SCREENING SITE INSPECTION REPORT
FOR
EAST 49TH STREET DUMP (B)
CUYAHOGA HEIGHTS, OHIO
U.S. EPA ID: OHD981535024
SS ID: NONE
TDD: F05-8706-181
PAN: F0H0602SA

NOVEMBER 7, 1988

US EPA RECORDS CENTER REGION 5
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1. INTRODUCTION

Ecology and Environment, Inc., Field Investigation Team (FIT) was tasked by the United States Environmental Protection Agency (U.S. EPA) to conduct a screening site inspection (SSI) of the East 49th Street Dump (B) site under contract number 68-01-7347.

The site was first identified in the October 1979 Congressional Report on Waste Disposal Site Survey by the Subcommittee on Oversight and Investigations, chaired by Congressional member from Texas, Robert Eckhardt. The site was identified in the report as a mixed industrial landfill that had received heavy metals and trace metals (bonded organically and inorganically), organics, and inorganics between 1969 and 1970.

The site was evaluated in the form of a preliminary assessment (PA) that was submitted to U.S. EPA. The PA was prepared by Phil Rhodes of the Ohio Environmental Protection Agency (OEPA).

FIT prepared an SSI work plan for the East 49th Street Dump (B) site under technical directive document (TDD) F05-8705-087, issued on May 12, 1987. The SSI work plan was approved by U.S. EPA on September 14, 1987. The SSI of the East 49th Street Dump (B) site was conducted on August 12, 1987 under TDD F05-8706-181, issued on June 6, 1987.

The FIT SSI included an interview with a site representative, a reconnaissance inspection of the site, and the collection of six soil samples.

The purposes of an SSI have been stated by U.S. EPA in a directive outlining Pre-Remedial Program strategies. The directive states:

> All sites will receive a screening SI to 1) collect additional data beyond the PA to enable a more refined preliminary HRS [Hazard Ranking System] score, 2) establish priorities among sites most likely to qualify for the NPL [National Priorities List], and 3) identify the most critical data requirements for the listing SI step. A screening SI will not have rigorous data quality objectives (DQOs). Based on the refined preliminary HRS score and other technical judgment factors, the site will then either be designated as NFRAP [no further remedial action planned], or carried forward as an NPL listing candidate. A listing SI will not automatically be done on these sites, however. First, they will go through a management evaluation to determine whether they can be addressed by another authority such as RCRA [Resource Conservation and Recovery Act].... Sites that are designated NFRAP or deferred to other statutes are not candidates for a listing SI.
>
> The listing SI will address all the data requirements of the revised HRS using field screening and NPL level DQOs. It may also provide needed data in a format to support remedial investigation work plan development. Only sites that appear to score high enough for listing and that have not been deferred to another authority will receive a listing SI. (U.S. EPA 1988)

U.S. EPA Region V has also instructed FIT to identify sites during the SSI that may require removal action to remediate an immediate human health and/or environmental threat.

2.1 SITE BACKGROUND

2.1 INTRODUCTION

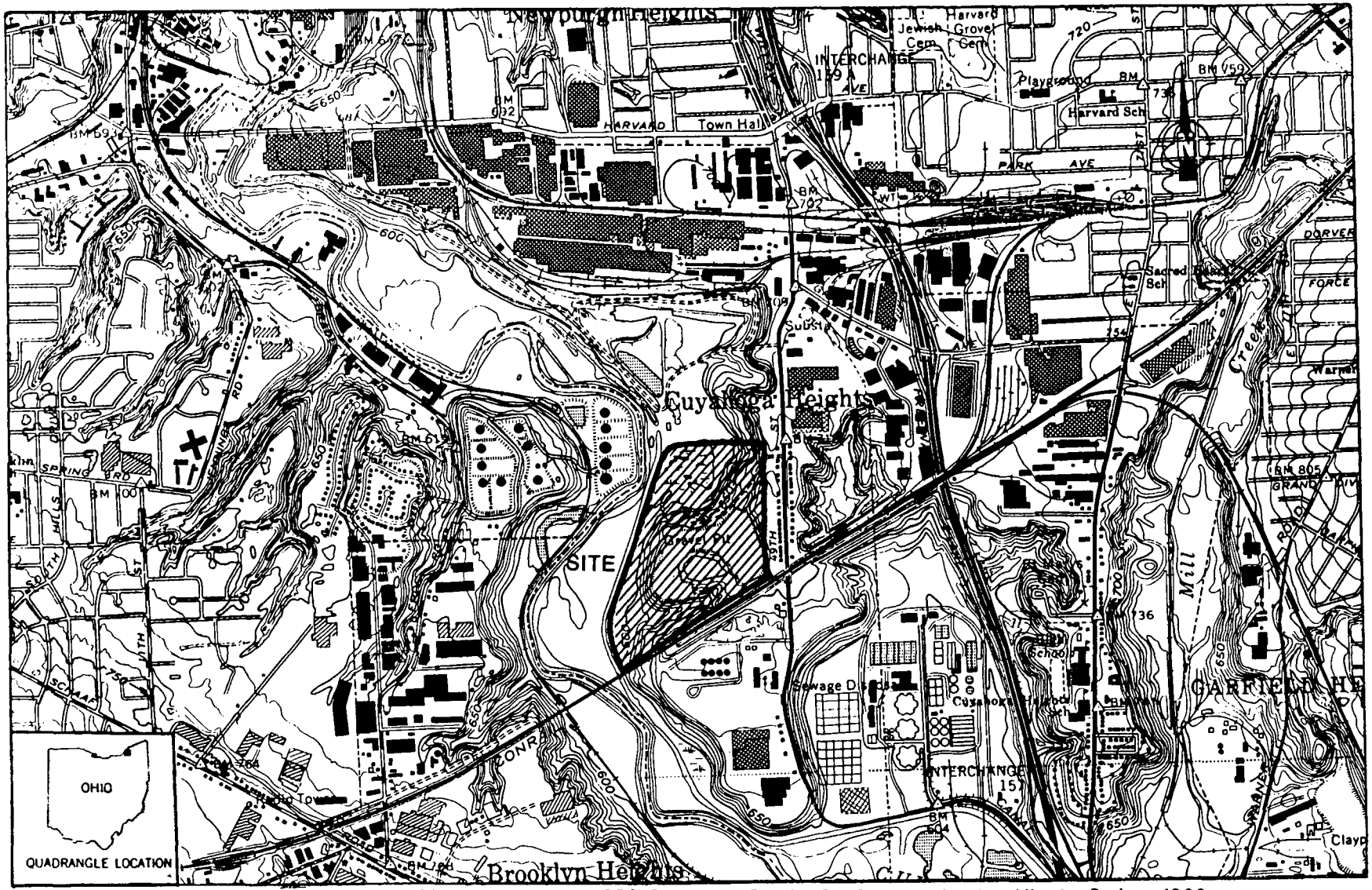
This section includes information obtained from SSI work plan preparation and the site representative interview.

2.2 SITE DESCRIPTION

The East 49th Street Dump (B) site is an inactive dump where municipal wastes and allegedly PCB-contaminated oily wastes were dumped (OEPA 1986). The 40-acre landfill is located on a 69-acre parcel of land in a densely populated urban area along the Ohio Canal in Cuyahoga Heights, Ohio, in Cuyahoga county (T.7N., R.12W.) on East 49th Street, 1/2 mile south of Grant Avenue (see Figure 2-1). A 4-mile radius map of the East 49th Street Dump (B) site is provided in Appendix A.

2.3 SITE HISTORY

The current owner of the site property, Cleveland Electric Illuminating Company (CEI), has built a large electrical substation on the surface of the approximately 40-acre, inactive landfill. CEI uses the north slope of the landfill for an unlicensed dump for its construction debris (OEPA 1986; Szwejkowski 1987). In February 1984, a local resident complained to the OEPA Emergency Response Unit that a "black oily substance oozing out of the side of the bank of CEI property and into [the] Ohio Canal" was observed. In March 1971, CEI purchased the site property from Canfor Company, which had owned the property since the mid 1940s (Szwejkowski 1987). It is alleged that the site had been a gravel pit that was used as a sanitary landfill operated by Service



SOURCE: Ecology and Environment, Inc., 1988; BASE MAP: USGS, Cleveland South, OH Quadrangle, 7.5 Minute Series, 1963.

SCALE
0 0.5 1 MILE

FIGURE 2-1 SITE LOCATION

Corporation of America (SCA) when the property was owned by Canfor Company during 1969 to 1970. General Electric Company (GE) is also alleged to have dumped chemical wastes into the landfill. GE has not disclosed waste types or volumes of chemicals dumped at the site (OEPA 1986). According to federal, state, and local agencies, no enforcement or emergency actions have taken place at the site.

3. SCREENING SITE INSPECTION PROCEDURES AND FIELD OBSERVATIONS

3.1 INTRODUCTION

This section outlines procedures and observations of the SSI of the East 49th Street Dump (B) site. Individual subsections address the site representative interview, reconnaissance inspection, and sampling procedures. Rationales for specific FIT activities are also provided. The SSI was conducted in accordance with the U.S. EPA-approved work plan.

The U.S. EPA Potential Hazardous Waste Site Inspection Report (Form 2070-13) for the East 49th Street Dump (B) site is provided in Appendix B. The U.S. EPA Immediate Removal Action Checksheet for the East 49th Street Dump (B) site is provided in Appendix C.

3.2 SITE REPRESENTATIVE INTERVIEW

Dirk Kaiser, FIT Team Leader, conducted an interview with Joseph C. Szwejkowski, an employee of Centerior Energy, which is the parent company of CEI. Also present were: Robert Parker, also from Centerior Energy, and Lynn Van Glist and Michael J. Jirousek, of CEI. The interview was conducted on August 12, 1987, at 8:45 a.m. on an access road to the site. The interview was conducted to gather information that would aid FIT in conducting SSI activities.

3.3 RECONNAISSANCE INSPECTION

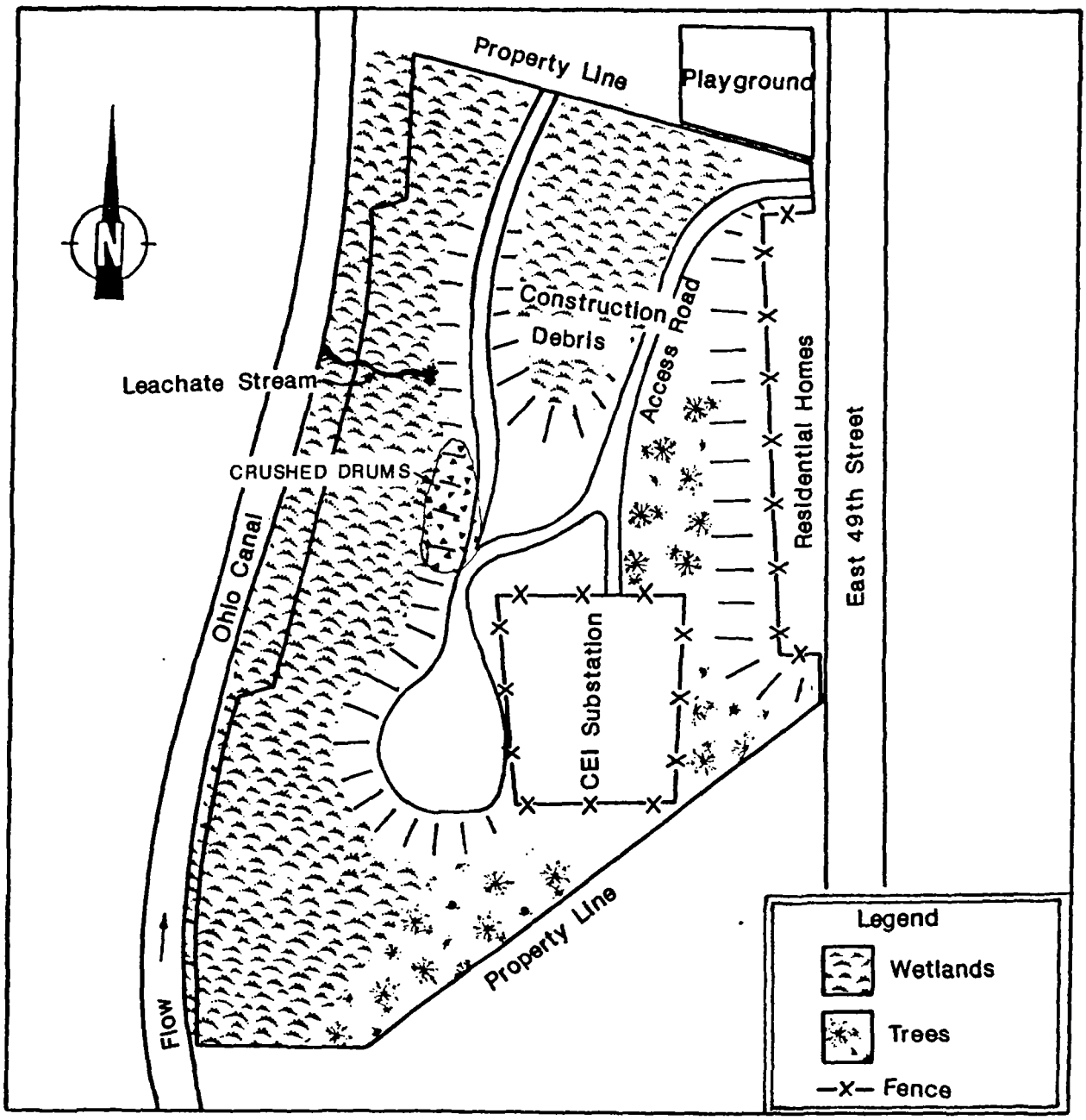
Following the site representative interview, FIT conducted a reconnaissance inspection of the East 49th Street Dump (B) site and surrounding area in accordance with Ecology and Environment, Inc. (E & E), health and safety guidelines. The reconnaissance inspection

included a walk-through of the site to determine appropriate health and safety requirements needed to conduct on-site activities and to make observations to aid in characterizing the site. FIT also determined sampling locations during the reconnaissance inspection.

The reconnaissance inspection was conducted on August 12, 1987 at 9:15 a.m. Szwejkowski accompanied FIT during the reconnaissance inspection.

Reconnaissance Inspection Observations. During the reconnaissance inspection, fencing was observed on only the east side of the site (see Figure 3-1 for site features. The Ohio Canal borders the west side of the site and residences border the east side of the site. The north and south borders of the site were not fenced and were not discernible. No security guard or other means of security are utilized at the site. The site property consists of 69 acres, of which the landfill comprises 40 acres. Approximately 25 acres of the property is a wetland area, which is overgrown with reeds that were observed to be approximately 7 feet tall.

During the FIT SSI, several trucks dumped construction wastes over the north edge of the landfill. Four crushed liquid waste drums were noticed on the west slope of the landfill that protruded through the cover material. A leachate stream was observed on the west edge of the landfill which migrated across the soil surface, through the wetland area, and eventually discharged into the Ohio Canal. The leachate was orange-colored, had an oily sheen, and was flowing at approximately 1/2 gallon per minute into the Ohio Canal. As the leachate stream entered the water, it separated into an oily part which was observed on the top of the water surface and into an orange part which was observed moving along the waterway's bottom. No leachate collection systems or surface runoff diversion structures were observed at the site. Deer tracks and other wildlife signs were visible in the wetland area. Also, evidence of fishing was observed along the canal banks at the site. The mayor of Cuyahoga Heights stated that he has seen people fishing in the Ohio Canal, which is interconnected with the Cuyahoga River (Contipelli 1988).



SOURCE: Ecology And Environment, Inc., 1988.

Approximate Scale (Feet)

0 300 600 900 1200

FIGURE 3-1 SITE FEATURES

3.4 SAMPLING PROCEDURES

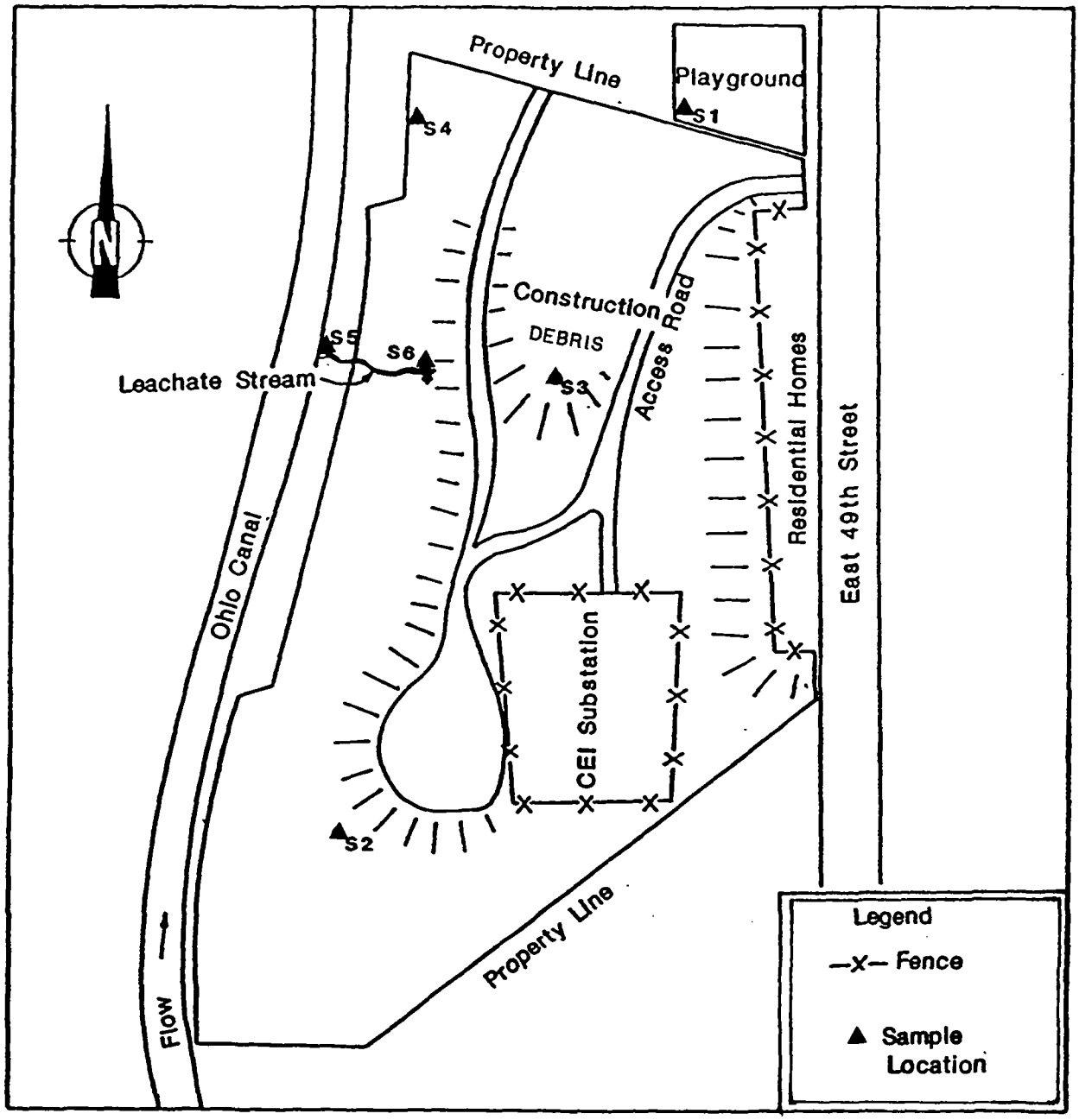
Samples were collected by FIT at locations determined during the reconnaissance inspection to determine levels of U.S. EPA Target Compound List (TCL) compounds and U.S. EPA Target Analyte List (TAL) analytes present at the site. The TCL and TAL, and Contract Laboratory Program (CLP) quantitation/detection limits are provided in Appendix E. On August 12, 1987, FIT collected five on-site surface soil samples and one off-site potential background soil sample. Portions of the samples were taken by site representatives.

Soil Sampling Procedures. A potential background soil sample (indicated as S1) was collected from a wooded area directly north and adjacent to the site (see Figure 3-2 for soil sampling locations). The potential background soil sample was collected to determine the representative chemical content of the soil of the area surrounding the site. The location was chosen because the area appeared to be in an undisturbed state.

Sample S1 was obtained by using a garden trowel to dig to an approximate depth of 6 inches. After debris had been removed from the soil, the soil was transferred to sample bottles using a stainless steel spoon (E & E 1987).

Surface soil samples S2 and S4 were collected in areas between the toe of the landfill and the wetlands and Ohio Canal. The sample locations were chosen because of the possibility that the landfill may have leaked hazardous waste onto the soil. Surface soil sample S3 was collected in the soil outwash on the north side of the landfill where CEI has been dumping construction materials. The sample location was chosen because of the possibility that the landfill or CEI construction wastes may have leaked hazardous waste onto the soil.

Samples S5 and S6 were collected from the soil below the leachate stream. Sample S5 was collected from the bank of the Ohio Canal where the leachate stream passed over the soil and into the canal. Sample S6 was collected from the leachate stream source near the toe of the landfill slope approximately 40 to 50 feet from S5 and the Ohio Canal at a depth of 12 inches. The locations for soil samples S5 and S6 were chosen to determine the chemical content of the leachate stream as it entered the Ohio Canal and the leachate stream source near the landfill.



SOURCE: Ecology And Environment, Inc., 1988.

Approximate Scale (Feet)

0 300 600 900 1200

FIGURE 3-2 SOIL SAMPLING LOCATIONS

Surface soil samples S2, S3, S4, S5, and S6 were collected using garden trowels to transfer the material to aluminum pans. Sample material was then transferred from the bowl to sample bottles using stainless steel spoons (E & E 1987).

Standard E & E decontamination procedures were adhered to during the collection of all soil samples. The procedures included the scrubbing of all equipment (i.e., trowels, pans, and spoons) with a solution of detergent and distilled water, and triple rinsing the equipment with distilled water before the collection of each sample (E & E 1987). All soil samples were packaged and shipped in accordance with U.S. EPA-required procedures.

As directed by U.S. EPA, samples S1, S2, S3, S4, S5, and S6 were analyzed for TCL compounds by Hazleton Laboratories America, Inc., of Madison, Wisconsin, and for TAL analytes by Hittman Ebasco Associates, Inc., of Columbia, Maryland.

4. ANALYTICAL RESULTS

4.1 INTRODUCTION

This section includes results of the chemical analysis of FIT-collected soil samples for TCL compounds and TAL analytes.

4.2 RESULTS OF CHEMICAL ANALYSIS OF FIT-COLLECTED SAMPLES

Chemical analysis of FIT-collected soil samples revealed substances from the following groups of TCL compounds and TAL analytes: aromatics, halogenated aromatics, polyaromatic hydrocarbons (PAHs), polychlorinated biphenyls (Aroclors), metals, laboratory artifacts, and natural constituents (see Table 4-1 for complete soil sample chemical analysis results).

Laboratory screening indicated that sample S6 should be analyzed at a medium level for volatile compounds. Both low and medium analytical results are provided in Appendix E. Soil samples S1 and S3 were reanalyzed because of out-of-control surrogate recoveries involving toluene-D8 and BFB.

Laboratory analytical data of soil sample analysis are provided in Appendix E.

5. DISCUSSION OF MIGRATION PATHWAYS

5.1 INTRODUCTION

This section discusses data and information that apply to potential migration pathways and targets of TCL compounds and TAL analytes that may be attributable to the East 49th Street Dump (B) site.

The five migration pathways of concern discussed are: groundwater, surface water, air, fire and explosion, and direct contact.

5.2 GROUNDWATER

There does exist a potential for TCL compounds and TAL analytes to migrate from the site to groundwater in the vicinity of the site. This potential is based on the following information:

- TCL compounds and TAL analytes have been detected at the site;
- Waste has been deposited at the site as an unconsolidated solid and allegedly as an oily waste contaminated with PCBs (OEPA 1986);
- No documentation exists that indicates the site is lined; and
- There are no leachate collection systems present at the site and leachate was observed migrating off-site.

