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EPA Region 5 Records Ctr.
298128
943952

September 28, 1995

Ms. Sonia Vega
U.S. Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, IL 60604

Subject: Glenview Lutter Brickyard Site
Bartonville, Illinois
CERCLIS ID No.: ILD980677744
Focused Site Inspection Prioritization
Contract No.: 68-W0-0037
TDD No.: T05-9506-210

Dear Ms. Vega:

Enclosed are the final Focused Site Inspection Prioritization (FSIP) report and enclosures for the above referenced site. Draft copies of this report were previously submitted to you and Mr. Tom Crause of the Illinois Environmental Protection Agency (IEPA).

The final FSIP report is presented in two volumes. Volume 1 contains the Site Evaluation Report (SER). Volume 2 contains the United States Environmental Protection Agency Recommendations Form for the site as Enclosure 1, and a transmittal memorandum and Hazard Ranking System (HRS) scoring sheets as Enclosure 2.

If you have any questions, please call myself or Mr. Steven J. Skare at (312) 663-9415.

Sincerely,
ECOLOGY AND ENVIRONMENT, INC.

Donovan Robin

Donovan Robin
Environmental Scientist

cc: Tom Crause, IEPA
Steven Skare, E & E FSIP Program Leader

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FOCUSED SITE INSPECTION PRIORITIZATION
SITE EVALUATION REPORT

GLENVIEW LUTTER BRICK YARD
CHESTNUT AVENUE AND JOHN STREET
GLENVIEW, COOK COUNTY, ILLINOIS

CERCLIS ID NO.: ILD980677744

Prepared for:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
SITE ASSESSMENT SECTION
77 West Jackson Boulevard
Chicago, Illinois 60604

Date Prepared:	September 28, 1995
U.S. EPA Region:	5
Contract No.:	68-W0-0037
Technical Direction Document No.:	T05-9506-210
Prepared by:	Ecology and Environment, Inc.
	Donovan Robin
E & E Program Leader:	Steven Skare
Telephone No.:	(312) 663-9415

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1. INTRODUCTION

The Ecology and Environment, Inc. (E & E), Technical Assistance Team (TAT) was assigned by the United States Environmental Protection Agency (U.S. EPA), under Contract No. 68-W0-0037, Technical Direction Document (TDD) No. T05-9506-210, to evaluate the Glenview Lutter Brick Yard site in Glenview, Cook County, IL as a potential candidate for the National Priorities List (NPL). E & E performed Focused Site Inspection Prioritization (FSIP) activities to determine whether, or to what extent, the site poses a threat to human health and the environment, and has prepared this FSIP report. The report presents the results of E & E's evaluation and summarizes the site conditions and targets pertinent to the migration and exposure pathways associated with the site. Background information was obtained from U.S. EPA and Illinois Environmental Protection Agency (IEPA) files, and analytical results of sediment samples collected by E & E on August 1, 1995.

This report is organized into seven sections, including this introduction. Section 2 describes the site and provides a brief site history. Section 3 provides information about previous investigations conducted at the site. Sections 4 provides a explanation of samples collected at the site and analytical results. Section 5 provides information about the four migration and exposure pathways (groundwater migration, surface water migration, soil exposure, and air migration). Section 6 is a summary of the FSIP. References used in the preparation of this report are listed in Section 7.

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2. SITE DESCRIPTION AND HISTORY

The Glenview Lutter Brick Yard site is located near the intersection of Chestnut Avenue and John Street in Glenview, Cook County, Illinois (Sec. 26, T. 24N, R. 12E). Coordinates for the site are latitude 42°05'30" North and longitude 87°48'00" West (E & E 1984). The site is an inactive landfill. Closure of the landfill was approved by the Illinois Environmental Protection Agency (IEPA) on June 30, 1990 (Eastep 1990). The site is bordered by the West Fork of the North Branch of the Chicago River (West Fork Chicago River) on the east, on the south by Chestnut Ave., on the west by Johns Dr., and on the north by a drainage ditch (E & E 1995).

The site covers approximately 100 acres which comprises the extent of the closed landfill. The closed landfill rises approximately 25 feet above the surrounding area and is nearly level on top. The surface is vegetated with tall grasses. The site is not fenced; however, no trespassing signs are posted in several areas. Runoff flows toward the perimeter of the site and ultimately enters the West Fork Chicago River (E & E 1995; USGS 1980). See Figure 2-2 for Site features.

From 1900 to approximately 1945 this site was used as an excavation pit by the Lutter Brick Company to obtain clay used to make bricks. From 1945 to 1962 the site was operated by Metropolitan Disposal Company (MDC) as a municipal and industrial waste landfill. MDC continued to operate the landfill between 1962 to 1973, but was permitted only to accept construction debris including earth, concrete, wood, glass, and bricks. In 1974 permit 1973-68-OP was issued to the Land & Lakes Company by IEPA to continue operation of the landfill for construction debris (IEPA 1989).

The site was operated by Land & Lakes Company until June 30, 1981 when the property and operating permit were transferred to Richard Krohn (IEPA 1989). Mr. Krohn continued operation of the landfill until 1990, disposal of construction debris ended at this time (Eastep 1990).

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Krohn was required to develop a closure plan, and implement closure activities for the site as part of a supplement to the operation permit. Closure required installation of a two foot clay cap covering the entire landfill area, installation of monitoring wells and of gas vents, and establishing a vegetative cover and efficient drainage (Thorsen 1989). Closure of the site was acknowledged by IEPA on October 26, 1990 (Eastep 1990).

IEPA has conducted a number of routine inspections of the landfill and additional inspections in response to citizen complaints during the years while the landfill was active and following the 1990 closure. IEPA has identified leachate seeps in various areas of the site including the northwest and southwest corners of the property and near the West Fork Chicago River on the east side of site. IEPA collected samples from these areas in 1980 and 1982. Mercury was detected at 0.11 micrograms per kilogram (μg/kg) in one aqueous leachate sample collected in 1982. Refer to Appendix B for a summary of analytical results for these samples (IEPA 1980; 1982). Polynuclear aromatic hydrocarbons (PAHs) and pesticides were detected in soil samples collected by E & E in 1984. These samples were collected near leachate seeps, from east side of the site, near the West Fork Chicago River.

Currently, the site is undergoing post-closure maintenance by the site owner according to IEPA regulations. This involves quarterly sampling of monitoring wells and periodic inspection by IEPA for a five year period. IEPA has identified several violations related to ponding water observed on the landfill; and erosion gullies on the sides of the landfill. The site will continue to be inspected by IEPA until all conditions of post-closure care have been met (Czeck 1995).

Residents within a four mile radius of the site receive drinking water from municipal distribution systems which are connected to surface water intakes on Lake Michigan. No residential wells are known to exist within a four-mile radius of the site (E & E 1991). The West Fork of the Chicago River is a recreational fishery (Sulski 1995) and supports wetland vegetation (United States Department of Agriculture [USDA] 1979).

The area surrounding the site is used for commercial, residential and recreational purposes. See Figure 2-1 for site location. A number of commercial buildings and warehouses are located on Johns Drive, and The Glenveiw Naval Air Station lies beyond the rail line west of the site. Valley Lo Estates, a residential development, covers areas immediately south of the site and east of the site, across the West Fork Chicago River. Valley Lo also owns a golf course and country club on land located north and east of the site.

The nearest residences are located approximately 100 feet east of the site on Tanglewood Street. The Immanuel Lutheran School is located adjacent to the southwest corner of the site. IEPA has issued a construction permit for Krohn to construct a driving range or golf course on site (Czeck 1995), however site observations indicate that this construction has not been completed (E & E 1995).

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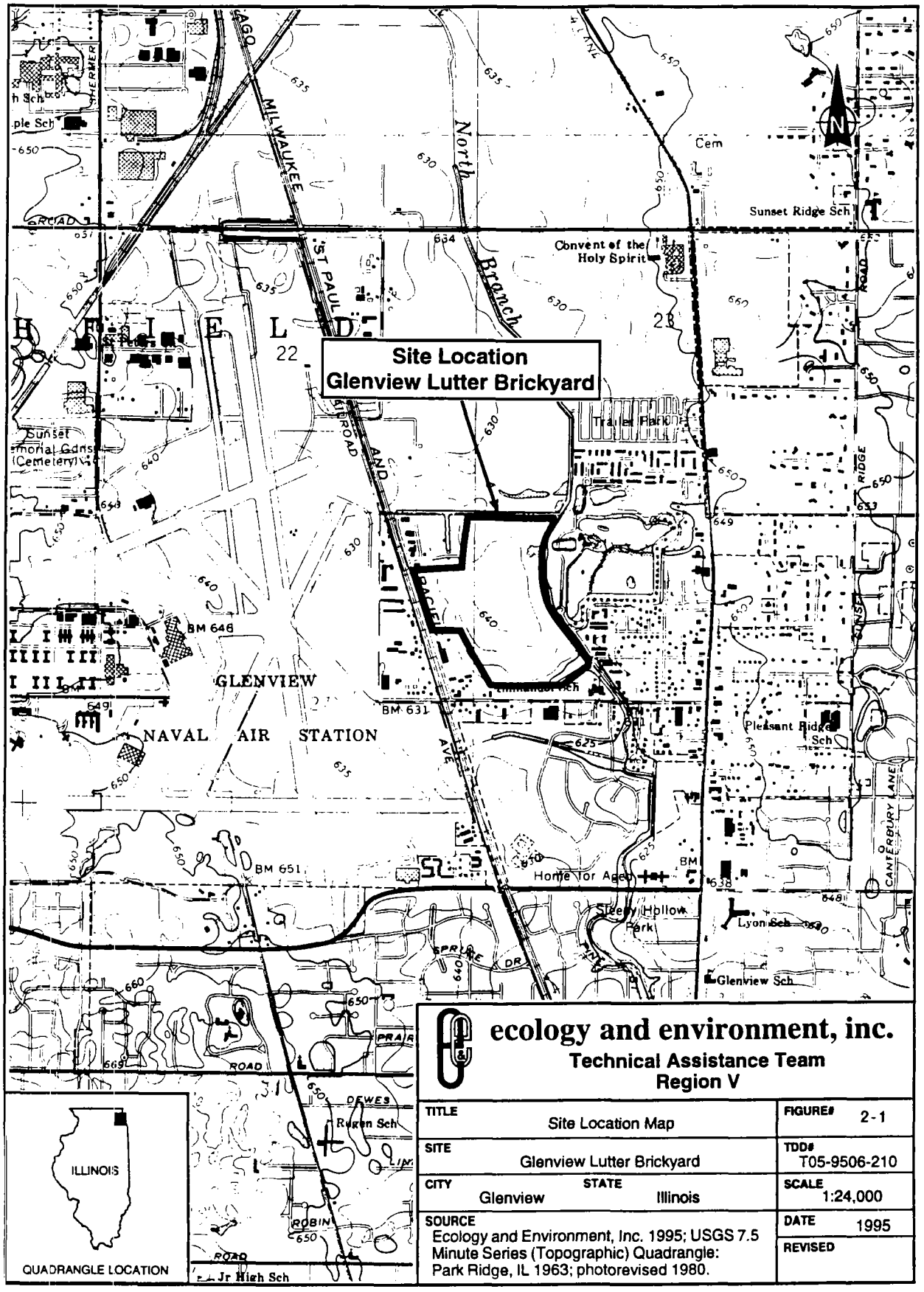
Site Location
Glenview Lutter Brickyard
GLENVIEW
NAVAL AIR STATION
North Branch
MILWAUKEE
ST PAUL
Convent of the Holy Spirit
Sunset Ridge Sch
Cem
Trailer Park
Pleasant Ridge Sch
Home for Aged
Sleepy Hollow Park
Lyon Sch
Glenview Sch
Rugen Sch
Jr High Sch
BM 646
BM 631
BM 651
ILLINOIS
QUADRANGLE LOCATION
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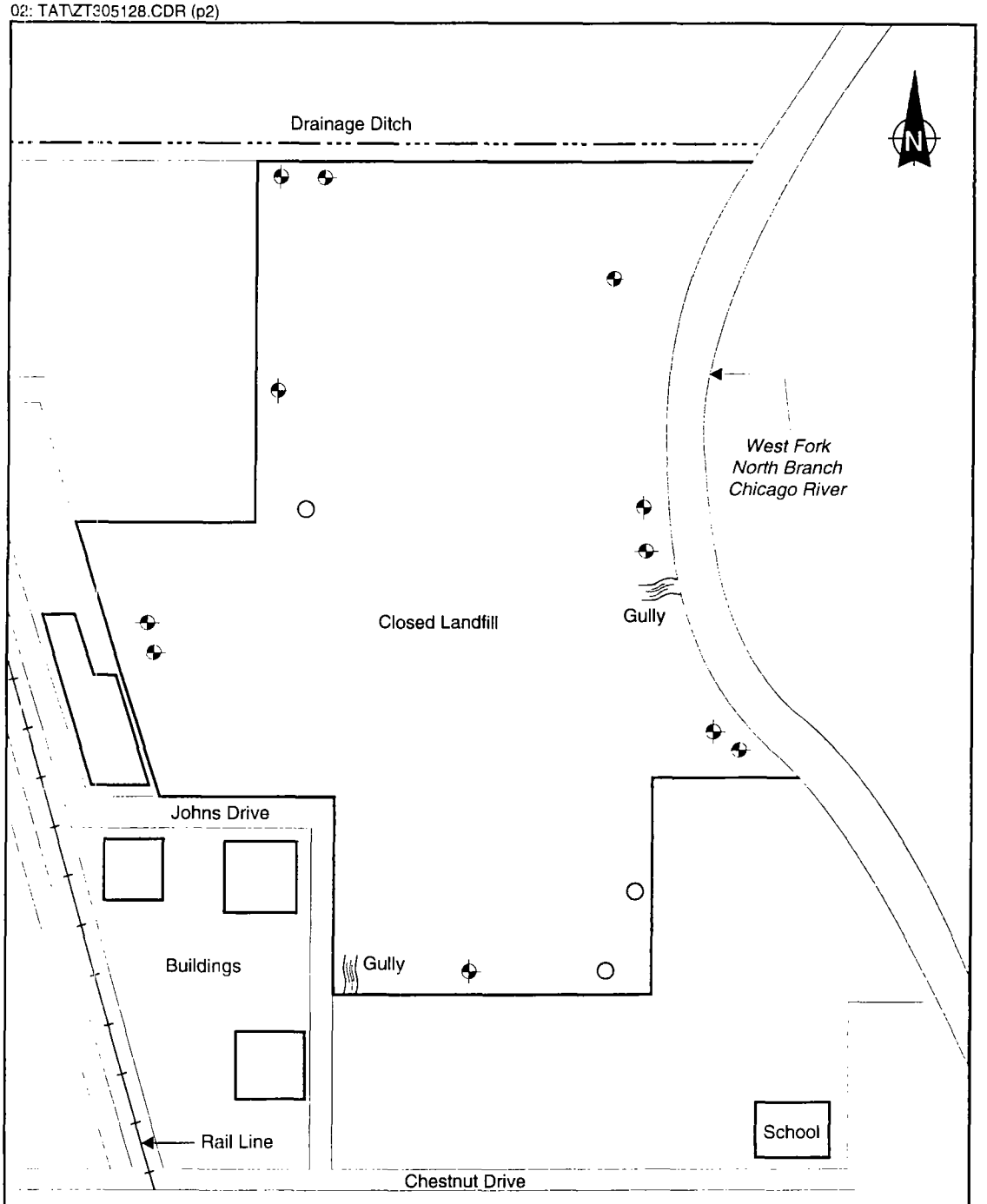
Region V
TITLE
Site Location Map
FIGURE#
2-1
SITE
Glenview Lutter Brickyard
TDD#
T05-9506-210
CITY
Glenview
STATE
Illinois
SCALE
1:24,000
SOURCE
Ecology and Environment, Inc. 1995; USGS 7.5 Minute Series (Topographic) Quadrangle: Park Ridge, IL 1963; photorevised 1980.
DATE
1995
REVISED

02: TAT\ZT305128.CDR (p2)



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Technical Assistance Team
Region V

TITLE: Site Features Map	FIGURE#: 2-2
SITE: Glenview Lutter Brickyard	TDD#: T05-9506-210
CITY: Glenview STATE: Illinois	SCALE: Not to Scale
SOURCE: Roy F. Weston, Inc. 1986 Chestnut Drive Facility Closure Report	DATE: 1990 REVISED: 1995

LEGEND:
- Well
- Gas Vent

3. PREVIOUS INVESTIGATIONS

On December 30, 1980 E & E completed a Site Identification and Preliminary Assessment (PA) form for the site based on file information provided by IEPA. The form indicated that leachate seeps had been observed at the site and sampled by IEPA. E & E determined that the site posed a threat to nearby surface water resources, but did not indicate that hazardous wastes had been disposed at the site (E & E 1980) No site reconnaissance or sampling were performed as part of the PA.

