902009

FRIENDSHIP SUPPLY COMPANY, INC.

(JONES CHEMICALS, INC.)

NEW YORK STATE SUPERFUND

PHASE I SUMMARY REPORT

902009

September 6, 1983

Prepared by:

Recra Research, Inc.
4248 Ridge Lea Road
Amherst, New York 14226

For:

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

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PHASE I SUMMARY REPORT

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1.0 EXECUTIVE SUMMARY

The Friendship Supply Company is located near a residential area of the Hamlet of Friendship, Allegany County, New York. The firm has been packaging swimming pool chemical since 1963, with processes remaining nearly unchanged over the years. Although no process wastes are generated at the site, improper disposal practices were used for the plant's equipment rinse waters until 1981, when a wastewater neutralization system went on line.

The waste disposal area for the plant was an adjacent driveway, where rinse waters were discharged daily. These wastewaters then flowed overland to a ditch which led to Van Campen Creek on the floor of the valley below. The chemicals rinsed from the packaging equipment were of unknown quantities, and all are highly toxic but not persistent in the environment.

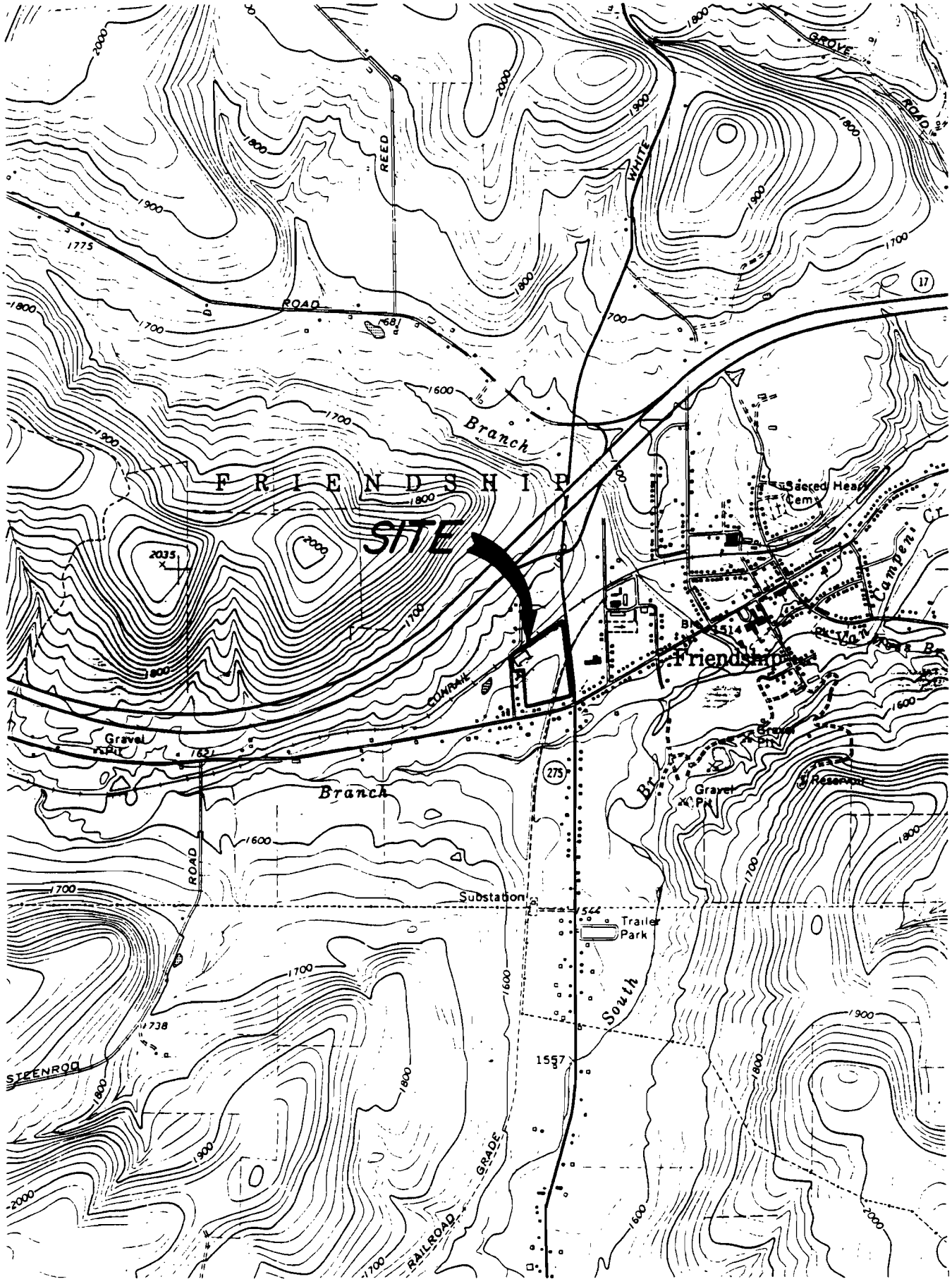
Samples taken from Van Campen Creek following a fishkill indicate that contaminants from the site reach this waterway. Van Campen Creek and the local aquifer system are both used as drinking water sources for Town of Friendship residents. In addition, Van Campen Creek discharges to the Genesee River approximately five miles to the east, which is also used as a drinking water source along its flow path.

