NUS CORPORATION

1927 LAKESIDE PARKWAY
SUITE 614
TUCKER, GEORGIA 30084
404-938-7710

241626

C-586-5-9-166

May 23, 1989

Mr. A. R. Hanke
Site Investigation and Support Branch
Waste Management Division
Environmental Protection Agency
345 Courtland Street, N. E.
Atlanta, Georgia 30365

Subject: Final Screening Site Inspection Report
Southern Railroad Hayne Car Shop
Spartanburg, South Carolina
Revision 0
TDD No. F4-8805-01

Dear Mr. Hanke:

Enclosed please find three (3) copies of the Final Screening Site Inspection Report for Southern Railroad, Spartanburg, South Carolina. Also enclosed is a complete reference package for this report. If you have any questions or comments, please do not hesitate to contact me.

Very truly yours,

Keith Grezlik
Project Manager

Approved:

KG/kw

Enclosures (4)

EPA

Potential Hazardous Waste Site

Site Inspection Report

Site Inspection Report

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
SC	D000616664

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
SOUTHERN RAILROAD / HAYNE CAR SHOP	7525 ASHEVILLE HWY

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
SPARTANBURG	SC		SPARTANBURG		

09 COORDINATES LATITUDE	LONGITUDE	10 TYPE OF OWNERSHIP (Check one)
34 59 16.-	081 58 53.-	[X] A. PRIVATE [ ] B. FEDERAL ____ [ ] C. STATE [ ] D. COUNTY [ ] E. MUNICIPAL [ ] F. OTHER ____ [ ] G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION (Month Day Year)	02 SITE STATUS	03 YEARS OF OPERATION
03 15 88	[X] ACTIVE [ ] INACTIVE	1925 (Beginning Year) / — (Ending Year) ___ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)

[ ] A. EPA [X] B. EPA CONTRACTOR NUS CORP (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
KEITH GREZLIK	GEOLOGIST	NUS CORP	(404) 938-7710

09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO
JIM MADAJ			( )
SCOTT SINGLETON			( )
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
MIKE ROACH	MANAGER	8 NORTH JEFFERSON STREET ROANOKE VA 24042	(703) 981-4154
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
[X] PERMISSION [ ] WARRANT	0900	CLEAR, LIGHT BREEZE, MID 60'S

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
SCOTT GARDNER	EPA	(404) 347-5065

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
K. GREZLIK	NUS		404-938-7710	(Month Day Year)

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
SC	D000616664

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- [X] A SOLID
- [X] 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 UNK

CUBIC YARDS _____

NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

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

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS	UNK		SOLVENTS HAVE HISTORICALLY BEEN
PSD	PESTICIDES			DISPOSED OF ON SITE.
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS	UNK		CHROMIUM BLASTING GRIT

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

HAS BEEN LANDFILLED ONSITE

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

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)

ALL REFS ARE LOCATED IN EPA AND NUS FILES

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

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. GROUNDWATER CONTAMINATION — 02 [ ] OBSERVED (DATE: _____) — [X] POTENTIAL — [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 298 Homes
04 NARRATIVE DESCRIPTION
IT IS POSSIBLE FOR CHROMIUM GRIT TO MIGRATE TO WATER TABLE AND CONTAMINATE PRIVATE WELLS. 298 HOMES W/IN 4 MILE RADIUS USE PRIVATE WELLS FOR WATER SUPPLY

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

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

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

01 [ ] E. DIRECT CONTACT — 02 [ ] OBSERVED (DATE: _____) — [ ] POTENTIAL — [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION

01 [X] F. CONTAMINATION OF SOIL — 02 [ ] OBSERVED (DATE: _____) — [X] POTENTIAL — [ ] ALLEGED
03 AREA POTENTIALLY AFFECTED: 10 (Acres)
04 NARRATIVE DESCRIPTION
UNKNOWN AMOUNT OF Cr GRIT IS CONTAINED IN LANDFILL

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

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

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

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

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 numbers 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: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
WASTES ARE LANDFILLED WITH NO SPECIFIC CONTAINMENT PROCEDURES

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

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

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

06 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)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☐ 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		
☐ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
☒ F. LANDFILL	≈ 10	ACRES
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)

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

05 OTHER

- ☒ A. BUILDINGS ON SITE

06 AREA OF SITE

.4 sq miles (Acres)

07 COMMENTS

FACILITY AT ONE TIME OBTAINED NPDES PERMIT TO DISCHARGE WASTE WATER/SURFACE RUNOFF, HAS SINCE BEEN CANCELLED

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

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

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

NONE

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☐ YES ☒ NO

02 COMMENTS

SITE IS FENCED, ACCESS CONTROLLED 24 HRS.

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

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

I. IDENTIFICATION

01 STATE | 02 SITE NUMBER

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as appropriate)

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

02 STATUS

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

03 DISTANCE TO SITE

A. 25 (mi)
B. 2 (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

☐ A. ONLY SOURCE FOR DRINKING
X 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 1158

03 DISTANCE TO NEAREST DRINKING WATER WELL 2 (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
≃ 75 (ft)	N/A	≃ 75 (ft)	N/A (gpd)	☐ YES X NO

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

WELLS ARE COMPLETED IN FRACTURES IN METASEDIMENTS AND VOLCANICS. FRACTURES ARE UNPREDICTABLE, AND RECENT DROUGHT CONDITIONS HAVE APPRECIABLY LOWERED WATER TABLE

10 RECHARGE AREA
☐ YES
X NO
COMMENTS

11 DISCHARGE AREA
X YES
☐ NO
COMMENTS
WATER IS OBTAINABLE FROM BEDROCK FRACTURES

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

X 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
NONE	☐	(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. ____ NO. OF PERSONS	B. ____ NO. OF PERSONS	C. 48,000 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION
< 1 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE
≃ 300

04 DISTANCE TO NEAREST OFF-SITE BUILDING
< 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)

NUMEROUS SUB-DIVISIONS, 2 CORRECTIONAL FACILITIES (PRISONS)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☒ A. 10^{-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
≃4 (ft)	UNK (ft)	

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
6.0 (in)	3.5 (in)	4 %	SE	≃1 %

09 FLOOD POTENTIAL	10
SITE IS IN >100 YEAR FLOODPLAIN	☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE	OTHER
A. (mi)	B. 5 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

(mi)

ENDANGERED SPECIES: NONE

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS: PRIME AG LAND	AGRICULTURAL LANDS: AG LAND
A. <1 (mi)	B. ≃8 (mi)	C. (mi)	D. ≃3 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

SITE IS ON RELATIVELY FLAT PLAIN, NO IMMEDIATE TOPOGRAPHIC RELIEF IN THE VICINITY

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

EPA FORM 2070-13 (7-81)

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL	4	COMPUCHEM, RADIAN	
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
N/A	

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☒ GROUND ☐ AERIAL

02 IN CUSTODY OF NUS CORP
(Name of organization or individual)

03 MAPS ☒ YES ☐ NO

04 LOCATION OF MAPS NUS CORP

V. OTHER FIELD DATA COLLECTED (Describe results or observations)

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

EPA FORM 2070-13 (7-81)

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER
NORFOLK SOUTHERN RAILROAD	

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

05 CITY	06 STATE	07 ZIP CODE
ROANOKE	VA	24042-0078

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

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

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

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

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

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

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

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

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

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

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

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

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

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

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

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

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

II. ON-SITE GENERATOR

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

III. OFF-SITE GENERATOR(S)

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

IV. TRANSPORTER(S)

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

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

II. PAST RESPONSE ACTIVITIES N/A

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

II PAST RESPONSE ACTIVITIES (Continued)

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

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

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

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

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

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

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

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

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

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

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

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

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

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY ENFORCEMENT ACTION ☐ YES ☒ NO

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

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

HAZARD RANKING SYSTEM SCORING SUMMARY

FOR

SO. RAIWAY/HAYNES CAR SHOP
EPA SITE NUMBER SCD000616564
SPARTANBURG
SPARTANBURG COUNTY, SC
EPA REGION: 4

SCORE STATUS: IN PREPARATION

SCORED BY K. GREZLIK
OF NUS CORP
ON 04/18/89

DATE OF THIS REPORT: 04/18/89
DATE OF LAST MODIFICATION: 04/18/89

GROUND WATER ROUTE SCORE	:	28.57
SURFACE WATER ROUTE SCORE	:	6.55
AIR ROUTE SCORE	:	0.00
MIGRATION SCORE	:	16.94

HRS GROUND WATER ROUTE SCORE

CATEGORY/FACTOR	RAW DATA	ASN. VALUE	SCORE
1. OBSERVED RELEASE	NO	0	0
2. ROUTE CHARACTERISTICS			
DEPTH TO WATER TABLE	75 FEET		
DEPTH TO BOTTOM OF WASTE	10 FEET		
DEPTH TO AQUIFER OF CONCERN	65 FEET	2	4
PRECIPITATION	46.0 INCHES		
EVAPORATION	40.0 INCHES		
NET PRECIPITATION	6.0 INCHES	2	2
PERMEABILITY	1.0X10-4 CM/SEC	2	2
PHYSICAL STATE		2	2
TOTAL ROUTE CHARACTERISTICS SCORE:			10
3. CONTAINMENT		3	3
4. WASTE CHARACTERISTICS			
TOXICITY/PERSISTENCE:CHROMIUM			18
WASTE QUANTITY CUBIC YDS	9999999		
DRUMS	0		
GALLONS	0		
TONS	0		
TOTAL	9999999 CU. YDS	8	8
TOTAL WASTE CHARACTERISTICS SCORE:			26
5. TARGETS			
GROUND WATER USE		3	9
DISTANCE TO NEAREST WELL	14000 FEET		
AND	MATRIX VALUE	12	12
TOTAL POPULATION SERVED	1132 PERSONS		
NUMBER OF HOUSES	298		
NUMBER OF PERSONS	0		
NUMBER OF CONNECTIONS	0		
NUMBER OF IRRIGATED ACRES	0		
TOTAL TARGETS SCORE:			21

GROUND WATER ROUTE SCORE (Sgw) = 28.57

HRS SURFACE WATER ROUTE SCORE

CATEGORY/FACTOR	RAW DATA	ASN. VALUE	SCORE
1. OBSERVED RELEASE	NO	0	0
2. ROUTE CHARACTERISTICS			
SITE LOCATED IN SURFACE WATER	NO		
SITE WITHIN CLOSED BASIN	NO		
FACILITY SLOPE	3.0 %		
INTERVENING SLOPE	0.0 %	0	0
24-HOUR RAINFALL	3.5 INCHES	3	3
DISTANCE TO DOWN-SLOPE WATER	1200 FEET	2	4
PHYSICAL STATE	2		2
TOTAL ROUTE CHARACTERISTICS SCORE:			9
3. CONTAINMENT	3		3
4. WASTE CHARACTERISTICS			
TOXICITY/PERSISTENCE:CHROMIUM			18
WASTE QUANTITY CUBIC YDS	9999999		
DRUMS	0		
GALLONS	0		
TONS	0		
TOTAL	9999999 CU. YDS	8	8
TOTAL WASTE CHARACTERISTICS SCORE:			26
5. TARGETS			
SURFACE WATER USE		2	6
DISTANCE TO SENSITIVE ENVIRONMENTS		0	0
COASTAL WETLANDS	NONE		
FRESH-WATER WETLANDS	NONE		
CRITICAL HABITAT	15000 FEET		
DISTANCE TO STATIC WATER	1200 FEET		
DISTANCE TO WATER SUPPLY INTAKE	> 1 MILE		
AND	MATRIX VALUE	0	0
TOTAL POPULATION SERVED	0		
NUMBER OF HOUSES	0		
NUMBER OF PERSONS	0		
NUMBER OF CONNECTIONS	0		
NUMBER OF IRRIGATED ACRES	0		
TOTAL TARGETS SCORE:			6

SURFACE WATER ROUTE SCORE (Ssw) = 6.55

HRS AIR ROUTE SCORE

CATEGORY/FACTOR	RAW DATA	ASN. VALUE	SCORE
1. OBSERVED RELEASE	NO	0	0

2. WASTE CHARACTERISTICS

REACTIVITY:

MATRIX VALUE

INCOMPATIBILITY

TOXICITY

WASTE QUANTITY CUBIC YARDS
DRUMS
GALLONS
TONS

TOTAL

TOTAL WASTE CHARACTERISTICS SCORE: N/A

3. TARGETS

POPULATION WITHIN 4-MILE RADIUS
0 to 0.25 mile
0 to 0.50 mile
0 to 1.0 mile
0 to 4.0 miles

DISTANCE TO SENSITIVE ENVIRONMENTS
COASTAL WETLANDS
FRESH-WATER WETLANDS
CRITICAL HABITAT

DISTANCE TO LAND USES
COMMERCIAL/INDUSTRIAL
PARK/FOREST/RESIDENTIAL
AGRICULTURAL LAND
PRIME FARMLAND
HISTORIC SITE WITHIN VIEW?

TOTAL TARGETS SCORE: N/A

AIR ROUTE SCORE (Sa) = 0.00

HAZARD RANKING SYSTEM SCORING CALCULATIONS
FOR
SITE: SO. RAIWAY/HAYNES CAR SHOP
AS OF 04/18/89

GROUND WATER ROUTE SCORE

ROUTE CHARACTERISTICS		10
CONTAINMENT	X	3
WASTE CHARACTERISTICS	X	26
TARGETS	X	21

= 16380 /57,330 X 100 = 28.57 = S_{gw}

SURFACE WATER ROUTE SCORE

ROUTE CHARACTERISTICS		9
CONTAINMENT	X	3
WASTE CHARACTERISTICS	X	26
TARGETS	X	6

= 4212 /64,350 X 100 = 6.55 = S_{sw}

AIR ROUTE SCORE

OBSERVED RELEASE 0 /35,100 X 100 = 0.00 = S_{air}

SUMMARY OF MIGRATION SCORE CALCULATIONS

	S	S^2
GROUND WATER ROUTE SCORE (S_{gw})	28.57	816.24
SURFACE WATER ROUTE SCORE (S_{sw})	6.55	42.90
AIR ROUTE SCORE (S_{air})	0.00	0.00
$S^2_{gw} + S^2_{sw} + S^2_{air}$		859.14
$\sqrt{(S^2_{gw} + S^2_{sw} + S^2_{air})}$		29.31
$S_M = \sqrt{(S^2_{gw} + S^2_{sw} + S^2_{air})}/1.73$		16.94

HAYNE SHOP

SPARTANBURG, SOUTH CAROLINA

FORM 11164-HCS (8/84)

Hayne Shop is one of Norfolk Southern's heavy freight car repair facilities. Hayne Shop is primarily responsible for heavy repairs to the box car fleet. In addition, Hayne is the system repair point for several car components, the most important of which are box car doors, couplers, yokes, knuckles, draft gears, and air hose assemblies.

END STRAIGHTENER:

Most box cars entering the heavy repair process require straightening of their ends, due to bulging caused by lading shifts during their normal service. The first step in the repair process is to run the car through an end straightener. This jig allows the car to be secured successively by the coupler at each end, while the end is returned to its original contour with hydraulic rams.

STRIPPING TRACK:

The stripping track consists of a single track with approximately eight positions (this is dependent on the length of cars being worked). Here all material to be replaced is removed, much of which is a portion of the interior wooden lining and decking of cars so constructed. The floor level raised platforms on both sides of the stripping track are covered by a shed roof, and second story platforms run two car lengths to allow access to car roofs for safe removal of damaged roof sheets. Material removed which is not reclaimable is placed in an area provided for that purpose alongside the shed, from whence it is hauled away to be sold as scrap or second hand lumber.

At two positions a concrete apron runs under and along the shed. All cars are washed inside with high pressure hoses, and the wash water is processed through a sedimentation and treatment system before being run into the local ground water drainage.

GRIT BLAST AND PRIME:

The grit blast is used to remove all old paint and rust from a car in preparation for painting after the car is repaired. The grit blast building consists of three bays, in line. The first is a drying room, which is heated in cold or rainy weather by two large space heaters. The purpose is to remove all water or snow, because water in the grit blast interferes with the flow of the cracked steel shot used. The second bay is the grit blast room itself. Here the car stands still while a gantry with vertically reciprocating nozzles passes over it, cleaning the sides. The ends are blasted with manual nozzles, because the variation in car length made automation impractical at the time of construction. The last bay is for prime painting with Chromate primer to protect the raw metal from rust during the repair process. This bay has a "kicker," which is a portion of track raised at one end to roll the car by gravity into any one of the four diverging tracks to the freight shop. Up until this point all car movement has been accomplished by the use of rabbit style pullers.

FREIGHT CAR SHOP:

The Freight Shop is where most major repairs to box cars are made. It has four tracks running lengthwise of the building, where cars are worked on twelve positions each, again depending on car length. On the first three of these tracks cars are moved by continuous cables, to which the cars are attached by special "come alongs." This repair work is done with a spot system, with each position performing a portion of the overhaul on a repetitive basis. Tracks one and two are specially equipped to do heavy overhauls on the various sizes of box cars. The exterior work is done at track level on the first seven positions, and a raised floor is provided between these two tracks at box car floor level on the last five positions for ease in doing the interior repairs. Small ground operated cranes span each of these tracks at the necessary locations, for hanging doors, couplers, etc.

Track three is set up for repairing light and medium wrecks. It has monorails over each side of the cars for eight positions, with each position equipped with its own one ton hoist on each side. Track four is used to repair heavy wrecks, cars with twisted underframes, and other defects which require a car to remain stationary for a considerable length of time. It is equipped with monorails and hoists, like track three, and also has "wreck frames" on two positions, where cars can be tied down for straightening center sills, plus five other positions with side tie downs. This is the only track on which cars are not pulled through with cables; it can be switched, by trackmobile, from either end, using a run-around track outside of the building.

Auxiliary to the freight shop there is a truck shop, where all trucks are repaired and cleaned, and where truck components are cleaned, gauged, and reclaimed, before reworked trucks are put under cars. This truck changeout is done at the inbound end of the repair process, and cars do not necessarily get back the same trucks they came in with. Another auxiliary shop is located in the freight shop building; it is a small fabricating shop where sub-assemblies such as ladders and body bolsters are pre-fabricated, and draft gears are assembled in yokes, using a hydraulic jig.

FREIGHT PAINT SHOP:

The paint shop consists of seven bays; a heated pre-drying bay, a preheat bay, a paint spray bay, a heated paint drying bay, a cool off/scale bay, and two stencil bays. Cars are moved by trackmobile through a water test (where necessary to find leaks in the car body) and to the pre-drying room. Through the paint shop itself cars are moved and spotted by multiple rabbits. They are also re-weighed while they are in the cool off bay, on a weight scale built into the building floor. Airless hot spray paint is used for both the finish paint and stenciling, and mobile platforms are located along the sides of these positions to facilitate safe application of paint. Finished cars are moved out by the rabbit at the last stencil position into a holding track, from which they are moved back into revenue service by the shop switch engine, on the second shift.

LIGHT REPAIR TRACK:

There are two additional box car repair operations, the most important of which is the light repair track. This track, approximately a mile long, has a shop building spanning it, located about halfway of its length. In the building there are three identical repair positions in tandem, each equipped with its own overhead crane. Box cars are put into this process when the repairs required are beyond the normal capabilities of our local rip tracks, but do not warrant going through the heavy repair process in the freight shop. The cars are spotted three at a time, by a rabbit. The most common repair done in this operation is repairs to, or replacement of, doors, and overhaul of damaged door posts, door tracks, and associated closure equipment.

BULKHEAD REPAIR TRACKS:

Beyond the two above-mentioned repair facilities, there are two outside tracks, under craneways, where repairs to moveable bulkheads in specially equipped cars are made. With the ever-increasing number of cars with moveable bulkheads, it is necessary to have a place to repair or replace this complicated and often abused equipment. The only special machinery needed to accomplish these repairs is a crane or crane car with which to lift the bulkheads. For this purpose, two tracks under craneways have been set up with welding machines and other necessary tools.

BOX CAR DOOR SHOP:

The Door Shop is essentially a back-up operation for all of the box car repair facilities at Hayne. All box car doors are repaired, for the entire System, in the Door Shop. Door repair and reclamation is an item of "system production" (defined as reclamation of all of a given component at a single shop for a whole System).

Because all cars with doors missing, or requiring door repairs beyond the capability of local rip tracks, are sent to Hayne for attention, most of the output of the Door Room is used locally. The reason for this centralization is because of the impractibility of stocking all of the numerous odd door sizes and types at more than one point. The facility consists of identical work stations, which are fed by a semi-automated conveyor and storage system. Each work station is equipped with a door turn-over fixture, hydraulic door straightening gantry, work table, and necessary tools.

BLACKSMITH SHOP:

The main function of the Blacksmith Shop is the reclamation of car couplers, yokes, knuckles and draft gears, for the System. Couplers and yokes are reclaimed by welding up cracks, and building up worn surfaces, by welding, after which they are given the appropriate heat treating to stress relieve the reclaimed areas, and to generally restore their original metallurgical properties. In the case of couplers, bent shanks are straightened, and spread jaws are closed by the use of a hydraulic straightener. All couplers are subjected to electro-magnetic particle inspection (Magna-flux) after reclamation, to assure that no cracks or flaws have been overlooked.

The draft gear shop has facilities to dismantle, clean, repair, and reassemble draft gears for the System. After reassembling, the draft gears are capacity tested using a 27,000 lb. drop hammer, which is also used to test good in-date draft gears.

In a separate operation, knuckles are reclaimed by welding up worn surfaces, such that they meet reclaimed, or second hand standards. All knuckles are Magna-fluxed prior to repair, and those found with cracks are scrapped. They are carefully gauged, after reclamation, to be sure that they meet AAR standards.

MACHINE SHOP:

The Machine Shop is equipped with all of the typical machinery of such a facility, to provide for maintenance and repairs to all shop equipment, jigs, and fixtures. It is the repair point for small power tools, cutting torches, and shop vehicles, such as forklifts, crane cars, trackmobiles, pumps, winches, and other shop machinery used at Hayne Shop.

EPA Notification of Hazardous Waste Site

United States Environmental Protection Agency
Washington DC 20460

R

This initial notification information is required by Section 103(c) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 and must be mailed by June 9, 1981.

Please type or print in ink. If you need additional space, use separate sheets of paper. Indicate the letter of the item which applies.

810609

SCS000001041

A Person Required to Notify:

Enter the name and address of the person or organization required to notify.

Name: Southern Railway Company
Street: P.O. Box 1808
City: Washington State: D.C. Zip Code: 20013

B Site Location:

Enter the common name (if known) and actual location of the site.

SCT000616664

Name of Site: Hayne Shop Dump
Street: 7525 Asheville Highway
City: Spartanburg County: (Same) State: S.C. Zip Code: 29303

C Person to Contact:

Enter the name, title (if applicable), and business telephone number of the person to contact regarding information submitted on this form.

Name (Last, First and Title): Jordan, A. Gayle, General Attorney
Phone: (202) 383-4428

D Dates of Waste Handling:

Enter the years that you estimate waste treatment, storage, or disposal began and ended at the site.

From (Year): 1925 To (Year): mid-1980

E Waste Type: Choose the option you prefer to complete

Option I: Select general waste types and source categories. If you do not know the general waste types or sources, you are encouraged to describe the site in Item I—Description of Site.

General Type of Waste: Place an X in the appropriate boxes. The categories listed overlap. Check each applicable category.

1. ☐ Organics
2. ☐ Inorganics
3. ☐ Solvents
4. ☐ Pesticides
5. ☐ Heavy metals
6. ☐ Acids
7. ☐ Bases
8. ☐ PCBs
9. ☐ Mixed Municipal Waste
10. ☐ Unknown
11. ☐ Other (Specify)

Source of Waste: Place an X in the appropriate boxes.

1. ☐ Mining
2. ☐ Construction
3. ☐ Textiles
4. ☐ Fertilizer
5. ☐ Paper/Printing
6. ☐ Leather Tanning
7. ☐ Iron/Steel Foundry
8. ☐ Chemical, General
9. ☐ Plating/Polishing
10. ☐ Military/Ammunition
11. ☐ Electrical Conductors
12. ☐ Transformers
13. ☐ Utility Companies
14. ☐ Sanitary/Refuse
15. ☐ Photofinish
16. ☐ Lab/Hospital
17. ☐ Unknown
18. ☐ Other (Specify)

Option 2: This option is available to persons familiar with the Resource Conservation and Recovery Act (RCRA) Section 3001 regulations (40 CFR Part 261).

Specific Type of Waste: *
EPA has assigned a four-digit number to each hazardous waste listed in the regulations under Section 3001 of RCRA. Enter the appropriate four-digit number in the boxes provided. A copy of the list of hazardous wastes and codes can be obtained by contacting the EPA Region serving the State in which the site is located.

D007		
F003		
F005		

RECEIVED EPA/REGION IV JUN 8 3 16 PM ENFORCEMENT DIVISION

0045

*Waste is primarily spent grit contaminated with Chromium detected by EP toxicity procedures.

Form Approved
OMB No. 2000-0138

EPA Form 8900-1

F Waste Quantity:

Place an X in the appropriate boxes to indicate the facility types found at the site.

In the "total facility waste amount" space give the estimated combined quantity (volume) of hazardous wastes at the site using cubic feet or gallons.

In the "total facility area" space, give the estimated area size which the facilities occupy using square feet or acres.

Facility Type

1. ☐ Piles
2. ☐ Land Treatment
3. ☒ Landfill
4. ☐ Tanks
5. ☐ Impoundment
6. ☐ Underground Injection
7. ☐ Drums, Above Ground
8. ☐ Drums, Below Ground
9. ☐ Other (Specify) _____

Total Facility Waste Amount

cubic feet: Unknown

gallons: _____

Total Facility Area

square feet: Unknown

acres: _____

G Known, Suspected or Likely Releases to the Environment: *

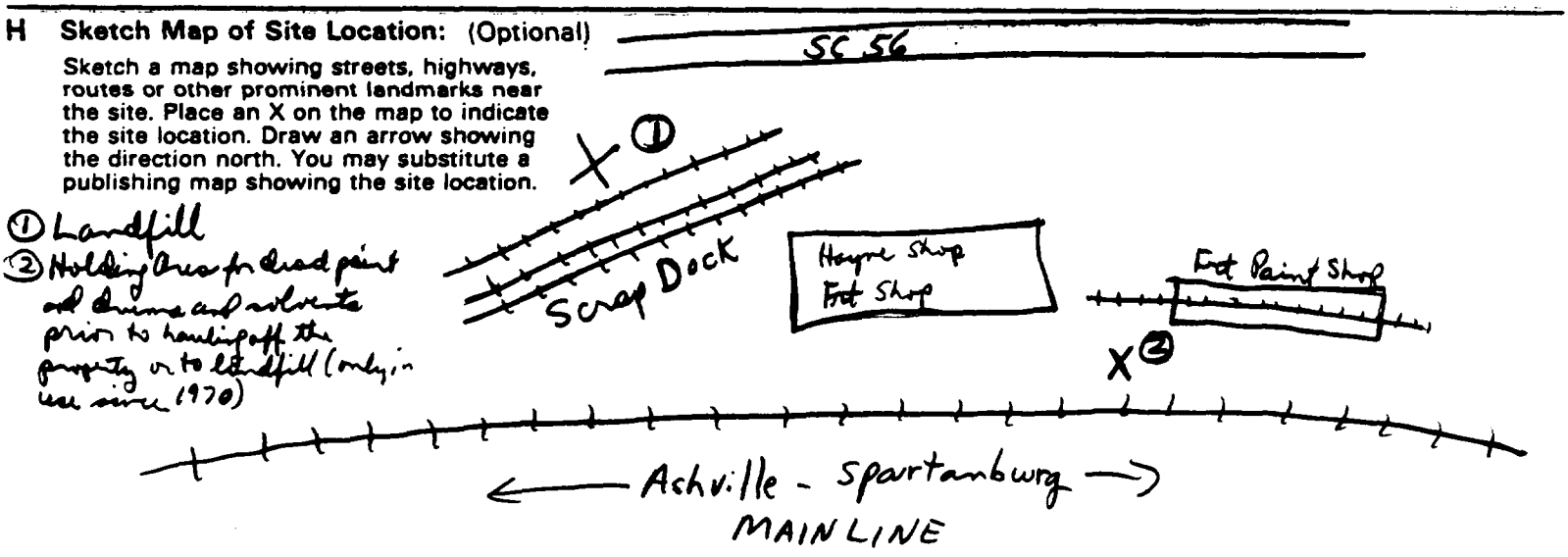
Place an X in the appropriate boxes to indicate any known, suspected, or likely releases of wastes to the environment.

☐ Known ☐ Suspected ☒ Likely ☐ None

Note: Items H and I are optional. Completing these items will assist EPA and State and local governments in locating and assessing hazardous waste sites. Although completing the items is not required, you are encouraged to do so.

H Sketch Map of Site Location: (Optional)

Sketch a map showing streets, highways, routes or other prominent landmarks near the site. Place an X on the map to indicate the site location. Draw an arrow showing the direction north. You may substitute a publishing map showing the site location.



Description of Site: (Optional)

Describe the history and present conditions of the site. Give directions to the site and describe any nearby wells, springs, lakes, or housing. Include such information as how waste was disposed and where the waste came from. Provide any other information or comments which may help describe the site conditions.

*Waste was produced in connection with rail car repair operations. Principal hazardous waste produced was grit thought to be contaminated with Chromium detectable by EP toxicity procedure. Very limited amounts of spent solvents were produced. Waste was placed on disposal site and periodically covered with earth. Since same site was used for disposal of large amounts of non-hazardous waste, present aggregate mixture of waste at site is thought to be non-hazardous. While releases to groundwater and rainfall runoff from the site are possible, no known environmental or health problems have been created by this site.

J Signature and Title:

The person or authorized representative (such as plant managers, superintendents, trustees or attorneys) of persons required to notify must sign the form and provide a mailing address (if different than address in item A). For other persons providing notification, the signature is optional. Check the boxes which best describe the relationship to the site of the person required to notify. If you are not required to notify check "Other".

Name: W. W. Simpson, Vice President, Engineering

Street: Southern Railway Company, P.O. Box 1808

City: Washington State: D.C. Zip Code: 20013

Signature: W. W. Simpson Date: 6.9.81

☒ Owner, Present
☒ Owner, Past
☐ Transporter
☐ Operator, Present
☒ Operator, Past
☐ Other

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV
COLLEGE STATION RD.
ATHENS, GA. 30613

*****MEMORANDUM******

DATE: 08/29/89

SUBJECT: Results of Cyanide Analysis;
89-524 SPRING MILLS
LANCASTER SC

FROM: William H. McDaniel
Chief, Inorganic Chemistry Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

RECEIVED

SEP 05 1989

NUS CORPORATION
REGION IV
SENT TO_____

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV
COLLEGE STATION RD.
ATHENS, GA. 30613

*****MEMORANDUM******

DATE: 08/31/89

SUBJECT: Results of Extractable Organic Analysis;
89-524 SPRING MILLS
LANCASTER SC

FROM: Tom B. Bennett, jr.
Chief, Organic Chemistry Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

RECEIVED

SEP 05 1989

NUS CORPORATION
REGION IV
SENT TO

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV
COLLEGE STATION RD.
ATHENS, GA. 30613

*****MEMORANDUM******

DATE: 08/31/89

SUBJECT: Results of Purgeable Organic Analysis;
89-524 SPRING MILLS
LANCASTER SC

FROM: Tom B. Bennett, jr.
Chief, Organic Chemistry Section Tom B. Bennett, Jr.

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

RECEIVED

SEP 05 1989

NUS CORPORATION
REGION IV
SENT TO_____

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

08/28/89

SPECIFIED ANALYSIS DATA REPORT

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*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***
**   PROJECT NO. 89-524   SAMPLE NO. 38058  SAMPLE TYPE: SOIL        PROG ELEM: NSF   COLLECTED BY: SAWYER              **
**   SOURCE: SPRING MILLS                                            CITY: LANCASTER              ST: SC                **
**   STATION ID: SS-01                                               COLLECTION START: 08/03/89  1258   STOP: 00/00/00  **
**                                                                                                                      **
*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***
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RESULTS	UNITS	PARAMETER
0.22U	MG/KG	CYANIDE

Soil
Cyanide

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

08/28/89

SPECIFIED ANALYSIS DATA REPORT

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**   PROJECT NO. 89-524   SAMPLE NO. 38043  SAMPLE TYPE: SOIL       PROG ELEM: NSF   COLLECTED BY: SAWYER             **
**   SOURCE: SPRING MILLS                                           CITY: LANCASTER               ST: SC               **
**   STATION ID: SS-02                                              COLLECTION START: 08/01/89  1005   STOP: 00/00/00   **
**                                                                                                                      **
*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***
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RESULTS	UNITS	PARAMETER
0.29U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

08/28/89

SPECIFIED ANALYSIS DATA REPORT

*** ***
** PROJECT NO. 89-524 SAMPLE NO. 38048 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: SAWYER **
** SOURCE: SPRING MILLS CITY: LANCASTER ST: SC **
** STATION ID: SS-03 COLLECTION START: 08/01/89 1253 STOP: 00/00/00 **
** **
*** ***

RESULTS	UNITS	PARAMETER
0.25U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

08/28/89

SPECIFIED ANALYSIS DATA REPORT

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**   PROJECT NO. 89-524    SAMPLE NO. 38050  SAMPLE TYPE: SOIL        PROG ELEM: NSF   COLLECTED BY: SAWYER              **
**   SOURCE: SPRING MILLS                                             CITY: LANCASTER            ST: SC                   **
**   STATION ID: SS-04                                                COLLECTION START: 08/01/89  1342   STOP: 00/00/00   **
**                                                                                                                        **
*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***
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RESULTS	UNITS	PARAMETER
0.24U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE   *NA-NOT ANALYZED   *NAI-INTERFERENCES   *J-ESTIMATED VALUE   *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN   *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

08/28/89

SPECIFIED ANALYSIS DATA REPORT

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**   PROJECT NO. 89-524   SAMPLE NO. 38054  SAMPLE TYPE: SEDIMENT    PROG ELEM: NSF   COLLECTED BY: SAWYER               **
**   SOURCE: SPRING MILLS                                            CITY: LANCASTER             ST: SC                 **
**   STATION ID: SD-01                                               COLLECTION START: 08/03/89  0914   STOP: 00/00/00  **
**                                                                                                                      **
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RESULTS	UNITS	PARAMETER
0.29U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

08/28/89

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 89-524 SAMPLE NO. 38053 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: SD-02 COLLECTION START: 08/02/89 1007 STOP: 00/00/00

RESULTS	UNITS	PARAMETER
0.34U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

08/28/89

SPECIFIED ANALYSIS DATA REPORT

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**   PROJECT NO. 89-524   SAMPLE NO. 38056  SAMPLE TYPE: SEDIMENT    PROG ELEM: NSF   COLLECTED BY: SAWYER          **
**   SOURCE: SPRING MILLS                                            CITY: LANCASTER            ST: SC               **
**   STATION ID: SD-03                                               COLLECTION START: 08/02/89  1237   STOP: 00/00/00  **
**                                                                                                                   **
*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***
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RESULTS	UNITS	PARAMETER
0.33U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SPECIFIED ANALYSIS DATA REPORT

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**   PROJECT NO. 89-524   SAMPLE NO. 38044  SAMPLE TYPE: SEDIMENT    PROG ELEM: NSF   COLLECTED BY: SAWYER              **
**   SOURCE: SPRING MILLS                                            CITY: LANCASTER               ST: SC                **
**   STATION ID: SD-05                                               COLLECTION START: 08/01/89  1030  STOP: 00/00/00     **
**                                                                                                                         **
*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***
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RESULTS	UNITS	PARAMETER
0.32U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

08/28/89

SPECIFIED ANALYSIS DATA REPORT

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**   PROJECT NO. 89-524   SAMPLE NO. 38045  SAMPLE TYPE: SEDIMENT    PROG ELEM: NSF   COLLECTED BY: SAWYER          **
**   SOURCE: SPRING MILLS                                            CITY: LANCASTER              ST: SC                **
**   STATION ID: SD-06                                               COLLECTION START: 08/01/89  1105   STOP: 00/00/00  **
**                                                                                                                       **
*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***
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RESULTS	UNITS	PARAMETER
0.32U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

08/28/89

SPECIFIED ANALYSIS DATA REPORT

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**   PROJECT NO. 89-524   SAMPLE NO. 38046  SAMPLE TYPE: SEDIMENT    PROG ELEM: NSF   COLLECTED BY: SAWYER          **
**   SOURCE: SPRING MILLS                                           CITY: LANCASTER             ST: SC                **
**   STATION ID: SD-07                                              COLLECTION START: 08/01/89  1145   STOP: 00/00/00 **
**                                                                                                                    **
*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***
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RESULTS	UNITS	PARAMETER
0.30U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

08/28/89

SPECIFIED ANALYSIS DATA REPORT

*** ***
** PROJECT NO. 89-524 SAMPLE NO. 38047 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER **
** SOURCE: SPRING MILLS CITY: LANCASTER ST: SC **
** STATION ID: SD-08 COLLECTION START: 08/01/89 1228 STOP: 00/00/00 **
** **
*** ***

RESULTS	UNITS	PARAMETER
0.95U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

08/28/89

SPECIFIED ANALYSIS DATA REPORT

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**   PROJECT NO. 89-524    SAMPLE NO. 38049  SAMPLE TYPE: SEDIMENT    PROG ELEM: NSF   COLLECTED BY: SAWYER          **
**   SOURCE: SPRING MILLS                                             CITY: LANCASTER             ST: SC                **
**   STATION ID: SD-09                                                COLLECTION START: 08/01/89  1321   STOP: 00/00/00  **
**                                                                                                                      **
*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***
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RESULTS	UNITS	PARAMETER
0.25U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE   *NA-NOT ANALYZED   *NAI-INTERFERENCES   *J-ESTIMATED VALUE   *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN   *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

08/28/89

SPECIFIED ANALYSIS DATA REPORT

*** ***
** PROJECT NO. 89-524 SAMPLE NO. 38057 SAMPLE TYPE: GRNDWATER PROG ELEM: NSF COLLECTED BY: SAWYER **
** SOURCE: SPRING MILLS CITY: LANCASTER ST: SC **
** STATION ID: TW-01 COLLECTION START: 08/03/89 1205 STOP: 00/00/00 **
** **
*** ***

RESULTS	UNITS	PARAMETER
.004	MG/L	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

08/28/89

SPECIFIED ANALYSIS DATA REPORT

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**   PROJECT NO. 89-524   SAMPLE NO. 38052  SAMPLE TYPE: GRNDWATER   PROG ELEM: NSF   COLLECTED BY: SAWYER              **
**   SOURCE: SPRING MILLS                                            CITY: LANCASTER           ST: SC                   **
**   STATION ID: TW-02                                               COLLECTION START: 08/02/89  0900   STOP: 00/00/00  **
**                                                                                                                       **
*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***
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RESULTS	UNITS	PARAMETER
.004U	MG/L	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

08/28/89

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 89-524 SAMPLE NO. 38055 SAMPLE TYPE: GRNDWATER PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: TW-03 COLLECTION START: 08/02/89 1149 STOP: 00/00/00

RESULTS	UNITS	PARAMETER
.004U	MG/L	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

08/28/89

SPECIFIED ANALYSIS DATA REPORT

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**   PROJECT NO. 89-524   SAMPLE NO. 38051  SAMPLE TYPE: TRIPBLANK   PROG ELEM: NSF   COLLECTED BY: SAWYER         **
**   SOURCE: SPRING MILLS                                            CITY: LANCASTER              ST: SC           **
**   STATION ID: TRIP BLANK                                          COLLECTION START: 07/30/89  0900   STOP: 00/00/00   **
**                                                                                                                 **
*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***
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RESULTS	UNITS	PARAMETER
.004U	MG/L	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE   *NA-NOT ANALYZED   *NAI-INTERFERENCES   *J-ESTIMATED VALUE   *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN   *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 08/30/89

** PROJECT NO. 89-524 SAMPLE NO. 38058 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: SAWYER **
** SOURCE: SPRING MILLS CITY: LANCASTER ST: SC **
** STATION ID: SS-01 COLLECTION START: 08/03/89 1258 STOP: 00/00/00 **

UG/KG	ANALYTICAL RESULTS
1400U	BIS(2-CHLOROETHYL) ETHER
1400U	BIS(2-CHLOROISOPROPYL) ETHER
1400U	N-NITROSODI-N-PROPYLAMINE
1400U	HEXACHLOROETHANE
1400U	NITROBENZENE
1400U	ISOPHORONE
1400U	BIS(2-CHLOROETHOXY) METHANE
1400U	1,2,4-TRICHLOROBENZENE
1400U	NAPHTHALENE
1400U	4-CHLOROANILINE
1400U	HEXACHLOROBUTADIENE
1400U	2-METHYLNAPHTHALENE
1400U	HEXACHLOROCYCLOPENTADIENE (HCCP)
1400U	2-CHLORONAPHTHALENE
1400U	2-NITROANILINE
1400U	DIMETHYL PHTHALATE
1400U	ACENAPHTHYLENE
1400U	2,6-DINITROTOLUENE
1400U	3-NITROANILINE
1400U	ACENAPHTHENE
1400U	DIBENZOFURAN
1400U	2,4-DINITROTOLUENE
1400U	DIETHYL PHTHALATE
1400U	FLUORENE
1400U	4-CHLOROPHENYL PHENYL ETHER
1400U	4-NITROANILINE
1400U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
1400U	4-BROMOPHENYL PHENYL ETHER
1400U	HEXACHLOROBENZENE (HCB)
1400U	PHENANTHRENE
1400U	ANTHRACENE
1400U	DI-N-BUTYLPHTHALATE

UG/KG	ANALYTICAL RESULTS
1400U	FLUORANTHENE
1400U	PYRENE
1400U	BENZYL BUTYL PHTHALATE
1400U	3,3'-DICHLOROBENZIDINE
1400U	BENZO(A)ANTHRACENE
1400U	CHRYSENE
1400U	BIS(2-ETHYLHEXYL) PHTHALATE
1400U	DI-N-OCTYLPHTHALATE
1400U	BENZO(B AND/OR K)FLUORANTHENE
1400U	BENZO-A-PYRENE
1400U	INDENO (1,2,3-CD) PYRENE
1400U	DIBENZO(A,H)ANTHRACENE
1400U	BENZO(GHI)PERYLENE
1400U	PHENOL
1400U	2-CHLOROPHENOL
2700U	BENZYL ALCOHOL
1400U	2-METHYLPHENOL
1400U	(3-AND/OR 4-)METHYLPHENOL
1400U	2-NITROPHENOL
1400U	2,4-DIMETHYLPHENOL
2700U	BENZOIC ACID
1400U	2,4-DICHLOROPHENOL
1400U	4-CHLORO-3-METHYLPHENOL
1400U	2,4,6-TRICHLOROPHENOL
1400U	2,4,5-TRICHLOROPHENOL
2700U	2,4-DINITROPHENOL
2700U	4-NITROPHENOL
1400U	2,3,4,6-TETRACHLOROPHENOL
2700U	2-METHYL-4,6-DINITROPHENOL
2700U	PENTACHLOROPHENOL
7.4	PERCENT MOISTURE

Sale
Extractable

REMARKS ***REMARKS***

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 08/30/89

PROJECT NO. 89-524 SAMPLE NO. 38043 SAMPLE TYPE: SOIL
SOURCE: SPRING MILLS
STATION ID: SS-02

PROG ELEM: NSF COLLECTED BY: SAWYER
CITY: LANCASTER ST: SC
COLLECTION START: 08/01/89 1005 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS
1500U	BIS(2-CHLOROETHYL) ETHER
1500U	BIS(2-CHLOROISOPROPYL) ETHER
1500U	N-NITROSODI-N-PROPYLAMINE
1500U	HEXACHLOROETHANE
1500U	NITROBENZENE
1500U	ISOPHORONE
1500U	BIS(2-CHLOROETHOXY) METHANE
1500U	1,2,4-TRICHLOROBENZENE
1500U	NAPHTHALENE
1500U	4-CHLOROANILINE
1500U	HEXACHLOROBUTADIENE
1500U	2-METHYLNAPHTHALENE
1500U	HEXACHLOROCYCLOPENTADIENE (HCCP)
1500U	2-CHLORONAPHTHALENE
1500U	2-NITROANILINE
1500U	DIMETHYL PHTHALATE
1500U	ACENAPHTHYLENE
1500U	2,6-DINITROTOLUENE
1500U	3-NITROANILINE
1500U	ACENAPHTHENE
1500U	DIBENZOFURAN
1500U	2,4-DINITROTOLUENE
1500U	DIETHYL PHTHALATE
1500U	FLUORENE
1500U	4-CHLOROPHENYL PHENYL ETHER
1500U	4-NITROANILINE
1500U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
1500U	4-BROMOPHENYL PHENYL ETHER
1500U	HEXACHLOROBENZENE (HCB)
150J	PHENANTHRENE
1500U	ANTHRACENE
1500U	DI-N-BUTYLPHTHALATE

UG/KG	ANALYTICAL RESULTS
320J	FLUORANTHENE
250J	PYRENE
1500U	BENZYL BUTYL PHTHALATE
1500U	3,3'-DICHLOROBENZIDINE
150J	BENZO(A)ANTHRACENE
180J	CHRYSENE
1500U	BIS(2-ETHYLHEXYL) PHTHALATE
1500U	DI-N-OCTYLPHTHALATE
260J	BENZO(B AND/OR K)FLUORANTHENE
1500U	BENZO-A-PYRENE
1500U	INDENO (1,2,3-CD) PYRENE
1500U	DIBENZO(A,H)ANTHRACENE
1500U	BENZO(GHI)PERYLENE
1500U	PHENOL
1500U	2-CHLOROPHENOL
3000U	BENZYL ALCOHOL
1500U	2-METHYLPHENOL
1500U	(3-AND/OR 4-)METHYLPHENOL
1500U	2-NITROPHENOL
1500U	2,4-DIMETHYLPHENOL
3000U	BENZOIC ACID
1500U	2,4-DICHLOROPHENOL
1500U	4-CHLORO-3-METHYLPHENOL
1500U	2,4,6-TRICHLOROPHENOL
1500U	2,4,5-TRICHLOROPHENOL
3000U	2,4-DINITROPHENOL
3000U	4-NITROPHENOL
1500U	2,3,4,6-TETRACHLOROPHENOL
3000U	2-METHYL-4,6-DINITROPHENOL
3000U	PENTACHLOROPHENOL
17	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 08/30/89

** PROJECT NO. 89-524 SAMPLE NO. 38048 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: SAWYER **
** SOURCE: SPRING MILLS CITY: LANCASTER ST: SC **
** STATION ID: SS-03 COLLECTION START: 08/01/89 1253 STOP: 00/00/00 **

UG/KG	ANALYTICAL RESULTS
1300U	BIS(2-CHLOROETHYL) ETHER
1300U	BIS(2-CHLOROISOPROPYL) ETHER
1300U	N-NITROSODI-N-PROPYLAMINE
1300U	HEXACHLOROETHANE
1300U	NITROBENZENE
1300U	ISOPHORONE
1300U	BIS(2-CHLOROETHOXY) METHANE
1300U	1,2,4-TRICHLOROBENZENE
1300U	NAPHTHALENE
1300U	4-CHLOROANILINE
1300U	HEXACHLOROBUTADIENE
1300U	2-METHYLNAPHTHALENE
1300U	HEXACHLOROCYCLOPENTADIENE (HCCP)
1300U	2-CHLORONAPHTHALENE
1300U	2-NITROANILINE
1300U	DIMETHYL PHTHALATE
1300U	ACENAPHTHYLENE
1300U	2,6-DINITROTOLUENE
1300U	3-NITROANILINE
1300U	ACENAPHTHENE
1300U	DIBENZOFURAN
1300U	2,4-DINITROTOLUENE
1300U	DIETHYL PHTHALATE
1300U	FLUORENE
1300U	4-CHLOROPHENYL PHENYL ETHER
1300U	4-NITROANILINE
1300U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
1300U	4-BROMOPHENYL PHENYL ETHER
1300U	HEXACHLOROBENZENE (HCB)
1300U	PHENANTHRENE
1300U	ANTHRACENE
1300U	DI-N-BUTYLPHTHALATE

UG/KG	ANALYTICAL RESULTS
1300U	FLUORANTHENE
1300U	PYRENE
1300U	BENZYL BUTYL PHTHALATE
1300U	3,3'-DICHLOROBENZIDINE
1300U	BENZO(A)ANTHRACENE
1300U	CHRYSENE
1300U	BIS(2-ETHYLHEXYL) PHTHALATE
1300U	DI-N-OCTYLPHTHALATE
1300U	BENZO(B AND/OR K)FLUORANTHENE
1300U	BENZO-A-PYRENE
1300U	INDENO (1,2,3-CD) PYRENE
1300U	DIBENZO(A,H)ANTHRACENE
1300U	BENZO(GHI)PERYLENE
1300U	PHENOL
1300U	2-CHLOROPHENOL
2600U	BENZYL ALCOHOL
1300U	2-METHYLPHENOL
1300U	(3-AND/OR 4-)METHYLPHENOL
1300U	2-NITROPHENOL
1300U	2,4-DIMETHYLPHENOL
2600U	BENZOIC ACID
1300U	2,4-DICHLOROPHENOL
1300U	4-CHLORO-3-METHYLPHENOL
1300U	2,4,6-TRICHLOROPHENOL
1300U	2,4,5-TRICHLOROPHENOL
2600U	2,4-DINITROPHENOL
2600U	4-NITROPHENOL
1300U	2,3,4,6-TETRACHLOROPHENOL
2600U	2-METHYL-4,6-DINITROPHENOL
2600U	PENTACHLOROPHENOL
23	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 08/30/89

PROJECT NO. 89-524 SAMPLE NO. 38050 SAMPLE TYPE: SOIL
SOURCE: SPRING MILLS
STATION ID: SS-04

PROG ELEM: NSF COLLECTED BY: SAWYER
CITY: LANCASTER ST: SC
COLLECTION START: 08/01/89 1342 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS
1700U	BIS(2-CHLOROETHYL) ETHER
1700U	BIS(2-CHLOROISOPROPYL) ETHER
1700U	N-NITROSODI-N-PROPYLAMINE
1700U	HEXACHLOROETHANE
1700U	NITROBENZENE
1700U	ISOPHORONE
1700U	BIS(2-CHLOROETHOXY) METHANE
1700U	1,2,4-TRICHLOROBENZENE
1700U	NAPHTHALENE
1700U	4-CHLOROANILINE
1700U	HEXACHLOROBUTADIENE
1700U	2-METHYLNAPHTHALENE
1700U	HEXACHLOROCYCLOPENTADIENE (HCCP)
1700U	2-CHLORONAPHTHALENE
1700U	2-NITROANILINE
1700U	DIMETHYL PHTHALATE
1700U	ACENAPHTHYLENE
1700U	2,6-DINITROTOLUENE
1700U	3-NITROANILINE
1700U	ACENAPHTHENE
1700U	DIBENZOFURAN
1700U	2,4-DINITROTOLUENE
1700U	DIETHYL PHTHALATE
1700U	FLUORENE
1700U	4-CHLOROPHENYL PHENYL ETHER
1700U	4-NITROANILINE
1700U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
1700U	4-BROMOPHENYL PHENYL ETHER
1700U	HEXACHLOROBENZENE (HCB)
1700U	PHENANTHRENE
1700U	ANTHRACENE
1700U	DI-N-BUTYLPHTHALATE

UG/KG	ANALYTICAL RESULTS
1700U	FLUORANTHENE
1700U	PYRENE
1700U	BENZYL BUTYL PHTHALATE
1700U	3,3'-DICHLOROBENZIDINE
1700U	BENZO(A)ANTHRACENE
1700U	CHRYSENE
1700U	BIS(2-ETHYLHEXYL) PHTHALATE
1700U	DI-N-OCTYLPHTHALATE
1700U	BENZO(B AND/OR K)FLUORANTHENE
1700U	BENZO-A-PYRENE
1700U	INDENO (1,2,3-CD) PYRENE
1700U	DIBENZO(A,H)ANTHRACENE
1700U	BENZO(GHI)PERYLENE
1700U	PHENOL
1700U	2-CHLOROPHENOL
3300U	BENZYL ALCOHOL
1700U	2-METHYLPHENOL
1700U	(3-AND/OR 4-)METHYLPHENOL
1700U	2-NITROPHENOL
1700U	2,4-DIMETHYLPHENOL
3300U	BENZOIC ACID
1700U	2,4-DICHLOROPHENOL
1700U	4-CHLORO-3-METHYLPHENOL
1700U	2,4,6-TRICHLOROPHENOL
1700U	2,4,5-TRICHLOROPHENOL
3300U	2,4-DINITROPHENOL
3300U	4-NITROPHENOL
1700U	2,3,4,6-TETRACHLOROPHENOL
3300U	2-METHYL-4,6-DINITROPHENOL
3300U	PENTACHLOROPHENOL
18	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 08/30/89

PROJECT NO. 89-524 SAMPLE NO. 38054 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: SD-01 COLLECTION START: 08/03/89 0914 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS
1900U	BIS(2-CHLOROETHYL) ETHER
1900U	BIS(2-CHLOROISOPROPYL) ETHER
1900U	N-NITROSODI-N-PROPYLAMINE
1900U	HEXACHLOROETHANE
1900U	NITROBENZENE
1900U	ISOPHORONE
1900U	BIS(2-CHLOROETHOXY) METHANE
1900U	1,2,4-TRICHLOROBENZENE
1900U	NAPHTHALENE
1900U	4-CHLOROANILINE
1900U	HEXACHLOROBUTADIENE
1900U	2-METHYLNAPHTHALENE
1900U	HEXACHLOROCYCLOPENTADIENE (HCCP)
1900U	2-CHLORONAPHTHALENE
1900U	2-NITROANILINE
1900U	DIMETHYL PHTHALATE
1900U	ACENAPHTHYLENE
1900U	2,6-DINITROTOLUENE
1900U	3-NITROANILINE
1900U	ACENAPHTHENE
1900U	DIBENZOFURAN
1900U	2,4-DINITROTOLUENE
1900U	DIETHYL PHTHALATE
1900U	FLUORENE
1900U	4-CHLOROPHENYL PHENYL ETHER
1900U	4-NITROANILINE
1900U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
1900U	4-BROMOPHENYL PHENYL ETHER
1900U	HEXACHLOROBENZENE (HCB)
1900U	PHENANTHRENE
1900U	ANTHRACENE
1900U	DI-N-BUTYLPHTHALATE

UG/KG	ANALYTICAL RESULTS
1900U	FLUORANTHENE
1900U	PYRENE
1900U	BENZYL BUTYL PHTHALATE
1900U	3,3'-DICHLOROBENZIDINE
1900U	BENZO(A)ANTHRACENE
1900U	CHRYSENE
1900U	BIS(2-ETHYLHEXYL) PHTHALATE
1900U	DI-N-OCTYLPHTHALATE
1900U	BENZO(B AND/OR K)FLUORANTHENE
1900U	BENZO-A-PYRENE
1900U	INDENO (1,2,3-CD) PYRENE
1900U	DIBENZO(A,H)ANTHRACENE
1900U	BENZO(GHI)PERYLENE
1900U	PHENOL
1900U	2-CHLOROPHENOL
3800U	BENZYL ALCOHOL
1900U	2-METHYLPHENOL
1900U	(3-AND/OR 4-)METHYLPHENOL
1900U	2-NITROPHENOL
1900U	2,4-DIMETHYLPHENOL
3800U	BENZOIC ACID
1900U	2,4-DICHLOROPHENOL
1900U	4-CHLORO-3-METHYLPHENOL
1900U	2,4,6-TRICHLOROPHENOL
1900U	2,4,5-TRICHLOROPHENOL
3800U	2,4-DINITROPHENOL
3800U	4-NITROPHENOL
1900U	2,3,4,6-TETRACHLOROPHENOL
3800U	2-METHYL-4,6-DINITROPHENOL
3800U	PENTACHLOROPHENOL
32	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 08/30/89

** PROJECT NO. 89-524 SAMPLE NO. 38053 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER **
** SOURCE: SPRING MILLS CITY: LANCASTER ST: SC **
** STATION ID: SD-02 COLLECTION START: 08/02/89 1007 STOP: 00/00/00 **

