ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

PHASE I INVESTIGATION

HOFF BROTHERS **SITE No. 859002**

WALWORTH (T) **WAYNE (C)**

DATE: DECEMBER 1988

Prepared for :

NEW YORK STATE

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

50 Wolf Road, Albany, New York 12233

Thomas C. Jorling, Commissioner

DIVISION OF HAZARDOUS WASTE REMEDIATION

Michael J. O'Toole, Jr., P.E. - Director

URS Company, Inc.

570 Delaware Avenue

Buffalo, New York 14202

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ENGINEERING INVESTIGATIONS AT
INACTIVE HAZARDOUS WASTE SITES
IN THE STATE OF NEW YORK

PHASE I INVESTIGATION

HOFF BROTHERS
TOWN OF WALWORTH
WAYNE COUNTY, NEW YORK
SITE No. 859002

Prepared for:

DIVISION OF HAZARDOUS WASTE REMEDIATION

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

50 WOLF ROAD

ALBANY, NEW YORK 12233-0001

Prepared by:

URS COMPANY, INC.

570 DELAWARE AVENUE

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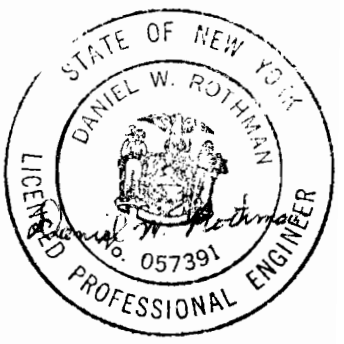
DECEMBER 1988



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1.0 EXECUTIVE SUMMARY

The Hoff Brothers site is situated on the south side of Plank Road, in a rural area within the Town of Walworth, Wayne County, New York (Figure 1). The site is located in the Hamlet of Lincoln, which is approximately 9 miles east of the City of Rochester. The site, including the disposal area and potentially contaminated adjoining property, is approximately 7 acres in size (Figure 2). The extent of groundwater contamination from the site (detected in neighboring private wells) encompasses a much larger area, however. Contaminants were detected in residential private wells at a distance of approximately 1/4 mile along Plank Road, in both east and west directions from the site. The total area of groundwater contamination, however, has not been determined.

In the mid-1960's, the site was used as a disposal area for drums which contained phenolic and solvent wastes from the Xerox Corporation. Shortly thereafter, taste and odor problems were noticed in nearby private wells, and an alternate source of water was made available to the area. Chemical analyses have detected several contaminants in the groundwater which are similar to those wastes disposed of at the site. Although a major portion of the local population is presently served by an unthreatened municipal system, an estimated 1,200 people within a 3-mile radius from the site currently use private wells as a source of potable water. Therefore, groundwater contamination is a major concern. The site has the potential to impact surface water also, which includes a tributary of Fourmile Creek west of the site.

The Phase I effort involved the compilation of information gathered from several sources including but not limited to the following: the New York State Department of Environmental Conservation (NYSDEC) - Region 8, the New York State Department of Health (NYSDOH), and a site inspection conducted by URS Company, Inc. personnel on June 22, 1987. Photographs taken during this site inspection are presented on Figure 3.

The intent of the Hazard Ranking System (HRS), as developed by the Mitre Corporation under contract to the U.S. Environmental Protection

Agency, is to provide a method by which uncontrolled hazardous waste sites may be systematically evaluated with regard to the potential risk that a site may pose on human health or safety, and/or the environment. The HPS is designed to provide a numerical value through an assessment of technical data and information, and relating that information with respect to the following three hazard modes:

- o migration of hazardous substances from the site (S_M)
- o the potential for harm from fire and explosion (S_{FE})
- o the potential for harm from direct contact (S_{DC})

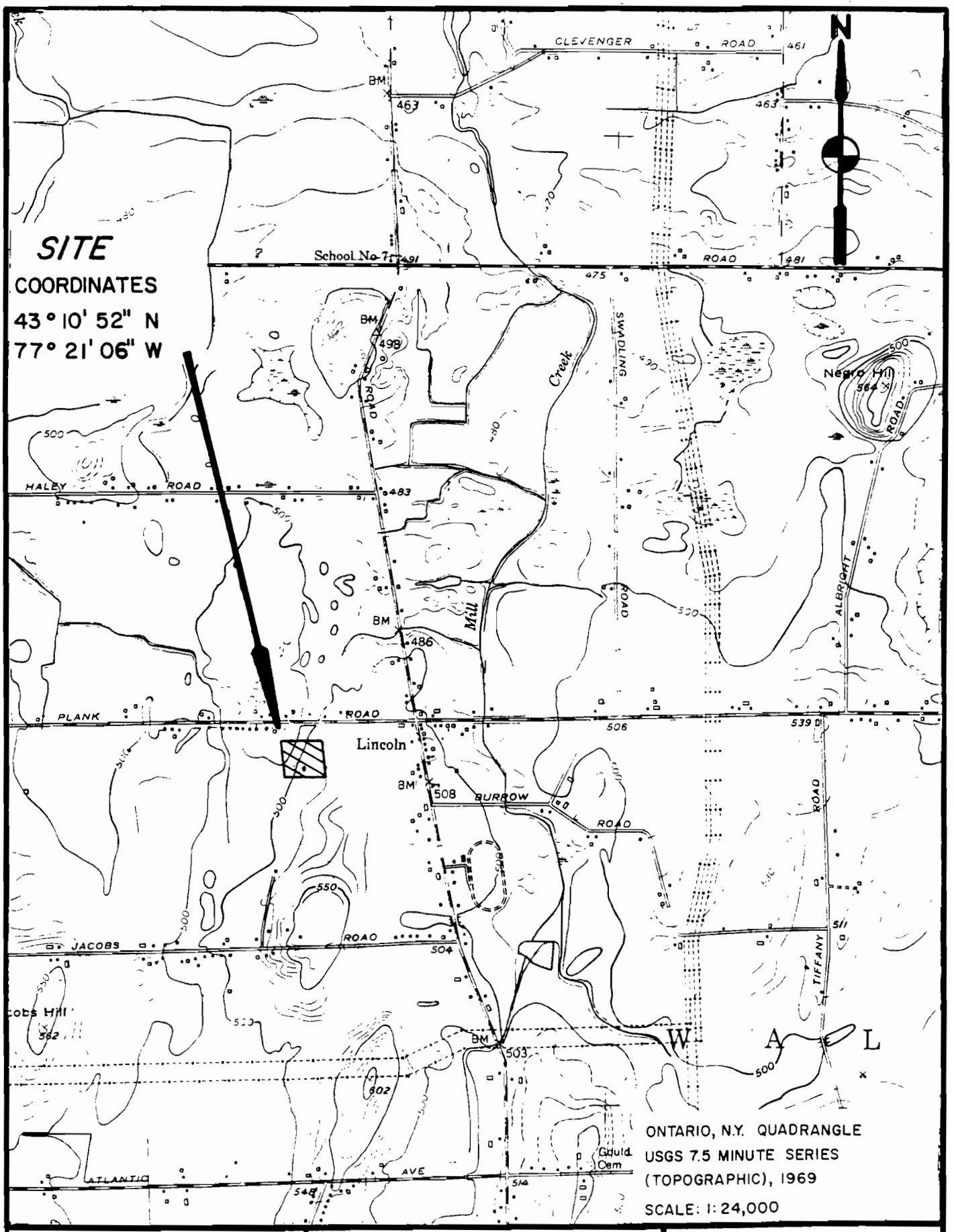
The migration potential (S_M) is determined through the rating of factors associated with three migration routes: groundwater (S_{gw}), surface water (S_{sw}) and air (S_a). The factor categories include observed release, route and waste characteristics, containment and targets. The scored value for each route is composited to determine the risk to humans and/or the environment from the migration of hazardous substances from the site (S_M). The risks involved with the potential for fire and explosion (S_{FE}) and direct contact (S_{DC}) are evaluated according to site specific information, including: waste characteristics, containment, demographics and proximity to sensitive habitats (wetlands, wildlife, etc.).

Based on information gathered during this investigation of the Hoff Brothers site, the following HRS scores were obtained:

S_M = 35.68 (S_{gw} = 61.22, S_{sw} = 7.83, S_a = 0.00)
S_{FE} = 0.00
S_{DC} = 25.00

The data available in several areas for this Phase I investigation are considered inadequate for a proper site assessment; therefore, additional data gathering and evaluation are suggested. Proposed Phase II investigation activities include air monitoring, subsurface

investigation through boring and monitoring well installation, and groundwater, surface water, and soil sampling and analyses.



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SITE LOCATION MAP
HOFF BROTHERS

FIGURE - 1

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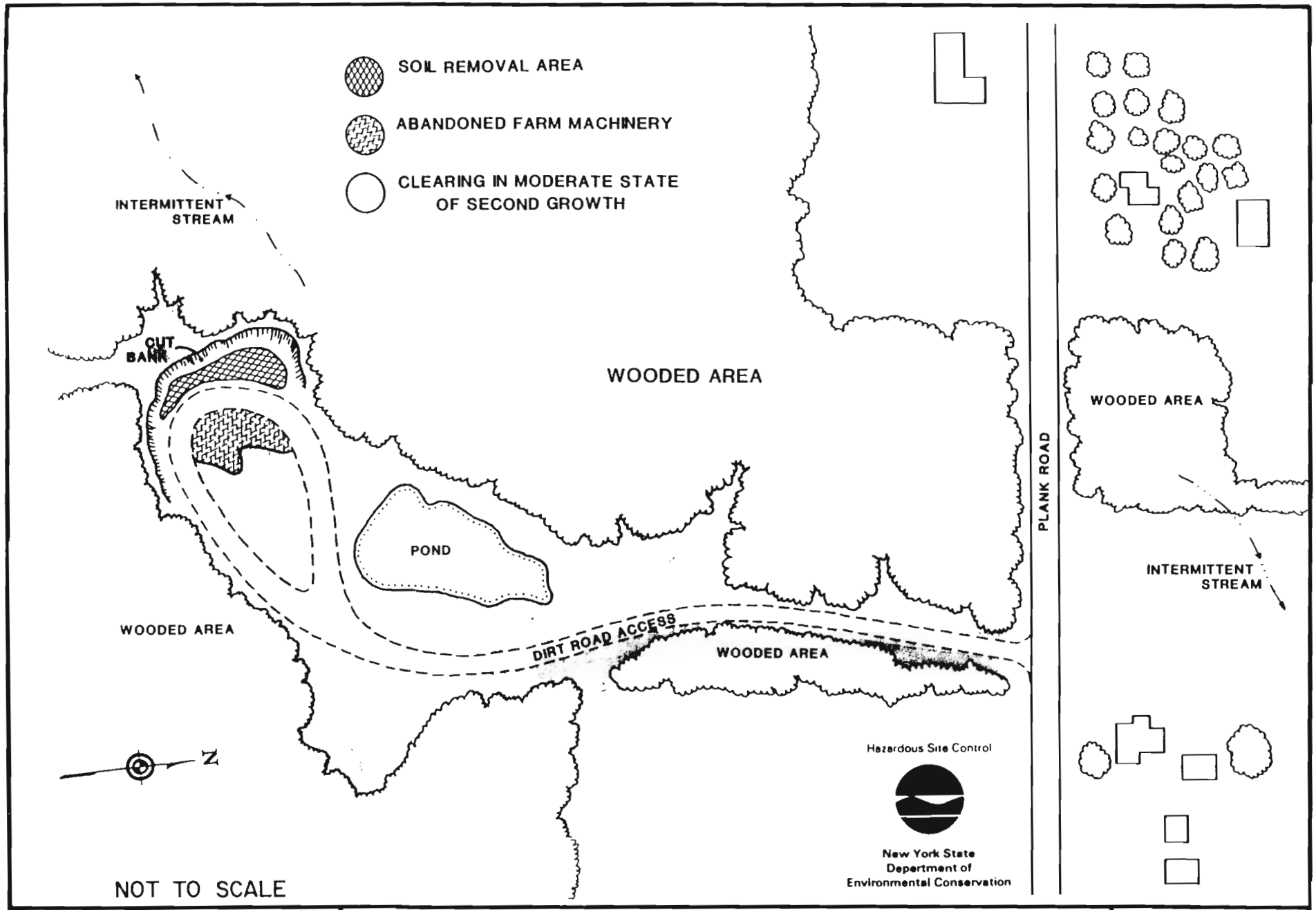

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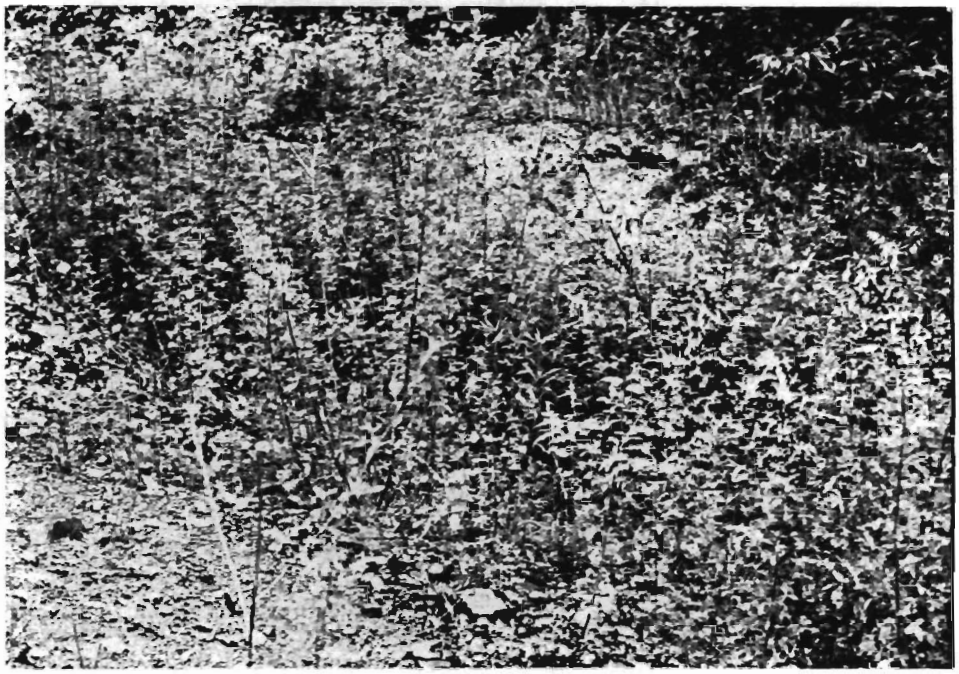
SITE MAP
HOFF BROTHERS

FIGURE 2

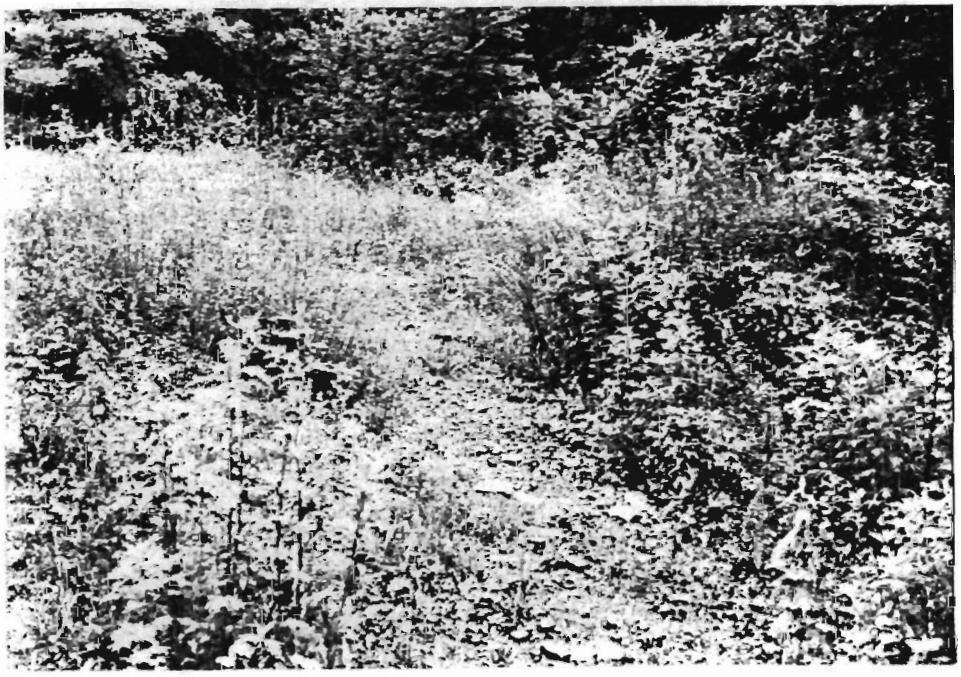
FIGURE 3 - SITE PHOTOGRAPHS

June 22, 1987 Hoff Brothers
Looking northwest at small pond located in northwestern portion of the site.

June 22, 1987 Hoff Brothers
Looking southwest at clearing area just south of pond.



June 22, 1987 Hoff Brothers
Looking west at embankment and soil removal area on western portion of site.



June 22, 1987 Hoff Brothers
Looking southwest at embankment and soil removal area on western portion of site.

SECTION 2.0

2.0 PURPOSE OF THE PHASE I INVESTIGATION

The Phase I investigation of the Hoff Brothers site on Plank Road was conducted for the following purposes:

- Evaluation of the hazard and potential for harm to the public and environment posed by the present site conditions. This includes the compilation and review of site-specific information, regarding waste characteristics, routes of contaminant migration, population and/or environment at risk and operational history. All pertinent information is used to determine a Preliminary Hazard Ranking System (HRS) score for the site.

- Evaluate the adequacy of available information for the completion of a Final HRS score and identify areas where further investigation and sampling/analyses are needed to establish a valid score.

3.0 SCOPE OF WORK

The Phase I investigation at the Hoff Brothers site on Plank Road comprised several interrelated tasks as follows:

(a) An extensive data search was conducted, using both site-specific and regional sources. This information was compiled from existing data and new sources, and was used to develop a preliminary characterization of the site after review.

(b) A site inspection was conducted in order to characterize the site and vicinity, collect information regarding the presence and disposal practices of hazardous substances (if any), describe the site facilities, photograph the site, conduct preliminary air monitoring using a Photovac TIP instrument, and confirm information obtained during the initial data search. A USEPA Site Inspection Report (EPA Form 2070-13) and the New York State Department of Environmental Conservation Inactive Hazardous Waste Disposal Site Report were completed following the site inspection.

(c) Preliminary HRS scores were calculated for the site and the supporting documentation records were prepared using the information obtained in the data search and site inspection.

(d) The adequacy of available information was evaluated and recommendations were made for further investigations where necessary to properly develop a final HRS score.

(e) The Phase I investigation report was prepared according to the terms of the contract.

During the investigation, a number of sources were contacted for information, including but not limited to:

- NYSDEC Region 8 Headquarters, Solid and Hazardous Waste Division - Deborah Jackson, Principal Engineering Technician - May 5, 1987
  - General files and site inspection

- Science and Engineering Library, University of Buffalo - May 28, 1987, June 1, 1987 and June 24, 1987
  - Geological/hydrogeological information

- Lockwood Library, Government Document Section, University of Buffalo - June 1, 1987
  - 1980 Census information (population data and source of water data)

- New York State Department of Health, Geneva District Office - Michael Linse - June 4, 1987
  - General files

- Buffalo and Erie County Public Library - June 12, 1987
  - Climatalogical data and 1980 Census information

- Betty Buchiere, Property Owner - June 22, 1987, July 30, 1987, and August 3, 1987
  - Inspection permission and site history information

- NYSDEC Region 8, Fish and Wildlife Division - Kathy Kirsch, Fish & Wildlife Technician - June 18, 1987
  - Wetland maps and endangered species information

- Wayne County Soil and Water Conservation District, Thomas DeRue, District Conservationist - June 19, 1987 and July 6, 1987
  - Agricultural lands, soil and irrigation information

- o New York State Museum and Science Service, Albany, New York - July 2, 1987
  - Geologic maps

- o Town of Penfield, Doug Fox - July 31, 1987, August 3, 1987 and August 4, 1987
  - Source of water information

- o Village of Webster, Florence Wilson - July 31, 1987
  - Source of water information

- o Town of Walworth, George Schaller - July 31, 1987, August 3, 1987, August 27, 1987 and September 9, 1987
  - Source of water information

- o Town of Ontario Water Utilities Department, Demaris Frantz - August 3, 1987
  - Source of water information

- o Donna Sharpe, Area Property Owner (near site) - August 24, 1987
  - Site information

- o New York State Department of Health, Rochester District Office, Ralph Harstad - August 26, 1987
  - General files and lab sampling information

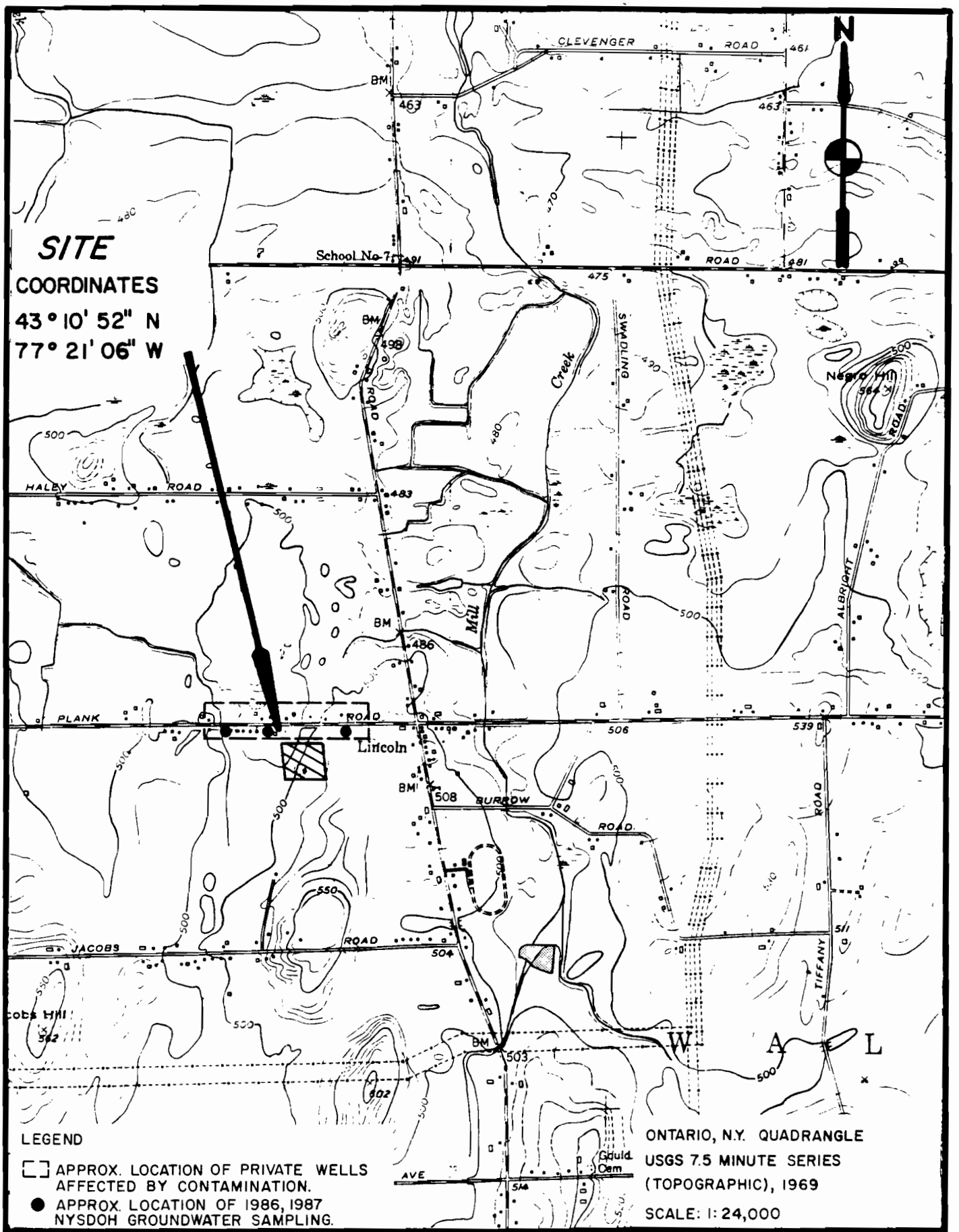
SECTION 4.0

4.0 SITE ASSESSMENT

4.1 Site History

The Hoff Brothers site is located on Plank Road, within the Town of Walworth, Wayne County, New York. The property is currently owned by Angelo and Betty Buchiere of Macedon, New York. Previously the property was co-owned by George Kahler of the Town of Walworth, New York and his daughter Betty (Kahler) Buchiere who purchased the property in 1951 (Ref. 5 and 16). Mr. Kahler died in 1979, at which time the Buchieres obtained sole ownership.

During the period between the summer 1966 to December 1966, Hoff Brothers Refuse Corporation of East Rochester, New York transported ten to fifteen 50-gallon drums containing phenolic and solvent wastes generated by Xerox Corporation of Webster, New York to the site (Ref. 5, 17 and 3). The drums were dumped in an abandoned gravel pit without a town permit. The drums were there for only a few months when residents in the vicinity of the site complained about taste problems with water from their private wells. In June 1967, approximately 14 private wells were identified by the New York State Department of Health (NYSDOH) as affected by groundwater contamination from the site (Figure 4). In June to July 1967, Hoff Brothers removed the drums and the surface water which had collected in the gravel pit (Ref. 3 and 16). Arrangements for the installation of an emergency water district were initiated immediately. In the interim, a temporary water supply for potable and culinary purposes was trucked into the area by Hoff Brothers. Construction of the special water district, using water from the Monroe County Water Authority, was completed in March 1968. The district served an estimated 10 to 15 residences along Plank Road, between County Line Road and Lincoln Road (Ref. 6, 2 and 18). This area is currently served by the Town of Ontario's water system; however, approximately 4 to 5 residences along Plank Road still use private wells for their potable water supply. Periodically, the NYSDOH has sampled residential wells in the area which are located within about 1,300 feet of the site



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PREVIOUS SAMPLING LOCATIONS
HOFF BROTHERS

FIGURE 4

A-2659

(Figure 4). Analyses show low concentrations of contamination which are further discussed in Section 4.4 of this report (Ref. 1).

4.2 Site Surface Characterization

The Hoff Brothers site is situated in the western portion of Wayne County, New York, near the Monroe County border (Ref. 11). The site is located on the south side of Plank Road approximately 1,700 feet west of Lincoln Road. The location is a rural residential and agricultural area in the Hamlet of Lincoln, which is in the northeastern corner of the Town of Walworth. The site is approximately 7¼ miles south of Lake Ontario, 9 miles east of the City of Rochester, and 3½ miles southeast of the Village of Webster (Ref. 19).

The site, including the disposal area and potentially contaminated adjoining property, is approximately 7 acres in size. The extent of groundwater contamination from the site (detected in neighboring private wells) encompasses a much larger area however. Contaminants were detected in residential private wells for a distance of approximately 1/4 mile along Plank Road, in both east and west directions from the site. The total area of groundwater contamination, however, has not been determined.

As illustrated on Figure 2, the heavily wooded site is accessed by a narrow dirt road which extends the length of the property. The site topography is generally flat-lying, although there is a gentle slope in a westerly direction. Runoff from the site predominantly drains in this direction, and into a tributary of Fourmile Creek approximately 1,100 feet west of the site. Fourmile Creek flows to the north, and eventually discharges into Lake Ontario. An area of gradually higher elevation lies east of the site.

A small pond is currently located on the site. The former drum disposal area includes the present-day clearing area located just south of this pond. Previously, this clearing area was the location of a second pond which commonly had low water levels and periodically dried

up in summer months; it has since been backfilled (Ref. 5). Both ponds are the locations of abandoned gravel pits. No visual evidence of waste disposal (eg. stained soil or stressed vegetation) was observed during the site visit conducted as part of the present investigation.

4.3 Site Hydrogeology

The Hoff Brothers site is situated in the Erie-Ontario Lowlands physiographic province of New York (Ref. 20). Regional mapping indicates that bedrock in the area is comprised of sedimentary rocks of Lower to Upper Silurian age which dip to the south at approximately 40 feet per mile (Ref. 21 and 22). Bedrock is not exposed at the site but is mapped as the Lockport Group which is a massive, highly resistant dolomite interbedded with thin layers of dark gray shale. Approximately one mile north of the site, the bedrock lithologies change to coarse, crystalline limestone and dolomitic limestone interbedded with shale which are older and part of the Clinton Group. Subsurface information for several wells in the area indicate that depth to bedrock ranges from 5 to 65 feet. Bedrock occurs at shallow depths in wells near the site (Ref. 16). Generally, bedrock in the area is overlain by a thin layer of unconsolidated sediment of glacial origin. Surficial geologic mapping indicates that these deposits are largely glacial till which is typically variably-textured, poorly -sorted sediments deposited beneath the glacial ice (Ref. 23). Lacustrine silt and clay are also found in the area northeast of the site. These sediments are generally laminated silt and clay which were deposited in proglacial lakes.

Bedrock is the source of groundwater in the area and the aquifer of concern includes rocks within the Clinton and Lockport Groups. Groundwater occurs in fractures, joints and along bedding planes which have frequently been enlarged as the result of solution processes. Wells in the vicinity of the site indicate the water level is approximately 18 to 20 feet below ground surface. Well yields range from 0.5 to 20 gallons per minute (gpm), with an average yield of about 9 gpm.

The water table roughly follows the configuration of the topography, with groundwater movement occurring from areas of higher elevation toward the valleys presumably in a general northwesterly direction. Regional groundwater flow, however, is presumed to be in a northerly direction towards Lake Ontario.

4.4 Site Contamination

Subsequent to the disposal of several drums (10 to 15) containing phenolic and solvent wastes at the site, residents in the vicinity complained of taste and odor problems with water from their private wells (Ref. 3 and 5). The nearest well used for consumption at that time was located approximately 1,300 feet west of the physical site boundary, while the extent of the contamination encompassed this well and extended an estimated 1,600 feet west - northwest from the former drum site. The approximate location of private wells which were affected by the contamination (as determined by the furthest detectable taste and odor problems along with NYSDOH sampling/analytical data) are illustrated on Figure 4. The total areal extent of the groundwater contamination can not yet be determined, however, due to insufficient information.

Early groundwater sampling in 1967 included bacteriological and limited chemical analyses for two private wells located an estimated 600 to 1,000 feet north-northwest of the site (Ref. 24). Bacteriological results indicated the presence of coli-aerogens. Chemical analyses detected several contaminants, including sulfate at a concentration of 104 ppm. During analysis, an odor indicative of a phenolic compound was also reported. As a result of the objectionable water taste a special water district was temporarily installed for local residents. The source of water was the Monroe County Water Authority which uses surface water intakes from Lake Ontario. The water district included residences along Plank Road, west of Lincoln Road and east of County Line Road. Currently, this area (as well as much of the Town of Walworth) is served

by the Town of Ontario which uses a municipal community water system with surface water intakes from Irondequoit Bay, on Lake Ontario. However, approximately 4 to 5 residences along Plank Road still use private wells as a source of potable water (Ref. 6).

Recent groundwater sampling by the NYSDOH has included extensive chemical analyses on three private wells in the area (Ref. 1). These wells are within about 1,300 feet of the site. Their approximate locations are shown on Figure 4. Sampling conducted in November 1986 and April 1987 detected low levels of trans-1,2-dichloroethene, trichloroethene, tetrachloroethene and 1,1-dichloroethane at maximum concentrations of 3, 6, 4 and 1 micrograms per liter (ug/l), respectively.

Although much of the local population is currently served by a municipal water system with an unthreatened source, approximately 1,300 people within a 3-mile radius from the site were using private wells at the time of contamination. In addition, approximately 1,200 residents within 3 miles continue to use private wells (Ref. 6, 8 and 9). Thus, groundwater contamination is a major concern.

There is also potential for surface water contamination. The drums were reportedly disposed of in a shallow on-site pond and were observed to be leaking (Ref. 5). (During the site visit conducted as part of the present investigation, however, no visual evidence of waste disposal, such as stained soil or stressed vegetation, was observed.) In addition, surface runoff from the site drains to the west into a tributary of Fourmile Creek. The surface water within 3 miles downstream from the site is not currently used; however, the New York State Department of Environmental Conservation (NYSDEC) has designated areas in the vicinity of the site as fresh water wetlands (Ref. 6 and 13).

SECTION 5.0

5.0 PRELIMINARY APPLICATION OF THE HAZARD RANKING SYSTEM

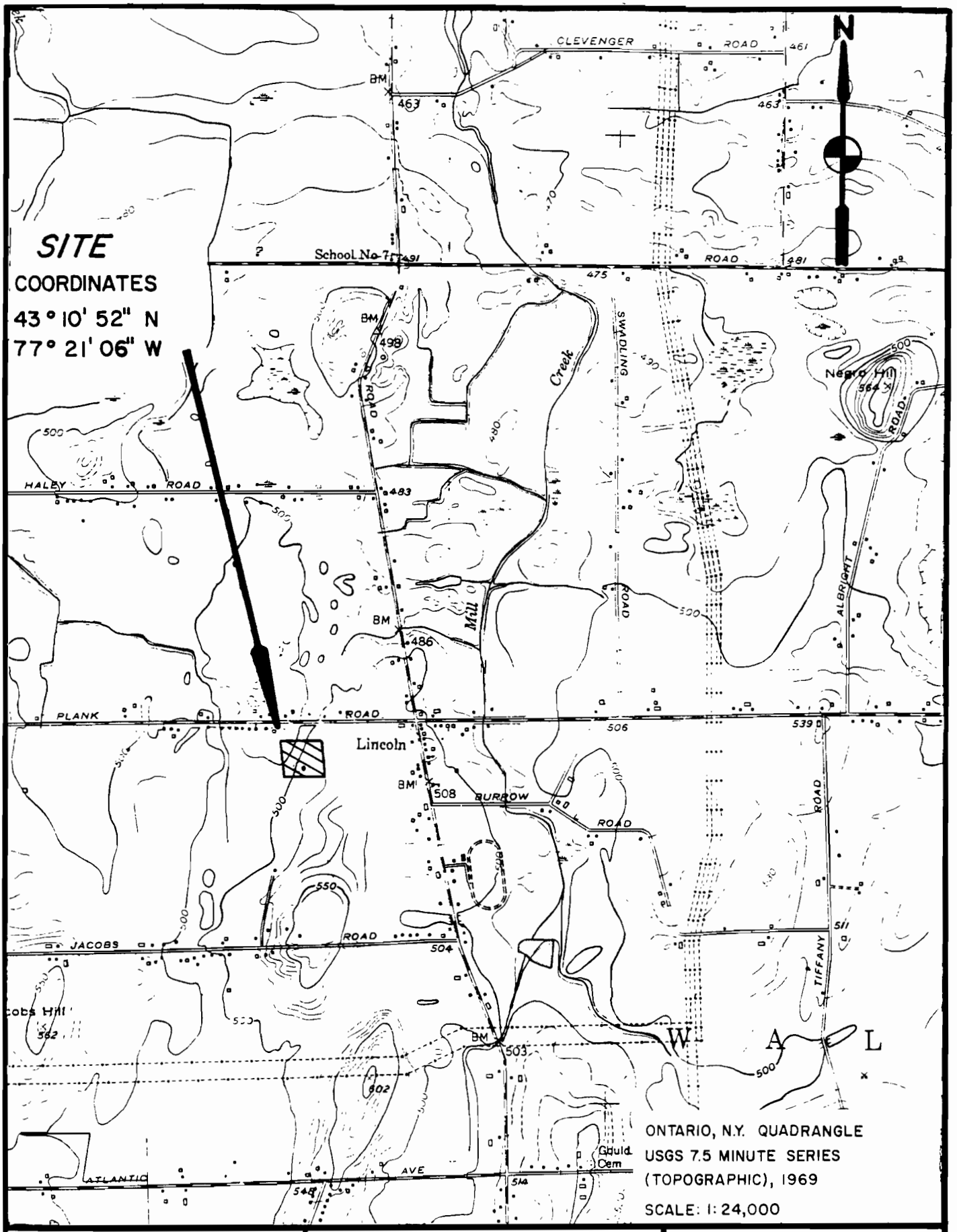
5.1 Narrative Summary

Hoff Brothers
Plank Road
Walworth (T), Wayne (C), New York

The Hoff Brothers site is located on the south side of Plank Road in the Hamlet of Lincoln, which is in the Town of Walworth, Wayne County, New York. The site, including the disposal area and potentially contaminated adjoining property, is approximately 7 acres in size. The extent of groundwater contamination from the site encompasses a much larger area, however, extending approximately 1/4 mile in both east and west directions from the site.

George Kahler (of the Town of Walworth) and his daughter Betty (Kahler) Buchiere (currently of Macedon, New York) co-owned the site since 1951. Mr. Kahler died in 1976, at which time Mrs. Buchiere and her husband Angelo obtained full ownership. During the mid-1960's, an on-site abandoned gravel pit was used as a disposal area by Hoff Brothers Refuse Corporation for about 10 to 15 drums containing phenolic and solvent wastes generated by Xerox Corporation. Nearby residents began to notice taste and odor changes in water drawn from their private wells and suspected the drum disposal area to be the source of the problem. Groundwater contamination was confirmed in nearby private wells as the result of chemical analyses conducted by the New York State Department of Health (NYSDOH). The drums were removed in 1967 and an emergency water district was constructed by March 1968. Much of the area is currently served by an unthreatened municipal water supply; however, approximately 1,300 people within 3 miles of the site were served by private wells at the time of contamination. In addition, approximately 1,200 residents within 3 miles continue to use private wells.

LOCATION



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SITE LOCATION MAP
HOFF BROTHERS

FIGURE · 1

Facility name: Hoff Brothers

Location: Plank Road, Walworth (T), Wayne County, New York

EPA Region: II (NYSDEC Region 8)

Person(s) in charge of the facility: Angelo and Betty Buchiere

4999 Lincoln Road

Macedon, New York

Name of Reviewer: URS Corporation Date: 9/8/87

General description of the facility:

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

A 7-acre surface site was used for the disposal of 10 to 15 drums containing phenolic and solvent wastes in the mid-1960's. Groundwater contamination was detected in private wells in the area and extends approximately 1/4 mile in both east and west directions from the site. The drums were removed and an emergency water district was organized shortly thereafter.

Scores: S_M = 35.68 (S_{gw} = 61.22 S_{sw} = 7.83 S_a = 0.00)

S_{FE} = 0.00

S_{DC} = 25.00

HRS COVER SHEET

Ground Water Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	0 (45)	1	45	45	3.1
If observed release is given a score of 45, proceed to line 4. If observed release is given a score of 0, proceed to line 2.					
2 Route Characteristics					3.2
Depth to Aquifer of Concern	0 1 2 3	2		6	
Net Precipitation	0 1 2 3	1		3	
Permeability of the Unsaturated Zone	0 1 2 3	1		3	
Physical State	0 1 2 3	1		3	
Total Route Characteristics Score				15	
3 Containment	0 1 2 3	1		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	2	8	
Total Waste Characteristics Score			20	26	
5 Targets					3.5
Ground Water Use	0 1 2 (3)	3	9	9	
Distance to Nearest Well/Population Served	0 4 6 8 10 / 12 16 18 20 / 24 (30) 32 35 40	1	30	40	
Total Targets Score			39	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			35,100	57,330	
7 Divide line 6 by 57,330 and multiply by 100		S_{gw} = 61.22			

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	3	3	
1-yr. 24-hr. Rainfall	0 1 (2) 3	1	2	3	
Distance to Nearest Surface Water	0 1 2 (3)	2	6	6	
Physical State	0 1 2 (3)	1	3	3	
Total Route Characteristics Score			14	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 (16)	1	18	18	
Hazardous Waste Quantity	0 1 (2) 3 4 5 6 7 8	1	2	8	
Total Waste Characteristics Score			20	26	
5 Targets					4.5
Surface Water Use	(0) 1 2 3	3	0	9	
Distance to a Sensitive Environment	0 1 2 (3)	2	6	6	
Population Served/Distance to Water Intake Downstream	(0) 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40	
Total Targets Score			6	55	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			5,040	64,350	
7 Divide line 6 by 64,350 and multiply by 100		S_{sw} = 7.83			

SURFACE WATER ROUTE WORK SHEET

Air Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
[1] Observed Release	(0) 45	1	0	45	5.1
Date and Location:					
Sampling Protocol:					
If line [1] is 0, the S_a = 0. Enter on line [5]. If line [1] is 45, then proceed to line [2].					
[2] Waste Characteristics					5.2
Reactivity and Incompatibility	0 1 2 3	1		3	
Toxicity	0 1 2 3	3		9	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
Total Waste Characteristics Score				20	
[3] Targets					5.3
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1		30	
Distance to Sensitive Environment	0 1 2 3	2		6	
Land Use	0 1 2 3	1		3	
Total Targets Score				39	
[4] Multiply [1] x [2] x [3]				35,100	
[5] Divide line [4] by 35,100 and multiply by 100		S_a = 0.00			

AIR ROUTE WORK SHEET

	S	S^2
Groundwater Route Score (S_{gw})	61.22	3,747.89
Surface Water Route Score (S_{sw})	7.83	61.31
Air Route Score (S_a)	0.00	0.00
$S_{gw}^2 + S_{sw}^2 + S_a^2$		3,809.20
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		61.72
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} \,/\, 1.73 = S_M =$		35.68

WORKSHEET FOR COMPUTING S_M

NO DOCUMENTED FIRE AND EXPLOSION THREAT.

Fire and Explosion Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Containment	1 3	1		3	7.1
2 Waste Characteristics					7.2
Direct Evidence	0 3	1		3	
Ignitability	0 1 2 3	1		3	
Reactivity	0 1 2 3	1		3	
Incompatibility	0 1 2 3	1		3	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
Total Waste Characteristics Score				20	
3 Targets					7.3
Distance to Nearest Population	0 1 2 3 4 5	1		5	
Distance to Nearest Building	0 1 2 3	1		3	
Distance to Sensitive Environment	0 1 2 3	1		3	
Land Use	0 1 2 3	1		3	
Population Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Buildings Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Total Targets Score				24	
4 Multiply 1 x 2 x 3				1,440	
5 Divide line 4 by 1,440 and multiply by 100			S_{FE} = 0.00		

FIRE AND EXPLOSION WORK SHEET

Direct Contact Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multiplier	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	8	20	
Distance to a Critical Habitat	(0) 1 2 3	4	0	12	
Total Targets Score			8	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			5,400	21,600	
7 Divide line 6 by 21,600 and multiply by 100		S_{DC} =	25.00		

DIRECT CONTACT WORK SHEET

5.4 HRS Documentation Records

FACILITY NAME: Hoff Brothers

LOCATION: Plank Road
Town of Walworth, Wayne County, New York

GROUNDWATER ROUTE

1 OBSERVED RELEASE

o CONTAMINANTS DETECTED (5 MAXIMUM):

trans-1,2-dichloroethene, trichloroethene, tetrachloroethene, and 1,1-dichloroethane (Ref. 1).

o RATIONALE FOR ATTRIBUTING THE CONTAMINANTS TO THE FACILITY:

Groundwater sampling and analyses conducted in November 1986 and April 1987 on private wells in the area detected the above contamination. New York State Department of Health documents identify the site as the source of contamination of these nearby wells, resulting from the disposal of several drums of chemical waste at the site (Ref. 2 and 3).

Score 45

***

2 ROUTE CHARACTERISTICS

DEPTH TO AQUIFER OF CONCERN

o NAME/DESCRIPTION OF AQUIFER(S) OF CONCERN:

Observed release precludes evaluation of this factor.

o DEPTH(S) FROM THE GROUND SURFACE TO THE HIGHEST SEASONAL LEVEL OF THE SATURATED ZONE [WATER TABLE(S)] OF THE AQUIFER OF CONCERN:

Observed release precludes evaluation of this factor.

o DEPTH FROM THE GROUND SURFACE TO THE LOWEST POINT OF WASTE DISPOSAL/STORAGE:

Observed release precludes evaluation of this factor.

Score 0

NET PRECIPITATION

o MEAN ANNUAL OR SEASONAL PRECIPITATION (LIST MONTHS FOR SEASONAL):

Observed release precludes evaluation of this factor.

o MEAN ANNUAL LAKE OR SEASONAL EVAPORATION (LIST MONTHS FOR SEASONAL):

Observed release precludes evaluation of this factor.

o NET PRECIPITATION (SUBTRACT THE ABOVE FIGURES):

Observed release precludes evaluation of this factor.

