915022

ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

PHASE I INVESTIGATION

Ernst Steel **Site No. 915022**
Cheektowaga **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.

2/3298

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

Ernst Steel Corporation
1746 Walden Avenue
Cheektowaga, Erie County, New York
Site #915022

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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TABLE OF CONTENTS

LIST OF FIGURES

SECTION 1

1.0 EXECUTIVE SUMMARY

The Ernst Steel Corporation operated a steel fabrication operation on a three acre site in Cheektowaga, Erie County, New York from 1953 to 1983 (Figure 1). Waste materials from this operation included 2600 gallons per year of steel shavings, steel drillings, iron oxide dust and dirt, and 250 gallons per year of dried paint sludge which were landfilled in the northeastern part of the site (Figure 2). During site inspections by NUS Corporation (9/28/83), Recra Environmental, Inc. (1/24/86), NYSDEC Region 9 (6/13/86), and the County (7/30/86), paint residue/red granular material was observed throughout this area. The site property was vacant from 1933 to 1953. Prior to 1933, the site was used as a railroad facility and coal cinders from this operation covered the area.

Sampling by the NYSDEC in 1982 indicated elevated levels of chromium (11 to 440 ppm), copper (4 to 280 ppm), lead (8.3 to 2500 ppm), nickel (18 to 110 ppm), zinc (31 to 64 ppm), and iron (200 to 440 ppm) in four soil samples and elevated levels of lead (170 ppm), zinc (17 ppm), and iron (3.6 ppm) in a surface water sample. No groundwater sampling has been conducted at the site. Groundwater is not used as a drinking water or irrigation source within three miles of the site.

The Phase I effort included a compilation of information gathered from NYSDEC Region 9, the Erie County Department of Environment and Planning, the New York State Health Department, and an interview with Frank Ernst, Vice President of the Ernst Steel Corporation. Recra Environmental, Inc., personnel conducted a site visit on January 24, 1986.

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 (S_m)
- o risk involved with direct contact (S_{dc})
- o the potential for fire and explosion (S_{fe}).

The risks involved with direct contact (S_{dc}) and the potential for fire and explosion (S_{fe}) 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 (S_m) is evaluated through the rating of factors associated with three routing modes: groundwater (S_{gw}), surface water (S_{sw}) and air (S_a). 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).

Based on information gathered during this investigation, the Ernst Steel Corporation site was scored according to the Mitre Corporation Hazard Ranking System (HRS) and the following scores were obtained:

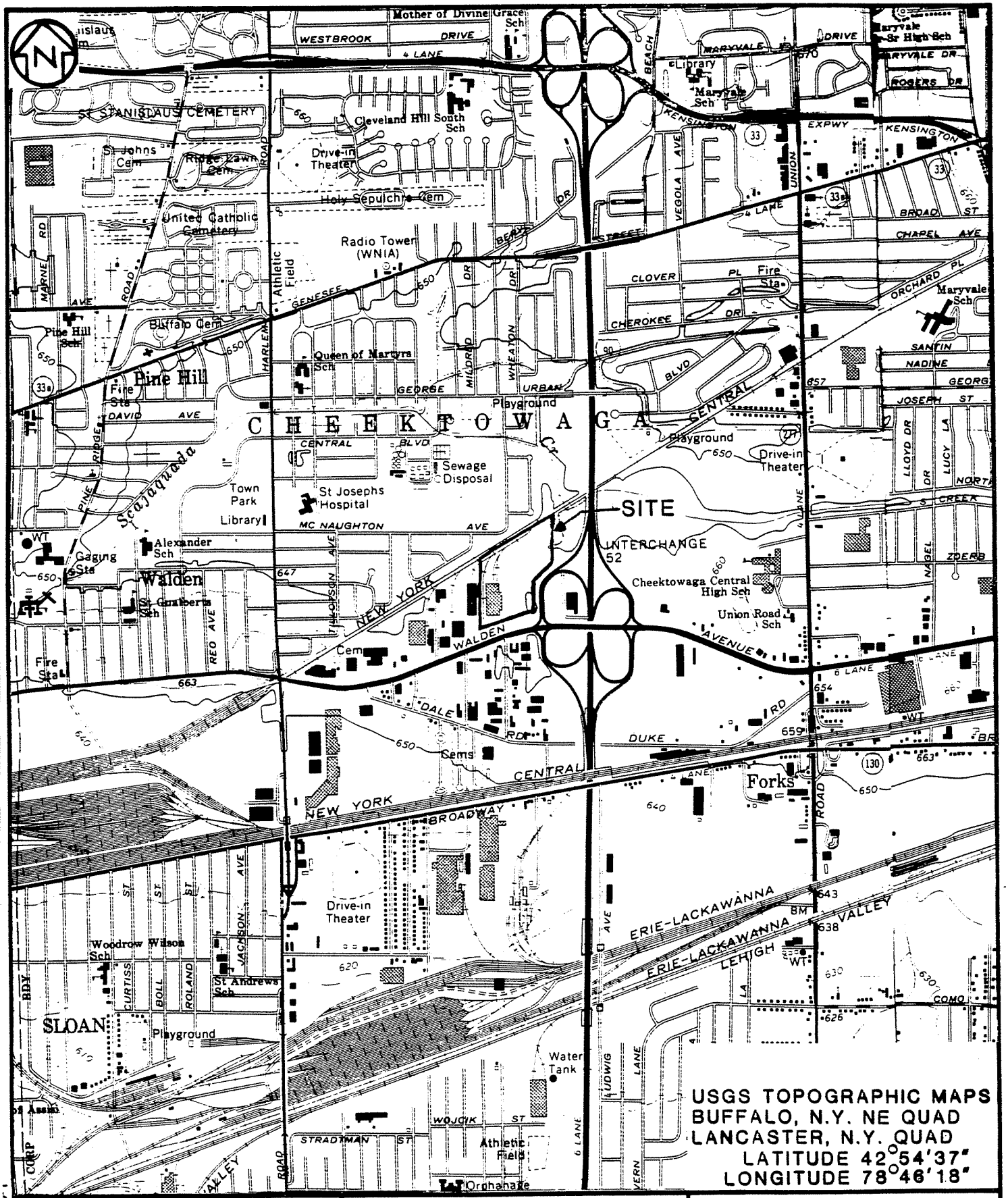
$S_m = 3.44$ ($S_{gw} = 2.68$; $S_{sw} = 5.31$; $S_a = 0$)

$S_{fe} = 0$

$S_{dc} = 0$

A Phase II investigation at the Ernst Steel site is recommended to proceed in two steps with step two contingent upon the results of step one. Step one would be a preliminary sampling and characterization of waste piles, paint residues, and incinerator ash. Composite samples from these areas should be analyzed for heavy metals and organics. In addition, a geophysical survey should be conducted to delineate the areal and vertical extent of fill areas at the site and to detect buried drums, if present.

If analytical results indicate the presence of hazardous substances at the site, step two of the Phase II work plan would be instituted. Step two would include monitoring well installation and groundwater, soil, surface water, and sediment sampling.



USGS TOPOGRAPHIC MAPS
BUFFALO, N.Y. NE QUAD
LANCASTER, N.Y. QUAD
LATITUDE 42°54'37"
LONGITUDE 78°46'18"

RECRA RESEARCH INC.
BUFFALO, NEW YORK

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

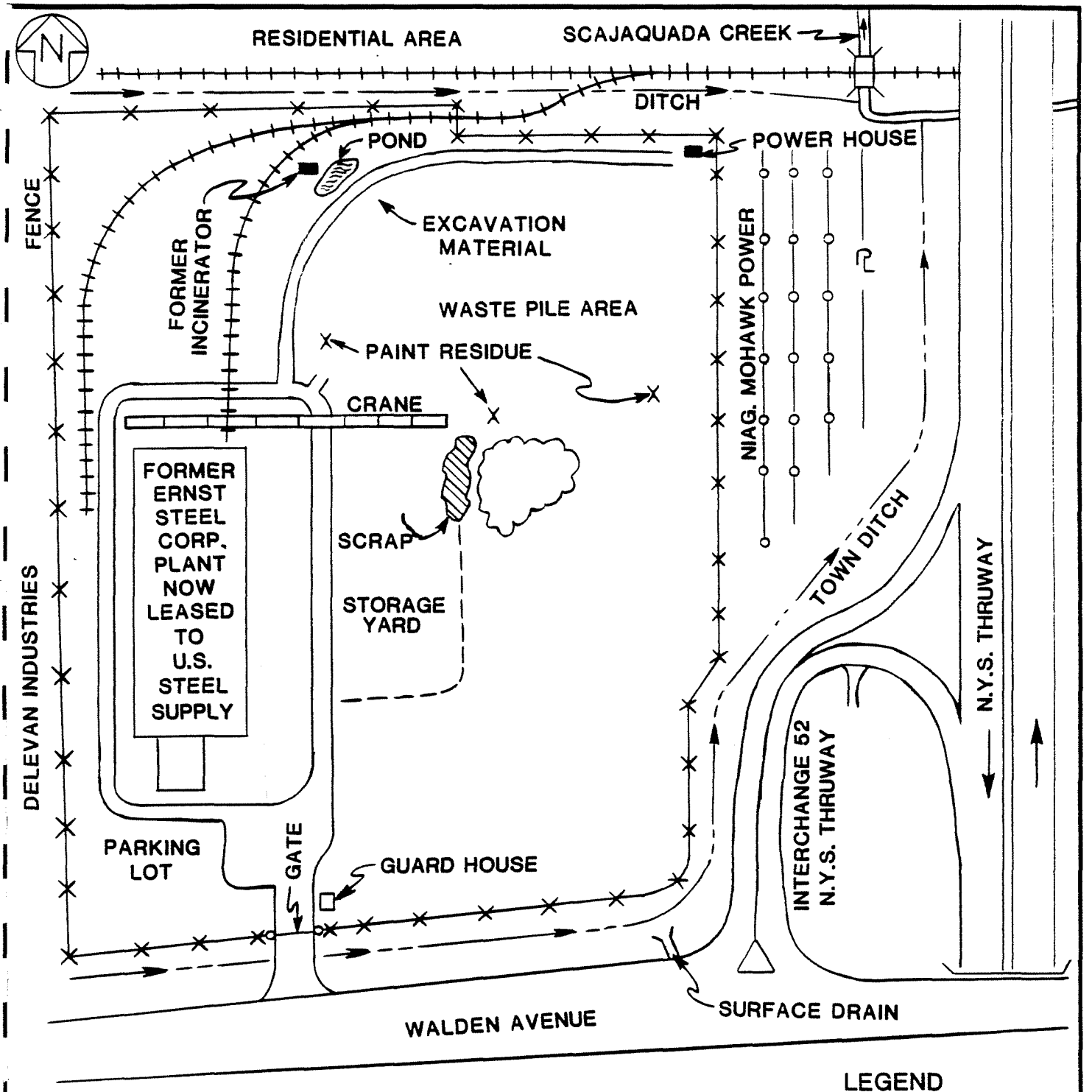
ERNST STEEL CO.
CHEEKTOWAGA, N.Y.
N.Y.S. SUPERFUND
PHASE I

Project No. 5C280398

VICINITY MAP

A | FIGURE 1

611001 ENG



Scale: NTS			ERNST STEEL CORPORATION CHEEKTOWAGA, N.Y. N.Y.S. SUPERFUND PHASE II	SITE MAP
	By	Date		
Dwn.	DLS	11/86		
Ckd.				
Ap'vd.				
Rev.			Project No. 5C280398	A FIGURE 2

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NG

SECTION 2

2.0 PURPOSE

The objective of this Phase I investigation is to prepare a report for the Ernst Steel Corporation 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 Hazard Ranking System (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 of water resources, population centers, and sensitive environments such as wetlands.

SECTION 3

3.0 PHASE I SCOPE OF WORK

In order to provide an accurate and thorough preliminary assessment of the Ernst Steel Corporation site, Recra personnel conducted a search of state and county office files, a review of available general information concerning regional geography, geology and hydrogeology, and a site visit that included an interview with personnel associated with site operations.

The majority of the data comprising this report was obtained from NYSDEC Region 9 located at 600 Delaware Avenue, Buffalo, New York (716-847-4600) and the Erie County Department of Environment and Planning located at 95 Franklin Street, Buffalo, New York (716-846-8390). NYSDEC Region 9 also provided floodplain information and the location of wetlands and critical habitats of endangered species in the vicinity of the site.

Recra personnel conducted an inspection of the site on January 24, 1986 to identify the present condition of the site. Weather during the site visit was cloudy and 28°F with no snow cover on the ground. No air monitoring was conducted during the inspection due to the low air temperature.

SECTION 4

4.0 SITE ASSESSMENT

4.1 Site History

The Ernst Steel Corporation is located on a three acre site at 1746 Walden Avenue, Cheektowaga, Erie County, New York (Ref. 2 and 17). From 1953 to 1983, the company operated a steel service center and a fabrication plant for the assembly of heavy industrial equipment (Ref. 2, 4, 15, 17, 20, 21). Waste materials from this operation included approximately 2600 gallons per year of steel shavings, steel drillings, iron oxide dust and dirt, and approximately 250 gallons per year of dried paint sludge (Ref. 2, 4, 15, 17, 18, 20, 21). Waste materials were landfilled in low lying areas in the northeastern part of the plant property (Ref. 4, 15, 17, 20, 21, and 23). During site inspections by NUS Corporation (9/28/83), Recra Environmental, Inc. (1/24/86), NYSDEC Region 9 (6/13/86), and the County DEP (7/30/86), waste piles and paint residue/red granular material was observed throughout this area (Ref. 3, 17, 22, and 23).

From 1933 to 1953, the site was vacant (Ref. 15). Prior to 1933, the property was a railroad facility (Ref. 15, 16). During this period, coal cinders from the railroad operation were reportedly disposed of on site (Ref. 15, 19).

In 1982, the NYSDEC collected three soil samples and a surface water sample in an area of the site around a small incinerator used to burn office paper waste and employee refuse (Ref. 2, 4, 15). The exact sampling locations are not known.

In 1983, the site was sold to U.S. Steel to be operated as a steel service center. Landfilling operations had ceased by this time (Ref. 2, 15, 17).

During site inspections in 1983 by NUS Corporation, and in 1986 by Recra Research, Inc., empty, rusted 55 gallon drums were observed on site (Ref. 3, 17).

4.2 Site Area Surface Features

4.2.1 Topography and Drainage

Topography in the area of the site is generally flat (Ref. 1). Most of the northeastern section of plant property where disposal activities took place formerly consisted of freshwater wetlands (Ref. 2). A ditch runs between the site and the railroad track bed near the northern boundary of the site (Figure 2). Run-off from the northern portion of the site can enter this ditch, which eventually drains to Scajaquada Creek. A ditch runs parallel with the southern boundary of the site and is directed along a portion of the eastern boundary before being diverted east of the Niagara Mohawk power lines and north to Scajaquada Creek (Ref. 22). Some surface drainage may leave the site through a break in a dike on the southeast corner of the site (Ref. 22). Railroad tracks separate the site from a residential area lying north of the plant property (Ref. 1).

Much of the site is low lying and because of the high clay content of the unconsolidated deposits underlying the site, some ponding of water occurs following periods of high precipitation (Ref. 7). Most surface water remains on site (Ref. 22).

4.2.2 Environmental Setting

Land use within one mile of the site is residential, commercial and industrial (Ref. 1, 2). Railroad tracks separate the site from a residential area to the north. New York State Thruway Exit 52W, a Niagara Mohawk substation, and power lines lie immediately east of the site. The entire property is surrounded by a fence with the site entrance and guardhouse located off Walden Avenue. Scajaquada Creek flows within 1000 feet of the northeastern section of the site (Ref. 1). Scajaquada Creek is a Class D waterway, suitable for secondary contact recreation such as boating or fishing (Ref. 11, 12). Portions of the northeastern section of the site lie within the 100-year floodplain of Scajaquada Creek (Ref. 14). There are no New York State regulated wetlands or critical habitats of endangered species found within one mile of the site (Ref. 13).

Approximately 5000 people live within one mile of the site and 40,000 people within three miles of the site (Ref. 17). All residents in the vicinity of the site are serviced by municipal water supply (Ref. 2, 6, 17). Surface water intakes for Cheektowaga municipal water are located in the Niagara River and operated by the Erie County Water Authority (Ref. 6).

4.3 Site Hydrogeology

4.3.1 Geology

The first encountered bedrock underlying the site is the Onondaga Limestone (Ref. 8). This formation consists of three members. The lowest member is a gray coarse-grained limestone, generally only a few

feet in thickness (Ref. 5). This lithology occasionally grades laterally into reef deposits which increases its thickness (Ref. 8). The middle member of the Onondaga Limestone is a cherty limestone, approximately 40 to 45 feet thick. The upper unit is a dark-gray to tan limestone with a thickness ranging from 50 to 60 feet (Ref. 5).

Depth to bedrock beneath the site has been estimated to range between 10 and 25 feet below ground surface (Ref. 2, 17).

4.3.2 Soils

Soils in the area including the site have been classified as Urban Land-Odessa, Nearly Level (Ref. 7). The urban land portion of this unit is characterized by disturbed or removed soils and is found in residential, commercial and industrial areas. The undisturbed portion is dominated by Odessa soils that formed in gravel and stone-free, lake-laid sediments having a high clay content. These soils are often poorly drained and have a seasonal high water table perched in the upper part of the subsoil during wet periods (Ref. 7).

On July 30, 1986, county personnel inspected the site and six soil borings were taken using a Veihmeyer Soil Sampler. Subsurface soils were collected to a depth of four feet and were found to consist mainly of orange silty clay (Ref. 23).

Large quantities of coal cinders have been reportedly landfilled on site from past operations (Ref. 15, 19).

4.3.3 Groundwater

There is no known groundwater information for the immediate area including the site. The Onondaga Limestone and other limestone units in the area contain waterbearing openings resulting from the solutioning of limestone by groundwater (Ref. 5). Solutioning occurs especially along vertical joints and horizontal bedding planes. The coefficient of transmissivity of the limestone units is estimated to range between 300 and 25,000 gallons per day per foot depending on the extent and magnitude of solutioning of the rock (Ref. 5).

As mentioned in Section 4.3.2, undisturbed site soils can support a seasonal high perched water table during periods of high precipitation. The depth of the perched water table has been reported to be 0.5 to 2 feet below ground surface (Ref. 2).

4.4 Previous Sampling and Analysis

4.4.1 Groundwater Quality Data

There is no available groundwater data for the site.

4.4.2 Surface Water Quality Data

The NYSDEC collected a surface water sample from an unknown location on the site on April 27, 1982 (Ref. 2, 4). According to the NYSDEC, the analyses indicated high concentrations of zinc (17 ppm) and iron (3.6 ppm) and a very high concentration of lead (170 mg/l)(Ref. 4).

4.4.3 Air Quality Data

There is no available air quality data for the site. During the NUS Corporation site investigation on September 28, 1983, air monitoring was conducted using an HNU photoionizer. No readings were obtained that exceeded background levels (Ref. 17).

4.4.4 Other Analytical Data

The NYSDEC collected four soil samples north of the plant building on April 27, 1982 (Ref. 2, 4). Three soil samples were taken at a depth of 4.5 feet and the fourth from the ground surface. These samples were analyzed for metals and total halogenated organics. The soil analyses from the four samples indicated high concentrations of chromium (11 to 440 ppm), copper (41 to 280 ppm), lead (8.3 to 2500 ppm), nickel (18 to 110 ppm), zinc (31 to 64 ppm), and iron (200 to 440 ppm) (Ref. 4). Low levels of total halogenated organics were detected (0.6 to 1.1 ppm).

5.0 PRELIMINARY APPLICATION OF THE HAZARD RANKING SYSTEM

5.1 Narrative Summary

The Ernst Steel Corporation operated a steel fabrication operation at 1746 Walden Avenue, Cheektowaga, Erie County, New York from 1953 to 1983 (Ref. 2, 4, 17). Waste materials from this operation that included 2600 gallons per year of steel shavings, steel drillings, iron oxide dust and dirt, and 250 gallons per year of dried paint sludge were landfilled on a four acre section in the northeastern part of the site (Ref. 2, 4, 17, 20, 21, and 23). During site inspections by NUS Corporation (9/28/83), Recra Environmental, Inc. (1/24/86), NYSDEC Region 9 (6/13/86), and the County DEP (7/30/86) waste piles and paint residue/red granular material were observed throughout this area (Ref. 3, 17, 22, and 23). From 1933 to 1953 the site property was vacant (Ref. 15). Prior to 1933, the site was used as a railroad car facility and the area was reportedly covered with coal cinders that came from railroad operations (Ref. 15, 16, 19). The site is presently owned by U.S. Steel and is used as a steel service center (Ref. 2, 15, 17).

Sampling by the NYSDEC in 1982 indicated elevated levels of lead (8.3 to 2500 ppm), chromium (11 to 440 ppm), copper (41 to 280 ppm), nickel (18 to 110 ppm), zinc (31 to 64 ppm), and iron (200 to 440 ppm) in four soil samples from the site and elevated levels of lead (170 ppm), zinc (17 ppm), and iron (3.6 ppm) in a surface water sample (Ref. 2, 4). The soil samples were collected north of the plant building, but it is not known where the surface water samples were taken (Ref. 2, 4). No groundwater sampling has been conducted at the site. Land use within one mile of the

site is residential, commercial and industrial (Ref. 1, 2). All residents within three miles of the site are serviced by municipal water supply (Ref. 2, 6, 17). Surface water intakes for municipal water are located in the Niagara River ten miles downstream of the site (Ref. 6).

Scajaquada Creek lies within 1000 feet of the northeastern section of the site (Ref. 1). Ditches are located along the northern, southern, and eastern boundaries of the site and are directed to Scajaquada Creek. Most surface water, however, apparently remains on site although some surface drainage may leave the site through a break in a dike on the southeast corner of the property (Ref. 22). Portions of the northeastern section of the site are located in the 100-year floodplain of Scajaquada Creek (Ref. 14). There are no regulated wetlands or critical habitats of endangered species within a mile of the site (Ref. 13).

5.2 HRS WORKSHEET

Facility name: Ernst Steel Corporation

Location: 1746 Walden Ave., Buffalo, Erie County, New York

EPA Region: 2

Person(s) in charge of the facility: Frank Ernst, Vice President
P.O. Box 987
Buffalo, New York 14240

Name of Reviewer: Recra Research, Inc. Date: February 18, 1986

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.)

From 1953 to 1983, approximately 2600 gallons per year of steel shavings, steel drillings and iron oxide dust, and 250 gallons per year of dried paint sludge were landfilled in low lying areas in a 4 acre section of Ernst Steel Corporation property. Elevated levels of heavy metals have been detected in site soils and surface water.

Scores: $S_M = 3.44$ ($S_{gw} = 2.68$ $S_{sw} = 5.31$ $S_a = 0$)

$S_{FE} = 0$

$S_{DC} = 0$

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	4	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			9	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	18	18	
Hazardous Waste Quantity	0 (1) 2 3 4 5 6 7 8	1	1	8	
Total Waste Characteristics Score			19	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]			1539	57,330	
[7] Divide line [6] by 57,330 and multiply by 100		S_{gw} = 2.68			

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	6	6	
Physical State	0 1 (2) 3	1	2	3	
Total Route Characteristics Score			10	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	18	18	
Hazardous Waste Quantity	0 (1) 2 3 4 5 6 7 8	1	1	8	
Total Waste Characteristics Score			19	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			3420	64,350	
7 Divide line 6 by 64,350 and multiply by 100		S_{sw} = 5.31			

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	0	3	
Toxicity	0 1 2 (3)	3	9	9	
Hazardous Waste Quantity	0 (1) 2 3 4 5 6 7 8	1	1	8	
	Total Waste Characteristics Score		10	20	
[3] Targets					5.3
Population Within 4-Mile Radius	0 9 12 15 18 (21) 24 27 30	1	21	30	
Distance to Sensitive Environment	(0) 1 2 3	2	0	6	
Land Use	0 1 2 (3)	1	3	3	
	Total Targets Score		24	39	
[4] Multiply [1] x [2] x [3]			0	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})	2.68	7.18
Surface Water Route Score (S_{sw})	5.31	28.20
Air Route Score (S_a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		35.38
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		5.95
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} \,/\, 1.73 = S_M =$		3.44

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	1	3	7.1	
2 Waste Characteristics					7.2	
Direct Evidence	(0) 3	1	0	3		
Ignitability	(0) 1 2 3	1	0	3		
Reactivity	(0) 1 2 3	1	0	3		
Incompatibility	(0) 1 2 3	1	0	3		
Hazardous Waste Quantity	(0) 1 2 3 4 5 6 7 8	1	0	8		
Total Waste Characteristics Score			0	20		
3 Targets					7.3	
Distance to Nearest Population	0 1 2 (3) 4 5	1	3	5		
Distance to Nearest Building	0 1 2 (3)	1	3	3		
Distance to Sensitive Environment	(0) 1 2 3	1	0	3		
Land Use	0 1 2 (3)	1	3	3		
Population Within 2-Mile Radius	0 1 2 3 4 (5)	1	5	5		
Buildings Within 2-Mile Radius	0 1 2 (3) 4 5	1	3	5		
Total Targets Score			17	24		
4 Multiply 1 x 2 x 3			0	1,440		
5 Divide line 4 by 1,440 and multiply by 100		S_{FE} =	0			

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	0	3	8.2
3 Containment	0 (15)	1	15	15	8.3
4 Waste Characteristics Toxicity	0 1 2 (3)	5	15	15	8.4
5 Targets					8.5
Population Within a 1-Mile Radius	0 1 2 3 (4) 5	4	16	20	
Distance to a Critical Habitat	(0) 1 2 3	4	0	12	
Total Targets Score			16	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			0	21,600	
7 Divide line 6 by 21,600 and multiply by 100		S_{DC} = 0			

FIGURE 12
DIRECT CONTACT WORKSHEET

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: Ernst Steel Corporation

LOCATION: 1746 Walden Ave., Buffalo, Erie County, New York

GROUND WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

No analytical data

Rationale for attributing the contaminants to the facility:

N/A

* * *

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifers(s) of concern:

1. Seasonal perched water table in unconsolidated deposits.
2. Onondaga Limestone (Ref. 2,5,8,10)

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

1. Perched water table - estimated at 0.5 to 2 feet.
2. Onondaga Limestone - between 10 and 60 feet (Ref. 2, 10)

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

≤4.5 feet (Ref. 2, 17, 23)

Net Precipitation

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

36 inches (Ref. 9)

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

27 inches (Ref. 9)

Net precipitation (subtract the above figures):

9 inches

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

Urban land - Odessa, nearly level (Ref. 7)

Permeability associated with soil type:

$<10^{-5}$ $\geq 10^{-7}$ cm/sec (Ref. 9)

Physical State

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

Solid, fine material and dried sludge (Ref. 2,4,15,17,18,20,21)

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Piles - uncovered, no liner (Ref. 2, 4, 16, 17, 22, 23)

Method with highest score:

Piles - uncovered, no liner (Ref. 9)

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

Heavy metals: Cr, Cu, Pb, Zn, Fe, Ni (Ref. 2, 4)

Compound with highest score:

Heavy metals

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):

Sampling and analysis document the presence of hazardous substances at the site; exact quantity unknown. (Ref. 2, 4)

Basis of estimating and/or computing waste quantity:

N/A

5 TARGETS

Ground Water Use

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

Industrial (Ref. 5,17)

Distance to Nearest Well

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

Unknown

Distance to above well or building:

Unknown

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:

All residents within 3 miles of the site use municipal water (Ref. 2,6,17)

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):

N/A

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

0

SURFACE WATER ROUTE

1 OBSERVED RELEASE

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

Insufficient data for HRS scoring

(Ref. 2, 4, 23)

Rationale for attributing the contaminants to the facility:

N/A

* * *

2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

Less than 1%

(Ref. 1)

Name/description of nearest downslope surface water:

Ditch tributary to Scajaquada Creek

(Ref. 1, 22)

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

Less than 1%

(Ref. 1)

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

No

(Ref. 1, 22)

Is the facility completely surrounded by areas of higher elevation?

No (Ref. 1)

1-Year 24-Hour Rainfall in Inches

2.1

(Ref. 9)

Distance to Nearest Downslope Surface Water

Ditch adjacent to site runs 800 feet to Scajaquada Creek

(Ref. 1, 22)

Physical State of Waste

Solid, fine material and dried sludge

(Ref. 2,14,15,17,18,20,21)

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Waste piles - not covered; no diversion system

(Ref. 2,4,16,17,22,23)

Method with highest score:

Waste piles - not covered; no diversion system

(Ref. 9)

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

Heavy metals: Cr, Cu, Pb, Zn, Fe, Ni (Ref. 2, 4)

Compound with highest score:

Heavy metals

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):

Sampling and analysis document the presence of hazardous substances at the site; exact quantity unknown. (Ref. 2,4)

Basis of estimating and/or computing waste quantity:

N/A

* * *

5 TARGETS

Surface Water Use

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

Secondary contact recreation including some fishing (Ref. Recra Site Visit, 1/24/86)

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:

N/A

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

N/A

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:

N/A; surface water intakes located in the Niagara River greater than 3 miles from site.