2.0 SITE DESCRIPTION

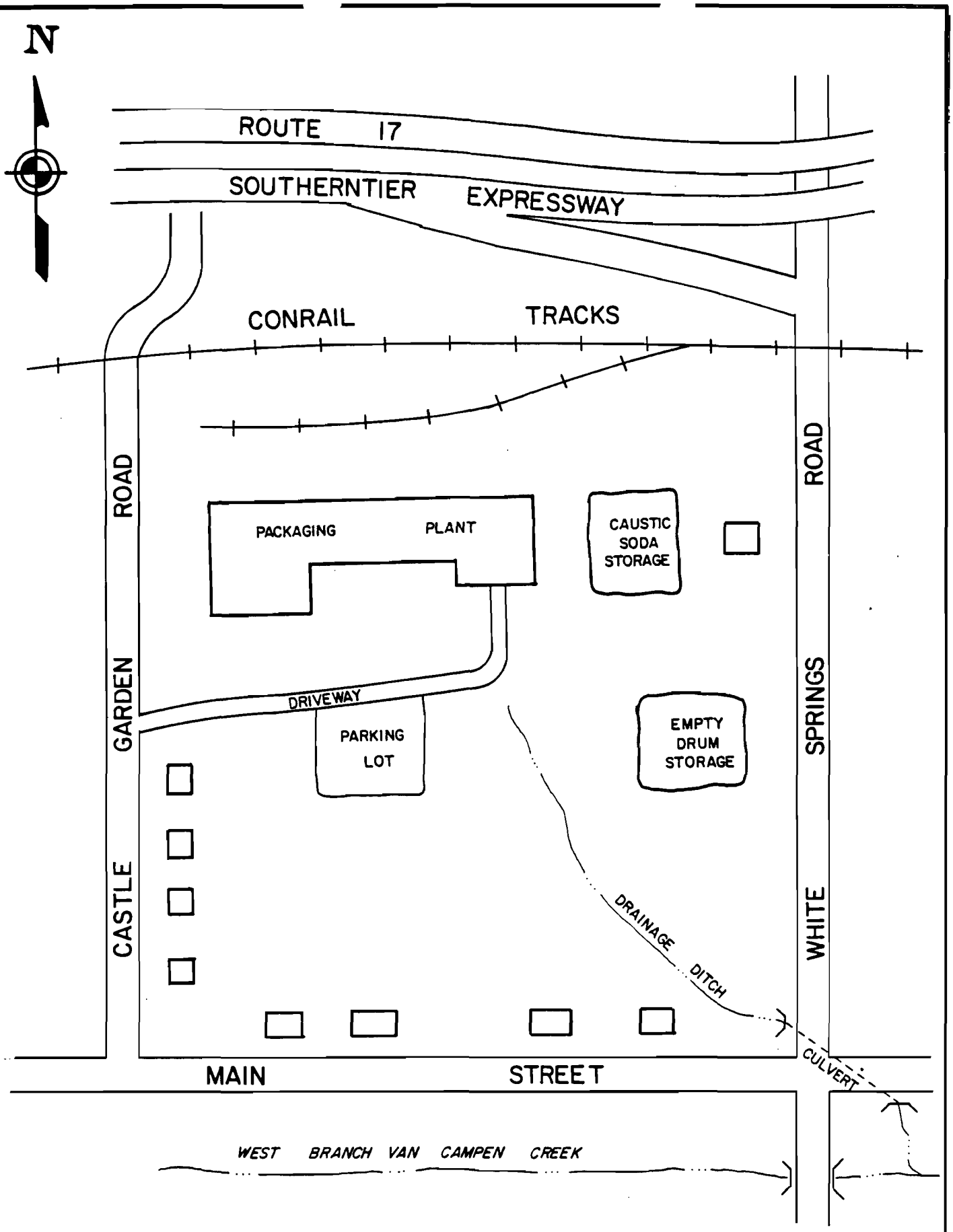
The Friendship Supply Company, located on Castle Garden Road, Friendship, Allegany County, New York (Figure 1), is a packaging plant for swimming pool chemicals. Although no process wastes are generated at the facility, rinse waters were discharged daily onto the ground around the plant until 1981, when a treatment system for plant discharges was brought on-line.

The site is located on a steep, grassy slope above Van Campen Creek on the valley floor New York's Southern Tier Expressway (Route 17) passes just upslope from the site adjacent to Conrail railroad tracks: The waste disposal area is adjacent to the plant itself, but the wastewaters subsequently flow to a ditch downslope from the facility (Figure 2). This ditch carries both groundwater seepage diverted from above the plant and the plant's surface runoff to Van Campen Creek, and eventually reaches the Genesee River.

Analytical testing of the water resources surrounding the site has been limited to stream samples taken following a fishkill in Van Campen Creek. Groundwater downgradient from the site is used for the Hamlet of Friendship Municipal Water Supply, and Van Campen Creek is also used by Township residents as a drinking water source.



USGS TOPOGRAPHIC 7.5 MINUTE FRIENDSHIP QUAD.	VICINITY MAP FRIENDSHIP SUPPLY COMPANY	FIGURE 1



URS	URS Company, Inc. CONSULTING ENGINEERS NEW YORK NEW JERSEY	SITE MAP FRIENDSHIP SUPPLY COMPANY	FIGURE 2

4.0 SITE HISTORY

Friendship Supply Company, Inc. began packaging swimming pool chemicals during 1963, using similar processes to those used at present (Ref. 6). Wastewaters generated during processing at the facility were comprised only of equipment rinse waters, and no other hazardous residuals remain. Past disposal practices included the discharge of all wastewaters by hand to the facility's driveway, and no containment methods were used to control the small volumes handled.

In April of 1981, a fishkill occurred in Van Campen Creek downstream from the site which was related to the wastewater discharges by surface water sampling (Ref. 14). On June 4, 1981, a NYSDEC representative met with Mr. Jerry Sawyer of Friendship Supply to discuss the plant's wastewater disposal practices (Ref. 18). Subsequently, a consent order was issued by the NYSDEC which required that all discharges to New York State waters be eliminated by September 15, 1981, and that connection with the Friendship Town sanitary sewer system had to be made (Ref. 19). An inspection of the facility was made by the USEPA on July 22, 1981 and no violations were recorded (Ref. 20). The wastewater neutralization system finally went on-line in March 1981, and the sewer connection was completed.

3.0 PRELIMINARY HAZARD RANKING SYSTEM SCORE

Facility Name: Friendship Supply Co., Inc. (Jones Chemical)

Location: Castle Garden Rd., Friendship, Allegany County, N.Y.

EPA Region: 2

Person(s) in Charge of the Facility: Jerry Sawyer, Manager
Friendship Supply Co., Inc.
Friendship, N.Y. 14739

Name of Reviewer: Recra Research, Inc. **Date:** 9/6/83

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.)

An active swimming pool chemical packaging plant. No process wastes generated. Equipment wash waters discharged to plant driveway from 1963 to 1981. Wastes eventually reach VanCampen Creek which is used as drinking water source. Local well field for public water system located approximately 1 mile downgradient. Plant now discharges to sewer system.