Score 0

PERMEABILITY OF UNSATURATED ZONE

o SOIL TYPE IN UNSATURATED ZONE:

Observed release precludes evaluation of this factor.

o PERMEABILITY ASSOCIATED WITH SOIL TYPE:

Observed release precludes evaluation of this factor.

Score 0

PHYSICAL STATE

o PHYSICAL STATE OF SUBSTANCES AT TIME OF DISPOSAL (OR AT PRESENT TIME FOR GENERATED GASES):

Observed release precludes evaluation of this factor.

Score 0

***

3 CONTAINMENT

CONTAINMENT

o METHOD(S) OF WASTE OR LEACHATE CONTAINMENT EVALUATED:

Observed release precludes evaluation of this factor.

o METHOD WITH HIGHEST SCORE:

Observed release precludes evaluation of this factor.

Score 0

***

4 WASTE CHARACTERISTICS

TOXICITY AND PERSISTENCE

o COMPOUND(S) EVALUATED:

trans-1,2-dichloroethene, trichloroethene, tetrachloroethene and 1,1-dichloroethane were detected in private well sampling in the area (Ref. 1).

o COMPOUND WITH HIGHEST SCORE:

	Toxicity	Persistence	Score
trans-1,2-dichloroethene	3	3	18
trichloroethene	3	3	18
tetrachloroethene	3	3	18
1,1-dichloroethane	3	3	18

Score 18 (All compounds evaluated score the maximum value.)

HAZARDOUS WASTE QUANTITY

o 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):

Ten to fifteen drums were reportedly removed from the site in 1967 (Ref. 4A).

Score 2

o BASIS OF ESTIMATING AND/OR COMPUTING WASTE QUANTITY:

Ten to fifteen 50-gallon drums of phenolic and solvent wastes were reportedly disposed of, and later removed from, the site; however, exact quantities are unknown (Ref. 5 and 3). Therefore, 15 drums were used as a conservative number in the evaluation of the quantity (Ref. 3, 4A and 5).

***

5 TARGETS

GROUNDWATER USE

o USE(S) OF AQUIFER(S) OF CONCERN WITHIN A 3-MILE RADIUS OF THE FACILITY:

Drinking water, with no municipal water from alternate unthreatened source presently available (Ref. 6).

Score 3

DISTANCE TO NEAREST WELL

o LOCATION OF NEAREST WELL DRAWING FROM AQUIFER OF CONCERN OR OCCUPIED BUILDING NOT SERVED BY A PUBLIC WATER SUPPLY:

The nearest well is located at 480 Plank Road. This well was found to be contaminated with trans-1,2 dichloroethene, trichloroethene, tetrachloroethene and 1,1-dichloroethane. (Ref. 3 and 1).

o DISTANCE TO ABOVE WELL OR BUILDING:

Approximately 1,300 feet to the west of the former disposal area. Zero (0) distance in relation to the extent of the documented contamination (Ref. 3).
(Assigned value = 4)

POPULATION SERVED BY GROUNDWATER WELLS WITHIN A 3-MILE RADIUS

o IDENTIFIED WATER-SUPPLY WELL(S) DRAWING FROM AQUIFER(S) OF CONCERN WITHIN A 3-MILE RADIUS AND POPULATIONS SERVED BY EACH:

Prior to remedial response action, (drum removal and construction of a temporary municipal water district in the area), all residences along Plank Road were served by private wells. Therefore, these residences are included in "population served" calculations, as per HRS instruction, even though most of these residences are currently served by a municipal water system (Ref. 2, 6 and 7).

(Ref. 8) T. of Ontario - 7 units x 3.8 persons/unit = 27 persons
(Ref. 9) T. of Penfield - 60 units x 3.8 persons/unit = 228 persons
(Ref. 6) T. of Walworth - 274 units x 3.8 persons/unit = 1,041 persons

o 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):

No known wells used for irrigation within 3 miles of the site (Ref. 10).

o TOTAL POPULATION SERVED BY GROUNDWATER WITHIN A 3-MILE RADIUS:

27 + 228 + 1,041 = 1,296 persons were using private wells at the time of contamination. (Note: An estimated 1,200 people of this total are still using private wells as a potable water source).
(assigned value = 3)

Score 30

SURFACE WATER ROUTE

1 OBSERVED RELEASE

o CONTAMINANTS DETECTED IN SURFACE WATER AT THE FACILITY OR DOWNHILL FROM IT (5 MAXIMUM):

No surface water sampling performed.

o RATIONALE FOR ATTRIBUTING THE CONTAMINANTS TO THE FACILITY:

N/A

Score 0

***

2 ROUTE CHARACTERISTICS

FACILITY SLOPE AND INTERVENING TERRAIN

o AVERAGE SLOPE OF FACILITY IN PERCENT:

Approximately 2% slope predominantly to the west (Ref. 11 and site visit).

o NAME/DESCRIPTION OF NEAREST DOWNSLOPE SURFACE WATER:

A small, unnamed pond is located on-site. The pond is an abandoned gravel pit (Ref. 5 and site visit).

o AVERAGE SLOPE OF TERRAIN BETWEEN FACILITY AND ABOVE-CITED SURFACE WATER BODY IN PERCENT:

Less than 1% slope (Ref. 11 and site visit).

o IS THE FACILITY LOCATED EITHER TOTALLY OR PARTIALLY IN SURFACE WATER?

Yes, a small pond is located on-site (Ref. 5 and site visit).

Score 3

o IS THE FACILITY COMPLETELY SURROUNDED BY AREAS OF HIGHER ELEVATION?

No, the site is relatively flat-lying. There are areas of higher elevation to the east (Ref. 11 and site visit).

1-YEAR 24-HOUR RAINFALL IN INCHES

2.1 inches (Ref. 12).

Score 2

DISTANCE TO NEAREST DOWNSLOPE SURFACE WATER

0 (zero); pond located on-site, adjacent to area of waste disposal (Ref. site visit).

Score 3

PHYSICAL STATE OF WASTE

Liquid (Ref. 5).

Score 3

***

3 CONTAINMENT

CONTAINMENT

o METHOD(S) OF WASTE OR LEACHATE CONTAINMENT EVALUATED:

Drums (Ref. 5).

o METHOD WITH HIGHEST SCORE:

Drums leaking and no diversion or containment structure (Ref. 5). This was confirmed by groundwater sampling and analyses conducted by the NYSDOH in 1986 and 1987 on private wells in the area which detected contaminants attributable to the site (Ref. 1, 2 and 3).

Score 3

***

4 WASTE CHARACTERISTICS

TOXICITY AND PERSISTENCE

o COMPOUND(S) EVALUATED

trans-1,2-dichloroethene, trichloroethene, tetrachloroethene, and 1,1-dichloroethane were detected in private well sampling in the area (Ref. 1).

o COMPOUND WITH HIGHEST SCORE:

	Toxicity	Persistence	Score
trans-1,2-dichloroethene	3	3	18
trichloroethene	3	3	18
tetrachloroethene	3	3	18
1,1-dichloroethane	3	3	18

Score 18 (All compounds evaluated score the maximum value.)

HAZARDOUS WASTE QUANTITY

o 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):

Ten to fifteen drums were reportedly removed from the site in 1967 (Ref. 4A).

Score 2

o BASIS OF ESTIMATING AND/OR COMPUTING WASTE QUANTITY:

Ten to fifteen 50-gallon drums of phenolic and solvent wastes were reportedly disposed of, and later removed from, the site; however, exact quantities are unknown. Therefore, 15 drums were used as a conservative number in the evaluation of this quantity (Ref. 3, 4A and 5).

*****

5 TARGETS

SURFACE WATER USE

o USE(S) OF SURFACE WATER WITHIN 3 MILES DOWNSTREAM OF THE HAZARDOUS SUBSTANCE:

Surface water areas within 3 miles of the site include Mill Creek and Fourmile Creek. These potential targets are not currently used (Ref. 6).

Score 0

o IS THERE TIDAL INFLUENCE?

There is no tidal influence on the area (Ref. 11).

DISTANCE TO A SENSITIVE ENVIRONMENT

o DISTANCE TO 5-ACRE (MINIMUM) COASTAL WETLAND, IF 2 MILES OR LESS:

None within 2 miles of the site (Ref. 11 and 13).
(assigned value = 0)

o DISTANCE TO 5-ACRE (MINIMUM) FRESH-WATER WETLAND, IF 1 MILE OR LESS:

NYSDEC-designated fresh water wetland ON-22 partially lies on the west side of the site, and extends further to the west and south. Additionally, fresh water wetlands ON-20, ON-14, and ON-23 lie within one mile of the site (Ref. 13).
(assigned value = 3)

o DISTANCE TO CRITICAL HABITAT OF AN ENDANGERED SPECIES OR NATIONAL WILDLIFE REFUGE, IF 1 MILE OR LESS:

None within 1 mile of the site (Ref. 13).
(assigned value = 0)

Score 3

POPULATION SERVED BY SURFACE WATER

o 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:

No known surface water intakes within the specified distance downstream from the site (Ref. 10, 14, and 6).

o COMPUTATION OF LAND AREA IRRIGATED BY ABOVE-CITED INTAKE(S) AND CONVERSION TO POPULATION (1.5 PEOPLE PER ACRE):

No known surface water intakes used for irrigation within 3 miles of the site (Ref. 10).

o TOTAL POPULATION SERVED:

0 (Zero)

o NAME/DESCRIPTION OF NEAREST OF ABOVE WATER BODIES:

N/A

o DISTANCE TO ABOVE-CITED INTAKES, MEASURED IN STREAM MILES.

N/A

Score 0

AIR ROUTE

1 OBSERVED RELEASE

o CONTAMINANTS DETECTED:

No observed air release.

o DATE AND LOCATION OF DETECTION OF CONTAMINANTS

No observed air release.

o METHODS USED TO DETECT THE CONTAMINANTS:

No observed air release.

o RATIONALE FOR ATTRIBUTING THE CONTAMINANTS TO THE SITE:

No observed air release.

Score 0

***

2 WASTE CHARACTERISTICS

REACTIVITY AND INCOMPATIBILITY

o MOST REACTIVE COMPOUND:

No observed air release.

o MOST INCOMPATIBLE PAIR OF COMPOUNDS:

No observed air release.

Score 0

TOXICITY

o MOST TOXIC COMPOUND:

No observed air release.

Score 0

HAZARDOUS WASTE QUANTITY

o TOTAL QUANTITY OF HAZARDOUS WASTE:

No observed air release.

Score 0

o BASIS OF ESTIMATING AND/OR COMPUTING WASTE QUANTITY:

No observed air release.

***

3 TARGETS

POPULATION WITHIN 4-MILE RADIUS

o UNDERLINE 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

No observed air release.

Score 0

DISTANCE TO A SENSITIVE ENVIRONMENT

o DISTANCE TO 5-ACRE (MINIMUM) COASTAL WETLAND, IF 2 MILES OR LESS:

No observed air release.

o DISTANCE TO 5-ACRE (MINIMUM) FRESH-WATER WETLAND, IF 1 MILE OR LESS:

No observed air release.

o DISTANCE TO CRITICAL HABITAT OF AN ENDANGERED SPECIES, IF 1 MILE OR LESS:

No observed air release.

Score 0

LAND USE

o DISTANCE TO COMMERCIAL/INDUSTRIAL AREA, IF 1 MILE OR LESS:

No observed air release.

o DISTANCE TO NATIONAL OR STATE PARK, FOREST, OR WILDLIFE RESERVE, IF 2 MILES OR LESS:

No observed air release.

o DISTANCE TO RESIDENTIAL AREA, IF 2 MILES OR LESS:

No observed air release.

o DISTANCE TO AGRICULTURAL LAND IN PRODUCTION WITHIN PAST 5 YEARS, IF 1 MILE OR LESS:

No observed air release.

o DISTANCE TO PRIME AGRICULTURAL LAND IN PRODUCTION WITHIN PAST 5 YEARS, IF 2 MILES OR LESS:

No observed air release.

o IS A HISTORIC OR LANDMARK SITE (NATIONAL REGISTER OR HISTORIC PLACES AND NATIONAL NATURAL LANDMARKS) WITHIN THE VIEW OF THE SITE?

No observed air release.

Score 0

FIRE AND EXPLOSION

1 CONTAINMENT

o HAZARDOUS SUBSTANCES PRESENT:

No documented fire or explosion threat (Ref. 15).

o TYPE OF CONTAINMENT, IF APPLICABLE

No documented fire or explosion threat.

Score 0

***

2 WASTE CHARACTERISTICS

DIRECT EVIDENCE

o TYPE OF INSTRUMENT AND MEASUREMENTS:

No documented fire or explosion threat.

Score 0

IGNITABILITY

o COMPOUND USED:

No documented fire or explosion threat.

Score 0

REACTIVITY

o MOST REACTIVE COMPOUND:

No documented fire or explosion threat.

Score 0

INCOMPATIBILITY

o MOST INCOMPATIBLE PAIR OF COMPOUNDS:

No documented fire or explosion threat.

Score 0

HAZARDOUS WASTE QUANTITY

o TOTAL QUANTITY OF HAZARDOUS SUBSTANCES AT THE FACILITY:

No documented fire or explosion threat.

Score 0

o BASIS OF ESTIMATING AND/OR COMPUTING WASTE QUANTITY:

No documented fire or explosion threat.

***

3 TARGETS

DISTANCE TO NEAREST POPULATION

No documented fire or explosion threat.

Score 0

DISTANCE TO NEAREST BUILDING

No documented fire or explosion threat.

Score 0

DISTANCE TO SENSITIVE ENVIRONMENT

o DISTANCE TO WETLANDS:

No documented fire or explosion threat.

o DISTANCE TO CRITICAL HABITAT:

No documented fire or explosion threat.

Score 0

LAND USE

o DISTANCE TO COMMERCIAL/INDUSTRIAL AREA, IF 1 MILE OR LESS:

No documented fire or explosion threat.

o DISTANCE TO NATIONAL OR STATE PARK, FOREST, OR WILDLIFE RESERVE, IF 2 MILES OR LESS:

No documented fire or explosion threat.

o DISTANCE TO RESIDENTIAL AREA, IF 2 MILES OR LESS:

No documented fire or explosion threat.

o DISTANCE TO AGRICULTURAL LAND IN PRODUCTION WITHIN PAST 5 YEARS, IF 1 MILE OR LESS:

No documented fire or explosion threat.

o DISTANCE TO PRIME AGRICULTURAL LAND IN PRODUCTION WITHIN PAST 5 YEARS, IF 2 MILES OR LESS:

No documented fire or explosion threat.

o IS A HISTORIC OR LANDMARK SITE (NATIONAL REGISTER OR HISTORIC PLACES AND NATIONAL NATURAL LANDMARKS) WITHIN THE VIEW OF THE SITE?

No documented fire or explosion threat.

Score 0

POPULATION WITHIN 2-MILE RADIUS

No documented fire or explosion threat.

Score 0

BUILDINGS WITHIN 2-MILE RADIUS

No documented fire or explosion threat.

Score 0

DIRECT CONTACT

1 OBSERVED INCIDENT

o DATE, LOCATION, AND PERTINENT DETAILS OF INCIDENT:

No known incident.

Score 0

***

2 ACCESSIBILITY

o DESCRIBE TYPE OF BARRIER(S):

There are no barriers (artificial or natural) which completely surround the facility (Ref. site visit).

Score 3

***

3 CONTAINMENT

o TYPE OF CONTAINMENT, IF APPLICABLE:

Phenolic and solvent wastes at the site were contained in leaking drums which were removed in 1967 as a result of local groundwater contamination. In addition surface water from the disposal pit was removed as another remedial measure. However, there is no reported soil removal from the area where the drums were stockpiled (Ref. 3). Therefore, the soils contaminated by leaking materials are a potential source of direct contact.

Score 15

***

4 WASTE CHARACTERISTICS

TOXICITY

o COMPOUNDS EVALUATED:

trans-1,2-dichloroethene, trichloroethene, tetrachloroethene and 1,1-dichloroethane (Ref. 1).

o COMPOUND WITH HIGHEST SCORE:

	Toxicity
trans-1,2-dichloroethene	3
trichloroethene	3
tetrachloroethene	3
1,1-dichloroethane	3

(Ref. 4)

Score 3 (All compounds evaluated score the maximum value.)

***

5 TARGETS

POPULATION WITHIN 1-MILE RADIUS

Estimated at 695 (Ref. 11 and site visit).

Score 2

DISTANCE TO CRITICAL HABITAT (OF ENDANGERED SPECIES)

None within 1 mile of the site (Ref. 13).

Score 0

REFERENCES - DOCUMENTATION RECORDS

1. Results of Examination, New York State Department of Health - Wadsworth Center for Laboratories and Research, November 13, 1986.

2. Henry J. Smith, New York State Department of Health - Geneva District, Letter to Mr. Metzler, Division of Environmental Health Services, June 16, 1967.

3. Mr. Harstad, State of New York Department of Health, Memo to Mr. Orndorff, State of New York Department of Health, January 29, 1979.

4. Dangerous Properties of Industrial Materials - Sixth Edition, N. Irving Sax, 1984.

4A. Inactive Hazardous Waste Disposal Report - New York State Department of Environmental Conservation, Division of Solid and Hazardous Waste, December, 1986.

5. Linda J. Clark, Project Geologist - URS Company, Inc., Letter and Map to Betty Buchiere, Property Owner, August 3, 1987.

6. Linda J. Clark, Project Geologist - URS Company, Inc., Letter to George Schaller, Town of Walworth, September 9, 1987.

7. Uncontrolled Hazardous Waste Site Ranking System, A Users Manual (HW-10), Figure 8.

8. Linda J. Clark, Project Geologist - URS Company, Inc., Letter to Demaris Frantz, Town of Ontario Water Utilities Department, August 3, 1987.

9. Douglas Fox, Planning and Zoning Administrator - Town of Penfield, Letter to Linda J. Clark, Project Geologist - URS Company, Inc., August 4, 1987.

10. Thomas K. DeRue, District Manager - Wayne County Soil and Water Conservation District, Letter and Map to Linda J. Clark, Project Geologist - URS Company, Inc., July 6, 1987.

11. USGS Topographic Maps 7.5 Series; Ontario, New York Quadrangle, 1978; Macedon, New York Quadrangle, 1969; Webster, New York Quadrangle, 1978; Fairport, New York Quadrangle, 1978.

12. Uncontrolled Hazardous Waste Site Ranking System, A Users Manual (HW-10), Figure 4.

13. Linda J. Clark, Project Geologist - URS Company, Inc., Letter and Map to Kathy Kirsch, Fish and Wildlife Technician - New York State Department of Environmental Conservation - Division of Fish and Wildlife, June 18, 1987.

14. New York State Atlas of Community Water System Sources, NYSDEC - Bureau of Public Water Supply Protection, 1982.

15. Karen A. Hartnett - URS Company, Inc., Telecon to Jim Gallaher, Fire Chief - Town of Walworth, August 16, 1987.

REF. (1)

0482 NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER FOR LABORATORIES AND RESEARCH

PAGE 1 RESULTS OF EXAMINATION FINAL REPORT

SAMPLE ID: 65962 SAMPLE RECEIVED: 86/11/14/ CHARGE: 28.50
PROGRAM: 108: HAZARDOUS WASTE SITE-PRELIMINARY INVESTIGATION
SOURCE ID: DRAINAGE BASIN: GAZETTEER CODE: 5862
POLITICAL SUBDIVISION: WALWORTH COUNTY: WAYNE
LATITUDE: . LONGITUDE: . Z DIRECTION:
LOCATION: WALWORTH (T) FED ID NO 859002
DESCRIPTION: 480 PLANK RD., PERNICIA RES., LAUNDRY RM
REPORTING LAB: TOX: LAB FOR ORGANIC ANALYTICAL CHEMISTRY
TEST PATTERN: VOL2: PURGEABLE HALOCARBONS AND AROMATIC PURGEABLES
SAMPLE TYPE: 120: PRIVATE WATER SUPPLY - DRILLED WELL
TIME OF SAMPLING: 86/11/13 10: DATE PRINTED: 86/12/18

ANALYSIS: 601 PURGEABLE HALOCARBONS, FR METHOD 601 (DES 310-18)
DATE REPORTED: 86/11/28 REPORT MAILED OUT

	PARAMETER	RESULT	
T62009	CHLOROMETHANE	< 1. MCG/L	
T61809	BROMOMETHANE	< 1. MCG/L	
T41009	VINYL CHLORIDE	< 1. MCG/L	
T70209	DICHLORODIFLUOROMETHANE	< 1. MCG/L	
T61909	CHLOROETHANE	< 1. MCG/L	
T61709	TRICHLOROFLUOROMETHANE	< 1. MCG/L	
T23809	METHYLENE CHLORIDE (DICHLOROMETHANE)	< 1. MCG/L	
T50909	1,1-DICHLOROETHENE	< 1. MCG/L	
T51909	1,1-DICHLOROETHANE	< 1. MCG/L	
T61209	TRANS-1,2-DICHLOROETHENE	3. MCG/L	←
T39009	CHLOROFORM	< 1. MCG/L	
T50809	1,2-DICHLOROETHANE	< 1. MCG/L	
T23609	1,1,1-TRICHLOROETHANE	< 1. MCG/L	
T36609	CARBON TETRACHLORIDE	< 1. MCG/L	
T38909	BROMODICHLOROMETHANE	< 1. MCG/L	
T61309	1,2-DICHLOROPROPANE	< 1. MCG/L	
T61509	TRANS-1,3-DICHLOROPROPENE	< 1. MCG/L	
T41109	TRICHLOROETHENE	6. MCG/L	←
T44909	DIBROMOCHLOROMETHANE	< 1. MCG/L	
T61409	CIS-1,3-DICHLOROPROPENE	< 1. MCG/L	
T51709	1,1,2-TRICHLOROETHANE	< 1. MCG/L	
T61109	2-CHLOROETHYLVINYL ETHER	< 1. MCG/L	
T42109	BROMOFORM	< 1. MCG/L	
T51809	1,1,2,2-TETRACHLOROETHANE	< 1. MCG/L	
T41209	TETRACHLOROETHENE	3. MCG/L	←
T40909	CHLOROBENZENE	< 1. MCG/L	
T49709	1,3-DICHLOROBENZENE	< 1. MCG/L	
T44109	1,2-DICHLOROBENZENE	< 1. MCG/L	
T44209	1,4-DICHLOROBENZENE	< 1. MCG/L	

**** CONTINUED ON NEXT PAGE ****

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REGIONAL DIRECTOR OF PH ENGINEERING
NEW YORK STATE DEPARTMENT OF HEALTH
42 SOUTH WASHINGTON ST.
ROCHESTER, N.Y. 14608

SUBMITTED BY: HARSTAD

SAMPLE ID: 65962 SAMPLE RECEIVED: 86/11/14/ CHARGE: 28.50
POLITICAL SUBDIVISION: WALWORTH COUNTY: WAYNE
LOCATION: WALWORTH (1) FED ID NO 859002
TIME OF SAMPLING: 86/11/13 10: DATE PRINTED: 86/12/18

ANALYSIS: 5031P AROMATIC PURGEABLES-EPA METHOD 503.1 (DES 310-22)
DATE REPORTED: 86/11/19 REPORT MAILED OUT

	PARAMETER	RESULT
T34409	BENZENE	< 1. MCG/L
T39209	TOLUENE	< 1. MCG/L
T51009	ETHYLBENZENE	< 1. MCG/L
T85209	1-CHLOROCYCLOHEXENE-1	< 1. MCG/L
T70409	PARA-XYLENE	< 1. MCG/L
T70309	META-XYLENE	< 1. MCG/L
T51409	ORTHO-XYLENE	< 1. MCG/L
T85309	CUMENE	< 1. MCG/L
T85409	STYRENE	< 1. MCG/L
T85509	P-BROMOFLUOROBENZENE	< 1. MCG/L
T51109	N-PROPYLBENZENE	< 1. MCG/L
T85609	TERT-BUTYLBENZENE	< 1. MCG/L
T85709	O/P-CHLOROTOLUENE	< 1. MCG/L
T51209	BROMOBENZENE	< 1. MCG/L
T50509	META-CHLOROTOLUENE	< 1. MCG/L
T85809	1,3,5-TRIMETHYLBENZENE	< 1. MCG/L
T85909	1,2,4-TRIMETHYLBENZENE	< 1. MCG/L
T86009	P-CYMENE	< 1. MCG/L
T86109	CYCLOPROPYLBENZENE	< 1. MCG/L
T86209	SEC-BUTYLBENZENE	< 1. MCG/L
T86309	N-BUTYLBENZENE	< 1. MCG/L
T86409	2,3-BENZOFURAN	< 1. MCG/L
T52509	HEXACHLOROBUTADIENE (C-46)	< 5. MCG/L
T44009	1,2,4-TRICHLOROBENZENE	< 5. MCG/L
T65609	NAPHTHALENE	< 5. MCG/L
T43909	1,2,3-TRICHLOROBENZENE	< 5. MCG/L

FOLLOWING PARAMETERS NOT PART OF TEST PATTERN

ANALYSIS: XPEST ORGANOCHLORINE PESTICIDES (DES 310-2)
DATE REPORTED: 86/12/09 REPORT MAILED OUT

	PARAMETER	RESULT
T15709	HCH, ALPHA	< 0.1 MCG/L
T15809	HCH, BETA	< 0.1 MCG/L
T35609	HCH, GAMMA (LINDANE)	< 0.1 MCG/L
T16009	HCH, DELTA	< 0.1 MCG/L
T08009	HEPTACHLOR	< 0.12 MCG/L
T07709	ALDRIN	< 0.05 MCG/L
T08309	HEPTACHLOR EPOXIDE	< 0.12 MCG/L
T43309	ENDOSULFAN I	< 0.12 MCG/L
T14809	DDE -PARA, PARA	< 0.12 MCG/L
T08509	DIELDRIN	< 0.05 MCG/L
T08409	ENDRIN	< 0.05 MCG/L
T14909	DDD -PARA, PARA	< 0.12 MCG/L

**** CONTINUED ON NEXT PAGE ****

SAMPLE ID: 65962 SAMPLE RECEIVED: 86/11/14/ CHARGE: 28.50
POLITICAL SUBDIVISION: WALWORTH COUNTY: WAYNE
LOCATION: WALWORTH (T) FED ID NO 859002
TIME OF SAMPLING: 86/11/13 10: DATE PRINTED: 86/12/18

	PARAMETER	RESULT
T43409	ENDOSULFAN II	< 0.12 MCG/L
T67409	ENDRIN ALDEHYDE	< 0.05 MCG/L
T67309	ENDOSULFAN SULFATE	< 0.12 MCG/L
T14709	DDT -PARA, PARA	< 0.12 MCG/L
T08209	METHOXYCHLOR	< 2.4 MCG/L
T35509	TOXAPHENE	< 2.4 MCG/L
T08609	CHLORDANE	< 0.24 MCG/L

ANALYSIS: 625A ACIDS - F.R. METHOD 625 (DES 310-8)

	PARAMETER	RESULT
T67109	PHENOL	< 10. MCG/L
T66409	2-CHLOROPHENOL	< 10. MCG/L
T66809	2-NITROPHENOL	< 10. MCG/L
T66609	2,4-DIMETHYLPHENOL	< 10. MCG/L
T66509	2,4-DICHLOROPHENOL	< 10. MCG/L
T66309	4-CHLORO-3-METHYLPHENOL	< 10. MCG/L
T67209	2,4,6-TRICHLOROPHENOL	< 10. MCG/L
T49609	2,4,5-TRICHLOROPHENOL	< 10. MCG/L
T66709	2,4-DINITROPHENOL	< 10. MCG/L
T66909	4-NITROPHENOL	< 10. MCG/L
T68509	2-METHYL-4,6-DINITROPHENOL	< 10. MCG/L
T67009	PENTACHLOROPHENOL	< 10. MCG/L

ANALYSIS: 625BN BASE/NEUTRALS - F.R. METHOD 625 (DES 310-8)

	PARAMETER	RESULT
T63909	BIS(2-CHLOROETHYL)ETHER	< 10. MCG/L
T65909	N-NITROSODI-N-PROPYLAMINE	< 10. MCG/L
T65309	HEXACHLOROETHANE	< 10. MCG/L
T65709	NITROBENZENE	< 10. MCG/L
T65509	ISOPHORONE	< 10. MCG/L
T68609	BIS(2-CHLOROETHOXY)METHANE	< 10. MCG/L
T49209	HEXACHLOROCYCLOPENTADIENE (C-56)	< 10. MCG/L
T64109	2-CHLORONAPHTHALENE	< 10. MCG/L
T64909	2,6-DINITROTOLUENE	< 10. MCG/L
T63109	ACENAPHTHYLENE	< 10. MCG/L
T64709	DIMETHYLPHTHALATE	< 10. MCG/L
T63009	ACENAPHTHENE	< 10. MCG/L
T64809	2,4-DINITROTOLUENE	< 10. MCG/L
T64609	DIETHYLPHTHALATE	< 10. MCG/L
T65209	FLUORENE	< 10. MCG/L
T66009	N-NITROSODIPHENYLAMINE	< 10. MCG/L
T65109	1,2-DIPHENYLHYDRAZINE	< 10. MCG/L
T68309	4-BROMOPHENYL PHENYL ETHER	< 10. MCG/L
T48809	HEXACHLOROBENZENE	< 10. MCG/L
T66109	PHENANTHRENE	< 10. MCG/L
T63207	ANTHRACENE	< 10. MCG/L

**** CONTINUED ON NEXT PAGE ****

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER FOR LABORATORIES AND RESEARCH

RESULTS OF EXAMINATION

FINAL REPORT

SAMPLE ID: 65962 SAMPLE RECEIVED: 86/11/14/ CHARGE: 28.50
POLITICAL SUBDIVISION: WALWORTH COUNTY: WAYNE
LOCATION: WALWORTH (1) FED ID NO 859002
TIME OF SAMPLING: 86/11/13 10: DATE PRINTED: 86/12/18

	PARAMETER	RESULT
T64409	DI-N-BUTYLPHTHALATE	< 10. MCG/L
T68009	FLUORANTHENE	< 10. MCG/L
T66209	PYRENE	< 10. MCG/L
T63809	BENZIDINE	< 200. MCG/L
T64009	BUTYL BENZYL PHTHALATE	< 30. MCG/L
T63309	BENZO(A)ANTHRACENE	< 30. MCG/L
T64509	3,3'-DICHLOROBENZIDINE	< 30. MCG/L
T64209	CHRYSENE	< 30. MCG/L
T67909	BIS(2-ETHYLHEXYL)PHTHALATE	< 30. MCG/L
T65009	DI-N-OCTYL PHTHALATE	< 30. MCG/L
T63409	BENZO(B)FLUORANTHENE	< 30. MCG/L
T63509	BENZO(K)FLUORANTHENE	< 30. MCG/L
T63609	BENZO(A)PYRENE	< 30. MCG/L
T65409	INDENO(1,2,3-CD)PYRENE	< 30. MCG/L
T64309	DIBENZO(A,H)ANTHRACENE	< 30. MCG/L
T63709	BENZO(GHI)PERYLENE	< 30. MCG/L

**** END OF REPORT ****

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NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER FOR LABORATORIES AND RESEARCH

PAGE 1 RESULTS OF EXAMINATION FINAL REPORT

SAMPLE ID: 871422 SAMPLE RECEIVED:87/04/16/ CHARGE: 8.00
PROGRAM: 108:HAZARDOUS WASTE SITE-PRELIMINARY INVESTIGATION
SOURCE ID: DRAINAGE BASIN: GAZETTEER CODE:5862
POLITICAL SUBDIVISION:WALWORTH COUNTY:WAYNE
LATITUDE: . LONGITUDE: . Z DIRECTION:
LOCATION: WALWORTH (T),DEC SITE NO. 859002,HOFF BROS. LANDFILL
DESCRIPTION:480 PLANK RD.,PERNICIA RES.
REPORTING LAB: TOX:LAB FOR ORGANIC ANALYTICAL CHEMISTRY
TEST PATTERN: VH05021:VOLATILE HALOGENATED INDICATORS
SAMPLE TYPE: 160:PRIVATE WATER SUPPLY - MISCELLANEOUS
TIME OF SAMPLING: 87/04/14 09: DATE PRINTED:87/04/28

BOTH VIALS SUBMITTED HAD AIR BUBBLES.

ANALYSIS: VH05021 VOLATILE HALOGENATED INDICATORS-EPA METHOD 502.1
DATE PRINTED: 87/04/28 FINAL REPORT

	PARAMETER	RESULT	
T62009	CHLOROMETHANE	< 1. MCG/L	
T61809	BROMOMETHANE	< 1. MCG/L	
T41009	VINYL CHLORIDE	< 1. MCG/L	
T70209	DICHLORODIFLUOROMETHANE	< 1. MCG/L	
T61909	CHLOROETHANE	< 1. MCG/L	
T23809	METHYLENE CHLORIDE (DICHLOROMETHANE)	< 1. MCG/L	
T61709	TRICHLOROFLUOROMETHANE	< 1. MCG/L	
T50909	1,1-DICHLOROETHENE	< 1. MCG/L	
T51909	1,1-DICHLOROETHANE	1. MCG/L	←
T61209	TRANS-1,2-DICHLOROETHENE	< 1. MCG/L	
T87609	CIS-1,2-DICHLOROETHENE	< 1. MCG/L	
T39009	CHLOROFORM	< 1. MCG/L	
T50809	1,2-DICHLOROETHANE	< 1. MCG/L	
T88709	DIBROMO METHANE	< 1. MCG/L	
T23609	1,1,1-TRICHLOROETHANE	< 1. MCG/L	
T36609	CARBON TETRACHLORIDE	< 1. MCG/L	
T38909	BROMODICHLOROMETHANE	< 1. MCG/L	
T18009	2,3-DICHLOROPROPENE	< 1. MCG/L	
T61309	1,2-DICHLOROPROPANE	< 1. MCG/L	
T61509	TRANS-1,3-DICHLOROPROPENE	< 1. MCG/L	
T41109	TRICHLOROETHENE	5. MCG/L	←
T11209	1,3-DICHLOROPROPANE	< 1. MCG/L	
T44909	DIBROMOCHLOROMETHANE	< 1. MCG/L	
T61409	CIS-1,3-DICHLOROPROPENE	< 1. MCG/L	
T51709	1,1,2-TRICHLOROETHANE	< 1. MCG/L	
T60409	1,2-DIBROMOETHANE	< 1. MCG/L	
T61109	2-CHLOROETHYLVINYL ETHER	< 1. MCG/L	
T42109	BROMOFORM	< 1. MCG/L	

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NEW YORK STATE DEPARTMENT OF HEALTH
42 SOUTH WASHINGTON ST. SUBMITTED BY:HARSTAD
ROCHESTER, N.Y. 14608

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER FOR LABORATORIES AND RESEARCH

 RESULTS OF EXAMINATION FINAL REPORT

SAMPLE ID: 871422 SAMPLE RECEIVED:87/04/16/ CHARGE: 8.00
POLITICAL SUBDIVISION:WALWORTH COUNTY:WAYNE
LOCATION: WALWORTH (T),DEC SITE NO. 859002,HOFF BROS. LANDFILL
TIME OF SAMPLING: 87/04/14 09: DATE PRINTED:87/04/28

	PARAMETER	RESULT
T21009	1,1,1,2-TETRACHLOROETHANE	< 1. MCG/L
T31009	1,2,3-TRICHLOROPROPANE	< 1. MCG/L
T51809	1,1,2,2-TETRACHLOROETHANE	< 1. MCG/L
T41209	TETRACHLOROETHENE	4. MCG/L
T40009	PENTACHLOROETHANE	< 1. MCG/L
T85209	1-CHLOROCYCLOHEXENE-1	< 1. MCG/L
T40909	CHLOROBENZENE	< 1. MCG/L
T63909	BIS(2-CHLOROETHYL)ETHER	< 1. MCG/L
T38209	1,2-DIBROMO-3-CHLOROPROPANE	< 1. MCG/L
T51209	BROMOBENZENE	< 1. MCG/L
T50409	ORTHO-CHLOROTOLUENE	< 1. MCG/L
T68109	BIS(2-CHLOROISOPROPYL)ETHER	< 1. MCG/L
T49709	1,3-DICHLOROBENZENE	< 1. MCG/L
T44109	1,2-DICHLOROBENZENE	< 1. MCG/L
T44209	1,4-DICHLOROBENZENE	< 1. MCG/L

**** END OF REPORT ****

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WADSWORTH CENTER FOR LABORATORIES AND RESEARCH

PAGE 1 RESULTS OF EXAMINATION FINAL REPORT

SAMPLE ID: 65963 SAMPLE RECEIVED: 86/11/14/ CHARGE: 28.50
PROGRAM: 108: HAZARDOUS WASTE SITE-PRELIMINARY INVESTIGATION
SOURCE ID: DRAINAGE BASIN: GAZETTEER CODE: 5862
POLITICAL SUBDIVISION: WALWORTH COUNTY: WAYNE
LATITUDE: LONGITUDE: Z DIRECTION:
LOCATION: WALWORTH (T) FED ID NO 859002
DESCRIPTION: 612 PLANK RD., BASEMENT-DUG WELL
REPORTING LAB: TOX: LAB FOR ORGANIC ANALYTICAL CHEMISTRY
TEST PATTERN: VOL2: PURGEABLE HALOCARBONS AND AROMATIC PURGEABLES
SAMPLE TYPE: 100: PRIVATE WATER SUPPLY - DUG WELL
TIME OF SAMPLING: 86/11/13 11: DATE PRINTED: 86/12/18

ANALYSIS: 601 PURGEABLE HALOCARBONS, FR METHOD 601 (DES 310-18)
DATE REPORTED: 86/11/28 REPORT MAILED OUT

	PARAMETER	RESULT
T62009	CHLOROMETHANE	< 1. MCG/L
T61809	BROMOMETHANE	< 1. MCG/L
T41009	VINYL CHLORIDE	< 1. MCG/L
T70209	DICHLORODIFLUOROMETHANE	< 1. MCG/L
T61909	CHLOROETHANE	< 1. MCG/L
T61709	TRICHLOROFLUOROMETHANE	< 1. MCG/L
T23809	METHYLENE CHLORIDE (DICHLOROMETHANE)	< 1. MCG/L
T50909	1,1-DICHLOROETHENE	< 1. MCG/L
T51909	1,1-DICHLOROETHANE	< 1. MCG/L
T61209	TRANS-1,2-DICHLOROETHENE	< 1. MCG/L
T39009	CHLOROFORM	< 1. MCG/L
T50809	1,2-DICHLOROETHANE	< 1. MCG/L
T23609	1,1,1-TRICHLOROETHANE	< 1. MCG/L
T36609	CARBON TETRACHLORIDE	< 1. MCG/L
T38909	BROMODICHLOROMETHANE	< 1. MCG/L
T61309	1,2-DICHLOROPROPANE	< 1. MCG/L
T61509	TRANS-1,3-DICHLOROPROPENE	< 1. MCG/L
T41109	TRICHLOROETHENE	< 1. MCG/L
T44909	DIBROMOCHLOROMETHANE	< 1. MCG/L
T61409	CIS-1,3-DICHLOROPROPENE	< 1. MCG/L
T51709	1,1,2-TRICHLOROETHANE	< 1. MCG/L
T61109	2-CHLOROETHYLVINYL ETHER	< 1. MCG/L
T42109	BROMOFORM	< 1. MCG/L
T51809	1,1,2,2-TETRACHLOROETHANE	< 1. MCG/L
T41209	TETRACHLOROETHENE	< 1. MCG/L
T40909	CHLOROBENZENE	< 1. MCG/L
T49709	1,3-DICHLOROBENZENE	< 1. MCG/L
T44109	1,2-DICHLOROBENZENE	< 1. MCG/L
T44209	1,4-DICHLOROBENZENE	< 1. MCG/L

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NEW YORK STATE DEPARTMENT OF HEALTH
42 SOUTH WASHINGTON ST.
ROCHESTER, N.Y. 14608

SUBMITTED BY: HARSTAD

SAMPLE ID: 65963 SAMPLE RECEIVED: 86/11/14/ CHARGE: 28.50
POLITICAL SUBDIVISION: WALWORTH COUNTY: WAYNE
LOCATION: WALWORTH (1) FED ID NO 859002
TIME OF SAMPLING: 86/11/13 11: DATE PRINTED: 86/12/18

ANALYSIS: 503.1P AROMATIC PURGEABLES-EPA METHOD 503.1 (DES 310-22)
DATE REPORTED: 86/11/19 REPORT MAILED OUT

	PARAMETER	RESULT
T34409	BENZENE	< 1. MCG/L
T39209	TOLUENE	< 1. MCG/L
T51009	ETHYLBENZENE	< 1. MCG/L
T85209	1-CHLOROCYCLOHEXENE-1	< 1. MCG/L
T70409	PARA-XYLENE	< 1. MCG/L
T70309	META-XYLENE	< 1. MCG/L
T51409	ORTHO-XYLENE	< 1. MCG/L
T85309	CUMENE	< 1. MCG/L
T85409	STYRENE	< 1. MCG/L
T85509	P-BROMOFLUOROBENZENE	< 1. MCG/L
T51109	N-PROPYLBENZENE	< 1. MCG/L
T85609	TERT-BUTYLBENZENE	< 1. MCG/L
T85709	O/P-CHLOROTOLUENE	< 1. MCG/L
T51209	BROMOBENZENE	< 1. MCG/L
T50509	META-CHLOROTOLUENE	< 1. MCG/L
T85809	1,3,5-TRIMETHYLBENZENE	< 1. MCG/L
T85909	1,2,4-TRIMETHYLBENZENE	< 1. MCG/L
T86009	P-CYMENE	< 1. MCG/L
T86109	CYCLOPROPYLBENZENE	< 1. MCG/L
T86209	SEC-BUTYLBENZENE	< 1. MCG/L
T86309	N-BUTYLBENZENE	< 1. MCG/L
T86409	2,3-BENZOFURAN	< 1. MCG/L
T52509	HEXACHLOROBUTADIENE (C-46)	< 5. MCG/L
T44009	1,2,4-TRICHLOROBENZENE	< 5. MCG/L
T65609	NAPHTHALENE	< 5. MCG/L
T43909	1,2,3-TRICHLOROBENZENE	< 5. MCG/L

FOLLOWING PARAMETERS NOT PART OF TEST PATTERN

ANALYSIS: XPEST ORGANOCHLORINE PESTICIDES (DES 310-2)
DATE REPORTED: 86/12/09 REPORT MAILED OUT

	PARAMETER	RESULT
T15709	HCH, ALPHA	< 0.09 MCG/L
T15809	HCH, BETA	< 0.09 MCG/L
T35609	HCH, GAMMA (LINDANE)	< 0.09 MCG/L
T16009	HCH, DELTA	< 0.09 MCG/L
T08009	HEPTACHLOR	< 0.11 MCG/L
T07709	ALDRIN	< 0.04 MCG/L
T08309	HEPTACHLOR EPOXIDE	< 0.11 MCG/L
T43309	ENDOSULFAN I	< 0.11 MCG/L
T14809	DDE -PARA, PARA	< 0.11 MCG/L
T08509	DIELDRIN	< 0.04 MCG/L
T08409	ENDRIN	< 0.04 MCG/L
T14909	DDD -PARA, PARA	< 0.11 MCG/L

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SAMPLE ID: 65963 SAMPLE RECEIVED: 86/11/14/ CHARGE: 28.50
POLITICAL SUBDIVISION: WALWORTH COUNTY: WAYNE
LOCATION: WALWORTH (T) FED ID NO 859002
TIME OF SAMPLING: 86/11/13 11: DATE PRINTED: 86/12/18

	PARAMETER	RESULT
T43409	ENDOSULFAN II	< 0.11 MCG/L
T67409	ENDRIN ALDEHYDE	< 0.04 MCG/L
T67309	ENDOSULFAN SULFATE	< 0.11 MCG/L
T14709	DDT -PARA, PARA	< 0.11 MCG/L
T08209	METHOXYCHLOR	< 2.2 MCG/L
T35509	TOXAPHENE	< 2.2 MCG/L
T08609	CHLORDANE	< 0.22 MCG/L

ANALYSIS: 625A ACIDS - F.R. METHOD 625 (DES 310-8)

