PRELIMINARY SITE ASSESSMENT REPORT
VOLUME I

ENRX, INC.
(FORMERLY VOELKER ANALYSIS)
CITY OF BUFFALO, NEW YORK

SITE NO. 915150

Submitted to:

New York State Department of Environmental Conservation
Albany, New York

Submitted by:

ABB Environmental Services
Portland, Maine

August 1995

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ENRX, INC.
PRELIMINARY SITE ASSESSMENT REPORT
VOLUME I

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EXECUTIVE SUMMARY

The ENRX, Inc. (ENRX) (formerly Voelker Analysis) site, Site Number 915150, is a suspected inactive hazardous waste site recognized by the New York State Department of Environmental Conservation in the Registry of Inactive Hazardous Waste Disposal sites. The site was assigned a Class 2a classification because insufficient data existed to allow delisting or reclassification. ABB Environmental Services (ABB-ES) completed a Preliminary Site Assessment (PSA) Records Search in March 1994, and documented that hazardous waste had been disposed of on-site; however, no data were available to establish if the waste poses any potential significant threat to public health or the environment or whether hazardous waste remains on-site.

The ENRX site is located at 766 Babcock Street in Buffalo, Erie County, New York and is currently owned by Mr. J. Lalime and Mr. J. Delomini (Figure 1). The site is estimated to be 0.5 acres in size. The site consists of a large building that previously contained the offices and solvent recycling/meat rendering operations of Voelker Analysis and later of ENRX, Inc. (Figures 2 and 3). The site also contains a paved parking lot and unpaved areas containing debris.

The solvent recycling facility was operated originally by Voelker Analysis, Inc. from approximately 1982 to 1987. ENRX continued operations from 1987 to 1989. Both operations accepted various liquid wastes containing industrial solvents primarily 1,1,1-trichloroethane (1,1,1-TCA); tetrachloroethene (PCE); trichloroethene (TCE); freon mixtures; Safety Solvent™; methylene chloride; and possibly isopropyl alcohol. The residues from distilling operations were disposed of off-site and, in most cases, reprocessed solvents were sold back to the industries which originally sent wastes to the site. The facility is currently vacant. Equipment used in solvent reprocessing, including two distillation units, a still bottoms tank, spill control structures, holding tanks, and piping remains in the building.

Previous investigations at the ENRX site include a RCRA Part A inspection and RCRA Facility Assessment (RFA); sewer sampling by the Buffalo Sewer Authority; and a removal action by the U.S. Environmental Protection Agency (USEPA). The Buffalo Sewer Authority sampling confirmed that Voelker Analysis, Inc. was improperly discharging solvent-contaminated wastewaters to the sewer system; the RFA documented that ENRX, Inc. had spilled solvents in the building basement and

discharged solvents to the sewer system. After ENRX ceased operations and abandoned the facility, the USEPA removed 398 55-gallon containers; 86 drums of still bottoms; 74 labpacks (overpacks of small containers of miscellaneous wastes and chemicals used in an on-site laboratory); 15,000 gallons of chlorinated wastewater; and up to 22 55-gallon containers of miscellaneous materials from the building.

ABB-ES conducted field investigation activities in October and November 1994. These activities included completion of three soil borings; installation of three groundwater monitoring wells; and collection and analysis of two subsurface soil samples, two surface soil samples, three sump liquid samples, six waste/sludge samples, two sump sediment samples, and three groundwater samples. The samples were analyzed for Target Compound List volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides/polychlorinated biphenyls (PCBs), and inorganic analytes. Selected samples were also analyzed for Extraction Procedure Toxicity (EPTOX) metals, ignitability, reactivity, and corrosivity.

Air quality in the building was characterized during sampling using a Bruel and Kjaer Type 1302 multigas monitor and other instrumentation. The multigas monitor was calibrated to measure real-time concentrations of the following VOCs: trans-1,2-dichloroethene (trans-1,2-DCE); 1,1-dichloroethene (1,1-DCE); 1,1,1-TCA, and carbon tetrachloride. Other instrumentation included a ThermoEnvironmental Model 580B photoionization detector (PID) and a Industrial Scientific Model MX-241 dual lower explosive limit/oxygen (LEL/O_2) meter.

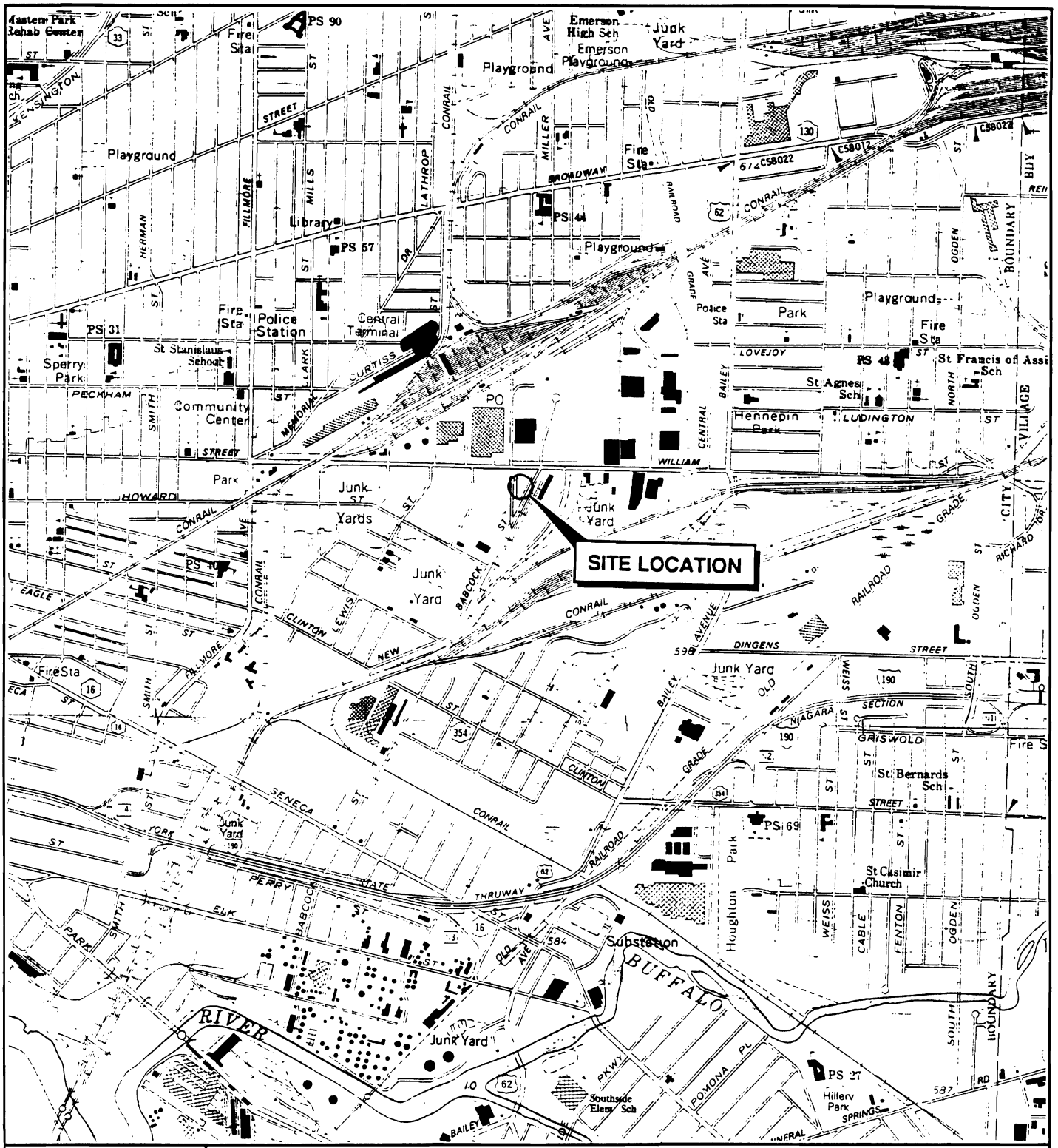
Laboratory analytical results of sump liquid and sediment samples, and waste/sludge samples from the ENRX building show the presence of hazardous waste-related VOC contamination throughout the building, with the most significant concentrations of 1,1,1-TCA, TCE, and PCE detected in sumps and structures in the basement and first floor levels. Numerous SVOCs (polynuclear aromatic hydrocarbons and phthalates) and inorganics (including cadmium, chromium, lead, and mercury) were also detected. Traces (less than 100 micrograms per kilogram) of several pesticides were detected in building samples; PCBs were not detected. EPTOX metals analysis results show that sludge remaining in a former still bottoms tank in the basement exceeds characteristic hazardous waste criteria for cadmium and lead.

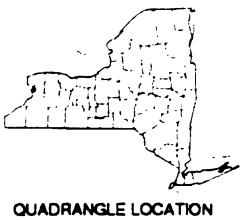
Groundwater, surface soil, and subsurface soil laboratory analytical results do not show evidence of VOC or inorganic contamination attributable to hazardous waste disposal by solvent recycling operations. Chloroethane, phenols, and inorganics were

detected in groundwater samples exceeding New York State Class GA standards with organic contaminants exceeding standards in an of-site, potentially upgradient monitoring well. Because groundwater contamination attributable to hazardous waste disposal was not detected and there are no receptors of groundwater, the site is not interpreted to pose a significant threat to public health or the environment as set forth in Title 6 New York Codes, Rules, and Regulations (NYCRR) Part 375.

Results of air monitoring showed detectable concentrations of VOCs (trans-1,2-DCE; 1,1-DCE; 1,1,1-TCA, and carbon tetrachloride) with the highest concentrations of VOCs in air detected in the basement. Concentrations of 1,1-DCE (up to 1.6 parts per million [ppm]) exceed the Occupational Safety and Health Agency permissible exposure limit of 1 ppm. PID measurements exceeding 5 ppm total ionizables (total VOCs) were measured in air at some building sampling locations. Explosive atmospheres and oxygen depleted conditions were not encountered. Because the building is not currently in use (minor renovations and removal of refuse were being performed by the building owners during the PSA field program) the presence of VOCs in the air in the building is not interpreted to constitute a significant threat to human health.

A solid waste is regulated as hazardous waste if it exhibits a characteristic of corrosivity, reactivity, ignitability, or toxicity. If the material is specifically referenced in state or federal regulations, it is a "listed hazardous waste." If the material is shown through laboratory testing to exhibit a characteristic of corrosivity, reactivity, ignitability, or toxicity, the material is referred to as a "characteristic hazardous waste." Through the data developed during the PSA investigation at the ENRX site, ABB-ES confirmed that listed hazardous wastes (F001 and F002 - spent chlorinated solvent and freon mixtures) and toxicity characteristic hazardous wastes (D006 and D008 - cadmium and lead wastes) as defined by 6 NYCRR Part 371 have been disposed of and remain on-site but that hazardous waste disposal at the site does not pose a significant threat as defined by 6 NYCRR Part 375. Based on this determination, ABB-ES recommends that the site be reclassified from Class 2a to Class 3 (Figure 4).





QUADRANGLE LOCATION

SOURCE: N.Y.S. DEPARTMENT OF TRANSPORTATION 7.5-MINUTE SERIES QUADRANGLES; BUFFALO NE, NEW YORK, 1989, AND BUFFALO SE, NEW YORK, 1989.

N

SITE NO.: 915150
LOCATION: CITY OF BUFFALO
ERIE COUNTY

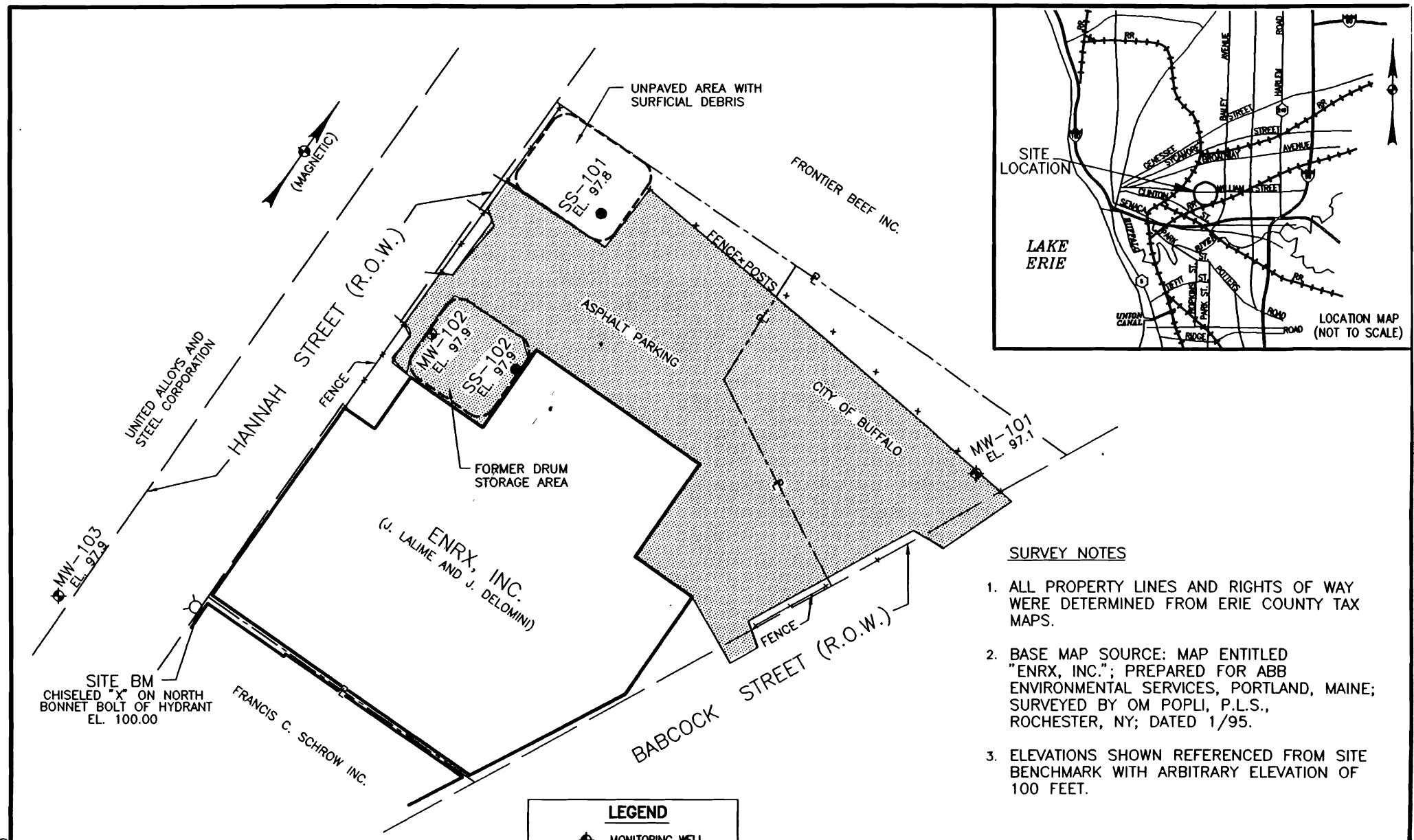
SCALE IN FEET

0 2000 4000

FIGURE 1
SITE LOCATION MAP
ENRX, INC.
PRELIMINARY SITE ASSESSMENT
NYSDEC

ABB Environmental Services

07170-20



SURVEY NOTES

1. ALL PROPERTY LINES AND RIGHTS OF WAY WERE DETERMINED FROM ERIE COUNTY TAX MAPS.
2. BASE MAP SOURCE: MAP ENTITLED "ENRX, INC."; PREPARED FOR ABB ENVIRONMENTAL SERVICES, PORTLAND, MAINE; SURVEYED BY OM POPLI, P.L.S., ROCHESTER, NY; DATED 1/95.
3. ELEVATIONS SHOWN REFERENCED FROM SITE BENCHMARK WITH ARBITRARY ELEVATION OF 100 FEET.