Scores: S_M = 13.0 (S_{gw} = 20.2 S_{sw} = 10.0 S_a = 0)

S_{FE} = 3.6

S_{DC} = 37.5

Range for Sm: 11.9 to 13.0

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	2	3	
	Physical State	0 1 2 (3)	1	3	3	
	Total Route Characteristics Score			13	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	9	18	
	Hazardous Waste Quantity	0 1 [2] 3 4 5 6 7 8	1	2	8	
	Total Waste Characteristics Score			11	26	
5	TARGETS					3.5
	Ground Water Use	0 1 2 (3)	3	9	9	
	Distance to Nearest Well/Population Served	0 4 6 8 10 / 12 16 [18] 20 / 24 30 32 35 40	1	18	40	
	Total Targets Score			27	49	
6	If line [1] is 45, multiply [1] x [4] x [5] If line [1] is 0, multiply [2] x [3] x [4] x [5]				57,330	11,583
7	Divide line [6] by 57,330 and multiply by 100			S_{gw} = 20.2		

GROUNDWATER ROUTE WORK SHEET

SURFACE WATER ROUTE WORK SHEET

	Rating Factor	Assigned Value (Circle One)	Multiplier	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	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	9	18	
	Hazardous Waste Quantity	0 1 [2] 3 4 5 6 7 8	1	2	8	
	Total Waste Characteristics Score			11	26	
5	TARGETS					4.5
	Surface Water Use	0 1 2 [3]	3	9	9	
	Distance to a Sensitive Environment	(0) 1 2 3	2	0	6	
	Population Served/ Distance to Water Intake Downstream	0 [4] 6 8 10 / 12 16 18 20 / 24 30 32 35 40	1	4	40	
	Total Targets Score			13	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				64,350	6,435
7	Divide line 6 by 64,350 and multiply by 100			S_{sw} = 10.0		

SURFACE WATER ROUTE WORK SHEET

AIR ROUTE WORK SHEET

Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 OBSERVED RELEASE	(C) 45	1	0	45	5.1
Date and Location:					
Sampling Protocol:					
If line 1 is 0, then 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		

AIR ROUTE WORK SHEET

	S	S^2
Groundwater Route Score (S_{gw})	20.2	408.0
Surface Water Route Score (S_{sw})	10.0	100.0
Air Route Score (S_a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		508.0
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		22.5
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73$ (S_M)		13.0

WORK SHEET FOR COMPUTING S_M

FIRE AND EXPLOSION WORK SHEET

	Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1	Containment	(1) 3	1	1	3	7.1
2	Waste Characteristics					7.2
	Direct Evidence	(0) 3	1	0	3	
	Ignitability	0 1 (2) 3	1	2	3	
	Reactivity	(0) 1 2 3	1	0	3	
	Incompatibility	(0) 1 2 3	1	0	3	
	Hazardous Waste Quantity	0 1 [2] 3 4 5 6 7 8	1	2	8	
	Total Waste Characteristics Score			4	20	
3	Targets					7.3
	Distance to Nearest Population	0 1 2 (3) 4 5	1	3	5	
	Distance to Nearest Building	0 (1) 2 3	1	1	3	
	Distance to Sensitive Environment	(0) 1 2 3	1	0	3	
	Land Use	0 1 2 (3)	1	3	3	
	Population Within 2-Mile Radius	0 1 2 (3) 4 5	1	3	5	
	Buildings Within 2-Mile Radius	0 1 2 (3) 4 5	1	3	5	
	Total Target Score			13	24	
4	Multiply [1] x [2] x [3]				1,440	
5	Divide line [5] by 1,440 and multiply by 100			S_{FE} = 3.6		

FIRE AND EXPLOSION WORK SHEET

DIRECT CONTACT WORK SHEET

	Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1	Observed Incident	(0) 45	1	0	45	8.1
	If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2					
2	Accessibility	0 1 2 (3)	1	3	3	8.2
3	Containment	0 (15)	1	15	15	8.3
4	Waste Characteristics Toxicity	0 1 2 (3)	5	15	15	8.4
5	Targets					8.5
	Population within a 1-mile radius	0 1 2 (3) 4 5	4	12	20	
	Distance to a critical habitat	(0) 1 2 3	4	0	12	
		Total Targets Score		12	32	
6	If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5				21,600	8,100
7	Divide line 6 by 21,600 and multiply by 100			S_{DC} = 37.5		

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: Friendship Supply Co., Inc.,(Jones Chemical)

LOCATION: Castle Garden Road, Friendship, Allegany County, New York

GROUND WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

No contaminants detected in samples (Ref. 1)

Rationale for attributing the contaminants to the facility:

---

* * *

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifers(s) of concern:

Bedrock consists of the Chadakoin Formation (stratified sandstone and shale members, formerly called the Chemung Group). Most of the available, high quality groundwater is located in thick unconsolidated valley deposit (overburden aquifer) (Refs 2-4)

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

9 ft (Ref. 5)

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

Wastes dumped on ground surface (Ref. 6)

Net Precipitation

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

35.49 inches per year (Ref. 7)

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

27.0 inches per year (Ref. 8)

Net precipitation (subtract the above figures):

8.49 inches

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

Volusia soils — Deep soils found on uplands, somewhat poorly drained, formed in glacial till, very compact mottled fragipan.
Chenango gravelly loam — well drained soil, located where glacial outwash gravel deposited, very channery. (Ref. 9).

Permeability associated with soil type:

$10^{-3} - 10^{-5}$ cm/sec

Physical State

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

Liquid (Ref. 6)

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

No containment, wastes dumped on ground (Ref. 6)

Method with highest score:

See above

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

HCl (Ref. 6)
NaOH
NH_3 Cl_2
NaOCl

Compound with highest score:

HCl, NaOH, NaOCl : Combined Toxicity/Persistence Score equals 9

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):

2,250 gallons = 41 drums

Basis of estimating and/or computing waste quantity:

Assume: 50 gallons wash water dumped daily
1% concentration of chemicals (10,000 ppm)
250 working days per year
18 years operation

(50 gal/day)(250 days/yr)(18 yrs)(1% conc) = 2,250 gallons

5 TARGETS

Ground Water Use

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

Drinking Water (Ref. 10)
Industrial (Ref. 11)

Distance to Nearest Well

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

Public well on E. Main Street Friendship N.Y.

Distance to above well or building:

Approximately 1 mile.

