

915010

ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

PHASE I INVESTIGATION

Bisonite Paint Company Site No. 915010
Tonawanda Erie County

DATE: February 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
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By:
Recra Environmental, Inc.

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

Bisonite Paint Company
Tonawanda, Erie County, New York
Site #915010

Prepared For:

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

Prepared By:

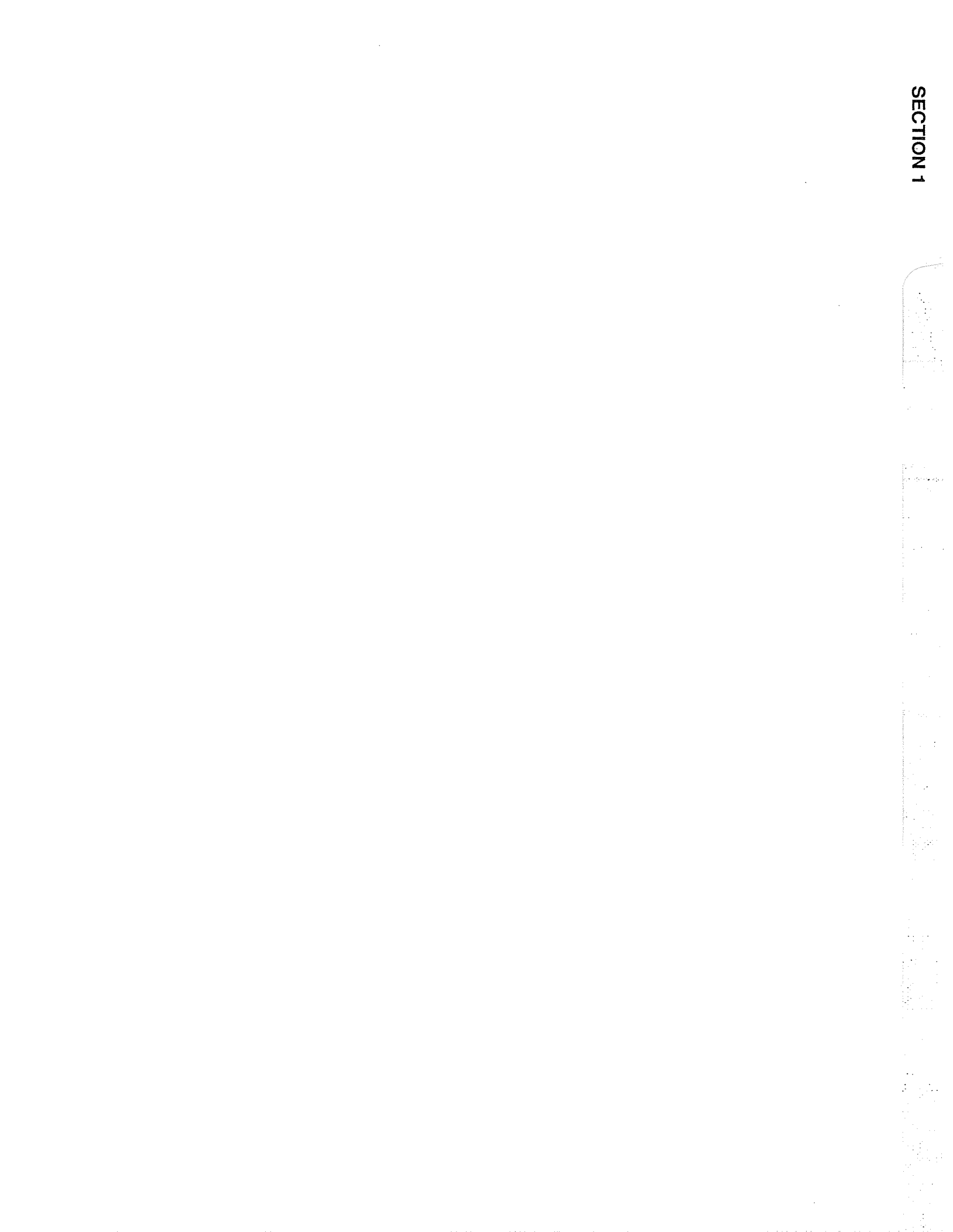
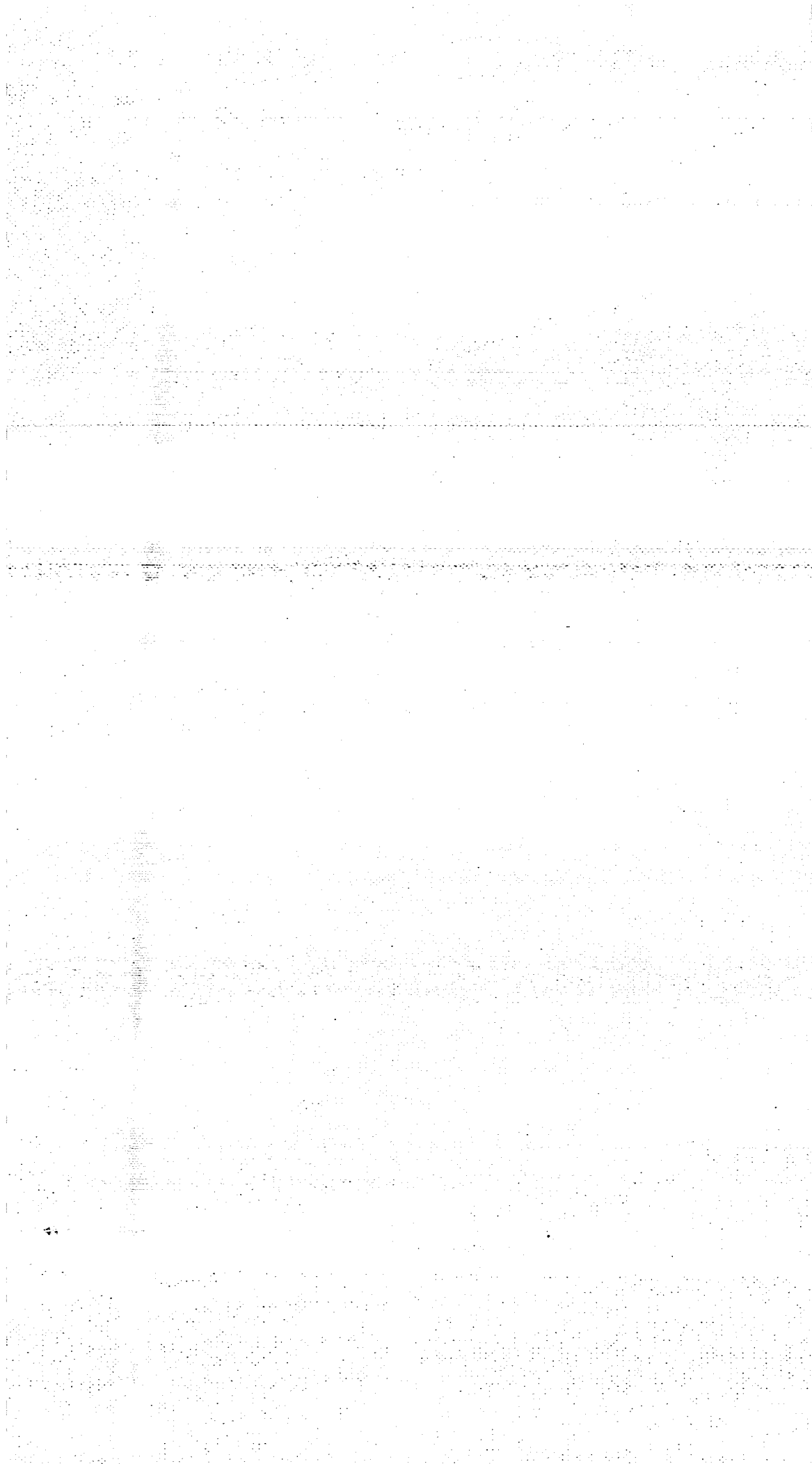
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BISONITE PAINT COMPANY
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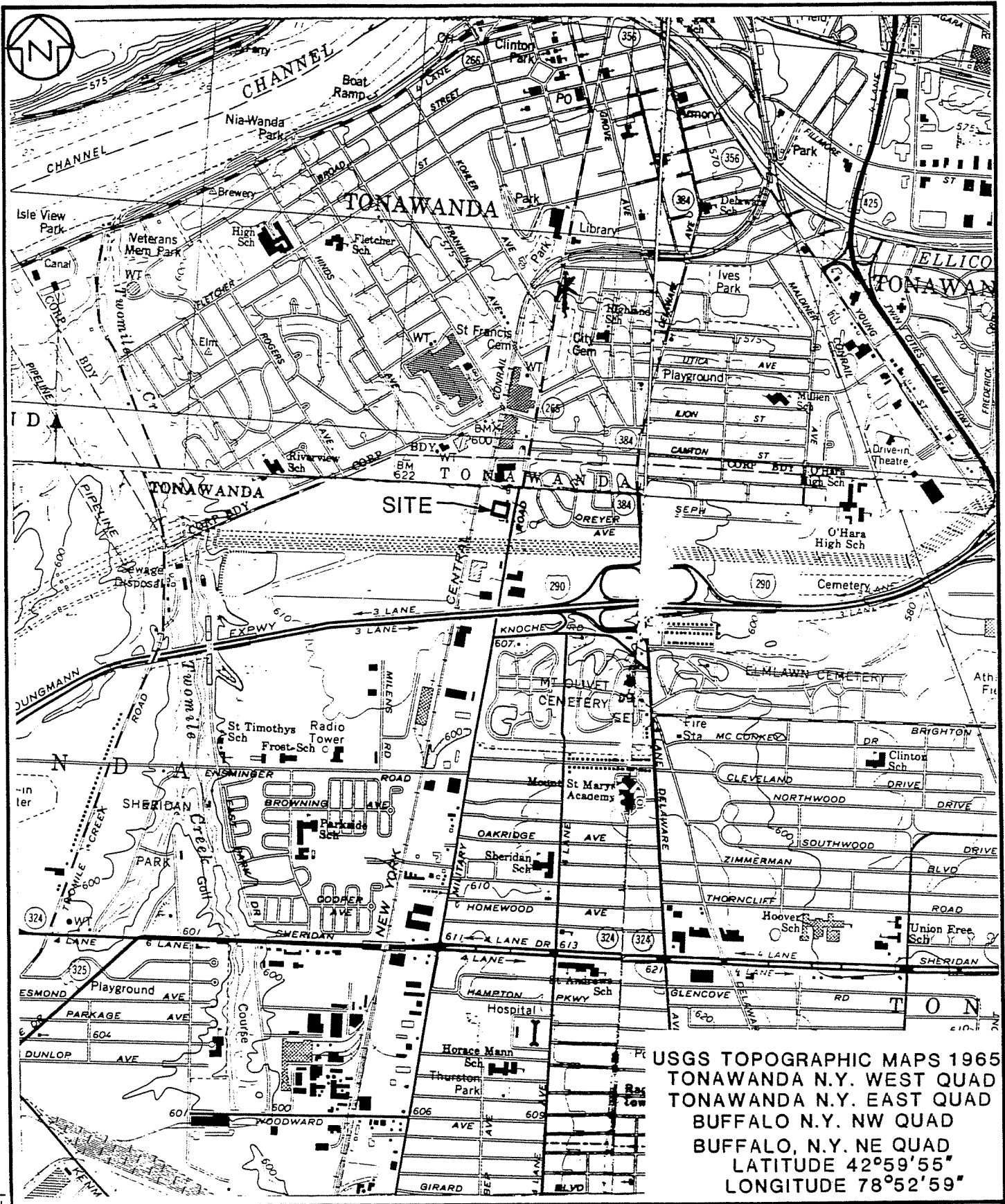
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1.0 EXECUTIVE SUMMARY

The Bisonite Paint Company is located on Military Road in the Town of Tonawanda, Erie County, New York (Figure 1). Prior to 1978, spent solvents (mineral spirits) and paint pigments amounting to approximately 1800 gallons a year were landspread over a one acre section of the site as a means of weed control. The landspreading operation ceased in 1978 when the New York State Department of Environmental Conservation (NYSDEC) notified the company that wastes must be hauled off-site for disposal at an approved facility. In another area of the site, a lagoon, approximately 50 feet long, 30 feet wide, and 8 to 10 feet deep, was used for the disposal of metal pigments and by-products from the manufacture of water based paints (Figure 2). These wastes contained titanium dioxide, calcium carbonate, clay, lime, and calcium hypochlorite. The quantity of waste disposed in the lagoon is unknown. The waste lagoon was not used after 1980 and has since been partially filled. Analytical results for two water samples collected from the waste lagoon in 1978 indicate the presence of phenol and several heavy metals.

During a site inspection on November 20, 1985, Recra Research, Inc. (Recra), personnel noted that the lagoon was not properly covered and that leachate was observed in small ponded areas on the ground surface. A small area (3 feet by 7 feet) of stained ground was observed on the side of the lagoon sloping down to the railroad tracks. No run-off from the site was observed during the inspection.



USGS TOPOGRAPHIC MAPS 1965
 TONAWANDA N.Y. WEST QUAD
 TONAWANDA N.Y. EAST QUAD
 BUFFALO N.Y. NW QUAD
 BUFFALO, N.Y. NE QUAD
 LATITUDE 42°59'55"
 LONGITUDE 78°52'59"

BRUNING 61160-1

RECRA RESEARCH INC.
 BUFFALO, NEW YORK

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

BISONITE COMPANY
 TONAWANDA, NEW YORK
 N.Y.S. SUPERFUND
 PHASET

Project No. 5C280395

VICINITY MAP

A FIGURE 1



RAILROAD TRACKS
(BELOW GRADE)

LAGOON

PLANT

PLANT

OFFICES

PARKING

STOCKPILED
EMPTY BARRELS

AREA OF LANDSPREAD
WASTE SOLVENTS

PARKING

PILED DEBRIS

GARAGE

OPEN FIELD (TALL WEEDS)

MILITARY ROAD

61160-1

BRUNING



RECRA RESEARCH INC.
BUFFALO, NEW YORK

Scale: N.T.S.		
	By	Date
Dwn.	SEM	1/8/66
Ckd.		
Ap'vd.		
Rev.		

BISONITE PAINT COMPANY
TONAWANDA, N.Y.
N.Y.S. SUPERFUND
PHASE I

Project No. 5C280395

SITE MAP

A

FIGURE 2

The Phase I effort included a compiling of information gathered from the NYSDEC Region 9, the Erie County Department of Environment and Planning, the New York State Health Department and personnel associated with site operations.

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

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

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

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

$$S_m = 21.76 \text{ (Sgw} = 0; \text{ Ssw} = 37.64; \text{ Sa} = 0)$$

$$S_{fe} = \text{N/A}$$

$$S_{dc} = 50$$

Two potential sources of contamination exist at the Bisonite site: the area of landspread solvents and the former waste lagoon.

It is recommended that surface (0-2') and subsurface (2-4') soil samples be collected across the area of landspread solvents and analyzed for heavy metals, phenol, PCBs, and scanned for organics, halogenated organics, and volatile halogenated organics. Samples should be collected using a grid pattern and adjacent samples from each depth interval should be composited.

Sampling of surface waters from the waste lagoon in 1978 indicated the presence of phenol and heavy metals including mercury and barium. Further evaluation of this area should include a geophysical survey and groundwater analysis utilizing one upgradient well and two downgradient wells.

2.0 PURPOSE

The objective of this Phase I investigation is to prepare a report for the Bisonite Paint Company 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, relative to water supplies, of population centers and sensitive environments such as wetlands.

SECTION 3

3.0 PHASE I SCOPE OF WORK

The Phase I investigation at the Bisonite Paint Company site comprised several interrelated tasks as follows:

- o Initially, a thorough data and records search was undertaken to compile all available information from identified sources. The information was reviewed and a preliminary description of the site's history was developed.
- o A preliminary site inspection was conducted by the investigation team to familiarize personnel with the physical conditions of the site and its surroundings, to confirm reported site conditions, and to collect additional data (without performing actual sampling and analyses).
- o The preliminary HRS documentation records were prepared using compiled information.
- o An analysis of the adequacy of the available data was performed to determine what further investigation would be required to develop a final HRS score.
- o A Phase II Investigation work plan was prepared for the additional investigative activities identified above which would permit the final HRS scoring.
- o Finally, the Phase I investigation report was prepared to document and summarize the activities and the results of the investigation.

During this investigation, the following sources were instrumental in providing information:

- o NYSDEC Region 9 located at 600 Delaware Avenue, Buffalo, New York (716/847-4600)
- o NYSDEC central office located at 50 Wolf Road, Albany, New York (518/457-0639)
- o Erie County Department of Environment and Planning located at 95 Franklin Street, Buffalo, New York (716/846-8390)
- o NYS Department of Health located in the Corning Tower Building, Room 342, Albany, New York (518/473-8427)

These files provided valuable site information concerning past operations, waste types, and site conditions during past inspections. NYSDEC Region 9 also provided floodplain information and the location of wetlands and critical habitats of endangered species (if any) in the vicinity of the site.

Recra personnel conducted an inspection of the site on November 20, 1985 to identify the present condition of the site. At the time of the site inspection, the weather was partly cloudy and 48°F. There was no snow cover on the ground during the inspection and no air monitoring was conducted.

SECTION 4

4.0 SITE ASSESSMENT

4.1 Site History

The Bisonite Paint Company, a paint manufacturer, is located in the Town of Tonawanda, Erie County, New York. Prior to 1978, spent solvents (amounting to approximately 1800 gallons mineral spirits per year) and paint pigments were landspread over a one acre portion of the property (References 1 and 2). In addition, a lagoon approximately 50 feet long, 30 feet wide, and 8 to 10 feet deep, located in the northwest corner of the property, was used to dispose of metal paint pigments and by-products from the manufacture of water-based paints. This waste reportedly contained titanium dioxide, calcium carbonate, lime, clay, and calcium hypochlorite (Reference 1).

The landspreading operation ceased in 1978 when the NYSDEC notified the company that wastes must be hauled off-site for disposal at an approved facility (Reference 8). The waste lagoon was not used after 1980 and has since been filled in.

Recra personnel inspected the site on November 20, 1985. Most of the lagoon had been filled but ponded water with cattails growing on the surface was observed. Leachate (oily film) was noted on the surface of the ponded water. An area of stained ground measuring 3 feet by 7 feet was observed on the side of the lagoon sloping down to the railroad tracks behind the plant property. The stain appeared to be from recent paint spillage. No ground stains were evident in the former area of waste solvent landspreading. No run-off from the site was observed during the

Recra inspection.

4.2 Site Area Surface Features

4.2.1 Topography and Drainage

The site is located in a topographically flat area (Reference 9). Run-off from the property can enter storm sewers located adjacent to the site. Run-off from the western portion of the site, which includes the former lagoon, probably drains to the railroad track bed which is approximately ten feet below grade. The railroad tracks are located along the western boundary of the plant property (Figure 2).

4.2.2 Environmental Setting

The site is located in a highly urbanized area in the Town of Tonawanda, a suburb of Buffalo, New York (Reference 9). Much of the area surrounding the site is occupied by residential properties. The nearest residents are located within 500 feet of the site (Reference 9). All residents within the site vicinity are served by municipal water supply which is drawn from the Niagara River (Reference 7). The site is located one mile from Two Mile Creek and 1.5 miles from the Niagara River (Reference 9). Two Mile Creek has been assigned a Class B rating (Reference 12) making it suitable for primary contact recreation and any other uses except as a source of water supply for drinking, culinary, or food processing purposes (Reference 16). The Niagara River has been classified as Class A Special (international boundary waters) and is a source of water supply for drinking, culinary, or food processing purposes, primary contact recreation, and other usages (References 7 and

16).

There are no critical habitats of endangered species or sensitive environments in the vicinity of the site (Reference 13). The site is not located within a 100-year floodplain (Reference 10).

4.3 Site Hydrogeology

4.3.1 Geology

The bedrock underlying the site is the Camillus Shale which varies from a gray, thin-bedded shale to a massive mudstone containing varying amounts of gypsum (Reference 4).

The depth to bedrock immediately underlying the site is unknown. In 1944, two wells were drilled two miles south of the site. The Camillus Shale was encountered at 86 and 87 feet, respectively, below ground surface (Reference 5).