	PARAMETER	RESULT
T67109	PHENOL	< 10. MCG/L
T66409	2-CHLOROPHENOL	< 10. MCG/L
T66809	2-NITROPHENOL	< 10. MCG/L
T66609	2,4-DIMETHYLPHENOL	< 10. MCG/L
T66509	2,4-DICHLOROPHENOL	< 10. MCG/L
T66309	4-CHLORO-3-METHYLPHENOL	< 10. MCG/L
T67209	2,4,6-TRICHLOROPHENOL	< 10. MCG/L
T49609	2,4,5-TRICHLOROPHENOL	< 10. MCG/L
T66709	2,4-DINITROPHENOL	< 10. MCG/L
T66909	4-NITROPHENOL	< 10. MCG/L
T68509	2-METHYL-4,6-DINITROPHENOL	< 10. MCG/L
T67009	PENTACHLOROPHENOL	< 10. MCG/L

ANALYSIS: 625BN BASE/NEUTRALS - F.R. METHOD 625 (DES 310-8)

	PARAMETER	RESULT
T63909	BIS(2-CHLOROETHYL)ETHER	< 10. MCG/L
T65909	N-NITROSODI-N-PROPYLAMINE	< 10. MCG/L
T65309	HEXACHLOROETHANE	< 10. MCG/L
T65709	NITROBENZENE	< 10. MCG/L
T65509	ISOPHORONE	< 10. MCG/L
T68609	BIS(2-CHLOROETHOXY)METHANE	< 10. MCG/L
T49209	HEXACHLOROCYCLOPENTADIENE (C-56)	< 10. MCG/L
T64109	2-CHLORONAPHTHALENE	< 10. MCG/L
T64909	2,6-DINITROTOLUENE	< 10. MCG/L
T63109	ACENAPHTHYLENE	< 10. MCG/L
T64709	DIMETHYLPHTHALATE	< 10. MCG/L
T63009	ACENAPHTHENE	< 10. MCG/L
T64809	2,4-DINITROTOLUENE	< 10. MCG/L
T64609	DIETHYLPHTHALATE	< 10. MCG/L
T65209	FLUORENE	< 10. MCG/L
T66009	N-NITROSODIPHENYLAMINE	< 10. MCG/L
T65109	1,2-DIPHENYLHYDRAZINE	< 10. MCG/L
T68309	4-BROMOPHENYL PHENYL ETHER	< 10. MCG/L
T48809	HEXACHLOROBENZENE	< 10. MCG/L
T66109	PHENANTHRENE	< 10. MCG/L
T63209	ANTHRACENE	< 10. MCG/L

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WADSWORTH CENTER FOR LABORATORIES AND RESEARCH

 RESULTS OF EXAMINATION FINAL REPORT

SAMPLE ID: 65963 SAMPLE RECEIVED: 86/11/14/ CHARGE: 28.50
POLITICAL SUBDIVISION: WALWORTH COUNTY: WAYNE
LOCATION: WALWORTH (T) FED ID NO 859002
TIME OF SAMPLING: 86/11/13 11: DATE PRINTED: 86/12/18

	PARAMETER	RESULT
T64409	DI-N-BUTYLPHTHALATE	< 10. MCG/L
T68009	FLUORANTHENE	< 10. MCG/L
T66209	PYRENE	< 10. MCG/L
T63809	BENZIDINE	< 200. MCG/L
T64009	BUTYL BENZYL PHTHALATE	< 30. MCG/L
T63309	BENZO(A)ANTHRACENE	< 30. MCG/L
T64509	3,3'-DICHLOROBENZIDINE	< 30. MCG/L
T64209	CHRYSENE	< 30. MCG/L
T67909	BIS(2-ETHYLHEXYL)PHTHALATE	< 30. MCG/L
T65009	DI-N-OCTYL PHTHALATE	< 30. MCG/L
T63409	BENZO(B)FLUORANTHENE	< 30. MCG/L
T63509	BENZO(K)FLUORANTHENE	< 30. MCG/L
T63609	BENZO(A)PYRENE	< 30. MCG/L
T65409	INDENO(1,2,3-CD)PYRENE	< 30. MCG/L
T64309	DIBENZO(A,H)ANTHRACENE	< 30. MCG/L
T63709	BENZO(GHI)PERYLENE	< 30. MCG/L

**** END OF REPORT ****

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NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER FOR LABORATORIES AND RESEARCH

PAGE 1 RESULTS OF EXAMINATION FINAL REPORT

SAMPLE ID: 871421 SAMPLE RECEIVED:87/04/16/ CHARGE: 29.50
PROGRAM: 108:HAZARDOUS WASTE SITE-PRELIMINARY INVESTIGATION
SOURCE ID: DRAINAGE BASIN: GAZETTEER CODE:5862
POLITICAL SUBDIVISION:WALWORTH COUNTY:WAYNE
LATITUDE: . LONGITUDE: . Z DIRECTION:
LOCATION: WALWORTH(T),DEC SITE NO. 859002,HOFF BROS. LANDFILL
DESCRIPTION:544 PLANK RD.,WELCH RES.,
REPORTING LAB: TOX:LAB FOR ORGANIC ANALYTICAL CHEMISTRY
TEST PATTERN: VOL3:PURGEABLES - HALOGENATED AND AROMATICS
SAMPLE TYPE: 250:GROUND WATER
TIME OF SAMPLING: 87/04/14 09: DATE PRINTED:87/05/12

ANALYSIS: VH05021 VOLATILE HALOGENATED INDICATORS-EPA METHOD 502.1
DATE REPORTED: 87/04/27 REPORT MAILED OUT

	PARAMETER	RESULT
T62009	CHLOROMETHANE	< 1. MCG/L
T61809	BROMOMETHANE	< 1. MCG/L
T41009	VINYL CHLORIDE	< 1. MCG/L
T70209	DICHLORODIFLUOROMETHANE	< 1. MCG/L
T61909	CHLOROETHANE	< 1. MCG/L
T23809	METHYLENE CHLORIDE (DICHLOROMETHANE)	< 1. MCG/L
T61709	TRICHLOROFLUOROMETHANE	< 1. MCG/L
T50909	1,1-DICHLOROETHENE	< 1. MCG/L
T51909	1,1-DICHLOROETHANE	< 1. MCG/L
T61209	TRANS-1,2-DICHLOROETHENE	< 1. MCG/L
T87609	CIS-1,2-DICHLOROETHENE	< 1. MCG/L
T39009	CHLOROFORM	< 1. MCG/L
T50809	1,2-DICHLOROETHANE	< 1. MCG/L
T88709	DIBROMO METHANE	< 1. MCG/L
T23609	1,1,1-TRICHLOROETHANE	< 1. MCG/L
T36609	CARBON TETRACHLORIDE	< 1. MCG/L
T38909	BROMODICHLOROMETHANE	< 1. MCG/L
T18009	2,3-DICHLOROPROPENE	< 1. MCG/L
T61309	1,2-DICHLOROPROPANE	< 1. MCG/L
T61509	TRANS-1,3-DICHLOROPROPENE	< 1. MCG/L
T41109	TRICHLOROETHENE	< 1. MCG/L
T11209	1,3-DICHLOROPROPANE	< 1. MCG/L
T44909	DIBROMOCHLOROMETHANE	< 1. MCG/L
T61409	CIS-1,3-DICHLOROPROPENE	< 1. MCG/L
T51709	1,1,2-TRICHLOROETHANE	< 1. MCG/L
T60409	1,2-DIBROMOETHANE	< 1. MCG/L
T61109	2-CHLOROETHYLVINYL ETHER	< 1. MCG/L
T42109	BROMOFORM	< 1. MCG/L
T21009	1,1,1,2-TETRACHLOROETHANE	< 1. MCG/L
T31009	1,2,3-TRICHLOROPROPANE	< 1. MCG/L

**** CONTINUED ON NEXT PAGE ****

COPIES SENT TO: CO(2), RO(1), LPHE(2), FED( ), INFO-P( ), INFO-L( )

REGIONAL DIRECTOR OF PH ENGINEERING
NEW YORK STATE DEPARTMENT OF HEALTH
42 SOUTH WASHINGTON ST.
ROCHESTER, N.Y. 14608

SUBMITTED BY:HARSTAD

0371 NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER FOR LABORATORIES AND RESEARCH

PAGE 2 RESULTS OF EXAMINATION FINAL REPORT

SAMPLE ID: 871421 SAMPLE RECEIVED:87/04/16/ CHARGE: 29.50
POLITICAL SUBDIVISION:WALWORTH COUNTY:WAYNE
LOCATION: WALWORTH(T),DEC SITE NO. 859002,HOFF BROS. LANDFILL
TIME OF SAMPLING: 87/04/14 09: DATE PRINTED:87/05/12

	PARAMETER	RESULT
T51809	1,1,2,2-TETRACHLOROETHANE	< 1. MCG/L
T41209	TETRACHLOROETHENE	< 1. MCG/L
T40009	PENTACHLOROETHANE	< 1. MCG/L
T85209	1-CHLOROCYCLOHEXENE-1	< 1. MCG/L
T40909	CHLOROBENZENE	< 1. MCG/L
T63909	BIS(2-CHLOROETHYL)ETHER	< 1. MCG/L
T38209	1,2-DIBROMO-3-CHLOROPROPANE	< 1. MCG/L
T51209	BROMOBENZENE	< 1. MCG/L
T50409	ORTHO-CHLOROTOLUENE	< 1. MCG/L
T68109	BIS(2-CHLOROISOPROPYL)ETHER	< 1. MCG/L
T49709	1,3-DICHLOROBENZENE	< 1. MCG/L
T44109	1,2-DICHLOROBENZENE	< 1. MCG/L
T44209	1,4-DICHLOROBENZENE	< 1. MCG/L

ANALYSIS: P5031 AROMATIC PURGEABLES EPA METHOD 503.1 (DES 310-22)
DATE REPORTED: 87/04/21 REPORT MAILED OUT

	PARAMETER	RESULT
T34409	BENZENE	< 1. MCG/L
T39209	TOLUENE	< 1. MCG/L
T51009	ETHYLBENZENE	< 1. MCG/L
T70409	PARA-XYLENE	< 1. MCG/L
T70309	META-XYLENE	< 1. MCG/L
T51409	ORTHO-XYLENE	< 1. MCG/L
T85309	CUMENE	< 1. MCG/L
T85409	STYRENE	< 1. MCG/L
T85509	P-BROMOFLUOROBENZENE	< 1. MCG/L
T51109	N-PROPYLBENZENE	< 1. MCG/L
T85609	TERT-BUTYLBENZENE	< 1. MCG/L
T85709	O/P-CHLOROTOLUENE	< 1. MCG/L
T50509	META-CHLOROTOLUENE	< 1. MCG/L
T85809	1,3,5-TRIMETHYLBENZENE	< 1. MCG/L
T85909	1,2,4-TRIMETHYLBENZENE	< 1. MCG/L
T86009	P-CYMENE	< 1. MCG/L
T86109	CYCLOPROPYLBENZENE	< 1. MCG/L
T86209	SEC-BUTYLBENZENE	< 1. MCG/L
T86309	N-BUTYLBENZENE	< 1. MCG/L
T86409	2,3-BENZOFURAN	< 1. MCG/L
T52509	HEXACHLOROBUTADIENE (C-46)	< 5. MCG/L
T44009	1,2,4-TRICHLOROBENZENE	< 5. MCG/L
T65609	NAPHTHALENE	< 5. MCG/L
T43909	1,2,3-TRICHLOROBENZENE	< 5. MCG/L

**** CONTINUED ON NEXT PAGE ****

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER FOR LABORATORIES AND RESEARCH

 RESULTS OF EXAMINATION FINAL REPORT

SAMPLE ID: 871421 SAMPLE RECEIVED:87/04/16/ CHARGE: 29.50
POLITICAL SUBDIVISION:WALWORTH COUNTY:WAYNE
LOCATION: WALWORTH(T),DEC SITE NO. 859002,HOFF BROS. LANDFILL
TIME OF SAMPLING: 87/04/14 09: DATE PRINTED:87/05/12

FOLLOWING PARAMETERS NOT PART OF TEST PATTERN

ANALYSIS: XPEST ORGANOCHLORINE PESTICIDES (DES 310-2)

	PARAMETER	RESULT	
T15709	HCH,ALPHA	< 0.04 MCG/L	
T15809	HCH,BETA	< 0.04 MCG/L	
T35609	HCH,GAMMA (LINDANE)	< 0.04 MCG/L	
T16009	HCH,DELTA	< 0.04 MCG/L	
T08009	HEPTACHLOR	< 0.05 MCG/L	
T07709	ALDRIN	< 0.02 MCG/L	
T08309	HEPTACHLOR EPOXIDE	< 0.05 MCG/L	
T43309	ENDOSULFAN I	< 0.05 MCG/L	
T14809	DDE -PARA, PARA	< 0.05 MCG/L	
T08509	DIELDRIN	< 0.02 MCG/L	
T08409	ENDRIN	< 0.02 MCG/L	
T14909	DDD -PARA, PARA	< 0.05 MCG/L	
T43409	ENDOSULFAN II	0.11 MCG/L	SU
T67409	ENDRIN ALDEHYDE	< 0.02 MCG/L	
T67309	ENDOSULFAN SULFATE	< 0.05 MCG/L	
T14709	DDT -PARA, PARA	< 0.05 MCG/L	
T08209	METHOXYCHLOR	< 1.0 MCG/L	
T35509	TOXAPHENE	< 1.0 MCG/L	
T08609	CHLORDANE	< 0.1 MCG/L	
T39909	MIREX	< 0.05 MCG/L	

ANALYSIS: 625A ACIDS - F.R. METHOD 625 (DES 310-8)

	PARAMETER	RESULT
T67109	PHENOL	< 10. MCG/L
T66409	2-CHLOROPHENOL	< 10. MCG/L
T66809	2-NITROPHENOL	< 10. MCG/L
T66609	2,4-DIMETHYLPHENOL	< 10. MCG/L
T66509	2,4-DICHLOROPHENOL	< 10. MCG/L
T66309	4-CHLORO-3-METHYLPHENOL	< 10. MCG/L
T67209	2,4,6-TRICHLOROPHENOL	< 10. MCG/L
T49609	2,4,5-TRICHLOROPHENOL	< 10. MCG/L
T66709	2,4-DINITROPHENOL	< 10. MCG/L
T66909	4-NITROPHENOL	< 10. MCG/L
T68509	2-METHYL-4,6-DINITROPHENOL	< 10. MCG/L
T67009	PENTACHLOROPHENOL	< 10. MCG/L

ANALYSIS: 625BN BASE/NEUTRALS - F.R. METHOD 625 (DES 310-8)

	PARAMETER	RESULT
T65909	N-NITROSODI-N-PROPYLAMINE	< 10. MCG/L
T65309	HEXACHLOROETHANE	< 10. MCG/L
T65709	NITROBENZENE	< 10. MCG/L
T65509	ISOPHORONE	< 10. MCG/L

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0373

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER FOR LABORATORIES AND RESEARCH

PAGE 4 RESULTS OF EXAMINATION FINAL REPORT

SAMPLE ID: 871421 SAMPLE RECEIVED:87/04/16/ CHARGE: 29.50
POLITICAL SUBDIVISION:WALWORTH COUNTY:WAYNE
LOCATION: WALWORTH(T),DEC SITE NO. 859002,HOFF BROS. LANDFILL
TIME OF SAMPLING: 87/04/14 09: DATE PRINTED:87/05/12

	PARAMETER	RESULT
T68609	BIS(2-CHLOROETHOXY)METHANE	< 10. MCG/L
T49209	HEXACHLOROCYCLOPENTADIENE (C-56)	< 10. MCG/L
T64109	2-CHLORONAPHTHALENE	< 10. MCG/L
T64909	2,6-DINITROTOLUENE	< 10. MCG/L
T63109	ACENAPHTHYLENE	< 10. MCG/L
T64709	DIMETHYLPHTHALATE	< 10. MCG/L
T63009	ACENAPHTHENE	< 10. MCG/L
T64809	2,4-DINITROTOLUENE	< 10. MCG/L
T64609	DIETHYLPHTHALATE	< 10. MCG/L
T65209	FLUORENE	< 10. MCG/L
T66009	N-NITROSODIPHENYLAMINE	< 10. MCG/L
T65109	1,2-DIPHENYLHYDRAZINE	< 10. MCG/L
T68309	4-BROMOPHENYL PHENYL ETHER	< 10. MCG/L
T48809	HEXACHLOROBENZENE	< 10. MCG/L
T66109	PHENANTHRENE	< 10. MCG/L
T63209	ANTHRACENE	< 10. MCG/L
T64409	DI-N-BUTYLPHTHALATE	< 10. MCG/L
T68009	FLUORANTHENE	< 10. MCG/L
T66209	PYRENE	< 10. MCG/L
T63809	BENZIDINE	< 200. MCG/L
T64009	BUTYL BENZYL PHTHALATE	< 30. MCG/L
T63309	BENZO(A)ANTHRACENE	< 30. MCG/L
T64509	3,3'-DICHLOROBENZIDINE	< 30. MCG/L
T64209	CHRYSENE	< 30. MCG/L
T67909	BIS(2-ETHYLHEXYL)PHTHALATE	< 30. MCG/L
T65009	DI-N-OCTYL PHTHALATE	< 30. MCG/L
T63409	BENZO(B)FLUORANTHENE	< 30. MCG/L
T63509	BENZO(K)FLUORANTHENE	< 30. MCG/L
T63609	BENZO(A)PYRENE	< 30. MCG/L
T65409	INDENO(1,2,3-CD)PYRENE	< 30. MCG/L
T64309	DIBENZO(A,H)ANTHRACENE	< 30. MCG/L
T63709	BENZO(GHI)PERYLENE	< 30. MCG/L

**** END OF REPORT ****

REF. (2)

June 16, 1967

Mr. Metzler - Division of Environmental Health Services - Attention: Mr. Russelman

Henry J. Smith - Geneva District

Civil Defense Assistance - Hamlet of Lincoln - Town of Walworth - Wayne County

On Thursday, June 15, 1967, I met with representatives of the Civil Defense Commission, the Walworth Town Board and the consulting engineer, to make arrangements for providing a temporary water supply to some 10 - 15 residences in and about the hamlet of Lincoln.

This is a rather unusual situation, inasmuch as there is, at present, no public water supply in the area. Contamination of ground water in the area has made it necessary to temporarily abandon the individual wells. Chemical pollution of the ground water source is caused by depositing solvent in a gravel bank some 750' from the nearest well. At present the water is so unpalatable due to the apparent presence of phenols that the water is unusable. Arrangements have, therefore, been made to place 17,000 feet of 6" C.D. pipe to bring Monroe County water to this area on a temporary basis. It is understood that the expenditure in this effort is to be underwritten by Xerox Corporation and the Gulf Corporation -- the firm who discharged the material.

The situation is unusual inthat this is the first time in my experience that such C.D. piping has been made available to other than a community water supply.

I have written the letter and presented it to the C.D. authority, authorizing the loaning of the pipe to the town of Walworth.

It is hoped that the people will support the water district petition which is being circulated as of today in the area. It would seem that the only practical solution to the problem in this area will be in the establishment of the district to bring water from the town of Ontario water supply to this area.

cc: Mr. Fuller
Mr. Salvato

REF. (2)

STATE OF NEW YORK
DEPARTMENT OF HEALTH

MEMORANDUM #64-79 January 29, 1979

To: Mr. Orndorff

From: Mr. Harstad

Subject: HOT SPOTS
Hoff Bros. - Xerox Waste
Lincoln (H), Walworth (T) - Wayne County

Initial inspection: January 25, 1979
Final inspection : recommended
Sampling : recommended - phenols, bacteria

An inspection of the referenced site was made on January 25, 1979, by Mr. Ronald Rudio, N.Y.S.D.H., Geneva District Office; and Mr. John Aman, Zoning Inspector, Town of Walworth; and the writer.

Xerox had contracted Hoff Brothers to dispose of several 50 gallon drums of chemical waste. (The drums were dumped in the gravel pit without a town permit.) By June, 1967, at least 14 private wells were affected by the contamination. In July, 1967, Hoff Brothers removed the drums and surface water from the pit in hopes of removing part of the possible pollutants. A water district was quickly organized and construction was completed by March, 1968.

Attached is a sketch of the dumping site and locations of adjacent wells. 480 Plank Road (Pernicia residence) is the nearest location of a well used for consumption - approximately 1,100 feet to 1,600 feet west and slightly downhill from the dumping site. It is difficult to ascertain the degree of taste and odor problems due to Mr. Pernicia's heavy accent. The furthest detectable taste and odor problems in 1967 were located at 603 Plank Road (Wahl residence) - 1,600 feet to 2,100 feet west-northwest of the dumping site. The Wahl well is operable but not used.

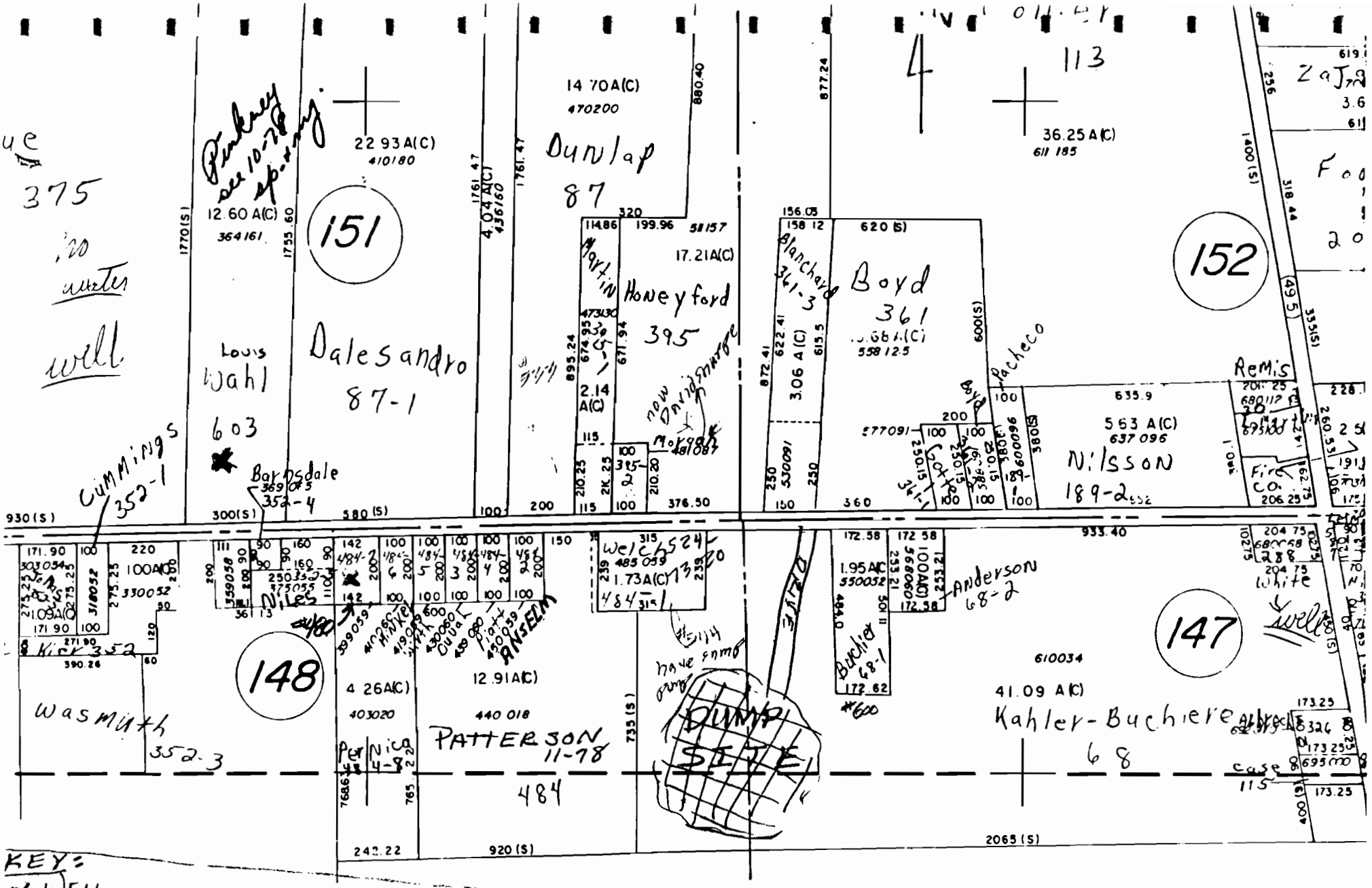
Phenols were reported as the pollutant and coliform bacteria was also detected in the private wells. Water Quality Criteria (1976) reports that, "in the presence of earth and aquatic plants, phenol is decomposed at a rate of 3.0 to 5.0 mg/l per day." Possible sampling should include phenols and bacteria at the wells at 480 and 603 Plank Road.

A visual inspection should be made in the Spring to detect possible surface contaminants or leachate.

RH:pp

cc: Mr. Rudio - Geneva District Office

Attachments



KEY:
X WELL
@ Pernicia-working
Wahl - abandoned, but operable

Barnsdale no meter
Pernicia - Well

REF (4)

Dangerous Properties of Industrial Materials

Sixth Edition

N. IRVING SAX

Assisted by:

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

VNR VAN NOSTRAND REINHOLD COMPANY

New York

Disaster Hazard: When heated to decomp it emits highly tox fumes of Cl^-.

trans-ACETYLENE DICHLORIDE

CAS RN: 156605 NIOSH #: KV 9400000
mf: $C_2H_2Cl_2$; mw: 96.94

Colorless liquid, pleasant odor. mp: −50°, bp: 48°, flash p: 36°F, autoign. temp.: 860°F, lel = 9.7%, uel = 12.8%, d: 1.2743 @ 25°/4°, vap. press: 400 mm @ 30.8°, vap. d: 3.34.

SYNS:
TRANS-1,2-DICHLOROETHYLENE

TOXICITY DATA: 3-2-1	CODEN:
ihl-hmn TCLo:4800 mg/m3/10M:CNS	AHBAAM 116,131,36
ipr-rat LD50:7536 mg/kg	TXCYAC 7(2),141,77
ihl-mus LCLo:75000 mg/m3/2H	AHBAAM 116,131,36
ipr-mus LD50:4019 mg/kg	TXCYAC 7(2),141,77
ihl-cat LCLo:43000 mg/m3/6H	AHBAAM 116,131,36

Reported in EPA TSCA Inventory, 1980.

THR: HIGH hmn chl (CNS). MOD ihl; LOW ipr. Exposure to high conc of vapor can cause nausea, vomiting, weakness, tremor and cramps. Recovery is usually prompt following removal from exposure. Dermatitis may result from de-fatting action on skin.

Fire Hazard: Dangerous when exposed to heat, flame or oxidizers.

Spontaneous Heating: No.

Explosion Hazard: Mod, in the form of vapor when exposed to flame.

Disaster Hazard: Dangerous; see chlorides; can react vigorously with oxidizing materials.

To Fight Fire: Water, foam; CO_2, dry chemical.

ACETYLENE TETRABROMIDE

CAS RN: 79276 NIOSH #: KI 8225000
mf: $C_2H_2Br_4$; mw: 345.68

Colorless to yellow liquid. bp: 151° @ 54 mm, fp: −1°, d: 2.9638 @ 20°/4°, autoign. temp.: 635°F.

SYNS:
MUTHMANN'S LIQUID
1,1,2,2-TETRABROMAETHAN (GERMAN)
TETRABROMOACETYLENE
1,1,2,2-TETRABROMOETANO (ITALIAN)
S-TETRABROMOETHANE
1,1,2,2-TETRABROMOETHANE
1,1,2,2-TETRABROOMETHAAN (DUTCH)

TOXICITY DATA: 3	CODEN:
skn-rbt 500 mg/24H MOD	AIHAAP 24,28,63
eye-rbt 100 mg MLD	AIHAAP 24,28,63
dnr-esc 10 uL/disc	MUREAV 41,61,76
skn-mus TDLo:130 gm/kg/74W-I:NEO	JJIND8 63,1433,79
orl-rbt LD50:400 mg/kg	AMIHBC 2,407,50

TLV: Air: 1 ppm DTLVS* 4,7,80. OSHA Standard: Air: TWA 1 ppm (SCP-I) FEREAC 39,23540,74. DOT: ORM-A, Label: None FEREAC 41,57018,76. "NIOSH Manual of Analytical Methods" VOL 3 S117. Reported in EPA TSCA Inventory, 1980. EPA TSCA 8(a) Preliminary Assessment Information Proposed Rule FEREAC 45,13646,80. EPA TSCA 8E No. 10780254—Submission Received as of April, 1979.

THR: HIGH via orl and inhl. It is irr and narcotic. An exper NEO. MUT data.

Fire Hazard: Low.

To Fight Fire: Water foam, fog, CO_2, dry chemical.

Disaster Hazard: Dangerous; when heated it emits highly tox fumes of carbonyl bromide.

ACETYLENE TETRACHLORIDE

CAS RN: 79345 NIOSH #: KI 8575000
mf: $C_2H_2Cl_4$; mw: 167.84

Heavy, colorless, mobile liquid, chloroform-like odor. mp: −43.8°, bp: 146.4°, d: 1.600 @ 20°/4°.

SYNS:
1,1,2,2-CZTEROCHLOROETAN (POLISH)
1,1-DICHLORO-2,2-DICHLOROETHANE
NCI-C03554
1,1,2,2-TETRACHLOORETHAAN (DUTCH)
1,1,2,2-TETRACHLORAETHAN (GERMAN)
1,1,2,2-TETRACHLORETHANE (FRENCH)
SYM-TETRACHLOROETHANE
1,1,2,2-TETRACHLOROETHANE
1,1,2,2-TETRACLOROETANO (ITALIAN)
TETRACHLORURE D'ACETYLENE (FRENCH)

TOXICITY DATA: 3	CODEN:
dnr-esc 10 ul/plate	EVHPAZ 21,79,77
orl-rat TDLo:42 gm/kg/78W-I:ETA	NCITR* NCI-CG-TR-27,78
orl-mus TDLo:55 gm/kg/78W-I:CAR	NCITR* NCI-CG-TR-27,78
orl-mus TD:110 gm/kg/78W-I:CAR	NCITR* NCI-CG-TR-27,78
orl-hmn TDLo:30 mg/kg:CNS	PCOC** -,1110,66
ihl-hmn TCLo:1000 mg/m3/30M:CNS	AHBAAM 116,131,36
ihl-rat LCLo:1000 ppm/4H	JIHTAB 31,343,49
ihl-mus LCLo:9000 mg/m3/40M	AHBAAM 116,131,36
ipr-mus LDLo:30 mg/kg	CBCCI* 4,378,52
orl-dog LDLo:300 mg/kg	AJHYA2 16,325,32
ivn-dog LDLo:50 mg/kg	QJPPAL 7,205,34
ihl-cat LCLo:19000 mg/m3/45M	AHBAAM 116,131,36
scu-rbt LDLo:500 mg/kg	QJPPAL 7,205,34

Carcinogenic Determination: Animal positive IARC** 20,477,79. *Toxicology Review:* AIHAAP 40,A46,79; 27ZTAP 3,139,69. OSHA Standard: Air: TWA 5 ppm (skin) (SCP-I) FEREAC 39,23540,74. Occupational Exposure to 1,1,2,2-Tetrachloroethane recm std: Air: TWA 1 ppm NTIS**. NCI Carcinogenesis Bioassay Completed; Results positive: Mouse (NCITR* NCI-CG-TR-27,78). NCI Carcinogenesis Bioassay Completed; Results indefinite: Rat (NCITR* NCI-CG-TR-27,78). "NIOSH Manual of Analytical Methods" VOL 2 S124. NIOSH Current Intelligence Bulletin 27, 1978. Reported in EPA TSCA Inventory, 1980.

THR: HIGH via oral and inhal routes; MOD via dermal route. This is generally considered the most toxic of the common chlorinated HC. It has a fairly strong irritant action on mu mem of the eyes and upper respiratory tract; a conc of 3 ppm produces a detectable odor, thus an initial warning effect. Its narcotic action is stronger than that of chloroform, but because of

its low volatility, narcosis is less severe and much less common in industrial poisoning than in the case of other chlorinated HC. The toxic action of this material is chiefly on the liver, where it produces acute yellow atrophy and cirrhosis. Fatty degeneration of the kidneys and heart, hemorrhage into the lungs and serous membranes, and edema of the brain have also been found in fatal cases. Some reports indicate a toxic action on the CNS, with changes in the brain and in the peripheral nerves. The effect on the blood is one of hemolysis, with appearance of young cells in the circulation and a monocytosis. Due to its solvent action on the natural skin oils, dermatitis is not uncommon.

The initial symptoms resulting from exposure to the vapor are lacrimation, salivation and irritation of the nose and throat. Continued exposure to high concentrations results in restlessness, dizziness, nausea and vomiting and narcosis. The latter, however, is rare in industry. More commonly, exposure is less severe, and most complaints are vague and related to the digestive and nervous systems. The patient's symptoms gradually progress to a more serious illness, with development of toxic jaundice, liver tenderness, etc., and possibly albuminuria and edema. With serious liver damage the jaundice increases and tox symptoms appear, with somnolence, delirium, convulsions and coma usually preceding death. An exper CARC, ETA. MUT data.

This material is considered to be a very severe industrial hazard and its use has been restricted or even forbidden in certain countries.

Explosion Hazard: Reacts violently with N_2O_4, 2,4-dinitrophenyl disulfide and contact with sodium or potassium. When heated in contact with solid potassium hydroxide, a spontaneous flammable gas is evolved. Any water can cause appreciable hydrolysis even at room temp. and both hydrolysis and oxidation become comparatively rapid above 110°.

Disaster Hazard: Dangerous; when heated it emits highly tox decomp products.

ACETYLENE TRICHLORIDE

CAS RN: 79016 NIOSH #: KX 4550000
mf: C_2HCl_3; mw: 131.38

Stable, colorless, heavy, mobile liquid, chloroform-like odor. mp: −73°, bp: 87.1°, fp: −86.8°, d: 1.45560 @ 25°/4°, autoign. temp.: 788°F; vap. press: 100 mm @ 32°, vap. d: 4.53, flash p: none, lel = 12.5%, uel = 90%.

SYNS:

BLANCOSOLV
1-CHLORO-2,2-DICHLOROETHYLENE
CIRCOSOLV
1,1-DICHLORO-2-CHLOROETHYLENE
ETHINYL TRICHLORIDE
ETHYLENE TRICHLORIDE
NCI-C04546
TRICHLOORETHEEN (DUTCH)
TRICHLORAETHEN (GERMAN)
TRICHLORETHENE (FRENCH)
TRICHLORETHYLENE
TRICHLOROETHENE
TRICHLOROETHYLENE
1,1,2-TRICHLOROETHYLENE
1,2,2-TRICHLOROETHYLENE
TRI-CLENE
TRICLORETENE (ITALIAN)
TRICLOROETILENE (ITALIAN)
TRIELINA (ITALIAN)

TOXICITY DATA: 3

ihl-rat TCLo:1800 ppm/24H
ihl-rat TCLo:100 ppm/4H
eye-hmn 5 ppm
skn-rbt 500 mg/24H SEV
eye-rbt 20 mg/24H SEV
ihl-rat TCLo:500 ppm/6H/77W-I:ETA
orl-mus TDLo:455 gm/kg/78W-I:CAR
ihl-mus TCLo:100 ppm/6H/77W-I:ETA
ihl-ham TCLo:100 ppm/6H/77W-I:ETA
orl-mus TD:912 gm/kg/78W-I:CAR
orl-hmn LDLo:7 gm/kg
ihl-hmn TCLo:6900 mg/m3/10M:CNS
ihl-hmn TCLo:160 ppm/83M:CNS
ihl-hmn TDLo:812 mg/kg:SYS
ihl-man TCLo:110 ppm/8H:IRR
ihl-man LCLo:2900 ppm
orl-rat LD50:4920 mg/kg
ihl-rat LCLo:8000 ppm/4H
ihl-mus LCLo:3000 ppm/2H
ipr-mus LD50:3000 mg/kg
ivn-mus LD50:34 mg/kg
orl-dog LDLo:5860 mg/kg
ipr-dog LD50:1900 mg/kg
scu-dog LDLo:150 mg/kg
ivn-dog LDLo:150 mg/kg
orl-cat LDLo:5864 mg/kg
ihl-cat LCLo:32500 mg/m3/2H
orl-rbt LDLo:7330 mg/kg
scu-rbt LDLo:1800 mg/kg
ihl-gpg LCLo:37200 ppm/40M

CODEN:

APTOD9 19,A22,80
JPHYA7 276,248,78
JOCMA7 2,383,60
28ZPAK -,28,72
28ZPAK -,28,72
ARTODN 43,237,80
NCITR* NCI-CG-TR-2,76
ARTODN 43,237,80
ARTODN 43,237,80
NCITR* NCI-CG-TR-2,76
ARTODN 35,295,76
AHBAAM 116,131,36
AIHAAP 23,167,62
BMJOAE 2,689,45
BJIMAG 28,293,71
NZMJAX 50,119,51
AIHAAP 30,470,69
AIHAAP 30,470,69
AEPPAE 141,19,29
JETOAS 7(4),247,74
CBCCT* 6,141,54
12VXA5 8,1069,68
TXAPA9 10,119,67
HBTXAC 5,76,59
QJPPAL 7,205,34
HBTXAC 5,76,59
AHBAAM 116,131,36
HBTXAC 5,76,59
QJPPAL 7,205,34
HBTXAC 5,76,59

Aquatic Toxicity Rating: TLm96:1000-100 ppm WQCHM* 3,-,74. Carcinogenic Determination: Animal positive IARC** 20,545,79; IARC** 11,263,76.

TLV: Air: 50 ppm DTLVS* 4,406,80. *Toxicology Review:* JTEHD6 2(3),671,77; CLPTAT 8,91,67; JOCMA7 16(3),194,74; JOCMA7 17(9),603,75; FNSCA6 2,-67,73; BNYMAM 54,413,78; 27ZTAP 3,146,69. OSHA Standard: Air: TWA 100 ppm;CL 200;Pk 300/5M/2H (SCP-J) FEREAC 39,23540,74. DOT: ORM-A, Label: None FEREAC 41,57018,76. Occupational Exposure to Trichloroethylene recm std: Air: TWA 100 ppm;CL 150 ppm/10M NTIS**. Occupational Exposure to Waste Anesthetic Gases and Vapors recm std: Air: CL 2 ppm/1H NTIS**. NCI Carcinogenesis Bioassay Completed; Results positive: Mouse (NCITR* NCI-CG-TR-2,76). NCI Carcinogenesis Bioassay Completed; Results negative: Rat (NCITR* NCI-CG-TR-2,76). Currently Tested by NTP for Carcinogenesis by Standard Bioassay Protocol as of December 1980. "NIOSH Manual of Analytical Methods" VOL 1 127, VOL 3 S336. NIOSH Current Intelligence Bulletin 2, 1975. Reported in EPA TSCA Inventory, 1980. EPA TSCA 8E No. 05780146—Followup sent as of April, 1979.

THR: HIGH via ivn; MOD via ipr, inhal, orl. An exper CARC, ETA. MUT data. Inhal of high conc causes narcosis and anesthesia. A form of addiction has been observed in exposed workers. Prolonged inhal of mod conc causes headache and drowsiness. Fatalities follow-

ing severe, acute exposure have been attributed to ventricular fibrillation resulting in cardiac failure. There is damage to liver and other organs from chronic exposure. Cases have been reported but are of questionable validity. Determination of the metabolites trichloracetic acid and trichloroethanol in urine reflects the absorption of trichloroethylene. A food additive permitted in food for human consumption. A common air contaminant. SEV eye irr in rbt.

Fire Hazard: Low, when exposed to heat or flame. High conc of trichloroethylene vapor in high-temp. air can be made to burn mildly if plied with a strong flame. Though such a condition is difficult to produce, flames or arcs should not be used in closed equipment which contains any solvent residue or vapor. Can react violently with Al, Ba, N_2O_4, Li, Mg, liquid O_2, O_2, KOH, KNO_3, Na, NaOH, Ti.

Spontaneous Heating: No.

Disaster Hazard: Dangerous; see chlorides.

N-ACETYL ETHYL CARBAMATE

CAS RN: 2597548 NIOSH #: EY 8290000
mf: $C_6H_9NO_3$; mw: 131.15

TOXICITY DATA:	3	CODEN:
ipr-mus TDLo:2400 mg/kg/4W-I:NEO		CNREA8 29,2184,69

THR: An exper NEO. See also carbamates.

Disaster Hazard: When heated to decomp it emits tox fumes of NO_x.

N-ACETYLETHYL-2-cis-CROTONYLCARBAMIDE

CAS RN: 25614782 NIOSH #: YR 6650000
mf: $C_9H_{14}N_2O_3$; mw: 198.25

SYN: HOMEOSTAN

TOXICITY DATA:	3-2	CODEN:
orl-mus LD50:3500 mg/kg		27ZQAG -,423,72
ipr-mus LD50:1500 mg/kg		27ZQAG -,423,72
ivn-mus LD50:300 mg/kg		27ZQAG -,423,72

THR: HIGH ivn. MOD orl, ipr.

Disaster Hazard: When heated to decomp it emits tox fumes of NO_x.

N'-ACETYL ETHYLNITROSOUREA

CAS RN: 52217477 NIOSH #: YR 6825000
mf: $C_5H_9N_3O_3$; mw: 159.17

TOXICITY DATA:	3	CODEN:
orl-rat TDLo:520 mg/kg/52W-I:ETA		27NZAH 2,73,72
orl-rat LD50:550 mg/kg		27NZAH 2,85,72

THR: An exper ETA. MOD orl.

Disaster Hazard: When heated to decomp it emits tox fumes of NO_x.

ACETYL ETHYL TETRAMETHYL TETRALIN

CAS RN: 88299 NIOSH#: AL 3031000
mf: $C_{18}H_{26}O$; mw: 258.44

White crystals.

SYN:

2'-ACETONAPHTHONE, 3'-ETHYL-5',6',7',8'-TETRAHYDRO-5',5',8'-TETRAMETHYL-
7-ACETYL-1,1,4,4-TETRAMETHYL-1,2,3,4-TETRAHYDRONAPHTHALENE
ACETYLETHYL TETRAMETHYLTETRALIN
6-ACETYL-1,1,4,4-TETRAMETHYL-7-ETHYL-1,2,3,4,-TETRALIN
AETT
ETHANONE, 1-(3-ETHYL-5,6,7,8-TETRAHYDRO-5,5,8,8-TETRAMETHYL-2-NAPHTHALENYL)-(9CI)
3'-ETHYL-5',6',7',8'-TETRAHYDRO-5',5',8'-TETRAMETHYL-2'-ACETONAPHTHONE
1-(3-ETHYL-5,6,7,8-TETRAHYDRO-5,5,8,8-TETRAMETHYL-2-NAPHTHALENYL)-ETHANONE
MUSK 36A
POLYCYCLIC MUSK
VERSALIDE

TOXICITY DATA:	3-2	CODEN:
skn-rbt 500 mg/24H MLD		FCTXAV 17,357,79
orl-rat LD50:316 mg/kg		FCTXAV 17,357,79
ipr-rat LD50:126 mg/kg		FCTXAV 17,357,79
scu-rat LD50:584 mg/kg		FCTXAV 17,357,79

Reported in EPA TSCA Inventory, 1980. Meets Criteria for Proposed OSHA Medical Record Rule FEREAC 47,30420,82.

THR: Exposure causes blue coloration of internal organs. It is slowly metabolized and excreted via feces. Exposure causes CNS effects, i.e., hyperexcitability, tremors, lack of coordination, hunched back and loss of weight. Symptoms persist for 90 days after exposure. Severity of symptoms seems proportional to length of exposure. It is freely absorbed via human skn. MOD skn irr. HIGH orl, ipr. MOD scu.

ACETYL FLUORIDE

CAS RN: 557993 NIOSH #: AP 2800000
mf: C_2H_3FO; mw: 62.05

d: 1.002 @ 15°/4°; mp: −60°; bp: 20.8°. Sl sol in alc, ether, acetone and benzene.

SYN: METHYLCARBONYL FLUORIDE

TOXICITY DATA:	2	CODEN:
ihl-mus LCLo:2500 mg/m3		NDRC** -,7,43
ihl-dog LCLo:2000 mg/m3/30M		11FYAN 3,74,63

Reported in EPA TSCA Inventory, 1980.

THR: MOD ihl. See also fluorides.

Disaster Hazard: When heated to decomp it emits tox fumes of F^-.

16-ACETYLGITOXIN

CAS RN: 7242071 NIOSH #: LZ 0875000
mf: $C_{43}H_{66}O_{15}$; mw: 823.09

TOXICITY DATA:	3	CODEN:
orl-cat LD50:120 ug/kg		AIPTAK 159,1,66
ivn-cat LDLo:1171 ug/kg		JMPCAS 5,988,62
orl-gpg LD50:2500 ug/kg		AIPTAK 159,1,66

Toxicology Review: 85ELDJ -,187,63.

