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915102

ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

PHASE I INVESTIGATION

Bernard Cope **Site No. 915102**
Akron **Erie County**

DATE: May 1986

Prepared for:

New York State Department of Environmental Conservation

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

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

By:

Recra Environmental, Inc.

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

PHASE I INVESTIGATION

BERNARD COPE SITE

VILLAGE OF AKRON, ERIE COUNTY, NEW YORK

SITE NO. 915102

Prepared for:

DIVISION OF SOLID AND HAZARDOUS WASTE

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

50 WOLF ROAD, ALBANY, NEW YORK, 12233-0001

Prepared by:

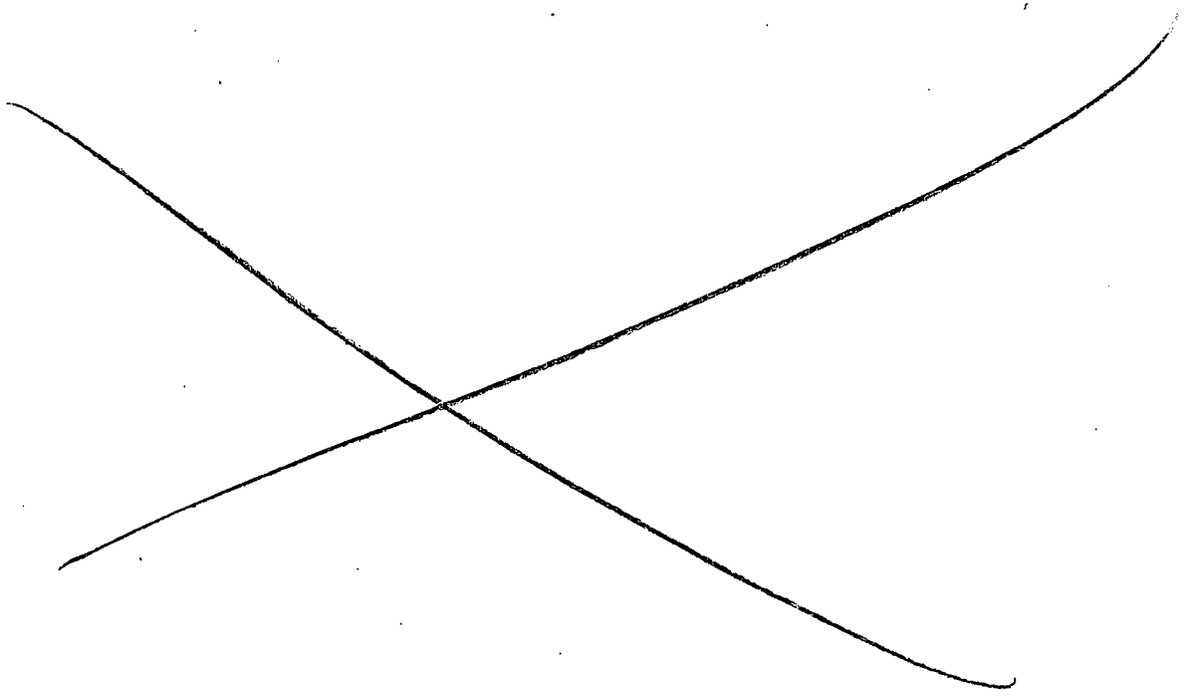
RECRA RESEARCH, INC.

4248 RIDGE LEA ROAD

AMHERST, NEW YORK 14226

AUGUST 1987

Table of Contents



1.0 EXECUTIVE SUMMARY

The Bernard Cope site on is approximately 2.3 acres in size and is located on Buell Street in a moderately populated area in the Village of Akron, Erie County, New York. The site was formerly a gravel pit owned by Mr. Bernard Cope, who purchased the property in 1947. The pit was filled beginning in the 1960's with construction debris. Typical wastes included building foundations from the Village of Akron renewal work, street rebuilding wastes, and stone fences from the Salt Road widening. The owner never obtained a permit to operate the dump area although requested to do so by Don Tamol (now Campbell) of the Erie County Department of Environment and Planning in 1978. Little is known about the quantity or character of buried waste at the site and there is no available documented evidence of hazardous waste disposal.

The site has the potential to impact both public health and the environment. Some local residents use groundwater as a potable source and the site lies in close proximity to Murder Creek, a freshwater perennial creek. A New York State Designated Wetland lies downstream of the site. There has been no effort to date to examine the potential impacts on the above-mentioned receptors.

The Phase I effort included a compilation of information gathered from the New York State Department of Environmental Conservation (NYSDEC), the Erie County Department of Environment and Planning, and the site owner, Mr. Bernard Cope.

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

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

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

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

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

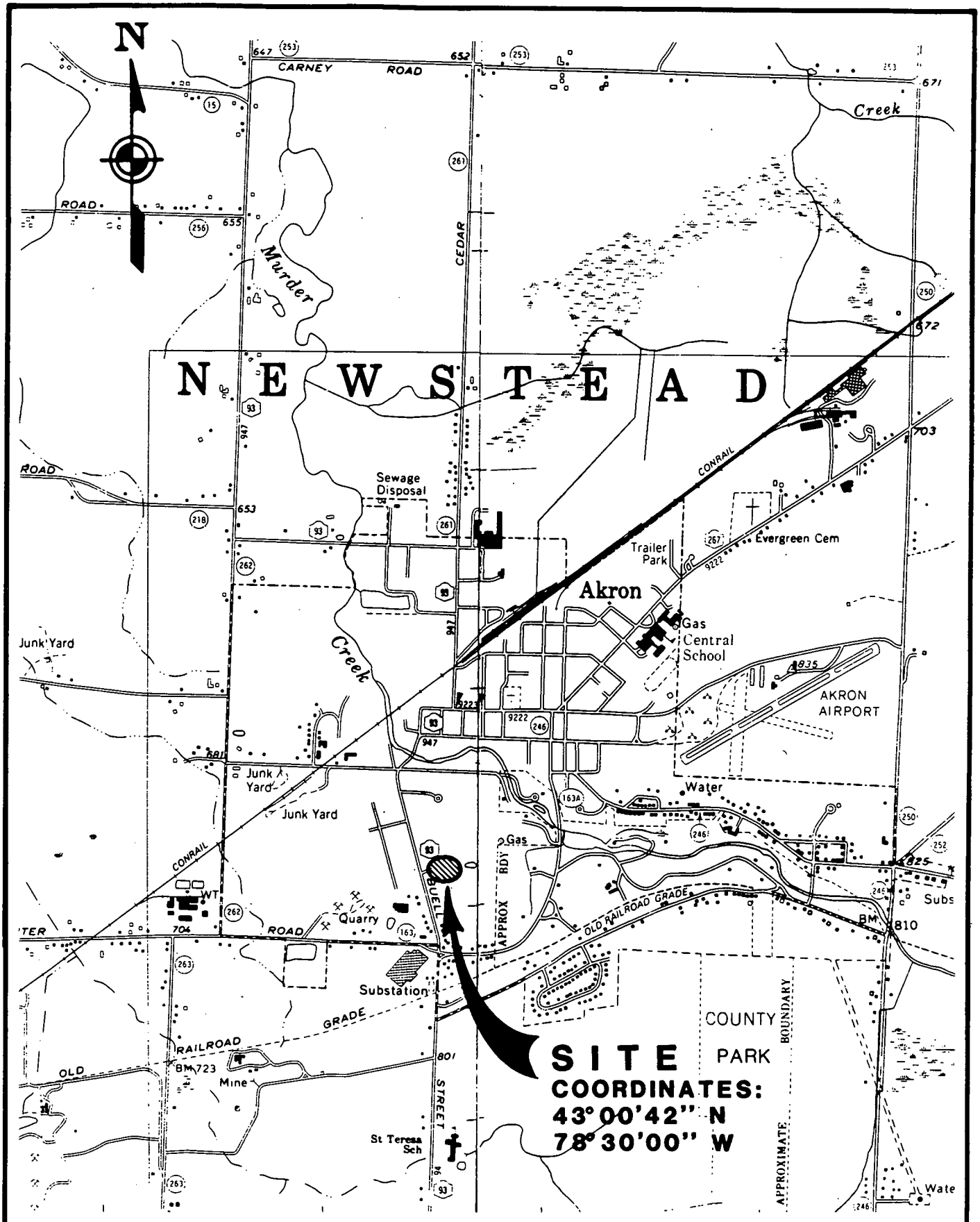
$S_{fe} = 0$

$S_{dc} = 0$

Data available and utilized in Phase I investigation are considered inadequate for a proper site assessment and suggest a need for additional data gathering and evaluation.

Although the potential for environmental contamination at this site is minimal, it may be advisable to conduct a preliminary site investigation to determine if a complete Phase II investigation is warranted. The preliminary investigation would involve limited soil and groundwater sampling as proposed by the Erie County DEP (Ref 21) and discussed further in Section 6.2. Based on the analytical results obtained in the preliminary investigation, a Phase II investigation would be recommended or not recommended.

Proposed Phase II investigation activities include air monitoring, subsurface investigation, monitoring well installation, sampling and analysis, determination of the waste quantity potentially at the site, determination of the locations of potable water supply wells within the site vicinity, surveying, and development of an engineering evaluation report and final Hazard Ranking System score. Details of the proposed Phase II investigation program are presented in Section 6.3 of this report.

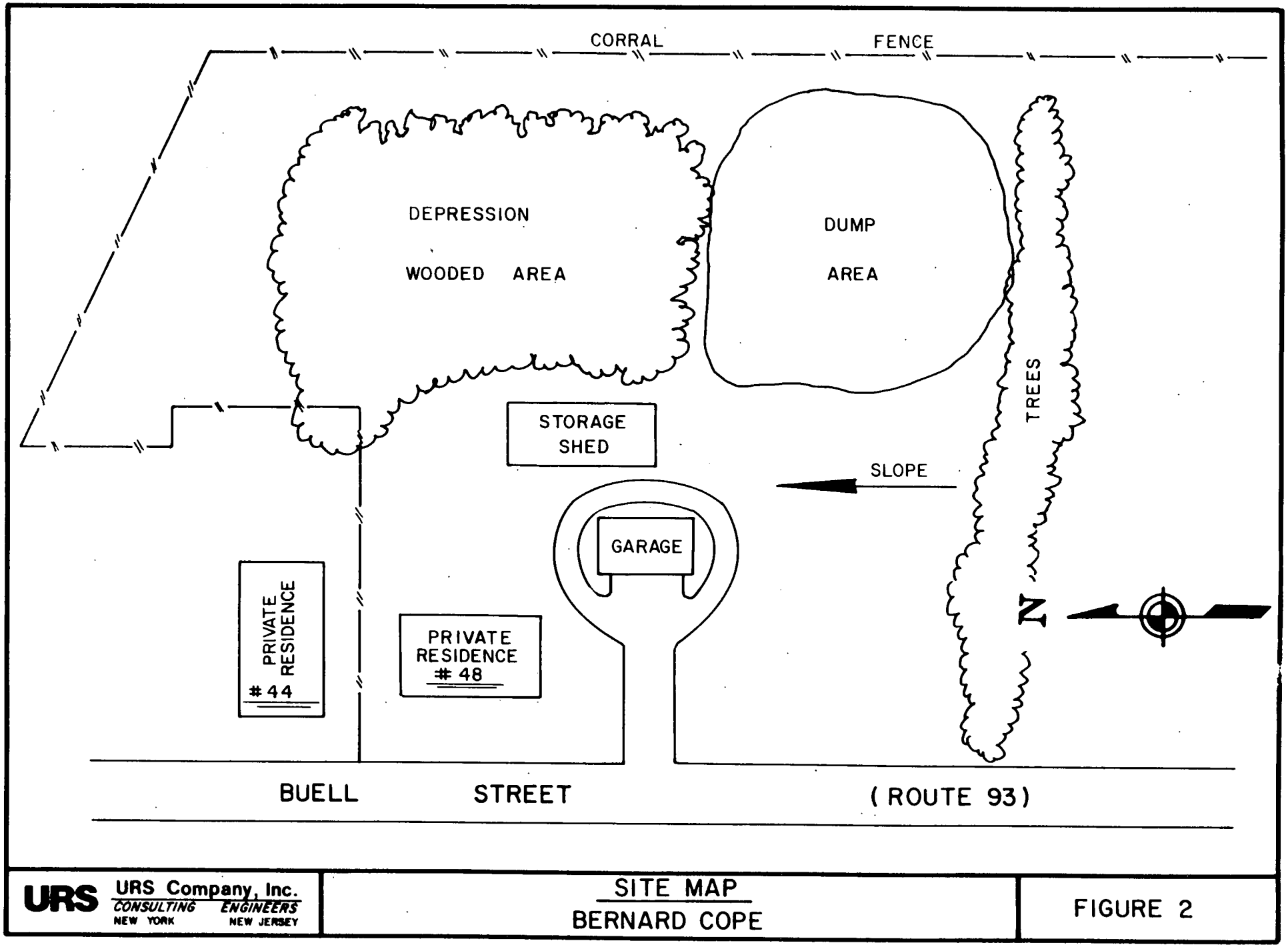


DWG NO. A-1940

USGS TOPOGRAPHIC 7.5 MINUTE
WOLCOTTSVILLE QUAD

VICINITY MAP
BERNARD COPE

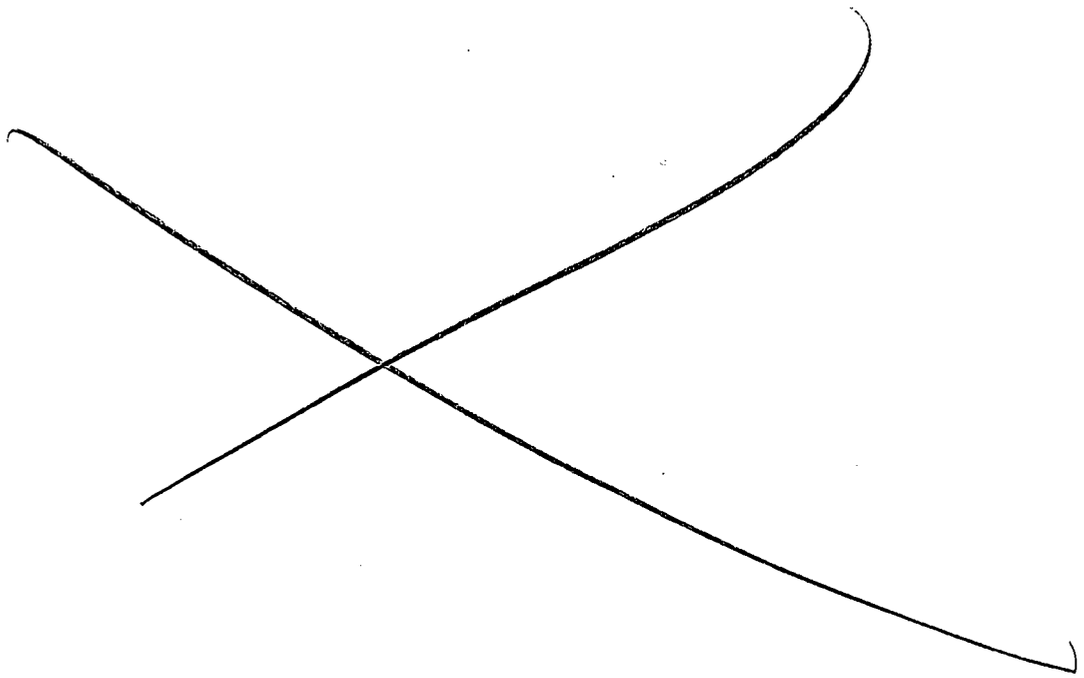
FIGURE 1



URS Company, Inc.
CONSULTING ENGINEERS
NEW YORK NEW JERSEY

SITE MAP
BERNARD COPE

FIGURE 2



2.0 PURPOSE OF THE PHASE I INVESTIGATION

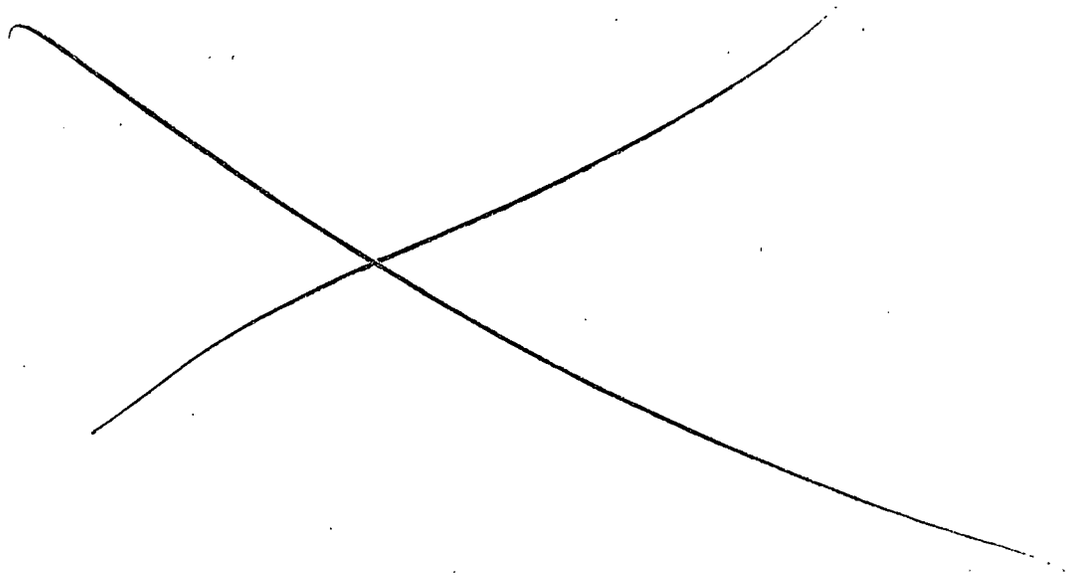
The Phase I investigation at the Bernard Cope Site on Buell Street was conducted with the following objectives:

- o Collect and review available site specific data and prepare a Preliminary Hazard Ranking System (HRS) score.

- o Evaluate whether available data are sufficient to complete a final HRS score.

- o Prepare a Phase II Investigation work plan if the available data are insufficient to complete a final HRS.

The scope of the investigation was in accord with the terms of the contract, which included a preliminary site inspection but no sampling activities or physical survey of the site.



3.0 PHASE I SCOPE OF WORK

The Phase I investigation at the Bernard Cope site on Buell Street comprised several interrelated tasks as follows:

(a) Initially, a detailed data and records search was undertaken to compile all available information from identified sources. The information was reviewed and a preliminary description of the site history was developed.

(b) A preliminary site inspection was conducted by the investigation team to familiarize with the physical conditions of the site and its surroundings, to confirm reported site conditions, and to collect additional data (without performing actual sampling and analyses).

(c) The preliminary HRS documentation records were prepared using compiled information.

(d) An analysis of the adequacy of the available data was performed to determine what further investigation would be required to develop a final HRS score.

(e) A Phase II Investigation work plan was prepared for the additional investigative activities, identified in item (d) above which would permit the final HRS scoring.

(f) Finally, the Phase I investigation report was prepared to document and summarize the activities and the results of the investigation.

During this investigation, the following sources were contacted for information:

- o NYSDEC Region 9 Headquarters - Lawrence Clare, P.E.
  - Site inspection reports

- o NYSDEC Region 9 Headquarters - Mark Kandel, Senior Fish and Wildlife Technician
  - Wetlands maps, endangered species data.

- o NYSDEC Region 9 Headquarters - Michael Wilkinson - April 4, 1986
  - Surface water data

- o NYSDEC Headquarters, Albany, N.Y. - Anna Wolfe - January 3, 1986
  - Waste Inventory Records and Interagency Task Force Finds

- o NYSDEC Headquarters, Albany, N.Y. - Jack Tygert - December 30, 1985
  - Site information

- County of Erie Department of Environment and Planning
  - Cameron O'Connor - December 16, 1985
  - Site inspection reports

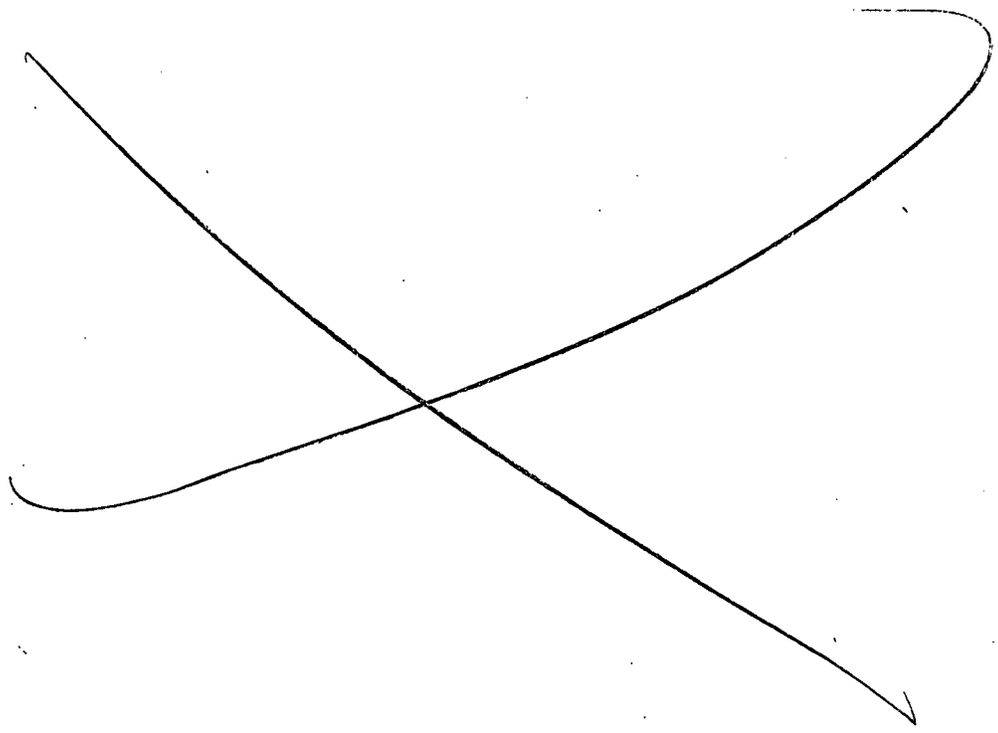
- U.S. Department of Agriculture Soil Conservation Service - Douglas Dettenreider, District Conservationist - January 28, 1986
  - Agricultural and water supply data

- U.S. Department of Interior Geological Survey, Water Resources Division, Albany, N.Y. - Lloyd A. Wagner, Information Officer - January 6, 1986
  - Well data and geological data

- Town of Akron - Robert Gaddis, Superintendent - December 23, 1986
  - Water supply data

- Town of Newstead - Carol Borchert, Town Clerk - April 2, 1986
  - Water supply data

- Town of Pembroke - Doreen Gross - April 2, 1986
  - Water supply data



4.0 SITE ASSESSMENT

4.1 Site History

The 2.3 acre Bernard Cope site on Buell Street is located in the Village of Arkon, Erie County, New York. The site is a former gravel pit operated by Mr. Bernard Cope, the owner, for his construction business. The site was purchased by Mr. Cope in 1947. The gravel pit was excavated to a depth of 60 feet below grade and abandoned when shale was encountered. The pit was reportedly dry to the 60 foot depth (Refs. 1, 2 and 22).

There are no available records indicating the duration of disposal activities. The pit was filled beginning in the late 1960's with construction debris collected by Mr. Cope while operating his excavating business. Other wastes used to fill the pit during the years of operation include stone fences from the Salt Road widening, building foundations from the Village of Akron renewal work, and street rebuilding wastes. The site was inspected by the Erie County DEP on October 5, 1978 and was found to be in compliance with NYSDEC, Part 360; however, Mr. Cope was informed that no further dumping would be allowed until a permit was obtained from the DEC. The site was considered closed at the time of inspection. The inspection indicated no apparent evidence of hazardous waste disposal. There is little information available on the nature or quantity of waste disposed. Apparently,

disposal activities have not occurred since the inspection (Ref. 1 and 19).

Currently, the site is overgrown. Ground elevations are still 15 feet below the original grade. No evidence of protruding refuse or leachate was found (Ref. 22).

4.2 Site Surface Characteristics

The Bernard Cope site is located in a moderately developed residential area in the Village of Akron, Town of Newstead, New York. The Village of Akron is served by a public water supply system from a source in Bennington, New York (Ref. 5). The Town of Newstead has four water districts that supply water to approximately 155 customers; however, most residents of the Town outside of the Village of Akron use groundwater as a potable source as do residents of the neighboring Town of Pembroke (Refs. 6 and 7). Homes in the immediate area of the site use the Village supply system. A large estate south of the site has two wells that are not in use (Ref. 22).

The area topography slopes moderately to the north toward Murder Creek. The private residence of Mr. Bernard Cope is located on the western half of the site. This portion of the site is relatively undisturbed and follows the general topography of the area. However, the eastern half of the site is a former gravel pit that was originally excavated to 60 feet below grade. Ground elevations are still 15 feet below the original grade, which is evident from the horse coral on the

east side of the site. This fill area falls off rather steeply (approximately 6-8%) toward the north into a wooded area.

4.3 Site Hydrogeology

The Bernard Cope site is reportedly underlain by a thin mantle of glacial till overlying Sulurian age sedimentary rock. The till is characterized as an essentially nonsorted rock material deposited from glacial ice. Till in the region is principally light red in color and silty. Only small quantities of water are transmitted through the till. The permeability of the till unit is so small that large diameter wells are necessary to obtain even small supplies of groundwater (Ref. 4).

The site lies nearby the bedrock contact between the Bertie Limestone unit and the Camillus Shale. The Bertie Limestone is mainly dolestone and dolomitic limestone but contains interbedded shale particularly in the thin bedded lower part of the formation. The middle part is brown, massive dolomite, and the upper part is gray dolomite and shale whose beds are of variable thickness. The total thickness of the formation is about 55 feet (Refs. 3 and 4).

The Camillus varies from thin-bedded shale to massive mudstone. The color is gray or brownish gray but some beds show a tinge of red or green. Gypsum and anhydrite are present in Erie County. The thickness of the formation is approximately 400 feet (Ref. 3).

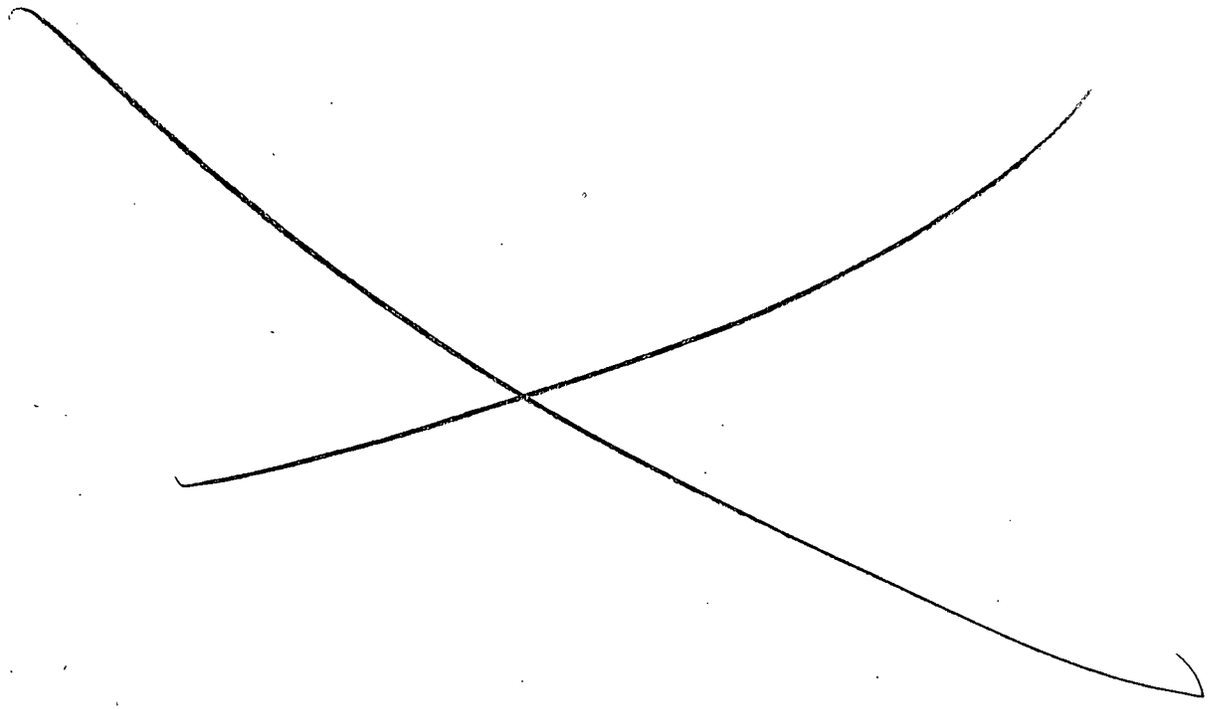
The limestone unit is cut transversely by Tonawanda Creek and its major tributaries. Small tributaries flow across it in northerly and westerly directions. The limestone receives water in the interstream areas by percolation into joints. Large volumes of water are transmitted through solution voids along vertical joints and bedding plane joints. The principal zones of discharge are at the base of the Bertie Limestone and along the contact of the shales interbedded within the Bertie. Yields of wells within the limestone unit range through a broad spectrum; however, many large yield wells have been reported (Refs. 3 and 4).

The Camillus Shale is the most productive bedrock aquifer in the area. Inflow of water to gypsum mines near Clarence Center and Akron indicate that large water supplies are possible although large production wells are found only in the vicinity of Buffalo and Tonawanda. Probably the larger solution openings are most common in discharge areas near Tonawanda Creek and its tributaries and near the Niagara River; the flow of groundwater becomes concentrated as it approaches the streams to which it discharges (Ref. 4).

4.4 Site Contamination

No sampling has been conducted at the site to confirm the presence of hazardous substances. Available information is inadequate to reconstruct the history of disposal practices at the site. Moreover, very little information was uncovered during the Phase I investigation

data search. The site assessment, therefore, is based primarily on the site inspection, the Inactive Hazardous Waste Disposal Site Report and reference material gathered during this study. Many area residents use groundwater as a potable source and surface water lies in close proximity to the disposal area. Due to the lack of information on the possible presence of hazardous substances, the potential for contamination of these water resources is of major concern.

