

**SURFACE WATER AND GROUNDWATER MONITORING PROGRAM
FALL 2005 MONITORING REPORT**

**ARCH CHEMICALS
ROCHESTER PLANT SITE
ROCHESTER, NEW YORK**

**ARCH CHEMICALS, INC.
CHARLESTON, TENNESSEE**

JANUARY 2006

**SURFACE WATER AND GROUNDWATER MONITORING PROGRAM
FALL 2005 MONITORING REPORT**

**ARCH CHEMICALS
ROCHESTER PLANT SITE
ROCHESTER, NEW YORK**

Prepared by

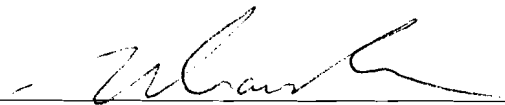
MACTEC Engineering & Consulting, P.C.
Portland, Maine

for

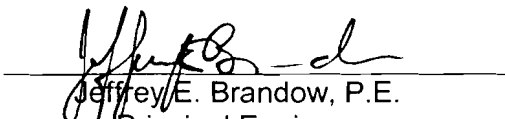
ARCH CHEMICALS, INC.
Charleston, Tennessee

January 2006

This document was prepared for the sole use of Arch Chemicals, Inc., the only intended beneficiary(ies) of our work. No other party shall rely on the information contained herein without prior written consent of MACTEC Engineering & Consulting, P.C.



Nelson M. Breton, C.G.
Project Geologist



Jeffrey E. Brandow, P.E.
Principal Engineer

TABLE OF CONTENTS

	<u>Page</u>
Executive Summary	1
1.0 Introduction	3
2.0 Sample Collection and Analysis	3
2.1 Groundwater	3
2.2 Surface Water	4
2.3 Analytical Procedures	4
2.4 Quality Control	4
3.0 Analytical Results	5
3.1 Groundwater	5
3.1.1 Chloropyridines	5
3.1.2 Selected VOCs	6
3.2 Surface Water	6
3.2.1 Quarry	6
3.2.2 Quarry Discharge Ditch	6
3.2.3 Barge Canal	6
4.0 Extraction System Performance and Maintenance	7
5.0 Other Issues	7
6.0 Next Monitoring Event	7

APPENDICES

Appendix A	Groundwater Field Sampling Data Sheets
Appendix B	Well Trend Data
Appendix C	PW-13 LNAPL Analytical Results

LIST OF FIGURES

- Figure 1 Off-Site Groundwater Monitoring Well Locations
- Figure 2 On-Site Monitoring Well Locations
- Figure 3 Fall 2005 Overburden Groundwater Interpreted Piezometric Contours
- Figure 4 Fall 2005 Bedrock Groundwater Interpreted Piezometric Contours
- Figure 5 Fall 2005 Deep Bedrock Groundwater Interpreted Piezometric Contours
- Figure 6 Sample Locations - Erie Barge Canal
- Figure 7 Sample Locations – Dolomite Products Quarry
- Figure 8 Fall 2005 Selected Chloropyridine Concentration Contours for Groundwater
- Figure 9 Fall 2005 Selected Volatile Organic Compound Concentration Contours for Groundwater

LIST OF TABLES

Table 1	Fall 2005 Sampling and Analytical Program
Table 2	Fall 2005 Groundwater Monitoring Results - Chloropyridines
Table 3	Fall 2005 Groundwater Monitoring Results – Volatile Organic Compounds
Table 4	Comparison of November 2005 Chloropyridines and Volatile Organic Concentrations in Groundwater to Previous Results
Table 5	Fall 2005 Canal/Quarry Monitoring Results
Table 6	Extraction Well Weekly Flow Measurements – June 2005 through November 2005
Table 7	Mass Removal Summary, Period: June 2005 – November 2005
Table 8	2006 Sampling Schedule

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 November 14 through November 21, 2005.

During this monitoring event, samples from a total of 30 groundwater monitoring or pumping wells and three locations associated with the Dolomite Products Quarry seep and outfall were collected and analyzed by Severn Trent Laboratories in Amherst, New York.

As in prior reports, monitoring results were compared with previous average concentrations at each sampling location. Out of the 33 monitoring locations sampled for chloropyridines, three had contaminant concentrations exceeding their respective 5-year prior averages. None of the 27 monitoring locations sampled for volatile organic compounds had concentrations exceeding the 5-year prior average. Contaminant contour plots are generally consistent with past observations.

Regular sampling locations associated with the quarry included the main quarry seep (QS-4), the quarry ditch as it enters the Erie Barge Canal (QO-2), and the surface water in the canal approximately 100-feet downstream of the quarry ditch (QO-2S1). The sample from quarry seep QS-4 remained below its historical average. The samples associated with the quarry discharge and the canal both had no detectable chloropyridines. In addition to the seep and surface water samples, at the request of the New York State Department of Environmental Conservation (NYSDEC), samples were collected from three monitoring wells near the quarry that are not part of the routine groundwater monitoring program. These three wells (BR-119D, BR-120D, and BR121D) were sampled and analyzed for chloropyridines. None of the three samples contained any detectable concentrations of chloropyridines. At the NYSDEC's request, Arch will now proceed with the proper abandonment of these wells in early 2006.

During the period June 1 through November 28, 2005, the on-site groundwater extraction system pumped approximately 7.2 million gallons of groundwater to the on-site treatment system, containing an estimated 258 pounds of chloropyridines and 350 pounds of target volatile organic compounds.

Pump and/or meter repairs were required in wells BR-5A, BR-7A, PW-11, PW-13 and PW-14.

All accessible on-site monitoring wells were checked for the presence of dense non-aqueous phase liquids (DNAPL) and floating (or light) NAPL (LNAPL), using an interface probe. No DNAPL or LNAPL was observed in any of these wells, with the exception of pumping well PW-13. Arch has been tracking the accumulation of LNAPL PW-13 since the well was installed in 2004. During this monitoring event, a sample of the LNAPL was collected at the request of the NYSDEC and analyzed for total VOCs and chloropyridines.

The only detectable compounds in the sample were 2-chloropyridine (at 110 mg/L or approximately 0.01 percent) and chlorobenzene (estimated at 8.3 mg/L). The specific gravity was 0.84 which is consistent with the previous fingerprint analysis showing it to be a No. 2 fuel oil.

The next regular monitoring event will occur in May 2006 and will include groundwater, surface water, and seep sampling.

1.0 INTRODUCTION

In accordance with the Order on Consent executed between Arch Chemicals, Inc., and the New York State Department of Environmental Conservation (NYSDEC), effective August 21, 2003, Arch is conducting a Remedial Action program at its facility on McKee Road in Rochester, New York. As part of this program, Arch conducts twice-yearly monitoring events consisting of sampling and chemical analysis of groundwater and surface water in the vicinity of the Rochester facility.

The Fall 2005 sampling event included the collection and analysis of a total of 33 groundwater, surface water, and seep samples from off-site and on-site locations. Samples were collected November 14 - 21, 2005, for analysis of selected chloropyridines and volatile organic compounds (VOCs).

This report presents the results of the Fall 2005 monitoring event.

2.0 SAMPLE COLLECTION AND ANALYSIS

2.1 GROUNDWATER

Groundwater samples were collected from off-site wells, 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) VOCs. Samples were collected by Severn Trent Laboratories and transported to their laboratory in Amherst, New York for analysis. Table 1 lists the wells that were sampled and the requested analyses. The off-site and on-site locations of these sampling points are shown in Figures 1 and 2, respectively. Groundwater sampling data sheets are provided in Appendix A.

Overburden monitoring well MW-126 on the 58 McKee Road property (due south of Arch Chemicals) was unable to be located by the sampling crew, and was not sampled. This well will be located and more clearly marked prior to the next sampling event.

Groundwater was collected with the low flow/low stress purging technique from most of the wells using bladder or peristaltic pumps. Samples from pumping wells (BR-5A, BR-7A, BR-9, PW-10, PW-11, PW-13, and PW-14) were collected from the discharge lines.

Groundwater piezometric elevations were measured on November 14, 2005. Piezometric contour maps were constructed for each water-bearing zone (overburden, bedrock, and deep bedrock) and are presented in Figures 3, 4, and 5.

All accessible on-site monitoring wells were again checked for the presence of non-aqueous phase liquid (NAPL), using an interface probe. No dense NAPL (DNAPL) was observed in any of these wells. Floating NAPL (LNAPL) was observed only in pumping well PW-13, where it has been observed since the well's installation in 2004. Previously, this floating product was sampled and characterized as No. 2 fuel oil. During the Fall 2005 monitoring event, another sample of this oil was collected and analyzed for total volatile organics and chloropyridines. The results of that testing are discussed in Section 5 of this report.

2.2 SURFACE WATER

Surface water and quarry seep samples were collected as part of the on-going monitoring program for the Arch Rochester site. The location of the quarry and its outfall in relation to the site is shown on Figure 6. Samples of the quarry seep (QS-4), the surface ditch that receives the quarry discharge (QO-2), and the Barge Canal (QO-2S1) were collected by Severn Trent Laboratories on November 14, 2005. Samples were analyzed for the Arch suite of selected chloropyridines. The quarry locations sampled during this event are shown on Figure 7.

2.3 ANALYTICAL PROCEDURES

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

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 approximately 10 micrograms per liter ($\mu\text{g/L}$) and 5 to 25 $\mu\text{g/L}$, respectively, for undiluted samples.

2.4 QUALITY CONTROL

All laboratory analytical results were reviewed and qualified following U.S. Environmental Protection Agency Contract Laboratory Program (USEPA CLP), "National Functional Guidelines For Organic Data Review", October, 1999, as modified by USEPA Region II, "SOP No. HW-6 Revision XII", March 2001. Analytical results were evaluated for the following parameters:

- Collection and Preservation
- * Holding Times
- * Surrogate Recoveries
- * Blank Contamination
- * Duplicates
- * Laboratory Control Samples
- * Matrix Spike/Matrix Spike Duplicates
- Miscellaneous

* - *all criteria were met for this parameter*

With the qualifications discussed below, results are determined to be usable as reported by the laboratory.

Collection and Preservation. One sample cooler associated with sample PW-13 was received at the laboratory at a temperature greater than the acceptable range of 2° C to 6° C. As noted by the laboratory, ice was present in the cooler. Since the sample was collected on the same day that the cooler was received by the laboratory, it was not

possible for the sample to cool to the acceptable range. Based on professional judgment, no qualifications were necessary.

Miscellaneous. Several samples required dilutions due to concentrations of the target analytes 2-chloropyridine, pyridine, 2,6-chloropyridine, and chlorobenzene that were greater than the instrument calibration range. These dilutions ranged from two to ten thousand times. Results were reported from the lowest diluted analytical run that met validation criteria.

3.0 ANALYTICAL RESULTS

3.1 GROUNDWATER

The validated results from the Fall 2005 groundwater monitoring event are provided in Tables 2 and 3. Table 4 provides a comparison of the Fall 2005 analytical results for selected chloropyridines and VOCs in representative wells to mean concentrations of the prior five years (Fall 2000 through Spring 2005). Long term trends for both selected chloropyridines and VOCs are also presented as time-series plots for representative wells in Appendix B. A summary of the analytical findings is presented below by parameter class.

3.1.1 Chloropyridines

On-Site. Chloropyridines were detected above sample quantitation limits in all 17 on-site wells sampled in the Fall 2005 event. Concentrations of chloropyridines ranged from 79 micrograms per liter ($\mu\text{g/L}$) (sum of all chloropyridine and pyridine isomer concentrations) in monitoring well S-4 to 244,000 $\mu\text{g/L}$ in pumping well PW-10. Three on-site wells had selected chloropyridines concentrations above their respective means from monitoring events over the previous five years (see Table 4), although two of those (BR-127 and PW-14) have only one or two previous sampling results for comparison. The third well that exceeded its prior 5-year mean was pumping well PW-10. The increase in that well may be related to reduced pumping rates this fall caused by well fouling. Arch is planning to conduct a rehabilitation of well PW-10 this winter.

Off-Site. Chloropyridines were detected above sample quantitation limits in 10 of the 13 off-site wells that were sampled. The wells that contained no detectable levels of chloropyridines were the three quarry wells (BR-119D, BR-120D, and BR-121D) that were added to the sampling program for this event only, at the request of the NYSDEC. Concentrations of total selected chloropyridines in the remaining 10 wells ranged from 4 $\mu\text{g/L}$ in MW-16 (the former General Circuits well), to 8,500 $\mu\text{g/L}$ in monitoring well MW-106. None of the regularly-monitored off-site wells contained total chloropyridine concentrations above their respective 5-year prior means, and the result in the former General Circuits well is substantially below previous results. Future monitoring will determine the significance of the observed result in this well.

Concentration Contours. Chloropyridine 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. Contours are approximated (shown as dashed lines) where they are based on data from previous sampling rounds.

3.1.2 Selected VOCs.

On-Site. Selected VOCs were detected in 14 of the 17 on-site wells sampled in the Fall 2005 event. Concentrations of VOCs ranged from non-detect to 816,000 µg/L for the sum of the principal site-related contaminants (carbon tetrachloride, chloroform, methylene chloride, tetrachloroethene, and trichloroethene). None of the on-site wells contained concentrations of total VOCs above their 5-year prior means. In addition to the selected VOCs, other notable constituents detected in on-site wells include chlorobenzene (in 14 out of 17 wells), benzene (13 of 17), toluene (11 of 17), 1,2-dichloroethene (11 of 17), carbon disulfide (10 of 17), vinyl chloride (9 of 17), ethylbenzene (8 of 17), and 1,1-dichloroethane (5 of 17).

Off-Site. Selected VOCs were detected in four of the ten off-site wells sampled for VOCs in the Fall 2005 event. Total concentrations of selected VOCs ranged from non-detect to 126 µg/L. None of the off-site wells had selected VOC concentrations above their prior 5-year mean. In addition to the selected VOCs, other notable constituents detected in off-site wells include benzene (in 9 out of 10 wells), chlorobenzene (9 of 10), 1,2-dichloroethene (5 of 10), vinyl chloride (4 of 10), toluene (3 of 10), and 1,1-dichloroethane (3 of 10).

Concentration Contours. The distribution of selected VOCs in groundwater is shown as a set of concentration contours on Figure 9. These contours were developed using both overburden and bedrock groundwater data, and are dashed where approximated using data from previous sampling rounds.

3.2 SURFACE WATER

Results from the Fall 2005 canal and quarry monitoring event are presented in Table 5, and summarized below.

3.2.1 Quarry

One quarry seep was sampled in the Fall 2005 monitoring event. Quarry seep QS-4 contained 272 µg/L total chloropyridines. Concentrations remain below historical averages.

3.2.2 Quarry Discharge Ditch

One sample was collected from the quarry discharge ditch and analyzed for chloropyridines. Sample QO-2 was collected at the point where the ditch discharges to the canal. No chloropyridines were detected in the ditch sample.

3.2.3 Barge Canal

No chloropyridines were detected in the surface water sample collected from the Erie Barge Canal (QO-2S1, located approximately 100 feet downstream of QO-2).

4.0 EXTRACTION SYSTEM PERFORMANCE AND MAINTENANCE

Table 6 is a summary of the system flow measurements for the on-site extraction wells from June 2005 through November 2005. The total volume pumped during the six-month period is approximately 7.2 million gallons.

Pump and/or meter repairs were required in wells BR-5A, BR-7A, PW-11, PW-13 and PW-14.

Table 7 provides a calculation of mass removal rates since the previous groundwater monitoring event (i.e., from June 2005 through November 2005). Arch estimates that approximately 350 pounds of target VOCs and 258 pounds of chloropyridine compounds were removed by the groundwater extraction system and treated by the plant's activated carbon adsorption units over that time period.

5.0 OTHER ISSUES

The LNAPL sample collected from pumping well PW-13 was analyzed for total VOCs and chloropyridines. The only detectable compounds in the sample were 2-chloropyridine (at 110 mg/L or approximately 0.01 percent) and chlorobenzene (estimated at 8.3 mg/L). The specific gravity was 0.84 which is consistent with the previous fingerprint analysis showing it to be a No. 2 fuel oil. The laboratory analytical report for the sample is included in Appendix C.

At the NYSDEC's request, samples were collected from three monitoring wells near the quarry that are not part of the routine groundwater monitoring program. These three wells (BR-119D, BR-120D, and BR121D) were sampled and analyzed for chloropyridines. None of the three samples contained any detectable concentrations of chloropyridines. Arch will now proceed with the proper abandonment of these wells in early 2006.

For other issues related to the remedial action program at the Arch Rochester Plant Site, please see the monthly progress reports, which commenced in February 2005.

6.0 NEXT MONITORING EVENT

The next regular monitoring event will occur in May 2006 and will include groundwater, surface water, and seep sampling.

Table 8 shows the current monitoring program for the Arch Rochester site.

Figures

Legend

- Outline of Arch Property Boundary
- Monitoring Well

NOTES

1. Source - Topographic Quadrangle 7.5-Minute Series



Prepared by JJW | Checked by JEB

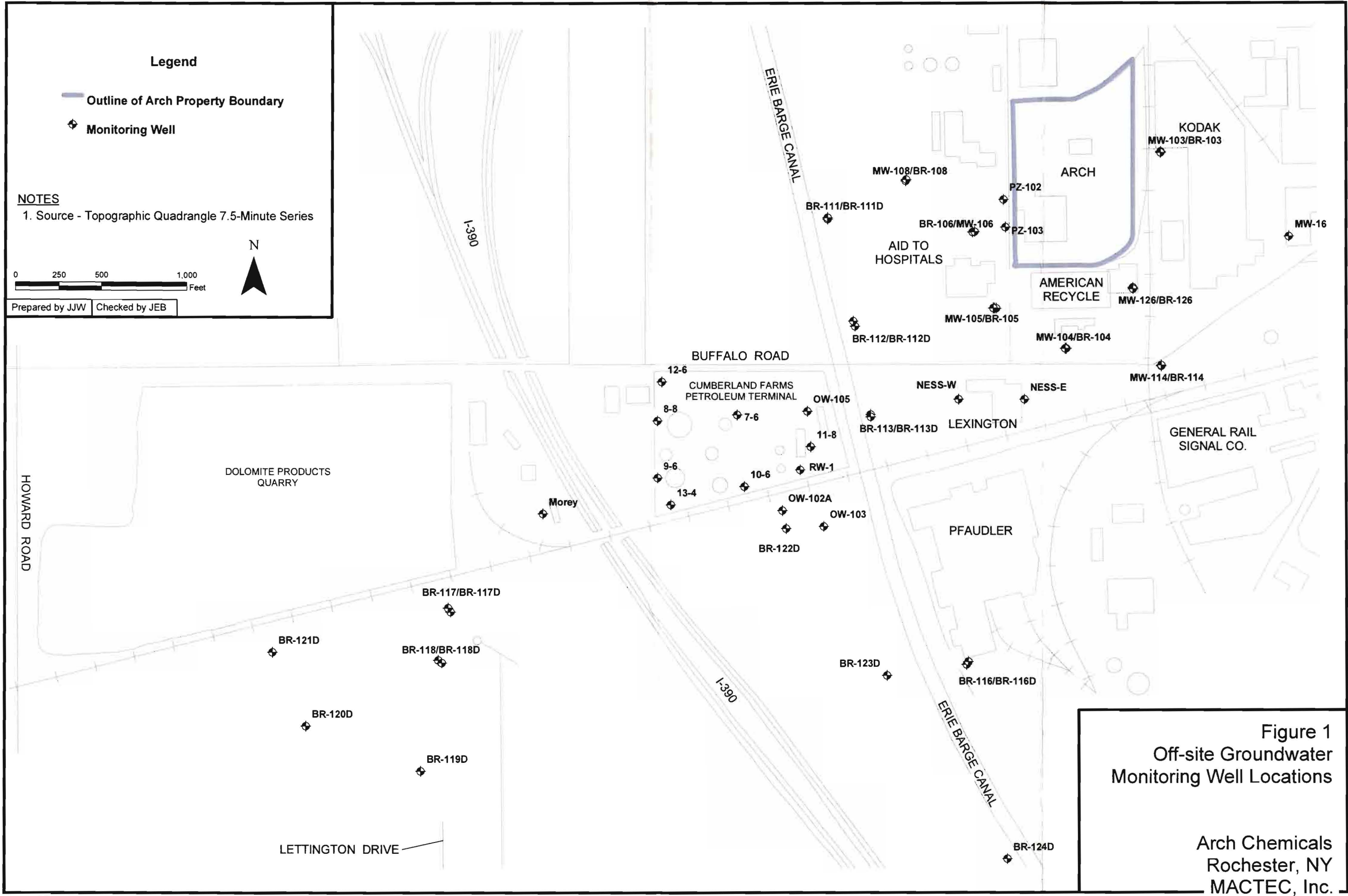
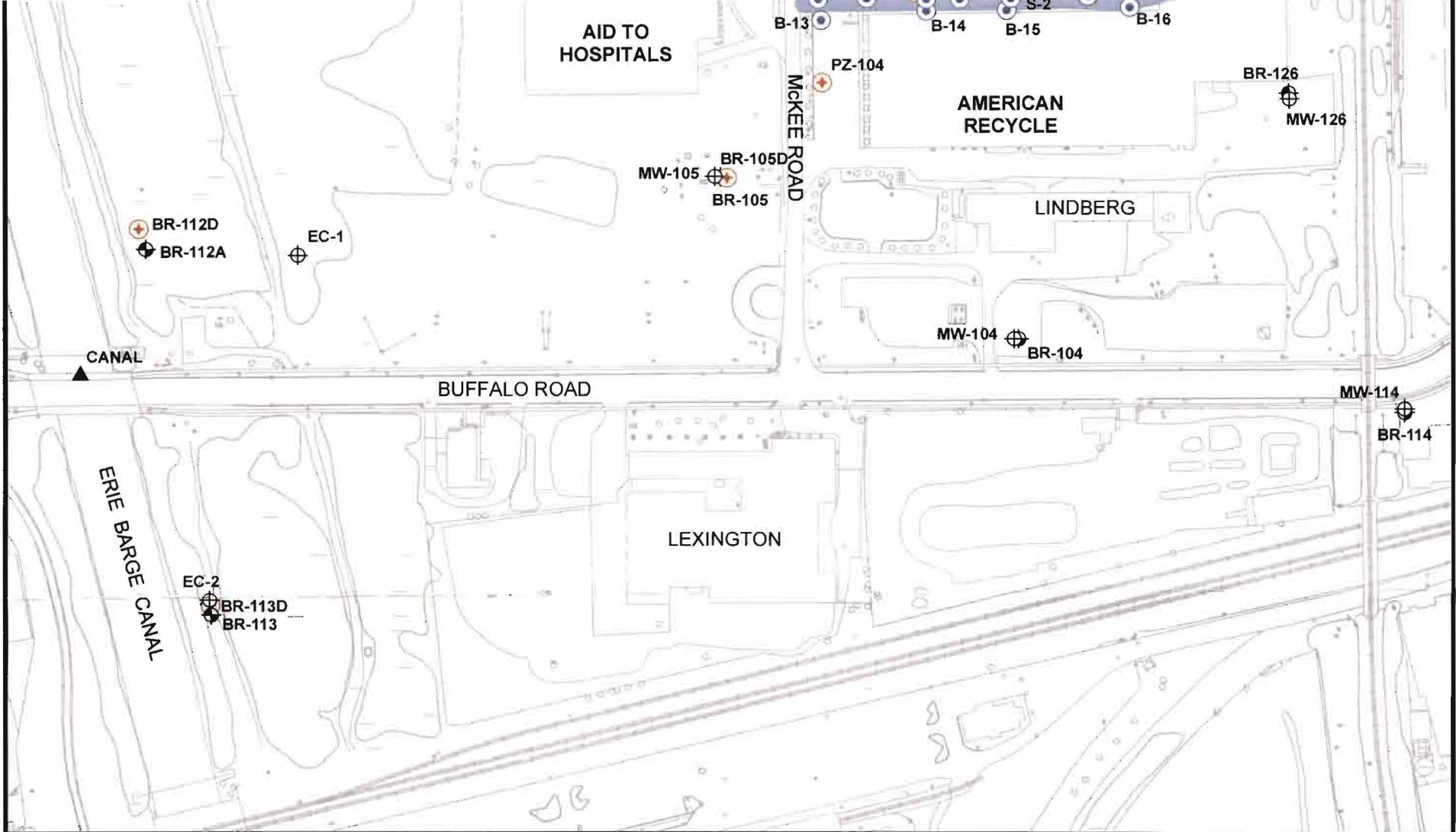


Figure 1
Off-site Groundwater
Monitoring Well Locations

Arch Chemicals
Rochester, NY
MACTEC, Inc.



NOTES:

1. Off-Site Well Locations also Included on Figure 1

Legend

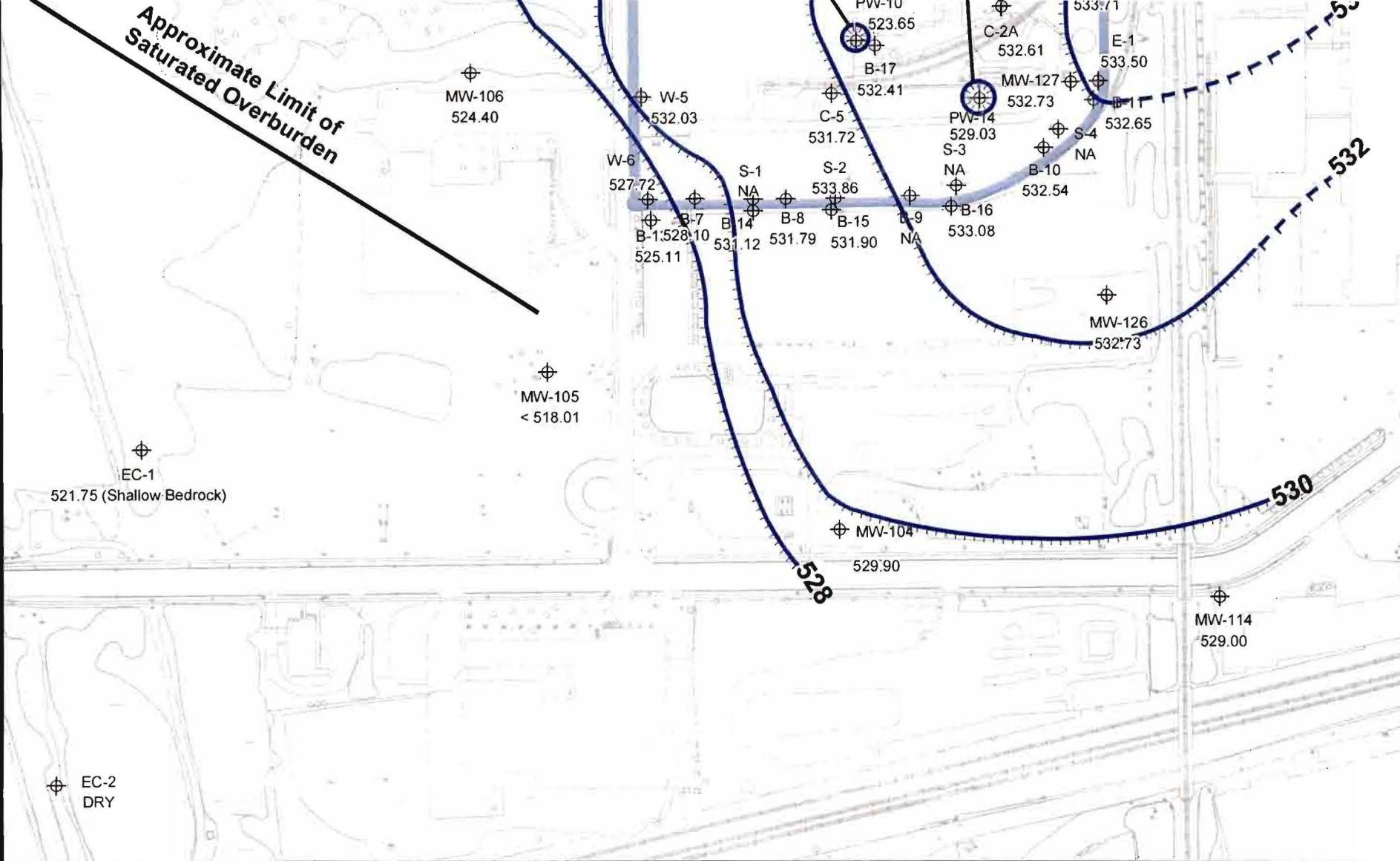
- Outline of Arch Property Boundary
- Overburden Piezometer / Pumping Well
- Bedrock Piezometer / Pumping Well / Deep Bedrock Monitoring Well
- Overburden Monitoring Well
- Bedrock Monitoring Well
- Surface Water Measurement Point







Prepared by JJW | Checked by JEB

Figure 2
Onsite Monitoring
Well Locations

Arch Chemicals
Rochester, New York
MACTEC, Inc.



Legend

-  Outline of Arch Property Boundary
-  Interpreted Groundwater Flow Direction
- 528**  Overburden Piezometric Elevation Contour (MSL)
-  Piezometric Elevation at Well or Piezometer

NOTES:

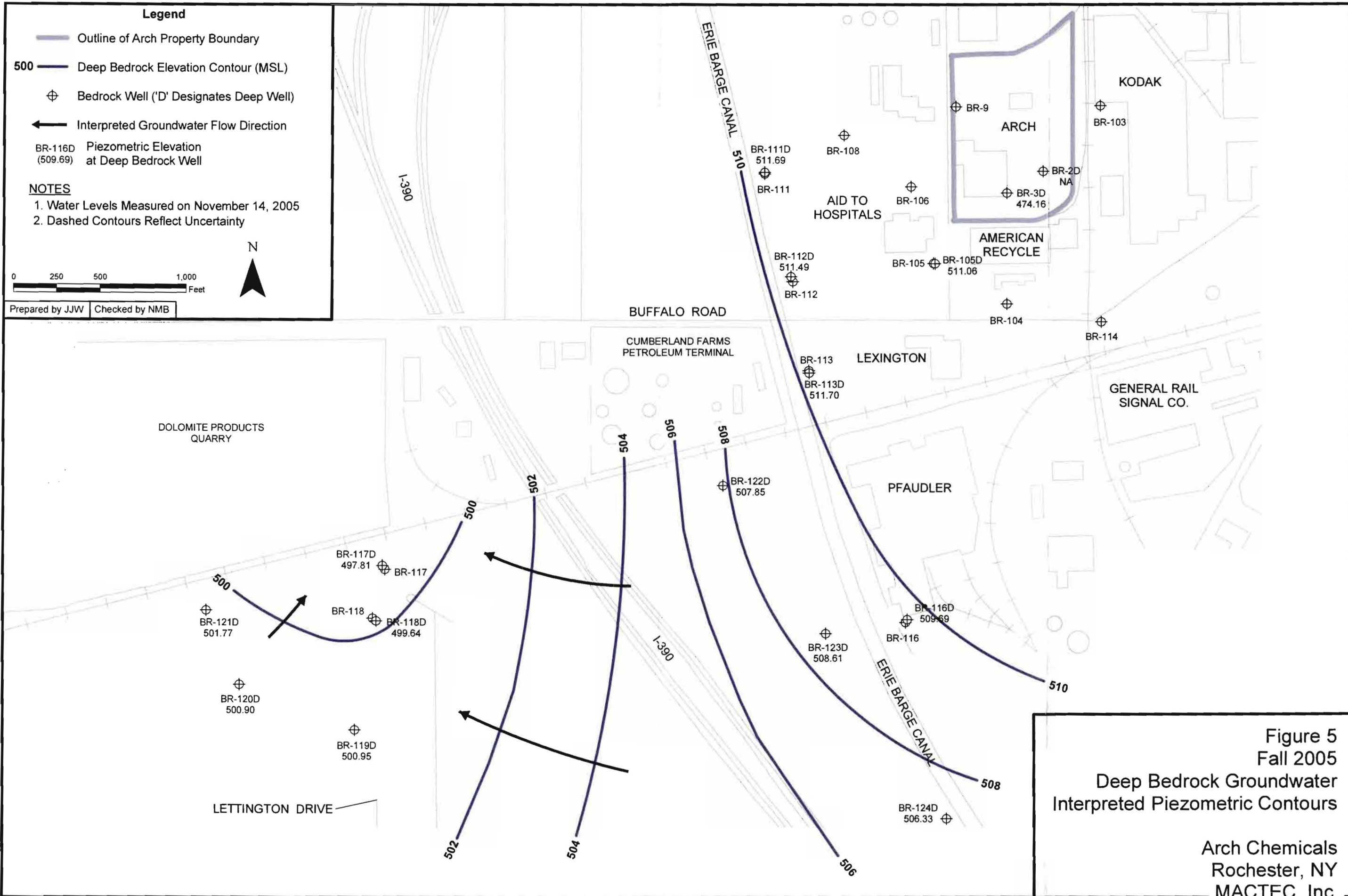
1. Water Levels Measured on November 14, 2005
2. NA = Not Available
3. Dashed Contours Reflect Uncertainty
4. (<518.01) Reflects Bottom of Well Elevation, Well Observed Dry

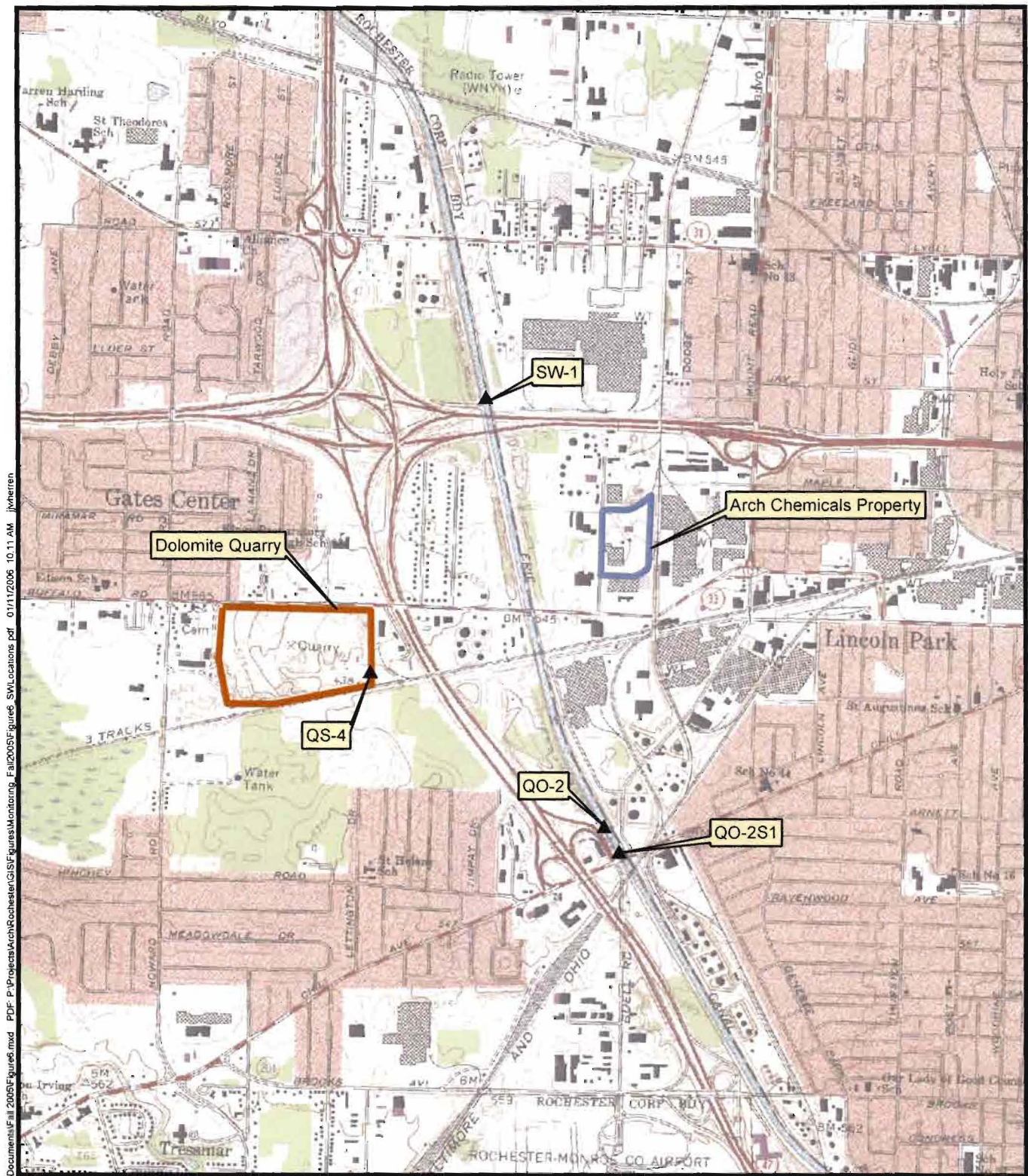


Figure 3
Fall 2005
Overburden Groundwater
Interpreted Piezometric Contours

Arch Chemicals
Rochester, NY
MACTEC, Inc.

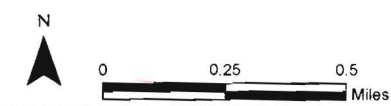
Prepared by JJW Checked by NMB





Document: P:\Projects\Arch\GIS\MapDocuments\Fall 2005\Figures6.mxd PDF: P:\Projects\Arch\Rochester\GIS\Figures6\Monitoring_Fall2005\Figures6_SWLocations.pdf 01/11/2006 10:11 AM jkherren

Source:
 1:24,000 scale digital topographic map
 obtained from New York State GIS
 Clearinghouse at: www.nysgis.state.ny.us

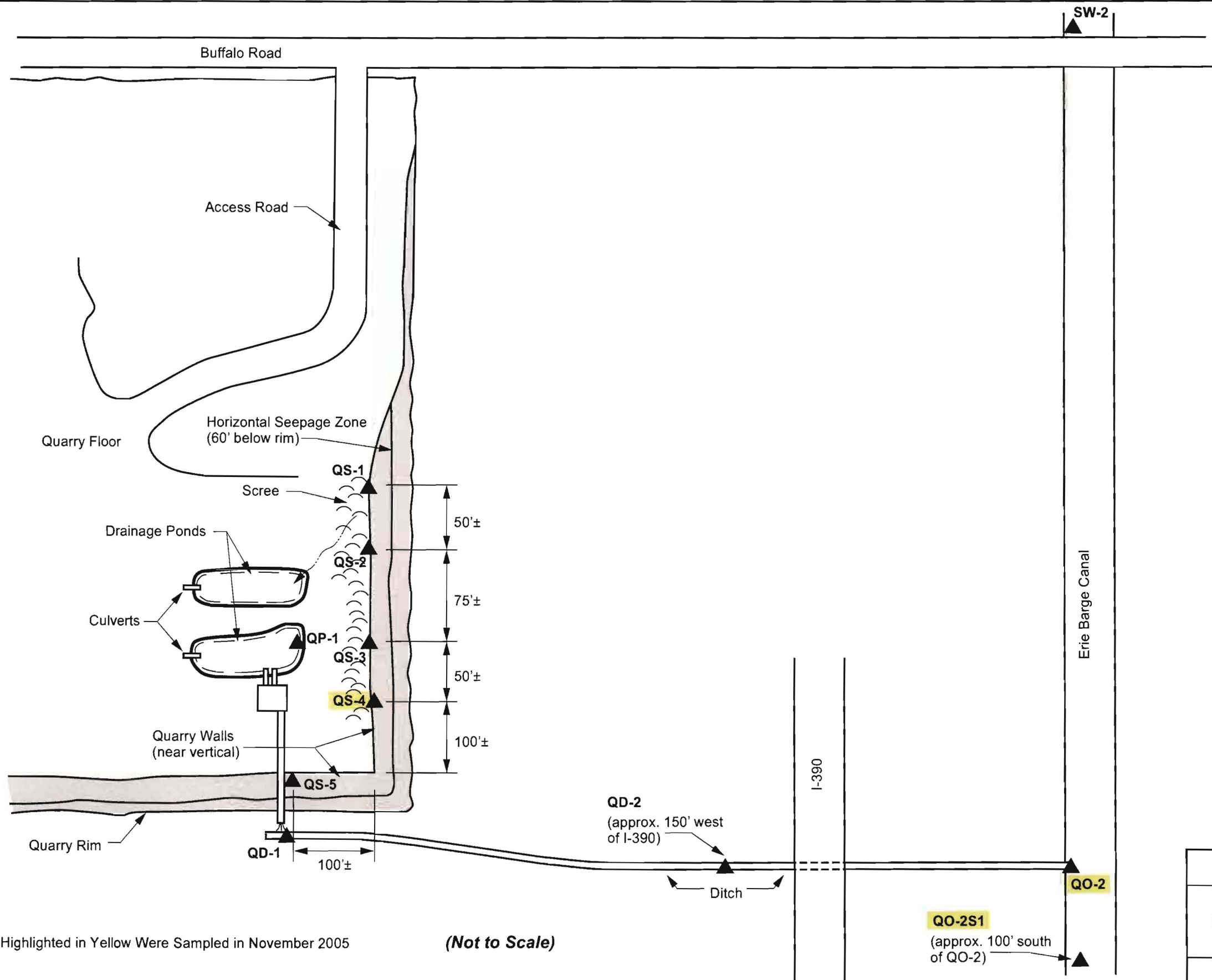


Prepared by JJW Checked by JEB

Legend

- ▭ Arch Property Boundary
- ▭ Dolomite Quarry Boundary
- ▲ Surface Water Sample Location

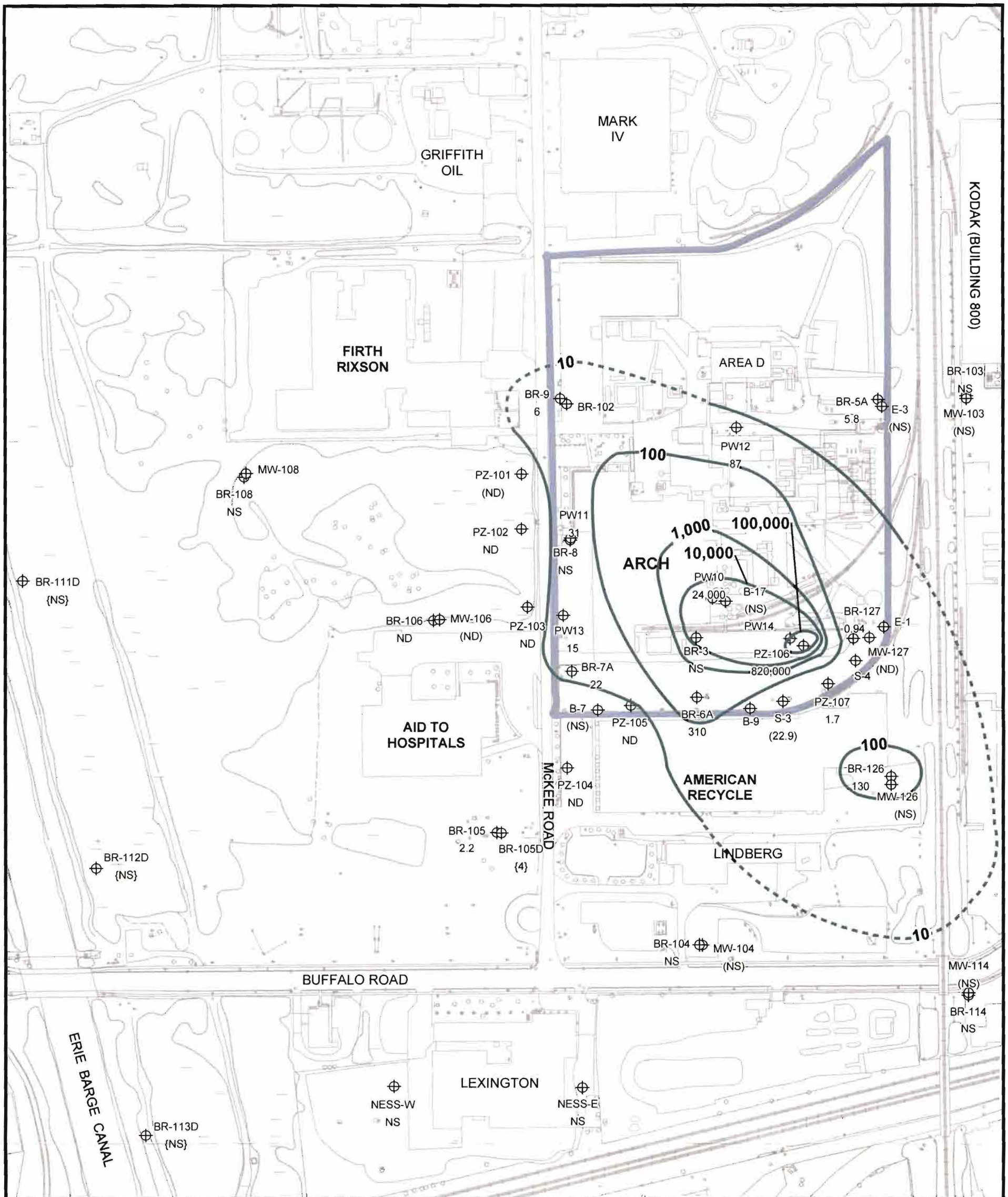
Figure 6
 Sample Locations
 Erie Barge Canal
 Arch Chemicals
 Rochester, New York
 MACTEC, Inc.



Sample Locations Highlighted in Yellow Were Sampled in November 2005

(Not to Scale)

FIGURE 7
SAMPLE LOCATIONS DOLOMITE PRODUCTS QUARRY
ARCH CHEMICALS ROCHESTER, NEW YORK



Legend

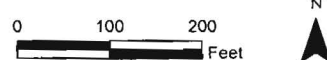
- Outline of Arch Property Boundary
- 100 VOC Concentration Contour
- Monitoring Location with Concentration
- {1000} Deep Bedrock Well
- (1000) Overburden Well
- 1000 Bedrock Well
- NS Not Sampled
- ND Not Detected

NOTES:

1. Samples Collected in November, 2005
2. Selected VOCs consist of Carbon tetrachloride, Methylene chloride Chloroform, TCE, and PCE.
3. Concentration contours represented for Bedrock Wells and selected Overburden and Deep Bedrock Wells.
4. Dashed concentration contours represent inferences from historical analytical results.

Figure 9
Fall 2005
Selected Volatile Organic Compound
Concentration Contours

Arch Chemicals
 Rochester, NY
 MACTEC, Inc.



