FINAL DRAFT
SITE INSPECTION REPORT
AND HAZARDOUS RANKING SYSTEM MODEL
MCGRAW-EDISON COMPANY, BATTERY PLANT
BLOOMFIELD, NEW JERSEY

PREPARED UNDER

TECHNICAL DIRECTIVE DOCUMENT NO.
CONTRACT NO. 68-01-6699
02-8403-27A

FOR THE

ENVIRONMENTAL SERVICES DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

JUNE 14, 1985

NUS CORPORATION
SUPERFUND DIVISION

SUBMITTED BY

LAURIE GNEIDING
PROJECT MANAGER

REVIEWED/APPROVED BY

TERRY A. RITTER
REGIONAL PROJECT MANAGER

240350

NUS CORPORATION

RARITAN PLAZA III
FIELDCREST AVENUE
EDISON, NEW JERSEY 08837
(201) 225-6160

C-584-06-85-39

June 14, 1985

Ms. Diana Messina
U.S. Environmental Protection Agency
Region II
Edison, New Jersey 08817

Dear Diana:

Enclosed are the Final Site Inspection Report (EPA Form 2070-13) and the MITRE Hazardous Ranking System (HRS) documents for McGraw-Edison Co., Battery Plant, Bloomfield, New Jersey. The site inspection was authorized under TDD #02-8403-27A.

Very truly yours,

Laurie Gneiding

Laurie Gneiding
Project Manager

Approved: _____

LG/jm

Enclosures

Contents

Section	
1	Site Inspection Report Executive Summary
2	Environmental Protection Agency Form 2070-13
3	Maps and Photographs
4	Documentation Records for Hazard Ranking System
5	Hazardous Ranking System Scoring Forms
6	Bibliography of Information Sources
7	Press Release Summary - MITRE Hazardous Ranking System
8	Attachments - Cited Documents

NUS CORPORATION
A Halliburton Company

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
EXECUTIVE SUMMARY

McGraw-Edison Battery Plant	NJD09689540
Site Name	EPA Site ID Number
75 Belmont Ave. Bloomfield, NJ	02-8403-27A
Address	TDD Number

SITE DESCRIPTION

McGraw-Edison manufactures batteries. The site is located in a densely populated area on the Bloomfield-Belleville border. Several residences and shopping centers are adjacent to the site. During a site inspection on 8/21/84, FIT II observed: 1) the sludge lagoon is being drained and excavated and will then be filled in to be paved over and used as a parking lot, 2) the open and/or rusted drums are filled with carbon and lime and are being hauled away by L. Pucillo and Sons. FIT II took six soil samples during the site inspection.
PCBs, volatile organics, and metals including cadmium, mercury, and lead were found in the lagoon and in the two sampled drainage basins.

HAZARD RANKING SCORE: $S_M = 6.7$, $S_{FE} = 11.25$, $S_{DC} = 41.7$

Prepared by: Laurie Gneiding of NUS Corporation Date: 6/14/85

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
NJ	D096869540

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
McGraw-Edison Battery Plant	75 Belmont Avenue

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Bloomfield	NJ	07003	Essex	013	11

09 COORDINATES LATITUDE	LONGITUDE	10 TYPE OF OWNERSHIP (Check one)
4 0 4 5 1 4 " N	0 7 4 1 1 0 0 " W	☒ A. PRIVATE ☐ B. FEDERAL ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL ☐ F. OTHER ☐ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION
7 / 21 / 84 (MONTH DAY YEAR)	☒ ACTIVE ☐ INACTIVE	1889 (BEGINNING YEAR) Not Applicable (ENDING YEAR) ☐ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)

☐ A. EPA ☒ 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.
Laurie Gneiding	Toxicologist	NUS Corp.	(201) 225-6160

09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
William Neal	Environmental Scientist	NUS Corp.	(201) 225-6160
Jim Sullivan	Biochemist	NUS Corp.	(201) 225-6160
Pam Kaneta	Biostatistician	NUS Corp.	(201) 225-6160
Michael Nicholas	Geologist	NUS Corp.	(201) 225-6160
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
Joseph Amon	Plant Eng.	McGraw-Edison, Blfld.	(201) 751-3700
Randall Zuccalmaglio	Asst. Plant Eng.	McGraw-Edison, Blfld.	(201) 751-3700
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☒ PERMISSION ☐ WARRANT	1530	Sunny, 80°F

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Diana Messina	U.S. EPA	( ) 201 321-6685

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Laurie Gneiding	EPA	NUS Corp.	201-225-6160	6 / 14 / 85 (MONTH DAY YEAR)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NJ	D096869540

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

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

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

TONS _____

CUBIC YARDS _____

NO. OF DRUMS 50-75

03 WASTE CHARACTERISTICS (Check all that apply)

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

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS	50-75	55-gallon	Carbon
IOC	INORGANIC CHEMICALS		drums	Lime
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS	Unknown		Zinc & mercury amalgam in zinc process

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
MES	Zinc turnings		Drums - 55 gallon	50%	by wt.
MES	Mercury amalgam		Drums - 55 gallon	50%	by wt.
OCC	Carbon		55 gallon drums	50%	by wt.
LOC	Lime			50%	by wt.

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS	85% potassium	1310-58-3	FDS		
FDS	hydroxide		FDS		
FDS			FDS		
FDS			FDS		

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

Off-site reconnaissance by NUS Corp. FIT II 6/14/84
Site Inspection by NUS Corp. FIT II 8/21/84
Interview with Joe Amon, Plant Engineer, 8/21/84

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NJ	D096869540

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ A. GROUNDWATER CONTAMINATION — 02 ☐ OBSERVED (DATE: ____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ____ 04 NARRATIVE DESCRIPTION

No potential exists as the lagoon has been pumped out and will be filled in and paved over. Groundwater is not used due to saline infiltration.

01 ☒ B. SURFACE WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: ____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 67,000 04 NARRATIVE DESCRIPTION

The potential exists if the sewers become contaminated with contaminated soil.

01 ☐ C. CONTAMINATION OF AIR — 02 ☐ OBSERVED (DATE: ____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: None 04 NARRATIVE DESCRIPTION

No potential exists.

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS — 02 ☐ OBSERVED (DATE: ____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 67,000 04 NARRATIVE DESCRIPTION

The potential exists as zinc and lime wastes are reactive.

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

No potential exists until the drums are hauled away and the lagoon has been emptied, filled in and paved over.

01 ☒ F. CONTAMINATION OF SOIL — 02 ☒ OBSERVED (DATE: 8/21/85) ☐ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: <1 (Acres) 04 NARRATIVE DESCRIPTION

The soil has been contaminated with PCBs, volatile organics, and metals including mercury and lead.

01 ☐ G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: ____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: None 04 NARRATIVE DESCRIPTION

No potential exists. No drinking water supplies are drawn from the area.

01 ☒ H. WORKER EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: ____) ☒ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: 150 04 NARRATIVE DESCRIPTION

The potential exists until the drums are hauled away and the lagoon is emptied, filled in, and paved over.

01 ☒ I. POPULATION EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: ____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 67,000 04 NARRATIVE DESCRIPTION

The potential exists until the drums are hauled away and the lagoon has been emptied, filled in and paved over.

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NJ	D096869540

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☒ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
The potential exists as the soil is contaminated.

01 ☒ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)
The potential exists if contaminated flora or soil is ingested.

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
No potential exists.

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES (Spills, Runoff, Standing liquids, Leaking drums) — 02 ☒ OBSERVED (DATE: 8/21/84) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 67,000
04 NARRATIVE DESCRIPTION
Drums are open and/or rusted with carbon and lime strewn about; however, the drums are in the process of being cleaned up and hauled away.

01 ☒ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
The potential exists if discharge to sewers exceeds permitted levels.

01 ☒ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
The potential exists. McGraw-Edison is permitted to discharge into the Bloomfield/Belleville sewer system.

01 ☒ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
The potential exists as drainage basins in the site contained the highest levels of PCBs and lead.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS
None

III. TOTAL POPULATION POTENTIALLY AFFECTED: 67,000

IV. COMMENTS
The sludge pit is to be filled in and paved over. The drums are in the process of being hauled offsite by L. Pucillo & Sons Sanitation.

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)
NJDEP Files — U.S. EPA Files
Off-site reconnaissance conducted by NUS FIT II on 6/14/84
Site Inspection conducted by NUS FIT II on 8/21/84

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NJ	D096869540

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				Runoff from roof, non-
☐ G. STATE (Specify)				contact cooling water,
☒ H. LOCAL (Specify)	Unknown			air conditioner,
☐ I. OTHER (Specify)				drainage, etc. drain
☐ J. NONE				to PVSC sewer

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	50-75	55 gal. drums
☐ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
☐ F. LANDFILL		
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☒ I. OTHER Sludge lagoon (Specify)		

04 TREATMENT (Check all that apply)

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

05 OTHER

- ☒ A. BUILDINGS ON SITE

06 AREA OF SITE

10 (Acres)

07 COMMENTS

The lagoon is lined with clay. It has been pumped out and excavated and is in the process of being filled in. It will eventually be paved over to become a parking lot.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

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

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

Drums of carbon and lime are open and/or rusted. Material is strewn about the site. However, drums are in the process of being removed.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☐ YES ☒ NO

02 COMMENTS

Site is fenced.

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

Site Inspection conducted by NUS FIT II 8/21/84
Interview with Joe Armon, Plant Engineer, 8/21/84

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NJ	D096869540

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)	SURFACE	WELL	02 STATUS ENDANGERED	AFFECTED	MONITORED	03 DISTANCE TO SITE
COMMUNITY	A. ☒	B. ☐	A. ☐	B. ☐	C. ☒	A. 20 (mi)
NON-COMMUNITY	C. ☐	D. ☒	D. ☐	E. ☐	F. ☐	B. 1500 ft (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

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

02 POPULATION SERVED BY GROUND WATER None

03 DISTANCE TO NEAREST DRINKING WATER WELL >3 miles (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
25 (ft)	SE	25 (ft)	5.2X10 5 (gpd)	☐ YES ☒ NO

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

Wells in the area have been infiltrated with saline water. If the groundwater is used, it is for commercial usage only.

10 RECHARGE AREA		11 DISCHARGE AREA	
☐ YES ☒ NO	COMMENTS	☐ YES ☒ NO	COMMENTS Recreational water use not marked on SI Part 5, IV, 01.

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

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

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
Branch Brook	☐	0.5 (mi)
Passaic River	☐	1.5 (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. 67,670 NO. OF PERSONS	B. 246,826 NO. OF PERSONS	C. 481,156 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION 50 ft. (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE 93,571

04 DISTANCE TO NEAREST OFF-SITE BUILDING Approx. 200' (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)

McGraw-Edison is located in a densely populated area on the border of Bloomfield and Belleville. Many residences, both single family and multi-family, as well as industries, surround the site. A shopping center is next door. Railroad tracks also border the site.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NJ	D096869540

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
60 (ft)	6 (ft)	Unknown

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
11 (in)	3 (in)	0-3 %	east	3-5 %

09 FLOOD POTENTIAL

SITE IS IN 100 YEAR FLOODPLAIN

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

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE: A. 4 (mi)

OTHER: B. _____ (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

4 (mi)

ENDANGERED SPECIES: _____

13 LAND USE IN VICINITY

DISTANCE TO:

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

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

McGraw-Edison is mostly located on a gently sloping surface (0-3% slope). The front portion of the site has a steeper slope (5-8%). The topography surrounding McGraw-Edison is also gently sloping (0-3%). It is surrounded by two shopping centers and many residences. The Conrail Railroad is on the western border.

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

Uncontrolled Hazardous Waste Site Ranking System: A User's Manual
USGS Maps, Orange Quad
Groundwater Resources of Essex County, NJ Special Report #28, 1968.

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NJ	D096869540

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO Organics	Inorganics	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER	None			
SURFACE WATER	None			
WASTE	None			
AIR	None			
RUNOFF	None			
SPILL	None			
SOIL	6	ENCO Tech Ann Harbor, MI	JTC Env. Cons. Rockville, MD	Nov. 1984
VEGETATION	None			
OTHER	None			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
Air monitoring	No readings on HNU photoionizer and OVA flame detector.

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 File at NUS Corp.

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

Field Notebook
TDD# 02-8403-27A
Photograph Log

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

Site Inspection conducted by NUS Corp. FIT II on 8/21/84

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NJ	D096869540

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER
McGraw-Edison	

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

05 CITY	06 STATE	07 ZIP CODE
Bloomfield	NJ	07003

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)

Interview with Joseph Amon, Plant Engineer, 8/21/84

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NJ	D096869540

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER
Same	

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

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER

OPERATOR'S PARENT COMPANY (If applicable)

10 NAME	11 D+B NUMBER

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

14 CITY	15 STATE	16 ZIP CODE

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

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)

10 NAME	11 D+B NUMBER

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

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

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

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

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

14 CITY	15 STATE	16 ZIP CODE

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

Interview with Joseph Amon, Plant Engineer, 8/21/84

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NJ	D096869540

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
McGraw-Edison	

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

05 CITY	06 STATE	07 ZIP CODE
Bloomfield	NJ	07003

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
L. Pucillo & Sons			

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

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
Belleville	NJ				

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)

Newark Phone Book, 1982.

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NJ	D096869540

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☒ D. SPILLED MATERIAL REMOVED — 02 DATE Ongoing — 03 AGENCY _____
04 DESCRIPTION
Carbon and Lime is in the process of being removed.

01 ☒ E. CONTAMINATED SOIL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Sludge lagoon soil removed so lagoon could be filled in.

01 ☐ F. WASTE REPACKAGED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☒ G. WASTE DISPOSED ELSEWHERE — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
L. Pucillo & Sons hauls away the carbon and lime generated on site.

01 ☐ H. ON SITE BURIAL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ I. IN SITU CHEMICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ J. IN SITU BIOLOGICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☒ K. IN SITU PHYSICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Settling lagoon located on site.

01 ☐ L. ENCAPSULATION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ M. EMERGENCY WASTE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ N. CUTOFF WALLS — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ P. CUTOFF TRENCHES/SUMP — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ Q. SUBSURFACE CUTOFF WALL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NJ	D096869540

II PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☒ S. CAPPING/COVERING — 02 DATE Ongoing — 03 AGENCY _____
04 DESCRIPTION
The sludge lagoon is to be excavated, then filled in and paved over.

01 ☐ T. BULK TANKAGE REPAIRED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Not applicable.

01 ☐ U. GROUT CURTAIN CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☒ V. BOTTOM SEALED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Sludge lagoon has impermeable clay lining.

01 ☐ W. GAS CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Not applicable.

01 ☐ X. FIRE CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ Y. LEACHATE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ Z. AREA EVACUATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ 1. ACCESS TO SITE RESTRICTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ 2. POPULATION RELOCATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ 3. OTHER REMEDIAL ACTIVITIES — 02 DATE 8/84 — 03 AGENCY NJDEP
04 DESCRIPTION
NJDEP conducted sampling in the first week of August, 1984.
Helen Wright took samples.

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

Site Inspection by NUS Corp. FIT II 8/21/84
Interview with Joseph Amon, Plant Engineer, 8/21/84

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NJ	D096869540

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)

Site Inspection by NUS Corp. FIT II 8/21/84

APPENDIX A

MAPS AND PHOTOS

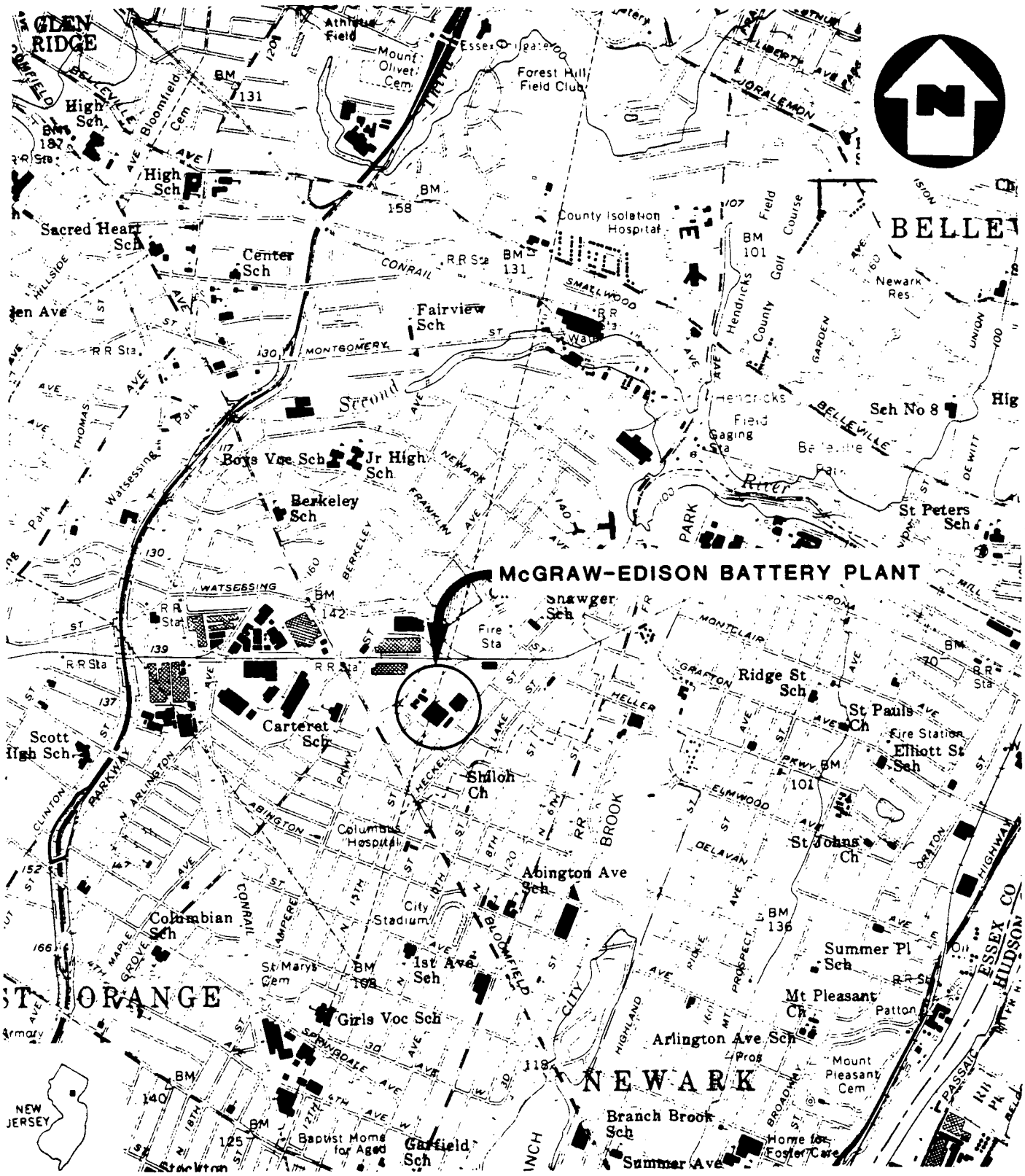
MAPS AND PHOTOS

Figure A-1 provides a Site Location Map.

Figure A-2 provides a Site Map.

Figure A-3 provides a Sample Location Map.

Exhibit A-1 provides photographs of the site.



(QUAD) ORANGE N.J.

FIGURE A-1

SITE LOCATION MAP

McGRAW-EDISON BATTERY PLANT, BLOOMFIELD, N.J.

