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August 31, 2000

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

Mr. James H. Craft
New York State Department of Environmental Conservation
6274 East Avon-Lima Road
Avon, NY 14414

Re: Arch Rochester RI/FS Quarterly Report No. 24
Arch Chemicals (Site #628018a), 100 McKee Rd., Rochester, NY

Dear Mr. Craft:

The attached report constitutes the twenty-fourth (24th) quarterly report on the progress of the Arch-Rochester RI/FS, which covers the period from January 1, 2000 to June 30, 2000. This report includes the results of the first quarter Barge Canal and Quarry Sampling conducted in March, 2000.

If you have any questions regarding this submittal, please call me at (423) 780-2175.

Sincerely,

A handwritten signature in black ink that reads "Gayle M. Bahn". The signature is fluid and cursive.

Gayle M. Bahn
Manager, Environmental Issues
Arch Chemicals, Inc.

Cc: Mary Jane Peachy, NYDEC
R. J. Stadalius, Arch Chemicals
Jeff Brandow, Harding Lawson Associates

**SURFACE WATER AND GROUNDWATER MONITORING PROGRAM
2ND QUARTER 2000 MONITORING REPORT**

ARCH Chemicals
Rochester Plant Site
Rochester, New York


Submitted to:

Division of Environmental Remediation
New York State Department of Environmental Conservation
6274 E. Avon-Lima Road
Avon, New York 14414


Prepared by:

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AUGUST 2000



Nelson M. Breton, C.G.
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EXECUTIVE SUMMARY

This monitoring report presents the results of an on-going groundwater and surface water monitoring program being conducted by Arch Chemicals, Inc., at its Rochester, New York, manufacturing facility. Results in this report include surface and groundwater samples collected from May 8, 2000 through May 16, 2000. Also included as an Appendix to this report are the results of surface water sampling from the Barge Canal and the Dolomite Products quarry conducted in February 2000.

During this most recent sampling event, a total of 54 groundwater samples (an increase of twelve sampling locations from the last groundwater monitoring event), five canal samples, and three samples associated with the quarry seep and outfall were collected and analyzed by Severn Trent Laboratories in Amherst, New York. In addition, groundwater elevations were measured and used to create piezometric contour maps for each water-bearing zone.

Groundwater analytical results were compared with previous average concentrations from selected on-site and off-site wells. In general, most wells continue to show concentrations that are less than the average from prior sampling events. However, elevated (above historical averages) concentrations of site related constituents were measured in several overburden and bedrock wells (e.g., PZ-106, PZ-107, E-1, S-3) within the southeastern portion of the plant site. With minor exception, off-site wells show constituent concentrations below historical means.

Chloropyridines were not detected in any of the samples collected from the Barge Canal. Samples from the quarry seep and quarry outfall contained chloropyridines at concentrations slightly higher than historical means, but below historical maximum concentrations.

1.0 INTRODUCTION

In accordance with the Order on Consent (Order) executed between Olin Corporation and New York State Department of Environmental Conservation (NYSDEC), effective August 23, 1993 and transferred to Arch Chemicals, Inc. (Arch) on February 15, 1999, this report has been prepared to present the results of the quarterly groundwater and surface water monitoring program.

A total of 54 groundwater samples were collected from offsite wells and onsite wells and piezometers for analysis of selected chloropyridines and volatile organic compounds (VOCs) from May 10, 2000 through May 16, 2000 and those results are presented in the following report. In addition, results from the May 8, 2000 sampling of the Erie Barge Canal (Canal) and the Dolomite Products Company Quarry (quarry) are presented.

2.0 SAMPLE COLLECTION AND ANALYSIS

2.1 GROUNDWATER

Groundwater samples were collected from off-site wells and on-site wells and piezometers for analysis of selected chloropyridines (2-chloropyridine, 2,6-dichloropyridine, 3-chloropyridine, 4-chloropyridine, pyridine, and p-fluoroaniline) and target compound list (TCL) volatile organic compounds (VOCs). This sampling event constitutes the first semi-annual groundwater-sampling event for 2000. Samples were collected by Severn Trent Laboratories (STL) and transported to their laboratory in Amherst, New York for analysis. The off-site and on-site locations of these sampling points are shown in Figures 1 and 2, respectively. Table 1 lists the wells that were sampled and the requested analyses.

Groundwater was collected with the low flow/low stress purging technique from most of the wells using submersible or peristaltic pumps. Because of significant suspended solids inside wells along the Barge Canal that causes problems for submersible pumps, wells BR-108, BR-112A, BR-112D, BR-113, and BR-113D were sampled with stainless steel bailers after purging the standing water volume a minimum of three times. Samples were obtained for all scheduled groundwater sampling locations.

Groundwater piezometric elevations were measured on May 9, 2000. Piezometric contour maps were constructed for each water-bearing zone (overburden, bedrock, and deep bedrock) and are presented in Figures 3, 4, and 5.

2.2 SURFACE WATER

Surface water and quarry sampling are conducted as part of an on-going quarterly monitoring program for the Arch Rochester site. Eight canal and quarry surface water samples were collected by and submitted to Severn Trent Laboratories (STL) for selected chloropyridine analysis on May 8, 2000. The quarry outfall (QO-2) and quarry seep (QS-2) samples were also analyzed for TCL VOCs. The locations sampled during this quarter are listed below and are shown on Figures 6 and 7.

Canal Samples

SW-1
SW-2
SW-3
SW-6
SW-12
QO-2S1 (100 ft south of QO-2)

Quarry Samples

QS-4 (Quarry Seep)
QO-2 (Quarry Outfall)

2.3 ANALYTICAL PROCEDURES

The analytical procedures, data review findings, and validated data for the May 2000 groundwater and surface water-monitoring event are discussed in the following paragraphs.

Groundwater samples were analyzed for the Arch suite of selected chloropyridines and TCL VOCs by USEPA SW-846 Methods 8270C and 8260B, respectively. The reporting limits for the chloropyridines and VOCs are 10 micrograms per liter ($\mu\text{g/L}$) and 5 $\mu\text{g/L}$, respectively for undiluted samples.

2.4 QUALITY CONTROL

All laboratory analyses results were validated and qualified following USEPA Region II modifications to "Laboratory Data Validation Functional Guidelines for Validating Organic Analyses" (USEPA, 9/1994). The following summarizes the data validation and review findings in accordance with these guidelines.

Groundwater. Sample results were reviewed for holding time compliance, surrogate standard recoveries, blank contamination, calibration accuracy and precision, matrix spike blank/matrix spike blank duplicate (MSB/MSBD), and matrix spike/matrix spike duplicate (MS/MSD) accuracy and precision.

Based on the information provided by the laboratory, the overall data quality for both VOCs and the selected pyridine analysis appears to be very good. Results reported for the chloropyridine analysis are a compilation of results from several analytical runs to best represent the most usable data for a given compound.

Analytical holding times were met for all samples; MS/MSD and MSB/MSBD recoveries and relative percent differences (RPDs) were within QC limits with the exception of sample BR-6A; and no target compounds were reported in laboratory method blanks, trip blanks, or equipment rinseate blanks. Validation findings and qualifying statements are noted below.

- Surrogate standard recoveries for semi-volatile sample BR-111D were observed to be low. The second liter of sample was broken at the laboratory and therefore was not re-extracted. No target compounds were detected in the sample. Results are considered biased low and were qualified as estimated (UJ). Surrogate recoveries in volatile samples PW-12, PZ-106, and PZ-103 were outside the QC limits. Low recoveries were observed in samples PW-12

and PZ-103. Results are considered biased low and were qualified estimated (J/UJ). High recoveries were observed in sample PZ-106. Results are considered biased high and positive detections were qualified as estimated (J).

- RPDs were outside the QC limits for MS/MSD volatile analysis for sample BR-6A. Results in the corresponding samples were qualified as estimated (J).
- The percent difference (%D) and relative response factor (RRF) for acetone were outside the QC limits in two continuing calibration standards. Acetone results are considered unacceptable and were qualified rejected (R) in the appropriate samples.
- Several continuing calibration standards had %Ds that were outside the QC limits. Results were qualified as estimated (J/UJ) in the appropriate samples.
- Semivolatile internal standard areas were above the QC upper limit for sample E-1. Positive detections were qualified as estimated (J).
- Due to high concentrations of target compounds, some samples required dilutions. In a few instances, target compounds in the highest dilution were below the quantitation limit (QL). In these cases, results were reported from a lower dilution. Concentrations that exceeded the instrument calibration range were qualified as "E".

In summary, results qualified as estimated (J) by either the laboratory or during data review are not considered to have a negative impact on data usability. Results qualified during data review as rejected (R), however, are not considered usable (compound may or may not be present).

Surface Water. Quality control results were acceptable for the May 2000 Canal and quarry surface water monitoring program. Laboratory results did not require any qualifying statements, with a few exceptions noted below.

- RPDs were outside the QC limits for MS/MSD semi-volatile analysis for sample QS-4. Results in the corresponding sample were qualified as estimated (J).
- The percent difference (%D) and relative response factor (RRF) for acetone were outside the QC limits in two continuing calibration standards. Acetone results are considered unacceptable and were qualified rejected (R) in the appropriate samples.
- Several continuing calibration standards had %Ds that were outside the QC limits. Results were qualified as estimated (J/UJ) in the appropriate samples.

In summary, results qualified as estimated (J) by either the laboratory or during data review are not considered to have a negative impact on data usability. Results qualified during data review as rejected (R), however, are not considered usable (compound may or may not be present).

3.0 ANALYTICAL RESULTS

3.1 GROUNDWATER

The validated results from the May 2000 groundwater monitoring event are provided in Tables 2 and 3. Table 4 provides a comparison of the May 2000 analytical results for selected chloropyridines and VOCs in representative wells to mean concentrations since 1995 (March 1995 through November 1999). Long term trends for both selected chloropyridines and VOCs are also presented as time-series plots for representative wells in Appendix A. A summary of the analytical findings is presented below by parameter class.

3.1.1 On-site Groundwater

Selected Chloropyridines. One or more of the selected chloropyridines (2-chloropyridine, 2-6-dichloropyridine, and 3-chloropyridine) were detected above sample quantitation limits in groundwater samples from all the on-site wells. Concentrations of chloropyridines ranged from estimated low-level micrograms per liter ($\mu\text{g/L}$) to 100,000 $\mu\text{g/L}$ (sum of 3 highest pyridine concentrations). Of the 15 on-site wells sampled in May 2000 and tracked from March 1995 to November 1999, 12 show selected chloropyridines concentrations at or below the mean for the prior monitoring events. The three on-site wells showing selected chloropyridines concentrations that are greater than the mean were:

BR-8
PZ-106
E-1

It should be pointed out that new extraction well PW-11 underwent extensive development prior to this monitoring event. This activity may have altered groundwater flow patterns and influenced the concentrations in nearby monitoring well BR-8. PW-11 is now an active pumping well (as of August 2000).

Chloropyridines distribution in groundwater is shown as a set of concentration contours on Figure 8. The contours were developed using data from both overburden and bedrock monitoring wells.

Selected VOCs. Concentrations of VOCs range from not detected to thousands of $\mu\text{g/L}$ for several site-related contaminants (carbon tetrachloride, chloroform, methylene chloride, tetrachloroethene, and trichloroethene). Of the 15 wells sampled in May 2000 and tracked from March 1995 to November 1999, 10 show VOCs to be lower than the mean for the prior monitoring events. Wells BR-3, BR-9, PZ-106, PZ-107, and S-3 show selected VOCs concentrations that are greater than the mean.

Selected VOCs distribution in groundwater is shown as a set of concentration contours on Figure 9. These contours were also developed using both overburden and bedrock groundwater data.

3.1.2 Off-site Groundwater

Selected Chloropyridines. One or more of the selected chloropyridines (2-chloropyridine, 2,6-dichloropyridine, and 3-chloropyridine) were detected above sample quantitation limits in groundwater samples in 22 of the 34 off-site wells. Concentrations of total selected chloropyridines detected ranged from estimated low-level micrograms per liter ($\mu\text{g/L}$) to approximately 73,000 $\mu\text{g/L}$ (PZ-103). Of the 17 off-site wells sampled in May 2000 and tracked from March 1995 to November 1999, only one, BR-112D, shows selected chloropyridines concentrations greater than the mean for the prior monitoring events.

Chloropyridines distribution in off-site groundwater is included in the concentration contours on Figure 8.

Selected VOCs. Concentrations of total selected VOCs range from not detected to 25 $\mu\text{g/L}$ for several site-related contaminants (carbon tetrachloride, chloroform, methylene chloride, tetrachloroethene, and trichloroethene). Of the 15 wells sampled in May 2000 and tracked from March 1995 to November 1999, two wells, BR-105 and MW-114, show slight exceedances over the mean for the prior monitoring events. Wells BR-103, BR-108, MW-108, and BR-124D show no selected VOC detections for the May 2000 and prior sampling events since March 1995.

Selected VOCs distribution in off-site groundwater is included in the concentration contours on Figure 9.

3.2 SURFACE WATER

The results from the May 2000 canal and quarry monitoring event are presented in Table 5.

3.2.1 Quarry

Samples collected from the Dolomite products quarry seep (QS-4) and discharge outfall (QO-2) were observed to contain one or more of the selected chloropyridines and VOCs are summarized below; all results are expressed in $\mu\text{g/L}$.

<u>Sample ID</u>	<u>2,6-DCPYR</u>	<u>2-CPYR</u>	<u>3-CPYR</u>	<u>PYR</u>	<u>p-Fluoro</u>	<u>Chlbenz</u>
QO-2	90	170	56	18	46	1.9 J
QS-4	190 J	1100 J	ND (<100)	ND (<100)	ND (<100)	ND (<5)

Notes:

- J = The positive result reported for this analyte is a quantitative estimate (below sample quantitation limit, but above method detection limit).
- CPYR = chloropyridine
- DCPYR = 2,6-dichloropyridine
- p-Fluoro = p-fluoroaniline
- Chlbenz = Chlorobenzene (Note: only QO-2 and QS-4 were analyzed for VOCs)

The results from the quarry outfall location (QO-2) appear to be slightly elevated as compared to recent (1997-1999) measurements. All selected pyridines concentrations are below historical maximums.

3.2.2 Barge Canal

Selected chloropyridines were not detected in any of the surface water samples (QO-2S1, SW-1, SW-2, SW-3, SW-6, and SW-12) from the Erie Barge Canal.

4.0 OTHER ISSUES

4.1 NEW RECOVERY AND CONTAINMENT WELLS

During the spring of 2000, Arch has been installing groundwater remediation pumps in three additional wells at the Rochester plant. These wells will improve the overall containment of impacted groundwater at the plant property boundary, and will substantially increase the mass removal rates of the system. The three additional pumping wells became operational in August 2000.

4.2 OPERATION AND MAINTENANCE OF GROUNDWATER EXTRACTION SYSTEM

Arch is currently in the process of developing improved procedures for maintenance and control of the existing groundwater extraction system at the Rochester plant. An engineering evaluation of the groundwater handling system has been conducted, and several actions have been identified to increase the reliability of system operation. Implementation of these improvements is expected to take place over the next several months.

Table 6 provides groundwater pumping data for the extraction wells from January 2000 through July 2000. Although Arch is not currently achieving target pumping rates for all wells, the engineering assessment is designed to improve the overall performance of the extraction system. Continued improvement on total flow rates is anticipated through the remainder of 2000.

5.0 NEXT MONITORING EVENTS

The next monitoring event will occur in August 2000 and will include surface water and seep sampling in the Erie Canal and at the Dolomite Products quarry. This will be followed in November 2000 with a full monitoring event consisting of surface water, seep, and groundwater sampling.

Table 7 shows the current monitoring program for the Arch Rochester site.

Tables

**TABLE 1
MAY 2000 SAMPLING AND ANALYTICAL PROGRAM**

**ARCH CHEMICALS, INC
ROCHESTER, NEW YORK**

MEDIA	SITE / AREA	WELL / POINT	DATE	ANALYSIS PYRIDINES ¹	VOCs ²		
Groundwater	AID TO HOSPITALS	BR-106	5/12/2000	X	X		
		BR-108		X	X		
		MW-106		X	X		
		MW-108		X	X		
		PZ-101		X	X		
		PZ-102		X	X		
		PZ-103		X	X		
	AMERICAN RECYCLE MANUF. (58 MCKEE ROAD)	PZ-104	5/11/2000	X	X		
	ARCH ROCHESTER	BR-102	5/15/2000	X	X		
				BR-3	X	X	
				BR-8	X	X	
				E-3	X	X	
				PW11	X	X	
				PW12	X	X	
				PZ-106	X	X	
		PZ-107	X	X			
		B-17	5/16/2000	X	X		
				B-7	X	X	
				B-9	X	X	
				BR-5A	X	X	
				BR-6A	X	X	
				BR-7A	X	X	
				BR-9	X	X	
				E-1	X	X	
				PW10	X	X	
				PZ-105	X	X	
				S-3	X	X	
				S-4	X	X	
				DOLOMITE PRODUCTS, INC.	QS-4	5/8/2000	X
	BR-117D				5/10/2000	X	
		BR-118D	X				
		BR-119D	X				
		BR-120D	X				
		BR-121D	X				
	EASTMAN KODAK (FORMERLY GERBER)	BR-103	5/11/2000	X	X		
		MW-103		X	X		
	ERIE BARGE CANAL	BR-111	5/10/2000	X	X		
				BR-111D	X	X	
				BR-112A	X	X	
				BR-112D	X	X	
		BR-113		X			
		BR-113D		X			
BR-122D		5/11/2000	X				
BR-123D			X				
BR-124D	5/12/2000	X	X				
JACKSON WELDING	BR-114	5/12/2000	X	X			
	MW-114		X	X			
LEXINGTON MACHINING	NESS-E	5/15/2000	X	X			
	NESS-W		X	X			
PFAUDLER, INC.	BR-116	5/11/2000	X				
	BR-116D		X				
RG & E RIGHT OF WAY	BR-104	5/11/2000	X	X			
			MW-104	X	X		
	BR-105	5/12/2000	X	X			
			BR-105D	X	X		

**TABLE 1
MAY 2000 SAMPLING AND ANALYTICAL PROGRAM**

**ARCH CHEMICALS, INC
ROCHESTER, NEW YORK**

		ANALYSIS		PYRIDINES ¹	VOCs ²
MEDIA	SITE / AREA	WELL / POINT	DATE		
Surface Water	ERIE BARGE CANAL	QO-2	5/8/2000	X	X
		QO-2S1		X	
		SW-1		X	
		SW-12		X	
		SW-2		X	
		SW-3		X	
		SW-6		X	
Totals				62	45

Note:

1) Pyridines analysis by USEPA SW-846 Method 8270C.

2) VOCs analysis by USEPA SW-846 Method 8260B.

TABLE 2
MAY 2000 GROUNDWATER MONITORING RESULTS
CHLOROPYRIDINES

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	B-17	B-7	B-9	BR-102	BR-103	BR-104	BR-105	BR-105D
SAMPLE DATE:	5/16/00	5/16/00	5/16/00	5/15/00	5/11/00	5/11/00	5/12/00	5/12/00
SAMPLE ID:	B-17	B-7	B-9	BR-102	BR-103	BR-104	BR-105	BR-105D
SELECTED CHLOROPYRIDINES								
BY SW-846 Method 8270C (µg/L)								
2,6-Dichloropyridine	3,000 J	60 J	200 U	110	9 U	10 U	65 J	59 J
2-Chloropyridine	100,000 D	180 J	200 U	540 D	16	6 J	770	2,900 D
3-Chloropyridine	1,400 J	250 U	200 U	9 U	9 U	10 U	250 U	100 U
4-Chloropyridine	5,000 U	250 U	200 U	9 U	9 U	10 U	250 U	100 U
p-Fluoroaniline	5,000 U	250 U	200 U	26	12	10 U	250 U	68 J
Pyridine	27,000	250 U	200 U	9 U	9 U	10 U	250 U	100 U

Notes:

U = Compound not detected; value represents sample quantitation limit.

J = Estimated value.

D = Dilution performed.

E = Value exceeded instrument calibration range and should be considered an estimated value.

TABLE 2
MAY 2000 GROUNDWATER MONITORING RESULTS
CHLOROPYRIDINES

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	BR-106	BR-108	BR-111	BR-111D	BR-112A	BR-112D	BR-113	BR-113D
SAMPLE DATE:	5/12/00	5/12/00	5/10/00	5/10/00	5/10/00	5/10/00	5/10/00	5/10/00
SAMPLE ID:	BR-106	BR-108	BR-111	BR-111D	BR-112A	BR-112D	BR-113	BR-113D
SELECTED CHLOROPYRIDINES BY SW-846 Method 8270C (µg/L)								
2,6-Dichloropyridine	840	9U	10U	9UJ	9U	7J	9U	6J
2-Chloropyridine	6,500	9U	10U	9UJ	9U	140	9U	120
3-Chloropyridine	500U	9U	10U	9UJ	9U	9U	9U	9U
4-Chloropyridine	500U	9U	10U	9UJ	9U	9U	9U	9U
p-Fluoroaniline	320J	9U	10U	9UJ	9U	9U	9U	9U
Pyridine	500U	9U	10U	9UJ	9U	9U	9U	9U

Notes:

U = Compound not detected; value represents sample quantitation limit.

J = Estimated value.

D = Dilution performed.

E = Value exceeded instrument calibration range and should be considered an estimated value.

**TABLE 2
MAY 2000 GROUNDWATER MONITORING RESULTS
CHLOROPYRIDINES**

**ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK**

LOCATION:	BR-114	BR-116	BR-116D	BR-117D	BR-118D	BR-119D	BR-120D	BR-121D
SAMPLE DATE:	5/12/00	5/11/00	5/11/00	5/10/00	5/10/00	5/10/00	5/10/00	5/10/00
SAMPLE ID:	BR-114	BR-116	BR-116D	BR-117D	BR-118D	BR-119D	BR-120D	BR-121D
SELECTED CHLOROPYRIDINES BY SW-846 Method 8270C (µg/L)								
2,6-Dichloropyridine	28	9U	65	9U	9U	9U	9U	9U
2-Chloropyridine	54	9U	340 D	4J	73	9U	9U	9U
3-Chloropyridine	3J	9U	10U	9U	9U	9U	9U	9U
4-Chloropyridine	9U	9U	10U	9U	9U	9U	9	9U
p-Fluoroaniline	9U	9U	10U	9U	9U	9U	9U	9U
Pyridine	9U	9U	10U	9U	9U	9U	9U	9U

Notes:

U = Compound not detected; value represents sample quantitation limit.

J = Estimated value.

D = Dilution performed.

E = Value exceeded instrument calibration range and should be considered an estimated value.

TABLE 2
MAY 2000 GROUNDWATER MONITORING RESULTS
CHLOROPYRIDINES

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	BR-122D	BR-123D	BR-124D	BR-3	BR-5A	BR-6A	BR-7A	BR-8
SAMPLE DATE:	5/11/00	5/11/00	5/12/00	5/15/00	5/16/00	5/16/00	5/16/00	5/15/00
SAMPLE ID:	BR-122D	BR-123D	BR-124D	BR-3	BR-5A	BR-6A	BR-7A	BR-8
SELECTED CHLOROPYRIDINES BY SW-846 Method 8270C (µg/L)								
2,6-Dichloropyridine	9 U	120	9 U	3,800 J	37	1,600 UJ	8,000 D	8,200 E
2-Chloropyridine	6 J	740	9 U	55,000	45	1,400 J	35,000 D	48,000 D
3-Chloropyridine	9 U	93 U	9 U	1,800 J	9 U	1,600 UJ	200 J	440
4-Chloropyridine	9 U	93 U	9 U	5,000 U	9 U	1,600 UJ	500 U	50 U
p-Fluoroaniline	9 U	93 U	9 U	5,000 U	6 J	970 J	350 J	500
Pyridine	9 U	93 U	9 U	4,300 J	9 U	400 J	150 J	13 J

Notes:

U = Compound not detected; value represents sample quantitation limit.

J = Estimated value.

D = Dilution performed.

E = Value exceeded instrument calibration range and should be considered an estimated value.

**TABLE 2
MAY 2000 GROUNDWATER MONITORING RESULTS
CHLOROPYRIDINES**

**ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK**

LOCATION:	BR-9	E-1	E-3	MW-103	MW-104	MW-106	MW-108	MW-114
SAMPLE DATE:	5/16/00	5/16/00	5/15/00	5/11/00	5/11/00	5/12/00	5/12/00	5/12/00
SAMPLE ID:	BR-9	E-1	E-3	MW-103	MW-104	MW-106	MW-108	MW-114
SELECTED CHLOROPYRIDINES BY SW-846 Method 8270C (µg/L)								
2,6-Dichloropyridine	63	410 J	10	9 U	10 U	2,100	9 U	9 U
2-Chloropyridine	540 D	16,000 D	11	9 U	3 J	17,000 D	9 U	9 U
3-Chloropyridine	9 U	1,500 D	9 U	9 U	10 U	110 J	9 U	9 U
4-Chloropyridine	9 U	100 J	9 U	9 U	10 U	250 U	9 U	9 U
p-Fluoroaniline	25	31 J	8 J	9 U	10 U	230 J	9 U	9 U
Pyridine	9 U	86 J	9 U	9 U	10 U	250 U	9 U	9 U

Notes:

U = Compound not detected; value represents sample quantitation limit.

J = Estimated value.

D = Dilution performed.

E = Value exceeded instrument calibration range and should be considered an estimated value.

TABLE 2
MAY 2000 GROUNDWATER MONITORING RESULTS
CHLOROPYRIDINES

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	NESS-E	NESS-W	PW10	PW11	PW12	PZ-101	PZ-102	PZ-103
SAMPLE DATE:	5/15/00	5/15/00	5/16/00	5/15/00	5/15/00	5/12/00	5/12/00	5/12/00
SAMPLE ID:	NESS-E	NESS-W	PW-10	PW-11	PW-12	PZ-101	PZ-102	PZ-103
SELECTED CHLOROPYRIDINES BY SW-846 Method 8270C (µg/L)								
2,6-Dichloropyridine	43 J	50 U	2,800 J	2,800 E	300	68	1,600 D	10,000 D
2-Chloropyridine	510	81	67,000	24,000 D	1,100	53	13,000 D	62,000 D
3-Chloropyridine	50 U	50 U	5,000 U	130	160 U	9 U	92 J	670
4-Chloropyridine	50 U	50 U	5,000 U	50 U	160 U	9 U	100 U	200 U
p-Fluoroaniline	50 U	50 U	5,000 U	180	350	9 U	120	230
Pyridine	50 U	50 U	7,400	50 U	74 J	9 U	100 U	130 J

Notes:

U = Compound not detected; value represents sample quantitation limit.

J = Estimated value.

D = Dilution performed.

E = Value exceeded instrument calibration range and should be considered an estimated value.

TABLE 2
MAY 2000 GROUNDWATER MONITORING RESULTS
CHLOROPYRIDINES

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	PZ-104	PZ-105	PZ-106	PZ-107	S-3	S-4
SAMPLE DATE:	5/11/00	5/16/00	5/15/00	5/15/00	5/16/00	5/16/00
SAMPLE ID:	PZ-104	PZ-105	PZ-106	PZ-107	S-3	S-4
SELECTED CHLOROPYRIDINES BY SW-846 Method 8270C (µg/L)						
2,6-Dichloropyridine	160	1,900 J	2,100	290 J	170 D	300 D
2-Chloropyridine	1,600	24,000	11,000	1,400	120	1,100 D
3-Chloropyridine	160 U	2,500 U	2,000 U	400 U	10	10
4-Chloropyridine	160 U	2,500 U	2,000 U	400 U	10 U	9 U
p-Fluoroaniline	160 U	2,500 U	2,000 U	400 U	10 U	9
Pyridine	160 U	600 J	610 J	400 U	10 U	2 J

Notes:

U = Compound not detected; value represents sample quantitation limit.

J = Estimated value.

D = Dilution performed.

E = Value exceeded instrument calibration range and should be considered an estimated value.