4.3.2 Soils

Soils in the area including the site have been classified as Urban Land-Schoharie, Nearly Level. This soil unit occurs in areas of high density residential, commercial, and industrial development and includes areas of disturbed or removed soils and deep, well drained and moderately well drained clayey soils on lowland plains. The undisturbed portions of this unit are predominantly Schoharie soils which are characterized as gravel-free, lake-laid sediments dominated by clay and silt (Reference 6). Permeability of these soils is slow to very slow ranging from $<10^{-5}$ to $\geq 10^{-7}$ cm/sec (Reference 11).

4.3.3 Groundwater

Groundwater information in the vicinity of the site is limited as all residents of the area are serviced by municipal water which is drawn from the Niagara River (Reference 7). Industrial well records from two wells drilled two miles south of the site in 1944 indicated water at approximately 90 feet in a gypsiferous zone of the Camillus Shale. Yield from one well was measured at 90 gallons per minute (Reference 5).

4.4 Previous Sampling and Analysis

4.4.1 Groundwater Quality Data

There is no available groundwater quality data for the site.

4.4.2 Surface Water Quality Data

There is no available surface quality data for the site.

4.4.3 Air Quality Data

There is no air quality data for the site.

4.4.4 Other Analytical Data

In 1978, Bisonite collected two water samples from the waste lagoon (Reference 19). Analytical results for the samples indicated the presence of phenol (8.5 ppm), cadmium (0.1 ppm), copper (0.7 ppm), iron (130 ppm), hexavalent chromium (0.1 ppm) total chromium (0.2 ppm), manganese (0.2 ppm), mercury (0.36 ppm), selenium (0.012 ppm), zinc (5.0 ppm), and barium (30 ppm).

SECTION 5

5.0 PRELIMINARY APPLICATION OF THE HAZARD RANKING SYSTEM

5.1 Narrative Summary

The Bisonite Paint Company is located on Military Road in the Town of Tonawanda, New York (Reference 19). The company manufactures a variety of paints. Spent solvents (mineral spirits) and paint pigments amounting to 1800 gallons a year were landspread on the site as a means of weed control (References 1 and 2). This practice ceased in 1978 when the NYSDEC notified the company that wastes must be hauled off-site for disposal at an approved facility (Reference 8). Washings and by-products from the manufacture of water-based paints were disposed of into a lagoon located in the northwest corner of the property. These waste materials consisted mainly of titanium dioxide, calcium carbonate, water, clay, lime and calcium hypochlorite (Reference 1). The lagoon measured approximately 50 feet long, 30 feet wide, and 8 to 10 feet deep. The lagooning operation ceased in 1980 (References 2 and 3). Analytical results for two water samples taken from the waste lagoon in 1978 indicate the presence of phenol and several heavy metals including mercury, hexavalent chromium, copper and barium.

Recra personnel inspected the site on November 20, 1985. Most of the lagoon had been filled but ponded water with cattails growing on the surface was observed.

Leachate (oily film) was noted on the surface of the ponded water. An area of stained ground measuring 3 feet by 7 feet was observed on the side of the lagoon sloping down to the railroad tracks behind the plant property. The stain appeared to be from recent paint spillage. No runoff from the site was observed during the Recra inspection.

The portion of the site where waste solvents were landspread for weed control is now an open field covered with tall weeds. No ground stains were evident in this area.

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	2	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	3	3		
Total Route Characteristics Score			8	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	5	8		
Total Waste Characteristics Score			23	26		
5 Targets					3.5	
Ground Water Use	0 1 2 3	3	0	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			0	49		
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			0	57,330		
7 Divide line 6 by 57,330 and multiply by 100			S _{gw} = 0			

FIGURE 2
GROUND WATER ROUTE WORK SHEET

Surface Water Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)	
1 Observed Release	(0) 45	1	0	45	4.1	
If observed release is given a value of 45, proceed to line 4 . If observed release is given a value of 0, proceed to line 2 .						
2 Route Characteristics					4.2	
Facility Slope and Intervening Terrain	(0) 1 2 3	1	0	3		
1-yr. 24-hr. Rainfall	0 1 (2) 3	1	2	3		
Distance to Nearest Surface Water	0 1 (2) 3	2	4	6		
Physical State	0 1 2 (3)	1	3	3		
Total Route Characteristics Score			9	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	5	8		
Total Waste Characteristics Score			23	26		
5 Targets					4.5	
Surface Water Use	0 1 2 (3)	3	9	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	30	40		
Total Targets Score			39	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			24,219	64,350		
7 Divide line 6 by 64,350 and multiply by 100			$S_{sw} = 37.64$			

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	① 45	1	0	45	5.1	
Date and Location:						
Sampling Protocol:						
If line 1 is 0, the $S_a = 0$. Enter on line 5 .						
If line 1 is 45, then proceed to line 2 .						
2 Waste Characteristics					5.2	
Reactivity and Incompatibility	0 1 2 3	1		3		
Toxicity	0 1 2 3	3		9		
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8		
Total Waste Characteristics Score				20		
3 Targets					5.3	
Population Within 4-Mile Radius	} 0 9 12 15 18 21 24 27 30	1		30		
Distance to Sensitive Environment	0 1 2 3	2		6		
Land Use	0 1 2 3	1		3		
Total Targets Score				39		
4 Multiply 1 x 2 x 3				35,100		
5 Divide line 4 by 35,100 and multiply by 100				$S_a = 0$		

**FIGURE 9
AIR ROUTE WORK SHEET**

	S	S ²
Groundwater Route Score (S _{gw})	0	0
Surface Water Route Score (S _{sw})	37.64	1416.77
Air Route Score (S _a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		1416.77
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		37.64
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		21.76

FIGURE 10
WORKSHEET FOR COMPUTING S_M

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

FIGURE 11
FIRE AND EXPLOSION WORK SHEET

Direct Contact Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)	
1 Observed Incident	0 45	1	0	45	8.1	
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2						
2 Accessibility	0 1 2 3	1	3	3	8.2	
3 Containment	0 15	1	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			10,800	21,600		
7 Divide line 6 by 21,600 and multiply by 100			SDC = 50			

FIGURE 12
DIRECT CONTACT WORK SHEET

**HRS DOCUMENTATION
RECORDS**

June 23, 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: Bisonite Paint Company

LOCATION: 2250 Military Road, Tonawanda, Erie County, New York

GROUND WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

Analytical results not available

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:

Camillus Shale Aquifer at a depth of approximately 90 feet.
Not currently used.

(Ref. 5)

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

Unknown

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

Unknown

Net Precipitation

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

36 inches (Ref. 11)

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

26 inches (Ref. 11)

Net precipitation (subtract the above figures):

10 inches

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

The U.S.D.A. classifies the surficial soils as urban land; soils which are so altered and disturbed that identification is virtually impossible. Unconsolidated deposits consist of lacustrine clays and silts

Permeability associated with soil type: (Ref. 6)

$<10^{-5}$ $\geq 10^{-7}$ (Ref. 11)

Physical State

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

Liquid (Ref. 2 and 3)

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Waste lagoon - no liner; landfill surface encourages ponding

Method with highest score:

No liner

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

Surface water samples taken from the waste lagoon in 1978 indicated the presence of phenol (8.5 ppm), mercury (0.36 ppm), and barium (30.0 ppm). Mineral spirits were landspread over a portion of the site.

(Ref. 1 and 2)

Compound with highest score:

Mercury
Barium

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):

Waste lagoon: 440-550 cubic yards

Basis of estimating and/or computing waste quantity:

Waste lagoon dimensions converted to cubic yards

(Ref. 2)

50 ft x 30 ft x (8-10 ft)

27

* * *

5 TARGETS

Ground Water Use

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

Aquifer is not currently used

(Ref. 5)

Distance to Nearest Well

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

None known

Distance to above well or building:

N/A

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:

N/A

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:

N/A

SURFACE WATER ROUTE

1 OBSERVED RELEASE

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

No analysis performed

Rationale for attributing the contaminants to the facility:

N/A

* * *

2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

<3%

(Ref. 9)

Name/description of nearest downslope surface water:

Two Mile Creek classified as a "B" water resource, suitable for all uses except as a source of drinking water

(Ref. 12)

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

Less than 1%

(Ref. 9)

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

No

Is the facility completely surrounded by areas of higher elevation?

No

1-Year 24-Hour Rainfall in Inches

2.1 inches

(Ref. 11)

Distance to Nearest Downslope Surface Water

Approximately one mile

(Ref. 9)

Physical State of Waste

Liquid and solid

(Ref. 3)

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Waste lagoon

Method with highest score:

Landfill not properly covered and no diversion system

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

Surface water samples taken from the waste lagoon in 1978 indicated the presence of phenol (8.5 ppm), mercury (0.36 ppm), and barium (30.0 ppm). Mineral spirits were landspread over a portion of the site.

Compound with highest score:

Mercury
Barium

(Ref. 1 and 2)

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):

Waste lagoon: 440-550 cubic yards

Basis of estimating and/or computing waste quantity:

Waste lagoon dimensions converted to cubic yards

(Ref. 2)

50 ft x 30 ft x (8-10 ft)

27

* * *

5 TARGETS

Surface Water Use

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

Tonawanda Water Intakes located approximately 1½ mile northwest of site in Niagara River.

(Ref. 7)

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:

No designated wetlands located within one mile of the site

(Ref. 13)

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:

Water Intakes for the City of Tonawanda, the City of Lockport and the City of North Tonawanda located in the Niagara River within three miles of the site. Total population served >50,000.

(Ref. 7 and 14)

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

Unknown

Total population served:

Over 50,000

(Refs. 7 and 14)

Name/description of nearest of above water bodies:

Niagara River

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

As per topographic map, no overland route to either Two Mile Creek or the Niagara River can be demonstrated. Run-off from the site is routed along a railroad track bed to an unknown discharge point north of the site.

(Ref. 9)

AIR ROUTE

1 OBSERVED RELEASE

Contaminants detected:

None known

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:

Unknown

Most incompatible pair of compounds:

Unknown

Toxicity

Most toxic compound:

Mercury
Barium

(Ref. 19)

Hazardous Waste Quantity

Total quantity of hazardous waste:

Waste lagoon: 440-550 cubic yards

Basis of estimating and/or computing waste quantity:

Waste lagoon dimensions converted to cubic yards

(Ref. 2)

$\frac{50 \text{ ft} \times 30 \text{ ft} \times (8-10 \text{ ft})}{27}$

* * *

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

Greater than 20,000

(Ref. 9)

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, if 1 mile or less:

N/A

(Ref. 13)

Land Use

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

Less than 500 feet

(Ref. 9)

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:

Less than 500 feet

(Ref. 9)

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

N/A

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

N/A

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

None known

FIRE AND EXPLOSION
N/A

N/A

1 CONTAINMENT

Hazardous substances present:

Type of containment, if applicable:

* * *

2 WASTE CHARACTERISTICS

Direct Evidence

Type of instrument and measurements:

Ignitability

Compound used:

Reactivity

Most reactive compound:

Incompatibility

Most incompatible pair of compounds:

* * *

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility:

Basis of estimating and/or computing waste quantity:

* * *

3 TARGETS

Distance to Nearest Population

Distance to Nearest Building

Distance to Sensitive Environment

Distance to wetlands:

Distance to critical habitat:

Land Use

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

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

Distance to residential area, if 2 miles or less:

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

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

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

Population Within 2-Mile Radius

Buildings Within 2-Mile Radius

DIRECT CONTACT

1 OBSERVED INCIDENT

Date, location, and pertinent details of incident:

N/A

* * *

2 ACCESSIBILITY

Describe type of barrier(s):

No barriers to entry

(Recre site visit 11/20/85)

* * *

3 CONTAINMENT

Type of containment, if applicable:

N/A

* * *

4 WASTE CHARACTERISTICS

Toxicity

Compounds evaluated:

phenol
mercury
hexavalent chromium
copper
manganese

barium

(Ref. 19)

Compound with highest score:

mercury
hexavalent chromium
copper
barium

* * *

5 TARGETS

Population within one-mile radius

Greater than 5,000


(Ref. 9)

Distance to critical habitat (of endangered species)

N/A

(Ref. 13)

5.4 EPA PRELIMINARY ASSESSMENT
(Form 2070-12)

 POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT PART 1 - SITE INFORMATION AND ASSESSMENT		I. IDENTIFICATION	
		01 STATE	02 SITE NUMBER
		NY	915D10
II. SITE NAME AND LOCATION			
01 SITE NAME (Legal, common, or descriptive name of site)		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER	
BISONITE PAINT COMPANY		2250 MILITARY ROAD	
03 CITY	04 STATE	05 ZIP CODE	06 COUNTY
TONAWANDA	NY	14150	ERIE
07 COUNTY CODE	08 CONG DIST		
09 COORDINATES	LATITUDE		LONGITUDE
	42° 59' 55" N		078° 52' 59" W
10 DIRECTIONS TO SITE (Starting from nearest public road)			
Military Rd (Rt 265) North from Skudon Drive (Rt. 325)			
III. RESPONSIBLE PARTIES			
01 OWNER (if known)		02 STREET (Business, making, residential)	
BISONITE PAINT COMPANY		2250 MILITARY ROAD	
03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
TONAWANDA	NY	14150	(716) 693-6130
07 OPERATOR (if known and different from owner)		08 STREET (Business, making, residential)	
09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER
			()
13 TYPE OF OWNERSHIP (Check one)			
<input checked="" type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL: _____ (Agency name) <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER: _____ (Specify) <input type="checkbox"/> G. UNKNOWN			
14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)			
<input type="checkbox"/> A. RCRA 3001 DATE RECEIVED: ____/____/____ MONTH DAY YEAR <input type="checkbox"/> B. UNCONTROLLED WASTE SITE (CERCLA 103(c)) DATE RECEIVED: ____/____/____ MONTH DAY YEAR <input checked="" type="checkbox"/> C. NONE			
IV. CHARACTERIZATION OF POTENTIAL HAZARD			
01 ON SITE INSPECTION		BY (Check all that apply)	
<input checked="" type="checkbox"/> YES DATE <u>08, 25, 78</u> MONTH DAY YEAR <input type="checkbox"/> NO		<input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input checked="" type="checkbox"/> C. STATE <input type="checkbox"/> D. OTHER CONTRACTOR <input type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input type="checkbox"/> F. OTHER: _____ (Specify)	
CONTRACTOR NAME(S): _____			
02 SITE STATUS (Check one)		03 YEARS OF OPERATION	
<input type="checkbox"/> A. ACTIVE <input checked="" type="checkbox"/> B. INACTIVE <input type="checkbox"/> C. UNKNOWN		UNKNOWN 1980 BEGINNING YEAR ENDING YEAR <input checked="" type="checkbox"/> UNKNOWN	
04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED			
titanium dioxide, calcium hypochlorite, paint pigments, phenol			
05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION			
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)			
<input type="checkbox"/> A. HIGH (Inspection required promptly) <input type="checkbox"/> B. MEDIUM (Inspection required) <input checked="" type="checkbox"/> C. LOW (Inspect on time available basis) <input type="checkbox"/> D. NONE (No further action needed, complete current disposition form)			
VI. INFORMATION AVAILABLE FROM			
01 CONTACT		02 OF (Agency/Organization)	03 TELEPHONE NUMBER
THOMAS P. CONNARE		RCRA RESEARCH INC.	(716) 833-8203
04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER
DIANE M. WERNEIWSKI		RCRA	(716) 833-8203
			08 DATE
			11, 20, 85 MONTH DAY YEAR



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

I. IDENTIFICATION

01 STATE

02 SITE NUMBER

NY

915010

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 A. GROUNDWATER CONTAMINATION

02 OBSERVED (DATE: _____)

POTENTIAL

ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

UNKNOWN

01 B. SURFACE WATER CONTAMINATION

02 OBSERVED (DATE: _____)

POTENTIAL

ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

UNKNOWN

01 C. CONTAMINATION OF AIR

02 OBSERVED (DATE: _____)

POTENTIAL

ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

UNKNOWN

01 D. FIRE/EXPLOSIVE CONDITIONS

02 OBSERVED (DATE: _____)

POTENTIAL

ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

UNKNOWN

01 E. DIRECT CONTACT

02 OBSERVED (DATE: _____)

POTENTIAL

ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

UNKNOWN

01 F. CONTAMINATION OF SOIL

02 OBSERVED (DATE: _____)

POTENTIAL

ALLEGED

03 AREA POTENTIALLY AFFECTED: _____
(Acres)

04 NARRATIVE DESCRIPTION

UNKNOWN

01 G. DRINKING WATER CONTAMINATION

02 OBSERVED (DATE: _____)

POTENTIAL

ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

UNKNOWN

01 H. WORKER EXPOSURE/INJURY

02 OBSERVED (DATE: _____)

POTENTIAL

ALLEGED

03 WORKERS POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

UNKNOWN

01 I. POPULATION EXPOSURE/INJURY

02 OBSERVED (DATE: _____)

POTENTIAL

ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

UNKNOWN



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

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NY 915010

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

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

UNKNOWN

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

UNKNOWN

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

UNKNOWN

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

UNKNOWN

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

UNKNOWN

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

UNKNOWN

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

UNKNOWN

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


UNKNOWN

I. TOTAL POPULATION POTENTIALLY AFFECTED: UNKNOWN

IV. COMMENTS

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

5.5 EPA SITE INSPECTION REPORT
(Form 2070-13)

 POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 1 - SITE LOCATION AND INSPECTION INFORMATION				I. IDENTIFICATION 01 STATE 02 SITE NUMBER NY 915010	
II. SITE NAME AND LOCATION					
01 SITE NAME (Legal, common, or descriptive name of site) BISONITE PAINT COMPANY			02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER 2250 MILITARY ROAD		
03 CITY TONAWANDA		04 STATE NY	05 ZIP CODE 14150	06 COUNTY ERIE	07 COUNTY CODE 08 CONG DIST
09 COORDINATES LATITUDE: 42° 39' 55" LONGITUDE: 078° 52' 59"		10 TYPE OF OWNERSHIP (Check one) <input checked="" type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER <input type="checkbox"/> G. UNKNOWN			
III. INSPECTION INFORMATION					
01 DATE OF INSPECTION 11, 20, 85 MONTH DAY YEAR		02 SITE STATUS <input type="checkbox"/> ACTIVE <input checked="" type="checkbox"/> INACTIVE		03 YEARS OF OPERATION UNKNOWN, 1980 BEGINNING YEAR ENDING YEAR	
04 AGENCY PERFORMING INSPECTION (Check all that apply) <input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input type="checkbox"/> C. MUNICIPAL <input type="checkbox"/> D. MUNICIPAL CONTRACTOR <input type="checkbox"/> E. STATE <input checked="" type="checkbox"/> F. STATE CONTRACTOR <u>RECRA RESEARCH INC</u> <input type="checkbox"/> G. OTHER					
05 CHIEF INSPECTOR Thomas P. Connare		06 TITLE Environmental Scientist		07 ORGANIZATION Recra Research Inc	
08 TELEPHONE NO. (716) 838-6200		09 OTHER INSPECTORS Sheldon S. Nozik		10 TITLE Environmental Scientist	
11 ORGANIZATION Recra Research Inc		12 TELEPHONE NO. (716) 838-6200			
13 SITE REPRESENTATIVES INTERVIEWED JOHN ALBERT		14 TITLE VICE PRESIDENT		15 ADDRESS 2250 Military Road	
16 TELEPHONE NO. (716) 693-6130					
17 ACCESS GAINED BY (Check one) <input checked="" type="checkbox"/> PERMISSION <input type="checkbox"/> WARRANT		18 TIME OF INSPECTION 10:30 am		19 WEATHER CONDITIONS Partly cloudy 48°	
IV. INFORMATION AVAILABLE FROM					
01 CONTACT THOMAS P. CONNARE		02 OF (Agency/Organization) RECRA RESEARCH INC.		03 TELEPHONE NO. (716) 833-8203	
04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM DIANE M. WERNEIWSKI		05 AGENCY Recra Research		06 ORGANIZATION (716) 833-8203	
07 TELEPHONE NO. 11, 21, 85 MONTH DAY YEAR		08 DATE			



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

I. IDENTIFICATION

01 STATE NY 02 SITE NUMBER 915010

II. HAZARDOUS CONDITIONS AND INCIDENTS

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

UNKNOWN

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

UNKNOWN

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

UNKNOWN

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

UNKNOWN

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

UNKNOWN

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

UNKNOWN

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

UNKNOWN

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

UNKNOWN

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

UNKNOWN



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

I. IDENTIFICATION
01 STATE: NY 02 SITE NUMBER: 915010

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

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

UNKNOWN

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

UNKNOWN

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

UNKNOWN

01 M. UNSTABLE CONTAINMENT OF WASTES 02 OBSERVED (DATE: 11/20/85) POTENTIAL ALLEGED
(Soils/Runoff/Standing liquids, Leaking drums)
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

PONDED WATER ON WASTE LAGOON CONTAINED LEACHATE

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

UNKNOWN

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

UNKNOWN

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

UNKNOWN

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

NONE KNOWN

III. TOTAL POPULATION POTENTIALLY AFFECTED: UNKNOWN

IV. COMMENTS

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

RCRA SITE VISIT 11/20/85



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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	915010

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

285 (ft)

04 DEPTH OF CONTAMINATED SOIL ZONE

unknown (ft)

05 SOIL pH

unknown

06 NET PRECIPITATION

10 (in)

07 ONE YEAR 24 HOUR RAINFALL

2 inches (in)

08 SLOPE

SITE SLOPE <1% %

DIRECTION OF SITE SLOPE

TERRAIN AVERAGE SLOPE

<1% %

09 FLOOD POTENTIAL

SITE IS IN _____ YEAR FLOODPLAIN

10

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

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE

A. 7/8 (mi)

OTHER

B. 1/2 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

NA (mi)

ENDANGERED SPECIES: _____

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL

RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES

AGRICULTURAL LANDS
PRIME AG LAND AG LAND

A. Adjacent (mi)

B. <1/4 (mi)

C. _____ (mi) D. _____ (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

Site is located in a topographically flat area.