On August 8, 1984 E & E conducted a Screening Site Inspection (SSI) of the site. The SSI included collection of two upstream surface water samples from the ditch on the north side of the creek, and four soil samples from leachate seeps on the east and west sides of the site. No background surface soil samples, downstream surface water samples, or sediment samples were collected. Polynuclear aromatic hydrocarbons (PAHs) and pesticides were detected in soil samples collected near the leachate seeps, and samples from east side of the site, near the West Fork Chicago River. PAHs were detected in the upstream surface water samples. Refer to Appendix C for a map of sample locations and a summary of Target Analyte List and Target Compound List (TAL/TCL) chemicals detected in these samples.

IEPA has inspected the site several times following the 1990 closure. During the most recent inspection, in July 1995, the landfill operators were cited for violations related to ponding water observed on the landfill; and erosion gullies on the sides of the landfill. A meeting between IEPA and the site owners to discuss these violations has been scheduled concurrent with the preparation of this report. The site will continue to be inspected by IEPA until all conditions of post-closure care have been met (Czeck 1995).

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4. SITE RECONNAISSANCE AND SAMPLING

On August 1, 1995, Donovan Robin and Catherine Sullivan of E & E conducted an off-site reconnaissance and collected four sediment samples from the West Fork Chicago River and the ditch on the north side of the site. The owners of the site were not notified of the site reconnaissance or sampling to expedite the sampling schedule. Observations made during the reconnaissance include:

- The landfill was inactive, no fencing was observed along the perimeter and no evidence of construction of the Golf course/driving range was observed.
- A large gully was observed approximately 0.2 miles north of Chestnut Street on the east bank of the West Fork Chicago River. The gully appeared to originate on the east side of the closed landfill. Water was being discharged from the gully to the river and a faint rusty-orange stain was observed at the bottom of the gully.
- A dry, narrow gully was observed on the south west corner of the closed landfill, near Johns Drive. No stained soils or other evidence of leachate discharge was observed.
- A steady flow of water was observed in the ditch on the north end of the closed landfill.

4.2 SAMPLING METHODS AND DESCRIPTIONS

Four sediment samples were collected to determine if Target Analyte List and Target Compound List (TAL/TCL) chemicals had been released from the site to the West Fork North Branch Chicago River. The samples were collected using a dedicated stainless steel trowel or spoon and stainless steel mixing bowl for each discrete location. The sampling method is described as follows: a dedicated stainless steel spoon or trowel was used to collect material from a depth of 0 to 6 inches below ground surface (BGS); the volatile organic compound (VOC) containers were filled first; the material was homogenized; then the base neutral acid,

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the Pesticide/polychlorinated biphenyl (PCB), and the metals/cyanide containers were filled, in that order. A steel shovel was used to retrieve sediments for samples SD3 and SD4. Following is a description of the sample locations and material collected.

- Sample SD1 was an upstream sample from the ditch on the north side of the site. The sample was collected at 1145 from a depositional area 50 feet east of a culvert beneath the rail line. The material collected was a brown sand with pebbles and no organic material. No unusual odors or colors were noticed.

- Sample SD2 was an upstream sample from the West Fork Chicago River. The sample was collected at 1055 near the west bank of the river approximately 20 feet south of a small holding pond on the river and 70 feet north of the ditch on the north side of the site. The material collected was a sticky grey clayey silt with some sand and organic material. No unusual odors or colors were noticed.

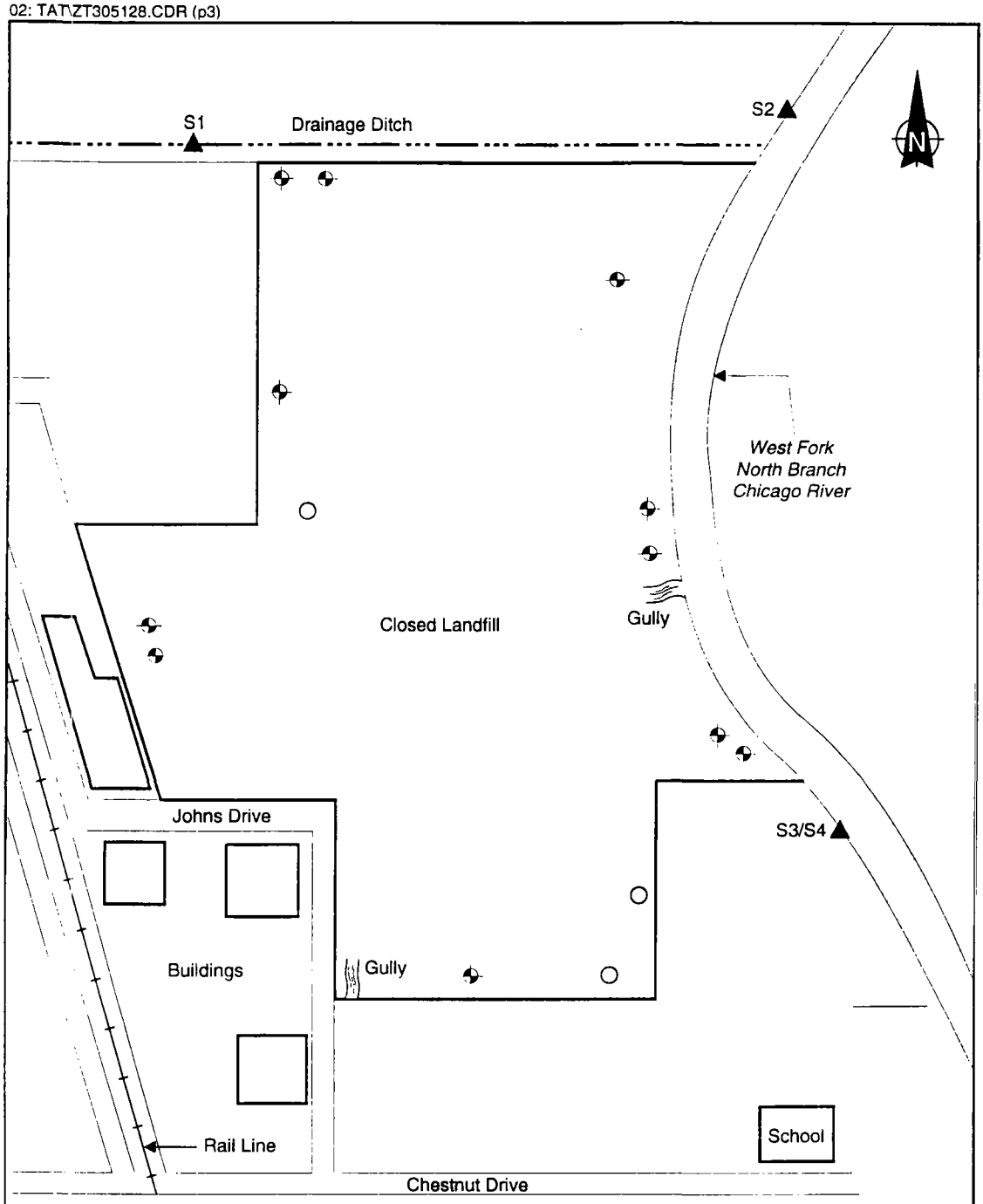
- Sample SD3 was a downstream sample from the West Fork Chicago River. The sample was collected at 1030 near the east bank of the river at a point approximately 0.1 mile north of Chestnut Street. The material collected was a sticky grey clayey silt with some sand and organic material. A feint rubbery odor from the sample material was noticed. No unusual colors were noticed.

- Sample SD4 was a duplicate sample of SD3.

4.3 ANALYTICAL RESULTS

TAL/TCL chemicals were not detected in downstream sediment samples from the West Fork Chicago River at levels greater than three times the levels detected in upstream samples. Analytical results are summarized in Table 4.3-1 and a complete data package is provided in Appendix D.

02: TAT\ZT305128.CDR (p3)



LEGEND:

- Well
- Gas Vent
- Sample Location

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Technical Assistance Team
Region V

TITLE: Sample Locations Map	FIGURE#: 4-1
SITE: Glenview Lutter Brickyard	TDD#: T05-9506-210
CITY: Glenview STATE: Illinois	SCALE: Not to Scale
SOURCE: Roy F. Weston, Inc. 1986 Chestnut Drive Facility Closure Report	DATE: 1990 REVISED: 1995

Glenview Lutter Brickyard Analytical Data

SURFACE SEDIMENT SAMPLES
Volatile Organic Compounds (UG/KG)

	Sample Number	S1		S2		S3		S4	
	Date Collected	8/1/95	Q	8/1/95	Q	8/1/95	Q	8/1/95	Q
	CLP OTR #	EAFL6	U	EAFL7	U	EAFL4	U	EAFL5	U
			A		A		A		A
			L		L		L		L
QL	VOC								
10	Chloromethane		U		U		U		U
10	Bromomethane		U		U		U		U
10	Vinyl chloride		U		U		U		U
10	Chloroethane		U		U		U		U
10	Methylene chloride		U		U		U		U
10	Acetone		U		U		U		U
10	Carbon disulfide		U		U		U		U
10	1,1-Dichloroethene		U		U		U		U
10	1,1-Dichloroethane		U		U		U		U
10	1,2-Dichloroethene (total)		U		U		U		U
10	Chloroform		U		U		U		U
10	1,2-Dichloroethane		U		U		U		U
10	2-Butanone		U		U		U		U
10	1,1,1-Trichloroethane		U		U		U		U
10	Carbon Tetrachloride		U		U		U		U
10	Bromodichloromethane		U		U		U		U
10	1,2-Dichloropropane		U		U		U		U
10	cis-1,3-dichloropropene		U		U		U		U
10	Trichloroethene		U		U		U		U
10	Dibromochloromethane		U		U		U		U
10	1,1,2-Trichloroethane		U		U		U		U
10	Benzene		U		U		U		U
10	trans-1,3-dichloropropene		U		U		U		U
10	Bromoform		U		U		U		U
10	4-Methyl-2-pentanone		U		U		U		U
10	2-Hexanone		U		U		U		U
10	Tetrachloroethene		U		U		U		U
10	Toluene		U		U		U		U
10	1,1,2,2-Tetrachloroethane		U		U		U		U
10	Chlorobenzene		U		U		U		U
10	Ethylbenzene		U		U		U		U
10	Styrene		U		U		U		U
10	Total xylenes		U		U		U		U

QL - Quantitation Limits are base values, see complete data package for sample specific quantitation limits.

U - Not Detected

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Glenview Lutter Brickyard Analytical Data

SURFACE SEDIMENT SAMPLES
Semivolatiles (UG/KG)

	Sample Number	S1		S2		S3		S4													
	Date Collected	8/1/95	Q	8/1/95	Q	8/1/95	Q	8/1/95	Q		Q		Q		Q		Q		Q		Q
	CLP OTR#	EAFL6	U	EAFL7	U	EAFL4	U	EAFL5	U		U		U		U		U		U		U
			A		A		A		A		A		A		A		A		A		A
			L		L		L		L		L		L		L		L		L		L
QL	BNAs																				
330	Phenol		U		U		U		U												
330	Bis(2-Chloroethyl)ether		U		U		U		U												
330	2-Chlorophenol		U		U		U		U												
330	1,3-Dichlorobenzene		U		U		U		U												
330	1,4-Dichlorobenzene		U		U		U		U												
330	1,2-Dichlorobenzene		U		U		U		U												
330	2-Methylphenol		U		U		U		U												
330	2,2'-oxybis(1-Chloropropane)		U		U		U		U												
330	4-Methylphenol		U		U		U		U												
330	N-Nitroso-di-n-propylamine		U		U		U		U												
330	Hexachloroethane		U		U		U		U												
330	Nitrobenzene		U		U		U		U												
330	Isophorone		U		U		U		U												
330	2-Nitrophenol		U		U		U		U												
330	2,4-Dimethylphenol		U		U		U		U												
330	Bis(2-Chloroethoxy)methane		U		U		U		U												
330	2,4-Dichlorophenol		U		U		U		U												
330	1,2,4-Trichlorobenzene		U		U		U		U												
330	Naphthalene	58	J		U		U		U												
330	4-Chloroaniline		U		U		U		U												
330	Hexachlorobutadiene		U		U		U		U												
330	4-Chloro-3-methylphenol		U		U		U		U												
330	2-Methylnaphthalene		U		U		U		U												
330	Hexachlorocyclopentadiene		U		U		U		U												
330	2,4,6-Trichlorophenol		U		U		U		U												
1700	2,4,5-Trichlorophenol		U		U		U		U												
330	2-Chloronaphthalene		U		U		U		U												
1700	2-Nitroaniline		U		U		U		U												
330	Dimethylphthalate		U		U		U		U												
330	Acenaphthylene		U		U		U		U												
330	2,6-Dinitrotoluene		U		U		U		U												
1700	3-Nitroaniline		U		U		U		U												
330	Acenaphthene	190	J		U		U		U												
1700	2,4-Dinitrophenol		U		U		U		U												

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Glenview Lutter Brickyard Analytical Data

SURFACE SEDIMENT SAMPLES
Semivolatiles (UG/KG)

QL	BNAs	Sample Number	S1		S2		S3		S4												
		Date Collected	8/1/95	Q	8/1/95	Q	8/1/95	Q	8/1/95	Q		Q		Q		Q		Q		Q		Q
		CLP OTR#	EAFL6	U	EAFL7	U	EAFL4	U	EAFL5	U		U		U		U		U		U		U
				A		A		A		A		A		A		A		A		A		A
				L		L		L		L		L		L		L		L		L		L
1700	4-Nitrophenol			U		U		U		U												
330	Dibenzofuran		100	J		U		U		U												
330	2,4-Dinitrotoluene			U		U		U		U												
330	Diethylphthalate			U		U		U		U												
330	4-Chlorophenyl-phenyl ether			U		U		U		U												
330	Fluorene		180	J		U		U		U												
1700	4-Nitroaniline			U		U		U		U												
1700	4,6-Dinitro-2-methylphenol			U		U		U		U												
330	N-Nitrosodiphenylamine			U		U		U		U												
330	4-Bromophenyl-phenyl ether			U		U		U		U												
330	Hexachlorobenzene			U		U		U		U												
1700	Pentachlorophenol			U		U		U		U												
330	Phenanthrene		1800		190	J	160	J	65	J												
330	Anthracene		370	J		U		U		U												
330	Carbazole		230	J		U		U		U												
330	Di-n-butylphthalate		52	J		U		U		U												
330	Fluoranthene		2900		400	J	280	J	110	J												
330	Pyrene		3400	D	330	J	250	J	110	J												
330	Butylbenzylphthalate		51	J		U		U		U												
330	3,3'Dichlorobenzidine			U		U		U		U												
330	Benzo(a)anthracene		1700		140	J	120	J	44	J												
330	Chrysene		1700		160	J	130	J	54	J												
330	Bis(2-ethylhexyl)phthalate			U		U		U		U												
330	Di-n-octylphthalate			U		U		U		U												
330	Benzo(b)fluoranthene		2700		220	J	180	J	66	J												
330	Benzo(k)fluoranthene		950		62	J	47	J		U												
330	Benzo(a)pyrene		1600		120	J	97	J		U												
330	Indeno(1,2,3-cd)pyrene		670		58	J		U		U												
330	Dibenzo(a,h)anthracene		190	J		U		U		U												
330	Benzo(ghi)perylene		730		96	J		U		U												

QL - Quantitation Limits are base values, see complete data package for sample specific quantitation limits

U - Not Detected
J - Estimated Value
D - Analysis has been diluted

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Glenview Lutter Brickyard Analytical Data

SURFACE SEDIMENT SAMPLES
Pesticides/PCBs (UG/KG)

	Sample Number	S1		S2		S3		S4													
	Date Collected	8/1/95	Q	8/1/95	Q	8/1/95	Q	8/1/95	Q		Q		Q		Q		Q		Q		Q
	CLP CTR #	EAFL6	U	EAFL7	U	EAFL4	U	EAFL5	U		U		U		U		U		U		U
			A		A		A		A		A		A		A		A		A		A
			L		L		L		L		L		L		L		L		L		L
QL	Pesticides/PCBs																				
1.7	alpha-BHC		U		U		U		U												
1.7	beta-BHC		U		U		U		U												
1.7	delta-BHC		U		U		U		U												
1.7	gamma-BHC (Lindane)		U		U		U		U												
1.7	Heptachlor		U		U		U		U												
1.7	Aldrin		U		U		U		U												
1.7	Heptachlor epoxide		U		U		U		U												
1.7	Endosulfan I		U		U		U		U												
3.3	Dieldrin	2.4	JP		U		U		U												
3.3	4,4'-DDE	38	P	17	P	4.9	P	2.2	JP												
3.3	Endrin		U		U		U		U												
3.3	Endosulfan II		U		U		U		U												
3.3	4,4'-DDD	190	PD	80	PD	5.6	P	2.5	J												
3.3	Endosulfan sulfate		U		U		U		U												
3.3	4,4'-DDT	83	D	12		6.2		4.7	P												
17	Methoxychlor	27			U		U		U												
3.3	Endrin Ketone		U		U		U		U												
3.3	Endrin Aldehyde		U		U		U		U												
1.7	Alpha-Chlordane	3.2	P	4.1	P		U	1	J												
1.7	Gamma-Chlordane		U	3.5			U		U												
170	Toxaphene		U		U		U		U												
33	Aroclor-1016		U		U		U		U												
67	Aroclor-1221		U		U		U		U												
33	Aroclor-1232		U		U		U		U												
33	Aroclor-1242		U		U		U		U												
33	Aroclor-1248		U		U		U		U												
33	Aroclor-1254	83	P	69			U		U												
33	Aroclor-1260		U		U		U		U												

QL - Quantitation Limits are base values, see complete data package for sample specific quantitation limits

U - Not Detected
P - Indicates a target analyte when there is greater than 25% difference for the detected concentrations between two GC columns The lower result is reported
D - Analysis is diluted.