C:\7170-50\ENRX (PLOT 1=1.6)

FIGURE 2
SITE PLAN AND SAMPLING LOCATIONS
ENRX, INC.
PRELIMINARY SITE ASSESSMENT
NYSDEC

ABB Environmental Services

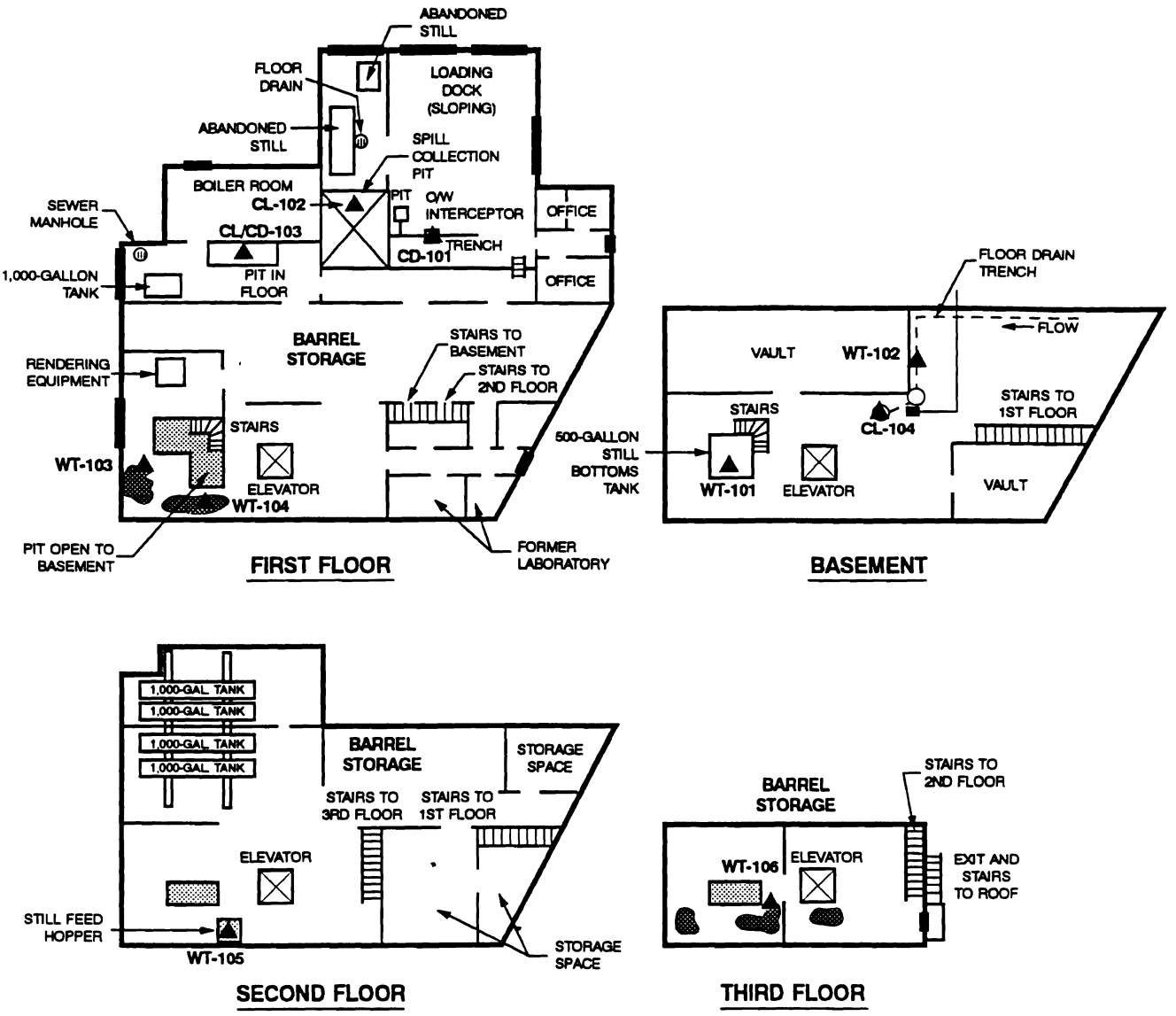


FIGURE 3
BUILDING PLAN AND SAMPLING LOCATIONS
ENRX, INC.
PRELIMINARY SITE ASSESSMENT
NYSDEC

ABB Environmental Services

W9404036D 0 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION

8/23/94

SITE INVESTIGATION INFORMATION

1. SITE NAME	2. SITE NUMBER	3. TOWN/CITY/VILLAGE	4. COUNTY
ENRX, Inc. (formerly Voelker Analysis)	915150	City of Buffalo	Erie

5. REGION	6. CLASSIFICATION		
9	CURRENT 2A	PROPOSED 3	MODIFY

7. LOCATION OF SITE (Attach U.S.G.S. Topographic Map showing site location)

a. Quadrangle: Buffalo NE, New York 1989

b. Site Latitude: 42° 50 ' 30 "N Site Longitude 78 ° 50 ' 00 "W

c. Tax Map Numbers: 112.14-3-3

d. Site Street Address: 766 Babcock Street, Buffalo, New York 14206

8. BRIEFLY DESCRIBE THE SITE (Attach site plan showing disposal/sampling locations)

The site consists of an approximately 44,000-square foot, three story wood frame and brick wall building with basement which previously contained offices and solvent recycling/meat rendering operations. The remainder of the half acre property contains a paved parking lot and yard. Solvent recycling operations were performed in the building from approximately 1982 to 1987 as Voelker Analysis, Inc., and from 1987 to 1989 as ENRX, Inc. Operations ceased when Part 360 permit was revoked for violations including exceedance of permitted quantities and failure to report spills. Spills in basement and discharges of solvents to Buffalo sewer system have been documented.

a. Area 0.5 acre b. EPA ID Number NYD991291782

c. Completed ( )Phase I ( )Phase II (X) PSA ( )RI/FS (X)PA/SI ( )Other

9. Hazardous Waste Disposed (Include EPA Hazardous Waste Numbers)

D007 Chromium D008 Lead F001 Spent solvent mixtures (11,1,-TCA, TCE, PCA) F002 Spent solvent mixtures including freon

10. ANALYTICAL DATA AVAILABLE

a. (X)Air (X)Groundwater ( )Surface Water ( )Sediment (X)Soil (X)Waste ( )Leachate
(X)EPTox ( )TCLP

The following contaminants were detected in significant concentrations inside the ENRX, Inc. building in sludges or liquids found in abandoned equipment, collection pits, and floors: methylene chloride (4,100 µg/L); 1,1-dichloroethane (14,000 µg/L); 1,2-dichloroethene (17,000µg/L); 1,1,1-trichloroethane (60,000 µg/L); trichloroethene (34,000 µg/L); tetrachloroethene (43,000 µg/kg); vinyl chloride (390 µg/kg); toluene (510 µg/kg); ethylbenzene (380 µg/kg); xylenes (3,800 µg/kg); pentachlorophenol (8,300 µg/kg); butylbenzylphthalate (3,000 µg/kg); bis(2-ethylhexyl)phthalate (46,000 µg/kg); cadmium (36.8 mg/kg); chromium (3,730 mg/kg); lead (1,850 mg/kg); and mercury (52.9 mg/kg). The chlorinated solvents above were not found in soil and groundwater outside of building. EPTOX metals data show sludge in abandoned still bottom tank in basement a characteristic hazardous waste due to cadmium and lead.
The following compounds were detected in the building atmosphere: trans-1,2-DCE (up to 4.68 ppm); 1,1,1-TCA (up to 1 ppm); 1,1-DCE (up to 1.6 ppm); and carbon tetrachloride (up to 0.15 ppm).

b. Contravention of Standards or Guidance Values: Exceedances of Class Ga groundwater quality standards

Compound	Class GA Standard	Concentration detected in groundwater	Compound	Class GA Standard	Concentration detected in groundwater
chloroethane	5 µg/L	ND - 6J µg/L	Antimony	3 G µg/L	ND - 52.9 J µg/L
2-methylphenol	1 µg/L	ND - 2J µg/L	Iron	300 µg/L	1850 - 23600 µg/L
4-methylphenol	1 µg/L	ND - 15 µg/L	Magnesium	35000 G µg/L	36200 - 54600 µg/L
2,4-dimethylphenol	1 µg/L	ND - 1J µg/L	Manganese	300 µg/L	339 - 5770 µg/L
Naphthalene	10 G µg/L	ND - 14 µg/L	Sodium	20000 µg/L	63300 - 208000 µg/L

11. CONCLUSION

Hazardous waste constituents (chlorinated solvents) remain inside building within sludges and liquids with most significant concentrations on ground floor and in basement. Hazardous waste constituents (chlorinated solvents) are present in air in the building; the concentration of the VOC 1,1-DCE in air in the basement exceeds the OSHA PEL. As the building is not in use, there are no receptors of building air. No hazardous waste constituents disposed at the site were detected in groundwater samples. There are no known receptors of groundwater. As there is no significant threat attributable to the site it is recommended the site be reclassified as a Class 3 site.

12. SITE IMPACT DATA

a. Nearest Surface Water: Distance 1.5 mile Direction S Classification C

b. Nearest Groundwater: Depth 7 ft. Flow Direction S-SW ( )Sole Source ( )Primary ( )Principal

c. Nearest Water Supply: Distance >5 mile Direction W Active (X)Yes ( )No

d. Nearest Building: Distance 0 ft. Direction Onsite Use Vacant

e. In State Economic Development Zone?	( )Y	(X)N	i. Controlled Site Access?	( )Y	(X)N
f. Crops or livestock on site?	( )Y	(X)N	j. Exposed hazardous waste?	(X)Y	( )N
g. Documented fish or wildlife mortality?	( )Y	(X)N	k. HRS Score NA		
h. Impact on special status fish or wildlife resource?	( )Y	(X)N	l. For Class 2: Priority Category NA		

13. SITE OWNER'S NAME	14. ADDRESS	15. TELEPHONE NUMBER
J.L. Lalime and J. Delomini	350 Essjay Rd. Williamsville, New York	( )

16. PREPARER	17. APPROVED
Signature Date	Signature Date
Name, Title, Organization	Name, Title, Organization

1.0 PURPOSE

ABB Environmental Services (ABB-ES) is submitting this Preliminary Site Assessment (PSA) Report to the New York State Department of Conservation (NYSDEC) for work performed on the PSA at the ENRX, Inc. (ENRX) (formerly Voelker Analysis) site located in the City of Buffalo, New York (Figure 1). This report was prepared in response to Work Assignment No. D002472-14 and in accordance with the requirements of the NYSDEC Superfund Standby Contract No. D002472 dated November 1989, between NYSDEC and ABB-ES (NYSDEC, 1993a).

The ENRX site, Site Number 915150, is a suspected inactive hazardous waste site recognized by NYSDEC in the Registry of Inactive Hazardous Waste Disposal sites. The ENRX site was assigned a Class 2a classification because insufficient information existed to document hazardous waste disposal and/or significant threat to public health or the environment. ABB-ES completed a PSA Data Records Search and Assessment in March 1994 and documented the release of hazardous waste as defined in Title 6 of New York Codes, Rules, and Regulations (NYCRR) Part 371.4 (a)(1) (NYSDEC, 1992a and 1995; ABB-ES, 1994c). However, ABB-ES was unable to recommend reclassification of the site because no data were available to determine whether consequential amounts of hazardous waste remain on-site nor do these data support a significant threat determination.

ABB-ES completed Site Work Plans for the ENRX site in June 1994 (ABB-ES, 1994c). ABB-ES prepared a Scope of Work for a field investigation program to develop data necessary to consider reclassifying the site according to guidelines set forth under 6 NYCRR Part 375 (NYSDEC, 1992b), to one of the following categories:

Class 2	Hazardous waste sites presenting a significant threat to public health or the environment; defined by NYSDEC as sites that had a release(s) resulting in violation of NYSDEC environmental quality standards and guidelines.
Class 3	Hazardous waste sites not presenting a significant threat to public health or the environment.
Delist	Sites where hazardous waste disposal is not documented.

To develop the data necessary to recommend reclassification, environmental sampling and a subsurface investigations were performed to:

- confirm the existence of documented on-site hazardous waste disposal as defined in 6 NYCRR Part 371; and
- establish whether hazardous waste disposal at the site constitutes a significant threat to public health and the environment as defined in 6 NYCRR Part 375.

The PSA field investigation included the following activities:

- Collecting and analyzing two subsurface soil samples, two surface soil samples, six floor/vessel sludge samples, two sump sludge samples, and three sump/vessel liquid samples to provide data to assess whether materials disposed of at the site are hazardous waste as defined by 6 NYCRR Part 371.
- Installing and sampling three groundwater monitoring wells for comparison of analytical results to New York State (NYS) Class GA groundwater quality standards, set forth under 6 NYCRR Parts 700 - 705 (NYSDEC, 1991), to establish whether there has been a contravention of these standards and whether the site poses a significant threat to public health and the environment as defined in 6 NYCRR Part 375.
- Developing a base map from a site survey presenting the location of environmental samples, test borings, monitoring wells, and major site features.

A summary of field investigations and the results of PSA activities are reported in two volumes. Volume I presents the project purpose, a summary of the site background and history, description of the field investigation scope of work, the results of the field investigation activities, and a final recommendation for reclassification of the site. Figures and tables included in Volume I are located at the back of the report section in which they are first referenced. Included in Volume I is Appendix A, U.S. Environmental Protection Agency (USEPA) Site Inspection

Form 2070-13. Volume II contains field data records, laboratory analytical results, the data quality evaluation report, and the survey control report.

2.0 BACKGROUND INFORMATION

This section contains a description of the site and information gathered during the records search and assessment portion of the PSA. This includes the site history and previous investigations, a description of the site walkover, file review information, and a summary of the records search and assessment.

2.1 SITE DESCRIPTION

ENRX is located at 766 Babcock Street in Buffalo, Erie County, New York (Figure 1). The site area is estimated to be 0.5 acres. The site is bounded by Babcock Street on the east and Hannah Street on the West. The site consists of a large building that previously contained the offices and solvent recycling/meat rendering operations, a paved parking lot, and some unpaved areas containing surficial debris (Figure 2). The building is approximately 44,000 square feet in area, and consists of three above ground floors and a full basement (Figure 3). The following paragraphs describe the building and the area surrounding the site.

2.1.1 ENRX Building

The building is vacant with the exception of some abandoned debris, solvent recycling and rendering equipment, painting equipment, and shelving used by the current owners. Approximately 80 percent of the building was used for solvent distilling operations, and the remainder of the building was used for office and laboratory operations. The building is segregated into several rooms on each floor, including one vault in the basement that was used originally for cold storage of rendering products (see Figure 3). A second vault area was discovered by the USEPA at the close of their removal action. The second vault was apparently constructed when a block wall (with no door) was added to the basement to support the first floor. When the USEPA unsealed the second vault, it was empty.

The building is of varied construction. The southern part of the building, where rendering operations were first performed, is brick and block (outer walls) with wood interior walls, floors, and roofing. The basement is located under this portion of the building and is constructed with stone walls and a concrete floor with an approximate slope of 4 percent towards plugged floor sumps. Access from the first floor to the

other floors and basement was by wooden stairs or a 3,000-pound capacity elevator. In the northwest corner of the first floor of the southern part of the building is a loading dock area. Miscellaneous vessels and tanks containing some oily sludges remain in this area, and a spill collection pit is located in the floor of the loading dock.

The northern half of the building is constructed of cement block walls, concrete floors, and steel-supported roofing, and consists almost entirely of a loading dock area (Figure 3). The loading dock is accessed by four garage doors. Oil/water separator pits, a large spill containment pit, and a Detrex S-400 still are located in this part of the building. Wastewater from solvent recovery operations in the northern half of the building are believed to have been discharged from the still into the oil/water separator and spill containment pit before discharge to the City of Buffalo sewer system.

To the north of the building is a paved parking area and an overgrown grassy area containing remains of wooden pallets and metallic debris (drum rings and lids) (see Figure 2). Along the northwest corner of the building is a paved area where empty 55-gallon drums were reportedly stored.

2.1.2 Surrounding Land Use

The site is located in an industrial/commercial area of Buffalo, with several railroad yards, scrap areas, and metals facilities within one-half mile of the site (see Figure 1). The site is bordered on the west by a metals recycling facility (United Alloys and Steel Corporation), on the south by a building believed to be used for hide processing (Francis C. Schrow, Inc.), and to the north by a building used for meat products storage (Frontier Beef, Inc.) (see Figure 2). Northwest of the Frontier Beef facility is the Buffalo Main Post Office and east of the site is the City of Buffalo bus maintenance facility.

Approximately 800 feet west-southwest of the ENRX site is a former Class 2a inactive hazardous waste site, the BBC Enterprises (BBC) site, Site Number 915142 (Waste Resource Associates, Inc., 1992). During the PSA for the BBC site, groundwater in overburden was found to be contaminated with 1,1-dichloroethene (1,1-DCE) (up to 28 micrograms per liter [μg/L]); 1,1-dichloroethane (1,1-DCA) (up to 140 μg/L); 1,2-dichloroethene (1,2-DCE) (up to 32 μg/L); 1,1,1-trichloroethane (1,1,1-TCA) (up to 490 μg/L); and trichloroethene (TCE) (up to 3 μg/L). The BBC

site PSA showed that groundwater flow in overburden is generally southerly to southwesterly. The report indicates that groundwater contamination is not related to BBC, but is related to an unnamed, unrelated, upgradient source (Waste Resource Associates, Inc., 1992). According to the report, this source could potentially be ENRX or some other unidentified site in the area. The BBC site was subsequently delisted.

2.1.3 Topography

The area in the vicinity of ENRX is flat developed land or open fields. Site ground cover consists of grass and pavement. The site is relatively flat with a slight slope towards the southwest. The elevation of the site is approximately 600 feet above mean sea level.

2.1.4 Surface Water Hydrology

The site is surrounded by roads and open areas. Surface water runoff from the site flows into storm drains. The 1-year, 24-hour rainfall is 2.1 inches. The nearest surface water body is the Buffalo River, located approximately 1.5 miles to the south. This water body passes through the southern part of Buffalo and is used for ship and barge traffic. It is a NYS Class C water body. The Buffalo River discharges to Lake Erie approximately 5 miles from the site. There are no classified wetlands located within 3 miles of the site (NYSDEC Division of Fish and Wildlife, 1984). The site is not located on a flood plain (NYSDEC Water Resource Division, 1994). Surface water within 3 miles of the site is not used for drinking, irrigation, or recreational uses. The residents in the vicinity of the site receive drinking water from a municipal supply. The municipal water intakes are on Lake Erie located more than 3 miles northwest of the ENRX site.

2.1.5 Critical Habitats and Endangered Species

There are no known critical habitats or endangered species within 2 miles of the site (NYSDEC Heritage Program, 1994).

