02-8409-12A-SI

FINAL DRAFT
SITE INSPECTION REPORT
AND HAZARD RANKING SYSTEM MODEL
KEARNY 3RD & ADAMS
KEARNY, NEW JERSEY

PREPARED UNDER

TECHNICAL DIRECTIVE DOCUMENT NO. 02-8409-12A
CONTRACT NO. 68-01-6699

FOR THE

ENVIRONMENTAL SERVICES DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

SEPTEMBER 5, 1986

NUS CORPORATION
SUPERFUND DIVISION

SUBMITTED BY

LAURIE GNEIDING
PROJECT MANAGER

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REGIONAL PROJECT MANAGER

232932

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SECTION 1

SITE INSPECTION REPORT EXECUTIVE SUMMARY

NUS CORPORATION
A Halliburton Company

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
EXECUTIVE SUMMARY

Kearny 3rd & Adams **Site Name**	NJD980770150 **EPA Site ID Number**
3rd & Adams Street Kearny, Hudson County, NJ **Address**	02-8409-12A **TDD Number**

SITE DESCRIPTION

The Kearny 3rd & Adams Site is located in Kearny, Hudson County, New Jersey, in a heavily industrialized neighborhood. Prior to 1950, the site was a tidal marsh of the Passaic and Hackensack Rivers. Fill material was brought to the site for disposal and to provide for future commercial development. From 1950 through the 1960's, chromium-contaminated waste slag was allegedly disposed onsite. A small area of the landfill was used for disposal of PCB-contaminated wastes. When backfilling operations were completed, the site was developed. Presently, the Sea-Land Freight Company occupies the site on 3rd Street.

Chromium-contaminated wastes are not securely contained at this site. Onsite samples of standing water collected by the Kearny Health Department and by the New Jersey Department of Environmental Protection show both total chromium and hexavalent chromium contamination present onsite. Green crystalline wastes and yellow-green standing pools of liquid were observed on-site during this site inspection.

Environmental samples were collected by FIT II personnel on March 2(1985. Three (3) aqueous samples were collected from onsite standin waters. Four (4) soil samples were also collected from onsite location: All samples were analyzed for HSL pollutants and hexavalent chromiur Results of the analyses indicate onsite surface water to be contaminate with traces of polyaromatic hydrocarbons (PAHs) and heavy metal: including chromium, mercury, and lead.

Soil samples were contaminated with PAHs, PCBs, pesticide: dibenzofuran, and heavy metals.

HAZARD RANKING SCORE: $S_M = 6.31$ ($S_{gw} = 0$ $S_{sw} = 10.91$ $S_a = 0$)
$S_{FE} = 39.38$
$S_{DC} = 12.50$

Prepared by: Laurie Gneiding
of NUS Corporation

Date: 08/05/86

SECTION 2

ENVIRONMENTAL PROTECTION AGENCY FORM 2070-13

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

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
NJ D980770150

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER				
Kearny 3rd & Adams	3rd & Adams Street				
03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST.
Kearny	NJ	07032	Hudson	017	14

09 COORDINATES
LATITUDE 40° 44' 13".N LONGITUDE 74° 06' 35".W

10 TYPE OF OWNERSHIP (Check one)
X A. PRIVATE _ B. FEDERAL _ C. STATE
_ D. COUNTY _ E. MUNICIPAL _ F. OTHER
_ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION: 3 / 26 / 85 (MONTH DAY YEAR)
02 SITE STATUS: X ACTIVE _ INACTIVE
03 YEARS OF OPERATION: 1950 / 1978 (BEGINNING YEAR / ENDING YEAR) _ UNKNOWN

AGENCY PERFORMING INSPECTION (Check all that apply)
_ A. EPA X B. EPA CONTRACTOR NUS Corporation (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.
Gary Rojek	Environmental Scientist	NUS Corporation	(201) 225-6160
09 OTHER INSPECTORS	**10 TITLE**	**11 ORGANIZATION**	**12 TELEPHONE NO.**
Donna Ruccione	Public Health Specialist	NUS Corporation	(201) 225-6160
Glenn Beyerman	Environmental Engineer	NUS Corporation	(201) 225-6160
Roy Redmond	Geologist	NUS Corporation	(201) 225-6160
Don Hessemer	Environmental Health	NUS Corporation	(201) 225-6160
Valerie Smith	Technician	NUS Corporation	(201) 225-6160

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO.
Edward T. Grosvenor	Health Officer	645 Kearny Ave., Kearny, NJ	(201) 997-0600
Michael T. Beard	Environmental Specialist	645 Kearny Ave., Kearny, NJ	(201) 997-0600
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
X PERMISSION _ WARRANT	0930	Clear 35°F, wind from the NW at 10-20 mph

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
Gary Rojek/Laurie Gneiding		NUS Corp. FIT II	(201) 225-6160	7 /25 /86 (MONTH DAY YEAR)

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

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
NJ D980770150

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

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

02 WASTE QUANTITY AT SITE

(Measures of waste quantities must be independent)

TONS _____
CUBIC YARDS 4-8x10^{4}yd^3
NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

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

III. WASTE TYPE

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

undefined?

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently

CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER		05 CONCENTRATION	06 MEASURE OF CONCENTRATION
MES	Chromium	7440-47-3	Dumped	35000	ug/l
MES	Arsenic	7440-38-2	Unknown	58	ug/l
MES	Barium	7440-39-3	Unknown	199	mg/kg
MES	Cadmium	7440-43-9	Unknown	15	mg/kg
MES	Cobalt	7440-48-4	Unknown	153	mg/kg
MES	Lead	7439-92-1	Unknown	5460	mg/kg
MES	Mercury	7439-97-6	Unknown	0.82	mg/kg
MES	Nickel	7440-02-0	Unknown	625	ug/l
MES	Vanadium	7440-62-2	Unknown	1780	ug/l
OCC	Naphthalene	91-20-3	Unknown	6500	ug/kg
OCC	2-Methylnaphthalene	---	Unknown	2100	ug/kg
OCC	Acenaphthene	83-32-9	Unknown	830	ug/kg
OCC	Dibenzofuran	132-64-9	Unknown	710	ug/kg
OCC	Fluorene	86-73-7	Unknown	640	ug/kg
OCC	Phenanthrene	85-01-8	Unknown	1600	ug/kg
OCC	Anthracene	120-12-7	Unknown	520	ug/kg

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBE
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

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

Preliminary Assessment: Prepared by Joseph Logan, NUS Corporation 10/08/84
Site Inspection, FIT II, 03/26/85

ATTACHMENT

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

CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
OCC	Fluoranthene	260-44-0	Unknown	3000	ug/kg
OCC	Pyrene	129-00-0	Unknown	2700	ug/kg
OCC	Benzo(a)anthracene	56-55-3	Unknown	1200	ug/kg
OCC	Chrysene	218-01-9	Unknown	1600	ug/kg
OCC	Benzo(b)fluoranthene	205-99-2	Unknown	2300	ug/kg
OCC	Benzo(k)fluoranthene	207-08-9	Unknown	990	ug/kg
OCC	Benzo(a)pyrene	50-32-8	Unknown	1200	ug/kg
OCC	Indeno(1,2,3-cd)pyrene	193-39-5	Unknown	850	ug/kg
OCC	Benzo(ghi)perylene	191-24-2	Unknown	650	ug/kg
SOL	Tetrachloroethene	127-18-4	Unknown	6	ug/kg
SOL	Xylenes	1330-20-7	Unknown	7	ug/kg
PSD	Aldrin	309-00-2	Unknown	37	ug/kg
PSD	Dieldrin	60-57-1	Unknown	620	ug/kg
PSD	4,4'-DDD	33213-65-9	Unknown	40	ug/kg
PSD	Aroclor 1260	11096-82-5	Unknown	800	ug/kg

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 X A. GROUNDWATER CONTAMINATION — 02 _ OBSERVED (DATE:) — X POTENTIAL — _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 400 — 04 NARRATIVE DESCRIPTION

C.F. Mueller Company, 1.25 miles east of the Kearny 3rd & Adams Site, maintains a 1,000 feet deep supply well. The static water level before pumping is 50 feet and the well is certified for domestic use. The C.F. Mueller well is utilized by 400 people who may be potentially affected by groundwater contamination. A low potential exists for contaminants to reach the aquifer of concern.

01. X B. SURFACE WATER CONTAMINATION — 02 X OBSERVED (DATE: 4/26/83) — _ POTENTIAL — _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 215,290 — 04 NARRATIVE DESCRIPTION

Potential exists for chromium to be carried by runoff to the Passaic River (0.4 miles distant) or to the Hackensack River (0.6 miles distant). Hexavalent chromium was detected in onsite surface water samples collected by the Kearny Health Department on 4/26/83. Yellow-green pools of standing liquid were observed on the site during FIT II Site Inspection and were contaminated with PAHs and heavy metals.

01 X C. CONTAMINATION OF AIR — 02 _ OBSERVED (DATE:) — X POTENTIAL — _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 7 — 04 NARRATIVE DESCRIPTION

The surrounding population is at risk due to migration of contaminated airborne particulates.

01. _ D. FIRE/EXPLOSIVE CONDITIONS — 02 _ OBSERVED (DATE:) — _ POTENTIAL — _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0 — 04 NARRATIVE DESCRIPTION

No potential exists.

01. X E. DIRECT CONTACT — 02 _ OBSERVED (DATE:) — X POTENTIAL — _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 215,290 — 04 NARRATIVE DESCRIPTION

Potential exists for direct contact with contaminated airborne particulate matter and contaminated surface runoff.

01 X F. CONTAMINATION OF SOIL — 02 X OBSERVED (DATE: 3/85) — _ POTENTIAL — _ ALLEGED
03 AREA POTENTIALLY AFFECTED: 15 (ACRES) — 04 NARRATIVE DESCRIPTION

Green crystalline substances were visible on soil surface during FIT II Site Inspection. Soils are contaminated with PAHs, pesticides, PCBs, dibenzofuran, and heavy metals.

01. X G. DRINKING WATER CONTAMINATION — 02 _ OBSERVED (DATE:) — X POTENTIAL — _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 400 — 04 NARRATIVE DESCRIPTION

The well at C.F. Mueller is certified for domestic use. This well is utilized by 400 people who could use it for drinking water. A low potential exists for contaminants to reach the aquifer of concern.

01 X H. WORKER EXPOSURE/INJURY — 02 _ OBSERVED (DATE:) — X POTENTIAL — _ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: Unknown — 04 NARRATIVE DESCRIPTION

Potential exists for workers in the area to be exposed to airborne contaminants and contaminated surface water runoff.

01 X I. POPULATION EXPOSURE/INJURY — 02 _ OBSERVED (DATE:) — X POTENTIAL — _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 215,290 — 04 NARRATIVE DESCRIPTION

Potential exists for population exposure to chromium carried offsite. Contaminants have the potential for offsite migration by airborne transport and transport by surface water runoff.

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

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

A low potential exists: 3rd and Adams Street is located within a completely developed neighborhood of Kearny, New Jersey. However, contaminated surface runoff may enter the Passaic and/or Hackensack River.

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

Contaminants transported offsite by surface water runoff have the potential to contaminate the fauna of the Passaic and Hackensack Rivers. Heavy metals, pesticides, and PCBs will bioaccumulate in animal tissue.

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

The potential exists for contamination of the food chain as heavy metals, pesticides, and PCBs will bioaccumulate in animal tissue.

01 X M. UNSTABLE CONTAINMENT OF WASTES 02 X OBSERVED (DATE: 4/26/83, 3/26/85) POTENTIAL _ ALLEGED
(Spills/runoff/standing liquids/leaking drums)
03 POPULATION POTENTIALLY AFFECTED: 7 04 NARRATIVE DESCRIPTION

FIT II observed puddles of contaminated water and green crystalline matter in the soil during the 3/85 site inspection. Kearny Health Department observed contamination during a site inspection in 4/83..

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

Contamination to offsite property is possible through contaminated airborne particulates and through surface water runoff.

01 X O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs 02 X OBSERVED (DATE: 3/26/85) _ POTENTIAL _ ALLEGED
04 NARRATIVE DESCRIPTION

During a FIT II site inspection, yellow-green pools of standing liquid and green crystalline substances were observed on the surface soils of the site. These yellow-green puddles had spilled out onto the street and were running into the street sewe

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

Unauthorized dumping was not observed during the site inspection of 03/26/85. However, chromate contaminated slag was used fill at this site. A small area was used for disposal of PCB-contaminated wastes.

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

None

III. TOTAL POPULATION POTENTIALLY AFFECTED: 215,290

IV. COMMENTS

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

Master Area Reference File (MARF) of the 1980 Census. General Software Corp., Landover, Maryland, June 26, 1984
Preliminary Assessment: Prepared by Joseph Logan, NUS Corporation 10/08/84
Site Inspection, FIT II, 03/26/85

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

1. IDENTIFICATION
01 STATE 02 SITE NUMBER
NJ D980770150

II. PERMIT INFORMATION

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

III. SITE DESCRIPTION

01 Storage/Disposal (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
_ A. SURFACE IMPOUNDMENT		
_ B. PILES		
_ C. DRUMS, ABOVE GROUND		
_ D. TANK, ABOVE GROUND		
_ E. TANK, BELOW GROUND		
X F. LANDFILL	40,000-80,000	cubic yards
_ G. LANDFARM		
X H. OPEN DUMP	Unknown	
_ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)

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

05 OTHER

X A. BUILDINGS ON SITE 1

06 AREA OF SITE

15 (Acres)

07 COMMENTS

The property within the immediate vicinity of the 3rd & Adams Site was backfilled with chromate contaminated slag.* The quantity of this slag used as fill is unknown.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

_ A. ADEQUATE, SECURE _ B. MODERATE _ C. INADEQUATE, POOR X D. INSECURE, UNSOUND, DANGEROUS

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

The chromate contaminated slag is not contained onsite. Hexavalent chromium was detected in onsite surface water samples collected by the Kearny Health Department on 4/26/83.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: X YES _ NO

02 COMMENTS

Hexavalent chromium was detected in onsite surface water samples collected by the Kearny Health Department on 4/26/83. FIT II observed contaminated soil and standing water onsite during the site inspection conducted on 3/26/85.

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

*Memo to Gary Rojek confirming conversation of 10/4/84 as to chromate contaminated slag fill deposited at the Kearny 3rd & Adams Site. Tom McKee, NJDEP, 10/4/84
Site Inspection conducted by NUS Corporation, FIT II 3/26/85

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 5 - DEMOGRAPHIC, AND ENVIRONMENTAL DATA

1. IDENTIFICATION
01 STATE 02 SITE NUMBER
NJ D980770150

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable) | 02 STATUS | 03 DISTANCE TO SITE

	SURFACE	WELL	ENDANGERED	AFFECTED	MONITORED	
COMMUNITY	A. X	B. _	A. _	B. _	C. X	A. 5 (mi)
NON-COMMUNITY	C. X	D. _	D. _	E. _	F. X	B. 5 (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) X C. COMMERCIAL, INDUSTRIAL, IRRIGATION (Limited other sources available) _ D. NOT USED, UNUSEABLE

02 POPULATION SERVED BY GROUND WATER: 0 03 DISTANCE TO NEAREST DRINKING WATER WELL: >3 (mi)

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFE
approx. 20 (ft)	South	approx. 20 (ft)	Unknown (gpd)	_ YES X NO

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

There is one 1000 foot well used for drinking water 1.25 miles from the site servicing 400 people. The well is in crystalli rock, however, and not potentially affected by the site.

10 RECHARGE AREA
_ YES
X NO
COMMENTS

11. DISCHARGE AREA
X YES
_ NO
COMMENTS The Penhorn Creek may be a discharge point.

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

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

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
Hackensack River		0.6 (mi)
Passaic River		0.4 (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. 7 NO. OF PERSONS	B. 32,979 NO. OF PERSONS	C. 215,292 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION: 0.01 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE: 12,590

04 DISTANCE TO NEAREST OFF-SITE BUILDING: 0.01 (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)

The Kearny 3rd & Adams Street Site, the location of Sea-Land Freight Company, is within a highly industrialized area of Kearny, New Jersey. Ryder/PIE Trucking borders the site to the west and Rapid Transit property borders the site to the east There are only a few persons living within a 1 mile radius of the site; however, approximately 215,000 people inhabit the ar within a 3 mile radius of the site.

1. IDENTIFICATION
01 STATE 02 SITE NUMBER
NJ 0980770150

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

_ A. 10^{-6} - 10^{-8} cm/sec X 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)

X 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: 80-100 (ft)
04 DEPTH OF CONTAMINATED SOIL ZONE: 5-10 (ft)
05 SOIL pH: Approx. pH 9

06 NET PRECIPITATION: 15 (in)
07 ONE YEAR 24 HOUR RAINFALL: 2.5 (in)
08 SLOPE
SITE SLOPE: 0-2 %
DIRECTION OF SITE SLOPE: East
TERRAIN AVERAGE SLOPE: 0-2 %

09 FLOOD POTENTIAL
10
SITE IS IN N/A YEAR FLOODPLAIN X SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)
ESTUARINE: A. 0.6 (mi)
OTHER: B. N/A (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species): N/A (mi)
ENDANGERED SPECIES: N/A

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL: A. 0.01 (mi)
RESIDENTIAL AREAS: NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES: B. 1.0 (mi)
AGRICULTURAL LANDS
PRIME AG LAND: C. N/A (mi)
AG LAND: D. N/A (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

The Kearny 3rd & Adams Street site is located within a highly industrialized area of Kearny, New Jersey. The site is level, having a slope of 0-2 percent. Surface water collects in shallow standing pools to the south and east of the site. Onsite vegetation is sparse, although Phragmites vegetative stands are present immediately offsite. The Passaic River flows 0.4 miles to the west of the site and the Hackensack River is located 0.6 miles to the east of the site. The site is situated on land reclaimed from the marshes of the Passaic and Hackensack Rivers. Penhorn Creek flows through the site.

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

Climatic Atlas of the United States. U.S. Department of Commerce, National Climate Center, Ashville, N.C. 1979
Master Area Reference File (MARF) of the 1980 Census. General Software Corp., Landover, Maryland. June 26, 1984
U.S.G.S. Map of Jersey City, New Jersey
Bedrock Map: Hackensack Meadows, N.J. Department of Conservation and Economic Development, 1959.

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

1. IDENTIFICATION
01 STATE 02 SITE NUMBER
NJ D980770150

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER		Organic Soil and Aqueous Samples Sent To:	
SURFACE WATER	3	Radian Corporation	
WASTE		3401 LaGrande Boulevard	
AIR		Sacramento, CA 95823	
RUNOFF			
SPILL		Inorganic Soil and Aqueous Samples Sent To:	
SOIL	4	Versar Inc.	
VEGETATION		6850 Versar Center	
OTHER		Springfield, VA 22151	

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
Air Monitoring - OVA	No readings detected above background levels.
Air Monitoring - HNu	No readings detected above background levels.

IV. PHOTOGRAPHS AND MAPS

01 TYPE X GROUND _ AERIAL 02 IN CUSTODY OF NUS Corporation FIT II, Edison, NJ
(Name of organization or individual)

03 MAPS X YES _ NO

04 LOCATION OF MAPS Site and Sampling Location Maps, NUS Corporation FIT II Project Files

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

Field notebook with photolog: 02-8409-12A written and photographic documentation of all onsite activities.

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

Site Inspection conducted on 3/26/85 by NUS Corporation FIT II

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

1. IDENTIFICATION
01 STATE 02 SITE NUMBER
NJ D980770150

II. CURRENT OWNER(S)			PARENT COMPANY (If applicable)		
01 NAME		02 D + B Number	08 NAME		09 D + B NUMBER
Ryder PIE					
03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD#, etc.)		11 SIC CODE
3rd Street					
05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE
Kearny	NJ	07032			
01 NAME		02 D + B Number	08 NAME		09 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD#, etc.)		11 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE
01 NAME		02 D + B Number	08 NAME		09 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD#, etc.)		11 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE
01 NAME		02 D + B Number	08 NAME		09 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD#, etc.)		11 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE

III. PREVIOUS OWNER(S) (List most recent first)			IV. REALTY OWNER(S) (If applicable; list most recent first)		
01 NAME		02 D + B Number	01 NAME		02 D + B NUMBER
Diamond Shamrock					
03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE
717 N. Harwood Street					
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
Dallas	TX	75201			
01 NAME		02 D + B Number	01 NAME		02 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
01 NAME		02 D + B Number	01 NAME		02 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

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

Personal communication with Joe Ware of Ryder/PIE on 4/8/85

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

1. IDENTIFICATION
01 STATE 02 SITE NUMBER
NJ D980770150

II. CURRENT OPERATOR(S) — OPERATOR'S PARENT COMPANY (If applicable)

01 NAME	02 D + B Number	10 NAME	11 D + B NUMBER
Sea-Land Freight Company			
03 STREET ADDRESS (P.O. Box, RFD#, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD#, etc.)	13 SIC CODE
3rd Street			
05 CITY / 06 STATE	07 ZIP CODE	14 CITY / 15 STATE	16 ZIP CODE
Kearny / NJ	07032		
08 YEARS OF OPERATION / 09 NAME OF OWNER			

III. PREVIOUS OPERATOR(S) (List most recent first: Provide only if different from owner) — PREVIOUS OPERATOR'S PARENT COMPANIES (If applicable)

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

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

Site Inspection conducted on 3/26/85 by the NUS Corporation FIT II
Preliminary Assessment: Prepared by Joseph Logan, NUS Corp., 10/8/84

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

1. IDENTIFICATION
01 STATE 02 SITE NUMBER
NJ D980770150

II ON-SITE GENERATOR

01 NAME | 02 D + B Number

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

05 CITY | 06 STATE | 07 ZIP CODE

III OFF-SITE GENERATOR(S)

01 NAME	02 D + B Number	01 NAME	02 D + B NUMBER
Diamond Shamrock Corp.*			
03 STREET ADDRESS (P.O. Box, RFD#, etc.)	04 SIC CODE	02 STREET ADDRESS (P.O. Box, RFD, etc.)	04 SIC CODE
Belleville Turnpike			
05 CITY / 06 STATE	07 ZIP CODE	05 CITY / 06 STATE	07 ZIP CODE
Kearny / NJ	07032		
01 NAME	02 D + B Number	01 NAME	02 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD#, etc.)	04 SIC CODE	02 STREET ADDRESS (P.O. Box, RFD, etc.)	04 SIC CODE
05 CITY / 06 STATE	07 ZIP CODE	05 CITY / 06 STATE	07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME	02 D + B Number	01 NAME	02 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD#, etc.)	04 SIC CODE	02 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	02 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., stat files, sample analysis, reports)

Telecon between Joseph Logan, NUS Corporation, and Tom McKee, NJDEP Division of Water Resources. Newark, NJ 10/3/84

*The Diamond Shamrock Corp. Kearny Plant Site was in operation from 1950 to 1978, and is presently abandoned. The Diamond Shamrock Corp. Kearny Plant Site was a subsidiary of Diamond Shamrock Corp., 717 N. Harwood Street, Dallas, TX 75201. Information from John R. Jimenez U.S. EPA 4/9/80.

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

1. IDENTIFICATION
01 STATE 02 SITE NUMBER
NJ D980770150

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: _____ 03 AGENCY: _____
04 DESCRIPTION
No previous history.

01 ___ E. CONTAMINATED SOIL REMOVED 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION
No previous history.

01 ___ F. WASTE REPACKAGED 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION
No previous history.

01 ___ G. WASTE DISPOSED ELSEWHERE 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION
No previous history.

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
No previous history.

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.

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

1. IDENTIFICATION
01 STATE 02 SITE NUMBER
NJ D980770150

II. PAST RESPONSE ACTIVITIES

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

01 ___ S. CAPPING/COVERING 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION
No previous history.

01 ___ T. BULK TANKAGE REPAIRED 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION
No previous history.

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

01 ___ V. BOTTOM SEALED 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION
No previous history.

01 ___ W. GAS CONTROL 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION
No previous history.

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: _____ 03 AGENCY: _____
04 DESCRIPTION

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

NJDEP Division of Water Resources. Summary of Site Inspection conducted on 1/11/83 by Helen Wright
Site Inspection 3/26/85 conducted by NUS Corporation FIT II

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION _ YES X NO

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

No record of previous regulatory/enforcement action for this site in the past.

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

Site Inspection 3/26/85 conducted by NUS Corporation FIT II
Preliminary Assessment: Prepared by Joseph Logan, NUS Corp. 10/8/84

SECTION 3

MAPS AND PHOTOGRAPHS

EXHIBIT 1

KEARNY - 3RD AND ADAMS
KEARNY, NEW JERSEY
TDD# 02-8409-12A

PHOTOGRAPH LOG

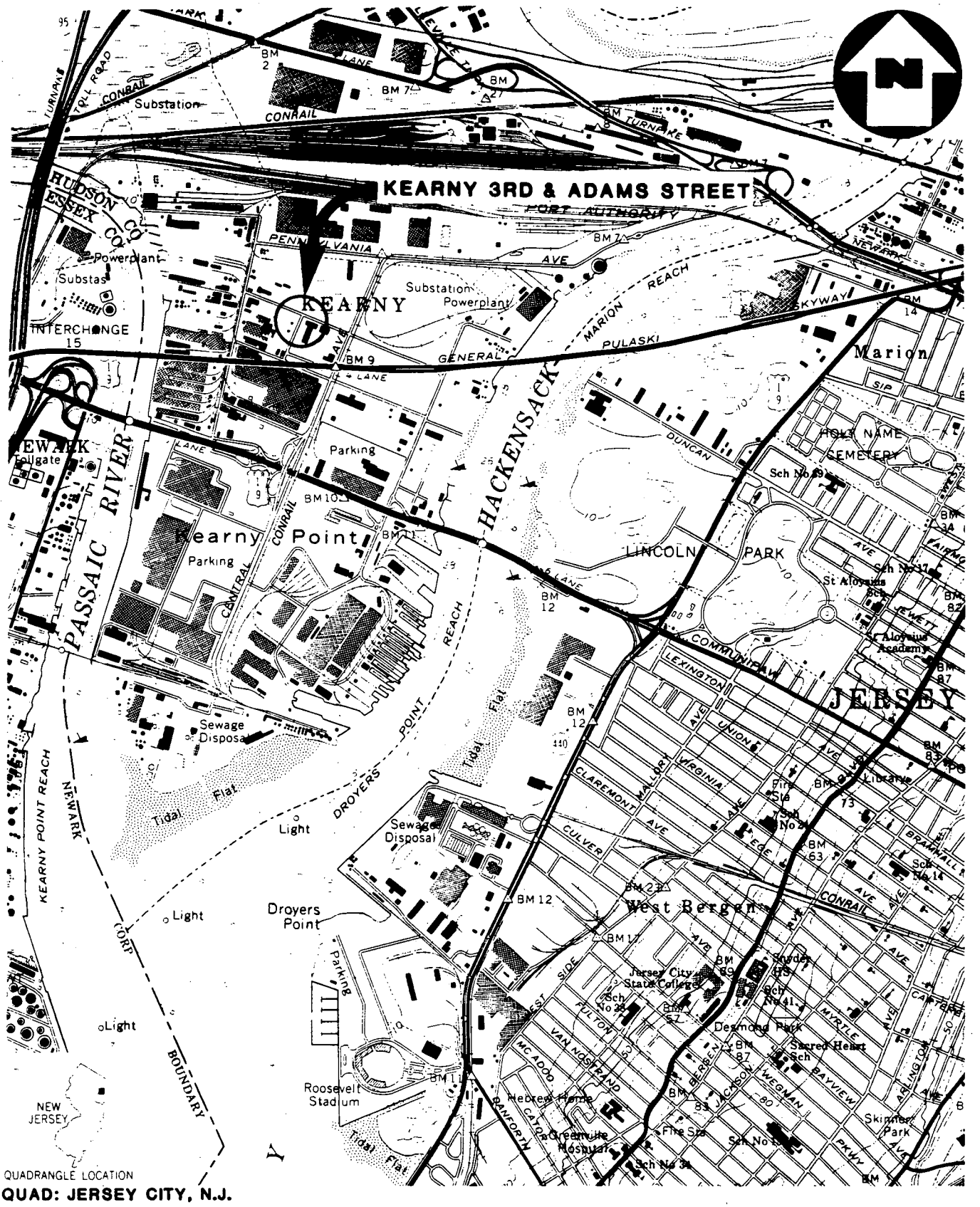
MAPS AND PHOTOS

Figure 1 provides a Site Location Map.

Figure 2 provides a Site Map.

Figure 3 provides a Sample Location Map.

Exhibit 1 provides photographs of the site.



QUADRANGLE LOCATION

QUAD: JERSEY CITY, N.J.

SITE LOCATION MAP

KEARNY 3RD & ADAMS STREET, KEARNY, N.J.

SCALE: 1" = 2000'

FIGURE 1

NUS CORPORATION

A Halliburton Company

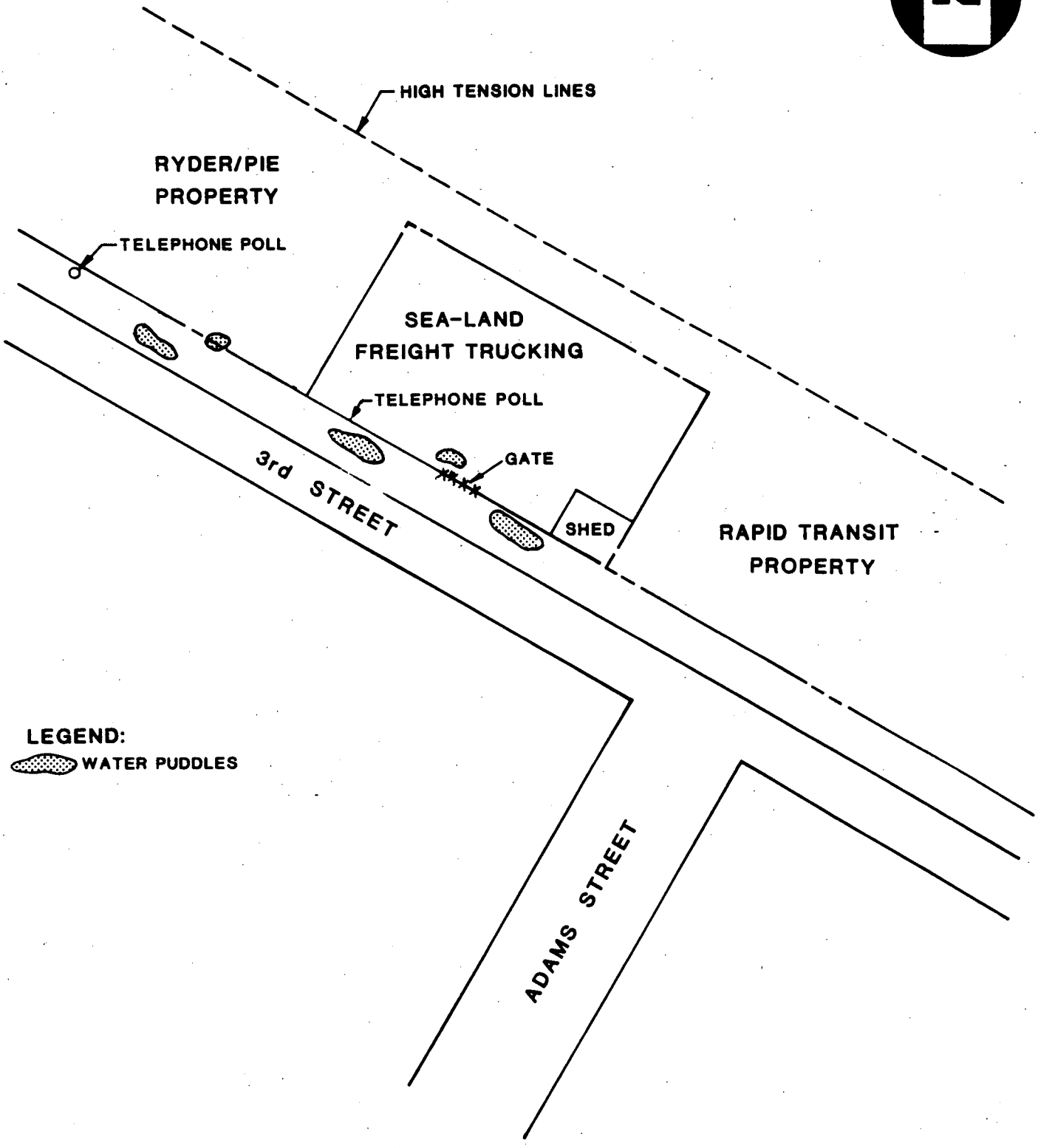


FIGURE 2

SITE MAP

KEARNY 3RD & ADAMS STREET, KEARNY, N.J.

(NOT TO SCALE)

NUS CORPORATION
A Halliburton Company

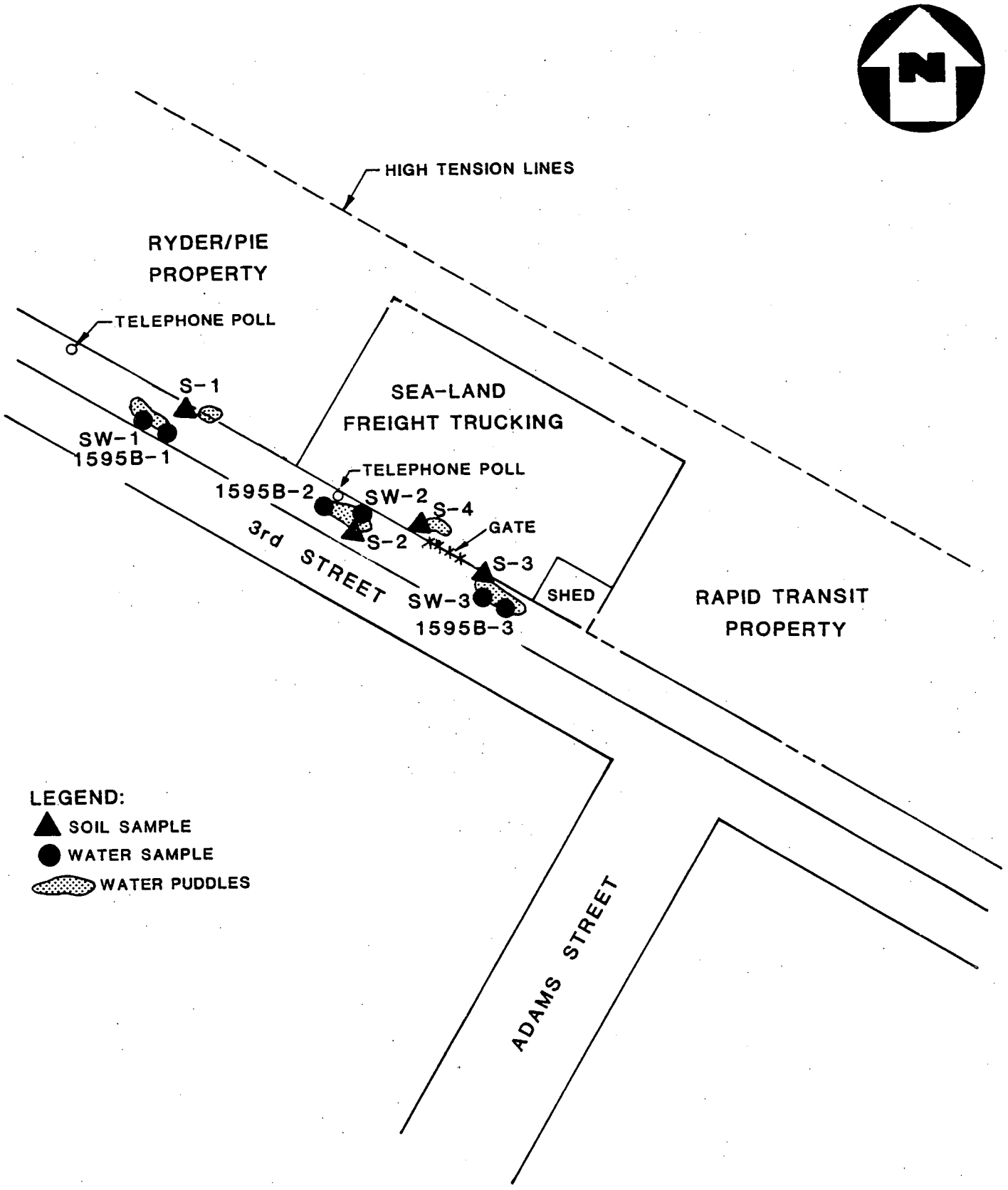


FIGURE 3

SAMPLE LOCATION MAP

KEARNY 3RD & ADAMS STREET, KEARNY, N.J.

(NOT TO SCALE)

NUS CORPORATION

A Halliburton Company

KEARNY - 3RD AND ADAMS
KEARNY, NEW JERSEY
TDD# 02-8409-12A
MARCH 26, 1985

PHOTOGRAPH INDEX

Photo Number	Description	Time
1.	Surface water sample NJL5-SW1. Samplers: G. Beyerman and R. Redmond. Photographer: G. Rojek	1020
2.	Surface water sample NJL5-SW2. Samplers: G. Beyerman and R. Redmond. Photographer: G. Rojek	1025
3.	Surface water sample NJL5-SW3. Samplers: G. Beyerman and R. Redmond. Photographer: G. Rojek	1035
4.	Soil sample NJL5-S1. Samplers: G. Beyerman and R. Redmond. Photographer: G. Rojek	1036
5.	Soil sample NJL5-S2. Samplers: G. Beyerman and R. Redmond. Photographer: G. Rojek	1045
6.	Soil sample NJL5-S3. Samplers: G. Beyerman and R. Redmond. Photographer: G. Rojek	1050
7.	Soil sample NJL5-S4. Samplers: G. Beyerman and R. Redmond. Photographer: G. Rojek	1055
8.	Sampling area looking east. Photographer: G. Rojek	1057
9.	Puddle near sample location for NJL5-S1. Photographer: G. Rojek	1058
10.	Puddle alongside property of Ryder/PIE fence line. Photographer: G. Rojek	1058
11.	Puddle and green crystals on soil alongside Ryder/PIE fence line. Photographer: G. Rojek	1058
12.	Puddles in front of Sea-Land Freight Terminal gate. Photographer: G. Rojek	1100

NUS CORPORATION

KEARNY - 3RD AND ADAMS

1. March 26, 1985 1020
   Surface water sample NJL5-SW1 .
   Samplers: G. Beyerman and R. Redmond
   Photographer: G. Rojek

2. March 26, 1985 1025
   Surface water sample NJL5-SW2.
   Samplers: G. Beyerman and R. Redmond
   Photographer: G. Rojek

NUS CORPORATION

KEARNY - 3RD AND ADAMS

3. March 26, 1985 1035
Surface water sample NJL5-SW3.
Samplers: G. Beyerman and R. Redmond.
Photographer: G. Rojek

4. March 26, 1985 1040
Soil sample NJL5-S1.
Samplers: G. Beyerman and R. Redmond.
Photographer: G. Rojek

NUS CORPORATION

KEARNY - 3RD AND ADAMS

5. March 26, 1985 1045
   Soil sample NJL5-S2.
   Samplers: G. Beyerman and R. Redmond.
   Photographer: G. Rojek

6. March 26, 1985
   Soil sample NJL5-S3.
   Samplers: G. Beyerman and R. Redmond.
   Photographer: G. Rojek

NUS CORPORATION

KEARNY - 3RD AND ADAMS

7. March 26, 1985 1055
Soil sample NJL5-S4.
Samplers: G. Beyerman and R. Redmond.
Photographer: G. Rojek

8. March 26, 1985 1057
Sampling area looking east.
Photographer: G. Rojek

9. March 26, 1985 1058
Puddle near sample location for NJL5-S1.
Photographer: G. Rojek

10. March 26, 1985 1058
Puddle alongside property of Ryder/PIE fence line.
Photographer: G. Rojek

11. March 26, 1985 1058
Puddle and green crystals on soil alongside Ryder/PIE fence line.
Photographer: G. Rojek

12. March 26, 1985 1100
Puddles in front of Sea-Land Freight Terminal gate.
Photographer: G. Rojek

15. March 26, 1985 1105
Sampling location for NJL5-S4.
Photographer: G. Rojek

16. March 26, 1985 1110
Front gate of Sea-Land Freight Terminal looking north.
Photographer: G. Rojek

KEARNY - 3RD AND ADAMS
KEARNY, NEW JERSEY
TDD# 02-8409-12A
MARCH 26, 1985

PHOTOGRAPH INDEX

Photo Number	Description	Time
13.	Sampling area in front of Sea-Land Freight Terminal looking west. Photographer: G. Rojek	1103
14.	Sampling area looking south inside fence line of Sea-Land Freight Terminal. Photographer: G. Rojek	1105
15.	Sampling location for NJL5-S4. Photographer: G. Rojek	1105
16.	Front gate of Sea-Land Freight Terminal looking north. Photographer: G. Rojek	1110

0020-P
02-8409-12A/NJLS

KEARNY - 3RD AND ADAMS
KEARNY, NEW JERSEY
TDD# 02-8409-12A

PHOTOGRAPH LOG

KEARNY - 3RD AND ADAMS
KEARNY, NEW JERSEY
TDD# 02-8409-12A
MARCH 26, 1985

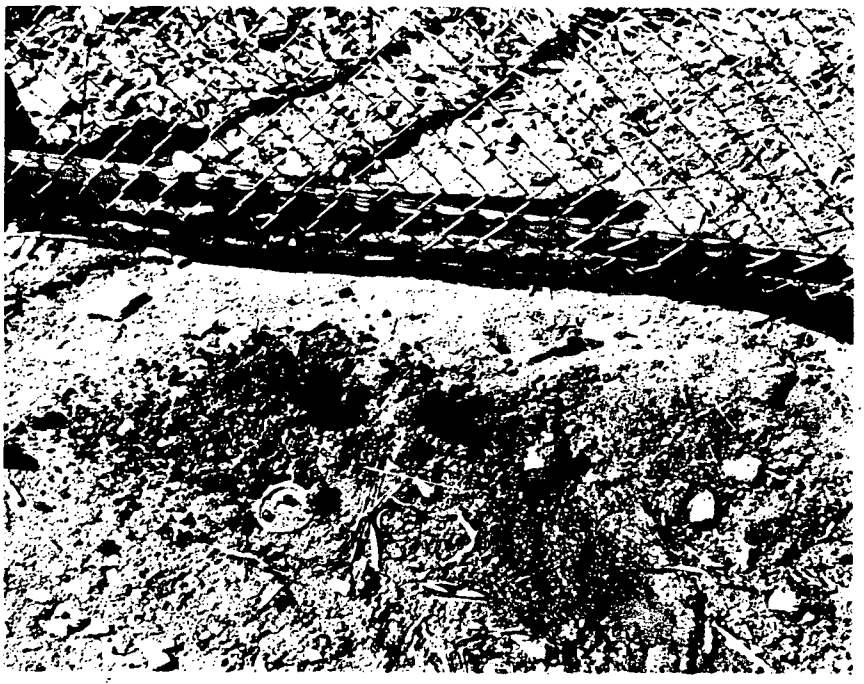
PHOTOGRAPH INDEX

Photo Number	Description	Time
1.	Surface water sample NJL5-SW1. Samplers: G. Beyerman and R. Redmond. Photographer: G. Rojek	1020
2.	Surface water sample NJL5-SW2. Samplers: G. Beyerman and R. Redmond. Photographer: G. Rojek	1025
3.	Surface water sample NJL5-SW3. Samplers: G. Beyerman and R. Redmond. Photographer: G. Rojek	1035
4.	Soil sample NJL5-S1. Samplers: G. Beyerman and R. Redmond. Photographer: G. Rojek	1036
5.	Soil sample NJL5-S2. Samplers: G. Beyerman and R. Redmond. Photographer: G. Rojek	1045
6.	Soil sample NJL5-S3. Samplers: G. Beyerman and R. Redmond. Photographer: G. Rojek	1050
7.	Soil sample NJL5-S4. Samplers: G. Beyerman and R. Redmond. Photographer: G. Rojek	1055
8.	Sampling area looking east. Photographer: G. Rojek	1057
9.	Puddle near sample location for NJL5-S1. Photographer: G. Rojek	1058
10.	Puddle alongside property of Ryder/PIE fence line. Photographer: G. Rojek	1058
11.	Puddle and green crystals on soil alongside Ryder/PIE fence line. Photographer: G. Rojek	1058
12.	Puddles in front of Sea-Land Freight Terminal gate. Photographer: G. Rojek	1100

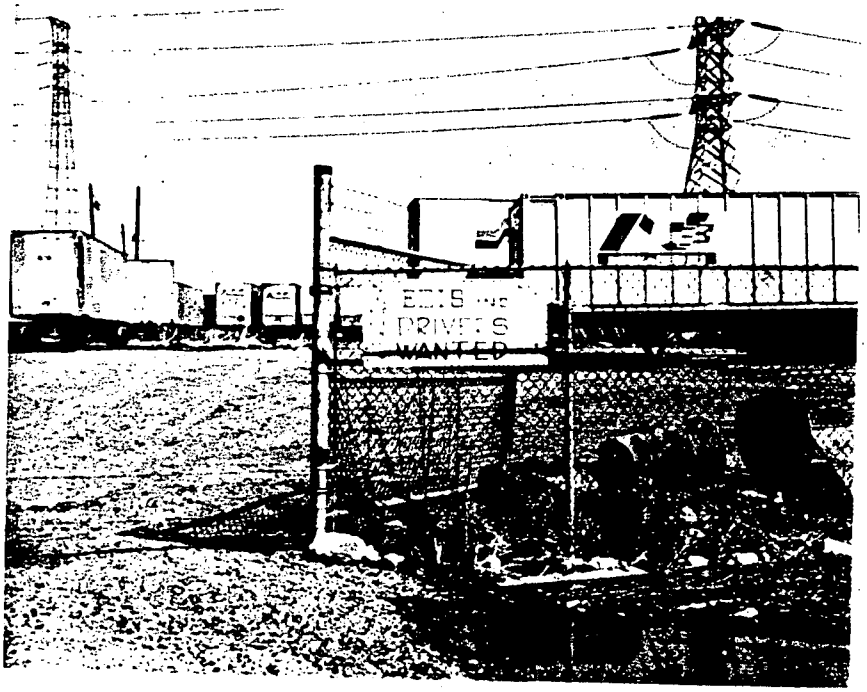
KEARNY - 3RD AND ADAMS
KEARNY, NEW JERSEY
TDD# 02-8409-12A
MARCH 26, 1985

PHOTOGRAPH INDEX

Photo Number	Description	Time
13.	Sampling area in front of Sea-Land Freight Terminal looking west. Photographer: G. Rojek	1103
14.	Sampling area looking south inside fence line of Sea-Land Freight Terminal. Photographer: G. Rojek	1105
15.	Sampling location for NJL5-S4. Photographer: G. Rojek	1105
16.	Front gate of Sea-Land Freight Terminal looking north. Photographer: G. Rojek	1110

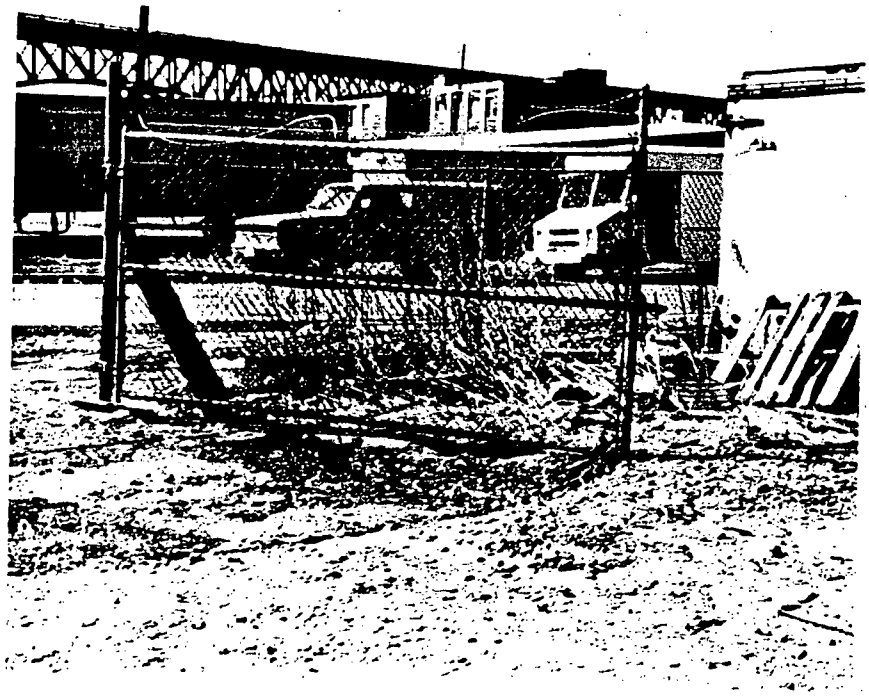


15. March 26, 1985 1105
Sampling location for NJL5-S4.
Photographer: G. Rojek



16. March 26, 1985 1110
Front gate of Sea-Land Freight Terminal looking north.
Photographer: G. Rojek

13. March 26, 1985 1103
Sampling area in front of Sea-Land Freight Terminal looking west.
Photographer: G. Rojek

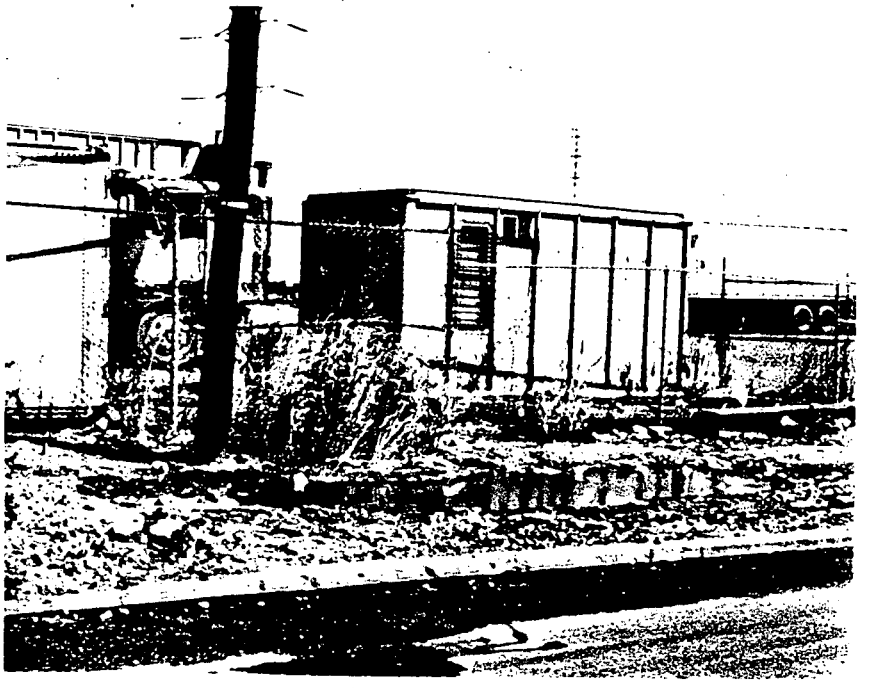


14. March 26, 1985 1105
Sampling area looking south inside fence line of Sea-Land Freight Terminal.
Photographer: G. Rojek

11. March 26, 1985 1058
Puddle and green crystals on soil alongside Ryder/PIE fence line.
Photographer: G. Rojek

12. March 26, 1985 1100
Puddles in front of Sea-Land Freight Terminal gate.
Photographer: G. Rojek

9. March 26, 1985 1058
Puddle near sample location for NJL5-S1.
Photographer: G. Rojek



10. March 26, 1985 1058
Puddle alongside property of Ryder/PIE fence line.
Photographer: G. Rojek

NUS CORPORATION

KEARNY - 3RD AND ADAMS

7. March 26, 1985 1055
   Soil sample NJL5-S4.
   Samplers: G. Beyerman and R. Redmond.
   Photographer: G. Rojek

8. March 26, 1985 1057
   Sampling area looking east.
   Photographer: G. Rojek

KEARNY - 3RD AND ADAMS

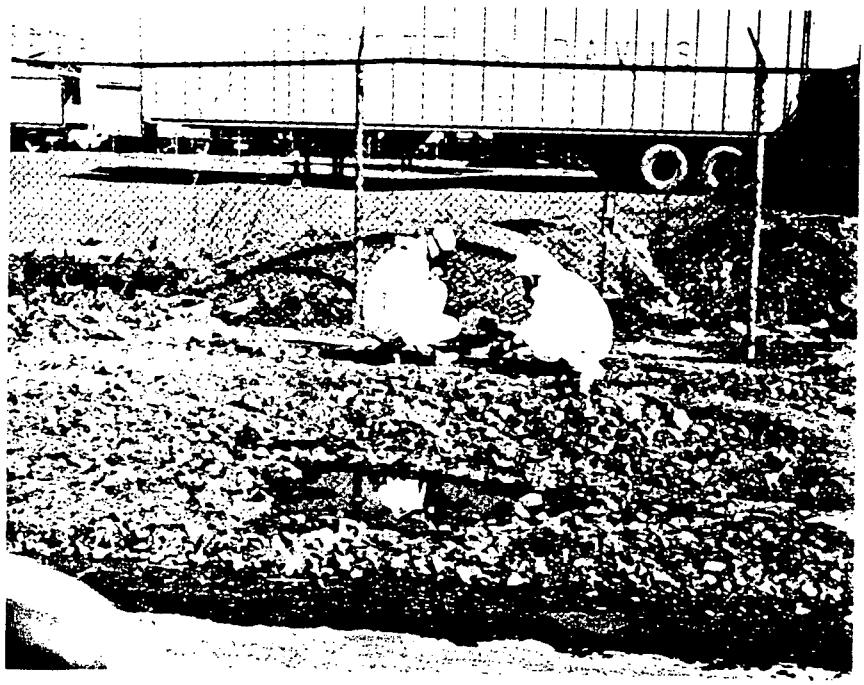
5. March 26, 1985 1045
Soil sample NJL5-S2.
Samplers: G. Beyerman and R. Redmond.
Photographer: G. Rojek

6. March 26, 1985
Soil sample NJL5-S3.
Samplers: G. Beyerman and R. Redmond.
Photographer: G. Rojek

NCS CORPORATION

KEARNY - 3RD AND ADAMS

3. March 26, 1985 1035
Surface water sample NJL5-SW3.
Samplers: G. Beyerman and R. Redmond.
Photographer: G. Rojek



4. March 26, 1985 1040
Soil sample NJL5-S1.
Samplers: G. Beyerman and R. Redmond.
Photographer: G. Rojek

NUS CORPORATION

KEARNY - 3RD AND ADAMS

1. March 26, 1985 1020
   Surface water sample NJL5-SW1 .
   Samplers: G. Beyerman and R. Redmond
   Photographer: G. Rojek

2. March 26, 1985 1025
   Surface water sample NJL5-SW2.
   Samplers: G. Beyerman and R. Redmond
   Photographer: G. Rojek

SECTION 4

DOCUMENTATION RECORDS FOR HAZARD RANKING SYSTEM

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: Kearny 3rd and Adams

LOCATION: Kearny, New Jersey

DATE SCORED: 7/31/86

PERSON SCORING: Laurie Gneiding

PRIMARY SOURCE(S) OF INFORMATION (e.g., EPA region, state, FIT, etc.):
Site inspection conducted on 3/26/85 by NUS FIT II.

FACTORS NOT SCORED DUE TO INSUFFICIENT INFORMATION:
Air route not scored.

COMMENTS OR QUALIFICATIONS:

GROUNDWATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

No groundwater samples taken

Ref: #1

Rationale for attributing the contaminants to the facility:

Not Applicable.

* * *

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifer(s) of concern:

Brunswick shale composed of mudstone, siltstone, sandstone, and conglomerate

Ref: #5

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

Approximately 20 feet

Ref: #13

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

5-10 feet

Ref: #8

Net Precipitation

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

46 inches

Ref: #3

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

31 inches

Ref: #3

Net precipitation (subtract the above figures):

15 inches

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

Clay and silt

Ref: #7

Permeability associated with soil type:

10^{-4} to 10^{-6} cm/sec

Ref: #3

Physical State

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

Solid

Liquids

Sludges

Ref: #9

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

No containment

Open dump, landfill.PCB-contaminated oils, chromium-containing sludges, soot ash, iron salts, and limestone were dumped onsite without use of containers or liners.

Ref: #1, #8, #9

Method with highest score:

Open dump

Ref: #3

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

Dieldrin

Aroclor - 1260

4,4'-DDD

Lead

Chromium

Ref: #6

Compound with highest score:

All equal. Score 18.

Ref: #3

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):

40,000 - 80,000 yd^3

Ref: #10

Basis of estimating and/or computing waste quantity:

NJDEP site inspection report.

Ref: #10

5 TARGETS

Groundwater Use

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

Possible industrial uses. High salinity precludes significant use of the aquifer.

Ref: #13

Distance to Nearest Well

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

> 3 miles

Ref: #5

Distance to above well or building:

The nearest building not served by the public water supply is greater than three miles away.

Ref: #14

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: #14

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

Ref: #2

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

0

Ref: #14

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.

Ref: #1

Rationale for attributing the contaminants to the facility:

Not Applicable.

* * *

2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

0-2%

Ref: #1

Name/description of nearest downslope surface water:

Passaic River

Ref: #1

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

0-2%

Ref: #1

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

No

Ref: #1

Is the facility completely surrounded by areas of higher elevation?

No

Ref: #1

1-Year 24-Hour Rainfall in Inches

2.5 inches

Ref: #3

Distance to Nearest Downslope Surface Water

0.4 miles

Ref: #1, 2

Physical State of Waste

Solid

Liquid

Sludges

Ref: #9

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

No containment

Open dump, landfill. PCB-contaminated oils, chromium-containing sludges, soot ash, iron salts, and limestone were dumped onsite without use of containers or liners.

Ref: #1

Method with highest score:

Open dump.

Ref: #3

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

Dieldrin	Lead
Aroclor 1260	Chromium
4,4'-DDD	

Ref: #6

Compound with highest score:

All equal. Score 18.

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):

40,000 - 80,000 yd^3

Ref: #10

Basis of estimating and/or computing waste quantity:

NJDEP site inspection report.

Ref: #10

* * *

5 TARGETS

Surface Water Use

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

The Hackensack and Passaic Rivers are used for recreational boating, and commercial purposes.

Ref: #12

Is there tidal influence?

No

Ref: #1

Distance to a Sensitive Environment

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

0.6 mile

Ref: #2

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

None

Ref: #2

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

None

Ref: #1

Population Served by Surface Water

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

None

Ref: #2

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

N/A

Total population served:

N/A

Name/description of nearest of above water bodies:

N/A

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

N/A

AIR ROUTE

1 OBSERVED RELEASE

Contaminants detected:

No observed releases, no contaminants detected.

Ref: #1

Date and location of detection of contaminants

3/26/85

Ref: #1

Methods used to detect the contaminants:

HNu photoionization

OVA flame ionization

Ref: #1

Rationale for attributing the contaminants to the site:

Not Applicable.

* * *

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:

Not Applicable.

* * *

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:

PAHs Tetrachloroethene

Xylenes

Ref: #6

Type of containment, if applicable:

None

Open dump, landfill

Ref: #1

* * *

2 WASTE CHARACTERISTICS

<u>Direct Evidence</u>

Type of instrument and measurements:

Not performed.

<u>Ignitability</u>

Compound used:

PAHS, Xylenes.

Ref: #3

<u>Reactivity</u>

Most reactive compound:

None

Ref: #3

<u>Incompatibility</u>

Most incompatible pair of compounds:

None

Ref: #3

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility:

40,000 - 80,000 yd^3

Ref: 10

Basis of estimating and/or computing waste quantity:

NJDEP site inspection report.

Ref: #10

* * *

3 TARGETS

Distance to Nearest Population

0.01 mile

Ref: #1

Distance to Nearest Building

Onsite

Ref: #1

Distance to Sensitive Environment

Distance to wetlands:

0.6 mile

Ref: #2

Distance to critical habitat:

None

Ref: #2

Land Use

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

0.01 mile

Ref: #1

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:

1 mile

Ref: #1

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

None

Ref: #2

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

None

Ref: #2

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

32,979 persons

Ref: #4

Buildings Within 2-Mile Radius

12,590 buildings

Ref: #4

DIRECT CONTACT

1 OBSERVED INCIDENT

Date, location, and pertinent details of incident:

None observed

Ref: #1

* * *

2 ACCESSIBILITY

Describe type of barrier(s):

There is a fence but the contaminated soil is outside the site.

Ref: #1

* * *

3 CONTAINMENT

Type of containment, if applicable:

No containment

Open dump, landfill

Ref: #1

* * *

4 WASTE CHARACTERISTICS

Toxicity

Compounds evaluated:

Dieldrin	Lead
4,4'-DDD	Chromium
Aroclor 1260	

Ref: #6

Compound with highest score:

All equal

Score 3

Ref: #3

5 TARGETS

Population Within One-Mile Radius

7 persons

Ref: #4

Distance to Critical Habitat (of Endangered Species)

None

Ref: #2

SECTION 5

HAZARD RANKING SYSTEM SCORING FORMS

Facility name: Kearny 3rd & Adams

Location: Kearny, New Jersey

EPA Region: II

Persons(s) in charge of the facility: Edward T. Grosvenor

Name of Reviewer: L. Gneiding **Date:** 7/15/86

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; type of information needed for rating; agency action, etc.)

The Kearny 3rd & Adams Site is located in Kearny, Hudson County, New Jersey, in a heavily industrialized neighborhood. Prior to 1950, the site was a tidal marsh of the Passaic and Hackensack Rivers. Fill material was brought to the site for disposal and to provide for future commercial development. From 1950 through the 1960's, chromium-contaminated waste slag was allegedly disposed onsite. A small area of the landfill was also used for disposal of PCB-contaminated wastes. When the backfilling operations were completed, the site was developed. Presently, the Sea-Land Freight Company occupies the site on 3rd Street.

Chromium-contaminated wastes are not securely contained at this site. Onsite samples of standing water collected by the Kearny Health Department and by the New Jersey Department of Environmental Protection show both total chromium contamination and hexavalent chromium present onsite. Green crystalline wastes and yellow-green standing pools of liquid were observed on-site during this site inspection.

Environmental samples were collected by FIT II personnel on March 26, 1985. Three (3) aqueous samples were collected from onsite standing waters. Four (4) soil samples were also collected from onsite locations. All samples were analyzed for HSL pollutants and hexavalent chromium. Results of the analyses indicate onsite surface water to be contaminated with traces of polyaromatic hydrocarbons (PAHs) and heavy metals, including chromium, mercury, and lead.

Soil samples were contaminated with PAHs, PCBs, pesticides, dibenzofuran, and heavy metals.

Score: $S_M = 6.31$ ($S_{gw} = 0$ $S_{sw} = 10.91$ $S_a = 0$)

$S_{FE} = 39.38$

$S_{DC} = 12.50$

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	6	6	
Net Precipitation	0 1 2 3	1	2	3	
Permeability of the Unsaturated Zone	0 1 2 3	1	2	3	
Physical State	0 1 2 3	1	3	3	
Total Route Characteristics Score			13	15	
3 Containment	0 1 2 3	1	3	3	3.3
4 Waste Characteristics					3.4
Toxicity/Persistence	0 3 6 9 12 15 18	1	18	18	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	8	8	
Total Waste Characteristics Score			26	26	
5 Targets					3.5
Ground Water Use	0 1 2 3	3	0	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			0	49	
6 If line 1 is 45, multiply 1 x 4 x 5 / If line 1 is 0, multiply 2 x 3 x 4 x 5				57,330	
7 Divide line 6 by 57,330 and multiply by 100		S_{gw} =	0		

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	0	3	
1-yr. 24-hr. Rainfall	0 1 2 3	1	2	3	
Distance to Nearest Surface Water	0 1 2 3	2	4	6	
Physical State	0 1 2 3	1	3	3	
	Total Route Characteristics Score		9	15	
3 Containment	0 1 2 3	1	3	3	4.3
4 Waste Characteristics					4.4
Toxicity/Persistence	0 3 6 9 12 15 18	1	18	18	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	8	8	
	Total Waste Characteristics Score		26	26	
5 Targets					4.5
Surface Water Use	0 1 2 3	3	6	9	
Distance to a Sensitive Environment	0 1 2 3	2	4	6	
Population Served/Distance to Water Intake Downstream	0 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40	
	Total Targets Score		10	55	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			7020	64,350	
7 Divide line 6 by 64,350 and multiply by 100		S_{sw} =	10.91		

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:					
Sampling Protocol:					
If line 1 is 0, the S_a = 0. Enter on line 5. If line 1 is 45, then proceed to line 2.					
2 Waste Characteristics					5.2
Reactivity and Incompatibility	0 1 2 3	1		3	
Toxicity	0 1 2 3	3		9	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
	Total Waste Characteristics Score			20	
3 Targets					5.3
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1		30	
Distance to Sensitive Environment	0 1 2 3	2		6	
Land Use	0 1 2 3	1		3	
	Total Targets Score			39	
4 Multiply 1 x 2 x 3				35,100	
5 Divide line 4 by 35,100 and multiply by 100		S_a =	0		

	S	S^2
Groundwater Route Score (S_{gw})	0	0
Surface Water Route Score (S_{sw})	10.91	119.03
Air Route Score (S_a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		119.03
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		10.91
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		6.31

WORKSHEET FOR COMPUTING S_M

Fire and Explosion Work Sheet

Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Containment	1 (3)	1	3	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	0	3	
Incompatibility	(0) 1 2 3	1	0	3	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 (8)	1	8	8	
Total Waste Characteristics Score			9	20	
3 Targets					7.3
Distance to Nearest Population	0 1 2 3 4 (5)	1	5	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	5	5	
Buildings Within 2-Mile Radius	0 1 2 3 4 (5)	1	5	5	
Total Targets Score			21	24	
4 Multiply 1 x 2 x 3			567	1,440	
5 Divide line 4 by 1,440 and multiply by 100			S_{FE} = 39.38		

FIGURE 11
FIRE AND EXPLOSION WORK SHEET

Direct Contact Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Incident	0 45	1	0	45	8.1
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2					
2 Accessibility	0 1 2 3	1	3	3	8.2
3 Containment	0 15	1	15	15	8.3
4 Waste Characteristics Toxicity	0 1 2 3	5	15	15	8.4
5 Targets					8.5
Population Within a 1-Mile Radius	0 1 2 3 4 5	4	4	20	
Distance to a Critical Habitat	0 1 2 3	4	0	12	
Total Targets Score			4	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			2700	21,600	
7 Divide line 6 by 21,600 and multiply by 100			S_{DC} = 12.5		

FIGURE 12
DIRECT CONTACT WORK SHEET

SECTION 6

BIBLIOGRAPHY OF INFORMATION SOURCES

BIBLIOGRAPHY OF INFORMATION SOURCES
HRS MODEL

	SOURCE	LOCATION
1.	Site Inspection conducted on 3/26/85, NUS Corporation FIT II.	NUS, Edison, NJ
2.	USGS Maps, Jersey City Quad.	NUS, Edison, NJ
3.	Uncontrolled Hazardous Waste Site Ranking System, A User's Manual, 1982, Mitre Corporation.	NUS, Edison, NJ
4.	General Software Corp., 1984, Draft Graphical Exposure Modelling Systems (GEMS) User's Guide. Prepared for the US EPA, Office of Pesticides and Toxic Substances, Landover, MD.	NUS, Edison, NJ
5.	Appraisal of Water Resources in the Hackensack River Basin, New Jersey, USGS, June 1976.	NUS, Edison, NJ
6.	Analytical results from Versar and Radian.	NUS, Edison, NJ
7.	Bedrock Map of the Hackensack Meadows, NJDEP, NJ Geological Survey, Report Series #1, 1959.	NUS, Edison, NJ
8.	Internal Memo, USEPA to J. Frisco from M. Hauptman, W. Pierre, R. Testa, dated 3/20/80.	NUS, Edison, NJ
9.	EPA Site Inspection Report, prepared by Thomas Brady and Wayne Howitz of TSIU - NJDEP.	NUS, Edison, NJ
10.	Selection of a Site for Remedial Action Design and Costing, JRB Associates, EPA Contract No. 68-01-483 Task 15, p. A-2.	NUS, Edison, NJ
11.	Telecon Note between Elaine Barles, Best Foods, and NUS Corp. dated 4/23/85.	NUS, Edison, NJ
12.	Telecon Note between Operator, Roosevelt Marina and D. Caramagno, NUS Corp. dated 2/24/86.	NUS, Edison, NJ
13.	new Jersey Department of Conseration and Economic Development, Special Report #28, Groundwater of Essex County, Division of Water Policy, Trenton, NJ 1968.	NUS, Edison, NJ
14.	Telecon Note between employee of City of Newark Water Supply Division and Charles LoBue, NUS Corp. dated 1/24/85.	NUS, Edison, NJ

SECTION 7

PRESS RELEASE SUMMARY-MITRE HAZARD RANKING SYSTEM

SUMMARY STATEMENT
KEARNY 3rd & ADAMS
KEARNY, HUDSON COUNTY, NEW JERSEY

The Kearny 3rd & Adams Site is located in Kearny, Hudson County, New Jersey, in a heavily industrialized neighborhood. Prior to 1950, the site was a tidal marsh of the Passaic and Hackensack Rivers. Fill material was brought to the site for disposal and to provide for future commercial development. From 1950 through the 1960's, chromium-contaminated waste slag was allegedly disposed onsite. A small area of the landfill was also used for disposal of PCB-contaminated wastes. When the backfilling operations were completed, the site was developed. Presently, the Sea-Land Freight Company occupies the site on 3rd Street.

Chromium-contaminated wastes are not securely contained at this site. Onsite samples of standing water collected by the Kearny Health Department and by the New Jersey Department of Environmental Protection show both total chromium and hexavalent chromium contamination present onsite. Green crystalline wastes and yellow-green standing pools of liquid were observed on-site during this site inspection.

Three (3) aqueous samples were collected from onsite standing waters. Four (4) soil samples were also collected from onsite locations. Results of the analyses indicate onsite surface water to be contaminated with traces of polyaromatic hydrocarbons (PAHs) and heavy metals, including chromium, mercury, and lead.

Soil samples were contaminated with PAHs, PCBs, pesticides, dibenzofuran, and heavy metals.

SECTION 8

ATTACHMENTS-CITED DOCUMENTS

REFERENCE #4

Environmental Protection Agency, CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

0415

Sample Number
BB038

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 3-31-85

Date Analyzed: 4-19-85

Conc/Dil Factor: 100ml : 5ml

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	0.25 u
319-85-7	Beta-BHC	0.25 u
319-86-8	Delta-BHC	0.25 u
58-89-9	Gamma-BHC (Lindane)	0.25 u
76-44-8	Heptachlor	0.25 u
309-00-2	Aldrin	0.25 u
1024-57-3	Heptachlor Epoxide	0.25 u
959-98-8	Endosulfan I	0.25 u
60-57-1	Dieldrin	0.50 u
72-55-9	4, 4'-DDE	0.50 u
72-20-8	Endrin	0.50 u
33213-65-9	Endosulfan II	0.50 u
72-54-8	4, 4'-DDD	0.50 u
7421-93-4	Endrin Aldehyde	0.50 u
1031-07-8	Endosulfan Sulfate	0.50 u
50-29-3	4, 4'-DDT	0.50 u
72-43-5	Methoxychlor	2.50 u
53494-70-5	Endrin Ketone	2.50 u
57-74-9	Chlordane	5.00 u
8001-35-2	Toxaphene	2.50 u
12674-11-2	Aroclor-1016	2.50 u
11104-28-2	Aroclor-1221	2.50 u
11141-16-5	Aroclor-1232	2.50 u
53469-21-9	Aroclor-1242	2.50 u
12672-29-6	Aroclor-1248	2.50 u
11097-69-1	Aroclor-1254	5.00 u
11096-82-5	Aroclor-1260	5.00 u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 100 ml or W_s _____ V_t 5000 ml V_i 2 ml

Environmental Protection Agency, CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

0416

Sample Number
BB038

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 19456-19-0	1,2-cyclohexanediol, cyclic sulfite, trans-	BNA	295	9
2. 822-67-3	2-cyclohexene-1-ol		324	5
3. 2233-00-3	1-Propene, 3,3,3-trichloro-		387	8
4. 930-22-3	Oxirane, ethenyl-		415	16
5. 90-02-8	Benzaldehyde, 2-hydroxy-		487	3
6. 108-85-0	Cyclohexane, Bromo-		590	5
7. 13815-36-6	1,2-Hexadiene, 5-methyl-		653	3
8. 517-25-9	methane, trinitro-		38	1
9. 78-91-1	1-propanol, 2-amino-		50	1
10. 96-33-3	2-propenoic acid, methyl ester		277	2
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Environmental Protection Agency CLP Sample Management Office
P.O. Box 818 Alexandria, Virginia 22313 703/557-2490

017 [illegible]

Organics Analysis Data Sheet
(Page 1)

SW3

Laboratory Name: Radian
Lab Sample ID No: HF003279V02
Sample Matrix: Water
Data Release Authorized By: K. Gheleduccu

Case No: 4068
QC Report No: 55
Contract No: 68-01-6853
Date Sample Received: 3-27-85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 4-1-85
Date Analyzed: 4-1-85
Conc/Dil Factor: 1:1 pH NA
Percent Moisture: 100
Percent Moisture (Decanted): —

CAS Number		(ug/l) or ug/Kg (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	~~5JB~~
67-64-1	Acetone	~~33B~~
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	5U
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	~~17B~~
71-55-6	1, 1, 1-Trichloroethane	5U
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		(ug/l) or ug/Kg (Circle One)
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	5U
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5U
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
591-78-6	2-Hexanone	10J
108-10-1	4-Methyl-2-Pentanone	10U
127-18-4	Tetrachloroethene	5U
108-88-3	Toluene	5U
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylenes	5U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit.) The footnote should read U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10 J).

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Director/Author: CLP Sample Management Office
P.O. Box 818, Alexandria, Virginia 22313, 703/557-2490

Sample Number: B0052

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 3-31-85

Date Analyzed: 4-10-85

Conc/Dil Factor: 100ml : 1ml

CAS Number		ug/L or ug/Kg (Circle One)
62-75-9	N-Nitrosodimethylamine	100u
108-95-2	Phenol	100u
62-53-3	Aniline	100u
111-44-4	bis(-2-Chloroethyl)Ether	100u
95-57-8	2-Chlorophenol	100u
541-73-1	1, 3-Dichlorobenzene	100u
106-46-7	1, 4-Dichlorobenzene	100u
100-51-6	Benzyl Alcohol	100u
95-50-1	1, 2-Dichlorobenzene	100u
95-48-7	2-Methylphenol	100u
39638-32-9	bis(2-chloroisopropyl)Ether	100u
106-44-5	4-Methylphenol	100u
621-64-7	N-Nitroso-Di-n-Propylamine	100u
67-72-1	Hexachloroethane	100u
98-95-3	Nitrobenzene	100u
78-59-1	Isophorone	100u
88-75-5	2-Nitrophenol	100u
105-67-9	2, 4-Dimethylphenol	100u
65-85-0	Benzoic Acid	500u
111-91-1	bis(-2-Chloroethoxy)Methane	100u
120-83-2	2, 4-Dichlorophenol	100u
120-82-1	1, 2, 4-Trichlorobenzene	100u
91-20-3	Naphthalene	100J
106-47-8	4-Chloroaniline	100u
87-68-3	Hexachlorobutadiene	100u
59-50-7	4-Chloro-3-Methylphenol	100u
91-57-6	2-Methylnaphthalene	100u
77-47-4	Hexachlorocyclopentadiene	100u
88-06-2	2, 4, 6-Trichlorophenol	100u
95-95-4	2, 4, 5-Trichlorophenol	500u
91-58-7	2-Chloronaphthalene	100u
88-74-4	2-Nitroaniline	500u
131-11-3	Dimethyl Phthalate	100u
208-96-8	Acenaphthylene	100u
99-09-2	3-Nitroaniline	500u

CAS Number		ug/L or ug/Kg (Circle One)
83-32-9	Acenaphthene	100u
51-28-5	2, 4-Dinitrophenol	500u
100-02-7	4-Nitrophenol	500u
132-64-9	Dibenzofuran	100u
121-14-2	2, 4-Dinitrotoluene	100u
606-20-2	2, 6-Dinitrotoluene	100u
84-66-2	Diethylphthalate	100u
7005-72-3	4-Chlorophenyl-phenylether	100u
86-73-7	Fluorene	100u
100-01-6	4-Nitroaniline	500u
534-52-1	4, 6-Dinitro-2-Methylphenol	500u
86-30-6	N-Nitrosodiphenylamine (1)	100u
101-55-3	4-Bromophenyl-phenylether	100u
118-74-1	Hexachlorobenzene	100u
87-86-5	Pentachlorophenol	500u
85-01-8	Phenanthrene	100u
120-12-7	Anthracene	100u
84-74-2	Di-n-Butylphthalate	100u
206-44-0	Fluoranthene	100u
92-87-5	Benzidine	500u
129-00-0	Pyrene	100u
85-68-7	Butylbenzylphthalate	100u
91-94-1	3, 3'-Dichlorobenzidine	200u
56-55-3	Benzo(a)Anthracene	100u
117-81-7	bis(2-Ethylhexyl)Phthalate	~~100J~~ 117
218-01-9	Chrysene	100u
117-84-0	Di-n-Octyl Phthalate	100u
205-99-2	Benzo(b)Fluoranthene	100u
207-08-9	Benzo(k)Fluoranthene	100u
50-32-8	Benzo(a)Pyrene	100u
193-39-5	Indeno(1, 2, 3-cd)Pyrene	100u
53-70-3	Dibenz(a, h)Anthracene	100u
191-24-2	Benzo(g, h, i)Perylene	100u

(1)-Cannot be separated from diphenylamine

Environmental Protection Agency, CLP Sample Management Office
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

0180

Sample Number
BB03L

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 3-31-85

Date Analyzed: 4-19-85

Conc/Dil Factor: 100ml : 5ml

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	0.25 u	
319-85-7	Beta-BHC	0.25 u	
319-86-8	Delta-BHC	0.25 u	
58-89-9	Gamma-BHC (Lindane)	0.25 u	
76-44-8	Heptachlor	0.25 u	
309-00-2	Aldrin	0.25 u	
1024-57-3	Heptachlor Epoxide	0.25 u	
959-98-8	Endosulfan I	0.25 u	
60-57-1	Dieldrin	0.50 u	
72-55-9	4, 4'-DDE	0.50 J	0.23 µg/L
72-20-8	Endrin	0.50 u	
33213-65-9	Endosulfan II	0.50 u	
72-54-8	4, 4'-DDD	0.50 J	0.29 µg/L
7421-93-4	Endrin Aldehyde	0.50 u	
1031-07-8	Endosulfan Sulfate	0.50 u	
50-29-3	4, 4'-DDT	0.50 u	
72-43-5	Methoxychlor	2.50 u	
53494-70-5	Endrin Ketone	2.50 u	
57-74-9	Chlordane	5.00 J	0.57 µg/L
8001-35-2	Toxaphene	2.50 u	
12674-11-2	Aroclor-1016	2.50 u	
11104-28-2	Aroclor-1221	2.50 u	
11141-16-5	Aroclor-1232	2.50 u	
53469-21-9	Aroclor-1242	2.50 u	
12672-29-6	Aroclor-1248	2.50 u	
11097-69-1	Aroclor-1254	5.00 u	
11096-82-5	Aroclor-1260	5.00 u	

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 100 ml or W_s _____ V_t 5000 ul V_i 2 ul

[illegible] ANALYSIS DATA SHEET
(PAGE 4)

[illegible]TATIVELY IDENTIFIED COMPOUNDS

CAS NUMBER	COMPOUND NAME	FRACTION	RT OR SCAN NUMBER	ESTIMATED CONCENTRATIO UG/L OR UG/K
1 74-80-6	HYDROPEROXIDE, PENTYL-	ABN	354	33
2 17257-73-3	ETHANONE, 1-(3-METHYLOXIRANYL)-	ABN	1056	11
3 61142-79-8	1-DECENE, 8-METHYL-	ABN	1299	17
4 4,536-80-5	2, 6-PYRAZINEDIAMINE	ABN	1537	75
5. 24071-57-6	Cyclopropane, 1,1-Dibromo-2-chloro-2-fluoro	V	32	[illegible]
6. 78-91-6	1-propanol, 2-amino-	V	49	[illegible]
7. [illegible]	[illegible]-(Octadecanamide, [illegible])-	ABN	1782	2

go

Data List of Dataset: NJL5   Number of Records = 6

REC #	POP	HOUSE	DISTANCE	SECTOR		POP
1	0	0	0.400000	1	1/4	0
2	0	0	0.810000	1	1/2	0
3	7	2	1.60000	1	1	7
4	32972	12588	3.20000	1	2	32979
5	182313	69710	4.80000	1	3	215292
6	230484	90755	6.40000	1	4	445776

COM

```
ZDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
32.  Locate Area of Interest by Latitude/Longitude                    (CDLAT)
3
3Enter an option number or a procedure name (in parentheses)
3or a command: HELP, HELP option, BACK, CLEAR, EXIT, TUTOR
3? 2
3
3MENU: Process Census Data by Latitude and Longitude
3
3ref par-name          parameter description              value                index
3---- --------   --------------------------------------   ------------------   -----
31.  LAT         latitude (DDMMSS or degree)              404413
32.  LON         longitude (DDDMMSS or degree)            740635
33.  RINGDIST    ring distances in km                     6.4                   (6)
34.  NSECTORS    number of sectors                        1
35.  DATASET     Name of the output dataset               njl5
36.  TAG         tag field of the output dataset          *
3
3Enter one or more combinations of: reference or parameter name and value(s)
3[ref1 value1, ref2 value2, ...] or a command: HELP,NEXT,BACK,END,CLEAR,EXIT
3?
THHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHMAIN
27-Aug-86  11:28 AM             OnLine
```

REFERENCE # 5

Trube

APPRAISAL OF WATER RESOURCES IN THE HACKENSACK RIVER BASIN, NEW JERSEY

U.S. GEOLOGICAL SURVEY

Water-Resources Investigations 76–74

Prepared in cooperation with

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION, DIVISION OF WATER RESOURCES

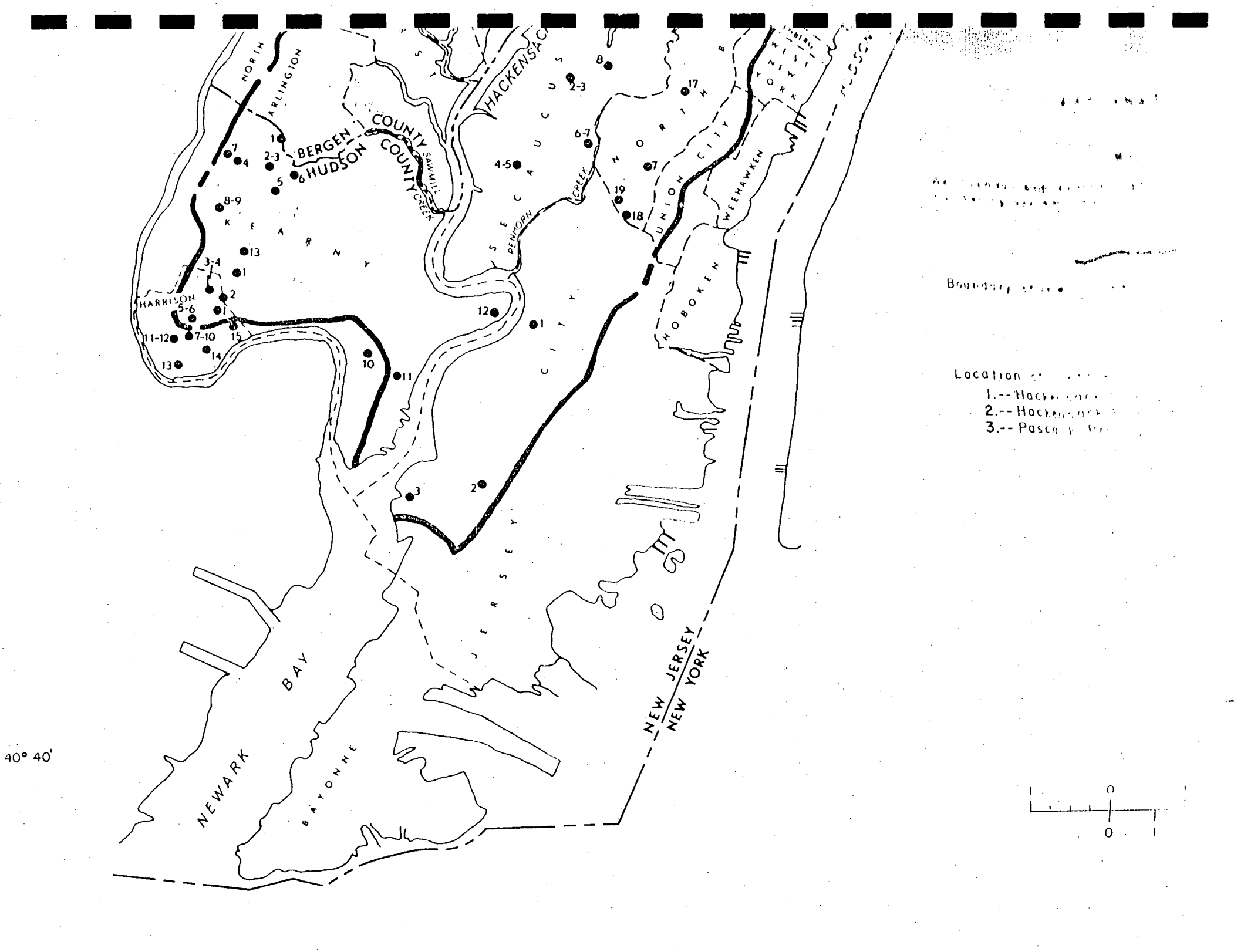
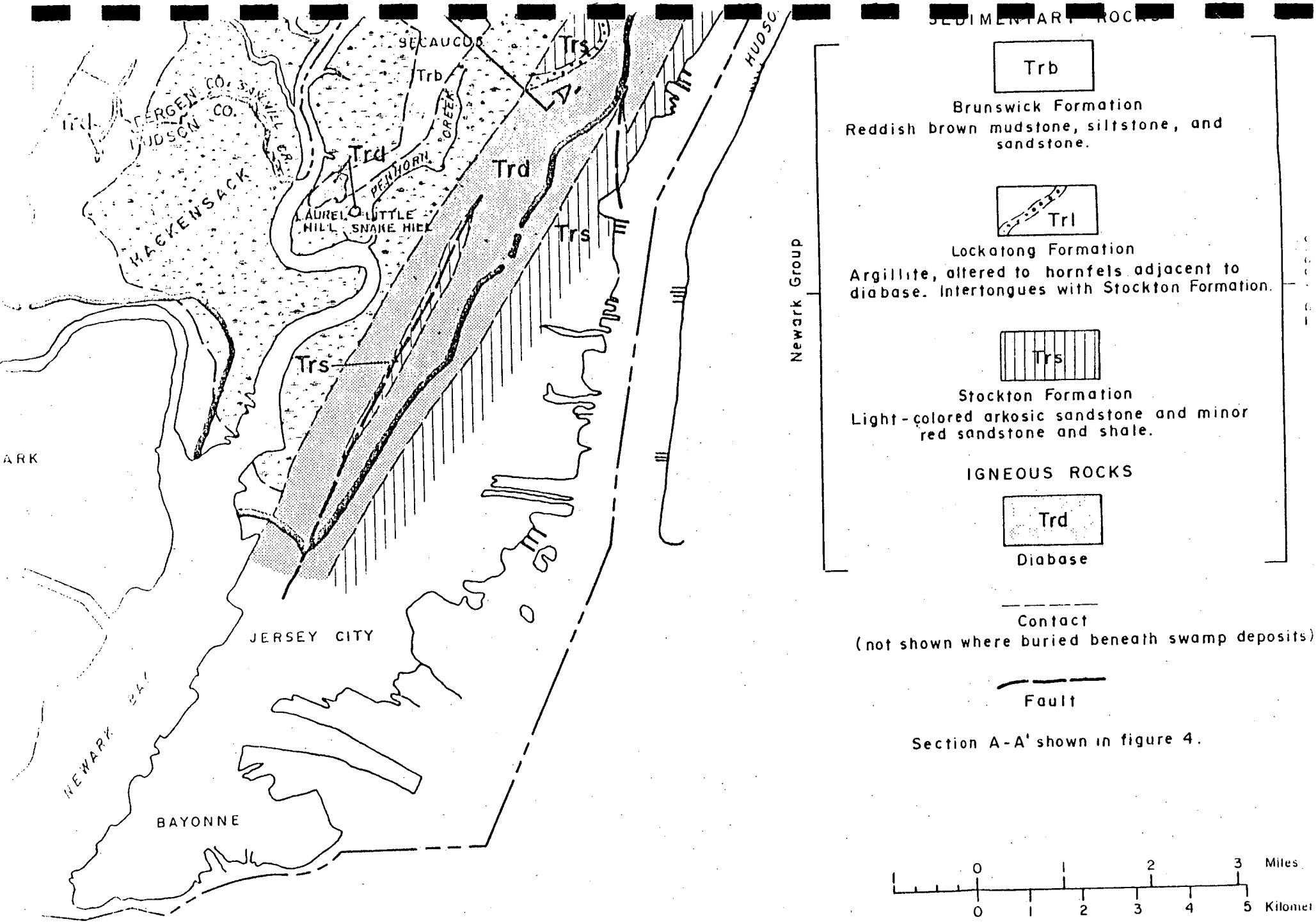

NORTH ARLINGTON
BERGEN COUNTY
HUDSON COUNTY
HACKENSACK
SAWMILL CREEK
PENHORN CREEK
KEARNY
SECAUCUS
NORTH BERGEN
UNION CITY
WEEHAWKEN
HOBOKEN
HARRISON
JERSEY CITY
NEWARK BAY
BAYONNE
NEW JERSEY
NEW YORK
40° 40'
Location
1.-- Hack
2.-- Hack
3.-- Pasc

Table 1.--RECORDS OF SELECTED WELLS IN THE HACKENSACK RIVER BASIN

No.	Owner or Tenant	New Jersey Grid No.	Driller	Year Drilled	Altitude above msl (ft)	Total depth drilled below lsd (ft)	Depth to bedrock below lsd (ft)	Diameter of well (in)	Depth to which well is cased (ft)	Screen setting (ft)	Aquifer	Static level below lsd (ft)	Yield (gpm)	Drawdown (ft)	Specific Capacity (gpm/ft)	Use	Remarks
	HUDSON COUNTY-KEARNY-Cont.																
3	Pfaff Tool & Mfg. Co.	26.12.6.9.9	Frank Bott	1963	8	740	60	8	--	--	Trb	80	145	120	1.2	I	
4	E. I. DuPont	26.12.6.8.9	Stothoff	10-9-20	20	401	166	10-4	175	--	Trb	29	148	156	1.0	I	
5	do.	26.12.9.3.3	do.	10-30-20	5	202	124	10	130	--	Trb	--	174	--	--	I	
6	do.	26.13.4.7.7	do.	2-15-21	5	504	185	10	221	--	Trb	28	124	40	3.1	I	
7	E. I. DuPont	26.12.6.9.8	do.	9-1-16	70	802	47	10	49	--	Trb	25	90	--	--	I	
8	Joe Davis Plastics Co.	26.12.9.5.3	----	1930	10	350	17	8	--	--	Trb	17	168	54	3.1	I	
9	do.	26.12.9.5.3	----	1958	10	400	26	--	--	--	Trb	--	20	--	--	I	
10	Lawter Chem.	26.13.7.8.9	----	1939	8	200	112	8	--	--	Trb	--	--	--	--	I	Abandoned
11	American Stores	26.13.7.9.8	----	1941	8	1041	82	8	--	--	Trb	28	60	322	.2	I	
12	Koppers Gas & Coke Co., Inc.	26.13.8.8.2	----	1915	5	--	--	--	--	--	Trb	--	53	--	--	--	
13	N. Verzalero	26.12.9.6.1	Burrows	--	5	235	145	6	146	--	Trb	100	150	15	10	I	
	N. BERGEN																
1	Meer Corp.	26.14.1.5.6	Burrows	6-6-50	4	153	32	8	32	--	Trdb	2	100	22	4.5	I	
2	do.	26.14.1.5.3	do.	9-56	5	200	--	8	33	--	Trdb	--	60	--	--	I	

Table 1.--RECORDS OF SELECTED WELLS IN THE HACKENSACK RIVER BASIN

Well	Owner or Tenant	New Jersey Grid No.	Driller	Year Drilled	Altitude above msl (ft)	Total depth drilled below lsd (ft)	Depth to bedrock below lsd (ft)	Diameter of well (in)	Depth to which well is cased (ft)	Screen setting (ft)	Aquifer	Static level below lsd (ft)	Yield (gpm)	Drawdown (ft)	Specific Capacity (gpm/ft)	Use	Remarks
	HUDSON COUNTY-HARRISON-Cont																
10	Hyatt Roller Bearing Co.	26.12.9.8.4	----	--	8	90	--	8	--	--	Q(?)	11.5	150	--	--	I	
11	Driver Harris Co.	26.12.9.7.6	----	--	9	337	292	12	--	--	Trb	76	600	--	--	I	Cl 1.680 1948
12	do.	do.	----	1946	9	300	279	8	--	--	Trb	38	469	41	11.4	I	
13	Pub. Serv. & Gas Co.	26.12.9.7.9	----	1932	11	699	218	12	--	--	Trb	37	406	139	2.9	I	
14	Crucible Steel Co. of America	26.12.9.8.4	----	1943	10	600	160	16-10	--	--	Trb	134	600	66	9.1	I	
[illegible]	[illegible] & Erie RR	26.12.9.8.3	H. W. Smith	8-27-52	20	225	--	6	115	--	Trb	96	18	--	--	I	
	JERSEY CITY																
1	Dodge & Bliss	26.13.8.9.5	----	1920	20	80	--	--	--	--	Q	--	50	--	--	I	
2	Spalding & Jennings	26.23.2.5.7	----	--	20	422	57	--	--	--	Trs	--	75	--	--	I	
3	Crucible Steel Co. of America	26.23.1.9.3	----	1925	12	210	--	--	--	--	Trb	--	100	--	--	I	
	KEARNY																
1	Wilpet Tool Mfg. Co.	26.12.9.6.4	Rinbrand	4-26-61	10	700	--	10	290	--	Trb	40	520	135	3.8	I	
2	Pfaff Tool & Mfg. Co.	26.12.6.9.9	Frank Bott	2-16-60	8	590	46	8	54	--	Trb	67	185	113	1.6	I	


SEDIMENTARY ROCKS
Trb
Brunswick Formation
Reddish brown mudstone, siltstone, and sandstone.
Trl
Lockatong Formation
Argillite, altered to hornfels adjacent to diabase. Intertongues with Stockton Formation.
Trs
Stockton Formation
Light-colored arkosic sandstone and minor red sandstone and shale.
Newark Group
IGNEOUS ROCKS
Trd
Diabase
Contact
(not shown where buried beneath swamp deposits)
Fault
Section A-A' shown in figure 4.
Miles
Kilomet
Geology modified chiefly from Geologic Map of New Jersey, Atlas sheet no 40, and in part after Van Houten, 1965
73° 55'
SECAUCUS
Trb
Trd
Trs
PENHORN CREEK
LAUREL HILL
LITTLE SNAKE HILL
HACKENSACK
BERGEN CO.
HUDSON CO.
JERSEY CITY
BAYONNE
NEWARK BAY
HUDSON

REFERENCE #6

TABLE 1

SAMPLE DESCRIPTIONS
Kearny, 3rd & Adams
CASE #4068/SAS 1495B
3/26/85

Sample Number	Sample Type	Traffic Report #	Federal Express Airbill Number	Time, Hours	Location
NJL5-SW-1	Organic Aqueous Inorganic Aqueous	BB030 MBB331	923021756 923031734	1020	Puddles between fence and curb line halfway between telephone pole: #16240 and #62901.
NJL5-SW-2	Organic Aqueous Inorganic Aqueous	BB038 MBB338	923031756 923031734	1025	Puddle south of telephone pole #62901 between fence and curb line.
NJL5-SW-3	Organic Aqueous Inorganic Aqueous	BB032 MBB333	92301745 923031734	1035	Puddle between fence a curb line southeast of of gate.
NJL5-SW-4	Organic Blank [a] Inorganic Blank [a]	BB039 MBB339	923031745 923031734	N/A	U.S. EPA, Edison, N.J.
NJL5-S-1	Organic Soil Inorganic Soil	BB034 MBB335	923031745 923031734	1040	Near puddles between fence and curb line halfway between telephone poles #16240 and #62901.
NJL5-S-2	Organic Soil Inorganic Soil	BB035 MBB336	923031745 923031734	1045	South of telephone pole #62901 between fence and curb line.
NJL5-S-3	Organic Soil Inorganic Soil	BB036 MBB337	923031745 923031734	1050	Between fence and curl line southeast of gate.
NJL5-S-4	Organic Soil Inorganic Soil	BB031 MBB332	923031745 923031734	1055	Inside sea-land freight property, 4 feet from gate post.
1595B-1	SAS Aqueous	N/A	923031734	1020	Same as NJL5-SW-1.
1595B-2	SAS Aqueous	N/A	923031734	1025	Same as NJL5-SW-2.
1595B-3	SAS Aqueous	N/A	923031734	1035	Same as NJL5-SW-3.

ANALYTICAL DATA
NAME: KEARNY 3RD & ADAMS
SAMPLING DATE: 3/26/86
CASE: 4068/1595B

VOLATILES

SAMPLE NUMBER	NJL5-SW1	NJL5-SW2	NJL5-SW3	NJL5-SW4
MATRIX	WATER	WATER	WATER	BLANK
UNITS	UG/L	UG/L	UG/L	UG/L
Chloromethane				
Bromomethane				
Vinyl Chloride				
Chloroethane				
Methylene Chloride	E	E	E	E
Acetone	E	E	E	E
Carbon Disulfide				
1,1-Dichloroethene				
1,1-Dichloroethane				
Trans-1,2-Dichloroethene				
Chloroform				
1,2-Dichloroethane				
2-Butanone	E	E	E	E
1,1,1-Trichloroethane				
Carbon Tetrachloride				
Vinyl Acetate				
Bromodichloromethane				
1,1,2,2-Tetrachloroethane				
1,2-Dichloropropane				
Trans-1,3-Dichloropropene				
Trichloroethene				
Dibromochloromethane				
1,1,2-Trichloroethane				
Benzene				
Cis-1,3-Dichloropropene				
2-Chloroethylvinylether				
Bromoform				
2-Hexanone			J	
4-Methyl-2-Pentonone				
Tetrachloroethene		J		
Toluene	E	E		J
Chlorobenzene				
Ethylbenzene				
Styrene				
Total Xylenes				

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
B - compound found in laboratory blank as well as the sample, indicates possible/probable blank contamination

ANALYTICAL DATA
NAME: KEARNY 3RD & ADAMS
SAMPLING DATE: 3/26/86
CASE: 4068/1595B

SEMI-VOLATILES

SAMPLE NUMBER	NJL5-SW1	NJL5-SW2	NJL5-SW3	NJL5-SW4
MATRIX	WATER	WATER	WATER	BLANK
UNITS	UG/L	UG/L	UG/L	UG/L
N-Nitrosodimethylamine		E		
Phenol		E		15
Aniline		E		
Bis(2-Chloroethyl)Ether		E		
2-Chlorophenol		E		
1,3-Dichlorobenzene		E		
1,4-Dichlorobenzene		E		
Benzyl Alcohol		E		
1,2-Dichlorobenzene		E		
2-Methylphenol		E		
Bis(2-Chloroisopropyl)Ether		E		
4-Methylphenol		E		
N-Nitroso-Di-n-Propylamine		E		
Hexachloroethane		E		
Nitrobenzene		E		
Isophorone		E		
2-Nitrophenol		E		
2,4-Dimethylphenol		E		
Benzoic Acid		E		
Bis(2-Chloroethoxy)Methane		E		
2,4-Dichlorophenol		E		
1,2,4-Trichlorobenzene		E		
Naphthalene	J	E	J	
4-Chloroaniline		E		
Hexachlorobutadiene		E		
4-Chloro-3-Methylphenol		E		
2-Methylnaphthalene	J	E		
Hexachlorocyclopentadiene		E		
2,4,6-Trichlorophenol		E		
2,4,5-Trichlorophenol		E		
2-Chloronaphthalene		E		
2-Nitroaniline		E		
Dimethyl Phthalate		E		
Acenaphthylene		E		
3-Nitroaniline		E		
Acenaphthene		E		
2,4-Dinitrophenol		E		
4-Nitrophenol		E		
Dibenzofuran		E		
2,4-Dinitrotoluene		E		
2,6-Dinitrotoluene		E		
Diethylphthalate		E		
4-Chlorophenylphenyl ether		E		
Fluorene		E		
4-Nitroaniline		E		

ANALYTICAL DATA
NAME: KEARNY 3RD & ADAMS
SAMPLING DATE: 3/26/86
CASE: 4068/1595B

SEMI-VOLATILES

SAMPLE NUMBER	NJL5-SW1	NJL5-SW2	NJL5-SW3	NJL5-SW4
MATRIX	WATER	WATER	WATER	BLANK
UNITS	UG/L	UG/L	UG/L	UG/L
4,6-Dinitro-2-Methylphenol		E		
N-Nitrosodiphenylamine		E		
4-Bromophenylphenyl ether		E		
Hexachlorobenzene		E		
Pentachlorophenol		E		
Phenanthrene	J	E		
Anthracene		E		
Di-n-Butylphthalate	E	E		E
Fluoranthene	J	E		
Benzidine		E		
Pyrene	J	E		
Butylbenzylphthalate		E		E
3,3'-Dichlorobenzidine		E		
Benzo(a)Anthracene		E		
Bis(2-Ethylhexyl)Phthalate	E	E	E	E
Chrysene		E		
Di-n-Octyl Phthalate		E		
Benzo(b)Fluoranthene		E		
Benzo(k)Fluoranthene		E		
Benzo(a)Pyrene		E		
Indeno(1,2,3-cd)Pyrene		E		
Dibenzo(a,h)Anthracene		E		
Benzo(ghi)Perylene		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
B - compound found in laboratory blank as well as the sample, indicates possible/probable blank contamination

ANALYTICAL DATA
NAME: KEARNY 3RD & ADAMS
SAMPLING DATE: 3/26/86
CASE: 4068/1595B

PESTICIDES/PCBs				
SAMPLE NUMBER	NJL5-SW1	NJL5-SW2	NJL5-SW3	NJL5-SW4
MATRIX	WATER	WATER	WATER	BLANK
UNITS	UG/L	UG/L	UG/L	UG/~~KG~~L
Alpha-BHC				
Beta-BHC				
Delta-BHC				
Gamma-BHC (Lindane)				
Heptachlor				
Aldrin				
Heptachlor Epoxide				
Endosulfan I				
Dieldrin	J			
4,4'-DDE	E		J	
Endrin				
Endosulfan II				
4,4'-DDD	E		J	
Endosulfan sulfate				
Endrin Aldehyde				
4,4'-DDT				
Methoxychlor				
Endrin Ketone				
Chlordane	J		J	
Toxaphene				
Aroclor-1016				
Aroclor-1221				
Aroclor-1232				
Aroclor-1242				
Aroclor-1248				
Aroclor-1254				
Aroclor-1260	J			

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
B - compound found in laboratory blank as well as the sample, indicates possible/probable blank contamination

ANALYTICAL DATA
NAME: KEARNY 3RD & ADAMS
SAMPLING DATE: 3/26/86
CASE: 4068/1595B

INORGANICS

SAMPLE NUMBER MATRIX UNITS	NJL5-SW1 WATER UG/L	NJL5-SW2 WATER UG/L	NJL5-SW3 WATER UG/L	NJL5-SW4 WATER UG/L
Aluminum	187000	9200	48900	
Antimony				
Arsenic	58		32	
Barium	1280	J	387	
Beryllium	21	6.2	8.3	
Cadmium	16		6.9	
Calcium	220000	9050	56400	J
Chromium	35000	25500	14900	J
Cobalt	177		67	
Copper	1450	J	674	
Iron	347000	356	93200	
Lead	3200		1590	
Magnesium	128000	J	46100	J
Manganese	5750	J	1270	
Mercury	6.1		2.3	
Nickel	625	J	184	
Potassium	10700	J	9740	
Selenium				
Silver	E	E	E	E
Sodium	231000		323000	J
Thallium				
Tin	132		87	
Vanadium	1780	537	643	
Zinc	3560	J	1520	
Hexavalent chromium	J	J	J	NA

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
B - compound found in laboratory blank as well as the sample, indicates possible/probable blank contamination
NA-not analyzed for

ANALYTICAL DATA
NAME: KEARNY 3RD & ADAMS
SAMPLING DATE: 3/26/86
CASE: 4068/1595B

VOLATILES

SAMPLE NUMBER MATRIX UNITS	NJL5 S1 SOIL UG/KG	NJL5-S2 SOIL UG/KG	NJL5-S3 SOIL UG/KG	NJL5-S4 SOIL UG/KG
Chloromethane				
Bromomethane				
Vinyl Chloride				
Chloroethane				
Methylene Chloride	32B	E	E	42B
Acetone	280B	E	E	160B
Carbon Disulfide				J
1,1-Dichloroethene				
1,1-Dichloroethane				
Trans-1,2-Dichloroethene				
Chloroform				J
1,2-Dichloroethane				
2-Butanone	E	E	E	E
1,1,1-Trichloroethane				
Carbon Tetrachloride				
Vinyl Acetate				
Bromodichloromethane				
1,1,2,2-Tetrachloroethane				J
1,2-Dichloropropane				
Trans-1,3-Dichloropropene				
Trichloroethene				
Dibromochloromethane				
1,1,2-Trichloroethane				
Benzene				J
Cis-1,3-Dichloropropene				
2-Chloroethylvinylether				
Bromoform				
2-Hexanone				
4-Methyl-2-Pentanone				
Tetrachloroethene		6	5	
Toluene	670B	10B	42B	260B
Chlorobenzene				
Ethylbenzene				J
Styrene				J
Total Xylenes				7

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
B - compound found in laboratory blank as well as the sample, indicates possible/probable blank contamination

ANALYTICAL DATA
NAME: KEARNY 3RD & ADAMS
SAMPLING DATE: 3/26/86
CASE: 4068/1595B

SEMI-VOLATILES

SAMPLE NUMBER MATRIX UNITS	NJL5-S1 SOIL UG/KG	NJL5-S2 SOIL UG/KG	NJL5-S3 SOIL UG/KG	NJL5-S4 SOIL UG/KG
N-Nitrosodimethylamine				
Phenol				J
Aniline				
Bis(2-Chloroethyl)Ether				
2-Chlorophenol				
1,3-Dichlorobenzene				
1,4-Dichlorobenzene				
Benzyl Alcohol				
1,2-Dichlorobenzene				
2-Methylphenol				
Bis(2-Chloroisopropyl)Ether				
4-Methylphenol				
N-Nitroso-Di-n-Propylamine				
Hexachloroethane				
Nitrobenzene				
Isophorone				
2-Nitrophenol				
2,4-Dimethylphenol				
Benzoic Acid				
Bis(2-Chloroethoxy)Methane				
2,4-Dichlorophenol				
1,2,4-Trichlorobenzene				
Naphthalene	J		J	6500
4-Chloroaniline				
Hexachlorobutadiene				
4-Chloro-3-Methylphenol				
2-Methylnaphthalene				2100
Hexachlorocyclopentadiene				
2,4,6-Trichlorophenol				
2,4,5-Trichlorophenol				
2-Chloronaphthalene				
2-Nitroaniline				
Dimethyl Phthalate				
Acenaphthylene				J
3-Nitroaniline				
Acenaphthene				830
2,4-Dinitrophenol				
4-Nitrophenol				
Dibenzofuran				710
2,4-Dinitrotoluene				
2,6-Dinitrotoluene				
Diethylphthalate				J
4-Chlorophenylphenyl ether				
Fluorene				640
4-Nitroaniline				

ANALYTICAL DATA
NAME: KEARNY 3RD & ADAMS
SAMPLING DATE: 3/26/86
CASE: 4068/1595B

SEMI-VOLATILES

SAMPLE NUMBER	NJL5-S1	NJL5-S2	NJL5-S3	NJL5-S4
MATRIX	SOIL	SOIL	SOIL	SOIL
UNITS	UG/KG	UG/KG	UG/KG	UG/KG
4,6-Dinitro-2-Methylphenol				
N-Nitrosodiphenylamine				
4-Bromophenylphenyl ether				
Hexachlorobenzene				
Pentachlorophenol				
Phenanthrene		J	J	1600
Anthracene	J			520
Di-n-Butylphthalate	3500B	9900B	6700B	E
Fluoranthene	450	2500	3000	2700
Benzidine				
Pyrene	370	1900	2700	2100
Butylbenzylphthalate		J		J
3,3'-Dichlorobenzidine				
Benzo(a)Anthracene	J	J	J	1200
Bis(2-Ethylhexyl)Phthalate	2100B	3900B	8500B	1900B
Chrysene	J	J	J	1600
Di-n-Octyl Phthalate				
Benzo(b)Fluoranthene	J	2000	2100	2300
Benzo(k)Fluoranthene	330	J	J	990
Benzo(a)Pyrene	J	J	J	1200
Indeno(1,2,3-cd)Pyrene	J	J		850
Dibenzo(a,h)Anthracene				J
Benzo(ghi)Perylene	J	J	J	650

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
B - compound found in laboratory blank as well as the sample, indicates possible/probable blank contamination

ANALYTICAL DATA
NAME: KEARNY 3RD & ADAMS
SAMPLING DATE: 3/26/86
CASE: 4068/1595B

PESTICIDES/PCBs

SAMPLE NUMBER MATRIX UNITS	NJL5-S1 SOIL UG/KG	NJL5-S2 SOIL UG/KG	NJL5-S3 SOIL UG/KG	NJL5-S4 SOIL UG/KG
Alpha-BHC				
Beta-BHC				
Delta-BHC				
Gamma-BHC (Lindane)				
Heptachlor				
Aldrin				37
Heptachlor Epoxide				
Endosulfan I				
Dieldrin	9.7	130	20	620
4,4'-DDE	E	E	E	
Endrin				
Endosulfan II				
4,4'-DDD	22	E	40	
Endosulfan sulfate				
Endrin Aldehyde				
4,4'-DDT				
Methoxychlor				
Endrin Ketone				
Chlordane	J	E	J	E
Toxaphene				
Aroclor-1016				
Aroclor-1221				
Aroclor-1232				
Aroclor-1242				
Aroclor-1248				
Aroclor-1254				
Aroclor-1260	150	800	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
B - compound found in laboratory blank as well as the sample, indicates possible/probable blank contamination

ANALYTICAL DATA
NAME: KEARNY 3RD & ADAMS
SAMPLING DATE: 3/26/86
CASE: 4068/1595B

INORGANICS

SAMPLE NUMBER	NJL5-S1	NJL5-S2	NJL5-S3	NJL5-S4
MATRIX	SOIL	SOIL	SOIL	SOIL
UNITS	MG/KG	MG/KG	MG/KG	MG/KG
Aluminum	10700	18300	6070	19200
Antimony	J	J	J	J
Arsenic				
Barium	J	J	199	J
Beryllium	J	9.9	J	J
Cadmium		15	7.2	7.8
Calcium	6900	61400	23100	60200
Chromium	J	J	J	J
Cobalt	J	153	J	114
Copper	J	J	J	J
Iron	18900	65800	17100	64000
Lead	5460	216	590	394
Magnesium	7450	46600	8520	45800
Manganese	J	J	J	J
Mercury	J	J	J	0.82
Nickel	J	J	J	J
Potassium	J		J	
Selenium	J	J	J	J
Silver	J	J	J	J
Sodium	J	J	J	J
Thallium				
Tin	J	J	J	J
Vanadium	J	J	J	J
Zinc	J	J	J	J
Hexavalent chromium	NA	NA	NA	NA

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
B - compound found in laboratory blank as well as the sample, indicates possible/probable blank contamination
NA - not analyzed for

Environmental Protection Agency, CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

0013

Sample Number BB030

Organics Analysis Data Sheet
(Page 1)

SW1

Laboratory Name: Radian
Lab Sample ID No: 4EV03279V01
Sample Matrix: Water
Data Release Authorized By: K. Gmelanduer

Case No: 4068
QC Report No: 55
Contract No: 68-01-6853
Date Sample Received: 3-27-85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 4-1-85
Date Analyzed: 4-1-85
Conc/Dil Factor: 1:1 pH NA
Percent Moisture: 100
Percent Moisture (Decanted): —

CAS Number		(ug/l) or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	~~5JB~~
67-64-1	Acetone	~~3JB~~
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	~~15B~~
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

CAS Number		(ug/l) or ug/Kg (Circle One)
79-34-5	1, 1, 2, 2-Tetrachloroethane	5u
78-87-5	1, 2-Dichloropropane	5u
10061-02-6	Trans-1, 3-Dichloropropene	5u
79-01-6	Trichloroethene	5u
124-48-1	Dibromochloromethane	5u
79-00-5	1, 1, 2-Trichloroethane	5u
71-43-2	Benzene	5u
10061-01-5	cis-1, 3-Dichloropropene	5u
110-75-8	2-Chloroethylvinylether	10u
75-25-2	Bromoform	5u
591-78-6	2-Hexanone	10u
108-10-1	4-Methyl-2-Pentanone	10u
127-18-4	Tetrachloroethene	5u
108-88-3	Toluene	~~5JB~~
108-90-7	Chlorobenzene	5u
100-41-4	Ethylbenzene	5u
100-42-5	Styrene	5u
	Total Xylenes	5u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit.) The footnote should read U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10 J).

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Environmental Protection Agency, CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

Sample Number
BD030

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 3-31-85

Date Analyzed: 4-10-85

Conc/Dil Factor: 100ml : 1ml

CAS Number		ug/l or ug/Kg (Circle One)
62-75-9	N-Nitrosodimethylamine	100u
108-95-2	Phenol	100u
62-53-3	Aniline	100u
111-44-4	bis(-2-Chloroethyl)Ether	100u
95-57-8	2-Chlorophenol	100u
541-73-1	1, 3-Dichlorobenzene	100u
106-46-7	1, 4-Dichlorobenzene	100u
100-51-6	Benzyl Alcohol	100u
95-50-1	1, 2-Dichlorobenzene	100u
95-48-7	2-Methylphenol	100u
39638-32-9	bis(2-chloroisopropyl)Ether	100u
106-44-5	4-Methylphenol	100u
621-64-7	N-Nitroso-Di-n-Propylamine	100u
67-72-1	Hexachloroethane	100u
98-95-3	Nitrobenzene	100u
78-59-1	Isophorone	100u
88-75-5	2-Nitrophenol	100u
105-67-9	2, 4-Dimethylphenol	100u
65-85-0	Benzoic Acid	500u
111-91-1	bis(-2-Chloroethoxy)Methane	100u
120-83-2	2, 4-Dichlorophenol	100u
120-82-1	1, 2, 4-Trichlorobenzene	100u
91-20-3	Naphthalene	100J
106-47-8	4-Chloroaniline	100u
87-68-3	Hexachlorobutadiene	100u
59-50-7	4-Chloro-3-Methylphenol	100u
91-57-6	2-Methylnaphthalene	100J
77-47-4	Hexachlorocyclopentadiene	100u
88-06-2	2, 4, 6-Trichlorophenol	100u
95-95-4	2, 4, 5-Trichlorophenol	500u
91-58-7	2-Chloronaphthalene	100u
88-74-4	2-Nitroaniline	500u
131-11-3	Dimethyl Phthalate	100u
208-96-8	Acenaphthylene	100u
99-09-2	3-Nitroaniline	500u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	100u
51-28-5	2, 4-Dinitrophenol	500u
100-02-7	4-Nitrophenol	500u
132-64-9	Dibenzofuran	100u
121-14-2	2, 4-Dinitrotoluene	100u
606-20-2	2, 6-Dinitrotoluene	100u
84-66-2	Diethylphthalate	100u
7005-72-3	4-Chlorophenyl-phenylether	100u
86-73-7	Fluorene	100u
100-01-6	4-Nitroaniline	500u
534-52-1	4, 6-Dinitro-2-Methylphenol	500u
86-30-6	N-Nitrosodiphenylamine (1)	100u
101-55-3	4-Bromophenyl-phenylether	100u
118-74-1	Hexachlorobenzene	100u
87-86-5	Pentachlorophenol	500u
85-01-8	Phenanthrene	100J
120-12-7	Anthracene	100u
84-74-2	Di-n-Butylphthalate	~~100J,B~~
206-44-0	Fluoranthene	100J
92-87-5	Benzidine	500u
129-00-0	Pyrene	100J
85-68-7	Butylbenzylphthalate	100u
91-94-1	3, 3'-Dichlorobenzidine	200u
56-55-3	Benzo(a)Anthracene	100u
117-81-7	bis(2-Ethylhexyl)Phthalate	~~100J,B~~
218-01-9	Chrysene	100u
117-84-0	Di-n-Octyl Phthalate	100u
205-99-2	Benzo(b)Fluoranthene	100u
207-08-9	Benzo(k)Fluoranthene	100u
50-32-8	Benzo(a)Pyrene	100u
193-39-5	Indeno(1, 2, 3-cd)Pyrene	100u
53-70-3	Dibenz(a, h)Anthracene	100u
191-24-2	Benzo(g, h, i)Perylene	100u

(1)-Cannot be separated from diphenylamine

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P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

0021

Sample Number
BB030

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 3-31-85

Date Analyzed: 4-19-85

Conc/Dil Factor: 100ml : 5ml

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	0.25 U
319-85-7	Beta-BHC	0.25 U
319-86-8	Delta-BHC	0.25 U
58-89-9	Gamma-BHC (Lindane)	0.25 U
76-44-8	Heptachlor	0.25 U
309-00-2	Aldrin	0.25 U
1024-57-3	Heptachlor Epoxide	0.25 U
959-98-8	Endosulfan I	0.25 U
60-57-1	Dieldrin	0.50 J
72-55-9	4, 4'-DDE	~~0.66~~
72-20-8	Endrin	0.50 U
33213-65-9	Endosulfan II	0.50 U
72-54-8	4, 4'-DDD	~~0.74~~
7421-93-4	Endrin Aldehyde	0.50 U
1031-07-8	Endosulfan Sulfate	0.50 U
50-29-3	4, 4'-DDT	0.50 U
72-43-5	Methoxychlor	2.50 U
53494-70-5	Endrin Ketone	2.50 U
57-74-9	Chlordane	5.00 J
8001-35-2	Toxaphene	2.50 U
12674-11-2	Aroclor-1016	2.50 U
11104-28-2	Aroclor-1221	2.50 U
11141-16-5	Aroclor-1232	2.50 U
53469-21-9	Aroclor-1242	2.50 U
12672-29-6	Aroclor-1248	2.50 U
11097-69-1	Aroclor-1254	5.00 U
11096-82-5	Aroclor-1260	5.00 J

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 100 ml or W_s _____ V_t 5000 ul V_i 2 ul

SW1

FORM I

.S. EPA CONTRACT LABORATORY PROGRAM
MPLE MANAGEMENT OFFICE
.O. BOX 818 - ALEXANDRIA, VA. 22313
703/557-2490 FTS: 8-557-2490

SAMPLE NO.
MBB-331L

DATE 04-10-85

INORGANIC ANALYSIS DATA SHEET

NAME VERSAR INC.

CASE NO. 4068 -SAS 1595B

SOW NO. 784

LAB SAMPLE ID. NO. 712

QC REPORT NO. 246

PROJECT-TASK 834.0000

BATCH 246

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW ____ MEDIUM X

MATRIX: WATER X SOIL ____ SLUDGE ____

UG/L

1.	ALUMINUM	187000.	P	13.	MAGNESIUM	128000.	P
2.	ANTIMONY	240. U E	P	14.	MANGANESE	5750.	P
3.	ARSENIC	58.	F	15.	MERCURY	6.1	
4.	BARIUM	1280.	P	16.	NICKEL	625.	P
5.	BERYLLIUM	21.	P	17.	POTASSIUM	10700.	P
6.	CADMIUM	16. R	P	18.	SELENIUM	25.U	F
7.	CALCIUM	220000.	P	19.	~~SILVER~~	30. U R E	P
8.	CHROMIUM	35000.	P	20.	SODIUM	231000.	P
9.	COBALT	177.	P	21.	THALLIUM	10.U	F
10.	COPPER	1450.	P	22.	TIN	132. R	P
11.	IRON	347000.	P	23.	VANADIUM	1780.	P
12.	LEAD	3200. S	F	24.	ZINC	3560.	P
	CYANIDE				PERCENT SOLIDS		

FOOTNOTES: SEE COVER PAGE.

COMMENTS: DF of 10 for Al Ca Sb Fe Mg Ag Na

LAB MANAGER

ROBERT E. MAXFIELD

Environmental Protection Agency. CLP Sample Management Office.
P. O. Box 818. Alexandria, Virginia 22313 703/557-2490

0413

Sample Number
RB038

SW-2

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Radian
Lab Sample ID No: 4ER03286V03
Sample Matrix: Water
Data Release Authorized By: K. Ghiardinelli

Case No: 4068
QC Report No: 55
Contract No: 68-01-6853
Date Sample Received: 3-27-85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 4-1-85
Date Analyzed: 4-1-85
Conc/Dil Factor: 1:1 pH NA
Percent Moisture: 100
Percent Moisture (Decanted): —

CAS Number		(ug/l) or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	~~5J~~ B
67-64-1	Acetone	~~24~~ B
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	~~7~~ B
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

CAS Number		(ug/l) or ug/Kg (Circle One)
79-34-5	1, 1, 2, 2-Tetrachloroethane	5u
78-87-5	1, 2-Dichloropropane	5u
10061-02-6	Trans-1, 3-Dichloropropene	5u
79-01-6	Trichloroethene	5u
124-48-1	Dibromochloromethane	5u
79-00-5	1, 1, 2-Trichloroethane	5u
71-43-2	Benzene	5u
10061-01-5	cis-1, 3-Dichloropropene	5u
110-75-8	2-Chloroethylvinylether	10u
75-25-2	Bromoform	5u
591-78-6	2-Hexanone	10u
108-10-1	4-Methyl-2-Pentanone	10u
127-18-4	Tetrachloroethene	5J
108-88-3	Toluene	~~5J~~ B
108-90-7	Chlorobenzene	5u
100-41-4	Ethylbenzene	5u
100-42-5	Styrene	5u
	Total Xylenes	5u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10 J).

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

0082

SAMPLE NUMBER
BB030

GC/MS ANALYSIS DATA SHEET
(PAGE 4)

TENTATIVELY IDENTIFIED COMPOUNDS

CAS NUMBER	COMPOUND NAME	FRACTION	RT OR SCAN NUMBER	ESTIMATED CONCENTRATION UG/L OR UG/KG
1 930-68-7	2-CYCLOHEXEN-1-ONE	ABN	438	19
2 922-28-1	HEPTANE, 3,4-DIMETHYL-	ABN	463	24
3 589-43-5	HEXANE, 2,4-DIMETHYL-	ABN	503	47
4 930-22-3	OXIRANE, ETHENYL-	ABN	605	63
5 3937-56-2	1,9-NONANEDIOL	ABN	648	25
6 12015-33-1	CHLORINEOXIDE(CL207)	ABN	666	11
~~7~~	~~D8-NAPHTHALENE (IS)~~	~~ABN~~	~~703~~	~~174~~
8 2051-30-1	OCTANE, 2,6-DIMETHYL-	ABN	768	45
9 1120-21-4	UNDECANE	ABN	793	100
10 85-44-9	1,3-ISOBENZOFURANDIONE	ABN	824	12
11 54004-41-0	1-PENTANOL, 4-METHYL-2-PROPYL-	ABN	860	28
12 54004-41-0	1-PENTANOL, 4-METHYL-2-PROPYL-	ABN	879	90
13 592-13-2	HEXANE, 2,5-DIMETHYL-	ABN	961	56
14 1072-16-8	OCTANE, 2,7-DIMETHYL-	ABN	1039	42
15 1072-16-8	OCTANE, 2,7-DIMETHYL-	ABN	1076	24
16 592-13-2	HEXANE, 2,5-DIMETHYL-	ABN	1183	24
17 53907-60-1	CYCLOPENTANE, 1,1,3,4-TETRAMETHYL-, CIS	ABN	1235	22
18 53907-60-1	CYCLOPENTANE, 1,1,3,4-TETRAMETHYL-, CIS	ABN	1300	40
19 53366-38-4	CYCLOPENTANE, (2-METHYLBUTYL)-	ABN	1363	30
20 5090-41-5	9-OCTADECENAL	ABN	1539	46
21. 517-25-9	Methane, trinitro-	V	28	1
22. 24071-57-6	Cyclopropane, 1,1-Dibromo-2-chloro-2-Fluoro-	V	38	1
23. 50267-41-9	2,6-Diazatricyclo[3.3.1.13,7]Decane-4,8-Diol, 2-methyl-6-(phenylsulfonyl)	V	306	1
24. 29812-74-1	Hydroxylamine, O-Decyl-	ABN	1113	16

Environmental Protection Agency, CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

Sample Number
BB038

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 4-15-85

Date Analyzed: 4-22-85

Conc/Dil Factor: 1000:1

Holding time for extraction exceeded

CAS Number		ug/l or ug/Kg (Circle One)
62-75-9	N-Nitrosodimethylamine	10U
108-95-2	Phenol	35
62-53-3	Aniline	10U
111-44-4	bis(-2-Chloroethyl)Ether	10U
95-57-8	2-Chlorophenol	10U
541-73-1	1, 3-Dichlorobenzene	10U
106-46-7	1, 4-Dichlorobenzene	10U
100-51-6	Benzyl Alcohol	10U
95-50-1	1, 2-Dichlorobenzene	10U
95-48-7	2-Methylphenol	10U
39638-32-9	bis(2-chloroisopropyl)Ether	10U
106-44-5	4-Methylphenol	10U
621-64-7	N-Nitroso-Di-n-Propylamine	10U
67-72-1	Hexachloroethane	10U
98-95-3	Nitrobenzene	10U
78-59-1	Isophorone	10U
88-75-5	2-Nitrophenol	10U
105-67-9	2, 4-Dimethylphenol	10U
65-85-0	Benzoic Acid	50U
111-91-1	bis(-2-Chloroethoxy)Methane	10U
120-83-2	2, 4-Dichlorophenol	10U
120-82-1	1, 2, 4-Trichlorobenzene	10U
91-20-3	Naphthalene	10U
106-47-8	4-Chloroaniline	10U
87-68-3	Hexachlorobutadiene	10U
59-50-7	4-Chloro-3-Methylphenol	10U
91-57-6	2-Methylnaphthalene	10U
77-47-4	Hexachlorocyclopentadiene	10U
88-06-2	2, 4, 6-Trichlorophenol	10U
95-95-4	2, 4, 5-Trichlorophenol	50U
91-58-7	2-Chloronaphthalene	10U
88-74-4	2-Nitroaniline	50U
131-11-3	Dimethyl Phthalate	10U
208-96-8	Acenaphthylene	10U
99-09-2	3-Nitroaniline	50U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	10U
51-28-5	2, 4-Dinitrophenol	50U
100-02-7	4-Nitrophenol	50U
132-64-9	Dibenzofuran	10U
121-14-2	2, 4-Dinitrotoluene	10U
606-20-2	2, 6-Dinitrotoluene	10U
84-66-2	Diethylphthalate	10U
7005-72-3	4-Chlorophenyl-phenylether	10U
86-73-7	Fluorene	10U
100-01-6	4-Nitroaniline	50U
534-52-1	4, 6-Dinitro-2-Methylphenol	50U
86-30-6	N-Nitrosodiphenylamine (1)	10U
101-55-3	4-Bromophenyl-phenylether	10U
118-74-1	Hexachlorobenzene	10U
87-86-5	Pentachlorophenol	50U
85-01-8	Phenanthrene	10U
120-12-7	Anthracene	10U
84-74-2	Di-n-Butylphthalate	10U
206-44-0	Fluoranthene	10U
92-87-5	Benzidine	50U
129-00-0	Pyrene	10U
85-68-7	Butylbenzylphthalate	10U
91-94-1	3, 3'-Dichlorobenzidine	20U
56-55-3	Benzo(a)Anthracene	10U
117-81-7	bis(2-Ethylhexyl)Phthalate	78
218-01-9	Chrysene	10U
117-84-0	Di-n-Octyl Phthalate	10U
205-99-2	Benzo(b)Fluoranthene	10U
207-08-9	Benzo(k)Fluoranthene	10U
50-32-8	Benzo(a)Pyrene	10U
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10U
53-70-3	Dibenz(a, h)Anthracene	10U
191-24-2	Benzo(g, h, i)Perylene	10U

(1)-Cannot be separated from diphenylamine

SW2

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

SAMPLE NO.
M88-338

DATE 04-10-85

INORGANIC ANALYSIS DATA SHEET

NAME VERSAR INC.

CASE NO. 4068 -SAS 1595B

JW NO. 784

LAB SAMPLE ID. NO. 714

QC REPORT NO. 246

PROJECT-TASK 834.0000

BATCH 246

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW ____ MEDIUM X

MATRIX: WATER X SOIL ____ SLUDGE ____

UG/L

1.	ALUMINUM	9200.	P	13.	MAGNESIUM	[403.]	P
2.	ANTIMONY	24. U	P	14.	MANGANESE	[4.9]	P
3.	ARSENIC	10.U	F	15.	MERCURY	0.2U	
4.	BARIUM	[3.4]	P	16.	NICKEL	[15.]	P
5.	BERYLLIUM	6.2	P	17.	POTASSIUM	[2070.]	P
6.	CADMIUM	5.0 UR	P	18.	SELENIUM	5.0U	F
7.	CALCIUM	9050.	P	~~19.~~	~~SILVER~~	3.0 UR	P
8.	CHROMIUM	25500.	P	20.	SODIUM	253000. U	P
9.	COBALT	4.0 U	P	21.	THALLIUM	10.U	F
10.	COPPER	[3.9]	P	22.	TIN	13. UR	P
11.	IRON	356.	P	23.	VANADIUM	537.	P
12.	LEAD	5.0U	F	24.	ZINC	[9.3]	P
	CYANIDE				PERCENT SOLIDS		

FOOTNOTES: SEE COVER PAGE.

COMMENTS: DF of 10 for Na

LAB MANAGER

ROBERT E. MAXFIELD

FORM I

.S. EPA CONTRACT LABORATORY PROGRAM
SMPLE MANAGEMENT OFFICE
.O. BOX 818 - ALEXANDRIA, VA. 22313
03/557-2490 FTS: 8-557-2490

: SAMPLE NO. :
:MBB-333 :
SW3

DATE 04-10-85

INORGANIC ANALYSIS DATA SHEET

NAME VERSAR INC.

CASE NO. 4068 -SAS 15958

SDW NO. 784

LAB SAMPLE ID. NO. 713

QC REPORT NO. 246

PROJECT-TASK 834.0000

BATCH 246

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW ____ MEDIUM X

MATRIX: WATER X SOIL ____ SLUDGE ____

UG/L

1.	ALUMINUM	48900.	P	13.	MAGNESIUM	46100.	P
2.	ANTIMONY	240. UE	P	14.	MANGANESE	1270.	P
3.	ARSENIC	32.	F	15.	MERCURY	2.3	
4.	BARIUM	387.	P	16.	NICKEL	184.	P
5.	BERYLLIUM	8.3	P	17.	POTASSIUM	9740.	P
6.	CADMIUM	6.9 R	P	18.	SELENIUM	25.U	F
7.	CALCIUM	56400.	P	~~19.~~	~~SILVER~~	30. UR	EP
8.	CHROMIUM	14900.	P	20.	SODIUM	323000.	P
9.	COBALT	67.	P	21.	THALLIUM	10.U	F
10.	COPPER	674.	P	22.	TIN	87. R	P
11.	IRON	93200.	P	23.	VANADIUM	643.	P
12.	LEAD	1590.	F	24.	ZINC	1520.	P
	CYANIDE				PERCENT SOLIDS		

FOOTNOTES: SEE COVER PAGE.

COMMENTS: DF of 10 for Sb Ag Na

LAB MANAGER

ROBERT E. MAXFIELD

Environmental Protection Agency. CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

0453

Sample Number BB039

Organics Analysis Data Sheet
(Page 1)

SW4 (blank)

Laboratory Name: Radian
Case No: 4068
Lab Sample ID No: 4EU03279V05
QC Report No: 55
Sample Matrix: Water
Contract No: 68-01-6853
Data Release Authorized By: K. Umlauduca
Date Sample Received: 3-27-85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 3-30-85
Date Analyzed: 3-30-85
Conc/Dil Factor: 1:1 pH NA
Percent Moisture: 100
Percent Moisture (Decanted): —

CAS Number		(ug/l) or ug/Kg (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	~~5J B~~
67-64-1	Acetone	~~20 B~~
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	5U
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	~~15 B~~
71-55-6	1, 1, 1-Trichloroethane	5U
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		(ug/l) or ug/Kg (Circle One)
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	5U
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5U
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
591-78-6	2-Hexanone	10U
108-10-1	4-Methyl-2-Pentanone	10U
127-18-4	Tetrachloroethene	5U
108-88-3	Toluene	5J
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylenes	5U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit.) The footnote should read U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10 J).

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Environmental Protection Agency, CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

Sample Number
BB039

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 3-31-85

Date Analyzed: 4-10-85

Conc/Dil Factor: 700 : 1

CAS Number		ug/l or ug/Kg (Circle One)
62-75-9	N-Nitrosodimethylamine	10u
108-95-2	Phenol	15
62-53-3	Aniline	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1, 3-Dichlorobenzene	10u
106-46-7	1, 4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1, 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2, 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2, 4-Dichlorophenol	10u
120-82-1	1, 2, 4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2, 4, 6-Trichlorophenol	10u
95-95-4	2, 4, 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2, 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2, 4-Dinitrotoluene	10u
606-20-2	2, 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4, 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	~~10J,B~~
206-44-0	Fluoranthene	10u
92-87-5	Benzidine	50u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	~~10J,B~~
91-94-1	3, 3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	~~10J,B~~
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10u
53-70-3	Dibenz(a, h)Anthracene	10u
191-24-2	Benzo(g, h, i)Perylene	10u

(1)-Cannot be separated from diphenylamine

Environmental Protection Agency, CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

0455

Sample Number
BB039

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 3-31-85

Date Analyzed: 4-19-85

Conc/Dil Factor: 700 ml : 5 ml

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	0.04 u
319-85-7	Beta-BHC	0.04 u
319-86-8	Delta-BHC	0.04 u
58-89-9	Gamma-BHC (Lindane)	0.04 u
76-44-8	Heptachlor	0.04 u
309-00-2	Aldrin	0.04 u
1024-57-3	Heptachlor Epoxide	0.04 u
959-98-8	Endosulfan I	0.04 u
60-57-1	Dieldrin	0.08 u
72-55-9	4, 4'-DDE	0.08 u
72-20-8	Endrin	0.08 u
33213-65-9	Endosulfan II	0.08 u
72-54-8	4, 4'-DDD	0.08 u
7421-93-4	Endrin Aldehyde	0.08 u
1031-07-8	Endosulfan Sulfate	0.08 u
50-29-3	4, 4'-DDT	0.08 u
72-43-5	Methoxychlor	0.40 u
53494-70-5	Endrin Ketone	0.40 u
57-74-9	Chlordane	0.80 u
8001-35-2	Toxaphene	0.40 u
12674-11-2	Aroclor-1016	0.40 u
11104-28-2	Aroclor-1221	0.40 u
11141-16-5	Aroclor-1232	0.40 u
53469-21-9	Aroclor-1242	0.40 u
12672-29-6	Aroclor-1248	0.40 u
11097-69-1	Aroclor-1254	0.80 u
11096-82-5	Aroclor-1260	0.80 u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 700 ml or W_s _____ V_t 5000 ml V_i 2 ml

Environmental Protection Agency, CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

0456

Sample Number
BB039

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	No semivolatile compounds Detected			
2. 78-90-0	1,2-propanediamine	V	33	1
3. 75-28-5	Propane, 2-methyl-	V	81	8
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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

SW4 (blank)

SAMPLE NO.
MBB-339

DATE 04-10-85

INORGANIC ANALYSIS DATA SHEET

NAME VERSAR INC.

CASE NO. 4068 -SAS 15958

SOW NO. 784

LAB SAMPLE ID. NO. 715

QC REPORT NO. 246

PROJECT-TASK 834.0000

BATCH 246

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM

MATRIX: WATER X SOIL SLUDGE

UG/L

1.	ALUMINUM	18. U	P	13.	MAGNESIUM	[83.]	P
2.	ANTIMONY	24. U	P	14.	MANGANESE	2.0 U	P
3.	ARSENIC	10. U	F	15.	MERCURY	0.4U	
4.	BARIUM	1.0 U	P	16.	NICKEL	10. U	P
5.	BERYLLIUM	1.0 U	P	17.	POTASSIUM	400. U	P
6.	CADMIUM	5.0 UR	P	18.	SELENIUM	5.0 U	F
7.	CALCIUM	[95.]	P	~~19.~~	~~SILVER~~	3.0 UR	P
8.	CHROMIUM	[5.1]	P	20.	SODIUM	[363.]	P
9.	COBALT	4.0 U	P	21.	THALLIUM	10.UR	F
10.	COPPER	2.0 U	P	22.	TIN	13. UR	P
11.	IRON	3.0 U	P	23.	VANADIUM	3.0 U	P
12.	LEAD	5.0 U	F	24.	ZINC	3.0 U	P
	CYANIDE				PERCENT SOLIDS		

FOOTNOTES: SEE COVER PAGE.

COMMENTS:

LAB MANAGER

ROBERT E. MAXFIELD

Environmental Protection Agency, CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

Sample Number
BB034

0209

S-1

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Radian
Case No: 4068
Lab Sample ID No: 4FU03279V03
QC Report No: 55
Sample Matrix: Soil
Contract No: 68-01-6853
Data Release Authorized By: K. Ghilanducci
Date Sample Received: 3-27-85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 4-1-85
Date Analyzed: 4-1-85
Conc/Dil Factor: 1GR/5ML pH 9.5
Percent Moisture: 13
Percent Moisture (Decanted): —

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	50 u
74-83-9	Bromomethane	50 u
75-01-4	Vinyl Chloride	50 u
75-00-3	Chloroethane	50 u
75-09-2	Methylene Chloride	32 B
67-64-1	Acetone	280 B
75-15-0	Carbon Disulfide	25 u
75-35-4	1, 1-Dichloroethene	25 u
75-34-3	1, 1-Dichloroethane	25 u
156-60-5	Trans-1, 2-Dichloroethene	25 u
67-66-3	Chloroform	25 u
107-06-2	1, 2-Dichloroethane	25 u
78-93-3	2-Butanone	~~120 B~~
71-55-6	1, 1, 1-Trichloroethane	25 u
56-23-5	Carbon Tetrachloride	25 u
108-05-4	Vinyl Acetate	50 u
75-27-4	Bromodichloromethane	25 u

CAS Number		ug/l or (ug/Kg) (Circle One)
79-34-5	1, 1, 2, 2-Tetrachloroethane	25 u
78-87-5	1, 2-Dichloropropane	25 u
10061-02-6	Trans-1, 3-Dichloropropene	25 u
79-01-6	Trichloroethene	25 u
124-48-1	Dibromochloromethane	25 u
79-00-5	1, 1, 2-Trichloroethane	25 u
71-43-2	Benzene	25 u
10061-01-5	cis-1, 3-Dichloropropene	25 u
110-75-8	2-Chloroethylvinylether	50 u
75-25-2	Bromoform	25 u
591-78-6	2-Hexanone	50 u
108-10-1	4-Methyl-2-Pentanone	50 u
127-18-4	Tetrachloroethene	25 u
108-88-3	Toluene	670 B
108-90-7	Chlorobenzene	25 u
100-41-4	Ethylbenzene	25 u
100-42-5	Styrene	25 u
	Total Xylenes	25 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10 J).

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Environmental Protection Agency, CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

0210

Sample Number
BB034

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 4-1-85

Date Analyzed: 4-11-85

Conc/Dil Factor: 30.66g : 1ml

CAS Number		ug/l or ug/Kg (Circle One)
62-75-9	N-Nitrosodimethylamine	330u
108-95-2	Phenol	330u
62-53-3	Aniline	330u
111-44-4	bis(-2-Chloroethyl)Ether	330u
95-57-8	2-Chlorophenol	330u
541-73-1	1, 3-Dichlorobenzene	330u
106-46-7	1, 4-Dichlorobenzene	330u
100-51-6	Benzyl Alcohol	330u
95-50-1	1, 2-Dichlorobenzene	330u
95-48-7	2-Methylphenol	330u
39638-32-9	bis(2-chloroisopropyl)Ether	330u
106-44-5	4-Methylphenol	330u
621-64-7	N-Nitroso-Di-n-Propylamine	330u
67-72-1	Hexachloroethane	330u
98-95-3	Nitrobenzene	330u
78-59-1	Isophorone	330u
88-75-5	2-Nitrophenol	330u
105-67-9	2, 4-Dimethylphenol	330u
65-85-0	Benzoic Acid	1600u
111-91-1	bis(-2-Chloroethoxy)Methane	330u
120-83-2	2, 4-Dichlorophenol	330u
120-82-1	1, 2, 4-Trichlorobenzene	330u
91-20-3	Naphthalene	330J
106-47-8	4-Chloroaniline	330u
87-68-3	Hexachlorobutadiene	330u
59-50-7	4-Chloro-3-Methylphenol	330u
91-57-6	2-Methylnaphthalene	330u
77-47-4	Hexachlorocyclopentadiene	330u
88-06-2	2, 4, 6-Trichlorophenol	330u
95-95-4	2, 4, 5-Trichlorophenol	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u
131-11-3	Dimethyl Phthalate	330u
208-96-8	Acenaphthylene	330u
99-09-2	3-Nitroaniline	1600u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2, 4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600u
132-64-9	Dibenzofuran	330u
121-14-2	2, 4-Dinitrotoluene	330u
606-20-2	2, 6-Dinitrotoluene	330u
84-66-2	Diethylphthalate	330u
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene	330u
100-01-6	4-Nitroaniline	1600u
534-52-1	4, 6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene	330u
120-12-7	Anthracene	330J
84-74-2	Di-n-Butylphthalate	3500B
206-44-0	Fluoranthene	450
92-87-5	Benzidine	1600u
129-00-0	Pyrene	370
85-68-7	Butylbenzylphthalate	330u
91-94-1	3, 3'-Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene	330J
117-81-7	bis(2-Ethylhexyl)Phthalate	2100B
218-01-9	Chrysene	330J
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene	330J
207-08-9	Benzo(k)Fluoranthene	330
50-32-8	Benzo(a)Pyrene	330J
193-39-5	Indeno(1, 2, 3-cd)Pyrene	330J
53-70-3	Dibenz(a, h)Anthracene	330u
191-24-2	Benzo(g, h, i)Perylene	330J

(1)-Cannot be separated from diphenylamine

Environmental Protection Agency, CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

0211

Sample Number
BB034

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 4-1-85

Date Analyzed: 4-19-85

Conc/Dil Factor: 31g : 5ml

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	4.0 u
319-85-7	Beta-BHC	4.0 u
319-86-8	Delta-BHC	4.0 u
58-89-9	Gamma-BHC (Lindane)	4.0 u
76-44-8	Heptachlor	4.0 u
309-00-2	Aldrin	4.0 u
1024-57-3	Heptachlor Epoxide	4.0 u
959-98-8	Endosulfan I	4.0 u
60-57-1	Dieldrin	9.7
72-55-9	4, 4'-DDE	~~25~~
72-20-8	Endrin	8.0 u
33213-65-9	Endosulfan II	8.0 u
72-54-8	4, 4'-DDD	22.
7421-93-4	Endrin Aldehyde	8.0 u
1031-07-8	Endosulfan Sulfate	8.0 u
50-29-3	4, 4'-DDT	8.0 u
72-43-5	Methoxychlor	40.0 u
53494-70-5	Endrin Ketone	40.0 u
57-74-9	Chlordane	80.0 J — 28.0 ug/kg
8001-35-2	Toxaphene	40.0 u
12674-11-2	Aroclor-1016	40.0 u
11104-28-2	Aroclor-1221	40.0 u
11141-16-5	Aroclor-1232	40.0 u
53469-21-9	Aroclor-1242	40.0 u
12672-29-6	Aroclor-1248	40.0 u
11097-69-1	Aroclor-1254	80.0 u
11096-82-5	Aroclor-1260	150.

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 31g V_t 5000 ml V_i 2 ml

0212

SAMPLE NUMBER:
BB034

ORGANICS ANALYSIS DATA SHEET
(PAGE 4)

TENTATIVELY IDENTIFIED COMPOUNDS

	CAS NUMBER	COMPOUND NAME	FRACTION	RT OR SCAN NUMBER	ESTIMATED CONCENTRATION UG/L OR UG/K
1	2213-23-2	HEPTANE, 2, 4-DIMETHYL-	ABN	257	250
2	123-42-2	2-PENTANONE, 4-HYDROXY-4-METHYL-	ABN	303	1800
3	111-46-6	ETHANOL, 2, 2'-OXYBIS-	ABN	436	1500
~~4~~	~~[illegible]~~	~~D-6 PHENOL (5C)~~	~~ABN~~	~~453~~	~~36~~
5	4401-11-0	ETHANONE, 1-OXIRANYL-	ABN	487	1800
6	1072-16-8	OCTANE, 2, 7-DIMETHYL-	ABN	1102	280
7	2051-30-1	OCTANE, 2, 6-DIMETHYL-	ABN	1134	150
8	100-42-5	BENZENE, ETHENYL-	ABN	1160	190
9	62238-11-3	DECANE, 2, 3, 5-TRIMETHYL-	ABN	1173	160
10	6975-98-0	DECANE, 2-METHYL-	ABN	1242	140
11	17312-55-9	DECANE, 3, 8-DIMETHYL-	ABN	1490	110
12	17301-31-4	UNDECANE, 3, 9-DIMETHYL-	ABN	1548	220
13	56293-04-0	BENZENE, 3-HEPTYNYL-	ABN	1600	250
14	106-67-2	1-PENTANOL, 2-ETHYL-4-METHYL-	ABN	1606	160
15	50746-53-7	CYCLOPENTANE, 1-METHYL-2-(2-PROPENYL)-	ABN	1640	480
16	4757-69-1	1H-INDOLE, 2-METHYL-3-PHENYL-	ABN	1661	170
17	4757-69-1	1H-INDOLE, 2-METHYL-3-PHENYL-	ABN	1668	220
18	56128-02-0	BENZENE, 1, 1'-[2-METHYL-2-(PHENYLTHIO)	ABN	1678	220
19	17380-78-9	CYCLOHEXANECARBOXYLICACID, 1-PHENYL-, M	ABN	1738	120
20	3937-48-2	CYCLOHEXANEMETHANOL, 4-METHYL-, CIS-	ABN	2170	110
21.	492-41-1	Benzenemethanol, alpha-(1-aminoethyl)-, [R-(R*, S*)]-	V	38	4
22.	1186-53-4	Pentane, 2,2,3,4-tetramethyl-	V	639	3
23.	122-66-7	1,2 Diphenylhydrazine	BNA	1068	340

* See narrative about this compound

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

SAMPLE NO.
MBB-335

DATE 04-10-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME VERSAR INC.

CASE NO. 4068 - SAS 1595B

SDW NO. 784

LAB SAMPLE ID. NO. 709

QC REPORT NO. 246

PROJECT-TASK 834.0000

BATCH 246

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW ____ MEDIUM X

MATRIX: WATER ____ SOIL X SLUDGE ____

MG/KG DRY WEIGHT

1.	ALUMINUM	10700.		P
2.	ANTIMONY	14.	UR	P J
3.	ARSENIC	5.3 U		F
4.	BARIUM	[56.]		P
5.	BERYLLIUM	[0.88]		P
6.	CADMIUM	2.9	U	P
7.	CALCIUM	6900.		P
8.	CHROMIUM	612.	R	P J
9.	COBALT	[18.]		P
10.	COPPER	34.	R	P J
11.	IRON	18900.		P
12.	LEAD	5460.*		FS
	CYANIDE			
13.	MAGNESIUM	7450.		P
14.	MANGANESE	311.	R	P J
15.	MERCURY	0.10*	R	J
16.	NICKEL	72.	R	P J
17.	POTASSIUM	[616.]		P
18.	SELENIUM	2.6UR		F J
19.	SILVER	1.8	UR	P J
20.	SODIUM	[834.]		P
21.	THALLIUM	5.3U		F
22.	TIN	7.6	UR	P
23.	VANADIUM	96.	R	P J
24.	ZINC	179.	R	P J
	PERCENT SOLIDS	95.		

FOOTNOTES: SEE COVER PAGE.

COMMENTS:

LAB MANAGER

ROBERT E. MAXFIELD

Environmental Protection Agency. CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

0281

Sample Number BB035

S-2

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Radian
Lab Sample ID No: 4EV03279V04
Sample Matrix: Soil
Data Release Authorized By: K. Ghilarducci

Case No: 4068
QC Report No: 55
Contract No: 68-01-6853
Date Sample Received: 3-27-85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 4-1-85
Date Analyzed: 4-1-85
Conc/Dil Factor: 1:1 pH 9.3
Percent Moisture: 22
Percent Moisture (Decanted): —

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	~~6~~ B
67-64-1	Acetone	~~110~~ B
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	5U
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	~~26~~ B
71-55-6	1, 1, 1-Trichloroethane	5U
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or (ug/Kg) (Circle One)
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	5U
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5U
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
591-78-6	2-Hexanone	10U
108-10-1	4-Methyl-2-Pentanone	10U
127-18-4	Tetrachloroethene	6
108-88-3	Toluene	10 B
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylenes	5U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit.) The footnote should read U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10 J).

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

0282

Environmental Protection Agency, CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

Sample Number
BB035

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 4-1-85

Date Analyzed: 4-11-85

Conc/Dil Factor: 30.33g / 5ml

CAS Number		ug/l or ug/Kg (Circle One)
62-75-9	N-Nitrosodimethylamine	1700U
108-95-2	Phenol	1700U
62-53-3	Aniline	1700U
111-44-4	bis(-2-Chloroethyl)Ether	1700U
95-57-8	2-Chlorophenol	1700U
541-73-1	1, 3-Dichlorobenzene	1700U
106-46-7	1, 4-Dichlorobenzene	1700U
100-51-6	Benzyl Alcohol	1700U
95-50-1	1, 2-Dichlorobenzene	1700U
95-48-7	2-Methylphenol	1700U
39638-32-9	bis(2-chloroisopropyl)Ether	1700U
106-44-5	4-Methylphenol	1700U
621-64-7	N-Nitroso-Di-n-Propylamine	1700U
67-72-1	Hexachloroethane	1700U
98-95-3	Nitrobenzene	1700U
78-59-1	Isophorone	1700U
88-75-5	2-Nitrophenol	1700U
105-67-9	2, 4-Dimethylphenol	1700U
65-85-0	Benzoic Acid	8000U
111-91-1	bis(-2-Chloroethoxy)Methane	1700U
120-83-2	2, 4-Dichlorophenol	1700U
120-82-1	1, 2, 4-Trichlorobenzene	1700U
91-20-3	Naphthalene	1700U
106-47-8	4-Chloroaniline	1700U
87-68-3	Hexachlorobutadiene	1700U
59-50-7	4-Chloro-3-Methylphenol	1700U
91-57-6	2-Methylnaphthalene	1700U
77-47-4	Hexachlorocyclopentadiene	1700U
88-06-2	2, 4, 6-Trichlorophenol	1700U
95-95-4	2, 4, 5-Trichlorophenol	8000U
91-58-7	2-Chloronaphthalene	1700U
88-74-4	2-Nitroaniline	8000U
131-11-3	Dimethyl Phthalate	1700U
208-96-8	Acenaphthylene	1700U
99-09-2	3-Nitroaniline	8000U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	1700U
51-28-5	2, 4-Dinitrophenol	8000U
100-02-7	4-Nitrophenol	8000U
132-64-9	Dibenzofuran	1700U
121-14-2	2, 4-Dinitrotoluene	1700U
606-20-2	2, 6-Dinitrotoluene	1700U
84-66-2	Diethylphthalate	1700U
7005-72-3	4-Chlorophenyl-phenylether	1700U
86-73-7	Fluorene	1700U
100-01-6	4-Nitroaniline	8000U
534-52-1	4, 6-Dinitro-2-Methylphenol	8000U
86-30-6	N-Nitrosodiphenylamine (1)	1700U
101-55-3	4-Bromophenyl-phenylether	1700U
118-74-1	Hexachlorobenzene	1700U
87-86-5	Pentachlorophenol	8000U
85-01-8	Phenanthrene	1700J
120-12-7	Anthracene	1700U
84-74-2	Di-n-Butylphthalate	9900B
206-44-0	Fluoranthene	2500
92-87-5	Benzidine	8000U
129-00-0	Pyrene	1900
85-68-7	Butylbenzylphthalate	1700J
91-94-1	3, 3'-Dichlorobenzidine	3300U
56-55-3	Benzo(a)Anthracene	1700J
117-81-7	bis(2-Ethylhexyl)Phthalate	3900B
218-01-9	Chrysene	1700J
117-84-0	Di-n-Octyl Phthalate	1700U
205-99-2	Benzo(b)Fluoranthene	2000
207-08-9	Benzo(k)Fluoranthene	1700J
50-32-8	Benzo(a)Pyrene	1700J
193-39-5	Indeno(1, 2, 3-cd)Pyrene	1700J
53-70-3	Dibenz(a, h)Anthracene	1700U
191-24-2	Benzo(g, h, i)Perylene	1700J

(1)-Cannot be separated from diphenylamine

Environmental Protection Agency, CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

0283

Sample Number
BB035

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 4-1-85

Date Analyzed: 4-19-85

Conc/Dil Factor: 30g : 5ml

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	4.0 u
319-85-7	Beta-BHC	4.0 u
319-86-8	Delta-BHC	4.0 u
58-89-9	Gamma-BHC (Lindane)	4.0 u
76-44-8	Heptachlor	4.0 u
309-00-2	Aldrin	4.0 u
1024-57-3	Heptachlor Epoxide	4.0 u
959-98-8	Endosulfan I	4.0 u
60-57-1	Dieldrin	130.
72-55-9	4, 4'-DDE	~~150.~~
72-20-8	Endrin	8.0 u
33213-65-9	Endosulfan II	8.0 u
72-54-8	4, 4'-DDD	~~150.~~
7421-93-4	Endrin Aldehyde	8.0 u
1031-07-8	Endosulfan Sulfate	8.0 u
50-29-3	4, 4'-DDT	8.0 u
72-43-5	Methoxychlor	40.0 u
53494-70-5	Endrin Ketone	40.0 u
57-74-9	Chlordane	~~140.~~
8001-35-2	Toxaphene	40.0 u
12674-11-2	Aroclor-1016	40.0 u
11104-28-2	Aroclor-1221	40.0 u
11141-16-5	Aroclor-1232	40.0 u
53469-21-9	Aroclor-1242	40.0 u
12672-29-6	Aroclor-1248	40.0 u
11097-69-1	Aroclor-1254	80.0 u
11096-82-5	Aroclor-1260	800.

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30g V_t 5000ml V_i 2ml

0284

SAMPLE NUMBER:
BB035

ORGANICS ANALYSIS DATA SHEET
(PAGE 4)

TENTATIVELY IDENTIFIED COMPOUNDS

	CAS NUMBER	COMPOUND NAME	FRACTION	RT OR SCAN NUMBER	ESTIMATED CONCENTRATION UG/L OR UG/K
1	123-42-2	2-PENTANONE,4-HYDROXY-4-METHYL-	ABN	303	2300
2	542-10-9	1,1-ETHANEDIOL,DIACETATE	ABN	486	3000
3	871-83-0	NONANE,2-METHYL-	ABN	1027	710
4	62238-11-3	DECANE,2,3,5-TRIMETHYL-	ABN	1102	1,400
5	3442-78-2	PYRENE,2-METHYL-	ABN	1460	170
6	2381-21-7	PYRENE,1-METHYL-	ABN	1478	490
7	41654-23-3	2-HEPTENOICACID,3-(1-METHYLETHYL)-6-O	ABN	1579	1800
8	62238-11-3	DECANE,2,3,5-TRIMETHYL-	ABN	1607	1500
9	62238-14-6	DECANE,2,3,8-TRIMETHYL-	ABN	1705	1300
10	141-14-0	6-OCTEN-1-OL,3,7-DIMETHYL-,PROPANOATE	ABN	1737	1700
11	56248-16-9	2-PROPEN-1-ONE,1-(2,6,6-TRIMETHYL-1-C	ABN	1870	1900
12	18138-04-0	PYRAZINE,2,3-DIETHYL-5-METHYL-	ABN	1912	950
13	192-97-2	BENZO[E]PYRENE	ABN	1919	1300
14	198-55-0	PERYLENE	ABN	1935	1400
~~15~~		~~D-12 BENZO(A)PYRENE (IS)~~	~~ABN~~	~~1951~~	KC ~~1088~~
16	37773-04-9	ETHANE,(METHYLSELENO)-	ABN	2066	830
17	31741-56-7	IRON,TRICARBONYL[(1,2,3,4-.ETA.)-2,3-	ABN	2088	240
18	7098-07-9	1H-IMIDAZOLE,1-ETHYL-	ABN	2098	370
19	19788-40-0	CYCLOHEXANONE,2-[(3,5-DIMETHYL-4-ISOX	ABN	2151	430
20	18479-68-0	3-CYCLOHEXENE-1-ETHANOL,.BETA.,4-DIME	ABN	2172	2200
21.	3082-75-5	L-alanine, ethylester	V	38	1

FORM I

.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
.O. BOX 818 - ALEXANDRIA, VA. 22313
703/557-2490 FTS: 8-557-2490

SAMPLE NO.
MBB-336

DATE 04-10-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME VERSAR INC.

CASE NO. 4068 - SAS 1595B

SOW NO. 784

LAB SAMPLE ID. NO. 710

QC REPORT NO. 246

PROJECT-TASK 834.0000

BATCH 246

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW ____ MEDIUM X

MATRIX: WATER ____ SOIL X SLUDGE ____

MG/KG DRY WEIGHT

1.	ALUMINUM	18300.		P	13.	MAGNESIUM	46600.		P
2.	ANTIMONY	593.	R	P J	14.	MANGANESE	549.	R	P J
3.	ARSENIC	6.7U		F	15.	MERCURY	0.63*	R	J
4.	BARIUM	[78.]		P	16.	NICKEL	498.	R	P J
5.	BERYLLIUM	9.9		P	17.	POTASSIUM	266.	U	P
6.	CADMIUM	15.		P	18.	SELENIUM	3.3UR		F J
7.	CALCIUM	61400.		P	19.	SILVER	29.	R	P J
8.	CHROMIUM	2740.	R	P J	20.	SODIUM	[1190.]		P
9.	COBALT	153.		P	21.	THALLIUM	6.7U		F
10.	COPPER	86.	R	P J	22.	TIN	71.	R	P J
11.	IRON	65800.		P	23.	VANADIUM	1320.	R	P J
12.	LEAD	216.*		F	24.	ZINC	945.	R	P J
	CYANIDE					PERCENT SOLIDS	75.		

FOOTNOTES: SEE COVER PAGE.

COMMENTS:

LAB MANAGER

ROBERT E. MAXFIELD

Environmental Protection Agency, CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

0351

Sample Number
BB036

S-3

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Radian

Case No: 4068

Lab Sample ID No: 4EU03286V02

QC Report No: 55

Sample Matrix: Soil

Contract No: 68-01-6853

Data Release Authorized By: K. Ghelardini

Date Sample Received: 3-27-85

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 4-2-85

Date Analyzed: 4-2-85

Conc/Dil Factor: 1:1 pH 9.4

Percent Moisture: 21%

Percent Moisture (Decanted): —

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	~~28B~~
67-64-1	Acetone	47B
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	5U
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	~~36B~~
71-55-6	1, 1, 1-Trichloroethane	5U
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or ug/Kg (Circle One)
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	5U
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5U
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
591-78-6	2-Hexanone	10U
108-10-1	4-Methyl-2-Pentanone	10U
127-18-4	Tetrachloroethene	5
108-88-3	Toluene	42B
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylenes	5U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit.) The footnote should read U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10 J).

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Environmental Protection Agency, CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

Sample Number
BB036

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 4-1-85

Date Analyzed: 4-11-85

Conc/Dil Factor: 30.06g / 5ml

CAS Number		ug/l or ug/Kg (Circle One)
62-75-9	N-Nitrosodimethylamine	1700U
108-95-2	Phenol	1700U
62-53-3	Aniline	1700U
111-44-4	bis(-2-Chloroethyl)Ether	1700U
95-57-8	2-Chlorophenol	1700U
541-73-1	1, 3-Dichlorobenzene	1700U
106-46-7	1, 4-Dichlorobenzene	1700U
100-51-6	Benzyl Alcohol	1700U
95-50-1	1, 2-Dichlorobenzene	1700U
95-48-7	2-Methylphenol	1700U
39638-32-9	bis(2-chloroisopropyl)Ether	1700U
106-44-5	4-Methylphenol	1700U
621-64-7	N-Nitroso-Di-n-Propylamine	1700U
67-72-1	Hexachloroethane	1700U
98-95-3	Nitrobenzene	1700U
78-59-1	Isophorone	1700U
88-75-5	2-Nitrophenol	1700U
105-67-9	2, 4-Dimethylphenol	1700U
65-85-0	Benzoic Acid	8000U
111-91-1	bis(-2-Chloroethoxy)Methane	1700U
120-83-2	2, 4-Dichlorophenol	1700U
120-82-1	1, 2, 4-Trichlorobenzene	1700U
91-20-3	Naphthalene	1700J
106-47-8	4-Chloroaniline	1700U
87-68-3	Hexachlorobutadiene	1700U
59-50-7	4-Chloro-3-Methylphenol	1700U
91-57-6	2-Methylnaphthalene	1700U
77-47-4	Hexachlorocyclopentadiene	1700U
88-06-2	2, 4, 6-Trichlorophenol	1700U
95-95-4	2, 4, 5-Trichlorophenol	8000U
91-58-7	2-Chloronaphthalene	1700U
88-74-4	2-Nitroaniline	8000U
131-11-3	Dimethyl Phthalate	1700U
208-96-8	Acenaphthylene	1700U
99-09-2	3-Nitroaniline	8000U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	1700U
51-28-5	2, 4-Dinitrophenol	8000U
100-02-7	4-Nitrophenol	8000U
132-64-9	Dibenzofuran	1700U
121-14-2	2, 4-Dinitrotoluene	1700U
606-20-2	2, 6-Dinitrotoluene	1700U
84-66-2	Diethylphthalate	1700U
7005-72-3	4-Chlorophenyl-phenylether	1700U
86-73-7	Fluorene	1700U
100-01-6	4-Nitroaniline	8000U
534-52-1	4, 6-Dinitro-2-Methylphenol	8000U
86-30-6	N-Nitrosodiphenylamine (1)	1700U
101-55-3	4-Bromophenyl-phenylether	1700U
118-74-1	Hexachlorobenzene	1700U
87-86-5	Pentachlorophenol	8000U
85-01-8	Phenanthrene	1700J
120-12-7	Anthracene	1700U
84-74-2	Di-n-Butylphthalate	6700B
206-44-0	Fluoranthene	3000
92-87-5	Benzidine	8000U
129-00-0	Pyrene	2700
85-68-7	Butylbenzylphthalate	1700U
91-94-1	3, 3'-Dichlorobenzidine	3300U
56-55-3	Benzo(a)Anthracene	1700J
117-81-7	bis(2-Ethylhexyl)Phthalate	8500B
218-01-9	Chrysene	1700J
117-84-0	Di-n-Octyl Phthalate	1700U
205-99-2	Benzo(b)Fluoranthene	2100
207-08-9	Benzo(k)Fluoranthene	1700J
50-32-8	Benzo(a)Pyrene	1700J
193-39-5	Indeno(1, 2, 3-cd)Pyrene	1700U
53-70-3	Dibenz(a, h)Anthracene	1700U
191-24-2	Benzo(g, h, i)Perylene	1700J

(1)-Cannot be separated from diphenylamine

Environmental Protection Agency, CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

0353

Sample Number
BB036

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 4-1-85

Date Analyzed: 4-19-85

Conc/Dil Factor: 30g : 5ml

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	4.0 u
319-85-7	Beta-BHC	4.0 u
319-86-8	Delta-BHC	4.0 u
58-89-9	Gamma-BHC (Lindane)	4.0 u
76-44-8	Heptachlor	4.0 u
309-00-2	Aldrin	4.0 u
1024-57-3	Heptachlor Epoxide	4.0 u
959-98-8	Endosulfan I	4.0 u
60-57-1	Dieldrin	20.
72-55-9	4, 4'-DDE	~~4.0~~
72-20-8	Endrin	8.0 u
33213-65-9	Endosulfan II	8.0 u
72-54-8	4, 4'-DDD	40.
7421-93-4	Endrin Aldehyde	8.0 u
1031-07-8	Endosulfan Sulfate	8.0 u
50-29-3	4, 4'-DDT	8.0 u
72-43-5	Methoxychlor	40.0 u
53494-70-5	Endrin Ketone	40.0 u
57-74-9	Chlordane	80.0 J — 50ug/kg
8001-35-2	Toxaphene	40.0 u
12674-11-2	Aroclor-1016	40.0 u
11104-28-2	Aroclor-1221	40.0 u
11141-16-5	Aroclor-1232	40.0 u
53469-21-9	Aroclor-1242	40.0 u
12672-29-6	Aroclor-1248	40.0 u
11097-69-1	Aroclor-1254	80.0 u
11096-82-5	Aroclor-1260	~~200~~

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30g V_t 5000ml V_i 2ml

SAMPLE NUMBER:
BB036

ORGANICS ANALYSIS DATA SHEET
(PAGE 4)

TENTATIVELY IDENTIFIED COMPOUNDS

	CAS NUMBER	COMPOUND NAME	FRACTION	RT OR SCAN NUMBER	ESTIMATED CONCENTRATION UG/L OR UG/KG
1	2370-12-9	1-PENTANOL,2,2-DIMETHYL-	ABN	258	445
2	123-42-2	2-PENTANONE,4-HYDROXY-4-METHYL-	ABN	304	1446
3	542-10-9	1,1-ETHANEDIOL,DIACETATE	ABN	487	2788
4	1072-16-8	OCTANE,2,7-DIMETHYL-	ABN	1174	183
5	832-64-4	PHENANTHRENE,4-METHYL-	ABN	1275	203
6	1072-05-5	HEPTANE,2,6-DIMETHYL-	ABN	1432	619
7	238-84-6	11H-BENZO[A]FLUORENE	ABN	1478	681
8	62016-34-6	OCTANE,2,3,7-TRIMETHYL-	ABN	1491	267
9	238-84-6	11H-BENZO[A]FLUORENE	ABN	1495	248
10	19932-60-6	1H-1,2,4-TRIAZOLE,3-PROPYL-	ABN	1502	241
11	17312-75-3	NONANE,5-METHYL-5-PROPYL-	ABN	1667	379
12	2541-69-7	BENZ[A]ANTHRACENE,7-METHYL-	ABN	1696	250
13	31458-38-5	2,4(1H,3H)-PYRIMIDINEDIONE,6-IODO-5-M	ABN	1919	966
14.	110-54-3	Hexane	V	358	1

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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

SAMPLE NO.
MBB-337

DATE 04-10-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME VERSAR INC.

CASE NO. 4068 - SAS 15958

SDW NO. 784

LAB SAMPLE ID. NO. 711

QC REPORT NO. 246

PROJECT-TASK 834.0000

BATCH 246

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW ____ MEDIUM X

MATRIX: WATER ____ SOIL X SLUDGE ____

MG/KG DRY WEIGHT

1.	ALUMINUM	6070.	P	13.	MAGNESIUM	8520.	P
2.	ANTIMONY	[25.] R	P J	14.	MANGANESE	283. R	P J
3.	ARSENIC	7.3U	F	15.	MERCURY	0.23 * R	J
4.	BARIUM	199.	P	16.	NICKEL	44. R	P J
5.	BERYLLIUM	[1.3]	P	17.	POTASSIUM	[507.]	P
6.	CADMIUM	7.2	P	18.	SELENIUM	3.7UR	F J
7.	CALCIUM	23100.	P	19.	SILVER	2.2 UR	P J
8.	CHROMIUM	326. R	P J	20.	SODIUM	[1030.]	P
9.	COBALT	[11.]	P	21.	THALLIUM	7.3U	F
10.	COPPER	151. R	P J	22.	TIN	[11.] R	P J
11.	IRON	17100.	P	23.	VANADIUM	84. R	P J
12.	LEAD	590. *	F	24.	ZINC	498. R	P J
	CYANIDE				PERCENT SOLIDS	68.	

FOOTNOTES: SEE COVER PAGE.

COMMENTS:

LAB MANAGER

ROBERT E. MAXFIELD

Environmental Protection Agency. CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

0077

Sample Number
BB031

5-4

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Radian
Case No: 4068
Lab Sample ID No: 4EU03286V01
QC Report No: 55
Sample Matrix: Soil
Contract No: 68-01-6853
Data Release Authorized By: K. Mulandness
Date Sample Received: 3-27-85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 4-2-85
Date Analyzed: 4-2-85
Conc/Dil Factor: 1:1 pH 9.4
Percent Moisture: 16%
Percent Moisture (Decanted): —

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	42B
67-64-1	Acetone	160B
75-15-0	Carbon Disulfide	5J
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	5J
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	~~84B~~
71-55-6	1, 1, 1-Trichloroethane	5U
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or ug/Kg (Circle One)
79-34-5	1, 1, 2, 2-Tetrachloroethane	5J
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	5U
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5J
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
591-78-6	2-Hexanone	10U
108-10-1	4-Methyl-2-Pentanone	10U
127-18-4	Tetrachloroethene	5U
108-88-3	Toluene	260B
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5J
100-42-5	Styrene	5J
	Total Xylenes	7

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit.) The footnote should read U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10 J).

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Environmental Protection Agency, CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

Sample Number
BB031

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 4-1-85

Date Analyzed: 4-11-85

Conc/Dil Factor: 30.87g / 0.84

CAS Number		ug/l or ug/Kg (Circle One)
62-75-9	N-Nitrosodimethylamine	330u
108-95-2	Phenol	330J
62-53-3	Aniline	330u
111-44-4	bis(-2-Chloroethyl)Ether	330u
95-57-8	2-Chlorophenol	330u
541-73-1	1, 3-Dichlorobenzene	330u
106-46-7	1, 4-Dichlorobenzene	330u
100-51-6	Benzyl Alcohol	330u
95-50-1	1, 2-Dichlorobenzene	330u
95-48-7	2-Methylphenol	330u
39638-32-9	bis(2-chloroisopropyl)Ether	330u
106-44-5	4-Methylphenol	330u
621-64-7	N-Nitroso-Di-n-Propylamine	330u
67-72-1	Hexachloroethane	330u
98-95-3	Nitrobenzene	330u
78-59-1	Isophorone	330u
88-75-5	2-Nitrophenol	330u
105-67-9	2, 4-Dimethylphenol	330u
65-85-0	Benzoic Acid	1600u
111-91-1	bis(-2-Chloroethoxy)Methane	330u
120-83-2	2, 4-Dichlorophenol	330u
120-82-1	1, 2, 4-Trichlorobenzene	330u
91-20-3	Naphthalene	6500
106-47-8	4-Chloroaniline	330u
87-68-3	Hexachlorobutadiene	330u
59-50-7	4-Chloro-3-Methylphenol	330u
91-57-6	2-Methylnaphthalene	2,100
77-47-4	Hexachlorocyclopentadiene	330u
88-06-2	2, 4, 6-Trichlorophenol	330u
95-95-4	2, 4, 5-Trichlorophenol	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u
131-11-3	Dimethyl Phthalate	330u
208-96-8	Acenaphthylene	330J
99-09-2	3-Nitroaniline	1600u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	830
51-28-5	2, 4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600u
132-64-9	Dibenzofuran	710
121-14-2	2, 4-Dinitrotoluene	330u
606-20-2	2, 6-Dinitrotoluene	330u
84-66-2	Diethylphthalate	330J
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene	640
100-01-6	4-Nitroaniline	1600u
534-52-1	4, 6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene	1600
120-12-7	Anthracene	520
84-74-2	Di-n-Butylphthalate	~~430B~~
206-44-0	Fluoranthene	2700
92-87-5	Benzidine	1600u
129-00-0	Pyrene	2100
85-68-7	Butylbenzylphthalate	330J
91-94-1	3, 3'-Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene	1200
117-81-7	bis(2-Ethylhexyl)Phthalate	1900B
218-01-9	Chrysene	1600
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene	2300
207-08-9	Benzo(k)Fluoranthene	990
50-32-8	Benzo(a)Pyrene	1200
193-39-5	Indeno(1, 2, 3-cd)Pyrene	850
53-70-3	Dibenz(a, h)Anthracene	330J
191-24-2	Benzo(g, h, i)Perylene	650

(1)-Cannot be separated from diphenylamine

Environmental Protection Agency, CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

0079

Sample Number
BB031

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 4-1-85

Date Analyzed: 4-19-85

Conc/Dil Factor: 31 g : 5 ml

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	4.0 u
319-85-7	Beta-BHC	4.0 u
319-86-8	Delta-BHC	4.0 u
58-89-9	Gamma-BHC (Lindane)	4.0 u
76-44-8	Heptachlor	4.0 u
309-00-2	Aldrin	37.
1024-57-3	Heptachlor Epoxide	4.0 u
959-98-8	Endosulfan I	4.0 u
60-57-1	Dieldrin	620.
72-55-9	4, 4'-DDE	8.0 u
72-20-8	Endrin	8.0 u
33213-65-9	Endosulfan II	8.0 u
72-54-8	4, 4'-DDD	8.0 u
7421-93-4	Endrin Aldehyde	8.0 u
1031-07-8	Endosulfan Sulfate	8.0 u
50-29-3	4, 4'-DDT	8.0 u
72-43-5	Methoxychlor	40.0 u
53494-70-5	Endrin Ketone	40.0 u
57-74-9	Chlordane	~~920.~~
8001-35-2	Toxaphene	40.0 u
12674-11-2	Aroclor-1016	40.0 u
11104-28-2	Aroclor-1221	40.0 u
11141-16-5	Aroclor-1232	40.0 u
53469-21-9	Aroclor-1242	40.0 u
12672-29-6	Aroclor-1248	40.0 u
11097-69-1	Aroclor-1254	80.0 u
11096-82-5	Aroclor-1260	~~300.~~

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 31 g V_t 5000 uL V_i 2 uL

Environmental Protection Agency, CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

0080

Sample Number
BB031

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	BNA	303	2000
2. 4401-11-0	Ethanone, 1-oxiranyl-		486	3000
3. ~~46~~	~~2,4,6-Tribromophenol~~		~~1099~~	~~530~~
4. 62237-47-2	Decane, 2,3,6-trimethyl-		1102	160
5. 17312-60-6	Undecane, 6-ethyl-		1106	250
6. 2788-23-0	9H-Carbazole, 9-nitroso-		1225	180
7. 106-67-2	1-pentanol, 2-ethyl-4-methyl-		1242	160
8. 238-84-6	11H-Benzo[A]Fluorene		1458	160
9. "	11H-Benzo[A]Fluorene		1477	160
10. "	11H-Benzo[A]Fluorene		1493	68
11. 18636-66-3	Ether, Butyl pentyl		1666	96
12. 789-24-2	9H-Fluorene, 9-phenyl-		1705	90
13. 590-35-2	Pentane, 2,2-Dimethyl-		1735	96
14. 205-82-3	Benzo[J]Fluoranthene		1916	250
15. 110-54-3	Hexane	VOA	360	1
16. 10570-40-8	4H-1,2,4-Triazole, 4-methyl-		378	1
17. 930-30-3	2-cyclopenten-1-one		484	2
18. 3338-55-4	1,3,6-Octatriene, 3,7-Dimethyl-, (Z)-		503	2
19. 127-91-3	Bicyclo[3.1.0]Hexan-2-ol, 2-methyl-5-(1-methylethyl)-		581	5
20. 3522-94-9	Hexane, 2,2,5-trimethyl		635	1
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

3-4

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

SAMPLE NO.
MBB-332

DATE 04-10-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME VERSAR INC.

CASE NO. 4068 - SAS 15958

SOW NO. 784

LAB SAMPLE ID. NO. 708

QC REPORT NO. 246

PROJECT-TASK 834.0000

BATCH 246

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM

MATRIX: WATER SOIL X SLUDGE

MG/KG DRY WEIGHT

1.	ALUMINUM	19200.		P
2.	ANTIMONY	69.	R	P J
3.	ARSENIC	7.5 U		F
4.	BARIUM	[95.]		P
5.	BERYLLIUM	[2.3]		P
6.	CADMIUM	7.8		P
7.	CALCIUM	60200.		P
8.	CHROMIUM	3800.	R	P J
9.	COBALT	114.		P
10.	COPPER	73.	R	P J
11.	IRON	64000.		P
12.	LEAD	394.		F
	CYANIDE			
13.	MAGNESIUM	45800.		P
14.	MANGANESE	679.	R	P J
15.	MERCURY	0.82		
16.	NICKEL	407.	R	P J
17.	POTASSIUM	3010. U		P
18.	SELENIUM	3.7 UR		F J
19.	SILVER	2.3 UR		P J
20.	SODIUM	[1590.]		P
21.	THALLIUM	7.5 U		F
22.	TIN	9.8 UR		P J
23.	VANADIUM	913.	R	P J
24.	ZINC	1100.	R	P J
	PERCENT SOLIDS	67.		

FOOTNOTES: SEE COVER PAGE.

COMMENTS:

LAB MANAGER

Versar INC.

Project/Batch 834-246
Batch ID 246
Date 4/17/85
Case 4068
SAS 1515B

VERSAR, INC.
Trace Metals - Cr^{+6} SECTION
DATA REPORT

SAMPLE NO.	LAB NO.	ug/L.		
MBB - 331 (SW1)	712	25100. J		
" - 333 (SW3)	713	14800. J		
" - 338 (SW2)	714	23400. J		
" - 339 (SW4)	715	10.0 J		

Laboratory Manager

6850 VERSAR CENTER • P.O. BOX 1549 • SPRINGFIELD, VIRGINIA 22151 • TELEPHONE: (703) 750-3000 • TELEX: 901125

REFERENCE #7

BEDROCK MAP OF THE HACKENSACK MEADOWS

GEOLOGIC REPORT SERIES NO. 1

NEW JERSEY GEOLOGICAL SURVEY

DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

NJ Con-65
1

BEDROCK MAP,

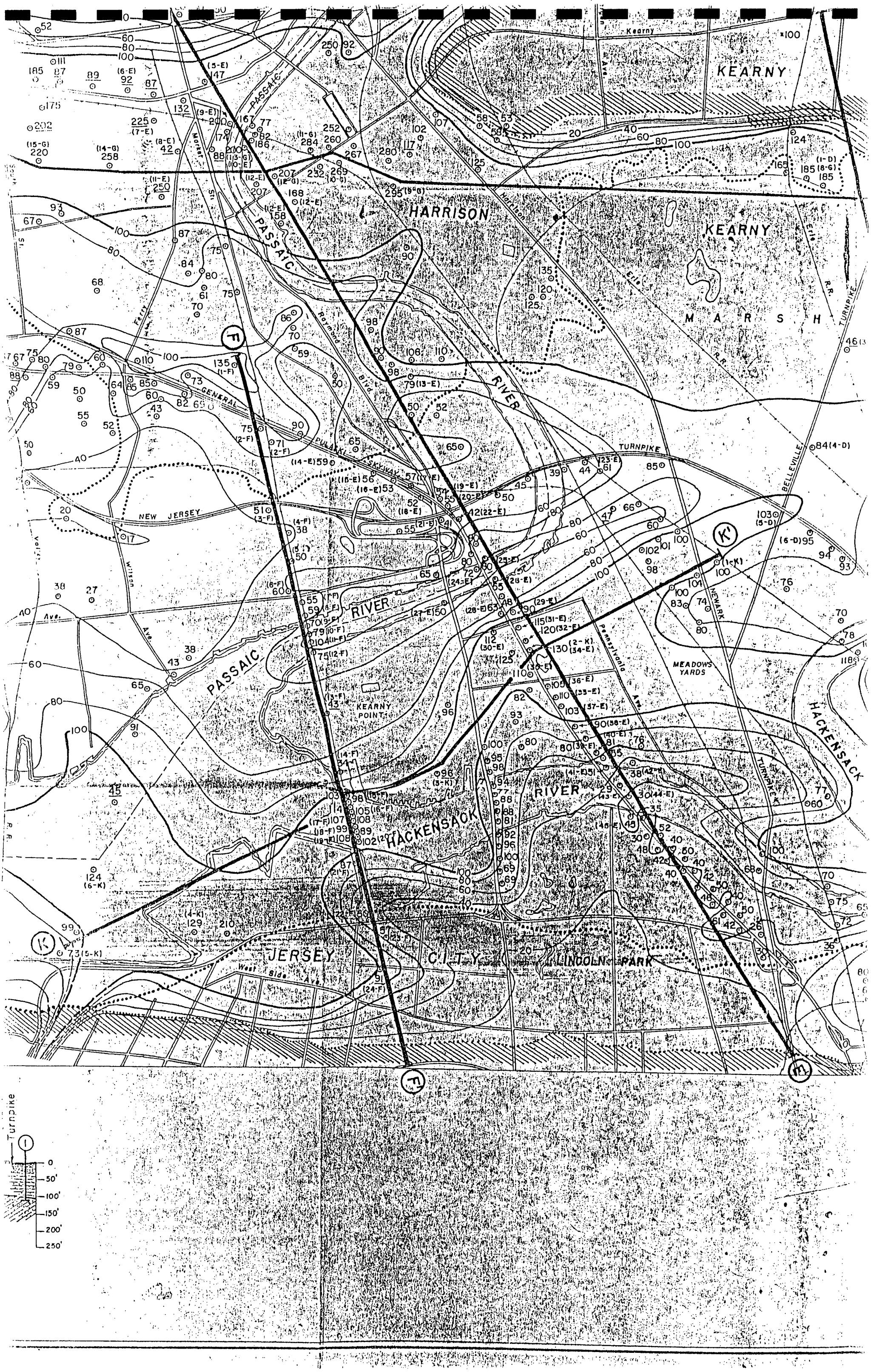
LEGEND

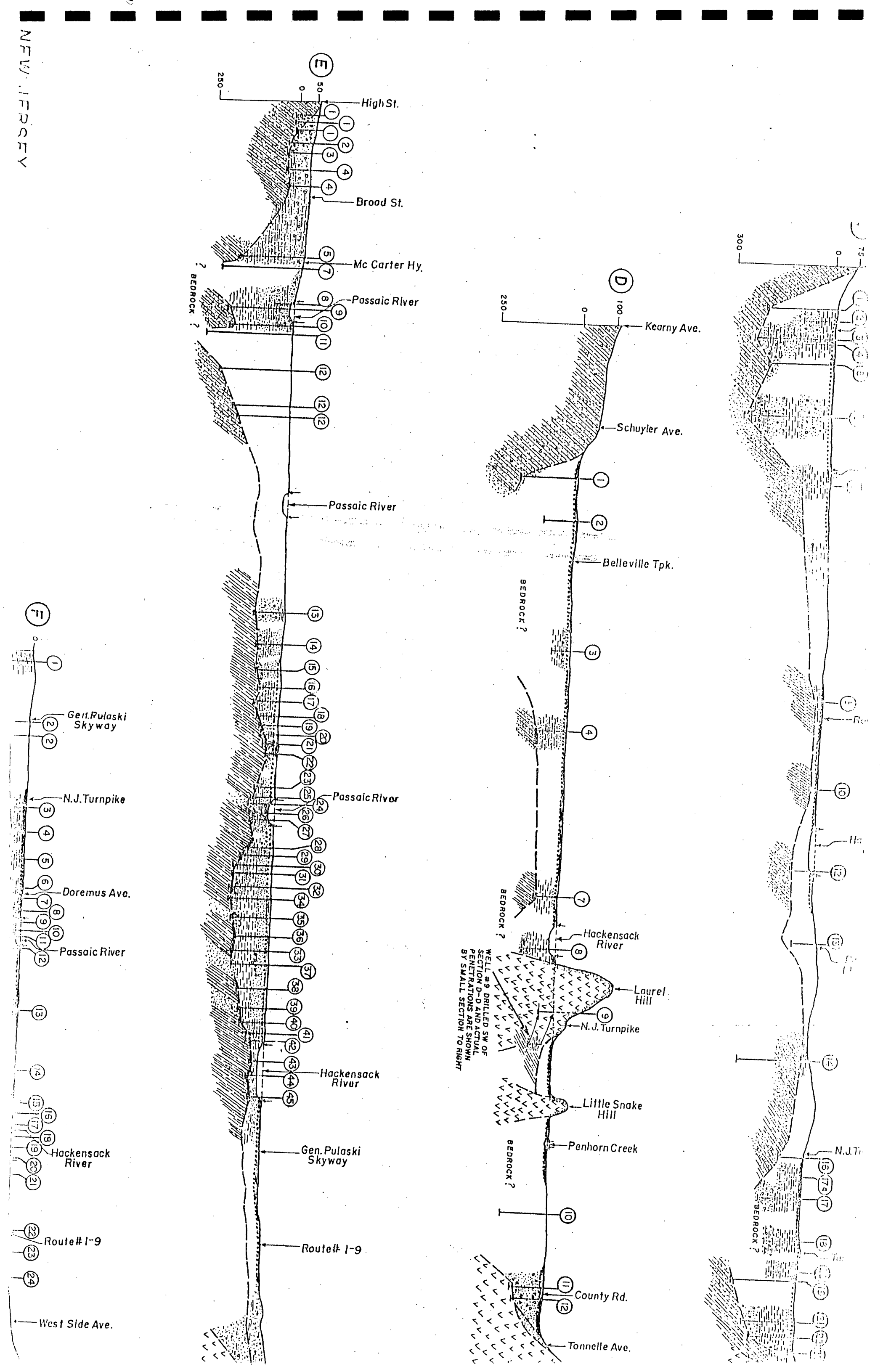
CROSS-SECTION

- Marsh
- Sand & Gravel
- Clay & Silt
- Sandstone
- Shale
- Diabase
- Limestone

A

3


KEARNY
HARRISON
KEARNY
MARSH
PASSAIC
RIVER
HACKENSACK
RIVER
JERSEY
CITY
LINCOLN PARK
MEADOWS YARDS
KEARNY POINT
NEW JERSEY
TURNPIKE
GENERAL
PULASKI SKYWAY
Market St
Ferry St
Raymond Blvd
Harrison Ave
Kearny Ave
Pennsylvania Ave
Newark Belleville Turnpike
West Side Ave
Wilson Ave
Turnpike
0
50'
100'
150'
200'
250'


E
High St.
Broad St.
Mc Carter Hy.
Passaic River
BEDROCK ?
Passaic River
D
Kearny Ave.
Schuyler Ave.
Belleville Tpk.
BEDROCK ?
Hackensack River
Laurel Hill
N. J. Turnpike
WELL #9 DRILLED SW OF SECTION D-D AND ACTUAL PENETRATIONS ARE SHOWN BY SMALL SECTION TO RIGHT
Little Snake Hill
Penhorn Creek
BEDROCK ?
County Rd.
Tonnelle Ave.
Gen. Pulaski Skyway
N.J. Turnpike
Doremus Ave.
Passaic River
Hackensack River
Route # 1-9
West Side Ave.
Passaic River
Hackensack River
Gen. Pulaski Skyway
Route # 1-9
BEDROCK ?

NFW JERSEY

REFERENCE #8

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: March 20, 1980

SUBJECT: Site Inspection of Diamond Shamrock Plant - Kearny, New Jersey

FROM: Mel Hauptman, Wayne Pierre, Ron Testa
Hazardous Waste Section

TO: John S. Frisco, Chief
Hazardous Waste Section

A site inspection was conducted on Tuesday, March 18, 1980 of the abandoned Diamond Shamrock Chromium reprocessing plant located off the Belleville Turnpike in Kearny, New Jersey. The EPA inspection team included Mel Hauptman, Ron Testa and Wayne Pierre of EPA - Region II's Hazardous Waste Task Force. The inspection was conducted in the afternoon a few hours after after a rainfall with temperatures in the upper 30's.

The site is bounded by the Hackensack River to the east, Penn Central Railroad tracks to the north, an abandoned railroad spur to the west, and the Standard Chlorine Chemical Co. to the south. The site is fenced off to vehicular traffic but unrestricted access was provided these inspectors on the day of the site visit via an unlocked gate.

The only document reviewed in support of the site visit was the JRB Associates description and ranking of the site as part of their contract with EPA (EPA contract No. 68-01-4839) to develop a methodology for rating hazardous waste sites. JRB's description of the site is as follows:

- Total area 15 acres: 5 acres used for waste disposal.
- Wastes buried 5-10 ft. deep.
- Wastes dumped consisted of chromium (Cr) containing sludges, soot-ash, iron salts & limestone.
- Groundwater within 5-10 ft. of surface.
- NJDEP analysis indicates 60,000 ppm Cr in soil (1900 ppm Cr^{+6}) and 300 ppm Cr in leachate.
- One small area of site used for disposing of waste PCB-contaminated oils.
- An estimated 40-80 thousand cubic yards of Cr wastes were dumped.

Observations made during the site inspection did confirm JRB's site description. In fact, the following observations supplement JRB's description:

- Significant amount of surface ponding in and around site.

- Yellowish leachate was seen in surface ponding over site, a drainage ditch on the northern section of site, and in two outfalls leading to the Hackensack River (one believed to be hydraulically connected with the ditch and the other a storm drain outfall).

- A rusted drum was partly visible along the bank of the Hackensack River.

- What appeared to be a transformer shell was seen partly buried near the southern bank of the drainage ditch.

- Robert T. Lahullier of the L&L Chemical Construction & Engineering Co. (201-933-2042) was on-site during the inspection. Mr. Lahullier was present, at the request of Diamond Shamrock, to evaluate the cost and job requirements for minor remedial work at the site (i.e. additional cover).

On Wednesday, March 19, 1980, Peter Lynch (201-648-2200) of the NJDEP was contacted regarding DEP's involvement with the site. Mr. Lynch, Manager of Passaic & Hackensack basins communicated the following information:

- NJDOH analyzed the samples at the site for NJDEP.

- Tom Harrington is the DEP contact person for the site. He will be in the office March 21, 1980.

- Approximately 2-3 months ago, DEP met with Diamond Shamrock to discuss the problems at the site.

- Diamond Shamrock has indicated a willingness to work with DEP on site clean-up.

If the above observations and/or allegations are correct, the following may be assumed:

- The yellow leachate may indicate that chromates are present (e.g. chrome yellow lead chromate. Hazard: toxic by injection and inhalation - may be a carcinogen).

- For hexavalent chromium (Cr^{+6}), the criteria to protect fresh-water aquatic life is 10 ppb as a 24 hr. average concentration should not exceed 110 ppb at any time (44 FR 56647, Proposed Water Quality Criteria).

- Regarding the effects of Cr^{+6} on human health, "... Cr^{+6} is suspected of being a human carcinogen. Because there is no recognized safe concentration for a human carcinogen, the recommended concentration for Cr^{+6} in water for maximum protection of human health is zero" (44 FR 56648).

- It has been reported (National Academy of Sciences, National Academy of Engineering, Water Quality Criteria 1972, EPA-R3-73-003 (1973)) that chromium exhibits a biocumulative effect in aquatic organisms - some phytoplankton can accumulate 2,300 times the concentration in water.

In summary we recommend a determination be made as to whether EPA or DEP should pursue case development. If further action is warranted by EPA, sampling and analysis for those metals listed on EPA's 129 Priority List should be performed particularly hexavalent and total chromium.

REFERENCE #9

SITE INSPECTION REPORT | II | HUD 11

GENERAL INSTRUCTIONS. Complete sections I and III through XV of this form as completely as possible. Then use the information on this form to develop a Tentative Disposition (Section II). File this form in its entirety in the regional Hazardous Waste Log File. Be sure to include all appropriate Supplemental Reports in the file. Submit a copy of the forms to: U.S. Environmental Protection Agency, Site Tracking System; Hazardous Waste Enforcement Task Force (EN-335); 401 M St., SW; Washington, DC 20460.

I. SITE IDENTIFICATION

A. SITE NAME: Diamond Shamrock

B. STREET (or other identifier): Belleville Turnpike

C. CITY: Kearny

D. STATE: N.J.

E. ZIP CODE:

F. COUNTY NAME: Hudson

G. SITE OPERATOR INFORMATION

1. NAME: Diamond Shamrock Co.

2. TELEPHONE NUMBER:

3. STREET: Diamond Shamrock Co.

4. CITY:

5. STATE:

6. ZIP CODE:

H. REALTY OWNER INFORMATION (if different from operator of site)

1. NAME:

2. TELEPHONE NUMBER:

3. CITY:

4. STATE:

5. ZIP CODE:

I. SITE DESCRIPTION: Abandoned Chemical Plant Grounds

J. TYPE OF OWNERSHIP: [ ] 1. FEDERAL [ ] 2. STATE [ ] 3. COUNTY [ ] 4. MUNICIPAL [ ] 5. PRIVATE

II. TENTATIVE DISPOSITION (complete this section last)

A. ESTIMATE DATE OF TENTATIVE DISPOSITION (mo., day, & yr.):

B. APPARENT SERIOUSNESS OF PROBLEM: [ ] 1. HIGH [ ] 2. MEDIUM [ ] 3. LOW [ ] 4. NONE

C. PREPARER INFORMATION

1. NAME:

2. TELEPHONE NUMBER:

3. DATE (mo., day, & yr.):

III. INSPECTION INFORMATION

A. PRINCIPAL INSPECTOR INFORMATION

1. NAME: Thomas Brady & Wayne Howitz

2. TITLE: Principal Env. Tech. & Env. Specialist

3. ORGANIZATION: TSIU-NJDEP

4. TELEPHONE NO. (area code & no.):

B. INSPECTION PARTICIPANTS

1. NAME	2. ORGANIZATION	3. TELEPHONE NO.
Thomas Harrington	Passaic Basin-DWR, NJDEP	

C. SITE REPRESENTATIVES INTERVIEWED (corporate officials, workers, residents)

1. NAME	2. TITLE & TELEPHONE NO.	3. ADDRESS
None		

Continue On Reverse

SAMPLING INFORMATION (continued)

PHOTOS

TYPE OF PHOTOS

a. GROUND [ ] b. AERIAL [X]

2. PHOTOS IN CUSTODY OF: DWR

SITE MAPPED?

[X] YES: SPECIFY LOCATION OF MAPS: Attached

COORDINATES

1. LATITUDE (deg.-min.-sec.): 40°45' 10" N

2. LONGITUDE (deg.-min.-sec.): 74°06' 00" W

V. SITE INFORMATION

SITE STATUS

[ ] 1. ACTIVE (Those industrial or municipal sites which are being used for waste treatment, storage, or disposal on a continuing basis, even if intermittently.)

[ ] 2. INACTIVE (Those sites which no longer receive wastes.)

[X] 3. OTHER (specify): Abandoned building razed (Those sites that include such incidents like "midnight dumping" where no regular or continuing use of the site for waste disposal has occurred.)

IS GENERATOR ON SITE?

[ ] 1. NO [X] 2. YES (specify generator's four-digit SIC Code): _____

AREA OF SITE (in acres):

D. ARE THERE BUILDINGS ON THE SITE?

[ ] 1. NO [X] 2. YES (specify):

VI. CHARACTERIZATION OF SITE ACTIVITY

Indicate the major site activity(ies) and details relating to each activity by marking 'X' in the appropriate boxes.

A. TRANSPORTER	X	B. STORER	X	C. TREATER	X	D. DISPOSER
1. RAIL		1. PILE		1. FILTRATION		1. LANDFILL
2. SHIP		2. SURFACE IMPOUNDMENT		2. INCINERATION		2. LANDFARM
3. BARGE		3. DRUM		3. VOLUME REDUCTION	X	3. OPEN DUMP
4. TRUCK		4. TANK, ABOVE GROUND		4. RECYCLING/RECOVERY		4. SURFACE IMPOUNDMENT
5. PIPELINE		5. TANK, BELOW GROUND	X	5. CHEM./PHYS./TREATMENT		5. MIDNIGHT DUMPING
6. OTHER (specify):		6. OTHER (specify):		6. BIOLOGICAL TREATMENT		6. INCINERATION
				7. WASTE OIL REPROCESSING		7. UNDERGROUND INJECTION
				8. SOLVENT RECOVERY		8. OTHER (specify):
				9. OTHER (specify):		

SUPPLEMENTAL REPORTS: If the site falls within any of the categories listed below, Supplemental Reports must be completed. Indicate which Supplemental Reports you have filled out and attached to this form.

[ ] 1. STORAGE [ ] 2. INCINERATION [ ] 3. LANDFILL [ ] 4. SURFACE IMPOUNDMENT [ ] 5. DEEP WELL

[ ] 6. CHEM/BIO/PHYS TREATMENT [ ] 7. LANDFARM [ ] 8. OPEN DUMP [ ] 9. TRANSPORTER [ ] 10. RECYCLOR/RECLAIMER

VII. WASTE RELATED INFORMATION

WASTE TYPE

[ ] 1. LIQUID [X] 2. SOLID [X] 3. SLUDGE [ ] 4. GAS

WASTE CHARACTERISTICS

[ ] 1. CORROSIVE [ ] 2. IGNITABLE [ ] 3. RADIOACTIVE [ ] 4. HIGHLY VOLATILE

[X] 5. TOXIC [ ] 6. REACTIVE [ ] 7. INERT [ ] 8. FLAMMABLE

[X] 9. OTHER (specify): pH

WASTE CATEGORIES

(Are records of wastes available? Specify items such as manifests, inventories, etc. below.)

Yes, Passaic Basin, DWR files

Continue On Reverse

EPA Form T2070-3 (10-79)

REFERENCE #10

SELECTION OF A SITE FOR REMEDIAL ACTION DESIGN AND COSTING

As part of Phase II of EPA Contract No. 68-01-4839 Task 15, JRB Associates will be designing and costing corrective measures for a hazardous-waste disposal facility. We are now at the point where a site must be selected. This document contains our recommendations for selecting a site and our plans for implementing the work.

Consideration for site selection was limited to those facilities in New Jersey that we visited as part of our field testing of the rating methodology. In all, we investigated 30 sites. The locations of these sites are shown in Figure 1 and a brief description of each appears as an appendix to this report. In order to choose the most appropriate site, we have defined the following eight criteria:

- The site must not be currently active or under consideration for reactivation in the future.
- The site must not be in litigation or have legal action pending.
- The site's owner or representative must be willing to cooperate with JRB, EPA, and DEP.
- The site must contain hazardous chemicals that are contaminating the surroundings and have a relatively high Hazard Potential Score.
- There must be sufficient background information available on the site so that an expensive and time-consuming sampling program is not the only possible source of information (although some sampling will be done).
- There must not be other arrangements for designing remedial actions for the site.
- The problems and physical setting of the site should be typical, so that proposed remedial options could be applied to similar sites.
- The site should offer some opportunity for designing innovative corrective measures.

After reviewing the 30 sites in light of these criteria, we have selected two candidate facilities: The Lang Chemical Dump and the Diamond Shamrock Chromium Sludge Fill. Detailed descriptions of these two sites follow.

Meadowlands Sanitary Landfill (A) - MSL (A):

This 70 acre landfill, in Kearny, New Jersey, is currently inactive and contains an unknown quantity and variety of municipal and (probably) industrial solid and liquid wastes. Elevated approximately 100 feet over the surrounding flatlands, the fill contains over 11 million cubic yards of mixed soil and municipal and industrial refuse. Located in a sparsely-populated residential area adjacent to a marshland draining into the Passaic River, the site generates large streams of leachate and high concentrations of methane gas. The nearest drinking water well is within a mile of the site. Monitoring wells and a leachate collection and recirculation system have been employed here. No site security or waste records exist. Site Score: 86.3.

Diamond Shamrock:

Formerly the location of a chromium reprocessing plant operated by Diamond Shamrock, this site totals approximately 15 acres in Kearny, New Jersey. Waste chromium sludges were mixed with soot-ash, iron salts and lime, and dumped to depths of 5 to 10 feet over approximately 5 acres of the site. It is estimated that 40-80 thousand cubic yards of these chromium wastes were dumped here. Sampling and analysis by New Jersey DEP detected 60,000 ppm Cr in soil (1500 ppm hexavalent) and 300 ppm in leachate which drains to the Hackensack River. The water table is very shallow at this site, within 5-10 feet of the surface, and sinkholes have developed. Site Score: 85.7.

Reich Farm:

This site is another Pine Barrens dump, presently inactive, but not abandoned. Formerly a sandpit, this 5 acre site in Jackson Township, Ocean County, New Jersey, received thousands of drums of phenolic and other organic wastes which have been traced to illegal dumping by Union Carbide. Organics have been detected at high levels in nearby residential wells, and surface water runs within 1/4 mile of the site. The area has been partially excavated for removal of the Union Carbide drums, but many buried drums of waste are thought to remain, possibly scattered over a total of 40 acres. The State has detailed waste records for the site and monitoring wells were sampled most recently in 1976. There are no site barriers, and

REFERENCE #11

NUS CORPORATION — **TELECON NOTE**

CONTROL NO:	DATE:	TIME:
02-8412-23	4/23/85	15:30

DISTRIBUTION:

BETWEEN:	OF:	PHONE:
ELAINE BARLES	(Mueller Co.) Best Foods	(201)894-2997

AND: (NUS)

DISCUSSION:

1000 ft well on site which is not used for plant processes. Well water is used inside of plant for drinking water and toilets.
Four times a year Jersey City makes an external check. State DEP DWR has performed water analyses to ensure potability.
Approximately 400 people work at the

ACTION ITEMS:

NUS 067 REVISED 0581

REFERENCE #12

NUS CORPORATION — **TELECON NOTE**

CONTROL NO:	DATE:	TIME:
02-8511-15	2/24/86	1130

DISTRIBUTION:

BETWEEN:	OF:	PHONE:
Operator	Roosevelt Marina	(201) 435-3864

AND: Daniel Caramagno (NUS)

DISCUSSION:

Roosevelt Marina is by Roosevelt Stadium in Jersey City which in turn is directly across ~~River~~ Sc Newark Bay from area of Central Steel Drum

ACTION ITEMS:

NUS 067 REVISED 0581

REFERENCE #13

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

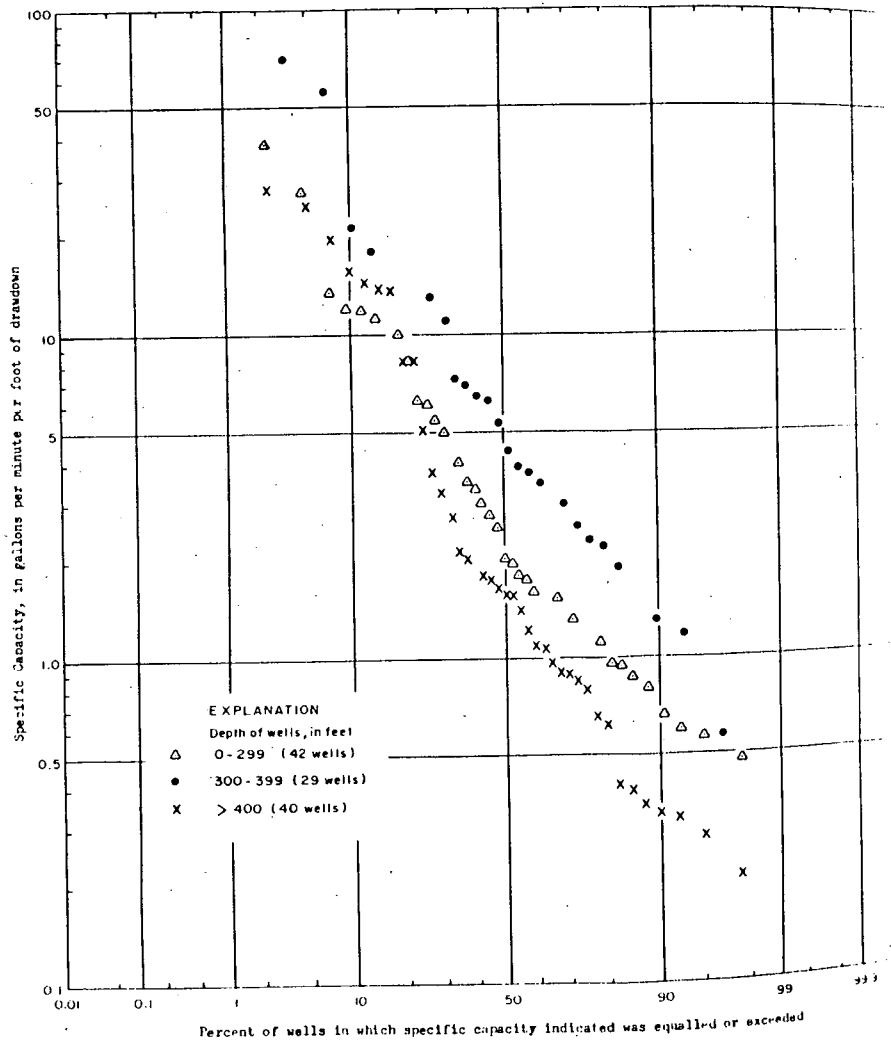


Figure 6.—Cumulative frequency distribution of specific capacities of wells [illegible] Formation grouped according to depth.

encountered between depths of 300 and 400 feet and that significantly greater quantities of water generally will not be obtained by drilling below 400 feet. The specific capacities of wells grouped according to geographic area are shown in figure 7. These areas divide Essex County into three strips which are approximately parallel to the strike of the Brunswick Formation. The eastern strip is further divided into a northern part covering Belleville, Bloomfield, Glen Ridge, and Nutley, and a southern part covering East Orange, Irvington, and Newark. From this graph it readily can be seen that wells in Maplewood, Montclair, Orange, South Orange, and West Orange, have generally higher specific capacities than wells in other parts of Essex County. The wells in these communities are located in the area immediately east of First Watchung Mountain. In figure 8, specific capacities are related to well diameter. As should be expected, larger diameter wells have higher specific capacities.

Quality of Water

Except for hardness-forming constituents and local salt-water contamination, water from the Triassic rocks commonly does not contain objectional concentrations of any chemical constituents throughout most of the county (Table 3). The hardness of water ranges from 104 ppm (parts per million) to 273 ppm. In the Newark area, salt-water contamination has seriously impaired the quality of ground water and chloride concentration are as high as 1,900 ppm.

Ground water has high chloride concentrations in areas of relatively heavy pumpage in eastern Newark adjacent to Newark Bay and the Passaic River. By 1900, water levels in these areas, notably in the southeastern section, were considerably below sea level (fig. 9). The major pattern of ground-water development had changed slightly by 1960. More significant however is the extent to which water levels had been lowered below sea level and the incerase in the size of the area affected by 1960 (fig. 10). Heavy ground-water withdrawals have lowered the general water level in these areas (fig. 10), reversing the natural gradient between the ground- and surface-water bodies, and have induced a flow of salt water from the river and bay into the underlying water-bearing formations. A water sample collected in 1879 from a well owned by the Celluloid Works, located in this part of Newark, contained only 6.2 ppm chloride. In 1948, water with 1,900 ppm chloride was collected from a well in the same area owned by P. Ballantine and Sons. A probable contributing factor in salt-water intrusion is the dredging of ship canals in Newark Bay and the Passaic River. In deepening these canals, semi-pervious Recent and Pleistocene sediments were removed which had acted as an imperfect barrier to the infiltration of salt water.

[illegible]
Lrd, Stratified drift
TRb, Brunswick Formation
[illegible]

[illegible]

O.W., Owner's well number

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
				NEWARK (CITY) - Continued									
Celanese Corp. of Amer.	P. H. & T. Colan	1924	12	865	16-10	95	none	TRb	176	400	[illegible]	14.[illegible]	O.W.26
Celanese Corp. of Amer.	Layne-New York Co.	5-16-47	14	856	16-10	75	none	TRb	147	778	40	19.45	O.W.27
L. Hoeler Brewing Co.	P. Chaffinelli	12-14-49	12	700	10-8	57	none	TRb	60	450	[illegible]240	1.79	O.W.4
Synthetic Plastics Co.	Industrial Well & Pump Co.	1-15-63	14	600	8	145	none	TRb	150	300	110	2.73	O.W.1
Albon Finishes, Inc.	Frank Bott	7-12-60	15	500	8	86	none	TRb	30	360	70	5.14	
Colan Corporation	- - - - - - -	1930	10	290	8	- - -	none	TRb	140	160	95	1.59	
Universal Grain Co.	Wm. Stothoff Co., Inc.	10-18-51	10	303	8	79	none	TRb	143	200	53	3.77	
Mother's Food Products, Inc.	- - - - - - - -	1959	11	400	8	107	none	TRb	94	125	8	15.[illegible]	
Kar Auto Service Co.	P. Chaffinelli	2-[illegible]-50	208	300	6	35	none	TRb	23	60	104	[illegible]	
Food Fair Store	Barrows Well Drilling Co.	April, 1955	100	298	8	35	none	TRb	105	250	45	5.56	
S. & S. Super Service Corp.	Finbrand Well Drilling Co.	2-18-50	50	190	6	94	none	TRb	45	20	---	----	
Sutherford & Delaney Holding Co.	Garden State Artesian Well & Pump Co.	7-31-56	- - -	220	8-6	42	none	TRb	22	100	73	[illegible]1.37	O.W.1
Linde Air Products Co.	Artesian Well & Pump. Co.	July, 1954	10	500	12	44	none	TRb	17	124	199	[illegible]	
[illegible] Two Line Equipment Co.	Perlmutter Well & Pump Co.	4-27-50	10	603	10	127	none	TRb	35	89	215	[illegible]	
Suburban Motor Lodge, Inc.	Finbrand Well Drilling Co.	June, 1950	10	555	8	126	none	TRb	15	20	235	[illegible]	
S. R. Penick & Co.	Wm. Stothoff Co., Inc.	6-7-61	- - -	400	10	75	none	TRb	60	644	23	[illegible]	O.W.2
				NORTH CALDWELL BOROUGH									
Green Brook Country Club	H. A. Fiefler	July, 1951	310	300	8	33	none	TRwb	2 flowing	25	21	[illegible]	[illegible]
Green Brook Country Club	H. A. Fiefler	March, 1925	290	301	8	- - -	none	TRb & TRwb	25 gpm	60	---	[illegible]	[illegible]
[illegible]	H. A. Fiefler	8-16-55	- - -	182	6	42	none	TRwb	65	25	[illegible]	[illegible]	
A. L. Lerner	A'yeier Bros.	5-24-58	- - -	195	6	25	none	TRwb	25	7	[illegible]	[illegible]	

REFERENCE #14

NUS CORPORATION — **TELECON NOTE**

CONTROL NO:	DATE: 1-24-85	TIME: 1610

DISTRIBUTION:

BETWEEN:	OF: City of Newark Water Supply Division	PHONE: 3655 (201) 733-~~6355~~

AND: C. LaBue (NUS)

DISCUSSION:

- Water Supply in Newark entirely from out of city reservoirs e.g. Wanaque, Belleville etc.!

- No known use ~~of~~ of public supply well on Ferry St

ACTION ITEMS:

Newark Water Supply Division
Distribution Office — 733-3653
Manager (Little Falls) — 256-4965

NUS 067 REVISED 0581