THR: HIGH oral, ivn.

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

SYNS:
4-AETHYL-1-PHOSPHA-2,6,7-TRIOXABICYCLO(2.2.2)OCTAN-1-OXID (GERMAN)
4-ETHYL-1-PHOSPHA-2,6,7-TRIOXABICYCLO(2.2.2)OCTANE-1-OXIDE
4-ETHYL-2,6,7-TRIOXA-1-PHOSPHABICYCLO(2.2.2)OCTANE-1-OXIDE

TOXICITY DATA:	3	CODEN:
orl-rat LD50:3080 ug/kg		ARTODN 35,149,76
ihl-rat LC50:30 mg/m3/1H		ARTODN 35,149,76
skn-rat LD50:50 mg/kg		ARTODN 35,149,76
ipr-rat LD50:960 ug/kg		ARTODN 35,149,76
orl-mus LD50:3550 ug/kg		ARTODN 35,149,76
ipr-mus LD50:1 mg/kg		SCIEAS 182,1135,73
ivn-mus LDLo:500 ug/kg		EJMCA5 13,207,78
orl-dog LD50:1 mg/kg		ARTODN 35,149,76
orl-cat LD50:5 mg/kg		ARTODN 35,149,76
orl-rbt LD50:5 mg/kg		ARTODN 35,149,76
orl-gpg LD50:2500 ug/kg		ARTODN 35,149,76
orl-ham LD50:13 mg/kg		ARTODN 35,149,76
orl-ckn LD50:75 mg/kg		ARTODN 35,149,76

THR: HIGH orl, ihl, skn, ipr, ivn.
Disaster Hazard: When heated to decomp it emits tox fumes of PO_x.

ETHYL 4-HYDROXY-3-MORPHOLINOMETHYLBENZOATE

NIOSH #: DH 2528000
mf: $C_{13}H_{19}NO_4$; mw: 253.33

SYN: 4-HYDROXY-3-MORPHOLINOMETHYLBENZOIC ACID ETHYL ESTER

TOXICITY DATA:	2	CODEN:
orl-mus LDLo:3000 mg/kg		ARZNAD 11,85,61
scu-mus LDLo:460 mg/kg		ARZNAD 11,85,61

THR: MOD orl, scu.
Disaster Hazard: When heated to decomp it emits tox fumes of NO_x.

3-ETHYL-4-HYDROXY-1,2,5-OXADIAZOLE

mf: $C_4H_6N_2O_2$; mw: 114.10

Disaster Hazard: When heated to decomp it emits tox fumes of NO_x.
Incomp: Sodium hydroxide.

ETHYL(m-HYDROXYPHENYL) DIMETHYLAMMONIUM HYDROXIDE

CAS RN: 473370 NIOSH #: BQ 5900000
mf: $C_{10}H_{16}NO{\cdot}HO$; mw: 183.28

SYNS:
EDROPHONIUM
TENSILON

TOXICITY DATA:	3-2	CODEN:
orl-mus LD50:600 mg/kg		27ZIAQ -,102,73
ipr-mus LD50:37 mg/kg		27ZIAQ -,102,73
scu-mus LD50:130 mg/kg		27ZIAQ -,102,73
ivn-mus LD50:9 mg/kg		27ZIAQ -,102,73
ivn-rbt LD50:29 mg/kg		27ZIAQ -,102,73

THR: HIGH ivn, scu, ipr. MOD orl. See also ammonium hydroxide.
Disaster Hazard: When heated to decomp it emits tox fumes of NO_x.

ETHYL-p-HYDROXYPHENYL KETONE

CAS RN: 70702 NIOSH #: UH 1925000
mf: $C_9H_{10}O_2$; mw: 150.19

SYNS:
P-HYDROXYPHENYL-1-PROPANONE
1-(4-HYDROXYPHENYL)-1-PROPANONE
HYDROXYPROPIOPHENONE
P-HYDROXYPROPIOPHENONE
4-HYDROXYPROPIOPHENONE
P-OXYPROPIOPHENONE
PAROXYPROPIONE
P-PROPIONYLPHENOL
USAF EK-3302

TOXICITY DATA:	3-2	CODEN:
ipr-mus LD50:200 mg/kg		NTIS** AD277-689
scu-mus LD50:4100 mg/kg		ARZNAD 5,559,55

Reported in EPA TSCA Inventory, 1980.
THR: HIGH ipr; MOD scu.
Disaster Hazard: When heated to decomp it emits acrid smoke and fumes.

N-ETHYL-N-(3-HYDROXYPROPYL) NITROSAMINE

CAS RN: 61734881 NIOSH #: UB 5618000
mf: $C_5H_{12}N_2O_2$; mw: 132.19

TOXICITY DATA:	CODEN:
mma-sat 15 umol/plate	CNREA8 37,399,77

THR: MUT data.
Disaster Hazard: When heated to decomp it emits tox fumes of NO_x.

ETHYL HYPOCHLORITE

mf: C_2H_5ClO; mw: 80.52

THR: Very unstable.
Explosion Hazard: Self-explodes.
Incomp: Copper, light.

ETHYLIDENE DICHLORIDE

CAS RN: 75343 NIOSH #: KI 0175000
mf: $C_2H_4Cl_2$; mw: 98.96

Colorless liquid, aromatic, ethereal odor, hot saccharine taste. mp: −97.7°, lel = 5.6%, bp: 57.3°, flash p: 22°F (TOC), d: 1.174 @ 20°/4°, vap. press: 230 mm @ 25°, vap. d: 3.44, autoign. temp.: 856°F.

SYNS:
AETHYLIDENCHLORID (GERMAN)
CHLORINATED HYDROCHLORIC ETHER
CHLORURE D'ETHYLIDENE (FRENCH)
1,1-DICHLOORETHAAN (DUTCH)
CLORURO DI ETILIDENE (ITALIAN)
1,1-DICHLORAETHAN (GERMAN)
1,1-DICHLOROETHANE
1,1-DICLOROETANO (ITALIAN)
ETHYLIDENE CHLORIDE
NCI-C04535

TOXICITY DATA:	3	CODEN:
ihl-rat TCLo:6000 ppm/7H (6-15D preg)		TXAPA9 28,452,74
ihl-rat TCLo:6000 ppm/(6-15D preg):TER		TXAPA9 28,452,74
orl-mus TDLo:185 gm/kg/78W-I:ETA		NCITR* NCI-CG-TR-66,78

orl-mus TD:1300 gm/kg/78W-I:ETA	NCITR* NCI-CG-TR-66,78
orl-rat LD50:725 mg/kg	HYSAAV 32,349,67

TLV: Air: 200 ppm DTLVS* 4,130,80. *Toxicology Review:* AIHAAP 40,A46,79; 27ZTAP 3,49,69. OSHA Standard: Air: TWA 100 ppm (SCP-I) FEREAC 39,23540,74. NCI Carcinogenesis Bioassay Completed; Results Indefinite: Mouse, Rat (NCITR* NCI-CG-TR-66,78). "NIOSH Manual of Analytical Methods" VOL 2 S123. NIOSH Current Intelligence Bulletin 27, 1978. Reported in EPA TSCA Inventory, 1980. EPA TSCA 8(a) Preliminary Assessment Information Proposed Rule FERREAC 45,13646,80.

THR: An exper TER, ETA. MOD orl. Liver damage report in exper animals.

Fire Hazard: Dangerous, when exposed to heat or flame.

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

Disaster Hazard: Dangerous; when heated to decomp it emits highly tox fumes of phosgene; can react vigorously with oxidizing materials.

To Fight Fire: Alcohol foam, water, foam, CO_2, dry chemical.

ETHYLIDENE DIFLUORIDE

CAS RN: 75376 NIOSH #: KI 1410000
mf: $C_2H_4F_2$; mw: 66.06

Colorless gas. mp: −117.0°, bp: −26.5°, d: 1.004 @ 25°, vap. d: 2.28.

SYNS:
DIFLUOROETHANE
ETHYLENE FLUORIDE
ETHYLIDENE FLUORIDE

TOXICITY DATA: 1	CODEN:
sln-dmg-ihl 98 ppb/10M	ENVRAL 7,275,74
ihl-rat LCLo:50 ppb/10M	AIHOAX 2,335,50

Toxicology Review: FAZMAE 18,365,74. DOT: Flammable Gas, Label: Flammable Gas FEREAC 41,57018,76. Reported in EPA TSCA Inventory, 1980. EPA TSCA 8(a) Preliminary Assessment Information Proposed Rule FERREAC 45,13646,80.

THR: LOW inhal; LOW to MOD irr. Narcotic in high conc. MUT data.

Fire Hazard: Dangerous, when exposed to heat or flame.

Disaster Hazard: Dangerous; see fluorides; can react vigorously with oxidizing materials.

ETHYLIDENE DIURETHAN

CAS RN: 539719 NIOSH #: FA 9460000
mf: $C_8H_{16}N_2O_4$; mw: 204.26

SYN: N,N'-ETHYLIDENE-BIS(ETHYL CARBAMATE)

TOXICITY DATA: 3	CODEN:
ipr-mus TDLo:6500 mg/kg/13W-I:ETA	JNCIAM 9,35,48

THR: An exper ETA.

Disaster Hazard: When heated to decomp it emits tox fumes of NO_x.

5-ETHYLIDENE-2-NORBORNENE

CAS RN: 16219753 NIOSH #: RB 9450000
mf: C_9H_{12}; mw: 120.21

SYN: 5-ETHYLIDENEBICYCLO(2.2.1)HEPT-2-ENE

TOXICITY DATA: 2	CODEN:
skn-rbt 445 mg open MLD	UCDS** 11/28/67
ihl-hmn TCLo:6 ppm/30M:IRR	TXAPA9 20,250,71
orl-rat LD50:2830 mg/kg	UCDS** 11/28/67
ihl-rat LC50:4000 ppm/4H	AIHAAP 30,470,69
ihl-rat LC50:1246 ppm/4H	TXAPA9 20,250,71
ihl-mus LC50:732 ppm/4H	TXAPA9 20,250,71
ihl-rbt LC50:3104 ppm/4H	TXAPA9 20,250,71
skn-rbt LD50:9170 mg/kg	UCDS** 11/28/67
ihl-gpg LC50:2896 ppm/4H	TXAPA9 20,250,71

TLV: Air: 5 ppm DTLVS* 4,188,80. Reported in EPA TSCA Inventory, 1980. EPA TSCA 8(a) Preliminary Assessment Information Proposed Rule FERREAC 45,13646,80.

THR: MLD skn. Ihl IRR in hmn. MOD orl, ihl, skn.

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

N-ETHYL-2,2'-IMINODIETHANOL

CAS RN: 139877 NIOSH #: KK 9800000
mf: $C_6H_{15}NO_2$; mw: 133.22

TOXICITY DATA: 1	CODEN:
skn-rbt 10 mg/24H MLD	AMIHBC 10,61,54
eye-rbt 750 ug SEV	AMIHBC 10,61,54
orl-rat LD50:4570 mg/kg	AMIHBC 10,61,54

Reported in EPA TSCA Inventory, 1980.

THR: LOW orl in rat. MLD skn irr in rbt. SEV eye irr in rbt.

Disaster Hazard: When heated to decomp it emits tox fumes of NO_x.

ETHYL IODIDE

CAS RN: 75036 NIOSH #: KI 4750000
mf: C_2H_5I; mw: 155.97

Clear, colorless liquid, turns brown on exposure to light, refractive, heavy. mp: −108°, bp: 72.4°, d: 1.90-1.93 @ 25°/25°, vap. press: 100 mm @ 18.0°, vap. d: 5.38. Misc in alc and ether.

SYNS:
HYDRIODIC ETHER
IODOETHANE

TOXICITY DATA: 1	CODEN:
mmo-esc 20 umol/L	ARTODN 46,277,80
ihl-rat LC50:65000 mg/m3/30M	FAVUAI 7,35,75

Reported in EPA TSCA Inventory, 1980.

THR: MOD irr to skin, eyes, mu mem. Narcotic in high conc. LOW ihl tox in rat.

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

Disaster Hazard: Dangerous; when heated to decomp, emits highly toxic fumes of iodides; will react with water or steam to produce toxic and corrosive fumes; can react vigorously with oxidizing materials.

To Fight Fire: Water, CO_2, dry chemical.

SYN: 2-(P-((DI-2-CHLOROETHYL)AMINO)PHENYLAZO)-BENZOIC ACID

TOXICITY DATA: CODEN:
sln-dmg-par 194 ng BCPCA6 5,206,60

THR: MUT data.
Disaster Hazard: When heated to decomp it emits very tox fumes of Cl^- and NO_x.

9-(2-(DI(2-CHLOROETHYL)AMINO)-ETHYLAMINO)-6-CHLORO-2-METHOXY-ACRIDINE

CAS RN: 10072250 NIOSH #: AR 7525000
mf: $C_{20}H_{22}Cl_3N_3O \cdot 2ClH \cdot H_2O$; mw: 517.74

SYNS:
ICR-48B
NSC-34372
QUINACRINE ETHYL MUSTARD

TOXICITY DATA: 3 CODEN:
ipr-mus TDLo:16 mg/kg/4W:CARC JNCIAM 36,915,66

THR: An exper CARC.
Disaster Hazard: When heated to decomp it emits very tox fumes of Cl^-, NO_x and HCl.

DICHLOROETHYLARSINE

CAS RN: 598141 NIOSH #: CH 3500000
mf: $C_2H_5AsCl_2$; mw: 174.89

Colorless liquid, fruity, biting, irr odor. mp: −65°, bp: 156° decomp, d: 1.742 @ 14°, vap. press: 2.29 mm @ 21.5°, vap. d: 6.03.

SYNS:
ARSENIC DICHLOROETHANE
DICK (GERMAN)
ETHYLDICHLOROARSINE

TOXICITY DATA: 3 CODEN:
ihl-hmn LCLo:14 ppm/30M NTIS** PB214-270
ihl-mus LCLo:94 ppm/20M ZGEMAZ 13,523,21
ihl-cat LCLo:12 ppm/40M ZGEMAZ 13,523,21
scu-cat LDLo:1 mg/kg ZGEMAZ 13,523,21

Aquatic Toxicity Rating: TLm96:under 1 ppm WQCHM* 2,-,74.
THR: VERY HIGH via inhal and ivn, probably HIGH via oral routes as well. Very irr. See arsenic compounds. Used as a military poison gas.
Disaster Hazard: Dangerous; on contact with acid or acid fumes it emits highly tox fumes of arsenic and phosgene; will react with water or steam to produce tox and corrosive fumes. Can react with oxidizing materials.

2,2-DICHLOROETHYLCARBAMIC ACID ETHYL ESTER

CAS RN: 67049756 NIOSH #: EZ 4075000
mf: $C_5H_9Cl_2NO_2$; mw: 186.05

TOXICITY DATA: 3-2 CODEN:
ipr-mus LDLo:625 mg/kg JPETAB 42,1,31
scu-rbt LDLo:1550 mg/kg JPETAB 42,1,31
par-frg LDLo:300 mg/kg JPETAB 42,1,31

THR: HIGH par. MOD ipr, scu. See also esters.
Disaster Hazard: When heated to decomp it emits very tox fumes of Cl^- and NO_x.

O,O-DI(2-CHLOROETHYL)-O-(3-CHLORO-4-METHYLCOUMARIN-7-YL) PHOSPHATE

CAS RN: 321551 NIOSH #: GN 5250000
mf: $C_{14}H_{14}Cl_3O_6P$; mw: 415.60

SYNS:
O,O-BIS(2-CHLOROETHYL) O-(3-CHLORO-4-METHYL-7-COUMARINYL) PHOSPHATE
3-CHLORO-7-HYDROXY-4-METHYLCOUMARIN BIS(2-CHLOROETHYL)PHOSPHATE
DI-(2-CHLOROETHYL)-3-CHLORO-4-METHYL-7-COUMARINYL PHOSPHATE
DI-(2-CHLOROETHYL) 3-CHLORO-4-METHYLCOUMARIN-7-YL PHOSPHATE

TOXICITY DATA: 2 CODEN:
orl-dom LD50:763 mg/kg AJVRAH 41,1857,80
orl-rat LD50:900 mg/kg FAZMAE 17,108,73
ipr-ckn LD50:800 mg/kg BCPCA6 16,1183,67

Toxicology Review: RREVAH 46,1,73; PMDCAY 10, 85,74.
THR: MOD orl, ipr.
Disaster Hazard: When heated to decomp it emits very tox fumes of PO_x and Cl^-.

DICHLOROETHYLENE

CAS RN: 25323302 NIOSH #: KV 9250000
mf: $C_2H_2Cl_2$; mw: 96.94

TOXICITY DATA: 2 CODEN:
ihl-mus LCLo:76 gm/m3/2H AEXPBL 83,235,18
ihl-gpg LCLo:155 gm/m3/1H AEXPBL 83,235,18

THR: MOD ihl in mus and gpg.
Disaster Hazard: When heated to decomp it emits tox fumes of Cl^-.

1,1-DICHLOROETHYLENE

CAS RN: 75354 NIOSH #: KV 9275000
mf: $C_2H_2Cl_2$; mw: 96.94

Colorless volatile liquid. bp: 31.6°, lel = 7.3%, uel = 16.0%, fp: −122°, flash p: 0°F (OC), d: 1.213 @ 20°/4°, autoign. temp.: 1058°F.

SYNS:
CHLORURE DE VINYLIDENE (FRENCH)
1,1-DICHLOROETHENE
1-1-DCE
NCI-C54262
VINYLIDENE DICHLORIDE

TOXICITY DATA: 3 CODEN:
orl-rat TDLo:200 mg/kg (6-15D preg) TXAPA9 49,189,79
ihl-rat TCLo:80 ppm/7H (6-15D preg) TXAPA9 49,189,79
ihl-rbt TCLo:160 ppm/7H (6-15D preg) TXAPA9 49,189,79
mmo-sat 5 pph MUREAV 57,141,78
mma-sat 3 pph/2H MUREAV 58,183,78
ihl-rat TCLo:55 ppm/52W-I:ETA JTEHD6 4,15,78
ihl-mus TCLo:55 ppm/6H/1Y-I:ETA EVHPAZ 21,25,77
skn-mus TDLo:4840 mg/kg:NEO JJIND8 63,1433,79
ihl-rat TC:55 ppm/1Y-I:ETA EVHPAZ 21,25,77

ihl-mus TC:55 ppm/43W-I:ETA	JTEHD6 4,15,78
ihl-hmn TCLo:25 ppm:SYS	CHINAG 11,463,76
orl-rat LD50:200 mg/kg	DCTODJ 1,63,77
ihl-rat LCLo:10000 ppm/24H	EXMPA6 20,187,74
ihl-mus LC50:98 ppm/22H	JTEHD6 3(5-6),913,77
orl-dog LDLo:5750 mg/kg	QJPPAL 7,205,34
ivn-dog LDLo:225 mg/kg	QJPPAL 7,205,34
scu-rbt LDLo:3700 mg/kg	QJPPAL 7,205,34

Aquatic Toxicity Rating: TLm96:1000-100 ppm WQCHM* 3,-,74. Carcinogenic Determination: Animal Positive IARC** 19,439,79.

TLV: Air: 10 ppm DTLVS* 4,432,80. *Toxicology Review:* CTOXAO 8,633,75; CMTVAS 10(3),49,73; NTIS** ORNL/TIRC-77/3. Occupational Exposure to Vinyl Halides recm std: Air: TWA 1 ppm; CL 5 ppm/15M NTIS**. NTP Carcinogenesis Bioassay Completed as of December 1980. "NIOSH Manual of Analytical Methods" VOL 4 266*. NIOSH Current Intelligence Bulletin 28, 1978. Reported in EPA TSCA Inventory, 1980. EPA TSCA 8(a) Preliminary Assessment Information Proposed Rule FERREAC 45,13646,80.

THR: An exper MUT, ETA, NEO, CARC. HIGH acute orl, ihl. See also vinyl chloride.

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

Explosion Hazard: Mod, in the form of gas, when exposed to heat or flame. Also can explode spontaneously; reacts violently with chlorosulfonic acid, HNO_3, oleum.

Disaster Hazard: Highly dangerous; see chlorides; can react vigorously with oxidizing materials.

To Fight Fire: Alcohol foam, CO_2, dry chemical.

Incomp: Air; chlorotri-fluoroethylene; ozone; perchloryl fluoride.

cis-DICHLOROETHYLENE

CAS RN: 156592 NIOSH #: KV 9420000
mf: $C_2H_2Cl_2$; mw: 96.94

Colorless liquid, pleasant odor. mp: −80.5°, bp: 59°, lel = 9.7%, uel = 12.8%, flash p: 39°F, d: 1.2743 @ 25°/4°, vap. press: 400 mm @ 41.0°, vap. d: 3.34.

SYNS:
1,2-DICHLOROETHYLENE ACETYLENE DICHLORIDE

TOXICITY DATA: 1	CODEN:
ihl-mus LCLo:65000 mg/m3/2H	AHBAAM 116,131,36
ihl-cat LCLo:20000 mg/m3/6H	AHBAAM 116,131,36

Reported in EPA TSCA Inventory, 1980.

THR: LOW via oral route. In high conc it is irr and narcotic. Has produced liver and kidney injury in exper animals.

Fire Hazard: Dangerous, when exposed to heat or flame. Reacts violently with N_2O_4, KOH, Na, NaOH.

Spontaneous Heating: No.

Explosion Hazard: Mod, in the form of vapor when exposed to flame.

Disaster Hazard: Dangerous; see chlorides; can react vigorously with oxidizing materials.

To Fight Fire: Water spray, foam, CO_2, dry chemical.

cis, 1,2-DICHLOROETHYLENE

mf: $C_2H_2Cl_2$; mw: 96.94

Flash p: 42.8°F; lel = 3.3%; uel = 15%.

trans-1,2-DICHLOROETHYLENE

mf: $C_2H_2Cl_2$; mw: 96.94

Flash p: 35.6°F; lel = 9.7%; uel = 12.8%.
Can cause fire hazard.

Incomp: Alkalies; difluoromethylene dihypofluorite; nitrogen tetraoxide.

1,2-DICHLOROETHYLENE CARBONATE

CAS RN: 3967553 NIOSH #: JH 7400000
mf: $C_3H_2Cl_2O_3$; mw: 156.95

TOXICITY DATA: 3	CODEN:
scu-mus TDLo:648 mg/kg/54W-I:ETA	JNCIAM 48,1431,72

THR: An exper ETA.

Disaster Hazard: When heated to decomp it emits tox fumes of Cl^-.

DICHLORO(ETHYLENEDIAMMINE)-PLATINUM(II)

CAS RN: 14096516 NIOSH #: TP 2497100
mf: $C_2H_8Cl_2N_2Pt$; mw: 326.11

TOXICITY DATA: 3	CODEN:
mmo-sat 2 ug/plate	MUREAV 77,45,80
mma-sat 2 ug/plate	MUREAV 77,45,80
ipr-mus LDLo:14 mg/kg	BICHBX 2,187,73

THR: MUT data. HIGH ipr. See also platinum compounds.

Disaster Hazard: When heated to decomp it emits very tox fumes of Cl^- and NO_x.

DI-2-CHLOROETHYL MALEATE

CAS RN: 63917066 NIOSH #: ON 1050000
mf: $C_8H_{10}Cl_2O_4$; mw: 241.08

TOXICITY DATA: 3	CODEN:
orl-rat LD50:71 mg/kg	TXAPA9 28,313,74
skn-rbt LD50:140 mg/kg	TXAPA9 28,313,74

THR: HIGH orl, skn.

Disaster Hazard: When heated to decomp it emits tox fumes of Cl^-.

2,3-DICHLORO-N-ETHYLMALEINIMIDE

CAS RN: 20198770 NIOSH #: ON 5175000
mf: $C_6H_5Cl_2NO_2$; mw: 194.02

SYN: N-ETHYL-DICHLOROMALEINIMIDE

TOXICITY DATA: 3	CODEN:
ipr-mus TDLo:6200 ug/kg/(9D preg):TER	ARTODIN 37,15,76
ipr-mus LD50:15 mg/kg	ARTODN 37,15,76
ivn-mus LD50:5600 ug/kg	CSLNX* NX#03694

TLV: Air: 5 ppm DTLVS* 3,249,71. DOT: ORM-A, Label: None FEREAC 41,57018,76. Reported in EPA TSCA Inventory, 1980. EPA TSCA 8(a) Preliminary Assessment Information Proposed Rule FERREAC 45,13646,80.
THR: HIGH orl, ihl in rat. MOD skn, ipr in rbt, gpg.
Disaster Hazard: When heated to decomp it emits tox fumes of Cl^-.
For further information see Vol. 1, No. 5 of *DPIM Report.*

1,1,1,2-TETRACHLOROETHANE

CAS RN: 630206 NIOSH #: KI 8450000
mf: $C_2H_2Cl_4$; mw: 167.84

Liquid; d: 1.588 @ 20°/4°; bp: 129°-130°; sol in water; misc in alc, ether.

SYN: NCI-C52459

TOXICITY DATA: 2	CODEN:
skn-rbt 500 mg/24H	AMPMAR 35,593,74
eye-rbt 100 mg SEV	AMPMAR 35,593,74

Toxicology Review: AIHAAP 40,A46,79. Currently Tested by NTP for Carcinogenesis by Standard Bioassay Protocol as of December 1980. NIOSH Current Intelligence Bulletin 27, 1978. Reported in EPA TSCA Inventory, 1980.
THR: Possible CARC. An irr (SEV) in rbt eyes and MOD in rbt skn.
Disaster Hazard: When heated to decomp it emits very tox fumes of Cl^-.
Incomp: Dinitrogen tetraoxide.
For further information see Vol. 2, No. 6 and Vol. 3, No. 2 of *DPIM Report.*

1,1,2,2-TETRACHLOROETHYLENE

CAS RN: 127184 NIOSH #: KX 3850000
mf: C_2Cl_4; mw: 165.82

Colorless liquid, chloroform-like odor. mp: −23.35°, bp: 121.20°, flash p: none, d: 1.6311 @ 15°/4°, vap. press: 15.8 mm @ 22°, vap. d: 5.83.

SYNS:

CARBON BICHLORIDE
CARBON DICHLORIDE
CZTEROCHLOROETYLEN (POLISH)
DOW-PER
ETHYLENE TETRACHLORIDE
NCI-C04580
PERCHLOORETHYLEEN, PER (DUTCH)
PERCHLORAETHYLEN, PER (GERMAN)
PERCHLORETHYLENE, PER (FRENCH)
PERCHLOROETHYLENE
PERCLENE
PERCLOROETILENE (ITALIAN)
TETRACHLOORETHEEN (DUTCH)
TETRACHLORAETHEN (GERMAN)
TETRACHLOROETHYLENE (DOT)
TETRACLOROETENE (ITALIAN)

TOXICITY DATA: 3	CODEN:
ihl-rat TCLo:1000 ppm/24H (14D pre/1-22D preg)	APTOD9 19,A21,80
ihl-rat TCLo:1000 ppm/24H (1-22D preg)	APTOD9 19,A21,80
ihl-rat TCLo:900 ppm/7H (7-13D preg)	TJADAB 19,41A,79
ihl-rat TCLo:300 ppm/7H (6-15D preg)	TXAPA9 32,84,75
ihl-mus TCLo:300 ppm/7H (6-15D preg)	TXAPA9 32,84,75
skn-rbt 810 mg/24H SEV	JETOAS 9,171,76
eye-rbt 162 mg MLD	JETOAS 9,171,76
mmo-sat 50 uL/plate	NIOSH* 5AUG77
mma-sat 200 uL/plate	NIOSH* 5AUG77
orl-mus TDLo:195 gm/kg/50W-I:CAR	NCITR* NCI-CG-TR-13,77
orl-mus TD:240 gm/kg/62W-I:CAR	NCITR* NCI-CG-TR-13,77
ihl-hmn TCLo:96 ppm/7H:SYS	NTIS** PB257-185
ihl-man TCLo:280 ppm/2H:EYE	AMIHBC 5,566,52
ihl-man TCLo:600 ppm/10M:CNS	AMIHBC 5,566,52
orl-rat LD50:8850 mg/kg	NPIRI* 1,96,74
ihl-rat LCLo:4000 ppm/4H	JOCMA7 4,262,62
orl-mus LD50:8100 mg/kg	NTIS** PB257-185
ihl-mus LCLo:23000 mg/m3/2H	AHBAAM 116,131,36
ipr-mus LD50:4700 mg/kg	NTIS** PB257-185
orl-dog LDLo:4000 mg/kg	AJHYA2 9,430,29
ipr-dog LD50:2100 mg/kg	TXAPA9 10,119,67
ivn-dog LDLo:85 mg/kg	QJPPAL 7,205,34
orl-cat LDLo:4000 mg/kg	AJHYA2 9,430,29
orl-rbt LDLo:5000 mg/kg	AJHYA2 9,430,29
scu-rbt LDLo:2200 mg/kg	QJPPAL 7,205,34

Aquatic Toxicity Rating: TLm96:100-10 ppm WQCHM* 3,-,74. Carcinogenic Determination: Animal Positive IARC** 20,491,79.
TLV: Air: 50 ppm (skin) DTLVS* 4,325,80. *Toxicology Review:* AJMEAZ 38,409,65; 27ZTAP 3,139,69. OSHA Standard: Air: TWA 100 ppm; CL 200; Pk 300/5M/3H (SCP-J) FEREAC 39,23540,74. DOT: ORM-A, Label: None FEREAC 41,57018,76. Occupational Exposure to Tetrachloroethylene recm std: Air: TWA 50 ppm; CL 100 ppm/15M NTIS**. NCI Carcinogenesis Bioassay Completed; Results Positive: Mouse (NCITR* NCI-CG-TR-13,77). NCI Carcinogenesis Bioassay Completed; Results Negative: Rat (NCITR* NCI-CG-TR-13,77). Currently Tested by NTP for Carcinogenesis by Standard Bioassay Protocol as of December 1980."NIOSH Manual of Analytical Methods" VOL 1 127, VOL 3 S335. NIOSH Current Intelligence Bulletin 20, 1978. Reported in EPA TSCA Inventory, 1980. EPA TSCA 8E No: 05780146-Followup Sent as of April, 1979.
THR: MOD via inhal, oral, scu, ipr and dermal routes. HIGH via ivn route. Not corrosive or dangerously acutely reactive, but toxic by inhal, by prolonged or repeated contact with the skin or mu mem, or when ingested by mouth. The liquid can cause injuries to the eyes; however, with proper precautions it can be handled safely. The symptoms of acute intoxication from this material are the result of its effects upon the nervous system.

Exposures to higher conc than 200 ppm cause irr, lachrymation and burning of the eyes and irr of the nose and throat. There may be vomiting, nausea, drowsiness, an attitude of irresponsibility, and even an appearance resembling alcoholic intoxication. This material also acts as an anesthetic, through the inhalation of excessive amounts within a short time. The symptoms of fatal intoxication are irritation of the eyes, nose and throat, then fullness in the head, mental confusion; there may be headache stupefaction, nausea and vomiting, personnel suffering from subacute poisoning

may suffer from such symptoms as headache, fatigue, nausea, vomiting, mental confusion and temporary blurring of the vision. This can occur when inadequate ventilation results in concentrations higher than 200 ppm, or where the vapor conc are intermittently high due to faulty handling of the material, or when an individual fails to take adequate precautionary measures.

This material can cause dermatitis, particularly after repeated or prolonged contact with the skin. The dermatitis is preceded by a reddening and burning and more rarely, a blistering of the skin. In any event, the skin becomes rough and dry, due largely to the removal of skin oils by material. The skin then cracks easily and is readily susceptible to infection. Upon ingestion it causes irr of the gastrointestinal tract, which, in turn, causes nausea, vomiting, diarrhea and bloody stools. However, such effects are usually less severe than the effects of swallowing similar amounts of other chlorinated hydrocarbons. An exper CARC. MUT data.

It may be handled in the presence or absence of air, water, and light with any of the common construction materials at temp. up to 140°C. This material is extremely stable and resists hydrolysis. A common air contaminant. Reacts violently with Ba, Be, Li; N_2O_4; metals; NaOH.

Disaster Hazard: Dangerous; when heated to decomp it emits high tox fumes of chlorides.

For further information see Perchloroethylene Vol. 1, No. 2 of *DPIM Report.*

TETRACHLORO HYDROQUINONE

CAS RN: 87876 NIOSH #: MX 7700000
mf: $C_6H_2Cl_4O_2$; mw: 247.88

SYN: USAF DO-62

TOXICITY DATA: 3-2 CODEN:
orl-mus LD50:500 mg/kg ARTODN 40,63,78
ipr-mus LD50:25 mg/kg NTIS** AD277-689

Reported in EPA TSCA Inventory, 1980.
THR: HIGH ipr. MOD orl.

TETRACHLOROISOPHTHALONITRILE

CAS RN: 1897456 NIOSH #: NT 2600000
mf: $C_8Cl_4N_2$; mw: 265.90

SYNS:
CHLORTHALONIL (GERMAN)
NCI-C00102
M-TETRACHLOROPHTHALONITRILE

TOXICITY DATA: 3 CODEN:
orl-rat TDLo:142 gm/kg/80W-C:CAR NCITR* NCI-CG-TR-41,78
orl-rat LD50:10000 mg/kg 85ARAE 4,75,76
ipr-mus LD50:2500 mg/kg INHEAO 4,11,66

NCI Carcinogenesis Bioassay Completed; Results Positive: Rat (NCITR* NCI-CG-TR-41,78); Results Negative: Mouse (NCITR* NCI-CG-TR-41,78). Reported in EPA TSCA Inventory, 1980.

THR: An exper CARC. MOD acute ipr and LOW acute orl.

Disaster Hazard: When heated to decomp it emits very tox fumes of Cl^-, NO_x and CN^-.

TETRACHLORONAPHTHALENE

CAS RN: 1335882 NIOSH #: QK 3700000
mf: $C_{10}H_4Cl_4$; mw: 265.94

Crystals. mp: 182°.

TOXICITY DATA: 3 CODEN:
ihl-hmn TCLo:3 mg/m3:SYS DTLVS* 3,251,71

TLV: Air: 2 mg/m3 (skin) DTLVS* 4,391,80. OSHA Standard: Air: TWA 2 mg/m3 (skin) (SCP-I FEREAC 39,23540,74. "NIOSH Manual of Analytical Methods" VOL 2 S130. Reported in EPA TSCA Inventory, 1980. EPA TSCA 8(a) Preliminary Assessment Information Proposed Rule FERREAC 45,1364 80.

THR: HIGH via inhal and dermal routes. See also chlorinated naphthalenes and chlorinated diphenyls.

Disaster Hazard: Dangerous; when heated to decomp it emits highly toxic fumes of Cl^-.

TETRACHLORONITROANISOLE

CAS RN: 2438882 NIOSH #: BZ 9625000
mf: $C_7H_3Cl_4NO_3$; mw: 290.91

SYNS:
BENZENE, 1,2,4,5-TETRACHLORO-3-METHOXY-6-NITRO- (9CI)
ENT 22,335
NCI-C03032
4-NITRO-2,3,5,6-TETRACHLOROANISOLE
2,3,5,6-TETRACHLORO-4-NITROANISOLE

TOXICITY DATA: 3 CODEN:
orl-rat LD50:260 mg/kg IHFCAY 6,1,67

NCI Carcinogenesis Bioassay Completed; Results Negative (NCITR* NCI-CG-TR-114,78).
THR: HIGH orl.
Disaster Hazard: When heated to decomp it emits very tox fumes of Cl^- and NO_x.

2,3,4,6-TETRACHLORONITROBENZENE

CAS RN: 3714623 NIOSH #: DB 9800000
mf: $C_6HCl_4NO_2$; mw: 260.88

SYN: 1,2,3,5-TETRACHLORO-4-NITROBENZENE

TOXICITY DATA: 3 CODEN:
skn-mus TDLo:576 mg/kg/12W-I:NEO CNREA8 26,12,66

THR: An exper NEO.
Disaster Hazard: When heated to decomp it emits tox fumes of HCl and NO_x.

2,3,5,6-TETRACHLORONITROBENZENE

CAS RN: 117180 NIOSH #: DC 0175[illegible]
mf: $C_6HCl_4NO_2$; mw: 260.88

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

REF. (4A)

CLASSIFICATION CODE: 3 REGION: 8 SITE CODE: 859002
EPA ID:

NAME OF SITE : Hoff Brothers
STREET ADDRESS: Plank Road
TOWN/CITY: COUNTY: ZIP:
Walworth (T) Wayne

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

SITE OWNER/OPERATOR INFORMATION:
CURRENT OWNER NAME....: Abandoned
CURRENT OWNER ADDRESS.:
OWNER(S) DURING USE...: abandoned
OPERATOR DURING USE...:
OPERATOR ADDRESS.....:
PERIOD ASSOCIATED WITH HAZARDOUS WASTE: From 1965 To 1966

SITE DESCRIPTION:
Lat 43 10' 52" N Long 77 20' 55" W
flat topography - rural agricultural area
nearest water body: Mill Creek - 500 feet E
Unnamed tributary to Fourmile Creek - 500 feet W.
Hoff Brothers disposed of drums from Xerox in an abandoned gravel pit. Problems with taste and odor in private wells in the area was brought to the attention of the NYS HD in Genesee. The drums were removed in 1967. Arrangements were made to have public water brought to the area. There are no current evidence of problems. A Phase I investigation is planned.

HAZARDOUS WASTE DISPOSED: Confirmed-X Suspected-

TYPE	QUANTITY (units)
oils & solvents & phenols	10-15 drums-removed

ANALYTICAL DATA AVAILABLE:
Air- Surface Water- Groundwater-X Soil- Sediment- None-

CONTRAVENTION OF STANDARDS:
Groundwater- Drinking Water- Surface Water- Air-

LEGAL ACTION:

TYPE..: none State- Federal-
STATUS: Negotiation in Progress- Order Signed-

REMEDIAL ACTION:

Proposed- Under design- In Progress- Completed-
NATURE OF ACTION: barrels were removed

GEOTECHNICAL INFORMATION:
SOIL TYPE: madrid gravelly fine sandy loam USDA Soil Survey Map
GROUNDWATER DEPTH: 6 feet

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

unknown - no known environmental problems.

ASSESSMENT OF HEALTH PROBLEMS:

Medium	Contaminants Available	Migration Potential	Potentially Exposed Population	Need for Investigation
Air	Unlikely	Unlikely	Yes	Low
Surface Soil	Likely	Unlikely	Yes	Medium
Groundwater	Likely	Unlikely	No	Low
Surface Water	Likely	Unlikely	No	Low

Health Department Site Inspection Date : 05/86

MUNICIPAL WASTE ID:

REF. (5)

URS

AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

URS COMPANY, INC.
CONSULTING ENGINEERS
570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202
TEL: (716) 883-5525

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SAN FRANCISCO
SAN MATEO, CA

August 3, 1987

JOB # _____

Mrs. Betty Buchiere
4999 Lincoln Road
Macedon, New York 14502

Dear Mrs. Buchiere:

As I mentioned during our telephone conversation on July 30, 1987, URS Company, Inc. is currently conducting a Phase I investigation of the "Hoff Brothers" site on Plank Road in the Town of Walworth, Wayne County, New York. The site is located on the south side of Plank Road, as shown on the accompanying map. We are performing this investigation for the New York State Department of Environmental Conservation pursuant to the requirements of the New York State Superfund Law (Chapter 857 of the Laws of 1982).

This is to confirm our telephone conversation wherein you provided the following information:

- The property was co-owned by Mr. George Kahler and yourself since 1951. Mr. Kahler died in 1979, at which time you and your husband, Mr. Angelo Buchiere, obtained ownership.

- The property includes approximately 10 acres, and was primarily used for a source of wood from existing trees.

- Several drums containing wastes from Xerox were brought onto the property during the mid-1960's, and were there for only a few months when nearby residents complained about taste problems with water from their private wells. During the time of the drum disposal, the property owners were not aware of the contents of the drums. They had been informed by the hauler that the drums were empty.

- The drum disposal area on the property includes the present-day clearing area to the southwest of the existing pond. Previously, this clearing area was the location of a small pond which had low water levels and periodically dried up in summer months. Both ponds are the locations of abandoned gravel pits.

- A liquid was observed to have leaked out of the drums and encompassed an area approximately 1/3 the size of the old pond.

- The drums were removed within about ~~one year~~ A FEW WEEKS after they were first brought onto the property. In addition, the pond was drained and then back-filled.

We would appreciate if you would review this information, note any necessary corrections, and return a signed and dated copy to indicate your concurrence. Your prompt attention to this would be appreciated, as the information is necessary to complete our evaluation of the site.

Sincerely,

URS COMPANY, INC.

Linda J. Clark

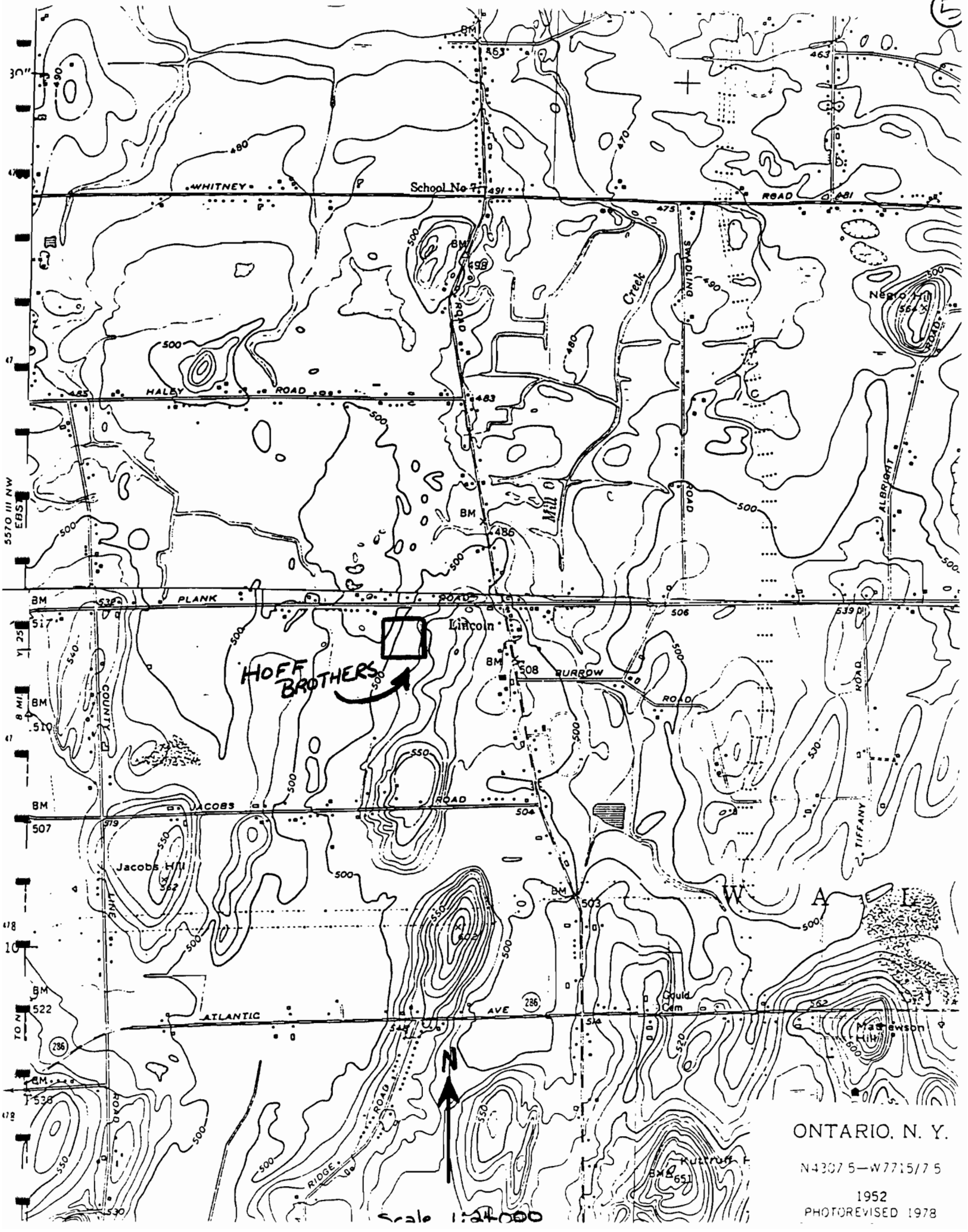
Linda J. Clark
Project Geologist

LJC/bc
8/3/87L2
35154

I agree with the information as it is presented.