2.2 SITE HISTORY

The ENRX site is the location of a former commercial solvent recycling facility located in Buffalo, New York (Figure 2). Prior to use for solvent recycling, the site was operated as a meat rendering plant and rendering products testing laboratory (Voelker Analysis, Inc.). The solvent recycling facility was operated originally by Voelker Analysis, Inc. (from approximately 1982 to 1987) under NYCRR Part 360 (Solid Waste) Permit No. 2655 from NYSDEC. During the period of time the site operated as Voelker Analysis, transport of waste materials to and from the site for solvent distilling and recovery was reportedly performed by Marva Trucking, which also maintained offices in the building (Voelker Analysis, 1983).

In 1987, Voelker Analysis Inc. became financially insolvent and the facility was sold to ENRX, Inc., which received continuation of the Part 360 Permit as part of the purchase. The recycling operations by ENRX ceased in 1989 when the Part 360 Permit was revoked by NYS due to non-compliance with a consent order and Resource Conservation and Recovery Act (RCRA) violations (USEPA, 1989). The site is currently listed as owned by Mr. J.L. Lalime and Mr. J. Delomini, of Williamsville, New York (Buffalo Tax Assessors Office, 1993).

The recycling operations by Voelker Analysis, Inc., and later by ENRX accepted various liquid wastes containing industrial solvents, including 1,1,1-TCA; PCE; TCE; Freon TF; Freon TMC; Safety Solvent™; methylene chloride; and isopropyl alcohol. The residue from the distilling operation consisted primarily of oil sludge that was reportedly disposed of at the CECOS facility in Niagara Falls, New York (NUS Corporation [NUS], 1986), Research Oil Company in Cleveland, Ohio (Erie County Department of Environment and Planning [ECDEP], 1985), SCA Chemical Services in Model City, New York (Voelker Analysis, 1983), and Booth Oil in Buffalo, New York (Voelker Analysis, 1981; ECDEP, 1981). In most cases, reprocessed solvents were sold back to the industries which originally sent the wastes to the site.

Solvent recovery was performed in two stills located in different parts of the building during different periods of site history. The stills, a Detrex S60 distillation unit and a Detrex S400 distillation unit, reportedly had a combined capacity of 460 gallons of solvent per hour (Voelker Analysis, 1983). ENRX, Inc. reportedly only performed solvent recycling in the northern half of the building as detailed in the consent order between NYSDEC and ENRX, Inc. (NYSDEC, 1987). Voelker Analysis used both the northern and southern halves of the building. On-site storage of solvents and

wastes occurred in 55-gallon containers, a 500-gallon tank, a 1,000-gallon tank, and four 10,000-gallon storage tanks (former United States Railroad Association steel railcar tankers placed on the second floor of the building over the western loading dock).

Wastewater containing solvents was reportedly spilled through broken piping and/or discharged into floor drains and basement sumps, then discharged to the City of Buffalo sewer system. Spills are also is thought to have occurred outside the building near the loading docks where empty drums were stored (NUS, 1986).

In 1983, Voelker Analysis Inc. received a NYCRR Part 360 permit from NYSDEC to operate the facility. At the same time, the facility submitted a RCRA application; however, it is not known if the application was accepted. The NYCRR Part 360 permit under which the facility operated specified that no more than 360 drums of material could be kept on-site at any time. The site is referenced as USEPA RCRA ID No. NYD991291782. During the period of use for solvent recycling, three consent orders were issued and fines were levied by regulatory agencies because operators failed to comply with applicable rules concerning hazardous waste transportation, storage, and disposal (USEPA, 1985; NYSDEC, 1986; NYSDEC, 1987). The violations included not maintaining records, not providing required labels and documentation for drums of material on site, not providing proper training to employees, exceeding permitted quantities, and not reporting spills.

2.3 PREVIOUS INVESTIGATIONS

Several previous investigations and response actions, described in the following paragraphs, have occurred at the ENRX site.

2.3.1 RCRA Part A Inspection

In 1985, ECDEP inspected the site to monitor for compliance with the Part 360 permit. During the inspection, they noted that a break in a flexible discharge hose from a still bottoms storage tank had resulted in a spill of approximately 25 to 30 gallons of distillation residues on the floor of the basement area. Strong solvent odors were also noted throughout the entire basement area (ECDEP, 1985). The RCRA violations notice sent to Voelker Analysis at that time requested that a rigid pipe and additional lighting be installed.

2.3.2 Preliminary Assessment

NUS performed a potential hazardous waste site preliminary assessment for the USEPA in 1986 (NUS, 1986). A site walkover during the preliminary assessment noted the presence of several corroded, empty drums outside the northwest corner of the building that may have contained solvents at one time. A site sketch included in the NUS report notes drums stored outside the northwest corner of the building, drums stored inside the building at the northwestern loading dock, and a fuel pump in the paved area off the northeast corner of the building. The assessment recommended that sampling for solvent contamination of soil at the outdoor drum storage area be performed.

2.3.3 Buffalo Sewer Authority Sampling

In 1985 and 1986, the Buffalo Sewer Authority required Voelker Analysis to monitor discharges to the sewer system for pH, oil and grease, selected VOCs, and other parameters. Results of sampling provided to ABB-ES by the Buffalo Sewer Authority for the period are summarized in the following table.

DISCHARGE MONITORING RESULTS
BUFFALO SEWER AUTHORITY

PARAMETER	RANGE OF CONCENTRATIONS
pH	6.62 - 7.9
Oil and Grease	0.3% - 7.2 %
1,1,1-TCA	ND - 170 mg/L
Biochemical Oxygen Demand	35 mg/L - 3,270 mg/L
Total Suspended Solids	9.24 mg/L - 552 mg/L
TCE	819 µg/L - 2,390 µg/L
PCE	45 µg/L - 3,570 µg/L
Chloroform	ND - 22 µg/L
2-Butanone	ND - 2,300 µg/L

Based on results of the sampling, Voelker Analysis received a Notice of Significant Industrial Pollution Violation in November 1986, and was fined and required to eliminate basement floor drains and improve housekeeping (Buffalo Sewer Authority, 1986; Buffalo News, 1986). Although the basement drain sumps remain, the outlet pipes for these drains were reportedly plugged by Voelker Analysis.

2.3.4 RCRA Facility Assessment

A RCRA Facility Assessment (RFA) was performed on the ENRX site by NYSDEC to identify and gather information on chemical releases (NYSDEC, 1988). The RFA was based on review of existing file information in 1986 and a visual site inspection in 1988. The RFA noted no significant RCRA violations; however, the RFA notes that the Buffalo Sewer Authority was monitoring wastewater discharged to the sewer system by sampling an outfall pipe in the basement floor. The RFA notes the following releases:

- February 20, 1985 - overflow of still bottoms tank released 20 to 30 gallons onto basement floor
- February 4, 1986 - observed leaking condenser, leaking oil/water separator, and other fitting on Detrex S400 still; waste was observed leaking into floor drain leading to sanitary sewer
- January 28, 1987 - F002 (listed hazardous waste containing spent chlorinated solvents) sump waters discharged to basement floor
- June 24, 1987 - F002 sump waters discharged to basement floor

2.3.5 Removal Action

Between 1989 and 1992, the USEPA performed a removal action at the facility funded by the Superfund Program. The removal action was performed at the request of NYSDEC because ENRX was financially insolvent, and because potential safety hazards existed at the abandoned facility (USEPA, 1989). The removal action consisted of (1) removing 398 55-gallon containers of chlorinated solvents; (2) removing 86 drums of still bottoms; (3) removing 74 labpacks comprised of miscellaneous containers of laboratory chemicals and wastes; (4) steam cleaning the building walls and floors in areas where drums were removed, and abandoned

equipment; (5) removing 15,000 gallons of chlorinated wastewater; and (6) removing 22 55-gallon containers of miscellaneous materials. The materials removed by USEPA are summarized in Table 1.

After completing the removal action, the USEPA collected wipe samples from seven locations in the building for laboratory analysis for selected metals to assess whether building and equipment surfaces were contaminated (USEPA, 1991). One floor sweepings sample was also collected from the second floor for analysis for Target Compounds List (TCL) metals and metals by Toxicity Characteristic Leaching Procedure (TCLP). Wipe test results show decreases in metals concentrations on surfaces sampled after decontamination. The floor sweepings sample contained several metals, including lead (390 milligrams per kilogram [mg/kg]), copper (567 mg/kg), and iron (22,800 mg/kg). Results of TCLP analysis show the floor sweepings sample contained leachable concentrations of barium, cadmium, chromium, lead, mercury and silver; however, concentrations are significantly lower than USEPA limits for definition of hazardous waste.

During the removal action, USEPA and NYSDEC discovered that the former cold storage vault in the northwest part of the basement was being used to store polychlorinated biphenyl (PCB) wastes in leaking 55-gallon containers. A second, empty vault was also discovered in the southeast part basement. Decontamination of the vault containing the containers of PCBs is not documented by the USEPA although USEPA correspondence recommended it be done.

2.4 SITE WALKOVER

On December 14, 1993, the following ABB-ES and NYSDEC personnel conducted a site walkover of ENRX.

SITE WALKOVER ATTENDEES

NAME	TITLE	AFFILIATION/TELEPHONE
Cynthia J. Talbot	Project Manager	ABB Environmental Services (207) 775-5401
Brian K. Butler	Site Manager	ABB Environmental Services (207) 775-5401

SITE WALKOVER ATTENDEES

NAME	TITLE	AFFILIATION/TELEPHONE
Ralph T. Keating, P.E.	Environmental Engineer II	NYSDEC - Division of Hazardous Waste Remediation (518) 457-9538
Edward J. Feron	Environmental Engineer	NYSDEC - Region 9 Division of Hazardous Waste Remediation (716) 851-7220
Ray Fisher	Environmental Engineer	NYSDEC - Region 9 Division of Hazardous Waste Remediation (716) 851-7220

Ray Fisher provided access to the building. Due to the cold temperatures during the walkover, a photoionization detector (PID) brought to the site by ABB-ES for air monitoring would not operate. The walkover was performed using a Lower Explosive Limit/Oxygen (LEL/O_2) meter and a radiation detector to monitor site conditions. Both instruments read background throughout the walkover. The site walkover consisted of viewing the outside of the building for the purpose of identifying potential monitoring well locations and viewing remaining equipment and conditions on the first, second, and third floors of the building.

The walkover identified that the spill collection pit was full of clear liquid (water). The oil/water separator was observed to be full of a red liquid (possibly rusty water). Strong foul odors were noted during inspection of the second floor in the vicinity of the stairs. The basement level was not inspected due to inadequate lighting and lack of adequate air monitoring instrumentation. During observation of all three floors, several areas were observed to have unsafe, rotten flooring, especially in the vicinity of former drum storage areas in the southern half of the facility. Floors in these areas, and in the location of the former distilling operations in the southwestern corner, were also covered with up to 1 inch of sludge-like material. The basement-level still bottoms tank was observed through the hole in the first floor to contain some sludge, liquid, and debris. The 1,000-gallon tank in the western loading dock was observed to contain some residual oily material. An acetylene tank, torch, and other steel cutting equipment were observed on the second floor, with evidence of possible recent scrapping of the four 10,000-gallon storage tanks found on the

second floor. At the time of the visit, one 10,000-gallon tank had been entirely removed and one 10,000-gallon tank had been partially removed.

On October 3, 1994, ABB-ES personnel performed a building walk-through at the initiation of PSA sampling activities to confirm access and complete selection of sample location activities. The walk-through was performed at Level C personal protective equipment (PPE) in accordance with the Health and Safety Plan (HASP) (ABB-ES, 1994c). ABB-ES personnel toured the first, second, and third floors of the building and PID and LEL/O_2 readings were at background. On the third floor of the building, personnel observed a pile of sawed animal bones on the south side of the elevator shaft. Personnel also observed a pile of a gray, powdery substance, believed to be lime or soda ash. On the second floor, personnel observed that the scrapping of the steel tanks had continued since the original walkover in December 1993. On the first (ground) floor, it was observed that the electrical circuits for the building were operable, as the electric meter and some additional electric panels were lit. In the truck loading dock in the northern part of the building, evidence of recent painting activities were observed (ladders, lift, drop clothes, and paint cans), and some debris had been removed since the original walkover. Site activities (building painting and debris removal) were confirmed by the property caretaker. Further evidence of recent site activity was noted on November 29, 1994 when ABB-ES personnel arriving to perform groundwater sampling found fence posts installed along the site's north and east boundaries.

2.5 FILE REVIEW

ABB-ES reviewed files at various local, state, and federal agencies and offices to develop information to support reclassifying or delisting the site and to help prepare the scope of work for this PSA field investigation.

On December 14, 1993, Cynthia Talbot and Brian Butler of ABB-ES met Jim Feron and Dave Locey of NYSDEC Region 9 and reviewed the Region 9 files for the ENRX site. On December 15, 1993, Brian Butler of ABB-ES visited the Buffalo Tax Assessor's Office in Buffalo and Erie County Soil and Water Conservation District Office in East Aurora.

TABLE 1
USEPA DRUM REMOVAL INVENTORY SUMMARY

ENRX, INC.
PRELIMINARY SITE ASSESSMENT

CHEMICAL/MATERIAL	QUANTITY REMOVED	CHEMICAL/MATERIAL	QUANTITY REMOVED
Sodium metasilicate pentahydrate	5 100-lb. bags, 1 30-gallon container	Lime	4 55-gallon drums
Soda ash	1 100-lb bag, 1 55-gallon container	Kerosene	1 55-gallon drums
Citric acid	1 100-lb. bag	Degreaser/Recycle cold cleaner-100	5 55-gallon drums
ASTAX-125	3 100-lb. bags	All purpose cleaner/alkali cleaner/detergent cleaner	3 55-gallon drums
Phosphoric acid	3 30-gallon containers	Unknowns	4 55-gallon drums
Nitric/hydrofluoric acid mixture	4 30-gallon containers	Steam cleaner concentrate	6 55-gallon drums
Nitric acid	3 30-gallon containers	Isopropyl alcohol	6 55-gallon drums
Unknown	1 15-gallon container	Soap	1 55-gallon drum
Isopropyl alcohol	1 5-gallon pail	Tetrachloroethene	3 55-gallon drum
Unknown	3 5-gallon pails, 3 30-gallon containers, 19 55-gallon containers	Methylene chloride	2 55-gallon drum
Misc. paints	20 1-gallon pails	Empty polyethylene-lined and steel drums	34 55-gallon drums
Floor adhesive	1 1-gallon pail	F002 hazardous waste	118 55-gallon drums
Paint	small number spray cans	F002 hazardous waste	13 85-gallon containers
Sodium hexametaphosphate	1 30-gallon container, 1 55-gallon container	F001 hazardous waste	7 55-gallon drums
Sodium alkyl aryl sulfonate	1 55-gallon container	F001 hazardous waste	2 85-gallon containers
mod. Coconut diethanol amide	1 55-gallon container	1,1,1-trichloroethane	11 55-gallon drums
Dodecobenzene sulfonic acid	1 55-gallon container	Trichlorethene	2 55-gallon drums
Methanol	1 55-gallon container	Dowclene EC F002	2 55-gallon drums
Flammable liquid	2 55-gallon containers	Diatomite	12 100-lb. bags
Ferric ammonium oxylate	1 50-lb. bag	potassium ferric cyanide	3 50-lb. bags

TABLE 1
USEPA DRUM REMOVAL INVENTORY SUMMARY

ENRX, INC.
PRELIMINARY SITE ASSESSMENT

CHEMICAL/MATERIAL	QUANTITY REMOVED	CHEMICAL/MATERIAL	QUANTITY REMOVED
Misc. plating chemicals	50 5-gallon pails	Potassium fluoride	1 55-gallon drum
Chloroethane	1 55-gallon drum	Potassium oxylate	1 55-gallon container
Aluminum immersion salts	1 55-gallon container	Sodium nitrate	5 55-gallon containers
Polysorbate-60	1 55-gallon container	tar-like beads	1 55-gallon container
Muriatic acid	10 55-gallon containers	Unknown hazardous waste	1 30-gallon container
Hydrogen peroxide	1 55-gallon container	Unknown non-hazardous waste	1 55-gallon container
PCB Wastes	1 + 55-gallon containers		

Notes:

- The materials listed above only represent materials removed from the site by USEPA between 1989 and 1991 listed in the original inventory (USEPA 1989). Additional materials have been removed since that time.

3.0 SCOPE OF WORK

The environmental sampling and subsurface investigation programs were designed to document the presence or absence of hazardous wastes on-site and assess whether or not the site poses a significant threat to public health or the environment.

The three soil borings and groundwater monitoring wells were completed by Advanced Drilling Investigations (ADI) of Niagara Falls, NY under subcontract to, and under the supervision of, ABB-ES. Analytical samples were submitted to ABB-ES' Environmental Laboratory Approval Program (ELAP)-approved analytical laboratory subcontractor, NYTEST Environmental, Inc. (NYTEST), of Port Washington, NY for analysis for TCL VOCs, semivolatile organic compounds (SVOCs), and pesticides/PCBs, and for inorganic analytes. Selected samples were also analyzed for Extraction Procedure Toxicity (EPTOX) metals analysis, and for ignitability, corrosivity, and reactivity.

ABB-ES performed the field investigation in accordance with the Quality Assurance Program Plan (QAPP) (ABB-ES, 1993) and the site-specific Work Plan and Quality Assurance Project Plan (QAPjP) (ABB-ES, 1994c). Quality Control (QC) procedures for sample handling and sample shipment are presented in Section 5.0 of the QAPP; data validation requirements are presented in Section 8.0. QC sample frequencies are presented in the QAPjP. Health and safety procedures for all on-site activities are presented in the Program HASP (ABB-ES, 1993) and the site-specific HASP (ABB-ES, 1994c).