The potential for TCL compounds and TAL analytes to migrate to groundwater in the vicinity of the site is also based on the following geological information:

COMPOUND QUALIFIERS	DEFINITION	INTERPRETATION
J	Indicates an estimated value.	Compound value may be semiquantitative.
B	This flag is used when the compound is found in the associated blank as well as in the sample. It indicates possible/ probable blank contamination and warns the data user to take appropriate action.	Compound value may be semiquantitative if it is <5x the blank concentration (<10x the blank concentrations for common laboratory artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone).

ANALYTE QUALIFIERS	DEFINITION	INTERPRETATION
S	Analysis by Method of Standard Additions.	Value is quantitative.
R	Spike recoveries outside QC protocols, which indicate a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semiquantitative.
*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be quantitative or semiquantitative.
[ ]	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.

Source: Ecology and Environment, Inc. 1988.

Table 4-1
RESULTS OF CHEMICAL ANALYSIS OF
FIT-COLLECTED SOIL SAMPLES

Sample Collection Information and Parameters	Sample Number S1	S1RE	S2	S3	S4	S4RE	S5	S6 Low	S6 MED
Date	8/12/87	8/12/87	8/12/87	8/12/87	8/12/87	8/12/87	8/12/87	8/12/87	8/12/87
Time	1250	1250	1020	1040	1120	1120	1150	1210	1210
Organic Traffic Report Number	ET959	ET959RE	ET960	ET961	ET962	ET962RE	ET963	ET964	ET964
Inorganic Traffic Report Number	MEU959		MEU960	MEU961	MEU962		MEU963	MEU964	MEU964
Compound Detected (values in µg/L									
Volatile Organics									
methylene chloride	9B	14B	8B	8B	9B	14B	41B	36BJ	--
acetone	12B	35B	18B	14B	32B	62B	74B	140B	--
benzene	--	--	--	--	--	--	100	2,900	3,700
toluene	9	7	--	--	--	--	--	--	--
chlorobenzene	--	--	--	--	--	--	220	2,800	5,500
ethylbenzene	--	--	--	--	--	--	21	1,000	2,100
xylenes (total)	--	--	--	--	--	--	--	770	1,900
Semivolatile Organics									
1,3-dichlorobenzene	--	--	--	--	--	--	--	150J	--
1,4-dichlorobenzene	--	--	--	--	--	--	--	400J	--
1,2-dichlorobenzene	--	--	--	--	--	--	--	60J	--
n-nitroso-di-n-dipropylamine	--	--	78JB	--	--	--	--	--	--
benzoic acid	--	56J	--	--	88J	--	40J	--	--
naphthalene	--	--	--	--	--	--	--	1,900	--
2-methylnaphthalene	--	--	--	--	--	--	--	260J	--
acenaphthylene	33J	54J	--	28J	--	--	--	--	--
dibenzofuran	--	46J	--	--	--	--	--	--	--
fluorene	--	59J	--	80J	--	--	--	94J	--
n-nitrosodiphenylamine	--	--	--	--	--	--	120JB	220JB	--
phenanthrene	300J	920	--	1,200	150J	--	81J	150J	--
anthracene	57J	770J	--	350J	--	--	--	--	--
di-n-butylphthalate	--	200JB	940B	170JB	2,500B	--	1,400B	250JB	--
fluoranthene	580	1,100	--	2,400	380J	--	200J	--	--
pyrene	540	930	--	1,500	350J	--	140J	43J	--
butylbenzylphthalate	--	1,700B	--	--	--	--	--	--	--
benzo[a]anthracene	270J	490	--	1,000	170J	--	71J	--	--
chrysene	320J	590	--	960	240J	--	190J	--	--
bis(2-ethylhexyl)phthalate	--	--	--	--	340J	--	--	490J	--
benzo[b]fluoranthene	550	1,000	--	600	--	--	150J	--	--
benzo[k]fluoranthene	--	--	--	870	--	--	97J	--	--
benzo[a]pyrene	280J	420	--	930	--	--	100J	--	--
indeno[1,2,3-cd]pyrene	--	--	--	600	--	--	--	--	--

Table 4-1 (Cont.)

Sample Collection Information and Parameters	Sample Number S1	S1RE	S2	S3	S4	S4RE	S5	S6 Low	S6 MED
Pesticides/PCBs									
Aroclor 1248	--	--	--	--	--	--	--	2.100	--
Aroclor 1254	--	--	--	--	--	--	--	2.200	--
Analyte Detected (values in mg/kg)									
aluminum	5,170	--	6,500	5,030	8,830	--	11,400	5,870	--
arsenic	5.0sR	--	11R	4.2R	17sR	--	23sR	[6.3]sR	--
barium	[89]	--	[64]	[49]	[183]	--	1,030	712	--
beryllium	--	--	[1.1]	[0.9]	[1.2]	--	[1.9]	--	--
cadmium	6.4	--	--	--	12	--	8.6	--	--
calcium	3,150	--	32,500	36,800	20,900	--	28,300	40,500	--
chromium	8.6R	--	12R	10R	46R	--	68R	31R	--
cobalt	--	--	[6.8]	--	[10]	--	[13]	--	--
copper	23	--	[14]	--	39	--	66	48	--
iron	12,200	--	24,000	13,000	27,800	--	49,800	28,800	--
lead	140*	--	--	56*	133s	--	218*	84*	--
magnesium	[1,160]	--	10,700	7,640	9,780	--	8,140	10,400	--
manganese	347	--	376	656	417	--	602	339	--
mercury	--	--	--	--	0.3	--	0.3	0.4	--
nickel	31	--	53	32	66	--	91	63	--
potassium	[428]	--	[1,210]	[677]	[1,110]	--	[1,800]	1,380	--
silver	[0.5R]	--	--	--	[1.1]R	--	[1.7]R	[0.6]R	--
sodium	[66]	--	[390]	[301]	[233]	--	[1,130]	[1,130]	--
vanadium	[9.9]	--	--	[15]	[14]	--	[18]	[23]	--
zinc	156	--	56	77	791	--	378	140	--

-- Not detected.

- The general geology of the area of the site consists of unconsolidated glacial buried valley deposits of sand, gravel, silt, and clay, which are between 200 to 300 feet thick and overlie a shale bedrock (Ohio Department of Natural Resources 1979);

- The unsaturated zone under the site is composed of sand and gravel; and

- According to Ohio Department of Natural Resources (ODNR) geologic maps, no continuous impermeable confining layers exist throughout a 3-mile radius of the site.

Also according to ODNR well log records, no residential or industrial water wells exist within a 3-mile radius of the site.

5.3 SURFACE WATER

TCL compounds detected in the river bank of the Ohio Canal are attributable to the East 49th Street Dump (B) site. TCL compounds and TAL analytes were detected in the source of the leachate stream near the toe of the landfill and at the Ohio Canal Bank. The potential for PCB-contamination of the Ohio Canal is high because high levels of Aroclor 1248 and Aroclor 1254 were detected at the source of the leachate stream; near the landfill in the wetlands area.

The site has no surface water diversion structures between the landfill and the Ohio Canal. The Ohio Canal is no longer used for commercial purposes, but is used for fishing; it is interconnected with the Cuyahoga River (Contipelli 1988). The Cuyahoga River also does not have drinking or irrigation intakes, but its final destination, approximately 8.5 miles north of the site, is Lake Erie, where surface water intakes for the Cleveland area are located (Jefferies 1986).

5.4 AIR

A release of potential contaminants to the air was not documented during the SSI of the East 49th Street Dump (B) site. During the

reconnaissance inspection, FIT site-entry instruments (organic vapor analyzer, Draeger pump with cyanide tubes, explosimeter) did not detect levels above background concentrations at the site (E & E 1987). In accordance with the U.S. EPA-approved work plan, further air monitoring was not conducted by FIT.

5.5 FIRE AND EXPLOSION

R. Nelson, the Fire Department chief for Cuyahoga Heights, has stated that no apparent potential for fire and/or explosion exists at the site. FIT observations, file information, and laboratory data confirmed that there is no apparent potential for fire and/or explosion at the site.

5.6 DIRECT CONTACT

According to federal, state, and local file information, and interviews with local officials, no documentation exists of an incident of direct contact with TCL compounds and/or TAL analytes at the East 49th Street Dump (B) site.

A potential exists that the public may come into direct contact with TCL compounds and TAL analytes detected at the site. The potential for direct contact is based on the following information:

- Access to the site is not completely restricted; no fencing, security guard, or other means of security are utilized at the site (Szwejkowski 1987);

- Indications that fishing from the site banks has taken place were observed;

- TCL compounds and TAL analytes have been detected at the site; and

- FIT observations and sample results indicate that waste at the site is exposed and uncovered.

According to United States Geological Survey (USGS) topographic maps (Cleveland South Quadrangle, 1984; and Shaker Heights Quadrangle, 1979), the population within a 1-mile radius of the site is approximately 14,100 persons.

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0731:2

APPENDIX A

SITE 4-MILE RADIUS MAP

APPENDIX B

U.S. EPA FORM 2070-13

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
OH	D981535024

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
East 49th Street Dump (B)	West of E. 49th Street & Grant St.

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Cuyahoga Heights	OH	44125	Cuyahoga	035	20

09 COORDINATES		10 TYPE OF OWNERSHIP (Check one)
LATITUDE	LONGITUDE	X A. PRIVATE ___ B. FEDERAL ___ C. STATE ___ D. COUNTY ___ E. MUNICIPAL
41 26 19.0 N	081 39 41.0 W	___ F. OTHER ___ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION
8/12/87 (MO/DAY/YR)	___ ACTIVE X INACTIVE	Mid 1940s (BEGINNING YEAR) | 1970 (ENDING YEAR) ___ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)

___ A. EPA X B. EPA CONTRACTOR Ecology and Environment, Inc. (Name of firm) ___ C. MUNICIPAL ___ D. MUNICIPAL CONTRACTOR

___ E. STATE ___ F. STATE CONTRACTOR ___ (Name of firm) ___ G. OTHER ___ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
Dirk Kaiser	Geologist	E & E	(312) 663-9415

09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
Mike Broll	Geographer	E & E	(312) 663-9415
Steve Anderson	Geologist	E & E	(312) 663-9415
Margaret Hein	Biologist	E & E	(312) 663-9415

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO.
Joe C. Szwejkowski	Environmental Activities	Centerior Energy 6200 Oak Tree Blvd. Independence, OH 44131	(216) 447-3214
Robert Parker	Environmental Activities	Centerior Energy 6200 Oak Tree Blvd. Independence, OH 44131	(216) 447-3214
Lynn Van Gust	Station Supervisor	C.E.I. Co. 55 Public Square Cleveland, OH 44101	(216) 622-9800
Michael J. Jirousek	Environmentalist	C.E.I. Co. 55 Public Square Cleveland, OH 44101	(216) 622-9800

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
X PERMISSION ___ WARRANT	8:45	80's, clear, no wind

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Mark Besel	U.S. EPA	(312) 886-0393

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Dirk Kaiser	U.S. EPA-FIT	E & E	(312) 663-9415	2/1/88

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
OH	D981535024

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

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

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

TONS Unknown
CUBIC YARDS
NO. OF DRUMS

03 WASTE CHARACTERISTICS (Check all that apply)

X A. TOXIC
B. CORROSIVE
C. RADIOACTIVE
X D. PERSISTENT
X E. SOLUBLE
F. INFECTIOUS
X G. FLAMMABLE
H. IGNITABLE
X 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	UNK		Detected in soil samples
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS	UNK		Detected in soil samples
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers) from lab data (8/12/87)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
OCC	phenanthrene	85-01-8	Landfill	1,200	µg/L
OCC	fluoranthene	206-44-0	"	2,400	µg/L
OCC	pyrene	129-00-0	"	1,500	µg/L
OCC	benzo(a)Anthracene	56-55-3	"	1,000	µg/L
OCC	chrysene	218-01-9	"	960	µg/L
OCC	benzo(b&k)	205-99-2/207-08-9			µg/L
OCC	fluoranthene			600/700	µg/L
OCC	benzo(a)Pyrene	50-32-8	"	930	µg/L
OCC	indeno(1,2,3-cd)Pyrene	193-39-5	"	600	µg/L
SOL	benzene	71-43-2	"	3,700	µg/L
SOL	chlorobenzene	108-90-7	"	5,500	µg/L
SOL	ethylbenzene	100-41-4	"	2,100	µg/L
SOL	total Xylenes	--	"	1,900	µg/L
OCC	aroclor-1248	12672-29-6	"	3,300	µg/L
OCC	aroclor-1254	11097-69-1	"	3,200	µg/L
			"		µg/L

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS	None		FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

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

File Information.
Site Inspection Sampling/Lab Data from 8/12/87.
Site Inspection Interview.

*Concentration represented is the highest amount detected in soil sampling.

Continued from Part 11, Section IV.

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
OCC	mgthylone chloride		Landfill	41J	ppb
OCC	acetone		Landfill	74J	ppb
OCC	1,3-dichlorobenzene		Landfill	150J	ppb
OCC	1,4-dichlorobenzene		Landfill	400J	ppb
OCC	benzok acid		Landfill	88J	ppb
OCC	2-methylnapthalene		Landfill	260J	ppb
OCC	acenapthylene		Landfill	33J	ppb
OCC	fluorene		Landfill	80J	ppb
OCC	phenanthrene		Landfill	1200	ppb
OCC	anthracene		Landfill	350J	ppb
OCC	bis-(2-ethylhexyl)-		Landfill		
	phthalate			490J	ppb
MES	arsenic		Landfill	23	ppm
MES	beryllium		Landfill	[1.9]	ppm
MES	cadmium		Landfill	12	ppm
MES	chromium		Landfill	68	ppm
MES	cobalt		Landfill	[13}	ppm
MES	copper		Landfill	66	ppm
MES	lead		Landfill	[218]	ppm
MES	mercury		Landfill	0.4	ppm
MES	nickel		Landfill	[91]	ppm
MES	silver		Landfill	[1.7]	ppm
MES	vanadium		Landfill	[23]	ppm

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
OH	D981535024

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
East 49th Street Dump (B)	West of E. 49th Street & Grant St.

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Cuyahoga Heights	OH	44125	Cuyahoga	035	20

09 COORDINATES		10 TYPE OF OWNERSHIP (Check one)
LATITUDE	LONGITUDE	X A. PRIVATE ___ B. FEDERAL ___ C. STATE ___ D. COUNTY ___ E. MUNICIPAL
41 26 19.0 N	081 39 41.0 W	___ F. OTHER ___ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION
8/12/87 (MO/DAY/YR)	___ ACTIVE X INACTIVE	Mid 1940s (BEGINNING YEAR) | 1970 (ENDING YEAR) ___ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)

___ A. EPA X B. EPA CONTRACTOR Ecology and Environment, Inc. (Name of firm) ___ C. MUNICIPAL ___ D. MUNICIPAL CONTRACTOR

___ E. STATE ___ F. STATE CONTRACTOR ___ (Name of firm) ___ G. OTHER ___ (Specify)

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Michael J. Jirousek	Environmentalist	C.E.I. Co. 55 Public Square Cleveland, OH 44101	(216) 622-9800

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01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Mark Besel	U.S. EPA	(312) 886-0393

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Dirk Kaiser	U.S. EPA-FIT	E & E	(312) 663-9415	2/1/88

EPA	POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 3 – DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS	I. IDENTIFICATION 01 STATE OH 02 SITE NUMBER D981535024

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 X A. GROUNDWATER CONTAMINATION — 02 ___ OBSERVED (DATE: ___) X POTENTIAL ___ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: 0 — 04 NARRATIVE DESCRIPTION

The underlying strata consists of unconsolidated glacial deposits clays and alluvium. These layers have the potential for 2-3 GPM to be produced. Although this aquifer is unused, the potential for it to be contaminated exists.

01 X B. SURFACE WATER CONTAMINATION — 02 X OBSERVED (DATE: 8/12/87) ___ POTENTIAL ___ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: 0 — 04 NARRATIVE DESCRIPTION

FIT sampling determined that leachate discharging into the Ohio Canal was contaminated. It is also alleged that "a black oily substance" was leaking into the canal in February 1984. The Ohio Canal and the Cuyahoga River are interconnected. The Ohio Canal is used for recreational fishing.

01 ___ C. CONTAMINATION OF AIR — 02 ___ OBSERVED (DATE: ___) ___ POTENTIAL ___ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: N/A — 04 NARRATIVE DESCRIPTION

There is no evidence of an air release due to this site.

01 ___ D. FIRE/EXPLOSIVE CONDITIONS — 02 ___ OBSERVED (DATE: ___) ___ POTENTIAL ___ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: N/A — 04 NARRATIVE DESCRIPTION

There has been no report of a fire/explosive condition at this site.

01 X E. DIRECT CONTACT — 02 ___ OBSERVED (DATE: X) X POTENTIAL ___ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: 14,100 — 04 NARRATIVE DESCRIPTION

The potential exists for direct contact (human/animal) to contaminated soil or a leachate seep.

01 X F. CONTAMINATION OF SOIL — 02 X OBSERVED (date: 8/12/87) X POTENTIAL ___ ALLEGED

03 AREA POTENTIALLY AFFECTED: 40 (Acres) — 04 NARRATIVE DESCRIPTION

Three of the onsite soil samples taken by FIT were contaminated with organic wastes.

01 ___ G. DRINKING WATER CONTAMINATION — 02 ___ OBSERVED (DATE: ___) ___ POTENTIAL ___ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: N/A — 04 NARRATIVE DESCRIPTION

There are no drinking wells within the three-mile radius of this site.

01 ___ H. WORKER EXPOSURE/INJURY — 02 ___ OBSERVED (DATE: ___) ___ POTENTIAL ___ ALLEGED

03 WORKERS POTENTIALLY AFFECTED: N/A — 04 NARRATIVE DESCRIPTION

There is no record of a worker exposure or injury. Due to the nature of the current site operations (an electric substation), there are no workers on the site daily.

01 X I. POPULATION EXPOSURE/INJURY — 02 ___ OBSERVED (DATE: ___) X POTENTIAL ___ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: 14,100 — 04 NARRATIVE DESCRIPTION

The potential for exposure exists from contact with contaminated soil or a leachate seeps. There were signs of casual site use from fishermen.

EPA

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

I. IDENTIFICATION
01 STATE OH | 02 SITE NUMBER D981535024

II. HAZARDOUS CONDITIONS AND INCIDENTS (CONTINUED)

01 X J. DAMAGE TO FLORA — 02 ___ OBSERVED (DATE: _____) X POTENTIAL ___ ALLEGED

04 NARRATIVE DESCRIPTION

There is no evidence of damage to Flora. Contaminated leachate seeps were observed and sampled in the wetlands.

01 X K. DAMAGE TO FAUNA — 02 ___ OBSERVED (DATE: _____) X POTENTIAL ___ ALLEGED

04 NARRATIVE DESCRIPTION (Include name(s) of species)

Deer tracks and other signs of wildlife were observed in the wetland area of this site. The potential for contact between Fauna and contaminated soil is high.

01 X L. CONTAMINATION OF FOOD CHAIN — 02 ___ OBSERVED (DATE: _____) X POTENTIAL ___ ALLEGED

04 NARRATIVE DESCRIPTION

The potential for the fish in the canal to become contaminated is high. Fishing in the canal is common locally. See J and K above.

01 X M. UNSTABLE CONTAINMENT OF WASTES — 02 X OBSERVED (DATE: 8/12/87) _____ POTENTIAL ___ ALLEGED

(Spills/runoff/standing liquids/leaking drums)

03 POPULATION POTENTIALLY AFFECTED: ≅14,100 — 04 NARRATIVE DESCRIPTION

The landfill is leaking contaminated fluids into the Ohio canal. (See Section B)

01 ___ N. DAMAGE TO OFFSITE PROPERTY — 02 ___ OBSERVED (DATE: _____) ___ POTENTIAL ___ ALLEGED

04 NARRATIVE DESCRIPTION

There is no evidence of damage to offsite property.

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

04 NARRATIVE DESCRIPTION

There is no evidence of contamination to sewers due to the site's landfill.

01 ___ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ___ OBSERVED (DATE: _____) ___ POTENTIAL ___ ALLEGED

04 NARRATIVE DESCRIPTION

There is no record of illegal dumping at the site.

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

N/A

III. TOTAL POPULATION POTENTIALLY AFFECTED: 14,100

IV. COMMENTS

The "total population potentially affected" represents the population within 1 mile radius of the site.

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

File Information.
Site inspection/site sampling.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
OH	D98153502A

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				There are no current permits or known past permits

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	unknown	
___G. LANDFARM		
___H. OPEN DUMP		
___I. OTHER (Specify)		

04 TREATMENT (Check all that apply)

___A. INCINERATION
___B. UNDERGROUND INJECTION
___C. CHEMICAL/PHYSICAL
___D. BIOLOGICAL
___E. WASTE OIL PROCESSING
___F. SOLVENT RECOVERY
___G. OTHER RECYCLING/RECOVERY
___H. OTHER none (Specify)

05 Other

_X_A. BUILDINGS ON SITE

06 AREA OF SITE

~69 (Acres)

07 COMMENTS

N/A

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 landfill is leaking contaminated fluids into the Ohio canal.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: _X_YES ___NO

02 COMMENTS

The site is fenced on one side only. There is evidence of casual site use.

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

File information.
Site inspection.
Lab data from 8/12/87 sampling.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
OH	D981535024

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)

	SURFACE	WELL
COMMUNITY	A. X	B. ___
NON-COMMUNITY	C. X	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)
___ C. COMMERCIAL, INDUSTRIAL IRRIGATION (Limited other sources available)
X D. NOT USED, UNUSEABLE

COMMERCIAL, INDUSTRIAL, IRRIGATION (No other water sources available)

02 POPULATION SERVED BY GROUND WATER 0

03 DISTANCE TO NEAREST DRINKING WATER WELL >3 miles

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFER
unknown (ft)	unknown	UNK (ft)	UNK (gpd)	N/A ___ NO

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

There are no drinking water wells within 3 miles of the site.

10 RECHARGE AREA		11 DISCHARGE AREA	
___ YES	COMMENTS None	___ YES	COMMENTS None
X NO		x NO	

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
Ohio Canal	X	Adjacent (ft)
Cuyahoga River (interconnected with Ohio Canal)	___	500 (ft)
	___	(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. 14,100	B. 56,400	C. ~ 127,000
NO. OF PERSONS	NO. OF PERSONS	NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION ~500 (ft)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE ~10,000

04 DISTANCE TO NEAREST OFF-SITE BUILDING ~500 (ft)

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 area surrounding the site is heavy industry and urban population.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
OH	D981535024

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

X 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) X 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
unknown (ft)	unknown (ft)	5.1-8.4

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
2 (in)	2.15 (in)	7.14 %	West	7.14 %

09 FLOOD POTENTIAL
SITE IS IN N/A YEAR FLOOD PLAN

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. 0 (ft)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)
>3 (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. ~1000 (ft)	B. ~500 (ft)	C. >3 (mi)	D. >3 (mi)

4 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

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

File information
U.S.G.S. Topographic Base Map

EPA	POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 6 - SAMPLE AND FIELD INFORMATION	I. IDENTIFICATION 01 STATE OH 02 SITE NUMBER D981535024

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL	6	Inorg: Hittman Ebasco/org: Hazelton	12/87
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
Organic Vapor Analyzer	No readings were detected above background.
Radiation Monitor	No readings were above background.
Oxygen Meter	No readings were above background.
Explosimeter	No readings were above background.
Montox (Cyanide)	No readings were above background.

IV. PHOTOGRAPHS AND MAPS

01 TYPE X GROUND ___ AERIAL

02 IN CUSTODY OF Ecology and Envionment, Inc.
(Name of organization or individual)

03 MAPS
X YES
___ NO

04 LOCATION OF MAPS
Ecology and Environment, Inc.

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

None

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

Site Inspection.
Lab Samples for 8/12/87 sampling.

