932010

LOCKPORT CITY LANDFILL

NEW YORK STATE SUPERFUND
PHASE I SUMMARY REPORT

FINAL

November 28, 1983

Prepared By:

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For:

New York State Department of Environmental Conservation
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NEW YORK STATE SUPERFUND

PHASE I SUMMARY REPORT

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1.0 EXECUTIVE SUMMARY

The Lockport City Landfill is a three (3) acre inactive facility located in the Town of Lockport, Niagara County, New York. The primary land use in the vicinity is industrial with some residential areas within a half-mile of the site. The Somerset Railroad line runs along the eastern edge of the site.

The landfill is located on the Niagara Escarpment. The top of the landfill is relatively flat and unvegetated. The western sideslope drops approximately eighty (80) feet at a 45° angle. The northern sideslope is gentler, falling off at about a 16° slope. The escarpment bounds the facility on the east and south. Shrubs and trees grow densely on the sides of the landfill. Uncovered wastes are exposed on the sideslopes. Gulf Creek, a tributary of Eighteen Mile Creek, flows along the base of the landfill. Numerous leachate breakouts are evident on the side and top of the landfill. In addition, discharges occur along the sides of a plugged thirty-six (36) inch diameter pipeline which passes beneath the site.

During its approximately twenty (20) year active life, industrial wastes were allegedly received from many of the companies in, and around, Lockport. Wastes believed to have been disposed of include PCB, acids, reactive and/or flammable materials, and possibly alkaline wastes. Documentation of exact types and quantities of waste is not available. Water and soil from the Gulf have been analyzed showing the presence of iron, arsenic, chromium, selenium, and a few other pollutants in elevated concentrations. Leachate from the landfill has been observed impacting

directly on the Gulf, discoloring both the water and sediments.

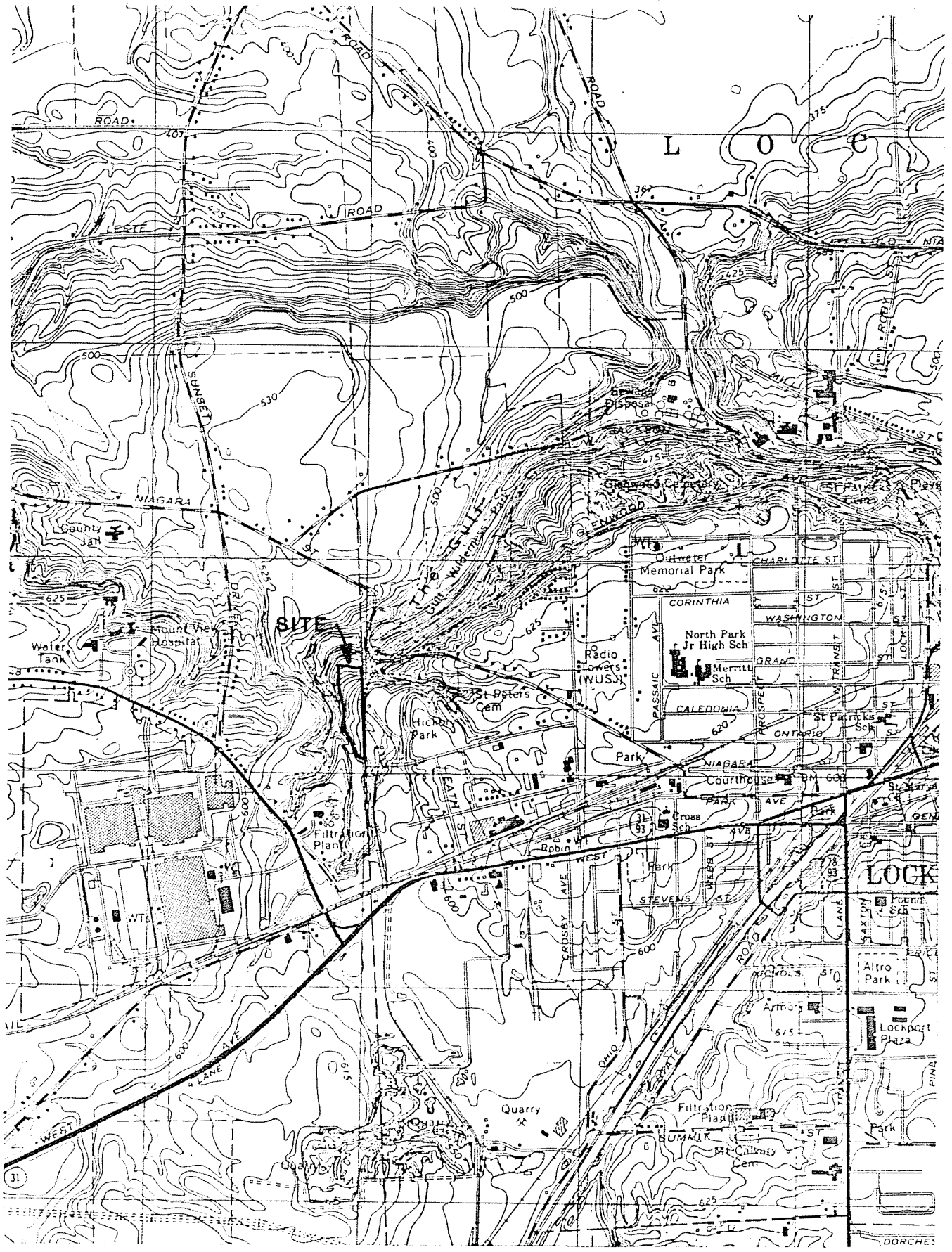
The landfill being investigated was a continuation of operations conducted at a site approximately 0.4 miles to the south. Although the original fill area is not part of this investigation, it should be addressed in any remediation of the area.

2.0 SITE DESCRIPTION

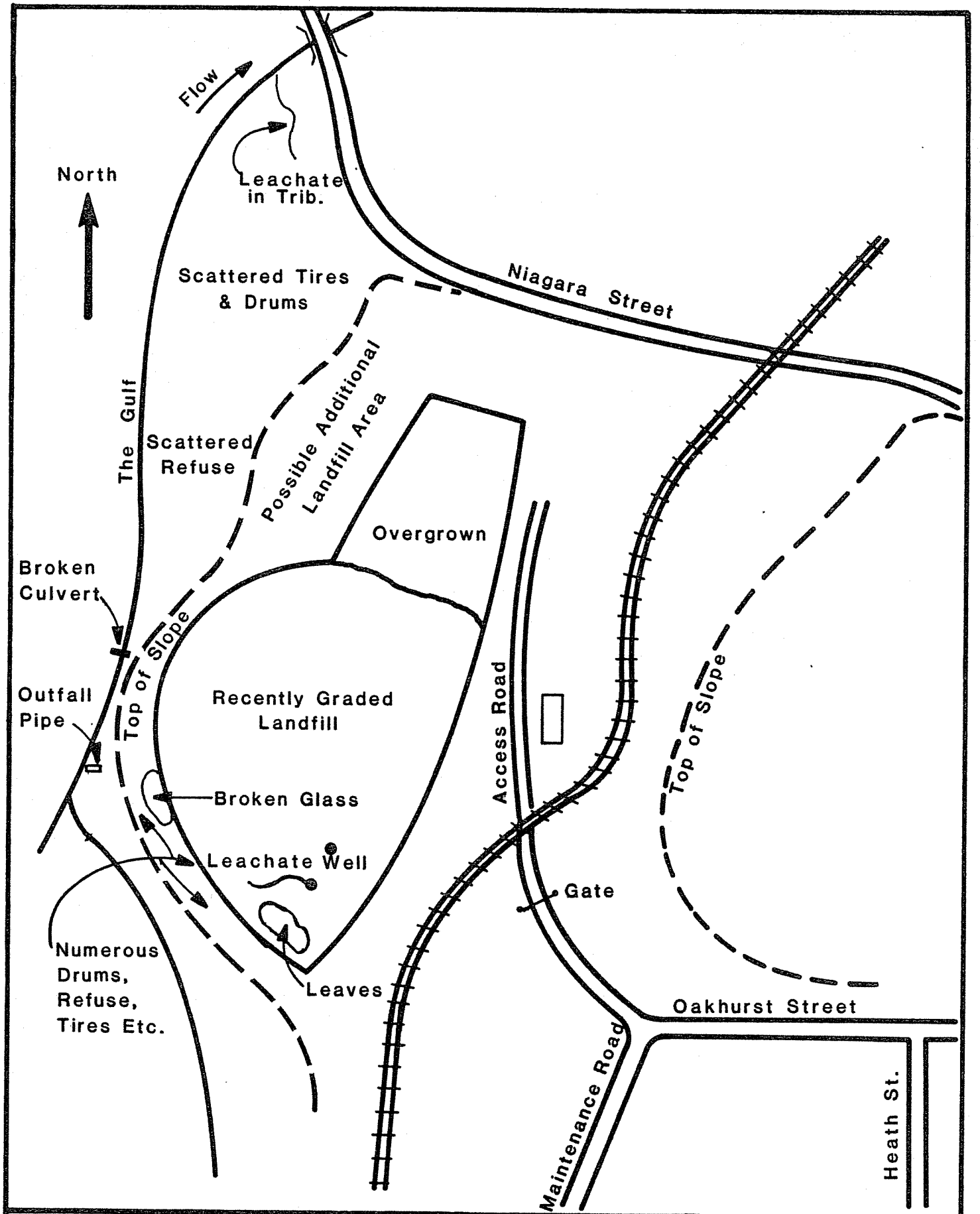
The Lockport City Landfill is located on Oakhurst Road, Lockport, New York. The site is inactive except for seasonal dumping of leaves and highway debris by the city highway department. The area of the site is estimated to be three (3) acres. A site vicinity map is presented, as Figure 1.

A map of the site, prepared by Mike Hopkins of the Niagara County Health Department is attached, showing the general site layout is shown as Figure 2. Since the map was drawn, the access road has been moved to the south, entering the site from the city garage. Oakhurst is a paved two (2) lane road. The access road is a single land and unpaved.

The landfill was constructed on the west edge of the escarpment. The landfill is flat form the railroad westward. The west side of the facility is an abrupt drop-off of about eighty (80) feet with a slope of almost one-on-one. The top of the landfill is mostly unvegetated with some invasion of grass and weeds. The side slope is overgrown by shrubs and small trees. A few large trees are present. A large amount of garbage including drums and appliances are exposed on the side of the slope. Numerous seeps have been observed arising from the base and side of the landfill. Pools of standing water and at least one rather large surface seep have been observed on top of the landfill (Ref. 9 and 10, Recra site visit May 17, 1983.)



USGS Topographical Map Lockport Quad. 1980	VICINITY MAP LOCKPORT CITY LANDFILL	Figure 1



Not To Scale	SITE MAP LOCKPORT CITY LANDFILL	Figure 2

A creek, referred to as the Gulf, flows along the base of the facility. Seeps from the landfill flow into the Gulf. In addition, water flows into the Gulf along the sides of a thirty-six (36) inch cement pipe positioned at the base of the landfill. According to city workers, the pipe was put in to drain a spring near Oakhurst Street between the Maintenance Road and Heath Street (Ref. 4). The locations of the outfall pipe, the leachate seep on top of the landfill, and the above mentioned roads are illustrated on Figure 2. Further descriptions of the site are provided in Sections 4 and 5 of this report.

Unknown volumes of industrial and sanitary wastes were landfilled at the site. Liquids, including acids and possibly PCB's, were dumped into the trenches and covered. Solids, some of which were highly reactive, flammable, or irritating to workers, were also buried without any type of waste segregation (Ref. 4). The nature of the wastes disposed at the facility and site operations are discussed in greater detail in Section 4 of this report.

3.0 PRELIMINARY HAZARD RANKING SYSTEM SCORE

Facility name: Lockport City Landfill

Location: Oakhurst Road, Town of Lockport, Niagara County, New York

EPA Region: 2

Person(s) in charge of the facility: City of Lockport, New York

Name of Reviewer: Recra Research Date: 6/3/83

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.)