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:

1451 residents served by well water (Ref 12)
160 workers at local dairy (Ref. 11)

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):

0 acres (Ref. 13)
0 served

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

1611 served

SURFACE WATER ROUTE

1 OBSERVED RELEASE

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

Chlorine (Ref. 14)

Rationale for attributing the contaminants to the facility:

Detected at mouth of plant's drainage ditch

* * *

2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

4% (estimated from USGS quadrangle map)

Name/description of nearest downslope surface water:

Van Campen Creek (West Branch)

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

4% (estimated from USGS quadrangle map)

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

2.3 inches (Ref. 15)

Distance to Nearest Downslope Surface Water

Approximately 1600 feet

Physical State of Waste

Liquid (Ref. 6)

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

No containment, wastes dumped on ground (Ref. 6)

Method with highest score:

See above

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

HCl (Ref. 6)
NaOH
Cl_2
NH_3
NaOCl

Compound with highest score:

HCl, NaOH, NaOCl : Combined Toxicity / Persistence Score equals 9

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):

2,250 gallons = 41 drums

Basis of estimating and/or computing waste quantity:

See section 4, groundwater route

* * *

5 TARGETS

Surface Water Use

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

Drinking water (Ref 10)

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:

None in area (Ref. 16)

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

None in area (Ref. 17)

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:

No known residential intakes
45 household supplies are provided by other than public water supplies or wells in the Town of Friendship (Ref. 12)
Town border is 4.5 miles downstream and 3.3 miles upstream
Van Campen Creek is main surface water in Town

Assume 50% of other sources from Van Campen Creek 23

(23 homes)(2.77 residents/home) = 64 served

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

0 acres
0 served (Ref. 13)

Total population served:

64 served

Name/description of nearest of above water bodies:

Van Campen Creek

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

Within 3 miles, use lowest non-zero value

AIR ROUTE

1 OBSERVED RELEASE

Contaminants detected:

N/A

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

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	902009

II. SITE NAME AND LOCATION

01 SITE NAME	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
FRIENDSHIP SUPPLY CO	CASTLE GARDEN ROAD

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
FRIENDSHIP	NY	14739	ALLEGANY		

09 COORDINATES LATITUDE	LONGITUDE
42 12 15.0	078 08 53.0

10 DIRECTIONS TO SITE (Starting from nearest public road)
Route 17 to Friendship Exit, White Springs Road South to Main Street, Main Street west to Castle garden Road.

III. RESPONSIBLE PARTIES

01 OWNER	02 STREET
FRIENDSHIP SUPPLY CO	CASTLE GARDEN ROAD

03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
FRIENDSHIP	NY	14739	(716) 973-8815

07 OPERATOR	08 STREET
SAME	

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 ☐ NO DATE 8/26/83 (MONTH DAY YEAR)
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	03 YEARS OF OPERATION
☒ A. ACTIVE ☐ B. INACTIVE ☐ C. UNKNOWN	1963 (BEGINNING YEAR) 1981 (ENDING YEAR) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
Hydrochloric Acid, Caustic Soda, Ammonia, Chlorine, Sodium Hypochlorite

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
Wash waters dumped on ground and flow to drainage ditch. Van Campen Creek had fishkill related to discharge. Water supply from local wells

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) 836-6200

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
C. Mark Hanna	—	URS Co Inc	(716) 883-5525	08/29/83 (MONTH DAY YEAR)

EPA FORM 2070-12 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	902009

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)
- [ ] A. SOLID
- [ ] B. POWDER, FINES
- [ ] 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: _____
- CUBIC YARDS: _____
- NO. OF DRUMS: 41

03 WASTE CHARACTERISTICS (Check all that apply)
- [X] A. TOXIC
- [X] B. CORROSIVE
- [ ] C. RADIOACTIVE
- [ ] D. PERSISTENT
- [ ] E. SOLUBLE
- [ ] F. INFECTIOUS
- [ ] G. FLAMMABLE
- [ ] H. IGNITABLE
- [ ] I. HIGHLY VOLATILE
- [ ] J. EXPLOSIVE
- [ ] K. REACTIVE
- [ ] L. INCOMPATIBLE
- [ ] M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS	2250	gallons	
BAS	BASES			
MES	HEAVY METALS			

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

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
	Hydrochloric Acid		Dumped on ground		
	Caustic Soda		"		
	Chlorine		"		
	Ammonia		"		
	Sodium Hypochlorite		"		

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)

FRIENDSHIP SUPPLY CO., INC

EPA

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 902009

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. GROUNDWATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 1611
02 [ ] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION
Wastes dumped on ground - soil is gravelly loam

01 [X] B. SURFACE WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 64
02 [ ] OBSERVED (DATE: 4/10/83) [ ] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION
Van Cauper Creek tested after fishkill, contained elevated chlorides.

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

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

01 [X] E. DIRECT CONTACT
03 POPULATION POTENTIALLY AFFECTED: _____
02 [ ] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION
Wastes dumped on ground and flow to surface drainage ditch

01 [X] F. CONTAMINATION OF SOIL
03 AREA POTENTIALLY AFFECTED: 9 (Acres)
02 [ ] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION
Wastes dumped on ground and flow to on site drainage ditch

01 [X] G. DRINKING WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 1611
02 [ ] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION
Town's main water source is well field approximately 1 mile downgradient.

01 [X] H. WORKER EXPOSURE/INJURY
03 WORKERS POTENTIALLY AFFECTED: 10±
02 [ ] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION
Wastes dumped in driveway adjacent to building

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

EPA

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 902009

HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☒ J. DAMAGE TO FLORA | 02 ☐ OBSERVED (DATE: _____) | ☒ POTENTIAL | ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Wastes dumped onground and flow to drainage ditch on site

01 ☒ K. DAMAGE TO FAUNA | 02 ☐ OBSERVED (DATE: 4/10/83) | ☐ POTENTIAL | ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)
Fishkill in Van Campen Creek following discharge

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

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

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

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

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

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

II. TOTAL POPULATION POTENTIALLY AFFECTED: _____

IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)
Friendship Supply Co
NYSDEC Region 9

3.3 EPA Site Inspection Report (Form 2070-13)

EPA

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 902009

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER				
FRIENDSHIP SUPPLY CO INC	CASTLE GARDEN ROAD				
03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG. DIST.
FRIENDSHIP	NY	14739	ALLEGANY		

09 COORDINATES: LATITUDE 42 12 15.0 | LONGITUDE 078 08 53.0

10 TYPE OF OWNERSHIP (Check one): [X] 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
8 26 83 (MONTH DAY YEAR)	[X] ACTIVE ☐ INACTIVE	1963 (BEGINNING YEAR) 1981 (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 [X] F. STATE CONTRACTOR RECRA Research Inc (Name of firm) ☐ G. OTHER _____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
C Mark Hanna	Project Engineer	URS Co Inc	(716) 883-5525

09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
			( )
			( )
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO.
JERRY SAWYER	MANAGER	FRIENDSHIP SUPPLY CO CASTLE GARDEN RD FRIENDSHIP	(716) 973-8815
LARRY BLUE	ENGINEER	JONES CHEMICALS INC CALEDONIA NY 14423	(716) 768-6281
JAMES VAIANA	CHEMIST	JONES CHEMICALS INC CALEDONIA NY 14423	(716) 538-2311
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
[X] PERMISSION ☐ WARRANT	9:30 AM	WARM (70°F), CLEAR

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
C. MARK HANNA	—	URS Co INC	716-883-5525	8 30 83 (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	902009

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

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

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

- TONS: _____
- CUBIC YARDS: _____
- NO. OF DRUMS: 41

03 WASTE CHARACTERISTICS (Check all that apply)

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

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS	2250	Gallons	Contained in wash waters
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

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

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
	Hydrochloric Acid		Dumped on ground	—	
	Sodium Hydroxide		"	—	
	Chlorine		"	—	
	Ammonia		"	—	
	Sodium Hypochlorite		"	—	

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)

FRIENDSHIP SUPPLY CO.