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

NYSDER REGION 9 FILES
ERIE COUNTY DEP FILES



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

I. IDENTIFICATION

01 STATE | 02 SITE NUMBER
NY | 915010

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER		<u>N/A</u>	
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL			
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
	<u>N/A</u>

IV. PHOTOGRAPHS AND MAPS

01 TYPE <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> AERIAL	02 IN CUSTODY OF <u>REERA ENVIRONMENTAL INC</u> <small>(Name of organization or individual)</small>
03 MAPS <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	04 LOCATION OF MAPS _____

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

N/A

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



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

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NY 915010

II. CURRENT OWNER(S)				PARENT COMPANY (if applicable)			
01 NAME BISONITE PAINT CO.		02 D+B NUMBER		08 NAME N/A		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) 2250 Military Road			04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE
05 CITY Tonawanda		06 STATE NY	07 ZIP CODE 14150	12 CITY		13 STATE	14 ZIP CODE
01 NAME		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE
05 CITY		06 STATE	07 ZIP CODE	12 CITY		13 STATE	14 ZIP CODE
01 NAME		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE
05 CITY		06 STATE	07 ZIP CODE	12 CITY		13 STATE	14 ZIP CODE
01 NAME		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE
05 CITY		06 STATE	07 ZIP CODE	12 CITY		13 STATE	14 ZIP CODE
III. PREVIOUS OWNER(S) (List most recent first)				IV. REALTY OWNER(S) (if applicable list most recent first)			
01 NAME N/A		02 D+B NUMBER		01 NAME		02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE
05 CITY		06 STATE	07 ZIP CODE	05 CITY		06 STATE	07 ZIP CODE
01 NAME		02 D+B NUMBER		01 NAME		02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE
05 CITY		06 STATE	07 ZIP CODE	05 CITY		06 STATE	07 ZIP CODE
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)							



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

I. IDENTIFICATION

01 STATE | 02 SITE NUMBER
NY | 915010

II. ON-SITE GENERATOR

01 NAME BISDNITE PAINT Co.		02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) 2250 Military Road		04 SIC CODE	
05 CITY Tonawanda	06 STATE NY	07 ZIP CODE 14150	

III. OFF-SITE GENERATOR(S)

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

IV. TRANSPORTER(S)

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

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



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

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NY 915010

II. PAST RESPONSE ACTIVITIES

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



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

I. IDENTIFICATION

01 STATE | 02 SITE NUMBER
NY | 915D10

II PAST RESPONSE ACTIVITIES (Continued)

01 <input type="checkbox"/> R. BARRIER WALLS CONSTRUCTED 04 DESCRIPTION	NA	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> S. CAPPING/COVERING 04 DESCRIPTION	NA	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> T. BULK TANKAGE REPAIRED 04 DESCRIPTION	NA	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> U. GROUT CURTAIN CONSTRUCTED 04 DESCRIPTION	NA	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> V. BOTTOM SEALED 04 DESCRIPTION	NA	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> W. GAS CONTROL 04 DESCRIPTION	NA	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> X. FIRE CONTROL 04 DESCRIPTION	NA	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> Y. LEACHATE TREATMENT 04 DESCRIPTION	NA	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> Z. AREA EVACUATED 04 DESCRIPTION	NA	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> 1. ACCESS TO SITE RESTRICTED 04 DESCRIPTION	NA	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> 2. POPULATION RELOCATED 04 DESCRIPTION	NA	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> 3. OTHER REMEDIAL ACTIVITIES 04 DESCRIPTION	NA	02 DATE _____	03 AGENCY _____

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



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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	915010

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION YES NO

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

As per Reference 8, a letter dated 7/26/78 from John C. McMahon NYSDEC to Martin Schleicher of Bisonte Paint ordered that landspreading of waste solvents on site be ceased and that these wastes be taken to an approved disposal site

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

AS NOTED ABOVE

SECTION 6

6.0 ADEQUACY OF AVAILABLE DATA

In completing the Hazard Ranking System score (HRS), the Bisonite Paint company was found to have a migration potential (Sm) score of 21.76. This score was based on information acquired through a review of available literature. During the completion of the HRS scoring, several data inadequacies were encountered. These inadequacies are identified below:

- o unknown quantities of wastes disposed of on-site
- o subsurface information including depth to water table, groundwater quality, and groundwater flow direction.
- o chemical composition of waste solvents used in land application.
- o contents of the waste lagoon need to be identified through testing.
- o the potential chemical interaction between paint pigments, process organics, hypochlorite and other by-products.
- o fate of run-off from landspreading and lagoon areas.

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 soil sampling
- 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 final scoring of the site under the Hazard Ranking System.

7.2 Scope of Work

Two potential sources of contamination exist at the Bisonite site, the area of landspread solvents and the former waste lagoon.

Surface (0'-2' interval) and subsurface (2'-4' interval) soil samples should be collected with a hand auger from the area of landspread solvents as indicated in Figure 3. Sampling locations should be designated in a grid pattern to determine the extent of contamination, if present. The possibility of areal and vertical contamination will have to be considered at this location. Every two adjacent samples from the 0'-2' interval will be composited and similarly, every two adjacent samples from the 2'-4' interval will be composited. Composited samples will be analyzed for heavy metals, phenol, PCBs, organic scan, halogenated organic scan, and volatile halogenated organic scan. Pending the results of the organic scans, analysis for priority pollutant organics may be warranted.

Surface water samples taken from the waste lagoon in 1978 were found to contain phenol, heavy metals including copper, hexavalent chromium, manganese, mercury, zinc, and barium, and high values for total organic carbon (31,000 ppm) and chemical oxygen demand (85,200 ppm). The presence of these parameters would suggest the need for groundwater sampling to determine if contamination has migrated to groundwater. A preliminary geophysical survey may identify a contaminated groundwater plume, if present.



**RAILROAD TRACKS
(BELOW GRADE)**

**PONDED WATER
WITH LEACHATE**

**WASTE
LAGOON**

**ASSUMED DIRECTION
OF GROUNDWATER
FLOW**

STAINED GROUND

PLANT

PLANT

OFFICES

PARKING

**AREA OF
LANDSPREAD
WASTE SOLVENTS**



PARKING

GARAGE

OPEN FIELD (TALL WEEDS)

MILITARY ROAD

LEGEND

-  **PROPOSED MONITORING WELL LOCATION**
-  **PROPOSED SURFACE AND SUBSURFACE SOIL SAMPLING POINT LOCATIONS**



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

**BISONITE PAINT COMPANY
TONAWANDA, N.Y.
N.Y.S. SUPERFUND
PHASE I**

**SITE WORKPLAN MAP
PHASE II**

Project No. 5C280395

A **FIGURE 3**

61 100 1

7.2.1 Geophysical Survey

A geophysical survey may 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. The conductivity readings may serve to detect underground 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. Based upon current information, it is envisioned that one monitoring well will be placed upgradient and two downgradient of the waste lagoon.

7.2.2 Test Borings

Three test borings will be advanced: one upgradient and two downgradient of the former waste lagoon (Figure 3). 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, 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 cleaning area. Throughout the cleaning processes, direct contact between equipment and the ground surface will be avoided. Plastic sheeting and/or 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 and removed off-site only if readings from the HNU photoionizer are recorded at 5 ppm or above. 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 would be used to monitor the gases from each sample as the split barrel sampler is opened. All samples would be placed in organically pre-cleaned, 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 would be delivered daily, under chain of custody control, to the Recra Environmental Laboratories in Tonawanda, New York. Soil samples will be analyzed for heavy metals, phenol, PCBs, halogenated organic scan and volatile halogenated organic scan.

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 would be performed and boring logs maintained.

At a minimum, each boring log will include:

- o date, test hole identification, and project identification
- o name and title 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.

7.2.3 Groundwater Monitoring and Sampling

Three monitoring wells will be installed in the test boring locations described in Section 7.2.2 (Figure 3). Wells would 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:

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

The development process will continue until a stabilization of pH, specific conductance, temperature, and clarity 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 pH, conductivity, heavy metals, phenol, PCBs, volatile organic scan and halogenated organic scan. GC/MS procedures will include the identification and quantification of all peaks 10% 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. Pre-cleaned, 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.

7.2.4 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

7.2.5 Surveying

A map will be prepared showing the location and appropriate elevations (ground surface, top of monitor well casing) for each boring sampling location monitor well installation 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."

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:

- o groundwater gradient
- o topographic relief
- o sampling locations
- o physical parameters and major contaminants/concentrations identified for each sampling location
- o 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), the New York State Department of Environmental Conservation (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 Phase II Work Plan is described below. This estimate is based on the placement of three monitoring wells at 75 feet below ground surface.

o Subsurface Investigation and Survey	\$12,000.00
o Analyses	
Waste lagoon	2,107.20
Landspread area (4 composite samples)	1,002.45
o Preliminary Engineering Evaluation and Final HRS Scoring and Report	8,000.00
o Geophysics	<u>3,000.00</u>
Total Phase II	\$26,109.65

APPENDIX A

APPENDIX A

DATA SOURCES AND REFERENCES

REFERENCES

1. Memorandum, Erie County Department of Environment and Planning, Division of Environmental Control, from Donald Tamol to Anthony Voell, August 28, 1978.
2. Site Profile Report, Bisonite Company, Inc. Prepared by the Erie County Department of Environment and Planning, September, 1982.
3. NYSDEC Division of Solid and Hazardous Waste, Inactive Hazardous Waste Disposal Site Report, John S. Tygert, January 24, 1985.
4. Geology of Erie County, New York. Buehler, Edward J., Tesmer, Irving H., Buffalo Society of Natural Sciences Bulletin, Vol. 21, No. 3, 1963.
5. Groundwater Resources of the Erie-Niagara Basin, New York, prepared by USGS in cooperation with the New York State Conservation Department, Division of Water Resources, 1968.
6. General Soil Map and Interpretations, Erie County, New York, USDA Soil Conservation Service, May 1979.
7. New York State Atlas of Community Water System Sources, 1982, NYS Department of Health, Division of Environmental Protection, Bureau of Public Water Supply Protection.
8. Letter from John C. McMahan, NYSDEC, to Martin Schleicher, Bisonite Paint Company, September 26, 1978.
9. US Geological Survey Topographic Map, Buffalo. Northwest, New York Quadrangle, 7.5 minutes, 1965.
10. Daily Field Report, Information gathered from Becky Anderson, NYSDEC Region 9, Flood Control Division by Sheldon S. Nozik, Recra Research, Inc., December 10, 1985.
11. Hazard Ranking Score Users Manual, June 1982.
12. State of New York Official Compilation of Codes, Rules, and Regulations, Department of State, Title 6C.
13. Letter from Gordon R. Batcheller, NYSDEC Region 9, to Sheldon S. Nozik, Recra Research, Inc., December 18, 1985.
14. The Merriam-Webster Dictionary, pp. 846-841, 1974.
15. Freeze, R. A. and John A. Cherry, Groundwater, Prentice-Hall, Inc., Englewood Cliffs, NJ 1979.

REFERENCES
(Continued)

16. New York State Water Laws, Bureau of National Affairs, Inc., Washington, D.C., August 17, 1979.
17. Material Safety Data Sheet: Mineral Spirits, Titanium Dioxide. General Electric Company, 1979.
18. Sax, N. Irving, Dangerous Properties of Industrial Materials, Van Nostrand Reinhold Company, New York, NY. 1984.
19. Letter from Daniel Urbanczyk, Buffalo Testing Laboratories, to W. E. Schlecker, Bisonite Paint Company, October 12, 1978.

REFERENCE 1

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

MEMORANDUM

FROM Donald Tamol DATE August 28, 1978
TO Anthony T. Voel
SUBJECT Industrial Waste Inspection - Bisonite

On August 25, 1978, an inspection was conducted to determine status of the on-site disposal areas.

The plant property consists of two disposal-treatment areas.

1. A lagoon approximately 30 x 50 feet. The material dumped there consists of unusable spent by-products and washings from the manufacture of water based paints and consists mainly of titanium dioxide, Calcium Carbonate, Water, Clay, Lime and Calcium Hypochlorite. The lagoon dredgings are taken off site by Niagara Sanitation. No leachate was observed leaving the lagoon.
2. General spreading of waste stream #2 and paint pigments. Evidence of this material was observed in various areas of the plant property. Pigment material is dumped from small (5-10 gallon) containers. This material was not covered with soil. Mr. Schleicher was informed that it is very unlikely he will be able to continue disposal in this manner. His argument was that the mineral spirits used for weed control is basically the same material that would be used if he purchased a commercial weed killer.

My recommendation is that a letter be sent to Bisonite requesting an acceptable alternative.

DT:jk
Attachments



*Where does
waste go?
the it?*


REFERENCE 2

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

MEMORANDUM

TO Peter Buechi, NDEC DATE Sept. 22, 1982
FROM Donald Campbell
SUBJECT BISONITE SITE # 915010.

Attached is a copy of our Profile Report for the
subject company.



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

DC:rb
Attachment

BISONITE CO. INC.

2250 MILITARY RD

TONAWANDA, NEW YORK

SITE # 915010

Prepared by:
Erie County
Dept. of Env. & Planning
September 1982

Bisonite Co, Inc.
22 Military Road
Tonawanda, New York
DEC Site # 915010

*solvent spread - weed control
4 lagoons*

BACKGROUND

The Interagency Task Force, in Volume III of Hazardous Waste Disposal Sites in New York State, reported that on-site disposal of waste was performed by the Bisonite Company. Bisonite Co., Inc. manufactures paints. Land spreading of waste solvent and the lagooning of water based paint by-products was reported in Volume III. A "B" coding, indicating that detailed chemical analysis and/or a hydrogeologic survey is needed if warranted by the sites potential for health and/or environmental impact, was assigned to the site by the Task Force.

GENERAL INFORMATION

Bisonite Co. Inc. is located at 2250 Military Road in the Town of Tonawanda. The firm manufactures paints.

Spent solvents were spread on the ground as a means of weed control for a number of years. This practice was terminated in 1978. Solvents disposed of in this manner amounted to approximately 1800 gal/year.

A lagoon, approximately 30 feet by 50 feet in area and 8 to 10 feet deep, received the by-product waste from the manufacture of water based paints. This lagoon is in the process of being filled in. The lagoon has not been actively used for the past 1-1/2 years. At the present time approximately half the lagoon has been filled in. The remaining half will be filled in during the spring of 1983. When necessary Niagara Sanitation

*poly vinyl acetate
(water based)*

H₂O,
removed accumulated sediment, consisting of titanium dioxide, calcium carbonate, clay, lime, and calcium hypochlorite, for disposal off-site.

The manner by which Bisonite is closing the lagoon is acceptable to the DEC.

INSPECTION FINDINGS

The site was inspected on August 28, 1978 by the DEP to determine the status of the on-site disposal areas.

Ground stains were evident from the land spreading of waste solvent. There was no evidence of any leaching observed near the lagoon.

SOILS, BEDROCK, GROUNDWATER

According to the Quaternary Geology Report of E.H. Mueller 1977, soil in this area is located in an end moraine. The General Soil Map and Interpretation for Erie County by USDA SCS 1979 reports that the soils in this area are classified as urban soils. This indicates that the area has received extensive disturbance to the original soil. No specific conclusion can be reached to surficial soils.

The site is underlain by Camillus shale bedrock.

Drinking water is supplied by the Town of Tonawanda which receives its water supply from the Niagara River. No private drinking water supply wells are known to exist within a one (1) mile radius of the site.

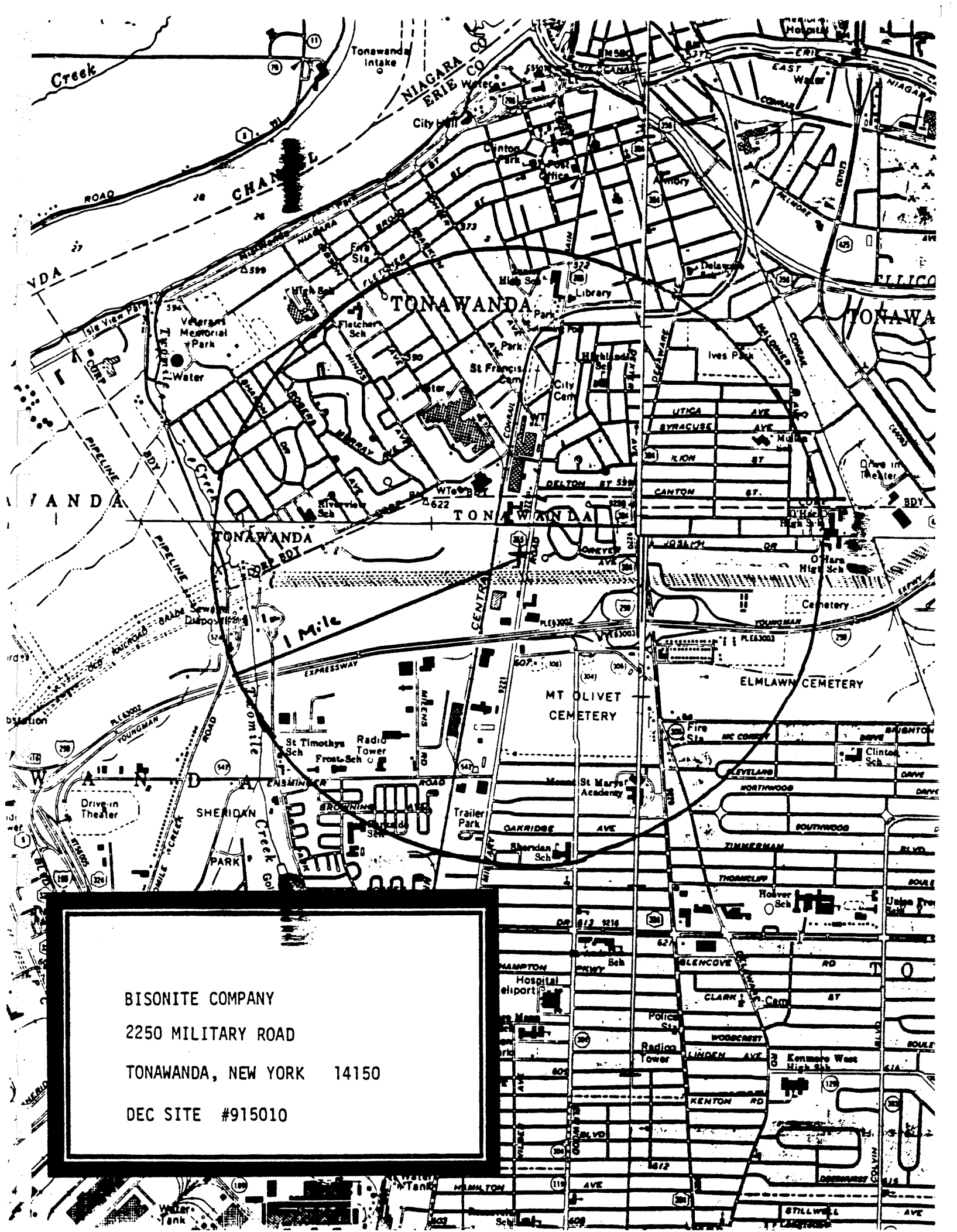
The site is not within a 100 year flood plain.