Inactive 3 acre landfill. Used by area industries for a period of about 20 years. Suspected wastes include PCB, acids, reactive materials, metal sludges. Priority pollutants detected in surface waters; leachate breakouts observed entering creek. Improper siting, operation, closure. Need groundwater data. No air monitoring data.

Scores: $S_M = 23.9$ ($S_{gw} = 40.3$ $S_{sw} = 9.3$ $S_a = 0$)

$S_{FE} = N/A$

$S_{DC} = 62.5$

Range 23 to 30

HRS COVER SHEET

Ground Water Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	(0) 45	1	0	45	3.1
If observed release is given a score of 45, proceed to line 4. If observed release is given a score of 0, proceed to line 2.					
2 Route Characteristics					3.2
Depth to Aquifer of Concern	0 1 2 (3)	2	6	6	
Net Precipitation	0 1 (2) 3	1	2	3	
Permeability of the Unsaturated Zone	0 1 2 (3)	1	3	3	
Physical State	0 1 2 (3)	1	3	3	
Total Route Characteristics Score			14	15	
3 Containment	0 1 2 (3)	1	3	3	3.3
4 Waste Characteristics					3.4
Toxicity/Persistence	0 3 6 9 12 15 (18)	1	18	18	
Hazardous Waste Quantity	0 (1) 2 3 4 5 6 7 8	1	1	8	
Total Waste Characteristics Score			19	26	
5 Targets					3.5
Ground Water Use	0 1 2 (3)	3	9	9	
Distance to Nearest Well/Population Served	0 4 6 8 10 / 12 16 18 (20) / 24 30 32 35 40	1	20	40	
Total Targets Score			29	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			23,142	57,330	
7 Divide line 6 by 57,330 and multiply by 100		S_{gw} =	40.3		

FIGURE 2
GROUND WATER ROUTE WORK SHEET

Surface Water Route Work Sheet

	Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1	Observed Release	0 (45)	1	45	45	4.1
	If observed release is given a value of 45, proceed to line 4. If observed release is given a value of 0, proceed to line 2.					
2	Route Characteristics					4.2
	Facility Slope and Intervening Terrain	0 1 2 3	1		3	
	1-yr. 24-hr. Rainfall	0 1 2 3	1		3	
	Distance to Nearest Surface Water	0 1 2 3	2		6	
	Physical State	0 1 2 3	1		3	
	Total Route Characteristics Score				15	
3	Containment	0 1 2 3	1		3	4.3
4	Waste Characteristics					4.4
	Toxicity/Persistence	0 3 6 9 12 15 (18)	1	18	18	
	Hazardous Waste Quantity	0 (1) 2 3 4 5 6 7 8	1	1	8	
	Total Waste Characteristics Score			19	26	
5	Targets					4.5
	Surface Water Use	0 1 (2) 3	3	6	9	
	Distance to a Sensitive Environment	0 [1] 2 3	2	1	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			7	55	
6	If line 1 is 45, multiply 1 x 4 x 5 / If line 1 is 0, multiply 2 x 3 x 4 x 5			5,985	64,350	
7	Divide line 6 by 64,350 and multiply by 100		S_{SW} =	9.3		

FIGURE 7
SURFACE WATER ROUTE WORK SHEET

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

FIGURE 9
AIR ROUTE WORK SHEET

	S	S^2
Groundwater Route Score (S_{gw})	40.3	1,624.1
Surface Water Route Score (S_{sw})	9.3	86.5
Air Route Score (S_a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		1,710.6
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		41.4
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} \,/\, 1.73 = S_M =$		23.9

FIGURE 10
WORKSHEET FOR COMPUTING S_M

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

FIGURE 11
FIRE AND EXPLOSION WORK SHEET

Direct Contact Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Incident	(0) 45	1	0	45	8.1
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2					
2 Accessibility	0 1 2 (3)	1	3	3	8.2
3 Containment	0 (15)	1	15	15	8.3
4 Waste Characteristics Toxicity	0 1 2 (3)	5	15	15	8.4
5 Targets					8.5
Population Within a 1-Mile Radius	0 1 2 3 4 (5)	4	20	20	
Distance to a Critical Habitat	0 1 2 3	4	0	12	
Total Targets Score			20	32	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			13,500	21,600	
7 Divide line 6 by 21,600 and multiply by 100			S_{DC} = 62.5		

FIGURE 12
DIRECT CONTACT WORK SHEET

3.1 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: Lockport City Landfill

LOCATION: Oakhurst Road, Lockport, Niagara County, New York

GROUND WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):
Arsenic, Cadmium, Chromium, Lead, Selenium (Ref.1) in Leachate outbreak to surface waters. no data on groundwater quality.

Rationale for attributing the contaminants to the facility:
from analysis of leachate and soils in areas of seeps from landfill A (Ref.1) No testing done of groundwater samples from site.

* * *

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifers(s) of concern:
North of escarpment deep wells in Queenstone Shale; South of Escarpment deep wells in Lockport Dolomite; shallow wells in overburden (Ref.2). Define aquifer of concern as overburden.

Depth(s) from the ground surface to the highest seasonal level of the saturated zone [water table(s)] of the aquifer of concern:
Approximately 10 feet (Ref.3)

Depth from the ground surface to the lowest point of waste disposal/ storage:
80 to 100 feet (Ref. 4)

Net Precipitation

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

34 inches (Ref. 5)

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

27 inches (Ref. 5)

Net precipitation (subtract the above figures):

7 inches

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

Rock land, steep soil type with moderate permeability and rapid drainage and Farmington Silt Loam with moderate drainage (Ref. 2)
Deep deposits of glacial till (primarily silts, clays) reported (Ref 4, Ref. 7)

Permeability associated with soil type:

Moderate (0.1 - 0.01 cm/sec) (Ref. 2, 8)

Physical State

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

Solids, Sludges, and Liquids (Ref. 4, Ref. 6)

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:
Wastes placed in trenches of up to 80 to 100 feet excavated in overburden. No containment (Ref. 4)

Method with highest score:
Land fill, No liner.

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:
PCB from transformers and acids from industrial customers. Unidentified wastes included chlorinated compounds and reactive materials (Ref. 4). Latter materials not used in HRS

Compound with highest score:
PCB liquids combined toxicity/persistence score equals 18.

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):
No information available, assign lowest non-zero score.

Basis of estimating and/or computing waste quantity:
See above

* * *

5 TARGETS

Ground Water Use

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

Distance to Nearest Well

Location of nearest well drawing from aquifer of concern or occupied building not served by a public water supply:
Jackson St. and Niagara St., town of Lockport

Distance to above well or building:
0.3 miles to nearest house on Jackson St.

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

Identified water-supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and populations served by each:
Most of area serviced by county, town, +/or city water lines. Jackson St. and part of Niagara St (27 homes based on USGS quad) not on water lines. An unknown number of homes on lines may be unconnected and using wells.

Computation of land area irrigated by supply well(s) drawing from aquifer(s) of concern within a 3-mile radius, and conversion to population (1.5 people per acre):
None identified. If irrigated, water obtained from county, town, and/or city supplies.

Total population served by ground water within a 3-mile radius:
27 unserviced homes
x 3.8 people per household
103 people

SURFACE WATER ROUTE

1 OBSERVED RELEASE

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

Arsenic, Cadmium, Chromium, Lead, & Selenium (Ref. 1)

Rationale for attributing the contaminants to the facility:

Leachate breakouts sampled flowing into Gulf

* * *

2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

~~Same as~~ top of facility < 5%

sideslope about 45% (ref 12, 15)

Name/description of nearest downslope surface water:

Gulf (ref. 12) adjacent to base of landfill

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

45% (side slope of facility), Gulf flows along base of landfill (refs 12, 9, 10, and 15).

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

Base of landfill appears to ~~end~~ end at edge of creek bed (ref. 15).

Is the facility completely surrounded by areas of higher elevation?

no. Higher elevation on south and east, lower elevation on west and north (ref. 12).

1-Year 24-Hour Rainfall in Inches

2.1 inches (Ref. 21)

Distance to Nearest Downslope Surface Water

Gulf adjacent to landfill base.

Physical State of Waste

Liquid, sludge, solid (Ref. 4, Ref. 6)

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Leachate Breakouts / protruding refuse. Run-off enters the Gulf immediately (Ref. 9, 10, 15)

Method with highest score:

Landfill not properly covered and diversion system unsound.

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

same as groundwater

Compound with highest score:

same as groundwater

Hazardous Waste Quantity

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

same as groundwater

Basis of estimating and/or computing waste quantity:

same as groundwater

* * *

5 TARGETS

Surface Water Use

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

the Gulf and Eighteen Mile Creek classified as "Class D" waters - secondary contact recreation (ref. 19, 20)

Is there tidal influence?

No

Distance to a Sensitive Environment

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

N/A

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

wetland tentatively identified half a mile northeast of facility. Field verification and classification not yet conducted by NYSDEC (Ref. 14)

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

None

Population Served by Surface Water

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

None

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

None

Total population served:

0

Name/description of nearest of above water bodies:

N/A

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

N/A

AIR ROUTE

1 OBSERVED RELEASE

Contaminants detected:

no data

Date and location of detection of contaminants

N/A

Methods used to detect the contaminants:

N/A

Rationale for attributing the contaminants to the site:

N/A

* * *

2 WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

N/A

Most incompatible pair of compounds:

N/A

Toxicity

Most toxic compound:

N/A

Hazardous Waste Quantity

Total quantity of hazardous waste:

N/A

Basis of estimating and/or computing waste quantity:

N/A

* * *

3 TARGETS

Population Within 4-Mile Radius

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

0 to 4 mi 0 to 1 mi 0 to 1/2 mi 0 to 1/4 mi

N/A

Distance to a Sensitive Environment

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

N/A

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

N/A

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

N/A

Land Use

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

N/A

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

N/A

Distance to residential area, if 2 miles or less:

N/A

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

N/A

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

N/A

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

N/A

3.2 EPA PRELIMINARY ASSESSMENT (FORM 2070-12)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	932010

II. SITE NAME AND LOCATION

01 SITE NAME *(Legal, common, or descriptive name of site)*	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
LOCKPORT CITY LANDFILL	OAKHURST [illegible]

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
LOCKPORT	NY		NIAGARA		

09 COORDINATES LATITUDE: 43° 10' 52.0" LONGITUDE: 078° 41' [illegible]"

10 DIRECTIONS TO SITE *(Starting from nearest public road)*
WEST OF OAKHURST [illegible] OF ROAD, FOLLOW ROAD TO CITY GARAGE, ACCESS ROAD [illegible] NORTH FROM GARAGE ABOUT 1/4 MILE TO LANDFILL

III. RESPONSIBLE PARTIES

01 OWNER *(If known)*	02 STREET *(Business, mailing, residential)*
CITY OF LOCKPORT	

03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
			( )

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 5/17/83 (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
1950'S (BEGINNING YEAR) | 1976 (ENDING YEAR) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
PCB'S, ACIDS, ALKALINE [illegible], REACTIVE [illegible] POWDERS & [illegible] CHLORINE ODORS WHICH WERE QUITE IRRITATING TO THE EYES, [illegible]

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
LEACHATE OUTBREAKS FLOWING INTO SURFACE WATERS INADEQUATE COVER, POSSIBLE GROUNDWATER CONTAMINATION

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
RICHARD L. CROUCH	RECRA RESEARCH, INC	(716) 838-6200

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
KEVIN [illegible]		RECRA RESEARCH	(716) 838-6200	6/[illegible]/83

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	932010

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

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

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

TONS UNKNOWN

CUBIC YARDS _____

NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

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

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	UNKNOWN		METAL SLUDGES
OLW	OILY WASTE	UNKNOWN		PCB FROM TRANSFORMERS
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS	UNKNOWN		LIQUIDS DUMPED IN TRENCHES
BAS	BASES	"		SOLIDS
MES	HEAVY METALS			

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

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

V. FEEDSTOCKS (See Appendix for CAS Numbers) N/A

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)

INTERAGENCY TASK FORCE 1979 REPORT

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: 932010

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION
02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 103
04 NARRATIVE DESCRIPTION
LANDFILL UNLINED. WASTES PLACED BELOW PRESENT WATER TABLE. POPULATION ESTIMATED FROM USES NOT ON COUNTY WATER LINE. HOMES ON LINE MAY USE GROUNDWATER WELLS, THEREFORE ACTUAL NUMBER OF PEOPLE AFFECTED MAY BE LARGER.