Betty Buchiere — Betty Buchiere

8/26/87 — Date



ONTARIO, N. Y.

N4307.5—W7715/7.5

1952

PHOTOREVISED 1978

REF. (6

URS

AN INTERNATIONAL PROFESSIONAL SERVICES COMPANY

URS COMPANY, INC.

CONSULTING ENGINEERS

570 DELAWARE AVENUE
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SAN MATEO, CA

September 9, 1987

Mr. George Schaller
Town of Walworth
4384 Canadaigua Road
Walworth, New York 14568

Dear Mr. Schaller:

As I mentioned during our telephone conversation on July 31, 1987, URS Company, Inc. is currently conducting a Phase I investigation of the "Hoff Brothers" site on Plank Road in the Town of Walworth, Wayne County, New York. We are performing this investigation for the New York State Department of Environmental Conservation pursuant to the requirements of the New York State Conservation Law (Chapter 857 of the Laws of 1982).

During a subsequent telephone conversation on September 8, 1987, you provided the following information regarding the source of water for the Town of Walworth:

- The following is a list of major roads in the Town of Walworth within 3 miles of the site. The estimated number of residences served by the public water system are noted in parenthesis either as a total number or percent as indicated:

  - Whitney Road (12)
  - Haley Road (95%)
  - Plank Road (100%, less 4-5 residences)
  - Jacobs Road (10)
  - Atlantic Avenue (100%, less 4-5 residences)
  - Bills Road (85%)
  - Kuttruff Road (7)
  - County Line Road (90% north of Jacobs Road; 0 south)
  - Cream Ridge Road (95%)
  - Lincoln Road (90%)
  - Burrow Road (0)
  - Tiffany Road (0)
  - Lewis Road (5)
  - Albright Road (0)
  - Fosdick Road (95%)
  - Hennessey Road (100%)
  - Downs Road north half (5)
  - Canadaigua Road (6-7)

- The source of water for the above is the Town of Ontario, which obtains its water from surface water intakes from Lake Ontario.

- Residences not included in the above list are not served by the public water system and use private wells for a source of water.

- In 1968, as the result of groundwater contamination from the site, a water district was set up for residences along Plank Road, between County Line Road and Lincoln Road. (The temporary source of water was the Monroe County Water Authority which uses surface water intakes from Lake Ontario.) These residences previously used private wells as a source of water.

- Surface water within 3 miles downstream from the site is not currently used (no known intakes for drinking water, irrigation, commercial or industrial purposes, and no recreation activities).

We would appreciate if you would review this information, note any necessary corrections, and return a signed and dated copy to indicate your concurrence. Your prompt attention to this would be appreciated, as the information is necessary to complete our evaluation of the site.

Sincerely,

URS COMPANY, INC.

Linda J. Clark

Linda J. Clark
Project Geologist

LJC/bc
9/9/87L
35154/B3

I agree with the information as it is presented.

George Schaller Water Supt 9-15-87
George Schaller Date

REF

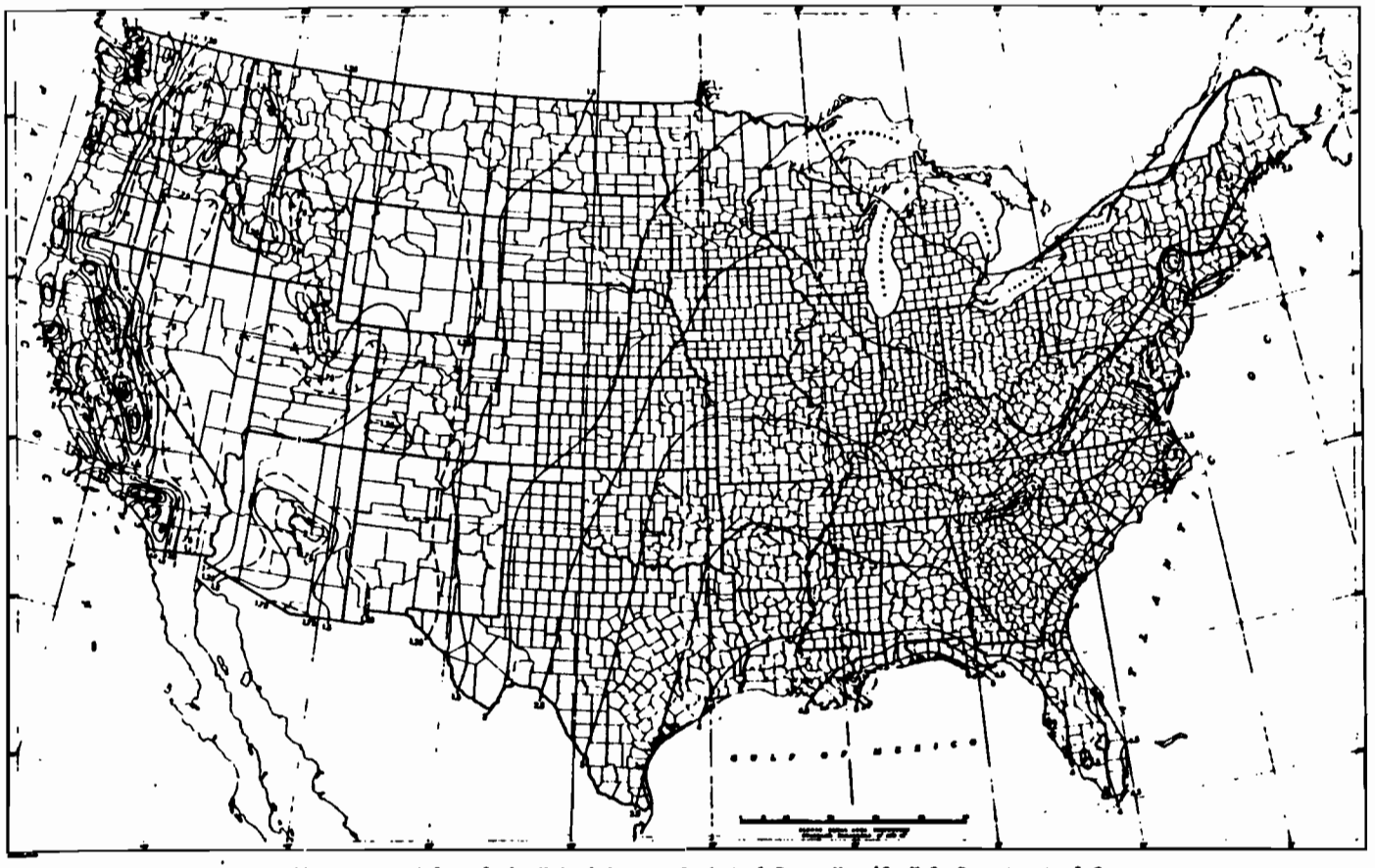
Uncontrolled Hazardous Waste Site Ranking System

A Users Manual
(HW-10)

Originally Published in
the July 16, 1982, *Federal Register*

United States
Environmental Protection
Agency

1984



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.

FIGURE 8
1-YEAR 24-HOUR RAINFALL
(INCHES)

REF. (8)

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RECEIVED
URS COMPANY
AUG 11 1987

JOB #

August 3, 1987

Ms. Demaris Frantz
Town of Ontario Water Utilities Department
2200 Lake Road
Ontario, New York 14519

Dear Ms. Frantz:

As I mentioned during our telephone conversation on August 3, 1987, URS Company, Inc. is currently conducting a Phase I investigation of the Hoff Brothers site on Plank Road, Town of Walworth, Wayne County, New York.

We are performing this investigation for the New York State Department of Environmental Conservation pursuant to the requirements of the New York State Superfund Law (Chapter 857 of the Laws of 1982).

This is to confirm our telephone conversation wherein you provided the following information:

- Within a 3-mile radius of the site, the population of the Town of Ontario is served by the Town of Ontario Water Utilities Department public water supply, which has its source of water from Lake Ontario.

- The only exceptions to the above are portions of Whitney Road west of Lincoln Road and approximately 4,000 feet west of South Ontario Center Road (Route 350), as indicated on the accompanying map, which are served by private wells.

We would appreciate if you would review this information, note any necessary corrections, and return a signed and dated copy to indicate your concurrence. Your prompt attention to this would be appreciated, as the information is necessary to complete our evaluation of the site.

Sincerely,

URS COMPANY, INC.

Linda J. Clark

Linda J. Clark
Project Geologist

LJC/bc
8/3/87L3
35154

I agree with the information as it is presented (and also → County Line Road is served by water from the Village of Webster's public system. Source is wells near Irondequoit Bay.)

Demaris H Frantz
Demaris Frantz

August 6, 1987
Date

REF. (9)

TOWN OF PENFIELD

3100 Atlantic Ave.
Penfield, New York 14526
(716) 377-8600

August 4, 1987

RECEIVED
URS COMPANY
AUG 1 1987

Ms. Linda J. Clark, Project Geologist JOB # _____
URS Company, Inc.
570 Delaware Ave.
Buffalo, New York 14202

Re: Estimated number of homes (buildings) within a three mile radius of the Hoff Brothers site, Walworth, which are situated in the Town of Penfield, N.Y., presently serviced by private wells

Dear Linda:

As per your request of August 3, 1987, I am forwarding a copy of Penfield's Water District Map with this letter. Please note that I have estimated the three-mile radius line over the water district lines to determine which sections of the Town are affected.

In briefly reviewing our assessor's records, I estimate that there are between 55 and 65 single family homes that lie within the area not serviced by water, but within the three mile radius.

I trust that this estimate will help in your research. Would it be possible for the Town of Penfield to obtain a copy of your final report to NYSDEC?

ENCL.

Sincerely,

Douglas Fox

Douglas Fox
Planning & Zoning
Administrator

REF. (10)

Wayne County
Soil and Water
Conservation District
8340 Ridge Road 143
R.D. 2, Sodus, New York 14551

6 July 1987

JOB #_____

Linda Clark
Project Gedogist
URS Co., Inc.
570 Delaware Avenue
Buffalo, NY 14202

Dear Ms. Clark:

Enclosed are two soils maps from the "Wayne County Soil Survey," prepared by the USDA Soil Conservation Service, as well as a list of prime farmland soils found in Wayne County. I have drawn in the approximate boundaries of the Hoff Bros. and Macedon Landfill sites as indicated on the photo copied maps supplied with your letter. As far as the personnel in this office are able to determine, no farmland is currently being irrigated within three miles of either site. Both sites are contiguous with actively farmed land. These lands are prime farmland as defined by the USDA Soil Conservation Service.

I appreciate the opportunity to be of service. Don't hesitate to call if you have any questions.

Sincerely,

Thomas K. DeRue
District Manager

TKD:ls

Enclosure

WAYNE COUNTY, NEW YORK

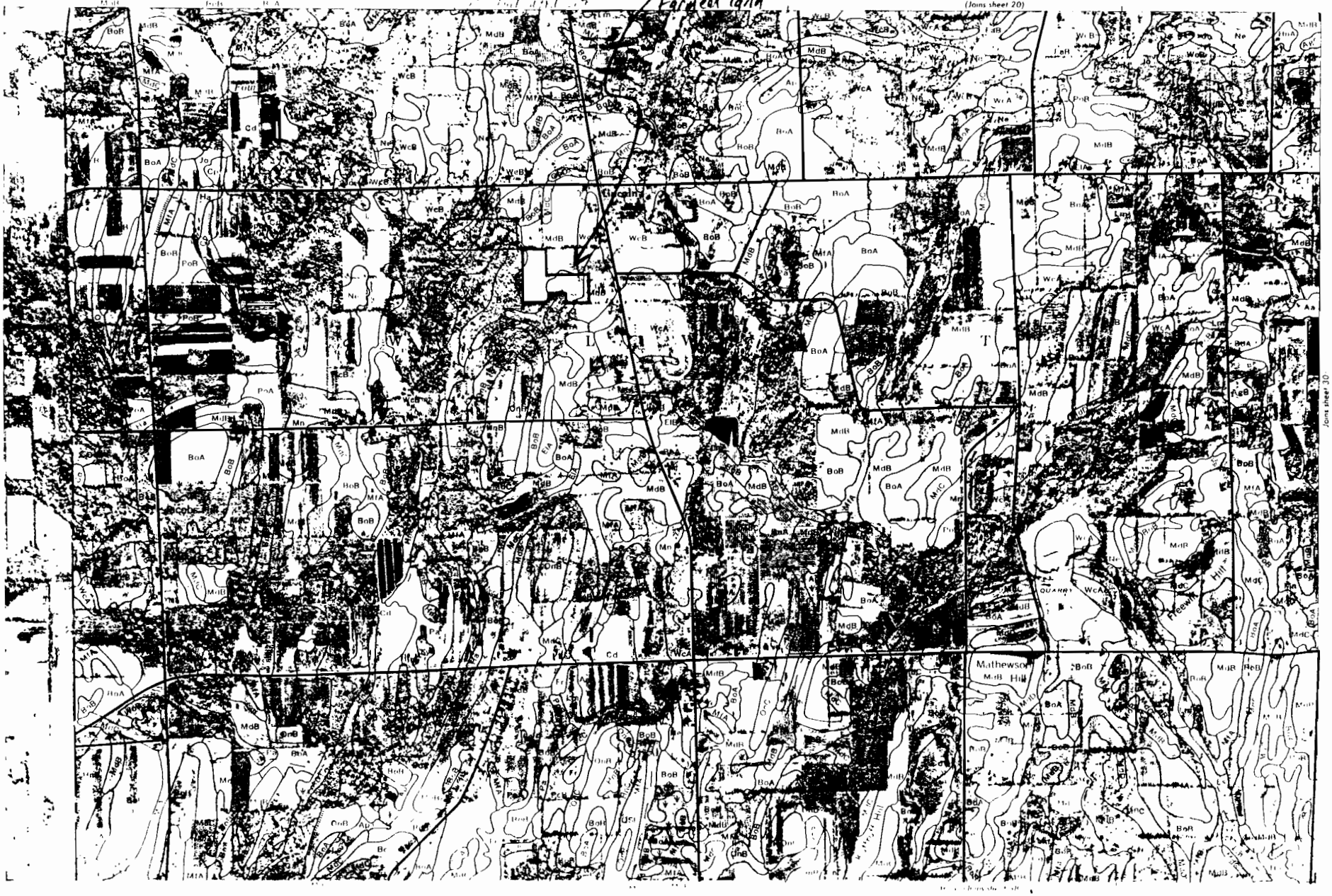
PRIME FARMLAND MAPPING UNITS

9A	AgA	- Alton gravelly sandy loam, 0 to 3 percent slopes
9B	AgB	- Alton gravelly sandy loam, 3 to 8 percent slopes
28A & B	Ap	- Appleton loam, 0 to 5 percent slopes
15A	BoA	- Bombay gravelly fine sandy loam, 0 to 3 percent slopes
15B	BoB	- Bombay gravelly fine sandy loam, 3 to 8 percent slopes
73	Cd	- Carlisle muck
7A & B	CeB	- Cazenovia silt loam, 3 to 8 percent slopes
4A & 21A	CoA	- Cazenovia gravelly silt loam, bedrock substratum, 0 to 3 percent slopes
B & C 21B & C	CoB	- Cazenovia gravelly silt loam, bedrock substratum, 3 to 8 percent slopes
B	CrB	- Collamer silt loam, 2 to 6 percent slopes
8B	DkB	- Dunkirk silt loam, 2 to 6 percent slopes
1	Ed	- Edwards muck
70	Fr	- Fredon loam
46	Hm	- Hamlin silt loam
5A	HnA	- Hilton gravelly loam, 0 to 3 percent slopes
15B	HnB	- Hilton gravelly loam, 3 to 8 percent slopes
6A	HoA	- Hilton gravelly loam, bedrock substratum, 0 to 3 percent slopes
B & C	HoB	- Hilton gravelly loam, bedrock substratum, 3 to 8 percent slopes
44A	IrA	- Ira gravelly fine sandy loam, 0 to 3 percent slopes
B	IrB	- Ira gravelly fine sandy loam, 3 to 8 percent slopes
13B	MdB	- Madrid gravelly fine sandy loam, 2 to 8 percent slopes
28A & 64A	MfA	- Massena gravelly loam, 0 to 3 percent slopes
28B & 64B	MfB	- Massena gravelly loam, 3 to 8 percent slopes

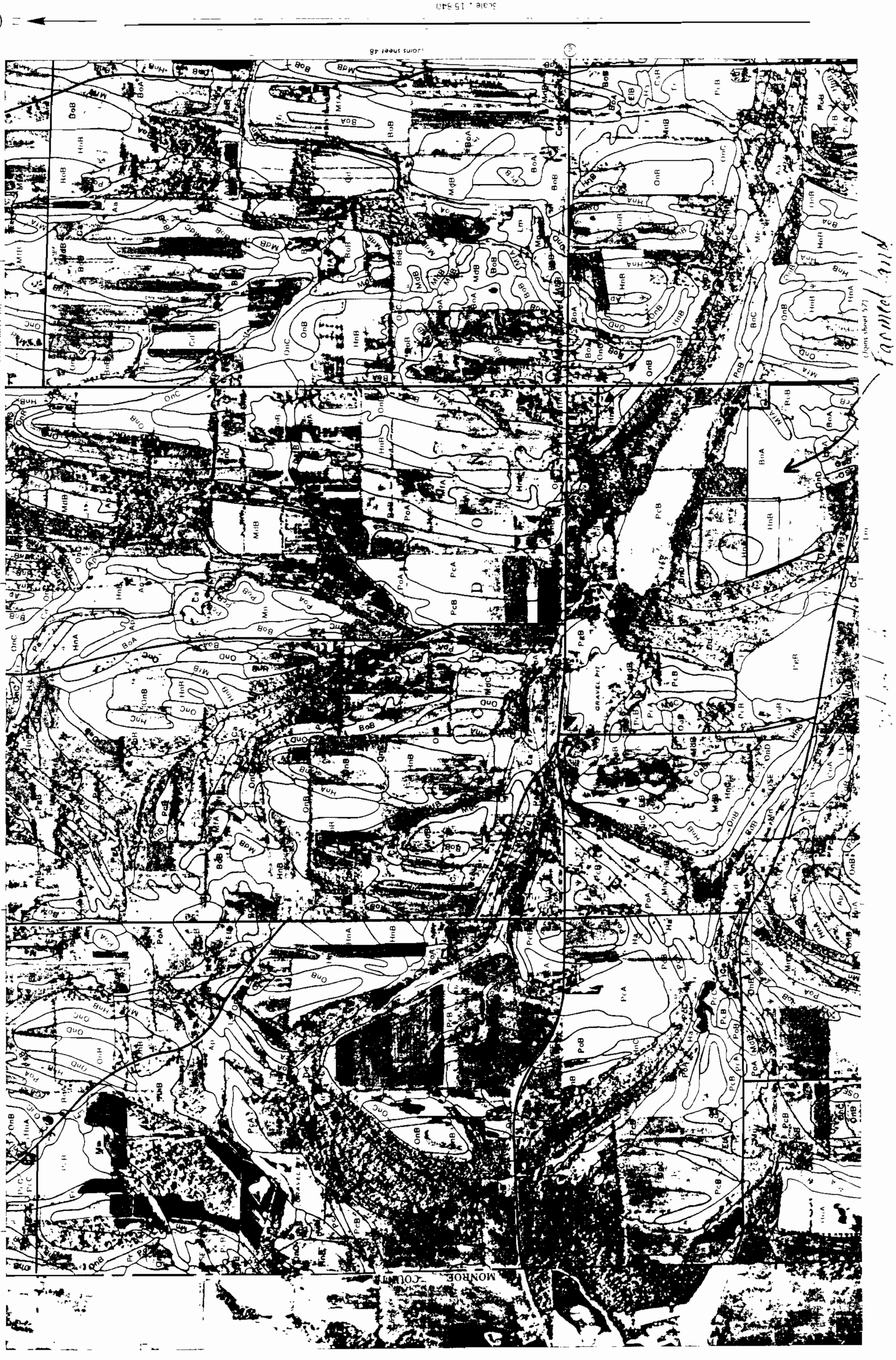
WAYNE COUNTY, NEW YORK

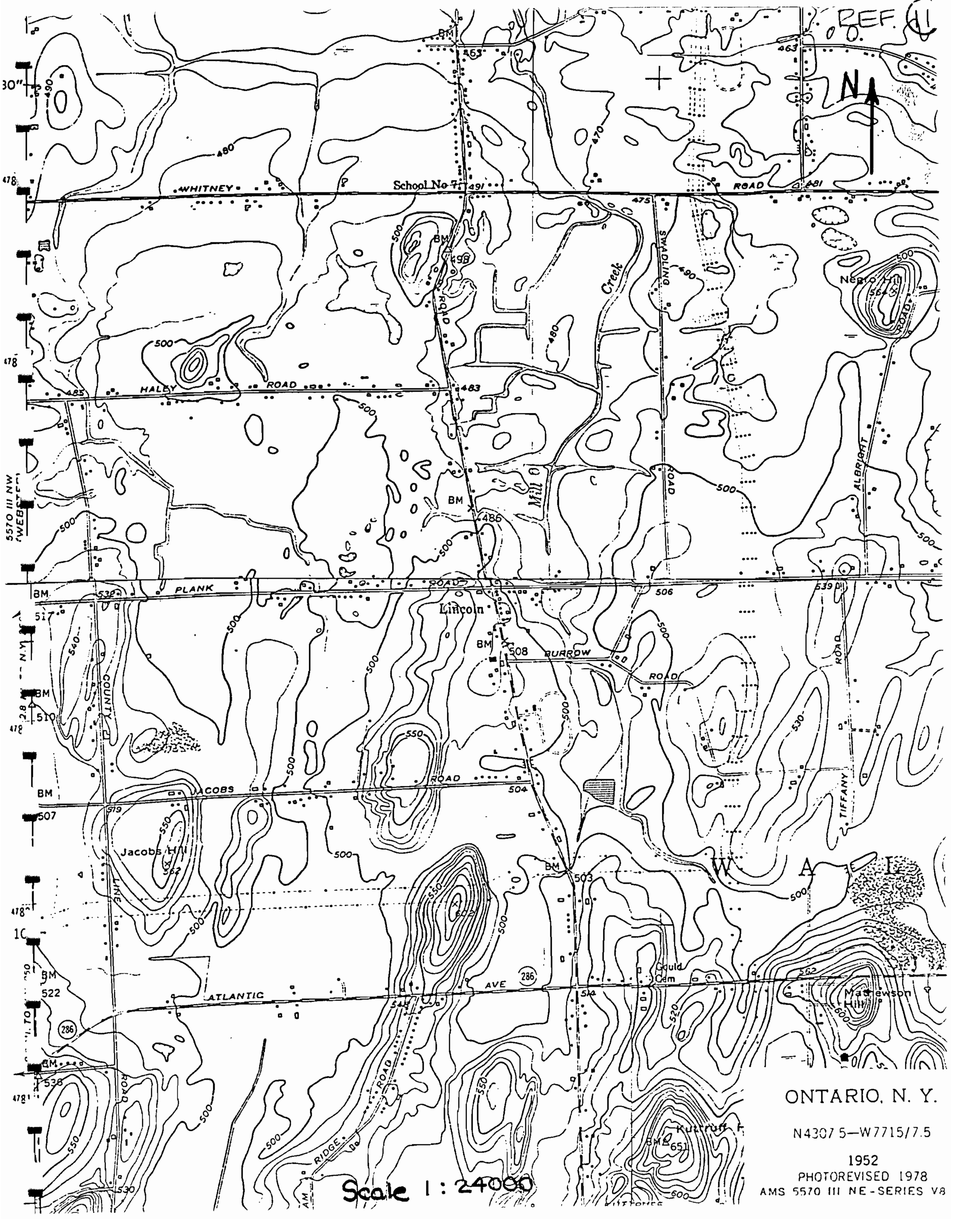
PRIME FARMLAND MAPPING UNITS

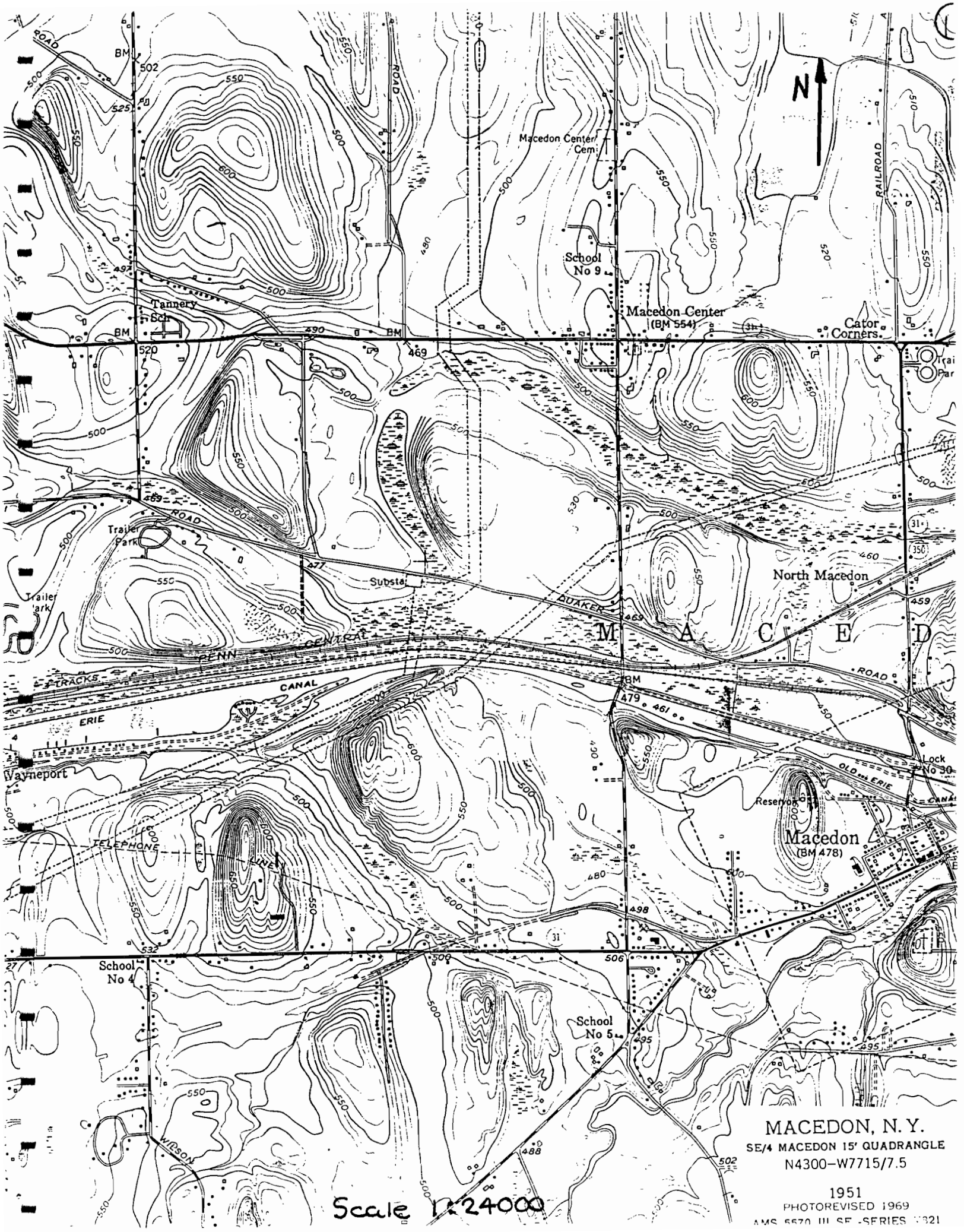
&	Mn	- Minoa very fine sandy loam
A	Ng	- Niagara silt loam
B	OnB	- Ontario gravelly loam, 3 to 8 percent slopes
	OvA	- Ovid silt loam, 0 to 3 percent slopes
7B,C	OvB	- Ovid silt loam, 3 to 8 percent slopes
	PcA	- Palmyra gravelly loam, 0 to 3 percent slopes
	PcB	- Palmyra gravelly loam, 3 to 8 percent slopes
9A	PoA	- Phelps gravelly loam, 0 to 3 percent slopes
	PoB	- Phelps gravelly loam, 3 to 8 percent slopes
3B	SdB	- Sodus gravelly fine sandy loam, 3 to 8 percent slopes
7	Te	- Teel silt loam
,B	Wa	- Wallington silt loam
1, &	WnA	- Williamson silt loam, 0 to 2 percent slopes
	WnB	- Williamson silt loam, 2 to 6 percent slopes

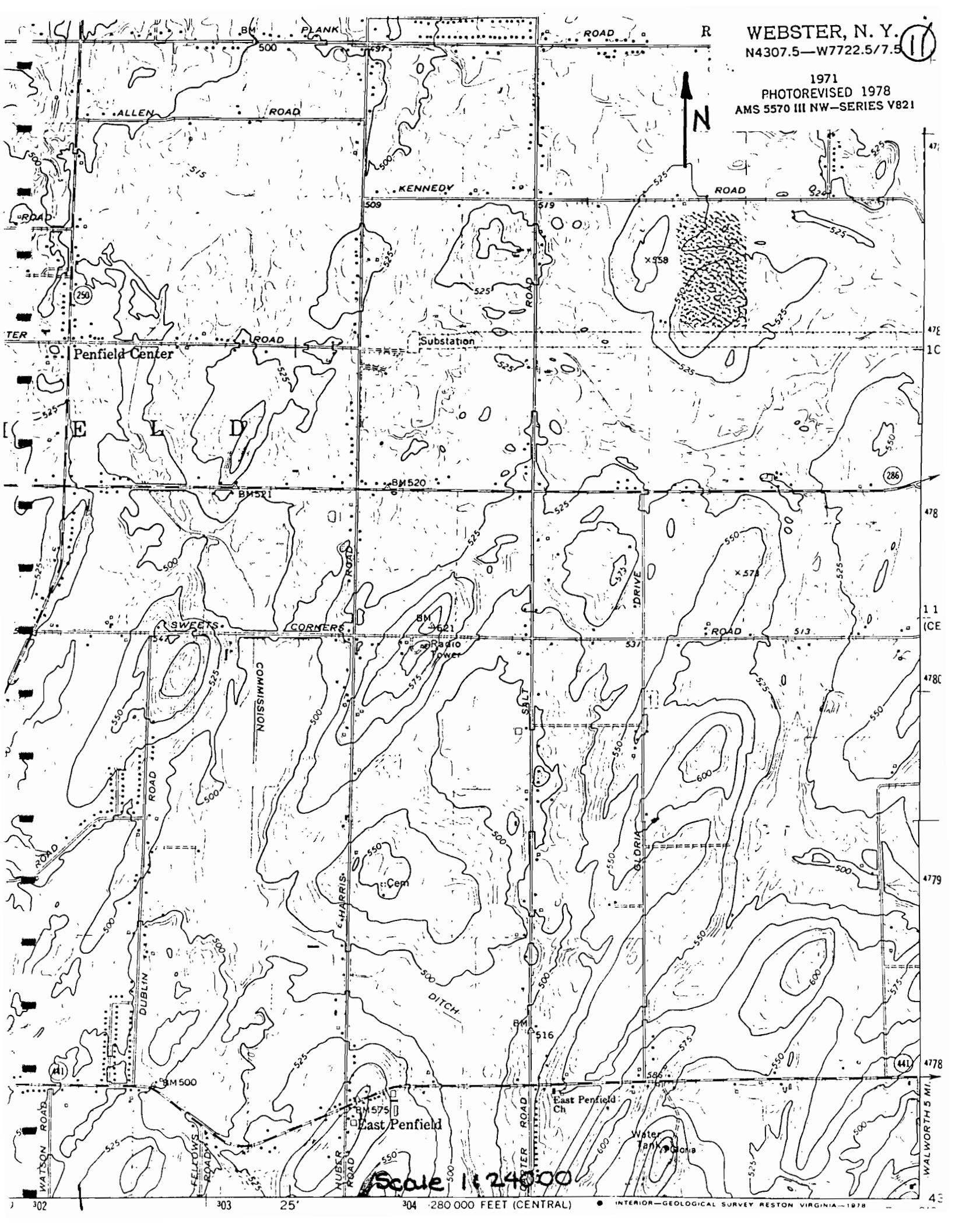

Farmed land
(Joins sheet 20)
Joins sheet 30
Mathewson Hill

10


Scale 1:15 840
Joins sheet 48
Joins sheet 57
Joins sheet 18
MONROE COUNTY
GRAVEL PIT
Farmed land


REF. 11
N
WHITNEY ROAD
School No 7
HALEY ROAD
SWADLING ROAD
Mill Creek
Negro Hill
ALBRIGHT ROAD
PLANK ROAD
Lincoln
BURROW ROAD
COUNTY LINE
JACOBS ROAD
Jacobs Hill
TIFFANY ROAD
ATLANTIC AVE
Gould Cem
Mathewson Hill
RIDGE ROAD
5570 III NW (WEBSTER)
ONTARIO, N. Y.
N4307.5—W7715/7.5
1952
PHOTOREVISED 1978
AMS 5570 III NE-SERIES V8
Scale 1 : 24000


N
Macedon Center Cem.
School No 9
Macedon Center (BM 554)
Cator Corners
Tannery Sch
Trailer Park
Substa
North Macedon
QUAKER
PENN CENTRAL TRACKS
ERIE CANAL
ROAD
RAILROAD
Wayneport
Lock No 30
OLD ERIE CANAL
Reservoir
Macedon (BM 478)
TELEPHONE LINE
School No 4
School No 5
WILSON
M A C E D
Scale 1:24000
MACEDON, N.Y.
SE/4 MACEDON 15' QUADRANGLE
N4300—W7715/7.5
1951
PHOTOREVISED 1969
AMS 5670 III SE -SERIES V321


WEBSTER, N. Y.
N4307.5—W7722.5/7.5
1971
PHOTOREVISED 1978
AMS 5570 III NW—SERIES V821
N
PLANK ROAD
ALLEN ROAD
KENNEDY ROAD
Substation
Penfield Center
BM 521
BM 520
SWEETS CORNERS ROAD
Radio Tower
BM 521
COMMISSION ROAD
SALT
DRIVE
GLORIA
HARRIS
Cem
DUBLIN ROAD
DITCH
BM 516
BM 500
BM 575
East Penfield
East Penfield Ch
Water Tank
Gloria
WATSON ROAD
FELLOWS ROAD
HUBER ROAD
WATER ROAD
WALWORTH 5 MI.
Scale 1:24000
280 000 FEET (CENTRAL)
INTERIOR—GEOLOGICAL SURVEY RESTON VIRGINIA—1978

43°07'30"

1 140 000 FEET (WEST)

N

Scale 1:24000

FAIRPORT, N. Y.

N4300—W7722.5/7.5

1971

PHOTOREVISED 1978

AMS 5570 III SW—SERIES V821

REF. (12)

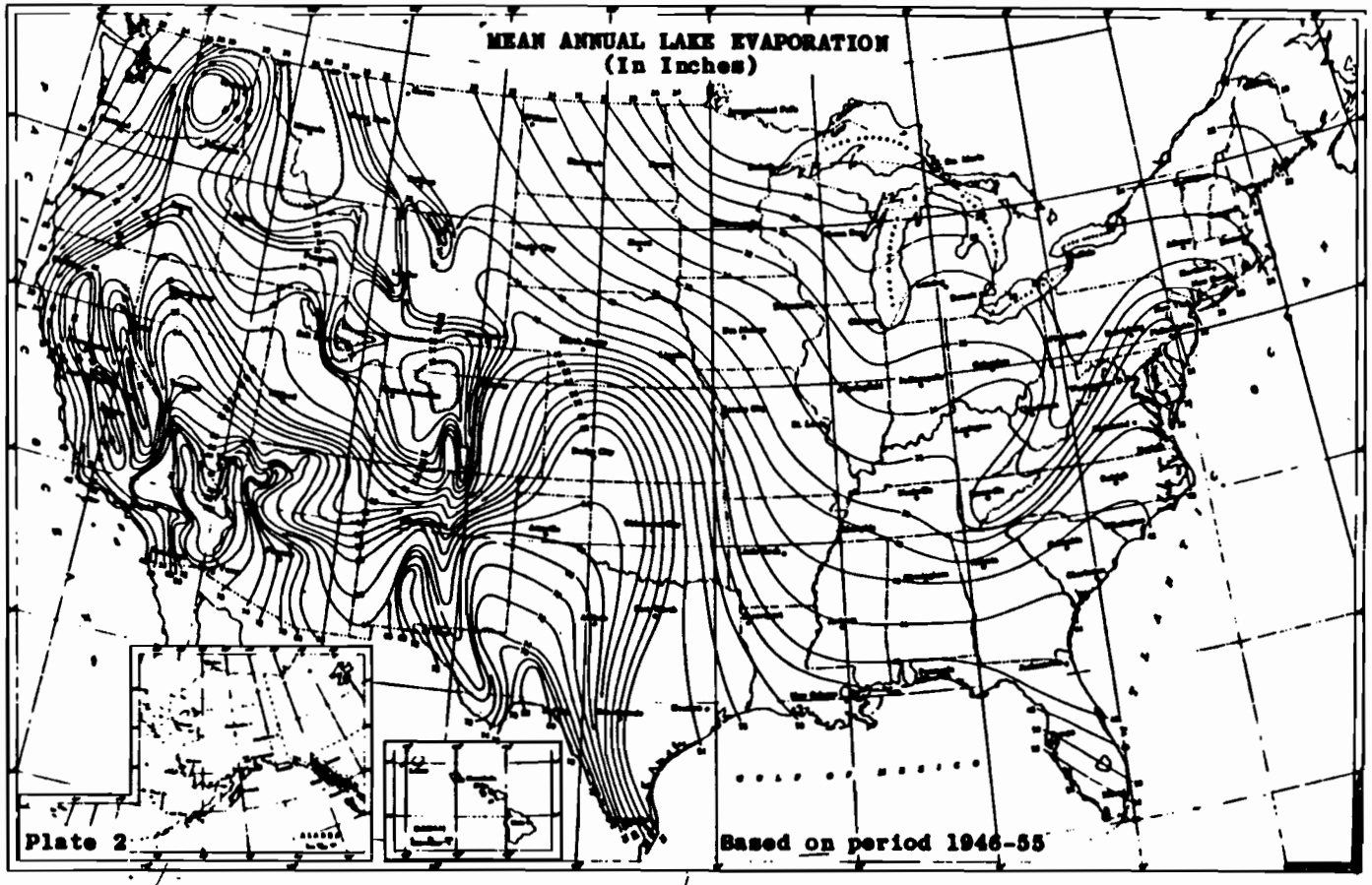
Uncontrolled Hazardous Waste Site Ranking System

A Users Manual
(HW-10)

Originally Published in
the July 16, 1982, *Federal Register*

United States
Environmental Protection
Agency

1984



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

FIGURE 4
MEAN ANNUAL LAKE EVAPORATION
(IN INCHES)

REF (13)

URS

AN INTERNATIONAL PROFESSIONAL [illegible]

URS COMPANY, INC.
CONSULTING ENGINEERS
570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202
TEL: (716) 883-5525

NEW YORK
MONTVALE, NJ
BUFFALO
ATLANTA
TAMPA
HATO REY, PR
WASHINGTON, DC
BOSTON
CLEVELAND
DENVER
DALLAS
SEATTLE
SAN FRANCISCO
SAN MATEO, CA

June 18, 1987

Ms. Kathy Kirsch
Fish & Wildlife Technician
New York State Department of
Environmental Conservation
Division of Fish & Wildlife
6274 East Avon - Lima Road
Avon, New York 14414

Dear Ms. Kirsch:

As I mentioned during our telephone conversation on June 17, 1987, URS Company, Inc. is currently conducting a Phase I investigation of 7 sites within New York State DEC-Region 8. These include the following:

- New Dearcop Property (ID #828059) - 920 Elmgrove Rd., Town of Gates, Monroe County
- Chevron USA (ID #828060) - 837 Buffalo Rd., Town of Gates, Monroe County
- Genesee Sand & Gravel (ID #835005 - Phillips Rd., Town of Victor, Ontario County
- 3M - Honeoyé Plant (ID #835006) - 127 E. Lake Rd., Town of Richmond, Ontario County
- Hulberton Maintenance Yard (ID #837007) - Hulberton Rd., Town of Murray, Orleans County
- Hoff Brothers (ID #859002) - Plank Rd., Town of Walworth, Wayne County
- Macedon Landfill (ID #859007) - Quaker Rd., Town of Macedon, Wayne County

In order to complete a Hazardous Ranking System (HRS) evaluation, we request the following information on <u>each</u> of the above sites:

- Distance to 5-acre (minimum) coastal wetland, if 2 miles or less.
- Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less.
- Distance to critical habitat of an endangered species or national wildlife refuge, if 1 mile or less.
- Distance to national or state park, forest, or wildlife reserve, if 2 miles or less.

Each site has been located on a road map and the appropriate USGS 7½ minute quadrangle, portions of which are enclosed. If you have any questions, please contact me. Your assistance is greatly appreciated.

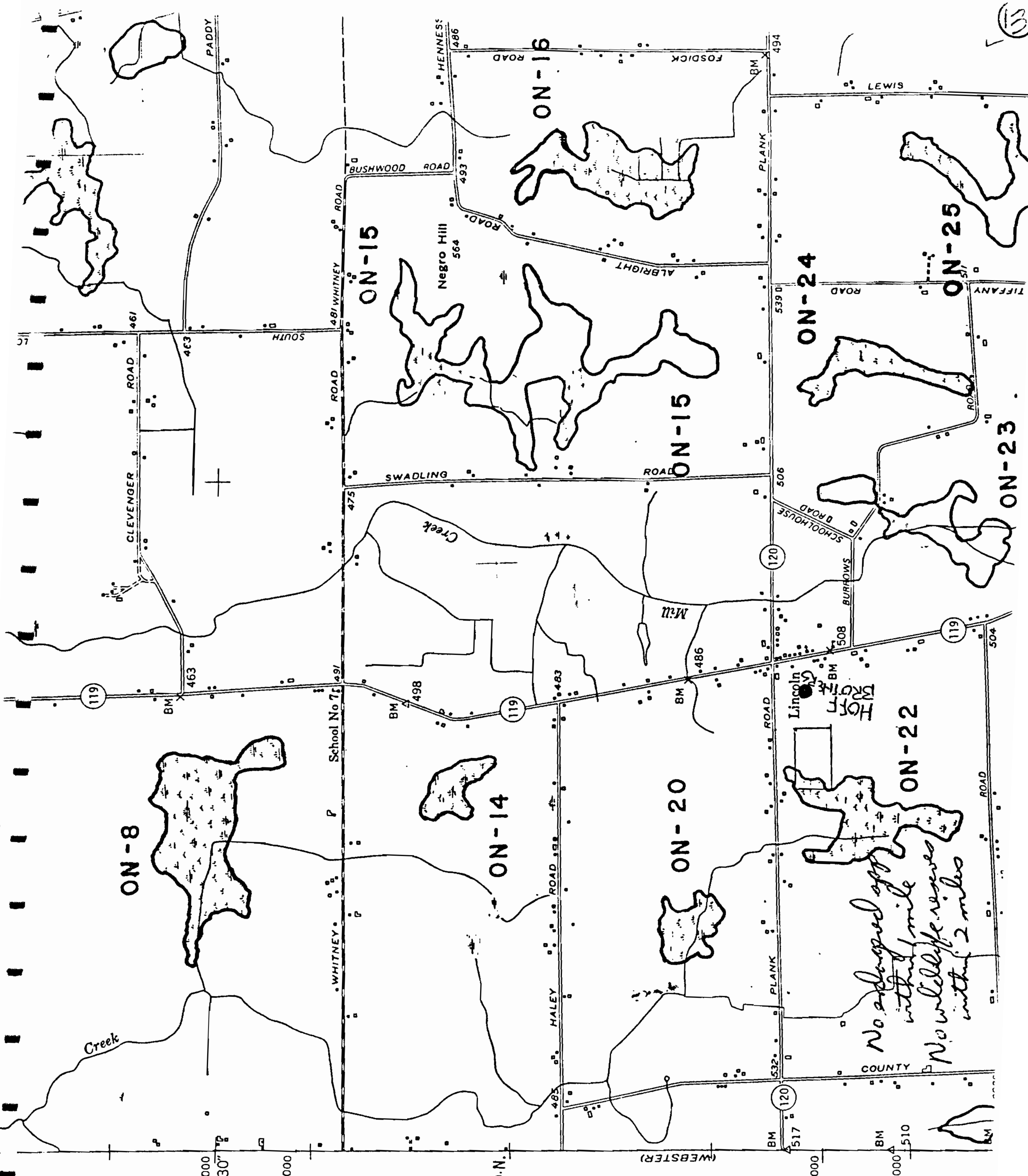
Sincerely,

URS COMPANY, INC.