SCALE: 1"= 2000'

NUS CORPORATION

A Halliburton Company

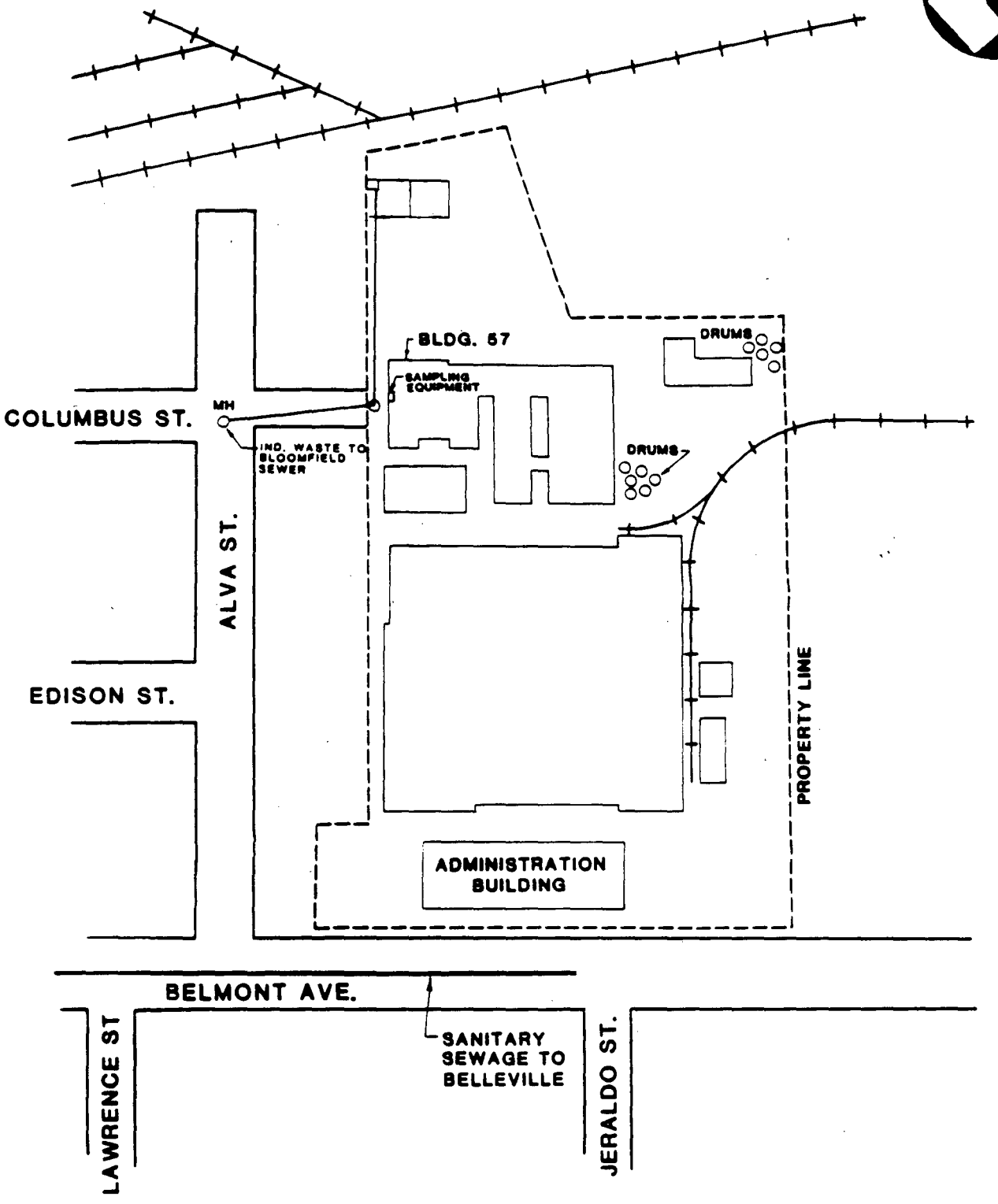


FIGURE A-2

SITE MAP

McGRAW-EDISON BATTERY PLANT, BLOOMFIELD, N.J.

(NOT TO SCALE)

NUS CORPORATION

A Halliburton Company

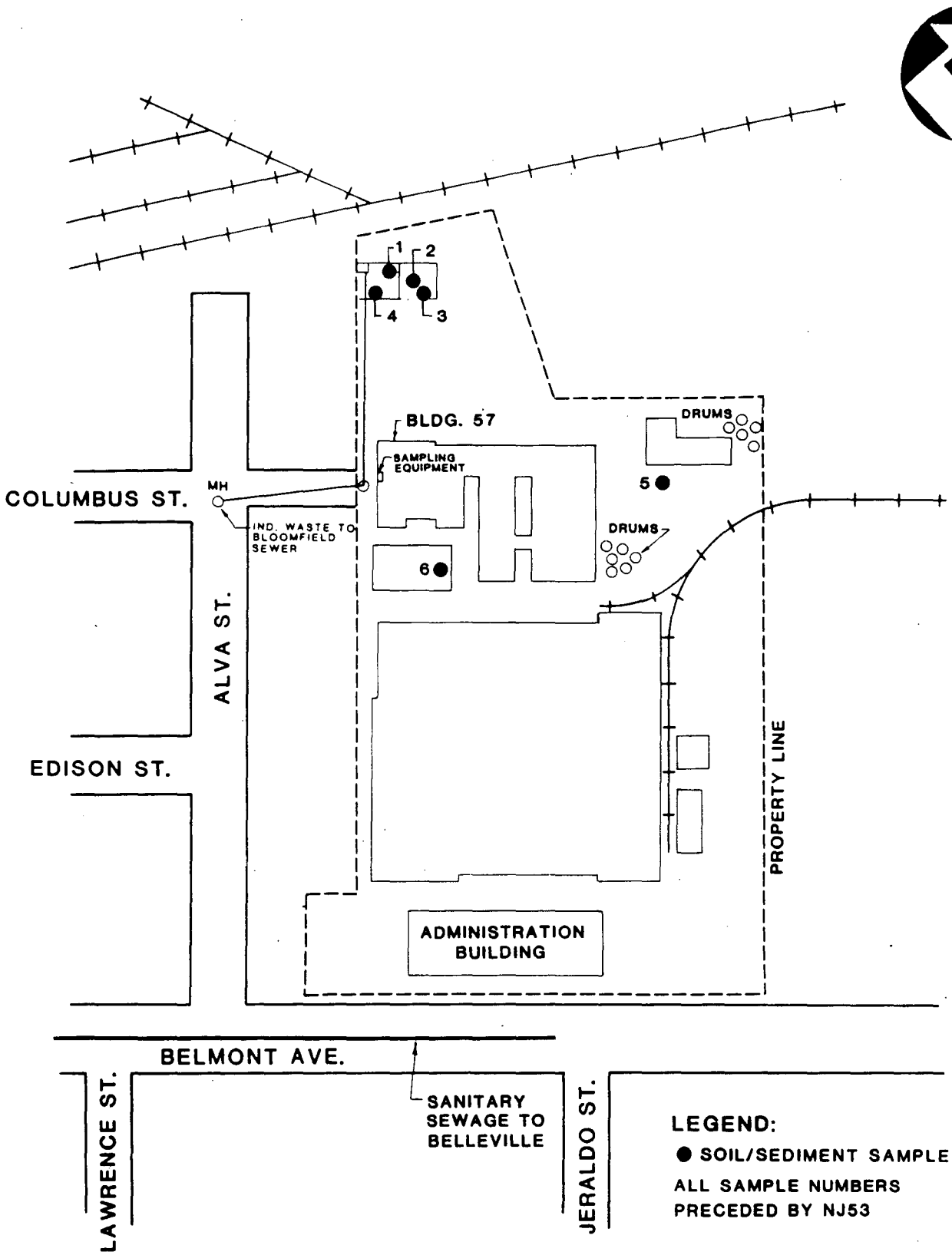


FIGURE A-3

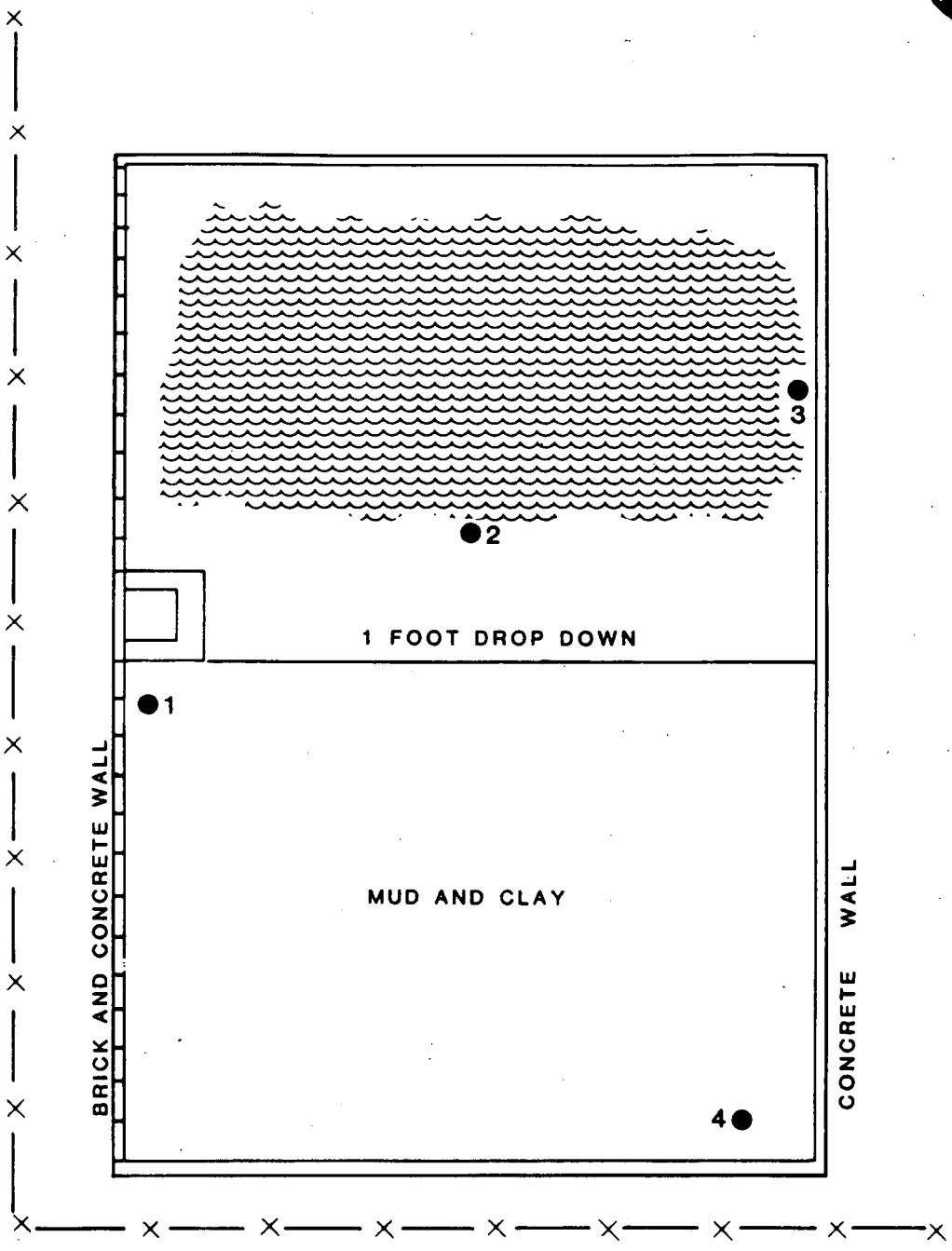
SAMPLE LOCATION MAP

McGRAW-EDISON BATTERY PLANT, BLOOMFIELD, N.J.

(NOT TO SCALE)

NUS CORPORATION

A Halliburton Company



LEGEND:

● SAMPLE LOCATION

ALL SAMPLE NUMBERS PRECEDED BY NJ53

SAMPLE LOCATION MAP DETAIL-LAGOON

McGRAW-EDISON BATTERY PLANT, BLOOMFIELD, N.J.

(NOT TO SCALE)

FIGURE A-4

NUS CORPORATION

A Halliburton Company

Photo Log and Index
McGraw-Edison Battery Plant
Bloomfield, New Jersey
August 21, 1984
Case# NJ53

Photo Number	Description	Time
1.	Settling lagoon with pump to PVSC sewer line.	1638
2.	Debris piles approximately 100 feet north of lagoon.	1639
3.	Inside settling lagoon. Pipe goes to PVSC sewer line.	1645
4.	Soil sample NJ53-1 taken at far southwestern edge of lagoon. Sampler: W. Neal.	1645
5.	Soil sample NJ53-2 taken at far northwestern area of lagoon at water's edge. Sampler: W. Neal	1648
6.	Soil sample NJ53-3 taken at eastern edge of lagoon. Sampler: W. Neal.	1651
7.	Soil sample NJ53-4 taken from extreme south-eastern corner. Sampler: W. Neal.	1656
8.	Soil sample NJ53-5. Drainage basin on northern side of site. Approximately 20 feet west of railroad tracks running through site. Approximately 10 feet south of baghouse and 50 feet from border fence. Sampler: W. Neal.	1727
9.	Soil sample NJ53-6. Drainage basin approximately 100 feet from southern border fence. In concrete storage area of site. Sampler: W. Neal	1733

1. August 21, 1984 1638
Settling lagoon with pump to PVSC sewer line.

2. August 21, 1984 1639
Debris piles approximately 100 feet north of lagoon.

McGraw-Edison Battery Plant

3. August 21, 1984 1645
Inside settling lagoon. Pipe goes to PVSC sewer line.

4. August 21, 1984 1645
Soil sample NJ53-1 taken at far western edge of lagoon. Sampler: W. Neal.

5. August 21, 1984 1648
Soil sample NJ53-2 taken at far northwestern area of lagoon at water's edge. Sampler: W. Neal.

6. August 21, 1984 1651
Soil sample NJ53-3 taken at eastern edge of lagoon. Sampler: W. Neal.

7. August 21, 1984 - 1656
Soil sample NJ53-4 taken from extreme southeastern corner. Sampler: W. Neal.

8. August 21, 1984 1727
Soil sample NJ53-5. Drainage basin on northern side of site. Approximately 20 feet west of railroad tracks running through site. Approximately 10 feet south of baghouse and 50 feet from border fence. Sampler: W. Neal.

NUS CORPORATION

9. August 21, 1984 - 1733
Soil sample NJ53-6. Drainage basin approximately 100 feet from southern border fence. In concrete storage area of site. Sampler: W. Neal.

FIT QUALITY ASSURANCE TEAM
DOCUMENTATION RECORDS
FOR
HAZARD RANKING SYSTEM

INSTRUCTIONS: As briefly as possible summarize the information you used to assign the score for each factor (e.g., "Waste quantity = 4,230 drums plus 800 cubic yards of sludges"). The source of information should be provided for each entry and should be a bibliographic-type reference. Include the location of the document.

FACILITY NAME: McGraw - Edison Battery Plant

LOCATION: Bloomfield, NJ

DATE SCORED: 6/14/85

PERSON SCORING: Laurie Gneiding

PRIMARY SOURCE(S) OF INFORMATION (e.g., EPA region, state, FIT, etc.):

FIT II

FACTORS NOT SCORED DUE TO INSUFFICIENT INFORMATION:

COMMENTS OR QUALIFICATIONS:

The sludge pit is in the process of being filled in. It will eventually be paved and become a parking lot.

The drums of carbon and lime are presently being disposed of off site.

All organic data did not pass QA/QC due to holding times however this does not affect presence/non-presence of the compounds.

GROUNDWATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

No groundwater samples taken.

Rationale for attributing the contaminants to the facility:

* * *

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern:

Name/description of aquifer(s) of concern:

The Brunswick formation consists of interbedded brown, reddish-brown and gray shale, sandy shale, sandstone, and some conglomerate.

Ref: #4

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

25 feet

Ref: #4

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

Approximately 6 feet

Ref: #3

Net Precipitation

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

44 inches

Ref: #2

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

33 inches

Ref: #2

Net precipitation (sub tract the above figures):

11+ inches

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

Stratified drift consisting of:

a) Glaciofluvial deposits of stratified sand and sand and gravel

b) Glaciolacustrine deposits of bedded or laminated silt and clay.

Ref: #4

Permeability associated with soil type:

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

Ref: #2

Physical State

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

Fine powders, solids, sludges

Ref: #3

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Sludge lagoon has impermeable clay liner. Drums are mostly on pallets but some are open and/or rusted with contents spilled.

Ref: #3

Method with highest score:

Drums

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

Mercury, PCBs, trichloroethene

Compound with highest score:

Mercury, PCBs

Hazardous Waste Quantity

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

50-75 55-gallon drums

Basis of estimating and/or computing waste quantity:

Site Inspection on 8/21/84

* * *

5 TARGETS

Groundwater Use

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

The aquifer has been infiltrated with salt water - groundwater is used for some commercial usage or not at all.

Ref: #4

Distance to Nearest Well

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

Jack Frost Dairy, Belleville

Warner Mfg., Co., Bloomfield

Ref: #4

Distance to above well or building:

Approximately 1500 ft.

Ref: #1

Population Served by Groundwater Wells Within a 3-Mile Radius

Identified water-supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and populations served by each:

None

Ref: #4

Computation of land area irrigated by supply well(s) drawing from aquifer(s) of concern within a 3-mile radius, and conversion to population (1.5 people per acre).

None

Total population served by groundwater within a 3-mile radius:

None - usage is commercial

Ref: #4

SURFACE WATER ROUTE

1 OBSERVED RELEASE

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

No surface water samples taken.

Rationale for attributing the contaminants to the facility:

* * *

2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

0-3%

Ref: Site Inspection by NUS FIT on 8/22/84

Name/description of nearest downslope surface water:

Branch Brook - City Park

Ref: #1

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

3-5%

Ref: #1

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

No
Ref: #3

Is the facility completely surrounded by areas of higher elevation?

No

Ref: Site Inspection by NUS Corp. FIT II 8/21/84

1-Year 24-Hour Rainfall in Inches

3 inches

Ref: #2

Distance to Nearest Downslope Surface Water

0.5 mile

Ref: #1

Physical State of Waste

Sludge, fine powders, solids

Ref: #3

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated: Landfill (ref. #1, page 17)

Drums

Lagoon with clay liner

Ref: #3

Method with highest score:

Drums

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

PCBs, mercury, trichloroethene

Compound with highest score:

PCBs, mercury

Hazardous Waste Quantity

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

Approximately 50-75 55-gallon drums

Basis of estimating and/or computing waste quantity:

Site Inspection by NUS Corp. FIT II 8/21/84

* * *

5 TARGETS

Surface Water Use

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

Recreational

shipping, industrial

Ref: #4

Is there tidal influence?

Yes

<u>Distance to a Sensitive Environment</u>

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

None

Ref: #1

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

None

Ref: #1

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

None

Ref: #1

<u>Population Served by Surface Water</u>

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

None. City water supplied by Bloomfield Water Dept. Reservoirs located in northern NJ.

Ref: #5

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

None

Ref: #1

Total population served:

None

Ref: #1

Name/description of nearest of above water bodies:

None

Ref: #1

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

None

Ref: #1

AIR ROUTE

1 OBSERVED RELEASE

Contaminants detected:

None observed

Date and location of detection of contaminants

8/21/84

Methods used to detect the contaminants:

HNu and OVA photoionizers

Rationale for attributing the contaminants to the site:

* * *

2 WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

Not applicable

Most incompatible pair of compounds:

Not applicable

Toxicity

Most toxic compound:

Not applicable

Hazardous Waste Quantity

Total quantity of hazardous waste:

Not applicable

Basis of estimating and/or computing waste quantity:

* * *

3 TARGETS

Population Within 4-Mile Radius

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

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

Not applicable

Distance to a Sensitive Environment

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

Not applicable

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

Not applicable

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

Not applicable

Land Use

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

Not applicable

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

Not applicable

Distance to residential area, if 2 miles or less:

Not applicable

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

Not applicable

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

Not applicable

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

Not applicable

FIRE AND EXPLOSION

1 CONTAINMENT

Hazardous substances present:

Zinc, PCBs, Mercury, lime wastes

Type of containment, if applicable:

55-gallon drums, lined lagoon

* * *

2 WASTE CHARACTERISTICS

Direct Evidence

Type of instrument and measurements:

Not done

Ignitability

Compound used:

Not done

Reactivity

Most reactive compound:

Zinc and lime waste

Incompatibility

Most incompatible pair of compounds:

Zinc and lime waste

* * *

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility:

Approximately 75 drums

Basis of estimating and/or computing waste quantity:

Site inspection conducted 8/21/84 by NUS FIT II

* * *

3 TARGETS

Distance to Nearest Population

50 feet

Ref: #3

Distance to Nearest Building

On site

Ref: #3

Distance to Sensitive Environment

Distance to wetlands:

4 miles

Ref: #1

Distance to critical habitat:

4 miles

Ref: #1

Land Use

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

Approximately 200 feet

Ref: #3

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

None

Ref: #1

Distance to residential area, if 2 miles or less:

Approximately 25 feet

Ref: #3

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

None

Ref: #1

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

None

Ref: #1

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

None

Ref: #1

Population Within 2-Mile Radius

246,826 persons

Ref: #8

Buildings Within 2-Mile Radius

93571 buildings

Ref: #8

DIRECT CONTACT

1 OBSERVED INCIDENT

Date, location, and pertinent details of incident:

None observed

* * *

2 ACCESSIBILITY

Describe type of barrier(s):

Facility is fenced.

* * *

3 CONTAINMENT

Type of containment, if applicable:

Drums are open and/or rusted with contents spilled on ground. Sludge lagoon has clay liner.