Prepared by JJW | Checked by NMB

Tables

**TABLE 1
FALL 2005 GROUNDWATER SAMPLING AND ANALYTICAL PROGRAM**

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

SITE / AREA	WELL / POINT	DATE	ANALYSIS	PYRIDINES	VOCs
			QC TYPE		
AID TO HOSPITALS	BR-106	11/17/2005	Sample	X	X
	MW-106	11/17/2005	Sample	X	X
	PZ-101	11/21/2005	Sample	X	X
	PZ-102	11/21/2005	Sample	X	X
	PZ-103	11/21/2005	Sample	X	X
AMERICAN RECYCLE MANUF. (58 MCKEE ROAD)	BR-126	11/17/2005	Sample	X	X
	PZ-104	11/21/2005	Sample	X	X
ARCH ROCHESTER	BR-127	11/15/2005	Sample	X	X
	BR-5A	11/16/2005	Sample	X	X
	BR-6A	11/15/2005	Sample	X	X
	BR-7A	11/16/2005	Sample	X	X
	BR-9	11/16/2005	Sample	X	X
	E-1	11/15/2005	Sample	X	X
	MW-127	11/15/2005	Sample	X	X
	PW10	11/16/2005	Sample	X	X
	PW11	11/15/2005	Sample	X	X
	PW12	11/15/2005	Sample	X	X
	PW13	11/16/2005	Sample	X	X
	PW14	11/16/2005	Sample	X	X
	PZ-105	11/15/2005	Sample	X	X
	PZ-106	11/16/2005	Sample	X	X
	PZ-107	11/15/2005	Sample	X	X
	S-3	11/15/2005	Sample	X	X
	S-4	11/15/2005	Sample	X	X
DOLOMITE PRODUCTS, INC.	BR-119D	11/14/2005	Sample	X	
	BR-120D	11/14/2005	Sample	X	
	BR-121D	11/14/2005	Sample	X	
	QS-4	11/14/2005	Sample	X	
ERIE BARGE CANAL(Samples in canal or property along canal)	QO-2	11/14/2005	Sample	X	
	QO-2S1	11/14/2005	Sample	X	
FORMER GENERAL CIRCUITS(Corner of Buffalo and Mt Read Blvd.)	MW-16	11/21/2005	Sample	X	X
RG & E RIGHT OF WAY	BR-105	11/17/2005	Duplicate	X	X
	BR-105	11/17/2005	Sample	X	X
	BR-105D	11/17/2005	Sample	X	X

**TABLE 2
FALL 2005 GROUNDWATER MONITORING RESULTS
CHLOROPYRIDINES**

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

LOCATION:	BR-105	BR-105	BR-105D	BR-106	BR-119D	BR-120D	BR-121D	BR-126	BR-127	BR-5A
SAMPLE DATE:	11/17/05	11/17/05	11/17/05	11/17/05	11/14/05	11/14/05	11/14/05	11/17/05	11/15/05	11/16/05
QC TYPE:	Duplicate	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample
BY SW-846 Method 8270C (µg/L)										
2,6-Dichloropyridine	120	110	96 J	800	9 U	9 U	9 U	660	860	51
2-Chloropyridine	970	870	2000	3000	9 U	9 U	9 U	6400	3600	130
3-Chloropyridine	100 U	100 U	100 U	200 U	9 U	9 U	9 U	200 U	250	50 U
4-Chloropyridine	100 U	100 U	100 U	200 U	9 U	9 U	9 U	200 U	100 U	50 U
p-Fluoroaniline	100 U	100 U	100 U	200 U	9 U	9 U	9 U	200 U	100 U	89
Pyridine	250 U	250 U	250 U	500 U	24 U	24 U	24 U	500 U	250 U	220

Notes:

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

J = Estimated value.

TABLE 2
FALL 2005 GROUNDWATER MONITORING RESULTS
CHLOROPYRIDINES

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	BR-6A	BR-7A	BR-9	E-1	MW-106	MW-127	MW-16	PW10	PW11	PW12
SAMPLE DATE:	11/15/05	11/16/05	11/16/05	11/15/05	11/17/05	11/15/05	11/21/05	11/16/05	11/15/05	11/15/05
QC TYPE:	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample
BY SW-846 Method 8270C (µg/L)										
2,6-Dichloropyridine	170	1300	21	1800	2400	410	9 U	23000	370	350
2-Chloropyridine	300	4400	82	5600	6000	1600	4 J	200000	990	910
3-Chloropyridine	50 U	200 U	10 U	290	200 U	43 J	9 U	14000	50 U	100 U
4-Chloropyridine	50 U	200 U	10 U	46 J	200 U	50 U	9 U	6800	50 U	100 U
p-Fluoroaniline	50 U	200 U	3 J	100 U	96 J	50 U	9 U	2000 U	20 J	80 J
Pyridine	120 U	500 U	24 U	170 J	500 U	120 U	24 U	100000 U	120 U	250 U

Notes:

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

J = Estimated value.

**TABLE 2
FALL 2005 GROUNDWATER MONITORING RESULTS
CHLOROPYRIDINES**

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

LOCATION:	PW13	PW14	PZ-101	PZ-102	PZ-103	PZ-104	PZ-105	PZ-106	PZ-107	S-3
SAMPLE DATE:	11/16/05	11/16/05	11/21/05	11/21/05	11/21/05	11/21/05	11/15/05	11/16/05	11/15/05	11/15/05
QC TYPE:	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample
BY SW-846 Method 8270C (µg/L)										
2,6-Dichloropyridine	44 J	2500	55	290	2200	390	280	14000	94	1200
2-Chloropyridine	220	25000	320	1100	5900	2600	1200	39000	420	4200
3-Chloropyridine	100 U	620	10 U	200 U	250 U	100 U	50 U	1000 U	13	30
4-Chloropyridine	100 U	320 J	10 U	200 U	250 U	100 U	50 U	1000 U	10 U	9 U
p-Fluoroaniline	100 U	500 U	7 J	200 U	160 J	100 U	50 U	1000 U	10 U	24
Pyridine	250 U	400 J	25 U	500 U	620 U	250 U	120 U	2500 U	25 U	24 U

Notes:

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

J = Estimated value.

TABLE 2
FALL 2005 GROUNDWATER MONITORING RESULTS
CHLOROPYRIDINES

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	S-4
SAMPLE DATE:	11/15/05
QC TYPE:	Sample
BY SW-846 Method 8270C (µg/L)	
2,6-Dichloropyridine	39
2-Chloropyridine	40
3-Chloropyridine	9 U
4-Chloropyridine	9 U
p-Fluoroaniline	9 U
Pyridine	24 U

Notes:

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

J = Estimated value.

**TABLE 3
FALL 2005 GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS**

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

LOCATION:	BR-105	BR-105	BR-105D	BR-106	BR-126	BR-127	BR-5A	BR-6A	BR-7A	BR-9
SAMPLE DATE:	11/17/05	11/17/05	11/17/05	11/17/05	11/17/05	11/15/05	11/16/05	11/15/05	11/16/05	11/16/05
QC TYPE:	Duplicate	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample
VOLATILE ORGANIC COMPOUNDS BY SW-846 Method 8260/5ML (µg/L)										
1,1,1-Trichloroethane	5 U	5 U	5 U	10 U	10 U	5 U	25 U	10 U	20 U	3.3 J
1,1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	10 U	10 U	5 U	25 U	10 U	20 U	20 U
1,1,2-Trichloroethane	5 U	5 U	5 U	10 U	10 U	5 U	25 U	10 U	20 U	20 U
1,1-Dichloroethane	1.2 J	1.3 J	4.9 J	10 U	10 U	5 U	25 U	10 U	1.9 J	16 J
1,1-Dichloroethene	5 U	5 U	5 U	10 U	10 U	5 U	25 U	10 U	20 U	3.2 J
1,2-Dichloroethane	5 U	5 U	5 U	10 U	10 U	5 U	25 U	10 U	20 U	2.3 J
1,2-Dichloroethene (total)	48	45	7.5 J	20 U	3 J	3.6 J	5.2 J	150	4.7 J	430
1,2-Dichloropropane	5 U	5 U	5 U	10 U	10 U	5 U	25 U	10 U	20 U	20 U
Acetone	25 U	25 U	25 U	50 U	50 U	25 U	560	21 J	100 U	100 U
Benzene	2 J	1.9 J	5.7	14	5.4 J	4 J	2.5 J	4.3 J	16 J	100
Bromodichloromethane	5 U	5 U	5 U	10 U	10 U	5 U	25 U	10 U	20 U	20 U
Bromoform	5 U	5 U	5 U	10 U	10 U	5 U	25 U	10 U	20 U	20 U
Carbon disulfide	5 U	5 U	1.3 J	10 U	10 U	0.51 J	6.8 J	1.1 J	3.1 J	20 U
Carbon tetrachloride	5 U	5 U	5 U	10 U	57	5 U	25 U	51	6.8 J	20 U
Chlorobenzene	4.4 J	4.6 J	5 U	130	1.2 J	1.1 J	4.9 J	40	270	11 J
Chlorodibromomethane	5 U	5 U	5 U	10 U	10 U	5 U	25 U	10 U	20 U	20 U
Chloroethane	5 U	5 U	5 U	10 U	10 U	5 U	25 U	10 U	20 U	20 U
Chloroform	5 U	5 U	4 J	10 U	49	5 U	25 U	170	7.2 J	20 U
Cis-1,3-Dichloropropene	5 U	5 U	5 U	10 U	10 U	5 U	25 U	10 U	20 U	20 U
Ethyl benzene	5 U	5 U	0.53 J	10 U	10 U	5 U	25 U	1.3 J	20 U	13 J
Methyl bromide	5 U	5 U	5 U	10 U	10 U	5 U	25 U	10 U	20 U	20 U
Methyl butyl ketone	25 U	25 U	25 U	50 U	50 U	25 U	120 U	50 U	100 U	100 U
Methyl chloride	5 U	5 U	10	10 U	10 U	5 U	25 U	10 U	20 U	20 U
Methyl ethyl ketone	25 U	25 U	25 U	50 U	50 U	25 U	40 J	50 U	100 U	100 U
Methyl isobutyl ketone	25 U	25 U	25 U	50 U	50 U	25 U	120 U	50 U	100 U	100 U
Methylene chloride	5 U	5 U	5 U	10 U	18	5 U	2.2 J	1.5 J	4 J	2 J
Styrene	5 U	5 U	5 U	10 U	10 U	5 U	25 U	10 U	20 U	20 U
Tetrachloroethene	1.2 J	1.1 J	5 U	10 U	2.4 J	5 U	25 U	67	1.9 J	20 U
Toluene	5 U	5 U	5 U	1.3 J	10 U	5 U	25 U	53	5.7 J	5.4 J
trans-1,3-Dichloropropene	5 U	5 U	5 U	10 U	10 U	5 U	25 U	10 U	20 U	20 U
Trichloroethene	1.2 J	1.1 J	5 U	10 U	10 U	0.94 J	3.6 J	20	2 J	4 J
Vinyl acetate	25 U	25 U	25 U	50 U	50 U	25 U	120 U	50 U	100 U	100 U
Vinyl chloride	17	20	3.3 J	10 U	10 U	6	25 U	4.5 J	3.1 J	250
Xylenes, Total	15 U	15 U	15 U	30 U	30 U	15 U	75 U	4.4 J	60 U	60 U

Notes:
U = Compound not detected; value represents sample quantitation limit.
J = Estimated value.

**TABLE 3
FALL 2005 GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS**

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

LOCATION:	E-1	MW-106	MW-127	MW-16	PW10	PW11	PW12	PW13	PW14	PZ-101
SAMPLE DATE:	11/15/05	11/17/05	11/15/05	11/21/05	11/16/05	11/15/05	11/15/05	11/16/05	11/16/05	11/21/05
QC TYPE:	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample
VOLATILE ORGANIC COMPOUNDS BY SW-846 Method 8260/5ML (µg/L)										
1,1,1-Trichloroethane	25 U	20 U	5 U	5 U	1000 U	1.8 J	25 U	2.6 J	620 U	5 U
1,1,1,2-Tetrachloroethane	25 U	20 U	5 U	5 U	1000 U	10 U	25 U	25 U	620 U	5 U
1,1,2-Trichloroethane	25 U	20 U	5 U	5 U	1000 U	10 U	25 U	25 U	620 U	5 U
1,1-Dichloroethane	25 U	20 U	5 U	0.85 J	1000 U	13	25 U	14 J	620 U	5 U
1,1-Dichloroethene	25 U	20 U	5 U	5 U	1000 U	0.87 J	25 U	2 J	620 U	5 U
1,2-Dichloroethane	25 U	20 U	5 U	5 U	1000 U	10 U	6 J	25 U	620 U	5 U
1,2-Dichloroethene (total)	20 J	40 U	10 U	10	2000 U	200	11 J	330	1200 U	10 U
1,2-Dichloropropane	25 U	20 U	5 U	5 U	1000 U	10 U	25 U	25 U	620 U	5 U
Acetone	39 J	100 U	25 U	25 U	5000 U	50 U	120 U	120 U	3100 U	25 U
Benzene	5.6 J	37	0.84 J	5 U	1000 U	40	53	74	620 U	3.4 J
Bromodichloromethane	25 U	20 U	5 U	5 U	1000 U	10 U	25 U	25 U	620 U	5 U
Bromoform	25 U	20 U	5 U	5 U	3200	10 U	3.7 J	25 U	430 J	5 U
Carbon disulfide	16 J	20 U	5 U	5 U	2000	10 U	6 J	25 U	1600	5 U
Carbon tetrachloride	25 U	20 U	5 U	5 U	9300	10 U	2.8 J	25 U	9000	5 U
Chlorobenzene	29	360	0.83 J	2 J	140 J	80	330	14 J	620 U	28
Chlorodibromomethane	25 U	20 U	5 U	5 U	240 J	10 U	25 U	25 U	620 U	5 U
Chloroethane	25 U	20 U	5 U	5 U	1000 U	10 U	25 U	25 U	620 U	5 U
Chloroform	2.6 J	20 U	5 U	5 U	11000	17	57	5.7 J	7900	5 U
Cis-1,3-Dichloropropene	25 U	20 U	5 U	5 U	1000 U	10 U	25 U	25 U	620 U	5 U
Ethyl benzene	2.8 J	20 U	0.4 J	5 U	1000 U	3 J	30	8.3 J	620 U	5 U
Methyl bromide	25 U	20 U	5 U	5 U	1000 U	10 U	25 U	25 U	620 U	5 U
Methyl butyl ketone	120 U	100 U	25 U	25 U	5000 U	50 U	120 U	120 U	3100 U	25 U
Methyl chloride	25 U	20 U	5 U	5 U	1000 U	10 U	25 U	25 U	620 U	5 U
Methyl ethyl ketone	120 U	100 U	25 U	25 U	5000 U	50 U	120 U	120 U	3100 U	25 U
Methyl isobutyl ketone	120 U	100 U	25 U	25 U	5000 U	50 U	120 U	120 U	3100 U	25 U
Methylene chloride	4.6 J	20 U	5 U	5 U	2000	8.4 J	13 J	6.5 J	460 J	5 U
Styrene	25 U	20 U	1.6 J	5 U	1000 U	10 U	25 U	25 U	620 U	5 U
Tetrachloroethene	5.8 J	20 U	5 U	3.7 J	1100	2.2 J	11 J	25 U	350 J	5 U
Toluene	3.7 J	2.3 J	1.2 J	5 U	220 J	7.2 J	360	4.4 J	82 J	5 U
trans-1,3-Dichloropropene	25 U	20 U	5 U	5 U	1000 U	10 U	25 U	25 U	620 U	5 U
Trichloroethene	25 U	20 U	5 U	4.3 J	110 J	3 J	3.5 J	3.2 J	620 U	5 U
Vinyl acetate	120 U	100 U	25 U	25 U	5000 U	50 U	120 U	120 U	3100 U	25 U
Vinyl chloride	25 U	20 U	5 U	0.46 J	1000 U	160	4.2 J	190	620 U	5 U
Xylenes, Total	75 U	60 U	15 U	15 U	3000 U	3.5 J	170	75 U	1900 U	15 U

Notes:

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

J = Estimated value.

**TABLE 3
FALL 2005 GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS**

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

LOCATION:	PZ-102	PZ-103	PZ-104	PZ-105	PZ-106	PZ-107	S-3	S-4
SAMPLE DATE:	11/21/05	11/21/05	11/21/05	11/15/05	11/16/05	11/15/05	11/15/05	11/15/05
QC TYPE:	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample
VOLATILE ORGANIC COMPOUNDS								
BY SW-846 Method 8260/5ML (µg/L)								
1,1,1-Trichloroethane	20 U	40 U	5 U	25 U	50000 U	5 U	1.9 J	5 U
1,1,2,2-Tetrachloroethane	20 U	40 U	5 U	25 U	50000 U	5 U	5 U	5 U
1,1,2-Trichloroethane	20 U	40 U	5 U	25 U	50000 U	5 U	5 U	5 U
1,1-Dichloroethane	20 U	40 U	5 U	25 U	50000 U	5 U	11	5 U
1,1-Dichloroethene	20 U	40 U	5 U	25 U	50000 U	5 U	1.5 J	5 U
1,2-Dichloroethane	20 U	40 U	5 U	25 U	50000 U	5 U	5 U	5 U
1,2-Dichloroethene (total)	40 U	80 U	1.7 J	50 U	100000 U	4.7 J	250	10 U
1,2-Dichloropropane	20 U	40 U	5 U	25 U	50000 U	5 U	5 U	5 U
Acetone	100 U	200 U	25 U	120 U	250000 U	25 U	25 U	25 U
Benzene	31	56	2.6 J	11 J	50000 U	3.8 J	63	5 U
Bromodichloromethane	20 U	40 U	5 U	25 U	50000 U	5 U	5 U	5 U
Bromoform	20 U	40 U	5 U	25 U	13000 J	5 U	5 U	5 U
Carbon disulfide	20 U	40 U	5 U	25 U	99000	5 U	0.64 J	5 U
Carbon tetrachloride	20 U	40 U	5 U	25 U	150000	5 U	2.9 J	5 U
Chlorobenzene	290	690	8.7	130	50000 U	2.6 J	120	5 U
Chlorodibromomethane	20 U	40 U	5 U	25 U	50000 U	5 U	5 U	5 U
Chloroethane	20 U	40 U	5 U	25 U	50000 U	5 U	5 U	5 U
Chloroform	20 U	40 U	5 U	25 U	650000	5 U	8.9	5 U
Cis-1,3-Dichloropropene	20 U	40 U	5 U	25 U	50000 U	5 U	5 U	5 U
Ethyl benzene	20 U	40 U	5 U	25 U	50000 U	5 U	7.3	5 U
Methyl bromide	20 U	40 U	5 U	25 U	50000 U	5 U	5 U	5 U
Methyl butyl ketone	100 U	200 U	25 U	120 U	250000 U	25 U	25 U	25 U
Methyl chloride	20 U	40 U	5 U	25 U	50000 U	5 U	5 U	5 U
Methyl ethyl ketone	100 U	200 U	25 U	120 U	250000 U	25 U	25 U	25 U
Methyl isobutyl ketone	100 U	200 U	25 U	120 U	250000 U	25 U	25 U	25 U
Methylene chloride	20 U	40 U	5 U	25 U	16000 J	5 U	5.9	5 U
Styrene	20 U	40 U	5 U	25 U	50000 U	5 U	5 U	5 U
Tetrachloroethene	20 U	40 U	5 U	25 U	50000 U	5 U	2 J	5 U
Toluene	20 U	17 J	5 U	25 U	50000 U	5 U	5.3	5 U
trans-1,3-Dichloropropene	20 U	40 U	5 U	25 U	50000 U	5 U	5 U	5 U
Trichloroethene	20 U	40 U	5 U	25 U	50000 U	1.7 J	3.2 J	5 U
Vinyl acetate	100 U	200 U	25 U	120 U	250000 U	25 U	25 U	25 U
Vinyl chloride	20 U	40 U	0.66 J	25 U	50000 U	1.4 J	170	5 U
Xylenes, Total	60 U	120 U	15 U	75 U	150000 U	15 U	4.4 J	15 U

Notes:

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

J = Estimated value.

TABLE 4
COMPARISON OF NOVEMBER 2005
CHLOROPYRIDINES AND VOLATILE ORGANICS CONCENTRATIONS
IN GROUNDWATER TO PREVIOUS RESULTS (ug/L)

ARCH ROCHESTER
SEMI-ANNUAL GROUNDWATER MONITORING REPORT - JANUARY 2005

WELL	SELECTED CHLOROPYRIDINES				SELECTED VOCs			
	# EVENTS IN PRIOR 5 YRS	HISTORIC MAXIMUM	5-YEAR MEAN	NOVEMBER-2005 RESULT	# EVENTS IN PRIOR 5 YRS	HISTORIC MAXIMUM	5-YEAR MEAN	NOVEMBER-2005 RESULT
ON-SITE WELLS/LOCATIONS								
B-17	6	28,000,000	180,000	NS	6	345,000	43,000	NS
B-7	6	9,100	3,400	NS	6	255.7	100	NS
BR-127	2	3,917	2,700	4710	2	3	2	0.94
BR-3	6	6,500,000	140,000	NS	6	920,000	550,000	NS
BR-5A	10	1,700	530	490	10	9,400	110	5.8
BR-6A	10	144,500	33,000	470	10	26,000	7,000	309.5
BR-7A	10	510,000	17,000	5700	10	3,000	290	21.9
BR-8	6	57,000	6,400	NS	6	6,900	4.3	NS
BR-9	9	720	260	106	9	160	24	6
E-1	9	171,680	54,000	7906	9	5,300	750	13
E-3	6	600	88	NS	6	12,000	87	NS
MW-127	2	15,000	7,800	2053	2	180	90	ND
PW10	10	171,400	78,000	243800	10	120,000	31,000	23510
PW11	9	27,000	2,600	1380	10	30,314	7,100	30.6
PW12	10	15,000	3,400	1340	10	120,000	3,400	87.3
PW13	2	7,481	4,600	264	2	NS	460	15.4
PW14	1	21,410	21,000	28840	1	NS	160000	17710
PZ-105	6	190,000	13,000	1480	6	9,700	1,100	ND
PZ-106	6	134,690	67,000	53000	6	1,930,000	1,200,000	816000
PZ-107	10	11,000	3,400	527	10	12,000	560	1.7
S-3	9	30,894	12,000	5454	9	3,687	900	22.9
S-4	9	3,240	990	79	9	870.1	200	ND
OFF-SITE WELLS/LOCATIONS								
BR-103	6	400	5.2	NS	6	2.7	0.45	NS
BR-104	6	3,100	1	NS	2	9	ND	NS
BR-105	10	24,000	1,300	980	10	310	4.4	2.2
BR-105D	10	10,000	2,100	2096	10	230	5.3	4
BR-106	10	24,570	8,500	3800	11	6,300	330	ND
BR-108	6	1,700	18	NS	2	ND	ND	NS
BR-112D	6	310	32	NS	2	4.3	0.65	NS
BR-113D	6	490	59	NS	0	2.8	NS	NS
BR-114	6	521	230	NS	6	11.6	3	NS
BR-116	5		NS	NS	0	84	NS	NS
BR-116D	5	710	13	NS	0	120	NS	NS
BR-117D	5	80	37	NS	0	1.9	NS	NS
BR-118D	5	330	120	NS	0	6.6	NS	NS
BR-122D	5	778.8	400	NS	0	ND	NS	NS
BR-123D	5	959	460	NS	0	4	NS	NS
BR-126	1	8967	9000	7060	1	NS	220	126.4
MW-103	6	82	4.3	NS	6	ND	120	NS
MW-104	6	180	1.8	NS	2	1	ND	NS
MW-106	10	130,000	13,000	8496	10	453	46	ND
MW-114	6	18	0.33	NS	6	19.3	15	NS
MW-126	1	63	63	NS	1	NS	ND	NS
MW-16	4	360	230	4	0	NS	NS	8

TABLE 4
COMPARISON OF NOVEMBER 2005
CHLOROPYRIDINES AND VOLATILE ORGANICS CONCENTRATIONS
IN GROUNDWATER TO PREVIOUS RESULTS (ug/L)

ARCH ROCHESTER
SEMI-ANNUAL GROUNDWATER MONITORING REPORT - JANUARY 2005

WELL	SELECTED CHLOROPYRIDINES				SELECTED VOCs			
	# EVENTS IN PRIOR 5 YRS	HISTORIC MAXIMUM	5-YEAR MEAN	NOVEMBER-2005 RESULT	# EVENTS IN PRIOR 5 YRS	HISTORIC MAXIMUM	5-YEAR MEAN	NOVEMBER-2005 RESULT
NESS-E	6	5,000	380	NS	2	700	ND	NS
NESS-W	6	2,100	230	NS	2	89	ND	NS
PZ-101	10	27,000	1,300	382	10	6.1	0.77	ND
PZ-102	10	58,000	5,600	1390	10	10,000	2.2	ND
PZ-103	10	73,000	18,000	8260	11	44,300	7,200	ND
PZ-104	10	9,100	3,900	2990	10	40	1.1	ND
QD-1	5	6	2	NS	2	NS	ND	NS
QO-2	12	380	6.6	ND	9	ND	ND	NS
QO-2S1	12	27	0.04	ND	7	ND	ND	NS
QS-4	15	3,400	420	272	11	ND	ND	NS

Note:

- 1) Number of samples and mean reflect 5-year sampling period from November 2000 through June 2005.
Historic maximum based on all available results from March 1990 through November 2004
- 2) Chloropyridines represented by: 2-Chloropyridine, 2,6-Dichloropyridine, and 3-Chloropyridine, 4-Chloropyridine, p-Fluoroaniline, and Pyridine.
- 3) Selected VOCs represented by Carbon Tetrachloride, Chloroform, Methylene Chloride, Tetrachloroethene, and Trichloroethene.
- 4) **Bold and shade** -November 2005 exceeds 5-year mean.
- 5) NS = Not sampled or analyzed
ND = Not detected

**TABLE 5
FALL 2005 QUARRY SEEP AND OUTFALL WATER SAMPLE RESULTS**

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

LOCATION	QS-4	QO-2	QO-2S1
DATE	11/14/2005	11/14/2005	11/14/2005
SAMPLE ID	QS-4	QO-2	QO-2S1
SELECTED CHLOROPYRIDINES			
BY SW-846 Method 8270C (µg/L)			
2,6-Dichloropyridine	52	10 U	9 U
2-Chloropyridine	220	10 U	9 U
3-Chloropyridine	9 U	10 U	9 U
4-Chloropyridine	9 U	10 U	9 U
p-Fluoroaniline	9 U	10 U	9 U
Pyridine	24 U	25 U	24 U

Notes:

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

J = Estimated value.

**TABLE 6
EXTRACTION WELL WEEKLY FLOW MEASUREMENTS - JUNE 2005 THROUGH NOVEMBER 2005**

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

Week Ending	BR-5A [Gal./Week]	BR-7A [Gal./Week]	BR-9 [Gal./Week]	PW-10 [Gal./Week]	PW-11 [Gal./Week]	PW-13 [Gal./Week]	PW-14 [Gal./Week]	Total [Gal.]
June '05								
06/06/05	38,438	54,646	67,960	4,790	46,822	64,745	34,499	311,900
06/13/05	36,459	60,531	65,946	4,210	30,575	70,387	33,177	301,285
06/20/05	41,074	53,346	66,867	2,970	54,142	69,036	29,401	316,836
06/27/05	43,275	61,126	65,070	1,150	41,594	54,771 *	25,323	292,309
							Total [Gal.]	1,222,330
July '05								
07/04/05	37,952	54,101	61,195	540	48,816	50,400 *	22,768	275,772
07/11/05	19,094	49,773	60,420	7,890	49,098	54,345 *	23,107	263,727
07/18/05	30,653	49,985	62,917	8,740	48,300	50,634	22,310	273,539
07/25/05	44,922	53,458	67,368	7,540	41,242 *	57,721	21,061	293,312
							Total [Gal.]	1,106,350
Aug. '05								
08/01/05	48,131	56,917	65,508	2,710	39,347	57,114	17,631	287,359
08/08/05	52,605	55,894	59,306	1,420	47,861	55,546	14,907	287,539
08/15/05	50,400 *	51,974	57,676	2,830	46,234	60,538	18,582	288,234
08/22/05	47,803 *	54,616 *	68,468	2,420	49,172	50,480	20,826	293,785
08/29/05	50,887 *	61,371	66,145	620	50,812	52,600	22,654	305,089
							Total [Gal.]	1,462,005
Sept. '05								
09/05/05	54,122	55,513	56,865	3,880	49,124	33,675	19,474	272,654
09/12/05	48,384	77,913	67,327	3,270	48,062	37,862	17,671 *	300,489
09/19/05	40,518	67,035	60,689	1,450	43,764	37,761	18,144 *	269,361
09/26/05	44,485	80,190	64,718	1,110	48,791	1,477 **	19,315 *	260,086
							Total [Gal.]	1,102,589
Oct. '05								
10/03/05	60,000	77,565	57,786	330	43,283	3,906 **	26,450	269,319
10/10/05	59,479	83,477	53,168	510	51,167	236 **	13,888	261,925
10/17/05	49,916	71,815	59,178	50	48,065	70 **	4,682 **	233,775
10/24/04	55,546	73,919	53,831	0	43,663	713 **	4,928 **	232,600
10/31/05	57,422	83,744	55,151	190	44,838	386 **	4,190 **	245,922
							Total [Gal.]	1,243,541
Nov. '05								
11/07/05	54,490	80,901	87,517	120	36,009	45 **	2,125 **	261,207
11/14/05	59,491 *	83,166	117,337	20	33,708	2 **	2,679 **	296,404
11/21/05	57,530 *	72,936	86,473	250	39,421	301 **	5,486 **	262,397
11/28/05	60,354	76,060	20,196	430	42,153	185 **	3,494 **	202,871
							Total [Gal.]	1,022,879

Total 6 Mo.

Removal (Gal.)	1,243,430	1,701,972	1,675,082	59,440	1,166,063	864,935	448,772	7,159,694
---------------------------	-----------	-----------	-----------	--------	-----------	---------	---------	-----------

Notes:

- 1) * - Flow rate is estimated due to a meter failure
- 2) ** - Diminished flow rates due to mechanical difficulties with pumps (high natural mineral content of groundwater)

TABLE 7

MASS REMOVAL SUMMARY
 PERIOD: JUNE 2005 - NOVEMBER 2005

ARCH ROCHESTER
 FALL 2005 GROUNDWATER MONITORING REPORT

Well	Total Vol. Pumped (gallons)	Avg. VOC Conc. (ppm)	Avg. PYR. Conc. (ppm)	VOCs Removed (pounds)	PYR. Removed (pounds)
BR-5A	1,243,000	0.053	0.35	0.55	3.6
BR-7A	1,702,000	0.062	4.6	0.88	65
BR-9	1,675,000	0.010	0.11	0.140	1.6
PW-10	59,000	27	155	13	76
PW-11	1,166,000	0.082	1.1	0.80	11.0
PW-13	865,000	0.469	1.0	3.4	7.1
PW-14	449,000	88.6	25	331	94
Totals:	7,159,000			350	258

Note: VOC and pyridine concentrations used in this table are an average of the analytical results from the Spring 2005 and Fall 2005 sampling events for each well

**TABLE 8
2006 SAMPLING SCHEDULE
ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK**

ARCH ROCHESTER						2006					
						SPRING		FALL		TOTAL	
MONITORING PROGRAM						Pyridines	VOCs	Pyridines	VOCs	Pyridines	VOCs
	Well	zone	area	Frequency/Parameters	Purpose						
OFF-SITE MONITORING	MW-103	OB	KODAK EAST	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	BR-103	BR	KODAK EAST	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	MW-104	OB	BUFFALO RD	annual monitoring, PYR	trend monitoring	1				1	0
	BR-104	BR	BUFFALO RD	annual monitoring, PYR	trend monitoring	1				1	0
	BR-105	BR	AID-HOSP	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	BR-105D	BR deep	AID-HOSP	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	MW-106	OB	AID-HOSP	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	BR-106	BR	AID-HOSP	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	BR-108	BR	AID-HOSP	annual monitoring, PYR	trend monitoring	1				1	0
	BR-112D	BR deep	NYSDOT	annual monitoring, PYR	trend monitoring	1				1	0
	BR-113D	BR deep	NYSDOT	annual monitoring, PYR	trend monitoring	1				1	0
	MW-114	OB	JACKSON	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	BR-114	BR	JACKSON	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	BR-116	BR	PFAUDLER	annual monitoring, PYR	trend monitoring	1				1	0
	BR-116D	BR deep	PFAUDLER	annual monitoring, PYR	trend monitoring	1				1	0
	BR-117D	BR deep	QUARRY	annual monitoring, PYR	trend monitoring	1				1	0
	BR-118D	BR deep	QUARRY	annual monitoring, PYR	trend monitoring	1				1	0
	BR-122D	BR deep	QUARRY	annual monitoring, PYR	trend monitoring	1				1	0
	BR-123D	BR deep	QUARRY	annual monitoring, PYR	trend monitoring	1				1	0
	NESS-E	BR deep	NESS	annual monitoring, PYR	trend monitoring	1				1	0
	NESS-W	BR deep	NESS	annual monitoring, PYR	trend monitoring	1				1	0
	PZ-101	BR	McKee Rd	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	PZ-102	BR	McKee Rd	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	PZ-103	BR	McKee Rd	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	PZ-104	BR	ALH	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	MW-126	OB	ALH	semi-annual monitoring, VOCs & PYR	trend monitoring	1	1	1	1	2	2
BR-126	BR	ALH	semi-annual monitoring, VOCs & PYR	trend monitoring	1	1	1	1	2	2	
MW-16	BR	Gen'l Circuits	annual monitoring, PYR	trend monitoring	1		1		1	0	
ON-SITE MONITORING	PZ-107	BR	ON-SITE	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	PZ-106	BR	ON-SITE	semi-annual monitoring, VOCs & PYR	trend monitoring	1	1	1	1	2	2
	PZ-105	BR	ON-SITE	semi-annual monitoring, VOCs & PYR	trend monitoring	1	1	1	1	2	2
	BR-127	BR	ON-SITE	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	BR-3	BR	ON-SITE	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	BR-8	BR	ON-SITE	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	BR-9	pumping well	ON-SITE	semi-annual monitoring, VOCs & PYR	mass removal/trend monitoring	1	1	1	1	2	2
	BR-5A	pumping well	ON-SITE	semi-annual monitoring, VOCs & PYR	mass removal/trend monitoring	1	1	1	1	2	2
	BR-6A	BR	ON-SITE	semi-annual monitoring, VOCs & PYR	trend monitoring	1	1	1	1	2	2
	BR-7A	pumping well	ON-SITE	semi-annual monitoring, VOCs & PYR	mass removal/trend monitoring	1	1	1	1	2	2
	B-17	OB	ON-SITE	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	B-7	OB	ON-SITE	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	S-3	OB	ON-SITE	semi-annual monitoring, VOCs & PYR	continue until replaced by trench	1	1	1	1	2	2
	S-4	OB	ON-SITE	semi-annual monitoring, VOCs & PYR	continue until replaced by trench	1	1	1	1	2	2
	E-1	OB	ON-SITE	semi-annual monitoring, VOCs & PYR	continue until replaced by trench	1	1	1	1	2	2
	E-3	OB	ON-SITE	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	MW-127	OB	ON-SITE	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	PW10	pumping well	ON-SITE	semi-annual monitoring, VOCs & PYR	mass removal/trend monitoring	1	1	1	1	2	2
	PW11	pumping well	ON-SITE	semi-annual monitoring, VOCs & PYR	mass removal/trend monitoring	1	1	1	1	2	2
	PW12	BR	ON-SITE	semi-annual monitoring, VOCs & PYR	trend monitoring	1	1	1	1	2	2
PW13	pumping well	ON-SITE	semi-annual monitoring, VOCs & PYR	mass removal/trend monitoring	1	1	1	1	2	2	
PW14	pumping well	ON-SITE	semi-annual monitoring, VOCs & PYR	mass removal/trend monitoring	1	1	1	1	2	2	
QUARRY/CANAL MONITORING	QS-4	quarry seep	QUARRY	semi-annual monitoring, VOCs & PYR	trend monitoring	1		1		2	0
	QO-2	quarry outfall	DITCH	semi-annual monitoring, VOCs & PYR	trend monitoring	1		1		2	0
	QO-2S1	canal at outfall	CANAL	semi-annual monitoring, VOCs & PYR	surface water monitoring	1		1		2	0
TOTAL SAMPLES						52	36	31	27	83	63

Appendix A

Groundwater Field Sampling Data Sheets

1.0 INTRODUCTION

This report describes the sampling of the following points:

- Thirty (30) groundwater samples
- One (1) canal sample
- One (1) quarry outfall sample
- One (1) quarry seep/pond samples

These activities were in support of the Phase II Remediation Investigation being conducted at the Arch Chemical facility in Rochester, New York. The samples were collected from November 14 – 21, 2005 by Severn Trent Laboratories, Inc. (STL) personnel.

2.0 METHODOLOGIES

2.1 Water Level Measurements

Static water levels in all groundwater wells were measured from the top of the well casing/riser with an electronic water level indicator. All well bottoms were sounded with the weighted steel measuring tape. All measurements were recorded to the nearest hundredth of a foot (0.01 feet). The length of the measuring device which contacted the water was cleaned between wells with a deionized water rinse and paper towel wipe. These data are presented on Sampling Summary Table and Field Observation forms.

2.2 Well Purging

Monitoring wells were evacuated prior to sampling employing one of the following methods:

- 1) Purging three (3) times the standing water volume using precleaned or dedicated 1.25" X 5' stainless steel bailers, 2" X 5' polyvinyl chloride bailers, peristaltic pump or QED Low-Flow Bladder pumps.
- 2) Evacuated with the low flow/low stress purging technique using either QED Low-Flow Bladder pumps or a variable rate peristaltic pump.

Wells that were purged of three (3) standing volumes were mainly wells located on or very near the Erie Canal and historically purged with this method prior to sampling. The remaining wells were evacuated with a low flow/low stress purging technique. This technique involves the use of a variable flow rate bladder or peristaltic pump. The pumps were employed to purge the monitoring wells at a flow rate such that drawdown of the water column from static conditions is minimal. Field measurements of pH, specific

conductance, temperature, ORP, dissolved oxygen and turbidity are monitored every 3-5 minutes until stabilization of parameters is realized. Once stabilization has occurred, sampling can be conducted. All purged water was collected into 55-gallon drums for disposal at the on-site wastewater treatment facility. Data pertaining to each evacuation are presented on the Sampling Summary Table and field Observation Forms.

2.3 Surface Water Samples

Surface water samples were collected from one (1) location on the Erie Barge Canal, one (1) outfall samples and one (1) seep sample. Sample locations were noted on the Field Forms.

3.0 SAMPLING

3.1 Monitoring Wells

All groundwater wells were sampled using precleaned or dedicated 1.25" X 1.25" X 5' stainless steel bailers, perisaltic pumps or bladder (SamplePro) pumps when low flow purging techniques were used. Each bailer was constructed with teflon, bottom-filling check valve and was assembled without glues or welds. New ¼" poly rope was attached to each bailer. The bailer was slowly lowered into the water column, minimizing agitation and devolatilization. Low density polyethylene (LDPE) tubing was used with both the bladder (QED) and the peristaltic pumps. The bladder pumps were decontaminated between sample locations in accordance with the work plan. Personnel exercised care in all aspects of the sampling to ensure the collection of a representative sample. An additional sample container was collected from each well in order to facilitate the measurement of field analytical parameters. Data pertaining to sampling are presented on the Sampling Summary Table and the Field Observation Forms.

3.2 Canal Sampling

When possible, samples were collected directly from the canal into appropriate sample containers. Otherwise, samples were collected with the use of a unique, laboratory-cleaned stainless steel bailer. The bailers were immersed just below the surface and removed. Sample was poured directly into the appropriate container. An additional container was collected to facilitate the measurement of field parameters. Additional data pertaining to these samples is presented in the Sampling Summary Table and Field Observation Forms.

3.3 Seep Sampling

Groundwater samples were collected from seeps at the quarry (QS4) located on Buffalo Road. The samples were collected with the use of a laboratory cleaned stainless steel bucket

and was then poured directly into the appropriate containers. An additional container was collected to facilitate the measurement of field parameters. Data pertaining to this sampling is presented in the Sampling Summary Table and Field Observation Forms.

4.0 SAMPLE CONTAINERS

Monitoring wells and surface water samples requiring analysis for volatile organics were collected into 40 ml glass vials with teflon septa. Samples for semi-volatile and Pyridine analysis were collected into one (1) liter amber glass bottles with teflon-lined caps. All bottles were purchased new and cleaned (Protocol A, 300 series) from Environmental Supply Services. Each container was labeled with the following information:

- Sample Identification (Well/Point I.D.)
- Date
- Project Number
- Sampler's Initials

5.0 FIELD MEASUREMENTS

On-site field measurements were made of each sample's pH, specific conductance and temperature. All measurements were made in accordance with protocols outlined in Methods for Chemical Analysis of Water and Wastes (EPA – 600/4-79-9020). These data were presented on the Sampling Summary Table and Field Observation Forms.

6.0 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

6.1 Trip Blanks

Trip blanks were collected with each sample shipment requiring volatile organic analysis. Each trip blank consisted of two 40 ml glass vials with teflon septa which were filled with deionized water at the STL laboratory. These blanks were transported to the site, stored with field collected samples and submitted to the STL facility for analysis.

6.2 Equipment Rinse Blank

Equipment rinse blanks were collected as required by the work plan.

7.0 CHAIN OF CUSTODY

Chain of custody was initiated at the time of sample collection and maintained through delivery to the STL facility in Amherst, New York. Copies of these documents are included in the analytical report package.

