SITE INSPECTION REPORT
FOR
BROOK PARK SITES
BROOK PARK, OH
OHD980704191
F05-8706-175
PAN: OH0595SI

JUNE 30, 1987

RECEIVED
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PLANNING AND CONTRACTS
MANAGEMENT UNIT

US EPA RECORDS CENTER REGION 5
416213

#00986NB

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ecology and environment, inc.
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

MEMORANDUM

DATE: June 30, 1987
TO: File
FROM: Dirk Kaiser DAK
SUBJECT: Ohio/F05-8706-175/F0H0595SI
Brook Park/ Brook Park Sites
OHD980704191

The Brook Park sites, located on Cleveland Hopkins Airport property and owned by the City of Cleveland, are composed of two adjoining inactive landfills: the Airport Landfill and Grayton Road Landfill. The Airport Landfill is along Abrams Creek and the landing light towers of Cleveland Hopkins Airport runway 5L. Foundry sands, from Ford Motor Company's Cleveland Casting Plant (CCP), were dumped along both sides of the creek and its banks for approximately 1000 yards. Grayton Road Landfill is just upstream of the Airport Landfill and 100 yards west of Grayton Road. Again, foundry sands were dumped along the banks for approximately 1000 yds. In addition, a pit 2 acres in size and 15 ft deep was created on the southwest side. This site area has received considerable attention in the past from the press, mayors and congressmen due to health problems and complaints of residents living nearby. The site was tasked to FIT for a site inspection by the U.S. EPA based on a preliminary assessment submitted to U.S. EPA by Ohio EPA.

Enforcement activities in the past included the involvement of the Corps of Engineers (COE), the Federal Aviation Administration, the U.S. EPA, and the Ohio EPA. All of the agencies have made general recommendations on cleanup, bank stabilization, covering, revegetation,

recycled paper

etc. To this date, minimal, if any, corrections were made at this site. The COE apparently is not willing to take any action on this site because the dumping took place before it had any regulatory authority. After repeated attempts to gather enforcement information from the various emergency response and remedial branches of the Ohio EPA and U.S. EPA, there is no known information on the sites regarding cleanup and the U.S. EPA has dropped any enforcement case that it may have had.

According to the U.S. EPA file information, Ervin Hegedus's Consulting Engineering Report on the landfills and a letter from Ford Motor Company, the following information about the site is also known. A foundry sand slurry from CCP's lagoon was dredged and then transported by Boyas Excavating to this site. The sand fill in these two landfills is 30 to 50 feet deep and extends to the creek. A ditch from the pit was draining the excess water off the slurry into Abrams Creek. The slurry-filled pit was then covered over except for a 1/4-acre size depression near the creek. The edge of the fill area slopes steeply down to the creek and is marked with fissures that show the results of erosion of the material. The slope is unstable and material is sloughing off into the creek. According to Ford, 164,402 tons of foundry sand were deposited in these two landfills.

FIT conducted an inspection of the Brook Park Sites on June 16, 1987. During the inspection, it was observed that the site is completely fenced in with locked gates. Both sites had exposed waste on the banks of Abrams Creek. Erosion marks were visible on the steep slopes (>30%) leading to the creek. Bank material could be heard falling in the creek. Away from the creek, the waste has been covered with clean dirt. Large portions of these covered areas were not vegetated. There was no vegetation in Abrams Creek which has a shale base. FIT concluded its inspection with an interview with site representatives.

On October 13 and 14, 1981, the U.S. EPA conducted sampling at these landfills including foundry sand waste and surface water sampling.

The foundry sand in the pit and its standing water were found to contain high concentrations of heavy metals and a trace of PCBs. A summary of the results is found in Table 1. Based on this sample analysis, FIT did not conduct sampling during the site inspection. Raw data sheets can be found in Section 5.

The groundwater is not used in the area for drinking or industrial purposes. All water useage in the area is from offshore intakes in Lake Erie. Local geology of the site area is composed of shales and silty shales of the Mississippian age Bedford Formation. The shale bedrock can be seen lining the bottom of the creek (see photos). Domestic wells in this formation can produce only 3 to 4 gpm.

Abrams Creek is the nearest potentially affected surface water since the dark gray sand is piled uncovered along its banks. Abrams Creek is a tributary for the Rocky River 1 mile downstream. The Rocky River flows into Lake Erie approximately 9-10 miles away, where the city's municipal intakes are located. There are several recreational parks located along the Rocky River within the 3-mile radius. A large swamp is located 1 mile east-southeast of the site.

The surrounding area is composed of heavily populated residential homes with the airport and medium to heavy industry located to the northeast, including Ford's Cleveland Casting Plant. Since the site is well fenced, accessibility by the public is remote. The site inspection followed the work plan submitted to the U.S. EPA by Ecology and Environment.

95G:4W

TABLE I

Parameter	Background Sediment Sample*	Pit Foundry Sands Sample*	Background Creek Water Sample**	Standing Pit Water Sample**
Ag	<0.3	21	<3	3,400
B	<8	40	316	7,500
Ba	44	300	25.1	43,000
Be	0.41	1.8	<1	300
Cd	0.22	110	<2	20,000
Cr	16	110	<8	18,000
Cu	26	350	6.9	56,000
Mn	310	7,000	207	1,300,000
Mo	<1	4.3	16	930
Pb	22	4,100	<70	80,000
Sn	<4	230	<40	51,000
Sr	23	140	298	22,000
Ti	33	230	<25	15,000
Hg	<0.01	0.08	--	--
PCB	--	1.4 ppb	--	--
Zn	--	15	85	3,000,000
Al	--	--	405	2,100,000
Co	--	--	<6	320
Li	--	--	423	4,200
Fe	--	--	878	7,300,000
Ni	--	--	<15	6,900
V	--	--	<5	1,700
Y	--	--	<5	1,100

* Sample results in mg/L (ppm) unless noted.

** Sample results in ug/L (ppb) unless noted.

-- Sample results did not exceed background.

Data sheets appear in Section 5.

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
OH	D980704191

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
BROOK PARK SITES (GRAYTON ROAD & AIRPORT SITES)	GRAYTON RD & ABRAMS CREEK

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
BROOK PARK	OH	44142	CUYAHOGA	035	20

09 COORDINATES LATITUDE	LONGITUDE
41 23 35.0	081 52 00.0

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

III. INSPECTION INFORMATION

01 DATE OF INSPECTION (MONTH DAY YEAR)	02 SITE STATUS	03 YEARS OF OPERATION (BEGINNING YEAR / ENDING YEAR)
6 16 87	☐ ACTIVE ■ INACTIVE	MID 60'S / 1977 ___ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)
☐ A. EPA ■ B. EPA CONTRACTOR ECOLOGY & ENVIRONMENT (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.
PAT PETRELLA	CHEM. ENGINEER	E&E	(312) 663-9415

09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO
DIRK KAISER	GEOLOGIST	E&E	(312) 663-9415
DAVID HEIDLAUF	GEOLOGIST	C.C. JOHNSON	(312) 621-3944
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
STEVE NAGY	PLANNING DEPT.	DEPT. OF PORT CONTROL	(216) 265-6035
RAMON HERNANDEZ	OPER. SUPER.	"	( ) "
BRUCE COLLINS	PLANNING DEPT.	"	( ) "
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
■ PERMISSION ☐ WARRANT	1:45	SUNNY, CLEAR, 87°F

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO
DON JOSIF	U.S. EPA	(312) 886-4393

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO	08 DATE (MONTH DAY YEAR)
DIRK KAISER	FIT-USEPA	E&E	312/663-9415	6 29 87

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
OH	D980704191

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

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

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be mutually exclusive.)

TONS 164,402

CUBIC YARDS _____

NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

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

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS	164,402	TONS	DEPOSITED IN LANDFILL/PIT

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

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
MES	SILVER	7761-88-8	LF	21	MG/L
"	BARIUM		"	300	"
"	BERYLLIUM	7440-41-7	"	1.8	"
"	CADMIUM	10108-64-2	"	110	"
"	CHROMIUM	10049-05-5	"	110	"
"	COPPER		"	350	"
"	MANGANESE		"	7000	"
"	MOLYBDENUM		"	4.3	"
"	LEAD	7758-95-4	"	4100	"
"	TIN		"	230	"
"	STRONTIUM		"	140	"
"	TITANIUM		"	230	"
"	MERCURY	10045-94-0	"	0.08	"
OCC	PCB	1336-36-3	"	1.4	UG/L

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS	N/A		FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

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

USEPA SI SAMPLING DATED DEC. 21, 1981

LETTER FROM FORD TO USEPA DATED JUNE 21, 1979

EPA

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

I. IDENTIFICATION
01 STATE: OH
02 SITE NUMBER: D980704191

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ■ A. GROUNDWATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — ■ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0
04 NARRATIVE DESCRIPTION
THE ENTIRE SURROUNDING AREA IS ON WATER FROM LAKE ERIE, NOT GROUNDWATER. THERE ARE NO WELLS IN THE AREA. THE POTENTIAL EXISTS FOR THE SHALE AQUIFER TO BE CONTAMINATED

01 ■ B. SURFACE WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — ■ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: >20000
04 NARRATIVE DESCRIPTION
THE FOUNDRY SAND HAS BEEN SEEN SLOUGHING AND ERODING INTO THE CREEK. THE EXPOSED SAND IS LINING THE CREEK BANKS AT BOTH LANDFILLS.