01 ☒ B. SURFACE WATER CONTAMINATION
02 ☒ OBSERVED (DATE: 5-17-83) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: >5,000
04 NARRATIVE DESCRIPTION
LEACHATE OUTBREAKS EVIDENT AROUND ENTIRE SITE. CREEK CALLED THE GULF A TRIBUTARY OF 18 MILE CREEK, FLOWS ALONG BASE OF LANDFILL. POPULATION WITHIN 1 MILE OF SITE PROBABLY EXCEEDS 5,000 PEOPLE.

01 ☒ C. CONTAMINATION OF AIR
02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: >5000
04 NARRATIVE DESCRIPTION
NO DATA AVAILABLE. PCB & POSSIBLY OTHER VOLATILE LIQUIDS WERE POURED INTO LANDFILL & BURIED. REACTIVE INCOMPATIBLE AND/OR FLAMMABLE WASTES WERE ALSO DISPOSED OF.

01 ☒ D. FIRE/EXPLOSIVE CONDITIONS
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: >5,000
04 NARRATIVE DESCRIPTION
FLAMMABLE, REACTIVE & POSSIBLY INCOMPATIBLE WASTES DISPOSED OF AT SITE.

01 ☒ E. DIRECT CONTACT
02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION
LEACHATE BREAKOUTS, INSUFFICIENT COVER, INADEQUATE SECURITY.

01 ☒ F. CONTAMINATION OF SOIL
02 ☒ OBSERVED (DATE: 1982) ☐ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: 3 + (Acres)
04 NARRATIVE DESCRIPTION
SOIL SAMPLES ANALYZED FOR PRIORITY POLLUTANTS SHOW ELEVATED LEVELS OF ARSENIC, CHROMIUM, & OTHER CONTAMINANTS.

01 ☒ G. DRINKING WATER CONTAMINATION
02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 103
04 NARRATIVE DESCRIPTION
SEE "GROUNDWATER CONTAMINATION" ABOVE

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

01 ☒ I. POPULATION EXPOSURE/INJURY
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 5,000
04 NARRATIVE DESCRIPTION
SEE ABOVE - SURFACE WATER CONTAMINATION, IMPROPER SITE CLOSURE, INADEQUATE SECURITY

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: 932010

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

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

WATER & SOIL CONTAMINATION COULD AFFECT GROWTH

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

REDUCTION OF HABITAT AVAILABILITY, WATER CONTAMINATION

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

UNKNOWN

01 [X] M. UNSTABLE CONTAINMENT OF WASTES (Spills/runoff/standing liquids/leaking drums) — 02 [X] OBSERVED (DATE: 5-17-83) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

STANDING LIQUIDS AND LEACHATE OUTBREAKS OBSERVED. DRUMS & OTHER DEBRIS UNCOVERED ON SIDE SLOPES & IN THE CREEK

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

N/A

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

N/A

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

NOT OBSERVED DURING 5-17-83 VISIT

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

III. TOTAL POPULATION POTENTIALLY AFFECTED: 15,000

IV. COMMENTS

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

NYSDEC REGION 9, NIAGARA COUNTY HEALTH DEPT. CITY OF LOCKPORT EMPLOYEES WHO FORMERLY WORKED AT THE LANDFILL

EPA

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 932010

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER				
LOCKPORT CITY LANDFILL	OAKHURST ROAD				
03 CITY	**04 STATE**	**05 ZIP CODE**	**06 COUNTY**	**07 COUNTY CODE**	**08 CONG DIST**
LOCKPORT	NY		NIAGARA	/	

09 COORDINATES: 43° LATITUDE 10'52.0" | 078° LONGITUDE 43'0.3"

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
5,17,83 (MONTH DAY YEAR)	☐ ACTIVE ☒ INACTIVE	1930's 1976 (BEGINNING YEAR ENDING YEAR) ___ UNKNOWN

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

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
KEVIN GWEN	ENVIRONMENTAL SPECIALIST	RECRA RESEARCH	(716)838-6200
09 OTHER INSPECTORS	**10 TITLE**	**11 ORGANIZATION**	**12 TELEPHONE NO.**
NONE.			( )
			( )
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
WILLIAM GIERNER	CITY ENGINEER	MUNICIPAL BLDG. LOCKPORT, NY	( )
GARY BROCKMAN		ROAD/STREETS DEPT LOCKPORT, NY	( )
EDWARD HALE			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☒ PERMISSION ☐ WARRANT	1100 HRS	SUNNY, WARM

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
RICHARD L. CROUCH	RECRA RESEARCH, INC	(716)838-6200

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
KEVIN GWEN		RECRA RESEARCH	716-838-6200	6,3,83 (MONTH DAY YEAR)

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: 932010

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. GROUNDWATER CONTAMINATION
02 [ ] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 103.
04 NARRATIVE DESCRIPTION
LANDFILL UNLINED. WASTES PLACED BELOW PRESENT WATER TABLE. POPULATION ESTIMATED FROM USES NOT ON COUNTY WATER-LINE. HOMES ON LINE MAY USE GROUNDWATER WELLS, THEREFORE ACTUAL NUMBER OF PEOPLE AFFECTED MAY BE LARGER.

01 [X] B. SURFACE WATER CONTAMINATION
02 [X] OBSERVED (DATE: 5-11-83) [ ] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: >5,000
04 NARRATIVE DESCRIPTION
LEACHATE OUTBREAKS EVIDENT AROUND ENTIRE SITE. CREEK CALLED THE GULF A TRIBUTARY OF 18 MILE CREEK, FLOWS ALONG BASE OF LANDFILL. POPULATION WITHIN 1 MILE OF SITE PROBABLY EXCEEDS 5,000 PEOPLE.

01 [X] C. CONTAMINATION OF AIR
02 [ ] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: >5000
04 NARRATIVE DESCRIPTION
NO DATA AVAILABLE. PCB & POSSIBLY OTHER VOLATILE LIQUIDS WERE POURED INTO LANDFILL & BURIED. REACTIVE, INCOMPATIBLE AND/OR FLAMMABLE WASTES WERE ALSO DISPOSED OF.

01 [X] D. FIRE/EXPLOSIVE CONDITIONS
02 [ ] OBSERVED (DATE: _____) [ ] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: >5,000
04 NARRATIVE DESCRIPTION
FLAMMABLE, REACTIVE & POSSIBLY INCOMPATIBLE WASTES DISPOSED OF AT SITE.

01 [X] E. DIRECT CONTACT
02 [ ] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION
LEACHATE BREAKOUTS, INSUFFICIENT COVER, INADEQUATE SECURITY.

01 [X] F. CONTAMINATION OF SOIL
02 [X] OBSERVED (DATE: 1982) [ ] POTENTIAL [ ] ALLEGED
03 AREA POTENTIALLY AFFECTED: 3 + (Acres)
04 NARRATIVE DESCRIPTION
SOIL SAMPLES ANALYZED FOR PRIORITY POLLUTANTS SHOW ELEVATED LEVELS OF ARSENIC, CHROMIUM, & OTHER CONTAMINANTS.

01 [X] G. DRINKING WATER CONTAMINATION
02 [ ] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 103
04 NARRATIVE DESCRIPTION
SEE "GROUNDWATER CONTAMINATION" ABOVE

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

01 [X] I. POPULATION EXPOSURE/INJURY
02 [ ] OBSERVED (DATE: _____) [ ] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 5,000
04 NARRATIVE DESCRIPTION
SEE ABOVE - SURFACE WATER CONTAMINATION, IMPROPER SITE CLOSURE, INADEQUATE SECURITY

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	932010

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES *(Check all that apply)*

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

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

TONS UNKNOWN

CUBIC YARDS _____

NO. OF DRUMS _____

03 WASTE CHARACTERISTICS *(Check all that apply)*

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

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	UNKNOWN		METAL SLUDGES
OLW	OILY WASTE	"		PCB'S FROM TRANSFORMERS
SOL	SOLVENTS	"		POSSIBLE
PSD	PESTICIDES	"		POSSIBLE-AGRICULTURAL AREA
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS	UNKNOWN		LIQUIDS DUMPED IN TRENCHES
BAS	BASES	"		SOLIDS
MES	HEAVY METALS			

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

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

V. FEEDSTOCKS *(See Appendix for CAS Numbers)*

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

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

EXACT TYPES & QUANTITIES OF WASTES UNKNOWN.
SOURCES: PERSONNEL EMPLOYED AT LANDFILL WHEN ACTIVE
INTERAGENCY TASK FORCE 1979 REPORT.

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	932010

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

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

WATER & SOIL CONTAMINATION COULD AFFECT GROWTH

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

REDUCTION OF HABITAT AVAILABILITY, WATER CONTAMINATION

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

UNKNOWN

01 [X] M. UNSTABLE CONTAINMENT OF WASTES (Spills/runoff/standing liquids/leaking drums) — 02 [X] OBSERVED (DATE: 5-17-83) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

STANDING LIQUIDS AND LEACHATE OUTBREAKS OBSERVED. DRUMS & OTHER DEBRIS UNCOVERED ON SIDE SLOPES & IN THE CREEK

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

N/A

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

N/A

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

NOT OBSERVED DURING 5-17-83 VISIT

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

III. TOTAL POPULATION POTENTIALLY AFFECTED: ~5,000

IV. COMMENTS

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

NYSDEC REGION 9, NIAGARA COUNTY HEALTH DEPT. CITY OF LOCKPORT EMPLOYEES WHO FORMERLY WORKED AT THE LANDFILL.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	932010

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☐ A. NPDES				
☐ B. UIC				
☐ C. AIR				
☐ D. RCRA				
☐ E. RCRA INTERIM STATUS				NO PERMITS
☐ F. SPCC PLAN				
☐ G. STATE (Specify)				
☐ H. LOCAL (Specify)				
☐ I. OTHER (Specify)				
☐ J. NONE				

III. SITE DESCRIPTION

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

04 TREATMENT (Check all that apply)

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

05 OTHER

- ☐ A. BUILDINGS ON SITE

06 AREA OF SITE

3 (Acres)

07 COMMENTS

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

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

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

LANDFILL IS UNLINED. WASTES DISPOSED OF IN TRENCHES WHICH EXTEND BELOW THE PRESENT WATER TABLE. COVER INADEQUATE.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☒ YES ☐ NO

02 COMMENTS

WASTE EXPOSED ON SIDE SLOPES, LEACHATE OUTBREAKS OBSERVED, SECURITY INADEQUATE.

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

NYSDEC REGION 9
NIAGARA COUNTY HEALTH DEPT.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	932010

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. _____ (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY *(Check one)*

☒ A. ONLY SOURCE FOR DRINKING — FOR SOME AREAS
☐ 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 ≈ 100

03 DISTANCE TO NEAREST DRINKING WATER WELL 0.3 (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
10 (ft)	NORTH	10 (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 GROUNDWATER DISCHG. ALONG FACE OF ESCARPMENT.

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
THE GULF	☒	ADJACENT (mi)
EIGHTEEN MILE CREEK	☐	1.0 (mi)
	☐	_____ (mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE
A. ≈ 5,000 NO. OF PERSONS	B. ≈ 29,000 NO. OF PERSONS	C. ≈ 37,000 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION 0.3 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE MANY - CITY OF LOCKPORT

04 DISTANCE TO NEAREST OFF-SITE BUILDING 0.2 (mi)

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

VICINITY OF SITE IS MAINLY INDUSTRIAL, SOME RESIDENTIAL AREAS WITHIN 0.5 MILES

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	932010

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	
40-100 (ft)	UNKNOWN (ft)	—	

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE		
		SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
7 (in)	2 (in)	0-45 %	WEST	%

09 FLOOD POTENTIAL

BASE OF SITE
SITE IS IN 100 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. 1.0 (mi)

12 DISTANCE TO CRITICAL HABITAT *(of endangered species)*

N/A (mi)

ENDANGERED SPECIES: _____

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS PRIME AG LAND	AGRICULTURAL LANDS AG LAND
A. 0.3 (mi)	B. 0.3 (mi)	C. _____ (mi)	D. 0.3 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

THE SOMERSET RAILROAD LINE RUNS ALONG THE SOUTH & EAST SIDES OF THE SITE, ELEVATED ABOVE THE LANDFILL ABOUT 10 FEET, TO THE WEST, THE SIDE SLOPE DROPS ABOUT 80 FT. AT AN ANGLE OF 45° ALONG THE EDGE OF THE ESCARPMENT. THE NORTH SIDE SLOPE IS AT AN ANGLE OF ≈16°.

