<500			
2-BUTANONE	<5,000			
1,1,1-TRICHLOROETHANE	<500			
CARBON TETRACHLORIDE	<500			
VINYL ACETATE	<5,000			
BROMODICHLOROMETHANE	<500			
1,2-DICHLOROPROPANE	<500			
CIS-1,3-DICHLOROPROPENE	<500			
TRICHLOROETHENE	<500			
DIBROMOCHLOROMETHANE	<500			
1,1,2-TRICHLOROETHANE	<500			
BENZENE	1,400			
TRANS-1,3-DICHLOROPROPENE	<500			
BROMOFORM	<500			
4-METHYL-2-PENTANONE	<5,000			
2-HEXANONE	<5,000			
1,1,2,2-TETRACHLOROETHANE	<500			
TETRACHLOROETHENE	<500			
TOLUENE	35,000			
CHLOROBENZENE	<500			
ETHYLBENZENE	17,000			
STYRENE	<500			
XYLENE(TOTAL)	89,000			
METHOD 602	NA			
BENZENE		460	880	500
TOLUENE		29,000	16,000	26,000
ETHYLBENZENE		14,000	9,400	16,000
P-XYLENE		17,000	12,000	NA
CHLOROBENZENE		<50	<500	<50
M-XYLENE		47,000	35,000	NA
O-XYLENE		23,000	16,000	NA
STYRENE		<50	<500	NA
N-PROPYLBENZENE		84	<500	NA
P-CHLOROTOLUENE		<50	<500	NA
1,2,4-TRIMETHYLBENZENE		420	<500	NA
1,4-DICHLOROBENZENE		<50	<500	<50
1,3-DICHLOROBENZENE		<50	<500	<50
1,2-DICHLOROBENZENE		<50	<500	<50
1,2,4-TRICHLOROBENZENE		<50	<500	NA
XYLENE(TOTAL)		NA	NA	89,000

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 3A

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624				
CHLOROMETHANE	<10	<10	<10	<10
BROMOMETHANE	<10	<10	<10	<10
VINYL CHLORIDE	<10	<10	<10	<10
CHLOROETHANE	<10	<10	<10	<10
METHYLENE CHLORIDE	<25	* 9,800	<25	<25
ACETONE	<25	<25	<25	<25
CARBON DISULFIDE	<1.	<5.	<5.	<1.
1,1-DICHLOROETHENE	<1.	<5.	<5.	<1.
1,1-DICHLOROETHANE	<1.	<5.	<5.	<1.
1,2-DICHLOROETHENE(TOTAL)	<1.	<5.	<5.	<1.
CHLOROFORM	<1.	<5.	<5.	<1.
1,2-DICHLOROETHANE	<1.	<5.	<5.	<1.
2-BUTANONE	<10	<10	<10	<10
1,1,1-TRICHLOROETHANE	<1.	<5.	<5.	<1.
CARBON TETRACHLORIDE	<1.	<5.	<5.	<1.
VINYL ACETATE	<10	<10	<10	<10
BROMODICHLOROMETHANE	<1.	<5.	<5.	<1.
1,2-DICHLOROPROPANE	<1.	<5.	<5.	<1.
CIS-1,3-DICHLOROPROPENE	<1.	<5.	<5.	<1.
TRICHLOROETHENE	<1.	<5.	<5.	<1.
DIBROMOCHLOROMETHANE	<1.	<5.	<5.	<1.
1,1,2-TRICHLOROETHANE	<1.	<5.	<5.	<1.
BENZENE	2.1	<5.	<5.	<1.
TRANS-1,3-DICHLOROPROPENE	<1.	<5.	<5.	<1.
BROMOFORM	<1.	<5.	<5.	<1.
4-METHYL-2-PENTANONE	<10	<10	<10	<10
2-HEXANONE	<10	<10	<10	<10
1,1,2,2-TETRACHLOROETHANE	<1.	<5.	<5.	<1.
TETRACHLOROETHENE	<1.	<5.	<5.	<1.
TOLUENE	<1.	<5.	<5.	<1.
CHLOROBENZENE	<1.	<5.	<5.	<1.
ETHYLBENZENE	<1.	<5.	<5.	<1.
STYRENE	<1.	<5.	<5.	<1.
XYLENE(TOTAL)	<1.	<5.	<5.	<1.
METHOD 602	NA	NA	NA	NA
BENZENE				
TOLUENE				
ETHYLBENZENE				
P-XYLENE				
CHLOROBENZENE				
M-XYLENE				
O-XYLENE				
STYRENE				
N-PROPYLBENZENE				
P-CHLOROTOLUENE				
1,2,4-TRIMETHYLBENZENE				
1,4-DICHLOROBENZENE				
1,3-DICHLOROBENZENE				
1,2-DICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE				
XYLENE(TOTAL)				

* = LAB CONTAMINATION

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 7

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624				
CHLOROMETHANE	<10	<10	<10	<10
BROMOMETHANE	<10	<10	<10	<10
VINYL CHLORIDE	<10	<10	<10	<10
CHLOROETHANE	<10	<10	<10	<10
METHYLENE CHLORIDE	<25	* 4,300	<25	<25
ACETONE	<25	<25	<25	<25
CARBON DISULFIDE	<1.	<5.	<5.	<5.
1,1-DICHLOROETHENE	<1.	<5.	<5.	<5.
1,1-DICHLOROETHANE	<1.	<5.	<5.	<5.
1,2-DICHLOROETHENE(TOTAL)	<1.	<5.	<5.	<5.
CHLOROFORM	<1.	<5.	<5.	<5.
1,2-DICHLOROETHANE	<1.	<5.	<5.	<5.
2-BUTANONE	<10	<10	<10	<10
1,1,1-TRICHLOROETHANE	<1.	<5.	<5.	<5.
CARBON TETRACHLORIDE	<1.	<5.	<5.	<5.
VINYL ACETATE	<10	<10	<10	<10
BROMODICHLOROMETHANE	<1.	<5.	<5.	<5.
1,2-DICHLOROPROPANE	<1.	<5.	<5.	<5.
CIS-1,3-DICHLOROPROPENE	<1.	<5.	<5.	<5.
TRICHLOROETHENE	<1.	<5.	<5.	<5.
DIBROMOCHLOROMETHANE	<1.	<5.	<5.	<5.
1,1,2-TRICHLOROETHANE	<1.	<5.	<5.	<5.
BENZENE	<1.	<5.	<5.	<5.
TRANS-1,3-DICHLOROPROPENE	<1.	<5.	<5.	<5.
BROMOFORM	<1.	<5.	<5.	<5.
4-METHYL-2-PENTANONE	<10	<10	<10	<10
2-HEXANONE	<10	<10	<10	<10
1,1,2,2-TETRACHLOROETHANE	<1.	<5.	<5.	<5.
TETRACHLOROETHENE	<1.	<5.	<5.	<5.
TOLUENE	<1.	<5.	<5.	<5.
CHLOROBENZENE	<1.	<5.	<5.	<5.
ETHYLBENZENE	<1.	<5.	<5.	<5.
STYRENE	<1.	<5.	<5.	<5.
XYLENE(TOTAL)	<1.	<5.	<5.	<5.
METHOD 602	NA	NA	NA	NA
BENZENE				
TOLUENE				
ETHYLBENZENE				
P-XYLENE				
CHLOROBENZENE				
M-XYLENE				
O-XYLENE				
STYRENE				
N-PROPYLBENZENE				
P-CHLOROTOLUENE				
1,2,4-TRIMETHYLBENZENE				
1,4-DICHLOROBENZENE				
1,3-DICHLOROBENZENE				
1,2-DICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE				
XYLENE(TOTAL)				

* = LAB CONTAMINATION

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 21A

	CONCENTRATIONS (micrograms/L)			
COMPOUND	WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624	NA	NA	NA	
CHLOROMETHANE				<1000
BROMOMETHANE				<1000
VINYL CHLORIDE				<1000
CHLOROETHANE				<1000
METHYLENE CHLORIDE				<2500
ACETONE				<2500
CARBON DISULFIDE				<100
1,1-DICHLOROETHENE				<100
1,1-DICHLOROETHANE				<100
1,2-DICHLOROETHENE(TOTAL)				<100
CHLOROFORM				<100
1,2-DICHLOROETHANE				<100
2-BUTANONE				<1000
1,1,1-TRICHLOROETHANE				<100
CARBON TETRACHLORIDE				<100
VINYL ACETATE				<1000
BROMODICHLOROMETHANE				<100
1,2-DICHLOROPROPANE				<100
CIS-1,3-DICHLOROPROPENE				<100
TRICHLOROETHENE				<100
DIBROMOCHLOROMETHANE				<100
1,1,2-TRICHLOROETHANE				<100
BENZENE				1,700
TRANS-1,3-DICHLOROPROPENE				<100
BROMOFORM				<100
4-METHYL-2-PENTANONE				<1000
2-HEXANONE				<1000
1,1,2,2-TETRACHLOROETHANE				<100
TETRACHLOROETHENE				<100
TOLUENE				12,000
CHLOROBENZENE				<100
ETHYLBENZENE				13,000
STYRENE				<100
XYLENE(TOTAL)				17,000
METHOD 602	NA			NA
BENZENE		2,300	2,100	
TOLUENE		12,000	13,000	
ETHYLBENZENE		14,000	13,000	
P-XYLENE		4,400	4,000	
CHLOROBENZENE		<500	<10	
M-XYLENE		13,000	11,000	
O-XYLENE		5,400	4,900	
STYRENE		<500	<10	
N-PROPYLBENZENE		<500	<10	
P-CHLOROTOLUENE		<500	<10	
1,2,4-TRIMETHYLBENZENE		<500	79	
1,4-DICHLOROBENZENE		<500	<10	
1,3-DICHLOROBENZENE		<500	<10	
1,2-DICHLOROBENZENE		<500	<10	
1,2,4-TRICHLOROBENZENE		<500	<10	
XYLENE(TOTAL)		NA	NA	

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 22

	CONCENTRATIONS (micrograms/L)			
COMPOUND	WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624	ANNUAL	ANNUAL	ANNUAL	
CHLOROMETHANE				<10
BROMOMETHANE				<10
VINYL CHLORIDE				<10
CHLOROETHANE				<10
METHYLENE CHLORIDE				<25
ACETONE				<25
CARBON DISULFIDE				<1.
1,1-DICHLOROETHENE				<1.
1,1-DICHLOROETHANE				<1.
1,2-DICHLOROETHENE(TOTAL)				<1.
CHLOROFORM				<1.
1,2-DICHLOROETHANE				9.3
2-BUTANONE				<10
1,1,1-TRICHLOROETHANE				<1.
CARBON TETRACHLORIDE				<1.
VINYL ACETATE				<10
BROMODICHLOROMETHANE				<1.
1,2-DICHLOROPROPANE				<1.
CIS-1,3-DICHLOROPROPENE				<1.
TRICHLOROETHENE				<1.
DIBROMOCHLOROMETHANE				<1.
1,1,2-TRICHLOROETHANE				<1.
BENZENE				<1.
TRANS-1,3-DICHLOROPROPENE				<1.
BROMOFORM				<1.
4-METHYL-2-PENTANONE				<10
2-HEXANONE				<10
1,1,2,2-TETRACHLOROETHANE				<1.
TETRACHLOROETHENE				<1.
TOLUENE				<1.
CHLOROBENZENE				<1.
ETHYLBENZENE				<1.
STYRENE				<1.
XYLENE(TOTAL)				<1.
METHOD 602	NA	NA	NA	NA
BENZENE				
TOLUENE				
ETHYLBENZENE				
P-XYLENE				
CHLOROBENZENE				
M-XYLENE				
O-XYLENE				
STYRENE				
N-PROPYLBENZENE				
P-CHLOROTOLUENE				
1,2,4-TRIMETHYLBENZENE				
1,4-DICHLOROBENZENE				
1,3-DICHLOROBENZENE				
1,2-DICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE				
XYLENE(TOTAL)				

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 23

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624	NA			
CHLOROMETHANE		<100	<10	<10
BROMOMETHANE		<100	<10	<10
VINYL CHLORIDE		<100	<10	<10
CHLOROETHANE		<100	<10	<10
METHYLENE CHLORIDE		* 48,000	<25	<25
ACETONE		<250	<25	<25
CARBON DISULFIDE		<50	<5.	<5.
1,1-DICHLOROETHENE		<50	<5.	<5.
1,1-DICHLOROETHANE		<50	<5.	<5.
1,2-DICHLOROETHENE(TOTAL)		<50	<5.	<5.
CHLOROFORM		<50	<5.	<5.
1,2-DICHLOROETHANE		<50	<5.	<5.
2-BUTANONE		<100	<10	17
1,1,1-TRICHLOROETHANE		<50	<5.	<5.
CARBON TETRACHLORIDE		<50	<5.	<5.
VINYL ACETATE		<100	<10	<10
BROMODICHLOROMETHANE		<50	<5.	<5.
1,2-DICHLOROPROPANE		<50	<5.	<5.
CIS-1,3-DICHLOROPROPENE		<50	<5.	<5.
TRICHLOROETHENE		<50	<5.	<5.
DIBROMOCHLOROMETHANE		<50	<5.	<5.
1,1,2-TRICHLOROETHANE		<50	<5.	<5.
BENZENE		<50	<5.	<5.
TRANS-1,3-DICHLOROPROPENE		<50	<5.	<5.
BROMOFORM		<50	<5.	<5.
4-METHYL-2-PENTANONE		<100	<10	<10
2-HEXANONE		<100	<10	<10
1,1,2,2-TETRACHLOROETHANE		<50	<5.	<5.
TETRACHLOROETHENE		<50	<5.	<5.
TOLUENE		<50	<5.	<5.
CHLOROBENZENE		<50	<5.	<5.
ETHYLBENZENE		<50	<5.	<5.
STYRENE		<50	<5.	<5.
XYLENE(TOTAL)		<50	<5.	<5.
METHOD 602	NA	NA	NA	NA
BENZENE				
TOLUENE				
ETHYLBENZENE				
P-XYLENE				
CHLOROBENZENE				
M-XYLENE				
O-XYLENE				
STYRENE				
N-PROPYLBENZENE				
P-CHLOROTOLUENE				
1,2,4-TRIMETHYLBENZENE				
1,4-DICHLOROBENZENE				
1,3-DICHLOROBENZENE				
1,2-DICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE				
XYLENE(TOTAL)				

* - LAB CONTAMINATION

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 24A

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624		NA	NA	
CHLOROMETHANE	<10			<10
BROMOMETHANE	<10			<10
VINYL CHLORIDE	14			12
CHLOROETHANE	<10			<10
METHYLENE CHLORIDE	<25			<25
ACETONE	<25			<25
CARBON DISULFIDE	<1.			<5.
1,1-DICHLOROETHENE	<1.			<5.
1,1-DICHLOROETHANE	<1.			<5.
1,2-DICHLOROETHENE(TOTAL)	170			13
CHLOROFORM	<1.			<5.
1,2-DICHLOROETHANE	<1.			<5.
2-BUTANONE	<10			<10
1,1,1-TRICHLOROETHANE	<1.			<5.
CARBON TETRACHLORIDE	<1.			<5.
VINYL ACETATE	<10			<10
BROMODICHLOROMETHANE	<1.			<5.
1,2-DICHLOROPROPANE	<1.			<5.
CIS-1,3-DICHLOROPROPENE	<1.			<5.
TRICHLOROETHENE	4.5			<5.
DIBROMOCHLOROMETHANE	<1.			<5.
1,1,2-TRICHLOROETHANE	<1.			<5.
BENZENE	<1.			<5.
TRANS-1,3-DICHLOROPROPENE	<1.			<5.
BROMOFORM	<1.			<5.
4-METHYL-2-PENTANONE	<10			<10
2-HEXANONE	<10			<10
1,1,2,2-TETRACHLOROETHANE	<1.			<5.
TETRACHLOROETHENE	<1.			<5.
TOLUENE	<1.			<5.
CHLOROBENZENE	<1.			<5.
ETHYLBENZENE	<1.			<5.
STYRENE	<1.			<5.
XYLENE(TOTAL)	1.7			<5.
METHOD 602	NA			NA
BENZENE		50	11	
TOLUENE		1.1	1.1	
ETHYLBENZENE		<1.	<1.	
P-XYLENE		<1.	<1.	
CHLOROBENZENE		<1.	<1.	
M-XYLENE		1.9	<1.	
O-XYLENE		<1.	<1.	
STYRENE		<1.	<1.	
N-PROPYLBENZENE		<1.	<1.	
P-CHLOROTOLUENE		<1.	<1.	
1,2,4-TRIMETHYLBENZENE		<1.	<1.	
1,4-DICHLOROBENZENE		<1.	<1.	
1,3-DICHLOROBENZENE		<1.	<1.	
1,2-DICHLOROBENZENE		<1.	<1.	
1,2,4-TRICHLOROBENZENE		<1.	<1.	
XYLENE(TOTAL)		NA	NA	

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 25

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624	ANNUAL	ANNUAL	ANNUAL	
CHLOROMETHANE				<10
BROMOMETHANE				<10
VINYL CHLORIDE				<10
CHLOROETHANE				<10
METHYLENE CHLORIDE				<25
ACETONE				<25
CARBON DISULFIDE				<1.
1,1-DICHLOROETHENE				<1.
1,1-DICHLOROETHANE				<1.
1,2-DICHLOROETHENE(TOTAL)				<1.
CHLOROFORM				<1.
1,2-DICHLOROETHANE				<1.
2-BUTANONE				<10
1,1,1-TRICHLOROETHANE				<1.
CARBON TETRACHLORIDE				<1.
VINYL ACETATE				<10
BROMODICHLOROMETHANE				<1.
1,2-DICHLOROPROPANE				<1.
CIS-1,3-DICHLOROPROPENE				<1.
TRICHLOROETHENE				<1.
DIBROMOCHLOROMETHANE				<1.
1,1,2-TRICHLOROETHANE				<1.
BENZENE				<1.
TRANS-1,3-DICHLOROPROPENE				<1.
BROMOFORM				<1.
4-METHYL-2-PENTANONE				<10
2-HEXANONE				<10
1,1,2,2-TETRACHLOROETHANE				<1.
TETRACHLOROETHENE				<1.
TOLUENE				<1.
CHLOROBENZENE				<1.
ETHYLBENZENE				<1.
STYRENE				<1.
XYLENE(TOTAL)				<1.
METHOD 602	NA	NA	NA	NA
BENZENE				
TOLUENE				
ETHYLBENZENE				
P-XYLENE				
CHLOROBENZENE				
M-XYLENE				
O-XYLENE				
STYRENE				
N-PROPYLBENZENE				
P-CHLOROTOLUENE				
1,2,4-TRIMETHYLBENZENE				
1,4-DICHLOROBENZENE				
1,3-DICHLOROBENZENE				
1,2-DICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE				
XYLENE(TOTAL)				

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 28

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624		NA	NA	
CHLOROMETHANE	<10			<10
BROMOMETHANE	<10			<10
VINYL CHLORIDE	<10			<10
CHLOROETHANE	<10			<10
METHYLENE CHLORIDE	<25			<25
ACETONE	<25			<25
CARBON DISULFIDE	2.1			<1.
1,1-DICHLOROETHENE	<1.			<1.
1,1-DICHLOROETHANE	<1.			<1.
1,2-DICHLOROETHENE(TOTAL)	<1.			<1.
CHLOROFORM	<1.			<1.
1,2-DICHLOROETHANE	<1.			<1.
2-BUTANONE	<10			<10
1,1,1-TRICHLOROETHANE	<1.			<1.
CARBON TETRACHLORIDE	<1.			<1.
VINYL ACETATE	<10			<10
BROMODICHLOROMETHANE	<1.			<1.
1,2-DICHLOROPROPANE	<1.			<1.
CIS-1,3-DICHLOROPROPENE	<1.			<1.
TRICHLOROETHENE	<1.			<1.
DIBROMOCHLOROMETHANE	<1.			<1.
1,1,2-TRICHLOROETHANE	<1.			<1.
BENZENE	13			9.9
TRANS-1,3-DICHLOROPROPENE	<1.			<1.
BROMOFORM	<1.			<1.
4-METHYL-2-PENTANONE	<10			<10
2-HEXANONE	<10			<10
1,1,2,2-TETRACHLOROETHANE	<1.			<1.
TETRACHLOROETHENE	<1.			<1.
TOLUENE	5.5			3.2
CHLOROBENZENE	<1.			<1.
ETHYLBENZENE	2.1			2.5
STYRENE	<1.			<1.
XYLENE(TOTAL)	8.6			12
METHOD 602	NA			NA
BENZENE		16	25	
TOLUENE		12	20	
ETHYLBENZENE		<1.	8.5	
P-XYLENE		<1.	8.4	
CHLOROBENZENE		<1.	<1.	
M-XYLENE		<1.	12	
O-XYLENE		<1.	11	
STYRENE		<1.	<1.	
N-PROPYLBENZENE		<1.	<1.	
P-CHLOROTOLUENE		<1.	<1.	
1,2,4-TRIMETHYLBENZENE		<1.	<1.	
1,4-DICHLOROBENZENE		<1.	<1.	
1,3-DICHLOROBENZENE		<1.	<1.	
1,2-DICHLOROBENZENE		<1.	<1.	
1,2,4-TRICHLOROBENZENE		<1.	<1.	
XYLENE(TOTAL)		NA	NA	

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 29

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624				
CHLOROMETHANE	<500	<5,000	<500	<1,000
BROMOMETHANE	<500	<5,000	<500	<1,000
VINYL CHLORIDE	<500	<5,000	<500	<1,000
CHLOROETHANE	<500	<5,000	<500	<1,000
METHYLENE CHLORIDE	<1,200	* 17,000	<1,200	<2,500
ACETONE	<1,200	<12,000	<1,200	<2,500
CARBON DISULFIDE	<50	<2,500	<250	<500
1,1-DICHLOROETHENE	<50	<2,500	<250	<500
1,1-DICHLOROETHANE	<50	<2,500	<250	<500
1,2-DICHLOROETHENE(TOTAL)	<50	<2,500	<250	<500
CHLOROFORM	<50	<2,500	<250	<500
1,2-DICHLOROETHANE	<50	<2,500	<250	<500
2-BUTANONE	<500	<5,000	<500	<1,000
1,1,1-TRICHLOROETHANE	<50	<2,500	<250	<500
CARBON TETRACHLORIDE	<50	<2,500	<250	<500
VINYL ACETATE	<500	<5,000	<500	<1,000
BROMODICHLOROMETHANE	<50	<2,500	<250	<500
1,2-DICHLOROPROPANE	<50	<2,500	<250	<500
CIS-1,3-DICHLOROPROPENE	<50	<2,500	<250	<500
TRICHLOROETHENE	<50	<2,500	<250	<500
DIBROMOCHLOROMETHANE	<50	<2,500	<250	<500
1,1,2-TRICHLOROETHANE	<50	<2,500	<250	900
BENZENE	1,600	<2,500	1,100	<500
TRANS-1,3-DICHLOROPROPENE	<50	<2,500	<250	<500
BROMOFORM	<50	<2,500	<250	<500
4-METHYL-2-PENTANONE	<500	<5,000	<500	<1,000
2-HEXANONE	<500	<5,000	<500	<1,000
1,1,2,2-TETRACHLOROETHANE	<50	<2,500	<250	<500
TETRACHLOROETHENE	<50	<2,500	<250	<500
TOLUENE	2,900	<2,500	630	<500
CHLOROBENZENE	<50	<2,500	<250	<500
ETHYLBENZENE	7,700	2,800	3,000	1,900
STYRENE	<50	<2,500	<250	<500
XYLENE(TOTAL)	17,000	6,000	7,200	4,300
METHOD 602	NA	NA	NA	NA
BENZENE				
TOLUENE				
ETHYLBENZENE				
P-XYLENE				
CHLOROBENZENE				
M-XYLENE				
O-XYLENE				
STYRENE				
N-PROPYLBENZENE				
P-CHLOROTOLUENE				
1,2,4-TRIMETHYLBENZENE				
1,4-DICHLOROBENZENE				
1,3-DICHLOROBENZENE				
1,2-DICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE				
XYLENE(TOTAL)				

* = LAB CONTAMINATION

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 38

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624	NA	NA	NA	NA
CHLOROMETHANE	<1,000			
BROMOMETHANE	<1,000			
VINYL CHLORIDE	<1,000			
CHLOROETHANE	<1,000			
METHYLENE CHLORIDE	<2,500			
ACETONE	<2,500			
CARBON DISULFIDE	<100			
1,1-DICHLOROETHENE	<100			
1,1-DICHLOROETHANE	<100			
1,2-DICHLOROETHENE(TOTAL)	<100			
CHLOROFORM	<100			
1,2-DICHLOROETHANE	<100			
2-BUTANONE	<1,000			
1,1,1-TRICHLOROETHANE	<100			
CARBON TETRACHLORIDE	<100			
VINYL ACETATE	<1,000			
BROMODICHLOROMETHANE	<100			
1,2-DICHLOROPROPANE	<100			
CIS-1,3-DICHLOROPROPENE	<100			
TRICHLOROETHENE	<100			
DIBROMOCHLOROMETHANE	<100			
1,1,2-TRICHLOROETHANE	<100			
BENZENE	3,700			
TRANS-1,3-DICHLOROPROPENE	<100			
BROMOFORM	<100			
4-METHYL-2-PENTANONE	<1,000			
2-HEXANONE	<1,000			
1,1,2,2-TETRACHLOROETHANE	<100			
TETRACHLOROETHENE	<100			
TOLUENE	<100			
CHLOROBENZENE	<100			
ETHYLBENZENE	2,400			
STYRENE	<100			
XYLENE(TOTAL)	3,700			
METHOD 602	NA			
BENZENE		2,400	2,000	1,700
TOLUENE		150	<50	<50
ETHYLBENZENE		4,200	2,900	2,700
P-XYLENE		1,600	1,200	NA
CHLOROBENZENE		<50	<50	<50
M-XYLENE		5,000	3,500	NA
O-XYLENE		240	60	NA
STYRENE		<50	<50	NA
N-PROPYLBENZENE		<50	<50	NA
P-CHLOROTOLUENE		<50	<50	NA
1,2,4-TRIMETHYLBENZENE		<50	<50	NA
1,4-DICHLOROBENZENE		<50	<50	<50
1,3-DICHLOROBENZENE		<50	<50	<50
1,2-DICHLOROBENZENE		<50	<50	<50
1,2,4-TRICHLOROBENZENE		<50	<50	NA
XYLENE(TOTAL)		NA	NA	4,400

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 39

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624	ANNUAL	ANNUAL	ANNUAL	
CHLOROMETHANE				<10
BROMOMETHANE				<10
VINYL CHLORIDE				<10
CHLOROETHANE				<10
METHYLENE CHLORIDE				<25
ACETONE				<25
CARBON DISULFIDE				<1.
1,1-DICHLOROETHENE				<1.
1,1-DICHLOROETHANE				<1.
1,2-DICHLOROETHENE(TOTAL)				<1.
CHLOROFORM				<1.
1,2-DICHLOROETHANE				<1.
2-BUTANONE				<10
1,1,1-TRICHLOROETHANE				<1.
CARBON TETRACHLORIDE				<1.
VINYL ACETATE				<10
BROMODICHLOROMETHANE				<1.
1,2-DICHLOROPROPANE				<1.
CIS-1,3-DICHLOROPROPENE				<1.
TRICHLOROETHENE				<1.
DIBROMOCHLOROMETHANE				<1.
1,1,2-TRICHLOROETHANE				<1.
BENZENE				<1.
TRANS-1,3-DICHLOROPROPENE				<1.
BROMOFORM				<1.
4-METHYL-2-PENTANONE				<10
2-HEXANONE				<10
1,1,2,2-TETRACHLOROETHANE				<1.
TETRACHLOROETHENE				<1.
TOLUENE				<1.
CHLOROBENZENE				<1.
ETHYLBENZENE				<1.
STYRENE				<1.
XYLENE(TOTAL)				<1.
METHOD 602	NA	NA	NA	NA
BENZENE				
TOLUENE				
ETHYLBENZENE				
P-XYLENE				
CHLOROBENZENE				
M-XYLENE				
O-XYLENE				
STYRENE				
N-PROPYLBENZENE				
P-CHLOROTOLUENE				
1,2,4-TRIMETHYLBENZENE				
1,4-DICHLOROBENZENE				
1,3-DICHLOROBENZENE				
1,2-DICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE				
XYLENE(TOTAL)				

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 40

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624				
CHLOROMETHANE	<10	<10	<10	<10
BROMOMETHANE	<10	<10	<10	<10
VINYL CHLORIDE	<10	<10	<10	<10
CHLOROETHANE	<10	<10	<10	<10
METHYLENE CHLORIDE	<25	* 13,000	<25	<25
ACETONE	<25	<25	<25	<25
CARBON DISULFIDE	<1.	<5.	<5.	<1.
1,1-DICHLOROETHENE	<1.	<5.	<5.	<1.
1,1-DICHLOROETHANE	<1.	<5.	<5.	<1.
1,2-DICHLOROETHENE(TOTAL)	<1.	<5.	<5.	<1.
CHLOROFORM	<1.	<5.	<5.	<1.
1,2-DICHLOROETHANE	<1.	<5.	<5.	<1.
2-BUTANONE	<10	<10	<10	<10
1,1,1-TRICHLOROETHANE	<1.	<5.	<5.	<1.
CARBON TETRACHLORIDE	<1.	<5.	<5.	<1.
VINYL ACETATE	<10	<10	<10	<10
BROMODICHLOROMETHANE	<1.	<5.	<5.	<1.
1,2-DICHLOROPROPANE	<1.	<5.	<5.	<1.
CIS-1,3-DICHLOROPROPENE	<1.	<5.	<5.	<1.
TRICHLOROETHENE	<1.	<5.	<5.	<1.
DIBROMOCHLOROMETHANE	<1.	<5.	<5.	<1.
1,1,2-TRICHLOROETHANE	<1.	<5.	<5.	<1.
BENZENE	<1.	<5.	<5.	<1.
TRANS-1,3-DICHLOROPROPENE	<1.	<5.	<5.	<1.
BROMOFORM	<1.	<5.	<5.	<1.
4-METHYL-2-PENTANONE	<10	<10	<10	<10
2-HEXANONE	<10	<10	<10	<10
1,1,2,2-TETRACHLOROETHANE	<1.	<5.	<5.	<1.
TETRACHLOROETHENE	<1.	<5.	<5.	<1.
TOLUENE	<1.	<5.	<5.	<1.
CHLOROBENZENE	<1.	<5.	<5.	<1.
ETHYLBENZENE	<1.	<5.	<5.	<1.
STYRENE	<1.	<5.	<5.	<1.
XYLENE(TOTAL)	<1.	<5.	<5.	<1.
METHOD 602	NA	NA	NA	NA
BENZENE				
TOLUENE				
ETHYLBENZENE				
P-XYLENE				
CHLOROBENZENE				
M-XYLENE				
O-XYLENE				
STYRENE				
N-PROPYLBENZENE				
P-CHLOROTOLUENE				
1,2,4-TRIMETHYLBENZENE				
1,4-DICHLOROBENZENE				
1,3-DICHLOROBENZENE				
1,2-DICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE				
XYLENE(TOTAL)				

* = LAB CONTAMINATION

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - MW-1

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624				PUMP OUT
CHLOROMETHANE	<10	<10	<10	
BROMOMETHANE	<10	<10	<10	
VINYL CHLORIDE	<10	<10	<10	
CHLOROETHANE	<10	<10	<10	
METHYLENE CHLORIDE	<25	* 1,800	<25	
ACETONE	<25	<25	<25	
CARBON DISULFIDE	<1.	<5.	<5.	
1,1-DICHLOROETHENE	<1.	<5.	<5.	
1,1-DICHLOROETHANE	<1.	<5.	<5.	
1,2-DICHLOROETHENE(TOTAL)	<1.	<5.	<5.	
CHLOROFORM	<1.	<5.	<5.	
1,2-DICHLOROETHANE	<1.	<5.	<5.	
2-BUTANONE	<10	<10	<10	
1,1,1-TRICHLOROETHANE	<1.	<5.	<5.	
CARBON TETRACHLORIDE	<1.	<5.	<5.	
VINYL ACETATE	<10	<10	<10	
BROMODICHLOROMETHANE	<1.	<5.	<5.	
1,2-DICHLOROPROPANE	<1.	<5.	<5.	
CIS-1,3-DICHLOROPROPENE	<1.	<5.	<5.	
TRICHLOROETHENE	<1.	<5.	<5.	
DIBROMOCHLOROMETHANE	<1.	<5.	<5.	
1,1,2-TRICHLOROETHANE	<1.	<5.	<5.	
BENZENE	<1.	<5.	<5.	
TRANS-1,3-DICHLOROPROPENE	<1.	<5.	<5.	
BROMOFORM	<1.	<5.	<5.	
4-METHYL-2-PENTANONE	<10	<10	<10	
2-HEXANONE	<10	<10	<10	
1,1,2,2-TETRACHLOROETHANE	<1.	<5.	<5.	
TETRACHLOROETHENE	<1.	<5.	<5.	
TOLUENE	<1.	<5.	<5.	
CHLOROBENZENE	<1.	<5.	<5.	
ETHYLBENZENE	<1.	<5.	<5.	
STYRENE	<1.	<5.	<5.	
XYLENE(TOTAL)	<1.	<5.	<5.	
METHOD 602	NA	NA	NA	NA
BENZENE				
TOLUENE				
ETHYLBENZENE				
P-XYLENE				
CHLOROBENZENE				
M-XYLENE				
O-XYLENE				
STYRENE				
N-PROPYLBENZENE				
P-CHLOROTOLUENE				
1,2,4-TRIMETHYLBENZENE				
1,4-DICHLOROBENZENE				
1,3-DICHLOROBENZENE				
1,2-DICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE				
XYLENE(TOTAL)				

* = LAB CONTAMINATION

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - MW-2

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624				
CHLOROMETHANE	<10	<10	<10	<10
BROMOMETHANE	<10	<10	<10	<10
VINYL CHLORIDE	<10	<10	<10	<10
CHLOROETHANE	<10	<10	<10	<10
METHYLENE CHLORIDE	<25	* 12,000	<25	<25
ACETONE	<25	<25	<25	<25
CARBON DISULFIDE	<1.	<5.	<5.	<1.
1,1-DICHLOROETHENE	<1.	<5.	<5.	<1.
1,1-DICHLOROETHANE	<1.	<5.	<5.	<1.
1,2-DICHLOROETHENE(TOTAL)	<1.	<5.	<5.	<1.
CHLOROFORM	<1.	<5.	<5.	<1.
1,2-DICHLOROETHANE	<1.	<5.	<5.	<1.
2-BUTANONE	<10	<10	<10	<10
1,1,1-TRICHLOROETHANE	<1.	<5.	<5.	<1.
CARBON TETRACHLORIDE	<1.	<5.	<5.	<1.
VINYL ACETATE	<10	<10	<10	<10
BROMODICHLOROMETHANE	<1.	<5.	<5.	<1.
1,2-DICHLOROPROPANE	<1.	<5.	<5.	<1.
CIS-1,3-DICHLOROPROPENE	<1.	<5.	<5.	<1.
TRICHLOROETHENE	<1.	<5.	<5.	<1.
DIBROMOCHLOROMETHANE	<1.	<5.	<5.	<1.
1,1,2-TRICHLOROETHANE	<1.	<5.	<5.	<1.
BENZENE	<1.	<5.	<5.	<1.
TRANS-1,3-DICHLOROPROPENE	<1.	<5.	<5.	<1.
BROMOFORM	<1.	<5.	<5.	<1.
4-METHYL-2-PENTANONE	<10	<10	<10	<10
2-HEXANONE	<10	<10	<10	<10
1,1,2,2-TETRACHLOROETHANE	<1.	<5.	<5.	<1.
TETRACHLOROETHENE	<1.	<5.	<5.	<1.
TOLUENE	<1.	<5.	<5.	<1.
CHLOROBENZENE	<1.	<5.	<5.	<1.
ETHYLBENZENE	<1.	<5.	<5.	<1.
STYRENE	<1.	<5.	<5.	<1.
XYLENE(TOTAL)	<1.	<5.	<5.	<1.
METHOD 602	NA	NA	NA	NA
BENZENE				
TOLUENE				
ETHYLBENZENE				
P-XYLENE				
CHLOROBENZENE				
M-XYLENE				
O-XYLENE				
STYRENE				
N-PROPYLBENZENE				
P-CHLOROTOLUENE				
1,2,4-TRIMETHYLBENZENE				
1,4-DICHLOROBENZENE				
1,3-DICHLOROBENZENE				
1,2-DICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE				
XYLENE(TOTAL)				