01 ■ C. CONTAMINATION OF AIR — 02 ☐ OBSERVED (DATE: _____) — ■ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION
WASTE IS EXPOSED TO THE AIR ALONG THE CREEK BANK.

01 ■ D. FIRE/EXPLOSIVE CONDITIONS — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION
N/A THERE IS NO RECORD OF FIRE/EXPLOSIVE CONDITIONS AT THE SITE.

01 ■ E. DIRECT CONTACT — 02 ☐ OBSERVED (DATE: _____) — ■ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: >
04 NARRATIVE DESCRIPTION
THE SITE IS ENTIRELY FENCED IN. EXPOSED WASTE WAS NOTED ON THE SURFACE ON THE BANKS OF ABRAMS CREEK.

01 ■ F. CONTAMINATION OF SOIL — 02 ☐ OBSERVED (DATE: _____) — ■ POTENTIAL — ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: _____ (Acres)
04 NARRATIVE DESCRIPTION
N/A THERE IS NO RECORD OF SOIL CONTAMINATION AT THIS SITE.

01 ■ G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0
04 NARRATIVE DESCRIPTION
N/A ALL AREA RESIDENTS ARE ON WATER FROM LAKE ERIE.

01 ■ H. WORKER EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) — ■ POTENTIAL — ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: ~10
04 NARRATIVE DESCRIPTION
THERE IS NO RECORD OF WORKER EXPOSURE/INJURY. THE POTENTIAL FOR FAA EQUIPMENT MAINTENANCE TEAMS WORKING ON THE LIGHT TOWERS EXISTS

01 ■ I. POPULATION EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) — ■ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: >10000
04 NARRATIVE DESCRIPTION
POTENTIAL EXPOSURE THROUGH SURFACE WATER ROUTE IS POSSIBLE DOWNSTREAM AT ROCKY RIVER RECREATION AREAS.

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

I. IDENTIFICATION
01 STATE: OH | 02 SITE NUMBER: D980704191

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ■ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
N/A No stressed vegitation was seen.

01 ■ K DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE _____) ■ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)
N/A No animal injury or death, although the potential contact through the surface water route exists

01 ■ L CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
N/A No record of food chain contamination exists.

01 ■ M UNSTABLE CONTAINMENT OF WASTES (Spills/Runoff/Standing liquids/Leaking drums) — 02 ■ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: >20000 — 04 NARRATIVE DESCRIPTION
Material has been seen sloughing into Abrams Creek. Erosion marks can be seen on the banks.

01 ■ N DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
N/A No damage to offsite property was seen or noted on record.

01 ■ O CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
N/A No record of outside contamination through sewer or storm drains are noted.

01 ■ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
N/A No dumping other than the initial dumping of foundry sand has been known to occur.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS
Foundry sand slope failure in the past has produced flooding upstream. Considering the unstable characteristics of the foundry sand surry and the vibrations associated with low

III. TOTAL POPULATION POTENTIALLY AFFECTED: >20000

IV. COMMENTS — CONT.

flying planes, the potential for massive slope failure is likely.

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

Site inspection
Ervin Heegedus - Consulting Engineering Report.

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
OH	D980704191

II. PERMIT INFORMATION

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

III SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☐ A SURFACE IMPOUNDMENT		
☐ B PILES		
☐ C DRUMS, ABOVE GROUND		
☐ D. TANK, ABOVE GROUND		
☐ E TANK, BELOW GROUND		
■ F. LANDFILL	164,402	TONS
☐ G LANDFARM		
☐ H OPEN DUMP		
☐ I. OTHER (Specify)		

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

NONE

05 OTHER
- ☐ A BUILDINGS ON SITE

NONE

06 AREA OF SITE: ~100 (Acres)

07 COMMENTS
FOUNDRY SANDS WERE DUMPED ALONG BANKS OF ABRAMS CREEK & IN A NEARBY PIT NOW COVERED. THE FOUNDRY SANDS HAVE BEEN SLOUGHING INTO THE CREEK.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

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

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.
DIKING INADEQUATE. THE DIKING HAS BEEN BREACHED AND OVERFLOWED RELEASING THE FOUNDRY SAND SLURRY INTO THE CREEK. THE PIT HAS SINCE BEEN COVERED WITH CLEAN SOIL. THERE IS BELIEVED TO BE NO LINER AT THE SITE.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☐ YES ■ NO

02 COMMENTS
SITE IS COMPLETELY FENCED IN AND MONITORED DUE TO FAA LANDING EQUIPMENT ON SITE.

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

SITE INSPECTION

USEPA FILE INFORMATION

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
OH	D980704191

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)

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

02 STATUS

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

03 DISTANCE TO SITE

A >3 (mi)
B. >3 (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

☐ A. ONLY SOURCE FOR DRINKING
B. DRINKING (Other sources available)
COMMERCIAL, INDUSTRIAL IRRIGATION (No other water sources available)
☐ 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 AQUIFER
~2 (ft)	NORTH	~2 (ft)	1440 (gpd)	☐ YES ■ NO

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

THE POPULATION IN THE AREA IS COMPLETELY DEPENDENT ON CLEVELAND'S MUNICIPAL WATER SYSTEM DRAWING FROM LAKE ERIE.

10 RECHARGE AREA
☐ YES
■ NO
COMMENTS

11 DISCHARGE AREA
■ YES
☐ NO
COMMENTS: DISCHARGE INTO ABRAMS CREEK

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

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

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
ABRAMS CREEK	■	0' (mi)
ROCKY RIVER (A MASTERSTREAM OF ABRAMS CR.)	☐	1.1 (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. >700	B. >5000	C. >220000
NO OF PERSONS	NO OF PERSONS	NO OF PERSONS

02 DISTANCE TO NEAREST POPULATION ~300' (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE >1300

04 DISTANCE TO NEAREST OFF-SITE BUILDING ~300' (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)

USGS TOPOGRAPHIC MAP
SOIL SURVEY OF CUYAHOGA COUNTY

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
OH	D980704191

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

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

02 PERMEABILITY OF BEDROCK (Check one)

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

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH
~2 (ft)	~30 (ft)	3.6-5.5

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
5 (in)	2.2 (in)	>75 %	SITE IN CREEK	~1-2 %

09 FLOOD POTENTIAL

SITE IS IN — YEAR FLOODPLAIN

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

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE: A N/A (mi)

OTHER: B. 1 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

N/A (mi)

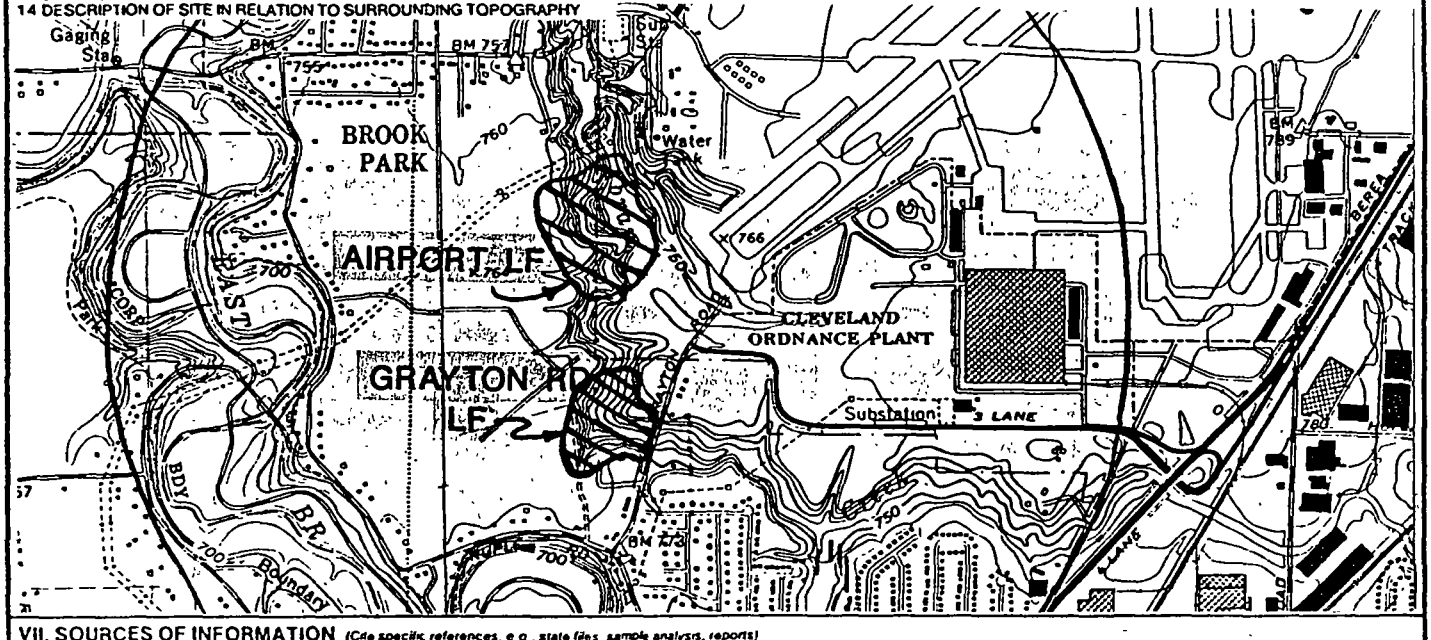
ENDANGERED SPECIES: N/A

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS, NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS: PRIME AG LAND	AGRICULTURAL LANDS: AG LAND
A ~3000' (mi)	B. ~300' (mi)	C. N/A (mi)	D. N/A (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY



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

USGS TOPOGRAPHIC MAPS

SOIL SURVEY OF CUYAHOGA CO.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
OH	D980704191

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER		NONE	
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL			
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
	NONE

IV. PHOTOGRAPHS AND MAPS

01 TYPE ■ GROUND ☐ AERIAL

02 IN CUSTODY OF ECOLOGY & ENVIRONMENT, INC.
(Name of organization or individual)

03 MAPS ☐ YES ■ NO

04 LOCATION OF MAPS

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

SAMPLE DATA COLLECTED BY USEPA DURING A SITE INSPECTION ON OCTOBER 13-14, 1981

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

FIT SITE INSPECTION
USEPA FILE INFORMATION

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
OH	D980704191

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE
CITY OF CLEVELAND		601 LAKESIDE NE		CLEVELAND	OH	44103

PARENT COMPANY (If applicable)

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

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

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

IV. REALTY OWNER(S) (If applicable, list most recent first)

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

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

SITE INSPECTION INTERVIEW

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
OH	D980704191

II. CURRENT OPERATOR (Provide if different from owner) * SEE BELOW

01 NAME	02 D+B NUMBER
CITY OF CLEVELAND	

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

05 CITY	06 STATE	07 ZIP CODE
CLEVELAND	OH	44103

08 YEARS OF OPERATION	09 NAME OF OWNER
12+	DEPT. OF PORT CONTROL

OPERATOR'S PARENT COMPANY (If applicable)

10 NAME	11 D+B NUMBER
N/A	

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

14 CITY	15 STATE	16 ZIP CODE

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

01 NAME	02 D+B NUMBER
N/A	

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

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)

10 NAME	11 D+B NUMBER
N/A	

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

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

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

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

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

14 CITY	15 STATE	16 ZIP CODE

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

SITE INSPECTION INTERVIEW

* NOTE: THE FAA ALSO OPERATES THE LIGHT TOWERS ON THE SITE.
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
GREAT LAKES REGION
2300 EAST DEVON AVENUE
DES PLAINES, ILLINOIS
60018

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
OH	D980704191

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
N/A	

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
FORD MOTOR COMPANY			

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
5600 HENRY FORD RD.			

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
BROOK PARK	OH	44135			

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
BOYAS EXCAVATING			

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
4100 BROOKPARK RD.			

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
CLEVELAND	OH	44134			

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
B & L DEVELOPEMENT			

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
2235 W. 5TH STREET			

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
CLEVELAND	OH	44113			

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

FORD MOTOR CO.

USEPA FILE INFORMATION

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
OH	D980704191

II. PAST RESPONSE ACTIVITIES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

EPA

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

I. IDENTIFICATION
01 STATE: OH | 02 SITE NUMBER: D980704191

II PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R BARRIER WALLS CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

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

01 ☐ T BULK TANKAGE REPAIRED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ U GROUT CURTAIN CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

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

01 ☐ W GAS CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ X FIRE CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ Y LEACHATE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ Z AREA EVACUATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

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

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

01 ☐ 3. OTHER REMEDIAL ACTIVITIES — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
- See Part 11 -

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

FILE
INSPECTION / INTERVIEW

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
OH	D980704191

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY ENFORCEMENT ACTION ☐ YES ■ NO

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

THE CORPS OF ENGINEERS, THE FEDERAL AVIATION ADMINISTRATION, THE U.S. EPA, AND OHIO EPA HAVE ALL MADE RECOMENDATIONS FOR SITE CLEAN UP, BANK STABILIZATION, COVERING, RECIRCULATION, ETC. MINIMAL CORRECTION, IF ANY, WERE MADE AT THE SITES. THE U.S. EPA HAS SINCE DROPPED ITS ENFORCEMENT ACTIVITIES AT THE LANDFILLS AND THE COE HAS FELT THAT THE SITES WERE OUT OF THEIR REGULATORY JURISTICTION SINCE THE LANDFILLING OCCURRED BEFORE THEY HAD ANY AUTHORITY.

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

USEPA FILE INFORMATION
INTERVIEW

EPA FORM 2070-13 (7-81)

Immediate Removal Action Check Sheet

	High	Moderate	Low
Fire and Explosion Hazard			
Flammable Materials N/A			
Explosives N/A			
Incompatable Chemicals N/A			
Direct Contact with Acutely Toxic Chemicals			
Site Security FENCED			X
Leaking Drums or Tanks N/A			
Open Lagoons or pits			X
Materials on Surface	X		
Proximity of Population	X		
Evidence of Casual Site Use			X
Contaminated Water Supply			
Exceeds 10 Day Snarl N/A			
Gross Taste or Odors N/A			
Alternate Water Available N/A			
Potential Contamination N/A			
Is the site abandoned or active?			

Comments:
SITE CURRENTLY HAS FAA LANDING LIGHT TOWERS ON IT.