The following subsections describe the investigation activities. Field data sheets including shallow subsurface soil sampling records, boring logs, monitoring well installation diagrams, groundwater monitoring well development logs and groundwater sampling records are presented in Volume II.

3.1 REMOTE SENSING

A geophysical survey was performed as part of the field investigations at ENRX. The geophysical survey consisted primarily of ground-penetrating radar (GPR) traverses at the planned locations of monitoring wells to provide additional clearance of utilities. GPR traverses were also performed in the debris/grassy area at the

northwest corner of the site and in areas of removed or broken pavement between the building and Babcock Street to look for evidence of possible underground fuel storage tanks (USTs) associated with a fuel pump shown on a sketch map of the site (NUS, 1986). GPR survey activities were completed as described in the QAPP.

The GPR survey did not identify any evidence of USTs beneath paved or unpaved areas of the site where traverses were performed; the GPR survey did locate positions of underground utilities near locations of proposed soil borings/monitoring wells. These observations were used to adjust exploration locations before notifying the NYS Underground Facilities Protection Organization.

3.2 ENVIRONMENTAL SAMPLING

The purpose of the environmental sampling was to investigate the potential that contamination from past operations exists within the ENRX building and in surface soils adjacent to the building. Sampled locations were selected based on a review of historical information and observations from the site walkovers. The following areas were sampled:

- Basement Level - collected one sample from the still bottoms tank (WT-101) and one from a floor trench (WT-102); collected a liquid sample (sump liquid sample [CL]-104) from a sump in the basement floor

- Ground Level (first floor) - collected a sludge sample (sump sediment sample [CD]-101) from the oil/water separator; collected a liquid sample (CL-102) from the spill collection pit; collected a liquid/ sediment sample pair (CD/CL-103) from a pit near a sewer manhole located in the western loading dock area; and collected two sludge samples (WT-103 and WT-104) from material on floor areas near southwest corner of building

- Second Floor - collected a sludge sample (WT-105) from material on the wooden floor near the elevator; the sample was collected from beneath a hopper used during distillation processes

- Third Floor - collected a sludge sample (WT-106) from material on the wooden floor

- Outside Building - collected one surface soil sample (SS-101) from the grassy area and one surface soil sample (SS-102) from the paved former drum storage area off the northwestern corner of the building.

The environmental sampling and laboratory analysis program is summarized in Table 2. Building sampling locations are shown in Figure 3. Surface soil sampling locations are shown in Figure 2. Collection of CL-104 and CL/CD-103 were deviations from the work plan (ABB-ES, 1994c). CL-104 was collected instead of proposed sample TS-101. The 1,000-gallon tank from which TS-101 was to have been collected could not be sampled due to difficult access (narrow tank opening) and thick viscosity of the material in the tank. Samples CL/CD-103 could not be collected from a sanitary sewer access manhole in the building as proposed in the work plan because the manhole cover could not be removed. Instead, samples CL/CD-103 were collected from a shallow, rectangular concrete pit believed to be a trench drain or spill collection pit in the same area of the building. This pit is believed to discharge to the manhole.

First floor and basement samples were collected at Level B PPE in accordance with the HASP; all other building waste/sludge samples (from the second and third floor) were collected at Level C PPE. Surface soil samples outside the building were collected at Level C dermal PPE.

Samples were screened with a Thermo-Environmental Model 580B PID for the presence of VOCs during sampling activities. The sample description and location, sample PID reading, and additional observations were recorded on the sample record sheets and in the field notebook as presented in Subsection 4.6.4.1 of the QAPP. Sample record sheets are contained in Volume II.

3.2.1 Air Monitoring

During environmental sampling inside and outside the ENRX building, air monitoring was performed with the PID, a Bruel and Kjaer Type 1302 multigas monitor, and with an ISC Model MX-241 LEL/O_2 meter to assess whether the concentrations present at the site during sampling posed a threat to health and safety.

PID results are presented for each sampling location, by medium, in the following subsections.

The Bruel and Kjaer Type 1302 multigas monitor was calibrated to detect and quantify trans-1,2-DCE; 1,1,1-TCA; 1,1-DCE; and carbon tetrachloride. The multigas monitor uses optical filters to detect and quantify the presence of the VOCs for which it is calibrated. The multigas monitor was used on October 4 and 5, 1994; results were recorded in parts per million (ppm). During monitoring, the intake of the multigas monitor was set up as close to sampling locations as possible; however, access was limited by the need to connect to a generator and the lengths of power cords and intake tubing. Complete multigas monitor data and calibration sheets are presented in Volume II and results are discussed in Section 4.3. Results of the multigas monitor can be compared to Occupational Safety and Health Agency (OSHA) permissible exposure levels (PELs).

As the intake hose of the multigas monitor was not of sufficient length to reach most sampling locations, the actual concentration of VOCs in air at the immediate vicinity of the sampling locations is not known, but, based on PID readings greater than 5 ppm measured at the sampling locations by field personnel, are believed to have likely exceeded the concentrations summarized above.

During all sampling activities, LEL/O_2 meter readings were background. That is, explosive atmospheres and oxygen deficient conditions were not encountered within or outside of the building.

3.2.2 Waste/Sludge Sampling

Discrete waste/sludge samples (WT-101 through WT-106) were collected using a stainless steel spoon. Samples were collected from locations shown in Figure 3 for laboratory analysis, as detailed in Table 2. Samples WT-101 and WT-102 were collected from the basement level of the building. Sample WT-101 was collected from the still bottoms tank in the southwestern corner of the building. PID readings of WT-101 were zero ppm (background). Sample WT-102 was collected from a soft, gray-brown sediment in a trench drain in the basement floor. PID readings of WT-102 were up to 30 ppm.

WT-103 and WT-104 were collected from the first floor at the former still location in the southwestern corner of the building. Both samples were of a dark grey sludge found on the floor. PID readings of the samples were background.

WT-105 was collected on the second floor from a pile of dark brown, powdery material beneath a large steel vessel believed to be a former still liquid feed hopper. PID readings of WT-105 were background.

WT-106 was collected on the third floor from a pile of dark brown, powdery material near the cut-out flooring in the southwestern corner of the building. WT-106 appeared very similar to WT-105 in color and texture. PID readings of WT-106 were background.

3.2.3 Sump Liquid/Sediment Sampling

Sump samples (CD-101, CL-102, CD/CL-103, and CL-104) were collected from structures located on the first floor and basement levels (Figure 3). Liquid sample CL-102 was submitted using a stainless steel Pack-bomb sampler. Liquid samples CL-103 and CL-104 were collected by filling containers directly. Sediment samples CD-101 and CD-103 were collected with a bucket auger. Samples were submitted for laboratory analysis as detailed in Table 2.

CD-101 was collected from a oil/water separator-like structure in the first floor truck loading dock. The structure itself is 4.5 feet in diameter and 6 feet deep. The sediment layer was very thin (an estimated 0.1 foot in thickness) and difficult to sample. The structure was full of liquid. A concrete trench drain leads from the structure to the spill collection pit where CL-102 was collected. During characterization, a Horiba U-10 water quality monitor was used to measure liquid temperature (21.20°C), pH (7.48), specific conductivity (300 milliSeimens per centimeter [mS/cm]). PID readings over the water surface during sampling were approximately 25 ppm. Sample CD-101 was a soft gray-black sludge; PID headspace readings of the sludge were 30 ppm.

Sample CL-102 was collected from the spill collection pit. The collection pit is a pool-sized structure adjacent to a remaining still near the truck loading dock area. The pit was observed to be approximately 12 feet square and approximately 8 feet deep. The pit was filled with approximately 4.8 feet of liquid. Field screening with the Horiba U-10 water quality monitor showed the liquid in the pit to have a pH of

6.9; a specific conductivity of 461 mS/cm; and a temperature of 10.2°C. PID readings of the liquid were background.

Samples CD/CL-103 were collected from a pit in the western truck bay adjacent to a sewer manhole. The pit is 14 feet long, 6 feet wide, and 3 feet deep. The combined thickness of liquid and sediment in the structure is approximately 0.5 feet. The liquid was clear to rusty orange in color; the sediment was brown with visible orange flakes. The liquid was not monitored for pH, temperature, and specific conductivity. PID readings of the samples were background.

Sample CL-104 was collected from one of two catch basins (or sumps) observed in the basement of the building. The location of CL-104 was selected from the two structures because it yielded the higher PID readings when the liquid was stirred (765 ppm in the breathing zone versus 50 ppm for the other catch basin) suggesting it contained greater concentrations of VOCs. The catch basin from which CL-104 was collected was observed to be 2 feet in diameter and 1 foot in depth. Headspace readings of CL-104 and of the ambient air above the liquid during sampling exceeded the 1,500 ppm range of the PID.

3.2.4 Surface Soil Sampling

Discrete surface soil samples (SS-101 and SS-102) were collected using a stainless steel spoon. Surface soil sample locations are shown in Figure 2. The area where SS-101 was collected is grassy and contains pallets and other debris. The area where SS-102 was collected was a reported former drum storage area and is paved. A hole was cut in the pavement and the sample collected from the soil beneath the pavement. It is not known if the area was paved during the period of use, when spills and leaks may have occurred. PID readings were background during surface soil sample collection. Both samples are described as black-colored gravelly sand and silt fill. SS-102 was collected in duplicate.

3.3 Soil Borings and Subsurface Soil Sampling

Soil borings were completed at the ENRX site for the purpose of sampling subsurface soil and installing water table monitoring wells. The purpose of soil sampling was to establish whether the subsurface soil was contaminated by previous site activities. MW-101 was installed upgradient of the ENRX building; MW-102 and

MW-103 were installed downgradient of potential site sources based on groundwater flow conditions identified in a previous PSA for the nearby BBC Enterprises site (see Subsection 2.1.2). Locations of MW-101 through MW-103 are shown on Figure 2.

The three borings were drilled to a maximum of 15 feet below ground surface (bgs) and completed as monitoring wells (MW-101 through MW-103). In the site work plan, it was estimated that soil would be encountered 15 feet bgs and drilling into bedrock was not planned. During drilling bedrock was encountered approximately 8 feet bgs and the scope of work was amended with NYSDEC's approval to include bedrock drilling where necessary to reach the groundwater table.

Soil borings were initiated using 4.25-inch inside diameter (ID) hollow stem augers, as described in Subsection 4.6 of the QAPP. Drill cuttings were containerized in 55-gallon containers at each borehole and the containers staged at a location adjacent to the northern loading dock doors. The borings were sampled at the surface and at 2-foot (continuous) intervals thereafter using a standard 2-inch outside diameter, 2-foot-long split-spoon sampler as described in Subsection 4.6 of the QAPP.

A PID was used to screen the soil samples for the presence of VOCs as each split-spoon sampler was opened. Samples were described using the Unified Soil Classification System. The sample description and classification, VOC headspace reading, split-spoon sampler blow counts, and drilling observations were recorded on the exploration boring logs included in Volume II. When bedrock was encountered at MW-101 and MW-102 at approximately 8 feet bgs, and the water level in the borehole was not sufficient to complete well installations and NYSDEC approved deepening the boreholes into rock using 4-inch ID air-rotary drilling. MW-101 and MW-102 were then advanced to completion into bedrock. Because the water table was encountered in MW-103 at a depth sufficient to provide water for sampling, this boring was not advanced into bedrock.

Two subsurface soil samples from MW-101 and MW-102 were collected for laboratory analysis for TCL VOCs, SVOCs, pesticides and PCBs, and inorganics. The analytical program details are included in Table 2. Subsurface soil samples were not collected from MW-103 for laboratory analysis as planned in the site work plan because split spoon recoveries were insufficient to provide the required sample volume, and drill cuttings brought to the surface consisted of brick and concrete rubble.

At upgradient boring MW-101, soil encountered consisted of black to brown gravelly or sandy silt fill with wood and brick debris from the ground surface to bedrock. PID readings were background. The sample collected for laboratory analysis consisted of the contents of the last split spoon, 6 to 7.5 feet bgs.

At boring MW-102 located near the northwestern corner of the building, fill consisting of black, brown and gray deposits of gravel, silt, debris, ash and slag were encountered from the ground surface to bedrock. A thin (0.5 foot) layer of brown silty sand was encountered on the top of bedrock. The sample collected from this boring for laboratory analysis was the contents of the last split spoon (6 to 8 feet bgs) comprised of both fill and silty sand soil. PID readings from MW-102 split spoons were background.

At boring MW-103, located southwest of the ENRX building on an adjoining property, coarse fill comprised of gravel, cinders, coal, and brick debris was encountered from the ground surface to the top of rock. Due to the low recoveries of the split spoon sample in this coarse material, no sample was collected for laboratory analysis. All PID readings of split spoons were background; however, septic odors and a transient PID reading of 9 ppm were encountered in the borehole when drilling from 2 to 4 feet bgs.

3.4 MONITORING WELLS AND GROUNDWATER SAMPLING

The three monitoring wells (MW-101, MW-102, and MW-103) were installed to provide groundwater data for comparison to NYS Groundwater Quality Standards, set forth under 6 NYCRR Parts 700-705 (NYSDEC, 1991), and evaluation of significant threat to public health or the environment as defined by 6 NYCRR Part 375. A summary of the groundwater sampling program is included Table 2. Water level measurements were also taken to determine the approximate direction of groundwater flow under the ENRX property.

3.4.1 Monitoring Well Installation

Three test borings were completed as monitoring wells. The following table presents the completed well installation details.

MONITORING WELL INSTALLATION DETAILS

MONITORING WELL	OVERBURDEN DEPTH[1]	TOTAL DEPTH[1]	SCREENED INTERVAL[1]	RATIONALE
MW-101	7.5	15	5-15	To assess groundwater quality upgradient of the site.
MW-102	8	15	5-15	To assess groundwater quality down-gradient of the debris/grassy area at the northwest corner of the site.
MW-103	8	8.5	3.7-8.5	To assess groundwater quality downgradient of the ENRX basement.

Note:

[1] feet bgs

Prior to constructing the wells, the boreholes were allowed to stabilize for a limited time to confirm the presence of water and allow the water level to equilibrate. The three monitoring wells were constructed using 2-inch ID, threaded, flush-joint, Schedule 40 polyvinyl chloride (PVC), with lengths of 0.006-inch machine-slotted PVC well screens. Groundwater was anticipated to be within 8 feet of the ground surface. Groundwater was actually encountered approximately 6 feet bgs at MW-101 and MW-102, and less than 3 feet bgs in MW-103. Well screens for MW-101 and MW-102 were placed with the bottom of the well screen in bedrock to provide sufficient water or groundwater sampling. Monitoring wells were installed following the procedures described in Subsection 4.7 of the QAPP (ABB-ES, 1994b).

Each well was constructed with a 0-grade silica sand filter pack installed around the well screen extending approximately 2 feet above the top of the well screen. A bentonite pellet seal was placed above the sand filter pack. The remaining annular space was backfilled with concrete to the ground surface. Wells were completed with flush-mount steel protective casings and locking caps. Well construction details are provided on well construction logs in Volume II.

3.4.2 Monitoring Well Development

The monitoring wells were developed by pumping and surging techniques. Well development purge water was containerized in the 55-gallon containers used to store drill cuttings. Well development was considered complete when parameters of temperature, pH, and specific conductivity stabilized. The criteria of achieving turbidity measurements less than 50 nephelometric turbidity units (NTUs) could not be achieved during development.

3.4.3 Groundwater Sampling

The groundwater sampling and analysis program consisted of collecting samples from MW-101, MW-102, and MW-103 (see Table 2). Sampling activities followed the QC procedures for sample handling, tracking and shipping presented in Section 5.0 of the QAPP (ABB-ES, 1994b). The wells were purged with a teflon bailer or a peristaltic pump before sampling. MW-101 and MW-102 purging was considered complete when the wells were purged to dryness. MW-103 was purged until field measurements of pH, temperature, specific conductivity, and turbidity stabilized. Turbidities less than 50 NTUs were achieved at each well during sampling. Groundwater was sampled for TCL VOCs, SVOCs, and pesticides/PCB using a teflon bailer. Samples were collected for TCL inorganics using a peristaltic pump. PID readings were background from all wells during sampling.

Water levels were measured before purging and groundwater sampling. Depth from the top of casing to water was measured to the nearest 0.01 foot using an electronic water level indicator, and recorded following procedures described in Subsection 4.6.1 of the QAPP (ABB-ES, 1994b).

3.5 Laboratory Analysis and Data Validation

The laboratory analytical program, described in detail in the Site Work Plan (ABB-ES, 1994c), was designed to provide the data necessary to establish whether or not hazardous wastes, as defined by 6 NYCRR Part 371, are present at the site. In addition, collecting and analyzing groundwater samples would provide the necessary data to evaluate whether the wastes disposed on site pose a significant threat to human health or the environment, as defined by 6 NYCRR Part 375. The

analytical procedures comply with the NYSDEC Analytical Services Protocols (ASP) (NYSDEC, 1991).

Subsurface soil, surface soil, waste/sludge, sump liquid, sump sediment and groundwater samples were analyzed for TCL VOCs, SVOCS, pesticides/PCBs and inorganic analytes. Selected samples were also analyzed for EPTOX metals, ignitability, reactivity and corrosivity. QC samples were field duplicates, equipment rinsate blanks, trip blanks, and matrix spike/matrix spike duplicate samples. NYTEST generated analytical results in accordance with protocols specified by NYSDEC for the NYS Superfund Program. The QC procedure outlined in the NYSDEC ASP provided a preliminary level of data quality assurance.