* - LAB CONTAMINATION

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - MW-3

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624				
CHLOROMETHANE	<10	<10	<10	<10
BROMOMETHANE	<10	<10	<10	<10
VINYL CHLORIDE	<10	<10	<10	<10
CHLOROETHANE	<10	<10	<10	<10
METHYLENE CHLORIDE	<25	* 17,000	<25	<25
ACETONE	<25	<25	<25	<25
CARBON DISULFIDE	<1.	<5.	<5.	<1.
1,1-DICHLOROETHENE	<1.	<5.	<5.	<1.
1,1-DICHLOROETHANE	<1.	<5.	<5.	<1.
1,2-DICHLOROETHENE(TOTAL)	<1.	<5.	<5.	<1.
CHLOROFORM	<1.	<5.	<5.	<1.
1,2-DICHLOROETHANE	<1.	<5.	<5.	<1.
2-BUTANONE	<10	<10	<10	<10
1,1,1-TRICHLOROETHANE	<1.	<5.	<5.	<1.
CARBON TETRACHLORIDE	<1.	<5.	<5.	<1.
VINYL ACETATE	<10	<10	<10	<10
BROMODICHLOROMETHANE	<1.	<5.	<5.	<1.
1,2-DICHLOROPROPANE	<1.	<5.	<5.	<1.
CIS-1,3-DICHLOROPROPENE	<1.	<5.	<5.	<1.
TRICHLOROETHENE	<1.	<5.	<5.	<1.
DIBROMOCHLOROMETHANE	<1.	<5.	<5.	<1.
1,1,2-TRICHLOROETHANE	<1.	<5.	<5.	<1.
BENZENE	<1.	<5.	<5.	<1.
TRANS-1,3-DICHLOROPROPENE	<1.	<5.	<5.	<1.
BROMOFORM	<1.	<5.	<5.	<1.
4-METHYL-2-PENTANONE	<10	<10	<10	<10
2-HEXANONE	<10	<10	<10	<10
1,1,2,2-TETRACHLOROETHANE	<1.	<5.	<5.	<1.
TETRACHLOROETHENE	<1.	<5.	<5.	<1.
TOLUENE	<1.	<5.	<5.	<1.
CHLOROBENZENE	<1.	<5.	<5.	<1.
ETHYLBENZENE	<1.	<5.	<5.	<1.
STYRENE	<1.	<5.	<5.	<1.
XYLENE(TOTAL)	<1.	<5.	<5.	<1.
METHOD 602	NA	NA	NA	NA
BENZENE				
TOLUENE				
ETHYLBENZENE				
P-XYLENE				
CHLOROBENZENE				
M-XYLENE				
O-XYLENE				
STYRENE				
N-PROPYLBENZENE				
P-CHLOROTOLUENE				
1,2,4-TRIMETHYLBENZENE				
1,4-DICHLOROBENZENE				
1,3-DICHLOROBENZENE				
1,2-DICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE				
XYLENE(TOTAL)				

* - LAB CONTAMINATION

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - MW-4

	CONCENTRATIONS (micrograms/L)			
COMPOUND	WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624	ANNUAL	ANNUAL	ANNUAL	
CHLOROMETHANE				<10
BROMOMETHANE				<10
VINYL CHLORIDE				<10
CHLOROETHANE				<10
METHYLENE CHLORIDE				<25
ACETONE				<25
CARBON DISULFIDE				<1.
1,1-DICHLOROETHENE				<1.
1,1-DICHLOROETHANE				<1.
1,2-DICHLOROETHENE(TOTAL)				<1.
CHLOROFORM				<1.
1,2-DICHLOROETHANE				<1.
2-BUTANONE				<10
1,1,1-TRICHLOROETHANE				<1.
CARBON TETRACHLORIDE				<1.
VINYL ACETATE				<10
BROMODICHLOROMETHANE				<1.
1,2-DICHLOROPROPANE				<1.
CIS-1,3-DICHLOROPROPENE				<1.
TRICHLOROETHENE				<1.
DIBROMOCHLOROMETHANE				<1.
1,1,2-TRICHLOROETHANE				<1.
BENZENE				<1.
TRANS-1,3-DICHLOROPROPENE				<1.
BROMOFORM				<1.
4-METHYL-2-PENTANONE				<10
2-HEXANONE				<10
1,1,2,2-TETRACHLOROETHANE				<1.
TETRACHLOROETHENE				<1.
TOLUENE				<1.
CHLOROBENZENE				<1.
ETHYLBENZENE				<1.
STYRENE				<1.
XYLENE(TOTAL)				<1.
METHOD 602	NA	NA	NA	NA
BENZENE				
TOLUENE				
ETHYLBENZENE				
P-XYLENE				
CHLOROBENZENE				
M-XYLENE				
O-XYLENE				
STYRENE				
N-PROPYLBENZENE				
P-CHLOROTOLUENE				
1,2,4-TRIMETHYLBENZENE				
1,4-DICHLOROBENZENE				
1,3-DICHLOROBENZENE				
1,2-DICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE				
XYLENE(TOTAL)				

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - 30

COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624				
CHLOROMETHANE	<10	<100	<10	<10
BROMOMETHANE	<10	<100	<10	<10
VINYL CHLORIDE	<10	<100	<10	<10
CHLOROETHANE	<10	<100	<10	<10
METHYLENE CHLORIDE	<25	* 1,400	<25	<25
ACETONE	<25	<250	<25	<25
CARBON DISULFIDE	<1.	<50	<5.	<5.
1,1-DICHLOROETHENE	<1.	<50	<5.	<5.
1,1-DICHLOROETHANE	<1.	<50	<5.	<5.
1,2-DICHLOROETHENE(TOTAL)	<1.	<50	<5.	<5.
CHLOROFORM	<1.	<50	<5.	<5.
1,2-DICHLOROETHANE	<1.	<50	<5.	<5.
2-BUTANONE	<10	<100	<10	<10
1,1,1-TRICHLOROETHANE	<1.	<50	<5.	<5.
CARBON TETRACHLORIDE	<1.	<50	<5.	<5.
VINYL ACETATE	<10	<100	<10	<10
BROMODICHLOROMETHANE	<1.	<50	<5.	<5.
1,2-DICHLOROPROPANE	<1.	<50	<5.	<5.
CIS-1,3-DICHLOROPROPENE	<1.	<50	<5.	<5.
TRICHLOROETHENE	<1.	<50	<5.	<5.
DIBROMOCHLOROMETHANE	<1.	<50	<5.	<5.
1,1,2-TRICHLOROETHANE	<1.	<50	<5.	<5.
BENZENE	33	<50	21	17
TRANS-1,3-DICHLOROPROPENE	<1.	<50	<5.	<5.
BROMOFORM	<1.	<50	<5.	<5.
4-METHYL-2-PENTANONE	<10	<100	<10	<10
2-HEXANONE	<10	<100	<10	<10
1,1,2,2-TETRACHLOROETHANE	<1.	<50	<5.	<5.
TETRACHLOROETHENE	<1.	<50	<5.	<5.
TOLUENE	1.5	<50	<5.	<5.
CHLOROBENZENE	<1.	<50	<5.	<5.
ETHYLBENZENE	55	82	31	27
STYRENE	<1.	<50	<5.	<5.
XYLENE(TOTAL)	70	120	48	47
METHOD 602	NA	NA	NA	NA
BENZENE				
TOLUENE				
ETHYLBENZENE				
P-XYLENE				
CHLOROBENZENE				
M-XYLENE				
O-XYLENE				
STYRENE				
N-PROPYLBENZENE				
P-CHLOROTOLUENE				
1,2,4-TRIMETHYLBENZENE				
1,4-DICHLOROBENZENE				
1,3-DICHLOROBENZENE				
1,2-DICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE				
XYLENE(TOTAL)				

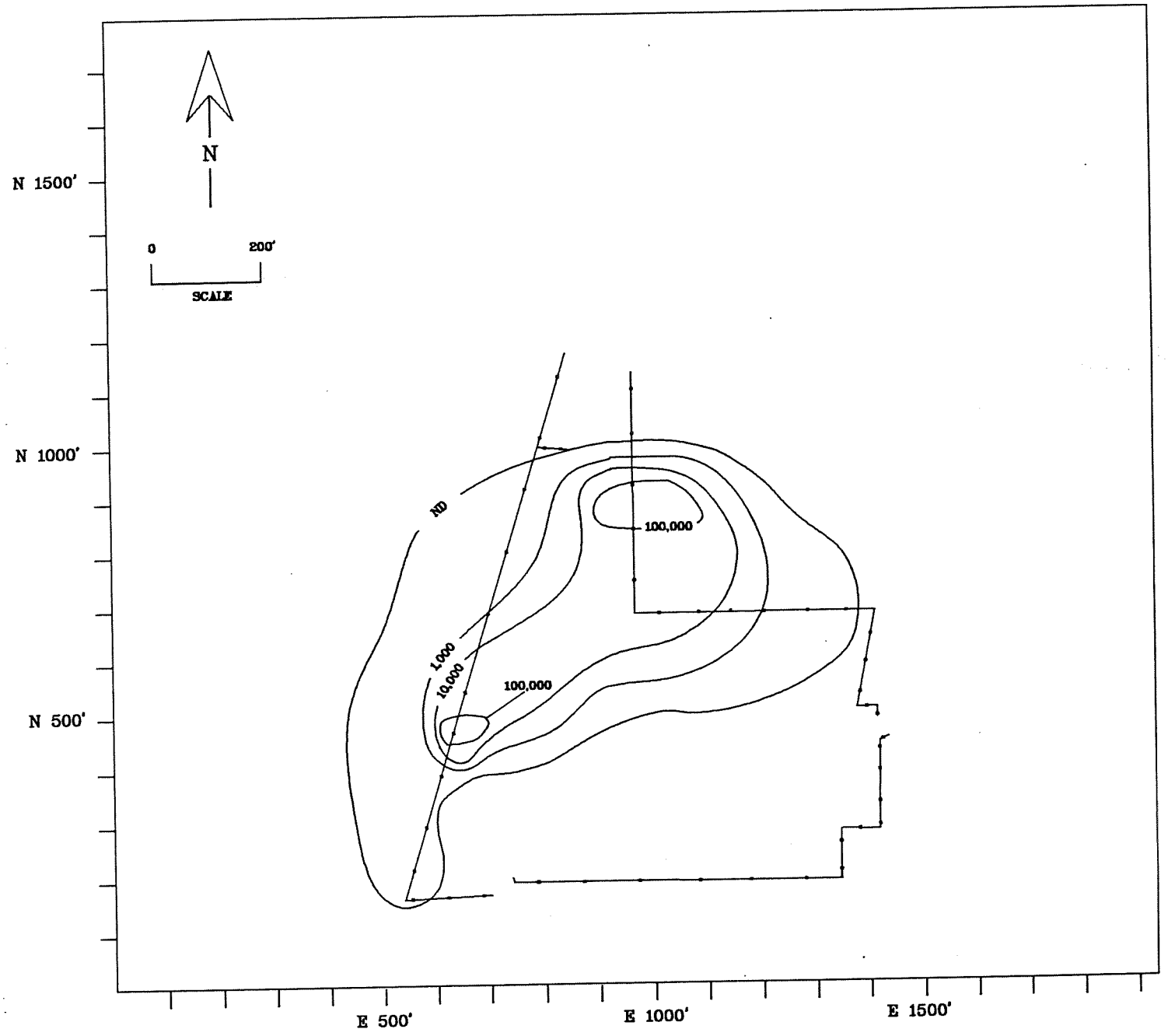
* - LAB CONTAMINATION

YEARLY SUMMARY OF QUARTERLY SAMPLING
WELL I.D. - PW-8

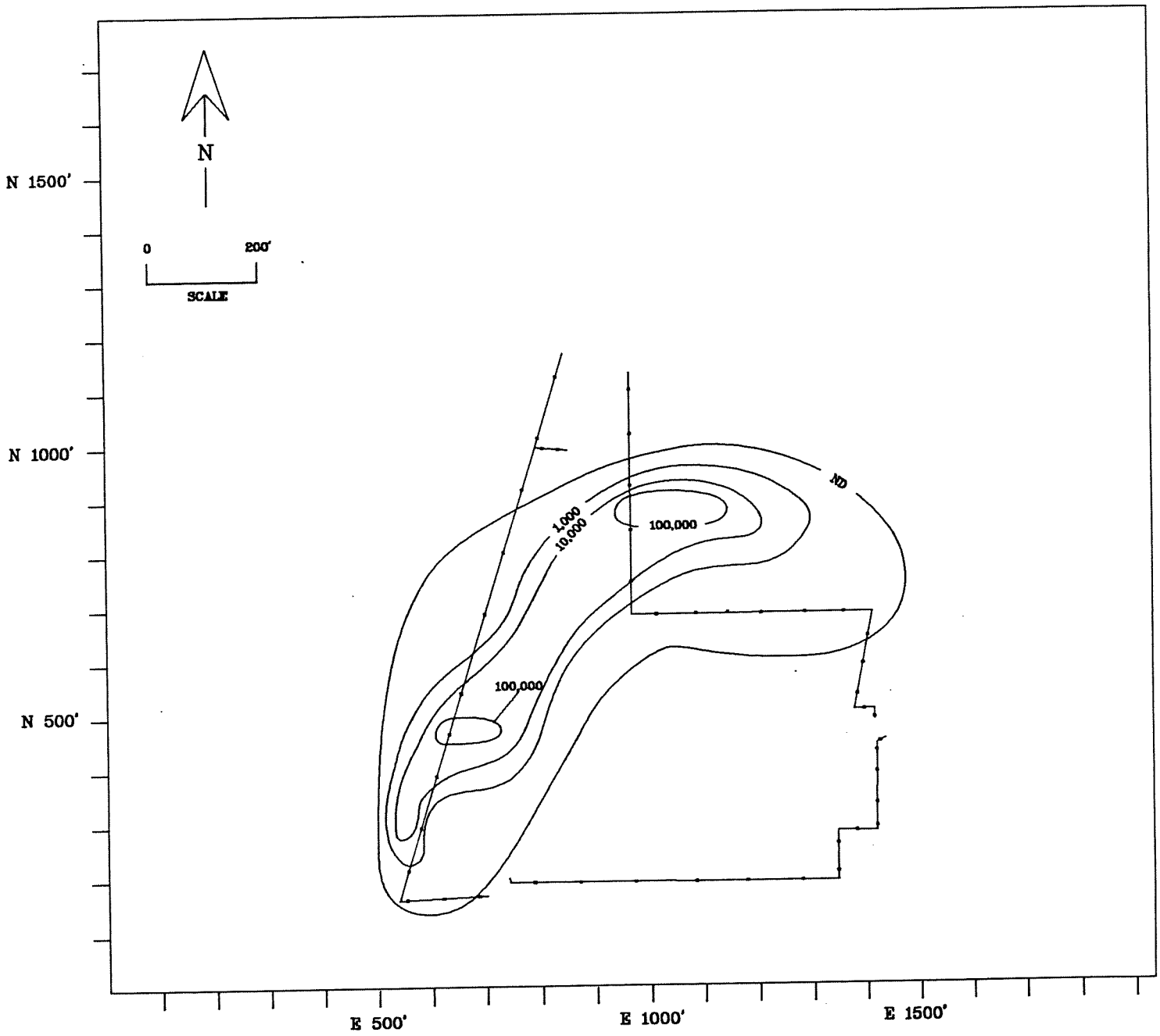
COMPOUND	CONCENTRATIONS (micrograms/L) WINTER 89	SPRING 89	SUMMER 89	FALL 89
METHOD 624				
CHLOROMETHANE	<10	<250	<10	<10
BROMOMETHANE	<10	<250	<10	<10
VINYL CHLORIDE	<10	<250	<10	<10
CHLOROETHANE	<10	<250	<10	<10
METHYLENE CHLORIDE	<25	* 6,700	<25	* 25
ACETONE	<25	<620	<25	<25
CARBON DISULFIDE	4.0	<120	17	<5.
1,1-DICHLOROETHENE	<1.	<120	<5.	<5.
1,1-DICHLOROETHANE	<1.	<120	<5.	<5.
1,2-DICHLOROETHENE(TOTAL)	<1.	<120	<5.	<5.
CHLOROFORM	<1.	<120	<5.	<5.
1,2-DICHLOROETHANE	<1.	<120	<5.	<5.
2-BUTANONE	<10	<250	12	<10
1,1,1-TRICHLOROETHANE	<1.	<120	<5.	<5.
CARBON TETRACHLORIDE	<1.	<120	<5.	<5.
VINYL ACETATE	<10	<250	<10	<10
BROMODICHLOROMETHANE	<1.	<120	<5.	<5.
1,2-DICHLOROPROPANE	<1.	<120	<5.	<5.
CIS-1,3-DICHLOROPROPENE	<1.	<120	<5.	<5.
TRICHLOROETHENE	<1.	<120	<5.	<5.
DIBROMOCHLOROMETHANE	<1.	<120	<5.	<5.
1,1,2-TRICHLOROETHANE	<1.	<120	<5.	<5.
BENZENE	1.7	<120	<5.	<5.
TRANS-1,3-DICHLOROPROPENE	<1.	<120	<5.	<5.
BROMOFORM	<1.	<120	<5.	<5.
4-METHYL-2-PENTANONE	<10	<250	<10	<10
2-HEXANONE	<10	<250	<10	<10
1,1,2,2-TETRACHLOROETHANE	<1.	<120	<5.	<5.
TETRACHLOROETHENE	<1.	<120	<5.	<5.
TOLUENE	1.0	<120	<5.	<5.
CHLOROBENZENE	<1.	<120	<5.	<5.
ETHYLBENZENE	<1.	<120	<5.	<5.
STYRENE	<1.	<120	<5.	<5.
XYLENE(TOTAL)	2.2	<120	<5.	<5.
METHOD 602	NA	NA	NA	NA
BENZENE				
TOLUENE				
ETHYLBENZENE				
P-XYLENE				
CHLOROBENZENE				
M-XYLENE				
O-XYLENE				
STYRENE				
N-PROPYLBENZENE				
P-CHLOROTOLUENE				
1,2,4-TRIMETHYLBENZENE				
1,4-DICHLOROBENZENE				
1,3-DICHLOROBENZENE				
1,2-DICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE				
XYLENE(TOTAL)				