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5. MIGRATION AND EXPOSURE PATHWAYS

This section describes the four migration and exposure pathways associated with the Glenview Lutter Brickyard site. Section 4.1 discusses the groundwater migration pathway; Section 5.2 discusses the surface water migration pathway; Section 5.3 discusses the soil exposure pathway; and Section 5.4 discusses the air migration pathway.

5.1 GROUNDWATER MIGRATION PATHWAY

This section discusses regional geology and soils, groundwater releases, and targets associated with the groundwater migration pathway at the site.

5.1.1 Geology and Soils

The natural surface of the site has been removed as a result of clay excavation in the early part of this century. The current site surface includes a layer of topsoil placed on top of a two foot thick compacted clay cap, the cap serves to prevent rainfall from coming into contact with waste material. This clay cap is underlain by layers of construction debris and municipal and industrial waste which were deposited into areas where clay was excavated. The depth of the clay excavations is unknown. Currently the landfill rises approximately 25 feet over the surrounding area (E & E 1995; IEPA 1989; USGS 1980).

The site is underlain by glacial till described as the Wadsworth Member of the Werdon Formation (ISGS 1979). This member consists of gray clayey till with sand and gravel lenses. The Wadsworth Member is underlain by other till members which have clayey to sandy textures with varying amounts of sand and gravel,these unconsolidated deposits extend to 50 to 200 feet BGS in the Chicago area (ISGS 1979; Willman 1971). Bedrock beneath the site is Silurian-Era dolomite (ISGS 1979).

In general, the physical characteristics of the unconsolidated deposits beneath the site are not favorable to development as an productive aquifer for any extensive use. The

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previous use of the site as a source materials for bricks suggest that the site is situated over a significant deposit of clay.

5.1.2 Groundwater Releases

A release of TAL/TCL compounds to groundwater has not been documented at the Glenview Lutter site. An engineered liner and leachate collection system have not been installed at the site according to information available. Eleven monitoring wells have been installed at the site to monitor the effect of fill material on groundwater at the site (Weston 1989). A two foot clay cap was applied and a vegetative cover was established over the former landfill area to prevent infiltration of precipitation (Thorsen 1990).

The monitoring wells are sampled quarterly, analytical results are submitted to IEPA in Springfield (Czeck 1995). A release to groundwater has not occurred and IEPA has not required the site owners to pursue remedial measures for groundwater according to information available.

5.1.3 Targets

Community water distribution systems which serve residents in the four-mile radius study area obtain water from the city of Chicago which maintains surface water intakes on Lake Michigan (E & E 1984). No residential wells are known to exist in the site vicinity (E & E 1984).

5.2 SURFACE WATER MIGRATION PATHWAY

A release to surface water has not been documented at the Glenview Lutter site. Runoff from the site enters the West Fork Chicago River which runs adjacent to the site. The West Fork drains residential and commercial developments, roadways, and the Glenview Naval Air Station, before reaching the site, and leads to the North Branch Chicago River approximately three miles downstream from the site. The North Branch Chicago River flows south toward Chicago (USGS 1982). The mean discharge of the North Branch Chicago River is 152 cubic feet per second; discharge information is not available for the West Fork Chicago River (USGS 1992). Both rivers are perennial surface water bodies and viable fisheries (Sulski 1995). The Chicago River discharges to Lake Michigan at a point greater than 15 miles downstream from the site.

Soils along the banks of the West Fork Chicago River are of the Drummer series. This soil is a silty clay loam which is commonly flooded and could be expected to support wetland vegetation and habitats (USDA 1979), however the exact locations of wetland habitats have not been delineated in the site vicinity.

5.3 SOIL EXPOSURE PATHWAY

Surface soil samples collected by E & E from seep areas in 1984 contained PAHs and other organic compounds (E & E 1984). An aqueous leachate sample collected by IEPA in 1982 contained mercury at 0.11 $\mu g/kg$ (IEPA 1982). These samples were collected prior to closure of the site.

In 1990, the site was closed in accordance with IEPA requirements which includes placement of a two foot thick clay cap, top soil, and vegetative cover over the area of the landfill (Eastep 1990), this would prevent persons on site from being exposed to materials disposed at the site. Recent IEPA inspections have identified erosion gullies in the cover material (Czeck 1995) and during the FSIP reconnaissance E & E observed orange stained soils within a gully on the east side of the landfill (E & E 1995). However, no evidence of wide spread contamination has been observed or reported, and analytical results of soil samples collected for the FSIP does not indicate that TAL/TCL chemicals are migrating off site.

The site is located in a residential/commercial area and is not fenced. The nearest residences are located approximately 100 feet east of the site, on Tanglewood Street, also the Immanuel Lutheran School is located approximately 150 feet south of the site (USGS 1980; E & E 1995).

5.4 AIR MIGRATION PATHWAY

A release of TAL/TCL chemicals to air at the site has not been documented. No air samples were collected during the SSI. The site has closed in accordance with IEPA requirements which includes placement of a clay cap, top soil, and vegetative cover over the area of the landfill. This also included installation of a gas venting system (Eastep 1990; Thorsen 1989) analytical information for the discharge of these gas vents is not available.

The Valley-Lo estates owners association filed a complaint with IEPA in June 1994 regarding generation of dust by operations related to regrading the closed landfill (Reder 1994). Subsequent inspections by IEPA did not result in any violations (Czeck 1994).

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Regrading operations at the site have not involved removal of the clay cap over the landfill (Czeck 1995).

6. SUMMARY

E & E has evaluated the Glenview Lutter site using existing U.S. EPA and IEPA file information, analytical information from E & E sampling conducted in 1995, and conversations with IEPA representatives.

The Glenview Lutter site is a closed landfill which accepted municipal and industrial waste between 1940 and 1962, and construction debris between 1962 and 1990. Prior to 1940 the site was excavated as a source of clay for manufacture of bricks. Disposal of hazardous waste at the site has not been documented or observed.

In 1990 the landfill was closed in accordance with IEPA requirements, which required placement of a clay cap, top soil and vegetation over the landfill and installation of monitoring wells and gas vents. IEPA subsequently granted the site owners a permit to develop the site as a golf course, this has not yet been completed. Currently, two violations of IEPA regulations, cited in July 1995, related to the presence of standing water and erosion gullies at the closed landfill have not been corrected. An eroded gully with orange-stained soils was observed on the west bank of the West Fork Chicago River, near the east side of the closed landfill by E & E in 1995.

Leachate seeps were observed on the west and east sides of the landfill prior to closure. An aqueous leachate sample collected in 1982 by IEPA contained mercury, and soil samples collected near leachate seeps in 1984 by E & E contained PAHs. These areas were covered during closure operations. Sediment samples collected from the West Fork Chicago River, downstream of the site, by E & E in 1995 did not contain these or other TAL/TCL chemicals above background levels.

A release of TAL/TCL chemicals to groundwater has not been documented. Residents within a four mile radius of the site receive drinking water from municipal distribution systems which are connected to surface water intakes on Lake Michigan. No residential wells are known to exist within a four-mile radius of the site.

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A release of TAL/TCL chemicals to surface water has not been observed. The West Fork of the Chicago River is a recreational fishery and supports wetland vegetation.

The site is not fenced. The nearest residence is located approximately 100 feet east of the site and the Immanuel Lutheran School is located approximately 150 feet south of the site.

7. REFERENCES

Czeck, Donna, September 11, 1995, IEPA, Telephone conversation, with Donovan Robin, E & E Chicago, Illinois.

_____, August 9, 1994, IEPA, Memorandum to IEPA Division of Land Pollution Control Krohn Landfill File,

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_____, December 30, 1980, *Preliminary Assessment, Final Report, Glenview Lutter Brickyard, U.S. EPA ID No.: ILD098067774,* Chicago, Illinois.

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Reder, Bernice, June 3, 1994, Valley Lo Homeowners Association, letter, to Lawrence Eastep, IEPA.

Sulski, Robert, September 19, 1995, IEPA, Telephone conversation with Donovan Robin, E & E Chicago, Illinois.

Thorsen, John, June 30, 1989, Roy F. Weston, letter to Lawrence Eastep, IEPA.

Unites States Department of Agriculture, 1979, *Soil Survey of DuPage and Cook Counties, Illinois,* Washington, D.C.

United States Geological Survey, 1992, *Water Resources Data, Illinois,* Reston, Virginia.

_____, 1980, *7.5 Minute Series Topographic Map, Park Ridge, Illinois Quadrangle,* Reston, Virginia.

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APPENDIX A

SITE RECONNAISSANCE PHOTOGRAPHS

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Photo: 1	Photographer: D. Robin
Date: 8-1-95	Time: 1030 Dir.: West
Site Name:	Glenview Lutter Brickyard
Comments:	Sample S3/S4 location collected near the east bank of the stream.

Photo: 2	Photographer: D. Robin
Date: 8-1-95	Time: 1045 Dir.: West
Site Name:	Glenview Lutter Brickyard
Comments:	Spring/leachate seep in eroded area on west side of stream. The seep has a slight orange color.

Photo: 3	Photographer: D. Robin
Date: 8-1-95	Time: 1125 Dir.: East
Site Name:	Glenview Lutter Brickyard
Comments:	Sample S2 location collected near the west bank of the stream.

Photo: 4	Photographer: D. Robin
Date: 8-1-95	Time: 1135 Dir.: Northeast
Site Name:	Glenview Lutter Brickyard
Comments:	Eroded area near the southwest corner of the landfill.

Photo: 5	Photographer: D. Robin
Date: 8-1-95	Time: 1145 Dir.: West
Site Name:	Glenview Lutter Brickyard
Comments:	Sample S1 location collected near the bank of the ditch on the north side of the site.

APPENDIX B

IEPA ANALYTICAL RESULTS

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ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

04311 APR 2

mR

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

RECEIVED MAY 10 1982 E.P.A. — I.L.

Name (Private Well, Stream, Spring, Impounded Water only)

L P C S M 0 1 0 (1) (8) SITE INVENTORY NUMBER 03110201 (9) (16)

MONITOR POINT NUMBER 1101 (17) (20) DATE COLLECTED 040182 (21) (26)

Cook Co. - LPC REGION N (27)

Glenview / Krohn
(Location) (Responsible Party)

Legal (1); Illegal (2); Indicate One: 2 (28) Board Order (X) (29)

Time Collected 1030 a.m. p.m. Unable to collect sample (X) (30)

Stick-up ___ ft. (31) (33) Depth to water ___ ft. (from T.O.C.) (34) (36)

Sample temp. ___ ° (37) (39) Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) grab 3 (41)

Sample Appearance: grey

Collector comments: Strong odor

Collected by: [signature] Div. or Company: LPC

Transported by: [signature] Div. or Company: LPC

LAB USE ONLY

Lab No. C004311

Date Rec'd 4-2-82

Rec'd By [signature] Time 1:30 a.m. p.m.

Sample temp. acceptable YES NO
Sample properly preserved YES NO
Date completed
Date forwarded MAY 3 1982

Supervisor Signature: [signature]

Name Environmental Protection Agency
Address of Lab Division of Laboratory Services
2121 W. Taylor Street
Chicago, Illinois 60612

LPCSM020
Lab Comments:

Hg 0.00011 (27) (36)

F 0.15 (37) (46)

(47) (56)

(57) (66)

(67) (76)

Private Lab (X)

IEPA Lab (X) (X) (77)

LPCSM030

		PARAMETERS	PPM*
27	✓	Alkalinity[1]	1600
31	✓	Ammonia as N	2150 *
37	✓	Arsenic As	0.230
44	✓	Barium Ba	0.8
49	✓	BOD -5	Sample discarded
53	✓	Boron B	6.0
58	✓	Cadmium Cd	0.00
64	✓	Calcium Ca	181 *
69	✓	COD	520
73	✓	Chloride Cl	420

LPCSM040

27	✓	Chromium Cr (tot)	0.05
33	✓	Chromium Cr+6	0.00
39	✓	Copper Cu	0.14
45		Cyanide CN	
52	✓	Fecal Coli	
56	✓	Fluoride F	0.1
61	✓	Hardness $CaCO_3$	700
65	✓	Iron Fe	95.2
70	✓	Lead Pb	0.29

LPCSM050

27	✓	Magnesium Mg	190 *
32	✓	Manganese Mn	1.30
38	✓	Mercury Hg	**
46	✓	Nickel Ni	0.1
51	✓	Nitrate-nitrite N	0.6
56		Oil and Grease	
60	✓	pH (Units)	7.9
63	✓	Phenolics	0.026
70	✓	Phosphorus P	2.7 *
75	✓	Potassium K	143 *

LPCSM060

27	✓	R.O.E. (180°C)	1700
31	✓	Selenium Se	0.007
38	✓	Silver Ag	0.00
44	✓	Sodium Na	287 *
49	✓	SC (umhos/cm)	4042
53	✓	Sulfate SO_4	14 *
58	✓	Zinc Zn	0.4
63			

*Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not shown should also be explained in the lab comments section.

[1] Alkalinity is to be determined as ppm of $CaCO_3$

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ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

0431 APR 2

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

Name (Private Well, Stream, Spring, Impounded Water only)

L P C S M O 1 0 (1) (8) SITE INVENTORY NUMBER 03110201 (9) (16)

MONITOR POINT NUMBER 6101 (17) (20) DATE COLLECTED 040182 (21) (26)

Cook Co. - LPC REGION N (27)

Glenview / Krohn
(Location) Responsible Party

Legal (1); Illegal (2); Indicate One: 2 (28) Board Order (X) (29)

Time Collected 1030 (3.5) p.m. Unable to collect sample (30)

Stick-up ___ ft. (31) (33) Depth to water ___ ft. (from T.O.C.) (34) (36)

Sample temp. ___ ° (37) (39) Background (X) . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) grab 3 (41)

Sample Appearance: grey

Collector comments: Strong odor

Kevin Pinnig — LPC
Collected by — Div. or Company

Kevin Pinnig — LPC
Transported by — Div. or Company

LAB USE ONLY

Lab No. C004311

Date Rec'd 4-2-82

Rec'd by [signature] Time 130 a.m. p.m.

Sample temp. acceptable YES NO
Sample properly preserved YES NO

Date completed
Date forwarded MAY 3 1982

[signature]
Supervisor Signature

Name Environmental Protection Agency
Address of Lab Division of Laboratory Services
2121 W. Taylor Street
Chicago, Illinois 60612

LPCSM020
Lab Comments:

Hg 0.00011 (27) (38)

F 0.15 (37) (46)

(47) (56)

(57) (66)

(67) (76)

Private Lab (X) (77)

IEPA Lab (X) (X)

LPCSM030

		PARAMETERS	PPM
27	X	Alkalinity	1600
31	X	Ammonia as N	215.0
37	X	Arsenic As	0.230
44	X	Barium Ba	0.8
49	X	BOD - Sample discarded	
53	X	Boron B	6.0
58	X	Cadmium Cd	0.00
64	X	Calcium Ca	181
69	X	COD	520
73	X	Chloride Cl	420

LPCSM040

27	X	Chromium Cr (tot)	0.05
33	X	Chromium Cr+6	0.00
39	X	Copper Cu	0.14
45		Cyanide CN	
52	X	Fecal Coli LP	
56	X	Fluoride F	0.1
61	X	Hardness CaCO3	700
65	X	Iron Fe	95.2
70	X	Lead Pb	0.29

LPCSM050

27	X	Magnesium Mg	190
32	X	Manganese Mn	1.30
38	X	Mercury Hg	**
46	X	Nickel Ni	0.1
51	X	Nitrate-nitrite N	0.6
56		Oil and Grease	
60	X	pH (Units)	7.9
63	X	Phenolics	0.026
70	X	Phosphorus P	2.7
75	X	Potassium K	143

LPCSM060

27	X	H.O.E. (1[illegible])	1700
31	X	Selenium Se	0.007
38	X	Silver Ag	0.00
44	X	Sodium Na	287
49	X	SC (umhos/cm)	4042
53	X	Sulfate SO4	14
58	X	Zinc Zn	0.4

*Analyses are to be performed on unfiltered samples. •Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

*Alkalinity is to be determined as per CaCO3 at pH 4.5.