Linda J. Clark

Linda J. Clark
Project Geologist

LJC/bc
6/18/87L
154B1



HOFF BROTHERS to ON-20 = approx. 3,800 ft.

HOFF BROTHERS to ON-22 = approx. 1,800 ft

HOFF BROTHERS to ON-14 = approx. 4,300 ft.

HOFF BROTHERS to ON-23 = approx. 3,300 ft (North of Burrows Rd.)

HOFF BROTHERS to ON-23 = approx. 2,900 ft (South of Burrows Rd.)

New York State Atlas of Community Water System Sources 1982

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

WAYNE COUNTY

ID NO	COMMUNITY WATER SYSTEM	POPULATION	SOURCE
Municipal Community			
1	Clyde Village.	2805. .	.Wells
2	Lyons Village (See also No 3 Seneca Co, Page 24).	4600. .	.Wells
3	Macedon Village.	1800. .	.Wells (Springs)
4	Newark Village (See also No 10 Ontario Co, Page 12).	12000. .	.Wells
5	Ontario Town Water District.	5775. .	.Lake Ontario
	Palmyra Village (See No 11 Ontario Co, Page 12).	.3776	
6	Red Creek Village (see also No 12 Cayuga Co, Page 24).	.638. .	.Wells (Springs)
7	Rose - North Rose Water District. . .	.1600. .	.Wells
8	Savannah Water District #1.	650. .	.Wells (Springs)
9	Shaker Heights Water District. . . .	.250. .	.Wells (Springs)
10	Sodus Point Village.	1334. .	.Lake Ontario
11	Sodus Village.	1800. .	.Lake Ontario, Wells
12	Williamson Water District.	5500. .	.Lake Ontario
13	Wolcott Village.	1650. .	.Lake Ontario, Wells (Springs)
Non-Municipal Community			
14	Arcadia Mobile Home Park.	125. .	.Wells
15	Bauer Mobile Home Park.	195. .	.Wells
16	Beal Mobile Home Park.	42. .	.Wells
17	Cider Mill Mobile Home Park.	68. .	.Wells
18	Crestwood Mobile Home Park.	120. .	.Wells
19	Maple Lane Mobile Home Park.	NA. .	.Wells
20	Maple Ridge Mobile Manor.	.88. .	.Wells
21	Marquart Trailer Park.	.220. .	.Wells
22	Northside Trailer Parks #1 & #2. . . .	78. .	.Wells (Springs)
23	Pulcini Mobile Home Park #1 & #2. . .	110. .	.Wells (Springs)
24	Sand Hill Trailer Park.	.40. .	.Wells
25	Valenza Mobile Home Park.	.20. .	.Wells
26	Valley View Mobile Manor.	200. .	.Wells
27	Waterways Trailer Court.	39. .	.Wells

N OF COMMUNITY WATER SYSTEM SOURCES-1982

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

REF. (15)

URS Company, Inc.
CONSULTING ENGINEERS
NEW YORK NEW JERSEY

JOB NO. 35154

JOB TITLE NYS SUPERFUND

MEMO OF TELECON

DATE 9-16-87 TELEPHONE # (315) 524-7317-H

PERSON CALLING K. HARTNETT PERSON CALLED JIM GALLAHER FIRE CHIEF.

REPRESENTING URS. CORP. REPRESENTING TOWN OF WALWORTH

PURPOSE OF TELECON AND/OR EQUIPMENT INVOLVED: FIRE & EXPLOSION THREAT INFO. FOR HOFF BROTHERS SITE

TEXT OF TELECON

HE CONFIRMED THAT THE SITE "DOES NOT POSED A FIRE OR EXPLOSION THREAT TO THE PUBLIC OR ENVIROMENT"

CC:

5.5 USEPA SITE INSPECTION FORM 2070-13

Site Inspection Report

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

EPA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	NYSDEC 859002

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER				
Hoff Brothers	Plank Road				
03 CITY	**04 STATE**	**05 ZIP CODE**	**06 COUNTY**	**07 COUNTY CODE**	**08 CONG DIST**
Walworth	NY		Wayne		

09 COORDINATES LATITUDE 43° 10' 52".__ LONGITUDE 77° 21' 06".__

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

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION
6 / 22 / 87 (MONTH DAY YEAR)	☐ ACTIVE ☒ INACTIVE	mid 1960's (BEGINNING YEAR) / 1967 (ENDING YEAR) ___ UNKNOWN

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

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
Linda J. Clark	Project Geologist	URS Company, Inc.	(716) 883-5525
09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
Deborah Jackson	Principal Engineering Tech.	NYSDEC Region 8	(716) 226-2466
			( )
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
Betty Buchiere	Property Owner	4999 Lincoln Road Macedon, N.Y. 14502	(315) 524-9105
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☒ PERMISSION ☐ WARRANT	11:00 A.M.	Rainy, 70°F

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Daniel W. Rothman	URS Company, Inc.	(716) 883-5525

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Linda J. Clark	URS Company, Inc.		(716) 883-5525	9 / 10 / 87 (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	NYSDEC 859002

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

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

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

- TONS _____
- CUBIC YARDS _____
- NO. OF DRUMS 10-15

03 WASTE CHARACTERISTICS (Check all that apply)

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

III. WASTE TYPE

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

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

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
	trans-1,2-dichloroethene		detected in private wells	3	ug/l
	trichloroethene		" "	" 6	"
	tetrachloroethene		" "	" 4	"
	1,1-dichloroethane		" "	" 1	"

V. FEEDSTOCKS (See Appendix for CAS Numbers)

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

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

NYSDEC - Region 8
NYSDOH - Rochester Regional Office
NYSDOH - Geneva District Office
NYSDEC Registry of Inactive Hazardous Waste Sites, 1986

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	NYSDEC 859002

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION — 02 ☒ OBSERVED (DATE: Nov. 1986 &April 1987) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 1,296
04 NARRATIVE DESCRIPTION

Chemical analyses performed on samples taken from private wells in the area detected trans-1,2-dichloroethene, trichloroethene, tetrachloroethene, and 1,1-dichloroethane. Estimated 1,296 people within 3 miles of site used groundwater (private wells) at time of waste disposal (approx. 1,200 people currently).

01 ☒ B. SURFACE WATER CONTAMINATION — 02 ☐ OBSERVED (DATE:) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0
04 NARRATIVE DESCRIPTION

Potential contamination of on-site pond and Fourmile Creek

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

None reported

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

None reported

01 ☒ E. DIRECT CONTACT — 02 ☐ OBSERVED (DATE:) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 695
04 NARRATIVE DESCRIPTION

There are no barriers which completely surround the facility

01 ☐ F. CONTAMINATION OF SOIL — 02 ☐ OBSERVED (DATE:) ☒ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: 7.2 (Acres)
04 NARRATIVE DESCRIPTION

Drums were observed to be leaking prior to removal in 1967.

01 ☒ G. DRINKING WATER CONTAMINATION — 02 ☒ OBSERVED (DATE: 11-86) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 1,296
04 NARRATIVE DESCRIPTION

Contaminants were detected in groundwater samples. much of area is currently served by a municipal system which uses an outside source. However, at the time of contamination, 1,296 persons within 3 miles of the site used private wells as a potable water source.

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

None reported

01 ☒ I. POPULATION EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE:) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 5,183
04 NARRATIVE DESCRIPTION

The site is located in a rural residential and agricultural area

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	NYSDEC 859002

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

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

None reported

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

None reported

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

None reported

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES (Spills, Runoff, Standing liquids, Leaking drums) — 02 ☒ OBSERVED (DATE: 1967) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 5,183 — 04 NARRATIVE DESCRIPTION

Drums were leaking; liquid waste observed on ground prior to the removal in the Summer of 1967.

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

None reported

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

None reported

01 ☒ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☒ OBSERVED (DATE: 1967) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

10-15 drums containing phenolic and solvent wastes were dumped in an on-site abandoned gravel pit; no town permit

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

None known

III. TOTAL POPULATION POTENTIALLY AFFECTED: approx. 5,183 people within a 3-mile radius of the site

IV. COMMENTS

A short time after the on-site disposal of chemical wastes occurred, several nearby private well users detected an objectionable taste and odor in their water.

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

NYSDEC - Region 8
NYSDOH - Rochester and Geneva
Betty Buchiere - current property owner

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	NYSDEC 859002

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☐ A. NPDES				
☐ B. UIC				
☐ C. AIR				
☐ D. RCRA				
☐ E. RCRA INTERIM STATUS				
☐ F. SPCC PLAN				
☐ G. STATE (Specify)				
☐ H. LOCAL (Specify)				
☐ I. OTHER (Specify)				
☐ J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☐ A. SURFACE IMPOUNDMENT		
☐ B. PILES		
☒ C. DRUMS, ABOVE GROUND	10-15	50 gallon drums
☐ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
☐ F. LANDFILL		
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)

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

05 OTHER

- ☐ A. BUILDINGS ON SITE

06 AREA OF SITE

approx. 7.2 (Acres)

07 COMMENTS

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

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

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

10-15 50-gallon drums of phenolic and solvent waste were disposed of on the site, however the exact quantity is unknown. Drums were observed to be leaking.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☒ YES ☐ NO

02 COMMENTS

There are no barriers which completely surround the site at present. Drums were removed in 1967. Contaminated soils may still be present and accessible.

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

NYSDEC - Region 8
NYSDOH - Rochester and Geneva

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	NYSDEC 859002

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)	SURFACE	WELL	02 STATUS ENDANGERED	AFFECTED	MONITORED	03 DISTANCE TO SITE
COMMUNITY	A. ☐	B. ☐	A. ☐	B. ☐	C. ☐	A. _____ (mi)
NON-COMMUNITY	C. ☐	D. ☒	D. ☐	E. ☒	F. ☒	B. .25 (mi)

III. GROUNDWATER

*between disposal area & wel

01 GROUNDWATER USE IN VICINITY (Check one)

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

02 POPULATION SERVED BY GROUND WATER 1,296 (at time of disposal)

*between disposal area and well.

03 DISTANCE TO NEAREST DRINKING WATER WELL .25 * (mi)

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFER
18-20 (ft)	north	18-20 (ft)	_____ (gpd)	☐ YES ☐ NO

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

Drinking water, with no municipal water from alternate unthreatened source available for 1,296 residences at time of disposal (1,200 people currently).

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

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

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

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
Unnamed on-site pond	☐	0 (mi)
Four mile Creek	☐	.22 (mi)
	☐	_____ (mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE
A. 695 NO. OF PERSONS	B. 2,303 NO. OF PERSONS	C. 5,183 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION .13 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE	04 DISTANCE TO NEAREST OFF-SITE BUILDING
617	.13 (mi)

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

The site is located in a rural residential and agricultural area. Much of the population is currently served by a municipal water system; however 1,296 residents in the area use private wells at the time of waste disposal within 3 miles of the site.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	NYSDEC 859002

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

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

02 PERMEABILITY OF BEDROCK (Check one)

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

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH	
5-65 (ft)	(ft)		

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
5.9 (in)	2.1 (in)	2 %	east to west	3.5 %

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	OTHER
A. _____ (mi)	B. on-site (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

_____ (mi)

ENDANGERED SPECIES: none within 1-mile

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. .18 (mi)	B. .13 (mi)	C. adjacent (mi)	D. adjacent (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

The site is generally flat-lying with a gentle slope in a westerly direction. An area of higher elevation lies east of the site.

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

NYSDEC - Region 8
NYSDOH - Rochester and Geneva
The Groundwater Resources of Wayne County, NY by R.E. Griswold
USDA - Soil Conservation Service - Wayne County

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	NYSDEC 859002

II. SAMPLES TAKEN

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

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☒ GROUND ☐ AERIAL

02 IN CUSTODY OF URS Company, Inc.
(Name of organization or individual)

03 MAPS ☒ YES ☐ NO

04 LOCATION OF MAPS: URS Company Inc. - 570 Delaware Ave.-Buffalo, New York 14202

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

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

Site inspection
USGS 7.5 minute series topographic maps (Ontario, N.Y. quadrangle).
NYS Museum and Science Service - map and chart series 15 and 40

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	NYSDEC 859002

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER	04 SIC CODE
Betty & Angelo Buchiere		

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	05 CITY	06 STATE	07 ZIP CODE
4999 Lincoln Road	Macedon	NY	14502

PARENT COMPANY (If applicable)

08 NAME	09 D+B NUMBER	11 SIC CODE

10 STREET ADDRESS (P.O. Box, RFD #, etc.)	12 CITY	13 STATE	14 ZIP CODE

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

01 NAME	02 D+B NUMBER	04 SIC CODE
George & Betty Kahler		

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	05 CITY	06 STATE	07 ZIP CODE
Lincoln Road	Macedon	NY	14502

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

01 NAME	02 D+B NUMBER	04 SIC CODE

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

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

NYSDEC - Region 8

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	NYSDEC 859002

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER	04 SIC CODE
Betty & Angelo Buchiere		

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	05 CITY	06 STATE	07 ZIP CODE
4999 Lincoln Road	Macedon	NY	14502

08 YEARS OF OPERATION	09 NAME OF OWNER
8	Betty & Angelo Buchiere

OPERATOR'S PARENT COMPANY (If applicable)

10 NAME	11 D+B NUMBER	13 SIC CODE

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

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

01 NAME	02 D+B NUMBER	04 SIC CODE
George Kahler		

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	05 CITY	06 STATE	07 ZIP CODE
Lincoln Road	Town of Walworth	NY	

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD
	George & Betty Kahler

PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)

10 NAME	11 D+B NUMBER	13 SIC CODE

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

01 NAME	02 D+B NUMBER	04 SIC CODE

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

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER	13 SIC CODE

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

01 NAME	02 D+B NUMBER	04 SIC CODE

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

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER	13 SIC CODE

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

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

NYSDEC - Region 8

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	NYSDEC 859002

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

III. OFF-SITE GENERATOR(S)

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

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
Hoff Brothers Refuse Corp.			
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
101 Ontario Street			
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE
E. Rochester	NY		
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)

NYSDEC - Region 8
NYSDOH - Rochester and Geneva

EPA

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: NYSDEC 859002

II. PAST RESPONSE ACTIVITIES

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

01 ☒ B. TEMPORARY WATER SUPPLY PROVIDED
02 DATE 3-1968 03 AGENCY NYSDOH
04 DESCRIPTION
Water district constructed for area along Plank Road, source of water from Monroe Co. Water Authority

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED
02 DATE _____ 03 AGENCY _____
04 DESCRIPTION

01 ☐ D. SPILLED MATERIAL REMOVED
02 DATE _____ 03 AGENCY _____
04 DESCRIPTION

01 ☐ E. CONTAMINATED SOIL REMOVED
02 DATE _____ 03 AGENCY _____
04 DESCRIPTION

01 ☐ F. WASTE REPACKAGED
02 DATE _____ 03 AGENCY _____
04 DESCRIPTION

01 ☐ G. WASTE DISPOSED ELSEWHERE
02 DATE _____ 03 AGENCY _____
04 DESCRIPTION

01 ☐ H. ON SITE BURIAL
02 DATE _____ 03 AGENCY _____
04 DESCRIPTION

01 ☐ I. IN SITU CHEMICAL TREATMENT
02 DATE _____ 03 AGENCY _____
04 DESCRIPTION

01 ☐ J. IN SITU BIOLOGICAL TREATMENT
02 DATE _____ 03 AGENCY _____
04 DESCRIPTION

01 ☐ K. IN SITU PHYSICAL TREATMENT
02 DATE _____ 03 AGENCY _____
04 DESCRIPTION

01 ☐ L. ENCAPSULATION
02 DATE _____ 03 AGENCY _____
04 DESCRIPTION

01 ☐ M. EMERGENCY WASTE TREATMENT
02 DATE _____ 03 AGENCY _____
04 DESCRIPTION

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

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

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

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

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	NYSDEC 859002

II PAST RESPONSE ACTIVITIES (Continued)

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

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

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

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

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

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

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

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

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

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

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

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

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

NYSDEC - Region 8
NYSDOH - Rochester and Geneva

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	NYSDEC 859002

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☐ NO

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

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

NYSDEC - Region 8

6.0 ASSESSMENT OF DATA ADEQUACY AND RECOMMENDATION

Data collected during this Phase I investigation of the Hoff Brothers site, which were used to develop the Hazard Ranking System (HRS) scores, are considered inadequate in the following areas:

- o Observed releases:
  - Although groundwater sampling data provided evidence of an observed release for the groundwater route, the extent of the area being monitored is rather limited, and includes only a few private wells. Additional monitoring well information would be useful to properly assess groundwater flow directions and the extent of contamination.
  - No known sampling has been performed on the downstream surface water to conclusively assess the impact of the site on this route.
  - There is probable soil contamination in the former disposal area which requires sampling to determine nature and extent.
  - A complete air monitoring program has not been conducted at the site.
- o Waste quantities:
  - Available information indicates 10 to 15 drums of phenolic and solvent wastes were disposed of at the site. However, additional information is necessary to provide a more definitive quantity.

6.1 APPENDIX A - DATA SOURCES AND REFERENCES

DATA SOURCES AND REFERENCES

1. Results of Examination, New York State Department of Health - Wadsworth Center for Laboratories and Research, November 13, 1986.

2. Henry J. Smith, New York State Department of Health - Geneva District, Letter to Mr. Metzler, Division of Environmental Health Services, June 16, 1967.

3. Mr. Harstad, State of New York Department of Health, Memo to Mr. Orndorff, State of New York Department of Health, January 29, 1979.

4. Dangerous Properties of Industrial Materials - Sixth Edition, N. Irving Sax, 1984.

4A. Inactive Hazardous Waste Disposal Site Report - New York State Department of Environmental Conservation, Division of Solid and Hazardous Waste, December, 1986.

5. Linda J. Clark, Project Geologist - URS Company, Inc., Letter and Map to Betty Buchiere, Property Owner, August 3, 1987.

6. Linda J. Clark, Project Geologist - URS Company, Inc., Letter to George Schaller, Town of Walworth, September 9, 1987.

7. Uncontrolled Hazardous Waste Site Ranking System, A Users Manual (HW-10), Figure 8.

8. Linda J. Clark, Project Geologist - URS Company, Inc., Letter to Demaris Frantz, Town of Ontario Water Utilities Department, August 3, 1987.

9. Douglas Fox, Planning and Zoning Administrator - Town of Penfield, Letter to Linda J. Clark, Project Geologist - URS Company, Inc., August 4, 1987.

10. Thomas K. DeRue, District Manager - Wayne County Soil and Water Conservation District, Letter and Map to Linda J. Clark, Project Geologist - URS Company, Inc., July 6, 1987.

11. USGS Topographic Maps 7.5 Series; Ontario, New York Quadrangle, 1978; Macedon, New York Quadrangle, 1969; Webster, New York Quadrangle, 1978; Fairport, New York Quadrangle, 1978.

12. Uncontrolled Hazardous Waste Site Ranking System, A Users Manual (HW-10), Figure 4.

13. Linda J. Clark, Project Geologist - URS Company, Inc., Letter and Map to Kathy Kirsch, Fish and Wildlife Technician - New York State Department of Environmental Conservation - Division of Fish and Wildlife, June 18, 1987.

14. New York State Atlas of Community Water System Sources, NYSDEC - Bureau of Public Water Supply Protection, 1982.

15. Karen A. Hartnett - URS Company, Inc., Telecon to Jim Gallaher, Fire Chief - Town of Walworth, August 16, 1987.

16. Facts and Figures - Walworth Town Well Pollution, R.J. Facer, Sanitarian - New York State Department of Health, June 28, 1967.

17. Initial Evaluation of Industrial and Hazardous Waste Sites, New York State Department of Health, June 28, 1967.

18. Henry J. Smith, New York State Department of Health - Geneva District, Letter to Mr. Metzler, Division of Environmental Health Services, December 16, 1967.

19. Visual Encyclopedia, Map of the Genesee and Northern Finger Lakes Region of New York State.

20. Geology of New York: A Short Account - Educational Leaflet No. 20, The University of the State of New York, The State Education Department, 1966.

21. Geologic Map of New York (Finger Lakes Sheet), Lawrence V. Rickard and Donald W. Fisher, 1970.

22. The Ground-Water Resources of Wayne County, New York, State of New York Department of Conservation - Water Power and Control Commission, by R.E. Griswold, Bulletin GW-29, 1951.

23. Surficial Geologic Map of New York (Finger Lakes Sheet), Ernest H. Muller and Donald H. Cadwell, 1986.

24. Well Water Sample Results, Fact Technical Services, Inc., July 11, 1967.

REF (16)

FACTS AND FIGURES
WALWORTH TOWN WELL POLLUTION
PLANK ROAD JUNE 28, 1967
R. J. FACER, Sanitarian, NYSDH

Quinn Subdivision, East Rochester, New York. Larry Quinn, developer and builder. Constructed homes #1 through #6 since 1960. (Two were on lots purchased by home owners from Mrs. Read.

Donald Johnston, Plumbing Contractor, High Street, Fairport, installed sewage disposal system for all six homes. Mrs. Hinkel owns home #2 - is Mr. Johnston's sister. She claims Johnston put the systems in according to plans approved by the state. On checking with Mr. Quinn, only one lot in this subdivision had approved plans - rest of lots apparently did not need plans. (Only four total.)

Red lines on sketch are pollution boundary lines.

14 families are involved in this pollution.

One chemical and one bacterial water sample collected at Ansler's Dairy.

One chemical and one bacterial at Floyd Ansler's Jr. home in the pollution area.

One bacterial sample collected at Gottes and Boyd's residence.

Homes #1 through #6 appear to have the sewage disposal system higher than the drilled wells. The wells are in front and the sewage disposal system in the rear. Quinn seemed to feel that as long as there was 100' separation that difference in elevation was immaterial.

The 14 home owners have engaged one attorney who has advised them not to allow any further water samples collected.

Miracle Water Service in Victor claims their tests have proven rejuvenation of this polluted water to the satisfaction of a Dr. Aldrich, a Monroe County Health Officer.

All wells of the 14 involved are from 16-30 feet in depth - all are drilled - all are cased into bedrock which commences at about 5 feet and extends to an unknown depth.

Mrs. Hinkel - lot #2 - called June 29 - said her husband will allow us to pick up a bacterial and chemical water sample at their residence.

We need these samples as they would be from the most remote area of pollution in this section - will pick up the week of July 2nd.

The hot water in these homes has considerably stronger taste and odor than the cold water.

George Kahler - Lincoln Road - is reported to be the owner of the gravel bed area where the chemicals were dumped. He was denied permission by the town board to use this area as a dump, but apparently ignored this edict. However, no trash or rubbish has been dumped here that I could observe.

Water samples have been collected by Norton, the Town Engineer, by Hoyt, the refuse collector and by Miracle Water Service, Victor, New York.

It was reported to me that a second pond just west of the now filled-in pond was just pumped out.

Mrs. Florence Reed, Plank Road, R.D., Macedon, New York, sold off all the lots now occupied by new homes on the south side of Plank Road.

Some skin rashes - stomach troubles and other minor ailments seem to be the extent of the physical troubles - mostly with the children.

RJ-af

REF (17)

Priority [2] Site Name Hoff Bros Refuse Region 8

County Wayne

002

INITIAL EVALUATION OF INDUSTRIAL AND HAZARDOUS WASTE SITES

I. General Site Information

1. Site Location WALWORTH (T) WAYNE Co.

2. Current owners ☐ or operators ☐ : ABANDONED

Address

Contact Phone

3. Time during which site was used: Summer/Late '76 to 12/'76

4. Type of Site: Industrial Disposal ☐ Mixed Disposal Area ☐

Drum Storage ☒ Lagoon ☐ Other (specify) ☐

5. Size of Site (approx.) acres, and/or dimensions

6. Exposed waste: yes ☐ no ☒

II. Waste Characterization (See Section III for more details.)

1. Generator Xerox Corp. Webster Waste Types Chemical wastes

Composition [illegible] Total Quantity (unknown) Bulk ☐ Drum ☒

2. Generator Waste Types

Composition Total Quantity Bulk ☐ Drum ☐

3. Generator Waste Types

Composition Total Quantity Bulk ☐ Drum ☐

4. Generator Waste Types

Composition Total Quantity Bulk ☐ Drum ☐

Report prepared by: F.C. Phone 226-2466

RON RUDIO - NYSDH Phone 315-789-3030

III. Waste Stream Information

Waste Stream #_____

Generator	Hauler
Name XEROX CORP	Name [illegible]
Address [illegible]	Address [illegible]
Contact _____ Phone _____	Contact [illegible] Phone _____

Average Percent Solids [illegible] % pH range [illegible] to [illegible]

Physical State: liquid ☐ , slurry ☐ , sludge ☐ , solid ☐ ,

other ☐ specify _____

Annual Volume _____ Total Volume _____ Bulk ☐ Drum ☐

Component	Avg. Concentration (Wet ☐ or Dry ☐ Weight)		
1. PHENOLS	_____	wt.% ☐	ppm ☐
2. _____	_____	wt.% ☐	ppm ☐
3. _____	_____	wt.% ☐	ppm ☐
4. _____	_____	wt.% ☐	ppm ☐
5. _____	_____	wt.% ☐	ppm ☐

Waste Stream #_____

Generator	Hauler
Name _____	Name _____
Address _____	Address _____
Contact _____ Phone _____	Contact _____ Phone _____

Average Percent Solids _____ % pH range _____ to _____

Physical State: liquid ☐ , slurry ☐ , sludge ☐ , solid ☐ ,

other ☐ specify _____

Annual Volume _____ Total Volume _____ Bulk ☐ Drum ☐

Component	Avg. Concentration (Wet ☐ or Dry ☐ Weight)		
1. _____	_____	wt.% ☐	ppm ☐
2. _____	_____	wt.% ☐	ppm ☐
3. _____	_____	wt.% ☐	ppm ☐
4. _____	_____	wt.% ☐	ppm ☐
5. _____	_____	wt.% ☐	ppm ☐

IV. Owners/Operators (Specify) During Use

1. Name George Kahler Time Period _____ to _____

   Address Lincoln Rd - Walworth, N.Y.

   Contact _____ Phone _____

2. Name _____ Time Period _____ to _____

   Address _____

   Contact _____ Phone _____

3. Name _____ Time Period _____ to _____

   Address _____

   Contact _____ Phone _____

V. Sketch of Site

* see addendum #1

U.S.G.S. Quadrangle ONTARIO

43°10'52"N Lat. 77°28'55"W Long.

(attach photocopy of appropriate area)

VI. Field Inspection

1. Type of Area in which site is located: Rural [X], Industrial [ ], Residential [ ], Commercial [ ], Agricultural [ ].
2. a. Distance to nearest dwelling (feet) 750'±
   b. Number of dwellings within 500 feet 0
3. a. Distance to nearest water body downgradient from site (feet) 0
   b. Name of water body abandoned quarry
   c. Type of water body "
   d. Classification of water body
4. a. Nearest public or private water supplies 750'± (Indicate on attached map)
   b. Names, addresses, and phone numbers of home owners or water companies if available.
5. Approximate distance to groundwater (feet) UKN
6. Is site above or near a known aquifer? yes [X] no [ ]
7. a. Number of drums exposed ALL REMOVED (attach appropriate information from any drum labels)
   b. Number or percent of drums filled with liquid _____, sludge _____, solids _____, mixed _____.
8. Describe other exposed waste material and estimate volume NONE AT THIS TIME
9. Leachate (estimate volume, flow direction, receiving watercourse) NONE

10. Soil Characteristics:

1. Underlying Soil

a) Description 5' overburden over bedrock

b) Soil Classification _____

2. Cover Material

a) Description _____

b) Soil Classification _____

11. a. Topography: Hillside(slope) ☐ , Ravine ☐ , Flat ☐ .

b. Geological Terrain _____

12. Vegetation (note dead vegetation or lack of vegetation) NONE

13. Is access limited (fencing) NO

14. Nearby industrial discharges (air or water)

NONE

SPDES or NPDES Permit yes ☐ no ☐

15. Odors NONE

16. Eye, nose, or skin irritation during site investigation

NONE

17. Samples taken: yes ☒ no ☐ .(attach protocol) SEE ATTACHED ADDENDUM #2

18. Other field notes _____

Field Inspection Performed By _____

Date _____

Photographs taken _____

VII. Sampling and Monitoring

* See addendum #2

VIII. Sources of Information (Include interviews, names, addresses, phone numbers)

Ron Rudio
NYSDH
Geneva D.O.

IX. Involvement of Other Agencies

NYSDH - 1966

X. Other Remarks

SITE CLOSED

XI. Recommendations

1. Minimum level of sampling to determine the hazards posed by materials at the site.

2. Enforcement action to abate problems at the site.

3. Containment actions to prevent further environmental threats at the site.

4. Comprehensive cleanup, or abatement of hazards posed by materials at the site.
COMPLETED

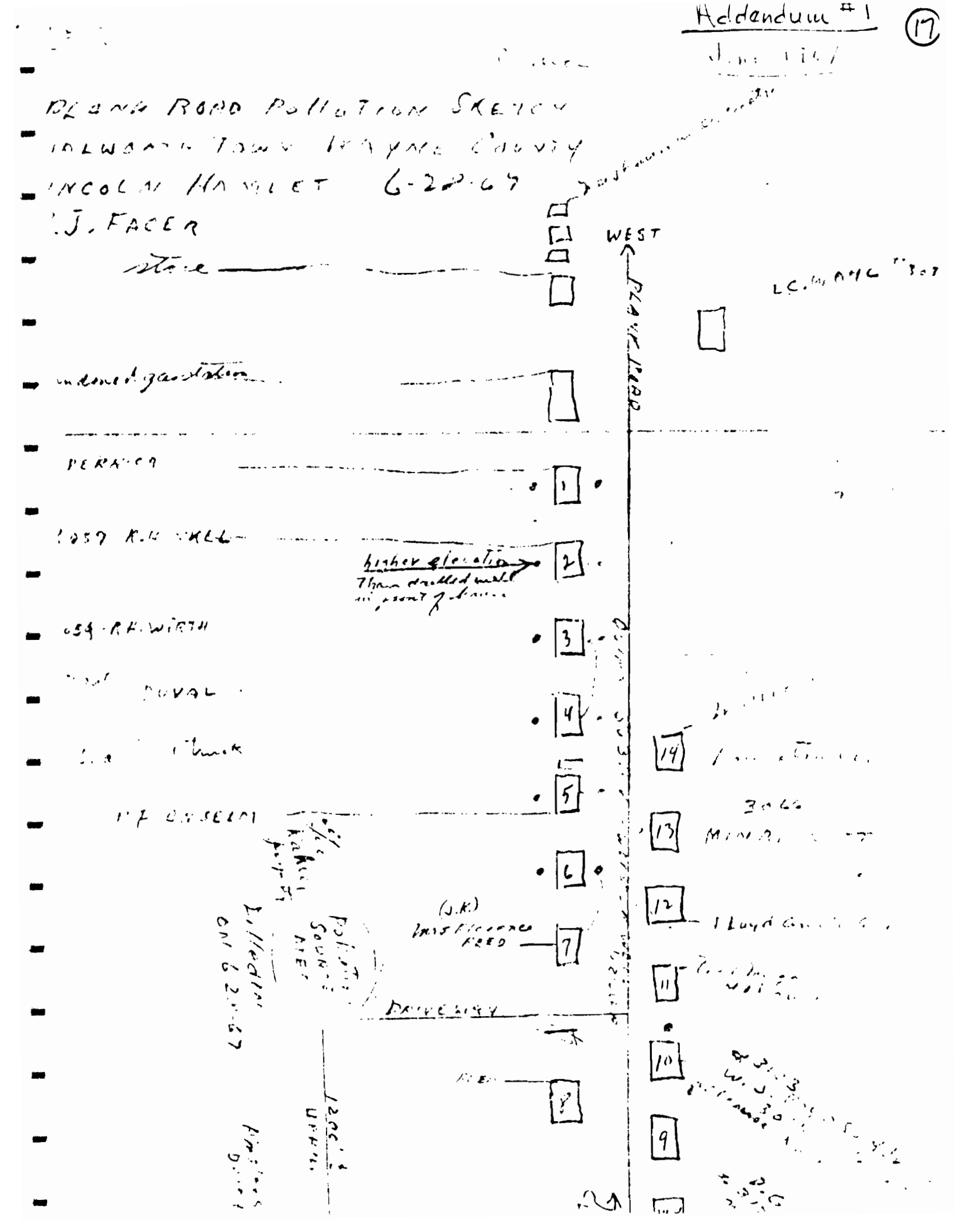
5. Formal determination of Imminent Health Hazard by the State Health Department.

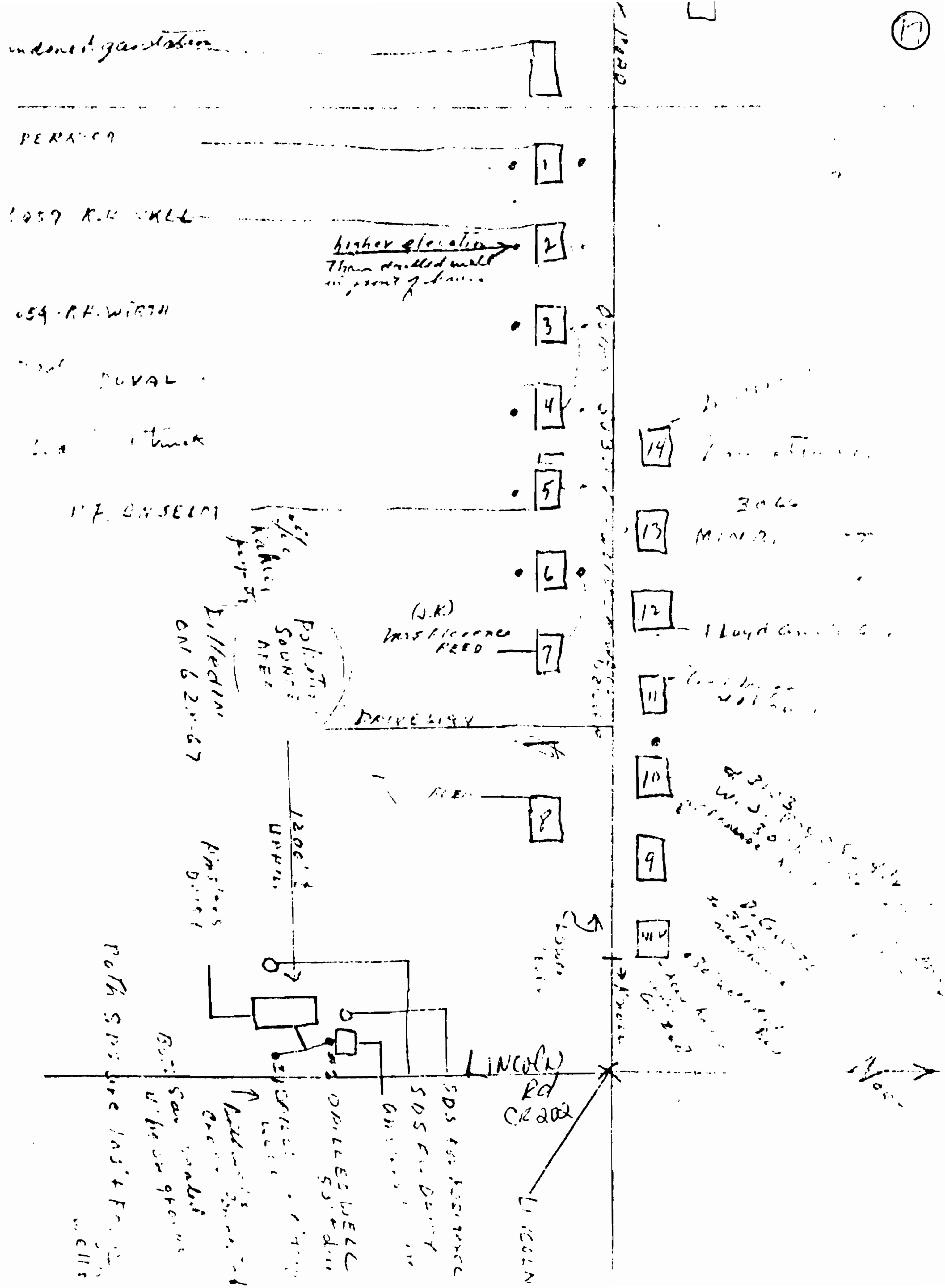
6. Other Recommendations

NO FURTHER ACTION NECESSARY
REMOVE FROM LIST.

Addendum #1

(17)




higher elevation
Than drilled well
in front of house
(J.K.)
Miss Florence
REED
DRIVEWAY
LINCOLN
Rd
CR 202
SDS FOR BASEMENT
DRILLED WELL
1 2 3 4 5 6 7 8 9 10 11 12 13 14

Addendum #2

SOIL & MATERIALS
ROADS
PAVEMENTS
CONCRETE
SOILS

TECHNICAL SERVICES, INC.
96 WINDSOR STREET
ROCHESTER, NEW YORK 14605
716-454-5030

INSPECTION
RESEARCH
REPORTS
TESTING
DESIGN

July 11, 1967
Lab No. 177

Client: Mr. Floyd Ansler
3074 Plank Road
Macedon, New York

Attention: Mr. Floyd Ansler

Object: Bacteriological and chemical examination of well water samples for coliform density estimation by membrane filter technique and chemical analysis of well water by quantitative evaluation.

Results:

Sample No.	Site	Results
1	3079 Plank Rd.	2 coliform colonies/100 ml.
2	3061 Plank Rd.	2 coliform colonies/100 ml.

Organisms found are members of the family enterobacteriaceae, classified coli-aerogenes.

Chemical Analysis

Ammonia:
Sample No. 1 [illegible] ppm Nitrogen (N)
As [illegible] 0.72 ppm
[illegible] [illegible] 0.47 ppm
Sample No. 2 [illegible] ppm Nitrogen (N)
[illegible] [illegible] 0.59 ppm
[illegible] NH_3 0.38 ppm

Chlorine:
Sample No. 1 0.2 ppm CL_2
2 0.3 ppm CL_2

Fluoride:
Sample No. 1 0.3 ppm F
2 0.3 ppm F

Iron:
Sample No. 1 0.2 ppm Fe
2 0.3 ppm Fe

BUILDING MATERIALS
AGGREGATES
PAVEMENTS
CONCRETE
SOILS

FACT
TECHNICAL SERVICE, INC.
56 WINDSOR STREET
ROCHESTER, NEW YORK 14605
716-454-5030

INSPECTION
RESEARCH
REPORTS
TESTING
DESIGN

Nitrate:
Sample No. 1 Less than 1 ppm
As NO_3 0.88 ppm

2 Less than 1 ppm
As NO_3 0.88 ppm

Nitrite:
Sample No. 1 0.04 ppm Nitrogen (N)
As NO_2 0.16 ppm

2 0.06 ppm Nitrogen (N)
As NO_2 0.20 ppm

Phospate:
Sample No. 1 0.2 ppm PO_4

2 0.3 ppm PO_4

Sulfate:
Sample No. 1 104 ppm So_4

2 98 ppm So_4

Silica:
Sample No. 1 Less than 1 ppm SiO_2

2 Less than 1 ppm SiO_2

Sulfate:
Sample No. 1 28 ppm SO_3

2 29 ppm SO_3

Turbidity:
Sample No. 1 Less than 1 ppm

2 Less than 1 ppm

Odor:
Indicative of a phenolic compound.

PH:
Sample No. 1 6.2

2 6.4

INSPECTION
RESEARCH
REPORTS
TESTING
DESIGN

TECHNICAL SERVICE, INC.
[illegible] STREET
ROCHESTER, NEW YORK 14605
716-454-[illegible]

Analytical methods [illegible] ASTM Publication - D 1256 - 61 - Analysis of Industrial Water and Industrial Waste Water and Standard Methods for the examination of Water and Waste Water, 11th Edition.

Respectfully submitted,

EAST TECHNICAL SERVICE, INC.

Felix C. Whittaker per [illegible]
Felix E. Whittaker
Chief Chemist

Approved: Francis W. Bernacki
Francis W. Bernacki

[illegible]

Mr. Floyd Amsler
[illegible]

REF (18)

December 16, 1967

Mr. Metzler - Division of Environmental Health Services - Attention: Mr. Russelmann

Henry J. Smith - Geneva District

Plank Road Section - Walworth Water District - Town of Walworth - Wayne County

Enclosed you will find two copies of the plans submitted by Smith, Hershey, Malone and Norton for the Plank Road area -- a water supply which must be viewed on the basis of emergency procedure.

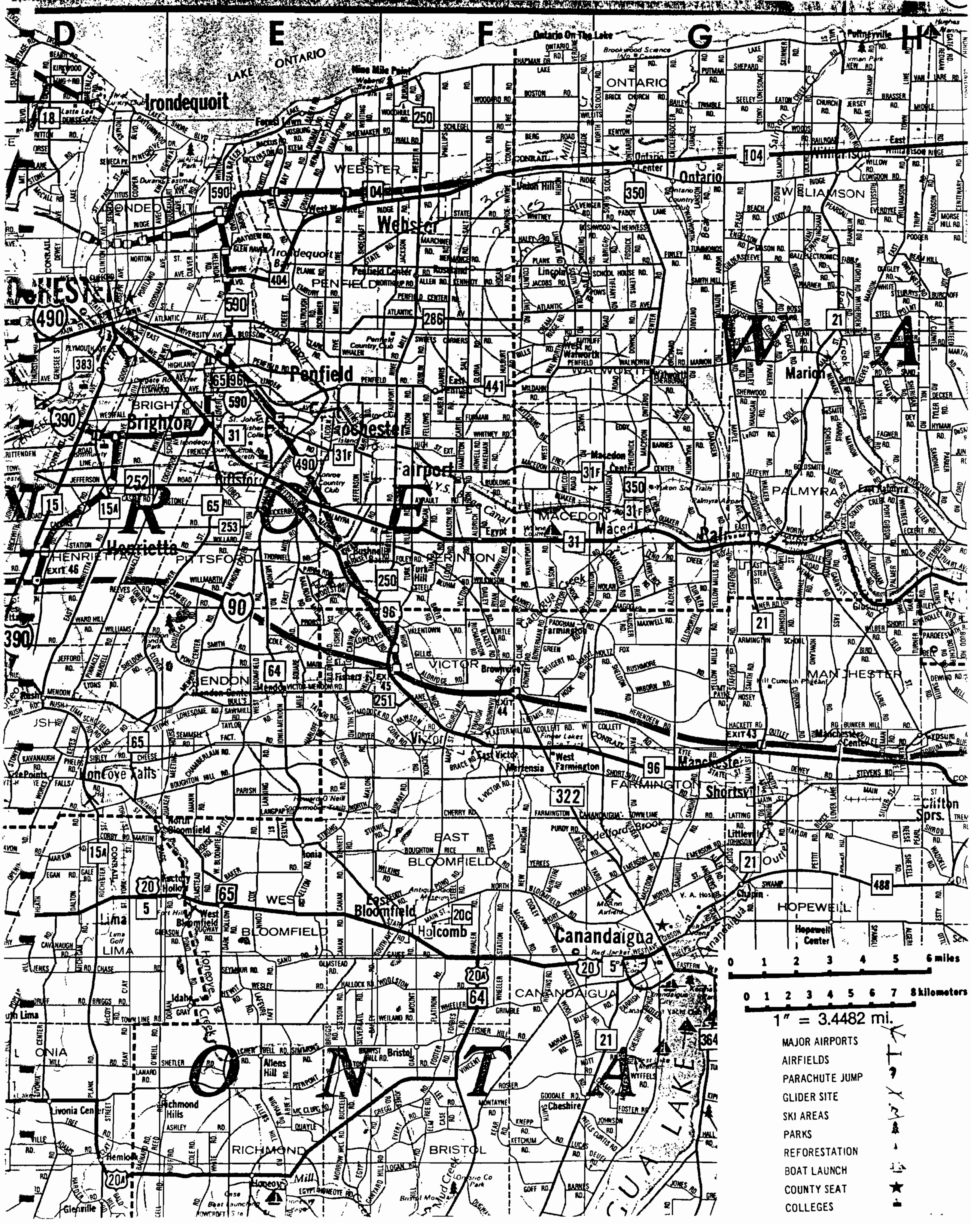
This is the area in which individual wells were made unusable by the dumping of chemicals and cleaning compounds from the Xerox plant. We have had conflicting rumors and reports regarding the probable construction time and date for this system. We have not checked the area in the last week, but there is a strong possibility that construction may be now underway.