* = LAB CONTAMINATION

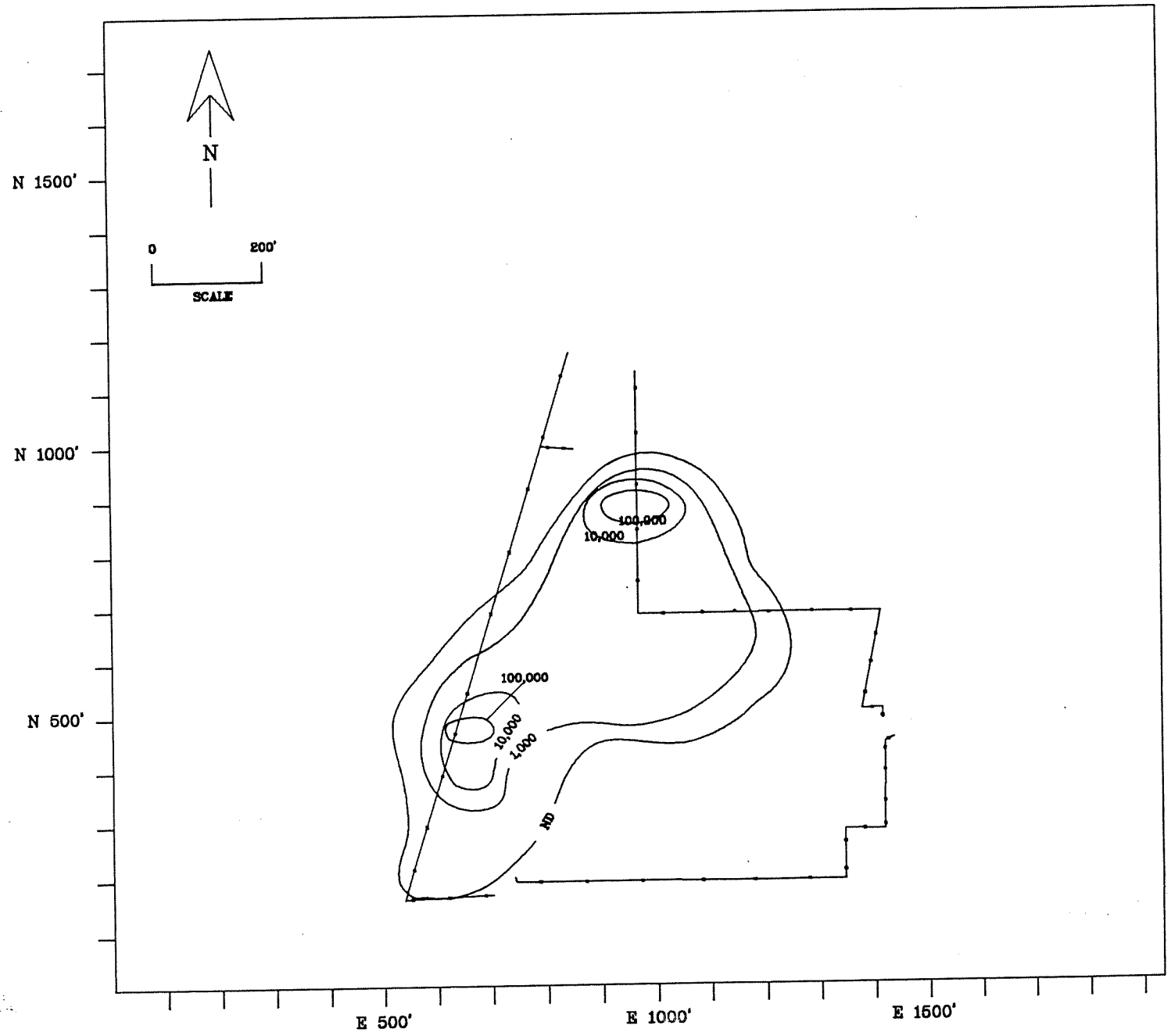
GLACIAL AQUIFER TOTAL VOC CONCENTRATION MAP (MICROGRAMS/L) – WINTER 1989



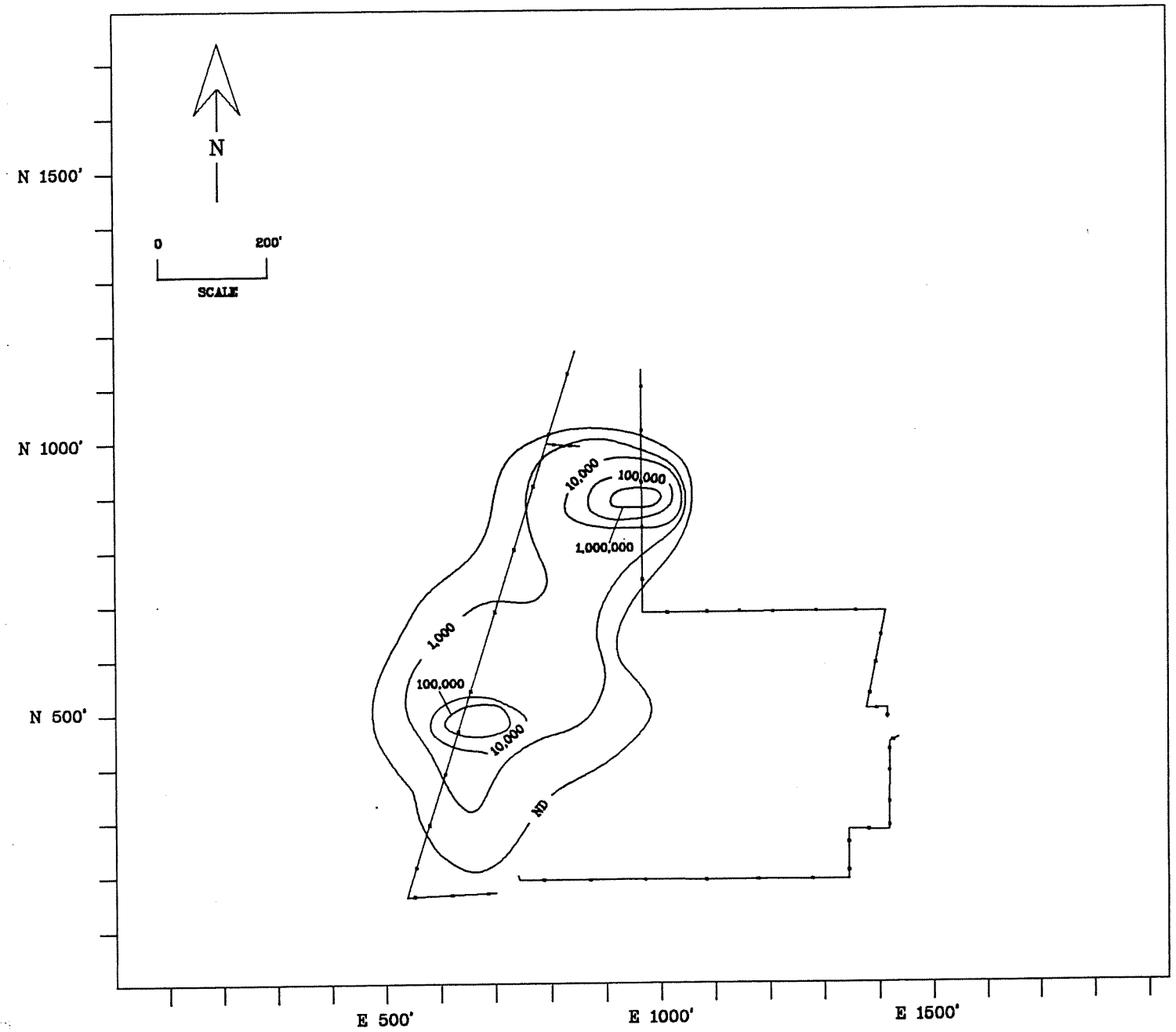
GLACIAL AQUIFER TOTAL VOC CONCENTRATION MAP (MICROGRAMS/L) – SPRING 1989



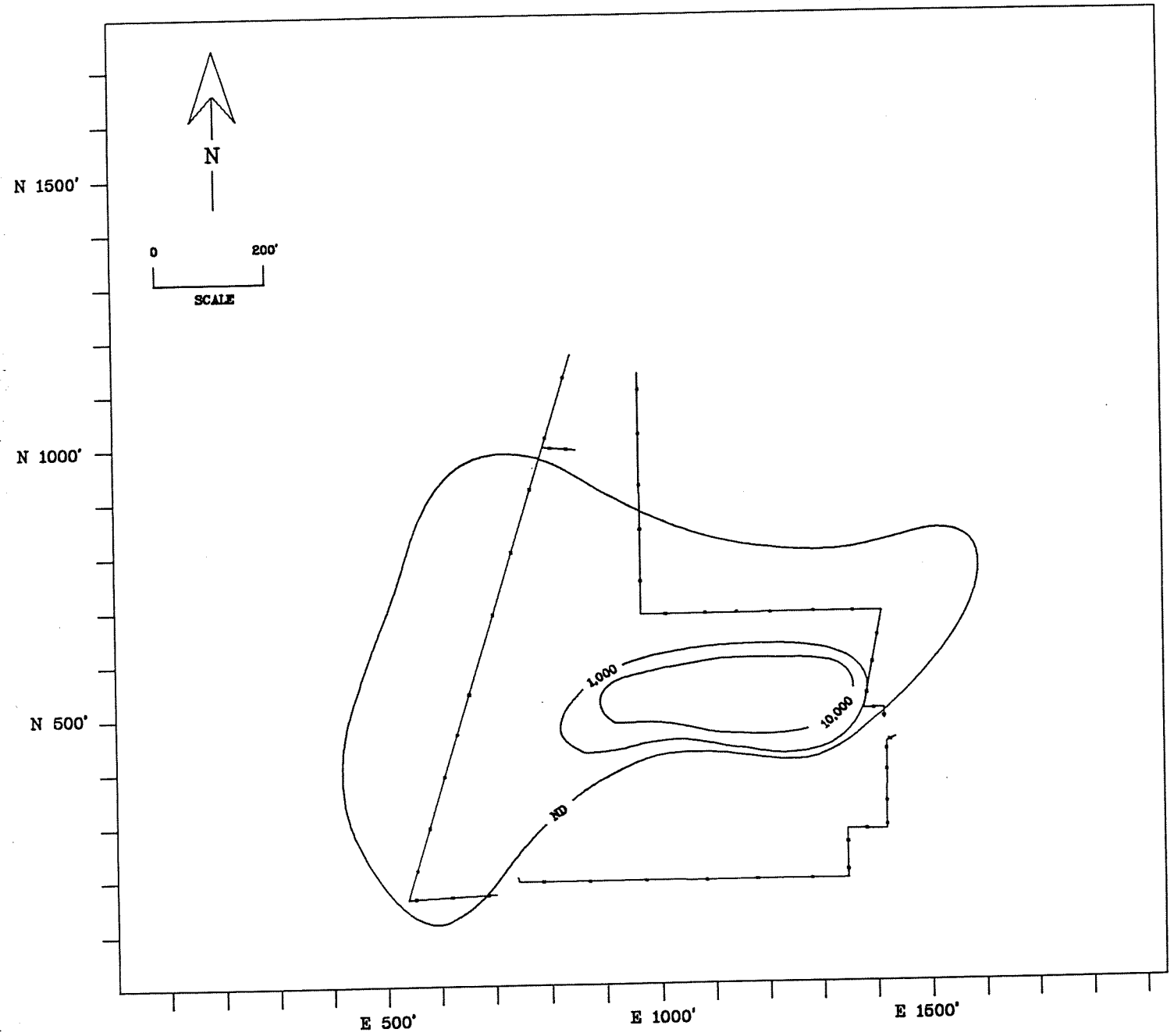
GLACIAL AQUIFER TOTAL VOC CONCENTRATION MAP (MICROGRAMS/L) – SUMMER 1989



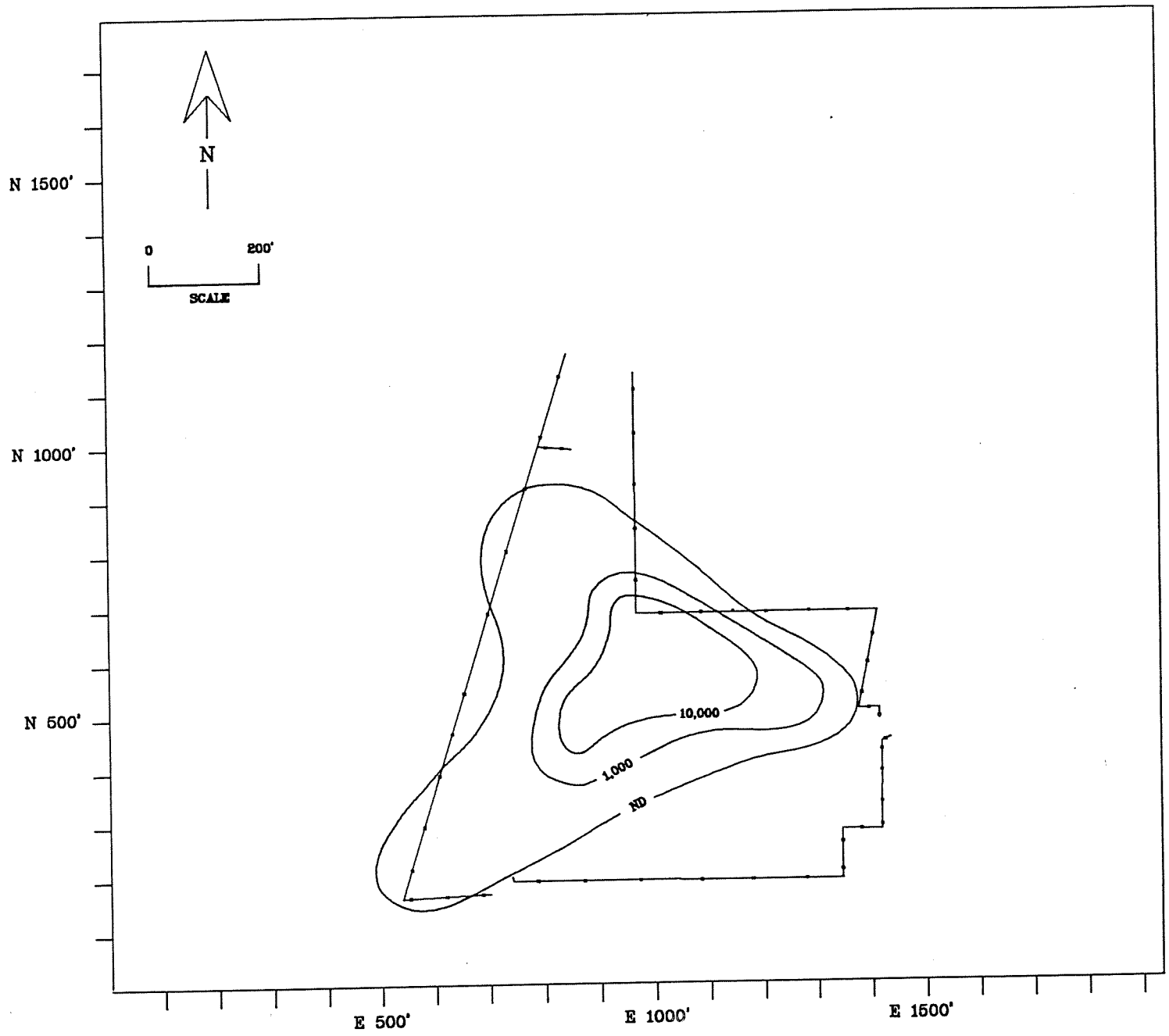
GLACIAL AQUIFER TOTAL VOC CONCENTRATION MAP (MICROGRAMS/L) – FALL 1989



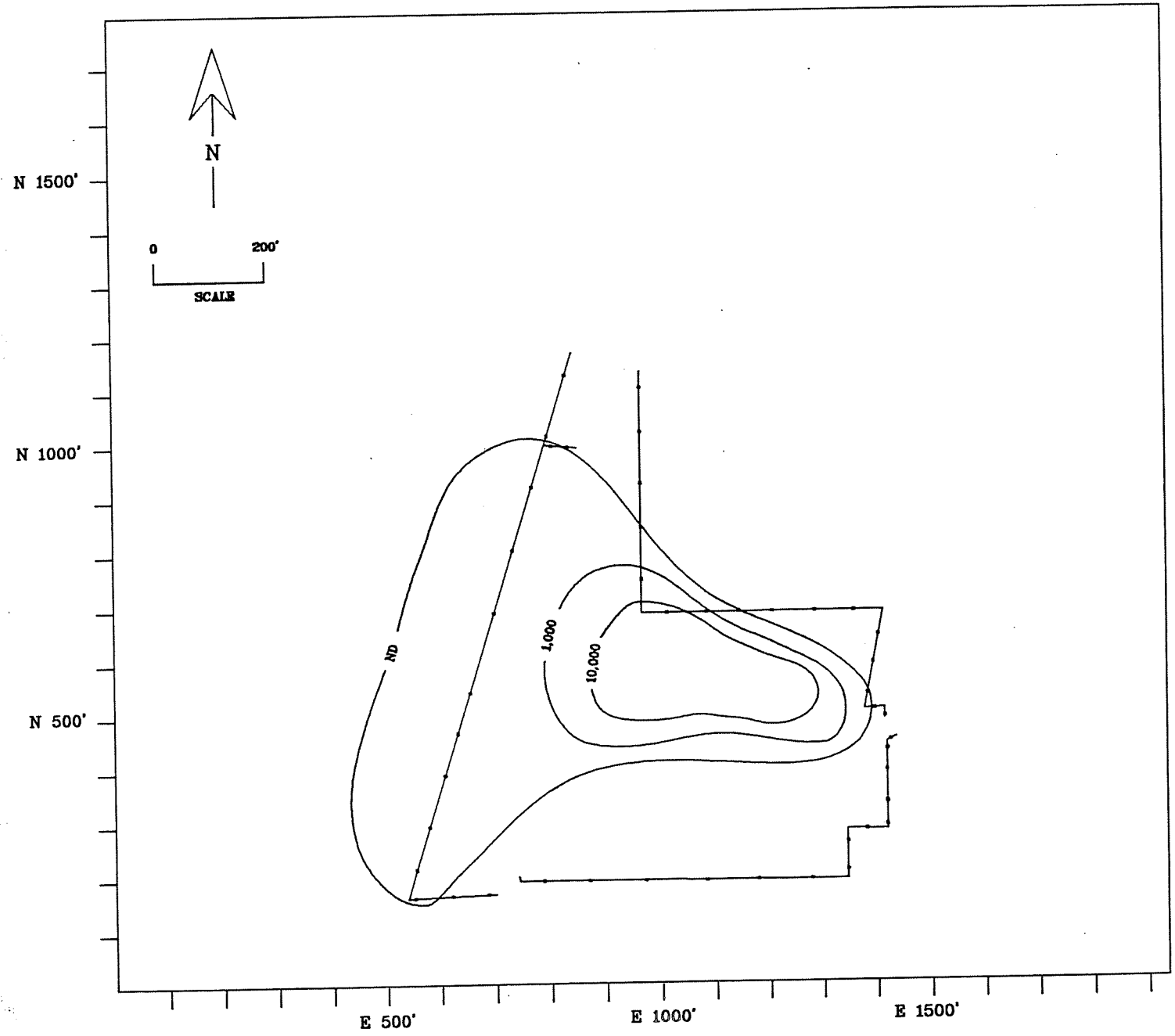
DOLOMITE AQUIFER TOTAL VOC CONCENTRATION MAP (MICROGRAMS/L) - WINTER 1989



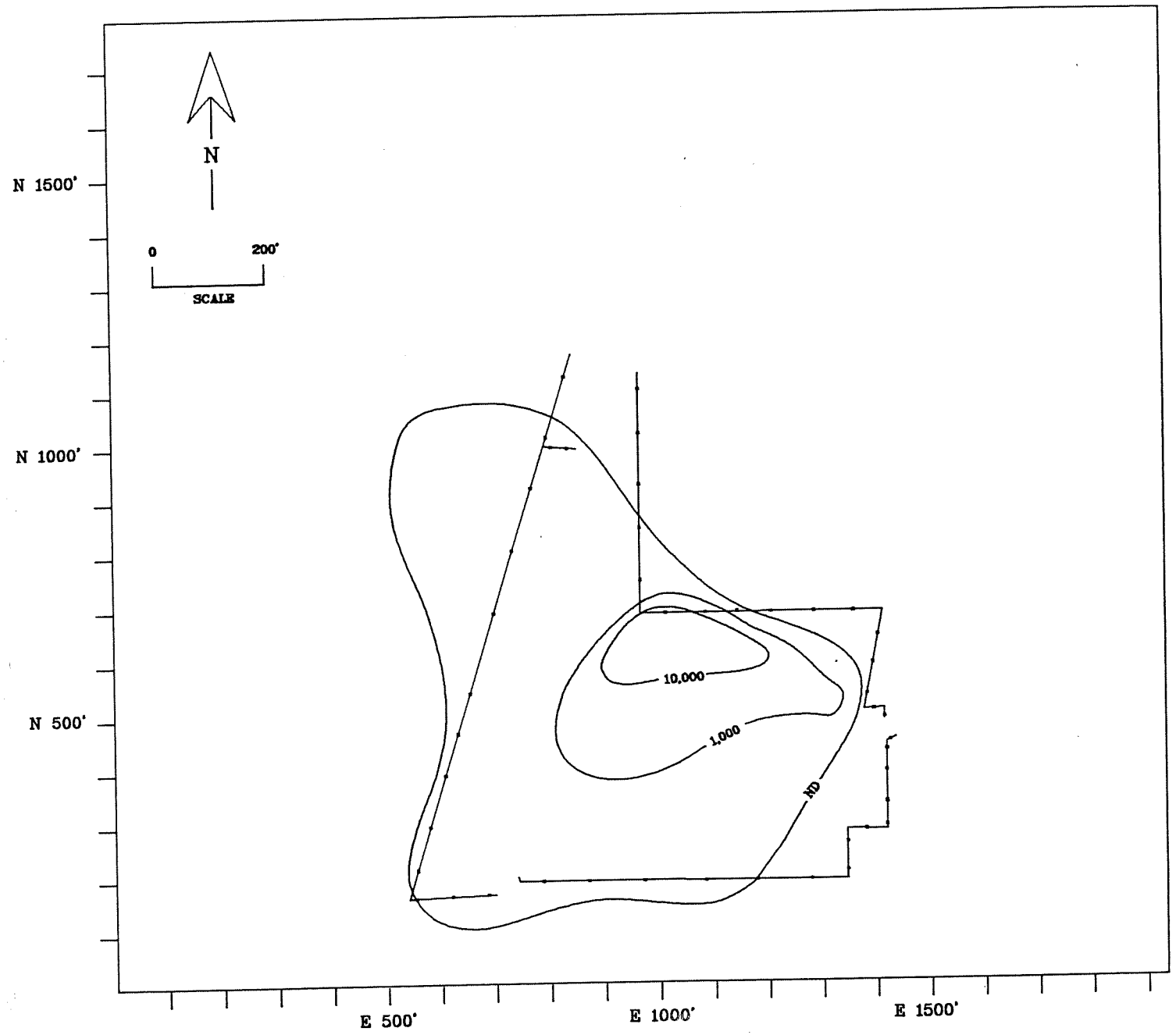
DOLOMITE AQUIFER TOTAL VOC CONCENTRATION MAP (MICROGRAMS/L) - SPRING 1989

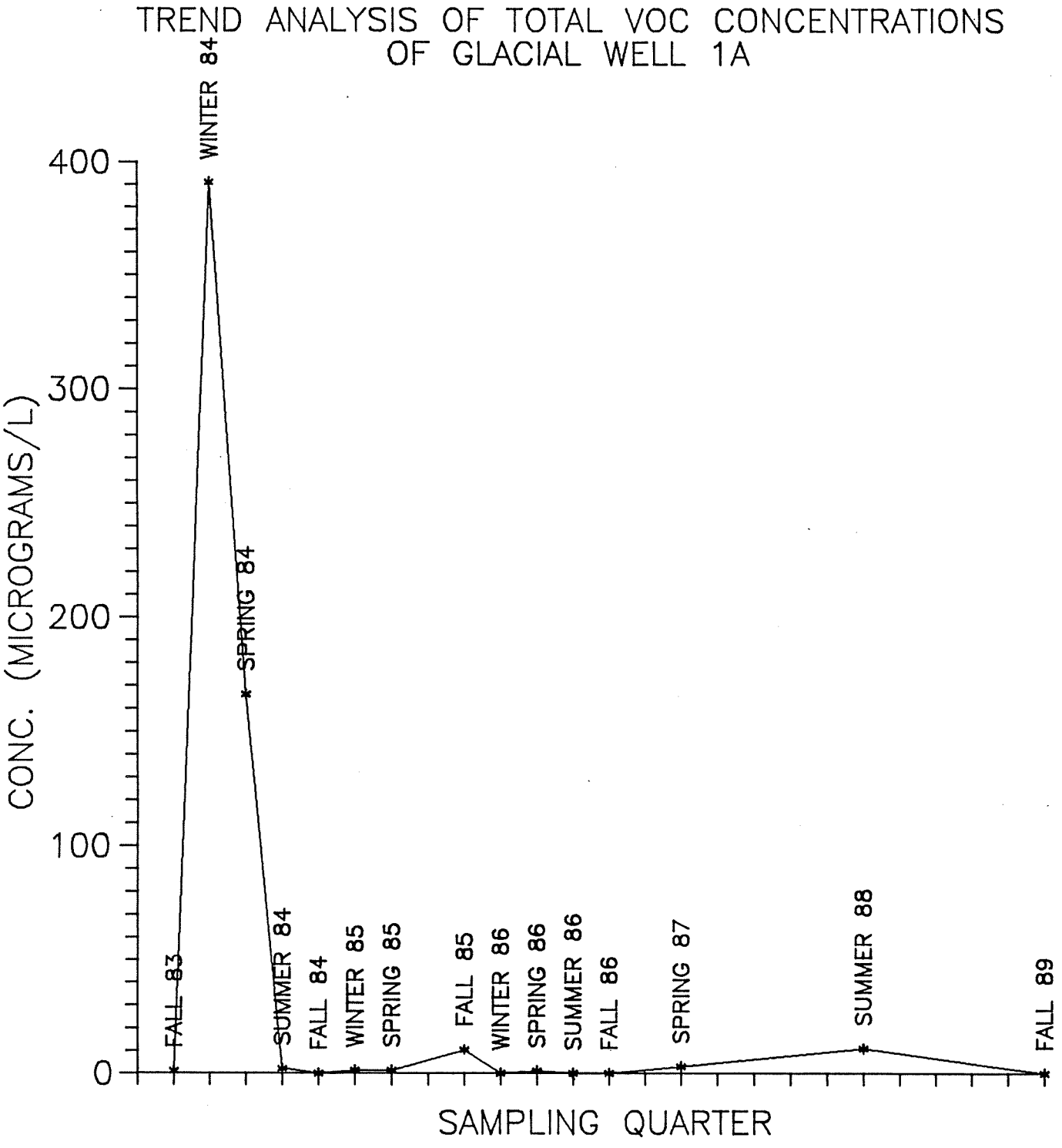


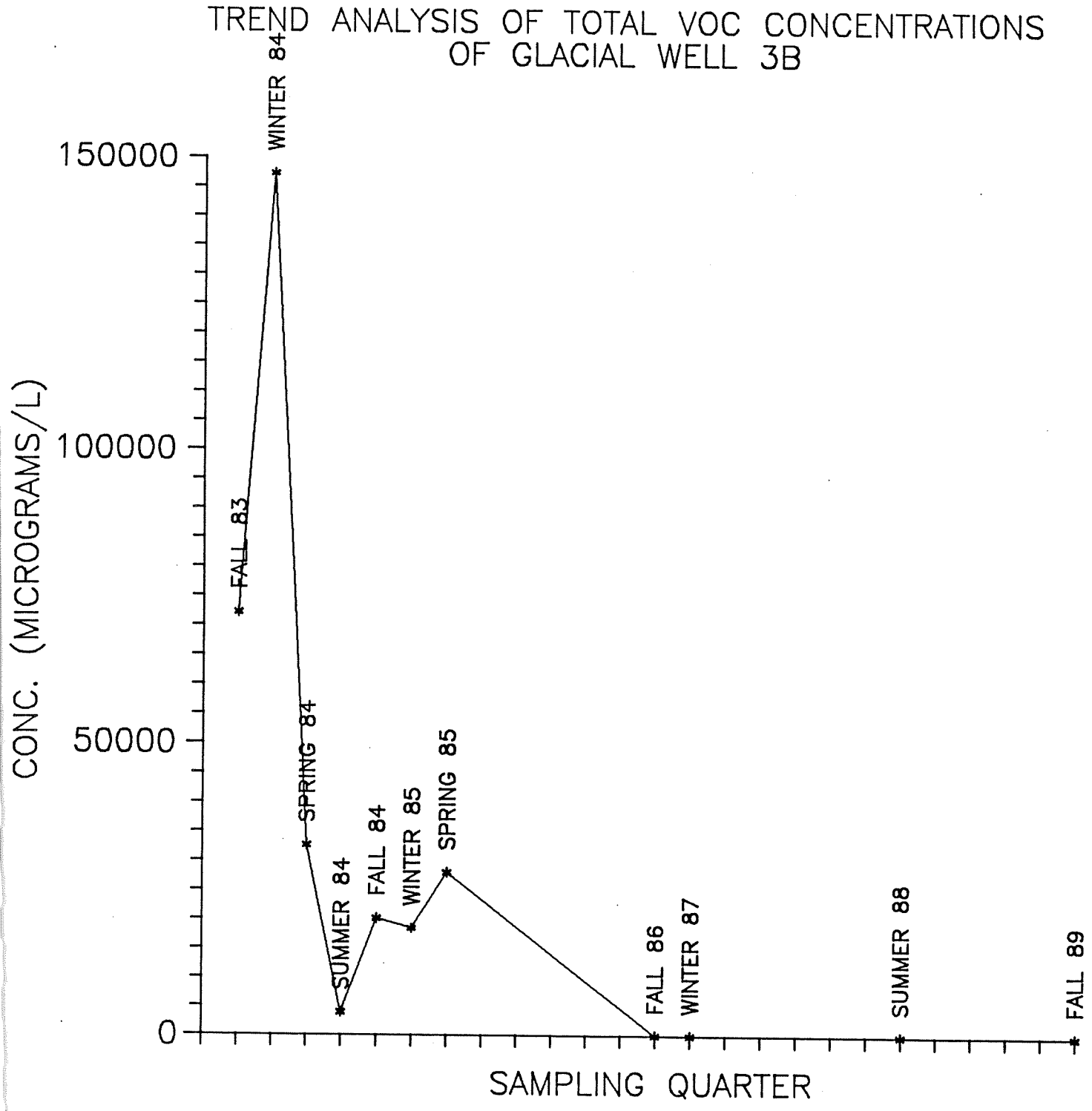
DOLOMITE AQUIFER TOTAL VOC CONCENTRATION MAP (MICROGRAMS/L) - SUMMER 1989

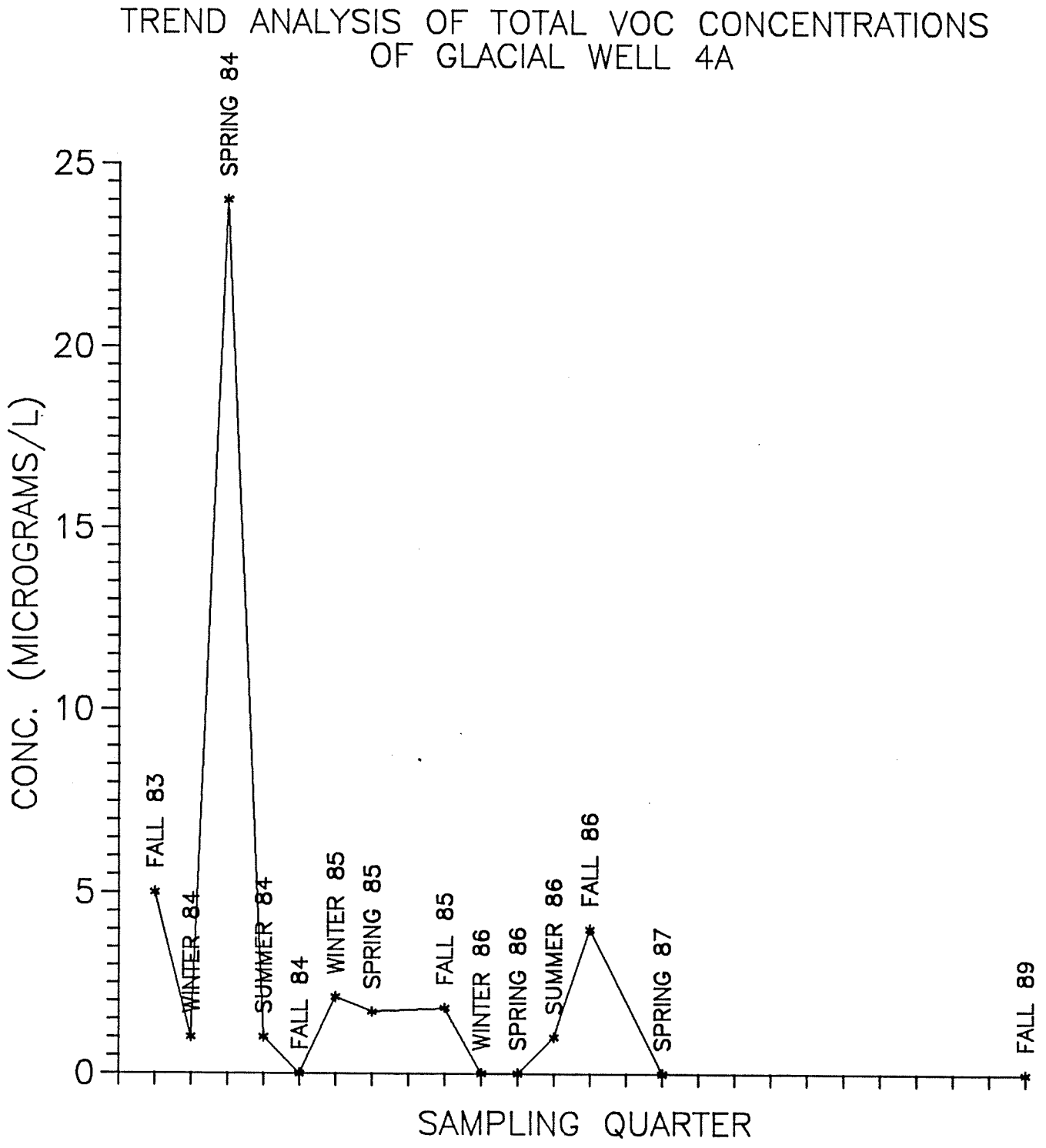


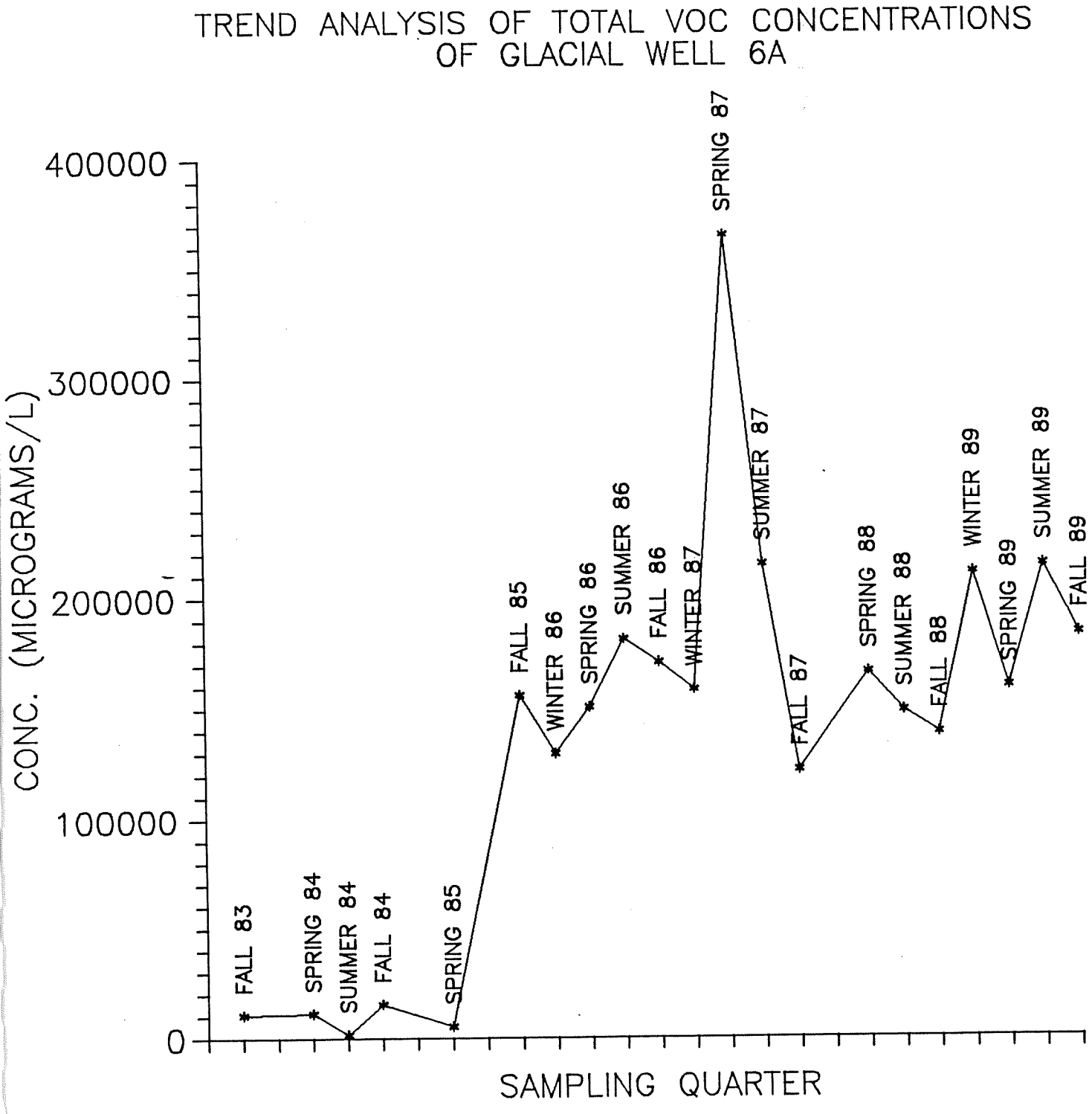
DOLOMITE AQUIFER TOTAL VOC CONCENTRATION MAP (MICROGRAMS/L) – FALL 1989



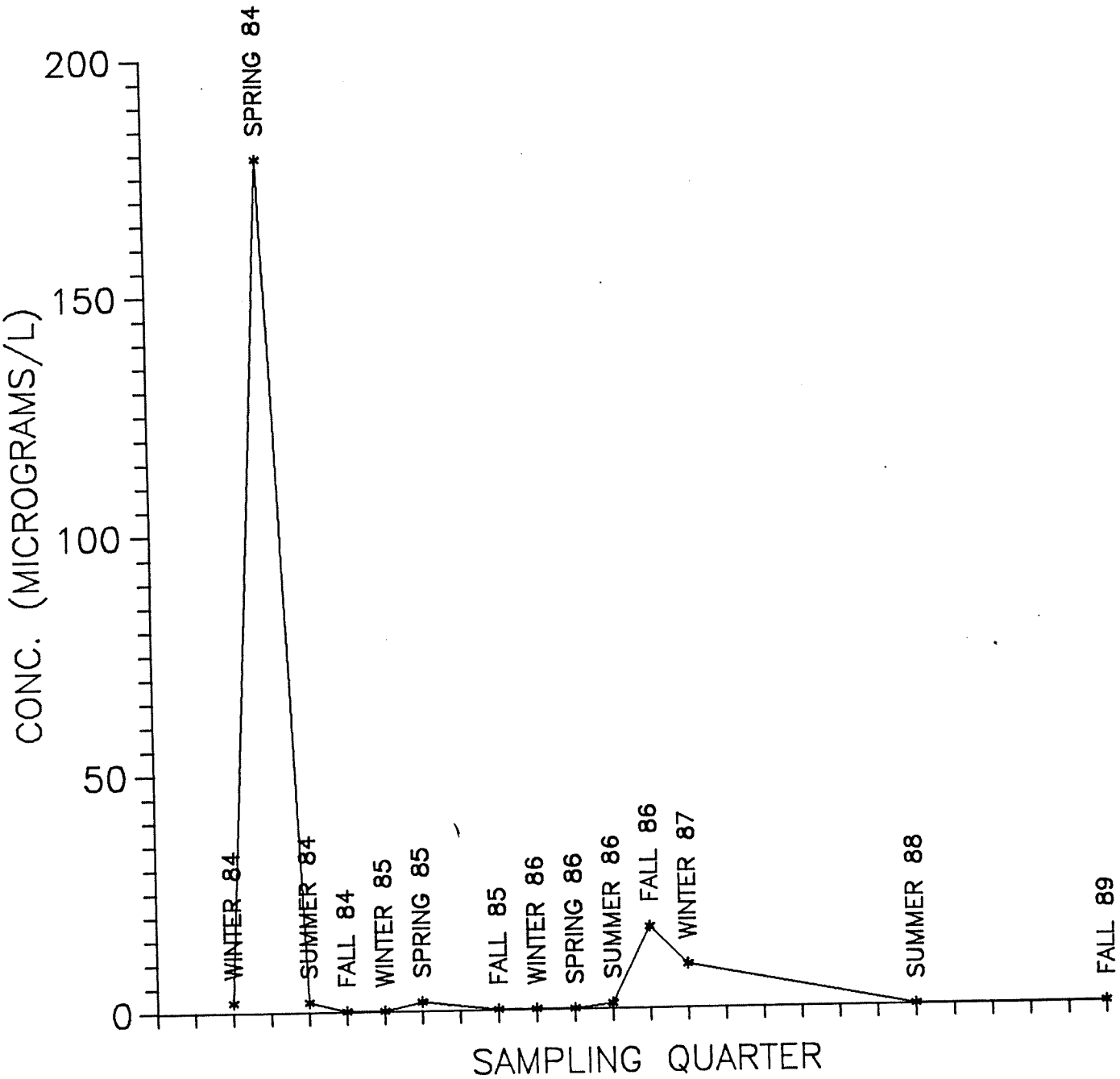

TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS
OF GLACIAL WELL 1A
CONC. (MICROGRAMS/L)
400
300
200
100
0
FALL 83
WINTER 84
SPRING 84
SUMMER 84
FALL 84
WINTER 85
SPRING 85
FALL 85
WINTER 86
SPRING 86
SUMMER 86
FALL 86
SPRING 87
SUMMER 88
FALL 89
SAMPLING QUARTER


TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS
OF GLACIAL WELL 3B
CONC. (MICROGRAMS/L)
150000
100000
50000
0
FALL 83
WINTER 84
SPRING 84
SUMMER 84
FALL 84
WINTER 85
SPRING 85
FALL 86
WINTER 87
SUMMER 88
FALL 89
SAMPLING QUARTER

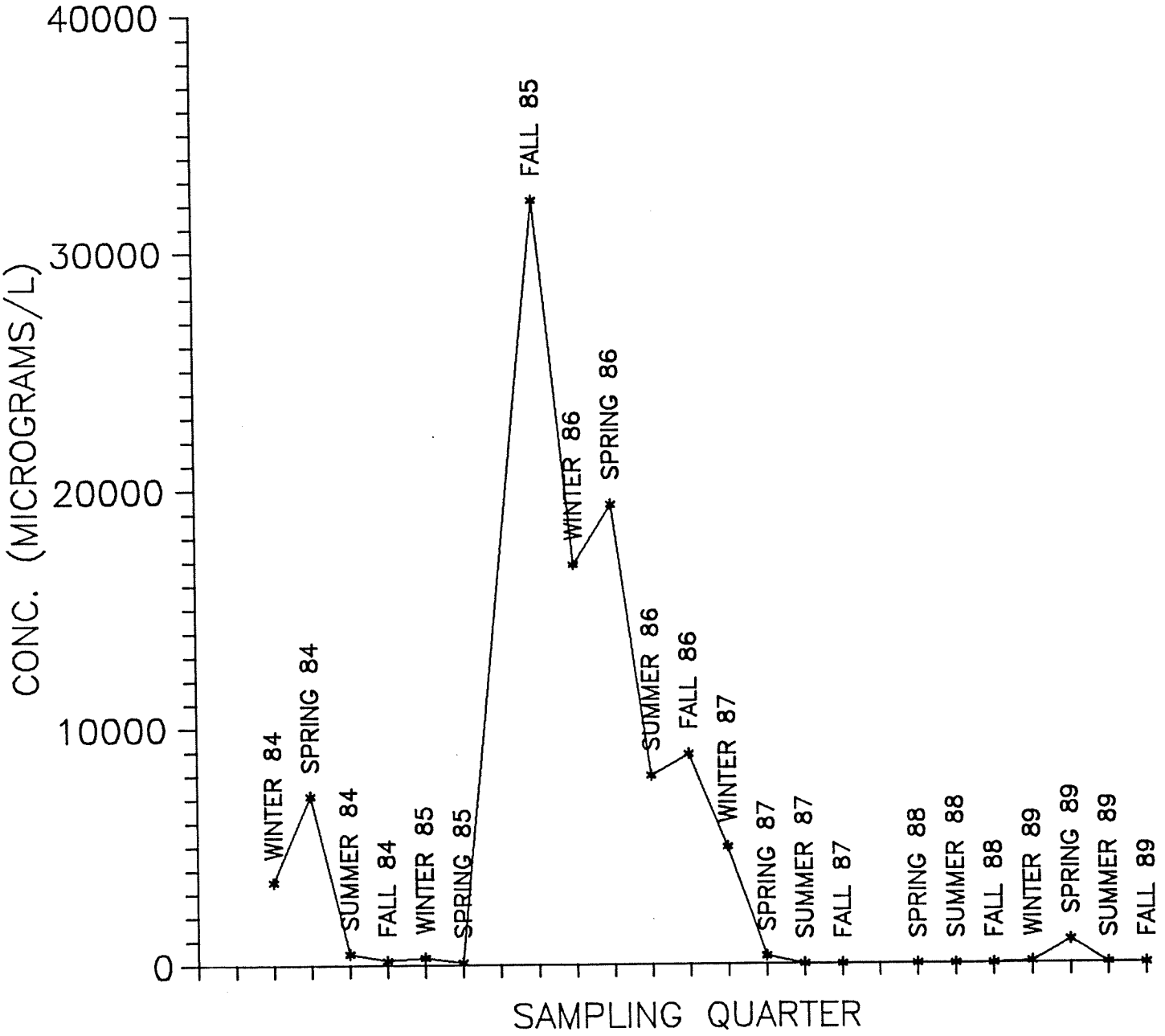

TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS
OF GLACIAL WELL 4A
CONC. (MICROGRAMS/L)
0
5
10
15
20
25
FALL 83
WINTER 84
SPRING 84
SUMMER 84
FALL 84
WINTER 85
SPRING 85
FALL 85
WINTER 86
SPRING 86
SUMMER 86
FALL 86
SPRING 87
FALL 89
SAMPLING QUARTER


TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS
OF GLACIAL WELL 6A
400000
300000
200000
100000
0
CONC. (MICROGRAMS/L)
FALL 83
SPRING 84
SUMMER 84
FALL 84
SPRING 85
FALL 85
WINTER 86
SPRING 86
SUMMER 86
FALL 86
WINTER 87
SPRING 87
SUMMER 87
FALL 87
SPRING 88
SUMMER 88
FALL 88
WINTER 89
SPRING 89
SUMMER 89
FALL 89
SAMPLING QUARTER

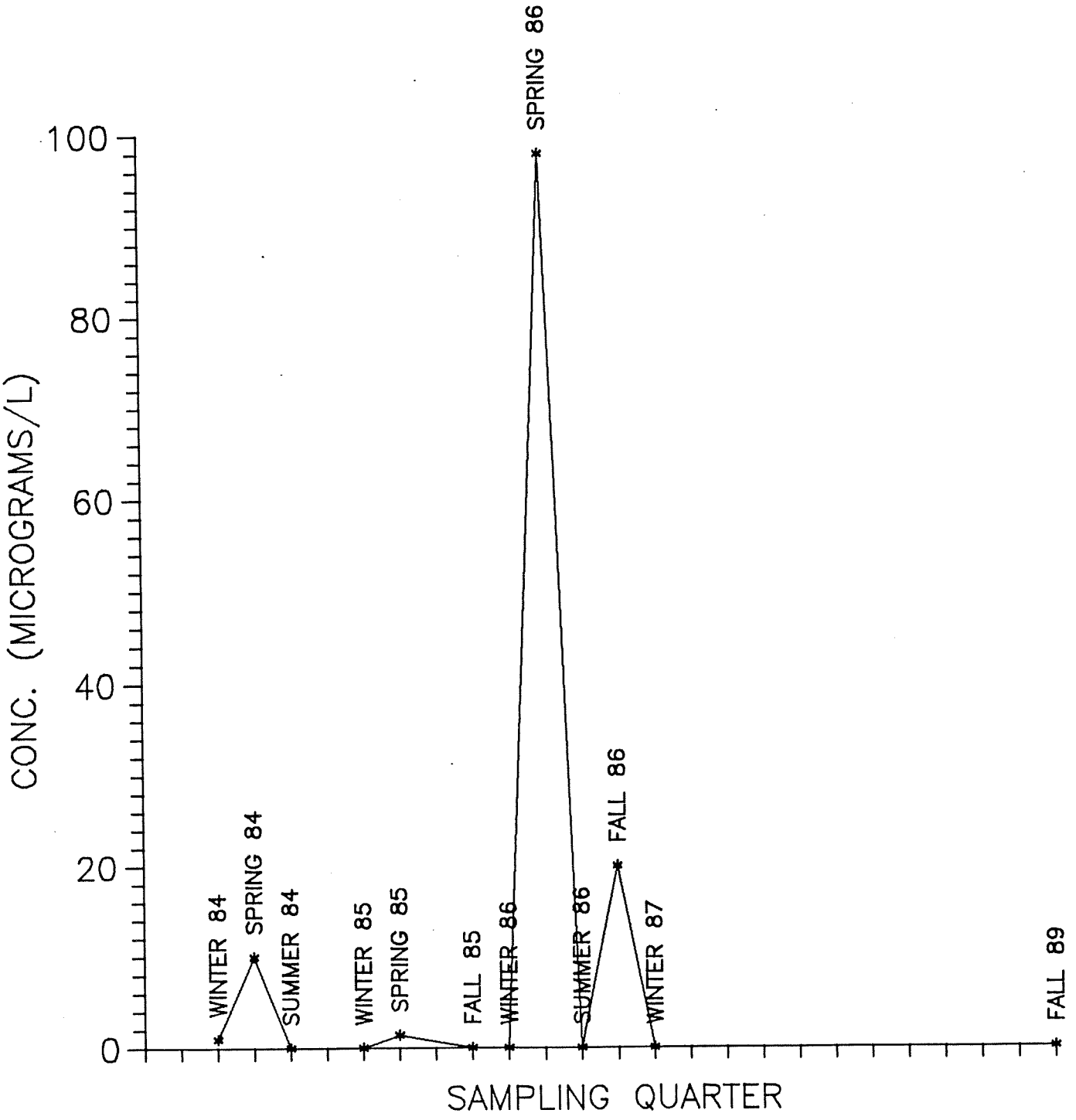
TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF GLACIAL WELL 8



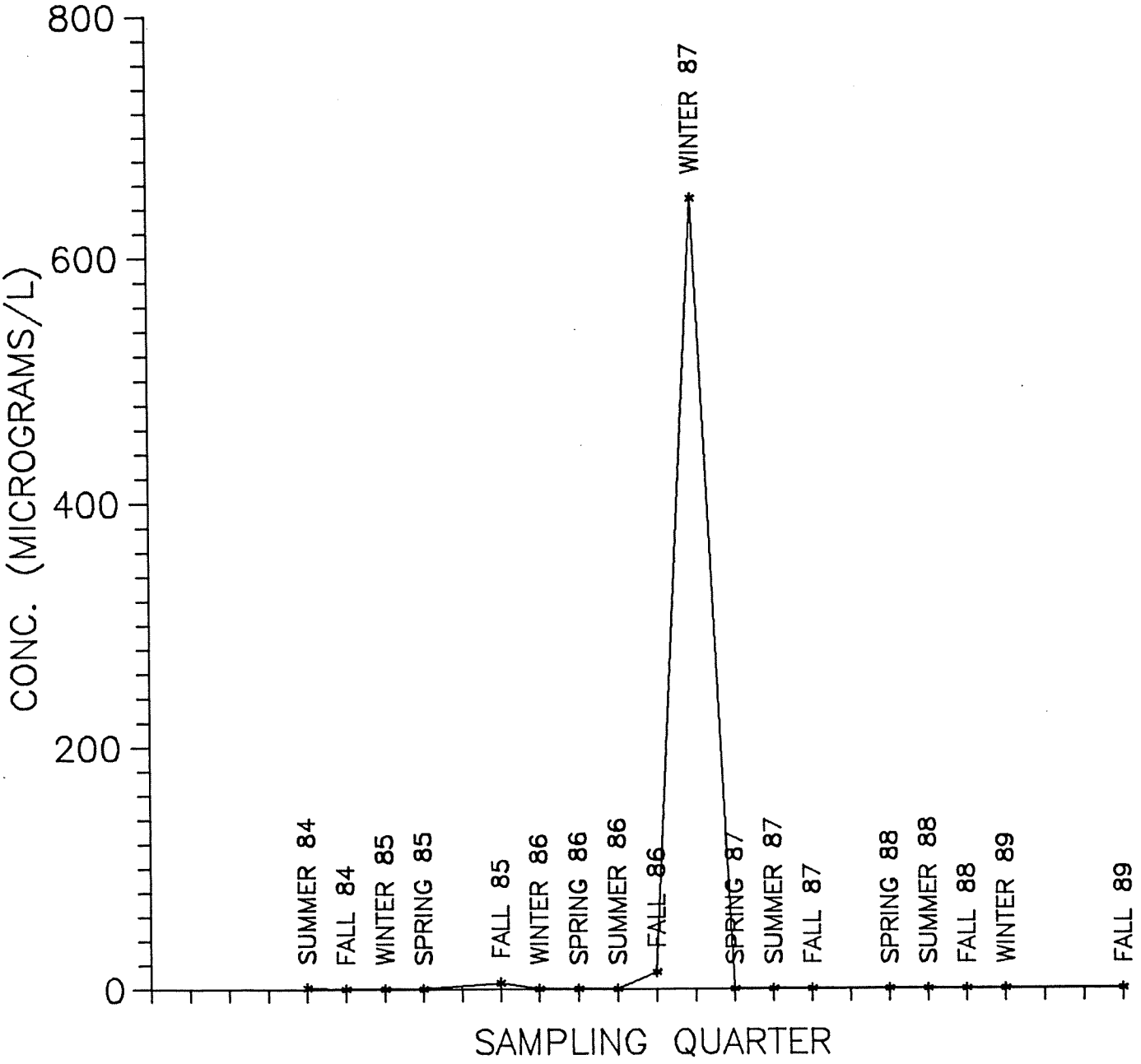
TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF GLACIAL WELL 14B