TABLE 3
MAY 2000 GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	B-17		B-7		B-9		BR-102		BR-103	
SAMPLE DATE:	5/16/00		5/16/00		5/16/00		5/15/00		5/11/00	
VOLATILE ORGANIC COMPOUNDS										
BY SW-846 Method 8260/5ML (µg/L)										
1,1,1-Trichloroethane	1,200	U	5	U	5	U	5	U	5	U
1,1,2,2-Tetrachloroethane	1,200	UJ	5	UJ	5	U	5	U	5	U
1,1,2-Trichloroethane	1,200	U	5	U	5	U	5	U	5	U
1,1-Dichloroethane	1,200	U	5	U	5	U	5	U	5	U
1,1-Dichloroethene	1,200	U	5	U	5	U	5	U	5	U
1,2-Dichloroethane	1,200	U	5	U	5	U	5	U	5	U
1,2-Dichloroethene (total)	1,200	U	5	U	5	U	5.5		6.3	
1,2-Dichloropropane	1,200	U	5	U	5	U	5	U	5	U
2-Butanone	2,500	UJ	10	UJ	10	UJ	10	UJ	10	U
2-Hexanone	2,500	UJ	10	UJ	10	UJ	10	UJ	10	U
4-Methyl-2-pentanone	2,500	UJ	10	UJ	10	UJ	10	UJ	10	U
Acetone	2,500	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Benzene	1,200	U	1.1	J	5	U	23		3.2	J
Bromodichloromethane	1,200	U	5	U	5	U	5	U	5	U
Bromoform	1,200	U	5	U	5	UJ	5	U	5	U
Bromomethane	2,500	U	10	U	10	U	10	U	10	U
Carbon disulfide	2,300		5	U	5	U	5	U	5	U
Carbon tetrachloride	45,000		5	U	8		4.8	J	5	U
Chlorobenzene	270	J	5.9		1.1	J	62		5	U
Chloroethane	2,500	U	10	U	10	U	10	U	10	U
Chloroform	46,000	D	5	U	9.6		28		5	U
Chloromethane	2,500	U	10	U	10	U	10	U	10	U
cis-1,3-Dichloropropene	1,200	U	5	U	5	U	5	U	5	U
Dibromochloromethane	1,200	U	5	U	5	U	5	U	5	U
Ethylbenzene	1,200	U	5	U	5	U	5	U	5	U
Methylene chloride	4,400		5	U	5	U	2.3	J	5	U
Styrene	1,200	U	5	U	5	U	5	U	5	U
Tetrachloroethene	2,700		5	U	5	U	3	J	5	U
Toluene	3,500		5	U	5	U	2.3	J	5	U
Total Xylenes	3,800	U	15	U	15	U	15	U	15	U
trans-1,3-Dichloropropene	1,200	U	5	U	5	UJ	5	U	5	U
Trichloroethene	1,200	U	5	U	5	U	3.4	J	5	U
Vinyl acetate	2,500	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Vinyl chloride	1,200	U	5	U	5	U	3.8	J	5	U

Notes:

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- R = The result for this analyte is unreliable.
Additional data is needed to confirm or disprove the presence of this analyte in the sample.
- E = Value exceeded instrument calibration range and should be considered an estimated value.

TABLE 3
MAY 2000 GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

	LOCATION: BR-104	BR-105	BR-105D	BR-106	BR-108
SAMPLE DATE:	5/11/00	5/12/00	5/12/00	5/12/00	5/12/00
VOLATILE ORGANIC COMPOUNDS					
BY SW-846 Method 8260/5ML (µg/L)					
1,1,1-Trichloroethane	5 U	5 U	5 U	10 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	10 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	10 U	5 U
1,1-Dichloroethane	5 U	5 U	7.4	10	5 U
1,1-Dichloroethene	5 U	5 U	5 U	10 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	10 U	5 U
1,2-Dichloroethene (total)	5 U	34	4.3 J	10 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	10 U	5 U
2-Butanone	10 U	10 UJ	10 UJ	20 UJ	10 UJ
2-Hexanone	10 U	10 UJ	10 UJ	20 UJ	10 UJ
4-Methyl-2-pentanone	10 U	10 UJ	10 UJ	20 UJ	10 UJ
Acetone	10 UJ	10 UJ	10 UJ	20 UJ	10 UJ
Benzene	5 U	3.2 J	8	66	5 U
Bromodichloromethane	5 U	5 U	5 U	10 U	5 U
Bromoform	5 U	5 U	5 U	10 U	5 U
Bromomethane	10 U	10 U	10 U	20 U	10 U
Carbon disulfide	5 U	5 U	1.8 J	2 J	5 U
Carbon tetrachloride	5 U	5 U	5 U	10 U	5 U
Chlorobenzene	5 U	6.2	1.1 J	230	1.9 J
Chloroethane	10 U	10 U	10 U	20 U	10 U
Chloroform	5 U	18	10	2.2 J	5 U
Chloromethane	10 U	10 UJ	10 UJ	20 UJ	10 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	10 U	5 U
Dibromochloromethane	5 U	5 U	5 U	10 U	5 U
Ethylbenzene	5 U	5 U	5 U	2.7 J	5 U
Methylene chloride	5 U	3.3 J	5 U	10 U	5 U
Styrene	5 U	5 U	5 U	10 U	5 U
Tetrachloroethene	5 U	5 U	5 U	10 U	5 U
Toluene	5 U	5 U	5 U	9 J	5 U
Total Xylenes	15 U	15 U	2 J	2.5 J	15 U
trans-1,3-Dichloropropene	5 U	5 U	5 U	10 U	5 U
Trichloroethene	5 U	3.4 J	1.3 J	10 U	5 U
Vinyl acetate	10 UJ	10 UJ	10 UJ	20 UJ	10 UJ
Vinyl chloride	5 U	7	10	10 U	5 U

Notes:

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TABLE 3
MAY 2000 GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	BR-111	BR-111D	BR-112A	BR-112D	BR-114
SAMPLE DATE:	5/10/00	5/10/00	5/10/00	5/10/00	5/12/00
VOLATILE ORGANIC COMPOUNDS					
BY SW-846 Method 8260/5ML (µg/L)					
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	12	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethene (total)	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U	10 UJ
2-Hexanone	10 U	10 U	10 U	10 U	10 UJ
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U	10 UJ
Acetone	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Benzene	1.6 J	140	5 U	50	5 U
Bromodichloromethane	5 U	5 U	5 U	5 U	5 U
Bromoform	5 U	5 U	5 U	5 U	5 U
Bromomethane	10 U	10 U	10 U	10 U	10 U
Carbon disulfide	5 U	2.7 J	5 U	5 U	5 U
Carbon tetrachloride	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U	5 U
Chloroethane	10 U	10 U	10 U	10 U	10 U
Chloroform	5 U	5 U	5 U	5 U	1.9 J
Chloromethane	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	33	5 U	1.2 J	5 U
Methylene chloride	5 U	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	5 U	5 U	5 U	5 U	5 U
Toluene	5 U	1.1 J	5 U	1.3 J	5 U
Total Xylenes	15 U	24	15 U	15 U	15 U
trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U	5 U
Vinyl acetate	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Vinyl chloride	5 U	5 U	5 U	5.3	5 U

Notes:

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 Additional data is needed to confirm or disprove the presence of this analyte in the sample.
- E = Value exceeded instrument calibration range and should be considered an estimated value.

TABLE 3
MAY 2000 GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	BR-124D	BR-3	BR-5A	BR-6A	BR-7A
SAMPLE DATE:	5/12/00	5/15/00	5/16/00	5/16/00	5/16/00
VOLATILE ORGANIC COMPOUNDS					
BY SW-846 Method 8260/5ML (µg/L)					
1,1,1-Trichloroethane	5 U	50 U	5 U	25 U	20 U
1,1,1,2-Tetrachloroethane	5 U	50 U	5 UJ	25 UJ	20 UJ
1,1,2-Trichloroethane	5 U	50 U	5 U	25 U	20 U
1,1-Dichloroethane	5 U	50 U	5 U	25 U	20 U
1,1-Dichloroethene	5 U	50 U	5 U	25 UJ	20 U
1,2-Dichloroethane	5 U	12 J	5 U	25 U	20 U
1,2-Dichloroethene (total)	5 U	13 J	5 U	25 U	20 U
1,2-Dichloropropane	5 U	50 U	5 U	25 U	20 U
2-Butanone	10 UJ	100 UJ	10 UJ	50 UJ	40 UJ
2-Hexanone	10 UJ	100 UJ	10 UJ	50 UJ	40 UJ
4-Methyl-2-pentanone	10 UJ	100 UJ	10 UJ	50 UJ	40 UJ
Acetone	10 UJ	100 UJ	R	50 UJ	R
Benzene	5 U	160	1.2 J	25 UJ	22
Bromodichloromethane	5 U	93	5 U	25 U	20 U
Bromoform	5 U	8,400 E	5 U	25 U	20 U
Bromomethane	10 U	100 UJ	10 U	50 U	40 U
Carbon disulfide	5 U	20,000 D	5 U	20 J	20 U
Carbon tetrachloride	5 U	65,000 D	5 U	20 J	20 U
Chlorobenzene	5 U	180	1.7 J	11 J	1,700 D
Chloroethane	10 U	100 U	10 U	50 U	40 U
Chloroform	5 U	240,000 D	5 U	1,000 D	20 U
Chloromethane	10 U	460	10 U	50 U	40 U
cis-1,3-Dichloropropene	5 U	50 U	5 U	25 U	20 U
Dibromochloromethane	5 U	660	5 U	25 U	20 U
Ethylbenzene	5 U	50 U	5 U	25 U	20 U
Methylene chloride	5 U	57,000 D	5 U	27	20 U
Styrene	5 U	50 U	5 U	25 U	20 U
Tetrachloroethene	5 U	3,000 E	5 U	46	20 U
Toluene	1.4 J	6,600 E	5 U	16 J	78
Total Xylenes	2.9 J	150 U	15 U	75 U	60 U
trans-1,3-Dichloropropene	5 U	50 U	5 U	25 U	20 U
Trichloroethene	5 U	97	5 U	25 UJ	20 U
Vinyl acetate	10 UJ	100 UJ	10 UJ	50 UJ	40 UJ
Vinyl chloride	5 U	50 U	5 U	25 U	20 U

Notes:

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J = Estimated value.

FS = Field Sample.

D = Dilution performed

R = The result for this analyte is unreliable.

Additional data is needed to confirm or disprove the presence of this analyte in the sample.

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TABLE 3
MAY 2000 GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

	LOCATION: BR-8		BR-9		E-1		E-3		MW-103	
	SAMPLE DATE: 5/15/00		5/16/00		5/16/00		5/15/00		5/11/00	
VOLATILE ORGANIC COMPOUNDS										
BY SW-846 Method 8260/5ML (µg/L)										
1,1,1-Trichloroethane	50	U	5	U	20	U	5	U	5	U
1,1,2,2-Tetrachloroethane	50	U	5	U	20	U	5	U	5	U
1,1,2-Trichloroethane	50	U	5	U	20	U	5	U	5	U
1,1-Dichloroethane	50	U	5	U	20	U	5	U	5	U
1,1-Dichloroethene	50	U	5	U	20	U	5	U	5	U
1,2-Dichloroethane	50	U	5	U	20	U	5	U	5	U
1,2-Dichloroethene (total)	50	U	5	U	20	U	5	U	5	U
1,2-Dichloropropane	50	U	5	U	20	U	5	U	5	U
2-Butanone	100	UJ	10	UJ	40	UJ	10	UJ	10	U
2-Hexanone	100	UJ	10	UJ	40	UJ	10	UJ	10	U
4-Methyl-2-pentanone	100	UJ	10	UJ	40	UJ	10	UJ	10	U
Acetone	100	UJ	10	UJ	40	UJ	10	UJ	10	UJ
Benzene	130		12		20	U	2.2	J	5	U
Bromodichloromethane	50	U	5	U	20	U	5	U	5	U
Bromoform	50	U	5	UJ	20	UJ	5	U	5	U
Bromomethane	100	UJ	10	U	40	U	10	U	10	U
Carbon disulfide	50	U	5	U	5.3	J	5	U	5	U
Carbon tetrachloride	50	U	83		11	J	5	U	5	U
Chlorobenzene	6,500	D	41		17	J	1.1	J	5	U
Chloroethane	100	U	10	U	40	U	10	U	10	U
Chloroform	50	U	66		560		2.1	J	5	U
Chloromethane	100	U	10	U	40	U	10	U	10	U
cis-1,3-Dichloropropene	50	U	5	U	20	U	5	U	5	U
Dibromochloromethane	50	U	5	U	20	U	5	U	5	U
Ethylbenzene	50	U	5	U	5.8	J	5	U	5	U
Methylene chloride	50	U	15		8.7	J	5	U	5	U
Styrene	50	U	5	U	20	U	5	U	5	U
Tetrachloroethene	50	U	5	U	5	J	5	U	5	U
Toluene	230		5	U	6.8	J	5	U	5	U
Total Xylenes	150	U	15	U	14	J	15	U	15	U
trans-1,3-Dichloropropene	50	U	5	UJ	20	UJ	5	U	5	U
Trichloroethene	50	U	5	U	20	U	5	U	5	U
Vinyl acetate	100	UJ	10	UJ	40	UJ	10	UJ	10	UJ
Vinyl chloride	50	U	5	U	20	U	5	U	5	U

Notes:

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- D = Dilution performed
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TABLE 3
MAY 2000 GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	MW-104	MW-106	MW-108	MW-114	NESS-E
SAMPLE DATE:	5/11/00	5/12/00	5/12/00	5/12/00	5/15/00
VOLATILE ORGANIC COMPOUNDS					
BY SW-846 Method 8260/5ML (µg/L)					
1,1,1-Trichloroethane	5 U	10 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	10 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	10 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	10 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	10 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	10 U	5 U	5 U	5 U
1,2-Dichloroethene (total)	5 U	10 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	10 U	5 U	5 U	5 U
2-Butanone	10 U	20 UJ	10 UJ	10 UJ	10 UJ
2-Hexanone	10 U	20 UJ	10 UJ	10 UJ	10 UJ
4-Methyl-2-pentanone	10 U	20 UJ	10 UJ	10 UJ	10 UJ
Acetone	10 UJ	20 UJ	10 UJ	10 UJ	10 UJ
Benzene	5 U	69	5 U	5 U	5 U
Bromodichloromethane	5 U	10 U	5 U	5 U	5 U
Bromoform	5 U	10 U	5 U	5 U	5 U
Bromomethane	10 U	20 U	10 U	10 U	10 UJ
Carbon disulfide	5 U	3.2 J	5 U	5 U	5 U
Carbon tetrachloride	5 U	10 U	5 U	5 U	5 U
Chlorobenzene	5 U	390 D	3.4 J	5 U	1.1 J
Chloroethane	10 U	20 U	10 U	10 U	10 U
Chloroform	5 U	10 U	5 U	4.9 J	5 U
Chloromethane	10 U	20 UJ	10 U	10 U	10 U
cis-1,3-Dichloropropene	5 U	10 U	5 U	5 U	5 U
Dibromochloromethane	5 U	10 U	5 U	5 U	5 U
Ethylbenzene	5 U	10 U	5 U	5 U	5 U
Methylene chloride	5 U	10 U	5 U	5 U	5 U
Styrene	5 U	10 U	5 U	5 U	5 U
Tetrachloroethene	5 U	10 U	5 U	1.9 J	5 U
Toluene	5 U	54	5 U	5 U	5 U
Total Xylenes	15 U	2.8 J	15 U	15 U	15 U
trans-1,3-Dichloropropene	5 U	10 U	5 U	5 U	5 U
Trichloroethene	5 U	10 U	5 U	4.2 J	5 U
Vinyl acetate	10 UJ	20 UJ	10 UJ	10 UJ	10 UJ
Vinyl chloride	5 U	10 U	5 U	5 U	5 U

Notes:

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- J = Estimated value.
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- D = Dilution performed
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TABLE 3
MAY 2000 GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	NESS-W	PW10	PW11	PW12	PZ-101
SAMPLE DATE:	5/15/00	5/16/00	5/15/00	5/15/00	5/12/00
VOLATILE ORGANIC COMPOUNDS					
BY SW-846 Method 8260/5ML (µg/L)					
1,1,1-Trichloroethane	5 U	1,200 U	40 U	50 UJ	5 U
1,1,2,2-Tetrachloroethane	5 U	1,200 UJ	40 U	50 UJ	5 U
1,1,2-Trichloroethane	5 U	1,200 U	40 U	50 UJ	5 U
1,1-Dichloroethane	5 U	1,200 U	40 U	50 UJ	5 U
1,1-Dichloroethene	5 U	1,200 U	40 U	50 UJ	5 U
1,2-Dichloroethane	5 U	1,200 U	40 U	50 UJ	5 U
1,2-Dichloroethene (total)	59	1,200 U	40 U	50 UJ	5 U
1,2-Dichloropropane	5 U	1,200 U	40 U	50 UJ	5 U
2-Butanone	10 UJ	2,500 UJ	80 UJ	100 UJ	10 UJ
2-Hexanone	10 UJ	2,500 UJ	80 UJ	100 UJ	10 UJ
4-Methyl-2-pentanone	10 UJ	2,500 UJ	80 UJ	100 UJ	10 UJ
Acetone	10 UJ	R	80 UJ	100 UJ	10 UJ
Benzene	5.2	1,200 U	48	160 J	5 U
Bromodichloromethane	5 U	1,200 U	40 U	50 UJ	5 U
Bromoform	5 U	1,200 U	40 U	50 UJ	5 U
Bromomethane	10 UJ	2,500 U	80 U	100 UJ	10 U
Carbon disulfide	5 U	2,900	40 U	50 UJ	5 U
Carbon tetrachloride	5 U	6,500	40 U	50 UJ	5 U
Chlorobenzene	1.2 J	450 J	1,200	6,600 D	7.9
Chloroethane	10 U	2,500 U	80 U	100 UJ	10 U
Chloroform	5 U	35,000	40 U	1,200 J	5 U
Chloromethane	10 U	2,500 U	80 U	100 UJ	10 U
cis-1,3-Dichloropropene	5 U	1,200 U	40 U	50 UJ	5 U
Dibromochloromethane	5 U	1,200 U	40 U	50 UJ	5 U
Ethylbenzene	5 U	1,200 U	40 U	510 J	5 U
Methylene chloride	5 U	8,900	40 U	6,400 D	5 U
Styrene	5 U	1,200 U	40 U	50 UJ	5 U
Tetrachloroethene	5 U	2,600	40 U	18 J	5 U
Toluene	5 U	1,600	42	15,000 D	5 U
Total Xylenes	15 U	3,800 U	120 U	2,800 J	15 U
trans-1,3-Dichloropropene	5 U	1,200 U	40 U	50 UJ	5 U
Trichloroethene	1.1 J	1,200 U	40 U	50 UJ	5 U
Vinyl acetate	10 UJ	2,500 UJ	80 UJ	100 UJ	10 UJ
Vinyl chloride	15	1,200 U	40 U	50 UJ	5 U

Notes:

U = Compound not detected; value represents sample quantitation limit.

J = Estimated value.

FS = Field Sample.

D = Dilution performed

R = The result for this analyte is unreliable.

Additional data is needed to confirm or disprove the presence of this analyte in the sample.

E = Value exceeded instrument calibration range and should be considered an estimated value.

TABLE 3
MAY 2000 GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	PZ-102	PZ-103	PZ-104	PZ-105	PZ-106
SAMPLE DATE:	5/12/00	5/12/00	5/11/00	5/16/00	5/15/00
VOLATILE ORGANIC COMPOUNDS					
BY SW-846 Method 8260/5ML (µg/L)					
1,1,1-Trichloroethane	5 U	5 UJ	5 U	5 U	50 U
1,1,2,2-Tetrachloroethane	5 U	5 UJ	5 U	5 UJ	50 U
1,1,2-Trichloroethane	5 U	5 UJ	5 U	5 U	50 U
1,1-Dichloroethane	5 U	5 UJ	5 U	5 U	50 U
1,1-Dichloroethene	5 U	5 UJ	5 U	5 U	50 U
1,2-Dichloroethane	5 U	5 UJ	5 U	5 U	50 U
1,2-Dichloroethene (total)	1.8 J	9.2 J	5 U	3.1 J	18 J
1,2-Dichloropropane	5 U	5 UJ	5 U	5 U	50 U
2-Butanone	10 UJ	10 UJ	10 U	10 UJ	100 UJ
2-Hexanone	10 UJ	10 UJ	10 U	10 UJ	100 UJ
4-Methyl-2-pentanone	10 UJ	10 UJ	10 U	10 UJ	100 UJ
Acetone	10 UJ	20 J	10 UJ	10 UJ	95 J
Benzene	34	68 J	3 J	52	41 J
Bromodichloromethane	5 U	5 UJ	5 U	5 U	91 J
Bromoform	5 U	5 UJ	5 U	2.1 J	9,900 J
Bromomethane	10 U	10 UJ	10 U	10 U	100 UJ
Carbon disulfide	5 U	7.4 J	5 U	35	43,000 D
Carbon tetrachloride	5 U	5 UJ	5 U	27	110,000 D
Chlorobenzene	480 D	1,600 D	4 J	240 D	25 J
Chloroethane	10 U	10 UJ	10 U	10 U	100 U
Chloroform	5 U	5 UJ	5 U	1,300 D	330,000 D
Chloromethane	10 U	10 UJ	10 U	10 U	100 U
cis-1,3-Dichloropropene	5 U	5 UJ	5 U	5 U	50 U
Dibromochloromethane	5 U	5 UJ	5 U	5 U	820 J
Ethylbenzene	5 U	3.4 J	5 U	1.4 J	50 U
Methylene chloride	5 U	5 UJ	5 U	1,400 D	9,600 D
Styrene	5 U	5 UJ	5 U	5 U	50 U
Tetrachloroethene	5 U	5 UJ	5 U	6.7	2,500 J
Toluene	18	150 J	5 U	230 D	410 J
Total Xylenes	15 U	9.9 J	15 U	2.4 J	150 U
trans-1,3-Dichloropropene	5 U	5 UJ	5 U	5 U	50 U
Trichloroethene	5 U	5 UJ	5 U	5.6	12 J
Vinyl acetate	10 UJ	10 UJ	10 UJ	10 UJ	100 UJ
Vinyl chloride	5 U	5 UJ	5 U	9.8	50 U

Notes:

- U = Compound not detected; value represents sample quantitation limit.
- J = Estimated value.
- FS = Field Sample.
- D = Dilution performed
- R = The result for this analyte is unreliable.
 Additional data is needed to confirm or disprove the presence of this analyte in the sample.
- E = Value exceeded instrument calibration range and should be considered an estimated value.

**TABLE 3
MAY 2000 GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS**

**ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK**

LOCATION:	PZ-107	S-3	S-4
SAMPLE DATE:	5/15/00	5/16/00	5/16/00
VOLATILE ORGANIC COMPOUNDS			
BY SW-846 Method 8260/5ML (µg/L)			
1,1,1-Trichloroethane	5 U	5 U	5 U
1,1,1,2-Tetrachloroethane	5 U	5 UJ	5 UJ
1,1,2-Trichloroethane	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U
1,2-Dichloroethene (total)	6.8	2 J	5 U
1,2-Dichloropropane	5 U	5 U	5 U
2-Butanone	10 UJ	10 UJ	10 UJ
2-Hexanone	10 UJ	10 UJ	10 UJ
4-Methyl-2-pentanone	10 UJ	10 UJ	10 UJ
Acetone	10 UJ	10 UJ	10 UJ
Benzene	2.3 J	5 U	1.2 J
Bromodichloromethane	5 U	5 U	5 U
Bromoform	39	5 U	5 U
Bromomethane	10 UJ	10 U	10 U
Carbon disulfide	140 D	5 U	5 U
Carbon tetrachloride	330 D	25	4.4 J
Chlorobenzene	2.3 J	3.4 J	39
Chloroethane	10 U	10 U	10 U
Chloroform	980 D	230 D	5.6
Chloromethane	10 U	10 U	10 U
cis-1,3-Dichloropropene	5 U	5 U	5 U
Dibromochloromethane	2.2 J	5 U	5 U
Ethylbenzene	5 U	5 U	5 U
Methylene chloride	17	5 U	5 U
Styrene	5 U	5 U	5 U
Tetrachloroethene	7.2	5.9	5 U
Toluene	3.2 J	5 U	2.2 J
Total Xylenes	15 U	15 U	15 U
trans-1,3-Dichloropropene	5 U	5 U	5 U
Trichloroethene	4.6 J	5 U	5 U
Vinyl acetate	10 UJ	10 UJ	10 UJ
Vinyl chloride	6	5 U	5 U

Notes:

- U = Compound not detected; value represents sample quantitation limit.
- J = Estimated value.
- FS = Field Sample.
- D = Dilution performed
- R = The result for this analyte is unreliable.
Additional data is needed to confirm or disprove the presence of this analyte in the sample.
- E = Value exceeded instrument calibration range and should be considered an estimated value.

**TABLE 4
COMPARISON OF MAY 2000
CHLOROPYRIDINES AND VOLATILE ORGANICS CONCENTRATIONS
IN GROUNDWATER TO PREVIOUS RESULTS (ug/L)**

**ARCH ROCHESTER
SEMI-ANNUAL GROUNDWATER MONITORING REPORT - SPRING 2000**

WELL	SELECTED CHLOROPYRIDINES						SELECTED VOCs					
	# OF PRIOR EVENTS	PRIOR MAXIMUM (5-year)	PRIOR MEAN (5-year)	MAY-2000 RESULT	< MEAN OR ND	> MEAN	# OF EVENTS	PRIOR MAXIMUM (5-year)	PRIOR MEAN (5-year)	MAY-2000 RESULT	< MEAN OR ND	> MEAN
ON-SITE WELLS												
B-17	7	1,800,000	410,000	100,000	X		7	210,000	120,000	98,000	X	
BR-102	8	1,600	770	500	X		8	1,400	670	6	X	
BR-3	6	150,000	110,000	61,000	X		6	680,000	180,000	365,000		X
BR-5A	9	310	170	82	X		9	6,100	930	ND	X	
BR-6A	6	93,000	42,000	1,400	X		6	26,000	13,000	1,100	X	
BR-7A	7	280,000	51,000	43,000	X		7	2,800	760	ND	X	
BR-8	9	6,200	2,500	57,000		X	9	4	0.4	ND	X	
BR-9	3	690	620	600	X		3	150	120	160		X
E-1	7	6,400	1,700	18,000		X	7	5,300	1,300	580	X	
E-3	9	200	50	21	X		9	900	100	2.1	X	
PW10	1	134,000	134,000	70,000	X		1	80,000	80,000	53,000	X	
PW11*	0	NA	NA	27,000			0	NA	NA	ND		
PW12	7	10,000	5,500	1,400	X		7	41,000	19,000	7,600	X	
PZ-106	3	11,000	9,700	13,000		X	3	760,000	360,000	450,000		X
PZ-107	3	2,000	1,700	1,700			3	2,100	800	1,300		X
S-3	1	640	640	300	X		1	39	39	260.0		X

**TABLE 4
COMPARISON OF MAY 2000
CHLOROPYRIDINES AND VOLATILE ORGANICS CONCENTRATIONS
IN GROUNDWATER TO PREVIOUS RESULTS (ug/L)**

**ARCH ROCHESTER
SEMI-ANNUAL GROUNDWATER MONITORING REPORT - SPRING 2000**

WELL	SELECTED CHLOROPYRIDINES						SELECTED VOCs					
	# OF PRIOR EVENTS	PRIOR MAXIMUM (5-year)	PRIOR MEAN (5-year)	MAY-2000 RESULT	< MEAN OR ND	> MEAN	# OF EVENTS	PRIOR MAXIMUM (5-year)	PRIOR MEAN (5-year)	MAY-2000 RESULT	< MEAN OR ND	> MEAN
OFF-SITE WELLS												
BR-103	8	410	81	16	X		6	ND	ND	ND	X	
BR-104	9	880	130	6	X		7	1	0.1	ND	X	
BR-105	9	13,000	5,600	840	X		7	6	1.4	25		X
BR-105D	9	10,000	3,600	3,000	X		7	230	54	11	X	
BR-106	9	9,200	8,000	7,300	X		6	6300	1,100	2	X	
BR-108	8	1,700	220	ND	X		5	ND	ND	ND	X	
BR-112A	8	47	5.9	ND	X		2	0.4	0.2	ND	X	
BR-112D	8	310	80	147		X	2	4.3	3.4	ND	X	
BR-113	7	8	2.3	ND	X		2	ND	ND	NA		
BR-113D	8	490	170	130	X		2	2.8	2.7	NA		
BR-114	8	450	140	85	X		4	5	1.3	1.9	X	
BR-124D	6	65	9.7	ND	X		6	ND	ND	ND	X	
MW-106	8	100,000	37,000	19,000	X		6	89	21	ND	X	
MW-108	4	28	10	ND	X		4	ND	ND	ND	X	
MW-114	8	18	3.1	ND	X		4	10	7.3	11		X
NESS-E	11	2,600	1,500	550	X		8	750	160	ND	X	
NESS-W	10	2,000	940	81	X		7	84	14	1.1	X	

- Note:
- 1) Number of samples, mean, and maximum data reflect 5-year sampling period beginning in March 1995 and ending in November 1999.
 - 2) Chloropyridines represented by: 2-Chloropyridine, 2,6-Dichloropyridine, and 3-Chloropyridine.
 - 3) Selected VOCs represented by Carbon Tetrachloride, Chloroform, Methylene Chloride, Tetrachloroethene, and Trichloroethene.
 - 4) X = Comparison of May 2000 concentration to 5-year mean.
 - 5) NA = Not analyzed or not applicable
ND = Not detected
* First sampling 5/00.