Sampling Summary Table
 HARDING LAWSON ASSOCIATES
 NOVEMBER 2005
 RI SAMPLING/ROCHESTER NY FACILITY

Sample Point	—Water Level—		Water Level (ft)*	Water Elevation (ft)**	Bottom Of Well (ft)*	Field Measurements		pH (STD) (Units)	Spec. Cond. (umhos)	Temp (°C)	Turb. (NTU)	Other Field Measurements
	Date	Time				Date	Time					
BR-105	11/17/2005	1047	22.70	N/A	N/A	11/17/2005	1112	7.76	1711	12.4	0.76	EH(mv)= -217 DO(ppm)= 0.9 Comments: CLEAR
BR-105	11/17/2005	1047	22.70	N/A	N/A	11/17/2005	1114	7.77	1712	12.4	0.69	EH(mv)= -218 DO(ppm)= 0.9 Comments: CLEAR/DUP SAMPLE
BR-105D	11/17/2005	1038	24.73	N/A	N/A	11/17/2005	1110	7.02	11770	10.5	0.98	EH(mv)= -178 DO(ppm)= 0.9 Comments: CLEAR
BR-106	11/17/2005	1150	23.12	N/A	N/A	11/17/2005	1207	7.11	3570	11.4	36.60	EH(mv)= -36 DO(ppm)= 0.9 Comments: CLEAR WITH BLACK SPECKS
BR-119D	11/14/2005	1235	66.11	N/A	N/A	11/14/2005	1305	7.68	4819	10.2	18.40	EH(mv)= -197 DO(ppm)= 0.7 Comments: CLEAR
BR-120D	11/14/2005	1100	56.53	N/A	N/A	11/14/2005	1125	6.88	5571	9.7	43.90	EH(mv)= -201 DO(ppm)= 0.6 Comments: CLEAR
BR-121D	11/14/2005	1140	53.02	N/A	N/A	11/14/2005	1210	8.78	751	10.8	26.70	EH(mv)= -207 DO(ppm)= 0.7 Comments: CLEAR
BR-126	11/17/2005	1315	7.64	N/A	N/A	11/17/2005	1340	7.39	2169	12.0	24.00	EH(mv)= -46 DO(ppm)= 1.6 Comments: CLEAR WITH BLACK SPECKS
BR-127	11/15/2005	1132	3.22	N/A	N/A	11/15/2005	1155	8.00	2539	13.7	8.30	EH(mv)= 21 DO(ppm)= 1.0 Comments: CLEAR WITH BLACK SPECKS
BR-5A	11/16/2005	1050	3.98	N/A	N/A	11/16/2005	1053	9.02	1574	18.1	43.80	EH(mv)= -75 Comments: SL TURBID BROWN
BR-6A	11/15/2005	1209	9.21	N/A	N/A	11/15/2005	1235	8.64	763	15.1	3.01	EH(mv)= -227 DO(ppm)= 0.9 Comments: CLEAR
BR-7A	11/16/2005	1105	29.98	N/A	N/A	11/16/2005	1107	7.79	2392	14.8	15.30	EH(mv)= 10 Comments: SL. TURBID GREY
BR-9	11/16/2005	1100	35.90	N/A	N/A	11/16/2005	1103	8.18	2140	14.0	166.00	EH(mv)= -4 Comments: TURBID GREY
E-1	11/15/2005	1202	1.37	N/A	N/A	11/15/2005	1225	9.60	11340	10.9	13.20	EH(mv)= -19 DO(ppm)= 0.5 Comments: AMBER TINT
MW-106	11/17/2005	1142	10.51	N/A	N/A	11/17/2005	1210	7.11	3146	11.9	10.01	EH(mv)= -41 DO(ppm)= 0.8 Comments: CLEAR
MW-127	11/15/2005	1101	3.89	N/A	N/A	11/15/2005	1130	7.93	3457	13.7	1.53	EH(mv)= 12 DO(ppm)= 0.9 Comments: CLEAR

SG - Specific Gravity * From Top of Riser
 EH - Redox ** Elevation Above Sea Level
 DO - Dissolved Oxygen

NOVEMBER 2005

RI SAMPLING/ROCHESTER NY FACILITY

Sample Point	Water Level		Water Level (ft)*	Water Elevation (ft)**	Bottom Of Well (ft)*	Field Measurements		pH (STD) (Units)	Spec. Cond. (umhos)	Temp (°C)	Turb. (NTU)	Other Field Measurements	
	Date	Time				Date	Time					EH(mv)	DO(ppm)
MW-16	11/21/2005	1253	10.89	N/A	N/A	11/21/2005	1320	7.46	2498	15.8	14.10	EH(mv)= 7	DO(ppm)= 0.96
	Comments: CLEAR												
PW-10	11/16/2005	1030	20.98	N/A	N/A	11/16/2005	1033	8.55	6309	16.2	69.50	EH(mv)= -12	
	Comments: BROWN SL TURBID												
PW-11	11/15/2005	1350	17.81	N/A	N/A	11/15/2005	1355	7.01	4775	14.3	26.90	EH(mv)= -134	
	Comments: CLEAR												
PW-12(BR-101)	11/15/2005	1258	5.38	N/A	N/A	11/15/2005	1320	7.08	5117	14.7	0.60	EH(mv)= -129	DO(ppm)= 0.90
	Comments: CLEAR												
PW-13	11/16/2005	1115	26.27	N/A	N/A	11/16/2005	1117	7.67	2153	12.9	3.73	EH(mv)= 5	
	Comments: CLEAR												
PW-14	11/16/2005	1025	7.15	N/A	N/A	11/16/2005	1027	N/A	3697	15.1	40.00	EH(mv)= -23	
	Comments: SL TURBID BROWN												
PZ-101	11/21/2005	942	12.81	N/A	N/A	11/21/2005	1015	7.14	8475	12.6	1.21	EH(mv)= -22	DO(ppm)= 0.86
	Comments: CLEAR												
PZ-102	11/21/2005	1030	12.31	N/A	N/A	11/21/2005	1053	7.28	6388	12.1	1.24	EH(mv)= -37	DO(ppm)= 0.90
	Comments: CLEAR												
PZ-103	11/21/2005	1107	11.00	N/A	N/A	11/21/2005	1135	7.45	4013	13.1	3.90	EH(mv)= -31	DO(ppm)= 0.98
	Comments: CLEAR												
PZ-104	11/21/2005	1200	12.88	N/A	N/A	11/21/2005	1230	7.54	1710	16.1	2.61	EH(mv)= -9	DO(ppm)= 0.90
	Comments: CLEAR												
PZ-105	11/15/2005	1129	6.41	N/A	N/A	11/15/2005	1150	7.33	2889	14.9	27.80	EH(mv)= -215	DO(ppm)= 0.90
	Comments: SL. TURBID GREY												
PZ-106	11/16/2005	940	7.54	N/A	N/A	11/16/2005	1005	5.75	10500	14.7	5.37	EH(mv)= 80	DO(ppm)= 0.93
	Comments: CLEAR YELLOW TINT												
PZ-107	11/15/2005	1313	5.56	N/A	N/A	11/15/2005	1335	7.91	3186	14.2	1.97	EH(mv)= 36	DO(ppm)= 0.91
	Comments: CLEAR												
QO-2	11/14/2005	0	0.00	N/A	N/A	11/14/2005	1350	8.03	1587	10.2	10.71	EH(mv)= -50	
	Comments: CLEAR												
QO-2S1	11/14/2005	0	0.00	N/A	N/A	11/14/2005	1400	7.97	563	13.6	13.60	EH(mv)= -44	
	Comments: CLEAR												
QS-4	11/14/2005	0	0.00	N/A	N/A	11/14/2005	1035	7.92	1653	9.7	1.67	EH(mv)= -50	
	Comments: CLEAR												

SG - Specific Gravity * From Top of Riser
EH - Redox ** Elevation Above Sea Level
DO - Dissolved Oxygen

Sampling Summary Table
HARDING LAWSON ASSOCIATES
NOVEMBER 2005
RI SAMPLING/ROCHESTER NY FACILITY

Sample Point	—Water Level—		Water Level (ft)*	Water Elevation (ft)**	Bottom Of Well (ft)*	Field Measurements		pH (STD) (Units)	Spec. Cond. (umhos)	Temp (°C)	Turb. (NTU)	Other Field Measurements
	Date	Time				Date	Time					
S-3	11/15/2005	1347	0.52	N/A	N/A	11/15/2005	1410	7.39	2213	13.7	14.80	EH(mv)= 30 DO(ppm)= 1.04
	Comments: CLEAR											
S-4	11/15/2005	1237	0.50	N/A	N/A	11/15/2005	1300	9.25	673	11.8	5.18	EH(mv)= -29 DO(ppm)= 0.96
	Comments: CLEAR											

SG - Specific Gravity
EH - Redox
DO - Dissolved Oxygen

* From Top of Riser
** Elevation Above Sea Level

Date: 01/16/06
Time: 12:00:00

Groundwater Evaluation Report
HARDING LAWS ASSOC.
NOVEMBER 2005
ARCH-ROCHESTER WATER LEVEL MEASUREMENTS

Sample Point	Date	Time	Casing Elevation	Depth to Water	GW Elv.	Comments
B-1	11/14/2005	1208	0.00	8.77	N/A	NO D-NAPL;NO L-NAPL
B-10	11/14/2005	1041	0.00	6.26	N/A	NO D-NAPL;NO L-NAPL
B-11	11/14/2005	1138	0.00	3.35	N/A	
B-13	11/14/2005	1307	0.00	11.96	N/A	
B-14	11/14/2005	1309	0.00	6.83	N/A	
B-15	11/14/2005	1310	0.00	3.39	N/A	
B-16	11/14/2005	1312	0.00	3.13	N/A	
B-17	11/14/2005	1109	0.00	6.33	N/A	NO D-NAPL;NO L-NAPL
B-2	11/14/2005	1211	0.00	9.58	N/A	NO D-NAPL;NO L-NAPL
B-3	11/14/2005	1202	0.00	5.55	N/A	NO D-NAPL;NO L-NAPL
B-4	11/14/2005	1218	0.00	11.89	N/A	NO D-NAPL;NO L-NAPL
B-5	11/14/2005	1225	0.00	9.19	N/A	NO D-NAPL;NO L-NAPL
B-7	11/14/2005	1233	0.00	13.01	N/A	NO D-NAPL;NO L-NAPL
B-8	11/14/2005	1149	0.00	7.09	N/A	NO D-NAPL;NO L-NAPL
B-9	11/14/2005	0	0.00	N/A	N/A	NOT FOUND
BR-1	11/14/2005	1048	0.00	6.92	N/A	NO D-NAPL;NO L-NAPL
BR-102	11/14/2005	1158	0.00	22.42	N/A	NO D-NAPL;NO L-NAPL
BR-103	11/14/2005	1415	0.00	2.60	N/A	
BR-104	11/14/2005	1425	0.00	8.71	N/A	OBSTRUCTION AT 20 FT.
BR-105	11/14/2005	1352	0.00	22.29	N/A	
BR-105D	11/14/2005	1351	0.00	25.43	N/A	
BR-106	11/14/2005	1330	0.00	22.13	N/A	
BR-107	11/14/2005	0	0.00	N/A	N/A	NOT FOUND
BR-108	11/14/2005	1341	0.00	28.36	N/A	
BR-111	11/14/2005	1406	0.00	28.93	N/A	
BR-111D	11/14/2005	1407	0.00	28.65	N/A	
BR-112A	11/14/2005	1400	0.00	27.24	N/A	
BR-112D	11/14/2005	1402	0.00	36.42	N/A	
BR-113	11/14/2005	1418	0.00	31.18	N/A	
BR-113D	11/14/2005	1419	0.00	31.23	N/A	
BR-114	11/14/2005	1420	0.00	13.90	N/A	
BR-116	11/14/2005	1400	0.00	28.52	N/A	
BR-116D	11/14/2005	1403	0.00	35.53	N/A	
BR-117	11/14/2005	1300	0.00	23.23	N/A	

Date: 01/16/2006
Time: 12:00:09

Groundwater Elevation Report
HARDING LAWSON ASSOC.
NOVEMBER 2005
ARCH-ROCHESTER WATER LEVEL MEASUREMENTS

Sample Point	Date	Time	Casing Elevation	Depth to Water	GW Elv.	Comments
BR-117D	11/14/2005	1228	0.00	49.35	N/A	
BR-118	11/14/2005	1250	0.00	35.18	N/A	
BR-118D	11/14/2005	1252	0.00	48.29	N/A	
BR-119D	11/14/2005	1235	0.00	66.11	N/A	
BR-120D	11/14/2005	1100	0.00	56.53	N/A	
BR-121D	11/14/2005	1140	0.00	53.02	N/A	
BR-122D	11/14/2005	1330	0.00	44.49	N/A	
BR-123D	11/14/2005	1335	0.00	45.01	N/A	
BR-124D	11/14/2005	1340	0.00	31.12	N/A	
BR-126	11/14/2005	1530	0.00	7.64	N/A	
BR-127	11/14/2005	1131	0.00	3.54	N/A	NO D-NAPL;NO L-NAPL
BR-2	11/14/2005	1105	0.00	6.97	N/A	NO D-NAPL;NO L-NAPL
BR-2A	11/14/2005	1103	0.00	7.83	N/A	NO D-NAPL;NO L-NAPL
BR-2D	11/14/2005	1106	0.00	0.05	N/A	NO D-NAPL;NO L-NAPL
BR-3	11/14/2005	1120	0.00	8.74	N/A	
BR-3D	11/14/2005	1117	0.00	63.51	N/A	NO D-NAPL;NO L-NAPL
BR-4	11/14/2005	1035	0.00	6.69	N/A	NO D-NAPL;NO L-NAPL
BR-5	11/14/2005	1054	0.00	4.56	N/A	NO D-NAPL;NO L-NAPL
BR-5A	11/14/2005	1055	0.00	4.17	N/A	
BR-6	11/14/2005	1148	0.00	10.37	N/A	NO D-NAPL;NO L-NAPL
BR-6A	11/14/2005	1147	0.00	9.56	N/A	
BR-7	11/14/2005	1239	0.00	30.97	N/A	
BR-7A	11/14/2005	1237	0.00	20.24	N/A	NO D-NAPL;NO L-NAPL
BR-8	11/14/2005	1225	0.00	9.04	N/A	NO D-NAPL;NO L-NAPL
BR-9	11/14/2005	1156	0.00	34.72	N/A	FLOW RATE = 11.58
C-1	11/14/2005	0	0.00	N/A	N/A	NOT FOUND
C-2A	11/14/2005	1105	0.00	7.05	N/A	NO D-NAPL;NO L-NAPL
C-3	11/14/2005	0	0.00	N/A	N/A	OBSTRUCTION AT 4.49 FT.
C-4	11/14/2005	0	0.00	N/A	N/A	NOT FOUND
C-5	11/14/2005	1119	0.00	7.91	N/A	NO D-NAPL;NO L-NAPL
E-1	11/14/2005	1135	0.00	1.51	N/A	
E-2	11/14/2005	1036	0.00	4.61	N/A	NO D-NAPL;NO L-NAPL
E-3	11/14/2005	1052	0.00	4.34	N/A	NO D-NAPL;NO L-NAPL
E-4	11/14/2005	0	0.00	N/A	N/A	OBSTRUCTION AT 2.83 FT.

Date: 01/16/2006
Time: 12:00

Groundwater Evaluation Report
HARDING LAW ASSOC.
NOVEMBER 2005
ARCH-ROCHESTER WATER LEVEL MEASUREMENTS

Sample Point	Date	Time	Casing Elevation	Depth to Water	GW Elv.	Comments
E-5	11/14/2005	1040	0.00	5.92	N/A	NO D-NAPL;NO L-NAPL
EC-1	11/14/2005	1412	0.00	18.24	N/A	
EC-2	11/14/2005	0	0.00	N/A	N/A	DRY AT 12.69 FT.
ERIE CANAL	11/14/2005	1440	0.00	36.60	N/A	
MW-103	11/14/2005	1414	0.00	0.86	N/A	
MW-104	11/14/2005	1424	0.00	7.64	N/A	
MW-105	11/14/2005	1353	0.00	N/A	N/A	DRY AT 18.90 FT.
MW-106	11/14/2005	1331	0.00	11.04	N/A	
MW-107	11/14/2005	0	0.00	N/A	N/A	NOT LOCATED
MW-108	11/14/2005	1342	0.00	12.02	N/A	
MW-114	11/14/2005	1420	0.00	10.69	N/A	
MW-126	11/14/2005	0	0.00	N/A	N/A	NOT LOCATED
MW-127	11/14/2005	1132	0.00	4.14	N/A	NO D-NAPL;NO L-NAPL
MW-16	11/14/2005	1410	0.00	11.04	N/A	
MW-2	11/14/2005	0	0.00	N/A	N/A	NOT LOCATED
MW-3	11/14/2005	1505	0.00	5.72	N/A	
MW-G6	11/14/2005	1500	0.00	3.96	N/A	
MW-G7	11/14/2005	1456	0.00	3.47	N/A	
MW-G8	11/14/2005	1453	0.00	6.87	N/A	
MW-G9	11/14/2005	1450	0.00	7.97	N/A	
N-1	11/14/2005	1047	0.00	N/A	N/A	OBSTRUCTED AT 3.04 FT.
N-2	11/14/2005	1044	0.00	3.94	N/A	NO D-NAPL;NO L-NAPL
N-3	11/14/2005	1042	0.00	5.93	N/A	NO D-NAPL;NO L-NAPL
NESS-E	11/14/2005	1438	0.00	18.89	N/A	
NESS-W	11/14/2005	1445	0.00	29.17	N/A	
PW-10	11/14/2005	1111	0.00	15.11	N/A	NO L- NAPL
PW-11	11/14/2005	1123	0.00	18.47	N/A	
PW-12 (BR-101)	11/14/2005	1059	0.00	5.60	N/A	
PW-13	11/14/2005	1300	0.00	26.20	N/A	L-NAPL PRESENT = 0.4 FT. ; NO D-NAPL
PW-14	11/14/2005	1124	0.00	8.00	N/A	
PZ-101	11/14/2005	1247	0.00	13.21	N/A	NO D-NAPL;NO L-NAPL
PZ-102	11/14/2005	1253	0.00	12.61	N/A	NO D-NAPL;NO L-NAPL
PZ-103	11/14/2005	1225	0.00	11.45	N/A	NO D-NAPL;NO L-NAPL
PZ-104	11/14/2005	1230	0.00	12.88	N/A	

Date: 01/16/2006
Time: 12:00:09

Groundwater Elevation Report
HARDING LAWSON ASSOC.
NOVEMBER 2005
ARCH-ROCHESTER WATER LEVEL MEASUREMENTS

Sample Point	Date	Time	Casing Elevation	Depth to Water	GW Elv.	Comments
PZ-105	11/14/2005	1153	0.00	6.41	N/A	NO D-NAPL;NO L-NAPL
PZ-106	11/14/2005	1125	0.00	8.12	N/A	NO D-NAPL;NO L-NAPL
PZ-107	11/14/2005	1143	0.00	5.84	N/A	NO D-NAPL;NO L-NAPL
S-1	11/14/2005	1151	0.00	0.59	N/A	NO D-NAPL;NO L-NAPL
S-2	11/14/2005	1150	0.00	3.29	N/A	
S-3	11/14/2005	1145	0.00	0.52	N/A	
S-4	11/14/2005	1140	0.00	0.77	N/A	
W-1	11/14/2005	0	0.00	N/A	N/A	OBSTRUCTED
W-2	11/14/2005	1214	0.00	10.82	N/A	NO D-NAPL;NO L-NAPL
W-3	11/14/2005	1216	0.00	3.56	N/A	NO D-NAPL;NO L-NAPL
W-4	11/14/2005	1222	0.00	4.17	N/A	NO D-NAPL;NO L-NAPL
W-5	11/14/2005	1241	0.00	6.50	N/A	NO D-NAPL;NO L-NAPL
W-6	11/14/2005	1235	0.00	11.27	N/A	NO D-NAPL;NO L-NAPL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: BR-105D

Field Personnel: P.LITTLE/T.PALMER

Sample Matrix: GW

MONITORING WELL INSPECTION:

Date/Time 11-17-05 1 1038

Cond of seal: (Good) (Cracked) _____ %
 (None) (Buried)

Prot. Casing/riser height: _____

Cond of prot. Casing/riser: (Unlocked) (Good)
 (Loose) (Flush Mount)
 (Damaged) _____

If prot.casing; depth to riser below: _____

Gas Meter (Calibration/ Reading): % Gas: — / — % LEL: — / —

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm): OT - 2

PURGE INFORMATION:

Date / Time Initiated: 11-17-05 / 1045

Date / Time Completed: 11-17-05 / 1110

Surf. Meas. Pt: (Prot. Casing) (Riser)

Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 24.73

Elevation. GW MSL: _____

Well Total Depth, Feet: _____

Method of Well Purge: BLADDER PUMP PERISTALTIC

One (1) Riser Volume, Gal: _____

Dedicated: Y (N)

Total Volume Purged, Gal: _____

Purged To Dryness Y (N)

Purge Observations: _____

Start Clear Finish Clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1050	<small>gpm</small> 300	<small>wt</small> 25.02	10.7	7.11	10,480	1.15	-154	1.02
1055			10.5	7.14	11,340	1.03	-191	0.99
1100			10.6	7.09	11,590	1.34	-179	0.98
1105			10.4	7.03	11,640	0.97	-173	0.95
1110			10.5	7.02	11,770	0.98	-173	0.95

SAMPLED AT 1110

11-17-05 PAGE 1 OF 2

[Signature]

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION:

POINT ID _____

Date/Time _____ / _____

Water Level @ Sampling, Feet: _____

Method of Sampling: BLADDER PUMP
PERISTALTIC Dedicated: Y / N

Multi-phased/ layered: () Yes () No If YES: () light () heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ()	Other ()

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 NTU std. = 20 NTU 23 NTU std. = 20 NTU

Solutions: CHA-48-E

pH Serial #: ^{MP2} 1200 4.0 std. = 4.00 7.0 std. = 7.00 10.0 std. = _____

Solutions: 4-5045 7-5015

Conductivity Serial #: ^{MP2} 1200 1392 umhos/cm = 1352 _____ umhos/cm = _____

Solutions: 3312

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

Date: 1 / 1 By: _____ Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: BR-105

Field Personnel: P.LITTLE/T.PALMER

Sample Matrix: GW

MONITORING WELL INSPECTION:

Date/Time 11-17-05 , 1047

Cond of seal: Good () Cracked _____ %
() None () Buried

Prot. Casing/riser height: —

Cond of prot. Casing/riser: () Unlocked () Good
() Loose Flush Mount
() Damaged _____

If prot.casing; depth to riser below: —

Gas Meter (Calibration/ Reading): % Gas: — / — % LEL: — / —

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm): 0 / 0

PURGE INFORMATION:

Date / Time Initiated: 11-17-05 / 1050

Date / Time Completed: 11-17-05 / 1112

Surf. Meas. Pt: () Prot. Casing Riser

Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 22.70

Elevation. GW MSL: _____

Total Depth, Feet: _____

Method of Well Purge: BLADDER PUMP PERISTALTIC

One (1) Riser Volume, Gal: _____

Dedicated: Y N

Total Volume Purged, Gal: _____

Purged To Dryness Y N

Purge Observations: _____

Start Clear Finish Clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1057	<u>350</u> <u>22.73</u>		<u>12.4</u>	<u>7.75</u>	<u>1723</u>	<u>1.57</u>	<u>-213</u>	<u>1.11</u>
1102			<u>12.1</u>	<u>7.70</u>	<u>1633</u>	<u>0.84</u>	<u>-213</u>	<u>1.02</u>
1107			<u>12.3</u>	<u>7.77</u>	<u>1682</u>	<u>0.62</u>	<u>-215</u>	<u>0.98</u>
1112			<u>12.4</u>	<u>7.76</u>	<u>1711</u>	<u>0.76</u>	<u>-217</u>	<u>0.95</u>

Dup Taken

SAMPLED AT 1112 on 11-17-05

Dup Taken

Thom Palmer

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION:

POINT ID _____

Date/Time _____ / _____

Water Level @ Sampling, Feet: _____

Method of Sampling: BLADDER PUMP
PERISTALTIC Dedicated: Y / N

Multi-phased/ layered: () Yes () No If YES: () light () heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (<u>NI</u>)	Other (<u>NO</u>)
1114	12.4	7.77	1712	0.69	-218	0.93

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

pH Serial #: _____ 4.0 std.= _____ 7.0 std.= _____ 10.0 std. = _____

Solutions: 4-5045 7-5015

Conductivity Serial #: _____ umhos/cm= _____ umhos/cm= _____

Solutions: 3312

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

Date: / / By: _____ Company: STL

FIELD OBSERVATIONS

Utility: ARCH CHEMICAL

Sample Point ID: BR-106

Field Personnel: P.LITTLE/T.PALMER

Sample Matrix: GW

MONITORING WELL INSPECTION:

Date/Time 11-17-05 1 1150

Cond of seal: Good Cracked _____ %
 None Buried

Prot. Casing/riser height: _____

Cond of prot. Casing/riser: Unlocked Good
 Loose Flush Mount
 Damaged _____

If prot.casing; depth to riser below: _____

Gas Meter (Calibration/ Reading): _____ % Gas: — / — % LEL: — / —

Vol. Organic Meter (Calibration/Reading): _____ Volatiles (ppm): — / —

PURGE INFORMATION:

Date / Time Initiated: 11-17-05 / 1152

Date / Time Completed: 11-17-05 / 1207

Surf. Meas. Pt: Prot. Casing Riser

Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 23.12

Elevation. G/W MSL: _____

Well Total Depth, Feet: _____

Method of Well Purge: BLADDER PUMP PERISTALTIC

One (1) Riser Volume, Gal: _____

Dedicated: Y N

Total Volume Purged, Gal: _____

Purged To Dryness Y N

Purge Observations: _____

Start Clear w/ Finish Stagnant

Black + white swabs

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1157	<u>ml/min</u> <u>360</u> <u>23.13</u>		<u>11.2</u>	<u>7.09</u>	<u>3539</u>	<u>47.0</u>	<u>-29</u>	<u>0.94</u>
1202	<u>↓</u>		<u>11.2</u>	<u>7.12</u>	<u>3548</u>	<u>35.9</u>	<u>-34</u>	<u>0.97</u>
1207	<u>↓</u>		<u>11.4</u>	<u>7.11</u>	<u>3570</u>	<u>36.6</u>	<u>-36</u>	<u>0.96</u>

SAMPLED AT 1207 ON 11-17-05
Thom Palmer

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION:

POINT ID _____

Date/Time _____ / _____ / _____

Water Level @ Sampling, Feet: _____

Method of Sampling: BLADDER PUMP
PERISTALTIC Dedicated: Y / N

Multi-phased/ layered: () Yes () No If YES: () light () heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ()	Other ()

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

pH Serial #: _____ 4.0 std.= _____ 7.0 std.= _____ 10.0 std. = _____

Solutions: 4-5045 7-5015

Conductivity Serial #: _____ umhos/cm= _____ umhos/cm= _____

Solutions: 3312

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

Date: _____ / _____ / _____ By: _____ Company: STL

FIELD OBSERVATIONS

Facility: ACCH

Sample Point ID: BC-119 D

Field Personnel: R. SANC / K. ORRICK

Sample Matrix: G/W

MONITORING WELL INSPECTION:

Date/Time 11-14-05 1 1235

Cond of seal: ^{RS} ~~(X) Good~~ () Cracked _____ %
~~(X) None~~ () Buried

Prot. Casing/riser height: _____

Cond of prot. Casing/riser: () Unlocked ~~(X) Good~~
 () Loose () Flush Mount
 () Damaged _____

If prot.casing; depth to riser below: _____

Gas Meter (Calibration/ Reading): % Gas: — 1 —

% LEL: — 1 —

Vol. Organic Meter (Calibration/Reading):

Volatiles (ppm): — 1 —

PURGE INFORMATION:

Date / Time Initiated: 11-14-05 1240

Date / Time Completed: 11-14-05 11305

Surf. Meas. Pt: () Prot. Casing ~~(X) Riser~~

Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 66.11

Elevation, GW MSL: _____

Well Total Depth, Feet: 110.95

Method of Well Purge: BLACK PUMP

One (1) Riser Volume, Gal: _____

Dedicated: ~~(Y)~~ ~~(N)~~

Total Volume Purged, Gal: _____

Purged To Dryness ~~(Y)~~ ~~(N)~~

Purge Observations: _____

Start BLACK TINT Finish CLEAR

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1250	^{ml/min} 100 ^{WC} 66.19		10.4	7.71	4802	26.0	-186	0.82
1255	66.20		10.3	7.70	4818	19.2	-200	0.78
1300	66.20		10.3	7.69	4816	18.4	-203	0.73
1305	↓ 66.20		10.2	7.68	4819	18.4	-197	0.70

Handwritten notes:
 35.18
 48.29

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION:

POINT ID BR-119D

Date/Time 11-14-05 1 1310

Water Level @ Sampling, Feet: 66.20

Method of Sampling: BLADDER PUMP Dedicated: IN

Multi-phased/ layered: () Yes No If YES: () light () heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ()	Other ()

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

pH Serial #: _____ 4.0 std.= _____ 7.0 std.= _____ 10.0 std. = _____

Solutions: _____

Conductivity Serial #: _____ umhos/cm= _____ umhos/cm= _____

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: Sunny, 50°P

Sample Characteristics: CC99E

COMMENTS AND OBSERVATIONS: _____

certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

Date: 11/14/05 By:  Company: SR

FIELD OBSERVATIONS

Facility: ARCA

Sample Point ID: BR-120 D

Field Personnel: R. SANK / K. OAKLEY

Sample Matrix: G/W

MONITORING WELL INSPECTION:

Date/Time 11-14-05 1 1100

Cond of seal: () Good () Cracked _____ %
 None () Buried

Prot. Casing/riser height: _____

Cond of prot. Casing/riser: () Unlocked Good
 () Loose () Flush Mount
 () Damaged _____

If prot.casing; depth to riser below: _____

Gas Meter (Calibration/ Reading): % Gas: - 1 - % LEL: - 1 -

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm): - 1 -

PURGE INFORMATION:

Date / Time Initiated: 11-14-05 1 1105

Date / Time Completed: 11-14-05 1 1125

Surf. Meas. Pt: () Prot. Casing Riser

Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 56.53

Elevation. G/W MSL: _____

Well Total Depth, Feet: 97.25

Method of Well Purge: BLADDER PUMP

One (1) Riser Volume, Gal: _____

Dedicated: Y N

Total Volume Purged, Gal: _____

Purged To Dryness Y N

Purge Observations: _____

Start Clear Finish Clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/ft)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1110	100 56.70		10.7	7.19	5830	42.6	-260	1.32
1115	100 56.70		10.0	6.91	5613	44.0	-217	0.70
1120	100 56.68		9.8	6.85	5573	43.7	-210	0.68
1125	100 56.68		9.7	6.88	5571	43.9	-201	0.65

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION:

POINT ID BR-120 D

Date/Time 11-14-05 1 11:30

Water Level @ Sampling, Feet: 56.68

Method of Sampling: BL9000a DUMP Dedicated: Y N

Multi-phased/ layered: () Yes No If YES: () light () heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ()	Other ()

INSTRUMENT CHECK DATA:

Turbidity Serial #: 4424 NTU std. = 20 NTU 20 NTU std. = 20 NTU

Solutions: CHA-48-E

pH Serial #: ^{MP20}1201 4.0 std. = 400 7.0 std. = 200 10.0 std. =

Solutions: 4-5095 7-5015

Conductivity Serial #: ^{MP20}1201 1392 umhos/cm = 1392 umhos/cm =

Solutions: 3312

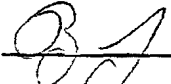
GENERAL INFORMATION:

Weather conditions @ time of sampling: SUNNY, 50°K

Sample Characteristics: CLEAR

COMMENTS AND OBSERVATIONS:

certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

Date: 11 14 05 By:  Company: STC

FIELD OBSERVATIONS

Facility: AECH

Sample Point ID: BR-121 D

Field Personnel: R. SENE / K. OAKLEY

Sample Matrix: G/W

MONITORING WELL INSPECTION:

Date/Time 11-14-05 1 1140

Cond of seal: () Good () Cracked _____ %
 None () Buried

Prot. Casing/riser height: _____

Cond of prot. Casing/riser: () Unlocked Good
 () Loose () Flush Mount
 () Damaged _____

If prot.casing; depth to riser below: _____

Gas Meter (Calibration/ Reading): % Gas: - 1 - % LEL: - 1 -

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm): - 1 -

PURGE INFORMATION:

Date / Time Initiated: 11-14-05 1 1145

Date / Time Completed: 11-14-05 1 1210

Surf. Meas. Pt: () Prot. Casing Riser

Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 53.02

Elevation. GW MSL: _____

Well Total Depth, Feet: 94.60

Method of Well Purge: BLADDER PUMP

One (1) Riser Volume, Gal: _____

Dedicated: Y N

Total Volume Purged, Gal: _____

Purged To Dryness Y N

Purge Observations: _____

Start BLACK TINT Finish CLEAR

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1150	^{MP/MP} 100	WL 53.15	10.9	8.32	858	20.9	-250	0.89
1155		53.15	10.8	8.69	791	22.3	-213	0.72
1200		53.15	10.8	8.74	777	23.3	-212	0.73
1210	↓	53.15	10.8	8.78	751	26.7	-207	0.75

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION:

POINT ID BL-121 D

Date/Time 11-14-05 1 1215

Water Level @ Sampling, Feet: 53.15

Method of Sampling: BLADDER PUMP Dedicated: Y N

Multi-phased/ layered: () Yes No If YES: () light () heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ()	Other ()

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

pH Serial #: _____ 4.0 std.= _____ 7.0 std.= _____ 10.0 std. = _____

Solutions: _____

Conductivity Serial #: _____ umhos/cm= _____ umhos/cm= _____

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: SUNNY, 50°F

Sample Characteristics: CLEAR

COMMENTS AND OBSERVATIONS: _____

certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

Date: 11/14/05 By: [Signature] Company: STC

FIELD OBSERVATIONS

Utility: ARCH CHEMICAL

Sample Point ID: BR-124

Field Personnel: P.LITTLE/T.PALMER

Sample Matrix: GW

MONITORING WELL INSPECTION:

Date/Time 11-17-05 , 1315

Cond of seal: () Good () Cracked _____ %
() None Buried

Prot. Casing/riser height: _____

Cond of prot. Casing/riser: () Unlocked () Good
() Loose Flush Mount
() Damaged _____

If prot.casing; depth to riser below: _____

Gas Meter (Calibration/ Reading): _____ % Gas: 1 % LEL: 1

Vol. Organic Meter (Calibration/Reading): _____ Volatiles (ppm): 1

PURGE INFORMATION:

Date / Time Initiated: 11-17-05 / 1320

Date / Time Completed: 11-17-05 / 1340

Surf. Meas. Pt: () Prot. Casing Riser

Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 764

Elevation. G/W MSL: _____

Well Total Depth, Feet: _____

Method of Well Purge: BLADDER PUMP PERISTALTIC

One (1) Riser Volume, Gal: _____

Dedicated: Y N

Total Volume Purged, Gal: _____

Purged To Dryness Y N

Purge Observations: _____

Start Clear Finish Clear
w/ Blat spray w/ Blat spray

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1325	<u>400</u> <u>7.65</u>		11.7	7.48	2201	25.2	-43	1.91
1330	<u>1</u> <u>1</u>		11.6	7.35	2165	30.1	-49	1.80
1335	<u>1</u> <u>1</u>		11.8	7.40	2165	29.7	-43	1.72
1340	<u>1</u> <u>1</u>		12.0	7.39	2169	24.0	-46	1.65

SAMPLED AT 1340 ON 11-17-05
[Signature]

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION:

POINT ID _____

Date/Time _____ / _____

Water Level @ Sampling, Feet: _____

Method of Sampling: BLADDER PUMP
PERISTALTIC Dedicated: Y / N

Multi-phased/ layered: () Yes () No If YES: () light () heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ()	Other ()

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

pH Serial #: _____ 4.0 std.= _____ 7.0 std.= _____ 10.0 std. = _____

Solutions: 4-5045 7-5015

Conductivity Serial #: _____ umhos/cm= _____ umhos/cm= _____

Solutions: 3312

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

Date: / / By: _____ Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: BR-127

Field Personnel: P.LITTLE/T.PALMER

Sample Matrix: GW

MONITORING WELL INSPECTION:

Date/Time 11-15-05 / 1132

Cond of seal: Good () Cracked _____ %
() None () Buried

Prot. Casing/riser height: _____

Cond of prot. Casing/riser: () Unlocked Good
() Loose () Flush Mount
() Damaged _____

If prot.casing; depth to riser below: _____

Gas Meter (Calibration/ Reading): _____ % Gas: — / — % LEL: — / —

Vol. Organic Meter (Calibration/Reading): _____ Volatiles (ppm): 0 / 0

PURGE INFORMATION:

Date / Time Initiated: 11-15-05 / 1135

Date / Time Completed: 11-15-05 / 1155

Surf. Meas. Pt: () Prot. Casing () Riser

Riser Diameter, Inches: 6.0

Initial Water Level, Feet: 3.22

Elevation, GW MSL: _____

Total Depth, Feet: 50.63

Method of Well Purge: BLADDER PUMP PERISTALTIC

One (1) Riser Volume, Gal: _____

Dedicated: Y / N

Total Volume Purged, Gal: 20

Purged To Dryness Y / N

Purge Observations: _____

Start Gray Tint w/ Bladder Specifics Finish Clear w/ Bladder Specifics

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1140	$\frac{1.06}{106}$ / $\frac{3.23}{323}$		13.3	8.01	2661	9.11	35	1.14
1145	↓ / 3.24		13.5	8.00	2545	8.65	19	1.06
1150	↓ / ↓		13.5	8.02	2543	7.63	21	1.04
1155	↓ / ↓		13.7	8.00	2539	8.30	21	1.01

SAMPLED AT 1156 / 11-15-05
Thom Palmer

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION:

POINT ID _____

Date/Time _____ / _____

Water Level @ Sampling, Feet: _____

Method of Sampling: BLADDER PUMP PERISTALTIC Dedicated: Y / N

Multi-phased/ layered: () Yes () No If YES: () light () heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ()	Other ()

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

pH Serial #: _____ 4.0 std.= _____ 7.0 std.= _____ 10.0 std. = _____

Solutions: 4-5045 7-5015

Conductivity Serial #: _____ umhos/cm= _____ umhos/cm= _____

Solutions: 3312

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

Date: / / By: _____ Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: PO BA-5A

Field Personnel: P. Little, K. OAKES Sample Matrix: GW
 Grab Composite

SAMPLING INFORMATION:

Date/Time 11-16-05 1 1050 Water Level @ Sampling, Feet: 3.98

Method of Sampling: INSITU PUMP SAMPLE POINT Dedicated: IN

Multi-phased/ layered: Yes No If YES: light heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (OK)	Other ()
1053	18.1	9.02	1574	43.8	-75	

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 NTU std. = 20 NTU 20 NTU std. = 20 NTU
Solutions: CHA-48-E

pH Serial #: 614162 4.0 std. = 4.00 7.0 std. = 7.00 10.0 std. = _____
Solutions: 4-5045, 7-5015

Conductivity Serial #: 614162 1282 umhos/cm = 1282 umhos/cm = _____
Solutions: 3312

GENERAL INFORMATION:

Weather conditions @ time of sampling: RAIN 50°

Sample Characteristics: SLTUBED BROWN

COMMENTS AND OBSERVATIONS:

Verify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

Date: 11/16/05 By: ML Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: BR-6A

Field Personnel: P.LITTLE/T.PALMER

Sample Matrix: GW

MONITORING WELL INSPECTION:

Date/Time 11-15-05 1209

Cond of seal: () Good () Cracked _____ %
() None () Buried

Prot. Casing/riser height: _____

Cond of prot. Casing/riser: () Unlocked () Good
() Loose () Flush Mount
() Damaged _____

If prot.casing; depth to riser below: _____

Gas Meter (Calibration/ Reading): % Gas: 1

% LEL: 1

Vol. Organic Meter (Calibration/Reading):

Volatiles (ppm): 1

PURGE INFORMATION:

Date / Time Initiated: 11-15-05 / 1210

Date / Time Completed: 11-15-05

Surf. Meas. Pt: Prot. Casing () Riser

Riser Diameter, Inches: _____

Initial Water Level, Feet: 9.21

Elevation, GW MSL: _____

Well Total Depth, Feet: _____

Method of Well Purge: BLADDER PUMP PERISTALTIC

One (1) Riser Volume, Gal: _____

Dedicated: Y N

Total Volume Purged, Gal: _____

Purged To Dryness Y N

Purge Observations: _____

Start Clear Finish Clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1215	<u>200</u>	<u>9-21</u>	<u>14.9</u>	<u>8.56</u>	<u>770</u>	<u>4.11</u>	<u>-240</u>	<u>1.15</u>
1220	<u>↓</u>	<u>↓</u>	<u>15.5</u>	<u>8.52</u>	<u>776</u>	<u>3.89</u>	<u>-237</u>	<u>1.11</u>
1225	<u>↓</u>	<u>↓</u>	<u>14.8</u>	<u>8.55</u>	<u>768</u>	<u>3.29</u>	<u>-230</u>	<u>1.01</u>
1230	<u>↓</u>	<u>↓</u>	<u>15.0</u>	<u>8.60</u>	<u>760</u>	<u>3.15</u>	<u>-228</u>	<u>0.97</u>
1235	<u>↓</u>	<u>↓</u>	<u>15.1</u>	<u>8.64</u>	<u>763</u>	<u>3.01</u>	<u>-227</u>	<u>0.95</u>

SAMPLED AT 1240 / 11-15-05
P.Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION:

POINT ID _____

Date/Time _____ / _____

Water Level @ Sampling, Feet: _____

Method of Sampling: BLADDER PUMP PERISTALTIC Dedicated: Y / N

Multi-phased/ layered: () Yes () No If YES: () light () heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ()	Other ()

INSTRUMENT CHECK DATA:

Turbidity Serial #: 4424 NTU std. = 20 NTU 20 NTU std. = 20 NTU

Solutions: CHA-48-E

pH Serial #: ^{MP 20}1201 4.0 std.= 4.00 7.0 std.= 7.00 10.0 std. = _____

Solutions: 4-5045 7-5015

Conductivity Serial #: ^{MP 20}1201 1352 umhos/cm = 1352 umhos/cm = _____

Solutions: 3312

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

D: / / By: _____ Company: STL

FIELD OBSERVATIONS

Facility: ARLCH CHEMICAL

Sample Point ID: BL-7A

Field Personnel: P. Little, K. OAHLEY

Sample Matrix: GW

Grab Composite

SAMPLING INFORMATION:

Date/Time 11-16-05 1 1105

Water Level @ Sampling, Feet: 29.98

Method of Sampling: INSITU PUMP SAMPLE POINT Dedicated: Y N

Multi-phased/ layered: Yes No If YES: light heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (KAP)	Other ()
1107	14.8	7.79	23.82	15.3	10	

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

pH Serial #: _____ 4.0 std. = _____ 7.0 std. = _____ 10.0 std. = _____

Solutions: _____

Conductivity Serial #: _____ umhos/cm = _____ umhos/cm = _____

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: Clear 50°

Sample Characteristics: SL. TURBID GAY

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

Date: 11/16/05 By: [Signature] Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: BR-9

Field Personnel: P. Little, K. GANLEY

Sample Matrix: GW
 Grab Composite

SAMPLING INFORMATION:

Date/Time 11-16-05 1 1100

Water Level @ Sampling, Feet: 35.80

Method of Sampling: INSITU Pump Sample Point Dedicated: IN

Multi-phased/ layered: Yes No If YES: light heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ()	Other ()
1103	14.0	8.18	2140	166	- 4	

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

pH Serial #: _____ 4.0 std. = _____ 7.0 std. = _____ 10.0 std. = _____

Solutions: _____

Conductivity Serial #: _____ umhos/cm = _____ umhos/cm = _____

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: Rain 50°

Sample Characteristics: Turbid 600

COMMENTS AND OBSERVATIONS: _____

Verify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

Date: 11/16/05 By: [Signature] Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: E-1

Field Personnel: P.LITTLE/T.PALMER

Sample Matrix: GW

MONITORING WELL INSPECTION:

Date/Time 11-15-05 , 1202

Vault

Cond of seal: () Good () Cracked _____ %
 () None () Buried

Prof. Casing/riser height: _____

Cond of prof. Casing/riser: () Unlocked () Good
 () Loose () Flush Mount
 () Damaged _____

If prot.casing; depth to riser below: _____

Gas Meter (Calibration/ Reading): % Gas: — / — % LEL: — / —

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm) — / —

PURGE INFORMATION:

Date / Time Initiated: 11-15-05 / 1205

Date / Time Completed: 11-15-05

Surf. Meas. Pt: () Prot. Casing () Riser

Riser Diameter, Inches: Vault

Initial Water Level, Feet: 1.37

Elevation, GW MSL: _____

Well Total Depth, Feet: _____

Method of Well Purge: ~~BLADDER PUMP~~
PERISTALTIC

One (1) Riser Volume, Gal: _____

Dedicated: Y / N

Total Volume Purged, Gal: 2.0

Purged To Dryness Y / N

Purge Observations: _____

Start Ambra Trnt Finish Ambra Trnt

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1210	<u>ml/min</u> <u>W.L.</u>		11.1	8.79	10930	16.6	50	0.61
1215			11.0	9.52	11,320	16.1	-18	0.58
1220			10.9	9.59	11,340	14.9	-16	0.57
1225			10.9	9.60	11,340	13.2	-19	0.55

SAMPLED AT 1225 on 11-15-05
Thom Palmer

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION:

POINT ID _____

Time _____ / _____

Water Level @ Sampling, Feet: _____

Method of Sampling: BLADDER PUMP
PERISTALTIC Dedicated: Y / N

Multi-phased/ layered: () Yes () No If YES: () light () heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ()	Other ()

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

pH Serial #: _____ 4.0 std.= _____ 7.0 std.= _____ 10.0 std. = _____

Solutions: 4-5045 7-5015

Conductivity Serial #: _____ umhos/cm= _____ umhos/cm= _____

Solutions: 3312

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

Date: _____ / _____ / _____ By: _____ Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: MW-106

Field Personnel: P.LITTLE/T.PALMER

Sample Matrix: GW

MONITORING WELL INSPECTION:

Date/Time 11-17-05 , 1142

Cond of seal: () Good () Cracked _____ %
 () None () Buried _____

Prot. Casing/riser height: _____

Cond of prot. Casing/riser: () Unlocked () Good
 () Loose () Flush Mount
 () Damaged _____

If prot.casing; depth to riser below: _____

Gas Meter (Calibration/ Reading): % Gas: — / — % LEL: — / —

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm) — / —

PURGE INFORMATION:

Date / Time Initiated: 11-17-05 / 1145

Date / Time Completed: 11-17-05 / 1210

Surf. Meas. Pt: () Prot. Casing () Riser

Riser Diameter, Inches: 2-0

Initial Water Level, Feet: 1051

Elevation, G/W MSL: _____

Well Total Depth, Feet: _____

Method of Well Purge: BLADDER PUMP PERISTALTIC

One (1) Riser Volume, Gal: _____

Dedicated: TPS (N)

Total Volume Purged, Gal: _____

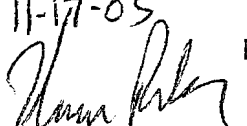
Purged To Dryness Y () N ()

Purge Observations: _____

Start Turbid Finish Clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1150	<u>320</u>	<u>10.64</u>		<u>11.8</u>	<u>7.39</u>	<u>2209</u>	<u>86.6</u>	<u>-48</u>	<u>1.01</u>
1155				<u>12.2</u>	<u>7.18</u>	<u>2675</u>	<u>48.2</u>	<u>-37</u>	<u>0.97</u>
1200				<u>12.0</u>	<u>7.15</u>	<u>3069</u>	<u>15.4</u>	<u>-41</u>	<u>0.93</u>
1205				<u>12.1</u>	<u>7.11</u>	<u>3116</u>	<u>17.4</u>	<u>-42</u>	<u>0.90</u>
1210	<u>L</u>	<u>L</u>		<u>11.9</u>	<u>7.11</u>	<u>3146</u>	<u>10.01</u>	<u>-41</u>	<u>0.88</u>

SAMPLED AT 1210 on 11-17-05


FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION:

POINT ID _____

Date/Time _____ / _____ / _____

Water Level @ Sampling, Feet: _____

Method of Sampling: BLADDER PUMP PERISTALTIC Dedicated: Y / N

Multi-phased/ layered: () Yes () No If YES: () light () heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ()	Other ()

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

pH Serial #: _____ 4.0 std.= _____ 7.0 std.= _____ 10.0 std. = _____

Solutions: 4-5045 7-5015

Conductivity Serial #: _____ umhos/cm= _____ umhos/cm= _____

Solutions: 3312

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

D _____ / /

By: _____

Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: MW-127

Field Personnel: P.LITTLE/T.PALMER

Sample Matrix: GW

MONITORING WELL INSPECTION:

Date/Time 11-15-05 / 1101

Cond of seal: Good () Cracked _____ %
() None () Buried

Prot. Casing/riser height: _____

Cond of prot. Casing/riser: () Unlocked Good
() Loose () Flush Mount
() Damaged _____

If prot.casing; depth to riser below: _____

Gas Meter (Calibration/ Reading): _____ % Gas: 1 % LEL: 1

Vol. Organic Meter (Calibration/Reading): _____ Volatiles (ppm) 0 / 0

PURGE INFORMATION:

Date / Time Initiated: 11-15-05 / 1105

Date / Time Completed: 11-15-05 / 1130

Surf. Meas. Pt: () Prot. Casing Riser

Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 3.89

Elevation, GW MSL: _____

Well Total Depth, Feet: 11.25

Method of Well Purge: ~~BLADDER PUMP~~ PERISTALTIC

One (1) Riser Volume, Gal: _____

Dedicated: Y / N

Total Volume Purged, Gal: 210

Purged To Dryness Y / N

Purge Observations: _____

Start clean Finish clean

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1110	<small>min</small> 4.07		13.6	8.09	3487	2.77	-15	1.23
	<small>100ml</small> 4.07							
1115	50	4.23	13.6	8.08	3466	2.22	8	1.09
1120	50	4.30	13.6	8.00	3454	2.68	10	0.97
1125	50	4.32	13.7	7.95	3458	1.55	11	0.95
1130	50	4.35	13.7	7.93	3457	1.53	12	0.92

SAMPLED AT Well sampler @ 1130 / 11-15-05

Thom Palmer

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION:

POINT ID _____

Date/Time _____ / _____

Water Level @ Sampling, Feet: _____

Method of Sampling: BLADDER PUMP PERISTALTIC Dedicated: Y / N

Multi-phased/ layered: () Yes () No If YES: () light () heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ()	Other ()

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 NTU std. = 20 NTU 20 NTU std. = 20 NTU

Solutions: CHA-48-E
MP 20

pH Serial #: 1200 4.0 std. = 4.00 7.0 std. = 7.00 10.0 std. = _____

Solutions: 4-5045 7-5015

Conductivity Serial #: MP 20 1200 1382 umhos/cm = 1382 umhos/cm = _____

Solutions: 3312

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

Dr. / / By: _____ Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: MW-16
 Field Personnel: P.LITTLE/T.PALMER Sample Matrix: GW

MONITORING WELL INSPECTION:

Date/Time 11-21-05 1 1253 Cond of seal: Good () Cracked _____ %
 () None () Buried _____
 Prof. Casing/riser height: _____ Cond of prot. Casing/riser: () Unlocked () Good
 () Loose Flush Mount
 () Damaged _____
 If prot.casing; depth to riser below: _____
 Gas Meter (Calibration/ Reading): _____ % Gas: - 1 - % LEL: - 1 -
 Vol. Organic Meter (Calibration/Reading): _____ Volatiles (ppm): - 1 -

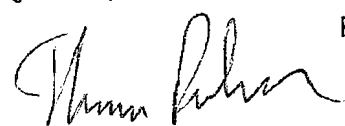
PURGE INFORMATION:

Date / Time Initiated: 11-21-05 / 1255 Date / Time Completed: 11-21-05 / 1320
 Surf. Meas. Pt: () Prot. Casing Riser Riser Diameter, Inches: 4.0
 Initial Water Level, Feet: 10.89 Elevation. G/W MSL: _____
 Well Total Depth, Feet: 34.40 Method of Well Purge: BLADDER PUMP PERISTALTIC
 One (1) Riser Volume, Gal: _____ Dedicated: Y / N
 Total Volume Purged, Gal: _____ Purged To Dryness Y / N
 Purge Observations: _____ Start Turbid Finish clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1300	<small>gpm/min</small> 360	<small>WL</small> 10.90	16.9	7.63	1891	125.0	-9	1.21
1305	200		16.2	7.65	1708	96.6	-2	1.11
1310	150		15.7	7.40	2406	43.0	3	1.02
1315			15.7	7.44	2457	17.9	5	0.98
1320			15.8	7.46	2498	14.1	7	0.96

SAMPLED AT 1320 on 11-21-05



FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION:

POINT ID _____

Date/Time _____ / _____

Water Level @ Sampling, Feet: _____

Method of Sampling: BLADDER PUMP PERISTALTIC Dedicated: Y / N

Multi-phased/ layered: () Yes () No If YES: () light () heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ()	Other ()

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

pH Serial #: _____ 4.0 std.= _____ 7.0 std.= _____ 10.0 std. = _____

Solutions: 4-5045 7-5015

Conductivity Serial #: _____ umhos/cm= _____ umhos/cm= _____

Solutions: 3312

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

Date: _____ / _____ / _____ By: _____ Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: POW-10

Field Personnel: P. Little K. Gables

Sample Matrix: GW

Grab Composite

SAMPLING INFORMATION:

Date/Time 11-16-05 1 1030

Water Level @ Sampling, Feet: 20.98

Method of Sampling: INSITU PUMP SAMPLE POINT Dedicated: IN

Multi-phased/ layered: Yes No If YES: light heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (GAP)	Other ()
1030	16.2	8.55	6309	69.5	12	

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

pH Serial #: _____ 4.0 std. = _____ 7.0 std. = _____ 10.0 std. = _____

Solutions: _____

Conductivity Serial #: _____ umhos/cm = _____ umhos/cm = _____

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: RAIN 50°

Sample Characteristics: BROWN SL TUBING

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

Date: 11/16/05 By: [Signature] Company: STL

FIELD OBSERVATIONS

Facility: ARLIT CHEMICAL

Sample Point ID: PW-11

Field Personnel: P. Little, F. Barkley

Sample Matrix: GW
 Grab Composite

SAMPLING INFORMATION:

Date/Time 11-15-05 1 1350

Water Level @ Sampling, Feet: 17.81

Method of Sampling: PERISTALTIC PUMP Dedicated: Y N

Multi-phased/ layered: Yes No If YES: light heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (std)	Other
1355	14.3	7.01	4775	26.9	-134	

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

pH Serial #: _____ 4.0 std. = _____ 7.0 std. = _____ 10.0 std. = _____

Solutions: _____

Conductivity Serial #: _____ umhos/cm = _____ umhos/cm = _____

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: RAIN 50°

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS: _____

Verify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

Date: 11/15/05 By: [Signature] Company: STZ

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: Pw. 12

Field Personnel: P.LITTLE/T.PALMER

Sample Matrix: GW

MONITORING WELL INSPECTION:

Date/Time 11-15-05 1 1258

Cond of seal: ^{Box} Good Cracked None Buried _____ %

Prot. Casing/riser height: _____

Cond of prot. Casing/riser: Unlocked Good
 Loose Flush Mount
 Damaged _____

If prot.casing; depth to riser below: _____

Gas Meter (Calibration/ Reading): % Gas: 1 % LEL: 1

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm): 1

PURGE INFORMATION:

Date / Time Initiated: 11-15-05 / 1300

Date / Time Completed: 11-15-05 / 1320

Surf. Meas. Pt: Prot. Casing Riser

Riser Diameter, Inches: _____

Initial Water Level, Feet: 5.38

Elevation. G/W MSL: _____

Well Total Depth, Feet: _____

Method of Well Purge: BLADDER PUMP PERISTALTIC

One (1) Riser Volume, Gal: _____

Dedicated: Y N

Total Volume Purged, Gal: _____

Purged To Dryness Y N

Purge Observations: _____

Start clear Finish clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1305	<i>m/nw</i> 200	<i>wl</i> 5.38	14.0	7.04	5145	0.85	-125	1.11
1310	↓	↓	14.6	7.06	5125	0.70	-130	1.01
1315	↓	↓	14.5	7.07	5120	0.65	-130	0.95
1320	↓	↓	14.7	7.08	5117	0.60	-129	0.90

SAMPLED AT 1325 / 11-15-05
PL

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION:

POINT ID _____

Date/Time _____ / _____

Water Level @ Sampling, Feet: _____

Method of Sampling: BLADDER PUMP
PERISTALTIC Dedicated: Y / N

Multi-phased/ layered: () Yes () No If YES: () light () heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ()	Other ()

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

pH Serial #: _____ 4.0 std.= _____ 7.0 std.= _____ 10.0 std. = _____

Solutions: 4-5045 7-5015

Conductivity Serial #: _____ umhos/cm= _____ umhos/cm= _____

Solutions: 3312

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

By: _____ Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: PW-13

Field Personnel: P. Little, K. Oakes

Sample Matrix: GW

Grab Composite

SAMPLING INFORMATION:

Date/Time 11-16-05 1 1115

Water Level @ Sampling, Feet: 26.27

Method of Sampling: INSITU PUMP SAMPLE BIT Dedicated: IN

Multi-phased/ layered: Yes No If YES: light heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ()	Other ()
1117	12.9	7.67	2153	3.73	5	

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

pH Serial #: _____ 4.0 std. = _____ 7.0 std. = _____ 10.0 std. = _____

Solutions: _____

Conductivity Serial #: _____ umhos/cm = _____ umhos/cm = _____

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: RAIN 50°

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

Date: 11/16/05 By: [Signature] Company: STL

FIELD OBSERVATIONS

Facility: ARLA CHEMICAL Sample Point ID: PW-14
Field Personnel: P. Little, K. OAHLS Sample Matrix: GW
 Grab Composite

SAMPLING INFORMATION:

Date/Time 11-16-05 1 1025 Water Level @ Sampling, Feet: 7.15
Method of Sampling: IN SITU Pump Sample Point Dedicated: Y N
Multi-phased/ layered: Yes No If YES: light heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ()	Other ()
1027	15.1	7.90	3687	40.0	-23	

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU
Solutions: _____
pH Serial #: _____ 4.0 std. = _____ 7.0 std. = _____ 10.0 std. = _____
Solutions: _____
Conductivity Serial #: _____ umhos/cm = _____ umhos/cm = _____
Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: RAIN 50°
Sample Characteristics: SE TUBING Brown

COMMENTS AND OBSERVATIONS: _____

Verify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

Date: 11/16/05 By: [Signature] Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: PZ-101

Field Personnel: P.LITTLE/T.PALMER

Sample Matrix: GW

MONITORING WELL INSPECTION:

Date/Time 11-21-05 , 942

Cond of seal: Good () Cracked _____ %
() None () Buried

Prot. Casing/riser height: _____

Cond of prot. Casing/riser: () Unlocked Good
() Loose () Flush Mount
() Damaged _____

If prot.casing; depth to riser below: _____

Gas Meter (Calibration/ Reading): % Gas: — / — % LEL: — / —

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm) — / —

PURGE INFORMATION:

Date / Time Initiated: 11-21-05 / 955

Date / Time Completed: 11-21-05 / 1015

Surf. Meas. Pt: () Prot. Casing Riser

Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 12.81

Elevation, G/W MSL: _____

Well Total Depth, Feet: 21.69

Method of Well Purge: BLADDER PUMP PERISTALTIC

One (1) Riser Volume, Gal: _____

Dedicated: Y / N

Total Volume Purged, Gal: _____

Purged To Dryness Y / N

Purge Observations: _____

Start Clear Finish Clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
	min	WL							
1000	200	13.10		12.4	7.37	8604	12.0	-79	0.98
1005	180	13.37		12.5	7.19	8516	5.67	-28	0.95
1010	150	13.42		12.6	7.13	8496	2.91	-25	0.90
1015	L	L		12.6	7.14	8475	1.21	-22	0.86

SAMPLED AT 1015 on 11-21-05

Thom Palmer

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION:

POINT ID _____

Date/Time _____ / _____

Water Level @ Sampling, Feet: _____

Method of Sampling: BLADDER PUMP
PERISTALTIC Dedicated: Y / N

Multi-phased/ layered: () Yes () No If YES: () light () heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ()	Other ()

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 NTU std. = 20 NTU 20 NTU std. = 20 NTU

Solutions: CHA-48-E

pH Serial #: ^{M#20}1200 4.0 std. = 4.00 7.0 std. = 7.00 10.0 std. = _____

Solutions: 4-5045 7-5015

Conductivity Serial #: ^{M#20}1200 1322 umhos/cm = 1322 _____ umhos/cm = _____

Solutions: 3312

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

Date: / / By: _____ Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: PZ-102
 Field Personnel: P.LITTLE/T.PALMER Sample Matrix: GW

MONITORING WELL INSPECTION:

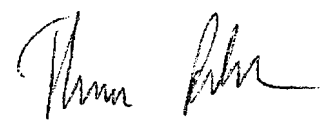
Date/Time 11-21-05 / 1030 Cond of seal: () Good () Cracked _____ %
 () None () Buried _____ %
 Prot. Casing/riser height: _____ Cond of prot. Casing/riser: () Unlocked () Good
 () Loose () Flush Mount
 () Damaged _____
 If prot.casing; depth to riser below: _____
 Gas Meter (Calibration/ Reading): % Gas: — / — % LEL: — / —
 Vol. Organic Meter (Calibration/Reading): Volatiles (ppm): — / —

PURGE INFORMATION:

Date / Time Initiated: 11-21-05 / 1033 Date / Time Completed: 11-21-05 / 1053
 Surf. Meas. Pt: () Prot. Casing () Riser Riser Diameter, Inches: 2.0
 Initial Water Level, Feet: 12.31 Elevation, GW MSL: _____
 Well Total Depth, Feet: 32.60 Method of Well Purge: BLADDER PUMP - PERISTALTIC
 One (1) Riser Volume, Gal: _____ Dedicated: Y N
 Total Volume Purged, Gal: _____ Purged To Dryness Y N
 Purge Observations: _____ Start Clean Finish Clean

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other QRP	Other DO
1038	<small>m/min</small> 300 <small>WL</small> 12.40		12.1	7.59	6122	2.47	-44	1.05
1043	12.43		12.1	7.35	6376	1.16	-38	0.99
1048	12.43		12.1	7.30	6392	1.31	-37	0.95
1053	12.43		12.1	7.28	6388	1.24	-37	0.90

SAMPLED AT 1053 on 11-21-05


FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION:

POINT ID _____

Date/Time _____ / _____

Water Level @ Sampling, Feet: _____

Method of Sampling: BLADDER PUMP
PERISTALTIC Dedicated: Y / N

Multi-phased/ layered: () Yes () No If YES: () light () heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ()	Other ()

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

pH Serial #: _____ 4.0 std.= _____ 7.0 std.= _____ 10.0 std. = _____

Solutions: 4-5045 7-5015

Conductivity Serial #: _____ umhos/cm= _____ umhos/cm= _____

Solutions: 3312

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

By: _____ Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: PZ-103
 Field Personnel: P.LITTLE/T.PALMER Sample Matrix: GW

MONITORING WELL INSPECTION:

Date/Time 11-21-05 , 1107 Cond of seal: () Good () Cracked _____ %
 () None () Buried

Prot. Casing/riser height: _____ Cond of prot. Casing/riser: () Unlocked Good
 () Loose () Flush Mount
 () Damaged _____

If prot.casing; depth to riser below: _____

Gas Meter (Calibration/ Reading): _____ % Gas: - / - % LEL: - / -

Vol. Organic Meter (Calibration/Reading): _____ Volatiles (ppm): - / -

PURGE INFORMATION:

Date / Time Initiated: 11-21-05 / 1115 Date / Time Completed: 11-21-05 / 1135

Surf. Meas. Pt: () Prot. Casing Riser Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 11.00 Elevation, GW MSL: _____

Well Total Depth, Feet: 32.52 Method of Well Purge: ~~BLADDER PUMP~~ PERISTALTIC

One (1) Riser Volume, Gal: _____ Dedicated: Y N

Total Volume Purged, Gal: _____ Purged To Dryness Y N

Purge Observations: _____ Start Clean Finish Clean

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
	ml/min	gpm							
1120	200	11.73		13.0	7.60	3794	6.95	-18	1.20
1125				13.0	7.50	3901	5.52	-29	1.13
1130				12.9	7.46	3987	4.23	-30	1.01
1135				13.1	7.45	4013	3.90	-31	0.98

SAMPLED AT 1135 on 11-21-05

[Signature]

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION:

POINT ID _____

Date/Time _____ / _____ / _____

Water Level @ Sampling, Feet: _____

Method of Sampling: BLADDER PUMP PERISTALTIC Dedicated: Y / N

Multi-phased/ layered: () Yes () No If YES: () light () heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ()	Other ()

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

pH Serial #: _____ 4.0 std.= _____ 7.0 std.= _____ 10.0 std. = _____

Solutions: 4-5045 7-5015

Conductivity Serial #: _____ umhos/cm= _____ umhos/cm= _____

Solutions: 3312

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

By: _____ Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: PZ-104

Field Personnel: P.LITTLE/T.PALMER

Sample Matrix: GW

MONITORING WELL INSPECTION:

Date/Time 11-21-05 1200

Cond of seal: Good () Cracked _____ %
() None () Buried

Prot. Casing/riser height: _____

Cond of prot. Casing/riser: () Unlocked () Good
() Loose Flush Mount
() Damaged _____

If prot.casing; depth to riser below: _____

Gas Meter (Calibration/ Reading): % Gas: — / —

% LEL: — / —

Vol. Organic Meter (Calibration/Reading):

Volatiles (ppm): — / —

PURGE INFORMATION:

Date / Time Initiated: 11-21-05 / 1205

Date / Time Completed: 11-21-05 / 1230

Surf. Meas. Pt: () Prot. Casing Riser

Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 12.88

Elevation. GW MSL: _____

Well Total Depth, Feet: _____

Method of Well Purge: BLADDER PUMP PERISTALTIC

One (1) Riser Volume, Gal: _____

Dedicated: Y N

Total Volume Purged, Gal: _____

Purged To Dryness Y N

Purge Observations: _____

Start Clear Finish Clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1210	<u>ml/min</u> <u>200</u> <u>13.0</u>		<u>16.4</u>	<u>7.69</u>	<u>1728</u>	<u>7.15</u>	<u>-15</u>	<u>1.00</u>
1215			<u>16.3</u>	<u>7.70</u>	<u>1705</u>	<u>5.58</u>	<u>-9</u>	<u>0.98</u>
1220			<u>16.4</u>	<u>7.54</u>	<u>1706</u>	<u>2.48</u>	<u>-7</u>	<u>0.95</u>
1225			<u>16.3</u>	<u>7.56</u>	<u>1711</u>	<u>2.65</u>	<u>-7</u>	<u>0.90</u>
1230			<u>16.1</u>	<u>7.54</u>	<u>1710</u>	<u>2.61</u>	<u>-9</u>	

SAMPLED AT 1230 ON 11-21-05

Thom Palmer

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION:

POINT ID _____

Date/Time _____ / _____

Water Level @ Sampling, Feet: _____

Method of Sampling: BLADDER PUMP
PERISTALTIC Dedicated: Y / N

Multi-phased/ layered: () Yes () No If YES: () light () heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ()	Other ()

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

pH Serial #: _____ 4.0 std.= _____ 7.0 std.= _____ 10.0 std. = _____

Solutions: 4-5045 7-5015

Conductivity Serial #: _____ umhos/cm= _____ umhos/cm= _____

Solutions: 3312

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

Dr. _____ / / _____ By: _____ Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: P2-105

Field Personnel: P.LITTLE/T.PALMER

Sample Matrix: GW

MONITORING WELL INSPECTION:

Date/Time 11-15-05 ¹¹²⁸

Cond of seal: () Good () Cracked _____ %
() None Buried

Prot. Casing/riser height: _____

Cond of prot. Casing/riser: () Unlocked () Good
() Loose Flush Mount
() Damaged _____

If prot.casing; depth to riser below: _____

Gas Meter (Calibration/ Reading): % Gas: 1 % LEL: 1

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm): 1

PURGE INFORMATION:

Date / Time Initiated: 11-15-05 / 1130

Date / Time Completed: 11-15-05 / 1150

Surf. Meas. Pt: () Prot. Casing Riser

Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 6.41

Elevation, GW MSL: _____

Well Total Depth, Feet: _____

Method of Well Purge: ~~BLADDER PUMP~~
PERISTALTIC

One (1) Riser Volume, Gal: _____

Dedicated: N

Total Volume Purged, Gal: _____

Purged To Dryness Y N

Purge Observations: _____

Start 6:19 Finish 6:47

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1135	^{m/min} 150 6.48		15.3	7.03	2975	24.1	-208	1.20
1140	100 6.52		14.8	7.30	2900	27.9	-210	1.07
1145	↓ 6.55		15.0	7.32	2890	26.5	-213	0.99
1150	↓ 6.58		14.9	7.33	2889	27.8	-215	0.90

SAMPLED AT 1155 / 11-15-05
PL

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION:

POINT ID _____

Date/Time _____ / _____ / _____

Water Level @ Sampling, Feet: _____

Method of Sampling: BLADDER PUMP
PERISTALTIC Dedicated: Y / N

Multi-phased/ layered: () Yes () No If YES: () light () heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ()	Other ()

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

pH Serial #: _____ 4.0 std.= _____ 7.0 std.= _____ 10.0 std. = _____

Solutions: 4-5045 7-5015

Conductivity Serial #: _____ umhos/cm= _____ umhos/cm= _____

Solutions: 3312

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

By: _____ Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: P2-106

Field Personnel: P.LITTLE/T.PALMER

Sample Matrix: GW

MONITORING WELL INSPECTION:

Date/Time 11-16-05 | 0940

Cond of seal: Good Cracked None Buried _____ %

Prot. Casing/riser height: _____

Cond of prot. Casing/riser: Unlocked Good
 Loose Flush Mount
 Damaged _____

If prot.casing; depth to riser below: _____

Gas Meter (Calibration/ Reading): % Gas: — 1 — % LEL: — 1 —

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm) — 1 —

PURGE INFORMATION:

Date / Time Initiated: 11-16-05 / 0945

Date / Time Completed: 11-16-05 / 1605

Surf. Meas. Pt: Prot. Casing Riser

Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 7.54

Elevation, G/W MSL: _____

Well Total Depth, Feet: _____

Method of Well Purge: BLADDER PUMP PERISTALTIC

One (1) Riser Volume, Gal: _____

Dedicated: Y N

Total Volume Purged, Gal: _____

Purged To Dryness Y N

Purge Observations: _____

Start Clear Yellow Finish Clear Yellow Turb

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
0930	<i>ml/hr</i> 1.75	<i>ml</i> 8.41	15.7	5.88	10,790	10.24	88	1.07
0955		8.98	14.8	5.79	10,570	7.76	81	0.98
1000			14.5	5.74	10,550	6.03	80	0.95
1005			14.7	5.75	10,500	5.37	80	0.93

SAMPLED AT 1010 / 11-16-05
pl

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION:

POINT ID _____

Date/Time _____ / _____

Water Level @ Sampling, Feet: _____

Method of Sampling: BLADDER PUMP
PERISTALTIC Dedicated: Y / N

Multi-phased/ layered: () Yes () No If YES: () light () heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ()	Other ()

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

pH Serial #: _____ 4.0 std.= _____ 7.0 std.= _____ 10.0 std. = _____

Solutions: 4-5045 7-5015

Conductivity Serial #: _____ umhos/cm= _____ umhos/cm= _____

Solutions: 3312

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

By: _____ Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: P2-107

Field Personnel: P.LITTLE/T.PALMER

Sample Matrix: GW

MONITORING WELL INSPECTION:

Date/Time 11-15-05 / 1313

Cond of seal: (Good) (Cracked) _____ %
 (None) (Buried)

Prot. Casing/riser height: _____

Cond of prot. Casing/riser: (Unlocked) (Good)
 (Loose) (Flush Mount)
 (Damaged) _____

If prot.casing; depth to riser below: _____

Gas Meter (Calibration/ Reading): % Gas: — / — % LEL: — / —

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm): — / —

PURGE INFORMATION:

Date / Time Initiated: 11-15-05 / 1315 ^{TP}

Date / Time Completed: 11-15-05 / 1335

Surf. Meas. Pt: (Prot. Casing) (Riser)

Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 5.56

Elevation, G/W MSL: _____

Well Total Depth, Feet: 27.90

Method of Well Purge: BLADDER PUMP PERISTALTIC

One (1) Riser Volume, Gal: _____

Dedicated: Q / N

Total Volume Purged, Gal: _____

Purged To Dryness Y / (N)

Purge Observations: _____

Start Clear Finish Clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1320	<u>200</u> <small>m/min</small> / <u>5.73</u> <small>W.L.</small>		<u>13.5</u>	<u>8.12</u>	<u>3324</u>	<u>1.21</u>	<u>41</u>	<u>1.03</u>
1325	<u>↓</u> / <u>5.76</u>		<u>14.0</u>	<u>7.96</u>	<u>3274</u>	<u>2.95</u>	<u>38</u>	<u>0.98</u>
1330	<u>↓</u> / <u>↓</u>		<u>14.1</u>	<u>7.90</u>	<u>3197</u>	<u>2.35</u>	<u>37</u>	<u>0.95</u>
1335	<u>↓</u> / <u>↓</u>		<u>14.2</u>	<u>7.91</u>	<u>3186</u>	<u>1.97</u>	<u>36</u>	<u>0.91</u>

SAMPLED AT 1335 ON 11-15-05

Thane Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION:

POINT ID _____

Date/Time _____ / _____

Water Level @ Sampling, Feet: _____

Method of Sampling: BLADDER PUMP
PERISTALTIC Dedicated: Y / N

Multi-phased/ layered: () Yes () No If YES: () light () heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ()	Other ()

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

pH Serial #: _____ 4.0 std.= _____ 7.0 std.= _____ 10.0 std. = _____

Solutions: 4-5045 7-5015

Conductivity Serial #: _____ umhos/cm= _____ umhos/cm= _____

Solutions: 3312

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

By: _____ Company: STL

FIELD OBSERVATIONS

Facility: ARCH Sample Point ID: 90-2
Field Personnel: R. SEUF / K. OAKLEY Sample Matrix: SW/SEEP
 Grab Composite

SAMPLING INFORMATION:

Date/Time 11-14-05 1 1345 Water Level @ Sampling, Feet: N/A
Method of Sampling: S/S PAIL Dedicated: Y (N)
Multi-phased/ layered: Yes No If YES: light heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (D.O.P)	Other ()
1350	10.2	8.03	1587	10.71	-50	

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 NTU std. = 5 NTU 5 NTU std. = 5 NTU
Solutions: P568486
pH Serial #: 614162 4.0 std. = 4.0 7.0 std. = 7.0 10.0 std. =
Solutions: 5045 5015
Conductivity Serial #: 614162 98A umhos/cm = 99 umhos/cm =
Solutions: 3287

GENERAL INFORMATION:

Weather conditions @ time of sampling: SUNNY, 50°F
Sample Characteristics: CLEAR

COMMENTS AND OBSERVATIONS:

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

Date: 11/14/05 By: [Signature] Company: STC

FIELD OBSERVATIONS

Facility: ARCH Sample Point ID: 90-281
Field Personnel: R. SENE / K. OAKLEY Sample Matrix: SW/SEEP
 Grab Composite

SAMPLING INFORMATION:

Date/Time 11-14-05 1 1355 Water Level @ Sampling, Feet: N/A
Method of Sampling: S/S PAIL Dedicated: Y (N)
Multi-phased/ layered: Yes No If YES: light heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other ()
1400	13.6	7.97	563	13.60	-44	

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 NTU std. = 5 NTU 5 NTU std. = 5 NTU
Solutions: P 568486
pH Serial #: 614162 4.0 std. = 4.0 7.0 std. = 7.0 10.0 std. = _____
Solutions: 5045 5015
Conductivity Serial #: 614162 98.4 umhos/cm = 99 umhos/cm = _____
Solutions: 3287

GENERAL INFORMATION:

Weather conditions @ time of sampling: SUNNY, 50°F
Sample Characteristics: CLEAR

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

Date: 11/14/05 By: [Signature] Company: STC

FIELD OBSERVATIONS

Facility: ARCH Sample Point ID: QS-4

Field Personnel: R. SENE / K. OAKLEY Sample Matrix: SW/SERP
 Grab () Composite

SAMPLING INFORMATION:

Date/Time 11-14-05 1 1030 Water Level @ Sampling, Feet: N/A

Method of Sampling: S/S PAUL Dedicated: Y (N)

Multi-phased/ layered: () Yes No If YES: () light () heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other ()
1035	9.7	7.92	1653	1.67	-50	

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 NTU std. = 5 NTU 5 NTU std. = 5 NTU
Solutions: P568496

pH Serial #: 614162 4.0 std. = 4.0 98.4 7.0 std. = 7.0 10.0 std. = _____
Solutions: 5045 5015

Conductivity Serial #: 614162 98A umhos/cm = 99 _____ umhos/cm = _____
Solutions: 3287

GENERAL INFORMATION:

Weather conditions @ time of sampling: SUNNY, 50°F

Sample Characteristics: CLEAR

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

Date: 11/14/05 By: [Signature] Company: STC

FIELD OBSERVATIONS

Company: ARCH CHEMICAL

Sample Point ID: S-3

Field Personnel: P.LITTLE/T.PALMER

Sample Matrix: GW

MONITORING WELL INSPECTION:

Date/Time 11-15-05 , 1347

Cond of seal: Good Cracked None Buried _____ %
Vault

Prot. Casing/riser height: _____

Cond of prot. Casing/riser: Unlocked Good
 Loose Flush Mount
 Damaged _____

If prot.casing; depth to riser below: _____

Gas Meter (Calibration/ Reading): % Gas: 1 % LEL: 1

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm): 1

PURGE INFORMATION:

Date / Time Initiated: 11-15-05 / 1350

Date / Time Completed: 11-15-05 / 1410

Surf. Meas. Pt: Prot. Casing Riser

Riser Diameter, Inches: Vault

Initial Water Level, Feet: 0.52

Elevation. G/W MSL: _____

Well Total Depth, Feet: _____

Method of Well Purge: ~~BLADDER PUMP~~ PERISTALTIC

One (1) Riser Volume, Gal: _____

Dedicated: Y / N

Total Volume Purged, Gal: 2.0

Purged To Dryness Y / N

Purge Observations: _____

Start Clean Finish Clean

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1355			13.8	7.70	2217	14.2	43	1.32
1400			13.8	7.47	2214	14.5	34	1.14
1405			13.8	7.40	2212	16.3	31	1.06
1410			13.7	7.39	2213	14.8	30	1.04

SAMPLED AT 1410 on 11-15-05
Alvin Palmer

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION:

POINT ID _____

Date/Time _____ / _____ / _____

Water Level @ Sampling, Feet: _____

Method of Sampling: BLADDER PUMP
PERISTALTIC Dedicated: Y / N

Multi-phased/ layered: () Yes () No If YES: () light () heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ()	Other ()

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

pH Serial #: _____ 4.0 std.= _____ 7.0 std.= _____ 10.0 std. = _____

Solutions: 4-5045 7-5015

Conductivity Serial #: _____ umhos/cm= _____ umhos/cm= _____

Solutions: 3312

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

Date: / / By: _____ Company: STL

FIELD OBSERVATIONS

City: ARCH CHEMICAL

Sample Point ID: S-4

Field Personnel: P.LITTLE/T.PALMER

Sample Matrix: GW

MONITORING WELL INSPECTION:

Date/Time 11-15-05 / 1237

Cond of seal: Vault
 Good Cracked _____ %
 None Buried _____

Prot. Casing/riser height: _____

Cond of prot. Casing/riser: Unlocked Good
 Loose Flush Mount
 Damaged _____

If prot.casing; depth to riser below: _____

Gas Meter (Calibration/ Reading): % Gas: 1 % LEL: 1

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm): 0 1 0

PURGE INFORMATION:

Date / Time Initiated: 11-15-05 / 1240

Date / Time Completed: 11-15-05 / 1300

Surf. Meas. Pt: Prot. Casing Riser

Riser Diameter, Inches: Vault

Initial Water Level, Feet: 0.50

Elevation. G/W MSL: _____

Well Total Depth, Feet: _____

Method of Well Purge: BLADDER PUMP PERISTALTIC

One (1) Riser Volume, Gal: _____

Dedicated: Y N

Total Volume Purged, Gal: 2.5


Purged To Dryness Y N

Purge Observations: _____

Start Clear Finish Clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1245	0.75		11.9	9.74	675	4.85	-59	1.47
1250			11.9	9.33	674	4.63	-31	1.09
1255			11.9	9.28	674	6.06	-27	1.01
1300			11.8	9.25	673	5.18	-29	0.96

SAMPLED AT 1300 / 11/15/05


FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION:

POINT ID _____

Date/Time _____ / _____

Water Level @ Sampling, Feet: _____

Method of Sampling: BLADDER PUMP
PERISTALTIC Dedicated: Y / N

Multi-phased/ layered: () Yes () No If YES: () light () heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ()	Other ()

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

pH Serial #: _____ 4.0 std.= _____ 7.0 std.= _____ 10.0 std. = _____

Solutions: 4-5045 7-5015

Conductivity Serial #: _____ umhos/cm= _____ umhos/cm= _____

Solutions: 3312

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

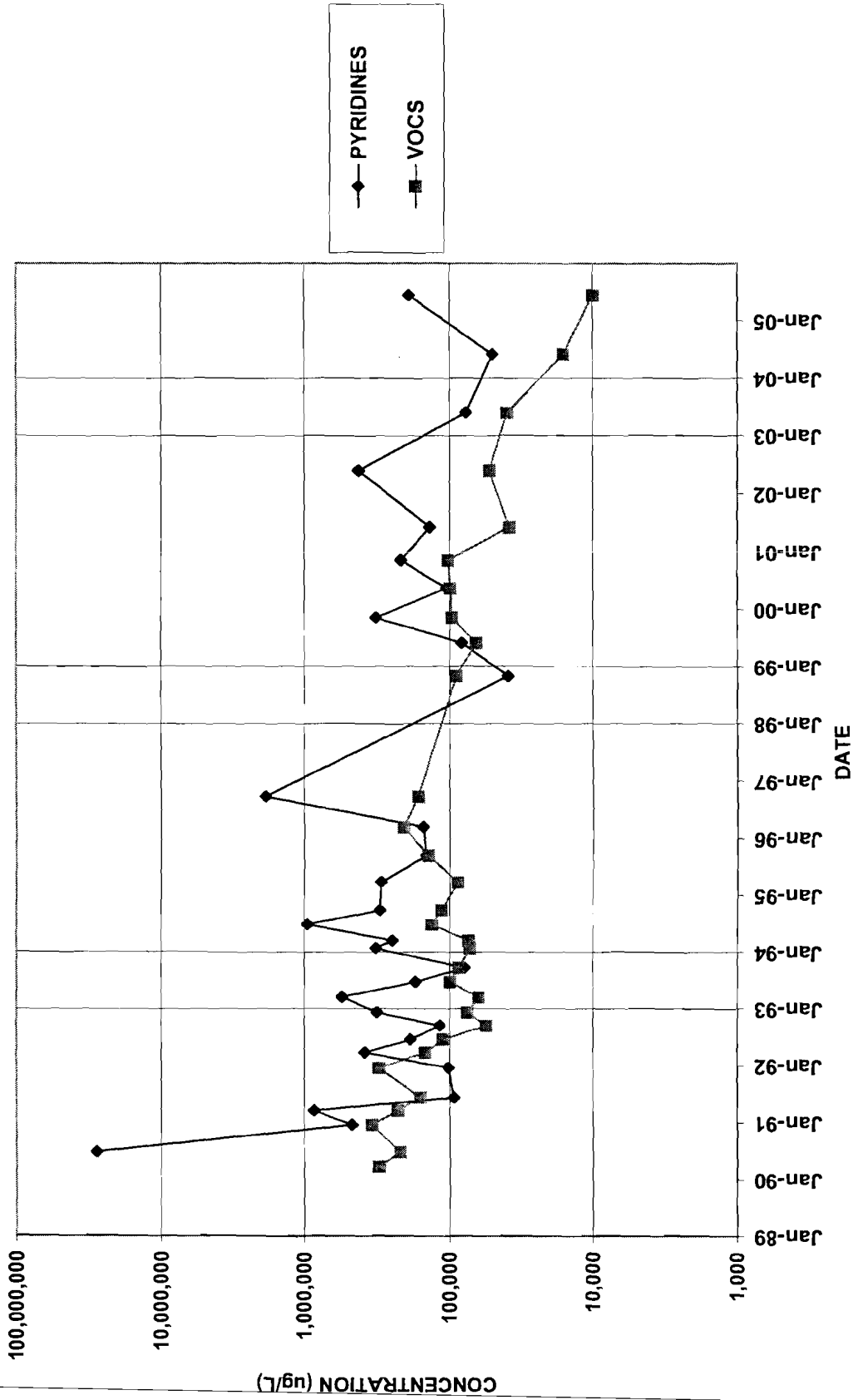
COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

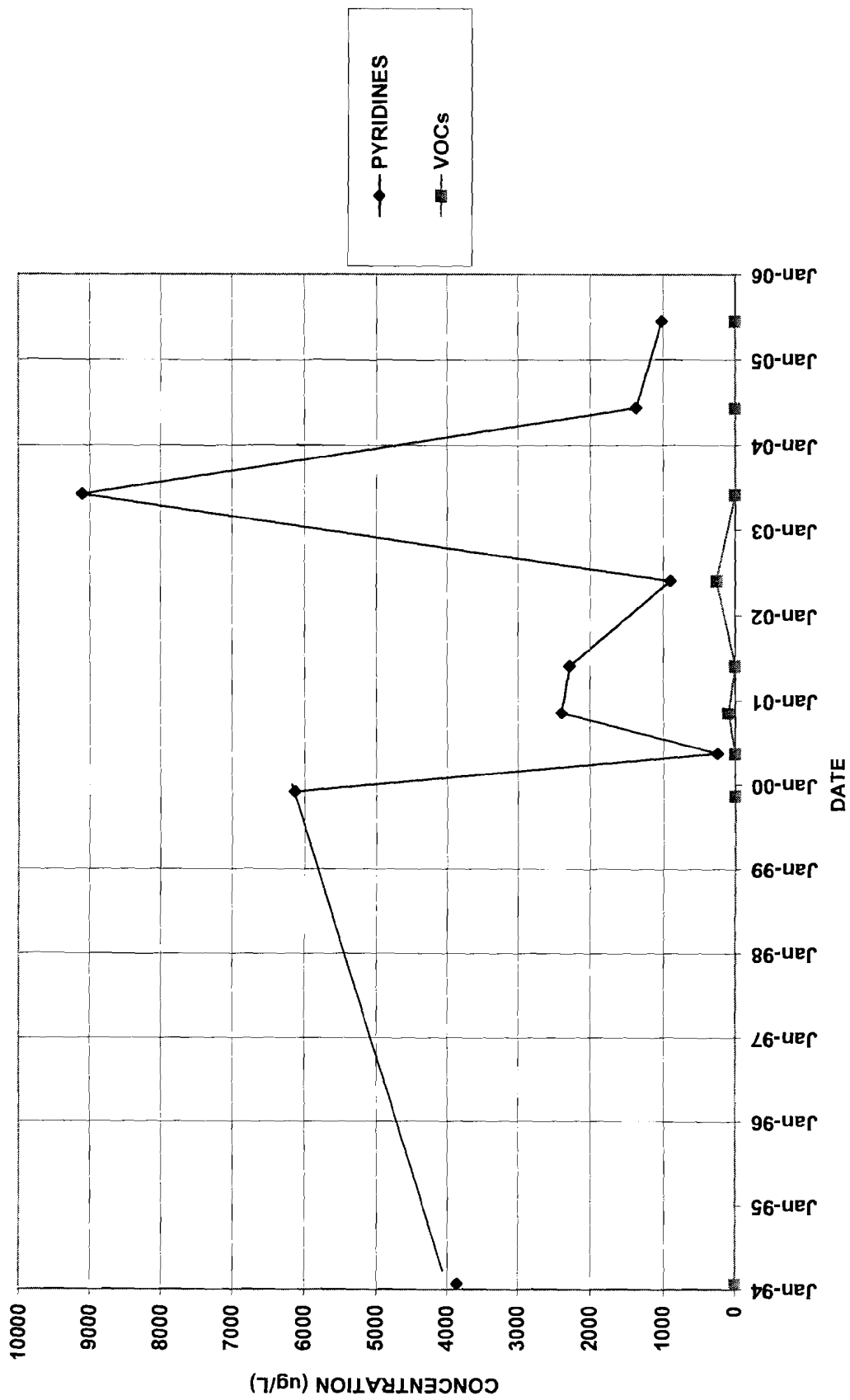
Date: _____ / _____ / _____ By: _____ Company: STL