EPA

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 902009

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. GROUNDWATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 16611
02 [ ] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION
Wastes dumped on ground – soil is gravelly loam

01 [X] B. SURFACE WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 164
02 [ ] OBSERVED (DATE: 4/10/81) [ ] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION
Van Campen Creek tested after fish kill. Contained high chlorides.

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

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

01 [X] E. DIRECT CONTACT
03 POPULATION POTENTIALLY AFFECTED: _____
02 [ ] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION
Wastes dumped on ground and flow to surface drainage ditch

01 [X] F. CONTAMINATION OF SOIL
03 AREA POTENTIALLY AFFECTED: 9 (Acres)
02 [ ] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION
Wastes dumped on ground and flow to drainage ditch on site.

01 [X] G. DRINKING WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 16611
02 [ ] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION
Town water source (main) is well approximately 1 mile downgradient

01 [X] H. WORKER EXPOSURE/INJURY
03 WORKERS POTENTIALLY AFFECTED: 10 ±
02 [ ] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION
Wastes dumped in driveway adjacent to building.

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

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	902009

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☒ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) — ☒ POTENTIAL — ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Wastes dumped on ground and flow to drainage ditch on site

01 ☒ K. DAMAGE TO FAUNA — 02 ☒ OBSERVED (DATE: 4/10/83) — ☐ POTENTIAL — ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include Number of Species Affected)
Fishkill in Van Campen Creek following discharge.

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

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

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

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

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

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

III. TOTAL POPULATION POTENTIALLY AFFECTED: 1675

IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)
FRIENDSHIP SUPPLY COMPANY
NYSDEC REGION 9

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	902009

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☐ A. NPDES				
☐ B. UIC				
☐ C. AIR				
☐ D. RCRA				
☐ E. RCRA INTERIM STATUS				
☐ F. SPCC PLAN				
☐ G. STATE (Specify)				
☒ H. LOCAL (Specify)	—	1981	—	permit to discharge to Friendship Sewer System
☐ 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		
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☒ I. OTHER (Specify) On Ground	2250	Gallons

04 TREATMENT (Check all that apply)

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

05 OTHER

- ☒ A. BUILDINGS ON SITE

06 AREA OF SITE

9.25 (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.

Wastes dumped on ground in driveway

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☐ YES ☒ NO

02 COMMENTS

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

FRIENDSHIP SUPPLY CO

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 902009

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as appropriate)	SURFACE	WELL	02 STATUS: ENDANGERED	AFFECTED	MONITORED	03 DISTANCE TO SITE
COMMUNITY	A. ☐	B. ☒	A. ☐	B. ☐	C. ☐	A. 1.5 (mi)
NON-COMMUNITY	C. ☒	D. ☒	D. ☒	E. ☐	F. ☐	B. 3± (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)
☐ A. ONLY SOURCE FOR DRINKING ☒ B. DRINKING (Other sources available) COMMERCIAL, INDUSTRIAL, IRRIGATION (Alternate water sources available) ☐ C. COMMERCIAL, INDUSTRIAL, IRRIGATION (Limited other sources available) ☐ D. NOT USED, UNUSEABLE

02 POPULATION SERVED BY GROUND WATER	03 DISTANCE TO NEAREST DRINKING WATER WELL
1611	1.5 (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
9 (ft)	South	Overburden (ft)	(gpd)	☐ YES ☐ NO

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

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

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)
☒ A. RESERVOIR, RECREATION DRINKING WATER SOURCE ☐ B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES ☐ C. COMMERCIAL, INDUSTRIAL ☐ D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
Van Campen Creek	☒	0.25 (mi)
	☐	(mi)
	☐	(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE	02 DISTANCE TO NEAREST POPULATION
A. 1500 NO. OF PERSONS	B. 2000 NO. OF PERSONS	C. 2500 NO. OF PERSONS	0.1 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE	04 DISTANCE TO NEAREST OFF-SITE BUILDING
800	0.1 (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)
Site adjacent to Hamlet of Friendship.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	902009

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
35 (ft)	(ft)	

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
8.5 (in)	2.3 (in)	up to 15 %	South	4 %

09 FLOOD POTENTIAL

SITE IS IN NONE 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. ____ (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. 2.0 (mi)	B. 0.1 (mi)	C. ____ (mi)	D. 2-3 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

Site is located on lower portion of steep slope. Van Campen creek on valley floor below

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

Site visit

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	902009

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER	2	ARO Corp	Now
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL			
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
CHLORINE (FREE & TOTAL)	Samples indicated higher levels than upstream at mouth of drainage ditch

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☐ GROUND ☒ AERIAL

02 IN CUSTODY OF Soil Conservation Service, Belmont
(Name of organization or individual)

03 MAPS ☐ YES ☐ NO

04 LOCATION OF MAPS

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

None

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

Town of Friendship

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	902009

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

01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER
FRIENDSHIP SUPPLY CO		JONES CHEMICALS INC	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE
CASTLE GARDEN ROAD		100 SUNNY SOL BLVD	

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE
FRIENDSHIP	NY	14739	CALEDONIA	NY	14423

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)

FRIENDSHIP SUPPLY CO

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - OPERATOR INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	902009

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER
FRIENDSHIP SUPPLY CO	

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

05 CITY	06 STATE	07 ZIP CODE
FRIENDSHIP	NY	14739

08 YEARS OF OPERATION	09 NAME OF OWNER
18	—

OPERATOR'S PARENT COMPANY (If applicable)

10 NAME	11 D+B NUMBER
JONES CHEMICALS INC	

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

14 CITY	15 STATE	16 ZIP CODE
CALEDONIA	NY	14423

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

PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)

01 NAME	02 D+B NUMBER	10 NAME	11 D+B NUMBER
NONE			
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)

FRIENDSHIP SUPPLY CO

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	902009

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
FRIENDSHIP SUPPLY CO	

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

06 CITY	06 STATE	07 ZIP CODE
FRIENDSHIP	NY	14739

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
NONE			
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
NONE			
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)

