-915073

ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

PHASE I INVESTIGATION

Otis Elevator **Site No. 915073**
Buffalo **Erie County**

DATE: March 1986

Prepared for:
New York State Department of Environmental Conservation

50 Wolf Road, Albany, New York 12233
Henry G. Williams, *Commissioner*

Division of Solid and Hazardous Waste
Norman H. Nosenchuck, P.E., *Director*

By:

Recra Environmental, Inc.

5/3214

ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES IN THE STATE OF NEW YORK PHASE I INVESTIGATIONS FOURTH ROUND

Otis Elevator
(Hard Manufacturing Co., Inc.)
City of Buffalo
Erie County, New York
Site #915073

Prepared For:

Division of Solid and Hazardous Waste
New York State Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233-0001

Prepared By:

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4248 Ridge Lea Road
Amherst, NY 14226

January 1986

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1.0 EXECUTIVE SUMMARY

The Otis Elevator site is located at 230 Grider Street in the City of Buffalo, Erie County, New York (Figures 1 and 2). The site's current owner is Hard Manufacturing Co., Inc., a manufacturer of metal household, hospital, and nursing home furniture. Between 1942 and 1946, when the U.S. Army operated the Buffalo Elevator Ordinance Plant, the site was suspected to have received spent foundry sand molds. It is unknown whether the suspected foundry sands contained phenolic binders.

A site report prepared by the United States Environmental Protection Agency (USEPA) identifies the disposal site as being located at the northwestern portion of the property alongside Delavan and Sheridan Avenues. This area is approximately three acres in size. The total area of the property is approximately sixteen acres. The site was inspected by Erie County personnel in 1979 and 1981. No indications of previous disposal of foundry sands were observed. In 1982, the U.S. Geological Survey advanced eight test borings at the site. Seven of the borings met refusal (interpreted as bedrock) at three feet below ground surface. All borings contained dirt-fill material. A split-spoon sample was taken from the eighth boring at four feet and analyzed for phenol; none were detected. A substrate sample was analyzed for GC/MS organics with none indicated. Recra Research, Inc. personnel visited the site on November 20, 1985 and found the area to be flat with grass cover and young hardwood trees. No evidence of past disposal activity was observed.

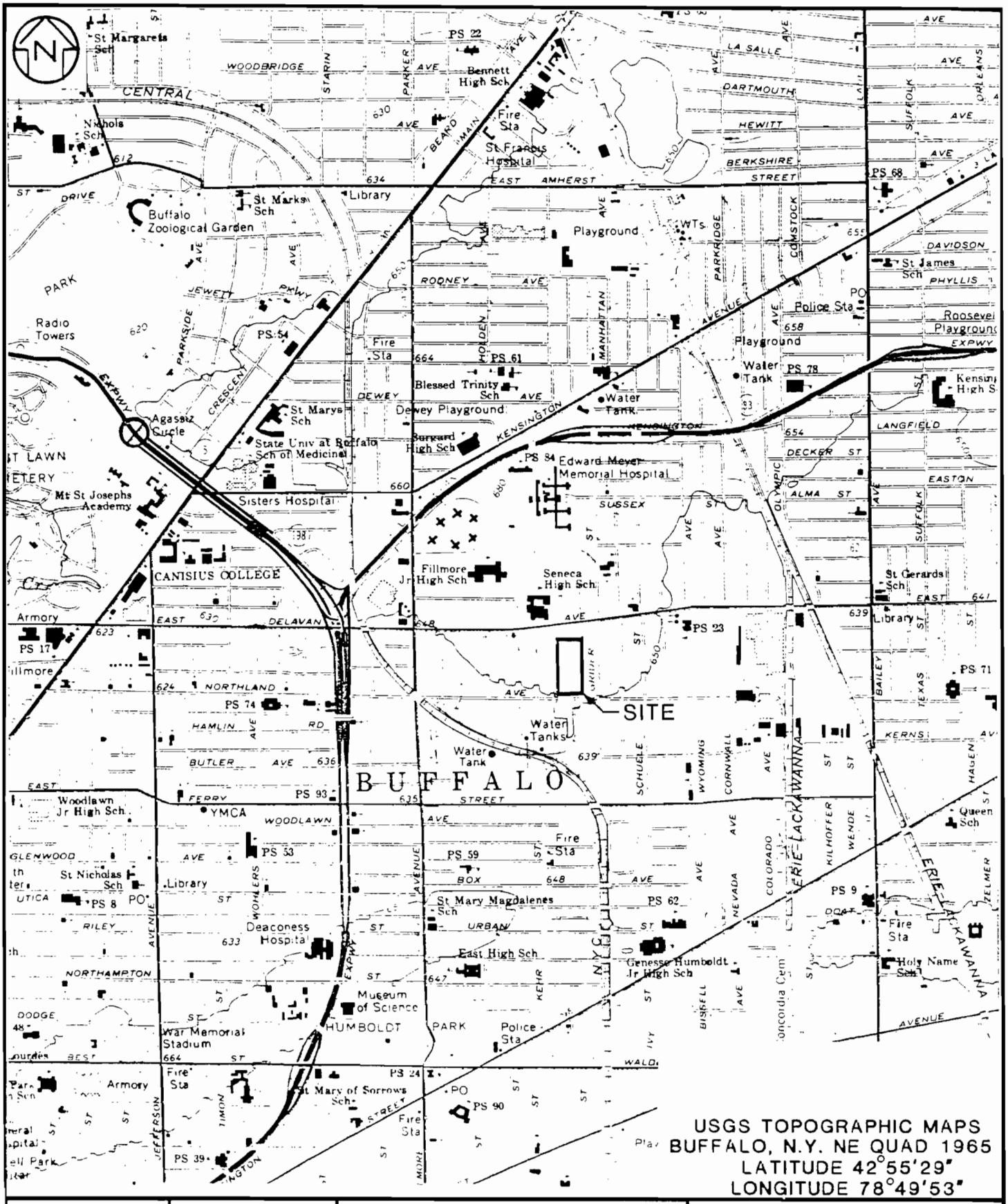
The Phase I Summary Report presented herein represents a compilation of available information regarding the Otis Elevator site. Information

sources include New York State Department of Environmental Conservation (NYSDEC) Region 9, Erie County Department of Environment and Planning, personnel familiar with the site, and various other references.

The intent of the Hazard Ranking System (HRS) is to provide a method by which uncontrolled hazardous waste sites may be systematically assessed as to the potential risk that a site may pose to human health and the environment. The HRS is designed to provide a numerical value through an assessment of technical data and information, and relating that information with respect to:

- o migration of hazardous substances from the site (Sm)
- o risk involved with direct contact (Sdc)
- o the potential for fire and explosion (Sfe).

The risks involved with direct contact (Sdc) and the potential for fire and explosion (Sfe) are evaluated according to site specific information including toxicity of waste, quantity, site demographics, location with respect to sensitive habitats of wildlife, etc. Migration potential (Sm) is evaluated through the rating of factors associated with three routing modes: groundwater (Sgw), surface water (Ssw) and Air (Sa). The scored value for each route is composited to determine the risk to humans and/or the environment from the migration of hazardous substances from the site (Sm).



USGS TOPOGRAPHIC MAPS
BUFFALO, N.Y. NE QUAD 1965
LATITUDE 42°55'29"
LONGITUDE 78°49'53"

61160-1

BRUNING

RECRA RESEARCH INC.
BUFFALO, NEW YORK

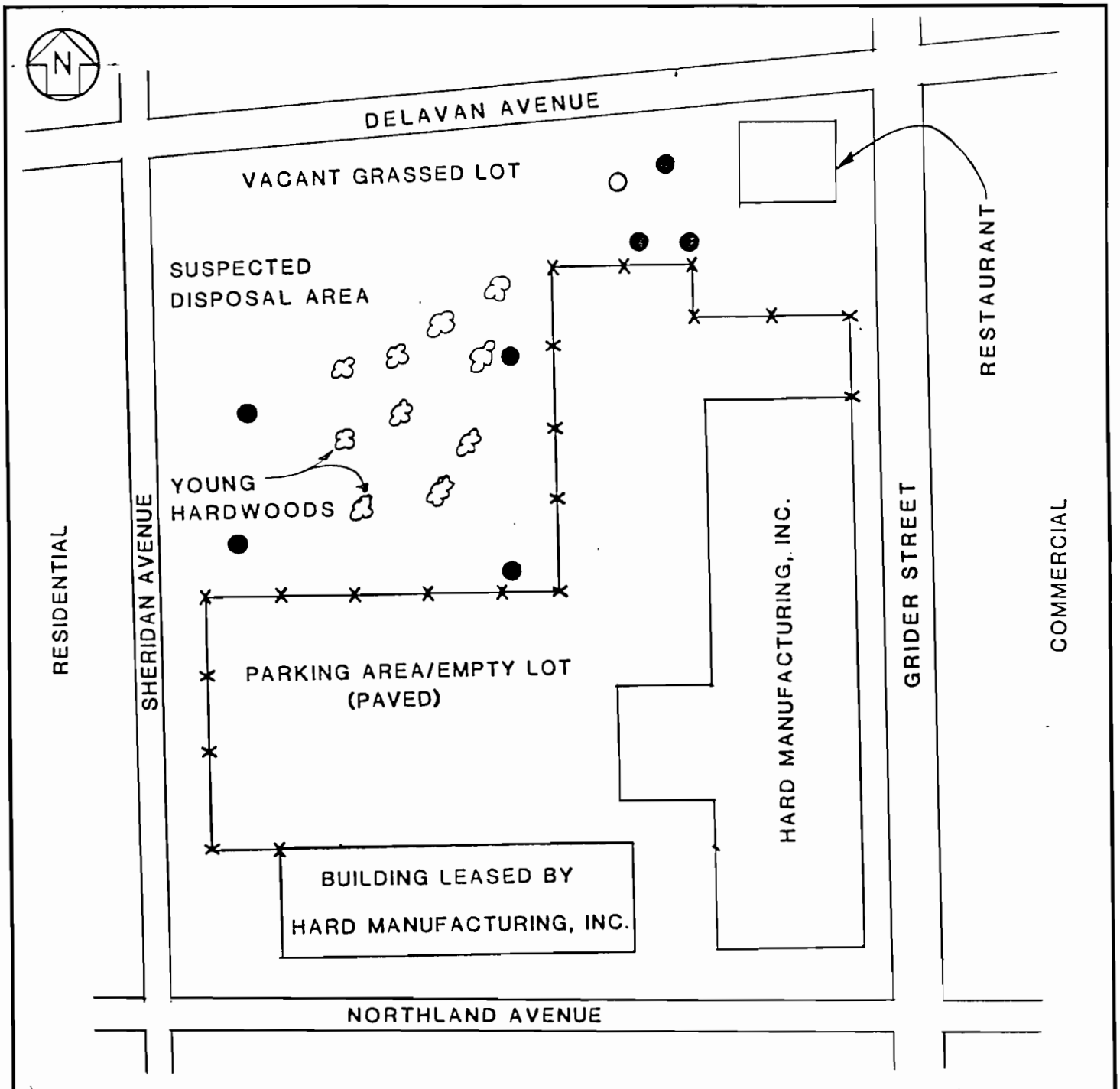
Scale: 1:24000		
	By	Date
Dwn.	MJS	12/85
Ckd.		
Ap'vd.		
Rev.		

OTIS ELEVATOR
(HARD MANUFACTURING)
BUFFALO, N.Y.
N.Y.S. SUPERFUND
PHASE I

Project No. 5C280406

VICINITY MAP

A | FIGURE 1



LEGEND

- ○ PREVIOUS USGS TEST BORING & SAMPLE
- ● PREVIOUS USGS TEST BORING (NO SAMPLE)
- X—X FENCE

61160-1

BRUNING

RECRA RESEARCH INC.
BUFFALO, NEW YORK

	By	Date
Scale: N.T.S.		
Dwn.	JEM	1/86
Ckd.		
Ap'vd.		
Rev.		

OTIS ELEVATOR SITE
(HARD MANUFACTURING, INC)
BUFFALO, N.Y.
N.Y.S. SUPERFUND
PHASE I

Project No. 5C280406

SITE MAP

A | FIGURE 2

The Otis Elevator site was scored according to the Mitre Corporation Hazard Ranking System (HRS) and the following scores were obtained:

$S_m = 0$ ($S_{gw} = 0$; $S_{sw} = 0$; $S_a = 0$)

S_{fe} = N/A

$S_{dc} = 0$

Based on the HRS scores of zero and the lack of evidence of any hazardous material at the site, any Phase II investigation should be limited to test pit excavations designed to locate any foundry sands. If foundry sands are located, an EP Toxicity test should be run to determine the presence of hazardous material in the sands.

SECTION 2

2.0 PURPOSE

The objective of this Phase I investigation is to prepare a report for the Otis Elevator site that provides a history and preliminary assessment of the site based on a review of available data, assigns a numerical value to the site through the use of the HRS and develops a proposed Phase II work plan designed to address the data inadequacies identified during report preparation. The purpose of developing a Phase I report in this manner is to provide an objective assessment of the site and the potential impact it may pose to human health and the environment.

The Phase I objective was met through the following activities:

- o site inspection
- o collection and review of available data for report preparation and preliminary scoring of the HRS.
- o evaluation of data for completeness and identification of data inadequacies.
- o development of a proposed Phase II work plan to address the data inadequacies identified.

The site inspection is an integral part of the Phase I report preparation and is conducted to confirm actual site conditions. Typically, the site visit is designed to note the general topography and geology of the site, evidence of waste disposal, form of waste disposal, visible signs of contaminant release to the environment (e.g. leachate), access to the site, and location, relative to water supplies, of population centers and sensitive environments such as wetlands.

SECTION 3

3.0 SCOPE OF WORK

In order to permit an accurate characterization of the Otis Elevator site, Recra Research, Inc. (Recra) personnel conducted a search for literature and information regarding the site and site vicinity. This search included the review of general information available at area colleges and universities including regional geography, geology and hydrogeology of the study area. The search also included a review of state and county office files regarding the site, and personal interviews with parties associated and/or familiar with the site and site vicinity.

Information received from NYSDEC Region 9, located at 600 Delaware Avenue, Buffalo, New York, 14202 (telephone 716/847-4600) and the Erie County Department of Environment and Planning located at 95 Franklin Street, Buffalo, New York (telephone 716/847-6370), comprises the majority of the data base utilized in developing this report. Review of these office files provided information related to past operations and site conditions during past inspections.

Recra personnel conducted a telephone interview with Mr. William Grodin of Hard Manufacturing Co., Inc., 230 Grider Street, Buffalo, New York, (telephone 716/893-1800). Documentation of the conversation is presented as Reference 9 of this report.

Recra personnel conducted an inspection of the site on November 20, 1985 to become familiar with the site and identify the present condition of the facility. Weather during the inspection was 46°F and partly cloudy with no snow cover on the ground. No air monitoring was conducted at the site during the site investigation.

SECTION 4

4.0 SITE ASSESSMENT

4.1 Site History

The suspected disposal site is located on the property of the former Otis Elevator Co., now Hard Manufacturing Co., Inc., 230 Grider Street, Buffalo, New York, (Figure 1). This facility was constructed by the Army in 1942 and operated by the Otis Elevator Co. in conjunction with its adjacent foundry. It is suspected that during the period 1942 through 1946, spent foundry sands were disposed of on the Otis Elevator property bounded by Delavan, Sheridan, Northland and Grider Street (Figure 2) (Reference 1). It is unknown whether these foundry sands contained phenolic binders. There are no records of the quantities allegedly disposed of at the site.

In August 1979 and again in December 1981, the site was inspected by the Erie County Department of Environment and Planning (DEP). Both inspections failed to find observable indications of previous disposal activity (Reference 1). In August 1982, the U.S. Geological Survey drilled eight test borings in the northwestern portion of the site, an area of about three acres (Figure 2). Seven of the borings hit refusal at three feet below grade. A split-spoon sample was taken from the eighth borehole at four feet below grade and analyzed for phenolics. No phenols were detected. Another substrate sample was collected in June, 1983 and analyzed for organic priority pollutants; no compounds were detected (References 2 and 3).

Recra Research, Inc., personnel inspected the site on November 20, 1985. The site was found to be level and grass covered with young hardwood trees. No evidence of uncontrolled hazardous wastes was found (Reference 4).

4.2 Site Area Surface Features

4.2.1 Topography and Drainage

Topography of the site and its vicinity is typically flat, urban with a one to two percent grade to the south. Surface drainage flows south where it eventually drains via storm sewers into Scajaquada Creek (Reference 10). The site is not located within either a 100-year or 500-year floodplain. There are no wetlands or critical habitats within one mile of the site (Reference 12).

4.2.2 Environmental Setting

Land use surrounding the site is a mixture of industrial, commercial, and residential. Population density within one mile of the site is greater than 10,000 (Reference 10). Scajaquada Creek is located approximately 3500 feet south of the site and flows in a westerly direction toward the Niagara River. This portion of the creek, from Pine Ridge Road west to Main Street, is encased in a storm sewer and is designated as a Class "D" stream with limited uses under 6NYCRR 835 and 701. Downstream from its Main Street crossing (approximately 2.2 miles downstream from the site) the stream is designated as a Class "B" stream. Class "B" waters are suitable for primary contact recreation, fishing, and other uses except as a source of drinking water (Reference 11).

4.3 Hydrogeology

4.3.1 Geology

The upper bedrock unit at the Otis Elevator site is the Onondaga Limestone. The formation consists of three members. The lowest member is a gray coarse-grained limestone, generally only a few feet thick. The middle member consists of a gray limestone and blue chert and reaches a thickness of 40 to 45 feet. The upper member is a dark gray to tan limestone ranging in thickness from 50 to 60 feet. The overall thickness of the Onondaga Limestone is approximately 110 feet (References 3 and 7). In August 1982, the U.S. Geological Survey conducted a test boring program at the site and encountered presumed bedrock three feet below ground surface (References 2 and 3).

4.3.2 Soils

The USDA Soil Conservation Service describes the soils in the area as being of the Mixed Urban-Land and Soil Unit (Reference 8). This unit consists of disturbed or altered soils typical of a high density urban environment. Slopes range from 1 to 2 percent. Soil samples taken during the USGS drilling program on the site were described as clay soils with rock fragments (References 2 and 3). Permeability of these soils is typically 10-5 to 10-7 cm/sec (Reference 6).

4.3.3 Groundwater

An aquifer exists within the Onondaga Limestone and is a result of water-bearing joints and solution openings in the limestone. This groundwater

is generally of poor quality with high dissolved solids (Reference 3). Two former commercial bedrock wells existed within two miles of the site. The wells, designated by LaSala (1968) as Nos. 255-848-1 and 255-850-1, were installed in the limestone and had transmissivities of 25,000 and 8,000 gpd/ft., respectively (Reference 7). These wells were used for commercial purposes only and are no longer in use. Groundwater levels for wells in the area have been recorded from top-of-bedrock to 20 feet below top-of-bedrock (References 1 and 7).

4.4 Previous Sampling and Analysis

4.4.1 Groundwater Quality Data

No wells are located on the Otis Elevator site and no site specific groundwater quality data is available. General groundwater quality for the bedrock aquifer in this area has been documented by LaSala (1968): sulfate ranges from 100 to 500 ppm; hardness from 150 to 1000 ppm (as $CaCO_3$); chloride from 100 to 1500 ppm; and specific conductance from 1000 to 9000 micromhos. There is no record of this aquifer being used for drinking water (References 1 and 3).

4.4.2 Surface Water Quality

There is no surface water quality data available for this site.

4.4.3 Air Quality Data

There is no air quality data available for this site.

4.4.4 Other Analytical Data

The U.S. Geological Survey collected a split-spoon soil sample on August 30, 1982 for phenolic analysis. No phenols were detected. Another substrate sample was taken on June 8, 1983 for organic priority pollutant analysis; no compounds were detected (Reference 3).

5.0 PRELIMINARY APPLICATION OF THE HAZARD RANKING SYSTEM

5.1 Narrative

The former Otis Elevator site, now the site of Hard Manufacturing Co., Inc., is located at 230 Grider Street in the City of Buffalo, Erie County, New York. The company manufactures metal household, hospital, and nursing home furniture. Between 1942 and 1946, it is suspected that spent foundry sands from the Buffalo Otis Elevator Ordinance Plant foundry were disposed on the site. It is unknown whether the sands contained phenolic binders.

Site profile reports prepared by the Erie County DEP, NYSDEC and USEPA identified the suspected disposal site as being located in the northwestern portion of the property along Delavan and Sheridan Avenues. This area comprises about 3 acres of the 16 acre parcel (References 1, 2 and 3). The site was inspected by Erie County personnel in 1979 and 1981. No indications of previous disposal of foundry sands were observed. In 1982, the U.S. Geological Survey advanced eight test borings at the site. Seven of the borings met refusal (interpreted as bedrock) at three feet below ground surface. All borings contained a dirt-fill material. A split-spoon sample was taken from the eighth boring at four feet and analyzed for phenolics; none were detected. A substrate sample was analyzed for GC/MS organics; none were found. Recra Research, Inc., personnel visited the site in November 1985 and found the area to be level and covered with grass and young hardwood trees.

The site is located within a mixed commercial, industrial and residential

section of the City of Buffalo. Scajaquada Creek is located approximately 3,500 feet south of the site. No New York State regulated wetlands or critical habitats are located within one mile of the site, and the site is not located within a floodplain.

Facility name: Otis Elevator (Hard Manufacturing Co., Inc.)

Location: 230 Grider Street, Buffalo, NY 14215

EPA Region: II

Person(s) in charge of the facility:

Name of Reviewer: Recra Research, Inc. Date: 1/27/86

General description of the facility:

(For example: landfill, surface impoundment, pile, container; types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action, etc.)

The site was suspected to have received spent foundry sand molds during the period 1942 through 1946. The disposal area was about 3 acres in size and located in the northwest portion of the property. The foundry sands are suspected of containing phenolic binders. Site investigations by Erie County DEP in 1979 and 1981, the U.S. Geologic Survey in 1982 and 1983, and Recra in 1985 have not indicated any signs of past disposal activity at the site.

Scores: S_M = 0 (S_{gw} = 0 S_{sw} = 0 S_a = 0)

S_{FE} = N/A

S_{DC} = 0

FIGURE 1
HRS COVER SHEET

Ground Water Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	(0) 45	1	0	45	3.1
If observed release is given a score of 45, proceed to line 4. If observed release is given a score of 0, proceed to line 2					
2 Route Characteristics					3.2
Depth to Aquifer of Concern	0 1 2 (3)	2	6	6	
Net Precipitation	0 1 (2) 3	1	2	3	
Permeability of the Unsaturated Zone	0 (1) 2 3	1	1	3	
Physical State	0 1 (2) 3	1	2	3	
Total Route Characteristics Score			11	15	
3 Containment	0 1 2 (3)	1	3	3	3.3
4 Waste Characteristics					3.4
Toxicity/Persistence	(0) 3 6 9 12 15 18	1	0	18	
Hazardous Waste Quantity	(0) 1 2 3 4 5 6 7 8	1	0	8	
Total Waste Characteristics Score			0	26	
5 Targets					3.5
Ground Water Use	0 (1) 2 3	3	3	9	
Distance to Nearest Well/Population Served	(0) 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40	
Total Targets Score			3	49	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			0	57,330	
7 Divide line 6 by 57,330 and multiply by 100		S_{gw} =	0		

FIGURE 2
GROUND WATER ROUTE WORK SHEET

Surface Water Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	(0) 45	1	0	45	4.1
If observed release is given a value of 45, proceed to line 4. If observed release is given a value of 0, proceed to line 2.					
2 Route Characteristics					4.2
Facility Slope and Intervening Terrain	(0) 1 2 3	1	0	3	
1-yr. 24-hr. Rainfall	0 1 (2) 3	1	2	3	
Distance to Nearest Surface Water	0 1 (2) 3	2	4	6	
Physical State	0 1 (2) 3	1	2	3	
Total Route Characteristics Score			8	15	
3 Containment	0 1 2 3	1	3	3	4.3
4 Waste Characteristics					4.4
Toxicity/Persistence	(0) 3 6 9 12 15 18	1	0	18	
Hazardous Waste Quantity	(0) 1 2 3 4 5 6 7 8	1	0	8	
Total Waste Characteristics Score			0	26	
5 Targets					4.5
Surface Water Use	0 1 (2) 3	3	6	9	
Distance to a Sensitive Environment	(0) 1 2 3	2	0	6	
Population Served/Distance to Water Intake Downstream	(0) 4 6 8 10 / 12 16 18 20 / 24 30 32 35 40	1	0	40	
Total Targets Score			6	55	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			0	64,350	
7 Divide line 6 by 64,350 and multiply by 100		S_{sw} =	0		

FIGURE 7
SURFACE WATER ROUTE WORK SHEET

Air Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
[1] Observed Release	(0) 45	1	0	45	5.1
Date and Location:					
Sampling Protocol:					
If line [1] is 0, the S_a = 0. Enter on line [5]. If line [1] is 45, then proceed to line [2].					
[2] Waste Characteristics					5.2
Reactivity and Incompatibility	0 1 2 3	1		3	
Toxicity	0 1 2 3	3		9	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
	Total Waste Characteristics Score			20	
[3] Targets					5.3
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1		30	
Distance to Sensitive Environment	0 1 2 3	2		6	
Land Use	0 1 2 3	1		3	
	Total Targets Score			39	
[4] Multiply [1] x [2] x [3]				35,100	
[5] Divide line [4] by 35,100 and multiply by 100		S_a = 0			

FIGURE 9
AIR ROUTE WORK SHEET

	S	S^2
Groundwater Route Score (S_{gw})	0	0
Surface Water Route Score (S_{sw})	0	0
Air Route Score (S_a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		0
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		0
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		0

FIGURE 10
WORKSHEET FOR COMPUTING S_M

Fire and Explosion Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Containment	1 3	1		3	7.1
2 Waste Characteristics					7.2
Direct Evidence	0 3	1		3	
Ignitability	0 1 2 3	1		3	
Reactivity	0 1 2 3	1		3	
Incompatibility	0 1 2 3	1		3	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
Total Waste Characteristics Score				20	
3 Targets					7.3
Distance to Nearest Population	0 1 2 3 4 5	1		5	
Distance to Nearest Building	0 1 2 3	1		3	
Distance to Sensitive Environment	0 1 2 3	1		3	
Land Use	0 1 2 3	1		3	
Population Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Buildings Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Total Targets Score				24	
4 Multiply 1 x 2 x 3				1,440	
5 Divide line 4 by 1,440 and multiply by 100		S_{FE} = N/A			

FIGURE 11
FIRE AND EXPLOSION WORK SHEET

Direct Contact Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
[1] Observed Incident	(0) 45	1	0	45	8.1
If line [1] is 45, proceed to line [4] If line [1] is 0, proceed to line [2]					
[2] Accessibility	0 1 2 (3)	1	3	3	8.2
[3] Containment	(0) 15	1	0	15	8.3
[4] Waste Characteristics Toxicity	(0) 1 2 3	5	0	15	8.4
[5] Targets					8.5
Population Within a 1-Mile Radius	0 1 2 3 4 (5)	4	20	20	
Distance to a Critical Habitat	(0) 1 2 3	4	0	12	
Total Targets Score			20	32	
[6] If line [1] is 45, multiply [1] x [4] x [5] If line [1] is 0, multiply [2] x [3] x [4] x [5]				21,600	
[7] Divide line [6] by 21,600 and multiply by 100	S_{DC} = 0				

FIGURE 12
DIRECT CONTACT WORK SHEET

June 28, 1982

5.3 HRS DOCUMENTATION RECORDS

DOCUMENTATION RECORDS
FOR
HAZARD RANKING SYSTEM

INSTRUCTIONS: The purpose of these records is to provide a convenient way to prepare an auditable record of the data and documentation used to apply the Hazard Ranking System to a given facility. As briefly as possible summarize the information you used to assign the score for each factor (e.g., "Waste quantity = 4,230 drums plus 800 cubic yards of sludges"). The source of information should be provided for each entry and should be a bibliographic-type reference that will make the document used for a given data point easier to find. Include the location of the document and consider appending a copy of the relevant page(s) for ease in review.

FACILITY NAME: Otis Elevator

LOCATION: 230 Grider Street, Buffalo, NY 14215

GROUND WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

None (Ref. 1, 2, 3)

Rationale for attributing the contaminants to the facility:

None (Ref. 1, 2, 3)

* * *

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifers(s) of concern:

Bedrock aquifer (Ref. 3, 7)

Depth(s) from the ground surface to the highest seasonal level of the saturated zone [water table(s)] of the aquifer of concern:

Unknown, bedrock is estimated to be 3 to 5 feet below ground surface (Ref. 1, 2, 3)

Depth from the ground surface to the lowest point of waste disposal/ storage:

Unknown

Net Precipitation

Mean annual or seasonal precipitation (list months for seasonal):

36 inches (Ref. 6)

Mean annual lake or seasonal evaporation (list months for seasonal):

27 inches (Ref. 6)

Net precipitation (subtract the above figures):

9 inches

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

Mixed Urban - disturbed clayey soils (Ref. 8)

Permeability associated with soil type:

$<10^{-5}$ $\geq 10^{-7}$ cm/sec (Ref. 6)

Physical State

Physical state of substances at time of disposal (or at present time for generated gases):

Solids, fine materials (Ref. 1, 2, 3)

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Suspected wastes were dumped on site, which was later soil covered, graded and planted.

