POST-REMEDIATION GROUNDWATER MONITORING REPORT

ANNUAL 1999 SAMPLING EVENT

Vibratech, Inc.
Buffalo, New York

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Vibratech, Inc.
Buffalo, New York

Conestoga-Rovers & Associates
2055 Niagara Falls Boulevard
Niagara Falls, New York 14304

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1.0 INTRODUCTION

In 1996, Vibratech, Inc. (Vibratech) sold its facility located at 537 East Delavan Avenue in Buffalo, New York (Site). The facility had been used for manufacture of vibration dampers and rotary shock adsorbers for the trucking and railroad industries.

During environmental investigations conducted prior to the sale of the property, an area of soil contamination was discovered along a railroad spur on the south portion of the property. The chemicals of concern are volatile organic compounds (VOCs), specifically: 1,1-dichloroethane; 1,2-dichloroethane; cis-1,2-dichloroethene; trans-1,2-dichloroethene; toluene; 1,1,1-trichloroethane; trichloroethene; vinyl chloride; and total xylenes. The former area of soil contamination is shown on Figure 1.1.

These VOCs were also detected in groundwater. Figure 1.2 shows total VOC concentrations in Site monitoring wells.

In 1995-1996, the contaminated soil was excavated and disposed off-Site or treated on-Site using soil vapor extraction (SVE). This remedial action removed the source of groundwater contamination. Remaining chemical presence in groundwater is expected to naturally attenuate over time.

A post-remediation groundwater monitoring program was developed to continue to monitor VOC presence in groundwater. The program is described in a report written by Conestoga-Rovers & Associates (CRA) entitled "Post-Remediation Groundwater Monitoring Plan", dated April 1997. The plan provides for groundwater sample collection from three downgradient monitoring wells designated MW-2, MW-6, and MW-7. Groundwater samples are analyzed for selected VOCs using SW-846 Method 8620. The frequency of groundwater sampling specified in the Post-Remediation Groundwater Monitoring Plan is as follows:

i) quarterly for the first four quarters (first year);

ii) semi-annually during the second year; and

iii) annually during years three through five.

At the end of five years, the monitoring program will be re-evaluated. An earlier re-evaluation may be conducted but no changes from the above will be implemented without the consent of the New York State Department of Environmental Conservation (NYSDEC).

This report presents the results of the post-remediation sampling event which took place during the second half of 1999. This represents the completion of the first annual sampling event (item iii), above). The next scheduled sampling event will therefore constitute the second annual event and will be conducted during the first half of 2000.

2.0 WORK PERFORMED

CRA conducted the annual 1999 groundwater sampling event at the Former Vibratech Facility at 537 East Delavan Avenue in Buffalo, New York on December 7, 1999.

Monitoring wells MW-2, MW-6, and MW-7 were sampled in accordance with the Post-Remediation Groundwater Monitoring Plan dated April 1997. During the sampling event, CRA personnel observed an oily-like, floating layer in monitoring well MW-6. The thickness of the layer was estimated to be approximately 0.1 feet.

A blind duplicate sample was collected at MW-6 and identified as GW-120799-DRS-004. A matrix spike and matrix spike duplicate (MS/MSD) was collected at MW-2 and identified as GW-120799-DRS-002 MS/MSD. Samples were picked up by Columbia Analytical Services (CAS) on December 8, 1999. Samples were analyzed using SW-846 Method 8260.

3.0 RESULTS

3.1 DATA QUALITY

CRA performed an assessment and validation of the laboratory's analytical results. The data reported by CRA was determined to be acceptable for use without qualification. Appendix A contains the Analytical Data Quality Assessment and Validation Report.

3.2 ANALYTICAL RESULTS

The following chemicals were detected in samples collected in December 1999:

Chemical	*MW-2 (µg/L)*	*MW-6 (µg/L)*	*MW-6 (Dup.) (µg/L)*	*MW-7 (µg/L)*
1,1-Dichloroethane	220	62	64	ND
cis-1,2-Dichloroethane	90	38	39	ND
Toluene	ND	ND	ND	ND
1,1,1-Trichloroethane	13	ND	ND	ND
Trichloroethene	ND	ND	ND	ND
Vinyl chloride	45	ND	28	ND
o-Xylene	ND	ND	ND	ND