**TABLE 5
MAY 2000 CANAL/QUARRY MONITORING RESULTS**

**ARCH CHEMICAL, INC.
ROCHESTER, NEW YORK**

WELL / POINT	QO-2	QO-2S1	QS-4	SW-1	SW-12	SW-2	SW-3	SW-6
DATE	5/8/2000	5/8/2000	5/8/2000	5/8/2000	5/8/2000	5/8/2000	5/8/2000	5/8/2000
VOLATILE ORGANIC COMPOUNDS								
BY SW-846 Method 8260/5ML (µg/L)								
1,1,1-Trichloroethane	5 U	NA	5 U	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	5 U	NA	5 U	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	5 U	NA	5 U	NA	NA	NA	NA	NA
1,1-Dichloroethane	5 U	NA	5 U	NA	NA	NA	NA	NA
1,1-Dichloroethene	5 U	NA	5 U	NA	NA	NA	NA	NA
1,2-Dichloroethane	5 U	NA	5 U	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	5 U	NA	5 U	NA	NA	NA	NA	NA
1,2-Dichloropropane	5 U	NA	5 U	NA	NA	NA	NA	NA
2-Butanone	10 UJ	NA	10 UJ	NA	NA	NA	NA	NA
2-Hexanone	10 UJ	NA	10 UJ	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	10 UJ	NA	10 UJ	NA	NA	NA	NA	NA
Acetone	R	NA	R	NA	NA	NA	NA	NA
Benzene	5 U	NA	5 U	NA	NA	NA	NA	NA
Bromodichloromethane	5 U	NA	5 U	NA	NA	NA	NA	NA
Bromoform	5 U	NA	5 U	NA	NA	NA	NA	NA
Bromomethane	10 U	NA	10 U	NA	NA	NA	NA	NA
Carbon disulfide	5 U	NA	5 U	NA	NA	NA	NA	NA
Carbon tetrachloride	5 U	NA	5 U	NA	NA	NA	NA	NA
Chlorobenzene	5 U	NA	1.9 J	NA	NA	NA	NA	NA
Chloroethane	10 U	NA	10 U	NA	NA	NA	NA	NA
Chloroform	5 U	NA	5 U	NA	NA	NA	NA	NA
Chloromethane	10 U	NA	10 U	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	5 U	NA	5 U	NA	NA	NA	NA	NA
Dibromochloromethane	5 U	NA	5 U	NA	NA	NA	NA	NA
Ethylbenzene	5 U	NA	5 U	NA	NA	NA	NA	NA
Methylene chloride	5 U	NA	5 U	NA	NA	NA	NA	NA
Styrene	5 U	NA	5 U	NA	NA	NA	NA	NA
Tetrachloroethene	5 U	NA	5 U	NA	NA	NA	NA	NA
Toluene	5 U	NA	5 U	NA	NA	NA	NA	NA
Total Xylenes	15 U	NA	15 U	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	5 U	NA	5 U	NA	NA	NA	NA	NA
Trichloroethene	5 U	NA	5 U	NA	NA	NA	NA	NA
Vinyl acetate	10 UJ	NA	10 UJ	NA	NA	NA	NA	NA
Vinyl chloride	5 U	NA	5 U	NA	NA	NA	NA	NA

TABLE 5
MAY 2000 CANAL/QUARRY MONITORING RESULTS

ARCH CHEMICAL, INC.
ROCHESTER, NEW YORK

WELL / POINT	QO-2	QO-2S1	QS-4	SW-1	SW-12	SW-2	SW-3	SW-6
DATE	5/8/2000	5/8/2000	5/8/2000	5/8/2000	5/8/2000	5/8/2000	5/8/2000	5/8/2000
SELECTED CHLOROPYRIDINES								
BY SW-846 Method 8270C (µg/L)								
2,6-Dichloropyridine	90	10 U	190 J	10 U	9 U	9 U	10 U	10 U
2-Chloropyridine	170 D	10 U	1,100 J	10 U	9 U	9 U	10 U	10 U
3-Chloropyridine	56	10 U	100 UJ	10 U	9 U	9 U	10 U	10 U
4-Chloropyridine	10 U	10 U	100 U	10 U	9 U	9 U	10 U	10 U
p-Fluoroaniline	46	10 U	100 UJ	10 U	9 U	9 U	10 U	10 U
Pyridine	18	10 U	100 U	10 U	9 U	9 U	10 U	10 U

Notes:

U = Compound not detected; value represents sample quantitation limit.

J = Estimated value.

D = Dilution performed

R = The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this analyte in the sample.

NA = Not analyzed

**TABLE 6
EXTRACTION WELL WEEKLY FLOW MEASUREMENTS - JANUARY 2000 THROUGH JULY 2000**

**ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK**

	<u>BR5A</u> Meter Reading	<u>BR5A</u> Gals Pumped	<u>BR6A</u> Meter Reading	<u>BR6A</u> Gals Pumped	<u>BR7A</u> Meter Reading	<u>BR7A</u> Gals Pumped	<u>BR9</u> Meter Reading	<u>BR9</u> Gals Pumped	<u>Total</u>
7-Jan	785	785	0	0	0	0	0	0	785
14-Jan	1,965	1,180	0	0	0	0	0	0	1,180
21-Jan	3,239	1,274	40,175	40,175	0	0	0	0	41,449
28-Jan	5,717	2,478	69,721	29,546	9,654	9,654	0	0	41,678
January									85,092
4-Feb	3574	3574	31761	31761	9654	9654	0	0	44,989
11-Feb	7211	3637	52784	21023	48384	38730	26712	26712	90,102
18-Feb	12728	5517	83159	30375	65914	17530	59258	32546	85,968
25-Feb	28377	15649	125595	42436	107583	41669	84760	25502	125,256
February									346,315
3-Mar	15910	15910	38542	38542	39654	39654	27938	27398	121,504
10-Mar	27547	11637	83411	44869	77622	37968	58902	30964	125,438
17-Mar	45381	17834	115095	31684	119940	42318	83560	24658	116,494
24-Mar	45393	12325	142730	27635	152794	32854	102916	19356	92,170
March									455,606
7-Apr	11739	11739	32941	32941	31846	31846	24016	24016	100,542
14-Apr	20125	8386	57893	24952	60241	28395	41554	17538	79,271
21-Apr	34956	14831	87531	29638	93955	33714	54179	12625	90,808
28-Apr	44702	9746	117395	32864	132528	38573	54545	15972	97,155
April									367,776
7-May	15385	15385	30284	30284	35691	35691	11675	11675	93,064
14-May	28249	12864	56227	25943	67876	32185	22622	10947	81,939
21-May	45877	17628	89041	32841	114823	46947	46467	23845	121,261
28-May	65345	19468	136390	47349	173202	58379	71809	25342	150,538
May									446,802
2-Jun	24862	24862	49632	49632	55976	55976	27519	27519	157,989
9-Jun	51248	26386	101648	52016	108949	52973	51884	24365	155,740
16-Jun	81064	29816	156924	55276	170783	61834	84370	32486	179,412
23-Jun	102128	21064	204458	47534	225729	54946	110853	26,483	150,027
30-Jun	120449	18321	255106	50648	284007	58278	131444	20591	147,838
June									791,006
7-Jul	22648	22648	25681	25681	48356	48356	20648	20648	117,333
14-Jul	47331	24683	46354	20673	101029	52673	48282	27634	125,663
21-Jul	69195	21864	80639	34285	159163	58134	73234	24952	139,235
28-Jul	92810	23615	106287	25648	211925	52762	97234	23842	125,867
July									508,098

2000 Cumulative Total

3,000,695

**TABLE 7
QUARTERLY SAMPLING SCHEDULE
ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK**

ARCH ROCHESTER MONITORING PROGRAM					Q1		Q2		Q3		Q4		TOTAL	
	Well	zone	area	Data Objective:	Pyridines	VOC's	Pyridines	VOC's	Pyridines	VOC's	Pyridines	VOC's	Pyridines	VOC's
OFF-SITE MONITORING	MW-103	OB	KODAK EAST	overburden plume monitoring			1	1			1	1	2	2
	BR-103	BR	KODAK EAST	shallow bedrock plume monitoring			1	1			1	1	2	2
	MW-104	OB	BUFFALO RD	overburden plume monitoring			1	1			1	1	2	2
	BR-104	BR	BUFFALO RD	shallow bedrock plume monitoring			1	1			1	1	2	2
	BR-105	BR	AID-HOSP	shallow bedrock plume monitoring			1	1			1	1	2	2
	BR-105D	BR deep	AID-HOSP	deep bedrock plume monitoring			1	1			1	1	2	2
	MW-106	OB	AID-HOSP	overburden plume monitoring			1	1			1	1	2	2
	BR-106	BR	AID-HOSP	shallow bedrock plume monitoring			1	1			1	1	2	2
	MW-108	OB	AID-HOSP	overburden plume monitoring			1	1			1	1	2	2
	BR-108	BR	AID-HOSP	shallow bedrock plume monitoring			1	1			1	1	2	2
	BR-111	BR	NYSDOT	shallow bedrock plume monitoring			1	1			1	1	2	2
	BR-111D	BR deep	NYSDOT	deep bedrock plume monitoring			1	1			1	1	2	2
	BR-112A	BR	NYSDOT	shallow bedrock plume monitoring			1	1			1	1	2	2
	BR-112D	BR deep	NYSDOT	deep bedrock plume monitoring			1	1			1	1	2	2
	BR-113	BR	NYSDOT	shallow bedrock plume monitoring			1				1		2	0
	BR-113D	BR deep	NYSDOT	deep bedrock plume monitoring			1				1		2	0
	MW-114	OB	JACKSON	shallow bedrock plume monitoring			1	1			1	1	2	2
	BR-114	BR	JACKSON	deep bedrock plume monitoring			1	1			1	1	2	2
	BR-116	BR	PFAUDLER	shallow bedrock plume monitoring			1						1	0
	BR-116D	BR deep	PFAUDLER	deep bedrock plume monitoring			1						1	0
	BR-117D	BR deep	QUARRY	deep bedrock plume monitoring			1						1	0
	BR-118D	BR deep	QUARRY	deep bedrock plume monitoring			1						1	0
	BR-119D	BR deep	QUARRY	deep bedrock plume monitoring			1						1	0
	BR-120D	BR deep	QUARRY	deep bedrock plume monitoring			1						1	0
	BR-121D	BR deep	QUARRY	deep bedrock plume monitoring			1						1	0
	BR-122D	BR deep	QUARRY	deep bedrock plume monitoring			1						1	0
	BR-123D	BR deep	QUARRY	deep bedrock plume monitoring			1						1	0
	BR-124D	BR deep	QUARRY	deep bedrock plume monitoring			1	1			1	1	2	2
	NESS-E	BR deep	NESS	deep bedrock plume monitoring			1	1			1	1	2	2
	NESS-W	BR deep	NESS	deep bedrock plume monitoring			1	1			1	1	2	2
	PZ-101	BR	McKee Rd	shallow bedrock plume monitoring			1	1			1	1	2	2
	PZ-102	BR	McKee Rd	shallow bedrock plume monitoring			1	1			1	1	2	2
	PZ-103	BR	McKee Rd	shallow bedrock plume monitoring			1	1			1	1	2	2
	PZ-104	BR	ALH	shallow bedrock plume monitoring			1	1			1	1	2	2
ON-SITE MONITORING	PZ-107	BR	ON-SITE	onsite tracking of contam trends			1	1			1	1	2	2
	PZ-106	BR	ON-SITE	onsite tracking of contam trends			1	1			1	1	2	2
	PZ-105	BR	ON-SITE	onsite tracking of contam trends			1	1			1	1	2	2
	BR-102	BR	ON-SITE	onsite tracking of contam trends			1	1			1	1	2	2
	BR-3	BR	ON-SITE	onsite tracking of contam trends			1	1			1	1	2	2
	BR-8	BR	ON-SITE	onsite tracking of contam trends			1	1			1	1	2	2
	BR-9	pumping well	ON-SITE	onsite tracking of removed contaminants			1	1			1	1	2	2
	BR-5A	pumping well	ON-SITE	onsite tracking of removed contaminants			1	1			1	1	2	2
	BR-6A	pumping well	ON-SITE	onsite tracking of removed contaminants			1	1			1	1	2	2
	BR-7A	pumping well	ON-SITE	onsite tracking of removed contaminants			1	1			1	1	2	2
	B-17	OB	ON-SITE	onsite tracking of contam trends			1	1			1	1	2	2
	B-7	OB	ON-SITE	onsite tracking of contam trends			1	1			1	1	2	2
	B-9	OB	ON-SITE	onsite tracking of contam trends			1	1			1	1	2	2
	S-3	OB	ON-SITE	onsite tracking of contam trends			1	1			1	1	2	2
	S-4	OB	ON-SITE	onsite tracking of contam trends			1	1			1	1	2	2
	E-1	OB	ON-SITE	onsite tracking of contam trends			1	1			1	1	2	2
	E-3	OB	ON-SITE	onsite tracking of contam trends			1	1			1	1	2	2
	PW10	BR	ON-SITE	onsite tracking of contam trends			1	1			1	1	2	2
	PW11	BR	ON-SITE	onsite tracking of contam trends			1	1			1	1	2	2
	PW12	BR	ON-SITE	onsite tracking of contam trends			1	1			1	1	2	2
QUARRY/CANAL MONITORING	QS-4	quarry seep	QUARRY	track quarry seep quality	1		1	1	1		1	1	4	2
	QO-2	quarry outfall	CANAL	track water quality input to canal	1		1	1	1		1	1	4	2
	QO-2S1	canal at outfall	CANAL	track dilution of input to canal	1		1		1		1		4	0
	SW-1	barge canal	CANAL	track canal water quality	1		1	1	1		1		4	0
	SW-2	barge canal	CANAL	track canal water quality	1		1		1		1		4	0
	SW-3	barge canal	CANAL	track canal water quality	1		1		1		1		4	0
	SW-6	barge canal	CANAL	track canal water quality	1		1		1		1		4	0
SW-12	barge canal	CANAL	track canal water quality	1		1		1		1		4	0	
TOTAL SAMPLES					8	0	62	45	8	0	53	45	131	90

Figures

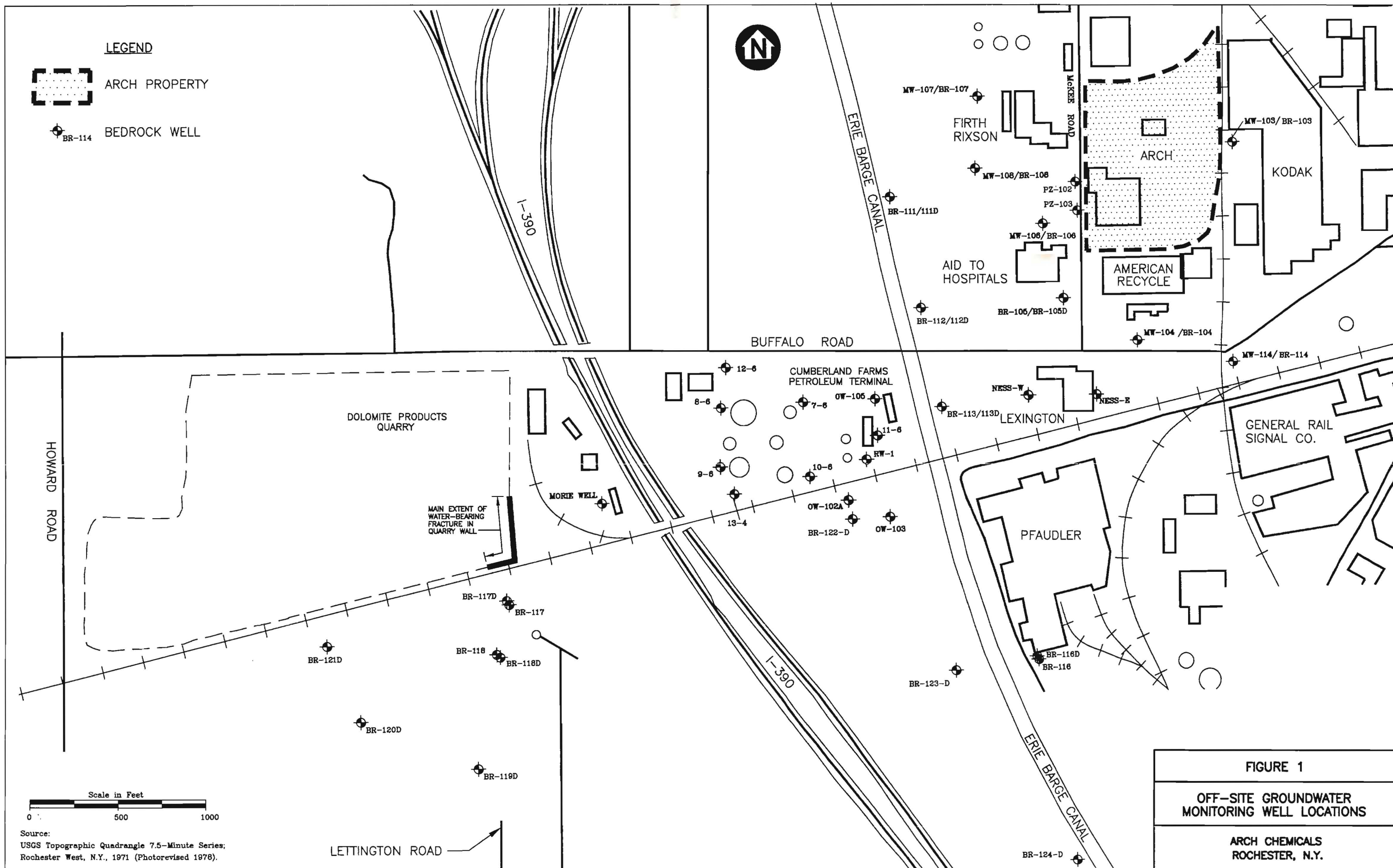
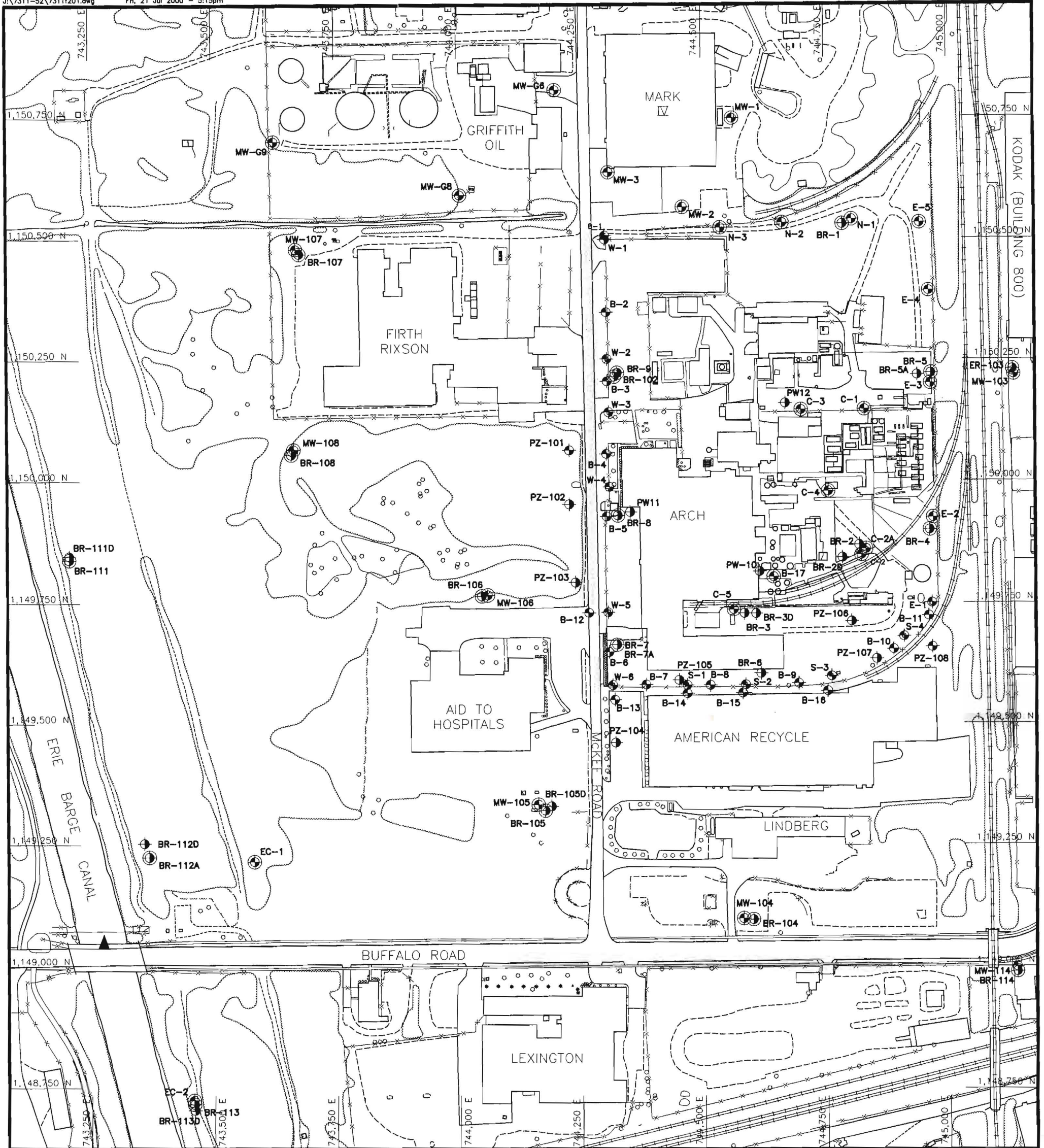
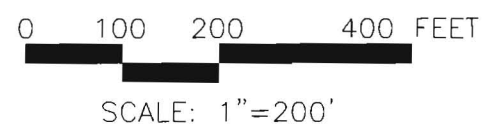


FIGURE 1
OFF-SITE GROUNDWATER MONITORING WELL LOCATIONS
ARCH CHEMICALS ROCHESTER, N.Y.



LEGEND

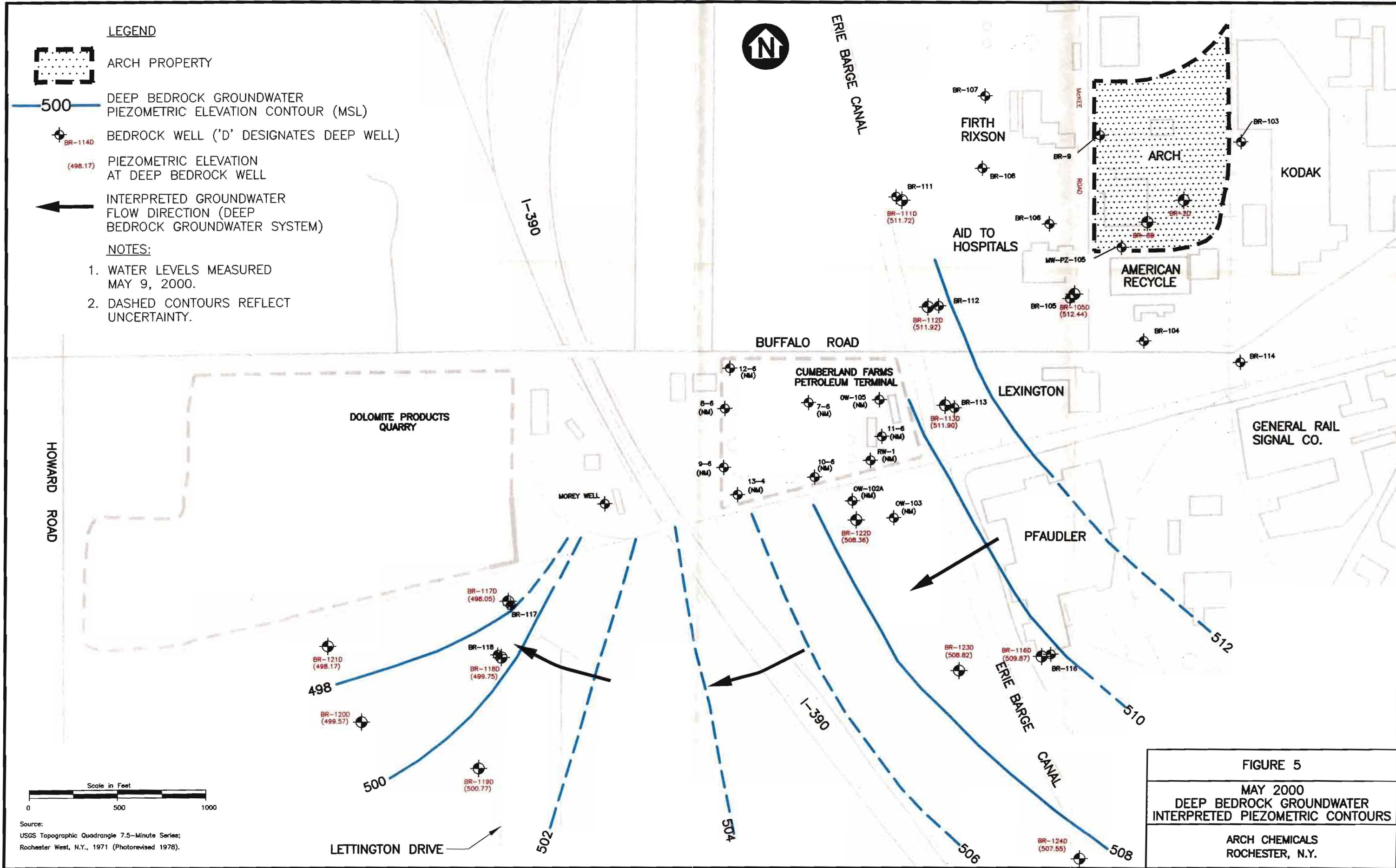
- x-x- OUTLINE OF ARCH PROPERTY BOUNDARY
- ⊕ OVERBURDEN PIEZOMETER / PUMPING WELL
- ⊕ BEDROCK PIEZOMETER / PUMPING WELL / DEEP BEDROCK MONITORING WELL
- ⊙ OVERBURDEN MONITORING WELL
- ⊙ BEDROCK MONITORING WELL
- ▲ SURFACE WATER MEASUREMENT POINT








NOTE:

1. OFF-SITE WELL LOCATIONS ALSO INCLUDED ON FIGURE

FIGURE 2
ON-SITE MONITORING WELLS LOCATIONS
 ARCH CHEMICALS
 ROCHESTER, N.Y.