File #129-201

RECEIVED

JUL 22 1980

ILL. E.P.A. – D.L.P.C.
STATE OF ILLINOIS

cowhey associates
LTD.
CONSULTING ENGINEERS
2200 E. Devon Avenue
Des Plaines, Illinois 60018
(312) 635-7150

July 21, 1980

Mr. Ken Beechley
Illinois Environmental Protection Agency
Northern Regional Manager
Field Operations Section
Division of Land & Noise Pollution Control
33 S. Stolp Avenue
Aurora, Illinois 60504

Re: Glenview (Land Fill) / Land & Lakes
Cook County #03110201

Dear Sir:

We are in acknowledge of your letter dated July 16, 1980, to Mr. Rich Krohn and Mr. Doug Kutz, regarding the above referenced land fill.

Per your request, we are herewith enclosing additional copies of the laboratory analysis of samples taken along with a map depicting the location of sampling.

You will note from the test results that there does not seem to be any acute problem with the water quality. Please acknowledge receipt of the material, and if you will require any additional information in order to bring this matter to a close.

Should you have any questions, please do not hesitate to call our office. Thank you

Very truly yours,

Cowhey Associates, Ltd.

Robert W. Gudmundson

RWG/ng

Enclosure

cc Doug Kutz

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ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

00477 JUL ... WE2 IL-70-

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Well
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

Name: S. side leachate stream (Private Well, Stream, Spring, Impounded Water only)

L P C S M 0 1 0 (1) (8) SITE INVENTORY NUMBER 03110201 (9) (16)

MONITOR POINT NUMBER L102 ~~S002~~ (17) (20) DATE COLLECTED 072280 (1) (26)

Cook Co. - LPC REGION N (27)

Glenview (Location) / Land & Lakes (Responsible Party)

Legal (1); Illegal (2); Indicate One: 1 (28) Board Order (X) (29)

Time Collected 2:20 a.m. p.m. Unable to collect sample (30)

Stick-up ___ ft. (31) (33) Depth to water ___ ft. (from T.O.C.) (34) (36)

Sample temp. ___ ° (37) (39) Background (X) ... (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) grab 3 (41)

Sample Appearance: dark brown

Collector comments:

Diane Spencer (Collected by) D.L.P.C. (Div. of Company)

[illegible] (Transported by) (Div. of Company)

LAB USE ONLY

Lab No. C000477

Date Rec'd 7 26 80

Rec'd by [illegible] Time 3:16 a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed

Date forwarded 9-10-80

[signature] Supervisor Signature

Name Environmental Protection Agency
Address of Lab Division of Laboratory Services
2121 W. Taylor Street
Chicago, Illinois 60612

LPCSM020 Lab Comments:

(27) RECEIVED (36)

(37) SEP 1 0 1980 (46)

(47) ILL. E.P.A. - D.L.P.C. STATE OF ILLINOIS

(57) (66)

(76)

Private Lab (X) (77)

IEPA Lab (X) (X)

		Parameters*	PPM*
		LPCSM030	
27	X	Alkalinity[1]	730
31	X	Ammonia as N	130.0
37	X	Arsenic As	0.008
44	X	Barium Ba	0.1
49	X	BOD -5	20
53	X	Boron B	1.7
58	X	Cadmium Cd	0.00
64	X	Calcium Ca	76.8
69	X	COD	225
73	X	Chloride Cl	270
		LPCSM040	
27	X	Chromium Cr (tot)	0.00
33		Chromium Cr^{+6}	
39	X	Copper Cu	0.01
45	X	Cyanide CN	0.04
52		Fecal Coli (#/100 ml)	
56		Fluoride F	
61	X	Hardness $CaCO_3$	370
65	X	Iron Fe	15
70	X	Lead Pb	0.09
		LPCSM050	
27	X	Magnesium Mg	45.9
32	X	Manganese Mn	0.21
38	X	Mercury Hg	0.000
46	X	Nickel Ni	0.0
51	X	Nitrate-nitrite N	0.7
56		Oil and Grease	
60	X	pH (Units)	8.5
63	X	Phenolics	0.024
70	X	Phosphorus P	0.97
75	X	Potassium K	111
		LPCSM060	
27	X	H.O.F. (1800)	1270
31		Selenium Se	
38		Silver Ag	
44	X	Sodium Na	182
49		SC (umhos/cm)	
53	X	Sulfate SO_4	200
58	X	Zinc Zn	0.0
63	X	SULFIDE	0.1

*Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

[1] Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

00478 JUL24

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

Name SW corner of site; leachate stream (Private Well, Stream, Spring, Impounded Water only)

L P C S M 0 1 0 (1) (8) SITE INVENTORY NUMBER 0 3 1 1 0 2 0 1 (9) (16)

MONITOR POINT NUMBER 5 0 0 1 (17) (20) DATE COLLECTED 0 7 2 2 8 0 (21) (26)

Cook Co. - LPC REGION N (27)

Glenview (Location) Land & Lakes (Responsible Party)

Legal (1); Illegal (2); Indicate One: 1 (28) Board Order (X) (29)

Time Collected 2:20 a.m. p.m. Unable to collect sample (X) (30)

Stick-up (31) . (33) ft. Depth to water (from T.O.C.) (34) . (36) ft.

Sample temp. (37) ° (39) Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) grab 3 (41)

Sample Appearance: dark brown

Collector comments:

Rick Peterson — Collected by; D.L.P.C. — Div. or Company

[illegible] — Transported by; [illegible] — Div. or Company

LAB USE ONLY C000478

Lab No.

Date Rec'd 7-24-80

Rec'd by [illegible] Time 3:15 a.m. p.m.

Sample temp. acceptable YES NO
Sample properly preserved YES NO

Date completed
Date forwarded 9-10-80

[signature] Supervisor Signature

Name Environmental Protection Agency
Address of Lab Division of Laboratory Services
2121 W. Taylor Street
Chicago, Illinois 60612

LPCSM020
Lab Comments:

(27) (36)

(37) RECEIVED (46)

(47) SEP 15 1980 (56)

(57) ILL. E.P.A. – D.L.P.C. (66)
STATE OF ILLINOIS

(67) (76)

Private Lab (X) (77)

IEPA Lab (X) X (78)

LPCSM030

		PARAMETERS*	PPM*
27	X	Alkalinity[1]	2800
31	X	Ammonia as N	500.0
37	X	Arsenic As	0.037
44	X	Barium Ba	0.5
49	X	BOD -5	96
53	X	Boron B	5.2
58	X	Cadmium Cd	0.00
64	X	Calcium Ca	76.8
69	X	COD	910
73	X	Chloride Cl	920

LPCSM040

27	X	Chromium Cr (tot)	0.06
33		Chromium Cr^{+6}	
39	X	Copper Cu	0.13
45	X	Cyanide CN	0.06
52		Fecal Coli (#/100 ml)	
56		Fluoride F	
61	X	Hardness $CaCO_3$	4800
65	X	Iron Fe	19.3
70	X	Lead Pb	0.76

LPCSM050

27	X	Magnesium Mg	124.
32	X	Manganese Mn	0.52
38	X	Mercury Hg	0.000
46	X	Nickel Ni	0.1
51	X	Nitrate-nitrite N	0.5
56		Oil and Grease	
60	X	pH (Units)	8.5
63	X	Phenolics	0.054
70	X	Phosphorus P	3.3
76	X	Potassium K	454.

LPCSM060

27	X	R.O.E. (180°C)	3480
31		Selenium Se	
38		Silver Ag	
44	X	Sodium Na	626.
49		SC (umhos/cm)	
53	X	Sulfate SO_4	36.
58	X	Zinc Zn	0.5
63	X	SULFIDE	38.

*Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

[1] Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

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LPC-8 REV. 7/77

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

00477 JUL 7

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

Name (Private Well, Stream, Spring, Impounded Water only) S side leachate stream

L P C S M 0 1 0 (1) (8) SITE INVENTORY NUMBER 0 3 1 1 0 2 0 1 (9) (16)

MONITOR POINT NUMBER S002 (17) (20) DATE COLLECTED 0 7 2 2 8 0 (21) (26)

Cook Co. - LPC REGION N (27)

Glenview (Location) / Land & Lake Responsible Party

Legal (1); Illegal (2); Indicate One: 1 (28) Board Order (X) (29)

Time Collected 2:20 a.m. p.m. Unable to collect sample (30)

Stick-up (31) (33) ft. Depth to water (from T.O.C.) (34) (36) ft.

Sample temp. (37) (39) ° Background (X) (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) grab (41) 3

Sample Appearance: dark brown

Collector comments:

Dave Sorenson — D.L.P.C. (Collected by; Div. or Company)

Dave Gibbs — D.L.P.C. (Transported by; Div. or Company)

LAB USE ONLY

Lab No. C000477

Date Rec'd 7-24-80

Rec'd by J. Jackson Time 3:15 a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed

Date forwarded 9-10-80

Supervisor Signature

Name Environmental Protection Agency

Address of Lab Division of Laboratory Services, 2121 W. Taylor Street, Chicago, Illinois 60612

LPCS0020

Lab Comments:

(35) (36)

(37) (39)

(40)

(41)

(46)

Private Lab (X) (47)

IEPA Lab (X) X

RECEIVED SEP 15 1980 ILL. E.P.A. - D.L.P.C. STATE OF ILLINOIS

		PARAMETERS*	PPM		
		LPCS0030			
27	X	Alkalinity[1]	730.	X	
31	X	Ammonia as N	130.	0	X
37	X	Arsenic As	0.008		
44	X	Barium Ba	0.1	X	
49	X	BOD -5	20.	X	
53	X	Boron B	1.7	X	
58	X	Cadmium Cd	0.60	X	
64	X	Calcium Ca	76.8	X	
69	X	COD	225.	X	
73	X	Chloride Cl	270.	X	
		LPCS0040			
27	X	Chromium Cr (tot)	0.00	X	
33		Chromium Cr^{+6}			X
39	X	Copper Cu	0.01	X	
45	X	Cyanide CN	0.04		X
52		Fecal Coli		X	X
56		Fluoride F			X
61	X	Hardness $CaCO_3$	370.	X	
65	X	Iron Fe	15	X	
70	X	Lead Pb	0.09	X	
		LPCS0050			
27	X	Magnesium Mg	45.9	X	
32	X	Manganese Mn	0.21	X	
38	X	Mercury Hg	0.000		
46	X	Nickel Ni	0.0	X	
51	X	Nitrate-nitrite N	0.7	X	
56		Oil and Grease		X	
60	X	pH (Units)	8.5	X	
63	X	Phenolics	0.024		
70	X	Phosphorus P	0.97	X	
75	X	Potassium K	111.	X	
		LPCS0060			
27	X	B.O.D. (120°C)	1270.	X	
31		Selenium Se			
38		Silver Ag			X
44	X	Sodium Na	182.	X	
49		SC (umhos/cm)		X	
53	X	Sulfate SO_4	200.	X	
58	X	Zinc Zn	0.0	X	
63	X	SULFIDE	0.xxx		

*Analytes are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

[1]Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

00478 JUL24

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

Name SW corner of site; leachate stream (Private Well, Stream, Spring, Impounded Water only)

(1) L P C S M 0 1 0 (8) L 1 0 1 — SITE INVENTORY NUMBER (9) 0 3 1 1 0 2 0 1 (16)

MONITOR POINT NUMBER (17) ~~S 0 0 1~~ (20) — DATE COLLECTED (21) 0 7 2 2 8 0 (26)

Cook — Co. - LPC — REGION (27) N

Glenview (Location) — Land & Lakes (Responsible Party)

Legal (1); Illegal (2); Indicate One: (28) 1 — Board Order (X) (29)

Time Collected 9:20 a.m. p.m. — Unable to collect sample (X) (30)

Stick-up (31) . (33) ft. — Depth to water (from T.O.C.) (34) . (36) ft.

Sample temp. (37) ° (39) — Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) grab (41) 3

Sample Appearance: dark brown

Collector comments:

Rick Petersen — Collected by — D.L.P.C. — Div. or Company

Transported by — Div. or Company

LAB USE ONLY C000478

Lab No.

Date Rec'd 9-24-80

Rec'd By Joseph Time 3:15 a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed

Date forwarded 9-10-80

Supervisor Signature

Name Environmental Protection Agency
Address of Lab Division of Laboratory Services ~~2121 W. Taylor Street Chicago, Illinois 60612~~

LPCSM020
Lab Comments:

(27) (36)

(37) (46)

(47) (56)

(57) (66)

(67) (76)

RECEIVED
SEP 19 1980
ILL. E.P.A. - D.L.P.C.
STATE OF ILLINOIS

Private Lab (X)

IEPA Lab (X) X (77) (78)

LPCSM030

		PARAMETERS*	PPM*
27	X	Alkalinity[1]	280.0
31	X	Ammonia as N	500.0
37	X	Arsenic As	0.037
44	X	Barium Ba	0.5
49	X	BOD -5	96
53	X	Boron B	5.2
58	X	Cadmium Cd	0.00
64	X	Calcium Ca	76.8
69	X	COD	910
73	X	Chloride Cl	920

LPCSM040

27	X	Chromium Cr (tot)	0.06
33		Chromium Cr^{+6}	
39	X	Copper Cu	0.13
45	X	Cyanide CN	0.06
52		Fecal Coli (#/100 ml)	
56		Fluoride F	
61	X	Hardness $CaCO_3$	4800
65	X	Iron Fe	19.3
70	X	Lead Pb	0.76

LPCSM050

27	X	Magnesium Mg	124
32	X	Manganese Mn	0.52
38	X	Mercury Hg	0.000
46	X	Nickel Ni	0.1
51	X	Nitrate-nitrite N	0.5
56		Oil and Grease	
60	X	pH (Units)	8.5
63	X	Phenolics	0.054
70	X	Phosphorus P	3.3
73	X	Potassium K	454

LPCSM060

27	X	H.O.E. (180°C)	3480
31		Selenium Se	
38		Silver Ag	
44	X	Sodium Na	626
49		SC (umhos/cm)	
53	X	Sulfate SO_4	36
58	X	Zinc Zn	0.5
63	X	SULFIDE	38

*Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

[1] Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

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APPENDIX C

1984 E & E SSI SAMPLE LOCATIONS AND ANALYTICAL RESULTS

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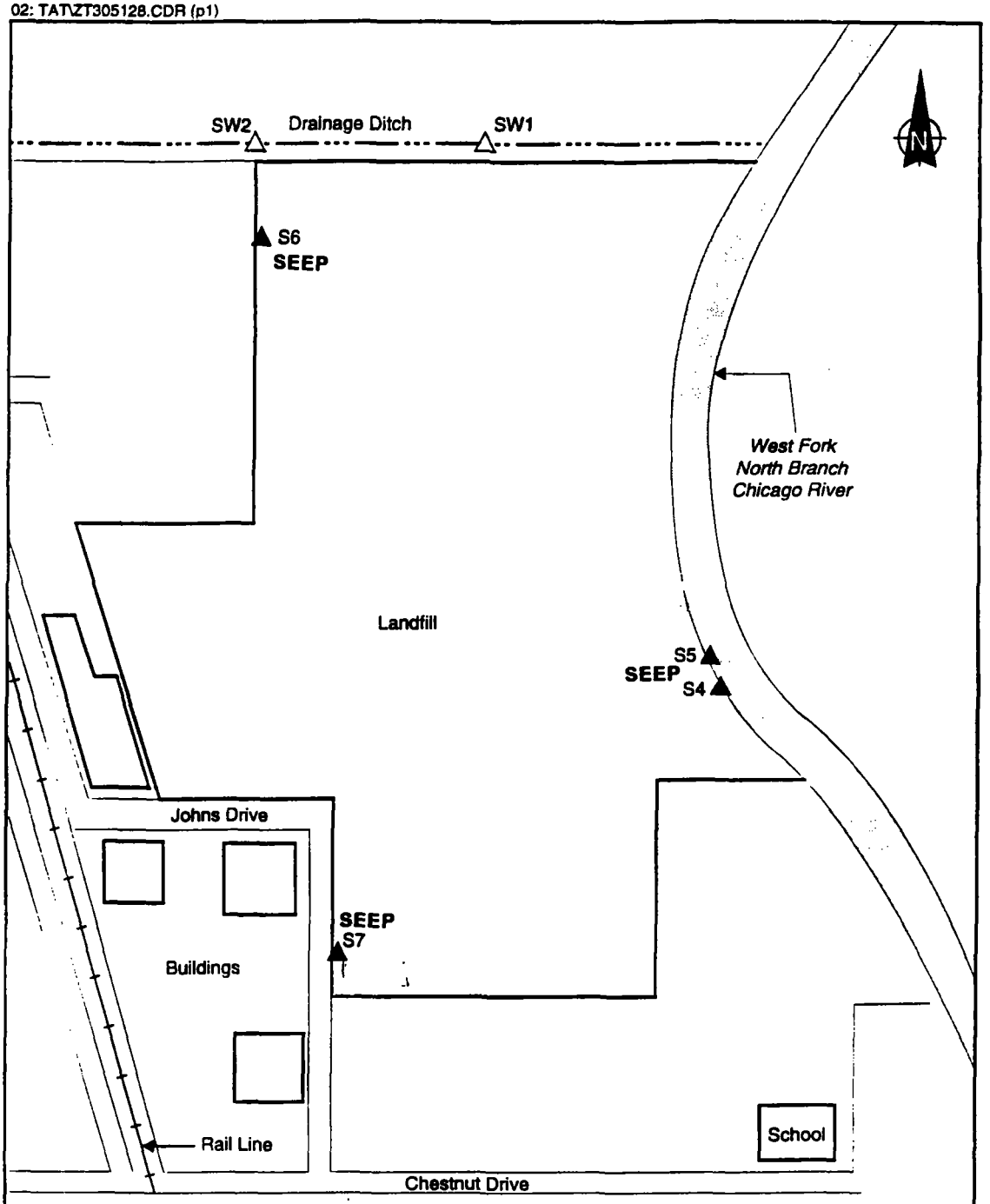
02: TAT\ZT305128.CDR (p1)



LEGEND:

△ 1984 Surface Water Sample

▲ 1984 Soil/Sediment Sample

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Technical Assistance Team
Region V

TITLE: 1984 SSI Sample Locations	FIGURE#: C-1
SITE: Glenview Lutter Brickyard	TDD#: T05-9506-210
CITY: Glenview STATE: Illinois	SCALE: Not to Scale
SOURCE: Roy F. Weston, Inc. 1986 Chestnut Drive Facility Closure Report	DATE: 1990 REVISED: 1995

Table C-1

SSI ANALYTICAL RESULTS
GLENVIEW LUTTER BRICKYARD SITE
GLENVIEW, COOK COUNTY, ILLINOIS
U.S. EPA ID NO.: ILD980677744

soil units = µg/kg
surface water units = µg/L

Parameter	Sample Designation					
	Surface Water		Surface Soil			
	SW1	SW2	S4	S5	S6	S7
4,4-DDD	ND	ND	2.9J	29	15J	32
Dibenzofuran	7.2J	ND	ND	ND	ND	ND
Fluorene	ND	ND	ND	ND	ND	ND
Phenanthrene	44	110	ND	980	130J	1,900
Anthracene	440	440	ND	200J	ND	520
Fluoranthene	ND	ND	ND	1,900	210J	2,300
Pyrene	4J	ND	ND	1,700	250J	2,900
Butylbenzylphthalate	ND	ND	ND	ND	ND	ND
Benzo[a]anthracene	ND	ND	ND	860	150J	1,500
Chrysene	5.3	5.3	ND	1,100	170J	1,400
Benzo[b]fluoranthene	ND	ND	ND	2,000	ND	2,500
Indeno[1,2,3-cd]pyrene	ND	ND	ND	530	90J	610
Benzo[g,h,i,]perylene	ND	ND	ND	610	ND	710
Di-n-Butylphthalate	ND	ND	240J	ND	110J	140J
Benzo[a]pyrene	ND	ND	210J	ND	180	470
Dibenz[a,h]anthracene	ND	ND	ND	190J	ND	250

Key:
ND = Below Detection Limit
J = Estimated Value

Source: E & E FIT, July 1985, SSI Analytical Results, Glenview Lutter Brickyard Site.

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APPENDIX D

1995 E & E FSIP ANALYTICAL DATA PACKAGE

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NARRATIVE

SITE: GLENVIEW LUTTER BRICKYARD CASE: 23855
LABORATORY: SWOK SDG: MEHF83

The laboratory's portion of case 23855 contains 4 low level soil samples assayed for total metals and total cyanide. The following narrative lists the out of control audits and their possible effects on the results.

EVIDENTIAL AUDIT: All forms are originals. All of the raw data sheets are originals, those photocopied are from bound lab books. The originals that are present are sample tags, Federal Express airbill, chain of custody forms and Form DC-1. All forms are present and in the order indicated on the Form DC-2 [inventory sheet].

ICP ANALYSES: The duplicate RPDs for Fe (37.2%), Pb (36.7%) and Mn (118.9%) are out of control. All the Fe, Pb and Mn data are estimated (J) due to poor precision.

The duplicate RPDs for Al (34.6%) and Ca (30.8%) were flagged by the laboratory. The duplicate differences did not exceed the technical criterion (35%) for soil samples. Al and Ca data are acceptable.

The duplicate audit for Cr (difference > CRDL) was flagged by the laboratory. The duplicate difference does not exceed the technical criterion (±2xCRDL) for soil samples. The Cr data are acceptable.

The duplicate RPD for Zn (34.1%) was flagged by the laboratory. The duplicate difference does not exceed the technical criterion (35%) for soil samples. The Zn data are not qualified on this basis. The matrix spike recovery for Zn (74.0%) is out of control. All the Zn data are estimated (J) due to low bias.

The duplicate RPDs for Ba (47.9%) and Cd (59.9%) were not flagged by the laboratory because the duplicate difference did not exceed the technical criterion (±2xCRDL) for soil samples. Ba and Cd data are acceptable.

OTHER ANALYSES: All Hg data are acceptable.

The matrix spike recovery for CN (56.2%) is out of control. All the CN data are estimated (UJ) due to possible elevation of the detection limit.

Reviewed by: James Redlin James Redlin
Lockheed ESAT

Date: 8-23-95

ESAT-5-041.1

8/30

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 08-24-95

SUBJECT: **Review of Region V CLP Data Received for Review on** 8-16-95

FROM: **Dennis Wesolowski, Chief (SQC-14J)** L. Finkelberg for D. Wesolowski
Contract Analytical Services Section

TO: **Data User:** E & E

We have reviewed the data for the following case:

SITE NAME: Glenview Lutter Brickyard (IL)

CASE NUMBER: 23855 **SDG NUMBER:** MEHF83

Number and Type of Samples: 4 - Soils

Sample Numbers: MEHF83-86

Laboratory: SWOK **Hrs. for Review:** 3.5 +0.5 T.M.

Following are our findings:

The spike recoveries for Zn and CN are out of control.
The duplicate RPDs for Pb, Fe and Mn are out of control.
All data are acceptable with the qualifications described in the attached review.

L. Finkelberg
08-24-95

cc: Regional TPO

DATA QUALIFIER DEFINITIONS

For the purpose of defining the flagging nomenclature utinized in this document, the following code letters and associated definitions are provide:

U — Indicates the material was analyzed, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

J — Indicates the associated value is an estimated quantity.

R — Indicates the data are unusable. (Note: The analyte may or may not be present.)

UJ — Indicates the material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

E — Indicates the reported value is estimated because of the presence of interferences. An explanatory note shall be included under Comments on the Cover Page (if the problem applies to all samples) or on the specific FORM I-IN (if it is an isolated problem).

M — Indicates duplicate injection precision is not met.

N — Indictaes the spike sample recovery is not within control limits.

S — Indicates the reported value was determined by the Method of Standard Addition (MSA).

W — Indicates the post-digestion spike for furnace AA analysis is out of control limits (85%-115%), while sample absorbance is less than 50% of the spike absorbance.

+ — Indicates the correlation coefficient for the MSA is less than 0.995.

* — Indicates the duplicate analysis is not within control limits.

Note: Entering "S", "W" or "+" is mutually exclusive. No combination of these qualifiers can appear in the same field for an analyte.

ESAT-5-087.1

U.S. EPA - CLP

002

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

-b Name: SOUTHWEST_LAB_OF_OK_____ Contract: 68-D3-0040

Lab Code: SWOK__ Case No.: 23855 SAS No.: _____ SDG No.:MEHF83

SOW No.: ILM03

EPA Sample No.	Lab Sample ID
_MEHF83_____	__2309601_____
_MEHF84_____	__2309602_____
_MEHF84D_____	__2309602D_____
_MEHF84S_____	__2309602S_____
_MEHF85_____	__2309603_____
_MEHF86_____	__2309604_____

RECEIVED
AUG 1 1995
US EPA CENTRAL REGIONAL LAB.
536 S. CLARK ST.
CHICAGO, ILLINOIS 60605

Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES
If yes - were raw data generated before application of background corrections ? Yes/No NO_

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: [signature] Name: Deborah Beree for... Jason D. Ruckman

Date: August 15, 1995 Title: Inorganic Program Manager

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEHF83
S1

Lab Name: SOUTHWEST_LAB_OF_OK_____ Contract: 68-D3-0040

Lab Code: SWOK__ Case No.: 23855_ SAS No.: _____ SDG No.: MEHF83

Matrix (soil/water): SOIL_ Lab Sample ID: 2309601___

Level (low/med): LOW__ Date Received: 08/02/95

% Solids: _72.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2950		*	P
7440-36-0	Antimony	0.82	U		P
7440-38-2	Arsenic	3.6			P
7440-39-3	Barium	31.8	B		P
7440-41-7	Beryllium	0.34	B		P
7440-43-9	Cadmium	0.81	B		P
7440-70-2	Calcium	46400		*	P
7440-47-3	Chromium	15.2		*	P
7440-48-4	Cobalt	5.1	B		P
7440-50-8	Copper	17.7			P
7439-89-6	Iron	9270		*	P
7439-92-1	Lead	41.2		*	P
7439-95-4	Magnesium	23700			P
7439-96-5	Manganese	223		*	P
7439-97-6	Mercury	0.14	U		AV
7440-02-0	Nickel	10.3	B		P
7440-09-7	Potassium	502	B		P
7782-49-2	Selenium	1.1	U		P
7440-22-4	Silver	0.55	U		P
7440-23-5	Sodium	194	B		P
7440-28-0	Thallium	1.1	U		P
7440-62-2	Vanadium	10.8	B		P
7440-66-6	Zinc	89.8		N*	P
	Cyanide	0.21	U	N	AS

JS 8/30/95

JS 8/30/95

Color Before: GREY_____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEHF84
52

Lab Name: SOUTHWEST_LAB_OF_OK_____ Contract: 68-D3-0040

Lab Code: SWOK__ Case No.: 23855_ SAS No.: _____ SDG No.: MEHF83

Matrix (soil/water): SOIL_ Lab Sample ID: 2309602___

Level (low/med): LOW__ Date Received: 08/02/95

% Solids: _73.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7460		*	P
7440-36-0	Antimony	0.82	U		P
7440-38-2	Arsenic	5.1			P
7440-39-3	Barium	105			P
7440-41-7	Beryllium	0.57	B		P
7440-43-9	Cadmium	0.55	B		P
7440-70-2	Calcium	21500		*	P
7440-47-3	Chromium	17.8		*	P
7440-48-4	Cobalt	8.0	B		P
7440-50-8	Copper	26.5			P
7439-89-6	Iron	13300	J	*	P
7439-92-1	Lead	41.1	J	*	P
7439-95-4	Magnesium	12300	J		P
7439-96-5	Manganese	288		*	P
7439-97-6	Mercury	0.14	U		AV
7440-02-0	Nickel	18.3			P
7440-09-7	Potassium	877	B		P
7782-49-2	Selenium	1.1	U		P
7440-22-4	Silver	0.55	U		P
7440-23-5	Sodium	244	B		P
7440-28-0	Thallium	1.1	U		P
7440-62-2	Vanadium	17.0			P
7440-66-6	Zinc	109	J	N*	P
	Cyanide	0.21	U	J N	AS

CS 8/30/95

CS 8/30/95

Color Before: GREY_____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEHF85 S3

Lab Name: SOUTHWEST_LAB_OF_OK_____ Contract: 68-D3-0040

Lab Code: SWOK__ Case No.: 23855_ SAS No.: _____ SDG No.: MEHF83

Matrix (soil/water): SOIL_ Lab Sample ID: 2309603___

Level (low/med): LOW__ Date Received: 08/02/95

% Solids: _66.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5130		*	P
7440-36-0	Antimony	0.90	U		P
7440-38-2	Arsenic	6.7			P
7440-39-3	Barium	30.1	B		P
7440-41-7	Beryllium	0.48	B		P
7440-43-9	Cadmium	0.30	U		P
7440-70-2	Calcium	60600		*	P
7440-47-3	Chromium	10.9		*	P
7440-48-4	Cobalt	9.1	B		P
7440-50-8	Copper	24.6			P
7439-89-6	Iron	17200	J	*	P
7439-92-1	Lead	15.2	J	*	P
7439-95-4	Magnesium	35300			P
7439-96-5	Manganese	652	J	*	P
7439-97-6	Mercury	0.15	U		AV
7440-02-0	Nickel	23.7			P
7440-09-7	Potassium	1060	B		P
7782-49-2	Selenium	1.2	U		P
7440-22-4	Silver	0.60	U		P
7440-23-5	Sodium	235	B		P
7440-28-0	Thallium	1.2	U		P
7440-62-2	Vanadium	13.9	B		P
7440-66-6	Zinc	62.0	J	N*	P
	Cyanide	0.23	U	JN	AS

CS 8/30/95

CS 8/30/95

Color Before: GREY_____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN

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U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEHF86 SL

Lab Name: SOUTHWEST_LAB_OF_OK Contract: 68-D3-0040

Lab Code: SWOK Case No.: 23855 SAS No.: SDG No.: MEHF83

Matrix (soil/water): SOIL Lab Sample ID: 2309604

Level (low/med): LOW Date Received: 08/02/95

% Solids: 77.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3820		*	P
7440-36-0	Antimony	0.77	U		P
7440-38-2	Arsenic	8.3			P
7440-39-3	Barium	22.4	B		P
7440-41-7	Beryllium	0.40	B		P
7440-43-9	Cadmium	0.26	U		P
7440-70-2	Calcium	41500		*	P
7440-47-3	Chromium	8.7		*	P
7440-48-4	Cobalt	7.8	B		P
7440-50-8	Copper	21.5			P
7439-89-6	Iron	13900	J	*	P
7439-92-1	Lead	14.9	J	*	P
7439-95-4	Magnesium	24100			P
7439-96-5	Manganese	463	J	*	P
7439-97-6	Mercury	0.13	U		AV
7440-02-0	Nickel	20.0			P
7440-09-7	Potassium	803	B		P
7782-49-2	Selenium	1.0	U		P
7440-22-4	Silver	0.52	U		P
7440-23-5	Sodium	172	B		P
7440-28-0	Thallium	1.0	U		P
7440-62-2	Vanadium	11.8	B		P
7440-66-6	Zinc	56.2	J	N*	P
	Cyanide	0.19	U	J N	AS

CS 8/30/95

CS 8/30/95

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

FORM I - IN

ILMO2.1

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3
BLANKS

Lab Name: SOUTHWEST_LAB_OF_OK_____ Contract: 68-D3-0040

Lab Code: SWOK__ Case No.: 23855_ SAS No.: _____ SDG No.: MEHF83

Preparation Blank Matrix (soil/water): SOIL_

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	12.0	U	12.0	U	16.6	B	12.0	U	2.400	U	P
Antimony	3.0	U	3.0	U	3.0	U	3.0	U	0.600	U	P
Arsenic	3.0	U	3.0	U	3.0	U	3.0	U	0.600	U	P
Barium	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	P
Beryllium	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	P
Cadmium	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	P
Calcium	13.0	U	13.0	U	13.0	U	13.0	U	2.600	U	P
Chromium	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	P
Cobalt	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	P
Copper	2.0	U	2.0	U	2.0	U	2.0	U	0.400	U	P
Iron	16.9	B	15.0	U	26.5	B	-18.0	B	3.000	U	P
Lead	1.0	U	1.0	U	1.0	U	1.0	U	0.584	B	P
Magnesium	11.0	U	11.0	U	11.0	U	11.0	U	2.200	U	P
Manganese	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	P
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.100	U	AV
Nickel	2.0	U	2.0	U	2.0	U	2.0	U	0.400	U	P
Potassium	32.0	U	-37.6	B	-34.9	B	-39.3	B	-10.697	B	P
Selenium	4.0	U	4.0	U	4.0	U	4.0	U	0.800	U	P
Silver	2.0	U	2.0	U	2.0	U	2.0	U	0.400	U	P
Sodium	21.0	U	21.0	U	21.0	U	21.0	U	4.200	U	P
Thallium	4.0	U	4.0	U	4.0	U	4.0	U	0.800	U	P
Vanadium	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	P
Zinc	2.0	U	2.0	U	2.0	U	2.0	U	0.400	U	P
Cyanide	3.0	U	3.0	U	3.0	U	3.0	U	0.150	U	AS