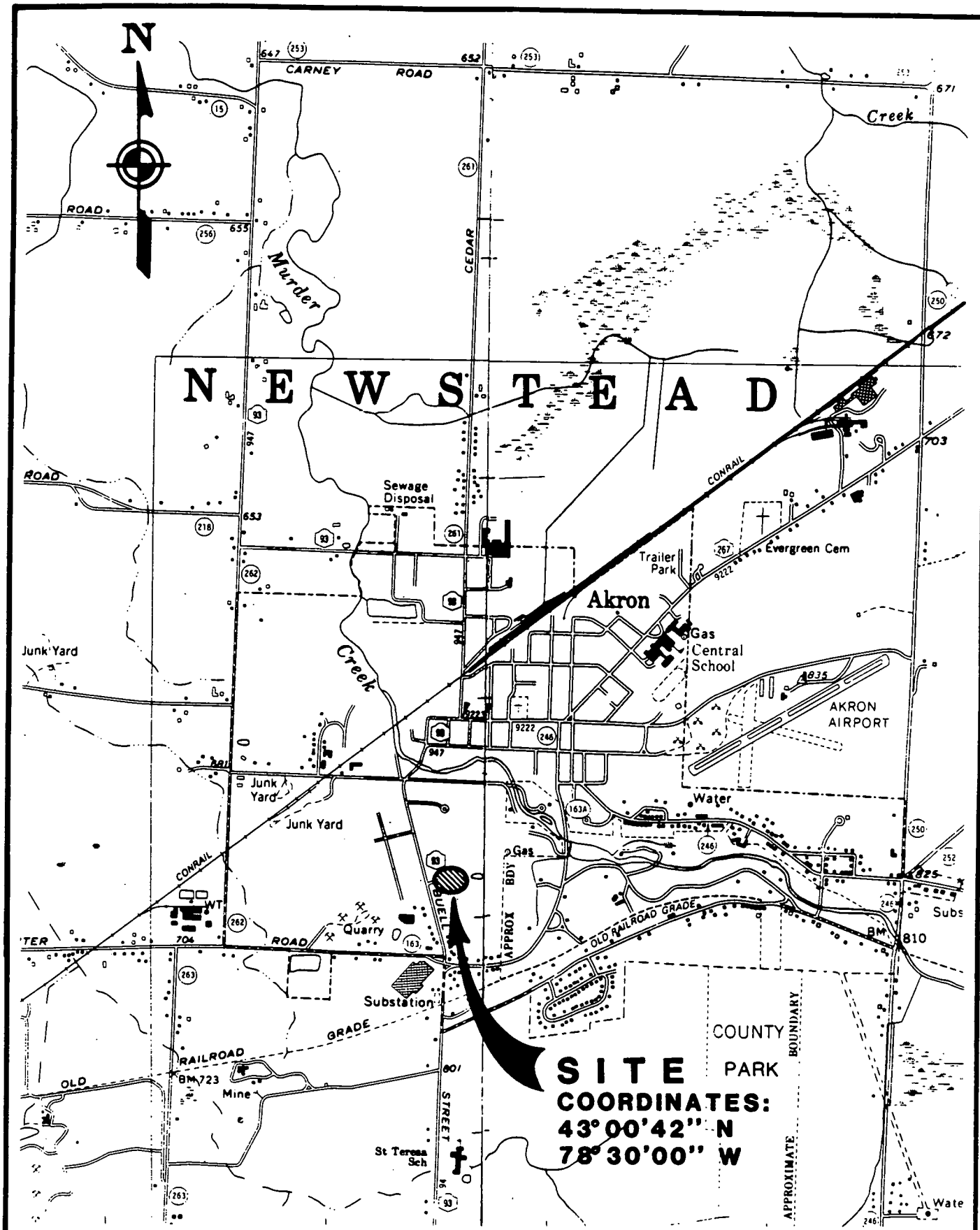


5.0 PRELIMINARY APPLICATION OF THE HAZARD RANKING SYSTEM

5.1 Narrative Summary

The Bernard Cope site on Buell Sreet covers 2.3 acres in the Village of Akron, Erie County, New York. The site was formerly a gravel pit. The current owner partially filled the excavated pit with materials mainly from the Village of Akron and Town of Newstead including demolition debris, cobblestones, timber and brush. The owner never obtained a permit to operate the dump area although requested to do so by the Erie County DEP in 1978. Little is known about the quantity or character of buried waste and there is no available documented evidence of hazardous waste disposal.

The waste disposal was carried out in an uncontrolled manner and the site has the potential to impact both public health and the environment. Some local residents use groundwater as a potable source and the site lies in close proximity to Murder Creek, a freshwater perennial stream. A nearby New York State Designated Wetland lies downstream of the site. There has been no effort to date to examine the potential impacts on the above-mentioned receptors.

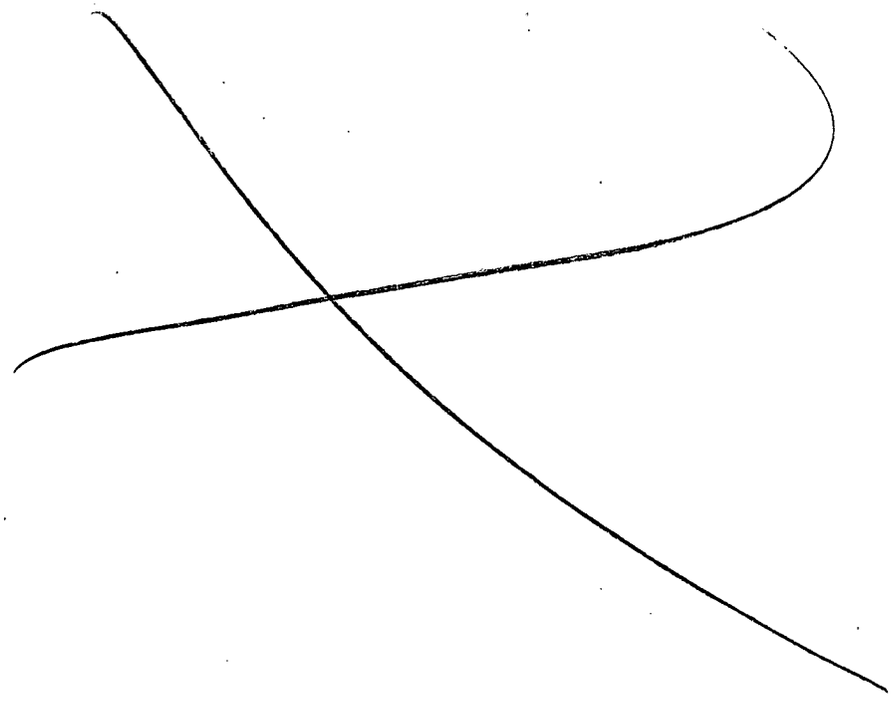


DWG NO. A-1940

USGS TOPOGRAPHIC 7.5 MINUTE
WOLCOTTSVILLE QUAD

VICINITY MAP
BERNARD COPE

FIGURE 1



Facility name: Bernard Cope

Location: 48 Buell Street, Village of Akron, Erie County, N.Y. 14001

EPA Region: II

Person(s) in charge of the facility: Bernard Cope, Owner
48 Buell Street
Akron, New York 14001

Name of Reviewer: RECRA Research Date: April 25, 1986

General description of the facility:

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

The disposal area is a partially filled gravel pit. Fill was accepted from local communities and reportedly consisted mainly of demolition debris. Little is known of the characters or quantity of waste. No information confirming hazardous waste disposal was found. Both groundwater and surface water may be impacted by the site.

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

$S_{FE} = 0$

$S_{DC} = 0$

FIGURE 1
HRS COVER SHEET

Ground Water Route Work Sheet						
Rating Factor	Assigned Value (Circle One)		Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	(0)	45	1	0	45	3.1
If observed release is given a score of 45, proceed to line 4. If observed release is given a score of 0, proceed to line 2						
2 Route Characteristics						3.2
Depth to Aquifer of Concern	0 1 (2) 3		2	4	6	
Net Precipitation	0 1 (2) 3		1	2	3	
Permeability of the Unsaturated Zone	0 1 (2) 3		1	2	3	
Physical State	(0) 1 2 3		1	0	3	
Total Route Characteristics Score				8	15	
3 Containment	0 1 2 (3)		1	3	3	3.3
4 Waste Characteristics						3.4
Toxicity/Persistence	(0) 3 6 9 12 15 18		1	0	18	
Hazardous Waste Quantity	(0) 1 2 3 4 5 6 7 8		1	0	8	
Total Waste Characteristics Score				0	26	
5 Targets						3.5
Ground Water Use	0 1 2 (3)		3	9	9	
Distance to Nearest Well/Population Served	0 4 6 8 10 12 16 (18) 20 24 30 32 35 40		1	18	40	
Total Targets Score				27	49	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5				0	57,330	
7 Divide line 6 by 57,330 and multiply by 100			S_{gw} =	0		

FIGURE 2
GROUND WATER ROUTE WORK SHEET

(○) indicates inadequate data

Surface Water Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multiplier	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	2	3	
1-yr. 24-hr. Rainfall	0 1 (2) 3	1	2	3	
Distance to Nearest Surface Water	0 1 (2) 3	2	4	6	
Physical State	(0) 1 2 3	1	0	3	
Total Route Characteristics Score			8	15	
3 Containment	0 1 2 (3)	1	3	3	4.3
4 Waste Characteristics					4.4
Toxicity/Persistence	(0) 3 6 9 12 15 18	1	0	18	
Hazardous Waste Quantity	(0) 1 2 3 4 5 6 7 8	1	0	8	
Total Waste Characteristics Score			0	26	
5 Targets					4.5
Surface Water Use	0 1 (2) 3	3	6	9	
Distance to a Sensitive Environment	0 (1) 2 3	2	2	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			8	55	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			0	64,350	
7 Divide line 6 by 64,350 and multiply by 100		S_{sw} =	0		

FIGURE 7
SURFACE WATER ROUTE WORK SHEET

⬡ indicates inadequate data

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	0	3	
Toxicity	(0) 1 2 3	3	0	9	
Hazardous Waste Quantity	(0) 1 2 3 4 5 6 7 8	1	0	8	
	Total Waste Characteristics Score		0	20	
[3] Targets					5.3
Population Within 4-Mile Radius	0 9 12 15 18 (21) 24 27 30	1	21	30	
Distance to Sensitive Environment	0 1 (2) 3	2	2	6	
Land Use	0 1 2 (3)	1	3	3	
	Total Targets Score		26	39	
[4] Multiply [1] x [2] x [3]			0	35,100	
[5] Divide line [4] by 35,100 and multiply by 100		S_a =	0		

FIGURE 9
AIR ROUTE WORK SHEET

⬡ Indicates Inadequate Data

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

FIGURE 10
WORKSHEET FOR COMPUTING S_M

Fire and Explosion Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Containment	(1) 3	1	1	3	7.1
2 Waste Characteristics					7.2
Direct Evidence	(0) 3	1	0	3	
Ignitability	(0) 1 2 3	1	0	3	
Reactivity	(0) 1 2 3	1	0	3	
Incompatibility	(0) 1 2 3	1	0	3	
Hazardous Waste Quantity	(0) 1 2 3 4 5 6 7 8	1	0	8	
Total Waste Characteristics Score			0	20	
3 Targets					7.3
Distance to Nearest Population	0 1 2 3 (4) 5	1	4	5	
Distance to Nearest Building	0 1 (2) 3	1	2	3	
Distance to Sensitive Environment	(0) 1 2 3	1	0	3	
Land Use	0 1 2 (3)	1	3	3	
Population Within 2-Mile Radius	0 1 2 3 (4) 5	1	4	5	
Buildings Within 2-Mile Radius	0 1 2 3 (4) 5	1	4	5	
Total Targets Score			17	24	
4 Multiply 1 x 2 x 3			17	1,440	
5 Divide line 4 by 1,440 and multiply by 100		S_{FE} =	(0)		

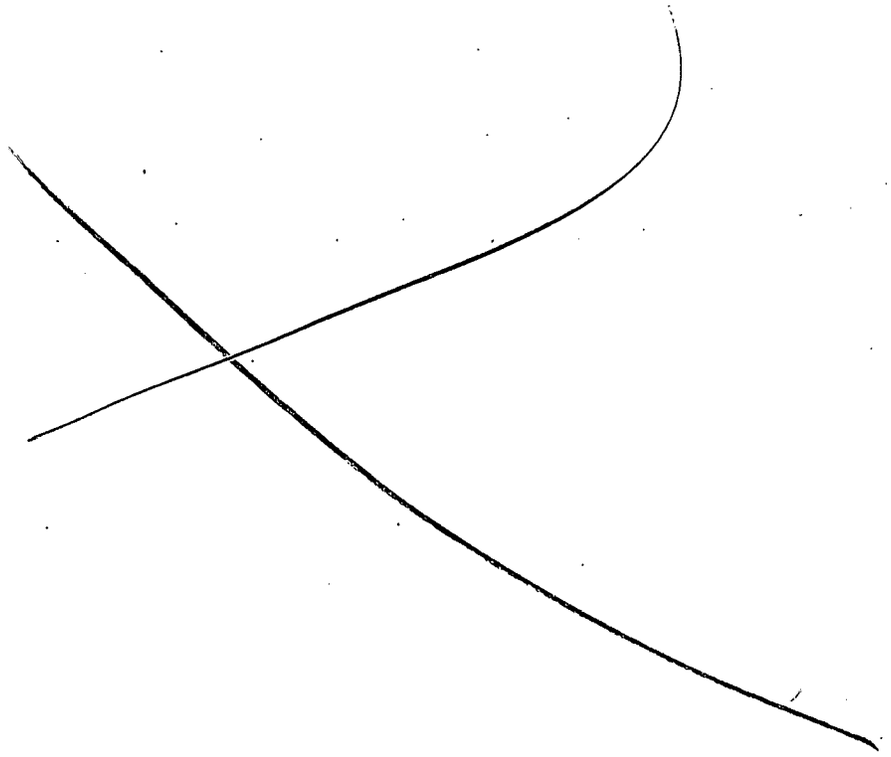
FIGURE 11
FIRE AND EXPLOSION WORK SHEET

(○) Indicates inadequate data

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	0	15	8.3
4 Waste Characteristics Toxicity	(0) 1 2 3	5	0	15	8.4
5 Targets					8.5
Population Within a 1-Mile Radius	0 1 2 (3) 4 5	4	12	20	
Distance to a Critical Habitat	(0) 1 2 3	4	0	12	
Total Targets Score			12	32	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			0	21,600	
7 Divide line 6 by 21,600 and multiply by 100	S_{DC} = 0				

FIGURE 12
DIRECT CONTACT WORK SHEET

⬡ indicates inadequate data



DOCUMENTATION RECORDS
FOR
HAZARD RANKING SYSTEM

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

FACILITY NAME: Bernard Cope

LOCATION: 48 Buell Street, Akron, N.Y. 14001

GROUNDWATER ROUTE

1 OBSERVED RELEASE

o CONTAMINANTS DETECTED (5 MAXIMUM):

No groundwater sampling has been conducted at the site.

o RATIONALE FOR ATTRIBUTING THE CONTAMINANTS TO THE FACILITY:

N/A

Score 0

***

2 ROUTE CHARACTERISTICS

DEPTH TO AQUIFER OF CONCERN

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

The site is underlain by the Camillus shale and Bertie limestone which can be a high water yield formations. Onsite overburden is reported to be glacial till which is generally of low permeability and not a significant water supply source (Refs. 3 and 4).

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

Perched water table at 2 to 4 feet below the surface (Ref. 8).
Shale encountered during excavation at 60 feet below grade. Ground elevation 15 feet below grade. Rock at approximately 45 feet below grade (Ref. 22).

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

Reported to be 20 feet (Ref. 1).

Score 2

NET PRECIPITATION

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

33.0 inches annually (Ref. 9)

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

25.0 inches annually (Ref. 9).

o NET PRECIPITATION (SUBTRACT THE ABOVE FIGURES):

8 inches

Score 2

PEREMEABILITY OF UNSATURATED ZONE

o SOIL TYPE IN UNSATURATED ZONE:

Reported to be glacial till (Ref. 4).

o PERMEABILITY ASSOCIATED WITH SOIL TYPE:

10^{-4} - 10^{-10} cm/sec (Ref. 10)

Score 2

PHYSICAL STATE

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

Unknown. Could possibly range from liquid to solid.

Score 0

***

3 CONTAINMENT

CONTAINMENT

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

Landfilled wastes in excavated gravel pit (Ref. site visit).

o METHOD WITH HIGHEST SCORE:

Landfill, no liner, no run-on control.

Score 3

4 WASTE CHARACTERISTICS

TOXICITY AND PERSISTENCE

o COMPOUND(S) EVALUATED:

Unknown. No evidence of hazardous waste disposal was uncovered during this investigation. A preliminary score of zero has been assigned.

o COMPOUND WITH HIGHEST SCORE:

Unknown

Score 0

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):

Unknown.

Score 0

o BASIS OF ESTIMATING AND/OR COMPUTING WASTE QUANTITY:

No information found indicating hazardous waste burial onsite during this investigation. A preliminary score of zero has been assigned.

5 TARGETS

GROUNDWATER USE

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

Drinking water (Refs. 6 and 7)

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:

Clarence Center Road just west of the New York Central RR tracks (Ref.11)

o DISTANCE TO ABOVE WELL OR BUILDING:

Estimated at 1.1 miles (Ref. 11)

Score 2

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:

Estimated 500 residences not on public water supply in Town of Newstead (Refs. 7, 11 and 12)
Estimated 100 residences served by wells in Town of Pembroke (Refs. 7 and 12)

600 x 3.8 = 2280

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):

Zero (Ref. 13)

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

2280

Score 3
Matrix Score 18

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 has been conducted at the site.

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:

Estimated at 6-8% during site visit.

o NAME/DESCRIPTION OF NEAREST DOWNSLOPE SURFACE WATER:

Murder Creek (small, perennial, freshwater stream)

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

Estimated at 4-5% during site visit

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

No

Score 2

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

No

1-YEAR 24-HOUR RAINFALL IN INCHES

2.1 inches (Ref. 14)

Score 2

DISTANCE TO NEAREST DOWNSLOPE SURFACE WATER

Estimated at 1/2 mile during site visit.

Score 2

PHYSICAL STATE OF WASTE

Unknown. Could range from liquid to solid

Score 0

***

3 CONTAINMENT

CONTAINMENT

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

Landfilled wastes in excavated gravel pit (Ref. site visit).

o METHOD WITH HIGHEST SCORE:

Landfill, no liner, no run-on control

Score 3

4 WASTE CHARACTERISTICS

TOXICITY AND PERSISTENCE

o COMPOUND(S) EVALUATED

No information found indicating hazardous waste burial onsite during this investigation. A preliminary score of zero has been assigned.

o COMPOUND WITH HIGHEST SCORE:

Unknown

Score 0

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):

Unknown.

Score 0

o BASIS OF ESTIMATING AND/OR COMPUTING WASTE QUANTITY:

No information found indicating hazardous waste burial on site during this investigation. A preliminary score of zero has been assigned.

***

5 TARGETS

SURFACE WATER USE

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

Recreation and fishing (Ref. 15).

Score 2

o IS THERE TIDAL INFLUENCE?

No

DISTANCE TO A SENSITIVE ENVIRONMENT

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

None within 2 miles of site.

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

Less than 1 mile to designated wetland WO-14 (Ref. 16).

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

None within one mile of site (Ref. 16).

Score 1

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:

There are no water supply intakes within 3 miles of this site (Refs. 5, 13 and 17).

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

Zero (Ref. 13)

o TOTAL POPULATION SERVED:

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 air monitoring has been conducted at the site (Inspection was performed in March).

o DATE AND LOCATION OF DETECTION OF CONTAMINANTS

N/A

o METHODS USED TO DETECT THE CONTAMINANTS:

N/A

o RATIONALE FOR ATTRIBUTING THE CONTAMINANTS TO THE SITE:

N/A

Score 0

***

2 WASTE CHARACTERISTICS

REACTIVITY AND INCOMPATIBILITY

o MOST REACTIVE COMPOUND:

No information found indicating hazardous waste burial on site. No known reactive compounds present.

o MOST INCOMPATIBLE PAIR OF COMPOUNDS:

No information found indicating hazardous waste burial on site. No known incompatible compounds present.

Score 0

TOXICITY

o MOST TOXIC COMPOUND:

No information found indicating hazardous waste burial on site during this investigation. A preliminary score of zero has been assigned.

Score 0

HAZARDOUS WASTE QUANTITY

o TOTAL QUANTITY OF HAZARDOUS WASTE:

Unknown.

Score 0

o BASIS OF ESTIMATING AND/OR COMPUTING WASTE QUANTITY:

No information found indicating hazardous waste burial on site during this investigation. A preliminary score of zero has been assigned.

***

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

Estimated at 175 from USGS Topographic Map.

Score 21

DISTANCE TO A SENSITIVE ENVIRONMENT

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

None within 2 miles of site.

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

Less than 1 mile to NYS designated wetland WO-14 (Ref. 16)

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

None within 1 mile of site (Ref. 16)

Score 1

LAND USE

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

Less than 1/4 mile from site (Ref. site visit).

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

None within 2 miles of site; however, Akron Falls County Park is located nearby the Cope site (Ref. 13).

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

Less than 1/4 mile from site (Ref. site visit).

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

Less than 1/2 mile (Ref. 13).

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

Less than 1/2 mile (Ref. 13).

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

Information has been requested from NYS Office of Parks and Recreation, but has not yet been received (Ref. 18)

Score 3

FIRE AND EXPLOSION

1 CONTAINMENT

o HAZARDOUS SUBSTANCES PRESENT:

No information found indicating hazardous waste on site.

o TYPE OF CONTAINMENT, IF APPLICABLE

All waste material has been buried. Depth of cover unknown.

Score 1

***

2 WASTE CHARACTERISTICS

DIRECT EVIDENCE

o TYPE OF INSTRUMENT AND MEASUREMENTS:

No measurements taken.

Score 0

IGNITABILITY

o COMPOUND USED:

No known ignitable compounds.

Score 0

REACTIVITY

o MOST REACTIVE COMPOUND:

No known reactive compounds present.

Score 0

INCOMPATIBILITY

o MOST INCOMPATIBLE PAIR OF COMPOUNDS:

No known incompatible compounds present

Score 0

HAZARDOUS WASTE QUANTITY

o TOTAL QUANTITY OF HAZARDOUS SUBSTANCES AT THE FACILITY:

Unknown.

Score 0

o BASIS OF ESTIMATING AND/OR COMPUTING WASTE QUANTITY:

No information found indicating hazardous waste burial on site during this investigation. A preliminary score of zero has been assigned.

***

3 TARGETS

DISTANCE TO NEAREST POPULATION

Within 200 feet (Ref. site visit).

Score 4

DISTANCE TO NEAREST BUILDING

Within 200 feet (Ref. site visit).

Score 2

DISTANCE TO SENSITIVE ENVIRONMENT

o DISTANCE TO WETLANDS:

Little less than 1 mile to NYS designated wetland WO-14 (Ref. 16)

Score 0

o DISTANCE TO CRITICAL HABITAT:

None in area (Ref. 16).

Score 0

LAND USE

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

Less than 1/4 mile (Ref. site visit).

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

None within 2 miles of site (Ref. 13).

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

Less than 1/4 mile (Ref. site visit).

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

Less than 1/2 mile (Ref. 13).

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

Less than 1/2 mile (Ref. 13).

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

Information has been requested from NYS Office of Parks and Recreation but has not yet been received (Ref. 18).

Score 3

POPULATION WITHIN 2-MILE RADIUS

4500 - 4800 (Ref. 12).

Score 4

BUILDINGS WITHIN 2-MILE RADIUS

1220 - 1250 (Ref. 12).

Score 4

DIRECT CONTACT

1 OBSERVED INCIDENT

o DATE, LOCATION, AND PERTINENT DETAILS OF INCIDENT:

None known.

Score 0

***

2 ACCESSIBILITY

o DESCRIBE TYPE OF BARRIER(S):

No barriers, fill area is covered.

Score 3

***

3 CONTAINMENT

o TYPE OF CONTAINMENT, IF APPLICABLE:

Fill area is covered. Depth of cover unknown. No evidence of hazardous waste disposal found during this investigation.

Score 0

***

4 WASTE CHARACTERISTICS

TOXICITY

o COMPOUNDS EVALUATED:

No information found indicating hazardous waste burial on site during this investigation. A preliminary score of zero has been assigned.

o COMPOUND WITH HIGHEST SCORE:

***

5 TARGETS

POPULATION WITHIN ONE-MILE RADIUS

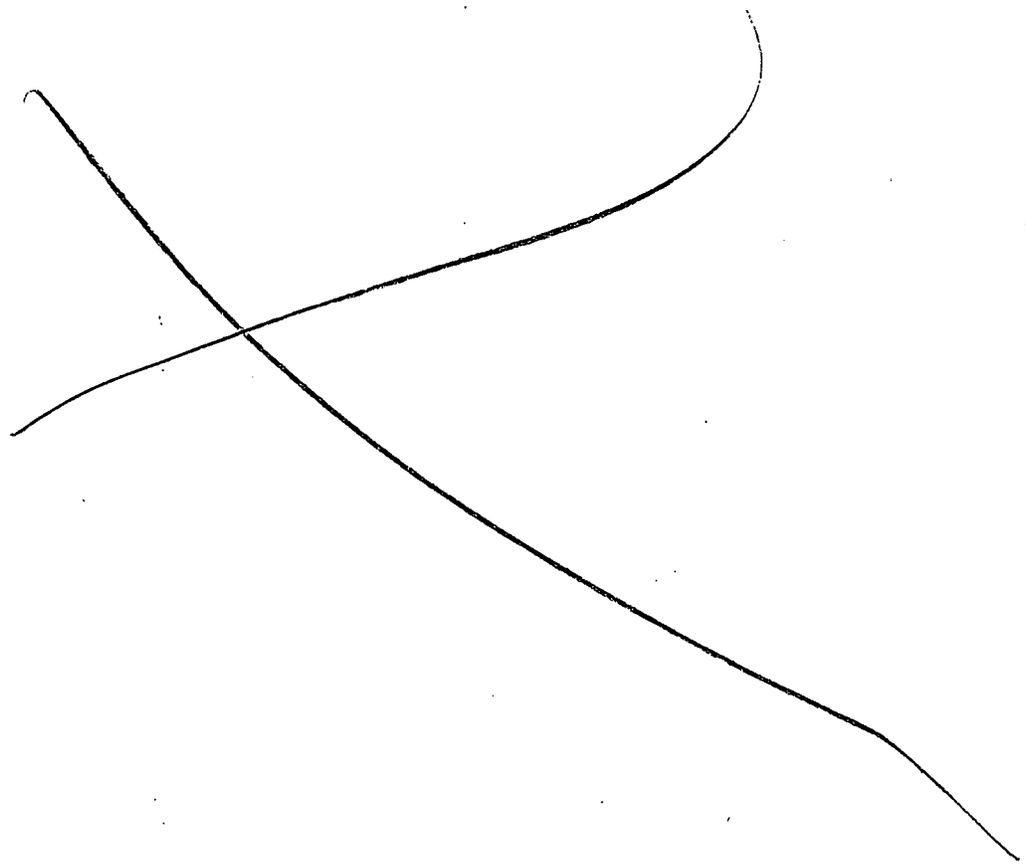
2700 - 3000

Score 3

DISTANCE TO CRITICAL HABITAT (OF ENDANGERED SPECIES)

None in area

Score 0



5.5 USEPA Preliminary Assessment Form 2070-12

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 915102

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER				
Bernard Cope	48 Buell Street				
03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Village of Akron	NY	14001	Erie		
09 COORDINATES LATITUDE	LONGITUDE				
43 00 42.0 N	078 30 00.0 W				

10 DIRECTIONS TO SITE (Starting from nearest public road)
Enter private driveway from Buell St. and proceed past garage to rear portion of property.

III. RESPONSIBLE PARTIES

01 OWNER (If known)	02 STREET (Business, mailing, residential)			
Bernard Cope	48 Buell Street			
03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER	
Village of Akron	NY	14001	(716) 542-4356	
07 OPERATOR (If known and different from owner)	08 STREET (Business, mailing, residential)			
09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER	
			( )	

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

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

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION
☐ YES DATE 3/27/86 (MONTH DAY YEAR)
☐ NO

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

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

03 YEARS OF OPERATION
Unknown (BEGINNING YEAR) | 1978 (ENDING YEAR) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
No reported evidence of hazardous waste disposal

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
Groundwater used as a potable source. Site located in moderately populated Village of Akron-pop 2971 (Ref. 20)

V. PRIORITY ASSESSMENT

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

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NUMBER
Gary Cox	RECRA Research, Inc.	(716) 838-6200

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
Craig W. Pawlewski		URS Company, Inc.	(716) 883-5525	3/26/86 (MONTH DAY YEAR)

EPA FORM 2070-12 (7-81)

5.5 USEPA Preliminary Assessment Form 2070-12

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	915102

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

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

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

TONS _____
CUBIC YARDS _____
NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

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

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES	No information available on character or quantity of waste		
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
	None reported				

V. FEEDSTOCKS (See Appendix for CAS Numbers)

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

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

NYSDEC Region 9

EPA FORM 2070-12 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	915102

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ A. GROUNDWATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 2280
02 ☐ OBSERVED (DATE: _____)
04 NARRATIVE DESCRIPTION
☒ POTENTIAL ☐ ALLEGED

None reported; however, some local residents use groundwater as a potable supply (Refs. 6 and 7)

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

Murder Creek used for recreational fishing (Ref 15)

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

None reported.

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

None reported

01 ☐ E. DIRECT CONTACT
03 POPULATION POTENTIALLY AFFECTED: 1000+
02 ☐ OBSERVED (DATE: _____)
04 NARRATIVE DESCRIPTION
☒ POTENTIAL ☐ ALLEGED

Barriers do not surround the facility. Waste is covered but depth of cover unknown. No documented evidence of hazardous waste burial (Ref. site visit)

01 ☐ F. CONTAMINATION OF SOIL
03 AREA POTENTIALLY AFFECTED: 0.5 (Acres)
02 ☐ OBSERVED (DATE: _____)
04 NARRATIVE DESCRIPTION
☒ POTENTIAL ☐ ALLEGED

Fill area

01 ☐ G. DRINKING WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 2280
02 ☐ OBSERVED (DATE: _____)
04 NARRATIVE DESCRIPTION
☐ POTENTIAL ☐ ALLEGED

None reported;however, some local residents use groundwater as a potable supply (Refs. 6 and 7).

01 ☐ H. WORKER EXPOSURE/INJURY
03 WORKERS POTENTIALLY AFFECTED: 2
02 ☐ OBSERVED (DATE: _____)
04 NARRATIVE DESCRIPTION
☒ POTENTIAL ☐ ALLEGED

None reported

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

Barriers do not surround the facility. Potential for direct contact by local residents (Ref site visit).

EPA FORM 2070-12 (7-81)

EPA

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 915102

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

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

Non 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: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

None Reported

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: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None Reported

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

None Known

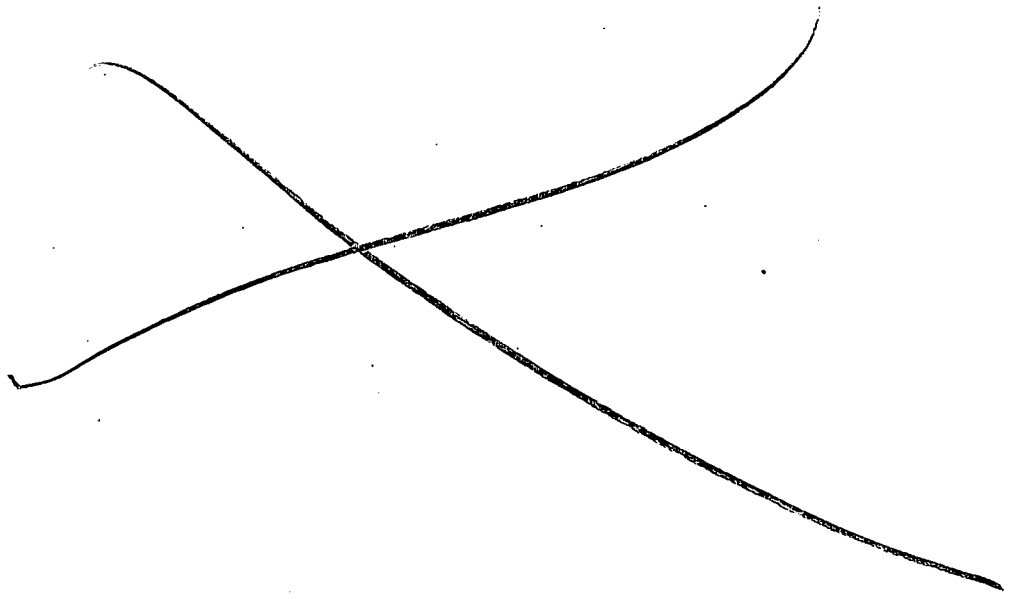
III. TOTAL POPULATION POTENTIALLY AFFECTED: 3282+

IV. COMMENTS

There is no available documented evidence indicating the character or quantity of waste buried. There is no evidence available of hazardous waste disposal on site. However;groundwater is used as a potable supply & could be effected.

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

NYSDEC Region 9
Town of Newstead
Town of Pembroke



EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	915102

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Bernard Cope	48 Buell Street

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Village of Akron	NY	14001	Erie		

09 COORDINATES LATITUDE	LONGITUDE
43 00 42.0	078 30 00.0

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
3 / 27 / 86 (MONTH DAY YEAR)	☒ ACTIVE ☐ INACTIVE	Unknown (BEGINNING YEAR) 1978 (ENDING YEAR) ___ UNKNOWN

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

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
Craig W. Pawlewski	Project Engineer	URS Company	(716)883-5525
09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
			( )
			( )
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
Bernard Cope	Owner	48 Buell Street	(716)542-4356
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☐ PERMISSION ☐ WARRANT	9:30 A.M.	partly cloudy, 50°

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Gary Cox	RECRA Research, Inc.	(716) 838-6200

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Craig W. Pawlewski		URS Company, Inc	(716)883-5525	3 / 28 / 86 (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	915102

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

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

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

TONS _____
CUBIC YARDS _____
NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

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

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS	No information available on character or quantity of waste		
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
	None reported				

V. FEEDSTOCKS (See Appendix for CAS Numbers)

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

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

NYSDEC Region 9

EPA

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 915102

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ A. GROUNDWATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 2280
02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None reported; however, some local residents use groundwater as a potable supply (Refs 6 and 7)

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

Murder Creek used for recreational fishing (Ref 15).

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

None reported

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

None reported

01 ☐ E. DIRECT CONTACT
03 POPULATION POTENTIALLY AFFECTED: 1000+
02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Barriers do not completely surround the facility. Waste is covered but depth of cover unknown. No documented evidence of hazardous waste burial (Ref. site visit).

01 ☐ F. CONTAMINATION OF SOIL
03 AREA POTENTIALLY AFFECTED: 0.5 (Acres)
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Fill area

01 ☐ G. DRINKING WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 2280
02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None reported; however some local residents use groundwater as a potable supply. (Refs 6 and 7)

01 ☐ H. WORKER EXPOSURE/INJURY
03 WORKERS POTENTIALLY AFFECTED: 2
02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None reported.

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

Barriers do not completely surround the facility. Potential for direct contact by local residents (ref. site visit).

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 915102

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: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

None Reported

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: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None Reported

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

None Known

III. TOTAL POPULATION POTENTIALLY AFFECTED: _____

IV. COMMENTS

There is no available evidence indicating the character or quantity of waste buried, and there is no evidence of hazardous waste disposal onsite. However, groundwater is used as a potable supply and could be effected.

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

NYSDEC, Region 9
Town of Newstead
Town of Pembroke

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	915102

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Enter 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 (Enter all that apply)	02 AMOUNT	03 UNIT OF MEASURE
A SURFACE IMPOUNDMENT		
B PILES		
C DRUMS, ABOVE GROUND		
D TANK, ABOVE GROUND		
E TANK, BELOW GROUND		
X F LANDFILL	unknown	
G LANDFARM		
X H OPEN DUMP	unknown	
I OTHER (Specify)		

04 TREATMENT (Enter 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

X A BUILDINGS ON SITE

06 AREA OF SITE

2.3 (Acres)

07 COMMENTS

No documented evidence of hazardous waste disposal onsite.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Enter one)

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

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

Old gravel pit was partially filled and covered. Thickness of cover unknown

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE X YES NO

02 COMMENTS

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

NYSDEC Region 9
Owner Mr. Bernard Cope

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	915102

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)

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

02 STATUS

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

03 DISTANCE TO SITE

A _____ (mi)

B 1.1 (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

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

02 POPULATION SERVED BY GROUND WATER 2280

03 DISTANCE TO NEAREST DRINKING WATER WELL 1.1 (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
2-4 (ft)	presumed north	45 (ft)	_____ (gpd)	☐ YES ☐ NO

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

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
Murder Creek		0.5 (mi)
		(mi)
		(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE
A 2700-3000 (NO. OF PERSONS)	B 4500-4800 (NO. OF PERSONS)	C 6000-6500 (NO. OF PERSONS)

02 DISTANCE TO NEAREST POPULATION

500 ft (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE	04 DISTANCE TO NEAREST OFF-SITE BUILDING
_____	500 ft (mi)

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

The site is located in the Village of Akron - pop 2791(Ref 20).

EPA

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 91502

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	
_____ (ft)	Unknown (ft)	_____	

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
8.0 (in)	2.1 (in)	6-8 %	North	4-5 %

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. 3/4 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)
_____ (mi)
ENDANGERED SPECIES: none in area

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS: PRIME AG LAND	AGRICULTURAL LANDS: AG LAND
A. ∠ 1/4 (mi)	B. None in Area (mi)	C. ∠ 1/2 (mi)	D. ∠ 1/2 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

The site is a former gravel pit that has been partially filled. Filled area falls off rather steeply to a depression. The surrounding topography slopes moderately to the north toward Murder Creek which is about 1/2 mile from the site. Site northern boundry appeared to be generally higher than grade, but channels may exist for runoff to flow toward Murder Creek.

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

NYSDEC Region 9
Soil Conservation Service

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	915102

II. SAMPLES TAKEN

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

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☒ GROUND ☐ AERIAL

02 IN CUSTODY OF URS Engineers, 570 Delaware Avenue
(Name of organization or individual)

03 MAPS ☐ YES ☐ NO

04 LOCATION OF MAPS

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

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

EPA FORM 2070-13 (7-81)

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

EPA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	915102

II. CURRENT OWNER(S)

Field	Value
01 NAME	Bernard Cope
02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	48 Buell Street
04 SIC CODE	
05 CITY	Akron
06 STATE	NY
07 ZIP CODE	14001
01 NAME	
02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	
04 SIC CODE	
05 CITY	
06 STATE	
07 ZIP CODE	
01 NAME	
02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	
04 SIC CODE	
05 CITY	
06 STATE	
07 ZIP CODE	
01 NAME	
02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	
04 SIC CODE	
05 CITY	
06 STATE	
07 ZIP CODE	

PARENT COMPANY (If applicable)

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

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

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

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

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

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

NYSDEC Region 9

Bernard Cope

5.6 USEPA Site Inspection Form 2070-13

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	915102

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER
Bernard Cope	

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

05 CITY	06 STATE	07 ZIP CODE
Akron	NY	14001

08 YEARS OF OPERATION	09 NAME OF OWNER

OPERATOR'S PARENT COMPANY (If applicable)

10 NAME	11 D+B NUMBER

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

14 CITY	15 STATE	16 ZIP CODE

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

PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)

01 NAME	02 D+B NUMBER	10 NAME	11 D+B NUMBER
Lawerence Clark			

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

01 NAME	02 D+B NUMBER	10 NAME	11 D+B NUMBER
Herman Han			

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

01 NAME	02 D+B NUMBER	10 NAME	11 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

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

NYSDEC Region 9
Bernard Cope

EPA FORM 2070-13 (7-81)

5.6 USEPA Site Inspection Form 2070-13

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	915102

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER

03 STREET ADDRESS	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
Town of Newstead			
03 STREET ADDRESS	04 SIC CODE	03 STREET ADDRESS	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
Village of Akron			
03 STREET ADDRESS	04 SIC CODE	03 STREET ADDRESS	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS	04 SIC CODE	03 STREET ADDRESS	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS	04 SIC CODE	03 STREET ADDRESS	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)

Bernard Cope

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	915102

II. PAST RESPONSE ACTIVITIES

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

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

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	915102

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 9

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	915102

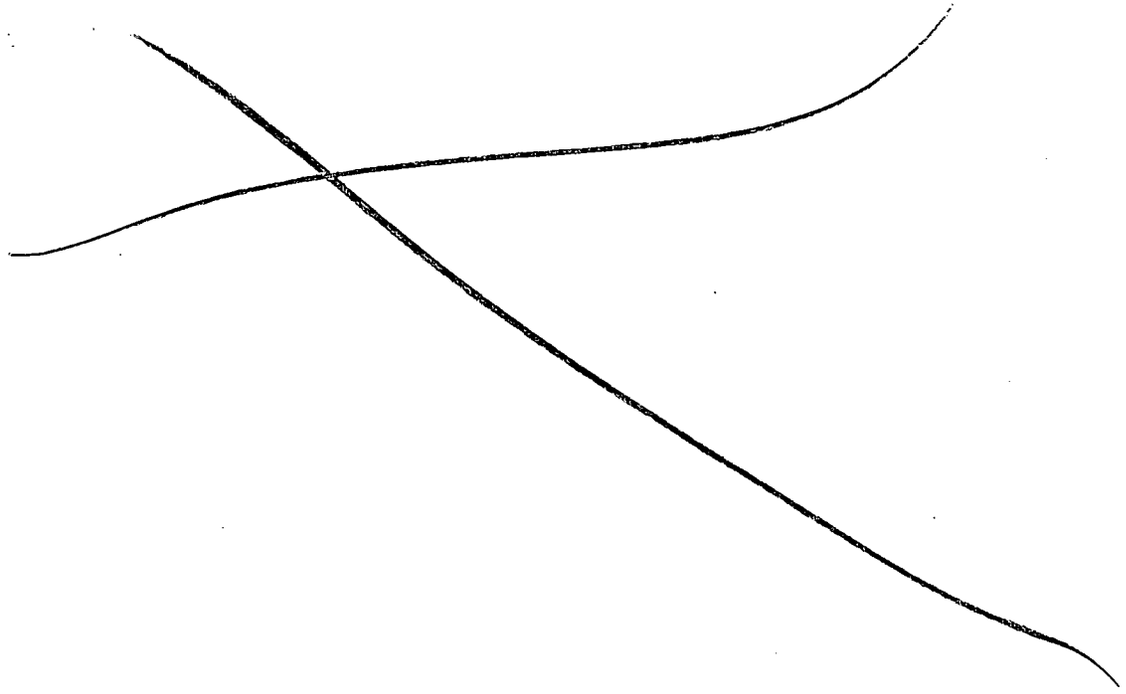
II. ENFORCEMENT INFORMATION

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 9



6.0 ASSESSMENT OF DATA ADEQUACY AND PHASE II WORK PLAN

6.1 Assessment of Available Data

Data collected during the Phase I investigation at the Bernard Cope site which was used to perform an HRS evaluation is considered inadequate in the following areas:

- Observed releases - No surface water samples have been obtained to date. The site is not equipped with monitoring wells, and no groundwater samples have been obtained. No air monitoring has been conducted.

- Waste characteristics - There are no reports of hazardous waste disposal at this site. No information was available regarding the quantity or the character of waste disposed of onsite.

- Potable groundwater wells - Information regarding wells in the vicinity of the site was obtained from local government officials. These data do not represent a complete assessment of the location of wells utilized for potable water in the vicinity of the site.

6.2 Preliminary Waste Characterization Program

No document was found during Phase I investigation which would provide definite information on the nature and the quantity of hazardous waste disposed of on site. In the absence of such data, it is prudent to undertake a preliminary waste characterization program to develop a credible HRS score for the site and to determine if a Phase II investigation is warranted. Such a preliminary investigation should include the following:

- Five shallow soil samples using a soil probe to recover a column of relatively undisturbed soil.

- Groundwater sample(s) obtained from supply well(s) at private residence(s) located in the vicinity of the site i.e. from the Sutton residence, south of the site and other nearby wells that may be located during site work.

- Both soil and groundwater samples should be analyzed for organic and inorganic priority pollutants.

Based on the results of this preliminary investigation, a decision should be made regarding implementation of the Phase II investigation.

6.3 Phase II Work Plan

6.3.1 Objective

The Phase II field investigation activities outlined in this section are intended to bring the data base for this site up to a level capable of supporting a final, defensible HRS score. The work plan does not necessarily represent a recommendation to proceed with a Phase II investigation, but rather outlines the activities which should be performed to accomplish the above objective if such an investigation is undertaken. The final decision concerning the need for a Phase II study depends not only upon the availability and adequacy of hard data, but also upon the preliminary (Phase I) HRS score, as well as agency policy and public perception regarding the site.

6.3.2 Scope of Work

The following activities have been identified for the Phase II field investigation:

- o Air Monitoring
- o Geophysical Survey
- o Subsurface Investigation
- o Monitoring Well Installation
- o Sampling and Analysis
- o Waste Quantity Determination

- Potable well study
- Basic Surveying Services
- Engineering Evaluation Report/HRS Scoring

Throughout the Phase II investigative effort, field activities should be performed in strict accordance with the Health and Safety Plan approved for this project. Details of the investigation would be formulated during preparation of the final Phase II Work Plan which would be devised according to NYSDEC protocols and safety requirements. A brief description of each activity is presented below.

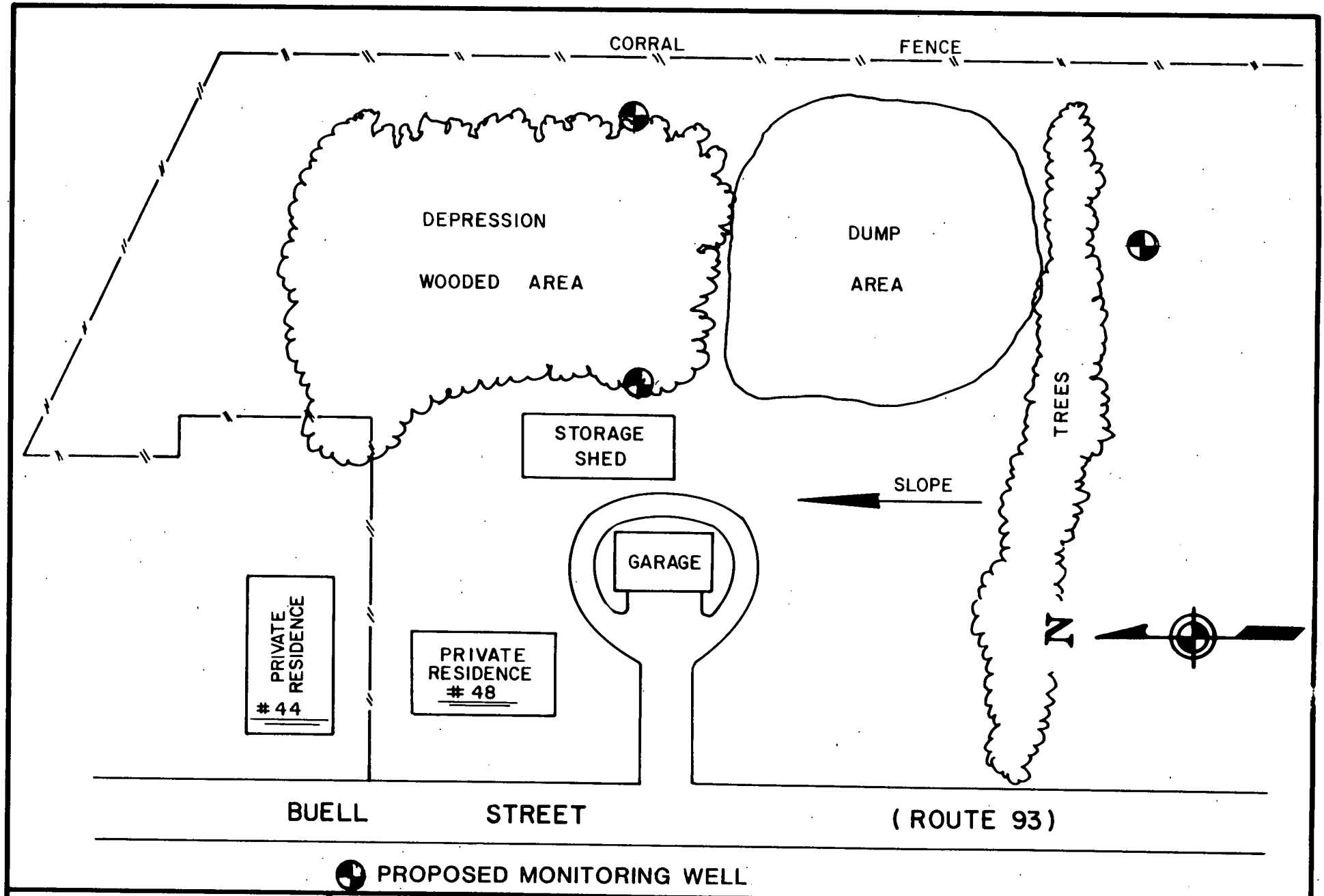
- Air Monitoring - An air monitoring program with an HNU photoionizer detector would be performed as follows:

  - at one upwind and downwind location prior to any site work
  - during borings and monitoring well installations
  - for all split-spoon samples
  - during hand auger sampling

  The date, location, and sample protocol would be recorded at the time of sampling. Wind direction and wind speed (best estimate) would also be recorded at this time. Measurements will be taken within the normal breathing zone.

- Geophysical Survey - A geophysical survey would be conducted at the site using a magnetometer and electrical resistivity techniques to locate any buried drums and to aid in defining the vertical and horizontal extent of waste. The information would also be useful to establish the final locations for monitoring wells. Prior to drilling of test borings, results of the survey would be used to determine the presence of buried drums or inpenetratable materials in this area. These measurements would be taken on a grid system established over the are to be investigated to provide sufficient coverage.

- Subsurface Investigation - Presently, it is proposed that three borings be drilled in the first encountered water bearing zone beneath the site. These borings would be converted to monitoring wells. The tentative location of the borings are as follows: one boring installed south of the fill area, and two borings installed north of the area. The borings would be performed under the direct supervision of an experienced geologist. The borings would be completed with hollow-stem augers and will be sampled by means of split spoon sampler as per ASTM-D-1586. The first boring would be sampled continuously to a depth of ten feet within the first encountered water bearing zone. The remaining two borings would be



URS Company, Inc.
CONSULTING ENGINEERS
NEW YORK NEW JERSEY

SITE MAP
BERNARD COPE

FIGURE 3

sampled at five foot intervals and where changes in lithology or drilling characteristics are encountered to a minimum depth of ten feet within the first encountered water bearing zone. Any fine-grained confining layers encountered during drilling would be sampled with a Shelby tube for laboratory permeability testing. Prior to initiating drilling activities, the drilling rig, augers, rods, appurtenant equipment, well pipe, screens, and split-spoons will be cleaned with steam. This cleaning procedure will also be used between each boring. These activities will be performed in a designated on-site decontamination area. Throughout the cleaning processes and during field work, direct contact supplying between equipment and the contaminated ground surface will be AVOIDED. Plastic sheeting and/or clean support structures will be used. The sample barrel(s) will be cleaned prior to each use by the following procedure:

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

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

- o soap wash
- o tap water rinse
- o acetone rinse (pesticide grade)
- o rinse with copious quantities of deionized water (at least six rinsings)
- o air dry
- o cap and store in contaminant-free area

Samples will be delivered under chain of custody control to an approved laboratory. A composite soil sample from each boring will be analyzed for propriority pollutant metals and organics (Contract Laboratory Protocol) and PCBs. GC/MS procedures will include the identification and quantification of all peaks 10% greater than the nearest calibrating standard.

At a minimum, each boring log will include:

- o date, test hole identification, and project identification
- o name of individual developing the log

- name or driller and assistant(s)
- drill make and model, auger size
- identification of alternative drilling methods used and justification thereof (e.g. rotary drilling with a specific bit type to remove a sand plug from within the hollow stem augers)
- HNu readings

- Monitoring Well Installation - It is proposed that the borings be converted to monitoring wells. The monitoring wells would be constructed within the uppermost water bearing zone. The wells would be constructed of two-inch ID schedule 40 PVC casings and screens, and will be provided with protective casings and locking caps in accordance with proper NYSDEC installation protocols.

  Upon completion of construction, the monitoring wells would be properly developed, and the ground surface and top of well casing would be surveyed at each well to determine their location and elevation with reference to USGS datum. Slug tests would then be conducted in each monitoring well to determine the hydraulic conductivity of the water bearing formation within the well screen interval. These slug tests will be performed using a solid stainless steel cylinder or slug.

- Sampling and Analyses - The purpose of this activity would be to identify the magnitude and extent of soil, groundwater, and/or surface water contamination originating from the site, and to ascertain whether hazardous substances are leaving the site.

  It is proposed that one soil sample from the unsaturated zone within each boring undergo chemical analysis.

  One round of groundwater samples would be obtained from the monitoring wells. After the water level in each well has equilibrated, water elevations would be measured to determine the water table surface. Representative groundwater samples would then be collected after the wells have been fully evacuated or a volume of water three times the well contents has been removed and the wells have recharged. Upon collection of a sample, field pH, temperature and conductivity measurements would be recorded. The samples would be placed in appropriate pre-cleaned bottles, labeled, chilled and shipped immediately to a laboratory for preservation and analysis. Preservatives will be added to sample bottles to be used for cyanide and metals prior to collection of samples in the field.

One groundwater sample would be obtained from the supply well at a private residence located just south of the site. This sample would handled utilizing the same protocol as described for samples obtained from monitoring wells.

Two surface water samples would be obtained; one from Murder Creek downstream of the site before the sewage treatment plant. The second upstream to the east of the site. The same handling procedure as previously described for groundwater samples will be followed upon acquisition of the surface water samples

Shallow soil samples would be obtained from several areas in order to aid in defining the areal extent of contamination. As contaminants from liquid spills may migrate to depths of a few feet within the soil profile, samples will be taken using a soil probe to remove a column of relatively undisturbed soil. From each column a surface sample will be taken and placed in an appropriate sample bottle and chilled before return to the laboratory for analysis. Additionally, one soil sample from the unsaturated zone within each of the test borings would undergo chemical analysis.

Analyses of all groundwater, surface water and soil samples would be performed for the parameters listed in Table 1 using the appropriate procedures discussed in one or more of the following reference texts:

- Methods for Chemical Analysis of Water and Wastes, United States Environmental Protection Agency,

- NIOSH Manual of Analytical Methods, 2nd Edition, United States Department of Health, Education and Welfare,

- Standard Methods for the Examination of Water and Wastewater, 14th Edition, APHA, AWWA, WPCF.

All analytical work would be completed in conformance with a project Quality Assurance Program.

o Waste Quantity Determination - A detailed investigation would be undertaken to determine the type and quantities of waste disposed of at the site. These investigations would include review of municipal records and additional interviews with area residents and commercial enterprises and an estimate of waste disposal volume.

TABLE 1: ANALYTICAL PARAMETERS

Parameter	Surface Water	Groundwater	Soil
Number of Sample - This Site	2	4	5
pH	.	.	.
Specific Conductance	.	.	.
Chloride	.	.	.
Sulfate	.	.	.
Cyanide (Total)	.	.	.
Total Organic Carbon	.	.	.
Cadmium	*	0	*
Chromium (Total)	*	0	*
Chromium (Hexavalent)	*	0	*
Copper	*	0	*
Iron	*	0	*
Lead	*	0	*
Mercury	*	0	*
Nickel	*	0	*
Silver	*	0	*
Zinc	*	0	*
Polychlorinated Biphenyls (PCB)	.	.	.
GC/MS Scan	.	.	.

0 = Soluble Metals * = Total Metals

- Potable Well Survey - A survey would be conducted to compile a list of all groundwater wells currently used within one mile of the site. This task would permit an accurate "Distance to Nearest Well/Population Served" matrix score to be developed for the groundwater route. This approach is considered prudent as numerous wells are in use in the vicinity of the site.

- Basic Surveying Services - Initially, a base map of the site would be obtained (e.g., tax map) which will be enlarged to a workable scale (e.g., 1 inch = 100 feet). A survey crew would determine the location and elevation of all test borings, monitoring wells and sampling stations, as well as the location of important site planimetric features. Elevations would be tied into approximate USGS datum (± 1 foot) by using a known road intersection elevation. Where property markers are available, locations would be tied into a property line. Elsewhere, locations would be established approximately from available planimetric features. Upon completion of the field effort, all information would be plotted onto the base map.

- Engineering Evaluation Report/HRS Scoring - Following the Phase II investigation, all existing and newly developed information concerning the site would be evaluated and

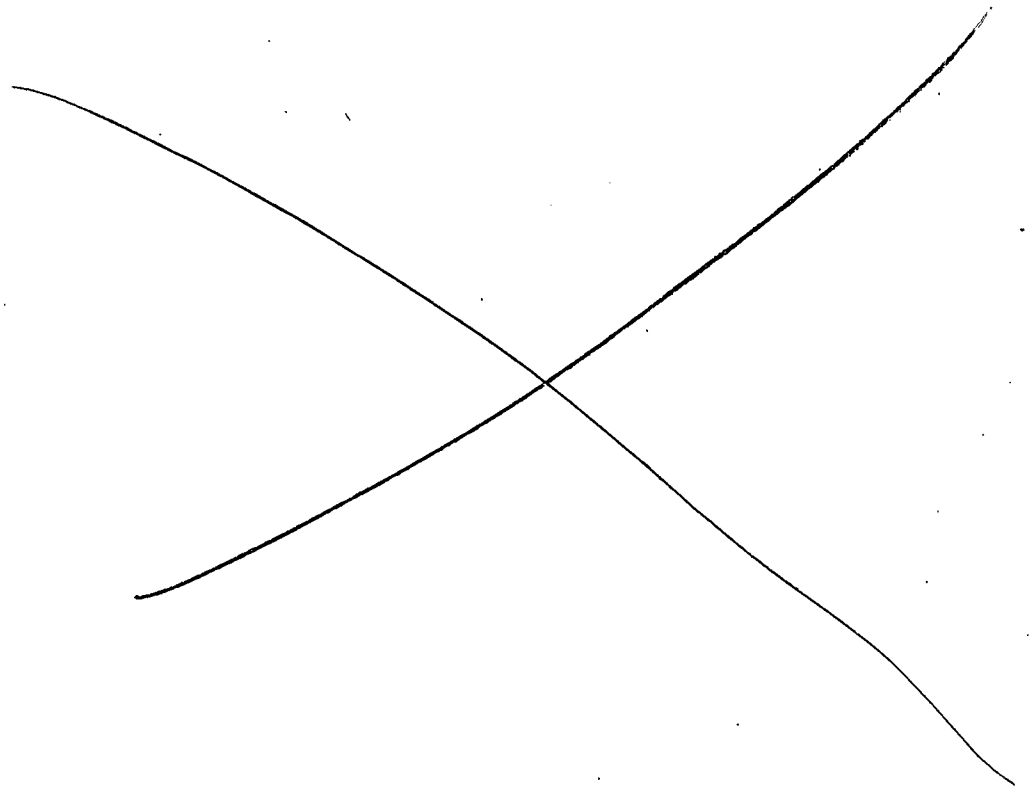
utilized to prepare a final HRS score. Subsequently, feasible remedial alternatives for the site would be preliminarily identified and evaluated, and budget-level cost estimates for these alternatives will be developed.

6.3.3 Estimated Costs

The following are estimated costs to perform the Phase II Field Investigation outlined in Section 6.2.2:

Task	Cost
Air Monitoring	$ 2,000
Subsurface Investigation	7,500
Monitoring Well Installation	7,500
Sampling and Analysis	22,000*
Waste Quantity Determination	1,000
Potable Well Study	1,000
Basic Surveying Services	3,000
Final HRS Score/Report	10,000
Total	$ 54,000

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



APPENDIX A

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: 915102

NAME OF SITE: Bernard Cope REGION: 9

STREET ADDRESS: 48 Buell Street

TOWN/CITY: Akron (V) COUNTY: Erie 14001

NAME OF CURRENT OWNER OF SITE: Bernard Cope

ADDRESS OF CURRENT OWNER OF SITE: 48 Buell Street, Akron, New York 14001

TYPE OF SITE: OPEN DUMP ☐ STRUCTURE ☐ LAGOON ☐
LANDFILL ☒ TREATMENT POND ☐

ESTIMATED SIZE: 2.3 ACRES

SITE DESCRIPTION: The disposal area is a partially filled gravel pit. Fill material such as demolition debris, cobblestones, timber and brush were reportedly recieved from the Village of Akron and Town of Newstead. The owner never obtained a permit to operate the dump area although requested to do so by the NYSDEC. Little is known about the quantity or character of buried waste and there is no documented evidence available to indicate the site recieved hazardous waste. The fill area is presently covered and exhibits no signs of environmental impacts.

HAZARDOUS WASTE DISPOSED: CONFIRMED ☐ SUSPECTED ☒

TYPE AND QUANTITY OF HAZARDOUS WASTES DISPOSED:

TYPE	QUANTITY (POUNDS, DRUMS, TONS, GALLONS)
None known	

TIME PERIOD SITE WAS USED FOR HAZARDOUS WASTE DISPOSAL:

Unknown, 19 ___ TO October, 19 78

OWNER(S) DURING PERIOD OF USE: Bernard Cope

SITE OPERATOR DURING PERIOD OF USE: Bernard Cope

ADDRESS OF SITE OPERATOR: 48 Buell Street Akron, New York

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

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

SOIL TYPE: Glacial till

DEPTH TO GROUNDWATER TABLE: 2-4 feet

LEGAL ACTION: TYPE: _____ STATE ☐ FEDERAL ☐

STATUS: IN PROGRESS ☐ COMPLETED ☐

REMEDIAL ACTION: PROPOSED ☐ UNDER DESIGN ☐
IN PROGRESS ☐ COMPLETED ☐

NATURE OF ACTION: None

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

None known; however, some local resident use groundwater as a potable supply and nearby Murder Creek is used for recreational fishing.

ASSESSMENT OF HEALTH PROBLEMS:

None known; however, some local residents use groundwater as a potable supply and nearby Murder Creek is used for recreational fishing.

PERSON(S) COMPLETING THIS FORM:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

NAME Andre J. La Pres

TITLE Geologist/URS Company, Inc.

NAME _____

TITLE _____

DATE: _____

NEW YORK STATE DEPARTMENT OF HEALTH

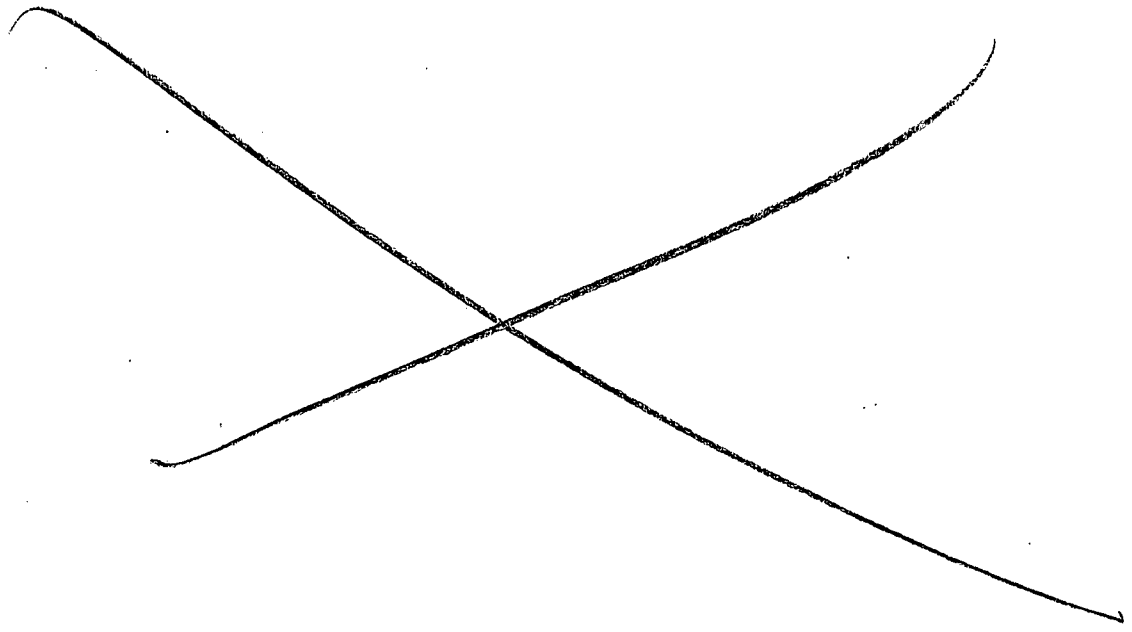
NAME _____

TITLE _____

NAME _____

TITLE _____

DATE: _____



APPENDIX B

Data Sources and References

1. Memorandum to File; March 27, 1986.

2. NYSDEC, Division of Solid Waste and Hazardous Waste, Inactive Hazardous Waste Disposal Site Report; January 10, 1985.

3. Edward J. Buehler and Irving H. Tesmer, Geology of Erie County, New York; Buffalo Society of Natural Sciences Bulletin; 1963

4. A.M. LaSala, Jr., Groundwater Resources of the Erie-Niagara Basin, New York; State of New York Conservation Department Water Resources Commission; 1968.

5. Robert Gaddis, Town of Akron Superintendent; Telephone Interview; December 23, 1985.

6. Carol Borchert, Newstead Town Clerk; Telephone Interview, April 2, 1986.

7. Doreen Gross, Town of Pembroke; Telephone Interview, April 2, 1986.

8. URS Company, Inc., Erie County Solid Waste Management Implementation Plan; November, 1980.

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

10. R. Allan Freeze and John A. Cherry, Groundwater; Prentice-Hall, Inc., Englewood Cliffs, N.J.; 1979.

11. Robert Gaddis, Town of Akron Superintendent; Telephone Interview; April 2, 1986.

12. USGS Topographical Maps; 7.5 minute; Wolcottsville, N.Y., 1965; Akron, N.Y., 1976; Corfu, N.Y., 1975, Clarence, N.Y., 1965.

13. Craig W. Pawlewski, URS Company, Inc. Letter from Douglas Dettenrieder, District Conservationist; January 28, 1986.

14. 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.

15. James Pomeroy, Natural Resources Office, NYSDEC Region 9; Telephone Interview, April 16, 1986.

16. NYSDEC, Region 9; Designated Wetlands Maps for Wolcottsville and Akron Quadrangles.

17. Cameron O'Connor, Erie County DEP; Telephone Interview, December 16, 1985.

18. Craig W. Pawlewski, URS Company, Inc. Letter to Lenore Kuwik, NYS Office of Parks, Recreation and Historic Preservation.

19. Donald Tamol, P.E. NYSDEC; Memorandum regarding landfill inspection; October 6, 1978.

20. Census of Population, U.S. Department of Commerce, Bureau of the Census, 1980.

21. Memorandum. From: Kermit Studley, To: A. Voell; August 11, 1986.

22. Memorandum. From: Mr. Clare To: Mr. Tygert; July 29, 1986.

"AN UNSIGNED DOCUMENTATION OF INTERVIEW INDICATES THAT THE PERSON INTERVIEWED DID NOT SIGN AND RETURN THE DOCUMENTATION RECORD AS REQUESTED BY THE INVESTIGATOR"

Ref 1

URS

AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

MEMORANDUM

TO: FILE 35015-90-001

FROM: CRAIG PAWLEWSKI

DATE: MARCH 27, 1986

RE: SITE VISIT AND INTERVIEW

INTERVIEWEE: Bernard Cope

POSITION: Site Owner

NOTES: Dump area was formerly a gravel pit. Mr. Cope was construction contractor for a number of years. Some of the excavated area on property was filled with debris from the Village of Akron and the Town of Newstead. Fill included rubbish, brush, timbers, demolition debris, and cobblestones from fences. Some burned material was buried from Young's Salvage. Depth of fill is approximately 15-20 feet. Mr. Cope never obtained a permit to fill area although requested to do so by the DEC. Filling operations ceased more than 10 years ago.

CP/bc
4/4/86M

015B4

REF 2

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

CLASSIFICATION CODE: 2a REGION: 9 SITE CODE: 915102

NAME OF SITE : Bernard Cope
STREET ADDRESS: 48 Buell Street
TOWN/CITY: Akron COUNTY: Erie ZIP:

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

SITE OWNER/OPERATOR INFORMATION:
CURRENT OWNER NAME....: Bernard Cope
CURRENT OWNER ADDRESS.: 48 Buell Street, Akron, NY 14001
OWNER(S) DURING USE...: unknown
OPERATOR DURING USE...: Unknown
OPERATOR ADDRESS.....: Unknown
PERIOD ASSOCIATED WITH HAZARDOUS WASTE: From Unknown To

SITE DESCRIPTION:
Various communities in Erie County disposad of mostly demolitions material at this site. This site was formerly a gravel pit.

HAZARDOUS WASTE DISPOSED: Confirmed- Suspected -X

TYPE	QUANTITY (units)
Unknown	Unknown

REF 2

SITE CODE: 915102

ANALYTICAL DATA AVAILABLE:

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

CONTRAVENTION OF STANDARDS:

Groundwater- Drinking Water- Surface Water- Air-

LEGAL ACTION:

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

REMEDIAL ACTION:

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

GEOTECHNICAL INFORMATION:
SOIL TYPE: Unknown
GROUNDWATER DEPTH: Unknown

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

There is no evidence of any significant environmental problem at this site.

ASSESSMENT OF HEALTH PROBLEMS:

Insufficient Information

PERSON(S) COMPLETING THIS FORM:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION	NEW YORK STATE DEPARTMENT OF HEALTH
NAME.: J. Heil, P.E.	NAME.: R. Tramontano
TITLE: Assoc. San. Eng.	TITLE: Bur. Tox. Sub. Asses.
NAME.: R.A. Olazagasti	NAME.:
TITLE: SWMS	TITLE:
DATE.: 01/10/85	DATE.: 01/10/85

REF 3.

BULLETIN

Vol. 21, No. 3 1963

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

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

THICKNESS: Approximately 400 feet.

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

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

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

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

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

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

BERTIE FORMATION

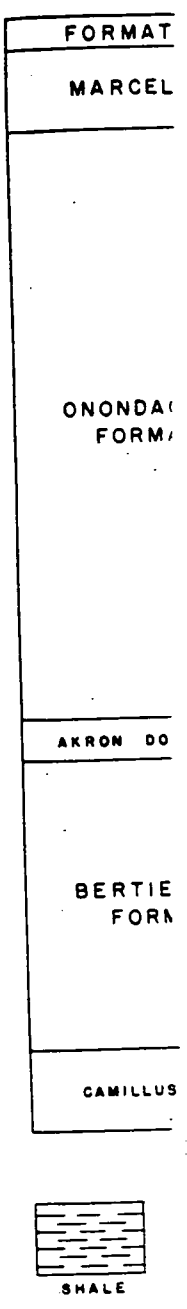
TYPE REFERENCE: Chapman (1864, p. 190).

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

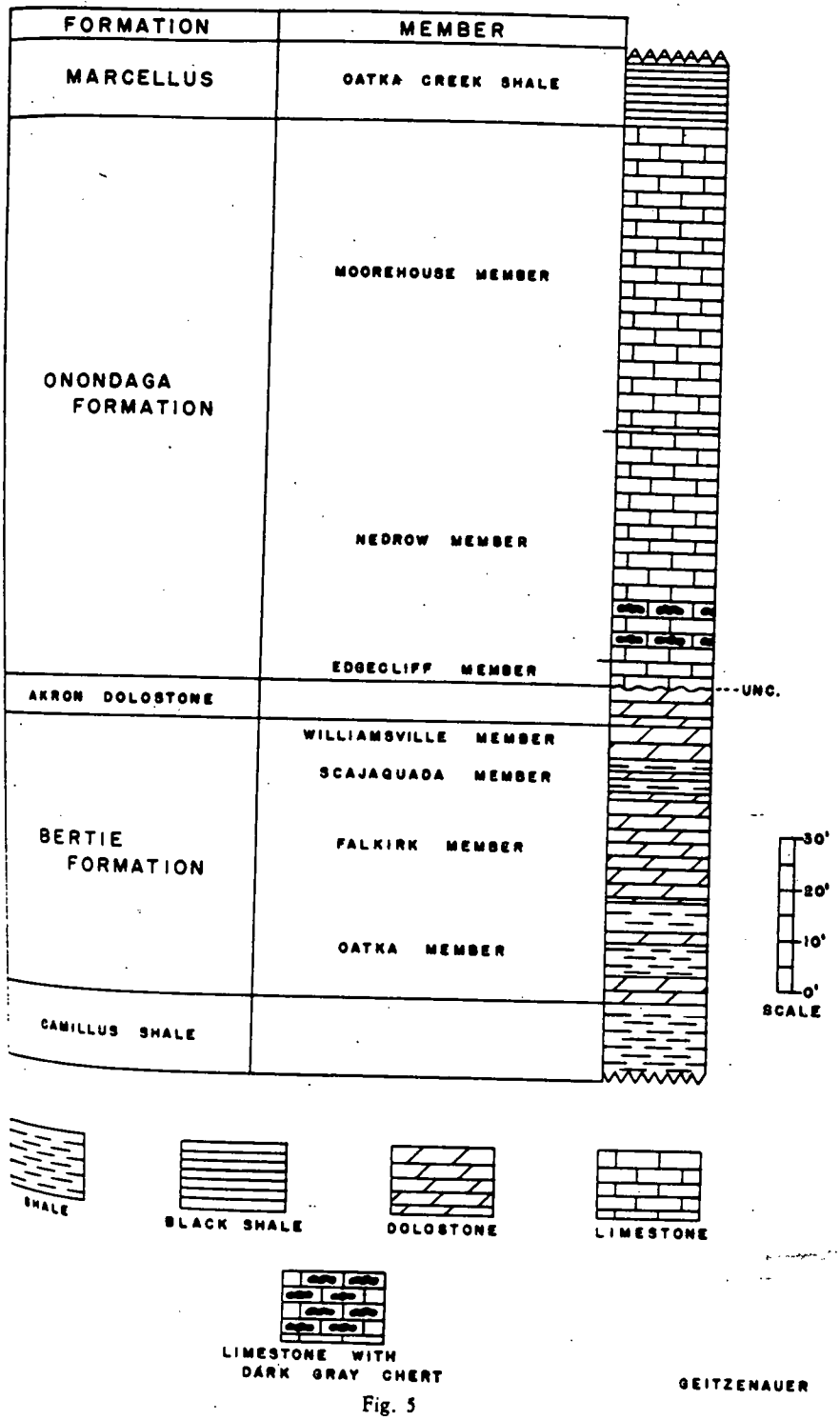
TERMINOLOGY: This unit is commonly called the Bertie Waterlime. Chadwick (1917) divided the Bertie into four units: the Oatka (oldest), Falkirk, Scajaquada, and Williamsville. The Williamsville Member was formerly called the "Buffalo cement bed" (see fig. 4).

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

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



STRATIGRAPHIC COLUMN
BERTIE-ONONDAGA



GEITZENAUER

Fig. 5

LITHOLOGY: The Bertie Formation consists predominantly of dolostone or dolomitic limestone. The Oatka Member contains shaly dolostone and is difficult to differentiate from the underlying Camillus Shale. The Falkirk Member is a massive brown dolostone. The Scajaquada and Williamsville Members consist of dark gray shale and gray dolostone beds of variable thickness. The dolostone tends to fracture conchoidally. Cross-bedding, salt hopper casts, and a variety of unidentified sedimentary structures are displayed.

It has been argued by O'Connell (1916) that the Bertie Formation represents a deltaic or lagoonal rather than a marine environment. The eurypterids are envisioned as river-dwelling animals whose exoskeletons were washed onto a delta. Ruedemann (1924) and others regard the eurypterids as marine animals although they interpret the Bertie as a lagoonal deposit.

PROMINENT OUTCROPS: In Buffalo, the Bertie may be seen near the Main Street entrance to Forest Lawn cemetery; in the storm sewer on East Amherst Street and in the railroad cut on Amherst Street, a few blocks west of Main Street. There is a good exposure at the falls of Ellicott Creek in Williamsville; in the Louisville Cement Company quarry on the north side of New York route 5 near Clarence; and, at the falls in Akron Falls Park (pl. 6, lower).

CONTACTS: Both the lower and upper contacts are difficult to define.

ECONOMIC GEOLOGY: This rock has been quarried for crushed stone and cement manufacture. Near Akron there are several abandoned mine shafts, no longer accessible.

PALEONTOLOGY: The Bertie is famous for its eurypterids, collections of which are housed in the Buffalo Museum of Science and in the New York State Museum at Albany. See Heubusch (1959) for an account of the stratigraphic distribution of these. The eurypterids are found in the Williamsville Member.

The faunal list has been compiled from the following sources: Pohlman (1881; 1886), Clarke and Ruedemann (1903; 1912), Luther (1906, p. 9), O'Connell (1914), Clarke (1919, pp. 531-532), Ruedemann (1925), Bassler (1939), Kilfoyle (1954), Caster and Kjellesvig-Waering (1956), Kjellesvig-Waering (1958), Heubusch (1959 and personal communication), Howell (1959), Kjellesvig-Waering and Heubusch (1962):

PLANTS

Callithamnopsis silurica Ruedemann
Hostimella silurica Goldring
Nematophyton (?) sp.
Sphenophycus (?) sp.
Stigmatella sp.

COELENTERATES

Ceratopora (?) sp.
Metaconularia perglabra (Ruedemann)
Serpulites sp.
Stromatopora sp.

BRYOZOANS

Hernodia (?) *monahani* Bassler
Reptaria cayuga Bassler

ANNELID

Ruedemannella obesa Ruedemann

Camarotoechia cf. *andr*
Delthyris eriensis Grab
Lingula media Ruedem

Ceratopea (?) sp.
Hercynella buffaloensis
H. patelliformis O'C

Dawsonoceras oconn
Mitroceras anderdon

Goniophora sp.

Buffalopterus pustulosu
Bunaia woodwardi Cla
Carcinosoma scorpionis
Ceratiocaris acuminata
C. maccoyana Hall
Dolichopterus macroch
D. siluriceps Clarke an
Emmelezoe minuta Rue
Erettopterus grandis (E

Ascograptus gracilis Ru
Climacograptus ultimus
Inocaulis lesquereuxi (

TYPE REFERENCE:

TYPE LOCALITY: M
port and Medina qu

TERMINOLOGY: See
Cobleskill Dolomite
western and eastern
field tracing, the Ak
term "Bullhead dolc
Akron and gives sec

Camarotoechia cf. *andrewsi* Prouty
Delthyris eriensis Grabau
Lingula media Ruedemann

Ceratopea (?) sp.
Hercynella buffaloensis O'Connell
H. patelliformis O'Connell

Dawsonoceras oconnellae Ruedemann
Mitroceras anderdonense (Grabau)

Goniophora sp.

Buffalopterus pustulosus (Hall)
Bunaia woodwardi Clarke
Carcinosoma scorpionis (Grote and Pitt)
Ceratiocaris acuminata Hall
C. maccoyana Hall
Dolichopterus macrocheirus Hall
D. siluriceps Clarke and Ruedemann
Emmelezoe minuta Ruedemann
Erettopterus grandis (Pohlman)

BRACHIOPODS

L. testatrix Ruedemann
Orbiculoidea bertiensis Ruedemann

MOLLUSKS

Gastropods

Hormotoma gregaria Ruedemann
Loxonema (?) *bertiensis* Ruedemann
Morania (?) *bertiensis* Ruedemann
(possibly not a gastropod)

Cephalopods

Pristeroceras timidum Ruedemann
Orthoceras sp.

Pelecypods

Rhytimya buffaloensis Ruedemann

ARTHROPODS

Eurypterus dekayi Hall
E. remipes lacustris Harlan
E. remipes remipes Dekay
Hemiaspis (?) *eriensis* Clarke
Leperditia alta (Conrad)
L. scalaris (Jones)
Pterygotus cobbi Hall
P. cummingsi Grote and Pitt

ECHINODERM

Pyrgocystites batheri (Ruedemann)

GRAPTOLITES

Ascograptus gracilis Ruedemann
Climacograptus ultimus Ruedemann
Inocaulis lesquereuxi (Grote and Pitt)
Medusaegraptus graminiformis (Pohlman)
Orthograptus (?) sp.
Paleodictyota buffaloensis Ruedemann

INCERTAE SEDIS

Machaeridian

Lepidocoleus reinhardi Ruedemann

AKRON DOLOSTONE

TYPE REFERENCE: Grabau and Sherzer (1909).

TYPE LOCALITY: Murder Creek near Akron, Erie County, New York; Lockport and Medina quadrangles.

TERMINOLOGY: See Hartnagel (1903). This unit has also been called the Cobleskill Dolomite but because of differences in the Upper Silurian sections of western and eastern New York (type locality of the Cobleskill) and difficult field tracing, the Akron, revived by Chadwick (1917) is preferred here. The term "Bullhead dolomite" has also been used. Hoffman (1949) describes the Akron and gives sections for western New York.

AGE AND CORRELATION: Late Silurian (Cayugan). The Akron Dolostone correlates with the Cobleskill Dolomite of eastern New York.

THICKNESS: Approximately 8 feet.

LITHOLOGY: The beds vary from a few inches to over a foot in thickness. The color ranges from greenish-gray to light buff and displays a characteristic mottled and banded appearance. In texture the rock is fine-grained but vuggy and rough-weathering. A pitted surface results from the weathering of fossil corals.

PROMINENT OUTCROPS: Forest Lawn cemetery in Buffalo; storm sewer on Amherst Street; railroad cut on Main Street near Jewett Avenue; Louisville Cement Company quarry on New York route 5 near Clarence; Cummings old cement works one mile north of New York route 5 on Cummings Road; Murder Creek near Akron Falls Park (pl. 6, lower).

CONTACTS: The lower contact is conformable with the top of the Bertie Formation. The upper contact with the Onondaga Limestone is a conspicuous disconformity which has cut out most or all of the Lower Devonian. The top of the Akron Dolostone is broadly undulating and has channels which are commonly ten feet across and three feet deep, containing some sand grains and clay at the bottom. Clastic dikes filled with sand have been described. See Grabau (1900, pp. 355-361) for a thorough description of the contact and the dikes.

ECONOMIC GEOLOGY: The Akron Dolostone has been used as a building stone and in the manufacture of cement.

PALEONTOLOGY: This list has been compiled from Grabau (1900 pp. 363-376), Hartnagel (1903), Ruedemann (1925), Kilfoyle (1954), Kjellsvig-Waering (1958):

PLANTS

Nematophyton crassum Penhallow

COELENTERATES

Cyathophyllum hydraulicum Simpson
Favosites sp.

BRACHIOPODS

Delthyris eriensis (Grabau)
Orthotetes interstriatus Hall
Rhynchonella sp.
Whitfieldella cf. *laevis* (Whitfield)
W. nucleolata (Hall)
W. cf. *rotundata* (Whitfield)
W. sulcata (Vanuxem)

MOLLUSKS

Gastropods

Loxonema (?) sp.
Pleurotomaria (?) sp.

Cephalopods

Foersteoceras turbinatum (Hall)
Mitroceras gebhardi (Hall)

(3)

AR

Eurypterus remipes lacustris Harlan
Leperditia scalaris Jones

GR

Inocaulis akronensis Ruedemann

Devo

LOWER DEVONI

ORISKA

The Oriskany Sandstone is n
sand grains at the Silurian-Devo
Clarke (1900, pp. 79, 96-98).

MIDDLE DEVO

ONONDA

TYPE REFERENCE: Hall (1839, pp

TYPE LOCALITY: Onondaga Coun
has not been designated.

TERMINOLOGY: Eaton (1828, p. 1
tiferous limerock." Oliver (1954)
study. He recognized four membe
house, and Seneca (see fig. 5).

AGE AND CORRELATION: The On
Middle Devonian but comparison v
late Early Devonian age to some
been traced eastward across New
lachian Mountains. To the west,
Detroit River Group of Michigan.

THICKNESS: Complete measured
County have not been published.
Bishop (1897, p. 390) gives a mor
Member, normally only a few fee
bioherm at Williamsville (filled c
nue). This produces a local dome

LITHOLOGY: The *Edgecliff Memb*
stone with abundant corals. In t
are beds of green tinted shale and

The *Nedrow Member* is a rc

ARTHROPODS

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

GRAPTOLITES

Inocaulis akronensis Ruedemann — *Medusaegraptus graminiformis* (Pohlmann)

Devonian System

LOWER DEVONIAN (ULSTERIAN) SERIES

ORISKANY SANDSTONE

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

MIDDLE DEVONIAN (ERIAN) SERIES

ONONDAGA LIMESTONE

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

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

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

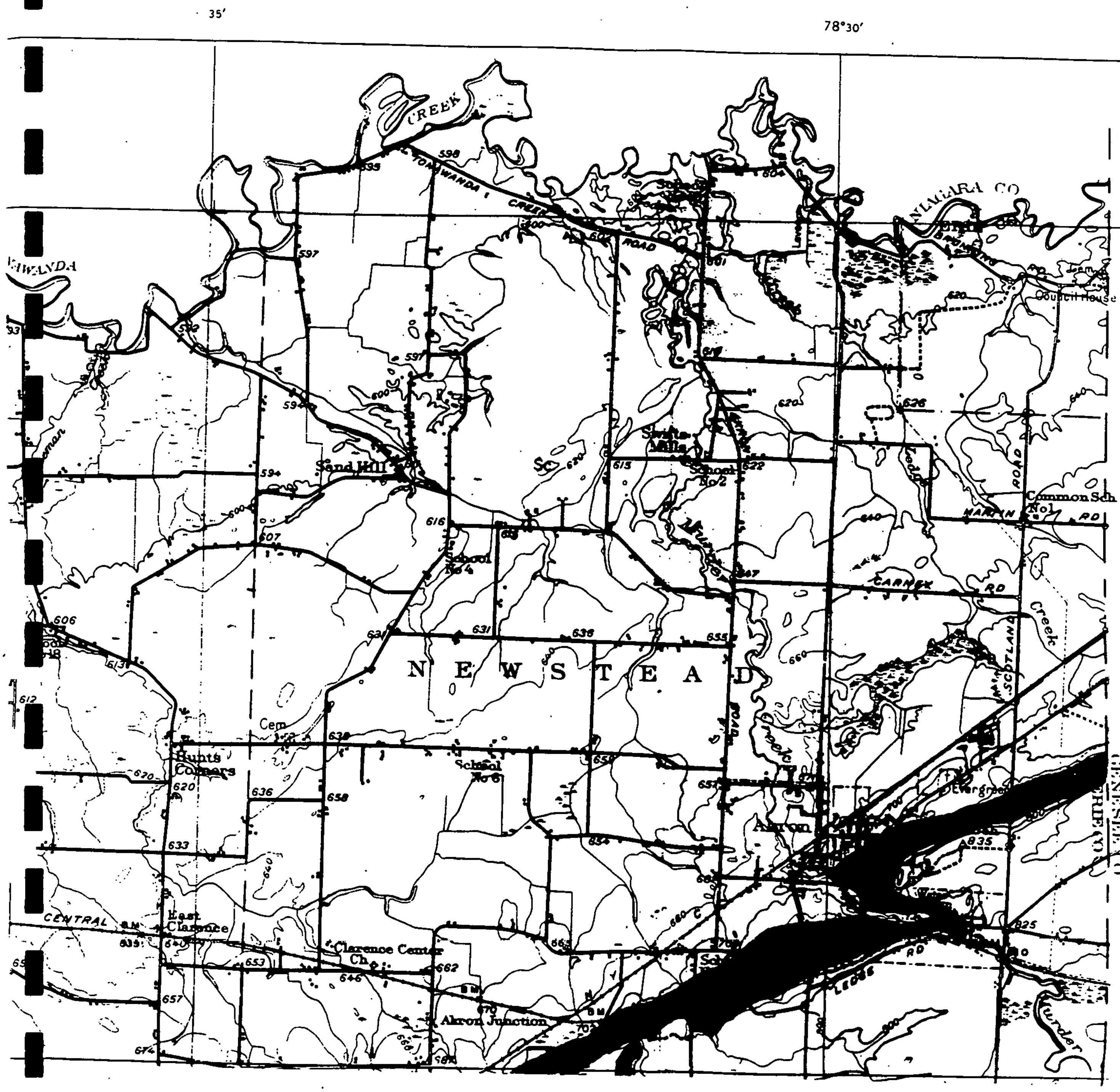
AGE AND CORRELATION: The Onondaga Limestone is generally dated as early Middle Devonian but comparison with the European standard section suggests a late Early Devonian age to some (Cooper *et al.* 1942). This formation has been traced eastward across New York State and southward into the Appalachian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

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

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

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

3


35'
78°30'
CREEK
TONAWANDA CREEK
ROAD
NIAGARA CO
Council House
Sand Hill
Swifts Mills
School No 2
School No 4
Common Sch No 1
MARTIN RD
CARNEY RD
Creek
SCOTLAND
NEWSTEAD
Cem
Hunts Corners
School No 6
Akron
Evergreen
GENESEE CO
CENTRAL
East Clarence
Clarence Center Ch
Akron Junction
LEDGE RD
Murder

and septaria; Middlesex Shale Member, black shale at base.

[redacted]

Genesee Formation

West River Shale Member, dark-gray shale with some very thin beds of black shale and siltstones; Genundewa Limestone Member, thin limestone containing Styliolina fissurella; Penn Yan Shale Member, thin unit of dark-gray shale; Geneseo Shale Member, thin unit of black shale at base.

DEVONIAN

Dmo

Moscow Formation

Windom Shale Member, medium-gray to olive-gray calcareous shale with many calcareous concretions; Kashong Shale Member, thin unit of soft gray shale at base. Thin lenses of Leicester Pyrite sometimes occur between the Moscow and Genesee Formations.

Dl

Ludlowville Formation

Tichenor Limestone Member, thin, massive, fossiliferous, resistant limestone occurs at top; Wanakah Shale Member, medium-gray, fossiliferous, calcareous shale with some calcareous concretions; Ledyard Shale Member, dark-gray calcareous shale; Centerfield Limestone Member, thin, massive limestone unit at base.

Hamilton Group

Dsk

Skaneateles Formation

Levanna Shale Member, dark-gray calcareous shale; Stafford Limestone Member, massive, fossiliferous limestone at base.

Dma

Marcellus Formation

Oatka Creek Shale Member, black calcareous shale with some calcareous concretions.

Do

Onondaga Limestone

Moorehouse Limestone Member, light-gray limestone containing numerous corals and considerable dark-gray chert nodules; Nedrow Member, intermixed light-gray limestone and dark-gray chert; Edgecliff Member, light-gray limestone with some light-gray chert nodules, locally represented by a coral bioherm.

UNCONFORMITY

SILURIAN

[redacted]

Akron Dolostone

Light-gray dolostone

[redacted]

Bertie Formation

Williamsville Member, light-gray argillaceous limestone; Scajaquada Member, interbedded dark-gray shale and argillaceous limestone; Falkirk Member, light-gray dolostone; Oatka Member, dark-gray shale with argillaceous limestone at base containing eurypterids.

Sc

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

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

by

A. M. La Sala, Jr.

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

in cooperation with

THE NEW YORK STATE CONSERVATION DEPARTMENT
DIVISION OF WATER RESOURCES

STATE OF NEW YORK
CONSERVATION DEPARTMENT
WATER RESOURCES COMMISSION

Basin Planning Report ENB-3

1968


(4)
NORTH

Interbedded sand and gravel deposits laid down by glacial streams. They were the last deposits to be formed in a particular valley. As a result, most deposits are thin and overlie lake deposits. They have a high permeability but will yield large supplies only where thick. At Batavia they exceed 70 feet in thickness and yield 500 to 1,200 gpm to properly constructed individual wells.

Lake Deposits

Interbedded clay, silt, and fine sand deposited in glacial lakes. Sandy parts of the deposits may yield small supplies, but otherwise the unit is not water yielding.

Ice-Contact Deposits

Interbedded sand and gravel deposited by glacial streams. Most ground-water supplies developed for municipalities are either exposed at the surface or buried beneath lake and outwash deposits. Yield about 500 gpm to properly constructed wells.

Till

Nonsorted rock material deposited from glacial ice, generally forming a thin mantle over the bedrock. Has a low permeability and will yield only small supplies (sufficient for a household) from large-diameter wells.

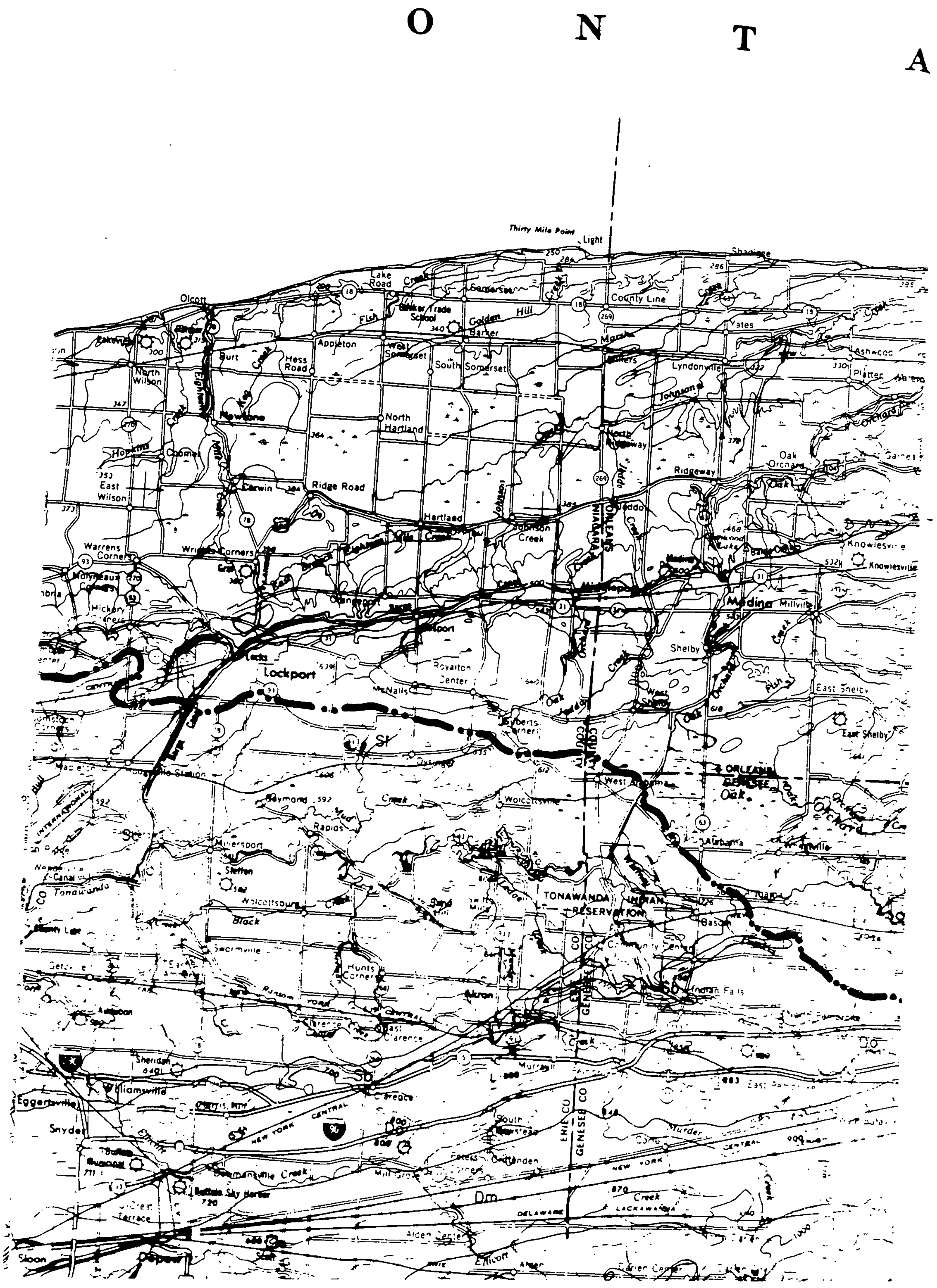
Bedrock Exposures

Exposures observed incidental to field studies.

Geologic Contact

Basin Boundary

Geology adapted from Broughton and others (1962) Buehler and Tesmer (1963), and Luther (1914)


O N T A
Thirty Mile Point
Light
Olcott
Lake Road
Somerset
Barker
Golden Hill
Appleton
West Somerset
South Somerset
Burt
Hess Road
North Wilson
County Line
Yates
Lyndonville
North Hartland
North Ridgeway
Ridgeway
Oak Orchard
East Wilson
Ridge Road
Hartland
Johnson Creek
Warrens Corners
Wrights Corners
Gasport
Middleport
Medina
Millville
Knowlesville
Lockport
Royalton Center
McNalls
Shelby
West Shelby
East Shelby
Orleans
Genesee
Niagara
West Alabama
Alabama
Wolcottsville
Rapids
Millersport
Tonawanda
Tonawanda Indian Reservation
Swormville
Hunts Corners
Akron
Indian Falls
Community Center
East Clarence
Clarence
Sheridan
Williamsville
Eggertsville
Snyder
Murder Creek
New York Central
Delaware
Lackawanna
Alden Center
Ellicott
Sloan
Depew
Buffalo Sky Harbor
Ellicott Creek
Erie Co
Genesee Co
Crittenden
Darien Center

EXPLANATION

4

SHALE UNITS

Paleozoic

Upper Devonian

Dct

Conneaut Group of Chadwick (1934)

Dc

Canadaway Group of Chadwick (1933)

Dj

Java Formation

Dw

West Falls Formation

Dg

Genesee and Sonyea Formations

Middle Devonian

Dl

Ludlowville and Moscow Shales

Dm

Marcellus and Skaneateles Shales

Note: Yields of wells range from less than 1 gpm to about 40 gpm, more commonly from 3 to 15 gpm.

LIMESTONE UNITS

Do

Onondaga Limestone

Upper Silurian

Sb

Bertie Limestone and Akron Dolomite

Note: Yields range from about 1 to 300 gpm; the largest yields are obtained in the western part of the outcrop belt. Yields of 100 gpm are generally obtainable in some parts of the outcrop belt, but yields of 30 gpm or less are more common.

Sc

Camillus Shale

Note: Yields of wells range from a few gallons per minute to 1,200 gpm. The larger yields (300 to 1,200 gpm) are obtained at places in the western end of the outcrop belt. The maximum yield

Silurian

Yields of wells

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

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

LIMESTONE UNIT

Bedding and lithology

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

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

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

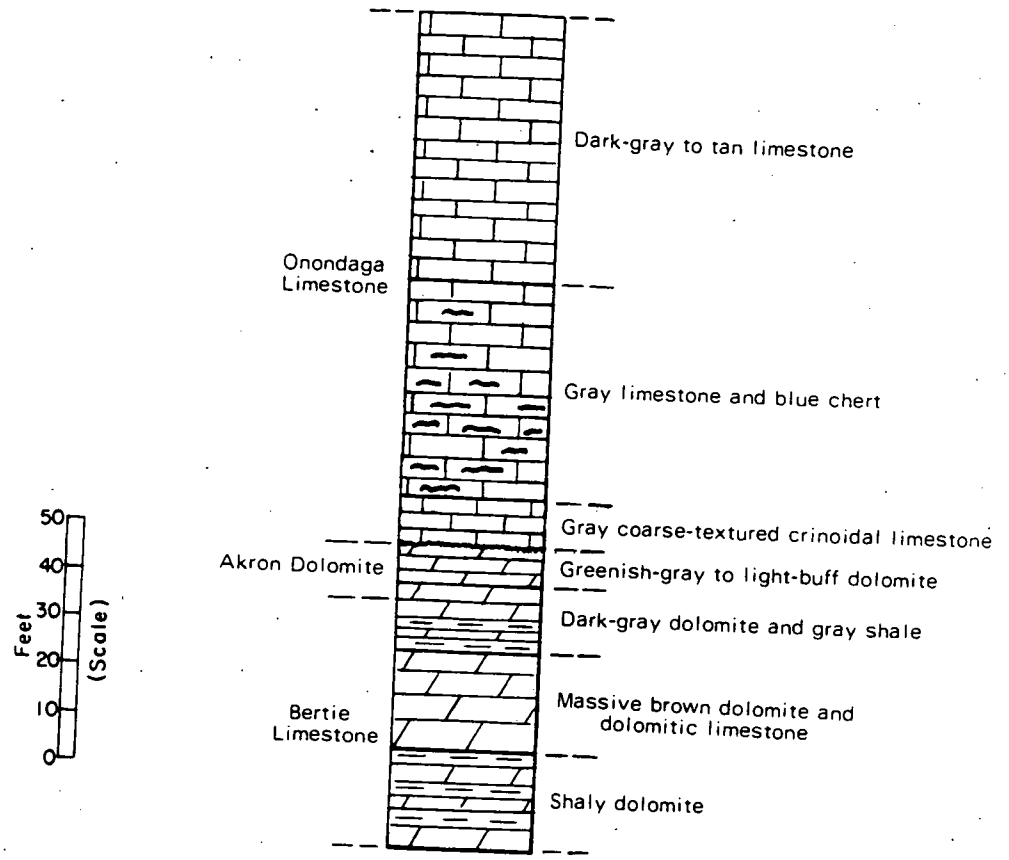


Figure 7.--Lithology of the limestone unit.

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

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

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

Water-bearing openings

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

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

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

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

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

Hydrologic and hydraulic characteristics

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

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

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

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

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

Yields of wells

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

in the lake and gradually filled it (fig. 8D).

Eventually the lake deposits built up to the threshold of the dam, or the dam was cut away by the water spilling over it, or the ice sheet retreated northward opening up the valley. Streams could then flow over the surface of the lake deposits and lay down a second sand and gravel deposit, an outwash deposit (fig. 8D). The sources of the stream waters were the wasting ice sheet (particularly so in southward drained valleys), small masses of wasting ice remaining in tributary valleys, and precipitation. The thickest and most extensive outwash deposits were formed in southward drained valleys and in zones peripheral to the ice sheet. With time, the ice sheet retreated still farther northward, the glacial streams ceased to flow, and glacial deposition came to an end.

As the ice sheet retreated farther north, the climate more nearly approached that of the present. A drainage system developed in response to precipitation. Streams began to incise channels into the deposits. Vegetation took hold as the weather warmed and helped stabilize the slopes. In time, with a change in regimen, the streams began to lay down alluvium (fig. 8E).

The sequence of events discussed above and shown in figure 8 is generalized. Nevertheless, it is useful in understanding the occurrence of the unconsolidated deposits, particularly in valley areas where they constitute an important source of ground water. In the following sections the lithology and water-bearing characteristics of each of the major types of deposits in the Erie-Niagara basin will be discussed.

TILL

As shown in plate 3, till is the most widespread of all the unconsolidated deposits in the Erie-Niagara basin. Till is essentially a nonsorted material whose character depends principally upon the types of rocks over which the ice passed and the vigor with which the ice crushed and abraded the rock. Till overlying the shale is dark gray and clayey or silty. In some areas, mainly on hillsides and terraces south of Cattaraugus Creek, part of the till is stony material. Till on the soluble rocks is light red and silty; in some morainic ridges it is mostly fine sand.

Thickness of the till varies considerably from a thin cover of 2 or 3 feet to more than 200 feet along the divides between Cattaraugus Creek and the northwestward flowing streams, such as Tonawanda, Buffalo, and Eighteenmile Creeks. On flat terraces mapped as till in Buttermilk Creek valley, the stony till is as much as 30 feet thick.

Only small supplies of water are available from till. The permeability of till is so small that wells with large wall areas are required to obtain even small supplies. This requirement for a large wall area is met by digging large-diameter wells.

REF 5

URS

URS COMPANY, INC.
[illegible]

JAN 21 1986

January 15, 1986

Mr. Robert Gaddis
Town of Akron Superintendent
21 Main Street
Akron, NY 14001

Dear Mr. Gaddis:

This is to confirm our telephone conversation of December 23, 1985, wherein you provided the following information regarding the Bernard Cope inactive waste site:

- The Town of Akron and area within a 3-mile radius of the site receive their water from a municipal supply pumped from a source in Bennington, N.Y.
- There are no surface water-supply intakes within 3 miles (free-flowing bodies) or 1 mile (static water bodies) downstream of the site.
- The Town of Akron has a backup water supply available from a well on Critternan Road (greater than 3 miles from the site).
- There are no groundwater wells in use within a 3-mile radius of the site.

We would appreciate if you would kindly review this information an after making any corrections necessary, return a signed copy to use to indicate your concurrence.

Sincerely,

URS COMPANY, INC.

Craig W. Pawlewski

Craig W. Pawlewski
Project Engineer

cc: V. Singh

I agree with the information as it is provided.

1/14/86 L
35015G
CWP:mm

REF 6

URS

URS COMPANY, INC.
625 DELAWARE AVE
BUFFALO, NEW YORK 14202
TEL: (716) 883-5525

April 3, 1986

Ms. Carol Borchert
Newstead Town Clerk
Church and John Streets
Akron, New York 14001

Dear Ms. Borchert:

This is to confirm our telephone conversation of April 2, 1986, wherein you provided the following information regarding the Town of Newstead's water supply:

- The Village of Akron ~~is supplied by~~ has a municipal water supply system. ~~-~~ supplies the Town of Newstead.
- The Town of Newstead has four water districts outside of the Village of Akron that serve approximately 155 customers.
- The majority of residents outside of the Village of Akron use private wells.

We would appreciate if you would kindly review this information an after making any corrections necessary, return a signed copy to use to indicate your concurrence.

Sincerely,

URS COMPANY, INC.

Craig W. Pawlowski

Craig W. Pawlowski
Project Engineer

cc: V. Singh

I agree with the information as it is provided.

Carole D Borchert
Carole Borchert

4/3/86L
015B4
CWP/bc

RECEIVED
URS COMPANY
APR 9 1986

JOB # _____

REF7

URS

URS COMPANY, INC.
625 DELAWARE AVE
BUFFALO, NEW YORK 14202
TEL: (716) 883-5525

April 3, 1986

Ms. Doreen Gross
1145 Main Street
Corfu, New York 14036

Dear Ms. Gross:

This is to confirm our telephone conversation of April 2, 1986, wherein you provided the following information regarding the water supply system for the Town of Pembroke:

- The Town of Pembroke is almost entirely supplied with potable water from private wells.
- The only exceptions are a small number of residents receiving water from the municipal supplies from the Village of Corfu and the Town of Batavia.

We would appreciate if you would kindly review this information an after making any corrections necessary, return a signed copy to use to indicate your concurrence.

Sincerely,

URS COMPANY, INC.

Craig W. Pawlewski

Craig W. Pawlewski
Project Engineer

cc: V. Singh

I agree with the information as it is provided.

Doreen Gross

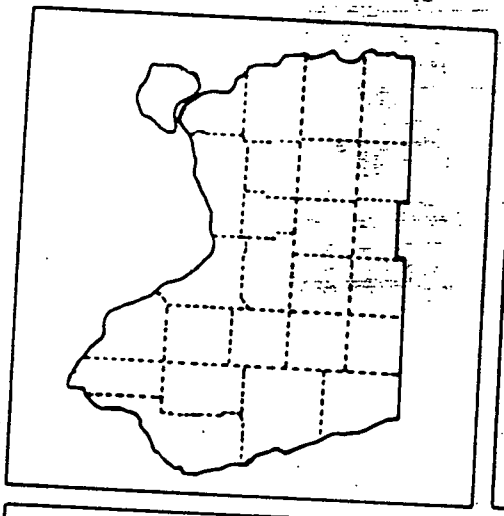
4/3/86L
015B4
CWP/bc

RECEIVED
URS COMPANY
APR 9 1986

JOB # _____

REF S

URS



Erie County Solid Waste Action

Plan Steering Committee

ERIE COUNTY SOLID WASTE MANAGEMENT IMPLEMENTATION PLAN

FINAL REPORT

NOV. 1980

URS COMPANY, INC.

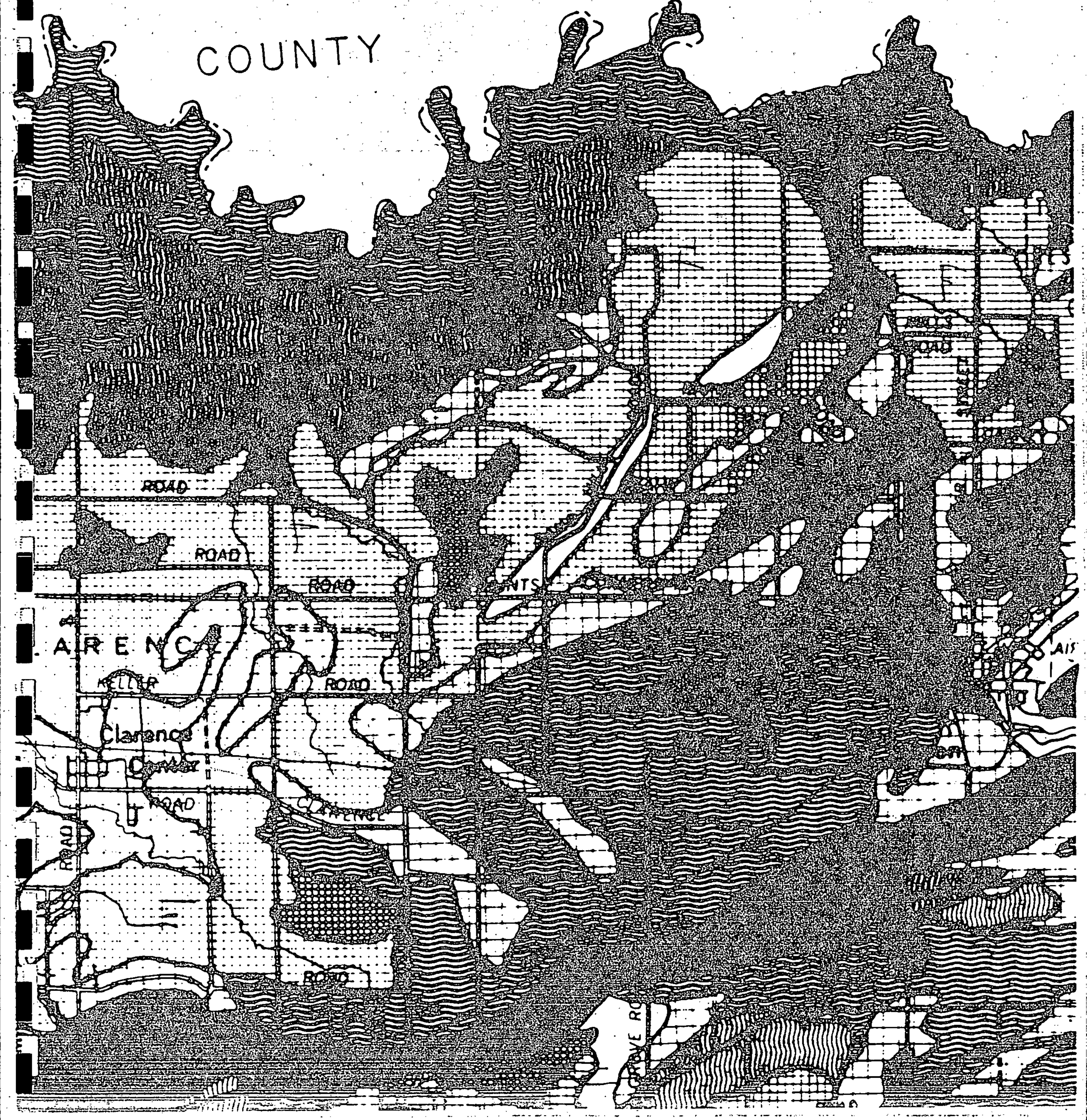
625 Delaware Ave.

Buffalo, N.Y. 14202

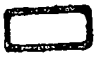
ACKNOWLEDGEMENTS

The preparation of this Solid Waste Management Action Plan was supported by a $50,000 Grant #D002156-01-0 from the United States Environmental Protection Agency administered through the New York State Department of Environmental Conservation, Division of Solid Waste Management.

(8)


COUNTY
ROAD
ROAD
ROAD
ROAD
KELLER
Clarence
ROAD
CLARENCE
ROAD
ROAD

LEGEND



PERCHED > 4'

PERCHED 2'-4'

SEMI-PERCHED > 4'

APPARENT > 4' (SANDY)

APPARENT > 4' (GRAVELY)

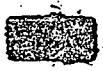
PERCHED 0.5'-2'

SEMI-PERCHED 2'-4'

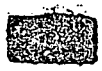
SEMI-PERCHED 0.5'-2'

APPARENT 2'-4'

PERCHED < 0.5'



SEMI-PERCHED < 0.5'



APPARENT < 2'

FREQUENT FLOODING

MISCELLANEOUS

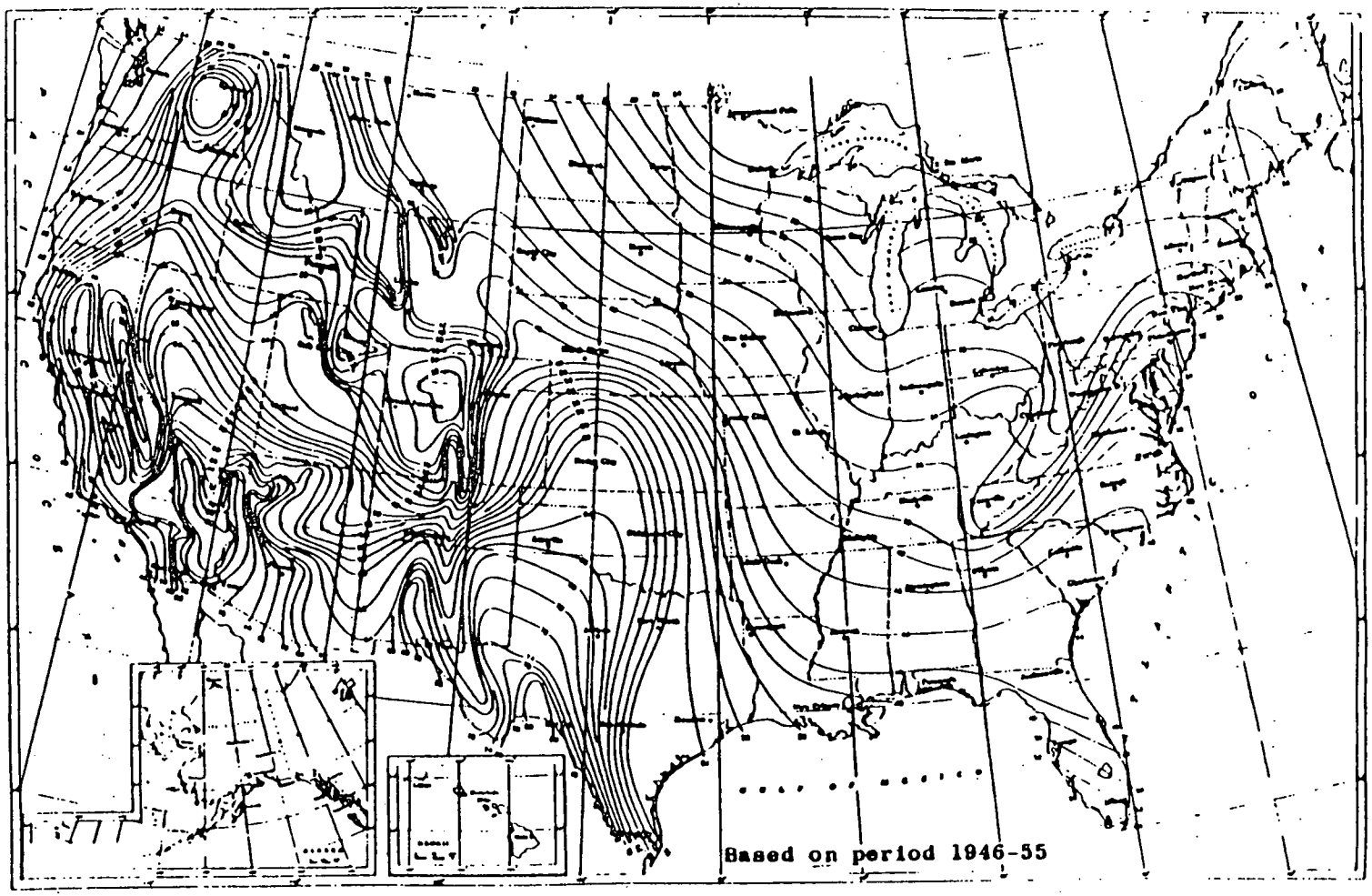


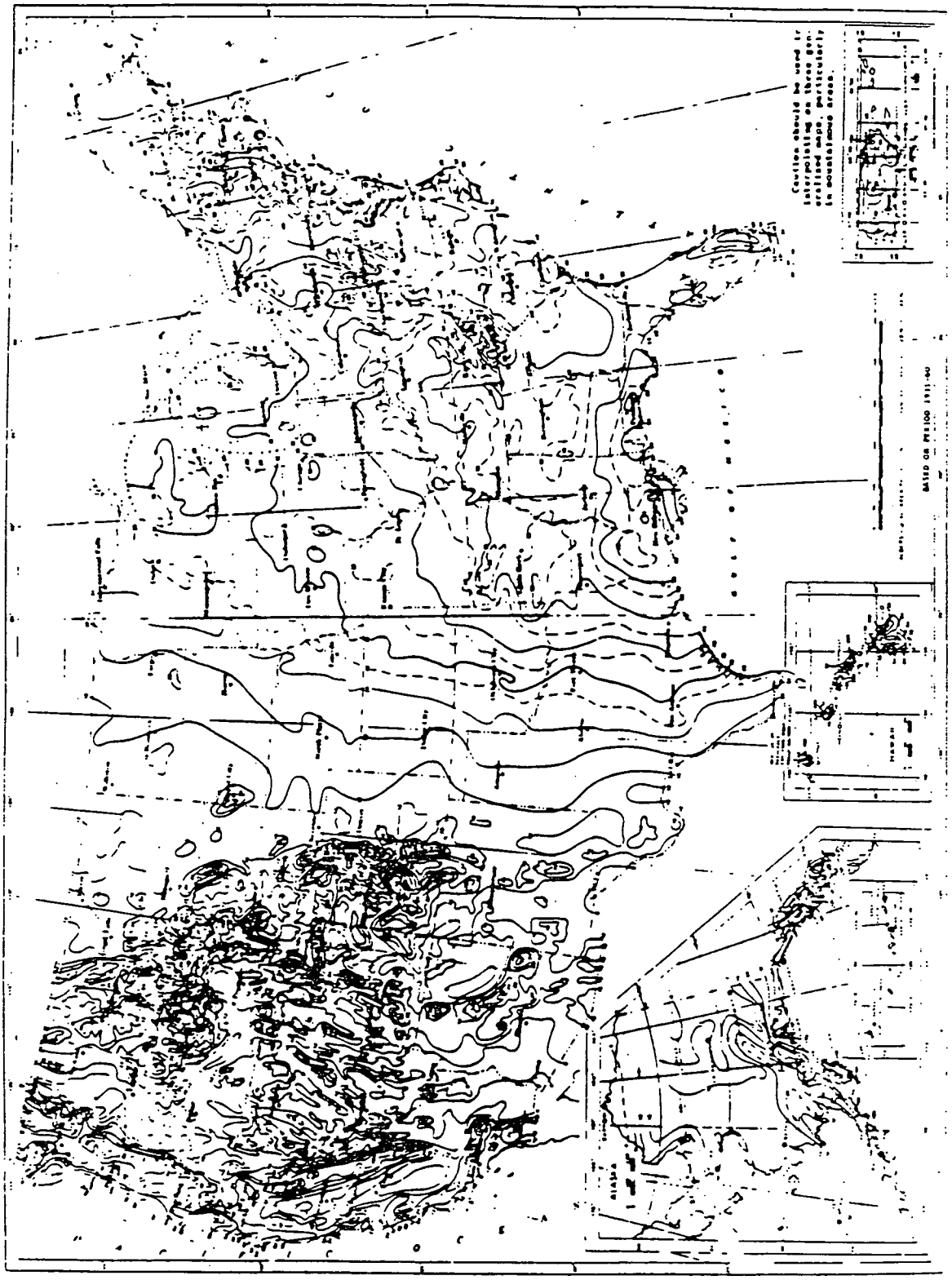
Figure 4

Mean Annual Lake Evaporation (In Inches)

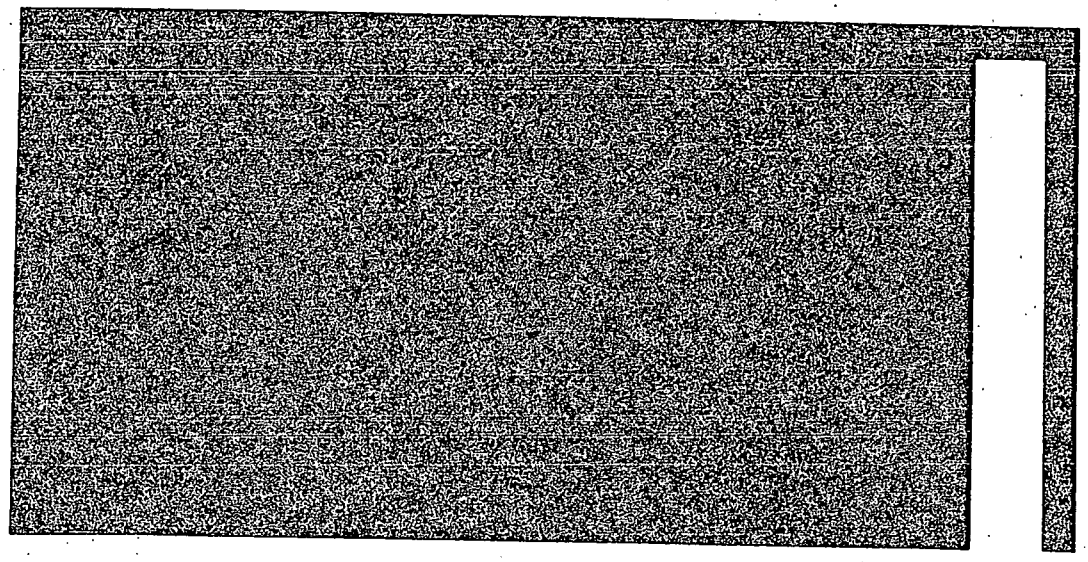
Source: Climatic Atlas of the United States, U.S. Department of Commerce, National Climatic Center, Ashville, N.C., 1979.

REF9

REF9



RET 10



R. Allan Freeze

Department of Geological Sciences
University of British Columbia
Vancouver, British Columbia

John A. Cherry

Department of Earth Sciences
University of Waterloo
Waterloo, Ontario

GROUNDWATER

Prentice-Hall, Inc.
Englewood Cliffs, New Jersey 07632

REF10

Table 2.2 Range of Values of Hydraulic Conductivity and Permeability

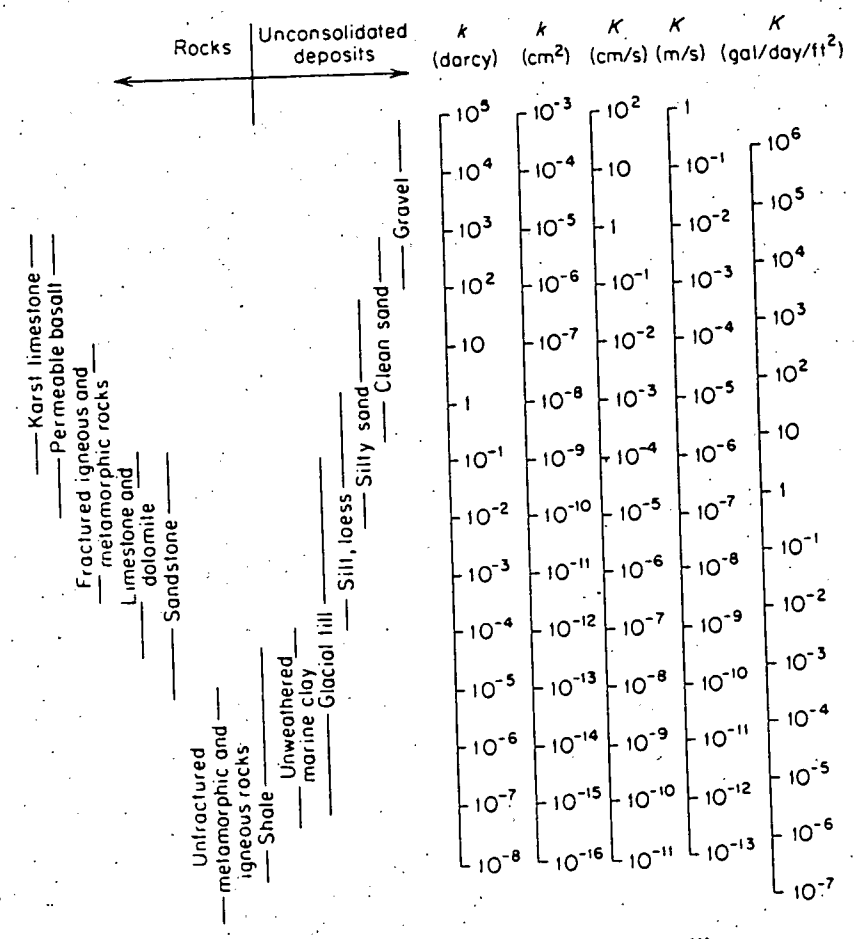


Table 2.3 Conversion Factors for Permeability and Hydraulic Conductivity Units

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

*To obtain k in ft^2, multiply k in cm^2 by 1.08×10^{-3}.

REF 1!

URS

AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

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

May 1, 1986

Mr. Robert Gaddis
Town of Akron Superintendent
21 Main Street
Akron, New York 14001

Dear Mr. Gaddis:

This is to confirm our telephone conversation of April 2, 1986 wherein you provided the following information regarding the Town of Newstead water districts:

- The Town of Newstead has four water districts outside the Village of Akron.

- The four districts are as follows:

  1) Crittenden Road to Main Street - east to county line and west on Main Street about 1/2 mile.

  2) West from Village of Akron on Clarence Center Road to Cummings and about 1/4 mile south on Cummings.

  3) From Village line to Cedar and north on Cedar about 1.5 mile.

  4) From Village line on Bloomingdale to county line.

We would appreciate if you would kindly review this information and after making any corrections necessary, return a signed copy to us to indicate your concurrence.

Sincerely,

URS COMPANY, INC.

Craig W. Pawlewski

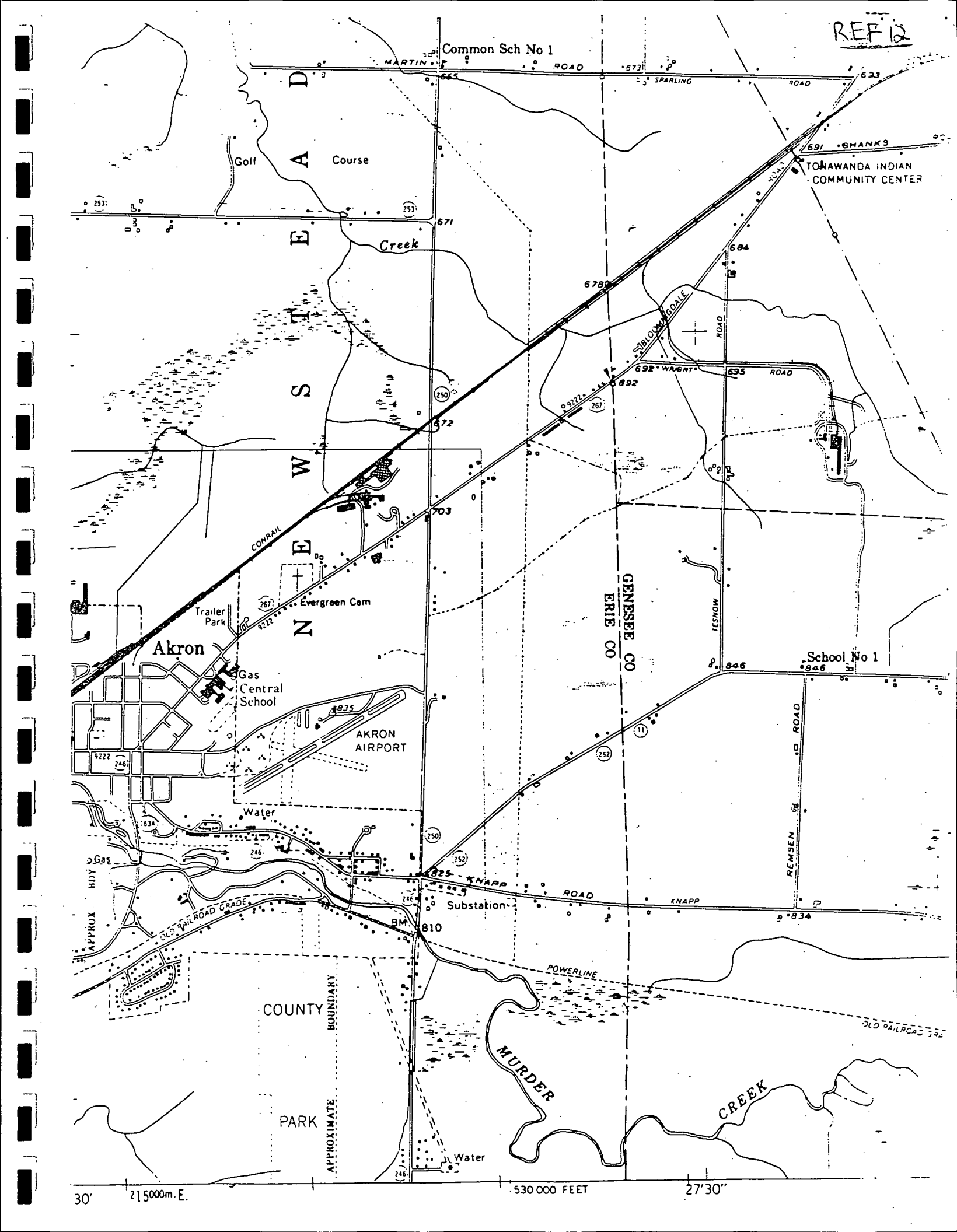
Craig W. Pawlewski
Project Engineer

cc: V. Singh

CWP/bc
5/1/86L
015B5

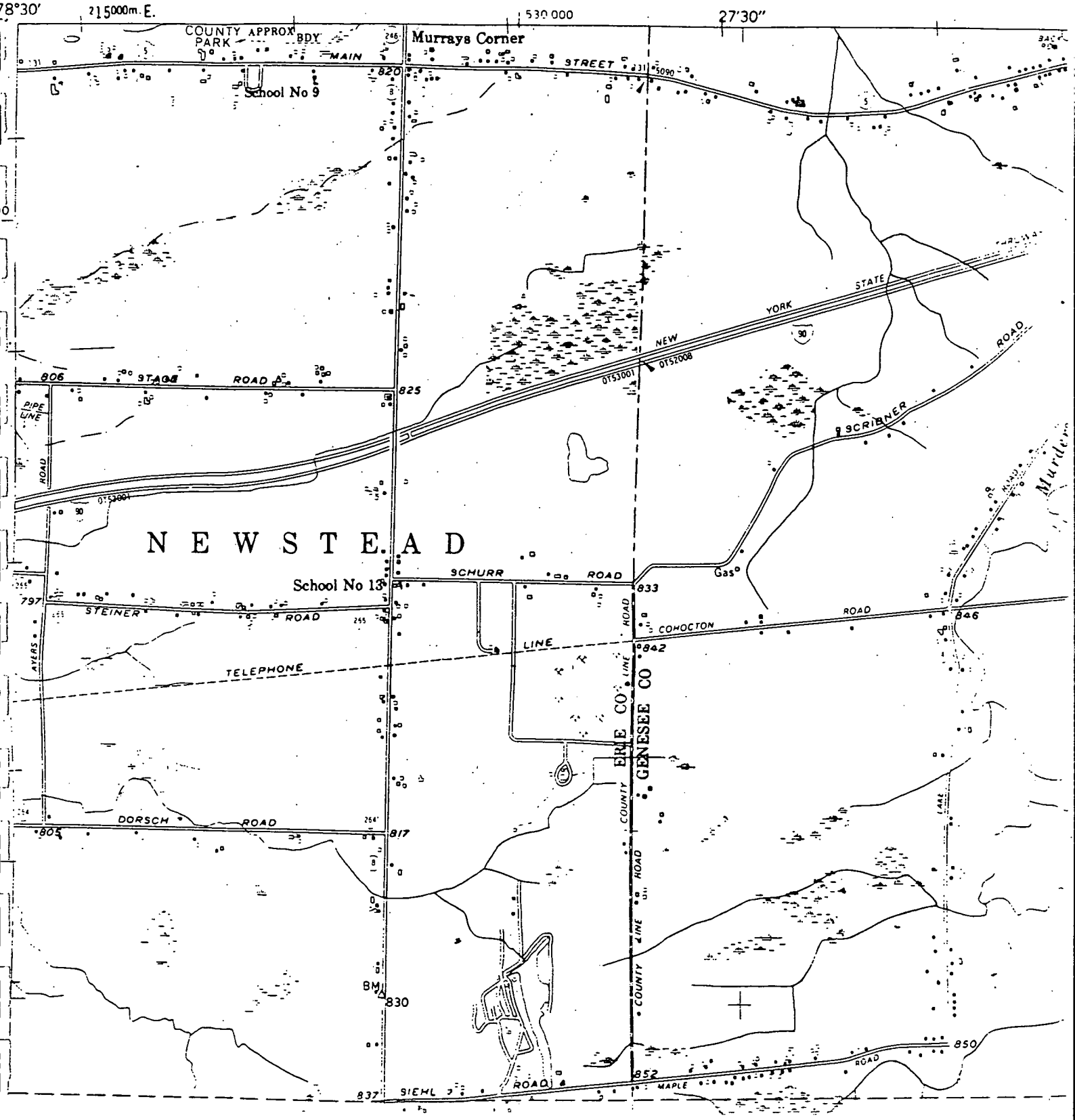
I agree with the information as it is provided.

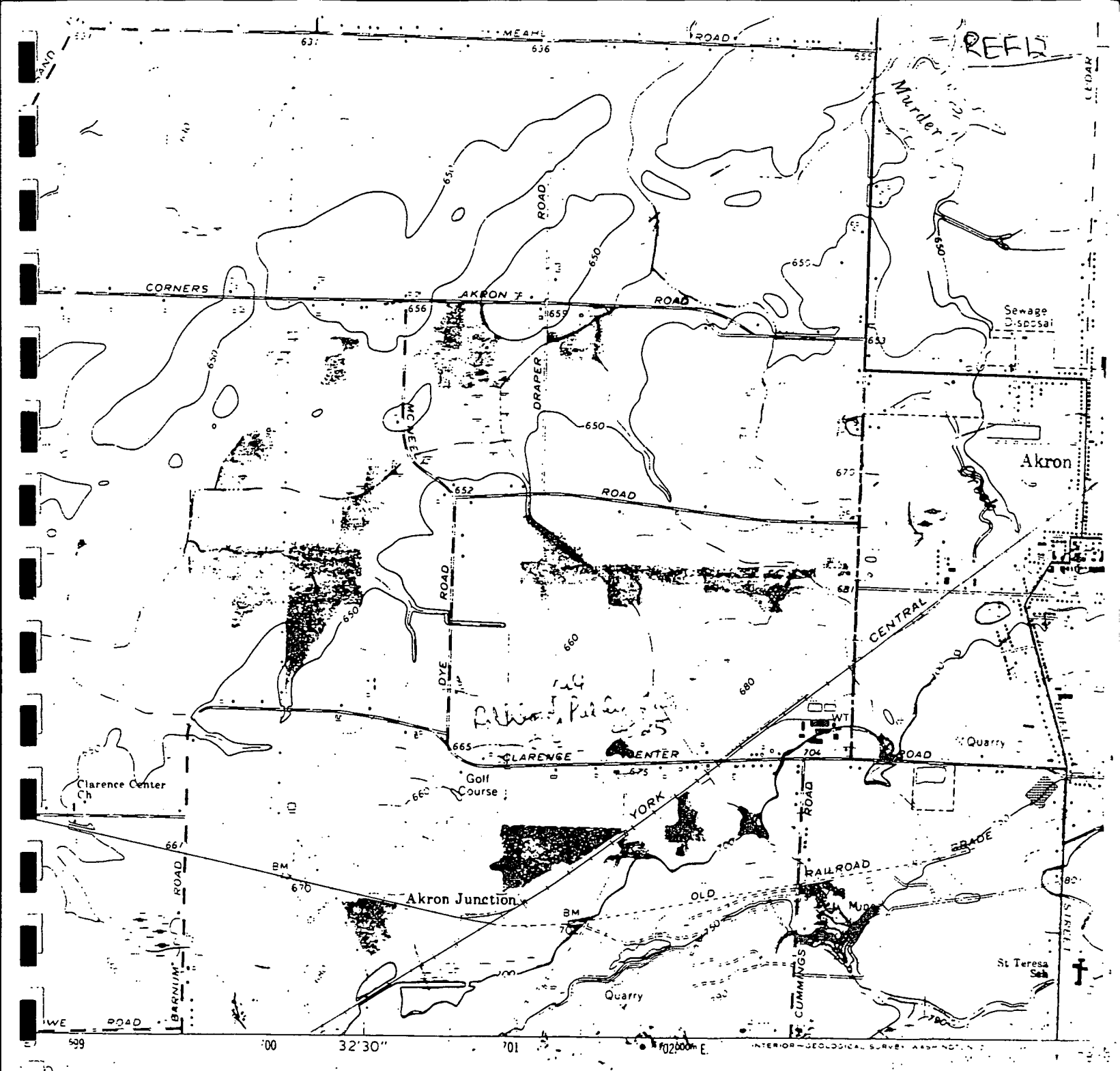
_____
Robert Gaddis


REF 12
Common Sch No 1
MARTIN ROAD
SPARLING ROAD
Golf Course
Creek
TONAWANDA INDIAN COMMUNITY CENTER
HANKS ROAD
BLOOMINGDALE ROAD
WRIGHT ROAD
CONRAIL
Trailer Park
Evergreen Cem
Akron
Gas
Central School
AKRON AIRPORT
GENESEE CO
ERIE CO
IESNOW ROAD
School No 1
REMSEN ROAD
Water
Gas
APPROX HWY
OLD RAILROAD GRADE
KNAPP ROAD
Substation
BM 810
POWERLINE
COUNTY BOUNDARY
APPROXIMATE
PARK
MURDER CREEK
Water
30'
215000m.E.
530 000 FEET
27'30"

REF12

NEW YORK STATE
DEPARTMENT OF TRANSPORTATION





1 MILE

5000 6000 7000 FEET

1 KILOMETER

10 FEET

LEVEL

ROAD CLASSIFICATION

Heavy-duty

Medium-duty

Light-duty

Unimproved dirt

State Route

NEW YORK

QUADRANGLE LOCATION

WOLCOTTSVILLE, N. Y.

SE/4 LOCKPORT 15 QUADRANGLE

N4300—W7830 7.5

1965

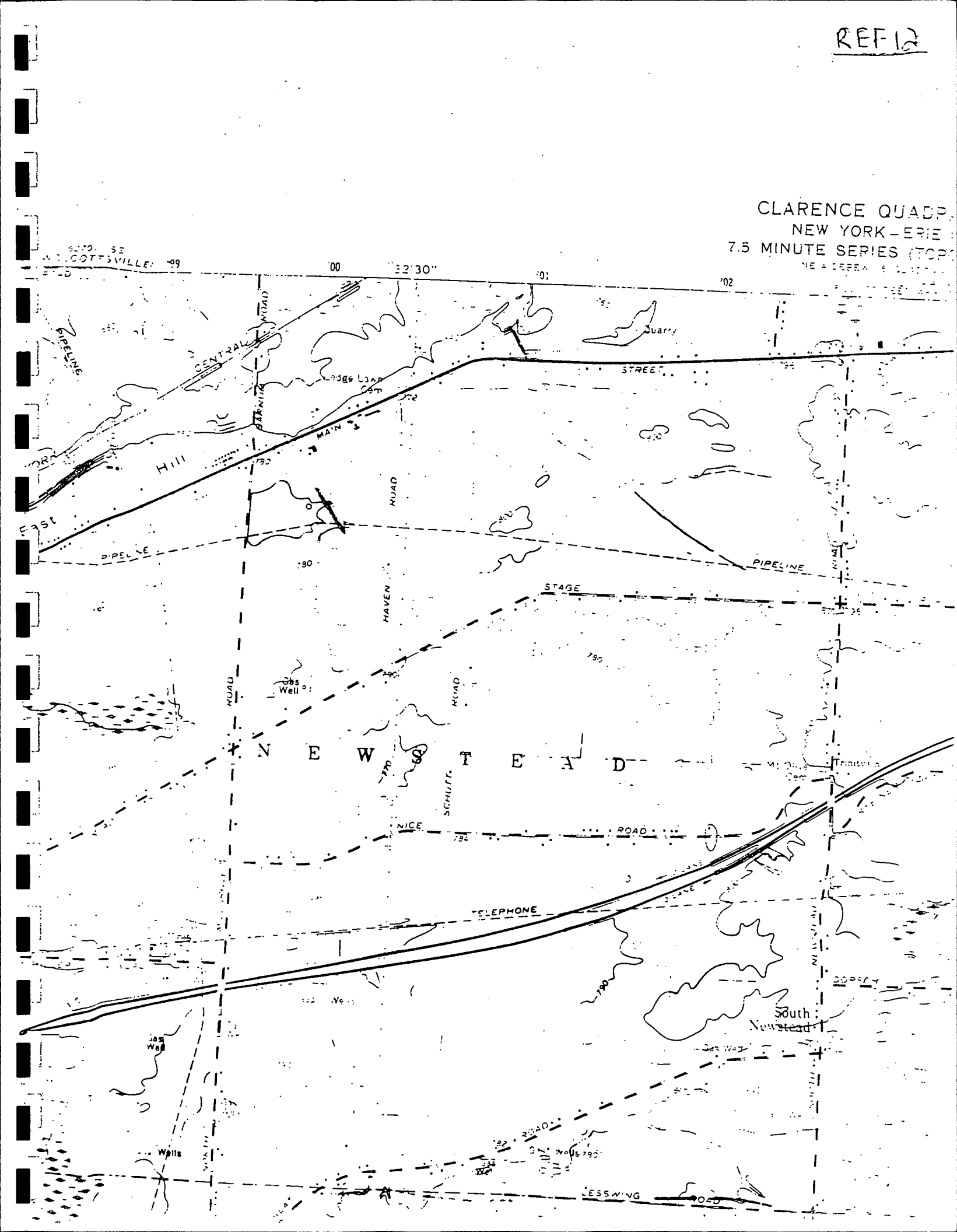
AMS 5270 II SE—SERIES V832

F ACCURACY STANDARDS

Y. WASHINGTON, D. C. 20242

SYMBOLS IS AVAILABLE ON REQUEST

REF 12


CLARENCE QUADP
NEW YORK–ERIE
7.5 MINUTE SERIES
32'30"
00
01
02
STREET
Quarry
PIPELINE
CENTRAL
MAIN
Hill
East
PIPELINE
PIPELINE
STAGE
ROAD
Gas Well
N E W S T E A D
NICE
ROAD
TELEPHONE
South Newstead
Wells
LESSWING
ROAD

REF 13

UNITED STATES DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE -21 South Grove Street, East Aurora, N.Y. 14052

January 28, 1986

Craig Pawlewski
URS Company Inc.
625 Delaware Avenue
Buffalo, New York 14202

Dear Craig,

Enclosed are soil maps and descriptions for the Bernard Cope, Old Bricky and North Collins landfill site in Erie County. I have included the information requested in your letter of January 16, 1986, on the maps where possible. Regarding the irrigation water supplies, I do not believe there are any in the vicinity of any of the sites.

I have drawn a one and two mile radius circle on each map. The agricultural land is outlined in yellow and the prime soil units can be determined from the soil descriptions. The agricultural lands were determined on 1978 photographs that have been field checked.

The residential areas are outlined in red on the maps. I believe the only park involved is Akron Falls County Park adjacent to the Cope site. However, Alpine Recreation Area, a private facility is located just south of Route 240 across from the old Bricky and site.

I hope this information is adequate for your purposes.

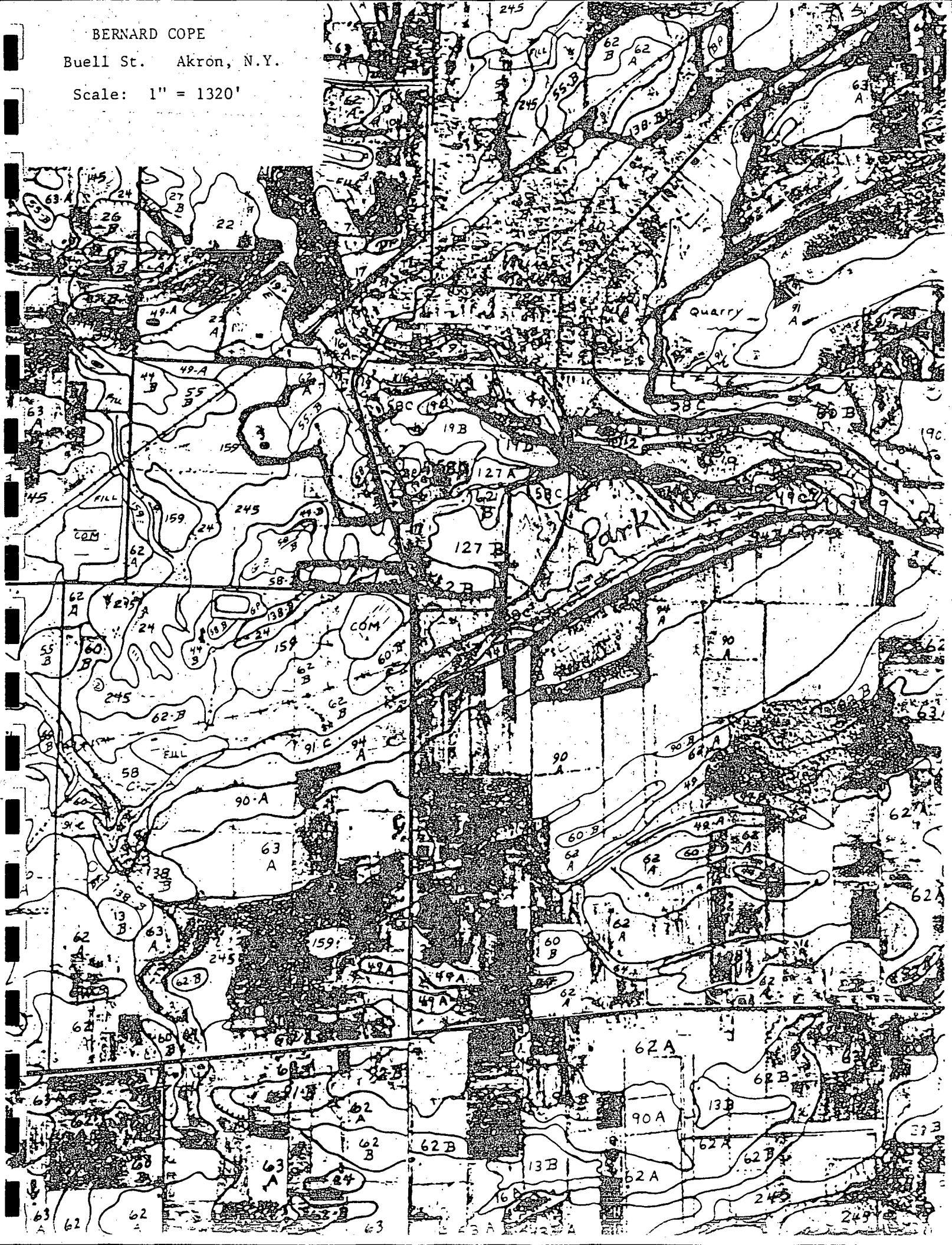
Sincerely,

Douglas J. Dettenrieder
District Conservationist

BERNARD COPE

Buell St. Akron, N.Y.

Scale: 1" = 1320'



URS Engineers - Craig Pawlewski
Buffalo, New York

January 21, 1986

SOIL DESCRIPTIONS

02 **Niagara silt loam, fan.**
Deep, nearly level, somewhat poorly drained, high lime, silt loam soil formed in silty lake sediments of alluvial fans. The available water capacity is high. Permeability is moderately slow in the subsoil.
LCU III-W K=.49 prime

2 **Hamlin silt loam.**
Deep, nearly level, well drained, medium lime, silt loam soil formed in silty stream deposits. The available water capacity is high. Permeabilility is moderate.
LCU I K=.49 prime

4 **Middlebury silt loam.**
Deep, nearly level, moderately well drained to somewhat poorly drained, medium lime, silt loam soil formed in stream deposits. The available water capacity is high. Permeability is moderate
LCU II-W K=.49 prime

5 **Teel silt loam.**
Deep, nearly level, moderately well drained and well drained medium lime, silt loam soil formed in silty stream deposits. The available water capacity is high. Permeability is moderate.
LCU I-W K=.49 prime

6A **Farnham shaly silt loam,fan,** 0 to 3 percent slopes.
Deep, nearly level, moderately well drained, low lime, shaly silt loam soil formed in shaly water-sorted materials on fans. The available water capacity is low. Permeability is moderately rapid.
LCU II-W K=.17 prime

7 **Wayland silt loam.**
Deep, nearly level, poorly to very poorly drained, medium lime, silt loam soil formed in silty stream deposits. The available water capacity is high. Permeability is moderate to moderately slow in the surface soil and generally slow in underlying layers.
LCU II-W No K & T values assigned. important

9 **Fluvaquents and Udifluvents.**
Moderately deep to deep, nearly level, well drained to poorly drained, high to low lime, variable soils formed in recent stream deposits. The available water capacity and permeability is variable.
LCU V-W None

10D **Chenango gravelly loam,** 15-25 percent slopes.
Deep, moderately steep, well drained, low lime, gravelly loam soil formed mainly in gravel and sand. The available water capacity is low. Permeability is moderate to rapid in the surface soil and subsoil and generally rapid or very rapid in the substratum.
LCU IV-E K=.24

11A **Varysburg gravelly loam,** 0 to 3 percent slopes.
Deep, nearly level, well drained and moderately well drained, medium lime, gravelly loam soil formed in gravelly material and underlying lake sediments. The available water capacity is generally low. Permeability is rapid in the gravelly part and generally slow or very slow in the underlying lake sediments.
LCU II-W K=.24 prime

11B **Varysburg gravelly loam,** 3 to 8 percent slopes.
Deep, gently sloping, well drained and moderately well drained, medium lime, gravelly loam soil formed in gravelly material and underlying lake sediments. The available water capacity is generally low. Permeability is rapid in the gravelly part and generally slow or very slow in the underlying lake sediments.
LCU II-E K=.24 prime

11C **Varysburg gravelly loam,** 8 to 15 percent slopes.
Deep, sloping, well drained and moderately well drained, medium lime, gravelly loam soil formed in gravelly material and underlying lake sediments. The available water capacity is generally low. Permeability is rapid in the gravelly part and generally slow or very slow in the underlying lake sediments.
LCU III-E K=.24 important

15B **Blasdell shaly silt loam,** 3 to 8 percent slopes.
Deep, gently sloping, well drained, low lime, shaly silt loam soil formed in water sorted material dominated by fragments from local shale bedrock. The available water capacity ranges from low to moderate. Permeability is generally moderately rapid.
LCU II-E K=.17 prime

15C,81c **Blasdell shaly silt loam,** 8 to 15 percent slopes.
Deep, sloping, well drained, low lime, shaly silt loam soil formed in water sorted material dominated by fragments from local shale bedrock. The available water capacity ranges from low to moderate. Permeability is generally moderately rapid.
LCU III-E K=.17 important

15D,81D **Blasdell shaly silt loam,** 15 to 25 percent slopes.
Deep, moderately steep, well drained, low lime, shaly silt loam soil formed in water sorted material dominated by fragments from local shale bedrock. The available water capacity ranges from low to moderate. Permeability is generally moderately rapid.
LCU IV-E K=.17

16B **Phelps gravelly loam,** 3 to 8 percent slopes.
Deep, gently sloping, moderately well drained, high lime, gravelly loam soil formed in loamy material overlying sand and gravel. The available water capacity is moderate. Permeability is moderate in the loamy material and generally rapid in the underlying sand and gravel.
LCU II-E K=.24 prime

17 **Red Hook silt loam.**
Deep, nearly level, somewhat poorly drained, medium lime, silt loam soil formed in gravelly deposits. The available water capacity is generally low. Permeability is moderate.
LCU III-W K=.28 important

19B **Arkport very fine sandy loam,** 3 to 8 percent slopes.
Deep, gently sloping, well drained, medium lime, sandy soil formed in coarse loamy deposits dominated by fine and very fine sand. The available water capacity is moderate. Permeability is moderately rapid.
LCU-IIE K=.17

19D **Arkport very fine sandy loam,** 15 to 25 percent slopes.
Deep, moderately steep, well drained, medium lime, sandy soil formed in coarse loamy deposits dominated by fine and very fine sand. The available water capacity is moderate. Permeability is moderately rapid.
LCU IV-E K=.17

19E **Arkport very fine sandy loam,** 25 to 40 percent slopes.
Deep, steep, well drained, medium lime, sandy soil formed in coarse loamy deposits dominated by fine and very fine sand. The available water capacity is moderate. Permeability is moderately rapid.
LCU VII- K=.17

21A **Rhinebeck gravelly loam,** 0 to 3 percent slopes.
Deep, nearly level, somewhat poorly drained, medium to high lime, gravelly loam soil formed in water sorted deposits and clayey lake sediments. The available water capacity is moderate to high. Permeability is rapid in the gravelly part and slow in the clayey part.
LCU III-W K=.49 prime

23 **Swormville silt loam.**
Deep, nearly level, somewhat poorly drained, medium lime, silt loam soil formed in silty lake or stream sediments. The available water capacity is moderate to high. Permeability is moderately slow to slow in the subsoil and moderately rapid in the substratum.
LCU III-W K=.49 prime

24 **Lamson very fine sandy loam.**
Deep, nearly level, poorly to very poorly drained, high lime, sandy soil formed in deposits dominated by fine and very fine sand. The available water capacity is moderate to high. Permeability is generally moderately rapid.
LCU IV-W K=.32 important

25 **Lamson mucky very fine sandy loam.**
Deep, nearly level, very poorly drained, high lime, sandy soil formed in deposits dominated by fine and very fine sand. The available water capacity is high. Permeability is generally moderately rapid.
LCU VI-W K=.32 important

27A **Elnora loamy fine sand,** 0 to 3 percent slopes.
Deep, nearly level, moderately well drained, low lime, sandy soil formed in water-laid or windblown deposits dominated by fine sand. The available water capacity is low. Permeability is generally moderately rapid.
LCU II-W K=.24 important

27B **Elnora loamy fine sand,** 3 to 8 percent slopes.
Deep, gently sloping, moderately well drained, low lime, sandy soil formed in water-laid or windblown deposits dominated by fine sand. The available water capacity is low. Permeability is generally moderately rapid.
LCU II-E K=.24 important

28A **Farnham shaly silt loam,** 0 to 3 percent slopes.
Deep, nearly level, moderately well drained, low lime, shaly silt loam soil formed in water-sorted material. The available water capacity is low. Permeability is moderately rapid.
LCU II-W K=.17 prime

28B **Farnham shaly silt loam,** 3 to 8 percent slopes.
Deep, gently sloping, moderately well drained, low lime, shaly silt loam soil formed in shaly water-sorted material. The available water capacity is low. Permeability is moderately rapid.
LCU II-E K=.17 prime

32 **Canandaigua silt loam.**
Deep, nearly level, poorly drained and very poorly drained, high lime, silt loam soil formed in silty lake sediments. The available water capacity is high. Permeability is moderately slow
LCU IV-W K=.49 important

38B **Collamer silt loam,** 3 to 8 percent slopes.
Deep, gently sloping, moderately well drained, high lime, silty soil formed mainly in silt and very fine sand lake sediments. The available water capacity is high. Permeability is moderately slow.
LCU IIE K=.49 prime

42 **Canandaigua mucky silt loam.**
Deep, nearly level, poorly drained, high lime, mucky silt loam soil formed in silty lake sediments. The available water capacity is high. Permeability is moderately slow.
LCU VI-W K=.49 important

44A **Galen very fine sandy loam,** 0 to 3 percent slopes.
Deep, nearly level, moderately well drained, medium lime, sandy soil formed mainly in deposits of fine and very fine sand. The available water capacity is moderate. Permeability is moderate.
LCU II-W K=.17 prime

44B **Galen very fine sandy loam,** 3 to 8 percent slopes.
Deep, gently sloping, moderately well drained, medium lime, sandy soil formed mainly in deposits of fine and very fine sand. The available water capacity is moderate. Permeability is moderate.
LCU II-E K=.17 prime

45A **Niagara silt loam,** 0 to 3 percent slopes.
Deep, nearly level, somewhat poorly drained, high lime, silt loam soil formed in silty lake sediments. The available water capacity is high. Permeability is moderately slow.
LCU III-W K=.49 PRIME

50 **Cheektowaga very fine sandy loam.**
Deep, nearly level, poorly and very poorly drained, high lime, very fine sandy loam soil formed in sandy surface deposits and underlaid by clayey lake sediments at depths of 20 to 40 inches. The available water capacity is generally low. Permeability is slow or very slow in underlying clayey lake sediments.
LCU IV-W K=.32 important

55B **Galen fine sandy loam, till substratum,** 3-8% slopes.
Deep, gently sloping, well drained and moderately well drained, medium lime, sandy soil formed mainly in deposits of fine and very fine sand and underlain by glacial till. The available water capacity is moderate. Permeability is moderate to 42 inches or more.
LCU II-E K=.17 prime

56A **Volusia silt loam,** 0 to 3 percent slopes.
Deep, nearly level, somewhat poorly drained, low lime, silt loam soil formed in fine loamy glacial till. It has a very firm fragipan at a depth of 15 to 50 inches. The available water capacity is moderate. Permeability is generally moderate above the fragipan and slow to very slow in the fragipan.
LCU III-W K=.37 important

56B **Volusia silt loam,** 3 to 8 percent slopes.
Deep, gently sloping, somewhat poorly drained, low lime, silt loam soil formed in fine loamy glacial till. It has a very firm fragipan at a depth of 15 to 50 inches. The available water capacity is moderate. Permeability is generally moderate above the pan, and slow to very slow in the fragipan.
LCU III-W K=.37 important

57B **Mardin silt loam,** 3 to 8 percent slopes.
Deep, gently sloping, moderately well drained and well drained, low lime, silt loam soil formed in coarse loamy glacial till. It has a very firm fragipan at a depth of 16 to 50 inches. The available water capacity is moderate. Permeability is moderate above the fragipan and slow or very slow in the fragipan and substratum.
LCU III-E K=.24 important

58B **Cazenovia silt loam,** 3 to 8 percent slopes.
Deep, gently sloping, well drained to moderately well drained, high lime, silt loam soil formed in fine loamy glacial till and reworked lake sediments. The available water capacity is moderate to high. Permeability is generally moderately slow in the subsoil, and slow in the substratum.
LCU IIE K=.37

58C **Cazenovia silt loam,** 8 to 15 percent slopes.
Deep, sloping, well drained to moderately well drained, high lime, silt loam soil formed in fine loamy glacial till and reworked lake sediments. The available water capacity is moderate to high. Permeability is generally moderately slow in the subsoil, and slow in the substratum.
LCU III-E K=.37 important

59A **Ovid silt loam, 0** to 3 percent slopes.
Deep, nearly level, somewhat poorly drained, high lime, silt loam soil formed in fine loamy glacial till and reworked lake sediments. The available water capacity is moderate to high. Permeability is slow.
LCU III-W K=.37 prime

60A **Honeoye loam,** 0 to 3 percent slopes.
Deep, nearly level, well drained, high lime soil formed in loamy glacial till. The available water capacity is moderate to high. Permeability is moderate in the surface soil and subsoil, but generally slow in the underlying substratum.
LCU I K=.24 prime

60B **Honeoye loam,** 3 to 8 percent slopes.
Deep, gently sloping, well drained, high lime soil formed in loamy glacial till. The available water capacity is moderate to high. Permeability is moderate in the surface soil and subsoil but generallly slow in the substratum.
LCU II-E K=.24 prime

62A **Lima loam,** 0 to 3 percent slopes.
Deep, nearly level, moderately well drained, high lime, soil formed in loamy glacial till. The available water capacity is moderate to high. Permeability is moderate in the surface soil and subsoil and generally slow in the substratum.
LCU II-W K=.24 prime

62B **Lima loam,** 3 to 8 percent slopes.
Deep, gently sloping, moderately well drained, high lime soil formed in loamy glacial till. The available water capacity is moderate to high. Permeability is moderate in the surface soil and subsoil and generally slow in the substratum.
LCU II-E K=.24 prime

64 **Lyons silt loam.**
Deep, nearly level, poorly drained and very poorly drained, high lime silt loam soil formed in fine loamy glacial till. The available water capacity is moderate to high. Permeability is moderate in the surface soil, moderately slow in the subsoil and slow or very slow in the substratum.
LCU IV-W K=.32 important

65D **Mardin channery silt loam,** 15 to 25 percent slopes.
Deep, moderately steep, moderately well drained and well drained, low lime, channery silt loam soil formed in coarse loamy glacial till. It has a very firm fragipan at a depth of 16 to 50 inches. The available water capacity is moderate. Permeability is moderate above the fragipan and slow or very slow in the fragipan and substratum.
LCU IV-E K=.24

66B **Valois gravelly silt loam,** 3 to 8 percent slopes.
Deep, gently sloping, well drained, low lime, gravelly silt loam soil formed in coarse loamy glacial till. The available water capacity is low to moderate. Permeability is moderate to rapid.
LCU II-E K=.24 prime

66E **Mardin-Valois complex,** 25 to 40 percent slopes.
Deep, steep, well drained, low lime, soils formed in coarse loamy glacial till. The Mardin soil has a very firm fragipan at a depth of 16 to 50 inches. The available water capacity is generally moderate. Permeability ranges from moderate to slow.
LCU VI-E K=.37

67B **Langford channery silt loam,** 3 to 8 percent slopes.
Deep, gently sloping, moderately well drained and well drained, medium lime, channery silt loam soil formed in coarse loamy glacial till. The available water capacity is moderate. Permeability is moderate above the fragipan and slow or very slow in and below the fragipan.
LCU II-E K=.24 important

67C **Langford channery silt loam,** 8 to 15 percent slopes.
Deep, sloping, moderately well drained and well drained, medium lime, channery silt loam soil formed in coarse loamy glacial till. The available water capacity is moderate. Permeability is moderate above the fragipan and slow or very slow in and below the fragipan.
LCU IIIE-5 K=.24 important

67D **Langford channery silt loam,** 15 to 25 percent slopes.
Deep, moderately steep, moderately well drained and well drained, medium lime, channery silt loam soil formed in coarse loamy glacial till. The available water capacity is moderate. Permeability is moderate above the fragipan and slow or very slow in and below the fragipan.
LCU IVE-5 K=.24

68A **Erie channery silt loam,** 0 to 3 percent slopes.
Deep, nearly level, somewhat poorly drained, medium lime, channery silt loam formed in coarse loamy glacial till. It has a very firm fragipan at a depth of 14 inches to 40 inches. The available water capacity is moderate. Permeability is moderate above the fragipan and very slow in the fragipan.
LCU IIIW K=.37 important

68B **Erie channery silt loam,** 3 to 8 percent slopes.
Deep, gently sloping, somewhat poorly drained, medium lime, channery silt loam soil formed in coarse loamy glacial till. It has a very firm fragipan at a depth of 14 inches to 40 inches. The available water capacity is moderate. Permeability is moderate above the fragipan and very slow in the fragipan.
LCU IIIW K=.37 important

68C **Erie channery silt loam,** 8 to 15 percent slopes.
Deep, sloping, somewhat poorly drained, medium lime, channery loam soil formed in coarse loamy glacial till. It has a very firm fragipan at a depth of 14 inches to 40inches. The available water capacity is moderate. Permeability is moderate above the fragipan and very slow in the fragipan.
LCU IIIW K=.37 important

70B **Mardin channery silt loam,** 3 to 8 percent slopes.
Deep, gently sloping, moderately well drained and well drained, low lime, channery silt loam soil formed in coarse loamy glacial till. It has a very firm fragipan at a depth of 16 to 50 inches. The available water capacity is moderate. Permeability is moderate above the fragipan and slow or very slow in the fragipan and substratum.
LCU IIE-5 K=.24 important

72A **Darien silt loam,** 0 to 3 percent slopes.
Deep, nearly level, somewhat poorly drained, high lime, silt loam soil formed in fine loamy glacial till. The available water capacity is moderate to high. Permeability is generally slow
LCU IIIW K=.37 prime

72B **Darien silt loam,** 3 to 8 percent slopes.
Deep, gently sloping, somewhat poorly drained, high lime, silt loam soil formed in fine loamy glacial till. The available water capacity is moderate to high. Permeability is generally

73A **Derb silt loam,** 0 to 3 percent slopes.
Deep, nearly level, somewhat poorly drained, low lime, silt loam soil formed in loamy glacial till. The available water capacity is moderate. Permeability is moderate or moderately slow in the subsoil and slow beneath.
LCU III-W K=.32 Important

73B **Derb silt loam,** 3 to 8 percent slopes.
Deep, gently sloping, somewhat poorly drained, low lime, silt loam soil formed in loamy glacial till. The available water capacity is moderate. Permeability is moderate or moderately slow in the subsoil and slow beneath.
LCU III-W K=.32 Important

73C **Derb silt loam,** 8 to 15 percent slopes.
Deep, sloping, somewhat poorly drained, low lime, silt loam soil formed in loamy glacial till. The available water capacity is moderate. Permeability is moderate or moderately slow in the subsoil and slow beneath.
LCU III-E K=.32 Important

74A **Marilla shaly silt loam,** 0 to 3 percent slopes.
Deep, nearly level, moderately well drained, low lime, shaly silt loam soil formed in very shaly glacial till. It has a very firm fragipan at a depth of 18 to 55 inches. The available water capacity is moderate. Permeability is moderate above the fragipan and slow or very slow in the fragipan and substratum.
LCU II-W K=.24 Important

74B **Marilla shaly silt loam,** 3 to 8 percent slopes.
Deep, gently sloping, moderately well drained, low lime, shaly silt loam soil formed in very shaly glacial till. It has a very firm fragipan at a depth of 18 to 55 inches. The available water capacity is moderate. Permeability is moderate above the fragipan and slow to very slow in the fragipan and substratum.
LCU II-E K=.24 Important

74C **Marilla shaly silt loam,** 8 to 15 percent slopes.
Deep, sloping, moderately well drained, low lime, shaly silt loam soil formed in very shaly glacial till. It has a very firm fragipan at a depth of 18 to 55 inches. The available water capacity is moderate. Permeability is moderate above the fragipan and slow or very slow in the fragipan and substratum.
LCU III-E K=.24 Important

75A **Chippewa silt loam.**
Deep, nearly level, poorly drained, medium lime, silt loam soil formed in fine loamy glacial till. It has a very firm fragipan at a depth of 13 to 36 inches. The available water capacity is moderate. Permeability is moderate above the fragipan and very slow in the fragipan and below.
LCU IV-W K=.32 Important

76A **Ilion silt loam.**
Deep, nearly level, poorly drained, high lime, silt loam soil formed in fine loamy glacial till. The available water capacity is moderate to high. Permeability is generally slow or very slow.
LCU IV-W K=.37 Important

77
64 **Lyons silt loam.**
Deep, nearly level, poorly drained and very poorly drained, high lime silt loam soil formed in fine loamy glacial till. The available water capacity is moderate to high. Permeability is moderate in the surface soil, moderately slow in the subsoil and slow or very slow in the substratum.
LCU IV-W K=.32 Important

80 **Canadice silt loam, shaly till substratum.**
Deep, nearly level, poorly drained, high lime, silt loam soil formed in clayey lake sediments overlying shaly glacial till. The available water capacity is high. Permeability is moderate to slow in the surface layers and generally very slow in lower layers.
LCU IV-W K=.49 Important

82A **Hornell silt loam,** 0 to 3 percent slopes.
Deep, nearly level, somewhat poorly drained, low lime, silt loam soil formed in clayey glacial till and underlain by shale bedrock. The available water capacity is moderate. Permeability is slow or very slow.
LCU III-W K=.37 Important

82B **Hornell silt loam,** 3 to 8 percent slopes.
Deep, gently sloping, somewhat poorly drained, low lime, silt loam soil formed in clayey glacial till and underlaid by shale bedrock. The available water capacity is moderate. Permeability is slow or very slow.
LCU III-W K=.37 Important

82C **Hornell silt loam,** 8 to 15 percent slopes.
Deep, sloping, somewhat poorly drained, low lime, silt loam soil formed in clayey glacial till and underlaid by shale bedrock. The available water capacity is moderate. Permeability is slow or very slow.
LCU IV-E K=.37 Important

82D **Schuyler silt loam,** 15 to 25 percent slopes.
Deep, moderately steep, moderately well drained, low lime, silt loam soil formed in fine loamy glacial till. The available water capacity is moderate. Permeability is moderate to a depth of about 2 feet, and moderately slow or slow below this depth.
LCU VI-E K=.37

82E **Schuyler silt loam,** 25 to 40 percent slopes.
Deep, steep, moderately well drained, low lime, silt loam soil formed in fine loamy glacial till. The available water capacity is moderate. Permeability is moderate to a depth of about 2 feet, and moderately slow or slow below this depth.
LCU VII-E K=.37

86B **Manlius shaly silt loam,** 3 to 8 percent slopes.
Moderately deep, gently sloping, excessively well drained to moderately well drained, low lime, shaly silt loam soil formed in very shaly glacial till 20 to 40 inches thick over shale bedrock. The available water capacity is low to moderate. Permeability is generally moderately rapid above the bedrock.
LCU II-E K=.20 important

86C **Manlius shaly silt loam**3 to 15 percent slopes.
Moderately deep, sloping, excessively well drained to moderately well drained, low lime, shaly silt loam soil formed in very shaly glacial till 20 to 40 inches thick over shale bedrock. The available water capacity is low to moderate. Permeability is generally moderately rapid above the bedrock.
LCU III-E K=.20 important

86D **Manlius shaly silt loam,** 15 to 25 percent slopes.
Moderately deep, moderately steep, excessively well drained to moderately well drained, low lime, shaly silt loam soil formed in very shaly glacial till 20 to 40inches thick over shale bedrock. The available water capacity is low. Permeability is generally moderately rapid above the bedrock.
LCU IV-E K=.20

86E **Manlius shaly silt loam,** 25 to 35 percent slopes.
Moderately deep, steep, excessively well drained to moderately well drained, low lime, shaly silt loam soil formed in very shaly glacial till 20 to 40 inches thick over shale bedrock. The availabale water capacity is low. Permeability is generally moderately rapid above the bedrock.
LCU VI-E K=.20

86F **Manlius shaly silt loam,** 35 to 50 percent slopes.
Moderately deep, very steep, excessively well drained to moderately well drained, low lime, shaly silt loam soil formed in very shaly glacial till 20 to 40 inches thick over shale bedrock. The available water capacity is low. Permeability is generally moderately rapid above the rock.
LCU VII-E K=.20

87A **Orpark silty clay loam,** 0 to 3 percent slopes.
Moderately deep, nearly level, somewhat poorly drained, [illegible] silt loam soil formed in fine loamy glacial till that is 20 to 40 inches thick over shale bedrock. The available water capacity is moderate. Permeability is moderately slow.
LCU III-W K=.24 important

87B **Orpark silty clay loam,** 3 to 8 percent slopes.
Moderately deep, gently sloping, somewhat poorly drained, low lime, silt loam soil formed in fine loamy glacial till that is 20 to 40 inches thick over shale bedrock. The available water capacity is moderate. Permeability is moderately slow.
LCU III-W K=.24 important

87C **Orpark silty clay loam,** 8 to 15 percent slopes.
Moderately deep, sloping, somewhat poorly drained, low lime, silt loam soil formed in fine loamy glacial till that is 20 to 40 inches thick over shale bedrock. The available water capacity is moderate. Permeability is moderately slow.
LCU III-E K=.24 important

89A **Patchin silt loam,** 0 to 3 percent slope.
Moderately deep, nearly level, poorly drained, low lime, silt loam soil formed in fine loamy glacial till that is 20 to 40 inches thick over shale bedrock. The available water capacity is moderate. Permeability is moderately slow
LCU IV-W K=.37 important

90A **Wassaic silt loam,** 0 to 3 percent slopes.
Moderately deep, nearly level, well drained and moderately well drained, medium to high lime, silt loam soil formed in loamy glacial till that is 20 to 40inches thick over limestone bedroock. The available water capacity is low to moderate. Permeability is moderate above the rock.
LCU II-S K=.24 prime

91A **Benson very cherty loam,** 0 to 3 percent slopes.
Shallow, nearly level, somewhat excessively or excessively drained, high lime, very cherty loam soil formed in thin glacial material that is 10 to 20 inches thick over limestone bedrock. The available water capacity is very low. Permeability is moderate.
LCU IV-S K=.20 important

91B **Benson very cherty loam,** 3 to 8 percent slopes.
Shallow, gently sloping, somewhat excessively or excessively drained, high lime, very cherty loam soil formed in thin glacial material, that is 10 to 20 inches thick over limestone bedrock. The available water capacity is very low. Permeability is moderate.
LCU IV-S K=.20 important

91C **Benson very cherty loam,** 8 to 15 percent slopes.
Shallow, sloping, somewhat excessively or excessively drained, high lime, very cherty loam soil formed in thin glacial material, that is 10 to 20 inches thick over limestone bedrock. The available water capacity is very low. Permeability is moderate.
LCU IV-E K=.20

91E Wassaic-Rock outcrop complex, 25 to 40 percent slopes.
Moderately deep to very shallow with 10 percent outcropping, steep, well drained to moderately well drained, loamy to stony soil complex formed in glacial till that is 0 to 40 inches thick over limestone bedrock. The available water capacity and permeability are variable, depending upon the depth to rock.
LCU VII-E K-.24

92B Benson-Rock outcrop complex, 3 to 8 percent slopes.
Shallow, gently sloping, somewhat excessively drained, high lime, very cherty loam soil formed in thin glacial material that is 10 to 20 inches thick over limestone bedrock. Includes 20 percent rock outcrop. The available water capacity is very low. Permeability is generally moderate above the rock.
LCU VIII-S K=.20

93 Newstead loam.
Moderately deep, nearly level, somewhat poorly drained, high lime, gravelly loam soil formed in coarse loamy glacial till that is 20 to 40 inches thick over limestone bedrock. The available water capacity is moderate to low. Permeability is moderate above the rock.
LCU III-E K=.28 important

94A Farmington cherty loam, 0to 3 percent slopes.
Shallow, nearly level, well drained, high lime, cherty loam soil formed in glacial till that is 10 to 20 inches thick over limestone bedrock. The available water capacity is low. Permeability is moderate.
LCU III-S K=.28 important

101 Palms muck.
Deep, nearly level, very poorly drained, medium lime, muck soil formed in organic deposits and underlaid by loamy mineral soil material at depths of 16 inches or more. The available water capacity is generally high. Permeability is moderately rapid in the organic layers and moderate in the loamy material.
LCU III-W No K & T values assigned.

104 Scio silt loam.
Deep, nearly level, moderately well drained, low lime, silt loam soil formed in wind or water deposited silt and very fine sand. The available water capacity is moderate to high. Permeability is generally moderate.
LCU II-W K=.49 prime

112 Rock outcrop.
A miscellaneous area that consists of very shallow soils and bare rock associated with gorges and bedrock escarpments. The available water capacity is generally very low. Permeability is generally non-existant except for cracks in the rock and in soil material above the rock.
LCU VIII-S

115B **Alton Finely Gravelly Loam**, 3-8 percent slopes.
Deep, gently sloping, well drained, medium lime gravelly loam soil formed in beach and delta deposits. The available water capacity is low to moderate. Permeability is rapid in the subsoil and rapid to very rapid in the substratum.
LCU-IIE K=.20 Prime

127A **Claverack loamy fine sand**, 0 to 3 percent slopes.
Deep, nearly level, moderately well drained, medium lime, sandy soil formed mainly in fine sand and is underlaid by clayey lake sediments. The available water capacity is low to moderate. Permeability is rapid in the sandy part and very slow in the underlying clay and silt.
LCU II-W K=.17 important

127B **Claverack loamy fine sand**, 3 to 8 percent slopes.
Deep, gently sloping, moderately well drained, medium lime, sandy soil formed mainly in fine sand and is underlaid by clayey lake sediments. The available water capacity is low to moderate. Permeability is rapid in the sandy part and very slow in the underlying clay and silt.
LCU II-W K=.17 important

133A **Churchville silt loam**, 0 to 3 percent slopes.
Deep, nearly level, somewhat poorly drained, high lime, silt loam soil formed in clayley lake sediments and underlaid by loamy glacial till. The available water capacity is moderate to high. Permeability is slow to very slow.
LCU III-W K=.49 important

145
40A **Raynham silt loam**, 0 to 3 percent slopes.
Deep, nearly level, somewhat poorly drained, high lime, silt loam soil formed in silty lake sediments. The available water capacity is moderate to high. Permeability is generally moderate in the surface soil, moderately slow in the subsoil and slow in the substratum.
LCU III-W K=.49

159 **Kendaia silt loam.**
Deep, nearly level, somewhat poorly drained, high lime, silt loam soil formed in loamly glacial till. The available water capacity is moderate to high. Permeability is moderately slow in the subsoil and generally slow in underlying layers.
LCU III-W K=.32 prime

168A **Volulsia channery silt loam**, 0 to 3 percent slopes.
Deep, nearly level, somewhat poorly drained, low lime, channery silt loam soil formed in fine loamy glacial till. It has a very firm fragipan at a depth of 15 to 50 inches. The available water capacity is moderate to low. Permeability is generally moderate above the pan, and slow to very slow in the fragipan.
LCU III-W K=.24 important

168B **Volusia channery silt loam,** 3 to 8 percent slopes.
Deep, gently sloping, somewhat poorly drained, low lime, channery silt loam soil formed in fine loamy glacial till. It has a very firm fragipan at a depth of 15 inches to 50 inches. The available water capacity is moderate to low. Permeability is generally moderate above the pan, and slow to very slow in the fragipan.
LCU III-W K=.24 important

215B **Chenango gravelly loam,** 3 to 8 percent slopes.
Deep, gently sloping, well drained, low lime, gravelly loam soil formed mainly in gravel and sand. The available water capacity is low. Permeability is moderate to rapid in the surface soil and subsoil and generally rapid or very rapid in the underlying substratum.
LCU II-E K=.24 prime

216B **Castile gravelly loam,** 3 to 8 percent slopes.
Deep, gently sloping, moderately well drained, low lime, gravelly loam soil formed mainly in gravel and sand deposits. The available water capacity is low to moderate. Permeability is generally rapid.
LCU II-E K=.24 prime

245 **Niagara silt loam, till substratum.**
Deep, nearly level, somewhat poorly drained, high lime, silt loam soil formed in silty lake sediments and underlaid by glacial till at depths greater than 40 inches. The available water capacity is high. Permeability is moderately slow in the subsoil and slow or very slow in the substratum.
LCU III-W K=.49 prime

Fill. **Udorthents, smoothed.**
A miscellaneous area that consists mainly of variable, earthy fill and inorganic waste from human activity that has been dumped, spread and smoothed. This fill material is generally placed in areas which were formerly depressions or occupied by wet soils. Water capacity and permeability is variable.

Com **Urban land.**
A miscellaneous area where at least 80 percent or slightly more of the surface is covered by asphalt, concrete, buildings, or other impervious surfaces. The available water capacity is generally non-existant. Permeability is generally limited by the impermeable surfaces

BP **Borrow pit, Pits, borrow.**
A miscellaneous area that consists of excavations primarily in well drained and moderately well drained soils. The available water capacity and permeability is variable.

GP **Pits, gravel**
A miscellaneous area that consists of excavations of gravelly areas of sand and gravel. The available water capacity is generally low. Permeability is generally rapid.

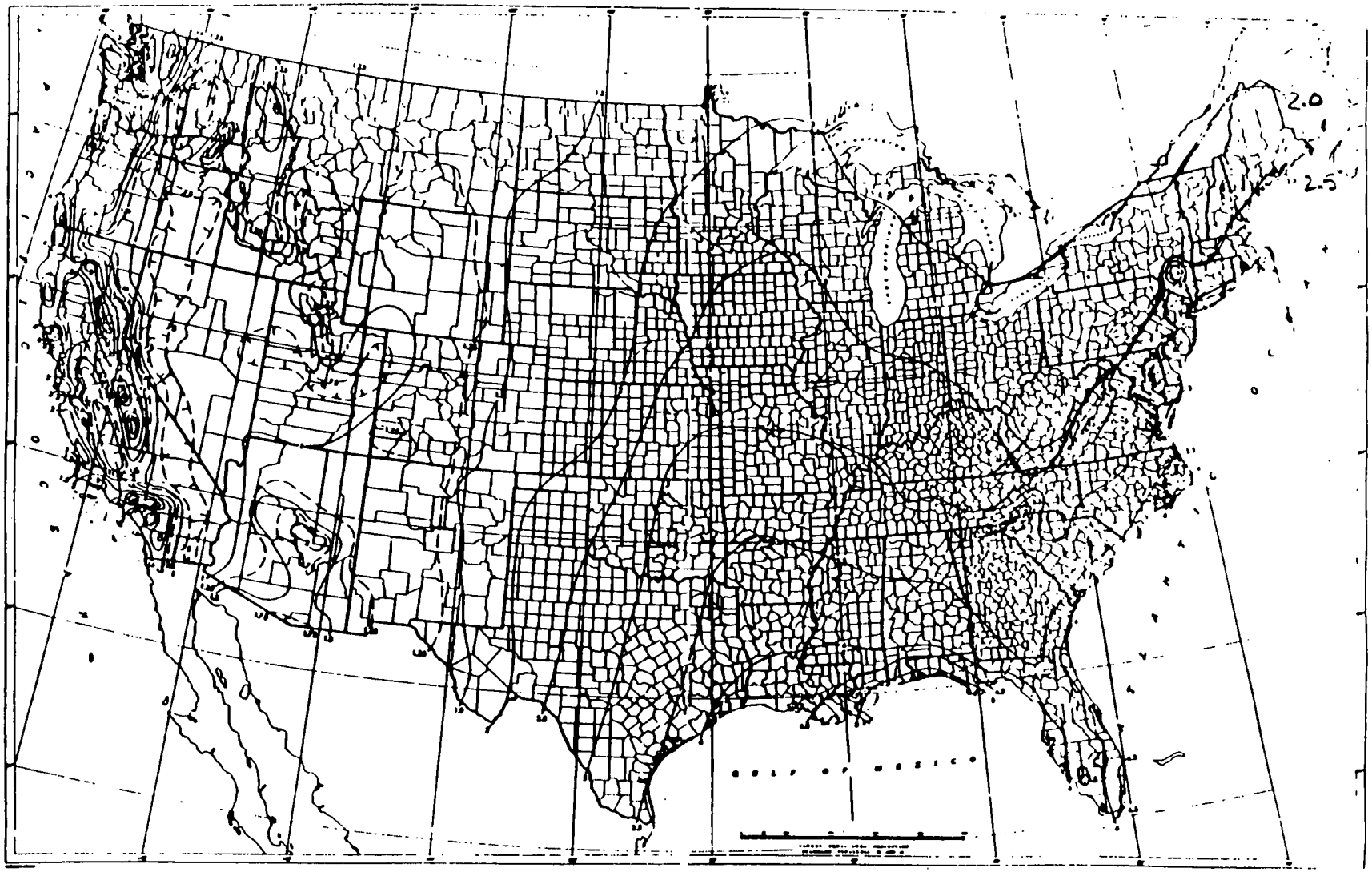


FIGURE 8

1-Year 24-Hour Rainfall (Inches)

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

REF 15

URS

AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

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

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HATO REY, PR
WASHINGTON, DC
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CLEVELAND
DENVER
DALLAS
SEATTLE
SAN FRANCISCO
SAN MATEO, CA

April 16, 1986

Mr. James ~~Palmeroy~~ Pomeroy
New York State DEC
128 South Street
Olean, New York 14760

Dear Mr. Palmeroy:

This is to confirm our telephone conversation of April 15, 1986, wherein you provided the following information concerning fishing in Murder Creek, west of Route 93:

- Fishing is probably limited in Murder Creek because the stream is small.
- Data is limited; however, it is known that northern pike, pan fish and rock bass inhabit this portion of Murder Creek.
- This portion of Murder Creek is probably used as a recreational fishing stream by local residents.

We would appreciate if you would kindly review this information and after making any corrections necessary, return a signed copy to us to indicate your concurrence.

Sincerely,

URS COMPANY, INC.

Craig W. Pawlewski

Craig W. Pawlewski
Project Engineer

RECEIVED
APR 18 1986
N.Y.S. Dept. of
Environmental Conservation
Region 9 - Olean

CWP/bc
4/16/86L2

015B4

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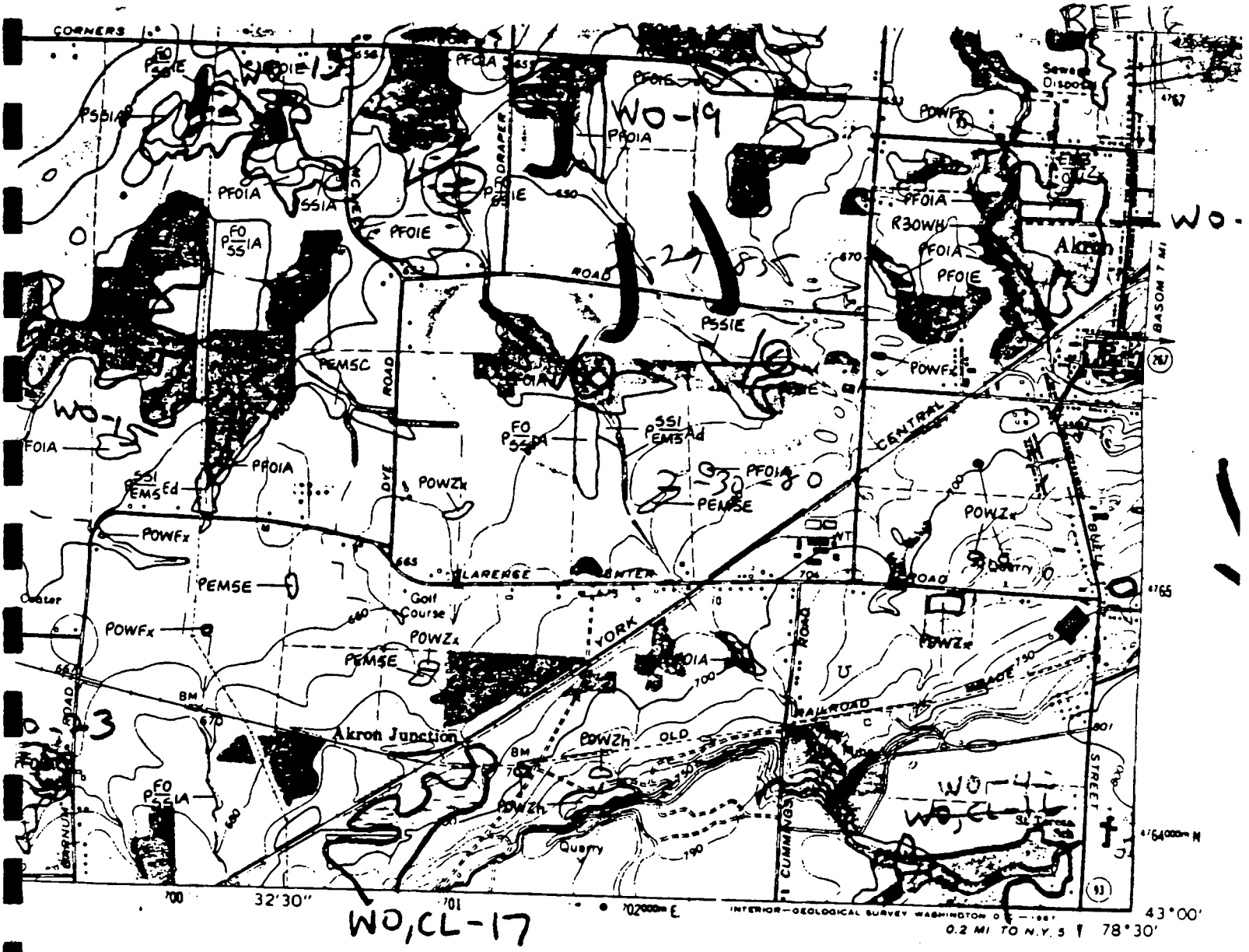
I agree with the information as presented to the best of my knowledge.

James ~~Palmeroy~~
Pomeroy

REF 16



AFT

WOLCOTTSVILLE, N.Y.

STEM
SS

BCLASS, WATER REGIME

ON-WETLANDS)

FARMED WETLANDS
NTROLLED WATER REGIME

NOTES TO THE USER

- Wetlands which have been field examined are indicated on the map by an asterisk (*).
- Dominance type (either vegetative or sedentary animal) can be added to the map by the interested user.
- Additions or corrections to the wetlands information displayed on this map are solicited. Please forward such information to the address indicated.
- Some areas designated R4SB, R4SBW, or R4SBJ (intermittent streams) may not meet the definition of wetlands.

AERIAL PHOTOGRAPHY

DATE: 4 / / 81
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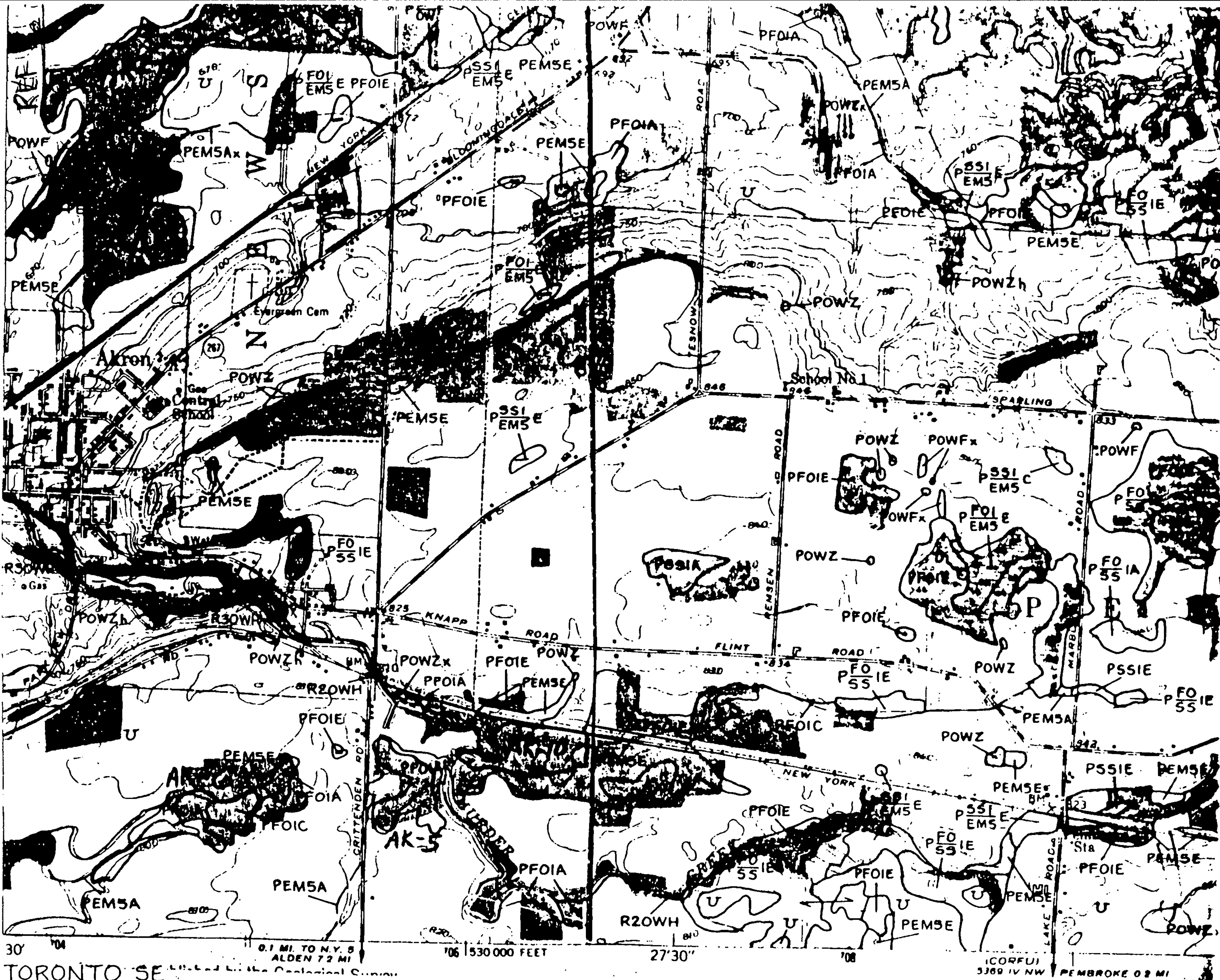
DEPARTMENT OF THE INTERIOR · MARCH 3, 1849

U.S. DEPARTMENT OF THE INT

FISH AND WILDLIFE SERVICE

Prepared by Office of Biological Services for the National Wetlands Inventory


PFOIA
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PEM5E
POWZ
Evergreen Cem
Akron
Central School
School No 1
SPARLING
POWZ
POWFx
PFOIE
PEM5E
POWZh
POWZ
KNAPP ROAD
FLINT ROAD
R2OWH
R3OWH
PFOIA
PFOIE
PSSIE
PFOIC
AK-5
PEM5A
PEM5E
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MARBLE ROAD
JENSEN ROAD
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ALDEN 7.2 MI
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27'30"
(CORFU)
5369 IV NW
PEMBROKE 0.8 MI
TORONTO SE

REF17

URS

AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

URS COMPANY, INC.
625 DELAWARE AVE
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NEW ORLEANS
SAN MATEO
PUERTO RICO

[JAN] 8 1986

January 2, 1986

Mr. Cameron H. O'Connor
County of Erie Department of Environment
and Planning
95 Franklin Street
Buffalo, New York 14202

Dear Mr. O'Connor:

This is to confirm our conversation of December 16, 1985, wherein you provided the following information regarding three (3) inactive waste sites in Erie County undergoing Phase I Investigation:

North Collins Landfill - Site Code 915086

- The only known groundwater wells in the area are those that serve the ~~Hamlet~~ Village of N. Collins. These wells are a public water supply - there are probably individuals throughout the Town that ...
- The Hamlet of N. Collins (pop. 1,500) has no alternate drinking water source.
- The above wells are located near the intersection of Mile Strip Road and Route 62.
- There are no water-supply intakes located on the surface water bodies within a 3-mile radius of the site.
- Waste is buried using the "trench method". The landfill has no liner and there is no diversion system present.

Old Brickyard - Site Code 915086

- Most of the population within a 3-mile radius of the site is served by a municipal water supply.
- There are no water-supply intakes located on the surface water bodies within a 3-mile radius of the site.
- The only known waste buried at the site is brick from previous manufacturing operations. This is true, however too little is known about the site to ... the ... Only ... on site.

Bernard Cope - Site Code 915102

- This site is located near the Village of Akron which receives its water supply from surface water located in Bennington (approximately 14 miles from the site).
- Groundwater is not used as a public drinking water source within a 3-mile radius of the site. However there may be individuals on private wells.

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AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

- There are no water-supply intakes located on the surface water bodies within a 3-mile radius of the site.

- The only known waste buried at the site is demolition debris.

We would appreciate if you would kindly review this information and after making any corrections necessary, return a signed copy to indicate your concurrence.

Sincerely,

URS COMPANY, INC.

Craig W. Pawlewski

Craig W. Pawlewski
Project Engineer

CWP/bc
35015

- -

I agree with the information as it is presented.

Cameron H. O'Connor

Cameron H. O'Connor

REF 18

URS

URS COMPANY, INC.
625 DELAWARE AVE
BUFFALO, NEW YORK 14202
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NEW ORLEANS
SAN MATEO
PUERTO RICO

January 16, 1986

Miss Lenore Kuwik
NYS Office of Parks, Recreation and
Historic Preservation
Empire State Plaza, Agency Bldg. 1
Albany, New York 12238

Dear Miss Kuwik:

I am writing to request information regarding seven (7) inactive waste sites in Western New York. URS is performing a Phase I investigation of each of these sites for the NYSDEC pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). The information is required to perform a Hazardous Ranking System (HRS) evaluation of each site. The information requested from your office includes the following:

- Distance to national or state park, forest, or wildlife reserve, if 2 miles or less.
- Distance to historic or landmark site (from National Register) within view of each site. (It is assumed that no new ground disturbance will take place outside the site boundaries.)

Enclosed are reproductions of USGS maps locating the seven sites.

If there are any questions, please contact me. Any assistance your office can provide regarding this matter would be greatly appreciated.

Sincerely,

URS COMPANY, INC.

Craig W. Pawlewski

Craig W. Pawlewski
Project Engineer

cc: V. Singh

Enc.
CWP/bc
35015

REF 19

October 6, 1978

JOB #_____

Mr. Bernard Cope
Buell Street
Akron, New York 14001

Re: Landfill Inspection

Dear Mr. Cope:

On October 5, 1978, your site was inspected per your telephone conversation to DEC on September 19, 1978.

The site at the time of inspection was considered to be in compliance with New York State DEC, Part 360.

There was some question by Mrs. Cope that you are contemplating addition of material to your site.

Please be advised that absolutely no dumping of any material is allowed. Should you decide to reactivate your site, you must apply for a permit from New York State DEC.

The site as of this date is considered to be closed as per your request and our final inspection.

Should you have any questions, please call me at 846-7444.

Very truly yours,

Donald Tamol, P.E.
Sr. Env. Quality Engineer
Bureau of Water Resources

DT:jk

FINAL CLOSURE INSPECTION

REF 19

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

2 Facility No. 7

Facility Name: BERNARD COPE

Location (Town, etc.): BUELL ST AKRON N.Y.

Persons Interviewed & Titles: MRS. BERNARD COPE

10 Date 15 | 16 Time 21 | 22 Inspector: D. TAMOL | 36 | 37 | 38 Remarks: SITE CLOSED | 72

1 00 5 08 23 9 AM

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

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

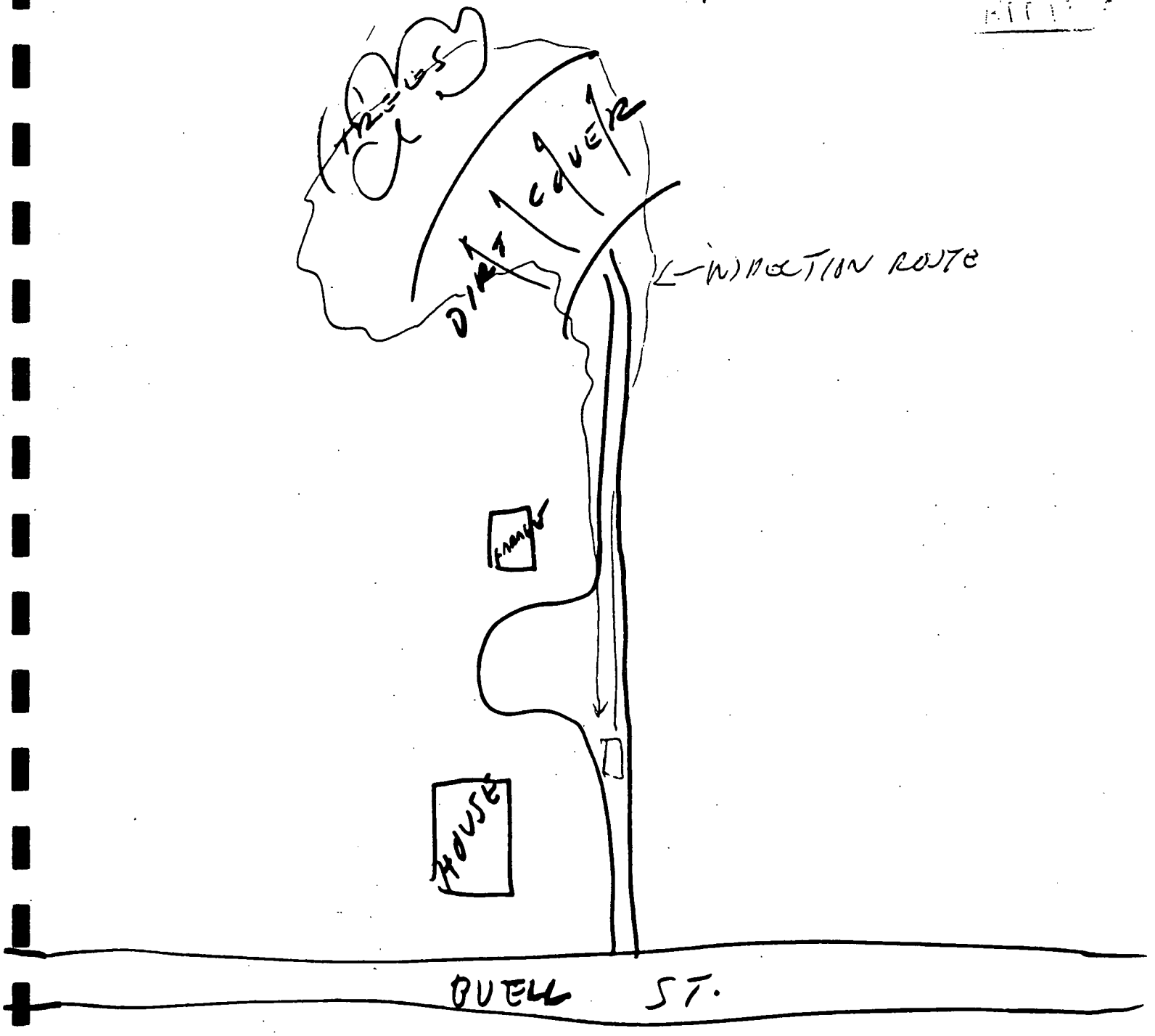
*NOTE: For these questions, see the "Background Information Sheet" for this facility.

Site Sketch/Comments

Told Mrs. Cope not to dump anything at the landfill until & unless a demo permit is applied for.

ernard Cope Afterm

Oct 5, 1938



CHARACTERISTICS OF THE POPULATION

Number of Inhabitants

NEW YORK

1980 Census of Population

U.S. Department of Commerce
BUREAU OF THE CENSUS

Table 5. Population of Places: 1960 to 1980

[For changes in boundaries of incorporated places since 1970, see table 4. For meaning of symbols, see introduction]

Incorporated Places Census Designated Places	Counties	1980	1970	1960
Adams village	Jefferson	1 701	1 951	1 914
Adams Center (CDP)	Jefferson	1 519	...	...
Addison village	Steuben	2 028	2 104	2 185
Afton village	Chenango	982	1 064	956
Akron village	Erie	2 971	2 863	2 841
Albany city	Albany	101 727	115 761	129 726
Albertson (CDP)	Nassau	5 561	6 825	...
Albion village	Orleans	4 897	5 122	5 182
Alden village	Erie	2 488	2 651	2 042
Alexander village	Genesee	483	474	335
Alexandria Bay village	Jefferson	1 265	1 440	1 583
Alfred village	Allegany	4 967	3 804	2 807
Allegany village	Cattaraugus	2 078	2 050	2 064
Almond village	Total	568	658	696
	Allegany (pt. in)	529	627	665
	Steuben (pt. in)	39	31	31
	Albany	1 292	1 561	1 365
	Allegany	347	448	277
Altamont village	Oswego	2 188	...	...
Altmar village	Suffolk	1 183	1 157	162
Amagansett (CDP)	Dutchess	224	198	8 318
Amenia (CDP)	Montgomery	9 076	9 794	28 772
Ames village	Suffolk	21 872	25 524	399
Amityville village	Montgomery	372	353	1 247
Amsterdam city	Delaware	1 120	1 214	...
Andes village	Allegany	...	...	898
Andover village	Allegany	982	948	2 499
Angelica village	Erie	2 292	2 676	...
Angola village	Erie	1 907	1 573	881
Angola on the Lake (CDP)	Jefferson	749	872	...
Antwerp village	Tioga	1 227	1 233	1 930
Apalachin (CDP)	Wyoming	2 052	1 972	3 991
Arcade village	Westchester	4 183	4 470	355
Ardsley village	Washington	320	392	837
Argyle village	Steuben	811	984	8 317
Arkport village	Dutchess	11 305	11 203	...
Arlington (CDP)	Westchester	2 238	...	253
Armonk (CDP)	Suffolk	635	540	1 754
Asharoken village	Greene	1 738	1 718	...
Athens village	Nassau	1 775	1 640	...
Atlantic Beach village	Total	2 659	2 911	2 758
Attica village	Genesee (pt. in)	16	2	-
	Wyoming (pt. in)	2 643	2 909	2 758
Auburn city	Cayuga	32 548	34 599	35 249
Aurora village	Cayuga	926	1 072	834
Avenil Park (CDP)	Rensselaer	1 337	1 471	...
Avoca village	Steuben	1 144	1 153	1 086
Avon village	Livingston	3 006	3 260	2 772
Babylon village	Suffolk	12 388	12 897	11 062
Bainbridge village	Chenango	1 603	1 674	1 712
Baldwin (CDP)	Nassau	31 630	34 525	30 204
Baldwinsville village	Onondaga	6 446	6 298	5 985
Ballston Spa village	Saratoga	4 711	4 968	4 991
Batavia (CDP)	Orange	2 919	3 214	1 538
Barker village	Niagara	535	567	528
Barneveld village	Oneida	396	423	363
Batavia city	Genesee	16 703	17 338	18 210
Bath village	Steuben	6 042	6 053	6 166
Baxter Estates village	Nassau	911	1 026	932
Bayberry-Lynelle Meadows (CDP)	Onondaga	14 813	...	...
Bayport (CDP)	Suffolk	9 282	8 232	...
Bay Shore (CDP)	Suffolk	10 784	11 119	...
Bayville village	Nassau	7 034	6 147	3 962
Beacon city	Dutchess	12 937	13 255	13 922
Beaverdam Lake (CDP)	Orange	1 324	...	...
Bedford (CDP)	Westchester	1 633	1 136	1 083
Bellerose village	Nassau	1 187	678	295
Belle Terre village	Suffolk	826	18 431	12 784
Bellmore (CDP)	Nassau	18 106	3 046	2 461
Bellport village	Suffolk	2 809	1 102	1 146
Belmont village	Allegany	1 024	487	443
Bemus Point village	Chautauqua	444	...	...
Bergen village	Genesee	976	1 018	964
Berkshire (CDP)	Fulton	1 095	...	...
Bethpage (CDP)	Nassau	16 840	18 555	...
Big Flats (CDP)	Chemung	2 892	2 509	...
Billington Heights (CDP)	Erie	1 782	1 278	75 941
Binghamton city	Broome	55 860	64 123	1 237
Black River village	Jefferson	1 384	1 307	3 909
Blasdell village	Erie	3 288	3 910	303
Bloomingburg village	Sullivan	338	323	490
Bloomingdale village	Essex	608	536	...
Blooming Grove (CDP)	Orange	1 151	...	...
Bloomington-Hickory Bush (CDP)	Ulster	1 002	...	...
Bohemia (CDP)	Suffolk	9 308	8 926	1 405
Bolivar village	Allegany	1 345	1 379	2 403
Boonville village	Oneida	2 344	2 488	...
Boston (CDP)	Onondaga	1 160	1 191	...
Bovina village	St Lawrence	1 454	...	15 387
Brasher Falls-Winthrop (CDP)	Suffolk	44 321	28 327	...
Brentwood (CDP)	Total	2 472	1 985	...
Brewerton (CDP)	Onondaga (pt. in)	1 566	1 201	1 714
	Oswego (pt. in)	886	784	...
	Putnam	1 650	1 638	...
Brewster village	Putnam	1 054	1 265	5 105
Brewster Heights (CDP)	Putnam	2 371	1 745	
Brewster Hill (CDP)	Westchester	7 115	6 521	
Briarcliff Manor village				

Incorporated Places Census Designated Places	Counties	1980	1970	1960
Bridgehampton (CDP)	Suffolk	1 941	...	373
Bridgewater village	Oneida	578	601	...
Brighton (CDP)	Monroe	35 776	...	3 193
Brightwaters village	Suffolk	3 286	3 808	...
Brinckerhoff (CDP)	Dutchess	3 030	2 094	1 438
Broadalbin village	Fulton	1 415	1 452	5 256
Brockport village	Monroe	9 776	7 878	...
Brockway (CDP)	Dutchess	1 301	...	...
Brocton village	Chautauqua	1 416	1 370	1 416
Bronxville village	Westchester	6 267	6 674	6 744
Brookville village	Nassau	3 290	3 212	1 468
Brownville village	Jefferson	1 099	1 187	1 082
Brushton village	Franklin	577	547	553
Buchanan village	Westchester	2 041	2 110	2 019
Buffalo city	Erie	357 870	462 768	532 759
Burden village	Schuyler	410	454	420
Burne village	Franklin	226	237	273
Cairo (CDP)	Greene	1 281	...	...
Caledonia village	Livingston	2 188	2 327	1 917
Calverton-Roanoke (CDP)	Suffolk	4 952	...	...
Cambridge village	Washington	1 820	1 759	1 748
Camden village	Oneida	2 667	2 736	2 694
Camillus village	Onondaga	1 298	1 534	1 416
Canajoharie village	Montgomery	2 412	2 686	2 681
Canandaigua city	Ontario	10 415	10 488	9 370
Canaseraga village	Allegany	710	750	730
Canastota village	Madison	4 773	5 033	4 996
Candor village	Tioga	717	939	956
Canisteo village	Steuben	2 579	2 772	2 731
Canton village	St Lawrence	7 055	6 398	5 046
Cape Vincent village	Jefferson	785	820	770
Carle Place (CDP)	Nassau	5 470	6 326	...
Carthage village	Jefferson	3 643	3 889	4 216
Cassadaga village	Chautauqua	821	905	820
Castile village	Wyoming	1 135	1 330	1 146
Castleton-on-Hudson village	Rensselaer	1 627	1 730	1 752
Castorland village	Lewis	277	327	321
Cato village	Cayuga	475	601	478
Catskill village	Greene	4 718	5 317	5 825
Cattaraugus village	Cattaraugus	1 200	1 200	1 258
Cayuga village	Cayuga	604	693	62
Cayuga Heights village	Tompkins	3 170	3 130	2 [illegible]
Cazenovia village	Madison	2 599	3 031	2 [illegible]
Cedarhurst village	Nassau	6 162	6 941	5 [illegible]
Celoron village	Chautauqua	1 405	1 456	50
Centereach (CDP)	Suffolk	30 136	9 427	8 52
Center Moriches (CDP)	Suffolk	5 703	3 802	2 52
Centerport (CDP)	Suffolk	6 576	...	...
Central Islip (CDP)	Suffolk	19 734	36 391	9
Central Square village	Oswego	1 418	1 298	...
Central Valley (CDP)	Orange	1 705	...	...
Centre Island village	Nassau	378	374	...
Champlain village	Clinton	1 410	1 426	1
Champlain Park (CDP)	Clinton	1 051	1 207	...
Chateaugay village	Franklin	869	976	1
Chatham village	Columbia	2 001	2 239	2
Chaumont village	Jefferson	620	567	...
Cheektowaga (CDP)	Erie	92 145	...	...
Cherry Creek village	Chautauqua	697	658	...
Cherry Valley village	Otsego	684	661	...
Chester village	Orange	1 910	1 627	...
Chittenango village	Madison	4 290	3 605	...
Churchville village	Monroe	1 399	1 065	...
Clarence Center (CDP)	Erie	1 300	1 332	...
Clark Mills (CDP)	Oneida	1 412	1 206	...
Cloverack-Red Mills (CDP)	Columbia	1 217	...	...
Clayton village	Jefferson	1 816	1 970	...
Clayville village	Oneida	478	535	...
Cleveland village	Oswego	855	821	...
Clifton Knolls (CDP)	Saratoga	5 636	5 771	...
Clifton Springs village	Ontario	2 039	2 058	...
Clinton village	Oneida	2 107	2 271	...
Clintondale (CDP)	Ulster	1 193	...	...
Clyde village	Wayne	2 491	2 328	...
Cobleskill village	Schoharie	5 272	4 358	...
Cohocton village	Steuben	902	397	...
Cohoes city	Albany	18 144	18 553	...
Cold Brook village	Herkimer	402	413	...
Coldenham (CDP)	Orange	1 064	...	...
Colden Hill (CDP)	Orange	1 741	1 688	...
Cold Spring village	Putnam	2 161	2 083	...
Cold Spring Harbor (CDP)	Suffolk	5 336	5 450	...
Colonie village	Albany	8 869	8 707	...
Commack (CDP)	Suffolk	34 719	24 138	...
Congers (CDP)	Rockland	7 123	5 929	...
Constableville village	Lewis	330	347	...
Constantia (CDP)	Oswego	1 254	...	...
Cooperstown village	Otsego	2 342	2 403	...
Copenhagen village	Lewis	656	734	...
Copiague (CDP)	Suffolk	20 132	19 632	...
Coram (CDP)	Suffolk	24 752	...	...
Corfu village	Genesee	689	...	...
Corinth village	Saratoga	2 702	3 [illegible]	...
Corning city	Steuben	12 953	[illegible]	...
Cornwall on Hudson village	Orange	3 164	[illegible]	...
Cortland city	Cortland	20 133	19 [illegible]	...
Cortland West (CDP)	Cortland	1 142	...	...

NUMBER OF IN

REF21

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

* * * M E M O R A N D U M * * *

FROM: Kermit Studley DATE: 8/11/86

TO: Anthony T. Voell

RE: Bernard Cope Site
Saite #915102 - Phase I Report

There is no documented evidence of hazardous waste disposal at the Bernard Cope Site (BCS). According to the IATF report, the BCS accepted only demolition debris. Also, Don Campbell of the DEP, who previously investigated the site, stated the demolition debris was from area schools and the Akron Village Hall. An inspection of aerial photographs from the years 1951, 1958, 1960 and 1972 did not reveal any changes in topography to indicate major landfilling operations.

The following comments are pertinent to the Phase I report prepared by URS Company, Inc.

Questions regarding quantity or character of waste and the number of potable groundwater wells presently used within one mile of the site should have been answered during the Phase I data collection and not recommended for the Phase II field investigation.

The Village of Akron receives its water supply from Bennington which is located in Wyoming County. URS should check their records, specifically their contact, concerning well information in the vicinity of the site (See Page 14 of the report).

The north direction is incorrectly drawn on the site map (Figure 2). This means that the southern half of the site is the former gravel pit and that the eastern portion of said pit was the site of filling operations. Should a Phase II investigation be recommended, tentative boring locations would then be two installed north of the fill area and one installed south of the fill area (groundwater presumed to flow north).

The DEP does not recommend a Phase II study based on the following:

- The nature of reported waste.
- The small size of the fill area.

However, if the DEC decides a Phase II study is warranted, a compromise limiting field activities as recommended by URS Company Inc. would be in order. This would include:

- Five shallow soil samples using a soil probe to remove a column of relatively undisturbed soil.

- Groundwater sample(s) obtained from supply well(s) at private residence(s) located in the vicinity of the site.

- Observing sampling protocol for both soil and groundwater samples and analyze for EP toxicity of heavy metals.

KERMIT STUDLEY
Environmentalist

KS:jk

REF 22

Mr. Tygert
Mr. Clare
Bernard Cope Site 915102
July 29, 1986

On July 29, 1986, an inspection was made of the Bernard Cope Site in the Village of Akron. The original intent of this inspection was to obtain sufficient familiarization with the site to review the draft Phase I report. However, the draft report shows the wrong location and does not include any street address.

Mr. Cope was personally interviewed after considerable difficulty. The following pertinent information was obtained from Mr. Cope:

1. Site Location

   48 Buell Street
   Akron, NY

   Also Mr. Cope's residence on 2.3 acres

2. Site History

   Mr. Cope purchased the property in 1947. The gravel pit was dry to a depth of approximately 60' below grade and abandoned when shale was encountered.

   The pit was filled beginning in the 1960's with construction debris -- primarily from Mr. Cope's excavating business.

   Typical Wastes

   1. Stone fences from Salt Road widening

   2. Building foundations from Village of Akron renewal work

   3. Street rebuilding wastes

3. Water Supply

   All homes in area are on Village water. The large estate (now horse farm) bordering the site on the south has two wells - neither of which are in use.

4. Current Status

   The fill area is overgrown. Ground elevations are still 15 feet below the original grade -- which is evident from the horse corral on the east side of the site, and the tree/neighboring residence lot on the south. No evidence of protruding refuse or leachate was found.

LGC:ec