CONCLUSION

Review of data and inspection reports supports our department's conclusion that toxic or hazardous wastes disposed of at this site do not pose a problem. Land spreading of waste solvent has ceased and the use of the lagoon terminated. The lagoon is being filled in by an acceptable method.

RECOMMENDATIONS

The site status should be changed to an "F". The closure of the lagoon should be followed to insure that it is accomplished satisfactorily.



BISONITE COMPANY
 2250 MILITARY ROAD
 TONAWANDA, NEW YORK 14150
 DEC SITE #915010

NIAGARA - MOHAWK
Formerly BUFFALO RR TRACKS

RR TRACKS

POWER ELECTRIC CORP.
ELECTRIC CORP. L. 2017

BISONITE COMPANY
2250 MILITARY ROAD
TONAWANDA, NEW YORK 14150
DEC SITE #915010

swamp
filled with earth
(in spot of
NOODLE)

Parallel with
South Line
of LOT 45

Paint
Residue

5 Conc. Block
Grid for
Tank Storage

CONC. BLOCK
METAL
BUILDING

CONC. BLOCK BUILDING

SPRINKLERED

Land Spreads
(not on plan) for
5000 sq ft
of equipment

446.37' --
with South Line LOT 45

463.51'

TR
GARAGE
16.05'

Acquired by NEW YORK STATE

MILITARY

361.49'

10'

1201.01' to 11

140.2250

1189'

1189'

1189'

1189'

1189'

1189'

1189'

REFERENCE 3

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

CLASSIFICATION CODE: 2a REGION: 9 SITE CODE: 915010

NAME OF SITE : Bisonite Paint Co.
 STREET ADDRESS: 2250 Military Road
 TOWN/CITY: COUNTY: ZIP:
 Tonawanda Erie

SITE TYPE: Open Dump- Structure- Lagoon-X Landfill- Treatment Pond-
 ESTIMATED SIZE: 1 Acres

SITE OWNER/OPERATOR INFORMATION:

CURRENT OWNER NAME....: Bisonite Paint Co.
 CURRENT OWNER ADDRESS.: 2250 Military Rd., Tonwanda NY
 OWNER(S) DURING USE...: Bisonite, Inc.
 OPERATOR DURING USE...: Bisonite
 OPERATOR ADDRESS.....: 2250 Military Rd., Tonawanda NY
 PERIOD ASSOCIATED WITH HAZARDOUS WASTE: From Unknown To Present

SITE DESCRIPTION:

Lagoon for water based paint solids. Solvents and pigments to offsite hazardous waste disposal facility.

HAZARDOUS WASTE DISPOSED:	Confirmed-	Suspected	-X
TYPE	QUANTITY (units)		
Solvent (prior to 1980)			1800 gal/yr.
Metal paint pigments (prior to 1980)			Unknown
Water based paint by-products (prior to 1980)			Unknown

SITE CODE: 915010

ANALYTICAL DATA AVAILABLE:

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

CONTRAVENTION OF STANDARDS:

Groundwater- Drinking Water- Surface Water- Air-

LEGAL ACTION:

TYPE...: State- Federal-
STATUS: In Progress- Completed-

REMEDIAL ACTION:

Proposed- Under Design- In Progress- Completed-
NATURE OF ACTION:

GEOTECHNICAL INFORMATION:

SOIL TYPE: Unknown
GROUNDWATER DEPTH: Unknown

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

20 known environmental problems associated with this site.

ASSESSMENT OF HEALTH PROBLEMS:

Insufficient Information

PERSON(S) COMPLETING THIS FORM:

NEW YORK STATE DEPARTMENT OF
ENVIRONMENTAL CONSERVATION

NAME.: John S. Tygert, PE
TITLE: Assoc. San. Engineer

NAME.: R. Olazagasti
TITLE: Solid Waste Management Spec.

DATE.: 01/24/85

NEW YORK STATE DEPARTMENT
OF HEALTH

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

NAME.:
TITLE:

DATE.: 01/24/85

REFERENCE 4

GEOLOGY
OF
ERIE COUNTY
New York

By
EDWARD J. BUEHLER
Professor of Geology
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

Detailed Stratigraphy and Paleontology

Silurian System

UPPER SILURIAN (CAYUGAN) SERIES

SALINA GROUP

TYPE REFERENCE: Dana (1863, pp. 246-251).

TYPE LOCALITY: Vicinity of Syracuse, New York, formerly known as Salina.

TERMINOLOGY: Approximately the same as the "Onondaga salt group" of early writers. The Salina Group included three formations: the Vernon Shale (oldest), Syracuse Formation, and Camillus Shale. Only the Camillus is seen in western New York. See Fisher (1960).

AGE: Late Silurian (Cayugan).

THICKNESS: In western New York, the Salina Group is about 400 feet thick, but this unit increases considerably in thickness to the east.

LITHOLOGY: The Salina Group in Erie County is largely shale but considerable amounts of gypsum and anhydrite are also present.

PROMINENT OUTCROPS: Outcrops are rare in Erie County. The uppermost portion can be seen at the base of Akron Falls.

CONTACTS: The lower contact is not exposed near Erie County and the contact with the overlying Bertie Formation is difficult to define precisely.

ECONOMIC GEOLOGY: The Camillus Shale of the Salina Group is a source of gypsum and anhydrite in Erie County. To the east, the Salina Group also includes salt beds.

PALEONTOLOGY: No fossils have been reported from the Salina Group of Erie County.

CAMILLUS SHALE

TYPE REFERENCE: Clarke (1903, pp. 18-19).

TYPE LOCALITY: Village of Camillus, Onondaga County, New York; Baldwinsville quadrangle.

TERMINOLOGY: See Alling (1928) and Leutze (1954).

AGE AND CORRELATION: Late Silurian (Cayugan). Equivalent to lower part of Brayman Shale in eastern New York.

THICKNESS: Approximately 400 feet.

LITHOLOGY: The Camillus varies from thin-bedded shale to massive mudstone. The color is gray or brownish gray but some beds show a tinge of red or green. According to Alling (1928, pp. 24-26), the Camillus at the type locality is a massive gray magnesian-lime mudrock. Gypsum and anhydrite are present in Erie County.

It is probable that during much of Late Silurian time the northeastern United States was a desert basin. Salt and gypsum were precipitated by evaporation of the shrinking inland Salina Sea.

PROMINENT OUTCROPS: The Camillus Shale extends across Erie County in an east-west trending belt approximately six to eight miles wide. This belt is largely lowland in which outcrops are rare. The top of the formation is exposed at Akron Falls (pl. 6, upper). A small section can be seen in the valley of Murder Creek north of Akron. Houghton (1914, pp. 7-8), Luther (1906, p. 8) and others report outcrops on Grand Island but these could not be located.

CONTACTS: The lower contact of the Camillus Shale is not exposed near Erie County. The contact with the overlying Bertie Formation is difficult to define.

ECONOMIC GEOLOGY: The Camillus Shale is an important source of gypsum. National Gypsum Company has a mine at Clarence Center, Certain-Teed Company at Akron, and United States Gypsum Company at Oakfield in neighboring Genesee County.

PALEONTOLOGY: No fossils have been reported from the Camillus Shale of Erie County. Apparently animal life could not survive in the "dead sea" environment of the time.

BERTIE FORMATION

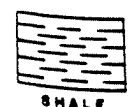
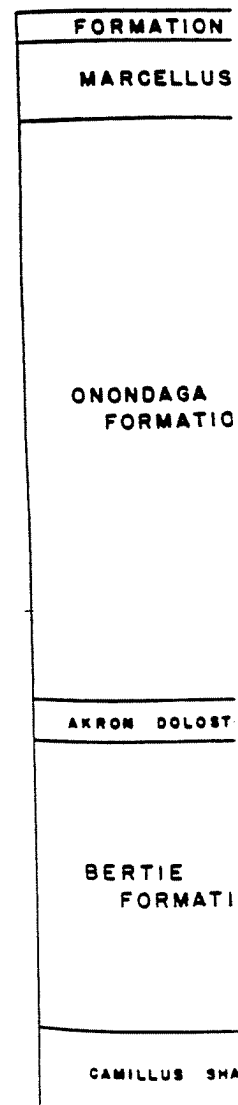
TYPE REFERENCE: Chapman (1864, p. 190).

TYPE LOCALITY: Bertie township, Welland County, Ontario, Canada.

TERMINOLOGY: This unit is commonly called the Bertie Waterlime. Chadwick (1917) divided the Bertie into four units: the Oatka (oldest), Falkirk, Scajaquada, and Williamsville. The Williamsville Member was formerly called the "Buffalo cement bed" (see fig. 4).

AGE AND CORRELATION: Late Silurian (Cayugan). Equivalent to upper part of Brayman Shale in eastern New York.

THICKNESS: 50-60 feet total. Approximate figures for the members are Oatka 20 feet, Falkirk 20 feet, Scajaquada 8 feet, and Williamsville 6 feet.



REFERENCE 5

Erie-Niagara Basin

ERIE-NIAGARA BASIN REGIONAL WATER
RESOURCES PLANNING BOARD

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

703 820 104

STATE OF NEW YORK
CONSERVATION DEPARTMENT
WATER RESOURCES COMMISSION

Basin Planning Report ENB-3

1968

232

231

230

229

Last three digits of latitude

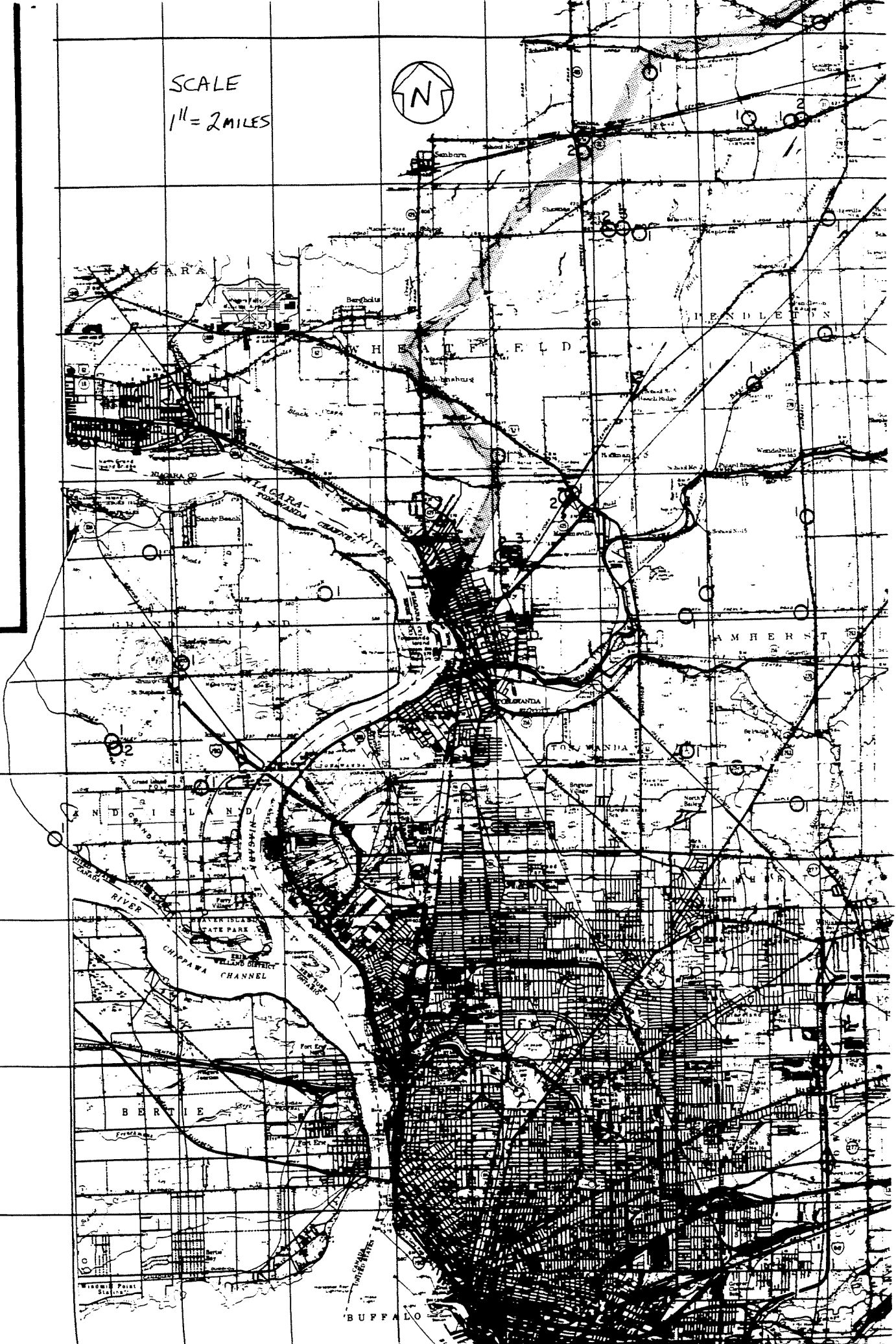
SCALE
1" = 2 MILES



Wall numbers
2: 340-1 and
2: 340-2

3 0
1 2

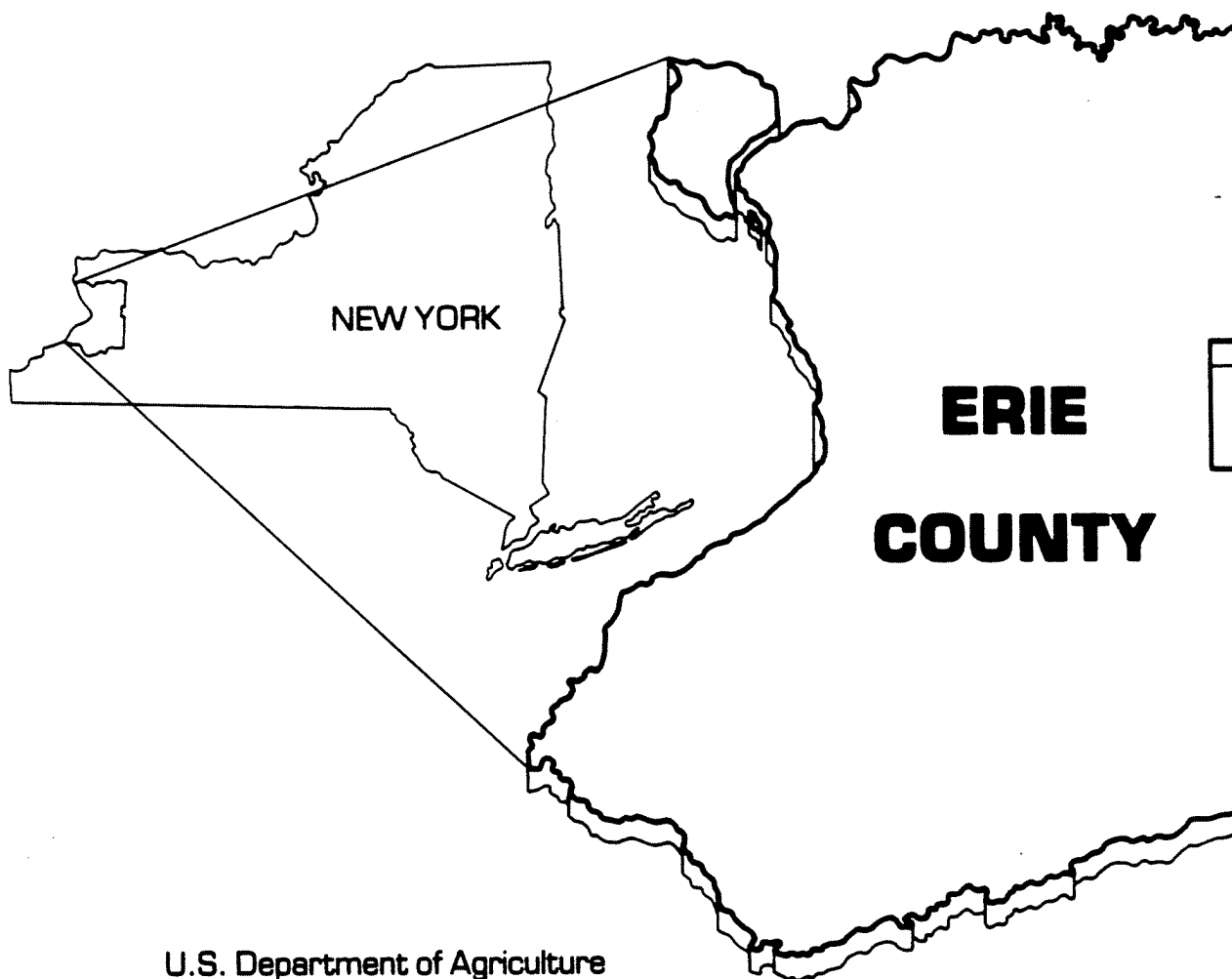
840



BUFFALO

REFERENCE 6

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

ERIE COUNTY SOIL & WATER
Conservation District
21 S. Grove Street
East Aurora, N. Y. 14052

28. SCHOHARIE, NEARLY LEVEL

Deep, moderately well drained and well drained, clayey soils, on lowland plains

This unit consist of nearly level to sloping soils on the lowland plain in the northern part of the county. The landscape is dissected by streams that drain the area. The dissecting streams increase the rate of removal of surface runoff and allow these soils to be drier than nearby somewhat poorly drained Odessa soils. Slope ranges from 0 to 15 percent but is dominantly 0 to 8 percent.

This unit covers about 7,700 acres or 1.2 percent of the county. Schoharie soils make up 70 percent of the unit and soils of minor extent the remaining 30 percent.

Schoharie soils formed in red-colored, lake-laid sediments that have a high content of clay. These soils are moderately well drained or well drained, and have a seasonal high water table perched in the lower part of the subsoil for brief periods during early spring. The rate of water movement (permeability) through the soil is slow or very slow. The Schoharie soils have few or no rock fragments, and commonly are neutral in reaction in the subsoil.

Soils of minor extent are those of the Collamer, Claverack, Cayuga, Odessa, and Teel series. Collamer soils are in areas dominated by silty soils; Claverack soils occur where a sandy mantle overlies the clayey sediment; and Cayuga soils occur where loamy glacial till is within 40 inches of the soil surface. Somewhat poorly drained Odessa soils are on foot slopes and other moderately low areas. Teel soils occur on floodplains along major streams that dissect areas of this unit.

Many areas once used for farming are now idle. Some areas are subject to urban encroachment. Slow permeability, clayey texture, and temporary seasonal wetness are important soil characteristics to consider for most uses. These soils are quite erosive, very sticky when wet, and hard and cracked when dry.

V. DEEP SOILS FORMED IN GLACIO-FLUVIAL DEPOSITS

The general soil units in this group are mainly on terraces, outwash fans and kames in valleys, and on a few areas of beach ridges and outwash plains on lowlands. There are five units in this group, and they cover about 9.9 percent of the county.

The soils in these units formed in stream-laid deposits or beach deposits having a high content of sand and gravel. The dominant soils in most of the units are excessively drained to moderately well drained. Most of the units have gently sloping or nearly level landscapes. One unit on kame deposits is mostly moderately steep and has complex slopes. Many areas of this group of units are cleared and used for farming. Only the moderately steep and steeper soils, and somewhat poorly drained and wetter soils are left idle, pastured, or in forest. Most areas are sources of gravel, and some areas provide good sites for urban development.

44. URBAN LAND-SCHOHARIE, NEARLY LEVEL,

Nonsoil areas, and deep, well drained and moderately well drained, clayey soils, on lowland plains

This unit occurs in residential areas that are interspersed with a few open areas containing undisturbed clayey soils. Most of this unit extends from central Buffalo northward through the city of Tonawanda. Slope ranges from 0 to 8 percent but is dominantly 0 to 3 percent.