(Ref. 6, 17)

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:

N/A

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

N/A

AIR ROUTE

1 OBSERVED RELEASE

Contaminants detected:

No analytical data

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:

Heavy metals (Ref. 2, 4)

Hazardous Waste Quantity

Total quantity of hazardous waste:

Sampling and analysis document the presence of hazardous substances at the site; exact quantity unknown.
(Ref. 2, 4)

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

5000 (Ref. 17)

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:

N/A
(Ref. 13)

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

N/A

(Ref. 13)

Land Use

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

.1 mile (Ref. 17)

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:

.1 mile (Ref. 1,17)

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

N/A (Ref. 17)

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

N/A (Ref. 17)

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

NO

FIRE AND EXPLOSION

1 CONTAINMENT

Hazardous substances present:

N/A

Type of containment, if applicable:

N/A

* * *

2 WASTE CHARACTERISTICS

Direct Evidence

Type of instrument and measurements:

N/A

Ignitability

Compound used:

N/A

Reactivity

Most reactive compound:

N/A

Incompatibility

Most incompatible pair of compounds:

N/A

* * *

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility:

Sampling and analysis document the presence of hazardous substances at the site; exact quantity unknown. (Ref. 2, 4)

Basis of estimating and/or computing waste quantity:

N/A

* * *

3 TARGETS

Distance to Nearest Population

500 feet (Ref. 1, 17)

Distance to Nearest Building

On Site

Distance to Sensitive Environment

Distance to wetlands:

>2 miles (Ref. 13)

Distance to critical habitat:

>1 mile (Ref. 13)

Land Use

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

500 feet (Ref. 1, 17)

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:

500 feet

(Ref. 1, 17)

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

N/A

(Ref. 17)

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

N/A

(Ref. 17)

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

No

Population Within 2-Mile Radius

20,000

(Ref. 17)

Buildings Within 2-Mile Radius

+700

(Ref. 17)

DIRECT CONTACT

1 OBSERVED INCIDENT

Date, location, and pertinent details of incident:

N/A

* * *

2 ACCESSIBILITY

Describe type of barrier(s):

Site is completely fenced in. (Ref. 17)

* * *

3 CONTAINMENT

Type of containment, if applicable:

Waste is inaccessible to direct contact by the public. (Ref. 17)

* * *

4 WASTE CHARACTERISTICS

Toxicity

Compounds evaluated:

Heavy metals: Cr, Cu, Pb, Zn, Fe, Ni (Ref. 2, 4)

Compound with highest score:

Heavy metals

* * *

5 TARGETS

Population within one-mile radius

5000

(Ref. 17)

Distance to critical habitat (of endangered species)

>1 mile

(Ref. 13)

5.4 EPA PRELIMINARY ASSESSMENT
(FORM 2070-12)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	915022

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
ERNST STEEL	1746 WALDEN AVE

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
BUFFALO	NY	14240	ERIE		

09 COORDINATES LATITUDE	LONGITUDE
42°54'37"_	078 46'18"_

10 DIRECTIONS TO SITE (Starting from nearest public road)
WALDEN AVENUE EAST FROM BUFFALO APPROXIMATELY .5 MILE EAST OF INTERSECTION WITH HARLEM, ON LEFT

III. RESPONSIBLE PARTIES

01 OWNER (If known)	02 STREET (Business, mailing, residential)
ERNST STEEL CORPORATION	P.O. BOX 987

03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
BUFFALO	NY	14209	(716)895-5000

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

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 9, 28, 83 (MONTH DAY YEAR)

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

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

03 YEARS OF OPERATION
1953 (BEGINNING YEAR) | 1983 (ENDING YEAR) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
STEEL SCRAP, IRON OXIDE DUST, PAINT SLUDGE, METAL SHAVINGS

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
HEAVY METALS IN METAL SHAVINGS AND PAINT SLUDGE. AMOUNTS UNKNOWN

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 FIERKO	RECRA ENVIRONMENTAL INC	(716)833-8203

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
TIM MCCUE		RECRA	(716)833-8203	2, 17, 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	915022

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- [X] A SOLID
- [X] B POWDER, FINES
- [X] 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 UNKNOWN

NO OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

- [X] A TOXIC
- [ ] B CORROSIVE
- [ ] C RADIOACTIVE
- [X] 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	UNKNOWN		DRIED PAINT SLUDGE
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS	UNKNOWN		METAL SHAVINGS, IRON OXIDE DUST

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
	UNKNOWN				

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS	N/A		FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

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

NUS SITE REPORT, 1983

NYSDEC SITE PROFILE, 1982

ECDEP SITE PROFILE, 1983

NYS 3... PERMIT APPLICATION 1978

NYS INDUSTRIAL WASTE SURVEY 1980

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	915022

II. HAZARDOUS CONDITIONS AND INCIDENTS

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

POTENTIAL EXISTS BECAUSE OF ELEVATED HEAVY METALS IN SITE SOILS AND SURFACE WATER (Cr, Cu, Pb, Zn, Fe, Ni)

01 [X] B. SURFACE WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: _____
02 [X] OBSERVED (DATE 4/27/82) [ ] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

NYSDEC FOUND ELEVATED HEAVY METALS IN SITE SOILS AND SURFACE WATER (Cr, Cu, Pb, Fe, Ni, Zn)

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

NONE LIKELY

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

NONE LIKELY

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

UNKNOWN

01 [X] F. CONTAMINATION OF SOIL
03 AREA POTENTIALLY AFFECTED: UNKNOWN (Acres)
02 [X] OBSERVED (DATE 4/27/82) [ ] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

NYSDEC FOUND ELEVATED HEAVY METALS IN SITE SOILS (Cr, Cu, Pb, Fe, Ni, Zn)

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

NONE LIKELY

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

NONE LIKELY

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

NONE LIKELY

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	915022

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

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

NONE OBSERVED

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

NONE OBSERVED

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: 9/28/83) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

NO CONTAINMENT

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: 9/28/83) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

NUS SITE INVESTIGATORS OBSERVED "A LARGE NUMBER" OF DRUMS IN THE WOODED AREA OF THE SITE. MOST APPEARED EMPTY

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

UNKNOWN

TOTAL POPULATION POTENTIALLY AFFECTED: UNKNOWN

IV. COMMENTS

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

NUS SITE INSPECTION, 9/28/83
NUS PRELIMINARY ASSESSMENT, 1982
NYSDEC SITE PROFILE, 1983

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
NY	9150 22

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
ERNST STEEL CORPORATION	1746 WALDEN AVE

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
BUFFALO	NY		ERIE		

09 COORDINATES	10 TYPE OF OWNERSHIP (Check one)
LATITUDE 42° 54' 37" / LONGITUDE 078° 46' 18"	[X] A. PRIVATE [ ] B. FEDERAL _____ [ ] C. STATE [ ] D. COUNTY [ ] E. MUNICIPAL [ ] F. OTHER _____ [ ] G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION
1 24 86 (MONTH DAY YEAR)	[ ] ACTIVE [X] INACTIVE	1953 (BEGINNING YEAR) / 1985 (ENDING YEAR) ___ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)

[ ] A. EPA [ ] B. EPA CONTRACTOR _____ (Name of firm) [ ] C. MUNICIPAL [ ] D. MUNICIPAL CONTRACTOR _____ (Name of firm)
[ ] E. STATE [X] F. STATE CONTRACTOR RECRA RESEARCH INC (Name of firm) [ ] G. OTHER _____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
SHELDON S. NOZIK	ENVIRONMENTAL SCIENTIST	RECRA	(716) 633-8203
09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
ANDRE J LAPRES	STAFF GEOLOGIST	RECRA	(716) 833-8203
			( )
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
FRANK ERNST	VICE PRESIDENT	1280 MAIN STREET BUFFALO, NEW YORK 14209	(716) 895 5000
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
[X] PERMISSION [ ] WARRANT	9:50 AM	PARTLY CLOUDY 22° F

IV. INFORMATION AVAILABLE FROM

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

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
THOMAS P [illegible]		RECRA	[illegible] 833-8203	2 17 86 (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	915022

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- [X] A. SOLID
- [X] B. POWDER, FINES
- [X] 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: UNKNOWN
NO. OF DRUMS: _____

03 WASTE CHARACTERISTICS (Check all that apply)

- [X] A. TOXIC
- [ ] B. CORROSIVE
- [ ] C. RADIOACTIVE
- [X] 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	UNKNOWN		DRIED PAINT SLUDGE
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS	UNKNOWN		METAL SHAVINGS, IRON OXIDE DUST

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
	UNKNOWN				

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS	N/A		FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

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

NUS SITE REPORT 1983
NYSDEC SITE PROFILE 1982
ECDEP SITE PROFILE 1983
NYS PART 360 PERMIT APPLICATION 1984
NYS INDUSTRIAL WASTE SURVEY 1977

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	915022

II. HAZARDOUS CONDITIONS AND INCIDENTS

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

POTENTIAL EXISTS BECAUSE OF ELEVATED HEAVY METALS IN SITE SOILS AND SURFACE WATER (Cr, Cu, Pb, Ni, Zn, Fe)

01 [X] B. SURFACE WATER CONTAMINATION — 02 [X] OBSERVED (DATE: 4/27/82) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

NYSDEC FOUND ELEVATED HEAVY METALS IN SITE SOILS AND SURFACE WATER (Cr, Cu, Pb, Ni, Zn, Fe)

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

NONE LIKELY

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

NONE LIKELY

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

UNKNOWN

01 [X] F. CONTAMINATION OF SOIL — 02 [X] OBSERVED (DATE: 4/27/82) ☐ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: UNKNOWN (Acres) 04 NARRATIVE DESCRIPTION

NYSDEC FOUND ELEVATED HEAVY METALS (Cr, Cu, Pb, Ni, Fe, Zn) IN SITE SOILS AND SURFACE WATER

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

NONE LIKELY

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

NONE LIKELY

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

NONE LIKELY

EPA

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 915022

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

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

NONE OBSERVED

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

NONE OBSERVED

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. 1/24/86) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

NO CONTAINMENT

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: 1/24/86) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

EMPTY RUSTED DRUMS SCATTERED AROUND SITE AREA

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

UNKNOWN

III. TOTAL POPULATION POTENTIALLY AFFECTED: UNKNOWN

IV. COMMENTS

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

NUS SITE VISIT 9/28/82
NYSDEC SITE PROFILE 1982
ECDEP SITE PROFILE 1983
RECRA RESEARCH SITE VISIT 1/24/86

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	915022

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	UNKNOWN	
☐ C. DRUMS, ABOVE GROUND		
☐ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
☒ F. LANDFILL	UNKNOWN	
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)

- ☐ A. INCENERATION
- ☐ 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

1

06 AREA OF SITE

3-4 (Acres)

07 COMMENTS

ON-SITE DISPOSAL OF STEEL SHAVINGS, STEEL DRILLINGS, IRON OXIDE DUST, DRIED PAINT SLUDGE AND PLANT WASH

IV. CONTAINMENT

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.

RUSTED DRUMS SCATTERED AROUND SITE

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☐ YES ☒ NO

02 COMMENTS

SITE IS COMPLETELY FENCED WITH LOCKED GATE

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

NUS SITE REPORT 9/28/83

RECRA RESEARCH, INC. SITE VISIT 1/24/86

NYSDEC SITE PROFILE 1982

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	915022

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)

	SURFACE	WELL
COMMUNITY	A. ☒	B. ☐
NON-COMMUNITY	C. ☐	D. ☐

02 STATUS

ENDANGERED	AFFECTED	MONITORED
A. ☐	B. ☐	C. ☐
D. ☐	E. ☐	F. ☐

03 DISTANCE TO SITE

INTAKES

A. 10 (mi)

B. _____ (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

☐ A. ONLY SOURCE FOR DRINKING ☐ B. DRINKING (Other sources available) ☒ C. COMMERCIAL, INDUSTRIAL, IRRIGATION (Limited other sources available) ☐ D. NOT USED, UNUSEABLE

COMMERCIAL, INDUSTRIAL, IRRIGATION (No other water sources available)

02 POPULATION SERVED BY GROUND WATER 0

03 DISTANCE TO NEAREST DRINKING WATER WELL N/A (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
0.5 - 2 (ft)	UNKNOWN	N/A (ft)	N/A (gpd)	☐ YES ☒ NO

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

NO WELLS IN USE IDENTIFIED

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

V. SURFACE WATER

01 SURFACE WATER USE (Check one)

☒ 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	☐	800 FEET (mi)
	☐	(mi)
	☐	(mi)

VI. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE
A. 5,000 NO. OF PERSONS	B. 20,000 NO. OF PERSONS	C. 40,000 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION < 0.1 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE > 700

04 DISTANCE TO NEAREST OFF-SITE BUILDING < 0.1 (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)

SITE IS LOCATED IN MEDIUM DENSITY URBAN AREA WITH A RESIDENTIAL, COMMERCIAL AND INDUSTRIAL MIX

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	915022

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check 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 (Check 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	
10-25 (ft)	UNKNOWN (ft)	<6.5	

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)	<1 %	SOUTH	<1 %

09 FLOOD POTENTIAL

SITE IS IN 100 YEAR FLOODPLAIN

10

N/A ☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE	OTHER
A. N/A (mi)	B. >1 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

N/A (mi)

ENDANGERED SPECIES: NONE

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS PRIME AG LAND	AGRICULTURAL LANDS AG LAND
A. 0.1 (mi)	B. 0.1 (mi)	C. >20 (mi)	D. >10 (mi)

DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

THE SITE IS LOCATED IN AN AREA WITH RELATIVELY FLAT TERRAIN. SCAJAQUADA CREEK FLOWS THROUGH NORTHEASTERN PORTION OF THE SITE. RAILROAD TRACKS SEPARATE SITE FROM HOUSING COMPLEX TO THE NORTH.

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

NUS SITE REPORT 9/28/83
ECDEP SITE PROFILE 1983
USGS TOPOGRAPHIC MAP BUFFALO NE QUADRANGLE 1967
HRS USERS MANUAL

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NV	915022

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER		NO SAMPLES TAKEN	
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL			
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

1 TYPE	02 COMMENTS
	NO FIELD MEASUREMENTS TAKEN

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 _____

V. OTHER FIELD DATA COLLECTED *(Provide narrative description)*

FIELD NOTES

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

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	915022

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE
ERNST STEEL CORPORATION		P.O Box 987		BUFFALO	NY	14209

PARENT COMPANY (If applicable)

08 NAME	09 D+B NUMBER	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE	12 CITY	13 STATE	14 ZIP CODE
N/A						

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

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

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

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

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

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	915022

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER
U.S. STEEL SUPPLY	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
13535 S. TORRANCE AVE	

05 CITY	06 STATE	07 ZIP CODE
CHICAGO	ILL	60633

08 YEARS OF OPERATION	09 NAME OF OWNER

OPERATOR'S PARENT COMPANY (If applicable)

10 NAME	11 D+B NUMBER
N/A	

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

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

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

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
N/A	

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

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

NUS SITE REPORT 9/28/83

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	915022

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
ERNST STEEL CORPORATION	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
1746 WALDEN AVENUE	

05 CITY	06 STATE	07 ZIP CODE
CHEEKTOWAGA	NY	14240

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
NONE			
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
N/A			
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)

RECRA RESEARCH, INC. SITE INVESTIGATION, 1/24/85

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	915022

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ D. SPILLED MATERIAL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ E. CONTAMINATED SOIL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ F. WASTE REPACKAGED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ G. WASTE DISPOSED ELSEWHERE — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ H. ON SITE BURIAL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ I. IN SITU CHEMICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ J. IN SITU BIOLOGICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ K. IN SITU PHYSICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ L. ENCAPSULATION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ M. EMERGENCY WASTE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ N. CUTOFF WALLS — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ P. CUTOFF TRENCHES/SUMP — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ Q. SUBSURFACE CUTOFF WALL — 02 DATE _____ — 03 AGENCY _____

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	47522

II PAST RESPONSE ACTIVITIES *(Continued)*

01 ☐ R. BARRIER WALLS CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

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

01 ☐ T. BULK TANKAGE REPAIRED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ U. GROUT CURTAIN CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ V. BOTTOM SEALED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ W. GAS CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ X. FIRE CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ Y. LEACHATE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ Z. AREA EVACUATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

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

01 ☐ 2. POPULATION RELOCATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ 3. OTHER REMEDIAL ACTIVITIES — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NONE

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

RECRA RESEARCH, INC. SITE INVESTIGATION. 1/24/86

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	915022

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

In completing the Hazard Ranking Score (HRS), the Ernst Steel Corporation site was found to have a migration potential (S_m) score of 3.44. This S_m score was based on the information acquired through a review of available literature. During the completion of the HRS, several data inadequacies were encountered. Information needed to address these inadequacies would include the following:

- subsurface information including depth to the water table and/or aquifer of concern, permeability of unconsolidated deposits, groundwater quality and groundwater flow direction.
- site soil quality including background undisturbed soil levels.
- sediment and surface water quality in the ditch leading to Scajaquada Creek and in Scajaquada Creek upstream and downstream of the ditch confluence.
- site drainage pattern.

SECTION 7

7.0 PROPOSED PHASE II WORK PLAN

This section outlines the recommended procedures and technical means by which a Phase II investigation may be conducted. Any work plan which is submitted to NYSDEC for conducting a Phase II type study must follow the guidelines established by NYSDEC and subsequently be approved by NYSDEC.

7.1 Project Objectives

The purpose and objective of this proposed Phase II investigation is to obtain a final HRS score for the site as defined under the auspices of the New York State Superfund program and assess concerns regarding past disposal practices. The site investigation proposed herein is designed to generate data for the above identified tasks. The scope of this investigation may include:

- o air monitoring
- o surface geophysics
- o test bore drilling
- o monitoring well installation
- o in-situ permeability testing
- o groundwater, leachate stream, surface water, and surface sediment sampling
- o surveying and mapping
- o chemical analytical testing
- o laboratory geotechnical testing
- o groundwater well survey
- o data analysis and reporting
- o characterizing the physical and chemical nature of the site

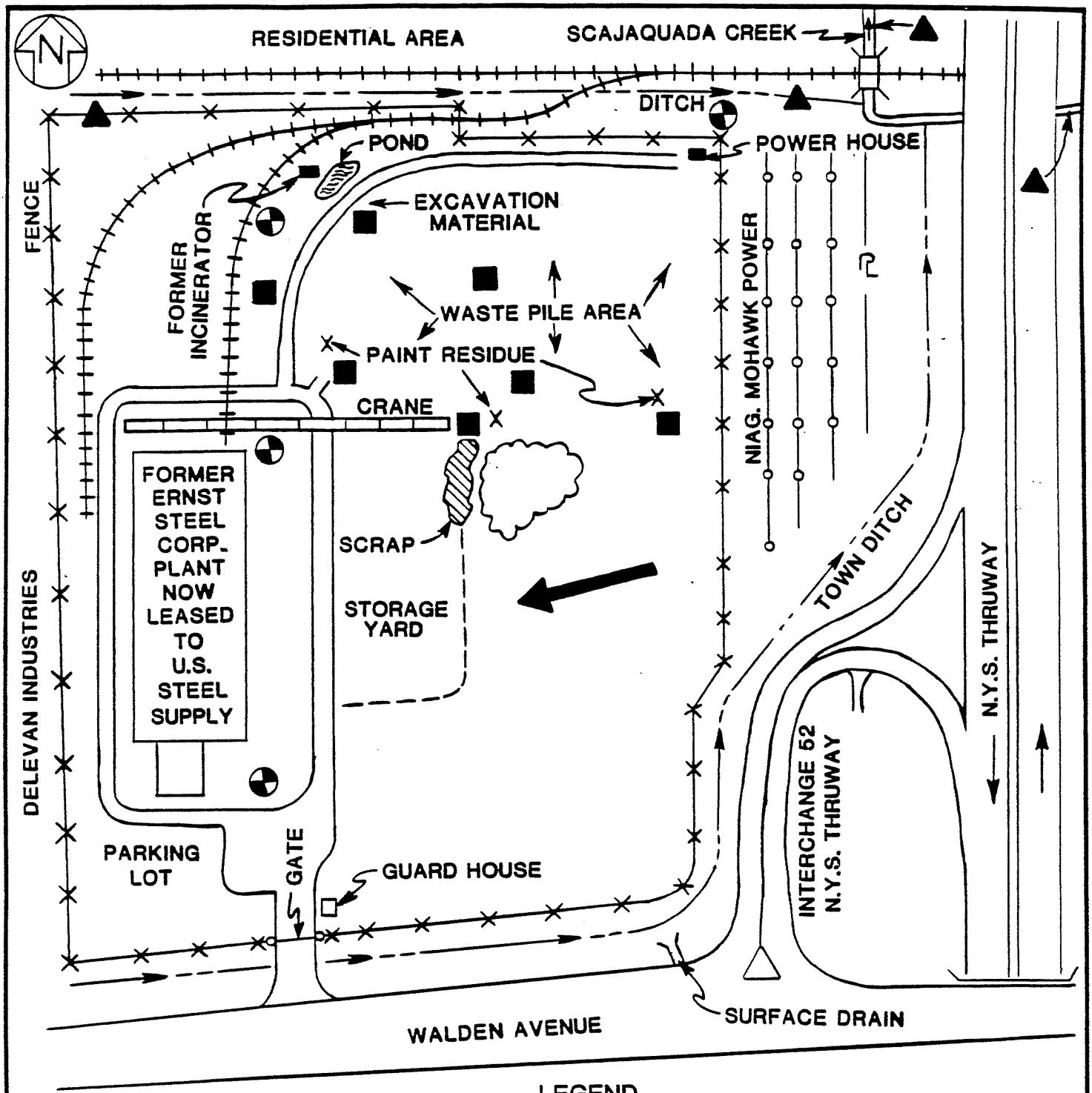
- o scoring the site under the Hazard Ranking System
- o reporting.

7.2 Scope of Work

7.2.1 Preliminary Sampling and Waste Characterization

The presence of hazardous wastes at the Ernst Steel site has not been confirmed. Records indicate on-site disposal of wastes from a steel fabricating operation included steel shavings, steel drillings, iron oxide dust, and dried paint sludge. Paint thinner used during this operation reportedly consisted of waste mineral spirits (Ref. 23). Prior to 1953, coal cinders from a railroad facility were disposed of on the area including the site. Sampling of site soils and surface water in 1982 indicated the presence of heavy metals. The sampling locations, however, are unknown and no background samples were taken.

Prior to a Phase II investigation at the site that would include monitoring well installation and groundwater testing, it is recommended that a preliminary sampling and waste characterization of the waste piles, paint residues, and incinerator ash be performed to determine if hazardous substances are present at the site. If hazardous substances are encountered at the site, the Phase II investigation outlined in the subsequent sections should be undertaken. Three shallow test borings should be excavated by hand auger in the area of waste piles (Figure 3). Borings should be excavated to a depth of five feet to ensure sufficient recovery. Each boring should be composited and analyzed for priority pollutant metals and scanned for organics (FID) and volatile halogenated organics. One of the boring composites should be analyzed for E.P. Toxicity metals.



LEGEND

- PROPOSED TEST BORING AND MONITORING WELL LOCATION
- PROPOSED SOIL/FILL MATERIAL SAMPLE
- PROPOSED SURFACE WATER AND SEDIMENT SAMPLE LOCATIONS
- ASSUMED DIRECTION OF GROUNDWATER FLOW
- RAILROAD TRACKS
- FENCE
- DRAINAGE DITCH
- POWER LINES

Scale: NTS			ERNST STEEL CORPORATION CHEEKTOWAGA, N.Y. N.Y.S. SUPERFUND PHASE II	SITE PHASE II WORKPLAN MAP
	By	Date		
Dwn.	DLS	11/86		
Ckd.				
Ap'vd.				
Rev.				
			Project No. 5C280398	A FIGURE 3

NINC 6

Three surface (0-6") samples should be taken from the paint residues/red granular material, composited, and analyzed for E.P. Toxicity metals and scanned for organics (FID) and volatile halogenated organics. Similarly, two samples of incinerator ash should be composited and analyzed for the same parameters. Two composite background samples should also be collected from the site.

In addition to soil sampling, a geophysical survey should be conducted to define the limits of the fill area. The geophysical survey would also detect drums buried beneath the ground surface. The geophysical survey is described in Section 7.2.2.

7.2.2 Geophysical Survey

A geophysical survey will be conducted over the site where access and topography permit to define the vertical and horizontal extent of the fill material and establish the final locations for monitoring well installations. The geophysical survey will be conducted using Terrain Conductivity.

Terrain conductivity readings will be obtained using a Geonics Model EM 31 terrain conductivity meter. These readings will be taken on a grid system which will be established over the disposal area. The conductivity readings may serve to detect bedrock clusters of drums, tanks, cables, lateral fill variations, and contaminated groundwater plume geometry, if present.

All geophysical data and interpretations will be used to finalize the locations of proposed borings and monitoring wells. No borings or monitoring wells will be placed in the field until the final locations are determined by Recra in concurrence with NYSDEC. NYSDEC will be informed of any changes in boring and monitoring well locations, should they be necessary. However, based upon current information, it is envisioned that one monitoring well will be placed upgradient of the site, and three along the downgradient area of the site (Figure 3).

7.2.3 Test Borings

Four test borings will be advanced at the site. Based on a field review of the site, tentative locations for the borings will be selected by NYSDEC. Recommendations for the final locations will be based on the results of the geophysical survey. Final locations will be determined by Recra upon review of the geophysical data and interpretations.

Prior to initiating drilling activities, the drilling rig, augers, rods, split spoons, appurtenant equipment, well pipe and screens will be cleaned with steam. This cleaning procedure will also be used between each boring. These activities will be performed in a designated on-site decontamination area. Throughout and after the cleaning processes, direct contact between equipment and the ground surface will be avoided. Plastic sheeting and/or clean support structures will be used.

Test borings will be advanced with hollow stem augers, driven by truck mounted drilling equipment. During the drilling, an HNU photoionization detector will be used to monitor the gases exiting the hole. Auger cuttings will be contained in all downgradient borings. Soil samples will be collected using a two inch outside diameter split-barrel sampler advanced in accordance with the standard penetration test procedure (ASTM D-1586). The sample barrel(s) will be cleaned prior to each use by the following procedure:

- o initially cleaned of all foreign matter
- o washed with a detergent and water mixture
- o rinsed with potable water
- o washed with acetone
- o rinsed with distilled water
- o allowed to air dry.

An HNU detector will be used to monitor the gases from each sample as the split barrel sampler is opened. All samples will be placed in precleaned, teflon-lined screw cap glass jars. The cleaning of the sample jars will include:

- o soap wash
- o tap water rinse
- o acetone rinse (pesticide grade)
- o rinse with copious quantities of deionized water (at least six rinsings) until no residual acetone is detected.

Samples will be delivered daily under chain of custody control to the Recra Environmental Laboratories in Tonawanda, New York. A composite

soil sample from each boring will be analyzed for priority pollutant metals and organics (Contract Laboratory Protocol), and PCBs. GC/MS procedures will include the identification and quantification of all peaks ten percent or greater than the nearest calibrating standard.

Split-spoon samples will be taken every five feet until the water table is reached unless there is a change in geologic material or overlying waste material is discovered through visual or HNU detection. Once encountered, continuous split-spoon sampling will be conducted through the shallow water bearing zone. Geologic classification of split-spoon samples will be performed and boring logs maintained by a Recra geologist.

At a minimum, each boring log will include:

- o date, test hole identification, and project identification
- o name of individual developing the log
- o name of driller and assistant(s)
- o drill make and model, auger size
- o identification of alternative drilling methods used and justification thereof (e.g. rotary drilling with a specific bit type to remove a sand plug from within the hollow stem augers)
- o depths recorded in feet and fractions thereof (tenths or inches), referenced to ground surface
- o standard penetration test (ASTM D-1586) blow counts
- o for samples, the length of the sample interval and the length of the sample recovered
- o the first encountered water table along with the method of determination, referenced to ground surface

- o drill and borehole characteristics
- o sequential stratigraphic boundaries.

Selected split-spoon samples obtained while sampling at five foot intervals or when a change in lithology has occurred will be analyzed for Atterberg limits and moisture content. Analysis of a selected split-spoon sample from the encountered water bearing material will be performed for grain size determination. In the event that the borehole/monitoring well must be left unattended prior to completion, the borehole/monitoring well will be properly secured to ensure its integrity.

7.2.4 Groundwater Monitoring and Sampling

Four monitoring wells will be installed at the location of the test borings. Wells will be constructed of 5-foot long, 2-inch I.D. threaded flushjointed PVC screen and riser casing. Well screens will be installed with the top of the well screen located approximately one foot above the encountered groundwater table, dependent upon the major geologic changes encountered. All installations will include a washed, graded, sand pack surrounding the screen and extending two feet above the screen top. A two-foot thick bentonite seal will be placed above the sand pack and the remaining annulus filled with bentonite/grout to within two feet of the ground surface. A four to six inch diameter steel casing with locking cap will be placed over each well and cemented in place.

Well development will be performed using a pump or bottom discharge bailer at each well no sooner than 48 hours after the well grouting has

been completed. Bailing will utilize pre-cleaned, dedicated galvanized steel bailers at each well. Pumping will utilize a surface peristaltic pump fitted with pre-cleaned, dedicated polyethylene tubing for each well.

Prior to water and sediment evacuation, static water level and well bottom measurements will be recorded at each well using an electric level sounder or fiberglass tape. These will be cleaned prior to and after each use. The well water/sediment volume will also be calculated.

Well evacuation will be supplemented by:

- Temperature, pH, and specific conductance measurements
- Evacuation volume measurement
- Visual identification of water clarity and color
- Visual identification of the physical characteristics of removed sediments

The development process will continue until a stabilization of pH, specific conductance, temperature, and clarity (goal of $\leq$100 turbidity units) of discharge is achieved.

The well development is designed to correct any clogging of the water-bearing formation which may occur as a side effect of the drilling, and remove any drilling water (if used) from the water table such that each well will yield water which is representative of the in-situ conditions. Static water level measurements will also be made following well development.

Groundwater sampling will be initiated one week after the well development has been completed. Each sample will be analyzed for priority pollutant metals and organics (Contract Laboratory Protocol), PCBs, hardness and specific conductance. GC/MS procedures will include the identification and quantification of all peaks 10 percent or greater than the nearest calibrating standard.

At each well location, initial static water level and well bottom measurements will be recorded using an electric level sounder and/or fiberglass tape which will be cleaned between each well. Well water will be evacuated prior to sample collection by bailing or pumping to dryness or removing a minimum of three equilibrated well water volumes. Precleaned, dedicated galvanized steel bailers will be used for sampling at each well.

Permeability testing of the newly installed monitoring wells will be conducted following sampling. Initial static water level measurements will be made in each well followed by the injection of a weighted slug of specific volume. An instantaneous head displacement associated with the slug volume will be created and the subsequent decline in water level will be measured with an electric water level sounder. Once head conditions reach a static state, the slug will be removed and a negative head condition will result relative to the initial static water level. The subsequent rise in water level will be measured with an electric water level sounder.

Data analysis will involve the determination of the coefficient of permeability. The analysis will utilize a technique provided by Harry R. Cedergren in Seepage, Drainage and Flow Nets, 2nd Edition, whereby the log of head ratio (dependent variable) is plotted with respect to elapsed time (independent variable). Data points for permeability determination are obtained from a linearization of this plot and utilized in an appropriate equation.

The testing will provide data on the permeability of the materials at the top of the water table. These values will subsequently be utilized for determining approximate flow rates within the saturated zone, and extrapolated to approximate permeability in the unsaturated zone as required in the scoring under the HRS. This data will be useful in assessing the rate of groundwater flow in this area and as data input in evaluating potential remedial alternatives if required.

7.2.5 Other Sampling

Sediment and surface water samples will be collected from the ditch along the north side of the site and from Scajaquada Creek (Figure 3). Samples will be collected in Scajaquada Creek upstream and downstream of the confluence with the ditch. Sediment and surface water samples will be analyzed according to the procedures outlined in Sections 7.2.2 and 7.2.3 of this report.