Notes:
ND Non-detect.
µg/L Micrograms per liter

Figure 3.1 presents the results of the annual 1999 sampling event conducted in December 1999. Figure 3.2 presents total VOC concentrations versus time graphs for monitoring wells MW-2, MW-6, and MW-7. The graphs show the following:

i) total VOC concentrations in the historically most-contaminated monitoring well (MW-2) have decreased from 1,718 µg/L (prior to remediation) to 368 µg/L (annual 1999);

ii) total VOC concentrations in well MW-6, located near the margin of the contaminant plume decreased from 257 µg/L (first semi-annual 1999) to 116 µg/L (annual 1999); and

iii) VOCs have never been detected in well MW-7, located on the downgradient side of the Winchester Avenue sewer. The concentration trends will continue to be monitored and discussed in subsequent reports.

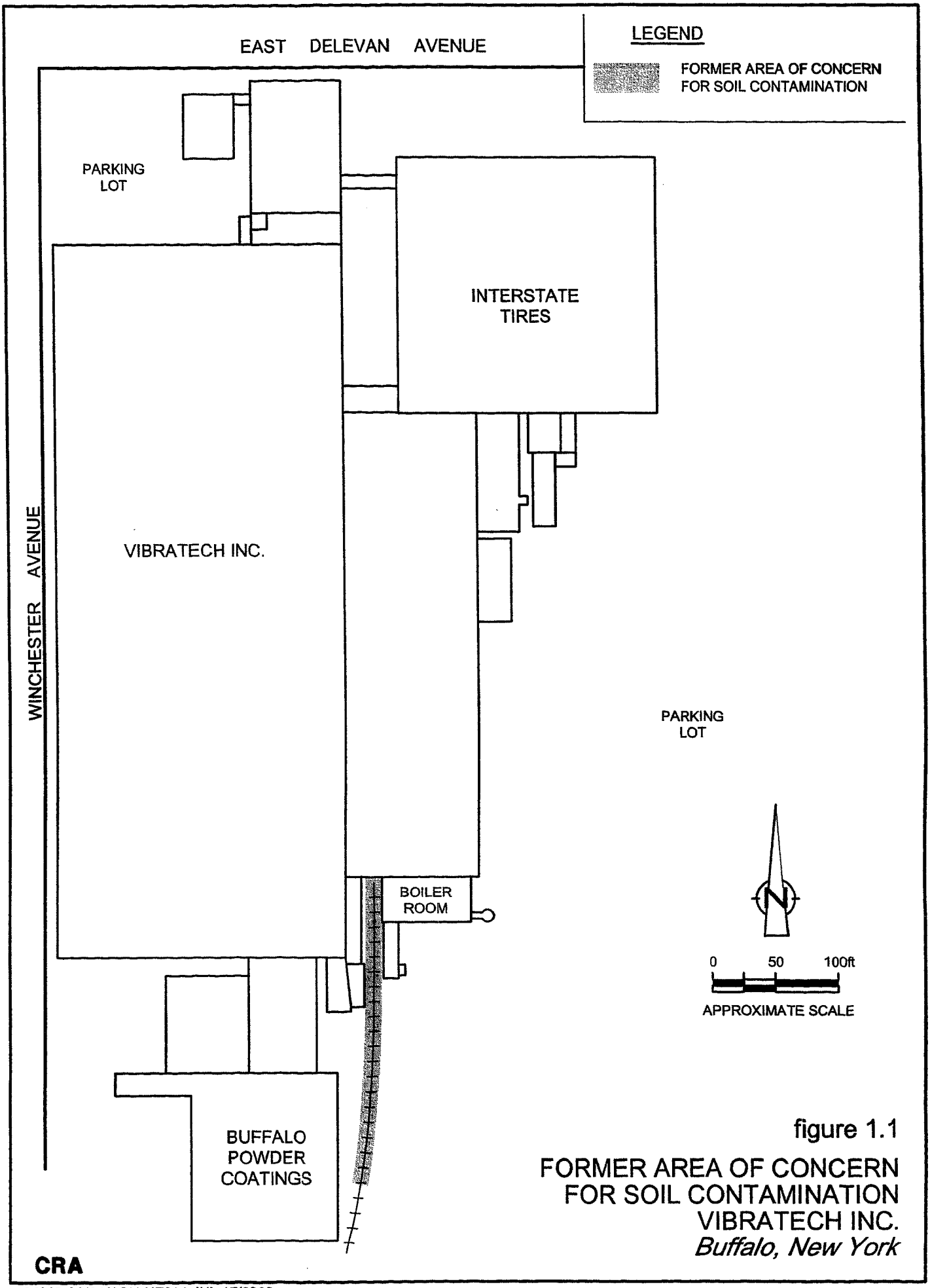

figure 1.1

FORMER AREA OF CONCERN
FOR SOIL CONTAMINATION
VIBRATECH INC.
Buffalo, New York

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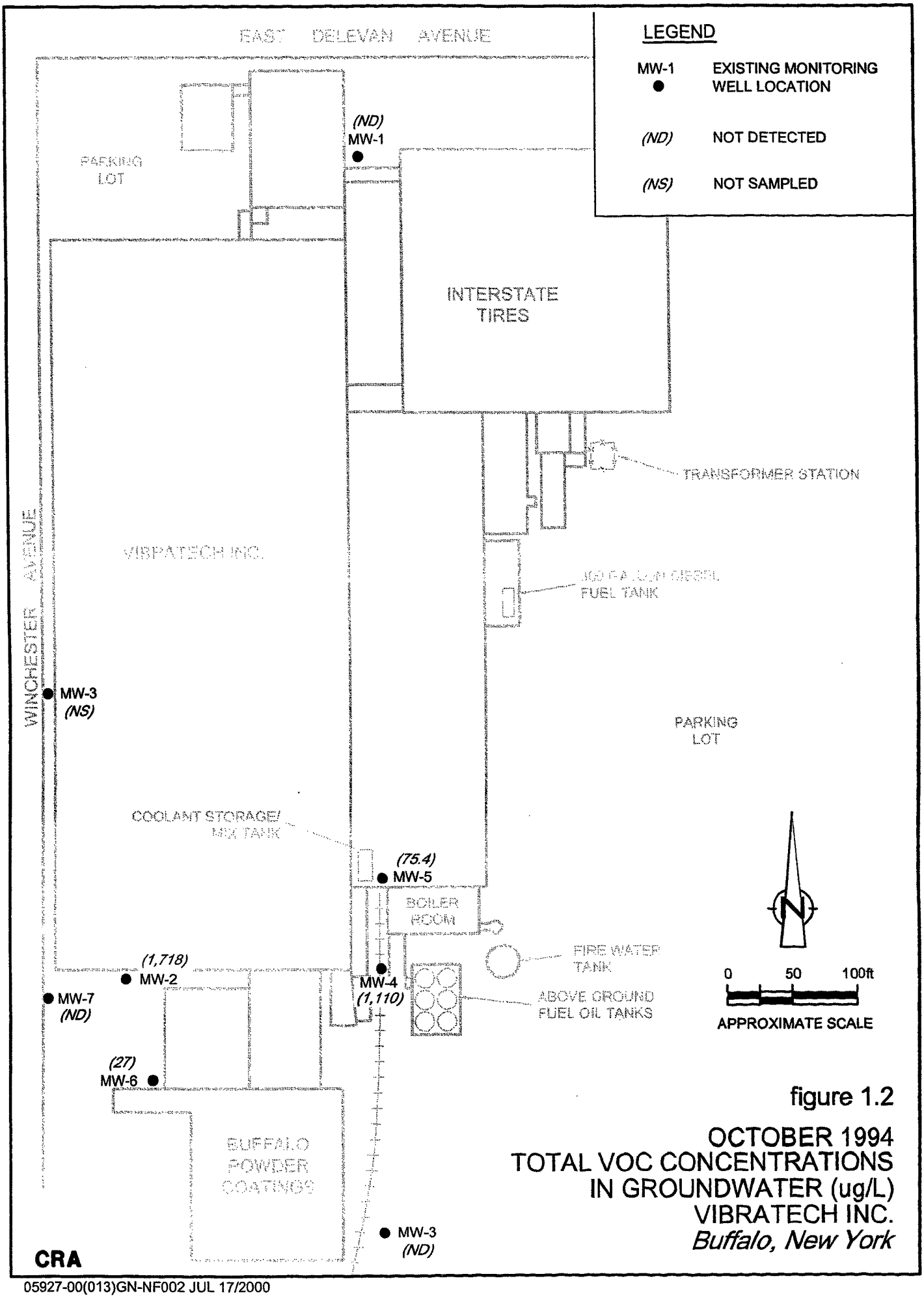

