DYNAMAC
CORPORATION
Environmental Services

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84823

REC'D.
SEP 13 1994

DATE REPORT ACCEPTED 8-24-94
DISPOSITION NFRAD
SAM SIGNATURE Joyce Dykema

July 21, 1994

Mr. Narindar Kumar, Chief
Site Assessment Section
U.S. Environmental Protection Agency
345 Courtland Street, NE
Atlanta, Georgia 30365

Subject: Site Inspection Prioritization
Spectrum Printing
Covington, Newton County, Georgia
EPA ID GAD982111767

Re: BVWS Contract № 68-W9-0055 - Task Order 6, Amendment 2
BVWS Project 52012.319
Document Control BVWS-SIP-RD-033

Dear Mr. Kumar:

Dynamac Corporation has been tasked by BLACK & VEATCH Waste Science, Inc., under U.S. Environmental Protection Agency (EPA) Contract № 68-W9-0055 to conduct a Site Inspection Prioritization for Spectrum Printing (the facility) in Covington, Newton County, Georgia. In accordance with the scope of work for this task order, a preliminary Hazard Ranking System (HRS) score was prepared to determine the need for future activities at the site.

Spectrum Printing, an inactive printing facility, is located at 4132 U.S. Highway 278 in a commercial area of Covington, Georgia (Ref. 1; 2, p. 1). The facility operated from January 1987 until May 1987, when the owner filed for bankruptcy. Prior to January 1987, the facility housed a local newspaper's printing operations for an unspecified length of time (Ref. 2, p. 1). As of 1989, the property was in the trusteeship of Richard Ellenburg, an Atlanta attorney; the current ownership and use of the property are unknown (Ref. 3, p. 1). While operational, the facility consisted of a building and a paved area which was completely accessible via a public road (Ref. 2, p. 1).

During an investigation and assessment of the facility which were conducted between August 5 and August 24, 1987, EPA Region IV Technical Assistance Team (TAT) and Georgia Department of Natural Resources personnel observed approximately 260 to 275 drums abandoned on the 1.5-acre property (Refs. 2, p. 1; 3, p. 1; 4; 5, pp. 2, 3). Some of the drums, which contained a variety of paint sludges, solvents and waste inks, were open and collecting rainwater. Other drums were overturned and the wastes were spilled on the paved area and the ground around the drums (Refs. 2, p. 2; 4; 5, p. 2). Four composite samples of drummed and spilled waste material were collected and one composite soil

sample was collected near a pipe entering the onsite building. Analysis of the waste samples revealed the presence of several organic and inorganic constituents, including chromium, lead, zinc, xylenes, benzene, toluene and methylene chloride. Analysis of the composite soil sample was limited to volatile organic compounds and revealed no detectable levels of these constituents (Ref. 2, pp. 4, 6, Annex A). During March and April 1989, TAT and other subcontractor personnel conducted a removal of a 1,000-gallon storage tank and 257 drums of waste material (Ref. 3, pp. 6, 7). The wastes were disposed at Tricil Recovery Service, Inc., in Bartow, Florida, and at Rineco Chemical Industries in Benton, Arkansas (Refs. 3, p. 6; 6). Available file material does not indicate that any followup sampling was conducted.

A preliminary HRS score for Spectrum Printing was calculated using the Site Inspection Worksheets. Pathways evaluated include groundwater migration, surface water migration, soil exposure and air migration. The score reflects a Hazardous Waste Quantity value of 10 for all migration pathways based on the total 1.5-acre area of the facility. Because no soil sampling has been conducted since the removal, maximum contaminant characteristic values were assumed for all pathways to present a "worst-case" scenario.

Residents living within 4 miles of the facility obtain potable water from the Newton County Water and Sewerage Authority, the City of Covington or private wells (Refs. 1; 7; 8; 9). The two municipal water systems supply potable water obtained from an intake on the Alcovy River and from an 820-acre reservoir located on Cornish Creek northeast of Covington (Refs. 7; 8; 9). An estimated 387 persons were assumed to obtain potable water from private wells within a 4-mile radius of the facility (Refs. 1; 10). The groundwater pathway score was limited by low overall target values.

According to available file material, runoff from the facility would either enter storm drains or flow into Dried Indian Creek located approximately 0.25 mile southeast of the facility (Refs. 1; 4, pp. 3, 4). The surface water migration pathway was evaluated based on a potential to release and it was assumed that runoff would flow overland and enter the nearest perennial surface water bodies shown on topographic maps of the area (either Dried Indian Creek to the southeast or an unnamed pond to the west), both of which eventually empty into the Yellow River, a known fishery. The 15-mile surface water migration pathway ends in the Yellow River (Refs. 1; 11; 12; 13). For both overland flow pathways, however, runoff would have to flow more than 0.25 mile through an urban area to reach perennial surface water (Ref. 1). Neither of the surface water intakes utilized by the municipal water departments in the area are located along the surface water migration pathway (Refs. 1; 7). The range of one endangered plant species, Michaux's sumac (Rhus michauxii), includes Newton County, and this species was evaluated as a potential contamination target for the environmental threat although the specific location of the species is unknown (Ref. 14). No wetlands are located along the surface water migration pathway (Ref. 1). The surface water migration pathway score was limited by a low likelihood of release and low target values.

Land use within a 4-mile radius of Spectrum Printing is a mixture of urban, commercial/industrial, suburban and rural (Ref. 1). A total of 2,905 people reside within 1 mile of the facility (Ref. 15). The current status of the facility is unknown; however it was assumed that workers are present onsite. The soil exposure pathway score was evaluated based on an assumption of surficial contamination and was limited by low target values. The air pathway was scored based on potential to release; no air samples have been collected. A total of 29,164 people reside within 4 miles of Spectrum Printing (Ref. 15). The ranges of several endangered and threatened species include Newton County and the entire state of Georgia; however, specific locations of these species are unknown (Ref. 14). Approximately 725 acres of wetlands are located within 4 miles of the facility, although the majority of these wetlands are no closer than 3 miles (Ref. 1).

HRS SCORING SUMMARY

S_{gw} = 1.04
S_{sw} = 7.98
S_{soil} = 0.61
S_{air} = 6.00
OVERALL SCORE = 5.03

Based on the removal actions which have taken place at the facility and due to low target values and pathway scores, no further action is recommended for Spectrum Printing.

Attached are all references used during this evaluation. If you have any questions or comments, please contact Victor Blix at (404) 594-2500.

Sincerely,

DYNAMAC CORPORATION

Lori C. Conway
Site Manager

David L. Rusher
Vice President
Southern Division

Enclosure

cc: Victor Blix, BVWS SIP Project Manager
File

REFERENCES

1. U.S. Geological Survey, 7.5 minute series Topographic Quadrangle Maps of Georgia: Milstead 1964 (Photorevised [PR] 1985), Jersey 1964 (PR 1985), Covington 1964 (PR 1985), Porterdale 1964 (PR 1985), scale 1:24,000.

2. Roy F. Weston, Inc., SPER Division, Investigation Report for Spectrum Printing Site, Covington, Georgia, prepared for Bill Klutz, On-Scene Coordinator, EPA Region IV, under TDD No. 04-8708-03-1225 (September 17, 1987).

3. Roy F. Weston, Inc., SPER Division, Spectrum Printing Removal Actions, Covington, Newton County, Georgia, prepared for Bill Klutz, On-Scene Coordinator, EPA Region IV, under TDD No. 04-8810-26-2026 and No. 04-8810-26a-2213 (May 5, 1989).

4. Potential Hazardous Waste Site Preliminary Assessment (EPA Form 2070-12) for Spectrum Printing, Covington, Georgia. Filed by John Ashley Brown, EPA/TAT, September 29, 1987.

5. Potential Hazardous Waste Site, Site Inspection Report (EPA Form 2070-13) for Spectrum Printing, Covington, Georgia. Filed by John Ashley Brown, EPA/TAT, August 24, 1987.

6. Uniform Hazardous Waste Manifests for Spectrum Printing for wastes shipped March 21 through April 18, 1989, 6 pages.

7. Brian Allen, Executive Assistant, Newton County Commissioner's Office, telephone conversation with Lori Conway, Environmental Specialist, Dynamac Corporation, May 10, 1994. Subject: Water supply and use for the Newton County area.

8. Walter Thompson, Laboratory Supervisor, Covington Water Plant, telephone conversation with Lori Conway, Environmental Specialist, Dynamac Corporation, May 11, 1994. Subject: Water supply and use for the City of Covington.

9. Grady Ridgeway, Director, Newton County Water and Sewerage Authority, telephone conversation with Lori Conway, Environmental Specialist, Dynamac Corporation, May 10, 1994. Subject: Water supply and use for Newton County.

10. U.S. Department of Commerce, Bureau of the Census, 1990 Census of Population and Housing: Summary Population and Housing Characteristics - Georgia, 1990 CPH-1-12 (Washington, D.C.: GPO, 1991), excerpt, 3 pages.

11. Roy Morris, Game Conservation Officer, Newton County, telephone conversation with Coby C. Dolan, Dynamac Corporation, May 12, 1992. Subject: Fishing in the Yellow River.

12. U.S. Department of Commerce, Rainfall Frequency Atlas of the United States, Technical Paper Number 40 (Washington, D.C.: GPO, 1961), excerpt, 3 pages.

13. W.R. Stokes III and R.D. McFarlane, Water Resources Data: Georgia, Water Year 1992, Water Data Report GA-92-1 (Atlanta, Georgia: U.S. Geological Survey, 1993), excerpt, 3 pages.

14. U.S. Fish and Wildlife Service, Endangered and Threatened Species of the Southeastern United States (The Red Book), Vol. 1 (Washington, D.C.: GPO, 1992), excerpt, 4 pages.

15. U.S. Environmental Protection Agency, Graphical Exposure Modeling System (GEMS) Data Base, compiled from U.S. Bureau of the Census data (1990).

Site Name: Spectrum Printing **DRAFT**
Location: Covington, Newton County, Georgia

GROUNDWATER MIGRATION PATHWAY SCORESHEET

Factor Categories and Factors

	Likelihood of Release to an Aquifer	Maximum Value	Value Assigned	
1.	Observed Release	550	0	
2.	Potential to Release			
	2a. Containment	10	10	
	2b. Net Precipitation	10	6	
	2c. Depth to Aquifer	5	3	
	2d. Travel Time	35	25	
	2e. Potential to Release (lines 2a x [2b + 2c + 2d])	500	340	
3.	Likelihood of Release (higher of lines 1 and 2e)	550		340
	Waste Characteristics			
4.	Toxicity/Mobility	[a]	10,000	
5.	Hazardous Waste Quantity	[a]	10	
6.	Waste Characteristics	100		18
	Targets			
7.	Nearest Well	50	5	
8.	Population			
	8a. Level I Concentrations	[b]	0	
	8b. Level II Concentrations	[b]	0	
	8c. Potential Contamination	[b]	4	
	8d. Population (lines 8a + 8b + 8c)	[b]	4	
9.	Resources	5	5	
10.	Wellhead Protection Area	20	0	
11.	Targets (lines 7 + 8d + 9 + 10)	[b]		14
	Groundwater Migration Score for an Aquifer			
12.	Aquifer Score ([lines 3 x 6 x 11]/82,500)[c]	100		1.04
	Groundwater Migration Pathway Score			
13.	Groundwater Migration Pathway Score (S_{gw})[c] (highest value from line 12 for all aquifers evaluated)	100		1.04

[a] Maximum value applies to waste characteristics category.
[b] Maximum value not applicable.
[c] Do not round to nearest integer.

Site Name: Spectrum Printing

Location: Covington, Newton County, Georgia

DRAFT

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET

Factor Categories and Factors	Maximum Value	Value Assigned	
DRINKING WATER THREAT			
Likelihood of Release			
1. Observed Release	550	0	
2. Potential to Release by Overland Flow			
2a. Containment	10	10	
2b. Runoff	25	1	
2c. Distance to Surface Water	25	9	
2d. Potential to Release by Overland Flow (lines 2a x [2b + 2c])	500	100	
3. Potential to Release by Flood			
3a. Containment (Flood)	10	10	
3b. Flood Frequency	50	7	
3c. Potential to Release by Flood (lines 3a x 3b)	500	10	
4. Potential to Release (lines 2d + 3c, subject to a maximum of 500)	500	170	
5. Likelihood of Release (higher of lines 1 and 4)	550		170
Waste Characteristics			
6. Toxicity/Persistence	a	10,000	
7. Hazardous Waste Quantity	a	10	
8. Waste Characteristics	100		18
Targets			
9. Nearest Intake	50	0	
10. Population			
10a. Level I Concentrations	b	0	
10b. Level II Concentrations	b	0	
10c. Potential Contamination	b	0	
10d. Population (lines 10a + 10b + 10c)	b	0	
11. Resources	5	5	
12. Targets (lines 9 + 10d + 11)	b		5
Drinking Water Threat Score			
13. Drinking Water Threat Score ([lines 5 x 8 x 12]/82,500, subject to a maximum of 100)	100		0.19

Site Name: Spectrum Printing **DRAFT**
Location: Covington, Newton County, Georgia

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET, Continued

Factor Categories and Factors	Maximum Value	Value Assigned	
HUMAN FOOD CHAIN THREAT			
Likelihood of Release			
14. Likelihood of Release (value from line 5)	550		170
Waste Characteristics			
15. Toxicity/Persistence/Bioaccumulation	a	$5x10^8$	
16. Hazardous Waste Quantity	a	10	
17. Waste Characteristics	1,000		180
Targets			
18. Food Chain Individual	50	20	
19. Population			
19a. Level I Concentrations	b	0	
19b. Level II Concentrations	b	0	
19c. Potential Human Food Chain Contamination	b	-	
19d. Population (lines 19a + 19b + 19c)	b	0	
20. Targets (lines 18 + 19d)	b		20
Human Food Chain Threat Score			
21. Human Food Chain Threat Score ([lines 14 x 17 x 20]/82,500, subject to a maximum of 100)	100		7.42
ENVIRONMENTAL THREAT			
Likelihood of Release			
22. Likelihood of Release (value from line 5)	550		170
Waste Characteristics			
23. Ecosystem Toxicity/Persistence/ Bioaccumulation	a	$5x10^8$	
24. Hazardous Waste Quantity	a	10	
25. Waste Characteristics	1,000		180

Site Name: Spectrum Printing **DRAFT**
Location: Covington, Newton County, Georgia

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET, Concluded

Factor Categories and Factors	Maximum Value	Value Assigned	
ENVIRONMENTAL THREAT (concluded)			
Targets			
26. Sensitive Environments			
26a. Level I Concentrations	[b]	0	
26b. Level II Concentrations	[b]	0	
26c. Potential Contamination	[b]	1	
26d. Sensitive Environments (lines 26a + 26b + 26c)	[b]	1	
27. Targets (value from line 26d)	[b]		1
Environmental Threat Score			
28. Environmental Threat Score ([lines 22 x 25 x 27]/82,500, subject to a maximum of 60)	60		0.37
SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORE FOR A WATERSHED			
29. Watershed Score[c] (lines 13 + 21 + 28, subject to a maximum of 100)	100		7.98
SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORE			
30. Component Score (S_{of})[c] (highest score from line 29 for all watersheds evaluated, subject to a maximum of 100)	100		7.98

[a] Maximum value applies to waste characteristics category.
[b] Maximum value not applicable.
[c] Do not round to nearest integer.
\- Not evaluated.

Site Name: Spectrum Printing **DRAFT**
Location: Covington, Newton County, Georgia

SOIL EXPOSURE PATHWAY SCORESHEET

Factor Categories and Factors	Maximum Value	Value Assigned	
RESIDENT POPULATION THREAT			
Likelihood of Exposure			
1. Likelihood of Exposure	550		550
Waste Characteristics			
2. Toxicity	a	10,000	
3. Hazardous Waste Quantity	a	10	
4. Waste Characteristics	100		18
Targets			
5. Resident Individual	50	0	
6. Resident Population			
6a. Level I Concentrations	b	0	
6b. Level II Concentrations	b	0	
6c. Resident Population (lines 6a + 6b)	b	0	
7. Workers	15	5	
8. Resources	5	0	
9. Terrestrial Sensitive Environments	d	0	
10. Targets (lines 5 + 6c + 7 + 8 + 9)	b		5
Resident Population Threat Score			
11. Resident Population Threat ([lines 1 x 4 x 10]/82,500)	b		0.60
NEARBY POPULATION THREAT			
Likelihood of Exposure			
12. Attractiveness/Accessibility	100	10	
13. Area of Contamination	100	20	
14. Likelihood of Exposure	500		5
Waste Characteristics			
15. Toxicity	a	10,000	
16. Hazardous Waste Quantity	a	10	
17. Waste Characteristics	100		18

Site Name: Spectrum Printing **DRAFT**
Location: Covington, Newton County, Georgia

SOIL EXPOSURE PATHWAY SCORESHEET, Concluded

Factor Categories and Factors	Maximum Value	Value Assigned	
NEARBY POPULATION THREAT (Concluded)			
Targets			
18. Nearby Individual	1	1	
19. Population Within 1 Mile	[b]	4	
20. Targets (lines 18 + 19)	[b]		5
Nearby Population Threat Score			
21. Nearby Population Threat ([lines 14 x 17 x 20]/82,500)	[b]		0.01
SOIL EXPOSURE PATHWAY SCORE			
22. Soil Exposure Pathway Score (S_{soil})[d] (lines 11 + 21, subject to a maximum of 100)	100		0.61

[a] Maximum value applies to waste characteristics category.
[b] Maximum value not applicable.
[c] Do not round to nearest integer.
[d] No specific maximum value applies to factor. However, a pathway score based solely on sensitive environments is limited to a maximum value of 60.

Site Name: Spectrum Printing **DRAFT**
Location: Covington, Newton County, Georgia

AIR MIGRATION PATHWAY SCORESHEET

Factor Categories and Factors

	Likelihood of Release	Maximum Value	Value Assigned	
1.	Observed Release	550	0	
2.	Potential to Release			
	2a. Gas Potential to Release	500	-	
	2b. Particulate Potential to Release	500	-	
	2c. Potential to release (higher of lines 2a and 2b)	500	500*	
3.	Likelihood of Release (higher of lines 1 and 2c)	550		500*
	Waste Characteristics			
4.	Toxicity/Mobility	[a]	10,000	
5.	Hazardous Waste Quantity	[a]	10	
6.	Waste Characteristics	100		18
	Targets			
7.	Nearest Individual	50	20	
8.	Population			
	8a. Level I Concentrations	[b]	0	
	8b. Level II Concentrations	[b]	0	
	8c. Potential Contamination	[b]	30	
	8d. Population (lines 8a + 8b + 8c)	[b]	30	
9.	Resources	5	5	
10.	Sensitive Environments			
	10a. Actual Contamination	[d]	0	
	10b. Potential Contamination	[d]	0.08	
	10c. Sensitive Environments (lines 10a + 10b)	[d]	0.08	
11.	Targets (lines 7 + 8d + 9 + 10c)	[b]		55
	Air Migration Pathway Score			
12.	Air Migration Pathway Score (S_{air})[c] ([lines 3 x 6 x 11]/82,500)	100		6.00

[a] Maximum value applies to waste characteristics category.
[b] Maximum value not applicable.
[c] Do not round to nearest integer.
[d] No specific maximum value applies to factor. However, a pathway score based solely on sensitive environments is limited to a maximum value of 60.
* Default value.
\- Not evaluated.

U.S. EPA REGION IV

SDMS

Unscannable Material Target Sheet

DocID: 84823 Site ID: CGAD982111767

Site Name: Spectrum Printing

Nature of Material:

Map:	2	Computer Disks:	
Photos:		CD-ROM:	
Blueprints:		Oversized Report:	
Slides:		Log Book:	

Other (describe):

Amount of material:

Please contact the appropriate Records Center to view the material.

REFERENCE NO. 2

PA/SI TO
B. Jordan 10/8/87

INVESTIGATION REPORT

FOR

SPECTRUM PRINTING SITE

COVINGTON, GEORGIA

FROM: J. A. Brown
TAT, Region IV

TO: Bill Klutz, OSC
EPA, Region IV

Technical Direction Document
TDD #04-8708-03-1225
TAT #04-F-00929

DATE: 17 September 1987

Technical Assistance Team
Roy F. Weston, Inc., SPER Division
100 Atlanta Technology Center, Suite 120
1575 Northside Dr., NW,
Atlanta, Georgia 30318

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I. INTRODUCTION

The Region IV Technical Assistance Team (TAT) of Roy F. Weston, Inc. conducted an investigation and assessment of the Spectrum Printing Site between the 5th and 24th of August 1987. The investigation performed by J. A. Brown (project officer), J. C. Lan and J. Lathram was conducted at the request of the U. S. EPA Region IV in accordance with the provisions of Technical Direction Document (TDD) 04-8708-03.

Bill Klutz, Region IV EPA, and Ramona Klein of the Georgia Department of Natural Resources also participated in the investigation.

The purpose of this investigation is to document a release to the environment of a hazardous substance, pollutant or contaminant as mandated by Section 104(e) of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA).

II. SITE CHARACTERIZATION

A. Site Location

The site described herein as Spectrum Printing is located in Covinton Georgia's commercial district at 4132 U.S. Highway 278. The coordinates of the site are latitude 33 degrees 36 minutes and 15 seconds and longitude 83 degrees 52 minutes and 3 seconds. The approximately 275 drums of interest are stockpiled on a paved area behind a medium sized industrial building formerly known as Spectrum Printing. A public road is contiguous to this paved area and from the road open drums containing printing process and waste materials are observable and accessable.

B. History and Waste Disposal Practices

From January 1987 until May 1987, the building at 4132 U.S. Highway 278 in Covington, Georgia was used as a printing company called Spectrum Printing. Spectrum Printing's owner Ralph Preddy filed for bankruptcy in May of 1987. Prior to January 1987, the building was used for the printing of a newspaper, The Covington News. The property is now in the trusteeship of The Law Firm of Richard Ellenburg of Atlanta.

There is no physical barrier to prevent access to the material in question and open drums are within 15 feet of a road (Annex C - Photographs). Additionally,

overturned and leaking drums have released their contents onto the paved area where they are staged. Discharged material was observed on the soil beneath the terminus of a pipe going into the building.

Since environmental releases of suspect compounds were observed on the site, the statutory authority of the Environmental Response, Compensation and Liability Act (CERCLA) was invoked in the form of sampling and analysis of substances involved to aid in determining if an immediate response is necessary to protect the public health and welfare and the environment.

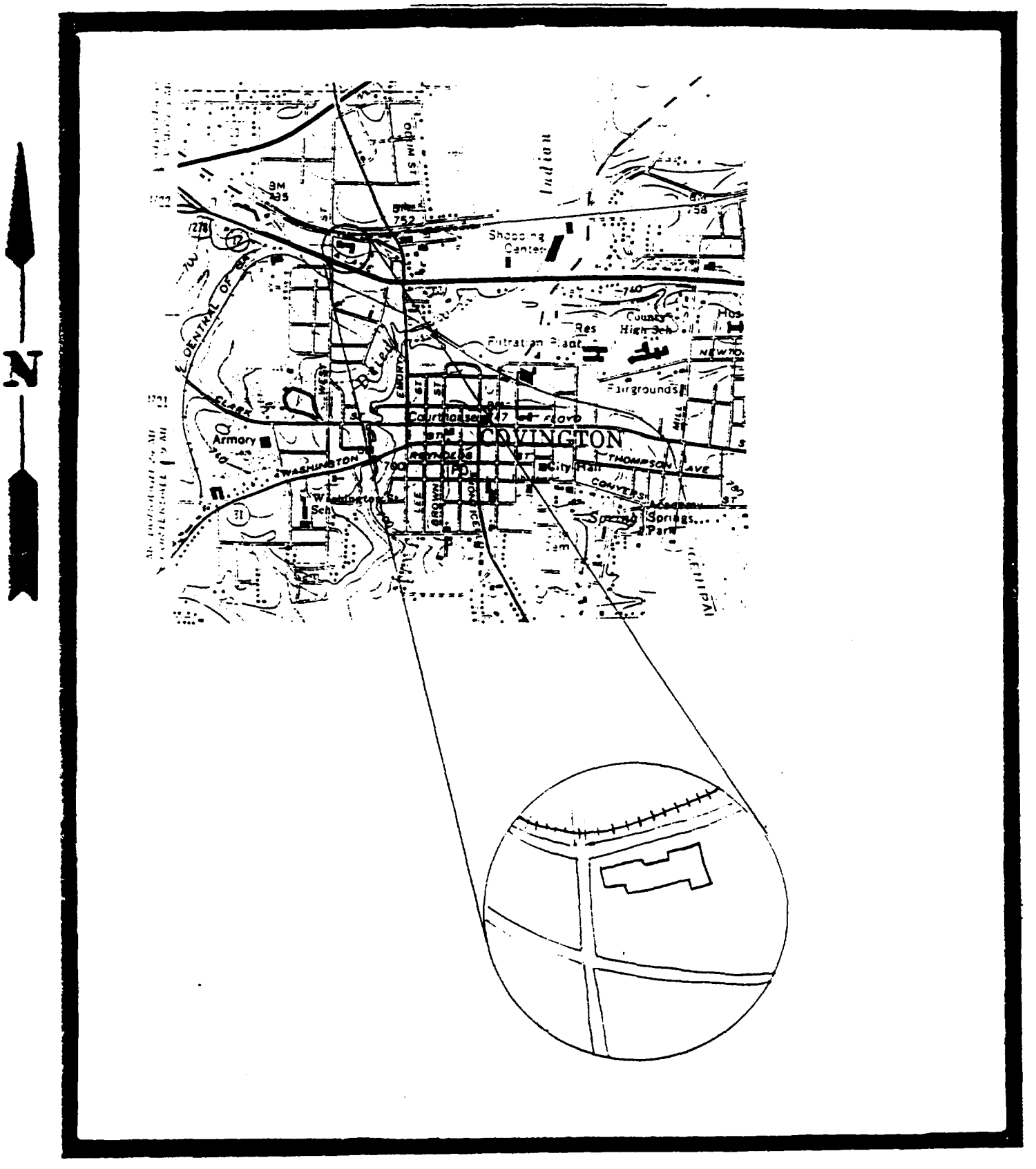
C. Potential for Migration of Wastes Offsite

Since the wastes in question are located on a paved surface in a municipal area, migration of contaminated rain runoff from the spillage and drums will be accellerated by the relatively impervious paved surfaces it is traveling on until it reaches a receiving stream. In this case the receiving stream would be dried Indian Creek which flows south.

The city of Covington's water filtration plant is located within seven tenths of a mile (0.7) east of the Spectrum Printing site. The plant has a reservoir which is recharged with water piped from the Alcovy River which is several miles north of Covington. Since the flow of the likely drainage path for the site flows south and the filtration plant receives its water from several miles north, the chance of contamination of the city's water supply from the Spectrum Printing site is minimal.

III. DISCUSSION OF SAMPLING ACTIVITIES

During the conduct of this investigation five composite samples of drummed and spilled material from the Spectrum Printing site were obtained and analyzed. The five composite samples were obtained as follows: two were from open drums containing black tarry material, one was composited from drums containing relatively pure red ink, one was composited from material spilled on the paved drum staging area and one was a composite of contaminated soil from an area around the terminus of a pipe going into the building (Figure 2 - Sampling Locations). Table I presents the sample codes, description of sample types, composite aliquots and analytical parameters. Laboratory analysis results are presented in Annex A and Quality Assurance/Quality Control Data for the laboratory analysis is presented in Annex B.