7.2.6 Air Monitoring

Air monitoring with an HNU photoionization detector will be performed as follows:

- o at one upwind and downwind location prior to any site work
- o during borings and monitoring well installations
- o for all split-spoon samples
- o for all surface soil and sediment samples
- o weather including wind direction and wind speed (estimate) will be recorded during sampling
- o measurements will be made within the normal breathing zone.

7.2.7 Surveying

A map will be prepared showing the location and appropriate elevations (ground surface, top of monitor well casing) for each boring sampling location, monitoring well installation, sampling locations (soil, surface water, sediment, air) and other key contour points as determined by Recra.

A licensed land surveyor will be used to establish the locations and elevations of each above-mentioned point, as follows:

- o Vertical Control - Elevations (0.01') will be established for the ground surface at the well, the top of monitor well casing (T.C.), and at least one other permanent object in the vicinity of the boring and well. Elevations will be relative to a regional, local or project specific datum. USGS benchmarks will be used whenever available.
- o Horizontal Control - Exploratory borings and monitor wells will be located by ties (location and distance) to at least two nearby permanent objects. USGS benchmarks will be used whenever available.

7.3 Quality Assurance and Quality Control

An overall Quality Assurance Program is essential for the production of high-quality analytical data. Such a program requires precise control of laboratory activities. For the Quality Assurance Program in effect at the Laboratories of Recra the reader is referred to a document previously submitted by Recra to NYSDEC, entitled, "Operation Manual - Field and Analytical Services."

Analytical testing performed as part of the Phase II study will follow Contract Laboratory Protocol.

7.4 Final Hazard Ranking System Score

Upon completion of all field work and laboratory analysis, the Final Hazard Ranking System score will be calculated per NYSDEC guidelines.

7.5 Phase II Report

Upon completion of the investigation, a Phase II report will be prepared in complete accordance with the NYSDEC's Phase II report format. The Phase II report will include a plot plan drawing showing the following:

- groundwater gradient
- topographic relief
- sampling locations
- physical parameters and major contaminants/concentrations identified for each sampling location
- any contaminant plumes (based on geophysical and monitoring data).

Five copies of the draft final Phase II report and fifteen copies of the final Phase II report will be submitted.

7.6 Applicable Procedures and Standards

All work performed for this project, including but not necessarily limited to, borings, monitoring well installations, monitoring, sampling, surveying, chain of custody, sample preservation, sample extraction, sample analysis, and HRS scoring, will conform to all applicable standards, guidelines, and prescribed methods and practices of the U.S. Environmental Protection Agency (USEPA), NYSDEC, and other applicable regulatory agencies. Any changes or modifications in these specifications will require approval by NYSDEC.

7.7 Estimated Cost

The estimated cost of the preliminary sampling and waste characterization is based on the collection and analyses of three shallow boring composites, three paint residue samples, two incinerator ash composites, and two background composites.

Preliminary Sampling and Waste Characterization	$ 6,069.00*

The estimated cost of the Phase II Work Plan is based on the placement of four monitoring wells in unconsolidated deposits at 30 feet below ground surface.

o Subsurface Investigation	$11,937.00
o Analyses	23,778.00*
o Engineering Evaluation and Report	8,000.00
o Geophysics	5,000.00
	$48,715.00

*Prices includes Contract Laboratory Protocol for priority pollutant metals and/or organics. Prices will vary among contracted laboratories.

APPENDIX A

APPENDIX A

DATA SOURCES AND REFERENCES

REFERENCES

1. U.S. Geological Survey Topographic Map, 7.5 Minute Series: Buffalo, NY NE Quadrangle, 1965.

2. Site Profile: Ernst Steel (#915022). Erie County Department of Environment and Planning, Division of Environmental Control. December 1983.

3. Field Report: Site Investigation at Ernst Steel By Recra Research, Inc. Personnel. January 24, 1986.

4. Site Profile: Ernst Steel. New York State Department of Environmental Conservation. April 27, 1982.

5. LaSalla, Jr., A. M. Ground-Water Resources of the Erie-Niagara Basin, New York; Prepared for the Erie-Niagara Basin Regional Water Resources Planning Board. 1968.

6. New York State Atlas of Community Water System Sources. NYS Department of Health. 1982.

7. General Soil Map and Interpretations, Erie County, New York. U.S. Department of Agriculture, Soil Conservation Service. May 1979.

8. Buehler, Edward J. and Irving H. Tesmer. Geology of Erie County, New York. Buffalo Society of Natural Sciences Bulletin, Vol. 21, No. 3. 1963.

9. Uncontrolled Hazardous Waste Site Ranking System - a Users Manual. EPA. June 10, 1982.

10. Preliminary Evaluation of Chemical Migration to Groundwater and the Niagara River from Selected Waste Disposal Sites. EPA (905/4-85-001). March 1985.

11. State of New York Official Compilation of Codes, Rules and Regulations. Department of State. Title 6 Conservation, Volume C, Article 8, Part 837.

12. New York State Water Laws. Bureau of National Affairs, Inc. Washington, D.C. November 29, 1985.

13. Letter from Gordon R. Batcheller, NYSDEC Region 9, Senior Wildlife Biologist to Sheldon S. Nozik, Recra Research, Inc. December 18, 1985.

14. Flood Hazard Boundary Map Panel 5 of 10, Town of Cheektowaga, Erie County, New York. Department of Housing and Urban Development, Federal Insurance Administration. April 8, 1983.

15. Letter of Documentation to Frank Ernst, Vice President of Ernst Steel Corporation from Sheldon S. Nozik, Recra Research, Inc. February 11, 1986.

16. Interoffice Memorandum to Peter Buechi from Lawrence Clare, NYSDEC Region 9. June 10, 1985.

17. Potential Hazardous Waste Site Assessment: Ernst Steel Corporation. NUS Corporation. October 17, 1983.

18. Letter to John Banaszak, NYSDEC Region 9, from Elmer L. Ernst, President Ernst Steel Corporation. May 1, 1979.

19. Memorandum to File from Lawrence Clare, NYSDEC Department of Solid and Hazardous Waste, Region 9. May 24, 1985.

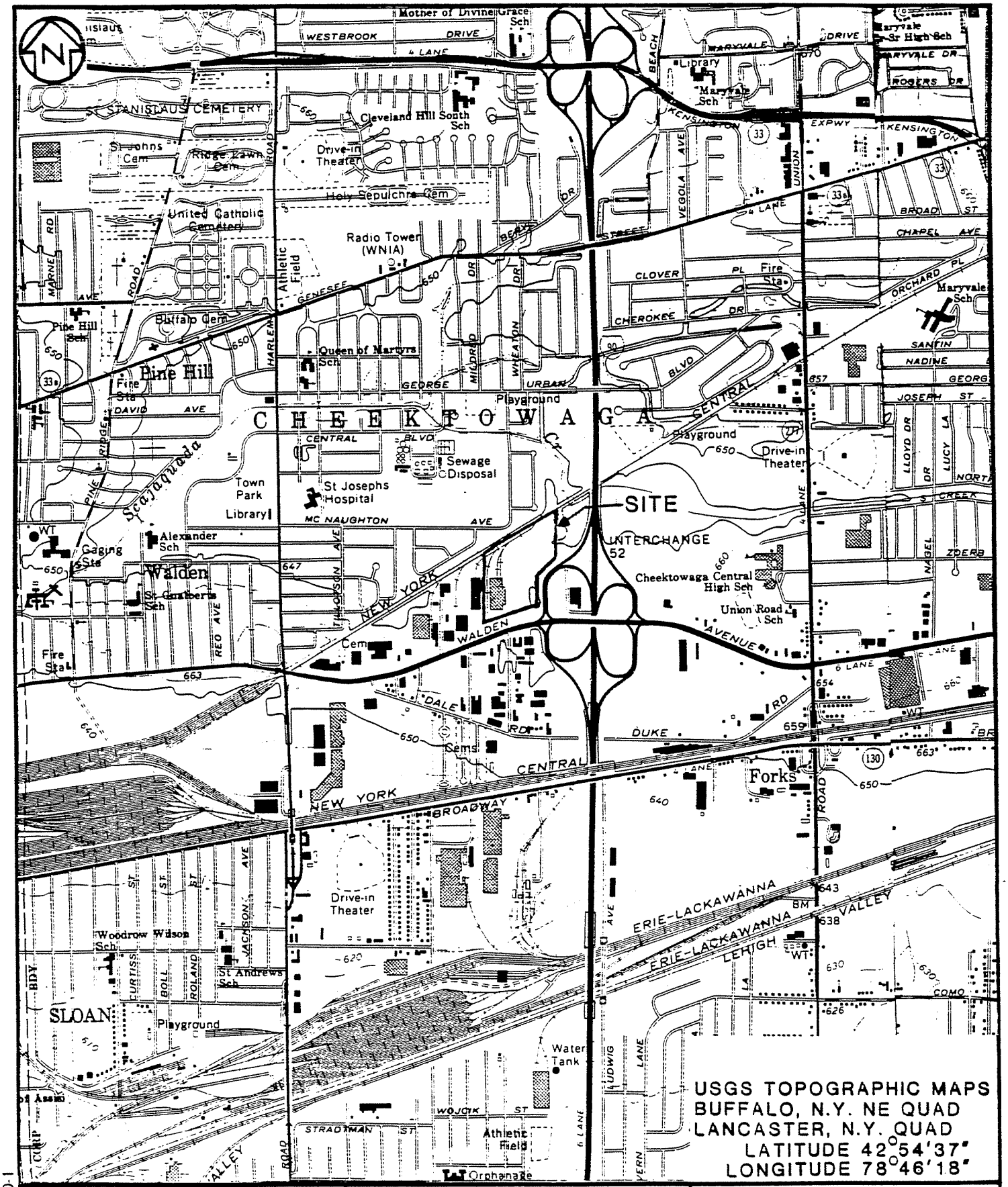
20. New York State Industrial Waste Survey: Ernst Steel Corporation. NYSDEC, Division of Solid Waste Management, Region 8. November 23, 1976.

21. NYSDEC Application for Approval to Operate a Solid Waste Management Facility. October 5, 1978.

22. Memorandum from Lawrence Clare to John Tygert, NYSDEC Region 9. June 13, 1986.

23. Letter and Field Report to Frank H. Ernst, Ernst Steel Corporation, from Cameron O'Connor, Erie County Department of Environment and Planning. August 11, 1986.

REFERENCE 1



USGS TOPOGRAPHIC MAPS
BUFFALO, N.Y. NE QUAD
LANCASTER, N.Y. QUAD
LATITUDE 42°54'37"
LONGITUDE 78°46'18"

61160-1

BRUNING

RECRA RESEARCH INC.
BUFFALO, NEW YORK

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

ERNST STEEL CO.
CHEEKTOWAGA, N.Y.
N.Y.S. SUPERFUND
PHASE I

Project No. 5C280398

VICINITY MAP

A

REFERENCE 2

ERNST STEEL

1746 WALDEN AVENUE

CHEEKTOWAGA, NEW YORK

SITE #915022

Prepared by Erie County
Dept. of Environment and
Planning, December 1983

ERNST STEEL
1746 WALDEN AVENUE
CHEEKTOWAGA, NEW YORK

The Interagency Task Force (IATF), in Volume III of Hazardous Waste Sites in New York State, reports that this company disposed of industrial wastes at the rear of their property. The IATF has assigned a B code to this site indicating that detailed chemical analysis and/or a hydrogeological potential for health and/or environmental impact is recommended.

BACKGROUND INFORMATION

Ernst Steel is a fabrication plant, responsible for the assembly of heavy industrial equipment. Waste materials produced in fabrication of steel equipment were landfilled on site in the past.

The IATF reports that plant waste from steel planning, drilling, welding fabrication and cleaning were generted. Ernst Steel reports that metal shavings, wood debris and iron dust (approximately 2600 lbs./year) and dried paint sludge (250 gallons/year) were landfilled at the site.

In 1979, Ernst steel changed to a steel service center and landfilling operations ceased. The painting operation was discontinued at that time. It is now reported that the Town of Cheektowaga picks up refuse generated at the facility. Drill turnings are picked up by INS Scrap Processors for recycling. It is reported that no degreasers are used at the firm.

LOCATION

The site is located at 1746 Walden Avenue in Town of Cheektowaga. Railroad property lies north and west of the site, the New York State Thruway lies to the east (Exhibit 1).

AERIAL PHOTOGRAPHY

In 1951, Ernst Steel did not exist at this location. The area was essentially undeveloped with the exception of the railroad line and Thruway construction.

In 1959, the main building, storage areas and parking areas were complete. Railroad spurs ran from the plant to the mainline tracks.

Access roads ran from the back of the plant in a northeast direction. The main access road terminated in an area that appeared to be receiving fill (Exhibit 2). The fill areas were a uniform texture and light tone indicating either recent clean fill or fill materials less than a year old. It is probable that the filling activity is for property improvements as most of the northeast consists of freshwater wetlands.

In 1960, continued disturbance in the northeast portion was apparent. There was also disturbance as noted on Exhibit 2. A second building has been constructed on the west side of the original facility.

By 1965, it appears that much of the wetland areas located on the northeast portion of the property have been filled. Actual disturbance in this area has ceased. The configuration of the topography does not change in the 1969 or 1972 photos. Minor disturbance between the tracks located in back of the facility are apparent; however, due to the poor quality of the 1965, 1969, 1972 photos, the exact nature of the disposal could not be determined.

No large scale disposal, change in topography or lagoons were observed from the aerial photographs.

FIELD INSPECTIONS

No visual problems are associated with the site. No odors or leachate are noted.

SAMPLING

The New York State DEC took water and soil samples on April 27, 1982.

Three soil sample borings were taken as indicated on Exhibit 2. The soil borings were taken at a depth of 4.5 feet and analyzed for metals and Total Halogenic Organics. At sampling point 1 a surface soil sample and a water sample were also taken and analyzed.

The results (Exhbit 3) indicate elevated levels of cadmium, chromium, zinc in all four soil samples and lead in one sample. The surface water analyses indicated high concentration of zinc, lead and cadmium.

ENVIRONMENTAL PROFILE

SOILS AND BEDROCK

A report prepared by URS describes the soil in the area as silty and clayey soil with a pH of <6.5. Soil permeability is very slow.

The General Soil Map and Interpretation for Eri County prepared by the USDA Soil Conservation Service (1979) identifies the area as Urban land -Odessa soils. The Urban Land classification implies areas disturbed by development such as buildings, parking lots and roads. This soil would vary in degree of texture, structure and permeability. Undisturbed soil soils are formed in gravel and stone free lake laid sediments having a high clay content. The seasonal high water table is perched in the upper part of the subsoil.

There are soils in this series that are formed by end moraine development. These soils include both ablation and lodgement till, silty clay to sandy fill. The permeability is variable but generally greater than for associated ground moraine.

The formation generally occurs near waterways. The Quadernary Geology of New York (Niagara Sheet) indicates that an end moraine formation occurs adjacent to Scajaquada Creek. Consequently filling appears to have occurred in both the lake laid and moraine sediments.

Bedrock is limestone and reported to be at a depth of greater than 10 feet.

GROUNDWATER

URS reports that the depth of the natural watertable is perched to 0.5 to 2 feet below the suface.

The drinking water supply for this area is municipal with the source being Lake Erie. There are no known private groundwater drinking supplies.

SURFACE WATER

There are minor freshwater wetlands in the vicinity of the siie. The majority of these wetlands have been filled in. The site is drained by the surface water courses. Scajaquada Creek flows through the northeastern corner of the area and a tributary stream flows through the southwestern corner (See Exhibit 2).

GEOGRAPHIC DATA

Land use within a one (1) mile radius of the site is residential, commercial and industrial.

DIRECT CONTACT

Only employees of Ernst Steel would have direct contact with the former landfill site.

FIRE OR EXPLOSION POTENTIAL

None

HEALTH RISK

There is no evidence that the site represents an immediate threat to health.

DISCUSSION OF SITE

The high values for the various metals, cadmium, zinc and lead confirm the landfilling of paint sludges and metal filings.

The water sample, which was secured from a ponded (puddle) area on the former landfill, indicate high elevated levels of zinc, lead, and cadmium. Although no leachate was observed on site, materials from the site appear to be contaminating rain water that falls on the site. During periods of heavy rains, it is possible that this water could leave the site as runoff and contaminate surface drainage ways. There is, however, no analytical data to support such an assumption.

In the same vein, aerial photographs indicate disposal into freshwater wetlands. As wetlands do generally indicate a high (or seasonally high) water table, it is possible that contamination of groundwater in the unconsolidated strata could occur.

As the soils on the site area have a high percentage of clay and do not exhibit low pH (high reactivity) it is unlikely that contamination would flow vertically to the limestone bedrock and cause contamination of the deeper water bearing zones.

It has been confirmed that this site has received industrial wastes that might have a deletorious effect on the environment, however, it appears that, the landfill in itself, was a minor operation.

RECOMMENDATION

This site should be given low priority for further study.

A costly or generic sampling program should not be proposed in the near future.

Additional sampling may be warranted to determine if contamination runoff from the disposal reas is still occurring. If so, capping the three (3) acre site with clay cover may resolve potential surface or groundwater problems.

As there is no environmentally sensitive area in the vicinity of the landfill, the groundwater is not used as a drinking water source, there are no health hazardous indicated and due to minor nature of the filling operation, environment degradation is minimal.

For subsequent transaction, the deed of the property should reflect past filling activities.

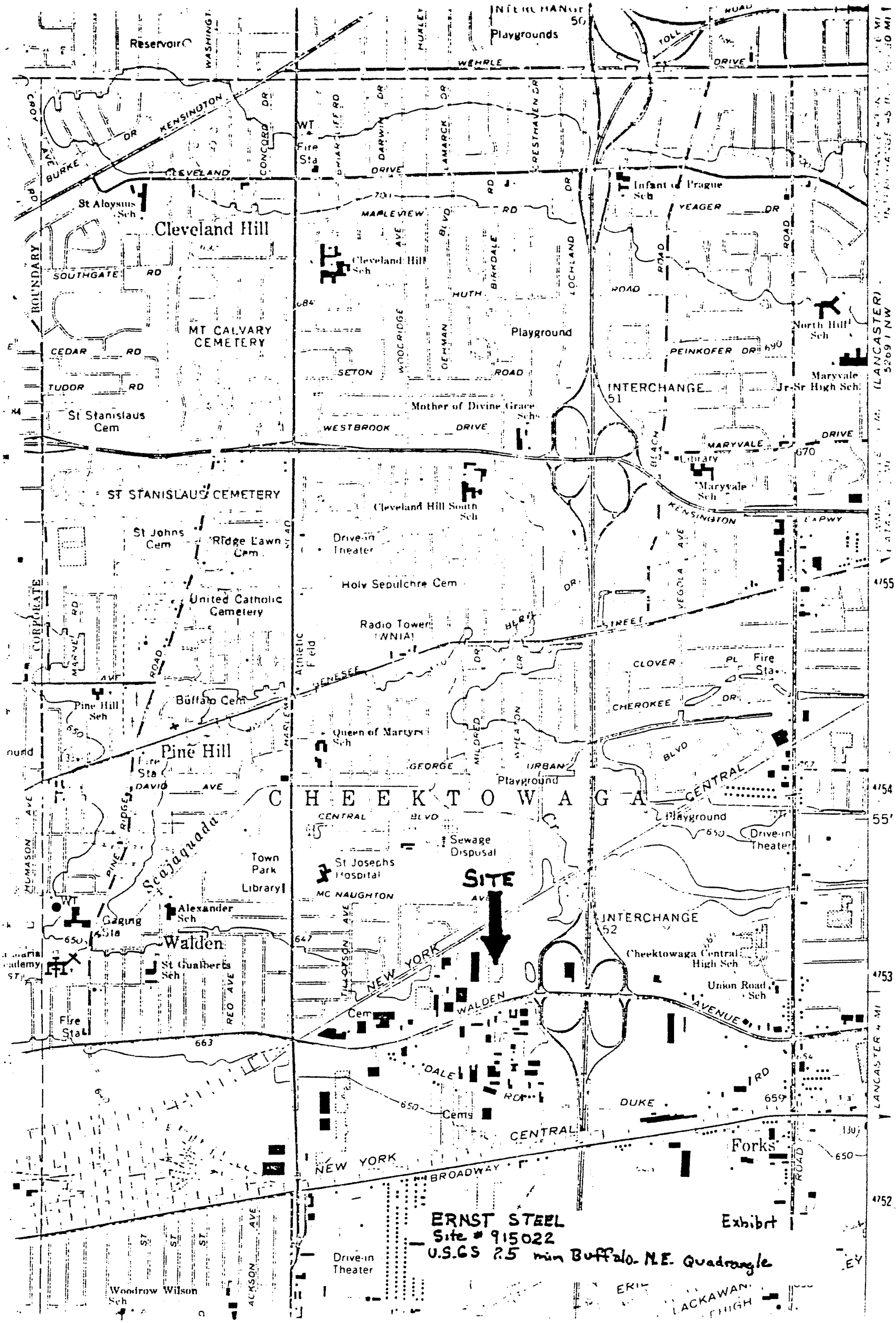
SAMPLING DATE
NYSDEC 4/27/82

Ernst Steel-Water Analyses

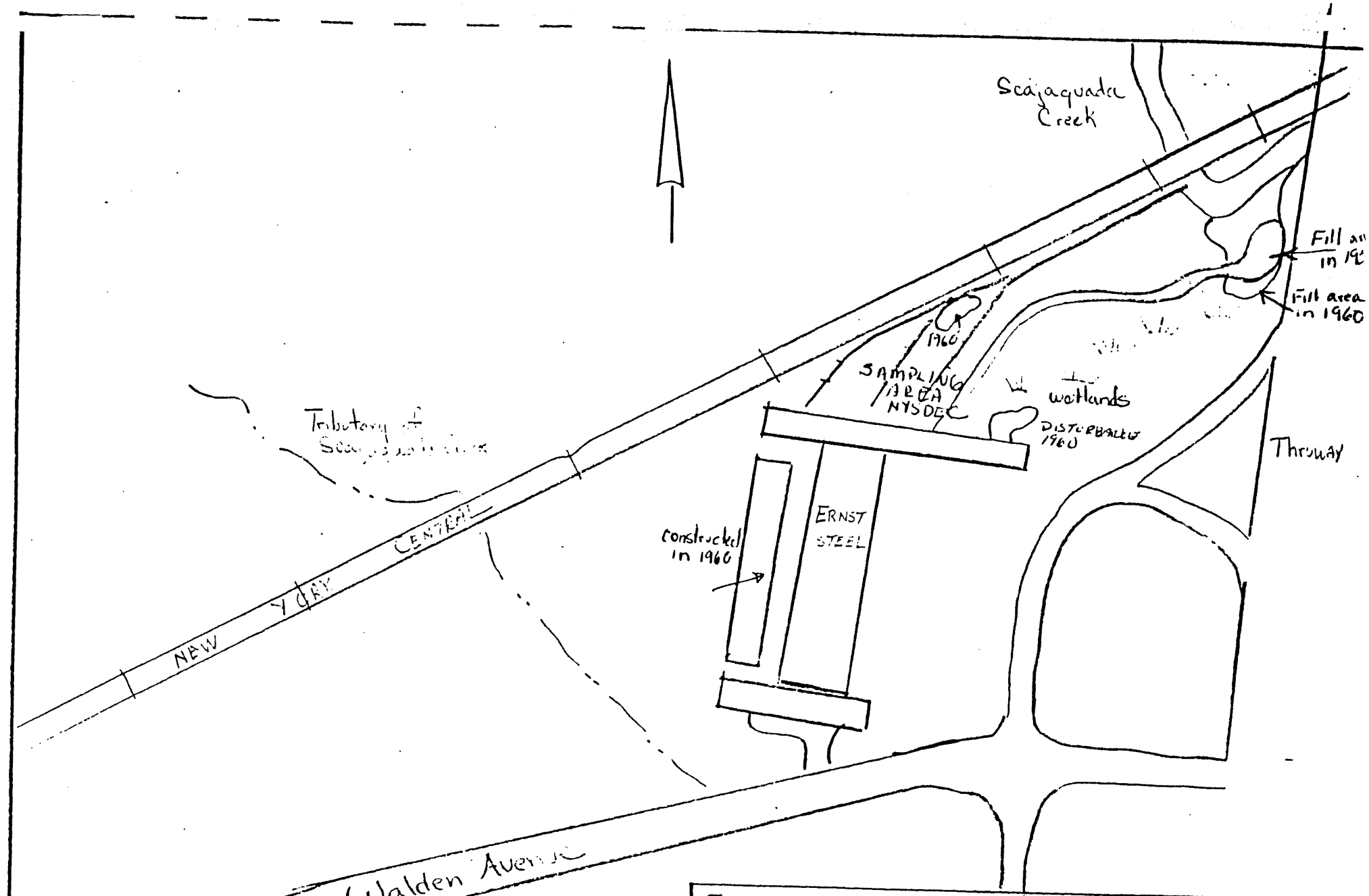
COMPOUND	UNITS OF MEASURE	SAMPLE IDENTIFICATION STATION #1
Arsenic	ug/l	<5
eryllium	mg/l	<0.01
Cadmium	mg/l	0.175
hromium	mg/l	0.054
Copper	mg/l	0.358
ead	mg/l	170
Mercury	ug/l	4.4
ickel	mg/l	0.30
Selenium	ug/l	<5
ilver	mg/l	<0.01
hallium	mg/l	<0.1
ntimony	mg/l	<0.2
inc	mg/l	17
ron	mg/l	3.6

Ernst Steel- Soil Analyses

PARAMETER	UNITS OF MEASURE	SAMPLE IDENTIFICATION (Station #) (SURFACE SOIL (1))	(1)	(2)	(3)
rsenic	ug/g dry	12	9.3	25	5.1
Beryllium	ug/g dry	<0.4	<0.5	<0.2	<0.3
admium	ug/g dry	3.0	2.3	1.6	0.91
hromium	ug/g dry	440	220	200	11
opper	ug/g dry	41	49	280	59
ead	ug/g dry	8.3	270	2,500	13
Mercury	ug/g dry	<0.03	<0.03	0.04	<0.03
ickel	ug/g dry	18	35	110	21
Selenium	ug/g dry	<0.07	0.64	0.30	0.41
ilver	ug/g dry	<0.4	<0.5	<0.2	<0.3
Thallium	ug/g dry	3.6	1.0	<0.2	<3
ntimony	ug/g dry	11	10	<0.4	<6
Zinc	ug/g dry	46	64	31	40
y Weight	%	68	73	79	71
Iron	ug/g dry	300	440	200	300
logenated ganic Scan	ug/g dry as Cl_2 Lindane Standard	0.59	0.94	1.1	0.99



SITE
ERNST STEEL
Site # 915022
U.S.G.S 7.5 min Buffalo N.E. Quadrangle
Exhibit
C H E E K T O W A G A
Cleveland Hill
Pine Hill
Walden
Forks
Reservoir
Playgrounds
INTERCHANGE 50
INTERCHANGE 51
INTERCHANGE 52
St Aloysius Sch
Cleveland Hill Sch
Infant of Prague Sch
North Hill Sch
Maryvale Jr-Sr High Sch
MT CALVARY CEMETERY
St Stanislaus Cem
ST STANISLAUS CEMETERY
Mother of Divine Grace Sch
Playground
Library
Maryvale Sch
Cleveland Hill South Sch
St Johns Cem
Ridge Lawn Cem
Drive-in Theater
Holy Sepulchre Cem
United Catholic Cemetery
Radio Tower (WNIA)
Athletic Field
Buffalo Cem
Pine Hill Sch
Queen of Martyrs Sch
Fire Sta
Sewage Disposal
St Josephs Hospital
Town Park
Library
Alexander Sch
Gaging Sta
St Gualberts Sch
Cheektowaga Central High Sch
Union Road Sch
Cem
Cems
Woodrow Wilson Sch
Scajaquada
CLEVELAND DRIVE
WEHRLE DRIVE
KENSINGTON
MAPLEVIEW RD
YEAGER DR
SOUTHGATE RD
CEDAR RD
TUDOR RD
WESTBROOK DRIVE
MARYVALE DRIVE
GENESEE STREET
CLOVER PL
CHEROKEE DR
GEORGE URBAN BLVD
CENTRAL BLVD
DAVID AVE
MC NAUGHTON AVE
NEW YORK CENTRAL
WALDEN AVENUE
DALE RD
DUKE RD
BROADWAY
HARLEM
UNION ROAD
BOUNDARY
CORPORATE
LANCASTER



ERNST STEEL
Site #915022
Walden Avenue
Cheektowaga New York

Exhibit 2

12/20 DED

REFERENCE 3

SHEET ___ OF ___

DAILY FIELD REPORT

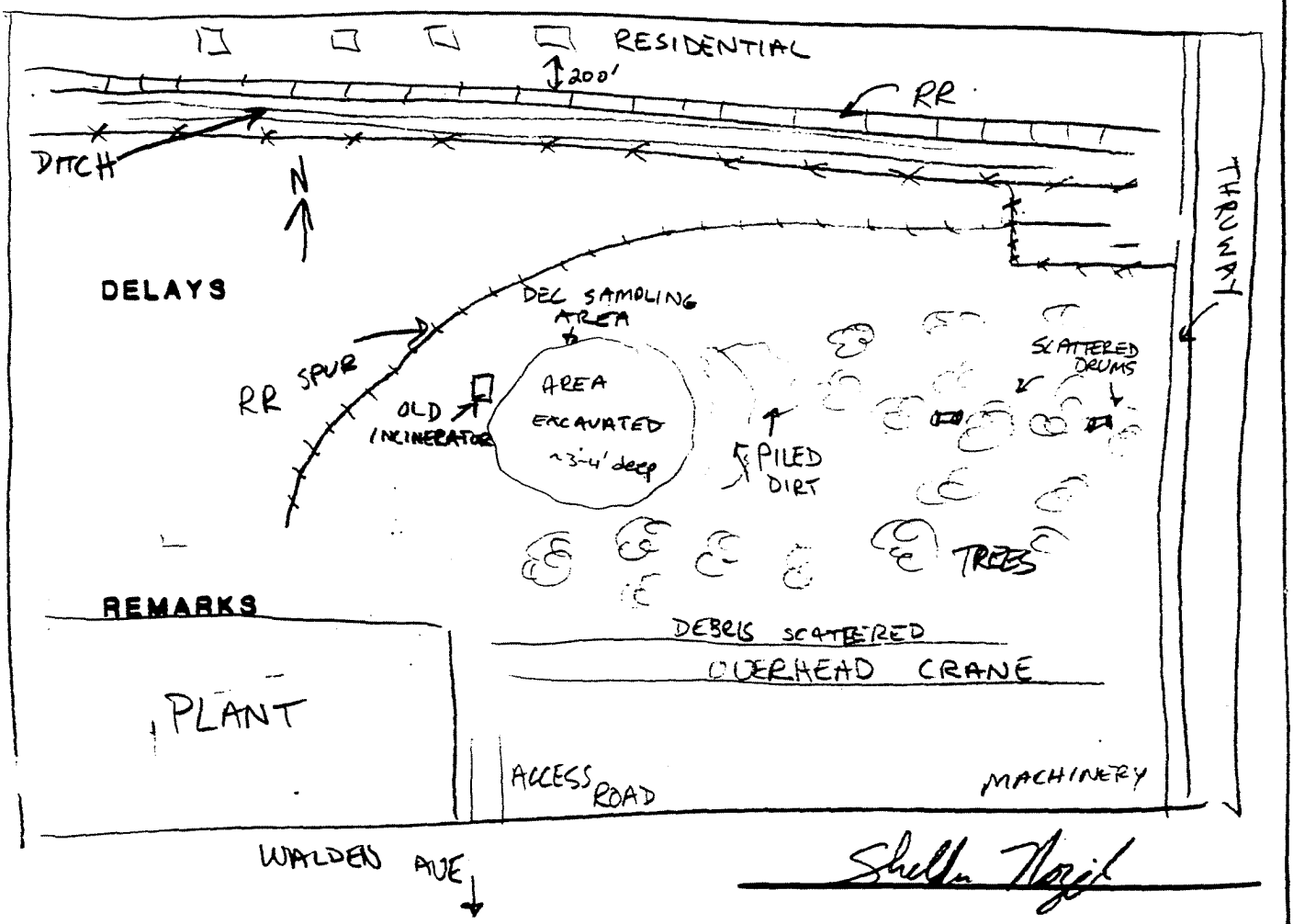
PROJECT NO. SC280398 **LOCATION** ERNST STEEL

DATE 1/24/86 **REPORT NO.** ___

WEATHER CONDITIONS Partly Cloudy, 20°F

REPORT

ACTIVITIES Andre and I on site 10:00 a.m. Frank Ernst not there so we proceed to site anyway. Property is leased by U.S steel supply. Area of concern is in northeast portion of property. Most of area is covered by trees. Some empty rusted drums scattered around area. Area near incinerator has been recently excavated ~ 3-4 feet of dirt etc pushed back towards trees. Slag, concrete "Red lead" piled around. Area excavated is currently ponded but frozen. See diagram below:



Shelley Nagel

REFERENCE 4

NAME OF SITE: Ernst Steel

LOCATION: 1746 Walden Avenue, Erie County

CURRENT OWNER: Ernst Steel

HISTORY

The Ernst Steel Plant is a fabrication plant, responsible for the assembly of heavy industrial equipment. The material used in fabrication of steel equipment were landfilled in the past on-site. This site has been inactive for a number of years.