(Ref. 1,2,3)

Method with highest score:

Landfill, no liner.

(Ref. 6)

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

No evidence of hazardous wastes at the site has been documented.

(Ref. 1,2,3)

Compound with highest score:

N/A

(Ref. 6)

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

Unknown. No evidence of hazardous wastes at the site has been documented.

(Ref. 1,2,3)

Basis of estimating and/or computing waste quantity:

Not applicable. No wastes have been found at this site.

(Ref. 1,2,3)

* * *

5 TARGETS

Ground Water Use

Use(s) of aquifer(s) of concern within a 3-mile radius of the facility:

Four wells in area are or were used for commercial purposes only.

(Ref. 7, 1)

Distance to Nearest Well

Location of nearest well drawing from aquifer of concern or occupied building not served by a public water supply:

Former Nagel Dairy commercial well drilled within bedrock aquifer; located at Kensington and Fillmore Ave.

(Ref. 7)

Distance to above well or building:

Approximately 3000 feet

Population Served by Ground Water Wells Within a 3-Mile Radius

Identified water-supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and populations served by each:

None

Computation of land area irrigated by supply well(s) drawing from aquifer(s) of concern within a 3-mile radius, and conversion to population (1.5 people per acre):

None

Total population served by ground water within a 3-mile radius:

None

SURFACE WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected in surface water at the facility or downhill from it (5 maximum):

Unknown, no analytical data available

Rationale for attributing the contaminants to the facility:

N/A

* * *

2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

<2.0% (Ref. 10)

Name/description of nearest downslope surface water:

Scajaquada Creek (Ref. 10)

Average slope of terrain between facility and above-cited surface water body in percent:

1.0% (Ref. 10)

Is the facility located either totally or partially in surface water?

No

Is the facility completely surrounded by areas of higher elevation?

No

1-Year 24-Hour Rainfall in Inches

Approximately 2.1 inches (Ref. 6)

Distance to Nearest Downslope Surface Water

7,400 feet west-northwest to Scajaquada Creek. (Ref. 10)
This creek lies 3,500 feet south of the site but it is encased in a storm sewer.

Physical State of Waste

Solids, fine material (Ref. 1, 2, 3)

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Suspected wastes were dumped on site, which was later soil covered, graded and planted.

(Ref. 1, 2, 3)

Method with highest score:

Landfill not covered and no diversion system.

(Ref. 6)

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

No evidence of hazardous wastes at the site has been documented.

(Ref. 1,2,3)

Compound with highest score:

Not Applicable.

(Ref. 6)

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

Unknown. No evidence of hazardous wastes at the site has been documented.

(Ref. 1,2,3)

Basis of estimating and/or computing waste quantity:

Not applicable. No wastes have been found at this site.

(Ref. 1,2,3)

* * *

5 TARGETS

Surface Water Use

Use(s) of surface water within 3 miles downstream of the hazardous substance:

Recreation and fishing.

(Ref. 11)

Is there tidal influence?

No

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

N/A

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

>1 mile (Ref. 12)

Distance to critical habitat of an endangered species or national wildlife refuge, if 1 mile or less:

>1 mile (Ref. 12)

Population Served by Surface Water

Location(s) of water-supply intake(s) within 3 miles (free-flowing bodies) or 1 mile (static water bodies) downstream of the hazardous substance and population served by each intake:

None (Ref. 5)

Computation of land area irrigated by above-cited intake(s) and conversion to population (1.5 people per acre):

N/A

Total population served:

N/A

Name/description of nearest of above water bodies:

Scajaquada Creek (Ref. 10)

Distance to above-cited intakes, measured in stream miles.

N/A

AIR ROUTE

1 OBSERVED RELEASE

Contaminants detected:

N/A

Date and location of detection of contaminants

N/A

Methods used to detect the contaminants:

N/A

Rationale for attributing the contaminants to the site:

N/A

* * *

2 WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

N/A

Most incompatible pair of compounds:

N/A

Toxicity

Most toxic compound:

N/A

Hazardous Waste Quantity

Total quantity of hazardous waste:

N/A

Basis of estimating and/or computing waste quantity:

N/A

* * *

3 TARGETS

Population Within 4-Mile Radius

Circle radius used, give population, and indicate how determined:

0 to 4 mi | (0 to 1 mi) | 0 to 1/2 mi | 0 to 1/4 mi

>10,000 (Ref. 1)

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

N/A

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

>1 mile (Ref. 12)

Distance to critical habitat of an endangered species, if 1 mile or less:

>1 mile (Ref. 12)

Land Use

Distance to commercial/industrial area, if 1 mile or less:

<0.1 mile (Ref. 10)

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

N/A

Distance to residential area, if 2 miles or less:

<0.1 mile (Ref. 10)

Distance to agricultural land in production within past 5 years, if 1 mile or less:

N/A

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

N/A

Is a historic or landmark site (National Register or Historic Places and National Natural Landmarks) within the view of the site?

N/A

FIRE AND EXPLOSION
(Not Applicable)

1 CONTAINMENT

Hazardous substances present:

Not applicable

Type of containment, if applicable:

Not applicable

* * *

2 WASTE CHARACTERISTICS

Direct Evidence

Type of instrument and measurements:

Not applicable

Ignitability

Compound used:

Not applicable

Reactivity

Most reactive compound:

Not applicable

Incompatibility

Most incompatible pair of compounds:

Not applicable

* * *

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility:

Not applicable

Basis of estimating and/or computing waste quantity:

Not applicable

* * *

3 TARGETS

Distance to Nearest Population

<0.1 mile (Ref. 10)

Distance to Nearest Building

<0.1 mile (Ref. 10)

Distance to Sensitive Environment

Distance to wetlands:

> 1 mile

Distance to critical habitat:

Not applicable

Land Use

Distance to commercial/industrial area, if 1 mile or less:

<0.1 mile

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

Not applicable

Distance to residential area, if 2 miles or less:

<0.1 mile (Ref. 10)

Distance to agricultural land in production within past 5 years, if 1 mile or less:

Not applicable

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

Not applicable

Is a historic or landmark site (National Register or Historic Places and National Natural Landmarks) within the view of the site?

None known

Population Within 2-Mile Radius

>10,000 (Ref. 10)

Buildings Within 2-Mile Radius

>2,600 (Ref. 10)

DIRECT CONTACT

1 OBSERVED INCIDENT

Date, location, and pertinent details of incident:

Not applicable.

* * *

2 ACCESSIBILITY

Describe type of barrier(s):

No barriers to entry. The site has been covered with soil, graded, and planted with grasses and trees. Additional parking area and buildings have been constructed on the site since the time of reported use. (Ref. 1)

* * *

3 CONTAINMENT

Type of containment, if applicable:

No hazardous substances are accessible to direct contact at the site.

* * *

4 WASTE CHARACTERISTICS

Toxicity

Compounds evaluated:

No evidence of hazardous wastes at the site has been documented. (Ref. 1,2,3)

Compound with highest score:

Not applicable. (Ref. 6)

* * *

5 TARGETS

Population within one-mile radius

Greater than 10,000. Site is located within the city limits of Buffalo, New York. (Ref. 10)

Distance to critical habitat (of endangered species)

Not Applicable (Ref. 12)

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 915073

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Otis Elevator	230 Grider Street

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Buffalo	N.Y.	14215	Erie		

09 COORDINATES LATITUDE	LONGITUDE
42° 55' 29."	78° 49' 53."

10 DIRECTIONS TO SITE (Starting from nearest public road)
On Grider Street between Delavan Avenue and Northland Avenue, west of Bailey Avenue in East Buffalo.

III. RESPONSIBLE PARTIES

01 OWNER (If known)	02 STREET (Business, mailing, residential)
Hard Manufacturing Co.	230 Grider Street

03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
Buffalo	N.Y.	14215	(716) 893-1800

07 OPERATOR (If known and different from owner)	08 STREET (Business, mailing, residential)

09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER
			( )

13 TYPE OF OWNERSHIP (Check one)
☒ A. PRIVATE ☐ B. FEDERAL: _____ (Agency name) ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL
☐ F. OTHER: _____ (Specify) ☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)
☐ A. RCRA 3001 DATE RECEIVED: ___/___/___ (MONTH DAY YEAR) ☐ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: ___/___/___ (MONTH DAY YEAR) ☒ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION
☒ YES ☐ NO DATE 8/30/82 (MONTH DAY YEAR)

BY (Check all that apply)
☒ A. EPA ☐ B. EPA CONTRACTOR ☐ C. STATE ☐ D. OTHER CONTRACTOR
☐ E. LOCAL HEALTH OFFICIAL ☒ F. OTHER: U.S.G.S. (Specify)
CONTRACTOR NAME(S): _____

02 SITE STATUS (Check one)
☐ A. ACTIVE ☒ B. INACTIVE ☐ C. UNKNOWN

03 YEARS OF OPERATION
1942 (BEGINNING YEAR) | 1946 (ENDING YEAR) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
Site suspected to have received foundry sand containing phenol binders.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
None known

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)
☐ A. HIGH (Inspection required promptly) ☐ B. MEDIUM (Inspection required) ☐ C. LOW (Inspect on time available basis) ☒ D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NUMBER
PEDRO FIERRO	Recra Environmental Inc	(716) 833-8203

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
Paul A. Rydzynski		Recra	(716) 833-8203	1/7/86 (MONTH DAY YEAR)

EPA FORM 2070-12 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY.	915073

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

Not Applicable

01 PHYSICAL STATES (Check all that apply)

- ☐ A. SOLID
- ☐ B. POWDER, FINES
- ☐ C. SLUDGE
- ☐ D. OTHER _____ (Specify)
- ☐ E. SLURRY
- ☐ F. LIQUID
- ☐ G. GAS

02 WASTE QUANTITY AT SITE
(Measures of waste quantities must be independent)

TONS _____

CUBIC YARDS _____

NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

- ☐ A. TOXIC
- ☐ B. CORROSIVE
- ☐ C. RADIOACTIVE
- ☐ D. PERSISTENT
- ☐ E. SOLUBLE
- ☐ F. INFECTIOUS
- ☐ G. FLAMMABLE
- ☐ H. IGNITABLE
- ☐ I. HIGHLY VOLATILE
- ☐ J. EXPLOSIVE
- ☐ K. REACTIVE
- ☐ L. INCOMPATIBLE
- ☐ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

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

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
N.Y.	915073

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ A. GROUNDWATER CONTAMINATION
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION

Unknown

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

Unknown

01 ☐ C. CONTAMINATION OF AIR
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION

N/A

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

N/A

01 ☐ E. DIRECT CONTACT
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION

Unknown

01 ☒ F. CONTAMINATION OF SOIL
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☒ ALLEGED
03 AREA POTENTIALLY AFFECTED: _____ (Acres)
04 NARRATIVE DESCRIPTION

Unknown

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

Unknown

01 ☐ H. WORKER EXPOSURE/INJURY
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION

Unknown

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

Unknown

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: N.Y. | 02 SITE NUMBER: 915073

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Unknown

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)

Unknown

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Unknown

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES (Spills/runoff/standing liquids/leaking drums) — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

Unknown - Site covered with soil, graded and planted

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Unknown

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Unknown

01 ☒ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Unknown

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

Alleged that foundry sand containing phenol binders was dumped on the site from 1942 to 1946

III. TOTAL POPULATION POTENTIALLY AFFECTED: Unknown

IV. COMMENTS

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

NYSDEC AND ERIE COUNTY DEP OFFICE FILES

5.5 EPA SITE INSPECTION REPORT
(Form 2070-13)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
N.Y.	915073

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER				
Otis Elevator	230 Grider street				
03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Buffalo	NY	14215	Erie		

09 COORDINATES LATITUDE	LONGITUDE	10 TYPE OF OWNERSHIP (Check one)
42° 55' 29."	78° 49' 53."	☒ 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
11 / 20 / 85 (MONTH DAY YEAR)	☐ ACTIVE ☒ INACTIVE	1942 / 1946 (BEGINNING YEAR / 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 ☒ F. STATE CONTRACTOR Recra Research, Inc (Name of firm) ☐ G. OTHER _____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
Thomas Connare	Environmental Scientist	Recra	(716) 833-8203
09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
Sheldon Nozik	"	Recra	(716) 833-8203
			( )
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
William Godin	President	230 Grider street	(716) 893-1800
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☒ PERMISSION ☐ WARRANT	1:30 PM	Partly Cloudy, 46° F

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
PEDRO FIERRO	Recra ENVIRONMENTAL INC	(716) 833-8203

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Paul A. Rydzynski		Recra	(716) 833-8203	1 / 7 / 86 (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	915073

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS — Not Applicable

01 PHYSICAL STATES (Check all that apply)

- ☐ A. SOLID
- ☐ B. POWDER, FINES
- ☐ C. SLUDGE
- ☐ D. OTHER _____ (Specify)
- ☐ E. SLURRY
- ☐ F. LIQUID
- ☐ G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

TONS _____

CUBIC YARDS _____

NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

- ☐ A. TOXIC
- ☐ B. CORROSIVE
- ☐ C. RADIOACTIVE
- ☐ D. PERSISTENT
- ☐ E. SOLUBLE
- ☐ F. INFECTIOUS
- ☐ G. FLAMMABLE
- ☐ H. IGNITABLE
- ☐ I. HIGHLY VOLATILE
- ☐ J. EXPLOSIVE
- ☐ K. REACTIVE
- ☐ L. INCOMPATIBLE
- ☐ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

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

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
N.Y.	915073

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ A. GROUNDWATER CONTAMINATION
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION

Unknown

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

Unknown

01 ☐ C. CONTAMINATION OF AIR
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION

N/A

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

N/A

01 ☐ E. DIRECT CONTACT
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION

Unknown

01 ☐ F. CONTAMINATION OF SOIL
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: _____ (Acres)
04 NARRATIVE DESCRIPTION

Unknown

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

Unknown

01 ☐ H. WORKER EXPOSURE/INJURY
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION

Unknown

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

Unknown

EPA

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

I. IDENTIFICATION
01 STATE: N.Y. | 02 SITE NUMBER: 915073

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Unknown

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include names of species)
Unknown

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Unknown

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES (Spills/Runoff/Standing liquids, Leaking drums) — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
Unknown

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Unknown

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Unknown

01 ☒ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Unknown

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: Unknown

IV. COMMENTS

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

- RECRA SITE VIST 11/20/85

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
N.Y.	915073

II. PERMIT INFORMATION

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				
☐ 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	Unknown	
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)

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

05 OTHER

☒ A. BUILDINGS ON SITE

06 AREA OF SITE

3 (Acres)

07 COMMENTS

Alleged dumping of foundry sands containing phenol binders. Site investigation by U.S. G.S. (1982-83) did not find any evidence of foundry sands being deposited there.

IV. CONTAINMENT Not Applicable

01 CONTAINMENT OF WASTES (Check one)

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

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

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE ☒ YES ☐ NO

02 COMMENTS Site adjacent to Delavan Ave; not fenced.

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

- NYSDEC AND ERIE COUNTY DEP OFFICE FILES

EPA FORM 2070-13 (7-81)

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
N.Y.	915073

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)	SURFACE	WELL	02 STATUS	ENDANGERED	AFFECTED	MONITORED	03 DISTANCE TO SITE
COMMUNITY	A. X	B. ☐		A. ☐	B. ☐	C. ☐	A. 5 (mi)
NON-COMMUNITY	C. ☐	D. ☐		D. ☐	E. ☐	F. ☐	B. _____ (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

☐ A. ONLY SOURCE FOR DRINKING ☐ B. DRINKING (Other sources available) COMMERCIAL, INDUSTRIAL, IRRIGATION (No other water sources available) ☐ C. COMMERCIAL, INDUSTRIAL, IRRIGATION (Limited other sources available) X D. NOT USED, UNUSEABLE

02 POPULATION SERVED BY GROUND WATER	03 DISTANCE TO NEAREST DRINKING WATER WELL
NA	14 (mi)

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFER
Unknown (ft)	Unknown	Unknown (ft)	Unknown (gpd)	☐ YES X NO

09 DESCRIPTION OF WELLS (Including useage, depth, and location relative to population and buildings)

10 RECHARGE AREA		11 DISCHARGE AREA	
X YES ☐ NO	COMMENTS	☐ YES ☐ NO	COMMENTS

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

X A. RESERVOIR, RECREATION DRINKING WATER SOURCE ☐ B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES ☐ C. COMMERCIAL, INDUSTRIAL ☐ D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME	AFFECTED	DISTANCE TO SITE
Scajaquada Creek	☐	1.4 (mi)
Niagara River	☐	4.0 (mi)
	☐	(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN			02 DISTANCE TO NEAREST POPULATION
ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE	
A. >10,000 NO. OF PERSONS	B. >10,000 NO. OF PERSONS	C. >10,000 NO. OF PERSONS	0 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE	04 DISTANCE TO NEAREST OFF-SITE BUILDING
>1000	0 (mi)

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural village, densely populated urban area)

The site is located in the city of Buffalo; a densely populated residential and industrial area.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION
01 STATE: NY. | 02 SITE NUMBER: 915073

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Choose one)

☐ A. $10^{-6} - 10^{-8}$ cm/sec ☒ B. $10^{-4} - 10^{-6}$ cm/sec ☐ C. $10^{-4} - 10^{-3}$ cm/sec ☐ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Choose one)

☐ A. IMPERMEABLE (Less than 10^{-6} cm/sec) ☐ B. RELATIVELY IMPERMEABLE ($10^{-4} - 10^{-6}$ cm/sec) ☒ C. RELATIVELY PERMEABLE ($10^{-2} - 10^{-4}$ cm/sec) ☐ D. VERY PERMEABLE (Greater than 10^{-2} cm/sec)

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH	
3 (ft)	Unknown (ft)	Unknown	

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
9 (in)	2.1 (in)	2 %	South	2 %

09 FLOOD POTENTIAL: None
SITE IS IN _____ YEAR FLOODPLAIN

10 ☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE: A. _____ (mi)
OTHER: B. > 5 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species): N/A (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	AG LAND
A. 0 (mi)	B. < 0.1 (mi)	C. > 5 (mi)	D. > 5 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

Site is located in a residential/industrial area of east Buffalo. The topography is flat, urban with an approximate 2% slope to the south.

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

- HRS USERS MANUAL
- LASALA 1968
- NYS ATLAS & COMMUNITY WATER SYSTEM SOURCES 1982
- NYS DEC REGION 9 FILES

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	915073

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL	2	U.S.G.S.	8-30-82 6-8-83
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☐ GROUND ☐ AERIAL — 02 IN CUSTODY OF _____ (Name of organization or individual)

03 MAPS ☒ YES ☐ NO — 04 LOCATION OF MAPS: Topographic maps located at Recm Research, Inc.

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

U.S. Geological Survey drilled eight test borings on the site. Seven of the borings hit refusal at 3 ft. The eighth was drilled to 4 ft. below grade and a split-spoon sample taken on 8/30/82. The sample was described as clay soil with rock fragments.

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

- EPA DOCUMENT # 905/4-85-001 (NIAGARA RIVER GROUNDWATER STUDY)
- NYSDEC REGION 9 OFFICE FILES

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
N.Y.	915073

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER	08 NAME (PARENT COMPANY, if applicable)	09 D+B NUMBER
Hard Manufacturing Co.			
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	**04 SIC CODE**	**10 STREET ADDRESS (P.O. Box, RFD #, etc.)**	**11 SIC CODE**
230 Grider Street	2599		
05 CITY / 06 STATE / 07 ZIP CODE		**12 CITY / 13 STATE / 14 ZIP CODE**	
Buffalo, N.Y. 14215			
01 NAME	**02 D+B NUMBER**	**08 NAME**	**09 D+B NUMBER**
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	**04 SIC CODE**	**10 STREET ADDRESS (P.O. Box, RFD #, etc.)**	**11 SIC CODE**
05 CITY / 06 STATE / 07 ZIP CODE		**12 CITY / 13 STATE / 14 ZIP CODE**	
01 NAME	**02 D+B NUMBER**	**08 NAME**	**09 D+B NUMBER**
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	**04 SIC CODE**	**10 STREET ADDRESS (P.O. Box, RFD #, etc.)**	**11 SIC CODE**
05 CITY / 06 STATE / 07 ZIP CODE		**12 CITY / 13 STATE / 14 ZIP CODE**	
01 NAME	**02 D+B NUMBER**	**08 NAME**	**09 D+B NUMBER**
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	**04 SIC CODE**	**10 STREET ADDRESS (P.O. Box, RFD #, etc.)**	**11 SIC CODE**
05 CITY / 06 STATE / 07 ZIP CODE		**12 CITY / 13 STATE / 14 ZIP CODE**	

III. PREVIOUS OWNER(S) (List most recent first) / IV. REALTY OWNER(S) (If applicable; list most recent first)

01 NAME	02 D+B NUMBER	01 NAME (REALTY)	02 D+B NUMBER
Curtis-Wright Corp.			
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	**04 SIC CODE**	**03 STREET ADDRESS (P.O. Box, RFD #, etc.)**	**04 SIC CODE**
60 Grider Street	3356		
05 CITY / 06 STATE / 07 ZIP CODE		**05 CITY / 06 STATE / 07 ZIP CODE**	
Buffalo, N.Y.			
01 NAME	**02 D+B NUMBER**	**01 NAME**	**02 D+B NUMBER**
Otis Elevator Co.			
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	**04 SIC CODE**	**03 STREET ADDRESS (P.O. Box, RFD #, etc.)**	**04 SIC CODE**
140-35 Queens Blvd.	3534		
05 CITY / 06 STATE / 07 ZIP CODE		**05 CITY / 06 STATE / 07 ZIP CODE**	
Jamaica, N.Y. 11435			
01 NAME	**02 D+B NUMBER**	**01 NAME**	**02 D+B NUMBER**
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	**04 SIC CODE**	**03 STREET ADDRESS (P.O. Box, RFD #, etc.)**	**04 SIC CODE**
05 CITY / 06 STATE / 07 ZIP CODE		**05 CITY / 06 STATE / 07 ZIP CODE**	

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

- US DEPT OF AGRICULTURE, SOIL CONSERVATION SERVICE SOIL MAP FOR ERIE COUNTY, NEW YORK, 1979
- LETTER OF DOCUMENTATION ; WILLIAM GRODIN, HARD MANUFACTURING CO. 1980

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY.	915073

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER	04 SIC CODE
(Same as Owner)		

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER

OPERATOR'S PARENT COMPANY (If applicable)

10 NAME	11 D+B NUMBER	13 SIC CODE

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	14 CITY	15 STATE	16 ZIP CODE

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)

01 NAME	02 D+B NUMBER	04 SIC CODE

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)

10 NAME	11 D+B NUMBER	13 SIC CODE

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER	04 SIC CODE

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER	13 SIC CODE

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER	04 SIC CODE

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER	13 SIC CODE

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	14 CITY	15 STATE	16 ZIP CODE

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

EPA FORM 2070-13 (7-81)

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY.	915073

II. ON-SITE GENERATOR N/A

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)

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

IV. TRANSPORTER(S)

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

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

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY.	915073

II. PAST RESPONSE ACTIVITIES None Known

01 ☐ A. WATER SUPPLY CLOSED 04 DESCRIPTION Unknown	02 DATE	03 AGENCY
01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED 04 DESCRIPTION Unknown	02 DATE	03 AGENCY
01 ☐ C. PERMANENT WATER SUPPLY PROVIDED 04 DESCRIPTION Unknown	02 DATE	03 AGENCY
01 ☐ D. SPILLED MATERIAL REMOVED 04 DESCRIPTION Unknown	02 DATE	03 AGENCY
01 ☐ E. CONTAMINATED SOIL REMOVED 04 DESCRIPTION Unknown	02 DATE	03 AGENCY
01 ☐ F. WASTE REPACKAGED 04 DESCRIPTION Unknown	02 DATE	03 AGENCY
01 ☐ G. WASTE DISPOSED ELSEWHERE 04 DESCRIPTION Unknown	02 DATE	03 AGENCY
01 ☐ H. ON SITE BURIAL 04 DESCRIPTION Unknown	02 DATE	03 AGENCY
01 ☐ I. IN SITU CHEMICAL TREATMENT 04 DESCRIPTION Unknown	02 DATE	03 AGENCY
01 ☐ J. IN SITU BIOLOGICAL TREATMENT 04 DESCRIPTION Unknown	02 DATE	03 AGENCY
01 ☐ K. IN SITU PHYSICAL TREATMENT 04 DESCRIPTION Unknown	02 DATE	03 AGENCY
01 ☐ L. ENCAPSULATION 04 DESCRIPTION Unknown	02 DATE	03 AGENCY
01 ☐ M. EMERGENCY WASTE TREATMENT 04 DESCRIPTION Unknown	02 DATE	03 AGENCY
01 ☐ N. CUTOFF WALLS 04 DESCRIPTION Unknown	02 DATE	03 AGENCY
01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION 04 DESCRIPTION Unknown	02 DATE	03 AGENCY
01 ☐ P. CUTOFF TRENCHES/SUMP 04 DESCRIPTION Unknown	02 DATE	03 AGENCY
01 ☐ Q. SUBSURFACE CUTOFF WALL 04 DESCRIPTION Unknown	02 DATE	03 AGENCY

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 915073

II PAST RESPONSE ACTIVITIES (Continued)

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

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

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

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

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

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

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

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

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

01 ☐ 1. ACCESS TO SITE RESTRICTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

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

01 ☐ 3. OTHER REMEDIAL ACTIVITIES — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

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

Unknown based on available information

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	915073

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☒ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

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

SECTION 6

6.0 ADEQUACY OF AVAILABLE DATA

Based on the available information, the Otis Elevator site was scored according to the Hazard Ranking System (HRS) and received a migration potential score (Sm) of 0. However, in completing the HRS worksheet, inadequacies in the data base were identified. Data inadequacies include:

- lack of information concerning groundwater quality at the site
- lack of information concerning geology of the immediate site area.
- lack of information regarding characteristics and quantity of suspected waste.
- lack of information regarding the precise area where waste was deposited.

SECTION 7

7.0 PROPOSED PHASE II WORK PLAN

Site investigations by the Erie County DEP, the U.S. Geological Survey, and Recra have failed to identify any indications of hazardous materials at the Otis Elevator site (References 1, 2, and 3). No foundry sand material was found in eight test borings drilled at the site by the U.S. Geological Survey in 1982 (References 2 and 3). Samples were analyzed for phenol and GC/MS organics with none detected.

Based on the results of past investigations, a detailed Phase II study at the site is not recommended. For assurance purposes, however, it may be warranted to excavate four or five test pits to bedrock using a back hoe. Should foundry sands be located, an E.P. Toxicity test should be run for foundry sand related chemicals to determine if hazardous materials are present. As the Erie County DEP has suggested, it is possible that any phenols present in the sands have leached away or degraded biologically over the past forty years (Reference 1).

APPENDIX A

APPENDIX A

DATA SOURCES AND REFERENCES

REFERENCES

1. Hazardous Waste Site Profile: Otis Elevator. Prepared by the Erie County Department of Environment and Planning, December, 1982.

2. Inactive Hazardous Waste Disposal Sites in New York State, Volume 9. Prepared by Division of Solid and Hazardous Waste, New York State Department of Environmental Conservation, December, 1984.

3. United States Environmental Protection Agency, 1985. Preliminary Evaluation of Chemical Migration to Groundwater and the Niagara River from Selected Wase-Disposal Sites. EPA 905/4-85-001.

4. Field Report: Otis Elevator Site. Recra Research, Inc. November 20, 1985.

5. New York State Atlas of Community Water System Sources, 1982. New York State Department of Health.

6. Uncontrolled Hazardous Waste Site Ranking System-Users Manual, Draft. June 10, 1982.

7. LaSala, A.M. Jr., 1968. Groundwater Resources of the Erie-Niagara Basin, New York. Prepared for the Erie-Niagara Basin Regional Water Resources Planning Board. Basin Planning Report ENB-3.

8. United States Department of Agriculture, Soil Conservation Service, 1979. General Soil Map and Interpretations, Erie County, New York.

9. Letter of Documentation to Mr. William Grodin, Hard Manufacturing, Co., Inc. February 4, 1986.

10. United States Geological Survey 7.5 minute Topographic Map, Buffalo NE, New York, 1965.

11. NYSDEC Division of Water Resources. Classes and Standards of Quality and Purity: Lake Erie - Niagara River Drainage Basin Series, 6 NYCRR 835 and 701.