figure 1.2

OCTOBER 1994
TOTAL VOC CONCENTRATIONS
IN GROUNDWATER (ug/L)
VIBRATECH INC.
Buffalo, New York

CRA

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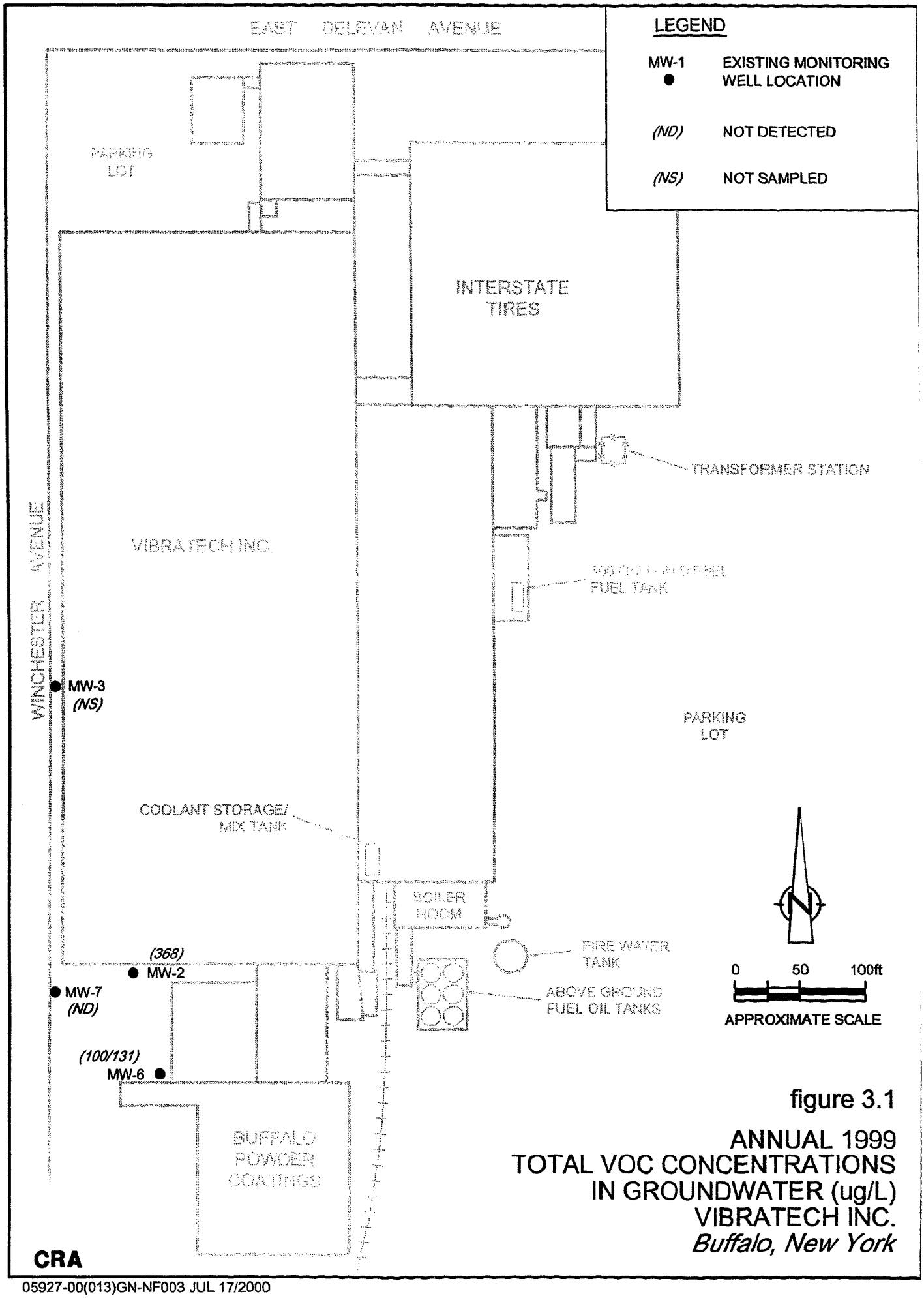