Materials believed to have been disposed of on-site are metal shavings, wood debris, iron oxide dust, dried paint sludge, paint, machine cutting oil and plant wash from steel painting, drilling, welding, fabrication, and cleaning.

INVESTIGATION

Three soil sample borings were taken as indicated on the enclosed drawing. The soil borings were taken at a depth of 4.5 feet and analyzed for metals, THO, and Fe. At Site #1, a surface soil sample as well as the sample indicated above was taken and analyzed for metals, THO, and Fe. Also, at site #1 a water sample was taken and analyzed for heavy metals, and Fe.

SOIL AND GEOLOGICAL INFORMATION

Unclassified city land, as its name implies, includes nonagricultural areas within the limits of the numerous towns and cities in the county. Almost 55 square miles of land in the county are accounted for in this classification. The soils at this site are classified under this heading.

The rock at this site is classified as Onondaga Limestone formed in the Middle Devonian Period of the Paleozoic Era. The group is specifically defined at this site as cherty, coral biostrome, with local bioherms.

SAMPLE ANALYSES

The soil analysis from all four samples taken exhibited high concentrations of chromium, copper, lead, nickel, zinc, and iron. The water analyses indicated high concentrations of zinc and iron and a very high concentration of lead.

DISCUSSION OF RESULTS

The sample analyses add confirmation to the deposition of paint sludges and metal shavings. According to the information compiled on this site and the analysis received from samples taken, this site was used as a landfill. If past disposal information is consistent, which the test results confirm, the landfill was a minor disposal site.

RECOMMENDATIONS

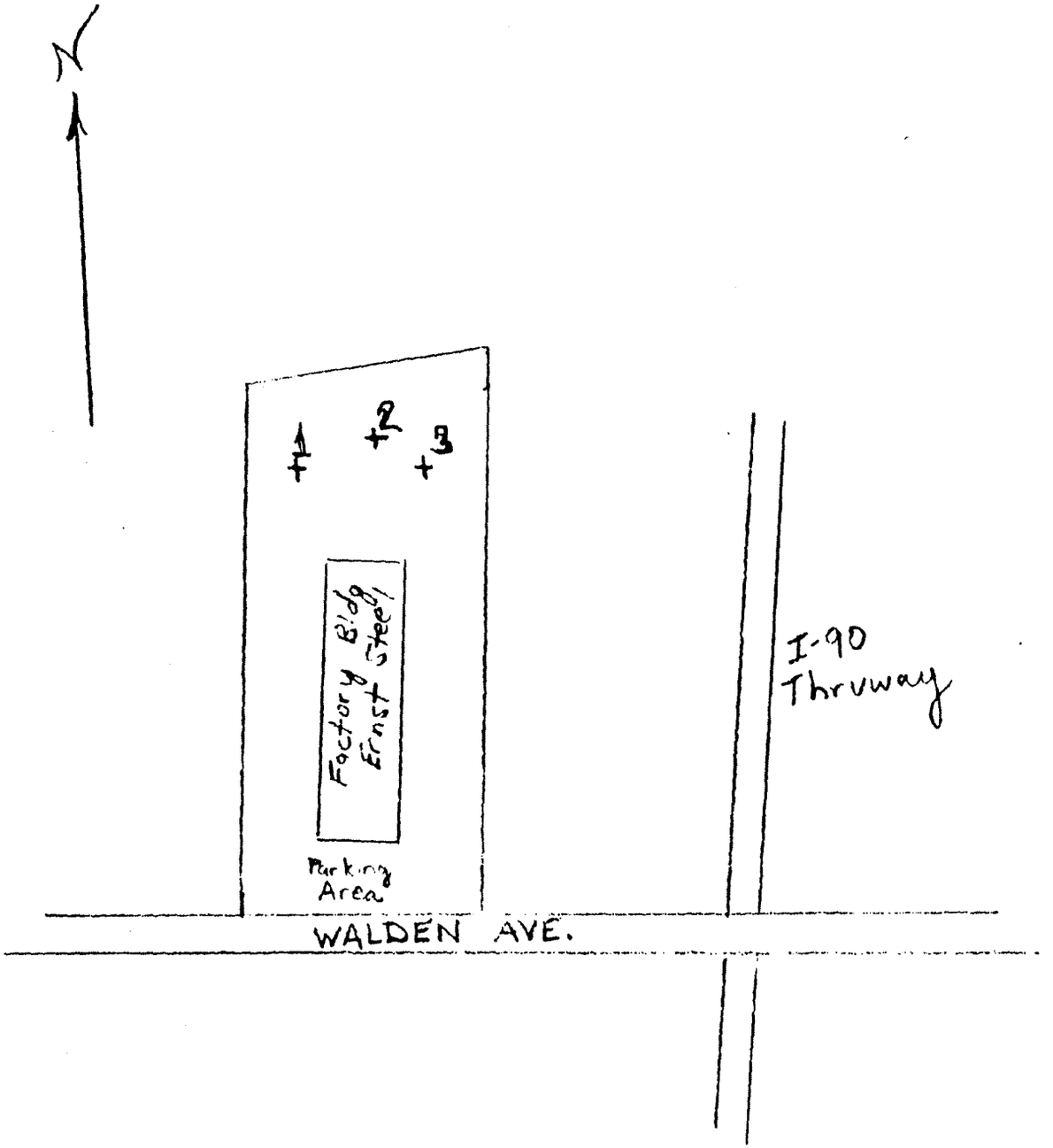
The landfill is located on the northern area of the plant property. The Ernst Steel landfill site appears to be isolated. The health risk associated with those high metal concentrations mentioned above are minimal except in standards for drinking water.

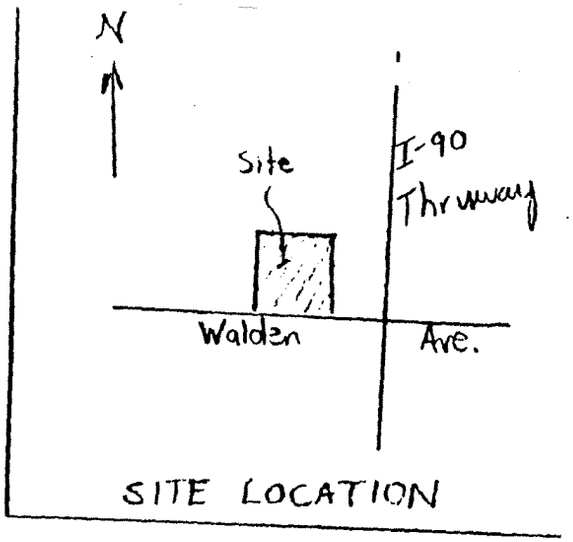
Ernst Steel - Water Analyses (4/27/82)

COMPOUND	UNITS OF MEASURE	SAMPLE IDENTIFICATION STATION #1
Arsenic	ug/l	<5
Beryllium	mg/l	<0.01
Cadmium	mg/l	0.175
Chromium	mg/l	0.054
Copper	mg/l	0.358
Lead	mg/l	170
Mercury	ug/l	4.4
Nickel	mg/l	0.30
Selenium	ug/l	<5
Silver	mg/l	<0.01
Thallium	mg/l	<0.1
Antimony	mg/l	<0.2
Zinc	mg/l	17
Iron	mg/l	3.6

ERNST STEEL - Soil Analyses (4/27/82)

PARAMETER	UNITS OF MEASURE	SAMPLE IDENTIFICATION (Station #) SURFACE SOIL (1)	(1)	(2)	(3)
Arsenic	ug/g dry	12	9.3	25	5.1
Beryllium	ug/g dry	<0.4	<0.5	<0.2	<0.3
Cadmium	ug/g dry	3.0	2.3	1.6	0.91
Chromium	ug/g dry	440	220	200	11
Copper	ug/g dry	41	49	280	59
Lead	ug/g dry	8.3	270	2,500	13
Mercury	ug/g dry	<0.03	<0.03	0.04	<0.03
Nickel	ug/g dry	18	35	110	21
Selenium	ug/g dry	<0.07	0.64	0.30	0.41
Silver	ug/g dry	<0.4	<0.5	<0.2	<0.3
Thallium	ug/g dry	3.6	1.0	<0.2	<3
Antimony	ug/g dry	11	10	<0.4	<6
Zinc	ug/g dry	46	64	31	40
Dry Weight	%	68	73	79	71
Iron	ug/g dry	300	440	200	300
Halogenated Organic Scan	ug/g dry as Cl_2 Lindane Standard	0.59	0.94	1.1	0.99





ERNST STEEL CO.
Erie County

REFERENCE 5

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).

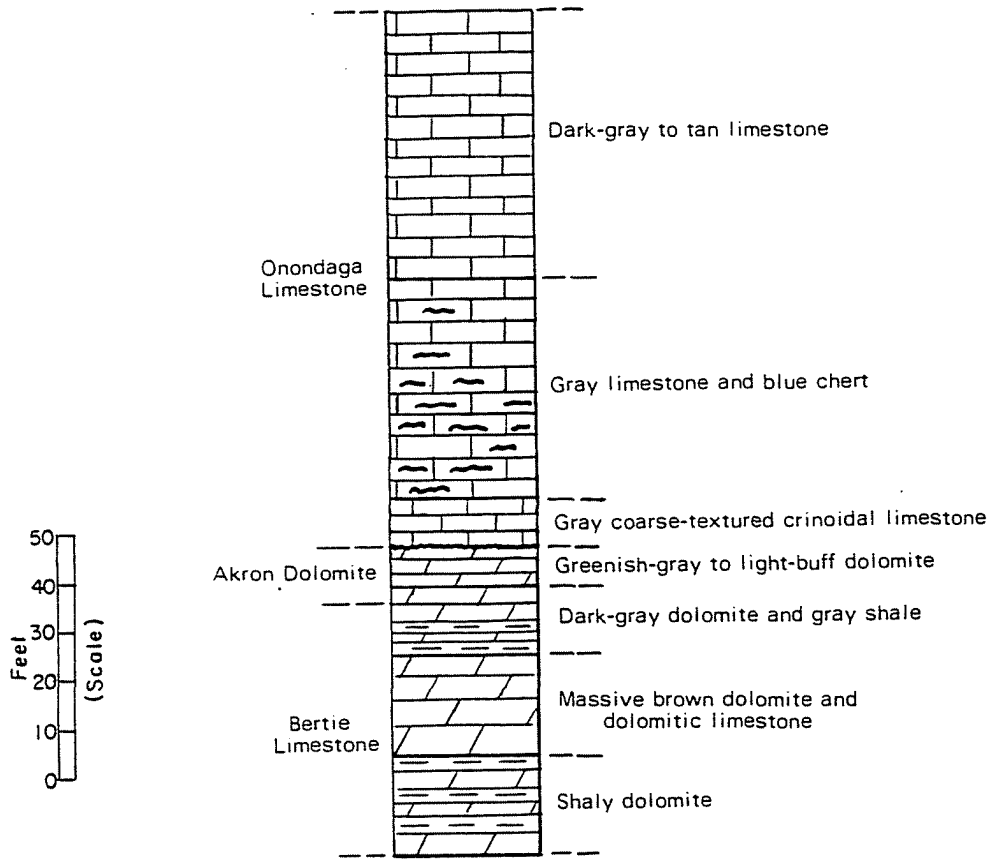


Figure 7.--Lithology of the limestone unit.

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

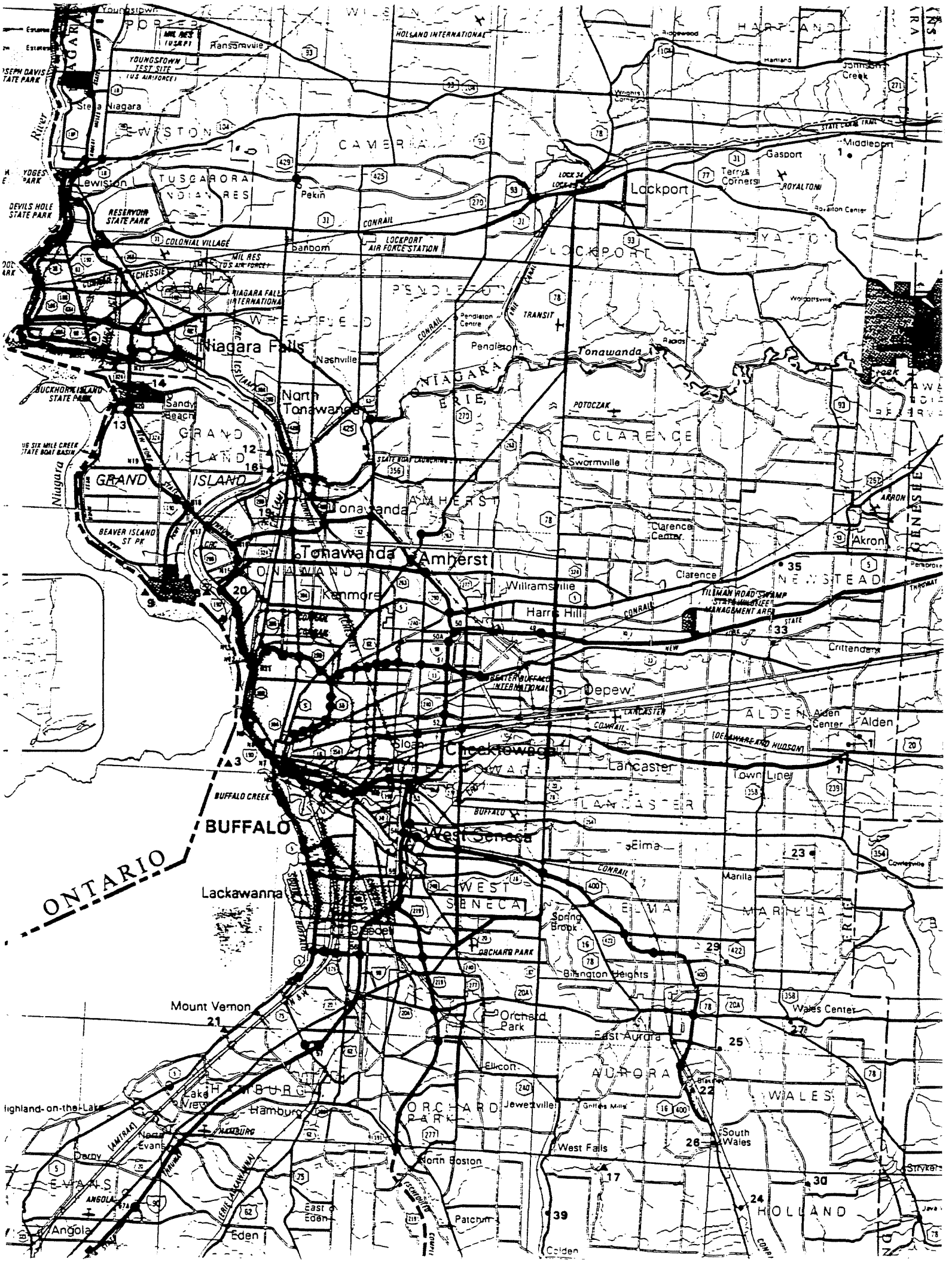
The limestone unit is more productive than the Lockport. A number of large-yield wells in Buffalo, Cheektowaga, Williamsville, Pembroke, and Batavia are finished in the limestone unit and indicate that yields of 300 gpm and possibly more can be obtained. Like the Lockport Dolomite, the yields of wells 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.

REFERENCE 6

DEC - 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

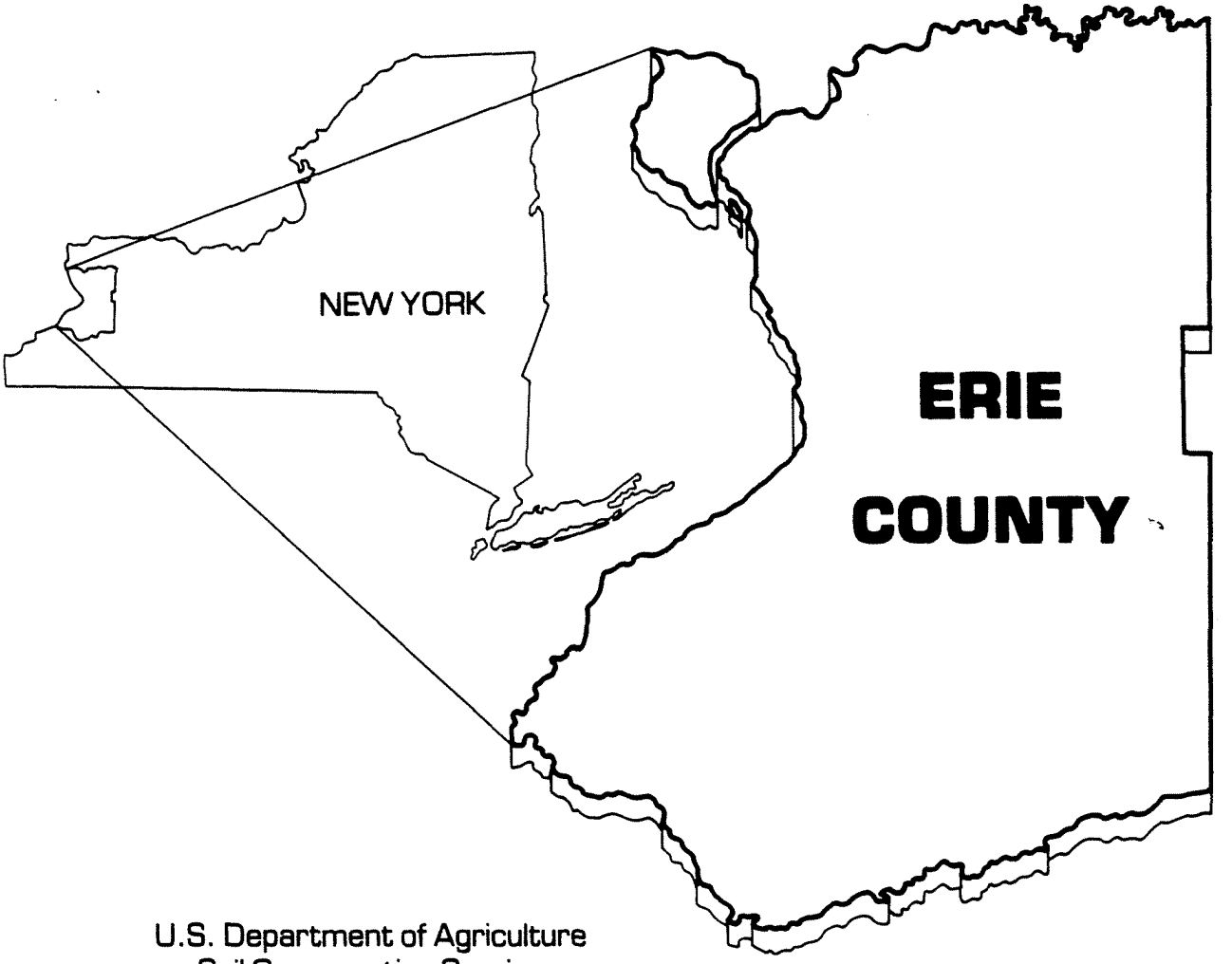

Youngstown
Ransomville
Holland International
Ridgewood
Harlan
Johnson Creek
Wright's Corners
Stella Niagara
Lewiston
Tuscarora Indian Res
Pekin
Gasport
Middleport
Terry's Corners
Royalton
Lockport
Devils Hole State Park
Reservoir State Park
Colonial Village
Conrail
Lockport Air Force Station
Mil Res (U.S. Air Force)
Chessie
Niagara Falls International
Pendleton
Pendleton Centre
Transit
Wolcottsville
Niagara Falls
Nashville
Tonawanda
Buckhorn Island State Park
Sandy Beach
North Tonawanda
Potoczak
Six Mile Creek State Boat Basin
Grand Island
Swormville
Beaver Island St Pk
Amherst
Clarence Center
Akron
Kenmore
Williamsville
Clarence
Harris Hill
Tillman Road Swamp State Wildlife Management Area
Crittenden
Depew
Alden
Alden Center
Sloan
Cheektowaga
Lancaster
Town Line
Buffalo Creek
Buffalo
West Seneca
Elma
Ontario
Lackawanna
Seneca
Spring Brook
Orchard Park
Manilla
Marilla
Bissgton Heights
Mount Vernon
Wales Center
Orchard Park
East Aurora
Ellicott
Aurora
Wales
Lake View
Hamburg
Jewettville
Griffes Mills
South Wales
West Falls
North Boston
Evans
Angola
East Eden
Eden
Patchin
Colden
Holland
Strykers

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 7

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

43. URBAN LAND-ODESSA, NEARLY LEVEL

Nonsoil areas, and deep, somewhat poorly drained, clayey soils, on lowland plains.

This unit is in areas of residential developments interspersed with undisturbed soils dominated by clayey sediments. Most areas extend eastward and northward from Buffalo into the suburbs. Slope ranges from 0 to 3 percent.

This unit covers about 11,100 acres or 1.6 percent of the county. Urban land makes up 65 percent of the unit, Odessa soils about 25 percent and soils of minor extent the remaining 10 percent.

The urban land portion of this unit is covered by streets, sidewalks, driveways, house foundations, and parking lots. A few areas also include shopping centers, institutional facilities and light industrial parks. All of these areas have the upper layers of soil disturbed or removed. The undisturbed soil portion of this unit is dominated by Odessa soils that formed in gravel and stone-free, lake-laid sediments having a high clay content. These soils are somethwat poorly drained and have a seasonal high water table perched in the upper part of the subsoil during spring and other wet periods. Rate of water movement through the soil is slow or very slow. Most areas of the undisturbed Odessa soils are in lawns, gardens, parks, or vacant lots.

Soils that are of minor extent are primarily those of the Cosad and Lakemont series. Cosad soils are in areas that have a surficial layer of sand overlying clayey sediments. Poorly drained and very poorly drained Lakemont soils occur in depressions and along drainageways in this unit.

Most of this unit is in residential housing. Seasonal wetness, slow water movement through the soil, clayey textures, and poor stability of the soil layers are concerns for further development of areas of this unit. In the town of Amherst, some areas are subject to ponding or slow removal of water when nearby streams are near flood stage.

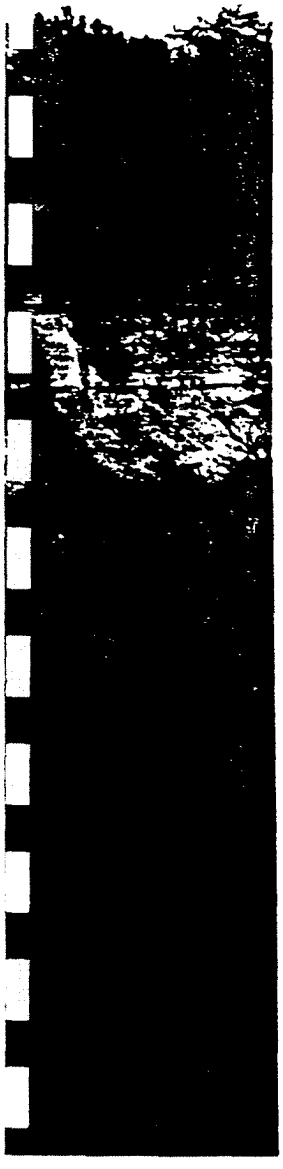
REFERENCE 8

GEOLOGY

OF

ERIE COUNTY

New York



By

EDWARD J. BUEHLER

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State University of New York at Buffalo

AND

IRVING H. TESMER

Professor of Geology
State University College at Buffalo

BUFFALO SOCIETY OF NATURAL SCIENCES
BULLETIN

Vol. 21. No. 3 Buffalo. 1963

ARTHROPODS

Eurypterus remipes lacustris Harlan — *Pterygotus* sp.
Leperditia scalaris Jones

GRAPTOLITES

Inocaulis akronensis Ruedemann — *Medusaegraptus graminiformis* (Pohlmann)

Devonian System

LOWER DEVONIAN (ULSTERIAN) SERIES

ORISKANY SANDSTONE

The Oriskany Sandstone is not exposed as such in western New York but sand grains at the Silurian-Devonian contact have been termed Oriskany by Clarke (1900, pp. 79, 96-98).

MIDDLE DEVONIAN (ERIAN) SERIES

ONONDAGA LIMESTONE

TYPE REFERENCE: Hall (1839, pp. 293-309).

TYPE LOCALITY: Onondaga County, New York. A more exact type locality has not been designated.

TERMINOLOGY: Eaton (1828, p. 153) called the Onondaga Limestone "Cornitiferous limerock." Oliver (1954) conducted the most recent and thorough study. He recognized four members: the Edgecliff (oldest), Nedrow, Moorehouse, and Seneca (see fig. 5).

AGE AND CORRELATION: The Onondaga Limestone is generally dated as early Middle Devonian but comparison with the European standard section suggests a late Early Devonian age to some (Cooper *et al.* 1942). This formation has been traced eastward across New York State and southward into the Appalachian Mountains. To the west, the Onondaga correlates in part with the Detroit River Group of Michigan.

THICKNESS: Complete measured sections of the Onondaga Limestone in Erie County have not been published. Luther (1906, p. 13) mentions 162 feet. Bishop (1897, p. 390) gives a more probable figure of 108 feet. The Edgecliff Member, normally only a few feet in thickness, swells to about 35 feet in the bioherm at Williamsville (filled quarry at Main Street and Kensington Avenue). This produces a local dome with dips as great as 10 degrees.

LITHOLOGY: The *Edgecliff Member* is a gray, coarse-textured, crinoidal limestone with abundant corals. In the Williamsville bioherm and vicinity, there are beds of green tinted shale and some disseminated bituminous matter.

The *Nedrow Member* is a rough-weathering, cherty limestone. The chert

is generally blue-black in color and in some beds so greatly exceeds the limestone in amount that the term bedded chert is applicable. Fossils are not as common as in the other members.

The *Moorehouse Limestone Member* bears a coral-brachiopod-bryozoan fauna. The texture varies from coarse to very finely crystalline and the color from dark gray to tan. Chert, some light buff in color, and disseminated bituminous matter are present.

Oliver (1954, pp. 637-641) suggests that the *Seneca*, the uppermost member of the Onondaga, cannot be recognized in Erie County. The upper part of the Moorehouse may be of Seneca age. A thin layer which may represent the Tioga Bentonite occurs near the top of the Onondaga Limestone in western New York and is said to crop out in the Federal Crushed Stone quarry in Cheektowaga.

The north-facing cliff of the Onondaga escarpment consists chiefly of the Edgecliff and Nedrow Members.

PROMINENT OUTCROPS: East Amherst Street storm sewer; Buffalo Crushed Stone quarry at Wehrle and Harris Hill roads; Louisville Cement Company quarry on New York route 5 near Clarence; Murder Creek near Akron Falls Park (pl. 6, lower). There are numerous exposures along the Onondaga escarpment. The exposure at Greiner Road is especially prominent. The upper part of the Onondaga can be observed in the quarry of the Federal Crushed Stone Company on Como Park Road in Cheektowaga, and in the Lancaster Crushed Stone quarry at Clarence (pl. 7, upper).

CONTACTS: The Onondaga Limestone rests disconformably on the Upper Silurian Akron Dolostone. The contact with the overlying Marcellus Formation cannot be seen in Erie County.

ECONOMIC GEOLOGY: The Onondaga Limestone is an important source of crushed stone in Erie County and is quarried for that purpose by several companies. In the past, the Nedrow Member has been used for building stone.