This unit covers about 6,400 acres or 1.0 percent of the county. Urban land accounts for 65 percent of the unit, Schoharie about 25 percent, and soils that are minor in extent make up the remaining 10 percent.

The Urban land portion of this unit is covered by streets, sidewalks, driveways, and house foundations. Parking lots and building foundations associated with shopping centers, churches, and schools are also a part of the Urban land areas. All of these sites have had the upper soil layers disturbed or removed. The undisturbed Schoharie soils are moderately well drained and well drained, and formed in gravel-free, lake-laid sediments dominated by clay and silt. A seasonal high water table is perched in the lower part of the subsoil for brief periods in early spring. Rate of water movement (permeability) through the soil is slow or very slow. The undisturbed soil areas are primarily in lawns, home gardens, or parks.

Minor soils are those of the Cayuga, Claverack, and Odessa series. The Cayuga and Claverack soils are similar to Schoharie soils except Cayuga occurs in areas that have loamy glacial till in the substratum and Claverack soils occur where there is a sandy surficial mantle. Somewhat poorly drained Odessa soils are on foot slopes and in other moderately low areas.

The portion of this unit in the Buffalo area has a slightly higher housing density than the portion in Tonawanda. Brief seasonal wetness, slow or very slow permeability, and clayey textures are the primary soil features to consider for any further development of this unit.

ONTARIO

100.000 FEET

43° 00'

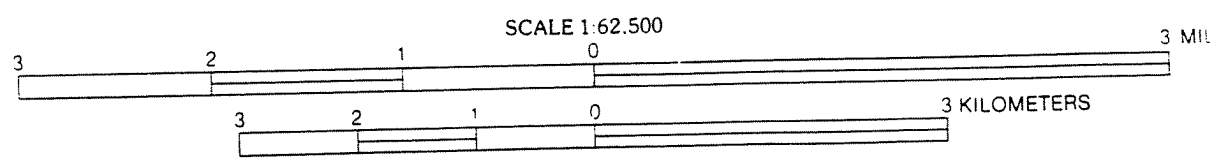
ERIE COUNTY SOIL & WATER
Conservation District
21 S. Grove Street
East Aurora, N. Y. 14052

**U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE**

CORNELL UNIVERSITY AGRICULTURAL EXPERIMENT STATION

GENERAL SOIL MAP

ERIE COUNTY, NEW YORK



55'

LEGEND

DEEP SOILS WITHOUT FRAGIPANS FORMED IN GLACIAL TILL AND
IN LACUSTRINE MANTLED GLACIAL TILL

- 1** Cazenovia-Cayuga, gently sloping
- 2** Churchville-Remson, nearly level
- 3** Darien, nearly level
- 4** Derby, gently sloping

1,050.000 FEET



River

RAND

SLAND

Grandyle

TONA

CANADA

HAVEN

RANSOM ROAD

SUDNY ROAD

FIX ROAD

ROAD

ROAD

BASE

LINE

THROUGH ROAD

324

190

26

28

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37

Cree

REFERENCE 7



Community Water System So

New York State

**NEW YORK STATE DEP
DIVISION OF ENVIRON
BUREAU OF PUBLIC WATER**

X = AFFECTED INTAKE

NIAGARA COUNTY

ID NO COMMUNITY WATER SYSTEM

Municipal Community

- 1 Lockport City (See No 12, Middleport Village. Distr Niagara County Water (See No 13, Erie Co). Erie Co).
- 2 Niagara Falls City (See a Erie Co).
- North Tonawanda City (See Erie Co).

Non-Municipal Community

- 3 Country Estates Mobile Vi

ERIE COUNTY

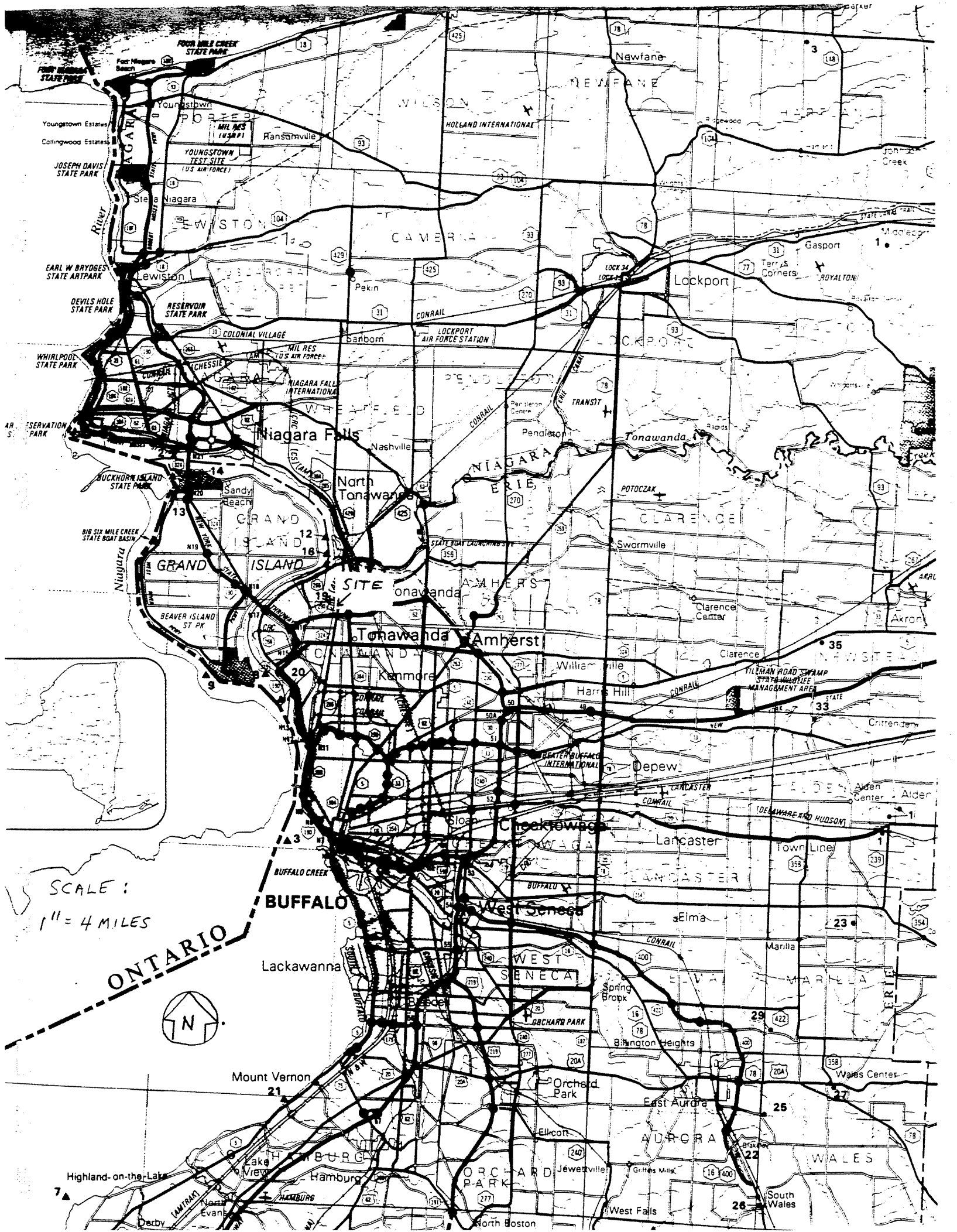
ID NO COMMUNITY WATER SYSTEM

Municipal Community

ID NO	COMMUNITY WATER SYSTEM	POPULATION	SOURCE
	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	Coffee 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)	3671	Niagara River - West Branch
17	Orchard Park Village	4169	Pipe Creek Reservoir
18	Springville Village	18538	Wells
19	Tonawanda City	91269	Niagara River - East Branch
20	Tonawanda Water District #1	10750	Niagara River
21	Wanakah Water Company		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	Taylor's Grove Trailer Park	39	Wells
39	Valley View Mobile Court	42	Wells
40	Villager Apartments	NA	Wells



SCALE:
1" = 4 MILES

ONTARIO



Mount Vernon 21

BUFFALO

Lackawanna

HAMBURG

West Seneca

WEST SENECA

ORCHARD PARK

Cheektowake

Buffalo

Orchard Park

Elkport

Jewettville

North Boston

Lancaster

Elma

Marilla

Spring Brook

Bitington Heights

East Aurora

West Falls

Depew

Lancaster

Town Line

Wales Center

South Wales

Wales Center

South Wales

Alden

Alden

Wales Center

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REFERENCE 8

September 26, 1978

Mr. Martin Schleicher
Bisonite Paint Company
2250 Military Road
Tonawanda, NY 14150

Dear Mr. Schleicher:

This office is currently conducting an industrial waste survey for the entire Region 9. The purpose of the survey is to determine what wastes are being generated by industry, and how it is disposed of.

Your firm has been identified as one industry that is disposing of its industrial waste on its own property. A check of our files indicates that you do not possess a permit to landspread paint pigment and cleaning solvents on your own property. Therefore, you are hereby directed to immediately cease landspreading these materials. All waste shall be taken to an approved disposal site. Please note that the haulers of these wastes must be registered with this department.

You shall notify this office of your anticipated course of action within 10 days of receipt of this letter. In addition, you shall detail the means of disposal for the paint pigment and cleaning solvents.

Again, all landspreading of these materials shall cease immediately and all waste shall be taken to an approved landfill. If you have any questions, please contact this office at (716) 842-3857.

Very truly yours,



John C. McLaughlin
Regional Engineer,
Solid and Hazardous Waste Program

RJM:lb

cc: Erie County Dept. of Environment and Planning



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID WASTE MANAGEMENT
FACILITY INSPECTION

2 Facility No. 7
Facility Name
Location (Town, etc.)

1. Trans. Type
 1 Delete
 2 Add
 3 Change

Persons Interviewed & Titles
M.B. Schlechter

10 Date	15	16 Time	21	22	Inspector	36	37	38	Remarks	72
0825	8	0830	AM	TAMP	4		9		ALTERNATIVE DISPOSAL METHOD RECOMMENDED FOR FUTURE FACILITIES	

Instructions: At each question, use a soft pencil to blacken either the YES or NO box.

	(BAD) YES	(GOOD) NO	
I. LEACHATE			
1. Is leachate visible on, or near the site?.....22		X	
2. Is leachate entering surface water?.....23		X	
*3. Is leachate known to be contravening groundwater standards?.....24		X	
4. Is refuse being placed into water?.....25		X	
II. BURNING			
*5. Is refuse burning without permit, or not under permit conditions?.....26	N/A		
6. Is there evidence of unapproved previous burning?.....27			
III. COVER			
7. Is previous day's refuse not covered?.....28	X		
8. Is refuse protruding through daily, intermediate or final cover?.....29			
9. Is intermediate or final cover not in place, or improperly applied?...30	N/A		
10. Is wrong cover material used?.....31			
IV. GRADING			
11. Are there depressions, ponding, cracked cover, too steep slopes?.....32		X	
12. On completed areas, is the vegetative cover missing or inadequate?....33		X	
13. Are there soil erosion or other drainage problems?.....34		X	
V. SEPARATION DISTANCES			
14. Is refuse closer than 50 feet to site boundaries?.....35			
*15. Is refuse known to be less than 5 feet above groundwater?.....36		X	
*16. Is refuse known to be less than ___ feet from surface water?.....37			
VI. NUISANCE CONDITIONS			
17. Are odors detectable off-site?.....38		X	
18. Is blowing dust or dirt excessive or a nuisance?.....39		X	
19. Are papers uncontrolled, or blowing off-site?.....40		X	
*20. Is methane gas known to be leaving the site?.....41		X	
21. Is noise excessive off-site?.....42		X	
VII. OPERATION CONTROL			
*22. Are Operation Permit conditions being violated?.....43			
23. Is refuse being deposited in a too large area?.....44			
24. Is refuse spread in layers thicker than 2 feet?.....45			
25. Is refuse being compacted poorly?.....46	N/A		
26. Is the working face height greater than 10 feet?.....47	N/A		
27. Is the working face steeper than a 3 to 1 slope?.....48	N/A		
28. Is the equipment on site <u>not</u> adequate for proper operation?.....49			
VIII. SAFETY AND HEALTH			
29. Are scavengers present?.....50			
30. Is salvaging uncontrolled or creating a nuisance?.....51	N/A		
31. Are rodents and insects <u>not</u> controlled?.....52	N/A		
32. Do unsafe conditions or equipment exist?.....53			
IX. ACCESS CONTROL			
33. Is access to the site improperly or inadequately controlled?.....54	N/A		
34. Is the site open without an attendant?.....55	N/A		
35. Is information about the site <u>not</u> posted? (hours of operation, etc.)...56	N/A		
36. Is access to the operating area poor or unsafe?.....57			

*NOTE: For these questions, see the "Background Information Sheet" for this facility.

Site Sketch/Comments
 See Plot Plan.

BISONITE PAINT CO.

AUG. 27, 1978

UNITED STATES DEPARTMENT OF COMMERCE BUREAU OF ECONOMIC ANALYSIS

Site Bismite Co.

Location 2250 Military Rd.
(Include a location on a topo map or copy thereof)

When Site Was Used 10⁺ years of ^{PRIOX} usage ~~PRIOX~~ used at present time

Size of Site (acres) Lagoon 30x50 and general plant property

Distance to Nearest Dwelling (feet) 20 FEET 84 Lumber property

Distance to Nearest Watercourse (feet) Niagara River 1 1/2 mile

Type of Soil CLAY

Proximity to wetlands UNKNOWN

Depth to Groundwater UNKNOWN

Any Identified or Potential Problems SPREADING OF SOLVENT

PAINT RESIDUE ON PLANT PROPERTY.

Materials in Site

Material	Quantity	Condition (Type, if any)	Location (Name & Address)
Paint Residue	UNKNOWN	NONE	(SPREAD ON CO. PROPERTY)
WASTE STREAM #1	SEE SURVEY		
WASTE STREAM #2	SEE SURVEY		

Any Other Pertinent Information The paint residue is spread in various areas throughout plant property. THE COMPANY SHOULD DISCONTINUE THIS PRACTICE AS WELL AS THE SPREADING OF MATERIAL FROM WASTE STREAM #2.

Name of Person Providing Information MR Schleicher Phone 693-6130

8/29/78

INSPECTOR
D. /

AUGUST 21, 1978
693-6130

SUPPLEMENTAL LANDFILL INSPECTION FORM

Name of Facility: Bisonite Co. Inc.

Active Site or Inactive Site

Describe any odors emanating from site: none

Describe leachate appearance: none

Any evidence of past leachate: none

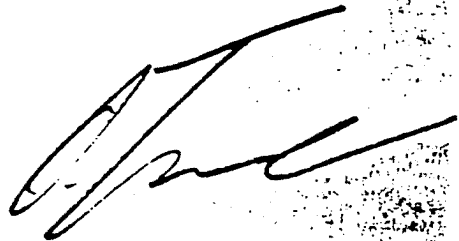
Estimated distance and direction to nearest well: none

Location of site (may use USGS Quad Map): SEE MAP

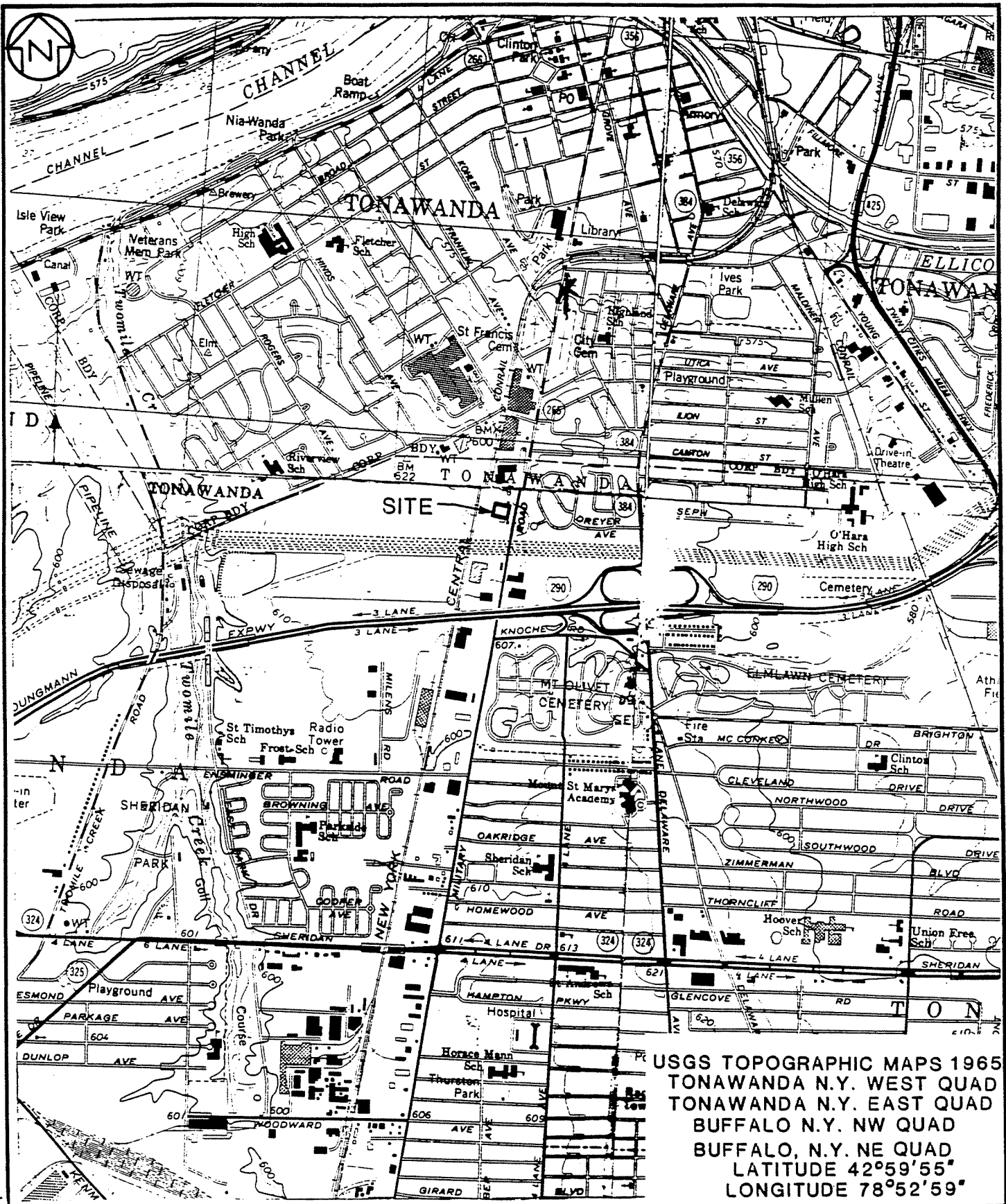
Recommendations for follow-up action:

- a. Leachate sampling —
- b. Subsurface evaluations —

Additional comments or recommendations:



REFERENCE 9



USGS TOPOGRAPHIC MAPS 1965
 TONAWANDA N.Y. WEST QUAD
 TONAWANDA N.Y. EAST QUAD
 BUFFALO N.Y. NW QUAD
 BUFFALO, N.Y. NE QUAD
 LATITUDE 42°59'55"
 LONGITUDE 78°52'59"

BRUNING 61160-1



Scale: T=24000	
By	Date
Dwn. MJS	12/85
Ckd.	
Ap'vd.	
Rev.	

BISONITE COMPANY
TONAWANDA, NEW YORK
N.Y.S. SUPERFUND
PHASE I

Project No. 5C280395

VICINITY MAP

A

REFERENCE 10



DAILY FIELD REPORT

PROJECT NO. _____ LOCATION _____

DATE _____ REPORT NO. _____

WEATHER CONDITIONS _____

REPORT

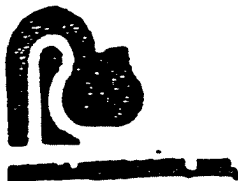
ACTIVITIES

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

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

REMARKS

Sheldon S. Nagel 12/10/85



DAILY FIELD REPORT

PROJECT NO. Superfund Phase I LOCATION NUSDEC Delaware Ave
DATE 12/10/85 REPORT NO. _____
WEATHER CONDITIONS _____

REPORT

ACTIVITIES

Information was obtained from Becky Anderson of the Flood Control Division of the NUSDEC office on Delaware Ave.