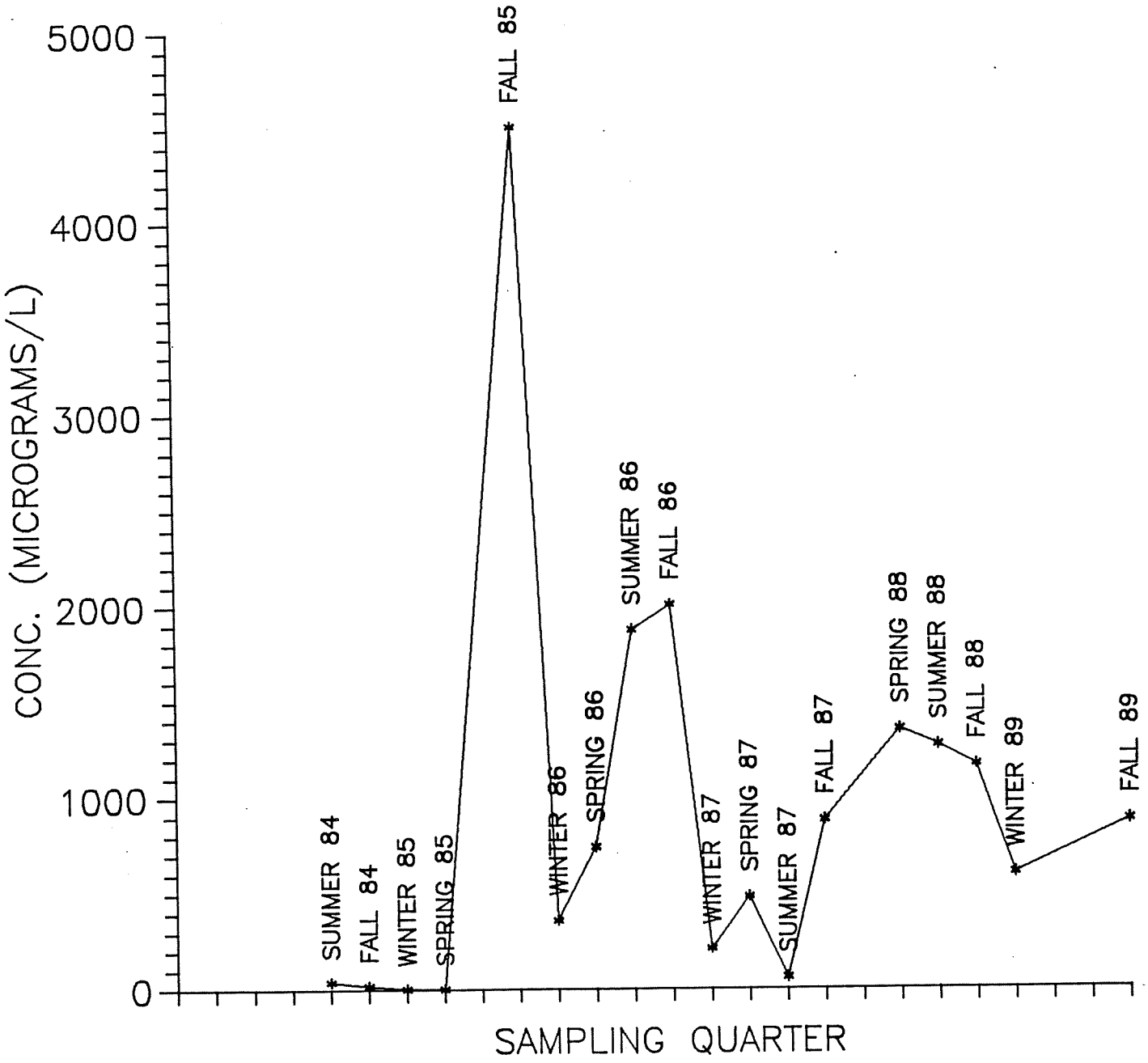
TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF GLACIAL WELL 16A



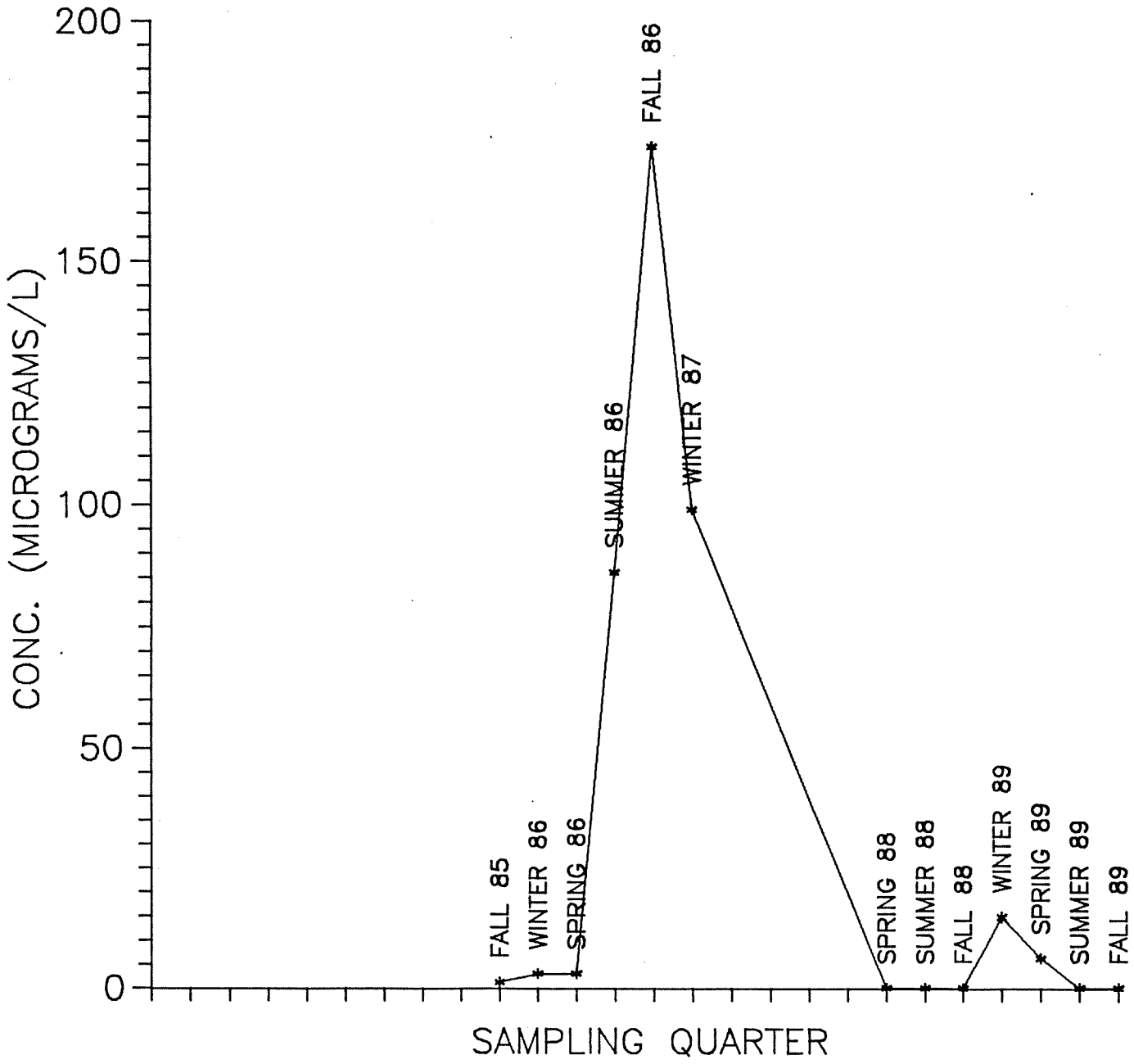
TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF GLACIAL WELL 18A

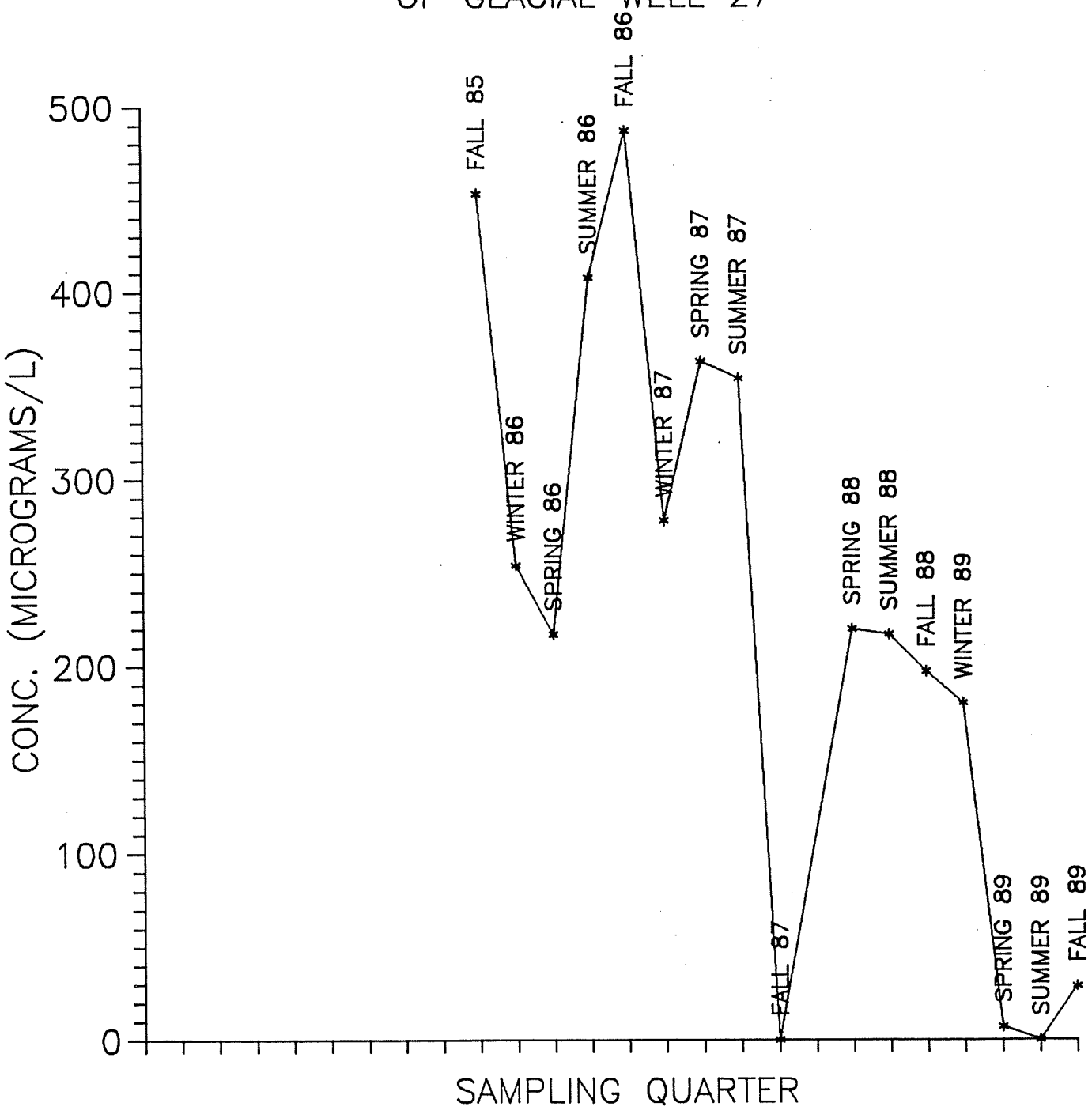


TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF GLACIAL WELL 19A

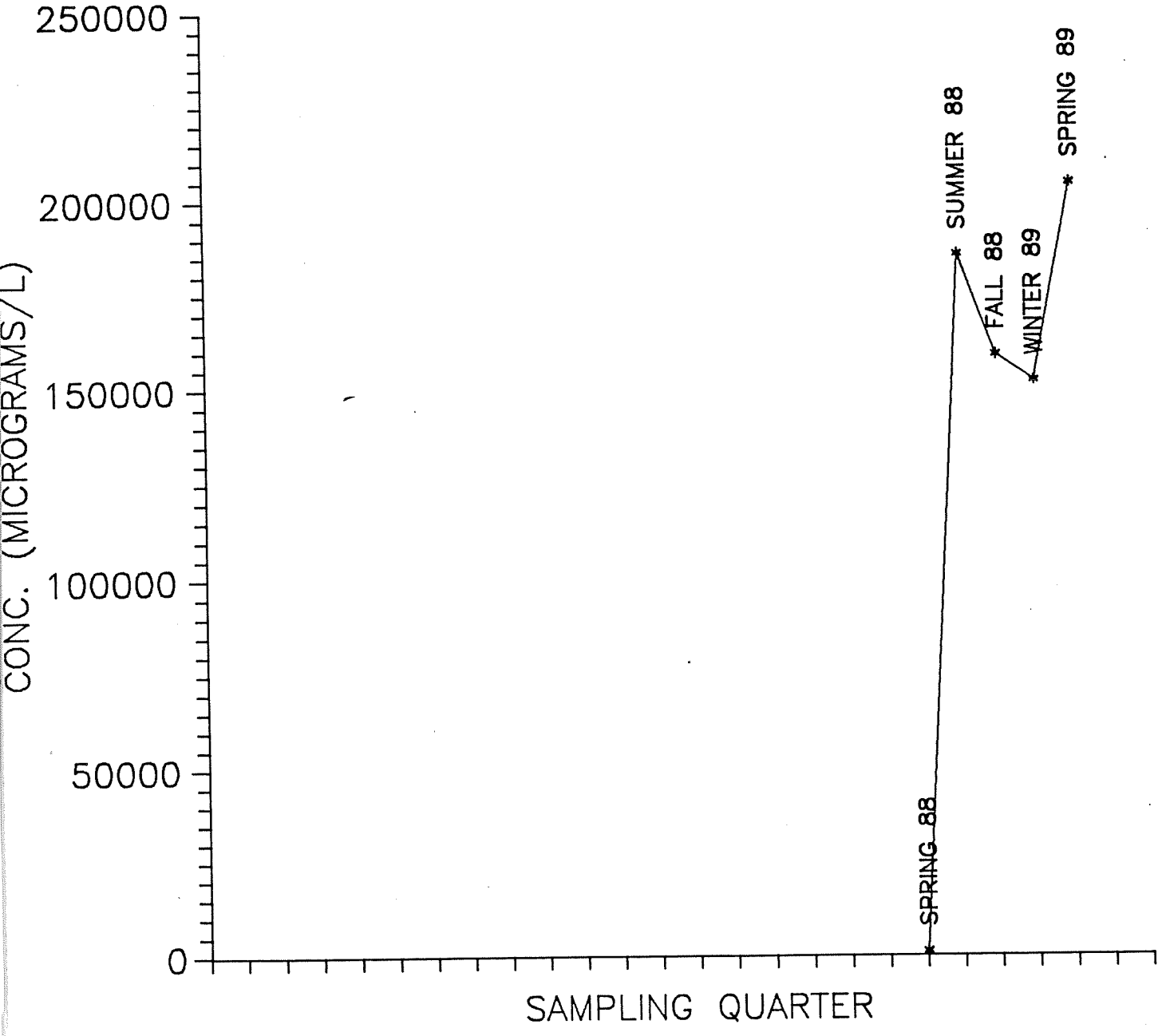


TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF GLACIAL WELL 20

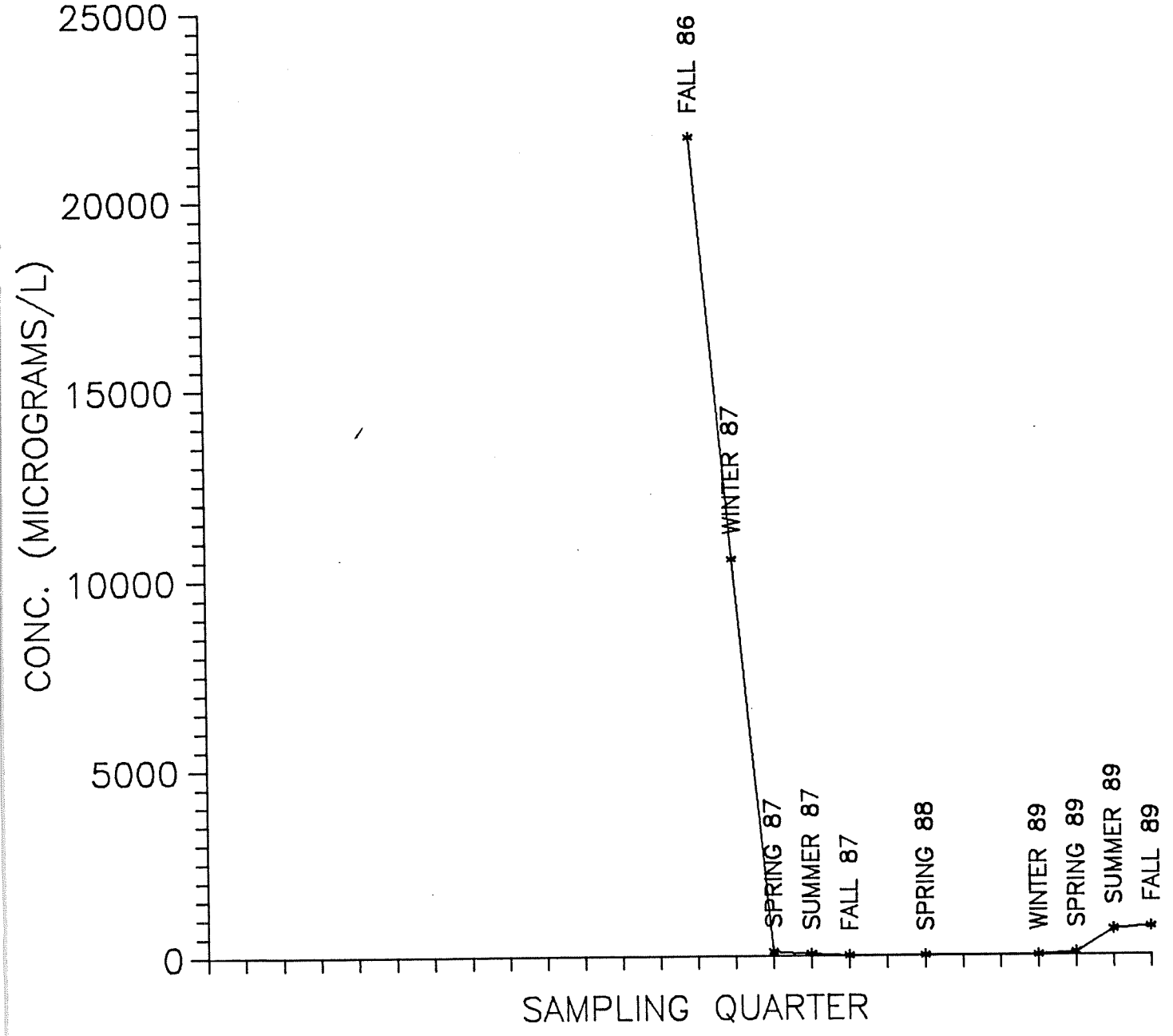



TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS
OF GLACIAL WELL 27
CONC. (MICROGRAMS/L)
500
400
300
200
100
0
SAMPLING QUARTER
FALL 85
WINTER 86
SPRING 86
SUMMER 86
FALL 86
WINTER 87
SPRING 87
SUMMER 87
FALL 87
SPRING 88
SUMMER 88
FALL 88
WINTER 89
SPRING 89
SUMMER 89
FALL 89

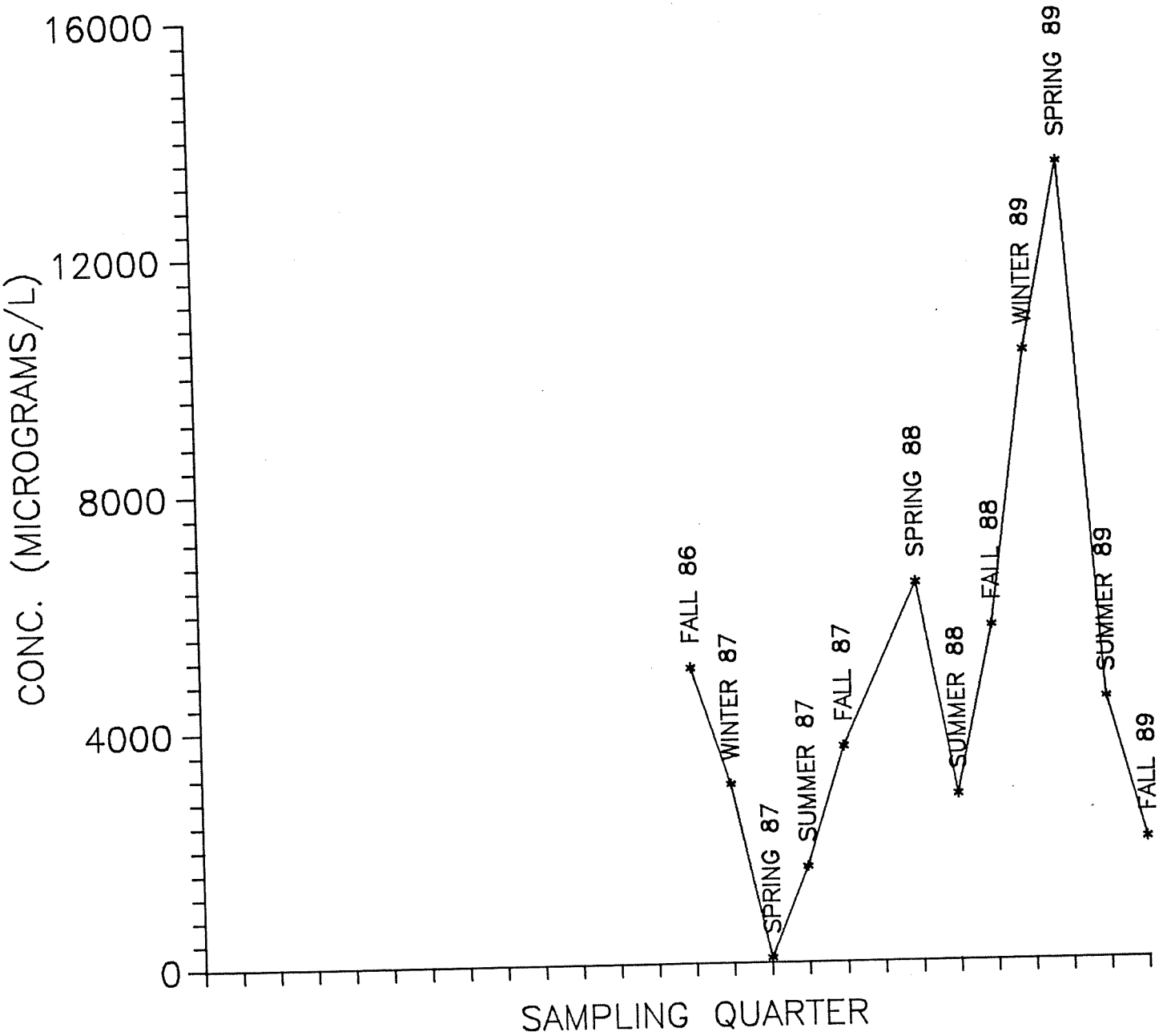
TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF GLACIAL WELL 37



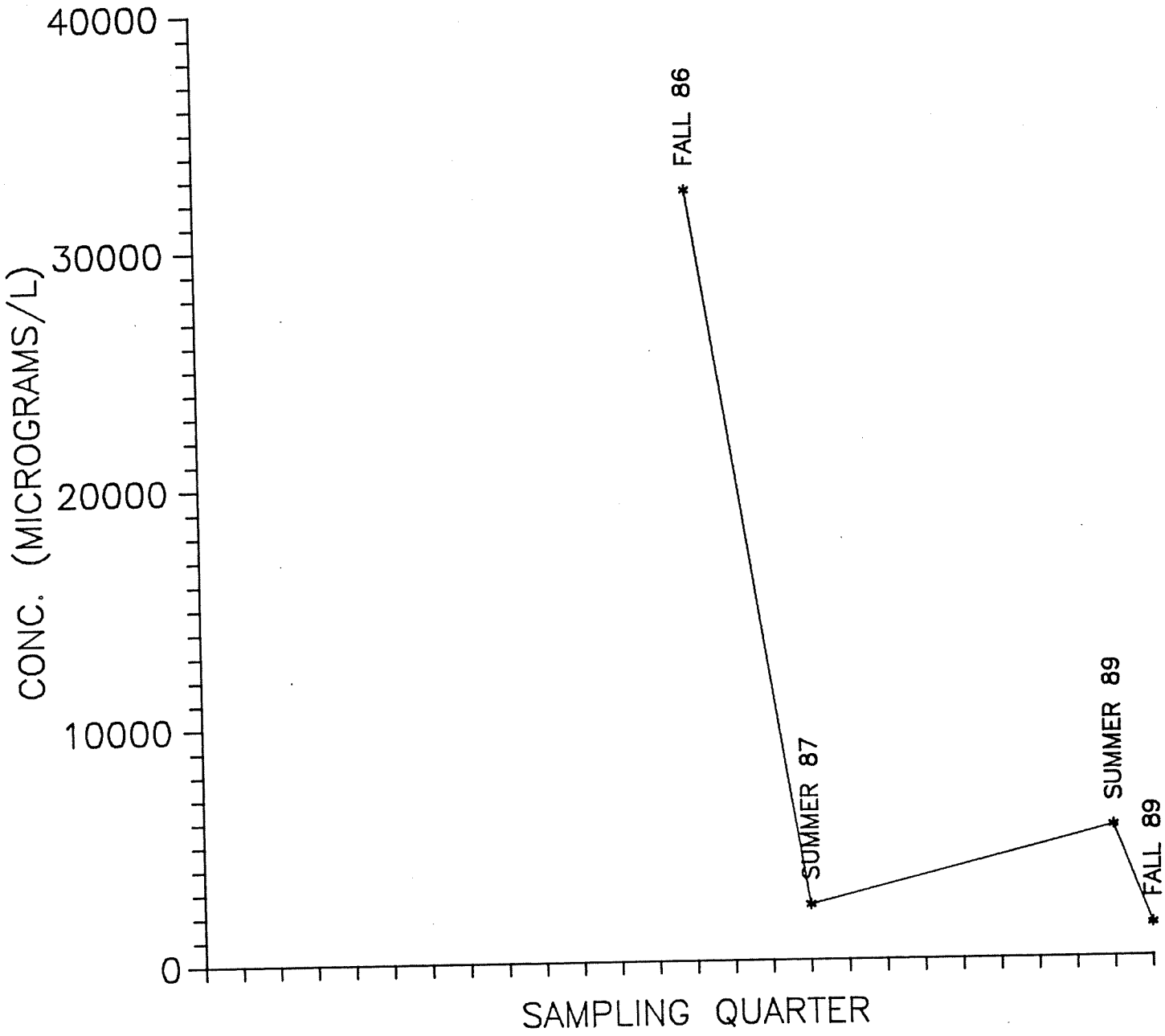
TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF GLACIAL WELL 41



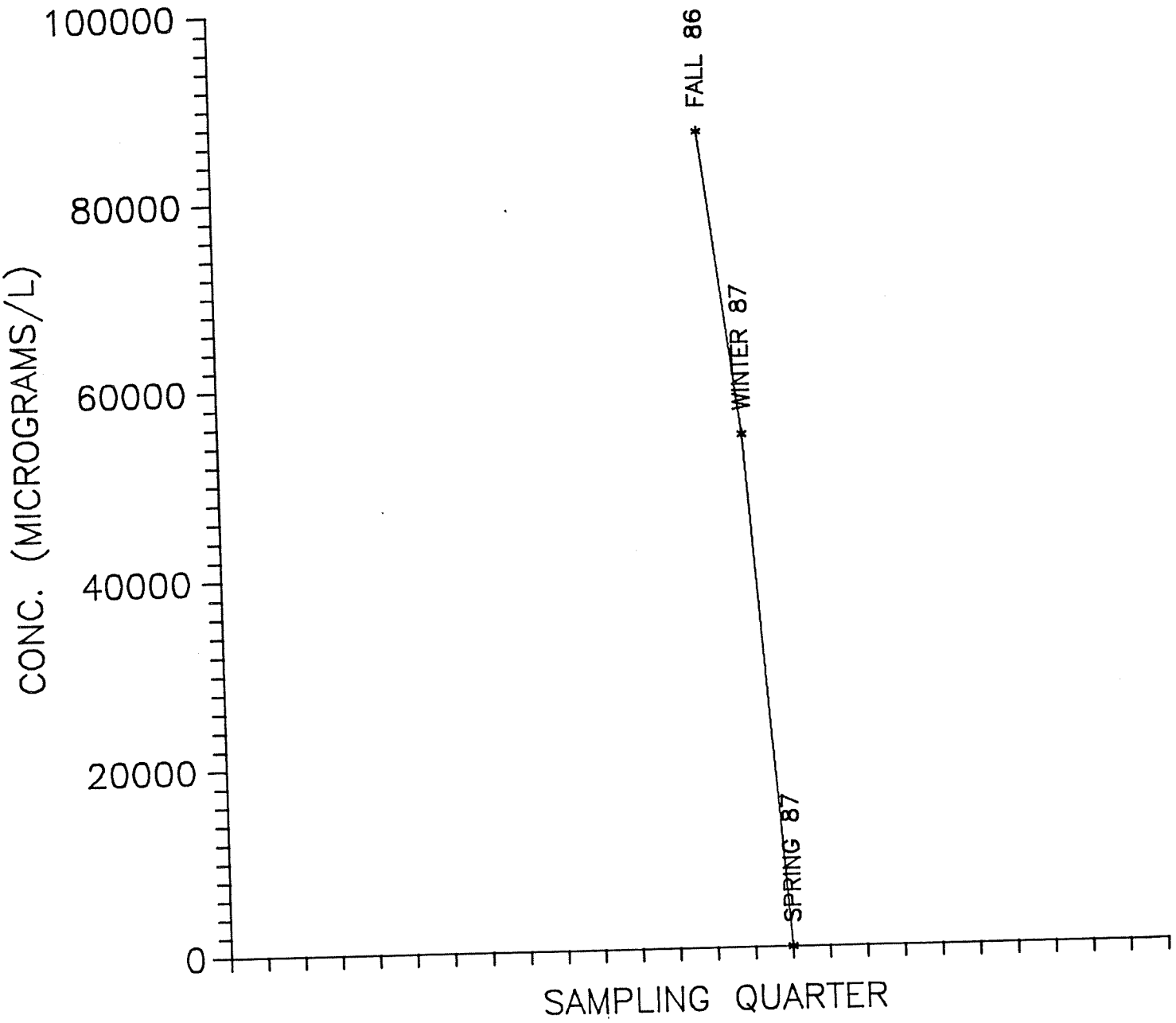
TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF GLACIAL WELL 42

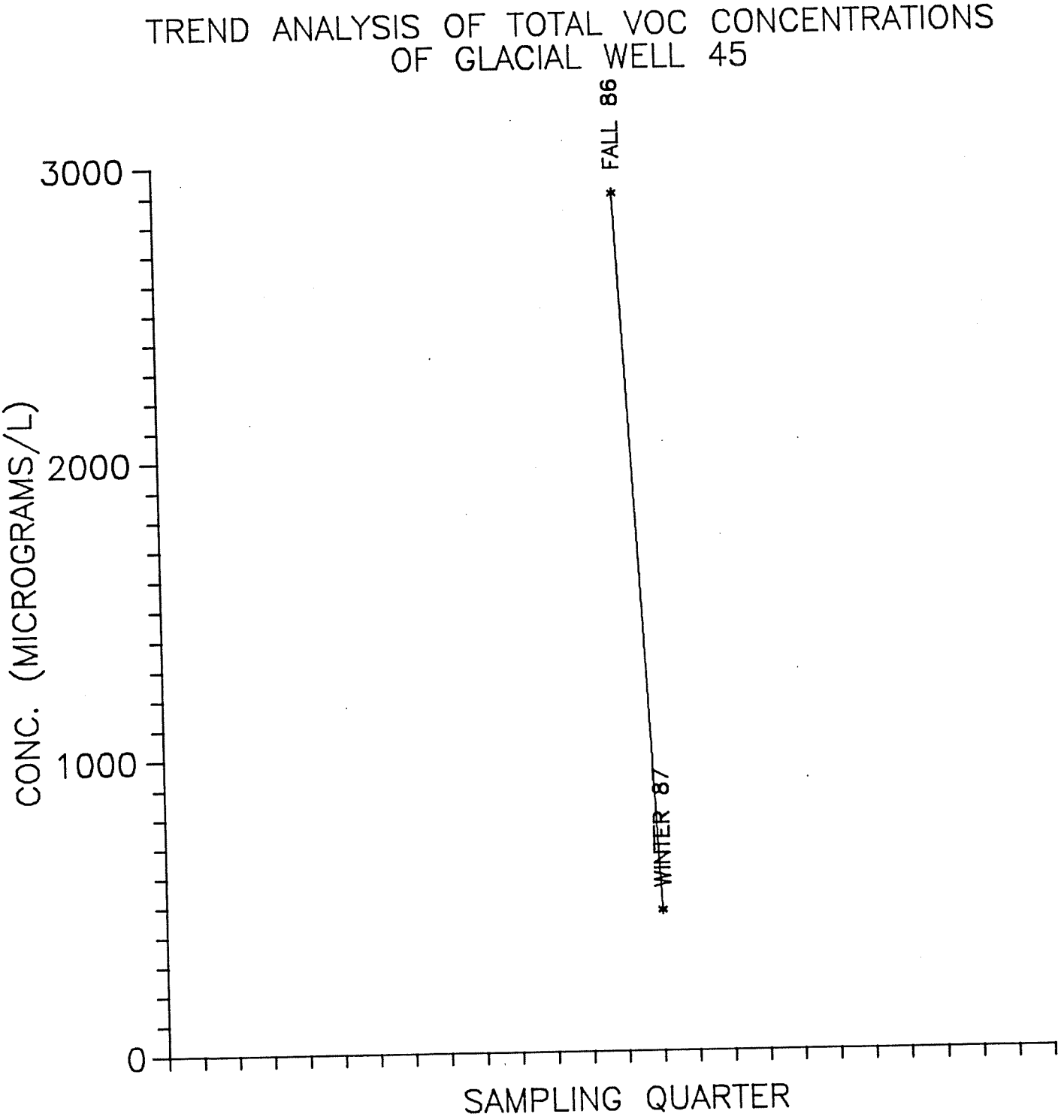


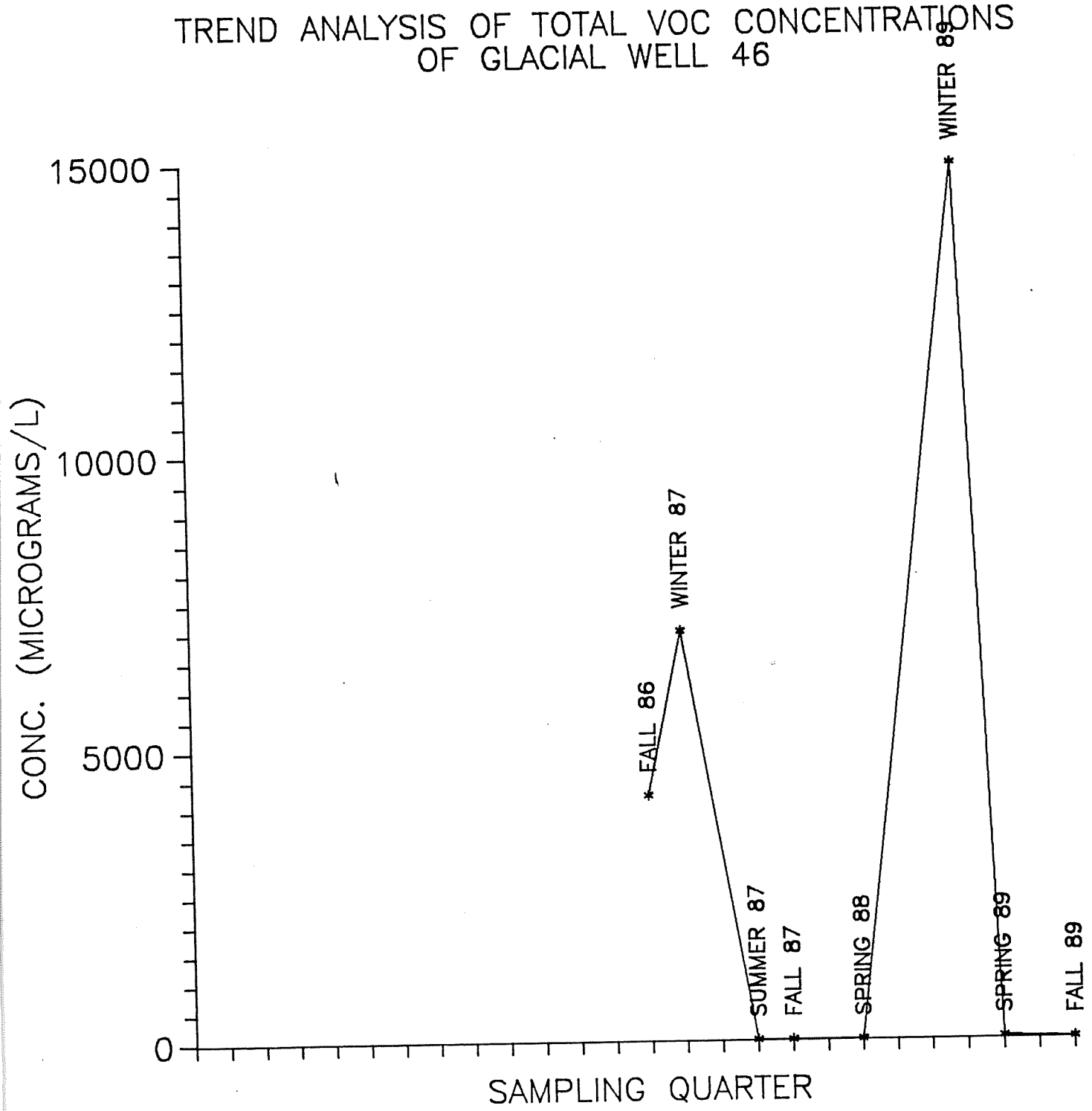
TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF GLACIAL WELL 43