PALEONTOLOGY: Oliver (1954, pp. 638-639; 1958, p. 822) lists the following species from the Edgecliff Member in Erie County:

COELENTERATES

Bethanyphyllum robustum
Billingsastraea cf. *verneuili* (Edwards and Haime)
Blothrophyllum decorticatum Billings
B. promissum
Breviphrentis yandelli
Caunopora sp.
Chonophyllum magnificum (Billings)
Coenites sp.
Cystiphylloides robustum
C. sulcatum
C. cf. *conifollis*
C. sp. A
Eridophyllum gigas
Favosites basalticus
F. canadensis (Billings)
F. emmonsi
F. epidermatus
F. tuberosa
F. turbinatus Billings
Heliophylloides corniculum
Heliophyllum gemmatum
H. halli (?) Edwards and Haime
H. sp. C

Heterophren
H. prolifica
H. sp.
Metriophyllu
(Billings)
Pleurodictyu

Bryozoa spp.

Amphigenia
Atrypa retic
Centronella
Elytha fimbr
Leptaena rho
Leptostroph
Levenia lent

Orthonychia
O. dentalium
Platyceras ar
P. carinatum
P. dumosum

Phacops cris
from the N

Heterophren

from the M

Amplexiphyl
Bethanyphyll
Breviphrentis
Coenites sp.
Cylindrophy
Cystiphylloid
Favosites bas

Camillus
Gray shale containing larg

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STRATIGRAPHIC COLUMN
BERTIE-ONONDAGA

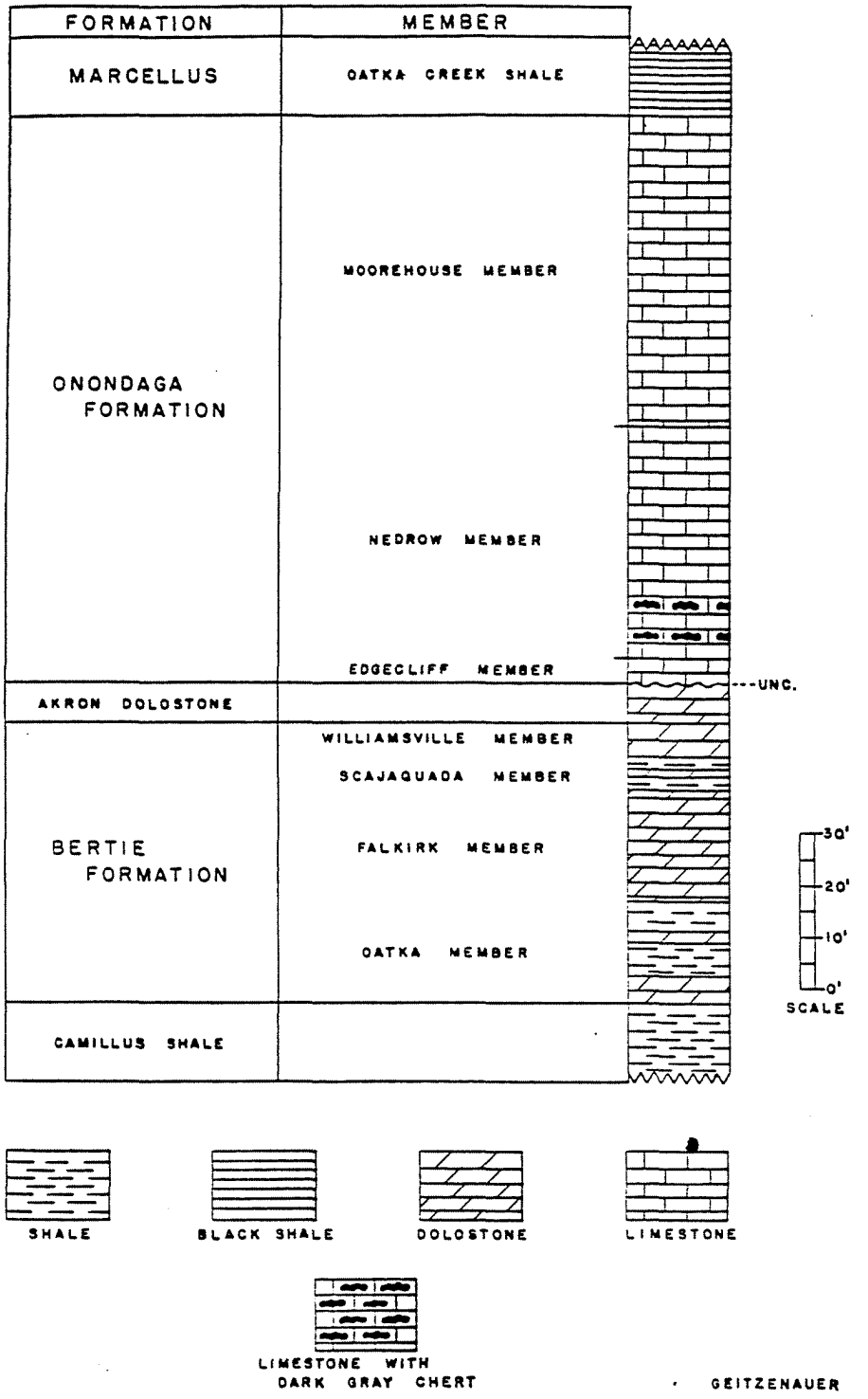


Fig. 5

REFERENCE 9

DRAFT

UNCONTROLLED HAZARDOUS WASTE SITE RANKING SYSTEM - A USERS MANUAL

DRAFT

10 June 1982

(errata included)

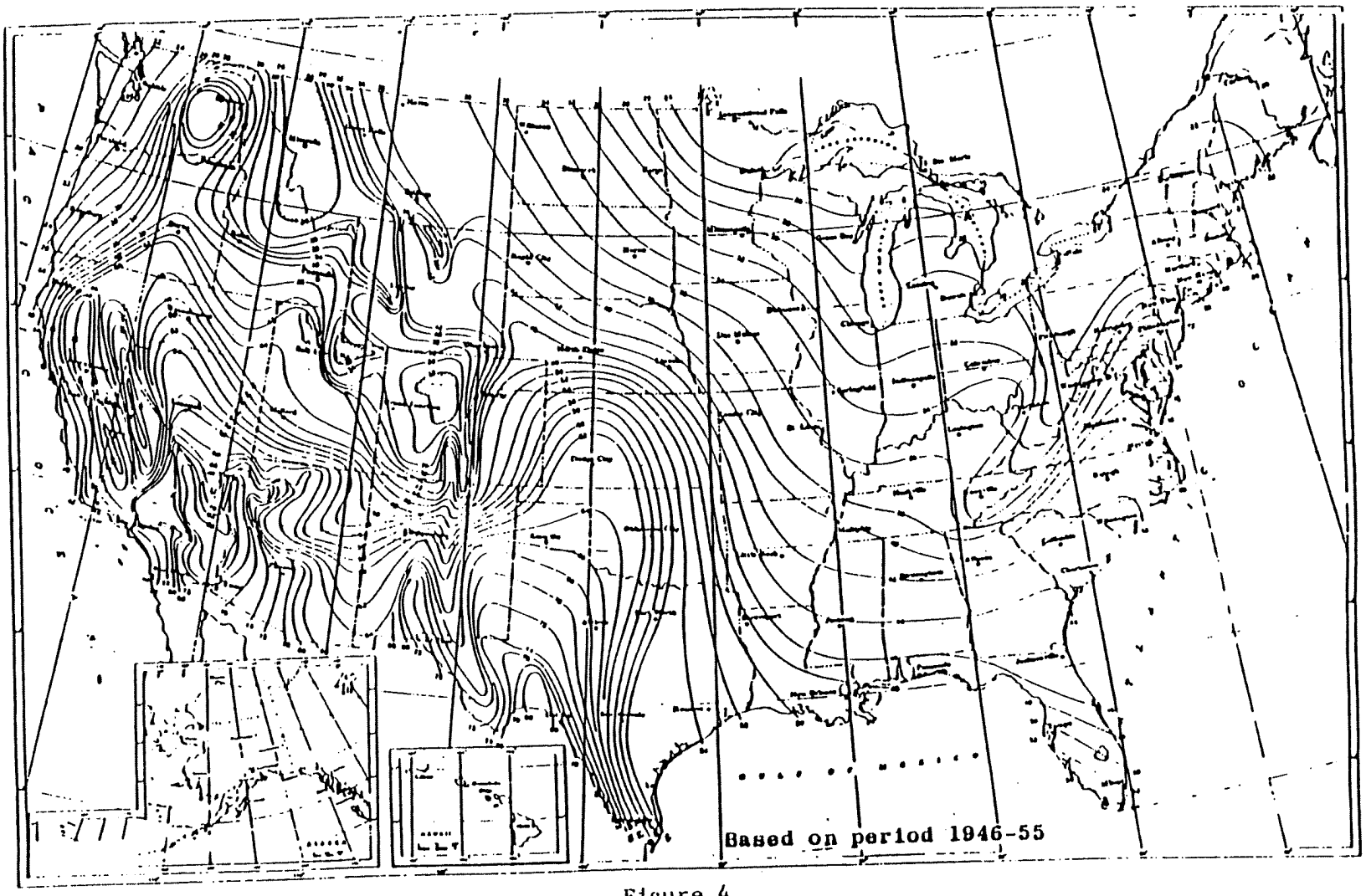


Figure 4

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.

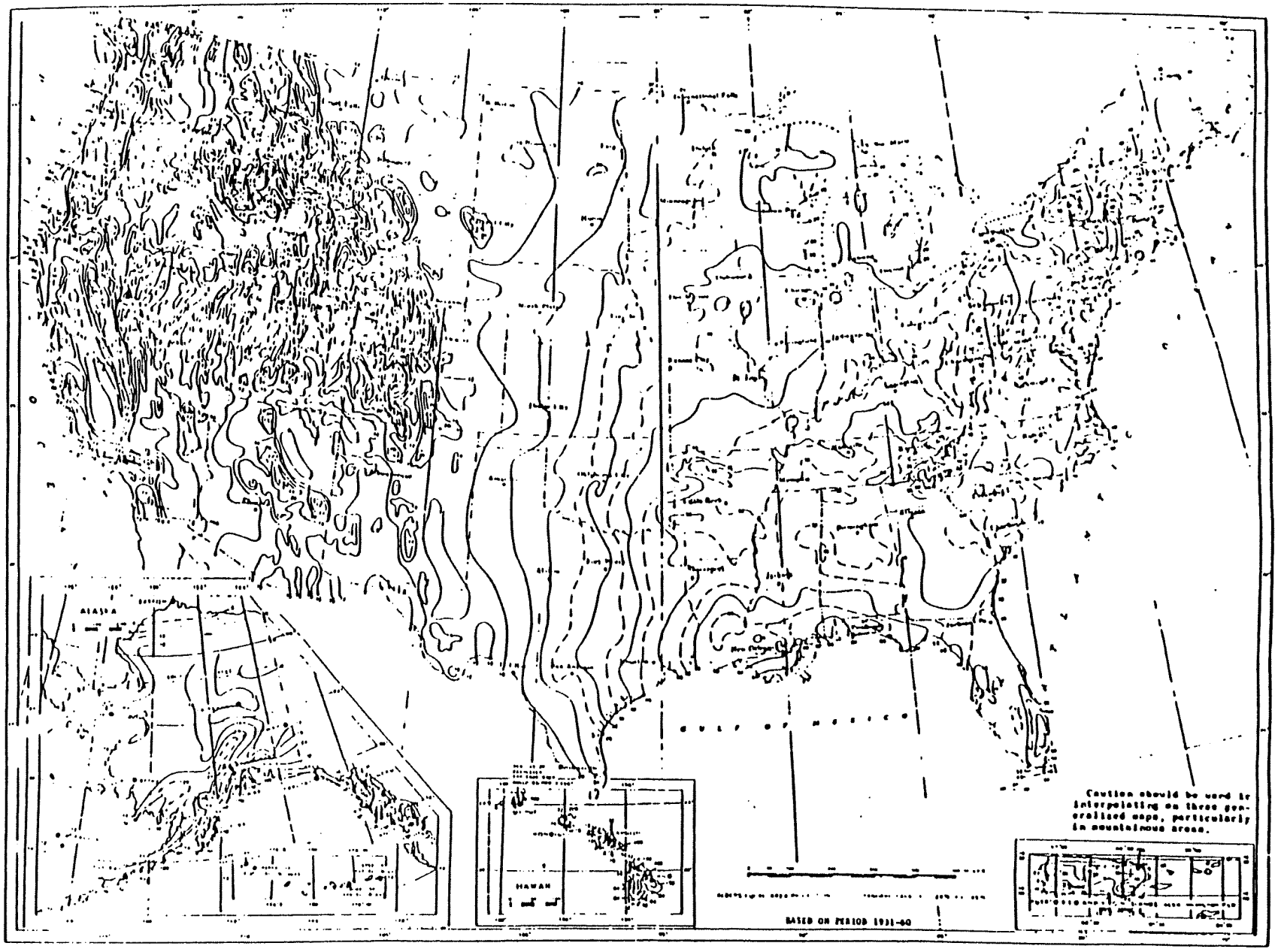


Figure 5

Normal Annual Total Precipitation (inches)

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

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

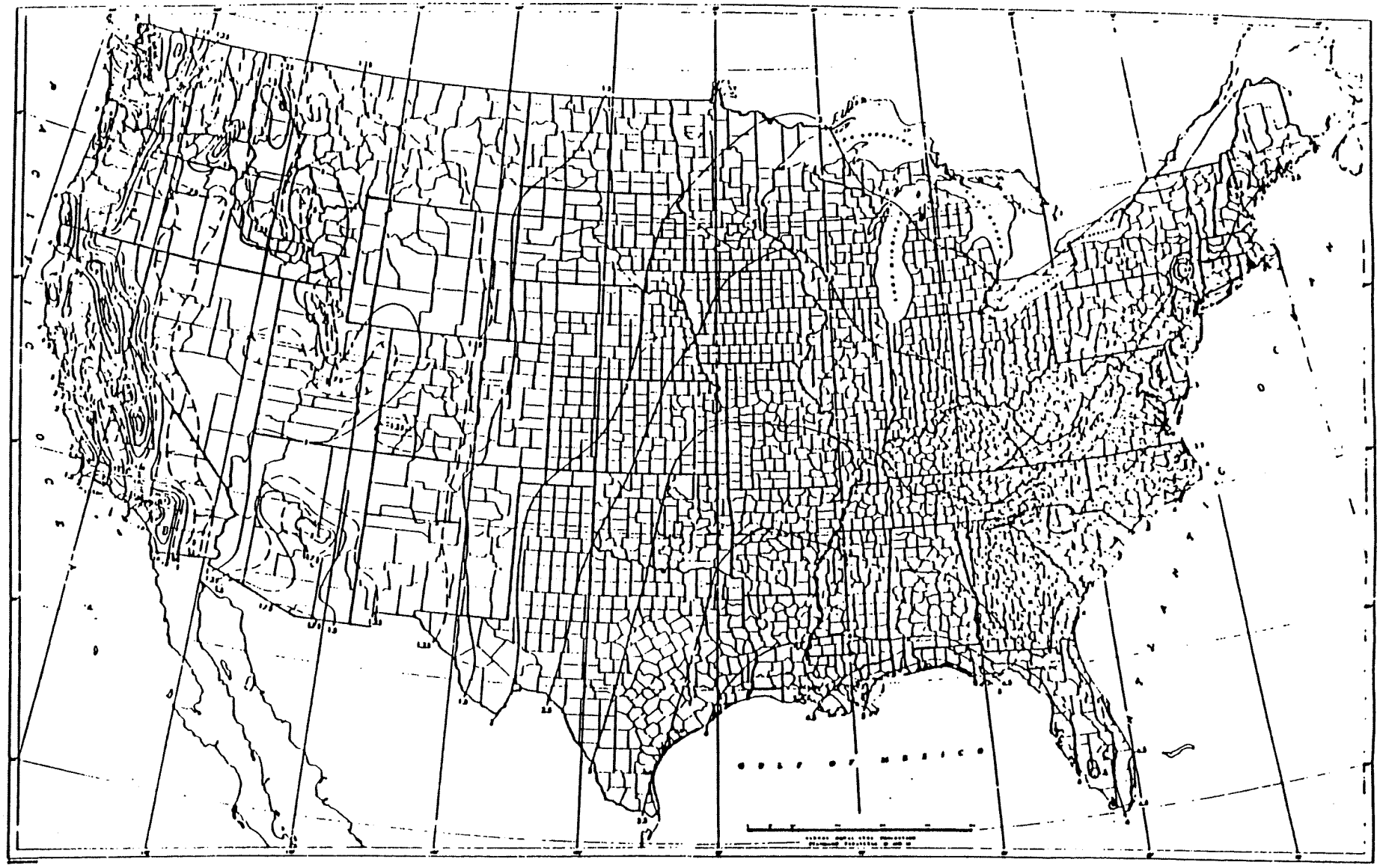


FIGURE 8

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 10

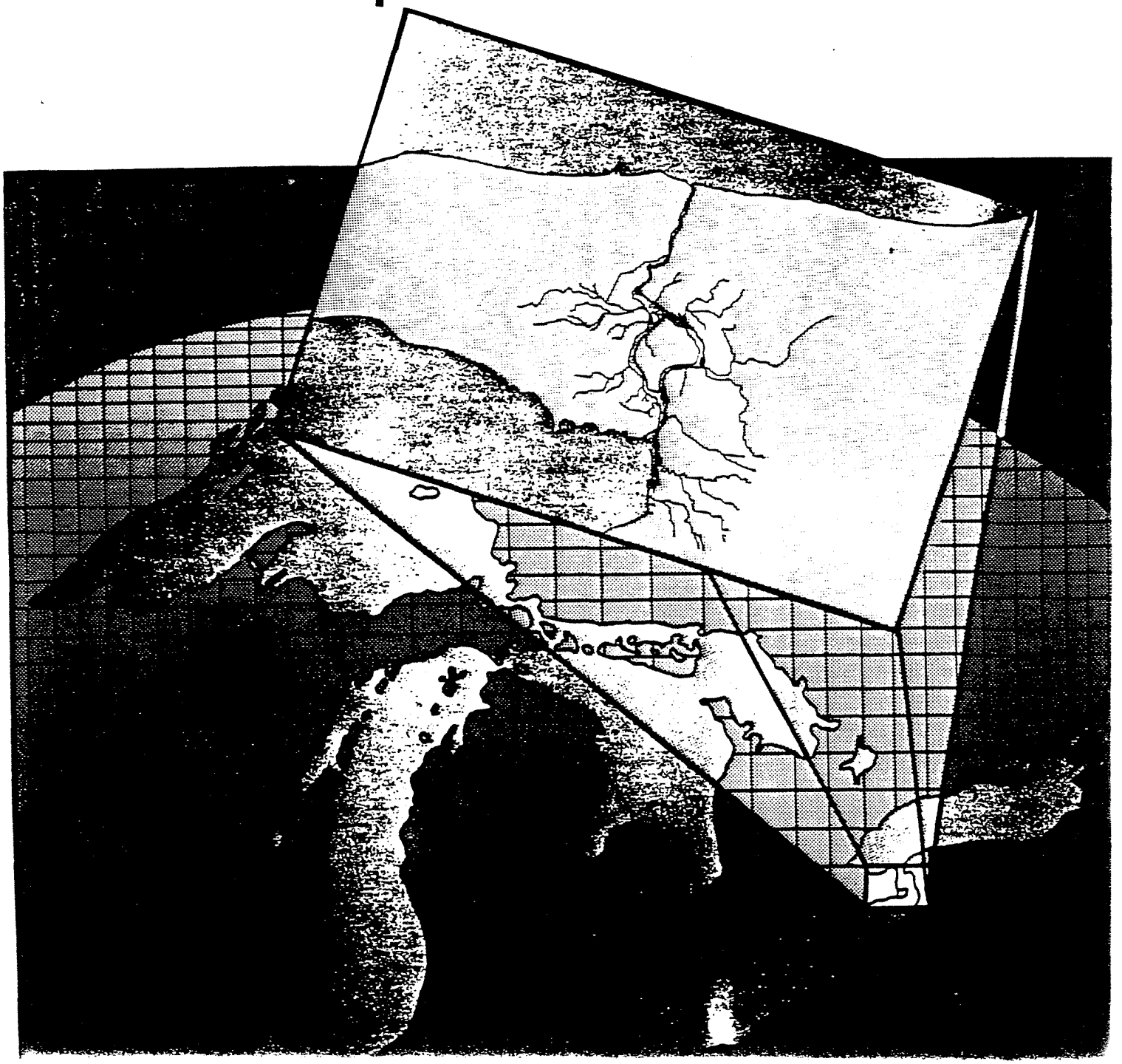
United States
Environmental Protection
Agency

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



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.

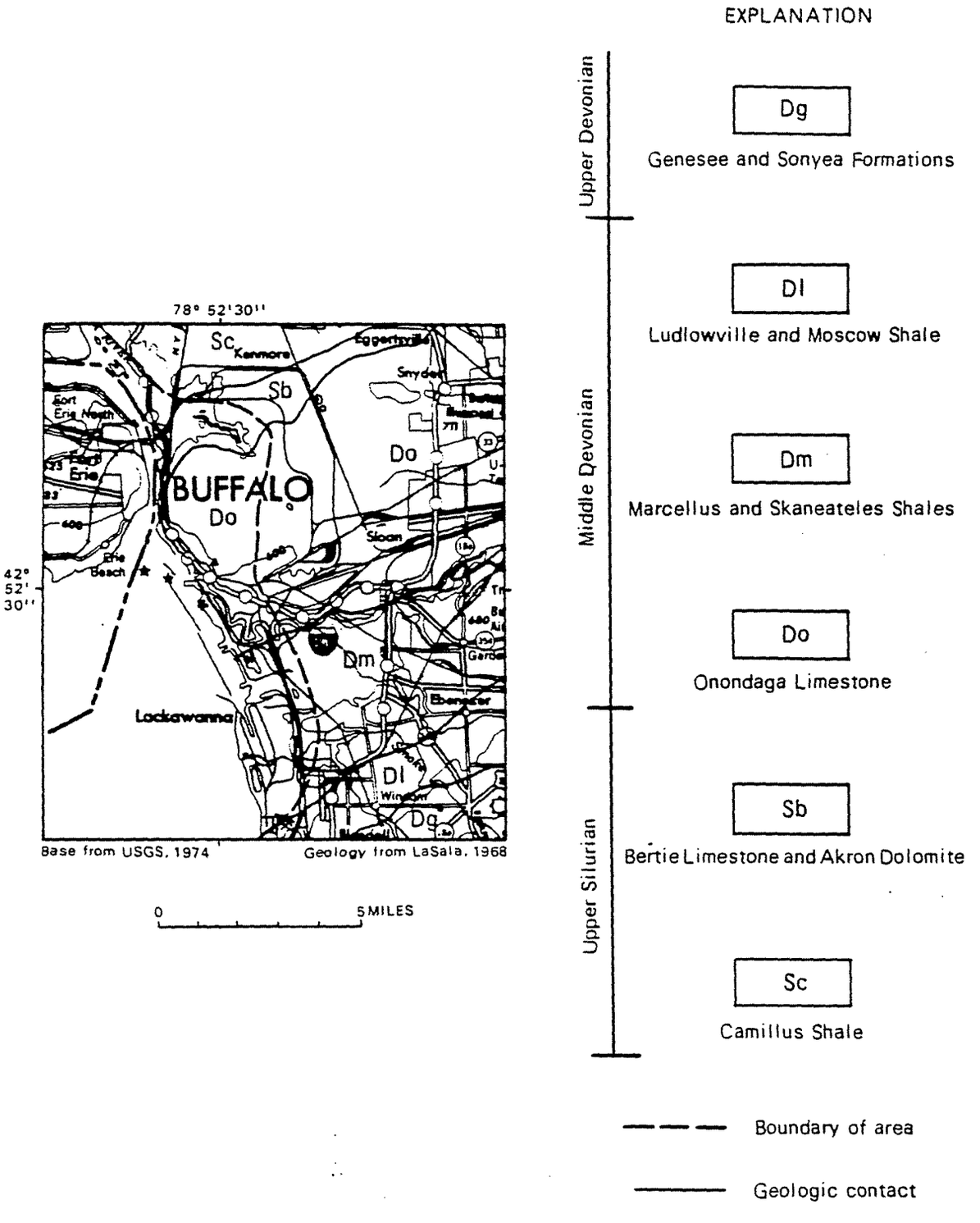


Figure 3. Bedrock geology of the Buffalo area. (Modified from La Sala, 1968.)

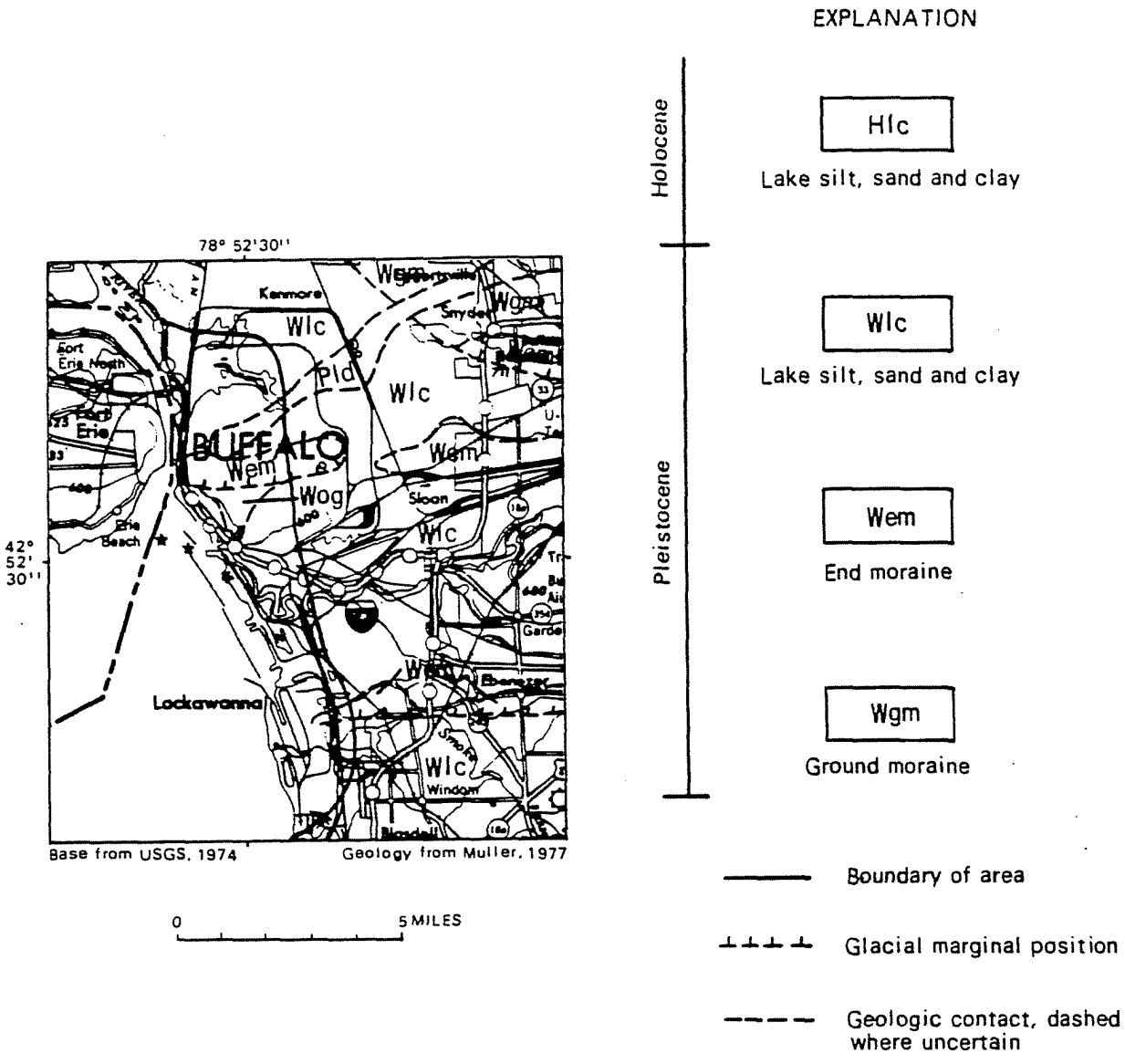


Figure 4. Surficial geology of the Buffalo area. (Modified from Muller, 1977.)

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 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

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

REFERENCE 12

Note 1: [Repealed]

CLASS D

Best usage of waters. These waters are suitable for secondary contact recreation, but 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 the propagation of fish.

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

Quality Standards for Class D Waters

Item: 1. pH.

Specifications: Shall be between 6.0 and 9.5.

Item: 2. Dissolved oxygen.

Specifications: Shall not be less than three milligrams per liter at any time.

Note 1: [Repealed]

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

Quality Standards for Saline Surface Waters

Items: 1. Garbage, cinders, ashes, oils, sludge or other refuse.

Specifications: None in any waters of the marine district as defined by Environmental Conservation Law (§17-0105).

Item: 2. pH.

Specifications: The normal range shall not be extended by more than 0.1 pH unit.

Item: 3. Turbidity.

Specifications: No increase except from natural sources that will cause a substantial visible contrast to natural conditions. In cases of naturally turbid waters, the contrast will be due to increased turbidity.

Item: 4. Color.

Specifications: None from man-made sources that will be detrimental to anticipated best usage of waters.

Item: 5. Suspended, colloidal or settleable solids

Specifications: 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 each class.

Items: 6. Oil and floating substances.

Specifications: No residue attributable to sewage, industrial wastes or other wastes, nor visible oil film nor globules of grease.

Item: 7. Thermal discharges.

Specifications: (See Part 704 of this Title.)

CLASS SA

Best usage of waters. The waters shall be suitable for shellfishing for market purposes and primary and secondary contact recreation.

Quality Standards for Class SA Waters

Item: 1. Coliform.

Specifications: The median MPN value in any series of samples representative of waters in the shellfish growing area shall not be in excess of 70 per 100 ml.

Item: 2. Dissolved oxygen.

Specifications: Shall not be less than 5.0 mg/l at any time.

Items: 3. Toxic wastes and deleterious substances.

Specifications: None in amounts that will interfere with use for primary contact recreation or that will be injurous to edible fish or shellfish or the culture or propagation thereof, or which in any manner shall adversely affect the flavor, color, odor or sanitary condition thereof or impair the waters for any other best usage as determined for the specific waters which are assigned to this class.

CLASS SB

Best usage of waters. The waters shall be suitable for primary and secondary contact recreation and any other use except for the taking of shellfish for market purposes.

Quality Standards for Class SB Waters

Item: 1. Coliform

Specifications: 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.