TITLE: FIGURE 1 SITE LOCATION MAP

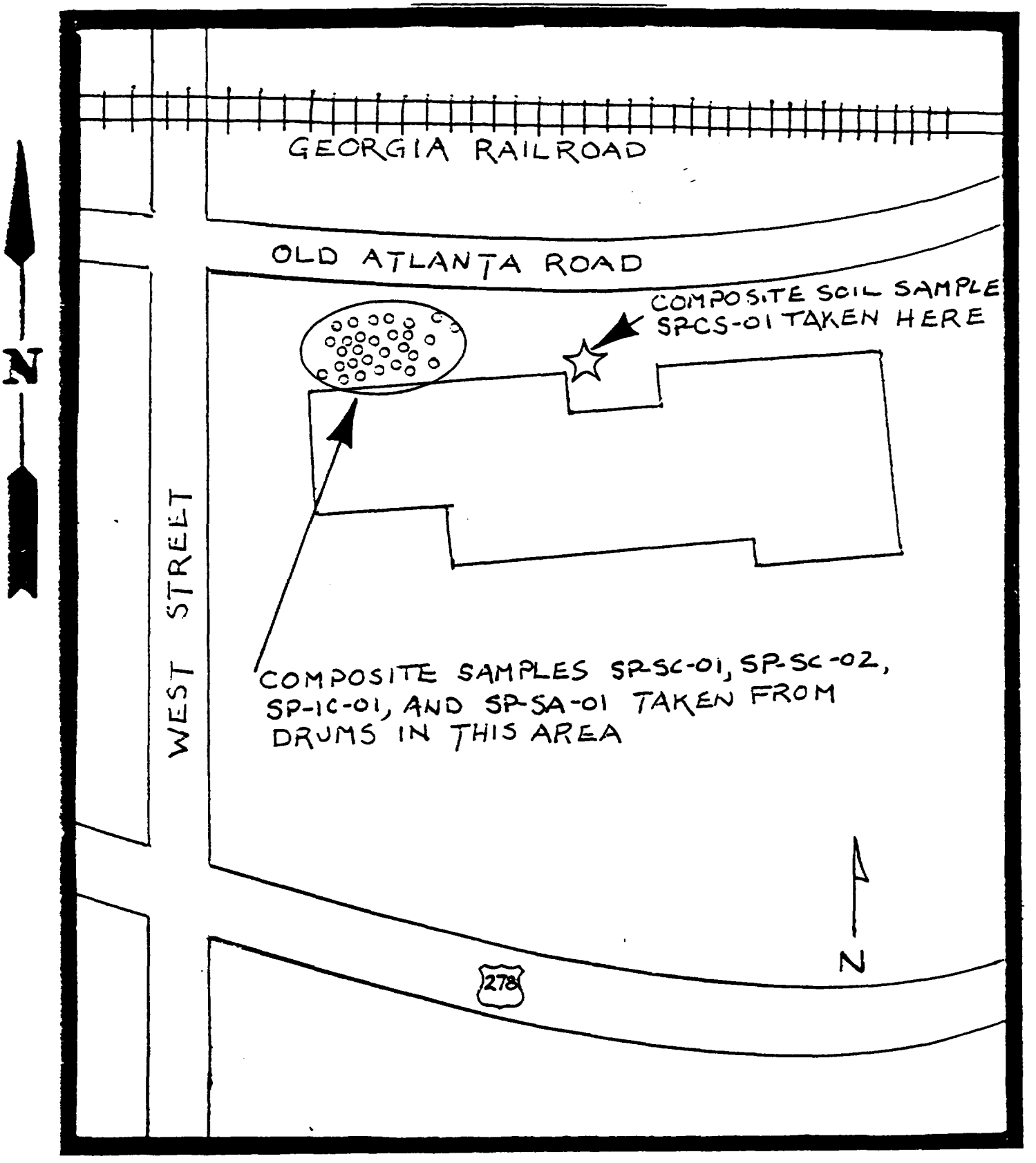
MAP:

SCALE: NONE

LOCATION: SPECTRUM PRINTING SITE, COVINGTON, GEORGIA

ORIGINATOR:

DATE: TDD:



TITLE: FIGURE 2 SITE MAP SHOWING SAMPLE LOCATIONS

LOCATION: SPECTRUM PRINTING SITE, COVINGTON, GEORGIA

MAP:

SCALE: NONE

ORIGINATOR:

DATE: TDD:

IV. METHODOLOGY AND QUALITY CONTROL

A. Methodology

All sample collections, sample preservation and chain of custody procedures used during this investigation were in accordance with the Environmental Services Division (ESD) procedures for field sampling and the sampling plan prepared under TDD #04-8708-03-1225.

Volatile organic analysis of the samples was performed by Southeast Laboratories in Atlanta using EPA methods 8010 and 8020 as set forth in EPA test methods for Evaluating Soild Wastes SW 846, 2nd edition revised 1985.

Analysis for priority pollutant metals was performed by Southeast Laboratories of Atlanta using the applicable methods set forth in EPA Methods for Evaluating Solid Waste; SW 846, 3rd edition November 1986.

B. Quality Control

Quality Control of the lab data presented in this report was performed by Southeast Laboratories and was in accordance with the Quality Control procedures specified in the EPA methods used.

Recovery rates for spikes were within the ranges specified in the EPA methods used. Contamination levels revealed by blanks were shown to be insignificant.

V. DISCUSSION OF ANALYTICAL RESULTS

Analysis for metals showed that sample SP-SC-01 had 14.8 ppm chromium and 8.3 ppm lead; sample SP-SC-02 had 9.1 ppm chromium and 12.7 ppm lead.

Volatile organic analysis of samples revealed the following levels of xylenes: SP-SC-01 26.1 ppm, SP-SC-02 88.3ppm, SP-IC-01 14.6 ppm, SP-SA-01 1.36 ppm, SP-CS-01 <50 ppb.

TABLE I

SAMPLE DESCRIPTIONS

Sample Code	Description	Composite Aliquots *	Analytical Parameter
SP-SC-01	Composite of sludgy materials from several drums	01, 02, 03, 04, 05	Metals VOA
SP-SC-02	Composite of sludgy materials from several drums	01, 02, 03, 04, 05	Metals VOA
SP-IC-01	Composite of red inks from several drums	01, 02, 03 04	VOA
SP-SA-01	Composite of material spilled on paved area	several locations on paved area	VOA
SP-CS-01	Composite of soil sample from area around the terminus of a pipe going into the building	Composite soil	VOA

* Where aliquots are designated by numbers these numbers represent individual drums from which the samples were taken.

ANNEX A

Results of Labortory Analysis

Southeast Laboratories Inc. - SINCE 1971
1490 Mecaslin St., N.W. Atlanta, Ga. 30309 (404) 873-1896 (404) 873-1880

SEPTEMBER 10, 1987

LABORATORY REPORT

WESTON SPER
100 ATLANTA TECHNOLOGY CENTER
SUITE 120, BLDG. 100
1575 NORTHSIDE DRIVE, N. W.
ATLANTA, GEORGIA 30318

REPORT NO. 25083

ATTN: MR. HARRY M. JONES/ASHLEY BROWN

SAMPLE MARKING: SPSC01 8-24-87, 0950.

TEST PROCEDURE: EPA TEST METHODS FOR EVALUATING SOLID WASTE, NOVEMBER 1986, SW-846, 3RD ED., TESTED ON PERKIN-ELMER 460 AND 1100 ATOMIC ABSORPTION SPECTROPHOTOMETER.

RESULTS

	MG/KG
ARSENIC	<0.50
BERYLLIUM	<3
CADMIUM	<3
CHROMIUM	14.8
COPPER	270
LEAD	8.3
MERCURY	<0.05
NICKEL	<5
SELENIUM	<0.50
SILVER	<10
THALLIUM	<25
ZINC	7.3
CYANIDE	2.5

NOTE: TEST PROCEDURES ENCLOSED.

RESPECTFULLY SUBMITTED,

SOUTHEAST LABORATORIES, INC.

Randy Brown

RANDY BROWN

RB:MS

Southeast Laboratories Inc. - SINCE 1971
490 Mecaslin St. N.W. Atlanta Ga 30309 404/873-4896 404 [illegible]

SEPTEMBER 10, 1987

LABORATORY REPORT

WESTON SPER
100 ATLANTA TECHNOLOGY CENTER
SUITE 120, BLDG. 100
1575 NORTHSIDE DRIVE, N. W.
ATLANTA, GEORGIA 30318
ATTN: MR. ASHLEY BROWN

REPORT NO. 25083-1

SAMPLE MARKING: SPSC 01-02,03,04,05, 8-24-87 0950.

TEST PROCEDURE: HALOGENATED AND AROMATIC VOLATILE ORGANICS BY EPA METHODS 8010 AND 8020 AS SET FORTH IN TEST METHODS FOR EVALUATING SOLID WASTE SW-846, 2ND EDITION REVISED 1985.

RESULTS

	MICROGRAM/KILOGRAM (PPB)		MICROGRAM/KILOGRAM (PPB)
BROMODICHLOROMETHANE	<5	METHYLENE CHLORIDE	13
BROMOFORM	<5	TETRACHLOROETHENE	<5
BROMOMETHANE	<5	1,1,1 TRICHLOROETHANE	<5
CARBON TETRACHLORIDE	<5	1,1,2 TRICHLOROETHANE	<5
CHLOROBENZENE	<5	TRICHLOROETHENE	<5
CHLOROETHANE	<5	TRICHLOROFLUOROMETHANE	<5
2-CHLOROETHYLVINYL ETHER	<5	VINYL CHLORIDE	<5
CHLOROFORM	<5		
CHLOROMETHANE	<5	BENZENE	179
DIBROMOCHLOROMETHANE	<5	TOLUENE	241
1,2 DICHLOROBENZENE	<5	ETHYLBENZENE	<50
1,3 DICHLOROBENZENE	<5	XYLENES	26,100
1,4 DICHLOROBENZENE	<5		
DICHLORODIFLUOROMETHANE	<5		
1,1 DICHLOROETHANE	<5		
1,2 DICHLOROETHANE	<5		
1,1 DICHLOROETHENE	<5		
T-1,2 DICHLOROETHENE	<5		
1,2 DICHLOROPROPANE	<5		
C-1,3 DICHLOROPROPENE	<5		
T-1,3 DICHLOROPROPENE	<5		
1,1,2,2 TETRACHLOROETHANE	<5		

RESPECTFULLY SUBMITTED,

SOUTHEAST LABORATORIES, INC.

Randy Brown

RANDY BROWN

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SEPTEMBER 10, 1987

LABORATORY REPORT

WESTON SPER
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1575 NORTHSIDE DRIVE, N.W.
ATLANTA, GEORGIA 30318 REPORT NO. 25083

ATTN: MR. HARRY M. JONES/ASHLEY BROWN

SAMPLE MARKING: SPSC02 8-24-87 1000, SPSC-02-01,02,03, 04,05.

TEST PROCEDURE: EPA TEST METHODS FOR EVALUATING SOLID WASTE, NOVEMBER 1986, SW-846, 3RD ED., TESTED ON PERKIN-ELMER 460 AND 1100 ATOMIC ABSORPTION SPECTROPHOTOMETER.

RESULTS

	MG/KG
ARSENIC	<0.50
BERYLLIUM	<3
CADMIUM	<3
CHROMIUM	9.1
COPPER	80.8
LEAD	12.7
MERCURY	<0.05
NICKEL	<5
SELENIUM	<0.50
SILVER	<10
THALLIUM	<25
ZINC	20.7
CYANIDE	14

RESPECTFULLY SUBMITTED,

SOUTHEAST LABORATORIES, INC.

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SEPTEMBER 10, 1987

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SUITE 120, BLDG. 100
1575 NORTHSIDE DRIVE, N. W.
ATLANTA, GEORGIA 30318

LABORATORY REPORT

REPORT NO. 25083-2

ATTN: MR. ASHLEY BROWN

SAMPLE MARKING: SPSC 02-01,02,03,04,05, 8-24-87 1000.

TEST PROCEDURE: EPA METHOD 601 AND 602 AS SET FORTH IN TEST METHODS FOR ORGANIC CHEMICAL ANALYSIS OF MUNICIPAL AND INDUSTRIAL WASTE EPA 600/4-82-027 JULY 1982.

RESULTS

	MICROGRAM/LITER (PPB)		MICROGRAM/LITER (PPB)
BROMODICHLOROMETHANE	<5	METHYLENE CHLORIDE	9
BROMOFORM	<5	TETRACHLOROETHENE	<5
BROMOMETHANE	<5	1,1,1-TRICHLOROETHANE	<5
CARBON TETRACHLORIDE	<5	1,1,2-TRICHLOROETHANE	<5
CHLOROBENZENE	<5	TRICHLOROETHENE	<5
CHLOROETHANE	<5	TRICHLOROFLUOROMETHANE	<5
2-CHLOROETHYLVINYL ETHER	<5	VINYL CHLORIDE	<5
CHLOROFORM	<5		
CHLOROMETHANE	<5	BENZENE	<50
DIBROMOCHLOROMETHANE	<5	TOLUENE	4,690
1,2-DICHLOROBENZENE	<5	ETHYLBENZENE	<50
1,3-DICHLOROBENZENE	<5	XYLENES	38,300
1,4-DICHLOROBENZENE	<5		
DICHLORODIFLUOROMETHANE	<5		
1,1-DICHLOROETHANE	<5		
1,2-DICHLOROETHANE	<5		
1,1-DICHLOROETHENE	<5		
T-1,2-DICHLOROETHENE	<5		
1,2-DICHLOROPROPANE	<5		
C-1,3-DICHLOROPROPENE	<5		
T-1,3-DICHLOROPROPENE	<5		
1,1,2,2-TETRACHLOROETHANE	<5		

RESPECTFULLY SUBMITTED,

SOUTHEAST LABORATORIES, INC.

Randy Brown

RANDY BROWN

RB:DB

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- SINCE 1971

SEPTEMBER 10, 1987

LABORATORY REPORT

WESTON SPER
100 ATLANTA TECHNOLOGY CENTER
SUITE 120, BLDG. 100
1575 NORTHSIDE DRIVE, N. W.
ATLANTA, GEORGIA 30318

REPORT NO. 25083-3

ATTN: MR. ASHLEY BROWN

SAMPLE MARKING: SPIC 01-01,02,03,04, 8-24-87 1005.

TEST PROCEDURE: EPA METHOD 601 AND 602 AS SET FORTH IN TEST METHODS FOR ORGANIC CHEMICAL ANALYSIS OF MUNICIPAL AND INDUSTRIAL WASTE EPA 600/4-82-027 JULY 1982.

RESULTS

	MICROGRAM/LITER (PPB)		MICROGRAM/LITER (PPB)
BROMODICHLOROMETHANE	<5	METHYLENE CHLORIDE	<5
BROMOFORM	<5	TETRACHLOROETHENE	<5
BROMOMETHANE	<5	1,1,1-TRICHLOROETHANE	8,000
CARBON TETRACHLORIDE	<5	1,1,2-TRICHLOROETHANE	<5
CHLOROBENZENE	<5	TRICHLOROETHENE	<5
CHLOROETHANE	<5	TRICHLOROFLUOROMETHANE	<5
2-CHLOROETHYLVINYL ETHER	<5	VINYL CHLORIDE	<5
CHLOROFORM	<5		
CHLOROMETHANE	<5	BENZENE	<50
DIBROMOCHLOROMETHANE	<5	TOLUENE	2,520
1,2-DICHLOROBENZENE	<5	ETHYLBENZENE	460
1,3-DICHLOROBENZENE	<5	XYLENES	14,600
1,4-DICHLOROBENZENE	<5		
DICHLORODIFLUOROMETHANE	<5		
1,1-DICHLOROETHANE	<5		
1,2-DICHLOROETHANE	<5		
1,1-DICHLOROETHENE	17		
T-1,2-DICHLOROETHENE	<5		
1,2-DICHLOROPROPANE	<5		
C-1,3-DICHLOROPROPENE	<5		
T-1,3-DICHLOROPROPENE	<5		
1,1,2,2-TETRACHLOROETHANE	<5		

RESPECTFULLY SUBMITTED,

SOUTHEAST LABORATORIES, INC.

Randy Brown

RANDY BROWN

RB:DB

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1490 Mecaslin St. N.W. Atlanta Ga 30309 (404) 873-1896 404 3[illegible]

SEPTEMBER 10, 1987

LABORATORY REPORT

WESTON SPER
100 ATLANTA TECHNOLOGY CENTER
SUITE 120, BLDG. 100
1575 NORTHSIDE DRIVE, N. W.
ATLANTA, GEORGIA 30318

REPORT NO. 25083-4

ATTN: MR. ASHLEY BROWN

SAMPLE MARKING: SPSA 01-GROUND, 8-24-87 1010.

TEST PROCEDURE: EPA METHOD 601 AND 602 AS SET FORTH IN TEST METHODS FOR ORGANIC CHEMICAL ANALYSIS OF MUNICIPAL AND INDUSTRIAL WASTE EPA 600/4-82-027 JULY 1982.

RESULTS

	MICROGRAM/LITER (PPB)		MICROGRAM/LITER (PPB)
BROMODICHLOROMETHANE	<5	METHYLENE CHLORIDE	<5
BROMOFORM	<5	TETRACHLOROETHENE	<5
BROMOMETHANE	<5	1,1,1-TRICHLOROETHANE	<5
CARBON TETRACHLORIDE	<5	1,1,2-TRICHLOROETHANE	<5
CHLOROBENZENE	<5	TRICHLOROETHENE	<5
CHLOROETHANE	<5	TRICHLOROFLUOROMETHANE	<5
2-CHLOROETHYLVINYL ETHER	<5	VINYL CHLORIDE	<5
CHLOROFORM	<5		
CHLOROMETHANE	<5	BENZENE	<50
DIBROMOCHLOROMETHANE	<5	TOLUENE	610
1,2-DICHLOROBENZENE	<5	ETHYLBENZENE	<50
1,3-DICHLOROBENZENE	<5	XYLENES	1,360
1,4-DICHLOROBENZENE	<5		
DICHLORODIFLUOROMETHANE	<5		
1,1-DICHLOROETHANE	<5		
1,2-DICHLOROETHANE	<5		
1,1-DICHLOROETHENE	<5		
T-1,2-DICHLOROETHENE	<5		
1,2-DICHLOROPROPANE	<5		
C-1,3-DICHLOROPROPENE	<5		
T-1,3-DICHLOROPROPENE	<5		
1,1,2,2-TETRACHLOROETHANE	<5		

RESPECTFULLY SUBMITTED,

SOUTHEAST LABORATORIES, INC.

Randy Brown

RANDY BROWN

RB:DB

Southeast Laboratories Inc. - SINCE 1971
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SEPTEMBER 10, 1987

LABORATORY REPORT

WESTON SPER
100 ATLANTA TECHNOLOGY CENTER
SUITE 120, BLDG. 100
1575 NORTHSIDE DRIVE, N. W.
ATLANTA, GEORGIA 30318

REPORT NO. 25083-5

ATTN: MR. ASHLEY BROWN

SAMPLE MARKING: SPCS 01-GROUND, 8-24-87 1015.

TEST PROCEDURE: EPA METHOD 601 AND 602 AS SET FORTH IN TEST METHODS FOR ORGANIC CHEMICAL ANALYSIS OF MUNICIPAL AND INDUSTRIAL WASTE EPA 600/4-82-027 JULY 1982.

RESULTS

	MICROGRAM/LITER (PPB)		MICROGRAM/LITER (PPB)
BROMODICHLOROMETHANE	<5	METHYLENE CHLORIDE	<5
BROMOFORM	<5	TETRACHLOROETHENE	<5
BROMOMETHANE	<5	1,1,1-TRICHLOROETHANE	<5
CARBON TETRACHLORIDE	<5	1,1,2-TRICHLOROETHANE	<5
CHLOROBENZENE	<5	TRICHLOROETHENE	<5
CHLOROETHANE	<5	TRICHLOROFLUOROMETHANE	<5
2-CHLOROETHYLVINYL ETHER	<5	VINYL CHLORIDE	<5
CHLOROFORM	<5		
CHLOROMETHANE	<5	BENZENE	<50
DIBROMOCHLOROMETHANE	<5	TOLUENE	<50
1,2-DICHLOROBENZENE	<5	ETHYLBENZENE	<50
1,3-DICHLOROBENZENE	<5	XYLENES	<50
1,4-DICHLOROBENZENE	<5		
DICHLORODIFLUOROMETHANE	<5		
1,1-DICHLOROETHANE	<5		
1,2-DICHLOROETHANE	<5		
1,1-DICHLOROETHENE	<5		
T-1,2-DICHLOROETHENE	<5		
1,2-DICHLOROPROPANE	<5		
C-1,3-DICHLOROPROPENE	<5		
T-1,3-DICHLOROPROPENE	<5		
1,1,2,2-TETRACHLOROETHANE	<5		

RESPECTFULLY SUBMITTED,

SOUTHEAST LABORATORIES, INC.

Randy Brown

RANDY BROWN

RB:DB

ANNEX B

Quality Assurance/

Quality Control Data

Southeast Laboratories Inc. - SINCE 1971
1490 Mecaslin St., N.W. Atlanta, Ga. 30309 (404) 873-1896 (404) 873-1880

SEPTEMBER 10, 1987

MR. ASHLEY BROWN
WESTON SPER
100 ATLANTA TECHNOLOGY CENTER
SUITE 120, BLDG. 100
1575 NORTHSIDE DRIVE, N. W.
ATLANTA, GEORGIA 30318

RE: QUALITY CONTROL - VOLATILE ORGANICS, OUR REPORT NO. 25083.

DEAR MR. BROWN:

BLANK WAS CARRIED THROUGH THE EXACT PROCEDURES AS WERE THE SAMPLES. THE FOLLOWING CONTAMINANTS WERE FOUND:

BROMODICHLOROMETHANE----------	1.8 PPB
METHYLENE CHLORIDE----------	1.4 PPB
TETRACHLOROETHENE----------	0.4 PPB

SPIKE SAMPLE:

THE SPIKE SAMPLE WAS TREATED EXACTLY AS THE SAMPLES WERE TREATED. SAMPLE 25083-2 WAS SPIKED WITH THE FOLLOWING VOLATILE ORGANICS:

1,1-DICHLOROETHENE----------	97% RECOVERY
TETRACHLOROETHENE----------	64% RECOVERY
ETHYL BENZENE----------	48% RECOVERY

RESPECTFULLY SUBMITTED,

SOUTHEAST LABORATORIES, INC.

Randy Brown

RANDY BROWN

RB:MS

Southeast Laboratories Inc. - SINCE 1971
1490 Mecaslin St., N.W. Atlanta, Ga. 30309 (404) 873-1896 (404) 873-1880

SEPTEMBER 10, 1987

MR. ASHLEY BROWN
WESTON SPER
100 ATLANTA TECHNOLOGY CENTER
SUITE 120, BLDG. 100
1575 NORTHSIDE DRIVE, N. W.
ATLANTA, GEORGIA 30318

RE: QUALITY CONTROL - METALS.

DEAR MR. BROWN:

SAMPLE 25083-1 WAS SPIKED WITH THE FOLLOWING METALS HAVING THE RESPECTIVE RECOVERY:

METAL	PERCENT
ARSENIC	43
BERYLLIUM	87
CADMIUM	94
CHROMIUM	99
COPPER	96
LEAD	93
MERCURY	42
NICKEL	92
SELENIUM	76
THALLIUM	90
ZINC	101

RESPECTFULLY SUBMITTED,

SOUTHEAST LABORATORIES, INC.

Randy Brown

RANDY BROWN

RB:MS

PHOTO# 6
OFFICIAL PHOTOGRAPH
ENVIRONMENTAL PROTECTION AGENCY

Subject: SAMPLES COLLECTED, SPECTRUM PRINTING SITE

Location: 4132 US HWY 278 COVINGTON GEORGIA

Date: AUGUST 24, 1987 **Time:** 10:20 AM

Photographer: J. LATHRAM **Witness:** J.A. BROWN

Film: WOLF **ASA:** 100 **Location of Negative:** TAT OFFICE

TDD#: 04-8708-03

PHOTO# 5
OFFICIAL PHOTOGRAPH
ENVIRONMENTAL PROTECTION AGENCY

Subject: SPILLED MATERIAL,SPECTRUM PRINTING SITE

Location: 4132 US HWY 278 COVINGTON GEORGIA
Date: AUGUST 24, 1987 **Time:** 09:35 AM
Photographer: J.A. BROWN **Witness:** J.C. LAN
Film: WOLF **ASA:** 100 **Location of Negative:** TAT OFFICE
TDD#: 04-8708-03

PHOTO# 4
OFFICIAL PHOTOGRAPH
ENVIRONMENTAL PROTECTION AGENCY

Subject: SPILLED MATERIAL, SPECTRUM PRINTING SITE

Location: 4132 US HWY 278 COVINGTON GEORGIA

Date: AUGUST 24, 1987 **Time:** 10:20 AM

Photographer: J.A. BROWN **Witness:** J.C. LAN

Film: WOLF **ASA:** 100 **Location of Negative:** TAT OFFICE

TDD#: 04-8708-03

PHOTO# 3
OFFICIAL PHOTOGRAPH
ENVIRONMENTAL PROTECTION AGENCY

Subject: SPILLED MATERIAL, SPECTRUM PRINTING SITE

Location: 4132 US HWY 278 COVINGTON GEORGIA
Date: AUGUST 24, 1987 **Time:** 10:20 AM
Photographer: J.A. BROWN **Witness:** J.C. LAN
Film: WOLF **ASA:** 100 **Location of Negative:** TAT OFFICE
TDD#: 04-8708-03

PHOTO# 2
OFFICIAL PHOTOGRAPH
ENVIRONMENTAL PROTECTION AGENCY

Subject: SAMPLING OPERATIONS, SPECTRUM PRINTING SITE

Location: 4132 US HWY 278 COVINGTON GEORGIA

Date: AUGUST 24, 1987 **Time:** 09:40 AM

Photographer: J. LATHRAM **Witness:** KLUTZ

Film: WOLF **ASA:** 100 **Location of Negative:** TAT OFFICE

TDD#: 04-8708-03

PHOTO# 1
OFFICIAL PHOTOGRAPH
ENVIRONMENTAL PROTECTION AGENCY

Subject: DRUM STAGING AREA, SPECTRUM PRINTING SITE 4132 US HWY 278

Location: LOOKING SOUTHWEST ACROSS OLD ATLANTA RD., COVINGTON GEORGIA

Date: AUGUST 24, 1987 **Time:** 09:30 AM

Photographer: J.A. BROWN **Witness:** J.C. LAN

Film: WOLF **ASA:** 100 **Location of Negative:** TAT OFFICE

TDD#: 04-8708-03

REFERENCE NO. 3

SPECTRUM PRINTING

REMOVAL ACTIONS

COVINGTON, NEWTON COUNTY, GEORGIA

TO: Bill Klutz, OSC
EPA, Region IV

FROM: Teri Wynn
TAT, Region IV

TECHNICAL DIRECTION DOCUMENT
TDD #04-8810-26-2026
#04-8810-26a-2213
TAT #04-F-03026

DATE: 05 May 1989

News Articles

APPENDIX D

TECHNICAL ASSISTANCE TEAM
Roy F. Weston, Inc./Major Programs Division
100 Atlanta Technology Center, Suite 120
1575 Northside Drive
Atlanta, Georgia 30318

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Figure 2 - Area Site Location Map

Figure 3 - Site Diagram

Appendix A - Photographs

Appendix B - TAT Sampling Activities Report

1.) Table I - Sample Descriptions

Appendix C - TAT Sampling Plan Report

Appendix D - Compatibility Analyses Report

Appendix E - Chain-of-Custody Forms

Appendix F - Log Notes

Appendix G - Site Safety Plan

Appendix H - Drum Log

I. INTRODUCTION

On-scene coordinator (OSC) Bill Klutz tasked the Roy F. Weston Technical Assistance Team (TAT) under Technical Direction Document (TDD) #04-8810-26 to assist in on-scene contractor monitoring at the Spectrum Printing Site in Covington, Newton County, Georgia (Figures 1 & 2 - Site Maps).

II. SITUATION

The Spectrum Printing site is located in the Covington, Georgia commercial district at 4132 U.S. Highway 278. From January 1987 to May 1987 Spectrum Printing operated a printing company at this location. Spectrum Printing owner, Ralph Preddy, filed for bankruptcy in May of 1987. The property is now in the trusteeship of the Law Firm of Richard Ellenberg of Atlanta.

According to a 1987 Site Investigation Report, approximately 260 drums of waste were essentially abandoned with no plan in place for disposal. The drums were stockpiled on a paved area behind a medium sized industrial building (Figure 3 - Site Diagram). A public road is contiguous to the paved area. Open drums containing printing process and waste materials were observable and accessible from the road (Attachment A - Photographs). During the site investigation, five composite samples of drummed and spilled material from the site were collected and analyzed. Analyses showed low level heavy metal contamination as well as xylene, toluene, and benzene.

III. **SUMMARY**

Between the dates of 28 and 29 September 1988, Region IV TAT members Teri Wynn, Christi Ulmer, and Karen Jarrett-Gill mobilized to the facility formerly operated by Spectrum Printing Company, Inc. in Covington. The TAT members met with the trustees contractor, Haztech. Steve Holt representing Haztech was queried about the operations that were to take place on site. Mr. Holt replied that during this initial phase, the drums would be numbered and staged (Photos #3, 13, & 16 - 22). The drums would then be opened for sampling (Photos #25 - 32). Finally, the general appearance and characteristics would be noted on drum logs (Attachment F - Drum Logs). Compatibility of the waste for possible bulking would be evaluated. Mr. Holt also replied that during subsequent removal phases, the drums would be crushed and eventually dumped in a roll-off for disposal. Also, contaminated soils and residuals underneath the drums would be excavated and disposed. Haztech was unsure of actions to be taken relative to the drums stored inside of the building, but a backhoe with an articulating arm-attachment could be used to move the drums to the staging area during the actual removal process.

Approximately 2 to 3 weeks after the sampling investigation on 28 - 29 September, the sample analysis were received by Haztech and a copy of the analysis forwarded to TAT. Analyses revealed compatibility of the various waste materials (Attachment D - Compatibility Analyses Report).

On 8 November 1988, Cindy Love of Haztech contacted OSC Klutz to inform him of the initiation of actual removal actions tentatively scheduled for March 1989. Ms. Love also informed OSC Klutz that the Georgia Environmental Protection Division (EPD) had been notified of this schedule and had made plans to be on-site during the removal

General Location Map

Figure 1

Haztech's original plans for waste disposal was to bulk two waste streams, inorganic material and organic material. The inorganic material was to be solidified and sent to an Industrial Waste Landfill in Live Oak, Georgia. The organic material was to be incinerated. On 22 November, OSC Klutz informed TAT that a meeting to discuss disposal of the wastes at the Spectrum Printing site would be taking place at the EPA offices in Atlanta. He explained that some components of the wastes were found to be hazardous, and landfilling would not be a viable consideration. Such wastes were designated as F003-F005 RCRA wastes and were considered "land ban wastes".

Following the clarification of disposal criteria, Haztech notified the TAT office through OSC Klutz as to a revised time schedule as follows:

1) On 12/22/88 the 1000 gallon above ground storage tank (vat) was to be pulled;
2) The analytical data from the sampling that took place on 28 and 29 September 1988, was invalid as hazardous categorization for landfilling was performed and this disposal option will not be utilized;

3) According to Cindy Love and Gary Rogers of Haztech, Haztech will be the site supervisors and will inform TAT of the definitive dates and times of removal actions;
4) The removal and disposal was estimated between $12,000.00 and $115,000.00 with Haztech possibly subcontracting incinerator services to ThermoKem;
5) A representative of the Georgia EPD will probably be on-site.

Doug Snyder of Westinghouse Haztech subsequently contacted TAT member Wynn as to the initiation of removal activities beginning 6 March 1989 at the Spectrum Printing site in Covington. Mr. Snyder also indicated a time frame of seven to ten days for completion of removal actions. Waste streams consisting of water, inks, isopropyl alcohol, adhesives, and contaminated dirts and sludges were to be combined in drums. He stated that the Tricel Company, a fuel blending facility located in Florida, had been contacted relative to disposal. Mr. Snyder contacted OSC Klutz for permission to begin removal actions. On 19 January 1989, approval was obtained from the OSC and the GA EPD to begin removal actions and transport wastes to Tricel in Bartow, Florida for disposal.

IV. **REMOVAL ACTIONS**

On 6 March, TAT was task by OSC Klutz to perform contractor monitoring of the responsible party cleanup action at the Spectrum Printing site. Upon arrival, one security guard and five Haztech personnel including the site supervisor, Doug

Snyder, were present. Mr. Snyder told TAT that an explosimeter and an HNu would be used to monitor the staging area and the drums before any activity took place. Mr. Snyder also explained to TAT that the original site safety plan had been modified for additional actions and/or changes in the initial scope of work.

A command post area was selected inside the empty warehouse where an office for Spectrum Printing had been previously established. Materials and equipment for decon, replacement drums and overpacks were placed inside the warehouse for set-up on the following day. A fork-lift was mobilized to the site for drum handling purposes to facilitate the movement of both empty and full drums to designated areas. A backhoe with an articulating arm was also mobed to the site for handling of drums.

Following set-up of the decon area, the HNu and explosimeter were checked to ensure proper calibration. A Haztech crew dressed in "Level C" to prevent accidental spillage of wastes onto clothing and/or skin and to prevent inhalation of vapors, entered the drum staging area. All drums were opened and the head space monitored for emission of volatile organic components. A total of three drums eluded readings in excess of 100 units. These drums were subsequently labeled and segregated. No further readings above background were observed (Attachment B - TAT Sampling Activities Report).

Actions aimed at product transfer were initiated from drums which were observed to be damaged and/or rusted. Contents were removed using a diaphragm pump or physically emptied into replacement

drums. A total of two hundred and fifty two drums were emptied into replacement drums. Haztech combined wastes as much as possible; however, most of the drums were already full.

After all wastes were combined and sealed in the drums, a 1000 gallon storage tank was emptied. A 1/4 inch hose was attached to a connection on the bottom of the tank to allow the weight of the thick, dark, viscous material to force itself down through the hose into individual disposal drums.

Upon completion of drum overpacking and staging, Haztech began transporting waste materials in drums to the Tricel fuel blending facility in Bartow, Florida. All of the waste being transported were manifested in accordance with DOT specifications. Two truckloads of drums (a total of 191) were transported from the Spectrum Printing Site in Covington, Georgia to the Tricel facility on 27 - 28 March. Tricel accepted 70 of the drums and rejected 121 drums as they contained solid materials such as boards. The Tricel facility was unable to process such wastes. Subsequently, all of the waste was diverted to the Rineco Facility in Benton, Arkansas on 30 March. The Rineco Facility was also a fuel blending facility which could accept both solid and liquid waste streams. Of the 121 drums going to Rineco, 96 drums were on one truckload and 25 were sent as a partial load. In addition, 73 drums were transported from Covington, Georgia directly to the Rineco Facility in Benton, Arkansas.

The 252 empty drums remaining following transfer operations were sent to MKC, a drum and solvent reclaimer. Twenty-three drums

containing tyvek and visqueen used in the removal process were forwarded to the BFI landfill for subsequent disposal. Ten empty drums used for deconning purposes were sent to McConnel Company, also a drum reclaimer. All site activities were completed by mid-April; however, during a follow-up inspection by Haztech, five additional drums were found containing waste materials. Haztech subsequently sent a partial load of five drums to the Rineco Facility.

V. ROSTER OF AGENCIES, ORGANIZATION, AND INDIVIDUALS

Bill Klutz, OSC
U. S. Environmental Protection Agency
345 Courtland Street
Atlanta, Georgia 30365
404/347-3931

Teri Wynn, TAT
Christi Ulmer, TAT
Karen Jarrett-Gill, TAT
Roy F. Weston, Inc./Major Program Division
100 Atlanta Technology Center, Suite 120
1575 Northside Drive
Atlanta, Georgia 30318
404/352-4147

Sampling

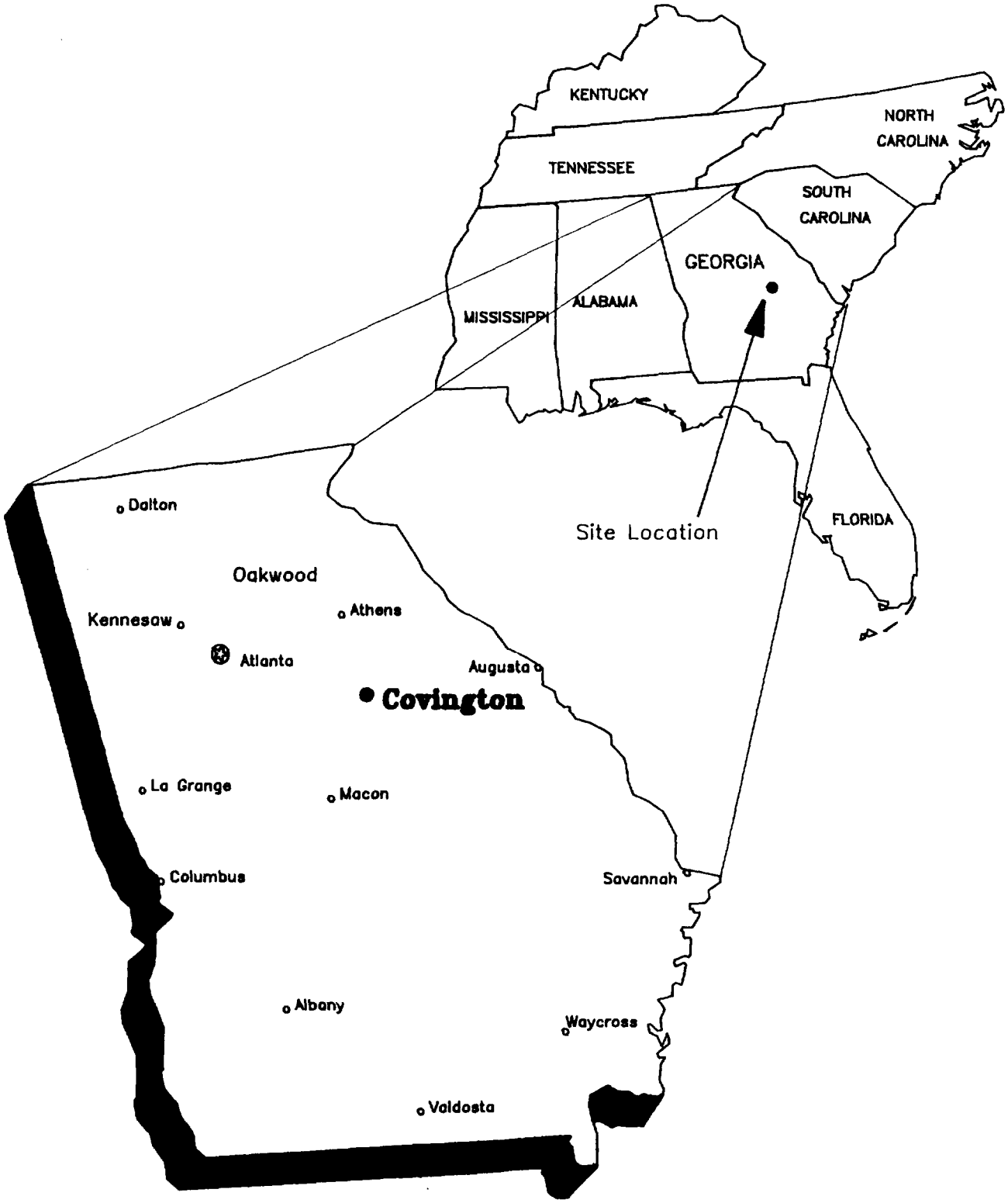
Steve Holt, Operations
Cindy Love
Joe Ethridge
John Wood
Eric Bruce
Haztech
5280 Panola Industrial Blvd.
Decatur, Georgia 30035-4013
404/981-9332

Doug Snyder, Sight Supervisor
John Peake
Horace Hardy
Charles Walden
James Lee
Marlon Perry
Haztech
5280 Panola Industrial Blvd.
Decatur, Georgia 30035-4013
404/981-9332

VI. LIST OF FIGURES AND APPENDICES

FIGURE 1

General Site Location Map

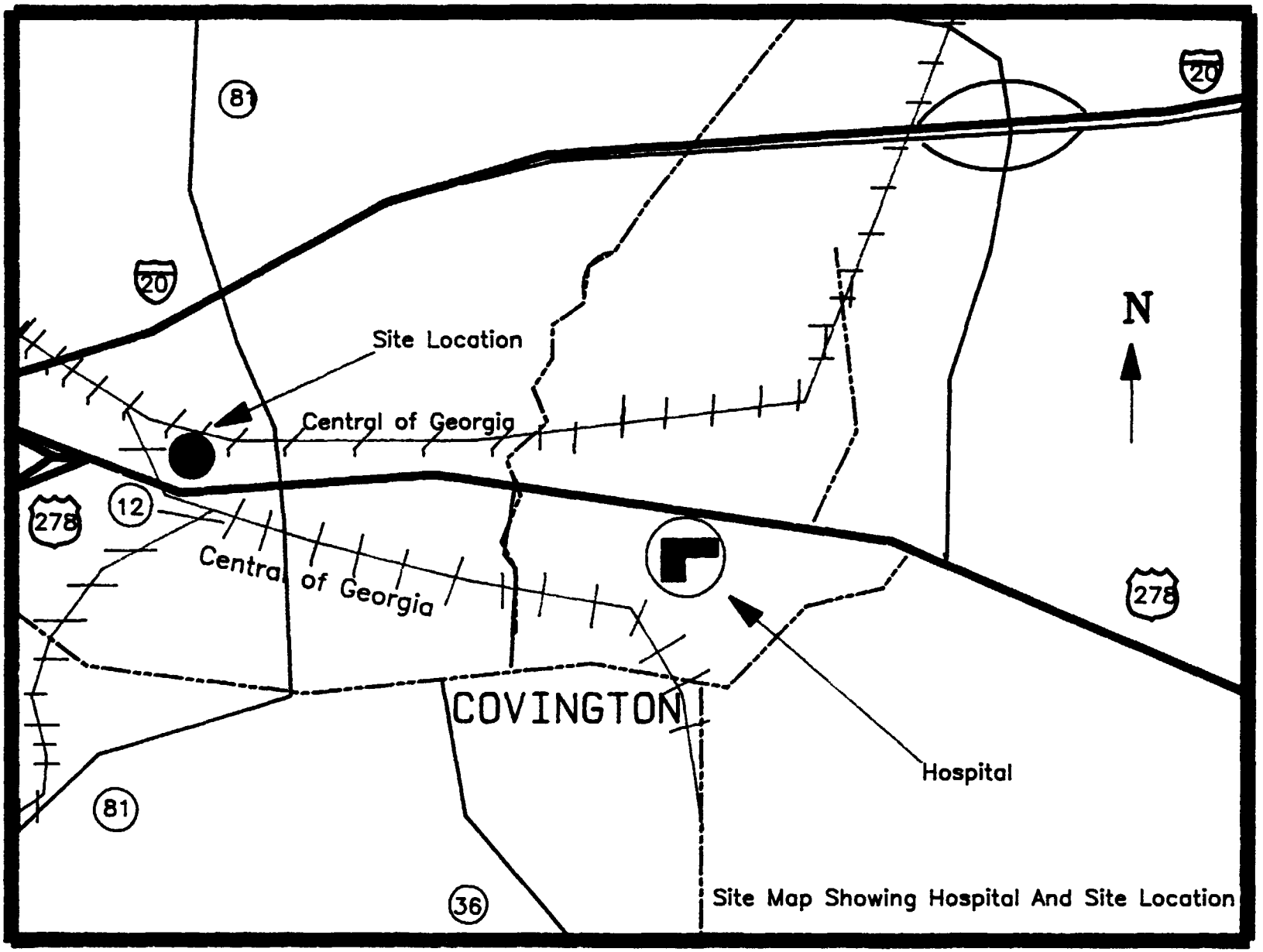


E.P.A. Region IV
General Site Location Map
TDD # 04S81026A-2213
Spectrum Printing Site
Covington, Newton County, Georgia

EPA

FIGURE 2

Area Site Location Map



Spectrum Printing Site
Covington, Newton County, Georgia

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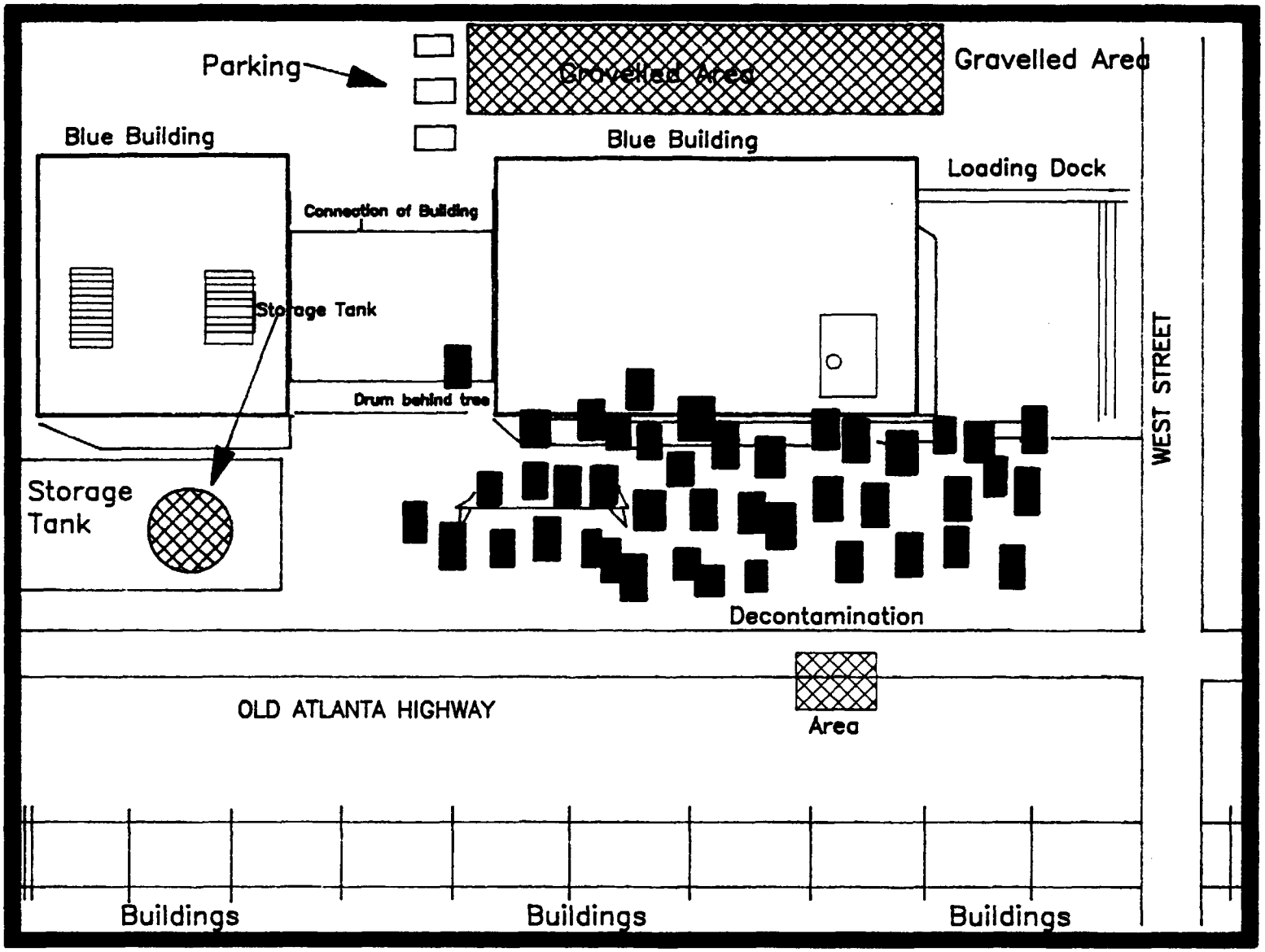
FIGURE 3

Site Diagram



TITLE: Spectrum Printing Site
LOCATION: Covington, Newton County, Georgia
DATE: September 28 and 29, 1988
TDD: #04881026A-2213

(51)

REFERENCE NO. 4

EPA

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

I. IDENTIFICATION
01 STATE: GA | 02 SITE NUMBER: WO299

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site): SPECTRUM PRINTING
02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER: 4132 U.S. HIGHWAY 278
03 CITY: COVINGTON
04 STATE: GA | 05 ZIP CODE: 30209 | 06 COUNTY: NEWTON | 07 COUNTY CODE | 08 CONG DIST
09 COORDINATES LATITUDE: 33 36 15.__ | LONGITUDE: 83 52 03.__
10 DIRECTIONS TO SITE (Starting from nearest public road): FROM ATLANTA TAKE INTERSTATE 20 EAST APPROXIMATELY 35 MILES TO THE COVINGTON U.S. 278 EXIT. TAKE U.S. 278 EAST APPROX 1 MILE TO WEST STREET GO LEFT APPROX 100 FEET SITE IS ON THE RIGHT

III. RESPONSIBLE PARTIES

01 OWNER (If known): RICHARD ELLENBURG (TRUSTEE)
02 STREET (Business, mailing, residential): 83 WALTON ST NW
03 CITY: ATLANTA
04 STATE: GA | 05 ZIP CODE: 30318 | 06 TELEPHONE NUMBER: (404) 525 4000
07 OPERATOR (If known and different from owner):
08 STREET (Business, mailing, residential):
09 CITY:
10 STATE | 11 ZIP CODE | 12 TELEPHONE NUMBER: ( )

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

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

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION
☒ YES DATE 8 24 87 (MONTH DAY YEAR) ☐ NO
BY (Check all that apply): ☒ A. EPA ☒ B. EPA CONTRACTOR ☒ C. STATE ☐ D. OTHER CONTRACTOR ☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ (Specify)
CONTRACTOR NAME(S): ROY F. WESTON

02 SITE STATUS (Check one)
☐ A. ACTIVE ☒ B. INACTIVE ☐ C. UNKNOWN
03 YEARS OF OPERATION: BEGINNING YEAR | ENDING YEAR ☒ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
CHROMIUM, LEAD, XYLENES, ANHYDROUS ISOPROPYL ALCOHOL

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
PRINTING WASTES WERE OBSERVED ON THE GROUND AND ON THE PAVED AREA WHERE DRUMS ARE STAGED

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
RAMONA J. KLEIN	GA DEPT OF NATURAL RESOURCES	(404) 656 2836

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
JOHN ASHLEY BROWN	EPA-TAT	ROY F. WESTON	(404) 3524147	9 29 87 (MONTH DAY YEAR)

EPA FORM 2070-12 (7-81)

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EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
GA	W0299

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 APPROX 275

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	APPROX 1300	GALLONS	ASSUMING 10% DRUMS ARE SLUDGE
OLW	OILY WASTE			
SOL	SOLVENTS	APPROX 1300	GALLONS	ASSUMING 10% DRUMS ARE SOLVENT
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

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

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
	XYLENES	1330-20-7	DRUMS, OPEN DRUMS	88.3 *	PPM
	CHROMIUM	7440-47-3	DRUMS, OPEN DRUMS	14.8 *	PPM
	LEAD	7439-92-1	DRUMS, OPEN DRUMS	12.7 *	PPM
	ISOPROPANOL	67-63-0	DRUMS		

* THESE CONCENTRATIONS WERE OBTAINED FROM LABORATORY ANALYSIS OF FIVE SAMPLES TAKEN FROM OPEN DRUMS. HIGHER CONCENTRATIONS ARE POSSIBLE.

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)

VISUAL OBSERVATION, LABELS ON DRUMS, LABORATORY ANALYSIS

EPA FORM 2070-12 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
GA	W0299

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. GROUNDWATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: SOUTH OF COVINGTON
02 [ ] OBSERVED (DATE: 8-24-87) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

RAIN RUNOFF FROM OPEN DRUMS AND SPILLED MATERIAL ON SITE MOST LIKELY WILL RUN INTO DRIED INDIAN CREEK WHICH IS A DRAINAGE PATH WHICH TRAVELS SOUTH AND DRIES UP DURING PERIODS OF LITTLE RAIN

01 [ ] B. SURFACE WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: SOUTH OF COVINGTON
02 [ ] OBSERVED (DATE: 8-24-87) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

RAIN RUNOFF FROM OPEN DRUMS AND SPILLED MATERIAL ON SITE WILL MOST LIKELY MAKE ITS WAY TO DRIED INDIAN CREEK

01 [X] C. CONTAMINATION OF AIR
03 POPULATION POTENTIALLY AFFECTED: COVINGTON
02 [ ] OBSERVED (DATE: 8-24-87) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

EVAPORATION OF SOLVENTS (CARRIERS) IN OPEN DRUMS

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: 8-24-87) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

MATERIAL IN OPEN DRUMS IS EASILY ACCESSABLE TO PUBLIC

01 [X] F. CONTAMINATION OF SOIL
03 AREA POTENTIALLY AFFECTED: <0.1 (Acres)
02 [ ] OBSERVED (DATE: 8-24-87) [ ] POTENTIAL [X] ALLEGED
04 NARRATIVE DESCRIPTION

SPILLAGE OF MATERIAL ON THE GROUND WAS OBSERVED BENEATH THE TERMINUS OF A PIPE GOING INTO THE BUILDING

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

01 [X] H. WORKER EXPOSURE/INJURY
03 WORKERS POTENTIALLY AFFECTED: _____
02 [ ] OBSERVED (DATE: 8-24-87) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

IN THE EVENT OF A CLEANUP CARE SHOULD BE EXERCISED AS MANY OF THE PALLETS DRUMS ARE STACKED ON APPEAR UNSOUND

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

EPA FORM 2070-12 (7-81)

EPA

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

I. IDENTIFICATION
01 STATE: GA | 02 SITE NUMBER: WO299

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

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

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

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: 8-24-87) ☐ POTENTIAL ☒ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: COVINGTON
04 NARRATIVE DESCRIPTION
MANY DRUMS ARE OPEN AND FILLED TO THE TOP WITH RAIN WATER, SOME DRUMS ARE OVERTURNED AND LEAKING MATERIAL

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: 8-24-87) ☐ POTENTIAL ☒ ALLEGED
04 NARRATIVE DESCRIPTION
RAIN RUNOFF FROM SITE WILL BE CARRIED BY STORM DRAINS

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: _____

IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)
RAMONA J. KLEIN - STATE DEPT OF NAT RESOURCES, COVINGTON NEWS - FORMER OWNER PRIOR TO PRP'S ACQUISITION, RANDY BROWN - SOUTHEASTERN LABS, RANDY BROWN - SOUTHEASTERN LABS, DENNY STRICKLAND - CITY OF COVINGTON WATER WORKS, DON FLOYD - FIRE MARSHALL - COVINGTON, FRANK TURNER - COVINGTON CITY MANAGER

EPA FORM 2070-12 (7-81)

REFERENCE NO. 5

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
GA	W0299

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
SPECTRUM PRINTING *	4132 U.S. HIGHWAY 278 *

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
COVINGTON	GA	30209	NEWTON		

09 COORDINATES * LATITUDE 33 36 15.__ LONGITUDE _83 52 03.__

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

III. INSPECTION INFORMATION

01 DATE OF INSPECTION: 8 24 87 * (MONTH DAY YEAR)

02 SITE STATUS *: ☐ ACTIVE ☒ INACTIVE

03 YEARS OF OPERATION: ____ / ____ (BEGINNING YEAR / ENDING YEAR) ☒ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply) *: ☐ A. EPA ☒ B. EPA CONTRACTOR ROY F. WESTON (Name of firm) ☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR ____ (Name of firm) ☐ E. STATE ☐ F. STATE CONTRACTOR ____ (Name of firm) ☐ G. OTHER ____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
JOHN ASHLEY BROWN	CIVIL ENGINEER	ROY F. WESTON	(404) 352 4147

09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
W. Klütz	EPA OSC	EPA	(404) 347-3931
			( )
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
			( )
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☒ PERMISSION ☐ WARRANT	0900	CLEAR, WARM

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
RAMONA J. KLEIN	GEORGIA DEPT OF NATURAL RES.	(404) 656-2836

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
JOHN ASHLEY BROWN	EPA-TAT	ROY F. WESTON	(404) 352 4147	8 24 87 (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

*

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
GA	WUD 190

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

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

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

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: 8-24-87) ☐ POTENTIAL ☒ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: COVINGTON — 04 NARRATIVE DESCRIPTION

MANY DRUMS ARE OPEN AND FILLED TO THE TOP WITH RAINWATER, SOME DRUMS ARE OVERTURNED AND LEAKING MATERIAL

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: 8-24-87) ☐ POTENTIAL ☒ ALLEGED
04 NARRATIVE DESCRIPTION RAIN RUNOFF FROM SITE WILL BE CARRIED BY STORM DRAINS

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: _____

IV. COMMENTS

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

RAYMOND J KLEIN - STATE DEPT OF NAT RESOURCES, COVINGTON NEWS (FORMER OWNER, PRIOR TO PRP'S ACQUISITION) RANDY BROWN - SOUTHEASTERN LABS (PERFORMED ANALYSIS ON SAMPLES) DEWY STRICKLAND - CITY OF COVINGTON WATER WORKS, DON FLOYD - DPS CHIEF FIRE MARSHALL, CITY OF COVINGTON, FRANK TURNER - COVINGTON CITY MANAGER

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
GA	W0299

II. PERMIT INFORMATION

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

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☐ A. SURFACE IMPOUNDMENT		
☐ B. PILES		
☒ C. DRUMS, ABOVE GROUND	APPROX 275	55 GAL
☐ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
☐ F. LANDFILL		
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)

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

05 OTHER

- ☒ A. BUILDINGS ON SITE

1

06 AREA OF SITE

APPROX 1.5 (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)

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	02 SITE NUMBER
GA	KC299

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)

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

02 STATUS

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

03 DISTANCE TO SITE

A. 0.7 (mi)
B. _____ (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

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

02 POPULATION SERVED BY GROUND WATER _____

03 DISTANCE TO NEAREST DRINKING WATER WELL _____ (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
APPROX 40-60 (ft)	GENERAL TREND S.E.	_____ (ft)	_____ (gpd)	☐ YES ☐ NO

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

MOST PEOPLE USE MUNICIPAL WATER FROM COVINGTON. THERE ARE SOME WELLS IN THE VICINITY BUT PER THE CITY MANAGER, FRANK TURNER, THEY ARE NOT USED.