FRIENDSHIP SUPPLY CO

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	902009

II. PAST RESPONSE ACTIVITIES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	902009

II PAST RESPONSE ACTIVITIES (Continued)

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

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

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

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

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

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

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

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

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

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

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

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

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

NYSDEC REGION 9

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	902009

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION: [X] YES [ ] NO

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

CONSENT ORDER BY NYSDEC AGAINST FRIENDSHIP SUPPLY TO STOP DISCHARGING RINSE WATERS TO DRIVEWAY AND INSTALL NEUTRALIZATION SYSTEM AND SEWER CONNECTION

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

NYSDEC REGION 9

5.0 SITE DATA

5.1 Site Area Surface Features

5.1.1 Topography and Drainage - The topography of this site is similar to much of Allegany County. Friendship Supply is located on the lower portion of a steep slope (15%), approximately 50 feet in elevation above the West Branch of Van Campen Creek on the valley floor. The site is located within the Genesee River basin, and all streams in the immediate area eventually discharge to the river. Van Campen Creek is a perennial stream which is comprised of three branches that meet within the Hamlet of Friendship. The West Branch receives the surface runoff from the site, which up to 1981 contained the plant's wastewater discharges.

5.1.2 Environmental Setting - This site is not in the vicinity of either a designated wetland (Ref. 16) or the critical habitat of any endangered species (Ref. 17), nor does it lie within the 100 year flood boundary of Van Campen Creek, as designated by the Federal Emergency Management Agency (Ref. 21).

5.2 Hydrogeology

5.2.1 Geology - The Friendship Supply site is located in an area in which the bedrock is characteristic of the Upper Devonian Series (Ref. 2). Specifically, the surficial deposits are part of the Chadokoin Formation, which is comprised of stratified shales and sandstones with interbedded siltstones. Most of the area is part of a dissected plateau which is in a mature stage of development. The bedrock there dips gently to the south. Thick, unconsolidated deposits of glacial till, sand and gravel are found in the deep valleys of the region (Ref. 4).

5.2.2 Soils - The overburden soils of the site consist primarily of Chenango gravelly loam, with Volusia soils being located around the packaging facility (Ref. 9). Both soil types are derived from glacial deposits formed along lower slopes, and are characterized as being very channery and very acidic, with a low organic matter content. Volusia soils typically have seepage above a very compact fragipan. Based upon soil borings completed immediately adjacent to the site, a typical soil profile would be: silt with traces of gravel to 4 feet, silt with traces of sand, gravel and clay to 15 feet, gravel

and rock fragments with some silt to approximately 33 feet, the depth of the shale bedrock surface.

5.2.3 Groundwater - The deep, unconsolidated galcial deposits at the base of the valley slope serve as the main source of groundwater in the area of the site (Ref. 4). Groundwater flow beneath the site is suspected to be downslope, with the eventual discharge point being Van Campen Creek. The Volusia soils on site are characterized by having seepage above a dense fragipan, which could serve as a pathway for contaminant migration. The plant manager mentioned that a ditch was dug behind the facility and a culvert installed under the parking lot to divert this seepage around the facility (Ref 6). This situation would indicate that the potential for bedrock contamination beneath the packaging plant is reduced; however, downslope from this facility, the well-drained Chenango soils would not be likely to inhibit downward migration from the surface water borne contaminants. This area of potential groundwater contamination lies immediately upgradient from the creek, which serves as the local discharge point for the overburden aquifer. A

potential for the contaminated groundwater to impact the local population therefore exists.

5.3 Previous Sampling and Analysis

5.3.1 Groundwater Quality Data - Several samples have been taken from the wells used for the Friendship public water supply. No contamination from the Friendship Supply site is indicated in the results. The analytical reports are presented on the colored pages following this section.

5.3.2 Surface Water Quality Data - Samples of Van Campen Creek water were analyzed on site for both free chlorine and total chlorine following the fishkill during 1981. The results, which are presented on the colored pages following this section, indicate an elevated level of chlorine in the stream near the drainage ditch from Friendship Supply Company.

5.3.3 Air Quality Data - There has been no sampling of the atmosphere related to the release of chemical contaminants from the site.

5.3.4 Other Analytical Data - No other analytical results are available for this site.

ARO CORPORATION
BUFFALO DIVISION
3695 BROADWAY, BUFFALO, N.Y. 14227
TELEPHONE 716-683-0440
TELEX 0-1260

ENVIRONMENTAL LABORATORY
ANALYTICAL RESULTS

Customer: TOWN OF FRIENDSHIP

ARO Laboratory Number 20,363W-4435 Customer P.O. #

Date Collected ? Received 2/25/82 Reported 3/9/82

Sampling Point/Description Water Supply

Alkalinity	158. mgCaCO$_3$/L	(Al) Aluminum	
Anionic Detergents (MBAS)		(As) Arsenic	
Biochemical Oxygen Demand (BOD_5)	3.4 mg/L	(Ba) Barium	
		(Cd) Cadmium	
Chemical Oxygen Demand (COD)	21. mg/L	(Cr) Chromium	
		(Cu) Copper	
Chlorides		(Fe) Iron	
Conductivity	484. μmhos/cm	(Pb) Lead	
Cyanides		(Mg) Magnesium	
Fluorides	0.23 ppm	(Mn) Manganese	
Hardness	262. mgCaCO$_3$/L	(Hg) Mercury	
Nitrogen, Ammonia		(K) Potassium	
Nitrogen, Total Kjeldahl	1.48 ppm	(Se) Selenium	
Nitrogen, Nitrates	0.06 ppm	(Ag) Silver	
Nitrogen, Nitrites		(Na) Sodium	
Oil & Grease		(Zn) Zinc	
Phenols		Benzene	<1. ppb
pH	7.55	Toluene	<1. ppb
Phosphates (asp)	0.04 ppm	Xylene	<1. ppb
Sulfate			
Total Dissolved Solids	137. mg/L		
Total Suspended Solids		Trihalomethanes (THM's)	
Turbidity			
Fecal Coliform	0. FC/100 ml.	Chloroform	
Endrin	<0.05 ppb	Bromodichloromethane	
Lindane	<0.01 ppb	Dibromochloromethane	
Methoxychlor	<0.02 ppb	Bromoform	
Toxaphene	<0.50 ppb		
2,4-D	<0.10 ppb	Total THM'S	
2,4,5-TP (Silvex)	<0.10 ppb		