The water supply for this particular part of the town of Walworth will be from Monroe County Water Authority.

Anything you can do to expedite the approval of this small water district would be appreciated by this office, by residents and the supervisor and town board.

cc: Mr. Fuller

REF. 1c



D
E
F
G
H
LAKE ONTARIO
Irondequoit
Webster
WEBSTER
Ontario
ONTARIO
Ontario Center
WILLIAMSON
Pultneyville
Penfield
PENFIELD
Penfield Center
Walworth
WALWORTH
Marion
BRIGHTON
Brighton
Rochester
Pittsford
PITTSFORD
Fairport
PERINTON
Macedon
MACEDON
Macedon Center
PALMYRA
Henrietta
HENRIETTA
MENDON
Mendon
VICTOR
Victor
East Victor
Fishers
MANCHESTER
Manchester
Shortsville
FARMINGTON
West Farmington
Farmington
Mertensia
Honeoye Falls
North Bloomfield
EAST BLOOMFIELD
East Bloomfield
WEST BLOOMFIELD
West Bloomfield
Holcomb
Lima
LIMA
Canandaigua
CANANDAIGUA
HOPEWELL
Hopewell Center
Chapin
Clifton Sprs.
Littleville
Idaho
Bristol
BRISTOL
Allens Hill
Richmond Hills
RICHMOND
Honeoye
Hemlock
Livonia Center
LIVONIA
Cheshire
ONTARIO
0 1 2 3 4 5 6 miles
0 1 2 3 4 5 6 7 8 kilometers
1" = 3.4482 mi.
MAJOR AIRPORTS
AIRFIELDS
PARACHUTE JUMP
GLIDER SITE
SKI AREAS
PARKS
REFORESTATION
BOAT LAUNCH
COUNTY SEAT
COLLEGES

Geology of New York:

a short account

**Adapted from the text of "Geologic Map of New York State"
by J. G. Broughton, D. W. Fisher, Y. W. Isachsen, and L. V. Rickard**

EDUCATIONAL LEAFLET NO. 20

The University of the State of New York/The State Education Department
New York State Museum and Science Service/Albany 1966

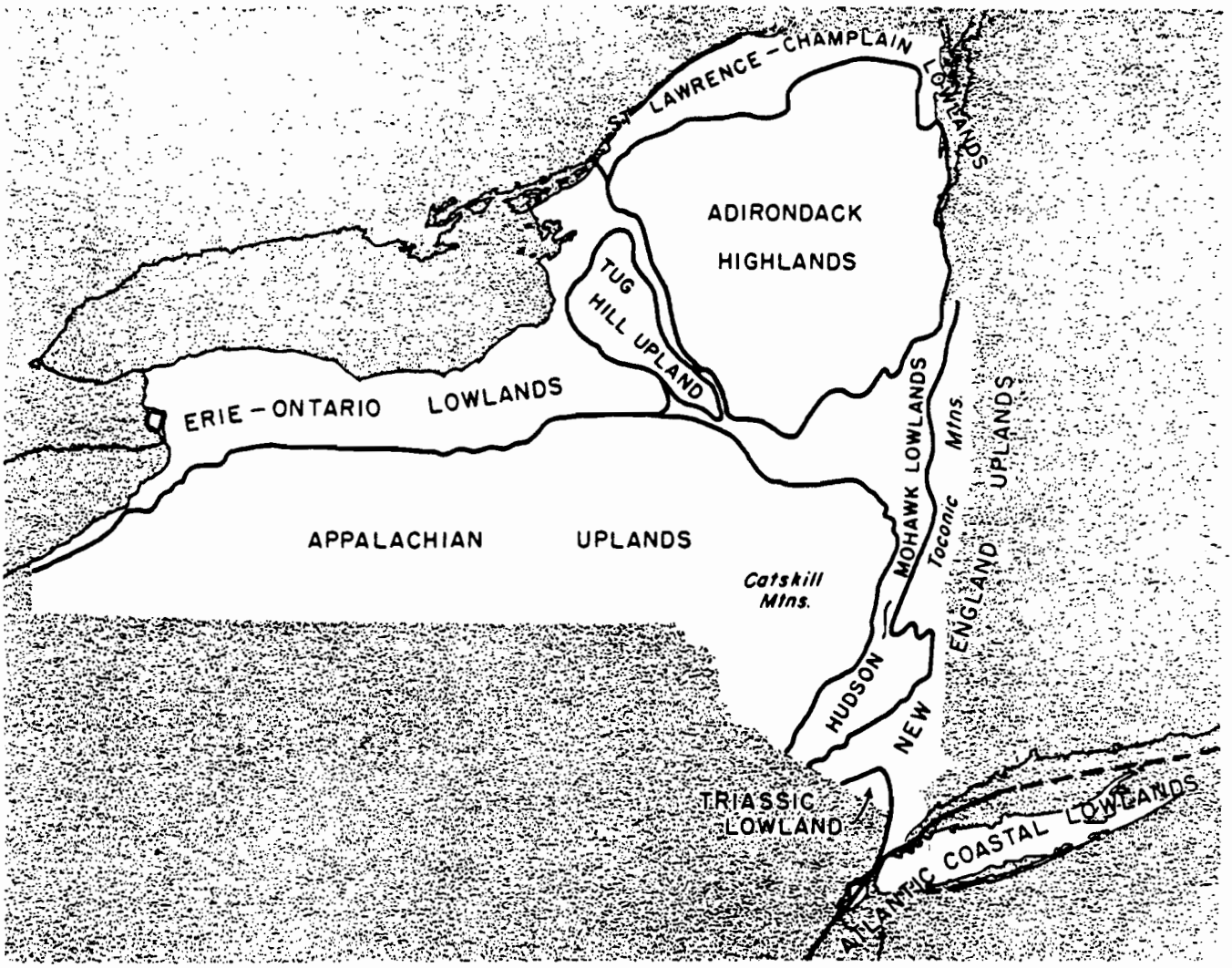


FIGURE 19. Physiographic provinces of New York, based on relief and geology (Modified after G. B. Cressey, 1952)

Cenozoic Era

PHYSIOGRAPHIC PROVINCES AND TERTIARY HISTORY

The physiographic provinces of New York are shown in figure 19. Modern landscapes of the State were shaped largely during the Cenozoic Era, the most recent 65 million years of geologic history. Although the overall features later would be modified and blurred by glaciation, the broad outlines of modern mountain, valley, and plain first were carved by the unrelenting rush of water to the earlier Cenozoic seas.

The long sequence of erosion presumably began with the arching of the Jurassic Fall Zone erosion surface in mid-Cretaceous time. As its eastern flank dipped beneath the encroaching Atlantic Ocean to receive Coastal Plain deposits, the axis domed sufficiently to initiate the sculpture of the Appalachians and Adirondacks. Few, if any of today's land forms can be traced so far back, however. Most researchers believe that all the exposed remnants of the dissected Fall Zone surface were obliterated by subsequent erosion.

South of New York, at least a partial record of Tertiary geology persists in the Coastal Plain deposits. In addition to a sedimentary record, datable igneous intrusions cut rocks of varying degrees of deformation in the western states. But in New York, no such tangible evidence of Cenozoic events exists. The Coastal Plains sediments derived from the long-continued degradation of New York and New England now rest on the Continental

Shelf, beneath many fathoms of water. Because of a relatively recent tilting of the coastline about a northwest-southeast axis near New York City, the Coastal Plain has been raised south of New York; east and north of the city, all but the Long Island Cretaceous has been depressed below sea level.

Since exposed Tertiary sedimentary deposits are absent in New York, its geological history must be reconstructed from the only data available, the present physiographic features of the State. In an area as small as New York, where climate does not vary significantly, land forms have been determined primarily by geology. Characteristic differences between the physiographic provinces have resulted from the ways in which rocks of differing lithologies and structures have reacted to the erosional force of the Cenozoic. Thus, while many authorities have classified New York's physiographic provinces in various ways, all are more or less in agreement as to the outlines of the major provinces; they differ mainly in the names applied to the provinces. Those used here were proposed by George B. Cressey (1952, personal communication, J.G. B.). From north to south, the physiographic provinces of New York are:

St. Lawrence-Champlain Lowlands

New York's northernmost province includes the St. Lawrence River Valley (northeast of the Thousand Islands), the low hills south of the river valley, and the Lake Champlain Valley (figure 19). The underlying rocks —Cambrian and Ordovician sandstones, dolomites, and limestones—dip gently away from the Adirondacks. Relief is approximately 100 feet. Streams draining the northern and eastern slopes of the Adirondacks flow across the province. The shoreline of Lake Champlain is largely controlled by north-south and east-west faults which have chopped the Paleozoic sandstones and carbonates into large blocks.

Adirondack Highlands

The highest mountains in New York occur in the Adirondack Highlands, especially in the High Peaks region; the High Peaks, in the east-central part of the province, are underlain by anorthosite, which is highly resistant to erosion. Two peaks—Mt. Marcy and Mt. Algonquin—are over 5,000 feet in elevation, and many exceed 4,000 feet. Average relief in the Adirondack Highlands is 2,000 feet. North, west, and south of the High Peaks area, elevations decrease gradually; east to the Champlain Lowland, the slope is more abrupt.

The Adirondacks are transected by long, northeast-southwest lineaments, representing shear zones or major faults. The lineaments frequently control drainage and the shape of land forms. Many lakes follow geologic contacts, or are confined to valleys along weak metasedimentary rocks. Because glacial deposits have clogged the normal radial drainage, lower areas are dotted with lakes, ponds, and swamps.

Tug Hill Upland

The Tug Hill, an isolated upland in the eastern part of the Erie-Ontario Lowlands, is probably the most desolate area of the State. Elevation is 1,800 to 2,000 feet, and relief is very low. The Tug Hill results from a resistant cap rock of Oswego Sandstone (an Ordovician sedimentary quartzite), resting on a thick series of sandy shales. These, in turn, overlie Trenton and Black River limestones, which form a flight of rock terraces along the west side of the Black River Valley. The low slope of the cap rock and the thin cover of glacial deposits have caused poor drainage and many swamps.

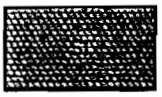
Erie-Ontario Lowlands

This province encompasses the relatively low, flat areas lying south of Lake Erie and Lake Ontario and extending up the Black River Valley. From the lake levels of 570 feet and 244 feet, respectively, the land rises gently eastward and southward. The maximum elevation (1,000-1,500 feet) occurs along the Portage Escarpment, the boundary with the Appalachian Uplands to the south. Particularly in the Ontario Lowland, east-west escarpments are formed by the Onondaga Limestone and Lockport Dolomite. (The Lockport is the cap rock of Niagara Falls and the falls of the Genesee River at Rochester.) The simple erosional topography has been modified substantially by glacial deposition of drumlin fields, recessional moraines, and shoreline deposits.

Hudson-Mohawk Lowlands

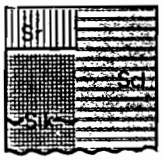
The general topography of the Hudson-Mohawk Lowlands resulted from erosion along outcrop belts of weak rocks. In the Mohawk Lowlands, the outcrop belts lie between the Adirondacks and the Helderberg Escarpment; for the Hudson, they lie between the Catskills and the metamorphosed shale hills of the Taconics. Most of the province has low elevation and relief. It is underlain primarily by Ordovician shales which have been exposed by the southward and westward stripping off of Silurian and Devonian limestones.

REF. (21)



LOCKPORT GROUP
80-175 ft. (25-55 m.)

Sl Oak Orchard and Penfield Dolostones, both replaced eastwardly by Sconondoa Formation—limestone, dolostone.



CLINTON GROUP
150-325 ft. (40-100 m.)

Sr Decew Dolostone; Rochester Shale.

Sik Irondequoit Limestone; Williamson Shale; Wolcott Furnace Hematite; Wolcott Limestone; Sodus Shale; Bear Creek Shale; Wallington Limestone; Furnaceville Hematite; Maplewood Shale; Kodak Sandstone.

Scl Herkimer Sandstone; Kirkland Hematite; Willowvale Shale; Westmoreland Hematite; Sauquoit Formation —sandstone, shale; Oneida Conglomerate.

GEOLOGIC MAP OF NEW YORK

1970

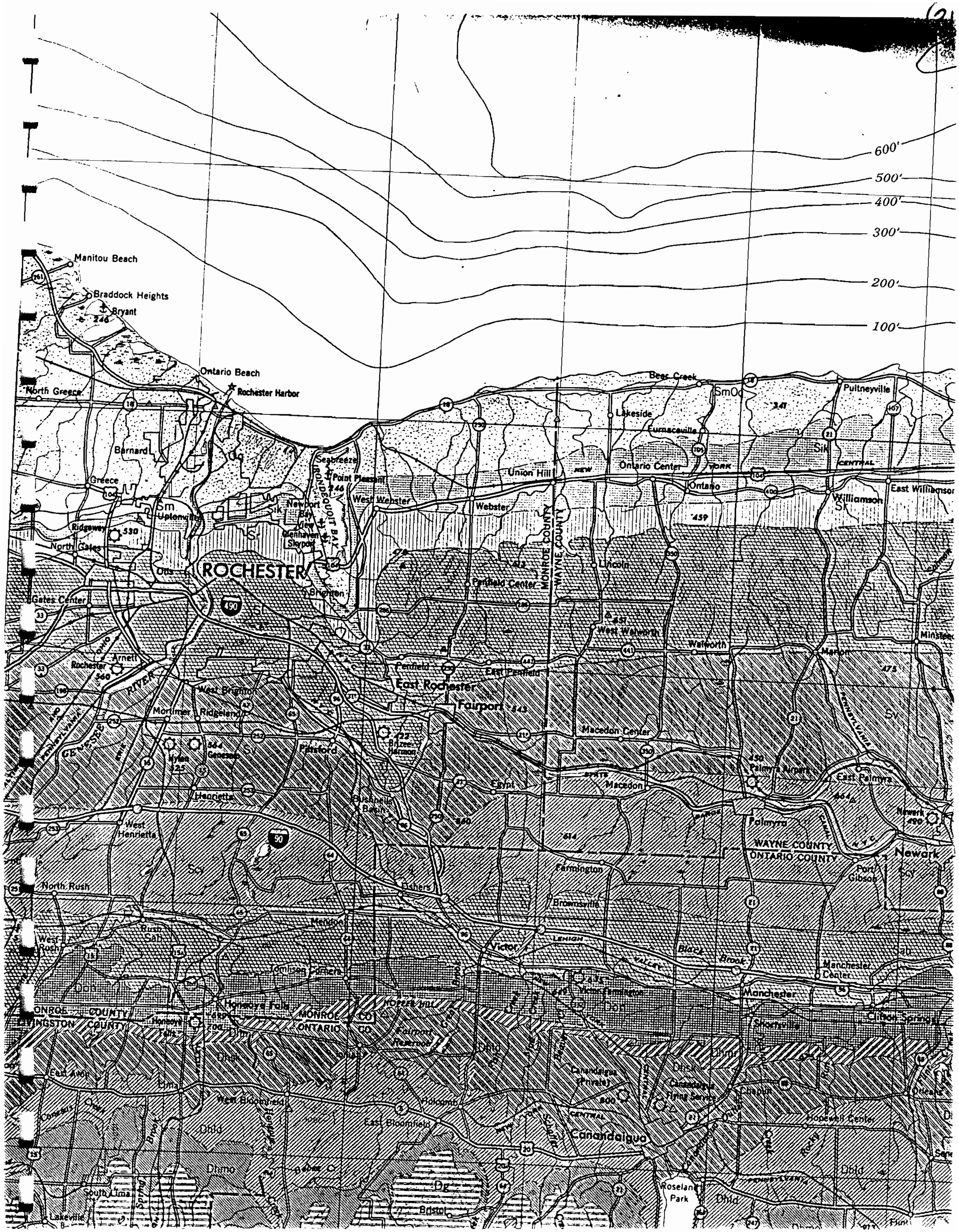
Finger Lakes Sheet

Scale 1:250,000

5 0 5 10 15 Statute Miles 20

5 0 5 10 15 20 25 Kilometers 30

CONTOUR INTERVAL 100 FEET


600'
500'
400'
300'
200'
100'
Manitou Beach
Braddock Heights
Bryant
Ontario Beach
Rochester Harbor
North Greece
Barnard
Greece
Uptonville
Ridgeway
North Gates
Gates Center
ROCHESTER
Seabreeze
Point Pleasant
Newport
Bay View
Glenhaven
Skyport
IRONDEQUOIT BAY
West Webster
Webster
Union Hill
Ontario Center
Bear Creek
Lakeside
Furnaceville
Ontario
Pultneyville
Williamson
East Williamson
Penfield Center
MONROE COUNTY
WAYNE COUNTY
Lincoln
Brighton
West Walworth
Walworth
Marion
Penfield
East Penfield
East Rochester
Fairport
Rochester
Arnett
GENESEE RIVER
West Brighton
Mortimer
Ridgeland
Pittsford
Macedon Center
Palmyra Airport
East Palmyra
Egypt
Macedon
Palmyra
Newark
Henrietta
West Henrietta
Bushnells Basin
Genesee
WAYNE COUNTY
ONTARIO COUNTY
Port Gibson
Farmington
North Rush
Fishers
Brownsville
Rush
West Rush
Mendon
Victor
Black Brook
Manchester Center
Tomlinson Corners
Victor Farmington
Manchester
MONROE COUNTY
LIVINGSTON COUNTY
Honeoye Falls
MONROE CO
ONTARIO CO
Shortsville
Clifton Springs
East Avon
Lima
West Bloomfield
Holcomb
Canandaigua (Private)
Canandaigua Flying Service
Chapin
Hopewell Center
East Bloomfield
Canandaigua
South Lima
Roseland Park
Bristol
Lakeville
ROCHESTER
490
90

[illegible] NEW YORK

DEPA[illegible] OF CONSERVATION

WA[illegible] CONTROL COMMISSION

THE GR[illegible] WATER RESOURCES O[illegible]NE COUNTY, [illegible] YORK

[illegible] BY
[illegible]NOLDS
[illegible] Geological Survey

[illegible] COOPERATION WITH THE
[illegible]TROL COMMISSION

[illegible] GW-29
[illegible] N. Y.
[illegible]

The transportation facilities in Wayne County are excellent. There are 1,354 miles of Federal, State, County, and town roads. The Erie Canal, part of the New York State Canal System, crosses the southern part of the County. The County is served also by the New York Central Railroad and the Pennsylvania Railroad.

TOPOGRAPHY AND DRAINAGE

Wayne County is in the eastern lake section of the Central Lowland physiographic province. (Fenneman, 1938, p. 456). The County has maturely dissected and glaciated cuestas and lowlands, and is divided into two physiographic divisions, the rolling drumlin region and the lake plain. West of Sodus Bay these divisions are clearly separated by a beach formed by glacial Lake Iroquois. The beach rises abruptly 15 to 25 feet above the lake plain to the north. The drumlin area is south of the beach. West of the village of Sodus the beach is very well defined and is followed by U. S. Highway 104, which locally is called the Ridge Road. East of Sodus the beach turns south and east and becomes indistinct. Farther east occasional beach deposits are found, but they are not of sufficient length to indicate accurately the shore line and the boundary between the drumlin area and the lake plain is ill-defined. East of Sodus Bay the drumlin area extends to the shore line of Lake Ontario, and forms conspicuous cliffs.

The drumlin area, as the name suggests, consists of numerous drumlins, either singly or in groups. The long axis of each of these elliptical hills trends slightly east of south. The hills slope steeply to the north and gently to the south. Because of the orientation of the drumlins, most of the major valleys in the area trend southward. Areas of muck lie in some of the larger valleys, but in other valleys terrace and till soils predominate. The drumlin area constitutes more than half the County and in this part of the County the maximum altitude is approximately 700 feet above sea level, and the maximum relief is about 300 feet.

The lake-plain area was once covered by glacial-lake waters. The area has a gentle northward slope and a range in altitude from 247 to 425 feet above sea level. Occasional isolated drumlins, which were probably islands in the glacial lakes, rise above the plain in places. The erosion of thick lake sediments has developed a rolling topography in some places.

Another prominent topographic feature is the Fairport-Lyons glacial-stream channel. The mouth of the channel is near Fairport in Monroe County. The channel, partly filled with glacial debris, follows a general east-west course through the southern part of Wayne County to a point just east of Lyons (fig. 2). The floor of the channel is a quarter to half a mile wide and in many places is as much as 200 feet below the surface of the drumlin area to the north and south. Its course is followed by the Erie Canal and, in part, by the New York Central Railroad.

Lake Ontario, which forms the entire northern boundary of the County, has greatly influenced the topography of the land near its shore. The shore line of the lake is being gradually straightened by erosion and the filling of the bays by the streams draining into the lake. The water level of Lake Ontario varies considerably with the season of the year and also over a period of years. Figure 3 shows the average yearly lake levels for a period of 90 years. It is interesting to note that there are peaks at intervals of 16 to 22 years, although in one case the peaks are only 8 years apart (1862-1870). In those years when the average yearly lake level exceeds 247 feet, the water level during the spring and summer often exceeds 249.5 feet above mean sea level. At such times many cottages built near the shore have been flooded by the rising water. It would be wise for those contemplating building near the lake to be sure that their building foundations are more than 250 feet above mean sea level.

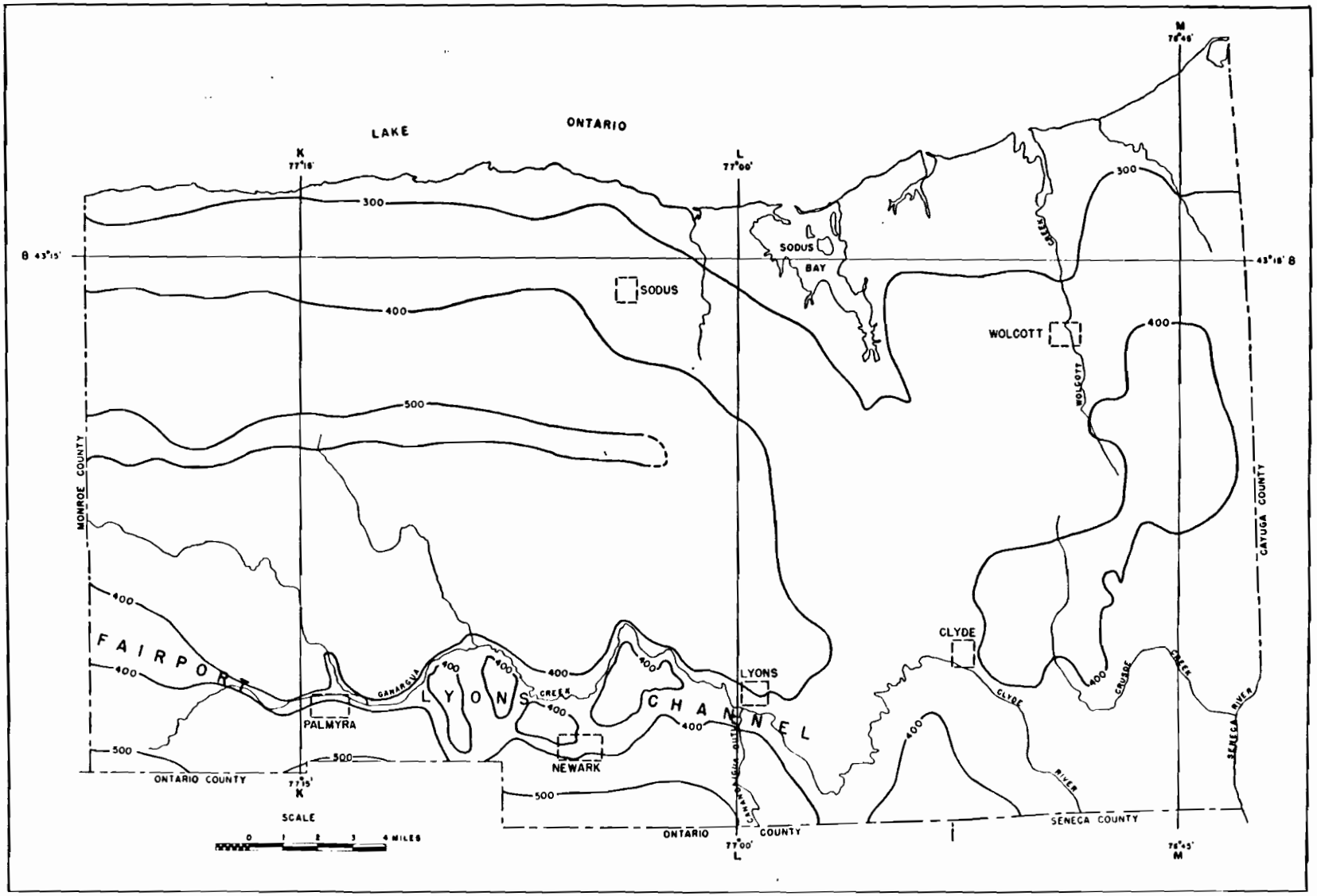


Figure 2.—Bedrock-contour map of Wayne County showing Lyons Channel. Contour interval is 100 feet, datum is mean sea level, and lines are dashed where approximate.

Hematite, the red iron oxide, was the source of all the iron mined in the first half of the nineteenth century. The pits at Salmon Creek, Wolcott Furnace, and Dutch Street obtained most of their ore from the Furnaceville iron ore of the Clinton formation. The low grade of the ore, together with the variable thickness and relatively high sulfur and phosphorus content, has tended to discourage further development. The only use that has been made of the iron ores from the Clinton of New York State in the past 20 years is in the manufacture of paint. The hematite from the Clinton in Oneida and Wayne Counties has been the most important source of pigment in the State. In Wayne County the ore is fossiliferous and quite high in calcium and magnesium carbonates.

GEOLOGIC FORMATIONS AND THEIR WATER-BEARING PROPERTIES

The rock formations in Wayne County are sedimentary and are covered in most places by unconsolidated deposits of glacial origin. The glacial deposits were originally distributed over the entire County and bedrock is exposed only where the glacial deposits have been removed by erosion. The glacial deposits of Pleistocene age range in thickness from a few feet to 200 feet. A generalized stratigraphic column for Wayne County is shown in table 3 and the bedrock geology of the County is shown on plate 2. The distribution of unconsolidated deposits in Wayne County is shown on plate 3.

The bedrock in Wayne County is of Silurian age and is divided into three parts: lower, middle and upper. The strike of the Silurian rocks is nearly east-west and the dip is toward the south at about 40 feet per mile. Because of the southward dip, younger rocks are exposed progressively southward. The lower part of the Silurian rocks is exposed in the extreme northern part of the County and is represented by the Albion sandstone. Only the upper beds of the sandstone are exposed at the surface as the lower beds are covered by Lake Ontario. The central part of the County is underlain by strata of the middle part of the Silurian. Rocks of this age represented in Wayne County by the Niagara group, which consists of the Clinton formation at the base and the overlying Lockport dolomite. The upper part of the Silurian of New York State is divided into the Salina formation and the Cobleskill, Rondout, and Manlius limestone. Only the oldest of these, the Salina formation, extends into Wayne County. The Salina formation consists of the Pittsford shale member, the Vernon shale member, the Syracuse salt member, the Camillus shale member, and the Bertie limestone member, of which only the Vernon and Camillus have been definitely recognized in the County.

CONSOLIDATED ROCKS

Albion Sandstone

The Albion sandstone includes all the rocks between the underlying Queenston shale and the overlying Clinton formation (Kindle and Taylor, 1913, p. 6). The name is taken from the town of Albion in Orleans County where it is conspicuously exposed. Only the upper beds of the Albion sandstone are exposed in Wayne County (pl. 2) and these consist mainly of thick red layers of sandstone interbedded with a few thin layers of red sandy shale. A pebbly layer is encountered in some places. The Albion may be mottled by light-green spots where it underlies layers of green sandstone. The mottled zones usually are in the upper 20 feet of the Albion sandstone, and the green bands generally cut across the normal bedding of the strata. Hall (1843, p. 38) thought that the ferric iron in the redbeds had been reduced to ferrous iron by the action of decaying vegetable matter, thus producing the greenish zones.

Table 3.—Geologic formations in Wayne County and their water-bearing properties

Age		Geologic formations	Thickness (feet)	Character of material	Water-bearing properties
System	Series or group				
Quaternary	Recent	Alluvium, mantle rock, and soil	Unknown	Clay and silt with some sand and gravel; disintegrated rock fragments and soil.	Relatively unimportant owing to small size of deposits.
	Pleistocene	Glacial drift	200+	Till—heterogeneous mixture of unstratified material ranging in size from clay to boulders. Variable in nature and sometimes grading into sorted material.	Yields small supplies of water to many dug wells for domestic and farm purposes.
				Outwash—sorted deposits ranging in size from clay to boulders. In many places stratified and cross-bedded.	Fine deposits are practically impervious. Coarse deposits are best aquifers in the County and if properly developed will yield large quantities of water. Highest reported yield is 1,200 gallons per minute.
Silurian		Salina formation (For subdivisions, see text, p. 10)	765+	Gray fine-grained shaly limestone alternating with red, gray, green, or mottled soft shale. Gypsum layers are numerous, and are interbedded with some salt layers.	Average yield is 31 gallons per minute and highest reported yield is 400 gallons per minute. Average depth of wells is 100 feet. Quality of water is very poor, particularly in deeper wells. The water contains undesirable amounts of sulfate, hydrogen sulfide, chloride, and iron, and its use, consequently, is severly restricted.
	Niagara group	Lockport dolomite	155±	Massive, coarsely crystalline very dark to black dolomite containing thin layers of black or dark-gray shale. Resistant to weathering and forms numerous ledges. Contains many joints, some enlarged by solutional activity.	Average yield is 33 gallons per minute. Highest reported yield is 300 gallons per minute. Average depth of wells is 86 feet. Yields sufficient supplies for domestic purposes but the water is very hard and contains hydrogen sulfide.
		Clinton formation (For subdivisions, see p. 13)	270	Alternating layers of coarsely crystalline limestone and dolomitic limestone with gray, purple, green, or black shale. Contains thin layers of fossil iron ore (hematite).	Yields sufficient water for domestic wells. Greatest recorded yield is 30 gallons per minute and average depth of wells is 67 feet. Quality of water fairly good except for a few zones of saline water.
		Albion sandstone	119±	Red thick-bedded sandstone with a few thin layers of red sandy shale.	Average yield is 10 gallons per minute and the highest reported yield is 30 gallons per minute. Average depth of wells is 63 feet. Quality of water good in upper 30 feet of the sandstone; lower part may contain highly saline water.

is the only dug well known to end in the Clinton formation. This well is dug 11 feet into the Sodus shale member after passing through 5 feet of glacial cover. The well is 36 inches in diameter and an adequate yield of 3 gpm is reported. Over 500 gallons of water a day is pumped during the fruit season when the water is used for spraying.

Although the shale of the Clinton formation yields water slowly, under certain conditions it may yield a satisfactory supply. Several farm pools which furnish enough water for stock have been dug into the shale of the Clinton in the northwestern section of the County. In this section the shale is overlain by only a few feet of till and digging is fairly easy. The author observed the construction of one of these farm pools in which the aquifer was the Sodus shale member. The pit, about 20 feet in diameter, was dug through 3 feet of glacial cover and 7 feet of shale. The pool received water slowly, and after 2 days it contained about a foot of water, which was enough for the few head of stock to be watered.

In general, the Clinton formation in Wayne County will furnish enough water for the domestic needs at small farms. The maximum yield of the Clinton is about 30 gpm and there is little possibility of developing larger amounts from this formation that would be satisfactory for industrial or public-supply purposes.

The Clinton formation contains some salty water but most wells ending in the upper part of the formation yield water suitable for human consumption. Water from the shale of this formation tends to be slightly softer than that from the limestone. Water from the Rochester shale member of the Clinton formation contains hydrogen sulfide, a result of contamination by the highly sulfurous water that occurs in the overlying Lockport dolomite. The Clinton is the only formation in the County with beds of iron ore. Analyses of 6 water samples from the Clinton show a range in iron from .1 part per million to 3.0 parts per million and an average content of 1.11 parts per million. This is slightly higher than the average iron content of water analyzed from the other formations.

Lockport Dolomite

The Lockport dolomite is the youngest formation of the Niagara group in Wayne County and directly overlies the Rochester shale member of the Clinton formation. Owing to its resistant character, the Lockport dolomite tends to form ledges, and consequently exposures are numerous. The most extensive exposure of the Lockport in Wayne County is in a road-metal quarry about 1½ miles southwest of Sodus Center. Approximately 45 feet of the Lockport dolomite is exposed at this locality but the total thickness of the formation is about 150 feet.

The Lockport is composed chiefly of layers of massive coarsely crystalline dolomite interbedded in some places with thin layers of shale. The fresh rock is dark gray to black, but upon weathering it changes to a light brown. The basal bed of the Lockport dolomite is a siliceous dolomite interbedded with dark shale which grades into the underlying Rochester shale member of the Clinton formation.

The Lockport dolomite yields larger quantities of water than either the Albion sandstone or the Clinton formation. Although most of the dolomite is massive and thick-bedded, the rock is well jointed and many of the joints have been enlarged by solution. Ground water flows quite freely through these joints and along the bedding planes.

Records were collected for 54 drilled wells that obtain water from the Lockport dolomite. The average depth of the wells is 86 feet and the average depth to bedrock is 48 feet. The average yield of 39 wells for which yields were reported is 33 gallons per minute and 5 of the wells yield over 100 gpm.

The highest yield reported from the dolomite in Wayne County is 300 gpm. This yield is from Wn 75, a quarter of a mile north of the village of Marion (pl. 1). The well penetrates the Lockport dolomite for 21 feet after passing through 15 feet of glacial cover. The water, which is used in cooling condensers, is reported to be hard.

Another well, Wn 74, just north of well Wn 75 and at approximately the same altitude, is reported to obtain 250 gpm from the Lockport dolomite. This well is 31 feet deep and penetrates 17 feet of bedrock. It seems probable that the wells obtain water from the same beds in the dolomite.

The mineral sphalerite (zinc sulfide) is present in the Lockport. For many wells where the hydrogen sulfide is not noticeable, the water is reported to have a high sulfate content and high noncarbonate hardness. The sulfurous water is not restricted to any one area, but seemingly is present throughout the Lockport dolomite.

In summary, the Lockport dolomite in Wayne County will usually yield a sufficient quantity of water for domestic use, and in places more than 100 gpm. The water, however, usually has a high noncarbonate hardness and contains hydrogen sulfide.

Salina Formation

In Wayne County, the Salina formation is represented by only two of its members, the Camillus shale member and the Vernon shale member. The older Vernon shale member overlies the Lockport dolomite and is, in turn, overlain by the Camillus shale member. According to Gillette (1940, pp. 102, 104, 107), these two members of the Salina formation are very similar in physical properties and color. Both are soft, weak rocks and both contain layers of mottled gray, green, and red shale.

The Vernon shale member and the Camillus shale member have been penetrated by gas wells in the vicinity of Clyde and Alloway, in Wayne County. The wells encountered salt water but, according to Newland and Hartnagel, (1932, pp. 150-151) did not encounter the salt bed of the Syracuse salt member of the Salina formation, which in areas adjacent to Wayne County lies between the Vernon and the Camillus shale members. The information obtained by Newland and Hartnagel (1932) indicates that in Wayne County the Salina formation is from 550 to 600 feet thick.

Records were obtained of 101 wells drawing water from the Salina formation. All are drilled wells and the average depth is 100 feet. The amount of glacial material overlying the Salina formation ranges from a few feet in the southwestern portion of the County to 175 feet in the southeastern part. The average thickness of glacial cover penetrated is 60 feet and the average penetration into bedrock is 40 feet.

The average yield of all wells in the Salina formation for which records were obtained is 31 gallons per minute. There are four wells in this formation that are reported to yield more than 100 gpm. Three of these are near the village of Macedon in the southwestern part of the County and the fourth is in the town of Newark in the Fairport-Lyons glacial channel.

The highest yield reported is 400 gpm, from well Wn 11 (pl. 1, 8K, 12.2S, 5.8W). This well, drilled to a depth of 120 feet, encountered shale of the Salina formation at 51 feet. An analysis of the water shows a hardness of 1,900 parts per million (ppm) and, because of this limiting factor, the water is now being used only to wash celery.

Well Wn 24 is very near well Wn 11 and is used in the same celery washing process. This well is drilled to a depth of 100 feet and encounters bedrock at 50 feet. The water from well Wn 24 also has a hardness of 1,900 ppm but contains slightly less iron and chloride than does the water from well Wn 11.

Well Wn 23, east of Macedon, has a reported yield of 200 gpm. This well is 100 feet deep and enters the shale of the Salina formation at a depth of 30 feet. The water is reported to be very hard and is used for cooling.

Well Wn 318, about a mile north of Newark in the Fairport-Lyons glacial-stream channel, is the fourth well in the Salina formation that has a reported yield of more than 100 gpm. It is 54 feet deep and enters bedrock at 30 feet. Its reported yield is 250 gpm. The water is reported to be very hard and to contain both hydrogen sulfide and iron.

The high mineral content of water from the Salina formation makes it unsatisfactory for all but a few uses. Undesirable amounts of hydrogen sulfide, salt, and iron are generally found in the water. Salt layers are known to exist in the Salina formation in Wayne County, and wells in these yield brine. Layers of gypsum (hydrous calcium sulfate) are responsible for the high noncarbonate hardness. Only a few wells produce water that is of satisfactory quality for domestic and industrial uses. All these wells penetrate less than 30 feet of bedrock. The quantity of water produced is usually sufficient for average domestic use, but would fall far short of meeting the demands of industry or of a public-water supply. The deeper wells generally yield larger quantities of water but the water has a high mineral content.

UNCONSOLIDATED DEPOSITS

Glacial Drift (Pleistocene)

Most of the surface of Wayne County is mantled by a layer of glacial drift deposited during Pleistocene time. In some places the bedrock is at or near the surface whereas in other areas drilling has revealed a thickness of as much as 200 feet of glacial cover. The average thickness of this cover, estimated from the records of wells that strike bedrock, is about 40 feet. The character of the glacial deposits ranges from relatively impermeable till to coarse, well-sorted, highly permeable sand and gravel.

Ground moraine.—Extensive deposits of ground moraine are found in the glacial-lake-plain area in the northern part of the County (pl. 3). Ground moraine is material deposited when the glacier stagnated and melted and it is a relatively thin layer of till overlying the bedrock. The material is known to the drillers locally as "hardpan," because it has a high content of clay and is partly consolidated.

Many wells in Wayne County are dug in ground moraine. The till yields water slowly and all the wells in it are reported to have very low yields, many of them going dry during periods of light precipitation when the water table sinks below the bottom of the well. Records were obtained of 25 wells in till; of these, 8 are of drilled wells and 17 are of dug wells. The average depth of the wells is 38 feet and the average yield is a fraction of a gallon per minute.

Glacial-lake deposits.—The most prominent of the glacial-lake deposits of Wayne County are beaches and sand bars. These were formed at the edge of the glacial lakes that occupied parts of the area during Pleistocene time. The most prominent beach is the one in the northern part of the County along U. S. Highway 104 (pl. 3). From the western edge of the County to a point just east of Sodus, the beach is well defined. From there it swings southeastward and becomes exceedingly difficult to trace. The beaches and associated sand bars contain fairly well stratified layers of sand which show numerous examples of cross bedding.

Sands of lacustrine origin, though very fine in texture, are much more permeable than the clays of like origin. The sands yield water readily to dug wells and also permit recovery by driven wells of quantities sufficient for household use. Dug wells Wn 38, Wn 479, and Wn 480 (table 7) are constructed in glacial-beach deposits.

Drumlins.—Drumlins are the most prominent evidence of glaciation in Wayne County

A deposit quite important agriculturally is the soil of the muck lands. This soil represents the last remnants of glacial lakes in the area. The lakes were slowly filled with organic matter, forming the present rich muck soil. Muck areas are numerous in Wayne County and they range greatly in areal extent (pl. 3). Some are the remains of small lakes, whereas others represent the locations of the large glacial lakes, Montezuma and Iroquois.

GROUND WATER

SOURCE

Water that flows from wells and springs or can be pumped from wells is known as *ground water*. Most of the ground water in Wayne County is derived from that small part of the local precipitation that percolates into the ground. The water in most shallow wells and springs is that which fell on the surface nearby, but water from the deep artesian wells may have migrated through water-bearing formations several miles from the outcrops of the formations. An inch of water falling on 1 square mile amounts to more than 17,000,000 gallons; thus more than 610,000,000 gallons is received by each square mile where the precipitation is 36 inches a year. Only a small percentage of the total local precipitation, therefore, is required to keep most of the water-bearing strata filled. The water, once it reaches a water-bearing formation, percolates slowly to areas of discharge—it flows from springs, seeps into streams, is evaporated where the water table is shallow, or is withdrawn from wells.

OCCURRENCE

The amount of ground water that is contained by rocks below the surface depends upon the characteristics of the openings in the rocks. The size, number, shape, and arrangement of these openings differs in each of the many types of rock; thus local occurrence of ground water is dependent upon the geology. The number and size of openings in a rock determine its *porosity*, or the percentage of the volume of the rock that is occupied by openings. A rock is saturated when all these openings, or pores, are filled. If the openings are not interconnected or are very small, as in clay, the rock may be saturated but it does not yield appreciable amounts of water to wells. The *permeability* or capacity for transmitting fluids under pressure is therefore an important factor in determining the water-bearing property of a rock.

The permeability of the rocks of Wayne County depends to a large extent on the lithology. The unconsolidated materials that were deposited by streams or in ponded bodies of water following the retreat of the continental ice sheet comprise relatively distinct beds of clay, silt, sand, and gravel. The moderately well sorted gravels have a relatively high permeability and yield comparatively large quantities of water.

Sandstone, which is more or less firmly cemented beds of sand, differs in permeability according to the difference in size and assortment of the grains, and the amount and character of the cementing material. The beds of limestone and dolomite are relatively impervious except for fractures and solution openings. As these rocks are comparatively soluble in water that contains common dissolved gases, especially carbon dioxide, fractures and openings along bedding planes are enlarged readily to channels. Thus, the permeability differs greatly and somewhat erratically from place to place. The yield of wells depends upon the number and size of the water-bearing openings that are encountered. Shale, which is largely indurated clay, contains such small pore openings that it yields little water to wells, except from open bedding planes and joints in shales that are sufficiently indurated to support such openings.

MOVEMENT AND STORAGE

Water is found beneath the surface of the ground in two zones, these being separated by the *water table.* The zone above the water table is known as the *zone of aeration,* and water in this zone is termed *suspended water* (Meinzer, 1923b, pp. 21-23). The zone whose surface is the water table is the *zone of saturation* and water in this zone is termed *ground water.*

Water in the zone of aeration does not completely saturate the rock or soil material and is held by molecular attraction so that generally it cannot be withdrawn through wells. In the zone of aeration, percolation of water is mainly downward. Water in this zone is divided (in downward order) into soil water, intermediate water, and capillary fringe water. Other things being equal, the belt of soil water varies in thickness with the nature of the soil and the type of vegetation, and is the zone of active root development. Water from this belt may be lost upward by evaporation and transportation, the latter being the process by which plants take water from the soil with their root systems and discharge it as moisture into the air. Water in the intermediate belt either moves downward under the action of gravity into the capillary fringe or is held in place by molecular action. The capillary fringe lies directly above the water table and contains water that is drawn upward by capillary action into small openings of the zone of aeration.

In the zone of saturation, ground water fills all pores and openings and is controlled by the force of gravity. The ground water is capable of lateral movement in the direction of least pressure and the direction of movement is usually down the dip of the water-bearing bed or *aquifer.*

Wells that obtain water from aquifers not separated from the water table by relatively impermeable beds—that is, aquifers having a water surface are termed *water-table* wells. The configuration of the water table conforms roughly to the configuration of the land surface. As a result, the water table is an undulating surface that is higher beneath hills than it is in the valleys. Because of the difference in hydrostatic head between the ridges, called ground-water divides, and the troughs, ground water moves continuously from hilly areas toward valleys, where it is discharged at the land surface through seeps or springs. This continuous discharge of ground water is the source of most of the dry-weather flow of streams.

A perched water body is a local phenomenon resulting from a bed of impervious material lying between the surface of the ground and the main water table. Water collects above the impervious layer until the overlying material is saturated. The upper surface of this local zone of saturation is known as a *perched water table.* Perched water is available to wells but the supply is limited.