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
DRIED INDIAN CREEK	☒	0.2 (mi)
	☐	(mi)
	☐	(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE
A. 4,700 NO. OF PERSONS	B. _____ NO. OF PERSONS	C. 30,000 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION <0.1 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE 100'S

04 DISTANCE TO NEAREST OFF-SITE BUILDING <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)

WITHIN LESS THAN 1/4 MILE OF THE SITE IS RESIDENTIAL HOUSING. THE SITE IS LOCATED IN COVINGTON'S COMMERCIAL DISTRICT

EPA FORM 2070-13 (7-81)

4

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
GA	WO299

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

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

02 PERMEABILITY OF BEDROCK (Check one)

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

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH
_____ (ft)	_____ (ft)	_____

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
_____ (in)	_____ (in)	_____ %		_____ %

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: A. _____ (mi)

OTHER: 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	AGRICULTURAL LANDS AG LAND
A. <0.1 (mi)	B. _____ (mi)	C. _____ (mi)	D. _____ (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

TERRAIN IS SLIGHTLY HILLY. THE SITE IS LOCATED ON THE PLATEAU OF A MEDIUM-SIZED HILL

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

USGS TOPO MAP

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
GA	W0299

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER			
WASTE	4	SOUTHEASTERN LABS	9-10-87
AIR			
RUNOFF			
SPILL			
SOIL	1	SOUTHEASTERN LABS	9-10-87
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☒ GROUND ☐ AERIAL

02 IN CUSTODY OF ROY F WESTON INC TAT (Name of organization or individual)

03 MAPS ☐ YES ☐ NO

04 LOCATION OF MAPS

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

LOG NOTES DESCRIBING SAMPLE COLLECTION

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

EPA FORM 2070-13 (7-81)

6

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
GA	W0299

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE
RICHARD ELLENBURG (TRUSTEE)		83 WALTON ST NW		ATLANTA	GA	30318

PARENT COMPANY (If applicable)

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

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

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

IV. REALTY OWNER(S) (If applicable; list 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

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

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
GA	W0279

II. CURRENT OPERATOR (Provide if different from owner)			OPERATOR'S PARENT COMPANY (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				

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
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)

EPA FORM 2070-13 (7-81)

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EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
GA	WD 297

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 analysis, reports)

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
GA	W0299

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 FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
GA	WO 299

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 8-24-87 — 03 AGENCY CITY OF COVINGTON
04 DESCRIPTION

BARRIER TAPE PUT IN PLACE

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

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
GA	W0299

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☐ NO

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

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

EPA FORM 2070-13 (7-81)

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REFERENCE NO. 6

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. G.A.D.9.8.1.2.2.6.3.3.5
Manifest Document No. 0.1.7.0.A
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

GENERATOR

3. Generator's Name and Mailing Address
Spectrum Printing
~~4132 Highway 278 Covington, Ga.~~ DLS
(6) WESTINGHOUSE HAZTECH 5280 PANOLA IND BLVD DECATUR, GA 30035
4. Generator's Phone (404) 981-9332

A. State Manifest Document Number 0170A
B. State Generator's ID

5. Transporter 1 Company Name: EASE Transportation Inc.
6. US EPA ID Number: GAD.9.8.1.2.3.3.0.0.0

C. State Transporter's ID
D. Transporter's Phone 404 455-8996

7. Transporter 2 Company Name: EASE TRANSPORTATION, INC.
8. US EPA ID Number: G.A.D.9.8.1.2.3.3.0.0.0

E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
Tricil Recovery Service Inc.
Ave. D North Rt. 3 Box 249
Bartow FL. 33830
10. US EPA ID Number: F.L.D.9.8.0.7.2.9.6.1.0

G. State Facility's ID
H. Facility's Phone 813 533-6111

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	HM		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	X	RQ Waste Combustible Liquid, n.o.s. ~~NA 1993~~ Combustible Liquid (6) NA1993 (F003/F005) DLS	96	D.M	5280	(15) G P	F003 F005
b.							
c.							
d.							

J. Additional Descriptions for Materials Listed Above (a) 84 drums returned to Fac. TRSI 3405

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

In case of emergency call 1 800 424-9300

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations. relying upon Hoyle

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Richard D. Ellenberg as Trustee
Signature: Richard D Ellenberg as Trustee of Spectrum Print
Month 3 Day 21 Year 89

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Co. Inc Con No A87-04856-ADR in Dec per order 8/18/88
Printed/Typed Name: Brian J. Musselman
Signature: B. J. M
Month 03 Day 27 Year 89

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Month Day Year

FACILITY

19. Discrepancy Indication Space (a.)

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: HAYES HENSON
Signature: Hayes Henson
Month 03 Day 29 Year 89

ORIGINAL-RETURN TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved OMB No. 2050-0039. Expires ~~9-30-88~~ 9/30/91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. G A D 9 8 1 2 2 6 3 3 5 0 1 7 0 D — Manifest Document No.

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Spectrum Printing
5280 Panola Industrial Blvd., Decatur, GA 30035

4. Generator's Phone (404) 981-9332

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: EASE Transportation, Inc.

6. US EPA ID Number: G A D 9 8 1 2 3 3 0 0 0

C. State Transporter's ID

D. Transporter's Phone 404-455-8996

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Tricil Recovery Service, Inc.
Ave. D North Rt. 3, Box 249
Bartow, FL 33830

10. US EPA ID Number: F L D 9 8 0 7 2 9 6 1 0

G. State Facility's ID

H. Facility's Phone 813-533-6111

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	X	RQ Waste Combustible Liquid, n.o.s., NA 1993 (Combustible Liquid, F003, F005)	4	D M	220	G	F003 F005
b.	X	RQ Waste Combustible Liquid, n.o.s., NA 1993 (Combustible Liquid, F003, F005)	10	D M	550	G	F003 F005
c.	X	RQ Waste Combustible Liquid, n.o.s., NA 1993 (Combustible Liquid, F003, F005)	2	D M	110	G	F003 F005
d.	X	RQ Waste Combustible Liquid, n.o.s., NA 1993 (Combustible Liquid, F003, F005)	5	D M	275	G	F003 F005

J. Additional Descriptions for Materials Listed Above
a. TRSI 3406
b. TRSI 3407
c. TRSI 3408
d. TRSI 3409

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
In case of emergency call 1-800-424-9300

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Richard B. Ellenberg as Trustee Spectrum Printing — Signature — Month 3 Day 24 Year 89

17. Transporter 1 Acknowledgement of Receipt of Materials — Line No. 1487-04856 DD per order 8/16/88

Printed/Typed Name: Brian J. Musselman — Signature — Month 03 Day 29 Year 89

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: MARTHA HAMILTON — Signature — Month 03 Day 29 Year 89

GENERATOR — TRANSPORTER — FACILITY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved OMB No. 2050-0039 Expires ~~9-30-88~~ 9/30/91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. GAD981226335 Manifest Document No. 0170E

2. Page 1 of 2 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Spectrum Printing
5280 Panola Industrial Blvd., Decatur, GA 30035

4. Generator's Phone (404) 981-9332

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: EASE Transportation, Inc.

6. US EPA ID Number: GAD981233000

C. State Transporter's ID

D. Transporter's Phone: 404-455-8996

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Tricil Recovery Service, Inc.
Ave. D North Rt. 3, Box 249
Bartow, FL 33830

10. US EPA ID Number: FLD980729610

G. State Facility's ID

H. Facility's Phone: 813-533-6111

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	X	RQ Waste, Combustible Liquid, n.o.s., NA 1993 (Combustible Liquid, F003, F005)	16	D M	88C	G	F003 F005
b.	X	RQ Waste, Combustible Liquid, n.o.s., NA 1993 (Combustible Liquid, F003, F005)	6	D M	33C	G	F003 F005
c.	X	RQ WASTE COMBUSTIBLE LIQUID, N.O.S., NA1993 (COMBUSTIBLE LIQUID, F003, F005)	52	DM	236C	G	F003 F005
d.							

J. Additional Descriptions for Materials Listed Above
a. TRSI 3410 (+TRSI 3405
b. TRSI 3411

(c.) 12 drs returned to generator - off spec (tramp) material via Ease Transportation on 3/30/89. Martha Hamilton

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
In case of emergency call 1-800-424-9300

(a.) 1 dr returned to generator - See al
(c.) 24 drs returned to generator - See al
4/7/89 Martha Hamilton

16. **GENERATOR'S CERTIFICATION**: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
Richard D. Ellenberg as Trustee of Spectrum Printing		3	29	89

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Brian J. Musselman		03	29	89

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
MARTHA HAMILTON	Martha Hamilton	03	29	89

STATE OF ARKANSAS
Department of Pollution Control and Ecology
P. O. Box 9583 Little Rock, Arkansas 72219
Telephone 501-562-7444

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

Form Approved. OMB No. 2050-0039. Expires 9-30-91

AR 12-88

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. G A D 9 8 1 2 2 6 3 3 5 9 Manifest Document No. 3 2 6 2

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Spectrum Printing
5280 Panola Industrial Blvd., Decatur, GA 30035
4. Generator's Phone (404) 981-9332

A. State Manifest Document Number AR-393262
B. State Generator's ID

5. Transporter 1 Company Name: EASE Transportation, Inc.
6. US EPA ID Number: G A D 9 8 1 2 3 3 0 0 0
C. State Transporter's ID: PC 1086 H 401
D. Transporter's Phone: 404-455-8996

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID: PC ____ H ___
F. Transporter's Phone

9. Designated Facility Name and Site Address
Rineco Chemical Industries
1007 Vulcan RD.
Benton, AR 72015
10. US EPA ID Number: A R D 9 8 1 0 5 7 8 7 0
G. State Facility's ID
H. Facility's Phone: 501-778-9089

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ Waste Combustible Liquid, n.o.s., NA 1993 (Combustible Liquid) F003, F005	073	DM	04015	G	F003 F005
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

EMERGENCY RESPONSE INFORMATION:

15. Special Handling Instructions and Additional Information
In case of emergency call 1-800-424-9300.

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and Arkansas state regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name: Richard D. Ellenberg or Trustee of Spectrum Printing
Signature: Richard D Ellenberg or Trustee
Month 03 Day 30 Year 89

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: James Kown
Signature: James Kown
Month 03 Day 31 Year 89

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: James Taylor
Signature: James Taylor
Month 04 Day 01 Year 89

EPA Form 8700-22 (Rev. 9-88) Previous edition is obsolete

STATE OF ARKANSAS
Department of Pollution Control and Ecology
P. O. Box 9583 Little Rock, Arkansas 72219
Telephone 501-562-7444

1

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

Form Approved. OMB No. 2050-0039. Expires 9-30-91

AR 12-88

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. G A D 9 8 1 2 2 6 3 3 5 9 — Manifest Document No. 3 2 6 3

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Spectrum Printing
5280 Panola Industrial Blvd., Decatur, GA 30035

4. Generator's Phone (404) 981-9332

A. State Manifest Document Number
AR-393263

B. State Generator's ID

5. Transporter 1 Company Name
EASE Transportation, Inc.

6. US EPA ID Number G A D 9 8 1 2 3 3 0 0 0

C. State Transporter's ID 1086 H 401

D. Transporter's Phone 404-455-8996

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID PC ____ H ___

F. Transporter's Phone

9. Designated Facility Name and Site Address
Rineco Chemical Industries
1007 Vulcan Rd.
Benton, AR 72015

10. US EPA ID Number A R D 9 8 1 0 5 7 8 7 0

G. State Facility's ID

H. Facility's Phone 501-778-9089

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ Waste Combustible Liquid, n.o.s., NA 1993 (Combustible Liquid) F003. F005	96	DM	5280	G	F003 F005
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

EMERGENCY RESPONSE INFORMATION:

15. Special Handling Instructions and Additional Information

In case of emergency call 1-800-424-9300.

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and Arkansas state regulations.
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Printed/Typed Name: Richard D. Ellenberg, Trustee of Spectrum Printing — Signature — Month 0 3 Day 3 0 Year 8 9

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Terry Koglen — Signature — Month 3 Day 30 Year 89

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19

Printed/Typed Name: Keith Smith — Signature — Month 3 Day 31 Year 89

EPA Form 8700-22 (Rev. 9-88) Previous edition is obsolete.

NOTICE: THE ORIGINAL AND NOT LESS THAN TWO (2) COPIES MUST MOVE WITH THE HAZARDOUS WASTE SHIPMENT. ONCE DELIVERED, THE TREAT-

STATE OF ARKANSAS
Department of Pollution Control and Ecology
P. O. Box 9583 Little Rock, Arkansas 72219
Telephone 501-562-7444

Still - this is final shipment 7/1 6

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039 Expires 9-30-91

AR 12-88

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. ARD981225635260 — Manifest Document No.
2. Page 1 of — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Spectrum Printing
5280 Panola Industrial Blvd., Decatur, GA 30035

4. Generator's Phone (404) 981-9332

A. State Manifest Document Number AR-399260
B. State Generator's ID
C. State Transporter's ID
D. Transporter's Phone 1096 401
E. State Transporter's ID
F. Transporter's Phone
G. State Facility's ID
H. Facility's Phone 501 778-9009

5. Transporter 1 Company Name: RACE Transportation, Inc. — 6. US EPA ID Number ARD981225260
7. Transporter 2 Company Name — 8. US EPA ID Number

9. Designated Facility Name and Site Address
Rineco Chemical Industrial
1007 Vulcan Road.
Benton, AR. 72015
10. US EPA ID Number ARD981057870

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ Waste Combustible Liquid, n.o.s., NA 1993 (Combustible Liquid) F003,F005	15	DM	1250	C	F003 F005
b.					
c.					
d.					

[redacted]

15. Special Handling Instructions and Additional Information
In case of emergency call 1-800-424-9300

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and Arkansas state regulations.
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Printed/Typed Name: Richard D. Ellenberg, Trustee of Spectrum Printing — Signature — Month Day Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Terry Keegler — Signature: Terry Keegler — Month Day Year 7/18/89

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name — Signature — Month Day Year

EPA Form 8700-22 (Rev. 9-88) Previous edition is obsolete.

GENERATOR INITIAL COPY

REFERENCE NO. 7

TELEPHONE CONVERSATION SUMMARY

DYNAMAC CORPORATION

Call made by: Lori C. Conway
Date of call: May 10, 1994
Time of call: 1440

Signature/Date: Lori C Conway 5/10/94
Facility: Spectrum Printing
EPA ID No.: GAD982111767

Person(s) contacted: Brian Allen
Title/Position: Executive Assistant
Organization: Newton County Commissioner's Office
Telephone number: 404-784-2000
Address (city/state): Covington, Georgia

General Subject: New County Reservoir

Summary of Conversation:

Mr. Allen stated that the Newton County government owns and operates the reservoir on Cornish Creek which went on-line in 1992. Approximately 80 percent of the potable water in the county is provided by a filtration plant drawing from this reservoir. The dam for the reservoir is located just below the confluence of Cornish Creek and Little Cornish Creek. The reservoir itself forms a "Y" around Cornish Mountain following the 700-foot contour lines shown on a topographic map. A portion of the reservoir is actually located in Walton County; approximately 25% of the plant's capacity is available to Walton County, if needed, due to Walton County's contributions to the bond issue which provided the funding to build the reservoir. The filtration plant which treats the water from the Cornish Creek Reservoir is located at the reservoir.

Mr. Allen said that the city of Covington's water department does still utilize their intake on the Alcovy River. This intake is located where the Central of Georgia railroad tracks cross the Alcovy River, approximately one-half mile east of Alcovy. Water from this intake is pumped to the "city pond", the Covington Reservoir, which was built in the 1950s, and from there is pumped to the filtration plant located in the city limits of Covington.

Mr. Allen said that the water billing situation is very complex. The city of Covington still bills out most of the water, although most of the water is actually coming from the county's reservoir; therefore, although many of the residents are billed by the city of Covington, they are not necessarily drinking water from the city's filtration plant downtown.

REFERENCE NO. 8

TELEPHONE CONVERSATION SUMMARY

DYNAMAC CORPORATION

Call made by: Lori C. Conway
Date of call: May 11, 1994
Time of call: 0835

Signature/Date: Lori C Conway 5/11/94
Facility: Spectrum Printing
EPA ID No.: GAD982111767

Person(s) contacted: Walter Thompson
Title/Position: Lab Supervisor
Organization: City of Covington Water Department
Telephone number: 404-784-2125
Address (city/state): Covington, Georgia

General Subject: Covington Reservoir/Water Service Area

Summary of Conversation:

Mr. Thompson confirmed that the Covington Reservoir, or "city pond", is still in use. Water from the intake on the Alcovy River is pumped to this reservoir located near the Covington Airport and from there to the filtration plant in town. He said there were no plans, to his knowledge, to close the "city pond" reservoir, although at one time it had been discussed because of the need for so many upgrades to the old filtration plant downtown. He said the necessary renovations were currently underway however.

Mr. Thompson confirmed that 20 percent of the potable water supplied to residents in the entire county comes from the intake on the Alcovy River and 80 percent from the new Cornish Creek Reservoir. Water from both sources becomes mixed in the distribution system, but there is no central location for blending of water from the two sources prior distribution.

REFERENCE NO. 9

TELEPHONE CONVERSATION SUMMARY

DYNAMAC CORPORATION

Call made by: Lori C. Conway
Date of call: May 10, 1994
Time of call: 1420

Signature/Date: Lori C Conway 5/10/94
Facility: Spectrum Printing
EPA ID No.: GAD982111767

Person(s) contacted: Grady Ridgeway
Title/Position: Director
Organization: Newton County Water and Sewerage Authority
Telephone number: 404-787-1375
Address (city/state): Covington, Georgia

General Subject: Newton County Water System

Summary of Conversation:

Mr. Ridgeway confirmed the information obtained by Coby Dolan of Dynamac Corporation in June 1992 regarding the county water system. The map of the system's lines dated 1989 is not complete. The county had a large expansion of their water line coverage area in 1992 when the new county reservoir on Cornish Creek went on-line. Therefore, the lines shown on Coby Dolan's field topo map are assumed to be the correct extent of the Newton County water system.

The new reservoir covers 820 acres, has a capacity of 3.9 billion gallons and is 38 feet deep at the deepest part. The dam is 1,450 feet in length. The reservoir is supplied by a 15,200-acre watershed and can supply up to 24 mgd. Newton County Water and Sewerage Authority supplies just over 5,000 connections directly. For more information on the reservoir, contact Brian Allen at the County Commissioner's office.

C 3.223/18.77 CPH-1-12

REFERENCE NO. 10

1990 CPH-1-12

1990 Census of Population and Housing

Summary Population and Housing Characteristics

Georgia

Issued August 1991

U.S. Department of Commerce
Robert A. Mosbacher, Secretary
Rockwell A. Schnabel, Deputy Secretary

Economics and Statistics Administration
Michael R. Darby, Under Secretary
for Economic Affairs and Administrator

BUREAU OF THE CENSUS
Barbara Everitt Bryant, Director

Table 6. Household, Family, and Group Quarters Characteristics: 1990

[For definitions of terms and meanings of symbols, see text]

State County Place and [In Selected States] County Subdivision	Persons in households	All households	Family households: Total	Family households: Married-couple family	Family households: Female householder, no husband present	Nonfamily households: Total	Nonfamily households: Householder living alone: Total	Nonfamily households: Householder living alone: 65 years and over: Total	Nonfamily households: Householder living alone: 65 years and over: Female	Persons per— Household	Persons per— Family	Persons in group quarters: Total	Persons in group quarters: Institutionalized persons	Persons in group quarters: Other persons in group quarters
The State	**6 304 583**	**2 366 615**	**1 713 072**	**1 306 756**	**329 641**	**653 543**	**537 702**	**185 027**	**149 417**	**2.66**	**3.16**	**173 633**	**87 266**	**86 367**
COUNTY														
Appling County	15 580	5 834	4 275	3 423	687	1 559	1 433	689	535	2 67	3 21	164	164	-
Atkinson County	6 209	2 210	1 647	1 299	268	563	517	282	229	2 81	3 33	4	4	-
Bacon County	9 436	3 442	2 645	2 000	539	797	742	376	301	2 74	3 17	130	121	9
Baker County	3 610	1 300	949	666	220	351	326	174	148	2 78	3 33	5	5	-
Baldwin County	32 270	12 165	8 735	6 095	2 183	3 430	2 770	1 007	815	2 65	3 14	7 260	6 515	745
Banks County	10 292	3 775	2 973	2 563	283	802	724	353	281	2 73	3 13	16	16	-
Barrow County	29 489	10 676	8 361	6 828	1 149	2 315	2 016	941	765	2 76	3 15	232	209	23
Bartow County	55 485	20 091	15 665	12 828	2 149	4 426	3 861	1 605	1 326	2 76	3 17	426	336	90
Ben Hill County	15 923	5 972	4 343	3 153	1 007	1 629	1 505	766	620	2 67	3 22	322	252	70
Berrien County	13 859	5 149	3 950	3 208	569	1 199	1 105	530	427	2 69	3 13	294	108	186
Bibb County	145 108	56 307	39 301	26 742	10 753	17 006	14 892	5 916	4 812	2 58	3 14	4 859	2 904	1 955
Bleckley County	10 005	3 816	2 864	2 223	534	952	884	452	369	2 62	3 09	425	121	304
Brantley County	11 069	3 811	3 109	2 598	384	702	629	278	217	2 90	3 25	8	8	-
Brooks County	15 026	5 392	4 040	2 881	974	1 352	1 223	628	496	2.79	3 30	372	279	93
Bryan County	15 301	5 070	4 226	3 514	554	844	735	305	218	3 02	3 34	137	-	137
Bulloch County	39 458	14 984	9 685	7 449	1 782	5 299	3 488	1 293	1 042	2 63	3 15	3 667	607	3 060
Burke County	20 363	7 037	5 288	3 482	1 543	1 749	1 573	738	564	2 89	3 41	216	216	-
Butts County	13 557	4 696	3 697	2 822	686	999	872	408	308	2 89	3.31	1 769	1 653	116
Calhoun County	4 916	1 794	1 269	837	366	525	491	292	234	2 74	3 36	97	97	-
Camden County	27 328	9 459	7 472	6 152	1 003	1 987	1 609	415	311	2 89	3.28	2 839	130	2 709
Candler County	7 449	2 828	2 042	1 536	415	786	717	361	286	2 63	3 17	295	295	-
Carroll County	68 725	25 370	18 969	15 272	2 958	6 401	5 361	2 106	1 744	2 71	3 16	2 697	758	1 939
Catoosa County	42 109	15 745	12 366	10 301	1 621	3 379	3 033	1 306	1 096	2 67	3 06	355	305	50
Charlton County	8 384	2 911	2 257	1 748	407	654	573	249	190	2 88	3 32	112	112	-
Chatham County	209 677	81 111	56 560	40 929	12 997	24 551	21 036	8 128	6 444	2 59	3 14	7 258	3 936	3 322
Chattahoochee County	10 616	2 884	2 637	2 370	214	247	216	62	47	3 68	3 89	6 318	70	6 248
Chattooga County	22 059	8 467	6 393	5 041	1 070	2 074	1 915	1 039	843	2 61	3 06	183	183	-
Cherokee County	89 441	31 309	25 760	22 476	2 324	5 549	4 415	1 430	1 152	2 86	3 16	763	436	327
Clarke County	79 604	33 170	18 182	12 864	4 401	14 988	9 547	2 327	1 868	2 40	3 02	7 990	934	7 056
Clay County	3 287	1 210	874	556	258	336	318	182	138	2 72	3 30	77	74	3
Clayton County	180 489	65 523	48 734	37 003	9 216	16 789	13 035	2 392	1 935	2 75	3 19	1 563	1 246	317
Clinch County	6 034	2 173	1 655	1 257	313	518	476	208	170	2 78	3 25	126	96	30
Cobb County	444 691	171 288	120 113	99 966	15 518	51 175	36 537	6 826	5 634	2 60	3 10	3 054	1 978	1 076
Coffee County	29 015	10 541	7 981	6 025	1 614	2 560	2 319	1 038	841	2 75	3 22	577	237	340
Colquitt County	34 937	12 980	9 736	7 242	2 083	3 244	2 964	1 582	1 299	2 69	3 16	1 708	543	1 165
Columbia County	64 929	21 841	18 315	15 649	2 054	3 526	2 939	832	661	2 97	3 28	1 102	948	154
Cook County	13 172	4 825	3 607	2 789	645	1 218	1 116	589	489	2 73	3 22	284	128	156
Coweta County	53 381	18 930	15 020	11 907	2 482	3 910	3 394	1 449	1 186	2 82	3 20	472	456	16
Crawford County	8 809	3 069	2 412	1 896	396	657	577	238	178	2 87	3 29	182	108	74
Crisp County	19 599	7 287	5 300	3 595	1 491	1 987	1 808	678	717	2 69	3 23	412	408	4
Dade County	12 563	4 661	3 735	3 170	429	926	856	399	298	2 70	3 06	584	209	375
Dawson County	9 377	3 360	2 734	2 357	268	626	536	186	151	2 79	3 12	52	29	23
Decatur County	24 748	8 962	6 675	4 743	1 634	2 287	2 082	1 028	819	2 76	3 27	763	446	317
DeKalb County	535 454	208 690	137 603	96 941	31 277	71 087	52 645	11 728	9 789	2 57	3 12	10 383	6 283	4 100
Dodge County	16 627	6 387	4 687	3 550	952	1 700	1 609	844	684	2 60	3 12	980	980	-
Dooly County	9 730	3 557	2 582	1 779	693	975	913	509	413	2 74	3 31	171	143	28
Dougherty County	93 017	34 163	25 103	16 535	7 500	9 062	7 966	2 767	2 224	2 72	3 24	3 294	1 156	2 138
Douglas County	70 334	24 277	19 739	16 547	2 415	4 538	3 643	1 107	887	2 90	3 22	786	664	122
Early County	11 649	4 263	3 113	2 207	740	1 150	1 064	604	475	2 73	3 29	205	205	-
Echols County	2 319	816	654	548	78	162	153	63	48	2 84	3 26	15	-	15
Effingham County	25 636	8 759	7 149	5 921	928	1 610	1 422	560	439	2 93	3 28	51	51	-
Elbert County	18 634	7 115	5 314	4 078	1 008	1 801	1 680	883	719	2 62	3 10	315	263	52
Emanuel County	20 210	7 420	5 501	4 069	1 205	1 919	1 799	937	740	2.72	3 25	336	326	10
Evans County	8 374	3 144	2 284	1 671	514	860	781	391	300	2.66	3 19	350	319	31
Fannin County	15 863	6 334	4 844	4 126	528	1 490	1 401	753	590	2 50	2 92	129	120	9
Fayette County	62 218	21 054	18 018	16 110	1 439	3 036	2 640	1 001	826	2 96	3 23	197	197	-
Floyd County	77 939	30 518	22 518	17 744	3 852	8 000	7 203	3 506	2 891	2 55	3 02	3 312	1 657	1 655
Forsyth County	43 792	15 938	12 787	11 164	1 113	3 151	2 590	964	775	2 75	3 07	291	276	15
Franklin County	16 286	6 365	4 787	3 960	629	1 578	1 480	776	604	2 56	3 02	364	166	198
Fulton County	626 974	257 140	155 887	99 206	47 519	101 253	79 746	21 475	17 301	2 44	3 11	21 977	8 405	13 572
Gilmer County	13 179	5 072	3 940	3 352	454	1 132	1 035	543	437	2 60	2 99	189	189	-
Glascock County	2 243	867	649	541	84	218	196	98	72	2 59	3 04	114	114	-
Glynn County	61 437	23 947	17 308	13 214	3 345	6 639	5 647	2 319	1 840	2.57	3 04	1 059	645	414
Gordon County	34 749	12 778	9 939	8 238	1 320	2 839	2 530	1 116	917	2 72	3 13	323	322	1
Grady County	20 001	7 354	5 571	4 218	1 116	1 783	1 638	884	726	2 72	3 19	278	242	36
Greene County	11 663	4 083	3 012	2 058	791	1 071	974	503	385	2 86	3 42	130	107	23
Gwinnett County	351 247	126 971	96 396	82 398	10 481	30 575	22 501	3 637	3 035	2 77	3 18	1 663	1 559	104
Habersham County	25 817	9 966	7 672	6 525	846	2 294	2 108	973	787	2 59	3 00	1 804	1 493	311
Hall County	93 879	34 721	26 522	21 462	3 852	8 199	6 959	2 623	2 162	2 70	3.10	1 549	1 035	514
Hancock County	8 747	2 969	2 201	1 279	788	768	725	358	268	2 95	3 55	161	149	12
Haralson County	21 695	8 248	6 252	5 145	898	1 996	1 834	886	739	2 63	3 08	271	271	-
Harris County	17 624	6 454	5 092	4 169	714	1 362	1 234	559	421	2 73	3 12	164	164	-
Hart County	19 390	7 459	5 679	4 534	905	1 780	1 644	847	692	2 60	3 04	322	318	4
Heard County	8 498	3 093	2 398	1 912	364	695	613	280	209	2 75	3 17	130	125	5
Henry County	58 148	20 012	16 784	14 380	1 785	3 228	2 651	1 003	817	2 91	3 19	593	561	32
Houston County	87 924	32 433	24 695	19 712	3 997	7 738	6 677	1 708	1 420	2 71	3 15	1 284	655	629
Irwin County	8 520	3 142	2 350	1 763	489	792	752	402	319	2 71	3 23	129	129	-
Jackson County	29 295	10 721	8 353	6 865	1 093	2 368	2 086	969	781	2 73	3 13	710	546	164
Jasper County	8 389	3 036	2 307	1 755	428	729	644	303	232	2 76	3 21	64	64	-
Jeff Davis County	11 941	4 357	3 378	2 627	592	979	870	392	333	2 74	3 15	91	91	-
Jefferson County	16 999	6 093	4 489	2 925	1 354	1 604	1 497	779	609	2 79	3 35	409	409	-
Jenkins County	8 127	2 951	2 186	1 548	525	765	692	340	272	2 75	3 24	120	99	21
Johnson County	8 168	3 010	2 221	1 630	516	789	745	415	339	2 71	3 26	161	161	-
Jones County	20 519	7 300	5 801	4 605	936	1 499	1 343	470	363	2 81	3 21	220	188	32
Lamar County	12 759	4 669	3 568	2 704	703	1 101	1 001	487	385	2 73	3 18	279	120	159
Lanier County	5 460	1 965	1 505	1 144	297	460	418	186	148	2 78	3 22	71	63	8
Laurens County	38 830	14 514	10 822	8 092	2 294	3 692	3 374	1 589	1 271	2 68	3 16	1 158	1 102	56
Lee County	15 592	5 199	4 293	3 429	687	906	782	300	235	3 00	3 34	658	658	-
Liberty County	45 325	15 136	12 404	10 183	1 833	2 732	2 233	527	412	2 99	3 33	7 420	168	7 252
Lincoln County	7 397	2 702	2 059	1 557	382	643	593	305	231	2 74	3 21	45	28	17

Table 6. Household, Family, and Group Quarters Characteristics: 1990—Con.

[For definitions of terms and meanings of symbols see text]

State County Place and [In Selected States] County Subdivision	Persons in households	All households	Family households: Total	Family households: Married-couple family	Family households: Female householder no husband present	Nonfamily households: Total	Nonfamily households: Householder living alone: Total	Nonfamily households: Householder living alone: 65 years and over: Total	Nonfamily households: Householder living alone: 65 years and over: Female	Persons per— Household	Persons per— Family	Persons in group quarters: Total	Persons in group quarters: Institutionalized persons	Persons in group quarters: Other persons in group quarters
COUNTY—Con.														
Long County	6 119	2 196	1 683	1 383	218	513	447	185	136	2.79	3.22	83	4	79
Lowndes County	71 652	26 311	19 123	14 300	4 312	7 188	5 744	2 095	1 661	2.72	3.22	4 329	1 814	2 515
Lumpkin County	13 318	4 976	3 872	3 262	438	1 104	962	370	283	2.68	3.07	1 255	156	1 099
McDuffie County	19 862	7 270	5 508	3 985	1 286	1 762	1 558	676	539	2.73	3.19	257	232	25
McIntosh County	8 622	3 186	2 371	1 689	540	815	730	349	246	2.71	3.19	12	12	-
Macon County	12 826	4 388	3 322	2 099	1 046	1 066	991	513	412	2.92	3.46	288	288	-
Madison County	20 902	7 740	6 061	5 075	749	1 679	1 459	677	559	2.70	3.09	148	109	39
Marion County	5 512	1 962	1 524	1 132	317	438	392	203	166	2.81	3.22	78	78	-
Meriwether County	21 893	7 637	5 800	4 122	1 363	1 837	1 685	838	676	2.87	3.38	518	341	177
Miller County	6 184	2 336	1 741	1 334	319	595	554	316	250	2.65	3.14	96	96	-
Mitchell County	19 986	6 798	5 254	3 533	1 457	1 544	1 414	759	632	2.94	3.42	289	212	77
Monroe County	16 509	5 838	4 547	3 549	800	1 291	1 130	477	374	2.83	3.25	604	599	5
Montgomery County	6 714	2 493	1 842	1 432	323	651	599	313	235	2.69	3.20	449	213	236
Morgan County	12 705	4 399	3 442	2 588	681	957	854	417	329	2.89	3.32	178	158	20
Murray County	25 980	9 363	7 499	6 238	891	1 864	1 628	606	488	2.77	3.14	167	161	6
Muscogee County	171 700	65 858	47 235	33 380	11 803	18 623	16 122	5 847	4 716	2.61	3.12	7 578	2 963	4 615
Newton County	41 040	14 401	11 337	8 908	1 915	3 064	2 633	1 210	997	2.85	3.25	768	318	450
Oconee County	17 474	6 156	4 960	4 253	555	1 196	987	394	329	2.84	3.19	144	140	4
Oglethorpe County	9 681	3 581	2 748	2 168	448	833	737	317	240	2.70	3.14	82	82	-
Paulding County	41 289	14 326	11 999	10 350	1 216	2 327	1 964	772	598	2.88	3.17	322	309	13
Peach County	19 954	7 142	5 465	3 844	1 385	1 677	1 428	603	481	2.79	3.23	1 235	82	1 153
Pickens County	14 252	5 386	4 239	3 607	455	1 147	1 051	516	390	2.65	3.03	180	180	-
Pierce County	13 262	4 807	3 759	3 104	507	1 048	982	488	390	2.76	3.19	66	66	-
Pike County	10 100	3 526	2 824	2 385	317	702	647	321	255	2.86	3.26	124	124	-
Polk County	33 410	12 519	9 455	7 404	1 628	3 064	2 833	1 518	1 217	2.67	3.13	405	379	26
Pulaski County	7 986	3 098	2 185	1 584	504	913	842	432	348	2.58	3.15	122	122	-
Putnam County	13 856	5 229	3 938	3 043	702	1 291	1 118	429	330	2.65	3.07	281	277	4
Quitman County	2 205	857	626	428	167	231	214	112	72	2.57	3.06	4	-	4
Rabun County	11 460	4 630	3 477	2 940	412	1 153	1 036	524	404	2.48	2.89	188	166	22
Randolph County	7 694	2 815	2 003	1 301	595	812	773	463	365	2.73	3.36	329	104	225
Richmond County	179 514	68 675	47 685	32 988	12 384	20 990	17 907	5 732	4 570	2.61	3.18	10 205	3 423	6 782
Rockdale County	53 546	18 337	15 121	12 771	1 317	3 216	2 638	932	790	2.92	3.23	545	499	46
Schley County	3 581	1 315	964	739	178	351	324	171	153	2.72	3.25	7	7	-
Screven County	13 613	5 048	3 698	2 660	865	1 350	1 238	618	500	2.70	3.23	229	204	25
Seminole County	8 420	3 137	2 336	1 729	518	801	747	410	325	2.68	3.19	590	98	492
Spalding County	53 613	19 426	14 901	11 514	3 222	4 525	3 874	1 771	1 467	2.76	3.18	844	838	6
Stephens County	22 688	8 949	6 633	5 453	958	2 316	2 131	1 085	887	2.54	3.00	569	90	479
Stewart County	5 543	1 982	1 439	921	425	543	505	280	213	2.80	3.40	111	111	-
Sumter County	28 811	10 484	7 610	5 034	2 275	2 874	2 544	1 087	885	2.75	3.30	1 417	771	646
Talbot County	6 517	2 345	1 765	1 188	473	580	543	263	199	2.78	3.28	7	7	-
Taliaferro County	1 915	727	492	344	119	235	230	142	114	2.63	3.32	-	-	-
Tattnall County	15 251	5 845	4 272	3 276	826	1 573	1 436	733	580	2.61	3.11	2 471	2 189	282
Taylor County	7 632	2 804	2 070	1 431	530	734	675	367	302	2.72	3.24	10	10	-
Telfair County	10 641	4 017	2 901	2 080	688	1 116	1 044	590	470	2.65	3.20	359	344	15
Terrell County	10 508	3 738	2 772	1 823	804	966	887	488	393	2.81	3.34	145	145	-
Thomas County	38 325	14 323	10 644	7 604	2 564	3 679	3 342	1 624	1 333	2.68	3.16	661	580	81
Tift County	33 450	12 184	9 101	6 801	1 911	3 083	2 724	1 197	978	2.75	3.23	1 548	385	1 163
Toombs County	23 652	8 804	6 386	4 751	1 353	2 418	2 179	973	778	2.69	3.23	420	388	32
Towns County	6 362	2 812	2 056	1 815	183	756	712	367	285	2.26	2.69	392	78	314
Treutlen County	5 917	2 158	1 607	1 176	366	551	513	298	243	2.74	3.27	77	65	12
Troup County	54 500	20 371	14 980	11 053	3 292	5 391	4 771	2 231	1 827	2.68	3.18	1 036	711	325
Turner County	8 586	3 043	2 331	1 683	576	712	673	379	312	2.82	3.32	117	117	-
Twiggs County	9 650	3 296	2 570	1 896	553	726	665	291	222	2.93	3.39	156	151	5
Union County	11 769	4 709	3 653	3 182	355	1 056	980	535	406	2.50	2.88	224	221	3
Upson County	25 840	9 911	7 335	5 467	1 541	2 576	2 377	1 282	1 046	2.61	3.09	460	448	12
Walker County	57 524	21 697	16 887	13 896	2 336	4 810	4 355	2 111	1 758	2.65	3.05	816	806	10
Walton County	38 229	13 433	10 749	8 634	1 613	2 684	2 332	1 101	893	2.85	3.22	357	357	-
Ware County	33 788	13 046	9 416	7 068	1 945	3 630	3 311	1 624	1 317	2.59	3.12	1 683	1 593	90
Warren County	5 974	2 130	1 603	1 056	467	527	487	296	241	2.80	3.30	104	104	-
Washington County	18 789	6 739	4 985	3 396	1 330	1 754	1 606	776	624	2.79	3.32	323	311	12
Wayne County	21 761	7 922	6 113	4 803	1 053	1 809	1 670	783	606	2.75	3.19	595	582	13
Webster County	2 263	798	610	445	131	188	172	86	61	2.84	3.32	-	-	-
Wheeler County	4 817	1 786	1 331	1 028	235	455	441	273	225	2.70	3.21	86	65	21
White County	12 523	4 907	3 798	3 285	382	1 109	1 023	475	374	2.55	2.95	483	161	322
Whitfield County	71 808	26 859	20 506	16 611	2 940	6 353	5 455	1 995	1 633	2.67	3.08	654	571	83
Wilcox County	6 807	2 511	1 833	1 389	360	678	640	376	293	2.71	3.27	201	201	-
Wilkes County	10 511	4 022	2 932	2 132	646	1 090	1 008	566	415	2.61	3.12	86	86	-
Wilkinson County	10 183	3 619	2 755	2 032	616	864	788	352	274	2.81	3.31	45	45	-
Worth County	19 618	6 895	5 428	4 107	1 057	1 467	1 345	675	541	2.85	3.27	127	53	74
PLACE AND COUNTY SUBDIVISION														
Abbeville city	809	303	221	153	54	82	76	49	40	2.67	3.16	98	98	-
Dodge County	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wilcox County	809	303	221	153	54	82	76	49	40	2.67	3.16	98	98	-
Acworth city, Cobb County	4 517	1 758	1 260	1 017	199	498	402	153	137	2.57	3.04	2	2	-
Adairsville city, Bartow County	2 131	772	587	391	160	185	168	95	78	2.76	3.19	-	-	-
Adel city, Cook County	4 927	1 793	1 289	859	359	504	466	246	207	2.75	3.33	166	128	38
Adrian city	615	238	170	116	45	68	62	33	30	2.58	3.08	-	-	-
Emanuel County	293	113	86	64	18	27	26	15	14	2.59	2.98	-	-	-
Johnson County	322	125	84	52	27	41	36	18	16	2.58	3.18	-	-	-
Ailey city, Montgomery County	484	183	135	100	24	48	45	26	22	2.64	3.15	95	-	95
Alamo city, Wheeler County	849	319	232	162	56	87	85	58	49	2.66	3.24	6	6	-
Alapaha town, Berrien County	789	287	222	146	64	65	63	27	23	2.75	3.20	23	-	23
Albany city, Dougherty County	75 233	27 926	19 977	12 351	6 724	7 949	6 990	2 482	1 992	2.69	3.25	2 889	1 129	1 760
Aldora town, Lamar County	127	46	35	30	4	11	11	8	5	2.76	3.29	-	-	-
Allenhurst town, Liberty County	594	210	163	138	20	47	38	11	10	2.83	3.20	-	-	-
Allentown town	273	105	80	65	14	25	23	13	11	2.60	3.05	-	-	-
Bleckley County	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Laurens County	2	1	1	1	-	-	-	-	-	2.00	2.00	-	-	-
Twiggs County	40	14	11	9	2	3	3	1	1	2.86	3.36	-	-	-
Wilkinson County	231	90	68	55	12	22	20	12	10	2.57	3.01	-	-	-
Alma city, Bacon County	3 533	1 397	959	571	355	438	417	234	191	2.53	3.11	130	121	9
Alpharetta city, Fulton County	12 884	5 265	3 603	3 013	478	1 662	1 282	280	240	2.45	2.95	118	118	-
Alston town, Montgomery County	160	56	42	36	4	14	13	11	8	2.86	3.45	-	-	-

REFERENCE NO. 11

TELEPHONE CONVERSATION SUMMARY

DYNAMAC CORPORATION

Call made by: Coby C. Dolan
Signature/Date: Coby Dolan 5/12/92
Dte of call : May 12, 1992
Facility: Atlanta Wood Preserving
Time of call: 1150
EPA ID No.: GAD980556732

Person (s) contacted: Roy Morris
Title/Position: Game Conservation Officer
Organization: Newton County
Telephone number: (404) 787-0738
Address (city/state): Covington, Georgia

General Subject: Fisheries in the Yellow River and Lakeview Lake.

Summary of conversation: Mr. Morris indicated that sport fishing in the Yellow River was very common, although he did not know the types of fish that could be found there. He also indicated that Lakeview Lake was a "pay" fishing spot. To the best of his knowledge a person by the name of Barney Angelin currently runs the pay fishing lake. Mr. Angelin may be found with the Covington Police Department.

S. DEPARTMENT OF COMMERCE
ther H. Hodges, Secretary

WEATHER BUREAU
F. W. Reichelderfer, Chief

TECHNICAL PAPER NO. 40

RAINFALL FREQUENCY ATLAS OF THE UNITED STATES

for Durations from 30 Minutes to 24 Hours and Return Periods from 1 to 100 Years

Prepared by
DAVID M. HERSFIELD
Cooperative Studies Section, Hydrologic Services Division
for
Engineering Division, Soil Conservation Service
U.S. Department of Agriculture

REFERENCE NO. 12

PRICE LIST: RAINFALL FREQUENCY ATLASES October 1985

The atlases described below may be ordered on one reel of 35mm microfilm at $12.50, or as individual paper pages at $2 per page, $4 service and handling charge per order. (Prices subject to change without notice.) Call to confirm current price.

National Climatic Data Center
Federal Building
Asheville, NC 28801-2696
704 CLI-MATE or 704-259-0682
Telex 6502643731

TP-40: Rainfall Frequency Atlas of the US - Weather Bureau Technical Paper No. 40 (Washington, DC: GPO, 1961) 14x21 ins, paper cover, 61 pages. (Superseded in part by two publications listed below.)

Presents 49 US rainfall frequency maps for selected durations from 30 minutes to 24 hours and return periods from 1 to 100 years. OUT-OF-PRINT, but a 8 1/2x14 in. reduced photocopy priced at $15 is available from the NCDC address above. Make payment to "Commerce-NOAA-NCDC".

HYDRO-35: Five- to 60-Minute Precipitation Frequency for the Eastern and Central US - NOAA Technical Memorandum NWS HYDRO-35 (Silver Spring, MD: NWS, 1977) 8 1/2x11 ins, cardstock cover, 36 pages. (Supersedes TP-40 above for the eastern 2/3 of the US for durations of 1 hr. and less).

Presents 6 US rainfall frequency maps for durations of 5, 15 and 60 minutes at return periods of 2 and 100 years. Equations are given to derive 10- and 30-min values between 2 and 100 years.

Order from: National Technical Info. Svc.
5285 Port Royal Rd.
Springfield, VA 22161
Order Desk Phone: 703-487-4650

Order No : PB 272-112
Prices: Paper $8.50
Microfiche $4.50

NOAA Atlas 2: Precipitation Frequency Atlas of the Western US (Washington, DC: GPO, 1973) 16x22 ins, cardstock cover, 11 Vols (Supersedes TP-40 above for the 11 western states) OUT OF PRINT.

This atlas contains maps for the 6- and 24-hour durations for return periods of 2, 5, 10, 25, 50, and 100 years. All maps are prepared on the same 1:2,000,000 scale.

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XI	California	48	$ 96.00

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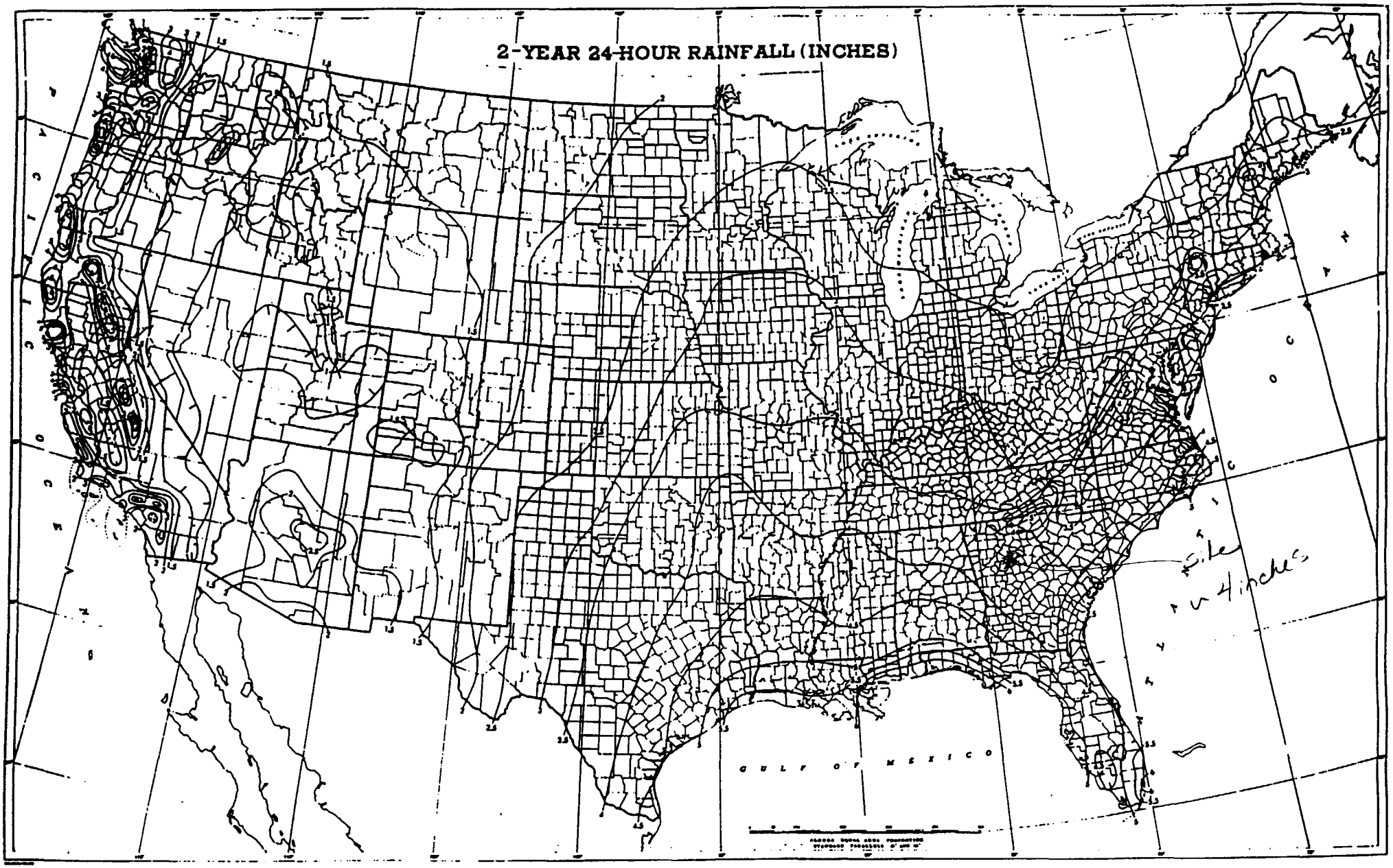
2-YEAR 24-HOUR RAINFALL (INCHES)
GULF OF MEXICO
Site ~4 inches

REFERENCE NO. 13

Water Resources Data Georgia Water Year 1992

by W.R. Stokes III and R.D. McFarlane

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT GA-92-1
Prepared in cooperation with the State of Georgia
and with other agencies

50272-101

REPORT DOCUMENTATION PAGE	1. REPORT NO. USGS/WRD/HD-93/264	2. ID-1430804	3. Recipient's Accession No.
4. Title and Subtitle WATER RESOURCES DATA GEORGIA, WATER YEAR 1992			5. Report Date MARCH 31, 1993 6.
7. Author(s) W.R. Stokes, III and R. D. McFarlane			8. Performing Organization Rept. No. USGS-WDR-GA-92-1
9. Performing Organization Name and Address U.S. Geological Survey, Water Resources Division 3039 Amwiler Road, Suite 130 Peachtree Business Center Atlanta, GA 30360-2824			10. Project/Task/Work Unit. No. 11. Contract (C) or Grant (G) No.
12. Sponsoring Organization Name and Address U.S.Geological Survey, Water Resources Division Peachtree Business Center, Suite 130 3039 Amwiler Road Atlanta, GA 30360-2824			13. Type of Report & Period Covered Annual 10/1/91 to 9/30/92 14.

15. Supplementary Notes
Prepared in cooperation with the State of Georgia and with other Federal agencies.

16. Abstract (Limit: 200 words)

Water-resources data for the 1992 water year for Georgia consists of records of stage, discharge, and quality of streams; stage and contents of lakes and reservoirs; ground-water levels; and precipitation quality. This report contains discharge records of 114 gaging stations; stage for 27 gaging stations; stage and contents for 18 lakes and reservoirs; water quality for 143 continuing-record stations; peak stage and discharge only for 101 crest-stage partial-record stations and 7 miscellaneous sites; water levels of 25 observation wells, and water quality for 1 precipitation-quality site. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Georgia.

17. Document Analysis a. Descriptors
*Georgia, *Hydrologic data, *Surface water, *Ground water, *Water Quality, *Precipitation quality, Flow rate
*Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures,
Sampling sites, Water levels, Water analyses

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

18. Availability Statement	19. Security Class (This Report)	21. No. of Pages
No restrictions on distribution. This report may be purchased from the U.S. Department of Commerce, NTIS 5285 Port Royal Road Springfield, VA 22161	Unclassified	622
	20. Security Class (This Page) Unclassified	22. Price

(See ANSI-Z39.18) See Instructions on Reverse OPTIONAL FORM 272 (4-77)
(FORMERLY NTIS-35)
Department of Commerce

ALTAMAHA RIVER BASIN

02207300 YELLOW RIVER AT MILSTEAD, GA.

LOCATION.--Lat 33°41'23", long 83°59'49", Rockdale County, Hydrologic Unit 03070103, at bridge on State Highway 20 at Milstead, 2.2 mi northeast of Conyers.
DRAINAGE AREA.--236 mi^2, approximately.
PERIOD OF RECORD.--July 1974 to current year.
REVISED RECORDS.--WDR GA-84-1: Drainage Area.
REMARKS.--Laboratory chemical analyses by the Laboratory Services Section, Environmental Protection Division, Georgia Department of Natural Resources. Field determinations of Discharge, Specific Conductance, pH, Water Temperature, Air Temperature, and Dissolved Oxygen are by the U.S. Geological Survey.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	PH WATER WHOLE LAB (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
OCT										
03...	0810	130	150	146	7.3	7.3	19.0	20.5	8.0	88
NOV										
07...	1715	150	152	159	7.6	7.3	10.0	15.5	9.1	82
DEC										
05...	0830	410	90	88	7.4	7.0	9.0	5.5	10.2	89
JAN										
09...	0805	310	112	113	7.5	7.2	9.0	11.0	12.8	114
FEB										
06...	0800	240	133	132	7.5	7.1	9.0	8.0	11.2	100
MAR										
05...	0805	330	110	108	--	7.1	15.0	15.0	10.0	101
APR										
09...	0700	280	120	114	7.3	7.3	14.0	10.5	11.0	109
MAY										
07...	0705	180	155	146	7.6	7.3	16.0	8.5	8.0	83
JUN										
04...	0700	1400	75	68	7.5	6.8	20.0	21.5	7.5	85
JUL										
09...	0640	200	128	110	7.4	7.1	25.0	22.5	5.8	72
AUG										
06...	0650	100	145	149	7.6	7.2	24.0	24.0	5.9	72
SEP										
03...	0645	180	129	129	7.2	7.2	23.0	21.5	7.3	87

average - 325

DATE	TUR-BID-ITY (NTU)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ALKA-LINITY WAT WH TOT FET LAB MG/L AS CACO3	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT								
03...	6.0	0.9	490	36	1.40	0.030	<0.030	3.3
NOV								
07...	10	8.0	170	41	1.41	0.070	0.120	2.4
DEC								
05...	40	1.6	2800	22	0.560	<0.030	0.100	5.3
JAN								
09...	13	0.2	110	33	1.28	0.040	0.100	3.6
FEB								
06...	10	1.5	560	34	1.22	0.170	0.030	3.1
MAR								
05...	15	0.8	170	27	1.14	0.030	<0.020	3.0
APR								
09...	8.0	0.5	80	29	0.480	<0.030	0.080	2.6
MAY								
07...	8.0	0.4	--	41	1.42	0.050	0.060	3.2
JUN								
04...	330	3.4	22000	18	0.620	0.080	0.090	11
JUL								
09...	14	0.5	330	28	0.890	0.050	0.110	3.0
AUG								
06...	10	0.3	170	37	1.27	0.060	0.160	3.0
SEP								
03...	11	0.2	170	34	1.13	0.050	0.020	3.0

REFERENCE NO. 14

ENDANGERED AND THREATENED SPECIES

OF THE

SOUTHEASTERN UNITED STATES

(THE RED BOOK)

Introduction Section, Volume 1

Prepared by:

U.S. Fish and Wildlife Service
Southeast Region
Atlanta, Georgia

January 1992

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Federally Listed Species by State

GEORGIA

(E=Endangered; T=Threatened; CH=Critical Habitat determined)

Mammals	General Distribution
Bat, gray (*Myotis grisescens*) - E	Northwest, West
Bat, Indiana (*Myptis sodalis*) - E	Extreme Northwest
Manatee, West Indian (*Trichechus manatus*) - E	Coastal waters
Panther, Florida (*Felis concolor coryi*) - E	Entire State
Whale, finback (*Balaenoptera physalus*) - E	Coastal waters
Whale, humpback (*Megaptera novaeangliae*) - E	Coastal waters
Whale, right (*Eubalaena glacialis*) - E	Coastal waters
Whale, sei (*Balaenoptera borealis*) - E	Coastal waters
Whale, sperm (*Physeter catodon*) - E	Coastal waters

Birds	
Eagle, bald (*Haliaeetus leucocephalus*) - E	Entire State
Falcon, American peregrine (*Falco peregrinus anatum*) - E	North
Falcon, Arctic peregrine (*Falco peregrinus tundrius*) - T	Coast, Northwest
Plover, piping (*Charadrius melodus*) - T	Coast
Stork, wood (*Mycteria americana*) - E	Southeastern swamps
Warbler, Bachman's (*Vermivora bachmanii*) - E	Entire State
Warbler, Kirtland's (*Dendroica kirtlandii*) - E	Coast
Woodpecker, ivory-billed (*Campephilus principalis*) - E	South, Southwest
Woodpecker, red-cockaded (*Picoides [=Dendrocopos] borealis*) - E	Entire State

Reptiles	
Alligator, American (*Alligator mississippiensis*) - T(S/A)*	Coastal plain
Snake, eastern indigo (*Drymarchon corais couperi*) - T	Southeast

*Alligators are biologically neither endangered nor threatened. For law enforcement purposes they are classified as "Threatened due to Similarity of Appearance." Alligator hunting is regulated in accordance with State law.

GEORGIA (Cont'd)

	General Distribution
Turtle, Kemp's (Atlantic) ridley (*Lepidochelys kempii*) - E	Coastal waters
Turtle, green (*Chelonia mydas*) - T	Coastal waters
Turtle, hawksbill (*Eretmochelys imbricata*) - E	Coastal waters
Turtle, leatherback (*Dermochelys coriacea*) - E	Coastal waters
Turtle, loggerhead (*Caretta caretta*) - T	Coastal waters
Fishes	
Darter, amber (*Percina antesella*) - E,CH	Conasauga R., Murray County
Darter, goldline (*Percina aurolineata* - T	Upper Coosa River System
Darter, snail (*Percina tanasi*) - T	S. Chickamauga Cr., Catoosa County
Logperch, Conasauga (*Percina jenkinsi*) - E,CH	Conasauga R., Murray County
Shiner, blue (*Cyprinella caerulea*) - T	Conasauga and Coosawattee Rivers, Holly, Rock, Perry, and Turniptown Creeks
Sturgeon, shortnose (*Acipenser brevirostrum*) - E	Coastal rivers
Mollusks	
Acornshell, southern (*Epioblasma othcaloogensis*) - E	Coosa River drainage
Clubshell, southern (*Pleurobema decisum*) - E	Coosa River and tributaries
Combshell, upland (*Epioblasma metastriata*) - E	Conasauga River
Kidneyshell, triangular (*Ptychobranchus greeni*) - E	Coosa drainage of the Conasauga River
Moccasinshell, Alabama (*Medionidus acutissimus*) - T	Conasauga River
Moccasinshell, Coosa (*Medionidus parvulus*) - E	Chatooga River; Conasauga River
Pocketbook, fine-lined (*Lampilis altilis*) - T	Conasauga River
Pigtoe, southern (*Pleurobema georgianum*) - E	Upper Conasauga River

GEORGIA (Cont'd)

	General Distribution
Plants	
Amphianthus pusillus (little amphianthus) - T	Piedmont Region (17 Counties)
Baptisia arachnifera (hairy rattleweed) - E	Wayne, Brantley Counties
Echinacea laevigata (smooth coneflower) - E	Stephens County
Helonias bullata (Swamp pink) - T	Union County
Isoetes melanospora (black-spored quillwort) - E	Dekalb, Rockdale, Gwinnett Counties
Isoetes tegetiformans (mat-forming quillwort) - E	Columbia, Hancock, Greene, Putnam Counties
Isotria medeoloides (small whorled pogonia) - E	Rabun County
Lindera melissifolia (pondberry) - E	Wheeler County
Marshallia mohrii (Mohr's Barbara's-buttons) - T	Floyd County
Oxypolis Canbyi (Canby's dropwort) - E	Burke, Lee, Sumter Counties
Ptilimnium nodosum (harperella) - E	Greene County
Rhus michauxii (Michaux's sumac) - E	Elbert, Columbia, Gwinnett, Muscogee, Newton, Rabun, Counties
Sagittaria secundifolia (Kral's water-plantain) - T	Chattooga County
Silena polypetala (fringed campion) - E	Bibb, Crawford, Taylor, Talbot Counties
Sarracenia oreophila (green pitcher plant) - E	Towns County
Scutellaria montana (large-flowered skullcap) - E	Floyd, Gordon, Walker Counties
Schwalbea americana (American chaffseed) - E	Baker, Dougherty Counties
Spiraea virginiana (Virginia spiraea) - T	Walker, Dade Counties
Torreya taxifolia (Florida torreya) - E	Decatur County
Trillium persistens (persistent trillium) - E	Tallulah-Tugaloo River system, Rabun and Habersham Counties
Trillium reliquum (relict trillium) - E	Clay, Columbia, Early, Talbot, Lee Counties
Xyris Tennesseensis (Tennessee yellow-eyed grass) - E	Bartow County

Press RETURN key to continue ...

CENSUS DATA

[redacted]

REFERENCE NO. 15

SPECTRUM PRINTING
LATITUDE 33:36:15 LO[redacted] 1990 POPULATION

KM	0.00-.400	.400-.810	.810-1.60	1.60-3.20	3.20-4.80	4.80-6.40	SECTOR TOTALS
S 1	0	0	0	3234	3668	0	6902
S 2	0	0	0	0	0	0	0
S 3	0	2228	0	1348	2786	0	6362
S 4	0	0	677	0	7025	3628	11330
S 5	0	0	0	0	0	4303	4303
S 6	0	0	0	0	0	267	267
RING TOTALS	~~0~~ 557	~~2228~~ 1,671	677	4582	13479	8198	29164

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Alt-Z FOR HELP| IBM PC | FDX | 2400 E71 | LOG CLOSED | PRINT OFF | ON-LINE

Population for 1/2-mile ring redistributed to 1/4-mile:

$$A_{.25} = \pi(.25)^2 = 0.19625$$

$$A_{.5} = \pi(.5)^2 = 0.785$$

$$\frac{0.19625}{0.785} = 0.25$$

$(0.25)(2228) = 557$ people (0 - 1/4 mile)

$2228 - 557 = 1,671$ people (1/4 - 1/2 mile)

SITE INSPECTION WORKSHEETS

CERCLIS IDENTIFICATION NUMBER
GAD982111767

SITE LOCATION			
SITE NAME: LEGAL, COMMON, OR DESCRIPTIVE NAME OF SITE Spectrum Printing			
STREET ADDRESS, ROUTE, OR SPECIFIC LOCATION IDENTIFIER 4132 Highway 278			
CITY Covington	STATE GA	ZIP CODE	TELEPHONE ( )
COORDINATES: LATITUDE and LONGITUDE 33° 36'15" N.Lat. / 83°52'3" W.Long.	TOWNSHIP, RANGE, AND SECTION Newton County		

OWNER/OPERATOR IDENTIFICATION					
OWNER Richard Ellenburg (Law Firm)			OPERATOR ← as of 1987 - property was in		
OWNER ADDRESS 83 Walton St. NW			OPERATOR ADDRESS this firm's trusteeship		
CITY Atlanta			CITY		
STATE GA	ZIP CODE 30318	TELEPHONE (404) 525-4000	STATE	ZIP CODE	TELEPHONE ( )

SITE EVALUATION		
AGENCY/ORGANIZATION Dynamac Corporation		
INVESTIGATOR Lori C Conway		
CONTACT Katherine S. Franklin		
ADDRESS 230 Peachtree St. Suite 500		
CITY Atlanta	STATE GA	ZIP CODE 30303
TELEPHONE (404) 681-0933		

GENERAL INFORMATION (continued)

Site Sketch: Provide a sketch of the site. Indicate all pertinent features of the site and nearby environments including sources of wastes, areas of visible and buried wastes, buildings, residences, access roads, parking areas, fences, fields, drainage patterns, water bodies, vegetation, wells, sensitive environments, and other features.

See "Investigation Report" (Weston; 9/17/87)

p. 4.

HAZARDOUS WASTE QUANTITY (HWQ) CALCULATION

For each migration pathway, evaluate HWQ associated with sources that are available (i.e., incompletely contained) to migrate to that pathway. (Note: If *Actual Contamination Targets* exist for ground water, surface water, or air migration pathways, assign the calculated HWQ score or 100, whichever is greater, as the HWQ score for that pathway.) For each source, evaluate HWQ for one or more of the four tiers (SI Table 1; HRS Table 2-5) for which data exist: constituent quantity, wastestream quantity, source volume, and source area. Select the tier that gives the highest value as the source HWQ. Select the source volume HWQ rather than source area HWQ if data for both tiers are available.

Column 1 of SI Table 1 indicates the quantity tier. Column 2 lists source types for the four tiers. Columns 3, 4, 5, and 6 provide ranges of waste amount for sites with only one source, corresponding to HWQ scores at the tops of the columns. Column 7 provides formulas to obtain source waste quantity values at sites with multiple sources.

1. Identify each source type.
2. Examine all waste quantity data available for each source. Record constituent quantity and waste stream mass or volume. Record dimensions of each source.
3. Convert source measurements to appropriate units for each tier to be evaluated.
4. For each source, use the formulas in the last column of SI Table 1 to determine the waste quantity value for each tier that can be evaluated. Use the waste quantity value obtained from the highest tier as the quantity value for the source.
5. Sum the values assigned to each source to determine the total site waste quantity.
6. Assign HWQ score from SI Table 2 (HRS Table 2-6).

Note these exceptions to evaluate soil exposure pathway HWQ (see HRS Table 5-2):

- The divisor for the area (square feet) of a landfill is 34,000.
- The divisor for the area (square feet) of a pile is 34.
- Wet surface impoundments and tanks and non-drum containers are the only sources for which volume measurements are evaluated for the soil exposure pathway.

SI TABLE 2: HWQ SCORES FOR SITES

Site WQ Total	HWQ Score
0	0
1[a] to 100	1[b]
> 100 to 10,000	100
> 10,000 to 1 million	10,000
> 1 million	1,000,000

[a] If the WQ total is between 0 and 1, round it to 1.
[b] If the hazardous constituent quantity data are not complete, assign the score of 10.

GENERAL INFORMATION (continued)

Source Description: Include description of containment per pathway for ground water (see HRS Table 3-2), surface water (see HRS Table 4-2), and air (see HRS Tables 6-3 and 6-9).

Approx. 275 drums of printing inks and ink wastes abandoned on 1.5 acre lot behind building. Analyses of sludge + ink samples from drums contained lead, chromium, copper, zinc, cyanide, methylene chloride, benzene, toluene, xylenes. Another possible source was a 1000-gal storage tank but available file material does not indicate what was stored in the tank and gives no evidence that the tank had leaked. The drums and storage tank have been removed. Therefore; the only source remaining would be contaminated soil. No followup soil sampling was conducted after the removal.

Hazardous Waste Quantity (HWQ) Calculation: SI Tables 1 and 2 (See HRS Tables 2-5, 2-6, and 5-2).

Source = Drums

275 drums = ≤ 1000 drums

HWQ = 10

Source = Cont. Soil

1.5 acre property = HWQ -10

Either way, HWQ = 10

Attach additional pages, if necessary

HWQ = 10

SI TABLE 3: WASTE CHARACTERIZATION WORKSHEET

Site Name: Spectrum Printing

References "Investigation Report" (Weston, 9/87)

Sources:

1.
2.
3.
4.
5.
6.
7.
8.
9.

SOURCE	HAZARDOUS SUBSTANCE *	TOXICITY	GROUND WATER PATHWAY		SURFACE WATER PATHWAY											AIR Pathway
					OVERLAND/FLOOD MIGRATION							GROUND WATER TO SURFACE WATER				
			GW Mobility (HRS Table 3-8)	Tox/ Mobility Value (HRS Table 3-9)	Per (HRS Tables 4-10 and 4-11)	Tox/Per Value (HRS Table 4-12)	(A) Bioac Pot. (HRS Table 4-15)	Tox/ Pers/ Bioac Value (HRS Table 4-16)	Ecotox (HRS Table 4-19)	Ecotox/ Pers (HRS Table 4-20)	Ecotox/ Pers/ Bioacc Value (HRS Table 4-21)	Tox/ Mob/ Pers Value (HRS Table 4-26)	Tox/ Mob/ Pers/ Bioacc Value (HRS Table 4-28)	Ecotox/ Mob/ Pers Value (HRS Table 4-29)	Ecotox/ Mob/ Per/ Bioacc Value (HRS Table 4-30)	Toxicity mobility (B)
1	Benzene															
1	Chromium															
1	Copper															
1	Cyanide															
1	Lead															
1	Methylene Chloride															
1	Toluene															
1	Xylene															
1	Zinc															
* Maximum Possible Value				10,000				5×10^8			5×10^8					10,000

(A) Food Chn / Env. Bioaccumulation Pot. Values

(B) gas / part. Air Pathway T/M Values

* The above-listed contaminants were detected in samples of wastes collected from the drums abandoned onsite. These drums have been removed and, thus, this source is no longer present. No soil sampling has been conducted since the removal; therefore, the source was assumed to be contaminated soil and the maximum possible tox./mob. values were assumed for all pathways to represent

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SI TABLE 4: GROUND WATER OBSERVED RELEASE SUBSTANCES (BY AQUIFER)

Sample ID	Hazardous Substance	Bckgrd. Conc.	Toxicity/ Mobility	References
		Highest Toxicity/Mobility		

No gw samples collected at site.

SI TABLE 5: GROUND WATER ACTUAL CONTAMINATION TARGETS

Well ID: _____ Level I _____ Level II _____ Population Served _____ References _____

Sample ID	Hazardous Substance	Conc. (µg/L)	Benchmark Conc. (MCL or MCLG)	% of Benchmark	Cancer Risk Conc.	% of Cancer Risk Conc.	RfD	% of RfD
			Highest Percent		Sum of Percents		Sum of Percents	

Well ID: _____ Level I _____ Level II _____ Population Served _____ References _____

Sample ID	Hazardous Substance	Conc. (µg/L)	Benchmark Conc. (MCL or MCLG)	% of Benchmark	Cancer Risk Conc.	% of Cancer Risk Conc.	RfD	% of RfD
			Highest Percent		Sum of Percents		Sum of Percents	

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Sources and Waste Characteristics

The only source identified at the site is the 85-acre landfill. In addition to municipal waste, the landfill is known to have received 28 drums of soil contaminated with PCBs, 3,600 gallons of waste lubricating oil, 1,200 tons of waste polypropylene flakes and an unknown amount of floor sweepings containing various metallic pigments (Refs. 5, p. 2; 12). The wastes were placed in trenches at the landfill, and there is no documentation of a liner. The landfill was covered with soil and seeded with grass, and no trash was visible during a 1989 site reconnaissance which NUS conducted as part of the Preliminary Reassessment (Ref. 3, p. 5).

Groundwater Migration Pathway

The Newton County Landfill is located in the Piedmont physiographic province of Georgia. The topography of the Piedmont physiographic province is characterized by low, rolling hills with valleys 50 to 300 feet deep (Ref. 13, p. 88). Elevations within a 4-mile radius of the site range from approximately 530 to 820 feet above msl. The elevation of the site ranges from 680 to 760 feet above msl (Ref. 1).

The landfill is underlain by a mantle of clay-rich, unconsolidated soil that is primarily derived from insitu chemical weathering of the underlying metamorphic bedrock (Ref. 14, p. 252). Collectively, this unconsolidated material, which consists of saprolite, soil and alluvium, is referred to as regolith. The average thickness of regolith in the Piedmont is typically 30 to 60 feet (Ref. 14, p. 252). Bedrock underlying the regolith in the vicinity of the site consists of metamorphic rocks. These rocks are primarily mica schists and biotite gneisses (Ref. 15, Plate 1 East, p. 88). The metamorphic rocks are fractured and displaced by numerous faults and zones of deformation (Ref. 16, pp. 14-15). In addition, some diabase dikes were intruded along fractures (Ref. 15, p. 55). There are no carbonate rocks and no karstic landforms within 4 miles of the site (Ref. 15, Plate 1 East, p. 88; 1). As a result, there is no evidence of karstic groundwater flow conditions in the vicinity of the landfill.

Groundwater beneath the site occurs in intergranular pore spaces in the regolith and in joints, fractures and other secondary openings in the underlying crystalline bedrock (Refs. 14, p. 252; 17, p. 10). Groundwater in the regolith is generally under water-table conditions and is primarily recharged by precipitation that falls in the area and infiltrates down to the water table (Ref. 16, pp. 7, 9). The water table in the Piedmont is typically a subdued image of the surface topography. The groundwater is held in the open spaces of

the rock materials which create an underground reservoir (Ref. 17, p. 10). Groundwater within the primary pore spaces of the regolith and within the secondary openings in the bedrock is hydraulically connected to form a single, unconfined aquifer. This aquifer is known as the crystalline bedrock aquifer. The secondary openings within the bedrock diminish in size and number with increasing depth (Ref. 16, p. 15; Ref. 17, pp. 8-10).

The depth of wells in the crystalline bedrock aquifer rarely exceeds 300 feet below land surface (bls) (Ref. 16, p. 15). Soil borings completed at the site prior to opening the landfill indicated that the water table occurred at depths between 11.3 and 19.5 feet bls (Ref. 18, pp. 1-4).

Some areas within a 4-mile radius of the site are served by the Newton County Water and Sewer Authority public water supply system. This system purchases drinking water from the city of Covington (Ref. 19). The city of Covington is located outside the 4-mile radius of the site and obtains water from two intakes: one in the Alcovy River and one in the Cornish Creek. These intakes are located 10 miles or more upstream of the site (Ref. 20). Rural residents within a 4-mile radius of the site who are not served by either water system obtain drinking water from private wells (Ref. 19). Approximately 755 residences in the 4-mile radius are not served by municipal water (Ref. 1). Multiplying the number of houses determined from a house count using topographic maps by the 1990 U.S. Bureau of the Census county conversion factor of 2.85 persons per household for Newton County, Georgia, the groundwater target population within 4 miles of the site is estimated as follows: 0 - 0.25 mile (37); 0.25 - 0.50 mile (20); 0.50 - 1 mile (80); 1 - 2 miles (325); 2 - 3 miles (681); 3 - 4 miles (1,009) (Ref. 21, p. 1).

Surface Water Migration Pathway

Runoff from the landfill is directed to one of two intermittent creeks: one which is located along the eastern side of the site and one which begins below a small pond south of the southwest corner of the site. These creeks converge, then flow southeast to an unnamed perennial creek which discharges to the Alcovy River approximately 1 mile downstream from the probable point of entry. The distance from the source to the probable point of entry in the perennial creek is approximately 2,000 feet. The Alcovy River enters Jackson Lake approximately 5 miles south of the probable point of entry (Ref. 1). The nearest gauging station is on the Alcovy River approximately 12 miles upstream of the site, north of Covington. The flow rate of the Alcovy River at this location is approximately 243 cubic feet per second (cfs) (Ref. 22). The flow rate of the unnamed creek

is not known, but is estimated to be in the range of 10 to 100 cfs based on its appearance on the topographic map (Ref 1).

No surface water intakes are located on the Alcovy River or Jackson Lake within the 15-mile target distance limit downstream of the probable point of entry, but the Alcovy River is used for recreational fishing (Ref. 23). There are no mapped wetland areas located downstream from the PPE (Ref. 1).

The topography of the site is gently sloping with a gradient of approximately 2 percent. The soils at the site are primarily sandy silt; drainage characteristics are not known (Ref. 18, pp. 1-4). No Soil Conservation Service soil type maps are available for Newton County, Georgia. The landfill is located in an area of minimal flooding (Ref. 25).

Air Migration and Soil Exposure Pathways

Selected demographic information presented below was collected to evaluate the air migration and soil exposure pathways. Possible impacts of airborne contamination were assessed using the residential population, workers, schools and sensitive environments within 4 miles of the facility. Similarly, potential effects of exposure to surficial contamination at the facility were evaluated using accessibility of the facility and human and environmental populations onsite and within a 1-mile travel distance.

There are approximately 1,220 residences in the 4-mile radius (Ref. 1). Multiplying the number of houses determined from a house count using topographic maps by the U.S. Bureau of the Census county conversion factor of 2.85 persons per household for Newton County, Georgia, the population within 4 miles of the Newton County Landfill site is estimated as follows: 0 - 0.25 mile (80); 0.25 - 0.50 mile (28); 0.50 - 1 mile (208); 1 - 2 miles (718); 2 - 3 miles (1,188); 3 - 4 miles (1,254). Sensitive environments within 4 miles of the site include a total of approximately 70 acres of mapped wetlands; no critical habitats or specific occurrences of threatened or endangered species are documented in the vicinity of the site (Refs. 1; 24, pp. 1-3).

There are no onsite residents or workers associated with the inactive site. The nearest residence is located approximately 300 feet north of the site (Refs. 1; 3, p. 6). Numerous churches are located within 4 miles of the site, and the nearest school is located approximately 1.8 miles south of the site (Ref. 1).

References

1. U.S. Geological Survey 7.5 minute series Topographic Quadrangle Maps of Georgia: Covington 1964 (Photorevised [PR] 1985), Jackson 1964 (PR 1985), Lloyd Shoals Dam 1964 (PR 1985), Porterdale 1964 (PR 1985), Stewart 1964 (PR 1985), Worthville 1964 (PR 1985), scale 1:24,000.

2. James W. Dunbar, Program Manager, Georgia Department of Natural Resources, Environmental Protection Division, Municipal Solid Waste Control Program, letter to Brian Allen, Executive Assistant, Newton County Board of Commissioners, August 28, 1985. Subject: Newton County-Lackey Road, Phase 2, Sanitary Landfill.

3. NUS Corporation Field Logbook No. F4-1180 for Newton County Landfill, TDD No. F4-8812-10. Documentation facility reconnaissance, January 4, 1989.

4. Janet G. Martin, Project Manager, NUS Corporation, letter to A.R. Hanke, Site Investigation and Support Branch, Waste Management Division, Environmental Protection Agency, March 10, 1989. Subject: Preliminary Reassessment, Newton County Landfill, Covington, Newton County, Georgia.

5. Potential Hazardous Waste Site Identification and Preliminary Assessment (EPA Form T2070-2) for Newton County Landfill Covington, Georgia, prepared by Jennifer Kaduck, December 11, 1979.

6. U.S. Department of Commerce, Climatic Atlas of the United States (Washington, D.C.: GPO, June 1968) Reprint: 1983, National Oceanic and Atmospheric Administration, excerpt, 4 pages.

7. U.S. Department of Commerce, Rainfall Frequency Atlas of the United States, Technical Paper No. 40 (Washington, D.C.: GPO, 1961), excerpt, 3 pages.

8. Denny Jackson, EPD Solid Waste Management, telephone conversation with Janet Martin, NUS Corporation, February 28, 1989. Subject: Permitting and inspection dates at Newton County Landfill site.

9. James Dunbar, EPD Solid Waste Management, telephone conversation with Janet Martin, NUS Corporation, January 9, 1989. Subject: Closure date at Newton County Landfill site.

10. Potential Hazardous Waste Site Final Strategy Determination (EPA Form No. T2070-5) for Newton County Landfill; prepared by James Dunbar, March 9, 1982.

11. Report of Trip to Newton County Landfill on March 14, 1985 filed by Barbara Ross, Environmental Engineer, Permit Review Unit, Georgia Department of Natural Resources, Environmental Protection Division, March 18, 1985.

12. Howard Barefoot, Unit Coordinator, Industrial and Hazardous Waste Management Program, Georgia Department of Natural Resources, Environmental Protection Division, letter to Frank Turner, City Manager, City of Covington, October 9, 1985. Subject: Disposal of soil from Williams Street substation, City of Covington.

13. William D. Thornbury, Regional Geomorphology of the United States, (New York: John Wiley and Sons, 1965), excerpt, 3 pages.

14. Linda Aller, et al., DRASTIC: A Standardized System for Evaluating Groundwater Pollution Potential Using Hydrogeologic Settings, EPA-600/2-87-035 (Ada, Oklahoma: EPA, April 1987), excerpt, 2 pages.

15. Keith I. McConnell and Charlotte E. Abrams, Geology of the Greater Atlanta Region, Bulletin 96 (Atlanta, Georgia: Georgia Geologic Survey, 1984), excerpt, 8 pages with attachment.

16. C.W. Cressler, C.J. Thurmond and W.G. Hester, Groundwater in the Greater Atlanta Region, Information Circular 63 (Atlanta, Georgia: Georgia Geologic Survey, 1983), excerpt, 13 pages.

17. Dean B. Radtke, et al., Occurrence and Availability of Groundwater in the Athens Region, Northeastern Georgia, Water Resources Investigations Report 86-4075 Doraville, Georgia: U.S. Geological Survey (1986), excerpt, 7 pages with attachment.

18. Georgia Department of Transportation, Soils Engineering and Geology Branch, Sanitary Landfill Investigation for Newton County Landfill, June 7, 1977; obtained from EPA file.

19. Grady Ridgeway, Executive Director, Newton County Water and Sewerage Authority, telephone conversation with Deborah Hall, Dynamac Corporation, March 3, 1993. Subject: Drinking water source for Newton County.

20. Walter Thompson, Laboratory Supervisor, City of Covington Water Department, telephone conversation with Deborah Hall, Dynamac Corporation, March 3, 1993. Subject: Drinking water source for the City of Covington and Newton County.