EPA	POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 7 - OWNER INFORMATION	I. IDENTIFICATION 01 STATE OH 02 SITE NUMBER D98153502A

II. CURRENT OWNER(S)				PARENT COMPANY (If applicable)			
01 NAME Cleveland Electric and Illuminating (CEI)		02 D+B NUMBER N/A		08 NAME Centerior Energy		09 D+B NUMBER N/A	
03 STREET ADDRESS (P.O. BOX, RFD #, ETC.) Illuminating Building 55 Public Square		04 SIC CODE N/A		10 STREET ADDRESS (P.O. BOX, RFD #, ETC.) 6200 Oak Tree Blvd.		11 SIC CODE N/A	
05 CITY Cleveland	06 STATE OH	07 ZIP CODE 44101		12 CITY Independence	13 STATE OH	14 ZIP CODE 44131	
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 Canfor Company		02 D+B NUMBER Unknown	01 NAME		02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.) Address unknown		04 SIC CODE N/A	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
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)

Site Inspection Interview

EPA	POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 8 - OPERATOR INFORMATION	I. IDENTIFICATION 01 STATE: OH 02 SITE NUMBER: D981535024

II. CURRENT OPERATOR (Provide if different from owner)			OPERATOR'S PARENT COMPANY (If applicable)		
01 NAME N/A		02 D+B NUMBER	10 NAME Waste Management, Inc.		11 D+B NUMBER Unknown
03 STREET ADDRESS (P.O. BOX, RFD #, ETC.)		04 SIC CODE Unknown	12 STREET ADDRESS (P.O. BOX, RFD #, ETC.) 3003 Butterfield Road		13 SIC CODE Unknown
05 CITY	06 STATE	07 ZIP CODE	14 CITY Oak Brook	15 STATE IL	16 ZIP CODE 60521
08 YEARS OF OPERATION	09 NAME OF OWNER				

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)			PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)		
01 NAME Service Corporation of America		02 D+B NUMBER Unknown	10 NAME Waste Management, Inc.		11 D+B NUMBER Unknown
03 STREET ADDRESS (P.O. Box, RFD #, etc.) 3003 Butterfield Road		04 SIC CODE unknown	12 STREET ADDRESS (P.O. Box, RFD #, etc.) 3003 Butterfield Road		13 SIC CODE Unknown
05 CITY Oak Brook	06 STATE IL	07 ZIP CODE 60521	14 CITY Oak Brook	15 STATE IL	16 ZIP CODE 60521
08 YEARS OF OPERATION Unknown	09 NAME OF OWNER DURING THIS PERIOD Canfor Company				
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)

File information,
Site inspection/interview.

EPA	POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 9 - GENERATOR/TRANSPORTER INFORMATION	I. IDENTIFICATION 01 STATE: OH 02 SITE NUMBER: d981535024

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER	
Cleveland Electrical Illuminating (CEI)	N/A	
03 STREET ADDRESS (P.O. BOX, RFD #, ETC.)	04 SIC CODE	
Illumination Bldg. 55 Public Sq.	N/A	
05 CITY / 06 STATE	07 ZIP CODE	
Cleveland / OH	44101	

III. OFF-SITE GENERATOR(S)

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

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
Unknown			
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)

File information.

EPA	POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 10 - PAST RESPONSE ACTIVITIES	I. IDENTIFICATION 01 STATE OH 02 SITE NUMBER D981535024

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

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

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 d981535024

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
N/A

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

File information.
Site inspection/interview.

EPA	POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 11 - ENFORCEMENT INFORMATION	I. IDENTIFICATION 01 STATE OH 02 SITE NUMBER D981535024

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ___YES _X_ NO

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

There has been no past enforcement action taken at this site.

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

File information.
Site inspection interview.

APPENDIX C

U.S. EPA
IMMEDIATE REMOVAL ACTION
CHECKSHEET

EAST 49TH ST. DUMP (3)
OHD981535027

Immediate Removal Action Check Sheet

	High	Moderate	Low
Fire and Explosion Hazard			
Flammable Materials SEE #1 BELOW			X
Explosives N/A			
Incompatable Chemicals N/A			
Direct Contact with Acutely Toxic Chemicals			
Site Security SEE #2 BELOW	X		
Leaking Drums or Tanks N/A			
Open Lagoons or Pits N/A			
Materials on Surface SEE #3 BELOW	X		
Proximity of Population SEE #4 BELOW	X		
Evidence of Casual Site Use SEE #5 BELOW	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, active, or inactive?			

Comments:

1) FLAMMABLE CHEMICALS WERE FOUND IN THE SOILS. THE POTENTIAL FOR A GREATER CONCENTRATION OF FLAMMABLES IN THE LANDFILL EXISTS.

2) THE SITE IS NOT COMPLETELY FENCED AND IS UNGUARDED. THERE IS EVIDENCE OF CASUAL SITE USE.

3) SURFACE SOIL SAMPLES WERE FOUND TO BE CONTAMINATED. CONTAMINATED LEACHATE SEEPS WERE OBSERVED AND SAMPLED.

4) RESIDENTIAL HOMES ARE ADJACENT TO THE SITE.

5) THERE IS EVIDENCE OF FISHERMAN USING THE SITE.

FIT SAMPLING INDICATED CONTAMINATED FLUIDS ARE SEEPING INTO THE OHIO CANAL.

APPENDIX D

FIT SITE PHOTOGRAPHS

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: EAST 49TH STREET DUMP (B) PAGE 1 OF 8

U.S. EPA ID: OHD981535024 TDD: F05-8706-181 PAN: F0H0602SA

DATE: > 8/12/87

TIME: > 0930

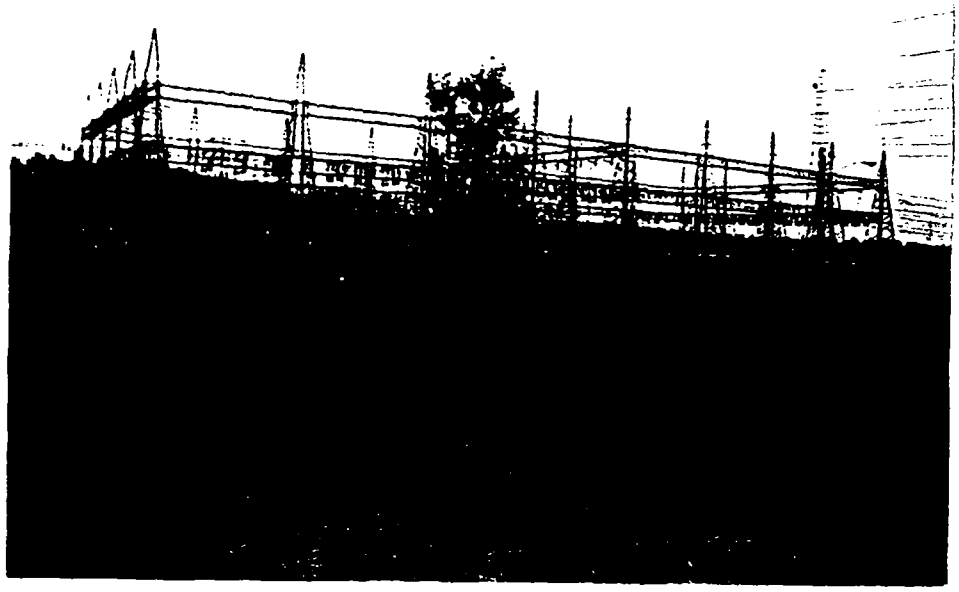
DIRECTION OF PHOTOGRAPH:
> SSW

WEATHER CONDITIONS:
> 80°F

> CLEAR

PHOTOGRAPHED BY:
> DIRK KAISER

SAMPLE ID (if applicable):
> N/A



DESCRIPTION: > PHOTO OF CEI BUILDING AND SUBSTATION COM-
> PLEX FROM ACCESS ROAD.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: EAST 49TH STREET DUMP (B) PAGE 2 OF 8

U.S. EPA ID: OHD981535024 TDD: F05-8706-181 PAN: F0H0602SA

DATE: >8/12/87

TIME: > 1020

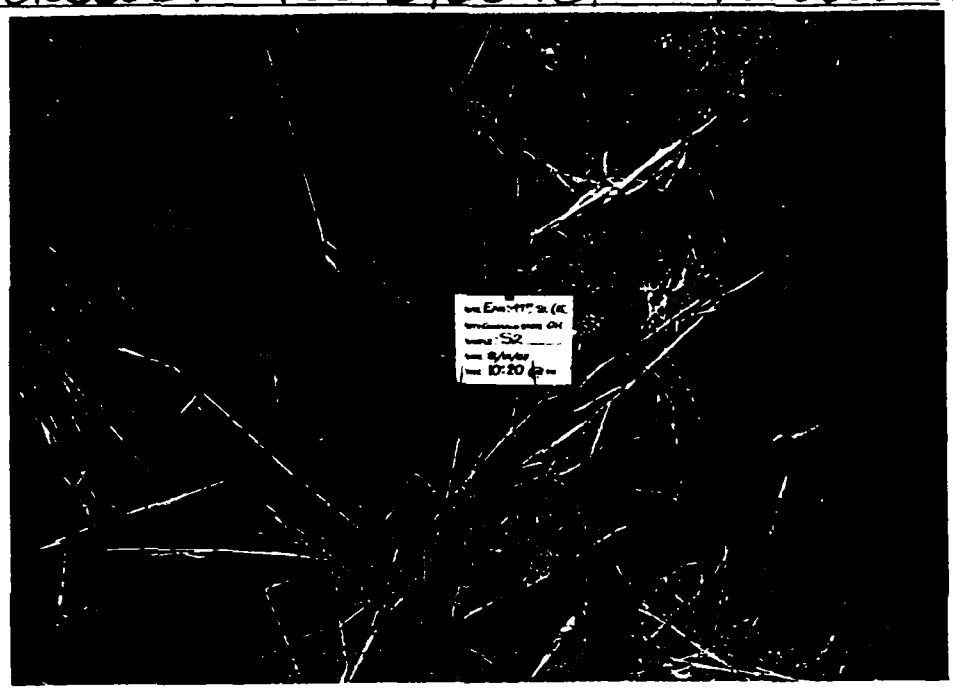
DIRECTION OF PHOTOGRAPH: > NE

WEATHER CONDITIONS: > 80°F

> CLEAR

PHOTOGRAPHED BY: >DIRK KAISER

SAMPLE ID (if applicable): > S2



DESCRIPTION: >CLOSE UP OF SAMPLE S2 ON SOUTHWEST

> CORNER OF LANDFILL.

DATE: >8/12/87

TIME: > 1020

DIRECTION OF PHOTOGRAPH: > NE

WEATHER CONDITIONS: > 80°F

> CLEAR

PHOTOGRAPHED BY: >DIRK KAISER

SAMPLE ID (if applicable): > S2

DESCRIPTION: >PANARAMIC VIEW OF S2. NOTE LANDFILL

> SLOPE IN BACKGROUND.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: EAST 49TH STREET DUMP (B) PAGE 3 OF 8

U.S. EPA ID: OHD981535024 TDD: F05-8706-181 PAN: F0H0602SA

DATE: >8/12/87

TIME: >1040

DIRECTION OF PHOTOGRAPH: > NNW

WEATHER CONDITIONS: > 80°F

> CLEAR

PHOTOGRAPHED BY: >DIRK KAISER

SAMPLE ID (if applicable): > S3

DESCRIPTION: >SAMPLE S3 WAS TAKEN IN THE SANDY OUTWASH

>ON THE NORTH SLOPE AT THE EDGE OF THE WETLANDS.

DATE: >8/12/87

TIME: >1040

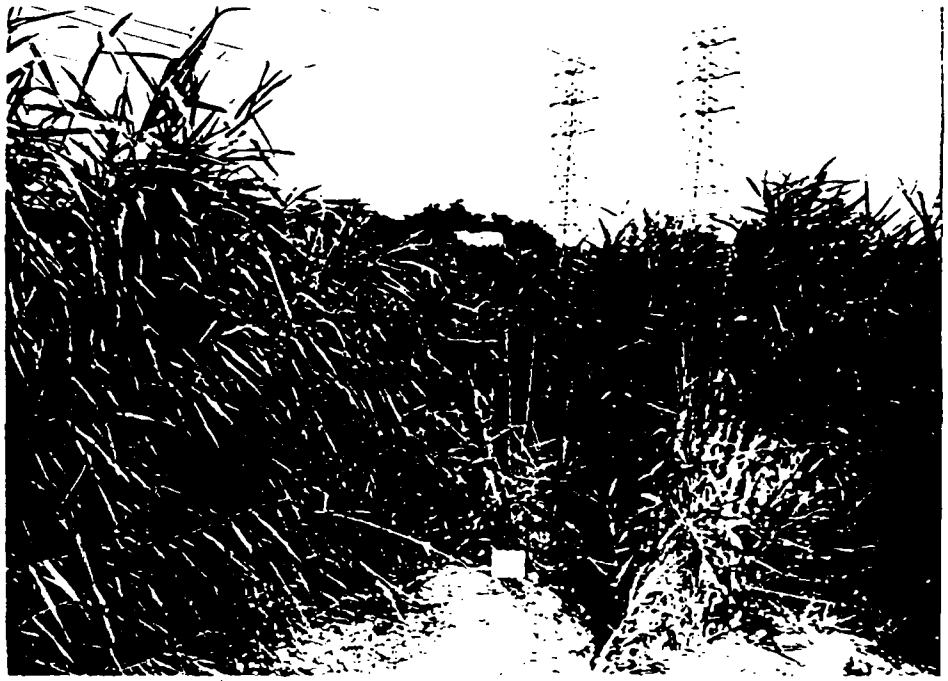
DIRECTION OF PHOTOGRAPH: > NNW

WEATHER CONDITIONS: > 80°F

> CLEAR

PHOTOGRAPHED BY: >DIRK KAISER

SAMPLE ID (if applicable): > S3



DESCRIPTION: >LOCATION OF SAMPLE S3 AT THE EDGE OF THE

>WETLANDS AND THE TOE OF THE SLOPE WHERE CEI HAS BEEN DUMPING.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: East 49th Street Dump (B) PAGE 4 OF 8

U.S. EPA ID: OHD981535024 TDD: F05-8706-181 PAN: F0H602SA

DATE: >8/12/87

TIME: > 1120

DIRECTION OF PHOTOGRAPH: >NW

WEATHER CONDITIONS: >Clear, 80°F

PHOTOGRAPHED BY: >Dirk Kaiser

SAMPLE ID (if applicable): > S4

DESCRIPTION: >Sample S4

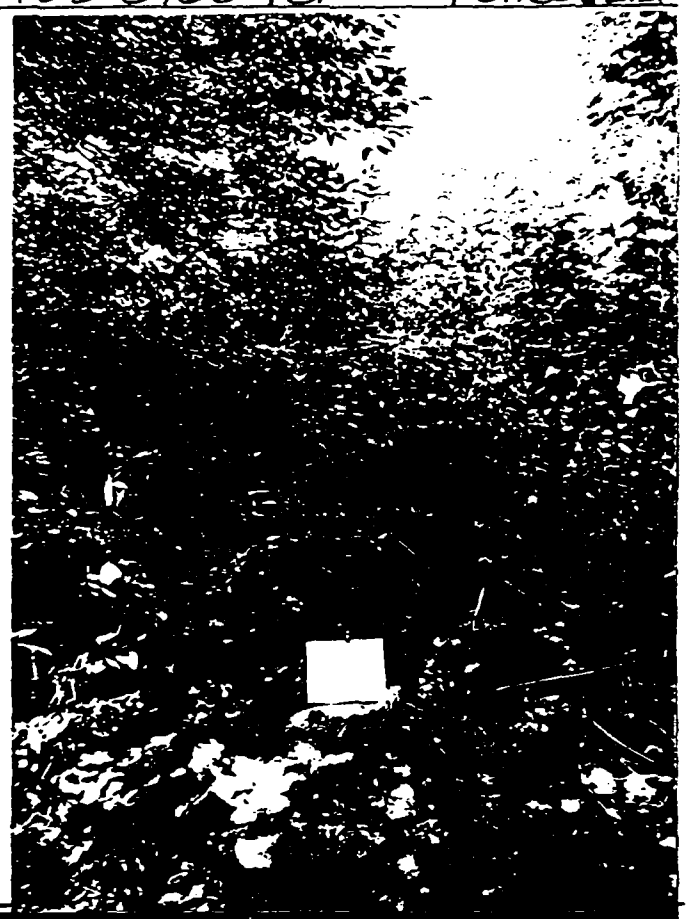
>Located in the lowlands

>20' from the river

>at the NW corner

>of the landfill.

>



DATE: >8/12/87

TIME: >1120

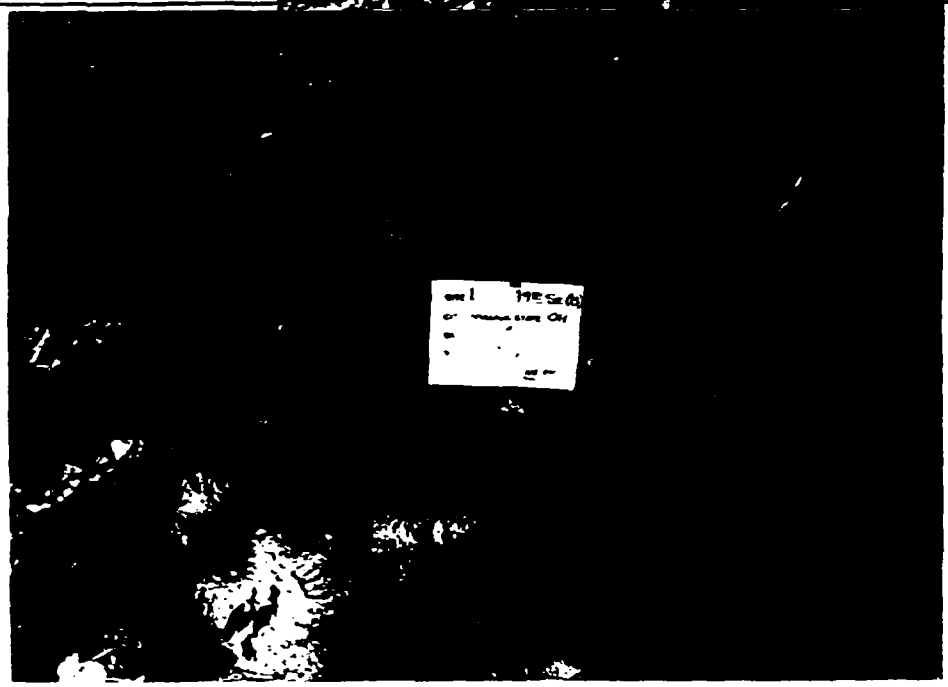
DIRECTION OF PHOTOGRAPH: > NW

WEATHER CONDITIONS: > 80°F

> Clear

PHOTOGRAPHED BY: >Dirk Kaiser

SAMPLE ID (if applicable): > S4



DESCRIPTION: > Sample S4 was collected in the

> canal bank area.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: EAST 49TH STREET DUMP (B) PAGE 5 OF 8

U.S. EPA ID: OHD981535024 TDD: F05-8706-181 PAN: F0H060250

DATE: > 8/12/87

TIME: > 1200

DIRECTION OF PHOTOGRAPH: > E

WEATHER CONDITIONS: > 80°F, CLEAR

PHOTOGRAPHED BY: > D. KAISER

SAMPLE ID (if applicable): > N/A

DESCRIPTION: > ORANGE

> LEACHATE EXITING THE

> GROUND AT ~ 1/2 - 1

> GALLON PER MINUTE AT

> UPPER LEFT OF PHOTO.

>

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: EAST 49TH STREET DUMP (B) PAGE 6 OF 8

U.S. EPA ID: OHD981535024 TDD: F05-8706-181 PAN: F0H0602SA

DATE: >8/12/87

TIME: > 1200

DIRECTION OF PHOTOGRAPH: >NW

WEATHER CONDITIONS: >80°F, CLEAR

PHOTOGRAPHED BY: >D. KAISER

SAMPLE ID (if applicable): > N/A

DESCRIPTION: >LEACHATE ENTER-
>ING THE CANAL IN TWO
>PLACES AT THE BANK.
>NOTE OILY FILM ON THE
>WATER'S SURFACE AS THE
>LEACHATE AND WATER MIX.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: EAST 49TH STREET DUMP (B) PAGE 7 OF 8

U.S. EPA ID: OHD981535024 TDD: F05-8706-181 PAN: F0H0602SA

DATE: >8/12/87

TIME: >1150

DIRECTION OF PHOTOGRAPH: >NW

WEATHER CONDITIONS: >80°F, CLEAR

PHOTOGRAPHED BY: >D. KAISER

SAMPLE ID (if applicable): > S5

DESCRIPTION: > SAMPLE S5

>WAS TAKEN IN THE

>SOIL UNDER THE LEACHATE

>STREAM AT THE LEACHATE/

>CANAL INTERSECTION.

>

DATE: >8/12/87

TIME: >1150

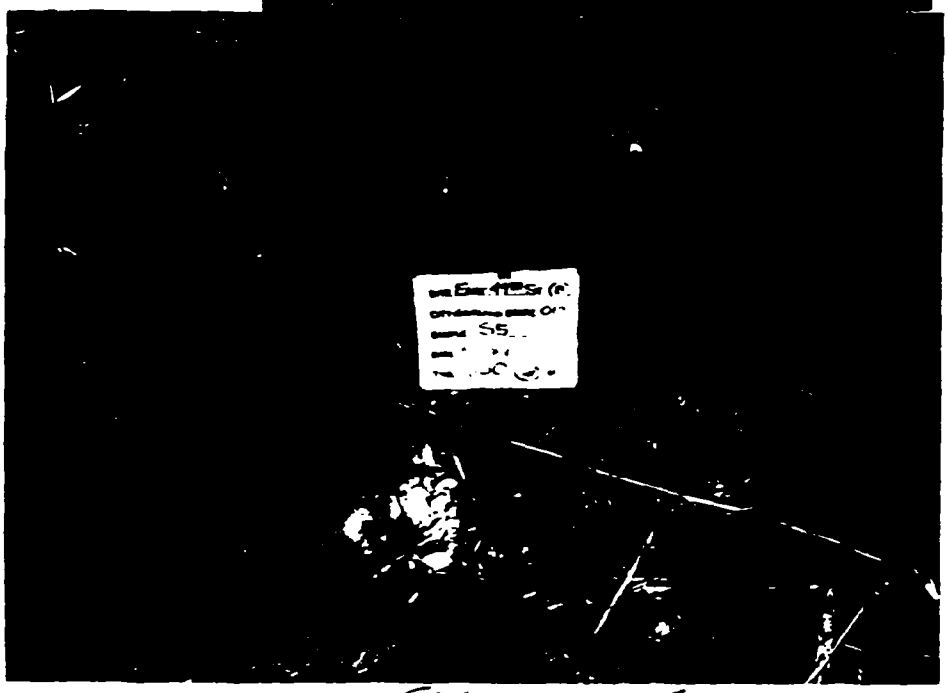
DIRECTION OF PHOTOGRAPH: > WNW

WEATHER CONDITIONS: > 80°F

> CLEAR

PHOTOGRAPHED BY: >DIRK KAISER

SAMPLE ID (if applicable): > S5



DESCRIPTION: >LOCATION OF SAMPLE S5 ALONG CEI

> PROPERTY AND THE OHIO CANAL.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: EAST 49TH STREET DUMP (B) PAGE 8 OF 8

U.S. EPA ID: OHD981535024 TDD: F05-8706-181 PAN: F0H0602SA

DATE: >8/12/87

TIME: >1210

DIRECTION OF PHOTOGRAPH: >E

WEATHER CONDITIONS: >80°F, CLEAR

PHOTOGRAPHED BY: >D. KAISER

SAMPLE ID (if applicable): > S6

DESCRIPTION: >LOCATION OF >SAMPLE S6. LOCATION >IS AT THE LANDFILL >TOE. THE SAMPLE WAS >COLLECTED FROM INSIDE >THE WETLANDS.