REFERENCE 13

New York State Department of Environmental Conservation
600 Delaware Avenue, Buffalo, NY 14202-1073 716/847-4550

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.

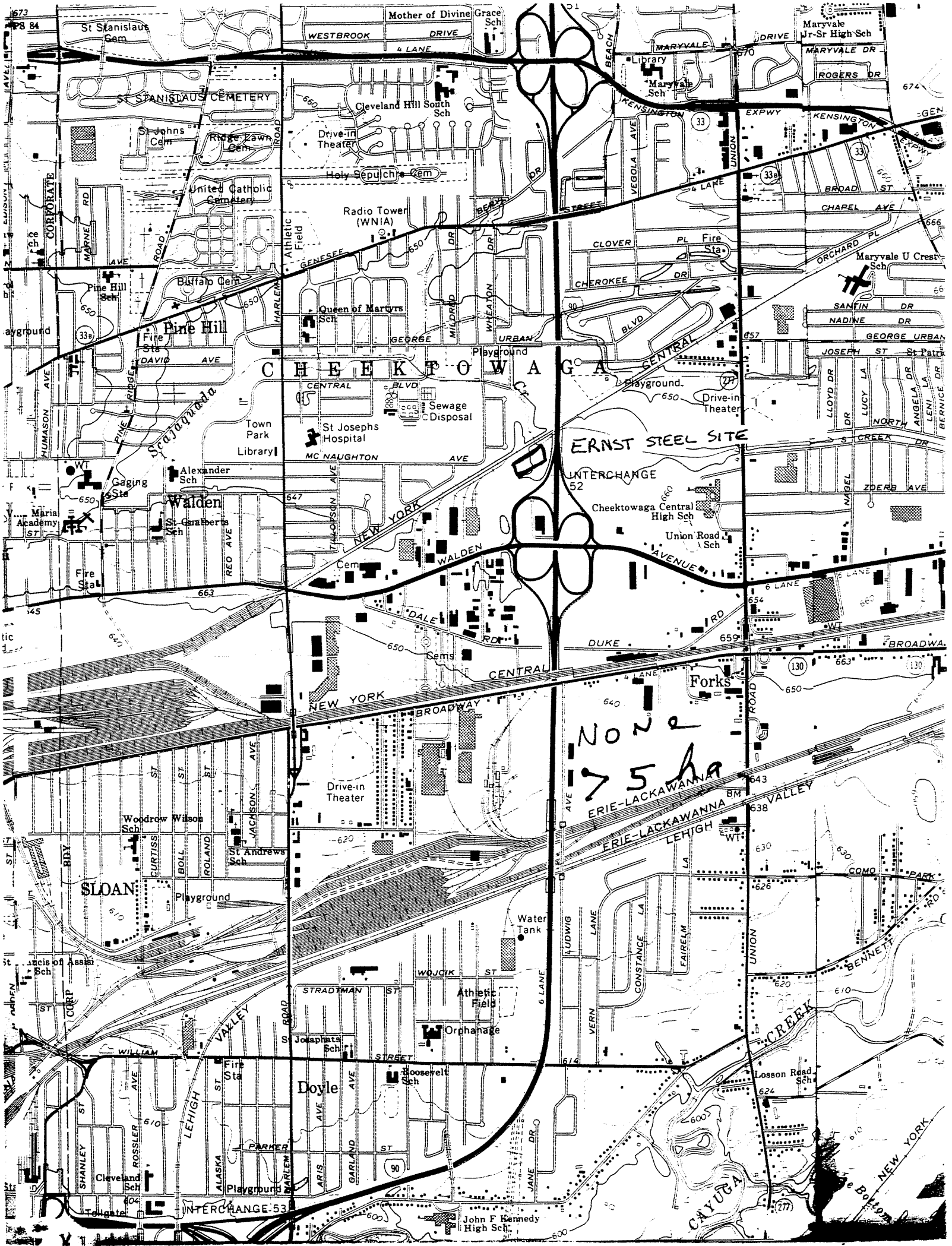
Thank you very much for your assistance and promptness in these matters. Should you have any questions or comments, please do not hesitate to call.

Sincerely,

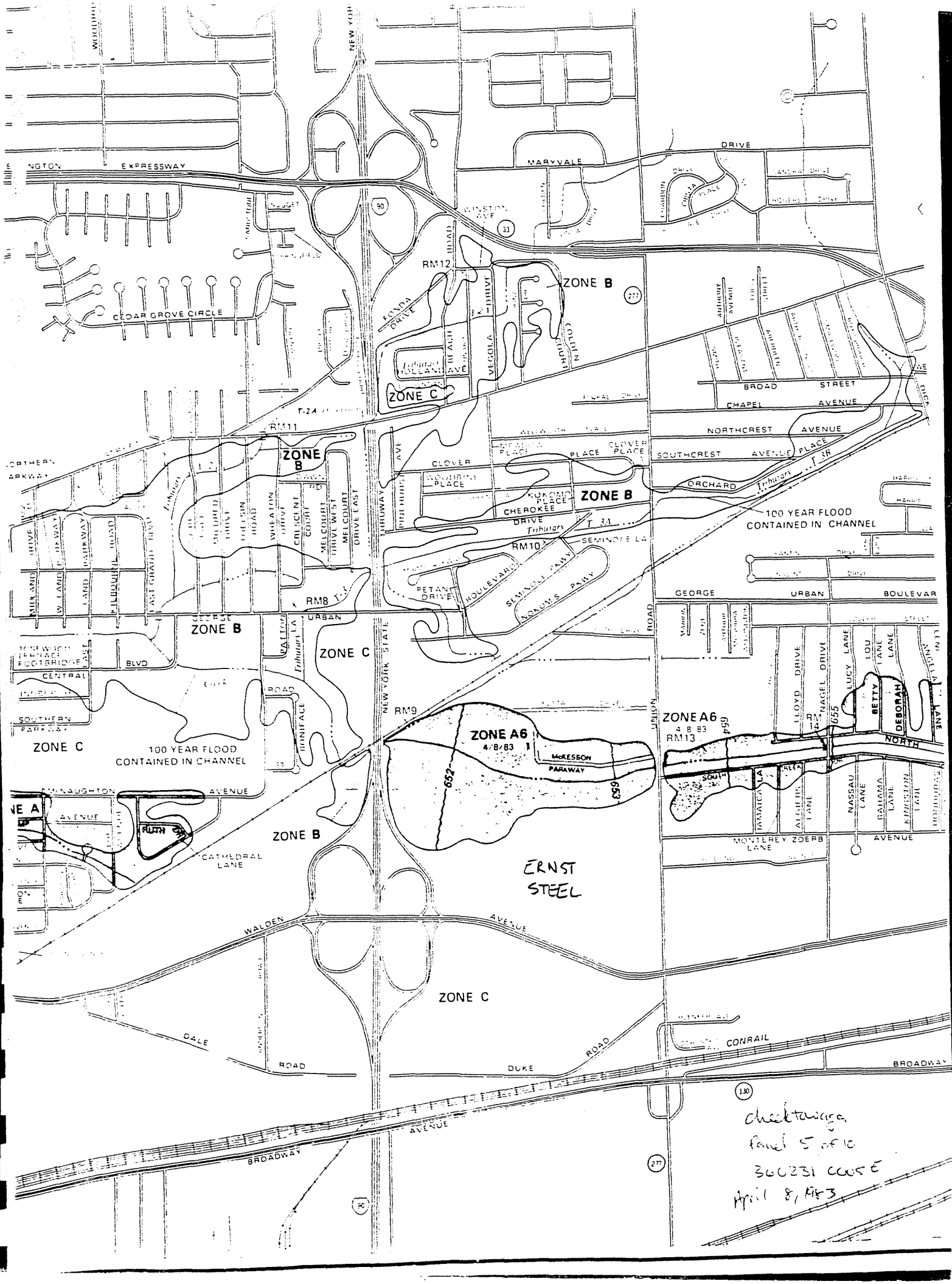
RECRA RESEARCH, INC.

Sheldon S. Nozik
Environmental Specialist

SSN/jlo
Enclosure


CHEEKTOWAGA
ERNST STEEL SITE
INTERCHANGE 52
INTERCHANGE 53
Walden
Pine Hill
Sloan
Doyle
Forks
Mother of Divine Grace Sch
St Stanislaus Cem
ST STANISLAUS CEMETERY
Cleveland Hill South Sch
Drive-in Theater
Ridge Lawn Cem
St Johns Cem
Holy Sepulchre Cem
United Catholic Cemetery
Radio Tower (WNIA)
Athletic Field
Buffalo Cem
Pine Hill Sch
Queen of Martyrs Sch
Fire Sta
Playground
Sewage Disposal
Town Park
Library
St Josephs Hospital
Alexander Sch
Gaging Sta
Maria Academy
St Gualberts Sch
Cem
Cheektowaga Central High Sch
Union Road Sch
Maryvale Jr-Sr High Sch
Maryvale Sch
Maryvale U Crest Sch
Drive-in Theater
Woodrow Wilson Sch
St Andrews Sch
Water Tank
Athletic Field
Orphanage
St Josaphats Sch
Roosevelt Sch
Cleveland Sch
Losson Road Sch
John F Kennedy High Sch
Tollgate
NEW YORK CENTRAL
ERIE-LACKAWANNA
LEHIGH VALLEY
BROADWAY
WALDEN AVENUE
MC NAUGHTON AVE
GEORGE URBAN BLVD
CENTRAL BLVD
DAVID AVE
DALE RD
DUKE RD
WILLIAM STREET
PARKER
STRADTMAN ST
WOJCIK ST
CHAPEL AVE
BROAD ST
CLOVER PL
CHEROKEE DR
ORCHARD PL
SANTIN DR
NADINE DR
JOSEPH ST
NORTH CREEK DR
S CREEK DR
COMO PARK RD
BENNETT RD
CAYUGA CREEK
NEW YORK
The Bottom
NONE
175 ha

REFERENCE 14


EXPRESSWAY
DRIVE
MARYVALE
CEDAR GROVE CIRCLE
RM12
ZONE B
ZONE C
BROAD STREET
CHAPEL AVENUE
NORTHCREST AVENUE
SOUTHCREST AVENUE
RM11
ZONE B
CLOVER PLACE
ZONE B
CHEROKEE DRIVE
100 YEAR FLOOD CONTAINED IN CHANNEL
RM10
SEMINOLE LA
PETANT DRIVE
SEMINOLE PARK
NARROWS PARK
GEORGE URBAN BOULEVAR
RM8
ZONE B
ZONE C
CENTRAL BLVD
SOUTHERN PARKWAY
NEW YORK STATE
RM9
ZONE A6
4/8/83
McKESSON PARKWAY
ZONE A6
4 8 83
RM13
LLOYD DRIVE
NAGEL DRIVE
LUCY LANE
LOU LANE
BETTY
DEBORAH
NORTH
SOUTH
ZONE C
100 YEAR FLOOD CONTAINED IN CHANNEL
ZONE B
CATHEDRAL LANE
ERNST STEEL
WALDEN AVENUE
ZONE C
DALE ROAD
DUKE ROAD
CONRAIL
BROADWAY
AVENUE
BROADWAY
Chattanooga
Panel 5 of 10
360231 0005 E
April 8, 1983

REFERENCE 15

RECRA RESEARCH, INC.
Hazardous Waste And Toxic Substance Control

February 11, 1986

Mr. Frank Ernst, Vice President
Ernst Steel Corporation
P.O. Box 987
Buffalo, NY 14240

Dear Mr. Ernst:

Thank you for your assistance in the Phase I Superfund investigation we are currently conducting at the Ernst Steel site for the NYSDEC.

As part of the background search requirements for the NYSDEC Superfund sites, we the consultants, are required to have all of our interviews in person or by telephone, documented. Below is an account of our conversation on February 11, 1986. Would you please read the account and check the information for errors, sign at the bottom, and return the original to me. This is only to serve as documentation that the conversation took place.

° The site was a railroad car facility until 1933, when it went bankrupt. The area was covered by coal cinders believed to be from these operations.

° The site was left vacant until 1953, when your company began operations.

° Ernst Steel Corp. fabricated and erected steel bridges, etc.

° The company installed a wheel abrator blast cleaning machine which collected steel/iron dust, and the NYSDEC required a permit to dispose of this material on your property.

° Also disposed of in a low area behind the plant was floor sweepings consisting of fine steel drill shavings and old paint which had solidified into chunks called "Red Lead". Slag was also piled in this area.

° An incinerator was used to dispose of office paper waste and employee refuse.

° The site was leased to U.S. Steel in 1983.

° In 1982 the NYSDEC took soil samples in the area around the incinerator approximately 4 feet deep.

° In 1985 the area around the incinerator was excavated to about 2 feet and the soil was piled up around this area.

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

° To your knowledge no other material was ever landfilled or disposed of on site.

Thank you for your cooperation.

Sincerely,

RECRA RESEARCH, INC.

Sheldon S. Nozik
Environmental Scientist

SSN/jlo

Mr. Frank Ernst

REFERENCE 16

14-00-1 (7/84)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
REGULATORY AFFAIRS

'THANKS FOR THE INFO.

INTER-OFFICE SPEED MEMO
(USE ONLY FOR UNOFFICIAL CORRESPONDENCE)

TO: Peter Buechi
FROM: Lawrence Clare
SUBJECT: Ernst Steel
915022

DATE: June 20, 1985
REPLY REQUIRED BY:
DATE RETURNED:
REPLY AT BOTTOM OF THIS FORM

On June 11th, I talked to Frank Ernst as a follow up to our meeting of Friday, May 24th. A review of our file and discussions with Tygert and Wozniah revealed

1.) Exact locations of 3 samples taken previous are not available from either memory or field notes.

2.) No sample data is availble other than DEC Sampling

Frank Ernst insists that nothing other than floor sweepings from his plant were deposited in one area. Prior owners of site (Penn RR) did run a car cleaning operation on site and may have disposed of additional material.

Ernst wants to sell a portion of this property to US Steel and develop another part. He will be writing you to inquiry what he can do to delist the site. (Phase I Scheduling did not satisfy him.)

REPLY

REFERENCE 17

NUS CORPORATION

POTENTIAL HAZARDOUS WASTE SITE

EXECUTIVE SUMMARY

Ernst Steel Corporation Site Name	NYD 980508246 EPA Site ID Number
1746 Walden Avenue, Cheektowaga Address NY 14240	02-8306-26 TDD Number

Date of Site Visit: 9/28/83

SITE DESCRIPTION

The area of the site is approximately 4 acres. The operation on-site consisted of steel fabricating, servicing, and painting of large steel structures. The land disposal practice used by Ernst Steel was to fill dispersions on the property with steel drillings and shavings, other floor sweepings, and iron oxide dust from a bag-house.

One half of the site is wooded. Steel scrap, rusty scrap drums and wood debris are scattered in the woods. Small areas of dry paint sludge were observed, but the extent of the contamination was difficult to determine due to heavy vegetation. According to the site representative, all of the steel scrap is to be removed for salvage. The site now serves as a steel service center operated by US Steel Supply of Illinois.

PRIORITY FOR FURTHER ACTION: High ___ Medium ___ Low X

RECOMMENDATIONS

A follow-up inspection is recommended to ensure that the scrap drums do not contain any hazardous materials and are properly removed. A determination of the extent of paint sludge disposal on-site with subsequent removal is also recommended.

Prepared by: William Neal of NUS Corporation Date: 10/17/83

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D980508246

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Ernst Steel Corp.	1746 Walden Ave.

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Cheektowaga	NY	14240	Erie	029	

09 COORDINATES LATITUDE	LONGITUDE
42°55'01"N	78°54'14" W.

10 DIRECTIONS TO SITE (Starting from nearest public road)

New York Thruway to Interchange 52, Walden Ave. Take Walden Ave West The first driveway on the right after the thruway is Ernst Steel. Building now says U.S. Steel Supply.

III. RESPONSIBLE PARTIES

01 OWNER (If known)	02 STREET (Business, mailing, residential)
Ernst Steel Corp.	1280 Main Street

03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
Buffalo	NY	14240	(716) 895-5000

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

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 9/28/83 (MONTH DAY YEAR)

BY (Check all that apply)

☐ A. EPA ☒ B. EPA CONTRACTOR ☐ C. STATE ☐ D. OTHER CONTRACTOR

☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ (Specify)

CONTRACTOR NAME(S): NUS Corporation

02 SITE STATUS (Check one)	03 YEARS OF OPERATION
☒ A. ACTIVE ☐ B. INACTIVE ☐ C. UNKNOWN	1953 (BEGINNING YEAR) Present (ENDING YEAR) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

Steel Scrap, iron oxide dust, paint sludge

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

Paint sludge allegedly disposed of on-site is comprised of alkyl resin, lead silica-chromate pigment. Amounts are unknown.

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
Mark Haulenbeek	USEPA Edison, NJ	201 321-668

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
William Neal	USEPA	NUS Corp.	201 225-6160	11/21/83 (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	D980508246

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

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

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

TONS _____
CUBIC YARDS Unknown
NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

- [X] A. TOXIC
- [ ] B. CORROSIVE
- [ ] C. RADIOACTIVE
- [X] 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	Unknown		Dry Paint Sludge
OLW	OILY WASTE			
SOL	SOLVENTS			Paint is comprised of alkyl -
PSD	PESTICIDES			resin, lead silica - chromate
OCC	OTHER ORGANIC CHEMICALS			pigment.
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS	Unknown		In the form of steel scrap and

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

Iron Oxide dust.

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

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS	Not Applicable		FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

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

New York State Industrial Waste Survey, NYDEC, Albany, NY/NUS FIT II Site Inspection · 9/28/83

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	D980508246

II. HAZARDOUS CONDITIONS AND INCIDENTS

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

If large amounts of paint sludge exist on site, there is a potential for groundwater contamination.

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

If large amounts of paint sludge exist on site, there is a potential for surface water contamination through run off.

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

No potential exists

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

No potential exists

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

No potential exists

01 ☒ F. CONTAMINATION OF SOIL — 02 ☐ OBSERVED (DATE 9/28/83) — ☐ POTENTIAL — ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED. _____ (Acres) — 04 NARRATIVE DESCRIPTION

Dry paint sludge was found on the site. Due to past disposal practices, the litter scattered over the site and the heavy vegetation, the extent of the contamination is unkown.

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

No potential exists

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

No potential exists

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

No potential exists

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	D980508246

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

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

No Potential exists

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

No potential exists

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

No potential exists

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES (Spills/Runoff/Standing liquids, Leaking drums) — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0 — 04 NARRATIVE DESCRIPTION

There is no containment

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

No potential exists

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

No potential exists

01 ☒ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☒ OBSERVED (DATE: 9/28/83) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

A large number of scrap drums, 55 gallons and smaller, were observed in the wooded area of the site. Drums were rusty. Most appeared to be the open head type and empty. One drum, a type 17E was noted lying on its side with its bungs closed. It is unknown if the drum contained any material.

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

NONE

III. TOTAL POPULATION POTENTIALLY AFFECTED: 0

IV. COMMENTS

There are large and small scrap steel structures on the property and small areas of metal shavings and other metal scrap. Large piles of wood debris were also noted. The large scrap material is slowly being cleared and should not be a threat to the environment.

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

Mr. Frank Ernst, Ernst Steel site representative. NUS Fit II Site Inspection 9/28/83

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

EPA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D980508246

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Ernst Steel	1746 Walden Ave.

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Cheektowaga	NY	14240	Erie	029	

09 COORDINATES LATITUDE	LONGITUDE
42° 55' 01" N	78° 54' 14" W

10 TYPE OF OWNERSHIP (Check one)
☒ 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
09 / 28 / 83 (MONTH DAY YEAR)	☒ ACTIVE ☐ INACTIVE	1953 (BEGINNING YEAR) Present (ENDING YEAR) ___ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)
☐ A. EPA ☒ B. EPA CONTRACTOR NUS Corp. (Name of firm) ☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR _____ (Name of firm)
☐ E. STATE ☐ F. STATE CONTRACTOR _____ (Name of firm) ☐ G. OTHER _____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO
William Neal	Environmental Scientist	NUS	(201) 225-6160
09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
Trudi Fancher	Environmental Scientist	NUS	(201) 225-6160
Tom Cosentino	Chemist	NUS	(201) 225-6160
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
Mr. Frank Ernst	Vice President	1280 Main Street Buffalo, NY 14209	(716) 895-5000
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☒ PERMISSION ☐ WARRANT	1030 hrs.	Sunny 70° F

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Mark Haulenbeek	USEPA, Edison, NJ	(201) 321-6685

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
William Neal	USEPA	NUS FIT	201-225-6160	10 / 4 / 83 (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D980508246

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

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

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

TONS _____
CUBIC YARDS Unknown
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	Unknown		Dry Paint Sludge
OLW	OILY WASTE			
SOL	SOLVENTS			Paint is comprised of alkyl -
PSD	PESTICIDES			resin, lead silica - chromate
OCC	OTHER ORGANIC CHEMICALS			pigment.
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS	Unknown		In the form of steel scrap and

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers; Iron Oxide dust.

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

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS	Not Applicable		FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

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

New York State Industrial Waste Survey, NYDEC, Albany, NY/NUS FIT II Site Inspection · 9/28/83

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	D980508246

II. HAZARDOUS CONDITIONS AND INCIDENTS

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

If large amounts of paint sludge exist on site, there is a potential for groundwater contamination.

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

If large amounts of paint sludge exist on site, there is a potential for surface water contamination through run off.

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

No potential exists

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

No potential exists

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

No potential exists

01 ☒ F. CONTAMINATION OF SOIL
02 ☐ OBSERVED (DATE: 9/28/83) ☐ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: _____ (Acres)
04 NARRATIVE DESCRIPTION

Dry paint sludge was found on the site. Due to past disposal practices, the litter scattered over the site and the heavy vegetation, the extent of the contamination is unkown.

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

No potential exists

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

No potential exists

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

No potential exists

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	D980508246

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

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

No Potential exists

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

No potential exists

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

No potential exists

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES (Spills/Runoff/Standing liquids/Leaking drums) — 02 ☐ OBSERVED (DATE _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0 — 04 NARRATIVE DESCRIPTION

There is no containment.

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

No potential exists

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

No potential exists

01 ☒ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☒ OBSERVED (DATE 9/28/83) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

A large number of scrap drums, 55 gallons and smaller, were observed in the wooded area of the site. Drums were rusty. Most appeared to be the open head type and empty. One drum, a type 17E was noted lying on its side with its bungs closed. It is unknown if the drum contained any material.

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

NONE

III. TOTAL POPULATION POTENTIALLY AFFECTED: 0

IV. COMMENTS

There are large and small scrap steel structures on the property and small areas of metal shavings and other metal scrap. Large piles of wood debris were also noted. The large scrap material is slowly being cleared and should not be a threat to the environment.

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

Mr. Frank Ernst, Ernst Steel site representative. NUS Fit II Site Inspection 9/28/83

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D980508246

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				NONE
☐ 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	Unknown	
☐ C. DRUMS, ABOVE GROUND		
☐ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
☒ F. LANDFILL	Unknown	
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)
☒ A. INCENERATION
☐ 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
1

06 AREA OF SITE
3.0-4.0 (Acres)

07 COMMENTS

Site is cluttered with scrap steel, piles of wood debris and rusty scrap drums. Ash from an on-site incinerator was noted on the site and evidence of dried orange paint sludge was also found. The incinerator was used to burn waste paper generated by the employees. The land disposal practice used by Ernst Steel was to fill depressions on the property with steel drillings and shavings, other floor sweepings and iron oxide dust from a bag-house.

IV. CONTAINMENT

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.

Most of the scrap drums found on-site were cut open and stored upside down. Some had holes punched in the bottom. One drum was discovered that could possibly contain liquid. More than 50 scrap drums of various sizes were observed on-site.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☐ YES ☒ NO

02 COMMENTS

The site is completely fenced in. Waste is not accessible to the general public.

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

NUS Fit II Site Inspection 9/28/83
NYDEC Region 9 Files

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D980508246

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)

	SURFACE	WELL
COMMUNITY	A. ☒	B. ☐
NON-COMMUNITY	C. ☐	D. ☐

02 STATUS

ENDANGERED	AFFECTED	MONITORED
A. ☐	B. ☐	C. ☒
D. ☐	E. ☐	F. ☐

03 DISTANCE TO SITE

A. 10.0 (mi)
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) ☐ D NOT USED, UNUSEABLE

02 POPULATION SERVED BY GROUND WATER 0

03 DISTANCE TO NEAREST DRINKING WATER WELL >25.0 (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
> 15 (ft)	West	N/A (ft)	N/A (gpd)	☐ YES ☒ NO

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

Wells in the area are used for industrial purposes only

10 RECHARGE AREA		11 DISCHARGE AREA	
☒ YES ☐ NO	COMMENTS: Area discharges to Lake Erie	☐ YES ☒ NO	COMMENTS

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

☒ 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	☐	Adjacent (mi)
	☐	(mi)
	☐	(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE
A. 5,000 NO. OF PERSONS	B. 20,000 NO. OF PERSONS	C. 40,000 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION

<0.1 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE

+700

04 DISTANCE TO NEAREST OFF-SITE BUILDING

<0.1 (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)

Ernst Steel Corp is located in a medium density urban area.

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	D980508246

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check 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 (Check 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	
25.0 (ft)	Unknown (ft)	Unknown	

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE		
		SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
17.5 (in)	3.0 (in)	0-1.0 %	East	0.5 %

09 FLOOD POTENTIAL	10
SITE IS IN 100 YEAR FLOODPLAIN	☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY Not Applicable

11 DISTANCE TO WETLANDS (5 acre minimum)		12 DISTANCE TO CRITICAL HABITAT (of endangered species)
ESTUARINE	OTHER	Not Applicable (mi)
A. Not Applicable (mi)	B. 3.0 (mi)	ENDANGERED SPECIES: NONE

13 LAND USE IN VICINITY

DISTANCE TO:			
COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS PRIME AG LAND	AGRICULTURAL LANDS AG LAND
A. 0.1 (mi)	B. 0.1 (mi)	C. >20.0 (mi)	D. >10.0 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

The site is located in an area with relatively flat terrain. Railroad tracks separate the site from a large housing complex to the north. The New York thruway and exit 52 interchange lie immediately east of the site.

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

USGS 7.5' Topographic Map
NUS Fit II Site Inspection 9/28/83

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D980508246

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER		No Samples Taken	
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL			
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
Air Quality	No readings above background were obtained using the HNU.

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☒ GROUND ☐ AERIAL

02 IN CUSTODY OF NUS Corp, USEPA, Edison, NJ
(Name of organization or individual)

03 MAPS ☒ YES ☐ NO

04 LOCATION OF MAPS: Attached as Appendix A

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

Field Notes

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

NUS Fit II Site Inspection 9/28/83

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D980508246

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE
Ernst Steel Corp.		1280 Main Street	3792	Buffalo	NY	14240

PARENT COMPANY (If applicable)

08 NAME	09 D+B NUMBER	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE	12 CITY	13 STATE	14 ZIP CODE
Not Applicable						

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

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE
Not Applicable						

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

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE
Not Applicable						

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

NYDEC Region 9 Files

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D980508246

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER	04 SIC CODE
US Steel Supply		

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	05 CITY	06 STATE	07 ZIP CODE
13535 S. Torrence Ave	Chicago	ILL	60633

08 YEARS OF OPERATION	09 NAME OF OWNER

OPERATOR'S PARENT COMPANY (If applicable)

10 NAME	11 D+B NUMBER	13 SIC CODE
Not Applicable		

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
Ernst Steel Corp.		

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
	Ernst Steel Corp

PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)

10 NAME	11 D+B NUMBER	13 SIC CODE
Not Applicable		

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)

NUS Fit II Site Inspection 9/28/83

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	D980508246

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
Ernst Steel Corp	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
1746 Walden Ave	3792

05 CITY	06 STATE	07 ZIP CODE
Cheektowaga	NY	14240

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
NONE			
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
Not Applicable			
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)

NUS Fit II Site Inspection 9/28/83

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	D980508246

II PAST RESPONSE ACTIVITIES *(Continued)*

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

NO PREVIOUS ACTION

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

NO PREVIOUS ACTION

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

NO PREVIOUS ACTION

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

NO PREVIOUS ACTION

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

NO PREVIOUS ACTION

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

NO PREVIOUS ACTION

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

NO PREVIOUS ACTION

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

NO PREVIOUS ACTION

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

NO PREVIOUS ACTION

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

NO PREVIOUS ACTION

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

NO PREVIOUS ACTION

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

NONE

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

NUS Fit II Site Inspection 9/28/83

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	D980508246

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☒ NO

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

NONE

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

NUS Fit II Site Inspection

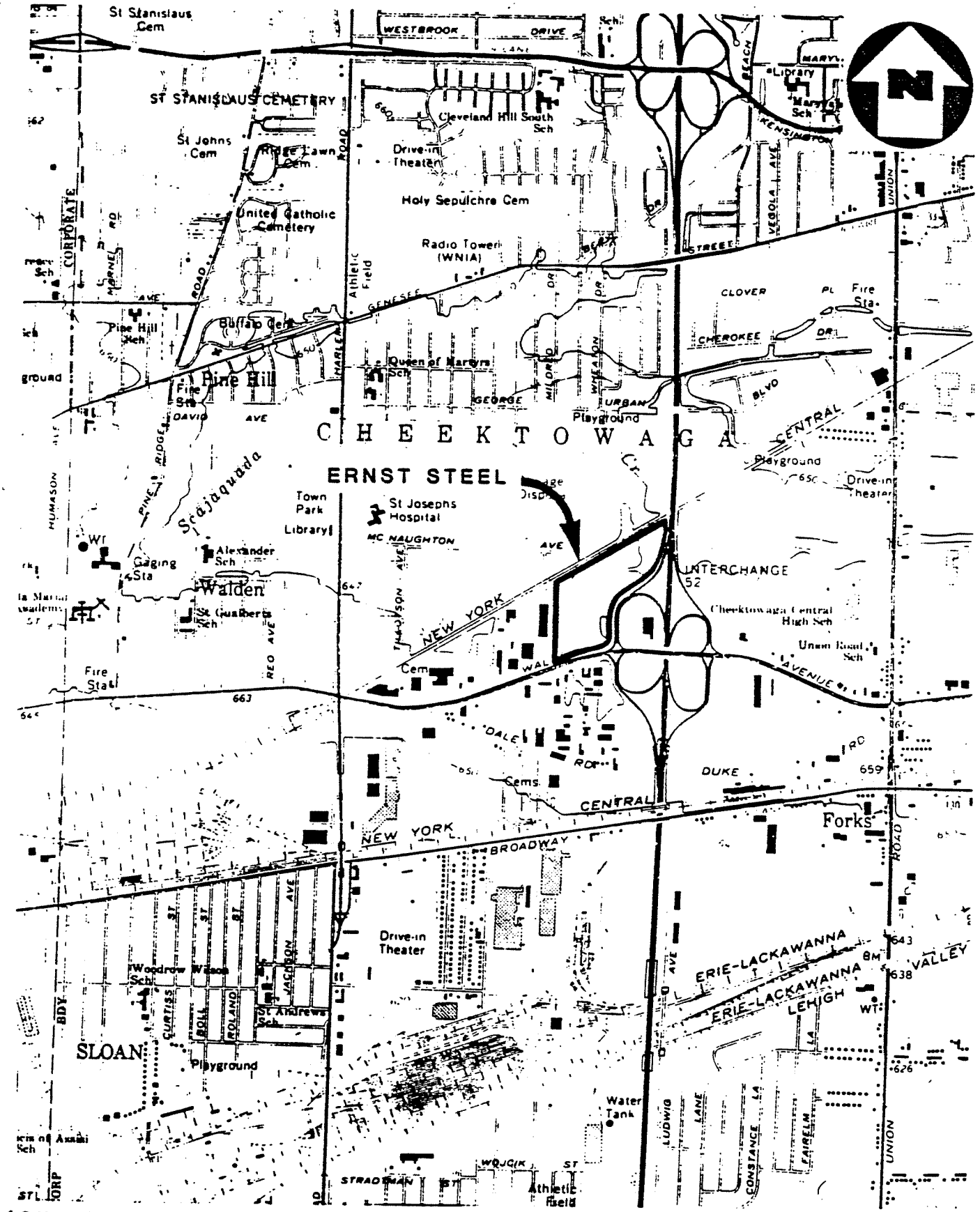
MAPS AND PHOTOS

Figure A-1 provides a Site Location Map.