Analytical data were validated following procedures set forth in Section 8.0 of the QAPP (ABB-ES, 1994b). Validation was performed on the laboratory deliverables by experienced data reviewers and reviewed by the project chemist. The analytical protocols generated data of USEPA Contract Laboratory Program Level IV data quality, adequate to support risk assessment, site characterization, evaluations of remediation alternatives, and engineering design.

Analytical results are included in Volume II in three tables:

- Table 1 Laboratory Report of Analysis - presents analytical results and qualifiers as reported by the laboratory
- Table 2 Validation Summary Table - presents analytical results with the appropriate data validation qualifiers
- Tentatively Identified Compounds (TIC) Tables - presents additional compounds not included on the TCL, with the appropriate data validation qualifiers

Analytical data qualifiers appear on each data table in Volume II, as appropriate, and have been applied by the laboratory or data validator. Data Evaluation and Data Usability reports are included in Volume II. Analytical data developed by ABB-ES during the PSA field investigation meet the data quality objectives set forth in the QAPjP and are suitable for site reclassification.

3.6 ELEVATION SURVEY AND BASE MAP PREPARATION

ABB-ES' survey subcontractor, Om Popli P.C., L.S. surveyed the site and exploration locations at ENRX after field activities were completed. A map of the approximately 0.5-acre site was prepared showing the locations of monitoring wells and major site features, including location of property boundaries (Figure 2). Vertical elevations are surveyed to the nearest 0.01 foot and horizontal locations are surveyed to the nearest 0.1 foot. Horizontal positions and vertical elevations were tied to an arbitrary site benchmark reference set at 100 feet (see Volume II).

Surveyed items included the following features:

- horizontal locations of the three new monitoring wells;
- vertical elevations of top of well riser, top of the protective casing, and the ground surface of the monitoring wells;
- major site characteristics including the edge of paved areas, building corners, fenced areas, and locations of utility manholes;
- property boundaries based on tax map data; and
- horizontal locations and vertical elevations of five miscellaneous spot locations, including locations of surface soil samples SS-101 and SS-102, established by ABB-ES.

The survey map and accompanying Survey Control Report are included in Volume II.

TABLE 2
SAMPLING AND LABORATORY ANALYSIS SUMMARY

ENRX, INC.
PRELIMINARY SITE ASSESSMENT

MEDIA	NUMBER OF SAMPLES	COLLECTION METHOD/LOCATION	ANALYSIS
Sludge (WT-101 through WT-106, CD-101 and CD-103)	8	Scoop or bucket auger/basement sumps, oil/water separator, first, second, and third floor surfaces	TCL VOCs, SVOCs, Pesticides/PCBs, and Inorganics; Ignitability, Reactivity, Corrosivity, EPTOX Metals
Liquid (CL-102, CL-103, and CL-104)	3	Colliwasa or Pack-bomb sampler/spill collection pit, storage tank	TCL VOCs, SVOCs, Pesticides/PCBs, and Inorganics; Ignitability, Reactivity, Corrosivity, EPTOX Metals
Surface Soil (SS-101 and SS-102)	2	Shovel or bucket auger/ outside of building	TCL VOCs, SVOCs, Pesticides/PCBs, and Inorganics; Ignitability, Reactivity, Corrosivity, EPTOX Metals
Subsurface Soil (BS-101 and BS-102)	2	Split spoon sampler/soil borings	TCL VOCs, SVOCs, Pesticides/PCBs, and Inorganics
Groundwater (MW-101, MW-102, MW-103)	3	Bailer/monitoring wells	TCL VOCs, SVOCs, Pesticides/PCBs, Inorganics

Notes:

TCL = Target Compound List
VOC = volatile organic compound
SVOC = semivolatile organic compound
PCB = polychlorinated biphenyls
EPTOX = Extraction Procedure Toxicity

4.0 SITE ASSESSMENT

This section describes the geology and hydrogeology of the site, presents the laboratory analytical results, and provides a contamination assessment summary.

4.1 SITE GEOLOGY AND HYDROGEOLOGY

The geology and hydrogeology of the ENRX site is characterized from existing sources reviewed in Subsection 2.5 and from site conditions encountered during PSA environmental sampling and subsurface investigation activities.

4.1.1 Geology

The site is located in the Erie-Ontario Lowlands physiographic province of NYS in the City of Buffalo. Overburden at the site is mapped by the U.S. Geological Survey (USGS) as lacustrine silt and clay (Rickard and Fisher, 1970). Bedrock at the site is presumed to be the Middle Devonian, Onondaga Limestone. Bedrock was encountered at the nearby BBC site at an average of 12.5 feet bgs (Waste Resource Associates, Inc., 1992). The thickness of the Onondaga limestone is approximately 110 feet.

At the ENRX site, little to no natural overburden was encountered; fill containing wood, coal, cinders, bricks, and other debris was encountered from the ground surface to the top of bedrock (8 feet bgs). Because advancement of bedrock borings at MW-101 and MW-102 was accomplished using air-rotary drilling techniques, samples of bedrock were not collected to confirm whether the bedrock was Onondaga limestone. The ENRX building has a full basement with sumps. Because bedrock was encountered at 8 feet bgs, it is believed the ENRX foundation and basement sumps may lie on top of bedrock.

4.1.2 Groundwater Hydrology

Groundwater is present in both overburden and bedrock in the vicinity of the site. Groundwater in overburden is approximately 6 to 7 feet bgs in the vicinity of the site (Waste Resource Associates, Inc., 1992). The main sources of water in the limestone bedrock beneath the site are fractures and solution cavities. Groundwater in

overburden and bedrock is believed to flow toward the south and southwest beneath the site in the direction of the Buffalo River and Lake Erie. This general flow direction was indicated in the BBC PSA performed nearby (Waste Resource Associates, Inc., 1992). Groundwater is not used as a drinking water source within 3 miles of the site (NYSDEC, 1994).

Water level measurements from site monitoring wells completed during the PSA show the water table in overburden approximately 2 to 6 feet bgs. Water table elevations from MW-101, MW-102, and MW-103 are presented in the following table.

WATER LEVEL DATA

MONITORING WELL	RISER ELEVATION[1]	DEPTH TO WATER (ft bgs)	RELATIVE WATER ELEVATION[1]
MW-101	96.51	5.81	90.70
MW-102	97.71	5.06	92.65
MW-103	97.33	2.35	94.98

Notes:

1 Relative to arbitrary site benchmark set at 100 ft. elevation.

Based on the elevation data above, the water table elevation decreases from west to east. These data may be interpreted that groundwater in overburden at the site may flow from west to east. However, the results are inconclusive because (1) the MW-101 and MW-102 are at least partially screened in bedrock; and (2) the presence of utilities, foundations, and fill, may affect groundwater flow in overburden.

4.2 ANALYTICAL RESULTS

The following sections summarize the results of the sampling and analysis performed by ABB-ES for the ENRX site PSA. Samples collected and submitted for laboratory analysis were analyzed for TCL VOCs, SVOCs, pesticides/PCBs and inorganic analytes. Volatile and semivolatile TICs were also reported by the laboratory. Building and surface soil samples were also analyzed for EPTOX metals, ignitability,

reactivity and corrosivity. The complete analytical data tables, data validation information, and data usability evaluation are presented in Volume II.

4.2.1 Building Waste/Sludge, Sump Liquid, and Sump Sediment Analytical Results

Sediment and sludge sample results are presented in Table 3, and results for sump liquid samples are presented in Table 4. Results for TCL VOC and EPTOX metals analyses for building samples are summarized by location in Figures 5, 6, and 7.

Waste/Sludge Sampling Results. ABB-ES collected six waste/sludge samples for laboratory analysis (see Table 3). Sample WT-101 and duplicate were collected from the still bottoms tank in the southwest corner of the building basement (see Figure 5). WT-101 and its duplicate were analyzed for TCL VOCs as medium level analyses with elevated detection limits (i.e., the samples were diluted by the laboratory to achieve acceptable results). Several TCL VOCs (e.g., 1,1,1-TCA; TCE; PCE; 2-hexanone; and xylenes), were detected in sample WT-101 and its duplicate. TCL SVOC analyses were performed with elevated detection limits. Sample WT-101 contained the SVOCs phenanthrene; fluoranthene; pyrene; and chrysene.

Sample WT-102 was collected from a floor trench drain in the basement (Figure 5); the remaining samples (WT-103 through WT-106) were collected from first, second, and third floor surfaces (Figures 6 and 7). TCL VOCs detected in these samples are carbon disulfide; acetone; 1,1-DCA; 1,2-DCE; 2-butanone; 1,1,1-TCA; carbon tetrachloride; TCE; and PCE. WT-102 through WT-106 were analyzed for TCL SVOCs with elevated detection limits; the only TCL SVOC detected was pentachlorophenol in sample WT-106.

PCBs were not detected in WT-101 through WT-106. Several pesticides (including aldrin; Endosulfan I; and 4,4'-DDT) were detected in these samples (see Table 3).

Twenty-three TCL inorganics were detected at least once in samples WT-101 through WT-106 (see Table 3). Samples WT-101 (and duplicate), from the still bottoms tank in the basement, contained the highest concentrations of the inorganics beryllium, cadmium, chromium, cobalt, copper, lead, nickel, selenium, silver, and zinc. Sample WT-102, from the basement trench drain, contained the highest concentrations of the inorganics aluminum, arsenic, calcium, magnesium, and mercury. Sample WT-103, from the first floor, contained the highest concentrations of the inorganics iron and cyanide.

Results of EPTOX analyses show leachable concentrations of cadmium, chromium, lead, mercury, and silver (see Figures 5, 6, and 7). The concentrations of cadmium and lead in the EPTOX extract from sample WT-101 collected from the still bottoms tank in the basement exceed regulatory limits for characteristic hazardous waste (e.g., cadmium and lead EPTOX concentrations in WT-101 exceed 1,000 μg/L for cadmium and 5,000 μg/L for lead) (NYSDEC, 1992a). Samples WT-101 through WT-106 were not found to be ignitable, corrosive, or reactive.

Sump Liquid Sampling Results. Samples CL-102 and CL-103 were collected from spill collection structures on the first floor; sample CL-104 was collected from a sump in the basement (see Figures 5 and 6). Results are summarized in Table 4.

CL-102 was collected in duplicate. TCL VOCs detected in the sample CL-102 and duplicate are vinyl chloride; 1,1-DCA; 1,2-DCE; 1,1,1-TCA; TCE; PCE; ethylbenzene; toluene; and xylenes. TCL SVOCs detected in CL-102 and duplicate were the polynuclear aromatic hydrocarbon (PAH) pyrene and the phthalates butylbenzylphthalate, bis(2-ethylhexyl)phthalate, and di-n-octylphthalate. Pesticides/PCBs were not detected.

TCL VOCs, SVOCs and pesticides/PCBs were not detected in sample CL-103.

TCL VOCs detected in sample CL-104 are vinyl chloride; 1,1-DCA 1,2-DCE; 1,1,1-TCA; TCE; PCE; ethylbenzene; toluene; and xylenes. TCL SVOCs in sample CL-104 are 4-methylphenol; naphthalene; 2-methylnaphthalene; pentachlorophenol; and the phthalates butylbenzylphthalate and di-n-octylphthalate. Traces of the pesticide 4,4'-DDE were detected in CL-104; no other pesticides/PCBs were detected.

Nineteen TCL inorganics were detected in sump liquid samples (see Table 4). Sample CL-104 from the basement sump contained the highest concentrations of aluminum, arsenic, barium, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, mercury, nickel, potassium, silver, sodium, vanadium, and zinc of the sump liquid samples.

Samples CL-103 and CL-104 were analyzed for EPTOX metals; leachable concentrations of cadmium, chromium, lead, and mercury were detected, but at concentrations less than the regulatory limits for hazardous waste. The samples were not determined to be ignitable, corrosive, or reactive.

Sump Sediment Results. Samples CD-101 and CD-103 were collected from the oil/water separator and a spill collection pit on the first floor level of the building (see Figure 5). Sump sediment results are also summarized in Table 3.

TCL VOCs detected in sample CD-101 are vinyl chloride; acetone; 1,1-DCA; 1,2-DCE; 2-butanone 1,1,1-TCA; TCE; PCE; ethylbenzene; toluene; and xylenes. The VOCs acetone, 2-butanone, and PCE were detected in sample CD-103. Both sump sediment samples were analyzed for TCL SVOCs with elevated detection limits. The only SVOC detected in sample CD-101 was butylbenzylphthalate. SVOCs were not detected in CD-103. PCBs were not detected in the sump sediment samples. The pesticide alpha-BHC was detected in sample CD-101; gamma-BHC and heptachlor epoxide were detected in CD-103.

Nineteen TCL inorganics were detected in sump sediment samples CD-101 and CD-103. Concentrations of aluminum, antimony, arsenic, barium, calcium, cadmium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, and vanadium were higher in sample CD-103 than in sample CD-101 (see Table 3). The samples were analyzed for EPTOX metals; however, no leachable concentrations of metals were detected. The samples were not determined to be ignitable, reactive, or corrosive.

4.2.2 Surface Soil Analytical Results

ABB-ES personnel collected two surface soil samples (SS-101 and SS-102) and a duplicate from two locations where drums may have been stored (see Figure 2). Results of the surface soil analyses are summarized with results of subsurface soil samples in Table 5.

TCL VOCs and PCBs were not detected in surface soil samples SS-101 and SS-102. Several TCL SVOCs were detected in the samples, with the highest concentrations in SS-101 (see Table 5). TCL SVOCs detected in SS-101 are all PAHs and may reflect residual asphalt in that sample or fill materials comprising overburden at the site. The pesticides heptachlor and 4,4'-DDT were detected in sample SS-101; pesticides were not detected in SS-102.

Eighteen TCL inorganic analytes were detected in at least one of the two samples (see Table 5). Inorganic data were compared to literature values for background concentrations of inorganics found in soil of NYS and the eastern U.S. (Table 6).

The comparison shows that arsenic (in SS-102 and duplicate), beryllium (in SS-102 and duplicate), cadmium (in SS-102 duplicate), calcium (in SS-102), copper (in SS-101, SS-102, and duplicate), magnesium (in SS-101, SS-102, and duplicate), mercury (in SS-101, SS-102, and duplicate), nickel (in SS-102 and duplicate), and zinc (in SS-101, SS-102, and duplicate) exceed NYS background ranges. All inorganics are within the background range for the eastern U.S.

SS-101 and SS-102 EPTOX analyses show leachable concentrations of barium, cadmium, chromium, and lead. Concentrations are less than regulatory limits for characteristic hazardous waste. Samples were not determined to be ignitable, reactive, or corrosive.

4.2.3 Subsurface Soil Analytical Results

Three soil borings were drilled at the ENRX site. Subsurface soil samples were collected from on-site borings BS-101 and BS-102; a soil sample was not collected from BS-103 because split-spoon sample recoveries were not sufficient for the analyses. Analytical results for subsurface soil samples are presented in Table 5. The samples were analyzed for TCL VOCs, SVOCs, pesticides/PCBs, and inorganics.

The only TCL VOC detected was 2-butanone in the subsurface soil sample collected from the BS-101 boring. Several TCL SVOCs were detected in the two samples, primarily the same PAHs as reported in surface soil (see Table 5). Pesticides were not detected in the subsurface soil samples. The PCB Aroclor-1260 was detected in the soil sample from BS-102.

Seventeen inorganics were detected in the subsurface soil samples from BS-101 and BS-102 (see Table 5). These inorganic data were compared to the ranges of background concentrations found in soil of NYS and the eastern U.S. (see Table 6). Arsenic (in BS-101), copper (in both samples), iron (in BS-102), magnesium (in BS-102), nickel (in BS-102), and zinc (in both samples) exceed NYS background. All inorganics are within the background range for the eastern U.S.

4.2.4 Groundwater Analytical Results

Sampling and analyzing groundwater develops the data necessary to evaluate whether or not the site poses any potential risk to public health or the environment. Groundwater samples were collected from MW-101, MW-102, and MW-103 and analyzed for TCL VOCs, SVOCs, and inorganic analytes. A duplicate was collected from MW-101. Groundwater analytical results are presented in Table 7. NYS Class GA groundwater quality standards, for the compounds detected in groundwater, are also presented in Table 7.

TCL VOCs were not detected in MW-102. The VOC 4-methyl-2-pentanone was detected in MW-101 but not in its duplicate. The VOCs chloroethane; 1,1-DCA; 2-butanone; and xylenes were detected in MW-103. TCL SVOCs were not detected in MW-101 and MW-101 duplicate. The TCL SVOC bis(2-ethylhexyl)phthalate was detected in the groundwater sample from MW-102. TCL SVOCs detected in groundwater from MW-103 included 2-methylphenol; 4-methylphenol; 2,4-dimethylphenol; naphthalene; 2-methylnaphthalene; and 4-nitrophenol. Pesticides/PCBs were not detected in the groundwater samples. The concentrations of chloroethane; 2-methylphenol; 4-methylphenol; 2,4-dimethylphenol; and naphthalene in MW-103 exceed NYS Class GA groundwater standards. However, as noted in Subsection 4.1, MW-103 may be located in overburden upgradient of the site.

Thirteen TCL inorganics were detected in the groundwater samples (see Table 7). Of the inorganics detected, antimony in sample MW-101 duplicate and MW-103, and iron, magnesium, manganese, and sodium in all three monitoring well samples exceed NYS Class GA groundwater standards.