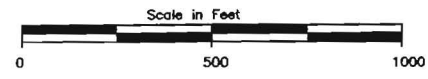
LEGEND

-  ARCH PROPERTY
-  500 DEEP BEDROCK GROUNDWATER PIEZOMETRIC ELEVATION CONTOUR (MSL)
-  BEDROCK WELL ('D' DESIGNATES DEEP WELL)
-  (498.17) PIEZOMETRIC ELEVATION AT DEEP BEDROCK WELL
-  INTERPRETED GROUNDWATER FLOW DIRECTION (DEEP BEDROCK GROUNDWATER SYSTEM)

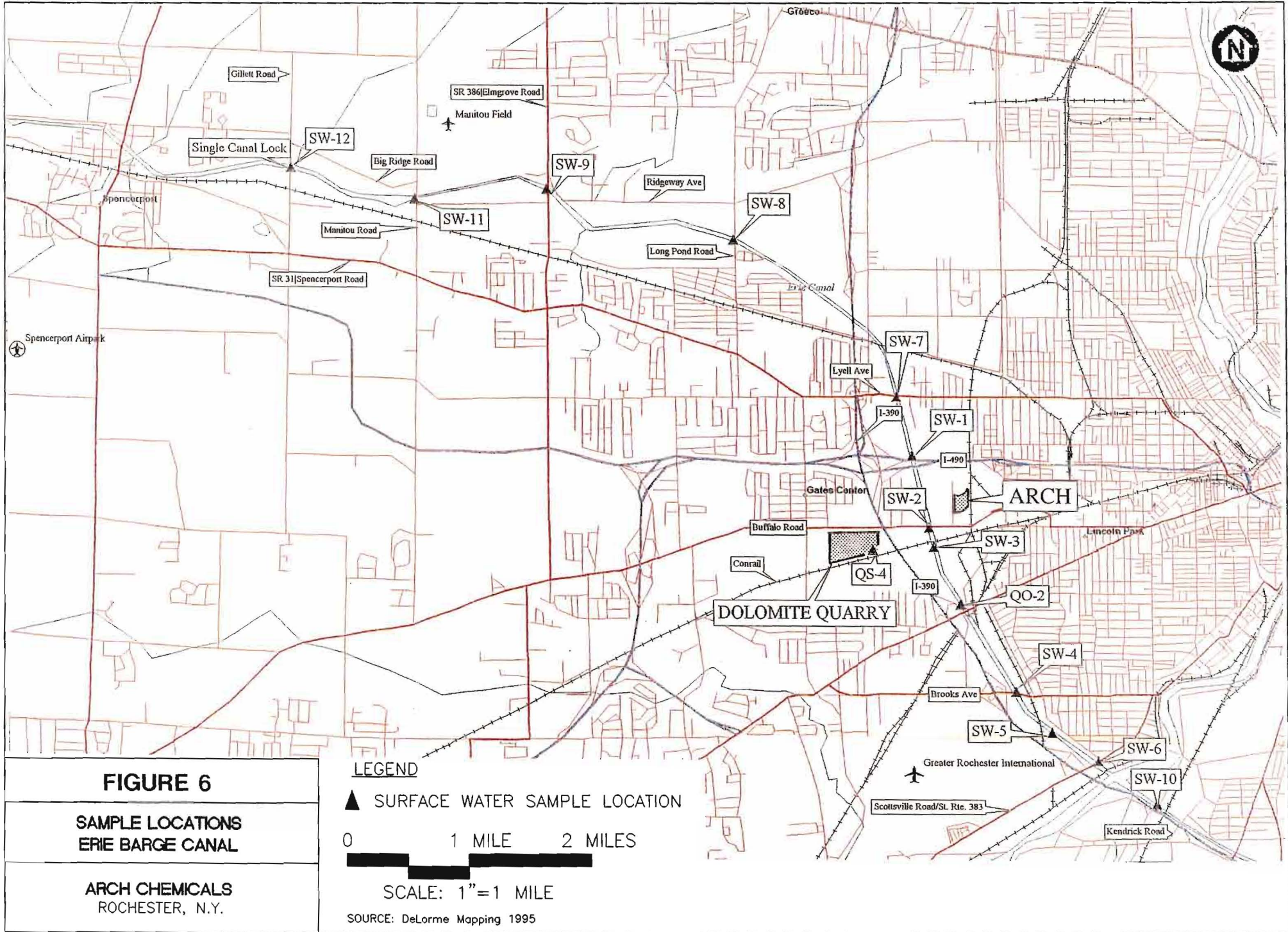
NOTES:

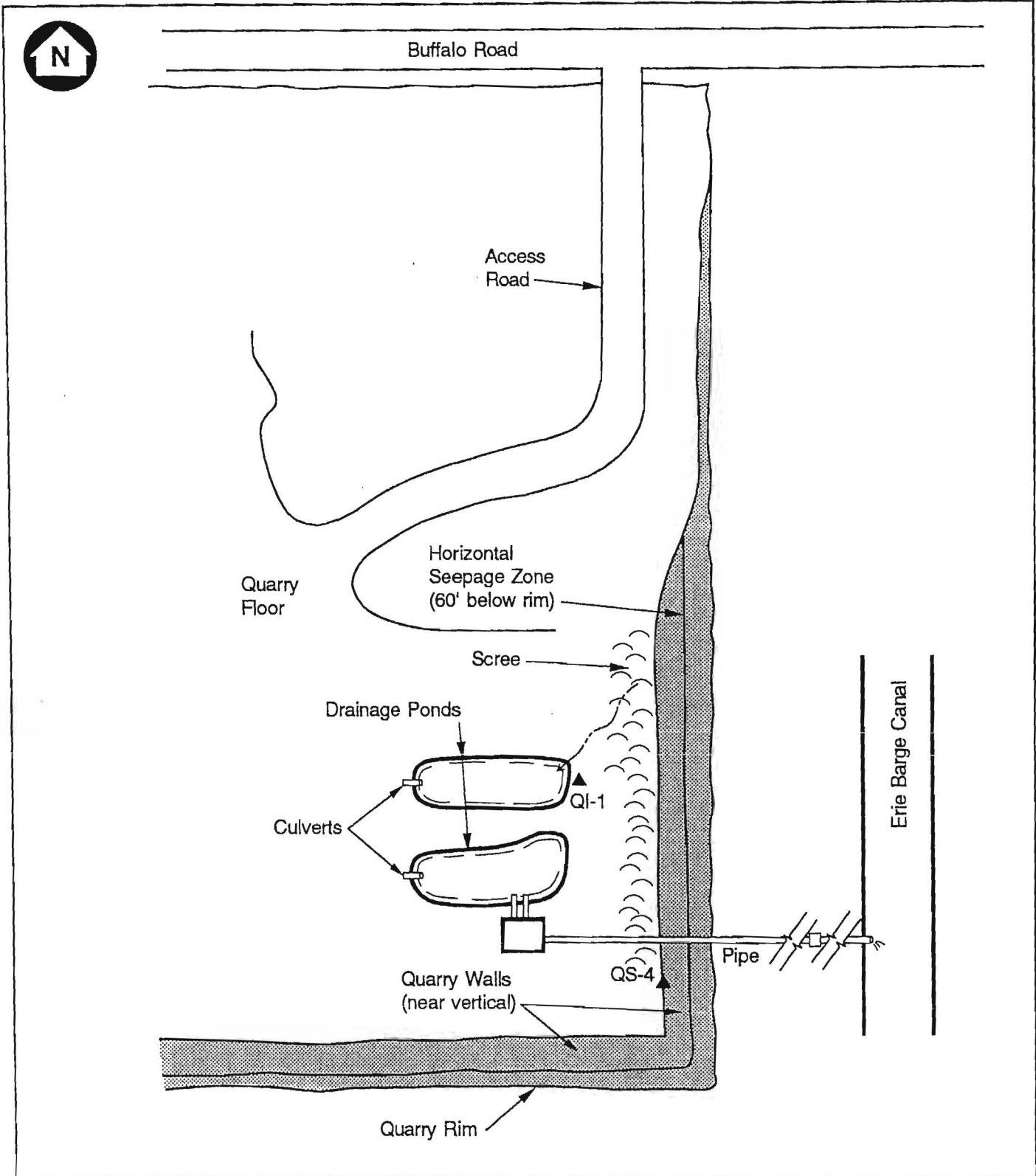
1. WATER LEVELS MEASURED MAY 9, 2000.
2. DASHED CONTOURS REFLECT UNCERTAINTY.

FIGURE 5
MAY 2000
DEEP BEDROCK GROUNDWATER
INTERPRETED PIEZOMETRIC CONTOURS
 ARCH CHEMICALS
 ROCHESTER, N.Y.



Source:
 USGS Topographic Quadrangle 7.5-Minute Series;
 Rochester West, N.Y., 1971 (Photorevised 1978).





Legend

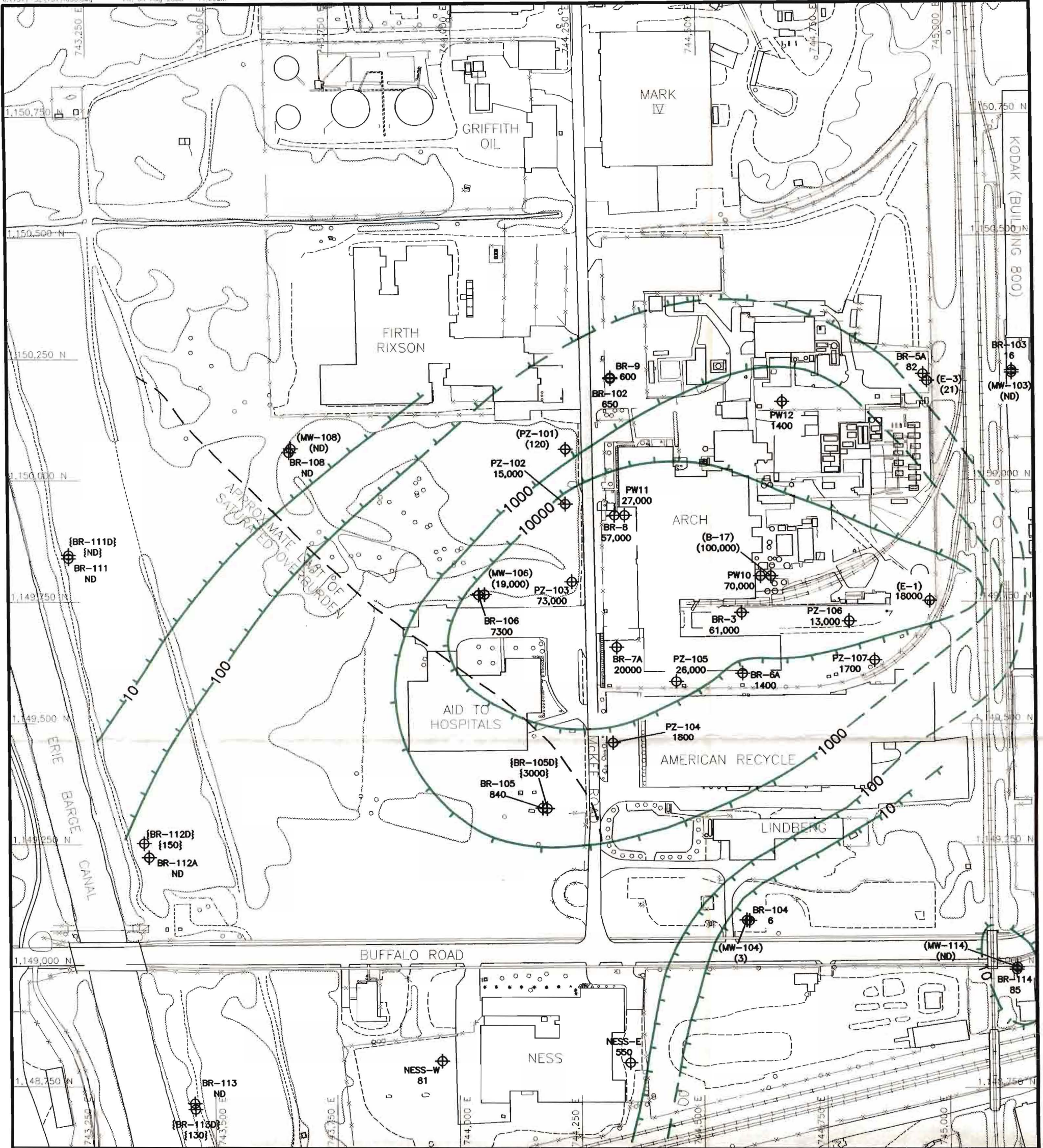
- QS-4 ▲ Seep Sample Location
- QI-1 ▲ Pond Inflow Sample Location

Not to Scale

FIGURE 7

**SAMPLE LOCATIONS
DOLOMITE PRODUCTS
QUARRY**

ARCH CHEMICALS
ROCHESTER, NEW YORK



0 100 200 400 FEET

SCALE: 1"=200'

LEGEND

- - - - - OUTLINE OF ARCH PROPERTY BOUNDARY
- ⊕ CONCENTRATION AT SAMPLE LOCATION (ug/L)
- BR-105 1140
- {1000} DEEP BEDROCK WELL
- (1000) OVERBURDEN WELL
- 1000 BEDROCK WELL

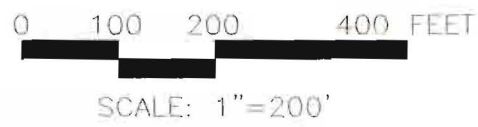
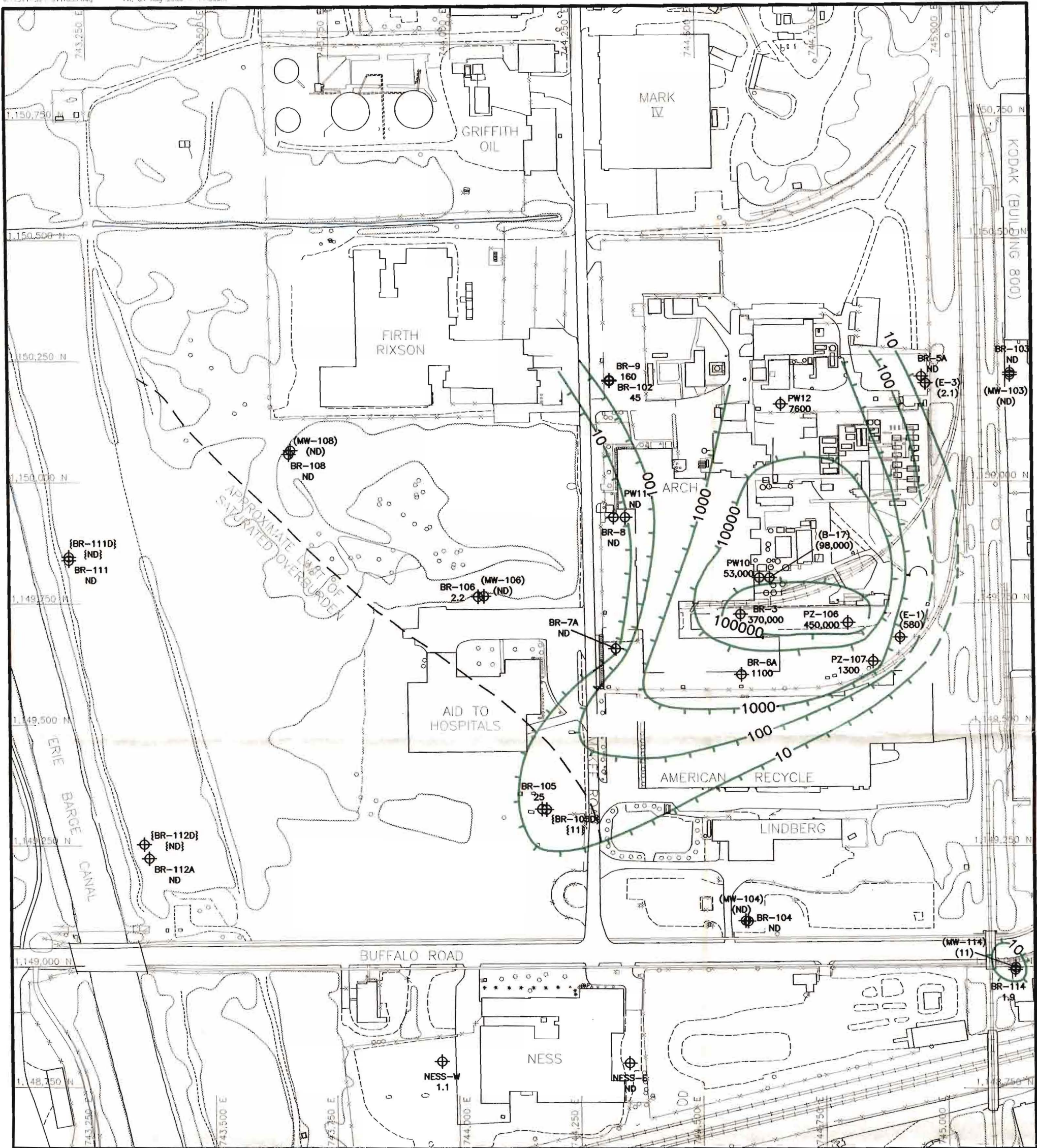
NOTE:

1. SAMPLES COLLECTED FROM MAY 10 THRU MAY 16, 2000.
2. SELECTED CHLOROPYRIDINES CONSIST OF 2,6-DICHLOROPYRIDINE, 2-CHLOROPYRIDINE, AND 3-CHLOROPYRIDINE.
3. CONCENTRATION CONTOURS REPRESENTED FOR BEDROCK WELLS AND SELECTED OVERBURDEN AND DEEP BEDROCK WELLS.

FIGURE 8

**MAY 2000
SELECTED CHLOROPYRIDINE
CONCENTRATION CONTOURS
FOR GROUNDWATER**

**ARCH CHEMICALS
ROCHESTER, N.Y.**



LEGEND

- x---x---
OUTLINE OF ARCH
PROPERTY BOUNDARY
- ⊕
PZ-105
540
CONCENTRATION AT
SAMPLE LOCATION (ug/L)
- {1000}
(1000)
1000
DEEP BEDROCK WELL
OVERBURDEN WELL
BEDROCK WELL

NOTES:

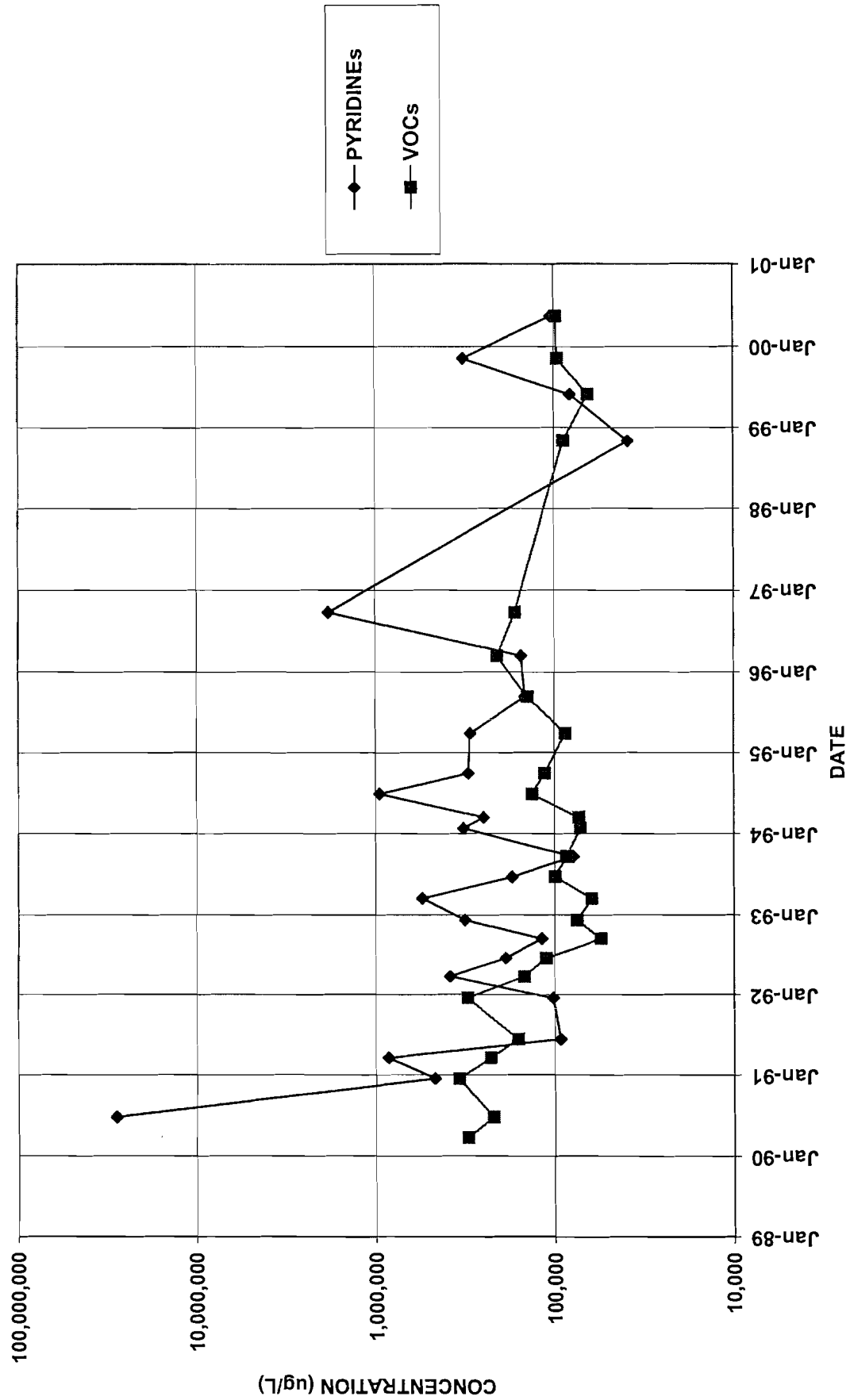
1. SAMPLES COLLECTED FROM
MAY 10 THRU MAY 16, 2000.
2. SELECTED VOLATILE ORGANIC COMPOUNDS
CONSIST OF CARBON TETRACHLORIDE,
CHLOROFORM, METHYLENE CHLORIDE,
TETRACHLOROETHENE AND TRICHLOROETHENE.
3. CONCENTRATION CONTOURS REPRESENTED FOR
BEDROCK WELLS AND SELECTED OVERBURDEN
AND DEEP BEDROCK WELLS.

FIGURE 9
MAY 2000
SELECTED VOLATILE ORGANIC COMPOUND
CONCENTRATION CONTOURS
FOR GROUNDWATER

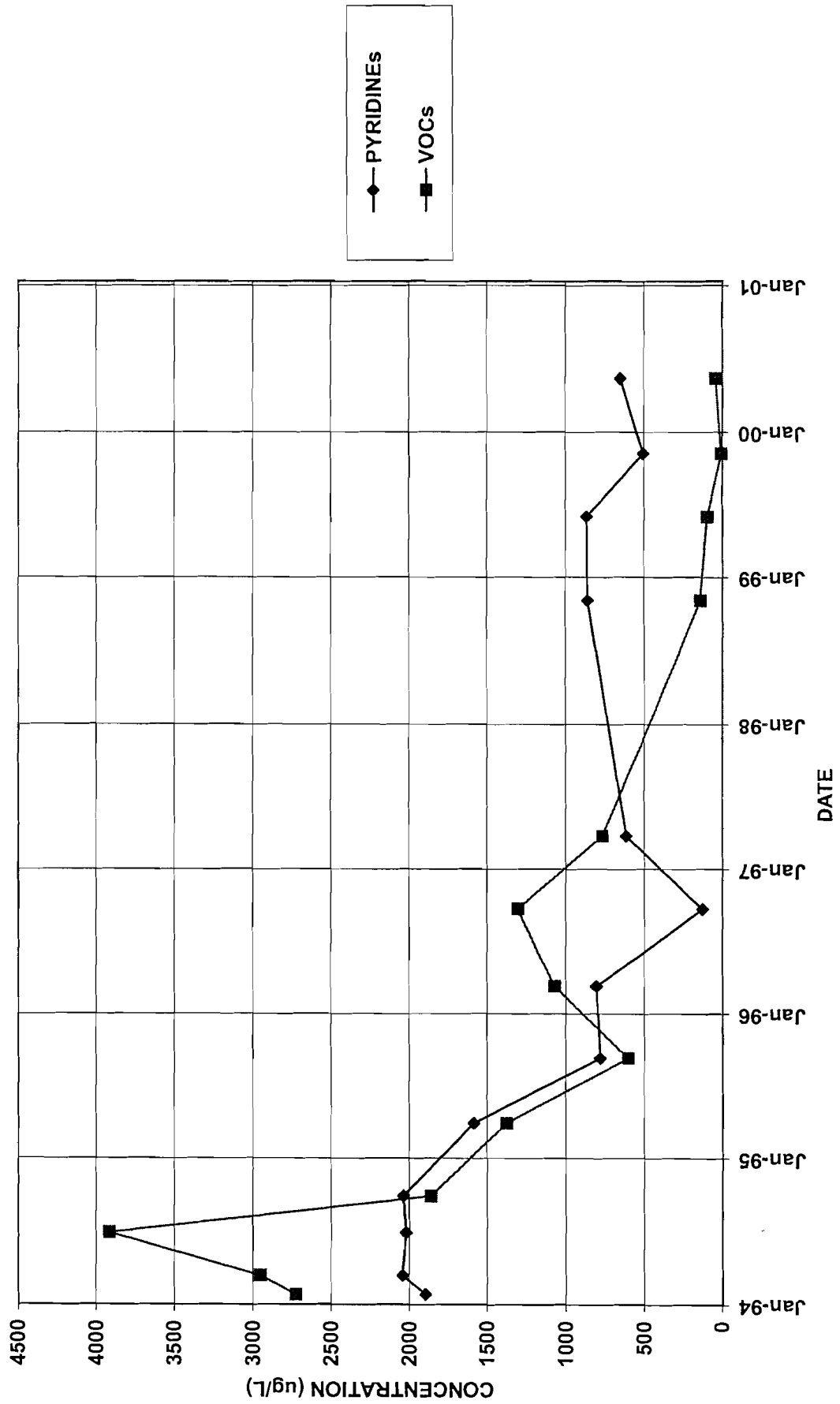
ARCH CHEMICALS
ROCHESTER, N.Y.