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

1. Walmore Rd. site
2. NFTA
3. Chada Koin River Park
4. Central Auto Wrecking
5. Procknal and Katra
6. Felmont Oil
7. W. Seneca Transfer Station
8. U.S. Steel (Stimn Assoc.)

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

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

REFERENCE 11

DRAFT

UNCONTROLLED HAZARDOUS WASTE
SITE RANKING SYSTEM -
A USERS MANUAL

DRAFT

10 June 1982
(errata included)

FOREWORD

The method for ranking hazardous substance facilities that is described in this document was developed by The MITRE Corporation under contract to the U.S. Environmental Protection Agency. The method has benefited from extensive review and comment by EPA personnel, state officials, and interested parties in the private sector.

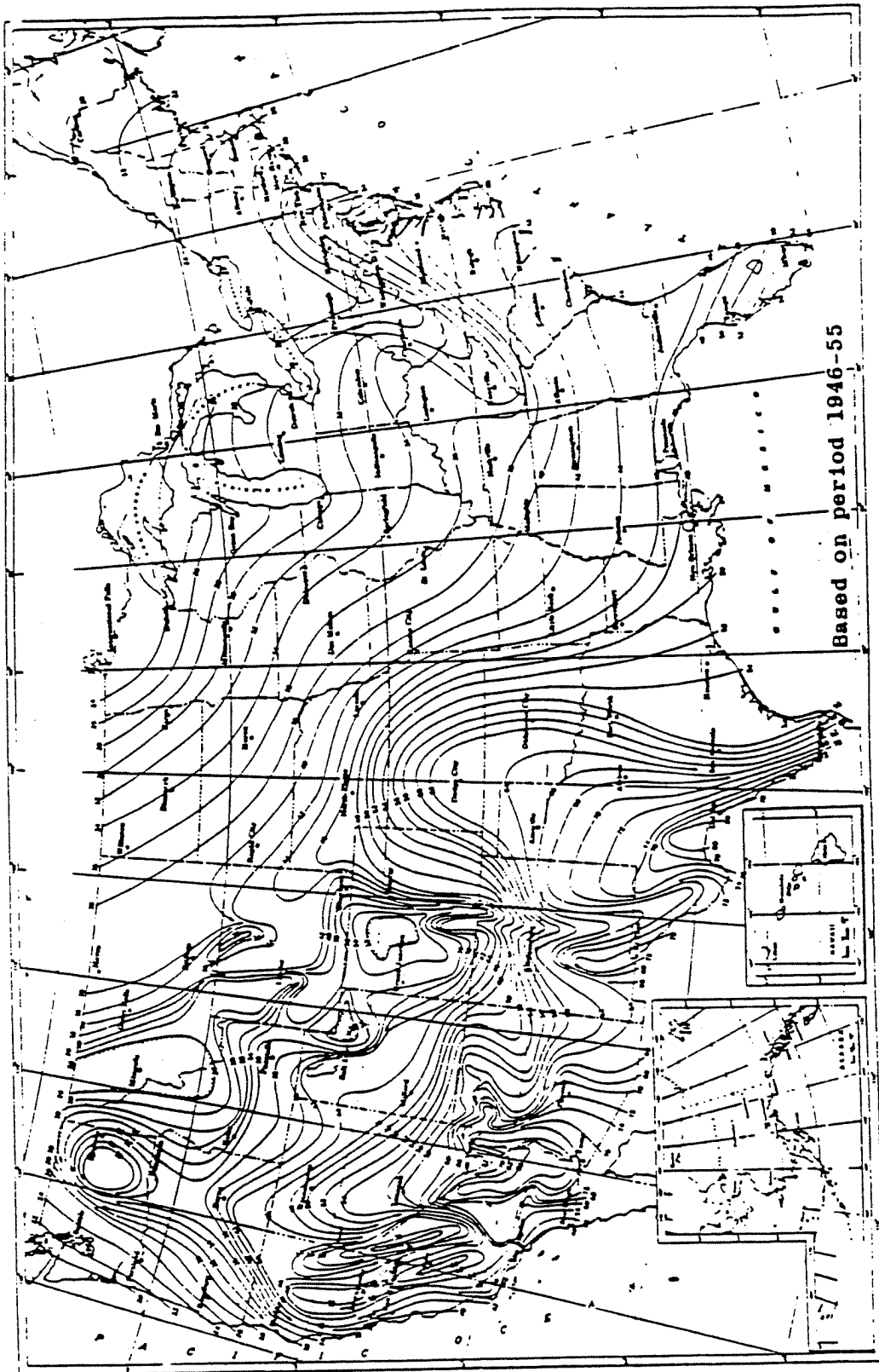


Figure 4

Mean Annual Lake Evaporation (In Inches)

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

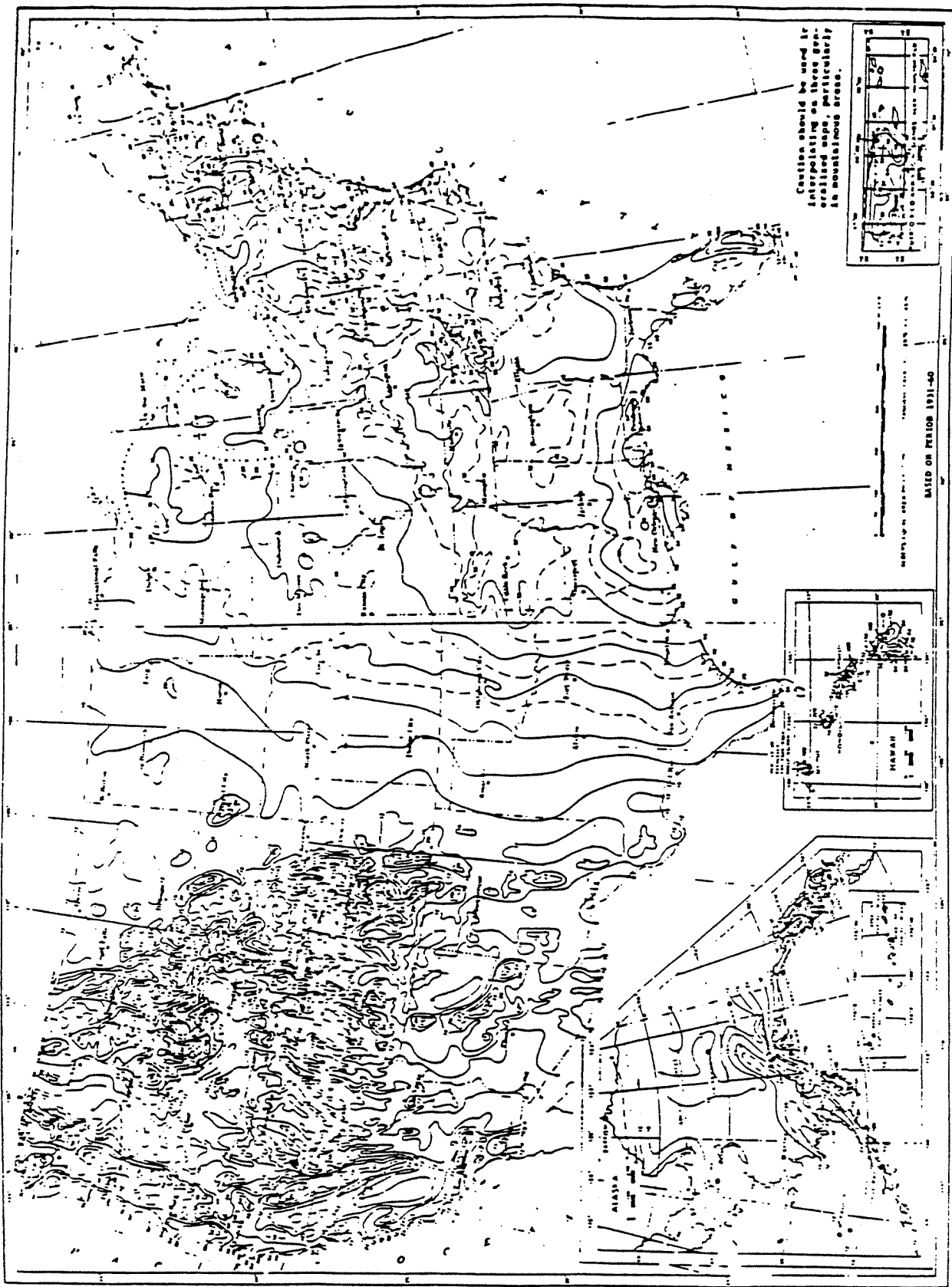


Figure 5

Normal Annual Total Precipitation (inches)

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

TABLE 2
PERMEABILITY OF GEOLOGIC MATERIALS*

<u>TYPE OF MATERIAL</u>	<u>APPROXIMATE RANGE OF HYDRAULIC CONDUCTIVITY</u>	<u>ASSIGNED VALUE</u>
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. DeWet ed., Academic Press, New York, 1969

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

TABLE 3

CONTAMINANT VALUES FOR GROUND WATER ROUTE

Assign containment a value of 0 if: (1) all the hazardous substances at the facility are underlain by an essentially non permeable surface (natural or artificial) and adequate leachate collection systems and diversion systems are present; or (2) there is no ground water in the vicinity. The value "0" does not indicate no risk. Rather, it indicates a significantly lower relative risk when compared with more serious sites on a national level. Otherwise, evaluate the containment for each of the different means of storage or disposal at the facility using the following guidance.

A. Surface Impoundment	<u>Assigned Value</u>	C. Piles	<u>Assigned Value</u>
Sound run-on diversion structure, essentially non permeable liner (natural or artificial) compatible with the waste, and adequate leachate collection system	0	Piles uncovered and waste stabilized; or piles covered, waste unstabilized, and essentially non permeable liner	0
Essentially non permeable compatible liner with no leachate collection system; or inadequate freeboard	1	Piles uncovered, waste unstabilized, moderately permeable liner, and leachate collection system	1
Potentially unbound run-on diversion structure; or moderately permeable compatible liner	2	Piles uncovered, waste unstabilized, moderately permeable liner, and no leachate collection system	2
Unbound run-on diversion structure; no liner; or incompatible liner	3	Piles uncovered, waste unstabilized, and no liner	3
B. Containers			
Containers sealed and in sound condition, adequate liner, and adequate leachate collection system	0	D. Landfill	<u>Assigned Value</u>
Containers sealed and in sound condition, no liner or moderately permeable liner	1	Essentially non permeable liner, liner compatible with waste, and adequate leachate collection system	0
Containers leaking, moderately permeable liner	2	Essentially non permeable compatible liner, no leachate collection system, and landfill surface precludes ponding	1
Containers leaking and no liner or incompatible liner	3	Moderately permeable, compatible liner, and landfill surface precludes ponding	2
		No liner or incompatible liner; moderately permeable compatible liner; landfill surface encourages ponding; no run-on control	3

discussed below. Match the individual values assigned with the values in the matrix for the combined rating factor. Evaluate several of the most hazardous substances at the facility independently and enter only the highest score in the matrix on the work sheet.

Value for Toxicity	<u>Value for Persistence</u>			
	0	1	2	3
0	0	0	0	0
1	3	6	9	12
2	6	9	12	15
3	9	12	15	18

Persistence of each hazardous substance is evaluated on its biodegradability as follows:

Substance	Easily bio-degradable compounds	Straight chain hydrocarbons	Substituted and other ring compounds	Metals, polycyclic compounds and halogenated hydrocarbons
Value	0	1	2	3

More specific information is given in Tables 4 and 5.

Toxicity of each hazardous substance being evaluated is given a value using the rating scheme of Sax (Table 6) or the National Fire Protection Association (NFPA) (Table 7) and the following guidance:

Toxicity	Sax level 0 or NFPA level 0	Sax level 1 or NFPA level 1	Sax level 2 or NFPA level 2	Sax level 3 or NFPA level 3 or 4
Value	0	1	2	3

Table 4 presents values for some common compounds.

TABLE 4

WASTE CHARACTERISTICS VALUES FOR SOME COMMON CHEMICALS

CHEMICAL/COMPOUND	TOXICITY ¹	PERSISTENCE ²	IGNITABILITY ³	REACTIVITY ³
Acetaldehyde	3	0	3	2
Acetic Acid	3	0	2	1
Acetone	2	0	3	0
Aldrin	3	3	1	0
Ammonia, Anhydrous	3	0	1	0
Aniline	3	1	2	0
Benzene	3	1	3	0
Carbon Tetrachloride	3	3	0	0
Chlordane	3	3	0*	0*
Chlorobenzene	2	2	3	0
Chloroform	3	3	0	0
Cresol-O	3	1	2	0
Cresol-M&P	3	1	1	0
Cyclohexane	2	2	3	0
Endrin	3	3	1	0
Ethyl Benzene	2	1	3	0
Formaldehyde	3	0	2	0
Formic Acid	3	0	2	0
Hydrochloric Acid	3	0	0	0
Isopropyl Ether	3	1	3	1
Lindane	3	3	1	0
Methane	1	1	3	0
Methyl Ethyl Ketone	2	0	3	0
Methyl Parathion in Xylene Solution	3	0 ^Δ	3	2
Naphthalene	2	1	2	0
Nitric Acid	3	0	0	0
Parathion	3	0 ^Δ	1	2
PCB	3	3	0 ^Δ	0 ^Δ
Petroleum, Kerosene (Fuel Oil No. 1)	3	1	2	0
Phenol	3	1	2	0
Sulfuric Acid	3	0	0	2
Toluene	2	1	3	0
Trichlorobenzene	2	3	1	0
α-Trichloroethane	2	2	1	0
Xylene	2	1	3	0

¹ Sax, N. I., Dangerous Properties of Industrial Materials, Van Nostrand Reinhold Co., New York, 4th ed., 1975. The highest rating listed under each chemical is used.

² JRB Associates, Inc., Methodology for Rating the Hazard Potential of Waste Disposal Sites, May 5, 1980.

³ National Fire Protection Association, National Fire Codes, Vol. 13, No. 49, 1977.

* Professional judgment based on information contained in the U.S. Coast Guard CERIS Hazardous Chemical Data, 1978.

Δ Professional judgment based on existing literature.

TABLE 8

VALUES FOR FACILITY SLOPE AND INTERVENING TERRAIN

Facility Slope	Intervening Terrain				
	Terrain Average Slope $\leq 3\%$; or Site Separated from Water Body by Areas of Higher Elevation	Terrain Average Slope 3-5%	Terrain Average Slope 5-8%	Terrain Average Slope $> 8\%$	Site in Surface Water
Facility is closed basin	0	0	0	0	3
Facility has average slope $\leq 3\%$	0	1	1	2	3
Average slope 3-5%	0	1	2	2	3
Average slope 5-8%	0	2	2	3	3
Average slope $> 8\%$	0	2	3	3	3

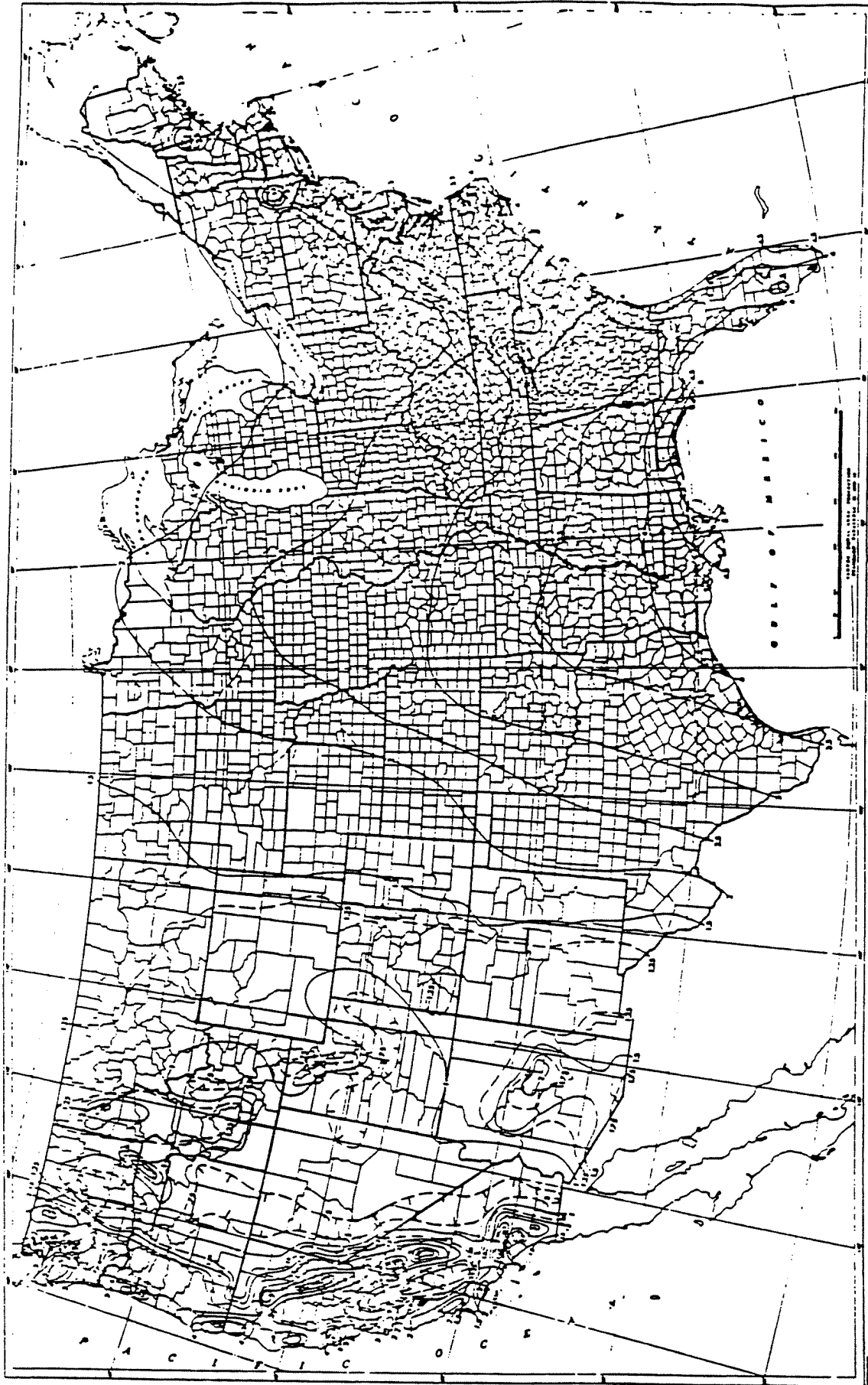


FIGURE 8

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.

TABLE 9
CONTAINMENT VALUES FOR SURFACE WATER ROUTE

Assign containment a value of 0 if: (1) all the waste at the site is surrounded by diversion structures that are in sound condition and adequate to contain all runoff, spills, or leaks from the waste; or (2) intervening terrain precludes runoff from entering surface water. Otherwise, evaluate the containment for each of the different means of storage or disposal at the site and assign a value as follows:

	<u>Assigned Value</u>	<u>Assigned Value</u>
<u>A. Surface Impoundment</u>		
Sound diking or diversion structure, adequate freeboard, and no erosion evident	0	
Sound diking or diversion structure, but inadequate freeboard	1	
Diking not leaking, but potentially unound	2	
Diking unound, leaking, or in danger of collapse	3	
<u>B. Containers</u>		
Containers sealed, in sound condition, and surrounded by sound diversion or containment system	0	
Containers sealed and in sound condition, but not surrounded by sound diversion or containment system	1	
Containers leaking and diversion or containment structures potentially unound	2	
Containers leaking, and no diversion or containment structures or diversion structures leaking or in danger of collapse	3	
<u>C. Waste Piles</u>		
Piles are covered and surrounded by sound diversion or containment system	0	
Piles covered, wastes unconsolidated, diversion or containment system not adequate	1	
Piles not covered, wastes unconsolidated, and diversion or containment system potentially unound	2	
Piles not covered, wastes unconsolidated, and no diversion or containment or diversion system leaking or in danger of collapse	3	
<u>D. Landfill</u>		
Landfill slope precluded runoff, landfill surrounded by sound diversion system, or landfill has adequate cover material	0	
Landfill not adequately covered and diversion system unound	1	
Landfill not covered and diversion system potentially unound	2	
Landfill not covered and no diversion system present, or diversion system unound	3	

TABLE 10

VALUES FOR SENSITIVE ENVIRONMENT (SURFACE WATER)

ASSIGNED VALUE =	0	1	2	3
<u>DISTANCE TO WETLANDS*</u> (5 acre minimum)				
Coastal	>2 miles	1 - 2 miles	$\frac{1}{2}$ - 1 mile	< $\frac{1}{2}$ mile
Fresh Water	>1 mile	$\frac{1}{4}$ - 1 mile	100 feet - $\frac{1}{4}$ mile	< 100 feet
<u>DISTANCE TO CRITICAL HABITAT</u> (of endangered species)** or National Wildlife Refuge	>1 mile	$\frac{1}{2}$ - 1 mile	$\frac{1}{4}$ - $\frac{1}{2}$ mile	< $\frac{1}{4}$ mile

*Wetland is defined by EPA in the Code of Federal Regulations 40 CFR Part 230, Appendix A, 1980

**Endangered species are designated by the U.S. Fish and Wildlife Service.

REFERENCE 12

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

Title 6
Conservation
Vol. C

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1 Columbia Place
Albany, New York 12207

TABLE I (contd.)