DATE: >8/12/87

TIME: >1250

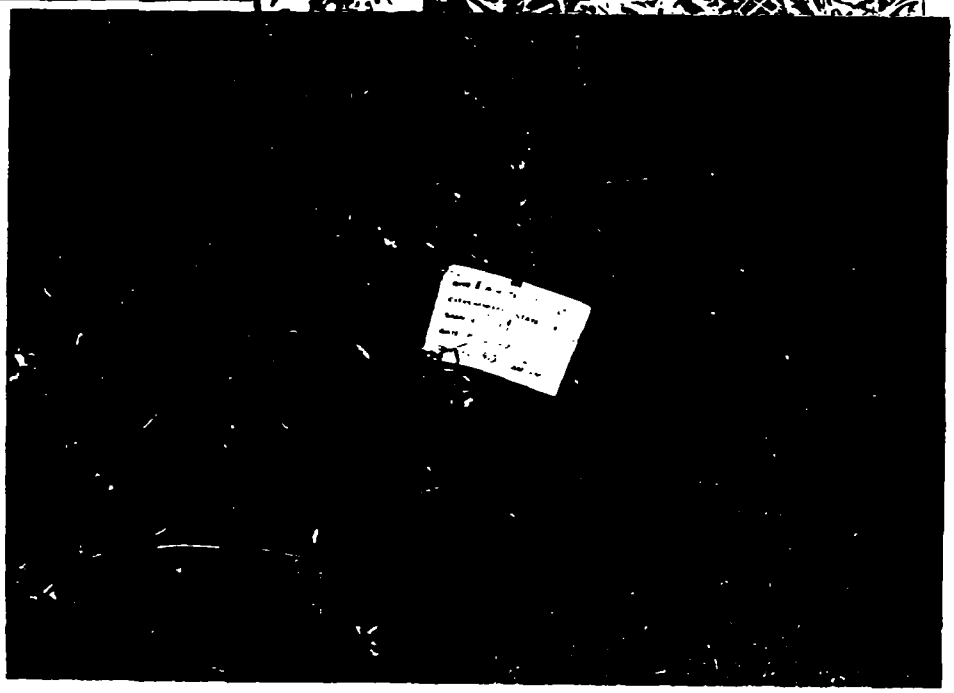
DIRECTION OF PHOTOGRAPH: > N

WEATHER CONDITIONS: > 80°F

> CLEAR

PHOTOGRAPHED BY: >DIRK KAISER

SAMPLE ID (if applicable): > S1



DESCRIPTION: > POTENTIAL BACKGROUND SOIL SAMPLE S1 TAKEN >IN PLAYGROUND ADJACENT TO THE SITE.

APPENDIX E

CHEMICAL ANALYSIS DATA
OF
FIT-COLLECTED SAMPLES

ADDENDUM A

ROUTINE ANALYTICAL SERVICES
CONTRACT REQUIRED DETECTION AND QUANTITATION LIMITS

Contract Laboratory Program
Target Compound List
Quantitation Limits

COMPOUND	CAS #	WATER	SOIL SEDIMENT SLUDGE
Chloromethane	74-87-3	10 ug/L	10 ug/Kg
Bromomethane	74-83-9	10	10
Vinyl chloride	75-01-4	10	10
Chloroethane	75-00-3	10	10
Methylene chloride	75-09-2	5	5
Acetone	67-64-1	10	5
Carbon disulfide	75-15-0	5	5
1,1-dichloroethene	75-35-4	5	5
1,1-dichloroethane	75-34-3	5	5
1,2-dichloroethene (total)	540-59-0	5	5
Chloroform	67-66-3	5	5
1,2-dichloroethane	107-06-2	5	5
2-butanone (MEK)	78-93-3	10	10
1,1,1-trichloroethane	71-55-6	5	5
Carbon tetrachloride	56-23-5	5	5
Vinyl acetate	108-05-4	10	10
Bromodichloromethane	75-27-4	5	5
1,2-dichloropropane	78-87-5	5	5
cis-1,3-dichloropropene	10061-01-5	5	5
Trichloroethene	79-01-6	5	5
Dibromochloromethane	124-48-1	5	5
1,1,2-trichloroethane	79-00-5	5	5
Benzene	71-43-2	5	5
Trans-1,3-dichloropropene	10061-02-6	5	5
Bromoform	75-25-2	5	5
4-Methyl-2-pentanone	108-10-1	10	10
2-Hexanone	591-78-6	10	10
Tetrachloroethene	127-18-4	5	5
Tolene	108-88-3	5	5
1,1,2,2-tetrachloroethane	79-34-5	5	5
Chlorobenzene	108-90-7	5	5
Ethyl benzene	100-41-4	5	5
Styrene	100-42-5	5	5
Xylenes (total)	1330-20-7	5	5

Table A
Contract Laboratory Program
Target Compound List
Semivolatiles Quantitation Limits

COMPOUND	CAS #	WATER	SOIL SEDIMENT SLUDGE
Phenol	108-95-2	10 ug/L	330 ug/Kg
bis(2-Chloroethyl) ether	111-44-4	10	330
2-Chlorophenol	95-57-8	10	330
1,3-Dichlorobenzene	541-73-1	10	330
1,4-Dichlorobenzene	106-46-7	10	330
Benzyl Alcohol	100-51-6	10	330
1,2-Dichlorobenzene	95-50-1	10	330
2-Methylphenol	95-48-7	10	330
bis(2-Chloroisopropyl) ether	108-60-1	10	330
4-Methylphenol	106-44-5	10	330
N-Nitroso-di-n-dipropylamine	621-64-7	10	330
Hexachloroethane	67-72-1	10	330
Nitrobenzene	98-95-3	10	330
Isophorone	78-59-1	10	330
2-Nitrophenol	88-75-5	10	330
2,4-Dimethylphenol	105-67-9	10	330
Benzoic Acid	65-85-0	50	1600
bis(2-Chloroethoxy) methane	111-91-1	10	330
2,4-Dichlorophenol	120-83-2	10	330
1,2,4-Trichlorobenzene	120-82-1	10	330
Naphthalene	91-20-3	10	330
4-Chloroaniline	106-47-8	10	330
Hexachlorobutadiene	87-68-3	10	300
4-Chloro-3-methylphenol	59-50-7	10	330
2-Methylnaphthalene	91-57-6	10	330
Hexachlorocyclopentadiene	77-47-4	10	330
2,4,6-Trichlorophenol	88-06-2	10	330
2,4,5-Trichlorophenol	95-95-4	50	1600
2-Chloronaphthalene	91-58-7	10	330
2-Nitroaniline	88-74-4	50	1600
Dimethylphthalate	131-11-3	10	330
Acenaphthylene	208-96-8	10	330
2,6-Dinitrotoluene	606-20-2	10	330
3-Nitroaniline	99-09-2	50	1600
Acenaphthene	83-32-9	10	330
2,4-Dinitrophenol	51-28-5	50	1600
4-Nitrophenol	100-02-7	50	1600
Dibenzofuran	132-64-9	10	330
2,4-Dinitrotoluene	121-14-2	10	330
Diethylphthalate	84-66-2	10	330
4-Chlorophenyl-phenyl ether	7005-72-3	10	330

Table A
Contract Laboratory Program
Target Compound List
Semivolatiles Quantitation Limits

COMPOUND	CAS #	WATER	SOIL SLUDGE SEDIMENT
Fluorene	86-73-7	10 ug/L	330 ug/Kg
4-Nitroaniline	100-01-6	50	1600
4,6-Dinitro-2-methylphenol	534-52-1	50	1600
N-nitrosodiphenylamine	86-30-6	10	330
4-Bromophenyl-phenylether	101-55-3	10	330
Hexachlorobenzene	118-74-1	10	330
Pentachlorophenol	87-86-5	50	1600
Phenanthrene	85-01-8	10	330
Anthracene	120-12-7	10	330
Di-n-butylphthalate	84-74-2	10	330
Fluoranthene	206-44-0	10	330
Pyrene	129-00-0	10	330
Butylbenzylphthalate	85-68-7	10	330
3,3'-Dichlorobenzidine	91-94-1	20	660
Benzo(a)anthracene	56-55-3	10	330
Chrysene	218-01-9	10	330
bis(2-Ethylhexyl)phthalate	117-81-7	10	330
Di-n-octylphthalate	117-84-0	10	330
Benzo(b)fluoranthene	205-99-2	10	330
Benzo(k)fluoranthene	207-08-9	10	330
Benzo(a)pyrene	50-32-8	10	330
Indeno(1,2,3-cd)pyrene	193-39-5	10	330
Dibenz(a,h)anthracene	53-70-3	10	330
Benzo(g,h,i)perylene	191-24-2	10	330

Table A
Contract Laboratory Program
Target Compound List
Pesticide and PCB Quantitation Limits

COMPOUND	CAS #	WATER	SOIL SEDIMENT SLUDGE
alpha-BHC	319-84-6	0.05 ug/L	8 ug/Kg
beta-BHC	319-85-7	0.05	8
delta-BHC	319-86-8	0.05	8
gamma-BHC (Lindane)	58-89-9	0.05	8
Heptachlor	76-44-8	0.05	8
Aldrin	309-00-2	0.05	8
Heptachlor epoxide	1024-57-3	0.05	8
Endosulfan I	959-98-8	0.05	8
Dieldrin	60-57-1	0.10	16
4,4'-DDE	72-55-9	0.10	16
Endrin	72-20-8	0.10	16
Endosulfan II	33213-65-9	0.10	16
4,4'-DDD	72-54-8	0.10	16
Endosulfan sulfate	1031-07-8	0.10	16
4,4'-DDT	50-29-3	0.10	16
Methoxychlor (Mariate)	72-43-5	0.5	80
Endrin ketone	53494-70-5	0.10	16
alpha-Chlordane	5103-71-9	0.5	80
gamma-chlordane	5103-74-2	0.5	80
Toxaphene	8001-35-2	1.0	160
AROCLOR-1016	12674-11-2	0.5	80
AROCLOR-1221	11104-28-2	0.5	80
AROCLOR-1232	11141-16-5	0.5	80
AROCLOR-1242	53469-21-9	0.5	80
AROCLOR-1248	12672-29-6	0.5	80
AROCLOR-1254	11097-69-1	1.0	160
AROCLOR-1260	11096-82-5	1.0	160

Table A
Contract Laboratory Program
Target Analyte List
Inorganic Quantitation Limits

COMPOUND	PROCEDURE	SOIL WATER	SEDIMENT SLUDGE
Aluminum	ICP	200 ug/L	40 mg/Kg
Antimony	Furnace	60	2.4
Arsenic	Furnace	10	2
Barium	ICP	200	40
Beryllium	ICP	5	1
Cadmium	ICP	5	1
Calcium	ICP	5000	1000
Chromium	ICP	10	2
Cobalt	ICP	50	10
Copper	ICP	25	5
Iron	Icp	100	20
Lead	Furnace	5	1
Magnesium	ICP	5000	1000
Manganese	ICP	15	3
Mercury	Cold Vapor	0.2	0.008
Nickel	ICP	40	8
Potassium	ICP	5000	1000
Selenium	Furnace	5	1
Silver	ICP	10	2
Sodium	ICP	5000	1000
Thallium	Furnace	10	2
Vanadium	ICP	50	10
Zinc	ICP	20	4
Cyanide	Color	10	2

ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415

International Specialists in the Environment

CRL Receipt Date 11/16/87 FIT Receipt Date 11/30/87 Review Completed 12/3/87

TO: Dirk Kauser

FROM: Brenda R. Jones

SUBJECT: E. 44th St. Dump

PAN: OH0602 CASE # 7844

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
#	Low Soil	# 6	Low Soil
	Low Water		Low Water
	Drinking Water		Drinking Water
	Other		Other

Project Data Status _____ Completed!!

✓ Incomplete, awaiting: organic soils

FIT Data Review Findings:

Check Data Sheets for Transcription Errors

✓✓ Compounds were detected in sample(s); see enclosed sheet.

Book No. 6 Page No. 245 Date Sampled 8/10/87

26U:001

ecology and environment, inc.
CHICAGO, ILLINOIS

CHEMICAL EVALUATION FORM

SITE NAME: E. 40th St. Lamp PAN#: DATE: 10/6/87

CASE #: 7844 UNITS: mg/kg REVIEWER: BRJ

TOX/ PERS	COMPOUND	CRDL	3-5xCRDL	MEU 959	960	961	962	963	964	
				S1 BACKGROUND	S2	S3	S4	S5	S6	
	ALUMINUM									
	ANTIMONY									
	ARSENIC			5.0	11	4.2	17	23	63	
	BARIUM			t						
	BERYLLIUM				1.1	0.9	1.2	1.9		
	CADMIUM			6.4			12	8.6		
	CHROMIUM			8.6	12	10	46	68	31	
	COBALT				6.8		10	13		
	COPPER			23	14		39	66	48	
	LEAD			140	13	56	133	218	84	
	MERCURY						0.3	0.3	0.4	
	NICKEL			31	53	32	66	91	63	
	SELENIUM									
	SILVER			0.5			1.1	1.7	0.6	
	THALLIUM									
	TIN									
	VANADIUM			9.9		19	14	15	23	
	ZINC									
	CYANIDE									

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 11.24.87

SUBJECT: Review of Region V CLP Data Received for Review on 11-16-87

FROM: Curtis Ross, Director (5SCRL) Central Regional Laboratory

TO Data User: FIT

We have reviewed the data for the following case(s).

SITE NAME: E. 49th STREET DUMP SMO Case No. 7844

EPA Data Set No. SF 4296 No. of Samples: 6 D.U./Activity Numbers Y905/C72100

CRL No. 87FP15S14 - S19

SMO Traffic No. MEU959 - 964

CLP Laboratory: HITTMAN EBASCO Hrs. Required for Review: 7

Following are our findings: The laboratory's portion of case #7844 consisted of 6 low concentration soil samples analyzed for metals and CN. The laboratory did not report any problems with the analysis. However, it was noted MEU963 was leaking upon receipt at the lab.
ICP: Ni prep blank is 40 ug/L, Ni results are biased high & estimated (J)
Flame: K, Na results are within limits.
GFAA: Matrix spike %R for Sb(42%), As(35%), Cr(40%), Se(16%), Ag(52%), Tl(44%). As & Cr are estimated (J). Sb and Tl are estimated (UJ). Ag data for MEU960 & 961 are estimated (UJ) & Ag data for MEU959, 962, 963 & 964 are estimated (J). Se data is unacceptable.
Hg & CN results are within control limits.

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualifications referenced above. See Data Qualifier sheets and Calibration Outlier forms for flags and additional comments.
( ) Data are preliminary - pending verification by Contractor Laboratory. See Case Summary above.
( ) Data are unacceptable.

Margaret Hill
11/24/87

cc: Carla Dempsey, CLP Quality Assurance Officer, Analytical Operations Branch
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD/Central Regional Laboratory
DATA TRACKING FORM FOR CONTRACT SAMPLES

CRL Data Set No. SF 4296 CERCLIS No. OHD981535024

SMO Case No. 7844 Site Name and Location: E. 49th STREET DUMP

Name of Contractor or EPA Laboratory: HITTMAN Data User: FIT

No. of Samples: 6 Date Samples or Data Received: 11-5-87

1. Have chain-of-custody records been received? YES ✓ NO
2. Have Traffic Reports or packing lists been received? YES ✓ NO
3. If no, are Traffic Report or packing list numbers written on the chain-of-custody record? YES ___ NO ___
4. If no, which Traffic report or packing list numbers are missing?

Are basic data forms in? YES ✓ NO ___

Number of samples claimed: 6 Number of samples received: 6

Checked by: Erlinda Luz M. Arreola Date: 11-16-87

Received by Contract Project Management Section: DMM Date: 11-17-87

Review Started: 11/23/87 Reviewer Signature: Margaret Miller

Total time spent on review: 7 Date review completed: 11/24/87

Copied (xeroxed) by: John Date: ___

Mailed to Data User by: Erlinda Luz M. Arreola Date: 11-25-87

DATA USERS:

Please fill in the blanks below and return this form to: Sylvia Griffin, Data Management Coordinator, Region V, SSCRL

Data received by: ___ Date: ___

Q.A. review received by: ___ Date: ___

Inorganic Data Complete [ ], Suitable for Intended Purposes [ ] ✓ [ ] if acceptable.
Organic Data Complete [ ], Suitable for Intended Purposes [ ] List problems below.
Dioxin Data Complete [ ], Suitable for Intended Purposes [ ]
SAS Data Complete [ ], Suitable for Intended Purposes [ ]

See Attached "Missing Data Request Form" [ ]
PROBLEMS: Please indicate reasons (if any) why data are not suitable for your uses. Other problems.

Received by Data Management Coordinator, CRL for File: Date: ___

Signature:

QC EXCEPTION SUMMARY REPORT

CASE # 7894
DATA SET # SF4296
LAB Q.C.#
DATE: 11/23/83

SITE E. 49th St Dump
LAB Hittmann Elasco
REVIEWED BY MMT

MATRIX: Soil
CONC. : low
MATRIX:
CONC. :

WATER SAMPLE SPK.
WATER SAMPLE DUP.
SOIL SAMPLE SPK.
SOIL SAMPLE DUP.

Analyte	OVERALL CASE QC									MATRIX SPECIFIC QC						SAMPLE SPECIFIC QC		FIELD QC			REGIONAL QC			OTHER/ COMMENTS
	Rehab																							
	Holding Time	Cal Blanks	Init Cal ver	Contin Cal ver	Prep. Blk AQ	Prep Blk SOL	ICS %R	LCS % AQ	LCS % SOL	Sol Dup RPD	Sol Spk. %R	AQ Dup RPD	AQ Spk %R	Ser Diln AQ	Ser Diln SOL	GFAA Dup	GFAA Spike	Blank	Dup RPD	Spike %R	Blind Blank	Blind Spike %R	Split Sample RPD	
Aluminum	60																							
Antimony											42													
Arsenic											35													
Barium																								
Beryllium																								
Cadmium																								
Calcium																								
Chromium											40													
Cobalt																								
Copper																								
Iron																								
Lead										40	~~[illegible]~~													
Magnesium																								
Manganese																								
Mercury	14																							
Nickel	60					40																		
Potassium																								
Selenium											16													
Silver											52													
Sodium																								
Thallium											44													
Tin																								
Vanadium																								
Zinc																								
Cyanide	5														22									

MEU 963 was leaking upon delivery.

Form I

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

EPA Sample No. MEU 959

Date 11/4/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME HITMAN EBASCO ASSOC Inc CASE NO. 7844

SOW NO. 7/84

LAB SAMPLE ID. NO. 5144 QC REPORT NO. 38

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	5170 P	13.	Magnesium	[1160] P
2.	Antimony	5.6 UFR	14.	Manganese	347 P
3.	Arsenic	5.0 FSR	15.	Mercury	0.1 UCV
4.	Barium	[89] P	16.	Nickel	31 ~~86~~ P
5.	Beryllium	1.2 UP	17.	Potassium	[428] P
6.	Cadmium	6.4 P	18.	Selenium	0.4 UFR
7.	Calcium	3150 P	19.	Silver	[0.5] FR
8.	Chromium	8.6 FR	20.	Sodium	[66] P
9.	Cobalt	4.9 UP	21.	Thallium	1.9 UFR
10.	Copper	23 P	22.	Tin	22 UP
11.	Iron	12200 P	23.	Vanadium	[9.9] P
12.	Lead	140 F R*	24.	Zinc	156 P

Cyanide 1.2 u Percent Solids (%) 81.2

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

Comments:

Lab Manager [signature]

Form I

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

EPA Sample No. MEU 960

Date 11/4/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Hittman Ebasco Assoc Inc CASE NO. 7844

SOW NO. 7/84

LAB SAMPLE ID. NO. 5145 QC REPORT NO. 38

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	6500P	13.	Magnesium	10700P
2.	Antimony	5.5UFR	14.	Manganese	376P
3.	Arsenic	11FR	15.	Mercury	0.1UCV
4.	Barium	[64]P	16.	Nickel	~~10.5P~~ 53P
5.	Beryllium	[1.1]P	17.	Potassium	[1210]P
6.	Cadmium	~~6.4P~~ 2.3UP	18.	Selenium	0.5UFR
7.	Calcium	32500P	19.	Silver	0.4UFR
8.	Chromium	12FR	20.	Sodium	[390]P
9.	Cobalt	[6.8]P	21.	Thallium	2.2UFR
10.	Copper	[14]P	22.	Tin	21UP
11.	Iron	24000P	23.	Vanadium	9.4UP
12.	Lead	13FR	24.	Zinc	56P

Cyanide 1.2U Percent Solids (%) 84.3

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

Comments: ____

Lab Manager P Christopher

Form I

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

EPA Sample No. MEU 961

Date 11/4/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Hittman Ebasco Assoc. Inc. CASE NO. 7844

SOW NO. 7/84

LAB SAMPLE ID. NO. 5146 QC REPORT NO. 38

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	5030P	13.	Magnesium	7640P
2.	Antimony	4.3 UFR	14.	Manganese	656P
3.	Arsenic	4.2 FR	15.	Mercury	0.1 UCV
4.	Barium	[49] P	16.	Nickel	32 P
5.	Beryllium	[0.9] P	17.	Potassium	[677] P
6.	Cadmium	1.8UP	18.	Selenium	0.3UFR
7.	Calcium	36800P	19.	Silver	0.2 UFR
8.	Chromium	10 FR	20.	Sodium	[301] P
9.	Cobalt	3.8UP	21.	Thallium	1.5UFR
10.	Copper	4.0 UP	22.	Tin	17UP
11.	Iron	13000P	23.	Vanadium	[15] P
12.	Lead	56 FR	24.	Zinc	77P

Cyanide 1.1 u Percent Solids (%) 92.1

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

Comments: ____

Lab Manager [signature]

Form I

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

EPA Sample No. MEU962

Date 11/4/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Hittman Ebasco Assoc. Inc. CASE NO. 7844

SOW NO. 7/84

LAB SAMPLE ID. NO. 5147 QC REPORT NO. 38

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	8830P	13.	Magnesium	9780P
2.	Antimony	5.6UFR	14.	Manganese	417P
3.	Arsenic	17 FSR	15.	Mercury	0.3CV
4.	Barium	[183]P	16.	Nickel	66P
5.	Beryllium	[1.2]P	17.	Potassium	[1110]P
6.	Cadmium	12P	18.	Selenium	0.6UFR
7.	Calcium	20900P	19.	Silver	[1.1]FR
8.	Chromium	46FR	20.	Sodium	[233]P
9.	Cobalt	[10]P	21.	Thallium	2.7UFR
10.	Copper	39P	22.	Tin	22UP
11.	Iron	27800P	23.	Vanadium	[14]P
12.	Lead	133 FSR*	24.	Zinc	791P

Cyanide 1.6U Percent Solids (%) 63.0

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

Comments:

Lab Manager P. Christopher

Form I

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

EPA Sample No. MEU963

Date 11/4/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME HITTMAN EBASCO ASSOC. Inc. CASE NO. 7844

SOW NO. 7/84

LAB SAMPLE ID. NO. 5148 QC REPORT NO. 38

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	11400P	13.	Magnesium	8140P
2.	Antimony	9.2UFR	14.	Manganese	602P
3.	Arsenic	23FSR	15.	Mercury	0.3CV
4.	Barium	1030P	16.	Nickel	91P
5.	Beryllium	[1.9]P	17.	Potassium	[1800]P
6.	Cadmium	8.6P	18.	Selenium	0.9UFR
7.	Calcium	28300P	19.	Silver	[1.7]FR
8.	Chromium	68FR	20.	Sodium	[1130]P
9.	Cobalt	[13]P	21.	Thallium	3.7UFR
10.	Copper	66P	22.	Tin	36UP
11.	Iron	49800P	23.	Vanadium	[18]P
12.	Lead	218 FR*	24.	Zinc	378P

Cyanide 2.6u Percent Solids (%) 38.0

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

Comments: ____

Lab Manager [signature]

Form I

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

EPA Sample No. MEU 964

Date 11/4/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Hittman Ebasco Assoc. Inc CASE NO. 7844

SOW NO. 7/84

LAB SAMPLE ID. NO. 5149 QC REPORT NO. 38

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	5870 P	13.	Magnesium	10400P
2.	Antimony	8.8 UFR	14.	Manganese	339 P
3.	Arsenic	[6.3] FSR	15.	Mercury	0.4 CV
4.	Barium	712 P	16.	Nickel	63 P
5.	Beryllium	1.8 UP	17.	Potassium	[1380] P
6.	Cadmium	3.8 UP	18.	Selenium	0.7 UFR
7.	Calcium	40500 P	19.	Silver	[0.6] FR
8.	Chromium	31 FR	20.	Sodium	[1130] P
9.	Cobalt	7.8 UP	21.	Thallium	3.2 UFR
10.	Copper	48 P	22.	Tin	341 P
11.	Iron	28800 P	23.	Vanadium	[23] P
12.	Lead	84 FR	24.	Zinc	140 P