12. Documentation of Freshwater Wetlands and Critical Habitats of Endangered Species from NYSDEC, Region 9. December 18, 1985.

REFERENCE 1

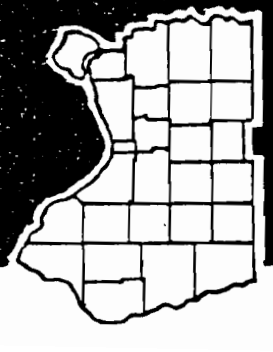
L. Clare

ENVIRONMENTAL CONTROL SERIES

HAZARDOUS WASTE INACTIVE SITE SURVEY PHASE II - REPORT

DECEMBER, 1982

DIVISION OF ENVIRONMENTAL CONTROL
SOLID WASTE SECTION



County of Erie
DEPARTMENT OF
ENVIRONMENT AND PLANNING

OTIS ELEVATOR

DEC SITE #915073

BACKGROUND INFORMATION

The Interagency Task Force on Hazardous Waste (IATF) in Volume III of Hazardous Waste Disposal Sites in New York State included the Otis Elevator site located on 239 Grider Street in the City of Buffalo. This site was suspected to have received spent foundry sand molds during the period 1942 through 1946. It has been classified as an "F" site by the IATF indicating that previous investigation has shown no substantial disposal of hazardous materials and that the site poses no danger. The IATF also recommend no further action for the site.

GENERAL DATA

The site is located within the City of Buffalo on Grider Street and is currently owned by Hard Manufacturing Company. Land use within one (1) mile of the site is a mix of commercial, industrial and residential. Public water is supplied by the City of Buffalo within the city. The source of this water supply is Lake Erie. There are no known wells supplying water within a one (1) mile radius of the suspected disposal site.

Disposal of foundry sand was suspected while the U.S.Army operated the Buffalo Elevator Ordinance Plant. Former owners of this site did not have any additional knowledge or information regarding this suspected activity. The current owner does not have any additional information.

SITE DATA

The site was inspected by the DEP in August 1979 and again in December 1981. Both of these inspections failed to find observable indications of any previous disposal activity. Additional parking areas and buildings have been constructed on the site since the time of reported use. The current manufacturing manager has indicated that rock lies 2-3 feet below grade. As with most of the terrain within the city limits the site is flat with no present (or known historical) topographic features.

CONCLUSIONS

Based on the visual and the documented data available there is little evidence to support any extensive past disposal of foundry sand at this site.

Assuming that foundry sands containing a phenolic binder were disposed of on site it is likely that over the past 35 years any phenols in the sand would have leached away or would have degraded biologically.

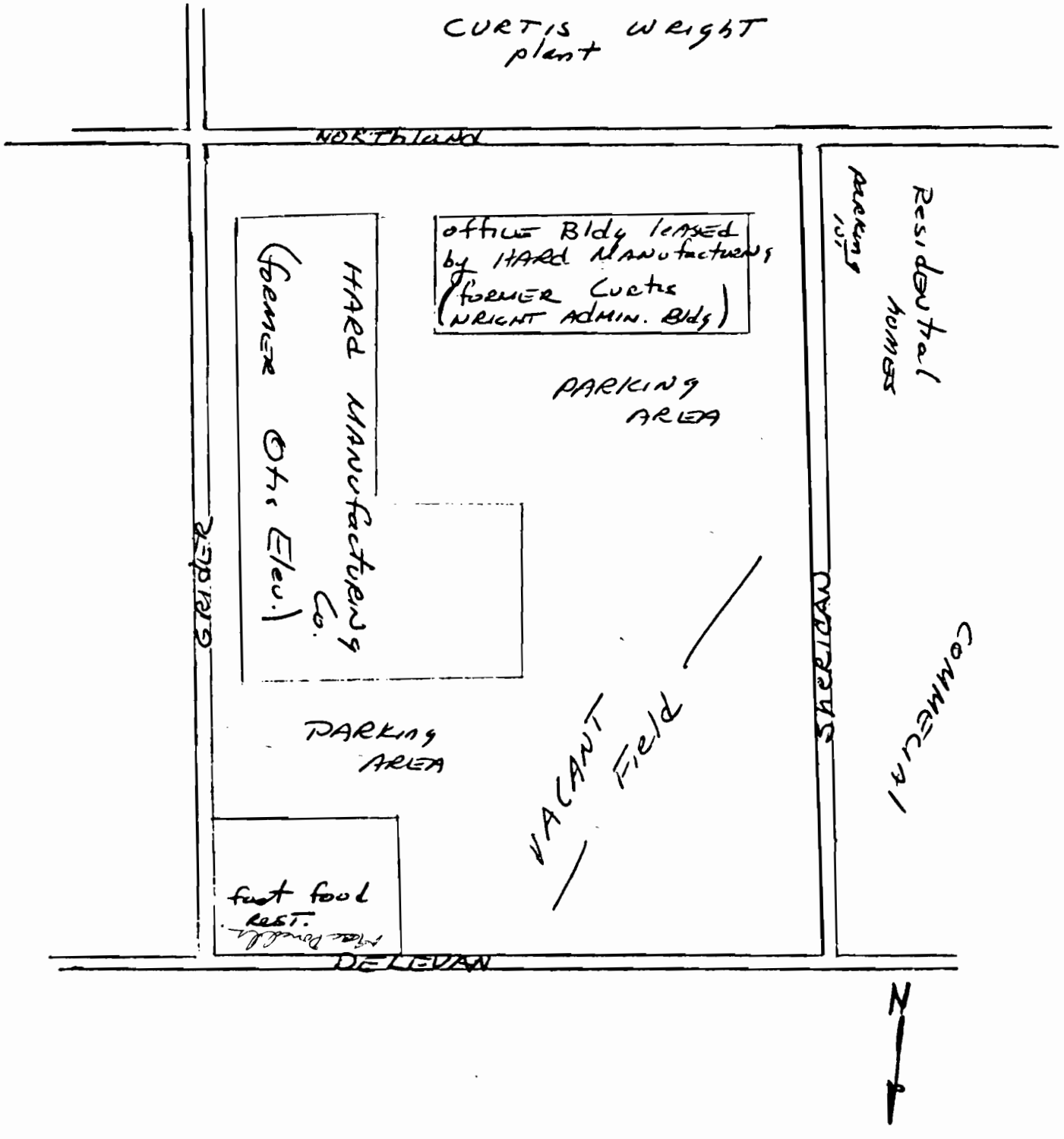
RECOMMENDATIONS

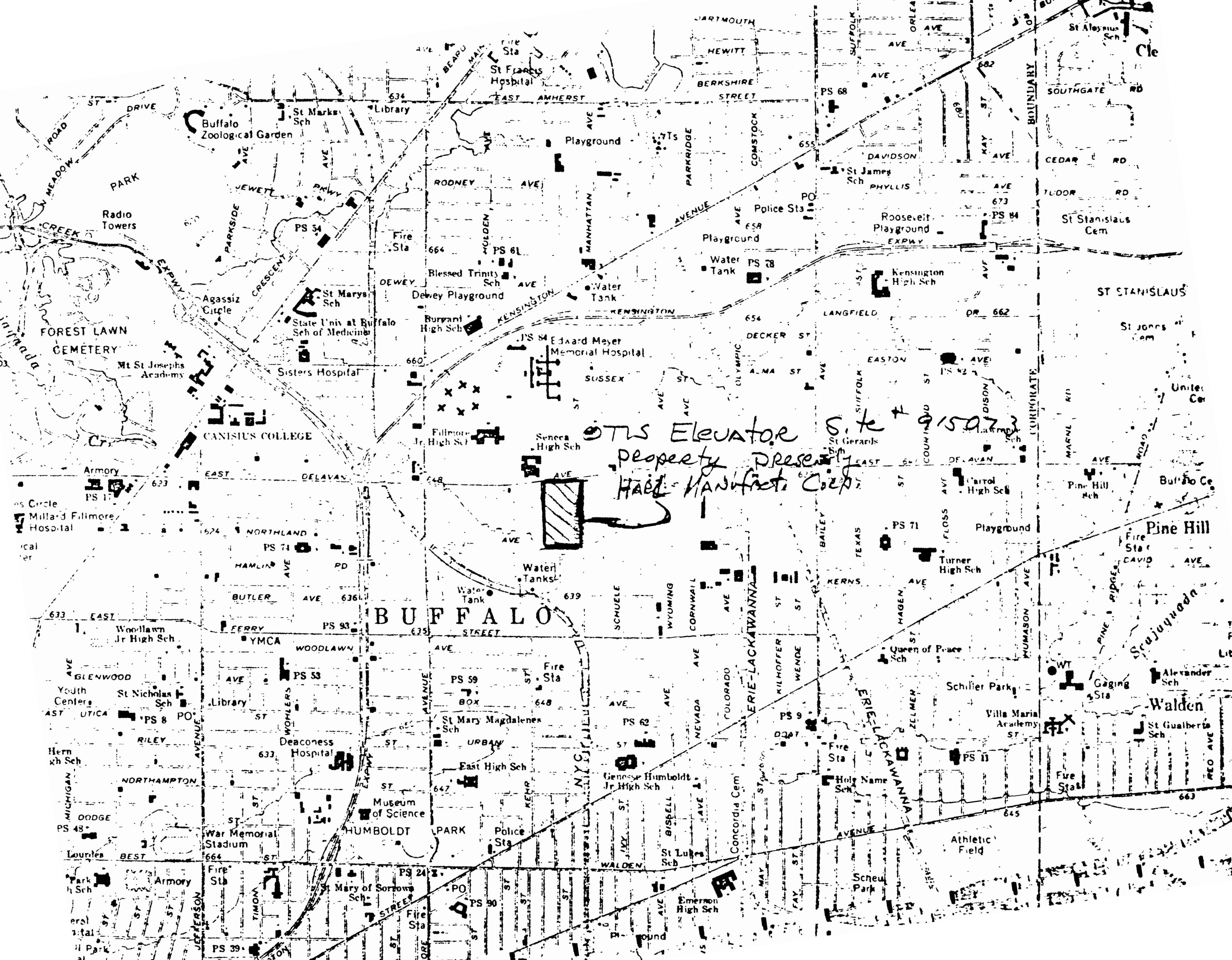
Given the information at hand we concur with the IATF findings, and classification recommendation.

No additional action is recommended for this site.

OTIS Elevator
SITE sketch

DEC SITE #915073




OTIS Elevator Site # 915073
Property Presently
Held - Manufacts Corp.
BUFFALO
FOREST LAWN CEMETERY
Buffalo Zoological Garden
PARK
Radio Towers
Agassiz Circle
Mt St Josephs Academy
CANISIUS COLLEGE
State Univ at Buffalo Sch of Medicine
Sisters Hospital
St Marys Sch
St Marks Sch
Library
St Francis Hospital
Fire Sta
Blessed Trinity Sch
Dewey Playground
Burgard High Sch
Edward Meyer Memorial Hospital
Fillmore Jr High Sch
Seneca High Sch
Water Tanks
Water Tank
Playground
Police Sta
Roosevelt Playground
Kensington High Sch
St James Sch
St Stanislaus Cem
ST STANISLAUS
St Gerards
Carrol High Sch
Turner High Sch
Queen of Peace Sch
Schiller Park
Villa Maria Academy
Pine Hill
Walden
St Gualberts Sch
Alexander Sch
Gaging Sta
Athletic Field
Scheu Park
Holy Name Sch
Concordia Cem
St Lukes Sch
Emerson High Sch
Genesse Humboldt Jr High Sch
East High Sch
St Mary Magdalenes Sch
Museum of Science
HUMBOLDT PARK
War Memorial Stadium
Deaconess Hospital
St Mary of Sorrows Sch
Youth Center
St Nicholas Sch
Woodlawn Jr High Sch
YMCA
Armory
Millard Fillmore Hospital
ERIE-LACKAWANNA
NYC
CORPORATE BOUNDARY
EAST AMHERST STREET
DELAVAN AVE
FERRY STREET
KENSINGTON EXPWY
Scajaquada

cjs

INTERAGENCY TASK FORCE ON HAZARDOUS WASTES

DRAFT REPORT

ON

HAZARDOUS WASTE DISPOSAL

IN

ERIE AND NIAGARA COUNTIES, NEW YORK

ERRATA

1. The Village of Depew, Ed Ball, Eden Sanitation and Empire Waste sites on page II-38 of the Draft Report should all be in the Priority III category.

2. The two Shanco Plastics disposal sites identified on pages II-15 and II-16 of the Draft Report are located at 2716 Kenmore Avenue, Tonawanda, and not at 111 Wales Avenue, Tonawanda.

3. Hooker's V-80 Area site identified on page II-29 of the Draft Report should be in the Priority I category.

March 1979

(ii) Lake Ontario Ordinance Works (LOOW)

The TNT production facility at the LOOW site in Lewiston and Porter was owned by the Army from 1941 to 1946. Active production of TNT (Trinitrotoluene) occurred at the site from October 1942 to September 1943 when the facility was operated by the Chemical Construction Corporation. In addition to TNT production, ammonia oxidation and sodium sulfite intermediates production also occurred at the site. TNT contaminated wastes were burned on site. Unknown quantities of nitric and sulfuric waste acids were neutralized and discharged through plant industrial sewers to the Niagara River. TNT wash waters and red water (containing organic by-products) in a combined flow of approximately 130,000 gallons per day were discharged to a surface drainage ditch leading to the Four Mile Creek and thence to Lake Ontario.

After production of TNT at the LOOW site ceased in 1943, parts of the site were used by the Army for other purposes. From June 1944 to August 1945, a parcel (designated the Northeast Chemical Warfare Depot) was used for the storage of incendiary and napalm bombs, impregnite and aluminum scrap. From April 1955 until Nike-Ajax rocket sites in the area were decommissioned, the Model City Igloo Area of the LOOW site was used as a consolidation point for liquid fuel components for Nike-Ajax rockets. This fuel was then shipped from the Igloo Area to outside destinations, primarily the Edgewood Arsenal in Maryland. Part of the site was used for Nike Battery NF-03 from April 1957 to September 1966. When this site as well as other Nike-Ajax sites in the area were decommissioned, the liquid contents of the Ajax rockets were shipped to the Igloo Area for consolidation as described above. There is no evidence indicating that solid waste disposal resulted from any of the above activities.

The 40th Explosive Ordinance Detachment, stationed at Fort Niagara in October 1953 and relocated to the Niagara Falls International Airport in 1960, used a disposal site in the Model City Igloo Area for destruction of miscellaneous munitions and other explosive devices by burning and detonation until 1969.

(iii) Buffalo Otis Elevator Ordinance Plant

This facility was constructed by the Army in 1942 and operated by the Otis Elevator Company in conjunction with its adjacent foundry. The facility produced steel castings for antiaircraft and other armament parts. The only waste materials generated were sand molding cores which are believed to have been buried in an Otis Elevator owned lot adjacent to its foundry on Dutton and Northland Avenues, Buffalo.

REFERENCE 2

INACTIVE HAZARDOUS WASTE DISPOSAL SITES

IN

NEW YORK STATE

Appendix Volume 9 - List of Sites by County

Allegany
Cattaraugus
Chautauqua
Erie
Niagara
Wyoming

Prepared by

Division of Solid and Hazardous Waste

New York State Department of Environmental Conservation

with the cooperation of

Division of Environmental Health Assessment

New York State Department of Health

December 1984

Albany, New York

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID AND HAZARDOUS WASTE
INACTIVE HAZARDOUS WASTE DISPOSAL SITE REPORT

CLASSIFICATION CODE: 2a **REGION: 9** **SITE CODE: 915073**

NAME OF SITE : Otis Elevator
STREET ADDRESS: Grider Street
TOWN/CITY: Buffalo **COUNTY:** Erie **ZIP:**

SITE TYPE: Open Dump-X Structure- Lagoon- Landfill- Treatment Pond-
ESTIMATED SIZE: Acres

SITE OWNER/OPERATOR INFORMATION:
CURRENT OWNER NAME....: Hard Manufacturing Company 893-1800
CURRENT OWNER ADDRESS.: 230 Grider Street, Buffalo, NY
OWNER(S) DURING USE...: Not known
OPERATOR DURING USE...: Not known
OPERATOR ADDRESS.....: Not known
PERIOD ASSOCIATED WITH HAZARDOUS WASTE: From Unknown To 1942

SITE DESCRIPTION:
Disposal of foundry sand was reportedly made on this site in the past, but is undetectable now. The site is soil covered, graded and planted. In 1983 U.S.G.S. made eight test borings and seven of them hit refuse at three feet below grade. A soil sample was taken from the eighth test boring and was analyzed for the presence of phenolic compounds. No phenol was found. The site was resampled by the U.S.G.S. in June 1983 and the one sample collected was analyzed for GC/MS organics. No organic compounds were detected.

HAZARDOUS WASTE DISPOSED: **Confirmed-** **Suspected -X**

TYPE	QUANTITY (units)
Foundry with phenol binders	Not known

ANALYTICAL DATA AVAILABLE:

Air- Surface Water- Groundwater- Soil-X Sediment- None-

CONTRAVENTION OF STANDARDS:

Groundwater- Drinking Water- Surface Water- Air-

LEGAL ACTION:

TYPE..: None State- Federal-
STATUS: In Progress- Completed-

REMEDIAL ACTION:

Proposed- Under Design- In Progress- Completed-
NATURE OF ACTION: None

GEOTECHNICAL INFORMATION:
SOIL TYPE: Clay soil with rock fragment
GROUNDWATER DEPTH: Not known

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

Based on the data available, there is no evidence of any environmental problem at this site.

ASSESSMENT OF HEALTH PROBLEMS:

Insufficient information.

PERSON(S) COMPLETING THIS FORM:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

NAME.: E.J. Fernon, Jr.
TITLE: Sr. Sanitary Engr.

NAME.: Peter Buechi
TITLE: Asst. Sanitary Engr.

DATE.: 01/24/85

NEW YORK STATE DEPARTMENT OF HEALTH

NAME.: R. Tramontano
TITLE: Bur. Tox. Subst. Assess.

NAME.:
TITLE:

DATE.: 01/24/85

HAZARDOUS WASTE DISPOSAL SITES REPORT
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Code: F

Site Code: 915073

Name of Site: Otis Elevator Region: 9

County: Erie Town/City Buffalo

Street Address: Grider Street

Status of Site Narrative:

Past on-site disposal of foundry sand reported, but undetectable now. Site soil covered, graded and planted.

Type of Site: Open Dump [x] Treatment Pond(s) [ ] Number of Ponds ____
Landfill [ ] Lagoon(s) [ ] Number of Lagoons ____
Structure [ ]

Estimated Size 3 Acres

Hazardous Wastes Disposed? Confirmed [ ] Suspected [x]

*Type and Quantity of Hazardous Wastes:

TYPE	QUANTITY (Pounds, drums, tons, gallons)
Foundry sand with phenol binders	Unknown

*Use additional sheets if more space is needed.

COUNTY OF ERIE
DEPARTMENT OF ENVIRONMENT & PLANNING
DIVISION OF ENVIRONMENTAL CONTROL

MEMORANDUM

FROM DONALD CAMPBELL, P.E. **DATE** September 2, 1982

TO LAWRENCE G. CLARE, P.E.

SUBJECT OTIS ELEVATOR (USGS ASSISTANCE)

On August 30, 1982 our Department assisted U.S.G.S. in the location of borings on the former Otis Elevator (now Hard Mfg.) property.

There were at least seven (7) attempts to drill beyond 4 - 5 feet. Auger refusal was constantly encountered. It is believed that bedrock, very close to the surface was responsible, but this was not confirmed.

Soil samples were taken from three (3) of the borings. It is believed from field observation that the soil was of a dirt-fill material.

However the allegation of substantial deposition of foundry sand was not observed as originally believed.

DONALD CAMPBELL, P.E.
Sr. Env. Quality Engineer
Environmental Control

DC:bw

REFERENCE 3

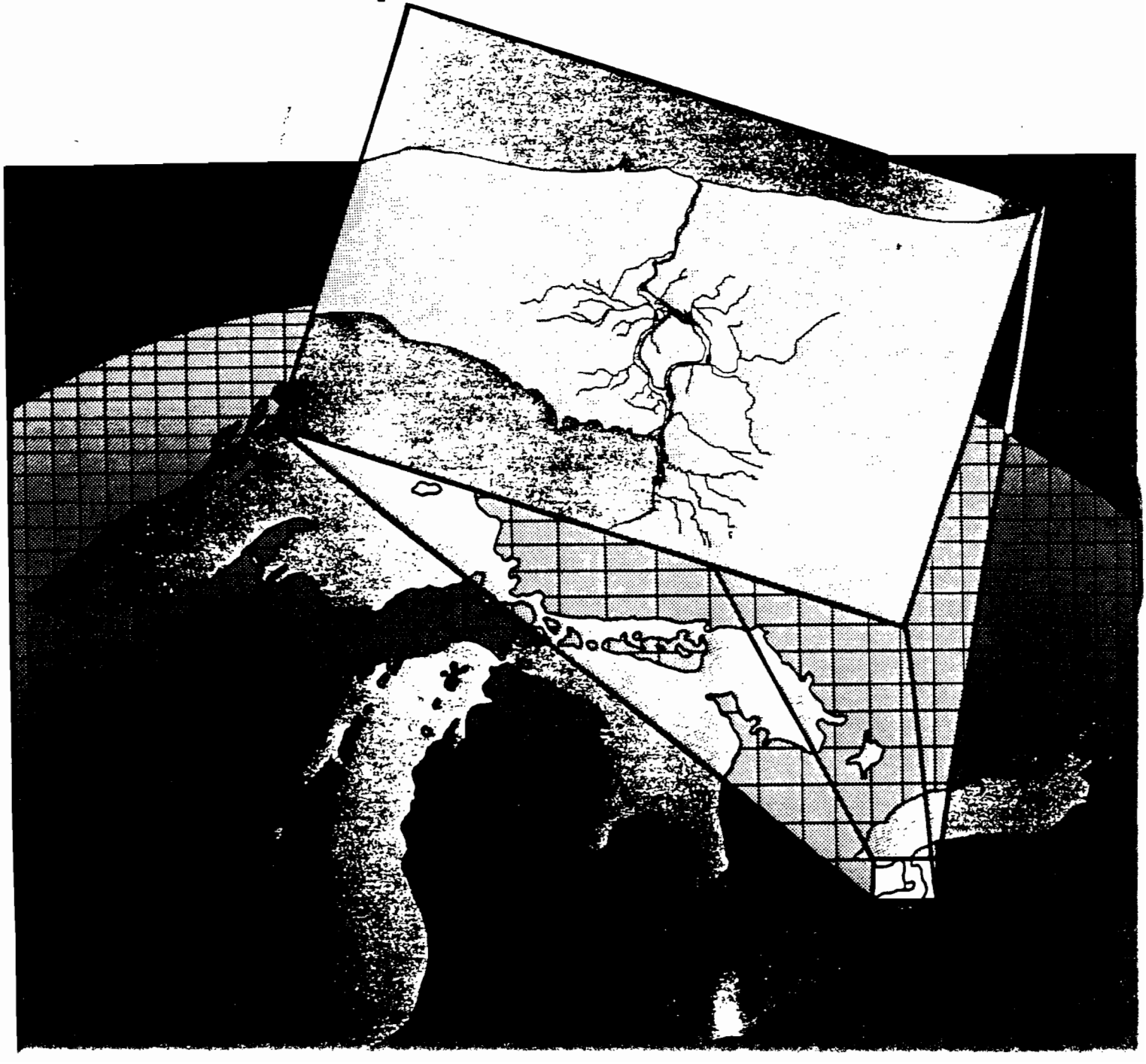
United States
Environmental Protection
Agency

Great Lakes National
Program Office
536 South Clark Street
Chicago, Illinois 60605

EPA-905/4-85-001
March 1985

EPA

Preliminary Evaluation Of Chemical Migration To Groundwater and The Niagara River from Selected Waste-Disposal Sites



144. OTIS ELEVATOR (USGS field reconnaissance) NYSDEC 915073

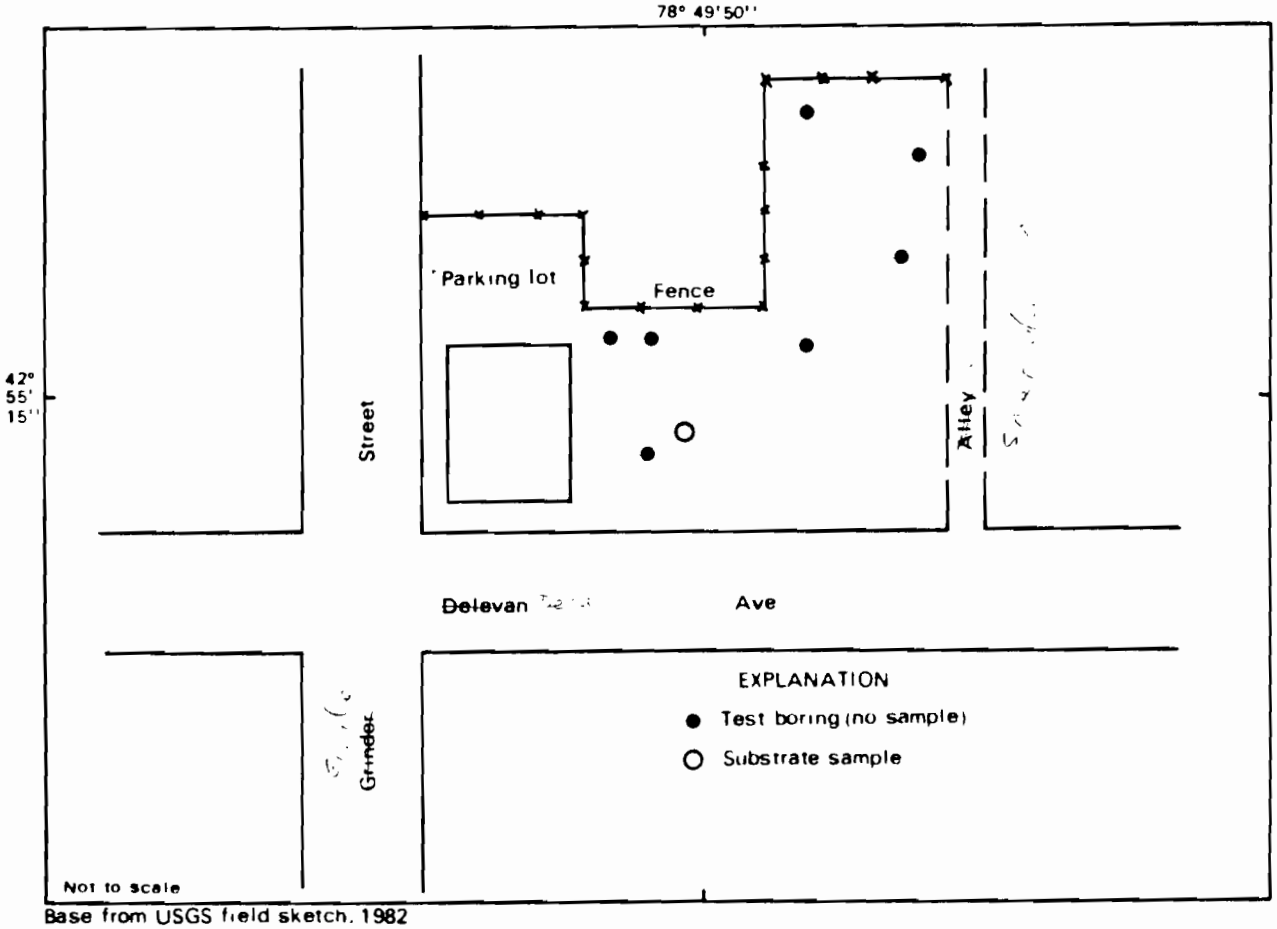
General information and contaminant-migration potential.--The Otis Elevator site, in the eastern part of the city of Buffalo, was used to dispose of an unknown quantity of foundry sand containing phenol binders until 1942. Since then, the site has been covered with soil, graded, and planted.

Data are insufficient to confirm contamination or contaminant migration. The potential for contaminant migration is indeterminable.

Geologic information.--The U.S. Geological Survey drilled eight test borings on the site; the locations are shown in figure A-9. Seven of the borings hit refusal at 3 ft below grade, which was attributed to the rocky fill. The eighth was drilled to 4 ft below grade, and a split-spoon sample was taken. The core was described as soil with rock fragments.

Hydrologic information.--No hydrologic data were collected at the site because all test-bore cuttings were dry.

Chemical information.--The U.S. Geological Survey collected the soil sample on August 30, 1982, for phenolic compound analysis; no phenols were detected. The Survey collected another substrate sample on June 8, 1983, for organic priority pollutant analysis; no compounds were detected.



Base from USGS field sketch, 1982

Figure A-9. Location of sampling holes at Otis Elevator, site 144, Buffalo.

BUFFALO AREA

Geology

The Buffalo study area (pl. 1) consists of units of sedimentary bedrock composed of shale, limestone, and dolomite overlain by unconsolidated deposits of clay, sand, and till. The bedrock units are of Silurian and Devonian age; the unconsolidated deposits are primarily of Pleistocene age. The extent of the sedimentary bedrock units is shown in figure 3; the distribution of the unconsolidated units is shown in figure 4.

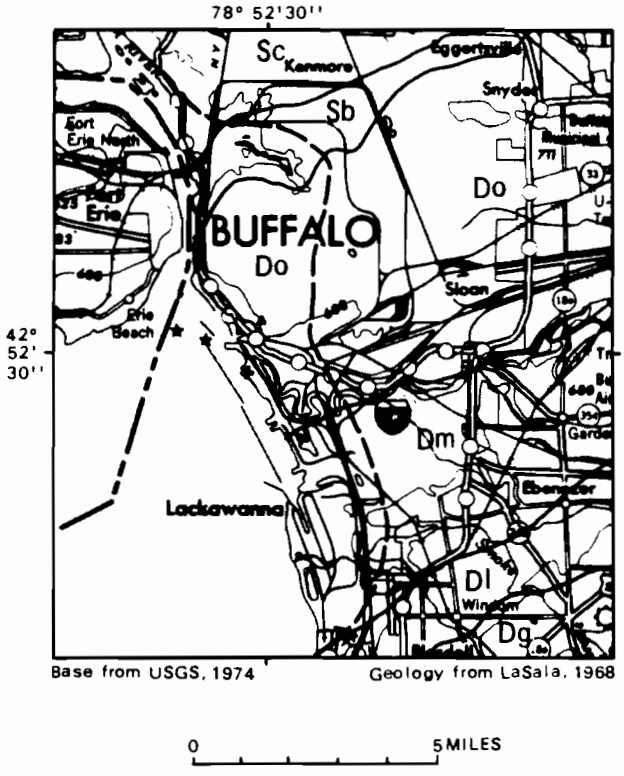
The bedrock units of concern in this study are: Camillus Shale, Bertie Limestone, and Akron Dolomite (described as one unit); Onondaga Limestone; Marcellus Shale, and the Skaneateles Formation. The unconsolidated deposits of interest are of glacial origin and consist of a glaciolacustrine clay-sand deposit, end-moraine deposits, and an outwash-terrace-delta gravel deposit.

Bedrock Units.--The oldest sedimentary bedrock unit encountered in this study is the Camillus Shale of Silurian age (fig. 3), which occurs only in the northern part of the Buffalo area. This unit has been described by LaSala (1968) as a gray, red, and green thin-bedded shale containing massive mudstone; the unit also contains beds and lenses of gypsum approaching 5 ft in thickness. Subsurface information indicates a dolomitic mudrock to be interbedded within the unit also. The Camillus Shale, estimated to be about 400 ft in thickness, dips southward throughout the area at approximately 40 ft/mi. Information from gypsum miners indicates that the dip of the formation is undulatory within a range of a few feet.

Two other units of Silurian age overlie the Camillus Shale--the Bertie Limestone and the overlying Akron Dolomite. The Bertie Limestone is a gray and brown dolomite with some interbedded shale; the Akron Dolomite is a greenish-gray and buff fine-grained dolomite (LaSala, 1968). The Bertie Limestone, the thicker of the two units, ranges from 50 to 60 ft thick, whereas the Akron Dolomite is estimated to be 8 ft thick. Both formations dip southward, as does the underlying Camillus Shale.

The Onondaga Limestone of middle Devonian age overlies this limestone-dolomite unit; the two units are separated by an unconformity or an erosional contact. The Onondaga Limestone consists of three members. The lowest, which overlies the Akron Dolomite, is a gray, coarse-grained limestone generally a few feet thick. This member, according to Buehlor and Tesmer (1963), grades laterally into reef deposits, thereby increasing its thickness. The middle member consists of a gray limestone and blue chert and reaches a thickness of 40 to 45 ft. The upper member is a dark gray to tan limestone ranging in thickness from 50 to 60 ft. The overall thickness of the Onondaga Limestone is approximately 110 ft.

The Marcellus Shale overlies this limestone unit; the formation is described by LaSala (1968) as being black and fissile. The unit ranges in thickness from 30 to 55 ft and dips generally southward at 40 ft/mi. The uppermost unit within the study area is the Skaneateles Formation. It is olive-gray to dark-gray and black, fissile shale with calcareous beds. The lower 10 feet of the unit is gray limestone. Total thickness is 60 to 90 feet. This unit is found in the southernmost part of the study area.



EXPLANATION

Upper Devonian

Dg

Genesee and Sonyea Formations

Dl

Ludlowville and Moscow Shale

Middle Devonian

Dm

Marcellus and Skaneateles Shales

Do

Onondaga Limestone

Upper Silurian

Sb

Bertie Limestone and Akron Dolomite

Sc

Camillus Shale

Boundary of area

Geologic contact

Figure 3. Bedrock geology of the Buffalo area. (Modified from La Sala, 1968.)

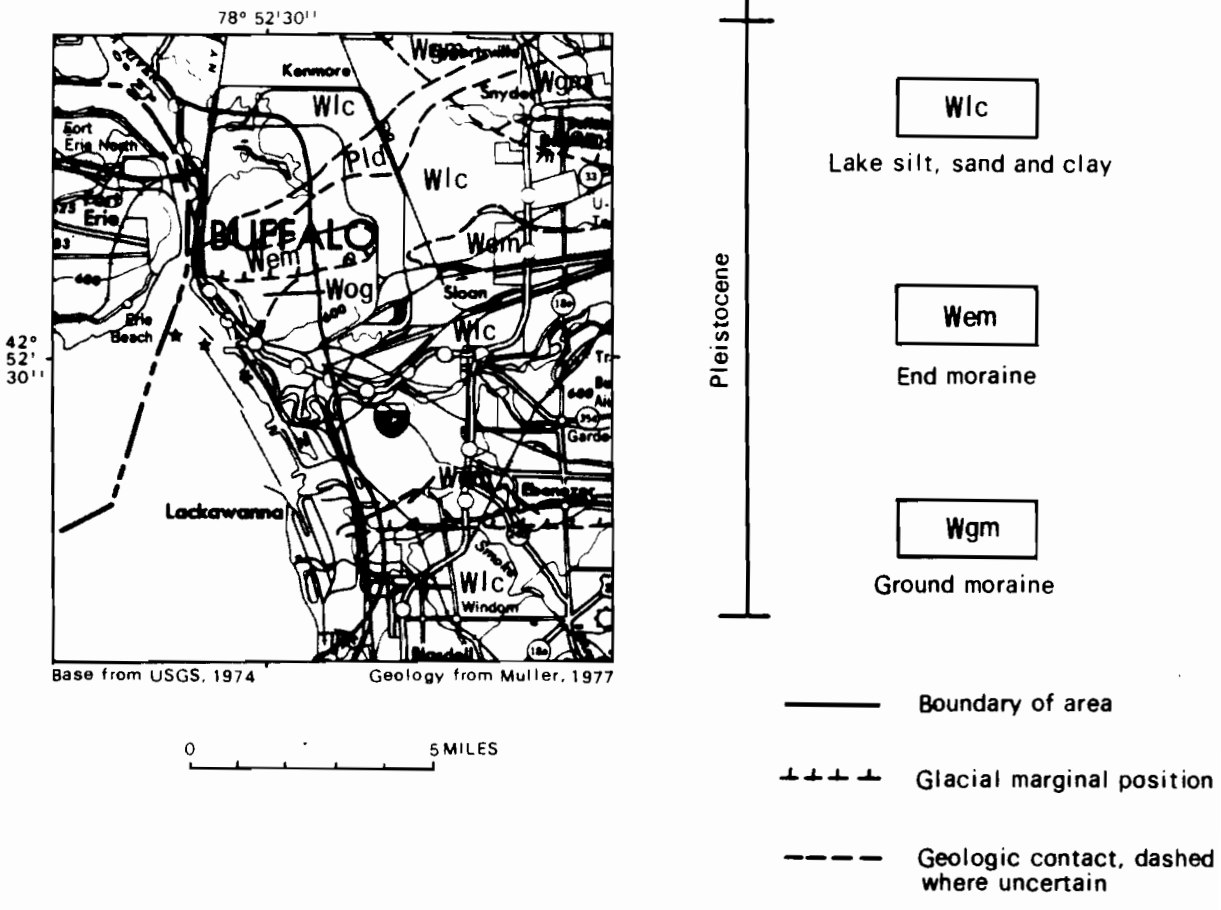


Figure 4. Surficial geology of the Buffalo area. (Modified from Muller, 1977.)

No additional data on the bedrock units within the Buffalo area were obtained. The geology of the units is summarized by La Sala (1968) in his report about ground-water resources of the Erie-Niagara basin.

Unconsolidated Deposits.--The unconsolidated units (fig. 4) consist of glacial material deposited during the latter part of the Pleistocene epoch. The main unconsolidated unit in the Buffalo area is a glaciolacustrine clay-sand deposit consisting of silt, fine to medium sand, and clay and containing laminae of alternating sand and clay.

Two other unconsolidated deposits of lesser extent are present in the area--an end-moraine deposit and a small area of outwash, terrace, and delta gravel. The end-moraine material, which consists of ablation and lodgment tills or poorly sorted gravel that contain more than 20 percent carbonate and crystalline clasts, was deposited at the edge of an ice sheet by meltwater either at the end of an advance or during a stillstand of glacial retreat. The outwash, terrace, and delta gravels, which consist of well-sorted pebbles and cobbles with sand, contain more than 30 percent carbonate and crystalline clasts. The material was deposited by meltwater streams forming coalescent aprons near the ice sheet or as stream terraces or terrace remnants.

Three test holes were drilled to bedrock in the Buffalo area to help define the subsurface geology; their locations are shown in plate 1. The geologic descriptions are as follows:

Boring no.	Depth (ft)	Description
SA-9	0 - 1.5	Topsoil
	1.5 - 6.5	Sand, brown
	6.5 - 11.5	Clay, sandy, with gravel, dark brown
	11.5 - 25.5	Clay, sand with clay, gray, wet at 11.5 ft
	25.5	Bedrock
SA-10	0 - 1.5	Topsoil
	1.5 - 6.5	Clay, sandy, red
	6.5 - 11.0	Clay, some gravel, red
	11.0	Bedrock, material was dry throughout
SA-11	0 - 16.5	Fill, black, ground water at 10 ft
	16.5 - 21.5	Clay, silty, green
	21.5 - 36.5	Clay, silty, gray-green
	36.5 - 60.0	Clay, silty, pinkish-gray
	60.0	Bedrock

The geologic information from these test holes, combined with the data from the waste-disposal sites, enables a general characterization of the area.

The unconsolidated deposits, primarily the glaciolacustrine clay, tend to decrease in thickness toward the east and north, where bedrock rises to less than 5 ft below land surface. Also, the clay unit is generally less than 2 ft below land surface except where it has been removed by landfilling and waste-disposal operations or urbanization.

Aquifer Lithology and Water-Bearing Characteristics

The ground-water system within the Buffalo area consists of a fractured bedrock aquifer and an overlying aquifer of unconsolidated deposits.

Bedrock aquifer.--The bedrock aquifer consists of all the bedrock units discussed previously. The main sources of water are the fractures and solution cavities. The specific-capacity and transmissivity values of selected bedrock aquifer units are shown below.

Bedrock unit[1]	Specific capacity[2] (gal/min)/ft		Transmissivity[2] (gal/d)/ft	
	Min	Max	Min	Max
Akron Dolomite	2	13	4,000	25,000
Camillus Shale	4	83	7,000	70,000

[1] Position of units is shown in figure 3.
[2] Data from LaSala (1968)

The specific capacity of a well is the rate of discharge of water from the well divided by the drawdown of the water level within the well. If the specific capacity is constant except for the time variation, it is roughly proportional to the transmissivity of the aquifer. Transmissivity is the rate at which water is transmitted through a unit width of the aquifer under a unit hydraulic gradient.

The data above indicate that these two properties differ considerably within and among the units. This variation reflects the amount and size of the fractures and solution cavities.

Unconsolidated aquifer.--The unconsolidated aquifer consists of a glaciolacustrine clay and sand and gravel deposits. The thicker unit is the glaciolacustrine clay. The test drilling during the summer of 1982 encountered the water table at various depths within the clay, and saturated sand stringers up to 3 inches thick were common. These stringers were not large, however, and generally thinned out within a few feet.

A seasonal water table above the clay unit was observed during wet periods but not during the summer. This water table is formed by the ponding of infiltrated precipitation above the relatively impermeable clay. As the water mounds upward, gradients toward natural or manmade topographic lows develop and eventually discharge to nearby surface-water bodies. As the season becomes drier and warmer, vegetation increases and takes up the remaining ground water through transpiration.

The hydrologic properties of the unconsolidated aquifer within the Buffalo area are also described in consultants' reports for Buffalo Color Corporation (sites 120-122), Bethlehem Steel Corporation (site 118), and the Alltift Landfill (site 162).

The general range of hydraulic conductivity was 0.0328 to 155.8 ft/d. The larger value can be attributed to slag fill material, which would have a considerably greater permeability than the glaciolacustrine clay. A permeability test was performed on a clay sample from the Alltift landfill; the permeability ranged from 1.6×10^{-4} to 1.8×10^{-4} ft/d.

The rate of ground-water movement within the unconsolidated aquifer at the Buffalo Color Corporation (sites 120-122) was calculated and ranges from 0.02 to 0.06 ft/yr.

The direction of ground-water movement in the unconsolidated aquifer is generally toward the major surface-water bodies--Lake Erie, Niagara River, and Buffalo River (fig. 4). The ground-water flow pattern is dissected in the northern part of the area, where impermeable bedrock is less than 5 ft below land surface, as indicated in figure 4. This unsaturated zone diverts the flow northward and southward.

Ground-Water Quality

The quality of ground water in the bedrock aquifer in the Buffalo area has been documented by LaSala (1968), who included maps showing the concentration ranges for sulfate, hardness, and chloride. Sulfate concentrations given in that report ranges from 100 to 500 ppm and hardness (as $CaCO_3$) from 150 to 1,000 ppm; chloride concentrations range from 100 to 1,500 ppm, and specific conductance ranges from 1,000 to 9,000 µmho/cm.

To estimate background water quality in the Buffalo area, a water sample was collected from the unconsolidated deposits in the fall of 1982 and analyzed for priority pollutants. The observation well was on Seneca Street (well SA-9, pl. 1), in the eastern part of the area just east of the Buffalo city line, and was screened above the bedrock contact. The results are given in table 14. Cadmium, lead, and zinc exceeded USEPA drinking-water criteria; minor amounts of some organic compounds were also detected. Additional sampling of the ground water in the unconsolidated aquifer would be needed to define the quality of water in this aquifer in the Buffalo area.

Three substrate samples were collected in the Buffalo area at localities not affected by waste-disposal sites to compare their concentrations of heavy metals with those in substrate samples from waste-disposal sites. Results are given in table 13.

Table 13.--Heavy-metal concentrations in samples from undisturbed soils in Buffalo, N.Y., June 1, 1983
[Locations shown in pl. 1. Concentrations in µg/kg.]

Location	Sample number	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
Forest Lawn Cemetery	SB-1	5,000	8,000	7,000	20,000	100	10,000	31,000
Martin Luther King Park	SB-2	5,000	8,000	10,000	40,000	90	20,000	42,000
Holy Cross Cemetery[1]	SB-3	9,000	30,000	40,000	290,000	280	40,000	160,000

[1] This location is downwind from a major industrial area.

Table 14.--Analyses of a ground-water sample from well SA-9 in the unconsolidated deposits along Seneca Street, West Seneca, N.Y., November 13, 1982.

[Location shown in pl. 1. Concentrations are in µg/L. Dashes indicate that constituent or compound was not found, LT indicates it was found but below the quantifiable detection limit.]

Inorganic constituents			
Antimony	2	Lead	490†
Arsenic	17	Mercury	--
Beryllium	--	Nickel	210
Cadmium	22†	Selenium	1
Chromium	1	Zinc	53,000†
Copper	160		
Organic compounds			
Priority pollutants			
Methylene chloride	3.2	Phenol	LT
Toluene	3.9	Naphthalene	LT
Ethylbenzene	LT	Dimethyl phthalate	LT
DDT	0.17†	Diethyl phthalate	19
		Dibutyl phthalate	LT
Nonpriority pollutants			
Chlordene	0.19	1,3-Dimethylbenzene[1]	LT
1-Methyl-3-phenoxybenzene[1]	LT	2-Butoxyethanol[1]	LT
1-(2-butoxyethoxy)ethanol[1]	490	1-(1-isobutyl-3-methyl-1-butenyl)-pyrrolidine[1]	LT
2-Ethylhexanoic acid[1]	15.7	2,3,3,4-Tetramethylpentane[1]	LT
Exo-2-chloro-1-methyl-bicyclo[2.2.1]heptane[1]	LT	Methyl-3,5-di-O-methyl-alpha-D-xylofuranoside[1]	550
Cis-1-bromo-2-chlorocyclohexane[1]	LT	N-Ethylbutanamide[1]	100
Benzenepropanoic acid[1]	67		

[1] Tentative identification based on comparison with the National Bureau of Standards (NBS) library. No external standard was available. Concentration reported is semiquantitative and is based only on an internal standard. GC/MS spectra were examined and interpreted by GC/MS analysts.

† Exceeds USEPA criterion for maximum permissible concentration in drinking water.

REFERENCE 4

SHEET 1 OF 1

DAILY FIELD REPORT

OTIS ELEVATOR

PROJECT NO. FC280406 **LOCATION** 230 Grider St., Buffalo, N.Y.

DATE 11-20-85 ~~**REPORT NO.**~~ NYSDEC site #915073

WEATHER CONDITIONS Partly cloudy, 46° F

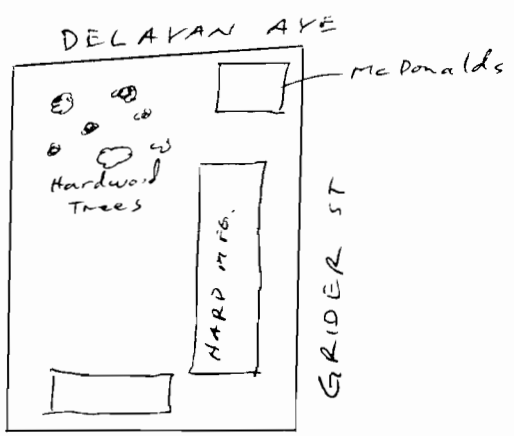
REPORT

ACTIVITIES

- Spoke with Bill Godin, president of Hard Manufacturing - the present owner of site.
- Site is flat, urban with grass cover, paved parking areas and buildings
- 25 . hardwoods planted on vacant lot next to restaurant (McDonalds)
- No visable evidence of waste disposal

~~**DELAYS**~~

~~**REMARKS**~~

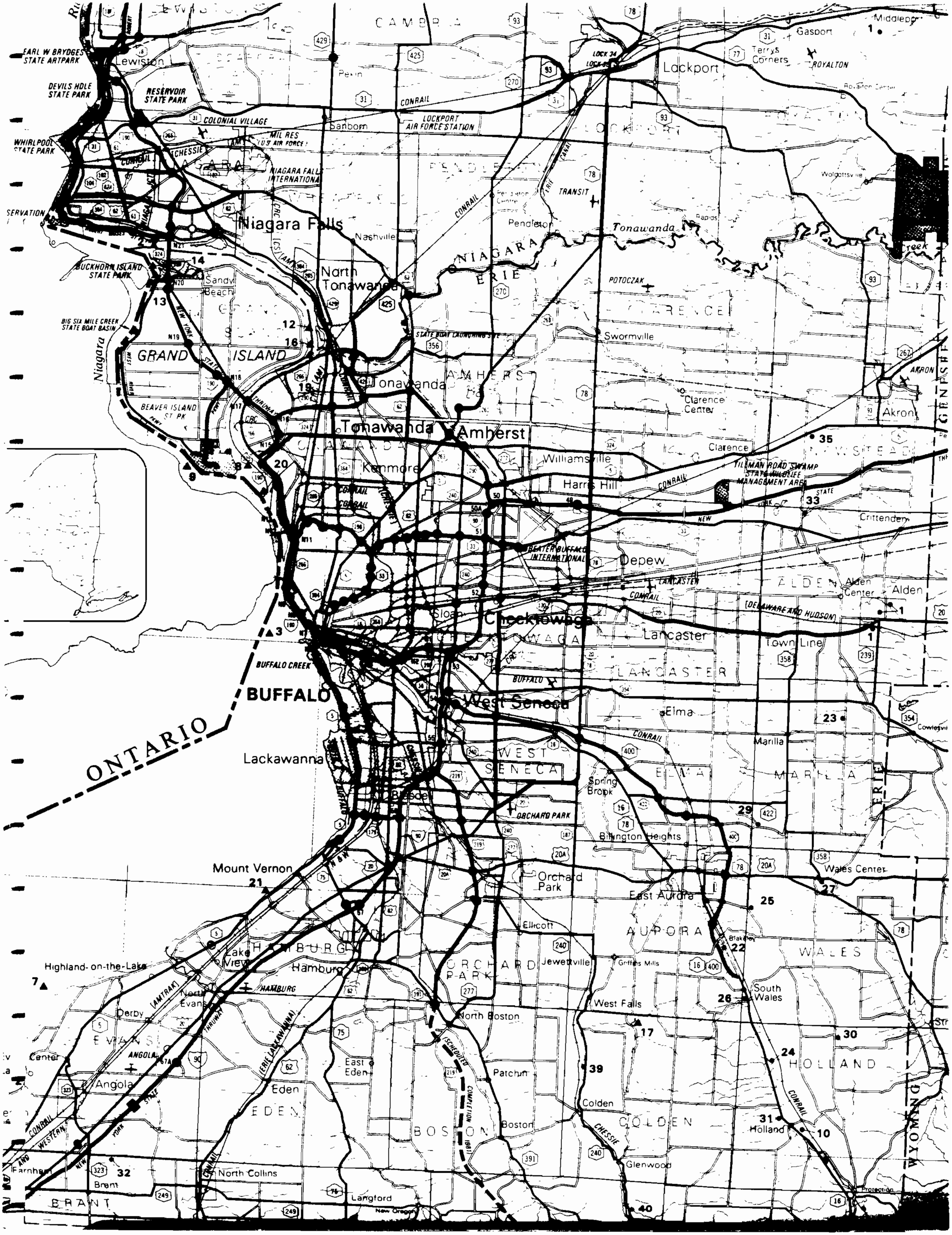


T. C.

REFERENCE 5

New York State Atlas of Community Water System Sources 1982

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL PROTECTION
BUREAU OF PUBLIC WATER SUPPLY PROTECTION


Lewiston
EARL W BRYDGES STATE ARTPARK
DEVILS HOLE STATE PARK
RESERVOIR STATE PARK
WHIRLPOOL STATE PARK
COLONIAL VILLAGE
MIL RES (U S AIR FORCE)
NIAGARA FALLS INTERNATIONAL
Niagara Falls
BUCKHORN ISLAND STATE PARK
BIG SIX MILE CREEK STATE BOAT BASIN
GRAND ISLAND
BEAVER ISLAND ST PK
Sandy Beach
North Tonawanda
Tonawanda
Kenmore
Amherst
Williamsville
Harris Hill
Sanborn
Pekin
LOCKPORT AIR FORCE STATION
Lockport
Gasport
Middleport
Terrys Corners
ROYALTON
Pendleton
TRANSIT
Tonawanda
NIAGARA
ERIE
POTOCZAK
Swormville
Clarence Center
Clarence
Akron
AKRON
TILLMAN ROAD SWAMP STATE WILDLIFE MANAGEMENT AREA
Crittenden
Depew
GREATER BUFFALO INTERNATIONAL
LANCASTER
Alden Center
Alden
[DELAWARE AND HUDSON]
Lancaster
Town Line
LANCASTER
Sloan
Cheektowaga
BUFFALO CREEK
BUFFALO
West Seneca
Elma
Marilla
Cowlesville
ONTARIO
Lackawanna
WEST SENECA
Spring Brook
ORCHARD PARK
Billington Heights
Wales Center
Mount Vernon
Orchard Park
East Aurora
AURORA
Ellicott
Highland-on-the-Lake
Lake View
Hamburg
HAMBURG
Jewettville
Griffins Mills
South Wales
WALES
North Evans
Derby
West Falls
North Boston
EVANS
ANGOLA
Angola
East Eden
Eden
EDEN
Patchin
BOSTON
Boston
Colden
COLDEN
Holland
HOLLAND
Glenwood
Farnham
Brant
BRANT
North Collins
Langford
New Oregon
Protection
WYOMING
CONRAIL
CHESSIE
THRUWAY
NEW YORK STATE
(AMTRAK)
ERIE (LACKAWANNA)
(SCHEDULED COMPLETION 1981)

ERIE COUNTY

ID NO	COMMUNITY WATER SYSTEM	POPULATION	SOURCE
Municipal Community			
	Akron Village (See No 1 Wyoming Co, Page 10).	.3640	
1	Alden Village.	3460. .	.Wells
2	Angola Village.	.8500. .	.Lake Erie
3	Buffalo City Division of Water. .	.357870. .	.Lake Erie
4	Caffee Water Company.	210. .	.Wells
5	Collins Water District #3.	.704. .	.Wells
6	Collins Water Districts #1 and #2. .	1384. .	.Wells
7	Erie County Water Authority (Sturgeon Point Intake).	375000. .	.Lake Erie
8	Erie County Water Authority (Van DeWater Intake).	.NA. .	.Niagara River - East Branch
9	Grand Island Water District #2. . .	.9390. .	.Niagara River
10	Holland Water District.	.1670. .	.Wells
11	Lawtons Water Company.	.138. .	.Wells
12	Lockport City (Niagara Co).		Niagara River - East Branch
13	Niagara County Water District (Niagara Co). .		Niagara River - West Branch
14	Niagara Falls City (Niagara Co).		.Niagara River - West Branch
15	North Collins Village.	1500. .	.Wells
16	North Tonawanda City (Niagara Co).		.Niagara River - West Branch
17	Orchard Park Village.	.3671. .	.Pipe Creek Reservoir
18	Springville Village.	4169. .	.Wells
19	Tonawanda City.	18538. .	.Niagara River - East Branch
20	Tonawanda Water District #1. . . .	.91269. .	.Niagara River
21	Wanakah Water Company.	.10750. .	.Lake Erie
Non-Municipal Community			
22	Aurora Mobile Park.	125. .	.Wells
23	Bush Gardens Mobile Home Park. . . .	.270. .	.Wells
24	Circle B Trailer Court.	.50. .	.Wells
25	Circle Court Mobile Park.	125. .	.Wells
26	Creekside Mobile Home Park.	120. .	.Wells
27	Donnelly's Mobile Home Court.	.99. .	.Wells
28	Gowanda State Hospital.	.NA. .	.Clear Lake
29	Hillside Estates.	160. .	.Wells
30	Hunters Creek Mobile Home Park. . . .	150. .	.Wells
31	Knox Apartments.	NA. .	.Wells
32	Maple Grove Trailer Court.	72. .	.Wells
33	Millgrove Mobile Park.	.100. .	.Wells
34	Perkins Trailer Park.	.75. .	.Wells
35	Quarry Hill Estates.	.400. .	.Wells
36	Springville Mobile Park.	.114. .	.Wells
37	Springwood Mobile Village.	.132. .	.Wells
38	Taylors Grove Trailer Park.	.39. .	.Wells
39	Valley View Mobile Court.	.42. .	.Wells
40	Villager Apartments.	NA. .	.Wells

REFERENCE 6

DRAFT

UNCONTROLLED HAZARDOUS WASTE
SITE RANKING SYSTEM -
A USERS MANUAL

DRAFT

10 June 1982
(errata included)

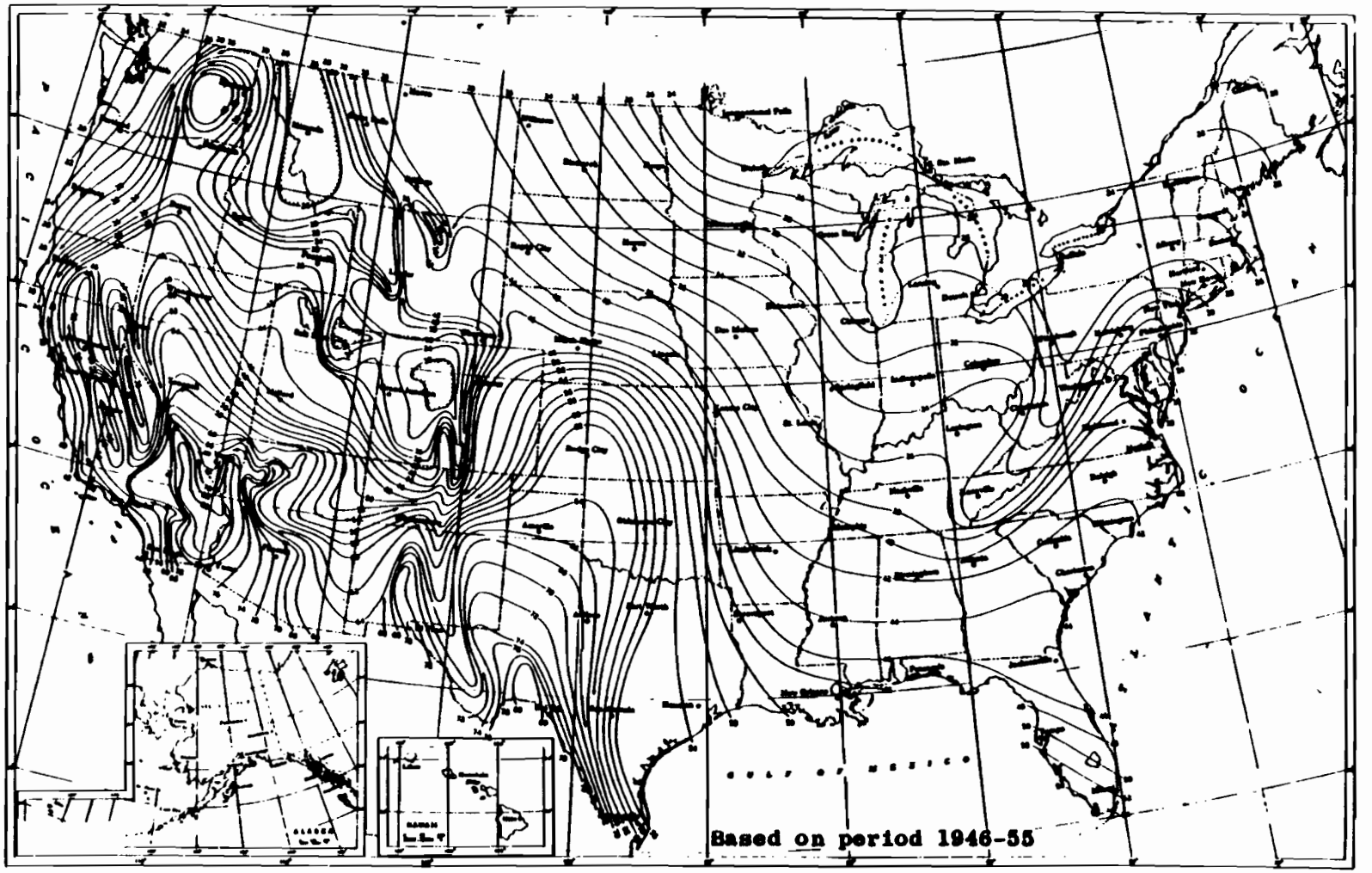


Figure 4

Mean Annual Lake Evaporation (In Inches)

Source: Climatic Atlas of the United States, U.S. Department of Commerce, National Climatic Center, Ashville, N.C., 1979.

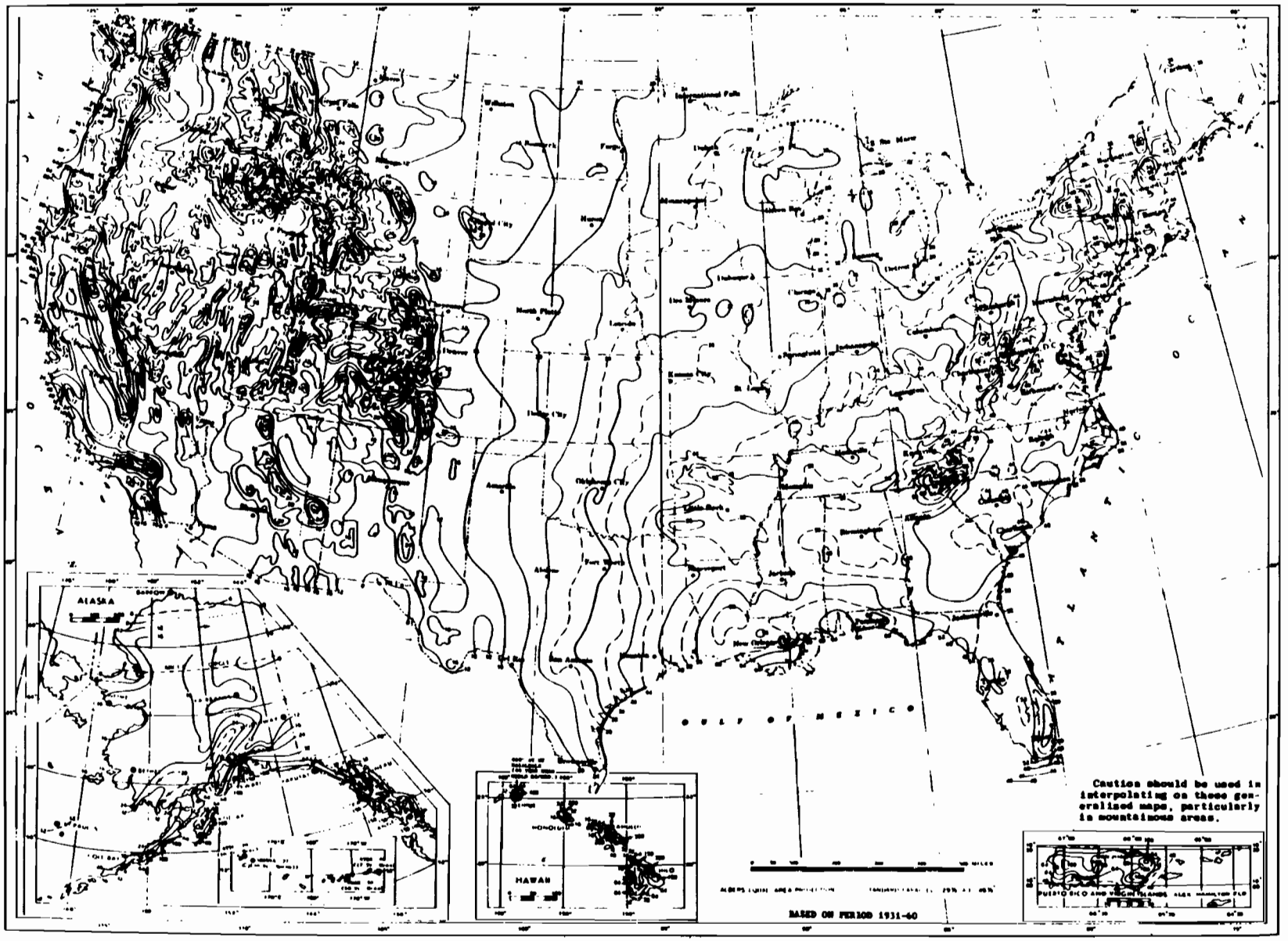


Figure 5

Normal Annual Total Precipitation (inches)

Source: Climatic Atlas of the United States, U.S. Department of Commerce, National Climatic Center, Ashville, N.C., 1979.

TABLE 2

PERMEABILITY OF GEOLOGIC MATERIALS*

TYPE OF MATERIAL	APPROXIMATE RANGE OF HYDRAULIC CONDUCTIVITY	ASSIGNED VALUE
Clay, compact till, shale; unfractured metamorphic and igneous rocks	$< 10^{-7}$ cm/sec	0
Silt, loess, silty clays, silty loams, clay loams; less permeable limestone, dolomites, and sandstone; moderately permeable till	$< 10^{-5} \geq 10^{-7}$ cm/sec	1
Fine sand and silty sand; sandy loams; loamy sands; moderately permeable limestone, dolomites, and sandstone (no karst); moderately fractured igneous and metamorphic rocks, some coarse till	$< 10^{-3} \geq 10^{-5}$ cm/sec	2
Gravel, sand; highly fractured igneous and metamorphic rocks; permeable basalt and lavas; karst limestone and dolomite	$> 10^{-3}$ cm/sec	3

*Derived from:

Davis, S. N., Porosity and Permeability of Natural Materials in Flow-Through Porous Media, R.J.M. DeWest ed., Academic Press, New York, 1969

Freeze, R.A. and J.A. Cherry, Groundwater, Prentice-Hall, Inc., New York, 1979

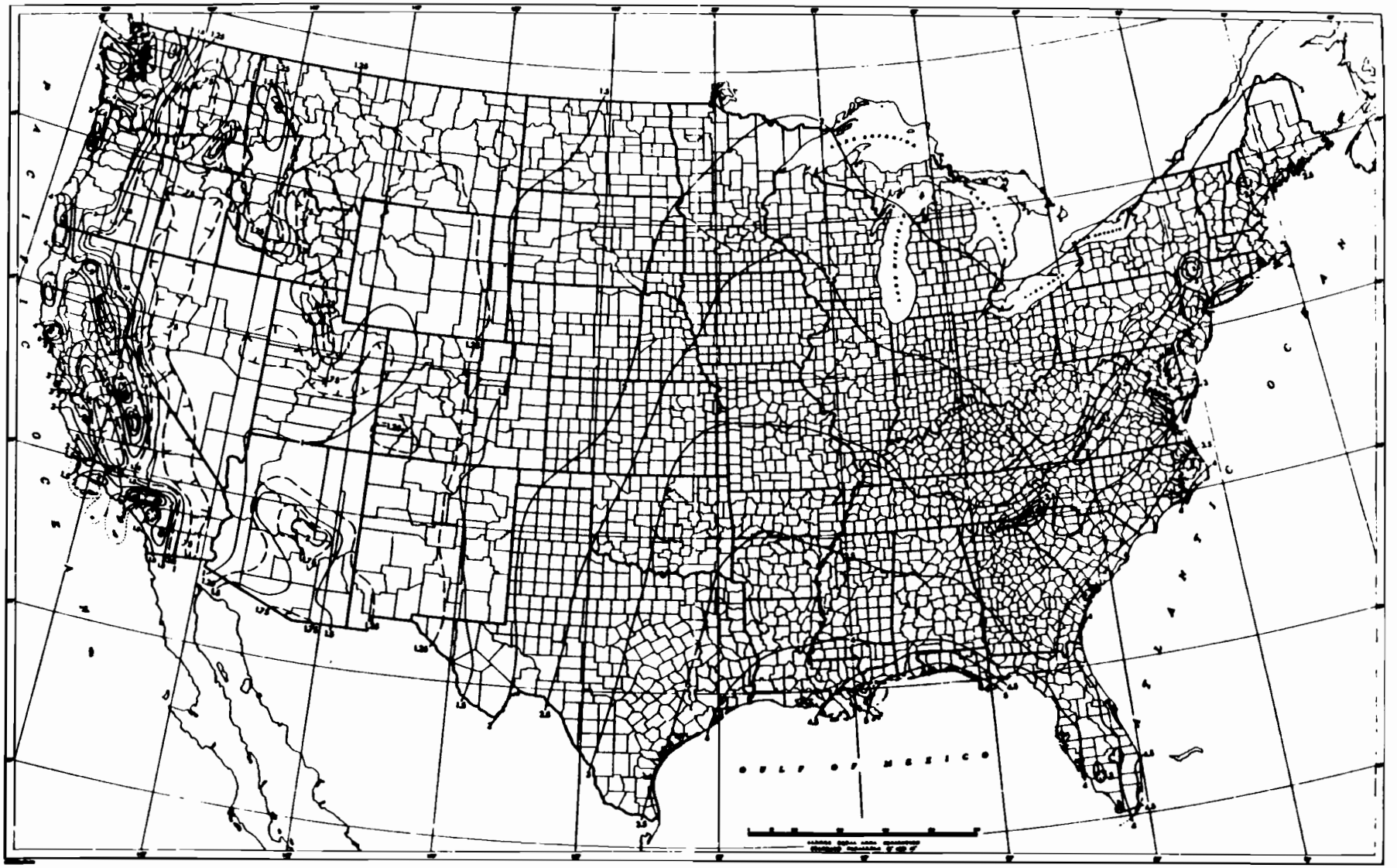


FIGURE 8

1-Year 24-Hour Rainfall (Inches)

Source: Rainfall Frequency Atlas of the United States, Technical Paper No. 40, U.S. Department of Commerce, U.S. Government Printing Office, Washington, D.C., 1963.

REFERENCE 7

GROUND-WATER RESOURCES OF THE ERIE-NIAGARA BASIN, NEW YORK

Prepared for the
Erie-Niagara Basin Regional Water Resources
Planning Board

by

A. M. La Sala, Jr.

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
in cooperation with
THE NEW YORK STATE CONSERVATION DEPARTMENT
DIVISION OF WATER RESOURCES

STATE OF NEW YORK
CONSERVATION DEPARTMENT
WATER RESOURCES COMMISSION

Basin Planning Report ENB-3
1968

Yields of wells

The Camillus Shale is by far the most productive bedrock aquifer in the area. Except in the vicinity of Buffalo and Tonawanda, where industrial wells produce from 300 to 1,200 gpm, no attempt has been made to obtain large supplies from the formation. However, the inflow of water to gypsum mines near Clarence Center and Akron indicate that large supplies are not necessarily restricted to the Buffalo and the Tonawanda area. Two examples of large flows of water encountered in gypsum mining have already been mentioned. Pumpage from gypsum mines near Clarence Center (including the mine mentioned previously) is substantial. The water pumped is discharged to Got Creek. On July 2, 1963, the creek had a flow of 2.1 mgd (million gallons per day) about half a mile downstream from the mines, that was due almost entirely to the pumpage. Water for industrial use is pumped from a flooded, abandoned gypsum mine at Akron. This pumpage, at a rate of 500 to 700 gpm, has had no appreciable effect on the water level in the mine.

Probably the larger solution openings are most common in discharge areas near Tonawanda Creek and its tributaries and near the Niagara River; the flow of ground water becomes concentrated as it approaches the streams to which it discharges. Other discharge areas, such as low-lying swampy areas and headwaters of small streams that have perennial flow, are likely places to drill wells.

LIMESTONE UNIT

Bedding and lithology

The term "limestone unit" in this report is applied to a sequence of limestone and dolomite overlying the Camillus Shale. The limestone unit includes the Bertie Limestone at the base, the Akron Dolomite, and the Onondaga Limestone at the top. The lithology and thickness of these units are shown in figure 7. The Bertie Limestone and the Akron Dolomite are Silurian in age and are separated from the overlying Onondaga Limestone of Devonian age by an unconformity or erosional contact.

The Bertie Limestone is mainly dolomite and dolomitic limestone but contains interbedded shale particularly in the thin-bedded lower part of the formation. The middle part is brown, massive dolomite, and the upper part is gray dolomite and shale whose beds are of variable thickness. The total thickness of the formation is about 55 feet (Buehler and Tesmer, 1963, p. 30-31).

The Akron Dolomite is composed of greenish-gray and buff dolomite beds varying from a few inches to about a foot in thickness. The upper contact of the Akron is erosional and is often marked by remnants of shallow stream channels. Thin lenses of sandy sediments lie in the bottoms of some channels. The thickness of the formation is generally between 7 and 9 feet (Buehler and Tesmer, 1963, p. 33-34).

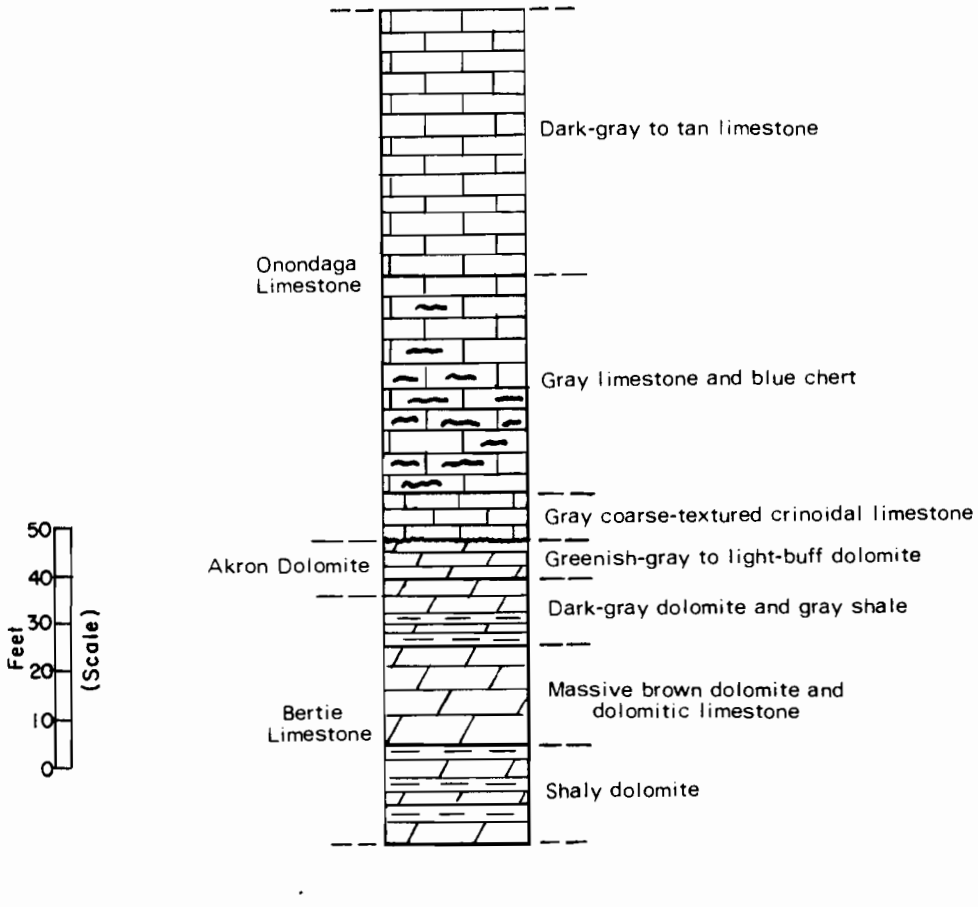


Figure 7.--Lithology of the limestone unit.

The Onondaga Limestone, about 110 feet thick, makes up the greatest thickness of the limestone unit. The formation consists of three members. The lowest member is a gray coarse-grained limestone, generally only a few feet thick. At places this member grades laterally into reef deposits which increases its thickness (Buehler and Tesmer, 1963, p. 35-36).

The middle member of the Onondaga is a cherty limestone. In some zones the chert exceeds the amount of limestone. The unit is probably 40-45 feet thick.

The upper unit is a dark-gray to tan limestone of varying texture and is probably about 50-60 feet thick.

Water-bearing openings

The limestone unit contains water-bearing openings that are similar to those of the Lockport Dolomite. Because the limestone unit is more soluble, however, solution widening of the openings appears to be more

pronounced. The types of water-bearing joints in the limestone can be seen at the falls of Murder Creek at Akron. Not all of the flow of Murder Creek plunges over the falls. A considerable part of the flow percolates into the limestone unit upstream from the falls and discharges from bedding joints both at the face and along the sides of the falls. The principal zones of discharge are at the base of the Bertie, and at a contact of a shaly zone and overlying thick-bedded dolomite 20 feet above the base.

The falls at Akron also illustrate in an exaggerated way the role of vertical joints. Water from Murder Creek percolates into the rock through solution-widened vertical joints before reaching the bedding-plane joints. The continuous and concentrated flow of water in the creek has widened the vertical joints to an unusual degree. Vertical joints are ordinarily very narrow. They probably are most effective in aiding the movement of water to the bedding joints where the bedding joints are close to the rock surface.

Locally, solution along bedding joints in the limestone unit has been great enough to cause the rock overlying the solution opening to settle. Settling of this type probably accounts for at least some of the small depressions in the outcrop belt of the Onondaga Limestone. A collapsed solution zone in the Onondaga Limestone discharges a large volume of water into a quarry (257-840-A) near Harris Hill. About 3,000 gpm is pumped from the quarry, and most of the water is reported to come from the solution zone.

The limestone unit is cut by a fault on the east side of Batavia. Faults cutting limestone are likely to cause shattering along the fault and, thus, create a permeable water-bearing zone.

Hydrologic and hydraulic characteristics

The limestone unit is similar to the Lockport Dolomite in structure. However, its hydrology is different. The limestone unit is cut transversely by Tonawanda Creek and its major tributaries. Small tributaries flow across it in northerly and westerly directions. The limestone unit receives water in the interstream areas by percolation into joints. The water is discharged laterally to the streams and at places along the north-facing scarp or enters the Camillus Shale at depth.

The coefficient of transmissibility of the limestone unit probably ranges from about 300 to 25,000 gpd per foot. Specific capacity data are given in table 3. Drillers' reports indicate high transmissibilities for the limestone unit in Williamsville which probably arise from relatively intense circulation of ground water near Ellicott Creek. The coefficients of transmissibility given in table 3 were computed from specific capacity data by the method described by Walton (1962, p. 12-13).

Table 3.--Specific-capacity tests of wells finished in the limestone unit

Well number	Pumping rate (gpm)	Duration of pumping (hours)	Drawdown (feet)	Specific capacity (gpm/ft)	Coefficient of transmissibility (gpd/ft)
252-852-1	85	34	7	12.1	25,000
-2	30	--	17	2	4,000
255-848-1	130	--	10	13	25,000
255-850-1	180	6	45	4	8,000
259-824-1	100	8	30	3.3	6,000
-2	100	8	12	8.3	15,000
300-824-1	104	8	28	3.7	7,000

The coefficient of storage of the limestone unit is probably between those of the Lockport Dolomite and the Camillus Shale. The storage coefficients of these three units vary mainly with the volume of the openings in the rocks which, in turn, vary with the solubility of the rocks. Limestone is more soluble than dolomite but less soluble than gypsum. Storage coefficients in the limestone unit should, therefore, be somewhat higher than those of the Lockport Dolomite but somewhat lower than those of the Camillus Shale.

Yields of wells

The limestone unit is more productive than the Lockport. A number of large-yield wells in Buffalo, Cheektowaga, Williamsville, Pembroke, and Batavia are finished in the limestone unit and indicate that yields of 300 gpm and possibly more can be obtained. Like the Lockport Dolomite, the yields of wells in the limestone unit range through a broad spectrum. However, the more productive wells in the limestone unit are relatively abundant when compared to those in the Lockport. Of significance also is that three wells half a mile apart drilled for an industrial firm near Pembroke, each sustained a discharge of about 100 gpm (table 6, wells 259-824-1, -2, and 300-824-1). These three wells indicate that such yields are available in some areas.

Table 6.--Records of selected wells in the Erie-Niagara basin

Well number: See "Well-Numbering and Location System" in text for explanation.

Year completed: a - about
b - before

Type of well: Drl - drilled
Drv - driven

Depth of well: All depths below land surface.
a - about
r - reported
all others measured

Diameter of well: Diameters of dug wells are approximate.
Where two or more sizes of casings were used, they are shown in descending order.

Depth to bedrock: All depths below land surface
a - about
m - measured
all others reported

Water-bearing material: Gravel, sand, silt, and till - glacial deposits of Pleistocene age.
Camillus Shale - Camillus Shale of Silurian age.
Limestone - limestone unit consisting of the Onondaga Limestone of Devonian age and the Bertie Limestone and Akron Dolomite of Silurian age.
Lockport Dolomite - Lockport Dolomite of Silurian age.
Shale - Hamilton Group and Conneaut Group of Chadwick (1934) and intervening units, all of Devonian age.

Altitude above sea level: Estimated from topographic maps to nearest 5 feet.

Water level: All water levels are below land surface except those preceded by a (+) sign, which are above land surface.
a - about
p - pumping effect is probable
Flow - water flows above land surface but static head could not be measured.
r - reported
all others measured by U.S.G.S. personnel

Method of lift: AL - air lift
Dw - deep well cylinder pump
Jet - deep well jet pump
Sub - submersible pump
Sw - shallow-well pump
Tur - turbine pump

Type of power is indicated as -- i - internal combustion engine
M - manual
all others are electrically powered

Estimated pumpage: Average daily pumpage supplied by owner, tenant, or operator, or computed on basis of per capita consumption of 50 gpd per person or 20 gpd per milk cow.

Use: A - abandoned
Ag - agricultural
C - commercial
D - domestic
F - dairy farm
GT - gas test
I - industrial
In - institutional
Ir - irrigation only
PS - public supply
T - test
U - unused
X - destroyed

Remarks: anal - chemical analysis in this report
dd - drawdown
est - estimated
gas - flammable gas issues from well
gpd - gallons per day
gpm - gallons per minute
H_2S - hydrogen sulfide gas present in ground water
iron - water has noticeable iron content
LS - land surface
OW - observation well, series of water-level measurements available
r - reported
swl - static water level
temp - temperature, in degrees Fahrenheit, measured by U.S.G.S. on same day wate level was measured unless otherwise noted

Table 6.--Records of selected wells in the Erie-Niagara basin (Continued)

Well number	County	Owner	Year completed	Type of well	Depth of well (feet)	Diameter (inches)	Depth to bedrock (feet)	Water-bearing material	Altitude above sea level (feet)	Water level: Below land surface (feet)	Water level: Date	Method of lift	Estimated pumpage or flow (gallons per day)	Use	Remarks
251-850-1	Erie	Donner-Hanna Coke Corp.	1928	Drl	r119	6	--	Limestone	585	--	--	AL	35,000	I	H_2S; yield 30 gpm (r); in use about 150 days per year during summer and early fall; a test boring nearby penetrated 62.5 ft of silty clay, refusal at 62.5 ft.
-2	do.	do.	1928	Drl	r116	6	--	do.	585	--	--	AL	35,000	I	Anal; also see remarks for well 251-850-1.
252-814-1	Genesee	A. Waite	1963	Drl	99	6	--	Sand and gravel	1,125	p46.3	6-18-64	Jet	500	F	Bailed 5 gpm (r).
252-815-1	do.	F. Stevens	1963	Drl	88	5 5/8	80	Shale	975	23.8	6-18-64	Jet	--	O	
252-818-1	do.	E. Snyder	1959	Drl	r23.5	6	e19	do.	1,040	r8	--	Sw	200	O	Anal; iron; H_2S; yield 5 gpm (r).
252-850-1	Erie	Artic Ice Co.	a1900	Drl	r180	6	a20	Limestone; Camillus Shale	590	r20	1951	Tur	--	U	Anal; yield 300 gpm (r); supplied 300,000 gpd.
252-852-1	do.	New York Telephone Co.	1955	Drl	r80	12	53	Limestone	605	30	3-20-63	Tur	--	U	H_2S; pumping test 85 gpm, swl 28 ft, dd 7 ft after 34 hours of pumping.
-2	do.	W & F Manufacturing Co.	1947	Drl	r101	8	8	do.	590	r,p37	1951	Tur	--	I	H_2S; water-bearing zones from 89 to 101 ft depth, underlying cherty beds in Onondaga Limestone; pumping data, 30 gpm, dd 17 ft (r).
-3	do.	Fairmont Foods Co., Inc.	1925	Drl	r127	8	30	do.	580	rFlow	1951	Tur	40,000	I	Anal; H_2S.
253-813-1	Genesee	D. Lapp	--	Drl	65.3	6	--	Sand and gravel	990	14.1	6-12-64	Jet	250	O	
253-820-1	do.	F. Pieri	1963	Drl	63.7	6	--	do.	1,060	19.3	7-30-64	Sw	250	O	
253-824-1	do.	A. Baginski	1960	Drl	41.1	6	--	do.	995	5.7	8- 8-63	Jet	150	D	Anal; yield 3 gpm (r).
253-829-1	Erie	J. Murray	1961	Drl	26.1	8	--	Shale	900	p11.3	7-31-63	Sw	250	D	Anal; iron; water level occasionally is pumped down to bottom of suction pipe at 24 ft.
-2	do.	do.	1961	Drl	22.0	6	--	do.	900	9.18	7-31-63	Sw	--	U	Iron.
-3	do.	Village of Alden	1961	Drl	r27	60, 18	27	Sand and gravel	840	--	--	Tur	75,000	PS	Concrete tile from 0-16 ft installed 1947; 18-inch diameter screen, gravel packed, from 16-27 ft installed 1961.
253-832-1	do.	D. Klinkman	1957	Drl	47.8	6	e40	Shale	830	11.3	7-31-63	Jet	250	O	Anal; iron; yield 10 gpm (r).
253-834-1	do.	J. Gilbride	1962	Drl	61.7	6	--	do.	775	28.8	7-31-63	Jet	250	D	Anal; iron; H_2S; yield 10 gpm (r).
253-840-1	do.	D. Klock	--	Drl	24.3	5	m8	do.	660	9.3	6-27-63	Sw	--	U	Anal; temp 49.
253-850-1	do.	Rivoli Theater	1941	Drl	r110	8	20	Limestone	605	r,p40	1951	Tur	50,000	C	Air-conditioning use; water is returned to ground through a disposal well 150 ft away; pumping data, 150 gpm, dd 4 ft (r).
-2	do.	Roosevelt Theater	1936	Drl	r60	8	20	do.	605	r,p30	1951	Tur	60,000	C	H_2S; air-conditioning use; water is returned to ground through a disposal well 150 ft away.
254-812-1	Genesee	E. Rhodes	1959	Drl	33.3	6	--	Sand and gravel	985	13.0	6-16-64	Jet	1,250	F	Iron; yield 15 gpm (r).
254-826-1	do.	F. Kaczmarak	1950	Drl	67.5	6	e50	Shale	940	11.8	8- 9-63	Jet	1,250	F	Anal; iron; H_2S; yield 8 gpm (r).
254-829-1	Erie	Village of Alden	1957	Drl	r35.7	16, 8	34	Sand and gravel	830	r7.1	1-31-58	Tur	100,000	PS	Iron; H_2S; screen, 8-inch diameter, 125-slot from 29-34 ft; gravel packed from 22-34 ft; pumping test, 220 gpm, swl 8.6 ft, dd 11.1 ft after 8 hours pumping.
-2	do.	do.	--	Dug	r14	140	--	do.	825	--	--	Sw	9,000	PS	One of a group of three dug wells at Alden No. 1 pumping plant; total pumpage from these three wells is about 27,000 gpd.

Table 6.--Records of selected wells in the Erie-Niagara basin (Continued)

Well number	County	Owner	Year completed	Type of well	Depth of well (feet)	Diameter (inches)	Depth to bedrock (feet)	Water-bearing material	Altitude above sea level (feet)	Water level: Below land surface (feet)	Water level: Date	Method of lift	Estimated pumpage or flow (gallons per day)	Use	Remarks
254-829-3	Erie	Village of Alden	1964	Drl	re35	--	--	Sand and gravel	845	--	--	Tur	--	PS	Construction of well is reported to be similar to that of well 254-829-1; yield 220 gpm.
254-830-1	do.	W. and J. Fahringer	e1904	Drl	rl,150	8	--	Lockport Dolomite?	840	r350	8-62	Dw	--	C	Gas test well which yields a black brine used for mineral baths.
254-834-1	do.	G. Glose	1962	Drl	66.2	10	e7	Shale	770	p26.3	8-19-64	Jet	450	D	H_2S.
-2	do.	R. Heue	1961	Drl	52.9	6	e10	do.	765	7.1	8-19-64	Jet	200	D	Iron; H_2S; water-bearing zone at 25 feet; blasting charge fired at 20-25 ft to increase yield.
255-812-1	Genesee	Western New York Concrete Corp.	1957	Drl	85.9	8	--	Sand and gravel	965	2.4	7-17-63	--	--	A	Anal; screen, 8-inch diameter; 77.9-85.9 ft; pumping test 60 gpm, swl 2 ft, dd 42 ft (r).
-2	do.	do.	1957	Drl	81.4	8	--	do.	970	7.3	7-17-63	--	--	A	Yield about 50 gpm (r); OW.
-3	do.	H. Eert	1944	Drl	38.5	6	--	do.	945	6.3	6-16-64	Sw	1,000	F	Iron.
255-848-1	Erie	Commodore Theater	--	Drl	r75	8	7	Limestone	640	0	1951	Tur	--	C	Air-conditioning use; pumping data, 130 gpm, dd 10 ft (r).
255-850-1	do.	Nagel Dairy	--	Drl	r90	8	20	do.	660	r,p20	1951	Tur	--	C	Pumping data, 180 gpm, dd 45 ft.
256-818-1	Genesee	D. Hegge	1959	Drl	45	6	e30	Shale	935	9.7	7-30-64	Jet	700	F	Yield 8 gpm (r).
256-822-1	do.	K. Skeet	1962	Drl	27.5	6	3	do.	890	7.3	7-30-64	Sw	300	D	Anal; H_2S.
256-831-1	Erie	Sieracki	1959	Drl	52.3	6	e40	do.	800	16.6	8-19-64	Jet	200	D	Anal.
256-835-1	do.	Huber	1964	Drl	68.5	6	--	do.	770	18.7	7-23-64	--	--	D	
-2	do.	C. Suess	1958	Drl	59	6	e34	Limestone	750	29.6	8-19-64	Jet	250	D	Anal.
256-844-1	do.	Twin Industries Corp., Aerospace Division	1951	Drl	rll7	6	--	do.	715	--	--	Tur	--	U, I	Iron; H_2S; well is unused because quality of water has deteriorated; formerly supplied 150,000 gpd; yield about 285 gpm.
-2	do.	do.	1951	Drl	90	8	--	do.	715	r45	7- 3-64	--	--	U, I	
257-812-1	Genesee	E. Foster	1955	Drl	65	6	--	Sand and gravel	895	5.2	6-16-64	Jet	1,500	F	
-2	do.	W. Cook	1960	Drl	71.3	6	--	do.	895	5.2	6-16-64	Sw	150	D	Anal; iron.
257-817-1	do.	J. Penkszyck	1961	Drl	r52	--	--	Shale	920	--	--	Jet	--	D	Iron.
257-824-1	do.	Village of Corfu	1954	Drl	r39.3	12, 8	30	Sand and gravel; shale	850	6	1- 6-54	Tur	55,000	PS	Temp 49.8, 1-17-63; screen, 8-inch diameter, 100-slot from 34.3-39.3 ft; 12-inch diameter gravel pack from 32-39.3 ft; pumping rate 90 gpm; pumping test 100 gpm, swl 6 ft, dd 11 ft.
-2	do.	do.	1952	Drl	r36.6	12	32	do.	850	4	10-27-52	--	--	A	Pumping test, 110 gpm, swl 4 ft, dd 12 ft.
257-855-1	Erie	E. I. du Pont de Nemours & Co.	1925	Drl	rl01	8	55	Camillus Shale	590	r30	1951	AL	--	A, I	Yield 125 gpm; 1 of 3 wells of the "north" well field; combined pumpage was 200,000 gpd.
-2	do.	do.	1925	Drl	rl23	8	55	do.	590	r30	1951	AL	--	A, I	Yield 125 gpm; 1 of 7 wells of the "south" well field; combined pumpage was 1 mgd.
258-809-1	Genesee	O-AT-KA Milk Products Cooperative, Inc.	1958	Drl	r49.2	18, 10	--	Sand and gravel	900	26.5	8- 1-58	Tur	--	I	Screen, 10-inch diameter, 125-slot, from 41 to 49 ft; gravel packed, Cape May No. 5 gravel; pumping test, 456 gpm, swl 26.5 ft, dd 12.8 ft.
-2	do.	do.	1958	Drl	--	8	--	do.	900	22.2	5- 8-63	Tur	--	I	
258-813-1	do.	H. Loveland	--	Drl	11.7	3	--	Shale	900	8.1	6-26-63	--	--	A	
-2	do.	do.	--	Drl	33	6	--	do.	900	12.1	6-26-63	Sw	--	U	Anal; iron; temp 48.0.

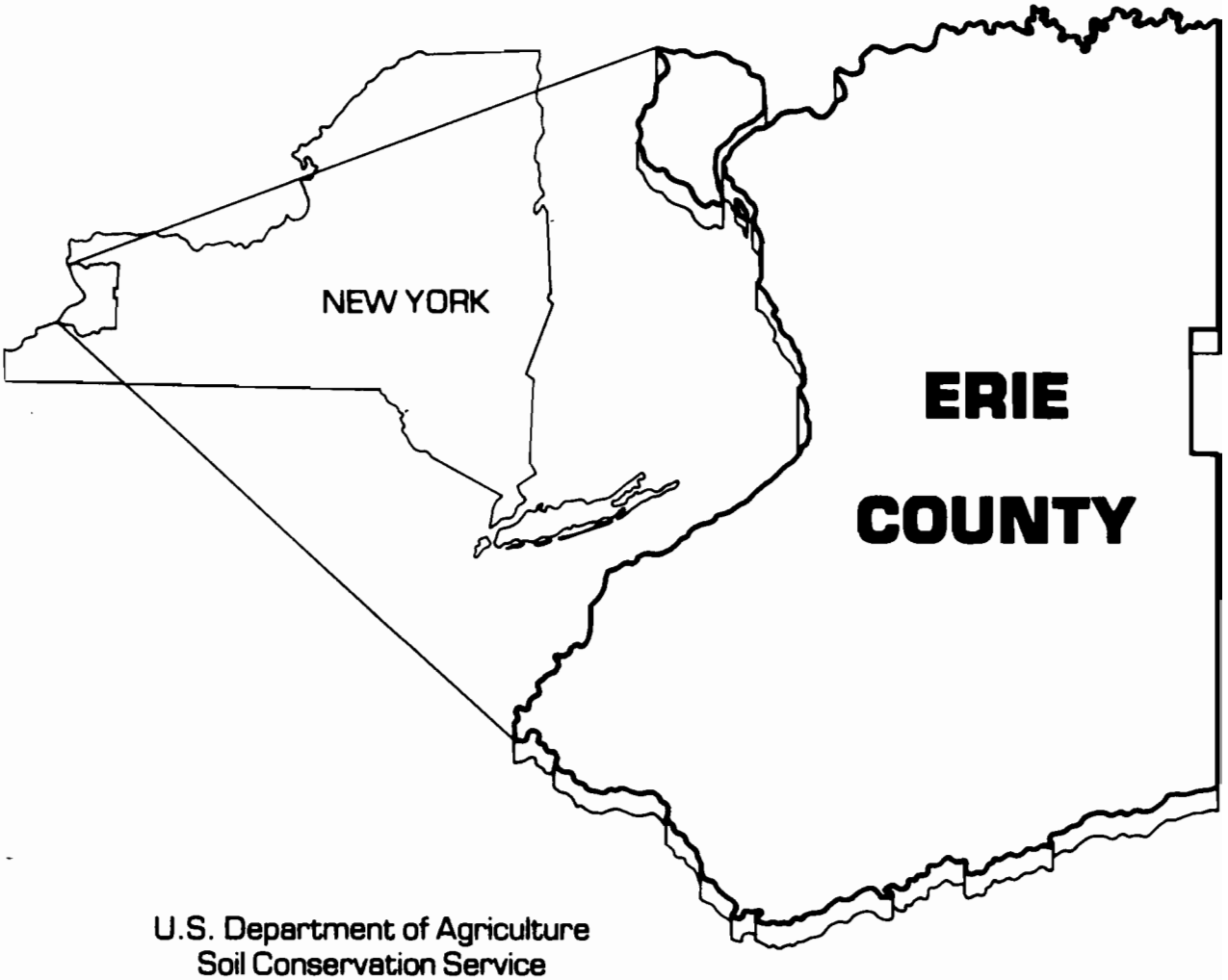
Table 6.--Records of selected wells in the Erie-Niagara basin (Continued)

Well number	County	Owner	Year completed	Type of well	Depth of well (feet)	Diameter (inches)	Depth to bedrock (feet)	Water-bearing material	Altitude above sea level (feet)	Water level: Below land surface (feet)	Water level: Date	Method of lift	Estimated pumpage or flow (gallons per day)	Use	Remarks
													50	D	Anal; iron; temp 49.0; yield 12 gpm (r).


BUFFALO
E R I E
HARBOR
Fort Erie
LACKAWANNA
HAMBURG
124

REFERENCE 8

GENERAL SOIL MAP and INTERPRETATIONS



U.S. Department of Agriculture
Soil Conservation Service

in cooperation with

Cornell University Agricultural Experiment Station and
Erie County Soil and Water Conservation District

VIII. MIXED URBAN LAND AND SOIL AREAS

The general soil units in this group are in areas of high density residential, commercial, and industrial developments in the city of Buffalo and portions of its surrounding suburbs. There are eight soil units in this group. They cover about 8.9 percent of the total county area.

The Urban land portion of these units consist of disturbed or altered soils that are covered with sidewalks, house foundations, streets, parking lots, shopping plazas, factories, and business districts. The undisturbed soils interspersed with the Urban land are quite variable. Some units are dominated by clayey or silty lake-laid soils and other units are mainly loamy glacial till soils. One unit has a major soil that is moderately deep to bedrock. This group of units are mostly on nearly level or gently sloping landscapes.

38. URBAN LAND

Nonsoil areas consisting of commercial and industrial developments

This unit is composed of urban areas that are intensively developed for commercial and industrial uses. Very few areas of undisturbed soil which originally covered the landscape remain. Slope is mostly less than 3 percent, but in a few areas it ranges up to 8 percent. This unit covers about 15,400 acres or 2.3 percent of the county.

Practically all of the downtown commercial and industrial areas of the cities of Buffalo and Lackawanna, and a sizable portion of Tonawanda are in this unit. Most areas are covered with buildings, roads, or parking lots; however, a sizable portion of the unit includes landfills, industrial waste, and extensive fill and dredge areas such as those near the Buffalo harbor.

Some areas of this unit extend into, or occur as islands, in suburbs. These areas are mostly industrial parks, railroads, airports, and exceptionally large shopping plazas.

REFERENCE 9

RECRA RESEARCH, INC.

Hazardous Waste And Toxic Substance Control

February 5, 1986

Mr. William N. Godin
Hard Manufacturing Co., Inc.
230 Grider Street
Buffalo, NY 14215

Dear Mr. Godin:

Thank you for your assistance in the Phase I Superfund investigation we are conducting presently with regard to your company's property formerly known as the Otis Elevator site.

As part of the background search requirements for the NYSDEC Superfund investigations, we the consultants are required to have all of our interviews, personal or by telephone, documented. Below is an account of our conversation in December 1985. Would you please read the account, sign at the bottom, and return the original to me. This is only to serve as documentation that the conversation took place.

° Hard Manufacturing Co., Inc. makes metal hospital furniture.

° The Hard Manufacturing site was previously owned by the Curtiss-Wright Corp. who acquired it from the Otis Elevator, Co. ~~Curtiss-Wright still leases the building facing Northland Ave. from Hard Manufacturing~~.

° There are no records of any disposal on your property as to location or quantities of any materials.

Thank you for your cooperation.

Sincerely,

RECRA RESEARCH, INC.

Paul A. Rydzynski

Paul A. Rydzynski
Environmental Engineer

PAR/jlo
cc: T. Connare

Mr. William N. Godin

4248 Ridge Lea Road, Amherst, New York 14226 Telephone (716) 838-6200

BUFFALO Cont'd

Great Arrow Graphics
1685 Elmwood Ave
Buffalo NY 14207
TEL-(716) 874-5819
SIC-2751 EMPLOYS-1
Gross Sales - Under 1 Million
PRODUCT — Commercial Printing, Except Lithographic

Great Lakes Optical Inc
2125 Senaca St Buffalo NY 14210
TEL-(716) 824-5300
SIC-3851 EMPLOYS-35
Gross Sales - Between 1 and 10 Million
Pres Jerome A Denz
VP Marlene M Denz
PRODUCT — Manufacturing & Finishing of Ophthalmic Goods

Great Lakes Orthodontic Products Inc
1550 Hertel Ave Buffalo NY 14216
TEL-(800) 828-7626
SIC-3843 EMPLOYS-20
Gross Sales - Between 1 and 10 Million
Pres Peter R Breads
VP John T Jankowiak
PRODUCT — Dental Equipment and Supplies

Great Lakes Plastic Co Inc
2371 Broadway Buffalo NY 14212
TEL-(716) 696-3100
SIC-3079 EMPLOYS-60
Gross Sales - Between 1 and 10 Million
Chmn of the Brd Chester Barzycki
Pres Curtis D Rice
Treas Bert Engel
Secy Angeline Reeck
VP Ronald Kaye
Asst VP Tom Barzycki
PRODUCT — Miscellaneous Plastics Products

Great Lakes Pressed Steel Co
1400 Niagara St Buffalo NY 14213
TEL-(716) 885-4037
SIC-3469 EMPLOYS-20
Gross Sales - Between 1 and 10 Million
Pres R M Nichols
PRODUCT — Metal Stampings Not Elsewhere Classified

Greater Buffalo Press Inc
302 Grote St Buffalo NY 14207
TEL-(716) 876-6410
SIC-2751 EMPLOYS-1000
Gross Sales - Over 10 Million
Pres J W Koessler
PRODUCT — Commercial Printing, Except Lithographic

Griffin D A Corp
240 Westminister Rd
Buffalo NY 14224
TEL-(716) 674-2300
SIC-3559 EMPLOYS-20
Gross Sales - Between 1 and 10 Million
PRODUCT — Special Industry Machinery, Not Elsewhere Classified

Gro-Green Products Inc
717 Elk St Buffalo NY 14210
TEL-(716) 826-3300
SIC-2873 EMPLOYS-15
Gross Sales - Under 1 Million
PRODUCT — Nitrogenous Fertilizers

■ **H & F Food Products Co Inc**
321 Ramsdel Ave
Buffalo NY 14216
TEL-(716) 876-4345
SIC-2033 EMPLOYS-15

BUFFALO Cont'd

Gross Sales - Between 1 and 10 Million
Pres C M Amabile
VP A C Amabile
PRODUCT — Canned Fruits, Vegetables, Preserves, Jams, and Jellies

H & H Equipment Corp
1800 Broadway Buffalo NY 14212
TEL-(716) 692-8300
SIC-3679 EMPLOYS-35
Gross Sales - Between 1 and 10 Million
PRODUCT — Electronic Components and Accessories, Not Elsewhere Classified

H & R Tool Works Inc
65 Clyde Ave Buffalo NY 14215
TEL-(716) 834-6710
SIC-3544 EMPLOYS-20
Gross Sales - Between 1 and 10 Million
Pres G G Hahnemann
PRODUCT — Special Dies and Tools, Die Sets, Jigs and Fixtures

Hadley Exhibits Inc
1950 Elmwood Ave
Buffalo NY 14207
TEL-(716) 874-3666
SIC-3993 EMPLOYS-15
Gross Sales - Under 1 Million
Pres David I Johnson
VP David L Hadley
PRODUCT — Displays and Exhibits; Tradeshows and Conventions

Hames Window Display Service
571 East Delavan St
Buffalo NY 14211
TEL-(716) 894-7777
SIC-2751 EMPLOYS-1
Gross Sales - Under 1 Million
PRODUCT — Commercial Printing, Except Lithographic

Hanna Furnace Corp The
1299 Union Rd Buffalo NY 14224
TEL-(716) 827-9333
SIC-3312 EMPLOYS-500
Gross Sales - Over 10 Million
Pres F G Jolliffe
PRODUCT — Blast Furnaces (Including Coke Ovens), Steel Works, and Rolling Mills

● **Hard Manufacturing Co Inc**
230 Grider St Buffalo NY 14215
TEL-(716) 893-1800
SIC-2599 EMPLOYS-100
Gross Sales - Between 1 and 10 Million
Pres William N Godin
VP Norman Kurlander
PRODUCT — Metal Household Furniture, Hospital And Home Care Furniture and Nursing Home Patient Room Furniture

Hardface Welding & Machine Co Inc
196 Philadelphia St
Buffalo NY 14207
TEL-(716) 875-3380
SIC-3479 EMPLOYS-75
Gross Sales - Between 1 and 10 Million
Pres Jon H Watson
Sales Mgr R L Kelley
PRODUCT — Specialty Coatings of Metal, Ceramics & Carbides for Heat, Wear & Corrosion Applications, Large Machining & Grinding

Hein William S Company Inc
1285 Main St Buffalo NY 14209
TEL-(716) 882-2600

BUFFALO Cont'd

SIC-2731 EMPLOYS-1
Gross Sales - Between 1 and 10 Million
PRODUCT — Books: Publishing, Publishing and Printing

Heintz & Weber Co Inc
358 Louisiana St Buffalo NY 14204
TEL-(716) 852-7171
SIC-2035 EMPLOYS-20
Gross Sales - Between 1 and 10 Million
Pres J C Weber
PRODUCT — Pickled Fruits and Vegetables; Vegetable Sauces and Seasonings; Salad Dressings

Henneman F W & Sons Inc
126 South Elmwood Ave
Buffalo NY 14202
TEL-(716) 845-6300
SIC-2751 EMPLOYS-15
Gross Sales - Under 1 Million
PRODUCT — Commercial Printing, Except Lithographic

Heritage Casting Div
86 West Chippewa St
Buffalo NY 14202
TEL-(716) 852-6248
SIC-3961 EMPLOYS-10
Gross Sales - Under 1 Million
PRODUCT — Costume Jewelry and Costume Novelties, Except Precious Metal

Hoffman Harry & Sons
983 Jefferson Ave
Buffalo NY 14204
TEL-(716) 885-3900
SIC-2752 EMPLOYS-135
Gross Sales - Between 1 and 10 Million
Pres Melvin B Hoffman
PRODUCT — Printing - Web & Sheetfeed Lithography - Letterpress - Complete Pre Press & Bindery

Hohl Electro-Mation Inc
878 Bailey Ave Buffalo NY 14206
TEL-(716) 824-3213
SIC-3679 EMPLOYS-10
Gross Sales - Under 1 Million
Pres Frank Hohl
VP William H Eggleston
PRODUCT — Electrical, Pneumatic, Electronic Control Panels

Hohl Machine & Conveyor Co
1580 Niagara St Buffalo NY 14213
TEL-(716) 882-7210
SIC-3535 EMPLOYS-15
Gross Sales - Under 1 Million
Pres Frank J Hohl
PRODUCT — Conveyors and Conveying Equipment

Holiday Candy Corp
1100 Military Rd Buffalo NY 14217
TEL-(716) 874-4670
SIC-2065 EMPLOYS-10
Gross Sales - Under 1 Million
PRODUCT — Candy and Other Confectionery Products

Holling Press Inc The
501 Washington St
Buffalo NY 14203
TEL-(716) 854-5100
SIC-2751 EMPLOYS-100
Gross Sales - Between 1 and 10 Million
Pres F J Maher
VP B Maher
PRODUCT — Commercial Printing

● **Holmes E & B Machinery Co Inc**
59 Chicago St Buffalo NY 14204
TEL-(716) 854-2914

BUFFALO Cont'd

SIC-3599 EMPLOYS-14
Gross Sales - Under 1 Million
Pres A S Krafchak
VP A E Low P E
PRODUCT — General Machining

Hood Industries Inc
580 Tift St Buffalo NY 14220
TEL-(716) 925-3345
SIC-3429 EMPLOYS-20
Gross Sales - Between 1 and 10 Million
Pres Stanley Doraski
PRODUCT — Hardware, Not Elsewhere Classified

Houdaille Industries Inc
537 East Delavan Ave
Buffalo NY 14211
TEL-(716) 893-5305
SIC-3714 EMPLOYS-100
Gross Sales - Between 1 and 10 Million
PRODUCT — Motor Vehicle Parts and Accessories

Howards Invitations & Cards
830 Hertel Ave Buffalo NY 14216
TEL-(716) 875-3571
SIC-2751 EMPLOYS-20
Gross Sales - Between 1 and 10 Million
VP & Gen Mgr George Helenbrook
VP & Prod Mgr James Helenbrook
PRODUCT — Commercial Printing, Except Lithographic

Humanist Magazine
7 Harwood Dr Buffalo NY 14226
TEL-(716) 839-5080
SIC-2721 EMPLOYS-10
Gross Sales - Under 1 Million
Pres Lyle Simpson
Treas James A Hooper
Secy James F Hornback
VP Maxine Negri
PRODUCT — Periodicals: Publishing, Publishing and Printing

● **Hydraulic Servocontrols Corp**
390 Youngs Rd Buffalo NY 14221
TEL-(716) 631-9040
SIC-3728 EMPLOYS-64
Gross Sales - Between 1 and 10 Million
Pres George T Baltus
Treas & VP Harvard B Kolm
PRODUCT — Air Craft Parts, Not Elsewhere Classified

Industrial Felt Corp
1418 Niagara St Buffalo NY 14213
TEL-(716) 881-4900
SIC-3564 EMPLOYS-15
Gross Sales - Under 1 Million
PRODUCT — Blowers and Exhaust and Ventilation Fans

Industrial Process Eng
428 French Rd Buffalo NY 14224
TEL-(716) 668-8111
SIC-3443 EMPLOYS-1
Gross Sales - Under 1 Million
Pres Warner Martin
VP Patrick King
PRODUCT — Heat Exchangers and Pressure Vessels

★ **Industrial Service Centers Inc**
2025 Electric Ave
Buffalo NY 14219
TEL-(716) 825-7100
SIC-3312 3463 EMPLOYS-140
Gross Sales - Over 10 Million
Pres Paul L Kelley
VP Oper Robert A Todisco
VP Sales James E Devaney
Controller William F Yokell
Gen Mgr A Lee Waterman

BUFFALO Cont'd

Community Steel Corp
60 Alabama St Buffalo NY 14240
TEL-(716) 854-5927
SIC-3446 EMPLOYS-50
Gross Sales - Between 1 and 10 Million
Pres M Roy Burgwadt
PRODUCT — Architectural and Ornamental Metal Work

Comon Tatar Inc
2053 Electric Ave
Buffalo NY 14219
TEL-(716) 828-1234
SIC-3944 EMPLOYS-10
Gross Sales - Under 1 Million
PRODUCT — Games and Toys, Except Dolls and Bicycles

Compressed Air Components
757 East Ferry St
Buffalo NY 14211
TEL-(716) 892-6111
SIC-3443 EMPLOYS-25
Gross Sales - Between 1 and 10 Million
Pres Raymond Arno
Corp Secy Charlene M Brandel
VP David Arno
PRODUCT — Fabricated Plate Work (Boiler Shops), Air Compressors - Rotary Screw Compressed Air Dryers - Refrigerated Compressed Air Dryers - Twin Tower

Conax Corp
2300 Walden Ave
Buffalo NY 14225
TEL-(716) 684-4500
SIC-3674 3823 EMPLOYS-100
Gross Sales - Between 1 and 10 Million
Pres A G Bell
PRODUCT — Industrial Instruments for Measurement, Display and Control of Process Variables; and Related Products

Cousins J D Inc
667 Tifft St Buffalo NY 14220
TEL-(716) 824-1098
SIC-3443 EMPLOYS-20
Gross Sales - Between 1 and 10 Million
Pres N A Pauly
VP G N Pauly
Gen Mgr Tim Cooke
PRODUCT — Heat Exchangers, Pressure Vessels, Tube Bundles

Cox Earl Printing Inc
1057 Kensington Ave
Buffalo NY 14215
TEL-(716) 832-2578
SIC-2752 EMPLOYS-5
Gross Sales - Under 1 Million
Pres Donald E Cox
VP Earl R Cox
PRODUCT — Commercial Printing, Lithographic

● **Crandall Filling Machinery**
1392 Niagara St P O Box 706
Buffalo NY 14217
TEL-(716) 885-2228
SIC-3569 EMPLOYS-10
Gross Sales - Under 1 Million
Pres C D Crandall
VP Sales Keith A Crandall
PRODUCT — Packaging Machinery

Cranz J M Co Inc
2671 Main St Buffalo NY 14214
TEL-(716) 832-3300
SIC-3069 EMPLOYS-100
Gross Sales - Between 1 and 10 Million
Pres James G Davis
PRODUCT — Fabricated Rubber Products, Not Elsewhere Classified

Crosby Co Inc The
183 Pratt St Buffalo NY 14240
TEL-(716) 852-3522
SIC-3469 EMPLOYS-100
Gross Sales - Between 1 and 10 Million
Pres Henry W Crosby
PRODUCT — Metal Stampings Not Elsewhere Classified

Cullen Industries Inc
960 Busti At Niagara
Buffalo NY 14213
TEL-(716) 883-8900
SIC-3079 EMPLOYS-300
Gross Sales - Over 10 Million
Pres John S Cullen
PRODUCT — Packaged Adsorbents and Chemicals

Curbell Inc
777 Hertel Ave Buffalo NY 14207
TEL-(716) 873-9540
SIC-3079 EMPLOYS-50
Gross Sales - Between 1 and 10 Million
Pres E A Leone
PRODUCT — Miscellaneous Plastics Products

Curtis Screw Co Inc
1130 Niagara St Buffalo NY 14213
TEL-(716) 885-0110
SIC-3451 EMPLOYS-100
Gross Sales - Between 1 and 10 Million
Pres J T Hoskins
PRODUCT — Screw Machine Products

Curtiss-Wright Corp
60 Grider St Buffalo NY 14215
TEL-(716) 894-7770
SIC-3356 EMPLOYS-100
Gross Sales - Between 1 and 10 Million
Pres T F Nakles
PRODUCT — D300 Extruded Solid Shapes & Pipe - Steel & Titanium

Custom Canvas Manufacturing
775 Seneca St Buffalo NY 14210
TEL-(716) 852-6372
SIC-2394 EMPLOYS-10
Gross Sales - Under 1 Million
PRODUCT — Canvas and Related Products

D C A Food Industries Inc
12 South Elmwood Ave
Buffalo NY 14202
TEL-(716) 852-7506
SIC-2051 EMPLOYS-20
Gross Sales - Between 1 and 10 Million
PRODUCT — Bread and Others Bakery Products, Except Cookies and Crackers

● **D L Group**
Banite Inc
47 East Market St
Buffalo NY 14204
TEL-(716) 853-4700
SIC-2841 EMPLOYS-75
Gross Sales - Over 10 Million
pres Joel N Lippman
Exec VP Melvin A Lippman
PRODUCT — Soap and Other Detergents, Except Specialty Cleaners, Hand Cleaners

● **D R C Automatic Systems Inc**
300 Ramsdell Ave
Buffalo NY 14216
TEL-(716) 875-2933
SIC-3613 EMPLOYS-14
Gross Sales - Under 1 Million
Pres A D'arcy
Exec VP Pat D'arcy Loultzec
PRODUCT — Switchgear and Switchboard Apparatus, Control Panels

DCA Food Industries
128 South Elmwood Ave
Buffalo NY 14202
TEL-(716) 852-7506
SIC-2051 EMPLOYS-35
Gross Sales - Between 1 and 10 Million
PRODUCT — Bread and Others Bakery Products, Except Cookies and Crackers

● **Darling & Co**
2000 William St Buffalo NY 14240
TEL-(716) 895-0655
SIC-2077 EMPLOYS-28
Gross Sales - Between 1 and 10 Million
Gen Mgr Charles Gorski
PRODUCT — Animal and Marine Fats and Oils

Davis Bulletin Co Inc
Div of Tapecon Inc
701 Seneca St Buffalo NY 14210
TEL-(716) 854-1322
SIC-2752 EMPLOYS-36
Gross Sales - Between 1 and 10 Million
Pres H M Davis Jr
PRODUCT — Decals, Nameplates, Pressure Sensitive Labels, Screen Printing

Davis Joseph Inc
120 West Tupper St
Buffalo NY 14201
TEL-(716) 842-1500
SIC-3432 EMPLOYS-1
Gross Sales - Under 1 Million
PRODUCT — Plumbing Fixture Fittings and Trim (Brass Goods)

● **De Markus Corp**
1210 East Ferry St
Buffalo NY 14211
TEL-(716) 893-2222
SIC-3599 EMPLOYS-20
Gross Sales - Between 1 and 10 Million
Chf Ex Off William Bennett
Treas & Secy Peter Cherrn Zia
PRODUCT — Miscellaneous Machinery, Except Electrical

Deck Bros Inc
222 Chicago St Buffalo NY 14204
TEL-(716) 852-0262
SIC-3599 EMPLOYS-20
Gross Sales - Between 1 and 10 Million
Pres K J Kellner
PRODUCT — N/C Machining Center Job Shop

Delavan Industries Inc
1726 Walden Ave
Buffalo NY 14225
TEL-(716) 894-3120
SIC-3441 EMPLOYS-1
Gross Sales - Under 1 Million
PRODUCT — Fabricated Structural Steel

Denler Metal Products Mfg
1200 Niagara St Buffalo NY 14213
TEL-(716) 885-7818
SIC-3469 EMPLOYS-34
Gross Sales - Between 1 and 10 Million
Pres W N Denler Jr
PRODUCT — Metal Stampings Not Elsewhere Classified

Dennis & Co Inc
251 Main St Buffalo NY 14203
TEL-(716) 852-2309
SIC-2731 EMPLOYS-10
Gross Sales - Under 1 Million
Pres F O Dennis
PRODUCT — Books: Publishing, Publishing and Printing

Denny Machine Co Inc
20 Norris St Buffalo NY 14240
TEL-(716) 873-6865
SIC-3599 EMPLOYS-50
Gross Sales - Between 1 and 10 Million
Pres F Deni
PRODUCT — Miscellaneous Machinery, Except Electrical

Dentek Inc
155 Great Arrow Ave
Buffalo NY 14207
TEL-(716) 875-1770
SIC-3843 EMPLOYS-10
Gross Sales - Under 1 Million
Pres W S Strauss
PRODUCT — Dental Equipment and Supplies

Derrick Manufacturing Corp
590 Duke Rd Buffalo NY 14225
TEL-(716) 683-9010
SIC-3569 EMPLOYS-50
Gross Sales - Between 1 and 10 Million
Pres H W Derrick
PRODUCT — General Industrial Machinery and Equipment, Not Elsewhere Classified

Design For Industry Inc
46 Metcalfe St Buffalo NY 14206
TEL-(716) 842-1230
SIC-2541 EMPLOYS-15
Gross Sales - Between 1 and 10 Million
Pres Burt Howell
VP Brion Charters
PRODUCT — Industrial Trade Show Exhibits, and Office

Designers-Folding Box Corp
84 Tennessee St Buffalo NY 14204
TEL-(716) 853-5141
SIC-2651 2661 EMPLOYS-20
Gross Sales - Between 1 and 10 Million
Pres M J Perrelli
PRODUCT — Building Paper and Building Board Mills

■ **Dinaire Corp**
601 Ohio St Buffalo NY 14203
TEL-(716) 852-5228
SIC-2511 EMPLOYS-2500
Gross Sales - Between 1 and 10 Million
Pres & Treas C Gugino
VP E W Gugino
Secy F G Schermerhorn
PRODUCT — Wood Dinette Furniture Upholstered

Donanson Products
1721 Elmwood Ave
Buffalo NY 14207
TEL-(716) 874-6274
SIC-3161 EMPLOYS-10
Gross Sales - Under 1 Million
PRODUCT — Luggage

Donner Hanna Coke Corp
Abby & Mystic St
Buffalo NY 14220
TEL-(716) 822-1600
SIC-2911 3312 EMPLOYS-400
Gross Sales - Between 1 and 10 Million
Gen Mgr A D Shattuck

JAMAICA Cont'd

Okay Converters Inc
94-02 148th St Jamaica NY 11435
TEL-(212) 657-6700
SIC-2645 EMPLOYS-20
Gross Sales - Between 1 and 10 Million
PRODUCT — Die Cut Paper and Paperboard and Cardboard

Olympic Ice Cream Co Inc
129-15 92nd Ave
Jamaica NY 11418
TEL-(212) 849-6200
SIC-2024 EMPLOYS-10
Gross Sales - Under 1 Million
PRODUCT — Ice Cream and Frozen Desserts

Otis Elevator Co
United Technologies
140-35 Queens Blvd
Jamaica NY 11435
TEL-(212) 526-8000
SIC-3534 EMPLOYS-72
Gross Sales - Between 1 and 10 Million
PRODUCT — Elevators and Moving Stairways

★ **Ottavino A Corp**
90-60 Pitkin Ave
Jamaica NY 11417
TEL-(212) 848-9404
SIC-3281 EMPLOYS-37
Gross Sales - Between 1 and 10 Million
Pres A Geo Ottavino
PRODUCT — Cut Stone and Stone Products for Buildings - Monuments - Surface Plates

Ozone Park Manufacturing
96-10 101st Ave
Jamaica NY 11416
TEL-(212) 845-9816
SIC-2371 EMPLOYS-20
Gross Sales - Between 1 and 10 Million
Pres Emilio Romeo
VP Saverio Dileo
PRODUCT — Fur Goods

P H Precision Products Corp
130-01 Jamaica Ave
Jamaica NY 11418
TEL-(212) 847-5400
SIC-3599 EMPLOYS-10
Gross Sales - Under 1 Million
Pres P F Hocker
PRODUCT — Miscellaneous Mechinery, Except Electrical

Packard Instrument Co Inc
7 Erie Dr Jamaica NY 11423
TEL-(800) 221-0362
SIC-3811 EMPLOYS-10
Gross Sales - Under 1 Million
PRODUCT — Engineering, laboratory and Scientific and Research Instruments and Associated Equipment

Paul Manufacturing Co Inc
21453 Jamaica Ave
Jamaica NY 11428
TEL-(516) 468-8991
SIC-2369 EMPLOYS-15
Gross Sales - Under 1 Million
PRODUCT — Girls', Children's and Infants' Outerwear, Not Elsewhere Classified

Pennbrook Co Inc
119-20 Merrick Blvd
Jamaica NY 11435
TEL-(212) 528-3500
SIC-2369 EMPLOYS-50
Gross Sales - Between 1 and 10 Million

JAMAICA Cont'd

PRODUCT — Girls', Children's and Infants' Outerwear, Not Elsewhere Classified

Perfect Seal Window Inc
97-35 133rd Ave
Jamaica NY 11417
TEL-(212) 641-6400
SIC-3442 EMPLOYS-20
Gross Sales - Between 1 and 10 Million
Pres S Gordon
PRODUCT — Metal Doors, Sash, Frames, Moldings and Trim

Pilgrim Press
103-43 Lefferts Blvd
Jamaica NY 11419
TEL-(212) 848-1932
SIC-2751 EMPLOYS-10
Gross Sales - Under 1 Million
Pres Mr Maletta
PRODUCT — Commercial Printing, Except Lithographic

Pinstripes By Caro
16218 Crossbay Blvd
Jamaica NY 11414
TEL-(212) 845-3853
SIC-3993 EMPLOYS-1
Gross Sales - Under 1 Million
PRODUCT — Signs and Advertising Displays

Plastic Producers Inc
145-73 226th St
Jamaica NY 11413
TEL-(212) 723-2280
SIC-3993 EMPLOYS-500
Gross Sales - Over 10 Million
PRODUCT — Signs and Advertising Displays

Pola Sportswear Inc
108-14 101st Ave
Jamaica NY 11419
TEL-(212) 738-7811
SIC-2335 EMPLOYS-20
Gross Sales - Between 1 and 10 Million
Pres Albert Brancato
PRODUCT — Women's, Misses' and Junior's Dresses

Production Envelope Mfrs Inc
88-06 Van Wyck Expwy
Jamaica NY 11418
TEL-(212) 523-5147
SIC-2642 EMPLOYS-15
Gross Sales - Under 1 Million
PRODUCT — Envelopes

Program Printing Inc
Aqueduct Race Track
Jamaica NY 11416
TEL-(212) 491-1306
SIC-2741 EMPLOYS-15
Gross Sales - Under 1 Million
PRODUCT — Miscellaneous Publishing

● **Q T Products Inc**
20211 Jamaica Ave
Jamaica NY 11423
TEL-(212) 479-5858
SIC-3842 EMPLOYS-25
Gross Sales - Under 1 Million
Pres Sylvia M Brussell
VP Edward M Brussell
PRODUCT — Ostomy Appliances and Supplies and Accessories

R & D Machine Corp
106-45 98th St Jamaica NY 11417
TEL-(212) 641-5655
SIC-3542 EMPLOYS-20
Gross Sales - Between 1 and 10 Million
Pres P Ruccione
PRODUCT — Machine Tools, Metal Forming Types

JAMAICA Cont'd

● **Railex Corp**
89-02 Atlantic Ave
Jamaica NY 11416
TEL-(212) 845-5454
SIC-3535 EMPLOYS-40
Gross Sales - Between 1 and 10 Million
Pres A Rutkovsky
VP S Rutkovsky
PRODUCT — Conveyors and Conveying Equipment

Raymac Cabinet Co Inc
87-49 130th St Jamaica NY 11418
TEL-(212) 846-0550
SIC-2522 EMPLOYS-50
Gross Sales - Between 1 and 10 Million
Pres E Popkin
PRODUCT — Metal Office Furniture

Red Mill Knitting Corp
97-20 Jamaica Ave
Jamaica NY 11421
TEL-(212) 849-9637
SIC-2253 2335 EMPLOYS-10
Gross Sales - Under 1 Million
PRODUCT — Knit Outerwear Mills

Rohde Industries Inc
11651 126th St Jamaica NY 11420
TEL-(212) 529-2262
SIC-3599 EMPLOYS-5
Gross Sales - Under 1 Million
PRODUCT — Designers & Fabricators of Custom Mechinery

★ **Rosco Inc**
144-31 91st Ave
Jamaica NY 11435
TEL-(212) 526-2601
SIC-3231 EMPLOYS-50
Gross Sales - Between 1 and 10 Million
Pres Sol Englander
Nat Sales Mgr David Mostel
PRODUCT — Truck Mirrors, Bus Mirrors, School and Transit, Foreign Car Mirrors, American Car Mirrors, Detection Mirrors, Elevators Mirrors, All Types of Convex Mirrors

Rudd Manufacturing Co Inc
98-05 217th St Jamaica NY 11429
TEL-(212) 465-5794
SIC-2327 EMPLOYS-50
Gross Sales - Between 1 and 10 Million
PRODUCT — Men's, Youths' and Boys' Separate Trousers

Russo Finishing Corp
127-02 101st Ave
Jamaica NY 11418
TEL-(212) 846-4432
SIC-2339 EMPLOYS-20
Gross Sales - Between 1 and 10 Million
PRODUCT — Women's, Misses' and Juniors' Outerwear, Not Elsewhere Classified

Ryder Press
134-25 Brookville Blvd
Jamaica NY 11422
TEL-(212) 528-5641
SIC-2751 EMPLOYS-10
Gross Sales - Under 1 Million
PRODUCT — Commercial Printing, Except Lithographic

S & C Knitting Mills Inc
120-08 Jamaica Ave
Jamaica NY 11418
TEL-(212) 441-3660
SIC-2253 EMPLOYS-50
Gross Sales - Between 1 and 10 Million
PRODUCT — Knit Outerwear Mills

JAMAICA Cont'd

S & S Dress Co
108-07 Jamaica Ave
Jamaica NY 11418
TEL-(212) 849-0386
SIC-2335 EMPLOYS-20
Gross Sales - Between 1 and 10 Million
PRODUCT — Women's, Misses' and Junior's Dresses

Samfred & Co Inc
158-10 84th Dr Jamaica NY 11432
TEL-(212) 657-8337
SIC-3479 EMPLOYS-50
Gross Sales - Between 1 and 10 Million
Pres Fred Vogel
PRODUCT — Plastic Items for the Catering Trade

Sanka Knitting Mills Inc
131-19 Jam Ave
Jamaica NY 11418
TEL-(212) 847-1700
SIC-2253 EMPLOYS-20
Gross Sales - Between 1 and 10 Million
PRODUCT — Knit Outerwear Mills

Scaccia Concrete Corp
147-16 Liberty Ave
Jamaica NY 11435
TEL-(212) 658-3150
SIC-2891 EMPLOYS-10
Gross Sales - Under 1 Million
PRODUCT — Adhesives and Gelatin

Schaffer Metal Products Inc
177-04 93rd Ave
Jamaica NY 11433
TEL-(212) 657-0330
SIC-3449 EMPLOYS-10
Gross Sales - Under 1 Million
PRODUCT — Miscellaneous Metal Work

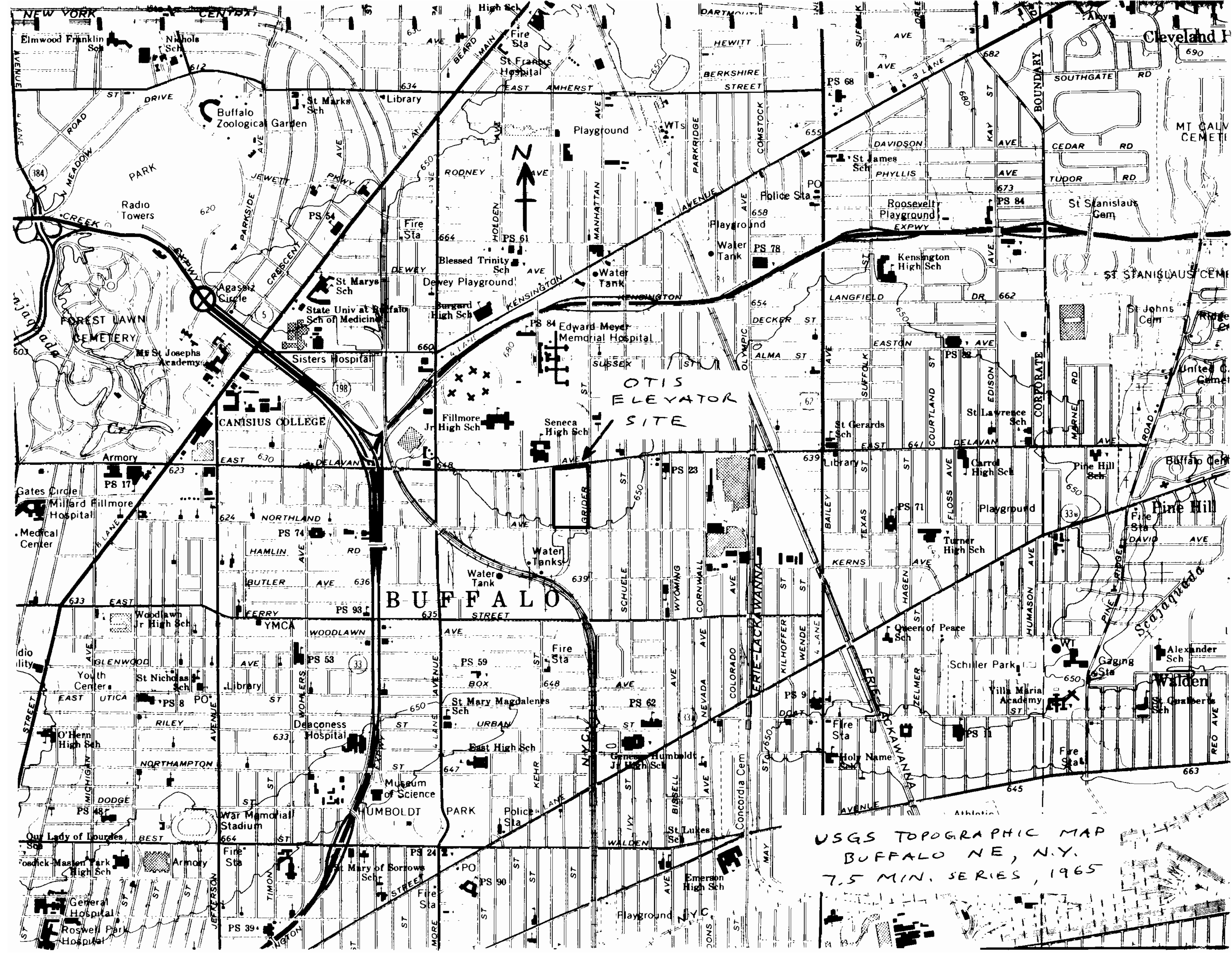
★ **Servit Foods Corp**
100-05 92nd Ave
Jamaica NY 11418
TEL-(212) 441-8900
SIC-2099 EMPLOYS-20
Gross Sales - Between 1 and 10 Million
Pres S Hauser
Exec VP Stuart Ackerman
VP A Paul
PRODUCT — Food Preparations: Tea, Gelatin, Pudding, Hot Chocolate, Tapioca and Soybeans

Sherman Electro Plating Inc
178-18 107th Ave
Jamaica NY 11433
TEL-(212) 657-7060
SIC-3471 EMPLOYS-20
Gross Sales - Between 1 and 10 Million
PRODUCT — Electroplating, Plating, Polishing, Anodizing and Coloring

Shore Instrument & Mfg Co Inc
90-35 Van Wyke Expy P O Box 384
Jamaica NY 11435
TEL-(212) 526-4089
SIC-3823 3829 EMPLOYS-20
Gross Sales - Between 1 and 10 Million
Pres G R Narins
Gen Mgr W J Galbraith
PRODUCT — Industrial Instruments for Measurement, Display and Control of Process Variables; and Related Products

Sil-O-Ette Sales Corp
144-08 91st Ave
Jamaica NY 11435
TEL-(212) 657-8000

REFERENCE 10



OTIS ELEVATOR SITE
N
USGS TOPOGRAPHIC MAP
BUFFALO NE, N.Y.
7.5 MIN. SERIES, 1965
BUFFALO
Buffalo Zoological Garden
FOREST LAWN CEMETERY
CANISIUS COLLEGE
Seneca High Sch
Fillmore Jr High Sch
Edward Meyer Memorial Hospital
Kensington High Sch
State Univ at Buffalo Sch of Medicine
Sisters Hospital
Millard Fillmore Hospital
Deaconess Hospital
Museum of Science
HUMBOLDT PARK
War Memorial Stadium
East High Sch
Villa Maria Academy
Schiller Park
ERIE-LACKAWANNA
KENSINGTON
DELAVAN
EAST
GRIDER
BAILEY
Pine Hill
Walden
Cleveland

REFERENCE 11

STATE OF NEW YORK

OFFICIAL COMPILATION

OF

CODES, RULES AND REGULATIONS

MARIO M. CUOMO
Governor

GAIL S. SHAFFER
Secretary of State

Published by
DEPARTMENT OF STATE
162 Washington Avenue
Albany, New York 12231

1/83

837.4 Table I.

TABLE I

Classifications and Standards of Quality and Purity Which Are Assigned to All Surface Waters within the Lake Erie (East End) - Niagara River Drainage Basin; Erie, Niagara, Genesee, Orleans and Wyoming Counties, New York

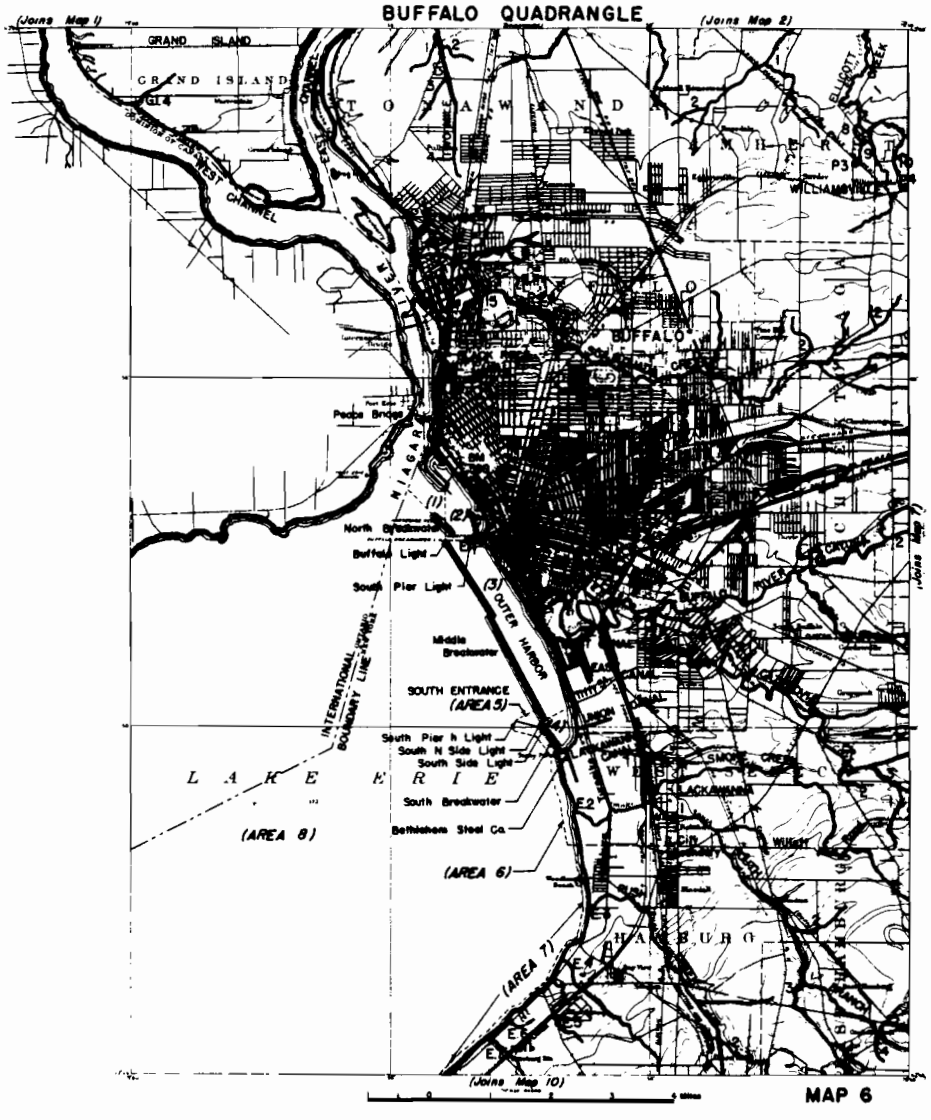
Item No.	Waters Index Number	Name	Description	Map Ref. No.	Class	Standards
1	0-158	Niagara River American side	Waters from international boundary to American shore between confluence with Lake Ontario and Lake Erie. La tter point is defined as a line running due west from south end of Bird Island ier to international boundary. These waters include all bays, arms, and inlets thereof, but not trib. streams or Black Rock Canal.	1,2,6	A-Special (international boundary waters)	A-Special (international boundary waters)
2	Black Rock Canal	Black Rock Canal	Waters east of Sqaw Island and Bird Island ier between canal locks and a line from south end of Bird Island ier to Buffalo harbor light #6.	6	C	C
3	0-158-1 and 2	Tributaries of Niagara River	Enter Niagara River from east in Town of Lewiston approximately 4.5 and 7.0 miles respectively from mouth.	1	C	C
4	0-158-3	Fish Creek	Enters Niagara River from east approximately 2.0 miles north of Niagara-Lewiston town line.	1,2	D	D
5	0-158-4 and P 1	Tributary of Niagara River	Enters Niagara River from east approximately 0.7 mile north of Niagara-Lewiston town line.	1	D	D

TABLE I (contd.)

Item No.	Waters Index Number	Name	Description	Map Ref. No.	Class	Standards
111	0-158-12-77-3 and trib. and 4 as shown on reference map	Tribs. of East Fork	Enter East Fork between Engine Creek, item no. 110, and source.	12	A	A(T)
112	0-158-12-78	Perry Brook	Enters Tonawanda Creek from south approximately 2.8 miles southwest of Johnsonburg.	12	A	A
113	0-185-12-79 and trib. and 80	Tribs. of Tonawanda Creek	Enter Tonawanda Creek between Perry Brook, item no. 112, and source.	12	A	A
114	0-158-13 and tribs. including P 22 as shown on reference map	Two Mile Creek	Enters Niagara River (East Channel) at Two Mile Creek Road in City of Tonawanda.	2,6	B	B
115	0-158-14 and tribs. as shown on reference map	Trib. of Niagara River	Enters Niagara River approximately opposite intersection of Ontario Street and Niagara Street, City of Buffalo.	6	D	D
116	0-158-15 portion as described including P 24 and P 25	Scajaquada Creek	Enters Niagara River approximately opposite intersection of Niagara Street and Tonawanda Street, City of Buffalo. Mouth to crossing of Main Street, City of Buffalo.	6	B	B

TABLE I (contd.)

Item No.	Waters Index Number	Name	Description	Map Ref. No.	Class	Standards
117	0-158-15 portion as described	Scajaquada Creek	From crossing of Main Street, City of Buffalo to trib. 4 which is in line with continuation of Frederick Drive, Town of Cheektowaga.	6	D	D
118	0-158-15 portion as described	Scajaquada Creek	From trib. 4 which is in line with continuation of Frederick Drive, Town of Cheektowaga to source.	6,7	B	B
119	0-158-15-1,2,3, 4,5,6, and 7 and tribs. as shown on reference map	Tribs. of Scajaquada Creek	Enter Scajaquada Creek from north and northeast between mouth and source.	6,7	D	D
120	Big Burnt Ship Creek	Big Burnt Ship Creek	Seperates Grand Island from Buckhorn Island.	2	B	B
121	G.I. 1	Trib. of Big Burnt Ship Creek	Enters Big Burnt Ship Creek from east opposite eastern end of Buckhorn Island.	2	B	B
122	G.I. 2 and trib. as shown on reference map	Gun Creek	Enters Niagara (East Channel) from Grand Island at Edgewater.	2	B	B
123	G.I. 3 and trib. as shown on reference map	Spicer Creek	Enters Niagara (East Channel) from Grand Island opposite North Tonawanda water intake light.	2	B	B


BUFFALO QUADRANGLE
(Joins Map 1)
(Joins Map 2)
GRAND ISLAND
GRAND ISLAND
TONAWANDA
BUFFALO
WILLIAMSVILLE
CHEEKTOWAGA
LACKAWANNA
HAMBURG
NIAGARA RIVER
BUFFALO RIVER
CONNECTING CHANNEL
Peace Bridge
North Breakwater
Buffalo Light
South Pier Light
(1)
(2)
(3)
OUTER HARBOR
Middle Breakwater
SOUTH ENTRANCE
(AREA 5)
South Pier h Light
South N Side Light
South Side Light
South Breakwater
Bethlehem Steel Co.
INTERNATIONAL BOUNDARY LINE (CANADA)
L A K E E R I E
(AREA 8)
(AREA 6)
(AREA 7)
(Joins Map 10)
(Joins Map 7)
MAP 6

PART 701

CLASSIFICATIONS AND STANDARDS OF QUALITY AND PURITY

(Statutory authority: Environmental Conservation Law, §§ 3-0301[2][m], 15-0313, 17-0301)

Historical Note

Part repealed, new filed: April 28, 1972; Feb. 25, 1974 eff. 30 days after filing.

Section 701.1 Definitions. The terms, words or phrases used in Parts 700, 701, 702 and 704 of this Title shall have the following meanings:

(a) *Commissioner* shall mean the Commissioner of the Department of Environmental Conservation.

(b) *Administrator* shall mean the administrator of the United States Environmental Protection Agency.

(c) *Best usage of waters* as specified for each class shall be those used as determined by the commissioner and the administrator in accordance with the considerations prescribed by the Environmental Conservation Law and the Federal Water Pollution Control Act of 1972 (see section 705.1 of this Title).

(d) *Approved treatment* as applied to water supplies shall mean treatment accepted as satisfactory by the authorities responsible for exercising supervision over the sanitary quality of water supplies.

(e) *Source of water supply for drinking, culinary or food processing purposes* shall mean any source, either public or private, the waters from which are used for domestic consumption or used in connection with the processing of milk, beverages or foods. (When water is taken for public drinking, culinary or food processing purposes, refer to New York State Department of Health regulations—10 NYCRR Part 170.)

(f) *Primary contact recreation* shall mean recreational activities where the human body may come in direct contact with raw water to the point of complete body submergence. Such uses include swimming, diving, water skiing, skin diving and surfing.

3. Total dissolved solids.	Shall be kept as low as practicable to maintain the best usage of waters, but in no case shall it exceed 500 milligrams per liter.
4. Dissolved oxygen.	For cold waters suitable for trout spawning, the DO concentration shall not be less than 7.0 mg/l from other than natural conditions. For trout waters, the minimum daily average shall not be less than 6.0 mg/l. At no time shall the DO concentration be less than 5.0 mg/l. For non-trout waters, the minimum daily average shall not be less than 5.0 mg/l. At no time shall the DO concentration be less than 4.0 mg/l.
5. Phenolic compounds.	Shall not be greater than 0.001 milligram per liter (Phenol).
6. Radioactivity.	
a. Gross Beta	Shall not exceed 1,000 picocuries per liter in the absence of Sr90 and alpha emitters.
b. Radium 226	Shall not exceed 3 picocuries per liter.
c. Strontium 90	Shall not exceed 10 picocuries per liter.

Note: With reference to certain toxic substances affecting fishlife, the establishment of any single numerical standard for waters of New York State would be too restrictive. There are many waters which, because of poor buffering capacity and composition, will require special study to determine safe concentrations of toxic substances. However, most of the non-trout waters near industrial areas in this State will have an alkalinity of 80 milligrams per liter or above. Without considering increased or decreased toxicity from possible combinations, the following may be considered as safe stream concentrations for certain substances to comply with the above standard for this type of water. Waters of lower alkalinity must be specifically considered since the toxic effect of most pollutants will be greatly increased.

Ammonia or Ammonium compounds	Not greater than 2.0 milligrams per liter expressed as NH_3 at pH of 8.0 or above.
Cyanide	Not greater than 0.1 milligram per liter expressed as CN.
Ferro—or Ferricyanide	Not greater than 0.4 milligram per liter expressed as Fe (CN) 6.
Copper	Not greater than 0.2 milligram per liter expressed as Cu.
Zinc	Not greater than 0.3 milligram per liter expressed as Zn.
Cadmium	Not greater than 0.3 milligram per liter expressed as Cd.

CLASS "A"

Best usage of waters. Source of water supply for drinking, culinary or food processing purposes and any other usages.

Conditions related to best usage of waters. The waters, if subjected to approved treatment equal to coagulation, sedimentation, filtration and disinfection, with additional treatment if necessary to reduce naturally present impurities, will meet New York State Department of Health drinking water standards and will be considered safe and satisfactory for drinking water purposes.

Quality Standards for Class "A" Waters

Items	*Specifications*
1. Coliform.	The monthly median coliform value for 100 ml of sample shall not exceed 5,000 from a minimum of five examinations, and provided that not more than 20 percent of the samples shall exceed a coliform value of 20,000 for 100 ml of sample and the monthly geometric mean fecal coliform value for 100 ml of sample shall not exceed 200 from a minimum of five examinations.
2. pH	Shall be between 6.5 and 8.5.
3. Total dissolved solids.	Shall be kept as low as practicable to maintain the best usage of waters, but in no case shall it exceed 500 milligrams per liter.
4. Dissolved oxygen.	For cold waters suitable for trout spawning, the DO concentration shall not be less than 7.0 mg/l from other than natural conditions. For trout waters, the minimum daily average shall not be less than 6.0 mg/l. At no time shall the DO concentration be less than 5.0 mg/l. For non-trout waters, the minimum daily average shall not be less than 5.0 mg/l. At no time shall the DO concentration be less than 4.0 mg/l.
5. Phenolic compounds.	Shall not be greater than 0.005 milligram per liter (Phenol).
6. Radioactivity.	
a. Gross Beta	Shall not exceed 1,000 picocuries per liter in the absence of Sr90 and alpha emitters.
b. Radium 226	Shall not exceed 3 picocuries per liter.
c. Strontium 90	Shall not exceed 10 picocuries per liter.

Note: Refer to Note under Class "AA" which is also applicable to Class "A" standards.

CLASS "B"

Best usage of waters. Primary contact recreation and any other uses except as a source of water supply for drinking, culinary or food processing purposes.

Quality Standards for Class "B" Waters

Items	*Specifications*
1. Coliform.	The monthly median coliform value for 100 ml of sample shall not exceed 2,400 from a minimum of five examinations, and provided that not more than 20 percent of the samples shall exceed a coliform value of 5,000 for 100 ml of sample and the monthly geometric mean fecal coliform value for 100 ml of sample shall not exceed 200 from a minimum of five examinations. This standard shall be met during all periods when disinfection is practiced.

2. pH	Shall be between 6.5 and 8.5.
3. Total dissolved solids.	None at concentrations which will be detrimental to the growth and propagation of aquatic life. Waters having present levels less than 500 milligrams per liter shall be kept below this limit.
4. Dissolved oxygen.	For cold waters suitable for trout spawning, the DO concentration shall not be less than 7.0 mg/l from other than natural conditions. For trout waters, the minimum daily average shall not be less than 6.0 mg/l. At no time shall the DO concentration be less than 5.0 mg/l. For non-trout waters, the minimum daily average shall not be less than 5.0 mg/l. At no time shall the DO concentration be less than 4.0 mg/l.

Note: Refer to Note under Class "AA" which is also applicable to Class "B" standards.

CLASS "C"

Best usage of waters. The waters are suitable for fishing and fish propagation. The water quality shall be suitable for primary and secondary contact recreation even though other factors may limit the use for that purpose.

Quality Standards for Class "C" Waters

Items	*Specifications*
1. Coliform.	The monthly median coliform value for 100 ml of sample shall not exceed 2,400 from a minimum of five examinations, and provided that not more than 20 percent of the samples shall exceed a coliform value of 5,000 for 100 ml of sample and the monthly geometric mean fecal coliform value for 100 ml of sample shall not exceed 200 from a minimum of five examinations. This standard shall be met during all periods when disinfection is practiced.
2. pH	Shall be between 6.5 and 8.5.
3. Total dissolved solids.	None at concentrations which will be detrimental to the growth and propagation of aquatic life. Waters having present levels less than 500 milligrams per liter shall be kept below this limit.

4. Dissolved oxygen.	For cold waters suitable for trout spawning, the DO concentration shall not be less than 7.0 mg/l from other than natural conditions. For trout waters, the minimum daily average shall not be less than 6.0 mg/l. At no time shall the DO concentration be less than 5.0 mg/l. For non-trout waters, the minimum daily average shall not be less than 5.0 mg/l. At no time shall the DO concentration be less than 4.0 mg/l.

Note: Refer to Note under Class "AA" which is also applicable to Class "C" standards.

CLASS "D"

Best usage of waters. The waters are suitable for fishing. The water quality shall be suitable for primary and secondary contact recreation even though other factors may limit the use for that purpose. Due to such natural conditions as intermittency of flow, water conditions not conducive to propagation of game fishery or stream bed conditions, the waters will not support fish propagation.

Conditions related to best usage of waters. The waters must be suitable for fish survival.

Quality Standards for Class "D" Waters

Items	*Specifications*
1. pH	Shall be between 6.0 and 9.5.
2. Dissolved oxygen.	Shall not be less than 3 milligrams per liter at any time.
3. Coliform.	The monthly median coliform value for 100 ml of sample shall not exceed 2,400 from a minimum of five examinations and provided that not more than 20 percent of the samples shall exceed a coliform value of 5,000 for 100 ml of sample and the monthly geometric mean fecal coliform value for 100 ml of sample shall not exceed 200 from a minimum of five examinations. This standard shall be met during all periods when disinfection is practiced.

Note: Refer to Note under Class "AA" which is also applicable to Class "D" standards.

Historical Note

Sec. added by renum. 701.4, filed July 3, 1985; amd. filed Sept. 20, 1985 eff. 30 days after filing.

701.20 Classes and standards for saline surface waters. The following items and specifications shall be the standards applicable to all New York saline surface waters which are assigned the classification of SA, SB, SC or SD, in addition to the specific standards which are found in this section under the heading of each such classification.

Quality Standards for Saline Surface Waters

Items	*Specifications*
1. Garbage, cinders, ashes, oils, sludge or other refuse.	None in any waters of the marine district as defined by Environmental Conservation Law (§ 17-0105)

PART 702

SPECIAL CLASSIFICATIONS AND STANDARDS

(Statutory authority: Environmental Conservation Law, §§ 3-0301[2][m], 15-0313, 17-0301)

Historical Note
Part repealed, new filed: April 28, 1972; Feb. 25, 1974 eff. 30 days after filing.

Section 702.1 Class A—Special (International boundary waters).

(GREAT LAKES WATER QUALITY AGREEMENT OF 1972)

Best usage of waters. Source of water supply for drinking, culinary or food processing purposes, primary contact recreation and any other usages.

Conditions related to best usage. The waters, if subjected to approved treatment, equal to coagulation, sedimentation, filtration and disinfection with additional treatment, if necessary, to reduce naturally present impurities, meet or will meet New York State Department of Health drinking water standards and are or will be considered safe and satisfactory for drinking water purposes.

Quality Standards for Class A—Special Waters (International Boundary Waters)

Items	*Specifications*
1. Coliform.	The geometric mean of not less than five samples taken over not more than a 30-day period should not exceed 1,000 per 100 ml total coliform nor 200 per 100 ml fecal coliform.
2. Dissolved oxygen.	In the rivers and upper waters of the lakes not less than 6.0 mg/l at any time. In hypolimnetic waters, it should be not less than necessary for the support of fishlife, particularly cold water species.

Items	*Specifications*
3. Total dissolved solids.	Should not exceed 200 milligrams per liter.
4. pH	Should not be outside the range of 6.7 to 8.5.
5. Iron.	Should not exceed 0.3 milligrams per liter as Fe.
6. Phorphorus.	Concentrations should be limited to the extent necessary to prevent nuisance growths of algae, weeds and slimes that are or may become injurious to any beneficial water use.
7. Radioactivity.	Should be kept at the lowest practicable levels, and in any event should be controlled to the extent necessary to prevent harmful effects on health.
8. Taste and odor-producing substances, toxic wates and deleterious substances.	None in amounts that will interfere with use for primary contact recreation or that will be injurious to the growth and propagation of fish, or which in any manner shall adversely affect the flavor, color or odor thereof, or impair the waters for any other best usage as determined for the specific waters which are assigned to this class.
9. Suspended, colloidal or settleable solids.	None from sewage, industrial wastes or other wastes which will cause deposition or be deleterious for any best usage determined for the specific waters which are assigned to this class.
10. Oil and floating substances.	No residue attributable to sewage, industrial wastes or other wastes, nor visible oil film nor globules of grease.
11. Thermal discharges.	(See Part 704 of this Title.)

To meet the water quality objectives referred to in the "Great Lakes Water Quality Agreement of 1972," the standards listed above shall be subject to revision from time to time after further hearings on due notice.

Note: Refer to Note 1 under Class "AA," which is also applicable to Class A-Special (International Boundary Waters) standards.

Historical Note

Sec. repealed, new filed: April 28, 1972; Feb. 25, 1974; amd. filed Sept. 20, 1974 eff. 30 days after filing.

702.2 Class AA – Special (Lake Champlain drainage basin).

CLASS AA – SPECIAL

Best usage of waters. Any usage except for disposal of sewage, industrial wastes or other wastes.

Quality Standards for Class AA – Special Waters (Lake Champlain drainage basin)

Items	*Specifications*
1. Floating solids, settleable solids; oil; sludge deposits; toxic wastes; deleterious substances; colored or other wastes or heated liquids.	None attributable to sewage, industrial waste or other wastes.
2. Sewage or waste effluents.	None into waters of this class.

Historical Note

Sec. repealed, new filed: April 28, 1972; Feb. 25, 1974 eff. 30 days after filing; provided, however, if the application, pursuant to Parts 800 to 941, inclusive, of Title 6, of any provision of Part 701 or 702 shall be found to be invalid, the corresponding provision of Part 701 or 702 in effect immediately prior to such effective date shall be deemed not to have been repealed and shall remain in effect until such time as the provision, the application of which was found to be invalid, can lawfully be made applicable.

702.3 Special classes and standards for the Lower Hudson River, Arthur Kill, Kill Van Kull, Harlem River, Raritan Bay and Lower East River drainage basins, New York Bay area, Nassau County, including Long Island Sound, Suffolk County, Upper East River, Long Island Sound drainage basins within Queens, Bronx and Westchester Counties, and Jamaica Bay drainage basin within Kings and Queens Counties, including a certain portion of Rockaway Inlet. (a) This section applies to the waters within the following areas, which constitute the Interstate Sanitation District:

(1) the drainage basin of the Lower Hudson River, from the mouth to northern Westchester-Rockland county lines, except Saw Mill River and Sparkill Creek drainage basins;

(2) the drainage basins of Arthur Kill, Kill Van Kull, Harlem River and Raritan Bay;

(3) the drainage basin of Lower East River, from the mouth to a line across East River north of Wards Island between Stony Point in Bronx County and Lawrence Point in Queens County;

(4) New York Bay, including Gravesend Bay, Coney Island Creek, Atlantic Basin, Erie Basin, Gowanus Bay, Gowanus Canal. The Narrows and Atlantic Ocean waters off Coney Island lying westerly of a north-south line from Light Inlet at the southeasterly tip of Coney Island Peninsula to the south tip of Rockaway Point, thence along the jetty to Rockaway jetty light, thence due south to the New York - New Jersey boundary line;

REFERENCE 12

New York State Department of Environmental Conservation
600 Delaware Avenue, Buffalo, NY 14202-1073 716/847-4560

Henry G. Williams
Commissioner

December 18, 1985

Mr. Sheldon S. Nozik
RECRA Research, Inc.
4248 Ridge Lea Road
Amherst, NY 14226

Dear Mr. Nozik:

Tentative Erie County and final Niagara County freshwater wetlands are shown directly on your site maps for the Superfund sites you are studying. Please be sure to examine all the maps since I did not copy all wetland boundaries if a given area was shown on another map.

Also, our maps show only those wetlands which exceed 5 ha in size. We have no information compiled for wetlands less than 5 acres in size.

To my knowledge, we have no "critical habitats" within one mile of the sites in question. Further, I am not aware of endangered or threatened species occupying these sites.

If you need some specific information on the wetlands within your study area, you will need to come to Regional Headquarters to compile those data.

Sincerely,

Gordon R. Batcheller
Senior Wildlife Biologist
Region 9

GRB:ls

Enc.

cc: Mr. Pomeroy

RECRA RESEARCH, INC.

Hazardous Waste And Toxic Substance Control

December 13, 1985

Mr. James Pomeroy
Habit Protection Biologist
NYSDEC Fish and Wildlife Office
128 South Street
Olean, NY 14760

Dear Mr. Pomeroy:

As per our telephone conversation on December 3, 1985, enclosed are sections of the topographic maps for the NYSDEC Phase I Superfund sites we are presently working on. Below is a list of these sites:

1. Exolon Company
2. Pennwalt-Lucidal
3. Mollenberg-Betz Co.
4. Empire Waste
5. Bisonite Paint Co.
6. Stocks Pond
7. Aluminum Matchplate
8. Otis Elevator (Stimm Assoc.)
9. LaSalle Reservoir
10. Tonawanda City Landfill
11. Union Road Site
12. Central Auto Wrecking (Diarsonal Co.)
13. Procknal and Katra
14. Consolidated Freightway
15. U.S. Steel (Stimm Assoc.)
16. Ernst Steel
17. American Brass (Anaconda)
18. Erie-Lackawanna Site
19. Dresser Industries
20. W. Seneca Transfer Station
21. Old Land Reclamation
22. Northern Demolition
23. Lackawanna Landfill
24. South Stockton Landfill*
25. Chadakoin River Park*
26. Dunkirk Landfill*
27. Felmont Oil Co.*
28. NFTA**
29. Walmore Road Site**
30. Schreck's Scrapyard**

* Chautaugua County
** Niagara County

As part of the search requirements for the NYSDEC Superfund sites, each of these sites must be documented as follows:

- if there are any coastal wetlands within two (2) miles of the site
- if there are any freshwater wetlands within one (1) mile of the site (5 acre min.
- if there are any critical habitats within one (1) mile of the site (endangered species or wildlife refuges)

Continued . . .

4248 Ridge Lea Road, Amherst, New York 14226 Telephone (716) 838-6200

Would you please forward information on sites 1-10 as soon as possible, as we have a January 15, 1986 deadline for submittal of these reports to Albany.

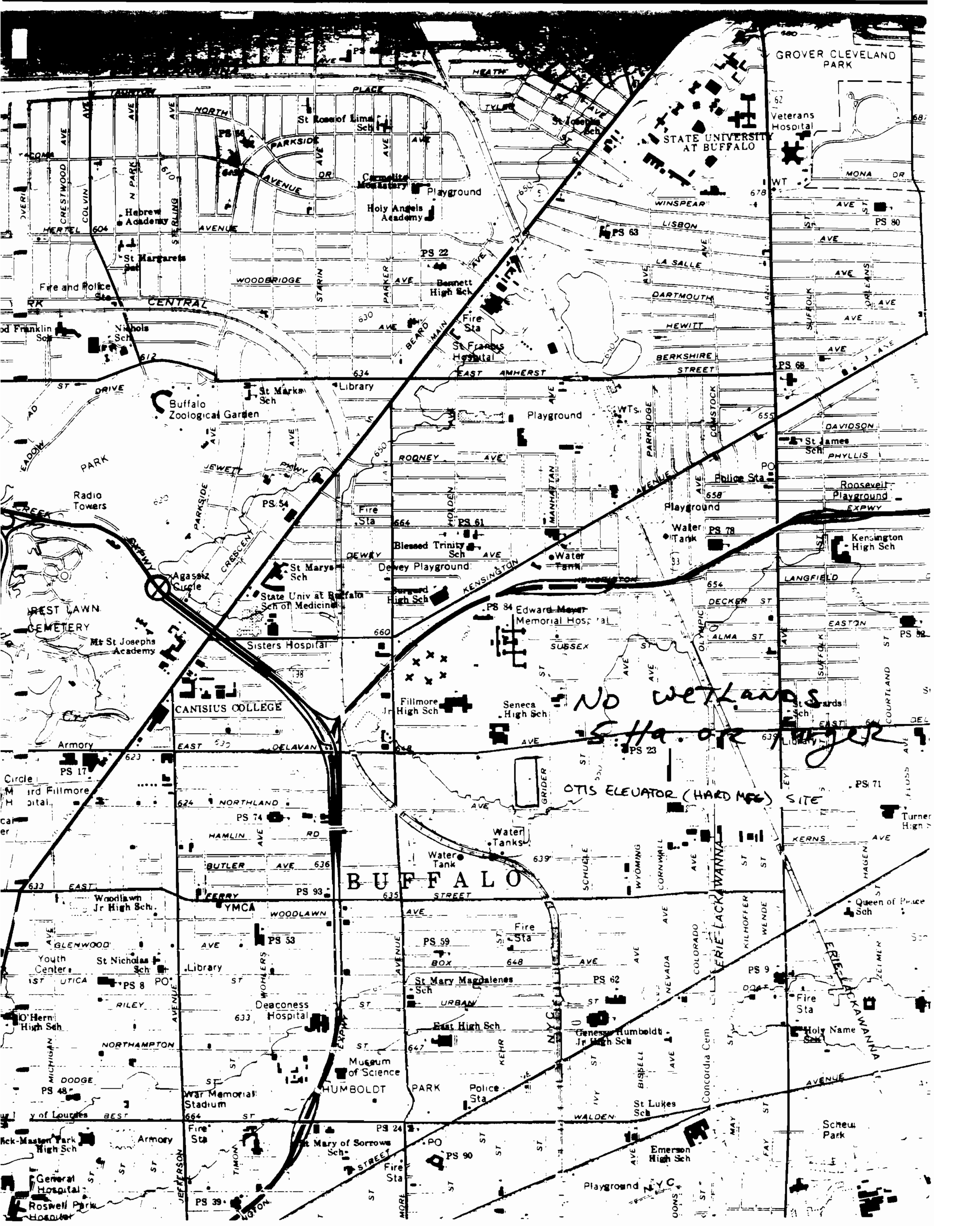
Thank you very much for your assistance and promptness in these matters. Should you have any questions or comments, please do not hesitate to call.

Sincerely,

RECRA RESEARCH, INC.

Sheldon S. Nozik
Environmental Specialist

SSN/jlo
Enclosure



GROVER CLEVELAND PARK
Veterans Hospital
STATE UNIVERSITY AT BUFFALO
St Rose of Lima Sch
Carmelite Monastery
Playground
Holy Angels Academy
Hebrew Academy
St Margarets Sch
PS 22
PS 63
PS 80
Bennett High Sch
Fire and Police Sta
Nichols Sch
Franklin Sch
Fire Sta
St Francis Hospital
PS 68
St Marks Sch
Library
Buffalo Zoological Garden
PARK
Radio Towers
PS 54
St James Sch
Police Sta
Roosevelt Playground
Fire Sta
PS 61
PS 78
Water Tank
Kensington High Sch
Blessed Trinity Sch
Dewey Playground
St Marys Sch
Agassiz Circle
State Univ at Buffalo Sch of Medicine
PS 84
Edward Meyer Memorial Hospital
FOREST LAWN CEMETERY
Mt St Josephs Academy
Sisters Hospital
CANISIUS COLLEGE
Fillmore Jr High Sch
Seneca High Sch
NO WETLANDS
5 Ha. or larger
Armory
PS 17
PS 23
PS 71
OTIS ELEVATOR (HARD MFG) SITE
PS 74
Water Tanks
Water Tank
BUFFALO
Woodlawn Jr High Sch
YMCA
PS 93
PS 53
PS 59
Fire Sta
Queen of Peace Sch
Youth Center
St Nicholas Sch
Library
PS 8
St Mary Magdalenes Sch
PS 62
PS 9
Deaconess Hospital
East High Sch
Genesee Humboldt Jr High Sch
Fire Sta
Holy Name Sch
O'Hern High Sch
Museum of Science
HUMBOLDT PARK
Police Sta
PS 48
War Memorial Stadium
St Lukes Sch
Concordia Cem
Scheu Park
Armory
Fire Sta
PS 24
St Mary of Sorrows Sch
PO
PS 90
Emerson High Sch
Fire Sta
General Hospital
Roswell Park Hospital
PS 39
Playground
ERIE LACKAWANNA

DAILY FIELD REPORT

PROJECT NO. Superfund Phase I **LOCATION** NYSDEC Delaware Ave

DATE 12/10/85 **REPORT NO.** _____

WEATHER CONDITIONS _____

REPORT

ACTIVITIES

Information was obtained from Becky Anderson of the flood Control Division of the NYSDEC office on Delaware Ave.

- The following sites were found to lie within either a 100 yr. flood plain or a 500 yr. flood plain and a photo copy was made of the FIRM. map:

1. Walmore Rd. site
2. NFTA
3. Chadakoin River Park
4. Central Autowrecking
5. Procknal and Katra
6. Felmont Oil
7. W. Seneca Transfer Station
8. U.S. Steel (Stimson Assoc.)

- The following sites were found <u>not to</u> lie within any flood plain and a photocopy was obtain of the FIRM map documenting this:

1. Exolon
2. Tonawanda city Landfill
3. Lackawanna Landfill
4. Union Rd. Site
5. Mollenberg-Betz
6. Old Land Reclamation
7. Dresser
8. Stocks Pond
9. Ernst Steel
10. S. Stockton L.F.
11. Northern Demolition

DAILY FIELD REPORT

PROJECT NO. _____ LOCATION _____

DATE _____ REPORT NO. _____

WEATHER CONDITIONS _____

REPORT

ACTIVITIES

- The following sites were found not to lie within any flood plain, although no copies of these maps were obtained:

1. Anaconda (American Brass
2. Bisonite Paint
3. Aluminum Matchplate
4. LaSalle Reservoir
5. Pennwalt - Lucidal
6. Empire Waste
7. Otis Elevertor (Hard Mantg.)
8. Consolidated Freightway

REMARKS

Shelda S. Nagel 12/10/85

APPENDIX B

APPENDIX B

REVISED "HAZARDOUS WASTE DISPOSAL SITE REPORT"

(47-15-11 (10/83)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DIVISION OF SOLID AND HAZARDOUS WASTE

INACTIVE HAZARDOUS WASTE DISPOSAL SITE REPORT

PRIORITY CODE: 915073 SITE CODE: 2a

NAME OF SITE: Otis Elevator REGION: 9

STREET ADDRESS: Grider Street

TOWN/CITY: Buffalo COUNTY: Erie

NAME OF CURRENT OWNER OF SITE: Hard Manufacturing Company

ADDRESS OF CURRENT OWNER OF SITE: 230 Grider Street, Buffalo, NY

TYPE OF SITE: OPEN DUMP [X] STRUCTURE [ ] LAGOON [ ]
LANDFILL [ ] TREATMENT POND [ ]

ESTIMATED SIZE: 3 ACRES

SITE DESCRIPTION:

Disposal of foundry sand was reportedly made on this site in the past, but is undetectable now. The site is soil covered, graded and planted. In 1982 U.S.G.S. made eight test borings and seven of them hit refuse at three feet below grade. A soil sample was taken from the eighth test boring and was analyzed for the presence of phenolic compounds. No phenol was found. The site was resampled by the U.S.G.S. in June 1983 and the one sample collected was analyzed for GC/MS organics. No organic compounds were detected.

HAZARDOUS WASTE DISPOSED: CONFIRMED [ ] SUSPECTED [X]

TYPE AND QUANTITY OF HAZARDOUS WASTES DISPOSED:

TYPE	QUANTITY (POUNDS, DRUMS, TONS, GALLONS)
Foundry sands with phenol binders	Not known

TIME PERIOD SITE WAS USED FOR HAZARDOUS WASTE DISPOSAL:

_____, 19 42 TO _____, 19 46

OWNER(S) DURING PERIOD OF USE: Not known

SITE OPERATOR DURING PERIOD OF USE: Not known

ADDRESS OF SITE OPERATOR: Not known

ANALYTICAL DATA AVAILABLE: AIR ☐ SURFACE WATER ☐ GROUNDWATER ☐
SOIL ☒ SEDIMENT ☐ NONE ☐

CONTRAVENTION OF STANDARDS: GROUNDWATER ☐ DRINKING WATER ☐
SURFACE WATER ☐ AIR ☐

SOIL TYPE: Clay soil with rock fragment

DEPTH TO GROUNDWATER TABLE: Not known

LEGAL ACTION: TYPE: None STATE ☐ FEDERAL ☐
STATUS: IN PROGRESS ☐ COMPLETED ☐
REMEDIAL ACTION: PROPOSED ☐ UNDER DESIGN ☐
IN PROGRESS ☐ COMPLETED ☐

NATURE OF ACTION: None

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

Based on the data available, there is no evidence of any environmental problem at this site.

ASSESSMENT OF HEALTH PROBLEMS:

Insufficient information.

PERSON(S) COMPLETING THIS FORM:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

NAME Recra Research, Inc. Thomas P. Connare
TITLE Environmental Scientist
NAME _____
TITLE _____
DATE: 2/14/86

NEW YORK STATE DEPARTMENT OF HEALTH

NAME _____
TITLE _____
NAME _____
TITLE _____
DATE: _____