UG/KG	ANALYTICAL RESULTS
1900U	BIS(2-CHLOROETHYL) ETHER
1900U	BIS(2-CHLOROISOPROPYL) ETHER
1900U	N-NITROSODI-N-PROPYLAMINE
1900U	HEXACHLOROETHANE
1900U	NITROBENZENE
1900U	ISOPHORONE
1900U	BIS(2-CHLOROETHOXY) METHANE
1900U	1,2,4-TRICHLOROBENZENE
1900U	NAPHTHALENE
1900U	4-CHLOROANILINE
1900U	HEXACHLOROBUTADIENE
1900U	2-METHYLNAPHTHALENE
1900U	HEXACHLOROCYCLOPENTADIENE (HCCP)
1900U	2-CHLORONAPHTHALENE
1900U	2-NITROANILINE
1900U	DIMETHYL PHTHALATE
1900U	ACENAPHTHYLENE
1900U	2,6-DINITROTOLUENE
1900U	3-NITROANILINE
1900U	ACENAPHTHENE
1900U	DIBENZOFURAN
1900U	2,4-DINITROTOLUENE
1900U	DIETHYL PHTHALATE
1900U	FLUORENE
1900U	4-CHLOROPHENYL PHENYL ETHER
1900U	4-NITROANILINE
1900U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
1900U	4-BROMOPHENYL PHENYL ETHER
1900U	HEXACHLOROBENZENE (HCB)
1900U	PHENANTHRENE
1900U	ANTHRACENE
1900U	DI-N-BUTYLPHTHALATE

UG/KG	ANALYTICAL RESULTS
1900U	FLUORANTHENE
1900U	PYRENE
1900U	BENZYL BUTYL PHTHALATE
1900U	3,3'-DICHLOROBENZIDINE
1900U	BENZO(A)ANTHRACENE
1900U	CHRYSENE
1900U	BIS(2-ETHYLHEXYL) PHTHALATE
1900U	DI-N-OCTYLPHTHALATE
1900U	BENZO(B AND/OR K)FLUORANTHENE
1900U	BENZO-A-PYRENE
1900U	INDENO (1,2,3-CD) PYRENE
1900U	DIBENZO(A,H)ANTHRACENE
1900U	BENZO(GHI)PERYLENE
1900U	PHENOL
1900U	2-CHLOROPHENOL
3700U	BENZYL ALCOHOL
1900U	2-METHYLPHENOL
1900U	(3-AND/OR 4-)METHYLPHENOL
1900U	2-NITROPHENOL
1900U	2,4-DIMETHYLPHENOL
3700U	BENZOIC ACID
1900U	2,4-DICHLOROPHENOL
1900U	4-CHLORO-3-METHYLPHENOL
1900U	2,4,6-TRICHLOROPHENOL
1900U	2,4,5-TRICHLOROPHENOL
3700U	2,4-DINITROPHENOL
3700U	4-NITROPHENOL
1900U	2,3,4,6-TETRACHLOROPHENOL
3700U	2-METHYL-4,6-DINITROPHENOL
3700U	PENTACHLOROPHENOL
36	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 08/30/89

PROJECT NO. 89-524 SAMPLE NO. 38056 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: SD-03 COLLECTION START: 08/02/89 1237 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS
2000U	BIS(2-CHLOROETHYL) ETHER
2000U	BIS(2-CHLOROISOPROPYL) ETHER
2000U	N-NITROSODI-N-PROPYLAMINE
2000U	HEXACHLOROETHANE
2000U	NITROBENZENE
2000U	ISOPHORONE
2000U	BIS(2-CHLOROETHOXY) METHANE
2000U	1,2,4-TRICHLOROBENZENE
2000U	NAPHTHALENE
2000U	4-CHLOROANILINE
2000U	HEXACHLOROBUTADIENE
2000U	2-METHYLNAPHTHALENE
2000U	HEXACHLOROCYCLOPENTADIENE (HCCP)
2000U	2-CHLORONAPHTHALENE
2000U	2-NITROANILINE
2000U	DIMETHYL PHTHALATE
2000U	ACENAPHTHYLENE
2000U	2,6-DINITROTOLUENE
2000U	3-NITROANILINE
2000U	ACENAPHTHENE
2000U	DIBENZOFURAN
2000U	2,4-DINITROTOLUENE
2000U	DIETHYL PHTHALATE
2000U	FLUORENE
2000U	4-CHLOROPHENYL PHENYL ETHER
2000U	4-NITROANILINE
2000U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
2000U	4-BROMOPHENYL PHENYL ETHER
2000U	HEXACHLOROBENZENE (HCB)
2000U	PHENANTHRENE
2000U	ANTHRACENE
2000U	DI-N-BUTYLPHTHALATE

UG/KG	ANALYTICAL RESULTS
2000U	FLUORANTHENE
2000U	PYRENE
2000U	BENZYL BUTYL PHTHALATE
2000U	3,3'-DICHLOROBENZIDINE
2000U	BENZO(A)ANTHRACENE
2000U	CHRYSENE
2000U	BIS(2-ETHYLHEXYL) PHTHALATE
2000U	DI-N-OCTYLPHTHALATE
2000U	BENZO(B AND/OR K)FLUORANTHENE
2000U	BENZO-A-PYRENE
2000U	INDENO (1,2,3-CD) PYRENE
2000U	DIBENZO(A,H)ANTHRACENE
2000U	BENZO(GHI)PERYLENE
2000U	PHENOL
2000U	2-CHLOROPHENOL
3900U	BENZYL ALCOHOL
2000U	2-METHYLPHENOL
2000U	(3-AND/OR 4-)METHYLPHENOL
2000U	2-NITROPHENOL
2000U	2,4-DIMETHYLPHENOL
3900U	BENZOIC ACID
2000U	2,4-DICHLOROPHENOL
2000U	4-CHLORO-3-METHYLPHENOL
2000U	2,4,6-TRICHLOROPHENOL
2000U	2,4,5-TRICHLOROPHENOL
3900U	2,4-DINITROPHENOL
3900U	4-NITROPHENOL
2000U	2,3,4,6-TETRACHLOROPHENOL
3900U	2-METHYL-4,6-DINITROPHENOL
3900U	PENTACHLOROPHENOL
41	PERCENT MOISTURE

REMARKS ***REMARKS***

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 08/30/89

** PROJECT NO. 89-524 SAMPLE NO. 38044 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER **
** SOURCE: SPRING MILLS CITY: LANCASTER ST: SC **
** STATION ID: SD-05 COLLECTION START: 08/01/89 1030 STOP: 00/00/00 **

UG/KG	ANALYTICAL RESULTS
2700U	BIS(2-CHLOROETHYL) ETHER
2700U	BIS(2-CHLOROISOPROPYL) ETHER
2700U	N-NITROSODI-N-PROPYLAMINE
2700U	HEXACHLOROETHANE
2700U	NITROBENZENE
2700U	ISOPHORONE
2700U	BIS(2-CHLOROETHOXY) METHANE
2700U	1,2,4-TRICHLOROBENZENE
2700U	NAPHTHALENE
2700U	4-CHLOROANILINE
2700U	HEXACHLOROBUTADIENE
2700U	2-METHYLNAPHTHALENE
2700U	HEXACHLOROCYCLOPENTADIENE (HCCP)
2700U	2-CHLORONAPHTHALENE
2700U	2-NITROANILINE
2700U	DIMETHYL PHTHALATE
2700U	ACENAPHTHYLENE
2700U	2,6-DINITROTOLUENE
2700U	3-NITROANILINE
2700U	ACENAPHTHENE
2700U	DIBENZOFURAN
2700U	2,4-DINITROTOLUENE
2700U	DIETHYL PHTHALATE
2700U	FLUORENE
2700U	4-CHLOROPHENYL PHENYL ETHER
2700U	4-NITROANILINE
2700U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
2700U	4-BROMOPHENYL PHENYL ETHER
2700U	HEXACHLOROBENZENE (HCB)
2700U	PHENANTHRENE
2700U	ANTHRACENE
2700U	DI-N-BUTYLPHTHALATE

UG/KG	ANALYTICAL RESULTS
2700U	FLUORANTHENE
2700U	PYRENE
2700U	BENZYL BUTYL PHTHALATE
2700U	3,3'-DICHLOROBENZIDINE
2700U	BENZO(A)ANTHRACENE
2700U	CHRYSENE
2700U	BIS(2-ETHYLHEXYL) PHTHALATE
2700U	DI-N-OCTYLPHTHALATE
2700U	BENZO(B AND/OR K)FLUORANTHENE
2700U	BENZO-A-PYRENE
2700U	INDENO (1,2,3-CD) PYRENE
2700U	DIBENZO(A,H)ANTHRACENE
2700U	BENZO(GHI)PERYLENE
2700U	PHENOL
2700U	2-CHLOROPHENOL
5300U	BENZYL ALCOHOL
2700U	2-METHYLPHENOL
2700U	(3-AND/OR 4-)METHYLPHENOL
2700U	2-NITROPHENOL
2700U	2,4-DIMETHYLPHENOL
5300U	BENZOIC ACID
2700U	2,4-DICHLOROPHENOL
2700U	4-CHLORO-3-METHYLPHENOL
2700U	2,4,6-TRICHLOROPHENOL
2700U	2,4,5-TRICHLOROPHENOL
5300U	2,4-DINITROPHENOL
5300U	4-NITROPHENOL
2700U	2,3,4,6-TETRACHLOROPHENOL
5300U	2-METHYL-4,6-DINITROPHENOL
5300U	PENTACHLOROPHENOL
39	PERCENT MOISTURE

REMARKS ***REMARKS***

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 08/30/89

PROJECT NO. 89-524 SAMPLE NO. 38045 SAMPLE TYPE: SEDIMENT
SOURCE: SPRING MILLS
STATION ID: SD-06

PROG ELEM: NSF COLLECTED BY: SAWYER
CITY: LANCASTER ST: SC
COLLECTION START: 08/01/89 1105 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS
1600U	BIS(2-CHLOROETHYL) ETHER
1600U	BIS(2-CHLOROISOPROPYL) ETHER
1600U	N-NITROSODI-N-PROPYLAMINE
1600U	HEXACHLOROETHANE
1600U	NITROBENZENE
1600U	ISOPHORONE
1600U	BIS(2-CHLOROETHOXY) METHANE
1600U	1,2,4-TRICHLOROBENZENE
1600U	NAPHTHALENE
1600U	4-CHLOROANILINE
1600U	HEXACHLOROBUTADIENE
1600U	2-METHYLNAPHTHALENE
1600U	HEXACHLOROCYCLOPENTADIENE (HCCP)
1600U	2-CHLORONAPHTHALENE
1600U	2-NITROANILINE
1600U	DIMETHYL PHTHALATE
1600U	ACENAPHTHYLENE
1600U	2,6-DINITROTOLUENE
1600U	3-NITROANILINE
1600U	ACENAPHTHENE
1600U	DIBENZOFURAN
1600U	2,4-DINITROTOLUENE
1600U	DIETHYL PHTHALATE
1600U	FLUORENE
1600U	4-CHLOROPHENYL PHENYL ETHER
1600U	4-NITROANILINE
1600U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
1600U	4-BROMOPHENYL PHENYL ETHER
1600U	HEXACHLOROBENZENE (HCB)
1600U	PHENANTHRENE
1600U	ANTHRACENE
1600U	DI-N-BUTYLPHTHALATE

UG/KG	ANALYTICAL RESULTS
1600U	FLUORANTHENE
1600U	PYRENE
1600U	BENZYL BUTYL PHTHALATE
1600U	3,3'-DICHLOROBENZIDINE
1600U	BENZO(A)ANTHRACENE
1600U	CHRYSENE
1600U	BIS(2-ETHYLHEXYL) PHTHALATE
1600U	DI-N-OCTYLPHTHALATE
1600U	BENZO(B AND/OR K)FLUORANTHENE
1600U	BENZO-A-PYRENE
1600U	INDENO (1,2,3-CD) PYRENE
1600U	DIBENZO(A,H)ANTHRACENE
1600U	BENZO(GHI)PERYLENE
1600U	PHENOL
1600U	2-CHLOROPHENOL
3100U	BENZYL ALCOHOL
1600U	2-METHYLPHENOL
1600U	(3-AND/OR 4-)METHYLPHENOL
1600U	2-NITROPHENOL
1600U	2,4-DIMETHYLPHENOL
3100U	BENZOIC ACID
1600U	2,4-DICHLOROPHENOL
1600U	4-CHLORO-3-METHYLPHENOL
1600U	2,4,6-TRICHLOROPHENOL
1600U	2,4,5-TRICHLOROPHENOL
3100U	2,4-DINITROPHENOL
3100U	4-NITROPHENOL
1600U	2,3,4,6-TETRACHLOROPHENOL
3100U	2-METHYL-4,6-DINITROPHENOL
3100U	PENTACHLOROPHENOL
18	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 08/30/89

PROJECT NO. 89-524 SAMPLE NO. 38046 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: SD-07 COLLECTION START: 08/01/89 1145 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS
2000U	BIS(2-CHLOROETHYL) ETHER
2000U	BIS(2-CHLOROISOPROPYL) ETHER
2000U	N-NITROSODI-N-PROPYLAMINE
2000U	HEXACHLOROETHANE
2000U	NITROBENZENE
2000U	ISOPHORONE
2000U	BIS(2-CHLOROETHOXY) METHANE
2000U	1,2,4-TRICHLOROBENZENE
2000U	NAPHTHALENE
2000U	4-CHLOROANILINE
2000U	HEXACHLOROBUTADIENE
2000U	2-METHYLNAPHTHALENE
2000U	HEXACHLOROCYCLOPENTADIENE (HCCP)
2000U	2-CHLORONAPHTHALENE
2000U	2-NITROANILINE
2000U	DIMETHYL PHTHALATE
2000U	ACENAPHTHYLENE
2000U	2,6-DINITROTOLUENE
2000U	3-NITROANILINE
2000U	ACENAPHTHENE
2000U	DIBENZOFURAN
2000U	2,4-DINITROTOLUENE
2000U	DIETHYL PHTHALATE
2000U	FLUORENE
2000U	4-CHLOROPHENYL PHENYL ETHER
2000U	4-NITROANILINE
2000U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
2000U	4-BROMOPHENYL PHENYL ETHER
2000U	HEXACHLOROBENZENE (HCB)
2000U	PHENANTHRENE
2000U	ANTHRACENE
2000U	DI-N-BUTYLPHTHALATE

UG/KG	ANALYTICAL RESULTS
2000U	FLUORANTHENE
2000U	PYRENE
2000U	BENZYL BUTYL PHTHALATE
2000U	3,3'-DICHLOROBENZIDINE
2000U	BENZO(A)ANTHRACENE
2000U	CHRYSENE
2000U	BIS(2-ETHYLHEXYL) PHTHALATE
2000U	DI-N-OCTYLPHTHALATE
2000U	BENZO(B AND/OR K)FLUORANTHENE
2000U	BENZO-A-PYRENE
2000U	INDENO (1,2,3-CD) PYRENE
2000U	DIBENZO(A,H)ANTHRACENE
2000U	BENZO(GHI)PERYLENE
2000U	PHENOL
2000U	2-CHLOROPHENOL
3900U	BENZYL ALCOHOL
2000U	2-METHYLPHENOL
2000U	(3-AND/OR 4-)METHYLPHENOL
2000U	2-NITROPHENOL
2000U	2,4-DIMETHYLPHENOL
3900U	BENZOIC ACID
2000U	2,4-DICHLOROPHENOL
2000U	4-CHLORO-3-METHYLPHENOL
2000U	2,4,6-TRICHLOROPHENOL
2000U	2,4,5-TRICHLOROPHENOL
3900U	2,4-DINITROPHENOL
3900U	4-NITROPHENOL
2000U	2,3,4,6-TETRACHLOROPHENOL
3900U	2-METHYL-4,6-DINITROPHENOL
3900U	PENTACHLOROPHENOL
35	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 08/30/89

PROJECT NO. 89-524 SAMPLE NO. 38047 SAMPLE TYPE: SEDIMENT
SOURCE: SPRING MILLS
STATION ID: SD-08

PROG ELEM: NSF COLLECTED BY: SAWYER
CITY: LANCASTER ST: SC
COLLECTION START: 08/01/89 1228 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS
3100UJ	BIS(2-CHLOROETHYL) ETHER
3100UJ	BIS(2-CHLOROISOPROPYL) ETHER
3100UJ	N-NITROSODI-N-PROPYLAMINE
3100UJ	HEXACHLOROETHANE
3100UJ	NITROBENZENE
3100UJ	ISOPHORONE
3100UJ	BIS(2-CHLOROETHOXY) METHANE
3100UJ	1,2,4-TRICHLOROBENZENE
3100UJ	NAPHTHALENE
3100UJ	4-CHLOROANILINE
3100UJ	HEXACHLOROBUTADIENE
3100UJ	2-METHYLNAPHTHALENE
3100UJ	HEXACHLOROCYCLOPENTADIENE (HCCP)
3100UJ	2-CHLORONAPHTHALENE
3100UJ	2-NITROANILINE
3100UJ	DIMETHYL PHTHALATE
3100UJ	ACENAPHTHYLENE
3100UJ	2,6-DINITROTOLUENE
3100UJ	3-NITROANILINE
3100UJ	ACENAPHTHENE
3100UJ	DIBENZOFURAN
3100UJ	2,4-DINITROTOLUENE
3100UJ	DIETHYL PHTHALATE
3100UJ	FLUORENE
3100UJ	4-CHLOROPHENYL PHENYL ETHER
3100UJ	4-NITROANILINE
3100UJ	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
3100UJ	4-BROMOPHENYL PHENYL ETHER
3100UJ	HEXACHLOROBENZENE (HCB)
3100UJ	PHENANTHRENE
3100UJ	ANTHRACENE
3100UJ	DI-N-BUTYLPHTHALATE

UG/KG	ANALYTICAL RESULTS
3100UJ	FLUORANTHENE
3100UJ	PYRENE
3100UJ	BENZYL BUTYL PHTHALATE
3100UJ	3,3'-DICHLOROBENZIDINE
3100UJ	BENZO(A)ANTHRACENE
3100UJ	CHRYSENE
3100UJ	BIS(2-ETHYLHEXYL) PHTHALATE
3100UJ	DI-N-OCTYLPHTHALATE
3100UJ	BENZO(B AND/OR K)FLUORANTHENE
3100UJ	BENZO-A-PYRENE
3100UJ	INDENO (1,2,3-CD) PYRENE
3100UJ	DIBENZO(A,H)ANTHRACENE
3100UJ	BENZO(GHI)PERYLENE
3100UJ	PHENOL
3100UJ	2-CHLOROPHENOL
6100UJ	BENZYL ALCOHOL
3100UJ	2-METHYLPHENOL
3100UJ	(3-AND/OR 4-)METHYLPHENOL
3100UJ	2-NITROPHENOL
3100UJ	2,4-DIMETHYLPHENOL
6100UJ	BENZOIC ACID
3100UJ	2,4-DICHLOROPHENOL
3100UJ	4-CHLORO-3-METHYLPHENOL
3100UJ	2,4,6-TRICHLOROPHENOL
3100UJ	2,4,5-TRICHLOROPHENOL
6100UJ	2,4-DINITROPHENOL
6100UJ	4-NITROPHENOL
3100UJ	2,3,4,6-TETRACHLOROPHENOL
6100UJ	2-METHYL-4,6-DINITROPHENOL
6100UJ	PENTACHLOROPHENOL
59	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 08/30/89

PROJECT NO. 89-524 SAMPLE NO. 38049 SAMPLE TYPE: SEDIMENT
SOURCE: SPRING MILLS
STATION ID: SD-09

PROG ELEM: NSF COLLECTED BY: SAWYER
CITY: LANCASTER ST: SC
COLLECTION START: 08/01/89 1321 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS
1500U	BIS(2-CHLOROETHYL) ETHER
1500U	BIS(2-CHLOROISOPROPYL) ETHER
1500U	N-NITROSODI-N-PROPYLAMINE
1500U	HEXACHLOROETHANE
1500U	NITROBENZENE
1500U	ISOPHORONE
1500U	BIS(2-CHLOROETHOXY) METHANE
1500U	1,2,4-TRICHLOROBENZENE
1500U	NAPHTHALENE
1500U	4-CHLOROANILINE
1500U	HEXACHLOROBUTADIENE
1500U	2-METHYLNAPHTHALENE
1500U	HEXACHLOROCYCLOPENTADIENE (HCCP)
1500U	2-CHLORONAPHTHALENE
1500U	2-NITROANILINE
1500U	DIMETHYL PHTHALATE
1500U	ACENAPHTHYLENE
1500U	2,6-DINITROTOLUENE
1500U	3-NITROANILINE
1500U	ACENAPHTHENE
1500U	DIBENZOFURAN
1500U	2,4-DINITROTOLUENE
1500U	DIETHYL PHTHALATE
1500U	FLUORENE
1500U	4-CHLOROPHENYL PHENYL ETHER
1500U	4-NITROANILINE
1500U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
1500U	4-BROMOPHENYL PHENYL ETHER
1500U	HEXACHLOROBENZENE (HCB)
1500U	PHENANTHRENE
1500U	ANTHRACENE
1500U	DI-N-BUTYLPHTHALATE

UG/KG	ANALYTICAL RESULTS
1500U	FLUORANTHENE
1500U	PYRENE
1500U	BENZYL BUTYL PHTHALATE
1500U	3,3'-DICHLOROBENZIDINE
1500U	BENZO(A)ANTHRACENE
1500U	CHRYSENE
1500U	BIS(2-ETHYLHEXYL) PHTHALATE
1500U	DI-N-OCTYLPHTHALATE
1500U	BENZO(B AND/OR K)FLUORANTHENE
1500U	BENZO-A-PYRENE
1500U	INDENO (1,2,3-CD) PYRENE
1500U	DIBENZO(A,H)ANTHRACENE
1500U	BENZO(GHI)PERYLENE
1500U	PHENOL
1500U	2-CHLOROPHENOL
3000U	BENZYL ALCOHOL
1500U	2-METHYLPHENOL
1500U	(3-AND/OR 4-)METHYLPHENOL
1500U	2-NITROPHENOL
1500U	2,4-DIMETHYLPHENOL
3000U	BENZOIC ACID
1500U	2,4-DICHLOROPHENOL
1500U	4-CHLORO-3-METHYLPHENOL
1500U	2,4,6-TRICHLOROPHENOL
1500U	2,4,5-TRICHLOROPHENOL
3000U	2,4-DINITROPHENOL
3000U	4-NITROPHENOL
1500U	2,3,4,6-TETRACHLOROPHENOL
3000U	2-METHYL-4,6-DINITROPHENOL
3000U	PENTACHLOROPHENOL
19	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

08/30/89

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

*** ***
** PROJECT NO. 89-524 SAMPLE NO. 38058 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: SAWYER **
** SOURCE: SPRING MILLS CITY: LANCASTER ST: SC **
** STATION ID: SS-01 COLLECTION START: 08/03/89 1258 STOP: 00/00/00 **
** **
*** ***

ANALYTICAL RESULTS UG/KG

300JN	OCTAHYDROMETHYLMETHYLENE(METHYLETHYL)NAPHTHALENE
1000JN	HEXAHYDRODIMETHYL(METHYLETHYL)NAPHTHALENE
500JN	OCTAHYDRODIMETHYL(METHYLETHYL)NAPHTHALENOL
7000J	UNIDENTIFIED COMPOUND

Soil
Misc.
Extractable

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

*** ***
** PROJECT NO. 89-524 SAMPLE NO. 38054 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER **
** SOURCE: SPRING MILLS CITY: LANCASTER ST: SC **
** STATION ID: SD-01 COLLECTION START: 08/03/89 0914 STOP: 00/00/00 **
** **
*** ***

ANALYTICAL RESULTS UG/KG

300JN	TRIMETHYLMETHYLDECAHYDRONAPHTHALENEMETHANOL
400JN	HEXADECANOIC ACID
600JN	OCTADECANAL
5000J	1 UNIDENTIFIED COMPOUND

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

08/30/89

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

*** ***
** PROJECT NO. 89-524 SAMPLE NO. 38056 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER **
** SOURCE: SPRING MILLS CITY: LANCASTER ST: SC **
** STATION ID: SD-03 COLLECTION START: 08/02/89 1237 STOP: 00/00/00 **
** **
*** ***

ANALYTICAL RESULTS UG/KG

2000JN	CARYOPHYLLENE
6000J	1 UNIDENTIFIED COMPOUND

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

08/30/89

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

PROJECT NO. 89-524	SAMPLE NO. 38046 SAMPLE TYPE: SEDIMENT	PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS		CITY: LANCASTER ST: SC
STATION ID: SD-07		COLLECTION START: 08/01/89 1145 STOP: 00/00/00

ANALYTICAL RESULTS UG/KG

300JN	(TETRAMETHYLBUTYL)PHENOL
1000JN	NONYLPHENOL (3 ISOMERS)
300JN	(DIETHYLETHANEDIYL)BISPHENOL
600JN	AMYRIN

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.
08/30/89

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

*** ***
** PROJECT NO. 89-524 SAMPLE NO. 38047 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER **
** SOURCE: SPRING MILLS CITY: LANCASTER ST: SC **
** STATION ID: SD-08 COLLECTION START: 08/01/89 1228 STOP: 00/00/00 **
** **
*** ***

ANALYTICAL RESULTS UG/KG

300JN	(TETRAMETHYLBUTYL)PHENOL
3000JN	OLEANENE
400JN	NONYLPHENOL
10000J	2 UNIDENTIFIED COMPOUNDS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 08/30/89

PROJECT NO. 89-524 SAMPLE NO. 38043 SAMPLE TYPE: SOIL
SOURCE: SPRING MILLS
STATION ID: SS-02

PROG ELEM: NSF COLLECTED BY: SAWYER
CITY: LANCASTER ST: SC
COLLECTION START: 08/01/89 1005 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS
47U	CHLOROMETHANE
47U	VINYL CHLORIDE
47U	BROMOMETHANE
47U	CHLOROETHANE
47U	TRICHLOROFLUOROMETHANE
47U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
470U	ACETONE
470U	CARBON DISULFIDE
47U	METHYLENE CHLORIDE
47U	TRANS-1,2-DICHLOROETHENE
47U	1,1-DICHLOROETHANE
470U	VINYL ACETATE
47U	CIS-1,2-DICHLOROETHENE
47U	2,2-DICHLOROPROPANE
470U	METHYL ETHYL KETONE
47U	BROMOCHLOROMETHANE
47U	CHLOROFORM
47U	1,1,1-TRICHLOROETHANE
47U	1,1-DICHLOROPROPENE
47U	CARBON TETRACHLORIDE
47U	1,2-DICHLOROETHANE
47U	BENZENE
47U	TRICHLOROETHENE(TRICHLOROETHYLENE)
47U	1,2-DICHLOROPROPANE
47U	DIBROMOMETHANE
47U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
47U	CIS-1,3-DICHLOROPROPENE
470U	METHYL ISOBUTYL KETONE
47U	TOLUENE
47U	TRANS-1,3-DICHLOROPROPENE
47U	1,1,2-TRICHLOROETHANE
47U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
47U	1,3-DICHLOROPROPANE
470U	METHYL BUTYL KETONE
47U	DIBROMOCHLOROMETHANE
47U	CHLOROBENZENE
47U	1,1,1,2-TETRACHLOROETHANE
47U	ETHYL BENZENE
47U	(M- AND/OR P-)XYLENE
47U	O-XYLENE
47U	STYRENE
47U	BROMOFORM
47U	BROMOBENZENE
47U	1,1,2,2-TETRACHLOROETHANE
47U	1,2,3-TRICHLOROPROPANE
47U	O-CHLOROTOLUENE
47U	P-CHLOROTOLUENE
47U	1,3-DICHLOROBENZENE
47U	1,4-DICHLOROBENZENE
47U	1,2-DICHLOROBENZENE
17	PERCENT MOISTURE

Sue Purgeable

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 08/30/89

PROJECT NO. 89-524 SAMPLE NO. 38046 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: SD-07 COLLECTION START: 08/01/89 1145 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS
48U	CHLOROMETHANE
48U	VINYL CHLORIDE
48U	BROMOMETHANE
48U	CHLOROETHANE
48U	TRICHLOROFLUOROMETHANE
48U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
480U	ACETONE
480U	CARBON DISULFIDE
48U	METHYLENE CHLORIDE
48U	TRANS-1,2-DICHLOROETHENE
48U	1,1-DICHLOROETHANE
480U	VINYL ACETATE
48U	CIS-1,2-DICHLOROETHENE
48U	2,2-DICHLOROPROPANE
480U	METHYL ETHYL KETONE
48U	BROMOCHLOROMETHANE
48U	CHLOROFORM
48U	1,1,1-TRICHLOROETHANE
48U	1,1-DICHLOROPROPENE
48U	CARBON TETRACHLORIDE
48U	1,2-DICHLOROETHANE
48U	BENZENE
48U	TRICHLOROETHENE(TRICHLOROETHYLENE)
48U	1,2-DICHLOROPROPANE
48U	DIBROMOMETHANE
48U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
48U	CIS-1,3-DICHLOROPROPENE
480U	METHYL ISOBUTYL KETONE
48U	TOLUENE
48U	TRANS-1,3-DICHLOROPROPENE
48U	1,1,2-TRICHLOROETHANE
48U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
48U	1,3-DICHLOROPROPANE
480U	METHYL BUTYL KETONE
48U	DIBROMOCHLOROMETHANE
48U	CHLOROBENZENE
48U	1,1,1,2-TETRACHLOROETHANE
48U	ETHYL BENZENE
48U	(M- AND/OR P-)XYLENE
48U	O-XYLENE
48U	STYRENE
48U	BROMOFORM
48U	BROMOBENZENE
48U	1,1,2,2-TETRACHLOROETHANE
48U	1,2,3-TRICHLOROPROPANE
48U	O-CHLOROTOLUENE
48U	P-CHLOROTOLUENE
48U	1,3-DICHLOROBENZENE
48U	1,4-DICHLOROBENZENE
48U	1,2-DICHLOROBENZENE
35	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

ANALYTICAL DATA TRACKING SHEETS

SITE NAME: Spring Mills Grace Bleachery
LOCATION: Lancaster, S.C
DATE SAMPLED: 7/31 - 8-3

TDD NO.: F4-8904-52
PROJECT NO.: 89-524
CASE NO.:
DATA SET COMPLETED:

Soil/Sediment Samples

Station	Cyanide	Metals	Purgeable	Purgeable, Misc	Extractable	Extractable Misc	Pest /PCBs	Remarks
SS-01								
SS-02								
SS-03								
SS-04								
SD-01								
SD-02								
SD-03								
SD-05								
SD-06								
SD-07								
SD-08								
SD-09								

Water Samples.

Station	Cyanide	Metals	Purgeable	Purgeable, Misc	Extractable	Extractable Misc.	Pest. /PCBs	Remarks
TW-01			8-17-89					
TW-02			8-17-89	8-17-89				
TW-03			8-17-89					
TRIP BLANK			8-17-89					

PROJECT MANAGER T. SAWYER

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 08/15/89

PROJECT NO. 89-524 SAMPLE NO. 38057 SAMPLE TYPE: GRNDWATER PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: TW-01 COLLECTION START: 08/03/89 1205 STOP: 00/00/00

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
5.0U	CHLOROMETHANE	5.0U	CIS-1,3-DICHLOROPROPENE
5.0U	VINYL CHLORIDE	50U	METHYL ISOBUTYL KETONE
5.0U	BROMOMETHANE	1.8J	TOLUENE
5.0U	CHLOROETHANE	5.0U	TRANS-1,3-DICHLOROPROPENE
5.0U	TRICHLOROFLUOROMETHANE	5.0U	1,1,2-TRICHLOROETHANE
5.0U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)	5.0U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
50U	ACETONE	5.0U	1,3-DICHLOROPROPANE
50U	CARBON DISULFIDE	50U	METHYL BUTYL KETONE
5.0U	METHYLENE CHLORIDE	5.0U	DIBROMOCHLOROMETHANE
5.0U	TRANS-1,2-DICHLOROETHENE	5.0U	CHLOROBENZENE
5.0U	1,1-DICHLOROETHANE	10U	1,1,1,2-TETRACHLOROETHANE
50U	VINYL ACETATE	5.0U	ETHYL BENZENE
5.0U	CIS-1,2-DICHLOROETHENE	5.0U	(M- AND/OR P-)XYLENE
5.0U	2,2-DICHLOROPROPANE	5.0U	O-XYLENE
50U	METHYL ETHYL KETONE	10U	STYRENE
5.0U	BROMOCHLOROMETHANE	5.0U	BROMOFORM
5.0U	CHLOROFORM	10U	BROMOBENZENE
5.0U	1,1,1-TRICHLOROETHANE	5.0U	1,1,2,2-TETRACHLOROETHANE
5.0U	1,1-DICHLOROPROPENE	10U	1,2,3-TRICHLOROPROPANE
5.0U	CARBON TETRACHLORIDE	10U	O-CHLOROTOLUENE
5.0U	1,2-DICHLOROETHANE	10U	P-CHLOROTOLUENE
5.0U	BENZENE	10U	1,3-DICHLOROBENZENE
5.0U	TRICHLOROETHENE(TRICHLOROETHYLENE)	10U	1,4-DICHLOROBENZENE
5.0U	1,2-DICHLOROPROPANE	10U	1,2-DICHLOROBENZENE
5.0U	DIBROMOMETHANE		
5.0U	BROMODICHLOROMETHANE		

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 08/11/89

** PROJECT NO. 89-524 SAMPLE NO. 38052 SAMPLE TYPE: GRNDWATER PROG ELEM: NSF COLLECTED BY: SAWYER **
** SOURCE: SPRING MILLS CITY: LANCASTER ST: SC **
** STATION ID: TW-02 COLLECTION START: 08/02/89 0900 STOP: 00/00/00 **

UG/L	ANALYTICAL RESULTS
5.0U	CHLOROMETHANE
5.0U	VINYL CHLORIDE
5.0U	BROMOMETHANE
5.0U	CHLOROETHANE
5.0U	TRICHLOROFLUOROMETHANE
5.0U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
50U	ACETONE
50U	CARBON DISULFIDE
5.0U	METHYLENE CHLORIDE
5.0U	TRANS-1,2-DICHLOROETHENE
5.0U	1,1-DICHLOROETHANE
50U	VINYL ACETATE
5.0U	CIS-1,2-DICHLOROETHENE
5.0U	2,2-DICHLOROPROPANE
50U	METHYL ETHYL KETONE
5.0U	BROMOCHLOROMETHANE
5.0U	CHLOROFORM
5.0U	1,1,1-TRICHLOROETHANE
5.0U	1,1-DICHLOROPROPENE
5.0U	CARBON TETRACHLORIDE
5.0U	1,2-DICHLOROETHANE
5.0U	BENZENE
5.0U	TRICHLOROETHENE(TRICHLOROETHYLENE)
5.0U	1,2-DICHLOROPROPANE
5.0U	DIBROMOMETHANE
5.0U	BROMODICHLOROMETHANE

UG/L	ANALYTICAL RESULTS
5.0U	CIS-1,3-DICHLOROPROPENE
50U	METHYL ISOBUTYL KETONE
7.1	TOLUENE
5.0U	TRANS-1,3-DICHLOROPROPENE
5.0U	1,1,2-TRICHLOROETHANE
5.0U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
5.0U	1,3-DICHLOROPROPANE
50U	METHYL BUTYL KETONE
5.0U	DIBROMOCHLOROMETHANE
5.0U	CHLOROBENZENE
10U	1,1,1,2-TETRACHLOROETHANE
5.0U	ETHYL BENZENE
5.0U	(M- AND/OR P-)XYLENE
5.0U	O-XYLENE
10U	STYRENE
5.0U	BROMOFORM
10U	BROMOBENZENE
5.0U	1,1,2,2-TETRACHLOROETHANE
10U	1,2,3-TRICHLOROPROPANE
10U	O-CHLOROTOLUENE
10U	P-CHLOROTOLUENE
10U	1,3-DICHLOROBENZENE
10U	1,4-DICHLOROBENZENE
10U	1,2-DICHLOROBENZENE

REMARKS
VOL. AROMATICS QUANT. SUSPECT-NO ACID PRESERVED SAMPLE REC'D

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 08/11/89

** PROJECT NO. 89-524 SAMPLE NO. 38055 SAMPLE TYPE: GRNDWATER PROG ELEM: NSF COLLECTED BY: SAWYER **
** SOURCE: SPRING MILLS CITY: LANCASTER ST: SC **
** STATION ID: TW-03 COLLECTION START: 08/02/89 1149 STOP: 00/00/00 **

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
5.0U	CHLOROMETHANE	5.0U	CIS-1,3-DICHLOROPROPENE
5.0U	VINYL CHLORIDE	50U	METHYL ISOBUTYL KETONE
5.0U	BROMOMETHANE	0.91J	TOLUENE
5.0U	CHLOROETHANE	5.0U	TRANS-1,3-DICHLOROPROPENE
5.0U	TRICHLOROFLUOROMETHANE	5.0U	1,1,2-TRICHLOROETHANE
5.0U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)	5.0U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
50U	ACETONE	5.0U	1,3-DICHLOROPROPANE
50U	CARBON DISULFIDE	50U	METHYL BUTYL KETONE
5.0U	METHYLENE CHLORIDE	5.0U	DIBROMOCHLOROMETHANE
5.0U	TRANS-1,2-DICHLOROETHENE	5.0U	CHLOROBENZENE
5.0U	1,1-DICHLOROETHANE	10U	1,1,1,2-TETRACHLOROETHANE
50U	VINYL ACETATE	5.0U	ETHYL BENZENE
5.0U	CIS-1,2-DICHLOROETHENE	5.0U	(M- AND/OR P-)XYLENE
5.0U	2,2-DICHLOROPROPANE	5.0U	O-XYLENE
50U	METHYL ETHYL KETONE	10U	STYRENE
5.0U	BROMOCHLOROMETHANE	5.0U	BROMOFORM
5.0U	CHLOROFORM	10U	BROMOBENZENE
5.0U	1,1,1-TRICHLOROETHANE	5.0U	1,1,2,2-TETRACHLOROETHANE
5.0U	1,1-DICHLOROPROPENE	10U	1,2,3-TRICHLOROPROPANE
5.0U	CARBON TETRACHLORIDE	10U	O-CHLOROTOLUENE
5.0U	1,2-DICHLOROETHANE	10U	P-CHLOROTOLUENE
5.0U	BENZENE	10U	1,3-DICHLOROBENZENE
5.0U	TRICHLOROETHENE(TRICHLOROETHYLENE)	10U	1,4-DICHLOROBENZENE
5.0U	1,2-DICHLOROPROPANE	10U	1,2-DICHLOROBENZENE
5.0U	DIBROMOMETHANE		
5.0U	BROMODICHLOROMETHANE		

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

08/08/89

PURGEABLE ORGANICS DATA REPORT

PROJECT NO. 89-524 SAMPLE NO. 38051 SAMPLE TYPE: TRIPBLANK PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: TRIP BLANK COLLECTION START: 07/30/89 0900 STOP: 00/00/00

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
5.0U	CHLOROMETHANE	5.0U	CIS-1,3-DICHLOROPROPENE
5.0U	VINYL CHLORIDE	50U	METHYL ISOBUTYL KETONE
5.0U	BROMOMETHANE	3.0J	TOLUENE
5.0U	CHLOROETHANE	5.0U	TRANS-1,3-DICHLOROPROPENE
5.0U	TRICHLOROFLUOROMETHANE	5.0U	1,1,2-TRICHLOROETHANE
5.0U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)	5.0U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
50U	ACETONE	5.0U	1,3-DICHLOROPROPANE
50U	CARBON DISULFIDE	50U	METHYL BUTYL KETONE
5.4	METHYLENE CHLORIDE	5.0U	DIBROMOCHLOROMETHANE
5.0U	TRANS-1,2-DICHLOROETHENE	5.0U	CHLOROBENZENE
5.0U	1,1-DICHLOROETHANE	10U	1,1,1,2-TETRACHLOROETHANE
50U	VINYL ACETATE	5.0U	ETHYL BENZENE
5.0U	CIS-1,2-DICHLOROETHENE	5.0U	(M- AND/OR P-)XYLENE
5.0U	2,2-DICHLOROPROPANE	5.0U	O-XYLENE
50U	METHYL ETHYL KETONE	10U	STYRENE
5.0U	BROMOCHLOROMETHANE	5.0U	BROMOFORM
5.0U	CHLOROFORM	10U	BROMOBENZENE
5.0U	1,1,1-TRICHLOROETHANE	5.0U	1,1,2,2-TETRACHLOROETHANE
5.0U	1,1-DICHLOROPROPENE	10U	1,2,3-TRICHLOROPROPANE
5.0U	CARBON TETRACHLORIDE	10U	O-CHLOROTOLUENE
5.0U	1,2-DICHLOROETHANE	10U	P-CHLOROTOLUENE
5.0U	BENZENE	10U	1,3-DICHLOROBENZENE
5.0U	TRICHLOROETHENE(TRICHLOROETHYLENE)	10U	1,4-DICHLOROBENZENE
5.0U	1,2-DICHLOROPROPANE	10U	1,2-DICHLOROBENZENE
5.0U	DIBROMOMETHANE		
5.0U	BROMODICHLOROMETHANE		

REMARKS
VOL. AROMATICS QUANT. SUSPECT-NO ACID PRESERVED SAMPLE REC'D

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT

*** ***
** PROJECT NO. 89-524 SAMPLE NO. 38052 SAMPLE TYPE: GRNDWATER PROG ELEM: NSF COLLECTED BY: SAWYER **
** SOURCE: SPRING MILLS CITY: LANCASTER ST: SC **
** STATION ID: TW-02 COLLECTION START: 08/02/89 0900 STOP: 00/00/00 **
** **
*** ***

ANALYTICAL RESULTS UG/L

5JN METHYL FURAN

REMARKS
VOL. AROMATICS QUANT. SUSPECT-NO ACID PRESERVED SAMPLE REC'D

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV
COLLEGE STATION RD.
ATHENS, GA. 30613

*****MEMORANDUM******

DATE: 08/09/89

SUBJECT: Results of Purgeable Organic Analysis;
89-524 SPRING MILLS
LANCASTER SC

FROM: Tom B. Bennett, jr.
Chief, Organic Chemistry Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

RECEIVED
AUG 17 1989
NUS CORPORATION
REGION IV
SENT TO _____

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV
COLLEGE STATION RD.
ATHENS, GA. 30613

*****MEMORANDUM******

DATE: 08/16/89

SUBJECT: Results of Purgeable Organic Analysis;
89-524 SPRING MILLS
LANCASTER SC

FROM: Tom B. Bennett, jr. af for
Chief, Organic Chemistry Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV
COLLEGE STATION RD.
ATHENS, GA. 30613

*****MEMORANDUM******

DATE: 08/12/89

SUBJECT: Results of Purgeable Organic Analysis;
89-524 SPRING MILLS
LANCASTER SC

FROM: Tom B. Bennett, jr.
Chief, Organic Chemistry Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

RECEIVED

AUG 17 1989

NUS CORPORATION
REGION IV
SENT TO_____

ANALYTICAL DATA TRACKING SHEETS

SITE NAME: Spring Mills Grace Bleachery
LOCATION: Lancaster, S.C
DATE SAMPLED: 7/31 - 8-3

TDD NO.: F4-8904-52
PROJECT NO.: 89-524
CASE NO.:
DATA SET COMPLETED:

Soil/Sediment Samples

Station	Cyanide	Metals	Purgeable	Purgeable, Misc	Extractable	Extractable Misc	Pest /PCBs	Remarks
SS-01	9-5-89				9-5-89	9-5-89		
SS-02			9-5-89					
SS-03								
SS-04								
SD-01						9-5-89		
SD-02								
SD-03						9-5-89		
SD-05								
SD-06								
SD-07			9-5-89			9-5-89		
SD-08			8-28-89			9-5-89		
SD-09	↓				↓			

Water Samples.

Station	Cyanide	Metals	Purgeable	Purgeable, Misc	Extractable	Extractable Misc.	Pest /PCBs	Remarks
TW-01	9-5-89		8-17-89					
TW-02			8-17-89	8-17-89				
TW-03			8-17-89					
TRIP BLANK	↓		8-17-89					

PROJECT MANAGER T. SAWYER

ANALYTICAL DATA TRACKING SHEETS

SITE NAME: Spring Mills Grace Bleachery
LOCATION: Lancaster, S.C
DATE SAMPLED: 7/31 - 8-3

TDD NO.: F4-8904-52
PROJECT NO.: 89-524
CASE NO.:
DATA SET COMPLETED:

Soil/Sediment Samples

Station	Cyanide	Metals	Purgeable	Purgeable, Misc	Extractable	Extractable Misc	Pest /PCBs	Remarks
SS-01								
SS-02								
SS-03								
SS-04								
SD-01								
SD-02								
SD-03								
SD-05								
SD-06								
SD-07								
SD-08			8-28-89					
SD-09								

Water Samples.

Station	Cyanide	Metals	Purgeable	Purgeable, Misc	Extractable	Extractable Misc.	Pest /PCBs	Remarks
TW-01			8-17-89					
TW-02			8-17-89	8-17-89				
TW-03			8-17-89					
TRIP BLANK			8-17-89					

PROJECT MANAGER T. SAWYER

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 08/18/89

PROJECT NO. 89-524 SAMPLE NO. 38047 SAMPLE TYPE: SEDIMENT
SOURCE: SPRING MILLS
STATION ID: SD-08

PROG ELEM: NSF COLLECTED BY: SAWYER
CITY: LANCASTER ST: SC
COLLECTION START: 08/01/89 1228 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS
300U	CHLOROMETHANE
300U	VINYL CHLORIDE
300U	BROMOMETHANE
300U	CHLOROETHANE
300U	TRICHLOROFLUOROMETHANE
300U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
3000U	ACETONE
3000U	CARBON DISULFIDE
300U	METHYLENE CHLORIDE
300U	TRANS-1,2-DICHLOROETHENE
300U	1,1-DICHLOROETHANE
3000U	VINYL ACETATE
300U	CIS-1,2-DICHLOROETHENE
300U	2,2-DICHLOROPROPANE
3000U	METHYL ETHYL KETONE
300U	BROMOCHLOROMETHANE
300U	CHLOROFORM
300U	1,1,1-TRICHLOROETHANE
300U	1,1-DICHLOROPROPENE
300U	CARBON TETRACHLORIDE
300U	1,2-DICHLOROETHANE
300U	BENZENE
300U	TRICHLOROETHENE(TRICHLOROETHYLENE)
300U	1,2-DICHLOROPROPANE
300U	DIBROMOMETHANE
300U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
300U	CIS-1,3-DICHLOROPROPENE
3000U	METHYL ISOBUTYL KETONE
81J	TOLUENE
300U	TRANS-1,3-DICHLOROPROPENE
300U	1,1,2-TRICHLOROETHANE
300U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
300U	1,3-DICHLOROPROPANE
3000U	METHYL BUTYL KETONE
300U	DIBROMOCHLOROMETHANE
300U	CHLOROBENZENE
300U	1,1,1,2-TETRACHLOROETHANE
300U	ETHYL BENZENE
300U	(M- AND/OR P-)XYLENE
300U	O-XYLENE
300U	STYRENE
300U	BROMOFORM
300U	BROMOBENZENE
300U	1,1,2,2-TETRACHLOROETHANE
300U	1,2,3-TRICHLOROPROPANE
300U	O-CHLOROTOLUENE
300U	P-CHLOROTOLUENE
300U	1,3-DICHLOROBENZENE
300U	1,4-DICHLOROBENZENE
300U	1,2-DICHLOROBENZENE
59.0	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV
COLLEGE STATION RD.
ATHENS, GA. 30613

*****MEMORANDUM******

DATE: 08/19/89

SUBJECT: Results of Purgeable Organic Analysis;
89-524 SPRING MILLS
LANCASTER SC

FROM: Tom B. Bennett, jr.
Chief, Organic Chemistry Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 09/08/89

PROJECT NO. 89-524 SAMPLE NO. 38057 SAMPLE TYPE: GRNDWATER
SOURCE: SPRING MILLS
STATION ID: TW-01

PROG ELEM: NSF COLLECTED BY: SAWYER
CITY: LANCASTER ST: SC
COLLECTION START. 08/03/89 1205 STOP: 00/00/00

UG/L	ANALYTICAL RESULTS
20U	BIS(2-CHLOROETHYL) ETHER
20U	BIS(2-CHLOROISOPROPYL) ETHER
20U	N-NITROSODI-N-PROPYLAMINE
20U	HEXACHLOROETHANE
20U	NITROBENZENE
20U	ISOPHORONE
20U	BIS(2-CHLOROETHOXY) METHANE
20U	1,2,4-TRICHLOROBENZENE
20U	NAPHTHALENE
20U	4-CHLOROANILINE
20U	HEXACHLOROBUTADIENE
20U	2-METHYLNAPHTHALENE
20U	HEXACHLOROCYCLOPENTADIENE (HCCP)
20U	2-CHLORONAPHTHALENE
20U	2-NITROANILINE
20U	DIMETHYL PHTHALATE
20U	ACENAPHTHYLENE
20U	2,6-DINITROTOLUENE
20U	3-NITROANILINE
20U	ACENAPHTHENE
20U	DIBENZOFURAN
20U	2,4-DINITROTOLUENE
20U	DIETHYL PHTHALATE
20U	FLUORENE
20U	4-CHLOROPHENYL PHENYL ETHER
20U	4-NITROANILINE
20U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
20U	4-BROMOPHENYL PHENYL ETHER
20U	HEXACHLOROBENZENE (HCB)
20U	PHENANTHRENE
20U	ANTHRACENE
20U	DI-N-BUTYLPHTHALATE

UG/L	ANALYTICAL RESULTS
20U	FLUORANTHENE
20U	PYRENE
20U	BENZYL BUTYL PHTHALATE
20U	3,3'-DICHLOROBENZIDINE
20U	BENZO(A)ANTHRACENE
20U	CHRYSENE
20U	BIS(2-ETHYLHEXYL) PHTHALATE
20U	DI-N-OCTYLPHTHALATE
20U	BENZO(B AND/OR K)FLUORANTHENE
20U	BENZO-A-PYRENE
20U	INDENO (1,2,3-CD) PYRENE
20U	DIBENZO(A,H)ANTHRACENE
20U	BENZO(GHI)PERYLENE
20U	PHENOL
20U	2-CHLOROPHENOL
40U	BENZYL ALCOHOL
20U	2-METHYLPHENOL
20U	(3-AND/OR 4-)METHYLPHENOL
20U	2-NITROPHENOL
20U	2,4-DIMETHYLPHENOL
40U	BENZOIC ACID
20U	2,4-DICHLOROPHENOL
20U	4-CHLORO-3-METHYLPHENOL
20U	2,4,6-TRICHLOROPHENOL
20U	2,4,5-TRICHLOROPHENOL
40U	2,4-DINITROPHENOL
40U	4-NITROPHENOL
20U	2,3,4,6-TETRACHLOROPHENOL
40U	2-METHYL-4,6-DINITROPHENOL
40U	PENTACHLOROPHENOL

Water
Extractable

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 09/08/89

** PROJECT NO. 89-524 SAMPLE NO. 38052 SAMPLE TYPE: GRNDWATER PROG ELEM: NSF COLLECTED BY: SAWYER **
** SOURCE: SPRING MILLS CITY: LANCASTER ST: SC **
** STATION ID: TW-02 COLLECTION START: 08/02/89 0900 STOP: 00/00/00 **

UG/L	ANALYTICAL RESULTS
10U	BIS(2-CHLOROETHYL) ETHER
10U	BIS(2-CHLOROISOPROPYL) ETHER
10U	N-NITROSODI-N-PROPYLAMINE
10U	HEXACHLOROETHANE
10U	NITROBENZENE
10U	ISOPHORONE
10U	BIS(2-CHLOROETHOXY) METHANE
10U	1,2,4-TRICHLOROBENZENE
10U	NAPHTHALENE
10U	4-CHLOROANILINE
10U	HEXACHLOROBUTADIENE
10U	2-METHYLNAPHTHALENE
10U	HEXACHLOROCYCLOPENTADIENE (HCCP)
10U	2-CHLORONAPHTHALENE
10U	2-NITROANILINE
10U	DIMETHYL PHTHALATE
10U	ACENAPHTHYLENE
10U	2,6-DINITROTOLUENE
10U	3-NITROANILINE
10U	ACENAPHTHENE
10U	DIBENZOFURAN
10U	2,4-DINITROTOLUENE
10U	DIETHYL PHTHALATE
10U	FLUORENE
10U	4-CHLOROPHENYL PHENYL ETHER
10U	4-NITROANILINE
10U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
10U	4-BROMOPHENYL PHENYL ETHER
10U	HEXACHLOROBENZENE (HCB)
10U	PHENANTHRENE
10U	ANTHRACENE
10U	DI-N-BUTYLPHTHALATE

UG/L	ANALYTICAL RESULTS
10U	FLUORANTHENE
10U	PYRENE
10U	BENZYL BUTYL PHTHALATE
10U	3,3'-DICHLOROBENZIDINE
10U	BENZO(A)ANTHRACENE
10U	CHRYSENE
10U	BIS(2-ETHYLHEXYL) PHTHALATE
10U	DI-N-OCTYLPHTHALATE
10U	BENZO(B AND/OR K)FLUORANTHENE
10U	BENZO-A-PYRENE
10U	INDENO (1,2,3-CD) PYRENE
10U	DIBENZO(A,H)ANTHRACENE
10U	BENZO(GHI)PERYLENE
10U	PHENOL
10U	2-CHLOROPHENOL
20U	BENZYL ALCOHOL
10U	2-METHYLPHENOL
10U	(3-AND/OR 4-)METHYLPHENOL
10U	2-NITROPHENOL
10U	2,4-DIMETHYLPHENOL
20U	BENZOIC ACID
10U	2,4-DICHLOROPHENOL
10U	4-CHLORO-3-METHYLPHENOL
10U	2,4,6-TRICHLOROPHENOL
10U	2,4,5-TRICHLOROPHENOL
20U	2,4-DINITROPHENOL
20U	4-NITROPHENOL
10U	2,3,4,6-TETRACHLOROPHENOL
20U	2-METHYL-4,6-DINITROPHENOL
20U	PENTACHLOROPHENOL

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 09/08/89

PROJECT NO. 89-524 SAMPLE NO. 38055 SAMPLE TYPE: GRNDWATER
SOURCE: SPRING MILLS
STATION ID: TW-03

PROG ELEM: NSF COLLECTED BY: SAWYER
CITY: LANCASTER ST: SC
COLLECTION START. 08/02/89 1149 STOP: 00/00/00

UG/L	ANALYTICAL RESULTS
10U	BIS(2-CHLOROETHYL) ETHER
10U	BIS(2-CHLOROISOPROPYL) ETHER
10U	N-NITROSODI-N-PROPYLAMINE
10U	HEXACHLOROETHANE
10U	NITROBENZENE
10U	ISOPHORONE
10U	BIS(2-CHLOROETHOXY) METHANE
10U	1,2,4-TRICHLOROBENZENE
10U	NAPHTHALENE
10U	4-CHLOROANILINE
10U	HEXACHLOROBUTADIENE
10U	2-METHYLNAPHTHALENE
10U	HEXACHLOROCYCLOPENTADIENE (HCCP)
10U	2-CHLORONAPHTHALENE
10U	2-NITROANILINE
10U	DIMETHYL PHTHALATE
10U	ACENAPHTHYLENE
10U	2,6-DINITROTOLUENE
10U	3-NITROANILINE
10U	ACENAPHTHENE
10U	DIBENZOFURAN
10U	2,4-DINITROTOLUENE
10U	DIETHYL PHTHALATE
10U	FLUORENE
10U	4-CHLOROPHENYL PHENYL ETHER
10U	4-NITROANILINE
10U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
10U	4-BROMOPHENYL PHENYL ETHER
10U	HEXACHLOROBENZENE (HCB)
1.1J	PHENANTHRENE
10U	ANTHRACENE
10U	DI-N-BUTYLPHTHALATE

UG/L	ANALYTICAL RESULTS
10U	FLUORANTHENE
10U	PYRENE
10U	BENZYL BUTYL PHTHALATE
10U	3,3'-DICHLOROBENZIDINE
10U	BENZO(A)ANTHRACENE
10U	CHRYSENE
10U	BIS(2-ETHYLHEXYL) PHTHALATE
10U	DI-N-OCTYLPHTHALATE
10U	BENZO(B AND/OR K)FLUORANTHENE
10U	BENZO-A-PYRENE
10U	INDENO (1,2,3-CD) PYRENE
10U	DIBENZO(A,H)ANTHRACENE
10U	BENZO(GHI)PERYLENE
10U	PHENOL
10U	2-CHLOROPHENOL
20U	BENZYL ALCOHOL
10U	2-METHYLPHENOL
10U	(3-AND/OR 4-)METHYLPHENOL
10U	2-NITROPHENOL
10U	2,4-DIMETHYLPHENOL
20U	BENZOIC ACID
10U	2,4-DICHLOROPHENOL
10U	4-CHLORO-3-METHYLPHENOL
10U	2,4,6-TRICHLOROPHENOL
10U	2,4,5-TRICHLOROPHENOL
20U	2,4-DINITROPHENOL
20U	4-NITROPHENOL
10U	2,3,4,6-TETRACHLOROPHENOL
20U	2-METHYL-4,6-DINITROPHENOL
20U	PENTACHLOROPHENOL

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 09/08/89

** PROJECT NO. 89-524 SAMPLE NO. 38051 SAMPLE TYPE: TRIPBLANK PROG ELEM: NSF COLLECTED BY: SAWYER **
** SOURCE: SPRING MILLS CITY: LANCASTER ST: SC **
** STATION ID: TRIP BLANK COLLECTION START. 07/30/89 0900 STOP: 00/00/00 **

UG/L	ANALYTICAL RESULTS
10U	BIS(2-CHLOROETHYL) ETHER
10U	BIS(2-CHLOROISOPROPYL) ETHER
10U	N-NITROSODI-N-PROPYLAMINE
10U	HEXACHLOROETHANE
10U	NITROBENZENE
10U	ISOPHORONE
10U	BIS(2-CHLOROETHOXY) METHANE
10U	1,2,4-TRICHLOROBENZENE
10U	NAPHTHALENE
10U	4-CHLOROANILINE
10U	HEXACHLOROBUTADIENE
10U	2-METHYLNAPHTHALENE
10U	HEXACHLOROCYCLOPENTADIENE (HCCP)
10U	2-CHLORONAPHTHALENE
10U	2-NITROANILINE
10U	DIMETHYL PHTHALATE
10U	ACENAPHTHYLENE
10U	2,6-DINITROTOLUENE
10U	3-NITROANILINE
10U	ACENAPHTHENE
10U	DIBENZOFURAN
10U	2,4-DINITROTOLUENE
10U	DIETHYL PHTHALATE
10U	FLUORENE
10U	4-CHLOROPHENYL PHENYL ETHER
10U	4-NITROANILINE
10U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
10U	4-BROMOPHENYL PHENYL ETHER
10U	HEXACHLOROBENZENE (HCB)
10U	PHENANTHRENE
10U	ANTHRACENE
10U	DI-N-BUTYLPHTHALATE

UG/L	ANALYTICAL RESULTS
10U	FLUORANTHENE
10U	PYRENE
10U	BENZYL BUTYL PHTHALATE
10U	3,3'-DICHLOROBENZIDINE
10U	BENZO(A)ANTHRACENE
10U	CHRYSENE
10U	BIS(2-ETHYLHEXYL) PHTHALATE
10U	DI-N-OCTYLPHTHALATE
10U	BENZO(B AND/OR K)FLUORANTHENE
10U	BENZO-A-PYRENE
10U	INDENO (1,2,3-CD) PYRENE
10U	DIBENZO(A,H)ANTHRACENE
10U	BENZO(GHI)PERYLENE
10U	PHENOL
10U	2-CHLOROPHENOL
20U	BENZYL ALCOHOL
10U	2-METHYLPHENOL
10U	(3-AND/OR 4-)METHYLPHENOL
10U	2-NITROPHENOL
10U	2,4-DIMETHYLPHENOL
20U	BENZOIC ACID
10U	2,4-DICHLOROPHENOL
10U	4-CHLORO-3-METHYLPHENOL
10U	2,4,6-TRICHLOROPHENOL
10U	2,4,5-TRICHLOROPHENOL
20U	2,4-DINITROPHENOL
20U	4-NITROPHENOL
10U	2,3,4,6-TETRACHLOROPHENOL
20U	2-METHYL-4,6-DINITROPHENOL
20U	PENTACHLOROPHENOL

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 09/13/89

PROJECT NO. 89-524 SAMPLE NO. 38049 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: SD-09 COLLECTION START: 08/01/89 1321 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS
23U	CHLOROMETHANE
23U	VINYL CHLORIDE
23U	BROMOMETHANE
23U	CHLOROETHANE
23U	TRICHLOROFLUOROMETHANE
23U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
230U	ACETONE
230U	CARBON DISULFIDE
23U	METHYLENE CHLORIDE
23U	TRANS-1,2-DICHLOROETHENE
23U	1,1-DICHLOROETHANE
230U	VINYL ACETATE
23U	CIS-1,2-DICHLOROETHENE
23U	2,2-DICHLOROPROPANE
230U	METHYL ETHYL KETONE
23U	BROMOCHLOROMETHANE
23U	CHLOROFORM
23U	1,1,1-TRICHLOROETHANE
23U	1,1-DICHLOROPROPENE
23U	CARBON TETRACHLORIDE
23U	1,2-DICHLOROETHANE
23U	BENZENE
23U	TRICHLOROETHENE(TRICHLOROETHYLENE)
23U	1,2-DICHLOROPROPANE
23U	DIBROMOMETHANE
23U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
23U	CIS 1,3-DICHLOROPROPENE
230U	METHYL ISOBUTYL KETONE
23U	TOLUENE
23U	TRANS-1,3-DICHLOROPROPENE
23U	1,1,2-TRICHLOROETHANE
23U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
23U	1,3-DICHLOROPROPANE
230U	METHYL BUTYL KETONE
23U	DIBROMOCHLOROMETHANE
23U	CHLOROBENZENE
23U	1,1,1,2-TETRACHLOROETHANE
23U	ETHYL BENZENE
23U	(M- AND/OR P-)XYLENE
23U	O-XYLENE
23U	STYRENE
23U	BROMOFORM
23U	BROMOBENZENE
23U	1,1,2,2-TETRACHLOROETHANE
23U	1,2,3-TRICHLOROPROPANE
23U	O-CHLOROTOLUENE
23U	P-CHLOROTOLUENE
23U	1,3-DICHLOROBENZENE
23U	1,4-DICHLOROBENZENE
23U	1,2-DICHLOROBENZENE
19.0	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV
COLLEGE STATION RD.
ATHENS, GA. 30613

*****MEMORANDUM******

DATE: 09/14/89

SUBJECT: Results of Purgeable Organic Analysis;
89-524 SPRING MILLS
LANCASTER SC

FROM: Tom B. Bennett, jr.
Chief, Organic Chemistry Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

RECEIVED

SEP 15 1989

NUS CORPORATION
REGION IV
SENT TO_____

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV
COLLEGE STATION RD.
ATHENS, GA. 30613

*****MEMORANDUM******

DATE: 09/09/89

SUBJECT: Results of Extractable Organic Analysis;
89-524 SPRING MILLS
LANCASTER SC

FROM: Tom B. Bennett, jr.
Chief, Organic Chemistry Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

RECEIVED

SEP 15 1989

NUS CORPORATION
REGION IV
SENT TO_____

ANALYTICAL DATA TRACKING SHEETS

SITE NAME: Spring Mills Grace Bleachery
LOCATION: Lancaster S.C
DATE SAMPLED: 7/31 - 8-3

TDD NO.: F4-8904-52
PROJECT NO.: 89-524
CASE NO.:
DATA SET COMPLETED:

Soil/Sediment Samples

Station	Cyanide	Metals	Purgeable	Purgeable, Misc	Extractable	Extractable Misc	Pest /PCBs	Remarks
SS-01	9-5-89				9-5-89	9-5-89		
SS-02			9-5-89					
SS-03								
SS-04								
SD-01						9-5-89		
SD-02								
SD-03						9-5-89		
SD-05								
SD-06								
SD-07			9-5-89			9-5-89		
SD-08			8-28-89			9-5-89		
SD-09	✓		9-15-89		✓			

Water Samples.