Cyanide 2.4 U Percent Solids (%) 41.0

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

Comments:

Lab Manager [signature]

Form III A

Q. C. Report No. 38

BLANKS

LAB NAME HITTMAN EBASCO ASSOC. INC. CASE NO. 7844

DATE 11/4/87 UNITS ug/L

Matrix SOIL

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank 1	2
Metals:							
1. Aluminum	88u	88u	[143]	88u		88u	
2. Antimony	9.6u	9.6u	9.6u	9.6u		9.6u	
3. Arsenic	1.4u	1.4u	1.4u	1.4u		1.4u	
4. Barium	[14]	[11]	5.3u			[13]	
5. Beryllium	2.0u	2.0u	2.0u			2.0u	
6. Cadmium	4.1u	4.1u	4.1u			4.1u	
7. Calcium	45u	45u	45u	45u		45u	
8. Chromium	0.6u	[0.7]	0.6u			[2.6]	
9. Cobalt	8.5u	8.5u	8.5u			8.5u	
10. Copper	9.1u	9.1u				9.1u	
11. Iron	[52]	[54]	[50]	[47]		[69]	
12. Lead	2.9u	2.9u	2.9u			2.9u	
13. Magnesium	[36]	[31]	12u	[20]		[16]	
14. Manganese	2.5u	2.5u	2.5u			[3.0]	
15. Mercury	0.2u	0.2u	0.2u	0.2u		0.2u	
16. Nickel	[37]	[22]	[32]			40	
17. Potassium	24u	24u	24u	24u	24u	24u	
18. Selenium	0.9u	0.9u	0.9u	0.9u	0.9u	0.9u	
19. Silver	0.7u	0.7u	0.7u	0.7u		0.7u	
20. Sodium	20u	20u	20u	20u		[119]	
21. Thallium	3.9u	3.9u	3.9u	3.9u		3.9u	
22. Tin	37u	37u	37u			37u	
23. Vanadium	16u	16u	[20]			16u	
24. Zinc	5.3u	5.3u	5.3u			5.3u	
Other:							
Cyanide	10u	10u	10u			10u	

Form III B

Q. C. Report No. 38

BLANKS

LAB NAME HITTMAN EBASCO ASSOC. INC. CASE NO. 7844

DATE 11/4/87 UNITS ug/L

Matrix SOIL

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank 1	2
Metals:							
1. Aluminum							
2. Antimony							
3. Arsenic	1.4u	1.4u	1.4u	1.4u			
4. Barium							
5. Beryllium							
6. Cadmium							
7. Calcium							
8. Chromium	0.6u	[0.8]	[0.8]				
9. Cobalt							
10. Copper	9.1u	9.1u					
11. Iron							
12. Lead	2.9u	2.9u	2.9u	2.9u	2.9u		
13. Magnesium							
14. Manganese							
15. Mercury							
16. Nickel							
17. Potassium		24u					
18. Selenium							
19. Silver							
20. Sodium							
21. Thallium	3.9u	3.9u	3.9u				
22. Tin							
23. Vanadium							
24. Zinc							
Other:							
Cyanide	10u	10u	10u			10u	

Form III C

Q. C. Report No. 38

BLANKS

LAB NAME HITTMAN EBASCO ASSOC. INC. CASE NO. 7844

DATE 11/4/87 UNITS ug/L

Matrix SOIL

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank 1	2
Metals:							
1. Aluminum							
2. Antimony							
3. Arsenic							
4. Barium							
5. Beryllium							
6. Cadmium							
7. Calcium							
8. Chromium							
9. Cobalt							
10. Copper							
11. Iron							
12. Lead	2.9u	2.9u	2.9u	2.9u			
13. Magnesium							
14. Manganese							
15. Mercury							
16. Nickel							
17. Potassium							
18. Selenium							
19. Silver							
20. Sodium							
21. Thallium							
22. Tin							
23. Vanadium							
24. Zinc							
Other:							
Cyanide	10u	10u	10u			10u	

Form V A

Q. C. Report No. 38

SPIKE SAMPLE RECOVERY

LAB NAME HITTMAN EBASCO ASSOCIATES INC.

CASE NO. 7844

EPA Sample No. MCU959

Lab Sample ID No. 5144

DATE 11/4/87

Units ug/L

Matrix SOIL

Compound	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spiked Added (SA)	%R[1]	
Metals:						
1. Aluminum	75-125				NR	
2. Antimony	-	21	9.6u	50	42	R
3. Arsenic	-	~~26~~ 24	10	40	35	R
4. Barium	-	2150	[153]	2000	100	
5. Beryllium	-	52	2.0u	50	104	
6. Cadmium	-	60	11	50	98	
7. Calcium	-				NR	
8. Chromium	-	26	18	20	40	R
9. Cobalt	-	493	8.5u	500	99	
10. Copper	-	283	39	250	98	
11. Iron	-				NR	
12. Lead	-	305	288	40	43	*
13. Magnesium	-				NR	
14. Manganese	-	1120	598	500	104	
15. Mercury	-	1.2	0.2u	1.0	120	
16. Nickel	-	521	54	500	93	
17. Potassium	-				NR	
18. Selenium	-	[1.6]	0.9u	10	16	R
19. Silver	-	27	[1.1]	50	52	R
20. Sodium	-				NR	
21. Thallium	-	22	3.9u	50	44	R
22. Tin	-	500	37u	500	100	
23. Vanadium	-	492	[17]	500	95	
24. Zinc	-	776	269	500	101	
Other:						
Cyanide	-					

[1] %R = [(SSR - SR)/SA] x 100

"R" - out of control

Comments: * No R flag SR > 4x SA

Form VB

Q. C. Report No. 38

SPIKE SAMPLE RECOVERY

LAB NAME HITTMAN EBASCO ASSOCIATES INC.

CASE NO. 7844

EPA Sample No. MSL964

Lab Sample ID No. 5149

Units UG/L

DATE 11/4/87

Matrix SOIL

Compound	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spiked Added (SA)	%R[1]
Metals:					
1. Aluminum	75-125				
2. Antimony	*				
3. Arsenic	*				
4. Barium	*				
5. Beryllium	*				
6. Cadmium	*				
7. Calcium	*				
8. Chromium	*				
9. Cobalt	*				
10. Copper	*				
11. Iron	*				
12. Lead	*				
13. Magnesium	*				
14. Manganese	*				
15. Mercury	*				
16. Nickel	*				
17. Potassium	*				
18. Selenium	*				
19. Silver	*				
20. Sodium	*				
21. Thallium	*				
22. Tin	*				
23. Vanadium	*				
24. Zinc	*				
Other:					
Cyanide	*	102	10u	100	102

[1] %R = [(SSR - SR)/SA] x 100

"*"- out of control

Comments:

Form VI A

Q. C. Report No. 38

DUPLICATES

LAB NAME HITTMAN ERASCO ASSOCIATES INC.

DATE 11/4/87

CASE NO. 7844

EPA Sample No. MEU959

Lab Sample ID No. 5144

Units ug/L

Matrix SOIL

Compound	Control Limit[1]	Sample(S)	Duplicate(D)	RPD[2]
Metals:				
1. Aluminum				
2. Antimony				
3. Arsenic				
4. Barium				
5. Beryllium				
6. Cadmium				
7. Calcium				
8. Chromium				
9. Cobalt				
10. Copper				
11. Iron				
12. Lead				
13. Magnesium				
14. Manganese				
15. Mercury		0.2u	[0.2]	NC
16. Nickel				
17. Potassium				
18. Selenium				
19. Silver				
20. Sodium				
21. Thallium				
22. Tin				
23. Vanadium				
24. Zinc				
Other:				
Cyanide				

* Out of Control

[1] To be added at a later date.

[2] RPD = [|S - D|/((S + D)/2)] x 100

NC - Non calculable RPD due to value(s) less than CRDL

Form VI B

Q. C. Report No. 38

DUPLICATES

LAB NAME HITTMAN ERASCO ASSOCIATES INC.

DATE 11/4/87

CASE NO. 7844

EPA Sample No. MEU 960

Lab Sample ID No. 5145

Units ug/L

Matrix SOIL

Compound	Control Limit[1]	Sample(S)	Duplicate(D)	RPD[2]
Metals:				
1. Aluminum	± 20%	11400	12200	6.8
2. Antimony		9.6u	9.6u	NC
3. Arsenic	±10	20	23	14
4. Barium	±	[113]	[113]	~~0~~ NC
5. Beryllium		[2.0]	[2.0]	NC
6. Cadmium		4.1u	4.1u	NC
7. Calcium	± 20%	57100	61500	7.4
8. Chromium	±10	22	24	8.7
9. Cobalt		[12]	[22]	NC
10. Copper		[24]	29	NC
11. Iron	± 20%	42100	44700	6.0
12. Lead	± 5.0	24	36	40 *
13. Magnesium	± 5000	18700	19600	4.7
14. Manganese	± 20%	659	670	1.7
15. Mercury				
16. Nickel	±40	93	95	2.1
17. Potassium		[2130]	[2140]	NC
18. Selenium		0.9u	0.9u	NC
19. Silver		0.7u	[8.1]	NC
20. Sodium		[683]	[573]	NC
21. Thallium		3.9u	3.9u	NC
22. Tin		37u	37u	NC
23. Vanadium		16u	[22]	NC
24. Zinc	± 20	99	109	9.6
Other:				
Cyanide				

* Out of Control

[1] To be added at a later date.

[2] RPD = [|S - D|/((S + D)/2)] x 100

NC - Non calculable RPD due to value(s) less than CRDL

Form VI C

Q. C. Report No. 38

DUPLICATES

LAB NAME HITTMAN EBASCO ASSOCIATES INC.

DATE 11/4/87

CASE NO. 7844

EPA Sample No. MEU4G9G3

Lab Sample ID No. 5149

Units ug/L

Matrix SOIL

Compound	Control Limit[1]	Sample(S)	Duplicate(D)	RPD[2]
Metals:				
1. Aluminum				
2. Antimony				
3. Arsenic				
4. Barium				
5. Beryllium				
6. Cadmium				
7. Calcium				
8. Chromium				
9. Cobalt				
10. Copper				
11. Iron				
12. Lead				
13. Magnesium				
14. Manganese				
15. Mercury				
16. Nickel				
17. Potassium				
18. Selenium				
19. Silver				
20. Sodium				
21. Thallium				
22. Tin				
23. Vanadium				
24. Zinc				
Other:				
Cyanide		10u	10u	NC

* Out of Control

[1] To be added at a later date.

[2] RPD = [|S - D|/((S + D)/2)] x 100

NC - Non calculable RPD due to value(s) less than CRDL

Form VII

Q.C. Report No. 38

INSTRUMENT DETECTION LIMITS AND

LABORATORY CONTROL SAMPLE

LAB NAME HITTMAN EBASCO ASSOCIATES INC. CASE NO. 7844

DATE 11/4/87 LCS UNITS ug/L mg/kg

(Circle One)

Compound	Required Detection Limits (CRDL)-ug/l	Instrument Detection Limits (IDL)-ug/l ICP/AA	Furnace	Lab Control Sample True	Found	%R
Metals:						
1. Aluminum	200	88.4		800	752	94
2. Antimony	60		9.6	80	70	88
3. Arsenic	10		1.4	80	73	91
4. Barium	200	3.5		5000	4630	93
5. Beryllium	5	2.0		300	289	96
6. Cadmium	5	4.1		50	49	98
7. Calcium	5000	45.3		7500	7100	95
8. Chromium	10		0.6	80	78	98
9. Cobalt	50	8.5		300	278	93
10. Copper	25	9.1		400	388	97
11. Iron	100	9.6		800	962	120
12. Lead	5		2.9	80	76	95
13. Magnesium	5000	11.6		5000	4920	98
14. Manganese	15	2.5		400	380	95
15. Mercury	0.2	0.17		7.0	7.9	113
16. Nickel	40	12.6		300	281	94
17. Potassium	5000	24.2		2500	2410	96
18. Selenium	5		0.9	80	77	96
19. Silver	10		0.7	40	37	93
20. Sodium	5000	20.2		2500	2620	105
21. Thallium	10		3.9	80	72	90
22. Tin	40	37.3		800	761	95
23. Vanadium	50	16.4		800	743	93
24. Zinc	20	5.3		400	396	99
Other:						
Cyanide	10	NR	NR	100	92	92

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

CRL Receipt Date 9-9-87 FIT Receipt Date 12-8-87 Review Completed 12-8-87

TO: ~~Steve ANDERSON~~ Dirk Kaiser

FROM: Jim Mertes

SUBJECT: E. 49th St. Dump

PAN: OH 0602 CASE # 7844

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
# 6	Low Soil	#	Low Soil
	Low Water		Low Water
	Drinking Water		Drinking Water
	Other		Other

Project Data Status X Completed!!

Incomplete, awaiting:

FIT Data Review Findings:

Attachment 1 of the review narrative belonged to another (E. 49th St. Raw Data) case. These three pages have been removed & returned to the original Raw Data at CRL. However, some information was transcribed on these pages that referred to the E. 49th St. Dump Case: "The laboratory used the Webb-McCall method in addition to the RAS method for PCB calculation in ET944. In view of the abundance of BNA cmpds., the RAS results are probably biased high and those calculated by Webb-McCall accurate. Both are reported on Table 1."

Check Data Sheets for Transcription Errors

— Med & low data are attached for ET919 (VOA fraction)

X Compounds were detected in sample(s); see enclosed sheet.

Book No. 6 Page No. 244 Date Sampled 8-12-87

26U:001

— Reextracted data also included for ET959, ET962

— HRS usable hits enclosed

— Detection limits on user info sheet are ~~invalid~~ get correct D.L. from O.A.D.S forms!

— TECs in most samples

/ hr. charged to above PAN @ week ending 12-12-87
J.M.

page 1 of 13

recd 12/8/87
48 pages

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

12/1/87

DATE: ~~11/7/1987~~

SUBJECT: Review of Region V CLP Data
Received for Review on 9/9/1987

FROM: Curtis Ross, Director (5SCRL)
Central Regional Laboratory
Patrick J. Chunilla for

TO: Data User: FIT

We have reviewed the data for the following case(s).

SITE NAME: E. 49th Street Dump SMO Case No. 7844

EPA Data Set No. SF 4296 No. of Samples: 6 D.U./Activity Numbers Y905 C72100

CRL No.: 87FP15514 to 87F 15519

SMO Traffic No. ET959 to ET964

CLP Laboratory: HAZELTON Hrs. Required for Review: 8

M10685

Following are our findings:

See attached review
Arochlors and BNAs were found. See Table 1.
Elna M. Kaufman
EKaufman for Renee Capoya

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualifications noted above.
( ) Data are preliminary - pending verification by Contractor Laboratory.
( ) Data are unacceptable.

cc: Duane Geuder, Quality Assurance Officer, EPA Support Services
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

EPA FORM 1320-6 (Rev. 5/87)

Attachment i can be incorporated in the review narrative or at least it should follow the same outline.
Pat Chunilla
12-7-87

HAZLETON LABORATORIES AMERICA, INC.
3301 KINSMAN BLVD • P.O. BOX 7545 • MADISON, WI 53707 • (608) 241-4471 • TLX 703956 HAZRAL MDS UD

RECEIVED
SEP 09 1987
US EPA CENTRAL REGIONAL LAB.
536 S. CLARK STREET
CHICAGO, ILLINOIS 60605

SF 4296

September 4, 1987

Sample Management Office
Viar and Company
209 Madison Street
Alexandria, VA 22314

Enclosed is the data package for Case No. 7844. Under this case number, we received a total of six soil samples, which were received on August 13, 1987 from Region V. All samples were analyzed and reported according to the protocols provided under our Contract No 68-01-7146 bid lot #1.

Please note the following summary comments relating to the contractual quality control in this case:

- Medium Level Analysis. One sample (ET964) was analyzed using the medium level method, for the volatile fraction, due to high levels of benzene and chlorobenzene. We had notified Region V that this sample had been analyzed by the low level method. They requested that we submitt both the low level and medium level data.

- GC-MS Tuning. All tuning requirements for both BFB and DFTPP for samples analyzed in this case were within contract criteria.

- Instrumental Calibrations. All instrumental calibrations for all fractions analyzed were within contract criteria for both initial and continuing calibrations.

- Method Blanks. All method blanks analyzed with this case were found to be within contract criteria for all fractions analyzed.

- Surrogate Recovery Exceptions.

  Volatile Fraction. Two samples; ET959 and ET962 resulted in out of control surrogate recoveries involving toluene-d_8 and BFB. Reanalysis of both ET959 and ET962 reproduced the original out of control recoveries and are considered to be the result of matrix problems.

Attachment 2
DATA QUALIFIERS

Contractor: Hazelton

Case 7844 RE

Below is a summary of the out-of-control audits and the possible effect on the data for this case:

Sample Holding Times. Acceptable except for sample ET962 which was extracted for BNAs after 13 days (QC limit 10 days). However time delay is marginal, therefore BNA data in ET962 is acceptable.

GC/MS Tuning
BFB DFTPP
Calibration
Due to out of criteria %rsd or %D of initial and continuing calibrations the following analyte detection limits are inaccurate: chloromethane, bromomethane, carbon disulfide, vinylacetate in all samples.
2-hexanone, 4-methyl-2-pentanone, hexachloroethane, hexachlorocyclopentadiene
3,3-dichlorobenzidine in sample ET964
benzo(k)fluoranthene in ET962
bis(2-chloroethyl)ether in ET962 and ET964
2-chlorophenol and 2,4 dinitrophenol in ET961 and ET963
benzyl alcohol, napthalene and 4-nitroaniline in ET961, -962, -963, -964
4-nitrophenol in ET961, ET962 and ET963

Blanks.
Common contaminants (and TICs) detected in the VOA and BNA blanks. All were at levels less than 10X the CRQL. These contaminants are
methylene chloride
acetone
trimethyl silanol

Reviewed by: RENEE CAPOLLA
Phone 415 - 777 2811 (San Francisco)

Attachment 2
DATA QUALIFIERS

Contractor: Hazelton labs

Case 7844 ME

Below is a summary of the out-of-control audits and the possible effect on the data for this case:

Blanks continued
n-nitrosodiphenylamine
di-n-butylphthalate
butylbenzyl phthalate
3-pentanol 2,2-dimethyl
α-d-xylofuranoside, methyl 3,5 odimethyl
3,7,11 tridecatrienenitrile, 4,8,12 trimethyl.

Where samples contained less than 10X, labelled UJ in table.

Surrogates
VOA: Acceptable The %R of toluene-d8 and BFB in samples ET959 and ET969 marginally exceeded the QC range. Data valid

BNA:
5 out of 8 surrogates had unacceptable %Rs (See ms/msD) 7 out of 12 B/Ns and 4 out of 10 Acid ms compounds had unacceptable %Rs. Matrix effects may cause reduced recovery of substituted benzene compounds in sample ET959. For these compounds see Table, where detection limits are labelled UJ). The recovery of 2-fluoro biphenyl in samples ET963 and ET959 were below the QC range. The detection limit of all BNAs in sample ET959 are biased low and all results are biased low. Only one surrogate in sample ET963 is out of specification. Although the laboratory did not

Reviewed by:
Phone
Pager
Date:

Attachment 2
DATA QUALIFIERS

Contractor: Hazelton

Case 7844

Below is a summary of the out-of-control audits and the possible effect on the data for this case:

reanalyse this sample, the reviewer considers BN data of this sample to be acceptable.

MS/MSD See surrogates

Reviewed by:

Phone

Date

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

CALIBRATION OUTLIERS
VOLATILE HSL COMPOUNDS

CASE/SAS # 7844 CONTRACTOR Hazelton Labs

Instrument #	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	8/10/87			8/14 17:00			8/20 1623								
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane		45	J		35	J									
Bromomethane		76	J		57	J		41	J						
Vinyl Chloride															
Chloroethane															
Methylene Chloride															
Acetone															
Carbon Disulfide					452	J		587	J						
1,1-Dichloroethane															
1,1-Dichloroethene															
Trans-1,2-Dichloroethene															
Chloroform															
2-Butanone															
1,2-Dichloroethane															
1,1,1-Trichloroethane															
Carbon Tetrachloride															
Vinyl Acetate					173	J		117	J						
Bromodichloromethane															
1,2-Dichloropropane															
Trans-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane															
1,1,2-Trichloroethane															
Benzene															
cis-1,3-Dichloropropene															
2-Chloroethylvinylether															
Bromoform															
4-Methyl-2-Pentanone								66	J						
2-Hexanone								66	J						
Tetrachloroethene															
1,1,2,2-Tetrachloroethane															
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															

AFFECTED SAMPLES:

ET 959	ET 959	ET 961 ms		
ET 960	960	ET 961 msD		
ET 961	961	ET 964		
ET 962	962			
ET 963	963			
ET 964	959 RE			
	962 RE			

Reviewer's Initials/Date: RE 11/7/87

* These flags should be applied to the analytes on the sample data sheets.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
(Page 1)

CASE/SAS # 7844 CONTRACTOR Hazelton

Instrument #	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:				8/21 10:09			8/21 23:09			8/27 11:18					
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol															
bis(-2-Chloroethyl)Ether					-50	J		47	J		48	J			
2-Chlorophenol															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
Benzyl Alcohol					40	J		37	J		115	J			
1,2-Dichlorobenzene															
2-Methylphenol															
bis(2-chloroisopropyl)Ether															
4-Methylphenol															
N-Nitroso-Di-n-Propylamine								45	J						
Hexachloroethane															
Nitrobenzene															
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol															
Benzoic Acid															
bis(2-Chloroethoxy)Methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline					100	J		98	J		88	J			
Hexachlorobutadiene															
4-Chloro-3-Methylphenol															
2-Methylnaphthalene															
Hexachlorocyclopentadiene															
2,4,6-Trichlorophenol								52	J						
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline															
Dimethyl Phthalate															
Acenaphthylene															
3-Nitroaniline					97	J		83	J		62	J			
Acenaphthene															
2,4-Dinitrophenol					49	J									
4-Nitrophenol					63	J					34	J			
Dibenzofuran															

AFFECTED SAMPLES:

ET960	ET959	ET962
ET959MS	ET964	ET959RE
ET959MSD		ET959MS
ET961		ET959MSD
ET963		

Reviewer Initials/Date: RL 11/7/87

* These flags should be applied to the analytes on the sample data sheets.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
Page 2

CASE/SAS # 7844 CONTRACTOR Hazelton

Instrument #	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:				8/21			8/21 2309			8/27 1148					
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
2,4-Dinitrotoluene															
2,6-Dinitrotoluene															
Diethylphthalate															
4-Chlorophenyl-phenylether															
Fluorene															
4-Nitroaniline					380	J		320	J		180	J			
4,6-Dinitro-2-Methylphenol															
N-Nitrosodiphenylamine															
4-Bromophenyl-phenylether															
Hexachlorobenzene															
Pentachlorophenol															
Phenanthrene															
Anthracene															
Di-n-Butylphthalate															
Fluoranthene															
Pyrene															
Butylbenzylphthalate															
Benzo(a)Anthracene															
bis(2-Ethylhexyl)Phthalate															
Chrysene															
Di-n-Octyl Phthalate															
Benzo(b)Fluoranthene															
Benzo(k)Fluoranthene											91	J			
Benzo(a)Pyrene															
Indeno(1,2,3-cd)Pyrene															
Dibenz(a,h)Anthracene															
Benzo(g,h,i) Perylene															

SEE PAGE 1 FOR AFFECTED SAMPLES.

* These flags should be applied to the analytes on the sample data sheets.

Reviewer's Initials/Date: RE 11/7/87

8/87

TABLE I

COMPOUND	SAMPLE	DIT. ug/kg	ug/kg ET959	ug/kg ET960 (S2)	ug/kg ET961	ug/kg ET962	ug/kg ET963 (LOW)	ug/kg ET964	MED ET964
chloromethane		12							
bromomethane		12							
vinyl chloride		12							
chloroethane		12							
methylene chloride		6	9UJ	8UJ	8UJ	9UJ	41J	36UJ	
acetone		12	12UJ	18J	14UJ	32UJ	74J	140UJ	
carbon disulfide		6							
1,1-dichloroethene									
1,1-dichloroethane									
trans-1,2,-dichloroethene									
chloroform									
1,2-dichloroethane									
2-butanone		12							
1,1,1-trichloroethane		6							
carbon tetrachloride		6							
vinyl acetate		12							
bromodichloromethane		6							
1,1,2,2-tetrachloroethane									
1,2-dichloropropane									
trans-1,3-dichloropropene									
trichloroethene									
dibromochloromethane									
1,1,2-trichloroethane									
benzene *	*						100	2900	3700
cis-1,3-dichloropropene									
2-chloroethylvinylether									
bromoform									
2-hexanone									
4-methyl-2-pentanone		12							
tetrachloroethene		12							
toluene		6	9						
chlorobenzene *	*						220	2800	3500
ethylbenzene *	*						91	1000	2100
styrene									
total xylenes *	*							770	1700
N-nitrosodimethylamine		330							
phenol									
aniline									
bis(2-chloroethyl)ether									
2-chlorophenol									
1,3-dichlorobenzene								150 J	
1,4-dichlorobenzene								400 J	
benzyl alcohol								J	
1,2-dichlorobenzene								60 J	
2-methylphenol									
bis(2-chloroisopropyl)ether									
4-methylphenol									
N-nitroso-di-n-propylamine									
hexachloroethane									
nitrobenzene									
isophrone									
2-nitrophenol									
2,4-dimethylphenol									
benzoic acid		1600				88J	40J		
bis(2-chloroethoxy)methane		380							
2,4-dichlorophenol									
1,2,4-trichlorobenzene									
napthalene									
4-chloroaniline									
hexachlorobutadiene									
4-chloro-3-methylphenol									
2-methylnapthalene								260J	
hexachlorocyclopentadiene									
2,4,6-trichlorophenol		1600							

Dt. 1700

Table 1

COMPOUND	SAMPLE DET. LIMIT	ET959	ET960	ET961	ET962	ET963	ET964	ET964
dimethyl phthalate	330							
acenaphthylene	330	33J		28J				
3-nitroaniline	1600							
acenaphthene	330							
2,4-dinitrophenol	1600							
4-nitrophenol	1600							
dibenzofuran	330							
2,4-dinitrotoluene								
2,6-dinitrotoluene								
diethylphthalate								
4-chlorophenyl-phenylether								
fluorene				80J			94J	
4-nitroaniline	1600							
4,6-dinitro-2-methylphenol	1600							
N-nitrosodiphenylamine	330		78UJ			120UJ	220UJ	
4-bromophenyl-phenylether								
hexachlorobenzene								
pentachlorophenol	1600							
phenanthrene	330	300J		1200	150J	81J	150J	
anthracene	330	57J		350J				
di-n-butylphthalate	330	560UJ	960UJ	170UJ	2500UJ	1400UJ	2500UJ	
fluoranthene *	330	580J		2400	380J	200J		
benzidine	660	J						
pyrene	330	540J		1500	350J	140J	43J	
butylbenzylphthalate								
3,3'-dichlorobenzidine								
benzo(a)anthracene		270J		1000	170J	91J		
bis(2-ethylhexyl)phthalate					340J		490J	
chrysene		320J		960	240J	190J		
di-n-octylphthalate								
benzo(b&k)fluoranthene		550J		1400		217J		
benzo(a)pyrene		250J		930		100J		
indeno(1,2,3-cd)pyrene				600				
dibenzo(a,h)anthracene								
benzo(g,h,i)perylene								
alpha-BHC	10							
beta-BHC								
delta-BHC								
gamma-BHC (lindane)								
heptachlor								
aldrin								
heptachlor epoxide								
endosulfan I								
dieldrin	20							
4,4'-DDE								
endrin								
endosulfan II								
4,4'-DDD								
endrin aldehyde								
endosulfan sulfate								
4,4'-DDT								
methoxychlor	100							
endrin ketone	20							
chlordane	100							
toxaphene	200							
Aroclor-1016	100					WEBB	CLP	
Aroclor-1221						McCALL		
Aroclor-1232						METHOD	METHOD	
Aroclor-1242								
Aroclor-1248 *						2100	3300	
Aroclor-1254 *	200					2200	3200	
Aroclor-1260	200							

Case: 7844

Contractor: Hazelton

TENTATIVELY IDENTIFIED COMPOUNDS WATCH ASSESSMENT

NOTE: Reviewer should note directly on Organic Analysis Data Sheet (OADS) those matches that in his opinion (based on contract criteria) are unreasonable.

CRITERIA

(1) Relative intensities of major ions (>10%) reference spectrum should be present in the sample spectrum.

(2) Relative intensities of major ions in sample spectrum should agree to within ± 20% of reference spectrum intensities.

(3) Molecular ions present in reference spectrum should be present in sample spectrum.

(4) Ions present in sample spectrum, but not in reference spectrum should be reviewed for possible background contamination or presence of coeluting interferences.

(5) Ions present in reference spectrum, but not in the sample spectrum should be reviewed for possible subtraction from the sample spectrum because of background contamination or coeluting interferences.

(6) If, in the reviewer's opinion, no valid identification can be made the compound should be labelled as "unknown" and the initials and date of the reviewer placed on the OADS.

Reviewer's Initials/Date: RE 11/7/87

Semivolatile Fraction. Sample ET962 (extracted 8-19-87) produced a low recovery (< 10%) for 2-fluorophenol. The re-extracted sample (8-26-87) resulted infully compliant surrogate recoveries and is the only data therefore submitted.

Sample ET959 (extracted 8-19-87) produced compliant surrogate recoveries, but the MS and MSD of ET959 generated unacceptable recoveries of two acid surrogates and two base/neutral surrogates (similiar poor recoveries of the matrix spiking compounds were noted). It was decided to re-extract and reanalyze all three samples due to the discrepancy between the unspiked and matrix spiked results. The re-extractions were performed on August 26, 1987. The result of the unspiked ET959 produced similiar surrogate recoveries to that of the original extract, although nitrobenzene-d5 was out of control at 18% (the original recovery was at the lower control limit of 23%). The reanalysis of the matrix spikes of ET959 produced inconsistent results; where the surrogate recoveries were in control with the exception of a high 2,4,6-tribromophenol in ET959MS, the results of ET959MSD again produced two out of control surrogate recoveries in both the acid and base/
neutral fractions. We are unsure of the exact explanation for the inconsistent results and are providing both sets of data for your review.

- Quantitation and Reporting of PCB's. In sample ET964 the quantitation of aroclors 1248 and 1254 was complicated by contribution of both aroclors to individual peaks. In order to avoid artificially high values, the Webb-McCall method of quantitation was used in addition to the routine PCB calculation technique. PCB values, using both quantitation techniques, have been reported on the Form I for your information and use. It is the professional judgement of the analyst that the Webb-McCall method of quantitation may represent a more accurate result for this particular sample.

- Pesticide Confrimation Analysis. GC confirmation analysis of several samples in this case was performed using a DB-608 Megabore Capillary Column. Please note that a 1.5% DBC shift criteria has been established by Joan Fisk when using Megabore capillary columns.

If you have any questions regarding this case or need any further clarifications, please feel free to call.

Sincerely,

David C. Hills

David C. Hills
Manager, Environmental analysis

DCH/mw

cc: USEPA Region V
USEPA EMSL-LV
Central File

In Reference to Case No(s):

7844

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM
Telephone Record Log

Date of Call: AUGUST 21, 1987

Laboratory Name: HAZLETON LABORATORIES

Lab Contact: DAVE HILLS

Region: V

Regional Contact: JAN PELS

Call Initiated By: ✓ Laboratory ___ Region

In reference to data for the following sample number(s):

ET 964

Summary of Questions/Issues Discussed:

Benzene and chlorobenzene are slightly over upper calibration range when using 1.0g.

	Conc found	x	Dil factor	=	Sample Conc
Benzene	280		5		1400 ug/kg
Chlorobenzene	273		5		1365 ug/kg

Using the maximum volume of extract (100ml) from Med level protocol, this would represent a dil factor of 125 and would be expected to produce results near the detection limit and potentially less accurate results.

Summary of Resolution:

Jan discussed this with the data user who said that they still would like the medium level analysis performed, but would also like the data from the diluted (1.0g) low level analysis.

Signature

8-21-87
Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) SMO Copy

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. 7844 Contract Laboratory HAZLETON LABORATORIES Contract No. 68-01-7146

Low ✓ Medium _____

	VOLATILE				SEMI-VOLATILE							PESTICIDE**
SMO TRAFFIC NO.	TOLUENE-D8 (81-117)	B/O (74-121)	1,2 DICHLORO-ETHANE-D4 (70-121)	NITRO-BENZENE-D5 (23-120)	2-FLUORO-BIPHENYL (30-115)	TERPHENYL-D14 (18-137)			PHENOL-D5 (24-113)	2-FLUORO-PHENOL (25-121)	2,4,6 TRIBROMO-PHENOL (19-122)	DIBUTYL-CHLORENDATE (20-150)
ET959	124*	70*	88	23	33	80			32	26	65	103
ET959RE	127*	73*	89	18*	56	91			83	26	84	NR
ET960	115	77	86	36	35	51			39	32	36	103
ET961	109	89	90	38	44	57			42	37	56	82
ET962	121*	77	83	33	53	85			56	42	87	52
ET962RE	125*	72*	88	NR	NR	NR			NR	NR	NR	NR
ET963	116	77	88	30	27*	42			28	28	37	46
ET964	117	95	90	34	44	74			40	34	68	33
ET959MS	NR	NR	NR	1*	20*	69			18*	5*	67	105
ET959MSD	NR	NR	NR	0*	14*	67			12*	2*	66	97
ET959MS-RE	NR	NR	NR	55	103	136			110	63	148*	NR
ET959MSD-RE	NR	NR	NR	11*	22*	36			23*	16*	32	NR
ET961MS	109	86	83	NR	NR	NR			NR	NR	NR	NR
ET961MSD	109	88	84	NR	NR	NR			NR	NR	NR	NR
M.Blk-1	101	95	88	52	54	80			53	45	52	114
M.Blk-2	105	105	73	56	58	101			58	57	88	NR

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 7 out of 36 ; outside of QC limits

Semi-Volatiles: 15 out of 78 ; outside of QC limits

Pesticides: 0 out of 9 ; outside of QC limits

7/85

Comments: ET964 has been analyzed as a medium level soil also. Both data included as per request.

FORM II

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. 7844 Contract Laboratory HAZLETON LABORATORIES Contract No. 68-01-7146

Low _____ Medium ✓

	VOLATILE			SEMI-VOLATILE								PESTICIDE
SMO TRAFFIC NO.	TOLUENE-D8 (81-117)	B/O (74-121)	1,2 DICHLORO-ETHANE-D4 (70-121)	NITRO-BENZENE-D5 (23-120)	2-FLUORO-BIPHENYL (30-115)	TERPHENYL-D14 (18-137)			PHENOL-D6 (24-113)	2-FLUORO-PHENOL (25-121)	2,4,6 TRIBROMO-PHENOL (19-122)	** DIBUTYL-CHLORENDATE (20-150)
ET964	84	78	72									
ET964MS	89	83	74									
ET964MSD	90	85	81									
M.BLK-3	107	104	91									

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 0 out of 12 ; outside of QC limits

Semi-Volatiles: — out of — ; outside of QC limits

Pesticides: — out of — ; outside of QC limits

7/85

Comments: _____

FORM III

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. 7844 **Contractor** HAZLETON LABORATORIES **Contract No.** 68-01-7146

Low Level ✓ **Medium Level** _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO. ET961	1,1-Dichloroethene	58	0	36	62	37	64	3	22	59-172
	Trichloroethene	↓	↓	49	84	50	86	2	24	62-137
	Chlorobenzene*	↓	↓	61	105	59	102	3	21	60-133
	Toluene	↓	↓	64	110	63	109	1	21	59-139
	Benzene	↓	↓	52	90	50	86	5	21	66-142
B/N SMO SAMPLE NO. ET959	1,2,4-Trichlorobenzene	2050	↓	0	0*	0	0*	—	23	38-107
	Acenaphthene	↓	↓	630	31	520	25*	19	19	31-137
	2,4 Dinitrotoluene	↓	↓	1800	73	940	46	45	47	28-89
	Pyrene	↓	550	1830	62	1640	53	16	36	35-142
	N-Nitrosodi-n-Propylamine	↓	10	95	5*	70	3*	30	38	41-126
	1,4-Dichlorobenzene	↓	↓	0	0*	0	0*	—	27	28-104
ACID SMO SAMPLE NO. ET959	Pentachlorophenol	4100	↓	3040	74	2510	61	19	47	17-109
	Phenol	↓	↓	700	17*	510	12*	31	35	26-90
	2-Chlorophenol	↓	↓	330	8*	170	4*	64*	50	25-102
	4-Chloro-3-Methylphenol	↓	↓	2300	56	2260	55	2	33	26-103
	4-Nitrophenol	↓	↓	2380	58	2330	57	2	50	11-114
PEST SMO SAMPLE NO. ET959	Lindane	33	↓	21	64	23	70	9	50	46-127
	Heptachlor	↓	↓	22	67	25	76	13	31	35-130
	Aldrin	↓	↓	16	48	18	55	14	43	34-132
	Dieldrin	82	↓	45	55	47	57	4	38	31-134
	Endrin	↓	↓	74	90	72	88	2	45	42-139
	4,4'-DDT	↓	↓	39	48	58	71	39	50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD:
VOAs 0 out of 5 ; outside QC limits
B/N 2 out of 6 ; outside QC limits
ACID 1 out of 5 ; outside QC limits
PEST 0 out of 6 ; outside QC limits

RECOVERY:
VOAs 0 out of 10 ; outside QC limits
B/N 7 out of 12 ; outside QC limits
ACID 4 out of 10 ; outside QC limits
PEST 0 out of 12 ; outside QC limits

Comments: _____

7/85

FORM III

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. 7844 **Contractor** HAZLETON LABORATORIES **Contract No.** 68-01-7146

Low Level ✓ **Medium Level** _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO. —	1,1-Dicholorethene								22	59-172
	Trichloroethene								24	62-137
	Chlorobenzene								21	60-133
	Toluene								21	59-139
	Benzene								21	66-142
B/N SMO SAMPLE NO. ET959 (Re-extracted)	1,2,4-Trichlorobenzene	2080	0	1060	52	220	11*	130*	23	38-107
	Acenaphthene			2280	111	560	27*	122*	19	31-137
	2,4 Dinitrotoluene			2510	122*	540	26*	130*	47	28-89
	Pyrene		930	3170	109	980	2*	193*	36	35-142
	N-Nitrosodi-n-Propylamine		0	1220	60	260	13*	129*	38	41-126
	1,4-Dichlorobenzene			450	22*	150	7*	103*	27	28-104
ACID SMO SAMPLE NO. ET959	Pentachlorophenol	4100		6290	153*	640	17	160*	47	17-109
	Phenol			4630	113*	960	23*	132*	35	26-90
	2-Chlorophenol			3230	79	710	17*	129*	50	25-102
	4-Chloro-3-Methylphenol			5820	142*	1560	38	116*	33	26-103
	4-Nitrophenol			5190	127*	1070	26	132*	50	11-114
PEST SMO SAMPLE NO. —	Lindane								50	46-127
	Heptachlor								31	35-130
	Aldrin								43	34-132
	Dieldrin								38	31-134
	Endrin								45	42-139
	4,4'-DDT								50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs — out of —; outside QC limits
B/N 6 out of 6; outside QC limits
ACID 5 out of 5; outside QC limits
PEST — out of —; outside QC limits

RECOVERY: VOAs — out of —; outside QC limits
B/N 8 out of 12; outside QC limits
ACID 6 out of 10; outside QC limits
PEST — out of —; outside QC limits

Comments:

7/85

FORM III

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. 7844 **Contractor** HAZLETON LABORATORIES **Contract No.** 68-01-7146

Low Level _____ **Medium Level** ✓

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO. ET964	1,1-Dicholorethene	12940	0	6420	50*	6620	51*	2	22	59-172
	Trichloroetherie		0	11200	87	11100	86	1	24	62-137
	Chlorobenzene		5500	17700	94	17800	95	1	21	60-133
	Toluene		0	11700	90	12300	95	5	21	59-139
	Benzene		3700	14400	83	14000	80	4	21	66-142
B/N SMO SAMPLE NO. ____	1,2,4-Trichlorobenzene								23	38-107
	Acenaphthene								19	31-137
	2,4 Dinitrotoluene								47	28-89
	Pyrene								36	35-142
	N-Nitrosodi-n-Propylamine								38	41-126
	1,4-Dichlorobenzene								27	28-104
ACID SMO SAMPLE NO. ____	Pentachlorophenol								47	17-109
	Phenol								35	26-90
	2-Chlorophenol								50	25-102
	4-Chloro-3-Methylphenol								33	26-103
	4-Nitrophenol								50	11-114
PEST SMO SAMPLE NO. ____	Lindane								50	46-127
	Heptachlor								31	35-130
	Aldrin								43	34-132
	Dieldrin								38	31-134
	Endrin								45	42-139
	4,4'-DDT								50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 0 out of 5 ; outside QC limits
B/N — out of — ; outside QC limits
ACID — out of — ; outside QC limits
PEST — out of — ; outside QC limits

RECOVERY: VOAs 2 out of 10 ; outside QC limits
B/N — out of — ; outside QC limits
ACID — out of — ; outside QC limits
PEST — out of — ; outside QC limits

Comments: _____

METHOD BLANK SUMMARY

Case No. 7844 Region 5 Contractor HAZLETON LABORATORIES Contract No. 68-01-7146

FILE ID	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	INST. ID	CAS NUMBER	COMPOUND (HSL, TIC OR UNKNOWN)	CONC.	UNITS	CRQL
M.Blk-1 25866	8-14-87	VOA	SOIL	L	HP5993	75-09-2	Methylene chloride	3J	µg/kg	5
						67-64-1	Acetone	5J		10
						—	Unknown	32		—
M.Blk-2 25943	8-20-87	VOA	SOIL	L	HP5993	75-09-2	Methylene chloride	4J	µg/kg	5
						67-64-1	Acetone	9J		10
						1066-40-6	Silanol, trimethyl-	12		—
						—	Unknown	41		—
						—	Unknown	5		—
M.Blk-3 25973	8-23-87	VOA	SOIL	M	HP5993	—	No volatiles found	—	—	—
M.Blk-1 BAN938	8-21-87	BNA	SOIL	L	FINNS18	86-30-6	N-Nitrosodiphenylamine	83J	µg/kg	330
						84-74-2	Di-n-butylphthalate	200J		330
						—	Unknown	530		—
M.Blk-2 BAN966	8-27-87	BNA	SOIL	L	FINNS18	84-74-2	Di-n-butylphthalate	160J	µg/kg	330
						85-68-7	Butylbenzylphthalate	1600		330
						3970-62-5	3-Pentanol, 2,2-dimethyl-	240		—
						5253-83-6	Alpha-D-xylofuranoside, methyl-3,5-O-dimethyl-	1100		—
						—	Unknown	1200		—
						6006-01-5	3,7,11-tridecatrienenitrile, 4,8,12-trimethyl-	610		—
M.Blk-1 2977	8-24-87	PEST	SOIL	L	Z78211	—	No Pesticides/PCB's found	—	—	—

Comments:

FORM IV 7/85

Sample Number
ET 959

87FP15514

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES
Case No: 7844
Lab Sample ID No: 70802524
QC Report No:
Sample Matrix: Soil
Contract No: 68-01-7146
Data Release Authorized By: David C Gylek
Date Sample Received: 8/13/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 8/14/87
Date Analyzed: 8/14/87
Conc/Dil Factor: 1 pH 6.6
Percent Moisture: (Not Decanted) 18.4 C.F. 1.23

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	12U
74-83-9	Bromomethane	12U
75-01-4	Vinyl Chloride	12U
75-00-3	Ehloroethane	12U
75-09-2	Methylene Chloride	9 B
67-64-1	Acetone	12 B
75-15-0	Carbon Disulfide	6U
75-35-4	1, 1-Dichloroethene	6U
75-34-3	1, 1-Dichloroethane	6U
156-60-5	Trans-1, 2-Dichloroethene	6U
67-66-3	Chloroform	6U
107-06-2	1, 2-Dichloroethane	6U
78-93-3	2-Butanone	12U
71-55-6	1, 1, 1-Trichloroethane	6U
56-23-5	Carbon Tetrachloride	6U
108-05-4	Vinyl Acetate	12U
75-27-4	Bromodichloromethane	6U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	6U
10061-02-6	Trans-1, 3-Dichloropropene	6U
79-01-6	Trichloroethene	6U
124-48-1	Dibromochloromethane	6U
79-00-5	1, 1, 2-Trichloroethane	6U
71-43-2	Benzene	6U
10061-01-5	cis-1, 3-Dichloropropene	6U
110-75-8	2-Chloroethylvinylether	12U
75-25-2	Bromoform	6U
108-10-1	4-Methyl-2-Pentanone	12U
591-78-6	2-Hexanone	12U
127-18-4	Tetrachloroethene	6U
79-34-5	1, 1, 2, 2-Tetrachloroethane	6U
108-88-3	Toluene	9
108-90-7	Chlorobenzene	6U
100-41-4	Ethylbenzene	6U
100-42-5	Styrene	6U
	Total Xylenes	6U

D.L

6

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 action. (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 indicated 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., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

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 Name: HAZLETON LABORATORIES

Case No: 7841

Sample Number
ET 85 9

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 9/19/87

Date Analyzed: 8/22/87

Conc/Dil Factor: 1

Percent Moisture (Decanted): 12.4

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	410 u	
111-44-4	bis-2-Chloroethyl Ether		
95-57-8	2-Chlorophenol		
541-73-1	1,3-Dichlorobenzene		
106-46-7	1,4-Dichlorobenzene		
100-51-6	Benzyl Alcohol		
95-50-1	1,2-Dichlorobenzene		
95-48-7	2-Methylphenol		
39638-32-9	bis(2-chloroisopropyl)Ether		
106-44-5	4-Methylphenol		
621-64-7	N-Nitroso-Di-n-Propylamine		
67-72-1	Hexachloroethane		
98-95-3	Nitrobenzene		
78-59-1	Isophorone		
88-75-5	2-Nitrophenol		
105-67-9	2,4-Dimethylphenol		
65-85-0	Benzoic Acid	2000 u	
111-91-1	bis-2-Chloroethoxyl Methane	410 u	
120-83-2	2,4-Dichlorophenol		
120-82-1	1,2,4-Trichlorobenzene		
91-20-3	Naphthalene		
106-47-8	4-Chloroaniline		
87-68-3	Hexachlorobutadiene		
59-50-7	4-Chloro-3-Methylphenol		
91-57-6	2-Methylnaphthalene		
77-47-4	Hexachlorocyclopentadiene		
88-06-2	2,4,6-Trichlorophenol		
95-95-4	2,4,5-Trichlorophenol	2000 u	
91-58-7	2-Chloronaphthalene	410 u	
88-74-4	2-Nitroaniline	2000 u	
131-11-3	Dimethyl Phthalate	410 u	
208-96-8	Acenaphthylene	33 J	Y
99-09-2	3-Nitroaniline	2000 u	

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	410 u	
51-28-5	2,4-Dinitrophenol	2000 u	
100-02-7	4-Nitrophenol	2000 u	
132-64-9	Dibenzofuran	410 u	
121-14-2	2,4-Dinitrotoluene		
606-20-2	2,6-Dinitrotoluene		
84-66-2	Diethylphthalate		
7005-72-3	4-Chlorophenyl-phenylether		
86-73-7	Fluorene		
100-01-6	4-Nitroaniline	2000 u	
534-52-1	4,6-Dinitro-2-Methylphenol	2000 u	
86-30-6	N-Nitrosodiphenylamine (1)	410 u	
101-55-3	4-Bromophenyl-phenylether		
118-74-1	Hexachlorobenzene		
87-86-5	Pentachlorophenol	2000 u	
85-01-8	Phenanthrene	1300 J	Y
120-12-7	Anthracene	57 J	Y
84-74-2	Di-n-Butylphthalate	560 B	
206-44-0	Fluoranthene	580	410 D.L.
129-00-0	Pyrene	570	
85-68-7	Butylbenzylphthalate	410 u	
91-94-1	3,3'-Dichlorobenzidine	820 u	
56-55-3	Benzo(a)Anthracene	270 J	X
117-81-7	bis(2-Ethylhexyl)Phthalate	410 u	
218-01-9	Chrysene	320 J	X
117-84-0	Di-n-Octyl Phthalate	410 u	
205-99-2	Benzo(b)Fluoranthene	550	410 D.L.
207-08-9	Benzo(k)Fluoranthene	410 u	
50-32-8	Benzo(a)Pyrene	280 J	X
193-39-5	Indeno(1,2,3-cd)Pyrene	410 u	
53-70-3	Dibenzo(a,h)Anthracene		
191-24-2	Benzo(g,h,i)Perylene		

(1)-Cannot be separated from diphenylamine

Laboratory Name HAZLETON LABORATORIES

Case No 7844

Sample Number
ET 959

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 8-19-87

Date Analyzed 8-24-87

Conc/Dil Factor 1

Percent Moisture (decanted) 18.4 %

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	9.8 U
319-85-7	Beta-BHC	9.8 U
319-86-8	Delta-BHC	9.8 U
58-89-9	Gamma-BHC (Lindane)	9.8 U
76-44-8	Heptachlor	9.8 U
309-00-2	Aldrin	9.8 U
1024-57-3	Heptachlor Epoxide	9.8 U
959-98-8	Endosulfan I	9.8 U
60-57-1	Dieldrin	20 U
72-55-9	4,4'-DDE	20 U
72-20-8	Endrin	20 U
33213-65-9	Endosulfan II	20 U
72-54-8	4,4'-DDD	20 U
1031-07-8	Endosulfan Sulfate	20 U
50-29-3	4,4'-DDT	20 U
72-43-5	Methoxychlor	98 U
53494-70-5	Endrin Ketone	20 U
57-74-9	Chlordane	98 U
8001-35-2	Toxaphene	200 U
12674-11-2	Aroclor-1016	98 U
11104-28-2	Aroclor-1221	98 U
11141-16-5	Aroclor-1232	98 U
53469-21-9	Aroclor-1242	98 U
12672-29-6	Aroclor-1248	98 U
11097-69-1	Aroclor-1254	200 U
11096-82-5	Aroclor-1260	200 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 — or W_s 24.4 g DRY WT V_t 20,000 ul V_i 4 ul

Laboratory Name HAZLETON LABORATORIES

Case No 7845

Sample Number
ET959

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.	240-09-2	5-Hexen-2-one, 5 methyl	BNA	296	300
2.		unknown		1790	210
3.	34105-67-8	Heptadecane, 2,6-Dimethyl		1851	330
4.		unknown		1907	670
5.		unknown		1917	410
6.		unknown		1927	980
7.		unknown alkane		1963	930
8.		unknown		2017	3100
9.		unknown		2068	1300
10.		unknown		2126	790
11.		unknown		2141	790
12.		unknown		2168	580
13.	1066-40-6	Silanol, trimethyl-	VOA	208	8
14.	589-34-4	Hexane, 3-methyl-		353	12
15.					
16.					
17.					
18.					
19.					
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29.					
30.					

Sample Number
ET959-RE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES
Case No: 7844
Lab Sample ID No: 70802524RE
QC Report No:
Sample Matrix: Soil
Contract No: 68-01-7146
Data Release Authorized By: David C. Gfell
Date Sample Received: 8/13/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 8/14/87
Date Analyzed: 8/14/87
Conc/Dil Factor: 1 pH 6.6
Percent Moisture: (Not Decanted) 18.4 C.F. = 1.23

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	12U
74-83-9	Bromomethane	12U
75-01-4	Vinyl Chloride	12U
75-00-3	Chloroethane	12U
75-09-2	Methylene Chloride	14 B
67-64-1	Acetone	35 B
75-15-0	Carbon Disulfide	6U
75-35-4	1, 1-Dichloroethene	6U
75-34-3	1, 1-Dichloroethane	6U
156-60-5	Trans-1, 2-Dichloroethene	6U
67-66-3	Chloroform	6U
107-06-2	1, 2-Dichloroethane	6U
78-93-3	2-Butanone	12U
71-55-6	1, 1, 1-Trichloroethane	6U
56-23-5	Carbon Tetrachloride	6U
108-05-4	Vinyl Acetate	12U
75-27-4	Bromodichloromethane	6U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	6U
10061-02-6	Trans-1, 3-Dichloropropene	6U
79-01-6	Trichloroethene	6U
124-48-1	Dibromochloromethane	6U
79-00-5	1, 1, 2-Trichloroethane	6U
71-43-2	Benzene	6U
10061-01-5	cis-1, 3-Dichloropropene	6U
110-75-8	2-Chloroethylvinylether	12U
75-25-2	Bromoform	6U
108-10-1	4-Methyl-2-Pentanone	12U
591-78-6	2-Hexanone	12U
127-18-4	Tetrachloroethene	6U
79-34-5	1, 1, 2, 2-Tetrachloroethane	6U
108-88-3	Toluene	7
108-90-7	Chlorobenzene	6U
100-41-4	Ethylbenzene	6U
100-42-5	Styrene	6U
	Total Xylenes	6U

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 action. (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 indicated 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., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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 Name: HAZLETON LABORATORIES

Case No: 7844

Sample Number: ET959RE

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 8/26/87

Date Analyzed: 8/27/87

Conc/Dil Factor: 1

Percent Moisture (Decanted) 12.4

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	410 u
111-44-4	bis(-2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1, 3-Dichlorobenzene	
106-46-7	1, 4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1, 2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2, 4-Dimethylphenol	
65-85-0	Benzoic Acid	156 J
111-91-1	bis(-2-Chloroethoxy)Methane	410 u
120-83-2	2, 4-Dichlorophenol	
120-82-1	1, 2, 4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2, 4, 6-Trichlorophenol	
95-95-4	2, 4, 5-Trichlorophenol	2000 u
91-58-7	2-Chloronaphthalene	410 u
88-74-4	2-Nitroaniline	2000 u
131-11-3	Dimethyl Phthalate	410 u
208-96-8	Acenaphthylene	54 J
99-09-2	3-Nitroaniline	2000 u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	410 u
51-28-5	2, 4-Dinitrophenol	2000 u
100-02-7	4-Nitrophenol	2000 u
132-64-9	Dibenzofuran	46 J
121-14-2	2, 4-Dinitrotoluene	410 u
606-20-2	2, 6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	59 J
100-01-6	4-Nitroaniline	2000 u
534-52-1	4, 6-Dinitro-2-Methylphenol	2000 u
86-30-6	N-Nitrosodiphenylamine (1)	410 u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	
87-86-5	Pentachlorophenol	2000 u
85-01-8	Phenanthrene	920
120-12-7	Anthracene	~~110 J~~
84-74-2	Di-n-Butylphthalate	200 JB
206-44-0	Fluoranthene	1100
129-00-0	Pyrene	930
85-68-7	Butylbenzylphthalate	1700 B
91-94-1	3, 3'-Dichlorobenzidine	820 u
56-55-3	Benzo(a)Anthracene	490
117-81-7	bis(2-Ethylhexyl)Phthalate	410 u
218-01-9	Chrysene	590
117-84-0	Di-n-Octyl Phthalate	410 u
205-99-2	Benzo(b)Fluoranthene	1000
207-08-9	Benzo(k)Fluoranthene	410 u
50-32-8	Benzo(a)Pyrene	420
193-39-5	Indeno(1, 2, 3-cd)Pyrene	410 u
53-70-3	Dibenz(a, h)Anthracene	
191-24-2	Benzo(g, h, i)Perylene	

4/10 D.L.

(1)-Cannot be seperated from diphenylamine

Laboratory Name HAZLETON LABORATORIES

Case No 7844

Sample Number E7959RE

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.	Unknown	BNA	371	370
2.	unknown		376	530
3. 109-87-5	Methane, Dimethoxy -		384	1300
4.	unknown		1054	250
5.	unknown		1313	210
6. 603-11-2	1,2 Benzenedicarboxylic Acid, 3-Nitro		1716	620
7.	unknown		1722	830
8.	unknown		1834	180
9.	unknown		1897	450
10.	unknown		1910	1900
11.	unknown		1945	500
12.	unknown		1958	2600
13.	unknown		2019	400
14.	unknown		2026	210
15.	unknown Alkane		2051	770
16.	unknown		2071	650
17.	unknown		2122	370
18. 589344	Hexane, 3-methyl-	VOA	350	9
19. -	Unknown		170	6
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Sample Number
ET 960

87FP15515

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES
Case No: 7844
Lab Sample ID No: 70802525
QC Report No:
Sample Matrix: Soil
Contract No: 68-01-7146
Data Release Authorized By: [signature]
Date Sample Received: 8/13/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 8/14/87
Date Analyzed: 8/14/87
Conc/Dil Factor: 1 pH 7.7
Percent Moisture: (Not Decanted) 19.2 C.F 1.24

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	12U
74-83-9	Bromomethane	12U
75-01-4	Vinyl Chloride	12U
75-00-3	Chloroethane	12U
75-09-2	Methylene Chloride	9B
67-64-1	Acetone	18B
75-15-0	Carbon Disulfide	6U
75-35-4	1, 1-Dichloroethene	6U
75-34-3	1, 1-Dichloroethane	6U
156-60-5	Trans-1, 2-Dichloroethene	6U
67-66-3	Chloroform	6U
107-06-2	1, 2-Dichloroethane	6U
78-93-3	2-Butanone	12U
71-55-6	1, 1, 1-Trichloroethane	6U
56-23-5	Carbon Tetrachloride	6U
108-05-4	Vinyl Acetate	12U
75-27-4	Bromodichloromethane	6U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	6U
10061-02-6	Trans-1, 3-Dichloropropene	6U
79-01-6	Trichloroethene	6U
124-48-1	Dibromochloromethane	6U
79-00-5	1, 1, 2-Trichloroethane	6U
71-43-2	Benzene	6U
10061-01-5	cis-1, 3-Dichloropropene	6U
110-75-8	2-Chloroethylvinylether	12U
75-25-2	Bromoform	6U
108-10-1	4-Methyl-2-Pentanone	12U
591-78-6	2-Hexanone	12U
127-18-4	Tetrachloroethene	6U
79-34-5	1, 1, 2, 2-Tetrachloroethane	6U
108-88-3	Toluene	6U
108-90-7	Chlorobenzene	6U
100-41-4	Ethylbenzene	6U
100-42-5	Styrene	6U
	Total Xylenes	6U

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 action. (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 indicated 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., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

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 Name HAZLETON LABORATORIES

Case No 7844

Sample Number ET 960

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 8-19-87

Date Analyzed: 8-21-87

Conc/Dil Factor: —

Percent Moisture (Decanted) 19.2

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	410u
111-44-4	bis-2-Chloroethyl Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	
65-85-0	Benzoic Acid	2000u
111-91-1	bis-2-Chloroethoxyl Methane	410u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	
95-95-4	2,4,5-Trichlorophenol	2000u
91-58-7	2-Chloronaphthalene	410u
88-74-4	2-Nitroaniline	2000u
131-11-3	Dimethyl Phthalate	410u
208-96-8	Acenaphthylene	410u
99-09-2	3-Nitroaniline	2000u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	410u
51-28-5	2,4-Dinitrophenol	2000u
100-02-7	4-Nitrophenol	2000u
132-64-9	Dibenzofuran	410u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	
100-01-6	4-Nitroaniline	2000u
534-52-1	4,6-Dinitro-2-Methylphenol	2000u
86-30-6	N-Nitrosodiphenylamine (1)	785B
101-55-3	4-Bromophenyl-phenylether	410u
118-74-1	Hexachlorobenzene	410u
87-86-5	Pentachlorophenol	2000u
85-01-8	Phenanthrene	410u
120-12-7	Anthracene	410u
84-74-2	Di-n-Butylphthalate	1940B
206-44-0	Fluoranthene	410u
129-00-0	Pyrene	
85-68-7	Butylbenzylphthalate	
91-94-1	3,3'-Dichlorobenzidine	820u
56-55-3	Benzo(a)Anthracene	410u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzo(b)Fluoranthene	
207-08-9	Benzo(k)Fluoranthene	
50-32-8	Benzo(a)Pyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenzo(a,h)Anthracene	
191-24-2	Benzo(g,h,i)Perylene	

(1)-Cannot be separated from diphenylamine

Laboratory Name HAZLETON LABORATORIES

Case No 7844

Sample Number
ET 960

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 08-19-87

Date Analyzed 8-25-87

Conc/Dil Factor 1

Percent Moisture (decanted) 19.2 %

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	9.9 u
319-85-7	Beta-BHC	9.9 u
319-86-8	Delta-BHC	9.9 u
58-89-9	Gamma-BHC (Lindane)	9.9 u
76-44-8	Heptachlor	9.9 u
309-00-2	Aldrin	9.9 u
1024-57-3	Heptachlor Epoxide	9.9 u
959-98-8	Endosulfan I	9.9 u
60-57-1	Dieldrin	20 u
72-55-9	4, 4'-DDE	20 u
72-20-8	Endrin	20 u
33213-65-9	Endosulfan II	20 u
72-54-8	4, 4'-DDD	20 u
1031-07-8	Endosulfan Sulfate	20 u
50-29-3	4, 4'-DDT	20 u
72-43-5	Methoxychlor	99 u
53494-70-5	Endrin Ketone	20 u
57-74-9	Chlordane	99 u
8001-35-2	Toxaphene	200 u
12674-11-2	Aroclor-1016	99 u
11104-28-2	Aroclor-1221	99 u
11141-16-5	Aroclor-1232	99 u
53469-21-9	Aroclor-1242	99 u
12672-29-6	Aroclor-1248	99 u
11097-69-1	Aroclor-1254	200 u
11096-82-5	Aroclor-1260	200 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 — or W_s 24.2 g DRY WT V_t 20,000 ul V_i 4 ul

Laboratory Name HAZLETON LABORATORIES

Case No 7844

Sample Number
ET960

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 Volatiles Found	VOA		
2.	Unknown	BNA	229	600
3. 3240-09-3	5-hexen-2-one, 5-methyl-	↓	291	200
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Sample Number
ET 961

87FP15S16

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES
Case No: 7844
Lab Sample ID No: 70807526
QC Report No:
Sample Matrix: Soil
Contract No: 68-01-7146
Data Release Authorized By: David C. Gibb
Date Sample Received: 8/13/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 8/14/87
Date Analyzed: 8/14/87
Conc/Dil Factor: 1 pH 8.6
Percent Moisture: (Not Decanted) 13.8 C.F.: 1.16

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	12U
74-83-9	Bromomethane	12U
75-01-4	Vinyl Chloride	12U
75-00-3	Chloroethane	12U
75-09-2	Methylene Chloride	8B
67-64-1	Acetone	14B
75-15-0	Carbon Disulfide	6U
75-35-4	1, 1-Dichloroethene	6U
75-34-3	1, 1-Dichloroethane	6U
156-60-5	Trans-1, 2-Dichloroethene	6U
67-66-3	Chloroform	6U
107-06-2	1, 2-Dichloroethane	6U
78-93-3	2-Butanone	12U
71-55-6	1, 1, 1-Trichloroethane	6U
56-23-5	Carbon Tetrachloride	6U
108-05-4	Vinyl Acetate	12U
75-27-4	Bromodichloromethane	6U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	6U
10061-02-6	Trans-1, 3-Dichloropropene	6U
79-01-6	Trichloroethene	6U
124-48-1	Dibromochloromethane	6U
79-00-5	1, 1, 2-Trichloroethane	6U
71-43-2	Benzene	6U
10061-01-5	cis-1, 3-Dichloropropene	6U
110-75-8	2-Chloroethylvinylether	12U
75-25-2	Bromoform	6U
108-10-1	4-Methyl-2-Pentanone	12U
591-78-6	2-Hexanone	12U
127-18-4	Tetrachloroethene	6U
79-34-5	1, 1, 2, 2-Tetrachloroethane	6U
108-88-3	Toluene	6U
108-90-7	Chlorobenzene	6U
100-41-4	Ethylbenzene	6U
100-42-5	Styrene	6U
	Total Xylenes	6U

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 action. (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 indicated 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., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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 Name: HAZLETON LABORATORIES

Case No: 7844

Sample Number
ET 961

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8-19-87

Date Analyzed: 8-21-87

Conc/Dil Factor: –

Percent Moisture (Decanted) 13.8

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	390U	
111-44-4	bis(2-Chloroethyl)Ether		
95-57-8	2-Chlorophenol		
541-73-1	1,3-Dichlorobenzene		
106-46-7	1,4-Dichlorobenzene		
100-51-6	Benzyl Alcohol		
95-50-1	1,2-Dichlorobenzene		
95-48-7	2-Methylphenol		
39638-32-9	bis(2-Chloroisopropyl)Ether		
106-44-5	4-Methylphenol		
621-64-7	N-Nitroso-Di-n-Propylamine		
67-72-1	Hexachloroethane		
98-95-3	Nitrobenzene		
78-59-1	Isophorone		
88-75-5	2-Nitrophenol		
105-67-9	2,4-Dimethylphenol		
65-85-0	Benzoic Acid	2000U	*
111-91-1	bis(2-Chloroethoxy)Methane	390U	
120-83-2	2,4-Dichlorophenol		
120-82-1	1,2,4-Trichlorobenzene		
91-20-3	Naphthalene		
106-47-8	4-Chloroaniline		
87-68-3	Hexachlorobutadiene		
59-50-7	4-Chloro-3-Methylphenol		
91-57-6	2-Methylnaphthalene		
77-47-4	Hexachlorocyclopentadiene		
88-06-2	2,4,6-Trichlorophenol		
95-95-4	2,4,5-Trichlorophenol	2000U	*
91-58-7	2-Chloronaphthalene	390U	
88-74-4	2-Nitroaniline	2000U	*
131-11-3	Dimethyl Phthalate	390U	
208-96-8	Acenaphthylene	1285J	*
99-09-2	3-Nitroaniline	2000U	*

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	390U	
51-28-5	2,4-Dinitrophenol	2000U	*
100-02-7	4-Nitrophenol	2000U	*
132-64-9	Dibenzofuran	390U	
121-14-2	2,4-Dinitrotoluene		
606-20-2	2,6-Dinitrotoluene		
84-66-2	Diethylphthalate		
7005-72-3	4-Chlorophenyl-phenylether		
86-73-7	Fluorene	180J	*
100-01-6	4-Nitroaniline	2000U	*
534-52-1	4,6-Dinitro-2-Methylphenol	2000U	*
86-30-6	N-Nitrosodiphenylamine (1)	390U	
101-55-3	4-Bromophenyl-phenylether		
118-74-1	Hexachlorobenzene		
87-86-5	Pentachlorophenol	2000U	*
85-01-8	Phenanthrene	1200	*
120-12-7	Anthracene	350J	*
84-74-2	Di-n-Butylphthalate	170JB	*
206-44-0	Fluoranthene	2400	*
129-00-0	Pyrene	1500	*
85-68-7	Butylbenzylphthalate	390U	*
91-94-1	3,3'-Dichlorobenzidine	780U	*
56-55-3	Benzo(a)Anthracene	1000	*
117-81-7	bis(2-Ethylhexyl)Phthalate	390U	
218-01-9	Chrysene	960	*
117-84-0	Di-n-Octyl Phthalate	390U	
205-99-2	Benzo(b)Fluoranthene	600	*
207-08-9	Benzo(k)Fluoranthene	870	*
50-32-8	Benzo(a)Pyrene	930	*
193-39-5	Indeno(1,2,3-cd)Pyrene	600	*
53-70-3	Dibenzo(a,h)Anthracene	390U	
191-24-2	Benzo(g,h,i)Perylene	390U	

390 Det. Lim

(1)-Cannot be separated from diphenylamine

Laboratory Name HAZLETON LABORATORIES

Case No 7844

Sample Number ET 961

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 08-19-87

Date Analyzed 08-25-87

Conc/Dil Factor 1

Percent Moisture (decanted) 13.8 %

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	9.3 u
319-85-7	Beta-BHC	9.3 u
319-86-8	Delta-BHC	9.3 u
58-89-9	Gamma-BHC (Lindane)	9.3 u
76-44-8	Heptachlor	9.3 u
309-00-2	Aldrin	9.3 u
1024-57-3	Heptachlor Epoxide	9.3 u
959-98-8	Endosulfan I	9.3 u
60-57-1	Dieldrin	19 u
72-55-9	4, 4'-DDE	19 u
72-20-8	Endrin	19 u
33213-65-9	Endosulfan II	19 u
72-54-8	4, 4'-DDD	19 u
1031-07-8	Endosulfan Sulfate	19 u
50-29-3	4, 4'-DDT	19 u
72-43-5	Methoxychlor	93 u
53494-70-5	Endrin Ketone	19 u
57-74-9	Chlordane	93 u
8001-35-2	Toxaphene	190 u
12674-11-2	Aroclor-1016	93 u
11104-28-2	Aroclor-1221	93 u
11141-16-5	Aroclor-1232	93 u
53469-21-9	Aroclor-1242	93 u
12672-29-6	Aroclor-1248	93 u
11097-69-1	Aroclor-1254	190 u
11096-82-5	Aroclor-1260	190 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 — or W_s 25.9 g DRY WT V_t 20,000 ul V_i 4 ul

Laboratory Name HAZLETON LABORATORIES

Case No 7844

Sample Number ET 961

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. —	unknown	BAN	222	540
2. 25346-31-0	pentane, 3-bromo-3-methyl-		251	160
3. —	unknown		287	260
4. 2088-07-5	1-penten-3-ol, 2-methyl-		368	190
5. —	unknown decane		1152	290
6. —	unknown decane		1237	230
7. —	unknown		1304	280
8. —	unknown		1309	300
9. 10544-50-0	Sulfur mol.		1383	820
10. —	unknown		1457	280
11. 195-19-7	Benzo(c) phenanthrene		1636	160
12. 205-82-3	Benzo(j) fluoranthene		1902	980
13. —	unknown		2111	700
14. 000406	Silanol, trimethyl-	VOA	208	7
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Sample Number
ET 962

87FP15517

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES
Case No: 7844
Lab Sample ID No: 70802527
QC Report No:
Sample Matrix: Soil
Contract No: 68-01-7146
Data Release Authorized By: David C. Gyles
Date Sample Received: 8/13/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/14/87

Date Analyzed: 8/14/87

Conc/Dil Factor: 1 pH 7.6

Percent Moisture: (Not Decanted) 44.6 C.F. = 1.81

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	18U
74-83-9	Bromomethane	18U
75-01-4	Vinyl Chloride	18U
75-00-3	Chloroethane	18U
75-09-2	Methylene Chloride	9B
67-64-1	Acetone	32B
75-15-0	Carbon Disulfide	9U
75-35-4	1,1-Dichloroethene	9U
75-34-3	1,1-Dichloroethane	9U
156-60-5	Trans-1,2-Dichloroethene	9U
67-66-3	Chloroform	9U
107-06-2	1,2-Dichloroethane	9U
78-93-3	2-Butanone	18U
71-55-6	1,1,1-Trichloroethane	9U
56-23-5	Carbon Tetrachloride	9U
108-05-4	Vinyl Acetate	18U
75-27-4	Bromodichloromethane	9U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1,2-Dichloropropane	9U
10061-02-6	Trans-1,3-Dichloropropene	9U
79-01-6	Trichloroethene	9U
124-48-1	Dibromochloromethane	9U
79-00-5	1,1,2-Trichloroethane	9U
71-43-2	Benzene	9U
10061-01-5	cis-1,3-Dichloropropene	9U
110-75-8	2-Chloroethylvinylether	18U
75-25-2	Bromoform	9U
108-10-1	4-Methyl-2-Pentanone	18U
591-78-6	2-Hexanone	18U
127-18-4	Tetrachloroethene	9U
79-34-5	1,1,2,2-Tetrachloroethane	9U
108-88-3	Toluene	9U
108-90-7	Chlorobenzene	9U
100-41-4	Ethylbenzene	9U
100-42-5	Styrene	9U
	Total Xylenes	9U

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 action. (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 indicated 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., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

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 Name HAZLETON LABORATORIES

Case No. 7844

Sample Number
ET962

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 8/26/87

Date Analyzed: 8/27/87

Conc/Dil Factor: 1

Percent Moisture (Decanted) 44.6

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	600 u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	
65-85-0	Benzoic Acid	38 J
111-91-1	bis(2-Chloroethoxy)Methane	600 u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	3000 u
91-58-7	2-Chloronaphthalene	600 u
88-74-4	2-Nitroaniline	3000 u
131-11-3	Dimethyl Phthalate	600 u
208-96-8	Acenaphthylene	✓
99-09-2	3-Nitroaniline	3000 u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	600 u
51-28-5	2,4-Dinitrophenol	3000 u
100-02-7	4-Nitrophenol	3000 u
132-64-9	Dibenzofuran	600 u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	3000 u
534-52-1	4,6-Dinitro-2-Methylphenol	3000 u
86-30-6	N-Nitrosodiphenylamine (1)	600 u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-86-5	Pentachlorophenol	3000 u
85-01-8	Phenanthrene	150 J
120-12-7	Anthracene	600 u
84-74-2	Di-n-Butylphthalate	2500 B
206-44-0	Fluoranthene	380 J
129-00-0	Pyrene	350 J
85-68-7	Butylbenzylphthalate	600 u
91-94-1	3,3'-Dichlorobenzidine	1200 u
56-55-3	Benzo(a)Anthracene	170 J
117-81-7	bis(2-Ethylhexyl)Phthalate	340 J
218-01-9	Chrysene	240 J
117-84-0	Di-n-Octyl Phthalate	600 u
205-99-2	Benzo(b)Fluoranthene	
207-08-9	Benzo(k)Fluoranthene	
50-32-8	Benzo(a)Pyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzo(g,h,i)Perylene	✓

(1)-Cannot be separated from diphenylamine

600 D.L.

3000 D.L.

Laboratory Name HAZLETON LABORATORIES

Case No 7844

Sample Number ET 962

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 08-19-87

Date Analyzed 08-25-87

Conc/Dil Factor 1

Percent Moisture (decanted) 44.6 %

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	14 U
319-85-7	Beta-BHC	14 U
319-86-8	Delta-BHC	14 U
58-89-9	Gamma-BHC (Lindane)	14 U
76-44-8	Heptachlor	14 U
309-00-2	Aldrin	14 U
1024-57-3	Heptachlor Epoxide	14 U
959-98-8	Endosulfan I	14 U
60-57-1	Dieldrin	29 U
72-55-9	4, 4'-DDE	29 U
72-20-8	Endrin	29 U
33213-65-9	Endosulfan II	29 U
72-54-8	4, 4'-DDD	29 U
1031-07-8	Endosulfan Sulfate	29 U
50-29-3	4, 4'-DDT	29 U
72-43-5	Methoxychlor	140 U
53494-70-5	Endrin Ketone	29 U
57-74-9	Chlordane	140 U
8001-35-2	Toxaphene	290 U
12674-11-2	Aroclor-1016	140 U
11104-28-2	Aroclor-1221	140 U
11141-16-5	Aroclor-1232	140 U
53469-21-9	Aroclor-1242	140 U
12672-29-6	Aroclor-1248	140 U
11097-69-1	Aroclor-1254	290 U
11096-82-5	Aroclor-1260	290 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 — or W_s 16.6 g DRY WT V_t 20,000 ul V_i 4 ul

Laboratory Name HAZLETON LABORATORIES

Case No 7844

Sample Number ET 962

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.	3970-62-5	3-Pentanol, 2,2-Dimethyl	BNA	272	460
2.	625-86-5	Furan, 2,5-Dimethyl		329	310
3.	62016-37-9	Octane, 2,4,6-Trimethyl		959	260
4.	54105-67-8	Heptadecane, 2,6-Dimethyl		1144	420
5.	629-80-1	Hexadecanal (ACN)		1254	1700
6.	17851-53-5	1,2-Benzenedicarboxylic Acid, Butyl 2-Methylhexyl		1272	866
7.	61854-64-4	3-Octadecyne		1217	440
8.	6574-50-0	Sulfur Mol (S8)		1375	3500
9.	27812-79-9	Hydroxylamine, O-Decyl		1834	1000
10.		Unknown		1903	1000
11.	3891-98-3	Dodecane, 2,6,10-Trimethyl		1946	2900
12.	7[illegible]-56-8	5-Hepten-3-One, 5-Ethyl-4-Methyl		1965	3100
13.	55045-11-4	Tridecane, 5-Propyl		2052	2700
14.		Unknown		2073	2500
15.		Unknown		2175	3200
16.		Unknown		2255	3200
17.	1066-40-6	Silanol, trimethyl-	VOA	208	11
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Sample Number
ET 962 RE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES
Case No: 7844
Lab Sample ID No: 70802527 RE
QC Report No:
Sample Matrix: Soil
Contract No: 68-01-7146
Data Release Authorized By: David C Gleb
Date Sample Received: 8/13/87

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 8/14/87
Date Analyzed: 8/14/87
Conc/Dil Factor: 1 pH 7.6
Percent Moisture: (Not Decanted) 44.6 C.F. = 1.81

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	18U
74-83-9	Bromomethane	18U
75-01-4	Vinyl Chloride	18U
75-00-3	Chloroethane	18U
75-09-2	Methylene Chloride	14B
67-64-1	Acetone	62B
75-15-0	Carbon Disulfide	9U
75-35-4	1, 1-Dichloroethene	9U
75-34-3	1, 1-Dichloroethane	9U
156-60-5	Trans-1, 2-Dichloroethene	9U
67-66-3	Chloroform	9U
107-06-2	1, 2-Dichloroethane	9U
78-93-3	2-Butanone	18U
71-55-6	1, 1, 1-Trichloroethane	9U
56-23-5	Carbon Tetrachloride	9U
108-05-4	Vinyl Acetate	18U
75-27-4	Bromodichloromethane	9U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	9U
10061-02-6	Trans-1, 3-Dichloropropene	9U
79-01-6	Trichloroethene	9U
124-48-1	Dibromochloromethane	9U
79-00-5	1, 1, 2-Trichloroethane	9U
71-43-2	Benzene	9U
10061-01-5	cis-1, 3-Dichloropropene	9U
110-75-8	2-Chloroethylvinylether	18U
75-25-2	Bromoform	9U
108-10-1	4-Methyl-2-Pentanone	18U
591-78-6	2-Hexanone	18U
127-18-4	Tetrachloroethene	9U
79-34-5	1, 1, 2, 2-Tetrachloroethane	9U
108-88-3	Toluene	9U
108-90-7	Chlorobenzene	9U
100-41-4	Ethylbenzene	9U
100-42-5	Styrene	9U
	Total Xylenes	9U

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 action. (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 indicated 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., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

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 Name: HAZLETON LABORATORIES

Case No: 7844

Sample Number: ET 962 RE

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. 4889832	Bicyclo [3.1.1] hept-2-ene, 3,6,6-trimethyl-	VOA	417	12
2. 144398	1,6-Octadien-3-ol, 3,7-dimethyl-, propanoate	↓	428	38
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Sample Number
ET 963

87FP15518

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES

Case No: 7844

Lab Sample ID No: 70802528

QC Report No:

Sample Matrix: Soil

Contract No: 68-01-7146

Data Release Authorized By: David C. Gibb

Date Sample Received: 8/13/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/14/87

Date Analyzed: 8/14/87

Conc/Dil Factor: 1 pH 7.5

Percent Moisture: (Not Decanted) 65.5 C.F. = 2.90

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	29U
74-83-9	Bromomethane	29U
75-01-4	Vinyl Chloride	29U
75-00-3	Chloroethane	29U
75-09-2	Methylene Chloride	41 B
67-64-1	Acetone	74 B
75-15-0	Carbon Disulfide	14U
75-35-4	1, 1-Dichloroethene	14U
75-34-3	1, 1-Dichloroethane	14U
156-60-5	Trans-1, 2-Dichloroethene	14U
67-66-3	Chloroform	14U
107-06-2	1, 2-Dichloroethane	14U
78-93-3	2-Butanone	29U
71-55-6	1, 1, 1-Trichloroethane	14U
56-23-5	Carbon Tetrachloride	14U
108-05-4	Vinyl Acetate	29U
75-27-4	Bromodichloromethane	14U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	14U
10061-02-6	Trans-1, 3-Dichloropropene	14U
79-01-6	Trichloroethene	14U
124-48-1	Dibromochloromethane	14U
79-00-5	1, 1, 2-Trichloroethane	14U
71-43-2	Benzene	100
10061-01-5	cis-1, 3-Dichloropropene	14U
110-75-8	2-Chloroethylvinylether	29U
75-25-2	Bromoform	14U
108-10-1	4-Methyl-2-Pentanone	29U
591-78-6	2-Hexanone	29U
127-18-4	Tetrachloroethene	14U
79-34-5	1, 1, 2, 2-Tetrachloroethane	14U
108-88-3	Toluene	14U
108-90-7	Chlorobenzene	220
100-41-4	Ethylbenzene	21
100-42-5	Styrene	14U
	Total Xylenes	14U

D.L = 14 HRS

D.L = 14 HRS

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 action. (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 indicated 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., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

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 Name HAZLETON LABORATORIES

Case No: 7844

Sample Number
ET 963

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8-19-87

Date Analyzed: 8-21-87

Conc/Dil Factor: –

Percent Moisture (Decanted) 65.5

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	970 u
111-44-4	bis-2-Chloroethyl Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	
65-85-0	Benzoic Acid	1400J
111-91-1	bis-2-Chloroethoxyl Methane	970 u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	
95-95-4	2,4,5-Trichlorophenol	4800 u
91-58-7	2-Chloronaphthalene	970 u
88-74-4	2-Nitroaniline	4800 u
131-11-3	Dimethyl Phthalate	970 u
208-96-8	Acenaphthylene	970 u
99-09-2	3-Nitroaniline	4800 u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	970 u
51-28-5	2,4-Dinitrophenol	4800 u
100-02-7	4-Nitrophenol	4800 u
132-64-9	Dibenzofuran	970 u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	
100-01-6	4-Nitroaniline	4800 u
534-52-1	4,6-Dinitro-2-Methylphenol	4800 u
86-30-6	N-Nitrosodiphenylamine (1)	120JB
101-55-3	4-Bromophenyl-phenylether	970 u
118-74-1	Hexachlorobenzene	970 u
87-86-5	Pentachlorophenol	4800 u
85-01-8	Phenanthrene	81J
120-12-7	Anthracene	970 u
84-74-2	Di-n-Butylphthalate	1400B
206-44-0	Fluoranthene	200J
129-00-0	Pyrene	140J
85-68-7	Butylbenzylphthalate	970 u
91-94-1	3,3'-Dichlorobenzidine	1900 u
56-55-3	Benzo(a)Anthracene	91J
117-81-7	bis(2-Ethylhexyl)Phthalate	970 u
218-01-9	Chrysene	190J
117-84-0	Di-n-Octyl Phthalate	970 u
205-99-2	Benzo(b)Fluoranthene	150J
207-08-9	Benzo(k)Fluoranthene	97J
50-32-8	Benzo(a)Pyrene	100J
193-39-5	Indeno(1,2,3-cd)Pyrene	970 u
53-70-3	Dibenzo(a,h)Anthracene	
191-24-2	Benzo(g,h,i)Perylene	

(1)-Cannot be separated from diphenylamine

4800 DL

+970 D.L.

Laboratory Name HAZLETON LABORATORIES

Case No 7844

Sample Number
ET 963

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 08-19-87

Date Analyzed 08-25-87

Conc/Dil Factor 1

Percent Moisture (decanted) 65.5 %

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	23 U
319-85-7	Beta-BHC	23 U
319-86-8	Delta-BHC	23 U
58-89-9	Gamma-BHC (Lindane)	23 U
76-44-8	Heptachlor	23 U
309-00-2	Aldrin	23 U
1024-57-3	Heptachlor Epoxide	23 U
959-98-8	Endosulfan I	23 U
60-57-1	Dieldrin	46 U
72-55-9	4, 4'-DDE	46 U
72-20-8	Endrin	46 U
33213-65-9	Endosulfan II	46 U
72-54-8	4, 4'-DDD	46 U
1031-07-8	Endosulfan Sulfate	46 U
50-29-3	4, 4'-DDT	46 U
72-43-5	Methoxychlor	230 U
53494-70-5	Endrin Ketone	46 U
57-74-9	Chlordane	230 U
8001-35-2	Toxaphene	460 U
12674-11-2	Aroclor-1016	230 U
11104-28-2	Aroclor-1221	230 U
11141-16-5	Aroclor-1232	230 U
53469-21-9	Aroclor-1242	230 U
12672-29-6	Aroclor-1248	230 U
11097-69-1	Aroclor-1254	460 U
11096-82-5	Aroclor-1260	460 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 — or W_s 10.3g DRY WT V_t 20,000 ul V_i 4 ul

Laboratory Name HAZLETON LABORATORIES

Case No 7844

Sample Number
ET 963

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.	109999	Furan, tetrahydro-	VOA	153	18
2.		Unknown		192	24
3.	96479	Furan tetrahydro-2-methyl		226	36
4.	4744109	Propane, 1,1-dimethoxy-		301	46
5.	77736	4,7-Methano-1H-indene, 3a,4,7,7a-tetrahydro		391	64
6.		Unknown	BNA	226	1600
7.	3240-09-3	5-hexen-2-one, 5-methyl-		291	600
8.		Unknown		752	560
9.	10544-50-0	Sulfur mol.		1385	540
10.	603-11-2	1,2-Benzenedicarboxylic Acid, 3-nitro-		1749	450
11.		Unknown		1841	490
12.		Unknown		1951	1100
13.		Unknown		2055	940
14.		Unknown		2260	1500
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87EP15519

Sample Number

ET 964

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES

Case No: 7844

Lab Sample ID No: 70802529

QC Report No:

Sample Matrix: Soil

Contract No: 68-01-7146

Data Release Authorized By: David C. Gill

Date Sample Received: 08/13/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 08/20/87

Date Analyzed: 08/20/87

Conc/Dil Factor: 5 pH 7.4

Percent Moisture: (Not Decanted) 51.6

C.F. = 207

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	100U
74-83-9	Bromomethane	100U
75-01-4	Vinyl Chloride	100U
75-00-3	Chloroethane	100U
75-09-2	Methylene Chloride	36BJ
67-64-1	Acetone	140B
75-15-0	Carbon Disulfide	52U
75-35-4	1, 1-Dichloroethene	52U
75-34-3	1, 1-Dichloroethane	52U
156-60-5	Trans-1, 2-Dichloroethene	52U
67-66-3	Chloroform	52U
107-06-2	1, 2-Dichloroethane	52U
78-93-3	2-Butanone	100U
71-55-6	1, 1, 1-Trichloroethane	52U
56-23-5	Carbon Tetrachloride	52U
108-05-4	Vinyl Acetate	100U
75-27-4	Bromodichloromethane	52U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	52U
10061-02-6	Trans-1, 3-Dichloropropene	52U
79-01-6	Trichloroethene	52U
124-48-1	Dibromochloromethane	52U
79-00-5	1, 1, 2-Trichloroethane	52U
71-43-2	Benzene	2900
10061-01-5	cis-1, 3-Dichloropropene	52U
110-75-8	2-Chloroethylvinylether	100U
75-25-2	Bromoform	52U
108-10-1	4-Methyl-2-Pentanone	100U
591-78-6	2-Hexanone	100U
127-18-4	Tetrachloroethene	52U
79-34-5	1, 1, 2, 2-Tetrachloroethane	52U
108-88-3	Toluene	52U
108-90-7	Chlorobenzene	2900
100-41-4	Ethylbenzene	1000
100-42-5	Styrene	52U
	Total Xylenes	770

52 D.L.

RS

RS

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 explained.

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 action. (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 indicated 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., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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.

R INDICATES THE VALUE OBTAINED FROM THE INITIAL ANALYSIS EXCEEDED THE CALIBRATION RANGE FOR THIS COMPOUND. THE SAMPLE WAS RE-ANALYZED WITH AN APPROPRIATE DILUTION FOR QUANTITATION. ALL OTHER RESULTS ARE PROVIDED FROM THE INITIAL ANALYSIS.

Laboratory Name: HAZLETON LABORATORIES

Case No: 7844

Sample Number
ET 964

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8-19-87

Date Analyzed: 8-22-87

Conc/Dil Factor: -

Percent Moisture (Decanted) 51.6

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	690u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	150J
106-46-7	1,4-Dichlorobenzene	900J
100-51-6	Benzyl Alcohol	690u
95-50-1	1,2-Dichlorobenzene	60J
95-48-7	2-Methylphenol	690u
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	
65-85-0	Benzoic Acid	3400u
111-91-1	bis(2-Chloroethoxy)Methane	690u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	1900 690 DL
106-47-8	4-Chloroaniline	690u
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	260J
77-47-4	Hexachlorocyclopentadiene	690u
88-06-2	2,4,6-Trichlorophenol	690u
95-95-4	2,4,5-Trichlorophenol	3400u
91-58-7	2-Chloronaphthalene	690u
88-74-4	2-Nitroaniline	3400u
131-11-3	Dimethyl Phthalate	690u
208-96-8	Acenaphthylene	690u
99-09-2	3-Nitroaniline	3400u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	690u
51-28-5	2,4-Dinitrophenol	3400u
100-02-7	4-Nitrophenol	3400u
132-64-9	Dibenzofuran	690u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	94J 690 D.L.
100-01-6	4-Nitroaniline	3400u
534-52-1	4,6-Dinitro-2-Methylphenol	3400u
86-30-6	N-Nitrosodiphenylamine (1)	220JB
101-55-3	4-Bromophenyl-phenylether	690u
118-74-1	Hexachlorobenzene	690u
87-86-5	Pentachlorophenol	3400u
85-01-8	Phenanthrene	150J
120-12-7	Anthracene	690u
84-74-2	Di-n-Butylphthalate	250JB
206-44-0	Fluoranthene	690u
129-00-0	Pyrene	43J
85-68-7	Butylbenzylphthalate	690u
91-94-1	3,3'-Dichlorobenzidine	1380u
56-55-3	Benzo(a)Anthracene	690u
117-81-7	bis(2-Ethylhexyl)Phthalate	490J
218-01-9	Chrysene	690u
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzo(b)Fluoranthene	
207-08-9	Benzo(k)Fluoranthene	
50-32-8	Benzo(a)Pyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzo(g,h,i)Perylene	

(1)-Cannot be separated from diphenylamine

Laboratory Name HAZLETON LABORATORIES

Case No 7844

Sample Number
ET964

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 8-19-87

Date Analyzed 8-26-87

Conc/Dil Factor 5

Percent Moisture (decanted) 51.6 %

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	83 U
319-85-7	Beta-BHC	83 U
319-86-8	Delta-BHC	83 U
58-89-9	Gamma-BHC (Lindane)	83 U
76-44-8	Heptachlor	83 U
309-00-2	Aldrin	83 U
1024-57-3	Heptachlor Epoxide	83 U
959-98-8	Endosulfan I	83 U
60-57-1	Dieldrin	170 U
72-55-9	4, 4'-DDE	170 U
72-20-8	Endrin	170 U
33213-65-9	Endosulfan II	170 U
72-54-8	4, 4'-DDD	170 U
1031-07-8	Endosulfan Sulfate	170 U
50-29-3	4, 4'-DDT	170 U
72-43-5	Methoxychlor	830 U
53494-70-5	Endrin Ketone	170 U
57-74-9	Chlordane	830 U
8001-35-2	Toxaphene	1,700 U
12674-11-2	Aroclor-1016	830 U
11104-28-2	Aroclor-1221	830 U
11141-16-5	Aroclor-1232	830 U
53469-21-9	Aroclor-1242	830 U
12672-29-6	Aroclor-1248	2,100*
11097-69-1	Aroclor-1254	2,200*
11096-82-5	Aroclor-1260	1,700 U

by CLP Method.

3300

3200

830 D.L

1700 D.L

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 14.5 g DRY WT V_t 20,000 ul V_i 4 ul

* THESE VALUES CALCULATED BY WEBB-McCALL METHOD (J. of CHROMATOGRAPHIC SCIENCE, pg 366-373, JULY 1973) TO ELIMINATE CROSS-CONTRIBUTION FROM PEAKS IN BOTH PCB STANDARDS. EACH PEAK IS CALCULATED INDIVIDUALLY AND WEIGHTED FOR ITS PERCENT CONTRIBUTION TO THAT PCB.

Laboratory Name HAZLETON LABORATORIES

Case No 7844

Sample Number
ET 964

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.		unknown	BAN	235	620
2.		unknown		763	1100
3.	54932-78-4	phenol, 4-(2,2,3,3-Tetramethylbutyl)-		1073	890
4.	26914-33-0	1,1-Biphenyl, Tetrachloro-		1353	780
5.	10544-50-0	Sulfur mol		1402	7800
6.		unknown		1460	920
7.		unknown phenol		1527	1700
8.		unknown		1819	720
9.		unknown		1957	1100
10.		unknown		1964	1400
11.		unknown		1978	2300
12.		unknown		2003	1000
13.		unknown		2022	2000
14.		unknown		2037	3400
15.		unknown		2062	790
16.		unknown		2074	970
17.		unknown		2081	2400
18.		unknown		2100	1200
19.		unknown		2173	1300
20.		unknown		2200	1500
21.	109660	Pentane	VOA	204	140
22.	1066406	Silanol, trimethyl-		208	96
23.	110827	Cyclohexane		215	60
24.	77736	4,7-methano-1H-indene, 3a,4,7,7a-tetrahydro-		391	160
25.	103651	Benzene, propyl-		534	190
26.					
27.					
28.					
29.					
30.					

Sample Number
ET 964

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES

Case No: 7844

Lab Sample ID No: 708025 29

QC Report No:

Sample Matrix: Soil

Contract No: 68-01-7146

Data Release Authorized By: David C Stolb

Date Sample Received: 8/13/87

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared: 8/21/87

Date Analyzed: 8/23/88

Conc/Dil Factor: 125 pH 7.4

Percent Moisture: (Not Decanted) 51.6 C.F. = 2.07

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	2600U
74-83-9	Bromomethane	2600U
75-01-4	Vinyl Chloride	2600U
75-00-3	Chloroethane	2600U
75-09-2	Methylene Chloride	1300U
67-64-1	Acetone	2600U
75-15-0	Carbon Disulfide	1300U
75-35-4	1, 1-Dichloroethene	1300U
75-34-3	1, 1-Dichloroethane	1300U
156-60-5	Trans-1, 2-Dichloroethene	1300U
67-66-3	Chloroform	1300U
107-06-2	1, 2-Dichloroethane	1300U
78-93-3	2-Butanone	2600U
71-55-6	1, 1, 1-Trichloroethane	1300U
56-23-5	Carbon Tetrachloride	1300U
108-05-4	Vinyl Acetate	2600U
75-27-4	Bromodichloromethane	1300U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	1300U
10061-02-6	Trans-1, 3-Dichloropropene	1300U
79-01-6	Trichloroethene	1300U
124-48-1	Dibromochloromethane	1300U
79-00-5	1, 1, 2-Trichloroethane	1300U
71-43-2	Benzene	3700
10061-01-5	cis-1, 3-Dichloropropene	1300U
110-75-8	2-Chloroethylvinylether	2600U
75-25-2	Bromoform	1300U
108-10-1	4-Methyl-2-Pentanone	2600U
591-78-6	2-Hexanone	2600U
127-18-4	Tetrachloroethene	1300U
79-34-5	1, 1, 2, 2-Tetrachloroethane	1300U
108-88-3	Toluene	1300U
108-90-7	Chlorobenzene	5500
100-41-4	Ethylbenzene	2100
100-42-5	Styrene	1300U
	Total Xylenes	1900

1300 D.L.

1300

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 action. (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 indicated 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., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

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 Name HAZLETON LABORATORIES

Case No 7844

Sample Number
ET 964

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 Volatiles Found			
2.				
3.				
4.				
5.				
6.				
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