3
BLANKS

Lab Name: SOUTHWEST_LAB_OF_OK_____ Contract: 68-D3-0040

Lab Code: SWOK__ Case No.: 23855_ SAS No.: _____ SDG No.: MEHF83

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			12.0	B							P
Antimony			3.0	U							P
Arsenic			3.0	U							P
Barium			1.0	U							P
Beryllium			1.0	U							P
Cadmium			1.0	U							P
Calcium			13.0	U							P
Chromium			1.0	U							P
Cobalt			1.0	U							P
Copper			2.0	U							P
Iron											NR
Lead											NR
Magnesium			11.0	U							P
Manganese			1.0	U							P
Mercury											NR
Nickel			2.0	U							P
Potassium			32.0	U							P
Selenium			4.0	U							P
Silver			2.0	U							P
Sodium			21.0	U							P
Thallium			4.0	U							P
Vanadium			1.0	U							P
Zinc			2.0	U							P
Cyanide			3.0	U							AS

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BLANKS

Lab Name: SOUTHWEST_LAB_OF_OK_____ Contract: 68-D3-0040

Lab Code: SWOK__ Case No.: 23855_ SAS No.: _____ SDG No.: MEHF83

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide	3.0	U	3.0	U	3.0	U					AS

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015

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEHF84S

Lab Name: SOUTHWEST_LAB_OF_OK_____ Contract: 68-D3-0040

Lab Code: SWOK__ Case No.: 23855 SAS No.: _____ SDG No.: MEHF83

Matrix (soil/water): SOIL__ Level (low/med): LOW___

% Solids for Sample: _73.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony	75-125	104.1901		0.8219	U	136.99	76.1		P
Arsenic	75-125	541.8208		5.1268		547.95	97.9		P
Barium	75-125	570.2173		105.3614		547.95	84.8		P
Beryllium	75-125	13.1852		0.5679	B	13.70	92.1		P
Cadmium	75-125	13.2219		0.5466	B	13.70	92.5		P
Calcium									NR
Chromium	75-125	67.2367		17.8241		54.79	90.2		P
Cobalt	75-125	131.9156		7.9871	B	136.99	90.5		P
Copper	75-125	84.0674		26.5200		68.49	84.0		P
Iron									NR
Lead	75-125	173.0523		41.0551		136.99	96.4		P
Magnesium									NR
Manganese	75-125	402.7795		287.8984		136.99	83.9		P
Mercury	75-125	0.6178		0.1370	U	0.68	90.9		AV
Nickel	75-125	142.5123		18.2542		136.99	90.7		P
Potassium									NR
Selenium	75-125	527.5849		1.0959	U	547.95	96.3		P
Silver	75-125	12.2718		0.5479	U	13.70	89.6		P
Sodium									NR
Thallium	75-125	503.4230		1.0959	U	547.95	91.9		P
Vanadium	75-125	139.0978		17.0408		136.99	89.1		P
Zinc	75-125	210.1562		108.8038		136.99	74.0	N	P
Cyanide	75-125	3.8525		0.2055	U	6.85	56.2	N	AS

Comments:

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5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEHF84A

Lab Name: SOUTHWEST_LAB_OF_OK_____ Contract: 68-D3-0040

Lab Code: SWOK__ Case No.: 23855_ SAS No.: _____ SDG No.: MEHF83

Matrix (soil/water) : SOIL__ Level (low/med): LOW___

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc		1065.75		397.13		794.0	84.2		P
Cyanide		99.83		3.00	U	112.0	89.1		AS

Comments:

U.S. EPA - CLP

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DUPLICATES

EPA SAMPLE NO.

MEHF84D

Lab Name: SOUTHWEST_LAB_OF_OK_____ Contract: 68-D3-0040

Lab Code: SWOK__ Case No.: 23855_ SAS No.: _____ SDG No.: MEHF83

Matrix (soil/water): SOIL_ Level (low/med): _LOW__

% Solids for Sample: _73.0 % Solids for Duplicate: __74.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		7458.8378		5257.9945		34.6	*	P
Antimony		0.8219	U	0.8219	U			P
Arsenic	2.7	5.1268		5.0882		0.8		P
Barium	54.8	105.3614		64.6496		47.9		P
Beryllium		0.5679	B	0.4888	B	15.0		P
Cadmium		0.5466	B	0.2945	B	59.9		P
Calcium		21526.5367		29376.9285		30.8	*	P
Chromium	2.7	17.8241		13.0027		31.3	*	P
Cobalt		7.9871	B	7.0110	B	13.0		P
Copper	6.8	26.5200		20.8392		24.0		P
Iron		13293.9844		19367.5534		37.2	*	P
Lead		41.0551		59.5156		36.7	*	P
Magnesium		12307.6252		14599.5729		17.0		P
Manganese		287.8984		1132.7488		118.9	*	P
Mercury		0.1370	U	0.1370	U			AV
Nickel	11.0	18.2542		15.0340		19.3		P
Potassium		877.2167	B	649.6893	B	29.8		P
Selenium		1.0959	U	1.0959	U			P
Silver		0.5479	U	0.5479	U			P
Sodium		244.4468	B	199.7268	B	20.1		P
Thallium		1.0959	U	1.0959	U			P
Vanadium	13.7	17.0408		15.1518		11.7		P
Zinc		108.8038		77.1025		34.1	*	P
Cyanide		0.2055	U	0.2055	U			AS

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Instrument Detection Limits (Quarterly)

Name: SOUTHWEST_LAB_OF_OK_____ Contract: 68-D3-0040

Lab Code: SWOK__ Case No.: 23855_ SAS No.: _____ SDG No.: MEHF83

ICP ID Number: TJA2_____ Date: 07/04/95

Flame AA ID Number : _____

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.21		200	12.0	P
Antimony	206.83		60	3.0	P
Arsenic	189.04		10	3.0	P
Barium	493.41		200	1.0	P
Beryllium	313.04		5	1.0	P
Cadmium	226.50		5	1.0	P
Calcium	317.93		5000	13.0	P
Chromium	267.72		10	1.0	P
Cobalt	228.61		50	1.0	P
Copper	324.75		25	2.0	P
Iron	271.44		100	15.0	P
Lead	220.35		3	1.0	P
Magnesium	279.08		5000	11.0	P
Manganese	257.61		15	1.0	P
Mercury			0.2		NR
Nickel	231.60		40	2.0	P
Potassium	766.49		5000	32.0	P
Selenium	196.02		5	4.0	P
Silver	328.07		10	2.0	P
Sodium	588.99		5000	21.0	P
Thallium	190.86		10	4.0	P
Vanadium	292.40		50	1.0	P
Zinc	213.86		20	2.0	P

Comments:

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Instrument Detection Limits (Quarterly)

Name: SOUTHWEST_LAB_OF_OK_____ Contract: 68-D3-0040

Lab Code: SWOK__ Case No.: 23855_ SAS No.: _____ SDG No.: MEHF83

ICP ID Number: _____ Date: 07/10/95

Flame AA ID Number : PS200A_____

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury	253.30		0.2	0.2	AV
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST_LAB_OF_OK_____ Contract: 68-D3-0040

Lab Code: SWOK__ Case No.: 23855_ SAS No.: _____ SDG No.:MEHF83

Instrument ID Number: TJA#2_____ Method: P_

Start Date: 08/09/95 End Date: 08/09/95

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
SO	1.00	1046		X	X	X	X	X	X	X	X	X	X			X	X		X	X	X	X	X	X	X	X	
S	1.00	1052		X	X	X	X	X	X	X	X	X	X			X	X		X	X	X	X	X	X	X	X	
ICV	1.00	1057		X	X	X	X	X	X	X	X	X	X			X	X		X	X	X	X	X	X	X	X	
ICB	1.00	1102		X	X	X	X	X	X	X	X	X	X			X	X		X	X	X	X	X	X	X	X	
ICSA	1.00	1121		X	X	X	X	X	X	X	X	X	X			X	X		X	X	X	X	X	X	X	X	
ICSAB	1.00	1126		X	X	X	X	X	X	X	X	X	X			X	X		X	X	X	X	X	X	X	X	
CRI	1.00	1141			X	X		X	X		X	X	X				X		X		X	X		X	X	X	
CCV	1.00	1147		X	X	X	X	X	X	X	X	X	X			X	X		X	X	X	X	X	X	X	X	
CCB	1.00	1152		X	X	X	X	X	X	X	X	X	X			X	X		X	X	X	X	X	X	X	X	
PBS	1.00	1157		X	X	X	X	X	X	X	X	X	X			X	X		X	X	X	X	X	X	X	X	
SS	1.00	1203		X	X	X	X	X	X		X	X	X				X		X	X	X	X	X	X	X	X	
ICSS	5.00	1208								X						X											
MEHF83	1.00	1213		X	X	X	X	X	X	X	X	X	X			X	X		X	X	X	X	X	X	X	X	
MEHF84	1.00	1219		X	X	X	X	X	X	X	X	X	X			X	X		X	X	X	X	X	X	X	X	
MEHF84L	5.00	1224		X	X	X	X	X	X	X	X	X	X			X	X		X	X	X	X	X	X	X	X	
MEHF84D	1.00	1229		X	X	X	X	X	X	X	X	X	X			X	X		X	X	X	X	X	X	X	X	
MEHF84S	1.00	1235			X	X	X	X	X		X	X	X				X		X		X	X		X	X	X	
MEHF85	1.00	1240		X	X	X	X	X	X	X	X	X	X			X	X		X	X	X	X	X	X	X	X	
ZZZZZZ	1.00	1245																									
CCV	1.00	1251		X	X	X	X	X	X	X	X	X	X			X	X		X	X	X	X	X	X	X	X	
CCB	1.00	1256		X	X	X	X	X	X	X	X	X	X			X	X		X	X	X	X	X	X	X	X	
MEHF86	1.00	1301		X	X	X	X	X	X	X	X	X	X			X	X		X	X	X	X	X	X	X	X	
ZZZZZZ	1.00	1307																									
ZZZZZZ	1.00	1312																									
ZZZZZZ	1.00	1318																									
ZZZZZZ	1.00	1323																									
ZZZZZZ	1.00	1328																									
ZZZZZZ	1.00	1334																									
MEHF84A	1.00	1339																								X	
ZZZZZZ	1.00	1345																									
CCV	1.00	1350		X	X	X	X	X	X	X	X	X	X			X	X		X	X	X	X	X	X	X	X	
CCB	1.00	1356		X	X	X	X	X	X	X	X	X	X			X	X		X	X	X	X	X	X	X	X	

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST_LAB_OF_OK_____ Contract: 68-D3-0040

Lab Code: SWOK__ Case No.: 23855_ SAS No.: _____ SDG No.:MEHF83

Instrument ID Number: TJA#2_____ Method: P_

Start Date: 08/09/95 End Date: 08/09/95

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ICSA	1.00	1401		X	X	X	X	X	X	X	X	X	X			X	X		X	X	X	X	X	X	X	X	
ICSAB	1.00	1407		X	X	X	X	X	X	X	X	X	X			X	X		X	X	X	X	X	X	X	X	
CRI	1.00	1415			X	X		X	X		X	X	X				X		X		X	X		X	X	X	
CCV	1.00	1421		X	X	X	X	X	X	X	X	X	X			X	X		X	X	X	X	X	X	X	X	
CCB	1.00	1426		X	X	X	X	X	X	X	X	X	X			X	X		X	X	X	X	X	X	X	X	

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST_LAB_OF_OK_____ Contract: 68-D3-0040

Lab Code: SWOK__ Case No.: 23855_ SAS No.: _____ SDG No.:MEHF83

Instrument ID Number: TJA#2_____ Method: P_

Start Date: 08/14/95 End Date: 08/15/95

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	C N
S0	1.00	2323		-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-
S	1.00	2329		-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-
ICV	1.00	2334		-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-
ICB	1.00	2340		-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-
ICSA	1.00	2355		-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-
ICSAB	1.00	0000		-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-
CRI	1.00	0008		-	-	-	-	-	-	-	-	-	-		X	-	-	-	-	-	-	-	-	-	-	-	-
CCV	1.00	0014		-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-
CCB	1.00	0019		-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-
PBS	1.00	0024		-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-
SS	1.00	0030		-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-
SS	5.00	0035		-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-	-	-	-	-
MEHF83	1.00	0040		-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-
MEHF84	1.00	0046		-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-
MEHF84L	5.00	0051		-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-
MEHF84D	1.00	0057		-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-
MEHF84S	1.00	0102		-	-	-	-	-	-	-	-	-	-		X	-	-	-	-	-	-	-	-	-	-	-	-
MEHF85	1.00	0107		-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	0117		-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-	-	-	-	-
CCV	1.00	0123		-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-
CCB	1.00	0128		-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-
MEHF86	1.00	0133		-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	0139		-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-	-	-	-	-
ICSA	1.00	0145		-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-
ICSAB	1.00	0151		-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-
CRI	1.00	0203		-	-	-	-	-	-	-	-	-	-		X	-	-	-	-	-	-	-	-	-	-	-	-
CCV	1.00	0209		-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-
CCB	1.00	0214		-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST_LAB_OF_OK_____ Contract: 68-D3-0040

Lab Code: SWOK__ Case No.: 23855_ SAS No.: _____ SDG No.:MEHF83

Instrument ID Number: PS200A_____ Method: AV

Start Date: 08/07/95 End Date: 08/07/95

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	C N
S0	1.00	1113																X									
S0.2	1.00	1116																X									
S1	1.00	1118																X									
S5	1.00	1121																X									
S10	1.00	1124																X									
ICV	1.00	1127																X									
ICB	1.00	1129																X									
CRA	1.00	1132																X									
CCV	1.00	1135																X									
CCB	1.00	1137																X									
ZZZZZ	1.00	1233																									
ZZZZZ	1.00	1235																									
ZZZZZZ	1.00	1238																									
ZZZZZZ	1.00	1241																									
ZZZZZZ	1.00	1243																									
ZZZZZZ	1.00	1246																									
ZZZZZZ	1.00	1249																									
ZZZZZZ	1.00	1251																									
ZZZZZZ	1.00	1254																									
ZZZZZZ	1.00	1256																									
CCV	1.00	1259																X									
CCB	1.00	1302																X									
ZZZZZZ	1.00	1304																									
PBS	1.00	1307																X									
LCSS	10.00	1310																X									
MEHF83	1.00	1312																X									
MEHF84	1.00	1315																X									
MEHF84D	1.00	1318																X									
MEHF84S	1.00	1320																X									
MEHF85	1.00	1323																X									
MEHF86	1.00	1325																X									
ZZZZZZ	1.00	1328																									

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST_LAB_OF_OK_____ **Contract:** 68-D3-0040

Lab Code: SWOK__ **Case No.:** 23855_ **SAS No.:** _____ **SDG No.:** MEHF83

Instrument ID Number: PS200A_____ **Method:** AV

Start Date: 08/07/95 **End Date:** 08/07/95

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	C N
CCV	1.00	1331																X									
CCB	1.00	1333																X									

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST_LAB_OF_OK_____ Contract: 68-D3-0040

Lab Code: SWOK__ Case No.: 23855_ SAS No.: _____ SDG No.:MEHF83

Instrument ID Number: LACHAT_____ Method: AS

Start Date: 08/04/95 End Date: 08/04/95

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	C N
S200	1.00	1442																									
S100	1.00	1443																									
S50	1.00	1444																									
S10	1.00	1445																									
S0	1.00	1446																									
ICV	1.00	1449																									
ICB	1.00	1449																									
CCV	1.00	1450																									
CCB	1.00	1451																									
ZZZZZZ	1.00	1452																									
ZZZZZZ	1.00	1452																									
ZZZZZZ	1.00	1453																									
ZZZZZZ	1.00	1454																									
ZZZZZZ	1.00	1455																									
ZZZZZZ	1.00	1455																									
CCV	1.00	1456																									
CCB	1.00	1457																									
ZZZZZZ	1.00	1459																									
ZZZZZZ	1.00	1500																									
ZZZZZZ	1.00	1500																									
PBS	1.00	1501																									
LCSS	1.00	1502																									
MEHF83	1.00	1503																									
MEHF84	1.00	1503																									
MEHF84D	1.00	1504																									
MEHF84S	1.00	1505																									
MEHF85	1.00	1505																									
CCV	1.00	1506																									
CCB	1.00	1507																									
MEHF86	1.00	1509																									
ZZZZZZ	1.00	1510																									
ZZZZZZ	1.00	1510																									

FORM XIV - IN ILMO2.