Figure A-2 provides a Site Map.

Figure A-3 provides a Photo Location Map.

Exhibit A-1 provides photographs of the site.



SITE LOCATION MAP

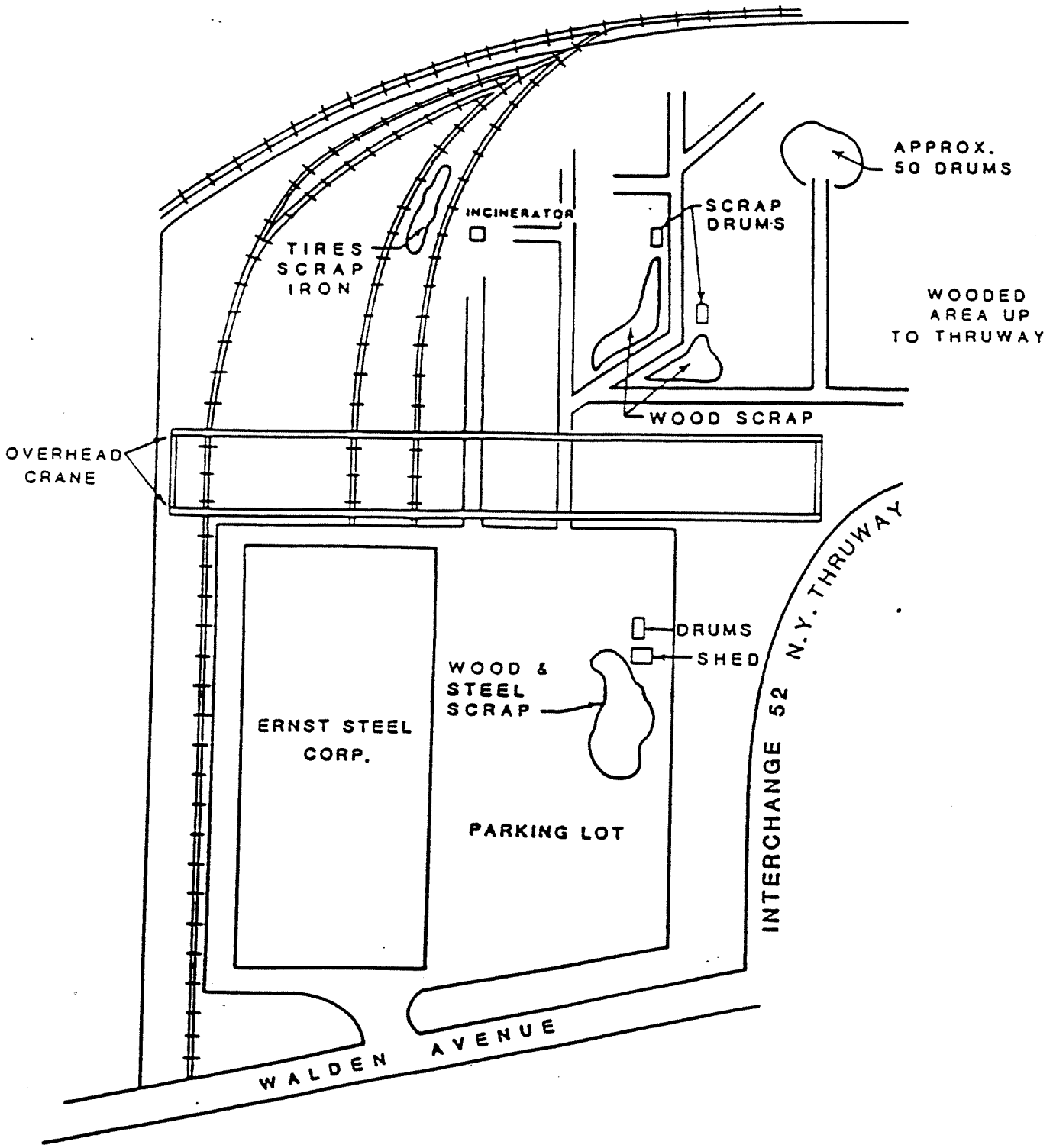
ERNST STEEL CHEEKTOWAGA, N.Y

FIGURE A-1

SCALE: 1"=2000'

NUS CORPORATION

A Halliburton Company



SITE MAP

ERNST STEEL CHEEKTOWAGA, N.Y

FIGURE A-2

(NOT TO SCALE)

NUS CORPORATION

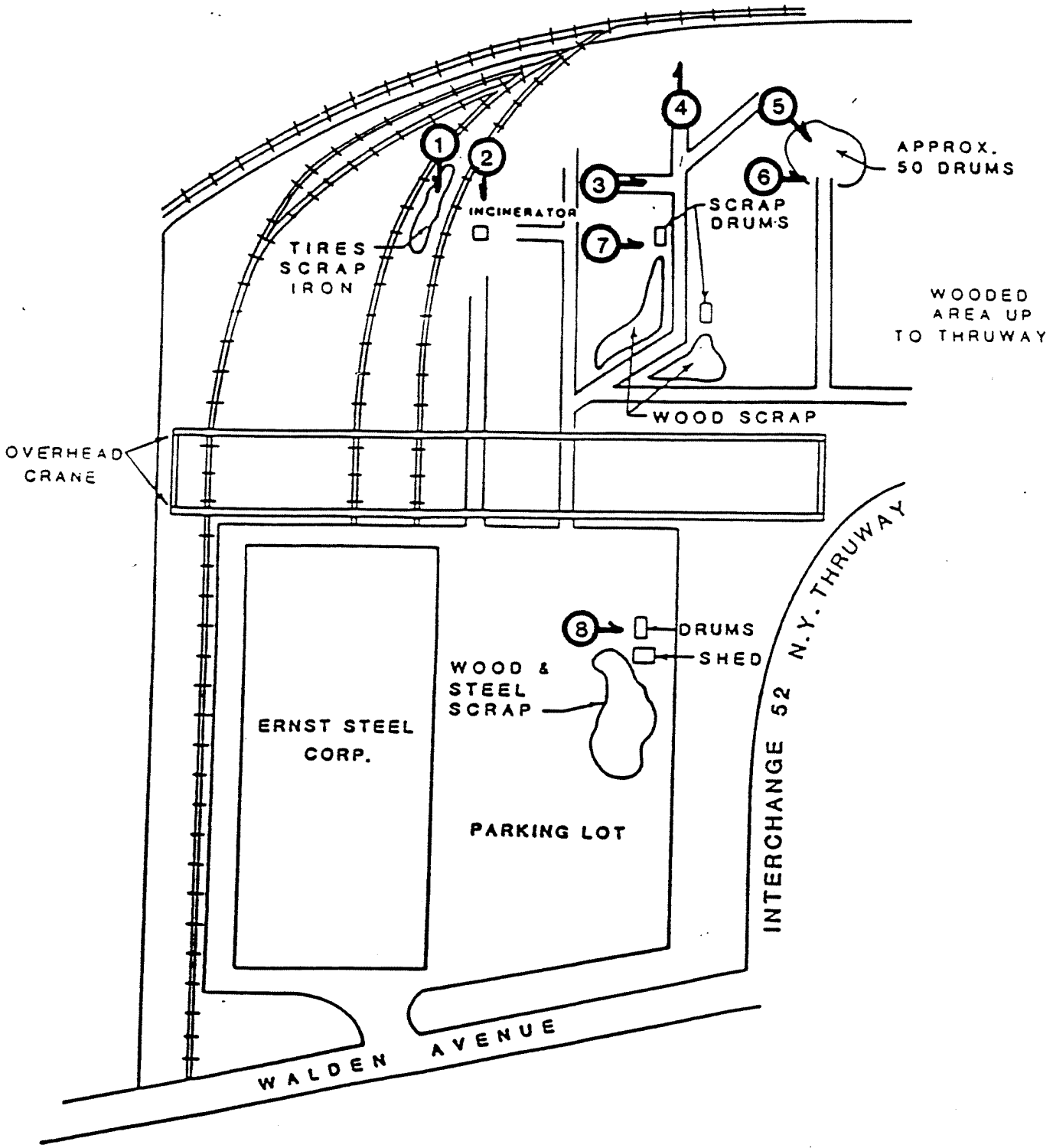


PHOTO LOCATION MAP
ERNST STEEL, CHEEKTOWAGA, N.Y

FIGURE A-3

PHOTO INDEX

ERNST STEEL
CHEEKTOWAGA, NY
TDD# 02-8306-26
SEPTEMBER 28, 1983

1. Scrap steel and tires.

2. Incinerator used for paper scrap.

3. Partially buried drum.

4. Dried orange paint sludge.

5. Drums in woods stacked upside down. Drum in foreground is closed.

6. Scrap drums in woods. Approximately five similar accumulations exist in the woods.

7. Drums scattered in woods.

8. Empty drums from recent roofing work at Ernst Steel.

1. Scrap steel and tires.

2. Incinerator used for paper scrap.

3. Partially buried drum.

4. Dried orange paint sludge.

5. Drums in woods stacked upside down. Drum in foreground is closed.

6. Scrap drums in woods. Approximately five similar accumulations exist in the woods.

7. Drums scattered in woods.

8. Empty drums from recent roofing work at Ernst Steel.

REFERENCE 18

FABRICATORS

ERECTORS

ERNST CONSTRUCTION DIVISION
OF
ERNST STEEL CORPORATION

1280 MAIN STREET

P. O. BOX 987

BUFFALO, N.Y. 14240

716/895-5000

May 1, 1979

New York State
Department of Environmental Conservation
584 Delaware Ave.
Buffalo, New York 14202

FILE 1535

Attn: Mr. John Banaszak

Gentlemen:

We hereby inform you that the data as represented on page II-10 in the Draft Report dated March 1979 and titled "Interagency Task Force on Hazardous Wastes" concerning our Company is erroneous.

The report to be correct should read as follows; Metal shavings, wood debris, and iron oxide dust 2600 gals./yr., dried paint sludge 250 gals./yr. From 1979 on 1200# of metal shavings, wood debris, and iron oxide dust, and 50 gallons total of dried paint sludge.

We respectfully request that the above corrected data be incorporated in the report prior to the presentation of the material at public hearings. We realize the survey was performed hastily in the interest of public safety and appreciate the inherent possibility of error. However, we do not want exaggerated figures to be the source of future controversy or erroneous conclusions in any further studies or actions you may contemplate.

We thank you for your cooperation in this matter.

Very truly yours,

ERNST STEEL CORPORATION

Elmer L. Ernst

Elmer L. Ernst
President

ELE:js

REFERENCE 19

May 24, 1985

To: File
From: Lawrence Clare

Re: Ernst Steel Corp

On May 24, 1985, a meeting was held in Region 9 with Frank and Elmer Ernst to review the file information on Ernst Steel Corp. Frank Ernst was under the impression that this site had been delisted. The meeting was prompted by the NYS Health Dept. Field team's survey of the site at the request of Elmer Ernst.

Primary points covered:

1. Ernst Steel Corp (915021) is listed in both the 1983 and 1984 Registry.
2. A Phase I investigation is sheduled for the next round (Fall, 1985)
3. Existing data shows metals contamination of of subsurface soil (4.5 ft) and water. Ernsts' indicated that fillins at that depth would have been by a previous owner. (Tank car fabrication by ___ railroad). 'The entire site is cinder fill (to 8 ft)'
4. The Sampling data and registry were copied and given to Ernsts.
5. Ernst Steel is attempting to sell the steel fabrication building & site to U.S. Steel.
6. Ernst would like more specific information on sampling locations (per Ahmad this is not available)
7. Ernst may request delisting - letter to Bucchi.

REFERENCE 20

Appointment Made: 11/12/76 by Dmcq.
Visit or Phone Visit 11/17/76 by
Follow-up / / by
Form Completed 11/23/76 by Dmcq.
Comments: (438) Emil Radlinski /ch/eng
Mailed again 10/18/76

Company Name Ernst Construction Inc Ernst Iron
Address 1280 Main St.
Buffalo, NY. 14240
County Erie Phone 895-5000
SIC Codes 1. 3441 3.
2. 4.
Fabricating plant

STORM comp. 4/4/78 DMQ

- New York State Industrial Waste Survey -
Department of Environmental Conservation
Division of Solid Waste Management
50 Wolf Road, Albany, N.Y. 12233 Telephone: (518) 457-6605

I. General Information

1. Company Name Ernst Steel Corp.

Mailing Address 1280 Main St (Street) Buffalo (City) NY. (State) 14240 (Zip)

Plant Location / / Same as above

1746-1784 Walden Ave (Street) Cheektowaga (City) NY. (State) (Zip)

2. If Subsidiary, Name of Parent Company

3. Individual Responsible for Plant Operations Frank H Ernst (Name)

Vice President (Title) 716-895-5200 (Phone)

4. Individual Providing Information Arthur W. Schuessler (Also Mr. Sims from Mfg facility) (Name)

Draftsman / Environ. (Title) 716-895-5200 EXT 58 (Phone)

5. Department of Environmental Conservation Interviewer Dan Quackenbush

6. Standard Industrial Classification (SIC) Codes for Principal Products

Group Name	SIC Code (4 Digit)	Approximate % of /X/ Production / / Value Added
a. Fabricated Structural Metal	3441	100
b.		
c.		
d.		

7. Processes Used at Plant
a. Shot blasting
b. painting
c. welding
d. hole-punching
e.

8. Products
a. Structural Steel
b.
c.
d.
e.

used in manufacturing / produced / products.

1. Paint - NYS Dull Orange Primer f. ___
b. Basic Pb Si CrO4 pigment c g. ___
c. Fe Oxide · alkyd resin h. ___
d. ___ i. ___
e. ___ j. ___

0. a. On Site Waste Water Treatment /_/Yes /✓/No

b. On Site Waste Water Treatment by July 1977 /_/Yes /✓/No

c. On Site Waste Water Treatment by July 1983 /_/Yes /✓/No

d. Industrial Sewer Discharge /_/Yes /✓/No • Name of Sewage Treatment Plant ___

e. SPDES No. ___ NPDES No. ___

1. a. Air Pollution Control Devices /_/Yes /✓/No Types (Wheelabrator, 4 paint spray booths)

b. To Be Built /_/Yes /_/No by __/__/__

c. Air 100 Emission Point Registration Numbers 143089 1624 00001, - 5

2. a. Number of manufacturing employees 148 b. Manufacturing Floor Space ~~96,714~~ 107,000 sq.ft. → roughly

3 Attach a plat or sketch of the facility showing the location of on-site process waste storage (if available).

4 Attach flow diagrams of chemical processes including waste flow outputs (if available).

5. In-house waste treatment capabilities: ___

6. Is there a currently used or abandoned landfill, dump or lagoon on plant property? /✓/Yes /_/No

7 Industrial wastes produced or expected to be produced by plant.
1) Paint Sludge
2) Shot Blast ~~1~~ 50 gals/wk, mill scale, rust, dust, dirt
3) ___
4) ___
5) ___
6) ___
7) ___
8) ___

Comments: ___

#2 also goes to landfill; used on the average 4 hrs/da, 52 da/yr.

50 / 2600

I. Waste Characterization and Management Practice
(Use separate form for each waste stream)

1. Waste Stream No. 1 (from Form I, Number 17)

2. Description of process producing waste cleaning of water wash booth

3. Brief characterization of waste paint sludge - hardened paint dirt & dust

4. Time period for which data are representative _____ to _____

5. a. Annual waste production 250 /_/tons/yr. /✓/gal./yr.

b. Daily waste production _____ /_/tons/day /_/gal./day

c. Frequency of waste production: /_/seasonal /✓/occasional /_/continual
/_/other (specify) 2/yr

6. Waste Composition

a. Average percent solids ____% b. pH range __ to __

c. Physical state: /_/liquid, /_/slurry, /✓/sludge, /✓/solid,
/_/other (specify) _____

d. Component	Average Concentration	/_/wet weight /_/dry weight	
1. Alkyd - resin paint		/_/wt.%	/_/ppm
2. Pb silica-Chromate pigment		/_/wt.%	/_/ppm
3. (linseed oil vehicle) NONE IN FINAL WASTE		/_/wt.%	/_/ppm
4.		/_/wt.%	/_/ppm
5.		/_/wt.%	/_/ppm
6.		/_/wt.%	/_/ppm
7.		/_/wt.%	/_/ppm
8.		/_/wt.%	/_/ppm
9.		/_/wt.%	/_/ppm
10.		/_/wt.%	/_/ppm

e. Analysis of composition is [✓] theoretical [ ] laboratory [ ] estimate
(attach copy of laboratory analysis if available)

f. Projected [ ] increase, [ ] decrease in volume from base year: _____ % by July 1977;

_____ % by July 1983. No.

g. Hazardous properties of waste: [ ] flammable [✓] toxic [ ] reactive [ ] explosive

[ ] corrosive [ ] other (specify) potentially

7. On Site Storage

a. Method: [✓] drum, [ ] roll-off container, [ ] tank, [ ] lagoon, [ ] other (specify) _____

b. Typical length of time waste stored N/A [ ] days, [✓] weeks, [ ] months ?

c. Typical volume of waste stored 125 [ ] tons, [✓] gallons

when ground is soft

d. Is storage site diked? [ ] Yes [✓] No

e. Surface drainage collection [ ] Yes [✓] No

8. Transportation

a. Waste hauled off site by [ ] you [ ] others

b. Name of waste hauler _____

Address _____
Street City

_____ ( )
State Zip Code Phone

9. Treatment and Disposal

a. Treatment or disposal: [✓] on site [ ] off site

b. Waste is [ ] reclaimed [ ] treated [✓] and disposed [ ] incinerated

[ ] other (specify) _____

c. Off site facility receiving waste

Name of Facility _____

Facility Operator _____

Facility Location _____
Street City

_____ ( )
State Zip Code Phone

I. Waste Characterization and Management Practice
(Use separate form for each waste stream)

1. Waste Stream No. 25 (from Form I, Number 17)

2. Description of process producing waste shot blasting operation for polishing steel

3. Brief characterization of waste combination of small steel shot, dirt, scale, rust

4. Time period for which data are representative current to

5. a. Annual waste production 2600 / / tons/yr. /✓/ gal./yr. / drum / wk

b. Daily waste production / / tons/day / / gal./day

c. Frequency of waste production: / / seasonal /✓/ occasional / / continual

/ / other (specify)

6. Waste Composition

a. Average percent solids % b. pH range to

c. Physical state: / / liquid, / / slurry, / / sludge, /✓/ solid,

/ / other (specify)

d. Component	Average Concentration	/ /wet weight / /dry weight
1. steel shot		/ / wt.% / / ppm
2. scale		/ / wt.% / / ppm
3. dirt		/ / wt.% / / ppm
4. rust		/ / wt.% / / ppm
5.		/ / wt.% / / ppm
6.		/ / wt.% / / ppm
7.		/ / wt.% / / ppm
8.		/ / wt.% / / ppm
9.		/ / wt.% / / ppm
10.		/ / wt.% / / ppm

e. Analysis of composition is /✓/theoretical /_/laboratory /_/estimate
(attach copy of laboratory analysis if available)

f. Projected /_/increase, /_/decrease in volume from base year: _____% by July 1977;

_____% by July 1983.

g. Hazardous properties of waste: /_/flammable /_/toxic /_/reactive /_/explosive

/_/corrosive /_/other (specify) probably none

7. On Site Storage

a. Method: /✓/drum, /_/roll-off container, /_/tank, /_/lagoon, /_/other(specify) _____

b. Typical length of time waste stored _____ /_/days, /✓/weeks, /_/months

c. Typical volume of waste stored _____ /_/tons, /_/gallons

d. Is storage site diked? /_/Yes /✓/No

e. Surface drainage collection /_/Yes /✓/No

→ Same as W.S.F whenever they decide to bury it; not in winter, however

8. Transportation

a. Waste hauled off site by /_/you /_/others

b. Name of waste hauler _____

Address _____
Street City

_____ ( )
State Zip Code Phone

9. Treatment and Disposal

a. Treatment or disposal: /✓/on site /_/off site

b. Waste is /_/reclaimed /_/treated /✓/land disposed /_/incinerated

/_/other (specify) _____

c. Off site facility receiving waste

Name of Facility _____

Facility Operator _____

Facility Location _____
Street City

_____ ( )
State Zip Code Phone

II. Land Disposal Questionnaire (for currently used or abandoned landfills, dumps, or lagoons)

1. a. Are there detailed design and operational plans for the site? / /Yes /✓/No

   b. Attach sketch of land disposal area showing location and distance to surface water, soil classification, direction of groundwater flow, location of monitoring wells, and other pertinent information. ? Groundwater flows toward RR scale

2. a. Does disposal site have a liner? / /Yes /✓/No

   b. Type of liner _____

   c. Thickness _____

3. a. Leachate collection? / /Yes /✓/No

   b. Leachate treatment? / /Yes /✓/No

   c. Type of treatment _____

4. a. Shortest depth to groundwater _____ ft.

   b. Classes of soils underlying site (correlate with sketch) Clay, sand, top soil

5. a. Groundwater monitoring wells? / /Yes /✓/No

   b. Number of wells _____ c. Well down gradient? / /Yes / /No

6. Non-industrial wastes disposed of at site? /✓/Yes / /No Ashes from incinerator

7. Are different waste(s) disposed in specially segregated areas of the site? / /Yes /✓/No

8. Is there security at disposal area (i.e. fences, signs)? /✓/Yes / /No all property fenced in

9. Are there contingency plans and equipment to handle possible emergency situations at the facility? / /Yes /✓/No Attach if available.

10. Industrial wastes disposed of at site:

Waste Stream Number	Waste	Volume/Year (please specify tons, gallons, cubic yards)
1	Paint residue Pb-S. CrO4 pigment	250 gal/yr
2	Shot blast residue - steel, mill scale, rust, dust, dirt	2600 gals/yr

REFERENCE 21

APPLICATION FOR APPR[illegible]AL TO OPERATE A SOLID WASTE MANA[illegible]MENT FACILITY

PROJECT NO. 1[illegible] I

DATE RECEIVED 10/5/78

DEPARTMENT ACTION ☐ Approved ☐ Disapproved

DATE

SEE APPLICATION INSTRUCTIONS ON REVERSE SIDE

1. OWNER'S NAME [illegible]st Steel Corporation	2. ADDRESS (Street, City, State, Zip Code) 1280 Main St., Buffalo, N.Y. 14209	3. Telephone No. 716 895 5000
4. OPERATOR'S NAME [illegible] Steel Corporation	5. ADDRESS (Street, City, State, Zip Code) 1280 Main St., Buffalo, N.Y. 14209	6. Telephone No. 716 895 5000
7. ENGINEER'S NAME [illegible] Frost	8. ADDRESS (Street, City, State, Zip Code) 754 Le Brun Rd., Eggertsville, N.Y. 14226	9. Telephone No. 716 [illegible]
10. ON-SITE SUPERVISOR [illegible]	11. ADDRESS (Street, City, State, Zip Code) [illegible] Sweet Rd., Suite 330, Amherst, 14226	12. Telephone No. 716 837 [illegible]

13. HAS THE INDIVIDUAL NAMED IN ITEM 10 ATTENDED A DEPARTMENT SPONSORED OR APPROVED TRAINING COURSE?

☐ Yes Date Course Title Location ☐ No

N/A

14. PROJECT/FACILITY NAME [illegible]st Steel Corporation	15. COUNTY IN WHICH FACILITY IS LOCATED Erie	16. ENVIRONMENTAL CONSERVATION REGION [illegible]

17. TYPE OF PROJECT FACILITIES: ☐ Composting ☐ Transfer ☐ Shredding ☐ Baling ☐ Sanitary Landfill ☐ Incineration ☐ Pyrolysis ☐ Resource Recovery-Energy ☐ Resource Recovery-Materials ☐ Other [illegible]

18. HAS THIS DEPARTMENT EVER APPROVED PLANS AND SPECIFICATIONS AND/OR ENGINEERING REPORTS FOR THIS FACILITY? ☐ Yes Date ______ ☒ No

19. LIST WASTES NOT ACCEPTED

We only accept waste from our Plant which is steel drillings and shavings, dirt and dust from the floor.

20. BRIEFLY DESCRIBE OPERATION

[illegible] Steel Corporation [illegible] Avenue Plant is primarily a steel service center for [illegible] plain steels to users, and occasionally there is a small amount of fabrication which includes drilling, planing, welding and sheetblasting of steel to clean the surface. [illegible] very small amount of waste generated in the [illegible] form which is placed in [illegible] on our industrial property and later covered with six (6) inches of earth. There are no liquids disposed of.

21. IF FACILITY IS A SANITARY LANDFILL, PROVIDE THE FOLLOWING INFORMATION:

a. Total useable area: (Acres) Initially ______ Currently N/A

b. Distance to nearest offsite, downgradient, water supply well ______ Feet

c. No. of groundwater monitoring wells Upgradient ______ Downgradient ______

22. INDICATE WHICH ATTACHMENTS, IF ANY, ARE INCLUDED WITH THIS APPLICATION:

☐ Form 47-19-2 or SW-7 ☐ Operations Plan & Report ☒ ~~USGS Topographic~~ Map ☐ Record Forms ☐ Other ______

☐ Construction Certificate ☐ Boring Logs ☐ Water Sample Analysis ☐ None

23. CERTIFICATION:

I hereby affirm under penalty of perjury that information provided on this form and attached statements and exhibits is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

[illegible] [signature] [illegible]

Date Signature and Title

47-19-4 (6/77)
Formerly SW-22

REGIONAL OFFICE COPY

47 [illegible](5/77)
Formerly SW-7

NEW YORK STATE DEPARTMENT ENVIRONMENTAL CONSERVATION

APPLICATION FOR APPROVAL TO CONSTRUCT A SOLID WASTE MANAGEMENT FACILITY

SEE APPLICATION INSTRUCTIONS ON REVERSE SIDE

FOR STATE USE ONLY	
PROJECT NO. [illegible] S W I	DATE RECEIVED 10/5/78
DEPARTMENT ACTION ☐ Approved ☐ Disapproved	DATE

1. OWNER'S NAME	2. ADDRESS (Street, City, State, Zip Code)	3. Telephone No.
[illegible] Steel Corporation	1250 Main St., Buffalo, N. Y. 14209	716 895 3000
4. OPERATOR'S NAME	**5. ADDRESS (Street, City, State, Zip Code)**	**6. Telephone No.**
[illegible] Steel Corporation	1250 Main St., Buffalo, N. Y. 14209	716 895 3000
7a. ENGINEER'S NAME	**8. ADDRESS (Street, City, State, Zip Code)**	**9. Telephone No.**
[illegible], Crast	734 De Bruce Rd., Eggertsville, N. Y. 14226	716 832 1633

7b. ENGINEER'S N.Y.S. LICENSE NO.
[illegible]

10. TYPE OF PROJECT FACILITIES:
☐ Composting ☐ Transfer ☐ Shredding ☐ Baling ☐ Sanitary Landfill ☐ Incineration
☐ Pyrolysis ☐ Resource Recovery-Energy ☐ Resource Recovery-Materials ☐ Other industrial

11. Briefly describe the project including the basic process and major components:
steel shavings and steel drillings drop on the floor and it is sweept up with the dust on the floor and disposed of in our industrial property. Water coolant is used in drillings.

12. Describe location of facility. (Attach a USGS Topographic Map showing the exact location of the facility)
Map attached. Facility is located in the Town of Cheektowaga adjacent to Exit 53W of the New York State Thruway.

13. County in which facility is located:	14. Environmental Conservation Region in which facility is located:
Erie	[illegible] Buffalo, N. Y.

15.

Municipalities Served by Facility	County	No. of Municipalities
N/A		

16. Describe briefly how the proposed facility relates to the Comprehensive Solid Waste Management Plan for the Municipality. Explain any deviation from that Plan.
N/A

17. If the facility is other than a sanitary landfill, describe the residues in terms of quantities and types. Also indicate the methods and locations of residue disposal or, if recyclable, indicate markets:
[illegible] are steel drillings and shavings that are sweept up from the floor with small amount of dust from the Cheektowaga operation. Majority of this material is sent back to the mill to be melted into steel.