Station	Cyanide	Metals	Purgeable	Purgeable, Misc	Extractable	Extractable Misc.	Pest /PCBs	Remarks
TW-01	9-5-89		8-17-89		9-15-89			
TW-02			8-17-89	8-17-89				
TW-03			8-17-89					
TRIP BLANK	✓		8-17-89		✓			

PROJECT MANAGER T. SAWYER

ANALYTICAL DATA TRACKING SHEETS

SITE NAME: Spring Mills Grace Bleachery
LOCATION: Lancaster S.C
DATE SAMPLED: 7/31 - 8-3

TDD NO.: F4-8904-52
PROJECT NO.: 89-524
CASE NO.:
DATA SET COMPLETED:

Soil/Sediment Samples

Station	Cyanide	Metals	Purgeable	Purgeable, Misc	Extractable	Extractable Misc	Pest /PCBs	Remarks
SS-01	9-5-89		9-25-89		9-5-89	9-5-89		
SS-02			9-5-89					
SS-03			9-25-89					
SS-04								
SD-01						9-5-89		
SD-02								
SD-03						9-5-89		
SD-05								
SD-06			✓					
SD-07			9-5-89			9-5-89		
SD-08			8-28-89			9-5-89		
SD-09	✓		9-15-89		✓			

Water Samples.

Station	Cyanide	Metals	Purgeable	Purgeable, Misc	Extractable	Extractable Misc.	Pest /PCBs	Remarks
TW-01	9-5-89		8-17-89		9-15-89		9-25-89	
TW-02			8-17-89	8-17-89				
TW-03			8-17-89					
TRIP BLANK	✓		8-17-89		✓		✓	

PROJECT MANAGER T. SAWYER

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PESTICIDES/PCB'S DATA REPORT 09/19/89

** PROJECT NO. 89-524 SAMPLE NO. 38057 SAMPLE TYPE: GRNDWATER PROC ELEM: NSF COLLECTED BY: SAWYER **
** SOURCE: SPRING MILLS CITY: LANCASTER ST: SC **
** STATION ID: TW-01 COLLECTION START: 08/03/89 1205 STOP: 00/00/00 **

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
0.015U	ALDRIN	0.11U	PCB 1232 (AROCLOR 1232)
0.015U	HEPTACHLOR	0.11U	PCB-1248 (AROCLOR 1248)
0.015U	HEPTACHLOR EPOXIDE	0.11U	PCB-1260 (AROCLOR 1260)
0.015U	ALPHA BHC	0.11U	PCB-1016 (AROCLOR 1016)
0.015U	BETA-BHC	0.80U	TOXAPHENE
0.015U	GAMMA-BHC (LINDANE)	---	CHLORDENE /2
0.015U	DELTA-BHC	---	ALPHA-CHLORDENE /2
0.015U	ENDOSULFAN I (ALPHA)	---	BETA CHLORDENE /2
0.015U	DIELDRIN	---	GAMMA-CHLORDENE /2
0.015U	4,4'-DDT (P,P'-DDT)	---	1-HYDROXYCHLORDENE /2
0.015U	4,4'-DDE (P,P'-DDE)	---	GAMMA-CHLORDANE /2
0.015U	4,4'-DDD (P,P'-DDD)	---	TRANS-NONACHLOR /2
0.015U	ENDRIN	---	ALPHA-CHLORDANE /2
0.015U	ENDOSULFAN II (BETA)	---	CIS-NONACHLOR /2
0.015U	ENDOSULFAN SULFATE	---	OXYCHLORDANE (OCTACHLOREPOXIDE) /2
0.070U	CHLORDANE (TECH. MIXTURE) /1	0.015U	METHOXYCHLOR
0.11U	PCB-1242 (AROCLOR 1242)	0.015U	ENDRIN KETONE
0.11U	PCB-1254 (AROCLOR 1254)		
0.11U	PCB-1221 (AROCLOR 1221)		

Water
Pesticides

REMARKS ***REMARKS***

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT. C-CONFIRMED BY GC/MS
1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS. 2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

09/19/89

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 89-524 SAMPLE NO. 38052 SAMPLE TYPE: GRNDWATER PROG ELEM: SF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: TW-02 COLLECTION START: 08/02/89 0900 STOP: 00/00/00

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
0.050U	ALDRIN	0.70U	PCB-1232 (AROCLOR 1232)
0.050U	HEPTACHLOR	0.70U	PCB-1248 (AROCLOR 1248)
0.050U	HEPTACHLOR EPOXIDE	0.70U	PCB-1260 (AROCLOR 1260)
0.050U	ALPHA-BHC	0.70U	PCB-1016 (AROCLOR 1016)
0.050U	BETA-BHC	4.0U	TOXAPHENE
0.050U	GAMMA-BHC (LINDANE)	0.016U	CHLORDENE /2
0.050U	DELTA-BHC	0.031U	ALPHA-CHLORDENE /2
0.050U	ENDOSULFAN I (ALPHA)	0.031U	BETA CHLORDENE /2
0.050U	DIELDRIN	0.031U	GAMMA-CHLORDENE /2
0.050U	4,4'-DDT (P,P'-DDT)	0.031U	1-HYDROXYCHLORDENE /2
0.050U	4,4'-DDE (P,P'-DDE)	0.022	GAMMA-CHLORDANE /2
0.047J	4,4'-DDD (P,P'-DDD)	0.031U	TRANS-NONACHLOR /2
0.034J	ENDRIN	0.024	ALPHA-CHLORDANE /2
0.050U	ENDOSULFAN II (BETA)	0.031U	CIS-NONACHLOR /2
0.075U	ENDOSULFAN SULFATE	0.031U	OXYCHLORDANE (OCTACHLOREPOXIDE) /2
---	CHLORDANE (TECH. MIXTURE) /1	0.075U	METHOXYCHLOR
0.70U	PCB-1242 (AROCLOR 1242)	0.075U	ENDRIN KETONE
0.70U	PCB-1254 (AROCLOR 1254)		
0.70U	PCB-1221 (AROCLOR 1221)		

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PESTICIDES/PCB'S DATA REPORT 09/19/89

** PROJECT NO. 89-524 SAMPLE NO. 38055 SAMPLE TYPE: GROUNDWATER PROG ELEM: NSF COLLECTED BY: SAWYER **
** SOURCE: SPRING MILLS CITY: LANCASTER ST: SC **
** STATION ID: TW-03 COLLECTION START: 08/02/89 1145 STOP: 00/00/00 **

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
0.050U	ALDRIN	0.70U	PCB-1232 (AROCLOR 1232)
0.050U	HEPTACHLOR	0.70U	PCB-1248 (AROCLOR 1248)
0.050U	HEPTACHLOR EPOXIDE	0.70U	PCB-1260 (AROCLOR 1260)
0.050U	ALPHA-BHC	0.70U	PCB-1016 (AROCLOR 1016)
0.050U	BETA-BHC	4.0U	TOXAPHENE
0.050U	GAMMA-BHC (LINDANE)	---	CHLORDENE /2
0.050U	DELTA-BHC	---	ALPHA-CHLORDENE /2
0.050U	ENDOSULFAN I (ALPHA)	---	BETA CHLORDENE /2
0.050U	DIELDRIN	---	GAMMA-CHLORDENE /2
0.050U	4,4'-DDT (P,P'-DDT)	---	1-HYDROXYCHLORDENE /2
0.050U	4,4'-DDE (P,P'-DDE)	---	GAMMA-CHLORDANE /2
0.050U	4,4'-DDD (P,P'-DDD)	---	TRANS-NONACHLOR /2
0.050U	ENDRIN	---	ALPHA-CHLORDANE /2
0.050U	ENDOSULFAN II (BETA)	---	CIS-NONACHLOR /2
0.075U	ENDOSULFAN SULFATE	---	OXYCHLORDANE (OCTACHLOREPOXIDE) /2
0.25U	CHLORDANE (TECH. MIXTURE) /1	0.075U	METHOXYCHLOR
0.70U	PCB-1242 (AROCLOR 1242)	0.075U	ENDRIN KETONE
0.70U	PCB-1254 (AROCLOR 1254)		
0.70U	PCB-1221 (AROCLOR 1221)		

REMARKS ***REMARKS***

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

09/19/89

PESTICIDES/PCB'S DATA REPORT

** PROJECT NO. 89-524 SAMPLE NO. 38051 SAMPLE TYPE: TRIPBLANK PROG ELEM: NSF COLLECTED BY: SAWYER **
** SOURCE: SPRING MILLS CITY: LANCASTER ST: SC **
** STATION ID: TRIP BLANK COLLECTION START: 07/30/89 0900 STOP: 00/00/00 **

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
0.015U	ALDRIN	0.25U	PCB-1232 (AROCLOR 1232)
0.015U	HEPTACHLOR	0.25U	PCB-1248 (AROCLOR 1248)
0.015U	HEPTACHLOR EPOXIDE	0.25U	PCB-1260 (AROCLOR 1260)
0.015U	ALPHA-BHC	0.25U	PCB-1016 (AROCLOR 1016)
0.015U	BETA-BHC	1.5U	TOXAPHENE
0.015U	GAMMA-BHC (LINDANE)		CHLORDENE /2
0.015U	DELTA-BHC	---	ALPHA-CHLORDENE /2
0.015U	ENDOSULFAN I (ALPHA)	---	BETA CHLORDENE /2
0.015U	DIELDRIN	---	GAMMA-CHLORDENE /2
0.015U	4,4'-DDT (P,P'-DDT)	---	1-HYDROXYCHLORDENE /2
0.015U	4,4'-DDE (P,P'-DDE)	---	GAMMA-CHLORDANE /2
0.015U	4,4'-DDD (P,P'-DDD)	---	TRANS-NONACHLOR /2
0.015U	ENDRIN	---	ALPHA-CHLORDANE /2
0.015U	ENDOSULFAN II (BETA)	---	CIS-NONACHLOR /2
0.025U	ENDOSULFAN SULFATE	---	OXYCHLORDANE (OCTACHLOREPOXIDE) /2
0.075U	CHLORDANE (TECH. MIXTURE) /1	0.025U	METHOXYCHLOR
0.25U	PCB-1242 (AROCLOR 1242)	0.025U	ENDRIN KETONE
0.25U	PCB-1254 (AROCLOR 1254)		
0.25U	PCB-1221 (AROCLOR 1221)		

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 09/16/89

PROJECT NO. 89-524 SAMPLE NO. 38058 SAMPLE TYPE: SOIL
SOURCE: SPRING MILLS
STATION ID: SS-01

PROG ELEM: NSF COLLECTED BY: SAWYER
CITY: LANCASTER ST: SC
COLLECTION START. 08/03/89 1258 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
100U	CHLOROMETHANE	100U	CIS-1,3-DICHLOROPROPENE
100U	VINYL CHLORIDE	1000U	METHYL ISOBUTYL KETONE
100U	BROMOMETHANE	100U	TOLUENE
100U	CHLOROETHANE	100U	TRANS-1,3-DICHLOROPROPENE
100U	TRICHLOROFLUOROMETHANE	100U	1,1,2-TRICHLOROETHANE
100U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)	100U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
1000U	ACETONE	100U	1,3-DICHLOROPROPANE
1000U	CARBON DISULFIDE	1000U	METHYL BUTYL KETONE
100U	METHYLENE CHLORIDE	100U	DIBROMOCHLOROMETHANE
100U	TRANS-1,2-DICHLOROETHENE	100U	CHLOROBENZENE
100U	1,1-DICHLOROETHANE	100U	1,1,1,2-TETRACHLOROETHANE
1000U	VINYL ACETATE	100U	ETHYL BENZENE
100U	CIS-1,2-DICHLOROETHENE	100U	(M- AND/OR P-)XYLENE
100U	2,2-DICHLOROPROPANE	100U	O-XYLENE
1000U	METHYL ETHYL KETONE	100U	STYRENE
100U	BROMOCHLOROMETHANE	100U	BROMOFORM
100U	CHLOROFORM	100U	BROMOBENZENE
100U	1,1,1-TRICHLOROETHANE	100U	1,1,2,2-TETRACHLOROETHANE
100U	1,1-DICHLOROPROPENE	100U	1,2,3-TRICHLOROPROPANE
100U	CARBON TETRACHLORIDE	100U	O-CHLOROTOLUENE
100U	1,2-DICHLOROETHANE	100U	P-CHLOROTOLUENE
100U	BENZENE	100U	1,3-DICHLOROBENZENE
100U	TRICHLOROETHENE(TRICHLOROETHYLENE)	100U	1,4-DICHLOROBENZENE
100U	1,2-DICHLOROPROPANE	100U	1,2-DICHLOROBENZENE
100U	DIBROMOMETHANE	7.4	PERCENT MOISTURE
100U	BROMODICHLOROMETHANE		

Sue Purgeable

REMARKS ***REMARKS***

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

09/16/89

PURGEABLE ORGANICS DATA REPORT

PROJECT NO. 89-524 SAMPLE NO. 38048 SAMPLE TYPE: SOIL
SOURCE: SPRING MILLS
STATION ID: SS-03

PROG ELEM: NSF COLLECTED BY: SAWYER
CITY: LANCASTER ST: SC
COLLECTION START: 08/01/89 1253 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
36U	CHLOROMETHANE	36U	CIS-1,3-DICHLOROPROPENE
36U	VINYL CHLORIDE	360U	METHYL ISOBUTYL KETONE
36U	BROMOMETHANE	36U	TOLUENE
36U	CHLOROETHANE	36U	TRANS-1,3-DICHLOROPROPENE
36U	TRICHLOROFLUOROMETHANE	36U	1,1,2-TRICHLOROETHANE
36U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)	36U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
360U	ACETONE	36U	1,3-DICHLOROPROPANE
360U	CARBON DISULFIDE	360U	METHYL BUTYL KETONE
36U	METHYLENE CHLORIDE	36U	DIBROMOCHLOROMETHANE
36U	TRANS-1,2-DICHLOROETHENE	36U	CHLOROBENZENE
36U	1,1-DICHLOROETHANE	36U	1,1,1,2-TETRACHLOROETHANE
360U	VINYL ACETATE	36U	ETHYL BENZENE
36U	CIS-1,2-DICHLOROETHENE	36U	(M- AND/OR P-)XYLENE
36U	2,2-DICHLOROPROPANE	36U	O-XYLENE
360U	METHYL ETHYL KETONE	36U	STYRENE
36U	BROMOCHLOROMETHANE	36U	BROMOFORM
36U	CHLOROFORM	36U	BROMOBENZENE
36U	1,1,1-TRICHLOROETHANE	36U	1,1,2,2-TETRACHLOROETHANE
36U	1,1-DICHLOROPROPENE	36U	1,2,3-TRICHLOROPROPANE
36U	CARBON TETRACHLORIDE	36U	O-CHLOROTOLUENE
36U	1,2-DICHLOROETHANE	36U	P-CHLOROTOLUENE
36U	BENZENE	36U	1,3-DICHLOROBENZENE
36U	TRICHLOROETHENE(TRICHLOROETHYLENE)	36U	1,4-DICHLOROBENZENE
36U	1,2-DICHLOROPROPANE	36U	1,2-DICHLOROBENZENE
36U	DIBROMOMETHANE	23.0	PERCENT MOISTURE
36U	BROMODICHLOROMETHANE		

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 09/16/89

PROJECT NO. 89-524 SAMPLE NO. 38050 SAMPLE TYPE: SOIL
SOURCE: SPRING MILLS
STATION ID: SS-04

PROG ELEM: NSF COLLECTED BY: SAWYER
CITY: LANCASTER ST: SC
COLLECTION START: 08/01/89 1342 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS
120U	CHLOROMETHANE
120U	VINYL CHLORIDE
120U	BROMOMETHANE
120U	CHLOROETHANE
120U	TRICHLOROFLUOROMETHANE
120U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
1200U	ACETONE
1200U	CARBON DISULFIDE
120U	METHYLENE CHLORIDE
120U	TRANS-1,2-DICHLOROETHENE
120U	1,1-DICHLOROETHANE
1200U	VINYL ACETATE
120U	CIS-1,2-DICHLOROETHENE
120U	2,2-DICHLOROPROPANE
1200U	METHYL ETHYL KETONE
120U	BROMOCHLOROMETHANE
120U	CHLOROFORM
120U	1,1,1-TRICHLOROETHANE
120U	1,1-DICHLOROPROPENE
120U	CARBON TETRACHLORIDE
120U	1,2-DICHLOROETHANE
120U	BENZENE
120U	TRICHLOROETHENE(TRICHLOROETHYLENE)
120U	1,2-DICHLOROPROPANE
120U	DIBROMOMETHANE
120U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
120U	CIS-1,3-DICHLOROPROPENE
1200U	METHYL ISOBUTYL KETONE
120U	TOLUENE
120U	TRANS-1,3-DICHLOROPROPENE
120U	1,1,2-TRICHLOROETHANE
120U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
120U	1,3-DICHLOROPROPANE
1200U	METHYL BUTYL KETONE
120U	DIBROMOCHLOROMETHANE
120U	CHLOROBENZENE
120U	1,1,1,2-TETRACHLOROETHANE
120U	ETHYL BENZENE
120U	(M- AND/OR P-)XYLENE
120U	O-XYLENE
120U	STYRENE
120U	BROMOFORM
120U	BROMOBENZENE
120U	1,1,2,2-TETRACHLOROETHANE
120U	1,2,3-TRICHLOROPROPANE
120U	O-CHLOROTOLUENE
120U	P-CHLOROTOLUENE
120U	1,3-DICHLOROBENZENE
120U	1,4-DICHLOROBENZENE
120U	1,2-DICHLOROBENZENE
18.0	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 09/16/89

PROJECT NO. 89-524 SAMPLE NO. 38054 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: SD-01 COLLECTION START. 08/03/89 0914 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS
100U	CHLOROMETHANE
100U	VINYL CHLORIDE
100U	BROMOMETHANE
100U	CHLOROETHANE
100U	TRICHLOROFLUOROMETHANE
100U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
1000U	ACETONE
1000U	CARBON DISULFIDE
100U	METHYLENE CHLORIDE
100U	TRANS-1,2-DICHLOROETHENE
100U	1,1-DICHLOROETHANE
1000U	VINYL ACETATE
100U	CIS-1,2-DICHLOROETHENE
100U	2,2-DICHLOROPROPANE
1000U	METHYL ETHYL KETONE
100U	BROMOCHLOROMETHANE
100U	CHLOROFORM
100U	1,1,1-TRICHLOROETHANE
100U	1,1-DICHLOROPROPENE
100U	CARBON TETRACHLORIDE
100U	1,2-DICHLOROETHANE
100U	BENZENE
100U	TRICHLOROETHENE(TRICHLOROETHYLENE)
100U	1,2-DICHLOROPROPANE
100U	DIBROMOMETHANE
100U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
100U	CIS-1,3-DICHLOROPROPENE
1000U	METHYL ISOBUTYL KETONE
100U	TOLUENE
100U	TRANS-1,3-DICHLOROPROPENE
100U	1,1,2-TRICHLOROETHANE
100U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
100U	1,3-DICHLOROPROPANE
1000U	METHYL BUTYL KETONE
100U	DIBROMOCHLOROMETHANE
100U	CHLOROBENZENE
100U	1,1,1,2-TETRACHLOROETHANE
100U	ETHYL BENZENE
100U	(M- AND/OR P-)XYLENE
100U	O-XYLENE
100U	STYRENE
100U	BROMOFORM
100U	BROMOBENZENE
100U	1,1,2,2-TETRACHLOROETHANE
100U	1,2,3-TRICHLOROPROPANE
100U	O-CHLOROTOLUENE
100U	P-CHLOROTOLUENE
100U	1,3-DICHLOROBENZENE
100U	1,4-DICHLOROBENZENE
100U	1,2-DICHLOROBENZENE
32.0	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 09/16/89

** PROJECT NO. 89-524 SAMPLE NO. 38053 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER **
** SOURCE: SPRING MILLS CITY: LANCASTER ST: SC **
** STATION ID: SD-02 COLLECTION START. 08/02/89 1007 STOP: 00/00/00 **

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
110U	CHLOROMETHANE	110U	CIS 1,3-DICHLOROPROPENE
110U	VINYL CHLORIDE	1100U	METHYL ISOBUTYL KETONE
110U	BROMOMETHANE	110U	TOLUENE
110U	CHLOROETHANE	110U	TRANS-1,3-DICHLOROPROPENE
110U	TRICHLOROFLUOROMETHANE	110U	1,1,2-TRICHLOROETHANE
110U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)	110U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
1100U	ACETONE	110U	1,3-DICHLOROPROPANE
1100U	CARBON DISULFIDE	1100U	METHYL BUTYL KETONE
110U	METHYLENE CHLORIDE	110U	DIBROMOCHLOROMETHANE
110U	TRANS-1,2-DICHLOROETHENE	110U	CHLOROBENZENE
110U	1,1-DICHLOROETHANE	110U	1,1,1,2-TETRACHLOROETHANE
1100U	VINYL ACETATE	110U	ETHYL BENZENE
110U	CIS-1,2-DICHLOROETHENE	110U	(M- AND/OR P-)XYLENE
110U	2,2-DICHLOROPROPANE	110U	O-XYLENE
1100U	METHYL ETHYL KETONE	110U	STYRENE
110U	BROMOCHLOROMETHANE	110U	BROMOFORM
110U	CHLOROFORM	110U	BROMOBENZENE
110U	1,1,1-TRICHLOROETHANE	110U	1,1,2,2-TETRACHLOROETHANE
110U	1,1-DICHLOROPROPENE	110U	1,2,3-TRICHLOROPROPANE
110U	CARBON TETRACHLORIDE	110U	O-CHLOROTOLUENE
110U	1,2-DICHLOROETHANE	110U	P-CHLOROTOLUENE
110U	BENZENE	110U	1,3-DICHLOROBENZENE
110U	TRICHLOROETHENE(TRICHLOROETHYLENE)	110U	1,4-DICHLOROBENZENE
110U	1,2-DICHLOROPROPANE	110U	1,2-DICHLOROBENZENE
110U	DIBROMOMETHANE	36.0	PERCENT MOISTURE
110U	BROMODICHLOROMETHANE		

REMARKS ***REMARKS***

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 09/16/89

PROJECT NO. 89-524 SAMPLE NO. 38056 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: SD-03 COLLECTION START. 08/02/89 1235 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS
48U	CHLOROMETHANE
48U	VINYL CHLORIDE
48U	BROMOMETHANE
48U	CHLOROETHANE
48U	TRICHLOROFLUOROMETHANE
48U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
480U	ACETONE
480U	CARBON DISULFIDE
48U	METHYLENE CHLORIDE
48U	TRANS-1,2-DICHLOROETHENE
48U	1,1-DICHLOROETHANE
480U	VINYL ACETATE
48U	CIS-1,2-DICHLOROETHENE
48U	2,2-DICHLOROPROPANE
480U	METHYL ETHYL KETONE
48U	BROMOCHLOROMETHANE
48U	CHLOROFORM
48U	1,1,1-TRICHLOROETHANE
48U	1,1-DICHLOROPROPENE
48U	CARBON TETRACHLORIDE
48U	1,2-DICHLOROETHANE
48U	BENZENE
48U	TRICHLOROETHENE(TRICHLOROETHYLENE)
48U	1,2-DICHLOROPROPANE
48U	DIBROMOMETHANE
48U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
48U	CIS-1,3-DICHLOROPROPENE
480U	METHYL ISOBUTYL KETONE
48U	TOLUENE
48U	TRANS-1,3-DICHLOROPROPENE
48U	1,1,2-TRICHLOROETHANE
48U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
48U	1,3-DICHLOROPROPANE
480U	METHYL BUTYL KETONE
48U	DIBROMOCHLOROMETHANE
48U	CHLOROBENZENE
48U	1,1,1,2-TETRACHLOROETHANE
48U	ETHYL BENZENE
48U	(M- AND/OR P-)XYLENE
48U	O-XYLENE
7.7J	STYRENE
48U	BROMOFORM
48U	BROMOBENZENE
48U	1,1,2,2-TETRACHLOROETHANE
48U	1,2,3-TRICHLOROPROPANE
48U	O-CHLOROTOLUENE
48U	P-CHLOROTOLUENE
48U	1,3-DICHLOROBENZENE
48U	1,4-DICHLOROBENZENE
48U	1,2-DICHLOROBENZENE
41.0	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 09/16/89

** PROJECT NO. 89-524 SAMPLE NO. 38044 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER **
** SOURCE: SPRING MILLS CITY: LANCASTER ST: SC **
** STATION ID: SD-05 COLLECTION START. 08/01/89 1030 STOP: 00/00/00 **

UG/KG	ANALYTICAL RESULTS
57UJ	CHLOROMETHANE
57UJ	VINYL CHLORIDE
57UJ	BROMOMETHANE
57UJ	CHLOROETHANE
57UJ	TRICHLOROFLUOROMETHANE
57UJ	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
570UJ	ACETONE
570UJ	CARBON DISULFIDE
57UJ	METHYLENE CHLORIDE
57UJ	TRANS-1,2-DICHLOROETHENE
57UJ	1,1-DICHLOROETHANE
570UJ	VINYL ACETATE
57UJ	CIS-1,2-DICHLOROETHENE
57UJ	2,2-DICHLOROPROPANE
570UJ	METHYL ETHYL KETONE
57UJ	BROMOCHLOROMETHANE
57UJ	CHLOROFORM
57UJ	1,1,1-TRICHLOROETHANE
57UJ	1,1-DICHLOROPROPENE
57UJ	CARBON TETRACHLORIDE
57UJ	1,2-DICHLOROETHANE
	BENZENE
	TRICHLOROETHENE(TRICHLOROETHYLENE)
57UJ	1,2-DICHLOROPROPANE
57UJ	DIBROMOMETHANE
57UJ	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
	CIS-1,3-DICHLOROPROPENE
570UJ	METHYL ISOBUTYL KETONE
	TOLUENE
	TRANS-1,3-DICHLOROPROPENE
	1,1,2-TRICHLOROETHANE
	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
	1,3-DICHLOROPROPANE
	METHYL BUTYL KETONE
	DIBROMOCHLOROMETHANE
	CHLOROBENZENE
	1,1,1,2-TETRACHLOROETHANE
	ETHYL BENZENE
	(M- AND/OR P-)XYLENE
	O-XYLENE
	STYRENE
	BROMOFORM
	BROMOBENZENE
	1,1,2,2-TETRACHLOROETHANE
	1,2,3-TRICHLOROPROPANE
	O-CHLOROTOLUENE
	P-CHLOROTOLUENE
	1,3-DICHLOROBENZENE
	1,4-DICHLOROBENZENE
	1,2-DICHLOROBENZENE
39.0	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

09/16/89

PURGEABLE ORGANICS DATA REPORT

PROJECT NO. 89-524   SAMPLE NO. 38045   SAMPLE TYPE: SEDIMENT   PROG ELEM: NSF   COLLECTED BY: SAWYER
SOURCE: SPRING MILLS   CITY: LANCASTER   ST: SC
STATION ID: SD-06   COLLECTION START: 08/01/89 1105   STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
35UJ	CHLOROMETHANE		CIS-1,3-DICHLOROPROPENE
35UJ	VINYL CHLORIDE	350UJ	METHYL ISOBUTYL KETONE
35UJ	BROMOMETHANE		TOLUENE
35UJ	CHLOROETHANE		TRANS-1,3-DICHLOROPROPENE
35UJ	TRICHLOROFLUOROMETHANE		1,1,2-TRICHLOROETHANE
35UJ	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)		TETRACHLOROETHENE(TETRACHLOROETHYLENE)
280J	ACETONE		1,3-DICHLOROPROPANE
350UJ	CARBON DISULFIDE		METHYL BUTYL KETONE
35UJ	METHYLENE CHLORIDE		DIBROMOCHLOROMETHANE
35UJ	TRANS-1,2-DICHLOROETHENE		CHLOROBENZENE
35UJ	1,1-DICHLOROETHANE		1,1,1,2-TETRACHLOROETHANE
350UJ	VINYL ACETATE		ETHYL BENZENE
35UJ	CIS-1,2-DICHLOROETHENE		(M- AND/OR P-)XYLENE
35UJ	2,2-DICHLOROPROPANE		O-XYLENE
350UJ	METHYL ETHYL KETONE		STYRENE
35UJ	BROMOCHLOROMETHANE		BROMOFORM
35UJ	CHLOROFORM		BROMOBENZENE
35UJ	1,1,1-TRICHLOROETHANE		1,1,2,2-TETRACHLOROETHANE
35UJ	1,1-DICHLOROPROPENE		1,2,3-TRICHLOROPROPANE
35UJ	CARBON TETRACHLORIDE		O-CHLOROTOLUENE
35UJ	1,2-DICHLOROETHANE		P-CHLOROTOLUENE
	BENZENE		1,3-DICHLOROBENZENE
	TRICHLOROETHENE(TRICHLOROETHYLENE)		1,4-DICHLOROBENZENE
35UJ	1,2-DICHLOROPROPANE		1,2-DICHLOROBENZENE
35UJ	DIBROMOMETHANE	18.0	PERCENT MOISTURE
35UJ	BROMODICHLOROMETHANE		

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE   *NA-NOT ANALYZED   *NAI-INTERFERENCES   *J-ESTIMATED VALUE   *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV
COLLEGE STATION RD.
ATHENS, GA. 30613

*****MEMORANDUM******

DATE: 09/20/89

SUBJECT: Results of Pesticide/PCB Analysis;
89-524 SPRING MILLS
LANCASTER SC

FROM: Tom B. Bennett, jr.
Chief, Organic Chemistry Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

RECEIVED

SEP 25 1989

NUS CORPORATION
REGION IV
SENT TO_____

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV
COLLEGE STATION RD.
ATHENS, GA. 30613

*****MEMORANDUM******

DATE: 09/17/89

SUBJECT: Results of Purgeable Organic Analysis;
89-524 SPRING MILLS
LANCASTER SC

FROM: Tom B. Bennett, jr.
Chief, Organic Chemistry Section Tom B. Bennett, Jr.

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

8704-52

RECEIVED

SEP 25 1989

NUS CORPORATION
REGION IV
SENT TO_____

ANALYTICAL DATA TRACKING SHEETS

SITE NAME: Spring Mills Grace Bleachery
LOCATION: Lancaster S.C
DATE SAMPLED: 7/31 - 8-3

TDD NO.: F4-8904-52
PROJECT NO.: 89-524
CASE NO.:
DATA SET COMPLETED: 10-12-89

Soil/Sediment Samples

Station	Cyanide	Metals	Purgeable	Purgeable, Misc	Extractable	Extractable Misc	Pest /PCBs	Remarks
SS-01	9-5-89	10-12-89	9-25-89		9-5-89	9-5-89	10-2-89	
SS-02			9-5-89				10-2-89	
SS-03			9-25-89				10-2-89	
SS-04							10-2-89	
SD-01						9-5-89	10-2-89	
SD-02							10-2-89	
SD-03						9-5-89	10-2-89	
SD-05							10-2-89	
SD-06			↓				10-2-89	
SD-07			9-5-89			9-5-89	10-2-89	
SD-08			8-28-89			9-5-89	10-12-89	
SD-09	↓	↓	9-15-89		↓		10-2-89	

Water Samples.

Station	Cyanide	Metals	Purgeable	Purgeable, Misc	Extractable	Extractable Misc.	Pest /PCBs	Remarks
TW-01	9-5-89	10-12-89	8-17-89		9-15-89		9-25-89	
TW-02			8-17-89	8-17-89				
TW-03			8-17-89					
TRIP BLANK	↓	↓	8-17-89		↓		↓	

PROJECT MANAGER T. SAWYER

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 10/03/89

** PROJECT NO. 89-524 SAMPLE NO. 38058 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: SAWYER **
** SOURCE: SPRING MILLS CITY: LANCASTER ST: SC **
** STATION ID: SS-01 COLLECTION START: 08/03/89 1258 STOP: 00/00/00 **

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
1.0U	SILVER	340	CALCIUM
1.0U	ARSENIC	660	MAGNESIUM
NA	BORON	5400	IRON
26	BARIUM	100U	SODIUM
0.50U	BERYLLIUM	420	POTASSIUM
0.50U	CADMIUM	7	PERCENT MOISTURE
3.7	COBALT		
8.5	CHROMIUM		
3.2	COPPER		
1.0U	MOLYBDENUM		
3.0	NICKEL		
5.4	LEAD		
5.0U	ANTIMONY		
4.0U	SELENIUM		
5.0U	TIN		
5.8	STRONTIUM		
5.0U	TELLURIUM		
520	TITANIUM		
10U	THALLIUM		
15	VANADIUM		
3.1	YTTRIUM		
9.0	ZINC		
NA	ZIRCONIUM		
0.05U	MERCURY		
3800	ALUMINUM		
190	MANGANESE		

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE .ATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER
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Date / Metals

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

10/03/89

METALS DATA REPORT

PROJECT NO. 89-524 SAMPLE NO. 38043 SAMPLE TYPE: SOIL
SOURCE: SPRING MILLS
STATION ID: SS-02

PROG ELEM: NSF COLLECTED BY: SAWYER
CITY: LANCASTER ST: SC
COLLECTION START: 08/01/89 1005 STOP: 00/00/00

MG/KG	ANALYTICAL RESULTS
3.0U	SILVER
9.0U	ARSENIC
NA	BORON
62	BARIUM
1.5U	BERYLLIUM
1.5U	CADMIUM
6.0	COBALT
16	CHROMIUM
20	COPPER
3.0U	MOLYBDENUM
13	NICKEL
12U	LEAD
15U	ANTIMONY
12U	SELENIUM
7.5U	TIN
21	STRONTIUM
15U	TELLURIUM
320	TITANIUM
30U	THALLIUM
100	VANADIUM
7.2	YTTRIUM
22	ZINC
NA	ZIRCONIUM
0.07	MERCURY
27000	ALUMINUM
100	MANGANESE

MG/KG	ANALYTICAL RESULTS
910	CALCIUM
1200	MAGNESIUM
30000	IRON
300U	SODIUM
600U	POTASSIUM
32	PERCENT MOISTURE

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

10/03/89

METALS DATA REPORT

PROJECT NO. 89-524 SAMPLE NO. 38048 SAMPLE TYPE: SOIL
SOURCE: SPRING MILLS
STATION ID: SS-03

PROG ELEM: NSF COLLECTED BY: SAWYER
CITY: LANCASTER ST: SC
COLLECTION START: 08/01/89 1253 STOP: 00/00/00

MG/KG	ANALYTICAL RESULTS
2.0U	SILVER
28	ARSENIC
NA	BORON
21	BARIUM
1.0U	BERYLLIUM
1.0U	CADMIUM
2.0U	COBALT
20	CHROMIUM
9.9	COPPER
2.0U	MOLYBDENUM
9.3	NICKEL
18	LEAD
10U	ANTIMONY
8.0U	SELENIUM
5.0U	TIN
19	STRONTIUM
10U	TELLURIUM
200	TITANIUM
20U	THALLIUM
31	VANADIUM
24	YTTRIUM
30	ZINC
NA	ZIRCONIUM
0.05U	MERCURY
18000	ALUMINUM
110	MANGANESE

MG/KG	ANALYTICAL RESULTS
1800	CALCIUM
860	MAGNESIUM
18000	IRON
350	SODIUM
400U	POTASSIUM
21	PERCENT MOISTURE

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 10/03/89

PROJECT NO. 89-524 SAMPLE NO. 38050 SAMPLE TYPE: SOIL
SOURCE: SPRING MILLS
STATION ID: SS-04

PROG ELEM: NSF COLLECTED BY: SAWYER
CITY: LANCASTER ST: SC
COLLECTION START: 08/01/89 1342 STOP: 00/00/00

MG/KG	ANALYTICAL RESULTS
3.0U	SILVER
48	ARSENIC
NA	BORON
22	BARIUM
1.5U	BERYLLIUM
1.5U	CADMIUM
3.0U	COBALT
14	CHROMIUM
15	COPPER
3.0U	MOLYBDENUM
6.0U	NICKEL
12U	LEAD
15U	ANTIMONY
12U	SELENIUM
15U	TIN
3.0U	STRONTIUM
15U	TELLURIUM
390	TITANIUM
30U	THALLIUM
54	VANADIUM
5.1	YTTRIUM
25	ZINC
NA	ZIRCONIUM
0.07	MERCURY
16000	ALUMINUM
150	MANGANESE

MG/KG	ANALYTICAL RESULTS
150U	CALCIUM
710	MAGNESIUM
32000	IRON
300U	SODIUM
700	POTASSIUM
18	PERCENT MOISTURE

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 10/03/89

PROJECT NO. 89-524 SAMPLE NO. 38054 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: SD-01 COLLECTION START: 08/03/89 0914 STOP: 00/00/00

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
3.0U	SILVER	3800	CALCIUM
39	ARSENIC	5500	MAGNESIUM
NA	BORON	29000	IRON
100	BARIUM	300U	SODIUM
1.5U	BERYLLIUM	1100	POTASSIUM
1.5U	CADMIUM	32	PERCENT MOISTURE
18	COBALT		
26	CHROMIUM		
23	COPPER		
3.0U	MOLYBDENUM		
48	NICKEL		
37	LEAD		
15U	ANTIMONY		
12U	SELENIUM		
7.5U	TIN		
51	STRONTIUM		
15U	TELLURIUM		
1200	TITANIUM		
30U	THALLIUM		
64	VANADIUM		
14	YTTRIUM		
53	ZINC		
NA	ZIRCONIUM		
0.05U	MERCURY		
22000	ALUMINUM		
580	MANGANESE		

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 10/03/89

PROJECT NO. 89-524 SAMPLE NO. 38053 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: SD-02 COLLECTION START: 08/02/89 1007 STOP: 00/00/00

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
2.0U	SILVER	1100	CALCIUM
26	ARSENIC	1600	MAGNESIUM
NA	BORON	14000	IRON
65	BARIUM	200U	SODIUM
1.0U	BERYLLIUM	690	POTASSIUM
1.0U	CADMIUM	41	PERCENT MOISTURE
8.0	COBALT		
24	CHROMIUM		
17	COPPER		
2.0U	MOLYBDENUM		
9.9	NICKEL		
22	LEAD		
10U	ANTIMONY		
8.0U	SELENIUM		
10U	TIN		
13	STRONTIUM		
10U	TELLURIUM		
660	TITANIUM		
20U	THALLIUM		
40	VANADIUM		
7.4	YTTRIUM		
41	ZINC		
NA	ZIRCONIUM		
0.05U	MERCURY		
10000	ALUMINUM		
490	MANGANESE		

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 10/03/89

PROJECT NO. 89-524 SAMPLE NO. 38056 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: SD-03 COLLECTION START: 08/02/89 1237 STOP: 00/00/00

MG/KG	ANALYTICAL RESULTS
3.0U	SILVER
25U	ARSENIC
NA	BORON
130	BARIUM
1.5U	BERYLLIUM
1.5U	CADMIUM
11	COBALT
54	CHROMIUM
35	COPPER
3.0U	MOLYBDENUM
14	NICKEL
30	LEAD
15U	ANTIMONY
12U	SELENIUM
7.5U	TIN
22	STRONTIUM
15U	TELLURIUM
820	TITANIUM
30U	THALLIUM
57	VANADIUM
12	YTTRIUM
75	ZINC
NA	ZIRCONIUM
0.09	MERCURY
18000	ALUMINUM
640	MANGANESE

MG/KG	ANALYTICAL RESULTS
1300	CALCIUM
2300	MAGNESIUM
27000	IRON
300U	SODIUM
1200	POTASSIUM
40	PERCENT MOISTURE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

10/03/89

METALS DATA REPORT

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**   PROJECT NO. 89-524    SAMPLE NO. 38044  SAMPLE TYPE: SEDIMENT    PROG ELEM: NSF   COLLECTED BY: SAWYER                **
**   SOURCE: SPRING MILLS                                            CITY: LANCASTER             ST: SC                  **
**   STATION ID: SD-05                                               COLLECTION START: 08/01/89  1030   STOP: 00/00/00       **
**                                                                                                                          **
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MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
5.0U	SILVER	6700	CALCIUM
50U	ARSENIC	3000	MAGNESIUM
NA	BORON	46000	IRON
620	BARIUM	1200	SODIUM
5.6	BERYLLIUM	6900	POTASSIUM
2.5U	CADMIUM	37	PERCENT MOISTURE
16	COBALT		
33	CHROMIUM		
74	COPPER		
6.3	MOLYBDENUM		
36	NICKEL		
32	LEAD		
25U	ANTIMONY		
20U	SELENIUM		
12U	TIN		
680	STRONTIUM		
25U	TELLURIUM		
1400	TITANIUM		
50U	THALLIUM		
110	VANADIUM		
34	YTTRIUM		
44	ZINC		
NA	ZIRCONIUM		
0.06	MERCURY		
31000	ALUMINUM		
160	MANGANESE		

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

10/03/89

METALS DATA REPORT

PROJECT NO. 89-524 SAMPLE NO. 38045 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: SD-06 COLLECTION START: 08/01/89 1105 STOP: 00/00/00

MG/KG	ANALYTICAL RESULTS
5.0U	SILVER
120	ARSENIC
NA	BORON
490	BARIUM
3.2	BERYLLIUM
2.5U	CADMIUM
12	COBALT
30	CHROMIUM
63	COPPER
6.0	MOLYBDENUM
41	NICKEL
24	LEAD
25U	ANTIMONY
20U	SELENIUM
25U	TIN
360	STRONTIUM
25U	TELLURIUM
1000	TITANIUM
50U	THALLIUM
85	VANADIUM
22	YTTRIUM
44	ZINC
NA	ZIRCONIUM
0.05U	MERCURY
23000	ALUMINUM
140	MANGANESE

MG/KG	ANALYTICAL RESULTS
3900	CALCIUM
1900	MAGNESIUM
46000	IRON
600	SODIUM
4300	POTASSIUM
38	PERCENT MOISTURE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 10/03/89

PROJECT NO. 89-524 SAMPLE NO. 38046 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: SD-07 COLLECTION START: 08/01/89 1145 STOP: 00/00/00

MG/KG	ANALYTICAL RESULTS
4.0U	SILVER
10U	ARSENIC
NA	BORON
90	BARIUM
2.0U	BERYLLIUM
2.0U	CADMIUM
7.8	COBALT
40	CHROMIUM
51	COPPER
4.0U	MOLYBDENUM
19	NICKEL
16U	LEAD
20U	ANTIMONY
16U	SELENIUM
10U	TIN
28	STRONTIUM
20U	TELLURIUM
1100	TITANIUM
40U	THALLIUM
96	VANADIUM
11	YTTRIUM
40	ZINC
NA	ZIRCONIUM
0.05U	MERCURY
23000	ALUMINUM
240	MANGANESE

MG/KG	ANALYTICAL RESULTS
1500	CALCIUM
3900	MAGNESIUM
33000	IRON
1000	SODIUM
980	POTASSIUM
34	PERCENT MOISTURE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 10/03/89

PROJECT NO. 89-524 SAMPLE NO. 38047 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: SD-08 COLLECTION START: 08/01/89 1228 STOP: 00/00/00

MG/KG	ANALYTICAL RESULTS
2.0U	SILVER
25U	ARSENIC
NA	BORON
80	BARIUM
1.0U	BERYLLIUM
1.0U	CADMIUM
3.9	COBALT
36	CHROMIUM
250	COPPER
2.0U	MOLYBDENUM
14	NICKEL
32	LEAD
10U	ANTIMONY
8.0U	SELENIUM
10U	TIN
35	STRONTIUM
10U	TELLURIUM
150	TITANIUM
20U	THALLIUM
21	VANADIUM
14	YTTRIUM
860	ZINC
NA	ZIRCONIUM
0.07	MERCURY
8600	ALUMINUM
160	MANGANESE

MG/KG	ANALYTICAL RESULTS
3700	CALCIUM
1600	MAGNESIUM
9100	IRON
2500	SODIUM
400U	POTASSIUM
79	PERCENT MOISTURE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 10/03/89

PROJECT NO. 89-524 SAMPLE NO. 38049 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: SD-09 COLLECTION START: 08/01/89 1321 STOP: 00/00/00

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
3.0U	SILVER	970	CALCIUM
26	ARSENIC	2100	MAGNESIUM
NA	BORON	26000	IRON
61	BARIUM	300U	SODIUM
1.5U	BERYLLIUM	880	POTASSIUM
1.5U	CADMIUM	20	PERCENT MOISTURE
9.6	COBALT		
22	CHROMIUM		
24	COPPER		
3.0U	MOLYBDENUM		
12	NICKEL		
12U	LEAD		
15U	ANTIMONY		
12U	SELENIUM		
7.5U	TIN		
11	STRONTIUM		
15U	TELLURIUM		
520	TITANIUM		
30U	THALLIUM		
69	VANADIUM		
14	YTTRIUM		
66	ZINC		
NA	ZIRCONIUM		
0.05U	MERCURY		
17000	ALUMINUM		
420	MANGANESE		

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

10/03/89

METALS DATA REPORT

PROJECT NO. 89-524 SAMPLE NO. 38057 SAMPLE TYPE: GRNDWATER PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: TW-01 COLLECTION START: 08/03/89 1205 STOP: 00/00/00

UG/L	ANALYTICAL RESULTS	MG/L	ANALYTICAL RESULTS
400U	SILVER	240	CALCIUM
250U	ARSENIC	820	MAGNESIUM
NA	BORON	4200	IRON
19000	BARIUM	40U	SODIUM
200U	BERYLLIUM	350	POTASSIUM
200U	CADMIUM		
1400	COBALT		
4000	CHROMIUM		
2400	COPPER		
400U	MOLYBDENUM		
1900	NICKEL		
1600	LEAD		
1200U	ANTIMONY		
1600U	SELENIUM		
1000U	TIN		
3200	STRONTIUM		
2000U	TELLURIUM		
90000	TITANIUM		
4000U	THALLIUM		
7000	VANADIUM		
2700	YTTRIUM		
8200	ZINC		
NA	ZIRCONIUM		
0.2U	MERCURY		
3000000	ALUMINUM		
52000	MANGANESE		

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EV AL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

Water
Metals

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 10/03/89

PROJECT NO. 89-524 SAMPLE NO. 38052 SAMPLE TYPE: GRNDWATER PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: TW-02 COLLECTION START: 08/02/89 0900 STOP: 00/00/00

UG/L	ANALYTICAL RESULTS
10U	SILVER
30U	ARSENIC
NA	BORON
280	BARIUM
5.0U	BERYLLIUM
5.0U	CADMIUM
32	COBALT
75	CHROMIUM
66	COPPER
10U	MOLYBDENUM
27	NICKEL
47	LEAD
50U	ANTIMONY
40U	SELENIUM
25U	TIN
120	STRONTIUM
50U	TELLURIUM
860	TITANIUM
NA	THALLIUM
110	VANADIUM
27	YTTRIUM
180	ZINC
NA	ZIRCONIUM
0.2U	MERCURY
38000	ALUMINUM
3000	MANGANESE

MG/L	ANALYTICAL RESULTS
13	CALCIUM
5.6	MAGNESIUM
43	IRON
21	SODIUM
2.0U	POTASSIUM

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 10/03/89

PROJECT NO. 89-524 SAMPLE NO. 38055 SAMPLE TYPE: GRNDWATER PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: TW-03 COLLECTION START: 08/02/89 1149 STOP: 00/00/00

UG/L	ANALYTICAL RESULTS
10U	SILVER
30U	ARSENIC
NA	BORON
120	BARIUM
5.0U	BERYLLIUM
5.0U	CADMIUM
10U	COBALT
10U	CHROMIUM
10U	COPPER
10U	MOLYBDENUM
20U	NICKEL
40U	LEAD
50U	ANTIMONY
40U	SELENIUM
25U	TIN
170	STRONTIUM
50U	TELLURIUM
65	TITANIUM
NA	THALLIUM
10U	VANADIUM
10U	YTTRIUM
61	ZINC
NA	ZIRCONIUM
0.2U	MERCURY
1800	ALUMINUM
590	MANGANESE

MG/L	ANALYTICAL RESULTS
12	CALCIUM
6.7	MAGNESIUM
1.6	IRON
22	SODIUM
2.2	POTASSIUM

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 10/03/89

PROJECT NO. 89-524 SAMPLE NO. 38051 SAMPLE TYPE: TRIPBLANK PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: TRIP BLANK COLLECTION START: 07/30/89 0900 STOP: 00/00/00

UG/L	ANALYTICAL RESULTS	MG/L	ANALYTICAL RESULTS
10U	SILVER	1.4	CALCIUM
30U	ARSENIC	0.35	MAGNESIUM
NA	BORON	0.050U	IRON
10U	BARIUM	1.0U	SODIUM
5.0U	BERYLLIUM	2.0U	POTASSIUM
5.0U	CADMIUM		
10U	COBALT		
10U	CHROMIUM		
10U	COPPER		
10U	MOLYBDENUM		
20U	NICKEL		
40U	LEAD		
50U	ANTIMONY		
40U	SELENIUM		
25U	TIN		
26	STRONTIUM		
50U	TELLURIUM		
10U	TITANIUM		
NA	THALLIUM		
10U	VANADIUM		
10U	YTTRIUM		
10U	ZINC		
NA	ZIRCONIUM		
0.2U	MERCURY		
100U	ALUMINUM		
10U	MANGANESE		

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PESTICIDES/PCB'S DATA REPORT 09/29/89

PROJECT NO. 89-524 SAMPLE NO. 38047 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: SD-08 COLLECTION START: 08/01/89 1228 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS
19UJ	ALDRIN
19UJ	HEPTACHLOR
19UJ	HEPTACHLOR EPOXIDE
19UJ	ALPHA-BHC
58UJ	BETA-BHC
19UJ	GAMMA-BHC (LINDANE)
19UJ	DELTA-BHC
19UJ	ENDOSULFAN I (ALPHA)
19UJ	DIELDRIN
38UJ	4,4'-DDT (P,P'-DDT)
38UJ	4,4'-DDE (P,P'-DDE)
38UJ	4,4'-DDD (P,P'-DDD)
38UJ	ENDRIN
38UJ	ENDOSULFAN II (BETA)
38UJ	ENDOSULFAN SULFATE
130UJ	CHLORDANE (TECH. MIXTURE) /1
400UJ	PCB-1242 (AROCLOR 1242)
400UJ	PCB-1254 (AROCLOR 1254)
400UJ	PCB-1221 (AROCLOR 1221)

UG/KG	ANALYTICAL RESULTS
400UJ	PCB-1232 (AROCLOR 1232)
400UJ	PCB-1248 (AROCLOR 1248)
400UJ	PCB-1260 (AROCLOR 1260)
400UJ	PCB-1016 (AROCLOR 1016)
1200UJ	TOXAPHENE
---	CHLORDENE /2
---	ALPHA-CHLORDENE /2
---	BETA CHLORDENE /2
---	GAMMA-CHLORDENE /2
---	1-HYDROXYCHLORDENE /2
---	GAMMA-CHLORDANE /2
---	TRANS-NONACHLOR /2
---	ALPHA-CHLORDANE /2
---	CIS-NONACHLOR /2
---	OXYCHLORDANE (OCTACHLOREPOXIDE) /2
85UJ	METHOXYCHLOR
38UJ	ENDRIN KETONE
59	PERCENT MOISTURE

REMARKS ***REMARKS***

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT. C-CONFIRMED BY GC/MS
1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS. 2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV
COLLEGE STATION RD.
ATHENS, GA. 30613

*****MEMORANDUM******

DATE: 09/30/89

SUBJECT: Results of Pesticide/PCB Analysis;
89-524 SPRING MILLS
LANCASTER SC

FROM: Tom B. Bennett, jr.
Chief, Organic Chemistry Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

RECEIVED
OCT 12 1989
NUS CORPORATION
REGION IV
SENT TO_____

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV
COLLEGE STATION RD.
ATHENS, GA. 30613

*****MEMORANDUM******

DATE: 10/04/89

SUBJECT: Results of Metals Analysis;
89-524 SPRING MILLS
LANCASTER SC

FROM: William H. McDaniel
Chief, Inorganic Chemistry Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

RECEIVED

OCT 12 1989

NUS CORPORATION
REGION IV
SENT TO _____

ANALYTICAL DATA TRACKING SHEETS

SITE NAME: Spring Mills Grace Bleachery
LOCATION: Lancaster, S.C
DATE SAMPLED: 7/31 - 8-3

TDD NO.: F4-8904-52
PROJECT NO.: 89-524
CASE NO.:
DATA SET COMPLETED:

Soil/Sediment Samples

Station	Cyanide	Metals	Purgeable	Purgeable, Misc	Extractable	Extractable Misc	Pest /PCBs	Remarks
SS-01	9-5-89		9-25-89		9-5-89	9-5-89	10-2-89	
SS-02			9-5-89				10-2-89	
SS-03			9-25-89				10-2-89	
SS-04							10-2-89	
SD-01						9-5-89	10-2-89	
SD-02							10-2-89	
SD-03						9-5-89	10-2-89	
SD-05							10-2-89	
SD-06			✓				10-2-89	
SD-07			9-5-89			9-5-89	10-2-89	
SD-08			8-28-89			9-5-89		
SD-09	✓		9-15-89		✓		10-2-89	

Water Samples.