Ref: #3

* * *

4 WASTE CHARACTERISTICS

<u>Toxicity</u>

Compounds evaluated:

Mercury, PCBs, trichloroethene

Compound with highest score:

Mercury, PCBs

* * *

5 TARGETS

Population Within One-Mile Radius

67670 persons

Ref: #8

Distance to Critical Habitat (of Endangered Species)

Approximately 4 miles

Ref: #1

Facility name: McGraw - Edison Battery Plant

Location: Bloomfield, NJ

EPA Region: II

Person(s) in charge of the facility: Joseph Amon, Plant Engineer

Name of Reviewer: Laurie Gneiding Date: 6/14/85

General description of the facility:

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

McGraw - Edison manufactures batteries. The site is located in a densely populated area on the Bloomfield-Belleville border. Several residences and shopping centers are adjacent to the site. During a site inspection conducted on 8/21/84, FIT II observed the following: 1) the sludge lagoon is being drained and excavated, will then be filled in and paved over, 2) the open and/or rusted drums are filled with carbon and lime and are being hauled away by L. Pucillo and Sons. FIT II took six soil samples.

Scores: S_M = 6.7 (S_{gw} = 1.05 S_{sw} = 11.5 S_a = 0)PCBs, volatile organics, and and metals including cadmium, mercury and lead were found in the lagoon and in the two Sampled drainage basin.

S_{FE} = 11.25

S_{DC} = 41.7

FIGURE 1
HRS COVER SHEET

Ground Water Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	0 45	1	0	45	3.1
If observed release is given a score of 45, proceed to line 4. If observed release is given a score of 0, proceed to line 2.					
2 Route Characteristics					3.2
Depth to Aquifer of Concern	0 1 2 3	2	4	6	
Net Precipitation	0 1 2 3	1	2	3	
Permeability of the Unsaturated Zone	0 1 2 3	1	2	3	
Physical State	0 1 2 3	1	2	3	
	Total Route Characteristics Score		10	15	
3 Containment	0 1 2 3	1	1	3	3.3
4 Waste Characteristics					3.4
Toxicity/Persistence	0 3 6 9 12 15 18	1	18	18	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	2	8	
	Total Waste Characteristics Score		20	26	
5 Targets					3.5
Ground Water Use	0 1 2 3	3	3	9	
Distance to Nearest Well/Population Served	0 4 6 8 10 / 12 16 18 20 / 24 30 32 35 40	1	0	40	
	Total Targets Score		3	49	
6 If line 1 is 45, multiply 1 x 4 x 5 / If line 1 is 0, multiply 2 x 3 x 4 x 5			600	57,330	
7 Divide line 6 by 57,330 and multiply by 100		S_{gw} = 1.05			

FIGURE 2
GROUND WATER ROUTE WORK SHEET

Surface Water Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	0 45	1	0	45	4.1
If observed release is given a value of 45, proceed to line 4. If observed release is given a value of 0, proceed to line 2.					
2 Route Characteristics					4.2
Facility Slope and Intervening Terrain	0 1 2 3	1	1	3	
1-yr. 24-hr. Rainfall	0 1 2 3	1	2	3	
Distance to Nearest Surface Water	0 1 2 3	2	4	6	
Physical State	0 1 2 3	1	2	3	
	Total Route Characteristics Score		9	15	
3 Containment	0 1 2 3	1	1	3	4.3
4 Waste Characteristics					4.4
Toxicity/Persistence	0 3 6 9 12 15 18	1	18	18	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	2	8	
	Total Waste Characteristics Score		20	26	
5 Targets					4.5
Surface Water Use	0 1 2 3	3	6	9	
Distance to a Sensitive Environment	0 1 2 3	2	0	6	
Population Served/Distance to Water Intake Downstream	0 4 6 8 10 12 16 18 20 24 30 32 35 40	1	35	40	
	Total Targets Score		41	55	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			7380	64,350	
7 Divide line 6 by 64,350 and multiply by 100		S_{sw} =	11.5		

FIGURE 7
SURFACE WATER ROUTE WORK SHEET

Air Route Work Sheet

Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Observed Release	0 45	1	0	45	5.1
Date and Location:	8/21/84				
Sampling Protocol:	HNu and OVA				
If line 1 is 0, the S_a = 0. Enter on line 5. If line 1 is 45, then proceed to line 2.					
2 Waste Characteristics					5.2
Reactivity and Incompatibility	0 1 2 3	1		3	
Toxicity	0 1 2 3	3		9	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
	Total Waste Characteristics Score			20	
3 Targets					5.3
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1		30	
Distance to Sensitive Environment	0 1 2 3	2		6	
Land Use	0 1 2 3	1		3	
	Total Targets Score			39	
4 Multiply 1 x 2 x 3				35,100	
5 Divide line 4 by 35,100 and multiply by 100		S_a =	0		

	S	S^2
Groundwater Route Score (S_{gw})	1.05	1.1
Surface Water Route Score (S_{sw})	11.5	132.25
Air Route Score (S_a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		133.35 ~~11.55~~
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		11.55
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		6.7

FIGURE 10
WORKSHEET FOR COMPUTING S_M

Fire and Explosion Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Containment	1 3	1	1	3	7.1
2 Waste Characteristics					7.2
Direct Evidence	0 3	1	0	3	
Ignitability	0 1 2 3	1	1	3	
Reactivity	0 1 2 3	1	3	3	
Incompatibility	0 1 2 3	1	3	3	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	2	8	
Total Waste Characteristics Score			9	20	
3 Targets					7.3
Distance to Nearest Population	0 1 2 3 4 5	1	4	5	
Distance to Nearest Building	0 1 2 3	1	3	3	
Distance to Sensitive Environment	0 1 2 3	1	0	3	
Land Use	0 1 2 3	1	3	3	
Population Within 2-Mile Radius	0 1 2 3 4 5	1	4	5	
Buildings Within 2-Mile Radius	0 1 2 3 4 5	1	4	5	
Total Targets Score			18	24	
4 Multiply 1 x 2 x 3			162	1,440	
5 Divide line 4 by 1,440 and multiply by 100			S_{FE} = 11.25		

FIGURE 11
FIRE AND EXPLOSION WORK SHEET

Direct Contact Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Incident	0 45	1	0	45	8.1
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2					
2 Accessibility	0 1 2 3	1	2	3	8.2
3 Containment	0 15	1	15	15	8.3
4 Waste Characteristics Toxicity	0 1 2 3	5	15	15	8.4
5 Targets					8.5
Population Within a 1-Mile Radius	0 1 2 3 4 5	4	20	20	
Distance to a Critical Habitat	0 1 2 3	4	0	12	
Total Targets Score			20	32	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			9000	21,600	
7 Divide line 6 by 21,600 and multiply by 100			S_{DC} = 41.7		

FIGURE 12
DIRECT CONTACT WORK SHEET

BIBLIOGRAPHY OF INFORMATION SOURCES

HRS MODEL

	SOURCE	LOCATION
1.	USGS Maps, Orange, NJ Quad.	NUS Corp.
2.	Uncontrolled Hazardous Waste Site Ranking System: A User's Manual, Mitre Corp.	NUS Corp.
3.	Interview with Joseph Amon and Randall Zuccalmaglio during Site Inspection conducted by NUS Corp. FIT II, 8/21/84	Project File
4.	Groundwater Resources of Essex County, New Jersey, State of New Jersey, Department of Conservation and Economic Development, Division of Water Policy and Supply, Special Report #28, 1968.	NUS Corp.
5.	Newark Phone Book, 1982.	NUS Corp.
6.	NJDEP, Division of Water Resources, Water Supply Overlays	NUS Corp.
7.	Analytical data results from ENCO TECH and JTC Env. Cons.	EPA, Edison
8.	Graphical Exposure Modelling System, General Software, Inc., Landover, MD, June 1984.	

Summary Statement
McGraw - Edison Battery Plant
Bloomfield, NJ

McGraw - Edison Battery Plant is approximately 10 acres located on the Bloomfield - Belleville border in Essex County, New Jersey.

The facility is situated in a densely populated area with two shopping centers and many residences surrounding the borders. The site is level to gently sloping (0-3%) with a slight grade (5-8%) located on the Belmont Avenue border. Groundwater usage in the area is strictly commercial. Much of the groundwater is not used due to salt water infiltration. There is little potential for air contamination. McGraw-Edison is permitted to discharge into the Bloomfield/Belleville sewer system. Contaminated runoff may enter the sewer system.

McGraw - Edison manufactures batteries. Wastes generated on site include carbon and lime. These compounds are stored in drums until hauled away by the local sanitation department. Mercury and zinc turnings are also generated and stored on site in 55 gallon drums. A 1922 sq. ft. lined settling lagoon is located on site. It is presently being excavated to be later filled in and paved over for use as a parking lot.

NJ DEP sampled McGraw - Edison in the beginning of August by Helen Wright. Results of sampling are not known. NUS Corp. FIT II took six soil samples on August 21, 1984. PCBs, volatile organics, and metals including cadmium, mercury, and lead were found in the lagoon and in the two sampled drainage basins.

ANALYTICAL DATA
McGraw-Edison Co.
SAMPLING DATE: 8/21/84
CASE: NJ53

VOLATILES				
SAMPLE NUMBER	NJ53-01	NJ53-02	NJ53-03	NJ53-04
MATRIX	SOIL	SOIL	SOIL	SOIL
UNITS	UG/KG	UG/KG	UG/KG	UG/KG
Acrolein	E	E	E	E
Acrylontrile	E	E	E	E
Chloromethane	E	E	E	E
Bromomethane	E	E	E	E
Vinyl Chloride	E	E	E	E
Chloroethane	E	E	E	E
Methylene Chloride	E	E	E	E
Acetone	E	E	E	E
Carbondisulfide	E	E	E	E
1,1-Dichloroethene	E	E	E	E
1,2-Dichloroethane	E	E	E	E
Trans-1,2-Dichloroethene	E	E	E	E
Chloroform	E	E	E	E
1,1-Dichloroethene	E	E	E	E
2-Butanone	E	E	E	E
1,1,1-Trichloroethane	E	E	E	E
Carbon Tetrachloride	E	E	E	E
Vinyl Acetate	E	E	E	E
Bromodichloromethane	E	E	E	E
1,1,2,2-Tetrachloroethane	E	E	E	E
1,2-Dichloropropane	E	E	E	E
Trans-1,3-Dichloropropene	E	E	E	E
Trichloroethene	E	E	E	E
Dibromochloromethane	E	E	E	E
1,1,2-Trichloroethane	E	E	E	E
Benzene	E	E	E	E
Cis-1,3-Dichloropropene	E	E	E	E
2-Chloroethylvinylether	E	E	E	E
Bromoform	E	E	E	E
2-Hexanone	E	E	E	E
4-Methyl-2-Pentanone	E	E	E	E
Tetrachloroethene	E	E	E	E
Toluene	E	E	E	E
Chlorobenzene	E	E	E	E
Ethylbenzene	E	E	E	E
Styrene	E	E	E	E
Total Xylenes	E	E	E	E
Fluorotrichloromethane	E	E	E	E
Dichlorodifluoromethane	E	E	E	E

NOTES:
Blank space - compound analyzed for but not detected
E - analysis did not pass QA/QC requirements
J - compound present below the specified detection limit

ANALYTICAL DATA

McGraw-Edison Co.
SAMPLING DATA : 8/21/84
CASE NUMBER : NJ53

SEMI-VOLATILES

SAMPLE NUMBER MATRIX UNITS	NJ53-01 SOIL UG/KG	NJ53-02 SOIL UG/KG	NJ53-03 SOIL UG/KG	NJ53-04 SOIL UG/KG
N-Nitrosodimethylamine	E	E	E	
Phenol	E	E	E	
Aniline	E	E	E	
Bis(2-Chloroethyl)Ether	E	E	E	
2-Chlorophenol	E	E	E	
1,3-Dichlorobenzene	E	E	E	
1,4-Dichlorobenzene	E	E	E	
Benzyl Alcohol	E	E	E	
1,2-Dichlorobenzene	E	E	E	
2-Methylphenol	E	E	E	
Bis(2-Chloroisopropyl)Ether	E	E	E	
4-Methylphenol	E	E	E	
N-Nitroso-Di-n-Propylamine	E	E	E	
Hexachloroethane	E	E	E	
Nitrobenzene	E	E	E	
Isophorone	E	E	E	
2-Nitrophenol	E	E	E	
2,4-Dimethylphenol	E	E	E	
Benzoic Acid	E	E	E	
Bis(2-Chloroethoxy)Methane	E	E	E	
2,4-Dichlorophenol	E	E	E	
1,2,4-Trichlorobenzene	E	E	E	
Naphthalene	E	E	E	
4-Chloroaniline	E	E	E	
Hexachlorobutadiene	E	E	E	
4-Chloro-3-Methylphenol	E	E	E	
2-Methylnaphthalene	E	E	E	
Hexachlorcyclopentadiene	E	E	E	
2,4,6-Trichlorophenol	E	E	E	
2,4,5-Trichlorophenol	E	E	E	
2-Chloronaphthalene	E	E	E	
2-Nitroaniline	E	E	E	
Dimethyl Phthalate	E	E	E	
Acenaphthylene	E	E	E	
3-Nitroaniline	E	E	E	
Acenaphthene	E	E	E	
2,4-Dinitrophenol	E	E	E	
4-Nitrophenol	E	E	E	
Dibenzofuran	E	E	E	
2,4-Dinitrotoluene	E	E	E	
2,6-Dinitrotoluene	E	E	E	
Diethyl Phthalate	E	E	E	
4-Chlorophenyl-phenylether	E	E	E	
Fluorene	E	E	E	
4-Nitroaniline	E	E	E	
4,6-Dinitro-2-Methylphenol	E	E	E	
N-Nitrosodiphenylamine	E	E	E	
4-Bromophenyl-Phenylether	E	E	E	
Hexachlorobenzene	E	E	E	
Pentachlorophenol	E	E	E	
Phenanthrene	E	E	E	
Anthracene	E	E	E	
Di-n-Butylphthalate	E	E	E	
Fluoranthene	E	E	E	

ANALYTICAL DATA
McGraw-Edison Co.
SAMPLING DATA : 8/21/84
CASE NUMBER : NJ53

SEMI-VOLATILES

SAMPLE NUMBER	NJ53-01	NJ53-02	NJ53-03	NJ53-04
MATRIX	SOIL	SOIL	SOIL	SOIL
UNITS	UG/KG	UG/KG	UG/KG	UG/KG
Benzidine	E	E	E	
Pyrene	E	E	E	J
Butylbenzylphthalate	E	E	E	
3,3'-Dichlorobenzidine	E	E	E	
Benzo(a)Anthracene	E	E	E	
Bis(2 Ethylhexyl)Phthalate	E	E	E	
Chrysene	E	E	E	
Di-n-Octyl Phthalate	E	E	E	
Benzo(b)Fluoranthene	E	E	E	
Benzo(K)Fluoranthene	E	E	E	
Benzo(a)Pyrene	E	E	E	
Indeno(1,2,3-cd)Pyrene	E	E	E	
Dibenzo(a,h)Anthracene	E	E	E	
Benzo(ghi)Perylene	E	E	E	

NOTES:
Blank space - compound analyzed for but not detected
E - analysis did not pass QA/QC requirements
J - compound present below the specified detection limit

ANALYTICAL DATA
McGraw-Edison Co.
SAMPLING DATA : 8/21/84
CASE NUMBER : NJ53

PESTICIDES/PCBs

SAMPLE NUMBER	NJ53-01	NJ53-02	NJ53-03	NJ53-04
MATRIX	SOIL	SOIL	SOIL	SOIL
UNITS	UG/KG	UG/KG	UG/KG	UG/KG
Alpha-BHC	E	E	E	E
Beta-BHC	E	E	E	E
Delta-BHC	E	E	E	E
Gamma-BHC (Lindane)	E	E	E	E
Heptachlor	E	E	E	E
Aldrin	E	E	E	E
Heptachlor Epoxide	E	E	E	E
Endosulfan I	E	E	E	E
Dieldrin	E	E	E	E
4,4'-DDE	E	E	E	E
Endrin	E	E	E	E
Endosulfan II	E	E	E	E
4,4'-DDD	E	E	E	E
Endrin Aldehyde	E	E	E	E
4,4'-DDT	E	E	E	E
Methoxychlor	E	E	E	E
Endrin Ketone	E	E	E	E
Chlordane	E	E	E	E
Toxaphene	E	E	E	E
Arochlor-1016	E	E	E	E
Arochlor-1221	E	E	E	E
Arochlor-1232	E	E	E	E
Arochlor-1242	E	E	E	E
Arochlor-1248	E	E	E	E
Arochlor-1254	E	E	E	E
Arochlor-1260	E	E	E	E

NOTES:
Blank space - compound analyzed for but not detected
E - analysis did not pass QA/QC requirements
J - compound present below the specified detection limit

ANALYTICAL DATA
McGraw-Edison Co.
SAMPLING DATA : 8/21/84
CASE NUMBER : NJ53

INORGANICS				
SAMPLE NUMBER	NJ53-01	NJ53-02	NJ53-03	NJ53-04
MATRIX	SOIL	SOIL	SOIL	SOIL
UNITS	MG/KG	MG/KG	MG/KG	MG/KG
Aluminum	1890	3680	5400	4540
Antimony	3			2.2
Arsenic	23.6	8	11	26
Barium	670	27	30	60
Beryllium				0.35
Cadmium	13.5	2.35	0.8	294.4
Chromium	9	2.5	11	8.6
Cobalt	4.3	8.8	3.5	4.3
Copper	43330	400	760	37580
Iron	44500	4360	8080	18900
Lead	920	29	10	450
Manganese	400	46	90	150
Mercury	470	59	148	2462
Nickel	82	200	10.5	165
Selenium	1.6	1.7	3.6	3.6
Silver	59	0.7	2.0	17.5
Thallium				
Tin	38			8
Vanadium			12	
Zinc	116000	770	1360	89900

NOTES:
Blank space - compound analyzed for but not detected
E - analysis did not pass QA/QC requirements
J - compound present below the specified detection limit

ANALYTICAL DATA
McGraw-Edison Co.
SAMPLING DATE: 8/21/84
CASE: NJ53

VOLATILES

SAMPLE NUMBER	NJ53-05	NJ53-06	NJ53-07
MATRIX	SOIL	SOIL	WATER
UNITS	UG/KG	UG/KG	UG/L
Acrolein	E	E	E
Acrylontrile	E	E	E
Chloromethane	E	E	E
Bromomethane	E	E	E
Vinyl Chloride	E	E	E
Chloroethane	E	E	E
Methylene Chloride	E	E	E
Acetone	E	E	E
Carbondisulfide	E	E	E
1,1-Dichloroethene	E	E	E
1,2-Dichloroethane	E	E	E
Trans-1,2-Dichloroethene	E	E	E
Chloroform	E	E	E
1,1-Dichloroethene	E	E	E
2-Butanone	E	E	E
1,1,1-Trichloroethane	E	E	E
Carbon Tetrachloride	E	E	E
Vinyl Acetate	E	E	E
Bromodichloromethane	E	E	E
1,1,2,2-Tetrachloroethane	E	E	E
1,2-Dichloropropane	E	E	E
Trans-1,3-Dichloropropene	E	E	E
Trichloroethene	E	E	E
Dibromochloromethane	E	E	E
1,1,2-Trichloroethane	E	E	E
Benzene	E	E	E
Cis-1,3-Dichloropropene	E	E	E
2-Chloroethylvinylether	E	E	E
Bromoform	E	E	E
2-Hexanone	E	E	E
4-Methyl-2-Pentanone	E	E	E
Tetrachloroethene	E	E	E
Toluene	E	E	E
Chlorobenzene	E	E	E
Ethylbenzene	E	E	E
Styrene	E	E	E
Total Xylenes	E	E	E
Fluorotrichloromethane	E	E	E
Dichlorodifluoromethane	E	E	E

NOTES:
Blank space - compound analyzed for but not detected
E - analysis did not pass QA/QC requirements
J - compound present below the specified detection

ANALYTICAL DATA
McGraw-Edison Co.
SAMPLING DATA : 8/21/84
CASE NUMBER : NJ53

SEMI-VOLATILES

SAMPLE NUMBER MATRIX UNITS	NJ53-05 SOIL UG/KG	NJ53-06 SOIL UG/KG	NJ53-07 WATER UG/L
N-Nitrosodimethylamine		E	E
Phenol		E	E
Aniline		E	E
Bis(2-Chloroethyl)Ether		E	E
2-Chlorophenol		E	E
1,3-Dichlorobenzene		E	E
1,4-Dichlorobenzene		E	E
Benzyl Alcohol		E	E
1,2-Dichlorobenzene		E	E
2-Methylphenol		E	E
Bis(2-Chloroisopropyl)Ether		E	E
4-Methylphenol		E	E
N-Nitroso-Di-n-Propylamine		E	E
Hexachloroethane		E	E
Nitrobenzene		E	E
Isophorone		E	E
2-Nitrophenol		E	E
2,4-Dimethylphenol		E	E
Benzoic Acid		E	E
Bis(2-Chloroethoxy)Methane		E	E
2,4-Dichlorophenol		E	E
1,2,4-Trichlorobenzene		E	E
Naphthalene		E	E
4-Chloroaniline		E	E
Hexachlorobutadiene		E	E
4-Chloro-3-Methylphenol		E	E
2-Methylnaphthalene		E	E
Hexachlorcyclopentadiene		E	E
2,4,6-Trichlorophenol		E	E
2,4,5-Trichlorophenol		E	E
2-Chloronaphthalene		E	E
2-Nitroaniline		E	E
Dimethyl Phthalate		E	E
Acenaphthylene		E	E
3-Nitroaniline		E	E
Acenaphthene		E	E
2,4-Dinitrophenol		E	E
4-Nitrophenol		E	E
Dibenzofuran		E	E
2,4-Dinitrotoluene		E	E
2,6-Dinitrotoluene		E	E
Diethyl Phthalate		E	E
4-Chlorophenyl-phenylether		E	E
Fluorene		E	E
4-Nitroaniline		E	E
4,6-Dinitro-2-Methylphenol		E	E
N-Nitrosodiphenylamine		E	E
4-Bromophenyl-Phenylether		E	E
Hexachlorobenzene		E	E
Pentachlorophenol		E	E
Phenanthrene		E	E
Anthracene		E	E
Di-n-Butylphthalate		E	E
Fluoranthene		E	E

ANALYTICAL DATA
McGraw-Edison Co.
SAMPLING DATA : 8/21/84
CASE NUMBER : NJ53

SEMI-VOLATILES

SAMPLE NUMBER MATRIX UNITS	NJ53-05 SOIL UG/KG	NJ53-06 SOIL UG/KG	NJ53-07 WATER UG/L
Benzidine		E	E
Pyrene		E	E
Butylbenzylphthalate		E	E
3,3'-Dichlorobenzidine		E	E
Benzo(a)Anthracene		E	E
Bis(2 Ethylhexyl)Phthalate		E	E
Chrysene		E	E
Di-n-Octyl Phthalate		E	E
Benzo(b)Fluoranthene		E	E
Benzo(K)Fluoranthene		E	E
Benzo(a)Pyrene		E	E
Indeno(1,2,3-cd)Pyrene		E	E
Dibenzo(a,h)Anthracene		E	E
Benzo(ghi)Perylene		E	E

NOTES:
Blank space - compound analyzed for but not detected
E - analysis did not pass QA/QC requirements
J - compound present below the specified detection

ANALYTICAL DATA
McGraw-Edison Co.
SAMPLING DATA : 8/21/84
CASE NUMBER : NJ53

PESTICIDES/PCBs

SAMPLE NUMBER	NJ53-05	NJ53-06	NJ53-07
MATRIX	SOIL	SOIL	WATER
UNITS	UG/KG	UG/KG	UG/L
Alpha-BHC	E	E	E
Beta-BHC	E	E	E
Delta-BHC	E	E	E
Gamma-BHC (Lindane)	E	E	E
Heptachlor	E	E	E
Aldrin	E	E	E
Heptachlor Epoxide	E	E	E
Endosulfan I	E	E	E
Dieldrin	E	E	E
4,4'-DDE	E	E	E
Endrin	E	E	E
Endosulfan II	E	E	E
4,4'-DDD	E	E	E
Endrin Aldehyde	E	E	E
4,4'-DDT	E	E	E
Methoxychlor	E	E	E
Endrin Ketone	E	E	E
Chlordane	E	E	E
Toxaphene	E	E	E
Arochlor-1016	E	E	E
Arochlor-1221	E	E	E
Arochlor-1232	E	E	E
Arochlor-1242	E	E	E
Arochlor-1248	E	E	E
Arochlor-1254	E	E	E
Arochlor-1260	E	E	E

NOTES:
Blank space - compound analyzed for but not detected
E - analysis did not pass QA/QC requirements
J - compound present below the specified detection

ANALYTICAL DATA
McGraw-Edison Co.
SAMPLING DATA : 8/21/84
CASE NUMBER : NJ53

INORGANICS

SAMPLE NUMBER	NJ53-05	NJ53-06	NJ53-07
MATRIX	SOIL	SOIL	WATER
UNITS	MG/KG	MG/KG	MG/KG
Aluminum	3060	2380	
Antimony	1.8	2.4	
Arsenic	9.0	6.0	
Barium	50	23	6.0
Beryllium	0.6	0.6	
Cadmium	10.6	33	
Chromium	40	1500	
Cobalt	7.5	4.5	
Copper	3420	25600	
Iron	21500	29900	
Lead	210	950	
Manganese	98	560	
Mercury	4406	836	
Nickel	164	922	
Selenium	4	2.3	0.35
Silver	0.8	3.0	
Thallium			
Tin	9.0	900	
Vanadium	25		
Zinc	8100	81500	0.75

NOTES:
Blank space - compound analyzed for but not detected
E - analysis did not pass QA/QC requirements
J - compound present below the specified detection

STATE OF NEW JERSEY
DEPARTMENT OF CONSERVATION
AND ECONOMIC DEVELOPMENT

DIVISION OF WATER POLICY
AND SUPPLY

SPECIAL REPORT NO. 28

GROUND-WATER RESOURCES OF ESSEX COUNTY, NEW JERSEY

Prepared in cooperation with
United States Department of the Interior
Geological Survey

1968

TRb, Brunswick Formation
TRwb, Watchung Basalt

Owner or Tenant	Driller	Date Drilled	Altitude above mean sea level (ft)	Total depth drilled below land surface (ft)	Diameter of well (inches)	Depth to which well is cased (ft)	Screen setting (ft)	Aquifer	Static level below land surface (feet)	Yield (gpm)	Drawdown (ft)	Specific capacity (gpm/ft)	Remarks
				BELLVILLE (TOWN)									
Federal Leather Co.	Rinbrand Well Drilling Co.	6-26-51	40	802	10	30	none	TRb	65	60	135	0.44	O.W.4
Van Ness Plastic Moulding	F. J. Bott	8-18-58	60	144	6	22	none	TRb	69	27	18	1.5	O.W.1
Fada Radio & Elec. Co.	Rinbrand Well Drilling Co.	Aug. 1952	10	400	10	69	none	TRb	8	493	130	3.8	O.W.3
Mansal Ceramics Co.	Burrows Well Drilling Co.	2-10-54	70	250	8	27	none	TRb	45	100	115	.87	
Amer. Dyewood Co.	----------	1941	10	420	10	62	none	TRb	6	820	33	24.85	
Eastwood-Neally Co.	----------	1936	12	360	8	71	none	TRb	13	220	56	3.93	
Eastern Tool & Mfg. Co.	Rinbrand Well Drilling Co.	Aug. 1950	105	400	10	23	none	TRb	35	188	115	1.63	O.W.2
Miller and Son	Algeier Bros.	9-4-51	18	206	6	67	none	TRb	13	60	17	1.76	
A. J. Crowhurst & Sons	Wm. Stothoff Co., Inc.	11-21-50	15	83	10	67	67-82	Qsd	12	325	53	6.13	O.W.2
Jack Frost Dairy	Rinbrand Well Drilling Co.	5-3-56	120	185	8	60	none	TRb	25	50	75	.66	O.W.1
				BLOOMFIELD (TOWN)									
Brookdale Beverage Co.	F. J. Bott	11-18-57	---	430	8	46	none	TRb	50	85	100	.85	O.W.2
J. Talmidge	Burrows Well Drilling Co.	11-2-56	185	201	6	46	none	TRb	15	60	135	.44	
Glen Ridge Country Club	H. A. Keiffer	9-15-58	---	353	10	52	none	TRb	17	300	14	21.40	O.W.2
Triples Auto Laundry, Inc.	Burrows Well Drilling Co.	12-16-57	115	185	6	23	none	TRb	22	60	---	---	
Leonora Corp.	F. J. Bott	6-21-57	---	200	8	33	none	TRb	6	70	74	.95	
Maurice H. Cooper	Burrows Well Drilling Co.	11-26-56	120	205	8	69	none	TRb	11	180	89	1.12	
Schering Corp.	Wm. Stothoff Co., Inc.	10-2-54	120	478	10	29	none	TRb	30	127	124	1.21	O.W.1
MGM Record Div.	F.J.Bott	1-20-58	140	404	8	20	none	TRb	60	160	150	1.07	O.W.3
MGM Record Div.	F. J. Bott	11-12-59	130	211	8	23	none	TRb	58	115	102	1.13	O.W.4
MGM Record Div.	F. J. Bott	2-11-60	130	579	8	36	none	TRb	50	120	150	.80	O.W.5
Warner Mfg. Co.	Algeier Bros.	5-19-57	---	395	8	35	none	TRb	25	220	20	11.	

of glacial origin and few outcrops can be found. As indicated from records of wells drilled in this area, the rocks are mainly shale and some interbedded sandstone.

Two prominent ridges, First and Second Watchung Mountains, extend from northeast to southwest across the county (fig. 2). These are the two lowest sequences of basalt flows of the Watchung Basalt. The third, uppermost, sequence of flows is represented by Ricker Hill in Livingston Township. These basalt sheets were formed by lava which was extruded at three different times during the accumulation of the sedimentary rocks of the formation. Each of these sheets is made up of several lava flows. Scoriaceous zones occur at the top of many of the individual flows. In some places, thin beds of shale occur between successive flows. The lower part of the Watchung Basalt, which comprises First Watchung Mountain, is from 600 to 650 feet thick; the Watchung Basalt in Second Watchung Mountain varies from 750 to 900 feet in thickness; the uppermost Watchung Basalt ranges from 225 to 350 feet in thickness (Darton and others, 1908, p. 10).

First and Second Watchung Mountains are parallel, and in places have double-crested ridges reflecting the presence of interbedded sedimentary rocks; the ridges generally rise between 300 and 400 feet above the adjacent country. The trend of the ridges reflect the general strike of the sedimentary rocks of the Brunswick Formation. The beds dip about 10 degrees toward the northwest.

Pleistocene and Recent Deposits

Unconsolidated sediments deposited by glaciers or by glacial meltwater during the Pleistocene Epoch cover most areas of Essex County. These deposits can be divided roughly into several types. Unstratified drift called till or ground moraine is a heterogeneous mixture of clay, silt, sand, gravel, cobbles, and boulders which was deposited by the ice. Unstratified drift that has accumulated in a ridgelike deposit along the margin of a glacier is called an end moraine. Stratified drift is deposited by glacial meltwater in streams (glaciofluvial deposits) and lakes (glaciolacustrine deposits). Glaciofluvial deposits are generally stratified sand, and sand and gravel, and glaciolacustrine deposits are usually bedded or laminated silt and clay. Figure 3 is a map showing the generalized distribution of the Pleistocene deposits in Essex County.

Streams and rivers draining the Essex County area before the last glaciation cut deep valleys into the Triassic rocks (fig. 3). These valleys were subsequently buried by glacial debris, and the thickness of the glacial deposits is largely controlled by the underlying bedrock topography. The

GEOLOGY

INTRODUCTION

The Brunswick Formation and Watchung Basalt of the Newark Group of Late Triassic age underlie all of Essex County. The Brunswick Formation is dominantly shale and sandstone, but also includes minor amounts of conglomerate. The Watchung Basalt consists of three extensive sequences of lava flows intercalated with the shale and sandstone of the Brunswick Formation. The generalized bedrock geologic map (fig. 2) shows the areal extent of the rocks of Triassic age underlying Essex County. Overlying the rocks of the Newark Group are unconsolidated clay, sand, and gravel deposited during the Pleistocene and Recent Epochs. Pleistocene deposits are the most widespread and are found throughout the county. Deposits of Recent age are confined to the present-day stream valleys. Figure 3 shows the general distribution of the unconsolidated Pleistocene deposits.

Parts of Fairfield and Millburn Townships and Newark are underlain by valleys cut (fig. 3) in bedrock by streams that drained the area before the last glaciation. The valley were subsequently filled in and buried by glacial debris and have little present-day surface expression.

DISTRIBUTION AND LITHOLOGY OF ROCK UNITS

Consolidated Rocks

Rocks of the Brunswick Formation, the uppermost unit of the Newark Group, underlie most of Essex County. The formation consists dominantly of interbedded brown, reddish-brown, and gray shale, sandy shale, sandstone, and some conglomerate. Three sheets of gray to black basalt are intercalated with sandstone and shale beds of the Brunswick Formation. The total thickness of the Brunswick Formation is not known, but probably exceeds 6,000 feet (Kümmel 1940, p. 102).

In the southern part of the county east of the Watchung Mountains, the Brunswick Formation is predominantly a soft red shale. These rocks become coarser grained toward the north. In the northern part of the county the rocks are mostly sandstone and some interbedded shale; conglomerate is found in the extreme northern part of the county. This change from soft, easily weathered, shale to more resistant sandstone is reflected in the change of topography from the rather flat low-lying plain with few hills in southern Newark to hills of low relief in the northern part of the county.

Between First and Second Watchung Mountains, the Brunswick Formation is dominantly sandstone. West of Second Watchung Mountain, the formation is covered with thick deposits of unconsolidated sediments

GROUND-WATER RESOURCES OF ESSEX COUNTY, NEW JERSEY

By William D. Nichols

ABSTRACT

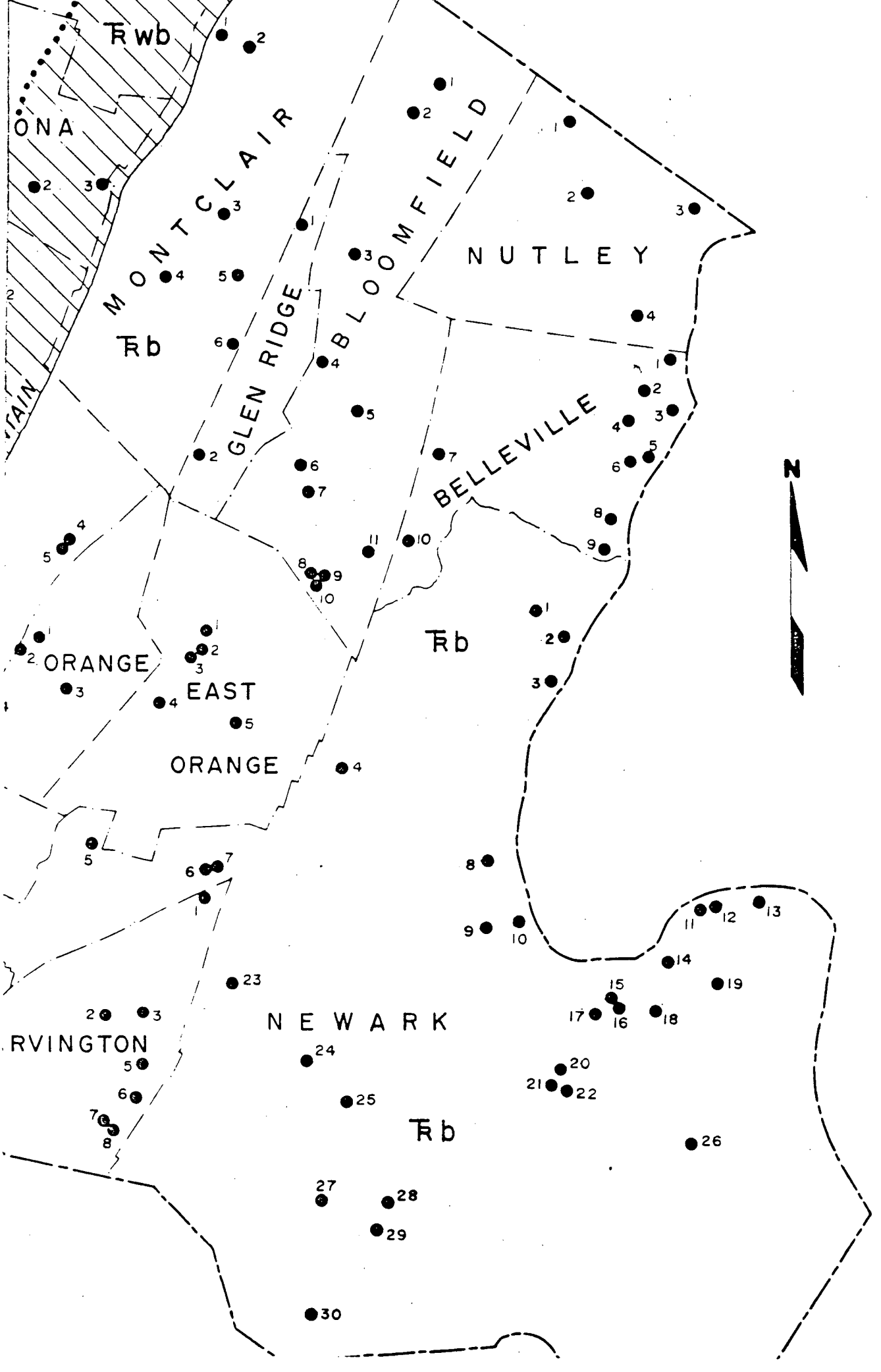
Ground water in Essex County occurs in joints and fractures in consolidated rocks and in the voids of unconsolidated statified drift deposits. Wells in sandstone and shale of the Brunswick Formation of Triassic age yield from 35 to 820 gpm; the most productive water-bearing zones are commonly between depths of 300 to 400 feet. Drawdown due to pumping is greatest in the direction of strike of the formation (about N 30° E in Essex County) and least in the direction perpendicular to strike. Wells in the Watchung basalt, which is intercalated with rocks of the Brunswick Formation commonly yield small to moderate supplies but may occasionally yield up to 400 gpm. Large yields, ranging from 410 to 1,593 gpm, are common from wells tapping the stratified drift deposits in the western part of the county.

Quality of ground water is acceptable for most uses throughout the county. However, heavy pumpage in the Newark area has lowered water levels to more than 100 feet below sea level. The low water levels have reversed the natural gradient and induced the flow of salt water into the bedrock aquifer, seriously impairing ground-water quality there. Recent analyses of ground-water samples from Newark indicate that the chloride concentration in the aquifer has increased since the preliminary study of the problem by Herpers and Barksdale in 1951.

Highly productive stratified drift deposits are found primarily in that part of the county west of Second Watchung Mountain. They occur as valley-fill material in stream valleys cut into the underlying bedrock before the last glaciation. These deposits in Essex County are part of an extensive valley-fill aquifer system underlying the eastern Morris-western Essex County area. Water levels in these deposits in western Millburn Township have declined 36 feet since 1950, probably as a result of below normal rainfall for most of the period 1953 to 1966 together with constantly increasing pumpage throughout the area.

Withdrawals of ground water from all aquifers in Essex County for public supply averaged about 26 mgd (million gallons per day) in 1966. Pumpage for public supply from aquifers in unconsolidated sediments averaged 20.9 mgd, about 81 percent of the total from all aquifers.

Most of the productive aquifers in Essex County are currently being developed. Although the optimum potential of the stratified drift aquifers


Ŧwb
ONA
MONTCLAIR
BLOOMFIELD
NUTLEY
Ŧb
GLEN RIDGE
BELLEVILLE
N
ORANGE
EAST
ORANGE
Ŧb
NEWARK
RVINGTON
Ŧb

NUS CORPORATION
A Halliburton Company

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
EXECUTIVE SUMMARY

McGraw-Edison Battery Plan	NJD096899540
Site Name	EPA Site ID Number
75 Belmont Avenue Bloomfield, NJ	02-8403-27A
Address	TDD Number

SITE DESCRIPTION

McGraw Edison Battery Plant, located on the Bloomfield - Belleville border, is situated in a densely populated area with two shopping centers and many residences surrounding the borders. Groundwater in the area is limited to industrial usage due to salt water infiltration. There is little potential for surface water or air contamination.

Wastes generated from the battery manufacturer include carbon black, lime, zinc turnings, mercury amalgam, and spent acid. The mercury and zinc are stored on site in 55-gallon drums.

Non-contact cooling water,runoff from the roof, and drainage from air conditioners are permitted to be drained to the PVSC sewer.

A 1922 sq. ft., clay-lined, settling lagoon is located on site. Mercury sludge was stored there. The sludge was taken out, and the lagoon excavated. It will soon be filled in and paved over for use as a parking lot.

The 75-100 open and/or rusted drums, are filled with carbon black and lime and hauled away by L. Pucillo and Sons.

FIT II took six soil samples during the site inspection of August 21, 1984.

HAZARD RANKING SCORE: _____

Prepared by: L. Gneiding of NUS Corporation Date: 1/28/85

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NJ	D096869540

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 _____
- CUBIC YARDS _____
- NO. OF DRUMS 50-75

03 WASTE CHARACTERISTICS (Check all that apply)

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

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS	50-75	55-gallon	Carbon
IOC	INORGANIC CHEMICALS		drums	Lime
ACD	ACIDS	Unknown		hydrochloric acid
BAS	BASES			
MES	HEAVY METALS	Unknown		Zinc & mercury amalgam in zinc process

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
MES	Zinc turnings		Drums - 55 gallon	50%	by wt.
MES	Mercury amalgam		Drums - 55 gallon	50%	by wt.
OCC	Carbon		55 gallon drums	50%	by wt.
LOC	Lime			50%	by wt.

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS	85% potassium	1310-58-3	FDS		
FDS	hydroxide		FDS		
FDS	hydrocloric acid		FDS		
FDS			FDS		

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

Off-site reconnaissance by NUS Corp. FIT II 6/14/84
Site Inspection by NUS Corp. FIT II 8/21/84
Interview with Joe Amon, Plant Engineer 8/21/84

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NJ	D096869540

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ A. GROUNDWATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

No potential exists as the lagoon has been pumped out and will be filled in and paved over. The lagoon is clay-lined.

01 ☒ B. SURFACE WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: >10,000 04 NARRATIVE DESCRIPTION

The potential exists if the sewers become contaminated.

01 ☐ C. CONTAMINATION OF AIR — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: None 04 NARRATIVE DESCRIPTION

NO potential exists.

01 ☐ D. FIRE EXPLOSIVE CONDITIONS — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: None 04 NARRATIVE DESCRIPTION

No potential exists.

01 ☒ E. DIRECT CONTACT — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: >10000 04 NARRATIVE DESCRIPTION

The potential exists until the drums are hauled away and the lagoon has been emptied, filled in, and paved over.

01 ☒ F. CONTAMINATION OF SOIL — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: <1 (Acres) 04 NARRATIVE DESCRIPTION

The potential exists if the zinc and mercury amalgam is not disposed of properly.

01 ☐ G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: None 04 NARRATIVE DESCRIPTION

No potential exists. No drinking water supplies are drawn from the area.

01 ☒ H. WORKER EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: Appox 150 04 NARRATIVE DESCRIPTION

The potential exists until the drums are hauled away and the lagoon emptied, filled in, and paved over.

01 ☒ I. POPULATION EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: >10000 04 NARRATIVE DESCRIPTION

The potential exists until the drums are hauled away and the lagoon has been emptied, filled in, and paved over.

.S. EPA Contract Laboratory Program
ample Management Office
.O. Box 818 - Alexandria, VA 22313
03/557-2490 FTS: 8-557-2490

EPA Sample No.
NJ53-07

Date 9.20.84

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTC Environmental

CASE NO. NJ-53

LAB SAMPLE ID. NO. 84-0404

QC REPORT NO. 1

Matrix Aqueous (Soil Blank)

Elements Identified and Measured

ug/L or mg/kg (Circle One)

1.	Aluminum	<5.	13.	Magnesium	NR
2.	Antimony	<1.	14.	Manganese	<.5
3.	Arsenic	<.5	15.	Mercury	<.1
4.	Barium	6.	16.	Nickel	<2.
5.	Beryllium	<.25	17.	Potassium	NR
6.	Cadmium	<.05	18.	Selenium	.35
7.	Calcium	NR	19.	Silver	<.5
8.	Chromium	<.5	20.	Sodium	NR
9.	Cobalt	<2.5	21.	Thallium	<.5
10.	Copper	<2.5	22.	Tin	ND/13
11.	Iron	<2.5	23.	Vanadium	<10
12.	Lead	<.25	24.	Zinc	.75

Cyanide NR

Percent Solids NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. NJ53-06

Date 9.20.87

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTC Environmental

CASE NO. NJ-53

LAB SAMPLE ID. NO. 84-0403

QC REPORT NO. 1

Matrix Soil

Elements Identified and Measured

ug/L or mg/kg (Circle One)

1.	Aluminum	2380	13.	Magnesium	NR
2.	Antimony	2.4	14.	Manganese	560.
3.	Arsenic	6	15.	Mercury	836.
4.	Barium	23	16.	Nickel	922
5.	Beryllium	.6	17.	Potassium	NR
6.	Cadmium	33.	18.	Selenium	2.3
7.	Calcium	NR	19.	Silver	3.
8.	Chromium	1500.	20.	Sodium	NR
9.	Cobalt	11.5	21.	Thallium	<1.5
10.	Copper	25600	22.	Tin	900 C
11.	Iron	29900	23.	Vanadium	<10
12.	Lead	950.	24.	Zinc	81500

Cyanide NR

Percent Solids NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. NJ53-05

Date 9.20.84

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTC Environmental CASE NO. NJ-53

LAB SAMPLE ID. NO. 84-0402 QC REPORT NO. 1

Matrix Soil

Elements Identified and Measured

ug/L or mg/kg (Circle One)

1.	Aluminum	3060	13.	Magnesium	NR
2.	Antimony	1.8	14.	Manganese	98.
3.	Arsenic	9.	15.	Mercury	4406 E, S
4.	Barium	50	16.	Nickel	164
5.	Beryllium	.6	17.	Potassium	NR
6.	Cadmium	10.6	18.	Selenium	4.
7.	Calcium	NR	19.	Silver	.8
8.	Chromium	40	20.	Sodium	NR
9.	Cobalt	7.5	21.	Thallium	<.5
10.	Copper	3420	22.	Tin	9C
11.	Iron	21500	23.	Vanadium	25
12.	Lead	210	24.	Zinc	8100

Cyanide NR Percent Solids NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. NJ53-04

Date 9.20.84

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTC Environmental

CASE NO. NJ53

LAB SAMPLE ID. NO. 84-0401

QC REPORT NO. 1

Matrix Soil

Elements Identified and Measured

ug/L or mg/kg (Circle One)

1.	Aluminum	4540	13.	Magnesium	NR
2.	Antimony	2.2	14.	Manganese	150.
3.	Arsenic	26.	15.	Mercury	2462
4.	Barium	60.	16.	Nickel	165
5.	Beryllium	.35	17.	Potassium	NR
6.	Cadmium	294.4	18.	Selenium	3.6
7.	Calcium	NR	19.	Silver	17.5
8.	Chromium	8.6	20.	Sodium	NR
9.	Cobalt	4.3	21.	Thallium	<1.5
10.	Copper	37580.	22.	Tin	8C
11.	Iron	18900	23.	Vanadium	<10
12.	Lead	450.	24.	Zinc	89900

Cyanide NR

Percent Solids NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. NJ53-03

Date 9.20.84

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTL Environmental

CASE NO. NJ53

LAB SAMPLE ID. NO. 84-0400

QC REPORT NO. 1

Matrix Soil

Elements Identified and Measured

ug/L or mg/kg (Circle One)

1.	Aluminum	5400	13.	Magnesium	NR
2.	Antimony	<1	14.	Manganese	90
3.	Arsenic	11.	15.	Mercury	148.
4.	Barium	30	16.	Nickel	10.5
5.	Beryllium	<.25	17.	Potassium	NR
6.	Cadmium	.8	18.	Selenium	3.6
7.	Calcium	NR	19.	Silver	2.
8.	Chromium	11.	20.	Sodium	NR
9.	Cobalt	3.5	21.	Thallium	<.5
10.	Copper	760.	22.	Tin	ND/13
11.	Iron	8080	23.	Vanadium	12.
12.	Lead	10.	24.	Zinc	1360

Cyanide NR

Percent Solids NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. NJ53-02

Date 9.20.84

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTC Environmental

CASE NO. NJ-53

LAB SAMPLE ID. NO. 84-0399

QC REPORT NO.

Matrix Soil

Elements Identified and Measured

ug/L or mg/kg (Circle One)

1.	Aluminum	3680	13.	Magnesium	NR
2.	Antimony	<1	14.	Manganese	46.
3.	Arsenic	8.	15.	Mercury	59.
4.	Barium	27.	16.	Nickel	200
5.	Beryllium	<.25	17.	Potassium	NR
6.	Cadmium	2.35	18.	Selenium	1.7
7.	Calcium	NR	19.	Silver	.7
8.	Chromium	2.5	20.	Sodium	NR
9.	Cobalt	8.8	21.	Thallium	<.5
10.	Copper	400.	22.	Tin	ND/B
11.	Iron	4360	23.	Vanadium	<10.
12.	Lead	29	24.	Zinc	770

Cyanide NR

Percent Solids NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager S. S.

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. NJ53-01

Date 9.20.84

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTC Environmental

CASE NO. NJ53

LAB SAMPLE ID. NO. 84.0398

QC REPORT NO. 1

Matrix Soil

Elements Identified and Measured

ug/L or mg/kg (Circle One)

1.	Aluminum	1890	13.	Magnesium	NR
2.	Antimony	3	14.	Manganese	400.
3.	Arsenic	23.6	15.	Mercury	470.
4.	Barium	670	16.	Nickel	82.
5.	Beryllium	<.25	17.	Potassium	NR
6.	Cadmium	13.5	18.	Selenium	1.6
7.	Calcium	NR	19.	Silver	59.
8.	Chromium	9.	20.	Sodium	NR
9.	Cobalt	4.3	21.	Thallium	<.5
10.	Copper	43330	22.	Tin	38 C
11.	Iron	44500	23.	Vanadium	4.0
12.	Lead	920	24.	Zinc	116000

Cyanide NR

Percent Solids NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

Form I

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: ENCOTEC
Lab Sample ID No: NJ5307VOA
Sample Matrix: WATER
Data Release Authorized By: [signature]

Case No: NJ53
QC Report No:
Contract No.: 68-01-6764
Date Sample Received: 9/22/84

VOLATILES

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: N/A
DATE ANALYZED: 9/27/84
PERCENT MOISTURE: N/A
CONC./DILUTION FACTOR: 1

PP #	CAS #		ug/l or ug/kg (circle one)
(2V)	107-02-8	acrolein	10 u
(3V)	107-13-1	acrylonitrile	100 u
(4V)	71-43-2	benzene	5 u
(6V)	56-23-5	carbon tetrachloride	5 u
(7V)	108-90-7	chlorobenzene	5 u
(10V)	107-06-2	1,2-dichloroethane	5 u
(11V)	71-55-6	1,1,1-trichloroethane	5 u
(13V)	75-34-3	1,1-dichloroethane	5 u
(14V)	79-00-5	1,1,2-trichloroethane	10 u
(15V)	79-34-5	1,1,2,2-tetrachloroethane	10 u
(16V)	75-00-3	chloroethane	10 u
(19V)	110-75-8	2-chloroethylvinyl ether	10 u
(23V)	67-66-3	chloroform	15
(29V)	75-35-4	1,1-dichloroethene	5 u
(30V)	156-60-5	trans-1,2-dichloroethene	5 u
(32V)	78-87-5	1,2-dichloropropane	10 u
(33V)	10061-02-6	trans-1,3-dichloropropene	5 u
	10061-01-05	cis-1,3-dichloropropene	5 u
(38V)	100-41-4	ethylbenzene	5 u
(44V)	75-09-2	methylene chloride	15
(45V)	74-87-3	chloromethane	10 u
(46V)	74-83-9	bromomethane	10 u
(47V)	75-25-2	bromoform	10 u
(48V)	75-27-4	bromodichloromethane	5 u
(49V)	75-69-4	fluorotrichloromethane	—
(50V)	75-71-8	dichlorodifluoromethane	—
(51V)	124-48-1	chlorodibromomethane	5 u
(85V)	127-18-4	tetrachloroethene	5 u
(86V)	108-88-3	toluene	120
(87V)	79-01-6	trichloroethene	2K
(88V)	75-01-4	vinyl chloride	10 u
	67-64-1	acetone	35
	78-93-3	2-butanone	5 u
	75-15-0	carbondisulfide	5 u
	519-78-6	2-hexanone	5 u
	108-10-1	4-methyl-2-pentanone	5 u
	100-42-5	styrene	5 u
	108-05-4	vinyl acetate	5 u
	1330-20-7	total xylenes	5 u

PESTICIDES

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 8/26/84
DATE ANALYZED: 11/27, 12/5/84
PERCENT MOISTURE: N/A
CONC./DILUTION FACTOR: 1

PP #	CAS #		ug/l or ug/kg (circle one)
(89P)	309-00-2	aldrin	0.3 u
(90P)	60-57-1	dieldrin	1 u
(91P)	57-74-9	chlordane	4 u
(92P)	50-29-3	4,4'-DDT	3 u
(93P)	72-55-9	4,4'-DDE	0.3 u
(94P)	72-54-8	4,4'-DDD	1 u
(95P)	115-29-7	α-endosulfan	0.2 u
(96P)	115-29-7	β-endosulfan	1 u
(97P)	1031-07-8	endosulfan sulfate	2 u
(98P)	72-20-8	endrin	0.4 u
(99P)	7421-93-4	endrin aldehyde	1 u
(100P)	76-44-8	heptachlor	2 u
(101P)	1024-57-3	heptachlor epoxide	1 u
(102P)	319-84-6	α-BHC	0.2 u
(103P)	319-85-7	β-BHC	1 u
(104P)	319-86-8	δ-BHC	0.1 u
(105P)	58-89-9	γ-BHC (lindane)	0.2 u
(106P)	53469-21-9	PCB-1242	10 u
(107P)	11097-69-1	PCB-1254	20 u
(108P)	11104-28-2	PCB-1221	300 u
(109P)	11141-16-5	PCB-1232	160 u
(110P)	12672-29-6	PCB-1248	330
(111P)	11096-82-5	PCB-1260	50 u
(112P)	12674-11-2	PCB-1016	40 u
(113P)	8001-35-2	toxaphene	10 u

Method not applicable.

DIOXINS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: N/A
DATE ANALYZED:
PERCENT MOISTURE:
CONC./DILUTION FACTOR:

PP #	CAS #		ug/l or ug/kg (circle one)
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	

(FIELD BLANK

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: ENCOTEC
Lab Sample ID No: NJ53BNA07
Sample Matrix: SOIL
Date Release Authorized By:

Case No: NJ53
QC Report No:
Contract No.: 68-01-6764
Date Sample Received: 8/22/84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 8/26/84
DATE ANALYZED: 10/17/84
PERCENT MOISTURE: N/A

PP #	CAS #		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6- trichlorophenol	330 U
(22A)	59-50-7	p-chloro-m-cresol	330 U
(26A)	95-57-8	2- chlorophenol	330 U
(31A)	120-83-2	2,4-dichlorophenol	330 U
(34A)	105-67-9	2,4-dimethylphenol	330 U
(37A)	88-75-5	2- nitrophenol	660 U
(38A)	100-02-7	4-nitrophenol	1650 U
(39A)	51-28-5	2,4-dinitrophenol	1650 U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	660 U
(64A)	87-86-5	pentachlorophenol	330 U
(65A)	108-95-2	phenol	330 U
	65-85-0	benzoic acid	3300 U
	95-48-7	2-methylphenol	330 U
	108-39-4	4-methylphenol	330 U
	95-95-4	2,4,5-trichlorophenol	3300 U
(1B)	83-32-9	acenaphthene	330 U
(5B)	92-87-5	benzidine	1300 U
(8B)	120-82-1	1,2,4-trichlorobenzene	330 U
(9B)	118-74-1	hexachlorobenzene	330 U
(12B)	67-72-1	hexachloroethane	330 U
(18B)	111-44-4	bis(2-chloroethyl)ether	330 U
(20B)	91-58-7	2-chloronaphthalene	330 U
(25B)	95-50-1	1,2-dichlorobenzene	330 U
(26B)	541-73-1	1,3-dichlorobenzene	330 U
(27B)	106-46-7	1,4-dichlorobenzene	330 U
(28B)	91-94-1	3,3'-dichlorobenzidine	660 U
(35B)	121-14-2	2,4-dinitrotoluene	660 U
(36B)	606-20-2	2,6-dinitrotoluene	660 U
(37B)	122-66-7	1,2-diphenylhydrazine	660 U
(39B)	206-44-0	fluoranthene	330 U
(40B)	7005-72-3	4-chlorophenyl phenyl ether	330 U
(41B)	101-55-3	4-bromophenyl phenyl ether	330 U
(42B)	39638-32-9	bis (2-chloroisopropyl) ether	660 U
(43B)	111-91-1	bis (2-chloroethoxy) methane	660 U

PP #	CAS #		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	330 U
(53B)	77-47-4	hexachlorocyclopentadiene	330 U
(54B)	78-59-1	isophorone	330 U
(55B)	91-20-3	naphthalene	330 U
(56B)	98-95-3	nitrobenzene	330 U
(62B)	86-30-6	N-nitrosodiphenylamine	330 U
(63B)	621-64-7	N-nitrosodipropylamine	330 U
(66B)	117-81-7	bis (2-ethylhexyl) phthalate	39 K
(67B)	85-68-7	benzyl butyl phthalate	330 U
(68B)	84-74-2	di-n-butyl phthalate	330 U
(69B)	117-84-0	di-n-octyl phthalate	330 U
(70B)	84-66-2	diethyl phthalate	330 U
(71B)	131-11-3	dimethyl phthalate	330 U
(72B)	56-55-3	benzo(a)anthracene	660 U
(73B)	50-32-8	benzo(a)pyrene	660 U
(74B)	205-99-2	benzo(b)fluoranthene	660 U
(75B)	207-08-9	benzo(k)fluoranthene	660 U
(76B)	218-01-9	chrysene	330 U
(77B)	208-96-8	acenaphthylene	330 U
(78B)	120-12-7	anthracene	330 U
(79B)	191-24-2	benzo(ghi)perylene	660 U
(80B)	86-73-7	fluorene	330 U
(81B)	85-01-8	phenanthrene	330 U
(82B)	53-70-3	dibenzo(a,h)anthracene	660 U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	660 U
(84B)	129-00-0	pyrene	330 U
	62-53-3	aniline	330 U
	100-51-6	benzyl alcohol	660 U
	106-47-8	4-chloroaniline	1650 U
	132-64-9	dibenzofuran	330 U
	91-57-6	2-methylnaphthalene	660 U
	88-74-4	2-nitroaniline	3300 U
	99-09-2	3-nitroaniline	3300 U
	100-01-6	4-nitroaniline	3300 U

NJ53-06

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: ENCOTEC
Lab Sample ID No: NJ53Ø6VOA
Sample Matrix: SOIL /SED
Data Release Authorized By: [signature]

Case No: NJ53
QC Report No:
Contract No.: 68-01-6764
Date Sample Received: 9/22/84

VOLATILES

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: N/A
DATE ANALYZED: 9/27/84
PERCENT MOISTURE: 32
CONC./DILUTION FACTOR: 1

PP #	CAS #		ug/l or ug/kg (circle one)
(2V)	107-02-8	acrolein	100 U
(3V)	107-13-1	acrylonitrile	100 U
(4V)	71-43-2	benzene	5 U
(6V)	56-23-5	carbon tetrachloride	5 U
(7V)	108-90-7	chlorobenzene	5 U
(10V)	107-06-2	1,2-dichloroethane	5 U
(11V)	71-55-6	1,1,1-trichloroethane	5 U
(13V)	75-34-3	1,1-dichloroethane	5 U
(14V)	79-00-5	1,1,2-trichloroethane	10 U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	10 U
(16V)	75-00-3	chloroethane	10 U
(19V)	110-75-8	2-chloroethylvinyl ether	10 U
(23V)	67-66-3	chloroform	5 U
(29V)	75-35-4	1,1-dichloroethene	5 U
(30V)	156-60-5	trans-1,2-dichloroethene	5 U
(32V)	78-87-5	1,2-dichloropropane	10 U
(33V)	10061-02-6	trans-1,3-dichloropropene	5 U
	10061-01-05	cis-1,3-dichloropropene	5 U
(38V)	100-41-4	ethylbenzene	61
(44V)	75-09-2	methylene chloride	3,100
(45V)	74-87-3	chloromethane	6 K
(46V)	74-83-9	bromomethane	10 U
(47V)	75-25-2	bromoform	10 U
(48V)	75-27-4	bromodichloromethane	5 U
(49V)	75-69-4	fluorotrichloromethane	
(50V)	75-71-8	dichlorodifluoromethane	
(51V)	124-48-1	chlorodibromomethane	5 U
(85V)	127-18-4	tetrachloroethene	5 U
(86V)	108-88-3	toluene	680
(87V)	79-01-6	trichloroethene	4,400
(88V)	75-01-4	vinyl chloride	10
	67-64-1	acetone	470
	78-93-3	2-butanone	89
	75-15-0	carbondisulfide	1 U
	519-78-6	2-hexanone	5 U
	108-10-1	4-methyl-2-pentanone	5 U
	100-42-5	styrene	5 U
	108-05-4	vinyl acetate	5 U
	1330-20-7	total xylenes	1,200

PESTICIDES

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 8/26/84
DATE ANALYZED: 11/27, 11/30, 12/21/84
PERCENT MOISTURE: 32
CONC./DILUTION FACTOR: 1:100

PP #	CAS #		ug/l or ug/kg (circle one)
(89P)	309-00-2	aldrin	20 U
(90P)	60-57-1	dieldrin	30 U
(91P)	57-74-9	chlordane	60 U
(92P)	50-29-3	4,4'-DDT	170 U
(93P)	72-55-9	4,4'-DDE	8 U
(94P)	72-54-8	4,4'-DDD	8 U
(95P)	115-29-7	α-endosulfan	8 U
(96P)	115-29-7	β-endosulfan	4 U
(97P)	1031-07-8	endosulfan sulfate	2 U
(98P)	72-20-8	endrin	140 U
(99P)	7421-93-4	endrin aldehyde	4 U
(100P)	76-44-8	heptachlor	6 U
(101P)	1024-57-3	heptachlor epoxide	30 U
(102P)	319-84-6	α-BHC	3 U
(103P)	319-85-7	β-BHC	20 U
(104P)	319-86-8	δ-BHC	8 U
(105P)	58-89-9	γ-BHC (lindane)	50 U
(106P)	53469-21-9	PCB-1242	2,000 U
(107P)	11097-69-1	PCB-1254	4,300
(108P)	11104-28-2	PCB-1221	800 U
(109P)	11141-16-5	PCB-1232	2,000 U
(110P)	12672-29-6	PCB-1248	13,000
(111P)	11096-82-5	PCB-1260	4000 ~~4,300~~
(112P)	12674-11-2	PCB-1016	180 U
(113P)	8001-35-2	toxaphene	600 U

Method not acceptable

DIOXINS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 11/8/84
DATE ANALYZED: 12/3/84
PERCENT MOISTURE: 32
CONC./DILUTION FACTOR: 1

PP #	CAS #		ug/l or ug/kg (circle one)
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	160

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: ENCOTEC
Lab Sample ID No: NJ53BNA06
Sample Matrix: SOIL
Date Release Authorized By:

Case No: NJ53
QC Report No:
Contract No.: 68-01-6764
Date Sample Received: 8/22/84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: LOW (MEDIUM) HIGH (circle one)
DATE EXTRACTED/PREPARED: 8/26/84
DATE ANALYZED: 10/18/84
PERCENT MOISTURE: 32

PP #	CAS #		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	20000U
(22A)	59-50-7	p-chloro-m-cresol	20000U
(26A)	95-57-8	2-chlorophenol	20000U
(31A)	120-83-2	2,4-dichlorophenol	20000U
(34A)	105-67-9	2,4-dimethylphenol	20000U
(37A)	88-75-5	2-nitrophenol	40000U
(38A)	100-02-7	4-nitrophenol	100000U
(39A)	51-28-5	2,4-dinitrophenol	100000U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	40000U
(64A)	87-86-5	pentachlorophenol	20000U
(65A)	108-95-2	phenol	20000U
	65-85-0	benzoic acid	20000U
	95-48-7	2-methylphenol	20000U
	108-39-4	4-methylphenol	20000U
	95-95-4	2,4,5-trichlorophenol	20000U
(1B)	83-32-9	acenaphthene	20000U
(5B)	92-87-5	benzidine	78000U
(8B)	120-82-1	1,2,4-trichlorobenzene	20000U
(9B)	118-74-1	hexachlorobenzene	20000U
(12B)	67-72-1	hexachloroethane	20000U
(18B)	111-44-4	bis(2-chloroethyl)ether	20000U
(20B)	91-58-7	2-chloronaphthalene	20000U
(25B)	95-50-1	1,2-dichlorobenzene	20000U
(26B)	541-73-1	1,3-dichlorobenzene	20000U
(27B)	106-46-7	1,4-dichlorobenzene	20000U
(28B)	91-94-1	3,3'-dichlorobenzidine	40000U
(35B)	121-14-2	2,4-dinitrotoluene	40000U
(36B)	606-20-2	2,6-dinitrotoluene	40000U
(37B)	122-66-7	1,2-diphenylhydrazine	40000U
(39B)	206-44-0	fluoranthene	20000U
(40B)	7005-72-3	4-chlorophenyl phenyl ether	20000U
(41B)	101-55-3	4-bromophenyl phenyl ether	20000U
(42B)	39638-32-9	bis (2-chloroisopropyl) ether	40000U
(43B)	111-91-1	bis (2-chloroethoxy) methane	40000U

PP #	CAS #		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	20000U
(53B)	77-47-4	hexachlorocyclopentadiene	20000U
(54B)	78-59-1	isophorone	20000U
(55B)	91-20-3	naphthalene	20000U
(56B)	98-95-3	nitrobenzene	20000U
(62B)	86-30-6	N-nitrosodiphenylamine	20000U
(63B)	621-64-7	N-nitrosodipropylamine	20000U
(66B)	117-81-7	bis (2-ethylhexyl) phthalate	14000K
(67B)	85-68-7	benzyl butyl phthalate	20000U
(68B)	84-74-2	di-n-butyl phthalate	20000U
(69B)	117-84-0	di-n-octyl phthalate	20000U
(70B)	84-66-2	diethyl phthalate	20000U
(71B)	131-11-3	dimethyl phthalate	20000U
(72B)	56-55-3	benzo(a)anthracene	40000U
(73B)	50-32-8	benzo(a)pyrene	40000U
(74B)	205-99-2	benzo(b)fluoranthene	40000U
(75B)	207-08-9	benzo(k)fluoranthene	40000U
(76B)	218-01-9	chrysene	20000U
(77B)	208-96-8	acenaphthylene	20000U
(78B)	120-12-7	anthracene	20000U
(79B)	191-24-2	benzo(ghi)perylene	40000U
(80B)	86-73-7	fluorene	20000U
(81B)	85-01-8	phenanthrene	20000U
(82B)	53-70-3	dibenzo(a,h)anthracene	40000U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	40000U
(84B)	129-00-0	pyrene	20000U
	62-53-3	aniline	20000U
	100-51-6	benzyl alcohol	40000U
	106-47-8	4-chloroaniline	100000U
	132-64-9	dibenzofuran	20000U
	91-57-6	2-methylnaphthalene	40000U
	88-74-4	2-nitroaniline	200000U
	99-09-2	3-nitroaniline	200000U
	100-01-6	4-nitroaniline	200000U

NJ53-05

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: ENCOTEC
Lab Sample ID No: NJ5305UOA
Sample Matrix: SOIL/SED
Data Release Authorized By: [illegible]

Case No: NJ53
QC Report No:
Contract No.: 68-01-6764
Date Sample Received: 8/22/84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: N/A
DATE ANALYZED: 9/27/84 Methanol Prep
PERCENT MOISTURE: 49
CONC./DILUTION FACTOR: 1

PP #	CAS #		ug/l or ug/kg (circle one)
(2V)	107-02-8	acrolein	100 u
(3V)	107-13-1	acrylonitrile	100 u
(4V)	71-43-2	benzene	5 u
(6V)	56-23-5	carbon tetrachloride	5 u
(7V)	108-90-7	chlorobenzene	5 u
(10V)	107-06-2	1,2-dichloroethane	5 u
(11V)	71-55-6	1,1,1-trichloroethane	5 u
(13V)	75-34-3	1,1-dichloroethane	5 u
(14V)	79-00-5	1,1,2-trichloroethane	10 u
(15V)	79-34-5	1,1,2,2-tetrachloroethane	10 u
(16V)	75-00-3	chloroethane	10 u
(19V)	110-75-8	2-chloroethylvinyl ether	10 u
(23V)	67-66-3	chloroform	5 u
(29V)	75-35-4	1,1-dichloroethene	5 u
(30V)	156-60-5	trans-1,2-dichloroethene	29
(32V)	78-87-5	1,2-dichloropropane	10 u
(33V)	10061-02-6	trans-1,3-dichloropropene	5 u
	10061-01-05	cis-1,3-dichloropropene	5 u
(38V)	100-41-4	ethylbenzene	5 u
(44V)	75-09-2	methylene chloride	150
(45V)	74-87-3	chloromethane	10 u
(46V)	74-83-9	bromomethane	10 u
(47V)	75-25-2	bromoform	10 u
(48V)	75-27-4	bromodichloromethane	5 u
(49V)	75-69-4	fluorotrichloromethane	
(50V)	75-71-8	dichlorodifluoromethane	
(51V)	124-48-1	chlorodibromomethane	5 u
(85V)	127-18-4	tetrachloroethene	5 u
(86V)	108-88-3	toluene	5 u
(87V)	79-01-6	trichloroethene	5 u
(88V)	75-01-4	vinyl chloride	10 u
	67-64-1	acetone	5 u
	78-93-3	2-butanone	49
	75-15-0	carbondisulfide	1 u
	519-78-6	2-hexanone	5 u
	108-10-1	4-methyl-2-pentanone	5 u
	100-42-5	styrene	5 u
	108-05-4	vinyl acetate	5 u
	1330-20-7	total xylenes	5 u

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 8/26/84
DATE ANALYZED: 12/4, 12/21/84
PERCENT MOISTURE: 49
CONC./DILUTION FACTOR: 1:1,000

PP #	CAS #		ug/l or ug/kg (circle one)
(89P)	309-00-2	aldrin	300 u
(90P)	60-57-1	dieldrin	9,000 u
(91P)	57-74-9	chlordane	7,000 u
(92P)	50-29-3	4,4'-DDT	3,000 u
(93P)	72-55-9	4,4'-DDE	2,000 u
(94P)	72-54-8	4,4'-DDD	800 u
(95P)	115-29-7	α-endosulfan	2,000 u
(96P)	115-29-7	β-endosulfan	4 u
(97P)	1031-07-8	endosulfan sulfate	200 u
(98P)	72-20-8	endrin	7,000 u
(99P)	7421-93-4	endrin aldehyde	8 u
(100P)	76-44-8	heptachlor	6,000 u
(101P)	1024-57-3	heptachlor epoxide	400 u
(102P)	319-84-6	α-BHC	300 u
(103P)	319-85-7	β-BHC	
(104P)	319-86-8	δ-BHC	2,000 u
(105P)	58-89-9	γ-BHC (lindane)	400 u
(106P)	53469-21-9	PCB-1242	44,000 u
(107P)	11097-69-1	PCB-1254	29,000 u
(108P)	11104-28-2	PCB-1221	63,000 u
(109P)	11141-16-5	PCB-1232	100,000 u
(110P)	12672-29-6	PCB-1248	1,200,000
(111P)	11096-82-5	PCB-1260	24,000 u
(112P)	12674-11-2	PCB-1016	180,000 u
(113P)	8001-35-2	toxaphene	300,000 u

Method not acceptable CSE

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 11/8/84
DATE ANALYZED: 12/3/84
PERCENT MOISTURE: 49
CONC./DILUTION FACTOR: 1

PP #	CAS #		ug/l or ug/kg (circle one)
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	6,700

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: ENCOTEC
Lab Sample ID No: NJ53BNA05
Sample Matrix: SOIL
Date Release Authorized By: [illegible]

Case No: NJ53
QC Report No:
Contract No: 68-01-6764
Date Sample Received: 8/22/84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 8/26/84
DATE ANALYZED: 10/19/84
PERCENT MOISTURE: 49

PP #	CAS #		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6- trichlorophenol	20000 U
(22A)	59-50-7	p-chloro-m-cresol	20000 U
(26A)	95-57-8	2- chlorophenol	20000 U
(31A)	120-83-2	2,4-dichlorophenol	20000 U
(36A)	105-67-9	2,4-dimethylphenol	20000 U
(37A)	88-75-5	2- nitrophenol	40000 U
(38A)	100-02-7	4-nitrophenol	100000 U
(39A)	51-28-5	2,4-dinitrophenol	100000 U
(40A)	534-52-1	4,6-dinitro-2-methylphenol	40000 U
(64A)	87-86-5	pentachlorophenol	20000 U
(65A)	108-95-2	phenol	20000 U
	65-85-0	benzoic acid	20000 U
	95-48-7	2-methylphenol	20000 U
	108-39-4	4-methylphenol	20000 U
	95-95-4	2,4,5-trichlorophenol	200000 U
(1B)	83-32-9	acenaphthene	20000 U
(5B)	92-87-5	benzidine	18000 U
(8B)	120-82-1	1,2,4-trichlorobenzene	20000 U
(9B)	118-74-1	hexachlorobenzene	20000 U
(12B)	67-72-1	hexachloroethane	20000 U
(18B)	111-44-4	bis(2-chloroethyl)ether	20000 U
(20B)	91-58-7	2-chloronaphthalene	20000 U
(25B)	95-50-1	1,2-dichlorobenzene	20000 U
(26B)	541-73-1	1,3-dichlorobenzene	20000 U
(27B)	106-46-7	1,4-dichlorobenzene	20000 U
(28B)	91-94-1	3,3'-dichlorobenzidine	40000 U
(35B)	121-14-2	2,4-dinitrotoluene	40000 U
(36B)	606-20-2	2,6-dinitrotoluene	40000 U
(37B)	122-66-7	1,2-diphenylhydrazine	40000 U
(39B)	206-44-0	fluoranthene	20,000 U
(40B)	7005-72-3	4-chlorophenyl phenyl ether	20000 U
(41B)	101-55-3	4-bromophenyl phenyl ether	20000 U
(42B)	39638-32-9	bis (2-chloroisopropyl) ether	40000 U
(43B)	111-91-1	bis (2-chloroethoxy) methane	40000 U

PP #	CAS #		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	20000 U
(53B)	77-47-4	hexachlorocyclopentadiene	20000 U
(54B)	78-59-1	isophorone	20000 U
(55B)	91-20-3	naphthalene	20000 U
(56B)	98-95-3	nitrobenzene	20000 U
(62B)	86-30-6	N-nitrosodiphenylamine	20000 U
(63B)	621-64-7	N-nitrosodipropylamine	20000 U
(66B)	117-81-7	bis (2-ethylhexyl) phthalate	20000 U
(67B)	85-68-7	benzyl butyl phthalate	20000 U
(68B)	84-74-2	di-n-butyl phthalate	20000 U
(69B)	117-84-0	di-n-octyl phthalate	20000 U
(70B)	84-66-2	diethyl phthalate	20000 U
(71B)	131-11-3	dimethyl phthalate	20000 U
(72B)	56-55-3	benzo(a)anthracene	40000 U
(73B)	50-32-8	benzo(a)pyrene	40000 U
(74B)	205-99-2	benzo(b)fluoranthene	40000 U
(75B)	207-08-9	benzo(k)fluoranthene	40000 U
(76B)	218-01-9	chrysene	20000 U
(77B)	208-96-8	acenaphthylene	20000 U
(78B)	120-12-7	anthracene	20000 U
(79B)	191-24-2	benzo(ghi)perylene	40000 U
(80B)	86-73-7	fluorene	20000 U
(81B)	85-01-8	phenanthrene	20000 U
(82B)	53-70-3	dibenzo(a,h)anthracene	40000 U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	40000 U
(84B)	129-00-0	pyrene	20000 U
	62-53-3	aniline	20000 U
	100-51-6	benzyl alcohol	40000 U
	106-47-8	4-chloroaniline	100000 U
	132-64-9	dibenzofuran	20000 U
	91-57-6	2-methylnaphthalene	40000 U
	88-74-4	2-nitroaniline	200000 U
	99-09-2	3-nitroaniline	200000 U
	100-01-6	4-nitroaniline	200000 U

NJ53-04

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: ENCOTEC
Lab Sample ID No: NJ53 04 VOA
Sample Matrix: SOIL/SED
Data Release Authorized By: [signature]

Case No: NJ53
QC Report No:
Contract No.: 68-01-6764
Date Sample Received: 8/22/84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: N/A
DATE ANALYZED: 9/27/84
PERCENT MOISTURE: 41
CONC./DILUTION FACTOR: 1

PP #	CAS #		ug/l or ug/kg (circle one)
(2V)	107-02-8	acrolein	~~100u~~
(3V)	107-13-1	acrylonitrile	~~100u~~
(4V)	71-43-2	benzene	~~5u~~
(6V)	56-23-5	carbon tetrachloride	~~5u~~
(7V)	108-90-7	chlorobenzene	~~5u~~
(10V)	107-06-2	1,2-dichloroethane	~~5u~~
(11V)	71-55-6	1,1,1-trichloroethane	~~5u~~
(13V)	75-34-3	1,1-dichloroethane	~~5u~~
(14V)	79-00-5	1,1,2-trichloroethane	~~10u~~
(15V)	79-34-5	1,1,2,2-tetrachloroethane	~~10u~~
(16V)	75-00-3	chloroethane	~~10u~~
(19V)	110-75-8	2-chloroethylvinyl ether	~~10u~~
(23V)	67-66-3	chloroform	5u
(29V)	75-35-4	1,1-dichloroethene	5u
(30V)	156-60-5	trans-1,2-dichloroethene	150
(32V)	78-87-5	1,2-dichloropropane	~~10u~~
(33V)	10061-02-6	trans-1,3-dichloropropene	~~5u~~
	10061-01-05	cis-1,3-dichloropropene	~~5u~~
(38V)	100-41-4	ethylbenzene	~~5u~~
(44V)	75-09-2	methylene chloride	~~2u~~
(45V)	74-87-3	chloromethane	~~10u~~
(46V)	74-83-9	bromomethane	~~10u~~
(47V)	75-25-2	bromoform	~~10u~~
(48V)	75-27-4	bromodichloromethane	~~5u~~
(49V)	75-69-4	fluorotrichloromethane	~~5u~~
(50V)	75-71-8	dichlorodifluoromethane	~~5u~~
(51V)	124-48-1	chlorodibromomethane	~~5u~~
(85V)	127-18-4	tetrachloroethene	~~5u~~
(86V)	108-88-3	toluene	170
(87V)	79-01-6	trichloroethene	560
(88V)	75-01-4	vinyl chloride	140
	67-64-1	acetone	27
	78-93-3	2-butanone	40
	75-15-0	carbondisulfide	~~15~~
	519-78-6	2-hexanone	~~5u~~
	108-10-1	4-methyl-2-pentanone	~~5u~~
	100-42-5	styrene	~~5u~~
	108-05-4	vinyl acetate	~~5u~~
	1330-20-7	total xylenes	~~5u~~

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 8/26/84
DATE ANALYZED: 11/16, 11/27, 12/5/84
PERCENT MOISTURE: 41
CONC./DILUTION FACTOR: 1:4

PP #	CAS #		ug/l or ug/kg (circle one)
(89P)	309-00-2	aldrin	~~10u~~
(90P)	60-57-1	dieldrin	~~10u~~
(91P)	57-74-9	chlordane	~~70u~~
(92P)	50-29-3	4,4'-DDT	~~30u~~
(93P)	72-55-9	4,4'-DDE	~~10u~~
(94P)	72-54-8	4,4'-DDD	~~30u~~
(95P)	115-29-7	α-endosulfan	~~10u~~
(96P)	115-29-7	β-endosulfan	~~1u~~
(97P)	1031-07-8	endosulfan sulfate	~~1u~~
(98P)	72-20-8	endrin	~~20u~~
(99P)	7421-93-4	endrin aldehyde	~~2u~~
(100P)	76-44-8	heptachlor	~~30u~~
(101P)	1024-57-3	heptachlor epoxide	~~10u~~
(102P)	319-84-6	α-BHC	~~5u~~
(103P)	319-85-7	β-BHC	~~30u~~
(104P)	319-86-8	δ-BHC	~~10u~~
(105P)	58-89-9	γ-BHC (lindane)	~~8u~~
(106P)	53469-21-9	PCB-1242	~~800u~~
(107P)	11097-69-1	PCB-1254	110u
(108P)	11104-28-2	PCB-1221	2,000u
(109P)	11141-16-5	PCB-1232	800u
(110P)	12672-29-6	PCB-1248	8,000 ~~4,700~~
(111P)	11096-82-5	PCB-1260	~~200u~~
(112P)	12674-11-2	PCB-1016	~~80u~~
(113P)	8001-35-2	toxaphene	~~400u~~

Method not acceptable

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 11/8/84
DATE ANALYZED: 11/29/84
PERCENT MOISTURE: 41
CONC./DILUTION FACTOR: 1

PP #	CAS #		ug/l or ug/kg (circle one)
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	~~160u~~

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: ENCOTEC
Case No: NJ53
Lab Sample ID No: NJ53BNA04
QC Report No:
Sample Matrix: SOIL
Contract No.: 68-01-6764
Data Release Authorized By: [illegible]
Date Sample Received: 8/22/84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 8/26/84
DATE ANALYZED: 10/18/84
PERCENT MOISTURE: 41

PP #	CAS #		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	20000 U
(22A)	59-50-7	p-chloro-m-cresol	20000 U
(24A)	95-57-8	2-chlorophenol	20000 U
(31A)	120-83-2	2,4-dichlorophenol	20000 U
(34A)	105-67-9	2,4-dimethylphenol	20000 U
(37A)	88-75-5	2-nitrophenol	40000 U
(38A)	100-02-7	4-nitrophenol	100000 U
(39A)	51-28-5	2,4-dinitrophenol	100000 U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	40000 U
(64A)	87-86-5	pentachlorophenol	20000 U
(65A)	108-95-2	phenol	20000 U
	65-85-0	benzoic acid	20000 U
	95-48-7	2-methylphenol	20000 U
	108-39-4	4-methylphenol	20000 U
	95-95-4	2,4,5-trichlorophenol	20000 U
(1B)	83-32-9	acenaphthene	20000 U
(5B)	92-87-5	benzidine	78000 U
(8B)	120-82-1	1,2,4-trichlorobenzene	20000 U
(9B)	118-74-1	hexachlorobenzene	20000 U
(12B)	67-72-1	hexachloroethane	20000 U
(18B)	111-44-4	bis(2-chloroethyl)ether	20000 U
(20B)	91-58-7	2-chloronaphthalene	20000 U
(25B)	95-50-1	1,2-dichlorobenzene	20000 U
(26B)	541-73-1	1,3-dichlorobenzene	20000 U
(27B)	106-46-7	1,4-dichlorobenzene	20000 U
(28B)	91-94-1	3,3'-dichlorobenzidine	40000 U
(35B)	121-14-2	2,4-dinitrotoluene	40000 U
(36B)	606-20-2	2,6-dinitrotoluene	40000 U
(37B)	122-66-7	1,2-diphenylhydrazine	40000 U
(39B)	206-44-0	fluoranthene	20000 U
(40B)	7005-72-3	4-chlorophenyl phenyl ether	20000 U
(41B)	101-55-3	4-bromophenyl phenyl ether	20000 U
(42B)	39638-32-9	bis (2-chloroisopropyl) ether	40000 U
(43B)	111-91-1	bis (2-chloroethoxy) methane	40000 U

PP #	CAS #		(circle)
(52B)	87-68-3	hexachlorobutadiene	20000 U
(53B)	77-47-4	hexachlorocyclopentadiene	20000 U
(54B)	78-59-1	isophorone	20000 U
(55B)	91-20-3	naphthalene	20000 U
(56B)	98-95-3	nitrobenzene	20000 U
(62B)	86-30-6	N-nitrosodiphenylamine	20000 U
(63B)	621-64-7	N-nitrosodipropylamine	20000 U
(66B)	117-81-7	bis (2-ethylhexyl) phthalate	20000 U
(67B)	85-68-7	benzyl butyl phthalate	20000 U
(68B)	84-74-2	di-n-butyl phthalate	20000 U
(69B)	117-84-0	di-n-octyl phthalate	20000 U
(70B)	84-66-2	diethyl phthalate	20000 U
(71B)	131-11-3	dimethyl phthalate	20000 U
(72B)	56-55-3	benzo(a)anthracene	40000 U
(73B)	50-32-8	benzo(a)pyrene	40000 U
(74B)	205-99-2	benzo(b)fluoranthene	40000 U
(75B)	207-08-9	benzo(k)fluoranthene	40000 U
(76B)	218-01-9	chrysene	20000 U
(77B)	208-96-8	acenaphthylene	20000 U
(78B)	120-12-7	anthracene	20000 U
(79B)	191-24-2	benzo(ghi)perylene	40000 U
(80B)	86-73-7	fluorene	20000 U
(81B)	85-01-8	phenanthrene	20000 U
(82B)	53-70-3	dibenzo(a,h)anthracene	40000 U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	40000 U
(84B)	129-00-0	pyrene DS/2/6 ~~2100K~~ 4600K	
	62-53-3	aniline	20000 U
	100-51-6	benzyl alcohol	40000 U
	106-47-8	4-chloroaniline	100000 U
	132-64-9	dibenzofuran	20000 U
	91-57-6	2-methylnaphthalene	40000 U
	88-74-4	2-nitroaniline	200000 U
	99-09-2	3-nitroaniline	200000 U
	100-01-6	4-nitroaniline	200,000 U

NJ53Ø3

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: ENCOTEC
Lab Sample ID No: NJ53Ø3VOA
Sample Matrix: SOIL/SEDIMENT
Data Release Authorized By: [signature]

Case No: NJ53
QC Report No:
Contract No.: 68-01-6764
Date Sample Received: 8/22/84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: N/A
DATE ANALYZED: 9/27/84
PERCENT MOISTURE: 20
CONC./DILUTION FACTOR: 1

PP #	CAS #		ug/l (or ug/kg) (circle one)
(2V)	107-02-8	acrolein	~~100 u~~
(3V)	107-13-1	acrylonitrile	~~100 u~~
(4V)	71-43-2	benzene	~~5 u~~
(6V)	56-23-5	carbon tetrachloride	~~5 u~~
(7V)	108-90-7	chlorobenzene	~~5 u~~
(10V)	107-06-2	1,2-dichloroethane	~~5 u~~
(11V)	71-55-6	1,1,1-trichloroethane	~~5 u~~
(13V)	75-34-3	1,1-dichloroethane	~~5 u~~
(14V)	79-00-5	1,1,2-trichloroethane	~~10 u~~
(15V)	79-34-5	1,1,2,2-tetrachloroethane	~~10 u~~
(16V)	75-00-3	chloroethane	~~10 u~~
(19V)	110-75-8	2-chloroethylvinyl ether	~~10 u~~
(23V)	67-66-3	chloroform	~~5 u~~
(29V)	75-35-4	1,1-dichloroethene	~~5 u~~
(30V)	156-60-5	trans-1,2-dichloroethene	~~5 u~~
(32V)	78-87-5	1,2-dichloropropane	~~10 u~~
(33V)	10061-02-6	trans-1,3-dichloropropene	~~5 u~~
	10061-01-05	cis-1,3-dichloropropene	~~5 u~~
(38V)	100-41-4	ethylbenzene	~~5 u~~
(44V)	75-09-2	methylene chloride	11
(45V)	74-87-3	chloromethane	~~10 u~~
(46V)	74-83-9	bromomethane	~~10 u~~
(47V)	75-25-2	bromoform	~~10 u~~
(48V)	75-27-4	bromodichloromethane	~~5 u~~
(49V)	75-69-4	fluorotrichloromethane	—
(50V)	75-71-8	dichlorodifluoromethane	—
(51V)	124-48-1	chlorodibromomethane	~~5 u~~
(85V)	127-18-4	tetrachloroethene	~~5 u~~
(86V)	108-88-3	toluene	16
(87V)	79-01-6	trichloroethene	4K
(88V)	75-01-4	vinyl chloride	~~10 u~~
	67-64-1	acetone	40
	78-93-3	2-butanone	4K
	75-15-0	carbondisulfide	~~1 u~~
	519-78-6	2-hexanone	~~5 u~~
	108-10-1	4-methyl-2-pentanone	~~5 u~~
	100-42-5	styrene	~~5 u~~
	108-05-4	vinyl acetate	~~5 u~~
	1330-20-7	total xylenes	~~5 u~~

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 8/26/84
DATE ANALYZED: 11/16, 12/21/84
PERCENT MOISTURE: 20
CONC./DILUTION FACTOR: 1:2

PP #	CAS #		ug/l (or ug/kg) (circle one)
(89P)	309-00-2	aldrin	~~3 u~~
(90P)	60-57-1	dieldrin	~~2 u~~
(91P)	57-74-9	chlordane	~~40 u~~
(92P)	50-29-3	4,4'-DDT	~~7 u~~
(93P)	72-55-9	4,4'-DDE	~~6 u~~
(94P)	72-54-8	4,4'-DDD	~~3 u~~
(95P)	115-29-7	α-endosulfan	~~2 u~~
(96P)	115-29-7	β-endosulfan	~~3 u~~
(97P)	1031-07-8	endosulfan sulfate	~~10 u~~
(98P)	72-20-8	endrin	~~3 u~~
(99P)	7421-93-4	endrin aldehyde	~~8 u~~
(100P)	76-44-8	heptachlor	~~3 u~~
(101P)	1024-57-3	heptachlor epoxide	~~4 u~~
(102P)	319-84-6	α-BHC	~~1 u~~
(103P)	319-85-7	β-BHC	~~8 u~~
(104P)	319-86-8	δ-BHC	~~3 u~~
(105P)	58-89-9	γ-BHC (lindane)	~~2 u~~
(106P)	53469-21-9	PCB-1242	~~200 u~~
(107P)	11097-69-1	PCB-1254	~~300 u~~
(108P)	11104-28-2	PCB-1221	~~400 u~~
(109P)	11141-16-5	PCB-1232	~~200 u~~
(110P)	12672-29-6	PCB-1248	3,600
(111P)	11096-82-5	PCB-1260	~~80 u~~
(112P)	12674-11-2	PCB-1016	~~1,600 u~~
(113P)	8001-35-2	toxaphene	~~100 u~~

Method not acceptable

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 11/8/84
DATE ANALYZED: 12/3/84
PERCENT MOISTURE: 20
CONC./DILUTION FACTOR: 1

PP #	CAS #		ug/l (or ug/kg) (circle one)
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	~~15 u~~

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: ENCOTEC
Lab Sample ID No: NJ53BNA03
Sample Matrix: SOIL
Data Release Authorized By: [signature]

Case No: NJ53
QC Report No:
Contract No.: 68-01-6764
Date Sample Received: 8/22/84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 8/26/84
DATE ANALYZED: 10/19/84
PERCENT MOISTURE: 20

PP #	CAS #		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	7000 U
(22A)	59-50-7	p-chloro-m-cresol	7000 U
(24A)	95-57-8	2-chlorophenol	7000 U
(31A)	120-83-2	2,4-dichlorophenol	7000 U
(36A)	105-67-9	2,4-dimethylphenol	7000 U
(37A)	88-75-5	2-nitrophenol	40000 U
(38A)	100-02-7	4-nitrophenol	70000 U
(39A)	51-28-5	2,4-dinitrophenol	70000 U
(40A)	534-52-1	4,6-dinitro-2-methylphenol	40000 U
(44A)	87-86-5	pentachlorophenol	7000 U
(65A)	108-95-2	phenol	7000 U
	65-85-0	benzoic acid	7000 U
	95-48-7	2-methylphenol	7000 U
	108-39-4	4-methylphenol	7000 U
	95-95-4	2,4,5-trichlorophenol	7000 U
(1B)	83-32-9	acenaphthene	7000 U
(5B)	92-87-5	benzidine	18000 U
(8B)	120-82-1	1,2,4-trichlorobenzene	7000 U
(9B)	118-74-1	hexachlorobenzene	7000 U
(12B)	67-72-1	hexachloroethane	7000 U
(15B)	111-44-4	bis(2-chloroethyl)ether	7000 U
(20B)	91-58-7	2-chloronaphthalene	7000 U
(25B)	95-50-1	1,2-dichlorobenzene	7000 U
(26B)	541-73-1	1,3-dichlorobenzene	7000 U
(27B)	106-46-7	1,4-dichlorobenzene	7000 U
(28B)	91-94-1	3,3'-dichlorobenzidine	40000 U
(35B)	121-14-2	2,4-dinitrotoluene	40000 U
(36B)	606-20-2	2,6-dinitrotoluene	40000 U
(37B)	122-66-7	1,2-diphenylhydrazine	40000 U
(39B)	206-44-0	fluoranthene	7000 U
(50B)	7005-72-3	4-chlorophenyl phenyl ether	7000 U
(51B)	101-55-3	4-bromophenyl phenyl ether	7000 U
(52B)	39638-32-9	bis (2-chloroisopropyl) ether	40000 U
(53B)	111-91-1	bis (2-chloroethoxy) methane	40000 U

PP #	CAS #		ug/l or ug/kg (circle one)
(54B)	87-68-3	hexachlorobutadiene	7000 U
(55B)	77-47-4	hexachlorocyclopentadiene	7000 U
(56B)	78-59-1	isophorone	7000 U
(57B)	91-20-3	naphthalene	7000 U
(58B)	98-95-3	nitrobenzene	7000 U
(62B)	86-30-6	N-nitrosodiphenylamine	7000 U
(63B)	621-64-7	N-nitrosodipropylamine	7000 U
(66B)	117-81-7	bis (2-ethylhexyl) phthalate	7000 U
(67B)	85-68-7	benzyl butyl phthalate	7000 U
(68B)	84-74-2	di-n-butyl phthalate	7000 U
(69B)	117-84-0	di-n-octyl phthalate	7000 U
(70B)	84-66-2	diethyl phthalate	7000 U
(71B)	131-11-3	dimethyl phthalate	7000 U
(72B)	56-55-3	benzo(a)anthracene	40000 U
(73B)	50-32-8	benzo(a)pyrene	40000 U
(74B)	205-99-2	benzo(b)fluoranthene	40000 U
(75B)	207-08-9	benzo(k)fluoranthene	40000 U
(76B)	218-01-9	chrysene	7000 U
(77B)	208-96-8	acenaphthylene	7000 U
(78B)	120-12-7	anthracene	7000 U
(79B)	191-24-2	benzo(ghi)perylene	40000 U
(80B)	86-73-7	fluorene	7000 U
(81B)	85-01-8	phenanthrene	7000 U
(82B)	53-70-3	dibenzo(a,h)anthracene	40000 U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	40000 U
(84B)	129-00-0	pyrene	7000 U
	62-53-3	aniline	7000 U
	100-51-6	benzyl alcohol	40000 U
	106-47-8	4-chloroaniline	70000 U
	132-64-9	dibenzofuran	7000 U
	91-57-6	2-methylnaphthalene	40000 U
	88-74-4	2-nitroaniline	70000 U
	99-09-2	3-nitroaniline	70000 U
	100-01-6	4-nitroaniline	70000 U

NJ53-Ø2

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: ENCOTEC
Lab Sample ID No: NJ53Ø2VOA
Sample Matrix: SOIL/SEO
Data Release Authorized By: [illegible]

Case No: NJ53
QC Report No:
Contract No.: 68-01-6764
Date Sample Received: 8/22/84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: N/A
DATE ANALYZED: 9/27/84 holding time
PERCENT MOISTURE: 14 [illegible]
CONC./DILUTION FACTOR: 1

PP #	CAS #		ug/l or ug/kg (circle one)
(2V)	107-02-8	acrolein	100 u
(3V)	107-13-1	acrylonitrile	100 u
(4V)	71-43-2	benzene	5 u
(6V)	56-23-5	carbon tetrachloride	5 u
(7V)	108-90-7	chlorobenzene	5 u
(10V)	107-06-2	1,2-dichloroethane	5 u
(11V)	71-55-6	1,1,1-trichloroethane	5 u
(13V)	75-34-3	1,1-dichloroethane	5 u
(14V)	79-00-5	1,1,2-trichloroethane	10 u
(15V)	79-34-5	1,1,2,2-tetrachloroethane	10 u
(16V)	75-00-3	chloroethane	10 u
(19V)	110-75-8	2-chloroethylvinyl ether	10 u
(23V)	67-66-3	chloroform	5 u
(29V)	75-35-4	1,1-dichloroethene	5 u
(30V)	156-60-5	trans-1,2-dichloroethene	5 u
(32V)	78-87-5	1,2-dichloropropane	10 u
(33V)	10061-02-6	trans-1,3-dichloropropene	5 u
	10061-01-05	cis-1,3-dichloropropene	5 u
(38V)	100-41-4	ethylbenzene	5 u
(44V)	75-09-2	methylene chloride	110
(45V)	74-87-3	chloromethane	10 u
(46V)	74-83-9	bromomethane	10 u
(47V)	75-25-2	bromoform	10 u
(48V)	75-27-4	bromodichloromethane	5 u
(49V)	75-69-4	fluorotrichloromethane	—
(50V)	75-71-8	dichlorodifluoromethane	—
(51V)	124-48-1	chlorodibromomethane	5 u
(85V)	127-18-4	tetrachloroethene	5 u
(86V)	108-88-3	toluene	6
(87V)	79-01-6	trichloroethene	5 u
(88V)	75-01-4	vinyl chloride	10 u
	67-64-1	acetone	160
	78-93-3	2-butanone	6
	75-15-0	carbondisulfide	1 u
	519-78-6	2-hexanone	5 u
	108-10-1	4-methyl-2-pentanone	5 u
	100-42-5	styrene	5 u
	108-05-4	vinyl acetate	5 u
	1330-20-7	total xylenes	5 u

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 8/26/84
DATE ANALYZED: 11/27, 12/4, 12/21/84
PERCENT MOISTURE: 14 holding time
CONC./DILUTION FACTOR: 1:10 [illegible]

PP #	CAS #		ug/l or ug/kg (circle one)
(89P)	309-00-2	aldrin	10 u
(90P)	60-57-1	dieldrin	600 u
(91P)	57-74-9	chlordane	300 u
(92P)	50-29-3	4,4'-DDT	50 u
(93P)	72-55-9	4,4'-DDE	70 u
(94P)	72-54-8	4,4'-DDD	100 u
(95P)	115-29-7	α-endosulfan	80 u
(96P)	115-29-7	β-endosulfan	07 u
(97P)	1031-07-8	endosulfan sulfate	4 u
(98P)	72-20-8	endrin	300 u
(99P)	7421-93-4	endrin aldehyde	2 u
(100P)	76-44-8	heptachlor	50 u
(101P)	1024-57-3	heptachlor epoxide	80 u
(102P)	319-84-6	α-BHC	5 u
(103P)	319-85-7	β-BHC	30 u
(104P)	319-86-8	δ-BHC	40 u
(105P)	58-89-9	γ-BHC (lindane)	9 u
(106P)	53469-21-9	PCB-1242	4,000 u
(107P)	11097-69-1	PCB-1254	2,800 u
(108P)	11104-28-2	PCB-1221	1,000 u
(109P)	11141-16-5	PCB-1232	4000 u
(110P)	12672-29-6	PCB-1248	~~23,000~~ ~~23,000~~ 4,18[illegible]
(111P)	11096-82-5	PCB-1260	~~1,000~~ u
(112P)	12674-11-2	PCB-1016	1,000 u
(113P)	8001-35-2	toxaphene	600 u

Method not used anymore OSC

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 11/8/84
DATE ANALYZED: 11/29/84
PERCENT MOISTURE: 14
CONC./DILUTION FACTOR: 1

PP #	CAS #		ug/l or ug/kg (circle one)
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	~~260~~

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: ENCOTEC
Lab Sample ID No: NJ53BNA02
Sample Matrix: SOIL
Data Release Authorized By: [signature]

Case No: NJ53
QC Report No:
Contract No.: 68-01-6764
Date Sample Received: 8/22/84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 8/26/84
DATE ANALYZED: 10/19/84
PERCENT MOISTURE: 14

PP #	CAS #		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	70000 U
(22A)	59-50-7	p-chloro-m-cresol	70000 U
(24A)	95-57-8	2-chlorophenol	70000 U
(31A)	120-83-2	2,4-dichlorophenol	70000 U
(34A)	105-67-9	2,4-dimethylphenol	70000 U
(37A)	88-75-5	2-nitrophenol	40000 U
(38A)	100-02-7	4-nitrophenol	100000 U
(39A)	51-28-5	2,4-dinitrophenol	100000 U
(40A)	534-52-1	4,6-dinitro-2-methylphenol	40000 U
(46A)	87-86-5	pentachlorophenol	70000 U
(65A)	108-95-2	phenol	70000 U
	65-85-0	benzoic acid	70000 U
	95-48-7	2-methylphenol	70000 U
	108-39-4	4-methylphenol	70000 U
	95-95-4	2,4,5-trichlorophenol	70000 U
(1B)	83-32-9	acenaphthene	70000 U
(5B)	92-87-5	benzidine	18000 U
(8B)	120-82-1	1,2,4-trichlorobenzene	70000 U
(9B)	118-74-1	hexachlorobenzene	70000 U
(12B)	67-72-1	hexachloroethane	70000 U
(18B)	111-44-4	bis(2-chloroethyl)ether	70000 U
(20B)	91-58-7	2-chloronaphthalene	70000 U
(23B)	95-50-1	1,2-dichlorobenzene	70000 U
(26B)	541-73-1	1,3-dichlorobenzene	70000 U
(27B)	106-46-7	1,4-dichlorobenzene	70000 U
(28B)	91-94-1	3,3'-dichlorobenzidine	40000 U
(35B)	121-14-2	2,4-dinitrotoluene	40000 U
(36B)	606-20-2	2,6-dinitrotoluene	40000 U
(37B)	122-66-7	1,2-diphenylhydrazine	40000 U
(39B)	206-44-0	fluoranthene	20000 U
(40B)	7005-72-3	4-chlorophenyl phenyl ether	70000 U
(41B)	101-55-3	4-bromophenyl phenyl ether	70000 U
(42B)	39638-32-9	bis (2-chloroisopropyl) ether	40000 U
(43B)	111-91-1	bis (2-chloroethoxy) methane	40000 U

PP #	CAS #		(circle one)
(52B)	87-68-3	hexachlorobutadiene	70000 U
(53B)	77-47-4	hexachlorocyclopentadiene	70000 U
(54B)	78-59-1	isophorone	70000 U
(55B)	91-20-3	naphthalene	70000 U
(56B)	98-95-3	nitrobenzene	70000 U
(62B)	86-30-6	N-nitrosodiphenylamine	70000 U
(63B)	621-64-7	N-nitrosodipropylamine	70000 U
(66B)	117-81-7	bis (2-ethylhexyl) phthalate	70000 U
(67B)	85-68-7	benzyl butyl phthalate	70000 U
(68B)	84-74-2	di-n-butyl phthalate	70000 U
(69B)	117-84-0	di-n-octyl phthalate	70000 U
(70B)	84-66-2	diethyl phthalate	70000 U
(71B)	131-11-3	dimethyl phthalate	70000 U
(72B)	56-55-3	benzo(a)anthracene	40000 U
(73B)	50-32-8	benzo(a)pyrene	40000 U
(74B)	205-99-2	benzo(b)fluoranthene	40000 U
(75B)	207-08-9	benzo(k)fluoranthene	40000 U
(76B)	218-01-9	chrysene	70000 U
(77B)	208-96-8	acenaphthylene	70000 U
(78B)	120-12-7	anthracene	70000 U
(79B)	191-24-2	benzo(ghi)perylene	40000 U
(80B)	86-73-7	fluorene	70000 U
(81B)	85-01-8	phenanthrene	70000 U
(82B)	53-70-3	dibenzo(a,h)anthracene	40000 U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	40000 U
(84B)	129-00-0	pyrene	70000 U
	62-53-3	aniline	70000 U
	100-51-6	benzyl alcohol	40000 U
	106-47-8	4-chloroaniline	100000 U
	132-64-9	dibenzofuran	70000 U
	91-57-6	2-methylnaphthalene	40000 U
	88-74-4	2-nitroaniline	200000 U
	99-09-2	3-nitroaniline	200000 U
	100-01-6	4-nitroaniline	200000 U

NVIRONMENTAL PROTECTION AGENCY - CLP Sample Management Office
ox 818, Alexandria, Virginia 22313 - 703/557-2490

Sample Number
NJ53-01

ORGANICS ANALYSIS DATA SHEET

atory Name: ENCOTEC
ample ID No: NJ5301VOA
le Matrix: SOIL/SED
Release Authorized By: [signature]

Case No: NJ53
QC Report No:
Contract No.: 68-01-6764
Date Sample Received: 8/22/84

VOLATILES

NCENTRATION: (LOW) MEDIUM HIGH (circle one)
TE EXTRACTED/PREPARED: N/A Holding time
TE ANALYZED: 9/27/84 before
RCENT MOISTURE: 34 analysis
NC./DILUTION FACTOR: 1:1 too long

#	CAS #		ug/l or ug/kg (circle one)
	107-02-8	acrolein	~~100~~ u
	107-13-1	acrylonitrile	~~100~~ u
	71-43-2	benzene	~~5~~ u
	56-23-5	carbon tetrachloride	~~5~~ u
	108-90-7	chlorobenzene	5 u
)	107-06-2	1,2-dichloroethane	~~5~~ u
)	71-55-6	1,1,1-trichloroethane	~~5~~ u
)	75-34-3	1,1-dichloroethane	~~5~~ u
)	79-00-5	1,1,2-trichloroethane	~~10~~ u
)	79-34-5	1,1,2,2-tetrachloroethane	~~10~~ u
)	75-00-3	chloroethane	~~10~~ u
)	110-75-8	2-chloroethylvinyl ether	~~10~~ u
)	67-66-3	chloroform	~~5~~ u
)	75-35-4	1,1-dichloroethene	~~5~~ u
)	156-60-5	trans-1,2-dichloroethene	~~5~~ u
)	78-87-5	1,2-dichloropropane	~~10~~ u
)	10061-02-6	trans-1,3-dichloropropene	~~5~~ u
	10061-01-05	cis-1,3-dichloropropene	~~5~~ u
)	100-41-4	ethylbenzene	~~5~~ u
)	75-09-2	methylene chloride	15 ~~10~~
)	74-87-3	chloromethane	10 u
)	74-83-9	bromomethane	~~10~~ u
)	75-25-2	bromoform	~~10~~ u
)	75-27-4	bromodichloromethane	~~5~~ u
)	75-69-4	fluorotrichloromethane	~~5~~
)	75-71-8	dichlorodifluoromethane	~~5~~
)	124-48-1	chlorodibromomethane	~~5~~ u
)	127-18-4	tetrachloroethene	5 u
)	108-88-3	toluene	~~5~~ u
)	79-01-6	trichloroethene	~~5~~ u
)	75-01-4	vinyl chloride	~~10~~ u
	67-64-1	acetone	~~5~~ u
	78-93-3	2-butanone	~~5~~ u
	75-15-0	carbondisulfide	~~5~~ u
	519-78-6	2-hexanone	~~5~~ u
	108-10-1	4-methyl-2-pentanone	~~5~~ u
	100-42-5	styrene	~~5~~ u
	108-05-4	vinyl acetate	~~5~~ u
	1330-20-7	total xylenes	~~5~~ u

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 8/26/84
DATE ANALYZED: 11/16/84, 12/21/84
PERCENT MOISTURE: 34 Holding time
CONC./DILUTION FACTOR: 1:4 for analysis too long

PP #	CAS #		ug/l or ug/kg (circle one)
(89P)	309-00-2	aldrin	~~10~~ u
(90P)	60-57-1	dieldrin	~~8~~ u
(91P)	57-74-9	chlordane	~~400~~ u
(92P)	50-29-3	4,4'-DDT	~~9~~ u
(93P)	72-55-9	4,4'-DDE	~~9~~ u
(94P)	72-54-8	4,4'-DDD	~~10~~ u
(95P)	115-29-7	α-endosulfan	~~8~~ u
(96P)	115-29-7	β-endosulfan	~~10~~ u
(97P)	1031-07-8	endosulfan sulfate	~~50~~ u
(98P)	72-20-8	endrin	~~200~~ u
(99P)	7421-93-4	endrin aldehyde	~~30~~ u
(100P)	76-44-8	heptachlor	~~20~~ u
(101P)	1024-57-3	heptachlor epoxide	~~8~~ u
(102P)	319-84-6	α-BHC	~~5~~ u
(103P)	319-85-7	β-BHC	~~30~~ u
(104P)	319-86-8	δ-BHC	~~20~~ u
(105P)	58-89-9	γ-BHC (lindane)	~~8~~ u
(106P)	53469-21-9	PCB-1242	~~600~~ u
(107P)	11097-69-1	PCB-1254	~~400~~ u
(108P)	11104-28-2	PCB-1221	~~2,000~~ u
(109P)	11141-16-5	PCB-1232	~~1,000~~ u
(110P)	12672-29-6	PCB-1248	~~18,000~~ ~~18,000~~ 12/21
(111P)	11096-82-5	PCB-1260	300 u
(112P)	12674-11-2	PCB-1016	2,000 u
(113P)	8001-35-2	toxaphene	~~500~~ u

Method as longer valid

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 11/8/84
DATE ANALYZED: 11/29/84
PERCENT MOISTURE: 34
CONC./DILUTION FACTOR: 1

PP #	CAS #		ug/l or ug/kg (circle one)
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	~~46~~ u

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: ENCOTEC
Lab Sample ID No: NJ53BNA01
Sample Matrix: SOIL
Data Release Authorized By: [signature]

Case No: NJ53
QC Report No:
Contract No.: 68-01-6764
Date Sample Received: 8/22/84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 8/26/84
DATE ANALYZED: 10/19/84
PERCENT MOISTURE: 34

Holding time for analysis too long (SE)

PP #	CAS #		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	70000 U
(22A)	59-50-7	p-chloro-m-cresol	70000 U
(24A)	95-57-8	2-chlorophenol	70000 U
(31A)	120-83-2	2,4-dichlorophenol	70000 U
(34A)	105-67-9	2,4-dimethylphenol	70000 U
(37A)	88-75-5	2-nitrophenol	40000 U
(38A)	100-02-7	4-nitrophenol	100000 U
(39A)	51-28-5	2,4-dinitrophenol	100000 U
(40A)	534-52-1	4,6-dinitro-2-methylphenol	40000 U
(64A)	87-86-5	pentachlorophenol	70000 U
(65A)	108-95-2	phenol	70000 U
	65-85-0	benzoic acid	70000 U
	95-48-7	2-methylphenol	70000 U
	108-39-4	4-methylphenol	70000 U
	95-95-4	2,4,5-trichlorophenol	700000 U
(1B)	83-32-9	acenaphthene	70000 U
(5B)	92-87-5	benzidine	78000 U
(8B)	120-82-1	1,2,4-trichlorobenzene	70000 U
(9B)	118-74-1	hexachlorobenzene	70000 U
(12B)	67-72-1	hexachloroethane	70000 U
(18B)	111-44-4	bis(2-chloroethyl)ether	70000 U
(20B)	91-58-7	2-chloronaphthalene	70000 U
(25B)	95-50-1	1,2-dichlorobenzene	70000 U
(26B)	541-73-1	1,3-dichlorobenzene	70000 U
(27B)	106-46-7	1,4-dichlorobenzene	70000 U
(28B)	91-94-1	3,3'-dichlorobenzidine	40000 U
(35B)	121-14-2	2,4-dinitrotoluene	40000 U
(36B)	606-20-2	2,6-dinitrotoluene	40000 U
(37B)	122-66-7	1,2-diphenylhydrazine	40000 U
(39B)	206-44-0	fluoranthene	70000 U
(40B)	7005-72-3	4-chlorophenyl phenyl ether	70000 U
(41B)	101-55-3	4-bromophenyl phenyl ether	70000 U
(42B)	39638-32-9	bis (2-chloroisopropyl) ether	40000 U
(43B)	111-91-1	bis (2-chloroethoxy) methane	40000 U

PP #	CAS #		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	70000 U
(53B)	77-47-4	hexachlorocyclopentadiene	70000 U
(54B)	78-59-1	isophorone	70000 U
(55B)	91-20-3	naphthalene	70000 U
(56B)	98-95-3	nitrobenzene	70000 U
(62B)	86-30-6	N-nitrosodiphenylamine	70000 U
(63B)	621-64-7	N-nitrosodipropylamine	70000 U
(66B)	117-81-7	bis (2-ethylhexyl) phthalate	70000 U
(67B)	85-68-7	benzyl butyl phthalate	70000 U
(68B)	84-74-2	di-n-butyl phthalate	70000 U
(69B)	117-84-0	di-n-octyl phthalate	70000 U
(70B)	84-66-2	diethyl phthalate	70000 U
(71B)	131-11-3	dimethyl phthalate	70000 U
(72B)	56-55-3	benzo(a)anthracene	40000 U
(73B)	50-32-8	benzo(a)pyrene	40000 U
(74B)	205-99-2	benzo(b)fluoranthene	40000 U
(75B)	207-08-9	benzo(k)fluoranthene	40000 U
(76B)	218-01-9	chrysene	70000 U
(77B)	208-96-8	acenaphthylene	70000 U
(78B)	120-12-7	anthracene	70000 U
(79B)	191-24-2	benzo(ghi)perylene	40000 U
(80B)	86-73-7	fluorene	70000 U
(81B)	85-01-8	phenanthrene	70000 U
(82B)	53-70-3	dibenzo(a,h)anthracene	40000 U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	40000 U
(84B)	129-00-0	pyrene	70000 U
	62-53-3	aniline	70000 U
	100-51-6	benzyl alcohol	40000 U
	106-47-8	4-chloroaniline	100000 U
	132-64-9	dibenzofuran	70000 U
	91-57-6	2-methylnaphthalene	40000 U
	88-74-4	2-nitroaniline	700000 U
	99-09-2	3-nitroaniline	700000 U
	100-01-6	4-nitroaniline	700000 U

	8/13/84	10 AM

file

Joe Amon	McGraw-Edison	(201) 751-3700

Laurie Gnierding

re: site access

Sampling set for 8/21/84 at 3:30pm.

McGraw-Edison is getting rid of the lagoon as soon as they receive the results of their testing. The area is to be paved for a parking lot.

The lime & carbon barrels will be removed soon. It has taken over a year for all the paperwork to be straightened out.

DRAFT

GRAPHICAL EXPOSURE MODELING SYSTEM

(GEMS)

USER'S GUIDE

Prepared for:

U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDES AND TOXIC SUBSTANCES
EXPOSURE EVALUATION DIVISION
Task No. 4
Contract No. 68016618
William Wood - Project Officer
Loren Hall - Task Manager

Prepared by:

GENERAL SOFTWARE CORPORATION
8401 Corporate Drive
Landover, Maryland 20785

Submitted: June 25, 1984

MASTER AREA REFERENCE FILE (MARF) OF THE 1980 CENSUS

Source

The Master Area Reference File (MARF) is a proprietary product of Donnelly Marketing, Inc., a subsidiary of Dunn and Bradstreet, and is available only to EPA users and to contractors engaged in EPA projects.

Description

The complete corrected MARF of the 1980 Census, with geographic coordinates for small geographic areas, is installed for GEMS on a separate disk pack. It consists of four subfiles, one for each major census geographic region, and is available to users when that disk pack is mounted. The file has a variety of location identification information, including region, state, county, place, census tracts and enumeration districts or block groups (See Figure C-1 for illustrations). It also contains population count by race, the number of occupied and owner-occupied housing units, group quarters, and number of families for all the enumeration districts/block groups for the continental United States, Hawaii, and Alaska.

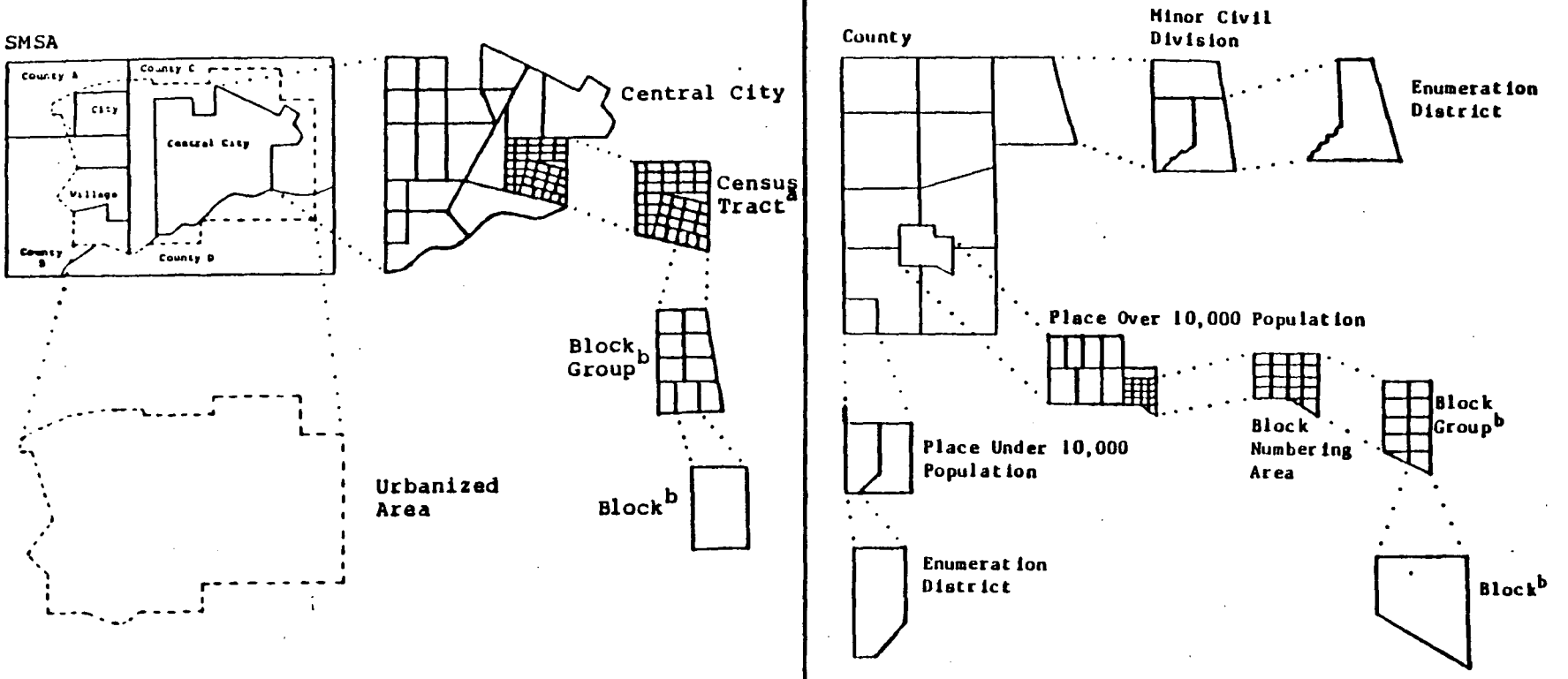
CEDPOP, a subset of the MARF of the 1980 Census, is accessible through GEMS. In addition to total population and household counts, the file includes geographic coordinates for the population-weighted centroid of each census block group or enumeration district (BG/ED) in the file.

Use

The complete MARF 80 Census file, installed in GEMS on a separate disk, is expected to be used heavily by GEMS users to identify household and population by racial groups at any required geographic level. County aggregate populations have already been created from this file.

CEDPOP was interfaced with ATM80 in GEMS to provide estimates of population sizes exposed to concentrations of airborne chemicals around a release site and with BOXMOD80 to provide population estimates within area source regions. The population centroids are identified, and populations are accumulated in sectors (typically the sixteen wind direction sectors) surrounding the center point within a user-specified number of radial distances out from the center.

The CEDPOP file also is accessed by CENSUS DATA and RADII-5 procedures under the GEODATA HANDLING operation in GEMS. CENSUS DATA accumulates population and housing counts by up to ten user-specified radial distances and from one-to-sixteen sectors. The RADII-5 program tabulates the same information (except housing counts) and displays the centroid locations for user-specified circular distances around a center point.



Inside Urbanized Area

Outside Urbanized Area

[a]The entire SMSA is subdivided into census tracts.

[b]Blocks and block groups do not have symbolized boundaries as do the other areas, but are identified by number.

Figure C-1. Geographic Hierarchy Inside and Outside Urbanized Areas (UA's)

NUS CORPORATION
SUPERFUND DIVISION

INTERNAL CORRESPONDENCE
C-584-1-85-169

TO: STAFF

DATE: JANUARY 2, 1985

FROM: PAMELA KANETA PNK

COPIES:

SUBJECT: UPDATE ON POPULATION DATA RETRIEVAL

After looking through a diversity of sites, a few points have arisen regarding the way census data is stored and retrieved. The MARF database is organized by the population weighted centroid of each census block group or enumeration district. This should not cause any problems in fairly populated areas. However, rural census data can often skew towards the more populated areas, underestimating sparser areas closest to the site. This should especially be considered when the retrieved data indicates there are zero residents within the first quarter and/or half mile radius. Since the HRS model is concerned with residential risk assessment, the population within these radii should be estimated from a topographic map or from the site inspection.

Another important consideration is the total area of the site. Since we use latitude/longitude coordinates to define the site, the surrounding radii are based on a point source. This is not applicable for sites such as landfills where the areal extent can be as much as forty or fifty acres, or larger. The HRS model specifically requests population within one, two and three miles of the ~~site~~ WASTE AREA boundaries. Therefore, large sites should be approximated by a circular area (i.e. estimate a radius for the site borders) and the distance measurements should extend from those borders.

Finally, the output table needs some clarification. The population and number of houses are given independently as subtotals for each concentric donut. In order to obtain the totals for each successive distance, the subtotals for all shorter distances must be added.

If there are any futher questions or problems, please bring them to my attention.

PK/mas

Approved RMN

```
3
3Dataset name: LAURIE                    Length:      6
3                                        No. of variables:    4
3
3  #  | POP          | HOUSE        | DISTANCE          | SECTOR      |
3
3-----------------------------------------------------------------------------
3---
3    1|        3386 |        1516   0.40000001      |            1 |
3    2|       14111 |        4533 |  0.81000000      |            1 |
3    3|       50173 |       18624 |   1.6000000      |            1 |
3    4|      179156 |       69898 |   3.2000000      |            1 |
3    5|      234330 |       87254 |   4.8000002      |            1 |
3    6|      170068 |       66003 |   6.4000001      |            1 |
3 (End of data for these variables.)
3
3Press RETURN to continue, type Pnnn to position record
3or type END to exit data window:
3
TMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM
13-Jun-85  04:43 PM                OnLine                                  Cap
```