Appendix A
Well Trend Data

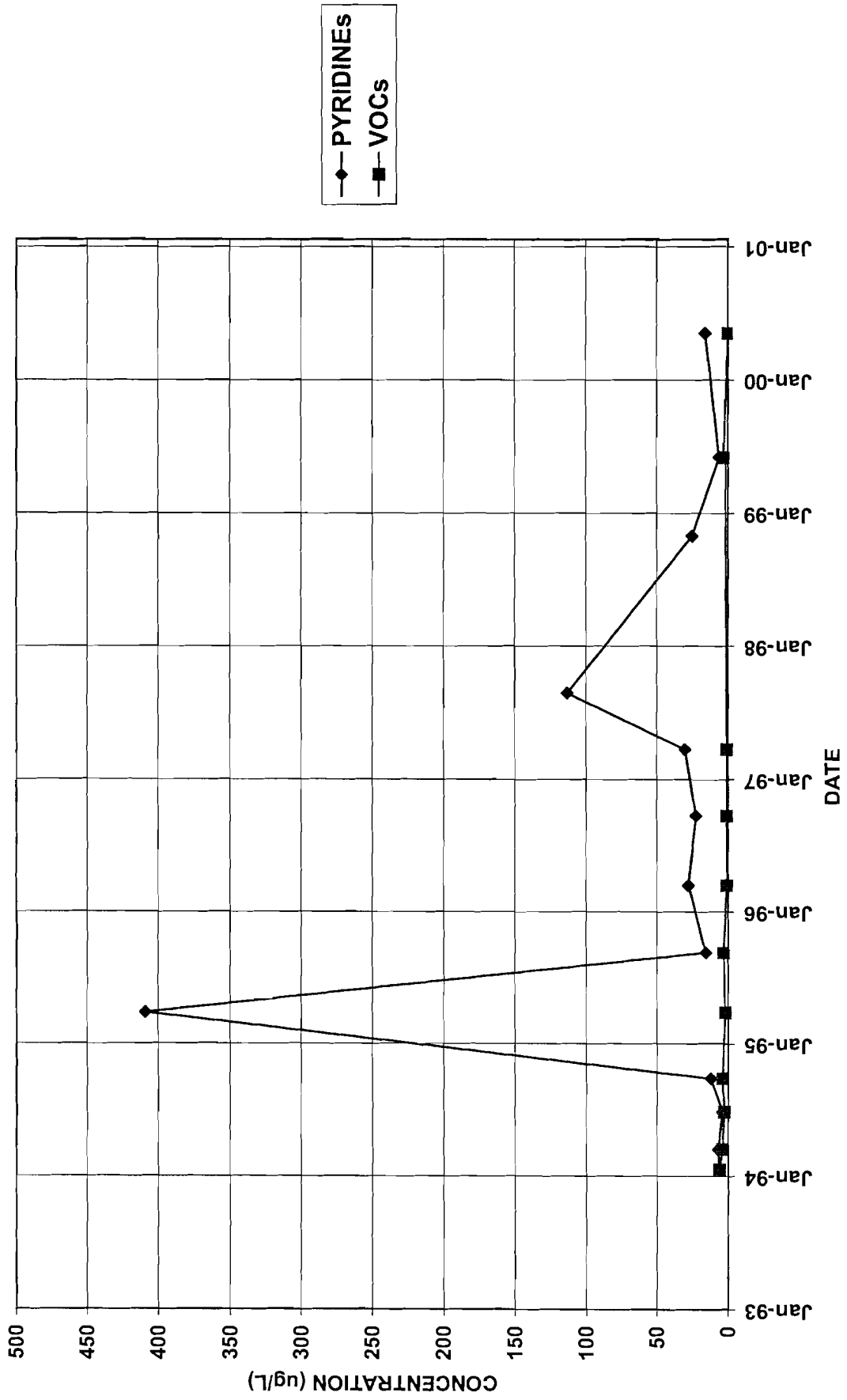
B-17



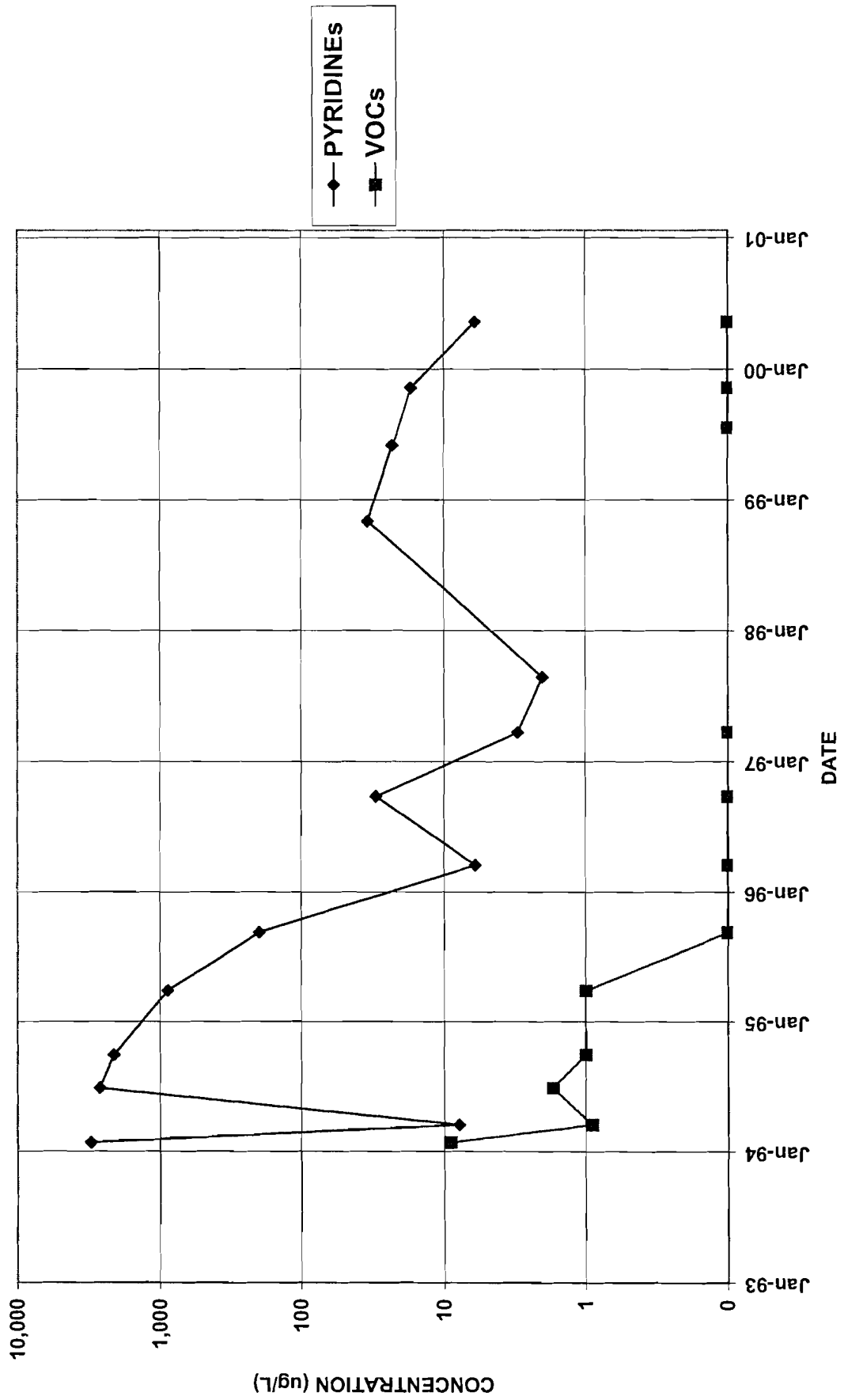
BR-102



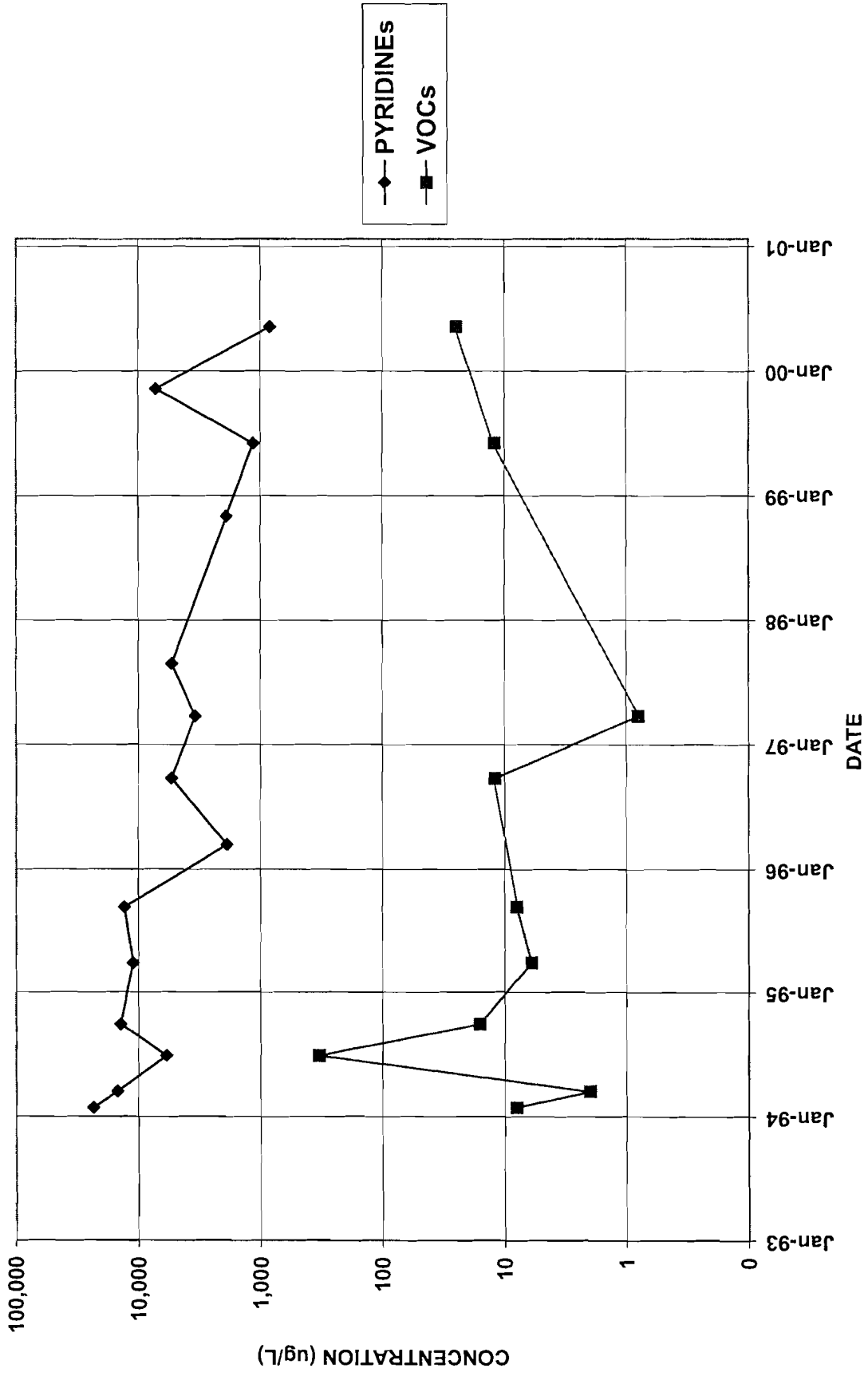
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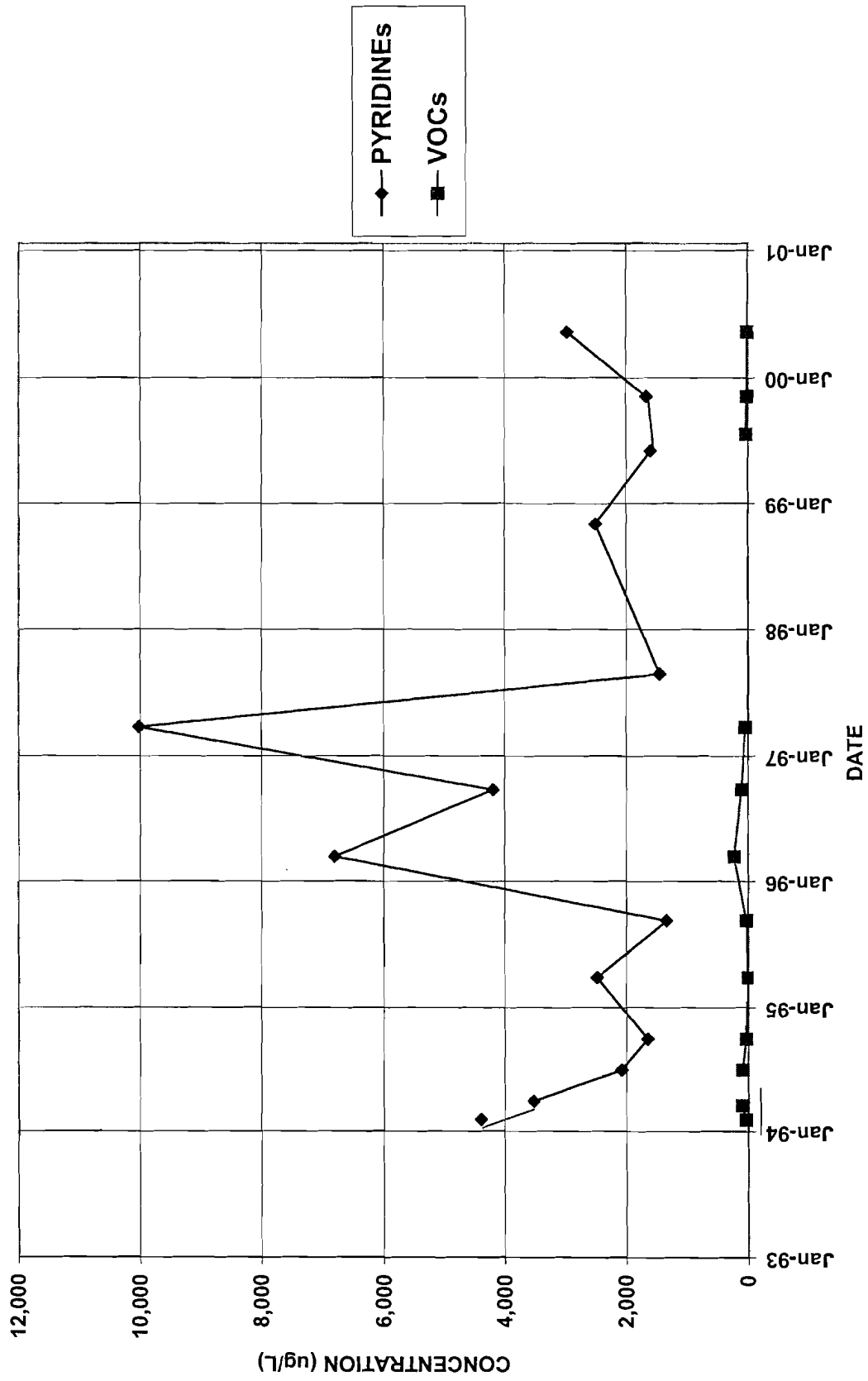
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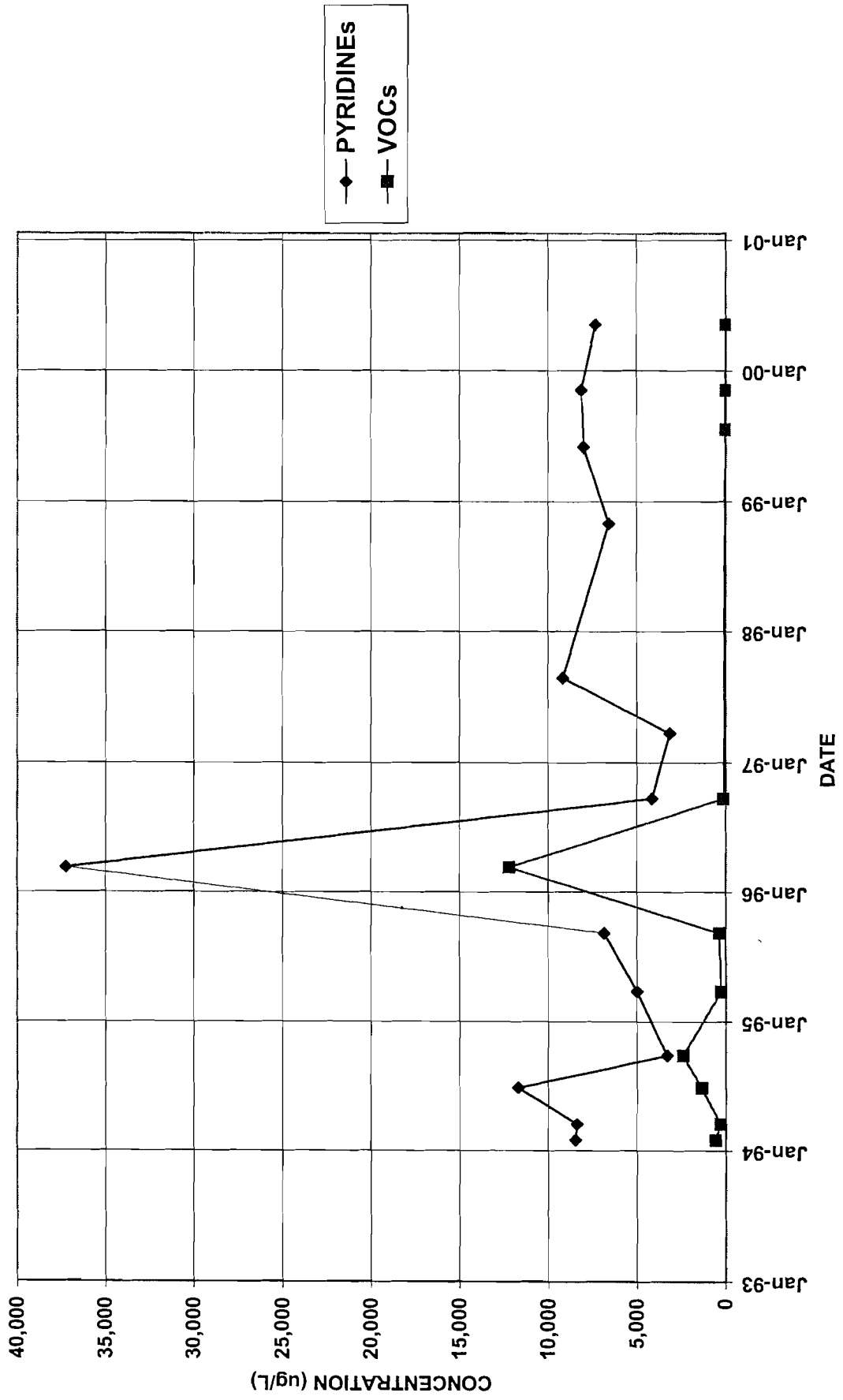
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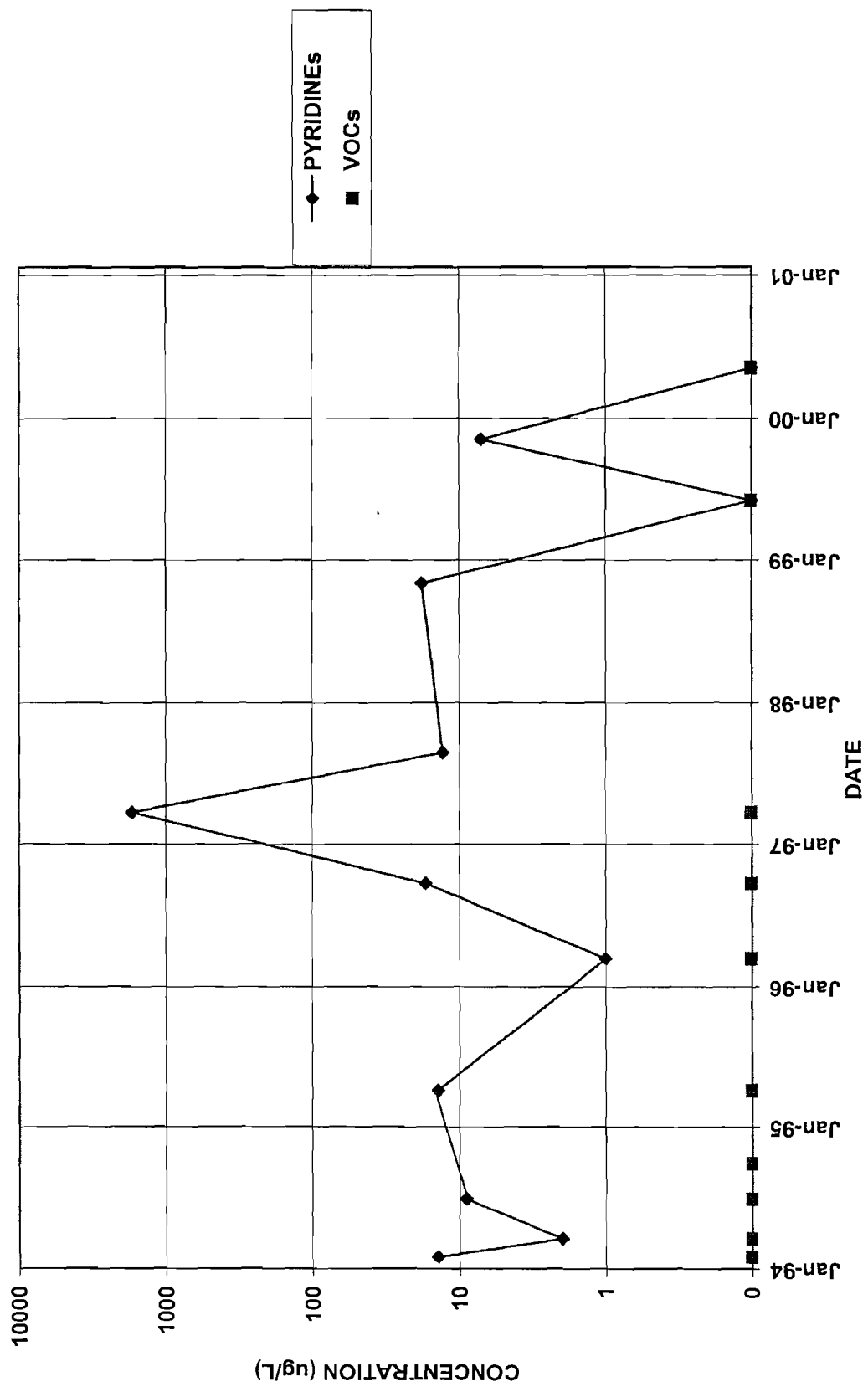
BR-105D



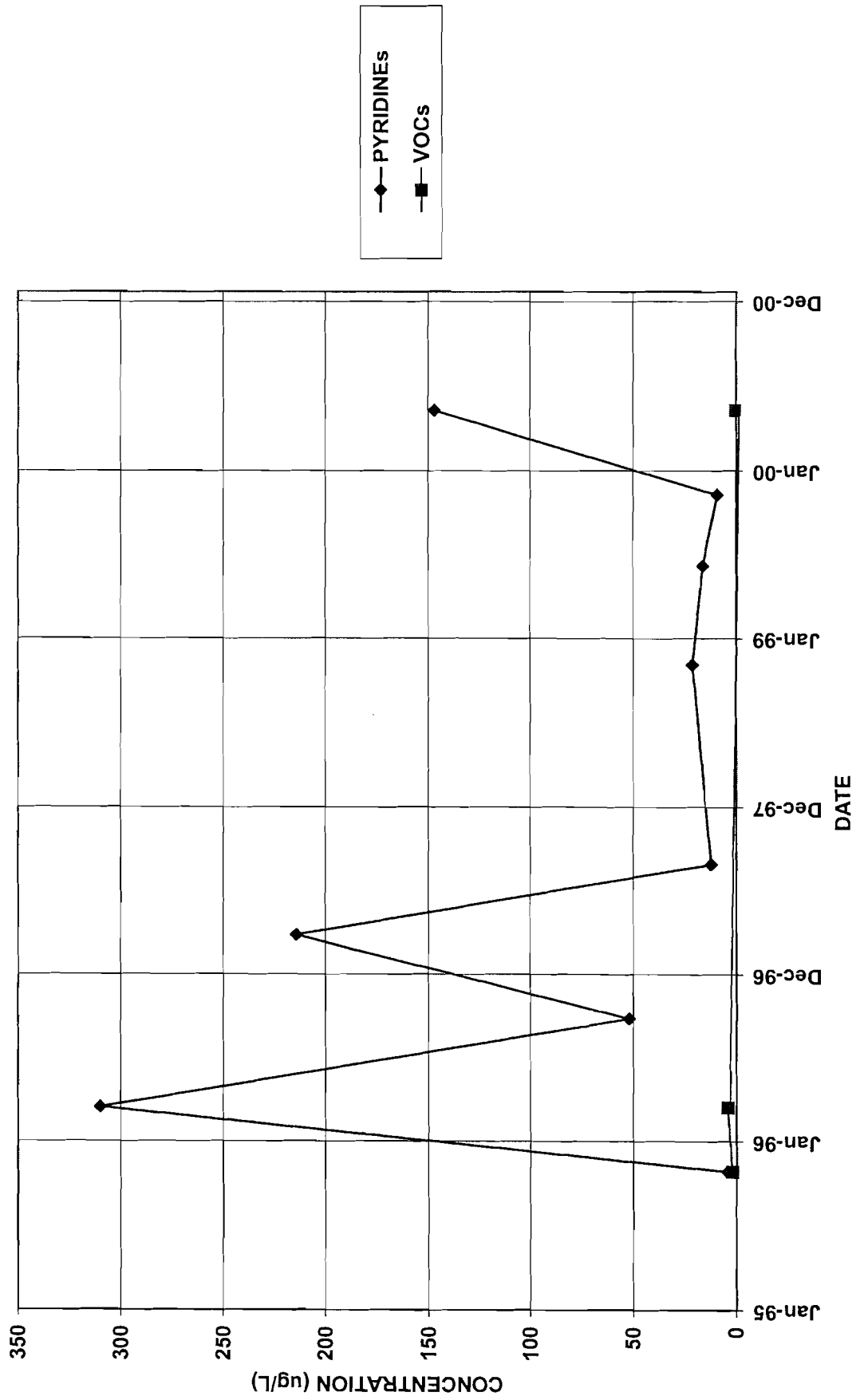
BR-106



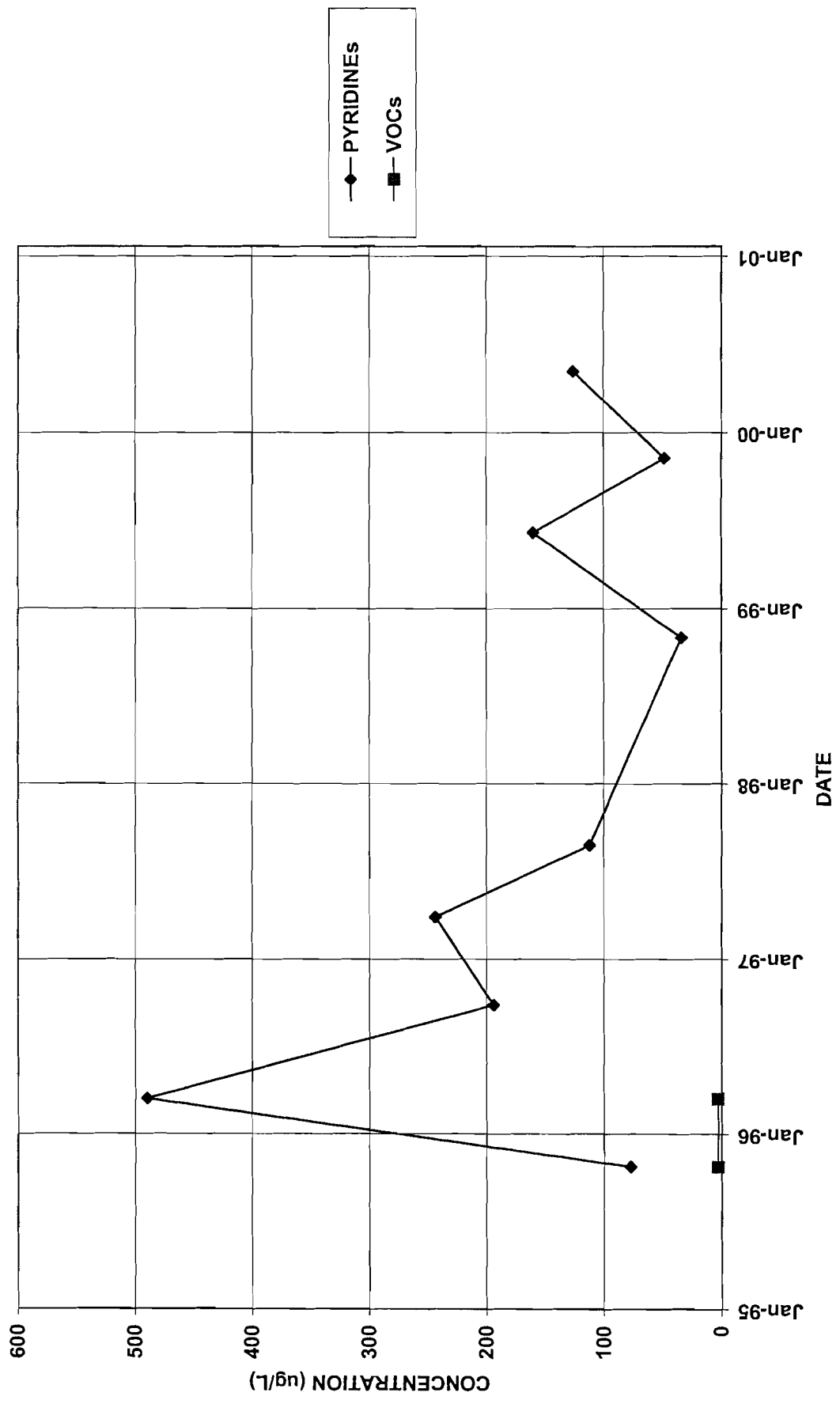
BR-108



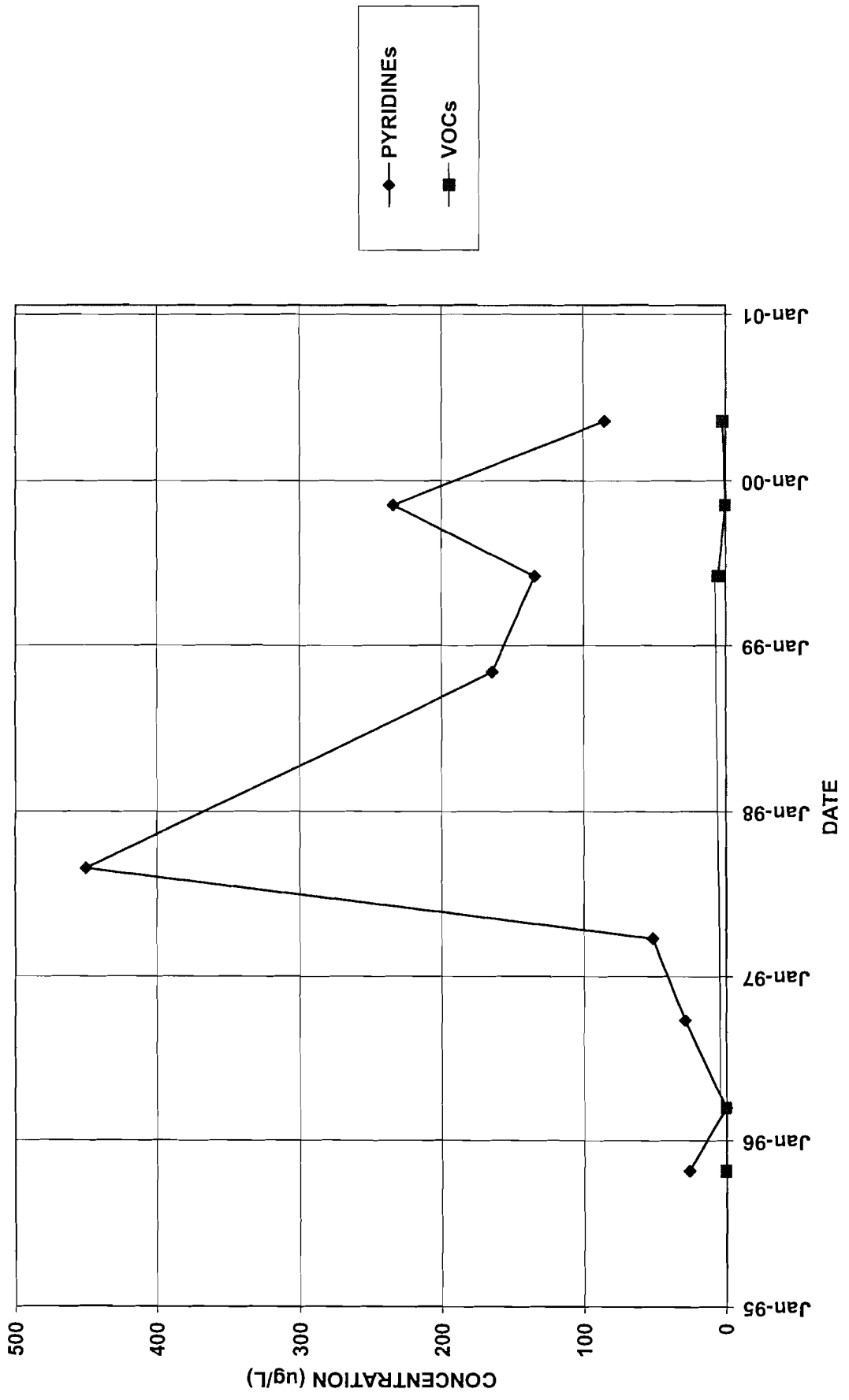
BR-112D



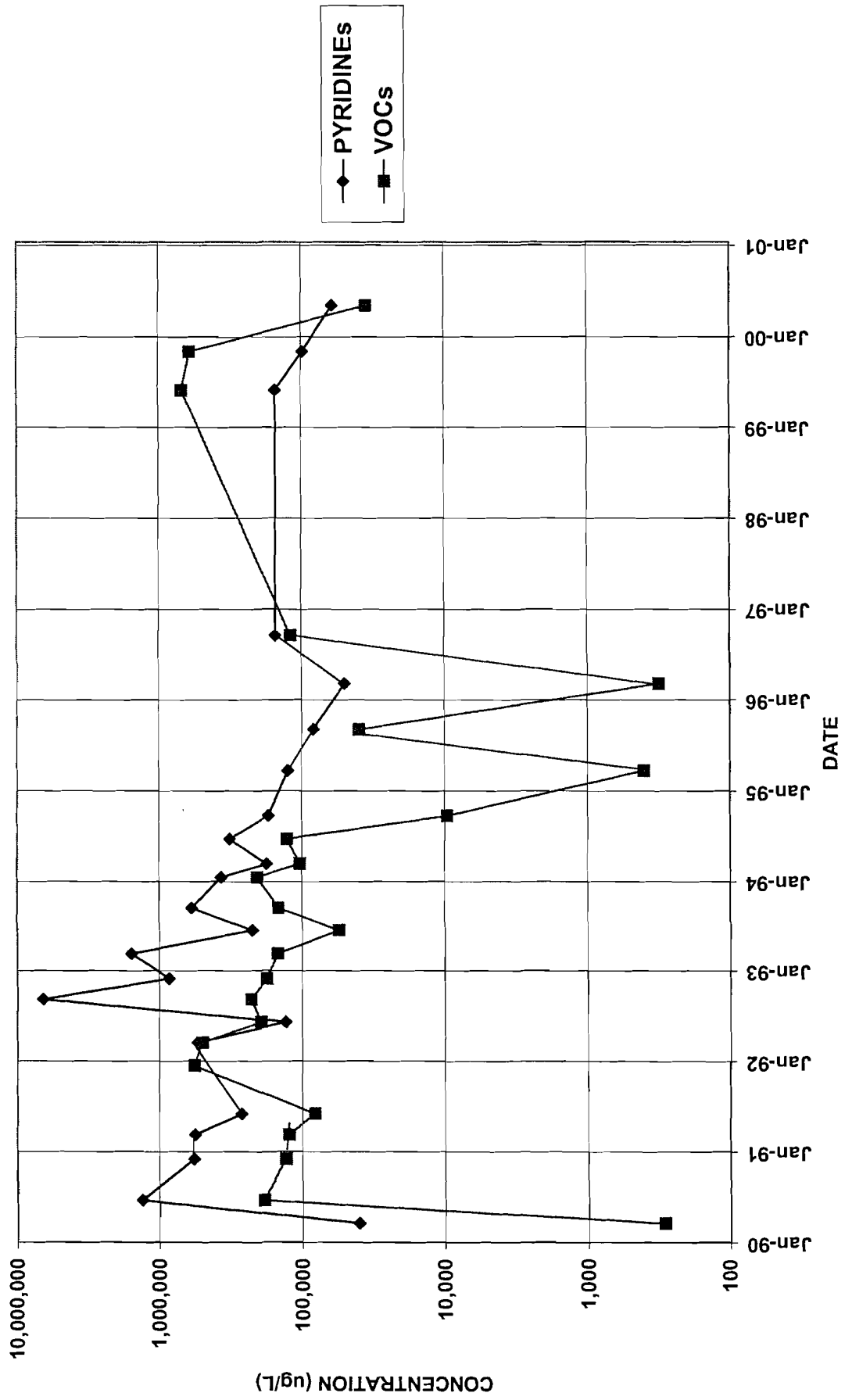
BR-113D

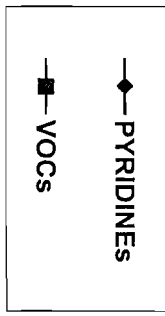
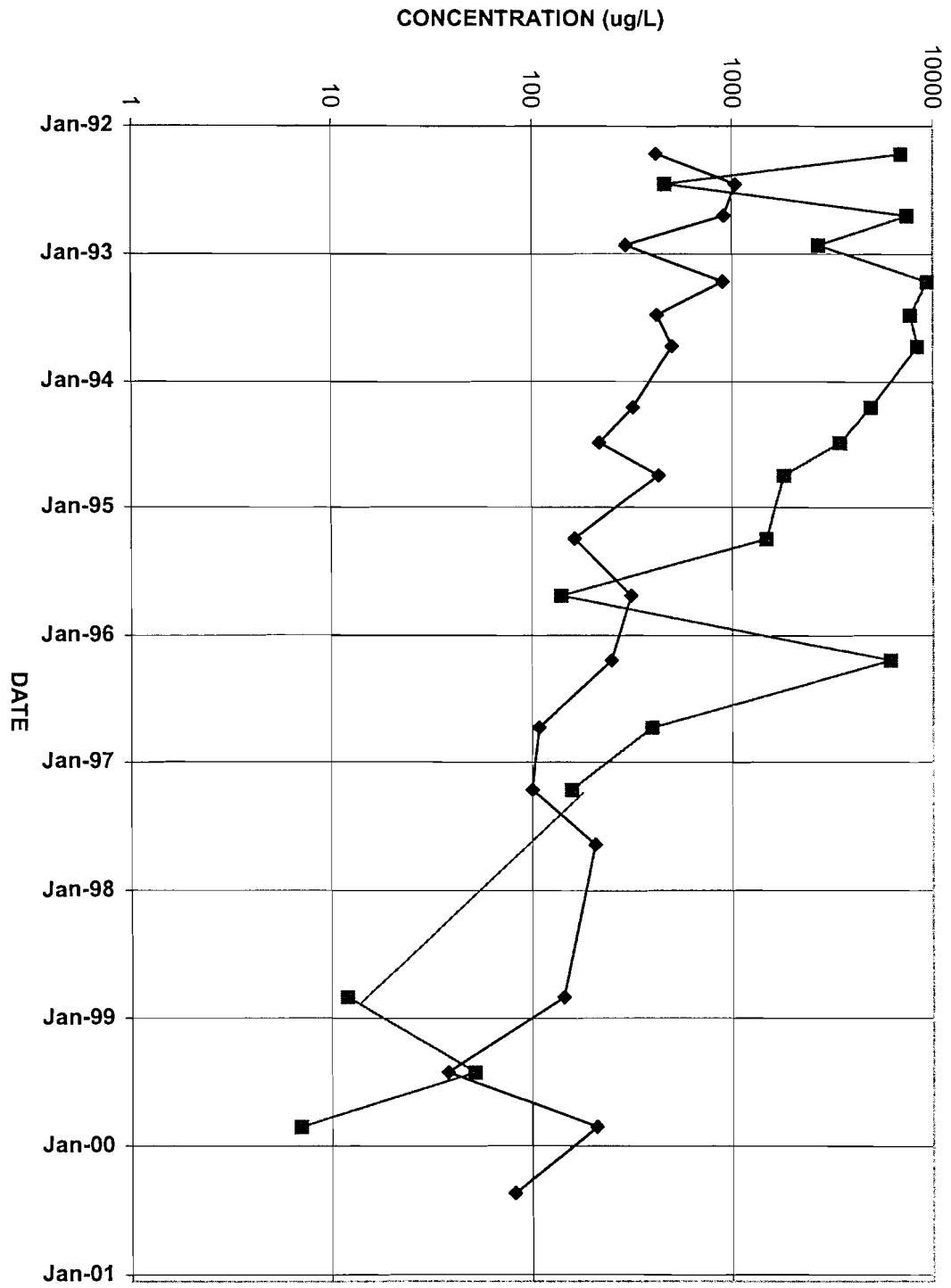


BR-114

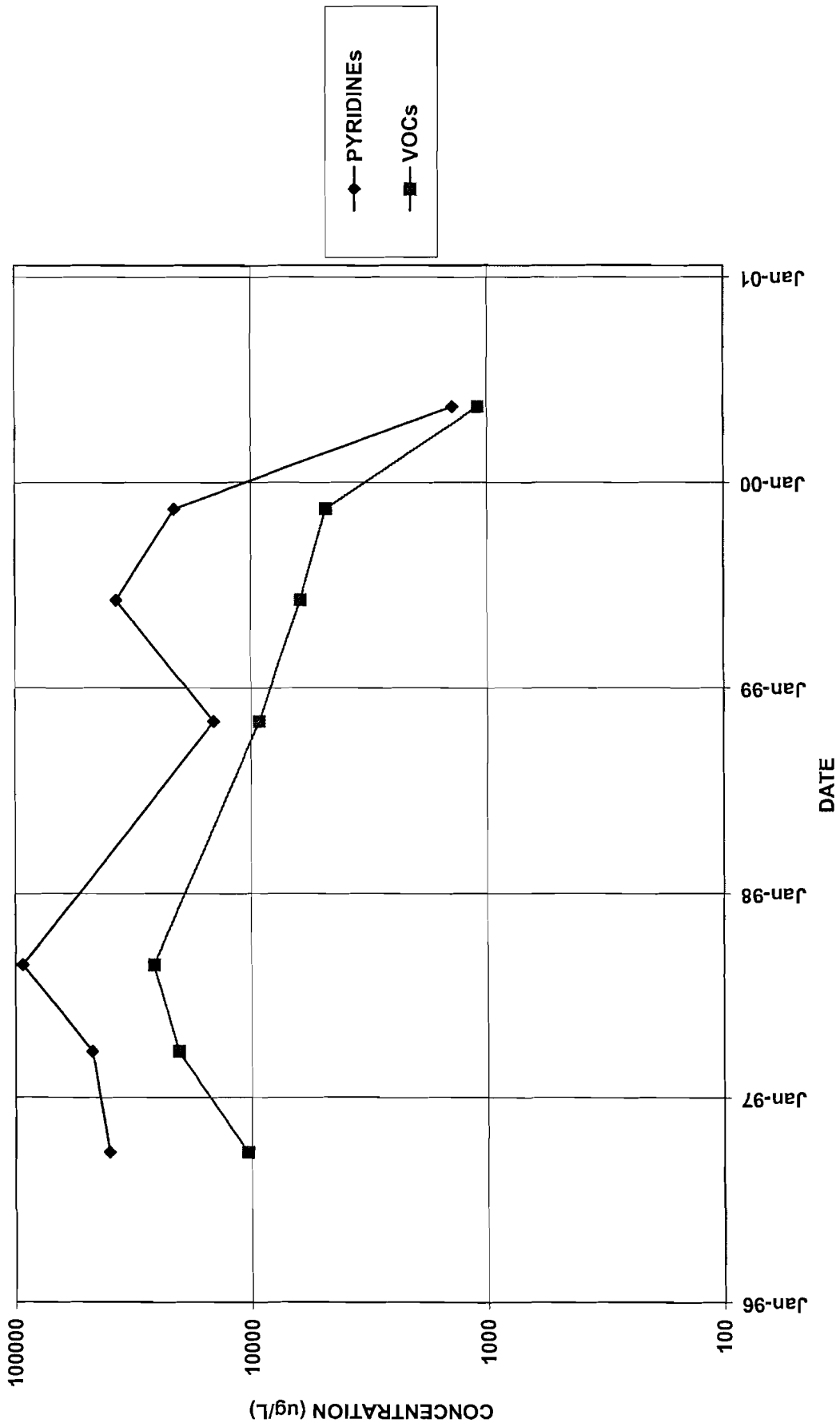


BR-3

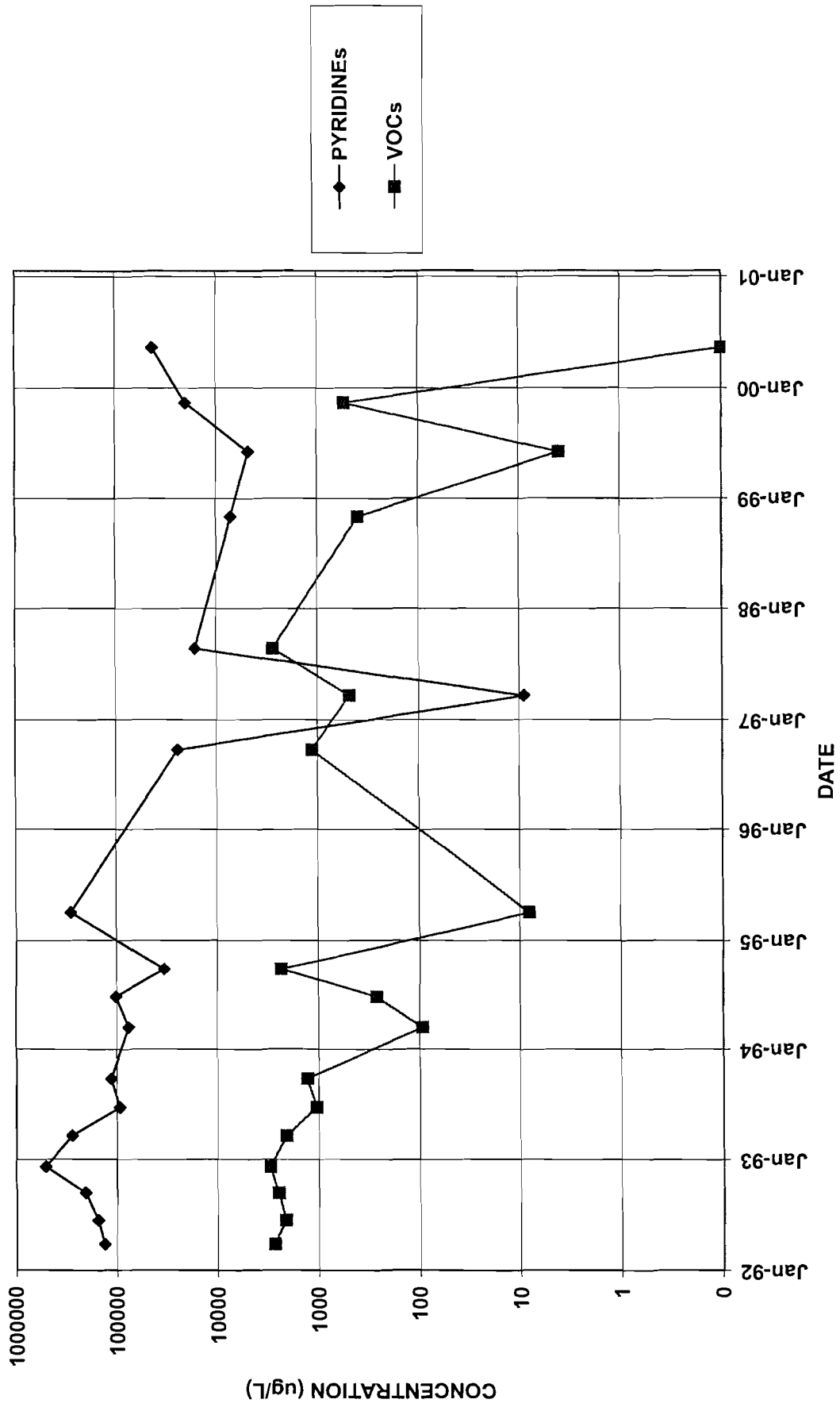




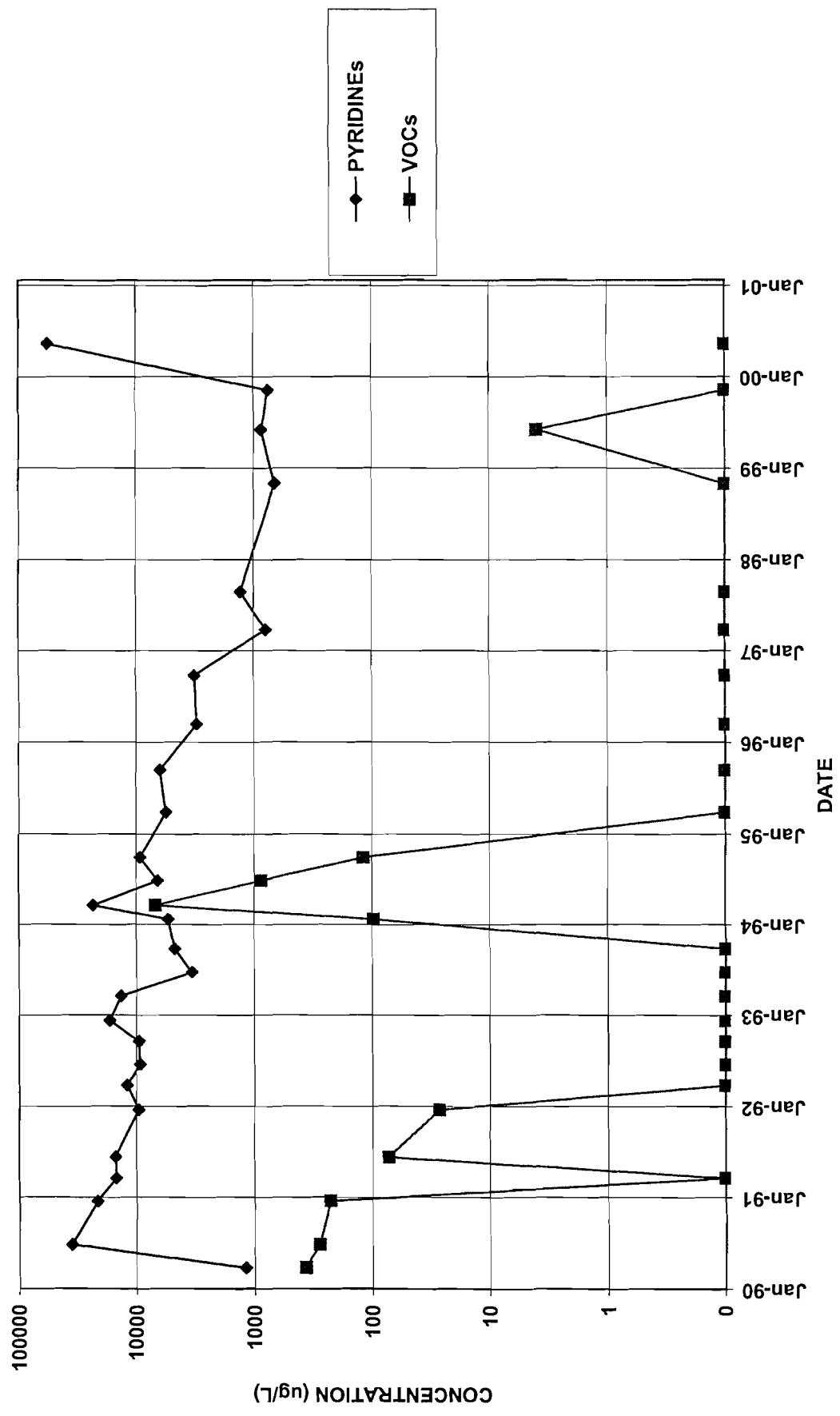
BR-6A



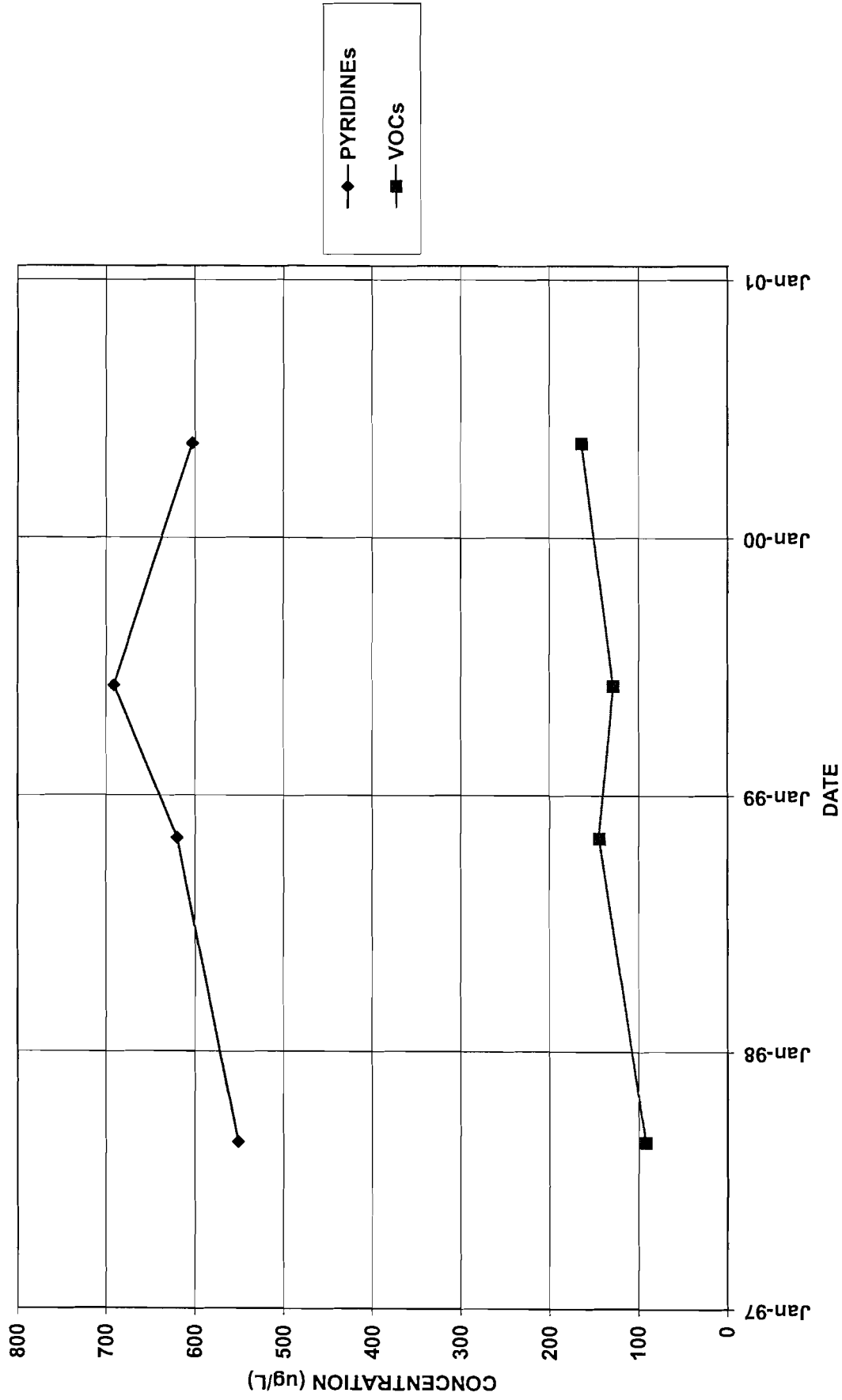
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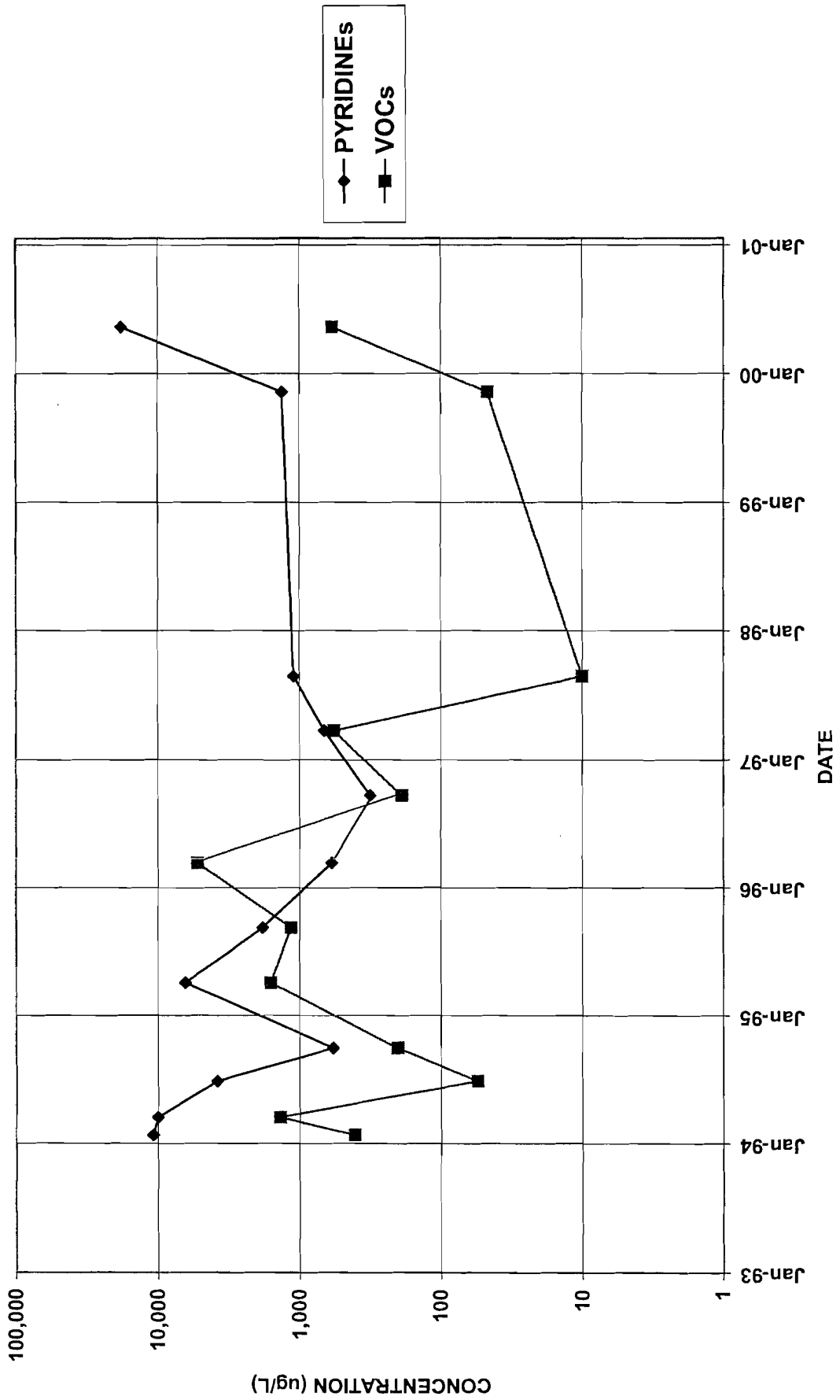
BR-8



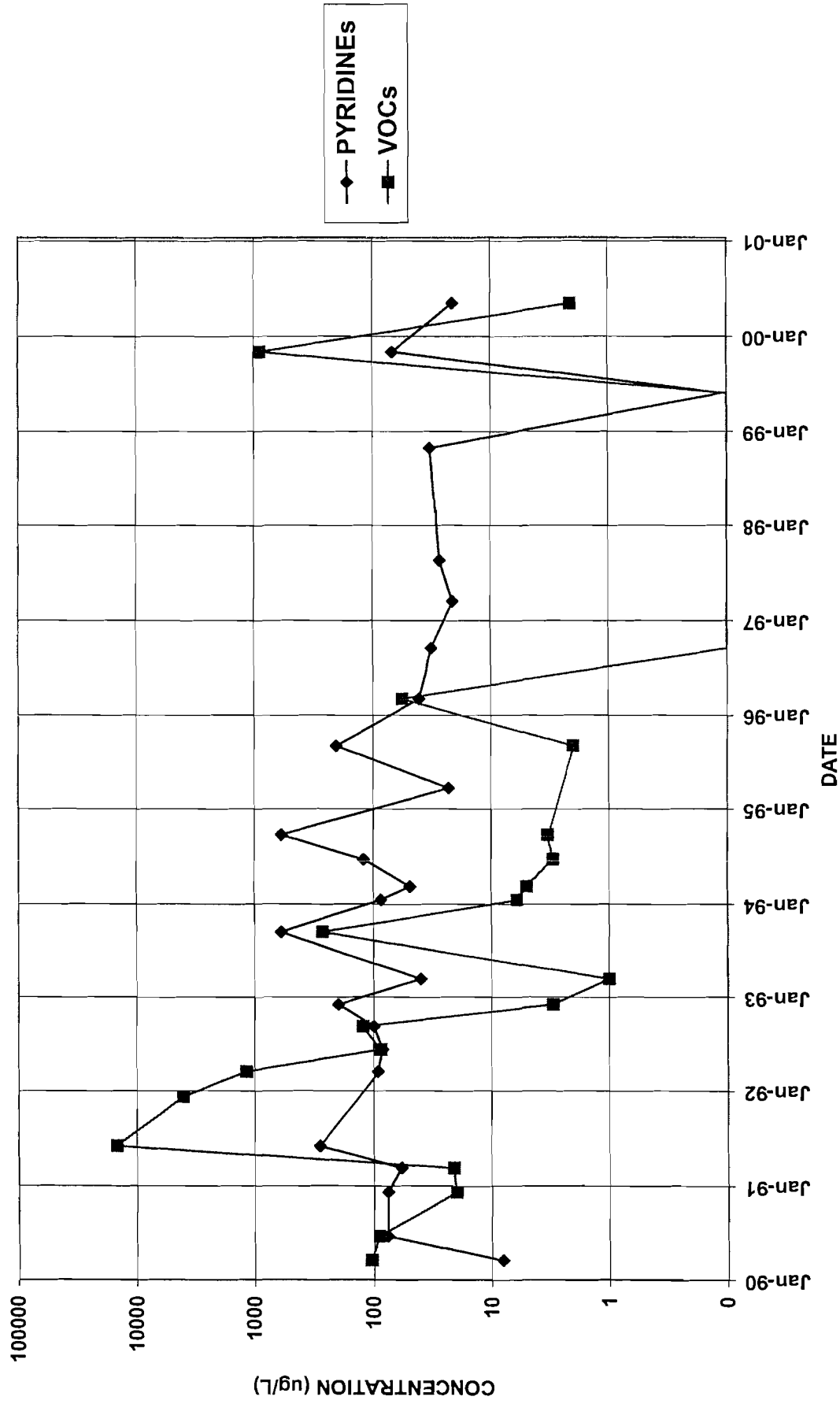
BR-9



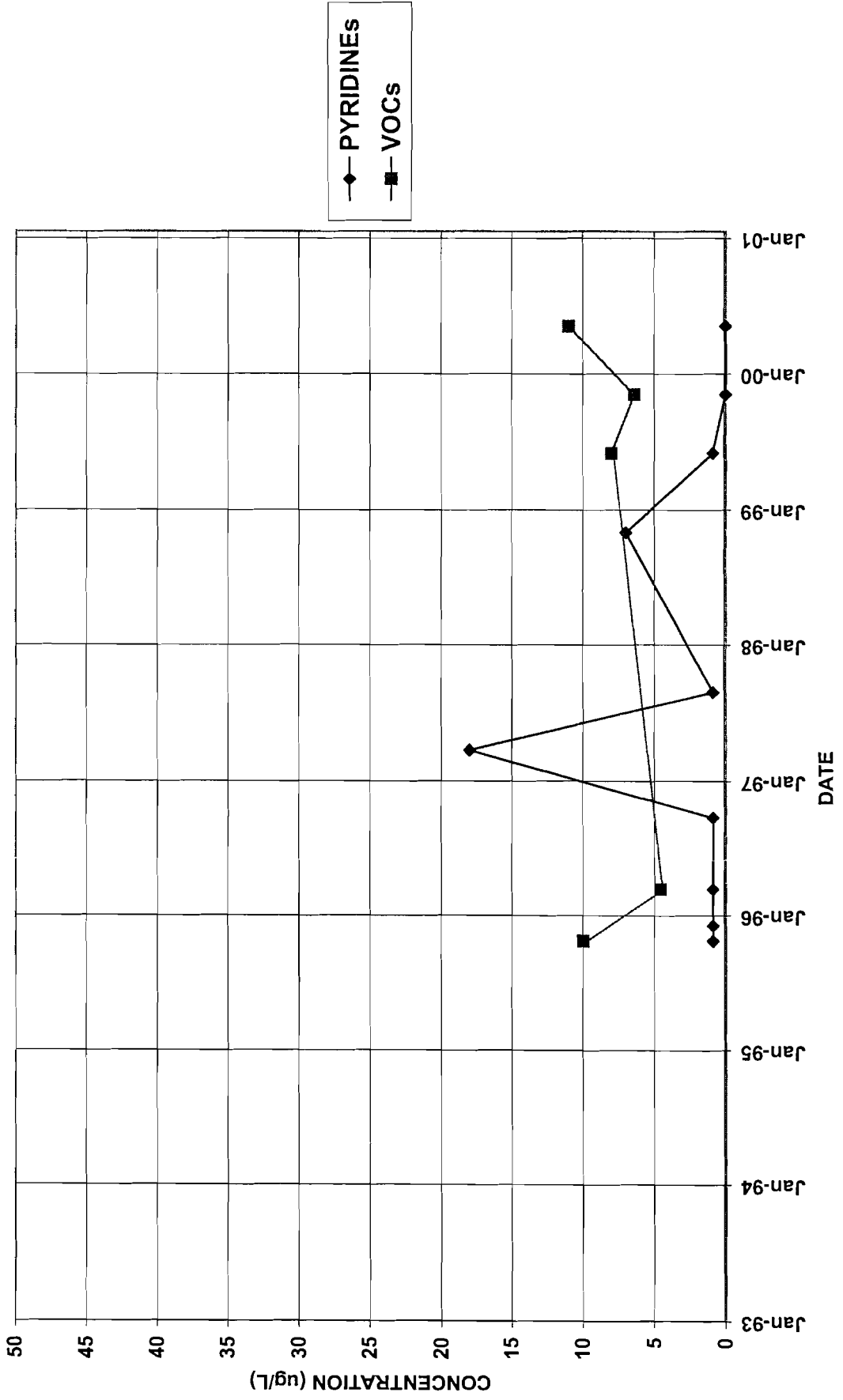
E-1



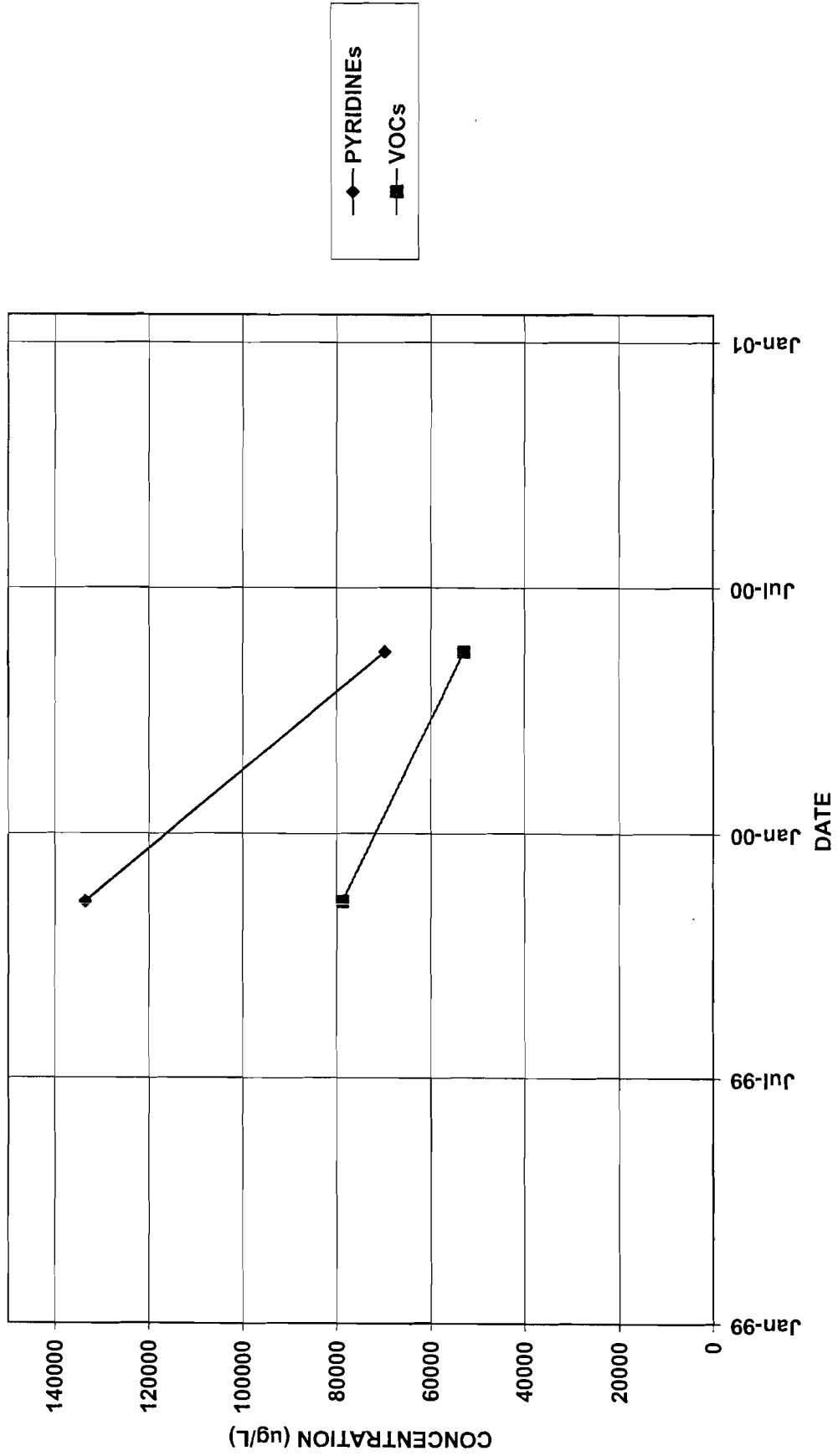
E-3



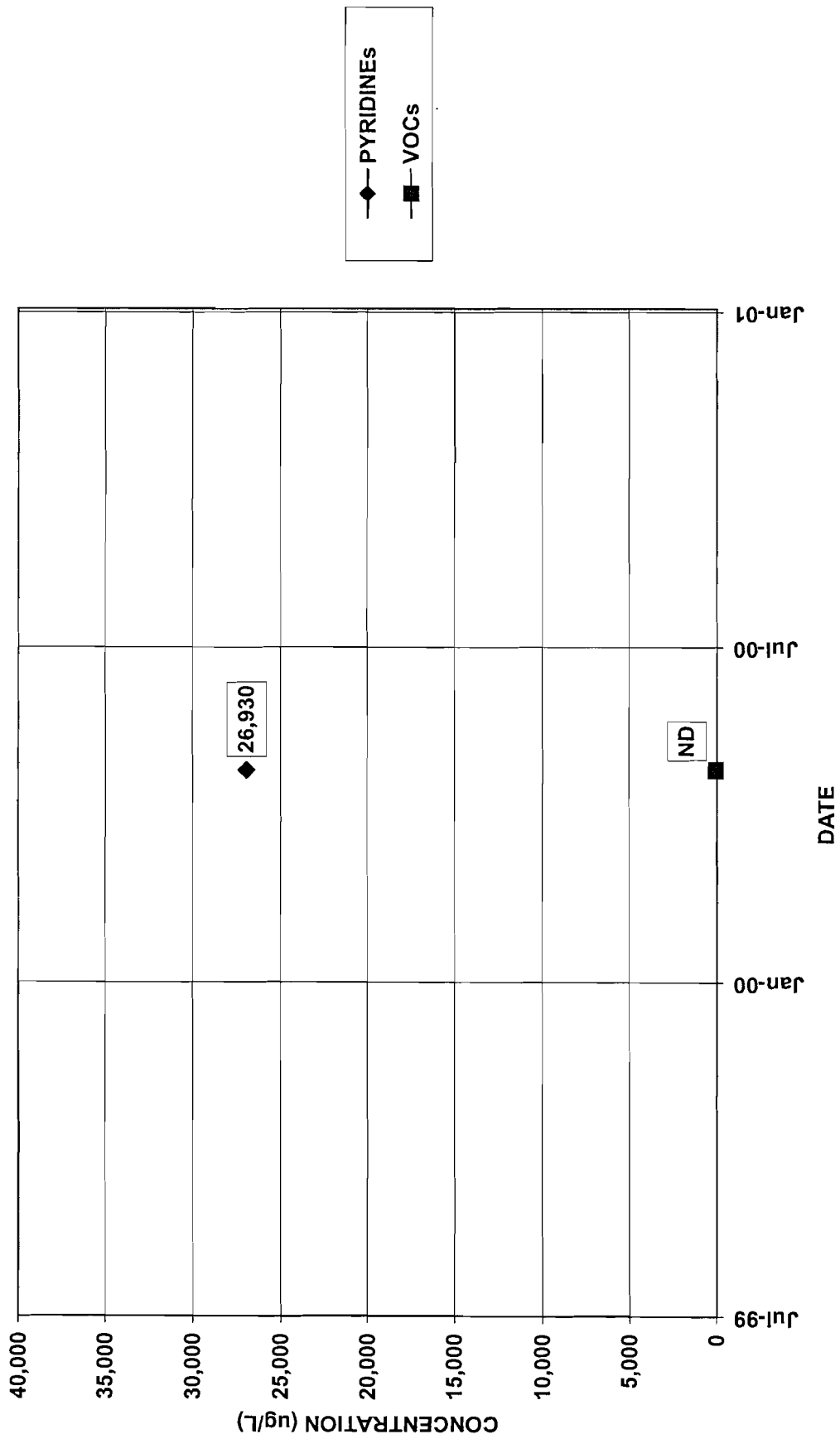
MW-114



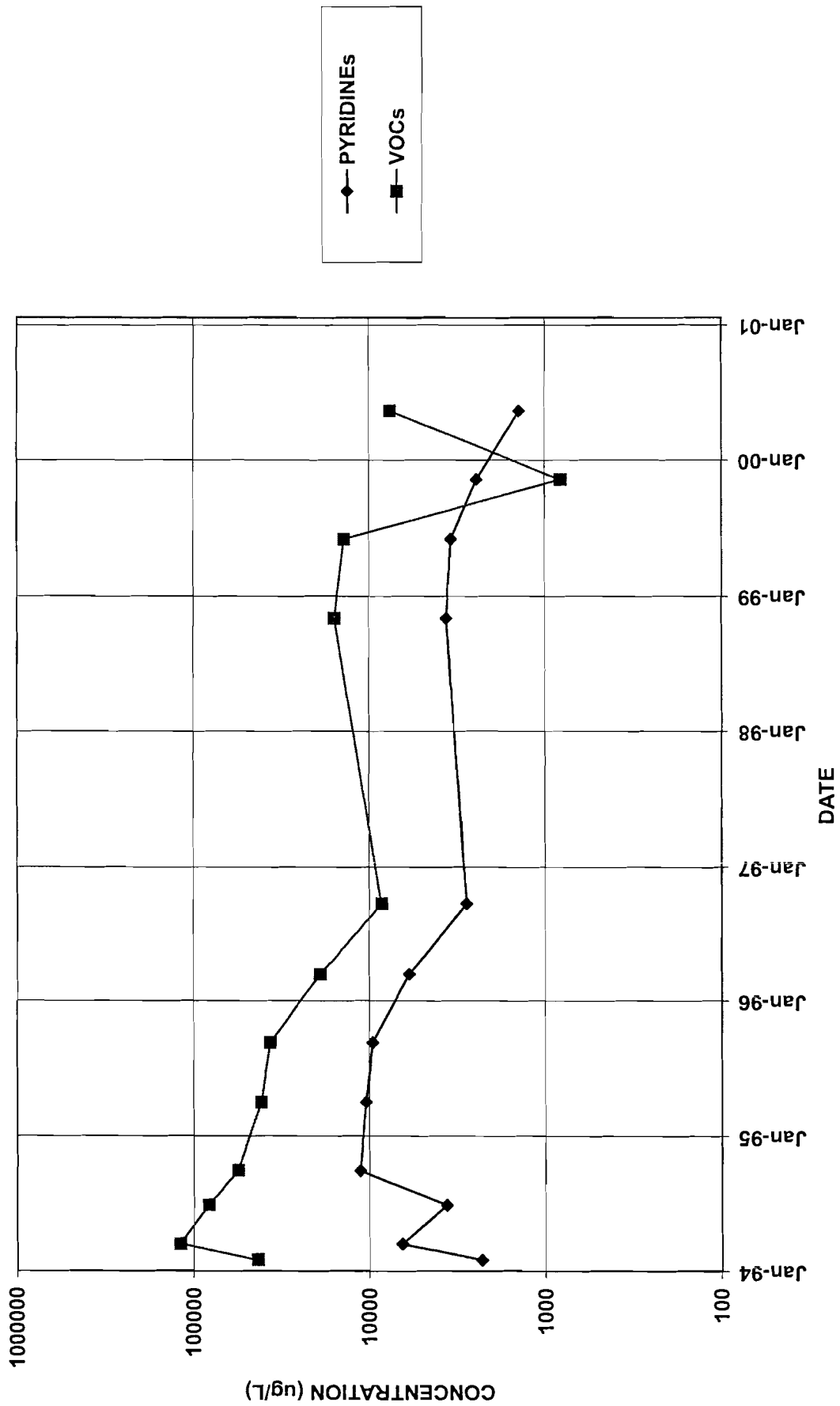
PW10



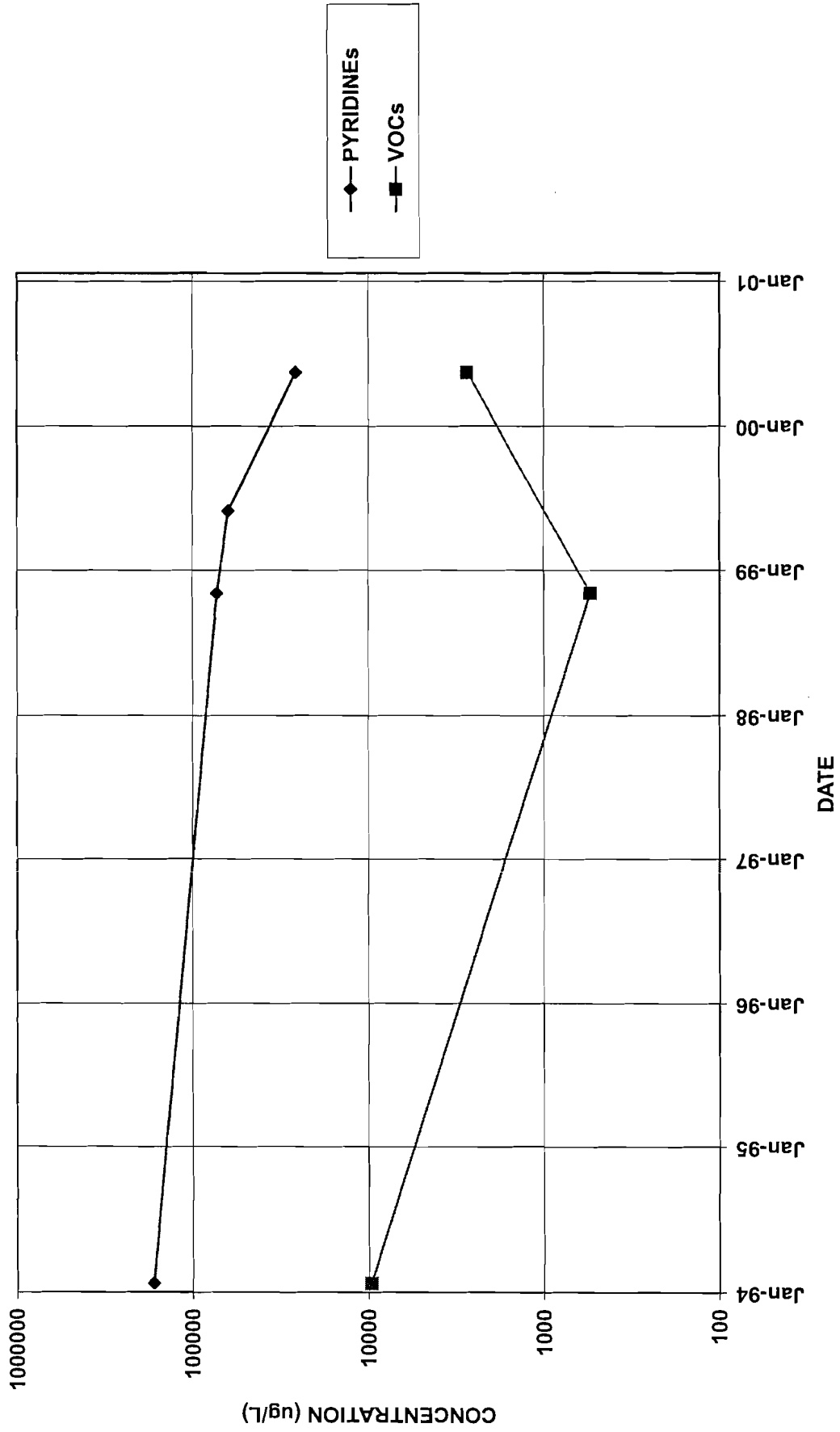
PW11



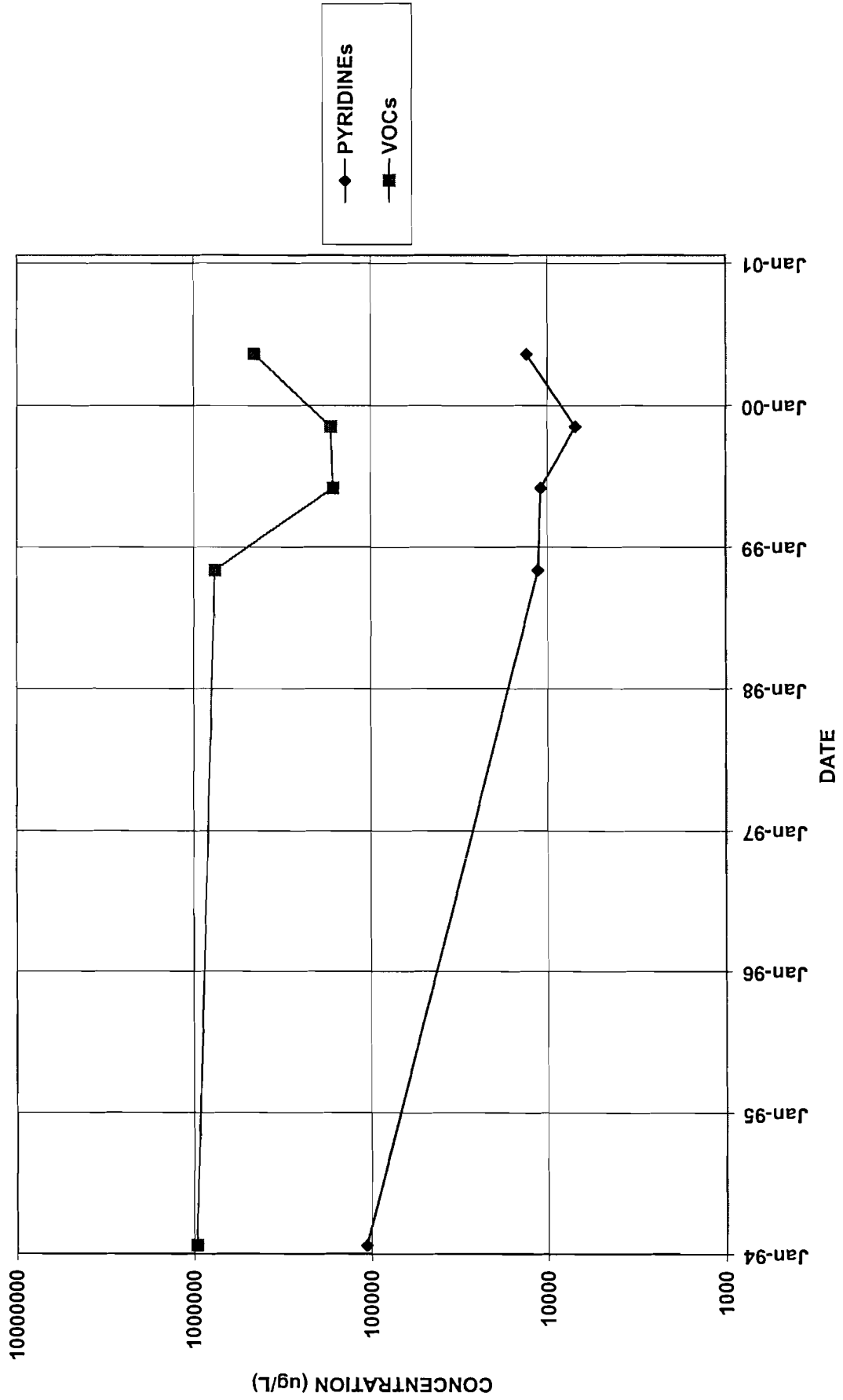
PW12 (Formerly BR-101)



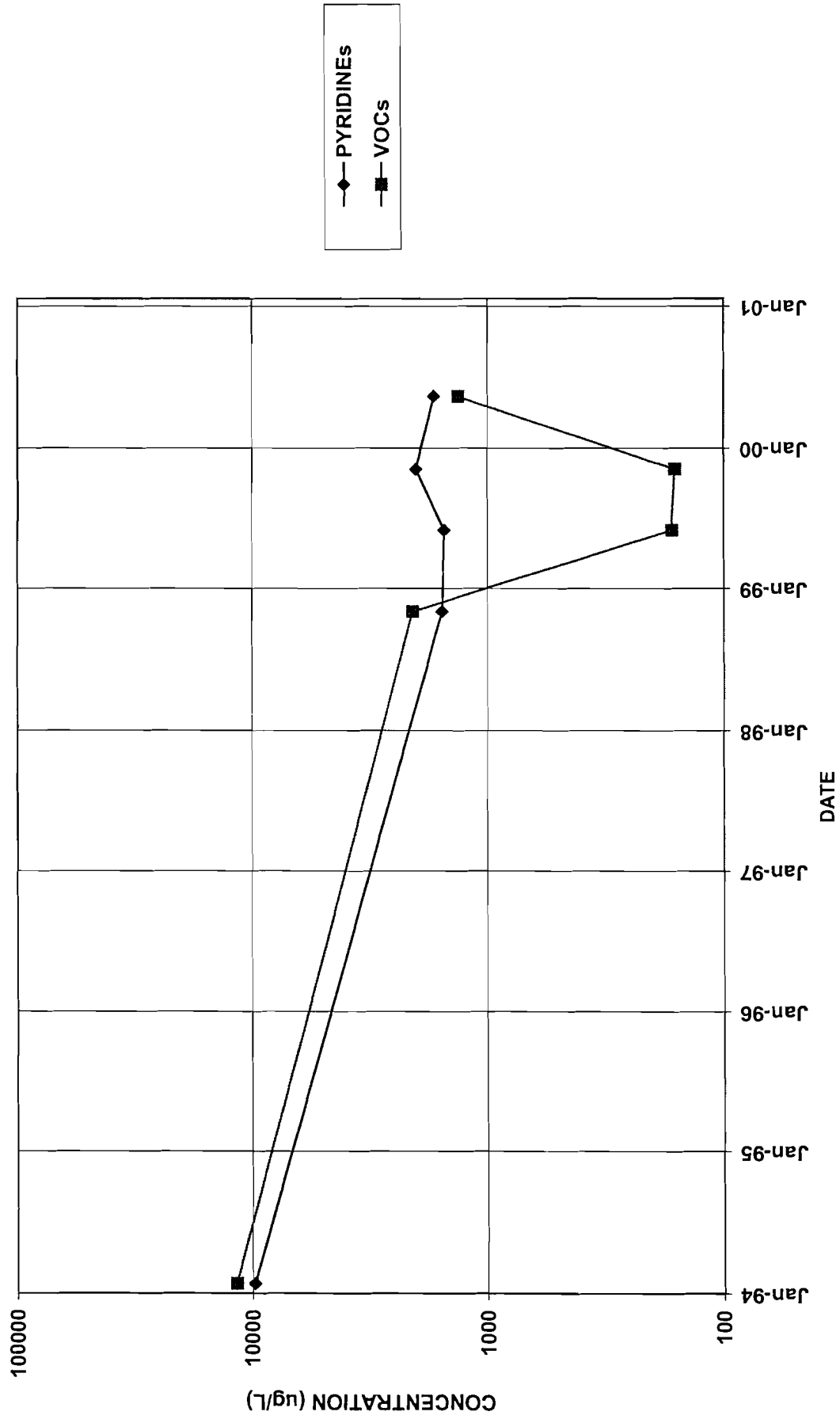
PZ-105



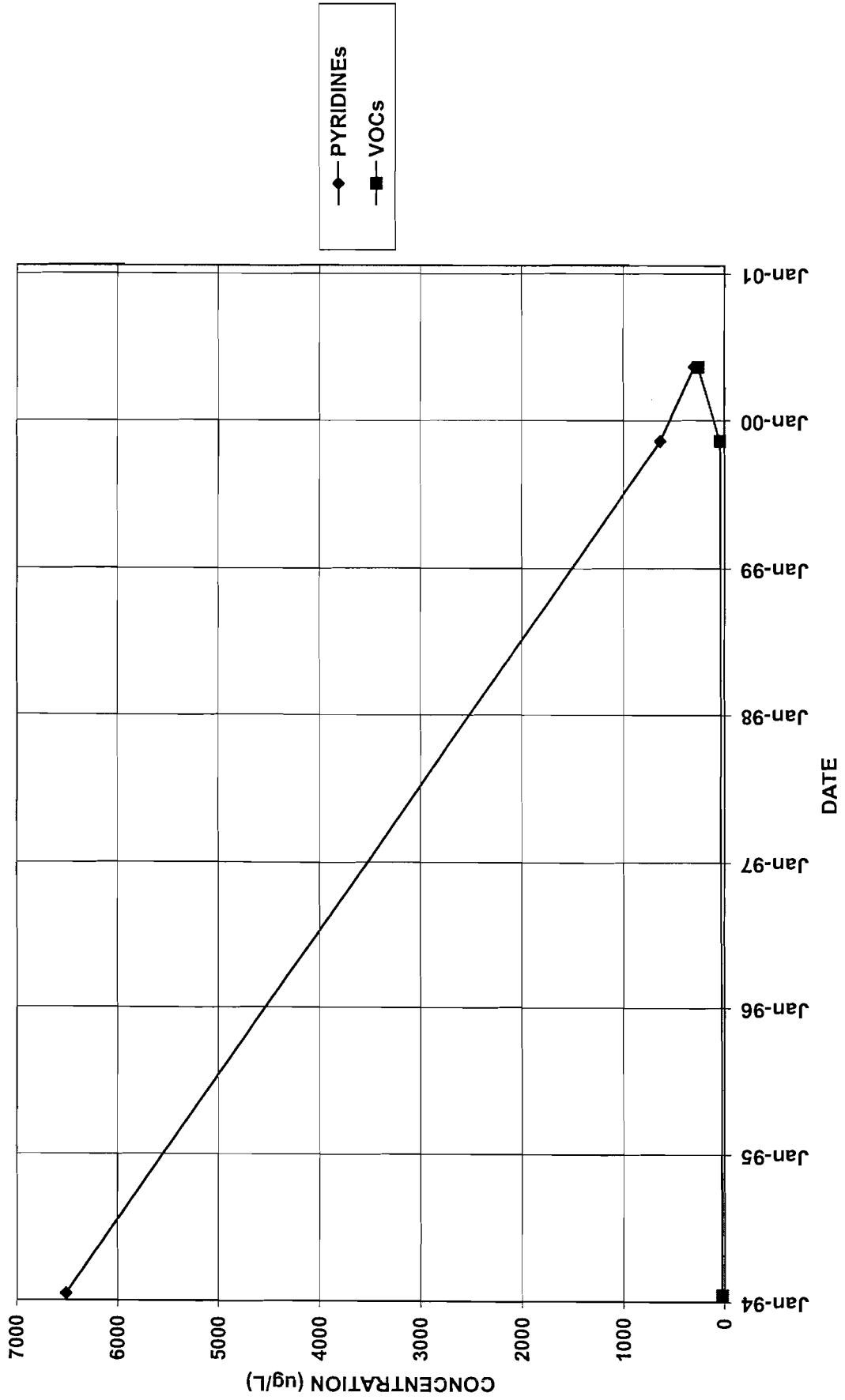
PZ-106



PZ-107



S-3



Appendix B

First Quarter 2000 – Erie Barge Canal Water and Quarry Sampling Results

Harding Lawson Associates



May 8, 2000

Ms. Gayle Bahn
Arch Chemicals, Inc.
P.O. Box 800, 1200 Lower River Road
Charleston, TN 37310

**Subject: Arch Chemicals - Rochester Site
First Quarter 2000 - Erie Barge Canal Water and Quarry Sampling Results**

Dear Ms. Bahn:

Analytical results for the water samples collected during the first quarter of 2000 from the Erie Barge Canal (Canal) and the Dolomite Products Company quarry (quarry) are enclosed. Canal and quarry sampling are conducted as part of the on-going quarterly monitoring program for the Arch Rochester site. The sampling program, analytical procedure, data review findings, and validated data for the February and March 2000 sampling events are discussed below.

Sampling

Five canal and quarry surface-water samples were collected by and submitted to Severn Trent Laboratories (STL) in New York for selected chloropyridine analysis on February 16, 2000. Three locations (SW-6, SW-12, and QO-2S1) were frozen during the February sampling event. These locations were subsequently sampled on March 16, 2000. The locations sampled during this quarter are listed below and are shown on the maps in Attachment 1.

Canal Samples

SW-1
SW-2
SW-3
SW-6
SW-12
QO-2S1

Quarry Samples

QS-4 (Quarry Seep)
QO-2 (Quarry Outfall)

Analytical Procedures and Data Review

All water samples were analyzed for the Arch suite of selected chloropyridines (pyridine, 2-chloropyridine, 3-chloropyridine, 4-chloropyridine, 2,6-dichloropyridine, and p-fluoroaniline) in accordance with SW-846 Method 8270C. The reporting limit for the selected chloropyridines is 10 micrograms per liter ($\mu\text{g/L}$) for undiluted samples.

A preliminary review of the quality control sample results associated with the analytical results was performed for data quality assurance purposes. Sample results were reviewed for holding time compliance; surrogate standard recoveries; blank contamination; and matrix spike blank (MSB) and matrix spike/matrix spike duplicate (MS/MSD) accuracy and precision. The results of the data review are discussed in the quality control section of this letter. Overall, the data quality appears to be very good based on the information reviewed.



Analytical Results

The results from the First Quarter 2000 Canal and quarry-monitoring event are presented in Attachment 2. Samples that were observed to contain one or more of the selected chloropyridines are summarized below; all results are expressed in $\mu\text{g/L}$.

<u>Sample ID</u>	<u>2,6-DCPYR</u>	<u>2-CPYR</u>
QO-2	23 (32)	97 (160)
QS-4	210 (1000)	1300 (4700)
SW-1	1 J (3)	6 J (35)
SW-2	ND (5)	2 J (40)
SW-3	ND (5)	5 J (45)

Notes: J = The positive result reported for this analyte is a quantitative estimate.
CPYR = chloropyridine
DCPYR = dichloropyridine
ND = Not Detected
(32)= Historic Maximum Concentration

Quality Control

As part of the First Quarter 2000 Canal and quarry surface water-monitoring program, MS/MSD samples and equipment rinsate blank samples were collected as field quality control (QC) samples. Laboratory method-specific and field QC results were reviewed in accordance with Region II validation guidelines and indicated good precision and accuracy; no qualifying statements were required.

Conclusions

Results from the first quarter 2000 Canal and quarry seep sampling program indicate the following:

- Chloropyridines detected in the samples collected from the Canal in the proximity of the Arch Site (SW-1, SW-2, SW-3) were observed at estimated, trace concentrations (below laboratory quantitation level) often measured during low Canal water level conditions (when the direction of flow in the Canal is reversed).
- Chloropyridines were detected in the quarry seep and quarry outfall at concentrations consistent with historical observations.

The next quarterly sampling event is scheduled for May 2000.

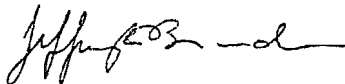
Ms. Bahn
May 8, 2000
Page 3

Harding Lawson Associates

If you have any questions or comments on the material described in this letter, please do not hesitate to contact me at (207) 828-3498.

Sincerely,

Harding Lawson Associates



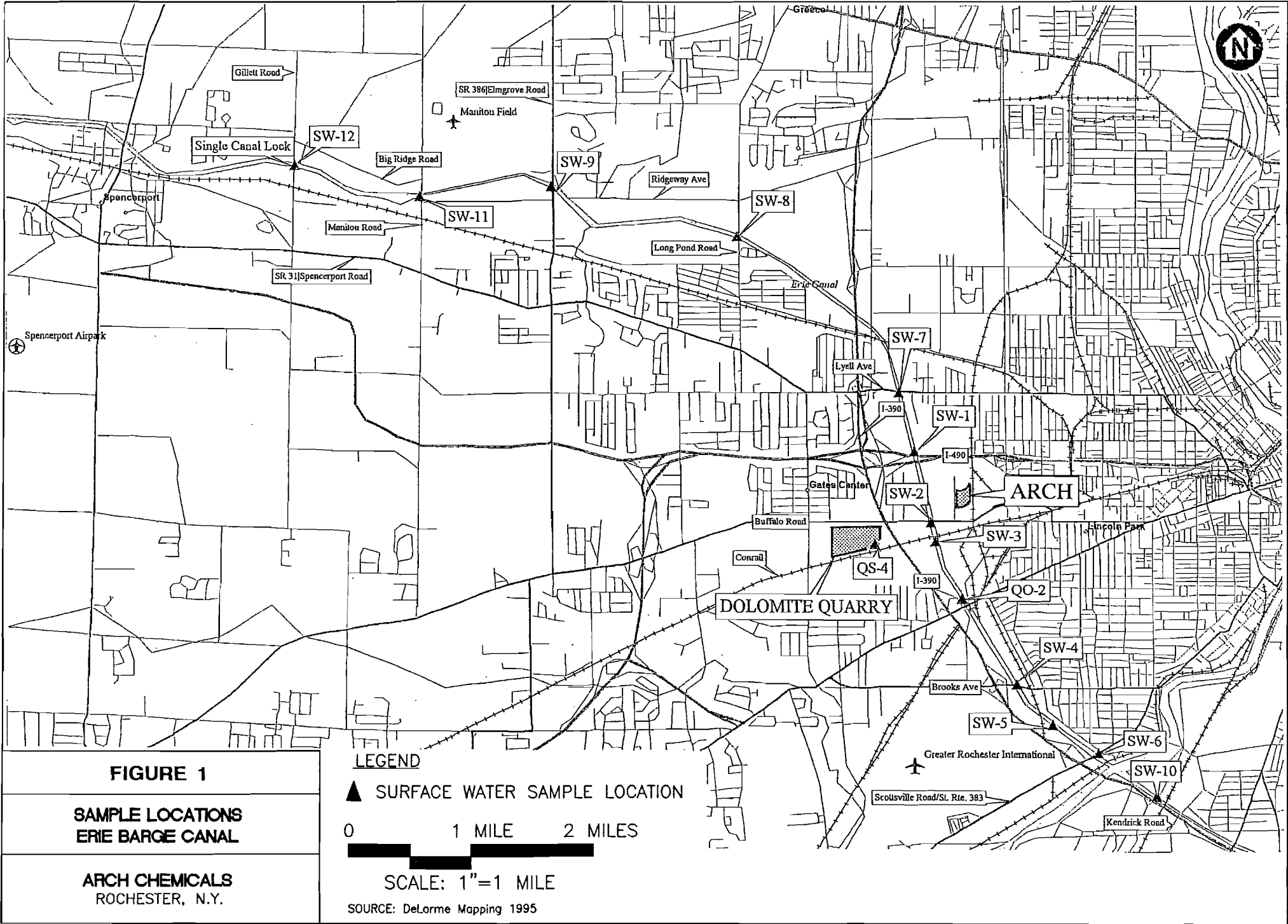
for
Nelson Breton, C.G.
Project Geologist

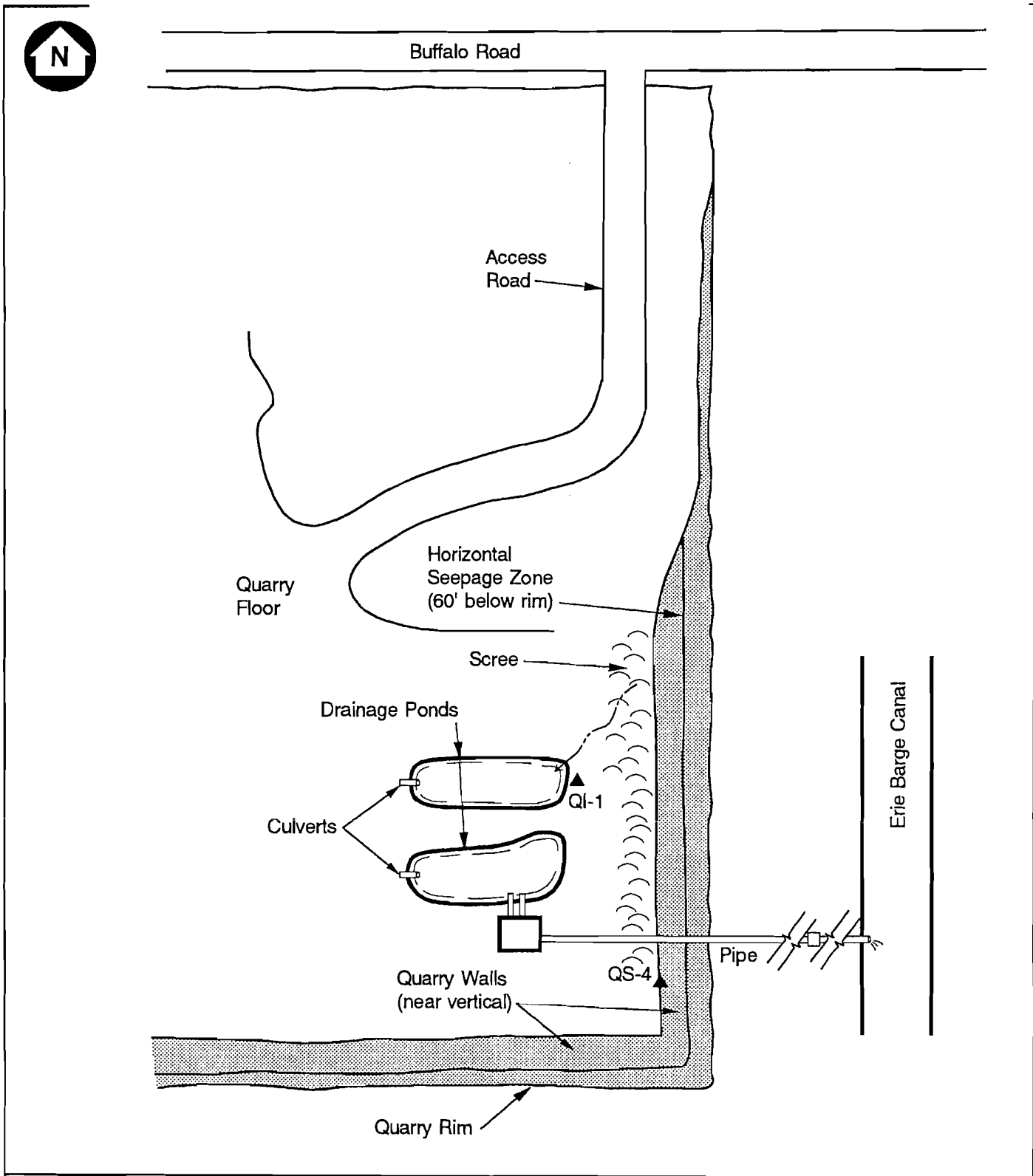
NB/jpc

Attachments: Sample Location Maps - Attachment 1
Laboratory Data Summary Table - Attachment 2
Chain of Custody Form - Attachment 3

cc: J. Brandow
J. Connolly
R. Gahagan
file 10.1

ATTACHMENT 1
SAMPLE LOCATION MAPS





Legend

- QS-4 ▲ Seep Sample Location
- QI-1 ▲ Pond Inflow Sample Location

Not to Scale

FIGURE 2

**SAMPLE LOCATIONS
DOLOMITE PRODUCTS
QUARRY**

ARCH CHEMICALS
ROCHESTER, NEW YORK

ATTACHMENT 2
LABORATORY DATA SUMMARY TABLE

FIRST QUARTER 2000 CANAL/QUARRY MONITORING RESULTS

ARCH CHEMICAL, INC.
ROCHESTER, NEW YORK

LOCATION:	QO-2	QO-2S1	QS-4	SW-1	SW-2	SW-3	SW-6	SW-12
SAMPLE DATE:	2/16/00	3/16/00	2/16/00	2/16/00	2/16/00	2/16/00	3/16/00	3/16/00
SAMPLE TYPE:	FS	FS	FS	FS	FS	FS	FS	FS
SELECTED CHLOROPYRIDINES								
BY SW-846 Method 8270C (µg/L)								
Pyridine	10 U	10 UJ	160 U	10 U	10 U	10 U	10 U	10 U
2-Chloropyridine	97	10 U	1300	6 J	2 J	5 J	10 U	10 U
3-Chloropyridine	10 UJ	10 UJ	160 U	10 U	10 U	10 U	10 U	10 U
4-Chloropyridine	10 U	10 U	160 U	10 U	10 U	10 U	10 U	10 U
2,6-Dichloropyridine	23	10 U	210	1 J	10 U	10 U	10 U	10 U
p-Fluoroaniline	10 U	10 U	160 U	10 U	10 U	10 U	10 U	10 U

Notes:

U = Compound not detected; value represents sample quantitation limit.

J = Estimated value.

FS = Field Sample.

ATTACHMENT 3
CHAIN OF CUSTODY FORM



Report To:

Contact: _____
 Company: _____
 Address: _____

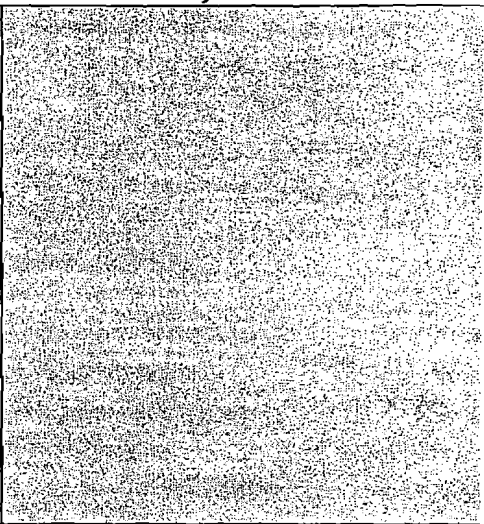
 Phone: _____
 Fax: _____
 E-Mail: _____

Bill To:

Contact: _____
 Company: _____
 Address: _____

 Phone: _____
 Fax: _____
 PO: _____ Quote: _____

Internal Use Only



Sampler Name: **JEFF YORTE / CP**
 Project Name: **ARCH CHEMICAL**
 Project Location: _____

Signature: *[Signature]*
 Project Number: **SA5762**
 Date Required: _____

M	A	T	R	I	X	C	O	M	P	/	G	R	A	B	MEDICINES	4/6
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	-----------	-----

STL Sample No.	Client Sample ID	Sampling Date	Sampling Time	M	A	T	R	I	X	C	O	M	P	/	G	R	A	B	Additional Analyses / Remarks
	SW-1	02-16-00	1300	W	G					Z									
	SW-2		1103							Z									
	SW-3		1045							Z									
	SW-12		-							-									} FROZEN / UNABLE TO SAMPLE
	SW-6		-							-									
	QS-4		1125							Z									
	QO-2		1220							Z									
	QO-2S1		-							-									} FROZEN UNABLE TO SAMPLE
	ERB		1040																

RELINQUISHED BY: *[Signature]* COMPANY: **STL** DATE: **02-16-00** TIME: **1600**

RECEIVED BY: *[Signature]* COMPANY: _____ DATE: **2/16/00** TIME: **1600**

Matrix Key
 WW = Wastewater
 W = Water
 S = Soil
 SL = Sludge
 MS = Miscellaneous Solids
 OL = Oil
 A = Air
 O = _____

Container Key
 1. Plastic
 2. VOA Vial
 3. Sterile Plastic
 4. Amber Glass
 5. Widemouth Glass
 6. Other

Preservative Key
 1. HCl, Cool to 4°
 2. H2SO4, Cool to 4°
 3. HNO3, Cool to 4°
 4. NaOH, Cool to 4°
 5. NaOH/Zn Acetate, Cool to 4°
 6. Cool to 4°
 7. None

COMMENTS:
cooler 5°C

Courier: _____
 Bill of Lading: _____

000022



Report To:

Contact: _____
 Company: _____
 Address: _____

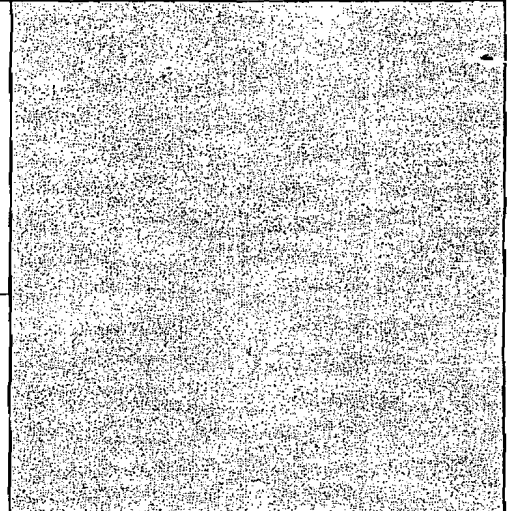
 Phone: _____
 Fax: _____
 E-Mail: _____

Bill To:

Contact: _____
 Company: _____
 Address: _____

 Phone: _____
 Fax: _____
 PO: _____ Quote: _____

Internal Use Only



Sampler Name: JEFF YOHE/CP Signature: Jeff Yohe
 Project Name: ARCH CHEMICAL Project Number: NY9A8493/2
 Project Location: _____ Date Required: _____

M	A	T	R	I	X	C	O	M	P	/	G	R	A	B	PYRIDINES	4/4
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STL Sample No.	Client Sample ID	Sampling Date	Sampling Time	M	A	T	R	I	X	C	O	M	P	/	G	R	A	B	Additional Analyses / Remarks
	SW-12	3-16-00	1405	W	G	Z													
	SW-6	↓	1336	↓	↓	2													
	QO-251	↓	1310	↓	↓	2													
	ERB-2	↓	1305	↓	↓	2													EQUIPMENT RINSE BLANK

RELINQUISHED BY: Jeff Yohe COMPANY: STL DATE: 03-16-00 TIME: 1544

RECEIVED BY: [Signature] COMPANY: _____ DATE: 3/16/00 TIME: 1544

- Matrix Key**
- WW = Wastewater
 - W = Water
 - S = Soil
 - SL = Sludge
 - MS = Miscellaneous Solids
 - OL = Oil
 - A = Air
 - O = _____

- Container Key**
1. Plastic
 2. VOA Vial
 3. Sterile Plastic
 4. Amber Glass
 5. Widemouth Glass
 6. Other

- Preservative Key**
1. HCl, Cool to 4°
 2. H2SO4, Cool to 4°
 3. HNO3, Cool to 4°
 4. NaOH, Cool to 4°
 5. NaOH/Zn Acetate, Cool to 4°
 6. Cool to 4°
 7. None

COMMENTS: col 3 2

Courier: _____
 Bill of Lading: _____

9100016