Bernard J. Grueza, Director
Environmental Laboratory

Form G-05/81

THE ARO COR ORATION
BUFFALO DIVISION
3695 BROADWAY, BUFFALO, N.Y. 14227
TELEPHONE 716-683-0440
TELEX 0-1260

June 81

ENVIRONMENTAL LABORATORY
ANALYTICAL RESULTS

Customer: Town of Friendship

ARO Laboratory Number: 20,147 W-3078 Customer P.O. #:

Date: Collected: ? Received: 6/29/81 Reported: 7/13/81

Sampling Point/Description:

Attn: Mr. C. Wentworth

Alkalinity	130 mgCaCO$_3$/L
Anionic Detergents (MBAS)	
Biochemical Oxygen Demand (BOD_5)	
Chemical Oxygen Demand (COD)	
Chlorides	21.5 ppm
Conductivity	
Cyanides	
Fluorides	0.113 ppm
Hardness	153 mgCaCO$_3$/L
Nitrogen, Ammonia	
Nitrogen, Total Kjeldahl	
Nitrogen, Nitrates	0.10 ppm
Nitrogen, Nitrites	
Oil & Grease	
Phenols	
pH	7.95
Phosphates (asp)	24.4 ppm
Sulfates	219 mg/L
Total Dissolved Solids	
Total Suspended Solids	
Turbidity	

Endrin	< 0.05 ppb
Lindane	< 0.01 ppb
Methoxychlor	< 0.02 ppb
Toxaphene	< 0.50 ppb
2,4-D	< 0.10 ppb
2,4,5-TP (Silvex)	< 0.10 ppb

(Al)	Aluminum	
(As)	Arsenic	0.006 ppm
(Ba)	Barium	0.169 ppm
(Cd)	Cadmium	< 0.001 ppm
(Cr)	Chromium	< 0.001 ppm
(Cu)	Copper	0.301 ppm
(Fe)	Iron	< 0.001 ppm
(Pb)	Lead	< 0.001 ppm
(Mg)	Magnesium	
(Mn)	Manganese	< 0.001 ppm
(Hg)	Mercury	< 0.0002 ppm
(K)	Potassium	
(Se)	Selenium	0.006 ppm
(Ag)	Silver	< 0.001 ppm
(Na)	Sodium	30.6 ppm
(Zn)	Zinc	< 0.001 ppm

Odor	None
Color	< 1. Pt/C Uni
Corrosivity (LSI= -0.33)	Corrosive

Trihalomethanes (THM's)

Chloroform	
Bromodichloromethane	
Dibromochloromethane	
Bromoform	
Total THM'S	

Bernard J. Gricza

Bernard J. Gricza, Director
Environmental Laboratory

Form G-05/81

New York State Department of Environmental Conservation

MEMORANDUM

TO: Messrs. Speed and Palumbo
FROM: Mr. King
SUBJECT: Friendship Supply Division-Jones Chemical Inc.
Friendship (T), Allegany County, Fish Kill Investigations of 4/10&13/81
DATE: April 17, 1981

On April 10, 1981 Conservation Officer James Webb and the writer investigated a reported fish kill in Van Campen Creek, Friendship (T), Allegany County. This investigation was in response to notification of the kill given to Officer Webb from a resident of Friendship via former Conservation Officer [redacted]. Prior to the writer's arrival on site, Mr. Gary Neuderfer of the Avon Pollution Investigation Unit had responded to the kill and departed. Preliminary investigation(s) were performed by Officer Webb on the morning of April 10, 1981.

At the time of the writer's investigation, approximately 500-1000 dead fish were present in the section of Van Campen Creek which flows through Friendship (H). The kill had apparently ended as no distressed fish were observed. The majority of dead fish were shiners and minnows up to approximately 3" in length. A limited number of dead suckers (up to 5"-6" in length) were also observed in the creek. Stream flows were carrying and distributing the dead fish downstream and were evident as far as the Rt. 19 bridge at Belvedere. Officer Webb estimated that the kill had occurred April 8th or 9th.

The fish kill appeared to have started at the confluence of Van Campen Creek and a drainage ditch which serves the Friendship Supply Division of Jones Chemical Inc. Water samples collected by Officer Webb on April 10 were tested in-field by Mr. Neuderfer with the following results obtained:

Sample Location (see attached sketch)	Free Chlorine	Total Chlorine
1. Van Campen Creek; ½ mile downstream of drainage ditch mouth	0.0 mg/l	trace
2. Van Campen Creek; at mouth of drainage ditch	0.4 mg/l	0.7 mg/l (toxic to fish)
3. Van Campen Creek; 50-100 yards upstream of mouth of drainage ditch	0.0 mg/l	0.0 mg/l

(A more detailed report of Mr. Neuderfer's findings and conclusions is forthcoming.)

6.0 ADEQUACY OF AVAILABLE DATA

For the purpose of developing a Hazard Ranking System Score, the existing data base for the Friendship Supply site is inadequate in the following respects:

- o There has been no recent analytical testing for substances of concern in the groundwater or soil at the site.

- o No onsite borings to the bedrock surface have been made. Other geologic data, such as soil permeability, have been estimated from information which is not considered highly reliable.

- o The quantities of hazardous substances disposed of at the site are unknown. Therefore, a range of Sm values has been developed, and is presented on the Section 3.0 cover page. The single Sm value given represents what is felt to be the best estimate of the situation at the site.

- o Some data concerning the population served and the uses of surface water and groundwater have been estimated.

7.0 PROPOSED PHASE II WORK PLAN

7.1 Objectives

The objectives of the Phase II Field Investigation are to fill the data gaps identified in Section 6.0 of this report, in order to permit a complete site characterization/ranking (HRS score) and engineering evaluation of remedial alternatives. The field investigation includes the following items:

- o Subsurface Investigation
- o Monitoring Well Installation
- o Sampling and Analysis
- o Engineering Evaluation Report/HRS Score

Throughout the investigative effort, field activities will be performed in strict accordance with established safety protocol, as set forth by the New York State Department of Environmental Conservation.

7.2 Scope of Work

7.2.1 Subsurface Investigation - Presently, it is proposed that two (2) test borings be installed: One (1) north of the packaging plant (upgradient) and one (1) on the south of the site (downgradient). Both borings will penetrate 10 feet into bedrock.

All test borings will be performed under the direct supervision of a qualified geologist or hydrogeologist. The test borings will be drilled with a truck, trailer, and/or all-terrain-mounted auger rig using hollow stem augers. During construction of the test borings, split spoon samples will be continuously obtained. 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-cleaned, teflon-lined, screw-cap jars for return to Recra Research Inc.'s laboratory in Tonawanda, New York

In order to avoid possible cross-contamination during construction of the test borings, the augers will be cleaned between test borings 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.