Station	Cyanide	Metals	Purgeable	Purgeable, Misc	Extractable	Extractable Misc.	Pest /PCBs	Remarks
TW-01	9-5-89		8-17-89		9-15-89		9-25-89	
TW-02			8-17-89	8-17-89				
TW-03			8-17-89					
TRIP BLANK	✓		8-17-89		✓		✓	

PROJECT MANAGER T. SAWYER

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV
COLLEGE STATION RD.
ATHENS, GA. 30613

*****MEMORANDUM*****

DATE: 09/29/89

SUBJECT: Results of Pesticide/PCB Analysis;
89-524 SPRING MILLS
LANCASTER SC

FROM: Tom B. Bennett, jr.
Chief, Organic Chemistry Section Tom B. Bennett, Jr.

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

RECEIVED
OCT 02 1989
NUS CORPORATION
REGION IV
SENT TO_____

1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS. 2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

09/28/89

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 89-524 SAMPLE NO. 28058 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: SS-01 COLLECTION START: 08/03/89 1259 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
8.2U	ALDRIN	140U	PCB-1232 (AROCLOR 1232)
8.2U	HEPTACHLOR	140U	PCB-1248 (AROCLOR 1243)
8.2U	HEPTACHLOR EPOXIDE	140U	PCB-1260 (AROCLOR 1260)
8.2U	ALPHA-BHC	140U	PCB-1016 (AROCLOR 1016)
11U	BETA-BHC	530U	TOXAPHENE
8.2U	GAMMA-BHC (LINDANE)	---	CHLORDENE /2
8.4U	DELTA-BHC	---	ALPHA-CHLORDENE /2
8.2U	ENDOSULFAN I (ALPHA)	---	BETA CHLORDENE /2
8.2U	DIELDRIN	---	GAMMA-CHLORDENE /2
17U	4,4'-DDT (P,P'-DDT)	---	1-HYDROXYCHLORDENE /2
17U	4,4'-DDE (P,P'-DDE)	---	GAMMA-CHLORDANE /2
17U	4,4'-DDD (P,P'-DDD)	---	TRANS-NONACHLOR /2
17U	ENDRIN	---	ALPHA-CHLORDANE /2
17U	ENDOSULFAN II (BETA)	---	CIS-NONACHLOR /2
17U	ENDOSULFAN SULFATE	---	OXYCHLORDANE (OCTACHLOREPOXIDE) /2
65U	CHLORDANE (TECH. MIXTURE) /1	26U	METHOXYCHLOR
140U	PCB-1242 (AROCLOR 1242)	75U	ENDRIN KETONE
140U	PCB-1254 (AROCLOR 1254)	99	PERCENT MOISTURE
140U	PCB-1221 (AROCLOR 1221)		

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT. C-CONFIRMED BY GC/MS

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

09/28/89

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 89-524 SAMPLE NO. 38043 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: SS-02 COLLECTION START: 08/01/89 1005 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
9.2U	ALDRIN	140U	PCB-1232 (AROCLOR 1232)
9.2U	HEPTACHLOR	140U	PCB-1248 (AROCLOR 1248)
9.2U	HEPTACHLOR EPOXIDE	140U	PCB-1260 (AROCLOR 1260)
9.2U	ALPHA-BHC	140U	PCB-1016 (AROCLOR 1016)
9.2U	BETA-BHC	590U	TOXAPHENE
9.2U	GAMMA-BHC (LINDANE)	---	CHLORDENE /2
7.2U	DELTA-BHC	---	ALPHA-CHLORDENE /2
9.2U	ENDOSULFAN I (ALPHA)	---	BETA CHLORDENE /2
9.2U	DIELDRIN	---	GAMMA-CHLORDENE /2
15U	4,4'-DDT (P,P'-DDT)	---	1-HYDROXYCHLORDENE /2
15U	4,4'-DDE (P,P'-DDE)	---	GAMMA-CHLORDANE /2
15U	4,4'-DDD (P,P'-DDD)	---	TRANS-NONACHLOR /2
15U	ENDRIN	---	ALPHA-CHLORDANE /2
15U	ENDOSULFAN II (BETA)	---	CIS-NONACHLOR /2
22U	ENDOSULFAN SULFATE	---	OXYCHLORDANE (OCTACHLOREPOXIDE) /2
63U	CHLORDANE (TECH. MIXTURE) /1	29U	METHOXYCHLOR
140U	PCB-1242 (AROCLOR 1242)	15U	ENDRIN KETONE
140U	PCB-1254 (AROCLOR 1254)	17	PERCENT MOISTURE
140U	PCB-1221 (AROCLOR 1221)		

REMARKS ***REMARKS***

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

09/28/89

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 89-524 SAMPLE NO. 88048 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: SS-03 COLLECTION START: 08/01/89 1253 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
8.1U	ALDRIN	140U	PCB-1232 (AROCLOR 1232)
8.1U	HEPTACHLOR	140U	PCB-1248 (AROCLOR 1248)
8.1U	HEPTACHLOR EPOXIDE	140U	PCB-1260 (AROCLOR 1260)
8.1U	ALPHA-BHC	140U	PCB-1016 (AROCLOR 1016)
33U	BETA-BHC	530U	TOXAPHENE
8.1U	GAMMA-BHC (LINDANE)	---	CHLORDENE /2
14U	DELTA-BHC	---	ALPHA-CHLORDENE /2
8.1U	ENDOSULFAN I (ALPHA)	---	BETA CHLORDENE /2
8.1U	DIELDRIN	---	GAMMA-CHLORDENE /2
16U	4,4'-DDT (P,P'-DDT)	---	1-HYDROXYCHLORDENE /2
16U	4,4'-DDE (P,P'-DDE)	---	GAMMA-CHLORDANE /2
16U	4,4'-DDD (P,P'-DDD)	---	TRANS-NONACHLOR /2
16U	ENDRIN	---	ALPHA-CHLORDANE /2
16U	ENDOSULFAN II (BETA)	---	CIS-NONACHLOR /2
16U	ENDOSULFAN SULFATE	---	OXYCHLORDANE (OCTACHLOREPOXIDE) /2
64U	CHLORDANE (TECH. MIXTURE) /1	26U	METHOXYCHLOR
140U	PCB-1242 (AROCLOR 1242)	16U	ENDRIN KETONE
140U	PCB-1254 (AROCLOR 1254)	23	PERCENT MOISTURE
140U	PCB-1221 (AROCLOR 1221)		

REMARKS ***REMARKS***

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

09/28/89

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 89-524 SAMPLE NO. 38050 SAMPLE TYPE: SOIL
SOURCE: SPRING MILLS
STATION ID: SS-04

PROG ELEM: NSF COLLECTED BY: SAWYER
CITY: LANCASTER ST: SC
COLLECTION START: 08/01/89 1342 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS
9.7U	ALDRIN
9.7U	HEPTACHLOR
9.7U	HEPTACHLOR EPOXIDE
9.7U	ALPHA-BHC
13U	BETA-BHC
9.7U	GAMMA-BHC (LINDANE)
10U	DELTA-BHC
9.7U	ENDOSULFAN I (ALPHA)
10U	DIELDRIN
20U	4,4'-DDT (P,P'-DDT)
20U	4,4'-DDE (P,P'-DDE)
20U	4,4'-DDD (P,P'-DDD)
20U	ENDRIN
20U	ENDOSULFAN II (BETA)
20U	ENDOSULFAN SULFATE
77U	CHLORDANE (TECH. MIXTURE) /1
160U	PCB-1242 (AROCLOR 1242)
160U	PCB-1254 (AROCLOR 1254)
160U	PCB-1221 (AROCLOR 1221)

UG/KG	ANALYTICAL RESULTS
160U	PCB-1232 (AROCLOR 1232)
160U	PCB-1248 (AROCLOR 1248)
160U	PCB-1260 (AROCLOR 1260)
160U	PCB-1016 (AROCLOR 1016)
630U	TOXAPHENE
---	CHLORDENE /2
---	ALPHA-CHLORDENE /2
---	BETA CHLORDENE /2
---	GAMMA-CHLORDENE /2
---	1-HYDROXYCHLORDENE /2
---	GAMMA-CHLORDANE /2
---	TRANS-NONACHLOR /2
---	ALPHA-CHLORDANE /2
---	CIS-NONACHLOR /2
---	OXYCHLORDANE (OCTACHLOREPOXIDE) /2
31U	METHOXYCHLOR
20U	ENDRIN KETONE
13	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

09/28/89

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 89-824 SAMPLE NO. 88054 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: SS-01 COLLECTION START: 08/03/89 0914 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
12U	ALDRIN	200U	PCB-1232 (AROCLOR 1232)
12U	HEPTACHLOR	200U	PCB-1248 (AROCLOR 1248)
12U	HEPTACHLOR EPOXIDE	200U	PCB-1260 (AROCLOR 1260)
12U	ALPHA-BHC	200U	PCB-1016 (AROCLOR 1016)
48U	BETA-BHC	760U	TOXAPHENE
20U	GAMMA-BHC (LINDANE)	---	CHLORDENE /2
20U	DELTA-BHC	---	ALPHA-CHLORDENE /2
20U	ENDOSULFAN I (ALPHA)	---	BETA CHLORDENE /2
20U	DIELDRIN	---	GAMMA-CHLORDENE /2
23U	4,4'-DDT (P,P'-DDT)	---	1-HYDROXYCHLORDENE /2
23U	4,4'-DDE (P,P'-DDE)	---	GAMMA-CHLORDANE /2
23U	4,4'-DDD (P,P'-DDD)	---	TRANS-NONACHLOR /2
23U	ENDRIN	---	ALPHA-CHLORDANE /2
23U	ENDOSULFAN II (BETA)	---	CIS-NONACHLOR /2
23U	ENDOSULFAN SULFATE	---	OXYCHLORDANE (OCTACHLOREPOXIDE) /2
93U	CHLORDANE (TECH. MIXTURE) /1	37U	METHOXYCHLOR
200U	PCB-1242 (AROCLOR 1242)	23U	ENDRIN KETONE
200U	PCB-1254 (AROCLOR 1254)	32	PERCENT MOISTURE
200U	PCB-1221 (AROCLOR 1221)		

REMARKS ***REMARKS***

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

09/28/89

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 89-524 SAMPLE NO. 33053 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: 05-02 COLLECTION START: 08/02/89 1007 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
9.7U	ALDRIN	160U	PCB-1232 (AROCLOR 1232)
9.7U	HEPTACHLOR	160U	PCB-1248 (AROCLOR 1248)
9.7U	HEPTACHLOR EPOXIDE	160U	PCB-1260 (AROCLOR 1260)
9.7U	ALPHA-BHC	160U	PCB-1016 (AROCLOR 1016)
13U	BETA-BHC	630U	TOXAPHENE
9.7U	GAMMA-BHC (LINDANE)	---	CHLORDENE /2
10U	DELTA-BHC	---	ALPHA-CHLORDENE /2
9.7U	ENDOSULFAN I (ALPHA)	---	BETA CHLORDENE /2
10U	DIELDRIN	---	GAMMA-CHLORDENE /2
20U	4,4'-DDT (P,P'-DDT)	---	1-HYDROXYCHLORDENE /2
20U	4,4'-DDE (P,P'-DDE)	---	GAMMA-CHLORDANE /2
20U	4,4'-DDD (P,P'-DDD)	---	TRANS-NONACHLOR /2
20U	ENDRIN	---	ALPHA-CHLORDANE /2
20U	ENDOSULFAN II (BETA)	---	CIS-NONACHLOR /2
20U	ENDOSULFAN SULFATE	---	OXYCHLORDANE (OCTACHLOREPOXIDE) /2
77U	CHLORDANE (TECH. MIXTURE) /1	31U	METHOXYCHLOR
160U	PCB-1242 (AROCLOR 1242)	20U	ENDRIN KETONE
160U	PCB-1254 (AROCLOR 1254)	36	PERCENT MOISTURE
160U	PCB-1221 (AROCLOR 1221)		

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

09/28/89

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 89-524 SAMPLE NO. 38056 SAMPLE TYPE: SEDIMENT
SOURCE: SPRING MILLS
STATION ID: SU-03

PROG ELEM: NSF COLLECTED BY: SAWYER
CITY: LANCASTER ST: SC
COLLECTION START: 08/02/89 1237 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
24U	ALDRIN	320U	PCB-1232 (AROCLOR 1232)
24J	HEPTACHLOR	320U	PCB-1248 (AROCLOR 1248)
24U	HEPTACHLOR EPOXIDE	150U	PCB-1260 (AROCLOR 1260)
24U	ALPHA-BHC	320U	PCB-1016 (AROCLOR 1016)
40J	BETA-BHC	2500U	TOXAPHENE
24U	GAMMA-BHC (LINDANE)	---	CHLORDENE /2
24U	DELTA-BHC	---	ALPHA-CHLORDENE /2
24U	ENDOSULFAN I (ALPHA)	---	BETA CHLORDENE /2
24U	DIELDRIN	---	GAMMA-CHLORDENE /2
40U	4,4'-DDT (P,P'-DDT)	---	1-HYDROXYCHLORDENE /2
40U	4,4'-DDE (P,P'-DDE)	---	GAMMA-CHLORDANE /2
40U	4,4'-DDD (P,P'-DDD)	---	TRANS-NONACHLOR /2
40U	ENDRIN	---	ALPHA-CHLORDANE /2
40U	ENDOSULFAN II (BETA)	---	CIS-NONACHLOR /2
45U	ENDOSULFAN SULFATE	---	OXYCHLORDANE (OCTACHLOREPOXIDE) /2
190U	CHLORDANE (TECH. MIXTURE) /1	46U	METHOXYCHLOR
320U	PCB-1242 (AROCLOR 1242)	110U	ENDRIN KETONE
180J	PCB-1254 (AROCLOR 1254)	41	PERCENT MOISTURE
320U	PCB-1221 (AROCLOR 1221)		

REMARKS

REMARKS

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

09/28/89

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 89-524 SAMPLE NO. 88044 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: SD-05 COLLECTION START: 08/01/89 1030 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
16U	ALDRIN	260U	PCB-1232 (AROCLOR 1232)
16U	HEPTACHLOR	260U	PCB-1248 (AROCLOR 1248)
16U	HEPTACHLOR EPOXIDE	260U	PCB-1260 (AROCLOR 1260)
16U	ALPHA-BHC	260U	PCB-1016 (AROCLOR 1016)
21U	BETA-BHC	1000U	TOXAPHENE
21U	GAMMA-BHC (LINDANE)	---	CHLORDENE /2
16U	DELTA-BHC	---	ALPHA-CHLORDENE /2
16U	ENDOSULFAN I (ALPHA)	---	BETA CHLORDENE /2
16U	DIELDRIN	---	GAMMA-CHLORDENE /2
22U	4,4'-DDT (P,P'-DDT)	---	1-HYDROXYCHLORDENE /2
32U	4,4'-DDE (P,P'-DDE)	---	GAMMA-CHLORDANE /2
32U	4,4'-DDD (P,P'-DDD)	---	TRANS-NONACHLOR /2
32U	ENDRIN	---	ALPHA-CHLORDANE /2
32U	ENDOSULFAN II (BETA)	---	CIS-NONACHLOR /2
32U	ENDOSULFAN SULFATE	---	OXYCHLORDANE (OCTACHLOREPOXIDE) /2
120U	CHLORDANE (TECH. MIXTURE) /1	50U	METHOXYCHLOR
260U	PCB-1242 (AROCLOR 1242)	32U	ENDRIN KETONE
260U	PCB-1254 (AROCLOR 1254)	39	PERCENT MOISTURE
260U	PCB-1221 (AROCLOR 1221)		

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

09/28/89

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 89-524 SAMPLE NO. 33045 SAMPLE TYPE: SEDIMENT
SOURCE: SPRING MILLS
STATION ID: SD-06

PROG ELEM: NSF COLLECTED BY: SAWYER
CITY: LANCASTER ST: SC
COLLECTION START: 08/01/89 1105 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
9.7U	ALDRIN	170U	PCB-1232 (AROCLOR 1232)
9.7U	HEPTACHLOR	170U	PCB-1248 (AROCLOR 1248)
9.7U	HEPTACHLOR EPOXIDE	170U	PCB-1260 (AROCLOR 1260)
9.7U	ALPHA-BHC	170U	PCB-1016 (AROCLOR 1016)
40U	BETA-BHC	630U	TOXAPHENE
9.7U	GAMMA-BHC (LINDANE)	---	CHLORDENE /2
17U	DELTA-BHC	---	ALPHA-CHLORDENE /2
9.7U	ENDOSULFAN I (ALPHA)	---	BETA CHLORDENE /2
9.7U	DIELDRIN	---	GAMMA-CHLORDENE /2
19U	4,4'-DDT (P,P'-DDT)	---	1-HYDROXYCHLORDENE /2
19U	4,4'-DDE (P,P'-DDE)	---	GAMMA-CHLORDANE /2
19U	4,4'-DDD (P,P'-DDD)	---	TRANS-NONACHLOR /2
19U	ENDRIN	---	ALPHA-CHLORDANE /2
19U	ENDOSULFAN II (BETA)	---	CIS-NONACHLOR /2
19U	ENDOSULFAN SULFATE	---	OXYCHLORDANE (OCTACHLOREPOXIDE) /2
77U	CHLORDANE (TECH. MIXTURE) /1	31U	METHOXYCHLOR
170U	PCB-1242 (AROCLOR 1242)	19U	ENDRIN KETONE
170U	PCB-1254 (AROCLOR 1254)	13	PERCENT MOISTURE
170U	PCB-1221 (AROCLOR 1221)		

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT. C-CONFIRMED BY GC/MS

1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS. 2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

09/28/89

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 89-524 SAMPLE NO. 36046 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: SD-07 COLLECTION START: 08/01/89 1145 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
12U	ALDRIN	210U	PCB-1232 (AROCLOR 1232)
12U	HEPTACHLOR	210U	PCB-1248 (AROCLOR 1248)
12U	HEPTACHLOR EPOXIDE	210U	PCB-1260 (AROCLOR 1260)
12U	ALPHA-BHC	210U	PCB-1016 (AROCLOR 1016)
50U	BETA-BHC	790U	TOXAPHENE
12U	GAMMA-BHC (LINDANE)	---	CHLORDENE /2
21U	DELTA-BHC	---	ALPHA-CHLORDENE /2
12U	ENDOSULFAN I (ALPHA)	---	BETA CHLORDENE /2
12U	DIELDRIN	---	GAMMA-CHLORDENE /2
24U	4,4'-DDT (P,P'-DDT)	---	1-HYDROXYCHLORDENE /2
24U	4,4'-DDE (P,P'-DDE)	---	GAMMA-CHLORDANE /2
24U	4,4'-DDD (P,P'-DDD)	---	TRANS-NONACHLOR /2
24U	ENDRIN	---	ALPHA-CHLORDANE /2
24U	ENDOSULFAN II (BETA)	---	CIS-NONACHLOR /2
24U	ENDOSULFAN SULFATE	---	OXYCHLORDANE (OCTACHLOREPOXIDE) /2
97U	CHLORDANE (TECH. MIXTURE) /1	39U	METHOXYCHLOR
210U	PCB-1242 (AROCLOR 1242)	24U	ENDRIN KETONE
210U	PCB-1254 (AROCLOR 1254)	35	PERCENT MOISTURE
210U	PCB-1221 (AROCLOR 1221)		

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS. 2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

09/28/89

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 89-524 SAMPLE NO. 33049 SAMPLE TYPE: SEDIMENT PROG ELEM: NSF COLLECTED BY: SAWYER
SOURCE: SPRING MILLS CITY: LANCASTER ST: SC
STATION ID: SD-09 COLLECTION START: 08/01/89 1321 STOP: 00/00/00

UG/KG	ANALYTICAL RESULTS
9.7U	ALDRIN
9.7U	HEPTACHLOR
9.7U	HEPTACHLOR EPOXIDE
9.7U	ALPHA-BHC
13U	BETA-BHC
9.7U	GAMMA-BHC (LINDANE)
10U	DELTA-BHC
9.7U	ENDOSULFAN I (ALPHA)
10U	DIELDRIN
20U	4,4'-DDT (P,P'-DDT)
20U	4,4'-DDE (P,P'-DDE)
20U	4,4'-DDD (P,P'-DDD)
20U	ENDRIN
20U	ENDOSULFAN II (BETA)
20U	ENDOSULFAN SULFATE
77U	CHLORDANE (TECH. MIXTURE) /1
160U	PCB-1242 (AROCLOR 1242)
160U	PCB-1254 (AROCLOR 1254)
160U	PCB-1221 (AROCLOR 1221)

UG/KG	ANALYTICAL RESULTS
160U	PCB-1232 (AROCLOR 1232)
160U	PCB-1248 (AROCLOR 1248)
160U	PCB-1260 (AROCLOR 1260)
160U	PCB-1016 (AROCLOR 1016)
630U	TOXAPHENE
---	CHLORDENE /2
---	ALPHA-CHLORDENE /2
---	BETA CHLORDENE /2
---	GAMMA-CHLORDENE /2
---	1-HYDROXYCHLORDENE /2
---	GAMMA-CHLORDANE /2
---	TRANS-NONACHLOR /2
---	ALPHA-CHLORDANE /2
---	CIS-NONACHLOR /2
---	OXYCHLORDANE (OCTACHLOREPOXIDE) /2
31U	METHOXYCHLOR
20U	ENDRIN KETONE
19	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV
COLLEGE STATION RD.
ATHENS, GA. 30613

*****MEMORANDUM******

DATE: 07/28/88

SUBJECT: Results of Purgeable Organic Analysis;
88-383 SOUTHERN RAILWAY
SPARTANBUR SC
CASE NO: 9704

FROM: Robert W. Knight Robert W. Knight
Chief, Laboratory Evaluation/Quality Assurance Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/27/88

PURGEABLE ORGANICS DATA REPORT

PROJECT NO. 88-383 SAMPLE NO. 26583 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-04

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START: 06/08/88 STOP: 00/00/00

CASE NO.: 9704 SAS NO.: D. NO.: J396

UG/KG	ANALYTICAL RESULTS
13U	CHLOROMETHANE
13UJ	BROMOMETHANE
13U	VINYL CHLORIDE
13U	CHLOROETHANE
20U	METHYLENE CHLORIDE
20UJ	ACETONE
7U	CARBON DISULFIDE
7U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
7U	1,1-DICHLOROETHANE
7U	1,2-DICHLOROETHENE (TOTAL)
7U	CHLOROFORM
7U	1,2-DICHLOROETHANE
13UR	METHYL ETHYL KETONE
7U	1,1,1-TRICHLOROETHANE
7U	CARBON TETRACHLORIDE
13U	VINYL ACETATE
7U	BROMODICHLOROMETHANE
7U	1,2-DICHLOROPROPANE

UG/KG	ANALYTICAL RESULTS
7U	CIS-1,3-DICHLOROPROPENE
7U	TRICHLOROETHENE(TRICHLOROETHYLENE)
7U	DIBROMOCHLOROMETHANE
7U	1,1,2-TRICHLOROETHANE
7U	BENZENE
7U	TRANS-1,3-DICHLOROPROPENE
NA	2-CHLOROETHYLVINYL ETHER
7U	BROMOFORM
13UJ	METHYL ISOBUTYL KETONE
13UJ	METHYL BUTYL KETONE
7U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
13U	1,1,2,2-TETRACHLOROETHANE
7U	TOLUENE
7U	CHLOROBENZENE
7U	ETHYL BENZENE
7U	STYRENE
7U	TOTAL XYLENES
24	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 07/27/88

PROJECT NO. 88-383 SAMPLE NO. 26582 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-03

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START. 06/08/88 STOP: 00/00/00

CASE NO.: 9704 SAS NO.: D. NO.: J395

UG/KG	ANALYTICAL RESULTS
11U	CHLOROMETHANE
11UJ	BROMOMETHANE
11U	VINYL CHLORIDE
11U	CHLOROETHANE
6U	METHYLENE CHLORIDE
20UJ	ACETONE
6U	CARBON DISULFIDE
6U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
6U	1,1-DICHLOROETHANE
6U	1,2-DICHLOROETHENE (TOTAL)
6U	CHLOROFORM
6U	1,2-DICHLOROETHANE
11UR	METHYL ETHYL KETONE
6U	1,1,1-TRICHLOROETHANE
6U	CARBON TETRACHLORIDE
11U	VINYL ACETATE
6U	BROMODICHLOROMETHANE
6U	1,2-DICHLOROPROPANE

UG/KG	ANALYTICAL RESULTS
6U	CIS-1,3-DICHLOROPROPENE
6U	TRICHLOROETHENE(TRICHLOROETHYLENE)
6U	DIBROMOCHLOROMETHANE
6U	1,1,2-TRICHLOROETHANE
6U	BENZENE
6U	TRANS-1,3-DICHLOROPROPENE
NA	2-CHLOROETHYLVINYL ETHER
6U	BROMOFORM
11UJ	METHYL ISOBUTYL KETONE
11UJ	METHYL BUTYL KETONE
6U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
11U	1,1,2,2-TETRACHLOROETHANE
6U	TOLUENE
6U	CHLOROBENZENE
6U	ETHYL BENZENE
6U	STYRENE
6U	TOTAL XYLENES
13	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/27/88

PURGEABLE ORGANICS DATA REPORT

PROJECT NO. 88-383 SAMPLE NO. 26581 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-02

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START: 06/08/88 STOP: 00/00/00

CASE NO.: 9704 SAS NO.: D. NO.: J394

UG/KG	ANALYTICAL RESULTS
13U	CHLOROMETHANE
13UJ	BROMOMETHANE
13U	VINYL CHLORIDE
13U	CHLOROETHANE
7U	METHYLENE CHLORIDE
20UJ	ACETONE
7U	CARBON DISULFIDE
7U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
7U	1,1-DICHLOROETHANE
7U	1,2-DICHLOROETHENE (TOTAL)
7U	CHLOROFORM
7U	1,2-DICHLOROETHANE
13UR	METHYL ETHYL KETONE
7U	1,1,1-TRICHLOROETHANE
7U	CARBON TETRACHLORIDE
13U	VINYL ACETATE
7U	BROMODICHLOROMETHANE
7U	1,2-DICHLOROPROPANE

UG/KG	ANALYTICAL RESULTS
7U	CIS-1,3-DICHLOROPROPENE
7U	TRICHLOROETHENE(TRICHLOROETHYLENE)
7U	DIBROMOCHLOROMETHANE
7U	1,1,2-TRICHLOROETHANE
7U	BENZENE
7U	TRANS-1,3-DICHLOROPROPENE
NA	2-CHLOROETHYLVINYL ETHER
7U	BROMOFORM
13UJ	METHYL ISOBUTYL KETONE
13UJ	METHYL BUTYL KETONE
7U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
13U	1,1,2,2-TETRACHLOROETHANE
7U	TOLUENE
7U	CHLOROBENZENE
7U	ETHYL BENZENE
7U	STYRENE
7U	TOTAL XYLENES
25	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/27/88

PURGEABLE ORGANICS DATA REPORT

PROJECT NO. 88-383 SAMPLE NO. 26580 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-01

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBURG ST: SC
COLLECTION START: 06/08/88 STOP: 00/00/00

CASE NO.: 9704 SAS NO.: D. NO.: J393

UG/KG	ANALYTICAL RESULTS
12U	CHLOROMETHANE
12UJ	BROMOMETHANE
12U	VINYL CHLORIDE
12U	CHLOROETHANE
6U	METHYLENE CHLORIDE
30UJ	ACETONE
6U	CARBON DISULFIDE
6U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
6U	1,1-DICHLOROETHANE
6U	1,2-DICHLOROETHENE (TOTAL)
6U	CHLOROFORM
6U	1,2-DICHLOROETHANE
12UR	METHYL ETHYL KETONE
6U	1,1,1-TRICHLOROETHANE
6U	CARBON TETRACHLORIDE
12U	VINYL ACETATE
6U	BROMODICHLOROMETHANE
6U	1,2-DICHLOROPROPANE

UG/KG	ANALYTICAL RESULTS
6U	CIS-1,3-DICHLOROPROPENE
6U	TRICHLOROETHENE(TRICHLOROETHYLENE)
6U	DIBROMOCHLOROMETHANE
6U	1,1,2-TRICHLOROETHANE
6U	BENZENE
6U	TRANS-1,3-DICHLOROPROPENE
NA	2-CHLOROETHYLVINYL ETHER
6U	BROMOFORM
12UJ	METHYL ISOBUTYL KETONE
12UJ	METHYL BUTYL KETONE
6U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
12U	1,1,2,2-TETRACHLOROETHANE
6U	TOLUENE
6U	CHLOROBENZENE
6U	ETHYL BENZENE
6U	STYRENE
6U	TOTAL XYLENES
19	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV
COLLEGE STATION RD.
ATHENS, GA. 30613

*****MEMORANDUM******

DATE: 07/28/88

SUBJECT: Results of Extractable Organic Analysis;
88-383 SOUTHERN RAILWAY
SPARTANBUR SC
CASE NO: 9704

FROM: Robert W. Knight Robert W. Knight
Chief, Laboratory Evaluation/Quality Assurance Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

RECEIVED
AUG 1 1988
NUS CORPORATION
REGION IV
SENT TO

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 07/27/88

PROJECT NO. 88-383 SAMPLE NO. 26581 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-02

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START: 06/08/88 STOP: 00/00/00

CASE NO.: 9704 SAS NO.: D. NO.: J394

UG/KG	ANALYTICAL RESULTS
880U	PHENOL
880U	BIS(2-CHLOROETHYL) ETHER
880U	2-CHLOROPHENOL
880U	1,3-DICHLOROBENZENE
880U	1,4-DICHLOROBENZENE
880U	BENZYL ALCOHOL
880U	1,2-DICHLOROBENZENE
880U	2-METHYLPHENOL
880U	BIS(2-CHLOROISOPROPYL) ETHER
880U	(3-AND/OR 4-)METHYLPHENOL
880U	N-NITROSODI-N-PROPYLAMINE
880U	HEXACHLOROETHANE
880U	NITROBENZENE
880U	ISOPHORONE
880U	2-NITROPHENOL
880U	2,4-DIMETHYLPHENOL
4300U	BENZOIC ACID
880U	BIS(2-CHLOROETHOXY) METHANE
880U	2,4-DICHLOROPHENOL
880U	1,2,4-TRICHLOROBENZENE
880U	NAPHTHALENE
880U	4-CHLOROANILINE
880U	HEXACHLOROBUTADIENE
880U	4-CHLORO-3-METHYLPHENOL
880U	2-METHYLNAPHTHALENE
880U	HEXACHLOROCYCLOPENTADIENE (HCCP)
880U	2,4,6-TRICHLOROPHENOL
4300U	2,4,5-TRICHLOROPHENOL
880U	2-CHLORONAPHTHALENE
4300U	2-NITROANILINE
880U	DIMETHYL PHTHALATE
880U	ACENAPHTHYLENE
880U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
4300U	3-NITROANILINE
880U	ACENAPHTHENE
4300U	2,4-DINITROPHENOL
4300U	4-NITROPHENOL
880U	DIBENZOFURAN
880U	2,4-DINITROTOLUENE
880U	DIETHYL PHTHALATE
880U	4-CHLOROPHENYL PHENYL ETHER
880U	FLUORENE
4300U	4-NITROANILINE
4300U	2-METHYL-4,6-DINITROPHENOL
880U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
880U	4-BROMOPHENYL PHENYL ETHER
880U	HEXACHLOROBENZENE (HCB)
4300U	PENTACHLOROPHENOL
880U	PHENANTHRENE
880U	ANTHRACENE
880U	DI-N-BUTYLPHTHALATE
880U	FLUORANTHENE
880U	PYRENE
880U	BENZYL BUTYL PHTHALATE
1800U	3,3'-DICHLOROBENZIDINE
880U	BENZO(A)ANTHRACENE
880U	CHRYSENE
2000U	BIS(2-ETHYLHEXYL) PHTHALATE
880U	DI-N-OCTYLPHTHALATE
880U	BENZO(B AND/OR K)FLUORANTHENE
880U	BENZO-A-PYRENE
880U	INDENO (1,2,3-CD) PYRENE
880U	DIBENZO(A,H)ANTHRACENE
880U	BENZO(GHI)PERYLENE
25	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 07/27/88

PROJECT NO. 88-383 SAMPLE NO. 26582 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-03

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START: 06/08/88 STOP: 00/00/00

CASE NO.: 9704 SAS NO.: D. NO.: J395

UG/KG	ANALYTICAL RESULTS
750U	PHENOL
750U	BIS(2-CHLOROETHYL) ETHER
750U	2-CHLOROPHENOL
750U	1,3-DICHLOROBENZENE
750U	1,4-DICHLOROBENZENE
750U	BENZYL ALCOHOL
750U	1,2-DICHLOROBENZENE
750U	2-METHYLPHENOL
750U	BIS(2-CHLOROISOPROPYL) ETHER
750U	(3-AND/OR 4-)METHYLPHENOL
750U	N-NITROSODI-N-PROPYLAMINE
750U	HEXACHLOROETHANE
750U	NITROBENZENE
750U	ISOPHORONE
750U	2-NITROPHENOL
750U	2,4-DIMETHYLPHENOL
3700U	BENZOIC ACID
750U	BIS(2-CHLOROETHOXY) METHANE
750U	2,4-DICHLOROPHENOL
750U	1,2,4-TRICHLOROBENZENE
200J	NAPHTHALENE
750U	4-CHLOROANILINE
750U	HEXACHLOROBUTADIENE
750U	4-CHLORO-3-METHYLPHENOL
280J	2-METHYLNAPHTHALENE
750U	HEXACHLOROCYCLOPENTADIENE (HCCP)
750U	2,4,6-TRICHLOROPHENOL
3700U	2,4,5-TRICHLOROPHENOL
750U	2-CHLORONAPHTHALENE
3700U	2-NITROANILINE
750U	DIMETHYL PHTHALATE
1600	ACENAPHTHYLENE
750U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
3700U	3-NITROANILINE
500J	ACENAPHTHENE
3700U	2,4-DINITROPHENOL
3700U	4-NITROPHENOL
430J	DIBENZOFURAN
750U	2,4-DINITROTOLUENE
750U	DIETHYL PHTHALATE
750U	4-CHLOROPHENYL PHENYL ETHER
660J	FLUORENE
3700U	4-NITROANILINE
3700U	2-METHYL-4,6-DINITROPHENOL
750U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
750U	4-BROMOPHENYL PHENYL ETHER
750U	HEXACHLOROBENZENE (HCB)
3700U	PENTACHLOROPHENOL
7000	PHENANTHRENE
2800	ANTHRACENE
750U	DI-N-BUTYLPHTHALATE
11000	FLUORANTHENE
9700	PYRENE
750U	BENZYL BUTYL PHTHALATE
1500U	3,3'-DICHLOROBENZIDINE
7900	BENZO(A)ANTHRACENE
8900	CHRYSENE
750U	BIS(2-ETHYLHEXYL) PHTHALATE
750U	DI-N-OCTYLPHTHALATE
20000J	BENZO(B AND/OR K)FLUORANTHENE
7900	BENZO-A-PYRENE
3900	INDENO (1,2,3-CD) PYRENE
1600	DIBENZO(A,H)ANTHRACENE
3300	BENZO(GHI)PERYLENE
13	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/27/88

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

PROJECT NO. 88-383 SAMPLE NO. 26582 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-03
CASE.NO.: 9704 SAS NO.:

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START: 06/08/88 STOP: 00/00/00
D. NO.: J395 MD NO:

RESULTS	UNITS	COMPOUND
N	UG/KG	PETROLEUM PRODUCT
10000JN	UG/KG	METHYLPYRENE (4 ISOMERS)
5000JN	UG/KG	METHYLCHRYSENE (2 ISOMERS)
2000JN	UG/KG	TETRAETHYLDIPHOSPHINEDISULFIDE
2000JN	UG/KG	METHYLBENZATHRACENE

RESULTS	UNITS	COMPOUND
10000JN	UG/KG	BENZOFLUORANTHENE (NOT B OR K) (2 ISOMERS)
6000JN	UG/KG	BENZANTHRACENONE (2 ISOMERS)
2000JN	UG/KG	MEHYLANTHRACENE
2000JN	UG/KG	BENZONAPHTHOTHIOPHENE
6000J	UG/KG	3 UNIDENTIFIED COMPOUNDS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 07/27/88

PROJECT NO. 88-383 SAMPLE NO. 26583 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-04

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START: 06/08/88 STOP: 00/00/00

CASE NO.: 9704 SAS NO.: D. NO.: J396

UG/KG	ANALYTICAL RESULTS
860U	PHENOL
860U	BIS(2-CHLOROETHYL) ETHER
860U	2-CHLOROPHENOL
860U	1,3-DICHLOROBENZENE
860U	1,4-DICHLOROBENZENE
860U	BENZYL ALCOHOL
860U	1,2-DICHLOROBENZENE
860U	2-METHYLPHENOL
860U	BIS(2-CHLOROISOPROPYL) ETHER
860U	(3-AND/OR 4-)METHYLPHENOL
860U	N-NITROSODI-N-PROPYLAMINE
860U	HEXACHLOROETHANE
860U	NITROBENZENE
860U	ISOPHORONE
860U	2-NITROPHENOL
860U	2,4-DIMETHYLPHENOL
4200U	BENZOIC ACID
860U	BIS(2-CHLOROETHOXY) METHANE
860U	2,4-DICHLOROPHENOL
860U	1,2,4-TRICHLOROBENZENE
860U	NAPHTHALENE
860U	4-CHLOROANILINE
860U	HEXACHLOROBUTADIENE
860U	4-CHLORO-3-METHYLPHENOL
860U	2-METHYLNAPHTHALENE
860U	HEXACHLOROCYCLOPENTADIENE (HCCP)
860U	2,4,6-TRICHLOROPHENOL
4200U	2,4,5-TRICHLOROPHENOL
860U	2-CHLORONAPHTHALENE
4200U	2-NITROANILINE
860U	DIMETHYL PHTHALATE
860U	ACENAPHTHYLENE
860U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
4200U	3-NITROANILINE
860U	ACENAPHTHENE
4200U	2,4-DINITROPHENOL
4200U	4-NITROPHENOL
860U	DIBENZOFURAN
860U	2,4-DINITROTOLUENE
860U	DIETHYL PHTHALATE
860U	4-CHLOROPHENYL PHENYL ETHER
860U	FLUORENE
4200U	4-NITROANILINE
4200U	2-METHYL-4,6-DINITROPHENOL
860U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
860U	4-BROMOPHENYL PHENYL ETHER
860U	HEXACHLOROBENZENE (HCB)
4200U	PENTACHLOROPHENOL
860U	PHENANTHRENE
860U	ANTHRACENE
860U	DI-N-BUTYLPHTHALATE
860U	FLUORANTHENE
860U	PYRENE
860U	BENZYL BUTYL PHTHALATE
1700U	3,3'-DICHLOROBENZIDINE
860U	BENZO(A)ANTHRACENE
860U	CHRYSENE
860U	BIS(2-ETHYLHEXYL) PHTHALATE
860U	DI-N-OCTYLPHTHALATE
860U	BENZO(B AND/OR K)FLUORANTHENE
860U	BENZO-A-PYRENE
860U	INDENO (1,2,3-CD) PYRENE
860U	DIBENZO(A,H)ANTHRACENE
860U	BENZO(GHI)PERYLENE
24	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/27/88

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

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**   PROJECT NO. 88-383    SAMPLE NO. 26580  SAMPLE TYPE: SOIL        PROG ELEM: NSF   COLLECTED BY: S SINGLETON            **
**   SOURCE: SOUTHERN RAILWAY                                         CITY: SPARTANBUR              ST: SC                   **
**   STATION ID: SB-01                                                COLLECTION START: 06/08/88         STOP: 00/00/00      **
**   CASE.NO.:  9704          SAS NO.:                                D. NO.: J393                 MD NO:                    **
**                                                                                                                           **
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RESULTS	UNITS	COMPOUND	RESULTS	UNITS	COMPOUND
2000JN	UG/KG	CYCLOPENTANEDIOL			

FOOTNOTES
*A-AVERAGE VALUE   *NA-NOT ANALYZED   *NAI-INTERFERENCES   *J-ESTIMATED VALUE   *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN   *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 07/27/88

PROJECT NO. 88-383 SAMPLE NO. 26580 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-01

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START: 06/08/88 STOP: 00/00/00

CASE NO.: 9704 SAS NO.: D. NO.: J393

UG/KG	ANALYTICAL RESULTS
810U	PHENOL
810U	BIS(2-CHLOROETHYL) ETHER
810U	2-CHLOROPHENOL
810U	1,3-DICHLOROBENZENE
810U	1,4-DICHLOROBENZENE
810U	BENZYL ALCOHOL
810U	1,2-DICHLOROBENZENE
810U	2-METHYLPHENOL
810U	BIS(2-CHLOROISOPROPYL) ETHER
810U	(3-AND/OR 4-)METHYLPHENOL
810U	N-NITROSODI-N-PROPYLAMINE
810U	HEXACHLOROETHANE
810U	NITROBENZENE
810U	ISOPHORONE
810U	2-NITROPHENOL
810U	2,4-DIMETHYLPHENOL
3900U	BENZOIC ACID
810U	BIS(2-CHLOROETHOXY) METHANE
810U	2,4-DICHLOROPHENOL
810U	1,2,4-TRICHLOROBENZENE
810U	NAPHTHALENE
810U	4-CHLOROANILINE
810U	HEXACHLOROBUTADIENE
810U	4-CHLORO-3-METHYLPHENOL
810U	2-METHYLNAPHTHALENE
810U	HEXACHLOROCYCLOPENTADIENE (HCCP)
810U	2,4,6-TRICHLOROPHENOL
3900U	2,4,5-TRICHLOROPHENOL
810U	2-CHLORONAPHTHALENE
3900U	2-NITROANILINE
810U	DIMETHYL PHTHALATE
810U	ACENAPHTHYLENE
810U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
3900U	3-NITROANILINE
810U	ACENAPHTHENE
3900U	2,4-DINITROPHENOL
3900U	4-NITROPHENOL
810U	DIBENZOFURAN
810U	2,4-DINITROTOLUENE
810U	DIETHYL PHTHALATE
810U	4-CHLOROPHENYL PHENYL ETHER
810U	FLUORENE
3900U	4-NITROANILINE
3900U	2-METHYL-4,6-DINITROPHENOL
810U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
810U	4-BROMOPHENYL PHENYL ETHER
810U	HEXACHLOROBENZENE (HCB)
3900U	PENTACHLOROPHENOL
810U	PHENANTHRENE
810U	ANTHRACENE
810U	DI-N-BUTYLPHTHALATE
810U	FLUORANTHENE
810U	PYRENE
810U	BENZYL BUTYL PHTHALATE
1600U	3,3'-DICHLOROBENZIDINE
810U	BENZO(A)ANTHRACENE
810U	CHRYSENE
810U	BIS(2-ETHYLHEXYL) PHTHALATE
810U	DI-N-OCTYLPHTHALATE
810U	BENZO(B AND/OR K)FLUORANTHENE
810U	BENZO-A-PYRENE
810U	INDENO (1,2,3-CD) PYRENE
810U	DIBENZO(A,H)ANTHRACENE
810U	BENZO(GHI)PERYLENE
19	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 07/27/88

PROJECT NO. 88-383 SAMPLE NO. 26580 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-01

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START: 06/08/88 STOP: 00/00/00

CASE NO.: 9704 SAS NO.: D. NO.: J393

UG/KG	ANALYTICAL RESULTS
810U	PHENOL
810U	BIS(2-CHLOROETHYL) ETHER
810U	2-CHLOROPHENOL
810U	1,3-DICHLOROBENZENE
810U	1,4-DICHLOROBENZENE
810U	BENZYL ALCOHOL
810U	1,2-DICHLOROBENZENE
810U	2-METHYLPHENOL
810U	BIS(2-CHLOROISOPROPYL) ETHER
810U	(3-AND/OR 4-)METHYLPHENOL
810U	N-NITROSODI-N-PROPYLAMINE
810U	HEXACHLOROETHANE
810U	NITROBENZENE
810U	ISOPHORONE
810U	2-NITROPHENOL
810U	2,4-DIMETHYLPHENOL
3900U	BENZOIC ACID
810U	BIS(2-CHLOROETHOXY) METHANE
810U	2,4-DICHLOROPHENOL
810U	1,2,4-TRICHLOROBENZENE
810U	NAPHTHALENE
810U	4-CHLOROANILINE
810U	HEXACHLOROBUTADIENE
810U	4-CHLORO-3-METHYLPHENOL
810U	2-METHYLNAPHTHALENE
810U	HEXACHLOROCYCLOPENTADIENE (HCCP)
810U	2,4,6-TRICHLOROPHENOL
3900U	2,4,5-TRICHLOROPHENOL
810U	2-CHLORONAPHTHALENE
3900U	2-NITROANILINE
810U	DIMETHYL PHTHALATE
810U	ACENAPHTHYLENE
810U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
3900U	3-NITROANILINE
810U	ACENAPHTHENE
3900U	2,4-DINITROPHENOL
3900U	4-NITROPHENOL
810U	DIBENZOFURAN
810U	2,4-DINITROTOLUENE
810U	DIETHYL PHTHALATE
810U	4-CHLOROPHENYL PHENYL ETHER
810U	FLUORENE
3900U	4-NITROANILINE
3900U	2-METHYL-4,6-DINITROPHENOL
810U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
810U	4-BROMOPHENYL PHENYL ETHER
810U	HEXACHLOROBENZENE (HCB)
3900U	PENTACHLOROPHENOL
810U	PHENANTHRENE
810U	ANTHRACENE
810U	DI-N-BUTYLPHTHALATE
810U	FLUORANTHENE
810U	PYRENE
810U	BENZYL BUTYL PHTHALATE
1600U	3,3'-DICHLOROBENZIDINE
810U	BENZO(A)ANTHRACENE
810U	CHRYSENE
810U	BIS(2-ETHYLHEXYL) PHTHALATE
810U	DI-N-OCTYLPHTHALATE
810U	BENZO(B AND/OR K)FLUORANTHENE
810U	BENZO-A-PYRENE
810U	INDENO (1,2,3-CD) PYRENE
810U	DIBENZO(A,H)ANTHRACENE
810U	BENZO(GHI)PERYLENE
19	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 07/27/88

PROJECT NO. 88-383 SAMPLE NO. 26581 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-02

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START: 06/08/88 STOP: 00/00/00

CASE NO.: 9704 SAS NO.: D. NO.: J394

UG/KG	ANALYTICAL RESULTS
880U	PHENOL
880U	BIS(2-CHLOROETHYL) ETHER
880U	2-CHLOROPHENOL
880U	1,3-DICHLOROBENZENE
880U	1,4-DICHLOROBENZENE
880U	BENZYL ALCOHOL
880U	1,2-DICHLOROBENZENE
880U	2-METHYLPHENOL
880U	BIS(2-CHLOROISOPROPYL) ETHER
880U	(3-AND/OR 4-)METHYLPHENOL
880U	N-NITROSODI-N-PROPYLAMINE
880U	HEXACHLOROETHANE
880U	NITROBENZENE
880U	ISOPHORONE
880U	2-NITROPHENOL
880U	2,4-DIMETHYLPHENOL
4300U	BENZOIC ACID
880U	BIS(2-CHLOROETHOXY) METHANE
880U	2,4-DICHLOROPHENOL
880U	1,2,4-TRICHLOROBENZENE
880U	NAPHTHALENE
880U	4-CHLOROANILINE
880U	HEXACHLOROBUTADIENE
880U	4-CHLORO-3-METHYLPHENOL
880U	2-METHYLNAPHTHALENE
880U	HEXACHLOROCYCLOPENTADIENE (HCCP)
880U	2,4,6-TRICHLOROPHENOL
4300U	2,4,5-TRICHLOROPHENOL
880U	2-CHLORONAPHTHALENE
4300U	2-NITROANILINE
880U	DIMETHYL PHTHALATE
880U	ACENAPHTHYLENE
880U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
4300U	3-NITROANILINE
880U	ACENAPHTHENE
4300U	2,4-DINITROPHENOL
4300U	4-NITROPHENOL
880U	DIBENZOFURAN
880U	2,4-DINITROTOLUENE
880U	DIETHYL PHTHALATE
880U	4-CHLOROPHENYL PHENYL ETHER
880U	FLUORENE
4300U	4-NITROANILINE
4300U	2-METHYL-4,6-DINITROPHENOL
880U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
880U	4-BROMOPHENYL PHENYL ETHER
880U	HEXACHLOROBENZENE (HCB)
4300U	PENTACHLOROPHENOL
880U	PHENANTHRENE
880U	ANTHRACENE
880U	DI-N-BUTYLPHTHALATE
880U	FLUORANTHENE
880U	PYRENE
880U	BENZYL BUTYL PHTHALATE
1800U	3,3'-DICHLOROBENZIDINE
880U	BENZO(A)ANTHRACENE
880U	CHRYSENE
2000U	BIS(2-ETHYLHEXYL) PHTHALATE
880U	DI-N-OCTYLPHTHALATE
880U	BENZO(B AND/OR K)FLUORANTHENE
880U	BENZO-A-PYRENE
880U	INDENO (1,2,3-CD) PYRENE
880U	DIBENZO(A,H)ANTHRACENE
880U	BENZO(GHI)PERYLENE
25	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/27/88

EXTRACTABLE ORGANICS DATA REPORT

PROJECT NO. 88-383 SAMPLE NO. 26582 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-03

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START: 06/08/88 STOP: 00/00/00

CASE NO.: 9704 SAS NO.: D. NO.: J395

UG/KG	ANALYTICAL RESULTS
750U	PHENOL
750U	BIS(2-CHLOROETHYL) ETHER
750U	2-CHLOROPHENOL
750U	1,3-DICHLOROBENZENE
750U	1,4-DICHLOROBENZENE
750U	BENZYL ALCOHOL
750U	1,2-DICHLOROBENZENE
750U	2-METHYLPHENOL
750U	BIS(2-CHLOROISOPROPYL) ETHER
750U	(3-AND/OR 4-)METHYLPHENOL
750U	N-NITROSODI-N-PROPYLAMINE
750U	HEXACHLOROETHANE
750U	NITROBENZENE
750U	ISOPHORONE
750U	2-NITROPHENOL
750U	2,4-DIMETHYLPHENOL
3700U	BENZOIC ACID
750U	BIS(2-CHLOROETHOXY) METHANE
750U	2,4-DICHLOROPHENOL
750U	1,2,4-TRICHLOROBENZENE
200J	NAPHTHALENE
750U	4-CHLOROANILINE
750U	HEXACHLOROBUTADIENE
750U	4-CHLORO-3-METHYLPHENOL
280J	2-METHYLNAPHTHALENE
750U	HEXACHLOROCYCLOPENTADIENE (HCCP)
750U	2,4,6-TRICHLOROPHENOL
3700U	2,4,5-TRICHLOROPHENOL
750U	2-CHLORONAPHTHALENE
3700U	2-NITROANILINE
750U	DIMETHYL PHTHALATE
1600	ACENAPHTHYLENE
750U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
3700U	3-NITROANILINE
500J	ACENAPHTHENE
3700U	2,4-DINITROPHENOL
3700U	4-NITROPHENOL
430J	DIBENZOFURAN
750U	2,4-DINITROTOLUENE
750U	DIETHYL PHTHALATE
750U	4-CHLOROPHENYL PHENYL ETHER
660J	FLUORENE
3700U	4-NITROANILINE
3700U	2-METHYL-4,6-DINITROPHENOL
750U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
750U	4-BROMOPHENYL PHENYL ETHER
750U	HEXACHLOROBENZENE (HCB)
3700U	PENTACHLOROPHENOL
7000	PHENANTHRENE
2800	ANTHRACENE
750U	DI-N-BUTYLPHTHALATE
11000	FLUORANTHENE
9700	PYRENE
750U	BENZYL BUTYL PHTHALATE
1500U	3,3'-DICHLOROBENZIDINE
7900	BENZO(A)ANTHRACENE
8900	CHRYSENE
750U	BIS(2-ETHYLHEXYL) PHTHALATE
750U	DI-N-OCTYLPHTHALATE
20000J	BENZO(B AND/OR K)FLUORANTHENE
7900	BENZO-A-PYRENE
3900	INDENO (1,2,3-CD) PYRENE
1600	DIBENZO(A,H)ANTHRACENE
3300	BENZO(GHI)PERYLENE
13	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/27/88

EXTRACTABLE ORGANICS DATA REPORT

PROJECT NO. 88-383 SAMPLE NO. 26583 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-04

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START: 06/08/88 STOP: 00/00/00

CASE NO.: 9704 SAS NO.: D. NO.: J396

UG/KG	ANALYTICAL RESULTS
860U	PHENOL
860U	BIS(2-CHLOROETHYL) ETHER
860U	2-CHLOROPHENOL
860U	1,3-DICHLOROBENZENE
860U	1,4-DICHLOROBENZENE
860U	BENZYL ALCOHOL
860U	1,2-DICHLOROBENZENE
860U	2-METHYLPHENOL
860U	BIS(2-CHLOROISOPROPYL) ETHER
860U	(3-AND/OR 4-)METHYLPHENOL
860U	N-NITROSODI-N-PROPYLAMINE
860U	HEXACHLOROETHANE
860U	NITROBENZENE
860U	ISOPHORONE
860U	2-NITROPHENOL
860U	2,4-DIMETHYLPHENOL
4200U	BENZOIC ACID
860U	BIS(2-CHLOROETHOXY) METHANE
860U	2,4-DICHLOROPHENOL
860U	1,2,4-TRICHLOROBENZENE
860U	NAPHTHALENE
860U	4-CHLOROANILINE
860U	HEXACHLOROBUTADIENE
860U	4-CHLORO-3-METHYLPHENOL
860U	2-METHYLNAPHTHALENE
860U	HEXACHLOROCYCLOPENTADIENE (HCCP)
860U	2,4,6-TRICHLOROPHENOL
4200U	2,4,5-TRICHLOROPHENOL
860U	2-CHLORONAPHTHALENE
4200U	2-NITROANILINE
860U	DIMETHYL PHTHALATE
860U	ACENAPHTHYLENE
860U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
4200U	3-NITROANILINE
860U	ACENAPHTHENE
4200U	2,4-DINITROPHENOL
4200U	4-NITROPHENOL
860U	DIBENZOFURAN
860U	2,4-DINITROTOLUENE
860U	DIETHYL PHTHALATE
860U	4-CHLOROPHENYL PHENYL ETHER
860U	FLUORENE
4200U	4-NITROANILINE
4200U	2-METHYL-4,6-DINITROPHENOL
860U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
860U	4-BROMOPHENYL PHENYL ETHER
860U	HEXACHLOROBENZENE (HCB)
4200U	PENTACHLOROPHENOL
860U	PHENANTHRENE
860U	ANTHRACENE
860U	DI-N-BUTYLPHTHALATE
860U	FLUORANTHENE
860U	PYRENE
860U	BENZYL BUTYL PHTHALATE
1700U	3,3'-DICHLOROBENZIDINE
860U	BENZO(A)ANTHRACENE
860U	CHRYSENE
860U	BIS(2-ETHYLHEXYL) PHTHALATE
860U	DI-N-OCTYLPHTHALATE
860U	BENZO(B AND/OR K)FLUORANTHENE
860U	BENZO-A-PYRENE
860U	INDENO (1,2,3-CD) PYRENE
860U	DIBENZO(A,H)ANTHRACENE
860U	BENZO(GHI)PERYLENE
24	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/27/88

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

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**   PROJECT NO. 88-383    SAMPLE NO. 26580  SAMPLE TYPE: SOIL         PROG ELEM: NSF   COLLECTED BY: S SINGLETON            **
**   SOURCE: SOUTHERN RAILWAY                                          CITY: SPARTANBUR           ST: SC                     **
**   STATION ID: SB-01                                                 COLLECTION START: 06/08/88        STOP: 00/00/00      **
**   CASE.NO.: 9704           SAS NO.:                                 D. NO.: J393              MD NO:                      **
**                                                                                                                           **
*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***
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RESULTS	UNITS	COMPOUND	RESULTS	UNITS	COMPOUND
2000JN	UG/KG	CYCLOPENTANEDIOL			

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/27/88

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

PROJECT NO. 88-383 SAMPLE NO. 26582 SAMPLE TYPE: SOIL
PROG ELEM: NSF COLLECTED BY: S SINGLETON
SOURCE: SOUTHERN RAILWAY
CITY: SPARTANBUR ST: SC
STATION ID: SB-03
COLLECTION START: 06/08/88 STOP: 00/00/00
CASE.NO.: 9704 SAS NO.:
D. NO.: J395 MD NO:

RESULTS	UNITS	COMPOUND
N	UG/KG	PETROLEUM PRODUCT
10000JN	UG/KG	METHYLPYRENE (4 ISOMERS)
5000JN	UG/KG	METHYLCHRYSENE (2 ISOMERS)
2000JN	UG/KG	TETRAETHYLDIPHOSPHINEDISULFIDE
2000JN	UG/KG	METHYLBENZATHRACENE

RESULTS	UNITS	COMPOUND
10000JN	UG/KG	BENZOFLUORANTHENE (NOT B OR K) (2 ISOMERS)
6000JN	UG/KG	BENZANTHRACENONE (2 ISOMERS)
2000JN	UG/KG	MEHYLANTHRACENE
2000JN	UG/KG	BENZONAPHTHOTHIOPHENE
6000J	UG/KG	3 UNIDENTIFIED COMPOUNDS

FOOTNOTES
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV
COLLEGE STATION RD.
ATHENS, GA. 30613

*****MEMORANDUM******

DATE: 07/28/88

SUBJECT: Results of Pesticide/PCB Analysis;
88-383 SOUTHERN RAILWAY
SPARTANBUR SC
CASE NO: 9704

FROM: Robert W. Knight
Chief, Laboratory Evaluation/Quality Assurance Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/27/88

PESTICIDES/PCB'S DATA REPORT

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** PROJECT NO. 88-383 SAMPLE NO. 26580 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: S SINGLETON **
** SOURCE: SOUTHERN RAILWAY CITY: SPARTANBUR ST: SC **
** STATION ID: SB-01 COLLECTION START: 06/08/88 STOP: 00/00/00 **
** CASE NUMBER: 9704 SAS NUMBER: D. NUMBER: J393 **
** **

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UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
780U	ALPHA-BHC	7800U	METHOXYCHLOR
780U	BETA-BHC	1600U	ENDRIN KETONE
780U	DELTA-BHC	--	CHLORDANE (TECH. MIXTURE) /1
780UR	GAMMA-BHC (LINDANE)	7800U	GAMMA-CHLORDANE /2
780UR	HEPTACHLOR	7800U	ALPHA-CHLORDANE /2
780UR	ALDRIN	16000U	TOXAPHENE
780U	HEPTACHLOR EPOXIDE	7800U	PCB-1016 (AROCLOR 1016)
780UR	ENDOSULFAN I (ALPHA)	7800U	PCB-1221 (AROCLOR 1221)
1600UR	DIELDRIN	7800U	PCB-1232 (AROCLOR 1232)
1600U	4,4'-DDE (P,P'-DDE)	7800U	PCB-1242 (AROCLOR 1242)
1600UR	ENDRIN	7800U	PCB-1248 (AROCLOR 1248)
1600U	ENDOSULFAN II (BETA)	16000U	PCB-1254 (AROCLOR 1254)
1600U	4,4'-DDD (P,P'-DDD)	16000U	PCB-1260 (AROCLOR 1260)
1600U	ENDOSULFAN SULFATE	19	PERCENT MOISTURE
1600UR	4,4'-DDT (P,P'-DDT)		

REMARKS

REMARKS

FOOTNOTES
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*C-CONFIRMED BY GCMS 1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/27/88

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 88-383 SAMPLE NO. 26581 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-02
CASE NUMBER: 9704 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START: 06/08/88 STOP: 00/00/00
D. NUMBER: J394

UG/KG	ANALYTICAL RESULTS
110U	ALPHA-BHC
110U	BETA-BHC
110U	DELTA-BHC
110UR	GAMMA-BHC (LINDANE)
110U	HEPTACHLOR
110U	ALDRIN
110U	HEPTACHLOR EPOXIDE
110UR	ENDOSULFAN I (ALPHA)
210U	DIELDRIN
210U	4,4'-DDE (P,P'-DDE)
210UR	ENDRIN
210U	ENDOSULFAN II (BETA)
210U	4,4'-DDD (P,P'-DDD)
210U	ENDOSULFAN SULFATE
210U	4,4'-DDT (P,P'-DDT)

UG/KG	ANALYTICAL RESULTS
1100U	METHOXYCHLOR
210U	ENDRIN KETONE
--	CHLORDANE (TECH. MIXTURE) /1
1100U	GAMMA-CHLORDANE /2
1100U	ALPHA-CHLORDANE /2
2100U	TOXAPHENE
1100U	PCB-1016 (AROCLOR 1016)
1100U	PCB-1221 (AROCLOR 1221)
1100U	PCB-1232 (AROCLOR 1232)
1100U	PCB-1242 (AROCLOR 1242)
1100U	PCB-1248 (AROCLOR 1248)
2100U	PCB-1254 (AROCLOR 1254)
2100U	PCB-1260 (AROCLOR 1260)
25	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/27/88

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 88-383 SAMPLE NO. 26582 SAMPLE TYPE: SOIL
PROG ELEM: NSF COLLECTED BY: S SINGLETON
SOURCE: SOUTHERN RAILWAY
CITY: SPARTANBUR ST: SC
STATION ID: SB-03
COLLECTION START: 06/08/88 STOP: 00/00/00
CASE NUMBER: 9704 SAS NUMBER:
D. NUMBER: J395

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
91U	ALPHA-BHC	910U	METHOXYCHLOR
91U	BETA-BHC	180U	ENDRIN KETONE
91U	DELTA-BHC	--	CHLORDANE (TECH. MIXTURE) /1
91UR	GAMMA-BHC (LINDANE)	82J	GAMMA-CHLORDANE /2
91U	HEPTACHLOR	910U	ALPHA-CHLORDANE /2
91U	ALDRIN	1800U	TOXAPHENE
91U	HEPTACHLOR EPOXIDE	910U	PCB-1016 (AROCLOR 1016)
91UR	ENDOSULFAN I (ALPHA)	910U	PCB-1221 (AROCLOR 1221)
180U	DIELDRIN	910U	PCB-1232 (AROCLOR 1232)
180U	4,4'-DDE (P,P'-DDE)	910U	PCB 1242 (AROCLOR 1242)
180UR	ENDRIN	910U	PCB-1248 (AROCLOR 1248)
180U	ENDOSULFAN II (BETA)	1800U	PCB-1254 (AROCLOR 1254)
180U	4,4'-DDD (P,P'-DDD)	1800U	PCB-1260 (AROCLOR 1260)
180U	ENDOSULFAN SULFATE	13	PERCENT MOISTURE
180U	4,4'-DDT (P,P'-DDT)		

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PESTICIDES/PCB'S DATA REPORT 07/27/88

PROJECT NO. 88-383 SAMPLE NO. 26583 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-04
CASE NUMBER: 9704 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START. 06/08/88 STOP: 00/00/00
D. NUMBER: J396

UG/KG	ANALYTICAL RESULTS
100U	ALPHA-BHC
100U	BETA-BHC
100U	DELTA-BHC
100UR	GAMMA-BHC (LINDANE)
100U	HEPTACHLOR
100U	ALDRIN
100U	HEPTACHLOR EPOXIDE
100UR	ENDOSULFAN I (ALPHA)
210U	DIELDRIN
210U	4,4'-DDE (P,P'-DDE)
210UR	ENDRIN
210U	ENDOSULFAN II (BETA)
210U	4,4'-DDD (P,P'-DDD)
210U	ENDOSULFAN SULFATE
210U	4,4'-DDT (P,P'-DDT)

UG/KG	ANALYTICAL RESULTS
100U	METHOXYCHLOR
210U	ENDRIN KETONE
--	CHLORDANE (TECH. MIXTURE) /1
1000U	GAMMA-CHLORDANE /2
1000U	ALPHA-CHLORDANE /2
2100U	TOXAPHENE
1000U	PCB-1016 (AROCLOR 1016)
1000U	PCB-1221 (AROCLOR 1221)
1000U	PCB-1232 (AROCLOR 1232)
1000U	PCB-1242 (AROCLOR 1242)
1000U	PCB-1248 (AROCLOR 1248)
2100U	PCB-1254 (AROCLOR 1254)
2100U	PCB-1260 (AROCLOR 1260)
24	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/27/88

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 88-383 SAMPLE NO. 26580 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-01
CASE NUMBER: 9704 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START: 06/08/88 STOP: 00/00/00
D. NUMBER: J393

UG/KG	ANALYTICAL RESULTS
780U	ALPHA-BHC
780U	BETA-BHC
780U	DELTA-BHC
780UR	GAMMA-BHC (LINDANE)
780UR	HEPTACHLOR
780UR	ALDRIN
780U	HEPTACHLOR EPOXIDE
780UR	ENDOSULFAN I (ALPHA)
1600UR	DIELDRIN
1600U	4,4'-DDE (P,P'-DDE)
1600UR	ENDRIN
1600U	ENDOSULFAN II (BETA)
1600U	4,4'-DDD (P,P'-DDD)
1600U	ENDOSULFAN SULFATE
1600UR	4,4'-DDT (P,P'-DDT)

UG/KG	ANALYTICAL RESULTS
7800U	METHOXYCHLOR
1600U	ENDRIN KETONE
--	CHLORDANE (TECH. MIXTURE) /1
7800U	GAMMA-CHLORDANE /2
7800U	ALPHA-CHLORDANE /2
16000U	TOXAPHENE
7800U	PCB-1016 (AROCLOR 1016)
7800U	PCB-1221 (AROCLOR 1221)
7800U	PCB-1232 (AROCLOR 1232)
7800U	PCB-1242 (AROCLOR 1242)
7800U	PCB-1248 (AROCLOR 1248)
16000U	PCB-1254 (AROCLOR 1254)
16000U	PCB-1260 (AROCLOR 1260)
19	PERCENT MOISTURE

REMARKS

REMARKS

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/27/88

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 88-383 SAMPLE NO. 26581 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-02
CASE NUMBER: 9704 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START: 06/08/88 STOP: 00/00/00
D. NUMBER: J394

UG/KG	ANALYTICAL RESULTS
110U	ALPHA-BHC
110U	BETA-BHC
110U	DELTA-BHC
110UR	GAMMA-BHC (LINDANE)
110U	HEPTACHLOR
110U	ALDRIN
110U	HEPTACHLOR EPOXIDE
110UR	ENDOSULFAN I (ALPHA)
210U	DIELDRIN
210U	4,4'-DDE (P,P'-DDE)
210UR	ENDRIN
210U	ENDOSULFAN II (BETA)
210U	4,4'-DDD (P,P'-DDD)
210U	ENDOSULFAN SULFATE
210U	4,4'-DDT (P,P'-DDT)

UG/KG	ANALYTICAL RESULTS
1100U	METHOXYCHLOR
210U	ENDRIN KETONE
--	CHLORDANE (TECH. MIXTURE) /1
1100U	GAMMA-CHLORDANE /2
1100U	ALPHA-CHLORDANE /2
2100U	TOXAPHENE
1100U	PCB-1016 (AROCLOR 1016)
1100U	PCB-1221 (AROCLOR 1221)
1100U	PCB-1232 (AROCLOR 1232)
1100U	PCB-1242 (AROCLOR 1242)
1100U	PCB-1248 (AROCLOR 1248)
2100U	PCB-1254 (AROCLOR 1254)
2100U	PCB-1260 (AROCLOR 1260)
25	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PESTICIDES/PCB'S DATA REPORT 07/27/88

PROJECT NO. 88-383 SAMPLE NO. 26582 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: S SINGLETON
SOURCE: SOUTHERN RAILWAY CITY: SPARTANBUR ST: SC
STATION ID: SB-03 COLLECTION START: 06/08/88 STOP: 00/00/00
CASE NUMBER: 9704 SAS NUMBER: D. NUMBER: J395

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
91U	ALPHA-BHC	910U	METHOXYCHLOR
91U	BETA-BHC	180U	ENDRIN KETONE
91U	DELTA-BHC	--	CHLORDANE (TECH. MIXTURE) /1
91UR	GAMMA-BHC (LINDANE)	82J	GAMMA-CHLORDANE /2
91U	HEPTACHLOR	910U	ALPHA-CHLORDANE /2
91U	ALDRIN	1800U	TOXAPHENE
91U	HEPTACHLOR EPOXIDE	910U	PCB-1016 (AROCLOR 1016)
91UR	ENDOSULFAN I (ALPHA)	910U	PCB-1221 (AROCLOR 1221)
180U	DIELDRIN	910U	PCB-1232 (AROCLOR 1232)
180U	4,4'-DDE (P,P'-DDE)	910U	PCB-1242 (AROCLOR 1242)
180UR	ENDRIN	910U	PCB-1248 (AROCLOR 1248)
180U	ENDOSULFAN II (BETA)	1800U	PCB-1254 (AROCLOR 1254)
180U	4,4'-DDD (P,P'-DDD)	1800U	PCB-1260 (AROCLOR 1260)
180U	ENDOSULFAN SULFATE	13	PERCENT MOISTURE
180U	4,4'-DDT (P,P'-DDT)		

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.
*C-CONFIRMED BY GCMS 1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/27/88

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 88-383 SAMPLE NO. 26583 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-04
CASE NUMBER: 9704 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START. 06/08/88 STOP: 00/00/00
D. NUMBER: J396

UG/KG	ANALYTICAL RESULTS
100U	ALPHA-BHC
100U	BETA-BHC
100U	DELTA-BHC
100UR	GAMMA-BHC (LINDANE)
100U	HEPTACHLOR
100U	ALDRIN
100U	HEPTACHLOR EPOXIDE
100UR	ENDOSULFAN I (ALPHA)
210U	DIELDRIN
210U	4,4'-DDE (P,P'-DDE)
210UR	ENDRIN
210U	ENDOSULFAN II (BETA)
210U	4,4'-DDD (P,P'-DDD)
210U	ENDOSULFAN SULFATE
210U	4,4'-DDT (P,P'-DDT)

UG/KG	ANALYTICAL RESULTS
100U	METHOXYCHLOR
210U	ENDRIN KETONE
--	CHLORDANE (TECH. MIXTURE) /1
1000U	GAMMA-CHLORDANE /2
1000U	ALPHA-CHLORDANE /2
2100U	TOXAPHENE
1000U	PCB-1016 (AROCLOR 1016)
1000U	PCB-1221 (AROCLOR 1221)
1000U	PCB-1232 (AROCLOR 1232)
1000U	PCB-1242 (AROCLOR 1242)
1000U	PCB-1248 (AROCLOR 1248)
2100U	PCB-1254 (AROCLOR 1254)
2100U	PCB-1260 (AROCLOR 1260)
24	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV
COLLEGE STATION RD.
ATHENS, GA. 30613

*****MEMORANDUM******

DATE: 07/13/88

SUBJECT: Results of Metals Analysis;
88-383 SOUTHERN RAILWAY
SPARTANBUR SC
CASE NO: 9704

FROM: Robert W. Knight Robert W. Knight
Chief, Laboratory Evaluation/Quality Assurance Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

RECEIVED

JUL 18 1988

NUS CORPORATION
REGION IV
SENT TO_____

9405 01
Gregish

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 07/12/88

PROJECT NO. 88-383 SAMPLE NO. 26575 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-01
CASE NUMBER: 9704 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START: 06/08/88 STOP: 00/00/00
MD NUMBER: J288

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
22000	ALUMINUM	170	MANGANESE
6UJ	ANTIMONY	.21JN	MERCURY
2UJ	ARSENIC	7.9	NICKEL
7.9J	BARIUM	560U	POTASSIUM
1UJ	BERYLLIUM	1UJ	SELENIUM
.99U	CADMIUM	1.1U	SILVER
50UJ	CALCIUM	740	SODIUM
61	CHROMIUM	.43U	THALLIUM
.94U	COBALT	NA	TIN
23	COPPER	110	VANADIUM
55000	IRON	20UJ	ZINC
23	LEAD	19	PERCENT MOISTURE
360J	MAGNESIUM		

REMARKS ***REMARKS***

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/12/88

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 88-383   SAMPLE NO. 26575   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: S SINGLETON
SOURCE: SOUTHERN RAILWAY   CITY: SPARTANBUR   ST: SC
STATION ID: SB-01   COLLECTION START: 06/08/88   STOP: 00/00/00
CASE.NO.: 9704   SAS NO.:   D. NO.:   MD NO: J288

RESULTS	UNITS	PARAMETER
.61U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE   *NA-NOT ANALYZED   *NAI-INTERFERENCES   *J-ESTIMATED VALUE   *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/12/88

METALS DATA REPORT

PROJECT NO. 88-383 SAMPLE NO. 26576 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-02
CASE NUMBER: 9704 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START: 06/08/88 STOP: 00/00/00
MD NUMBER: J289

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
58000	ALUMINUM	360	MANGANESE
6.3UJ	ANTIMONY	.12U	MERCURY
6UJ	ARSENIC	30	NICKEL
120J	BARIUM	1600	POTASSIUM
1UJ	BERYLLIUM	1UJ	SELENIUM
1U	CADMIUM	1.1U	SILVER
500	CALCIUM	760	SODIUM
26	CHROMIUM	.46U	THALLIUM
17	COBALT	NA	TIN
35	COPPER	66	VANADIUM
23000	IRON	70UJ	ZINC
76J	LEAD	24	PERCENT MOISTURE
1700J	MAGNESIUM		

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/12/88

SPECIFIED ANALYSIS DATA REPORT

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** PROJECT NO. 88-383 SAMPLE NO. 26576 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: S SINGLETON **
** SOURCE: SOUTHERN RAILWAY CITY: SPARTANBUR ST: SC **
** STATION ID: SB-02 COLLECTION START: 06/08/88 STOP: 00/00/00 **
** CASE.NO.: 9704 SAS NO.: D. NO.: MD NO: J289 **
** **

*** ***

RESULTS	UNITS	PARAMETER
.66U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 07/12/88

PROJECT NO. 88-383 SAMPLE NO. 26577 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-03
CASE NUMBER: 9704 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START: 06/08/88 STOP: 00/00/00
MD NUMBER: J290

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
20000	ALUMINUM	310	MANGANESE
6.8JN	ANTIMONY	.1U	MERCURY
20J	ARSENIC	17	NICKEL
95J	BARIUM	2900	POTASSIUM
1UJ	BERYLLIUM	.49U	SELENIUM
.90U	CADMIUM	.96U	SILVER
13000	CALCIUM	900	SODIUM
77	CHROMIUM	.4U	THALLIUM
5.2	COBALT	NA	TIN
42	COPPER	43	VANADIUM
33000	IRON	170	ZINC
160	LEAD	13	PERCENT MOISTURE
5600J	MAGNESIUM		

REMARKS ***REMARKS***

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/12/88

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 88-383 SAMPLE NO. 26577 SAMPLE TYPE: SOIL	PROG ELEM: NSF COLLECTED BY: S SINGLETON
SOURCE: SOUTHERN RAILWAY	CITY: SPARTANBUR ST: SC
STATION ID: SB-03	COLLECTION START: 06/08/88 STOP: 00/00/00
CASE.NO.: 9704 SAS NO.:	D. NO.: MD NO: J290

RESULTS	UNITS	PARAMETER
2.5	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/12/88

METALS DATA REPORT

PROJECT NO. 88-383 SAMPLE NO. 26578 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-04
CASE NUMBER: 9704 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START: 06/08/88 STOP: 00/00/00
MD NUMBER: J291

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
48000	ALUMINUM	81	MANGANESE
6.3UJ	ANTIMONY	.11U	MERCURY
5UJ	ARSENIC	15	NICKEL
15J	BARIUM	590U	POTASSIUM
1UJ	BERYLLIUM	1.3	SELENIUM
1U	CADMIUM	1.1U	SILVER
30UJ	CALCIUM	360	SODIUM
67	CHROMIUM	.47U	THALLIUM
.99U	COBALT	NA	TIN
28	COPPER	130	VANADIUM
58000	IRON	20UJ	ZINC
21	LEAD	25	PERCENT MOISTURE
450J	MAGNESIUM		

C.L. (3-10 ppb Rest)
110-210 ppb
1100-2100 ppb

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/12/88

SPECIFIED ANALYSIS DATA REPORT

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**   PROJECT NO. 88-383   SAMPLE NO. 26578  SAMPLE TYPE: SOIL       PROG ELEM: NSF   COLLECTED BY: S SINGLETON           **
**   SOURCE: SOUTHERN RAILWAY                                        CITY: SPARTANBUR             ST: SC                   **
**   STATION ID: SB-04                                               COLLECTION START: 06/08/88         STOP: 00/00/00     **
**   CASE.NO.:  9704         SAS NO.:                                D. NO.:                    MD NO: J291                **
**                                                                                                                         **
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RESULTS	UNITS	PARAMFTER
.66U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRFSENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 07/12/88

PROJECT NO. 88-383 SAMPLE NO. 26575 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-01
CASE NUMBER: 9704 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START: 06/08/88 STOP: 00/00/00
MD NUMBER: J288

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
22000	ALUMINUM	170	MANGANESE
6UJ	ANTIMONY	.21JN	MERCURY
2UJ	ARSENIC	7.9	NICKEL
7.9J	BARIUM	560U	POTASSIUM
1UJ	BERYLLIUM	1UJ	SELENIUM
.99U	CADMIUM	1.1U	SILVER
50UJ	CALCIUM	740	SODIUM
61	CHROMIUM	.43U	THALLIUM
.94U	COBALT	NA	TIN
23	COPPER	110	VANADIUM
55000	IRON	20UJ	ZINC
23	LEAD	19	PERCENT MOISTURE
360J	MAGNESIUM		

REMARKS ***REMARKS***

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 07/12/88

PROJECT NO. 88-383 SAMPLE NO. 26576 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-02
CASE NUMBER: 9704 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START: 06/08/88 STOP: 00/00/00
MD NUMBER: J289

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
58000	ALUMINUM	360	MANGANESE
6.3UJ	ANTIMONY	.12U	MERCURY
6UJ	ARSENIC	30	NICKEL
120J	BARIUM	1600	POTASSIUM
1UJ	BERYLLIUM	1UJ	SELENIUM
1U	CADMIUM	1.1U	SILVER
500	CALCIUM	760	SODIUM
26	CHROMIUM	.46U	THALLIUM
17	COBALT	NA	TIN
35	COPPER	66	VANADIUM
23000	IRON	70UJ	ZINC
76J	LEAD	24	PERCENT MOISTURE
1700J	MAGNESIUM		

REMARKS ***REMARKS***

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 07/12/88

PROJECT NO. 88-383 SAMPLE NO. 26577 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: S SINGLETON
SOURCE: SOUTHERN RAILWAY CITY: SPARTANBUR ST: SC
STATION ID: SB-03 COLLECTION START: 06/08/88 STOP: 00/00/00
CASE NUMBER: 9704 SAS NUMBER: MD NUMBER: J290

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
20000	ALUMINUM	310	MANGANESE
6.8JN	ANTIMONY	.1U	MERCURY
20J	ARSENIC	17	NICKEL
95J	BARIUM	2900	POTASSIUM
1UJ	BERYLLIUM	.49U	SELENIUM
.90U	CADMIUM	.96U	SILVER
13000	CALCIUM	900	SODIUM
77	CHROMIUM	.4U	THALLIUM
5.2	COBALT	NA	TIN
42	COPPER	43	VANADIUM
33000	IRON	170	ZINC
160	LEAD	13	PERCENT MOISTURE
5600J	MAGNESIUM		

REMARKS ***REMARKS***

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/12/88

METALS DATA REPORT

PROJECT NO. 88-383 SAMPLE NO. 26578 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-04
CASE NUMBER: 9704 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START: 06/08/88 STOP: 00/00/00
MD NUMBER: J291

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
48000	ALUMINUM	81	MANGANESE
6.3UJ	ANTIMONY	.11U	MERCURY
5UJ	ARSENIC	15	NICKEL
15J	BARIUM	590U	POTASSIUM
1UJ	BERYLLIUM	1.3	SELENIUM
1U	CADMIUM	1.1U	SILVER
30UJ	CALCIUM	360	SODIUM
67	CHROMIUM	.47U	THALLIUM
.99U	COBALT	NA	TIN
28	COPPER	130	VANADIUM
58000	IRON	20UJ	ZINC
21	LEAD	25	PERCENT MOISTURE
450J	MAGNESIUM		

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/12/88

SPECIFIED ANALYSIS DATA REPORT

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**   PROJECT NO. 88-383   SAMPLE NO. 26578  SAMPLE TYPE: SOIL        PROG ELEM: NSF   COLLECTED BY: S SINGLETON        **
**   SOURCE: SOUTHERN RAILWAY                                        CITY: SPARTANBUR              ST: SC             **
**   STATION ID: SB-04                                               COLLECTION START: 06/08/88        STOP: 00/00/00 **
**   CASE.NO.: 9704          SAS NO.:                                D. NO.:                    MD NO: J291           **
**                                                                                                                    **
*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***
```

RESULTS	UNITS	PARAMETER
.66U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/12/88

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 88-383 SAMPLE NO. 26577 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: S SINGLETON
SOURCE. SOUTHERN RAILWAY CITY: SPARTANBUR ST: SC
STATION ID: SB-03 COLLECTION START: 06/08/88 STOP: 00/00/00
CASE.NO.: 9704 SAS NO.: D. NO.: MD NO: J290

RESULTS	UNITS	PARAMETER
2.5	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/12/88

SPECIFIED ANALYSIS DATA REPORT

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*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***
**   PROJECT NO. 88-383   SAMPLE NO. 26576  SAMPLE TYPE: SOIL        PROG ELEM: NSF   COLLECTED BY: S SINGLETON               **
**   SOURCE: SOUTHERN RAILWAY                                        CITY: SPARTANBUR            ST: SC                      **
**   STATION ID: SB-02                                               COLLECTION START: 06/08/88        STOP: 00/00/00        **
**   CASE.NO.:  9704          SAS NO.:                               D. NO.:                    MD NO: J289                  **
**                                                                                                                           **
*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***
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RESULTS	UNITS	PARAMETER
.66U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE   *NA-NOT ANALYZED   *NAI-INTERFERENCES   *J-ESTIMATED VALUE   *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN   *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/12/88

SPECIFIED ANALYSIS DATA REPORT

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*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***
**   PROJECT NO. 88-383    SAMPLE NO. 26575  SAMPLE TYPE: SOIL         PROG ELEM: NSF   COLLECTED BY: S SINGLETON               **
**   SOURCE: SOUTHERN RAILWAY                                          CITY: SPARTANBUR             ST: SC                      **
**   STATION ID: SB-01                                                 COLLECTION START: 06/08/88        STOP: 00/00/00          **
**   CASE.NO.:  9704          SAS NO.:                                 D. NO.:                      MD NO: J288                 **
**                                                                                                                              **
*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***
```

RESULTS	UNITS	PARAMETER
.61U	MG/KG	CYANIDE

Soil/Cyanide

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV
COLLEGE STATION RD.
ATHENS, GA. 30613

*****MEMORANDUM******

DATE: 07/13/88

SUBJECT: Results of Cyanide Analysis;
88-383 SOUTHERN RAILWAY
SPARTANBUR SC
CASE NO: 9704

FROM: Robert W. Knight Robert W. Knight
Chief, Laboratory Evaluation/Quality Assurance Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

NUS CORPORATION
SUPERFUND DIVISION

PROJECT NOTES

TO: FILE TDD NO F4-8805-01 DATE: 17 FEB 1989

FROM: K. GROZLIK NUS FIT 4 COPIES:

SUBJECT: DEFINITION OF SURFACE WATER PATHWAY.

REFERENCE: K. SIDORS NUS FIT4

MS SIDORS AND MYSELF DISCUSSED THE DEFINITION OF A VIABLE SURFACE WATER PATHWAY. SHE REFERENCED PAGE 119 OF THE PROPOSED HRS MANUAL. THE MANUAL STATES THAT MAN MADE DITCHES CAN BE CONSIDERED AS SURFACE WATER ROUTES ONLY IN THE EVENT THAT THE DITCH IS PERENNIAL, AND NOT INTERMITTENT.
(PAGE INCLUDED)

NUS 443A 58 1182

PROJECT MANAGER: K. GREZLIK

SAMPLING INVESTIGATION

SOUTHERN RAILWAY COMPANY

TDD: F4-8805-01

PROJECT NUMBER: 88-383

CASE NUMBER: 9704

DOCUMENTS GENERATED

FIELD SHEETS

FIELD MEASUREMENTS

ORGANIC TRAFFIC REPORTS

INORGANIC TRAFFIC REPORTS

CLP DIOXIN SHIPPING RECORD

RECEIPT FOR SAMPLE FORMS

CHAIN OF CUSTODY FORMS

FEDERAL EXPRESS FORMS

CORRESPONDENCE

NUS CORPORATION
A Halliburton Company

SAMPLING FIELD SHEET

SITE : Southern Railway Company
TDD NO. : F4-8805-01 CASE NUMBER : 9704
PROJECT NUMBER : 88-383

ADDRESS : Spartanburg, SC
SAMPLE CODE : SR-SB-01
SAMPLE LOCATION : #01 Background

CONTACT :
PHONE :

SAMPLED BY :
1 K. Grezlik
2 S. Singleton
3 J. Madaj
4

DATE SAMPLED : 6-8-88 TIME : 1100

SOIL / SEDIMENT SAMPLE

NO.	CONTAINER	ANALYSIS	LABORATORY	SAMPLE NO.	TAG NO.
1	8 OZ., GLASS	EXT. ORG.	Radian	DJ 393	4-04004
1	4 OZ., GLASS	VOA	"	"	4-04005
1	8 OZ., GLASS	METALS/CYANIDE	Compu-Chem	MDJ 288	4-04006
	OTHER				

WATER SAMPLE

NO.	CONTAINER	ANALYSIS	LABORATORY	SAMPLE NO.	TAG NO.
1	1 GALLON GLASS	EXT. ORG.			
	40 ML VIAL, GLASS	VOA			
	1 LITER POLYPROPYLENE	METALS			
	1 LITER POLYPROPYLENE	CYANIDE			
	OTHER				

FIELD MEASUREMENTS

pH : TEMPERATURE :

TIME :			
CONDUCTIVITY :			

WATER LEVELS
PRIOR TO PURGING:
PRIOR TO SAMPLING:

PURGING
METHOD: RATE:
TOTAL EST. GAL REMOVED:

TIME START:
TIME STOP:

REMARKS & CALCULATIONS: TOTAL DEPTH

hNU

WATER LEVEL

THIS FIELD SHEET IS AN EXTENSION OF FIELD LOG BOOK NO.

SAMPLING FIELD SHEET

NUS CORPORATION
A Halliburton Company

SITE : Southern Railway Company
TDD NO. : F4-8805-01 CASE NUMBER : 9704
PROJECT NUMBER : 88-383

ADDRESS : Spartanburg, SC
SAMPLE CODE : SR-SB-02
SAMPLE LOCATION : 02 Eastern edge of Landfill

CONTACT :
PHONE :

SAMPLED BY :
1 K. Grezlik
2 S. Singleton
3 Jim Madaj
4

DATE SAMPLED : 6-8-88 TIME : 1400

SOIL / SEDIMENT SAMPLE

NO.	CONTAINER	ANALYSIS	LABORATORY	SAMPLE NO.	TAG NO.
1	8 OZ., GLASS	EXT. ORG.	Radian	DS 394	4-04007
1	4 OZ., GLASS	VOA	"	"	4-04008
1	8 OZ., GLASS	METALS/CYANIDE	Compu-chem	MDT 389	4-04009
	OTHER				

WATER SAMPLE

NO.	CONTAINER	ANALYSIS	LABORATORY	SAMPLE NO.	TAG NO.
1	1 GALLON GLASS	EXT. ORG.			
	40 ML VIAL, GLASS	VOA			
	1 LITER POLYPROPYLENE	METALS			
	1 LITER POLYPROPYLENE	CYANIDE			
	OTHER				

FIELD MEASUREMENTS

pH : TEMPERATURE :

TIME :			
CONDUCTIVITY :			

WATER LEVELS
PRIOR TO PURGING:
PRIOR TO SAMPLING:

PURGING
METHOD: RATE:
TOTAL EST. GAL REMOVED:

TIME START:
TIME STOP:

REMARKS & CALCULATIONS: TOTAL DEPTH

hNU

WATER LEVEL

THIS FIELD SHEET IS AN EXTENSION OF FIELD LOG BOOK NO.

NUS CORPORATION
A Halliburton Company

SAMPLING FIELD SHEET

SITE : Southern Railway Company
TDD NO. : F4-8805-01 CASE NUMBER : 9704
PROJECT NUMBER : 88-383

ADDRESS : Spartanburg, SC
SAMPLE CODE : SR-SB-03
SAMPLE LOCATION : #03 center of landfill

CONTACT :
PHONE :

SAMPLED BY :
1 K. Grezlik
2 S. Singleton
3 Jim Madaj
4

DATE SAMPLED : 6-8-88 TIME : 1450

SOIL / SEDIMENT SAMPLE

NO.	CONTAINER	ANALYSIS	LABORATORY	SAMPLE NO.	TAG NO.
1	8 OZ., GLASS	EXT. ORG.	Radian	DJ 395	4-04010
1	4 OZ., GLASS	VOA	"	"	4-04011
1	8 OZ., GLASS	METALS/CYANIDE	Compu-Chem	MDJ 290	4-04012
	OTHER				

WATER SAMPLE

NO.	CONTAINER	ANALYSIS	LABORATORY	SAMPLE NO.	TAG NO.
1	1 GALLON GLASS	EXT. ORG.			
	40 ML VIAL, GLASS	VOA			
	1 LITER POLYPROPYLENE	METALS			
	1 LITER POLYPROPYLENE	CYANIDE			
	OTHER				

FIELD MEASUREMENTS

pH : TEMPERATURE :

TIME :			
CONDUCTIVITY :			

WATER LEVELS
PRIOR TO PURGING:
PRIOR TO SAMPLING:

PURGING
METHOD: RATE:
TOTAL EST. GAL REMOVED:

TIME START:
TIME STOP:

REMARKS & CALCULATIONS: TOTAL DEPTH

hNU

WATER LEVEL

THIS FIELD SHEET IS AN EXTENSION OF FIELD LOG BOOK NO. _____

NUS CORPORATION
A Halliburton Company

SAMPLING FIELD SHEET

SITE : Southern Railway Company
TDD NO. : F4-8805-01 CASE NUMBER : 9704
PROJECT NUMBER : 88-383

ADDRESS : Spartanburg, SC
SAMPLE CODE : SR-SB-04
SAMPLE LOCATION : #04 Drainage Pathway

CONTACT :
PHONE :

SAMPLED BY :
1 K. Grezlik
2 S. Singleton
3 Jim Madaj
4

DATE SAMPLED : 6-8-88 TIME : 1530

SOIL / SEDIMENT SAMPLE

NO.	CONTAINER	ANALYSIS	LABORATORY	SAMPLE NO.	TAG NO.
1	8 OZ., GLASS	EXT. ORG.	Radian	OJ 396	4-04013
1	4 OZ., GLASS	VOA	"	"	4-04014
1	8 OZ., GLASS	METALS/CYANIDE	Compu-Chem	MMJ 291	4-04015
	OTHER				

WATER SAMPLE

NO.	CONTAINER	ANALYSIS	LABORATORY	SAMPLE NO.	TAG NO.
1	1 GALLON GLASS	EXT. ORG.			
	40 ML VIAL, GLASS	VOA			
	1 LITER POLYPROPYLENE	METALS			
	1 LITER POLYPROPYLENE	CYANIDE			
	OTHER				

FIELD MEASUREMENTS

pH : TEMPERATURE :

TIME :			
CONDUCTIVITY :			

WATER LEVELS
PRIOR TO PURGING:
PRIOR TO SAMPLING:

PURGING
METHOD: RATE:
TOTAL EST. GAL REMOVED:

TIME START:
TIME STOP:

REMARKS & CALCULATIONS: TOTAL DEPTH

hNU

WATER LEVEL

THIS FIELD SHEET IS AN EXTENSION OF FIELD LOG BOOK NO.

NUS CORPORATION
A Halliburton Company

SAMPLING FIELD SHEET

SITE : Southern Railway Company
TDD NO. : F4-8805-01 CASE NUMBER : 9704
PROJECT NUMBER : 88-383

ADDRESS : Spartanburg, SC
SAMPLE CODE : SR-SB-05
SAMPLE LOCATION : #05 subsurface soil

CONTACT :
PHONE :

Blank

SAMPLED BY :
1 K. Grezlik
2 S. Singleton
3 J. Madaj
4

DATE SAMPLED : 6-8-88 TIME : 1845

SOIL / SEDIMENT SAMPLE

NO.	CONTAINER	ANALYSIS	LABORATORY	SAMPLE NO.	TAG NO.
1	8 OZ., GLASS	EXT. ORG.	Radian	DJ 406	4-04016
1	4 OZ., GLASS	VOA	"	"	4-04017
1	8 OZ., GLASS	METALS/CYANIDE	Corpo-Chem	MDJ 301	4-04018
	OTHER				

WATER SAMPLE

NO.	CONTAINER	ANALYSIS	LABORATORY	SAMPLE NO.	TAG NO.
1	1 GALLON GLASS	EXT. ORG.			
	40 ML VIAL, GLASS	VOA			
	1 LITER POLYPROPYLENE	METALS			
	1 LITER POLYPROPYLENE	CYANIDE			
	OTHER				

FIELD MEASUREMENTS

pH : TEMPERATURE :

TIME :			
CONDUCTIVITY :			

WATER LEVELS
PRIOR TO PURGING:
PRIOR TO SAMPLING:

PURGING
METHOD: RATE:
TOTAL EST. GAL REMOVED:

TIME START:
TIME STOP:

REMARKS & CALCULATIONS: TOTAL DEPTH

hNU

WATER LEVEL

THIS FIELD SHEET IS AN EXTENSION OF FIELD LOG BOOK NO.

SAMPLING FIELD SHEET

NUS CORPORATION
A Halliburton Company

SITE : Southern Railway Company
TDD NO. : F4-8805-01 CASE NUMBER : 9704
PROJECT NUMBER : 88-383

ADDRESS : Spartanburg, SC
SAMPLE CODE : SB-SB-06
SAMPLE LOCATION : #06 subsurface soil

CONTACT :
PHONE :

Spike

SAMPLED BY :
1 K. Grezlik
2 S. Singleton
3 Jim Madaj
4

DATE SAMPLED : 6-8-88 TIME : 1730

SOIL / SEDIMENT SAMPLE

NO.	CONTAINER	ANALYSIS	LABORATORY	SAMPLE NO.	TAG NO.
1	8 OZ., GLASS	EXT. ORG.	Radian	DJ 407	4-04019
1	4 OZ., GLASS	VOA			4-
1	8 OZ., GLASS	METALS/CYANIDE			4-
	OTHER				

WATER SAMPLE

NO.	CONTAINER	ANALYSIS	LABORATORY	SAMPLE NO.	TAG NO.
1	1. GALLON GLASS	EXT. ORG.			
	40 ML VIAL, GLASS	VOA			
	1 LITER POLYPROPYLENE	METALS			
	1 LITER POLYPROPYLENE	CYANIDE			
	OTHER				

FIELD MEASUREMENTS

pH : TEMPERATURE :

TIME :			
CONDUCTIVITY :			

WATER LEVELS
PRIOR TO PURGING:
PRIOR TO SAMPLING:

PURGING
METHOD: RATE:
TOTAL EST. GAL REMOVED:

TIME START:
TIME STOP:

REMARKS & CALCULATIONS: TOTAL DEPTH

hNU

WATER LEVEL

THIS FIELD SHEET IS AN EXTENSION OF FIELD LOG BOOK NO.

USEPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 ALEXANDRIA 22313
703/557-2490 FTS-557-2490

CASE NO: 9704

SAS NO: (IF APPLICABLE)

ORGANIC TRAFFIC REPORT
(FOR CLP USE ONLY)

TYPE OF ACTIVITY (CIRCLE ONE) ①
SUPERFUND—PA SI ESI RIFS RD RA ER
NPLD O&M OTHER _____
NON-SUPERFUND— _____ PROGRAM

SITE NAME: Southern Railway Co.
CITY, STATE: Spartanburg, SC
SITE SPILL ID:

REGION NO: IV
SAMPLING COMPANY ② NUS Corp
SAMPLER: (NAME) Scott Singleton

SHIP TO: ③ Radian Corporation
10395 Placerville Road
Sacramento, CA 95827
ATTN: Douglas Adams

SAMPLING DATE: ④ 6-8-88
BEGIN: END:

DATE SHIPPED: 6-9 CARRIER: FedEx
AIRBILL NO: 8492550312

SAMPLE DESCRIPTION ⑥
(ENTER IN BOX A)
1. SURFACE WATER
2. GROUND WATER
3. LEACHATE
4. SOIL
5. SEDIMENT
6. OIL (SAS)
7. WASTE (SAS)

TRIPLE VOLUME REQUIRED FOR MATRIX SPIKE/DUPLICATE AQUEOUS SAMPLE

SHIP MEDIUM AND HIGH CONCENTRATION SAMPLES IN PAINT CANS

SEE REVERSE FOR ADDITIONAL INSTRUCTIONS

CLP SAMPLE NUMBER (FROM LABELS)	Ⓐ SAMPLE DESCRIPTION (FROM BOX 1) 1 2 3 4 5 6 7	Ⓑ CONCENTRATION L = LOW/MED H = HIGH (SAS)	Ⓒ RAS ANALYSIS: VOLATILE	BASE/NEUT /ACID	PESTICIDE /PCB's		Ⓓ SPECIAL HANDLING	Ⓔ STATION LOCATION SR
DJ 393	4	L	X	X	X			SB-01
DJ 394	4	L	X	X	X			SB-02
DJ 395	4	L	X	X	X			SB-03
DJ 396	4	L	X	X	X			SB-04
DJ 406	4	L	X	X	X			SB-05
DJ 407	4	L		X	X			SB-06

EPA Form 2075-7 (8-87)

WHITE — SMO COPY PINK — CLIENT COPY WHITE — LAB COPY FOR RETURN TO SMO YELLOW — LAB COPY

USEPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 ALEXANDRIA 22313
703/557-2490 FTS-557-2490

CASE NO: 3 4

SAS NO: (IF APPLICABLE)

INORGANIC TRAFFIC REPORT

(FOR CLP USE ONLY)

TYPE OF ACTIVITY (CIRCLE ONE) ①
SUPERFUND—PA (SI) ESI RIFS RD RA ER NPLD O&M OTHER _____
NON-SUPERFUND—_____ PROGRAM

SITE NAME: Southern Railway Co.
CITY, STATE: Spartanburg, SC
SITE SPILL ID: _____

REGION NO: IV
SAMPLING COMPANY ②: NUS Corp
SAMPLER: (NAME) Scott Singleton

SHIP TO: ③
Compu-Chem Labs
3308 Chapel Hill / Nelson Hwy
P.O. Box 12652
RTP, NC 27709
ATTN: Richard Bloom

SAMPLING DATE: 6-8-87 ④
BEGIN: _____ END: _____

DATE SHIPPED: 6-9 CARRIER: Fed Ex ⑤
AIRBILL NO: 8492550301

SAMPLE DESCRIPTION (ENTER IN BOX A) ⑥
1. SURFACE WATER
2. GROUND WATER
3. LEACHATE
4. SOIL
5. SEDIMENT
6. OIL (SAS)
7. WASTE (SAS)

DOUBLE VOLUME REQUIRED FOR MATRIX SPIKE/DUPLICATE AQUEOUS SAMPLE

SHIP MEDIUM AND HIGH CONCENTRATION SAMPLES IN PAINT CANS

SEE REVERSE FOR ADDITIONAL INSTRUCTIONS

CLP SAMPLE NUMBER (FROM LABELS)	Ⓐ SAMPLE DESCRIPTION (FROM BOX 1) 1 2 3 4 5 6 7	Ⓑ CONCENTRATION L = LOW M = MED H = HIGH (SAS)	Ⓒ RAS ANALYSIS: TOTAL METALS	CYANIDE	DISSOLVED METALS	HIGH ONLY (SAS): SULFIDE	pH	CONDUCTIVITY	OXIDANTS	Ⓓ SPECIAL HANDLING	Ⓔ STATION LOCATION SR
MDJ 288	4	L	X	X							SB-01
MDJ 289	4	L	X	X							SB-02
MDJ 290	4	L	X	X							SB-03
MDJ 291	4	L	X	X							SB-04
MDJ 301	4	L	X	X							SB-05

EPA Form 2075-6 (8-87)

WHITE — SMO COPY PINK — CLIENT COPY WHITE — LAB COPY FOR RETURN TO SMO YELLOW — LAB COPY

FEDERAL EXPRESS

USE THE INTERNATIONAL AIR WAYBILL FOR SHIPMENTS TO PUERTO RICO. (QUESTIONS? CALL 800-238-5355 TOLL FREE.

TRACKING NUMBER 0492550312

0492550312

SENDER'S COPY

Sender's Federal Express Account Number: 2059-2064-4

Date:

1 From (Your Name) Please Print:

Your Phone Number (Very Important): ( )

Company: KUS CORPORATION

Department/Floor No.:

Street Address: 1927 LAKESIDE PARKWAY STE 614

City: TUCKER State: GA ZIP Required: 30084

2 To (Recipient's Name) Please Print:

Recipient's Phone Number (Very Important): ( )

Company:

Department/Floor No.:

Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.):

City: State: ZIP Required:

3 YOUR BILLING REFERENCE INFORMATION (FIRST 24 CHARACTERS WILL APPEAR ON INVOICE.)

4 IF HOLD FOR PICK-UP, Print FEDEX Address Here

Street Address:

City: State: ZIP Required:

PAYMENT: [X] Bill Sender [ ] Bill Recipient's FedEx Acct. No. [ ] Bill 3rd Party FedEx Acct. No. [ ] Bill Credit Card [ ] Cash

5 SERVICES

1 [X] PRIORITY 1 Overnight Delivery
2 [ ] COURIER-PAK OVERNIGHT ENVELOPE*
3 [ ] OVERNIGHT BOX
4 [ ] OVERNIGHT TUBE
5 [ ] STANDARD AIR Delivery not later than second business day
6 [ ] OVERNIGHT LETTER*
7 [ ]
8 [ ]
9 [ ]
10 [ ]

*Declared Value Limit $100.

DELIVERY AND SPECIAL HANDLING

1 [ ] HOLD FOR PICK-UP (Fill in Box 4)
2 [X] DELIVER WEEKDAY
3 DELIVER SATURDAY (Extra charge) [ ]
4 [ ] DANGEROUS GOODS (Extra charge)
5 [ ] CONSTANT SURVEILLANCE SERVICE (CSS) (Extra charge) (Release Signature Not Applicable)
6 [ ] DRY ICE _____ Lbs.
7 [ ] OTHER SPECIAL SERVICE _____
8 [ ]
9 [ ] SATURDAY PICK-UP (Extra charge)
10 [ ]
11 [ ]
12 [ ] HOLIDAY DELIVERY (If offered) (Extra charge)

PACKAGES	WEIGHT	YOUR DECLARED VALUE (See right)	OVER SIZE
1	37		
Total 1	Total 37	Total	

Received At: 1 [ ] Regular Stop 2 [ ] On-Call Stop 3 [ ] Drop Box 4 [ ] B.S.C. 5 [ ] Station

FEDEX Corp. Employee No.: 1710

Date/Time for FEDEX Use: 4/1 1700

SERVICE CONDITIONS, DECLARED VALUE AND LIMIT OF LIABILITY

Use of this airbill constitutes your agreement to the service conditions in our current Service Guide which is available upon request. See back of sender's copy of this airbill for further information.

We will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay or non-delivery, unless you specify a higher amount in the space to the left, pay 40¢ per additional $100 specified and document your actual loss in the event of a claim. Maximum amount limitations found in the current Federal Express Service Guide apply. Your rights to recover from Federal Express for loss of the intrinsic value of the package, as well as for loss of sales, income, interest, profit, attorneys fees, costs and any other form of damage whether direct, incidental, consequential or special is limited to the greater of $100 or the declared value specified to the left. In no event shall your recovery exceed your actual loss.

In the event of untimely delivery, Federal Express will at your request and with some limitations, refund all transportation charges paid. See Service Guide for further information.

5 Sender authorizes Federal Express to deliver this shipment without obtaining a delivery signature and shall indemnify and hold harmless Federal Express from any claims resulting therefrom.

Release Signature: _____

Federal Express Use

Base Charges	
Declared Value Charge	
Other 1	
Other 2	
Total Charges	

PART #111800
REVISION DATE 1/88
PRINTED IN U.S.A. GBFE
009

© 1988 F E C

SENDER'S COPY

0492550312

2

FEDERAL EXPRESS

USE THE INTERNATIONAL AIR WAYBILL FOR SHIPMENTS TO PUERTO RICO. QUESTIONS? CALL 800-238-5355 TOLL FREE.

TRACKING NUMBER 0[illegible]

8127M 8492550301

SENDER'S COPY

Sender's Federal Express Account Number	Date
1059-2064-4	

1 From (Your Name) Please Print: [illegible]

Your Phone Number (Very Important): ( )

Company: NUS CORPORATION

Department/Floor No.:

Street Address: 1927 LAKESIDE PARKWAY STE 614

City: TUCKER State: GA ZIP Required: 30084

2 To (Recipient's Name) Please Print:

Recipient's Phone Number (Very Important): ( )

Company:

Department/Floor No.:

Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. ● Zip Codes.):

City: State: ZIP Required:

3 YOUR BILLING REFERENCE INFORMATION (FIRST 24 CHARACTERS WILL APPEAR ON INVOICE.)

PAYMENT [X] Bill Sender [ ] Bill Recipient's FedEx Acct. No. [ ] Bill 3rd Party FedEx Acct. No. [ ] Bill Credit Card [ ] Cash

H IF HOLD FOR PICK-UP, Print FEDEX Address Here

Street Address:

City: State: ZIP Required:

4 SERVICES

1 [X] PRIORITY 1 Overnight Delivery
2 [ ] COURIER-PAK OVERNIGHT ENVELOPE*
3 [ ] OVERNIGHT BOX
4 [ ] OVERNIGHT TUBE
5 [ ] STANDARD AIR Delivery not later than second business day
6 [ ] OVERNIGHT LETTER*
7 [ ]
8 [ ]
9 [ ]
10 [ ]

*Declared Value Limit $100.

DELIVERY AND SPECIAL HANDLING

1 [ ] HOLD FOR PICK-UP (Fill in Box H)
2 [X] DELIVER WEEKDAY
3 DELIVER SATURDAY (Extra charge) [ ]
4 [ ] DANGEROUS GOODS (Extra charge)
5 [ ] CONSTANT SURVEILLANCE SERVICE (CSS) (Extra charge) (Release Signature Not Applicable)
6 [ ] DRY ICE _____ Lbs.
7 [ ] OTHER SPECIAL SERVICE _____
8 [ ]
9 [ ] SATURDAY PICK-UP (Extra charge)
10 [ ]
11 [ ]
12 [ ] HOLIDAY DELIVERY (If offered) (Extra charge)

PACKAGES	WEIGHT	YOUR DECLARED VALUE (See right)	OVER SIZE
1	2		
Total	Total	Total	

Received At
1 [ ] Regular Stop
2 [ ] On-Call Stop
3 [ ] Drop Box 4 [ ] B.S.C. 5 [ ] Station

FEDEX Corp. Employee No.:

Date/Time for FEDEX Use: [illegible]

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5 Sender authorizes Federal Express to deliver this shipment without obtaining a delivery signature and shall indemnify and hold harmless Federal Express from any claims resulting therefrom.

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Other 1	
Other 2	
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PART #111800
REVISION DATE 1/88
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8492550301

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 4

ENVIRONMENTAL SERVICES DIVISION
COLLEGE STATION
ATHENS, GEORGIA 30613

RECEIPT FOR SAMPLES

PROJ. NO.: 88-383

PROJECT NAME: Southern Railway Company

SAMPLERS (Signature): Scott Smyth

Split Samples Offered: Yes (✓) Accepted ( ) Declined

Name of Facility/Site: Southern Railway Company

Facility/Site Location: Spartanburg, South Carolina

SR STA NO	DATE	TIME	COMP	GRAB	SPLIT SAMPLES	TAG NUMBERS	STATION DESCRIPTION	NO. OF CONTAINERS	REMARKS
SB-01	6-8	1100		X	yes	4-04001, 02, 03	Background	3	Tag numbers are
SB-02	6-8	1400		X	↓	4-04007, 08, 09	East edge of visable landfill	3	EPA/NUS tag #s.
SB-03	6-8	1450		X	↓	4-04010, 11, 12	Northern edge of visable landfill	3	Refer to station no.
SB-04	6-8	1545		X	↓	4-04013, 14, 15	Drainage pathway	3	for sample identity

Transferred by: (Signature) Scott Smyth

Date: 6-8-88 Time: 1600

Received by: (Signature) [illegible]

Telephone: (703) 981-4154

Title: MGR - ENVIR. PROTECTION Date: 6/8/88 Time: 1600

Distribution: Original to Coordinator Field Files: Copy to Facility/Site Representative

№ 4 1740

DATA RECEIPT FORM

Analytical data for Southern Railway

site, TDD # F4- 8805-01 was received on 8-1-88

and is located in the data file.