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

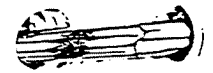
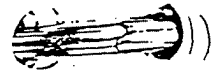
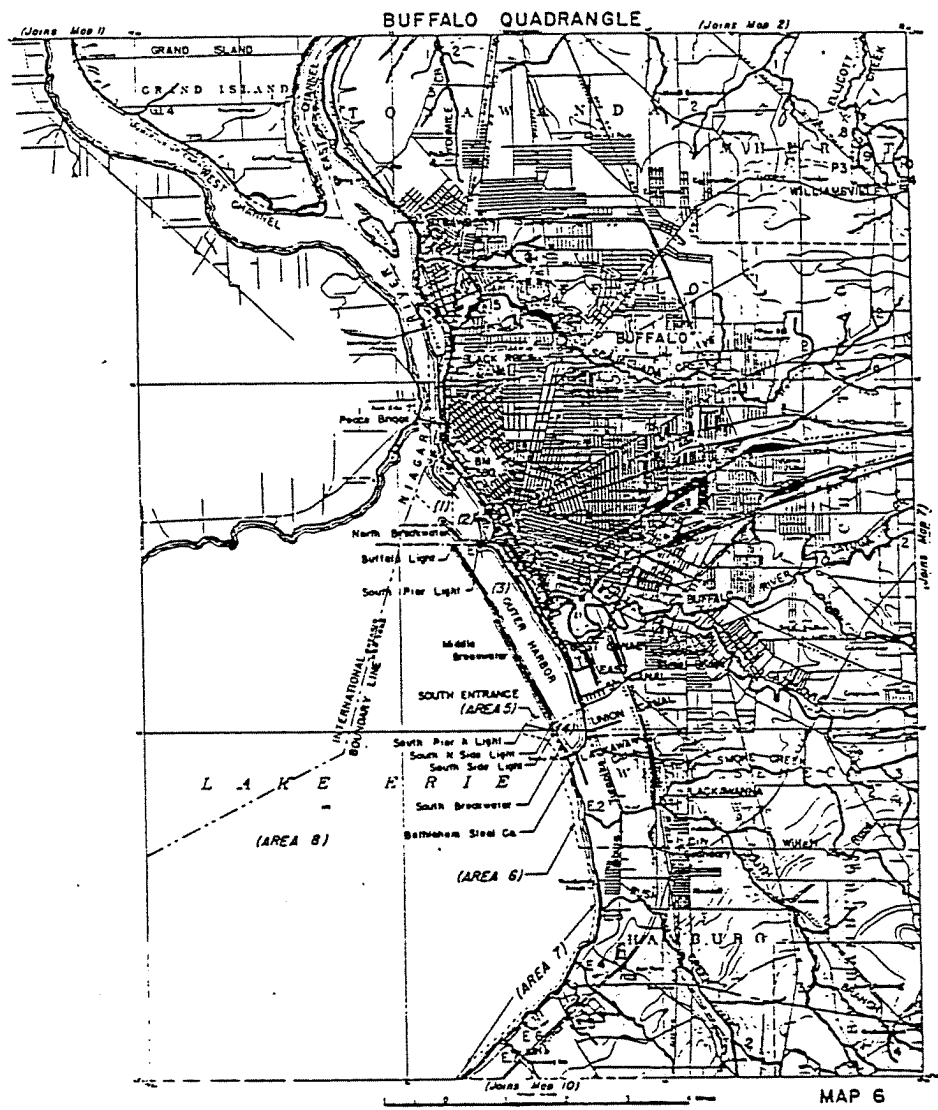


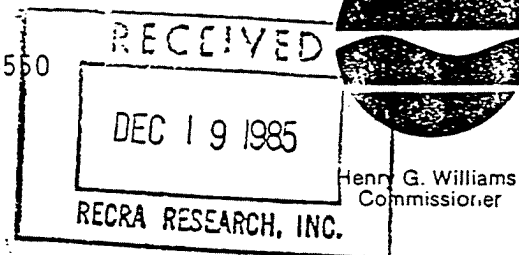
TABLE I (contd.)

Item No.	Waters Index Number	Name	Description	Map Ref. No.	Class	Standards
		Scajaquada Creek	From crossing of Main Street, City of Buffalo to trib. 4 which	6	D	D



REFERENCE 13

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



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.

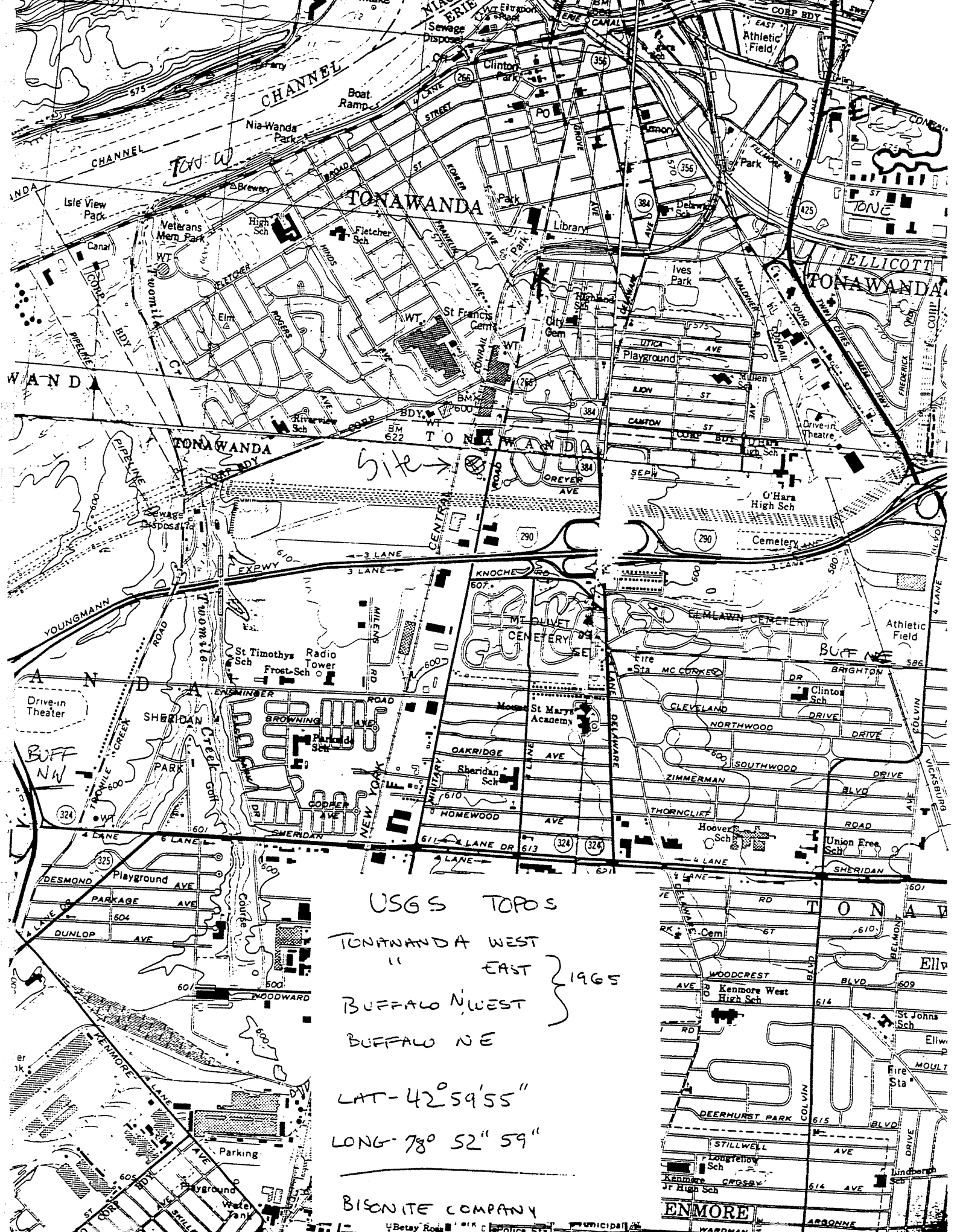
Sincerely,

Gordon R. Batcheller
Senior Wildlife Biologist
Region 9

GRB:ls

Enc.

cc: Mr. Pomeroy



USGS TOPOS
 TONAWANDA WEST
 " " EAST } 1965
 BUFFALO N.WEST
 BUFFALO NE
 LAT - 42° 59' 55"
 LONG - 78° 52' 59"

BISONITE COMPANY

Betsy Road
 Police Sta
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REFERENCE 14



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REFERENCE 15

GROUNDWATER



R. Allan Freeze / John A. Cherry

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Table 2.2 Range of Values of Hydraulic Conductivity, and Permeability

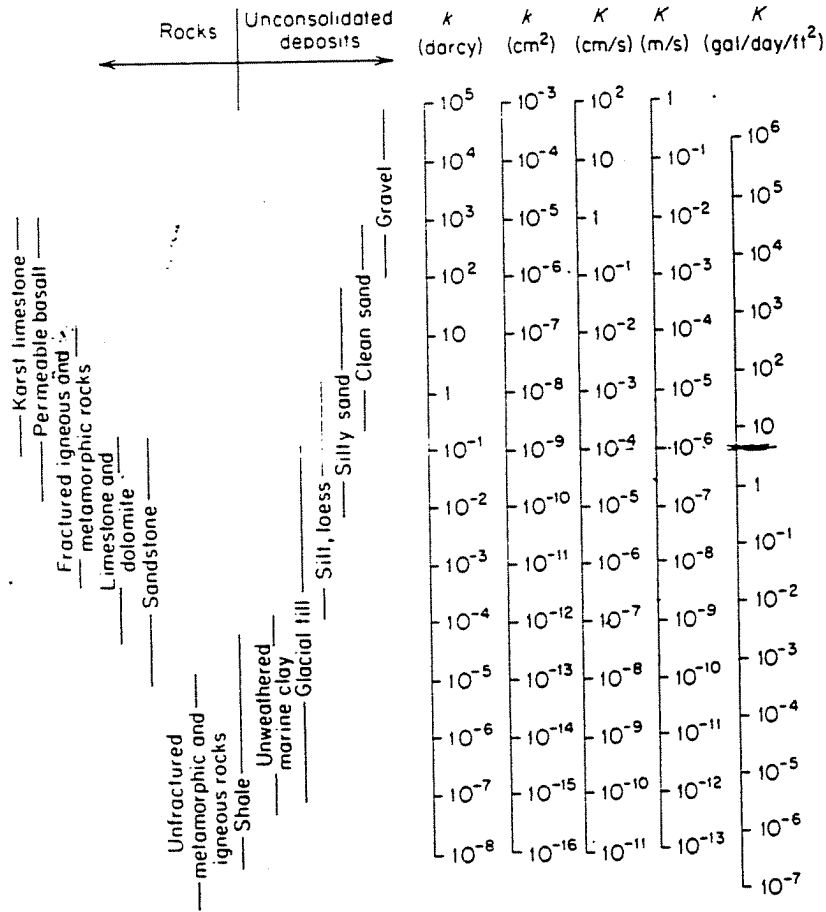


Table 2.3 Conversion Factors for Permeability and Hydraulic Conductivity Units

	Permeability, <i>k</i> *			Hydraulic conductivity, <i>K</i>		
	cm ²	ft ²	darcy	m/s	ft/s	gal/day/ft ²
cm ²	1	1.08 × 10 ⁻³	1.01 × 10 ⁸	9.80 × 10 ²	3.22 × 10 ³	1.85 × 10 ⁹
ft ²	9.29 × 10 ²	1	9.42 × 10 ¹⁰	9.11 × 10 ⁵	2.99 × 10 ⁶	1.71 × 10 ¹²
darcy	9.87 × 10 ⁻⁹	1.06 × 10 ⁻¹¹	1	9.66 × 10 ⁻⁶	3.17 × 10 ⁻⁵	1.82 × 10 ¹
m/s	1.02 × 10 ⁻³	1.10 × 10 ⁻⁶	1.04 × 10 ⁵	1	3.28	2.12 × 10 ⁶
ft/s	3.11 × 10 ⁻⁴	3.35 × 10 ⁻⁷	3.15 × 10 ⁴	3.05 × 10 ⁻¹	1	5.74 × 10 ⁵
gal/day/ft ²	5.42 × 10 ⁻¹⁰	5.83 × 10 ⁻¹³	5.49 × 10 ⁻²	4.72 × 10 ⁻⁷	1.74 × 10 ⁻⁶	1

*To obtain *k* in ft², multiply *k* in cm² by 1.08 × 10⁻³.

REFERENCE 16

Item: 6. Radioactivity.

a. Gross beta.

Specifications: Shall not exceed 1,000 picocuries per liter in the absence of Sr⁹⁰ and alpha emitters.

b. Radium 226.

Specifications: Shall not exceed three picocuries per liter.

c. Strontium 90.

Specifications: Shall not exceed 10 picocuries per liter.

Note 1: With reference to certain toxic substances affecting fish life, the establishment of any single numerical standard for waters of New York State would be too restrictive. There are many waters, which because of poor buffering capacity and composition will require special study to determine safe concentrations of toxic substances. However, most of the nontrout waters near industrial areas in this State will have an alkalinity of 80 milligrams per liter or above. Without considering increased or decreased toxicity from possible combinations, the following may be considered as safe stream concentrations for certain substances to comply with the above standard for this type of water. Waters of lower alkalinity must be specifically considered since the toxic effect of most pollutants will be greatly increased.

Ammonia or ammonium compounds — Not greater than 2.0 milligrams per liter expressed as NH₃ at pH of 8.0 or above.

Cyanide — Not greater than 0.1 milligrams per liter expressed as CN.

Ferro- or ferricyanide — Not greater than 0.4 milligrams per liter expressed as Fe(CN)₆.

Copper — Not greater than 0.2 milligrams per liter expressed as Cu.

Zinc — Not greater than 0.3 milligrams per liter expressed as Zn.

Cadmium — Not greater than 0.3 milligrams per liter expressed as Cd.

CLASS A

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

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

Quality Standards for Class A Waters*Item: 1. Coliform.*

Specifications: The monthly median coliform value for 100 ml of sample shall not exceed 5,000 from a minimum of five examinations and provided that not more than 20 percent of the samples shall exceed a coliform value of 20,000 for 100 ml of sample and the monthly geometric mean fecal coliform value for 100 ml of sample shall not exceed 200 from a minimum of five examinations.

Item: 2. pH.

Specifications: Shall be between 6.5 and 8.5.

Item: 3. Total dissolved solids.

Specifications: Shall be kept as low as practicable to maintain the best usage of waters, but in no case shall it exceed 500 milligrams per liter.

Item: 4. Dissolved oxygen.

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

Item: 5. Phenolic compounds.

Specifications: Shall not be greater than 0.005 milligrams per liter (phenol).

Item: 6. Radioactivity.

a. Gross beta.

Specifications: Shall not exceed 1,000 picocuries per liter in the absence of Sr⁹⁰ and alpha emitters.

b. Radium 226.

Specifications: Shall not exceed three picocuries per liter.

c. Strontium 90.

Specifications: Shall not exceed 10 picocuries per liter.

Note 1: Refer to note 1 under Class AA which is also applicable to Class A standards.

CLASS B

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

Quality Standards for Class B Waters*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.

Item: 2. pH.

Specifications: Shall be between 6.5 and 8.5.

Item: 3. Total dissolved solids.

Specifications: None at concentrations which will be detrimental to the growth and propagation of aquatic life. Waters having present levels less than 500 milligrams per liter shall be kept below this limit.

Item: 4. Dissolved oxygen.

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

Note 1: Refer to note 1 under Class AA which is also applicable to Class B standards.

CLASS C

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

Quality Standards for Class C Waters

Item: 1. Coliform.

Specifications: The monthly geometric mean total coliform value for 100 ml of sample shall not exceed 10,000 and the monthly geometric mean fecal coliform value for 100 ml of sample shall not exceed 2,000 from a minimum of five examinations. This standard shall be met during all periods when disinfection is practiced.

Item: 2. pH.

Specifications: Shall be between 6.5 and 8.5.

Item: 3. Total dissolved solids.

Specifications: None at concentrations which will be detrimental to the growth and propagation of aquatic life. Waters having present levels less than 500 milligrams per liter shall be kept below this limit.

Item: 4. Dissolved oxygen.

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

Note 1: Refer to note 1 under Class AA which is also applicable to Class C standards.

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: Refer to note 1 under Class AA which is also applicable to Class D standards.

701.5 Classes and standards for saline surface waters. The following items and specifications shall be the standards applicable to all New York Saline Surface Waters which are assigned the classification of SA, SB, SC or SD, in addition to the specific standards which are found in this 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 injurious 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

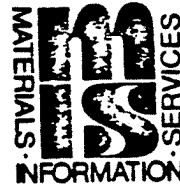
Specifications: The monthly median coliform value for 100 ml of sample shall not exceed 2,400 from a minimum of five examinations and provided that not more than 20 percent of the samples shall exceed a coliform value of 5,000 for 100 ml of sample and the monthly geometric mean fecal coliform value for 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 17

Mineral Spirits

MATERIAL SAFETY DATA SHEET

CORPORATE RESEARCH & DEVELOPMENT
SCHENECTADY, N. Y.



No. 1095

SHELL PD680
CLEANING COMPOUND

Date October 1977

SECTION I. MATERIAL IDENTIFICATION

MATERIAL NAME: SHELL PD680 CLEANING COMPOUND
DESCRIPTION: Hydrocarbon mixture (a Stoddard type Solvent)
MANUFACTURER: M. J. Daly Co., Inc. (distributor)
38 Elm St. Tel: (713) 473-9461
Ludlow, KY 41016

SECTION II. INGREDIENTS AND HAZARDS

	%	HAZARD DATA
Solvent fraction (mixture of mineral spirits)	100	TLV 500 ppm* (or 2950 mg/m ³)
Typical Composition: A highly aliphatic hydrocarbon mixture, often isoparaffins with some naphthenes. *This is the current OSHA TLV level (ACGIH 1970 TLV) for Stoddard Solvent and Petroleum Distillates. ACGIH has indicated that future TLV levels will depend on the actual composition of the hydrocarbon mixture. (Suppliers' estimates are usually 100-300 ppm for TLV.)		

SECTION III. PHYSICAL DATA

Boiling point °F -----	322-394	Specific gravity H ₂ O=1 C 60°F -	.794
Vapor pressure at 100°F, mm Hg ---	7	Evapor. rate (n-BuAc=1) -----	.07
Vapor density (Air=1) -----	4.8	Volatiles % -----	ca 100
Solubility in water -----	Negligible		

Appearance and Odor: Light colored liquid with hydrocarbon odor.

SECTION IV. FIRE AND EXPLOSION DATA

Flash Point and Method	Autoignition Temp.	Flammability Limits In Air	LOWER	UPPER
108°F (closed cup)	400-500°F	% by volume	1.0	6.0

Extinguishing media: Foam, dry chemical, carbon dioxide, and water spray or fog.
 Combustion in a limited amount of air can generate toxic carbon monoxide. Use self-contained breathing apparatus for respiratory protection in fighting fires in enclosures.
 Note that this liquid is near its lower flammability limit (saturated air at 25 C contains about 0.5 volume % of mineral spirits). In a fire situation or when it is heated, it becomes a highly flammable material.