7.2.2 Monitoring Well Installation - It is proposed that three (3) monitoring wells be installed at the two locations at which bore holes were drilled. Two wells will terminate 5 feet below the encountered water table or at the top of bedrock, whichever comes first, while the deeper well in the well cluster the south side of the site will extend 10 feet into rock. Both shallow wells will be screened from immediately below the encountered water table to their termination, except for the deeper bedrock well, which will be screened from the top of bedrock to its termination. Wells will be located as follows: one (1) well each to the north of the packaging plant (upgradient), and one (1) well cluster south of the drainage ditch near Main Street (downgradient).

The monitoring wells will be constructed of two-inch I.D. cast iron riser pipe with a galvanized, wire-wound-wrapped steel screen. The annulars

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.

Upon completion of well construction, all monitoring wells will be properly developed, and all test borings and/or tops of well casing will be surveyed to determine their location and elevation above sea level. At that time, variable head tests will be performed on all wells around the site to estimate the on-site permeability of the screened interval. All field activity will be under the direct supervision of a qualified geologist and/or hydrogeologist.

7.2.3 Sampling and Analysis - The purpose of this task is to identify the magnitude and extent of groundwater and/or surface water contamination originating from the site, and to ascertain whether or not "hazardous substances" can be detected leaving the site.

Groundwater samples will be obtained from each of the monitoring wells. 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 three times the well contents has 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 polyethlene 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 volume of sample for volatile organic analysis. This will be accomplished using 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 the parameters listed in Table 1. 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.

TABLE 1 ANALYTICAL PARAMETERS

Parameters	Surface Water	Groundwater
Number of Sample - This Site	2	3
pH	.	.
Specific Conductance	.	.
Chloride	.	.
Sulfate	.	.
Cyanide (Total)	.	.
Total Organic Carbon	.	.
Cadmium	*	0
Chromium (Total)	*	0
Chromium (Hexavalent)	*	0
Copper	*	0
Iron	*	0
Lead	*	0
Mercury	*	0
Nickel	*	0
Silver	*	0
Zinc	*	0
Polychlorinated Biphenyls (PCB)	.	.
Volatite Organic Scan (VOS)	.	.
Halogenated Organic Scan (HOS)	.	.
Dry Weight		

0 = 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 conductivitydetector.

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.

It is presently proposed that two (2) surface water samples be obtained: one (1) upstream of the drainage ditch discharge point in Van Campen Creek, and one (2) downstream of that point. The samples will be obtained using a pond sampler with separate sampling bottles designated for each sampling location. The same procedure as previously described for groundwater will be followed after acquisition of the surface water samples.

Five (5) surface soil samples will be taken throughout the site in potentially contaminated areas. Samples will be obtained using either the drilling apparatus or hand augers. Separate sample bottles will be assigned to each sampling location.

The procedure to be utilized for analyses of all samples during this investigation are in basic accordance with one or more of the following texts:

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

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

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

All analytical work will be in conformance with the overall Quality Assurance Program previously submitted to Recra Research, Inc. to NYSDEC, entitled, Operation Manual - Field and Analytical Services".

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

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

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

Close coordination with NYSDEC concerning this report is recognized as being essential, since it must be utilized by NYSDEC to prepare (in a short time frame) a State "Remedial Plan". Consequently, it is important that the format and contents of the report be clearly established early in the project. A Quality Control Committee will work closely with NYSDEC throughout the project to insure that this final report, and any other interim project outputs, are responsive to the Agency's needs.

7.3 Estimated Costs

The following are estimated costs to perform the Phase II Field Investigation outlined in the preceding section:

Task	Cost
Subsurface Investigation	$ 3,210
Monitoring Well Installation	3,950
Sampling and Analysis	5,060
Report	5,170
TOTAL	$17,390

APPENDIX A

DATA SOURCES AND REFERENCES

1. ARO Corporation, Analytical Results, July 13, 1981 and March 9, 1982.

2. H. L. Fairchild, "Geologic Story of the Genesee Valley and Western New York", Published by author, 1928.

3. I.H. Tesmer, "Geology of Cattaraugus County, New York", Buffalo Society of Natural Sciences, Bulletin No. 27, 1975.

4. M. H. Frimpter, "Groundwater Resources, Allegheny River Basin and Part of the Lake Erie Basin, New York", U.S.G.S., Basin Planning Report ARB-2, 1974.

5. NYSDOT, Boring logs for NYS Route 17 Expressway at Friendship, 1967.

6. J. Sawyer, Friendship Supply Co., Inc., Personal interview, August 26, 1983.

7. D. Wuerch, U.S. Weather Service, Telephone interview, August 23, 1983.

8. U.S. Dept. Commerce, National Climatic Center, "Climatic Atlas of the United States", 1979.

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APPENDIX B

HAZARDOUS WASTE DISPOSAL SITE REPORT

REVISED

Code: A

Site Code: 902009

Name of Site: Friendship Supply Co., Inc. (Jones Chemicals, Inc.)

Region: 9

County: Allegany

Town/City: Friendship (T)

Street Address: Castle Garden Road

Status of Site: Active swimming pool chemical packaging plant. Past disposal practices were to discharge equipment wash waters to driveway adjacent to plant. Wastewaters then flowed to drainage ditch and eventually to Van Campen Creek. One discharge caused fishkill in 1981.

- Site borders Hamlet of Friendship, residences within 500 feet. Site located on lower portion of steep slope near Conrail tracks and Southern Tier Expressway (Route 17).
- Hamlet uses mainly local well field for water supply. Some private wells and surface water intakes downstream.
- Soil type: Volusia soils and Chenango gravelly loam. Shale bedrock at approximately 35 foot depth.

Site Size: 9.25 acres

Hazardous Waste Disposal? Confirmed

Type and Quantity of Hazardous Wastes: Quantity unknown. Estimated to be approximately 2200 gallons over 18 years. Chemicals discharged in wastewaters include HCl, Cl_2, NaOH, NH_3, NaOCl

Present Owner: Friendship Supply Co., Inc.

Time Period Site Used: 1963 to 1981

Site Status: Active

Type of Samples: Field monitoring of chlorine levels

Remedial Action: None

Status of Legal Action: Conformed to Requirements of Consent Order by NYSDEC

Permits Issued: None

Assessment of Environmental Problems: Situation at present is questionable since all chemicals released are not persistent. Discharge was ceased in 1981 when connection to sewer was made.

Assessment of Health Problems: None known.

Persons Completing This Form: C. Mark Hanna, (URS Co., Inc.) on behalf of Recra Research, Inc.

Date: September 6, 1983