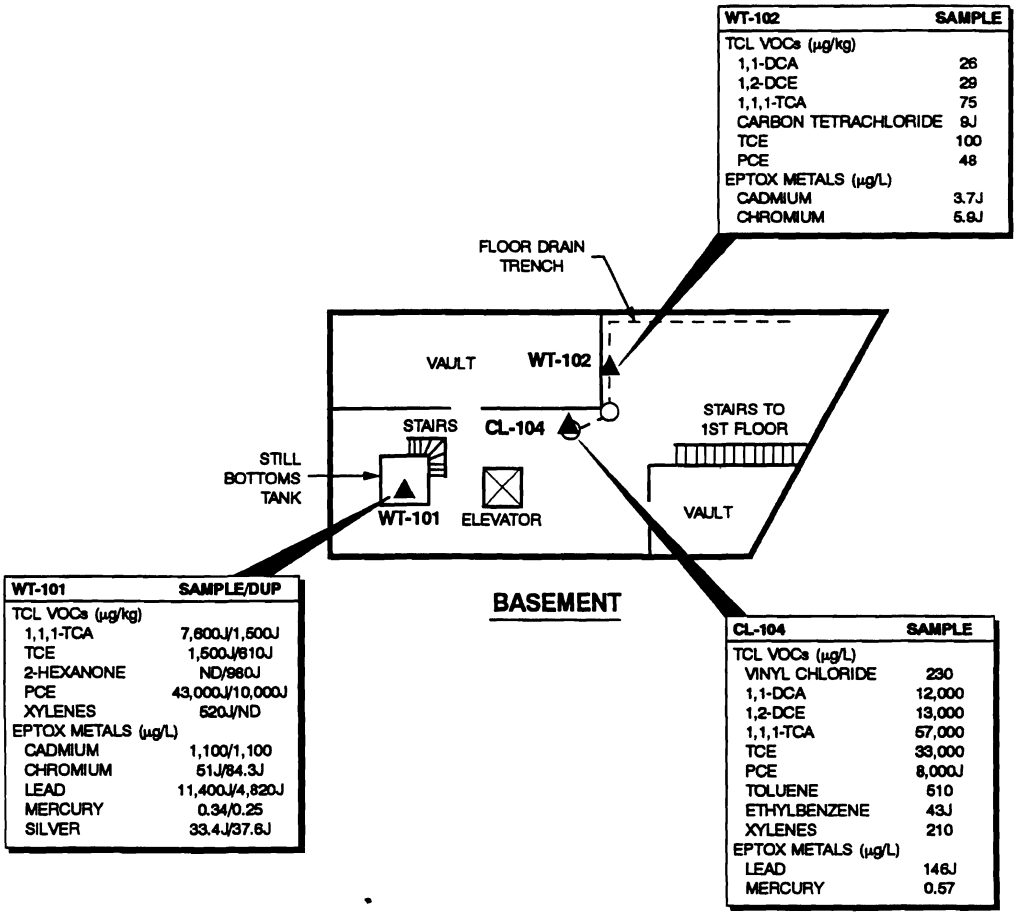
4.3 AIR MONITORING RESULTS

Air quality in the building was characterized during sampling using a Bruel and Kjaer Type 1302 multigas monitor and other instrumentation. The multigas monitor was calibrated to measure real-time concentrations of VOCs (1,1-DCE; trans-1,2-DCE; 1,1,1-TCA; and carbon tetrachloride). Other instrumentation included a ThermoEnvironmental Model 580B PID and a Industrial Scientific Model MX-241 LEL/O_2 meter. The following table summarizes the multigas monitor results by date and VOC monitored.

MULTIGAS MONITOR RESULTS

VOC MONITORED	DATE/TIME PERIOD	MINIMUM (ppm)	MAXIMUM (ppm)	MEAN (ppm)	OSHA PEL (ppm)
First Floor					
trans-1,2-DCE	10/4/94 (13:21-15:37)	1.40	2.81	1.84	200
1,1,1-TCA	10/4/94 (13:21-15:37)	0.349	1.00	0.70	350
1,1-DCE	10/4/94 (13:21-15:37)	ND	0.642	0.267	1
carbon tetrachloride	10/4/94 (13:21-15:37)	ND	0.151	0.065	2
Basement Doorway					
trans-1,2-DCE	10/5/94 (09:54-10:07)	3.02	4.68	4.35	200
1,1,1-TCA	10/5/94 (09:54-10:07)	0.744	0.878	0.811	350
1,1-DCE	10/5/94 (09:54-10:07)	0.654	1.6	1.32	1
carbon tetrachloride	10/5/94 (09:54-10:07)	ND	ND	ND	2

The Bruel and Kjaer multigas monitor detected VOCs (trans-1,2-DCE; 1,1-DCE; 1,1,1-TCA, and carbon tetrachloride) with the highest concentrations of VOCs in air in the basement. Concentrations of 1,1-DCE exceed the OSHA PEL of 1 ppm. The concentrations of other VOCs were significantly less than the OSHA PELs. PID measurements exceeding 5 ppm total ionizables (total VOCs) were measured in air at some building sampling locations. Explosive atmospheres and oxygen depleted conditions were not encountered.



LEGEND

- ▲ APPROXIMATE SAMPLING LOCATION
- OPEN HOLES IN FLOOR
- STAIRS TO DIFFERENT LEVELS
- DEBRIS PILE
- ○ FLOOR SUMP

WT = WASTE/SLUDGE SAMPLE
CL = SUMP LIQUID SAMPLE
CD = SUMP SEDIMENT SAMPLE
ND = NOT DETECTED
J = ESTIMATED CONCENTRATION

APPROXIMATE SCALE IN FEET

0 60 120

FIGURE 5
SUMMARY OF TCL VOC AND EPTOX METALS RESULTS OF BASEMENT SAMPLES
ENRX, INC.
PRELIMINARY SITE ASSESSMENT
NYSDEC

ABB Environmental Services

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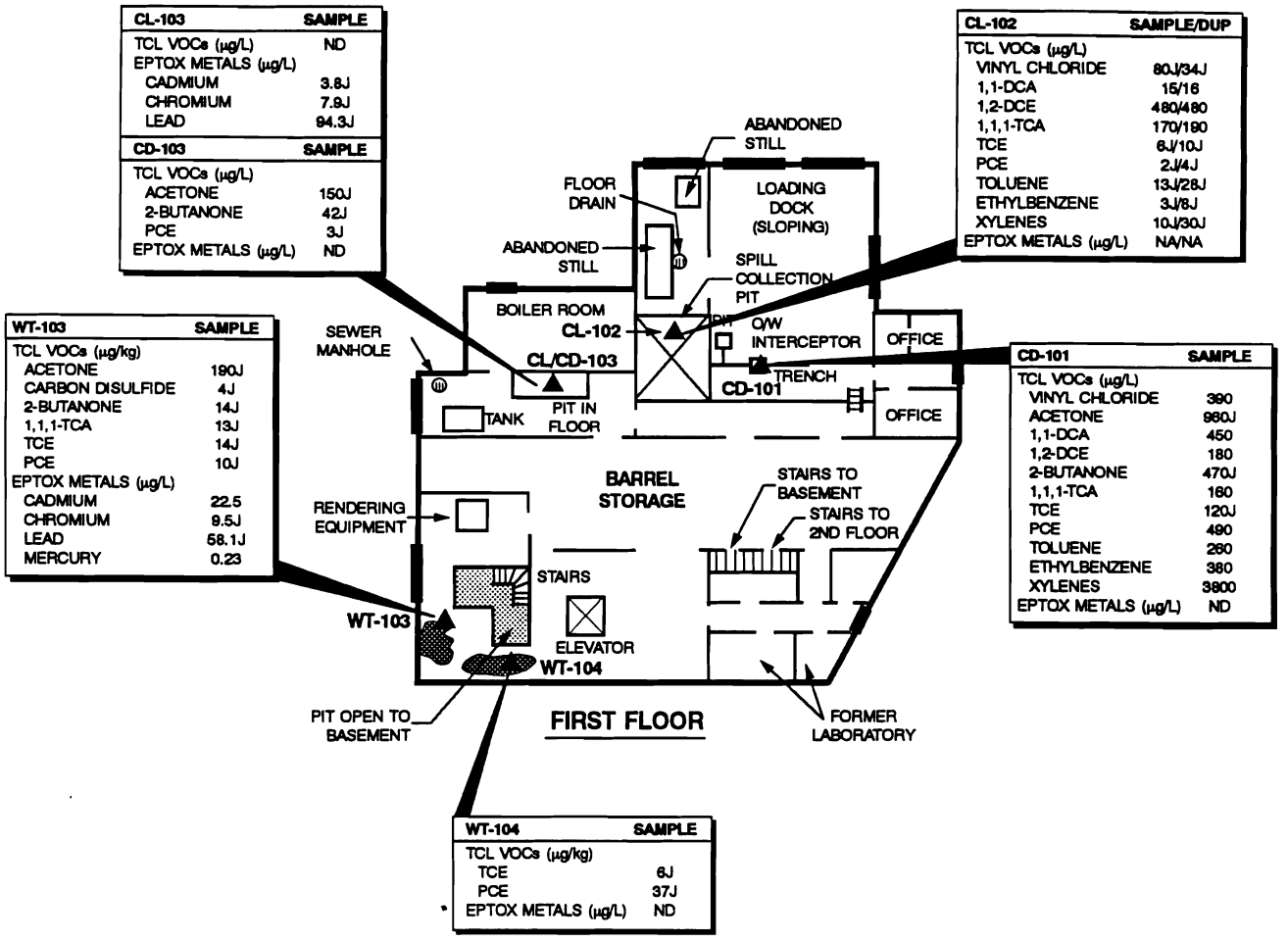

LEGEND

- ▲ APPROXIMATE SAMPLING LOCATION
- OPEN HOLES IN FLOOR
- STAIRS TO DIFFERENT LEVELS
- DEBRIS PILE
- ○ FLOOR SUMP

WT = WASTE/SLUDGE SAMPLE
CL = SUMP LIQUID SAMPLE
CD = SUMP SEDIMENT SAMPLE
ND = NOT DETECTED
J = ESTIMATED CONCENTRATION
NA = NOT ANALYZED

APPROXIMATE SCALE IN FEET

0 60 120

FIGURE 6
SUMMARY OF TCL VOC AND EPTOX METALS RESULTS OF FIRST FLOOR SAMPLES
ENRX, INC.
PRELIMINARY SITE ASSESSMENT
NYSDEC

ABB Environmental Services

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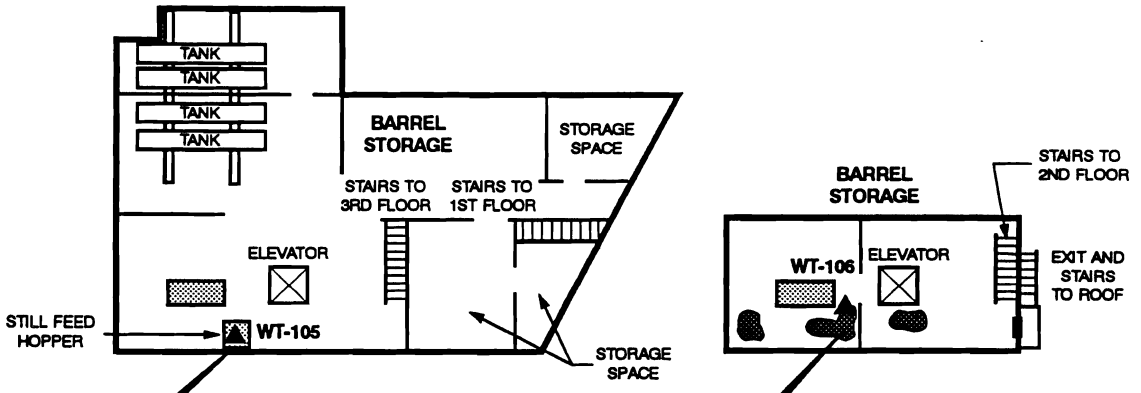

WT-105	SAMPLE
TCL VOCs (µg/kg)	
ACETONE	6J
CARBON DISULFIDE	2J
2-BUTANONE	5J
TCE	23J
PCE	43J
EPTOX METALS (µg/L)	
CADMIUM	17J
CHROMIUM	53.6J
LEAD	45.2J
MERCURY	0.52

WT-106	SAMPLE
TCL VOCs (µg/kg)	
1,1,1-TCA	3J
TCE	7J
PCE	31
EPTOX METALS (µg/L)	
CADMIUM	10.9J
CHROMIUM	25J
LEAD	60.8J
MERCURY	1.2

LEGEND

- ▲ APPROXIMATE SAMPLING LOCATION
- OPEN HOLES IN FLOOR
- STAIRS TO DIFFERENT LEVELS
- DEBRIS PILE
- ○ FLOOR SUMP

WT = WASTE/SLUDGE SAMPLE
CL = SUMP LIQUID SAMPLE
CD = SUMP SEDIMENT SAMPLE
ND = NOT DETECTED
J = ESTIMATED CONCENTRATION

APPROXIMATE SCALE IN FEET

0 60 120

FIGURE 7
SUMMARY OF TCL VOC AND EPTOX METALS
RESULTS OF SECOND AND THIRD FLOOR SAMPLES
ENRX, INC.
PRELIMINARY SITE ASSESSMENT
NYSDEC

ABB Environmental Services

W9404036D(f) 01

TABLE 3
WASTE/SLUDGE (WT) AND SUMP SEDIMENT (CD) SAMPLE RESULTS

ENRX, INC.
PRELIMINARY SITE ASSESSMENT

Analytes	CRQL/ CRDL	WT-101[2]	WT-101 DUP[2]	WT-102	WT-103	WT-104	WT-105	WT-106	CD-101	CD-103	EPTOX Regulatory Limits
TCL Volatile Organic Compounds[1] (µg/kg)											
Vinyl Chloride	10	--	--	--	--	--	--	--	390	--	NA
Acetone	10	--	--	--	190 J	--	6 J	--	960 J	150 J	NA
Carbon Disulfide	10	--	--	--	4 J	--	2 J	--	--	--	NA
1,1-Dichloroethane	10	--	--	26	--	--	--	--	450	--	NA
1,2-Dichloroethene (total)	10	--	--	29	--	--	--	--	180	--	NA
2-Butanone	10	--	--	--	14 J	--	5 J	--	470 J	42 J	NA
1,1,1-Trichloroethane	10	7600 J	1500 J	75	13 J	--	--	3 J	160	--	NA
Carbon Tetrachloride	10	--	--	9 J	--	--	--	--	--	--	NA
Trichloroethene	10	1500 J	610 J	100	14 J	6 J	23 J	7 J	120 J	--	NA
2-Hexanone	10	--	980 J	--	--	--	--	--	--	--	NA
Tetrachloroethene	10	43000 J	10000 J	48	10 J	37 J	43 J	31 J	490	3 J	NA
Toluene	10	--	--	--	--	--	--	--	260	--	NA
Ethylbenzene	10	--	--	--	--	--	--	--	380	--	NA
Total Xylenes	10	520 J	--	--	--	--	--	--	3800	--	NA
TCL Semivolatile Organic Compounds[1] (µg/kg)											
Phenanthrene	330	--	1100 J	--	--	--	--	--	--	--	NA
Pentachlorphenol	330	R	R	--	--	--	--	7400 J	--	--	NA
Fluoranthene	330	--	940 J	--	--	--	--	--	--	--	NA
Pyrene	330	R	1800 J	--	--	--	--	--	--	--	NA
Butylbenzylphthalate	330	--	--	--	--	--	--	--	3000 J	--	NA
Chrysene	330	--	940 J	--	--	--	--	--	--	--	NA
TCL Pesticide/PCB Compounds (µg/kg)											
alpha-BHC	1.7	R	--	R	--	R	R	--	45 JN	R	NA
gamma-BHC (Lindane)	1.7	R	R	R	R	R	R	--	R	6.2 J	NA
Heptachlor	1.7	R	R	R	--	R	3.7 JN	--	R	R	NA
Aldrin	1.7	R	R	R	48 J	R	R	--	R	R	NA
Heptachlor Epoxide	1.7	R	--	R	--	R	6.2 JN	--	R	8.7 J	NA
Endosulfan I	1.7	R	R	R	96	R	5.9 JN	--	R	R	NA
Dieldrin	3.3	R	R	R	R	27 JN	3.4 J	--	R	R	NA
4,4'-DDE	3.3	R	--	50 J	R	51 JN	10 J	--	R	R	NA
4,4'-DDT	3.3	R	7.1 J	R	62 JN	R	R	--	R	R	NA
alpha-Chlordane	1.7	R	--	R	--	36 J	4.9 J	--	R	R	NA
gamma-Chlordane	1.7	R	--	R	32 JN	21 J	--	--	R	R	NA