Appendix B
Well Trend Data

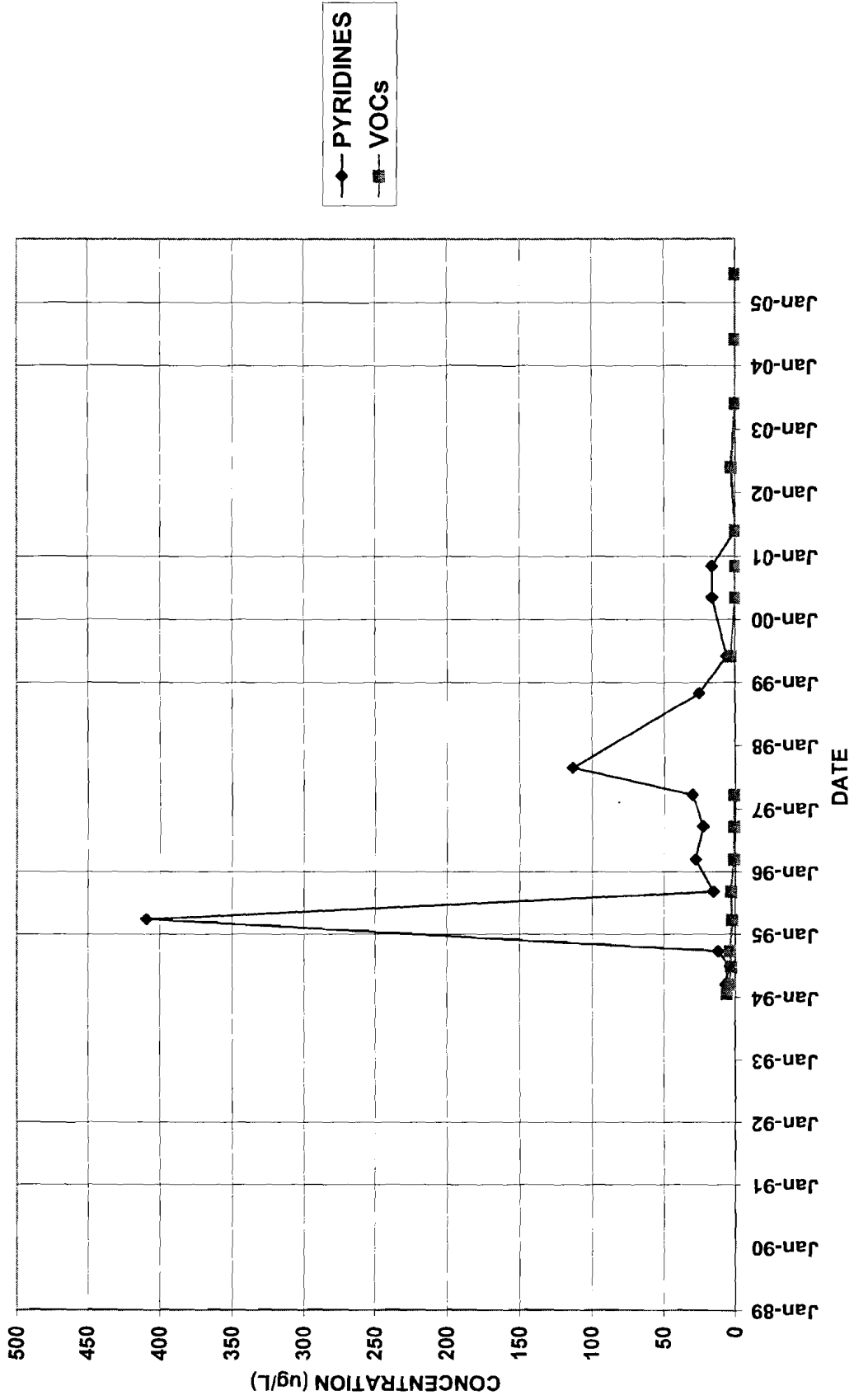
B-17



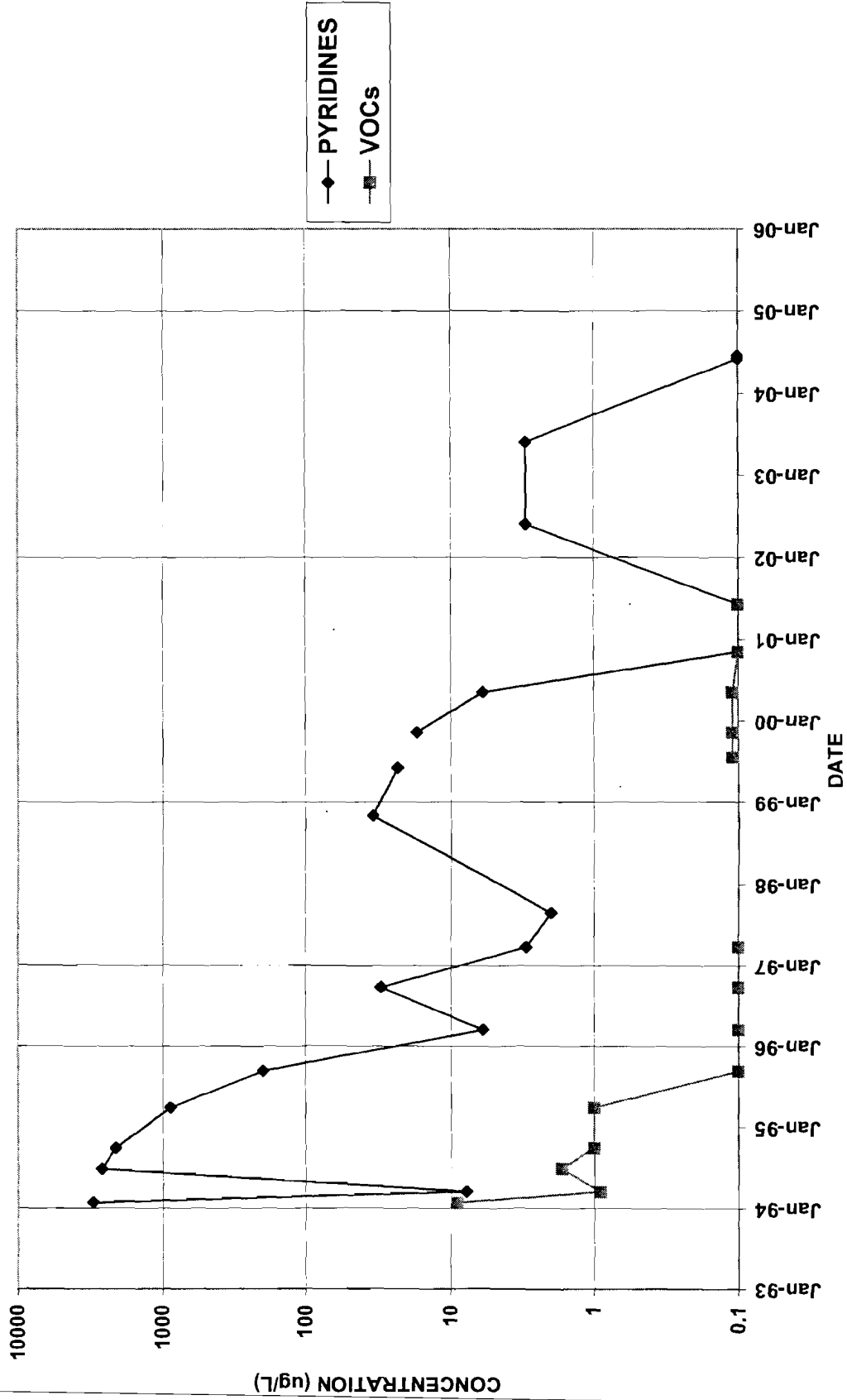
B-7



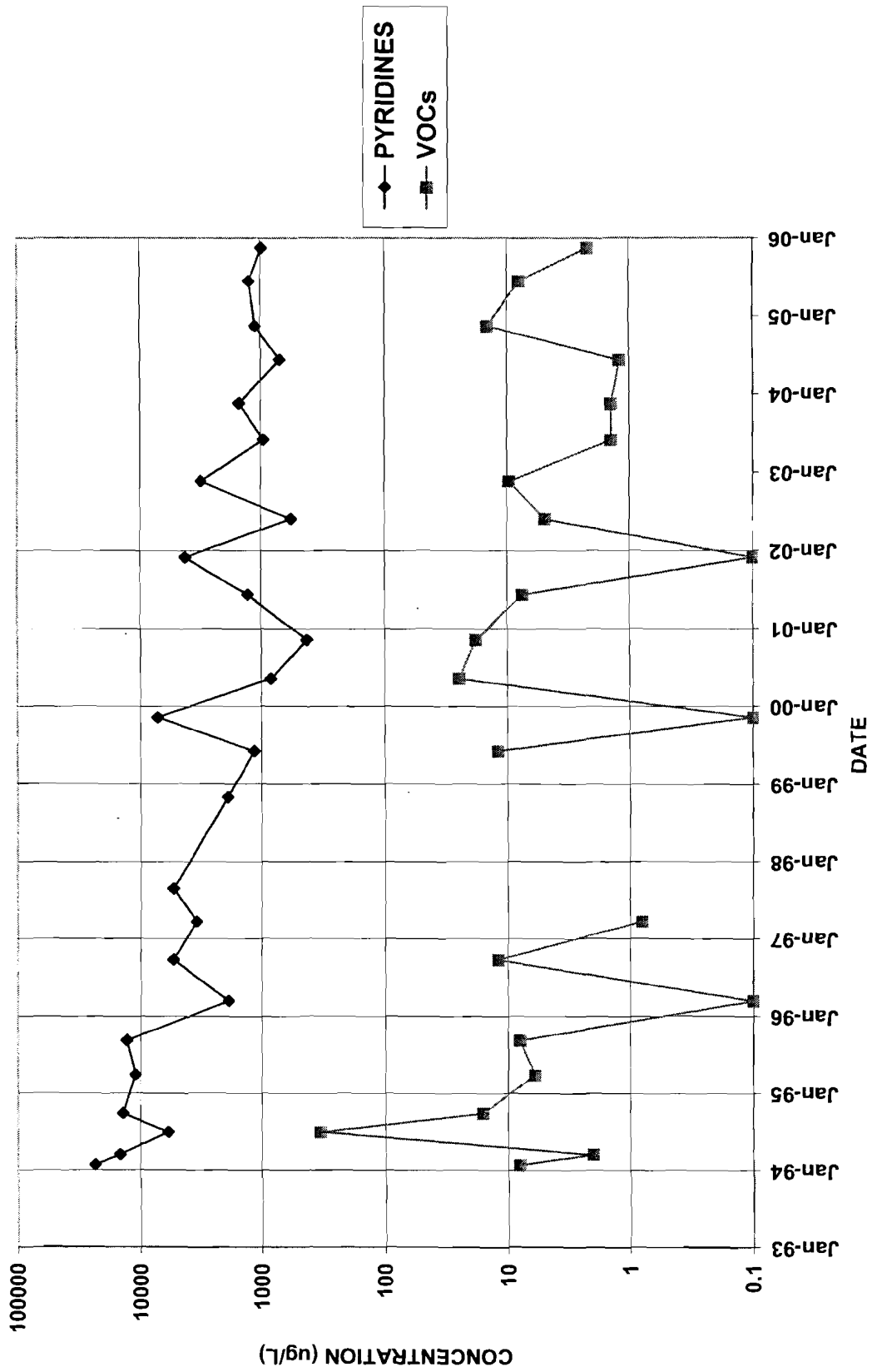
BR-103



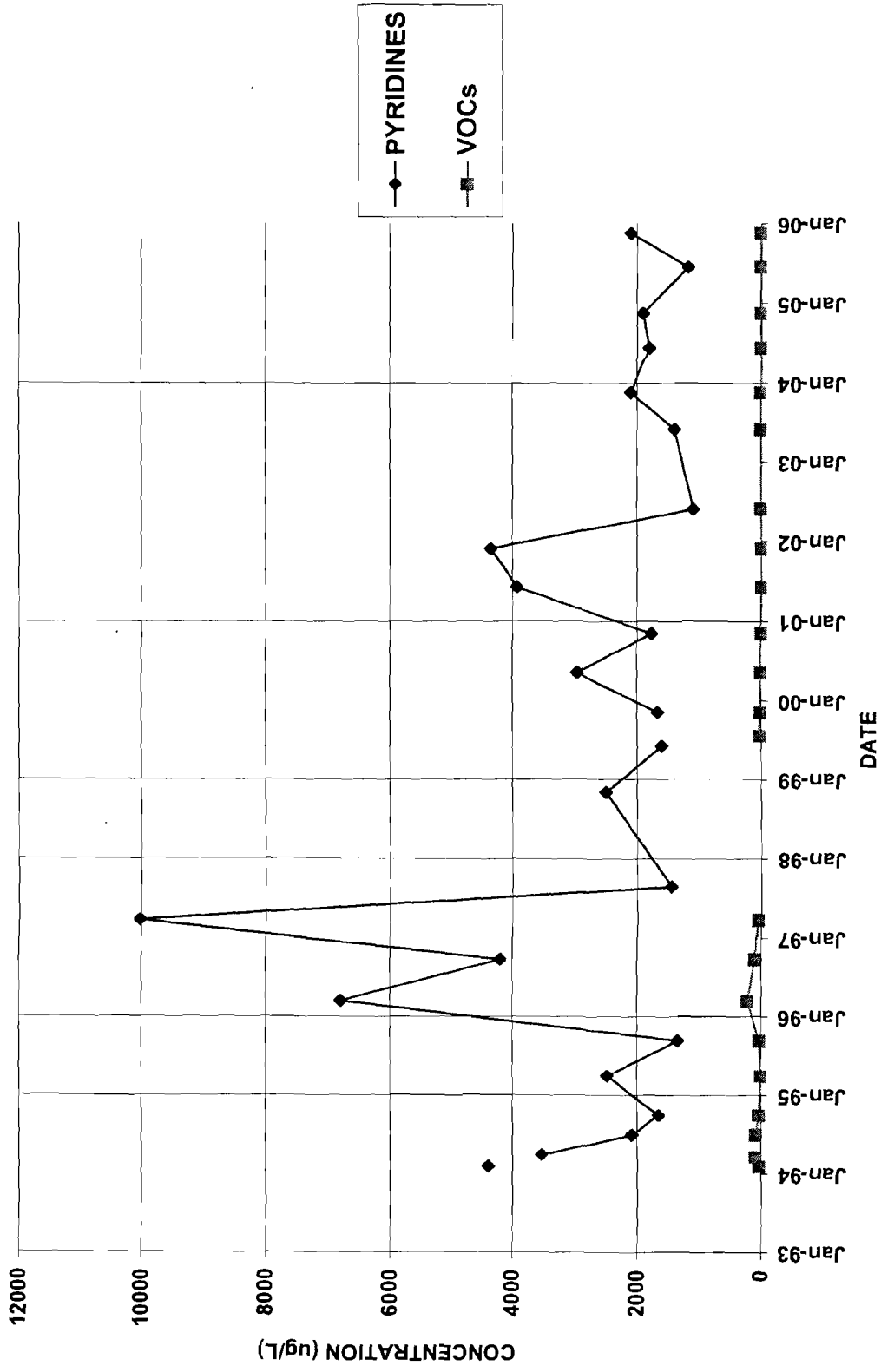
BR-104



BR-105

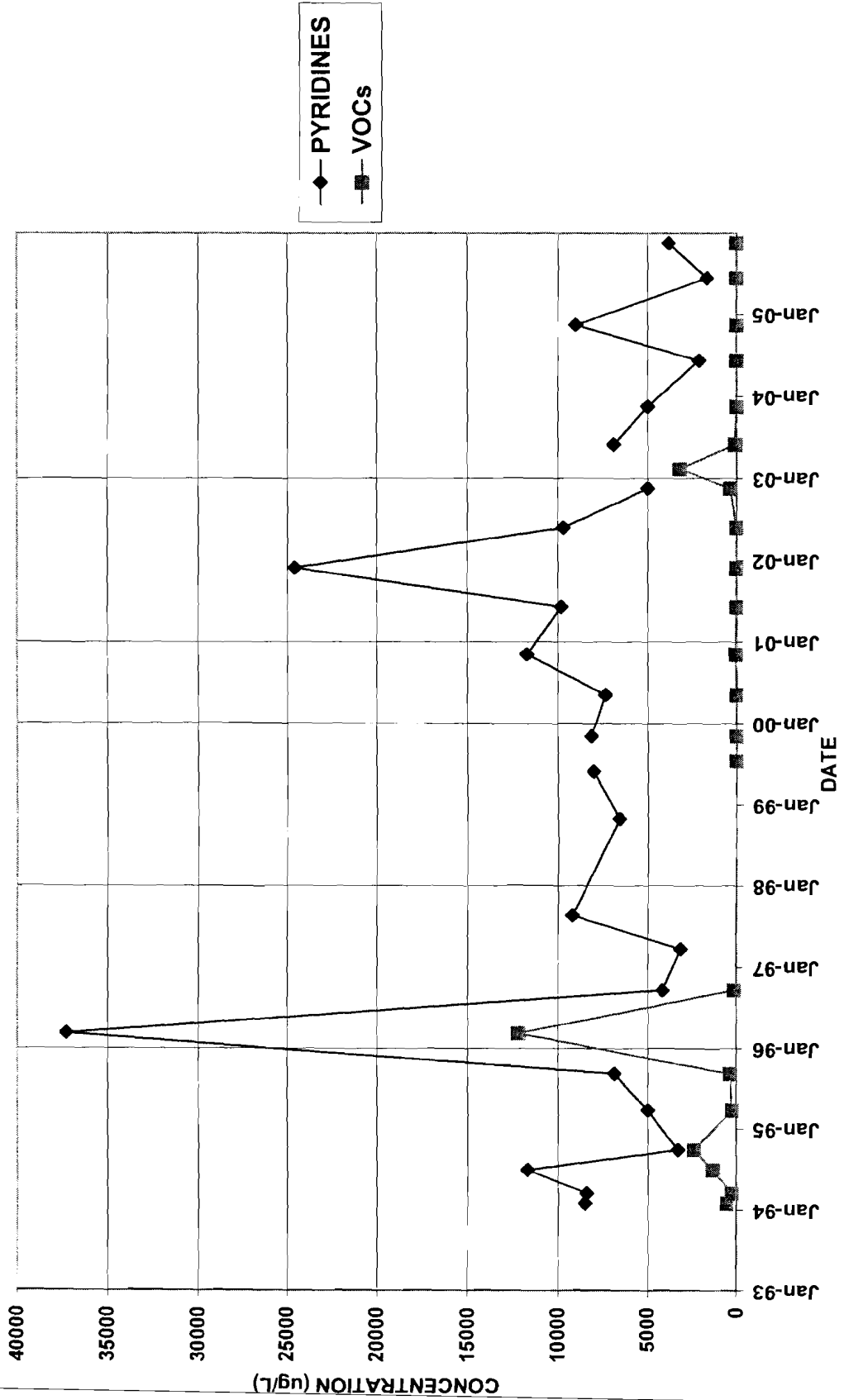


BR-105D

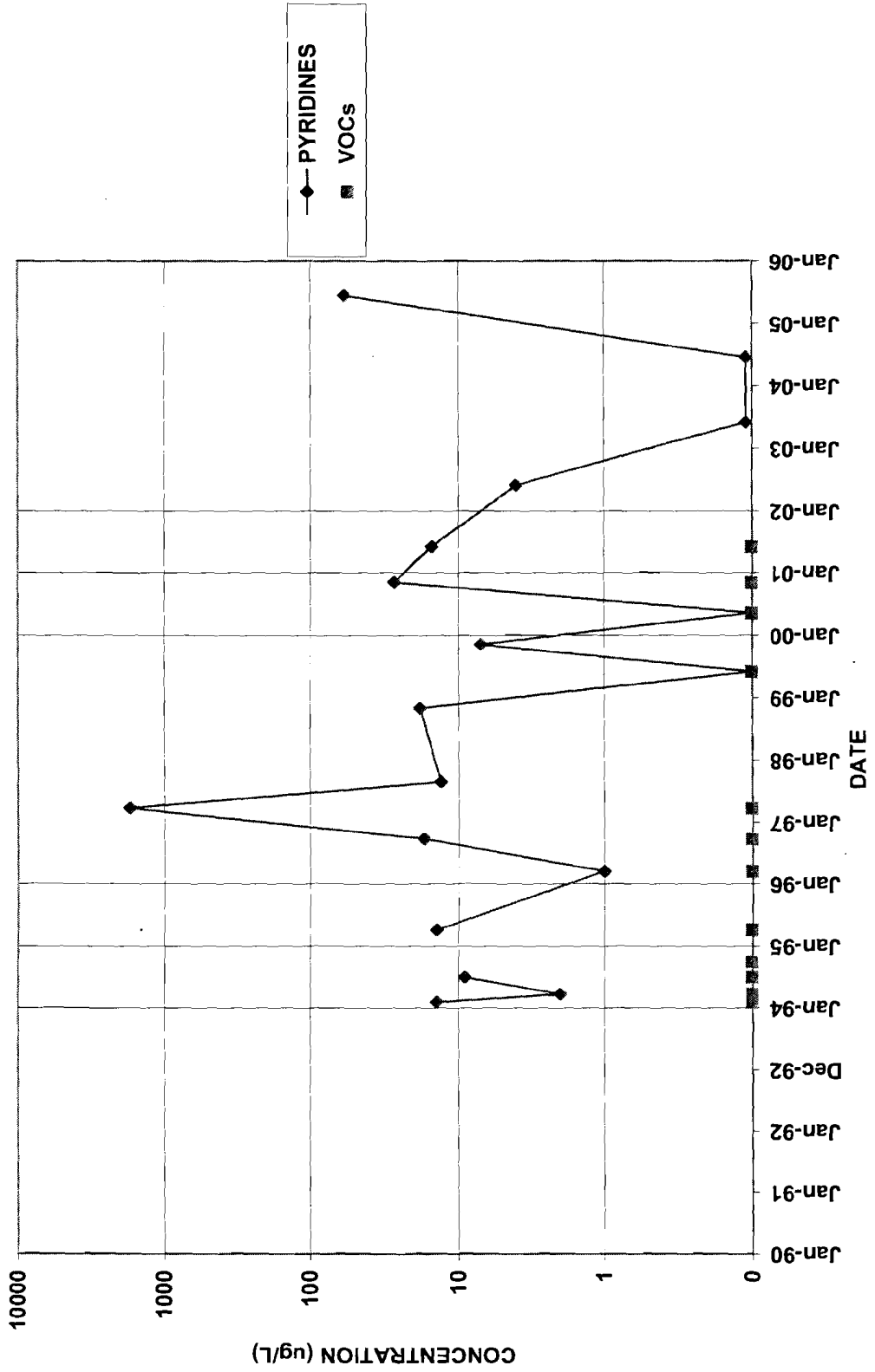


Prepared by: nmb
Reviewed by: jeb

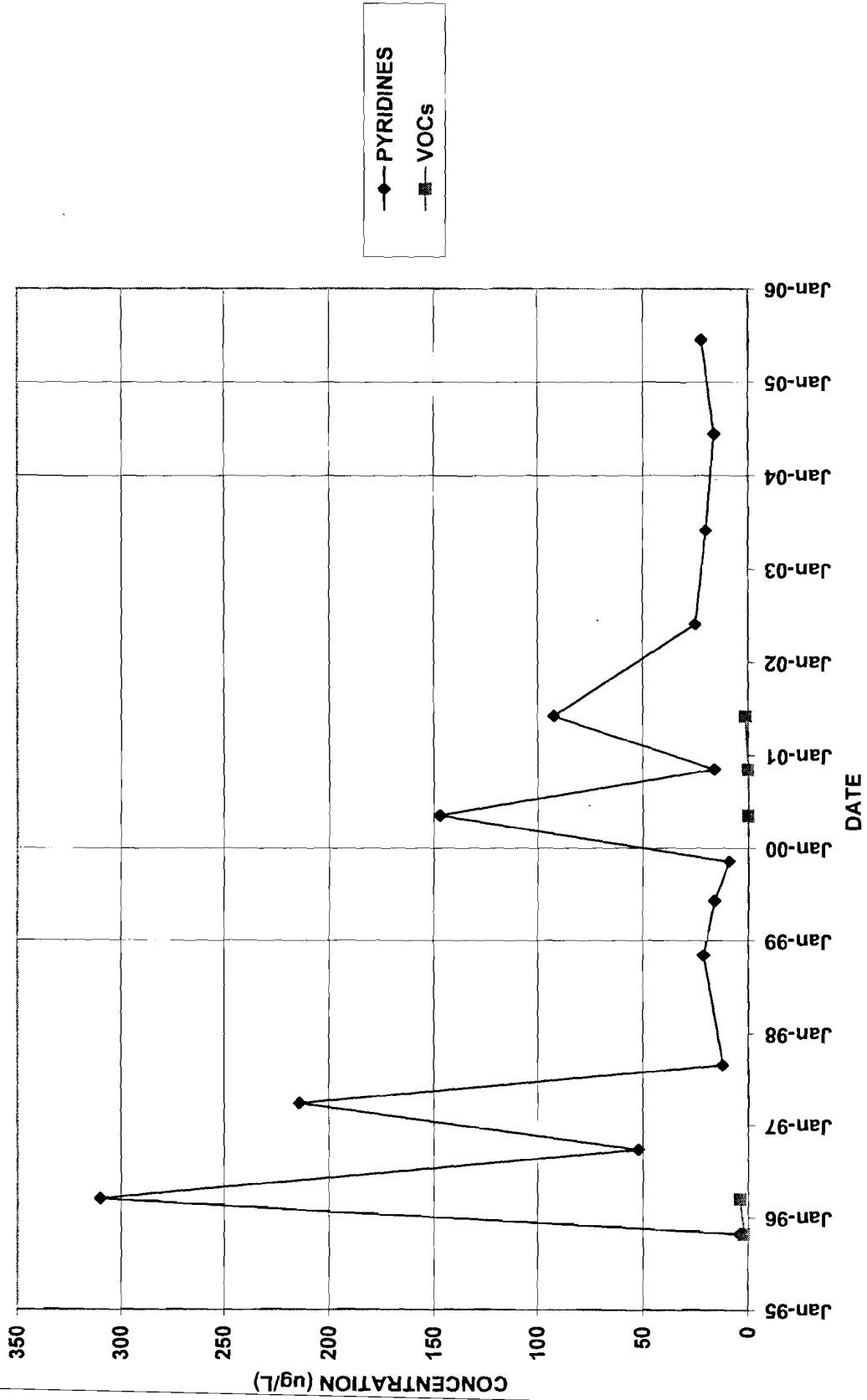
BR-106



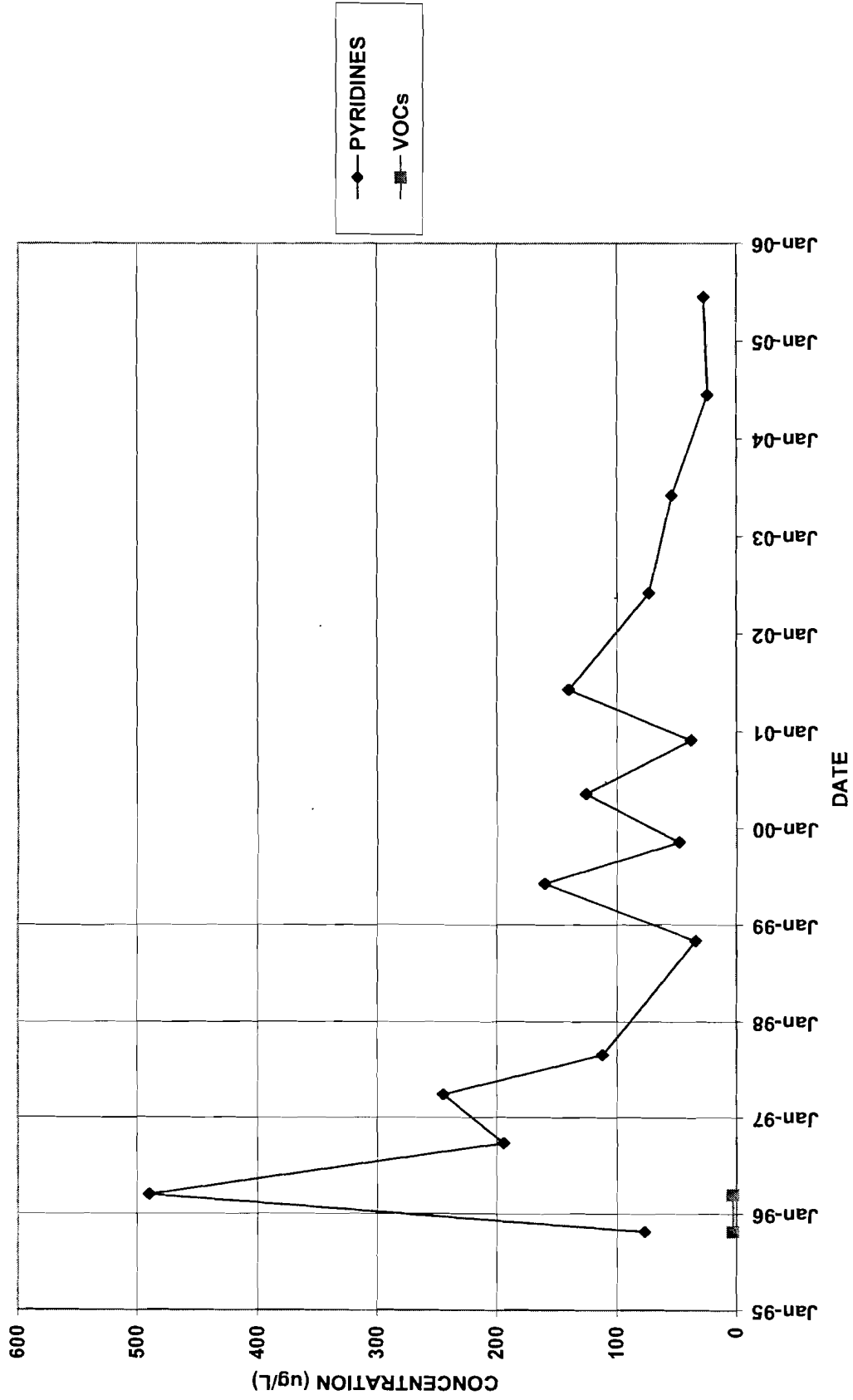
BR-108



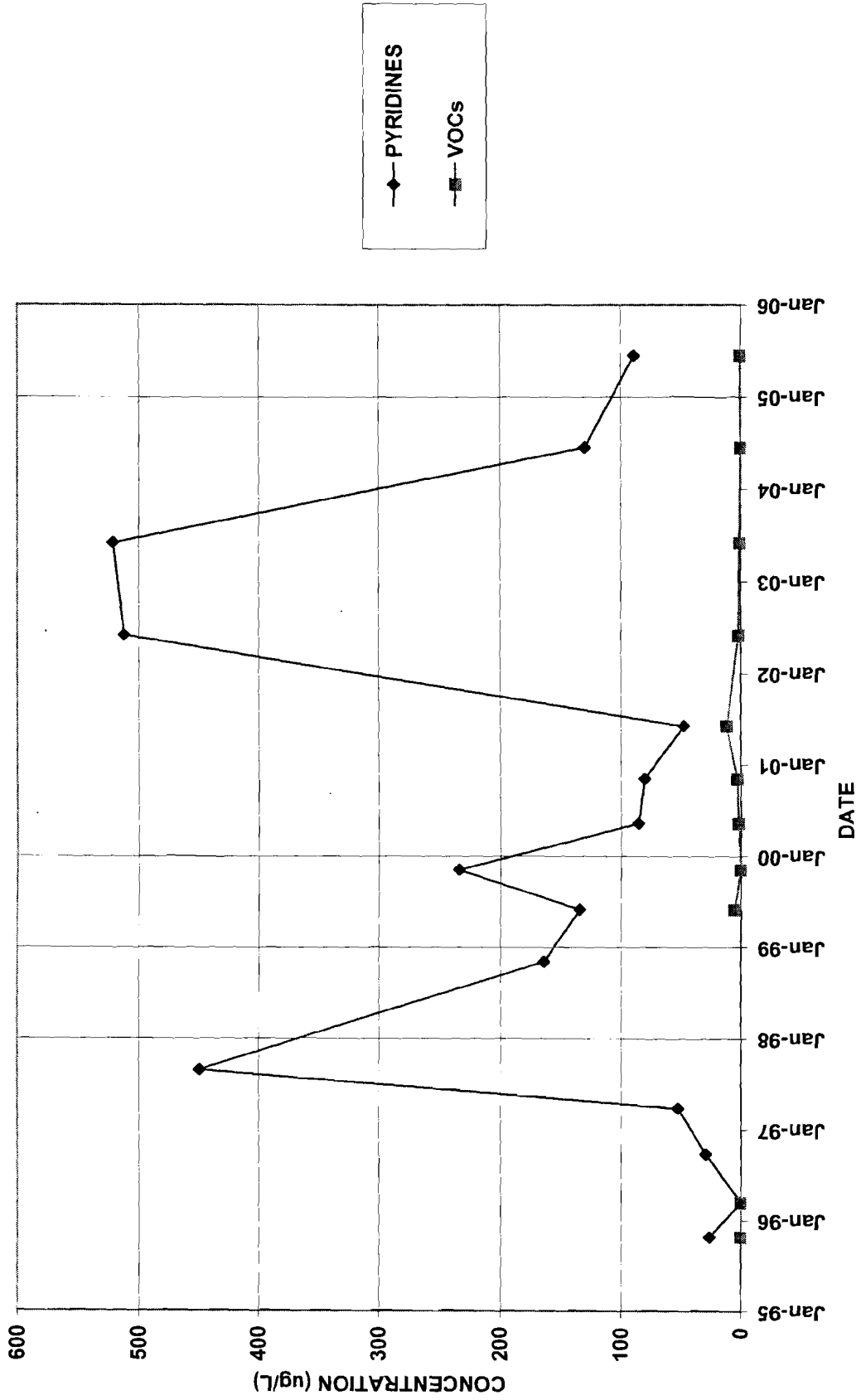
BR-112D



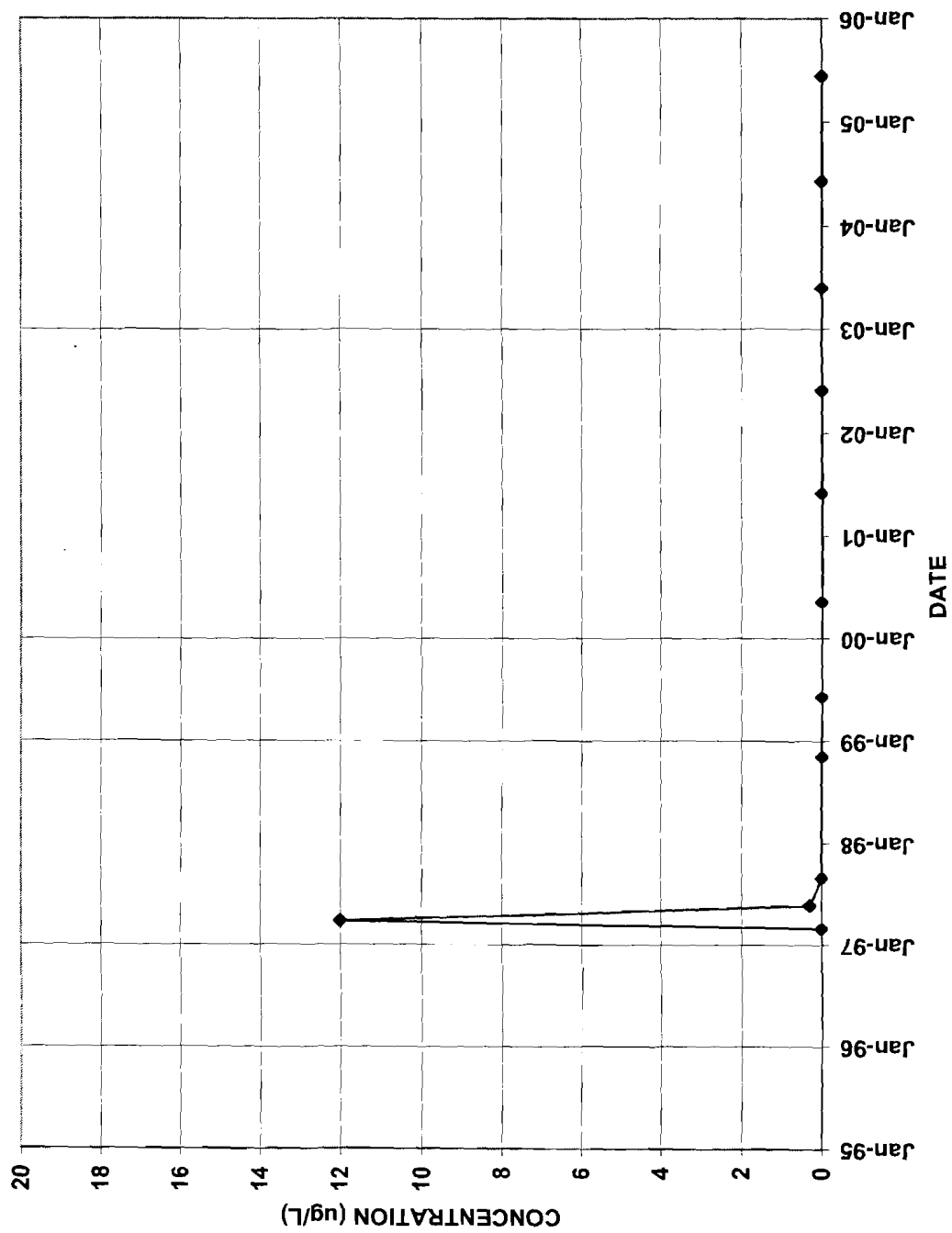
BR-113D



BR-114

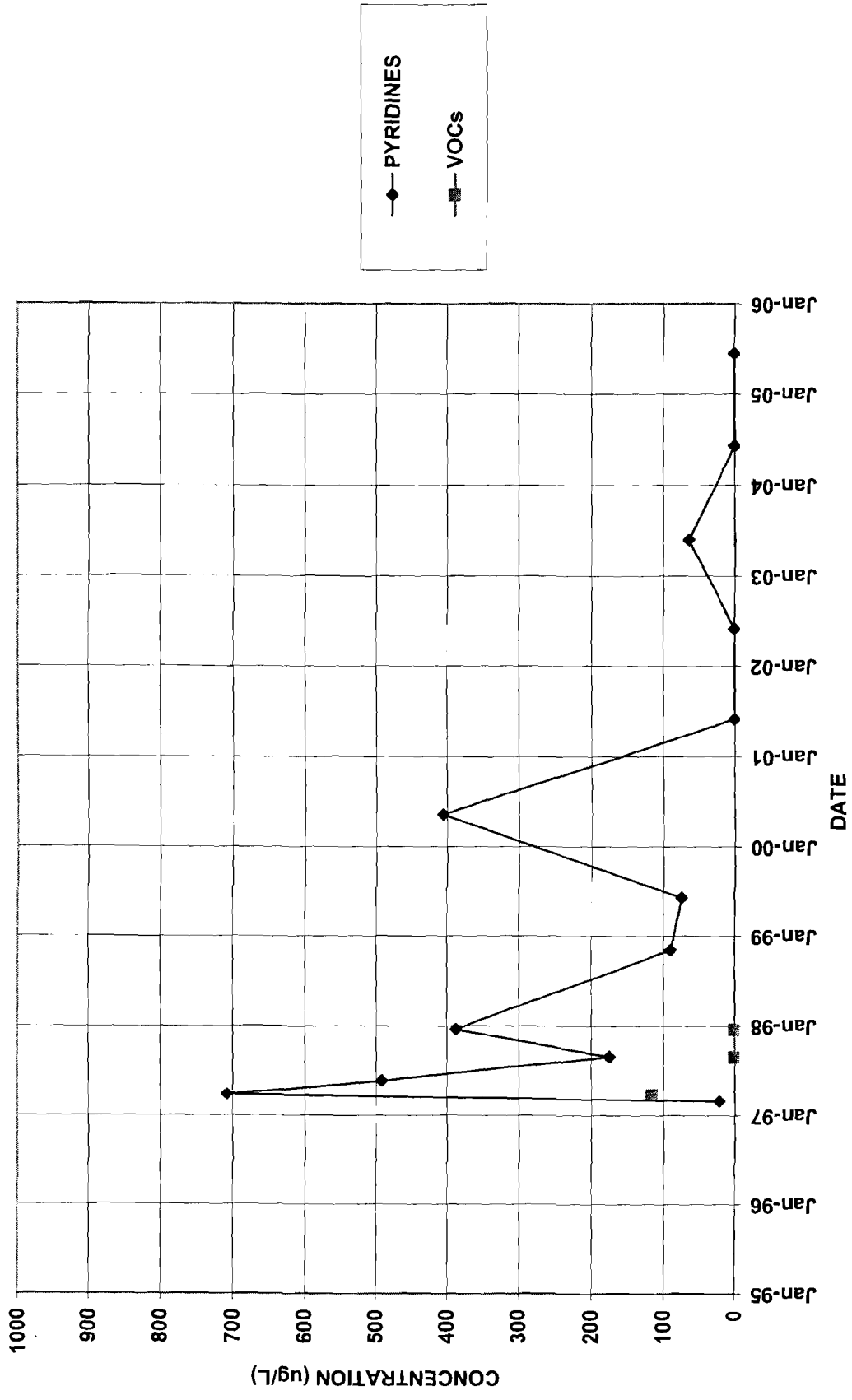


BR-116

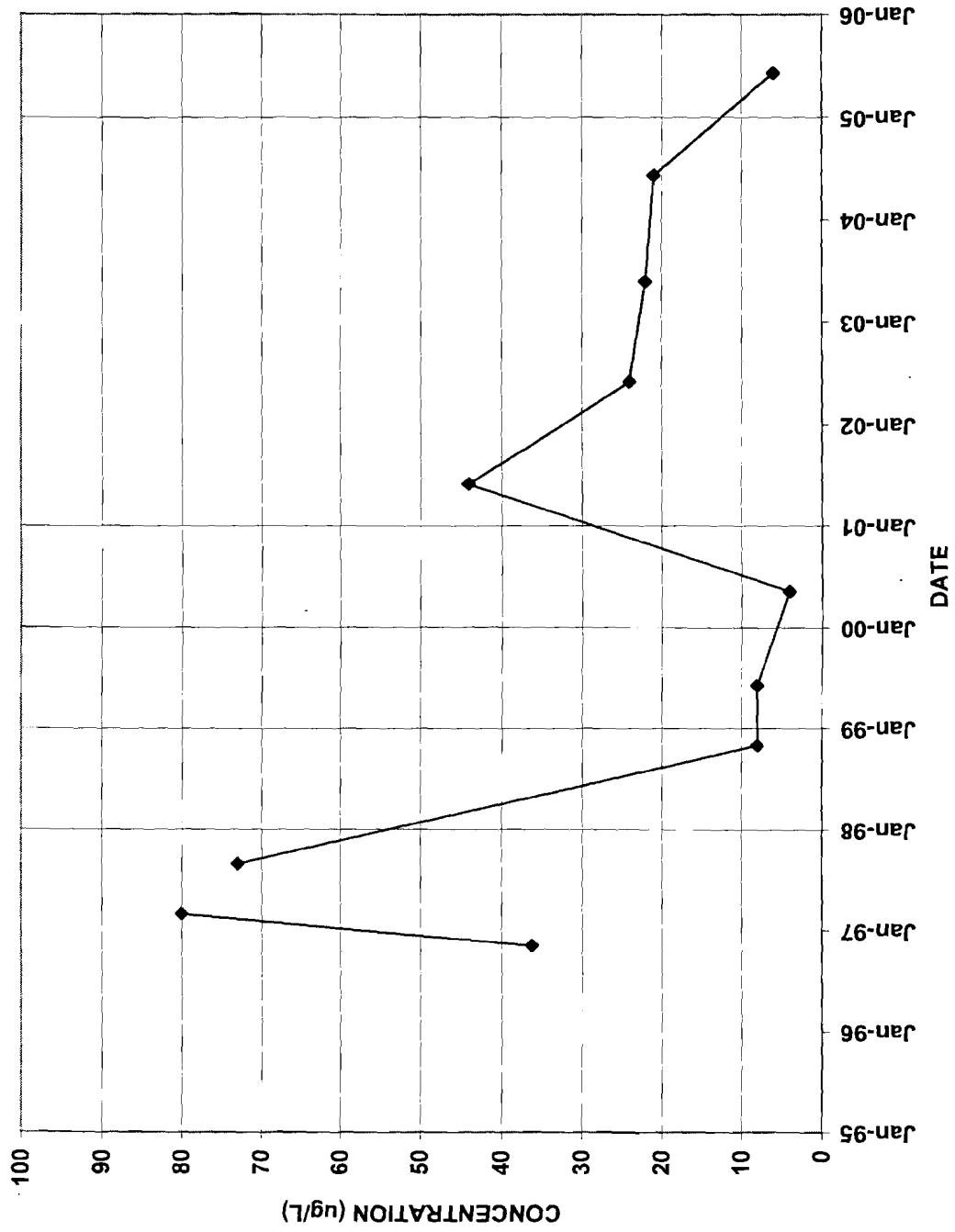