figure 3.1

ANNUAL 1999
TOTAL VOC CONCENTRATIONS
IN GROUNDWATER (ug/L)
VIBRATECH INC.
Buffalo, New York

CRA

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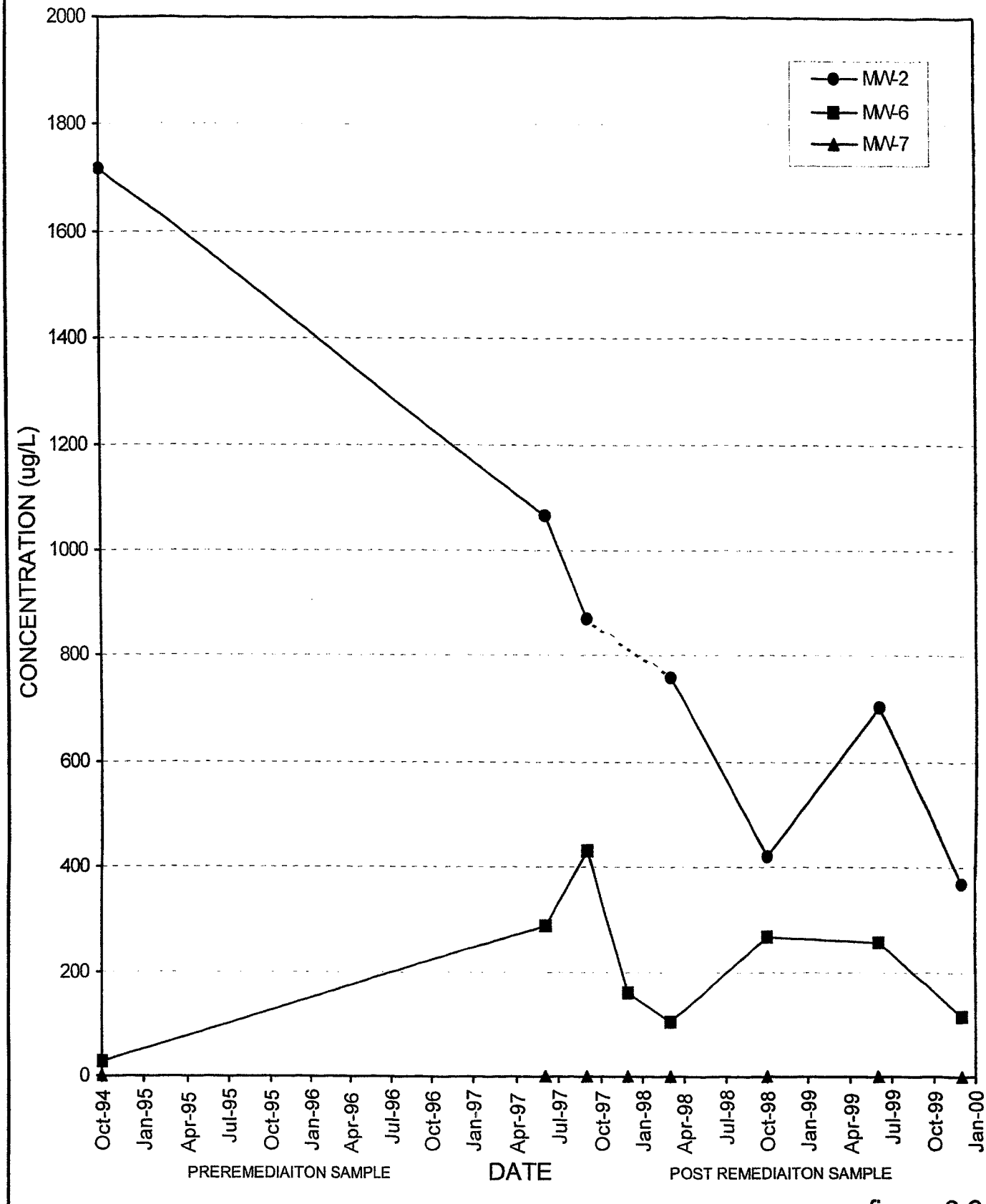

figure 3.2

TOTAL VOC CONCENTRATIONS
IN GROUNDWATER VERSUS TIME
VIBRATECH INC.
Buffalo, New York

CRA

05927-00(013)EX-NF001 JUL 17/2000