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

FEMA MAPS, USGS LOCKPORT QUAD.
CITY & TOWN ZONING MAPS
NATIONAL CLIMATIC SERVICE,
U.S. CENSUS BUREAU.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	932010

II. SAMPLES TAKEN

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

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
	NONE TAKEN

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☒ GROUND ☐ AERIAL

02 IN CUSTODY OF RECRA RESEARCH, INC
(Name of organization or individual)

03 MAPS ☒ YES ☐ NO

04 LOCATION OF MAPS RECRA RLS. USGS LOCKPORT 7.5' QUAD

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

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

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	932010

II. CURRENT OWNER(S) / PARENT COMPANY (If applicable)

01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER
LOCKPORT, CITY OF			

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE
LOCKPORT	NY	14120			

01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE

01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE

01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE

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

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

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

NYSDEC REGION 9

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	932010

II. CURRENT OPERATOR *(Provide if different from owner)*

01 NAME	02 D+B NUMBER
LOCKPORT, CITY OF	

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

05 CITY	06 STATE	07 ZIP CODE
LOCKPORT	NY	14120

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)*

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

PREVIOUS OPERATORS' PARENT COMPANIES *(If applicable)*

10 NAME	11 D+B NUMBER

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

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

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

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

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

14 CITY	15 STATE	16 ZIP CODE

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

NYSDEC REGION 9

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	932010

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
NONE	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE

III. OFF-SITE GENERATOR(S)

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

IV. TRANSPORTER(S)

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

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

NUMEROUS GENERATORS THROUGHOUT LOCKPORT SHIPPED THEIR OWN WASTES TO LANDFILL INCLUDING HARRISON RADIATOR, NIAGARA MOHAWK, NY. STATE ELECTRIC & GAS, NOURY CHEMICAL, ETC.

SOURCES: FORMER LANDFILL EMPLOYEES
NYSDEC REG. 9.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	932010

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NO ACTION OF THIS NATURE TAKEN

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	932010

II PAST RESPONSE ACTIVITIES *(Continued)*

01 ☐ R. BARRIER WALLS CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NO ACTION OF THIS NATURE TAKEN

01 ☒ S. CAPPING/COVERING — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
COVER IS INADEQUATE - WASTE IS PROTRUDING THROUGH COVER.

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

01 ☐ U. GROUT CURTAIN CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NO ACTION OF THIS NATURE TAKEN

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 REG. 9
NIAG. COUNTY HEALTH DEPT.

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	93240

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)*

4.0 SITE HISTORY

According to NYSDEC (Ref. 6 and 11), unknown quantities of a variety of wastes were disposed of at the Lockport City Landfill prior to 1976. Included among these wastes were sewage sludge; woodstarch contaminated with peroxide paste, keetox and oxylite waste; steel barrels, plastics, glass, cardboard and waste paper. The reports noted organic peroxides were dumped by Noury Chemical. Harrison Radiator was suspected of shipping metal sludges to the facility.

The landfill under investigation was active from the 1950's until the 1970's. The facility was a continuation of operations that had originally been located to the south of the Harrison filtration plant. The original landfill was bounded on the south and east by the railroad line. Route 93 passes west of that site while West Avenue is south of it, beyond the railroad tracks. The original landfill was constructed on the edge of the escarpment with filling proceeding into the ravine adjacent to the gulf. When filling at the original facility ceased, operations were transferred to the second area (Ref. 4).

City personnel felt that the industrial waste disposal information related to the second fill area was not likely true of the original facility (Ref. 4). The original landfill is readily visible from the city garage. Garbage is exposed on the side slope of the facility, and the Gulf extends to the base of the landfill. The original landfill should be investigated for remediation along with the landfill currently under investigation. The following information relates specifically to the landfill off Oakhurst Road and north of the city garage.

The general operation of the facility consisted of digging a trench into the overburden. Wastes were deposited in the trench and covered each day by the clayey materials previously excavated. Trenching began along the railroad tracks with subsequent trenches being dug further outward towards the Gulf. Nearest the Gulf, the trenches were eighty (80) or more feet deep (Ref. 4). The width of the trenches was not ascertained.

Numerous empty drums are seen throughout the landfill and adjacent areas (Ref. 9 and 10). Whenever a drum was received containing liquid, the shipper was instructed to drain the liquid into the trench. The draining was performed in order to facilitate subsequent crushing of the drums (Ref. 4). Therefore, it is uncertain if the empty drums present were received empty or if the contents were subsequently drained. In addition, the quantity and exact nature of the liquids drained into the trenches is not known.

Below is a listing of the major industrial users of the landfill which was supplied by the former workers (Ref. 4). City personnel stressed that probably every industrial facility in Lockport and that portion of Niagara County disposed of wastes there. In addition, a large amount of dumping occurred while no city personnel were present. The major industrial users and the types of wastes disposed of include:

1. Harrison Radiator - Two (2) truckloads of wastes were disposed of daily. Drums of paint sludge and acid were included among the wastes. As indicated previously, the drums containing liquids (and sludges) were drained into the trench prior to crushing.

2. Niagara Mohawk and New York State Electric and Gas - Wastes disposed of on a irregular basis. Included in the materials from the power companies were transformers thought to contain PCB. The transformers were broken open and the copper salvaged. The liquids were emptied into the trenches. Estimates of the number of transformers disposed of in this manner were not available.

3. Van de Mark Chemicals - Irregular disposal of wastes, usually one (1) shipment every one (1) or two (2) weeks. Van de Mark shipped two (2) types of waste which were troublesome to the landfill operators. One (1) was a powdery solid that emitted a chlorine odor. When drums of this material were ruptured, clouds of powder formed irritating worker's skin, eyes and lungs. Due to the extreme discomforts associated with this material, the barrels were kept separate from the other refuse being disposed of and covered. The second material was extremely reactive when exposed to air or water. The city workers thought this material contained phosphorus. When drums of this material were punctured, fires resulted. According to the workers, fires were frequent occurrences at the landfill.

4. Diamond Alkali - One (1) truckload of waste was usually shipped per day. The shipments were in bulk. Diamond Alkali usually shipped one (1) of two (2) types of wastes. The first was a liquid which, if not dumped quickly, would solidify in the truck. The second was a sandy, granular solid material.

As previously indicated, a large number of companies used the Lockport City Landfill. Many of these companies are no longer operating

in the area. Millard Allows shipped some type of powdery material. Norton Labs and Ferre Plastics shipped plastics and scraps from their operations. DeSales Foundry and Western Block disposed of ash, metal, and other foundry-type wastes. Paper material was sent from United Board and Carton and Western Container (now American Packaging). Almost all, if not all, of the companies hauled their own wastes to the landfill. City workers could not recall seeing any contracted haulers on-site.

City personnel (Ref. 4) placed the thirty-six (36") inch concrete pipe through the landfill directly on the clay surface. The pipe drained runoff from an old spring east of the city garage. Refuse was then presumably disposed of alongside, and on top of, the pipeline. Although leachate may be seeping along the pipeline, groundwater from bedrock east of the landfill is also flowing along it. The seep noted on top of the landfill is probably caused by the cement plug in the pipe forcing groundwater upward and outward. The force of the flow probably created a channel through existing spaces in the landfill to the surface. Due to the flow of groundwater through the pipeline, analysis of the water flowing along the outfall into the creek should be considered as diluted and not truly representative of landfill leachate.

5.0 SITE DATA

5.1 Site Area Surface Features

5.1.1 Topography and Drainage - The Lockport City Landfill is located on the edge of the Niagara Escarpment. The Somerset Railroad line runs along the south and east of the landfill, on ground between five (5) and ten (10) feet higher than the site. For most of the area, the landfill surface is generally flat. However, the western side is a 45° slope to Gulf Creek, about eighty (80) feet below. In the north, the slope is gentler, at approximately 16° (Ref. 12).

Drainage from the site appears to flow into Gulf Creek. The creek extends from the original landfill areas mentioned previously and flows northward along the base of the landfill area being investigated. Gulf Creek flows into Eighteen Mile Creek about one (1) mile north of the landfill. Eighteen Mile Creek eventually flows into Lake Ontario.

The water classification of both the Gulf and Eighteen Mile Creek around the Gulf confluence is Class D. The best usage of Class D waters is for

secondary contact recreation. Related to this usage, the water conditions must be suitable for fish survival (Ref. 19 and 20).

5.1.2 Environmental Setting - The 100-year floodplain of the Gulf runs along the base of the landfill (Ref. 13). There are no critical habitats of endangered or threatened species in the vicinity of the site. However, the Rollin T. Grant Gulf Wilderness Park is about half a mile northeast of the facility. NYSDEC has tentatively identified a freshwater wetland in this area. Field investigations needed to classify the wetlands have not been conducted (Ref. 14).

As noted in Section 2, the top of the landfill is sparsely vegetated or unvegetated. Shrubs and trees are found on the western and northern side slopes. This growth is sometimes quite dense. Towards the southern end of the landfill side slope, a large stand of tall reed (Phragmites) was observed. At the base of the landfill (along the creek), the tall reed stand was approximately fifty (50) feet wide. The plants continued about halfway up the landfill sideslope, a distance of about sixty (60) feet. Phragmites is a wetland plant. The presence of such

an extensive growth of this plant on the sideslope indicated the surface soils in this area are usually saturated, possibly due to a large seep (Ref. 15).

The area of the Gulf supports a rich growth of trees, shrubs, and wetland plants. Animals, including deer, were observed in the woods around the Gulf and the base of the landfill (Ref. 15).

Leachate and wastes have been observed directly impacting on the Gulf (Ref. 9, 10, and 15). Debris, including empty drums, have been observed on the creek. Leachate outbreaks flowing into the Gulf have resulted in the discoloration of the water and sediments. In addition, oily films and powdery materials have been observed floating on the water surface.

5.2 Site Hydrogeology

5.2.1 Geology - As stated previously, the landfill is located on the Niagara Escarpment. Bedrock beneath the site is the Rochester Shale. The contact with the Lockport Dolomite is just to the south of the site, in the vicinity of the gas pumps of the city garage. Contact with the Queenstone Shale formation

is just to the north and west of the facility. The bedrock formations dip gently to the south (Ref. 2, 3, 16 and 17).

5.2.2 Soils - The natural overburden consists predominantly of silts and clays. Borings placed on the eastern portion of the site show the bedrock is overlain by approximately forty (40) feet of loose sand and gravel sized fill and stiff silty clay. Fragments of weathered bedrock are also present (Ref. 3). Based on conversations with city personnel, the silt and clay overburden reaches a thickness of over eighty (80) feet on the western edge of the landfill (Ref. 4).

The Soil Survey classified the soil type as being Rock Land, steep (Ref. 2). The thickness of the unit is attributed to fragmentation of falling rocks and soil creep. As opposed to the low permeability implied by silts and clays, this soil type is considered to have moderate permeability.

5.2.3 Groundwater - The characteristics of the bedrock aquifer including depth to groundwater, exact flow directions, and capacity of the aquifer in the vicinity of the site are not well documented.

Groundwater flow is generally in a northerly direction discharging first along the escarpment and then presumably to Lake Ontario (Ref. 16). Although water is supplied to most residents in the City and Town of Lockport, some areas such as Jackson and Niagara Streets north of the site are not serviced by water lines, according to the Town of Lockport water line maps. Residences in these areas would presumably use well water. In addition, houses on roads with water lines may not be connected to the town water system and these residences may also use well water.

The amount of groundwater discharged from the Escarpment into the landfill is also uncertain. Boring logs indicate the groundwater surface within the landfill is about ten (10) feet below the ground surface (Ref. 3).

5.3 Previous Sampling and Analysis

5.3.1 Groundwater Quality Data - There are no groundwater quality data available for the site.

5.3.2 Surface Water Quality Data - Surface water samples

were examined on two (2) occasions. The first set of samples were reported on April 14, 1981 for the Niagara County Health Department. The water samples analyzed at that time were taken at the outfall of the thirty-six inch (36") diameter pipe and upstream and downstream of the outfall in the Gulf. The analytical results are presented below (Ref. 18):

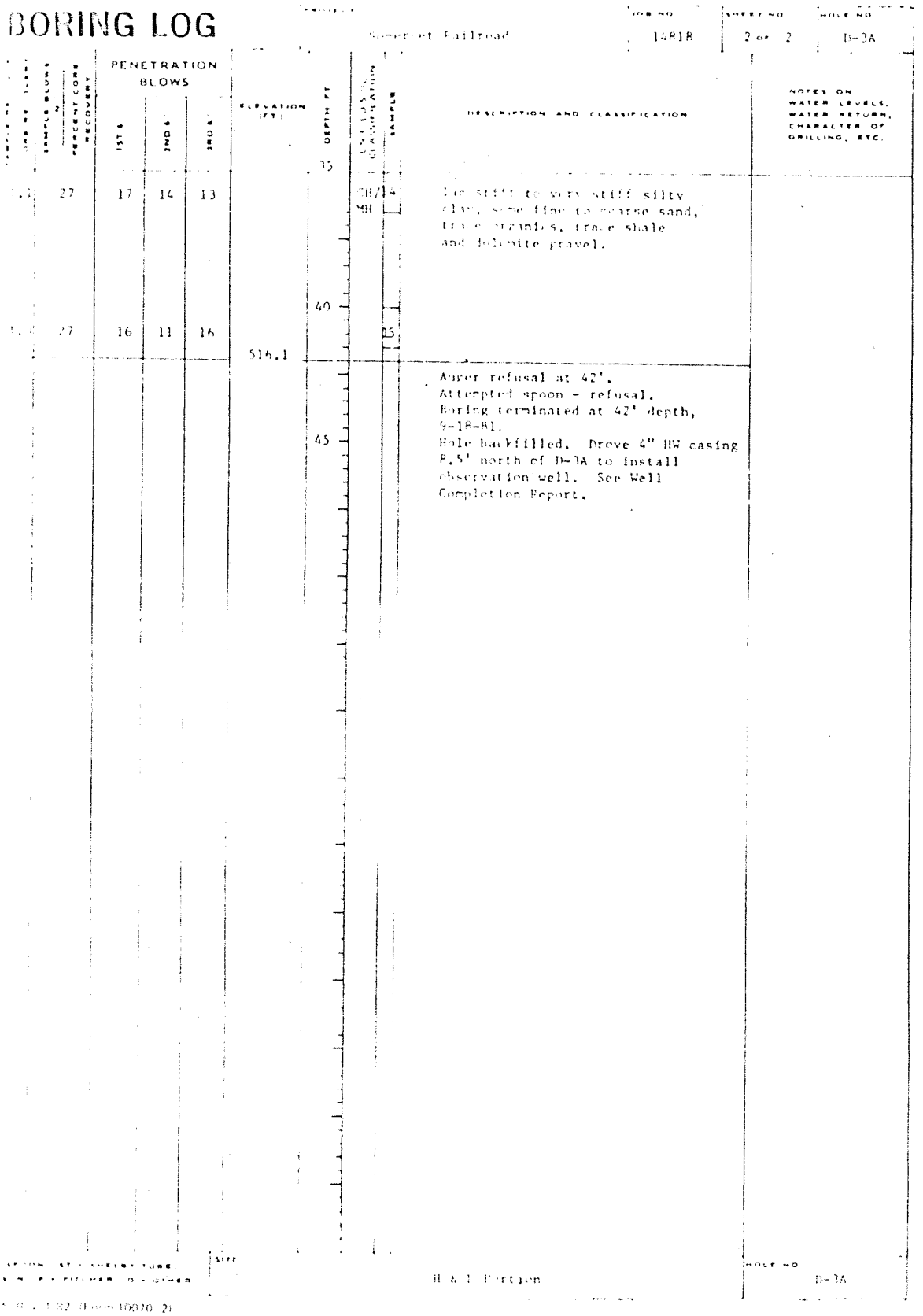
	Concentration (mg/l or ppm)		
Parameter	Pipe	Upstream	Downstream
Total Organic Halide	0.041	0.059	0.076
Total Organic Carbon	91.0	113.5	52.6
Cadmium	0.03	0.03	0.03
Chromium	0.075	0.13	0.83
Iron	135	2,000	386
Zinc	0.12	4.0	27.5
Copper	0.10	1.28	3.90

The second set of samples were taken in late 1981 with the results reported for NYSDEC on January 20, 1982. Again, three (3) stations were sampled. Station 1 was Gulf Creek at the north (downstream) end of the landfill. The Station 2 landfill came from a leachate breakout at the midway point of the landfill. Station 3 was the upstream site. This station was the point at which the spring and

leachate discharged along the thirty-six inch (36") diameter pipe. The analytical results of the NYSDEC water sampling is presented on the next page.

5.3.3 Air Quality Data - There are no air quality data available for the site.

5.3.4 Other Analytical Data - When the above mentioned water samples were collected by NYSDEC for priority pollutant analysis, soil samples were also obtained from the same three (3) stations. The analytical results of these samples are presented on the next page.



Lockport Landfill (Ref. 3)

PRIORITY POLLUTANT ANALYSIS - WATER (REF. 1)

Parameter	Concentration (µg/g)* Station #1	Station #2	Station #3
Antimony	L.T.	L.T.	L.T.
Arsenic	33	52	37
Berylium	L.T.	L.T.	L.T.
Cadmium	L.T.	L.T.	L.T.
Chromium	L.T.	0.028	L.T.
Copper	0.026	0.298	0.014
Iron	0.07	10	14
Lead	L.T.	0.2	L.T.
Mercury	L.T	L.T.	L.T.
Nickel	0.09	L.T.	L.T.
Selenium	L.T.	L.T.	7.3
Silver	L.T.	L.T.	L.T.
Thalium	L.T.	L.T.	L.T.
Zinc	0.072	0.772	0.037
Halogenated Organic Scan	L.T.	0.69	2.0
PCB	L.T.	L.T.	L.T.
Dry Wt. %	13	78	52

*L.T. = Less than detection limit

PRIORITY POLLUTANT ANALYSIS - SOIL (Ref. 1)

Parameter	Concentration (µg/g)* Station #1	Station #2	Station #3
Antimony	L.T.	L.T.	L.T.
Arsenic	7.5	5.6	21
Berylium	L.T.	L.T.	L.T.
Cadmium	2.1	1.3	1.2
Chromium	150	83	1
Copper	250	440	28
Iron	50,000	34,000	110,000
Lead	640	400	L.T.
Mercury	0.89	L.T.	1.9
Nickel	54	74	L.T.
Selenium	1.1	1.3	5.4
Silver	3.1	0.67	L.T.
Thalium	6.2	L.T.	L.T.
Zinc	1,500	1,000	73
Halogenated Organic Scan	30	27	2.7
PCB	L.T.	L.T.	L.T.
Dry Wt. %	37	52	12

*L.T. = Less than detection limit

6.0 ADEQUACY OF AVAILABLE DATA

In compiling the Hazard Ranking Score, the Lockport City Landfill was found to have a score for migration potential (S_M) equal to 23.9. However, due to a certain degree of subjectivity in scoring route rating factors, a range for the (S_M) was developed. For this site the range for (S_M) is 23 to 30. Data inadequacies are as follows:

- There has been no analytical testing to date for substances of concern in groundwater or air. Therefore, possibility of releases from the site via these routes cannot be assessed.

- There are no records on the quantity or types of hazardous substances deposited at the site. Facility personnel can provide only general information on incoming wastes received.

- The population served by, and uses of, surface water and groundwater have been estimated. Extent of use of groundwater for drinking has not been accurately documented because people living in areas serviced by city/town/county water systems may be using wells.

- The persistency of the reactive wastes disposed of at the site is unknown.

Besides the HRS itself, additional information is needed to assess the type and cost or remediation alternatives at the site. Other areas needed to be explored include:

- Can the landfill be isolated from groundwater discharging from the bedrock along the escarpment into the facility?

- Does a thick enough layer of clay and silt exist beneath the wastes in all portions of the site to prevent hydraulic communication with the bedrock aquifer?

- What are the thicknesses and total depths of waste trenches?

- What is the thickness of cover over the wastes deposited near the sides of the facility?

- Do incompatible wastes have the potential for coming in contact with each other?

7.0 PROPOSED PHASE II WORK PLAN

7.1 Objectives

As per the inadequacies of the data base that were itemized in the preceding section, a work plan has been developed which, to the extent practical, will provide the information required to address the following list.

- Potential environmental effects of the landfill.
- The extent and magnitude of contamination, based on site specific hydrogeologic conditions.
- The data inputs necessary to effectuate the development and recommendation of cost effective remedial actions.

Detailed descriptions of the elements of this work plan are herein provided.

7.2 Scope of Work

The primary purpose of this work element is to fill the data gaps identified in the preliminary assessment, so as to permit a complete site characterization/ranking (HRS) and engineering evaluation of remedial alternatives. The preliminary field investigation includes the following items:

- o Geophysical Exploration
- o Subsurface Investigation
- o Monitoring Well Installation
- o Sampling and Analysis

Throughout the investigative effort, field activities will be performed in strict accordance with established safety protocol, presented in Recra Research Inc.'s Operations Manual -- Field and Analytical Services (previously submitted to NYSDEC by Recra as part of a pre-qualifying submission).

7.2.1 Geophysical Exploration - After initial assessment of the ambient air quality at the site, a geophysical program will be performed to determine the limits of the disposal area and any concentrated areas of buried metals (e.g., drums); it will also aid in determining the possibility and extent of groundwater contamination. Three geophysical methods will be employed to investigate the site. The methods area a magnetometer survey, a VLF-EM Terrain Conductivity Survey, and Seismic Refraction.

The magnetometer survey will be performed on a grid over the entire disposal area. The survey will be performed using a Scintrey MP-2 proton magnetometer, with measurements taken to an accuracy of approximately 2 gammas. A base station will be established, and reference readings to determine magnetic drift will be performed at least every 45 minutes. The grid will be established using a tape and level. The readings at each station will be digitalized and a computer-generated contour map will be prepared for evaluation.

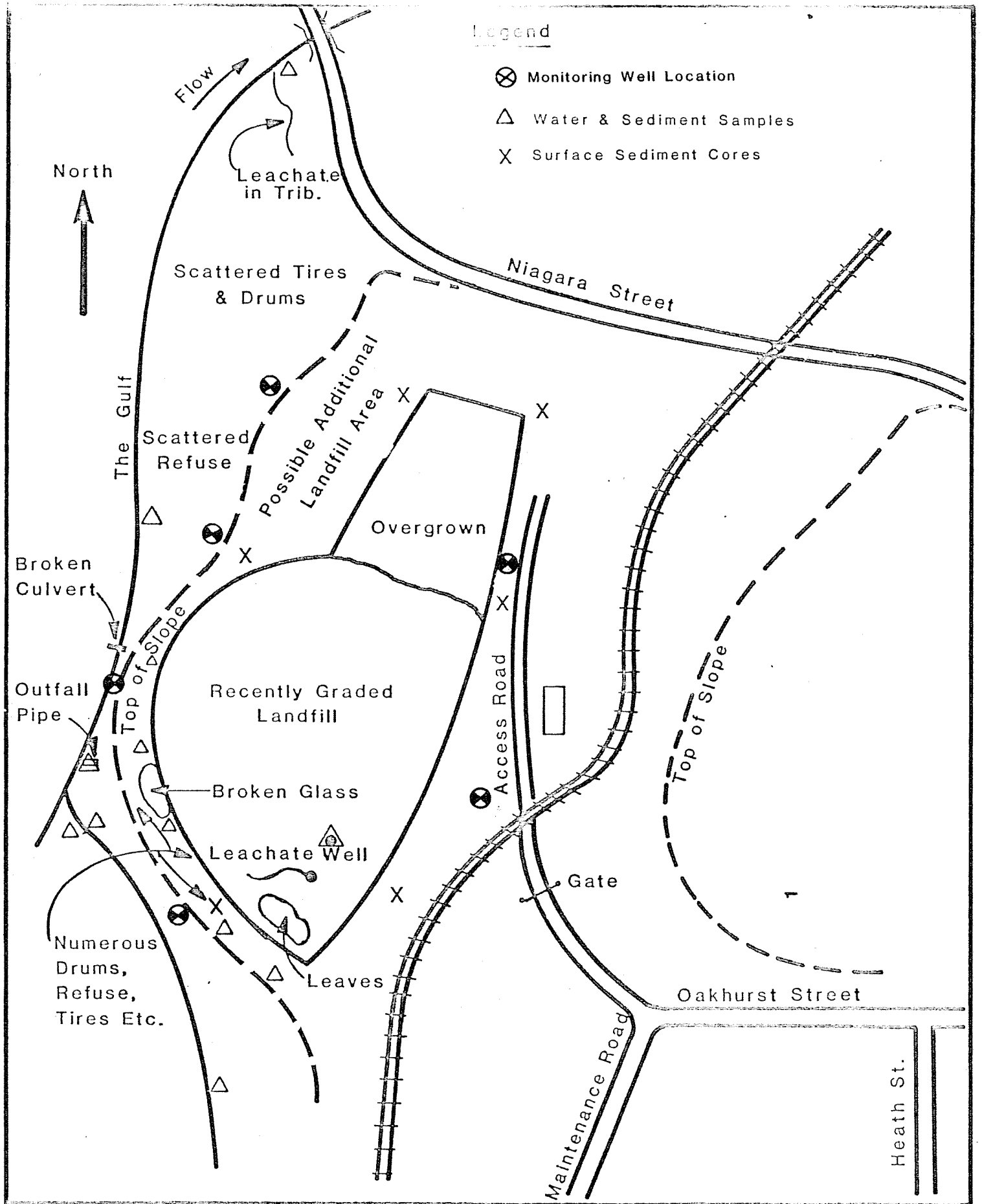
The VLF-EM Terrain Conductivity survey will be performed by recording continuous conductivity measurements on an EM-31 terrain conductivity meter equipped with a strip chart recorder. These measurements will be taken on a grid pattern established using a tape and level, in the area of the disposal site.

Seismic refraction methods will be employed in order to define bedrock surface and depth of fill.

7.2.2 Subsurface Investigation - In order to facilitate additional information concerning possible groundwater contamination, preliminary findings indicate a need for subsurface investigation. The investigation will include a total of six (6) borings anticipated at the site. Upgradient, each of two locations will have a shallow well. Average well depth, 50 feet. Downgradient four (4) wells will be installed. Average well depth, 30 feet. See Figure 3 for well locations.

The borings will be drilled with a truck, trailer, and/or all-terrain-mounted auger rig using hollow stem augers. During construction of the borings, split spoon samples will be obtained at five (5) foot intervals and/or when noticeable changes in lithology or drilling characteristics occur. If the unconsolidated material is found to be extremely heterogeneous, all borings will be continuously sampled. Also, if a confining layer is encountered, Shelby tube samples will be obtained to determine its undisturbed permeability.

The acquired samples will be visually identified in the field following the procedure set forth in ASTM-D-2488, noted appropriately on boring logs with the sample number and recorded standard penetration test results (ASTM-D-1586), and placed in pre-



Not To Scale	Sampling & Well Locations LOCKPORT CITY LANDFILL	Figure 3

cleansed, teflon-lined, screw-cap glass jars for return to Recra Research Inc.'s, Tonawanda, New York laboratory.

In order to avoid possible cross-contamination during construction of the test borings, the apparent upgradient borings will be completed first; then the downgradient holes will be drilled. Between each test boring, the augers will be cleaned with water obtained from a known non-contaminated source. Also, between each split spoon sample, the split spoon will be cleaned with water, acetone and distilled water. All spent water/acetone liquid accumulated during this process will be disposed of in an on-site drum. Upon completion of each boring, the boring will be backfilled with cement bentonite grout to approximately five (5) to six (6) feet below the first encountered water level, in order to avoid the possible vertical migration of contaminated groundwater from the first encountered water-bearing zone. Prior to leaving the site, the drill rig will be decontaminated using high pressure water.

7.2.3 Monitoring Well Installation - The monitoring wells will be constructed of two-inch I.D. case iron riser pipe with a five-foot long galvanized wire-wound-wrapped steel screen. Although the use of PVC casing

and screens would be less expensive, the possible presence of solvents suggests the use of galvanized steel screens and risers. The screen will be placed just below the encountered water table. The annulus between the casing/screen and boring well will be properly sand-packed and sealed (cement/bentonite and cement) to the ground surface and the well provided with a locking cap. A typical monitoring well is illustrated in Figure 4.

Upon completion of well construction, all monitoring wells will be properly developed, and all test borings and/or top of well casings will be surveyed to determine their location and elevation above sea level. At that time, variable head tests will be performed on the six (6) wells around the site to estimate the in-situ permeability of the screened interval.

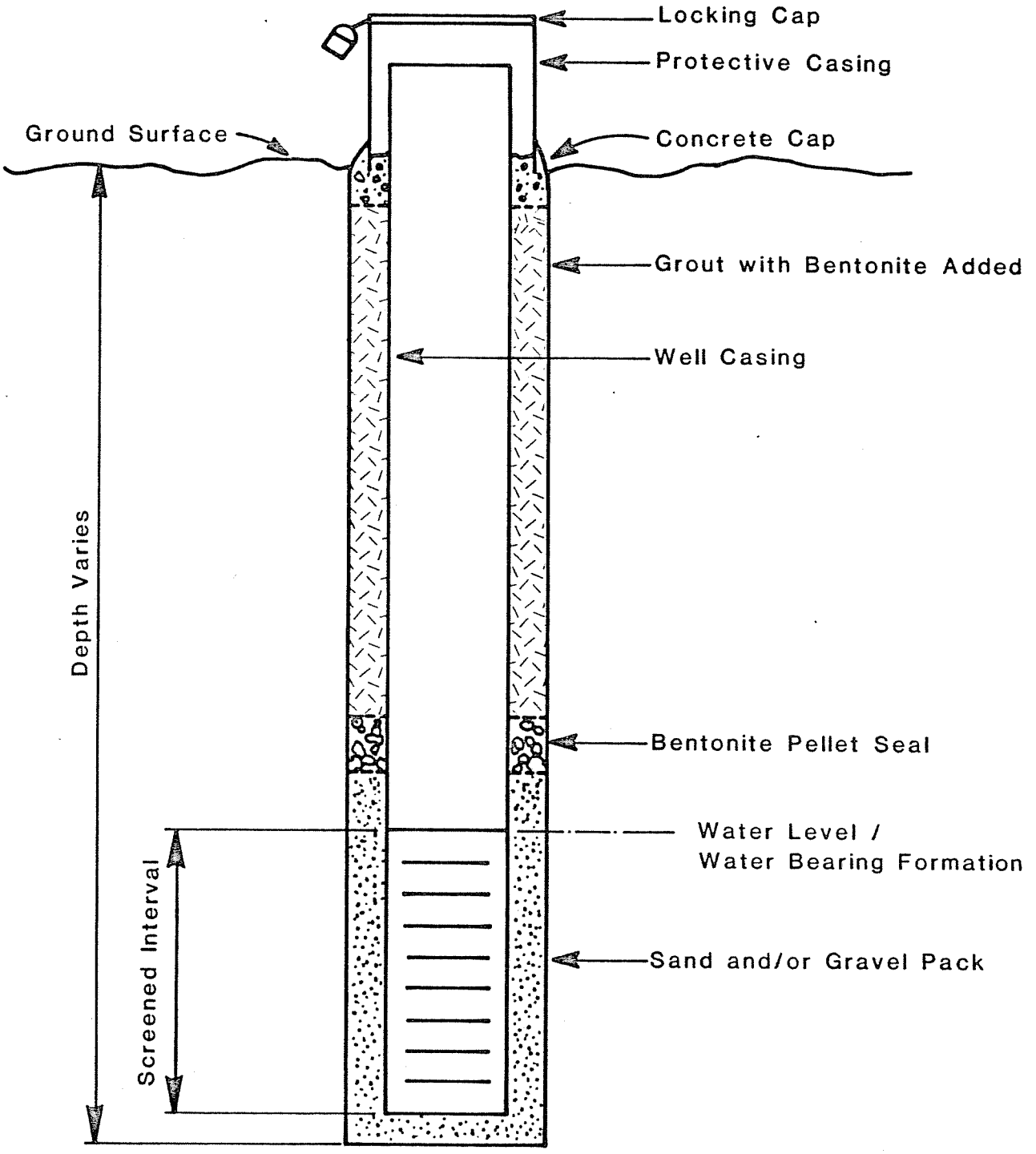
All field activity will be under the direct supervision of a qualified geologist and/or hydrogeologist.

7.2.4 Sampling and Analysis - The following procedures will encompass the sampling and analyses from the newly installed wells and surface water and sediment sampling analyses of the samples, obtained during air monitoring, and analyses of selected samples from the test boring program. If desired, all samples will be

Figure 4

MONITORING WELL DETAIL

In Unconsolidated Formation



split with the owner of the site. Also upon completion of the analytical program, the owner will be notified of the results if he so requests. All surface water and groundwater samples will be analyzed for the parameters listed in Table 1.

TABLE 1

Analytical List
Lockport City Landfill
Groundwater, Surface Water, Soils, Sediments

	pH
	Specific Conductance
	Chloride
	Sulfate
	Cyanide (Total)
	Total Organic Carbon
+	Cadmium
+	Chromium (Total)
+	Chromium (Hexavalent)
+	Copper
+	Iron
+	Lead
+	Mercury
+	Nickel
+	Silver
+	Zinc
+	Polychlorinated Biphenyls (PCB)
+	Volatile Organic Scan (VOS)
+	Halogenated Organic Scan (HOS)
	Dry Weight
	Grain Size and Atterberg limits

\+ Indicates analyses also performed on soils

7.2.5 Groundwater - Following equilibrium of water levels within the installed wells, water elevations will be measured to determine the water table surface. Representative groundwater samples will then be collected after the wells have been fully evacuated or a volume of three times the well contents have been removed.

Evacuation of water from the wells and the acquisition of the samples will be accomplished with an ISCO Model 1580 peristaltic pump, using separate low-density polyethylene tubing for each well and changing the silicon rubber tubing within the ISCO between wells. An exception to this procedure will be employed when obtaining the required sample volume for volatile organic analysis. This will be accomplished using a small volume galvanized steel bailers that have been separately designated for each well.

Upon collection of the sample, field pH, temperature and conductivity measurements will be recorded. The samples will be placed in appropriate pre-cleaned bottles/septa vials, labeled, chilled and immediately returned to Recra's Tonawanda, New York laboratory for preservation and analyses of various chemical para-

meters. If the samples cannot be returned to Recra's laboratory in a timely fashion due to the distance between the site and Recra's laboratory, field preservation will be performed prior to chilling.

7.2.6 Soil - Selected subsurface soil samples will undergo both physical and chemical analyses. The remaining samples will be archived by Recra Research, Inc. for a period of 6 months after completion of the contract.

The physical analysis will aid in the characterization of the underlying unconsolidated material. The physical parameters of concern during this investigation are grain size distribution (ASTM-D-422), Atterberg limits (ASTM-D-423 & 424) and classification (ASTM-D-248). The number of samples to undergo analysis for the above parameters is dependent on the homogeneity of the subsurface conditions underlying the bottom of the uncontrolled hazardous waste landfill. The results from these test, in conjunction with the Standard Penetration Test results, will aid in the design and evaluation of remedial programs.

Chemical analyses of selected samples will be used to characterize attenuation by on-site soils. A sample from the unsaturated zone and a sample from the saturated zone will generally be utilized from each test boring.

7.2.7 Chemical Analytical Methods - The procedures to be utilized for analyses of water, stream sediment and soil samples during this investigation are in basic accordance with 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.

7.2.8 Quality Assurance Program - An overall Quality Assurance Program is essential for the production of high-quality analytical data. Such a program requires precise control of laboratory activities. For the Quality Assurance Program in

effect at the Laboratories of Recra Research, Inc., the reader is referred to a document previously submitted by Recra Research, Inc. to NYSDEC, entitled, "Operation Manual - Field and Analytical Services."

7.2.9 Engineering Evaluation Report/HRS Score - The purpose of this evaluation report is to compile all existing and newly-developed information concerning the site, and utilize this information to:

- o Evaluate feasible remedial alternatives at the site and prepare budget-level cost estimates for these alternatives

- o Based upon this evaluation, recommend the most cost-effective and environmentally sound course of remedial action

- o Prepare a Hazard Ranking System (HRS) score for the site.

It is presently anticipated that the output from this Evaluation Report will consist of a single bound report, subdivided into at least the following sections:

- HRS Score - Utilizing USEPA's formal method of presentation (Federal Register/Vol. 47, No. 137/Friday, July 16, 1982), the following completed work sheets will be included in this opening section: HRS Cover Sheet; Groundwater Route Work Sheet; Surface Water Route Work Sheet; Air Route Work Sheet; Fire and Explosion Work Sheet; and Direct Contact Work Sheet.
- Background
- Summary of Project Activities
- Identification and Evaluation of Remedial Alternatives
- Recommendations
- Appendix - Complete Site Data Base

7.3 Estimated Cost

The estimated cost per individual element of the preceding scope of work are listed as follows.

o Geophysical Exploration	$ 5771.20
o Subsurface Investigation	12464.26
o Sampling & Analysis	8784.00
o Engineering Evaluation & Report	9687.26
TOTAL COST	$36706.72

APPENDIX A

DATA SOURCES AND REFERENCES

1. NYSDEC, Priority Pollutant Analysis of Soils and Water Samples From Lockport Landfill (Samples R-018-01, R-108-06,R-018-11), Results Reported 1/20/82.

2. U.S. Department of Agriculture, Soil Conservation Service, "Soil Survey of Niagara County, New York", 1972.

3. Bechtel Corp., "Boring Logs D-3 and D-3A" and Groundwater Observation Well Report, Well D-3A", prepared for Somerset Railroad Project, 1981.

4. Brochman, Gary and Edward Hale, City of Lockport Employees, Personal Interview 5/17/83.

5. U.S. Department of Commerce, National Climatic Center, "Climatic Atlas of the United States," 1979.

6. Interagency Task Force on Hazardous Waste, "Draft Report on Hazardous Waste Disposal in Erie and Niagara Counties, New York," 1979.

7. N.Y.S. Department of Environmental Conservation - Region 9, Summary Report on Landfill Visit of 12/14/81.

8. Tygert, J., N.Y.S. Department of Environmental Conservation, EPA form T2070-3 filed on Lockport Landfill, 1980.

9. Hopkins, M. Niagara County Health Department , "Follow-Up Inspection of Lockport City Landfill," 11/4/82.

10. Vaughn, M. Niagara County Health Department, "Inspection of Inactive Lockport Landfill Site," 10/26/81.

11. N.Y.S. Department of Environmental Conservation, "Hazardous Waste Disposal Sites Report - Lockport City Landfill," 4/16/80.

12. U.S. Geological Survey, Topographical Quadrangle Map for Lockport, New York, 1980.

13. Federal Emergency Management Agency, "Flood Boundary Map, Town of Lockport, Niagara County, New York," Comm. Panel #361013-0020, 9/2/81.

14. Batcheller, G., N.Y.S. Department of Environmental Conservation - Region 9, Telephone Conversation, 6/1/83.

15. Recra Research, Lockport City Landfill Site Visit, 5/17/83.

16. Donnelly, M., Bechtel Corporation, Personal Interview, 5/17/83.

17. Richard L. and D. Fisher, "Geologic Map of New York - Niagara Sheet," N.Y.S. Mus. and Sci. Sew. Series No. 15, 1970.

18. Advanced Environmental Systems, Inc. "Analysis of Three Water Samples" for Niagara County Health Department, 4/14/81.

19. New York State Division of Water Resources, "New York Water Classifications and Quality Standards, Chapter X, Article 2, Parts 700-704," 9/1/78.

20. New York State Division of Water Resources, "Chapter X, Part 847, Lake Ontario Drainage Basin" 11/30/76.

21. U.S. Department of Commerce, "Rainfall Frequency Atlas of the United States, Tech. Paper No. 40," 1963.

GROUND WATER OBSERVATION WELL REPORT

PROJECT Somerset Railroad

LOCATION N 1,155,306 E 462,613

Date Completed 9/21/81 Original Depth

Inspected By C. F. Wall Date 9/21/81

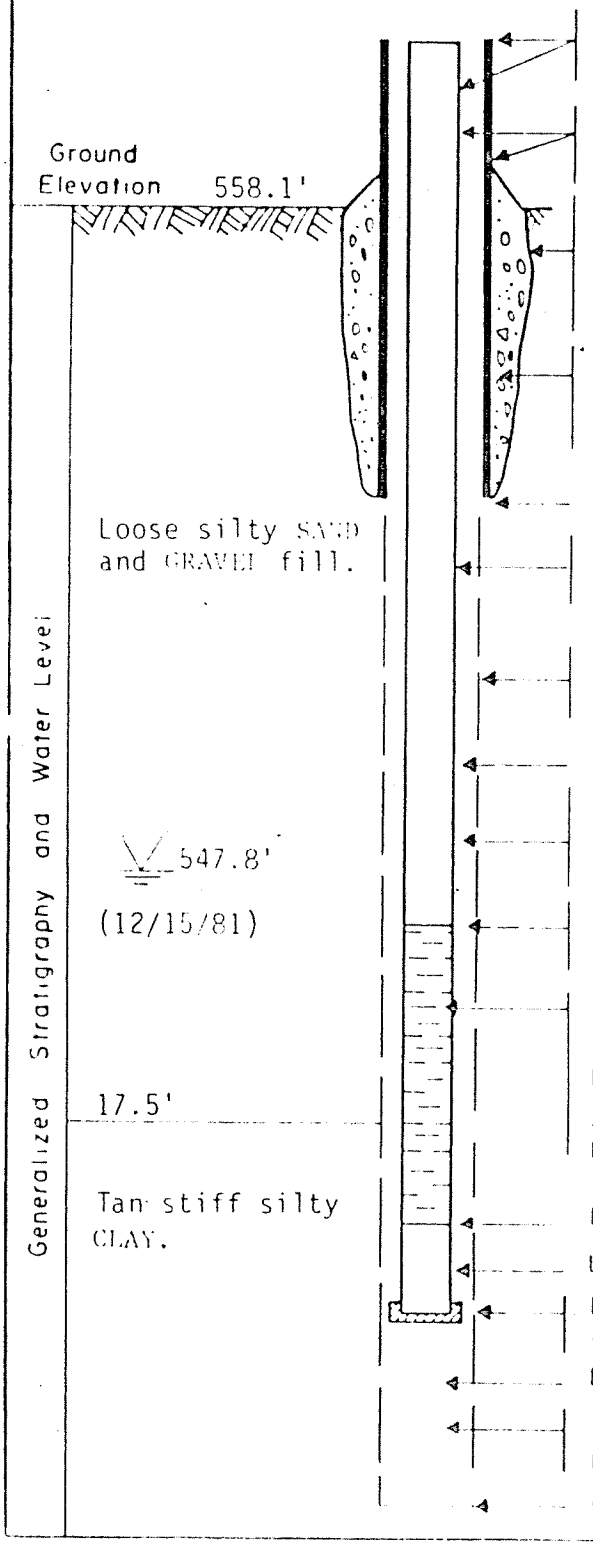
Checked By Date

Page 1 of 1

Well No. D-3A

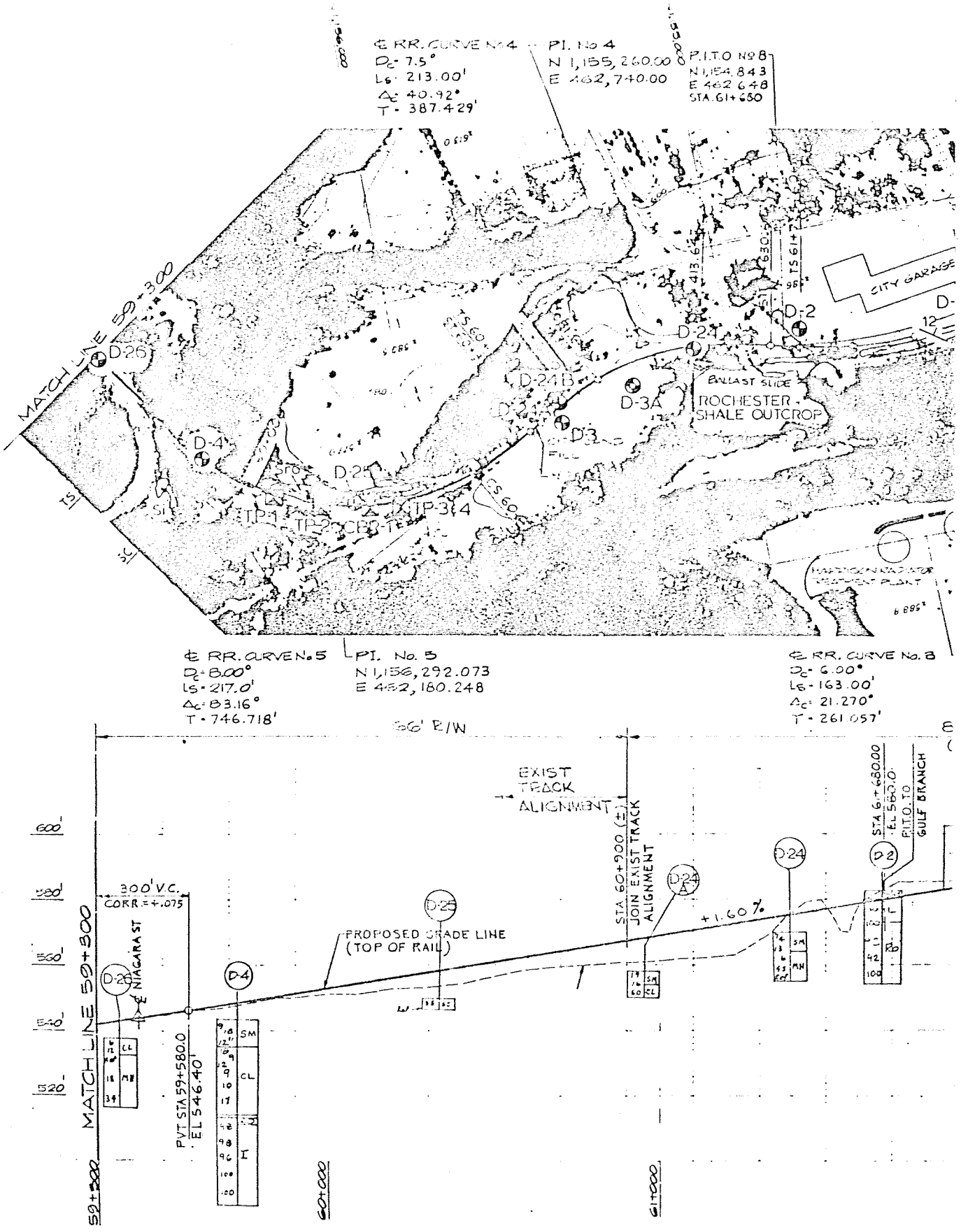
Aquifer

Depth Interval



Elevation of top of surface casing / riser pipe.	560.2'/559.9'
Height of top of surface casing / riser pipe above ground surface.	2.1'/1.8'
Depth of surface seal below ground surface	8.0'
Type of surface seal: Cemented sand - bentonite grout	
I D of surface casing.	4"
Type of surface casing: Steel	
Depth of surface casing below ground	3.0'
I D of riser pipe	2"
Type of riser pipe: Sch 40 PVC	
Diameter of borehole	
Depth of borehole	
Type of backfill: Cement sand - bentonite grout	
Elev./depth top of seal.	550.1'/8.0'
Type of seal: Bentonite	
Elev./depth bottom of seal.	548.1'/10.0'
Type of sand pack 20 sand	
Depth of top of sand pack.	10.0'
Elev./depth top of screened section.	542.7'/15.4'
Type of screened section: Sch 40 PVC	
Discribe openings 10 slot, machine - cut horizontal slots	
I D of screened section.	2"
Elev./depth bottom of screened section.	533.5'/24.6'
Length of blank section	0.3'
Elev./depth bottom of plugged blank section	533.2'/24.9'
Elev./depth bottom of sand column	533.2'/24.9'
Type of backfill below observation pipe None	
Elev./depth of hole	

Lockport Landfill (Ref. 3)



FOR LEGEND AND NOTES, SEE FIGURE

Lockport Landfill (Ref. 3)

BORING LOG

PROJECT	JOB NO.	SHEET NO.	HOLE NO.
Somerset Railroad	14818	1 OF 2	D-3

SITE	COORDINATES	ANGLE FROM HORIZ.	BEARING
H & L Portion	N 1,155,531 E 462,545	90°	—

BEGUN	COMPLETED	DRILLER	DRILL MAKE AND MODEL	HOLE SIZE (INCHES)	OVERBURDEN (FT.)	ROCK (FT.)	TOTAL DEPTH (FT.)
9-16-81	9-17-81	J. Jensen/Empire	Truck CME 55	6	31.5	32.7	64.2

CORE RECOVERY (FT./%)	CORE BOXES	SAMPLES	EL. TOP OF CASING (FT.)	GROUND EL. (FT.)	DEPTH/EL. GROUND WATER (FT.)	DEPTH/EL. TOP OF ROCK (FT.)
21.8/92	2	10	—	555.2	Not measured	31.5/523.7

SAMPLE HAMMER WEIGHT/FALL	CASING LEFT IN HOLE: DIA./LENGTH	LOGGED BY:
140#/30"	None	M. Donnelly

SAMPLER TYPE AND DIAMETER	SAMPLER ADVANCE LENGTH CORE RUN	SAMPLE RECOVERY CORE RECOVERY	SAMPLE BLOWS "N" / PERCENT CORE RECOVERY	PENETRATION BLOWS 1ST 6"	2ND 6"	3RD 6"	ELEVATION (FT.)	DEPTH: FT	UNIFIED SOIL CLASSIFICATION	SAMPLE	DESCRIPTION AND CLASSIFICATION	NOTES ON: WATER LEVELS, WATER RETURN, CHARACTER OF DRILLING, ETC.
							555.2					
SS	2	0.7	39	40	22	17			SM/GM	1	Gray very loose FILL. Fill is predominately silty fine to coarse SAND but contains varying amounts of gravel, coal cinders, ash, glass, and brick fragments.	(L) Soil drilling with 3¼" ID hollow stem augers. PP=pocket penetrometer valve in TSF
SS	2	0.5	5	4	3	2				2		
SS	2	0.3	2	2	1	1		5	SP/GP	3		
SS	2	0.5	2	2	1	1				4		(L)
SS	2	NR	3	3	2	1				5		
SS	2	0.7	3	2	1	2		10	SH	6	Black very loose silty fine sand below 10 feet.	(L)
SS	1.5	1.2	12	2	4	8	540.0	15	MH	7	Mottled tan-gray stiff clayey SILT.	(L) PP=1.6
SS	1.5	0.8	53	15	21	32		20	CH	8	Similar, trace dolomite gravel, roots and decayed organic matter.	(L) PP=1.2
SS	1.5	1.0	39	41	19	20		25	ML	9	Similar, stiffer, less plastic.	(L) PP>4
SS	1.5	1.2	123	25	41	82		30	CL	10	Similar, grades to shale.	
				RQD		TIME	523.7 min/ft				SHALE, gray, soft, interbedded with tan silty clay and weathered shale.	Rock drilling with NX split inner tube core barrel. Full return water, brown.
NX	1.7	1.7	100	0	0	2.6				1		
NX	3.0	3.0	33	0	0	2.5/5.3		35		2		

SS = SPLIT SPOON; ST = SHELBY TUBE; D = DENNISON; P = PITCHER; O = OTHER

SITE: H & L Portion

HOLE NO.: D-3

GPD 10/34 Rev. 1 82 (Form 10070-1)

Lockport Landfill (Ref. 3)

APPENDIX B

HAZARDOUS WASTE DISPOSAL SITE REPORT

REVISED

Code: E

Site Code: 9-32-010

Name of Site: Lockport City Landfill

Region: 9

County: Niagara

Town/City" (T) Lockport

Street Address: Oakhurst Road

Status of Site:

- Inactive landfill. Poorly sited, improperly operated, and inadequately closed. Industries in area known to have used site. Wastes alleged to have been disposed include PCB, acids, alkalis, metal sludges, and reactive materials.
- Primarily industrial activities in vicinity of site. Residential areas within one-half mile of landfill.
- The Gulf, a tributary to Eighteen Mile Creek flows along base of landfill northward.
- Residences deriving drinking water from wells about 0.3 miles to north of site.
- Leachate breakouts observed flowing into the Gulf discoloring water and sediments.

- Landfill represented a continuation of activities originally conducted on the edge of the escarpment about one-half mile to the south.

Type of Site: Landfill

Estimated Size: 3 acres

Hazardous Wastes Disposed: Confirmed

Type and Quantities of Hazardous Wastes: Types reported by city personnel include PCB, acids, alkali, powders giving off strong chlorinated odors which were highly irritating to skin, wastes which reacted violently when exposed to air or water, metal sludges, flammable solids. Quantities unknown.

Present Owner: City of Lockport

Time Period Site Was Used: 1950's to 1976

Site Status: Inactive

Types of Samples: Surface Water, Soils

Remedial Action: None

Status of Legal Action: None

Permits Issued: None

Assessment of Environmental Problems: Leachate breakouts on sideslopes and top of facility. Discharges occurring to surface waters. Possible contamination of groundwater. Possible mixing of incompatible wastes.

Assessment of Health Problems: Unknown. City workers complained of skin and high irritations and illnesses while site was active.

Persons Completing This Form: Kevin C. Owen (Recra Research, Inc.)

Date: June 3, 1983.

APPENDIX C

WELL CONSTRUCTION AND LOGS

BORING LOG

PROJECT: Somerset Railroad | JOB NO.: 14818 | SHEET NO.: 2 OF 2 | HOLE NO.: D-3

SAMPLER TYPE AND DIAMETER	SAMPLER ADVANCE / LENGTH CORE RUN	SAMPLE RECOVERY / CORE RECOVERY	SAMPLE BLOWS / PERCENT CORE RECOVERY	PENETRATION BLOWS 1ST 6"	2ND 6"	3RD 6"	ELEVATION (FT.)	DEPTH, FT	UNIFIED SOIL CLASSIFICATION	SAMPLE	DESCRIPTION AND CLASSIFICATION	NOTES ON: WATER LEVELS, WATER RETURN, CHARACTER OF DRILLING, ETC.
						4		35		2	To 38'. Below 38', gray, medium soft, thin horizontally bedded, bedding occasionally undulating, slump structures with limestone inclusions, fresh to severely weathered locally, fossiliferous. (brachiapods) ROCHESTER FM.	Pulled barrel-suspect plug. Full return water, gray.
NX	4.0	4.0	100	0	0	5.7 2.5 4.0 3.0				RUN 3		
NX	5.0	5.0	100	4.3	86	3.3 3.3 2.3 2.3 2		40		RUN 4	40.2'-41.5' - Bedding plane joints, 0°, fresh. 42.5' - Bedding plane joint, 0°, severely weathered.	
NX	5.0	5.0	100	4.9	98	3 3 3.3 3.0 2.7		45		RUN 5	46.6'-0.1' Limestone bed.	
		Roller Bit					502.7	50 55			LIMESTONE, light gray to tan, medium hard, medium to coarse crystalline, horizontally bedded with irregular shale partings, fresh, vuggy. Breaks along irregular shale partings. IRONDEQUOIT FM. (Unnamed mem.)	Roller bit 50.2'-60.2'. Lost return water at 52.5'. Water came back when drilling stopped.
NX	5.0	5.0	100	5.0	100	2.2 3.0 2.5 2.0 2.0		60		RUN 6		No return water. Did not come back after drilling.
							491.0	65			Boring terminated at 64.2' depth. Rock grouted, soil backfilled.	
								70				

SS = SPLIT SPOON; ST = SHELBY TUBE; D = DENNISON; F = FITCHER; O = OTHER

SITE: H & L Portion | HOLE NO.: D-3

GPD-13234 A Rev. 1/82 (Form 10070-2)

Lockport Landfill (Ref. 3)

BORING LOG

PROJECT	JOB NO.	SHEET NO.	HOLE NO.
Somerset Railroad	14818	1 of 2	D-3A

SITE	COORDINATES	ANGLE FROM HORIZ.	BEARING
H & L Portion	N 1,155,306 E 462,613	90°	—

BEGUN	COMPLETED	DRILLER	DRILL MAKE AND MODEL	HOLE SIZE (INCHES)	OVERBURDEN (FT.)	ROCK (FT.)	TOTAL DEPTH (FT.)
9-17-81	9-18-81	J. Jensen/Empire	Truck CME 55	6	42	0	42

CORE RECOVERY (FT./%)	CORE BOXES	SAMPLES	EL. TOP OF CASING (FT.)	GROUND EL. (FT.)	DEPTH/EL. GROUND WATER (FT.)	DEPTH/EL. TOP OF ROCK (FT.)
None	None	15	—	558.1	10.3/547.8 (12-15-81)	42/516.1

SAMPLE HAMMER WEIGHT/FALL	CASING LEFT IN HOLE: DIA./LENGTH	LOGGED BY:
140#/30"	None	M. Donnelly/C. F. Wall

SAMPLER TYPE AND DIAMETER	SAMPLER ADVANCE / LENGTH CORE RUN	SAMPLE RECOVERY / CORE RECOVERY	SAMPLE BLOWS "N" / PERCENT CORE RECOVERY	PENETRATION BLOWS 1ST 6"	2ND 6"	3RD 6"	ELEVATION (FT.)	DEPTH-FT	UNIFIED SOIL CLASSIFICATION	SAMPLE	DESCRIPTION AND CLASSIFICATION	NOTES ON: WATER LEVELS, WATER RETURN, CHARACTER OF DRILLING, ETC.
							558.1					
SS	2	0.5	5	2	2	3			SM/GM	1	Tan, gray, and black loose silty SAND fill. Fill contains coal cinders, ash, brick, wood and glass fragments.	Soil drilling with 3¼" ID hollow stem augers.
SS	2	0.5	8	3	4	4			SM/GM	2		
SS	2	0.5	8	1	2	6		5	SM/GM	3		
SS	2	0.8	13	4	11	2			SM/GM	4		
SS	2	0.1	3	1	2	1			SM	5		
SS	2	0.8	9	6	3	6		10	SM	6	Black loose silty fine sand, metal fragments.	
SS	2	NR	8	6	6	2				7		
SS	2	NR	NA					15		8	Retrieve center bit from hole w/3" spoon.	
SS	2	2	18	18	10	8	540.6		SM	9A		
										9B		
SS	2	0.3	17	5	8	9				10	Tan stiff to very stiff silty CLAY.	
SS	1.5	NR	25	8	9	16		20	CH/MH	11		
SS	1.5	0.6	16	6	8	8		25		12	Similar, trace v. fine sand.	
SS	1.5	0.9	16	6	6	10		30		13	Same.	
								35				

SS = SPLIT SPOON, ST = SHELBY TUBE; D = DENNISON; F = FITCHER; O = OTHER

SITE: H & L Portion

HOLE NO: D-3A

GPD-13234 Rev. 1-82 (Form 10070-1)

Lockport Landfill (Ref. 3)

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