TABLE 3
WASTE/SLUDGE (WT) AND SUMP SEDIMENT (CD) SAMPLE RESULTS

ENRX, INC.
PRELIMINARY SITE ASSESSMENT

Analytes	CRQL/ CRDL	WT-101[2]	WT-101 DUP[2]	WT-102	WT-103	WT-104	WT-105	WT-106	CD-101	CD-103	EPTOX Regulatory Limits
TCL Inorganics[1] (mg/kg)											
Aluminum	40	3910	6370	6380 J	1870	1910	1600	1230	1750 J	4270	NA
Antimony	12	--	--	13.6 J	--	--	--	16.7 J	--	16.1 J	NA
Arsenic	2	9.6 J	11.3 J	35.6 J	21.7 J	14.3 J	11.9 J	14.1 J	6.6 J	6.8 J	NA
Barium	40	345	419	184 J	124	110	27.2 J	51.1	142 J	186	NA
Beryllium	1	0.69 J	0.83 J	--	--	--	--	--	--	--	NA
Cadmium	1	21.4 J	36.8 J	9.1 J	18.6 J	8.8 J	4.9 J	10.3 J	11.6 J	10.2 J	NA
Calcium	1000	6720	7110	68000 J	21300	20900	29300	13900	4460 J	17800	NA
Chromium	2	2790	3730	346 J	102	73.5	26	86.9	78.4 J	254	NA
Cobalt	10	912	861	29.7 J	34.8	26.5	8.6 J	33.3	22.7 J	45.1	NA
Copper	5	1800	2770	379 J	553	219	265	296	181 J	650	NA
Iron	20	133000	56900	112000 J	608000	213000	71400	282000	66400 J	237000	NA
Lead	0.6	1850	1810	363 J	275	46.3	60.5	296	246 J	213	NA
Magnesium	1000	1330	1650	5530 J	2900	2140	4740	2380	--	3550	NA
Manganese	3	916	501	891 J	2830	2370	407	1360	974 J	1290	NA
Mercury	0.1	1.1	1.1	52.9 J	1.8	1.4	0.88	2.3	1.3 J	1	NA
Nickel	8	9530	11400	209 J	129	78.2	28.3	101	167 J	406	NA
Potassium	1000	1240	1490	1160 J	2460	1460	2170	3400	--	329 J	NA
Selenium	1	2.1 J	--	--	--	--	--	--	--	--	NA
Silver	2	20.5 J	16.6 J	--	--	--	--	--	--	--	NA
Sodium	1000	3680 J	6060 J	984 J	3050	721 J	6470	8100	2050 J	360 J	NA
Vanadium	10	84.3 J	30.2 J	45.3 J	58.4 J	51.2 J	20.8 J	60.8 J	16.4 J	59.3 J	NA
Zinc	4	2090	2300	1910 J	1370	1530	566	1390	1140 J	1140	NA
Cyanide	1	2.7 J	--	--	20.7	--	--	--	--	--	NA
EPTOX Metals[1] (µg/L)	**RL**										
Cadmium	2.0	1100	1100	3.7 J	22.5	--	17.0 J	10.9 J	--	--	1000
Chromium	5.0	51.0 J	84.3 J	5.9 J	9.5 J	--	53.6 J	25.0 J	--	--	5000
Lead	26.0/3.0	11400 J	4820 J	--	58.1 J	--	45.2 J	60.8 J	--	--	5000
Mercury	.20	0.34	0.25	--	0.23	--	0.52	1.2	--	--	200
Silver	5.0	33.4 J	37.6 J	--	--	--	--	--	--	--	5000

NOTES:

[1] Only those compounds detected in one or more samples are listed.

[2] These samples were run at medium levels for volatiles.

-- = non detect

CRDL = Contract Required Detection Limit (inorganics)

CRQL = Contract Required Quantitation Limit (organics)

EPTOX = Extraction Procedure Toxicity

J = estimated concentrations because QC criteria were not met

mg/kg = milligrams per kilogram

JN = presence of an analyte was tentatively identified and the associated result represents an estimated concentration.

R = results were rejected because of serious QC deficencies.

RL = reporting limit

TCL = target compound list

µg/L = micrograms per Liter

NA = Not applicable

TABLE 4
SUMP LIQUID (CL) SAMPLE RESULTS

ENRX, INC.
PRELIMINARY SITE ASSESSMENT

Analytes	CRQL/ CRDL	CL-102	CL-102 DUP	CL-103	CL-104	EPTOX Regulatory Limits
TCL Volatile Organic Compounds[1] (µg/L)						
Vinyl Chloride	10	80 J	34 J	--	230	NA
1,1-Dichloroethane	10	15	16	--	12000	NA
1,2-Dichloroethene (total)	10	480	480	--	13000	NA
1,1,1-Trichloroethane	10	170	190	--	57000	NA
Trichloroethene	10	6 J	10 J	--	33000	NA
Tetrachloroethene	10	2 J	4 J	--	8000 J	NA
Toluene	10	13 J	28 J	--	510	NA
Ethylbenzene	10	3 J	8 J	--	43 J	NA
Total Xylenes	10	10 J	30 J	--	210	NA
TCL Semivolatile Organic Compounds[1] (µg/L)						
4-Methylphenol	10	--	--	--	31 J	NA
2-Methylnapthalene	10	--	--	--	22 J	NA
Pentachlorophenol	25	--	--	--	180 J	NA
Pyrene	10	--	6 J	--	--	NA
Butylbenzylphthalate	10	38 J	38 J	--	30 J	NA
bis(2-Ethylhexyl)phthalate	10	290	380	--	--	NA
Di-n-octylphthalate	10	40 J	130 J	--	63 J	NA
TCL Pesticide/PCB Compounds[1] (µg/L)						
4,4'-DDE	0.1	--	--	--	0.99 J	NA
TCL Inorganics[1] (µg/L)						
Aluminum	200	9520	9040	366	27000	NA
Arsenic	10	--	5.3 J	--	54.2	NA
Barium	200	203	180 J	39.6 J	1320	NA
Cadmium	5	32.7 J	29.2 J	2.1 J	122 J	NA
Calcium	5000	58400	53800	68800	580000	NA
Chromium	10	147	137	9.7 J	1870	NA
Cobalt	50	38 J	30.7 J	21.4 J	375	NA
Copper	25	1970	1820	120	4930	NA
Iron	100	91200	70000	20000	265000	NA
Lead	3	R	1960	R	5510	NA
Magnesium	5000	12100	10600	18300	57000	NA
Manganese	15	1610 J	1300 J	2710 J	2330 J	NA
Mercury	0.2	2	1.6	--	545	NA
Nickel	40	196 J	155 J	48.7	3500	NA
Potassium	5000	5350	4600 J	13200	30800	NA
Silver	10	--	--	--	23.1	NA
Sodium	5000	5870	5840	38300	2030000	NA
Vanadium	50	76.5	67.3	--	124	NA
Zinc	20	8540	7190	337	24500	NA
EPTOX Metals[1] (µg/L)						
	RL					
Cadmium	2.0	N/A	N/A	3.8 J	--	1000
Chromium	5.0	N/A	N/A	7.9 J	--	5000
Lead	26.0/3.0	N/A	N/A	94.3 J	146 J	5000
Mercury	.20	N/A	N/A	--	0.57	200

NOTES:

[1] Only those compounds detected in one or more samples are listed.

-- = non detect

CRDL = Contract Required Detection Limit (inorganics)

CRQL = Contract Required Quantitation Limit (organics)

J = estimated concentrations because QC criteria were not met

N/A = Not Analyzed

RL = Reporting Limit

TCL = Target Compound List

R = results were rejected because of serious QC deficiencies

µg/L = micrograms per liter

NA = not applicable

TABLE 5
SURFACE SOIL (SS) AND SUBSURFACE SOIL (BS) SAMPLE RESULTS

ENRX, INC.
PRELIMINARY SITE ASSESSMENT

Analyte	CRQL/ CRDL	SS-101	SS-102	SS-102 DUP	BS-101 6-8 ft bgs	BS-102 6-8 ft bgs	EPTOX Regulatory Limits
TCL Volatile Organic Compounds[1] (µg/kg)							
2-Butanone	10	--	--	--	4J	--	NA
TCL Semivolatile Organic Compounds[1] (µg/L)							
Acenapthene	330	470 J	--	--	--	--	NA
Dibenzofuran	330	290 J	--	--	--	--	NA
Fluorene	330	560 J	--	--	--	--	NA
Phenanthrene	330	6100	450 J	220 J	300 J	110 J	NA
Anthracene	330	1100 J	--	--	--	--	NA
Carbazole	330	640 J	--	--	--	--	NA
Fluoranthene	330	9400	680 J	320 J	260 J	200 J	NA
Pyrene	330	7900	620 J	300 J	240 J	180 J	NA
Benzo(a)Anthracene	330	3900	350 J	160 J	130 J	100 J	NA
Chrysene	330	4400	450 J	200 J	140 J	120 J	NA
Benzo(b)Fluoranthene	330	3200	270 J	130 J	--	85 J	NA
Benzo(k)Fluoranthene	330	2100	170 J	--	--	61 J	NA
Benzo(a)Pyrene	330	2400	210 J	95 J	--	65 J	NA
Indeno(1,2,3-c,d)Pyrene	330	720 J	120 J	--	--	44 J	NA
Benzo(g,h,i)perylene	330	600 J	120 J	--	--	45 J	NA
TCL Pesticide/PCB Compounds[1] (µg/kg)							
Heptachlor	1.7	7.3 J	--	--	--	--	NA
4,4'-DDT	3.3	14 NJ	--	R	--	--	NA
Aroclor-1260	33	R	--	--	--	35 J	NA
TCL Inorganics[1] (mg/kg)							
Aluminum	40	1650	10200	9860	7130	16100	NA
Antimony	12	--	--	--	--	9.4J	NA
Arsenic	2	4.4 J	40.5 J	35.1 J	51 J	4.6J	NA
Barium	40	27.3 J	178	142	57	186	NA
Beryllium	1	--	4	4.7	--	0.93 J	NA
Cadmium	1	1.8 J	2.3 J	1.1 J	--	--	NA
Calcium	1000	212000	35900	34900	12200	19700	NA
Chromium	2	11.4	14.3	10.1	8.7	20.8	NA
Cobalt	10	6.1 J	12.1 J	10.9 J	6.4 J	10.2 J	NA
Copper	5	67.9	69.4	77.9	49.5	25.9	NA
Iron	20	7870	18200	12800	15600	31100	NA
Magnesium	1000	18300	6400	7060	4780	8670	NA
Manganese	3	495	284	380	270	485	NA
Mercury	0.1	0.4	0.88	0.61	--	--	NA
Nickel	8	24.5	30.8	25.9	12.9	26.3	NA
Potassium	1000	470 J	1010 J	521 J	982 J	2470	NA
Sodium	1000	106 J	190J	237 J	1330	295J	NA
Vanadium	10	11.7	35.4	34.4	19.9	42.6	NA
Zinc	4	653	1940	2100	65.4	117	NA
EPTOX Metals[1] (µg/L)	**RL**						
barium	11.0	507 J	1080 J	1000 J	N/A	N/A	100000
cadmium	2.0	--	15.8 J	15.8 J	N/A	N/A	1000
chromium	5.0	--	--	6.0 J	N/A	N/A	5000
lead	26.0/3.0	--	33.7 J	33.7 J	N/A	N/A	5000

NOTES:
[1] Only those compounds detected in one or more samples are listed.
-- = not detected
CRDL = Contract Required Detection Limit (inorganics)
CRQL = Contract Required Quantitation Limit (organics)
EPTOX = Extraction Procedure Toxicity
ft bgs = feet below ground surface
J = estimated concentration because QC criteria were not met
mg/kg = milligrams per liter
N/A = not analyzed
TCL = Target Compound List
µg/kg = micrograms per kilogram
µg/L = micrograms per liter
R = results were rejected because of serious QC deficiencies
NA = Not Analyzed

TABLE 6
RANGES OF BACKGROUND INORGANIC CONCENTRATIONS IN SOIL

ENRX, INC.
PRELIMINARY SITE ASSESSMENT

Analyte	New York Region[1] (mg/kg)	Eastern United States[2] (mg/kg)
Aluminum	1,000 – 25,000	7,000 – > 10,000
Arsenic	3 – 12	<0.1 – 73
Barium	15 – 600	10 – 1,500
Beryllium	0 – 1.75	<1 – 7
Cadmium	0.01 – 2	NA
Calcium	130 – 35,000	100 – 280,000
Chromium	1.5 – 40	1 – 1,000
Cobalt	2.5 – 60	<0.3 – 70
Copper	< 1 – 15	<1 – 700
Iron	17,500 – 25,000	10 – >100,000
Lead	10 – 37	<10 – 300
Magnesium	1,700 – 6,000	50 – 50,000
Manganese	50 – 5,000	<2 – 7,000
Mercury	0.042 – 0.066	0.01 – 3.4
Nickel	0.5 – 25	<5 – 700
Potassium	8,500 – 43,000	50 – 37,000
Selenium	<0.1 – 0.125	<0.1 – 3.9
Silver	NA	NA
Sodium	6,000 – 8,000	< 50 – 50,000
Vanadium	25 – 60	<7 – 300
Zinc	37 – 60	<20 – 2,900

NOTES:

[1] Concentrations obtained from "Background Concentrations of 20 Elements in Soils with Special Regard for New York State" (no date). Paper prepared by E. Carol McGovern, NYSDEC Wildlife Resouces Center.

[2] Shacklette, M.T. and J.G. Boerngen, 1984. "Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States"; USGS Professional Paper 1270.

mg/kg = milligrams per kilogram
NA = Not Available
< = less than
> = greater than

TABLE 7
GROUNDWATER SAMPLE RESULTS

ENRX, INC.
PRELIMINARY SITE ASSESSMENT

Analyte	CRQL/ CRDL	CLASS GA STANDARD	MW–101	MW–101 DUP	MW–102	MW–103
TCL Volatile Organic Compounds[1] (µg/L)						
Chloroethane	10	5	––	––	––	6 J
1, 1–Dichloroethane	10	5	––	––	––	2 J
2–Butanone	10	NS	––	––	––	8 J
4–Methyl–2–Pentanone	10	NS	5 J	––	––	––
Total Xylenes	10	5	––	––	––	1 J
TCL Semivolatile Organic Compounds[1] (µg/L)						
2–Methylphenol	10	1[2]	––	––	––	2 J
4–Methylphenol	10	1[2]	––	––	––	15
2,4–Dimethylphenol	10	1[2]	––	––	––	1 J
Napthalene	10	10 G	––	––	––	14
2–Methylnapthalene	10	NS	––	––	––	4 J
Dibenzofuran	10	NS	––	––	––	1 J
Fluorene	10	50 G	––	––	––	2 J
N–Nitrosodiphenylamine	10	50 G	––	––	––	29 J
Phenanthrene	10	50 G	––	––	––	2 J
Carbazole	10	NS	––	––	––	2 J
bis(2–Ethylhexyl)phthalate	10	50	––	––	2 J	––
TCL Pesticide/PCB Compounds[1] (µg/L)						
			––	––	––	––
TCL Inorganics[1] (µg/L)						
Aluminum	200	NS	250 J	2390 J	315	––
Antimony	60	3 G	––	52.9 J	––	47.1 J
Barium	200	1000	82.5 J	88.7 J	80.4 J	400
Calcium	5000	NS	128000	136000	212000	137000
Chromium	10	50	––	7.2 J	––	––
Copper	25	200	––	11.8 J	5.4 J	7.5 J
Iron	100	300[3]	6240	7760	1850	23600
Lead	3	25	––	11.2 J	15.7	8.5
Magnesium	5000	35000 G	53100	54600	41000	36200
Manganese	15	300[3]	339	412	2990	5770
Potassium	5000	NS	14200 J	14200	49200	14200
Sodium	5000	20000	110000	107000	208000	63300
Zinc	20	300	––	13.6 J	24.7	17.5 J

NOTES:

[1] Only those compounds detected in one or more samples are listed.

[2] A standard of 1.0 µg/L is for total phenolic compounds.

[3] When both iron and manganese are present, the Class GA standard is 500 mg/L for the total concentration of both compounds.

–– = not detected

CRDL = Contract Required Detection Limit (inorganics)

CRQL = Contract Required Quantitation Limit (organics)

G = guidance value

J = estimated

NS = no standard

TCL = Target Compound List

µg/L = micrograms per liter

5.0 CONCLUSIONS AND RECOMMENDATIONS

The results of the PSA performed for the ENRX site are further evaluated in this subsection against the purpose of the investigation, which was to develop a reclassification recommendation for the site.

5.1 HAZARDOUS WASTE DEPOSITION

Based on results of the PSA, disposal of hazardous waste at ENRX has been documented. Results of the previous investigations, presented in Subsection 2.3, provide data that confirms that listed hazardous wastes were disposed of at the site. Listed hazardous wastes disposed of at the site are identified as chlorinated solvent and freon mixtures (F001 and F002 hazardous wastes) as defined in 6 NYCRR Part 371 (NYSDEC, 1995). Sampling and analysis conducted during this PSA documented the presence of chlorinated solvent hazardous waste constituents (primarily 1,1,1-TCA; TCE; and PCE) in solids and liquids found throughout the ENRX building. The highest concentrations of solvents were detected in the still bottoms tank (WT-101) and floor sump (CL-104) located in the basement of the building. Environmental sampling during the PSA also showed that materials remaining in the still bottoms tank (WT-101) in the basement meet the characteristic hazardous waste definition due to leachable concentrations of cadmium and lead as determined by EPTOX metals analysis. As defined in 6 NYCRR Part 371, materials that exceed EPTOX criteria for cadmium and lead are D006 and D008 characteristic wastes (NYSDEC, 1992a).

5.2 SIGNIFICANT THREAT DETERMINATION

NYSDEC regulations pertaining to Inactive Hazardous Waste Sites, 6 NYCRR Part 375, set forth several definitions of significant threat (NYSDEC, 1992b). The mere presence of hazardous waste at a site or in the environment is not a sufficient basis for finding that hazardous waste disposed at a site constitutes a significant threat to public health or the environment. Significant threat was evaluated by comparing groundwater analytical results to NYS Class GA Groundwater Quality Standards set forth under 6 NYCRR Parts 700-705 (NYSDEC, 1991).

recommended that the ENRX site be reclassified to a Class 3 site in NYSDEC's Registry of Inactive Hazardous Waste Sites in New York.