21. U.S. Department of Commerce, Proof Copy of table generated for 1990 CPH-1: Summary of Population and Housing Characteristics, issued by Bureau of the Census (April 1991), excerpt, 2 pages.

22. W.R. Stokes II, R.D. McFarlane and G.R. Buell, Water Resources Data, Georgia, Water Year 1991, Water-Data Report GA-91-1 (Atlanta, Georgia: U.S. Geological Survey, 1992), excerpt, 3 pages.

23. John Biagi, Fisheries Biologist, Georgia Department of Natural Resources, Game and Fish Division, telephone conversation with Deborah Hall, Dynamac Corporation, March 3, 1993. Subject: Alcovy River.

24. U.S. Fish and Wildlife Service, Endangered and Threatened Species of the Southeast United States (Atlanta, Georgia: 1992), excerpt, 5 pages.

25. Federal Emergency Management Agency, Flood Insurance Rate Map and Flood Boundary and Floodway Map, Newton County, Georgia, Panel 85 of 150, July 5, 1983.

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GROUND WATER PATHWAY WORKSHEET

LIKELIHOOD OF RELEASE	Score	Data Type	Refs
1. OBSERVED RELEASE: If sampling data or direct observation support a release to the aquifer, assign a score of 550. Record observed release substances on SI Table 4.	—		
2. POTENTIAL TO RELEASE: Depth to aquifer: _____ feet. If sampling data do not support a release to the aquifer, and the site is in karst terrain or the depth to aquifer is 70 feet or less, assign a score of 500; otherwise, assign a score of 340. Optionally, evaluate potential to release according to HRS Section 3.			
LR =	340	see attached pages	

TARGETS	Score	Data Type	Refs
Are any wells part of a blended system? Yes____ No_____ If yes, attach a page to show apportionment calculations.			
3. ACTUAL CONTAMINATION TARGETS: If analytical evidence indicates that any target drinking water well for the aquifer has been exposed to a hazardous substance from the site, evaluate the factor score for the number of people served (SI Table 5). Level I: _____ people x 10 = _____ Level II: _____ people x 1 = _____ Total =	—	No sample data	
4. POTENTIAL CONTAMINATION TARGETS: Determine the number of people served by drinking water wells for the aquifer or overlying aquifers that are not exposed to a hazardous substance from the site; record the population for each distance category in SI Table 6a or 6b. Sum the population values and multiply by 0.1.	4.4		topo CPH-1
5. NEAREST WELL: Assign a score of 50 for any Level I Actual Contamination Targets for the aquifer or overlying aquifer. Assign a score of 45 if there are Level II targets but no Level I targets. If no Actual Contamination Targets exist, assign the Nearest Well score from SI Table 6a or 6b. If no drinking water wells exist within 4 miles, assign 0.	5	assumed	topo
6. WELLHEAD PROTECTION AREA (WHPA): If any source lies within or above a WHPA for the aquifer, or if a ground water observed release has occurred within a WHPA, assign a score of 20; assign 5 if neither condition applies but a WHPA is within 4 miles; otherwise assign 0.	0	None known to be located within 4 miles.	
7. RESOURCES: Assign a score of 5 if one or more ground water resource applies; assign 0 if none applies. • Irrigation (5 acre minimum) of commercial food crops or commercial forage crops • Watering of commercial livestock • Ingredient in commercial food preparation • Supply for commercial aquaculture • Supply for a major or designated water recreation area, excluding drinking water use	5	Assumption	
Sum of Targets T=	14.4 =	14	

TABLE 3-1
GROUND WATER MIGRATION PATHWAY SCORESHEET

Factor Categories and Factors

Likelihood of Release to an Aquifer	Maximum Value	Value Assigned	
1. Observed Release	550	0	
2. Potential to Release			
2a. Containment	10	10	
2b. Net Precipitation	10	6	
2c. Depth to Aquifer	5	3	
2d. Travel Time	35	25	
2e. Potential to Release [lines 2a x (2b + 2c + 2d)]	500	340	
3. Likelihood of Release (higher of lines 1 and 2e)	550		340
Waste Characteristics			
4. Toxicity/Mobility	a		
5. Hazardous Waste Quantity	a		
6. Waste Characteristics	100		
Targets			
7. Nearest Well	50		
8. Population			
8a. Level I Concentrations	b		
8b. Level II Concentrations	b		
8c. Potential Contamination	b		
8d. Population (lines 8a + 8b + 8c)	b		
9. Resources	5		
10. Wellhead Protection Area	20		
11. Targets (lines 7 + 8d + 9 + 10)	b		
Ground Water Migration Score for an Aquifer			
12. Aquifer Score [(lines 3 x 6 x 11)/82,500][c]	100		
Ground Water Migration Pathway Score			
13. Pathway Score (S_{gw}). (highest value from line 12 for all aquifers evaluated)[c]	100		

[a]Maximum value applies to waste characteristics category.
[b]Maximum value not applicable.
[c]Do not round to nearest integer.

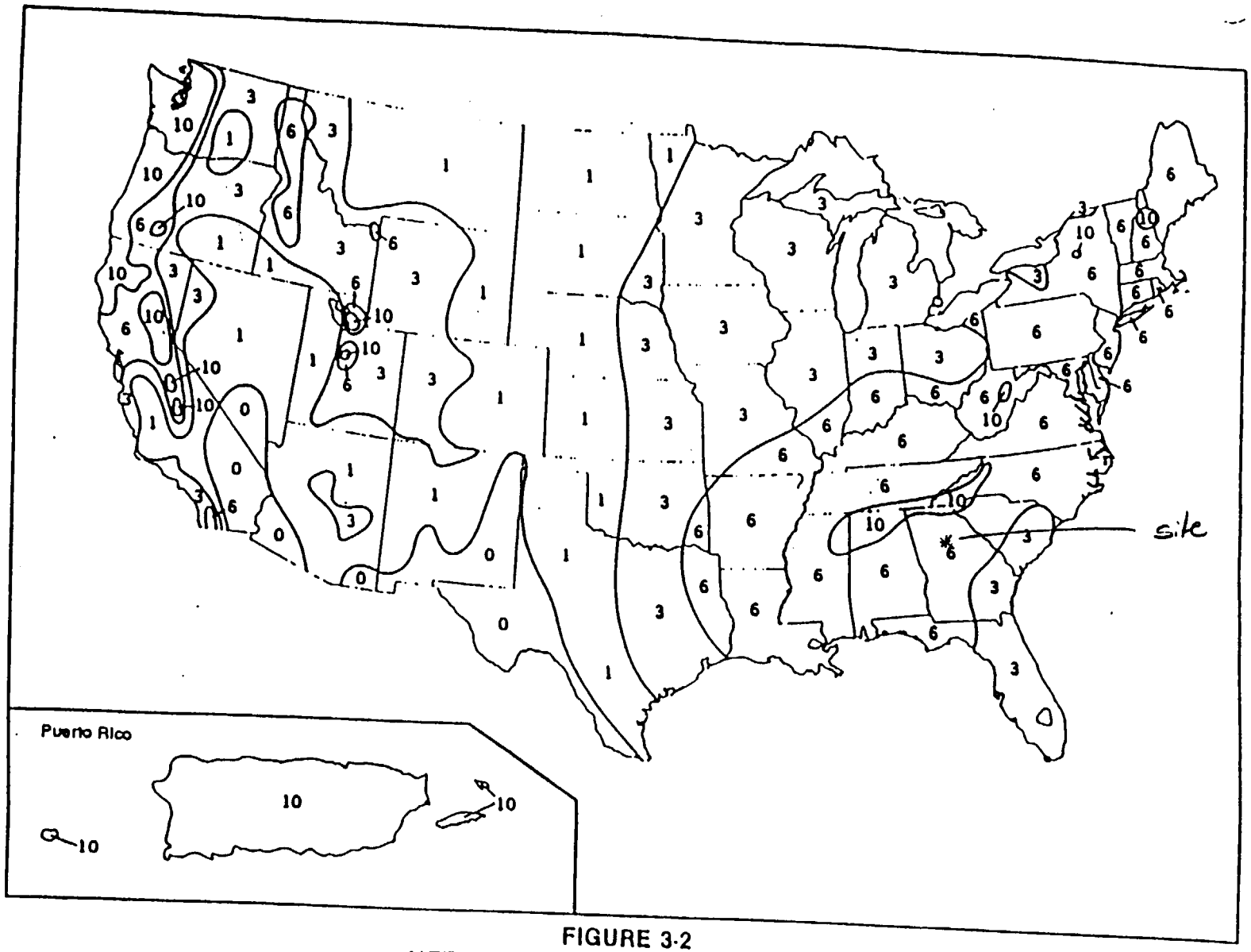

FIGURE 3-2
NET PRECIPITATION FACTOR VALUES

TABLE 3-5
DEPTH TO AQUIFER FACTOR VALUES

Depth To Aquifer[a] (feet)	Assigned Value
Less than or equal to 25	5
Greater than 25 to 250	3
Greater than 250	1

see p. C-14H

[a]Use depth of all layers between the hazardous substances and aquifer. Assign a thickness of 0 feet to any karst aquifer that underlies any portion of the sources at the site.

TABLE 3-6
HYDRAULIC CONDUCTIVITY OF GEOLOGIC MATERIALS

Type of Material	Assigned Hydraulic Conductivity[a] (cm/sec)
Clay; low permeability till (compact unfractured till); shale; unfractured metamorphic and igneous rocks	10^{-8}
Silt; loesses; silty clays; sediments that are predominantly silts; moderately permeable till (fine-grained, unconsolidated till, or compact till with some fractures); low permeability limestones and dolomites (no karst); low permeability sandstone; low permeability fractured igneous and metamorphic rocks	10^{-6}
Sands; sandy silts; sediments that are predominantly sand; highly permeable till (coarse-grained, unconsolidated or compact and highly fractured); peat; moderately permeable limestones and dolomites (no karst); moderately permeable sandstone; moderately permeable fractured igneous and metamorphic rocks	10^{-4}
Gravel; clean sand; highly permeable fractured igneous and metamorphic rocks; permeable basalt; karst limestones and dolomites	10^{-2}

Sandy silt assumed (see attached geo. writeup)

[a]Do not round to nearest integer.

TABLE 3-7
TRAVEL TIME FACTOR VALUES[a]

Hydraulic Conductivity (cm/sec)	Thickness of Lowest Hydraulic Conductivity Layer(s)[b] (feet)			
	Greater than 3 to 5	Greater than 5 to 100	Greater than 100 to 500	Greater than 500
Greater than or equal to 10^{-3}	35	35	35	25
Less than 10^{-3} to 10^{-5}	35	25	15	15
Less than 10^{-5} to 10^{-7}	15	15	5	5
Less than 10^{-7}	5	5	1	1

[a]If depth to aquifer is 10 feet or less or if, for the interval being evaluated, all layers that underlie a portion of the sources at the site are karst, assign a value of 35.
[b]Consider only layers at least 3 feet thick. Do not consider layers or portions of layers within the first 10 feet of the depth to the aquifer.

see pages C-15c & C-15d and attached geology

SI TABLE 6 (From HRS TABLE 3-12): VALUES FOR POTENTIAL CONTAMINATION GROUND WATER TARGET POPULATIONS (continued)

SI Table 6b: Karst Aquifers

Distance from Site	Pop.	Nearest Well (choose highest)	Population Served by Wells within Distance Category												Pop. Value	Rel.
			1 to 10	11 to 30	31 to 100	101 to 300	301 to 1000	1001 to 3000	3001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	300,001 to 1,000,000	1,000,000 to 3,000,000		
0 to $\frac{1}{4}$ mile		20	4	17	53	164	522	1,633	5,214	16,325	52,137	163,246	521,360	1,632,455		
> $\frac{1}{4}$ to $\frac{1}{2}$ mile		20	2	11	33	102	324	1,013	3,233	10,122	32,325	101,213	323,243	1,012,122		
> $\frac{1}{2}$ to 1 mile		20	2	9	26	82	261	817	2,607	8,163	26,068	81,623	260,680	816,227		
> 1 to 2 miles		20	2	9	26	82	261	817	2,607	8,163	26,068	81,623	260,680	816,227		
> 2 to 3 miles		20	2	9	26	82	261	817	2,607	8,163	26,068	81,623	260,680	816,227		
>3 to 4 miles		20	2	9	26	82	261	817	2,607	8,163	26,068	81,623	260,680	816,227		

Nearest Well = [ ]

Sum = [ ]

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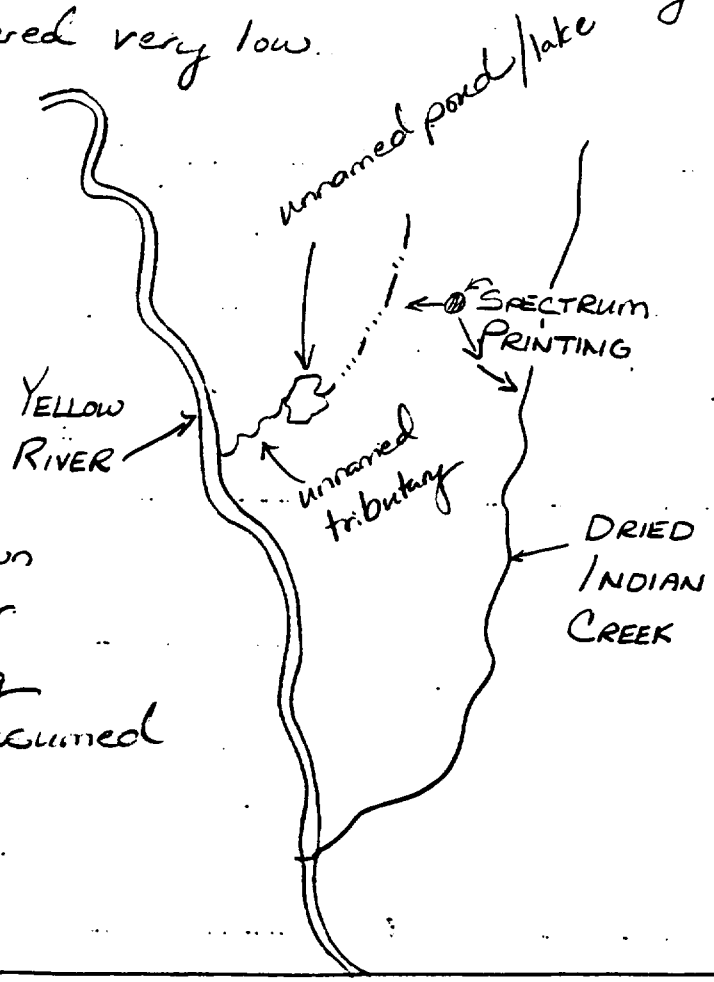
SURFACE WATER PATHWAY

Sketch of the Surface Water Migration Route:
Label all surface water bodies. Include runoff route and drainage direction, probable point of entry, and 15-mile target distance limit. Mark sample locations, intakes, fisheries, and sensitive environments. Indicate flow directions, tidal influence, and rate.

According to the Site Inspection Form, runoff from the facility would either enter storm drains or flow into Dried Indian Creek. To present a "worst-case" scenario, it was assumed that runoff would flow overland and enter the nearest perennial surface water bodies, both of which ultimately flow into the Yellow River. In both cases, however, runoff would have to flow more than 0.25 mile through an urban area to reach perennial surface water, which seems highly unlikely. Therefore, the actual viability of this pathway is considered very low.



Yellow River is a known fishery; all other water bodies along pathway were assumed to be fished for "worst-case".

SURFACE WATER PATHWAY

Surface Water Observed Release Substances Summary Table

On SI Table 7, list the hazardous substances detected in surface water samples for the watershed, which can be attributed to the site. Include only those substances in observed releases (direct observation) or with concentration levels significantly above background levels. Obtain toxicity, persistence, bioaccumulation potential, and ecotoxicity values from SCDM. Enter the highest toxicity/persistence, toxicity/persistence/bioaccumulation, and ecotoxicity/persistence/ecobioaccumulation values in the spaces provided.

- TP = Toxicity x Persistence
- TPB = TP x bioaccumulation
- ETPB = EP x bioaccumulation (EP = ecotoxicity x persistence)

Drinking Water Actual Contamination Targets Summary Table

For an observed release at or beyond a drinking water intake, on SI Table 8 enter each hazardous substance by sample ID and the detected concentration. For surface water sediment samples detecting a hazardous substance at or beyond an intake, evaluate the intake as Level II contamination. Obtain benchmark, cancer risk, and reference dose concentrations for each substance from SCDM. For MCL and MCLG benchmarks, determine the highest percentage of benchmark obtained for any substance. For cancer risk and reference dose, sum the percentages of the substances listed. If benchmark, cancer risk, or reference dose concentrations are not available for a particular substance, enter N/A for the percentage. If the highest benchmark percentage or the percentage sum calculated for cancer risk or reference dose equals or exceeds 100%, evaluate the population served by the intake as a Level I target. If the percentages are less than 100% or all are N/A, evaluate the population served by the intake as a Level II target.

SURFACE WATER PATHWAY
LIKELIHOOD OF RELEASE AND DRINKING WATER THREAT WORKSHEET

LIKELIHOOD OF RELEASE- OVERLAND/FLOOD MIGRATION	Score	Data Type	Refs
1. OBSERVED RELEASE: If sampling data or direct observation support a release to surface water in the watershed, assign a score of 550. Record observed release substances on SI Table 7.			
2. POTENTIAL TO RELEASE: Distance to surface water: ____(feet) If sampling data do not support a release to surface water in the watershed, use the table below to assign a score from the table below based on distance to surface water and flood frequency.			

Distance to surface water <2500 feet	500
Distance to surface water >2500 feet, and:	
Site in annual or 10-yr floodplain	500
Site in 100-yr floodplain	400
Site in 500-yr floodplain	300
Site outside 500-yr floodplain	100

Optionally, evaluate surface water potential to release according to HRS Section 4.1.2.1.2

LR = 170 see p. C-23+

LIKELIHOOD OF RELEASE GROUND WATER TO SURFACE WATER MIGRATION	Score	Data Type	Refs
1. OBSERVED RELEASE: If sampling data or direct observation support a release to surface water in the watershed, assign a score of 550. Record observed release substances on SI Table 7.			
NOTE: Evaluate ground water to surface water migration only for a surface water body that meets all of the following conditions:			
1) A portion of the surface water is within 1 mile of site sources having a containment factor greater than 0.			
2) No aquifer discontinuity is established between the source and the above portion of the surface water body.	Not scored		
3) The top of the uppermost aquifer is at or above the bottom of the surface water.			
Elevation of top of uppermost aquifer _____			
Elevation of bottom of surface water body _____			
2. POTENTIAL TO RELEASE: Use the ground water potential to release. Optionally, evaluate surface water potential to release according to HRS Section 3.1.2.			

LR = _____

TABLE 4-1
SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET

Factor Categories and Factors	Maximum Value	Value Assigned	
DRINKING WATER THREAT			
Likelihood of Release			
1. Observed Release	550	0	
2. Potential to Release by Overland Flow			
2a. Containment	10	10	
2b. Runoff	25	1	
2c. Distance to Surface Water	25	9	
2d. Potential to Release by Overland Flow (lines 2a x [2b + 2c])	500	100	
3. Potential to Release by Flood			
3a. Containment (Flood)	10	10	
3b. Flood Frequency	50	7	
3c. Potential to Release by Flood (lines 3a x 3b)	500	70	
4. Potential to Release (lines 2d + 3c, subject to a maximum of 500)	500	170	
5. Likelihood of Release (higher of lines 1 and 4)	550		170
Waste Characteristics			
6. Toxicity/Persistence	a		
7. Hazardous Waste Quantity	a		
8. Waste Characteristics	100		
Targets			
9. Nearest Intake	50		
10. Population			
10a. Level I Concentrations	b		
10b. Level II Concentrations	b		
10c. Potential Contamination	b		
10d. Population (lines 10a + 10b + 10c)	b		
11. Resources	5		

TABLE 4-3
DRAINAGE AREA VALUES

Drainage Area (acres)	Assigned Value
Less than 50	1
50 to 250	2
Greater than 250 to 1,000	3
Greater than 1,000	4

topo

TABLE 4-4
SOIL GROUP DESIGNATIONS

Surface Soil Description	Soil Group Designation
Coarse-textured soils with high infiltration rates (for example, sands, loamy sands)	A
Medium-textured soils with moderate infiltration rates (for example, sandy loams, loams)	B
Moderately fine-textured soils with low infiltration rates (for example, silty loams, silts, sandy clay loams)	C
Fine-textured soils with very low infiltration rates (for example, clays, sandy clays, silty clay loams, clay loams, silty clays); or impermeable surfaces (for example, pavement)	D

See p. C-14C - no soil survey available - Sandy silt is soil type in area nearby

TABLE 4-5
RAINFALL/RUNOFF VALUES

2-Year, 24-Hour Rainfall (inches)	Soil Group Designation			
	A	B	C	D
Less than 1.0	0	0	2	3
1.0 to less than 1.5	0	1	2	3
1.5 to less than 2.0	0	2	3	4
2.0 to less than 2.5	1	2	3	4
2.5 to less than 3.0	2	3	4	4
3.0 to less than 3.5	2	3	4	5
3.5 or greater	3	4	5	6

Rainfall Freq Atlas

TABLE 4-6
RUNOFF FACTOR VALUES

Drainage Area Value	Rainfall/Runoff Value						
	0	1	2	3	4	5	6
1	0	0	0	1	1	1	1
2	0	0	1	1	2	3	4
3	0	0	1	3	7	11	15
4	0	1	2	7	17	25	25

TABLE 4-7
DISTANCE TO SURFACE WATER FACTOR VALUES

Distance	Assigned Value
Less than 100 feet	25
100 feet to 500 feet	20
Greater than 500 feet to 1,000 feet	16
Greater than 1,000 feet to 2,500 feet	9
Greater than 2,500 feet to 1.5 miles	6
Greater than 1.5 miles to 2 miles	3

Runoff flows > 0.25 mile = 1340 feet

TABLE 4-9
FLOOD FREQUENCY FACTOR VALUES

Floodplain Category	Assigned Value
Source floods annually	50
Source in 10-year floodplain	50
Source in 100-year floodplain	25
Source in 500-year floodplain	7
None of above	0

Estimated based on topo

SI TABLE 9 (From HRS Table 4-14): DILUTION-WEIGHTED POPULATION VALUES FOR POTENTIAL CONTAMINATION FOR SURFACE WATER MIGRATION PATHWAY

Type of Surface Water Body	Pop.	Nearest Intake	Number of people									Pop. Value
			0	1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	
Minimal Stream (<10 cfs)		20	0	4	17	53	164	522	1,633	5,214	16,325	
Small to moderate stream (10 to 100 cfs)		2	0	0.4	2	5	16	52	163	521	1,633	
Moderate to large stream (> 100 to 1,000 cfs)		0	0	0.04	0.2	0.5	2	5	16	52	163	
Large Stream to river (>1,000 to 10,000 cfs)		0	0	0.004	0.02	0.05	0.2	0.5	2	5	16	
Large River (> 10,000 to 100,000 cfs)		0	0	0	0.002	0.005	0.02	0.05	0.2	0.5	2	
Very Large River (>100,000 cfs)		0	0	0	0	0.001	0.002	0.005	0.02	0.05	0.2	
Shallow ocean zone or Great Lake (depth < 20 feet)		0	0	0	0.002	0.005	0.02	0.05	0.2	0.5	2	
Moderate ocean zone or Great Lake (Depth 20 to 200 feet)		0	0	0	0	0.001	0.002	0.005	0.02	0.05	0.2	
Deep ocean zone or Great Lake (depth > 200 feet)		0	0	0	0	0	0.001	0.003	0.008	0.03	0.08	
3-mile mixing zone in quiet flowing river (≥ 10 cfs)		10	0	2	9	26	82	261	817	2,607	8,163	

Nearest Intake = [ ]

Sum = [ ]

No intakes

References _____

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SURFACE WATER PATHWAY

Human Food Chain Actual Contamination Targets Summary Table

On SI Table 10, list the hazardous substances detected in sediment, aqueous, sessile benthic organism tissue, or fish tissue samples (taken from fish caught within the boundaries of the observed release) by sample ID and concentration. Evaluate fisheries within the boundaries of observed releases detected by sediment or aqueous samples as Level II, if at least one observed release substance has a bioaccumulation potential factor value of 500 or greater (see SI Table 7). Obtain benchmark, cancer risk, and reference dose concentrations from SCDM. For FDAAL benchmarks, determine the highest percentage of benchmark obtained for any substance. For cancer risk and reference dose, sum the percentages for the substances listed. If benchmark, cancer risk, or reference dose concentrations are not available for a particular substance, enter N/A for the percentage. If the highest benchmark percentage sum calculated for cancer risk or reference dose equals or exceeds 100%, evaluate this portion of the fishery as subject to Level I concentrations. If the percentages are less than 100% or all are N/A, evaluate the fishery as a Level II target.

Sensitive Environment Actual Contamination Targets Summary Table

On SI Table 11, list each hazardous substance detected in aqueous or sediment samples at or beyond wetlands or a surface water sensitive environment by sample ID. Record the concentration. If contaminated sediments or tissues are detected at or beyond a sensitive environment, evaluate the sensitive environment as Level II. Obtain benchmark concentrations from SCDM. For AWQC/AALAC benchmarks, determine the highest percentage of benchmark of the substances detected in aqueous samples. If benchmark concentrations are not available for a particular substance, enter N/A for the percentage. If the highest benchmark percentage equals or exceeds 100%, evaluate that part of the sensitive environment subject to Level I concentrations. If the percentage is less than 100%, or all are N/A, evaluate the sensitive environment as Level II.

TABLE 4-14 (Concluded)

Type of Surface Water Body[b]	Number of People				
	30,001 to 100,000	100,001 to 300,000	300,001 to 1,000,000	1,000,001 to 3,000,000	3,000,001 to 10,000,000
Minimal stream (< 10 cfs)	52,137	163,246	521,360	1,632,455	5,213,590
Small to moderate stream (10 to 100 cfs)	5,214	16,325	52,136	163,245	521,359
Moderate to large stream (> 100 to 1,000 cfs)	521	1,633	5,214	16,325	52,136
Large stream to river (> 1,000 to 10,000 cfs)	52	163	521	1,632	5,214
Large river (> 10,000 to 100,000 cfs)	5	16	52	163	521
Very large river (> 100,000 cfs)	0.5	2	5	16	52
Shallow ocean zone or Great Lake (depth < 20 feet)	5	16	52	163	521
Moderate ocean zone or Great Lake (depth 20 to 200 feet)	0.5	2	5	16	52
Deep zone or Great Lake (depth > 200 feet)	0.3	1	3	8	26
3-mile mixing zone in quiet flowing river (≥ 10 cfs)	26,068	81,623	260,680	816,227	2,606,795

[a]Round the number of people to nearest integer. Do not round the assigned dilution-weighted population value to nearest integer.

[b]Treat each lake as a separate type of water body and assign it a dilution-weighted population value using the surface water body type with the same dilution weight from Table 4-13 as the lake. If drinking water is withdrawn from coastal tidal water or the ocean, assign a dilution-weighted population value to it using the surface water body type with the same dilution weight from Table 4-13 as the coastal tidal water or the ocean zone.