Pesticides, Purgables, Extractables, Misc. Extractables

Signed: Judy Thraikill
Document Custodian

UNSCANNABLE

MEDIA

(PHOTOGRAPHS)

TOXICITY DATA
FOR CHEMICALS FOUND
IN THE
ORG DATABASE

PHYSICAL, CHEMICAL, AND FATA DATA

CHEMICAL NAME	CAS #	Water Solubility (mg/l)	Vapor Pressure (mm Hg)	Henry's Law Constant (atm-m3/mol)	Log KOW	Fish BCF (l/kg)
2-METHYLNAPHTHALENE	0					
ACENAPHTHENE	83329	3.42E+00	1.55E-03	9.20E-05	4.00	242
ACENAPHTHYLENE	208968	3.93E+00	2.90E-02	1.48E-03	3.70	
ANTHRACENE	120127	4.50E-02	1.95E-04	1.02E-03	4.45	
BENZATHRACENONE	0					
BENZO(A)ANTHRACENE	56553	5.70E-03	2.20E-08	1.16E-06	5.60	
BENZO(B AND/OR K)FLUORANTHENE	0					
BENZO(GHI)PERYLENE	191242	7.00E-04	1.03E-10	5.34E-08	6.51	
BENZO-A-PYRENE	0					
BENZOFLUORANTHENE (NOT B OR K)	0					
BENZONAPHTHOTHIOPHENE	0					
CHRYSENE	218019	1.80E-03	6.30E-09	1.05E-06	5.61	
CYCLOPENTANEDIOL	0					
DIBENZO(A,H)ANTHRACENE	53703	5.00E-04	1.00E-10	7.33E-08	6.80	
DIBENZOFURAN	0					
FLUORANTHENE	206440	2.06E-01	5.00E-06	6.46E-06	4.90	1150
FLUORENE	86737	1.69E+00	7.10E-04	6.42E-05	4.20	1300
GAMMA-CHLORDANE /2	0					
INDENO (1,2,3-CD) PYRENE	0					
METHYL PYRENE	0					
METHYLANTHRACENE	0					
METHYLBENZATHRACENE	0					
METHYLCHRYSENE	0					
PETROLEUM PRODUCT	0					
PHENANTHRENE	50066	1.00E+03		NA	-0.19	
PYRENE	110861	1.00E+06	2.00E+01		0.66	
TETRAETHYLDIPHOSPHINEDISULFIDE	0					
UNIDENTIFIED COMPOUNDS/NO.	0					

TOXICITY DATA
FOR CHEMICALS FOUND
IN THE
ORG DATABASE

TOXICITY DATA FOR POTENTIAL CARCENOGENIC EFFECTS

CHEMICAL NAME	Oral Route Potency Factor (PF) (mg/kg/d)-1	Oral Route EPA Weight of Evidence	Inhalation Route Potency Factor (PF) (mg/kg/d)-1	Inhalation Route EPA Weight of Evidence
2-METHYLNAPHTHALENE				
ACENAPHTHENE				
ACENAPHTHYLENE				
ANTHRACENE				
BENZATHRACENONE				
BENZO(A)ANTHRACENE		B		
BENZO(B AND/OR K)FLUORANTHENE				
BENZO(GHI)PERYLENE				
BENZO-A-PYRENE				
BENZOFLUORANTHENE (NOT B OR K)				
BENZONAPHTHOTHIOPHENE				
CHRYSENE		B		B2
CYCLOPENTANEDIOL				
DIBENZO(A,H)ANTHRACENE		B		B2
DIBENZOFURAN				
FLUORANTHENE				
FLUORENE				
GAMMA-CHLORDANE /2				
INDENO (1,2,3-CD) PYRENE				
METHYL PYRENE				
METHYLANTHRACENE				
METHYLBENZATHRACENE				
METHYLCHRYSENE				
PETROLEUM PRODUCT				
PHENANTHRENE		B		B2
PYRENE				
TETRAETHYLDIPHOSPHINEDISULFIDE				
UNIDENTIFIED COMPOUNDS/NO.				

TOXICITY DATA
FOR CHEMICALS FOUND
IN THE
ORG DATABASE

TOXICITY DATA FOR NONCARCENOGENIC EFFECTS

CHEMICAL NAME	Oral Route Acceptable Intake Chronic (AIC) mg/kg/day	Inhalation Route Acceptable Intake Chronic (AIC) mg/kg/day
2-METHYLNAPHTHALENE		
ACENAPHTHENE		
ACENAPHTHYLENE		
ANTHRACENE		
BENZATHRACENONE		
BENZO(A)ANTHRACENE		
BENZO(B AND/OR K)FLUORANTHENE		
BENZO(GHI)PERYLENE		
BENZO-A-PYRENE		
BENZOFLUORANTHENE (NOT B OR K)		
BENZONAPHTHOTHIOPHENE		
CHRYSENE		
CYCLOPENTANEDIOL		
DIBENZO(A,H)ANTHRACENE		
DIBENZOFURAN		
FLUORANTHENE		
FLUORENE		
GAMMA-CHLORDANE /2		
INDENO (1,2,3-CD) PYRENE		
METHYL PYRENE		
METHYLANTHRACENE		
METHYLBENZATHRACENE		
METHYLCHRYSENE		
PETROLEUM PRODUCT		
PHENANTHRENE		
PYRENE	2.00E-03	
TETRAETHYLDIPHOSPHINEDISULFIDE		
UNIDENTIFIED COMPOUNDS/NO.		

TOXICITY DATA
FOR CHEMICALS FOUND
IN THE
INORG DATABASE

PHYSICAL, CHEMICAL, AND FATA DATA

CHEMICAL NAME	CAS #	Water Solubility (mg/l)	Vapor Pressure (mm Hg)	Henry's Law Constant (atm-m3/mol)	Log KOW	Fish BCF (l/kg)
ALUMINUM	0					
ANTIMONY	7440360		1.00E+00	NA		1
ARSENIC	7440382		0.00E+00	NA		44
BARIUM	7440393			NA		
BERYLLIUM	7440417		0.00E+00	NA		19
CADMIUM	7440439		0.00E+00	NA		81
CALCIUM	0					
CHROMIUM	7440473					
COBALT	0					
COPPER	7440508		0.00E+00	NA		200
CYANIDE	0					
IRON	15438310			NA		
LEAD	7439921		0.00E+00	NA		49
MAGNESIUM	0					
MANGANESE	7439965			NA		
MERCURY	7439976					
NICKEL	557197					
POTASSIUM	0					
SELENIUM	630104					
SILVER	506649					
SODIUM	0					
THALLIUM	563688					
TIN	0					
VANADIUM	0					
ZINC	0					

TOXICITY DATA
FOR CHEMICALS FOUND
IN THE
INORG DATABASE

TOXICITY DATA FOR POTENTIAL CARCENOGENIC EFFECTS

CHEMICAL NAME	Oral Route Potency Factor (PF) (mg/kg/d)-1	Oral Route EPA Weight of Evidence	Inhalation Route Potency Factor (PF) (mg/kg/d)-1	Inhalation Route EPA Weight of Evidence
ALUMINUM				
ANTIMONY				
ARSENIC				
BARIUM				
BERYLLIUM		B		
CADMIUM				
CALCIUM				
CHROMIUM				
COBALT				
COPPER				
CYANIDE				
IRON				
LEAD				
MAGNESIUM				
MANGANESE				
MERCURY				
NICKEL				
POTASSIUM				
SELENIUM				
SILVER				
SODIUM				
THALLIUM				
TIN				
VANADIUM				
ZINC				

TOXICITY DATA
FOR CHEMICALS FOUND
IN THE
INORG DATABASE

TOXICITY DATA FOR NONCARCENOGENIC EFFECTS

CHEMICAL NAME	Oral Route Acceptable Intake Chronic (AIC) mg/kg/day	Inhalation Route Acceptable Intake Chronic (AIC) mg/kg/day
ALUMINUM		
ANTIMONY		
ARSENIC		
BARIUM		
BERYLLIUM		
CADMIUM		
CALCIUM		
CHROMIUM		
COBALT		
COPPER		
CYANIDE		
IRON		
LEAD		
MAGNESIUM		
MANGANESE		
MERCURY		
NICKEL	2.00E-02	
POTASSIUM		
SELENIUM	5.00E-03	
SILVER	1.00E-01	
SODIUM		
THALLIUM	5.00E-04	
TIN		
VANADIUM		
ZINC		

8-2-88

CLP DATA ENTRY FORM (PART B - Compounds) 7

PROJECT NAME: SOUTHERN RAILWAY **MANAGER:** K. GRZELIK

CHECK ☒	PURGEABLE COMPOUNDS	CHECK ☒	PURGEABLE COMPOUNDS
	D1 - DICHLORODIFLUOROMETHANE		D21 - BENZENE
	D2 - TRICHLOROFLUOROMETHANE		D22 - DIBROMOCHLOROMETHANE
	D3 - ACROLEIN		D23 - 1,1,2-TRICHLOROETHANE
	D4 - ACRYLONITRILE		D24 - CIS-1,3-DICHLOROPROPENE
	D5 - CHLOROMETHANE		D25 - 2-CHLOROETHYLVINYL ETHER
	D6 - BROMOMETHANE		D26 - BROMOFORM
	D7 - VINYL CHLORIDE		D27 - 1,1,2,2-TETRACHLOROETHANE
	D8 - CHLOROETHANE		D28 - TETRACHLOROETHENE
	D9 - METHYLENE CHLORIDE		D29 - TOLUENE
	D10 - 1,1-DICHLOROETHENE		D30 - CHLOROBENZENE
	D11 - 1,1-DICHLOROETHANE		D31 - ETHYL BENZENE
	D12 - TRANS-1,2-DICHLOROETHENE		D32 - M-XYLENE
	D13 - CHLOROFORM		D33 - O&P-XYLENE(MIXED)
	D14 - 1,2-DICHLOROETHANE		D35 - TOTAL XYLENES
	D15 - 1,1,1-TRICHLOROETHANE		M1 - ACETONE
	D16 - CARBON TETRACHLORIDE		M2 - 2-BUTANONE
	D17 - BROMODICHLOROMETHANE		M3 - CARBON DISULFIDE
	D18 - 1,2-DICHLOROPROPANE		M4 - 2-HEXANONE
	D19 - TRANS-1,3-DICHLOROPROPENE		M5 - 4-METHYL-2-PENTANO
	D20 - TRICHLOROETHENE		M6 - STYRENE

CHECK ☒	EXTRACTABLE COMPOUNDS	CHECK ☒	EXTRACTABLE COMPOUNDS
	D1 - N-NITROSODIMETHYLAMINE		D35 - BENZYL BUTYL PHTHALATE
	D2 - 1,2-DIPHENYLHYDRAZINE		D36 - BIS(2-ETHYLHEXYL) PHTHALATE
	D3 - BENZIDINE	X	D37 - BENZO(A)ANTHRACENE
	D4 - 1,3-DICHLOROBENZENE	X	D38 - CHRYSENE
	D5 - 1,4-DICHLOROBENZENE		D39 - 3,3'-DICHLOROBENZIDINE
	D6 - 1,2-DICHLOROBENZENE		D40 - DI-N-OCTYLPHTHALATE
	D7 - BIS(2-CHLOROETHYL) ETHER	X	D41 - BENZO(B AND/OR K)FLUORANTHENE
	D8 - HEXACHLOROETHANE		D42 - BENZO(B AND/OR K)FLUORANTHENE
	D9 - BIS(2-CHLOROISOPROPYL) ETHER	X	D43 - BENZO-A-PYRENE
	D10 - N-NITROSODI-N-PROPYLAMINE	X	D44 - INDENO (1,2,3-CD) PYRENE
	D11 - NITROBENZENE	X	D45 - DIBENZO(A,H)ANTHRACENE
	D12 - HEXACHLOROBUTADIENE	X	D46 - BENZO(GHI)PERYLENE
	D13 - 1,2,4-TRICHLOROBENZENE		D47 - 2-CHLOROPHENOL
	D14 - NAPHTHALENE		D48 - 2-NITROPHENOL
	D15 - BIS(2-CHLOROETHOXY) METHANE		D49 - PHENOL
	D16 - ISOPHORONE		D50 - 2,4-DIMETHYLPHENOL
	D17 - HEXACHLOROCYCLOPENTADIENE		D51 - 2,4-DICHLOROPHENOL
	D18 - 2-CHLORONAPHTHALENE		D52 - 2,4,6-TRICHLOROPHENOL
X	D19 - ACENAPHTHYLENE		D53 - 4-CHLORO-3-METHYLPHENOL
X	D20 - ACENAPHTHENE		D54 - 2,4-DINITROPHENOL
	D21 - DIMETHYL PHTHALATE		D55 - 2-METHYL-4,6-DINITROPHENOL
	D22 - 2,4-DINITROTOLUENE		D56 - PENTACHLOROPHENOL
	D23 - 2,6-DINITROTOLUENE		D57 - 4-NITROPHENOL
	D24 - 4-CHLOROPHENYL PHENYL ETHER		M1 - BENZOIC ACID
X	D25 - FLUORENE		M2 - 2-METHYLPHENOL
	D26 - DIETHYL PHTHALATE		M3 - 4-METHYLPHENOL
	D27 - N-NITROSODIPHENLYAMINE		M4 - 2,4,5-TRICHLOROPHENOL
	D28 - HEXACHLOROBENZENE		M5 - BENZYL ALCOHOL
	D29 - 4-BROMOPHENYL PHENYL ETHER		M6 - 4-CHLORANILINE
X	D30 - PHENANTHRENE	X	M7 - DIBENZOFURAN
X	D31 - ANTHRACENE	X	M8 - 2-METHYLNAPHTHYLENE
	D32 - DI-N-BUTYLPHTHALATE		M9 - 2-NITROANILINE
X	D33 - FLUORANTHENE		M10 - 3-NITROANILINE
X	D34 - PYRENE		M11 - 4-NITROANILINE

PURGEABLE COMPOUNDS (TENTATIVES)	EXTRACTABLE COMPOUNDS (TENTATIVES)
	CYCLOPENTANEDIOL 2000/JN
	PETROLEUM PRODUCT
	METHYL PYRENE (4 ISOMERS)
	METHYL CHRYSENE (2 ISOMERS)
	TETRAETHYL DIPHOSPHINE DISULFIDE
	METHYLBENZATHRACENE
	BENZOFLUORANTHENE (NOT BORK) 2 ISOMERS
	BENZANTHRACENONE (2 ISOMERS)
	METHYL ANTHRACENE
	BENZONAPHTHOTHIOPHENE
	3 UNIDENTIFIED COMPOUNDS

CHECK ☒	PESTICIDE / PCB COMPOUNDS	CHECK ☒	PESTICIDE / PCB COMPOUNDS
	D1 - ALDRIN		D19 - PCB-1221 (AROCLOR 1221)
	D2 - HEPTACHLOR		D20 - PCB-1232 (AROCLOR 1232)
	D3 - HEPTACHLOR EPOXIDE		D21 - PCB-1248 (AROCLOR 1248)
	D4 - ALPHA-BHC		D22 - PCB-1260 (AROCLOR 1260)
	D5 - BETA-BHC		D23 - PCB-1016 (AROCLOR 1016)
	D6 - GAMMA-BHC (LINDANE)		D24 - TOXAPHENE
	D7 - DELTA-BHC		D25 - ENDRIN ALDEHYDE
	D8 - ENDOSULFAN I (ALPHA)		D26 - 2,3,7,8 TCDD(DIOXIN)
	D9 - DIELDRIN		D27 - CHLORDENE /2
	D10 - 4,4'-DDT (P,P'-DDT)		D28 - ALPHA-CHLORDENE /2
	D11 - 4,4'-DDE (P,P'-DDE)		D29 - GAMMA-CHLORDENE /2
	D12 - 4,4'-DDD (P,P'-DDD)		D30 - 1-HYDROXYCHLORDENE /2
	D13 - ENDRIN	X	D31 - GAMMA-CHLORDANE /2
	D14 - ENDOSULFAN II (BETA)		D32 - TRANS-NONACHLOR /2
	D15 - ENDOSULFAN SULFATE		D33 - ALPHA-CHLORDANE /2
	D16 - CHLORDANE (TECH. MIXTURE)		D34 - CIS-NONACHLOR /2
	D17 - PCB-1242 (AROCLOR 1242)		D35 - METHOXYCHLOR
	D18 - PCB-1254 (AROCLOR 1254)		D45 - ENDRIN KETONE
			D46 - BETA CHLORDENE /2

CLP DATA ENTRY FORM (PART C - Tables)

PROJECT NAME: SOUTHERN RAILWAY MANAGER: K. GRELIK

TABLE # 1-1

HEADING:

SUMMARY OF INORGANIC ANALYTICAL RESULTS
(organic / inorganic)

SOIL SAMPLES
(soil / sed. / groundwater etc.)

SO RAILWAYS
(site name)

SPARTANBURG, S.C.
(city, state)

STATION NAMES IN THIS TABLE. (Limit 15 - List in order.)

1 SR-SB-01	2 SR-SB-02	3 SR-SB-03	4 SR-SB-04
5	6	7	8
9	10	11	12
13	14	15	----------

Please use a separate copy of this form for each table you wish to generate.

CLP DATA ENTRY FORM (PART C - Tables)

PROJECT NAME: SOUTHERN RAILWAY MANAGER: K. GRZLIK

TABLE # 1-2

HEADING:

SUMMARY OF ORGANIC ANALYTICAL RESULTS
(organic / inorganic)

SOIL SAMPLES
(soil / sed. / groundwater etc.)

SC RAILWAY
(site name)

SPARTANBURG S.C
(city, state)

STATION NAMES IN THIS TABLE. (Limit 15 - List in order.)

1 SR-SB-01	2 SR-SB-02	3 SR-SB-03	4 SR-SB-04
5	6	7	8
9	10	11	12
13	14	15	----------

Please use a separate copy of this form for each table you wish to generate.

Copy furnished to QA 4/13/88 [illegible]

EQUIPMENT LOCATION LOG

TDD #: F4-8805-01
BRICS #: $675 $C 35 $I
Proj. Mgr: Keith Grozlik
Site Name: So Railways

Date Required: 7 June 1988
Site Location: Spartanburg, SC
Approved by: [illegible]

Qty Req.	Item	Qty of Issue	Qty Issued	Qty Turn-in	Serial NR/ NUS Decal NR
	Camera w/Bag				
	AE-1, 35mm	EA			
1	Auto Focus, 35mm	EA	1	1	307297
1	Sun 600, Instant	EA	1	1	336420
	Weather-matic, 110	EA			
	Film (specify ASA)				
2	Prints (35mm, ASA 100)	RL (24)	2	1	
	Slides (35mm, ASA ___)	RL (24)			
4	Sun 600 (Instant)	PK (10)	4	4	
	110 (ASA ___)	RL (24)			

RESPIRATORY PROTECTION

Qty Req.	Item	Qty of Issue	Qty Issued	Qty Turn-in	Serial NR/ NUS Decal NR
3	SCBA	EA	3	3	534, 535, 538
	SCBA, Dual Purpose	EA			
	Gas, mask, super size	EA			
3	Ultra Twin Respirator	EA	3	3	133, 137, 138
	Long lines 50 feet	EA			
	Cascade, manifold, w/neg kit	EA			
6	Air Tanks, small	EA	6	6	
	Air Tanks, large	EA			
	Cartridge, Ultra Twin (Specify Type)				
12	GMAH	EA	12	8	
		EA			

Form DTD DEC. 87.

F. M. Roach, Jr., P.E.
Manager
Environmental Engineering

NORFOLK SOUTHERN

Norfolk Southern Corporation
8 North Jefferson Street
Roanoke, VA 24042-0078
703 981-4154

RESPIRATORY PROTECTION (Continued)

Qty Req.	Item	Qty of Issue	Qty Issued	Qty Turn-in	Serial NR/ NUS Decal NR
	Canister, Super Size, (Specify Type)				
		EA			
4	Air Escape Pack (5 min.)	EA	4	4	019, 062, 058, 092
	Respirator (Dustfoe)	EA			

AIR MONITORING EQUIPMENT

Qty Req.	Item	Qty of Issue	Qty Issued	Qty Turn-in	Serial NR/ NUS Decal NR
	Explosive/02 Meters				
	Model 260	KIT			
	Model 2A & O_2 Meter	KIT			
	Mini Gard II	KIT			
	M62S (Methane)	KIT			
	Mini H_2S w/Calib. Kit	EA			
1	HNU	KIT	1	1	41539
	OVA & Recorder	KIT			
	OVA Calib. Kit	EA			
	Photovac & Recorder 10A10	KIT			
	HazMat Kit	EA			
	Photovac & Recorder 10S55	KIT			
	Draeger Kit	EA			
	Tubes (Specify)				
		BX (10)			
		BX (10)			
		BX (10)			

GEOPHYSICAL/HYDROLOGY/SURVEY

Qty Req.	Item	Qty of Issue	Qty Issued	Qty Turn-in	Serial NR/ NUS Decal NR
	Metal Detector	EA			
	Magnetometer	EA			

GEOPHYSICAL/HYDROLOGY/SURVEY (Continued)

Qty Req.	Item	Qty of Issue	Qty Issued	Qty Turn-in	Serial NR/ NUS Decal NR
	Bison Resistivity Meter	EA			
	Soil Test Resistivity Meter	EA			
	EM 31 Resistivity Meter	EA			
	Hydrologic Monitor (In-Situ)	EA			
	Water Level Recorder (Stevens)	EA			
	EDM	EA			
	Tripod	EA			
	Prism	EA			
	Level Rod	EA			
	Hubs, Wood	EA			
	Stakes, Wood	EA			
1	Transit, Pocket	EA	1	1	192188
	Prism Pole	EA			
	Optical Plummet Tribrach	EA			

BASICS

Qty Req.	Item	Qty of Issue	Qty Issued	Qty Turn-in	Serial NR/ NUS Decal NR
3	Kimwipes	BX	3	2	
	Surgeon's Gloves				
2	Large (male)	BX	2	1	
	Small (female)	BX			
	Bags, Poly				
1	8 x 12	BX (50)	1	0	
1	10 x 18	BX (50)	1	0	
1	12 x 24	BX (50)	1	0	
1	Whirl-Pak	BX (50)	1	0	

BASICS (Continued)

Qty Req.	Item	Qty of Issue	Qty Issued	Qty Turn-in	Serial NR/ NUS Decal NR
	Tape				
8 ~~4~~	Vinyl (electrical)	RL	~~4~~ 8	4	
6 ~~4~~	Nylon (strapping)	RL	~~4~~ 6	2	
	Masking	RL			
2	Duct	RL	2	2	
2	Flagging	RL	2	1	
1	Plastic Roll (10 x 100)	RL	1	1	
	Plastic Roll (20 x 100)	RL			
1	Trash Bags	BX (50)	1	0	
	Metal Stakes w/Flags	EA			
2	Foil, Aluminum	BX	1	0	

PROTECTIVE CLOTHING/EQUIPMENT

Qty Req.	Item	Qty of Issue	Qty Issued	Qty Turn-in	Serial NR/ NUS Decal NR
4	Glasses, Safety	PR	4	4	
	Coveralls, Tyvek				
	small	PR			
	medium	PR			
6	large	PR	6	6	
	X-large	PR			
	XX-large	PR			
	Apron, butyl	EA			
	Gloves				
1	Butyl/PVC	PR	1	1	
2	Latex	PR	2	2	
6	Boot Covers, Tyvek	EA	12 pr.	6 pr.	
	Hard Hats (visitor)	EA			
2	First Aid Kit	EA	2	2	
	Suits Splash/Rain				
	small	EA			
	medium	EA			

PROTECTIVE CLOTHING/EQUIPMENT (Continued)

Qty Req.	Item	Qty of Issue	Qty Issued	Qty Turn-in	Serial NR/ NUS Decal NR
3	large	EA	3	3	
	X-large	EA			
	Parka, Cold Weather				
	small	EA			
	medium	EA			
	large	EA			
	Snake Legging	PR			
	Boots Hip (State Size)				
		PR			
	Encapsulated, Suit	EA			
	Capony, Tent Fly	EA			
	Tarp, Ground	EA			
	Heater, Propane	EA			
	Cooler (5 gal. GOTT)	EA			
	Cooler (1 gal.)	EA			

DECONTAMINATING EQUIPMENT

Qty Req.	Item	Qty of Issue	Qty Issued	Qty Turn-in	Serial NR/ NUS Decal NR
	Bath Tub	EA			
	Round Wash Tub	EA			
2	Square Wash Tub	EA	2	2	
	Bucket				
	Stainless Steel	EA			
1	Plastic	EA	1	1	
	Sprayers				
1	Tap Water	EA	1	1	
1	DI Water	EA	1	1	
1	Propanol	EA	1	1	
	Field Table	EA			
1	Liqui-nox	GAL	1	1	
	Baking Soda	BOX			

DECONTAMINATING EQUIPMENT (Continuing)

Qty Req.	Item	Qty of Issue	Qty Issued	Qty Turn-in	Serial NR/ NUS Decal NR
	Brush				
1	Long Handle	EA	1	1	
1	Short Handle	EA	1	1	
	Scrub	EA			
	Bottle	EA			
1	Cylinder	EA	1	1	
	Portable DI Unit	EA			
	High Press Washer	EA			
	Heated High Press Washer	EA			

HAND TOOLS

Qty Req.	Item	Qty of Issue	Qty Issued	Qty Turn-in	Serial NR/ NUS Decal NR
1	Machette	EA	1	1	
	Sling Blade	EA			
	Pick, w/handle	EA			
	Axe, Wood	EA			
	Axe, Bush	EA			
2	Shovel, Short Handle	EA	2	2	
	Shovel, Long Handle	EA			
	Posthole Digger	EA			
	Wrench, Pipe 18"	EA			
	Wrench, Pipe 24"	EA			
	Wrench, Pipe Chain	EA			
1	Tool Box (Large)	EA	1	1	
1	Tool Box (Small)	EA	1	1	
	Hammer (2 lb.)	EA			
	Hammer (8 lb.)	EA			
	Tape, Fiberglass				
	100'	EA			
	200'	EA			
1	300'	EA	1	1	

HAND TOOLS (Continued)

Qty Req.	Item	Qty of Issue	Qty Issued	Qty Turn-in	Serial NR/ NUS Decal NR
	Tape, metal (100')	EA			
	Bung Wrench	EA			
	Glass Tube	EA			
	Hand Pump (S.S.)	EA			
	Trowel	EA			
	Tamp	EA			
	Electric Drill 1/2"	EA			
	Cordless Drill 3/8"	EA			

SOIL/SEDIMENT/WASTE

Qty Req.	Item	Qty of Issue	Qty Issued	Qty Turn-in	Serial NR/ NUS Decal NR
	Auger, Hand				
5	Bucket	EA	5	5	
20	Extension (3')	EA	20	20	
5	Handle	EA	5	5	
40	Pins	EA	45	25	
	Split Spoon Sampler	EA			
	Soil Test Sampler	EA			
5	Spoon, Sampling	EA	5	5	
1	Scoop, Sampling	EA	1	1	
	Spatula	EA			
6	Bowls, glass 2 qt.	EA	6	5	
	Bowls, glass 4 qt.	EA			
	Dredge	EA			

WATER

Qty Req.	Item	Qty of Issue	Qty Issued	Qty Turn-in	Serial NR/ NUS Decal NR
	Bailer				
	2" Stainless Steel	EA			
	2" Teflon	EA			
	4" Teflon	EA			
	Nansen Water Sampler	EA			
	Conductivity Meter	EA	1	1	165511
	PH Meters w/Probe & Therm				
	Cole Parmer	EA	1	1	323242
	Orion (digital)	EA			
	Electrode (PH spare)	EA			
1	Conductivity/PH meter	EA	0		
1	Water Level Indicator	EA	1		629209
	Well Casing, Stainless Steel				
3	Points/Screens	EA	3	3	
4	Well Casing 10'	EA	4	4	
12	Well Casing 5'	EA	6	6	
	Well Casing 3'	EA			
	Rope, 1/8" Nylon (2" bailer)	FT			
	Rope, 1/4" Nylon (4" bailer)	FT			
	Auger, Power w/	EA			
	Drill Point (2 ea)				
	Extension 3' (6 ea)				
1	**Auger Power Hydraulic w/**	EA	1	1	895629
	Drill Point (2 ea)				
	Extension 3' (6 ea)				
1	Hydraulic Oil (5 gal)	gl	1	1	
1	Drill Point 3'	EA	0		
	Drill Point 3' (Finger Bit)	EA			
1	Gas Can	EA	1	1	
6	Extension 3'	EA	4	4	
	Winch DC 12v	EA			
	Winch Hand	EA			
1	Bentonite (50 lb)	bg	1	1	

PUMPS

Qty Req.	Item	Qty of Issue	Qty Issued	Qty Turn-in	Serial NR/ NUS Decal NR
1	Peristaltic (Master-flex)	EA	1	1	690783
	2" Submersible (Back-Pak)	EA			
	4" Submersible	EA			
1	Waterhose 50'	EA	1	1	
	Rope Yellow 100'	EA			
	Battery Charger	EA			
1	12V Battery	EA	1	1	
	Tubing				
3	Teflon (35')	EA	3	3	
1	Silicon Rubber (2')	EA	1	1	
3	Vacuum Caps (Teflon)	EA	3	3	
	Water Pump (Centrifugal)	EA			
	Generator Lg	EA			
	Generator Sm	EA			
	Gas Can	EA			
	Extension cord 100'	EA			

MISCELLANEOUS

Qty Req.	Item	Qty of Issue	Qty Issued	Qty Turn-in	Serial NR/ NUS Decal NR
4	Ball Point Pens	EA	4	0	
3	Felt Tip Markers	EA	3	0	
	Battery				
	9V	EA			
	1.5 "D"	EA			
	1.5 "C"	EA			
	1.5 "AA"	EA			
	Other ____	EA			
4	Manila Tags	EA	4	0	
	Clipboard (Fiber)	EA			
	Water Barrel				
	Plastic	EA			

MISCELLANEOUS (Continued)

Qty Req.	Item	Qty of Issue	Qty Issued	Qty Turn-in	Serial NR/ NUS Decal NR
	Metal (55 gal)	EA			
1	Garbage Can (20 gal)	EA	1	1	
	Garbage Can (30 gal)	EA			
	Binoculars	EA			
	Compass	EA			
	Calculator, Pocket	EA			
	Card Table	EA			
	Fan	EA			
	Hand Level	EA			
	Chair, metal folding	EA			
	Range Finder	EA			
	Life Vest	EA			
	Wheel Barrow	EA			
	Wind System	EA			
	Radio				
	Walkie Talkie, UHF	EA			
	40 Ch. CB	EA			
	2-Way Headset	EA			
	Ladder 2' (wood)	EA			
	Conduit Pipe				
	1/2" x 10'	EA			
	3/4" x 10'	EA			
	Flashlight	EA			
	Cellular Telephone	EA			
	Chalk, blue	EA			
	Traffic Cone	EA			

SAMPLE CONTAINERS

Qty Req.	Item	Qty of Issue	Qty Issued	Qty Turn-in	Serial NR/ NUS Decal NR
~~20~~ 8	4 L glass (1 Gallon)	EA	8	0	
20	8 oz glass	EA	24	0	
10	120 ml Soil VOA (4oz)	EA	12	0	

SAMPLE CONTAINERS (Continued)

Qty Req.	Item	Qty of Issue	Qty Issued	Qty Turn-in	Serial NR/ NUS Decal NR
12	1 L Plastic	EA	12	0	
12	40 ml glass (Preserved)	EA	12	0	
	40 ml glass (Unpreserved)	EA			
	Ice Chest				
4	Large	EA	4	2	
3	Small	EA	3	2	
24	Vermiculite	Bg	12	1	
	Foam Padding 2' x 8'	Rl			
1	Seals, Custody	RL	1	0	
	Waste Shipment Can (1 Gal.)	EA			

REAGENTS/LIQUIDS

Qty Req.	Item	Qty of Issue	Qty Issued	Qty Turn-in	Serial NR/ NUS Decal NR
1	DI Water	Gl (5)	1	0	
1	Propanol	Gl	1	0	
1	Methanol	Gl	1	1	
	Acetone	Gl			
1	PH Buffers (4, 7, 10)	Set	1	0	

PRESERVATIVES

Qty Req.	Item	Qty of Issue	Qty Issued	Qty Turn-in	Serial NR/ NUS Decal NR
1	HNO_3 (50%)	250 ml	1	0	
1	NAoH	100 gr	1	0	
1	HCL (Conc) (100%)	40 ml			
6	HNO3 (10%)	1/2 gal			
1	Sodium Thiosulfate 10%	250 ml	1	0	
1	PH Indicator Strips	BX (100)	1	0	
2	Pipetts (eyedropper)	EA	2	1	

RADIATION DETECTORS

Qty Req.	Item	Qty of Issue	Qty Issued	Qty Turn-in	Serial NR/ NUS Decal NR
	THYAC III (Victoreen)	EA			
	Model 471 (Victoreen)	EA			
1	Mini Alert	EA	1	1	192519
	RAD TAD	EA			

EQUIPMENT LOCATION LOG

Quantity Issued Received: _____
Project Manager

Quantity Turn-In Received: _____
Warehouse Receiver

Posted Issue to Expendable Stock Record: 6-7-88

Posted Turn-In to Expendable Stock Record: 6/17/88

Discrepancies:

Reviewed: _____ Date: _____

DATA RECEIPT FORM

Analytical data for Southern Railway

site, TDD # F4- 8805-01 was received on 7-18-88

and is located in the data file.

Cyanide + Metals

Signed: Judy Thraikill
Document Custodian

1A. Cost Center: S675	FIT ZONE I CONTRACT NO. 68-01-7346 TECHNICAL DIRECTIVE DOCUMENT	2. TDD Number: F4-8805-01
1B. Account Number: SC35SI		2A. Amendment: ☐ Administrative ☐ Technical

3A. Priority: ☐ High ☒ Medium ☐ Low	3B. Key EPA Contact: Name: Susan Deihl	Phone: 404-347-5065

4A. Estimate of Technical Hours:	4B. Subcontract:	4C. Estimate of Subcontract Cost:	5A. SSID:	5B. CERID Number:
300	N/A	N/A	N/A	SCD000616664

5C. EPA Site Name:	5D. City/County/State:
Southern Railroad Co./ Haynes Shop	Spartanburg, Spartanburg, SC

6. Desired Report Format:	7A. Activity Start Date:	7B. Estimated Completion Date:
☒ Formal Report ☐ Standard Report ☐ Other (Specify): ☐ Letter Report ☐ Formal Briefing ☐	5/2/88	N/A

8A. Type of Activity:
☐ PA ☐ HRS Support ☐ Enforcement Support ☐ Training
☒ SI ☐ QA Support ☐ Program Management ☐ General Technical Assistance
☐ ESI ☐ Special Studies ☐ Equipment Maintenance

8B. FIT/SCAP Goal: Will Deliverable Meet a Unit of the Goal? ☒ Yes ☐ No

9. General Task Description:
FIT 4 has been tasked to conduct a site screening investigation at Southern Railroad Co./Haynes Shop, Spartanburg, Spartanburg, SC.

10. Specific Elements:	11. Interim Deadlines:
1. Prepare safety plan, prepare study plan and work plan	Prior to field activities
2. Conduct field activities	Week of 5/31/88
3. Prepare draft report	45 days after receipt of analytical data
4. Prepare final report	10 days after receipt of EPA comments
5. Project close out. ☐ Additional Scope Attached	

12. Comments:

13. Authorizing:		14. Date:
[signature] (FIT-RPO Signature)	☒ FIT-RPO ☐ HQ-PO ☐ HQ-DPO	5/23/88
15. Received by: [signature] (Contractor FITOM Signature)	☒ Accepted ☐ Accepted with Exceptions (Attach) ☐ Rejected	16. Date: 5-25-88

NOTE: Shaded boxes are to be completed by the FITOM.
SHEET 1 White - FITOM Copy
SHEET 2 Green - Project Officer's Copy (Washington, D.C.)
SHEET 3 Canary - RPO Copy
SHEET 4 Pink - ZPM Copy
SHEET 5 Goldenrod - Contracting Officer's Copy (Washington, D.C.)

4

SAMPLING FIELD SHEET

NUS CORPORATION
A Halliburton Company

SITE : Southern Railway Company
TDD NO. : F4-8805-01 CASE NUMBER : 9704
PROJECT NUMBER : 88-383

ADDRESS : Spartanburg County
Spartanburg, SC

SAMPLE CODE : SR-SB-01
SAMPLE LOCATION : #01 subsurface soil Background location

CONTACT :
PHONE :

SAMPLED BY :
1 S. Singleton
2 K. Grezlik
3 E. Corbin
4 J. Madaj

DATE SAMPLED : 6- 8-88 TIME : 1100

SOIL / SEDIMENT SAMPLE

NO.	CONTAINER	ANALYSIS	LABORATORY	SAMPLE NO.	TAG NO.
1	8 OZ., GLASS	EXT. ORG.		~~MDJ 288~~	4-04004
1	4 OZ., GLASS	VOA		MDJ 393	4-04005
1	8 OZ., GLASS	METALS/CYANIDE		MDJ 288	4-04006
	OTHER				

WATER SAMPLE

NO.	CONTAINER	ANALYSIS	LABORATORY	SAMPLE NO.	TAG NO.
1	1 GALLON GLASS	EXT. ORG.			4-
2	40 ML VIAL, GLASS	VOA			4-
1	1 LITER POLYPROPYLENE	METALS			4-
1	1 LITER POLYPROPYLENE	CYANIDE			4-
	OTHER				

FIELD MEASUREMENTS

pH : TEMPERATURE :

TIME :			
CONDUCTIVITY :			

WATER LEVELS
PRIOR TO PURGING:
PRIOR TO SAMPLING:

PURGING
METHOD: RATE:
TOTAL EST. GAL REMOVED:

TIME START:
TIME STOP:

REMARKS & CALCULATIONS: TOTAL DEPTH

hNU

WATER LEVEL

THIS FIELD SHEET IS AN EXTENSION OF FIELD LOG BOOK NO.

NUS CORPORATION
A Halliburton Company

SAMPLING FIELD SHEET

SITE : Southern Railway Company
TDD NO. : F4-8805-01 CASE NUMBER : 9704
PROJECT NUMBER : 88-383

ADDRESS : Spartanburg County
Spartanburg, SC

SAMPLE CODE : SR-SD-02
SAMPLE LOCATION : #02 subsurface soil eastern edge of landfill

CONTACT :
PHONE :

SAMPLED BY :
1 S. Singleton
2 K. Grezlik
3 E. Corbin
4 J. Madaj

DATE SAMPLED : 6-8-88 TIME : 1400

SOIL / SEDIMENT SAMPLE

NO.	CONTAINER	ANALYSIS	LABORATORY	SAMPLE NO.	TAG NO.
1	8 OZ., GLASS	EXT. ORG.		MDJ 394	4-04007
1	4 OZ., GLASS	VOA		"	4-04008
1	8 OZ., GLASS	METALS/CYANIDE		MDJ 289	4-04009
	OTHER				

WATER SAMPLE

NO.	CONTAINER	ANALYSIS	LABORATORY	SAMPLE NO.	TAG NO.
1	1 GALLON GLASS	EXT. ORG.			4-
2	40 ML VIAL, GLASS	VOA			4-
1	1 LITER POLYPROPYLENE	METALS			4-
1	1 LITER POLYPROPYLENE	CYANIDE			4-
	OTHER				

FIELD MEASUREMENTS

pH : TEMPERATURE :

TIME :			
CONDUCTIVITY :			

WATER LEVELS
PRIOR TO PURGING:
PRIOR TO SAMPLING:

PURGING
METHOD: RATE:
TOTAL EST. GAL REMOVED:

TIME START:
TIME STOP:

REMARKS & CALCULATIONS: TOTAL DEPTH

hNU

WATER LEVEL

THIS FIELD SHEET IS AN EXTENSION OF FIELD LOG BOOK NO.

NUS CORPORATION
A Halliburton Company

SAMPLING FIELD SHEET

SITE : Southern Railway Company
TDD NO. : F4-8805-01 CASE NUMBER : 9704
PROJECT NUMBER : 88-383

ADDRESS : Spartanburg County
Spartanburg, SC

CONTACT :
PHONE :

SAMPLE CODE : SR- SB-03
SAMPLE LOCATION : #03 subsurface soil center of usable landfill area.

SAMPLED BY :
1 S. Singleton
2 K. Grezlik
3 E. Corbin
4 J. Madaj

DATE SAMPLED : 6-8-88 TIME : 1450

SOIL / SEDIMENT SAMPLE

NO.	CONTAINER	ANALYSIS	LABORATORY	SAMPLE NO.	TAG NO.
1	8 OZ., GLASS	EXT. ORG.		OJ395	4-04010
1	4 OZ., GLASS	VOA		"	4-04011
1	8 OZ., GLASS	METALS/CYANIDE		MOJ290	4-04012
	OTHER				

WATER SAMPLE

NO.	CONTAINER	ANALYSIS	LABORATORY	SAMPLE NO.	TAG NO.
1	1 GALLON GLASS	EXT. ORG.			4-
2	40 ML VIAL, GLASS	VOA			4-
1	1 LITER POLYPROPYLENE	METALS			4-
1	1 LITER POLYPROPYLENE	CYANIDE			4-
	OTHER				

FIELD MEASUREMENTS

pH : TEMPERATURE :

TIME :			
CONDUCTIVITY :			

WATER LEVELS
PRIOR TO PURGING:
PRIOR TO SAMPLING:

PURGING
METHOD: RATE:
TOTAL EST. GAL REMOVED:

TIME START:
TIME STOP:

REMARKS & CALCULATIONS: TOTAL DEPTH

hNU

WATER LEVEL

THIS FIELD SHEET IS AN EXTENSION OF FIELD LOG BOOK NO.

SAMPLING FIELD SHEET

NUS CORPORATION
A Halliburton Company

SITE : Southern Railway Company
TDD NO. : F4-8805-01 CASE NUMBER : 9704
PROJECT NUMBER : 88-383

ADDRESS : Spartanburg County
Spartanburg, SC

SAMPLE CODE : SR-SB-04
SAMPLE LOCATION : #04 subsurface soil drainage pathway

CONTACT :
PHONE :

SAMPLED BY :
1 S. Singleton
2 K. Grezlik
3 E. Corbin
4 J. Madaj

DATE SAMPLED : 6-8-88 TIME : 1530

SOIL / SEDIMENT SAMPLE

NO.	CONTAINER	ANALYSIS	LABORATORY	SAMPLE NO.	TAG NO.
1	8 OZ., GLASS	EXT. ORG.		OJ396	4-04013
1	4 OZ., GLASS	VOA		"	4-04014
1	8 OZ., GLASS	METALS/CYANIDE		MOJ291	4-04015
	OTHER				

WATER SAMPLE

NO.	CONTAINER	ANALYSIS	LABORATORY	SAMPLE NO.	TAG NO.
1	1 GALLON GLASS	EXT. ORG.			4-
2	40 ML VIAL, GLASS	VOA			4-
1	1 LITER POLYPROPYLENE	METALS			4-
1	1 LITER POLYPROPYLENE	CYANIDE			4-
	OTHER				

FIELD MEASUREMENTS

pH : TEMPERATURE :

TIME :			
CONDUCTIVITY :			

WATER LEVELS
PRIOR TO PURGING:
PRIOR TO SAMPLING:

PURGING
METHOD: RATE:
TOTAL EST. GAL REMOVED:

TIME START:
TIME STOP:

REMARKS & CALCULATIONS: TOTAL DEPTH

hNU

WATER LEVEL

THIS FIELD SHEET IS AN EXTENSION OF FIELD LOG BOOK NO.

NUS CORPORATION
A Halliburton Company

SAMPLING FIELD SHEET

SITE : Southern Railway Company
TDD NO. : F4-8805-01 CASE NUMBER : 9704
PROJECT NUMBER : 88-383

ADDRESS : Spartanburg County
Spartanburg, SC

SAMPLE CODE : SR- SB-05
SAMPLE LOCATION : # 05 subsurface soil Hard hat area

CONTACT :
PHONE :

SAMPLED BY :
1 S. Singleton
2 K. Grezlik
3 E. Corbin
4 J. Madaj

DATE SAMPLED : 6-8-88 TIME : 1845

SOIL / SEDIMENT SAMPLE

NO.	CONTAINER	ANALYSIS	LABORATORY	SAMPLE NO.	TAG NO.
1	8 OZ., GLASS	EXT. ORG.		DJ 406	4-04016
1	4 OZ., GLASS	VOA		"	4-04017
1	8 OZ., GLASS	METALS/CYANIDE		MDJ 301	4-04018
	OTHER				

WATER SAMPLE

NO.	CONTAINER	ANALYSIS	LABORATORY	SAMPLE NO.	TAG NO.
1	1 GALLON GLASS	EX			4-
2	40 ML VIAL, GLASS				4-
1	1 LITER POLYPROPYLENE	ME			4-
1	1 LITER POLYPROPYLENE	CYA			4-
	OTHER				

Equipment rinsate blank 6 June 88
VOA Blank 6 June 88
Equipment Blank 6 June 88

FIELD MEASUREMENTS

pH : TEMPERATURE :

TIME :			
CONDUCTIVITY :			

WATER LEVELS
PRIOR TO PURGING:
PRIOR TO SAMPLING:

PURGING
METHOD: RATE:
TOTAL EST. GAL REMOVED:

TIME START:
TIME STOP:

REMARKS & CALCULATIONS: TOTAL DEPTH

hNU

WATER LEVEL

THIS FIELD SHEET IS AN EXTENSION OF FIELD LOG BOOK NO.

NUS CORPORATION
A Halliburton Company

SAMPLING FIELD SHEET

SITE : Southern Railway Company
TDD NO. : F4-8805-01 CASE NUMBER : 9704
PROJECT NUMBER : 88-383

ADDRESS : Spartanburg County
Spartanburg, SC

SAMPLE CODE : SR- SB-06
SAMPLE LOCATION : #06 Subsurface soil no hump area

CONTACT :
PHONE :

SAMPLED BY :
1 S. Singleton
2 K. Grezlik
3 E. Corbin
4 J. Madaj

DATE SAMPLED : 6-8-88 TIME : 1730

SOIL / SEDIMENT SAMPLE

NO.	CONTAINER	ANALYSIS	LABORATORY	SAMPLE NO.	TAG NO.
1	8 OZ., GLASS	EXT. ORG.		DJ 407	4-04019
1	4 OZ., GLASS	VOA			4-
1	8 OZ., GLASS	METALS/CYANIDE			4-
	OTHER				

WATER SAMPLE

NO.	CONTAINER	ANALYSIS	LABORATORY	SAMPLE NO.	TAG NO.
1	1 GALLON GLASS	EXT. (			4-
2	40 ML VIAL, GLASS	VOA			4-
1	1 LITER POLYPROPYLENE	METALS			4-
1	1 LITER POLYPROPYLENE	CYANIDE			4-
	OTHER				

EXTRACTABLE ORGANIC SPIKE
6 JUNE 88

FIELD MEASUREMENTS

pH : TEMPERATURE :

TIME :			
CONDUCTIVITY :			

WATER LEVELS
PRIOR TO PURGING:
PRIOR TO SAMPLING:

PURGING
METHOD: RATE:
TOTAL EST. GAL REMOVED:

TIME START:
TIME STOP:

REMARKS & CALCULATIONS: TOTAL DEPTH hNU

WATER LEVEL

THIS FIELD SHEET IS AN EXTENSION OF FIELD LOG BOOK NO.

1A. Cost Center: S675	**FIT ZONE I** **CONTRACT NO. 68-01-7346 TDD** **ACKNOWLEDGEMENT OF COMPLETION**	2. TDD Number: F4-8805-01
1B. Account Number: SC35SI		2A. Amendment: N/A
1C. SSID Number: N/A	☒ Formal Report ☐ Formal Briefing ☐ Other (Specify) ☐ Letter Report ☐ Standard Report _____	2B. ☒ Complete ☐ Cancelled

3A. Description:
FIT was tasked by EPA to conduct a Site Screening Inspection at the Southern Railroad Hayne Car Shop facility in Spartanburg, Spartanburg County, South Carolina. The final version of the report was sent to EPA on May 23, 1989.

3B. Technical Labor Hours Expended: 345.5	**3C. Subcontractor Cost:**
4A. FIT-RPO Action: ☐ Accepted ☐ Accepted with Exceptions (Attach) ☐ Rejected	**4B. FIT/SCAP: Will This Completed TDD Count as A Completed Activity Towards the FIT/SCAP Goal?** ☒ Yes ☐ No

5A. Comments:

5B. Further Action Recommended by FITOM:

6. I Certify That the Attached Materials Meet and Comply with All Requirements of the Subject TDD. (Contractor FITOM Signature)	**7. Date:** 7-27-89
8. I Acknowledge That I Have Been Provided with the Materials and Services Specified in the Subject TDD. (FIT-RPO Signature)	**9. Date:** 8/4/89

Note: Boxes 1A., 1B., 15., and 16 are to be completed by the FITOM.
SHEET 1 White - FITOM Copy
SHEET 2 Green - Project Officer's Copy (Washington, D.C.)
SHEET 3 Canary - RPO Copy
SHEET 4 Pink - ZPMO Copy
SHEET 5 Goldenrod - Contracting Officer's Copy (Washington, D C)

11

SITE NAME: Southern Railway
LOCATION: Spartanburg, SC
DATE SAMPLED: 6-8-88

TDD NO.: F4-8805-01
EPA #88-383

DATA SET COMPLETED:

Soil/Sediment Samples

Station	Cyanide	Metals	Purgeable	Purgeable, Misc.	Extractable	Extractable Misc.	Pest./PCBs	Remarks
SB-01	7-18-88	7-18-88						
SB-02	↓	↓						
SB-03	↓	↓						
SB-04	✓	✓						

Water Samples.

Station	Cyanide	Metals	Purgeable	Purgeable, Misc.	Extractable	Extractable Misc.	Pest./PCBs	Remarks

Gregich

SITE NAME: Southern Railway
LOCATION: Spartanburg, SC
DATE SAMPLED: 6-8-88

TDD NO.: F4-8805-01
EPA #88-383

DATA SET COMPLETED:

Soil/Sediment Samples

Station	Cyanide	Metals	Purgeable	Purgeable, Misc.	Extractable	Extractable Misc.	Pest./PCBs	Remarks
SB-01	7-18-88	7-18-88	8-1-88		8-1-88	8-1-88	8-1-88	
SB-02	↓	↓	↓		↓		↓	
SB-03	↓	↓	↓		↓	8-1-88	↓	
SB-04	✓	✓	✓		✓		✓	

Water Samples.

Station	Cyanide	Metals	Purgeable	Purgeable, Misc.	Extractable	Extractable Misc.	Pest./PCBs	Remarks

Gheglik

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 07/27/88

PROJECT NO. 88-383 SAMPLE NO. 26580 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-01

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START: 06/08/88 STOP: 00/00/00

CASE NO.: 9704 SAS NO.: D. NO.: J393

UG/KG	ANALYTICAL RESULTS
12U	CHLOROMETHANE
12UJ	BROMOMETHANE
12U	VINYL CHLORIDE
12U	CHLOROETHANE
6U	METHYLENE CHLORIDE
30UJ	ACETONE
6U	CARBON DISULFIDE
6U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
6U	1,1-DICHLOROETHANE
6U	1,2-DICHLOROETHENE (TOTAL)
6U	CHLOROFORM
6U	1,2-DICHLOROETHANE
12UR	METHYL ETHYL KETONE
6U	1,1,1-TRICHLOROETHANE
6U	CARBON TETRACHLORIDE
12U	VINYL ACETATE
6U	BROMODICHLOROMETHANE
6U	1,2-DICHLOROPROPANE

UG/KG	ANALYTICAL RESULTS
6U	CIS-1,3-DICHLOROPROPENE
6U	TRICHLOROETHENE(TRICHLOROETHYLENE)
6U	DIBROMOCHLOROMETHANE
6U	1,1,2-TRICHLOROETHANE
6U	BENZENE
6U	TRANS-1,3-DICHLOROPROPENE
NA	2-CHLOROETHYLVINYL ETHER
6U	BROMOFORM
12UJ	METHYL ISOBUTYL KETONE
12UJ	METHYL BUTYL KETONE
6U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
12U	1,1,2,2-TETRACHLOROETHANE
6U	TOLUENE
6U	CHLOROBENZENE
6U	ETHYL BENZENE
6U	STYRENE
6U	TOTAL XYLENES
19	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/27/88

PURGEABLE ORGANICS DATA REPORT

PROJECT NO. 88-383 SAMPLE NO. 26581 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-02

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START: 06/08/88 STOP: 00/00/00

CASE NO.: 9704 SAS NO.: D. NO.: J394

UG/KG	ANALYTICAL RESULTS
13U	CHLOROMETHANE
13UJ	BROMOMETHANE
13U	VINYL CHLORIDE
13U	CHLOROETHANE
7U	METHYLENE CHLORIDE
20UJ	ACETONE
7U	CARBON DISULFIDE
7U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
7U	1,1-DICHLOROETHANE
7U	1,2-DICHLOROETHENE (TOTAL)
7U	CHLOROFORM
7U	1,2-DICHLOROETHANE
13UR	METHYL ETHYL KETONE
7U	1,1,1-TRICHLOROETHANE
7U	CARBON TETRACHLORIDE
13U	VINYL ACETATE
7U	BROMODICHLOROMETHANE
7U	1,2-DICHLOROPROPANE

UG/KG	ANALYTICAL RESULTS
7U	CIS-1,3-DICHLOROPROPENE
7U	TRICHLOROETHENE(TRICHLOROETHYLENE)
7U	DIBROMOCHLOROMETHANE
7U	1,1,2-TRICHLOROETHANE
7U	BENZENE
7U	TRANS-1,3-DICHLOROPROPENE
NA	2-CHLOROETHYLVINYL ETHER
7U	BROMOFORM
13UJ	METHYL ISOBUTYL KETONE
13UJ	METHYL BUTYL KETONE
7U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
13U	1,1,2,2-TETRACHLOROETHANE
7U	TOLUENE
7U	CHLOROBENZENE
7U	ETHYL BENZENE
7U	STYRENE
7U	TOTAL XYLENES
25	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/27/88

PURGEABLE ORGANICS DATA REPORT

PROJECT NO. 88-383 SAMPLE NO. 26582 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-03

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START: 06/08/88 STOP: 00/00/00

CASE NO.: 9704 SAS NO.: D. NO.: J395

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
11U	CHLOROMETHANE	6U	CIS-1,3-DICHLOROPROPENE
11UJ	BROMOMETHANE	6U	TRICHLOROETHENE(TRICHLOROETHYLENE)
11U	VINYL CHLORIDE	6U	DIBROMOCHLOROMETHANE
11U	CHLOROETHANE	6U	1,1,2-TRICHLOROETHANE
6U	METHYLENE CHLORIDE	6U	BENZENE
20UJ	ACETONE	6U	TRANS-1,3-DICHLOROPROPENE
6U	CARBON DISULFIDE	NA	2-CHLOROETHYLVINYL ETHER
6U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)	6U	BROMOFORM
6U	1,1-DICHLOROETHANE	11UJ	METHYL ISOBUTYL KETONE
6U	1,2-DICHLOROETHENE (TOTAL)	11UJ	METHYL BUTYL KETONE
6U	CHLOROFORM	6U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
6U	1,2-DICHLOROETHANE	11U	1,1,2,2-TETRACHLOROETHANE
11UR	METHYL ETHYL KETONE	6U	TOLUENE
6U	1,1,1-TRICHLOROETHANE	6U	CHLOROBENZENE
6U	CARBON TETRACHLORIDE	6U	ETHYL BENZENE
11U	VINYL ACETATE	6U	STYRENE
6U	BROMODICHLOROMETHANE	6U	TOTAL XYLENES
6U	1,2-DICHLOROPROPANE	13	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/27/88

PURGEABLE ORGANICS DATA REPORT

PROJECT NO. 88-383 SAMPLE NO. 26583 SAMPLE TYPE: SOIL
SOURCE: SOUTHERN RAILWAY
STATION ID: SB-04

PROG ELEM: NSF COLLECTED BY: S SINGLETON
CITY: SPARTANBUR ST: SC
COLLECTION START: 06/08/88 STOP: 00/00/00

CASE NO.: 9704 SAS NO.: D. NO.: J396

UG/KG	ANALYTICAL RESULTS
13U	CHLOROMETHANE
13UJ	BROMOMETHANE
13U	VINYL CHLORIDE
13U	CHLOROETHANE
20U	METHYLENE CHLORIDE
20UJ	ACETONE
7U	CARBON DISULFIDE
7U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
7U	1,1-DICHLOROETHANE
7U	1,2-DICHLOROETHENE (TOTAL)
7U	CHLOROFORM
7U	1,2-DICHLOROETHANE
13UR	METHYL ETHYL KETONE
7U	1,1,1-TRICHLOROETHANE
7U	CARBON TETRACHLORIDE
13U	VINYL ACETATE
7U	BROMODICHLOROMETHANE
7U	1,2-DICHLOROPROPANE

UG/KG	ANALYTICAL RESULTS
7U	CIS-1,3-DICHLOROPROPENE
7U	TRICHLOROETHENE(TRICHLOROETHYLENE)
7U	DIBROMOCHLOROMETHANE
7U	1,1,2-TRICHLOROETHANE
7U	BENZENE
7U	TRANS-1,3-DICHLOROPROPENE
NA	2-CHLOROETHYLVINYL ETHER
7U	BROMOFORM
13UJ	METHYL ISOBUTYL KETONE
13UJ	METHYL BUTYL KETONE
7U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
13U	1,1,2,2-TETRACHLOROETHANE
7U	TOLUENE
7U	CHLOROBENZENE
7U	ETHYL BENZENE
7U	STYRENE
7U	TOTAL XYLENES
24	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

U. S. ENVIRONMENTAL PROTECTION AGENCY
REGION IV, ATHENS, GEORGIA

MEMORANDUM

DATE: MAY 25 1988

SUBJECT: SSI Study Plan, Southern Railway Company/Haynes Car Shop Spartanburg, South Carolina. ESD Project No. 88E-343.

FROM: Jim Gray
Hazardous Waste Section
Environmental Compliance Branch
Environmental Services Division

TO: Narindar Kumar, Acting Chief
Site Assessment Section
Site Investigation and Support Branch
Waste Management Division

THRU: M. D. Lair, Chief
Hazardous Waste Section
Environmental Compliance Branch
Environmental Services Division

The SSI Study Plan for the Southern Railway Company, Haynes Car Shop in Spartanburg, South Carolina, has been reviewed. The study plan has been found to be adequate to achieve the objectives stated.

My only comment on the plan is that on-site sample screening should be considered. Since the dimensions of the site are unknown and based on the types of compounds suspected to be buried there, sample screening with a portable PID or FID would insure positive analytical results for the on-site samples.

Should you have any questions regarding this review or need additional information, please call at FTS 250-3353.

cc: Lair/Mundrick
Knight
Blackwell

RECEIVED
MAY 26 1988
NUS CORPORATION
REGION IV
SENT TO

R-586-5-8-1

STUDY PLAN
SITE SCREENING INVESTIGATION
SOUTHERN RAILWAY COMPANY
SPARTANBURG, SPARTANBURG COUNTY, SOUTH CAROLINA
EPA ID #: SCD000616664

Prepared Under
TDD No. F4-8805-01
CONTRACT NO. 68-01-7346

Revision 0

FOR THE

WASTE MANAGEMENT DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

MAY 13, 1988

NUS CORPORATION
SUPERFUND DIVISION

Prepared By	Reviewed By	Approved By
Keith Grezlik Project Manager	Murray Warner for Phil Blackwell Assistant Regional Project Manager	Murray Warner, P.E. Regional Project Manager

15

NOTICE

The information in this document has been funded wholly by the United States Environmental Protection Agency (EPA) under Contract Number 68-01-7346 and is considered proprietary to the EPA.

This information is not to be released to third parties without the expressed or written consent of the EPA.

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STUDY PLAN

SITE SCREENING INVESTIGATION

SOUTHERN RAILWAY COMPANY/HAYNES SHOP

SPARTANBURG, SPARTANBURG COUNTY, SOUTH CAROLINA

EPA ID #SCD000616664

TDD NO. F4-8805-01

1.0 INTRODUCTION

The NUS Corporation Region 4 Field Investigation Team (FIT) has been tasked by the U.S. Environmental Protection Agency (EPA), Waste Management Division to conduct a site screening investigation (SSI) at the Southern Railway Company in Spartanburg County, South Carolina. The investigation will be performed under the authority of the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA). The task will be performed to satisfy the requirements stated in Technical Directive Document (TDD) number F4-8805-01.

1.1 Objectives

The objectives of this sampling investigation are to collect information to assist in developing a site-specific preliminary HRS score and to determine if further investigation is required at this site.

Specific elements are:

- Obtain information to prepare a preliminary HRS
- Provide EPA the necessary information to make decisions on any other actions warranted at the site.

1.2 Scope of Work

The scope of this investigation will include the following activities:

- Obtain and review background materials relevant to HRS scoring of site
- Obtain aerial photographs and maps of site, if possible
- Obtain information on local water systems
- Evaluate target population within a 4-mile radius of the site with regard to groundwater use, surface water use, and possibility of direct contact or fire and explosion hazard
- Conduct a survey of private wells
- Determine location and distance to nearest potable well
- Develop a site sketch drawn to scale
- Collect up to seven environmental samples consisting of subsurface soil and nearest potable well samples

1.3 Schedule

May 31, 1988

1.4 Personnel

FIT 4 Team

1.5 Permits and Authorization Requirements

The EPA is responsible for obtaining access to the site and permission to take photographs of site. In addition, EPA is responsible for all permits which may be required to accomplish this task.

1.6 Site History and Description

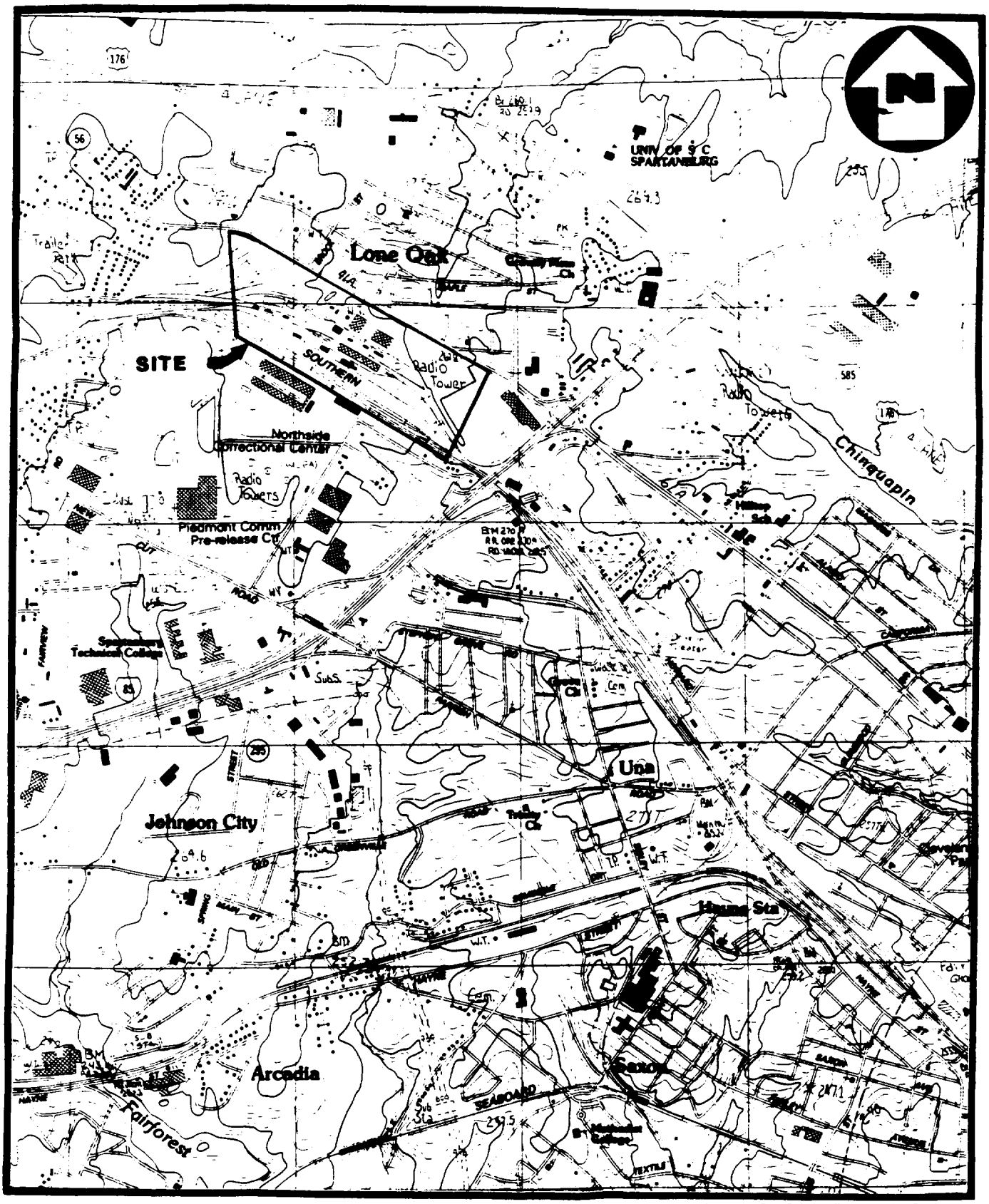
Since 1925, the Southern Railway Company has operated a locomotive maintenance facility known as Hayne Shop at 7525 Ashville Highway in Spartanburg, Spartanburg County, South Carolina. This facility has been used to wash, paint, and perform general maintenance of railway locomotives and freight cars. The company disposed of spent solvents and polishing grit in a two-acre on site landfill. Hazardous wastes disposed of by Southern Railway operations include unknown quantities of grit contaminated with chromium, non-halogenated solvents, xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclo hexanone, methanol, toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol and 2-nitropropane. The wastes were landfilled two to three times per year to an unknown depth. Reportedly, the facility consists of numerous track spurs, an administrative building, a paint shop/maintenance building, a drum storage area, and the above-mentioned landfill. The exact dimensions of the facility are unknown and will be determined in the field (Ref. 1).

1.7 Site Hydrogeology

The site is located in the northwest corner of the state and is situated in a belt of biotite schist. This area is in the Piedmont Physiographic Province (Ref. 2). This province is a metamorphic complex consisting of granites, gabbros, gneisses and schists.

The soil in the site vicinity is the Cecil Sandy loam, two to six percent slopes, eroded (Ref. 3). This soil is a well drained soil that generally is the cover for granites, gneisses, or schists. It is a friable sandy loam one to five inches thick and has a firm red clay as a subsoil (Ref. 3). This soil has a medium capacity to store and transfer water (Ref. 3).

Surface water is the main source of municipal, commercial, and industrial water supplies. The water intakes for the area are located upstream from the site area and are considered to



BASE MAP IS A PORTION OF USGS PROVISIONAL QUADRANGLE 7.5 MINUTE SERIES, SPARTANBURG S.C.

SITE LOCATION MAP
SOUTHERN RAILWAY CO.
SPARTANBURG, SOUTH CAROLINA

FIGURE 1

1:24,000

NUS CORPORATION

be unaffected by site runoff (Ref. 4). Groundwater use is generally restricted to domestic wells as well as some commercial and industrial uses (Ref. 4).

The aquifer of concern is the thick saprolite that overlies the biotite schist and the secondary fractures and joints of the biotite schist bedrock (Ref. 4). The higher well yields in the county are from wells completed in the fractured bedrock zone of schistose rocks area (Ref. 4). Additionally, higher well yields are found in topographically low areas. Information from monitor wells located 3500 from the site indicate a variable water table depth of five to twenty-seven feet below land surface (Ref. 4).

Recharge of the aquifer is by percolation of precipitation (Ref. 4). Average annual precipitation is 52.0 inches and average annual evaporation is 41.0 inches (Ref. 5).

2.0 SAMPLING INVESTIGATION

The sampling investigation will include the collection of seven (7) environmental samples. Samples will be analyzed for extractable and purgeable organic compounds, pesticides, PCB's, cyanides, and metals. Analyses will be performed under the Contract Laboratory Program (CLP). Sample codes, descriptions, locations, and rationale for all samples can be found in Table 2-1. A site layout map is unavailable at this time and will be developed in the field.

2.1 Subsurface Soil Sampling

Four (4) subsurface soil samples will be collected. These will include a background/control sample and three (3) samples collected from the disposal area at depths of 5, 10, and 20 feet below land surface, respectively.

2.2 Groundwater Sampling

Three (3) groundwater samples will be collected. These will include a background/control sample, an on-site temporary well to be emplaced in the disposal area, and the nearest potable well to the facility.

TABLE 2-1

SAMPLE CODE DESCRIPTIONS AND LOCATIONS

Sample Code	Description	Location/Rationale
SR-SB-01	Subsurface Soil	Topographically upgradient/background
SR-SB-02	Subsurface Soil	Disposal area, shallow/detection
SR-SB-03	Subsurface Soil	Disposal area, moderate/detection
SR-SB-04	Subsurface Soil	Disposal area, deep/detection
SR-GW-01	Groundwater	Hydraulically upgradient/background
SR-GW-02	Groundwater	Disposal area/detection
SR-GW-03	Groundwater	Nearest potable well

2.3 Analytical and Container Requirements

Sample containers used will be in accordance with the requirements specified in the Engineering Support Branch Standard Operating Procedures and Quality Assurance Manual; United States Environmental Protection Agency, Region IV, Environmental Services Division, April 1, 1986. The following is a description of the analysis and types of containers required.

Analyses	Container	Preservatives
Ext. Organics, Water	1 gal., amber glass*	None
Volatile Organics, Water	40 ml., glass vial*	4 drops conc. HCL to pH <2
Metals, Water	1 liter, plastic	50% HNO_3 to pH <2
Cyanide, Water	1 liter, plastic	NaOH to pH >12
Ext. Organics, Soil/Sediment	8 oz., glass*	None
Volatile Organics Soil/Sediment	4 oz., glass*	None
Inorganics, Soil/Sediment	8 oz., glass*	None

*Sample container lids are lined with teflon.

All samples will be iced to 4oC immediately upon collection

2.4 Methodology

2.4.1 General

All sample collection, sample preservation, and chain-of-custody procedures used during this investigation will be in accordance with the standard operating procedures as specified in Section 3 and 4 of the Engineering Support Branch Standard Operating Procedures and

Quality Assurance Manual; United States Environmental Protection Agency, Region IV, Environmental Services Division, April 1, 1986.

All laboratory analyses and laboratory quality assurance procedures used during this investigation will be in accordance with standard procedures and protocols as specified in the Analytical Support Branch Operations and Quality Assurance Manual; United States Environmental Protection Agency, Region IV, Environmental Services Division; revised June 1, 1985 or as specified by the existing United States Environmental Protection Agency standard procedures and protocols for the contract analytical laboratory program.

REFERENCES

1. Stewart, Gerald, 1988, South Carolina Department of Health and Environmental Control, updated Preliminary Assessment, Southern Railway Company/Haynes Shop, Spartanburg, South Carolina, dated March 30, 1988.

2. Overstreet, W. C.; Bell, Howry III, 1965. USGS Geologic Map of the Crystalline Rocks of South Carolina, Map I-413.

3. USDA, 1968. Soil Survey of Spartanburg County, April 1968.

4. Bloxham, W. M.; Siple, George E.; Commings, T. Ray, 1970. USGS Water Resources Division, Water Resources of Spartanburg County, South Carolina.

5. Climactic Atlas of the United States, U. S. Department of Commerce, 1983.

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
COMPUTERIZED QUARTERLY HAZARDOUS WASTE REPORT

Name and Address Information

☐ Enter 'X' here if you have not previously filed a Computerized Quarterly Hazardous Waste Report with the South Carolina Department of Health and Environmental Control

☐ Enter 'X' here if the information below has changed from the previous quarter.

I. SCD006166 64 (1-12) Installation EPA/DHEC ID Number

1/1/86 Quarter & Year

II. Installation Name

SOUTHERN RAILWAY COMPANY HAYNE CAR SHOP (13-52)

III. Installation is best described as: (Enter 'X' in all boxes that apply)

☒ Generator (53) ☐ Transporter ☐ On-Site T, S, D, R Facility (54) ☐ Off-site T, S, D, R Facility (55)

RECEIVED JUN 19 1986 S.C. Dept. of Health & Environmental Control - Bureau of Solid & Hazardous Waste Management

IV. Installation Mailing Address

18 NORTH JEFFERSON ST. (60-89)
Street or P.O. Box

ROANOKE (90-119)
City or Town

VA (1-2) State

24042 (3-7) Zip Code

V. Installation Location (If same as Mailing Address above enter only County Name)

7525 ASHEVILLE HWY (8-37)
Street or Route Number

SPARTANBURG (38-39)
County Name

SPARTANBURG (40-69)
City or Town

SC (70-71) State

29303 (72-76) Zip Code

VI. Installation Contact Name, Title, and Telephone Number

F M ROACH JR. MGR ENVIR ENGRG (1-30)
Name (First Name First) & Job Title

703 981 4154 (31-40)
Telephone Number

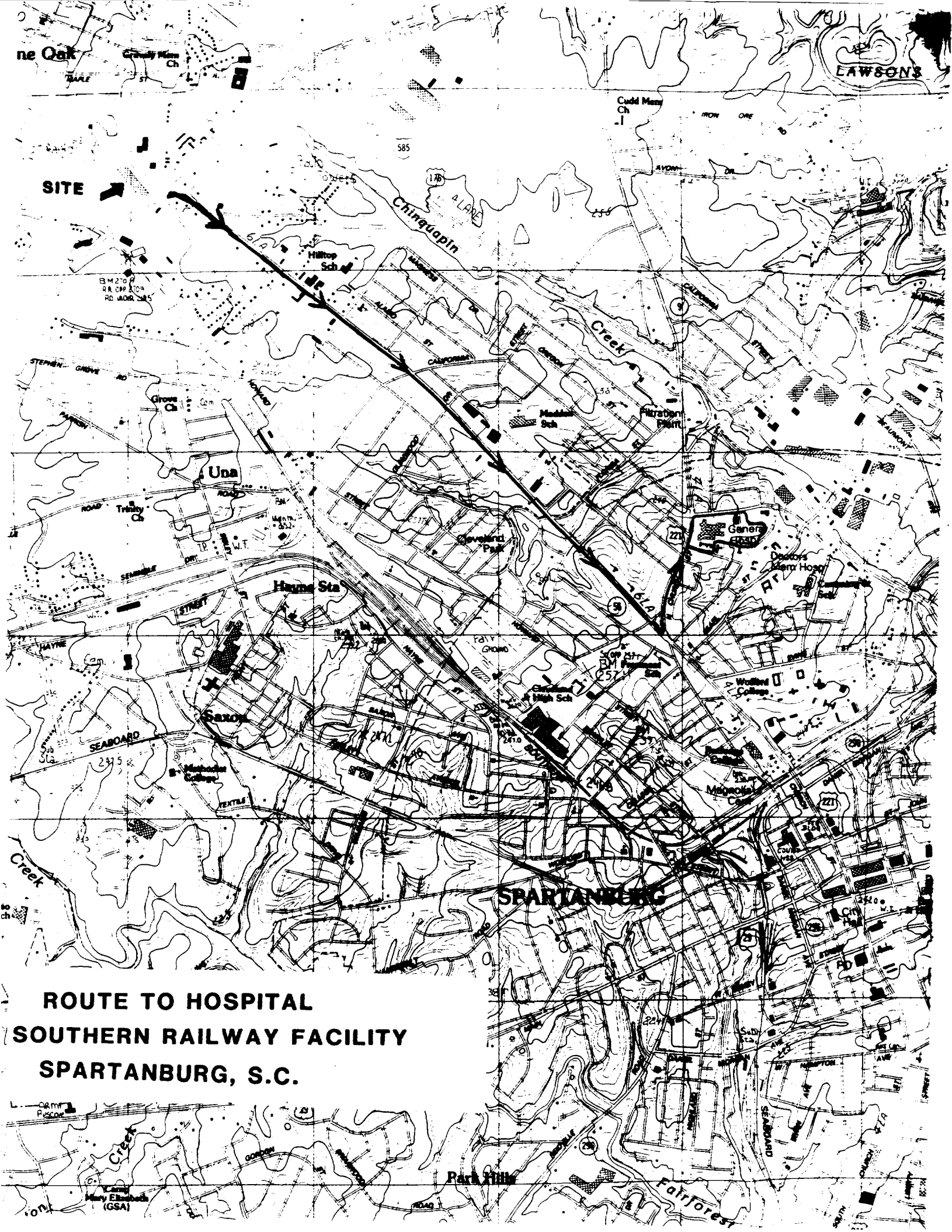
VII. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

[signature] F.M. ROACH, JR. MGR. ENVIR. ENGRG. 6/16/86

Signature of Authorized Representative — Print/Type Name & Title — Date

DHEC 1958 (7/84)



ROUTE TO HOSPITAL
SOUTHERN RAILWAY FACILITY
SPARTANBURG, S.C.

NUS CORPORATION
1927 LAKESIDE PARKWAY
SUITE 614
TUCKER, GEORGIA 30084
404-938-7710

C-586-5-8-119

May 17, 1988

Mr. Robert Jourdan
Site Investigation and Support Branch
Waste Management Division
Environmental Protection Agency
345 Courtland Street, N.E.
Atlanta, Georgia 30365

Subject: Site Screening Investigation Study Plan
Revision 0
Southern Railway Co./Haynes Car Shop
Spartanburg. South Carolina
SCD 000616664
TDD No. F4-8805-01

Dear Mr. Jourdan:

Enclosed please find three (3) copies of the Site Screening Investigation Study Plan, Revision 0, for Southern Railway Co. in Spartanburg, South Carolina.

Please contact me if you have any questions concerning this study plan.

Very truly yours,

Keith Grezlik
Project Manager

Approved

KG/dw

Enclosures (3)

13

REVIEW DOCUMENTATION RECORD

Site Name: SOUTHERN RAILWAY COMPANY

Prepared By: KEITH GIRZLIK

Date: 16 MAY 88

Revision No.: 0

TDD No.: F4-8805-01

Title: STUDY PLAN
SITE SCREENING INVESTIGATION

	Signature	Date	Comments
Technical Review Sectional	[signature]	5-16-88	GOOD
Field Operations Group (if applicable)	[signature]	5/16/88	See text
Managerial Review	[signature]	05/17/88	See Text
Quality Assurance Review	[signature]	5/18/88	

Additional Comments:

1) Two page "3a"

TDD No.: F4-8501-01

Site Name: Southern Railway Co.

SITE SAFETY PLAN

Site Name: Southern Railway Co.

Address: 7525 Ashville Highway
Spartanburg, S.C.

Contact: Jordan Gayle

Phone Number: (202) 383-4428

Other Contacts:

Purpose of Site Visit: Site Screening Investigation

Proposed Date of Work: May 31, 1988

Proposed Site Investigation Team:

NUS Personnel	Responsibilities:
Keith Grezlik	Project Manager
Eric Corbin	Site Safety Officer
Jim Madaj	Sampler
Robert Hutcheson	Sampler

Other: Purpose:

Plan Preparation:

Prepared by: _____ (5-31-88)

Approvals:

Regional Health & Safety Manager: _____ (5-31-88)

Regional Manager: _____ (5/31/88)

TDD No.: F4-8501-01

Site Name: Southern Railway Co.

Background Information:

Site Status: ___X___Active ___Inactive _____Unknown

Site Description: The facility is of undetermined size, but it is known that at least 3 buildings are in use and 8 railroad spurs. Area of concern is a 2 + acre landfill which was used by Southern Railway Co. to dispose of spent polishing compounds.

Site History: Since 1925, the Southern Railway Company/Hayne Shop has operated a locomotive maintenance facility at 7525 Ashville Highway in Spartanburg, Jefferson Street, Roanoke, Virginia 24042, utilized the Hayne Shop to wash and upgrade (paint and etc.) freight cars and to perform general U. S. Army Corps of Engineers & NPDES Permitted wastewater treatment facility consisting of sludge separation, agitation, aerator lagoon, sedimentation basin and chlorainating processes. Until 1980, the Southern Railway Company/Hayne Shop discharged effluent from the wastewater treatment facility into storm sewers that drained into the Lawnsons Fork Creek and the Fairforest Creek.

Monitoring used on previous site work or previous sampling data: In the Section 103 (c) CERCLA notification submitted by Southern Railway Company, the Hayne Shop listed hazardous wastes belonging to groups D007 (Spent grit contaminated with chromium), F003 and F005 (Spent non-halogenated solvents) as hazardous materials handled by the company. The company disposed of unknown quantities of spent (grinding) grit contaminated with chromium (CAS #7440-47-3) and possibly very limited amounts of spent solvents inside on approximately 2-acre on-site landfill. The two groups and non-halogenated solvents (F003 and F005) included xylene, acetone. Of the aforementioned solvents, the Southern Railway System is known to have used mineral spirits and xylene (CAS #1330-20-7) mixtures while painting freight cars and cleaning painting equipment.

methanol + benzene.

TDD No.: F4-8501-01

Site Name: Southern Railway Co.

Hazard Evaluation

Waste Types: __x__Liquid __x__Solid ____Sludge ____Vapor

Characteristics: ____Corrosive ____Ignitable ____Radioactive

__x__Volatile __x__Toxic ____Reactive

____Unknown ____Other

Task: Advancement of boreholes and subsurface soil samping

Low __x__ Medium _____ High _____

Identification of Hazards: Chromium and various solvents may be present

Task: Groundwater sampling

Low __x__ Medium ____ High _____

Identification of Hazards: Chromium and various solvents may be present

Task: Private well sampling

Low__x__ Medium____ High _____

Identification of Hazards: No apparent hazards

Hazard Assessment: Chromium and various solvents may be present in the landfill. Level C respiratory protection, with continuous monitoring for VOCs, will be used while advancing boreholes and collecting subsurface soil samples. Should readings above background be detected in the breathing zone, level B is required.

OVERALL HAZARD: _____Serious _____Moderate

__x__Low ____Unknown

TDD No.: F4-8501-01

Site Name: Southern Railroad Co.

Hazardous/Toxic Known or Suspected Materials	Concentration	Media	Toxic and Pharmacologic Effects	PELS, TLVs, IDLH	If Concentration is >10 ppm in media Reactivity, Stability, Flammability	If Exposure is >10% of PELs Applicable Monitoring Instruments
Chromium	Unknown	Soil	Histologic fibrosis of lungs respiratory, nasal and skin irritant; Cr (VI): carcinogen	TLV = 50 ug/m_3 (Cr VI)		None
Xylenes	Unknown	Soil/Water	Dizziness, excitement, drowsiness, abdominal pain, vomiting	TLV = 100 ppm		IP = 8.56 HNU or OVA
Acetone	Unknown	Soil/Water	Eye, nose, throat irritant; headache, dizziness	TLV = 750 ppm		IP = 9.69 HNU or OVA
Methanol	Unknown	Soil/Water	Eye irritant; drowsiness, nausea, vomiting: can cause blindness	TLV = 200 ppm		IP = 10.84 OVA
Benzene	Unknown	Soil/Water	Eye, nose, respiratory system irritant; nausea, vomiting bone marrow depression; carcinogen	TLV = 1 ppm		IP = 9.25 HNU or OVA

TDD No.: F4-8501-01

REQUIRED LEVEL(S) OF PROTECTION:

Site Name: Southern Railroad Co.

Task	Name	Respiratory	Clothing	Gloves	Boots	Other; Modifications
PM						
SSO	Keith Grezlik	D	F	NA	F	
SMO	Eric Corbin	C/B	T	L	FW/C	
Surveillance						
Samplers	Robert Hutecheson	C/B	T	L	FW/C	
	Jim Madaj	C/B	T	L	FW/C	
Other						
Decon						

	Cotton = C	
Tyvek = T	Latex = L	Fireman's = F
Saranex = S	Neoprene = N	Latex = L
Field = F	Viton = V	Tyvek Cover = C
	Butyl = B	

TDD No.: F4-8501-01

Site Name: Southern Railway Co.

Proposed On-site Activities:

The collection of environmental samples which will include sub-surface soil, groundwater, and private wells.

Monitoring Procedures:

Site Monitoring Equipment:

x	HNU	x	TLD Badge
___	OVA	x	Radiation mini-alert
___	Photovac	___	Explosimeter
___	Draeger Tube & Pump	___	O_2 meter
___	Victoreen Radiation Detector		
___	Other: Radon meter		

Methods and Frequency of Surveillance: (For compounds 10% PELs, see page 4).

The HNU will be used to continously monitor for the presence of VOCs while advancing boreholes and on the site recon. The radiation mini-alert will be used on the initial site recon. Each team member will wear a TLD badge.

Monitoring Equipment Calibration:

X HNu
As per manufacturer's recommendations, a field calibration is necessary once every three days. Calibration dates are recorded in the project logbook.

___ OVA
As per manufacturer's recommendations, a field calibration is necessary every three days. Calibration dates are recorded in the project logbook.

X Mini-Alert
A battery check and a response check were made prior to leaving the FIT office and will be made immediately prior to instrument use in the field. This field procedure will be documented in the log book.

___ Other

TDD No.: F4-8501-01

Site Name: Southern Railway Co.

Decontamination and Disposal:

Personnel Decontamination Procedure: (X) level to be utilized

_____	Level A -	Segregated equipment drop, boot cover and glove wash, boot cover and glove rinse, tape removal, boot cover removal, outer glove removal, suit and hard hat removal, SCBA backpack removal, inner glove wash, inner glove removal, inner clothing removal, field wash redress.
__x__	Level B -	Segregated equipment drop, boot cover and glove wash, boot cover and glove rinse, tape removal, boot cover removal, outer glove removal, SCBA backpack removal, suit and hard hat removal, inner glove removal, inner clothing removal, field wash, redress.
___x___	Level C -	Segregated equipment drop, boot cover and glove wash, boot cover and glove rinse, tape removal, boot cover removal, outer glove removal, suit/safety boot wash, suit/safety boot rinse (Canister or Mask Change), safety boot removal, splash suit removal, inner glove removal, inner clothing removal, field wash, redress.
___x___	Level D -	Segregated equipment drop, boot and glove wash, boot and glove rinse, eye protection.

___x__ Modifications (specify): Level C during use of power auger

Equipment Decontamination: Per Region IV Protocols

Disposal Procedure for Investigation Derived Materials: NA

IONIZING RADIATION: Normal background 0.01 to 0.02 mR/hr

If less than 2 mR/hr, continue investigation with caution.

If greater than 2 mR/hr, evacuate site.

*Note: Background 10-20 CPM on mini-alert

TDD No.: F4-8501-01

Site Name: Southern Railway Co.

SITE OPERATING PROCEDURES/SAFETY GUIDELINES

1. Always observe the buddy system. Never enter or exit a site alone, and never work alone in an isolated area. Never wander off by yourself.

2. Always maintain line-of-sight.

3. Practice contamination avoidance. Never sit down or kneel, never lay equipment on the ground, avoid obvious sources of contamination such as puddles, and avoid unnecessary contact with on-site objects.

4. No eating, drinking, or smoking outside the designated "clean" zone.

5. In the event PPE is ripped or torn, work shall stop and PPE shall be removed and replaced as soon as possible.

6. Be alert to any unusual changes in your own condition; never ignore warning signs. Notify Health and Safety Coordinator as to suspected exposures or accidents.

7. A vehicle will be readily available exclusively for emergency use. All FIT personnel going on site shall be familiar with the most direct route to the nearest hospital.

8. In the event of direct skin contact, the affected area shall be washed immediately with soap and water.

9. Copies of the health and safety plan shall be readily accessible at the command post.

10. Note wind direction. Personnel shall remain upwind whenever possible during on-site activities.

11. Never climb over or under refuse or obstacles. Use safety harness/safety lines when sampling lagoons, stream beds, and ravines with steep banks.

12. Hands and face must be thoroughly washed before eating, drinking, etc.

13. Any modifications to this safety plan MUST be approved by the RHSM or designee.

Special Procedures:

TDD No.: F4-8501-01

Site Name: Southern Railway Co.

Confined Space Entry

_x_ No attempt will be made to enter abandoned buildings, manholes, tanks, or any other confined areas.

____ Other:

Medical Surveillance

_x_ No site specific medical surveillance is required for this task.

____ Medical surveillance will be as follows:

Heat stress monitoring procedures:

- **Heart rate**. Count the radial pulse during a 30-second period as early as possible in the rest period.

  If the heart rate exceeds 110 beats per minute at the beginning of the rest period, shorten the next work cycle by one-third and keep the rest period the same.

  If the heart rate still exceeds 110 beats per minute at the next rest period, shorten the following work cycle by one-third.

- **Oral temperature**. Use a clinical thermometer (3 minutes under the tongue) or similar device to measure the oral temperature at the end of the work period (before drinking).

  If oral temperature exceeds 99.6oF (37.6°C), shorten the next work cycle by one-third.

  Do not permit a worker to wear a semi-permeable or impermeable garment when his/her oral temperature exceeds 100.6oF (38.1°C).

Suggested Frequency Physiological Monitoring for Fit and Acclimatized Workers[a]

ADJUSTED TEMPERATURE[b]	NORMAL WORK ENSEMBLE[c]	IMPERMEABLE ENSEMBLE
90°F (32.2°C) or above	After each 45 minutes of work	After each 15 minutes of work
87.5° - 90°F (30.8o - 32.2oC)	After each 60 minutes of work	After each 30 minutes of work
82.5° - 87.5°F (28.1°-30.8°C)	After each 90 minutes of work	After each 60 minutes of work
77.5° - 82.5°F (26.3°-28.1°C)	After each 120 minutes of work	After each 90 minutes of work
72.5°-77.5°F (22.5°-25.3°C)	After each 150 minutes of work	After each 120 minutes of work

a For work levels of 250 kilocalories/hour.

b Calculate the adjusted air temperature (ta adj) by using this equation: ta adj °F = ta °F + (13 x % sunshine). Measure air temperature (ta) with a standard mercury-in-glass thermometer, with the bulb shielded from radiant heat. Estimate percent sunshine by judging what percent time the sun is not covered by clouds that are thick enough to produce a shadow. (100 percent sunshine = no cloud cover and a sharp, distinct shadow; 0 percent sunshine = no shadows).

c A normal work ensemble consists of cotton coveralls or other cotton clothing with long sleeves and pants.

Signs and Symptoms of Heat Stress

- **Heat rash** may result from continuous exposure to heat or humid air.
- **Heat cramps** are caused by heavy sweating with inadequate electrolyte replacement. Signs and symptoms include:
  - muscle spasms
  - pain in the hands, feet, and abdomen
- **Heat exhaustion** occurs from increased stress on various body organs including inadequate blood circulation due to cardiovascular insufficiency or dehydration. Signs and symptoms include:
  - pale, cool, moist skin
  - heavy sweating
  - dizziness
  - nausea
  - fainting
- **Heat stroke** is the most serious form of heat stress. Temperature regulation falls and the body temperature rises to critical levels. Immediate action must be taken to cool the body before serious injury and death occur. Competent medical help must be obtained. Signs and symptoms are:
  - red, hot, usually dry skin
  - lack of or reduced perspiration
  - nausea
  - dizziness and confusion
  - strong, rapid pulse
  - coma

Personnel Monitoring

__X__ Personnel monitoring will include only the use of the TLD badge. No further personnel monitoring is required.

____ Personnel monitoring will consist of:

TRAINING RECORD

NAME	SUPERFUND	REFRESHER TRAINING		CPR	FIRST AID
		FIELD INSTRUMENTS	ULTRA TWIN/SCBA		
Keith Grezlick	2/87	7/87	2/87	2/87	12/87
Eric Corbin	4/87	7/87	7/87	6/87	9/87
Jim Madaj	1/88	-	-	4/88	4/88
Robert Hutcheson	12/87	-	-	12/87	12/87

EMERGENCY SITUATIONS

Air Releases or Fire/Explosion:

In the event of an unexpected air release or fire/explosion, on-site personnel will travel at a right angle to the upwind direction. The Site Safety Officer (SSO) will then account for all personnel and notify the proper emergency agencies.

In the event the SSO is unavailable, the Project Manager will assume these responsibilities.

Emergency Site Control:

In the event of an emergency, the SSO will discourage any unauthorized personnel from entering the site. If necessary, the SSO will contact the proper authorities.

Personnel Injury:

If on-site personnel require emergency medical treatment, the following steps will be taken:

1) Evaluate the nature of the injury.
2) Decontaminate to the extent possible prior to administration of first aid or movement to emergency facilities.

First Aid Procedures:

Skin Contact:	Remove contaminated clothing. Wash immediately with water. Use soap if available.
Inhalation:	Remove from contaminated atmosphere. Artificial respiration, if necessary. Transport to hospital.
Ingestion:	Never induce vomiting on an unconscious person. Also, never induce vomiting when acids, alkalis, or petroleum products are suspected. Contact the poison control center.
Equipment Failure:	In the event that air monitoring equipment fails to operate, all personnel will exit the site immediately and notify the RHSM or designee for further instructions.

TDD No.: F4-8501-01

Site Name: Southern Railway Co.

Communication Procedures:

____(Horn blast, siren, etc.)_____ is the emergency signal to indicate that all personnel should leave the Exclusion Zone.

The following standard hand signals will be used in case of failure of radio communications:

Hand gripping throat ----------	Out of air, can't breathe
Grip partner's wrist or both hands around waist ----------	Leave area immediately
Hands on top of head ----------	Need assistance
Thumbs up ----------	OK, I am all right, I understand
Thumbs down ----------	No, negative

The following will be used on an "as-needed" basis:

Channel _____ has been designated as the radio frequency for personnel in the Exclusion Zone. All other on-site communications will use channel _____.

Telephone communication to the Command Post should be established as soon as practicable. The phone number is _____.

TDD No.: F4-8501-01

Site Name: Southern Railway Co.

EMERGENCY INFORMATION:

LOCAL RESOURCES:

Ambulance (Name): unknown	Phone 911
Hospital (Name): Spartanburg Regional MED	Phone (803) 591-6999
Police (Local or State): Sheriff's Dept.	Phone 911
Fire Dept. (Name & Volunteer?): Metro F. D.	Phone (803) 578-6890
Radio Channel:	
Nearest Phone: Administrative BLDG on site	

OFFICE RESOURCES:

Region IV FIT Office	(404) 938-7710
EPA-RPO - Robert Jourdan (Work)	(404) 347-5065
FIT Manager - Murray Warner (Beeper)	(404) 890-3305
Murray Warner (Home)	(404) 263-9261
Assistant FIT Managers:	
Phil Blackwell (Home)	(404) 292-4766
Arnie Ostrofsky (Home)	(404) 498-0901
Safety:	
Phil Blackwell (Home)	(404) 292-4766
Mike Profit (Home)	(404) 396-6408
Zone - Paul Clay (Office)	(703) 522-8802

EMERGENCY CONTACTS: (Medical and Health)

- (NUS Consulting Physicians - University of Pittsburgh)
  Dr. Hodgson

  24 Hour Number 412-648-3240

  Refer to page 14 for details on the "Emergency Physician Access Plan."

- Elmer Burd (NUS Zone Health and Safety Manager)

  Office 412-788-1080

- Regional Health Maintenance Program
  Occupational Medicine Associates (404) 455-7008

- Poison Information Center (404) 588-4400

DIRECTIONS TO HOSPITAL (Attach Map): Exit site on East Hwy. 56 to Hwy. 221. Turn north, hospital is 1000 ft on right.

Emergency Physician Access Plan

NUS Corporation, Superfund Division

December, 1986

A. MONDAY THROUGH FRIDAY, 9:00 A.M. - 5:00 P.M.

Dial the (412) 648-3240 number. When answered state that:

(1) you are calling from NUS Corporation;
(2) this is an emergency call.

Program Staff will be alerted how to contact the physician designated to provide emergency coverage on that day. Collect calls will be accepted.

B. EVENINGS, WEEK-ENDS & HOLIDAYS:

Dial the (412) 648-3240 number. An operator from the answering service will answer the telephone. Do the following:

(1) tell the operator that you are calling from NUS Corporation
(2) tell the operator that this is an emergency call
(3) give her your name
(4) give her the telephone number where the physician is to call. Be certain that she has written the correct number (area code and seven digits)
(5) if you do not receive a call back within 15 minutes, place a second call to (412) 648-3240

Collect calls will be accepted.

C. SITUATIONS WHERE EMPLOYEE REQUIRES IMMEDIATE TRANSPORT TO A HOSPITAL:

If the situation is life-threatening, i.e., cardiac arrest or person not breathing, call the emergency medical services system and transport the person to the nearest hospital with advanced life support capabilities.

After obtaining assistance as stated above, call the (412) 648-3240 number and follow the procedures in A or B as appropriate.

FIELD CHEMICAL CHECKLIST
(Require MSDS When Brought Into The Field)

_____	Acetone
__x__	Liquinox
__x__	Nitric acid
_____	Ascorbic acid
_____	Benzene
__x__	Buffer solutions
_____	Conductivity standard
_____	Cupric sulfate solution
_____	Ferrous ammonium sulfate
____	Gasoline
_____	Hexane
__x__	Hydrochloric acid
__x__	Isopropyl alcohol
_____	Methanol
_____	Methylene chloride
_____	Phosphoric acid
____	Potassium iodide
__x__	Sodium hydroxide
_____	Sulfuric acid
_____	Toluene
_____	1,1,1-trichloroethane

Gases:

_____	Hydrogen sulfide
_____	Methane
_____	Nitrogen

South Carolina Department of Health and Environmental Control

2600 Bull Street
Columbia, S.C. 29201

Commissioner
Robert S. Jackson, M.D.

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Moses H. Clarkson, Jr., Chairman
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Barbara P. Nuessle
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Euta M. Colvin, M.D.

January 15, 1987

CERTIFIED MAIL
P 334 820 004

Mr. F. M. Roach, Jr.
Southern Railway Company Hayne Car Shop
8 North Jefferson Street
Roanoke, VA 24042

File Reference: Southern Railway Company Hayne Car Shop
SCD00061664
Spartanburg County

Dear Mr. Roach:

As specified in the "Findings of Fact" section of the enclosed proposed administrative consent order, it has been determined that Southern Railway Company Hayne Car Shop has not adequately complied with the quarterly reporting requirements for submittal of quarterly report deadline for the first quarter 1986.

On the basis of these findings, you are hereby notified that Southern Railway Company Hayne Car Shop has violated Department Hazardous Waste Management Regulations, promulgated pursuant to Sections 44-56-10 et seq., of the 1976 South Carolina Code of Laws, as amended, as cited in the "Conclusions of Law" section of the proposed order. If you find this proposed order acceptable, please sign and return it to my attention at the following address:

South Carolina Department of Health and Environmental Control
Bureau of Solid and Hazardous Waste Management
2600 Bull Street
Columbia, South Carolina 29201

The Order will become effective on the date the Commissioner of the Department signs it, and a fully executed copy will be returned for your records.

If you choose not to execute the agreement as written and wish to discuss this matter further, you are required to be present at a conference which has been scheduled for February 24, 1987, at 1:30 p.m., in Room 403, Sims Building, 2600 Bull Street, Columbia, South Carolina, to discuss the proposed order and the violations cited therein, and to provide you the opportunity to show-cause why the Order should not be issued as proposed.

You may be represented at this conference by legal counsel or technical consultants to discuss this violation and proposed solutions, including agreement on the terms of an administrative consent order and the assessment of civil penalties as provided by Section 44-56-140 of the 1976 Code, as amended.

The scheduled conference will be cancelled if the Order is signed and returned prior to that date. However, failure to attend the scheduled conference shall be deemed an admission of the Department's findings and will result in the issuance of an order without your consent.

Please contact me at (803) 734-5200 if you need additional information concerning this matter.

Very truly yours,

Gerald D. Shealy

Gerald D. Shealy
Enforcement Section
Bureau of Solid and Hazardous
Waste Management

GDS/trh
Enclosures
cc: Bill Buffington
Clyde Buchanan

NOV/HW

THE STATE OF SOUTH CAROLINA
BEFORE THE DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

IN RE: SOUTHERN RAILWAY COMPANY
HAYNE CAR SHOP
SPARTANBURG COUNTY

ADMINISTRATIVE CONSENT ORDER
87-12 -SW

Southern Railway Company Hayne Car Shop, SCD000616664, located in Spartanburg, South Carolina, generates a hazardous waste.

FINDINGS OF FACT

Southern Railway Company Hayne Car Shop submitted a quarterly report for the first calendar quarter of 1986 to the Department on June 23, 1986. Department Regulations require the submittal of quarterly reports to the Department within thirty (30) days of the end of each calendar quarter. Southern Railway Company Hayne Car Shop was notified of this requirement as part of the original report packet, and informed the enforcement action may result if quarterly reports are not submitted in a timely manner.

The first quarter report for 1986 was inadvertently not filed on time by Southern Railway Company due to oversight resulting from the resignation of the employee charged with responsibility of filing such reports with the Department. A suspense program has been instituted by the Company to prevent a recurrence of inadvertent failure to file.

CONCLUSIONS OF LAW

Southern Railway Company Hayne Car Shop has violated Department Hazardous Waste Management Regulation 61-79.262.41, promulgated pursuant to Sections 44-56-10 et seq., of the South Carolina Code of Laws, as amended, for failure to submit a quarterly report to the Department in a timely manner.

NOW, THEREFORE, IT IS ORDERED with the consent of Southern Railway Company Hayne Car Shop that pursuant to Sections 44-56-130 and 44-56-140 of the 1976 Code, as amended, Southern Railway Company Hayne Car Shop shall perform the following:

1) Henceforth ensure compliance with the quarterly reporting requirements specified in R.61-79.262.41; and,

2) Not later than fifteen (15) days after receipt of an executed copy of this Administrative Consent Order by Southern Railway Company, pay to the Department a civil penalty in the amount of $1,000.00.

IT IS FURTHER ORDERED AND AGREED that failure to comply with the requirements of this Order shall be deemed a violation of the Hazardous Waste Management Act and therefore shall be deemed unlawful. Upon ascertaining any such violation, the Department shall promptly initiate appropriate action to obtain compliance with both this Order and the aforesaid Act.

THE SOUTH CAROLINA DEPARTMENT OF
HEALTH AND ENVIRONMENTAL CONTROL

By: Michael D. Jarrett
Michael D. Jarrett
Commissioner

Date: March 16, 1987
Columbia, South Carolina

WE CONSENT:

SOUTHERN RAILWAY COMPANY; HAYNE CAR SHOP

_____ Date: 3/4/87
Vice President and Chief Mechanical Officer

Witnessed: _____ Date: 3/4/87

THE SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

_____ Date: 3/10/87
Robert W. King, Jr., P.E.
Assistant Deputy Commissioner - EQC

_____ Date: March 12, 1987
Approved by: Legal Office

PROJECT WORK PLAN FOR A
SITE SCREENING INVESTIGATION
SOUTHERN RAILWAY COMPANY
SPARTANBURG, SPARTANBURG, SOUTH CAROLINA
WP-TDD-F4-8805-01
MAY 2, 1988
Revision 0

1. **TDD Number:** F4-8805-01

2. **EPA Site ID:** SCD000616664

3. **Description of Assignment:** FIT has been tasked to conduct a Site Screening Investigation (SSI) as Phase II of the Site Reassessment of the Southern Railway Company facility in Spartanburg, South Carolina. The objective of the Site Screening Investigation is to provide data necessary to support completion of a preliminary EPA Hazard Ranking System score. This objective will be accomplished through environmental sampling and CLP analyses of samples.

4. **Technical Approach:**

   Sampling:

   All sample collection, sample preservation and chain-of-custody procedures used during this investigation will be in accordance with the standard operating procedures as specified in Sections 3 and 4 of the Engineering Support Branch Standard Operation Procedures and Quality Assurance Manual, U.S. Environmental Protection Agency, Region IV, Environmental Services Division, April 1, 1986.

(B) Site Reconnaissance:

The site reconnaissance will consist of a visit to the site to observe conditions, locate potential sampling locations and develop a site sketch. Additionally, offsite activities include a file search and target survey.

5. **Task Breakdown of Assignment:**

Task		Personnel	Approximate Date
a.	Work Plan	K. Grezlik	prior to field study
b.	Study Plan	K. Grezlik	prior to field study
c.	Safety Plan	K. Grezlik	prior to field study
d.	Review of Work Plan	D. Timberlake	prior to field study
e.	Review of Safety Plans	M. Profit	prior to field study
f.	Response to EPA Comments of Study Plan	K. Grezlik	prior to field study
g.	Equipment Preparation	D. Munson	prior to field study
h.	Safety Planning	K. Grezlik	prior to field study
i.	Field Work		week of May 30, 1988
	Travel	FIT 4	
	Collection of Water, Soil, and Sediment Samples	FIT 4	
J.	Report Preparation		
	1) Data Reduction	K. Grezlik	45 days after receipt of analytical data
	2) Draft Report Preparation		45 days after receipt of analytical data
	3) Final Report		10 days after receipt of EPA comments

6. **Account Number:** S675

7. **Estimated Technical Hours:** 300

8. **Estimated Subcontract Cost:** N/A

9. **Priority Work:** Medium

10. **Project Manager Identification:** Keith Grezlik

11. **Project Personnel Requirements:**

    a) Project Manager - Keith Grezlik

    b) Samplers

    c) Site Safety Officer

    d) Sampling Manager

12. **Schedule of Activity (Approximate Dates):** See Item 5 of this Work Plan.

13. **Background Data:** See Study Plan for Southern Railway Company (TDD No. F4-8805-01), Revision 0.

14. **Required Resources List:** See Study Plan for Southern Railway Company (TDD No. F4-8805-01), Revision 0 and Equipment Location Log (TDD No. F4-8805-01).

15. **Cost and Budget Management**

Type of Analysis	Unit Cost	No. of Samples	Analytical Cost
Water			
Hazardous Substance List			
(HSL) Organics	$1,000	3	$3,000
Inorganics	$ 250	3	$ 750
Soil			
HSL Organics	$1,000	4	$4,000
Inorganics	$ 250	4	$1,000
Total Estimated Analytical Costs			$8,750

* Does not include a blank and spike for each medium.

16. **Documents to be Generated:**

    a. TDD

    b. Work Plan

    c. Study Plan

    d. Safety Plan

e. Logbook(s)

f. Chain-of-Custody Documentation

g. Inorganic Traffic Report

h. Organic Traffic Report

i. Analytical Data

j. Draft Site Screening Investigation Report

k. Final Site Screening Investigation Report

l. Photographs

m. Receipt for Samples Form

n. Sampling Field Sheets

o. Equipment Location Log

17. **Report/Product Requirements:** A draft site screening investigation report for EPA review will be submitted 45 days after receipt of the data. The final report will be submitted 10 days after receipt of EPA review comments.

18. **Report/Product Review:** The report will be reviewed by Murray Warner or his designee.

19. **Quality Control Requirements:**

SAMPLING

1. Sampling Procedures: All sample collection, sample preservation, and chain-of-custody procedures used during this investigation will be in accordance with the standard operating procedures as specified in Sections 3 and 4 of the Engineering Support Branch Standard Operating Procedures and Quality Assurance Manual, U.S. Environmental Protection Agency, Region IV, Environmental Services Division, April 1, 1986.

2. Sample Custody: Refer to sampling procedures cited above.

3. Calibration Procedures: All field instruments used in the collection of evidentiary data will be maintained and calibrated and used in accordance with the manufacturer's specifications.

4. Data Aquisition: Refer to Sampling Procedures and Calibration Procedures cited above.

5. Data Reduction, Validation, and Reporting: To be conducted in accordance with the USEPA Contract Laboratory Program Statements of Work for Organic and Inorganic Analysis Multi-Media, Multi-Concentration (7/85 Revision); USEPA Region 4 Data Review Guidelines as amended July 1, 1987; and Laboratory Data Validation Functional Guidelines for Evaluating Organics, Inorganics, and Pesticides Analysis as authorized under TDD No. HQ-8410-01 Contract No. 68-01-6699.

6. Internal Quality Control checks and Frequency: Blanked, spiked, and/or replicate samples will be used to check the accuracy of data received from Contract Laboratories.

   Refer to the Statements of Work cited under Data Reduction, Validation, and Reporting section above.

7. Performance and System Audits: Refer to the Statements of Work cited under data Reduction, Validation, and Reporting section above.

8. Preventative Maintenance: Refer to the Statements of Work cited under Data Reduction, Validation, and Reporting section above.

9. Data Precision: Refer to the Statements of Work cited under Data Reduction, Validation, and Reporting section above.

10. Corrective Action: Refer to the Statements of Work cited under Data Reduction, Validation, and Reporting section above.

11. Quality Assurance Reports to Management: Refer to the Statements of Work cited under the Data Reduction, Validation, and Reporting Section above.

20. **Quality Assurance Requirements:**

a. The project work plan will be written, reviewed, and if necessary revised in compliance with QAR 2.0 (QAP 2.5) of the NUS Quality Assurance Manual (Superfund Division, Issue D).

b. Evidentiary data will be acquired, reduced, and validated in compliance with QAR 3.0 (QAP 3.1 and 3.2) of the NUS Quality Assurance Manual (Superfund Division, Issue D).

c. All inspection and reconnaissance activities shall be conducted in accordance with EPA's Water Surveillance Branch SOP (Section 3 and 4, April 1, 1986) and QAR 4.0 (QAP 4.1 and QAP 4.2) of the NUS Quality Assurance Manual (Superfund Division, Issue D).

d. Controlled and accountable documents shall be issued and distributed in compliance with the NUS Quality Assurance Manual (Superfund Division, Issue D), QAR 8.0 (QAP 8.1 and 8.2).

e. Technical Reports shall be written, reviewed, and submitted in accordance with the NUS Quality Assurance Manual (Superfund Division, Issue D) QAR 8.0 (QAP 8.2 and 8.4).

f. Samples collected during the investigation shall be controlled in accordance with EPA's Water Surveillance Branch SOP (Section 3 and 4, April 1, 1986) and NUS Quality Assurance Manual (Superfund Division, Issue D) and NUS Quality Assurance Manual (Superfund Division, Issue D) QAR 9.0 (QAP 9.1 and 9.2) and QAR 12.0 (QAP 12.1).

g. Measuring and test equipment will be maintained, calibrated, and used in accordance with the NUS Quality Assurance Manual (Superfund Division, Issue D) QAR 11.0 (QAP 11.1).

h. Nonconformances will be reported, evaluated, and disposed of in accordance with the NUS Quality Assurance Manual (Superfund Division, Issue D) QAR 13.0 (QAP 13.1).

i. Corrective action shall be implemented and documented in accordance with the NUS Quality Assurance Manual (Superfund Division, Issue D) QAR 14.0 (QAP 14.1).

j. Quality Assurance records shall be prepared and maintained in accordance with the NUS Quality Assurance Manual (Superfund Division, Issue D) QAR 15.0 (QAP 15.1).

k. Surveillance of project activities will be conducted in accordance with the NUS Quality Assurance Manual (Superfund Division, Issue D) QAR 16.0 (QAP 16.7).

21. **Community Relations Assistance Requirements:** Community relations will be the responsibility of EPA, State, and local personnel.

22. **Emergency Planning Considerations:** See Safety Plan for Southern Railway Company (TDD No. F4-8805-01), Revision 0.

23. **Health and Safety Requirements:** See Safety Plan for Southern Railway Company, (TDD No. F4-8805-01), Revision 0.

QUALITY ASSURANCE REVIEW OF THE WORK PLAN FOR

SITE SCREENING INVESTIGATION

SOUTHERN RAILWAY COMPANY

SPARTANBURG, SOUTH CAROLINA

TDD-F4-8805-01

Revision 0

MAY 2, 1988

Prepared by:

3MAY88

Keith Grezlik — Date

Reviewed and Approved by:

5/3/88

for Murray Warner, P.E. — Date

5/3/88

Deborah Timberlake — Date
Regional Quality Assurance Representative

REFERENCE NO.8

NUS CORPORATION AND SUBSIDIARIES — **TELECON NOTE**

CONTROL NO:	DATE:	TIME:
	Dec 12 1988	2:40

DISTRIBUTION: FILE
TDD # F4-8805-01

BETWEEN:	OF:	PHONE:
K. GRZLIK	NUS FIT 4	(904) 938-7710

AND: BARNETT HARMON, SCDHEC 803 596 3800

DISCUSSION:

MR. HARMON AND I DISCUSSED SURFACE WATER USAGE IN AND AROUND THE CITY OF SPARTANBURG, S.C. SPECIFICALLY, THERE ARE NO SURFACE WATER INTAKES ON THE PACOLET RIVER DOWNSTREAM FROM LAWSON'S FORK CREEK. THE PACOLET RIVER IS NOT DESIGNATED FOR RECREATIONAL USE, ALTHOUGH RECREATION MAY TAKE PLACE.

LAWSON'S FORK CREEK HAS NO RECREATIONAL USE AT ALL. A CITY WASTEWATER DISCHARGE POINT IS LOCATED ON THIS CREEK

ACTION ITEMS:

THE CITY OF SPARTANBURG DRAWS WATER FROM THE PACOLET RIVER ABOUT 15 MILES UPSTREAM FROM THE CONFLUENCE WITH LAWSON'S FORK CREEK

NUS 067 REVISED 0686

South Carolina Department of Health and Environmental Control

2600 Bull Street
Columbia, S.C. 29201

Commissioner
Robert S. Jackson, M.D.

Board
Moses H. Clarkson, Jr., Chairman
Gerald A. Kaynard, Vice-Chairman
Oren L. Brady, Jr., Secretary
Barbara P. Nuessle
James A. Spruill, Jr.
William H. Hester, M.D.
Marion McColvin, M.D.

RECEIVED
OCT 3 1986
S.C. Dept. of Health & Environmental Control-Bureau of Solid & Hazardous Waste Management

MEMORANDUM

TO: Ted Buchanan, Manager
Enforcement Section
Bureau of Solid and Hazardous Waste Management

FROM: Clyde Buchanan CB
Compliance Monitoring Section
Bureau of Solid and Hazardous Waste Management

RE: Late First Quarter 1986 Quarterly Reports

DATE: October 1, 1986

Attached are the 1958 Name and Address forms from computerized quarterly reports that were submitted past the deadline date for the referenced quarter. If you have any questions or need further information, please feel free to contact me.

CAB/trh
Enclosures

EPA Notification of Hazardous Waste Site

United States Environmental Protection Agency
Washington DC 20460

This initial notification information is required by Section 103(c) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 and must be mailed by June 9, 1981.

Please type or print in ink. If you need additional space, use separate sheets of paper. Indicate the letter of the item which applies.

Person Required to Notify:
Enter the name and address of the person or organization required to notify.

Name: Southern Railway Company
Street: P.O. Box 1808
City: Washington State: D.C. Zip Code: 20013

Site Location:
Enter the common name (if known) and actual location of the site.

Name of Site: Hayne Shop Dump
Street: 7525 Asheville Highway
City: Spartanburg County: (Same) State: S.C. Zip Code: 29303

Person to Contact:
Enter the name, title (if applicable), and business telephone number of the person to contact regarding information submitted on this form.

Name (Last, First and Title): Jordan, A. Gayle, General Attorney
Phone: (202) 383-4428

Dates of Waste Handling:
Enter the years that you estimate waste treatment, storage, or disposal began and ended at the site.

From (Year): 1925 To (Year): mid-1980

Waste Type: Choose the option you prefer to complete

Option I: Select general waste types and source categories. If you do not know the general waste types or sources, you are encouraged to describe the site in Item I—Description of Site.

General Type of Waste:
Place an X in the appropriate boxes. The categories listed overlap. Check each applicable category.

1. ☐ Organics
2. ☐ Inorganics
3. ☐ Solvents
4. ☐ Pesticides
5. ☐ Heavy metals
6. ☐ Acids
7. ☐ Bases
8. ☐ PCBs
9. ☐ Mixed Municipal Waste
10. ☐ Unknown
11. ☐ Other (Specify)

Source of Waste:
Place an X in the appropriate boxes.

1. ☐ Mining
2. ☐ Construction
3. ☐ Textiles
4. ☐ Fertilizer
5. ☐ Paper/Printing
6. ☐ Leather Tanning
7. ☐ Iron/Steel Foundry
8. ☐ Chemical, General
9. ☐ Plating/Polishing
10. ☐ Military/Ammunition
11. ☐ Electrical Conductors
12. ☐ Transformers
13. ☐ Utility Companies
14. ☐ Sanitary/Refuse
15. ☐ Photofinish
16. ☐ Lab/Hospital
17. ☐ Unknown
18. ☐ Other (Specify)

Option 2: This option is available to persons familiar with the Resource Conservation and Recovery Act (RCRA) Section 3001 regulations (40 CFR Part 261).

Specific Type of Waste: *
EPA has assigned a four-digit number to each hazardous waste listed in the regulations under Section 3001 of RCRA. Enter the appropriate four-digit number in the boxes provided. A copy of the list of hazardous wastes and codes can be obtained by contacting the EPA Region serving the State in which the site located.

D007		
F003		
F005		

* Waste is primarily spent grit contaminated with Chromium detected by EP toxicity procedures.

Form Approved

Waste Quantity:

Place an X in the appropriate boxes to indicate the facility types found at the site.

In the "total facility waste amount" space give the estimated combined quantity (volume) of hazardous wastes at the site using cubic feet or gallons.

In the "total facility area" space, give the estimated area size which the facilities occupy using square feet or acres.

Facility Type

1. ☐ Piles
2. ☐ Land Treatment
3. ☒ Landfill
4. ☐ Tanks
5. ☐ Impoundment
6. ☐ Underground Injection
7. ☐ Drums, Above Ground
8. ☐ Drums, Below Ground
9. ☐ Other (Specify) _____

Total Facility Waste Amount

cubic feet Unknown

gallons

Total Facility Area

square feet Unknown

acres

Known, Suspected or Likely Releases to the Environment: *

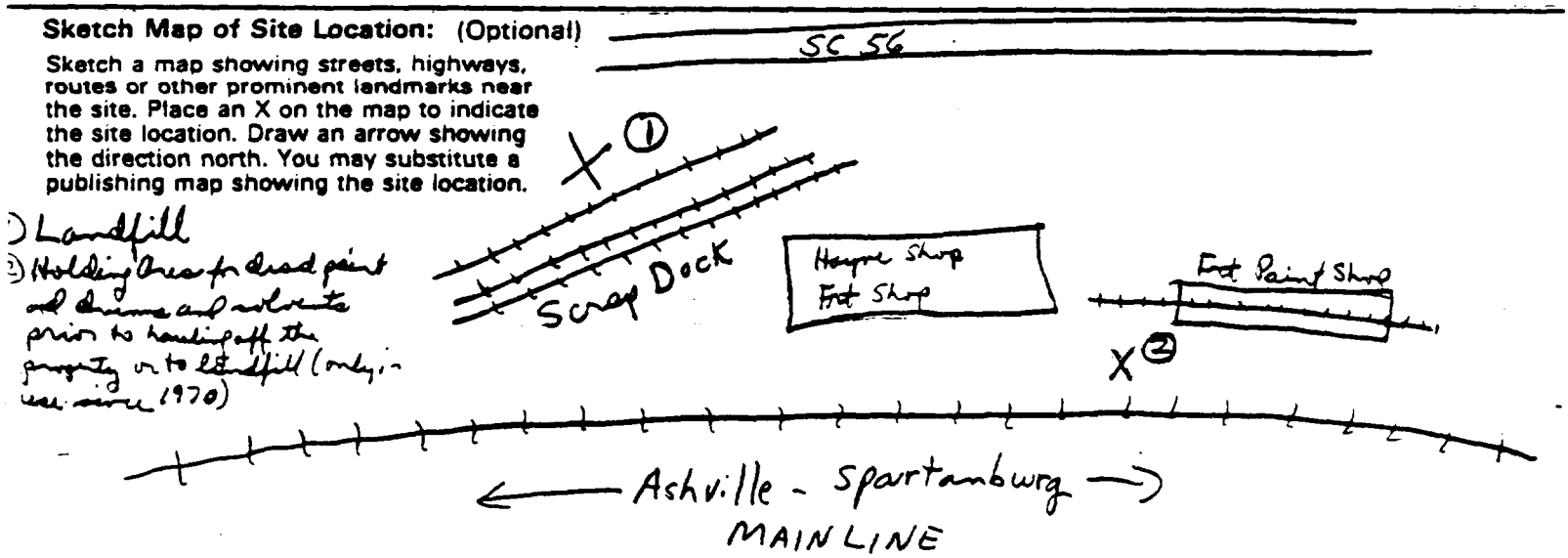
Place an X in the appropriate boxes to indicate any known, suspected, or likely releases of wastes to the environment.

☐ Known ☐ Suspected ☒ Likely ☐ Non

Note: Items H and I are optional. Completing these items will assist EPA and State and local governments in locating and assessir hazardous waste sites. Although completing the items is not required, you are encouraged to do so.

Sketch Map of Site Location: (Optional)

Sketch a map showing streets, highways, routes or other prominent landmarks near the site. Place an X on the map to indicate the site location. Draw an arrow showing the direction north. You may substitute a publishing map showing the site location.



Description of Site: (Optional)

Describe the history and present conditions of the site. Give directions to the site and describe any nearby wells, springs, lakes, or housing. Include such information as how waste was disposed and where the waste came from. Provide any other information or comments which may help describe the site conditions.

*Waste was produced in connection with rail car repair operations. Principal hazardous waste produced was grit thought to be contaminated with Chromium detectable by EP toxicity procedure. Very limited amounts of spent solvents were produced. Waste was placed on disposal site and periodically covered with earth. Since same site was used for disposal of large amounts of non-hazardous waste, present aggregate mixture of waste at site is thought to be non-hazardous. While releases to groundwater and rainfall runoff from the site are possible, no known environmental or health problems have been created by this site.

Signature and Title:

The person or authorized representative (such as plant managers, superintendents, trustees or attorneys) of persons required to notify must sign the form and provide a mailing address (if different than address in item A). For other persons providing notification, the signature is optional. Check the boxes which best describe the relationship to the site of the person required to notify. If you are not required to notify check "Other".

Name W. W. Simpson, Vice President, Engineering

Street Southern Railway Company P.O. Box 1808

City Washington State D.C. Zip Code 20013

Signature _____ Date _____

☒ Owner, Present
☒ Owner, Past
☐ Transporter
☐ Operator, Present
☒ Operator, Past
☐ Other

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EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

REGION	SITE NUMBER (to be assigned by HQ)

GENERAL INSTRUCTIONS: Complete Sections I and III through XV of this form as completely as possible. Then use the information on this form to develop a Tentative Disposition (Section II). File this form in its entirety in the regional Hazardous Waste Log File. Be sure to include all appropriate Supplemental Reports in the file. Submit a copy of the forms to: U.S. Environmental Protection Agency; Site Tracking System; Hazardous Waste Enforcement Task Force (EN-335); 401 M St., SW; Washington, DC 20460.

I. SITE IDENTIFICATION

A. SITE NAME	B. STREET (or other identifier)		
Hayne Shop Dump	7525 Asheville Highway		
C. CITY	**D. STATE**	**E. ZIP CODE**	**F. COUNTY NAME**
Spartanburg	SC	29303	Spartanburg

G. SITE OPERATOR INFORMATION

1. NAME		2. TELEPHONE NUMBER	
Southern Railway Company		202-383-4428	
3. STREET	**4. CITY**	**5. STATE**	**6. ZIP CODE**
PO Box 1808	Washington	D.C.	20013

H. REALTY OWNER INFORMATION (if different from operator of site)

1. NAME		2. TELEPHONE NUMBER	
3. CITY		**4. STATE**	**5. ZIP CODE**

I. SITE DESCRIPTION

Railroad Repair Shop (see page 10)

J. TYPE OF OWNERSHIP

☐ 1. FEDERAL ☐ 2. STATE ☐ 3. COUNTY ☐ 4. MUNICIPAL ☒ 5. PRIVATE

II. TENTATIVE DISPOSITION (complete this section last)

A. ESTIMATE DATE OF TENTATIVE DISPOSITION (mo., day, & yr.)	B. APPARENT SERIOUSNESS OF PROBLEM
	☐ 1. HIGH ☐ 2. MEDIUM ☐ 3. LOW ☐ 4. NONE

C. PREPARER INFORMATION

1. NAME	2. TELEPHONE NUMBER	3. DATE (mo., day, & yr.)
Debbie Browning	803-758-5681	4-21-82

III. INSPECTION INFORMATION

A. PRINCIPAL INSPECTOR INFORMATION

1. NAME	2. TITLE	
3. ORGANIZATION		**4. TELEPHONE NO. (area code & no.)**

B. INSPECTION PARTICIPANTS

1. NAME	2. ORGANIZATION	3. TELEPHONE NO.
Debbie Browning	Central Office, DHEC	803-758-5681
Chris Lock	Central Office, DHEC	803-758-5681
William Buffington	District Office DHEC	803-596-3800

C. SITE REPRESENTATIVES INTERVIEWED (corporate officials, workers, residents)

1. NAME	2. TITLE & TELEPHONE NO.	3. ADDRESS
Micheal Beach, P.E.	404-529-1496 Enviro. Engineer	99 Spring St., S.W., Atl. Ga., 30303
Henry Wyche, P.E.	404-529-1496 Env. Eng. Supervisor	99 Spring St., S.W., Atl. Ga., 30303

Continued From Front

III. INSPECTION INFORMATION (continued)

D. GENERATOR INFORMATION (sources of waste)

1. NAME	2. TELEPHONE NO.	3. ADDRESS	4. WASTE TYPE GENERATED
Southern R.R.	202-383-4428	P.O. Box 1808, Wash., D.C., 20013	Spent solvent grit with chromium

E. TRANSPORTER/HAULER INFORMATION

1. NAME	2. TELEPHONE NO.	3. ADDRESS	4. WASTE TYPE TRANSPORTED
Southern R.R.	202-383-4428	P.O. Box 1808, Wash., D.C. 20013	Spent solvent grit with chromium

F. IF WASTE IS PROCESSED ON SITE AND ALSO SHIPPED TO OTHER SITES, IDENTIFY OFF-SITE FACILITIES USED FOR DISPOSAL.

1. NAME	2. TELEPHONE NO.	3. ADDRESS

G. DATE OF INSPECTION (mo., day, & yr.)	H. TIME OF INSPECTION	I. ACCESS GAINED BY: (credentials must be shown in all cases)
	10:30 A.M.	☑ 1. PERMISSION ☐ 2. WARRANT

J. WEATHER (describe)

clear, windy

IV. SAMPLING INFORMATION

A. Mark 'X' for the types of samples taken and indicate where they have been sent e.g., regional lab, other EPA lab, contractor, etc. and estimate when the results will be available.

1. SAMPLE TYPE	2. SAMPLE TAKEN (mark 'X')	3. SAMPLE SENT TO:	4. DATE RESULTS AVAILABLE
a. GROUNDWATER		none.	
b. SURFACE WATER			
c. WASTE			
d. AIR			
e. RUNOFF			
f. SPILL			
g. SOIL			
h. VEGETATION			
i. OTHER (specify)			

B. FIELD MEASUREMENTS TAKEN (e.g., radioactivity, explosivity, PH, etc.)

1. TYPE	2. LOCATION OF MEASUREMENTS	3. RESULTS
None.		

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Continued From Page 2

IV. SAMPLING INFORMATION (continued)

C. PHOTOS

1. TYPE OF PHOTOS
   - [ ] a. GROUND
   - [ ] b. AERIAL
2. PHOTOS IN CUSTODY OF:

D. SITE MAPPED?

- [ ] YES. SPECIFY LOCATION OF MAPS:

E. COORDINATES

1. LATITUDE (deg.-min.-sec.)
2. LONGITUDE (deg.-min.-sec.)

V. SITE INFORMATION

A. SITE STATUS

- [x] 1. ACTIVE (Those industrial or municipal sites which are being used for waste treatment, storage, or disposal on a continuing basis, even if infrequently.) Brush, debris from construction
- [ ] 2. INACTIVE (Those sites which no longer receive wastes.)
- [ ] 3. OTHER (specify): _____ (Those sites that include such incidents like "midnight dumping" where no regular or continuing use of the site for waste disposal has occurred.)

B. IS GENERATOR ON SITE?

- [ ] 1. NO
- [x] 2. YES (specify generator's four-digit SIC Code): _____

C. AREA OF SITE (in acres)

?

D. ARE THERE BUILDINGS ON THE SITE?

- [x] 1. NO
- [ ] 2. YES (specify):

VI. CHARACTERIZATION OF SITE ACTIVITY

Indicate the major site activity(ies) and details relating to each activity by marking "X" in the appropriate boxes.

X	A. TRANSPORTER	X	B. STORER	X	C. TREATER	X	D. DISPOSER
	1. RAIL		1. PILE		1. FILTRATION	X	1. LANDFILL
	2. SHIP		2. SURFACE IMPOUNDMENT		2. INCINERATION		2. LANDFARM
	3. BARGE		3. DRUMS		3. VOLUME REDUCTION		3. OPEN DUMP
	4. TRUCK		4. TANK, ABOVE GROUND		4. RECYCLING/RECOVERY		4. SURFACE IMPOUNDMENT
	5. PIPELINE		5. TANK, BELOW GROUND		5. CHEM./PHYS./TREATMENT		5. MIDNIGHT DUMPING
	6. OTHER (specify):		6. OTHER (specify):		6. BIOLOGICAL TREATMENT		6. INCINERATION
					7. WASTE OIL REPROCESSING		7. UNDERGROUND INJECTION
					8. SOLVENT RECOVERY		8. OTHER (specify):
					9. OTHER (specify):		

E. SUPPLEMENTAL REPORTS: If the site falls within any of the categories listed below, Supplemental Reports must be completed. Indicate which Supplemental Reports you have filled out and attached to this form.

- [ ] 1. STORAGE
- [ ] 2. INCINERATION
- [x] 3. LANDFILL
- [ ] 4. SURFACE IMPOUNDMENT
- [ ] 5. DEEP WELL
- [ ] 6. CHEM/BIO/PHYS TREATMENT
- [ ] 7. LANDFARM
- [ ] 8. OPEN DUMP
- [ ] 9. TRANSPORTER
- [ ] 10. RECYCLOR/RECLAIMER

VII. WASTE RELATED INFORMATION

A. WASTE TYPE

- [ ] 1. LIQUID
- [x] 2. SOLID
- [ ] 3. SLUDGE
- [ ] 4. GAS

B. WASTE CHARACTERISTICS

- [ ] 1. CORROSIVE
- [ ] 2. IGNITABLE
- [ ] 3. RADIOACTIVE
- [ ] 4. HIGHLY VOLATILE
- [ ] 5. TOXIC
- [ ] 6. REACTIVE
- [ ] 7. INERT
- [ ] 8. FLAMMABLE
- [ ] 9. OTHER (specify):

C. WASTE CATEGORIES

1. Are records of wastes available? Specify items such as manifests, inventories, etc. below.

Between 1925 and mid 1980 waste included spent grit contaminated with chromium and spent solvent. Now only scrap wood and constr. debris.

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Continued From Front 4/10

VII. WASTE RELATED INFORMATION (continued)

2. Estimate the amount (specify unit of measure) of waste by category; mark 'X' to indicate which wastes are present.

a. SLUDGE	b. OIL	c. SOLVENTS	d. CHEMICALS	e. SOLIDS	f. OTHER
AMOUNT	AMOUNT	AMOUNT very little	AMOUNT	AMOUNT	AMOUNT spent grit amount ?
UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE
X (1) PAINT, PIGMENTS	X (1) OILY WASTES	X (1) HALOGENATED SOLVENTS	X (1) ACIDS	X (1) FLYASH	X (1) LABORATORY, PHARMACEUT.
(2) METALS SLUDGES	(2) OTHER (specify):	(2) NON-HALOGNTD. SOLVENTS	(2) PICKLING LIQUORS	(2) ASBESTOS	(2) HOSPITAL
(3) POTW		(3) OTHER (specify):	(3) CAUSTICS	(3) MILLING/MINE TAILINGS	(3) RADIOACTIVE
(4) ALUMINUM SLUDGE			(4) PESTICIDES	(4) FERROUS SMELTING WASTES	(4) MUNICIPAL
(5) OTHER (specify):			(5) DYES/INKS	(5) NON-FERROUS SMLTG. WASTES	X (5) OTHER (specify) generated by Southern R.R.
			(6) CYANIDE	(6) OTHER (specify):	
			(7) PHENOLS		
			(8) HALOGENS		
			(9) PCB		
			(10) METALS		
			(11) OTHER (specify)		

D. LIST SUBSTANCES OF GREATEST CONCERN WHICH ARE ON THE SITE (place in descending order of hazard)

1. SUBSTANCE	2. FORM (mark 'X')			3. TOXICITY (mark 'X')				4. CAS NUMBER	5. AMOUNT	6. UNIT
	a. SOLID	b. LIQ.	c. VAPOR	a. HIGH	b. MED.	c. LOW	d. NONE			

VIII. HAZARD DESCRIPTION

FIELD EVALUATION HAZARD DESCRIPTION: Place an 'X' in the box to indicate that the listed hazard exists. Describe the hazard in the space provided.

☐ A. HUMAN HEALTH HAZARDS

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Continued From Front

XIV. PERMIT INFORMATION

List all applicable permits held by the site and provide the related information.

A. PERMIT TYPE (e.g., RCRA, State, NPDES, etc.)	B. ISSUING AGENCY	C. PERMIT NUMBER	D. DATE ISSUED (mo., day, & yr.)	E. EXPIRATION DATE (mo., day, & yr.)	F. IN COMPLIANCE (mark 'X')		
					1. YES	2. NO	3. UNKNOWN

XV. PAST REGULATORY OR ENFORCEMENT ACTIONS

[X] NONE [ ] YES (summarize in this space)

Between 1925 and mid-1980 Southern Railroad Company used the site to dispose of spent grit contaminated with chromium detected by E.P. toxicity procedure, spent solvent, construction debris and some scrap metals. The waste was covered between 2-3 times a year. At the present it is used for scrap lumber.

NOTE: Based on the information in Sections III through XV, fill out the Tentative Disposition *(Section II)* information on the first page of this form.

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Continued From Page 8

X. WATER AND HYDROLOGICAL DATA (continued)

H. LIST ALL DRINKING WATER WELLS WITHIN A 1/4 MILE RADIUS OF SITE

1. WELL	2. DEPTH (specify unit)	3. LOCATION (proximity to population/buildings)	4. NON-COMMUNITY (mark 'X')	5. COMMUNITY (mark 'X')

I. RECEIVING WATER

1. NAME

☐ 2. SEWERS ☐ 3. STREAMS/RIVERS

☐ 4. LAKES/RESERVOIRS ☐ 5. OTHER (specify):

6. SPECIFY USE AND CLASSIFICATION OF RECEIVING WATERS

XI. SOIL AND VEGITATION DATA

LOCATION OF SITE IS IN:

☐ A. KNOWN FAULT ZONE ☐ B. KARST ZONE ☐ C. 100 YEAR FLOOD PLAIN ☐ D. WETLAND

☐ E. A REGULATED FLOODWAY ☐ F. CRITICAL HABITAT ☐ G. RECHARGE ZONE OR SOLE SOURCE AQUIFER

XII. TYPE OF GEOLOGICAL MATERIAL OBSERVED

Mark 'X' to indicate the type(s) of geological material observed and specify where necessary, the component parts.

'X'	A. OVERBURDEN	'X'	B. BEDROCK (specify below)	'X'	C. OTHER (specify below)
	1. SAND				
	2. CLAY				
	3. GRAVEL				

XIII. SOIL PERMEABILITY

☐ A. UNKNOWN ☐ B. VERY HIGH (100,000 to 1000 cm/sec.) ☐ C. HIGH (1000 to 10 cm/sec.)

☐ D. MODERATE (10 to .1 cm/sec.) ☐ E. LOW (.1 to .001 cm/sec.) ☐ F. VERY LOW (.001 to .00001 cm/sec.)

G. RECHARGE AREA

☐ 1. YES ☐ 2. NO 3. COMMENTS:

H. DISCHARGE AREA

☐ 1. YES ☐ 2. NO 3. COMMENTS:

I. SLOPE

1. ESTIMATE % OF SLOPE

2. SPECIFY DIRECTION OF SLOPE, CONDITION OF SLOPE, ETC.

J. OTHER GEOLOGICAL DATA

Continue On Reverse

Please print or type with ELITE type *(12 characters/inch)* in the unshaded areas only.

Form Approved OMB No. 158-S79016
GSA No. 0246-EPA-OT

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTIFICATION OF HAZARDOUS WASTE ACTIVITY

INSTALLATION'S EPA I.D. NO.	000092
I. NAME OF INSTALLATION	
II. INSTALLATION MAILING ADDRESS	PLEASE PLACE LABEL IN THIS SPACE
III. LOCATION OF INSTALLATION	

RECEIVED
EPA/REGION IV
AUG 22 10 38 AM '80
ENFORCEMENT

INSTRUCTIONS: If you received a preprinted label, affix it in the space at left. If any of the information on the label is incorrect, draw a line through it and supply the correct information in the appropriate section below. If the label is complete and correct, leave Items I, II, and III below blank. If you did not receive a preprinted label, complete all items. "Installation" means a single site where hazardous waste is generated, treated, stored and/or disposed of, or a transporter's principal place of business. Please refer to the INSTRUCTIONS FOR FILING NOTIFICATION before completing this form. The information requested herein is required by law *(Section 3010 of the Resource Conservation and Recovery Act).*

DETACH

FOR OFFICIAL USE ONLY

SCD000616664

SOUTHERN RAILWAY HAYNE SHOP
7525 ASHEVILLE HIGHWAY
SPARTANBURG SC 29303

COMMENTS

DATE RECEIVED (yr., mo., & day): 8 0 0 8 1 8

I. NAME OF INSTALLATION

Southern Railway Hayne Shop

II. INSTALLATION MAILING ADDRESS

STREET OR P.O. BOX: 3 P O Box 1412

CITY OR TOWN: 4 Spartanburg — ST.: SC — ZIP CODE: 29304

III. LOCATION OF INSTALLATION

STREET OR ROUTE NUMBER: 5 7525 Asheville Highway

CITY OR TOWN: 6 Spartanburg — ST.: SC — ZIP CODE: 29303

IV. INSTALLATION CONTACT

NAME AND TITLE *(last, first, & job title)*: 2 Gerson J O Manager — PHONE NO. *(area code & no.)*: 803-578-7911

V. OWNERSHIP

A. NAME OF INSTALLATION'S LEGAL OWNER: 8 Southern Railway Company

B. TYPE OF OWNERSHIP *(enter the appropriate letter into box)*

F = FEDERAL
M = NON-FEDERAL

M

VI. TYPE OF HAZARDOUS WASTE ACTIVITY *(enter "X" in the appropriate box(es))*

- [X] A. GENERATION
- [ ] B. TRANSPORTATION *(complete item VII)*
- [X] C. TREAT STORE DISPOSE
- [ ] D. UNDERGROUND INJECTION

VII. MODE OF TRANSPORTATION *(transporters only – enter "X" in the appropriate box(es))*

- [ ] A. AIR
- [ ] B. RAIL
- [ ] C. HIGHWAY
- [ ] D. WATER
- [ ] E. OTHER *(specify)*:

VIII. FIRST OR SUBSEQUENT NOTIFICATION

Mark "X" in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your Installation's EPA I.D. Number in the space provided below.

- [X] A. FIRST NOTIFICATION
- [ ] B. SUBSEQUENT NOTIFICATION *(complete item C)*

C. INSTALLATION'S EPA I.D. NO.

IX. DESCRIPTION OF HAZARDOUS WASTES

Please go to the reverse of this form and provide the requested information.

CONTINUE ON REVERSE

I.D. – FOR OFFICIAL USE ONLY															
S	W	S	C	T	0	0	0	6	1	6	6	6	4	P/A 2	C 1
1	2												13	14	15

IX. DESCRIPTION OF HAZARDOUS WASTES *(continued from front)*

A. HAZARDOUS WASTES FROM NON–SPECIFIC SOURCES. Enter the four–digit number from 40 CFR Part 261.31 for each listed hazardous waste from non–specific sources your installation handles. Use additional sheets if necessary.

1	2	3	4	5	6
F003	F005	F008			
7	8	9	10	11	12

B. HAZARDOUS WASTES FROM SPECIFIC SOURCES. Enter the four–digit number from 40 CFR Part 261.32 for each listed hazardous waste from specific industrial sources your installation handles. Use additional sheets if necessary.

13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

C. COMMERCIAL CHEMICAL PRODUCT HAZARDOUS WASTES. Enter the four–digit number from 40 CFR Part 261.33 for each chemical substance your installation handles which may be a hazardous waste. Use additional sheets if necessary.

31	32	33	34	35	36
37	38	39	40	41	42
43	44	45	46	47	48

D. LISTED INFECTIOUS WASTES. Enter the four–digit number from 40 CFR Part 261.34 for each listed hazardous waste from hospitals, veterinary hospitals, medical and research laboratories your installation handles. Use additional sheets if necessary.

49	50	51	52	53	54

E. CHARACTERISTICS OF NON–LISTED HAZARDOUS WASTES. Mark "X" in the boxes corresponding to the characteristics of non–listed hazardous wastes your installation handles. *(See 40 CFR Parts 261.21 – 261.24.)*

- [X] 1. IGNITABLE (D001)
- [ ] 2. CORROSIVE (D002)
- [ ] 3. REACTIVE (D003)
- [X] 4. TOXIC (D000)

X. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

SIGNATURE	NAME & OFFICIAL TITLE *(type or print)*	DATE SIGNED
Henry B. Wyche Jr.	H. B. Wyche, Jr. Supervisor of Environmental Engineering	8/15/80

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
SC	D000616664

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Southern Railway Co./Hayne Shop	7525 Asheville Highway

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Spartanburg	SC	29303	Spartanburg	083	

09 COORDINATES LATITUDE	LONGITUDE
34 59' 16" N	081° 58' 53" W

10 DIRECTIONS TO SITE (Starting from nearest public road) From the intersection of I-85 and Highway 56, the site is located approximately .75 miles to the northwest on Highway 56. Con the left.

III. RESPONSIBLE PARTIES

01 OWNER (If known)	02 STREET (Business, mailing, residential)
Southern Railway Co. Hayne Car Shop	8 North Jefferson Street

03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
Roanoke	VA	24042	(703) 981-4154

07 OPERATOR (If known and different from owner)	08 STREET (Business, mailing, residential)
Southern Railway System	P.O. Box 1412

09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER
Spartanburg	SC	29304	(803) 578-7393

13 TYPE OF OWNERSHIP (Check one)

☑ A. PRIVATE ☐ B. FEDERAL: _____ (Agency name) ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL

☐ F. OTHER: _____ (Specify) ☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)

☐ A. RCRA 3001 DATE RECEIVED: __/__/__ (MONTH DAY YEAR) ☑ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: 6/?/81 (MONTH DAY YEAR) ☐ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION

☑ YES DATE 4/21/82 (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): _____

02 SITE STATUS (Check one)

☑ A. ACTIVE ☐ B. INACTIVE ☐ C. UNKNOWN

03 YEARS OF OPERATION

1925 (BEGINNING YEAR) | Present (ENDING YEAR) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

The Southern Railway Co./Hayne Shop disposed of an unknown quantity of spent grit contaminated with chromium and spent non-halogenated solvents. The non-halogenated solvent are listed as groups F003 and F005 hazardous waste(s).

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

The Hayne Shop utilized an approximately 2 acre landfill to dispose the aforementioned materials. The landfill is unlined and may allow the release of contaminated leachate into the soil. Surface drainage may lead to contamination of nearby [illegible].

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
		( )

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
Gerald Stewart			(803) 734-[illegible]	__/__/__ (MONTH DAY YEAR)

EPA FORM 2070-12 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
[illegible]	D000616684

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 _____

03 WASTE CHARACTERISTICS

- ☑ A. TOXIC
- ☐ B. CORROSIVE
- ☐ C. RADIOACTIVE
- ☐ D. PERSISTENT
- ☐ I. HIGHLY VOLATILE
- ☐ J. EXPLOSIVE
- ☐ K. REACTIVE
- ☐ L. INCOMPATIBLE
- ☐ M. NOT APPLICABLE

III. WASTE TYPE

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

...ity buried on-site

...ity buried on-site

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
	[illegible]				
OCC	F003 (RCRA listed)		Landfill, [illegible]		
	F005 (RCRA listed)		Landfill, [illegible]		
				...known	
				...nown	

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01	02 CAS NUMBER
FDS	Chromium	7440-47-3	FDS		
FDS	Xylene (F003)	1330-20-7	FDS		
FDS			FDS		
FDS			FDS		

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

S.C. DHC Files

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
SC	D000616664

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☑ A. GROUNDWATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — ☑ POTENTIAL — ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: 787

04 NARRATIVE DESCRIPTION

~~The Southern Dairy site is located on a region with~~ Groundwater contamination may result from the migration of contaminated leachate from the unlined landfill into the soil saprolite aquifer and bedrock aquifer.

01 ☑ B. SURFACE WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — ☑ POTENTIAL — ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: Unknown

04 NARRATIVE DESCRIPTION

Surface runoff is collected in storm drains and discharged into tributaries of the Dawsons Fork Creek and the Fairforest Creek

01 ☑ C. CONTAMINATION OF AIR — 02 ☐ OBSERVED (DATE: _____) — ☑ POTENTIAL — ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

NA

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

NA

01 ☐ E. DIRECT CONTACT — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

NA

01 ☑ F. CONTAMINATION OF SOIL — 02 ☐ OBSERVED (DATE: _____) — ☑ POTENTIAL — ☐ ALLEGED

03 AREA POTENTIALLY AFFECTED: ~2 (Acres)

04 NARRATIVE DESCRIPTION

The landfill is approximately 2 acres. ~~The site is located~~

01 ☑ G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — ☑ POTENTIAL — ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: 787

04 NARRATIVE DESCRIPTION

Approximately 787 people depend on groundwater wells located within three miles of the site.

01 ☐ H. WORKER EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED

03 WORKERS POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

NA

01 ☐ I. POPULATION EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

NA

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
SC	D006166664

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

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

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

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

NA

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

III. TOTAL POPULATION POTENTIALLY AFFECTED: 757 - Groundwater well users.

IV. COMMENTS

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

SCDHEC - files

EPA FORM 2070-12 (7-81)

POTENTIAL HAZARDOUS WASTE SITE
IDENTIFICATION AND PRELIMINARY ASSESSMENT

REGION: 4 | SITE NUMBER (to be assigned by Hq)

NOTE: This form is completed for each potential hazardous waste site to help set priorities for site inspection. The information submitted on this form is based on available records and may be updated on subsequent forms as a result of additional inquiries and on-site inspections.

GENERAL INSTRUCTIONS: Complete Sections I and III through X as completely as possible before Section II (*Preliminary Assessment*). File this form in the Regional Hazardous Waste Log File and submit a copy to: U.S. Environmental Protection Agency; Site Tracking System; Hazardous Waste Enforcement Task Force (*EN-335*); 401 M St., SW; Washington, DC 20460.

SCD006166604 SPARTANBURG
SOUTHERN RAILWAY CO/HAYNE SHOP DUMP
7525 ASHVILLE HIGHWAY
SPARTANBURG SC 29303
JORDAN, MR GAILE, GEN'L * 2023834428

ATION
EET (for other identifier)
TE | E. ZIP CODE | F. COUNTY NAME
2. TELEPHONE NUMBER

☐ 1. FEDERAL ☐ 2. STATE ☐ 3. COUNTY ☐ 4. MUNICIPAL ☑ 5. PRIVATE ☐ 6. UNKNOWN

I. SITE DESCRIPTION
Landfill

"103-C NOTIFICATION" DATE: 810609
EARL WILLIAMS
PHONE: 803-758-5544

K. DATE IDENTIFIED (mo., day, & yr.)
2. TELEPHONE NUMBER

(complete this section last)

☐ 1. HIGH ☐ 2. MEDIUM ☐ 3. LOW ☑ 4. NONE ☐ 5. UNKNOWN

B. RECOMMENDATION
☑ 1. NO ACTION NEEDED (no hazard)
☐ 2. IMMEDIATE SITE INSPECTION NEEDED
a. TENTATIVELY SCHEDULED FOR:
b. WILL BE PERFORMED BY:
☐ 3. SITE INSPECTION NEEDED
a. TENTATIVELY SCHEDULED FOR:
b. WILL BE PERFORMED BY:
☐ 4. SITE INSPECTION NEEDED (low priority)

C. PREPARER INFORMATION
1. NAME | 2. TELEPHONE NUMBER | 3. DATE (mo., day, & yr.)

III. SITE INFORMATION

A. SITE STATUS
☑ 1. ACTIVE (Those industrial or municipal sites which are being used for waste treatment, storage, or disposal on a continuing basis, even if infrequently.)
☐ 2. INACTIVE (Those sites which no longer receive wastes.)
☐ 3. OTHER (specify:) (Those sites that include such incidents like "midnight dumping" where no regular or continuing use of the site for waste disposal has occurred.)

B. IS GENERATOR ON SITE?
☐ 1. NO ☑ 2. YES (specify generator's four-digit SIC Code):

C. AREA OF SITE (in acres)
2

D. IF APPARENT SERIOUSNESS OF SITE IS HIGH, PROVIDE COORDINATES
1. LATITUDE (deg.-min.-sec.) | 2. LONGITUDE (deg.-min.-sec.)

E. ARE THERE BUILDINGS ON THE SITE?
☐ 1. NO ☑ 2. YES (specify):

Continue On Reverse

Continued From Front

IV. CHARACTERIZATION OF SITE ACTIVITY

Indicate the major site activity(ies) and details relating to each activity by marking 'X' in the appropriate boxes.

'X'	A. TRANSPORTER	X	B. STORER	X	C. TREATER	'X'	D. DISPOSER
	1. RAIL		1. PILE		1. FILTRATION	✓	1. LANDFILL
	2. SHIP		2. SURFACE IMPOUNDMENT		2. INCINERATION		2. LANDFARM
	3. BARGE		3. DRUMS		3. VOLUME REDUCTION		3. OPEN DUMP
	4. TRUCK		4. TANK, ABOVE GROUND		4. RECYCLING/RECOVERY		4. SURFACE IMPOUNDMENT
	5. PIPELINE		5. TANK, BELOW GROUND		5. CHEM./PHYS. TREATMENT		5. MIDNIGHT DUMPING
	6. OTHER (specify):		6. OTHER (specify):		6. BIOLOGICAL TREATMENT		6. INCINERATION
					7. WASTE OIL REPROCESSING		7. UNDERGROUND INJECTION
					8. SOLVENT RECOVERY		8. OTHER (specify):
					9. OTHER (specify):		

E. SPECIFY DETAILS OF SITE ACTIVITIES AS NEEDED

V. WASTE RELATED INFORMATION

A. WASTE TYPE

☑ 1 UNKNOWN ☐ 2 LIQUID ☑ 3. SOLID ☐ 4. SLUDGE ☐ 5. GAS

B. WASTE CHARACTERISTICS

☐ 1. UNKNOWN ☐ 2. CORROSIVE ☐ 3. IGNITABLE ☐ 4 RADIOACTIVE ☐ 5 HIGHLY VOLATILE
☑ 6. TOXIC ☐ 7 REACTIVE ☑ 8 INERT ☐ 9 FLAMMABLE

☐ 10. OTHER (specify):

C. WASTE CATEGORIES

1. Are records of wastes available? Specify items such as manifests, inventories, etc. below.

2. Estimate the amount (specify unit of measure) of waste by category; mark 'X' to indicate which wastes are present.

a. SLUDGE	b. OIL	c. SOLVENTS	d. CHEMICALS	e. SOLIDS	f. OTHER
AMOUNT	AMOUNT	AMOUNT ?	AMOUNT	AMOUNT ?	AMOUNT ?
UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE
'X' (1) PAINT, PIGMENTS	'X' (1) OILY WASTES	'X' (1) HALOGENATED SOLVENTS	'X' (1) ACIDS	'X' (1) FLYASH	'X' (1) LABORATORY PHARMACEUT.
(2) METALS SLUDGES	(2) OTHER (specify):	(2) NON-HALOGNTD SOLVENTS	(2) PICKLING LIQUORS	(2) ASBESTOS	(2) HOSPITAL
(3) POTW		(3) OTHER (specify):	(3) CAUSTICS	(3) MILLING/MINE TAILINGS	(3) RADIOACTIVE
(4) ALUMINUM SLUDGE			(4) PESTICIDES	(4) FERROUS SMLTG. WASTES	(4) MUNICIPAL
(5) OTHER (specify):			(5) DYES/INKS	(5) NON-FERROUS SMLTG. WASTES	(5) OTHER (specify):
			(6) CYANIDE	(6) OTHER (specify):	
			(7) PHENOLS		
			(8) HALOGENS		
			(9) PCB		
			(10) METALS		
			(11) OTHER (specify):		

Continue On Page 3

Continued From Page 2

V. WASTE RELATED INFORMATION (continued)

3. LIST SUBSTANCES OF GREATEST CONCERN WHICH MAY BE ON THE SITE (place in descending order of hazard).

4. ADDITIONAL COMMENTS OR NARRATIVE DESCRIPTION OF SITUATION KNOWN OR REPORTED TO EXIST AT THE SITE.

[illegible] 1929-1980 [illegible] [illegible] [illegible] contaminated [illegible] chromium [illegible] [illegible], and construction [illegible]. [illegible] [illegible] [illegible] [illegible]

VI. HAZARD DESCRIPTION

A. TYPE OF HAZARD	B. POTENTIAL HAZARD (mark 'X')	C. ALLEGED INCIDENT (mark 'X')	D. DATE OF INCIDENT (mo., day, yr.)	E. REMARKS
1. NO HAZARD	X			
2. HUMAN HEALTH				
3. NON-WORKER INJURY/EXPOSURE				
4. WORKER INJURY				
5. CONTAMINATION OF WATER SUPPLY				
6. CONTAMINATION OF FOOD CHAIN				
7. CONTAMINATION OF GROUND WATER				
8. CONTAMINATION OF SURFACE WATER				
9. DAMAGE TO FLORA/FAUNA				
10. FISH KILL				
11. CONTAMINATION OF AIR				
12. NOTICEABLE ODORS				
13. CONTAMINATION OF SOIL				
14. PROPERTY DAMAGE				
15. FIRE OR EXPLOSION				
16. SPILLS/LEAKING CONTAINERS/ RUNOFF/STANDING LIQUIDS				
17. SEWER, STORM DRAIN PROBLEMS				
18. EROSION PROBLEMS				
19. INADEQUATE SECURITY				
20. INCOMPATIBLE WASTES				
21. MIDNIGHT DUMPING				
22. OTHER (specify)				

Continued From Front

VII. PERMIT INFORMATION

A. INDICATE ALL APPLICABLE PERMITS HELD BY THE SITE

- [ ] 1. NPDES PERMIT
- [ ] 2. SPCC PLAN
- [ ] 3. STATE PERMIT (specify):
- [ ] 4. AIR PERMITS
- [ ] 5. LOCAL PERMIT
- [ ] 6. RCRA TRANSPORTER
- [ ] 7. RCRA STORER
- [ ] 8. RCRA TREATER
- [ ] 9. RCRA DISPOSER
- [ ] 10. OTHER (specify):

B. IN COMPLIANCE?

- [ ] 1. YES
- [ ] 2. NO
- [x] 3. UNKNOWN

4. WITH RESPECT TO (list regulation name & number):

VIII. PAST REGULATORY ACTIONS

- [x] A. NONE
- [ ] B. YES (summarize below)

IX. INSPECTION ACTIVITY (past or on-going)

- [ ] A. NONE
- [x] B. YES (complete items 1,2,3, & 4 below)

1. TYPE OF ACTIVITY	2. DATE OF PAST ACTION (mo., day, & yr.)	3. PERFORMED BY: (EPA/State)	4. DESCRIPTION
Inspection	4-21-82	State	No problems noted at time of inspection.

X. REMEDIAL ACTIVITY (past or on-going)

- [x] A. NONE
- [ ] B. YES (complete items 1, 2, 3, & 4 below)

1. TYPE OF ACTIVITY	2. DATE OF PAST ACTION (mo., day, & yr.)	3. PERFORMED BY: (EPA/State)	4. DESCRIPTION

NOTE: Based on the information in Sections III through X, fill out the Preliminary Assessment (Section II) information on the first page of this form.

EPA

POTENTIAL HAZARDOUS WASTE SITE
IDENTIFICATION AND PRELIMINARY ASSESSMENT

REGION: 4

SITE NUMBER (to be assigned by Hq)

NOTE: This form is completed for each potential hazardous waste site to help set priorities for site inspection. The information submitted on this form is based on available records and may be updated on subsequent forms as a result of additional inquiries and on-site inspections.

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SCD000616604 SPARTANBURG
SOUTHERN RAILWAY CO/HAYNE SHOP DUMP
7525 ASHVILLE HIGHWAY
SPARTANBURG SC 29303
JORDAN, M. GAILE, GEN'L * 2023834428

'ATION

EET (or other identifier)

ITE | E. ZIP CODE | F. COUNTY NAME

2. TELEPHONE NUMBER

☐ 1. FEDERAL ☐ 2. STATE ☐ 3. COUNTY ☐ 4. MUNICIPAL ☑ 5. PRIVATE ☐ 6. UNKNOWN

I. SITE DESCRIPTION

Landfill

"103-C NOTIFICATION" DATE: 810609
EARL WILLIAMS
PHONE: 803-758-5544

K. DATE IDENTIFIED (mo., day, & yr.)

2. TELEPHONE NUMBER

omplete this section last)

☐ 1. HIGH ☐ 2. MEDIUM ☐ 3. LOW ☑ 4. NONE ☐ 5. UNKNOWN

B. RECOMMENDATION

☑ 1. NO ACTION NEEDED *(no hazard)*

☐ 2. IMMEDIATE SITE INSPECTION NEEDED
a. TENTATIVELY SCHEDULED FOR:
b. WILL BE PERFORMED BY:

☐ 3. SITE INSPECTION NEEDED
a. TENTATIVELY SCHEDULED FOR:
b. WILL BE PERFORMED BY:

☐ 4. SITE INSPECTION NEEDED *(low priority)*

C. PREPARER INFORMATION

1. NAME | 2. TELEPHONE NUMBER | 3. DATE (mo., day, & yr.)

III. SITE INFORMATION

A. SITE STATUS

☑ 1. ACTIVE *(Those industrial or municipal sites which are being used for waste treatment, storage, or disposal on a continuing basis, even if infrequently.)*

☐ 2. INACTIVE *(Those sites which no longer receive wastes.)*

☐ 3. OTHER *(specify)*: *(Those sites that include such incidents like "midnight dumping" where no regular or continuing use of the site for waste disposal has occurred.)*

B. IS GENERATOR ON SITE?

☐ 1. NO ☑ 2. YES (specify generator's four-digit SIC Code):

C. AREA OF SITE *(in acres)*

?

D. IF APPARENT SERIOUSNESS OF SITE IS HIGH, SPECIFY COORDINATES

1. LATITUDE *(deg.-min.-sec.)* | 2. LONGITUDE *(deg.-min.-sec.)*

E. ARE THERE BUILDINGS ON THE SITE?

☐ 1. NO ☑ 2. YES *(specify)*:

Continue On Reverse

Continued From Front

IV. CHARACTERIZATION OF SITE ACTIVITY

Indicate the major site activity(*ies*) and details relating to each activity by marking 'X' in the appropriate boxes.

'X'	A. TRANSPORTER	'X'	B. STORER	'X'	C. TREATER	'X'	D. DISPOSER
	1. RAIL		1. PILE		1. FILTRATION	✓	1. LANDFILL
	2. SHIP		2. SURFACE IMPOUNDMENT		2. INCINERATION		2. LANDFARM
	3. BARGE		3. DRUMS		3. VOLUME REDUCTION		3. OPEN DUMP
	4. TRUCK		4. TANK, ABOVE GROUND		4. RECYCLING/RECOVERY		4. SURFACE IMPOUNDMENT
	5. PIPELINE		5. TANK, BELOW GROUND		5. CHEM./PHYS. TREATMENT		5. MIDNIGHT DUMPING
	6. OTHER (*specify*):		6. OTHER (*specify*):		6. BIOLOGICAL TREATMENT		6. INCINERATION
					7. WASTE OIL REPROCESSING		7. UNDERGROUND INJECTION
					8. SOLVENT RECOVERY		8. OTHER (*specify*):
					9. OTHER (*specify*):		

E. SPECIFY DETAILS OF SITE ACTIVITIES AS NEEDED

V. WASTE RELATED INFORMATION

A. WASTE TYPE

☑ 1 UNKNOWN ☐ 2 LIQUID ☑ 3. SOLID ☐ 4. SLUDGE ☐ 5. GAS

B. WASTE CHARACTERISTICS

☐ 1. UNKNOWN ☐ 2. CORROSIVE ☐ 3. IGNITABLE ☐ 4 RADIOACTIVE ☐ 5 HIGHLY VOLATILE
☑ 6. TOXIC ☐ 7 REACTIVE ☑ 8 INERT ☐ 9 FLAMMABLE

☐ 10. OTHER (*specify*):

C. WASTE CATEGORIES

1. Are records of wastes available? Specify items such as manifests, inventories, etc. below.

2. Estimate the amount(*specify unit of measure*) of waste by category; mark 'X' to indicate which wastes are present.

a. SLUDGE	b. OIL	c. SOLVENTS	d. CHEMICALS	e. SOLIDS	f. OTHER
AMOUNT	AMOUNT	AMOUNT ?	AMOUNT	AMOUNT ?	AMOUNT ?
UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE
'X' (1) PAINT, PIGMENTS	'X' (1) OILY WASTES	'X' (1) HALOGENATED SOLVENTS	'X' (1) ACIDS	'X' (1) FLYASH	'X' (1) LABORATORY PHARMACEUT.
(2) METALS SLUDGES	(2) OTHER(*specify*):	(2) NON-HALOGNTD. SOLVENTS	(2) PICKLING LIQUORS	(2) ASBESTOS	(2) HOSPITAL
(3) POTW		(3) OTHER(*specify*)	(3) CAUSTICS	(3) MILLING/ MINE TAILINGS	(3) RADIOACTIVE
(4) ALUMINUM SLUDGE			(4) PESTICIDES	(4) FERROUS SMLTG. WASTES	(4) MUNICIPAL
(5) OTHER(*specify*):			(5) DYES/INKS	(5) NON-FERROUS SMLTG. WASTES	(5) OTHER(*specify*):
			(6) CYANIDE	(6) OTHER(*specify*):	
			(7) PHENOLS		
			(8) HALOGENS		
			(9) PCB		
			(10) METALS		
			(11) OTHER(*specify*)		

 Continue On Page 3

Continued From Page 2

V. WASTE RELATED INFORMATION (continued)

3. LIST SUBSTANCES OF GREATEST CONCERN WHICH MAY BE ON THE SITE (place in descending order of hazard).

4. ADDITIONAL COMMENTS OR NARRATIVE DESCRIPTION OF SITUATION KNOWN OR REPORTED TO EXIST AT THE SITE.

Between 1925+1980 waste including spent grit contaminated with chromium and spent solvent, and construction debris. Now used for [illegible] waste disposal.

VI. HAZARD DESCRIPTION

A. TYPE OF HAZARD	B. POTENTIAL HAZARD (mark 'X')	C. ALLEGED INCIDENT (mark 'X')	D. DATE OF INCIDENT (mo., day, yr.)	E. REMARKS
1. NO HAZARD	X			
2. HUMAN HEALTH				
3. NON-WORKER INJURY/EXPOSURE				
4. WORKER INJURY				
5. CONTAMINATION OF WATER SUPPLY				
6. CONTAMINATION OF FOOD CHAIN				
7. CONTAMINATION OF GROUND WATER				
8. CONTAMINATION OF SURFACE WATER				
9. DAMAGE TO FLORA/FAUNA				
10. FISH KILL				
11. CONTAMINATION OF AIR				
12. NOTICEABLE ODORS				
13. CONTAMINATION OF SOIL				
14. PROPERTY DAMAGE				
15. FIRE OR EXPLOSION				
16. SPILLS/LEAKING CONTAINERS/ RUNOFF/STANDING LIQUIDS				
17. SEWER, STORM DRAIN PROBLEMS				
18. EROSION PROBLEMS				
19. INADEQUATE SECURITY				
20. INCOMPATIBLE WASTES				
21. MIDNIGHT DUMPING				
22. OTHER (specify):				

Continued From Front

VII. PERMIT INFORMATION

A. INDICATE ALL APPLICABLE PERMITS HELD BY THE SITE:

- [ ] 1. NPDES PERMIT
- [ ] 2. SPCC PLAN
- [ ] 3. STATE PERMIT (specify): _____
- [ ] 4. AIR PERMITS
- [ ] 5. LOCAL PERMIT
- [ ] 6. RCRA TRANSPORTER
- [ ] 7. RCRA STORER
- [ ] 8. RCRA TREATER
- [ ] 9. RCRA DISPOSER
- [ ] 10. OTHER (specify): _____

B. IN COMPLIANCE?

- [ ] 1. YES
- [ ] 2. NO
- [x] 3. UNKNOWN

4. WITH RESPECT TO (list regulation name & number): _____

VIII. PAST REGULATORY ACTIONS

- [x] A. NONE
- [ ] B. YES (summarize below)

IX. INSPECTION ACTIVITY (past or on-going)

- [ ] A. NONE
- [x] B. YES (complete items 1,2,3, & 4 below)

1. TYPE OF ACTIVITY	2. DATE OF PAST ACTION (mo., day, & yr.)	3. PERFORMED BY: (EPA/State)	4. DESCRIPTION
Inspection	4-21-82	State	No problems noted at time of inspection.

X. REMEDIAL ACTIVITY (past or on-going)

- [x] A. NONE
- [ ] B. YES (complete items 1, 2, 3, & 4 below)

1. TYPE OF ACTIVITY	2. DATE OF PAST ACTION (mo., day, & yr.)	3. PERFORMED BY: (EPA/State)	4. DESCRIPTION

NOTE: Based on the information in Sections III through X, fill out the Preliminary Assessment (*Section II*) information on the first page of this form.

Project Docket Log

Site Name SOUTHERN RAILWAY / HAYNES CAR

TDD/WA Number F4-8805-01

Project Manager K. GREZLIK

Docket Number	Date Entered	Document Description
11		PROJECT WORK PLAN
12		SAFETY PLAN
13		EPA COVER LETTER, ~~SAFETY~~ STUDY PLAN, REV 0 C-586-5-8-119
14		REVIEW DOCUMENTATION RECORD STUDY PLAN REV 0
15		STUDY PLAN, REV 0 R-586-5-8-1
16		ESD COMMENTS, STUDY PLAN
17		EPA FILE MATERIAL

South Carolina Department of Health and Environmental Control

Reference #

2600 Bull Street
Columbia, S.C. 29201

Commissioner
Michael D. Jarrett

Board
Moses H. Clarkson, Jr., Chairman
Oren L. Brady, Jr., Vice-Chairman
Euta M. Colvin, M.D., Secretary
Harry M. Hallman, Jr.
Henry S. Jordan, M.D.
James A. Spruill, Jr.
Toney Graham, Jr. M.D.

MEMORANDUM

TO: John Cresswell, Manager
Site Screening Section
Bureau of Solid & Hazardous Waste Management

FROM: Judy L. Canova, Hydrologist JLC
Superfund and Solid Waste Section
Bureau of Solid & Hazardous Waste Management

DATE: February 18, 1988

RE: Southern Railway, PA
Spartanburg County

Southern Railway is located in the Piedmont physiographic province, which generally contains igneous and metamorphic rocks overlain by saprolite, or weathering products. Ground water in this region occurs in the fractured bedrock (igneous and metamorphic bedrock aquifer) and in the overlying saprolite (soil-saprolite aquifer).

The slope of the site is to the north-northeast towards a northeast-flowing tributary of Lawson's Fork Creek. Ground water probably flows in this direction and discharges into the tributary. Recharge of the interconnected bedrock and saprolite aquifers is through precipitation.

Composition of the unsaturated zone is most likely clayey sand and sandy clay, having a moderate hydraulic conductivity. Depth to ground water is estimated to be fifteen to twenty-five feet.

JLC:hlg

OVERSIZED

DOCUMENT

UNSCANNABLE

MEDIA

(PHOTOGRAPHS)