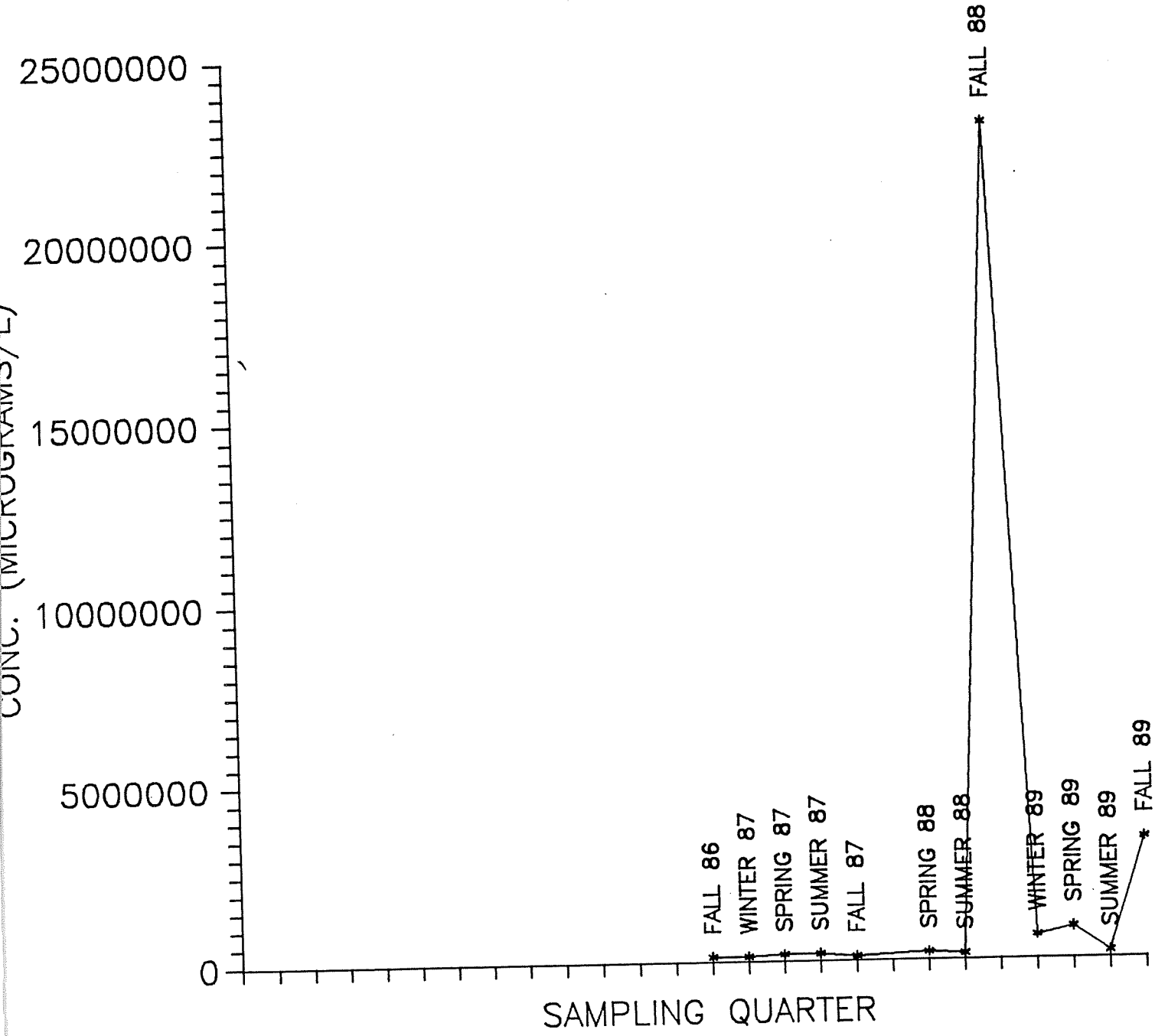
TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS
OF GLACIAL WELL 44



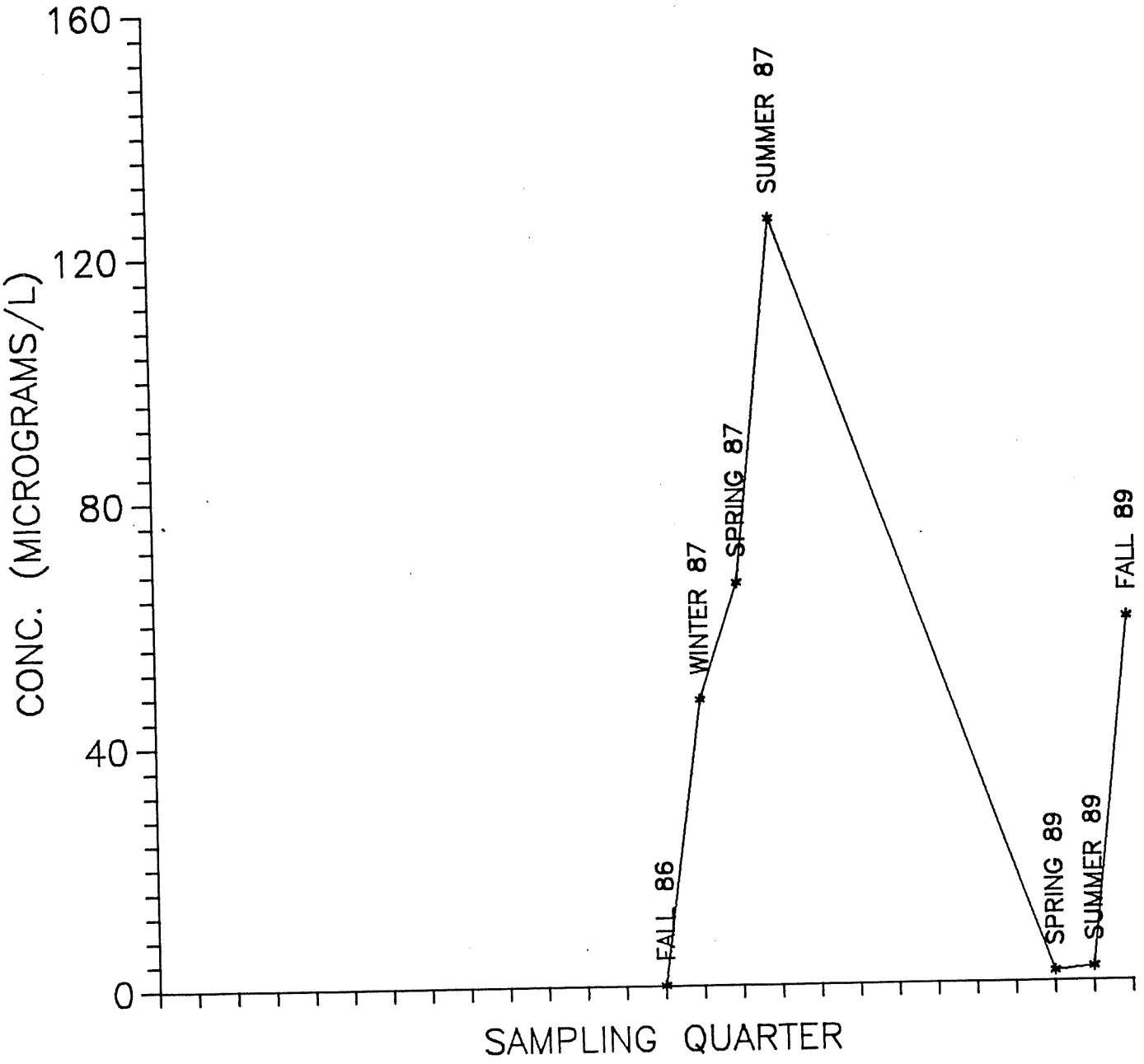

TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS
OF GLACIAL WELL 45
FALL 86
WINTER 87
3000
2000
1000
0
CONC. (MICROGRAMS/L)
SAMPLING QUARTER


TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS
OF GLACIAL WELL 46
15000
10000
5000
0
CONC. (MICROGRAMS/L)
FALL 86
WINTER 87
SUMMER 87
FALL 87
SPRING 88
WINTER 89
SPRING 89
FALL 89
SAMPLING QUARTER

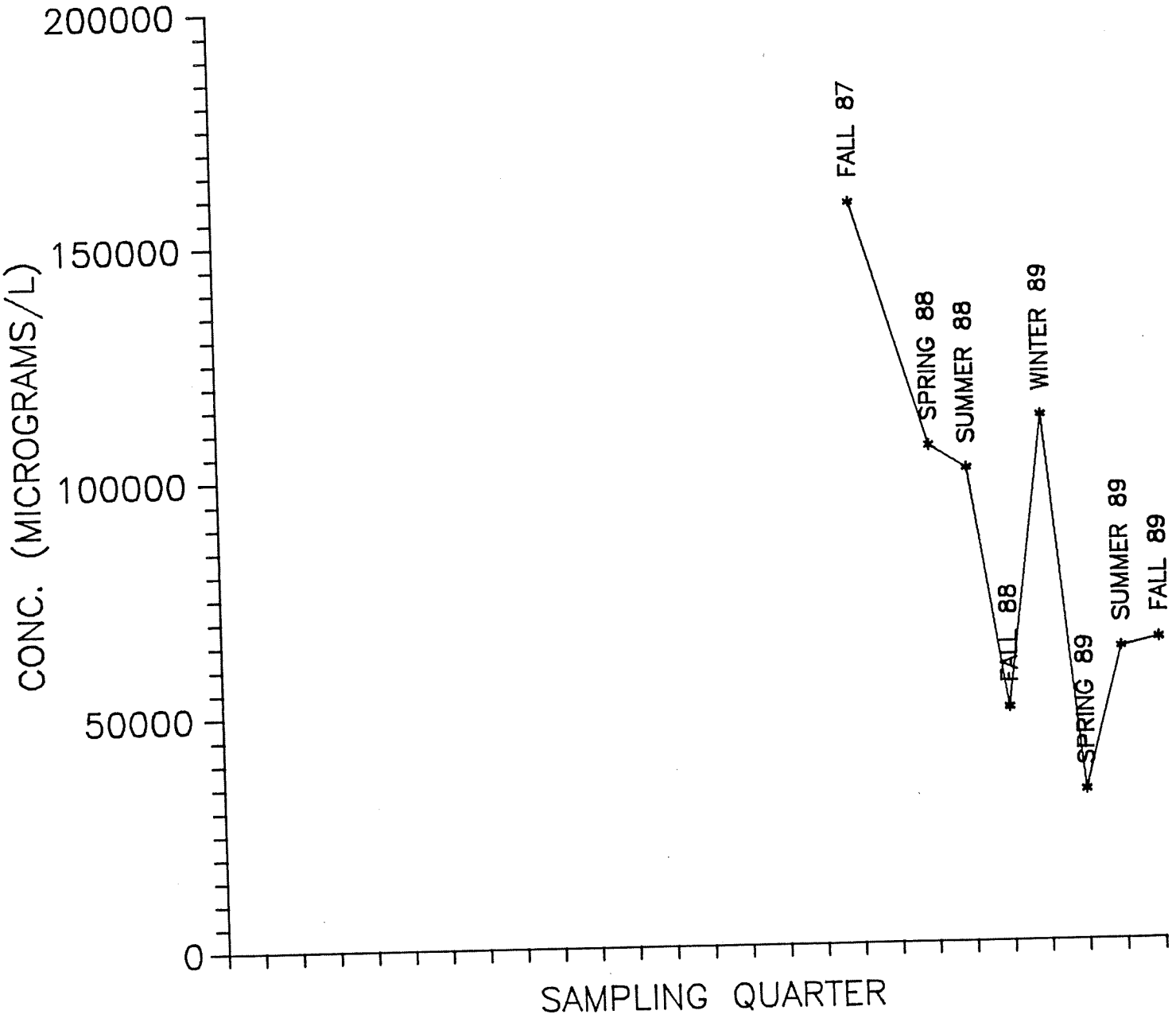
TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF GLACIAL WELL 47

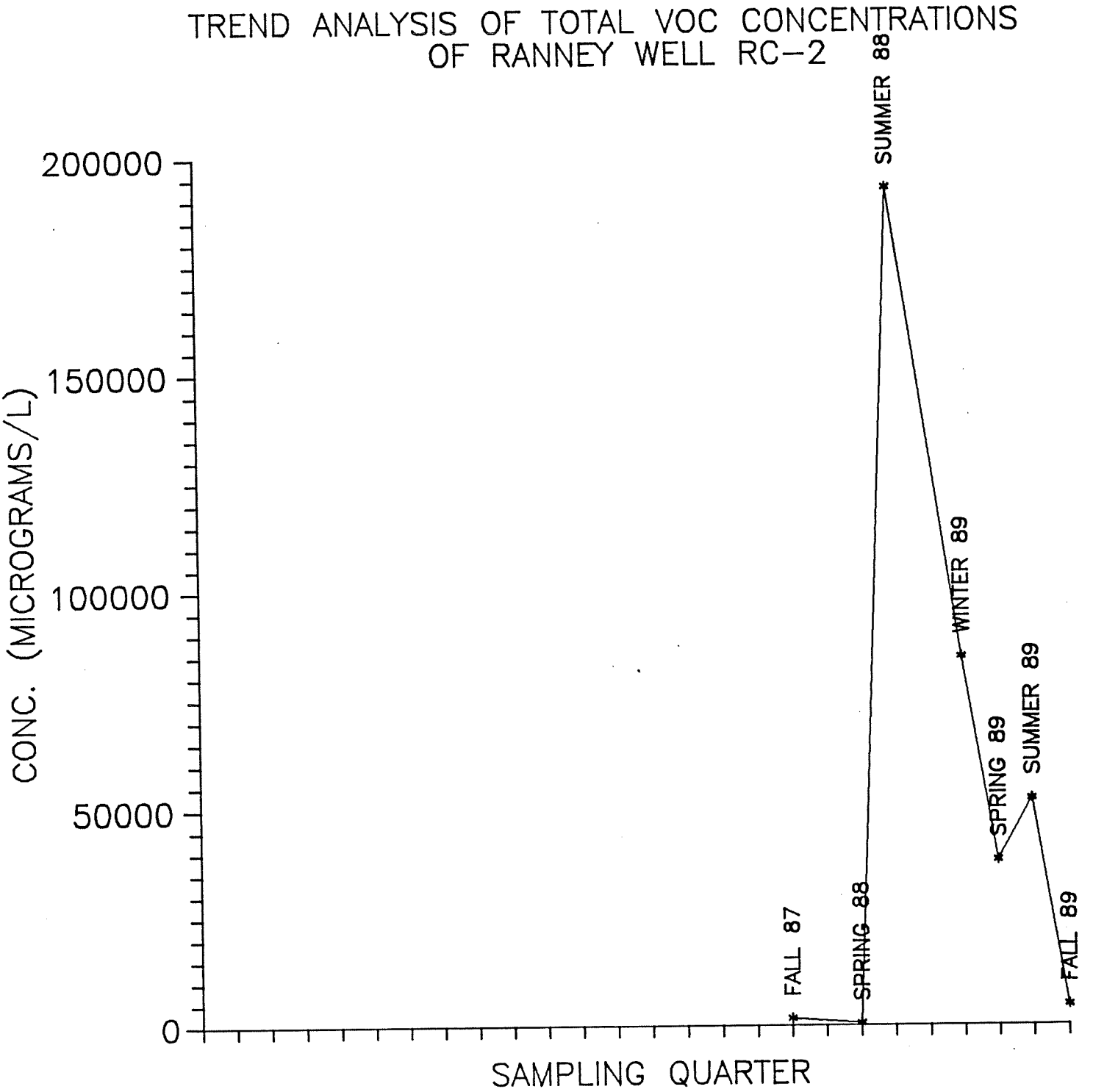


TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF GLACIAL WELL 48

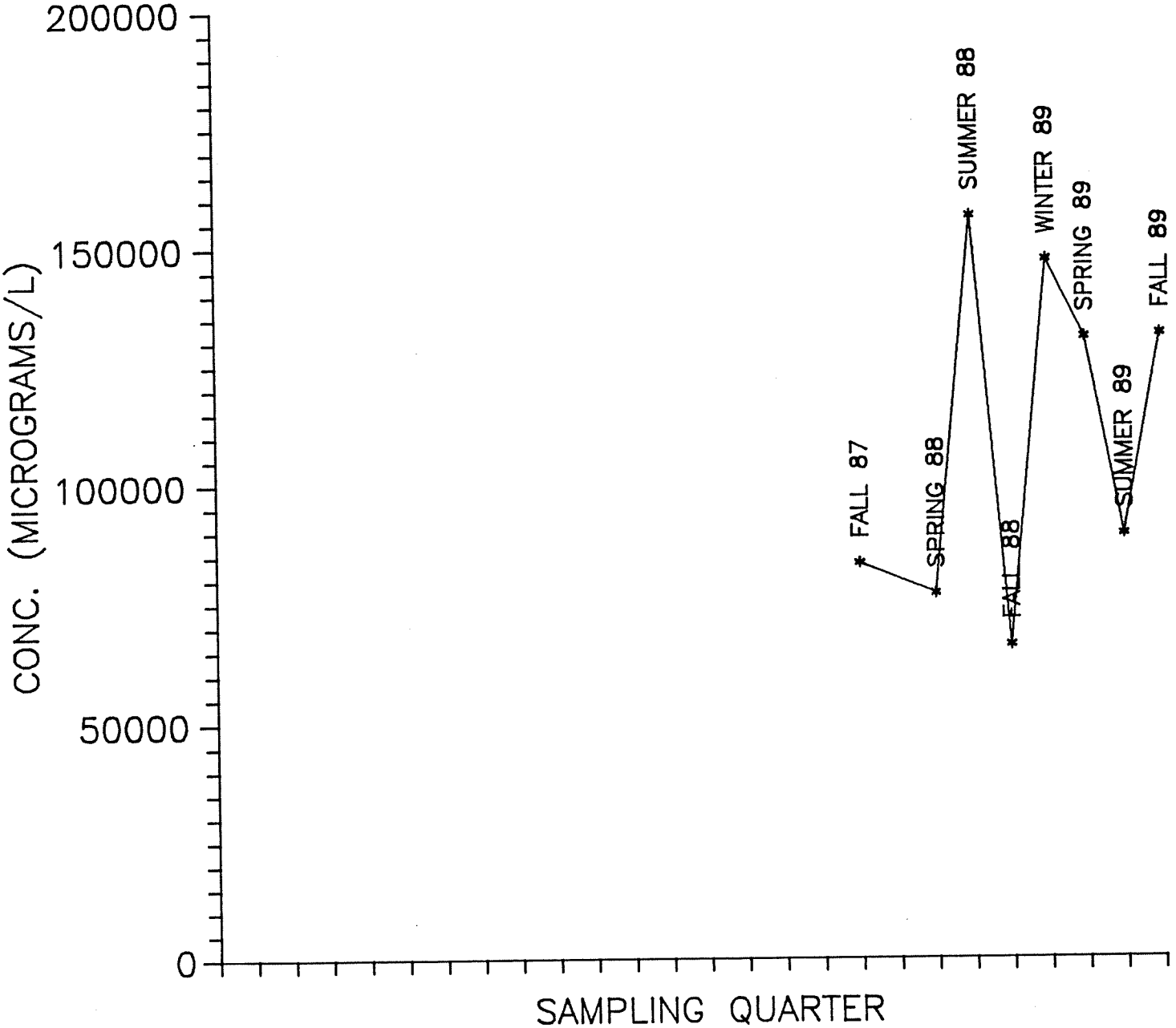


TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF RANNEY WELL RC-1

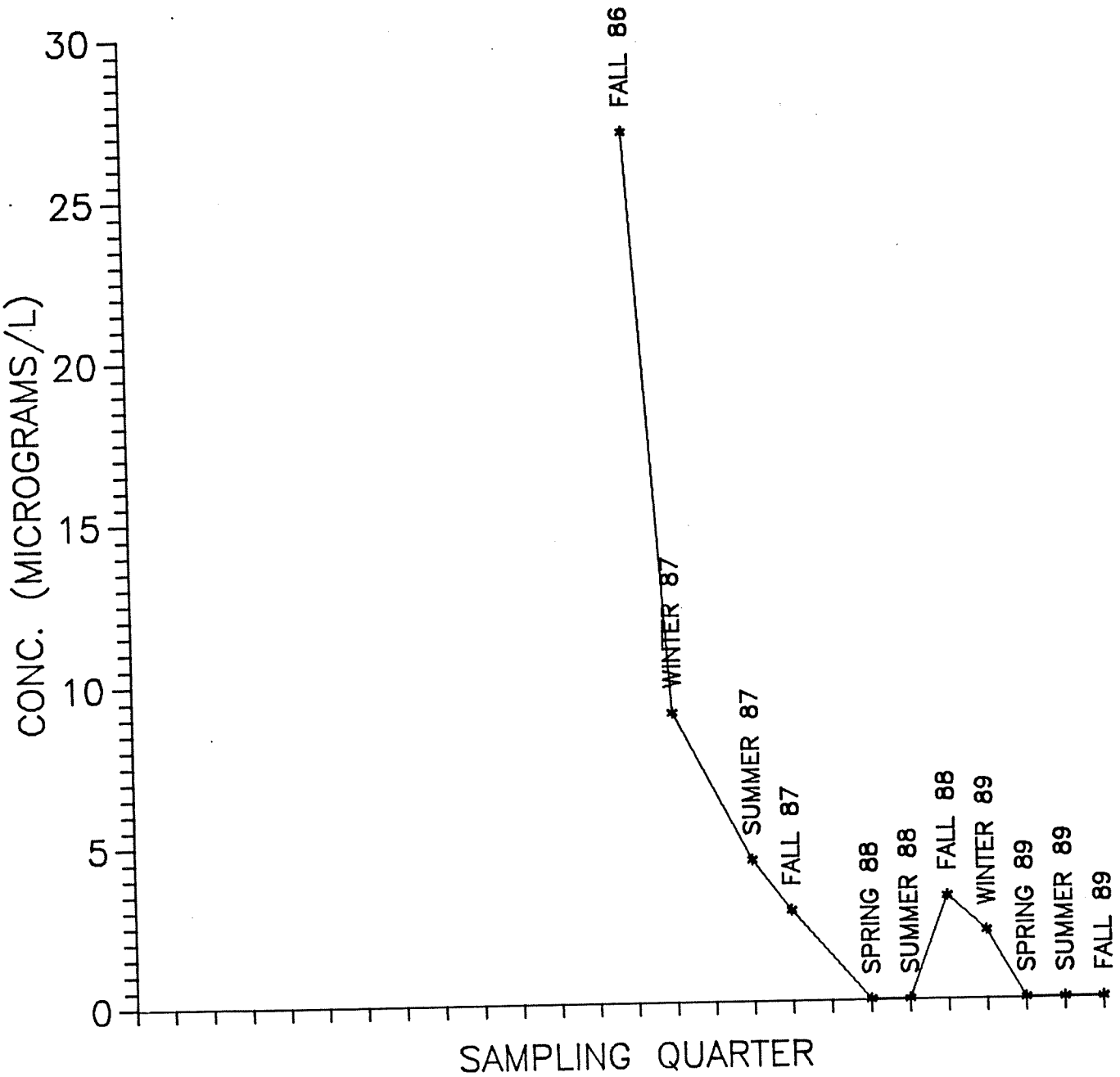



TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS
OF RANNEY WELL RC-2
CONC. (MICROGRAMS/L)
200000
150000
100000
50000
0
SAMPLING QUARTER
FALL 87
SPRING 88
SUMMER 88
WINTER 89
SPRING 89
SUMMER 89
FALL 89

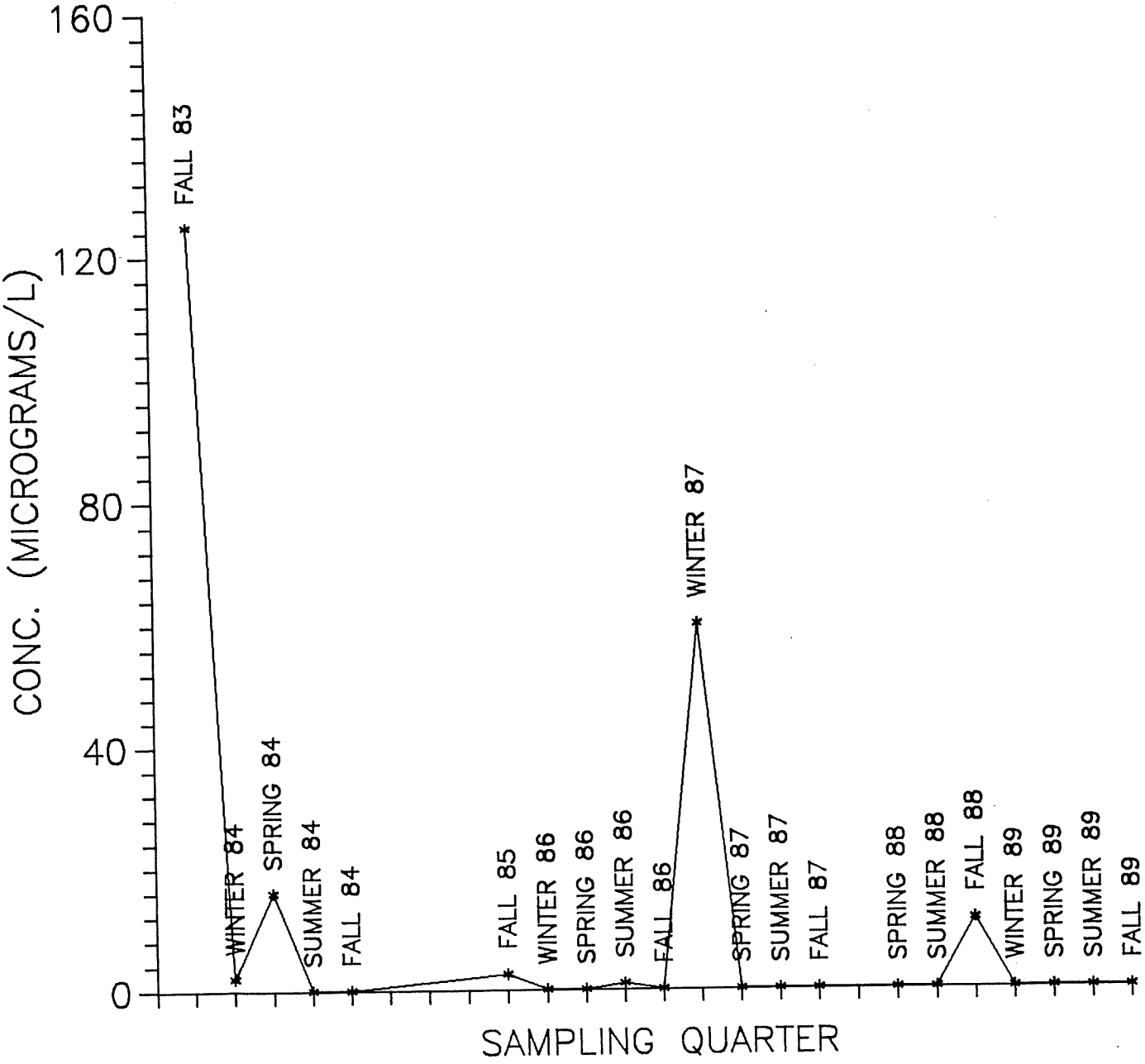
TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF RANNEY WELL RC-3



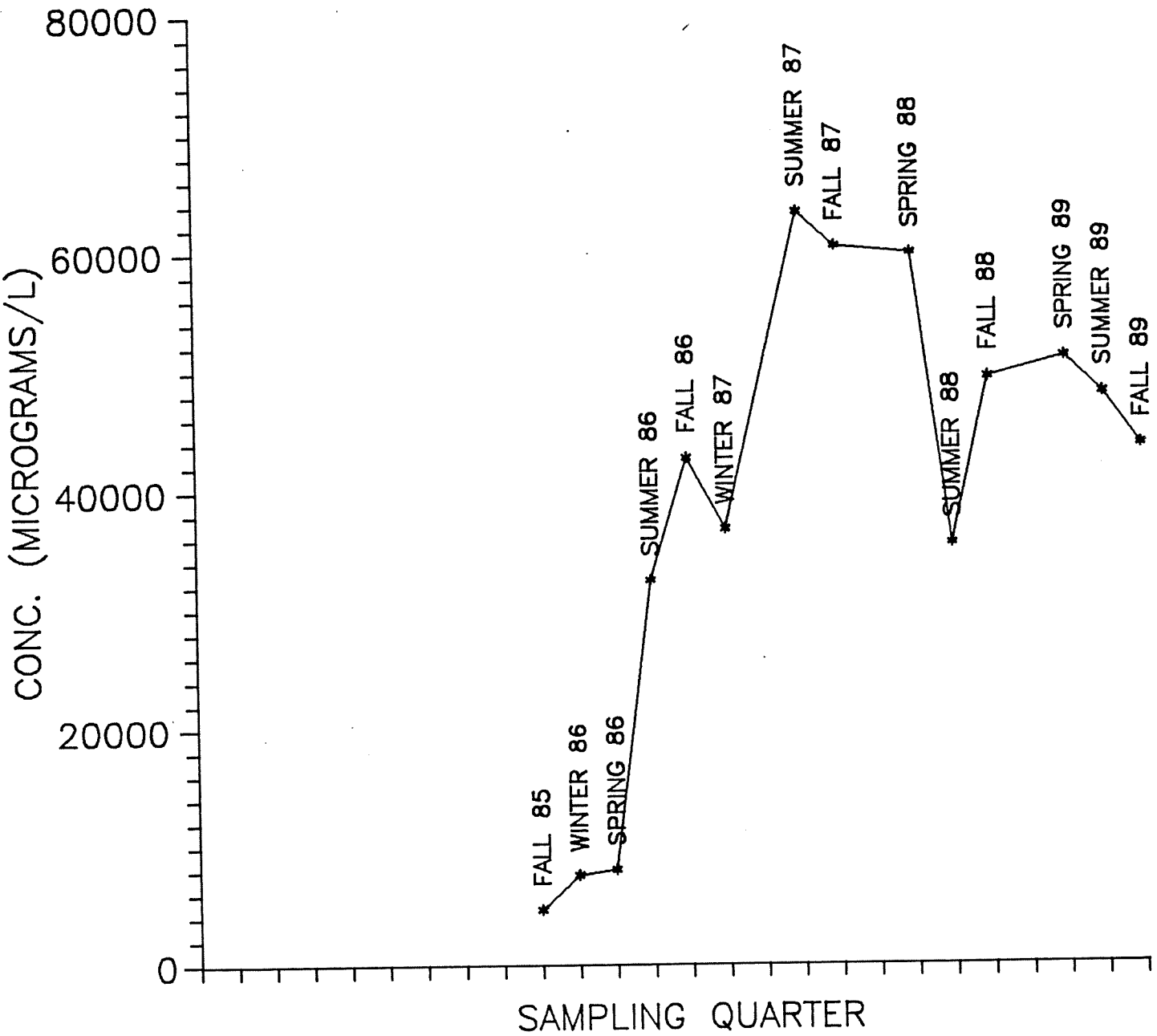
TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF SHALLOW DOLOMITE WELL 3A



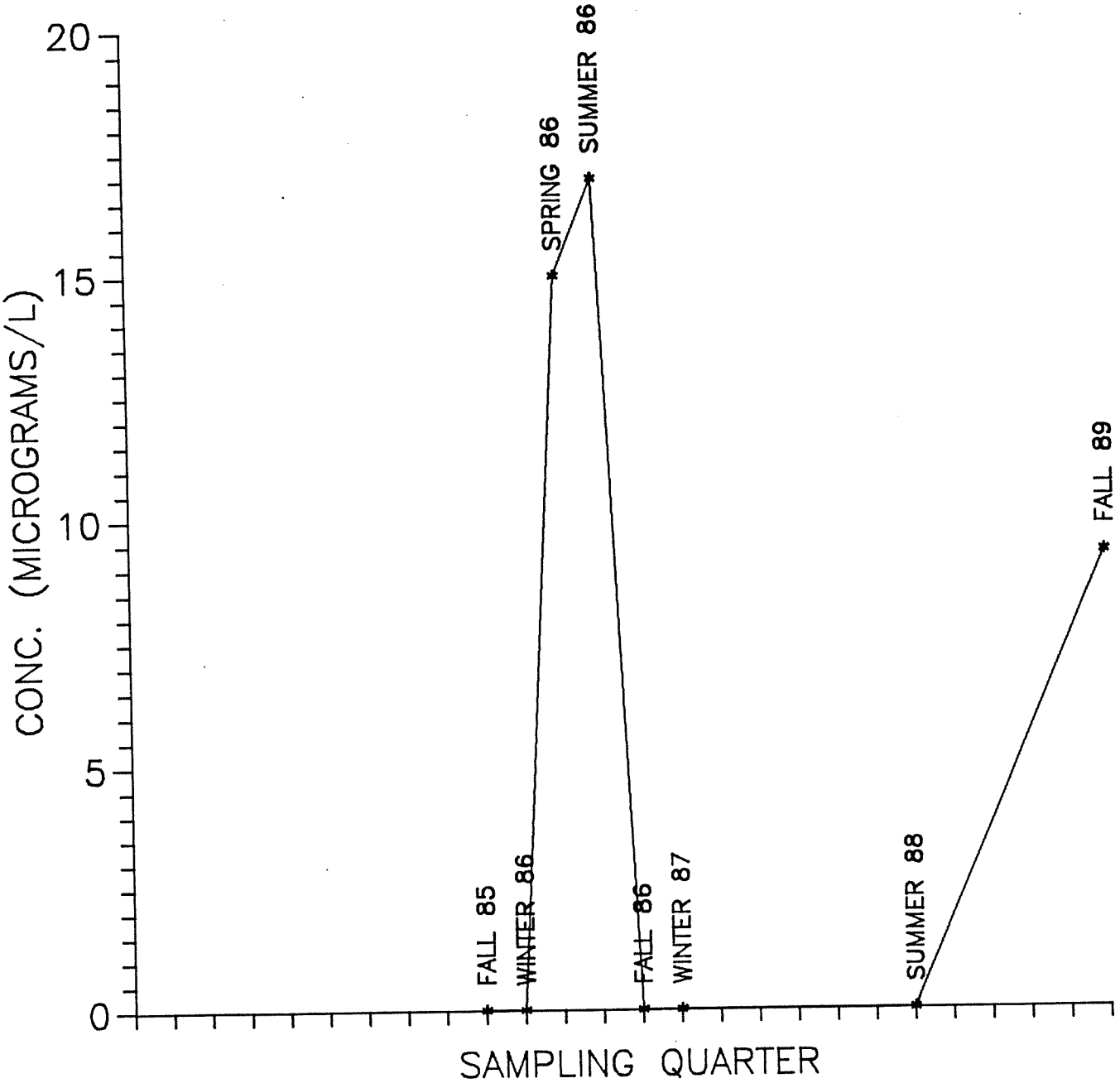
TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF SHALLOW DOLOMITE WELL 7

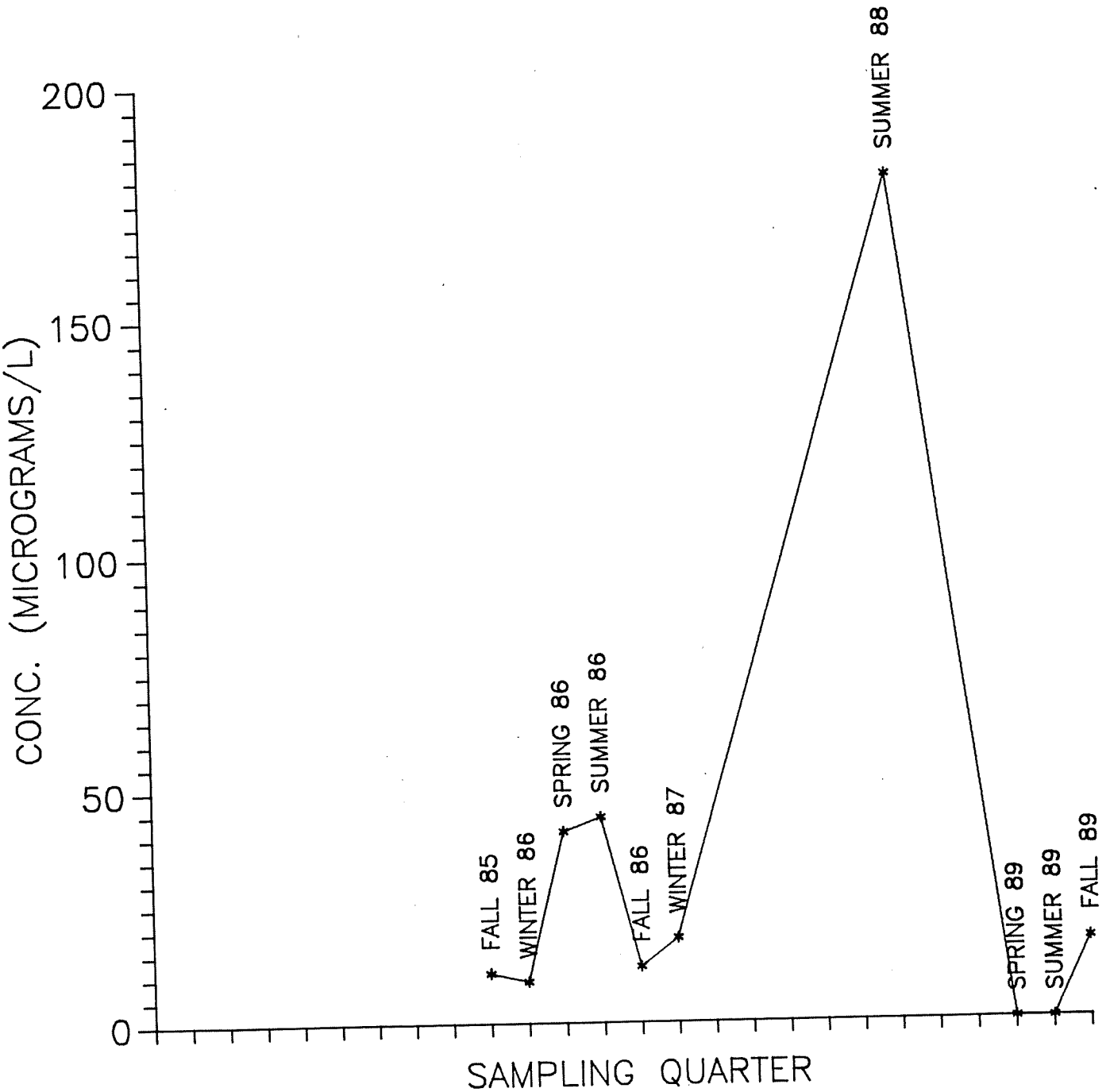


TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF SHALLOW DOLOMITE WELL 21A

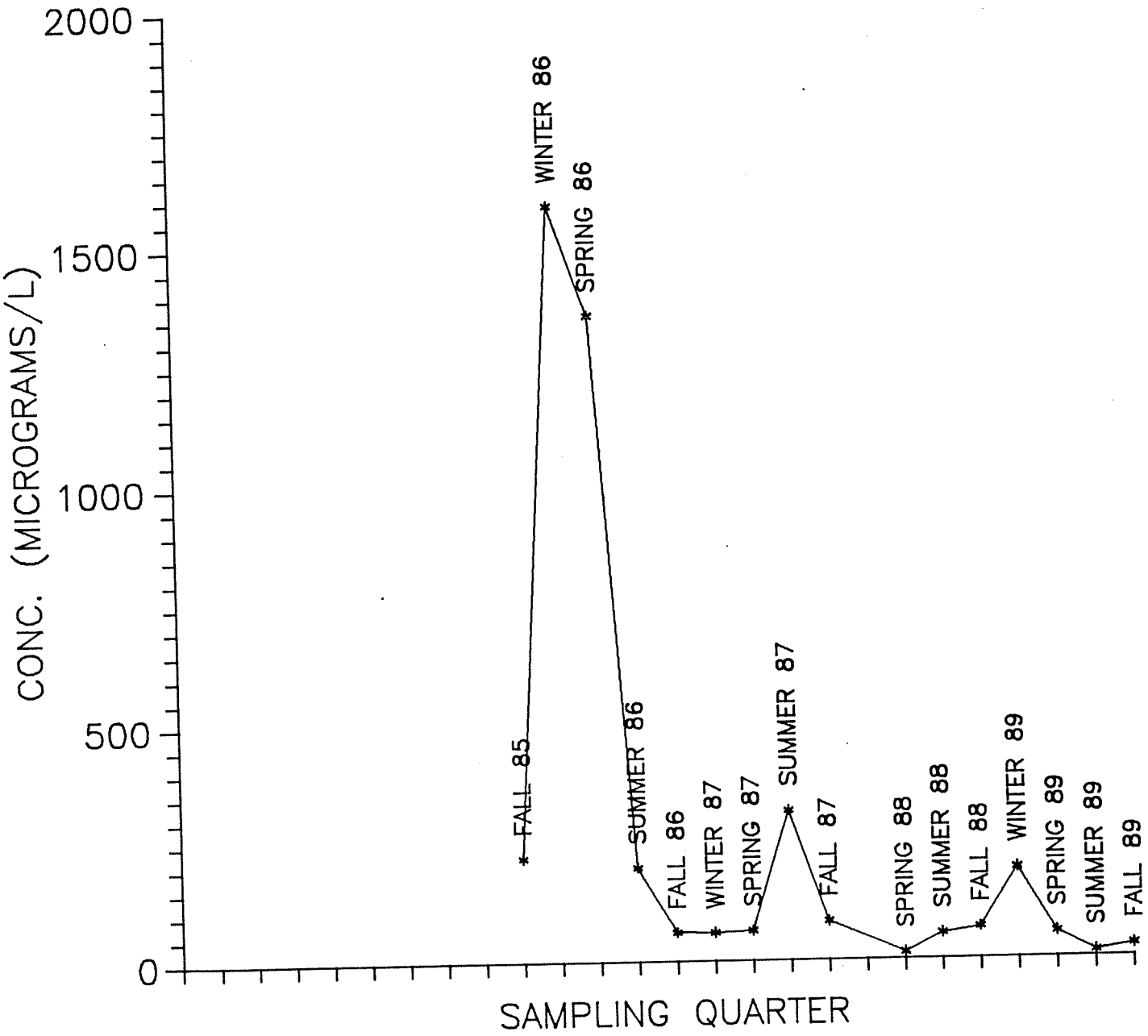


TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF SHALLOW DOLOMITE WELL 22

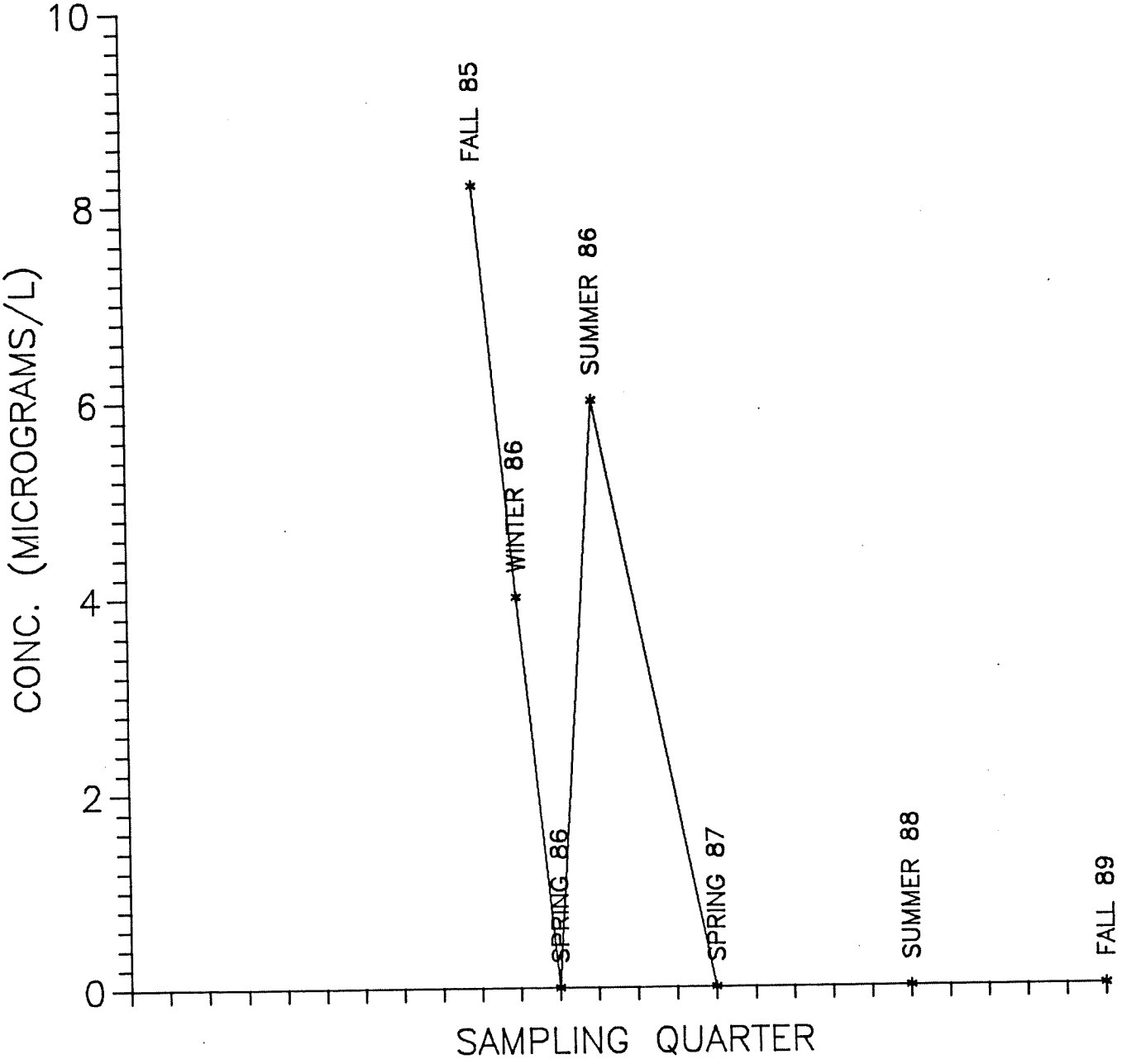



TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS
OF SHALLOW DOLOMITE WELL 23
CONC. (MICROGRAMS/L)
200
150
100
50
0
SAMPLING QUARTER
FALL 85
WINTER 86
SPRING 86
SUMMER 86
FALL 86
WINTER 87
SUMMER 88
SPRING 89
SUMMER 89
FALL 89

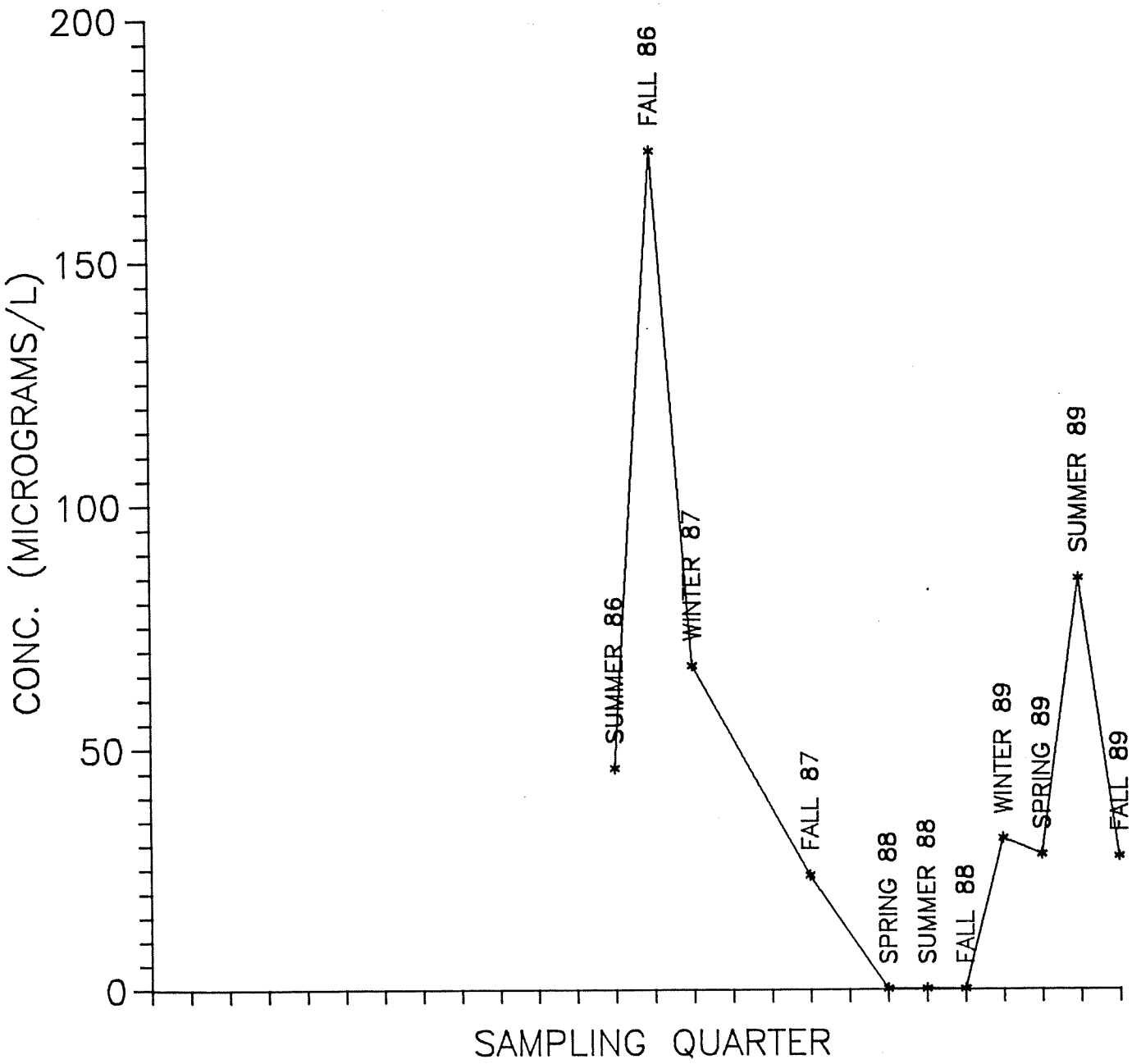
TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF SHALLOW DOLOMITE WELL 24A



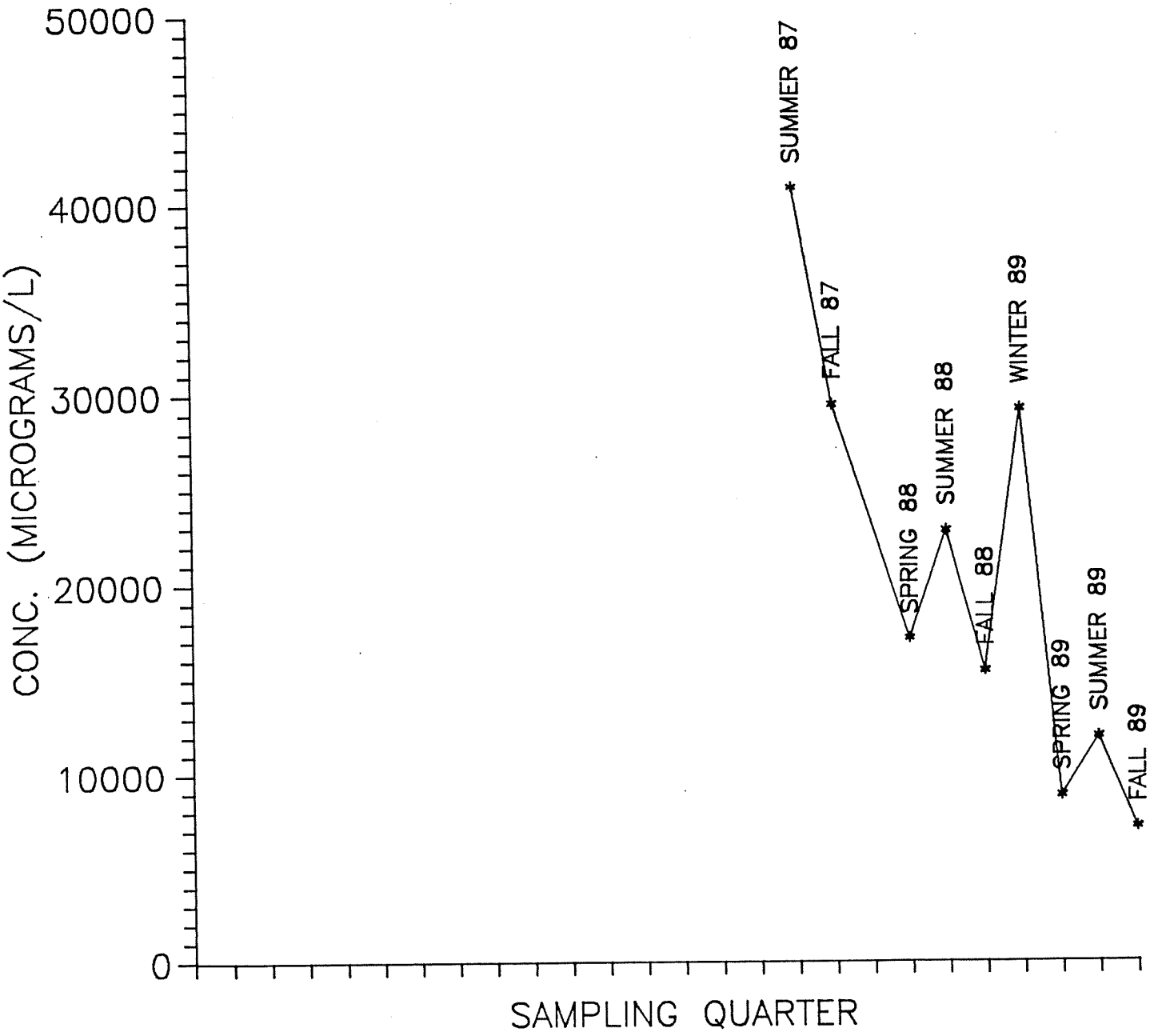
TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF SHALLOW DOLOMITE WELL 25



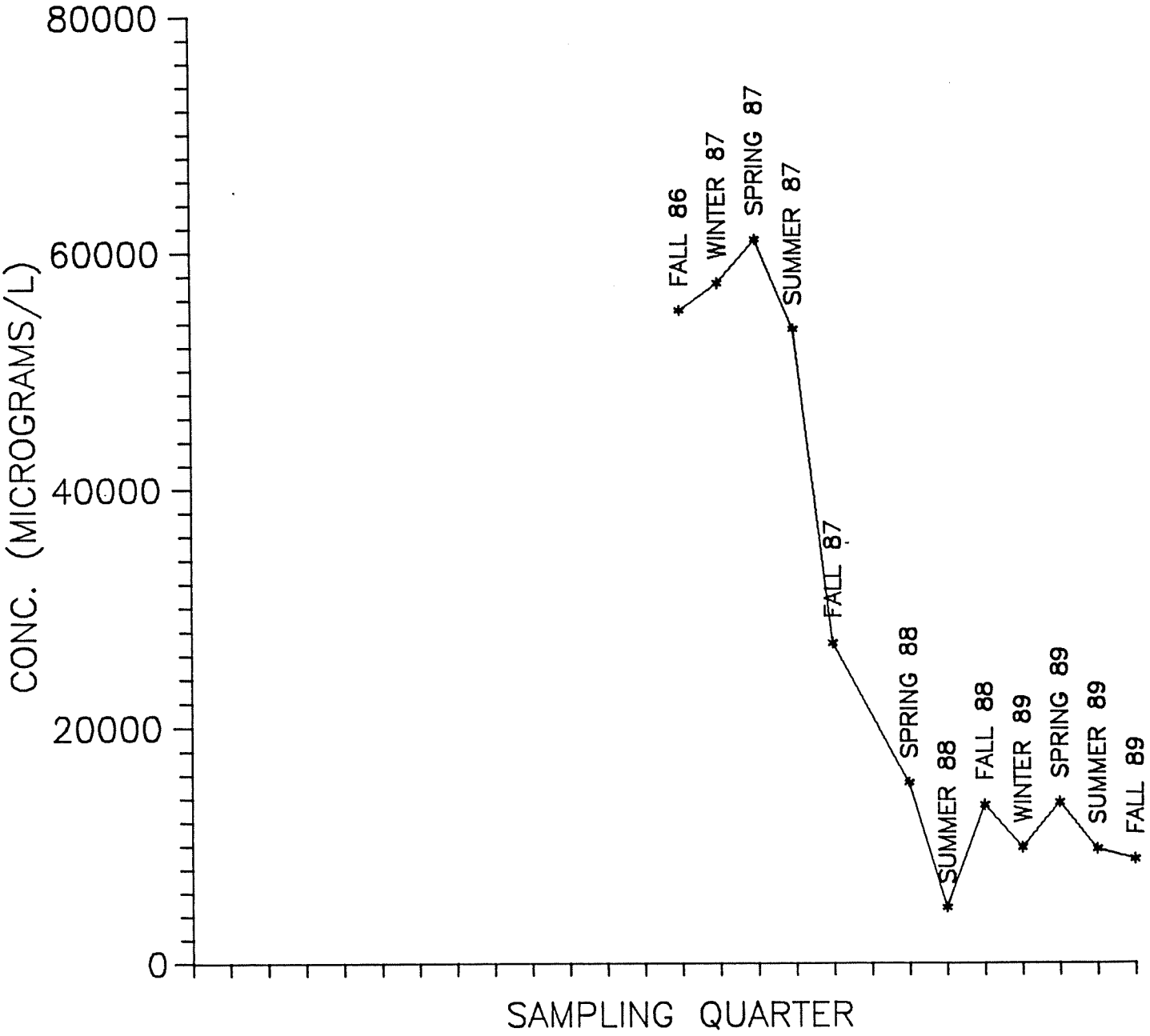
TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF SHALLOW DOLOMITE WELL 28



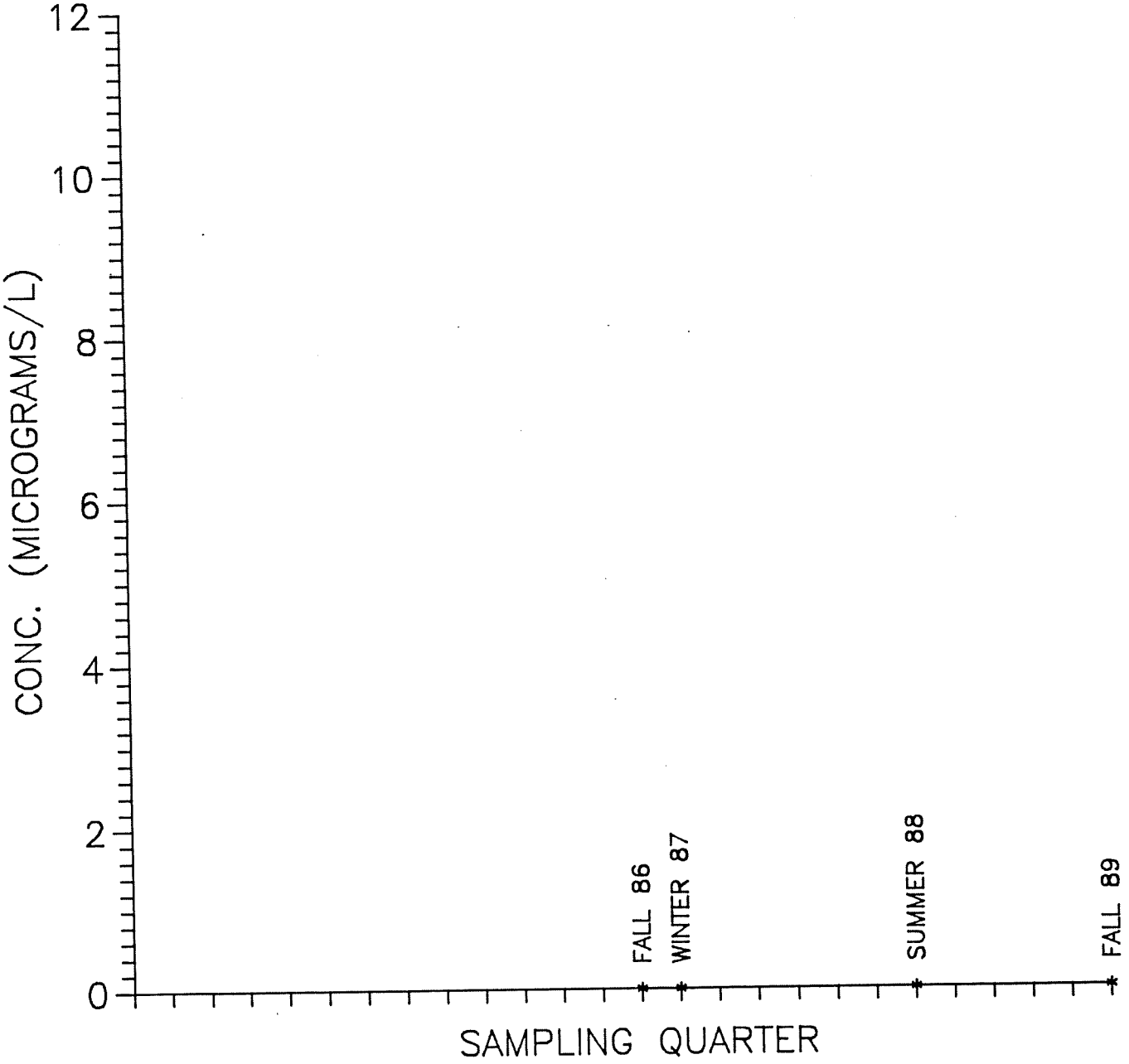
TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF SHALLOW DOLOMITE WELL 29



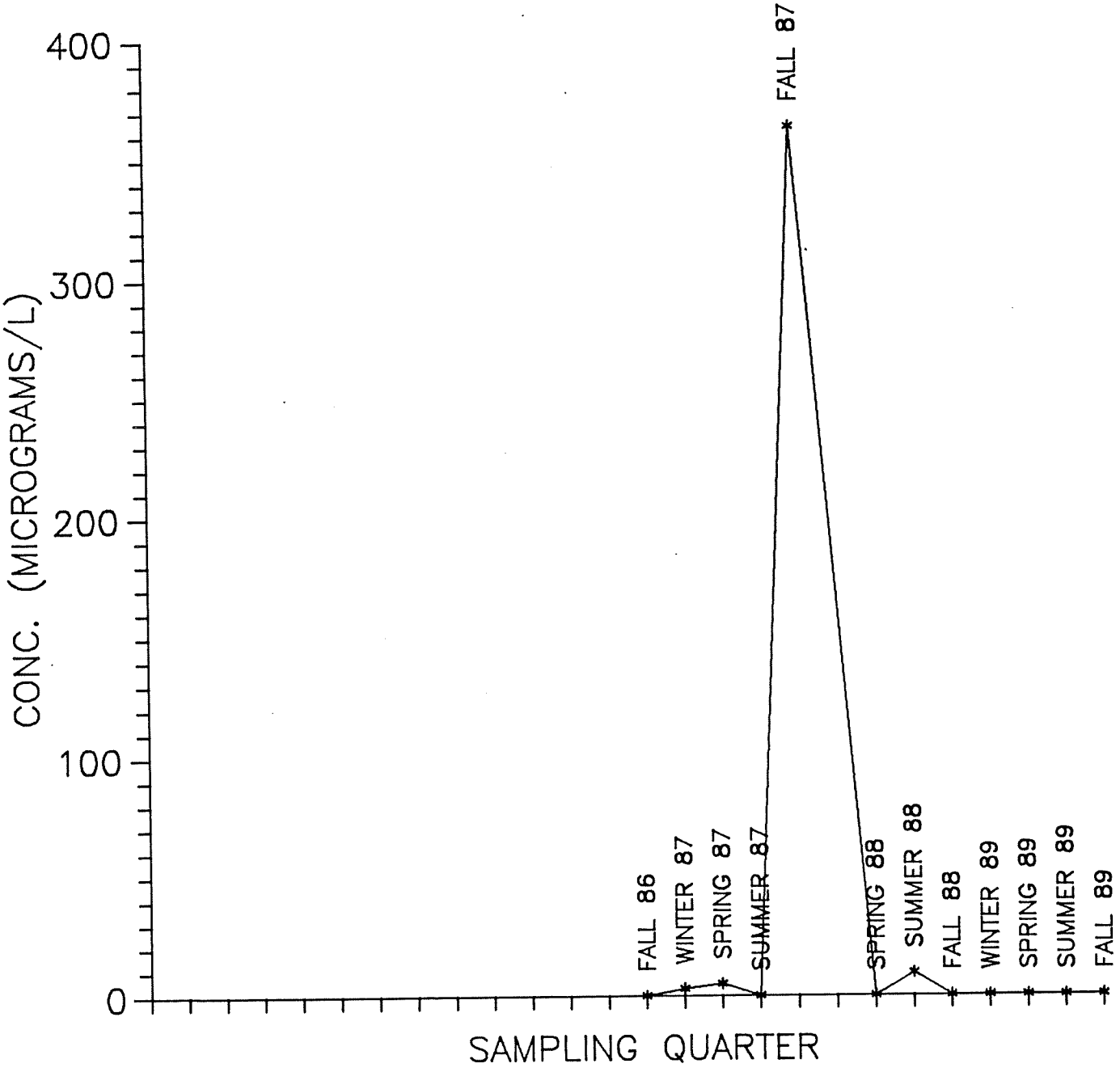
TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF SHALLOW DOLOMITE WELL 38



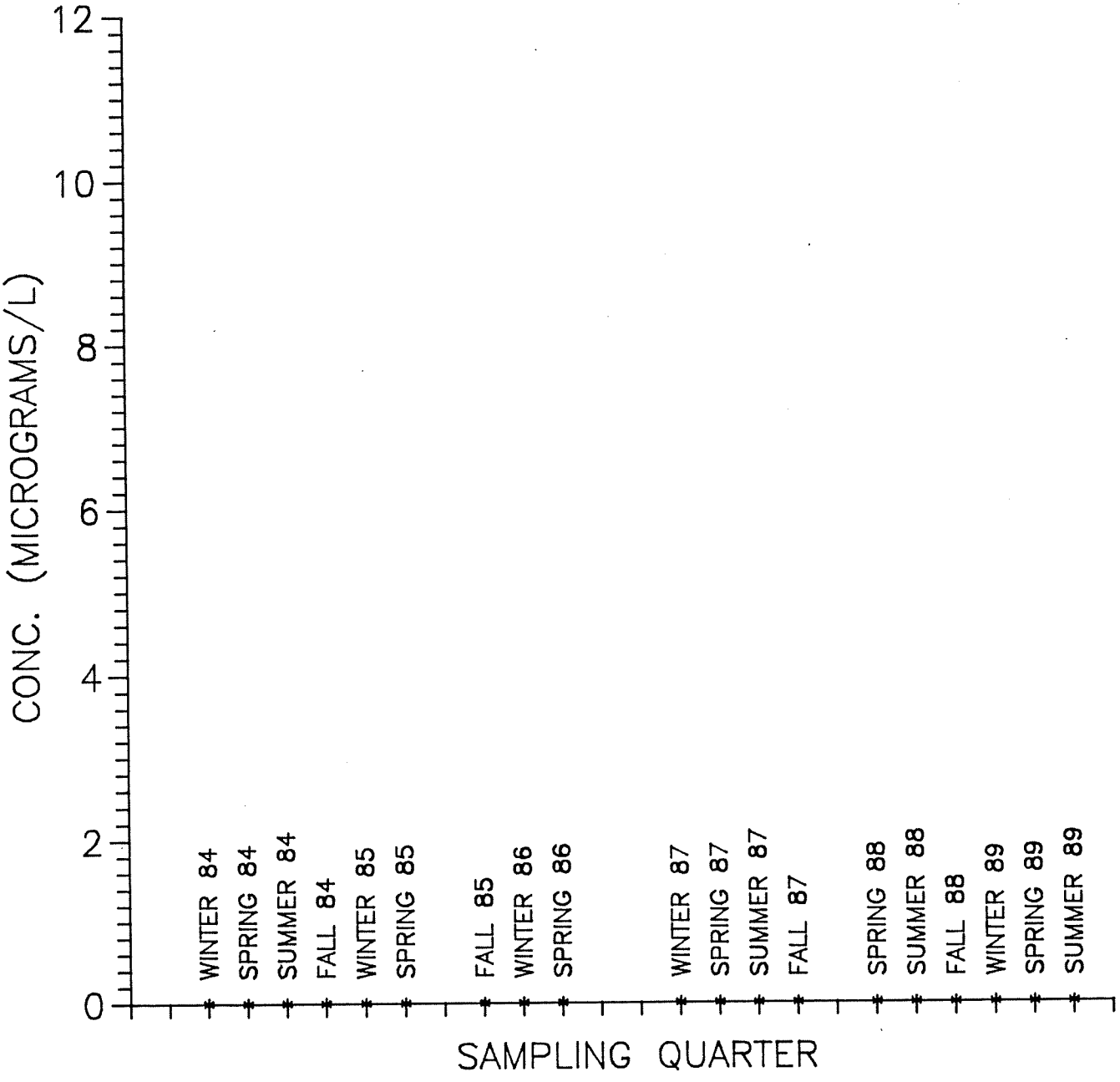
TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF SHALLOW DOLOMITE WELL 39



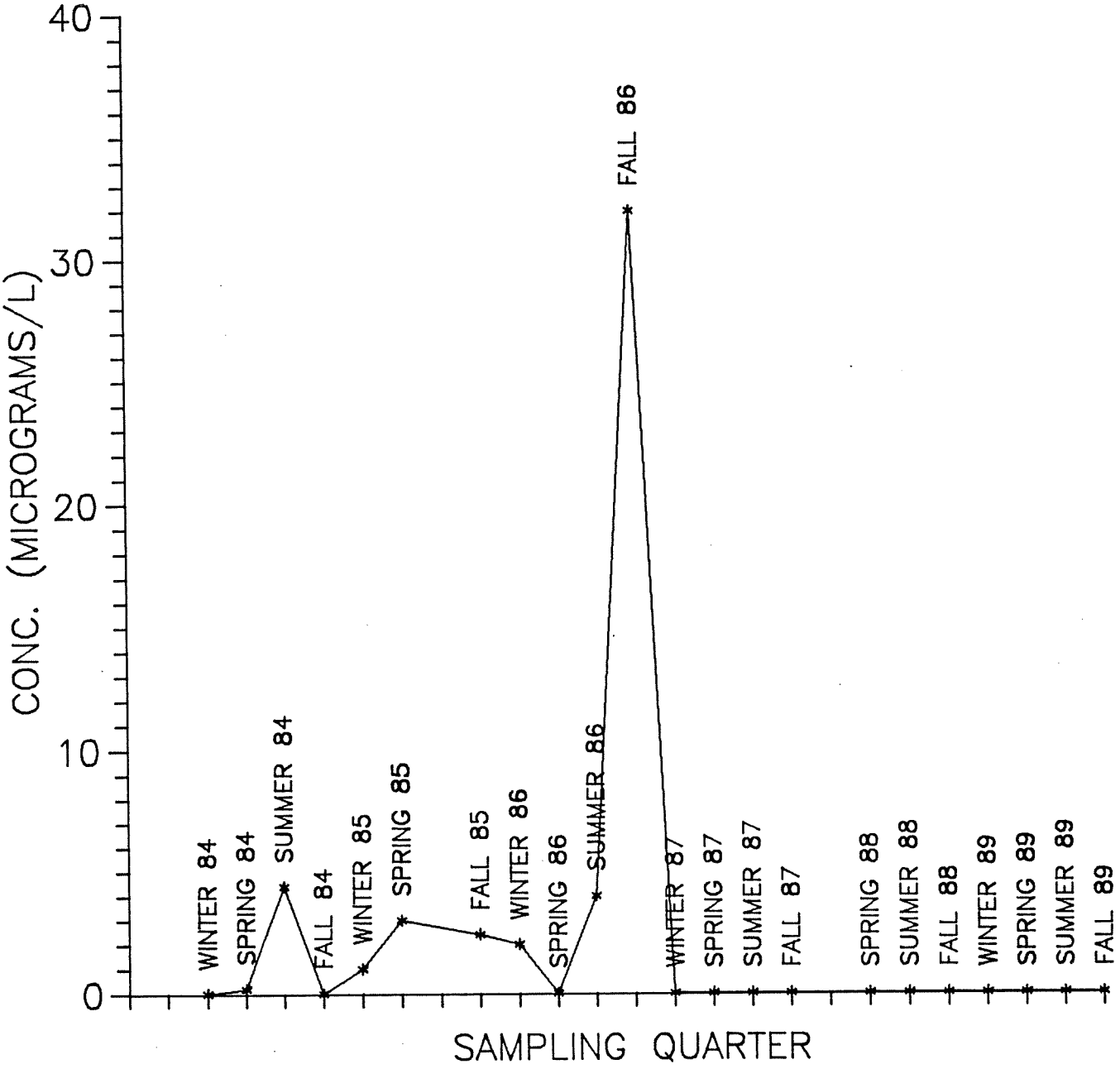
TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF SHALLOW DOLOMITE WELL 40



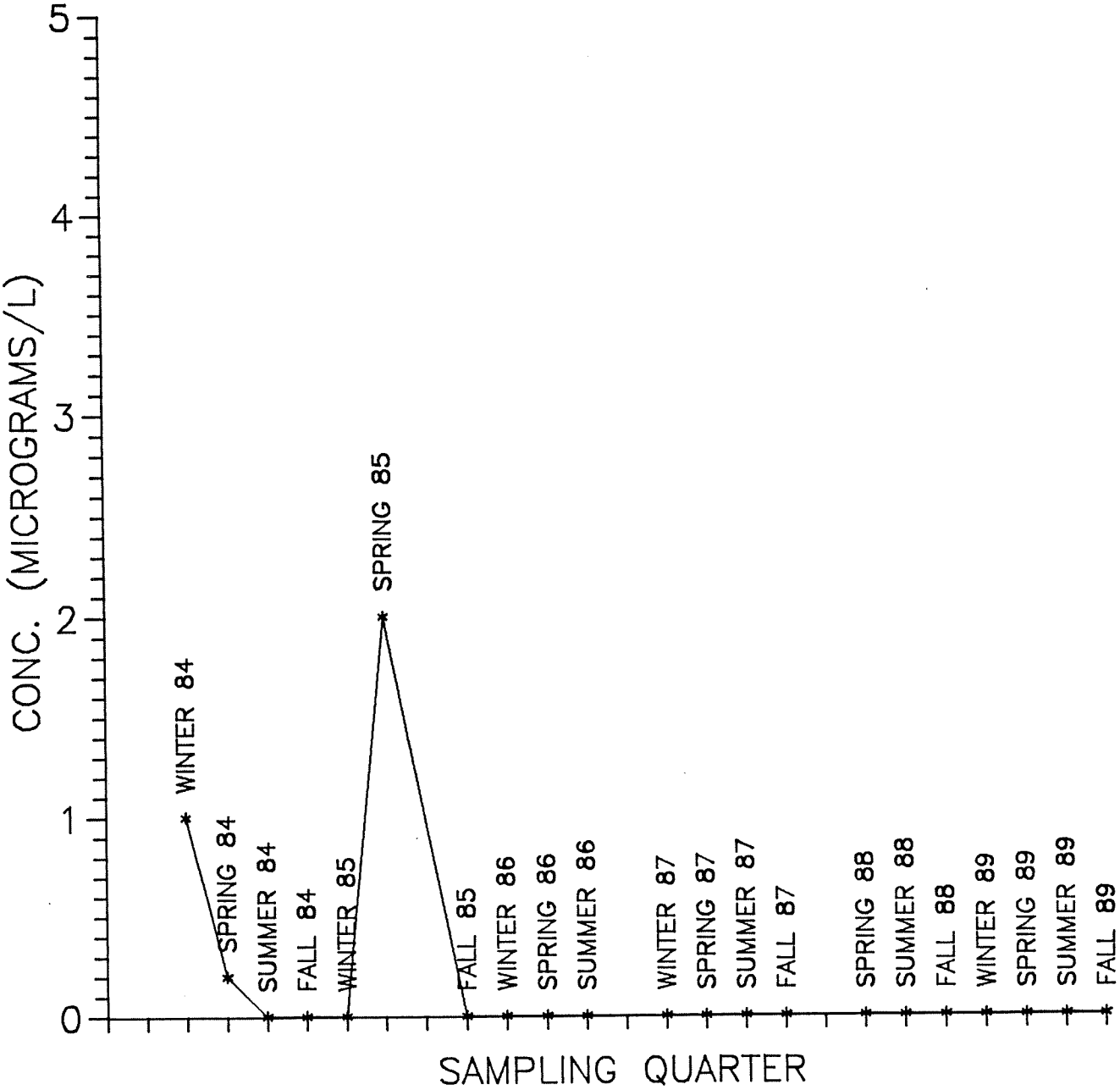
TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF DEEP DOLOMITE WELL MW-1



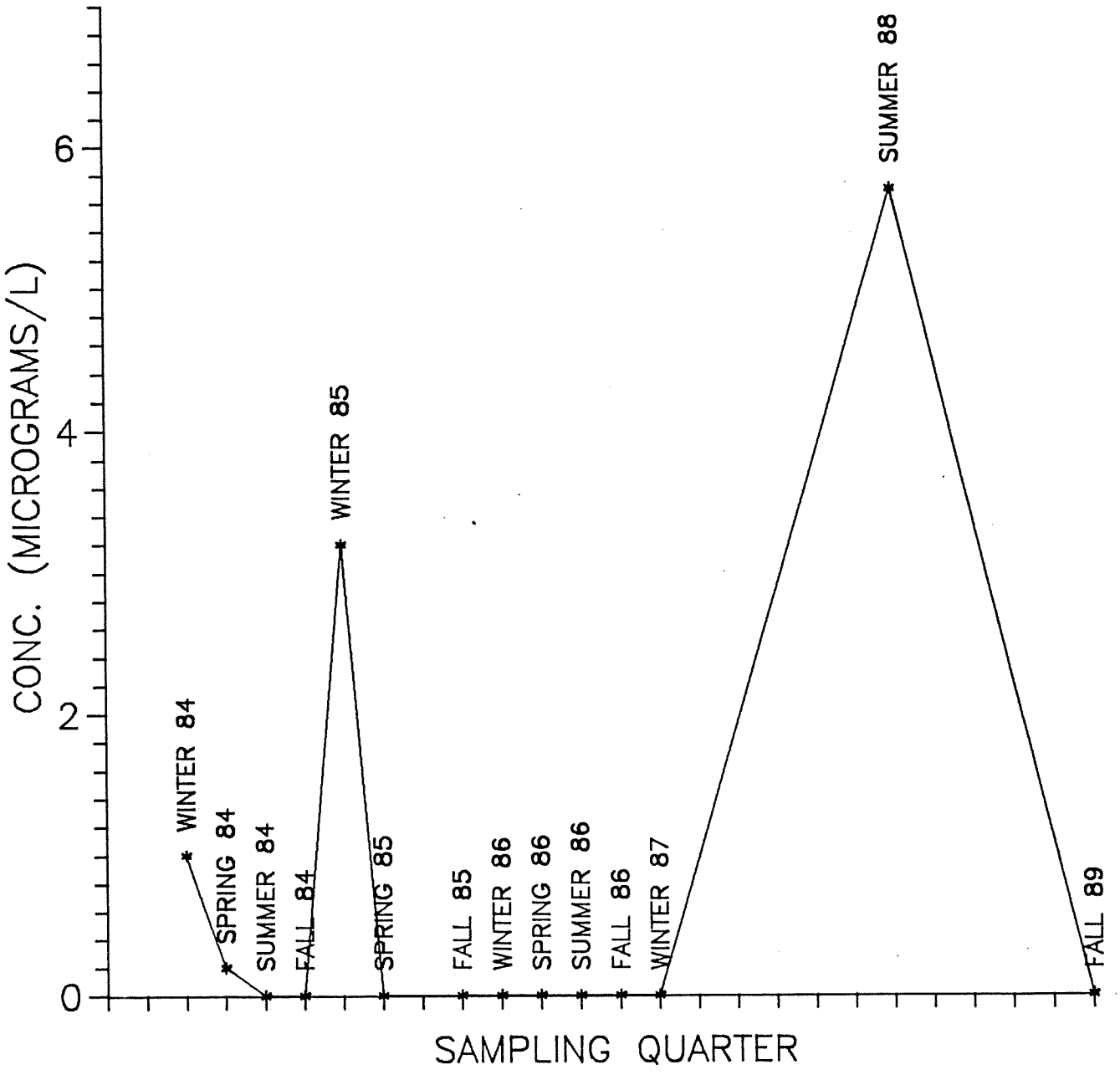
TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF DEEP DOLOMITE WELL MW-2



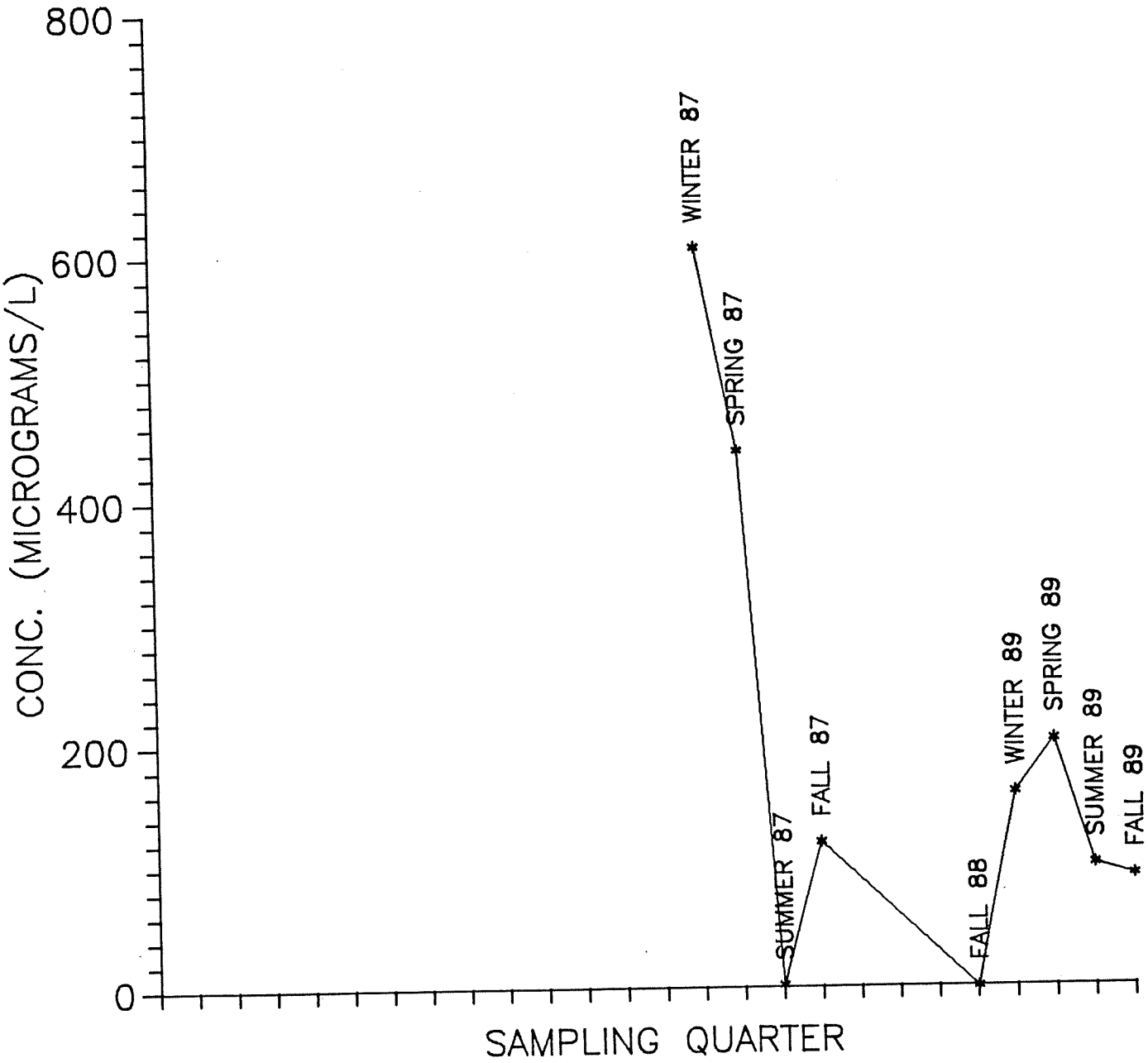
TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF DEEP DOLOMITE WELL MW-3



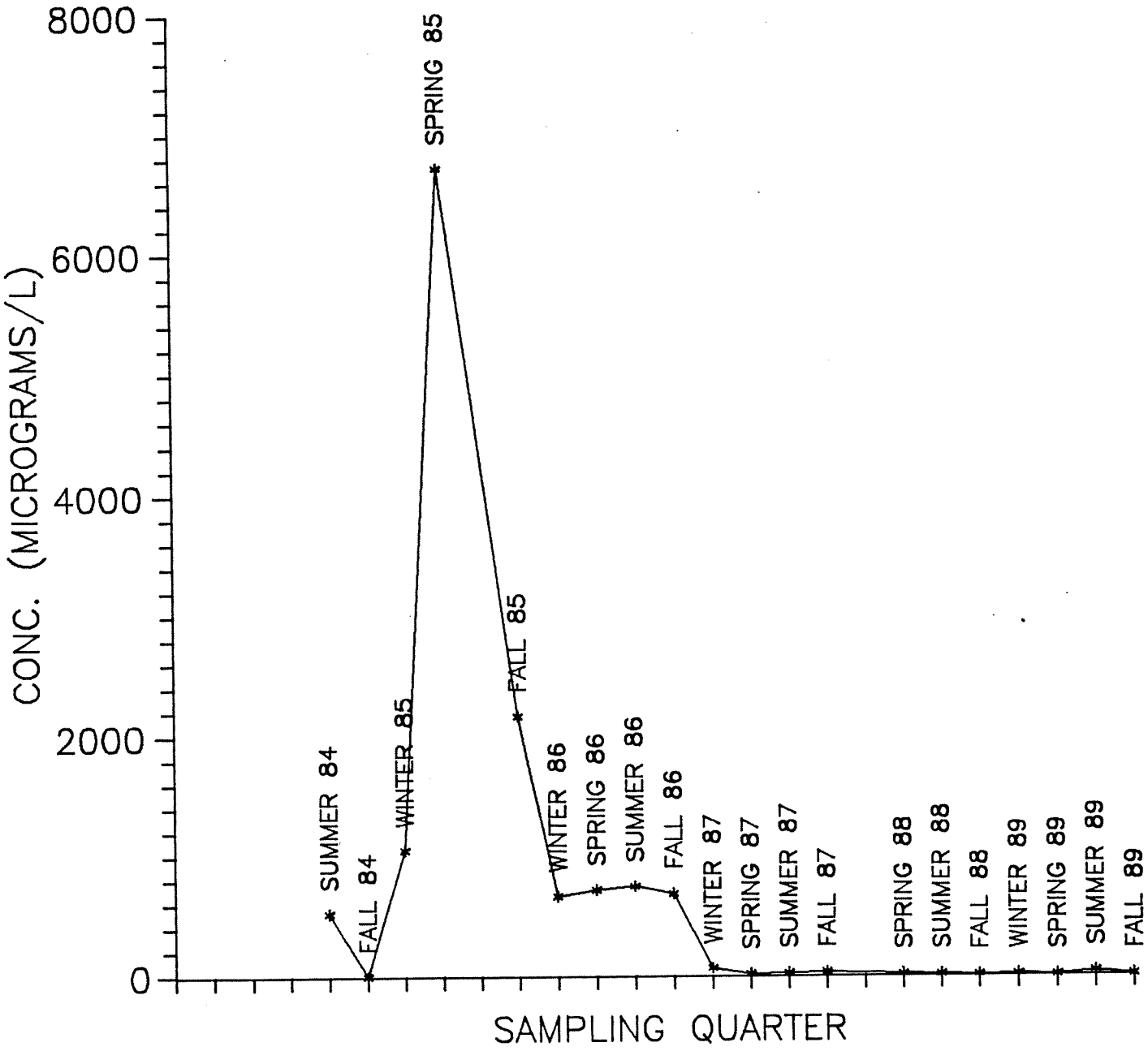
TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF DEEP DOLOMITE WELL MW-4



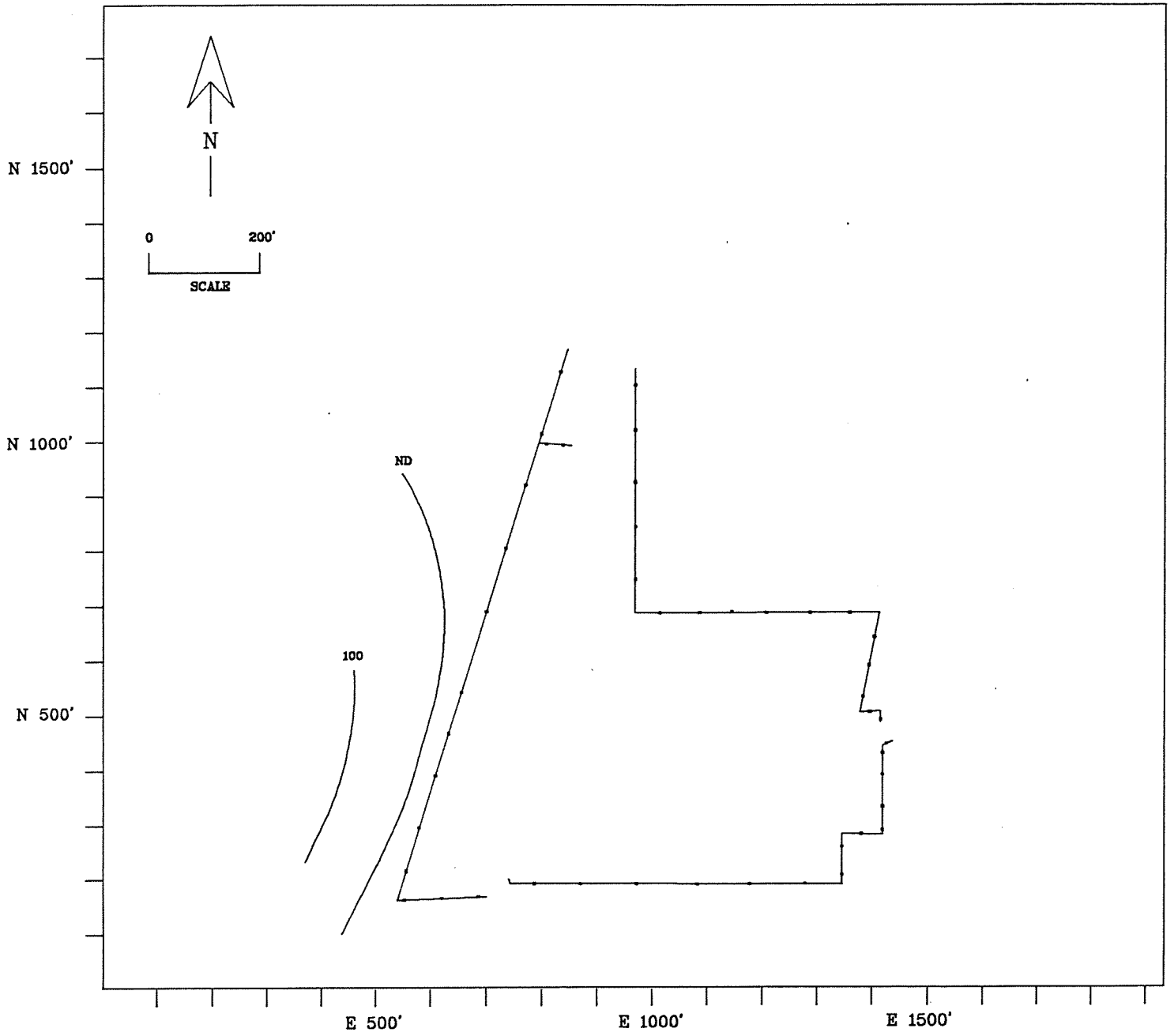
TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF DEEP DOLOMITE WELL 30



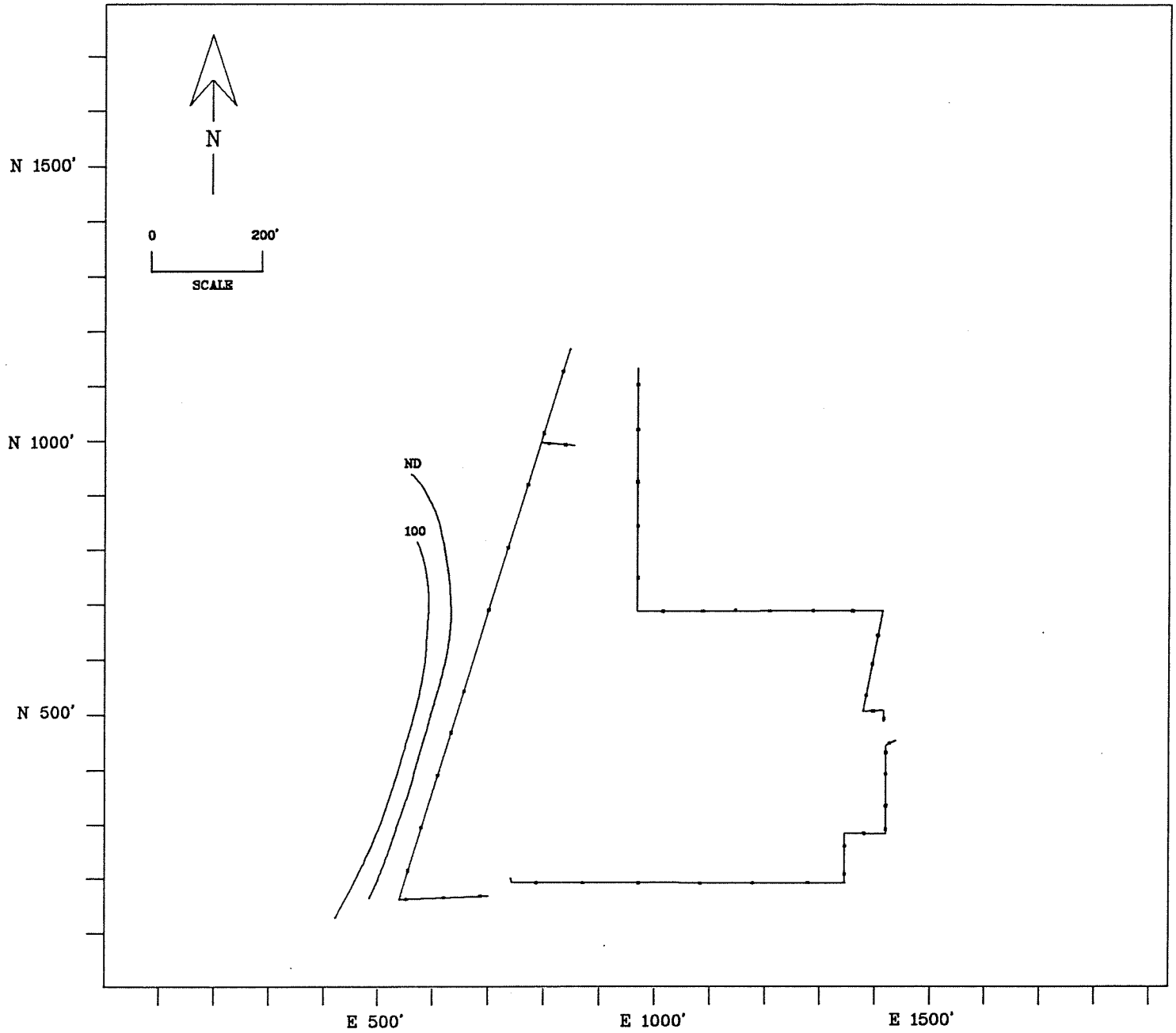
TREND ANALYSIS OF TOTAL VOC CONCENTRATIONS OF DEEP DOLOMITE WELL PW-8



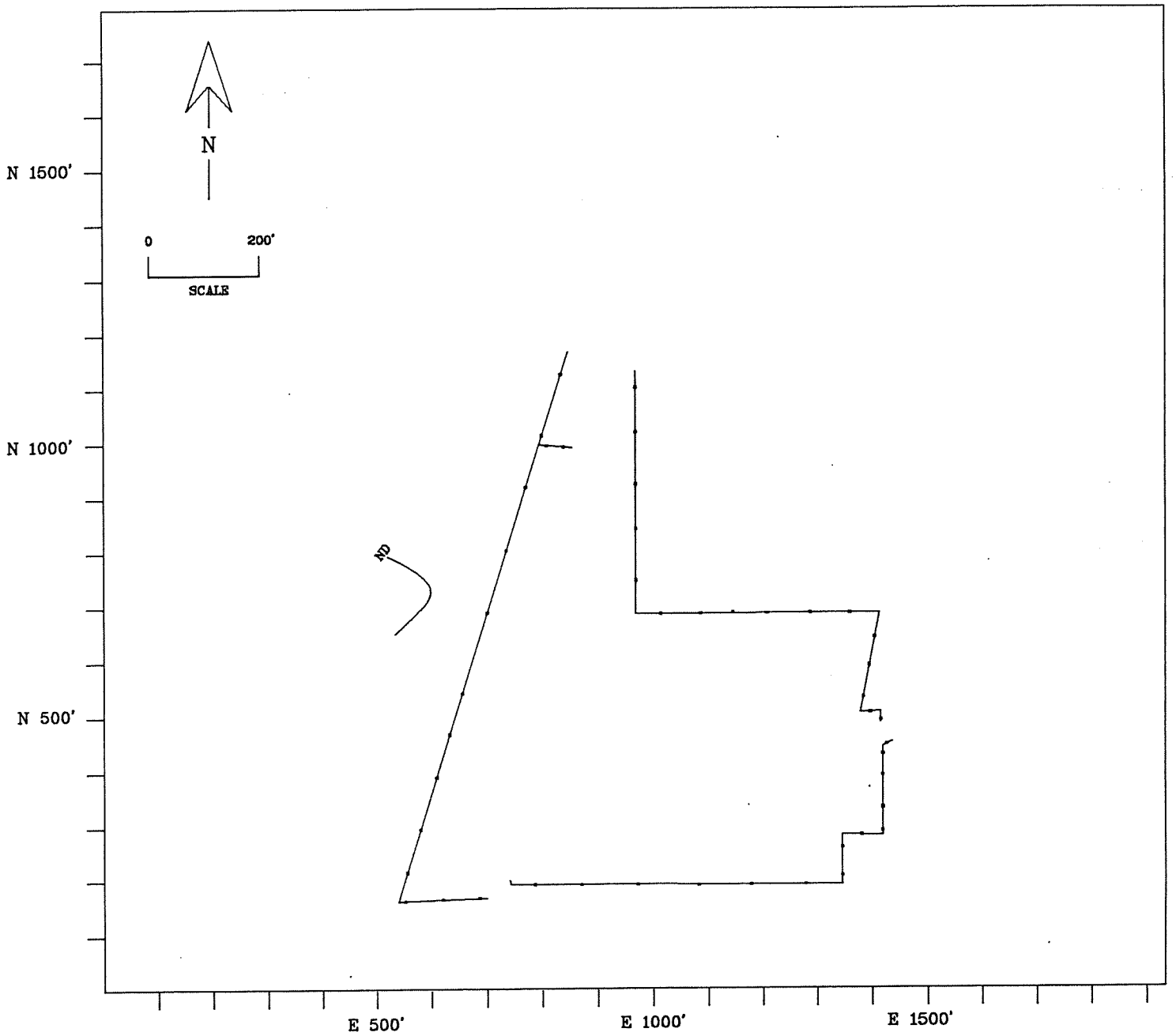
GLACIAL AQUIFER 1,2-DICHLOROETHENE(TOTAL) CONCENTRATION MAP (MICROGRAMS/L) - WINTER 1989



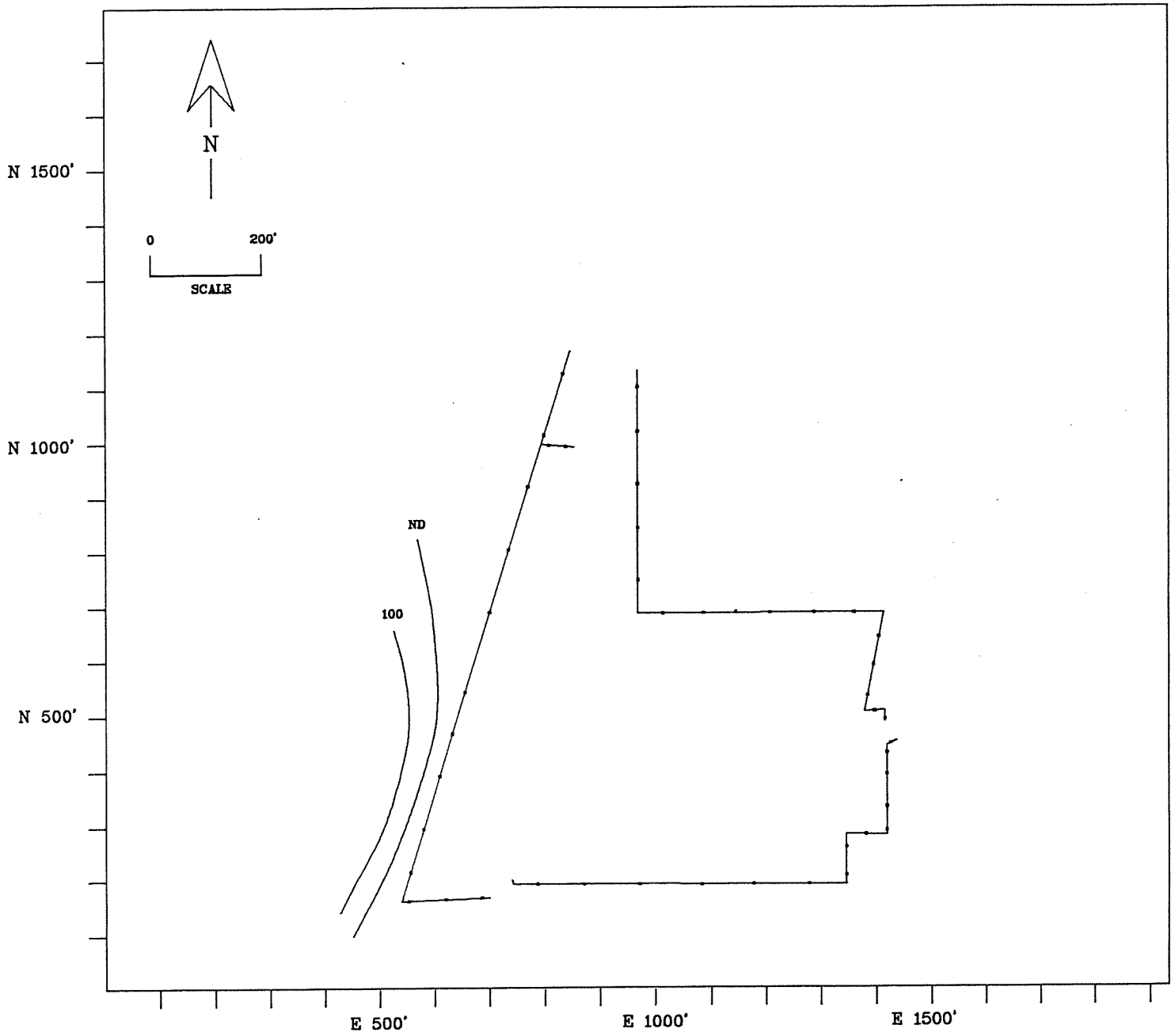
GLACIAL AQUIFER TRICHLOROETHENE CONCENTRATION MAP (MICROGRAMS/L) – WINTER 1989



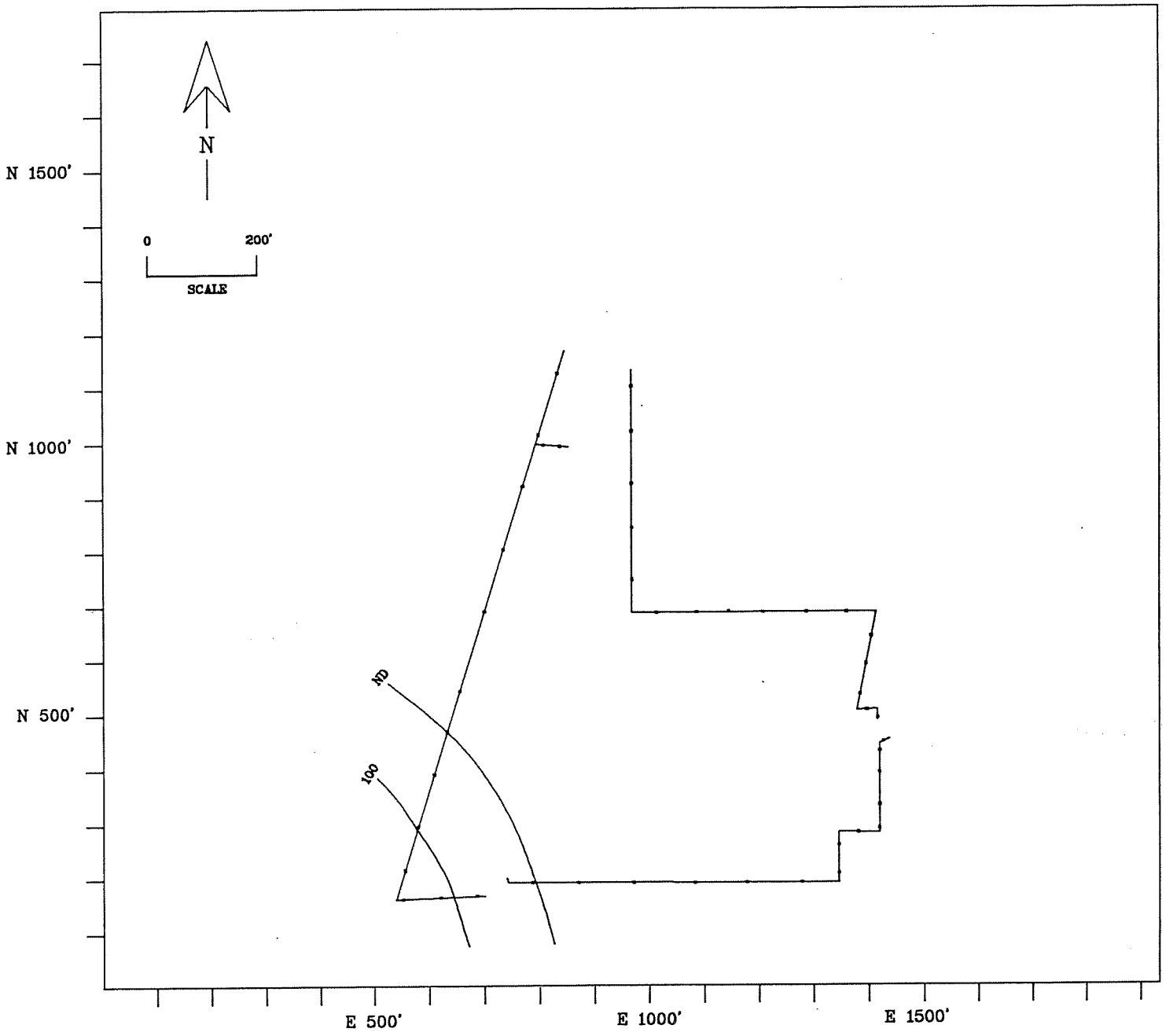
GLACIAL AQUIFER 1,1,1-TRICHLOROETHANE CONCENTRATION MAP (MICROGRAMS/L) - WINTER 1989



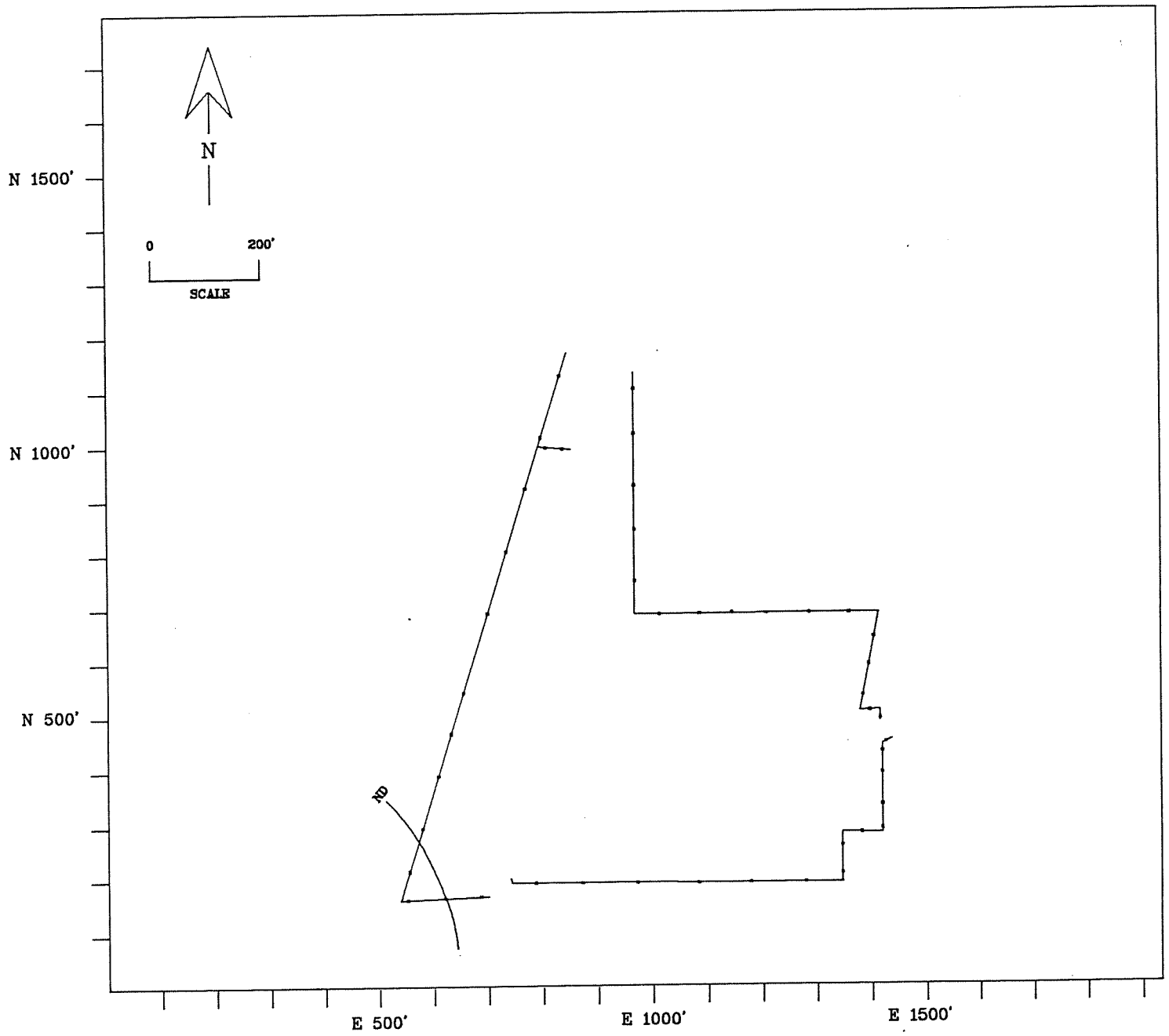
GLACIAL AQUIFER TRICHLOROETHENE CONCENTRATION MAP (MICROGRAMS/L) – FALL 1989



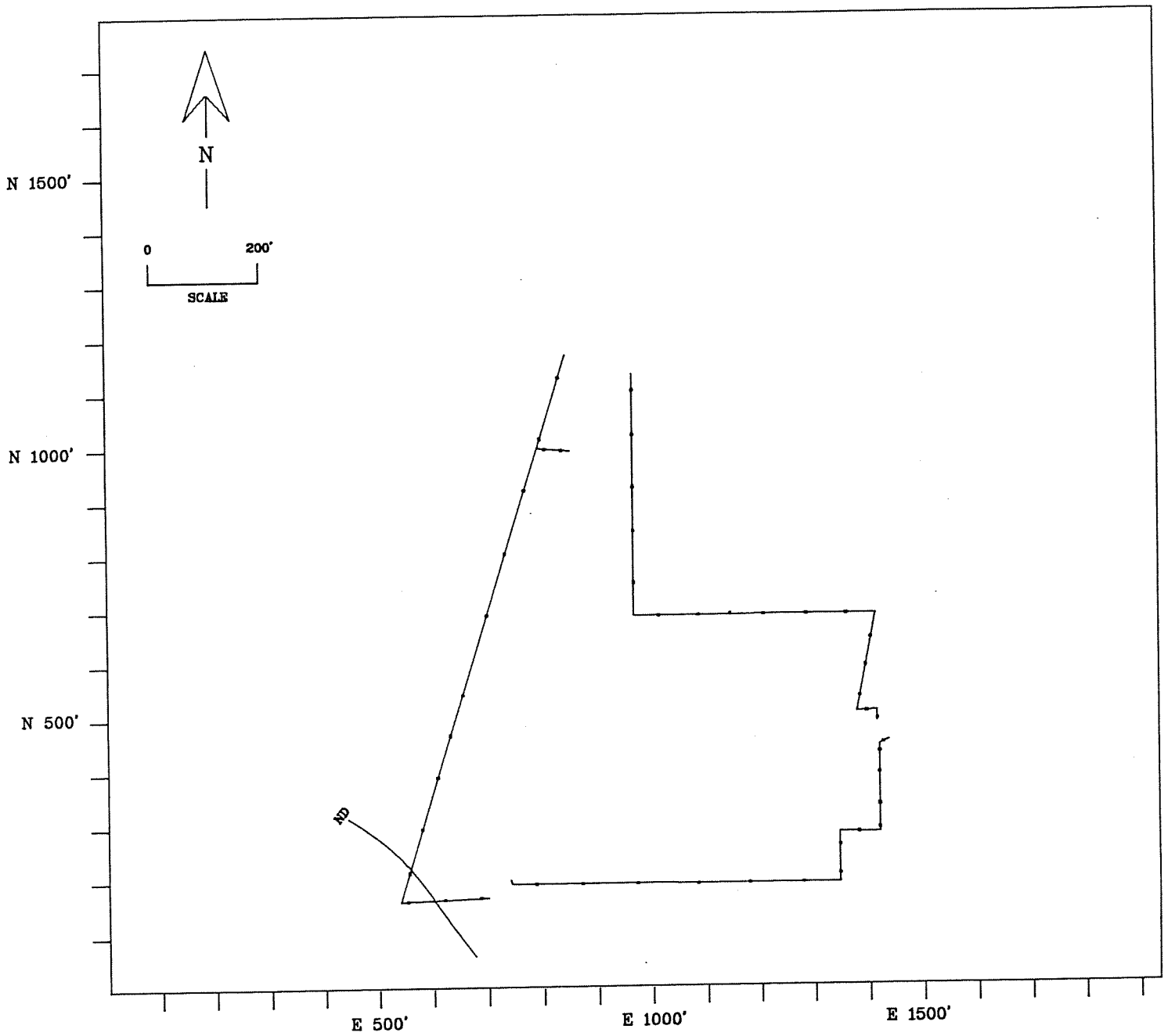
DOLOMITE AQUIFER 1,2-DICHLOROETHENE(TOTAL) CONCENTRATION MAP (MICROGRAMS/L) - WINTER 1989



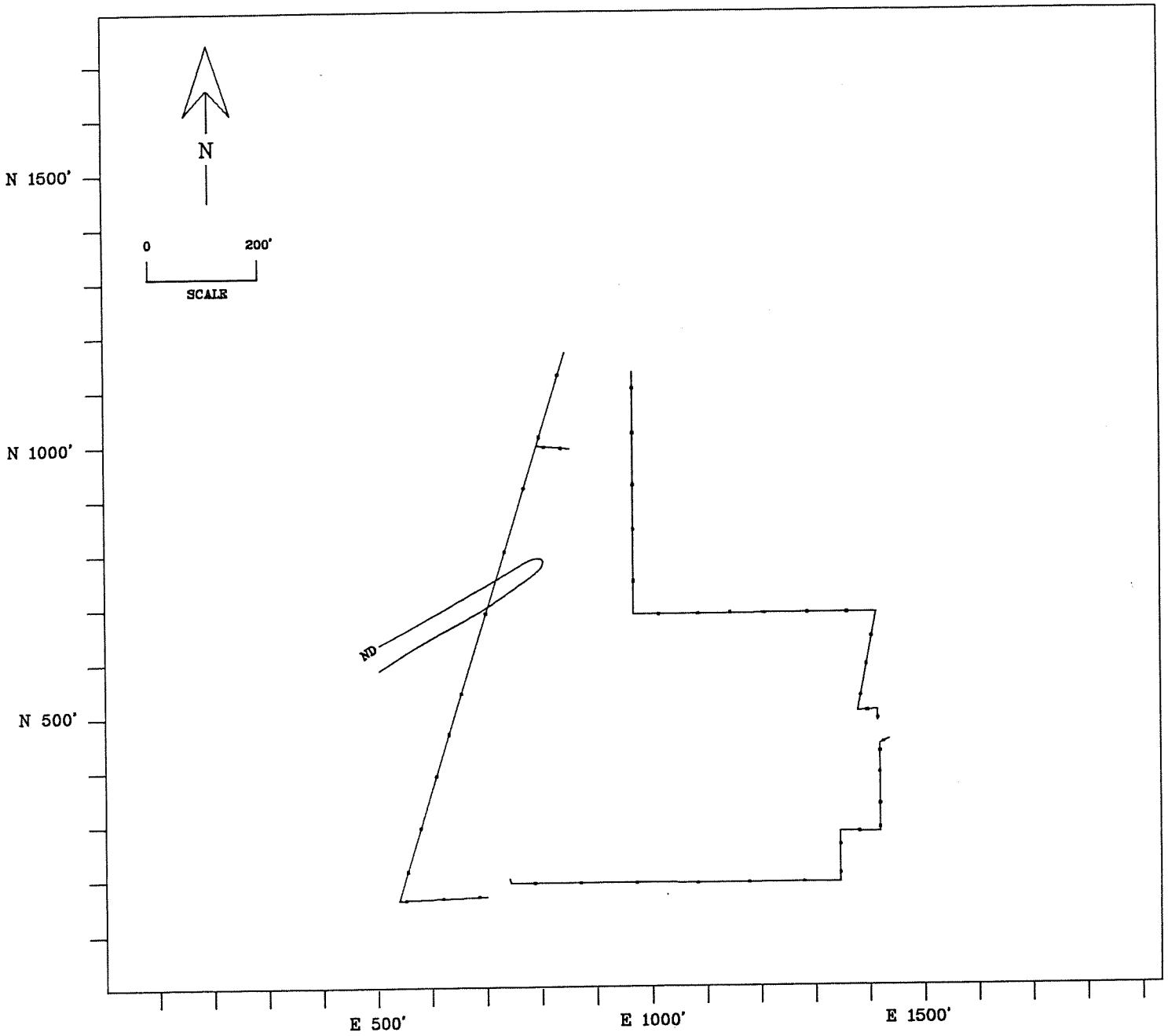
DOLOMITE AQUIFER TRICHLOROETHENE CONCENTRATION MAP (MICROGRAMS/L) – WINTER 1989



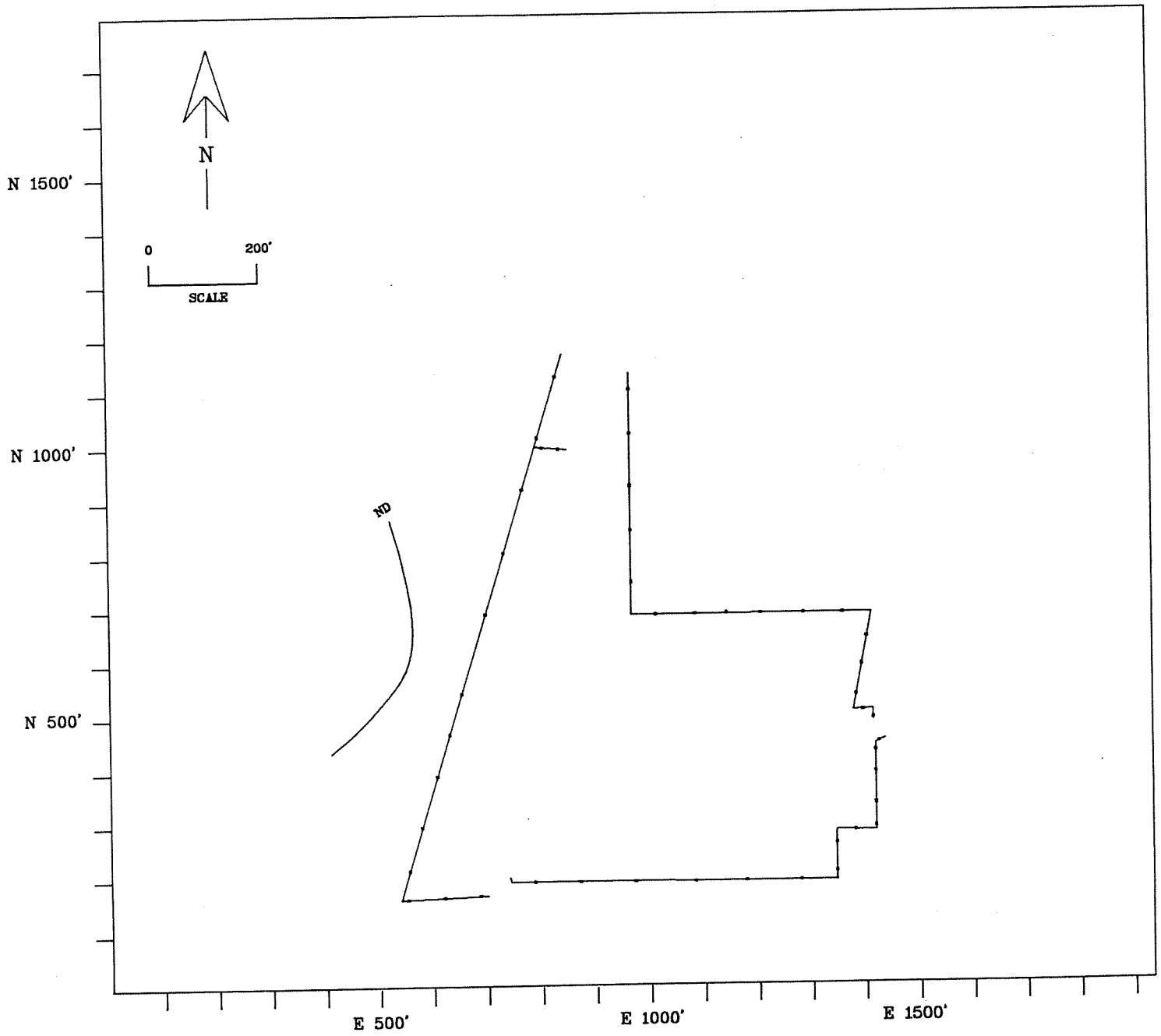
DOLOMITE AQUIFER VINYL CHLORIDE CONCENTRATION MAP (MICROGRAMS/L) – WINTER 1989



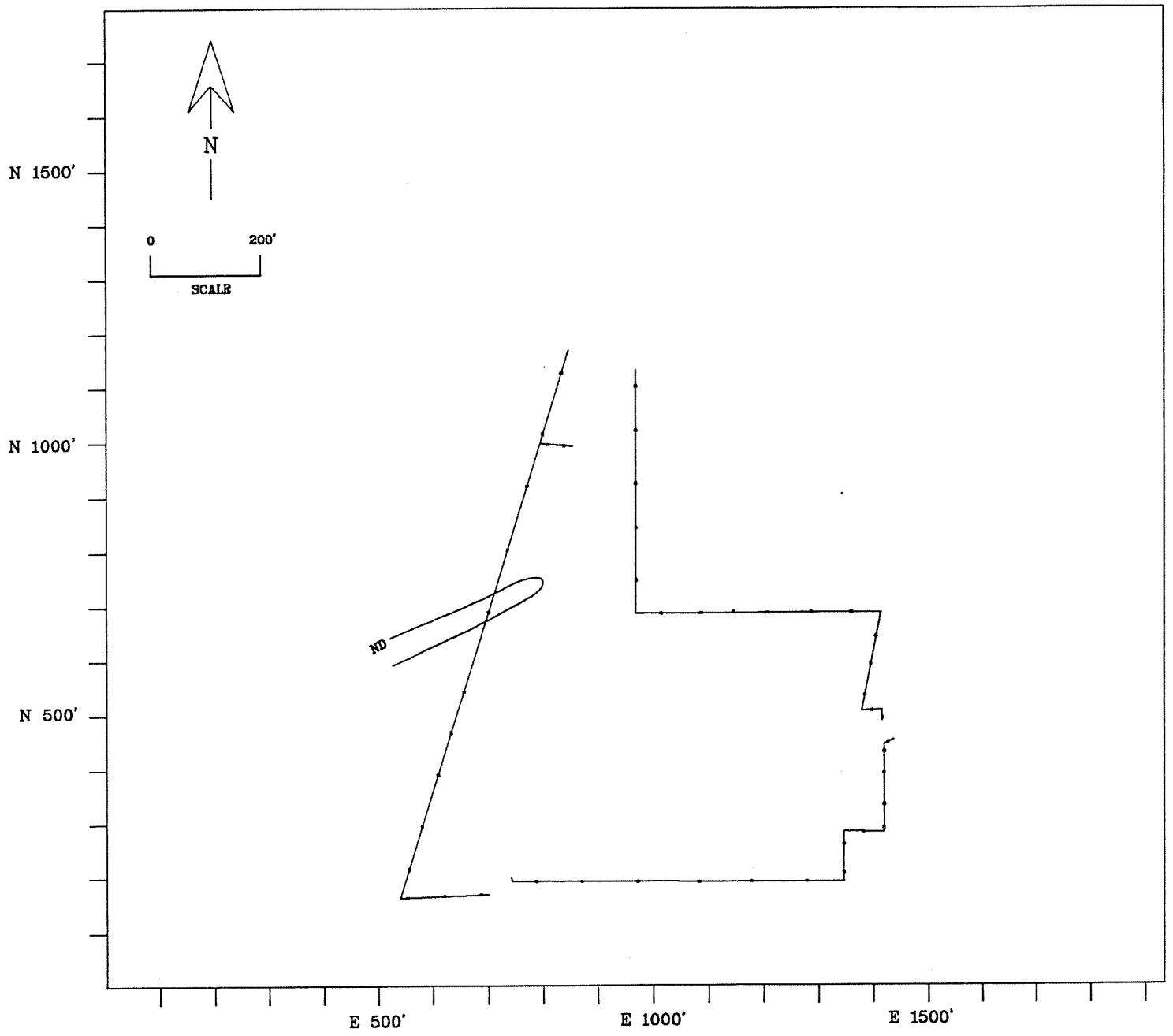
DOLOMITE AQUIFER CARBON DISULFIDE CONCENTRATION MAP (MICROGRAMS/L) – WINTER 1989



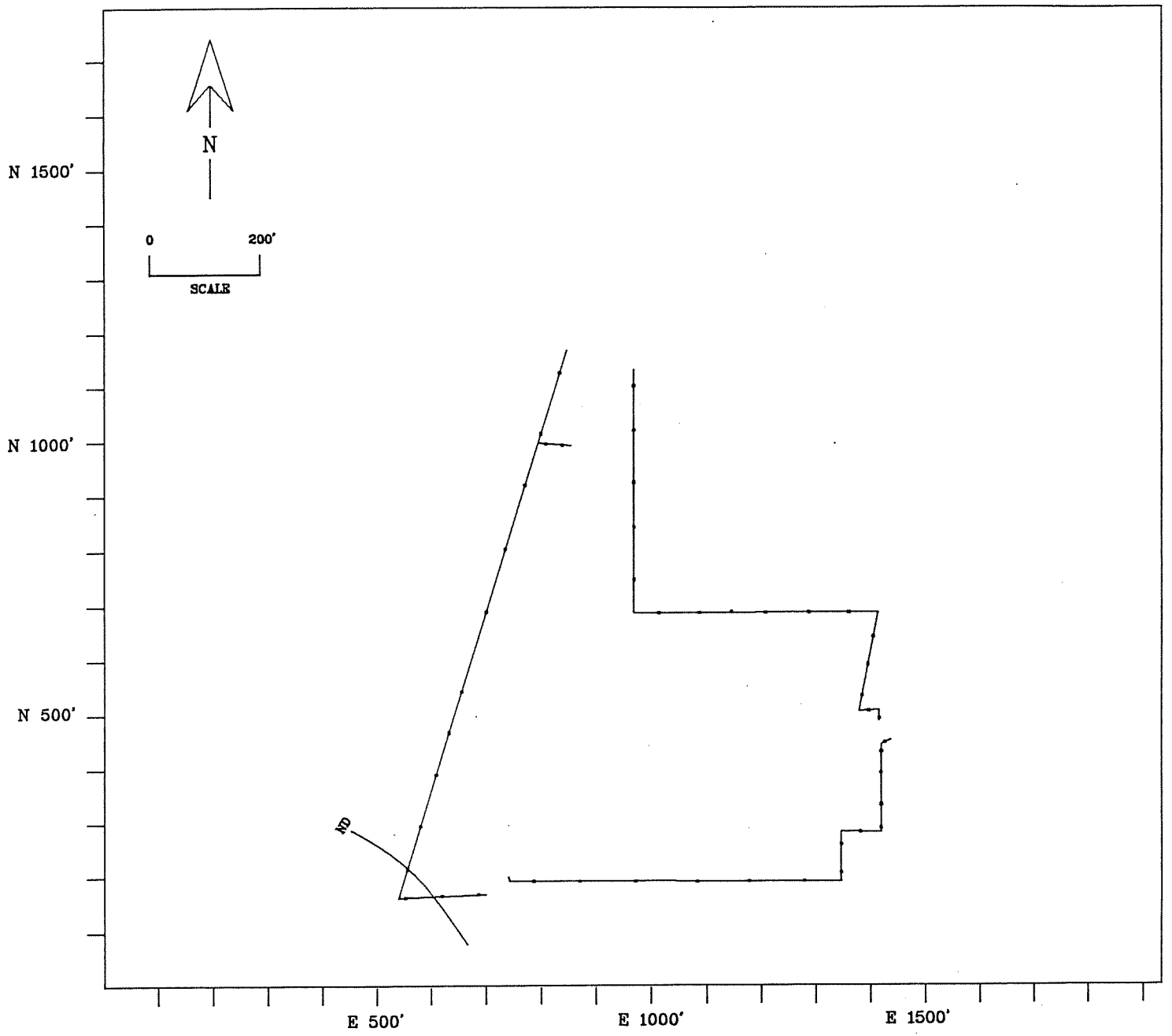
DOLOMITE AQUIFER 2–BUTANONE CONCENTRATION MAP (MICROGRAMS/L) – SUMMER 1989



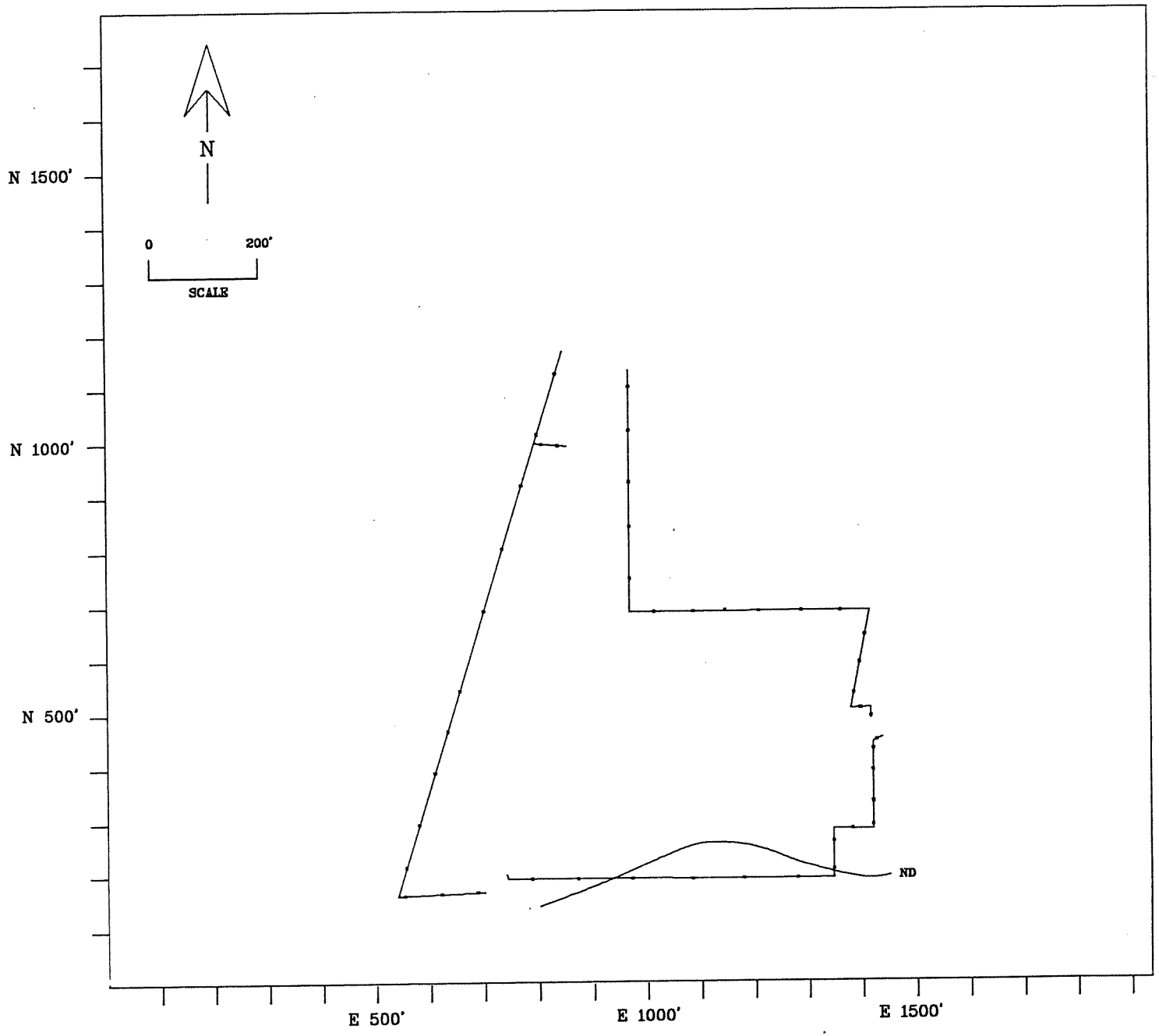
DOLOMITE AQUIFER CARBON DISULFIDE CONCENTRATION MAP (MICROGRAMS/L) – SUMMER 1989



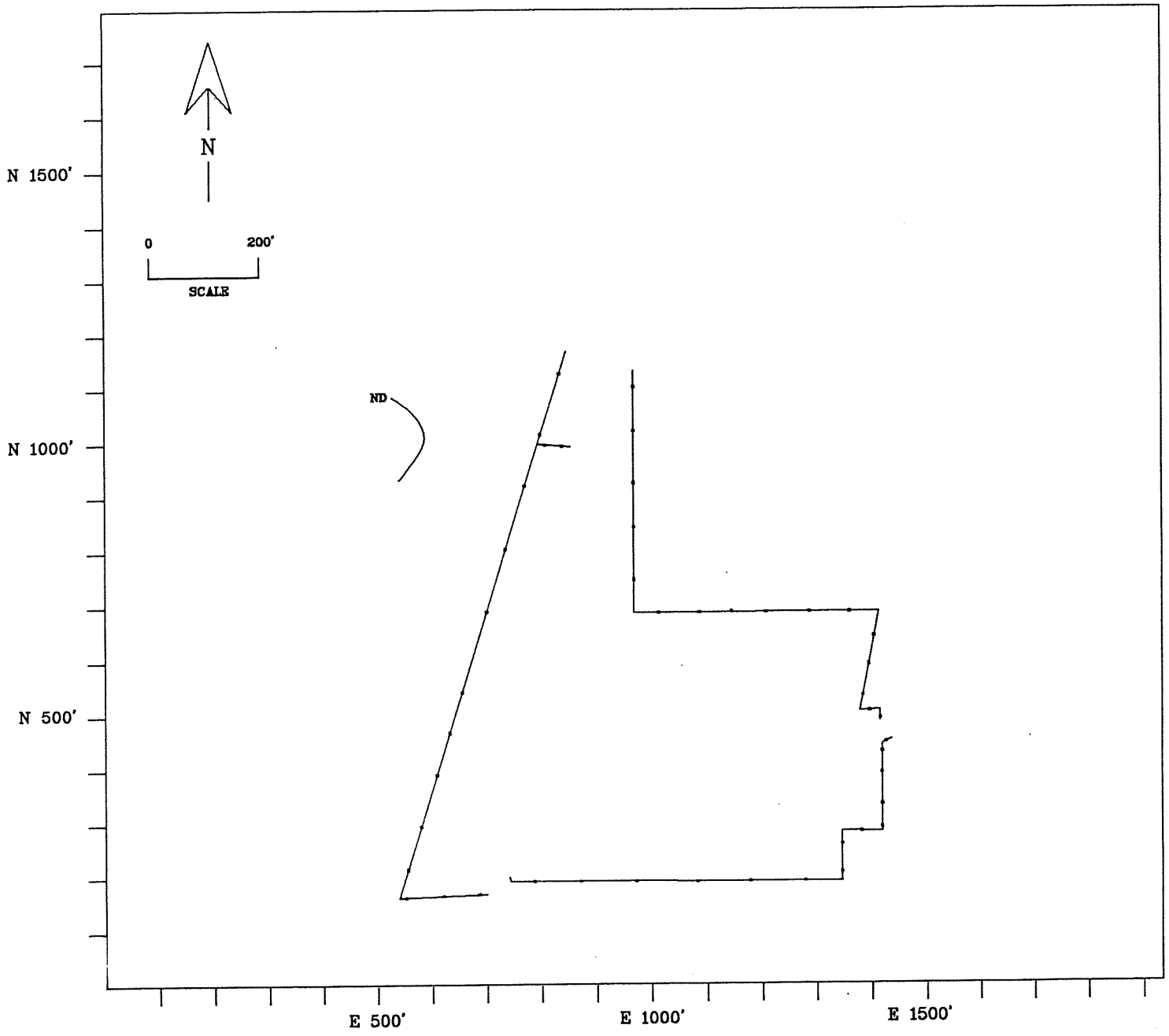
DOLOMITE AQUIFER VINYL CHLORIDE CONCENTRATION MAP (MICROGRAMS/L) – FALL 1989



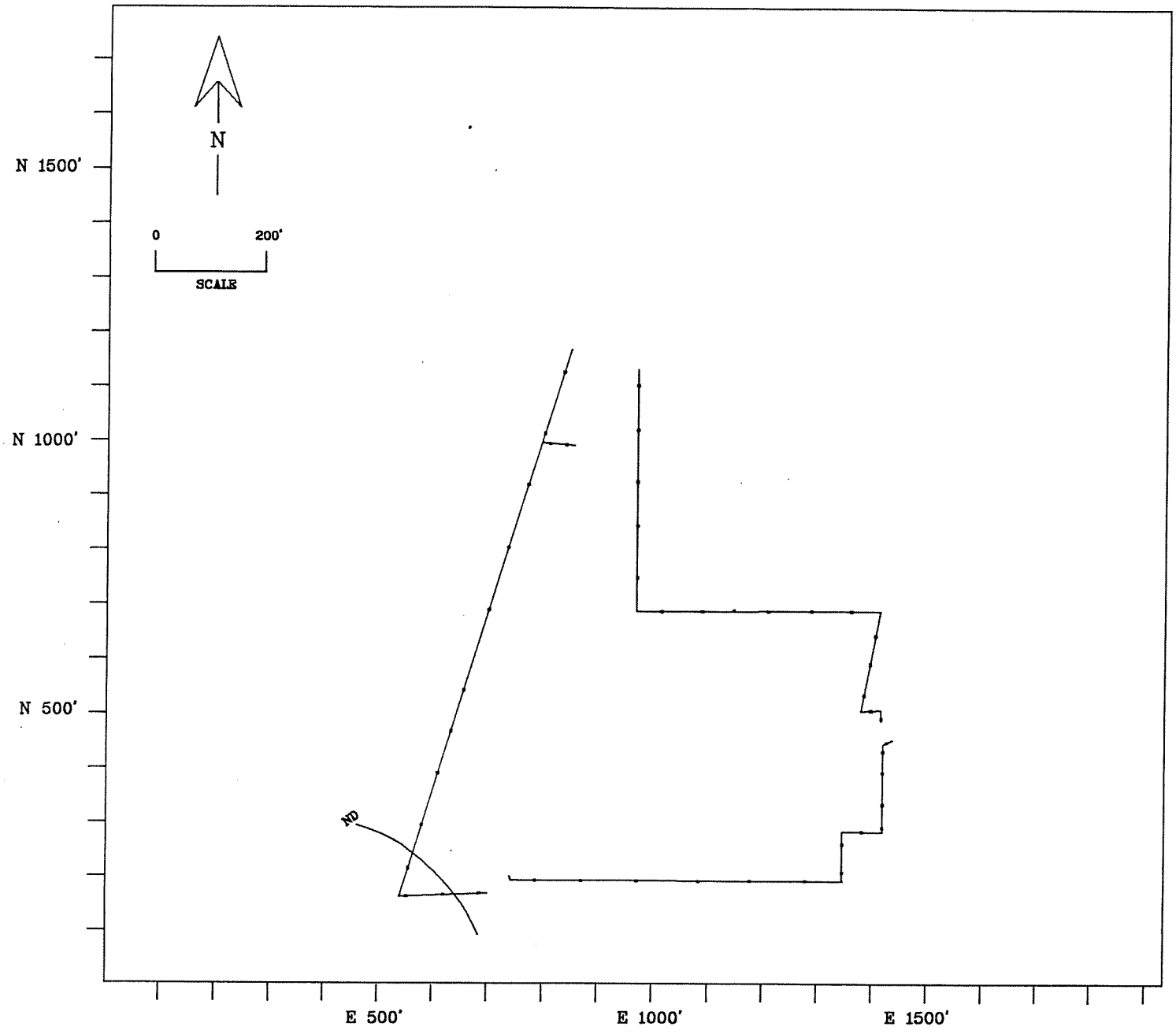
DOLOMITE AQUIFER 2–BUTANONE CONCENTRATION MAP (MICROGRAMS/L) – FALL 1989

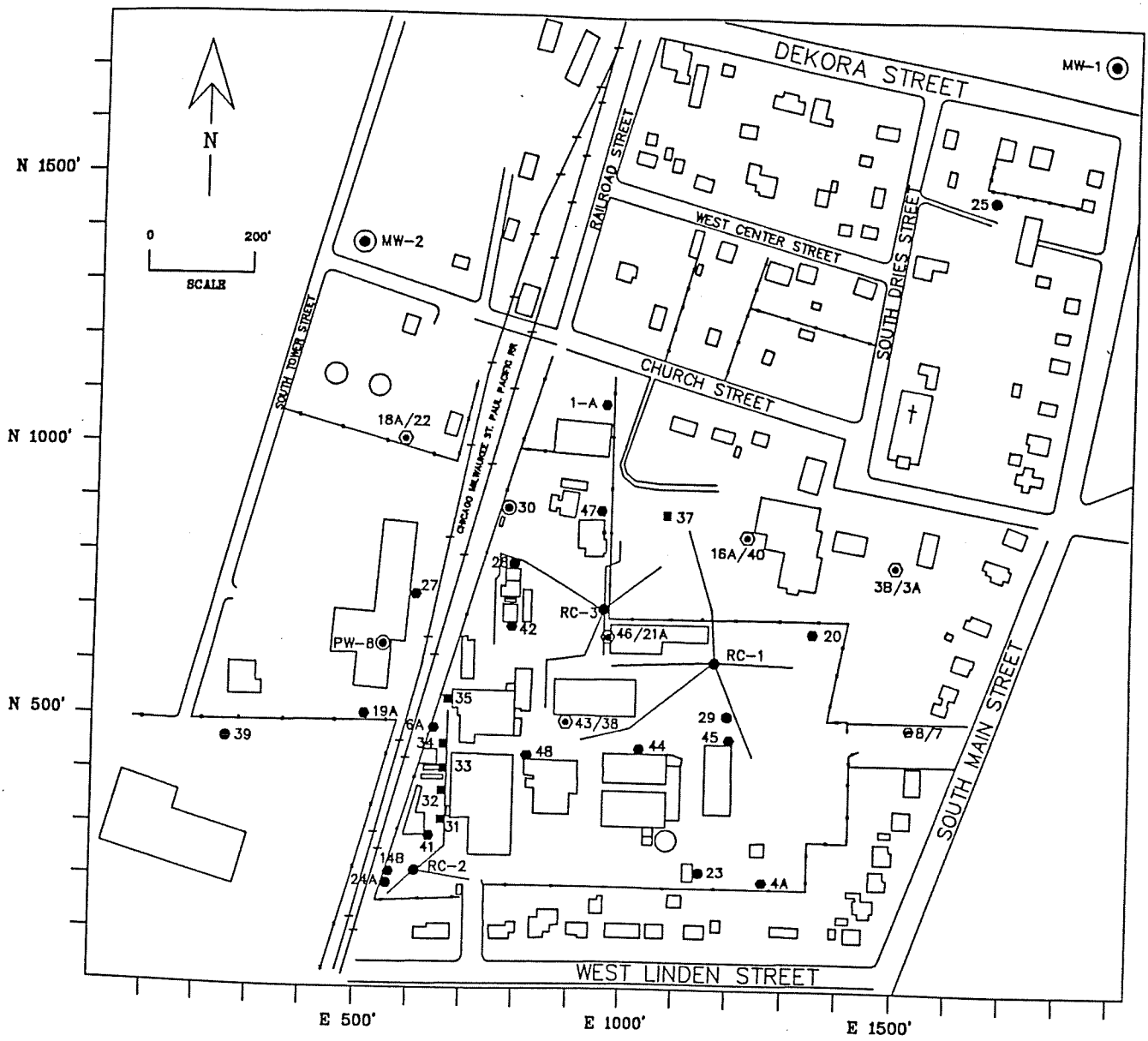


DOLOMITE AQUIFER 1,2-DICHLOROETHANE CONCENTRATION MAP (MICROGRAMS/L) - FALL 1989



DOLOMITE AQUIFER 1,2-DICHLOROETHENE(TOTAL) CONCENTRATION MAP (MICROGRAM/L) - FALL 1989





LEGEND

- DEEP DOLOMITE WELL
- SHALLOW DOLOMITE WELL
- GLACIAL OVERBURDEN WELL
- GLACIAL OVERBURDEN WITHDRAWAL WELL
- GLACIAL OVERBURDEN/SHALLOW DOLOMITE WELL NEST
- RANNEY TYPE COLLECTOR

FREEMAN CHEMICAL CO.
SAUKVILLE, WISCONSIN

FIGURE 1

MONITORING WELL LOCATION MAP

DATE: 1/26/90	JOB NO: 0001-003
HATCHER-SAYRE, INC.	
DRAWN BY: PDH	APPROVED BY: RDM