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SI TABLE 10: HUMAN FOOD CHAIN ACTUAL CONTAMINATION TARGETS FOR WATERSHED

Fishery ID: _____ Sample Type _____ Level I _____ Level II _____ References _____

Sample ID	Hazardous Substance	Conc. (mg/kg)	Benchmark Concentration (FDAAL)	% of Benchmark	Cancer Risk Concentration.	% of Cancer Risk Concentration	RfD	% of RfD
			Highest Percent		Sum of Percents		Sum of Percents	

SI TABLE 11: SENSITIVE ENVIRONMENT ACTUAL CONTAMINATION TARGETS FOR WATERSHED

Environment ID: _____ Sample Type _____ Level I _____ Level II _____ Environment Value _____

Sample ID	Hazardous Substance	Conc.. (µg/L)	Benchmark Concentration (AWQC or AALAC)	% of Benchmark	References
			Highest Percent		

Environment ID: _____ Sample Type _____ Level I _____ Level II _____ Environment Value _____

Sample ID	Hazardous Substance	Conc.. (µg/L)	Benchmark Concentration (AWQC or AALAC)	% of Benchmark	References
			Highest Percent		

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SURFACE WATER PATHWAY (continued)
HUMAN FOOD CHAIN THREAT WORKSHEET

HUMAN FOOD CHAIN THREAT TARGETS	Score	Data Type	Refs
Record the water body type and flow for each fishery within the target distance limit. If there is no fishery within the target distance limit, assign a score of 0 at the bottom of this page.			
Fishery Name Yellow River Water Body _____ Flow 325 cfs	← USGS Water Resources Morris Telecom		
Species _____ Production _____ lbs/yr Species _____ Production _____ lbs/yr			
Fishery Name Dried Ind. Creek Water Body _____ Flow 10-100 cfs	← estimated flow from topo assumed fishery use		
Species _____ Production _____ lbs/yr Species _____ Production _____ lbs/yr			
Fishery Name unnamed pond Water Body _____ Flow <10 cfs	estimated flow rate assumed fishery use		
Species _____ Production _____ lbs/yr Species _____ Production _____ lbs/yr			

FOOD CHAIN INDIVIDUAL

7. ACTUAL CONTAMINATION FISHERIES:

If analytical evidence indicates that a fishery has been exposed to a hazardous substance with a bioaccumulation factor greater than or equal to 500 (SI Table 10), assign a score of 50 if there is a Level I fishery. Assign 45 if there is a Level II fishery, but no Level I fishery.

8. POTENTIAL CONTAMINATION FISHERIES:

If there is a release of a substance with a bioaccumulation factor greater than or equal to 500 to a watershed containing fisheries within the target distance limit, but there are no Level I or Level II fisheries, assign a score of 20.

If there is no observed release to the watershed, assign a value for potential contamination fisheries from the table below using the lowest flow at all fisheries within the target distance limit:

Lowest Flow	FCI Value
<10 cfs	20
10 to 100 cfs	2
>100 cfs, coastal tidal waters, oceans, or Great Lakes	0
3-mile mixing zone in quiet flowing river	10

FCI Value = 20

SUM OF TARGETS T = 20

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SURFACE WATER PATHWAY (continued)
ENVIRONMENTAL THREAT WORKSHEET

When measuring length of wetlands that are located on both sides of a surface water body, sum both frontage lengths. For a sensitive environment that is more than one type, assign a value for each type.

ENVIRONMENTAL THREAT TARGETS	Score	Data Type	Refs

Record the water body type and flow for each surface water sensitive environment within the target distance (see SI Table 12). If there is no sensitive environment within the target distance limit, assign a score of 0 at the bottom of the page.

Environment Name	Water Body Type	Flow
		cfs
		cfs
		cfs
		cfs
		cfs

9. ACTUAL CONTAMINATION SENSITIVE ENVIRONMENTS: If sampling data or direct observation indicate any sensitive environment has been exposed to a hazardous substance from the site, record this information on SI Table 11, and assign a factor value for the environment (SI Tables 13 and 14).

Environment Name	Environment Type and Value (SI Tables 13 & 14)	Multiplier (10 for Level I, 1 for Level II)	Product
		x =	
		x =	
		x =	
		x =	
		Sum =	

10. POTENTIAL CONTAMINATION SENSITIVE ENVIRONMENTS:

Flow	Dilution Weight (SI Table 12)	Environment Type and Value (SI Tables 13 & 14)	Pot. Cont.	Product
cfs	0.1 x	75 x	0.1 =	0.75
cfs	x	x	0.1 =	
cfs	x	x	0.1 =	
cfs	x	x	0.1 =	
cfs	x	x	0.1 =	
			Sum =	0.75

T = 1.00

One endangered plant species found in Newton County was assumed to be located along one of the low-flow surface water bodies on the pathway; although the exact location of this species is unknown.

Ref. = Red Book

Endangered sp. — Michaux's sumac

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SI TABLE 13 (HRS TABLE 4-23): SURFACE WATER AND AIR SENSITIVE ENVIRONMENTS VALUES

SENSITIVE ENVIRONMENT	ASSIGNED VALUE
Critical habitat for Federal designated endangered or threatened species Marine Sanctuary National Park Designated Federal Wilderness Area Ecologically important areas identified under the Coastal Zone Wilderness Act Sensitive Areas identified under the National Estuary Program or Near Coastal Water Program of the Clean Water Act Critical Areas identified under the Clean Lakes Program of the Clean Water Act (subareas in lakes or entire small lakes) National Monument (air pathway only) National Seashore Recreation Area National Lakeshore Recreation Area	100
Habitat known to be used by Federal designated or proposed endangered or threatened species National Preserve National or State Wildlife Refuge Unit of Coastal Barrier Resources System Coastal Barrier (undeveloped) Federal land designated for the protection of natural ecosystems Administratively Proposed Federal Wilderness Area Spawning areas critical for the maintenance of fish/shellfish species within a river system, bay, or estuary Migratory pathways and feeding areas critical for the maintenance of anadromous fish species within river reaches or areas in lakes or coastal tidal waters in which the fish spend extended periods of time Terrestrial areas utilized by large or dense aggregations of vertebrate animals (semi-aquatic foragers) for breeding National river reach designated as recreational	75
Habitat known to be used by State designated endangered or threatened species Habitat known to be used by a species under review as to its Federal endangered or threatened status Coastal Barrier (partially developed) Federally designated Scenic or Wild River	50
State land designated for wildlife or game management State designated Scenic or Wild River State designated Natural Area Particular areas, relatively small in size, important to maintenance of unique biotic communities	25
State designated areas for the protection of maintenance of aquatic life under the Clean Water Act	5
Wetlands See SI Table 14 (Surface Water Pathway) or SI Table 23 (Air Pathway)	

SI TABLE 14 (HRS TABLE 4-24): SURFACE WATER WETLANDS FRONTAGE VALUES

Total Length of Wetlands	Assigned Value
Less than 0.1 mile	0
0.1 to 1 mile	25
Greater than 1 to 2 miles	50
Greater than 2 to 3 miles	75
Greater than 3 to 4 miles	100
Greater than 4 to 8 miles	150
Greater than 8 to 12 miles	250
Greater than 12 to 16 miles	350
Greater than 16 to 20 miles	450
Greater than 20 miles	500

SI TABLE 12 (HRS Table 4-13): SURFACE WATER DILUTION WEIGHTS

Type of Surface Water Body		Assigned Dilution Weight
Descriptor	Flow Characteristics	
Minimal stream	< 10 cfs	1
Small to moderate stream	10 to 100 cfs	0.1
Moderate to large stream	> 100 to 1,000 cfs	0.01
Large stream to river	> 1,000 to 10,000 cfs	0.001
Large river	> 10,000 to 100,000 cfs	0.0001
Very large river	> 100,000 cfs	0.00001
Coastal tidal waters	Flow not applicable; depth not applicable	~~0.001~~ 0.0001
Shallow ocean zone or Great Lake	Flow not applicable; depth less than 20 feet	0.001 0.0001
Moderate depth ocean zone or Great Lake	Flow not applicable; depth 20 to 200 feet	~~0.0001~~ 0.00001
Deep ocean zone or Great Lake	Flow not applicable; depth greater than 200 feet	0.000005
3-mile mixing zone in quiet flowing river	10 cfs or greater	0.5

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SURFACE WATER PATHWAY (concluded)
WASTE CHARACTERISTICS, THREAT, AND PATHWAY SCORE SUMMARY

WASTE CHARACTERISTICS	Score
~~14.~~ 11. If an Actual Contamination Target (drinking water, human food chain, or environmental threat) exists for the watershed, assign the calculated hazardous waste quantity score, or a score of 100, whichever is greater.	10
~~15.~~ 12. Assign the highest value from SI Table 7 (observed release) or SI Table 3 (no observed release) for the hazardous substance waste characterization factors below. Multiply each by the surface water hazardous waste quantity score and determine the waste characteristics score for each threat.	

	Substance Value		HWQ		Product	WC Score (from Table) ~~(Maximum of 100)~~
Drinking Water Threat Toxicity/Persistence	10,000	x	10	=	100,000	18 max = 100
Food Chain Threat Toxicity/Persistence Bioaccumulation	5×10^8	x	10	=	5×10^9	180 max = 1000
Environmental Threat Ecotoxicity/Persistence/ Ecobioaccumulation	5×10^8	x	10	=	5×10^9	180 max = 1000

Product	WC Score
0	0
>0 to <10	1
10 to <100	2
100 to <1,000	3
1,000 to < 10,000	6
10,000 to <1E + 05	10
1E + 05 to <1E + 06	18
1E + 06 to <1E + 07	32
1E + 07 to <1E + 08	56
1E + 08 to <1E + 09	100
1E + 09 to <1E + 10	180
1E + 10 to <1E + 11	320
1E + 11 to <1E + 12	560
1E + 12 or greater	1000

SURFACE WATER PATHWAY THREAT SCORES

Threat	Likelihood of Release (LR) Score	Targets (T) Score	Pathway Waste Characteristics (WC) Score (determined above)	Threat Score $\frac{LR \times T \times WC}{82,500}$
Drinking Water	170	5	18	(maximum of 100) 0.19
Human Food Chain	170	20	180	(maximum of 100) 7.42
Environmental	170	1	180	(maximum of 60) 0.37

SURFACE WATER PATHWAY SCORE (Drinking Water Threat + Human Food Chain Threat + Environmental Threat)	(maximum of 100) 7.98

SOIL EXPOSURE PATHWAY

If there is no observed contamination (e.g., ground water plume with no known surface source), do not evaluate the soil exposure pathway. Discuss evidence for no soil exposure pathway.

Soil Exposure Resident Population Targets Summary

For each property (duplicate page 35 as necessary):

If there is an area of observed contamination on the property and within 200 feet of a residence, school, or day care center, enter on Table 15 each hazardous substance by sample ID. Record the detected concentration. Obtain cancer risk, and reference dose concentrations from SCDM. Sum the cancer risk and reference dose percentages for the substances listed. If cancer risk or reference dose concentrations are not available for a particular substance, enter N/A for the percentage. If the percentage sum calculated for cancer risk or reference dose equals or exceeds 100%, evaluate the residents and students as Level I. If both percentages are less than 100% or all are N/A, evaluate the targets as Level II.

SI TABLE 15: SOIL EXPOSURE RESIDENT POPULATION TARGETS

Residence ID: _____ Level I _____ Level II _____ Population _____

Sample ID	Hazardous Substance	Conc. (mg/kg)	Cancer Risk Concentration	% of Cancer Risk Conc.	RfD	% of RfD	Toxicity Value	References
			Highest Percent		Sum of Percents		Sum of Percents	

Residence ID: _____ Level I _____ Level II _____ Population _____

Sample ID	Hazardous Substance	Conc. (mg/kg)	Cancer Risk Concentration	% of Cancer Risk Conc.	RfD	% of RfD	Toxicity Value	References
			Highest Percent		Sum of Percents		Sum of Percents	

Residence ID: _____ Level I _____ Level II _____ Population _____

Sample ID	Hazardous Substance	Conc. (mg/kg)	Cancer Risk Concentration	% of Cancer Risk Conc.	RfD	% of RfD	Toxicity Value	References
			Highest Percent		Sum of Percents		Sum of Percents	

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SOIL EXPOSURE PATHWAY WORKSHEET
RESIDENT POPULATION THREAT

LIKELIHOOD OF EXPOSURE	Score	Data Type	Refs
1. OBSERVED CONTAMINATION: If evidence indicates presence of observed contamination (depth of 2 feet or less), assign a score of 550; otherwise, assign a 0. Note that a likelihood of exposure score of 0 results in a soil exposure pathway score of 0.	550		assumption
LE =	550		

TARGETS

	Score	Data Type	Refs
2. RESIDENT POPULATION: Determine the number of people living or attending school or day care on a property with an area of observed contamination and whose residence, school, or day care center, respectively, is on or within 200 feet of the area of observed contamination. Level I: _____ people x 10 = _____ Level II: _____ people x 1 = _____ Sum =	—		
3. RESIDENT INDIVIDUAL: Assign a score of 50 if any Level I resident population exists. Assign a score of 45 if there are Level II targets but no Level I targets. If no resident population exists (*i.e.*, no Level I or Level II targets), assign 0 (HRS Section 5.1.3).	—		
4. WORKERS: Assign a score from the table below for the total number of workers at the site and nearby facilities with areas of observed contamination associated with the site.	5		current property usage unknown 1-100 workers assumed for worst-case

Number of Workers	Score
0	0
1 to 100	5
101 to 1,000	10
>1,000	15

	Score	Data Type	Refs
5. TERRESTRIAL SENSITIVE ENVIRONMENTS: Assign a value for each terrestrial sensitive environment (SI Table 16) in an area of observed contamination.	none		
Sum =			
6. RESOURCES: Assign a score of 5 if any one or more of the following resources is present on an area of observed contamination at the site; assign 0 if none applies. • Commercial agriculture • Commercial silviculture • Commercial livestock production or commercial livestock grazing	0		
Total of Targets T=	5		

Terrestrial Sensitive Environment Type	Value

SI TABLE 16 (HRS TABLE 5-5): SOIL EXPOSURE PATHWAY TERRESTRIAL SENSITIVE ENVIRONMENT VALUES

TERRESTRIAL SENSITIVE ENVIRONMENT	*ASSIGNED VALUE*
Terrestrial critical habitat for Federal designated endangered or threatened species National Park Designated Federal Wilderness Area National Monument	100
Terrestrial habitat known to be used by Federal designated or proposed threatened or endangered species National Preserve (terrestrial) National or State terrestrial Wildlife Refuge Federal land designated for protection of natural ecosystems Administratively proposed Federal Wilderness Area Terrestrial areas utilized by large or dense aggregations of animals (vertebrate species) for breeding	75
Terrestrial habitat used by State designated endangered or threatened species Terrestrial habitat used by species under review for Federal designated endangered or threatened status	50
State lands designated for wildlife or game management State designated Natural Areas Particular areas, relatively small in size, important to maintenance of unique biotic communities	25

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SOIL EXPOSURE PATHWAY WORKSHEET
NEARBY POPULATION THREAT

LIKELIHOOD OF EXPOSURE		Score	Data Type	Ref.
7. Attractiveness/Accessibility (from SI Table 17 or HRS Table 5-6)	Value 10			
Area of Contamination (from SI Table 18 or HRS Table 5-7)	Value 20			
Likelihood of Exposure (from SI Table 19 or HRS Table 5-8)		5		
	LE =	5		

note: if there is no area of observed contamination, LE = 0.

TARGETS	Score	Data Type	Ref.
8. Assign a score of 0 if Level I or Level II resident individual has been evaluated or if no individuals live within 1/4 mile travel distance of an area of observed contamination. Assign a score of 1 if nearby population is within 1/4 mile travel distance and no Level I or Level II resident population has been evaluated.	1		Topo
9. Determine the population within 1 mile travel distance that is not exposed to a hazardous substance from the site (*i.e.*, properties that are not determined to be Level I or Level II); record the population for each distance category in SI Table 20 (HRS Table 5-10). Sum the population values and multiply by 0.1.	3.6		GEMS
T =	4.6 =	5	

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SI TABLE 17 (HRS TABLE 5-6): ATTRACTIVENESS/ACCESSIBILITY VALUES

Area of Observed Contamination	Assigned Value
Designated recreational area	100
Regularly used for public recreation (for example, vacant lots in urban area)	75
Accessible and unique recreational area (for example, vacant lots in urban area)	75
Moderately accessible (may have some access improvements–for example, gravel road) with some public recreation use	50
Slightly accessible (for example, extremely rural area with no road improvement) with some public recreation use	25
Accessible with no public recreation use	10
Surrounded by maintained fence or combination of maintained fence and natural barriers	5
Physically inaccessible to public, with no evidence of public recreation use	0

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SI TABLE 18 (HRS TABLE 5-7): AREA OF CONTAMINATION FACTOR VALUES

Total area of the areas of observed contamination (square feet)	Assigned Value
≤ to 5,000	5
> 5,000 to 125,000	20
> 125,000 to 250,000	40
> 250,000 to 375,000	60
> 375,000 to 500,000	80
> 500,000	100

Facility on 1.5-acre lot (SI Form, p. 3)

$1.5 \times 43{,}560 = \boxed{65{,}340\ ft^2}$

SI TABLE 19 (HRS TABLE 5-8): NEARBY POPULATION LIKELIHOOD OF EXPOSURE FACTOR VALUES

AREA OF CONTAMINATION FACTOR VALUE	ATTRACTIVENESS/ACCESSIBILITY FACTOR VALUE						
	100	75	50	25	10	5	0
100	500	500	375	250	125	50	0
80	500	375	250	125	50	25	0
60	375	250	125	50	25	5	0
40	250	125	50	25	5	5	0
20	125	50	25	5	5	5	0
5	50	25	5	5	5	5	0

SI TABLE 20 (HRS TABLE 5-10): DISTANCE-WEIGHTED POPULATION VALUES FOR NEARBY POPULATION THREAT

Travel Distance Category (miles)	Pop.	Number of people within the travel distance category												Pop. Value
		0	1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,001	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	300,001 to 1,000,000	
Greater than 0 to $\frac{1}{4}$	557	0	0.1	0.4	1.0	4	13	41	130	408	1,303	4,081	13,034	13
Greater than $\frac{1}{4}$ to $\frac{1}{2}$	1,671	0	0.05	0.2	0.7	2	7	20	65	204	652	2,041	6,517	20
Greater than $\frac{1}{2}$ to 1	677	0	0.02	0.1	0.3	1	3	10	33	102	326	1,020	3,258	3

Reference(s) GEMS

Sum = 36

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SOIL EXPOSURE PATHWAY WORKSHEET (concluded)

WASTE CHARACTERISTICS

10.	Assign the hazardous waste quantity score calculated for soil exposure HRS Section 5-1.2.2 and HRS Table 5-2.	10
11.	Assign the highest toxicity value for the soil exposure pathway from SI Table 3 or 15	10,000
12.	Multiply the toxicity and hazardous waste quantity scores. Assign the Waste Characteristics score from the table below:	WC = 18

Product	WC Score
0	0
>0 to <10	1
10 to <100	2
100 to <1,000	3
1,000 to < 10,000	6
10,000 to <1E + 05	10
1E + 05 to <1E + 06	18
1E + 06 to <1E + 07	32
1E + 07 to <1E + 08	56
1E + 08 or greater	100

RESIDENT POPULATION THREAT SCORE: $\frac{550 \times 5 \times 18}{82,500}$ (LE X T X WC)

(Likelihood of Exposure, Question 1;
Targets = Sum of Questions 2, 3, 4, 5, 6)

0.60

NEARBY POPULATION THREAT SCORE: $\frac{5 \times 5 \times 18}{82,500}$ (LE X T X WC)

(Likelihood of Exposure, Question 7;
Targets = Sum of Questions 8, 9)

0.01

SOIL EXPOSURE PATHWAY SCORE:
Resident Population Threat + Nearby Population Threat

0.61
(Maximum of 100)

AIR PATHWAY

Air Pathway Observed Substances Summary Table

On SI Table 21, list the hazardous substances detected in air samples of a release from the site. Include only those substances with concentrations significantly greater than background levels. Obtain benchmark, cancer risk, and reference dose concentrations from SCDM. For NAAQS/NESHAPS benchmarks, determine the highest percentage of benchmark obtained for any substance. For cancer risk and reference dose, sum the percentages for the substances listed. If benchmark, cancer risk, or reference dose concentrations are not available for a particular substance, enter N/A for the percentage. If the highest benchmark percentage or the percentage sum calculated for cancer risk or reference dose equals or exceeds 100%, evaluate targets in the distance category from which the sample was taken and any closer distance categories as Level I. If the percentages are less than 100% or all are N/A, evaluate targets in that distance category and any closer distance categories that are not Level I as Level II.

SI TABLE 23 (HRS TABLE 6-18): AIR PATHWAY VALUES FOR WETLAND AREA

Wetland Area	Assigned Value
<.1 acre	0
1 to 50 acres	25
> 50 to 100 acres	75
> 100 to 150 acres	125
> 150 to 200 acres	175
> 200 to 300 acres	250
> 300 to 400 acres	350
> 400 to 500 acres	450
> 500 acres	500

The ranges of several endangered species include Newton County and the entire state of Georgia; however, exact locations of these species are unknown.

SI TABLE 24: DISTANCE WEIGHTS AND CALCULATIONS FOR AIR PATHWAY POTENTIAL CONTAMINATION SENSITIVE ENVIRONMENTS

Distance	Distance Weight	Sensitive Environment Type and Value (from SI Tables 13 and ~~20~~ 23	Product
On a Source	0.10	x	
		x	
0 to 1/4 mile	0.025	x	
		x	
		x	
1/4 to 1/2 mile	0.0054	x	
		x	
		x	
1/2 to 1 mile	0.0016	x	
		x	
		x	
1 to 2 miles	0.0005	x 25 (wetlands)	0.01
		x	
		x	
2 to 3 miles	0.00023	x	
		x	
		x	
3 to 4 miles	0.00014	x 500 (wetlands)	0.07
		x	
		x	
> 4 miles	0	x	

Total Environments Score = 0.08

Approximately 700 acres of wetlands are located 3-4 miles from site and approximately 25 acres of wetlands are 1-2 miles from site.

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SI TABLE 22 (From HRS TABLE 6-17): VALUES FOR POTENTIAL CONTAMINATION AIR TARGET POPULATIONS

Distance from Site	Pop.	Nearest Individual (choose highest)	Number of People within the Distance Category												Pop. Value
			1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	300,001 to 1,000,000	1,000,000 to 3,000,000	
On a source	0	20	4	17	53	164	522	1,633	5,214	16,325	52,137	163,246	521,360	1,632,455	0
0 to $\frac{1}{4}$ mile	557	20*	1	4	13	41	131	408	1,304	4,081	13,034	40,812	130,340	408,114	131
> $\frac{1}{4}$ to $\frac{1}{2}$ mile	1,671	2	0.2	0.9	3	9	28	88	282	882	2,815	8,815	28,153	88,153	88
> $\frac{1}{2}$ to 1 mile	677	1	0.06	0.3	0.9	3	8	26	83	261	834	2,612	8,342	26,119	8
> 1 to 2 miles	4,582	0	0.02	0.09	0.3	0.8	3	8	27	83	266	833	2,659	8,326	27
> 2 to 3 miles	13,479	0	0.009	0.04	0.1	0.4	1	4	12	38	120	375	1,199	3,755	38
>3 to 4 miles	8,198	0	0.005	0.02	0.07	0.2	0.7	2	7	28	73	229	730	2,285	7
Nearest Individual =		20												Sum =	299 x 0.1 = 29.9

References GEMS

* Score = 20 if the Nearest Individual is within $\frac{1}{8}$ mile of a source; score = 7 if the Nearest Individual is between $\frac{1}{8}$ and $\frac{1}{4}$ mile of a source.

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SI TABLE 21: AIR PATHWAY OBSERVED RELEASE SUBSTANCES

Sample ID: _____ Level I _____ Level II _____ Distance from Sources (mi) ____ References _____

Hazardous Substance	Conc. (µg/m³)	Gaseous Particulate	Benchmark Conc. (NAAQS or NESHAPS)	% of Benchmark	Cancer Risk Conc.	% of Cancer Risk Conc.	RfD	% of RfD
	Highest Toxicity/ Mobility		Highest Percent		Sum of Percents		Sum of Percents	

Sample ID: _____ Level I _____ Level II _____ Distance from Sources (mi) ____ References _____

Hazardous Substance	Conc. (µg/m³)	Toxicity/ Mobility	Benchmark Conc. (NAAQS or NESHAPS)	% of Benchmark	Cancer Risk Conc.	% of Cancer Risk Conc.	RfD	% of RfD
	Highest Toxicity/ Mobility		Highest Percent		Sum of Percents		Sum of Percents	

Sample ID: _____ Level I _____ Level II _____ Distance from Sources (mi) ____ References _____

Hazardous Substance	Conc. (µg/m³)	Toxicity/ Mobility	Benchmark Conc. (NAAQS or NESHAPS)	% of Benchmark	Cancer Risk Conc.	% of Cancer Risk Conc.	RfD	% of RfD
	Highest Toxicity/ Mobility		Highest Percent		Sum of Percents		Sum of Percents	

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AIR PATHWAY WORKSHEET

LIKELIHOOD OF RELEASE	Score	Data Type	Refs
1. OBSERVED RELEASE: If sampling data or direct observation support a release to air, assign a score of 550. Record observed release substances on SI Table 21.			
2. POTENTIAL TO RELEASE: If sampling data do not support a release to air, assign a score of 500. Optionally, evaluate air migration gaseous and particulate potential to release (HRS Section 6.1.2).	500	No sampling conducted	
LR =	500		

TARGETS			
3. ACTUAL CONTAMINATION POPULATION: Determine the number of people within the target distance limit subject to exposure from a release of a hazardous substance to the air. a) Level I: _____ people x 10 = _____ b) Level II: _____ people x 1 = _____ Total =	—		no sampling
4. POTENTIAL TARGET POPULATION: Determine the number of people within the target distance limit not subject to exposure from a release of a hazardous substance to the air, and assign the total population score from SI Table 22. Sum the values and multiply the sum by 0.1.	29.9		GEMS
5. NEAREST INDIVIDUAL: Assign a score of 50 if there are any Level I targets. Assign a score of 45 if there are Level II targets but no Level I targets. If no Actual Contamination Population exists, assign the Nearest Individual score from SI Table 22.	20		Topo
6. ACTUAL CONTAMINATION SENSITIVE ENVIRONMENTS: Sum the sensitive environment values (SI Table 13) and wetland acreage values (SI Table 23) for environments subject to exposure from the release of a hazardous substance to the air.	—		no sampling
7. POTENTIAL CONTAMINATION SENSITIVE ENVIRONMENTS: Use SI Table 24 to evaluate sensitive environments not subject to exposure from a release.	0.08		topo Red Book
8. RESOURCES: Assign a score of 5 if one or more air resources apply within 1/2 mile of a source; assign a 0 if none applies. • Commercial agriculture • Commercial silviculture • Major or designated recreation area	5		
T =	54.98 =		

55

AIR PATHWAY (concluded)

WASTE CHARACTERISTICS

9. If any Actual Contamination Targets exist for the air pathway, assign the calculated hazardous waste quantity score or a score of 100, whichever is greater; if there are no Actual Contamination Targets for the air pathway, assign the calculated HWQ score for sources available to air migration.	10
10. Assign the highest air toxicity/mobility value from SI Table 21. 3 or	10,000
11. Multiply the air pathway toxicity/mobility and hazardous waste quantity scores. Assign the Waste Characteristics score from the table below:	WC = 18

Product	WC Score
0	0
>0 to <10	1
10 to <100	2
100 to <1,000	3
1,000 to < 10,000	6
10,000 to <1E + 05	10
1E + 05 to <1E + 06	18
1E + 06 to <1E + 07	32
1E + 07 to <1E + 08	56
1E + 08 or greater	100

AIR PATHWAY SCORE: $\frac{LR \times T \times WC}{82,500}$ = $\frac{500 \times 55 \times 18}{82,500}$ = 6.00 (maximum of 100)

SITE SCORE CALCULATION	S	S^2
GROUND WATER PATHWAY SCORE (S_{GW})	1.04	1.0816
SURFACE WATER PATHWAY SCORE (S_{SW})	7.98	63.68
SOIL EXPOSURE (S_S)	0.61	0.37
AIR PATHWAY SCORE (S_A)	6.00	36.00
SITE SCORE $\sqrt{\frac{S_{GW}^2+S_{SW}^2+S_S^2+S_A^2}{4}}$ =		5.03

COMMENTS

Based on the low HRS score and the removal of waste which took place in 1988, Dynamac Corporation recommends no further action for Spectrum Printing.