ABB-ES	ABB Environmental Services
ADI	Advanced Drilling Investigations
ASP	Analytical Services Protocol
ASTM	American Society for Testing and Materials
BBC	BBC Enterprises
bgs	below ground surface
BS	soil boring sample
CD	sump sediment sample
CL	sump liquid sample
1,1-DCA	1,1-dichloroethane
1,1-DCE	1,1-dichloroethene
1,2-DCE	1,2-dichloroethene
ECDEP	Erie County Department of Environment and Planning
ELAP	Environmental Laboratory Approval Program
ENRX	ENRX, Inc.
EPTOX	Extraction Procedure Toxicity
ft	foot, feet
GPR	ground-penetrating radar
HASP	Health and Safety Plan
ID	inside diameter
LEL/O_2	Lower Explosive Limit/Oxygen
mg/kg	milligrams per kilogram
mS/cm	milliSeimens per centimeter
MW	monitoring well
NTU	nephelometric turbidity units
NUS	NUS Corporation
NYCRR	New York Codes, Rules, and Regulations

WT	waste/sludge
YEC	YEC, Inc.

ABB Environmental Services, 1993. *Program Health and Safety Plan, Part II, Revision 1.* Prepared for New York State Department of Environmental Conservation, Albany, New York.

ABB Environmental Services, 1994a. *Project Management Work Plan, Volumes I and 2, Preliminary Site Assessments, Various Locations, Work Assignment No. D002472-14.* February.

ABB Environmental Services, 1994b. *Quality Assurance Program Plan.* Prepared for the New York State Department of Environmental Conservation, Albany, New York. April.

ABB Environmental Services, 1994c. *Site Work Plan, ENRX, Inc. (Formerly Voelker Analysis), City of Buffalo, New York, Site No. 915150.* Prepared for the New York State Department of Environmental Conservation, Albany, New York, June.

Buffalo News, 1986. "Public Notice of Significant Industrial Pollution Violation(s)", Public Listing of Violations, dated November 5, 1986.

Buffalo Sewer Authority, 1986. "Public Notice of Significant Industrial Pollution Violation".

Buffalo Tax Assessor's Office, 1993. Property Tax Information Records Database Printout for 766 Babcock St., Buffalo, New York on December 15, 1993. Buffalo City Hall.

Erie County Department of Environment and Planning (ECDEP), 1981. Untitled Memorandum dated April 6, 1981 concerning Voelker Analysis.

Erie County Department of Environment and Planning (ECDEP), 1985. "RCRA Part A Inspections - Notice of Violation" - correspondence between Mr. E.R. Belmore, P.E. of ECDEP and Ms. Audrey Knapp, President, Voelker Analysis, dated March 5, 1985.

McGovern, E.C., no date. "Background Concentrations of 20 Elements in Soils with Special Regard for New York State"; NYSDEC Wildlife Resources Center.

New York State Department of Environmental Conservation (NYSDEC), 1994. *Inactive Hazardous Waste Disposal Sites in New York State.* Volume 8, A Joint Report of the New York State Departments of Environmental Conservation and Health. April.

New York State Department of Environmental Conservation (NYSDEC), 1995. *New York Compilation of Codes, Rules, and Regulations, Title 6, Part 371 - Identification and Listing of Hazardous Wastes.* January 1995.

New York State Department of Environmental Conservation (NYSDEC) Division of Fish and Wildlife, 1984. *Freshwater Wetlands Classification Sheet.* November 14, 1984.

New York State Department of Environmental Conservation (NYSDEC) Natural Heritage Program, 1994. *Biological and Conservation Data System - Element Occurrence Report.* March 22.

New York State Department of Environmental Conservation (NYSDEC) Water Resources Division, 1994. *Flood Insurance Rate Map, Community Panel No. 360281 001 B.* Effective Date August 3, 1981.

NUS Corporation (NUS), 1986. *Potential Hazardous Waste Site - Preliminary Assessment - Voelker Analysis Inc.* Prepared for USEPA; March 8, 1986.

Rickard, L.V., and D.W. Fisher, 1970. *Geologic Map of New York, Niagara Sheet.* Prepared for the U.S. Geological Survey.

Shacklette, M.T. and J.G. Boerngen, 1984. "Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States"; USGS Professional Paper 1270.

U.S. Environmental Protection Agency (USEPA), 1985. Consent Agreement and Consent Order Docket No. II RCRA-84-0247 - Titled: "In the Matter of Voelker Analysis, Inc., NYD991291782, Buffalo, New York 14206, Respondent, Proceeding under Section 3008 of the Solid waste Disposal Act, as Amended". December, 1985.

APPENDIX A

SITE INSPECTION REPORT - USEPA FORM 2070-13

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

EPA

I. IDENTIFICATION	
01 STATE: New York	01 SITE NUMBER: NYD991291782

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
ENRX, Inc. (formerly Voelker Analysis)	766 Babcock Street

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG. DIST
Buffalo	New York	14206	Erie	15	33

09 COORDINATES		10 TYPE OF OWNERSHIP (Check one)
LATITUDE 42° 50' 30"	LONGITUDE 78° 50' 00"	X A. PRIVATE _ B. FEDERAL _____ _ C. STATE _ D. COUNTY _ E. MUNICIPAL _ F. OTHER _____ _ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION
12/ 14/ 93 (MONTH DAY YEAR)	ACTIVE / X INACTIVE	1982 (BEGINNING YEAR) 1989 (ENDING YEAR) _____ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)
_ A. EPA _ B. EPA CONTRACTOR _____ (Name of firm) _ C. MUNICIPAL _ D. MUNICIPAL CONTRACTOR _____ (Name of firm)
_ E. STATE X F. STATE CONTRACTOR ABB Environmental Services (Name of firm) _ G. OTHER _____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
Brian K. Butler	Environmental Scientist	ABB Environmental Services	(207) 775-5401
09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
Ralph T. Keating	Environmental Engineer II	NYSDEC	(518) 457-9538
Ray Fisher	Environmental Engineer	NYSDEC Region 9	(716) 851-7220
Edward J. Feron	Environmental Engineer	NYSDEC - Region 9	(716) 851-7220
Cynthia Talbot	Project Manager	ABB Environmental Services	(207) 775-5401

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO.
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
X PERMISSION / ☐ WARRANT	0900	Cold, Overcast

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Ralph Keating	New York State Department of Environmental Conservation	(518) 457-9538

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Brian K. Butler	Not Applicable	ABB Environmental Services	(207) 775-5401	03/13/95 (MONTH DAY YEAR)

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE: New York	01 SITE NUMBER: NYD991291782

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 X A. GROUNDWATER CONTAMINATION — 02 X OBSERVED (DATE: 11/30/94) _ POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown — 04 NARRATIVE DESCRIPTION

Three groundwater samples were collected on 11/30/94 from onsite overburden/shallow bedrock monitoring wells. The samples were analyzed for TCL VOCs, TCL SVOCs, TCL Pesticides/PCBs, and TCL Inorganics. The following contaminants were detected in groundwater exceeding NYS Class GA groundwater quality standards or guidance values: chloroethane, 2-methylphenol, 4-methylphenol, 2,4-dimethylphenol, naphthalene, antimony, iron, magnesium, manganese, and sodium. Organic contaminants were detected only in the upgradient monitoring well. Inorganics detected in all monitoring wells; concentrations may reflect fill found onsite and may not be related to site activities.

01 _ B. SURFACE WATER CONTAMINATION — 02 _ OBSERVED (DATE: _____) _ POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

NOT APPLICABLE

01 _ C. CONTAMINATION OF AIR — 02 X OBSERVED (DATE: 10/04/04 to 10/05/94) _ POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 1-10 — 04 NARRATIVE DESCRIPTION

The following compounds were detected in the building atmosphere: trans-1,2-DCE (up to 4.68 ppm), 1,1,1-TCA (up to 1 ppm), 1,1-DCE (up to 1.6 ppm); and carbon tetrachloride (up to 0.15 ppm). Detections measured with Bruel and kjaer Type 1302 multigas monitor.

01 _ D. FIRE/EXPLOSIVE CONDITIONS — 02 _ OBSERVED (DATE: _____) _ POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

NOT APPLICABLE

01 X E. DIRECT CONTACT — 02 _ OBSERVED (DATE: _____) X POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 1-10 — 04 NARRATIVE DESCRIPTION

Workers in the building may contact various liquid and sludge wastes containing solvents and inorganics.

01 ___F. CONTAMINATION OF SOIL — 02 _ OBSERVED (DATE: _____) _ POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

NOT APPLICABLE

01 _ G. DRINKING WATER CONTAMINATION — 02 _ OBSERVED (DATE: _____) POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

NOT APPLICABLE

01 X H. WORKER EXPOSURE/INJURY — 02 _ OBSERVED (DATE: _____) X POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 1-10 — 04 NARRATIVE DESCRIPTION

Workers in the building could be exposed to wastes via direct contact or inhalation of volatized contaminants.

01 _ I. POPULATION EXPOSURE/INJURY — 02 _ OBSERVED (DATE: _____) _ POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

NOT APPLICABLE

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

EPA

I. IDENTIFICATION	
01 STATE: New York	01 SITE NUMBER: NYD991291782

II. PERMIT INFORMATION NONE ISSUED

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
_ A. NPDES				
_ B. UIC				
_ C. AIR				
_ D. RCRA	NYCRR Part 360 #2655	Unknown. Possibly 1982.	Revoked 1989	Unclear permit status throughout site history
_ E. RCRA INTERIM STATUS				
_ F. SPCC PLAN				
_ G. STATE (specify)				
_ H. LOCAL (specify)				
_ I. OTHER (specify)				
_ J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (check all that apply)

		02 AMOUNT	03 UNIT OF MEASURE
_	A. SURFACE IMPOUNDMENT		
_	B. PILES		
_	C. DRUMS, ABOVE GROUND		
_	D. TANK, ABOVE GROUND		
_	E. TANK, BELOW GROUND		
_	F. LANDFILL		
_	G. LANDFARM		
_	H. OPEN DUMP		
X	I. OTHER (specify) sump, abandoned equipment	Unknown	

04 TREATMENT (check all that apply)

- _ A. INCINERATION
- _ B. UNDERGROUND INJECTION
- _ C. CHEMICAL/PHYSICAL
- _ D. BIOLOGICAL
- _ E. WASTE OIL PROCESSING
- X F. SOLVENT RECOVERY
- _ G. OTHER RECYCLING/RECOVERY
- _ H. OTHER _____ (specify)

05 OTHER
X A. BUILDINGS ONSITE

06 AREA OF SITE
0.5 (acres)

07 COMMENTS

The building comprising the site contains abandoned solvent distillation equipment, rendering equipment, and spill collection structures (holding tanks, still bottoms, tanks, sumps, trench drains). Much of the building has deteriorated, sagging, and rotten wood flooring. Large cracks are observed in the concrete block walls. During site operations, distillation activities occurred primarily on the ground floor, with product and waste storage occurring throughout the building.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (check one)

_ A. ADEQUATE, SECURE _ B. MODERATE X C. INADEQUATE, POOR _ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

Contaminated sediment and liquid is found in spill collection structures on the ground floor and in basement. Waste/sludge is found in an abandoned still bottoms tank in the basement and on floors throughout the building. All structures are open to the atmosphere.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: _ YES X NO
02 COMMENTS

Building doors found open during site visits; current owners have taken steps to restrict site access (building checks performed by a caretaker and construction of site fencing).

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Draft Preliminary Site Assessment Report, March 1995, ABB Environmental Services, and references cited therein.

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION	
01 STATE: New York	01 SITE NUMBER: NYD991291782

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

_ A. 10^{-6} - 10^{-8} cm/sec _ B. 10^{-4} - 10^{-6} cm/sec X C. 10^{-4} - 10^{-3} cm/sec _ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

_ A. IMPERMEABLE (less than 10^{-6} cm/sec) _ B. RELATIVELY IMPERMEABLE (10^{-4} - 10^{-6} cm/sec) X C. RELATIVELY PERMEABLE (10^{-2} - 10^{-4} cm/sec) 4 _ D. VERY PERMEABLE (Greater than 10^{-2} cm/sec)

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL Ph	
7 (ft)	Not known (ft)	UNKNOWN	

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE		
		SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
42 (estimated) (in)	2.1 (in)	0 %	NOT APPLICABLE	0 %

09 FLOOD POTENTIAL
SITE IS IN N/A YEAR FLOODPLAIN

10
_ SITE IS ON RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE: A. _____ (mi) OTHER: B. >3 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

>3 (mi)

ENDANGERED SPECIES: _____

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS: PRIME AG LAND	AGRICULTURAL LANDS: AG LAND
A. 0 (mi)	B. 1 (mi)	C. N/A (mi)	D. N/A (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

In general, the site, adjacent properties, and the surrounding areas are flat. However, the ground surface of site is drained by storm sewer system.

VII. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Draft Preliminary Site Assessment Report, March 1995, ABB Environmental Services, and references cited therein.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

I. IDENTIFICATION	
01 STATE	01 SITE NUMBER
New York	NYD991291782

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER
J.L. Lalime and J. Delomini	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
250 Essjay Road	

05 CITY	06 STATE	07 ZIP CODE
Williamsville	New York	14221

01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	**04 SIC CODE**

05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	**04 SIC CODE**

05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	**04 SIC CODE**

05 CITY	06 STATE	07 ZIP CODE

PARENT COMPANY (If applicable) NOT APPLICABLE

08 NAME	09 D+B NUMBER
10 STREET ADDRESS (P.O. Box, RFD #, etc.)	**11 SIC CODE**

12 CITY	13 STATE	14 ZIP CODE

08 NAME	09 D+B NUMBER
10 STREET ADDRESS (P.O. Box, RFD #, etc.)	**11 SIC CODE**

12 CITY	13 STATE	14 ZIP CODE

08 NAME	09 D+B NUMBER
10 STREET ADDRESS (P.O. Box, RFD #, etc.)	**11 SIC CODE**

12 CITY	13 STATE	14 ZIP CODE

08 NAME	09 D+B NUMBER
10 STREET ADDRESS (P.O. Box, RFD #, etc.)	**11 SIC CODE**

12 CITY	13 STATE	14 ZIP CODE

III. PREVIOUS OWNER(S) (List most recent first)

01 NAME	02 D+B NUMBER
J.K Voelker	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
Deceased	

05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER
A. Knapp	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
Current adress unknown	

05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	**04 SIC CODE**

05 CITY	06 STATE	07 ZIP CODE

IV. REALTY OWNER(S) (If applicable; list most recent first)

01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	**04 SIC CODE**

05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	**04 SIC CODE**

05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	**04 SIC CODE**

05 CITY	06 STATE	07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Draft Preliminary Site Assessment Report, March 1995, ABB Environmental Services, and references cited therein.

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION

EPA

I. IDENTIFICATION	
01 STATE: New York	01 SITE NUMBER: NYD991291782

II. ON-SITE GENERATOR NOT APPLICABLE

01 NAME	02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE

III. OFF-SITE GENERATOR(S) NOT APPLICABLE

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
VAL-KRO, Inc.	NYD096309331		
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
1200 Niagara St.			
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
Buffalo	NY	14213			
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
Mckesson Chemical	Unknown		
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
803 Walden Ave			
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
Buffalo	NY	14211			

IV. TRANSPORTER(S) NOT APPLICABLE

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
E.C. Kraus - Ball & Co.	Unknown		
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
766 Babcock St			
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
Buffalo	NY	14206			
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
MARVA Trucking, Inc.	NYD002111771		
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
766 Babcock St			
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
Buffalo	NY	14206			

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Draft Preliminary Site Assessment Report, March 1995, ABB Environmental Services, and references cited therein.

EPA	POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 10 - PAST RESPONSE ACTIVITIES	I. IDENTIFICATION 01 STATE: New York 01 SITE NUMBER: NYD991291782

II. PAST RESPONSE ACTIVITIES (Continued)

01 _ R. BARRIER WALLS CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

NOT APPLICABLE

01 _ S. CAPPING/COVERING — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

NOT APPLICABLE

01 _ T. BULK TANKAGE REPAIRED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

NOT APPLICABLE

01 _ U. GROUT CURTAIN CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

NOT APPLICABLE

01 _ V. BOTTOM SEALED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

NOT APPLICABLE

01 _ W. GAS CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

NOT APPLICABLE

01 _ X. FIRE CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

NOT APPLICABLE

01 _ Y. LEACHATE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

NOT APPLICABLE

01 _ Z. AREA EVACUATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

NOT APPLICABLE

01 X 1. ACCESS TO SITE RESTRICTED — 02 DATE 1995 — 03 AGENCY _____

04 DESCRIPTION

Owners are currently installing fencing along property line.

01 _ 2. POPULATION RELOCATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

NOT APPLICABLE

01 X 3. OTHER REMEDIAL ACTIVITIES — 02 DATE 1989-1992 — 03 AGENCY USEPA
04 DESCRIPTION

USEPA Performed CERCLA removal action for NYS. Consisted of removal of 398 55-gallon containers of chlorinated solvents, 86 drums of still bottoms, on-site treatment and disposal of 15,000 gallons chlorinated wastewater, and 22 55-gallon containers of miscellaneous material. Building reportedly steam-cleaned as part of removal activities.

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Draft Preliminary Site Assessment Report, March 1995, ABB Environmental Services, and references cited therein.