Confined ground water is water below the level of the water table that is cut off from the water table by an impervious layer. The impervious layer prevents the ground water from rising to the normal water-table level and consequently this confined water is under pressure. Water enters the confined aquifer where the impervious layer ends or the aquifer crops out. When a well penetrates through the impervious layer, the confined water rises in the well under the pressure built up by the difference in head between intake and discharge areas. This pressure may cause the water to rise above the ground, resulting in a *flowing well.* Any well that penetrates a confined aquifer and in which the water rises to a level above the confined surface of the aquifer, whether or not the water flows at the land surface, is termed an *artesian well.*

Artesian conditions in Wayne County are present only in the gravels and in the underlying shales of the Fairport-Lyons glacial-stream channel. Several of the wells in

Table 7.—Records of selected wells in Wayne County, New York (Continued)

Wn 108	8K,	10.8S,	0.9W	Floyd Sharp	480	Drl	56	6	52	Salina formation	50	Force	20	..	Dom	Water from another well on this property, 86 feet deep, reported to contain sodium chloride.
Wn 110	8K,	10.4S,	2.2W	Carl Jeerings	500	Drl	90	5⅝	50	Salina formation	..	Force	5	..	Dom	Total hardness reported to be 1,300 ppm.
Wn 111	8K,	10.4S,	2.7W	Samuel Jess	560	Drl	135	6	111	Salina formation	20	Force	20	50	Farm	Driller reported gas pockets encountered at depth of 125 feet.
Wn 112	8K,	7.7S,	1.3W	Orlie Clark	520	Dug	26	36	..	Pleistocene gravel	8	Force	..	..	Dom	
Wn 113	8K,	7.7S,	1.1W	Frank Lawrence	490	Drl	82	5⅝	62	Lockport dolomite	..	Force	7	..	Farm	Water reported to contain hydrogen sulfide.
Wn 114	8K,	7.2S,	1.2W	Samuel McKee	520	Drl	26	6	..	Pleistocene gravel	1	Force	30	50	Farm	Average pumpage 1,000 gpd. [a]
Wn 115	8K,	9.7S,	2.2W	F. Stafford	570	Drl	141	6	40	Salina formation	70	Force	20	..	Farm	
Wn 117	8K,	7.2S,	4.9W	Charles Lawrence	540	Dug	35	48	30	Pleistocene deposits	16	Force	..	53	Dom	
Wn 119	8K,	6.4S,	4.6W	Charles Cook	520	Drl	51	5⅝	27	Lockport dolomite	..	Force	7	..	Dom	
Wn 120	8K,	6.8S,	4.4W	George Wittman	570	Drl	103	5⅝	93	Lockport dolomite	..	Force	4	..	Dom	
Wn 121	8K,	6.9S,	4.2W	Richard Kier	570	Drl	93	5⅝	85	Lockport dolomite	32	Jet	10	..	Dom	
Wn 122	8K,	6.0S,	4.1W	John Fulcrod	540	Dug	8	36	8	Lockport dolomite	3	Force	..	..	Farm	
Wn 123	8K,	6.0S,	3.4W	Johnson Bros.	530	Drl	45	5⅝	25	Lockport dolomite	20	Jet	8	59	Farm	
Wn 126	8K,	4.1S,	5.0W	Alvin Van Wyck	490	Drl	34	5⅝	20	Clinton formation	..	..	20	..	Dom	
Wn 127	8K,	4,0S,	5.0W	Albert Luke	500	Drl	49	5⅝	25	Clinton formation	20	Force	10	..	Dom	(a).
Wn 128	8K,	3.3S,	5.0W	School District 7	490	Drl	35	5⅝	20	Clinton formation	20	Force	½	50	Dom	
Wn 132	8K,	0.4N,	4.6W	Wooster Fruit Farm	360	Drl	56	5⅝	27	Albion sandstone	20	Force	9	..	Farm	Water reported to contain hydrogen sulfide.
Wn 133	8K,	0.9N,	2.9W	A. McGlashan	340	Drl	44	5⅝	30	Albion sandstone	20	Force	3	..	Dom	(b).
Wn 134	8K,	0.7N,	2.8W	Lee Peterson	320	Drl	43	5⅝	35	Albion sandstone	20	..	3	..	Dom	Water reported to contain sodium chloride.
Wn 135	8K,	0.5N,	2.9W	Ontario Center School	340	Drl	32	5⅝	18	Albion sandstone	..	Force	20	50	Dom	
Wn 136	8K,	0.7S,	3.0W	Joseph Rubusto	400	Drl	29	5⅝	11	Albion sandstone	4	Force	20	50	Farm	
Wn 137	8K,	0.8S,	2.8W	Joseph Rubusto	400	Drl	42	5⅝	11	Albion sandstone	4	..	..	..	None	Well abandoned; water reported to have high sodium chloride content.
Wn 139	8K,	12.3S,	0.7E	Edward Contant	470	Dug	19	24	..	Pleistocene gravel	13	Suction	..	..	Dom	
Wn 140	8K,	14.3S,	5.2W	O. W. Johnson	570	Drl	105	6	60	Salina formation	25	Force	..	..	Farm	Water reported to contain iron.
Wn 141	8K,	14.3S,	5.1W	R. A. Willard	570	Dug	17	48	..	Pleistocene gravel	6	Force	..	..	Dom	
Wn 142	8K,	14.0S,	5.0W	R. W. Briggs	550	Dug	13	30	..	Pleistocene gravel	9	Suction	..	..	Dom	
Wn 143	8K,	13.7S,	4.1W	S. C. Slade	500	Drl	76	6	70	Salina formation	5	Force	.	51	Farm	
Wn 144	8K,	13.6S,	4.0W	Carl Slade	490	Dug	12	36	..	Pleistocene gravel	4	Suction	5	..	Farm	
Wn 145	8K,	2.1N,	0.9E	H. F. Thomas	260	Drl	40	5⅝	17	Albion sandstone	10	Suction	6	65	Dom	
Wn 147	8L,	0.4S,	0.6E	N. J. Sill	300	Drl	78	6	..	Pleistocene gravel	31	Force	..	50	Com	
Wn 148	8L,	1.7S,	0.8E	H. L. Young	370	Drl	108	6	70	Clinton formation,	12	Suction	20	..	Farm	(a).

See footnotes at end of table.

Table 7.—Records of selected wells in Wayne County, New York (Continued)

Well number	Location	Owner	Altitude above sea level (feet)	Type of well	Depth (feet)	Diamater (inches)	Depth to bedrock (feet)	Water-bearing formation	Water level below land surface (feet)	Method of lift	Reported yield (gallons) per minute)	Measured temperature (° F.)	Use	Remarks
Wn 222	8K, 6.8S, 4.7W	C. Johncox	530	Drl	91	5⅝	65	Lockport dolomite	40	Jet	6½	50	Farm	Water reported to contain hydrogen sulfide.
Wn 223	8K, 2.8S, 1.9E	M. Verstrach	460	Drl	22	5⅝	15	Clinton formation	..	..	¾	..	..	Water reported to contain hydrogen sulfide.
Wn 229	8L, 11.0S, 3.0E	Albert Garrett	420	Drl	82	6	..	Pleistocene deposits	..	..	..	..	Dom	Water reported to contain iron.
Wn 230	8L, 12.0S, 2.7E	William Parkman	400	Drl	46	6	24	Salina formation	12	Jet	50	..	Dom	
Wn 231	8L, 12.0S, 2.5E	William Parkman	400	Drl	11	1¼	..	Pleistocene gravel	..	Hand	..	..	Dom	
Wn 232	8L, 11.9S, 3.1E	G. Langdon	420	Drl	57	6	..	Pleistocene deposits	27	Jet	20	..	Dom	
Wn 233	8L, 14.5S, 11.6E	Kent Whipple	510	Drl	196	6	175	Salina formation	80	Force	20	..	Farm	Water reported to be unpotable.
Wn 234	8L, 14.9S, 11.7E	W. A. Dickens	500	Drl	125	6	..	Pleistocene gravel	80	Jet	20	..	Farm	
Wn 237	8L, 8.5S, 10.6E	Albert Parker	490	Drl	115	6	105	Salina formation	..	Force	5	..	Farm	
Wn 239	8L, 15.8S, 1.0E	Fred Wright	400	Drl	103	6	..	Pleistocene gravel	..	None	..	..	None	Well abandoned; water contains sodium chloride.
Wn 240	8L, 12.7S, 12.3E	Savannah Cold Storage	410	Drl	256	6	40	Salina formation	..	Force	25	..	Ind	Water reported to contain sodium chloride; used for cooling.
Wn 241	8L, 11.0S, 12.2E	Village of Savannah	390	Dug	20	144	..	Pleistocene gravel	..	Suction	400	52	PWS	Well was formerly a spring.
Wn 242	8L, 11.4S, 5.8E	Rochester and Lake Ontario Water Service Corp.	400	Dug	22	240	..	Pleistocene gravel	8	Suction	280	51	PWS	
Wn 244	8K, 13.4S, 7.8E	Village of Newark	420	Drl	100	8	..	Pleistocene gravel	..	None	100	51	PWS	One of four flowing wells owned by village.
Wn 245	8L, 1.6N, 0.5E	Village of Newark	420	Drl	38	..	..	Pleistocene gravel	..	Turbine	300	51	PWS	One of four flowing wells owned by village.
Wn 247	8M, 0.2N, 1.1E	Village of Red Creek	300	Drl	27	8	..	Pleistocene gravel	5	Force	100	..	PWS	
Wn 249	8L, 12.4S, 10.3E	O. Ferris	430	Drl	65	6	..	Salina formation	..	Jet	15	59	Farm	Water reported to be unpotable.*
Wn 250	8K, 2.0N, 6.5E	Wayne Brownell	300	Drl	78	5⅝	..	Albion sandstone	28	Jet	½	56	Dom	Water reported to be unpotable.*
Wn 251	8L, 1.3N, 0.4E	Geneseo Brewing Co.	270	Drl	116	8	..	Pleistocene gravel	12	Turbine	160	48	Ind	Average pumpage 23,000 gpd.*
Wn 252	8L, 0.9N, 7.9E	A. W. Kitchen	320	Dug	36	36	..	Pleistocene till	29	Force	..	..	Farm	(*).
Wn 254	8K, 13.4S 1.1E	Village of Palmyra	490	Dug	18	240	..	Pleistocene gravel	5	Suction	350	..	PWS	Well used occasionally.
Wn 255	8L, 0.3S, 4.8E	Andrew Kline	310	Drl	47	6	17	Clinton formation	3	Force	.	50	Dom	
Wn 256	8L, 2.4N, 3.7E	A. B. Taylor	280	Drl	100	6	70	Albion sandstone	..	Force	..	.	Dom	
Wn 259	8L, 12.7S, 8.6E	Robert Sharp	400	Drl	17	15	..	Pleistocene till	13	Force	..	..	Dom	(*).
Wn 260	8K, 4.1S, 11.2E	John De Badt	440	Drl	50	6	.	Pleistocene gravel	..	Force	..	..	Dom	
Wn 261	8K, 3.1S, 11.5E	Fruit Belt Preserving Co.	420	Dug	22	18	..	Pleistocene gravel	11	Suction	165	48	Ind	(*).

See footnotes at end of table.

Table 7.—Records of selected wells in Wayne County, New York (Continued)

Wn 352	8K,	10.4S,	0.9W	C. Smith	500	Drl	66	5⅝	46	Salina formation	50	Jet	..	.	Dom	
Wn 353	8K,	8.9S,	1.1W	Mary Sharp	465	Drl	45	5⅝	31	Salina formation	20	Force	20	.	Farm	
Wn 354	8K,	7.7S,	2.3W	C. Ginegaw	530	Drl	100	5⅝	90	Lockport dolomite	..	Jet	7	..	Farm	
Wn 355	8K,	7.3S,	2.2W	A. A. Powell	500	Drl	57	5⅝	25	Lockport dolomite	..	..	..	..	Dom	Water reported to contain hydrogen sulfide.
Wn 356	8K,	7.8S,	2.6W	F. B. Fredenburg	580	Drl	130	5⅝	113	Lockport dolomite	17	Jet	6	..	Farm	
Wn 357	8K,	4.7S,	4.7W	Frank Yakley	500	Drl	37	5⅝	14	Clinton formation	15	Suction	10	..	Dom	
Wn 358	8K,	3.2S,	2.3W	C. S. Fernays	460	Drl	41	5⅝	21	Clinton formation	15	Force	8	..	Dom	Water reported to contain hydrogen sulfide.
Wn 360	8K,	2.7S,	3.5W	Gertrude Smith	460	Drl	68	5⅝	18	Clinton formation	50	Force	..	..	Dom	Measured yield is 2 gallons per hour. Water reported to contain hydrogen sulfide.
Wn 361	8K,	2.8S,	3.6W	C. Henrie	460	Drl	75	6	20	Clinton formation	20	Force	..	..	Dom	
Wn 362	8K,	1.9S,	5.7W	Mike Gruttaduria	440	Drl	45	5⅝	15	Clinton formation	..	Force	6	..	Farm	
Wn 363	8K,	0.6N,	6.4W	F. P. Chapman	340	Drl	20	5⅝	14	Albion sandstone	..	..	20	..	Farm	Water reported to contain hydrogen sulfide.
Wn 364	8K,	1.4N,	5.4W	George Chapman	310	Drl	65	5⅝	31	Albion sandstone	..	..	2	..	Dom	
Wn 365	8K,	1.8N,	4.5W	Roy Verdine	300	Drl	60	5⅝	54	Albion sandstone	..	Force	15	..	Farm	
Wn 366	8K,	6.0S,	4.6W	Charles Cook	540	Drl	35	5⅝	17	Lockport dolomite	..	..	4	..	Farm	
Wn 367	8K,	1.9N,	0.7W	William Wicks	260	Drl	50	5⅝	20	Albion sandstone	..	..	10	..	Dom	
Wn 368	8K,	1.9N,	0.6W	B. G. VanIngen	260	Drl	38	5⅝	18	Albion sandstone	..	None	3	..	Dom	
Wn 369	8K,	1.4N,	5.3W	M. Blanchard	300	Drl	102	5⅝	18	Albion sandstone	..	..	4	..	Farm	
Wn 371	8L,	6.7S,	12.2E	Meade Bros.	480	Drl	122	6	60	Salina formation	30	Jet	4	..	Farm	
Wn 372	8L,	6.2S,	12.1E	W. W. Patton	520	Drl	41	6	..	Pleistocene till	11	Force	..	..	Dom	Water has high turbidity.
Wn 373	8L,	6.2S,	11.5E	M. Crane	425	Dug	11	48	..	Pleistocene gravel	8	Suction	.	..	Farm	
Wn 375	8L,	6.2S,	7.6E	Adrian VanKowenberg	440	Drl	74	6	64	Lockport dolomite	20	Force	..	..	Farm	(*).
Wn 377	8L,	7.4S,	10.8E	Minnie Livingston	465	Drl	104	6	69	Salina formation	25	..		..	Farm	
Wn 378	8M,	4.1S,	0.1E	Joseph Wolcott	460	Drl	135	6	79	Lockport dolomite	..	..	20	..	Farm	Water reported to contain hydrogen sulfide; used only for stock.
Wn 379	8K,	2.0S,	12.3E	E. Kenkelaar	410	Drl	20	6	8	Clinton formation	5	Suction	5	.	Dom	
Wn 380	8L,	0.2N,	10.4E	Glendon Marsh	400	Dug	40	36	..	Pleistocene gravel	4	.		.	Farm	Water reported to contain hydrogen sulfide.
Wn 381	8L,	2.7N,	9.0E	Charles Single	260	Drl	110	6	86	Albion sandstone	.	.		..	..	Water reported to have high sodium chloride content.
Wn 382	8L,	2.6N,	9.0E	Charles Falk	280	Drl	91	6	85	Albion sandstone		None			None	Well never used because salt water was obtained.
Wn 383	8L,	0.9N,	9.2E	L. Nelson	280	Drl	45	6	..	Pleistocene gravel	2	Force			Dom	
Wn 385	8K,	12.9S,	5.0E	P. A. Van Nostrand	440	Drl	96	6	40	Salina formation	20	Force	10	50	None	Well abandoned; high sodium chloride content. Owner reports water supply in gravel at depths of 30 feet but driller continued for larger yield. Spring now supplies farm.

See footnotes at end of table.

Table 7.—Records of selected wells in Wayne County, New York (Continued)

Well number	Location	Owner	Altitude above sea level (feet)	Type of well	Depth (feet)	Diameter (inches)	Depth to bedrock (feet)	Water-bearing formation	Water level below land surface (feet)	Method of lift	Reported yield (gallons per minute)	Measured temperature (° F.)	Use	Remarks
Wn 386	8L, 4.5S, 9.7E	L. E. Loveless	430	Drl	38	6	..	Pleistocene gravel	10	Suction	20	..	Dom	
Wn 389	8L, 15.8S, 11.0E	Lopez Bros.	400	Drl	120	6	100	Salina formation	..	Hand	..	..	Dom	(b).
Wn 390	8K, 0.1S, 1.2W	L. Kathringer	360	Drl	31	5⅝	26	Albion sandstone	..	Force	..	..	Dom	
Wn 391	8K, 0.1S, 1.1W	L. Kathringer	360	Drl	39	5⅝	30	Albion sandstone	..	Force	..	..	Dom	Another well 52 feet deep produces water reported to have high sodium chloride content.
Wn 393	8L, 4.4S, 5.4E	Herbert Baldridge	360	Drl	97	6	77	Lockport dolomite	..	..	..	..	None	Well abandoned; water contains hydrogen sulfide.
Wn 394	8K, 12.0S, 0.6E	A. Haak	470	Drl	111	5⅝	..	Pleistocene gravel	..	Jet	..	..	Farm	
Wn 395	8K, 1.4S, 12.6E	A. Mayou	400	Drl	79	6	9	Clinton formation	..	None	..	..	None	Well abandoned; high sodium chloride content.
Wn 396	8K, 3.0S, 3.5E	George Frey	520	Drl	102	5⅝	96	Clinton formation	..	..	8	..	Dom	Water reported to contain hydrogen sulfide.
Wn 397	8K, 4.9S, 3.8E	Harvey Farnsworth	480	Drl	85	5⅝	76	Clinton formation	..	Force	5	..	Dom	
Wn 398	8K, 0.9N, 0.2W	Jacob Droves	350	Drl	50	5⅝	27	Albion sandstone	..	Force	½	..	Dom	
Wn 399	8K, 10.4S, 11.6E	Morgan Westcott	450	Drl	77	6	53	Salina formation	23	Force	40	..	Dom	
Wn 400	8K, 14.6S, 12.6E	Cornelius De Groat	440	Drl	103	7	18	Salina formation	11	Jet	⅛	..	Farm	
Wn 401	8K, 9.4S, 8.1E	I. Blondell	460	Drl	64	6	30	Salina formation	..	Jet	20	59	Farm	
Wn 402	8K, 11.2S, 2.0E	Dewitt Tuttle	520	Drl	110	5⅝	40	Salina formation	100	Jet	10	..	Farm	Water reported to contain hydrogen sulfide.
Wn 403	8K, 10.9S, 1.5E	C. Nesbitt	510	Dug	25	36	..	Pleistocene till	11	Force	..	..	Dom	
Wn 404	8K, 9.3S, 1.5E	P. Miller	500	Drl	114	5⅝	100	Salina formation	20	Force	10	..	Dom	
Wn 405	8K, 9.8S, 1.6E	P. Miller	480	Drl	65	5⅝	58	Salina formation	..	..	10	..	Farm	
Wn 406	8K, 9.0S, 2.3E	H. Thomson	470	Drl	74	5⅝	51	Salina formation	20	Force	1½	..	Dom	
Wn 409	8K, 9.6S, 3.5E	Lloyd Everhart	550	Dug	23	36	..	Pleistocene till	8	Force	..	..	Dom	
Wn 410	8K, 9.4S, 3.8E	D. C. Purcell	440	Drl	68	6	58	Salina formation	12	Jet	..	60	Dom	
Wn 411	8K, 11.6S, 0.5E	Harry Crider	480	Drl	75	5⅝	60	Salina formation	38	Jet	20	..	Farm	Total hardness reported to be 1,400 ppm.
Wn 412	8K, 9.6S, 3.8E	Glen Sherman	440	Drv	16	1¼	..	Pleistocene gravel	..	Suction	3	50	Farm	
Wn 413	8K, 1.5N, 0.5E	Abe Lucier	320	Dug	16	36	12	Pleistocene deposits	10	Suction	3	..	Farm	(b)
Wn 414	8K, 10.9S, 4.7W	G. T. Baver	500	Drl	53	5⅝	..	Pleistocene gravel	..	Force	5	..	Dom	
Wn 415	8K, 10.9S, 4.6W	A. Jensen	500	Dug	18	36	..	Pleistocene gravel	14	Force	..	..	Farm	
Wn 417	8K, 3.6S, 1.1E	Abe Emelee	470	Drl	28	5⅝	8	Clinton formation	10	..	20	..	Farm	Water used for spraying fruit trees.
Wn 418	8K, 4.6S, 6.0W	W. F. Walz	520	Drl	58	5⅝	20	Clinton formation	20	Force	6	..	Dom	
Wn 419	8K, 4.6S, 6.0W	W. F. Walz	530	Drl	26	5⅝	8	Clinton formation	..	Force	10	..	Farm	

See footnotes at end of table.

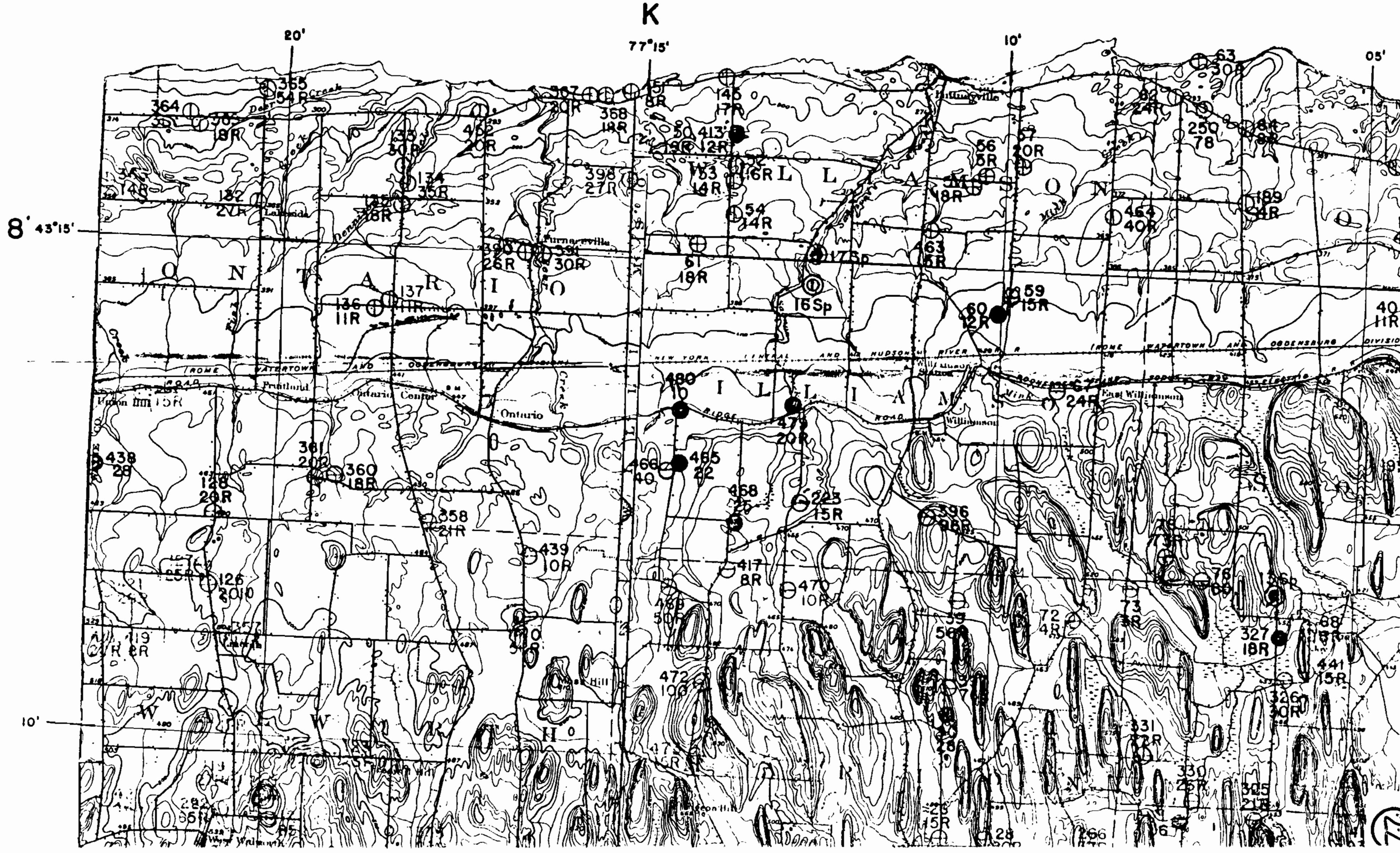
Table 7.—Records of selected wells in Wayne County, New York (Continued)

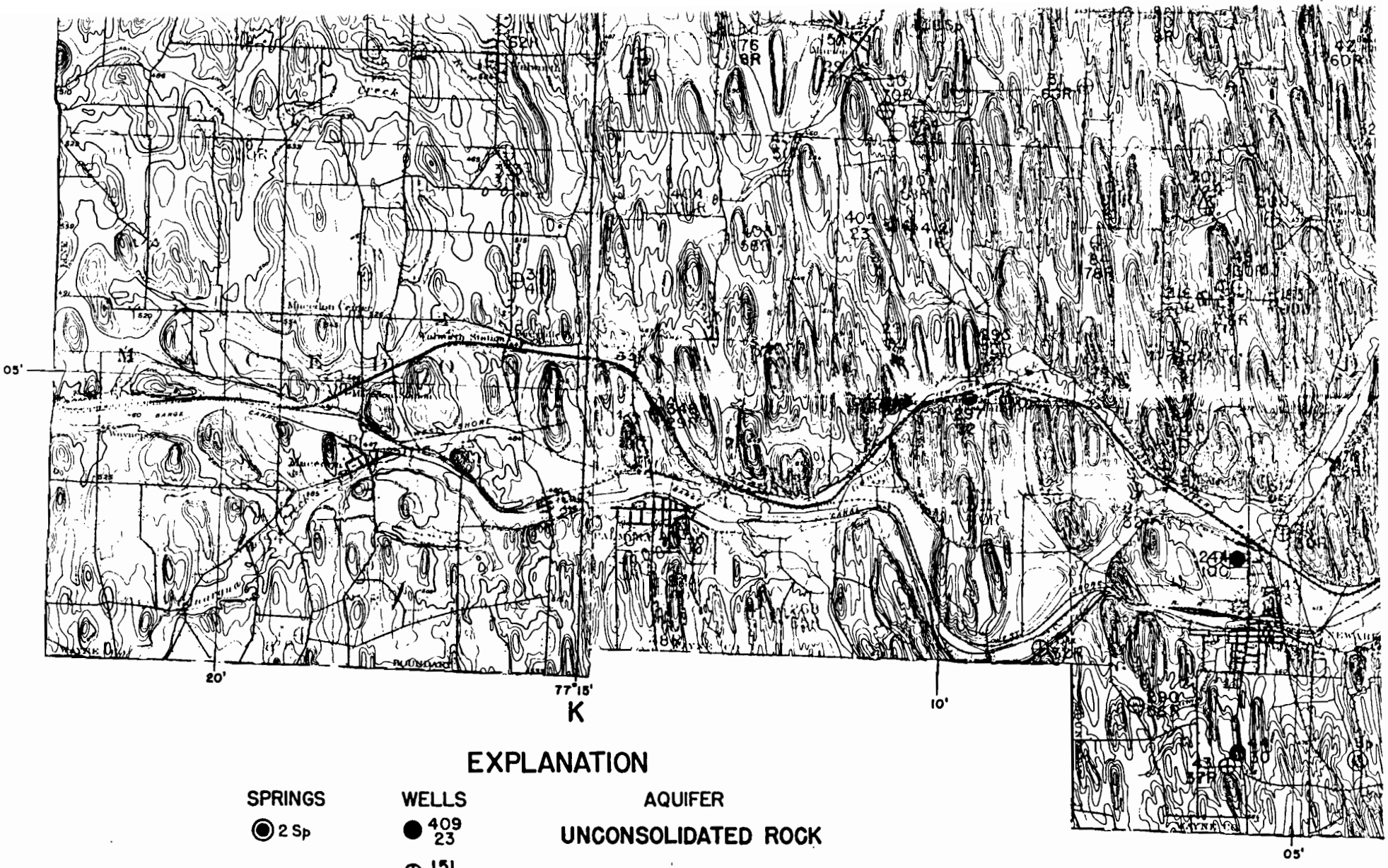
Wn 421	8K,	4.2S,	6.1W	Charles De Volver	490	Drl	30	6	26	Clinton formation	25	Force	..	53	Farm	
Wn 423	8K,	6.7S,	6.1W	D. I. Mayne	520	Drl	66	5½	46	Lockport dolomite	26	Force	20	..	Farm	
Wn 424	8K,	7.8S,	3.3W	Lee Darron	520	Drl	129	6	50	Lockport dolomite	42	Jet	..	..	Farm	Well supplies 35 head of stock.
Wn 425	8K,	7.7S,	4.3W	W. E. Valentine	530	Drl	90	6	60	Lockport dolomite	40	..	..	..	Farm	Water reported to contain hydrogen sulfide.
Wn 426	8K,	8.9S,	4.4W	Edward Walton	550	Drl	90	5½	50	Salina formation	40	Force	4	..	Farm	
Wn 427	8K,	8.9S,	4.5W	F. S. Henry	540	Drl	85	5½	40	Salina formation	..	Force	3	..	Farm	
Wn 428	8K,	8.6S,	3.8W	Howard Vander Like	500	Drl	93	5½	..	Lockport dolomite	..	..	..	..	Dom	Water reported to contain hydrogen sulfide.
Wn 429	8K,	12.9S,	3.6W	J. L. Warner	500	Drl	150	5½	89	Salina formation	..	Force	..	53	Dom	
Wn 430	8K,	10.9S,	5.4W	C. G. Packard	520	Drl	18	8	..	Pleistocene gravel	13	Suction	80	..	Dom	Well used for fire protection. Drive point 13 feet deep supplies 150 head of stock.
Wn 433	8K,	9.0S,	5.3W	Bernard Reybrouck	525	Drl	102	6	8	Salina formation	50	Force	3	48	Dom	
Wn 434	8K,	10.5S,	5.3W	Arthur Bradley	525	Drl	65	5½	..	Pleistocene gravel	..	Force	4	..	Farm	
Wn 435	8K,	13.0S,	5.1W	Walter Wilcox	520	Drl	150	6	75	Salina formation	33	Force	..	..	None	
Wn 438	8K,	2.7S,	6.2W	Oscar Fosdick	460	Dug	28	48	..	Pleistocene gravel	..	Suction	..	..	Farm	Well supplies 30 head of stock.
Wn 439	8K,	3.6S,	1.1W	Thomas Whittleton	470	Drl	24	5½	10	Clinton formation	16	Jet	7	..	Farm	Three other wells, 68, 50, and 48 feet deep, produce water containing hydrogen sulfide.
Wn 440	8K,	4.3S,	1.1W	John Porray	540	Drl	105	5½	50	Clinton formation	35	Force	1½	..	Dom	
Wn 441	8K,	4.5S,	8.0E	E. T. Butts	460	Drl	51	5½	15	Lockport dolomite	21	Force	20	53	Dom	Water reported to contain hydrogen sulfide.
Wn 442	8L,	16.2S,	2.7E	J. W. Pierie	400	Drl	60	6	60	Pleistocene deposits	..	Force	..	..	Dom	Well originally penetrated Salina formation from 60 to 160 feet; salt water encountered. Well is now sealed off below 60 feet.
Wn 443	8L,	14.2S,	1.9E	Spiessen Bros.	435	Dug	32	48	..	Pleistocene till	..	Force	..	..	Farm	
Wn 444	8L,	15.8S,	3.1E	E. L. Bastian	400	Drv	12	1¼	..	Pleistocene gravel	..	Hand	..	..	Farm	
Wn 445	8L,	15.8S,	3.1E	E. L. Bastian	400	Dug	28	48	..	Pleistocene gravel	..	Force	3	54	Dom	
Wn 446	8L,	12.8S,	1.5E	Edward Heidenreich	500	Drl	115	6	80	Salina formation	..	Force	50	54	Dom	
Wn 447	8L,	13.5S,	2.2E	George Hendrick	500	Dug	30	48	..	Pleistocene till	20	..	..	..	Dom	
Wn 451	8K,	1.9N,	0.3W	J. Neversier	260	Drl	40	8	8	Albion sandstone	..	..	7	..	Dom	
Wn 452	8K,	1.6N,	2.0W	H. Buell	320	Drl	56	5½	20	Albion sandstone	..	..	1½	..	..	
Wn 454	8K,	8.5S,	3.6E	Village of Marion	440	Drl	150	6	25	Lockport dolomite	..	..	60	..	None	
Wn 463	8K,	0.5N,	3.4E	Henry Plyter	340	Drl	45	5½	15	Albion sandstone	20	..	..	..	None	Well abandoned; high sodium chloride content.
Wn 464	8K,	0.7N,	5.5E	John Benton	390	Drl	70	6	40	Albion sandstone	..	..	..	..	None	No yield; well abandoned on advice of driller; casing salvaged.[b]
Wn 465	8K,	2.5S,	0.5E	J. Plyter	460	Dug	22	48	..	Pleistocene deposits	15	Suction	..	..	Dom	
Wn 466	8K,	2.5S,	0.4E	John Sabel	460	Drl	40	6	..	Clinton formation	27	Force	..	.	Dom	
Wn 468	8K,	3.1S,	1.2E	K. Shipley	470	Dug	25	48	..	Pleistocene deposits	..	Force	..	..	Dom	

See footnotes at end of table.

MAP OF WAY

SHOWING LOCAT





EXPLANATION

SPRINGS	WELLS	AQUIFER
◉ 2 Sp	● 409/23	UNCONSOLIDATED ROCK
	⊕ 151/14R	SHALE
	⊖ 29/25R	LIMESTONE OR DOLOMITE
ⓓ 16 Sp	ⓓ 64/8R	SANDSTONE

1 1/2

SYMBOL INDICATES AQUIFER TAPPED. UPPER FIGURE IS LOCATION DESIGNATION COUNTY SYMBOL ELIMINATED FOR CONVENIENCE. LOWER FIGURE, WHEN FOLLOWED BY R, IS DEPTH TO BEDROCK IN FEET BELOW LAND SURFACE. WHEN NOT FOLLOWED BY R, LOWER FIGURE IS DEPTH OF WELL.

CONTI

DATI

t

t - Till
Variable texture (e.g. clay, silt-clay, boulder clay),
usually poorly sorted diamict,
deposition beneath glacier ice,
generally calcareous in northern part of map,
relatively impermeable (loamy matrix),
variable clast content – ranging from abundant well-rounded diverse lithologies in valley tills to relatively angular, more limited lithologies in upland tills,
potential land instability on steep slopes,
thickness variable (1-50 meters).

tm

tm - Till moraine
Much like till, but more variable in sorting,
generally more permeable than till,
deposition adjacent to ice,
more variably drained,
may be ablation till,
thickness variable (10-30 meters).

SURFICIAL GEOLOGIC MAP OF NEW YORK

FINGER LAKES SHEET

Compiled and Edited by: Ernest H. Muller, Donald H. Cadwell

Reconnaissance field review (1985) by: G. Gordon Connally, Richard A. Young

1986

Prepared under contract with the New York State Electric and Gas Corporation

Scale 1:250,000

5 0 5 10 15 20 Statute Miles

5 0 5 10 15 20 25 30 Kilometers

5 0 5 10 15 Nautical Miles

CONTOUR INTERVAL 100 FEET

THE ISOGANIC LINES VARY FROM APPROXIMATELY 10° WEST TO 13° 30' WEST, RUNNING IN A NORTHWEST TO SOUTHEAST DIRECTION.

REF. (22)


Lake
TD UD
TC UC
Manitou Beach
Braddock Bay
Braddock Heights
Grand View Heights
Crescent Beach
Rigney Bluff
Lights
Forest Lawn
Oklahoma Beach
Ninemile Point
Smoky Point
Pultneyville
Fairbanks Point
Furnaceville
GREECE
IRONDEQUOIT
Webster
West Webster
ROCHESTER
GATES
Naval Ind Research Ord Plant
BRIGHTON
Penfield Center
Substation
Penfield
East Rochester
West Walworth
Walworth
Macedon Center
North Macedon
Macedon
Walworth Station
Palmyra
East Palmyra
Fairport
Pittsford
Henrietta
Bushnell Basin
Egypt
Wayneport
Substation
NEW YORK STATE
West Henrietta
Hundred Acre Pond
Farmington
Brownsville
Mendon
Fishers
Newark
WAYNE CO.
ONTARIO CO.
Port Gibson
Angel Moroni Monument
North Rush
West Rush
Rush
Mendon Center
Victor
East Victor
Farmington
Manchester
Clifton Springs
Honeoye Falls
MONROE COUNTY
LIVINGSTON COUNTY
Tomlinson Corners
North Bloomfield
Fairport Reservoir
Padelford
Shortsville
Littleville
Radio tower
Schubert 804
East Avon
Lima
Hopewell 720
Chapin
Hopewell Center
Bloomfield
Holcomb
East Bloomfield
Canandaigua
Ennerdale
Sterling Pond
South Bloomfield
Aloquin
South Lima
Bristol
Vincent
Reed Corners
Cheshire 1485
Radio tower
CANANDAIGUA LAKE
Flint Creek
Livonia
Livonia Center
Old Fort Farm 1050
Bristol Center
Menteth Point
Cottage City
Hemlock
Honeoye
Microwave tower
JOHNSON HILL
Honeoye Park
Granger
ONTARIO CO.
YATES CO.
Academy
Covel Corner

Addendum #2 REF. (24)

BUILDING MATERIALS
ASPHALT
PAVEMENTS
CONCRETE
SOILS

TECHNICAL SERVICE, INC.

56 WINDSOR STREET
ROCHESTER, NEW YORK 14605
716-454-5030

INSPECTION
RESEARCH
REPORTS
TESTING
DESIGN

July 11, 1967
Lab No. 177

Client: Mr. Floyd Ansler
3074 Plank Road
Macedon, New York

Attention: Mr. Floyd Ansler

Object: Bacteriological and chemical examination of well water samples for coliform density estimation by membrane filter technique and chemical analysis of well water by quantitative evaluation.

Results:

Sample No.	Site	Results
1	3079 Plank Rd.	2 coliform colonies/100 ml.
2	3061 Plank Rd.	2 coliform colonies/100 ml.

Organisms found are members of the family enterobacteriaceae, classified coli-aerogenes.

Chemical Analysis

Ammonia:
Sample No. 1 — 0.3 ppm Nitrogen (N)
As NH_3 0.72 ppm
As NH_3 0.77 ppm
Sample No. 2 — 0.7 ppm Nitrogen (N)
As NH_3 0.85 ppm
As NH_3 0.89 ppm

Chlorine:
Sample No. 1 — 0.2 ppm CL_2
2 — 0.3 ppm CL_2

OK Fluoride:
Sample No. 1 — 0.3 ppm F
2 — 0.3 ppm F

Iron:
Sample No. 1 — 0.2 ppm Fe
2 — 0.3 ppm Fe

BUILDING MATERIALS
AGGREGATES
PAVEMENTS
CONCRETE
SOILS

FACT
TECHNICAL SERVICE, INC.
56 WINDSOR STREET
ROCHESTER, NEW YORK 14605
716-454-5030

INSPECTION
RESEARCH
REPORTS
TESTING
DESIGN

Nitrate:
Sample No. 1 Less than 1 ppm
As NO_3 0.88 ppm

2 Less than 1 ppm
As NO_3 0.88 ppm

Nitrite:
Sample No. 1 0.04 ppm Nitrogen (N)
As NO_2 0.16 ppm

2 0.06 ppm Nitrogen (N)
As NO_2 0.20 ppm

Phospate:
Sample No. 1 0.2 ppm PO_4

2 0.3 ppm PO_4

Sulfate:
Sample No. 1 104 ppm So_4

2 98 ppm So_4

Silica:
Sample No. 1 Less than 1 ppm SiO_2

2 Less than 1 ppm SiO_2

Sulfate:
Sample No. 1 28 ppm SO_3

2 29 ppm SO_3

Turbidity:
Sample No. 1 Less than 1 ppm

2 Less than 1 ppm

Odor:
Indicative of a phenolic compound.

PH:
Sample No. 1 6.2

2 6.4

(2)

EAST
TECHNICAL SERVICE, INC.
56 SINDLER STREET
ROCHESTER, NEW YORK 14605
716-454-4030

INSPECTION
RESEARCH
REPORTS
TESTING
DESIGN

Analytical methods performed by ASTM Methods - D 1256 - 61 - Analysis of Industrial Water and Industrial Waste Water and Standard Methods for the examination of Water and Waste Water, 11th Edition.

Respectfully submitted,

EAST TECHNICAL SERVICE, INC.

Felix C. Whittaker per WRC

Felix E. Whittaker
Chief Chemist

Approved: Francis W. Bernacki
Francis W. Bernacki

FEW/FEBicas

cc: Mr. Floyd Ambler (3)
File

6.2 APPENDIX B - REVISED NYSDEC INACTIVE 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: _____ SITE CODE: 859002

NAME OF SITE: Hoff Brothers REGION: 8

STREET ADDRESS: Plank Road

TOWN/CITY: Town of Walworth COUNTY: Wayne

NAME OF CURRENT OWNER OF SITE: Angelo and Betty Buchiere

ADDRESS OF CURRENT OWNER OF SITE: 4999 Lincoln Road - Macedon, New York 14502

TYPE OF SITE: OPEN DUMP ☐ STRUCTURE ☐ LAGOON ☐

LANDFILL [X] TREATMENT POND ☐

ESTIMATED SIZE: 7 ACRES

SITE DESCRIPTION:

The site is located on the south side of Plank Road, approximately 1,800 feet west of Lincoln Road in the Hamlet of Lincoln. During the mid-1960's, an on-site abandoned gravel pit was used as a disposal area by Hoff Brothers Refuse Corp. for 10 to 15 drums containing phenolic and solvent wastes generated by Xerox Corporation. Groundwater contamination was detected in private wells in the area. The drums were removed in 1967 and an emergency water district was constructed by March 1968. A Phase I investigation was completed in 1988.

HAZARDOUS WASTE DISPOSED: CONFIRMED [X] SUSPECTED ☐

TYPE AND QUANTITY OF HAZARDOUS WASTES DISPOSED:

TYPE	QUANTITY (POUNDS, DRUMS, TONS, GALLONS)
phenolic and solvent wastes	10-15 drums

TIME PERIOD SITE WAS USED FOR HAZARDOUS WASTE DISPOSAL:

mid - 1960's , 19 ___ TO _____, 19 67

OWNER(S) DURING PERIOD OF USE: George Kahler and Betty(Kahler) Buchiere

SITE OPERATOR DURING PERIOD OF USE: same as above

ADDRESS OF SITE OPERATOR: 4999 Lincoln Road - Macedon, New York 14502

ANALYTICAL DATA AVAILABLE: AIR ☐ SURFACE WATER ☐ GROUNDWATER [X]
SOIL ☐ SEDIMENT ☐ NONE ☐

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

SOIL TYPE: Madrid gravelly fine sandy loam

DEPTH TO GROUNDWATER TABLE: 18-20 feet

LEGAL ACTION: TYPE: _____ STATE ☐ FEDERAL ☐
STATUS: IN PROGRESS ☐ COMPLETED [X]
REMEDIAL ACTION: PROPOSED ☐ UNDER DESIGN ☐
IN PROGRESS ☐ COMPLETED ☐

NATURE OF ACTION: An emergency water district was completed for the area in March 1968.

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

The site has had impact on groundwater and has potential to impact surface water, and NYSDEC designated fresh water wetlands in the area.

ASSESSMENT OF HEALTH PROBLEMS:

PERSON(S) COMPLETING THIS FORM:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

NAME Linda J. Clark
TITLE Project Geologist/URS Co., Inc.
NAME _____
TITLE _____
DATE: 9-10-87

NEW YORK STATE DEPARTMENT OF HEALTH

NAME _____
TITLE _____
NAME _____
TITLE _____
DATE: _____