—◆— PYRIDINES

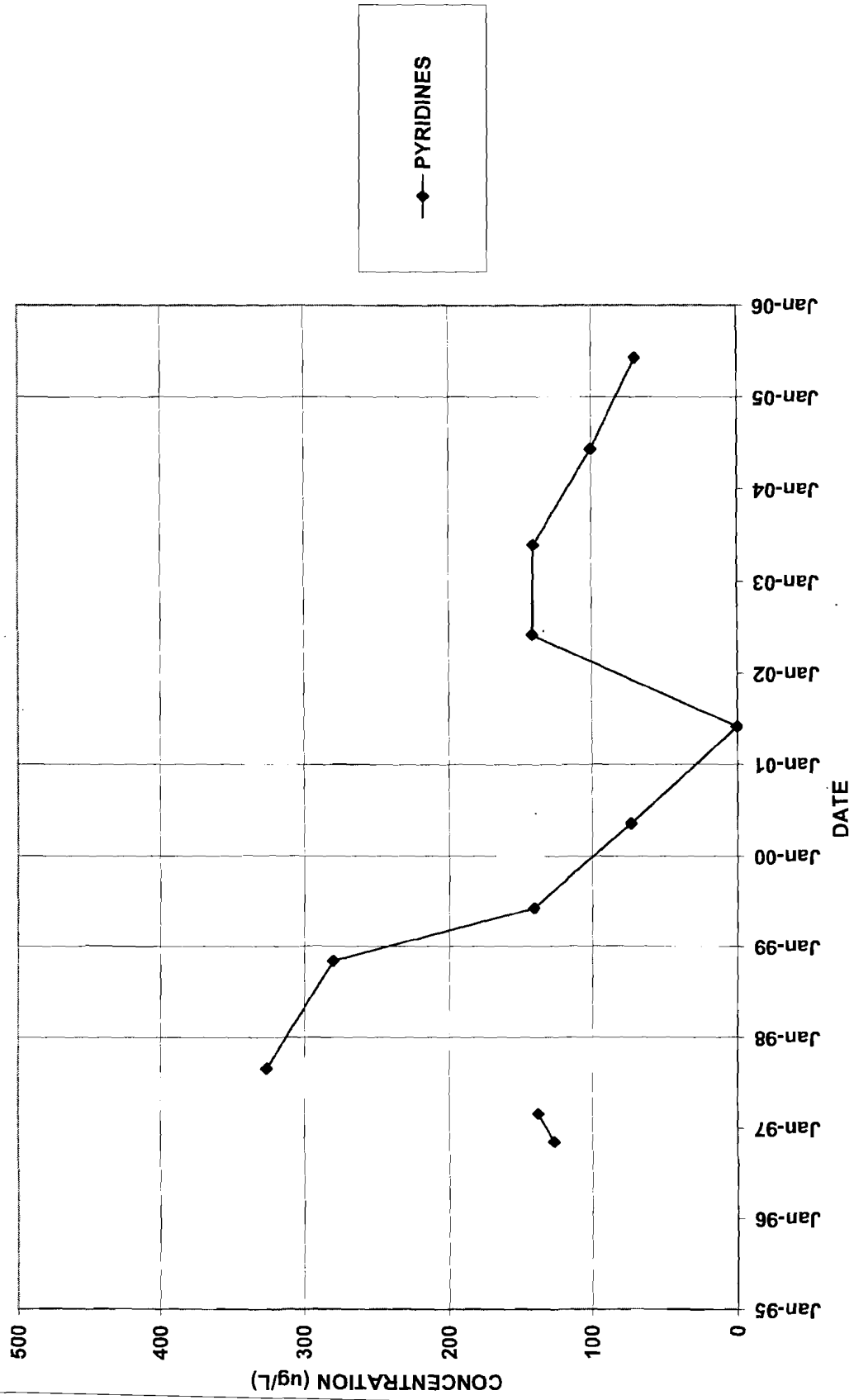
BR-116D



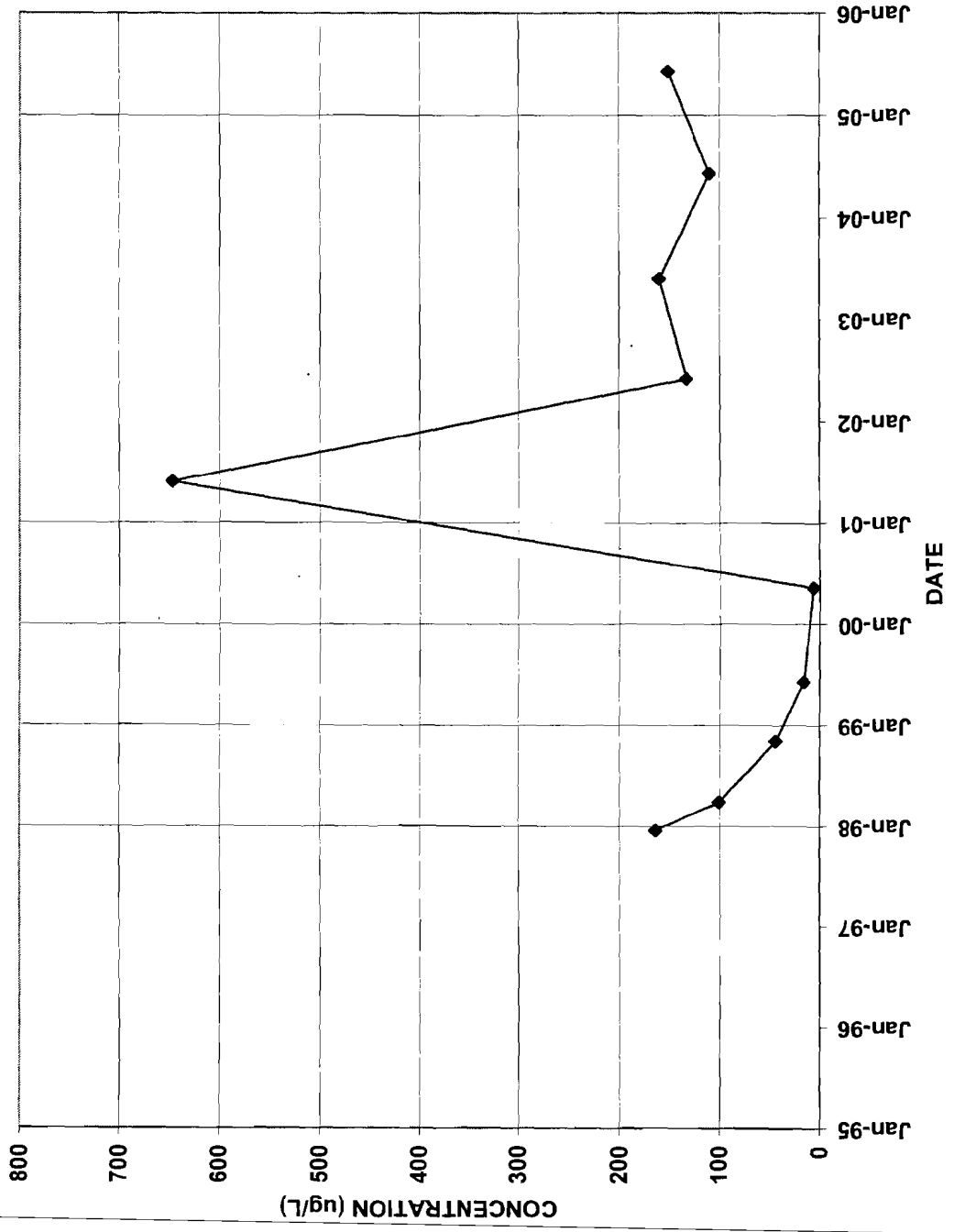
BR-117D



BR-118D

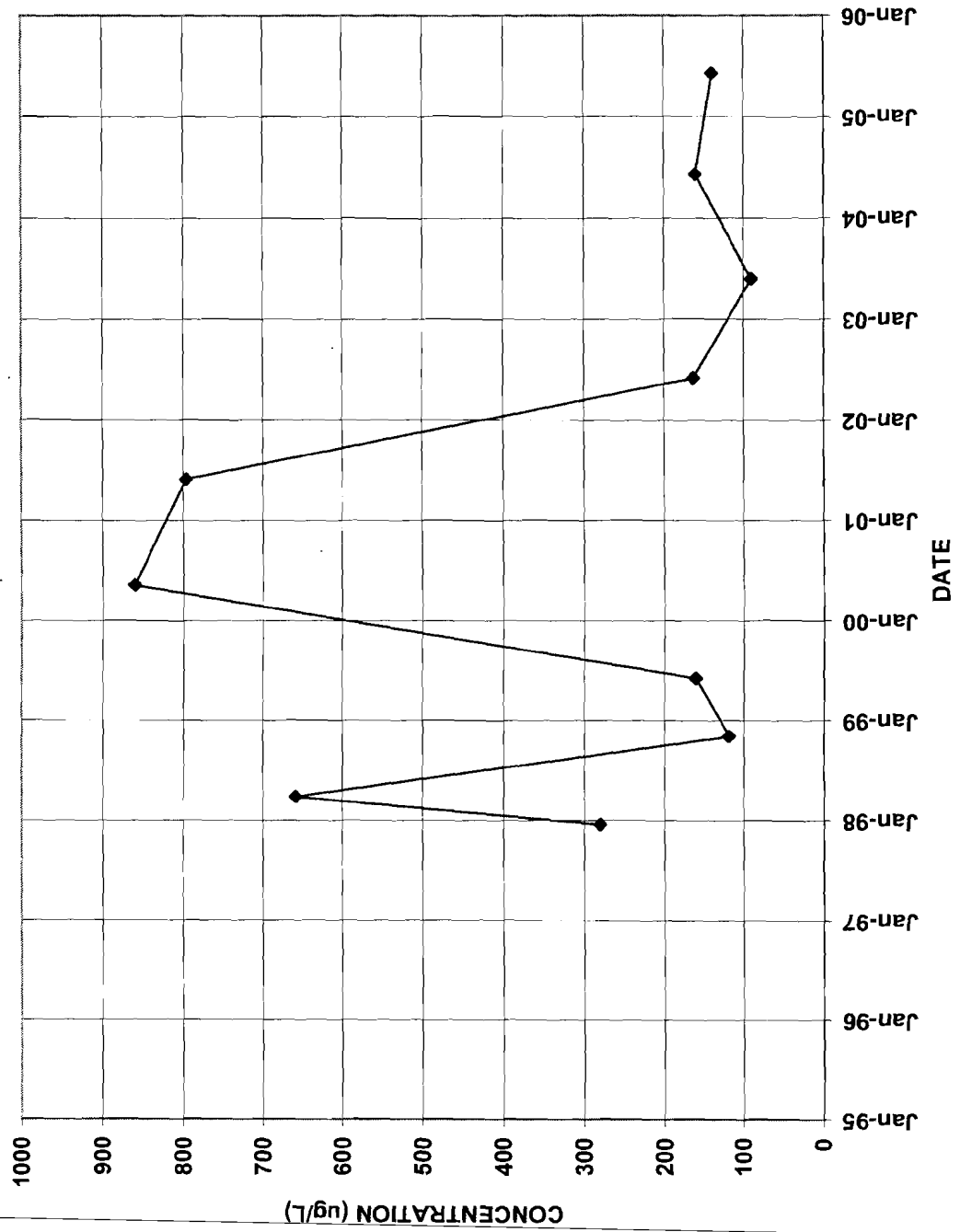


BR-122D



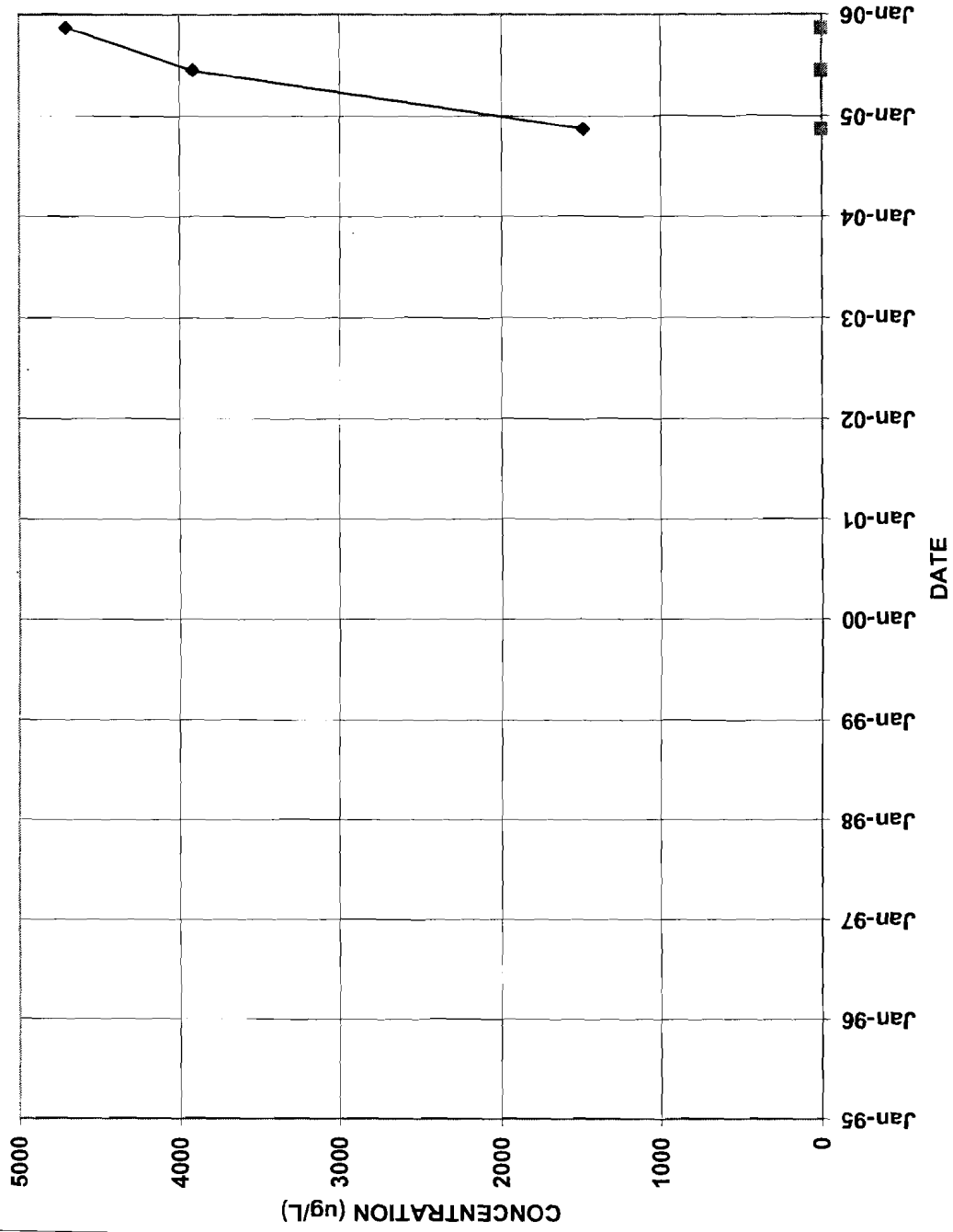
◆— PYRIDINES

BR-123D



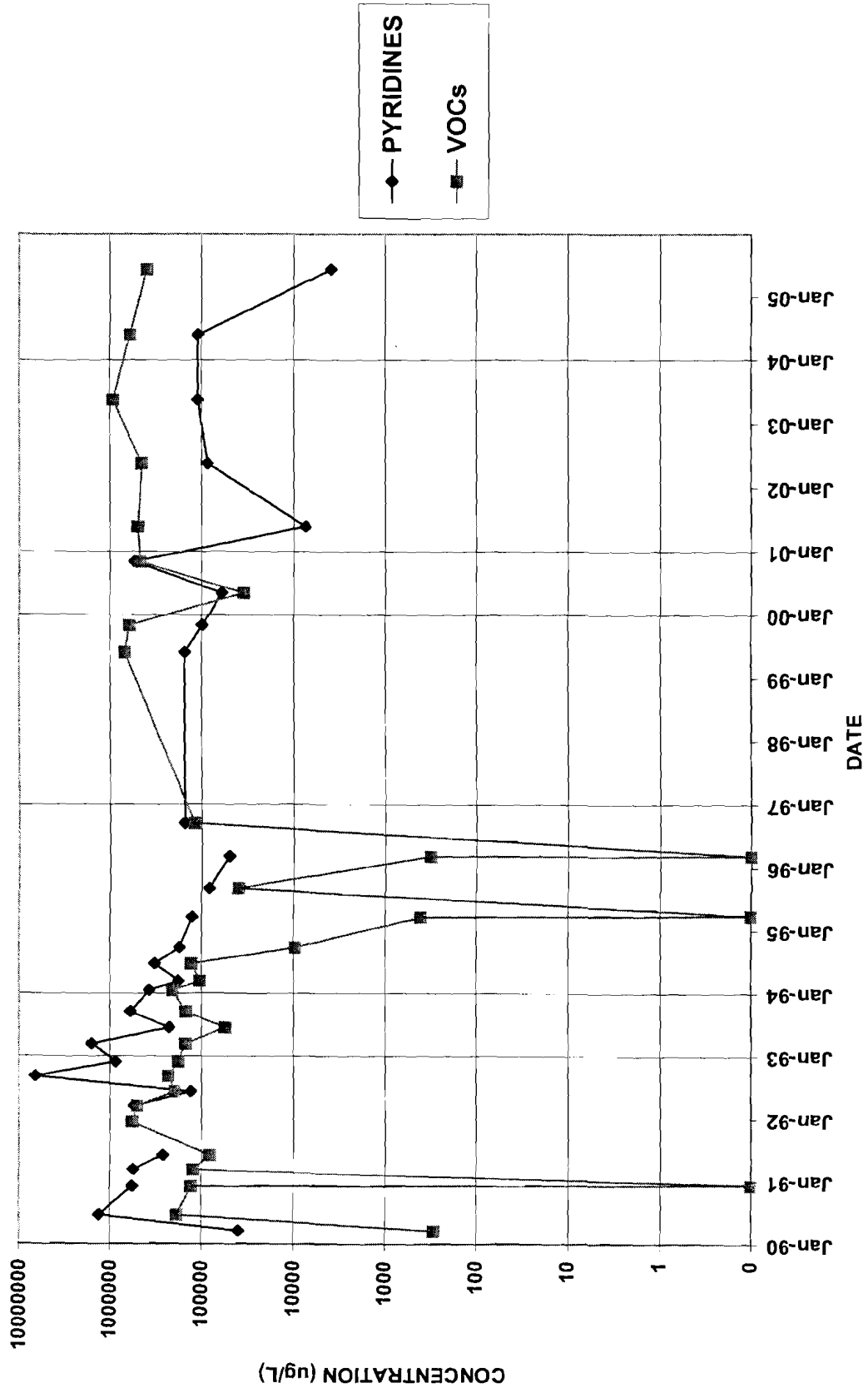
◆— PYRIDINES

BR-127

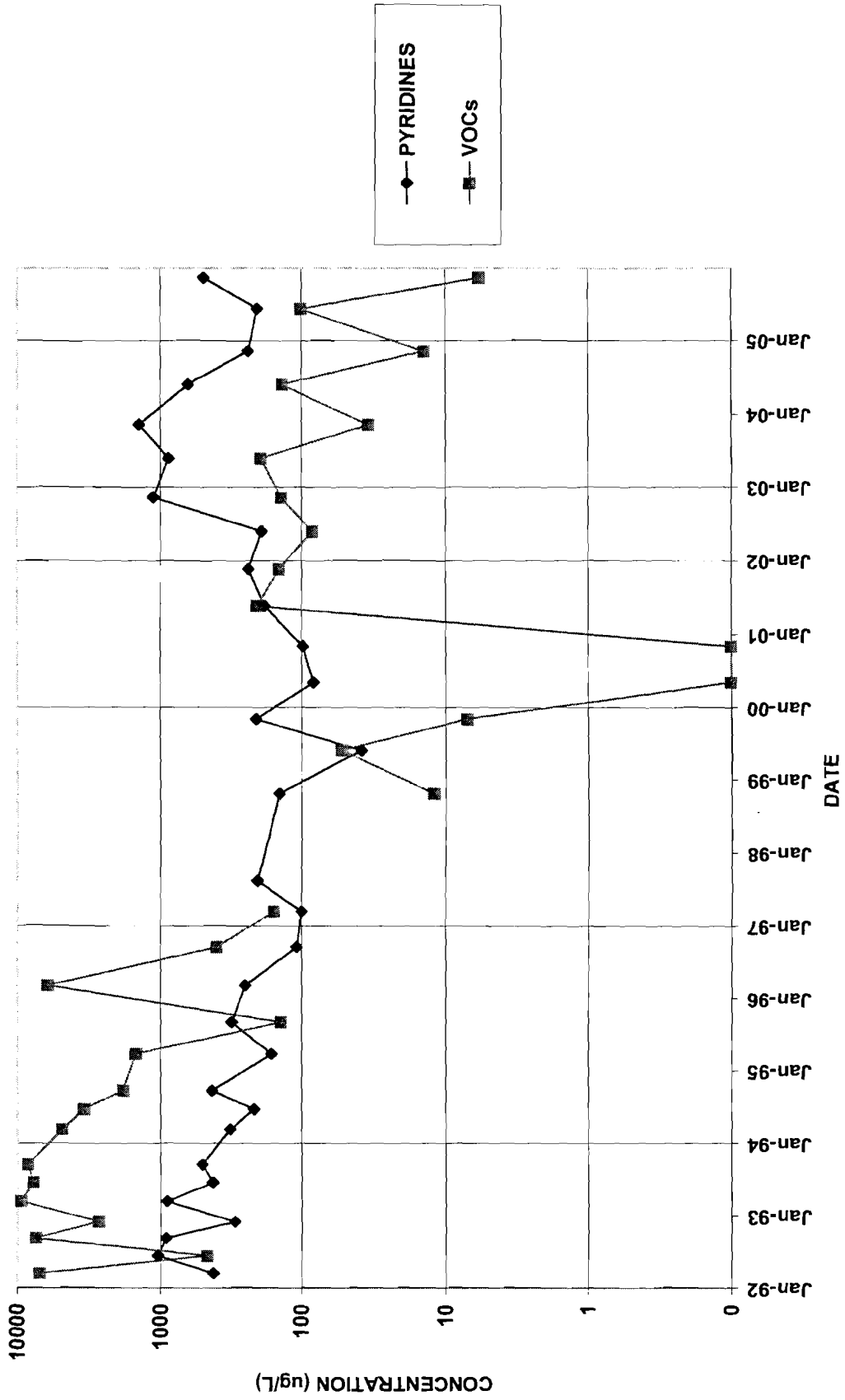


◆ PYRIDINES
■ VOCs

BR-3

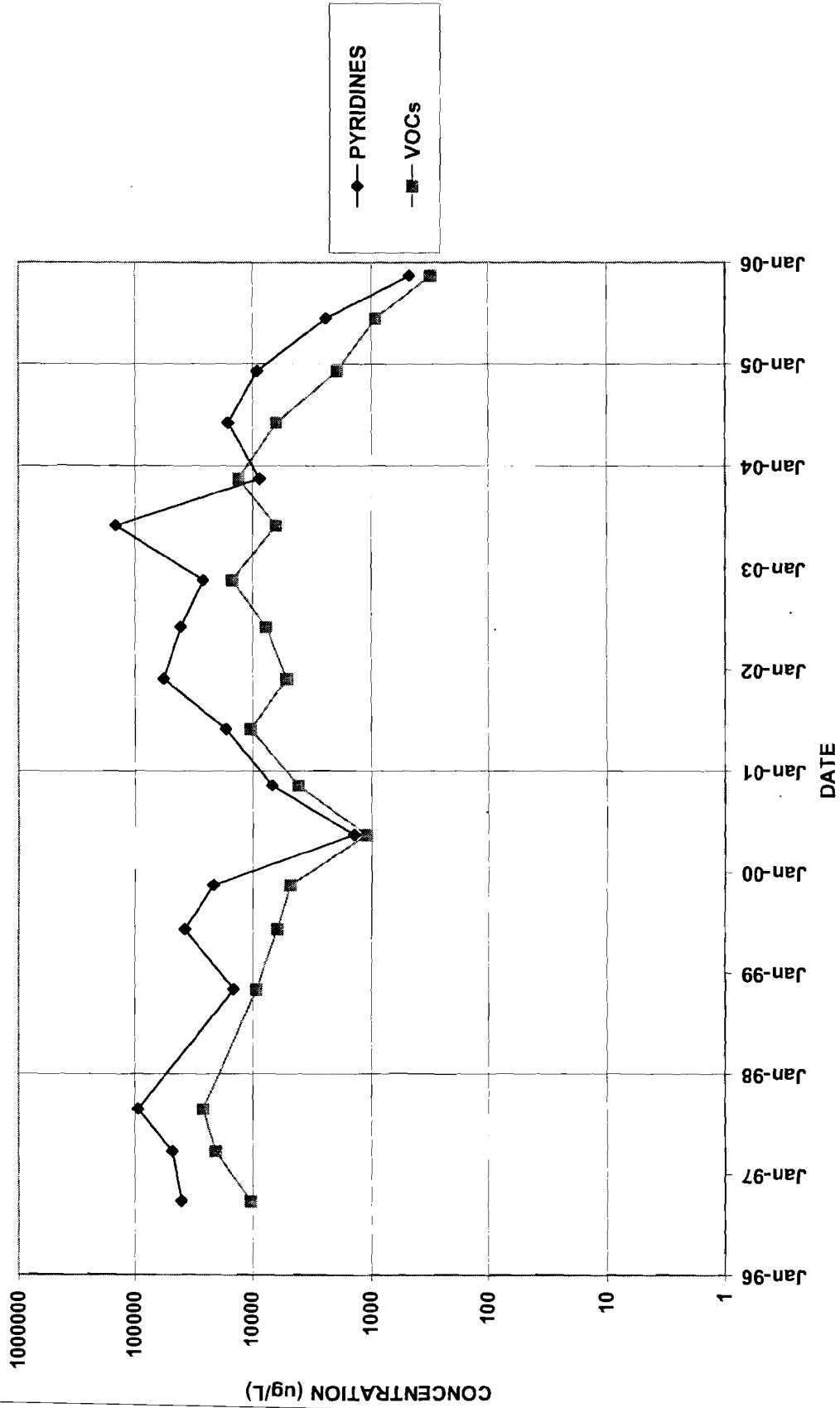


BR-5A

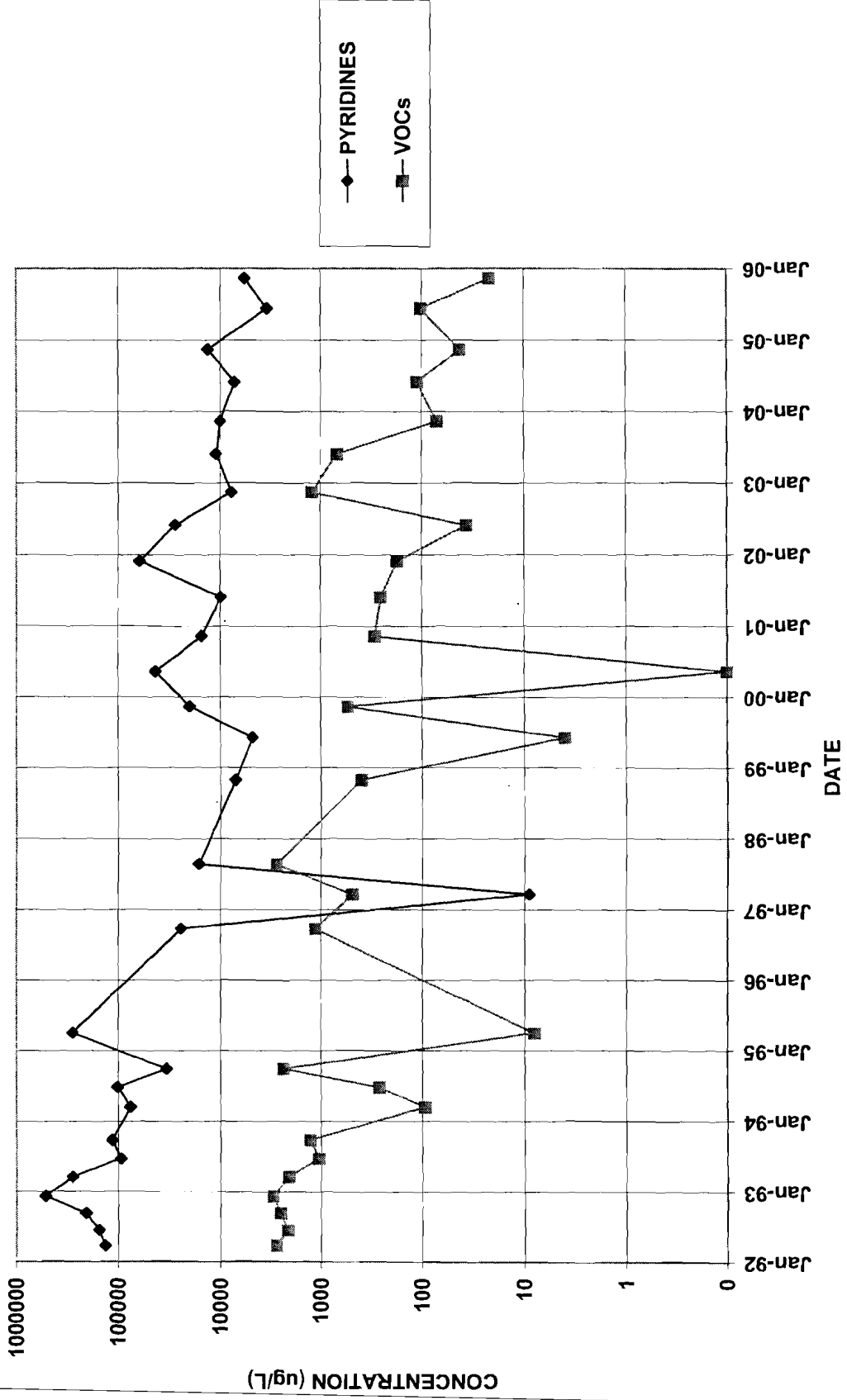


Prepared by: nmb
Reviewed by: jeb

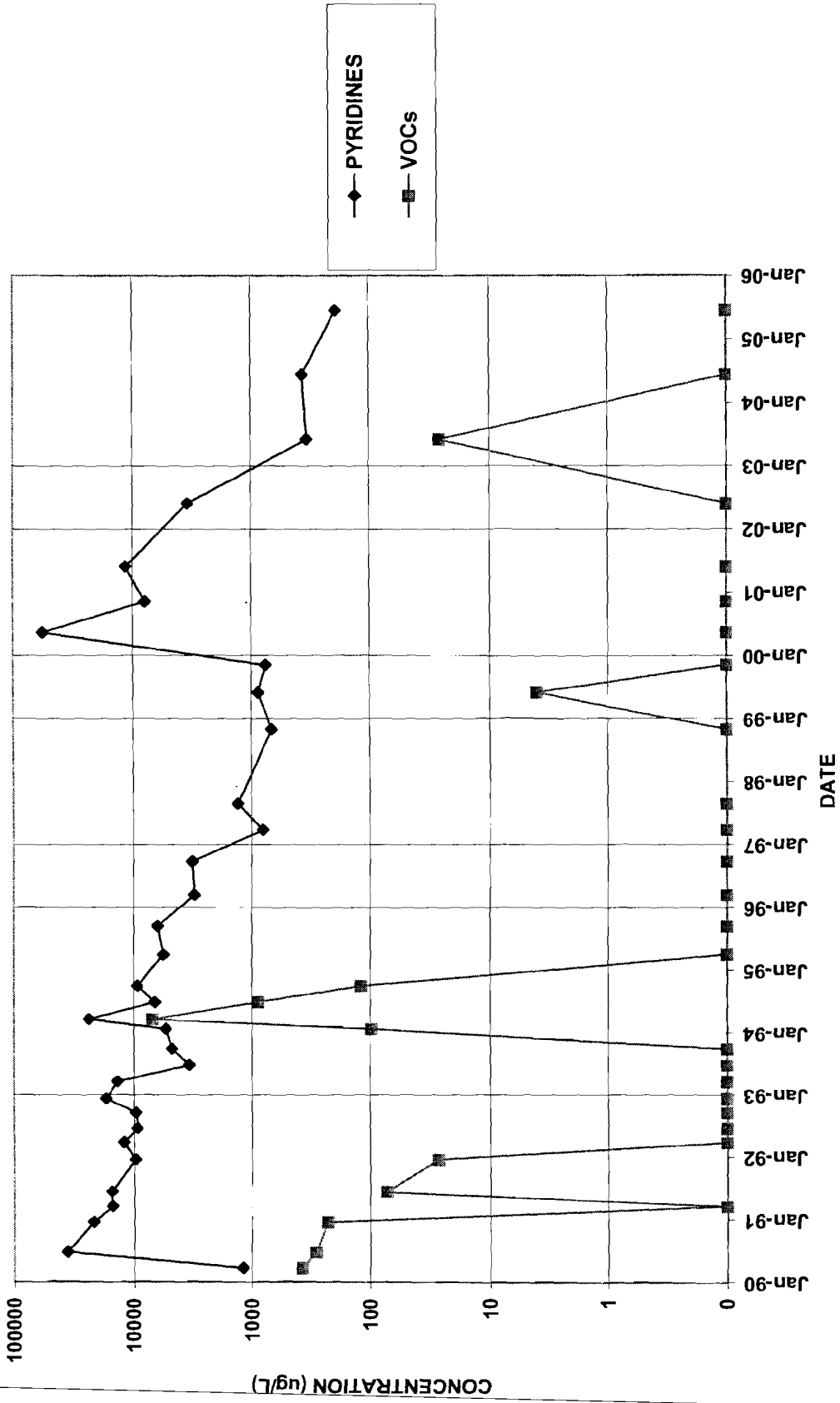
BR-6A



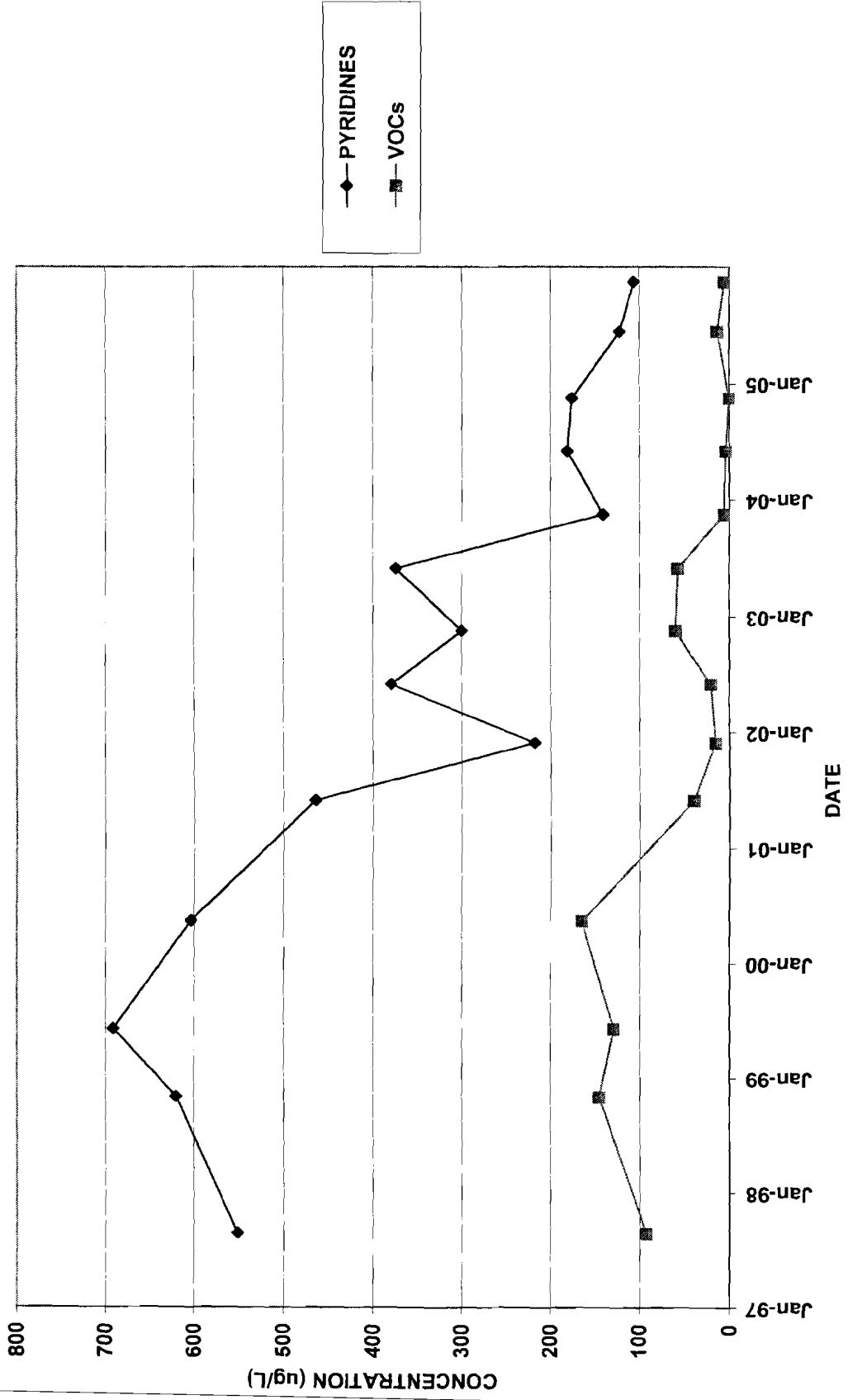
BR-7A



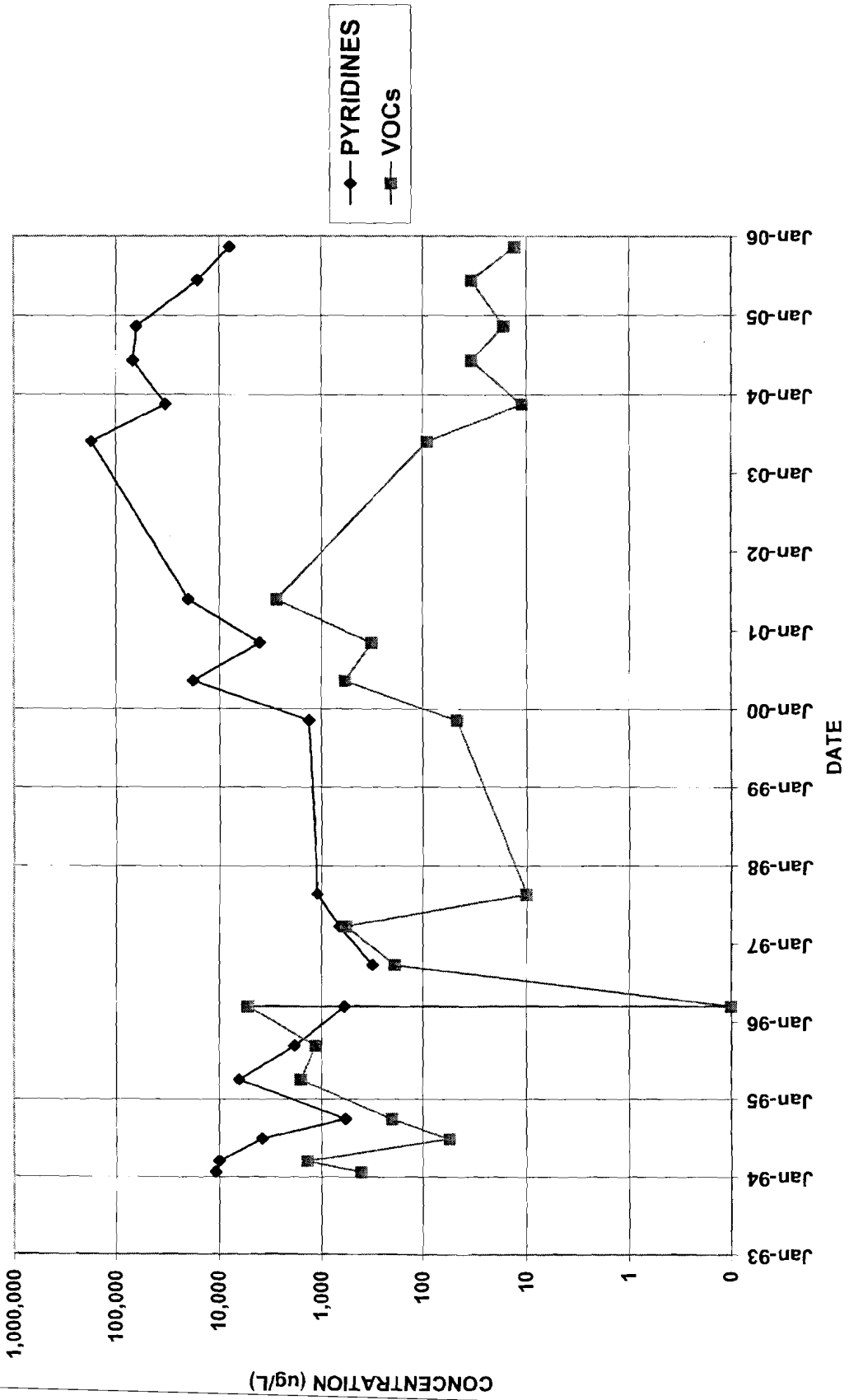
BR-8