3

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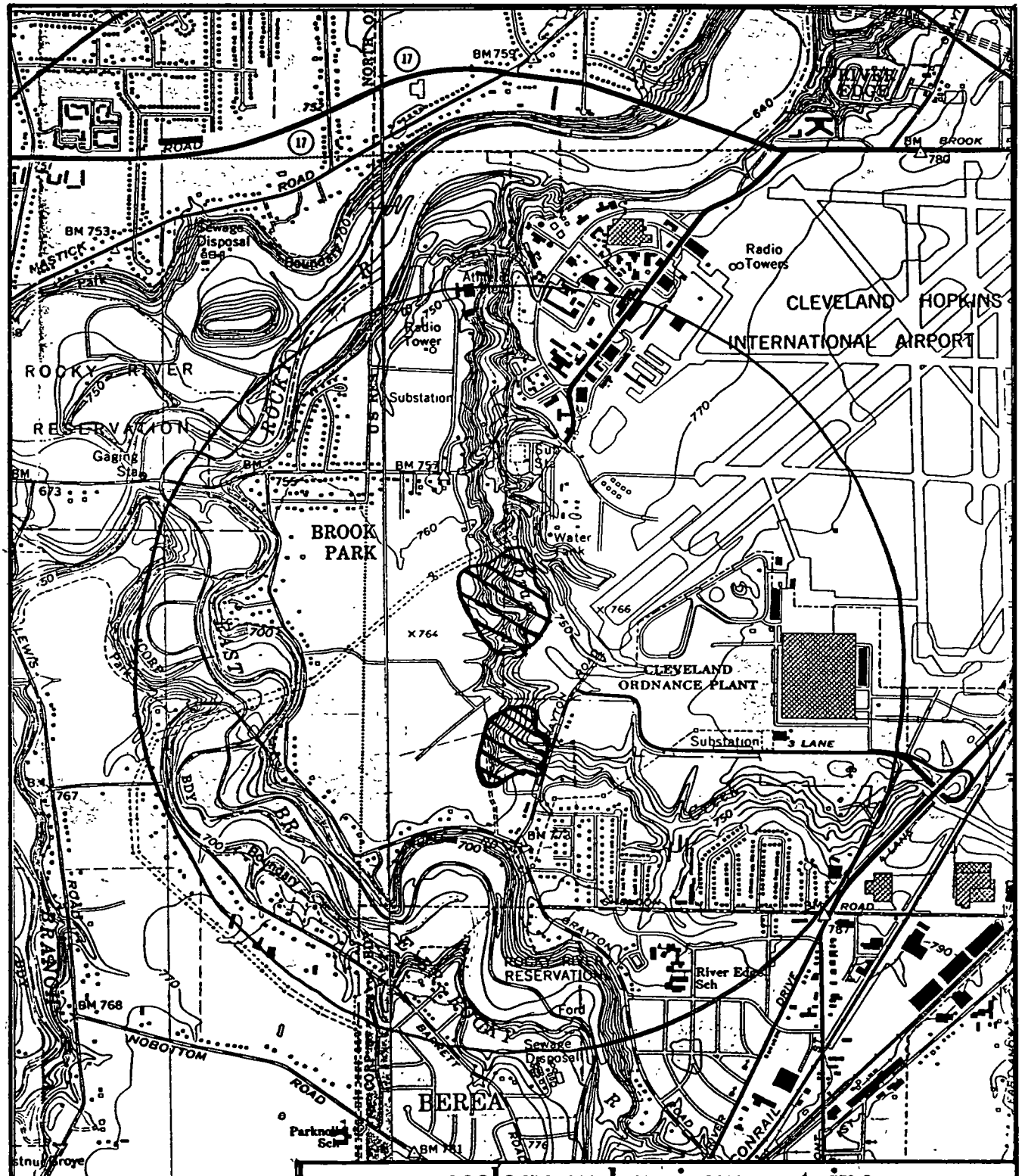
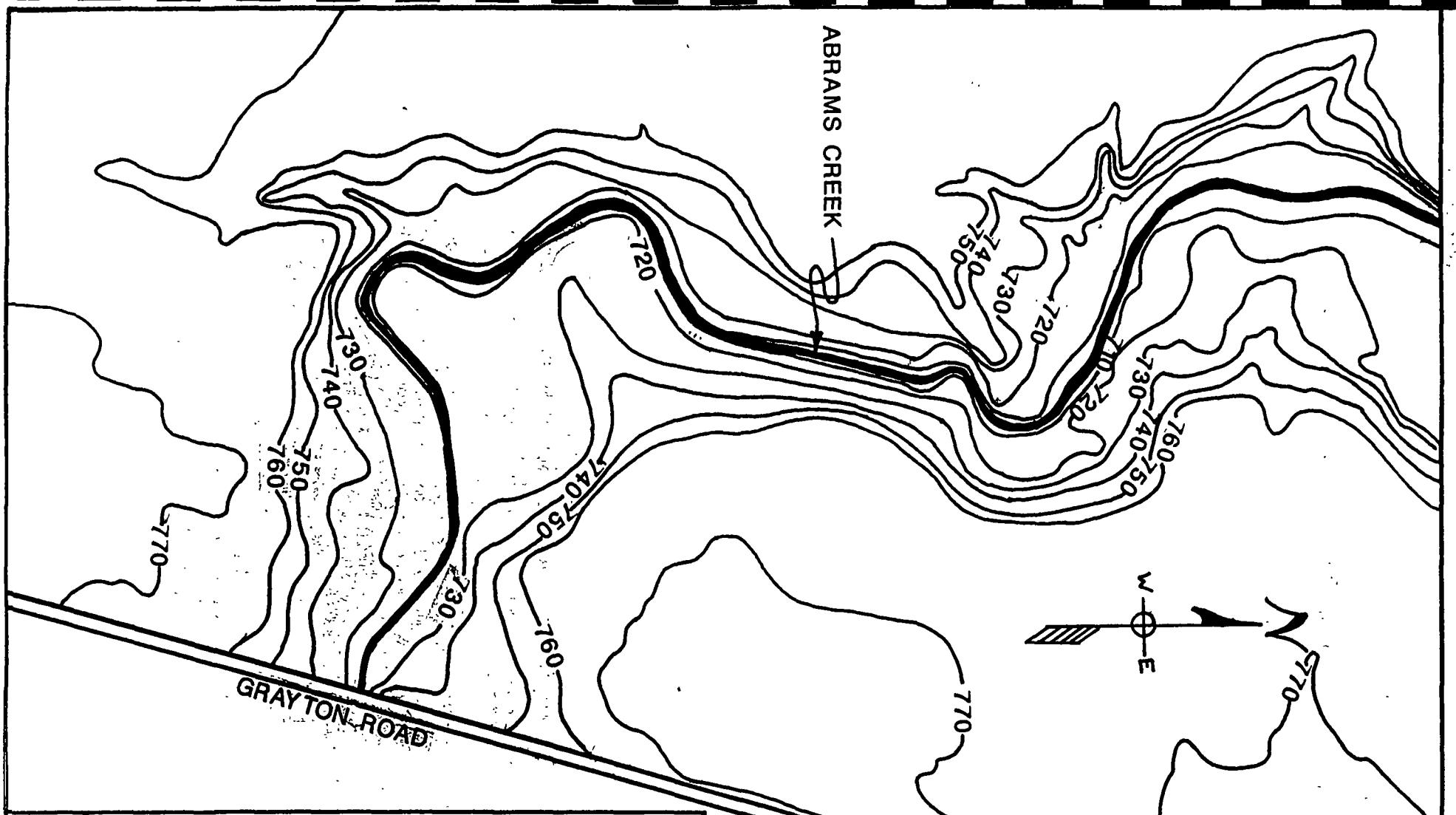


ecology and environment, inc.

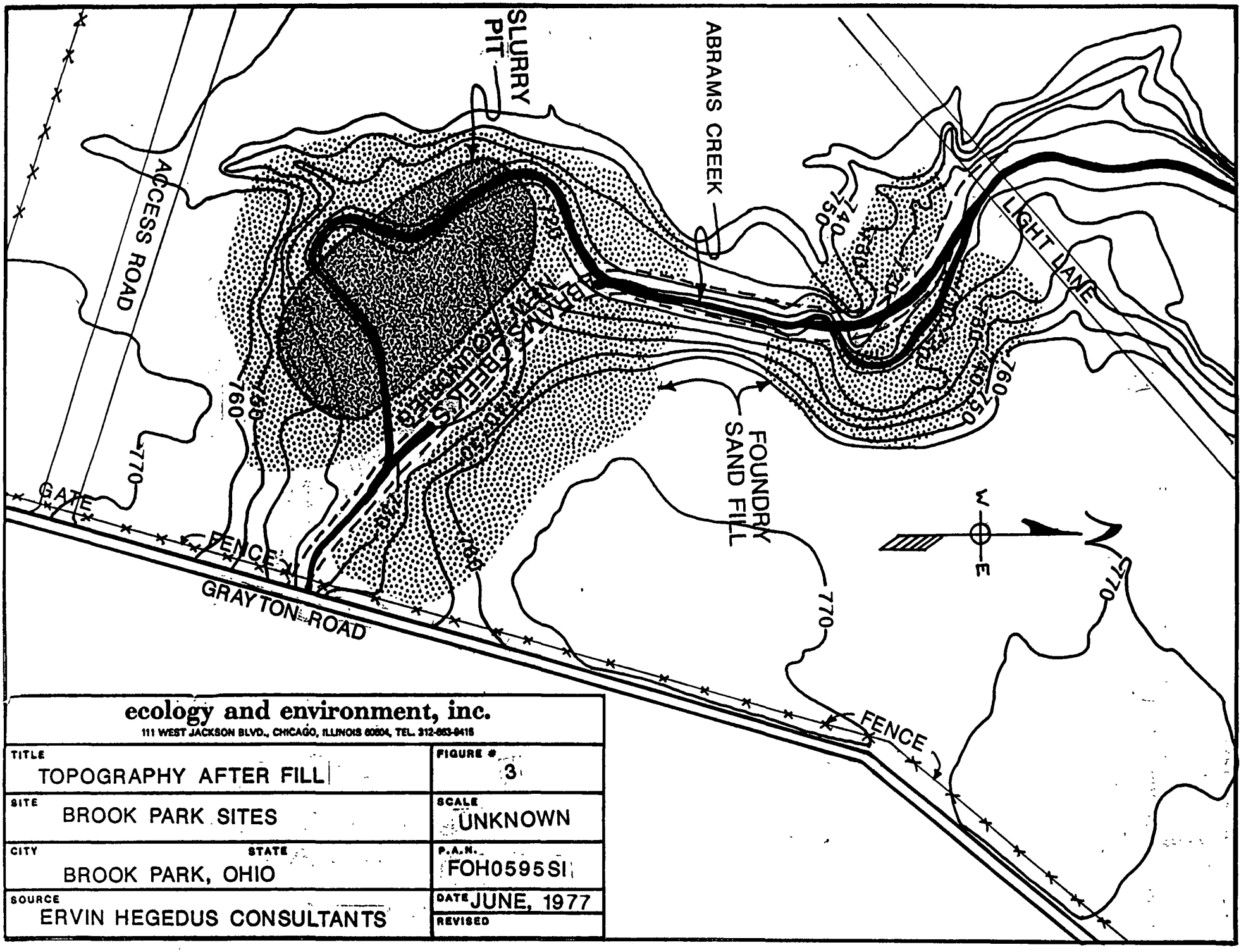
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-8415

TITLE: SITE LOCATION MAP	FIGURE #: 1
SITE: BROOK PARK SITES	SCALE: 1:24,000
CITY: BROOK PARK, STATE: OHIO	P.A.N.: FOH0595SI
SOURCE: USGS TOPOGRAPHIC MAP	DATE: 1963 / REVISED: 1979



ecology and environment, inc.
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415

TITLE: TOPOGRAPHY BEFORE FILL	FIGURE #: 2
SITE: BROOK PARK SITES	SCALE: UNKNOWN
CITY: BROOK PARK, STATE: OHIO	P.A.N.: FOH0595SI
SOURCE: ERVIN HEGEDUS CONSULTANTS	DATE: JUNE, 1977
	REVISED:



ecology and environment, inc.
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415

TITLE TOPOGRAPHY AFTER FILL	FIGURE # 3
SITE BROOK PARK SITES	SCALE UNKNOWN
CITY BROOK PARK, OHIO STATE	P.A.N. FOH0595SI
SOURCE ERVIN HEGEDUS CONSULTANTS	DATE JUNE, 1977 REVISED

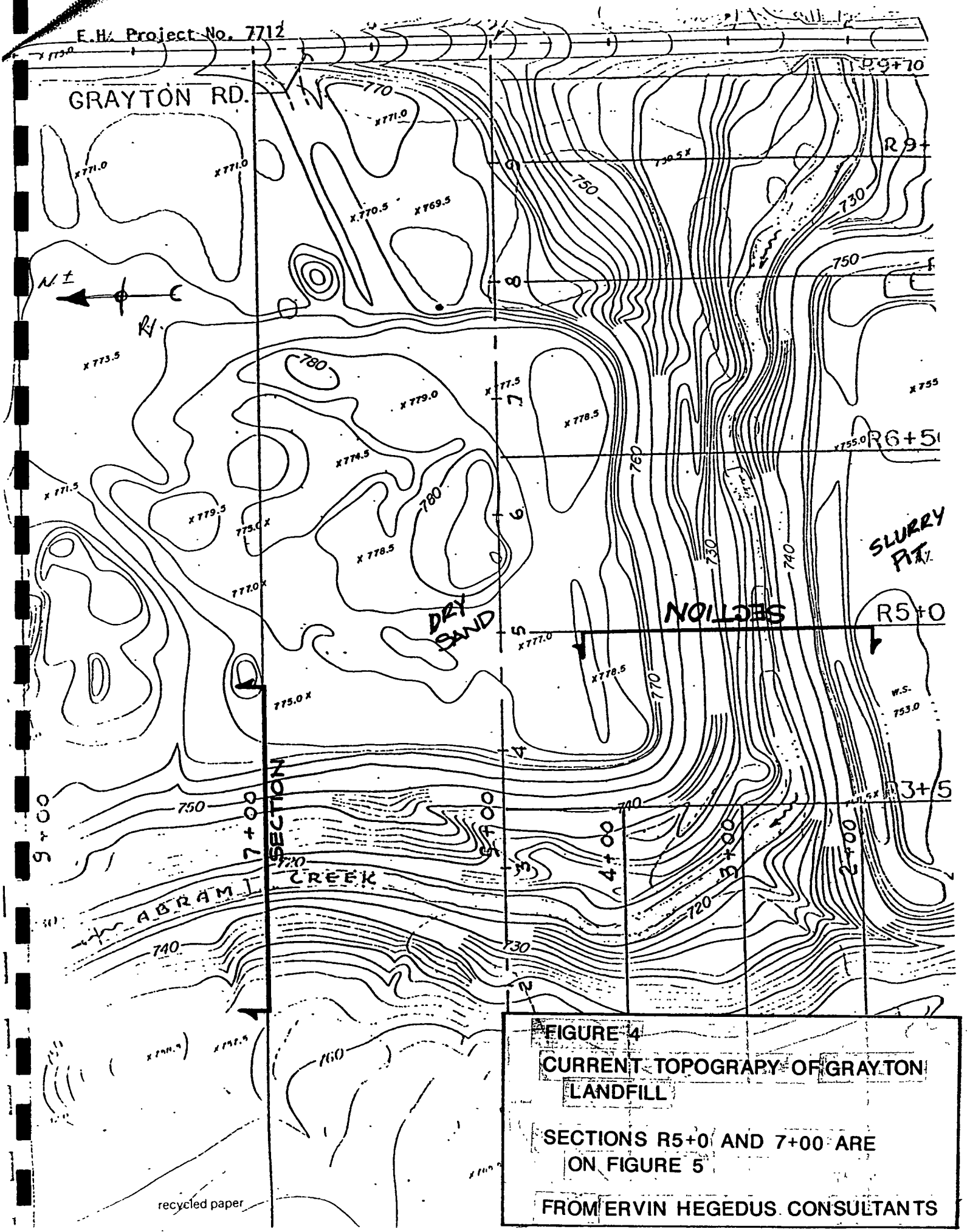


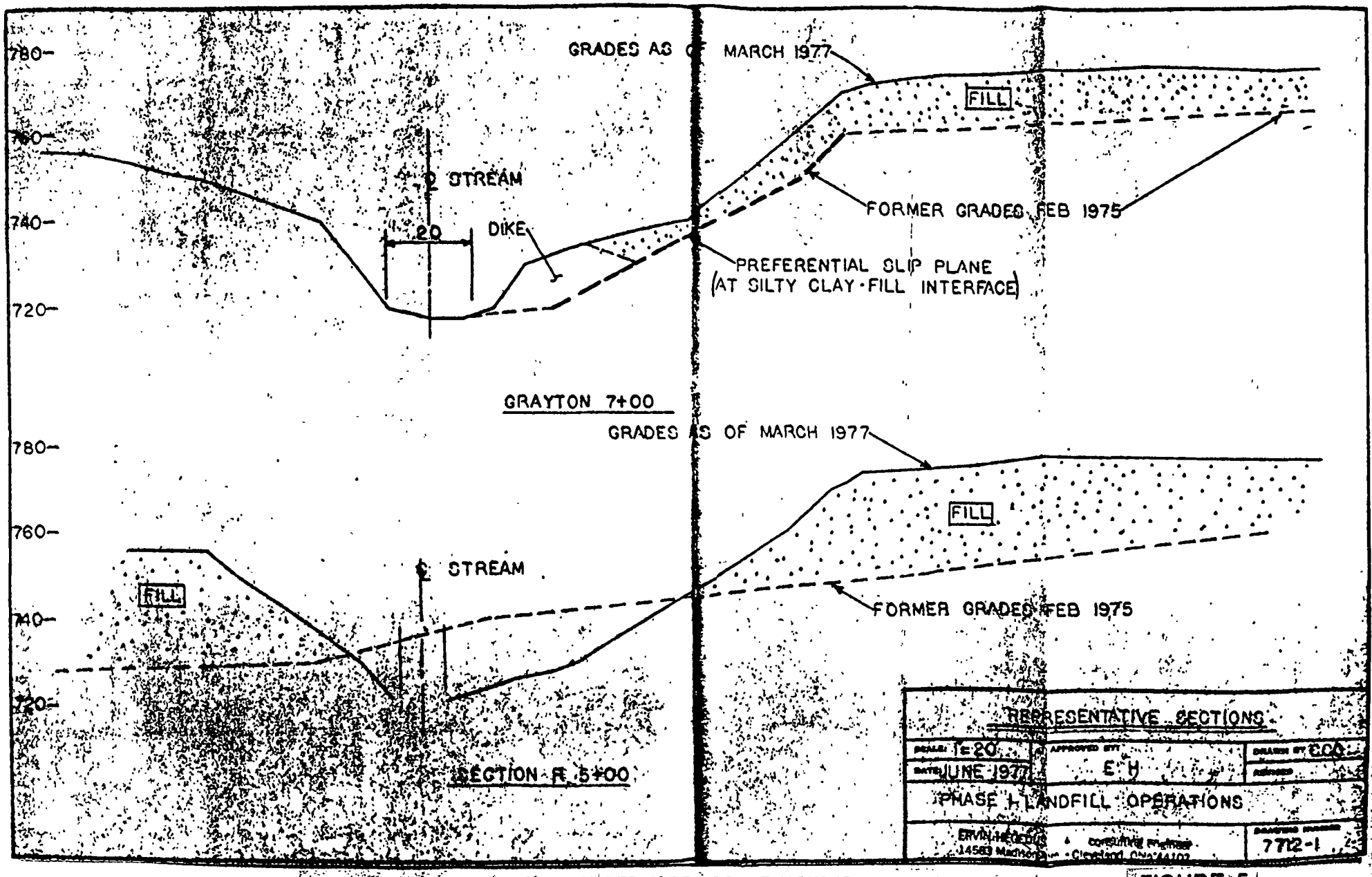
FIGURE 4

CURRENT TOPOGRAPHY OF GRAYTON LANDFILL

SECTIONS R5+0 AND 7+00 ARE ON FIGURE 5

FROM ERVIN HEGEDUS CONSULTANTS

recycled paper



NOTE: SINCE MAP HAS BEEN REDUCED, SCALE NOW IS 5/8"=20'-0"

FIGURE 5

4

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FIELD PHOTOGRAPHY LOG SHEET

DATE 6/16/87

TIME 2:20 A.M. P.M.

DIRECTION: N NNE NE ENE
E ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER SUNNY, 86°F

SITE BROOK PARK SITES

TDD# F05-8706-175

PHOTOGRAPHED BY:
DIRK KAISER

SAMPLE ID# (if applicable)
N/A

DESCRIPTION: ABRAMS CREEK AND FOUNDRY SANDS ALONG BANKS. CREEK IS LINED WITH SHALE.

DATE 6/16/87

TIME 2:20 A.M. P.M.

DIRECTION: N NNE NE ENE
E ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER SUNNY, 86°F

SITE BROOK PARK SITES

TDD# F05-8706-175

PHOTOGRAPHED BY:
DIRK KAISER

SAMPLE ID# (if applicable)
N/A

DESCRIPTION: PICTURE SHOWS CREEK BANK AND GRASSY COVERED FOUNDRY SANDS.

FIELD PHOTOGRAPHY LOG SHEET

DATE 6/16/87

TIME 2:20 A.M. P.M.

DIRECTION: N NNE NE ENE
E ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER SUNNY, 86°

SITE BROOK PARK SITES

TDD# F05-8706-175

PHOTOGRAPHED BY:
DIRK KAISER

SAMPLE ID# (if applicable)
N/A

DESCRIPTION: GREY FOUNDRY SANDS ALONG BANK OF ABRAMS CREEK. NOTE STEEP SLOPE

DATE 6/16/87

TIME 2:20 A.M. P.M.

DIRECTION: N NNE NE ENE
E ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER SUNNY, 86°

SITE BROOK PARK SITES

TDD# F05-8706-175

PHOTOGRAPHED BY:
DIRK KAISER

SAMPLE ID# (if applicable)
N/A

DESCRIPTION: GREY FOUNDRY SANDS ALONG BANK OF CREEK.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE December 21, 1981

SUBJECT Compliance Sampling Inspection at the Airport Landfill in Brook Park, Ohio

FROM Daniel C. Watson, Physical Scientist
THRU: A.R. Winklhofer, Director, EDO
ARWinklhofer for

TO William H. Miner, 5EWHME
ATTN: Joel Balmat

Acting on Joel Balmat's request dated September 24, 1981, a compliance sampling inspection was conducted by the writer and Charles Beier of EDO at the Cleveland Hopkins Airport Landfill in Brook Park, Ohio on October 13-14, 1981.

The following samples were collected:

Sample Number	Type	Location
82EW01S01	Composite Wet Sand	3 equally spaced points in the uncovered portion of the pit collected in columns using a tube.
82EW01S02	Water	Abrams Creek above the landfill.
82EW01S03	Water	Abrams Creek below the landfill.
82EW01S04	Sediment	At 82EW01S02 location.
82EW01S05	Sediment	At 82EW01S03 location.
82EW01S06	Sediment	Abrams Creek above Park Corporation Landfill.
82EW01S07	Sediment	Abrams Creek below Park Corporation Landfill.
82EW01S09	Water	Pumped from under sand in the pit.
82EW01S10	Water	Discharge from the pit.
82EW01S11	Water	Abrams Creek downstream from the landfill.
82EW01S12	Water	Abrams Creek upstream from the landfill.
82EW01S13	Water	Pumped from under the sand in the center of the pit.
82EW01S14	Sediment	Pit discharge.

The analytical results from these sample are found in attached Tables I and II. A water leach test was conducted on a sand sample collected from the uncovered portion of the sand disposal pit. As is shown in Table I, the leachate from this test had high metals concentrations. The water sample collected from the middle of the pit had high concentrations of these same metals. Abrams Creek above and below the airport landfill

also contained significant quantities of these same metals. Sediments collected from Abrams Creek above and below the airport landfill and above and below the Park Corporation landfill also had significant quantities of these same metals. Only the aluminum and iron increased significantly in Abrams Creek below the airport landfill. Bis (2-ethylhexyl) phthalate was found in water sample collected above and below the landfill and in the pit water. The concentration of this phthalate was significantly higher in the upstream sample then in the downstream or pit samples. This indicates that the source of this phthalate is upstream of the landfill and is infiltrating the pit via ground water. The results of the grain sizing of the sand sample collected from the surface of the uncovered portion of the pit is presented in Table III.

The open pit in the airport landfill is discharging via a ditch to Abrams Creek. This discharge should be stopped and the pit should be capped and sealed. The results of this survey coupled with the findings of the Park Corporation landfill survey (EDO report dated September 16, 1981) indicate that there are sources upstream of both landfills causing water quality problems. The most likely sources of this contamination are the Brook Park STP, the Middleburg Heights STP, and FOSECO. An inspection should be conducted at FOSECO Incorporated at 20200 Sheldon Road in Brook Park, Ohio, to determine what pollutants they are contributing to Abrams Creek.

Attachments

Table I

Airport Landfill CSI - 9/24/81
Analytical Results for Water Samples

discharge from pit

Parameter	Pit Leachate (ppb) 82EW01S01	Abrams Creek Upstream (ppb) 82EW01S02	Abrams Creek Downstream (ppb) 82EW01S03	Pit Discharge (ppb) 82EW01S10	Pit Water (ppb) 82EW01S09	Pit Water (ppb) 82EW01S13
Bis(2-ethylhexyl) phthalate	130	12500	650		530	
2-(1-methylethyl) -phenol	< 42	< 34	< 8		< 5	
Phenolics (ppm)		0.007	< .002	0.006		
Total Mercury	2.4	0.6	0.5		1.0	0.1
Ag	440	< 3	< 3		27.9	3400
Al	110000	405	755		319	2100000
B	960	316	303		1110	7500
Ba	3000	25.1	28.4		8.83	43000
Be	19	< 1	< 1		< 1	300
Cd	2400	< 2	< 2		3.58	20000
Co	< 30	< 6	< 6		< 6	320
Cr	1100	< 8	< 8		< 8	18000
Cu	5200	6.9	7.4		81.5	56000
Fe	310000	878	1640		381	7300000
Li	340	423	447		45.3	4200
Mn	130000	207	220		101	1300000
Mo	82	16	16		111	930
Ni	170	< 15	< 15		< 15	6900
Pb	92000	< 70	< 70		< 70	800000
Sn	7900	< 40	< 40		< 40	51000
Sr	1400	298	291		97.6	22000
Ti	1000	< 25	28.6		< 25	15000
V	100	< 5	< 5		16.1	1700
Y	< 25	< 5	< 5		< 5	1100
Zn	300000	85	149		237	3000000
Ca (mg/l)	210	63.8	61.1		9.94	3900
K (mg/l)	71	18.5	18.1		28.8	690
Mg (mg/l)	42	16.4	16		0.668	800
Na (mg/l)	230	93	90		283	2500

Table II

Airport Landfill CSI - 9/24/81
Analytical Results for Sediment Samples

Parameter		504 Abrams Creek Upstream (ppm)	505 Abrams Creek Downstream (ppm)	501 Pit (ppm)	514 Pit Discharge (ppm)	Abrams Creek Above Park Corporation Landfill (ppm)	Abrams Creek Below Park Corporation Landfill (ppm)
Hydrocarbons		22	5	840	0.4	0.8	< 0.2
Phenanthrene/ anthrocene		< 0.1	< 0.1	< 4.4	< 0.1	0.3	1.4
Fluoranthene/ Pyrene		0.5	< 0.1	< 1.5	< 0.1	0.6	3
Chysene/Benzo (A) anthrocene		< 0.1	< 0.1	< 0.9	< 0.1	0.3	< 0.1
Naphthalene		< 0.1	< 0.1	< 0.9	< 0.1	< 0.1	1
Trimethylbenzene		< 0.1	< 0.3	< 28	< 0.3	< 0.1	8.4
Dimethylnaphthalene		< 0.1	< 0.3	< 28	< 0.3	< 0.1	8.3
Trimethylnaphthalene		< 0.1	< 0.3	< 28	< 0.3	< 0.1	13
2(1-methylethyl) phenol		< 0.1	< 0.3	< 28	< 0.3	< 0.1	9.3
Methyl naphthalene		< 0.1	< 0.3	< 28	< 0.3	< 0.1	6.4
PCB	(ppb)			1.4			18* 5.3**
Mercury	"	< 0.01	< 0.01	0.08	< 0.01	< 0.01	
% Solids		79.6	82.3	61.8	78.7	82.6	
Ag		< 0.3	< 0.3	21	.46	< 0.3	
B		< 8	< 8	40	< 8	< 8	
Ba		44	26	300	34	39	
Be		0.41	0.48	1.8	0.34	0.47	
Cd		0.22	< .2	110	2.9	< 0.2	
Co		5.4	6.3	3	3.2	5	
Cr		16	17	110	21	19	
Cu		26	30	350	32	70	
Li		12	17	27	5.8	10	
Mn		310	310	7000	360	270	
Mo		< 1 ✓	5.5	4.3	2.8 ✓	1.6	
Ni		14	20	40	12	16	
Pb		22	7	4100	81	11	
Sn		< 4	< 4	230	< 4	< 4	
Sr		23	46	140	24	28	
Ti		33	26	230	44	45	
V		12	16	13	7	9.5	
Y		4.4	6.1	6.9	2.9	4.2	
Zn		120	88	--	320	100	
Ca	(mg/g)	9	31	30	7.1	13	
K	(mg/g)	1.2	1.6	4.2	0.7	1	
Mg	(mg/g)	5.4	4.4	1.7	3.4		
Na	(mg/g)	0.21	0.14	10	0.45	0.13	
Al	(mg/g)	6.4	6.8	15	3.5	7.8	
Fe	(mg/g)	14	20	41	14	13	
Zn	(mg/g)			15			

* Sediment Portion
** Water Portion

TABLE III

GRAIN SIZE RESULTS

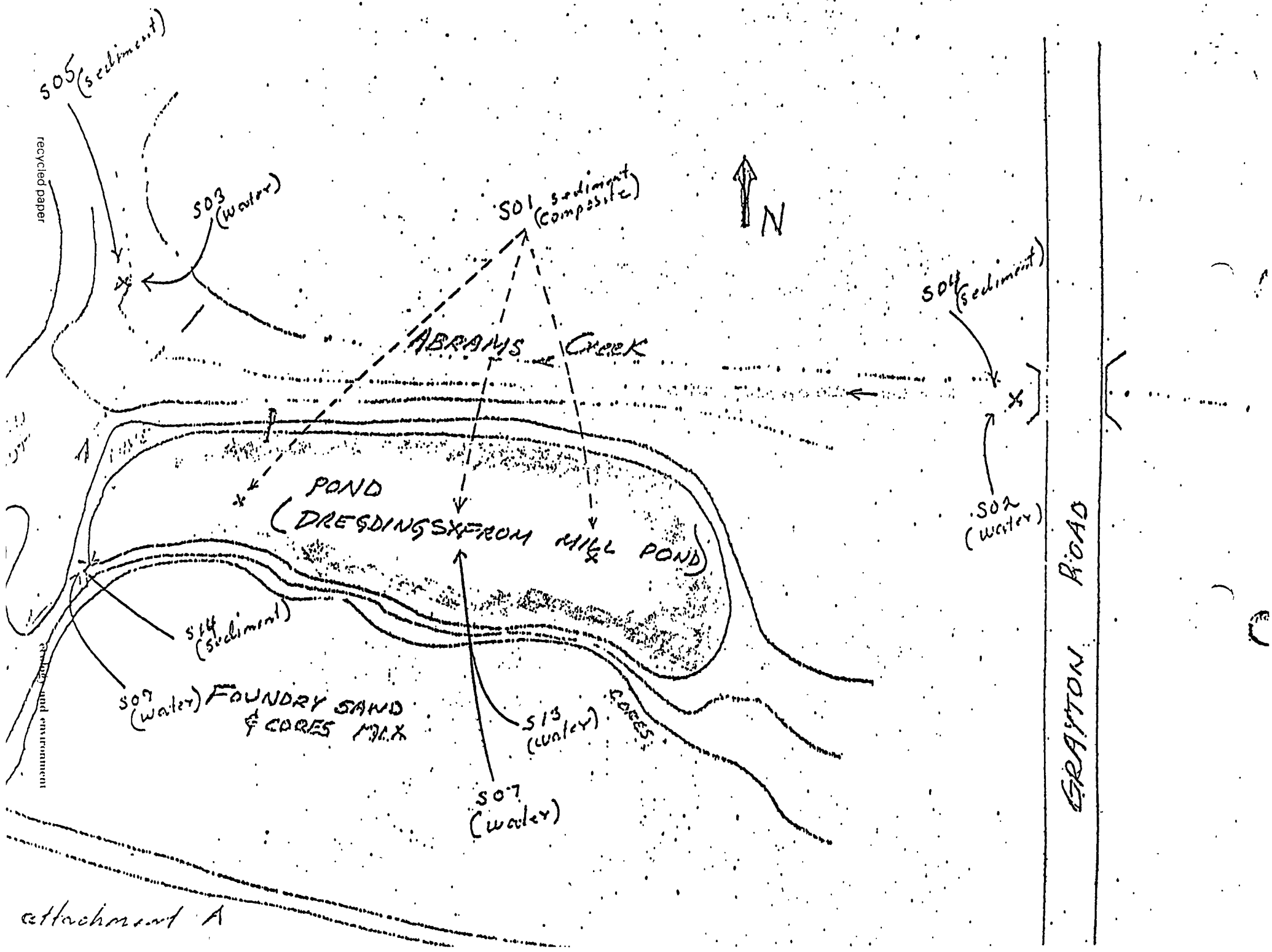
Sample # EW01S01 Total Sample wt. 41.2g

Weight Retained	#16	#28	#50	#60	#100	#200	Passed #200
	0.6	2.3	4.4	2.3	3.9	2.8	25.0
% Retained	1.5	5.6	10.7	5.6	9.5	6.8	60.7

Sample # EW01S01 Dup Total Sample wt. 46.0g

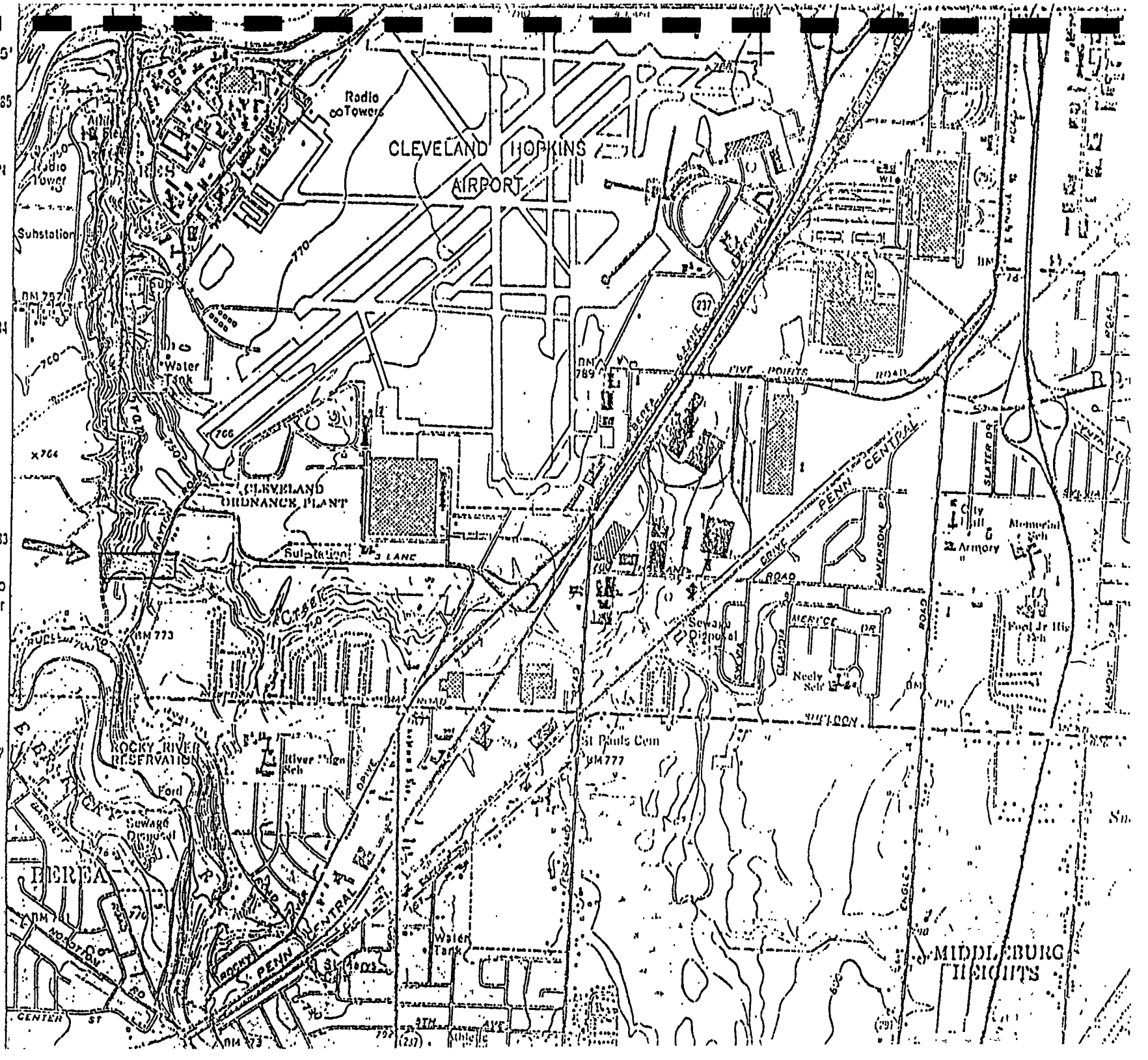
Weight Retained	#16	#28	#50	#60	#100	#200	Passed #200
	0.5	2.7	5.4	2.6	4.9	3.4	26.1
% Retained	1.1	5.9	11.7	5.6	10.6	7.4	56.7

FIGURE 1



attachment A

recycled paper
and environment



GRAYTON RD SITE
SAMPLING POINTS

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ecology and environment

REGION V

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: November 24, 1981

SUBJECT: Analytical Results of Data Set ED0663 - Brookpark Landfill (Grayton Road Site)

FROM: Curtis Ross, Director
Central Regional Laboratory

TO: A.R. Winklhofer, Chief
Eastern District Office

Attached is a copy of the report concerning the subject matter. All questions arising from this report should be directed to Gilbert Frye at FTS (312) 353-8370.

Attachment

ANALYTICAL RESULTS

for Data Set ED0663; BROOKPARK LANDFILL

(Grayton Road Site)

Samples collected October 13 and 14, 1981

Organic Laboratory Section
U.S. Environmental Protection Agency, Region V
Central Regional Laboratory
536 South Clark Street
Chicago, Illinois 60605

[redacted] ENVIRONMENTAL PROTECTION AGENCY, REGION V BASIC DATA FORM

Division/Branch EASTERN Sampling Date 13/14 10 81 (Day Month Year) Lab Arrival Date 19 10 81 (Day Month Year) Analysis Due Date 19 11 81 (Day Month Year)

D.U. Number D-315 Activity Sampling Survey Study Brookpark Landfill Grayton Rd Site

82EW01 Data Set 663 See Special Survey Report

Parameter No.	01067	01147	01077	01092	01012	01102	01087	01152	01022	01002	71900	
CRL Sample Log Number	Total Nickel	Total Selenium	Total Silver	Total Zinc	Total Beryllium	Total Tin	Total Vanadium	Total Titanium	Total Boron	Total Merury	~~Total Arsenic~~	ICAP
Units	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	ug/l	~~ug/l~~	ug/l
1 502										✓ 0.6		✓
2 503										✓ 0.5		✓
3 508										✓ 0.1		✓
4 [redacted]										✓		✓
5 509										✓ 1.0		✓
6 513										✓ 0.1		✓
7												
8												
9											SUSPENDED SOLIDS mg/l	
10 501 LEACH	(501 LEACHATE NEEDED ON WATER SAMPLES)									✓ 2.4	✓ 406	✓
11											11-6-81	
12										11/13/81	SJ.	
13												
14												
15	Code 7-5, Code Hg-5 samples stored receiving room 1029 refrigerator.											
16												
17												
18												
19												
20												

ENVIRONMENTAL PROTECTION AGENCY, REGION V BASE DATA FORM

District Office 82-G001 EDO-663 Sampling Date 13/14 10 81 (Day Month Year) Lab Arrival Date 19 10 81 (Day Month Year) Analysis Due Date 19 11 81 (Day Month)

Account No. _____ Study BROOKPARK LANDFILL, GRAYTON RD. SITE

All units are micrograms per liter or milligrams per kilogram

	Water *	39478	39482	39486	39500	39504	39508			39110	39100		
	* CRL Sample Log Number	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Dibutyl Phthalate	Diethyl Hexyl Phthalate		
#	Sediment *	39491	39495	39499	39503	39507	39511			39112	39102		
1	82EW0,$01	SED		.9	.3	.1	.1		UNITS:	WATER	SAMPLES	ug/L	
2	$02	WATER		K2	K.5	K.2	K.2			SEDIMENTS		ug/kg	
3	$03	W		K3	K.1	K.1	K.1						
4	$04	SED.		K3	K.1	K.1	K.1						
5	$05	SED.		K1	K.3	K.1	K.1						
6	$06	SED.		K3	K.1	K.1	K.1						
7	$07	W		18	K5	K6	K2						
8	R08	BLK		K5	K2	K.5	K.5						
9	$09	W		K5	K2	K.5	K.5						
10	$01L	W		K11	K2	K3	K1						
11	$14	SED.		K.1	K.1	K.1	K.1						
12	$07S	SED.		3.3	K1	2.0	K1						
13											THK	11-13-81	
14													
15													
16													
17													
18													
19													
20													

* Mark out set of parameter numbers not used.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

File
Data folder
EDO 663
+ send copy of
data

DATE: October 26, 1981

SUBJECT: Sample 82EW01S01 Leachate

FROM: Andrea Jirka, Team Leader AJ
Minerals/Nutrients Team, CRL

TO: Files (Re: EDO 663)

The following procedure was used to prepare a blank and leachate for sample 82EW01S01.

Blank

The blank was prepared using 21 L of distilled, deionized water which had passed through 2 charcoal cartridges and was then filtered through 2V filter paper. (This water was recommended by the organic chemists.) The water was stirred in the EP-Toxicity extraction apparatus at setting 6 for 24 hours. The water was removed and split into 3 portions for Hg, ICAP and organic analyses.

Sample

A representative 100g portion of sample 82EW01S01 was transferred into the same EP-Toxicity extraction apparatus. It was extracted at setting 6 for 24 hours using water which had been pretreated as above.

The sample extract was allowed to settle for three days in the refrigerator. After that time the supernatant was drawn off and split into four portions for Hg, ICAP, organic and suspended solids analyses. (The supernatant was extremely turbid.) The extracts and blanks were distributed to the proper labs for preservation and analysis.

cc: Curtis Ross
Charles Elly
Gilbert Frye
M. Kuehl
J. Edmund

Note: Method modified based on the request

DATA SET : EDO.463

ELEMENT		EW01S01	
G	µg/L	440.	
L		110000.	
B		960.	
A		3000.	
E		19.	
CD		2400.	
CO	<	30.	
R		1100.	
CU		5200.	
FE		310000.	
I		340.	
N		130000.	
MO		82.	
I		170.	
B		92000.	
SN		7900.	
R		1400.	
I		1000.	
V		100.	
Y	<	25.	
N		300000.	
CA	mg/L	210.	
K	mg/L	71.	
G	mg/L	42.	
NA	mg/L	230.	

Leachate

11/17/81 [illegible]
11/20/81
MAK

Jun 17 Nov 81

DATA SET : ED0663

ELEMENT		EW01S01		EW01S04		EW01S05		EW01S06
AG	µg/g	21.	<	0.30	<	0.30	<	0.30
B		40.	<	8.0	<	8.0	<	8.0
BA		300.		44.		26.		39.
BE		1.8.		0.41		0.48		0.47
CD		110.		0.22	<	0.20	<	0.20
CO		3.0		5.4		6.3		5.0
CR		110.		16.		17.		19.
CU		350.		26.		30.		70.
FE								
LI		27.		12.		17.		10.
MN		7000.		310.		310.		270.
MO		4.3	<	1.0		5.5		1.6
NI		40.		14.		20.		16.
PB		4100.		22.		7.		11.
SN		230.	<	4.0	<	4.0	<	4.0
SR		140.		23.		46.		28.
TI		230.		33.		26.		45.
V		13.		12.		16.		9.5
Y		6.9		4.4		6.1		4.2
ZN				120.		88.		100.
CA	mg/g	30.		9.		31.		13.
K	mg/g	4.2		1.2		1.6		1.0
MG	mg/g	4.4		2.5		5.4		3.4
NA	mg/g	10.		0.21		0.14		0.13
AL	mg/g	15.		6.4		6.8		7.8
FE	mg/g	41.		14.		20.		13.
ZN	mg/g	15.						

DATA SET : ED0663

ELEMENT	EW01S14
µg/g	0.46
<	8.0
	34.
	0.34
	2.9
	3.2
	21.
	32.
	5.8
	360.
	2.8
	12.
	81.
<	4.0
	24.
	44.
	7.0
	2.9
	320.
mg/g	7.1
	0.70
	1.7
	0.45
	3.5
	14.

DATA SET : ED0663

ELEMENT		EW01S02		EW01S03		EW01R08		EW01S09
G	µg/L	< 3.0	<	3.0	<	3.0		27.9
L		405.		755.	<	80.		319.
B		316.		303.	<	80.		1110.
BA		25.1		28.4	<	5.00		8.83
BE		< 1.00	<	1.00	<	1.00	<	1.00
CD		< 2.00	<	2.00	<	2.00		3.58
CO		< 6.00	<	6.00	<	6.00	<	6.00
CR		< 8.00	<	8.00	<	8.00	<	8.00
CU		6.9		7.4	<	6.0		81.5
FE		878.		1640.	<	80.		381.
LI		423.		447.	<	10.0		45.3
MN		207.		220.	<	5.		101.
MO		16.		16.	<	10.		111.
NI		< 15.0	<	15.0	<	15.0	<	15.0
PB		< 70.0	<	70.0	<	70.0	<	70.0
SB		< 40.0	<	40.0	<	40.0	<	40.0
SR		298.		291.	<	10.0		97.6
TI		< 25.0		28.6	<	25.0	<	25.0
V		< 5.0	<	5.0	<	5.0		16.1
Y		< 5.00	<	5.00	<	5.00	<	5.00
ZN		85.		149.	<	40.		237.
AL					<	0.50		9.94
CA	mg/L	63.8		61.1				
K		18.5		18.1	<	1.0		28.8
MG		16.4		16.0	<	0.100		0.668
NA		93.		90.	<	1.		283.

DATA SET : ED663

ELEMENT	EW01S13
µg/L	3400.
	7500.
	43000.
	300.
	20000.
	320.
	18000.
	56000.
	4200.
	1300000.
	930.
	6900.
	800000.
	51000.
	22000.
	15000.
	1700.
	1100.
mg/L	3900.
	690.
	800.
	2500.
	2100.
	7300.
	3000.