SECTION V. REACTIVITY DATA

This material is considered to be stable under its normal handling and storage conditions. As a combustible hydrocarbon, it can react violently with strong oxidizing agents such as chlorine, oxygen, or such strong oxidizing acids as nitric and sulfuric.
 Store away from these and other strong oxidizing agents.

SECTION VI. HEALTH HAZARD INFORMATION

TLV 125 ppm (calculated by mfr.)

PD680, like all petroleum distillates, is a central nervous system depressant. Symptoms of overexposure include dizziness, headache, intoxication with euphoria leading to unconsciousness. Nose and throat irritation may occur from inhalation. Prolonged and repeated skin contact will cause defatting and dermatitis. Eye contact with the liquid causes conjunctivitis. Eye irritation can occur after 15 minutes at 470 ppm. A fatal ingestion dosage for humans is 3-4 ounces if no aspiration into the lungs occurs; aspiration of one ounce or less can be fatal.

FIRST AID:

Eye contact: Wash eyes immediately with large amounts of water. Get medical assistance if irritation persists.

Skin contact: Wash contact area promptly with soap and water. Remove solvent wet clothing immediately.

Ingestion: Do not induce vomiting! Contact a physician immediately!

Inhalation: Remove to fresh air. Give artificial respiration if required. Get medical assistance.

SECTION VII. SPILL, LEAK, AND DISPOSAL PROCEDURES

For massive spills, evacuate the area. Eliminate ignition sources. Recover as much of the free liquid as possible for disposal, and use an absorbent to pick up the residue. Avoid discharging PD680 directly into a sewer or surface waters. Dispose of the absorbed material or the free waste liquid by incineration or via a licensed solvent disposal company.

SECTION VIII. SPECIAL PROTECTION INFORMATION

Work place areas require exhaust ventilation to maintain vapor levels below the TLV. In emergencies respiratory protection can be provided for a limited time by a hydrocarbon vapor canister (approved by OSHA or by the Bureau of Mines) or by an air-supplied mask.

Ventilation equipment should be explosion-proof, and any tools used in the area should be of the non-sparking type.

Rubber or polyvinyl gloves should be used to prevent prolonged or repeated skin contact.

Safety goggles or face shields should be used where splashing of solvent into the eyes is possible. An eye wash fountain should also be available in areas where splashing is probable.

SECTION IX. SPECIAL PRECAUTIONS AND COMMENTS

This combustible liquid should be stored in a cool, clean, well-ventilated, fire resistant storage room or in a solvent storage cabinet that meets OSHA requirements.

Store in closed metal drums or safety cans with identifying labels that indicate the flammability of the material.

Electrically interconnect and ground containers for transfers of liquid to avoid fires from static sparks.

Areas of use and storage for this material should have good ventilation and all sources of open flame and high heat should be excluded. Prohibit smoking in these areas.

Judgments as to the suitability of information herein for purchaser's purposes are necessarily purchaser's responsibility. Therefore, although reasonable care has been taken in the preparation of such information, General Electric Company extends no warranties, makes no representations and assumes no responsibility as to the accuracy or suitability of such information for application to purchaser's intended purposes or for consequences of its use.

APPROVALS: MIS, CRD *J. M. Nelson*Industrial Hygiene
and Safety *DeW*

MEDICAL REVIEW:

MATERIAL SAFETY DATA SHEET

CORPORATE RESEARCH & DEVELOPMENT
120 ERIE BOULEVARD
SCHENECTADY, N.Y. 12305



NO. 118

TITANIUM DIOXIDE

DATE October 1983

SECTION II. INGREDIENTS AND HAZARDS			%	HAZARD DATA
Titanium Dioxide	>94	8-hr TWA 15 mg/m ³ *		
Moisture	< 1	(total dust)		
*Current OSHA PEL. ACGIH (1983) TLV ₃ for nuisance particulates is 30 mppcf or 10 mg/m ³ of total dust, or 5 mg/m ³ of respirable dust; STEL 20 mg/m ³ (15 minute period).				
NCI carcinogenesis bioassay completed; results negative: Final report (National Cancer Institute carcinogenesis technical report series, NCI-CC-TR-97,79).				

SECTION III. PHYSICAL DATA		
	Anatase	Rutile
Boiling point, 1 atm, deg C -----	- 2,500-3,000 -	
Solubility in water -----	- Insoluble -	
Specific gravity -----	~3.8	~4.3
Melting point, deg C -----	~1560	~1840
pH -----	~6-7	~6-7
Molecular weight -----	79.90	79.90
Appearance & Odor: Crystals or white powder; no odor. (Natural materials may be colored by impurities.)		

SECTION IV. FIRE AND EXPLOSION DATA			Lower	Upper
Flash Point and Method	Autoignition Temp.	Flammability Limits in Air		
Noncombustible				

Extinguishing Media: Use that which is suitable for surrounding fire. Does not burn or support combustion. No fire or explosion hazard with material itself.
Firefighters should wear self-contained breathing apparatus where TiO₂ dust can be released.

SECTION V. REACTIVITY DATA
This is a stable material in closed containers at room temperature under normal storage and handling conditions. It does not polymerize. Violent reaction with lithium around 200 C. Reduction of oxide by heating with aluminum, calcium, magnesium, potassium, sodium, or zinc is accompanied by incandescence.

SECTION VI. HEALTH HAZARD INFORMATION TLV 5 to 15 mg/m³ (See Sect II)

Hazard with TiO₂ is that of a nuisance dust. It is inert, practically non-toxic and chemically nonirritating.
 Skin contact with TiO₂ has shown no adverse effects (other than drying and possible particulate abrasion).² Eye contact with pure material has shown no specific effects other than general particulate irritation in the eye.
 Not absorbed by the body. Ingestion of 16 oz has caused no apparent harm or distress. (Readily eliminated within 24 hours.) Excessive exposure above the TLV can give mild pulmonary irritation.
FIRST AID:
Eye Contact: Flush thoroughly with running water to remove dust, including under eyelids. Get medical help if irritation persists.
Skin Contact: Wash with soap and water. (Use of lotions and barrier creams may be desirable.)
Inhalation: Remove to fresh air. Get medical help for any breathing difficulty.
Ingestion: Contact physician if large amount ingested.

SECTION VII. SPILL, LEAK, AND DISPOSAL PROCEDURES

Clean-up personnel to wear NIOSH approved respiratory protection. Spills can be removed by vacuuming up or wet sweeping, keeping airborne dust at a minimum. Pick up and place in a closed container for disposal or reclamation.
DISPOSAL: Unsalvageable waste may be buried as inert solid in an approved landfill. Follow Federal, State, and Local regulations.
 AQUATIC TOXICITY TLM 96: Over 1000 ppm.

SECTION VIII. SPECIAL PROTECTION INFORMATION

Provide adequate exhaust ventilation to meet TLV requirements in the workplace. (Exhaust filter system may be required to avoid environmental contamination.)
 Under dusty conditions above the TLV but below 150 mg/m³ use an approved dust respirator;* above 150 mg/m³ use an air supplied or self-contained breathing apparatus. A full facepiece is needed above 150 mg/m³, and a positive pressure air-supplied system is needed above 750 mg/m³.
 Avoid eye contact by use of goggles where dusty conditions occur. Protective gloves may be desirable for repeated contact in handling.
 An eyewash fountain should be available to areas of use.
 Consider preplacement screening with emphasis on chronic respiratory problems. (Afflicted workers are at an increased risk from severe, prolonged exposure.)
 *MSA #66 CM 73053 type filter has been recommended.

SECTION IX. SPECIAL PRECAUTIONS AND COMMENTS

Store in closed containers in a cool, dry, well-ventilated area. Use good housekeeping practices to prevent accumulation of dust, and follow sound cleaning techniques that will keep airborne particulate at a minimum.
 Avoid breathing dust. Prevent eye contact with dust.

DATA SOURCE(S) CODE: 1-12, 14, 16, 20, 25, 26, 31, 34, 38, 42-44

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APPROVALS: MIS/CRC *J.M. Nielsen*
 INDUST. HYGIENE/SAFETY *D/W 9883*
 MEDICAL REVIEW: 17 September 1983

REFERENCE 18

Dangerous Properties of Industrial Materials

Sixth Edition

N. IRVING SAX

Assisted by:

Benjamin Feiner/Joseph J. Fitzgerald/Thomas J. Haley/Elizabeth K. Weisburger



VAN NOSTRAND REINHOLD COMPANY
NEW YORK CINCINNATI TORONTO LONDON MELBOURNE

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T55.3.H3S3 1984 604.7 83-21766

ISBN 0-442-28304-0

2152 PETROLEUM COKE (uncalcined)

PETROLEUM COKE (uncalcined)

NIOSH #: SE 7426000

SYN: PETROLEUM COKE UNCALCINED (DOT)

TOXICITY DATA:

DOT-ORM-C, Label: None FEREAC 41,57018,76.

PETROLEUM DISTILLATE

CAS RN: 8002059

NIOSH #: SE 7449000

SYN: PETROLEUM DISTILLATE (DOT)

TOXICITY DATA:

CODEN:

Toxicology Review: 27ZTAP 3,111,69. DOT: Combustible Liquid, Label: None FEREAC 41,57018,76. Reported in EPA TSCA Inventory, 1980. EPA TSCA 8E No: 05780148—Followup Sent as of April, 1979.

THR: Combustible liquid. See also petroleum and asphalt.

PETROLEUM GAS (LIQUEFIED)

CAS RN: 68476857

NIOSH #: SE 7545000

Mixture of Propane, Isobutane, Isobutylene and other hydrocarbons (FEREAC 41,15972,76)

SYN: LIQUEFIED PETROLEUM GAS (DOT)

TOXICITY DATA:

CODEN:

DOT: Flammable Gas, Label: Flammable Gas FEREAC 41,57018,76. Reported in EPA TSCA Inventory, 1980.

THR: HIGHLY flammable matter.

PETROLEUM 60 SOLVENT

NIOSH #: SE 7551000

Consists of a mixture of hydrocarbons from C₅-C₁₀, chiefly of paraffins, cycloparaffins, alkyl benzenes and benzene (TXAPA9 34,374,75)

TOXICITY DATA:

2

CODEN:

ihl-hmn TCLo: 550 ppm/15M: EYE

TXAPA9 34,374,75

ihl-rat LC50: 4900 ppm/4H

TXAPA9 34,374,75

ihl-cat LCLo: 4100 ppm/4H

TXAPA9 34,374,75

Occupational Exposure to REF PETR SOLV recm std:

Air: TWA 350 mg/m³; CL 1800 mg/m³/15M NTIS**.

THR: EYE in hmn. MOD ihl.

Disaster Hazard: When heated to decomp it emits acrid smoke and fumes.

PETROLEUM 70 SOLVENT

NIOSH #: SE 7552000

Consists of a mixture of hydrocarbons from C₅-C₁₀, chiefly of paraffins, monocycloparaffins, and alkyl benzenes (TXAPA9 34,395,75)

TOXICITY DATA:

3

CODEN:

ihl-hmn TCLo: 180 ppm/15M

TXAPA9 34,395,75

TFX: IRR

ihl-dog LCLo: 930 ppm/4H

TXAPA9 34,395,75

Occupational Exposure to REF PETR SOLV recm std: Air: TWA 350 mg/m³; CL 1800 mg/m³/15M NTIS**.

THR: HIGH ihl.

Disaster Hazard: When heated to decomp it emits acrid smoke and fumes.

PETROLEUM SPIRITS

CAS RN: 8030306

NIOSH #: SE 7555000

Volatile, clear, colorless and non-fluorescent liquid. mp: < -73°, bp: 40°-80°, ulc: 95-100, lel = 1.1%, uel = 5.9%, flash P: < 0°F, d: 0.635-0.660, autoign. temp.: 550°F, vap. d: 2.50.

SYNS:

BENZENE
BENZOLINE
CANADOL
HERBITOX
LIGROIN

MINERAL SPIRITS
MINERAL THINNER
MINERAL TURPENTINE

PAINTERS' NAPHTHA
REFINED SOLVENT NAPHTHA
SOLVENT NAPHTHA
VARNISH MAKERS' NAPHTHA
VARNISH MAKERS' AND PAINTERS' NAPHTHA
V.M. AND P. NAPHTHA
WHITE SPIRITS

TOXICITY DATA:

2-1

CODEN:

eye-hmn 880 ppm/15M

TXAPA9 32,263,75

ihl-hmn TCLo: 600 mg/m³/8H: IRR

TPKVAL 10,116,68

unk-man LDLo: 1470 mg/kg

85DCAI 2,73,70

ihl-rat LC50: 3400 ppm/4H

TXAPA9 32,263,75

ipr-rat LDLo: 8560 mg/kg

TXAPA9 1,156,59

ihl-mus LCLo: 50000 mg/m³

TPKVAL 10,116,68

Aquatic Toxicity Rating: TLm96: over 1000 ppm WQCHM* 4,-,74.

Toxicology Review: 27ZTAP 3,97,69. Occupational Exposure to REF PETR SOLV recm std: Air: TWA 350 mg/m³; CL 1800 mg/m³/15M NTIS**. Reported in EPA TSCA Inventory, 1980.

THR: MOD irr via oral and inhal and to skn, eyes and mu mem. Ingestion can cause a burning sensation, vomiting, diarrhea, drowsiness, and, in severe cases, pulmonary edema. Inhal of conc vapors causes intoxication resembling that from alcohol, headache, nausea, and coma. Hemorrhages into various vital organs have been reported.

Fire Hazard: Highly dangerous, when exposed to heat, flame sparks, etc.

Spontaneous Heating: No.

Explosion Hazard: Mod, when exposed to heat or flame.

Disaster Hazard: Highly dangerous; keep away from heat or flame!

To Fight Fire: Foam, CO₂, dry chemical.

PETROLEUM 50 THINNER

NIOSH #: SE 7558000

A mixture of paraffins, monocycloparaffins, condensed cycloparaffins, benzene, toluene, and C₈ alkyl benzenes (TXAPA9 36,427,76)

SYN: 50 THINNER

TOXICITY DATA:

2

CODEN:

eye-hmn 530 ppm/30M MLD

TXAPA9 36,427,76

ihl-rat LC50: 8300 ppm/4H

TXAPA9 36,427,76

REFERENCE 19

BUFFALO TESTING LABORATORIES

INCORPORATED

CHEMISTS — METALLURGISTS



BIOLOGISTS — ENGINEERS

902 Kenmore Ave.

Buffalo, N. Y. - 14216

Phone: AC 716—873-2302

Report No.: 71,198
P. O. No.:

October 12, 1978

Attn: Mr. W. E. Schlecker
Bisonite Co. Inc.
P.O. Box 84
Kenmore Station
Buffalo, New York

Gentlemen:

Following are the results of tests performed on the sample which you submitted to us for analysis on September 22, 1978.

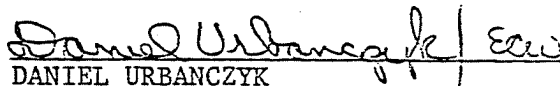
Sample Submitted: One (1) water sample.

Object: Chemical Analysis

Method: All tests were performed in accordance with the Standard Methods for the Examination of Water and Wastewater, 14th Ed.

Results: The results can be found on the following page.

Very truly yours,
BUFFALO TESTING LABORATORIES


DANIEL URBANCZYK

DU/ecw

BUFFALO TESTING LABORATORIES
INCORPORATED

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BUFFALO TESTING LABORATORIES

INCORPORATED

Buffalo, N. Y. - 14216

-2-

Results:

Settleable Solids	0.2 ml/l
Total Suspended Solids	10,900 ppm
Volatile Suspended Solids	5,600 ppm
Biochemical Oxygen Demand	39,900 ppm
Chemical Oxygen Demand	85,200 ppm
Total Organic Carbon	31,000 ppm
Chlorine Demand	33.4 ppm
pH ✓	9.0
Grease and Oil	128 ppm
Total Kiehdahl Nitrogen	✓ 1.0 ppm
Ammonia (N)	✓ 1.0 ppm
Chloride	35 ppm
Phenol ✓	8.5 ppm
Cyanide	✓ 0.5 ppm
Sulfate	✓ 0.1 ppm
Alkalinity	650 ppm
Phosphorus	0.1 ppm
Cadmium	✓ 0.1 ppm
Copper ✓	0.7 ppm
Iron	130 ppm
Hex. Chromium ✓	0.1 ppm
Total Chromium	0.2 ppm
Manganese ✓	3.8 ppm
Mercury ✓	0.36 ppm
Nickel	✓ 0.5 ppm
Selenium	0.012 ppm
Zinc	5.0 ppm

BUFFALO TESTING LABORATORIES

INCORPORATED

CHEMISTS - METALLURGISTS



BIOLOGISTS - ENGINEERS

902 Kenmore Ave.

Buffalo, N. Y. - 14216

Phone: AC 716-873-2302

Report No.: 71,395

P. O. No.: 5757

November 7, 1978

Attn: Mr. Martin Schleicher
Bisonite Company
2250 Military Road
Tonawanda, New York 14150

Gentlemen:

Following are the results of tests performed on the sample which you submitted to us for analysis on November 2, 1978.

Sample Submitted: One water sample.

Object: Chemical analysis.

Method: All tests were performed in accordance with the Standard Methods for the Examination of Water and Wastewater, 14th Ed.

Results:

Fluoride	1.0 ppm
Sulphide	< 0.5 ppm
Arsenic	< 0.5 ppm
Barium	30 ppm
Silver	< 0.5 ppm
Lead	< 0.5 ppm

Very truly yours,
BUFFALO TESTING LABORATORIES


DANIEL URBANCZYK

DU/ecw

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APPENDIX B

2/A1693

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: 915010
NAME OF SITE: Bisonite Paint Company REGION: 9
STREET ADDRESS: 2250 Military Road
TOWN/CITY: Tonawanda COUNTY: Erie

NAME OF CURRENT OWNER OF SITE: Bisonite Paint company
ADDRESS OF CURRENT OWNER OF SITE: 2250 Military Road

TYPE OF SITE: OPEN DUMP STRUCTURE LAGOON
LANDFILL TREATMENT POND LANDSPREADING

ESTIMATED SIZE: 1 ACRES

SITE DESCRIPTION:

Spent solvents in the amount of 1,800 gallons per year were landspread over the one acre site for weed control prior to 1978. A lagoon, 50 feet long, 30 feet wide and 8-10 feet deep was used prior to 1980 for the disposal of metal pigments and paint manufacturing by-products.

HAZARDOUS WASTE DISPOSED:	CONFIRMED <input type="checkbox"/>	SUSPECTED <input checked="" type="checkbox"/>
TYPE AND QUANTITY OF HAZARDOUS WASTES DISPOSED:		
<u>TYPE</u>	<u>QUANTITY</u>	(POUNDS, DRUMS, TONS, GALLONS)
<u>Solvents</u>	<u>1,800 gallons/year</u>	
<u>Metal paint pigments</u>	<u>Unknown</u>	
<u>Water based paint by-products</u>	<u>Unknown</u>	
<u> </u>	<u> </u>	
<u> </u>	<u> </u>	

TIME PERIOD SITE WAS USED FOR HAZARDOUS WASTE DISPOSAL:

Unknown, 19 TO , 1980

OWNER(S) DURING PERIOD OF USE: Bisonite Paint Company

SITE OPERATOR DURING PERIOD OF USE: Same

ADDRESS OF SITE OPERATOR: 2250 Military Road

ANALYTICAL DATA AVAILABLE: AIR SURFACE WATER GROUNDWATER
SOIL SEDIMENT NONE

CONTRAVENTION OF STANDARDS: GROUNDWATER DRINKING WATER
SURFACE WATER AIR

SOIL TYPE: Lacustrine clays and silt

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: _____

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

Unknown

ASSESSMENT OF HEALTH PROBLEMS:

Unknown

PERSON(S) COMPLETING THIS FORM:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Recra Research, Inc.

NAME Diane M. Werneiwski

TITLE Staff Geologist

NAME _____

TITLE _____

DATE: January 17, 1986

NEW YORK STATE DEPARTMENT OF HEALTH

NAME _____

TITLE _____

NAME _____

TITLE _____

DATE: _____