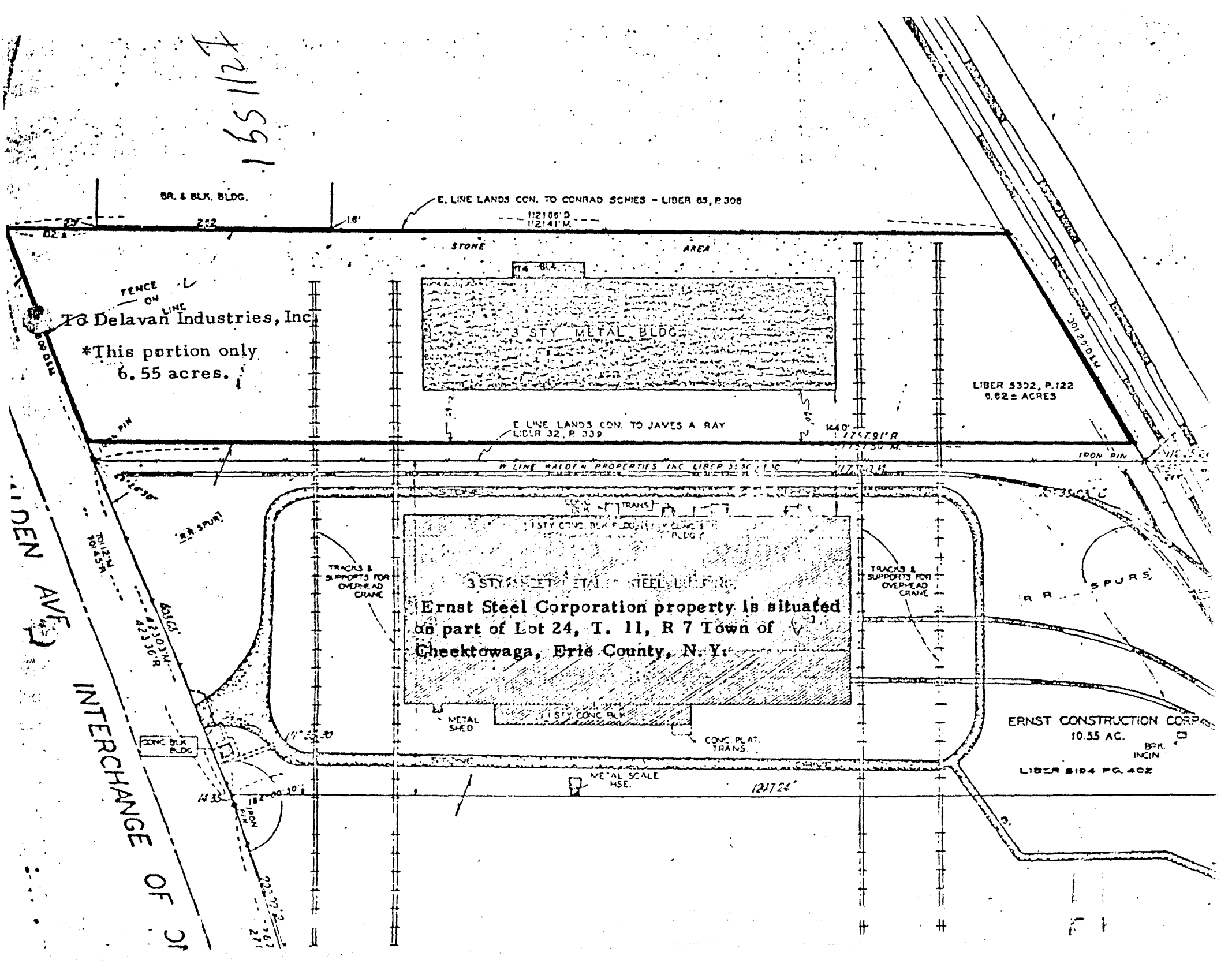
18. If the facility is a sanitary landfill, provide the following information: N/A
a. Total useable area – _____ Acres
b. Distance to nearest surface water – _____ Feet
c. Depth to nearest ground water – _____ Feet
d. Depth to nearest rock – _____ Feet
e. Distance to nearest airport – _____ miles
f. Expected life of site – _____ years
g. Is site on a flood plain? ☐ Yes _____ Year Flood ☐ No
h. Predominant type of soil on site: _____ (Use Unified Soil Classification System)

19. Anticipated construction starting and completion dates		20. Estimated Population Served	
From N/A	To	Current N/A	Design
21. Estimated Cost		22. Estimated Daily Tonnages of Solid Waste	
Initial N/A	Annual Using existing industrial property.	Current 500# or 1/4 ton	Design
23. Operating Hours per Day		24. Are attached plans and specifications in substantial conformance with "Content Guidelines for Plans and Specifications"? ☐ Yes ☐ No	
5 days a week, 1 shift.			

25. CERTIFICATION:
I hereby affirm under penalty of perjury that information provided on this form and attached statements and exhibits is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

10/3/78 — [illegible] — President
Date — Signature and Title

REGIONAL OFFICE COPY


BR. & BLK. BLDG.
E. LINE LANDS CON. TO CONRAD SCHIES - LIBER 65, P. 308
STONE
AREA
FENCE ON LINE
To Delavan Industries, Inc.
*This portion only 6.55 acres.
3 STY. METAL BLDG.
LIBER 5302, P. 122
6.62 ± ACRES
E. LINE LANDS CON. TO JAMES A. RAY LIBER 32, P. 339
IRON PIN
W. LINE WALDEN PROPERTIES INC. LIBER
R.R. SPUR
TRACKS & SUPPORTS FOR OVERHEAD CRANE
3 STY. METAL & STEEL BLDG.
Ernst Steel Corporation property is situated on part of Lot 24, T. 11, R 7 Town of Cheektowaga, Erie County, N. Y.
1 STY. CONC. BLK. BLDG.
METAL SHED
CONC. PLAT. TRANS.
CONC. BLK. BLDG.
METAL SCALE HSE.
ERNST CONSTRUCTION CORP.
10.55 AC.
LIBER 8104 PG. 402
R.R. SPURS
INTERCHANGE OF
IRON PIN

REFERENCE 22

Mr. Tygert
Mr. Clare
Ernst Steel - Site No. 915022
June 13, 1986

On Thursday, May 29, 1986, a site inspection of the Ernst Steel site was made with Mr. Frank Ernst, Vice President of Ernst Steel Corporation at his request. Mr. Ernst requested this on-site meeting since he feels that no hazardous wastes were ever disposed of on this site as a result of Ernst Steel Operations.

The attached site sketch was prepared as a result of this inspection. The following points are relevant:

1. US Steel - owns the structure and western half of the property.

2. Waste Disposal - During operation, floor drain contents including lead paint overspray, dust and grindings were disposed of on site.

   Piles of red granular material is exposed throughout the northeast wooded area.

   Large numbers of timbers are also exposed on the entire eastern half of the site. These are mainly untreated construction timbers -- used for crane outrigger pads, etc.

   Three drums of oil were found during one previous inspection. Mr. Ernst is having this oil picked up for disposal.

3. Pond - The pond adjacent to the abandoned incinerator was dug by Mr Ernst. Following DEC's 1982 sampling, the top three feet of earth was removed to look for any wastes which might have been buried in the area. None was found.

4. US Steel - The current fabricating operations (similar to Ernst's previous operation) were briefly inspected. The plant is clean -- no oil on floors or obvious sources of waste liquids.

5. **Surface Drainage**

   There is no natural surface drainage to the ditch along the railroad on the north

   Floor drains from the plant are piped to a storm sewer on the west side of the plant

   Roof drains are piped to the drainage ditch on Walden Avenue

   Some surface drainage may leave the site through a break in the Town dike on the southeast corner of the site.

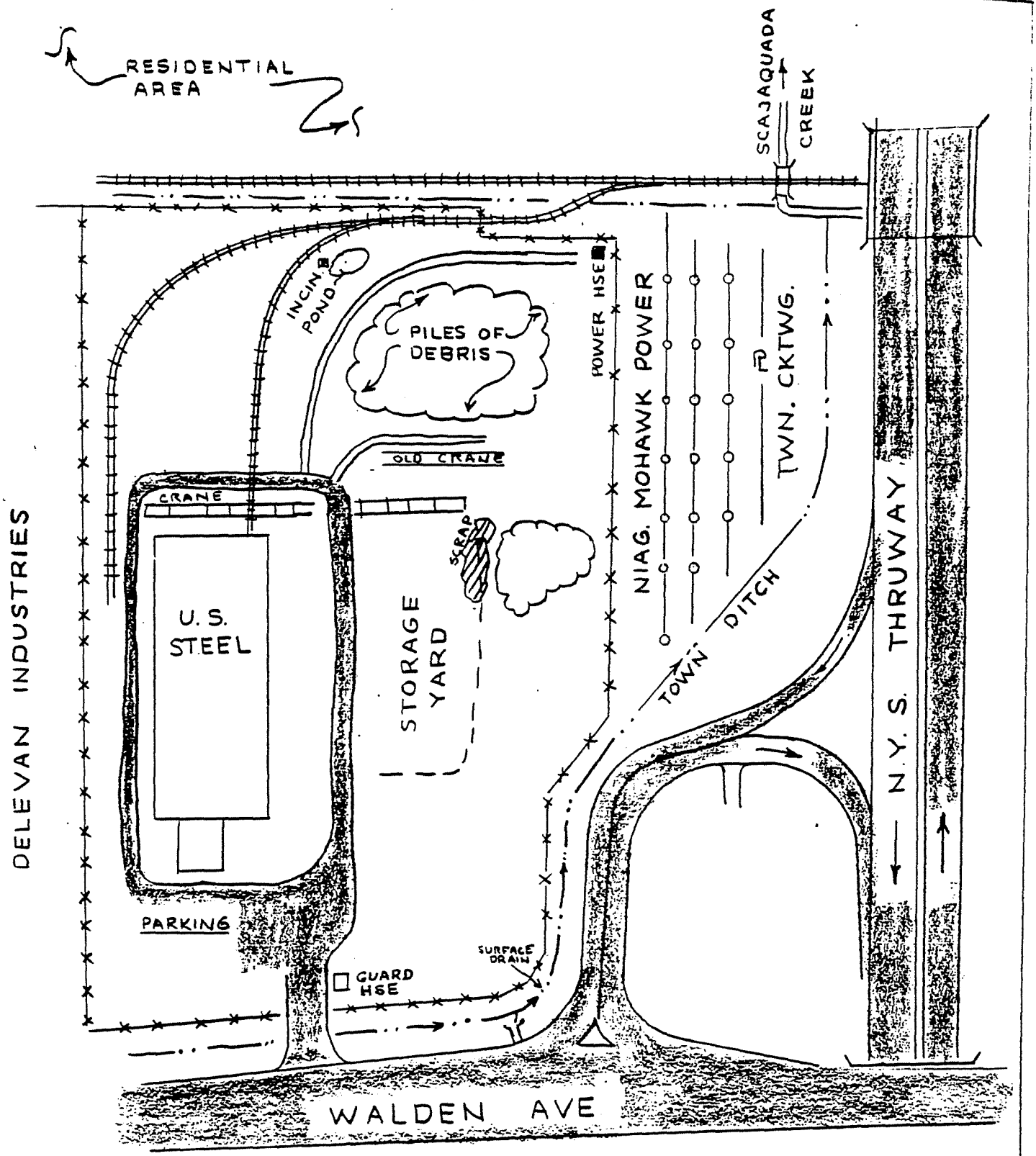
   MOST surface water remains on site.

6. **Ernst Steel Corporation** - Is no longer in the steel business. All fabricating operations in New York and Titusville, PA have been terminated. Assets are being disposed of.

Mr. Ernst is anxious to resolve the listing of this site as an Inactive Hazardous Waste Site so that the property can be sold. Since there is no record of hazardous waste being disposed of on site, there does not seem to be a sound basis for believing this site is of major significance.

It is my recommendation that an EP Toxicity test be performed on two separate composite samples of the on-site wastes to determine whether or not a Phase II Investigation is even needed.

LGC:ec
cc: Mr. Demick



POND – CIRCA 1984

ERNST STEEL
SITE 915022

L. CLARE 6/12/86

REFERENCE 23

W Lynch

County of Erie

EDWARD J. RUTKOWSKI
COUNTY EXECUTIVE

DEPARTMENT OF ENVIRONMENT AND PLANNING

JOAN E. LORING
COMMISSIONER

ANTHONY T. VOELL
DEPUTY COMMISSIONER
ENVIRONMENTAL CONTROL

August 11, 1986

Frank H. Ernst
Ernst Steel Corporation
P.O. Box 987
Buffalo, New York 14240

Dear Mr. Ernst:

Attached is a copy of our field report describing on-site conditions and our recommendations.

We have discussed this matter with Lawrence Clare of the New York State DEC and he appears to agree. However, you should call Mr. Clare to arrange for a meeting to discuss this matter further before any actual sampling occurs. We would be available to attend this meeting.

Before you arrange the meeting, we advise you prepare and bring written information that would assist you in presenting your case. The information that should be presented is the A and B portions of the information prepared by Mr. Voell (attached).

Should you have any questions, please feel free to call me at 846-6085.

Very truly yours

Cameron H O'Connor

CAMERON O'CONNOR
Hazardous Waste Specialist

COC:jk
Enclosures

ERNST STEEL

SITE NO. 915022

On July 30, 1986 an inspection of the Ernst Steel disposal area was performed to become familiar with on-site conditions. It is felt that this would provide specific information that would be useful in assisting Frank Ernst, Vice President of Ernst Steel, develop a program that would resolve any hazardous waste issues on the property. Mr. Ernst is anxious to resolve this issue due to the possible sale of the property.

ON-SITE CONDITIONS

Disposal on the property is evident in the area noted in Figure 1 (Larry Clare 6/12/86). Figure 2 represents a detail of the disposal area. This area is a mixture of field vegetation (grasses, queen ann lace) brushland and wooded wetland. Waste piles were observed throughout this disposal area. Types of waste observed on-site include incinerator residue, scrap metal and paint/dirt residues. In many areas (particularly the central portion of the disposal area), vegetation has firmly established itself on the waste piles. Mr. Ernst advised that he recently removed most of the timber and empty 55 gallon drums that were noted in previous inspection reports. Areas of disturbed earth were noted in these areas. One 55 gallon drum; was noted in a former swale area that at one time directed water away from the northeast road. The drum was

OPEN TOPPED, UPSIDE DOWN AND PARTIALLY COVERED WITH EARTH. A SMALL MAMMAL BURROW INDICATED A POSSIBLE DEN INSIDE THE DRUM. NO ODORS, LEACHATE OR DEAD OR STRESSED VEGETATION WERE NOTED. STAINED EARTH WAS OBSERVED IMMEDIATELY ADJACENT TO THE PAINT RESIDUE DISPOSAL AREA.

DURING THE INSPECTION, SIX SUBSURFACE SOIL BORINGS WERE TAKEN USING A VEIHMEYER SOIL SAMPLER. THE PURPOSE OF THESE BORINGS WAS TO GET AN IDEA (BY VISUAL OBSERVATION) OF THE TYPES OF SOIL CONDITION BENEATH THE SURFACE. SIX BORINGS WERE TAKEN IN THE LOCATIONS SHOWN ON FIGURE 2 (DETAIL). BORINGS 1 THRU 5 WERE DRIVEN FOUR FEET WITH A POTENTIAL CORE SAMPLE OF THREE FEET. BORING 6 WASTE DRIVEN TO TWO FEET WITH A POTENTIAL CORE SAMPLE OF TWO FEET. EACH BORING WAS TAKEN ADJACENT TO A WASTE PILE OR IN AN AREA WHERE WASTE TIMBER WAS ONE DISPOSED.

BORING 1

APPROXIMATELY 20% RECOVERY - TWO INCHES ORGANIC MATTER (TOP SOIL) OVER SILTY ORANGE CLAY - NO ODOR NOTED.

BORING 2

APPROXIMATELY 10% RECOVERY. TOP SOIL OVER SAND AND CINDERS OVER ORANGE SILTY CLAY. NO ODORS.

BORING 3

APPROXIMATELY 60% RECOVERY. ORGANIC MATTER VERY ORANGE SILTY CLAY OVER BLUE CLAY (DAMP). NO ODOR.

Boring 4

Approximately 5% recovery. Orange silty clay, no odor.

Boring 5

Approximately 40% recovery. Thin dusting of paint residue over sand/cinder over orange silty clay.

Boring 6

Approximately 40% recovery. Thin layer of paint residue over orange silty level. Odor of paint in residue layer, no odor from silty clay layer.

AERIAL PHOTOGRAPHY

Aerial photography was reevaluated and essentially confirmed information gathered in DEP's December 1983 Site Profile (no large scale disposal changes in topography or lagoons). The following additional information was gathered in the aerial review:

1. In 1927 (not previously reviewed) the site was a railroad maintenace center. No disposal was noted in the photograph. The railroad facility is in the

LOCATION WHERE THE ERNST FACILITY NOW EXISTS. THE RAILROAD SPURS TO THE MAIN LINE TRACKS ARE IN PLACE. EAST OF THE FACILITY. THE UNDISTURBED LAND APPEARS TO BE WET (POOR DRAINAGE).

2) IN 1951, THE RAILROAD WAS NO LONGER IN OPERATION. THE RAILROAD BUILDINGS HAVE EITHER BEEN REMOVED OR ARE COMPLETELY OVERGROWN BY VEGETATION. THE UNDISTURED LAND TO THE EAST APPEARS DRY.

3) THE FILL ACTIVITY TO THE NORTHEAST NOTED IN THE DEP 1983 PROFILE REPORT IS NOT ON THE ERNST PROPERTY.

4) DISPOSAL ON THE ERNST STEEL PROPERTY APPEARS TO BE CONFINED TO THE AREA SHOWN IN FIGURE 1.

CONCLUSIONS

I. THE EVIDENCE INDICATES THAT THE TYPE OF DISPOSAL ON-SITE WAS NOT LANDFILLING, BUT RATHER RANDOM SURFACE DUMPING. MOST OF WHAT WAS DISPOSED OF ON THE PROPERTY WOULD BE VISIBLE TO THE INSPECTOR. EVIDENCE POINTING TO THIS FACT INCLUDE:

1) AERIAL PHOTOGRAPHY
2) SOIL BORINGS
3) FIELD INSPECTION DATA
4) MR. ERNST'S 1984 SUBSURFACE INVESTIGATIONS (TEST PITS)

II. THE EVIDENCE DOES NOT INDICATE A LARGE RESERVOIR OF HAZARDOUS WASTE ON-SITE.

A) INFORMATION FROM THE IATF QUESTIONNAIRE INDICATES ONLY PAINT SLUDGES AS A POTENTIAL HAZARDOUS WASTE HAD BEEN DISPOSED OF ON-SITE. THIS HAS BEEN CONFIRMED IN THE FIELD.

B) REVIEW OF THE PROCESS OPERATIONS INDICATE THAT LITTLE HAZARDOUS WASTE WAS GENERATED. THE ERNST STEEL FABRICATING OPERATION USED CARBON STEEL WHICH DOES NOT REQUIRE SOLVENTS FOR METAL PREPARATION. PAINTING OPERATIONS INVOLVED LEAD/SILICA CHROMATE PIGMENT WITH LINSEED OIL VEHICLE. PAINT THINNER USED WASTE MINERAL SPIRITS. POTENTIAL FOR HAZARDOUS WASTE APPEARS LIMITED TO THE WASTE LEAD/SILICA CHROMATE PIGMENT.

III. THE SAMPLES TAKEN BY NEW YORK STATE DEC IN 1981 SHOULD NOT BE USED TO DETERMINE THE ENVIRONMENTAL CONDITIONS ON-SITE AND/OR THE NEED FOR A PHASE II AT THE SITE FOR THE FOLLOWING REASONS.

1) LOCATION OF SAMPLE IS NOT CLEAR.
2) TYPE OF SAMPLE IS NOT KNOWN. (I.E. WAS IT WASTE OR SOIL).
3) DESCRIPTION OF SAMPLE IS NOT KNOWN. (I.E. DID IT CONTAIN PAINT WASTE RESIDUE).

4) Sampling method and instrument is unknown. Consequently the reported 45 foot soil sample may not represent a valid depth (i.e. our experience with a Veihmeyer soil indicates sample core never were retrieved a 100% recovery. In addition, if a soil auger was used, an undisturbed core sample is not possible.

4) There is little likelihood of surface drainage off-site (see Larry Clare June 86 Report).

RECOMMENDATIONS

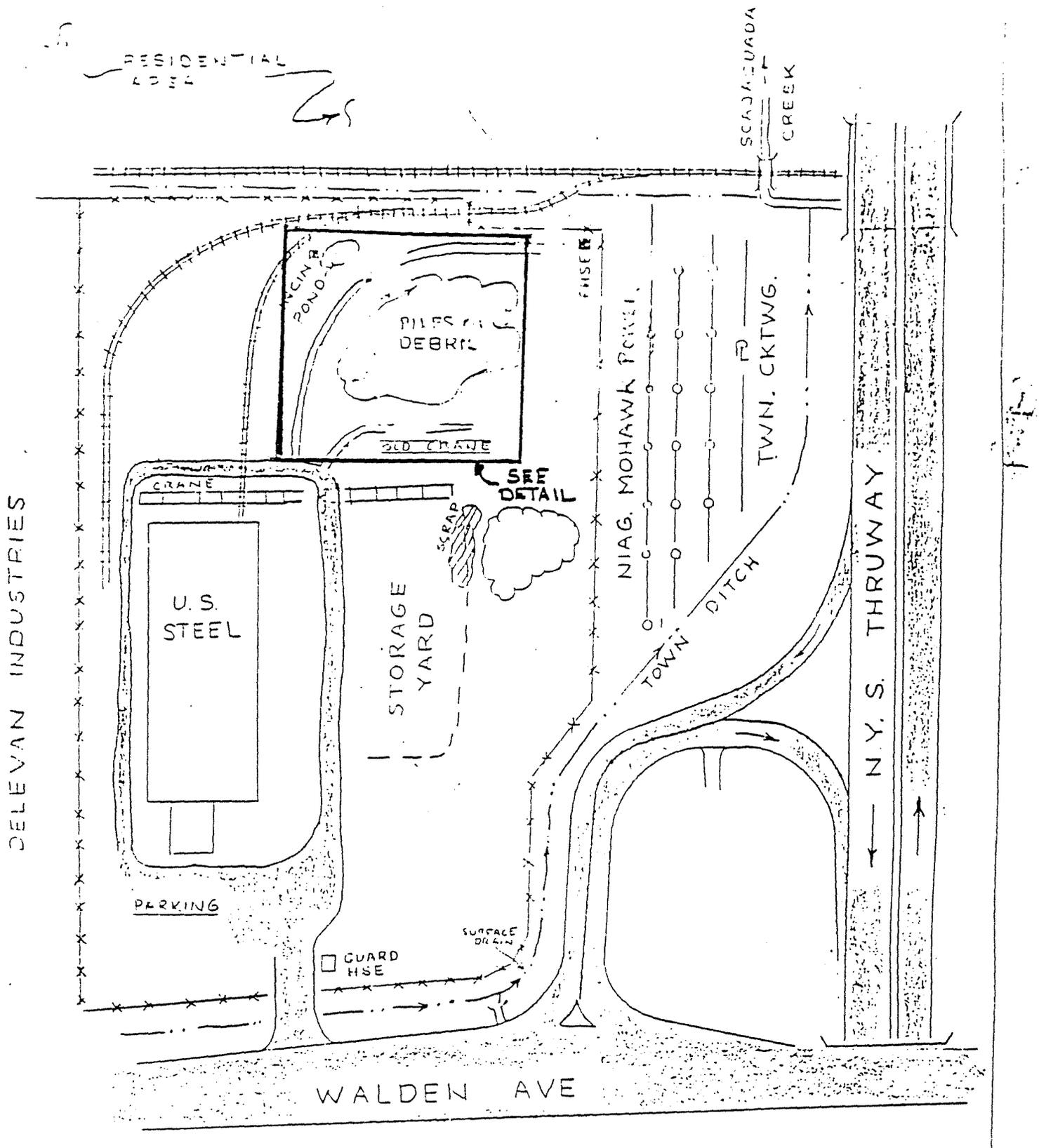
Composite samples should be taken of the waste piles to determine if the waste is hazardous.

One composite sample should be taken of the incinerator ash and samples analyzed for EP Toxicity for metals.

One composite samples should be taken of the paint residue and analyzed for EP Toxicity for metals.

IF THE ANALYTICAL DATA SUGGESTS NON-HAZARDOUS WASTES, THE MATERIAL SHOULD BE REMOVED AND DISPOSED IN A NON-HAZARDOUS LANDFILL AND THE SITE DROPPED FROM THE REGISTRY. IF THE RESULTS INDICATES HAZARDOUS, THEY SHOULD BE TAKEN TO A SECURED DISPOSAL AREA AND THE SITE RECODED TO REFLECT CLEANUP. AN EXTENSIVE PHASE II FOR THIS SITE DOES NOT APPEAR WARRANTED.

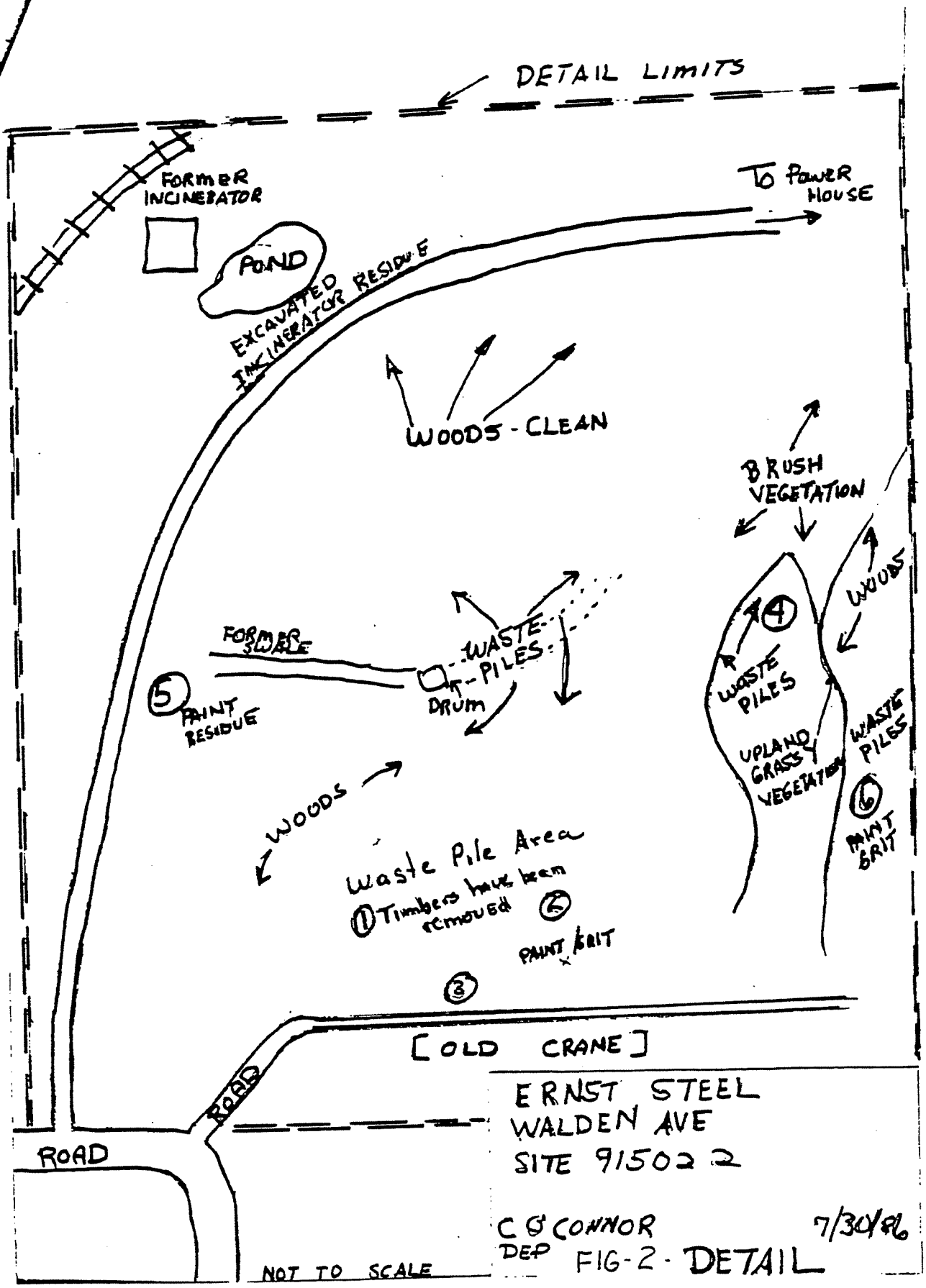
BEFORE MR. ERNST STARTS A SAMPLING PROGRAM, HE SHOULD MEET WITH DEC TO DISCUSS WHAT WOULD BE ACCEPTABLE TO THEM.



POND – CIRCA 1984

ERNST STEEL
SITE 915022

L CLARE 6/12/86



ERNST STEEL
WALDEN AVE
SITE 915022

C O'CONNOR
DEP

7/30/86

FIG-2 - DETAIL

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: 2a SITE CODE: 915022

NAME OF SITE: Ernst Steel REGION: 9

STREET ADDRESS: 1746 Walden Avenue

TOWN/CITY: Cheektowaga COUNTY: Erie

NAME OF CURRENT OWNER OF SITE: Ernst Steel Corporation

ADDRESS OF CURRENT OWNER OF SITE: 1280 Main Street, Buffalo, NY 14209

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

ESTIMATED SIZE: 4 ACRES

SITE DESCRIPTION:

Plant waste from steel painting, drilling, welding, fabrication and cleaning disposed on site. Wastes included steel shavings, steel drillings, iron oxide dust, dried paint sludge and machine cutting oil. Soil and water samples were collected from this site in 1982. The soil samples exhibited elevated concentrations of chromium, copper, lead, nickel, zinc and iron. The water sample exhibited elevated levels of lead, zinc and iron.

HAZARDOUS WASTE DISPOSED: CONFIRMED [X] SUSPECTED [ ]

TYPE AND QUANTITY OF HAZARDOUS WASTES DISPOSED:

TYPE	QUANTITY (POUNDS, DRUMS, TONS, GALLONS)
Steel shavings, steel drillings and iron	2600 gal/yr.
oxide dust	
Dried paint sludge	250 gal/yr.

TIME PERIOD SITE WAS USED FOR HAZARDOUS WASTE DISPOSAL:

_____, 1953 TO _____, 1983

OWNER(S) DURING PERIOD OF USE: Ernst Steel Corporation

SITE OPERATOR DURING PERIOD OF USE: Same

ADDRESS OF SITE OPERATOR: 1280 Main Street, Buffalo, NY 14209

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

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

SOIL TYPE: Urban Land - Odessa; disturbed and clayey soils

DEPTH TO GROUNDWATER TABLE: Unknown

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:

Extent of environmental problems unknown. Soils on site contaminated with heavy metals. Potential for surface and groundwater contamination.

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: February 21, 1986

NEW YORK STATE DEPARTMENT OF HEALTH

NAME
TITLE
NAME
TITLE
DATE: