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905013 ✓
MACHIAS GRAVEL PIT

NEW YORK STATE SUPERFUND
PHASE I SUMMARY REPORT

NYSDEC NUMBER

~~90-50-193~~

905013

September 6, 1983

Prepared By:

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Amherst, New York 14226

For:

New York State Department of Environmental Conservation
50 Wolf Road
Albany, New York 12233-0001

MACHIAS GRAVEL PIT
NEW YORK STATE SUPERFUND
PHASE I SUMMARY REPORT

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1.0 Executive Summary

The Gravel Pit located on Very Road in Machias, New York is owned and operated by the Town of Machias. The site received approximately 600 drums of waste material from March 1978 to September 1978. These drums were delivered to the site by hauler Daniel Griswald, who received the drums from the Motorola Corporation in Arcade, New York. The drums are suspected of containing wastes such as: epoxy resins, acids, flammable and non-flammable solvents and cutting oils. Approximately one-half of the drums received had their contents spilled onto the ground surface. The remaining materials were surface piled or the oily waste material was used by town personnel to control dust on local roads.

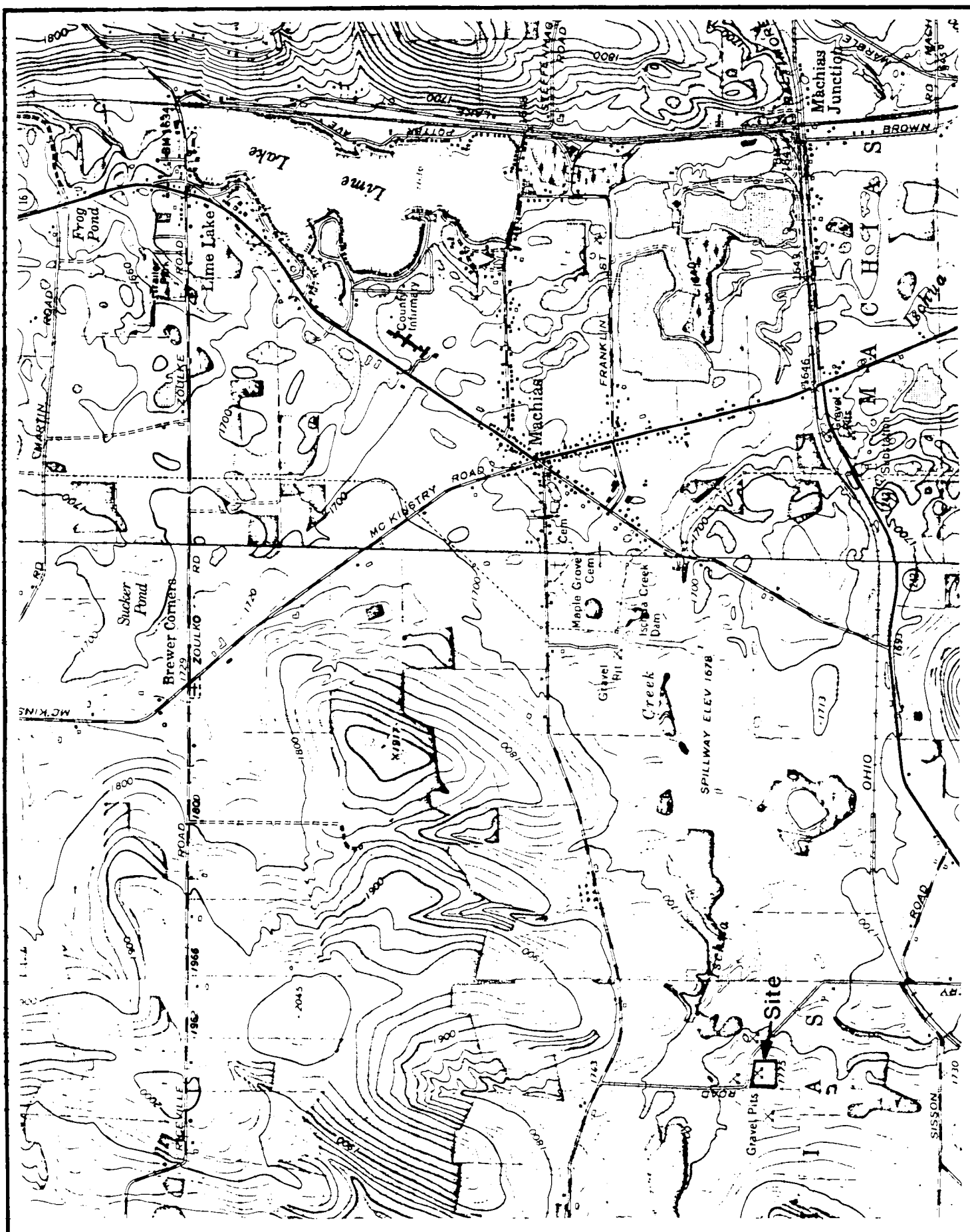
The surrounding area is rural with the majority of residences concentrated in the Village of Machias, two (2) miles east of the site.

2.0 Site Description

The town-owned Machias Gravel Pit is located on Very Road in the village of Machias, New York (Figure 1). The one-half acre site is composed of an operational gravel pit in the south section and an inactive gravel pit in the north section. The inactive gravel pit was used for the storage and disposal of drummed waste material generated at the Motorola Site in Arcade, New York. The drums were surface piled and observed to be in various states of deterioration. The ground surface surrounding the storage site was stained with a black oil-like material.

The area surrounding the site is rural with a private residence located approximately 500 feet south of the area of concern. The majority of the area's population is concentrated in the Village of Machias located two (2) miles east of the site.

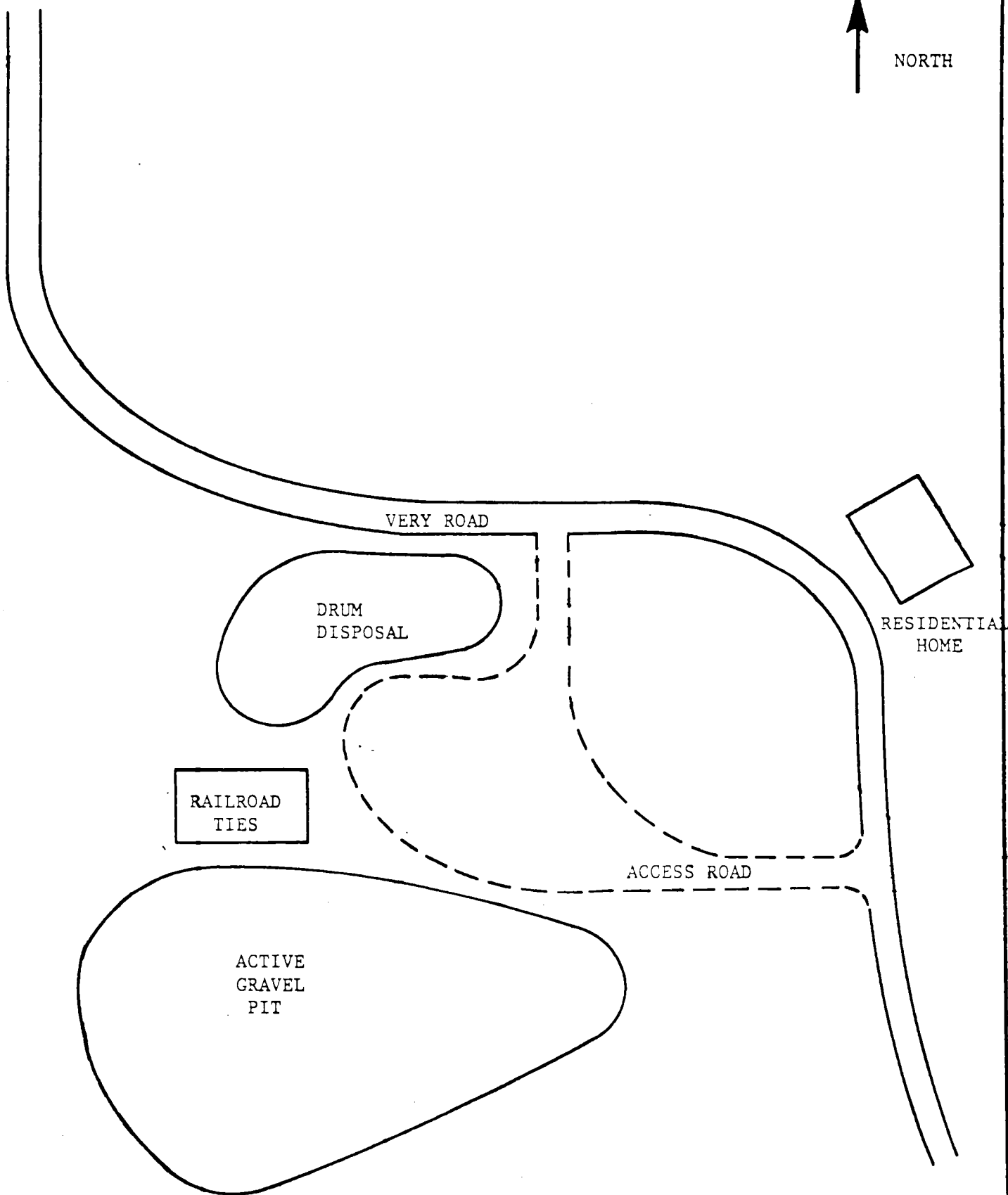
The overall area shows some topographical variation in the form of low rolling hills.



USGS Topographic Map
W. Valley Quad. 1964

Vicinity Map
Machias Gravel Pit

Figure 1



NOT TO SCALE

SITE MAP
MACHIAS GRAVEL PIT

FIGURE 2

3.0 PRELIMINARY HAZARDOUS RANKING SYSTEM SCORE

Facility name Machias Gravel Pit

Location: Very Rd. Machias, New York

EPA Region 2

Person(s) in charge of the facility: Town Of Machias

Name of Reviewer: Recra Research, Inc.

Date: Sept. 6, 1983

General description of the facility:

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

The waste storage site is located on the property of the Machias
which is an active gravel excavating facility. Approximately 600

drums are beleived to contain waste, which was generated at the Motorola
Plant in Arcade, N.Y.. The wastes are thought to be: epoxy resins
toluene, xylene, trichloroethane, cutting oil and various acids.

Scores: $S_M = 23.9$ ($S_{gw} = 40.4$ $S_{sw} = 8.4$ $S_a = 0$)

$S_{FE} = 0$

$S_{DC} = 33.3$

Range for $S_m = 23.0$ to 40.0

Ground Water Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Rel. (Section)	
1 Observed Release	0 45	1	0	45	3.1	
If observed release is given a score of 45, proceed to line 4 . If observed release is given a score of 0, proceed to line 2 .						
2 Route Characteristics					3.2	
Depth to Aquifer of Concern	0 1 2 3	2	4	6		
Net Precipitation	0 1 2 3	1	2	3		
Permeability of the Unsaturated Zone	0 1 2 3	1	2	3		
Physical State	0 1 2 3	1	3	3		
Total Route Characteristics Score			11	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	12	18		
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	6	8		
Total Waste Characteristics Score			18	26		
5 Targets					3.5	
Ground Water Use	0 1 2 3	3	9	9		
Distance to Nearest Well/Population Served	0 4 6 8 10 12 16 18 20 24 30 32 35 40	1	30	40		
Total Targets Score			39	49		
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			23166	57,330		
7 Divide line 6 by 57,330 and multiply by 100			S_{gw} = 40.4			

FIGURE 2
GROUND WATER ROUTE WORK SHEET

Surface Water Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)	
1 Observed Release	0 45	1	0	45	4.1	
If observed release is given a value of 45, proceed to line 4 . If observed release is given a value of 0, proceed to line 2 .						
2 Route Characteristics					4.2	
Facility Slope and Intervening Terrain	0 1 2 3	1	1	3		
1-yr. 24-hr. Rainfall	0 1 2 3	1	2	3		
Distance to Nearest Surface Water	0 1 2 3	2	4	6		
Physical State	0 1 2 3	1	3	3		
Total Route Characteristics Score			10	15		
3 Containment	0 1 2 3	1	3	3	4.3	
4 Waste Characteristics					4.4	
Toxicity/Persistence	0 3 6 9 12 15 18	1	12	18		
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	6	8		
Total Waste Characteristics Score			18	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	4	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			10	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			5400	64,350		
7 Divide line 6 by 64,350 and multiply by 100			$S_{sw} = 8.4$			

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				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})	40.4	1632.2
Surface Water Route Score (S _{sw})	8.4	70.6
Air Route Score (S _a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		1702.8
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		41.3
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M$		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				SFE =		

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	10	15	8.4	
5 Targets					8.5	
Population Within a 1-Mile Radius	0 1 2 3 4 5	4	4	20		
Distance to a Critical Habitat	0 1 2 3	4	12	12		
Total Targets Score			16	32		
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			7200	21,600		
7 Divide line 6 by 21,600 and multiply by 100			SDC - 33.3			

FIGURE 12
DIRECT CONTACT WORK SHEET

3.1) DOCUMENTATION RECORDS FOR THE HAZARDOUS 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: Machias Gravel Pit

LOCATION: Very Rd., Machias, New York

GROUND WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

NO AVAILABLE DATA

Rationale for attributing the contaminants to the facility:

* * *

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifers(s) of concern:

GRAVEL AQUIFER

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

30-40'

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

WASTE DRUMS ARE SURFACE PILED

Net Precipitation

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

34 "

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

27 "

Net precipitation (subtract the above figures):

7 "

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

CHENANGO GRAVELLY SANDY LOAM

Permeability associated with soil type:

$< 10^{-3} \leq 10^{-5}$ CM/SEC

Physical State

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

LIQUIDS & SOLIDS

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

NO CONTAINMENT

Method with highest score:

—

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

TOLUENE

XYLENE

TRICHLOROETHANE

Compound with highest score:

TRICHLOROETHANE

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):

600 DRUMS

Basis of estimating and/or computing waste quantity:

SITE INSPECTION

* * *

5 TARGETS

Ground Water Use

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

SOLE DRINKING WATER SOURCE

Distance to Nearest Well

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

PRIVATE RESIDENCE DIRECTLY ADJACENT
TO THE SITE.

Distance to above well or building:

0.10 mi.

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:

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):

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

ESTIMATED FROM TOPO MAP
TO BE 2500.

SURFACE WATER ROUTE

1 OBSERVED RELEASE

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

NO AVAILABLE DATA

Rationale for attributing the contaminants to the facility:

2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

5%

Name/description of nearest downslope surface water:

ISCHUA CREEK - A CLASS "C" WATER SOURCE.

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

5.0%

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

NO

Is the facility completely surrounded by areas of higher elevation?

NO

1-Year 24-Hour Rainfall in Inches

2.4 "

Distance to Nearest Downslope Surface Water

0.5 mi

Physical State of Waste

SOLID & LIQUID

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

NO CONTAINMENT

Method with highest score:

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

TRICHLOROETHANE
TOLUENE
XYLENE

Compound with highest score:

TRICHLOROETHANE

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):

600 DRUM

Basis of estimating and/or computing waste quantity:

SITE INSPECTION

* * *

5 TARGETS

Surface Water Use

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

RECREATION & FISH PROPAGATION

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:

1000 FT SOUTH OF SITE

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

Population Served by Surface Water

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

N/A

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

N/A

Total population served:

N/A

Name/description of nearest of above water bodies:

N/A

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

N/A

AIR ROUTE

1 OBSERVED RELEASE

Contaminants detected:

NO AVAILABLE DATA

Date and location of detection of contaminants

Methods used to detect the contaminants:

Rationale for attributing the contaminants to the site:

* * *

2 WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

Most incompatible pair of compounds:

Toxicity

Most toxic compound:

Hazardous Waste Quantity

Total quantity of hazardous waste:

Basis of estimating and/or computing waste quantity:

* * *

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

Distance to a Sensitive Environment

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

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

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

Land Use

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

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

Distance to residential area, if 2 miles or less:

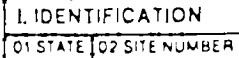
Distance to agricultural land in production within past 5 years, if 1 mile or less:

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

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

3.2 EPA PRELIMINARY ASSESSMENT FORM (2070-12)

<div style="display: inline-block; text-align: center; margin-left: 10px;"> POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT PART 1 - SITE INFORMATION AND ASSESSMENT </div>		I. IDENTIFICATION	
		01 STATE	02 SITE NUMBER
II. SITE NAME AND LOCATION			
01 SITE NAME (Legal, common, or descriptive name of site) MACHIAS GRAVEL PIT		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER VERY ROAD	
03 CITY MACHIAS	04 STATE NY	05 ZIP CODE	06 COUNTY CATTARAUGUS
09 COORDINATES LATITUDE 42 24 30.0		LONGITUDE 079 32 00.0	
10 DIRECTIONS TO SITE (Starting from nearest public road): RT 16 TO MACHIAS. FELTON HILL RD TO VERY RD LEFT. SITE IS ON RIGHT			
III. RESPONSIBLE PARTIES			
01 OWNER (If known) TOWN OF MACHIAS		02 STREET (Business, mailing, residential) TOWN HALL MACHIAS	
03 CITY MACHIAS	04 STATE NY	05 ZIP CODE	06 TELEPHONE NUMBER ()
07 OPERATOR (If known and different from owner) MACHIAS TOWN HWY DEPT		08 STREET (Business, mailing, residential)	
09 CITY MACHIAS	10 STATE NY	11 ZIP CODE	12 TELEPHONE NUMBER ()
13 TYPE OF OWNERSHIP (Check one): <input type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL: _____ (Agency name) <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER: TOWN (Specify) <input type="checkbox"/> G. UNKNOWN			
14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply): <input type="checkbox"/> A. RCRA 3001 DATE RECEIVED: ____/____/____ MONTH DAY YEAR <input type="checkbox"/> B. UNCONTROLLED WASTE SITE (CERCLA 103 d) DATE RECEIVED: ____/____/____ MONTH DAY YEAR <input type="checkbox"/> C. NONE			
IV. CHARACTERIZATION OF POTENTIAL HAZARD			
01 ON SITE INSPECTION <input checked="" type="checkbox"/> YES DATE ____/____/____ MONTH DAY YEAR <input checked="" type="checkbox"/> NO		BY (Check all that apply): <input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input type="checkbox"/> C. STATE <input type="checkbox"/> D. OTHER CONTRACTOR <input type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input type="checkbox"/> F. OTHER: _____ (Specify) CONTRACTOR NAME(S): _____	
02 SITE STATUS (Check one): <input checked="" type="checkbox"/> A. ACTIVE <input type="checkbox"/> B. INACTIVE <input type="checkbox"/> C. UNKNOWN		03 YEARS OF OPERATION BEGINNING YEAR 1978 ENDING YEAR _____ <input type="checkbox"/> UNKNOWN	
04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED EPOXY RESINS, ACIDS, SOLVENT, CUTTING OILS			
05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION			
V. PRIORITY ASSESSMENT			
01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and incidents): <input type="checkbox"/> A. HIGH (Inspection required promptly) <input checked="" type="checkbox"/> B. MEDIUM (Inspection required) <input type="checkbox"/> C. LOW (Inspection on time available basis) <input type="checkbox"/> D. NONE (No further action needed, complete current disposition form)			
VI. INFORMATION AVAILABLE FROM			
01 CONTACT RICHARD L. CROUCH		02 OF (Agency/Organization) RECRA RESEARCH, INC.	
04 PERSON RESPONSIBLE FOR ASSESSMENT ANDRE J LAPRES		05 AGENCY RECRA	06 ORGANIZATION RECRA
07 TELEPHONE NUMBER (716) 838-6200		08 DATE 7, 25, 83 MONTH DAY YEAR	





POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

HIGHLY PERMEABLE SOIL IN THE AREA COULD ALLOW CONTAMINANT MIGRATION TO GROUNDWATER

01 ☒ B. SURFACE WATER CONTAMINATION

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

SURFACE RUN-OFF ENTERS ISEHUA CREEK AND ONE OF ITS TRIBUTARIES

01 ☐ C. CONTAMINATION OF AIR

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

01 ☒ E. DIRECT CONTACT

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

BREACHED DRUMS ARE ON SITE

01 ☒ F. CONTAMINATION OF SOIL

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

03 AREA POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

CONTENTS OF DRUMS HAS REACHED GROUND SURFACE
(ACRES)

01 ☒ G. DRINKING WATER CONTAMINATION

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

AREA RESIDENTS USE GROUNDWATER FOR DOMESTIC SUPPLIES

01 ☒ H. WORKER EXPOSURE/INJURY

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

03 WORKERS POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

TOWN WORKERS EXCAVATING GRAVEL FROM PIT

01 ☒ I. POPULATION EXPOSURE/INJURY

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

AREA IS EASILY ACCESSIBLE



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☐ K. DAMAGE TO FAUNA
04 NARRATIVE DESCRIPTION (include name(s) of species)

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☐ L. CONTAMINATION OF FOOD CHAIN
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES
(See unobscured hazardous waste drums)

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

BREACHED DRUMS ON-SITE HAS SPILED WASTE ON GROUND SURFACE

01 ☐ N. DAMAGE TO OFFSITE PROPERTY
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

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

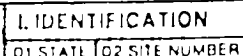
III. TOTAL POPULATION POTENTIALLY AFFECTED: _____

IV. COMMENTS

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

3.3 EPA SITE INSPECTION REPORT (Form 2070-13)

		POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT				I. IDENTIFICATION	
		PART 1 - SITE LOCATION AND INSPECTION INFORMATION		01 STATE 02 SITE NUMBER			
II. SITE NAME AND LOCATION							
01 SITE NAME (Legal, common or descriptive name of site) <u>MACHIAS GRAVEL PIT</u>				02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER <u>VERY ROAD</u>			
03 CITY <u>MACHIAS</u>				04 STATE <u>NY</u>	05 ZIP CODE	06 COUNTY <u>CATTARAUGUS</u>	07 COUNTY CODE
09 COORDINATES LATITUDE <u>42 24 30.0</u> LONGITUDE <u>078 32 00.0</u>		10 TYPE OF OWNERSHIP (Check one) <input type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER <u>Town</u> <input type="checkbox"/> G. UNKNOWN					
III. INSPECTION INFORMATION							
01 DATE OF INSPECTION <u>7, 24, 83</u> MONTH DAY YEAR		02 SITE STATUS <input checked="" type="checkbox"/> ACTIVE <input type="checkbox"/> INACTIVE		03 YEARS OF OPERATION <u>1978</u> <u>1</u> <u>✓</u> UNKNOWN BEGINNING YEAR ENDING YEAR			
04 AGENCY PERFORMING INSPECTION (Check all that apply)							
<input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input type="checkbox"/> C. MUNICIPAL <input type="checkbox"/> D. MUNICIPAL CONTRACTOR <input type="checkbox"/> E. STATE <input checked="" type="checkbox"/> F. STATE CONTRACTOR <u>RECRA RESEARCH INC</u> <input type="checkbox"/> G. OTHER _____							
05 CHIEF INSPECTOR <u>ANDRE J. LAPRES</u>		06 TITLE <u>STAFF GEOLOGIST</u>		07 ORGANIZATION <u>RECRA RESEARCH</u>		08 TELEPHONE NO. <u>(716) 838-6200</u>	
09 OTHER INSPECTORS <u>DIANE M. WERNEWSKI</u>		10 TITLE <u>STAFF GEOLOGIST</u>		11 ORGANIZATION <u>RECRA RESEARCH</u>		12 TELEPHONE NO. <u>(716) 838-6200</u>	
13 SITE REPRESENTATIVES INTERVIEWED <u>BOB KREPPS</u>		14 TITLE		15 ADDRESS <u>TOWN HALL MACHIAS</u>		16 TELEPHONE NO. <u>()</u>	
17 ACCESS GAINED BY (Check one) <input checked="" type="checkbox"/> PERMISSION <input type="checkbox"/> WARRANT		18 TIME OF INSPECTION <u>11:30 AM</u>		19 WEATHER CONDITIONS <u>CLOUDY, 70°F</u>			
IV. INFORMATION AVAILABLE FROM							
01 CONTACT <u>RICHARD L. CROUCH</u>		02 OF (Agency/Organization) <u>RECRA RESEARCH, INC.</u>				03 TELEPHONE NO. <u>(716) 838-6200</u>	
04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM <u>ANDRE J. LAPRES</u>		05 AGENCY <u>—</u>	06 ORGANIZATION <u>RECRA</u>	07 TELEPHONE NO. <u>(716) 838-6200</u>	08 DATE <u>1 1</u> MONTH DAY YEAR		



☐ J. HIGHLY VOLATILE
☐ K. EXPLOSIVE
☐ L. REACTIVE
☐ M. INCOMPATIBLE
☐ N. NOT APPLICABLE



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)
04 NARRATIVE DESCRIPTION

☒ POTENTIAL ☐ ALLEGED

HIGHLY PERMEABLE SOILS IN THE AREA COULD ALLOW CONTENTS OF BREACHED
DRUMS TO MIGRATE TO GROUNDWATER

01 ☒ B. SURFACE WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)
04 NARRATIVE DESCRIPTION

☒ POTENTIAL ☐ ALLEGED

SURFACE RUNOFF ENTER FISCHER CREEK AND ONE OF ITS TRIIBUTARIES

01 ☐ C. CONTAMINATION OF AIR
03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)
04 NARRATIVE DESCRIPTION

☐ POTENTIAL ☐ ALLEGED

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS
03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)
04 NARRATIVE DESCRIPTION

☐ POTENTIAL ☐ ALLEGED

01 ☒ E. DIRECT CONTACT
03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)
04 NARRATIVE DESCRIPTION

☒ POTENTIAL ☐ ALLEGED

BREACHED DRUMS ARE ON SITE

01 ☒ F. CONTAMINATION OF SOIL
03 AREA POTENTIALLY AFFECTED: _____ (Acres)

02 ☐ OBSERVED (DATE: _____)
04 NARRATIVE DESCRIPTION

☒ POTENTIAL ☐ ALLEGED

CONTENTS OF DRUM WAS OBSERVED ON GROUND SURFACE

01 ☒ G. DRINKING WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)
04 NARRATIVE DESCRIPTION

☒ POTENTIAL ☐ ALLEGED

AREA RESIDENTS USE GROUNDWATER FOR DOMESTIC SUPPLY.

01 ☒ H. WORKER EXPOSURE/INJURY
03 WORKERS POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)
04 NARRATIVE DESCRIPTION

☒ POTENTIAL ☐ ALLEGED

TOWN WORKERS EXCAVATING GRAVEL FROM PIT.

01 ☒ I. POPULATION EXPOSURE/INJURY
03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)
04 NARRATIVE DESCRIPTION

☒ POTENTIAL ☐ ALLEGED

AREA IS EASILY ACCESSIBLE



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☐ K. DAMAGE TO FAUNA
04 NARRATIVE DESCRIPTION (include names of species)

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☐ L. CONTAMINATION OF FOOD CHAIN
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES
(Spills, Runoff, Standing liquids, Leaking drums)

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☒ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

BREACHED DRUMS ON-SITE AND WASTE HAS SPILLED ONTO GROUND SURFACE

01 ☐ N. DAMAGE TO OFFSITE PROPERTY
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

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

III. TOTAL POPULATION POTENTIALLY AFFECTED: _____

IV. COMMENTS

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



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

I. IDENTIFICATION
01 STATE 02 SITE NUMBER

II. PERMIT INFORMATION

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

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE	04 TREATMENT (Check all that apply)	05 OTHER
<input type="checkbox"/> A. SURFACE IMPOUNDMENT			<input type="checkbox"/> A. INCINERATION	<input type="checkbox"/> A. BUILDINGS ON SITE
<input type="checkbox"/> B. PILES			<input type="checkbox"/> B. UNDERGROUND INJECTION	
<input checked="" type="checkbox"/> C. DRUMS, ABOVE GROUND			<input type="checkbox"/> C. CHEMICAL/PHYSICAL	
<input type="checkbox"/> D. TANK, ABOVE GROUND			<input type="checkbox"/> D. BIOLOGICAL	
<input type="checkbox"/> E. TANK, BELOW GROUND			<input type="checkbox"/> E. WASTE OIL PROCESSING	
<input type="checkbox"/> F. LANDFILL			<input type="checkbox"/> F. SOLVENT RECOVERY	
<input type="checkbox"/> G. LANDFARM			<input type="checkbox"/> G. OTHER RECYCLING/RECOVERY	
<input type="checkbox"/> H. OPEN DUMP			<input type="checkbox"/> H. OTHER (Specify)	
<input type="checkbox"/> I. OTHER (Specify)				06 AREA OF SITE 0.5 (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.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☒ YES ☐ NO
02 COMMENTS

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



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

1. IDENTIFICATION
01 STATE 02 SITE NUMBER

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Circle all that apply)		02 STATUS			03 DISTANCE TO SITE	
	SURFACE WELL	ENDANGERED	AFFECTED	MONITORED		
COMMUNITY	A. <input checked="" type="checkbox"/>	B. <input checked="" type="checkbox"/>	A. <input type="checkbox"/>	B. <input type="checkbox"/>	C. <input type="checkbox"/>	A. <u>2.0</u> (mi)
NON-COMMUNITY	C. <input type="checkbox"/>	D. <input checked="" type="checkbox"/>	D. <input checked="" type="checkbox"/>	E. <input type="checkbox"/>	F. <input type="checkbox"/>	B. <u>0.2</u> (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

☒ A ONLY SOURCE FOR DRINKING ☐ B DRINKING
(Other sources available)
COMMERCIAL, INDUSTRIAL, IRRIGATION
(No other water sources available)

☐ C COMMERCIAL, INDUSTRIAL, IRRIGATION
(No other water sources available) ☐ D NOT USED, UNUSEABLE

02 POPULATION SERVED BY GROUND WATER _____ 03 DISTANCE TO NEAREST DRINKING WATER WELL 0.2 (mi)

04 DEPTH TO GROUNDWATER 30 (ft) 05 DIRECTION OF GROUNDWATER FLOW _____

06 DEPTH TO AQUIFER OF CONCERN 30 (ft) 07 POTENTIAL YIELD OF AQUIFER _____ (gpd) 08 SOLE SOURCE AQUIFER ☐ YES ☐ NO

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

10 RECHARGE AREA

☐ YES ☐ NO
COMMENTS

11 DISCHARGE AREA

☐ YES ☐ NO
COMMENTS

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

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

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME: ISCHUA CREEK AFFECTED ☐ DISTANCE TO SITE 0.5 (mi)

TRIBUTARY TO ISCHUA CREEK ☐ _____ (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. 50 B. 800 C. 2500

NO. OF PERSONS NO. OF PERSONS NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION _____ (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE 250 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)



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

I. IDENTIFICATION
01 STATE 02 SITE NUMBER

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ A. 10^{-8} - 10^{-6} cm/sec ☐ B. 10^{-6} - 10^{-4} cm/sec ☒ C. 10^{-4} - 10^{-2} cm/sec ☐ D. GREATER THAN 10^{-2} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

☐ A. IMPERMEABLE (Less than 10^{-8} cm/sec) ☒ B. RELATIVELY IMPERMEABLE (10^{-8} - 10^{-6} cm/sec) ☐ C. RELATIVELY PERMEABLE (10^{-6} - 10^{-4} cm/sec) ☐ D. VERY PERMEABLE (Greater than 10^{-4} cm/sec)

03 DEPTH TO BEDROCK

90 (ft)

04 DEPTH OF CONTAMINATED SOIL ZONE

(ft)

05 SOIL pH

06 NET PRECIPITATION

9 (in)

07 ONE YEAR 24 HOUR RAINFALL

2.0 (in)

08 SLOPE

SITE SLOPE 5%

DIRECTION OF SITE SLOPE

NORTH & EAST

TERRAIN AVERAGE SLOPE

5%

09 FLOOD POTENTIAL

SITE IS IN YEAR FLOODPLAIN

10

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

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE

OTHER

A. (mi)

B. 0.5 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

(mi)

ENDANGERED SPECIES:

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL

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

AGRICULTURAL LANDS
PRIME AG LAND AG LAND

A. (mi)

B. (mi)

C. (mi)

D. (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

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



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

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

II. SAMPLES TAKEN

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

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS

IV. PHOTOGRAPHS AND MAPS

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

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

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



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

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

II. CURRENT OWNER(S)

PARENT COMPANY (If applicable)

01 NAME
TOWN OF MACHIAS
02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)
TOWN HALL
04 SIC CODE
05 CITY
MACHIAS
06 STATE
NY
07 ZIP CODE
08 NAME
09 D+B NUMBER
10 STREET ADDRESS (P.O. Box, RFD #, etc.)
11 SIC CODE
12 CITY
13 STATE
14 ZIP CODE

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

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

IV. REALTY OWNER(S) (If applicable - last most recent first)

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

V. SOURCES OF INFORMATION (Give specific references, e.g., state files, satellite analysis, records)



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

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

II. CURRENT OPERATOR (Provide # different from owner)

OPERATOR'S PARENT COMPANY (If applicable)

01 NAME TOWN OF MACHIAS		02 D+B NUMBER		10 NAME		11 D+B NUMBER					
03 STREET ADDRESS (P.O. Box, RFD #, etc.) TOWN HIGHWAY DEPT.		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE					
05 CITY MACHIAS		06 STATE NY		07 ZIP CODE		14 CITY		15 STATE		16 ZIP CODE	
08 YEARS OF OPERATION		09 NAME OF OWNER									

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

PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)

01 NAME		02 D+B NUMBER		10 NAME		11 D+B NUMBER					
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE					
05 CITY		06 STATE		07 ZIP CODE		14 CITY		15 STATE		16 ZIP CODE	
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD									

01 NAME		02 D+B NUMBER		10 NAME		11 D+B NUMBER					
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE					
05 CITY		06 STATE		07 ZIP CODE		14 CITY		15 STATE		16 ZIP CODE	
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD									

01 NAME		02 D+B NUMBER		10 NAME		11 D+B NUMBER					
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE					
05 CITY		06 STATE		07 ZIP CODE		14 CITY		15 STATE		16 ZIP CODE	
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD									

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



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

I. IDENTIFICATION
01 STATE 02 SITE NUMBER

II. ON-SITE GENERATOR

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

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
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
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 analyses, reports)



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

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

H. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ D. SPILLED MATERIAL REMOVED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ E. CONTAMINATED SOIL REMOVED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ F. WASTE REPACKAGED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ G. WASTE DISPOSED ELSEWHERE
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ H. ON SITE BURIAL
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ I. IN SITU CHEMICAL TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ J. IN SITU BIOLOGICAL TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ K. IN SITU PHYSICAL TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ L. ENCAPSULATION
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ M. EMERGENCY WASTE TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ N. CUTOFF WALLS
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ P. CUTOFF TRENCHES/SUMP
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ Q. SUBSURFACE CUTOFF WALL
04 DESCRIPTION

02 DATE _____

03 AGENCY _____



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

I IDENTIFICATION

01 STATE 02 SITE NUMBER

II PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ S. CAPPING/COVERING
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ T. BULK TANKAGE REPAIRED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ U. GROUT CURTAIN CONSTRUCTED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ V. BOTTOM SEALED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ W. GAS CONTROL
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ X. FIRE CONTROL
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ Y. LEACHATE TREATMENT
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ Z. AREA EVACUATED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ 1. ACCESS TO SITE RESTRICTED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ 2. POPULATION RELOCATED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ 3. OTHER REMEDIAL ACTIVITIES
04 DESCRIPTION

02 DATE

03 AGENCY

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



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

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☐ NO

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

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

4.0 Site History

The inactive Town of Machias Gravel Pit is located approximately 1000 feet south of the intersection of the Very Road and Route 16. The Gravel Pit was used from March 1978 to September 1978 for the storage of approximately 600 drums of waste material generated at the Motorola Plant in Arcade (Reference 1). The drums were delivered to the site by hauler Daniel Griswald. Records indicate that permission was never granted for the use of the property as a disposal site. However background information indicates that the oily waste material was used by town employees for dust control on local roads. Approximately one-half of the remaining wastes were spilled onto the ground surface.

Background information, supplied by the Motorola Corporation regarding the nature of the waste disposed of as a result of manufacturing processes, reveals that the drummed materials may contain: epoxy resins, hydrochloric acid, phosphoric acid, toluene, xylene, trichloroethane, trichloroethylene, freon and cutting oils. These wastes are considered moderately toxic based on the information supplied and the literature reviewed (Reference 1).

The exact nature of the contents of the drums remaining on-site has yet to be determined. No analytical testing of any sort has been performed on-site.

5.0 Site Data

5.1 Site Area Surface Features

5.1.1 Topography and Drainage - Topography of the area around the Machias Gravel Pit consists of low rolling hills dissected by numerous perennial and intermittent streams. Drainage of the surrounding land flows in a easterly direction via Ischua Creek. Surface runoff from the site flows north and east via roadside ditches which ultimately discharge into Ischua Creek and one of its tributaries. Directly east of the site the Ischua Creek Dam forms a large spillway and wetland area. Bird Swamp occupies a large area approximately 1,000 feet south of the site (Reference 9). Ischua Creek and Bird Swamp are both classified as Class "C" water resources (Reference 10).

5.1.2 Environmental Setting - Bird Swamp and the wetlands created by Ischua Creek Dam are located within 1,000 feet of the site (Reference 9). Ischua Creek and one of its tributaries may be impacted by surface runoff from the site. There are no critical habitats of endangered species or wildlife refuges in the vicinity. Private residents on well water are within 500 feet of the site (Reference 8).

5.2 Site Hydrogeology

5.2.1 Geology - Bedrock in the area of the Machias Gravel Pit is the

Gowanda Shale Member of the Canadaway Formation. This unit consists of interbedded light gray to grayish-black shales and thin to thick bedded light gray siltstones. Many zones of calcareous concretions are also found in this unit. Overall thickness of the Gowanda Shale is approximately 275 feet (Reference 4). Depth to bedrock in the area is reported to be ninety (90) feet (Reference 3). Overburden materials consist of glacial gravel, till and aluvial deposits. Regional dip of the bedrock unit is 0.5° to the south (Reference 4).

5.2.2 Soils - The surficial soil at the site has been classified by the U.S. Department of Agriculture as Chenango Gravelly Sandy Loam. This material is characterized as a deep, well-drained to somewhat excessively drained soil which was formed in water sorted material on glacial outwash plains. Permeabilities associated with soils of this type range from 10^{-3} to 10^{-5} cm/sec. Clay percentages in this soil range from 6 to 18 percent to a depth of 30 inches. From 30 to 70 inches clay ranges drop to 1 to 8 percent. Note has been made that this soil offers severe limitations for landfilling operations due to seepage and high sand content (Reference 7). The immediate area of the drum disposal is an abandoned gravel pit which has been excavated to a depth of approximately twenty (20) feet

below the original ground surface (Reference 8).

5.2.3 Groundwater - All residents in the area of the Machias Gravel Pit rely on private well water for domestic supplies (Reference 5). These wells are at a reported depth of between thirty (30) and forty (40) feet and are screened in a gravel till aquifer (Reference 6). This aquifer is the first water encountered beneath the ground surface. The Village of Machias provides municipal water to residents within the village limits. This water is drawn from two (2) wells, located adjacent to New York Route 16, north of the village, and two (2) springs located adjacent to Rosick Road and Riceville Road (Reference 5).

5.3 Previous Sampling and Analysis

5.3.1 Groundwater Quality Data - There is no groundwater quality data for the area.

5.3.2 Surface Water Quality Data - There is no surface water quality data for the area.

5.3.3 Air Quality Data - There is no air quality data for this area.

5.3.4 Other Analytical Data - None.

6.0 Adequacy of Available Data

In compiling the Hazard Ranking Score, the Machias Gravel Pit was found to have a score for migration potential (S_m) equal to 23.9. However, due to data inadequacies, a certain degree of subjectivity was involved in scoring the site; and: therefore, a range has been developed for S_m . The range for the Machias Gravel Pit is considered 23.0 to 40.0. Data inadequacies are as follows:

- o The exact nature of the contents of the drums is unknown.
- o Total population of the area has been estimated.
- o Lack of site-specific geology and hydrogeology.
- o Quality of groundwater supplies of area residents is unknown.
- o Extent of migration of spilled materials is unknown.
- o No analytical data available.
- o No air quality data available.

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:

- o Potential environmental effects of the landfill.
- o The extent and magnitude of contamination, based on site specific hydrogeologic conditions.
- o 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 Air Monitoring
- 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 Operation Manual - Field and Analytical Services (previously submitted to NYSDEC by Recra as part of a pre-qualifying submission).

7.2.1 Air Monitoring - Prior to implementation of the various field investigative techniques associated with this element, an initial site screening will be conducted using a Century Organic Vapor Analyzer (OVA) and/or an HNU photoionizer. Based upon described site characteristics, Recra team personnel engaged in this activity will enter the site equipped with level 3 respiratory protection. A grid pattern will be established at the site and readings taken and recorded at each grid point. This survey will determine the initial level of protection necessary for workers' safety. In addition, upgradient and downgradient air monitoring stations will be established at both sites.

If the results are indicative of air quality problems, additional testing will be initiated at specified distances away from the site.

During actual field investigative work, ambient and worker air monitoring will be conducted periodically using appropriate instrumentation, such as the photoionizer and/or OVA. When deemed necessary from actual readings, the level of respiratory protection will be adjusted to meet existing conditions. All disposable equipment necessary for worker safety will be placed daily into covered on-site drums provided by Recra, and removed from the site and disposed of either upon reaching full capacity or upon completion of all field work.

7.2.2 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. It will also aid in determining the possibility and extent of groundwater contamination. The geophysical method proposed to investigate the site is the VLF-EM Terrain Conductivity survey. This method is considered sufficient to define the bedrock surface, the depth of the fill material and any possible contaminant plume on the site.

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.

7.2.3 Subsurface Investigation - In order to facilitate additional information concerning possible groundwater contamination, preliminary findings indicate a need for subsurface investigations. This investigation will include:

- A. One (1) exploratory boring west of the disposal area to determine the nature of the base in-situ soil. This boring will be located in the section of the site assumed to be upgradient of groundwater flow.
- B. Two (2) exploratory borings east of the disposal area will be located downgradient of groundwater flow.
- C. One (1) exploratory boring within the disposal area.

All borings will be completed as groundwater monitoring wells and will be constructed within the uppermost seasonal groundwater table.

- D. An auger boring in the disposal area. This will be used to aid in determining the nature and extent of the

underlying material.

Well and sampling locations for this site are illustrated in Figure 3.

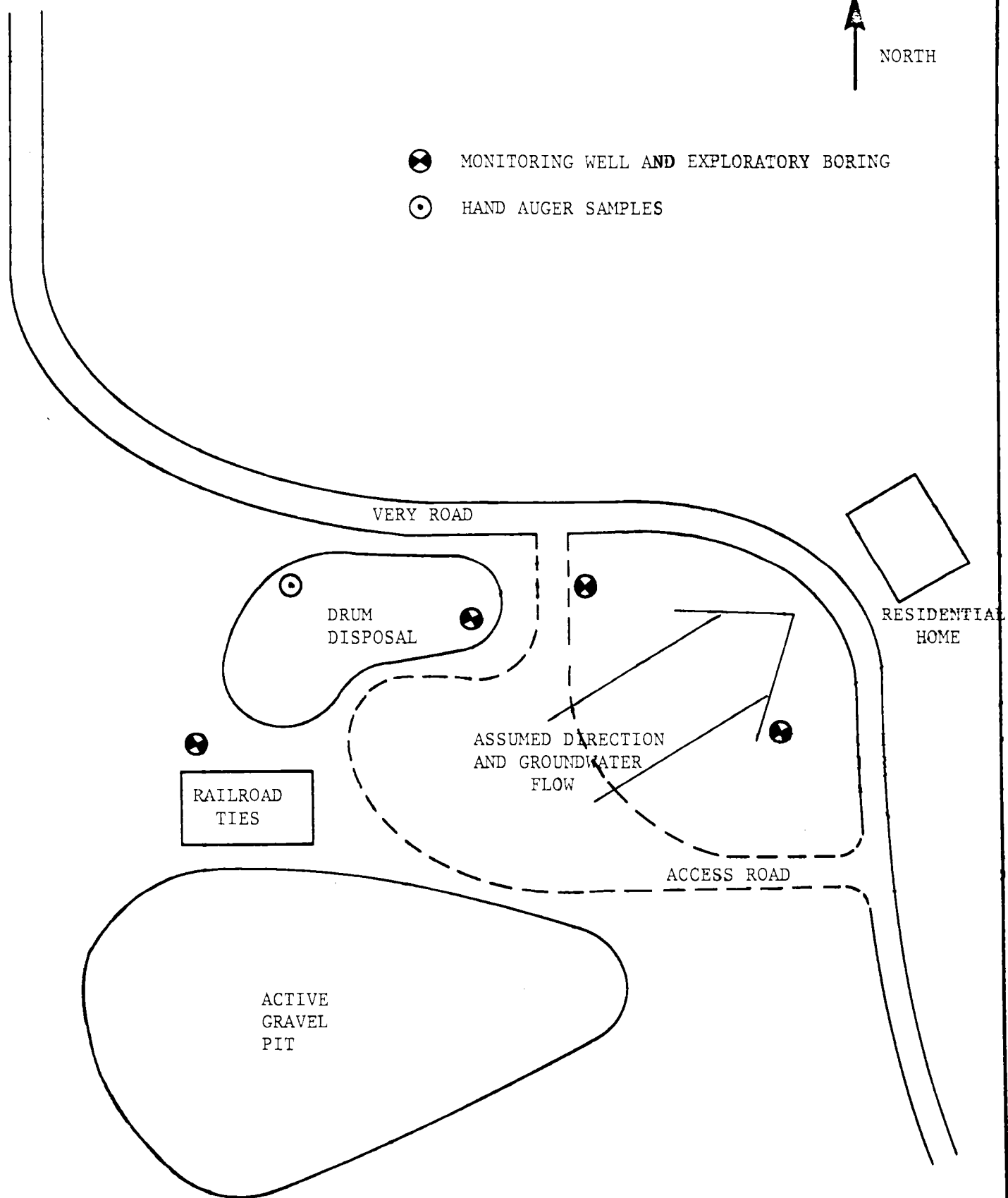
All exploratory borings will be drilled with a truck, trailer, and/or all-terrain-mounted auger rig using hollow stem augers. During construction of the borings, split spoon samples will be continuously obtained in the one first boring. In the other borings, split spoon samples will be obtained at five (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 the boring logs with the sample number and standard penetration test results (ASTM-D-1586), and placed in precleaned, 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 exploratory borings, the apparent upgradient



- ⊗ MONITORING WELL AND EXPLORATORY BORING
- ⊙ HAND AUGER SAMPLES



NOT TO SCALE

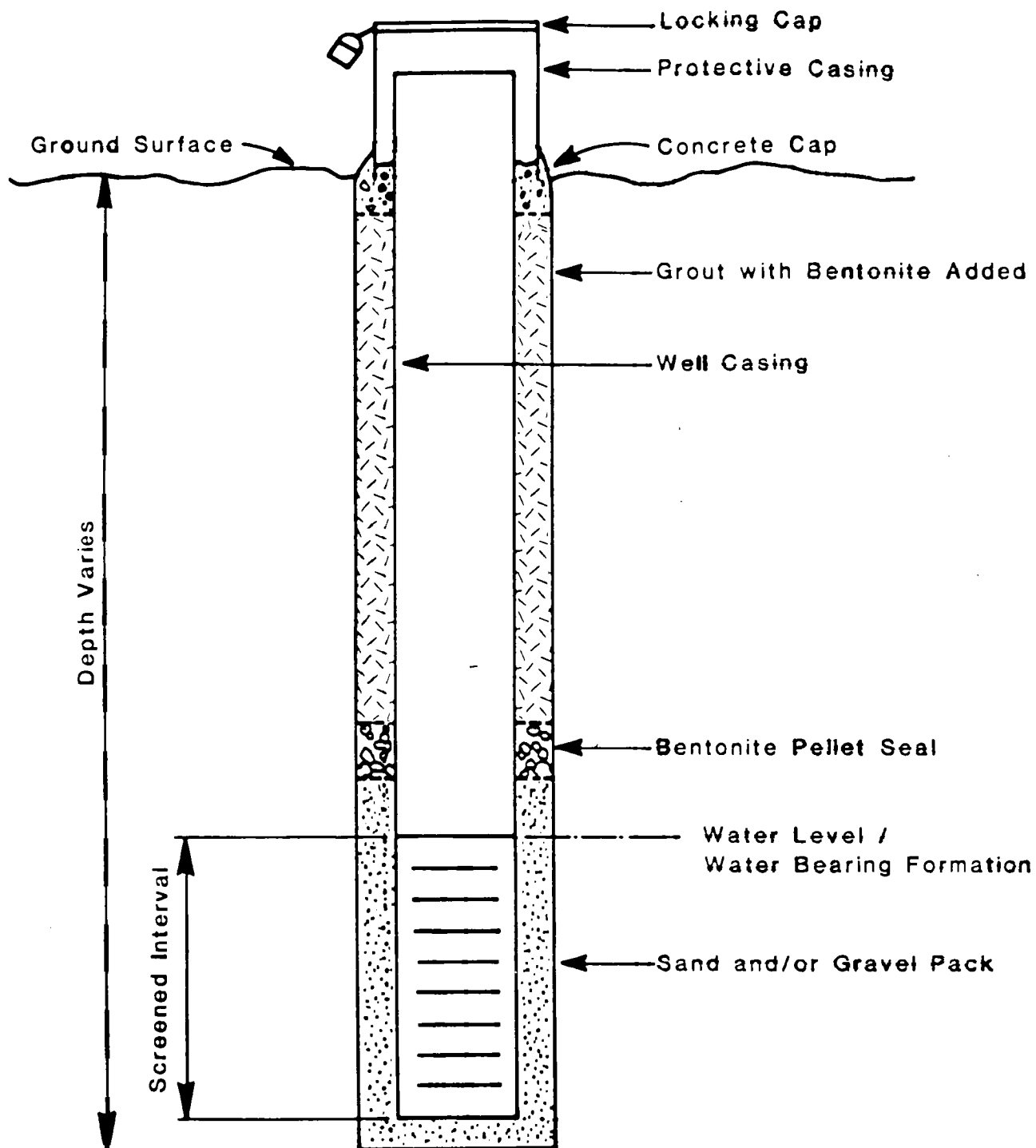
SAMPLING AND ANALYSIS
MACHIAS GRAVEL PIT

FIGURE 3

borings will be completed first; then the downgradient holes will be drilled. Between each 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. Prior to leaving the site, the drill rig will be decontaminated using high pressure water.

- 7.2.4 Monitoring Well Installation - The monitoring wells will be constructed of two-inch I.D. cast iron riser pipe with a five-foot long galvanized, wire-wound-wrapped steel screen. 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. If the site specific hydrogeologic conditions dictate the design of monitoring wells such that the well screen invert depths occur above their respective boring completion depths, the open bore hole intervals will be sealed with bentonite and/or cement bentonite grout mixture. A typical monitoring well in unconsolidated material is illustrated in Figure 4.

Figure 4
MONITORING WELL DETAIL
In Unconsolidated Formation



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 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.

7.2.5 Sampling and Analysis - The following procedures will encompass the sampling of groundwater from the newly installed wells, the analysis of samples obtained from these wells and the analysis of selected soil samples from the exploratory and hand auger borings. If desired, all samples will be 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 samples will be analyzed for the parameters listed in Table 1.

7.2.5.1 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 volume of three times the well contents have been removed.

TABLE 1: ANALYTICAL PARAMETERS

Parameters	Surface Water	Groundwater
pH	.	.
Specific Conductance	.	.
Chloride	.	.
Sulfate	.	.
Total Organic Carbon	.	.
Cadmium	.	.
Chromium (Total)	*	o
Chromium (Hexavalent)	*	o
Copper	*	o
Iron	*	o
Lead	*	o
Mercury	*	o
Nickel	*	o
Silver	*	o
Zinc	*	o
Total Recoverable Phenolics	.	.
Oils & Greases	.	.
Toluene	.	.
Volatile Organic Scan (VOS)	.	.
Halogenated Organic Scan (HOS)	.	.
Volatile Halogenated Organic Scan	.	.
Dry Weight	.	.

o = Soluble Metals

* = Total Metals

VOS is a screening procedure to identify the presence or absence of volatile chlorinated organic compounds. Analyses are performed via purge and trap concentration, gas, liquid chromatography and an electrolytic conductivity detector.

HOS is a screening procedure to identify the presence or absence of halogenated organics. Analyses are performed via solvent extraction concentration gas liquid chromatography and an electron capture detector.

Evacuation of water from the wells and the acquisition of the samples will be accomplished by pumping 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, or bailing with steel bailers separately designated for each well. Obtaining the required volume of sample for volatile organic analysis will be accomplished using steel bailers that have been separately designated for each well.

Upon collection of the samples, field pH, temperature and conductivity measurements will be recorded. The samples will be placed in appropriate precleaned bottles/septa vials, labelled, chilled and immediately returned to Recra's Tonawanda, New York laboratory for preservation and analyses of previously listed chemical parameters. 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.

7.2.5.2 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 six (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 and 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 landfill. The results from these tests, in conjunction with Standard Penetration Test results, will aid in the design and evaluation of remedial programs.

Chemical analysis 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.

7.2.6 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.

7.2.7 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 "Operations Manual - Field and Analytical Services".

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

- Evaluate feasible remedial alternatives at the site and prepare budget-level cost estimates for these alternatives.
- Based upon this evaluation, recommend the most cost-effective and environmentally sound course of remedial action.
- Prepare a Hazard Ranking System (HRS) score for the sites.

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 Costs

The estimated costs per individual element of the preceding scope of work are listed as follows:

o	Preliminary Field Investigation	\$17,058
o	Sampling and Analysis	7,932
o	Engineering Evaluation	<u>4,030</u>
	Total	\$29,020

APPENDIX A

DATA SOURCES AND REFERENCES

- 1.) Letter to NYSDEC from Cattaraugus County Health Department regarding Motorola sites. September 20, 1978.
- 2.) Mitre Inc., Hazard Ranking System; July 16, 1982.
- 3.) Erie-Niagara Basin Groundwater Resources, NYS Water Resource Commission, ENB-3, 1973.
- 4.) Geology of Cattaraugus County, New York, Buffalo Society of Natural Sciences Bulletin; Irving H. Tesmer, 1975.
- 5.) Telephone conversation with Ray Jordan, Cattaraugus County Health Department, Machias, New York; August 26, 1983.
- 6.) Telephone conversation with representative of Willey Well Drillers, Arcade, New York; August 26, 1983.
- 7.) Telephone conversation with U.S.D.A. Soil Conservation Service, Ellicottville, New York; August 26, 1983.
- 8.) Site visit and interview with Robert Krepps and town representatives; July 30, 1983.
- 9.) U.S. Geological Survey topographic map, West Valley Quadrangle, 1964.
- 10.) Codes, Rules and Regulations of the State of New York, 1966.

APPENDIX B

HAZARDOUS WASTE DISPOSAL SITE REPORT

REVISED

Code: None

Site Code: None

Name of Site: Machias Gravel Pit

Region: 9

County: Cattaraugus

Town/City: Machias (T)

Street Address: Very Road

Status of Site:

- o Southern portion of site is an active gravel pit. Drums are surface piled in the inactive northern section of the pit.
- o Rural area with moderate relief.
- o Nearest dwelling is approximately 500 feet east of the site.
- o Nearest Water Body: Ischua Creek.
- o Nearest Water Supply: Residence on groundwater 500 feet east of site.
- o Soil Type: Chenango gravelly sandy loam.
- o Spillage and ponding of liquid from breached drums was observed on-site.

Type of Site: Town Gravel Pit

Estimated Size: One-half acre

Hazardous Waste Disposed? Confirmed

Type and Quantity of Hazardous Waste:

- o Approximately 50 drums were observed on-site during July 30, 1983 site visit. Information supplied by Motorola indicates contents of drums are

halogenated and non-halogenated solvents, fluxes, acids and cutting oils.

Present Owner: Town of Machias

Time Period Site Was Used: 1978 to present.

Type of Samples: None

Remedial Action: None

Status of Legal Action: None

Permits Issued: None

Assessment of Environmental Problems:

- o Local residents use groundwater drawn from gravel aquifer 30 feet below ground surface. Area soils are highly permeable creating a potential for groundwater contamination due to migration of material spilled from drums.

Assessment of Health Problems: Unknown

Person Completing this Form: Andre J. LaPres, Recra Research, Inc.

Date: September 6, 1983.

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