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST_LAB_OF_OK_____ Contract: 68-D3-0040

Lab Code: SWOK__ **Case No.:** 23855_ SAS No.: _____ **SDG No.:**MEHF83

Instrument ID Number: LACHAT_____ Method: AS

Start Date: 08/04/95 End Date: 08/04/95

EPA Sample No.	D/F	Time	% R	Analytes																						
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN
ZZZZZZ	1.00	1511		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1512		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1513		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1513		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1514		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1515		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1516		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CCV	1.00	1516		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CCB	1.00	1517		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

FORM XIV - IN

ILM

EPA United States Environmental Protection Agency
Contract Laboratory Program

...organic Traffic Report & Chain of Custody Record
(For Inorganic CLP Analyis)

SAS No. (if applicable): N/A
Case No.: 23855

1. Matrix (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Field QC 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (specify in Column A)

2. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. NaOH 4. H_2SO_4 5. $K_2CR_2O_7$ 6. Ice only 7. Other (specify in Column D) N. Not preserved

2. Region No.: V
Sampling Co.: E&E TAT
Sampler (Name): Cathy Sullivan
Sampler Signature: Cathy Sullivan

3. Purpose*: Lead: [X] SF [ ] PRP [ ] ST [ ] FED; Early Action: [ ] CLEM [ ] PA [ ] REM [ ] RI [X] SI ESIP [ ] ESI; Long-Term Action: [ ] FS [ ] RD [ ] RA [ ] O&M [ ] NPLD

4. Date Shipped: 8/1/95
Carrier: Fed Ex
Airbill Number: 4805097054

5. Ship To: SWOK
1700 West Albany/Suite
Broken Arrow, OK 74012
ATTN: Robert Harris

6. Date Received -- Received by: [signature] 8-2-95
Laboratory Contract Number: 68-D3-0040
Unit Price: $~~226.00~~ 675.00 SAG 8-11-95
7. Transfer to:
Date Received:
Received by:
Contract Number:
Price:

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other:	B Conc.: Low Med High	C Sample Type: Comp./Grab	D Preservative (from Box 2) Other:	E – RAS Analysis: Diss. Metals	Total Metals	Cyanide	Low only: NO_2/NO_3	Fluoride	High only: pH	Conduct.	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Organic Sample No.	J Sampler Initials	K High Phases: Solids	Water-Miscible Liq.	Water-Immis. Liq.
MEHF 83	5	L	G	6		X	X					073550	S1	8/1/95 1145	EAFL 6	CS			
MEHF 84	5	L	G	6		X	X					073554	S2	8/1/95 1115	EAFL 7	CS			
MEHF 85	5	L	G	6		X	X					073558	S3	8/1/95 1030	EAFL 4	CS			
MEHF 86	5	L	G	6		X	X					073562	S4	8/1/95 1030	EAFL 5	CS			

*final sample rec'd in SDG SAG 08-03-95

Shipment for Case Complete? (Y/N): Y
Page: 1 of 1
Sample(s) to be Used for Laboratory QC: MEHF 84
Additional Sampler Signatures:
Chain of Custody Seal Number(s): 45694-95

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Cathy Sullivan	8/1/95 1315				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	
		[signature]	8/2/95 1000	All samples intact.	

DISTRIBUTION: Green - Region Copy; White - Lab Copy for Return to Region; Pink - SMO Copy; Yellow - Lab Copy for Return to SMO

EPA Form 9110-1

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
*SEE REVERSE FOR PURPOSE CODE DEFINITIONS

A21-912-6 REV. 3/93

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037

ANALYSIS RUN LOG

Lab Name: SOUTHWEST_LAB_OF_OK_____ Contract: 68-D3-0040

Lab Code: SWOK__ **Case No.:** 23855_ SAS No.: _____ **SDG No.:**MEHF83

Instrument ID Number: LACHAT_____ Method: AS

Start Date: 08/07/95 End Date: 08/07/95

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	[illegible]
S200	1.00	1433																									
S100	1.00	1434																									
S50	1.00	1435																									
S10	1.00	1436																									
S0	1.00	1437																									
ICV	1.00	1509																									
ICB	1.00	1509																									
CCV	1.00	1510																									
CCB	1.00	1511																									
MEHF84A	1.00	1512																									
V	1.00	1512																									
CB	1.00	1513																									

QC EXCEPTION SUMMARY REPORT

CASE\SAS#: 23855 SITE: Glenview Lutter Brickford MATRIX: Soil WATER SAMPLE SPK:

DATA SET: MEHF83 LAB: SWOK CONC: Low WATER SAMPLE DUP:

LAB QC # REVIEWED BY: J. Rodli SOIL SAMPLE SPK: MEHF84

DATE: 8/21/95 SOIL SAMPLE DUP: MEHF84

FORM #	3/1	FORM 2	FORM 2	FORM 3	FORM 3	FORM 3	FORM 4	FORM 5	FORM 6	FORM 7	FORM 7	FORM 9	FORM 9	FORM 6	FORM 5	FIELD	FIELD	FIELD	FIELD		
ELEMENT	HOLD TIME	INITIAL CALIB	CONTI N CALIB	CALIB BLANK	PREP WATER BLANK	PREP SOIL BLANK	ICS %R	SOIL SPIKE %R	SOIL DUP RPD	LCS AQ	LCS SOIL	SERIAL DILUTION AQUEOUS	SERIAL DILUTION SOIL	AQ DUP RPD	AQ SPIKE %R	BLANK	DUP RPD	BLANK	DUP RPD	GFAA DUP	GFAA ANALYT SPIKE
ALUMINUM	ok	ok	ok	~~16.6~~		ok	ok		34.6		ok		ok								
ANTIMONY																					
ARSENIC																					
BARIUM																					
BERYLLIUM																					
CADMIUM																					
CALCIUM									30.8												
CHROMIUM									31.3	(<2xCRDL)											
COBALT																					
COPPER																					
IRON				~~26.5~~					37.2												
LEAD									36.7												
MAGNESIUM																					
MANGANESE									118.9												
MERCURY																					
NICKEL																					
POTASSIUM																					
SELENIUM																					
SILVER																					
SODIUM																					
THALLIUM																					
TIN																					
VANADIUM																					
ZINC								74.0	34.1												
CYANIDE								56.2													

SOUTHWEST LABORATORY OF OKLAHOMA, INC.
1700 West Albany / Broken Arrow, Oklahoma 74012 / Office (918) 251-2858 / Fax (918) 251-2599

SDG NARRATIVE

RECEIVED
AUG 1 5 1995
US EPA CENTRAL REGIONAL LAB.
536 S. CLARK ST.
CHICAGO, ILLINOIS 60605

CONTRACT: 68-D3-0040 **DATE: 08/15/95**
CASE: 23855 **SOW NO.: ILM03.0**
SDG: MEHF83 **EPISODE NO.: 25096**

INORGANIC METAL FRACTION:

Four soil samples plus one dup and one spike were submitted for ICP, CN, and Hg analysis. The samples' analyses were completed according to SOW ILM03.0.

No major problems occurred during the digestion or analyses of these samples. The preparation blank failed for Pb and Fe in the first prep batch; therefore, the samples were reprepped and reanalyzed for those elements.

Initial and Continuing Calibration Checks: No problems.

Initial and Continuing Calibration Blanks: The following elements showed low level concentrations below the Contract Required Detection Limit in the Calibration Blanks: Pb, K, Al. No action required.

Linearity near the CRDL (CRA & CRI): No problems.

Preparation Blanks: The following elements showed low level concentrations below the Contract Required Detection Limit in the Preparation Blank: Pb, K. No action required.

Lab Control Spikes: No problems.

Matrix Spike: The following elements were outside the control limits of 75-125% recovery: Zn, Ca. All associated samples were flagged with a "N" on Form I's. No action required.

Duplicate: The following elements were outside the control limits of 0-20% RPD: Al, Ca, Cr, Fe, Pb, Mn, Zn. All associated samples were flagged with a "*" on Form I's. No action required.

Serial Dilution (ICP): No problems.

Sincerely,

Deborah Beree for...
Jason D. Ruckman
Inorganic Program Manager

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No: _____ CERCLIS No: ILD980677744

Case No: 23855 Site Name Location: Glenview Lutter Brick

Contractor or EPA Lab: SWOK Data User: E & E

No. of Samples: 4 Date Sampled or Data Received: 8-16-95

Have Chain-of-Custody records been received? Yes ✓ No____
Have traffic reports or packing lists been received? Yes ✓ No____
If no, are traffic report or packing list numbers written on the chain-of-custody record? Yes ____ No____
If no, which traffic report or packing list numbers are missing?

_____ _____ _____ _____

_____ _____ _____ _____

Are basic data forms in? Yes ✓ No____
No of samples claimed: 4 No. of samples received: 8

Received by: A. C. Harvey Date: 8-16-95

Received by LSSS: A. C. Harvey Date: 8-16-95

Review started: 8-21-95 Reviewer Signature: J. Redlin 8-21-95

Total time spent on review: 3.5 Date review completed: ~~3.5~~ JR 8/21/95

Copied by: Lynette Burnett Date: 8-28-95

Mailed to user by: Lynette Burnett Date: 8-28-95

DATA USER:
Please fill in the blanks below and return this form to:
Sylvia Griffen, Data mgmt. Coordinator, Region V, 5SCRL

Data received by: _____ Date: _____

Data review received by: _____ Date: _____

Inorganic Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK
Organic Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK
Dioxin Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK
SAS Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK

PROBLEMS: Please indicate reasons why data are not suitable for your uses.

_____

_____

Received by Data Mgmt. Coordinator for Files. Date: _____

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ORGANIC DATA QUALIFIER DEFINITIONS

For the purpose of defining the flagging nomenclature utinized in this document, the following code letters and associated definitions are provide:

VALUE-if the results is a value greater than or equal to the Contract Required Quantitation Limit (CRQL).

U Indicates that the compound was analyzed for, but not detected. The sample quantitation limit corrected for dilution and percent moisture is reported.

J Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of a compound but the result is less than the sample quantitation limit, but greater than zero. The flag is also used to indicate a reported result having an associated QC problem.

R Indicates the data are unusable. (Note: The analyte may or may not be present.)

N Indicates presumptive evidence of a compound. This flag is only used for a tentatively identified compound, where the identification is based on a mass spectral library search.

P Indicates a pesticide/Aroclor target analyte when there is greater than 25% difference for the detected concentrations between the two GC columns. The lower of the two results is reported.

C Indicates pesticide results that have been confirmed by GC/MS.

B Indicates the analyte is detected in the associated blank as well as the sample.

E Indicates compounds whose concentrations exceed the calibration range of the instrument.

D Indicates an identified compound in an analysis has been diluted. This flag alerts the data user to any differences between the concentrations reported in the two analysis.

A Indicates tentatively identified compounds that are suspected to be aldol condensation products.

G Indicates the TCLP Matrix Spike Recovery was greater than the upper limit of the analytical method.

L Indicates the TCLP Matrix Spike Recovery was less than the lower limit of the analytical method.

T Indicates the analyte is found in the associated TCLP extraction blank as well as in the sample.

X, Y, Z are reserved for laboratory defined flags.

ESAT-5-025.3

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TABLE 4

(For Multi-Media, Multi-Concentration Analysis)

VOLATILE INTERNAL STANDARDS WITH CORRESPONDING TCL ANALYTES ASSIGNED FOR QUANTITATION

Bromochloromethane	1,4-Difluorobenzene	Chlorobenzene-d_5
Chloromethane	Bromoform	2-Hexanone
Bromomethane	1,1,1-Trichloroethane	4-Methyl-2-pentanone
Vinyl chloride	Carbon tetrachloride	Tetrachloroethene
Chloroethane	Bromodichloromethane	1,1,2,2-Tetrachloroethane
Methylene chloride	1,2-Dichloropropane	Toluene
Acetone	trans-1,3-Dichloropropene	Chlorobenzene
Carbon disulfide	Trichloroethene	Ethylbenzene
1,1-Dichloroethene	Dibromochloromethane	Styrene
1,1-Dichloroethane	1,1,2-Trichloroethane	Xylene(total)
1,2-Dichloroethene(total)	Benzene	Bromofluorobenzene(surr,smc)
Chloroform	cis-1,3-Dichloropropene	Toluene-d_8(surr,smc)
1,2-Dichloroethane		
1,2-Dichloroethane-d_4(surr,smc)		
2-Butanone		

SEMIVOLATILE INTERNAL STANDARDS WITH CORRESPONDING TCL ANALYTES ASSIGNED FOR QUANTITATION

1,4-Dichlorobenzene-d_4	Naphthalene-d_8	Acenaphthene-d_{10}	Phenanthrene-d_{10}	Chrysene-d_{12}	Perylene-d_{12}
Phenol	Nitrobenzene	Hexachlorocyclopentadiene	4,6-Dinitro-2-methylphenol	Pyrene	Di-n-octyl phthalate
bis(2-chloroethyl)ether	Isophorone	2,4,6-Trichlorophenol	N-nitroso-di-phenylamine	butylbenzyl phthalate	Benzo(b)fluoranthene
2-Chlorophenol	2-Nitrophenol	2,4,5-Trichlorophenol	Carbazole	3,3'-Dichlorobenzidine	Benzo(k)fluoranthene
1,3-Dichlorobenzene	2,4-Dimethylphenol	2-Chloronaphthalene	4-Bromophenyl phenyl ether	Benzo(a)anthracene	Benzo(a)pyrene
1,4-Dichlorobenzene	Naphthalene	2-Nitroaniline	Hexachlorobenzene	bis(2-Ethylhexyl)phthalate	Indeno(1,2,3-cd)pyrene
2,2'-Oxybis-(1-chloropropane)	bis(2-Chloroethoxy)methane	Dimethylphthalate	Pentachlorophenol	Chrysene	Dibenzo(a,h)anthracene
1,2-Dichlorobenzene	2,4-Dichlorophenol	Acenaphthylene	Phenanthrene	Terphenyl-d_{14}(surr)	Benzo(g,h,i)perylene
2-Methylphenol	1,2,4-Trichlorobenzene	3-Nitroaniline	Anthracene		
bis(2-Chloroisopropyl)ether	4-Chloroaniline	Acenaphthene	Di-n-butyl phthalate		
4-Methylphenol	Hexachlorobutadiene	2,4-Dinitrophenol	Fluoranthene		
N-nitroso-di-n-propylamine	4-Chloro-3-methylphenol	4-Nitrophenol			
Hexachloroethane	2-Methylnaphthalene	Dibenzofuran			
2-Fluorophenol(surr)	Nitrobenzene-d_5(surr)	2,4-Dinitrotoluene			
Phenol-d_5(surr)		2,6-Dinitrotoluene			
2-Chlorobenzene-d_4(surr)		Diethyl phthalate			
1,2-Dichlorobenzene-d_4(surr)		4-Chlorophenyl phenyl ether			
		Fluorene			
		4-Nitroaniline			
		2-Fluorobiphenyl(surr)			
		2,4,6-Tribromophenol(surr)			

(surr) - surrogate
(smc) - system monitoring compound

EPA United States Environmental Protection Agency
Contract Laboratory Program

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

SAS No. (if applicable): N/A
Case No.: 23855

1. Matrix (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Field QC
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify in Column A)

2. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. NaHSO4
4. H2SO4
5. Ice only
6. Other (Specify in Column D)
N. Not preserved

2. Region No.: V
Sampling Co.: E&E TAT
4. Date Shipped: 8/1/95
Carrier: Fed Ex
6. Date Received -- Received by: 8/2/95 J Doeffinger

Sampler (Name): Cathy Sullivan
Airbill Number: 4805097076
Laboratory Contract Number: 68050011
Unit Price: 829

Sampler Signature: Cathy Sullivan
5. Ship To: IEANJ
628 Route 10
Whippany, NJ 07981
ATTN: Brian Wood
7. Transfer to:
Date Received:
Received by:
Contract Number:
Price:

3. Purpose*: Lead: [X] SF [ ] PRP [ ] ST [ ] FED
Early Action: [ ] CLEM [ ] PA [ ] REM [ ] RI [X] SI FSIP [ ] ESI
Long-Term Action: [ ] FS [ ] RD [ ] RA [ ] O&M [ ] NPLD