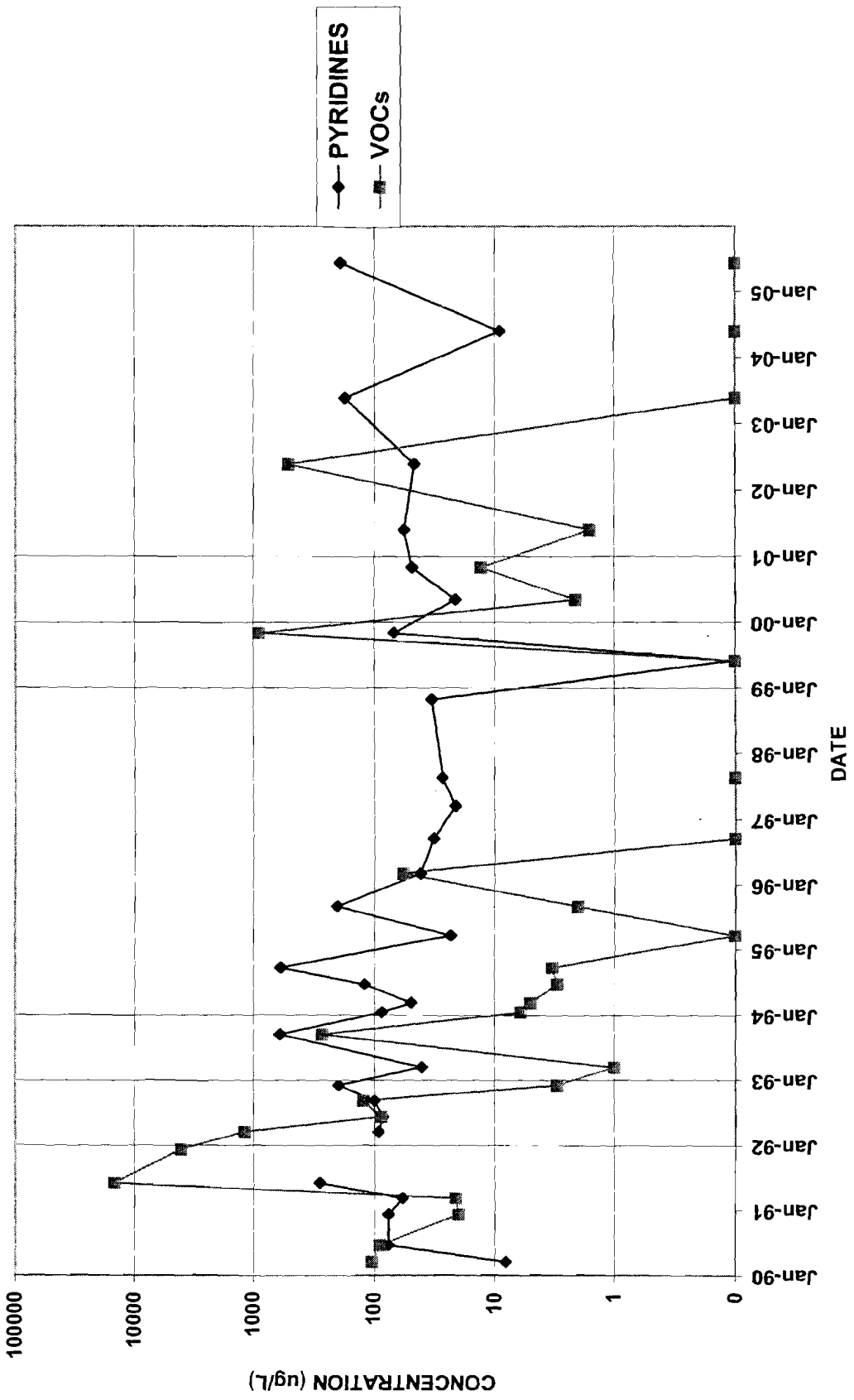
BR-9



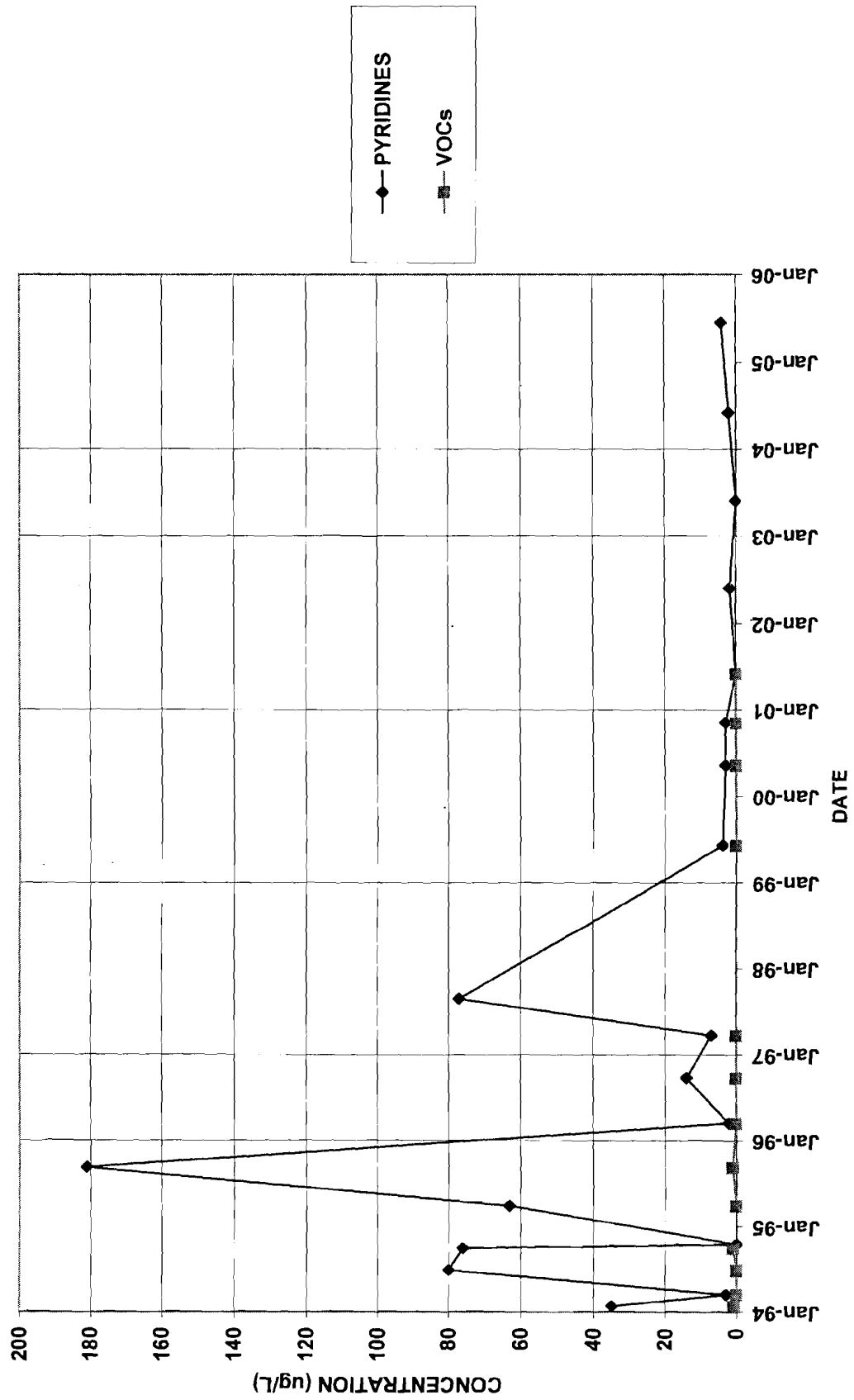
E-1



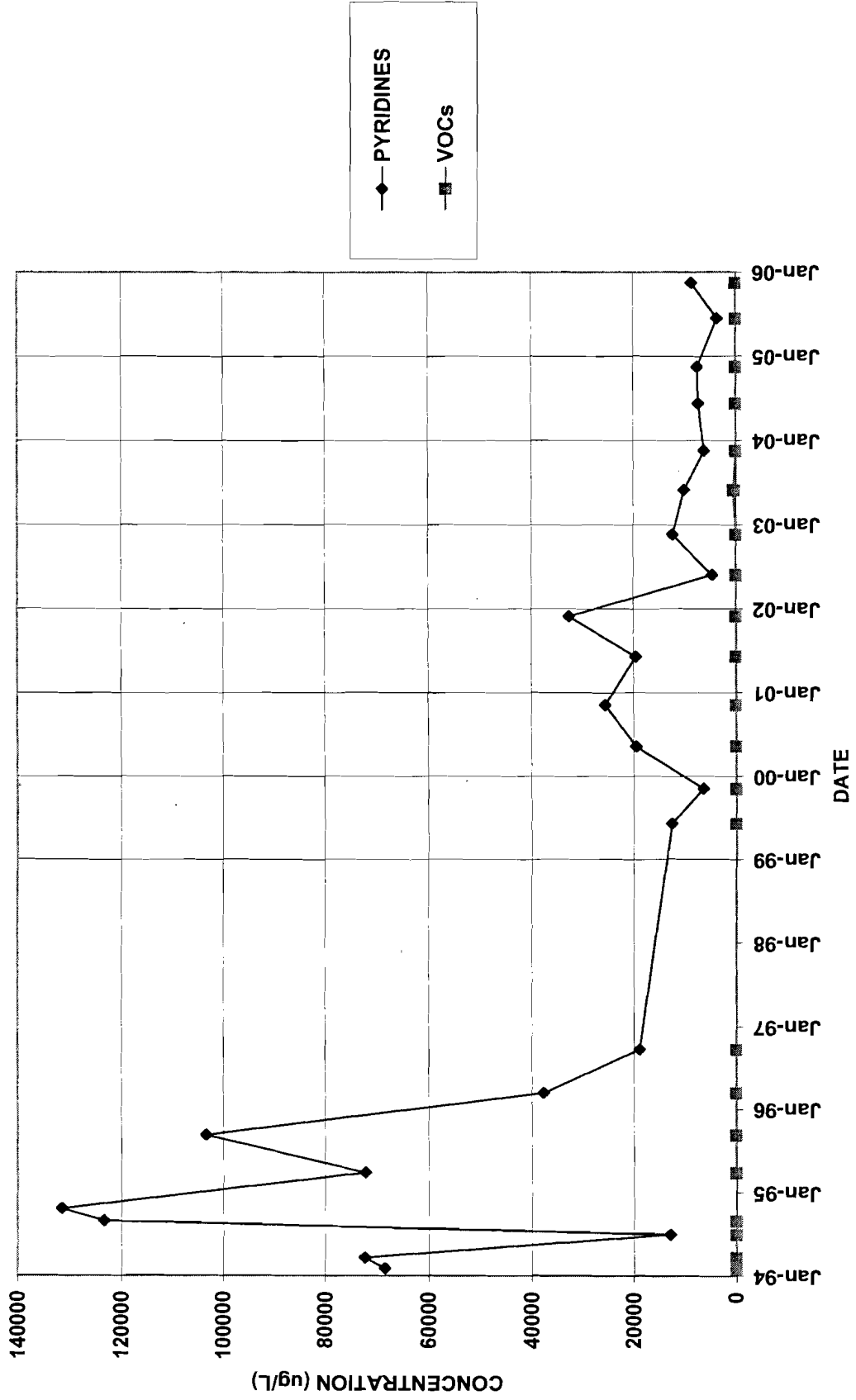
E-3



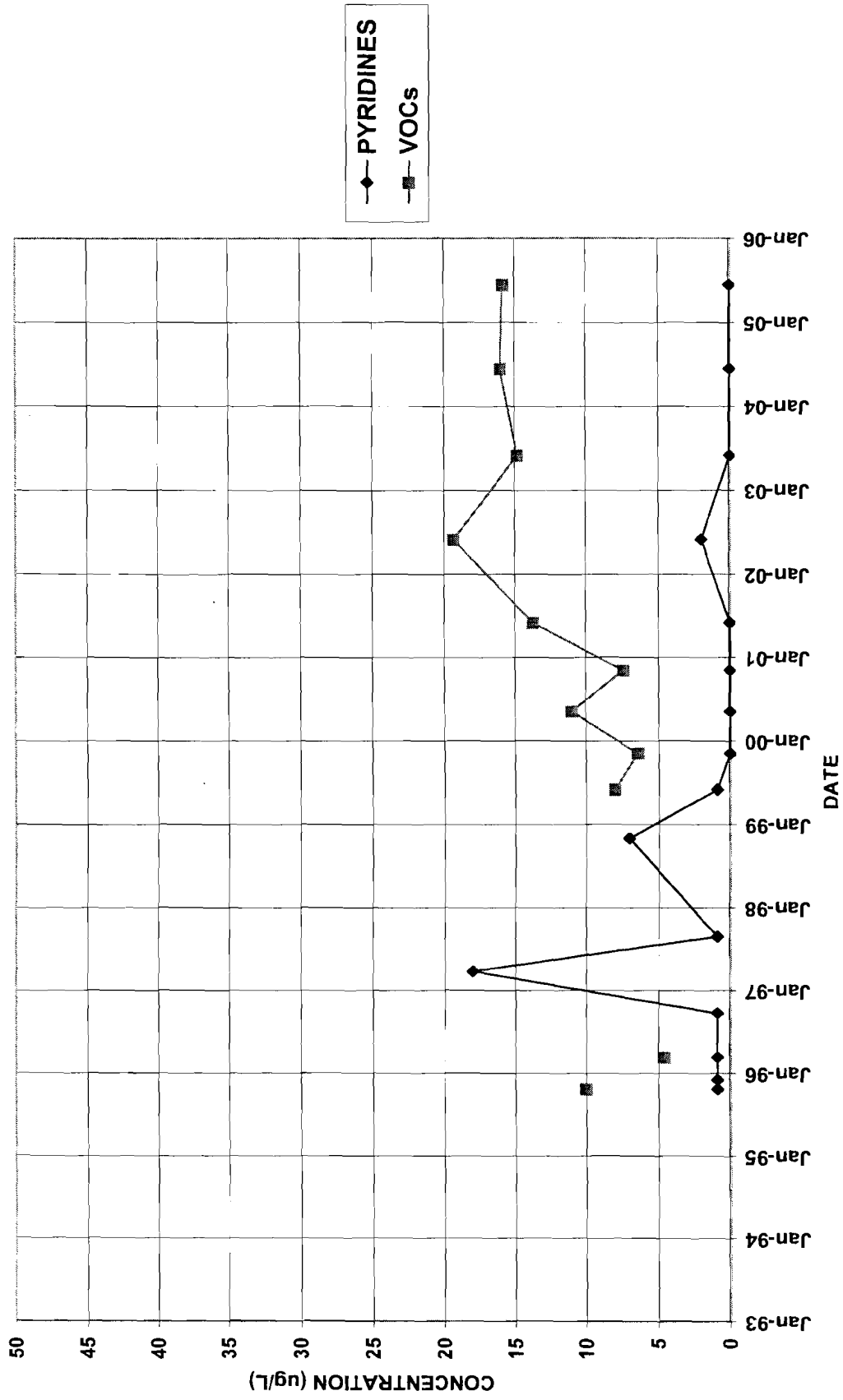
MW-104



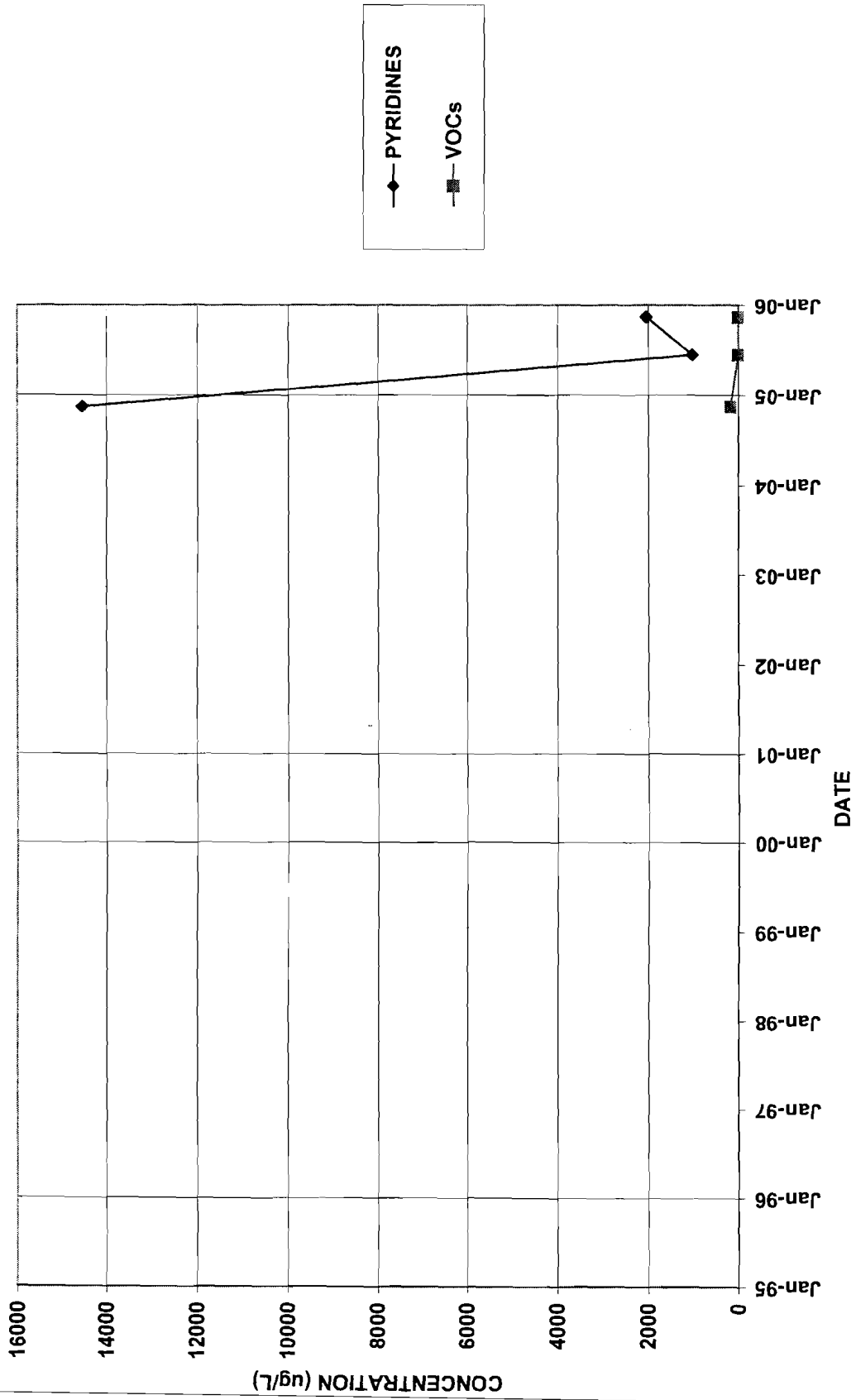
MW-106



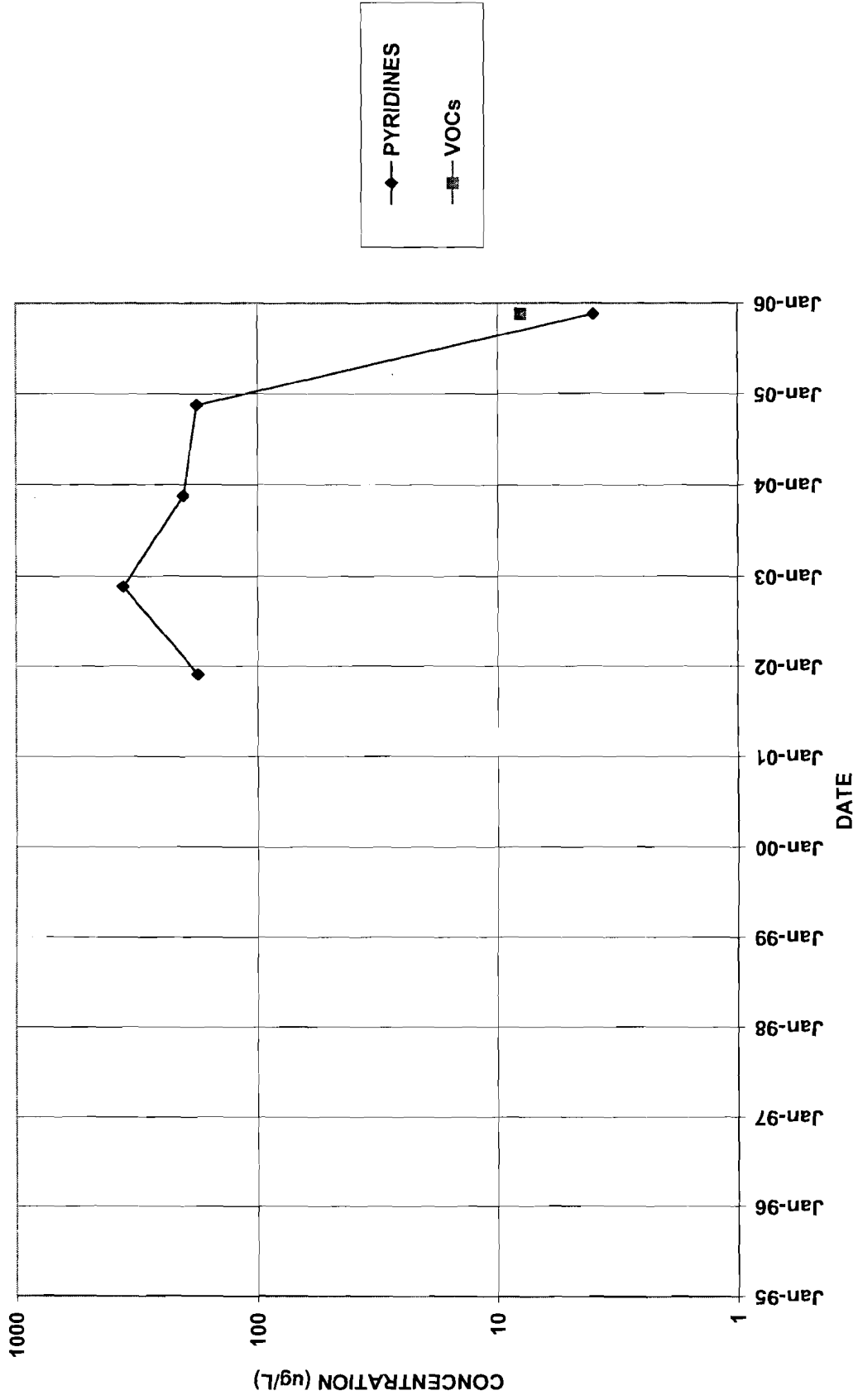
MW-114



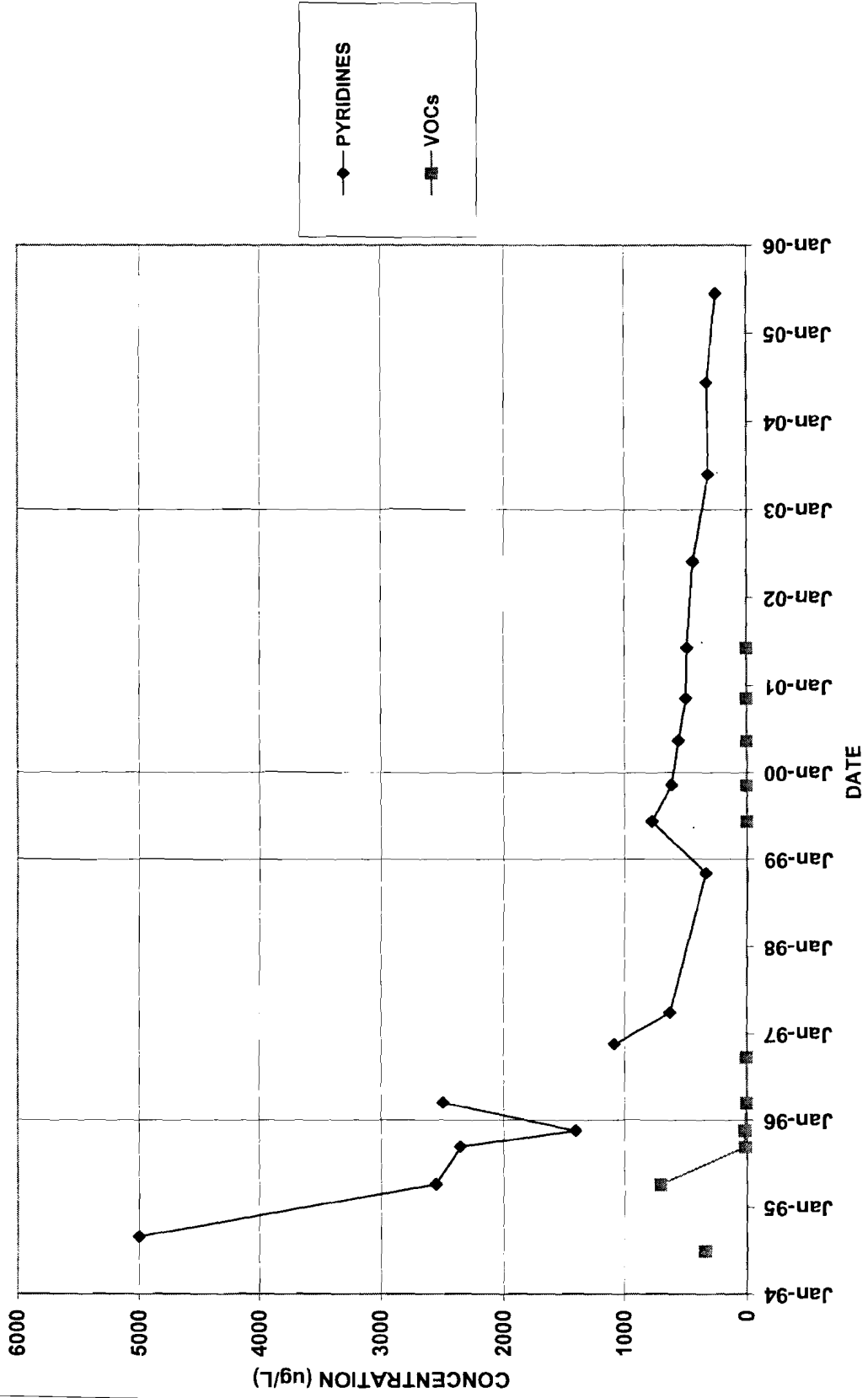
MW-127



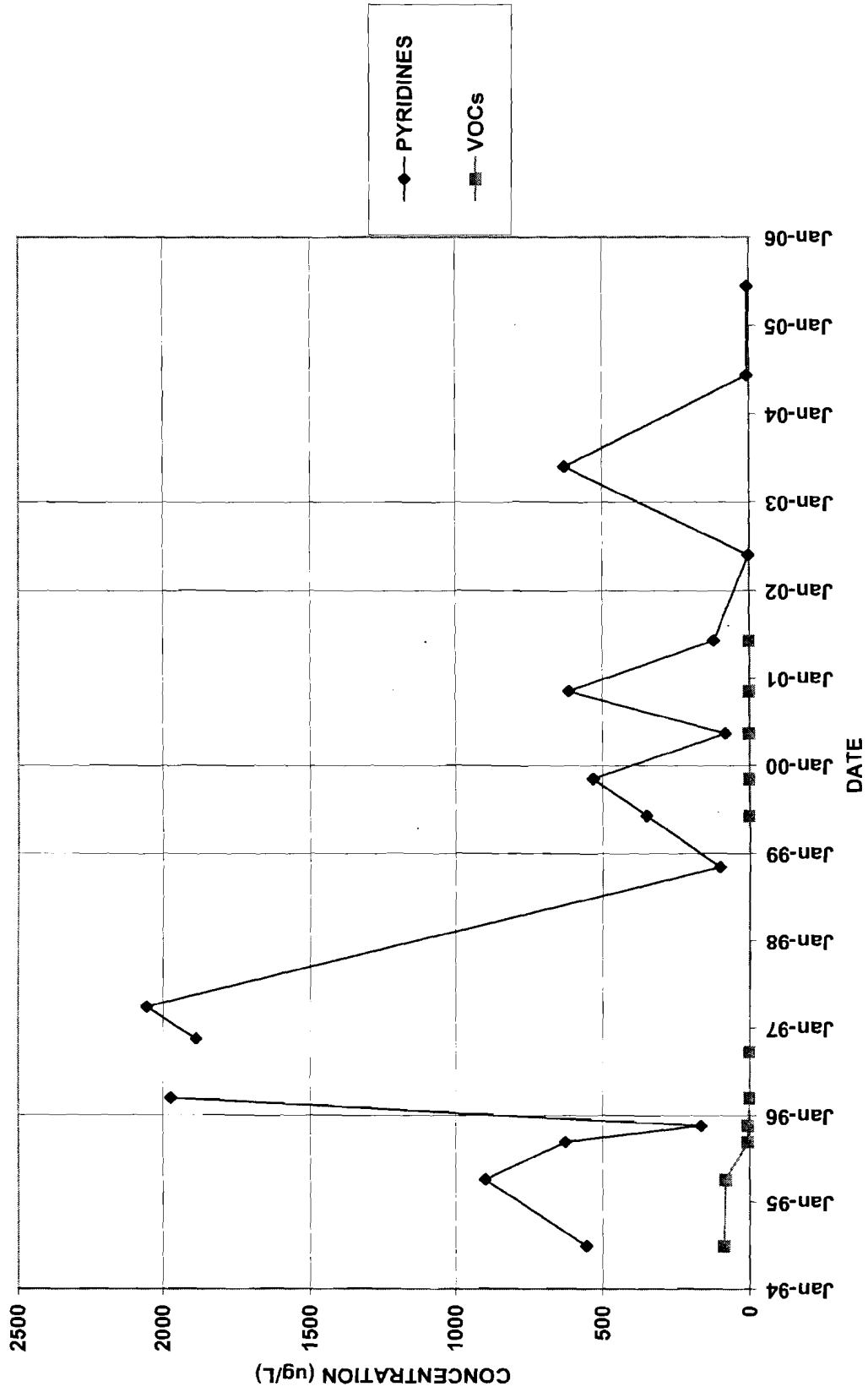
MW-16



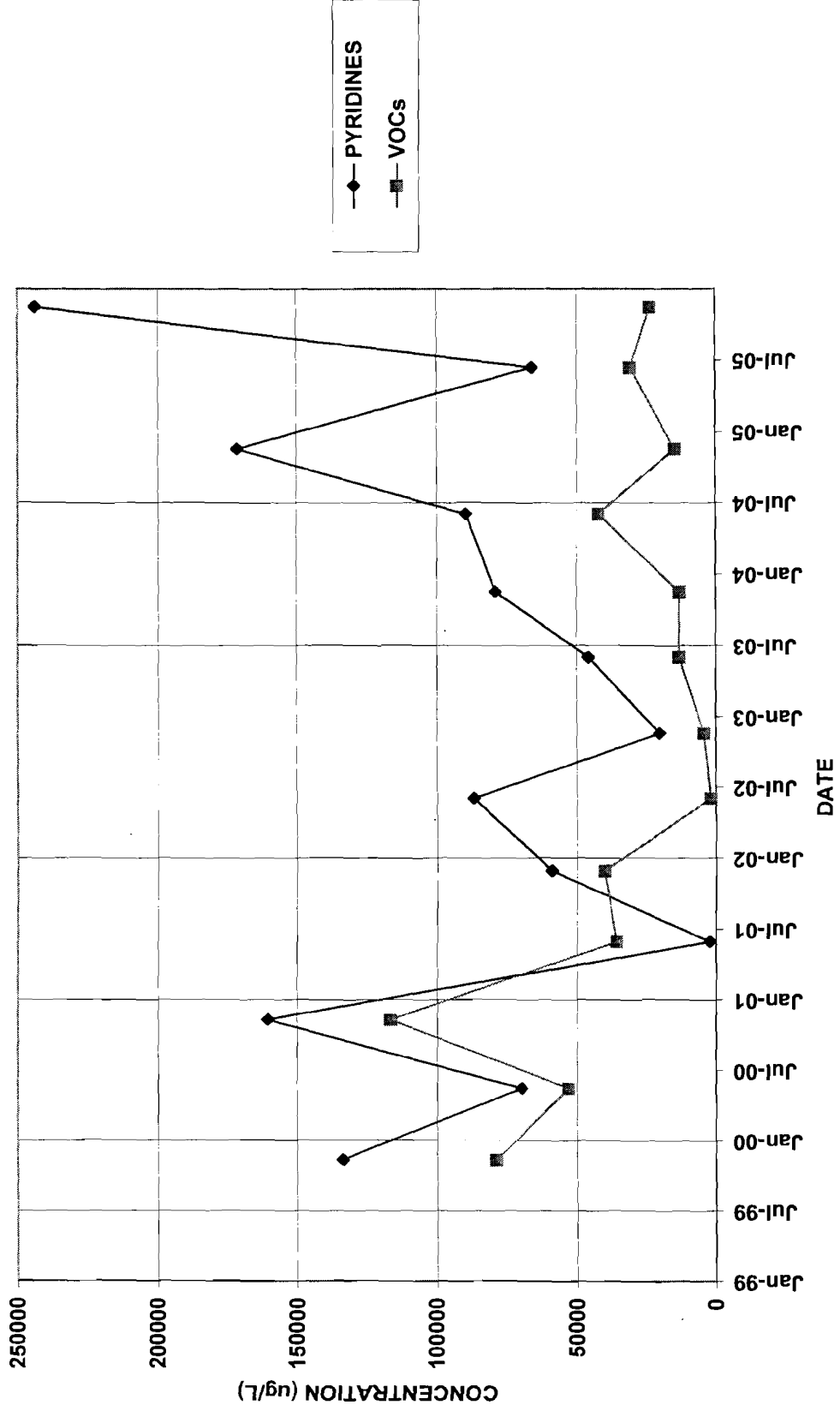
NESS-E



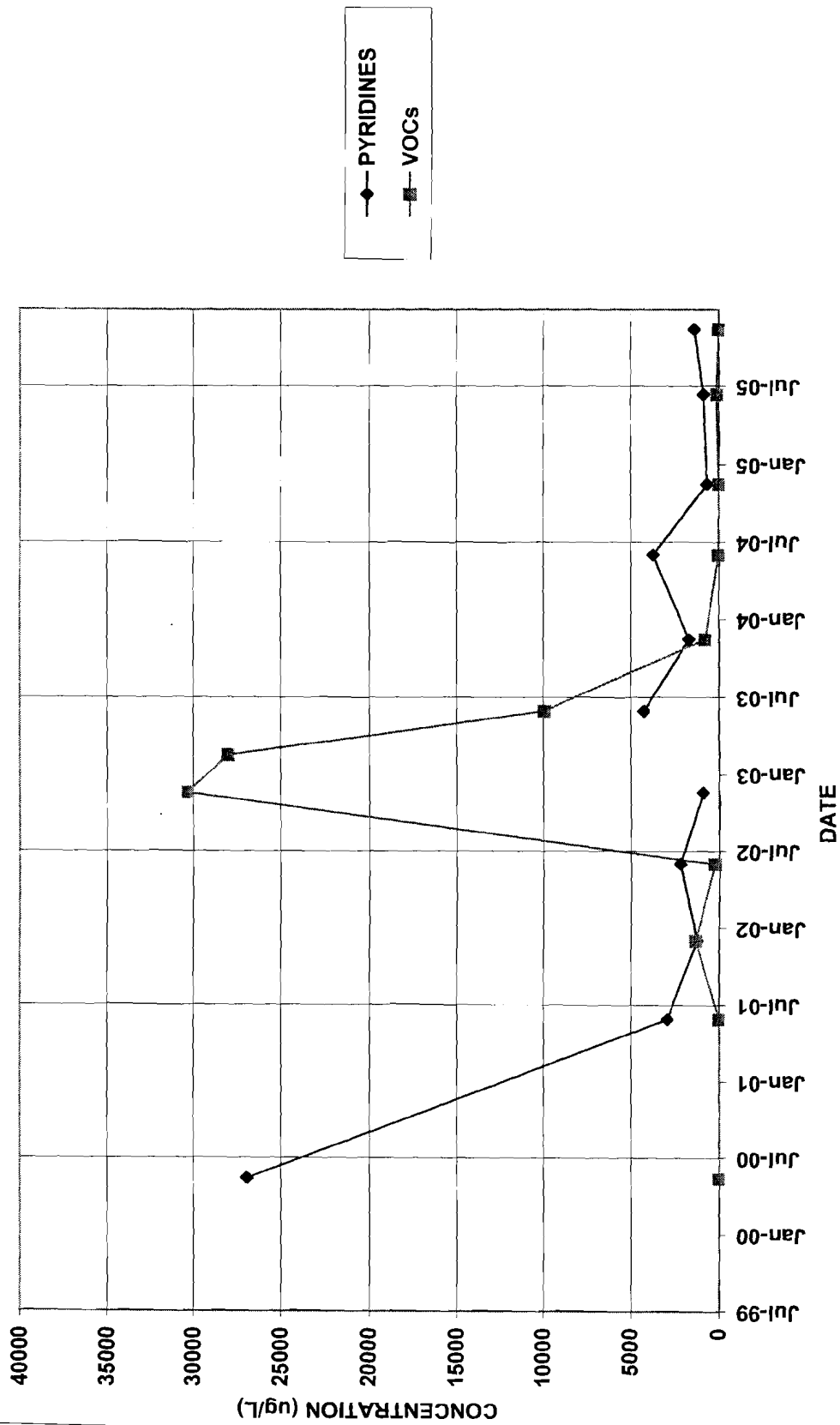
NESS-W



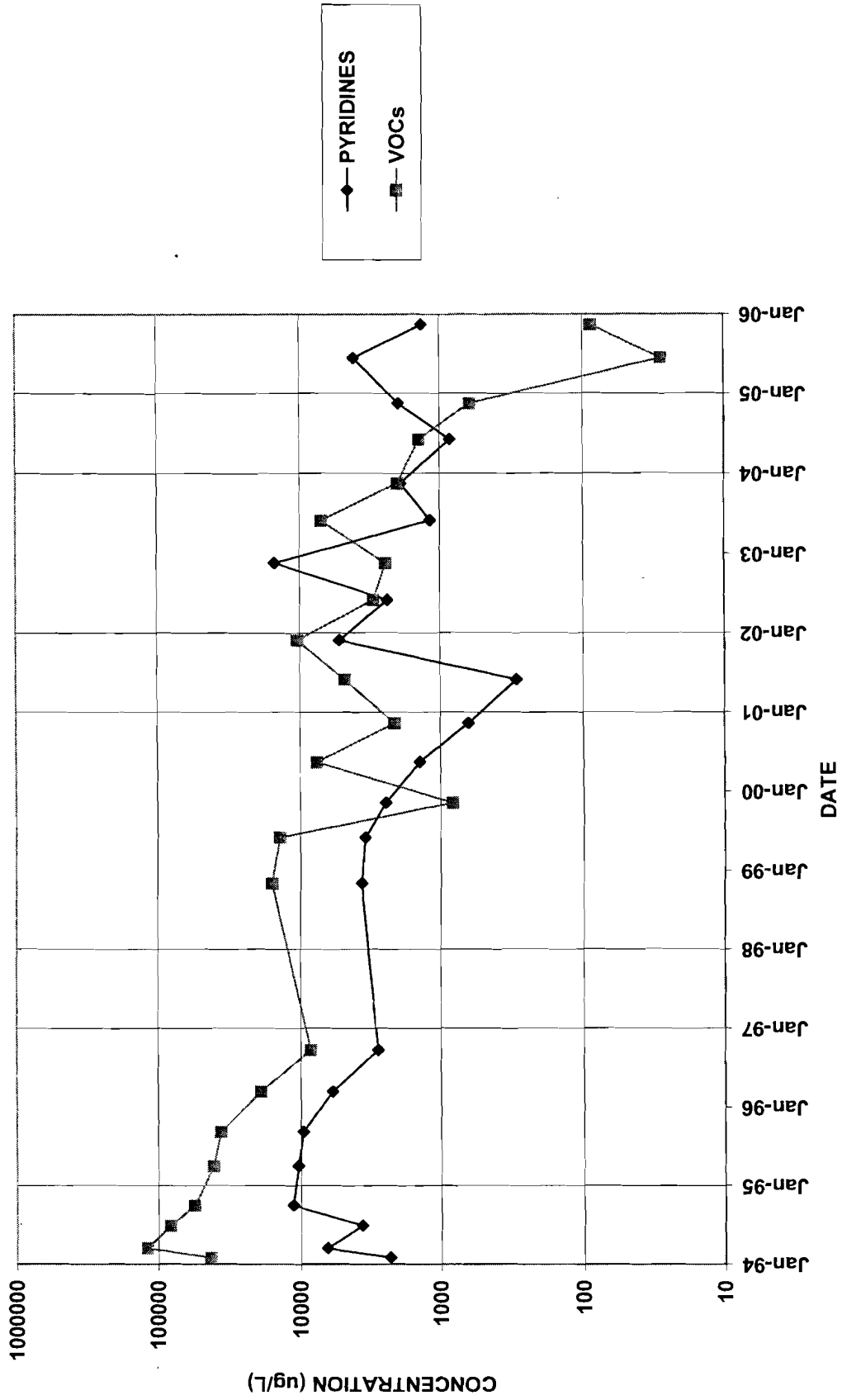
PW10



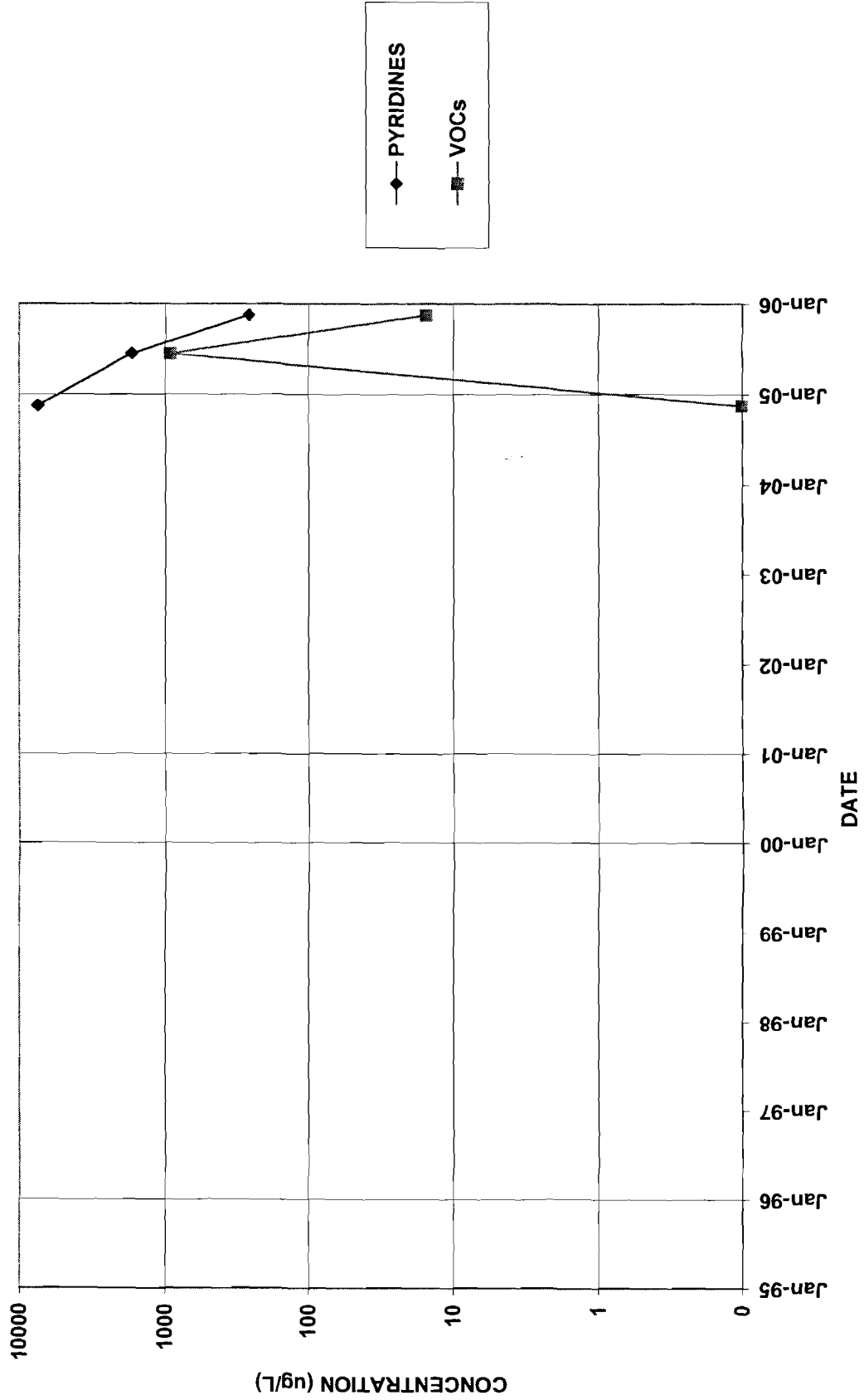
PW11



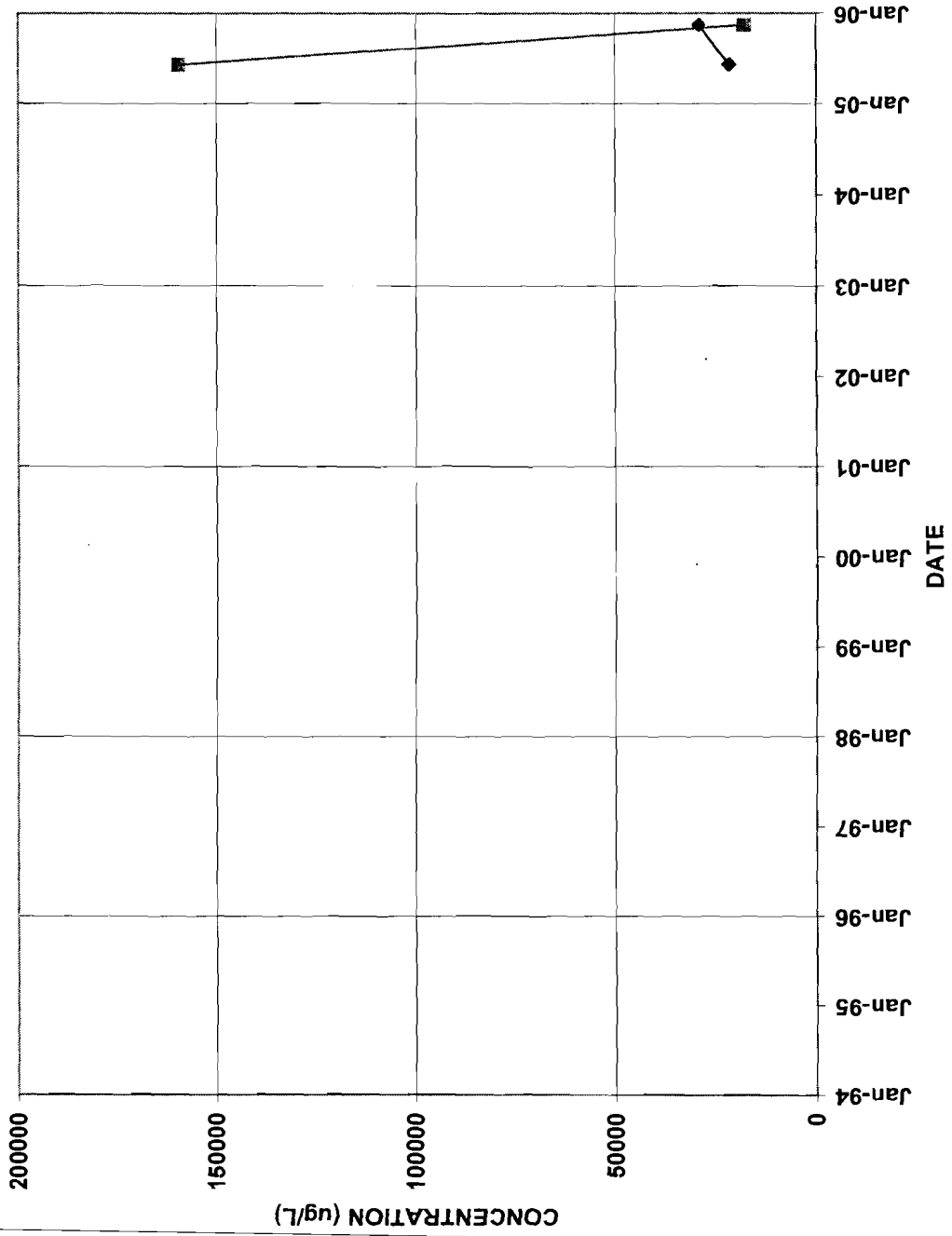
PW12 (Formerly BR-101)



PW13

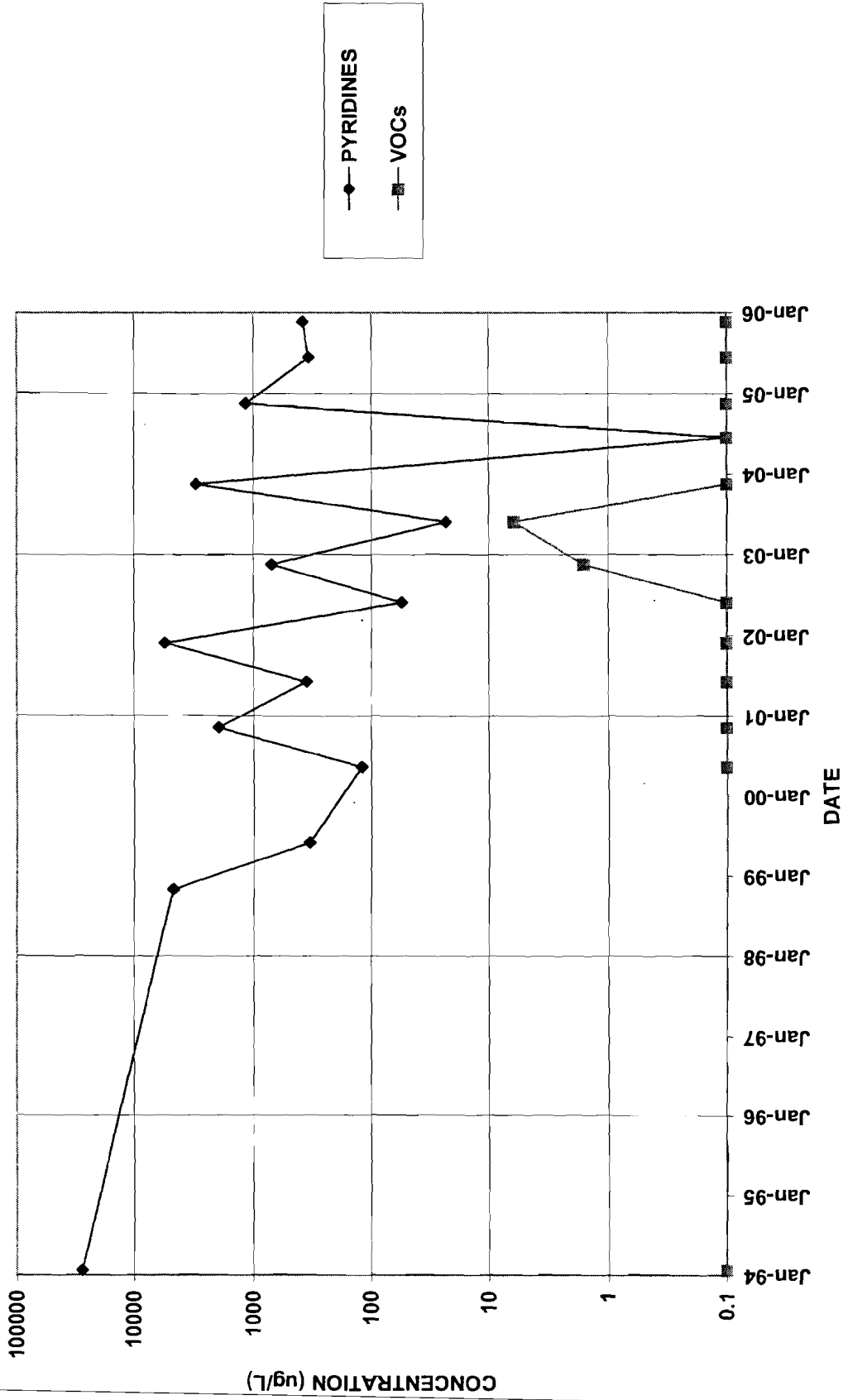


PW14

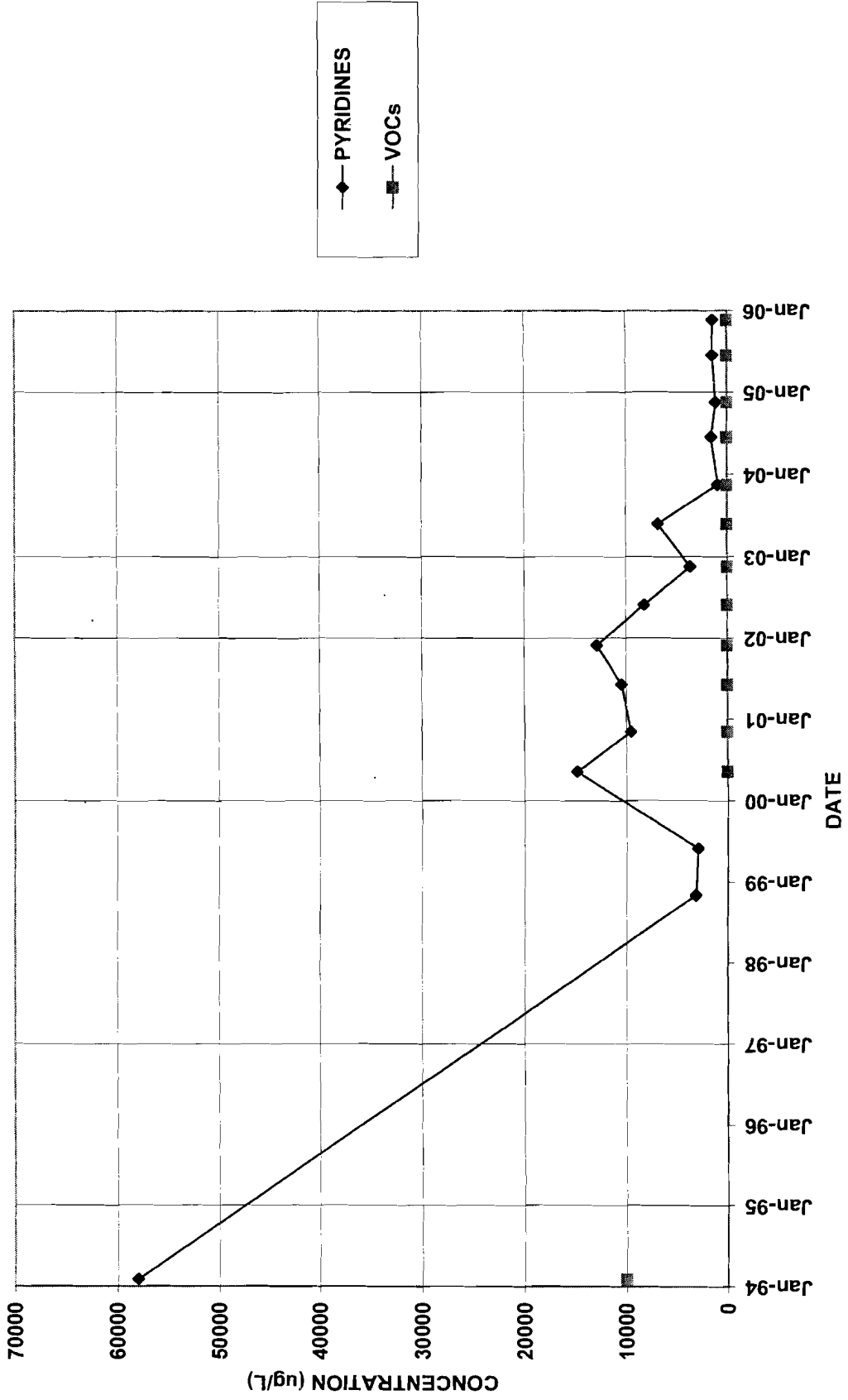


◆ PYRIDINES
■ VOCs

PZ-101

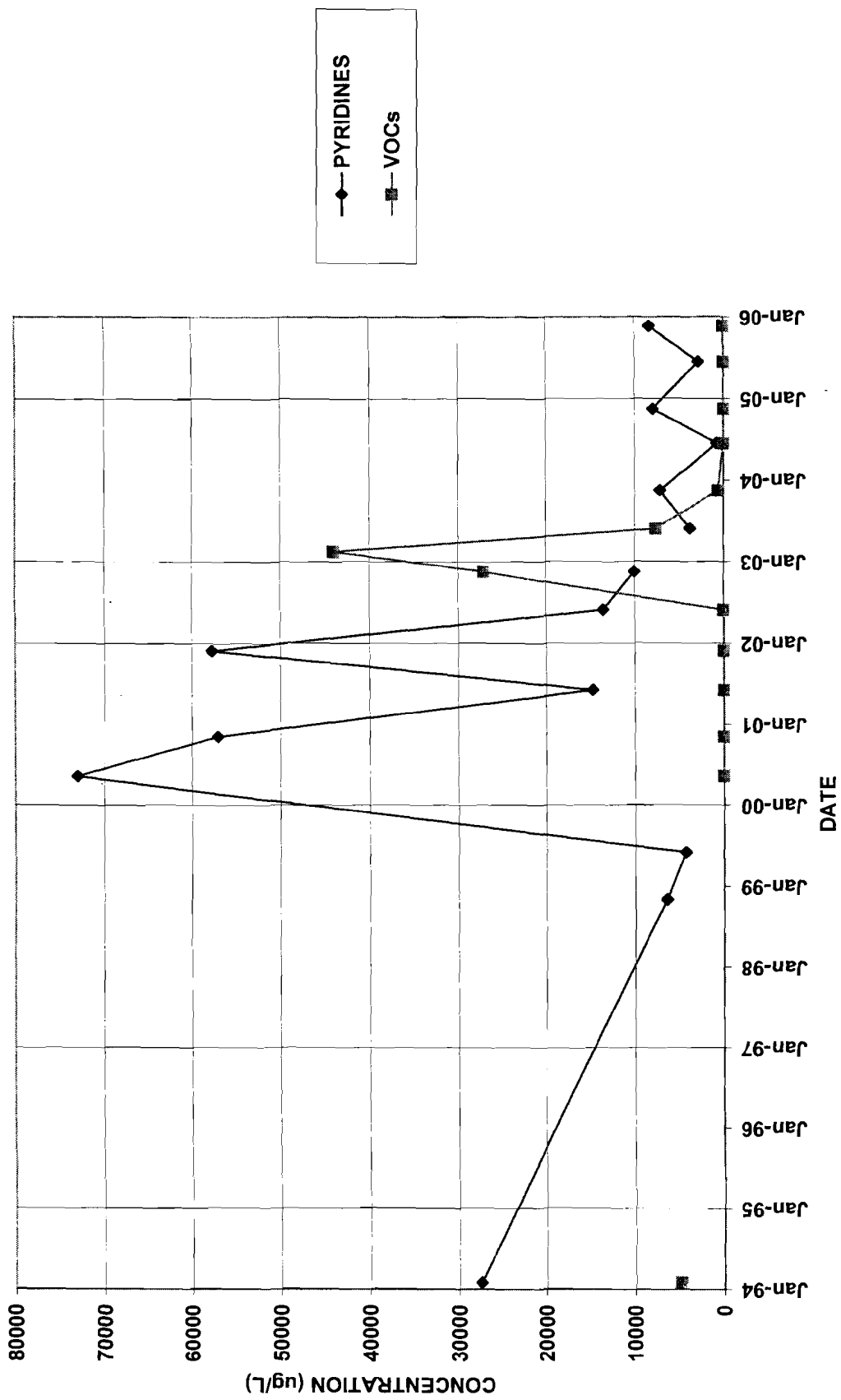


PZ-102

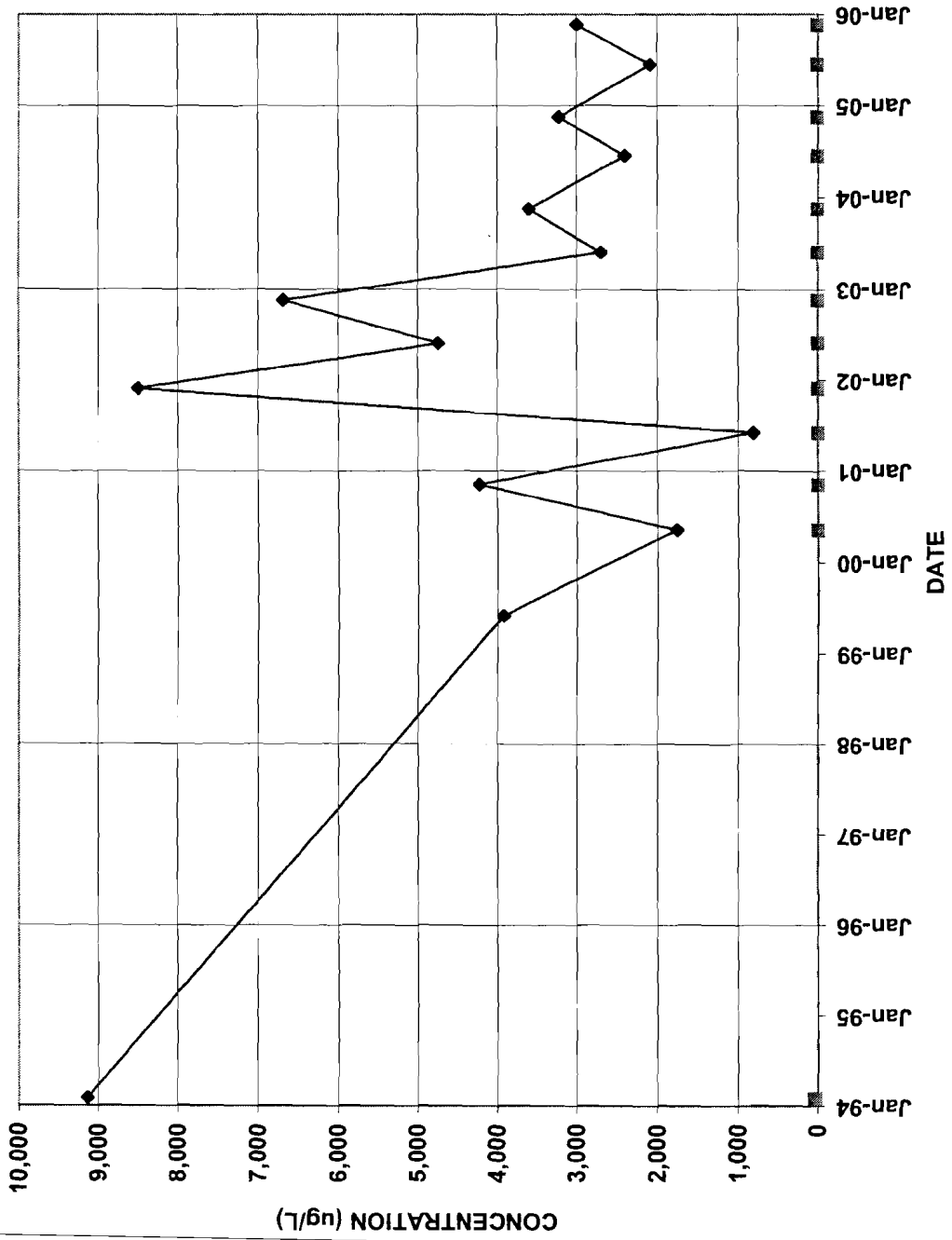


◆ PYRIDINES
■ VOCs

PZ-103

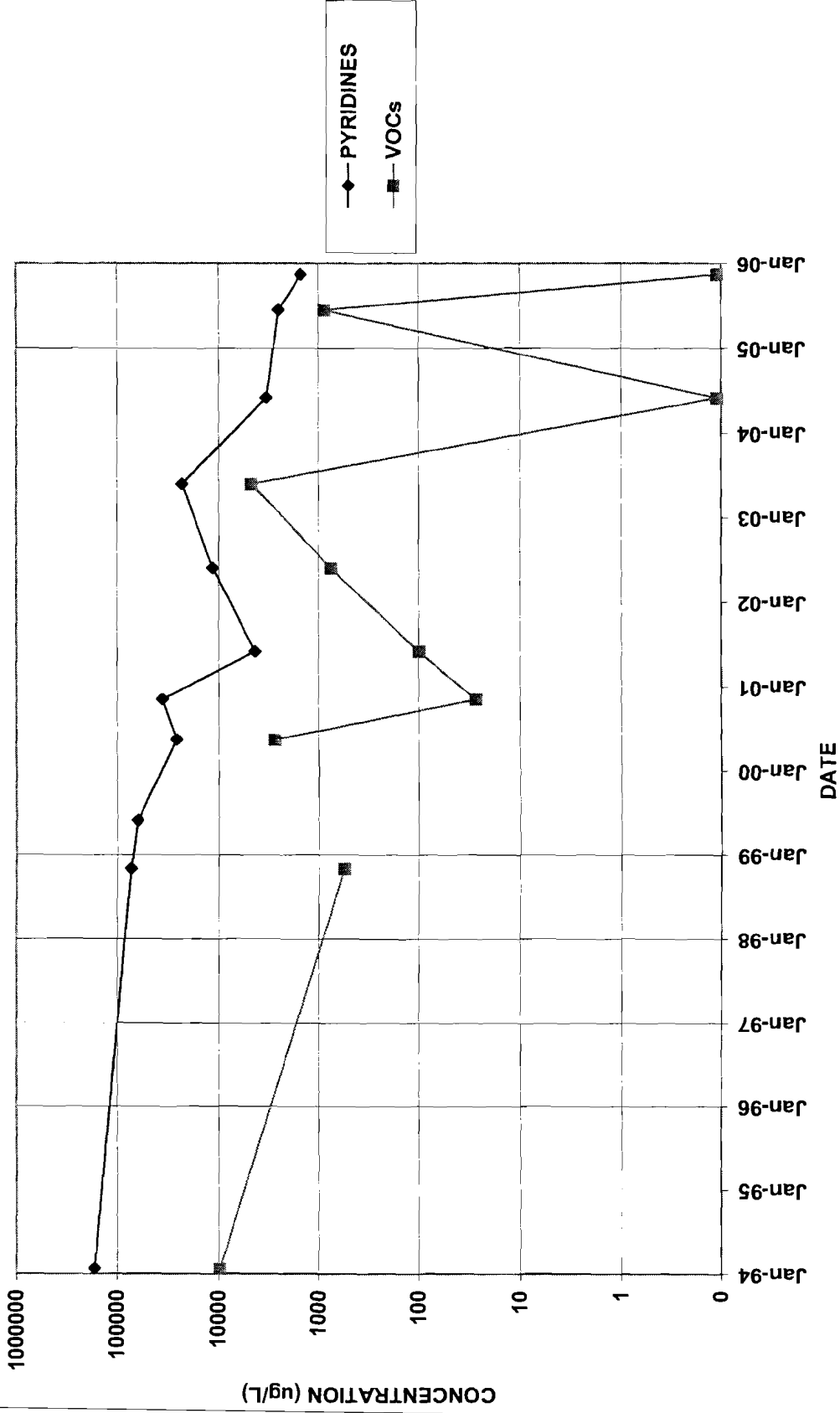


PZ-104

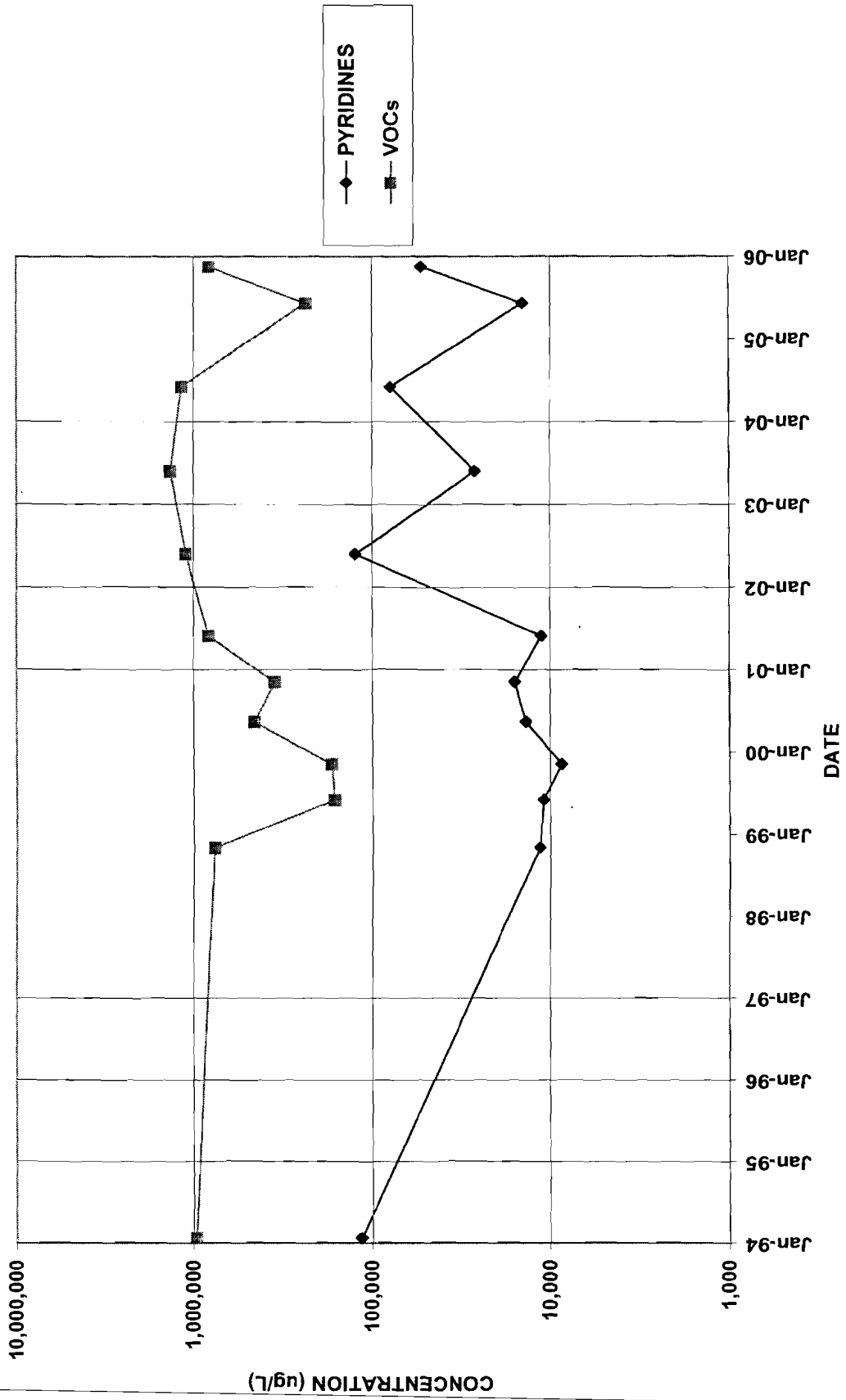


◆ PYRIDINES
■ VOCs

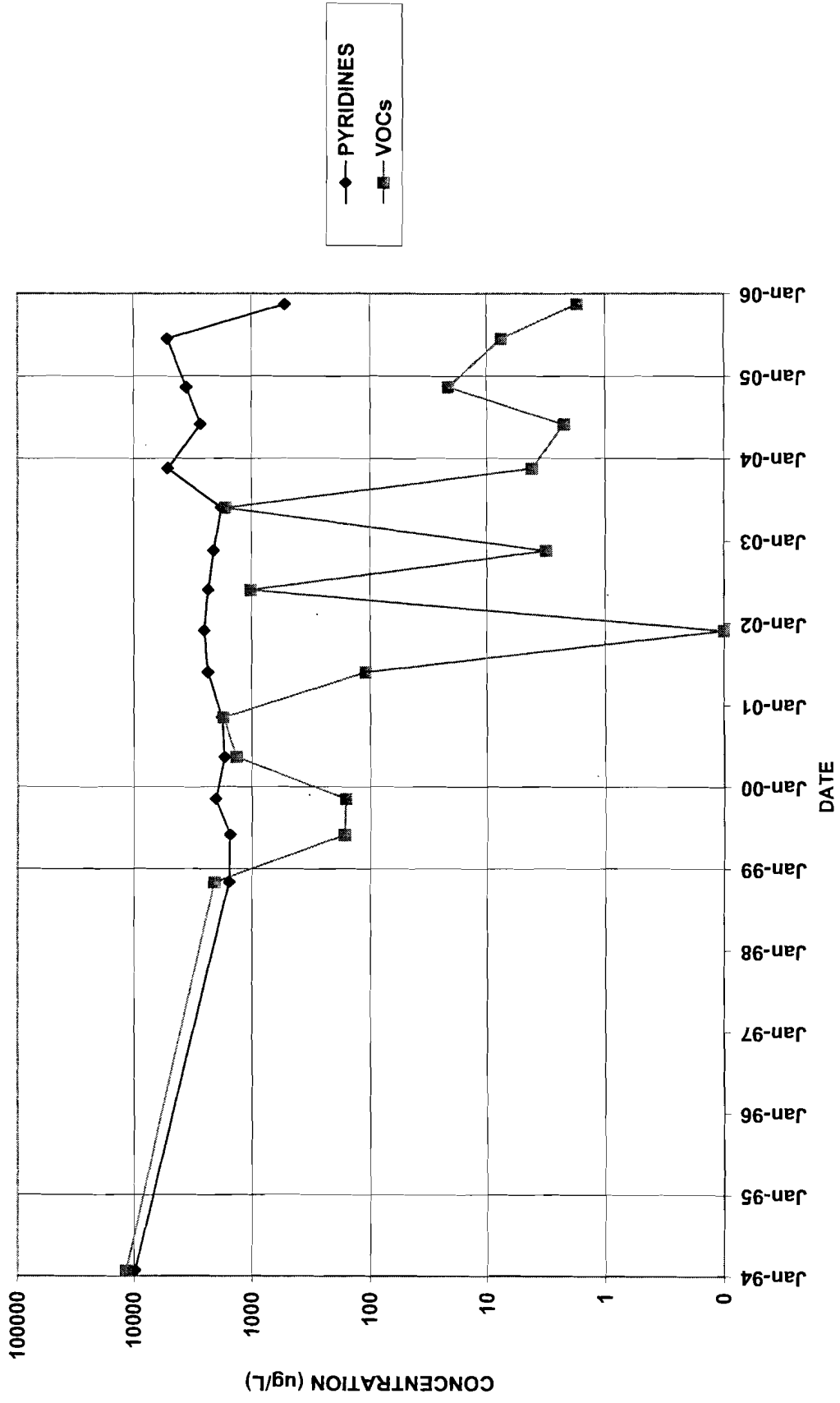
PZ-105



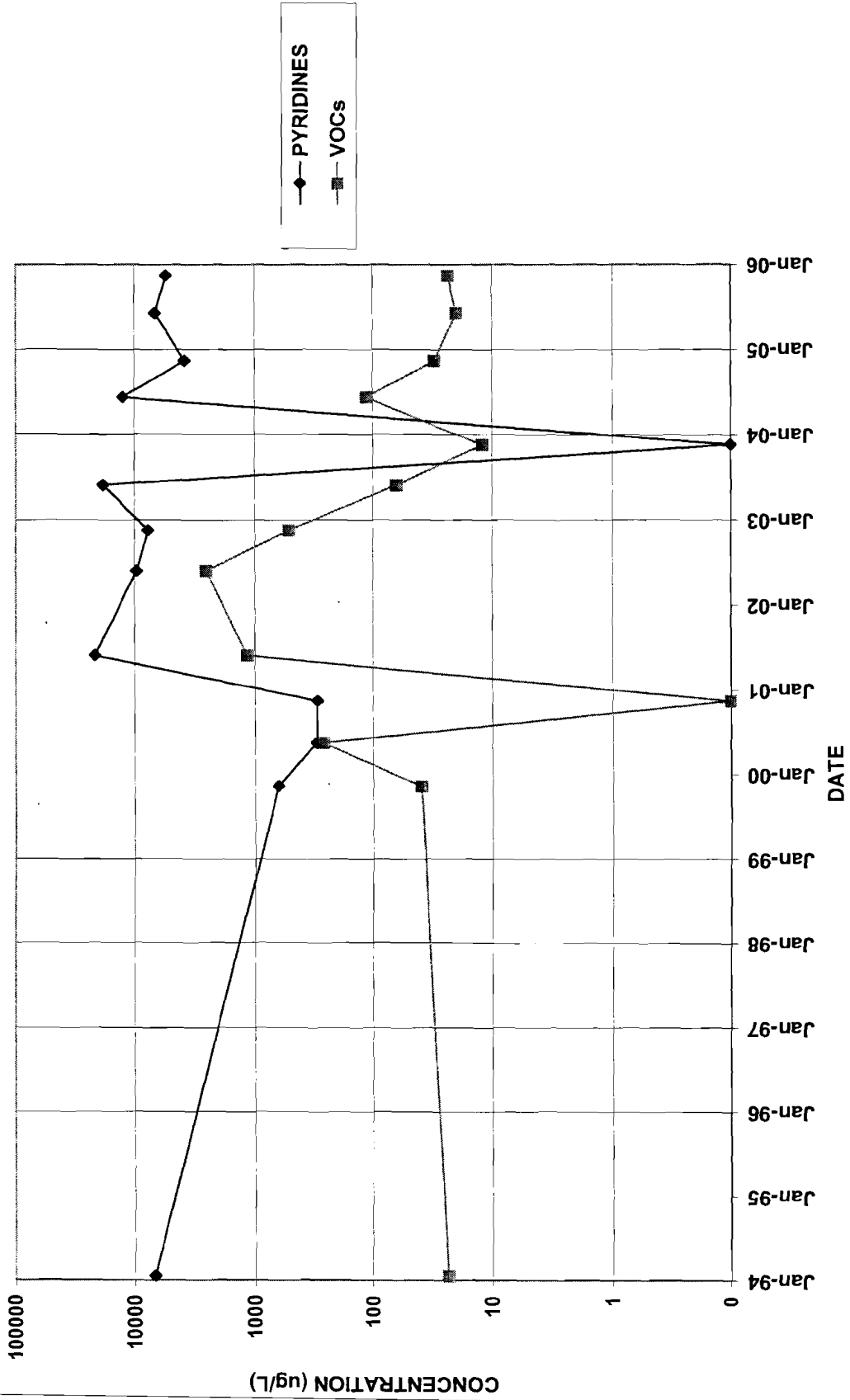
PZ-106



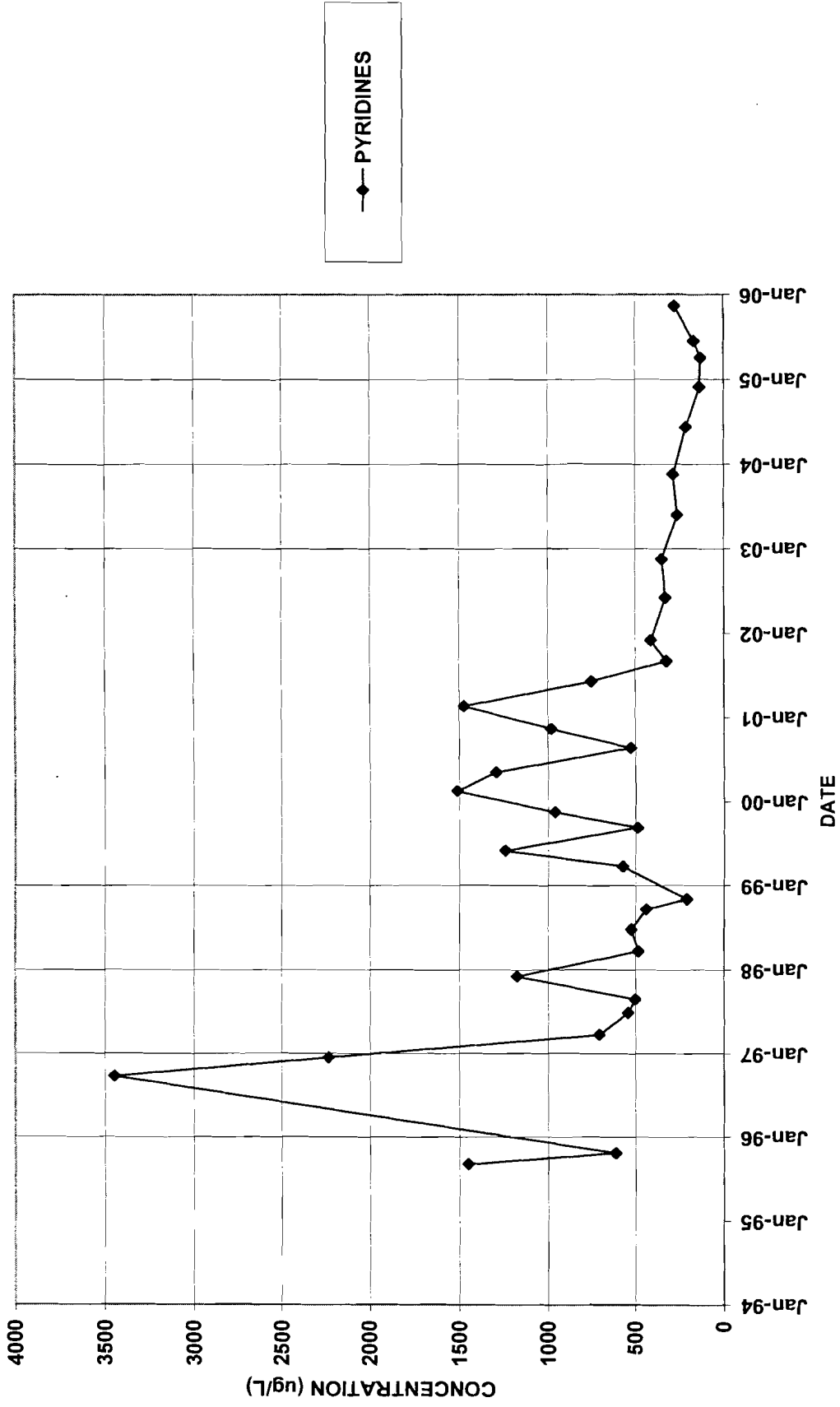
PZ-107



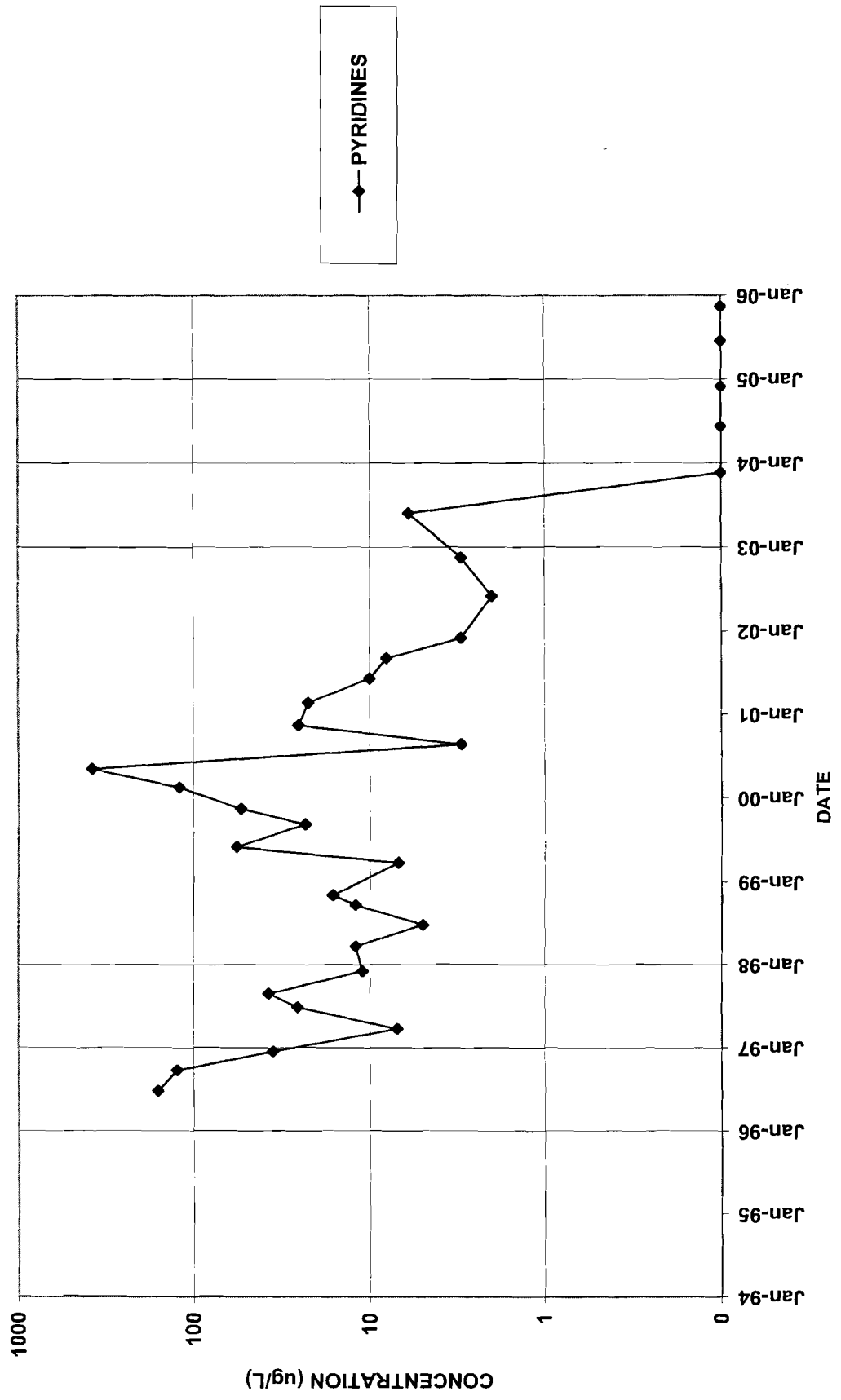
S-3



QS-4 (QUARRY SEEP)



QO-2 (QUARRY OUTFALL)



Prepared by: nmb
Reviewed by: jeb

Appendix C

PW-13 LNAPL Analytical Results

STL Buffalo

10 Hazelwood Drive, Suite 106
Amherst, NY 14228Tel: 716 691 2600 Fax: 716 691 7991
www.stl-inc.com

ANALYTICAL REPORT

Job#: A05-D008

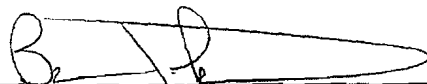
STL Project#: NY9A8493

Site Name: OLIN ROCHESTER

Task: Arch Chemical Site

Ms. Jayme Connolly
Mactec Engineering & Consult
511 Congress St.
Portland, ME 04112

STL Buffalo

Brian J. Fischer
Project Manager

12/05/2005

STL Buffalo Current Certifications

As of 11/29/2005

STATE	Program	Cert # / Lab ID
AFCEE	AFCEE	
Arkansas	SDWA, CWA, RCRA, SOIL	03-054-D/88-0686
California	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida	NELAP CWA, RCRA	E87672
Georgia	SDWA	956
Illinois	NELAP SDWA, CWA, RCRA	200003
Iowa	SWCS	374
Kansas	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA, CWA, RCRA	036-999-337
New Hampshire	NELAP SDWA, CWA	233701
New Jersey	SDWA, CWA, RCRA, CLP	NY455
New York	NELAP, AIR, SDWA, CWA, RCRA	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania	Env. Lab Reg.	68-281
South Carolina	RCRA	91013
Tennessee	SDWA	02970
USACE	USACE	
USDA	FOREIGN SOIL PERMIT	S-41579
Virginia	SDWA	278
Washington	CWA, RCRA	C254
West Virginia	CWA, RCRA	252
Wisconsin	CWA	998310390

SAMPLE SUMMARY

<u>LAB SAMPLE ID</u>	<u>CLIENT SAMPLE ID</u>	<u>MATRIX</u>	<u>SAMPLED</u>		<u>RECEIVED</u>	
			<u>DATE</u>	<u>TIME</u>	<u>DATE</u>	<u>TIME</u>
A5D00801	PW-13 PRODUCT	WOIHER	11/15/2005	14:00	11/15/2005	16:10

METHODS SUMMARY

Job#: A05-D008STL Project#: NY9A8493Site Name: OLIN ROCHEST

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>
UNPRES-8260 - BR-3,B-17,FW-10,BR-6A,PZ-106	SW8463 8260
METHOD 8270 - SEMI-VOLATILE ORGANICS	SW8463 8270
Specific Gravity	ASTM D-1429-87

ASTM "Annual Book of ASTM Standards", American Society for Testing and Materials, Philadelphia, PA.

SW8463 "Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846), Third Edition, 9/86; Update I, 7/92; Update IIA, 8/93; Update II, 9/94; Update IIB, 1/95; Update III, 12/96.

NON-CONFORMANCE SUMMARY

Job#: A05-D008STL Project#: NY9A8493Site Name: OLIN ROCHESTGeneral Comments

The enclosed data may or may not have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A05-D008

Sample Cooler(s) were received at the following temperature(s); 9.0 °C
LAB personnel: Please verify with Brian Fischer before conducting any analysis.

Sample is a product and should be analyzed with caution, therefore sample is stored in SC#2 in a small cooler.

Sample was received at a temperature of 9.0°C. However, ice was present in the cooler and as the samples were collected the same day, it was not possible for the samples to cool to 4°C prior to receipt. There is no impact on the data.

WOTHER = PRODUCT

GC/MS Volatile Data

Due to the sample matrix, PW-13 PRODUCT was analyzed using medium level techniques.

GC/MS Semivolatile Data

The surrogate recovery for Nitrobenzene-D5 was above the laboratory quality control limits for sample PW-13 PRODUCT. Based on US EPA CLP National Functional Guidelines for Data Review, one surrogate in either fraction (base/neutral or acid fraction) may have a recovery outside of the control limit. All analytes associated with that surrogate should be considered biased high.

Wet Chemistry Data

No deviations from protocol were encountered during the analytical procedures.

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Parameter (Inorganic)/Method (Organic)</u>	<u>Dilution</u>	<u>Code</u>
PW-13 PRODUCT	A5D00801	8260	100.00	004

Dilution Code Definition:

- 002 - sample matrix effects
- 003 - excessive foaming
- 004 - high levels of non-target compounds
- 005 - sample matrix resulted in method non-compliance for an Internal Standard
- 006 - sample matrix resulted in method non-compliance for Surrogate
- 007 - nature of the TCLP matrix
- 008 - high concentration of target analyte(s)
- 009 - sample turbidity
- 010 - sample color
- 011 - insufficient volume for lower dilution
- 012 - sample viscosity
- 013 - other

DATA QUALIFIER PAGE

These definitions are provided in the event the data in this report requires the use of one or more of the qualifiers. Not all qualifiers defined below are necessarily used in the accompanying data package.

ORGANIC DATA QUALIFIERS

- ND or U Indicates compound was analyzed for, but not detected.
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- C This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B This flag is used when the analyte is found in the associated blank, as well as in the sample.
- E This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D This flag identifies all compounds identified in an analysis at the secondary dilution factor.
- N Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on the Mass Spectral library search. It is applied to all TIC results.
- P This flag is used for CLP methodology only. For Pesticide/Aroclor target analytes, when a difference for detected concentrations between the two GC columns is greater than 25%, the lower of the two values is reported on the data page and flagged with a "P".
- A This flag indicates that a TIC is a suspected aldol-condensation product.
- † Indicates coelution.
- * Indicates analysis is not within the quality control limits.

INORGANIC DATA QUALIFIERS

- ND or U Indicates element was analyzed for, but not detected. Report with the detection limit value.
- J or B Indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.
- N Indicates spike sample recovery is not within the quality control limits.
- S Indicates value determined by the Method of Standard Addition.
- E Indicates a value estimated or not reported due to the presence of interferences.
- H Indicates analytical holding time exceedance. The value obtained should be considered an estimate.
- * Indicates the spike or duplicate analysis is not within the quality control limits.
- + Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995.

Date: 12/10/05
 Time: 15:00

MACTEC - CHEMICAL SITE
 Archival Chemical Site
 UNPRES-8260 - BR-3,B-17,PW-10,BR-6A,PZ-106

Rept: AN0326

Client ID		PW-13 PRODUCT							
Job No	Lab ID	AQ5-D008	A5D00801						
Sample Date		11/15/2005							
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acetone	UG/L	ND	42000	NA		NA		NA	
Benzene	UG/L	ND	8400	NA		NA		NA	
Bromodichloromethane	UG/L	ND	8400	NA		NA		NA	
Bromoform	UG/L	ND	8400	NA		NA		NA	
Bromomethane	UG/L	ND	8400	NA		NA		NA	
2-Butanone	UG/L	ND	42000	NA		NA		NA	
Carbon Disulfide	UG/L	ND	8400	NA		NA		NA	
Carbon Tetrachloride	UG/L	ND	8400	NA		NA		NA	
Chlorobenzene	UG/L	8300 J	8400	NA		NA		NA	
Chloroethane	UG/L	ND	8400	NA		NA		NA	
Chloroform	UG/L	ND	8400	NA		NA		NA	
Chloromethane	UG/L	ND	8400	NA		NA		NA	
Dibromochloromethane	UG/L	ND	8400	NA		NA		NA	
1,1-Dichloroethane	UG/L	ND	8400	NA		NA		NA	
1,2-Dichloroethane	UG/L	ND	8400	NA		NA		NA	
1,1-Dichloroethene	UG/L	ND	8400	NA		NA		NA	
1,2-Dichloroethene (Total)	UG/L	ND	17000	NA		NA		NA	
1,2-Dichloropropane	UG/L	ND	8400	NA		NA		NA	
cis-1,3-Dichloropropene	UG/L	ND	8400	NA		NA		NA	
trans-1,3-Dichloropropene	UG/L	ND	8400	NA		NA		NA	
Ethylbenzene	UG/L	ND	8400	NA		NA		NA	
2-Hexanone	UG/L	ND	42000	NA		NA		NA	
Methylene chloride	UG/L	ND	8400	NA		NA		NA	
4-Methyl-2-pentanone	UG/L	ND	42000	NA		NA		NA	
Styrene	UG/L	ND	8400	NA		NA		NA	
1,1,2,2-Tetrachloroethane	UG/L	ND	8400	NA		NA		NA	
Tetrachloroethene	UG/L	ND	8400	NA		NA		NA	
Toluene	UG/L	ND	8400	NA		NA		NA	
1,1,1-Trichloroethane	UG/L	ND	8400	NA		NA		NA	
1,1,2-Trichloroethane	UG/L	ND	8400	NA		NA		NA	
Trichloroethene	UG/L	ND	8400	NA		NA		NA	
Vinyl acetate	UG/L	ND	42000	NA		NA		NA	
Vinyl chloride	UG/L	ND	8400	NA		NA		NA	
Total Xylenes	UG/L	ND	25000	NA		NA		NA	
IS/SURROGATE(S)									
Chlorobenzene-D5	%	88	50-200	NA		NA		NA	
1,4-Difluorobenzene	%	83	50-200	NA		NA		NA	
1,4-Dichlorobenzene-D4	%	93	50-200	NA		NA		NA	
Toluene-D8	%	90	76-122	NA		NA		NA	
p-Bromofluorobenzene	%	99	73-120	NA		NA		NA	
1,2-Dichloroethane-D4	%	93	72-143	NA		NA		NA	

NA = Not Applicable ND = Not Detected

STL Buffalo

9/29

Date: 12/15/2005
 Time: 1:20

MACTEC 4 CHEMICAL SITE
 Arch Chemical Site
 METHOD 8270 - SEMI-VOLATILE ORGANICS

Rept: AN0326

Client ID		PW-13 PRODUCT							
Job No		A05-D008 A5000801							
Sample Date		11/15/2005							
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Pyridine	UG/L	ND	150000	NA		NA		NA	
2-Chloropyridine	UG/L	110000	59000	NA		NA		NA	
3-Chloropyridine	UG/L	ND	59000	NA		NA		NA	
4-Chloropyridine	UG/L	ND	59000	NA		NA		NA	
2,6-Dichloropyridine	UG/L	ND	59000	NA		NA		NA	
p-Fluoroaniline	UG/L	ND	59000	NA		NA		NA	
IS/SURROGATE(S)									
1,4-Dichlorobenzene-D4	%	86	50-200	NA		NA		NA	
Naphthalene-D8	%	69	50-200	NA		NA		NA	
Acenaphthene-D10	%	72	50-200	NA		NA		NA	
Phenanthrene-D10	%	72	50-200	NA		NA		NA	
Chrysene-D12	%	92	50-200	NA		NA		NA	
Perylene-D12	%	88	50-200	NA		NA		NA	
Nitrobenzene-D5	%	195 *	52-120	NA		NA		NA	
2-Fluorobiphenyl	%	87	21-120	NA		NA		NA	
p-Terphenyl-d14	%	105	36-138	NA		NA		NA	

NA = Not Applicable ND = Not Detected

STL Buffalo

10/29

Date: 12/15/05
Time: 15:46

MACTEC - CHEMICAL SITE
Arch Chemical Site
WET CHEMISTRY ANALYSIS

Rept: AN0326

Client ID Job No Sample Date		Lab ID	PW-13 PRODUCT A05-D008 11/15/2005		A5B00801				
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Specific Gravity	G/ML	0.84	0	NA		NA		NA	

NA = Not Applicable ND = Not Detected

STL Buffalo

11/29

Chronology and QC
Summary Package

Date: 12/9/05
Time: 15:00

Client ID		Extractor Blank		vblk84		vblk85			
Job No	Lab ID	A05-D008	A5D00802	A05-D008	A5B1796802	A05-D008	A5B1807802		
Sample Date		11/16/2005							
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acetone	UG/L	ND	500	ND	500	ND	500	NA	
Benzene	UG/L	ND	100	ND	100	ND	100	NA	
Bromodichloromethane	UG/L	ND	100	ND	100	ND	100	NA	
Bromoform	UG/L	ND	100	ND	100	ND	100	NA	
Bromomethane	UG/L	ND	100	ND	100	ND	100	NA	
2-Butanone	UG/L	ND	500	ND	500	ND	500	NA	
Carbon Disulfide	UG/L	ND	100	ND	100	ND	100	NA	
Carbon Tetrachloride	UG/L	ND	100	ND	100	ND	100	NA	
Chlorobenzene	UG/L	ND	100	ND	100	ND	100	NA	
Chloroethane	UG/L	ND	100	ND	100	ND	100	NA	
Chloroform	UG/L	ND	100	ND	100	ND	100	NA	
Chloromethane	UG/L	ND	100	ND	100	ND	100	NA	
Dibromochloromethane	UG/L	ND	100	ND	100	ND	100	NA	
1,1-Dichloroethane	UG/L	ND	100	ND	100	ND	100	NA	
1,2-Dichloroethane	UG/L	ND	100	ND	100	ND	100	NA	
1,1-Dichloroethene	UG/L	ND	100	ND	100	ND	100	NA	
1,2-Dichloroethene (Total)	UG/L	ND	200	ND	200	ND	200	NA	
1,2-Dichloropropane	UG/L	ND	100	ND	100	ND	100	NA	
cis-1,3-Dichloropropene	UG/L	ND	100	ND	100	ND	100	NA	
trans-1,3-Dichloropropene	UG/L	ND	100	ND	100	ND	100	NA	
Ethylbenzene	UG/L	ND	100	ND	100	ND	100	NA	
2-Hexanone	UG/L	ND	500	ND	500	ND	500	NA	
Methylene chloride	UG/L	ND	100	ND	100	ND	100	NA	
4-Methyl-2-pentanone	UG/L	ND	500	ND	500	ND	500	NA	
Styrene	UG/L	ND	100	ND	100	ND	100	NA	
1,1,2,2-Tetrachloroethane	UG/L	ND	100	ND	100	ND	100	NA	
Tetrachloroethene	UG/L	ND	100	ND	100	ND	100	NA	
Toluene	UG/L	ND	100	ND	100	ND	100	NA	
1,1,1-Trichloroethane	UG/L	ND	100	ND	100	ND	100	NA	
1,1,2-Trichloroethane	UG/L	ND	100	ND	100	ND	100	NA	
Trichloroethene	UG/L	ND	100	ND	100	ND	100	NA	
Vinyl acetate	UG/L	ND	500	ND	500	ND	500	NA	
Vinyl chloride	UG/L	ND	100	ND	100	ND	100	NA	
Total Xylenes	UG/L	ND	300	ND	300	ND	300	NA	
IS/SURROGATE(S)									
Chlorobenzene-D5	%	114	50-200	91	50-200	96	50-200	NA	
1,4-Difluorobenzene	%	123	50-200	94	50-200	95	50-200	NA	
1,4-Dichlorobenzene-D4	%	104	50-200	83	50-200	88	50-200	NA	
Toluene-D8	%	93	76-122	93	76-122	91	76-122	NA	
p-Bromofluorobenzene	%	91	73-120	88	73-120	88	73-120	NA	
1,2-Dichloroethane-D4	%	88	72-143	100	72-143	91	72-143	NA	

NA = Not Applicable ND = Not Detected

STL Buffalo

Date: 12/17/2005
 Time: 15:02

MACTEC - CHEMICAL SITE
 Archival Site
 UNPRES-8260 - BR-3,B-17,PW-10,BR-6A,PZ-106

Rept: AN0326

Client ID		msb84		msb85					
Job No		A05-D008		A05-D008					
Lab ID		A5B1796801		A5B1807801					
Sample Date									
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acetone	UG/L	ND	500	ND	500	NA		NA	
Benzene	UG/L	2600	100	2500	100	NA		NA	
Bromodichloromethane	UG/L	ND	100	ND	100	NA		NA	
Bromoform	UG/L	ND	100	ND	100	NA		NA	
Bromomethane	UG/L	ND	100	ND	100	NA		NA	
2-Butanone	UG/L	ND	500	ND	500	NA		NA	
Carbon Disulfide	UG/L	ND	100	ND	100	NA		NA	
Carbon Tetrachloride	UG/L	ND	100	ND	100	NA		NA	
Chlorobenzene	UG/L	2700	100	2600	100	NA		NA	
Chloroethane	UG/L	ND	100	ND	100	NA		NA	
Chloroform	UG/L	ND	100	ND	100	NA		NA	
Chloromethane	UG/L	ND	100	ND	100	NA		NA	
Dibromochloromethane	UG/L	ND	100	ND	100	NA		NA	
1,1-Dichloroethane	UG/L	ND	100	ND	100	NA		NA	
1,2-Dichloroethane	UG/L	ND	100	ND	100	NA		NA	
1,1-Dichloroethene	UG/L	2600	100	2500	100	NA		NA	
1,2-Dichloroethene (Total)	UG/L	ND	200	ND	200	NA		NA	
1,2-Dichloropropane	UG/L	ND	100	ND	100	NA		NA	
cis-1,3-Dichloropropene	UG/L	ND	100	ND	100	NA		NA	
trans-1,3-Dichloropropene	UG/L	ND	100	ND	100	NA		NA	
Ethylbenzene	UG/L	ND	100	ND	100	NA		NA	
2-Hexanone	UG/L	ND	500	ND	500	NA		NA	
Methylene chloride	UG/L	ND	100	ND	100	NA		NA	
4-Methyl-2-pentanone	UG/L	ND	500	ND	500	NA		NA	
Styrene	UG/L	ND	100	ND	100	NA		NA	
1,1,2,2-Tetrachloroethane	UG/L	ND	100	ND	100	NA		NA	
Tetrachloroethene	UG/L	ND	100	ND	100	NA		NA	
Toluene	UG/L	2700	100	2500	100	NA		NA	
1,1,1-Trichloroethane	UG/L	ND	100	ND	100	NA		NA	
1,1,2-Trichloroethane	UG/L	ND	100	ND	100	NA		NA	
Trichloroethene	UG/L	2700	100	2500	100	NA		NA	
Vinyl acetate	UG/L	ND	500	ND	500	NA		NA	
Vinyl chloride	UG/L	ND	100	ND	100	NA		NA	
Total Xylenes	UG/L	ND	300	ND	300	NA		NA	
IS/SURROGATE(S)									
Chlorobenzene-D5	%	97	50-200	97	50-200	NA		NA	
1,4-Difluorobenzene	%	104	50-200	98	50-200	NA		NA	
1,4-Dichlorobenzene-D4	%	87	50-200	91	50-200	NA		NA	
Toluene-D8	%	94	76-122	93	76-122	NA		NA	
p-Bromofluorobenzene	%	91	73-120	95	73-120	NA		NA	
1,2-Dichloroethane-D4	%	94	72-143	92	72-143	NA		NA	

NA = Not Applicable ND = Not Detected

STL Buffalo

14/29

Date: 12/9 05
 Time: 15:00

MACTEC - CHEMICAL SITE
 Archival Site
 METHOD 8270 - SEMI-VOLATILE ORGANICS

Rept: AN0326

Client ID		S Blank							
Job No		A05-D008		A5B1786403					
Sample Date		Lab ID							
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Pyridine	UG/L	ND	250000	NA		NA		NA	
2-Chloropyridine	UG/L	ND	100000	NA		NA		NA	
3-Chloropyridine	UG/L	ND	100000	NA		NA		NA	
4-Chloropyridine	UG/L	ND	100000	NA		NA		NA	
2,6-Dichloropyridine	UG/L	ND	100000	NA		NA		NA	
p-Fluoroaniline	UG/L	ND	100000	NA		NA		NA	
IS/SURROGATE(S)									
1,4-Dichlorobenzene-D4	%	89	50-200	NA		NA		NA	
Naphthalene-D8	%	88	50-200	NA		NA		NA	
Acenaphthene-D10	%	88	50-200	NA		NA		NA	
Phenanthrene-D10	%	85	50-200	NA		NA		NA	
Chrysene-D12	%	88	50-200	NA		NA		NA	
Perylene-D12	%	86	50-200	NA		NA		NA	
Nitrobenzene-D5	%	97	52-120	NA		NA		NA	
2-Fluorobiphenyl	%	98	21-120	NA		NA		NA	
p-Terphenyl-d14	%	107	36-138	NA		NA		NA	

NA = Not Applicable ND = Not Detected

STL Buffalo

15/29

Date: 12/05
Time: 15:08

MACTEC CHEMICAL SITE
Archival Site
METHOD 8270 - SEMI-VOLATILE ORGANICS

Rept: AN0326

Client ID		Matrix Spike Blank		Matrix Spike Blk Dup					
Job No	Lab ID	A05-D008	A5B1786401	A05-D008	A5B1786402				
Sample Date									
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Pyridine	UG/L	980000	250000	870000	250000	NA		NA	
2-Chloropyridine	UG/L	1000000	100000	970000	100000	NA		NA	
3-Chloropyridine	UG/L	1000000	100000	950000	100000	NA		NA	
4-Chloropyridine	UG/L	ND	100000	ND	100000	NA		NA	
2,6-Dichloropyridine	UG/L	1000000	100000	990000	100000	NA		NA	
p-Fluoroaniline	UG/L	960000	100000	940000	100000	NA		NA	
IS/SURROGATE(S)									
1,4-Dichlorobenzene-D4	%	127	50-200	122	50-200	NA		NA	
Naphthalene-D8	%	130	50-200	123	50-200	NA		NA	
Acenaphthene-D10	%	131	50-200	126	50-200	NA		NA	
Phenanthrene-D10	%	124	50-200	120	50-200	NA		NA	
Chrysene-D12	%	118	50-200	113	50-200	NA		NA	
Perylene-D12	%	99	50-200	95	50-200	NA		NA	
Nitrobenzene-D5	%	96	52-120	92	52-120	NA		NA	
2-Fluorobiphenyl	%	93	21-120	90	21-120	NA		NA	
p-Terphenyl-d14	%	107	36-138	105	36-138	NA		NA	

NA = Not Applicable ND = Not Detected

STL Buffalo

16/29

Date: 12/1 05
Time: 15:4

MACTEC - CHEMICAL SITE
Arch Chemical Site
WET CHEMISTRY ANALYSIS

Rept: AN0326

Client ID		LCS							
Job No	Lab ID	A05-0008	A5B1785701						
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Specific Gravity	G/ML	0.99	0	NA		NA		NA	

NA = Not Applicable ND = Not Detected

STL Buffalo

17/29

Date : 12/05 15:47:47
Job No: A001 J8

MACTEC ENGINEERING & CONSULTANTS
ARCH CHEMICAL PHASE II RI

Rept: AN0364

Client Sample ID: vblk84 msb84
Lab Sample ID: A5B1796802 A5B1796801

Analyte	Units of Measure	Concentration		% Recovery Blank Spike	QC LIMITS
		Blank Spike	Spike Amount		
UNPRES-8260 - BR-3,B-17,PW-10,BR-6A,PZ-1					
1,1-Dichloroethene	UG/L	2595	2500	104	65-142
Trichloroethene	UG/L	2651	2500	106	71-120
Benzene	UG/L	2628	2500	105	67-126
Toluene	UG/L	2723	2500	109	69-120
Chlorobenzene	UG/L	2745	2500	110	73-120

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

18/29

STL Buffalo

Date : 12/05 15:47:47
Job No: A0508

MACTEC ENGINEERING & CONSULTANTS
ARCH CHEMICAL PHASE II RI

Rept: AN0364

Client Sample ID: vblk85 msb85
Lab Sample ID: A5B1807802 A5B1807801

Analyte	Units of Measure	Concentration		% Recovery Blank Spike	QC LIMITS
		Blank Spike	Spike Amount		
UNPRES-8260 - BR-3,B-17,PW-10,BR-6A,PZ-1					
1,1-Dichloroethene	UG/L	2515	2500	101	65-142
Trichloroethene	UG/L	2488	2500	100	71-120
Benzene	UG/L	2463	2500	98	67-126
Toluene	UG/L	2538	2500	102	69-120
Chlorobenzene	UG/L	2580	2500	103	73-120

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

19/29

STL Buffalo

Client Sample ID: S Blank Matrix Spike Blank Matrix Spike Blk Dup
 Lab Sample ID: A5B1786403 A5B1786401 A5B1786402

Analyte	Units of Measure	Concentration		Spike Amount		% Recovery			% RPD	QC LIMITS	
		Spike Blank	Spike Blank Dup	SB	SBD	SB	SBD	Avg		RPD	REC.
METHOD 8270 - SEMI-VOLATILE ORGANICS											
2-Chloropyridine	UG/L	1032673	974819	1000000	1000000	103	97	100	6	30.0	11-123
3-Chloropyridine	UG/L	1006808	951032	1000000	1000000	101	95	98	6	30.0	10-130
2,6-Dichloropyridine	UG/L	1016124	989353	1000000	1000000	102	99	101	3	30.0	18-115
p-Fluoroaniline	UG/L	959664	944957	1000000	1000000	96	94	95	2	30.0	17-110

* Indicates Result is outside QC Limits
 NC = Not Calculated ND = Not Detected

UNPRES-8260 - BR-3,B-17,PW-10,BR-6A,PZ-106

Client Sample ID Job No & Lab Sample ID	PW-13 PRODUCT A05-D008 A5D00801				
Sample Date	11/15/2005 14:00				
Received Date	11/15/2005 16:10				
Extraction Date					
Analysis Date	11/17/2005 18:17				
Extraction HT Met?	-				
Analytical HT Met?	YES				
Sample Matrix	WOTHER				
Dilution Factor	100.0				
Sample wt/vol	0.0025 LITERS				
% Dry					

UNPRES-8260 - BR-3,B-17,PW-10,BR-6A,PZ-106

Client Sample ID Job No & Lab Sample ID	msb84 A05-D008 A5B1796801	msb85 A05-D008 A5B1807801			
Sample Date					
Received Date					
Extraction Date					
Analysis Date	11/16/2005 16:36	11/17/2005 08:30			
Extraction HT Met?	-	-			
Analytical HT Met?	-	-			
Sample Matrix	WATER	WATER			
Dilution Factor	1.0	1.0			
Sample wt/vol	0.0025 LITERS	0.0025 LITERS			
% Dry					

UNPRES-8260 - BR-3,B-17,PW-10,BR-6A,PZ-106

Client Sample ID Job No & Lab Sample ID	Extractor Blank A05-D008 A5D00802	vblk84 A05-D008 A5B1796802	vblk85 A05-D008 A5B1807802		
Sample Date	11/16/2005				
Received Date					
Extraction Date					
Analysis Date	11/17/2005 02:07	11/16/2005 16:59	11/17/2005 08:54		
Extraction HT Met?	-	-	-		
Analytical HT Met?	YES	-	-		
Sample Matrix	WOTHER	WATER	WATER		
Dilution Factor	1.0	1.0	1.0		
Sample wt/vol	0.0025 LITERS	0.0025 LITERS	0.0025 LITERS		
% Dry					

METHOD 8270 - SEMI-VOLATILE ORGANICS

Client Sample ID Job No & Lab Sample ID	PW-13 PRODUCT A05-D008 A5D00801				
Sample Date	11/15/2005 14:00				
Received Date	11/15/2005 16:10				
Extraction Date	11/16/2005 07:00				
Analysis Date	11/26/2005 07:08				
Extraction HT Met?	YES				
Analytical HT Met?	YES				
Sample Matrix	WOTHER				
Dilution Factor	1.0				
Sample wt/vol	0.0002 LITERS				
% Dry					

24/29

METHOD 8270 - SEMI-VOLATILE ORGANICS

Client Sample ID Job No & Lab Sample ID	Matrix Spike Blank A05-D008 A5B1786401	Matrix Spike Blk Dup A05-D008 A5B1786402			
Sample Date					
Received Date					
Extraction Date	11/16/2005 07:00	11/16/2005 07:00			
Analysis Date	11/26/2005 05:52	11/26/2005 06:17			
Extraction HT Met?	-	-			
Analytical HT Met?	-	-			
Sample Matrix	WATER	WATER			
Dilution Factor	1.0	1.0			
Sample wt/vol	0.0001 LITERS	0.0001 LITERS			
% Dry					

METHOD 8270 - SEMI-VOLATILE ORGANICS

Client Sample ID Job No & Lab Sample ID	S Blank A05-D008 A5B1786403			
Sample Date				
Received Date				
Extraction Date	11/16/2005 07:00			
Analysis Date	11/26/2005 06:43			
Extraction HT Met?	-			
Analytical HT Met?	-			
Sample Matrix	WATER			
Dilution Factor	1.0			
Sample wt/vol	0.0001 LITERS			
% Dry				

26/29

Date: 12/05 15:48:12
Jobno: A08

MACTEC ENGINEERING & CONSULTANTS
SAMPLE CHRONOLOGY

Rept: AN0369

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	THT	Analysis Date	AHT	Matrix
A5D00801	PW-13 PRODUCT	G/ML	Specific Gravity	D-1429-87	1.00	11/15/2005 14:00	11/15 16:10	NA	NA	11/16 09:30	Yes	WOTHER

AHT = Analysis Holding Time Met
THT = TCLP Holding Time Met
NA = Not Applicable

27/29

STL Buffalo

Date: 11/16/2005 15:48:12
Jobno: A8 J08

MACTEC ENGINEERING & CONSULTANTS
GEOCHEMISTRY

Rept: AN0369

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	THT	Analysis Date	AHT	Matrix
A5B1785701	LCS	G/ML	Specific Gravity	D-1429-87	1.00	-	- 16:10	NA	NA	11/16 09:30	Yes	WATER

AHT = Analysis Holding Time Met
THT = TCLP Holding Time Met
NA = Not Applicable

STL Buffalo

28/29