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other:	B Conc.: Low Med High	C Sample Type: Comp./Grab	D Preservative (from Box 2) Other:	E RAS Analysis: VOA	BNA	Pest/PCB	High only ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K High Phases: Solids	Water-Miscible Liq.	Water-Immis. Liq.
EAFL6	5	L	G	5	X	X	X		073547-49	S1	8/1/95 1145	MEHF 83	CS			
EAFL7	5	L	G	5	X	X	X		073551-53	S2	8/1/95 1115	MEHF 84	CS			
EAFL4	5	L	G	5	X	X	X		073555-57	S3	8/1/95 1030	MEHF 85	CS			
EAFL5	5	L	G	5	X	X	X		073559-61	S4	8/1/95 1030	MEHF 86	CS			

Shipment for Case Complete? (Y/N): Y
Page: 1 of 1
Sample(s) to be Used for Laboratory QC: EAFL7
Additional Sampler Signatures:
Chain of Custody Seal Number(s): 45692-93

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Cathy Sullivan	8/1/95 1315				

Received for Laboratory by: (Signature) [signature] Date / Time: 8/2/95 1000
Remarks: Is custody seal intact? Y/N/none

DISTRIBUTION: Blue - Region Copy; White - Lab Copy for Return to Region; Pink - SMO Copy; Yellow - Lab Copy for Return to SMO

EPA Form 9110-2

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
*SEE REVERSE FOR PURPOSE CODE DEFINITIONS

A21-012-4 REV 3/93

000005

360025

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RECEIVED
SEP 07 1995
US EPA CENTRAL REGIONAL LAB.
536 S. CLARK ST.
CHICAGO, ILLINOIS 60605

LABORATORY NAME: IEA, INC.-NJ
CASE NUMBER: 23855
SDG NUMBER: SDG# EAFL4
CONTRACT NUMBER: 68-D50011

EPA SAMPLE NO.	IEA, INC.-NJ SAMPLE NO.	FRACTION
53180001	EAFL6	VOA, BNA, P/PCB
53180001DL	EAFL6DL	P/PCB
53180001RE	EAFL6RE	P/PCB
53180001REDL	EAFL6REDL	P/PCB
53180002	EAFL7	VOA, BNA, P/PCB
53180002DL	EAFL7DL	P/PCB
53180002RE	EAFL7RE	P/PCB
53180003MS	EAFL7MS	VOA, BNA, P/PCB
53180004MSD	EAFL7MSD	VOA, BNA, P/PCB
53180005	EAFL4	VOA, BNA, P/PCB
53180005RE	EAFL4RE	P/PCB
53180005REMS	EAFL4REMS	P/PCB
53180005REMSD	EAFL4REMSD	P/PCB
53180006	EAFL5	VOA, BNA, P/PCB
53180006DL	EAFL5DL	BNA
53180006RE	EAFL5RE	P/PCB

ANALYTICAL PROBLEMS

CSF:

All original copies of data pertaining to Initial Calibration, Continuing Calibration, Tunes and Blanks for VOA, BNA and Pest/PCB fractions are on file in our office.

The originals are submitted for data pertaining to Blanks for Pest/PCB fraction if the Blank data is used for one SDG only.

VOLATILES

Following is a description of all GC column (Instruments MSA, MSE and MSF) phases and dimensions:

RTX-624 60 meters, 0.53mm ID, 3.0um df

Manual integration was performed in the initial calibration on the following compound in the data files:

Bromochloromethane	EE4524
Bromomethane	EE4530, EE4529, EE4527
Vinyl chloride	A2306
Chloroethane	EE4529, EE4527
2-Butanone	EE4532, EE4530
Carbon disulfide	A2303

Manual integration was performed in the continuing calibration on the following compounds in the data files:

Vinyl Chloride	A2426
Chloroethane	A2426

SEMIVOLATILES

Following is a description of all GC column (Instruments MSD and MSG) phases and dimensions:

DB-5. 625- 30 meters, 0.25mm ID, 0.50um df

Pyrene exceeded the calibration range in sample 53180001 (EAFL6). The sample was reanalyzed with a five-fold dilution. The results of both analyses are reported.

Manual integration was performed in the initial calibration on the following compound in the data files:

2,2'-Oxybis(1-Chloropropane)	D4545
2,4,6-Trichlorophenol	D4545, D4548, D4547, D4546
2,4,5-Trichlorophenol	D4549, D4545, D4548, D4547

Benzo[b]fluoranthene and Benzo[k]fluoranthene were manually integrated in samples 53180001 (EAFL6), 53180002 (EAFL7), 53180003MS (EAFL7MS), 53180005 (EAFL4).

Benzo[b]fluoranthene was manually integrated in sample 53180006 (EAFL5) and Benzo[k]fluoranthene in sample 53180001DL (EAFL6DL).

Alkanes were found in the following samples:

IEA, INC.-NJ SAMPLE NO.	EPA SAMPLE NO.	RETENTION TIME (min)	CONCENTRATION (UG/KG)
53180001	EAFL6	13.96	350
		15.54	280
		19.88	230
		14.42	220
		16.75	200
		29.99	130
53180001DL	EAFL6DL	13.97	460
		30.00	440
53180002	EAFL7	19.88	190
		29.55	180
		31.44	180

53180005	EAFL4	19.88	640
		13.98	290
		14.42	260
		31.43	240
		17.30	230
		27.89	230
		21.11	220
		16.75	220
		15.90	220
		21.04	210
		22.15	200
		23.22	200
		19.18	190
		15.54	190
		18.62	180
		24.23	180
		13.03	160
		29.55	120
53180006	EAFL5	19.19	1500
		15.88	1500
		16.76	1400
		19.88	1300
		15.57	1300
		16.63	1100
		15.40	1000
		13.99	970
		16.56	800
		13.37	710

PESTICIDES

Following is a description of all GC column phases and dimensions:

HP58904A DB-1701 30 meters, 0.53 mm ID, 1.0 um df
HP58904B DB-608 30 meters, 0.53 mm ID, 0.83 um df

All samples were originally extracted with the wrong surrogate spiking solution added (did not contain Dichlorobiphenyl). All samples were reextracted thirteen days outside of protocol holding time. For the reextracted batch, sample 53180005 (EAFL4) was selected as the matrix spike/matrix spike duplicate.

Sample Receival/Log In

No USEPA Temperature Indicator was received with the samples received under SDG#EAFL4.

The original Chain of Custody and Airbill have been submitted in the complete SDG File EAFL4 to Region V.

"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signatures."

Brian W. Wood

Brian Wood, Laboratory Manager

9/6/95

Date

IEA/NJ TELEPHONE RECORD LOG

Date of Call: 8/15/95 **Time:** 1:30 am/pm

Lab Contact: DYN Corp

Client Contact: Becky Boyer

Company:

Call Initiated By: IEA Lab Sherry Chaudhary. Client

Reference Project: Case 23855, SDG # EAFL4.

Summary of Issues: The work order for Case 23855, SDG # EAFL4 due to Pest/PCB fraction, could not be mailed on time (8/15/95). Hope Fully lab will mail the above mentioned work order on 8/17/

Summary of Resolution(s): Becky was not in her office. left a message.

IEA/NJ TELEPHONE RECORD LOG

Date of Call: 8/21/95 Time: 1:30 am/pm

Lab Contact: DYN Corp.

Client Contact: Becky Boyer

Company:

Call Initiated By: ✓ Lab Sherry Schaudhan Client

Reference Project: case 23855 & 23862

Summary of Issues: Due to the problem encountered in Pest/PCB fraction. Both case ~~could~~ not ~~be~~ mailed on due date. Lab in contact with Roger Nowakowski & waiting for Region's instruction.

Summary of Resolution(s):

Roger called on 8/22/95 & instructed Lab
Cases 23855 & 23862
SDG EAFL4 & EABL3
had to be extracted & re-analyzed.

To: Roger Nowakowski
CCS Coordinator

From: Sherry S. Choudhary
CLP Project Manager -IEANJ Lab.

RE: Cases 23855 and 23862
SDG#EAFL4 and EABL3
Region 5

IEANJ Lab. received 4 soil samples plus one set of MS/MSD for case 23855 on August 2, 1995.
IEANJ Lab. also received 16 soil samples plus 2 sets of MS/MSD on August 4 and 5, 1995, from Region 5.

In the process of Pest/PCBs extraction, inadvertently surrogates from SW846 protocol were added in place of CLP protocol. In SW846 Surrogates TCX and DBC not DCB is used and concentration is ten (10) times greater.

Samples are out of hold time for reextraction.

For the following samples and MS/MSD Lab. does not have enough sample amount.

Case 23855 SDG#EAFL4

EAFL7, EAFL7MS & EAFL7MSD

* For sample EAFL7 a medium level extraction is possible with 1-2 gram of sample.

* Sample EAFL5, enough amount for sample and MS/MSD (if MS/MSD selected on this sample).

Case 23862 SDG#EABL3

Not enough amount of samples for the following:

EABL3MS and EABL3MSD EABK3MS and EABK3MSD

* Lab has enough amount of sample, if MS/MSD is selected from the following samples.
EABK4, EABK5, EABK8, EABL1, EABL4, EABL7, EABL8 and EABL9.

Should the Lab. reextract all samples in above mentioned two cases and report both set of analyses.

For other samples Lab. has enough amount of samples to reextract.

Copies of Traffic Report for both cases were faxed.

* Suggestion for samples with not enough amount of sample.

IEA/NJ TELEPHONE RECORD LOG

Date of Call: 8/22/95 Time: 1:30 am/pm

Lab Contact: D/N Corp

Client Contact: Roger Nowakowski

Company:

Call Initiated By: Roger Lab Sherry Chambers Client

Reference Project: Cases 23855 and 23862
SDG FAFL4 and FABL3.

Summary of Issues: ~~1.5~~ Noted in faxed letter to Roger Nowakowski.

Summary of Resolution(s): Roger called on 8/22/95 and instructed lab with the following:-

1) Re extract all samples in cases 23855 and 23862

2) Lab ~~Sh~~ will select ~~the~~ MS/MSD

3) Reanalyze & submit data

4) For sample FAFL7, since lab did not have enough amount of sample, extraction will be done with 1-2 grams of sample.

IEA/NJ TELEPHONE RECORD LOG

Date of Call: 9/6/95 **Time:** 11:25 am/pm

Lab Contact: DYN Corp

Client Contact: Christine

Company: IEA NJ

Call Initiated By: DYN CORP Lab Christine Client

Reference Project: Cases 23855 23862 and 23863 & 23894

Summary of Issues: 1) Mailing of above cases to EPA.

Summary of Resolution(s): 1) Cases 23855 & 23862 are being mailed out on 9/8/95.

2) Case 23863 will be mailed on 9/8/95.

3) 23894 had been mailed 9/5/95

2A
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	VBLKE1	101	106	92		0
02	VHBLKE1	99	110	100		0
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
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17						
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22						
23						
24						
25						
26						
27						
28						
29						
30						

		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(88-110)
SMC2 (BFB)	= Bromofluorobenzene	(86-115)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of QC limits.

recycled paper
recycled paper

ecology and environment
ecology and environment

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ **Case No.:** 23855 SAS No.: _____ **SDG No.:** EAFL4

Level:(low/med) LOW

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	VBLKA1	100	88	94		0
02	EAFL6	101	83	94		0
03	EAFL7MS	104	82	94		0
04	EAFL7MSD	105	80	94		0
05	EAFL4	111	84	93		0
06	EAFL5	114	84	93		0
07	EAFL7	111	84	93		0
08						
09						
10						
11						
12						
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		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(84-138)
SMC2 (BFB)	= Bromofluorobenzene	(59-113)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of QC limits.

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix Spike - EPA Sample No.: EAFL7 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	69	0	57	83	59-172
Trichloroethene	69	0	71	103	62-137
Benzene	69	0	71	103	66-142
Toluene	69	0	76	110	59-139
Chlorobenzene	69	0	73	106	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
1,1-Dichloroethene	69	56	81	2	22	59-172
Trichloroethene	69	70	101	2	24	62-137
Benzene	69	71	103	0	21	66-142
Toluene	69	75	109	1	21	59-139
Chlorobenzene	69	73	106	0	21	60-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits.

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

recycled paper
recycled paper

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ecology and environment

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKA1

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Lab File ID: A2427 Lab Sample ID: 950807A

Date Analyzed: 08/07/95 Time Analyzed: 09:00

GC Column: RTX-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: MSA

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EAFL6	53180001	A2428	09:31
02	EAFL7MS	53180003MS	A2430	10:27
03	EAFL7MSD	53180004MSD	A2431	10:59
04	EAFL4	53180005	A2432	11:27
05	EAFL5	53180006	A2433	11:55
06	EAFL7	53180002	A2434	12:23
07				
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COMMENTS: _____

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKE1

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Lab File ID: >E4550 Lab Sample ID: 950808A

Date Analyzed: 08/08/95 Time Analyzed: 15:42

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: MSE

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VHBLKE1	VHBLKE1	>E4552	16:35
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
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30				

COMMENTS: _____

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recycled paper

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ecology and environment

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKA1

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: 950807A

Sample wt/vol: 5 (g/mL) g Lab File ID: A2427

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. 0 Date Analyzed: 08/07/95

GC Column: RTX-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene(total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLKA1

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: VBLKA1

Sample wt/vol: 5 (g/mL) g Lab File ID: A2427

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. 0 Date Analyzed: 08/07/95

GC Column: RTX-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs Found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKE1

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water) Water Lab Sample ID: 950808A

Sample wt/vol: 5 (g/mL) ml Lab File ID: >E4550

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 08/08/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene(total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKE1

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water) Water Lab Sample ID: VBLKE1

Sample wt/vol: 5 (g/mL) ml Lab File ID: >E4550

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 08/08/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs Found: 0

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL4

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: 53180005

Sample wt/vol: 5 (g/mL) g Lab File ID: A2432

Level: (low/med) LOW Date Received: 08/02/95

% Moisture: not dec. 27 Date Analyzed: 08/07/95

GC Column: RTX-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	14	U
67-64-1	Acetone	14	U
75-15-0	Carbon Disulfide	14	U
75-35-4	1,1-Dichloroethene	14	U
75-34-3	1,1-Dichloroethane	14	U
540-59-0	1,2-Dichloroethene(total)	14	U
67-66-3	Chloroform	14	U
107-06-2	1,2-Dichloroethane	14	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	14	U
56-23-5	Carbon Tetrachloride	14	U
75-27-4	Bromodichloromethane	14	U
78-87-5	1,2-Dichloropropane	14	U
10061-01-5	cis-1,3-Dichloropropene	14	U
79-01-6	Trichloroethene	14	U
124-48-1	Dibromochloromethane	14	U
79-00-5	1,1,2-Trichloroethane	14	U
71-43-2	Benzene	14	U
10061-02-6	Trans-1,3-Dichloropropene	14	U
75-25-2	Bromoform	14	U
108-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	14	U
108-88-3	Toluene	14	U
79-34-5	1,1,2,2-Tetrachloroethane	14	U
108-90-7	Chlorobenzene	14	U
100-41-4	Ethylbenzene	14	U
100-42-5	Styrene	14	U
1330-20-7	Total Xylenes	14	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EAFL4

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: 53180005

Sample wt/vol: 5 (g/mL) g Lab File ID: A2432

Level: (low/med) LOW Date Received: 08/02/95

% Moisture: not dec. 27 Date Analyzed: 08/07/95

GC Column: RTX-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs Found: 0

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL5

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: 53180006

Sample wt/vol: 5 (g/mL) g Lab File ID: A2433

Level: (low/med) LOW Date Received: 08/02/95

% Moisture: not dec. 19 Date Analyzed: 08/07/95

GC Column: RTX-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	12	U
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene(total	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	Trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
108-88-3	Toluene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Total Xylenes	12	U

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EAFL5

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: ____ SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: 53180006

Sample wt/vol: 5 (g/mL) g Lab File ID: A2433

Level: (low/med) LOW Date Received: 08/02/95

% Moisture: not dec. 19 Date Analyzed: 08/07/95

GC Column: RTX-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ____ (uL) Soil Aliquot Volume: ____ (uL)

Number TICs Found: 0

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL6

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: 53180001

Sample wt/vol: 5 (g/mL) g Lab File ID: A2428

Level: (low/med) LOW Date Received: 08/02/95

% Moisture: not dec. 22 Date Analyzed: 08/07/95

GC Column: RTX-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	13	U
67-64-1	Acetone	13	U
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	13	U
75-34-3	1,1-Dichloroethane	13	U
540-59-0	1,2-Dichloroethene (total)	13	U
67-66-3	Chloroform	13	U
107-06-2	1,2-Dichloroethane	13	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	13	U
56-23-5	Carbon Tetrachloride	13	U
75-27-4	Bromodichloromethane	13	U
78-87-5	1,2-Dichloropropane	13	U
10061-01-5	cis-1,3-Dichloropropene	13	U
79-01-6	Trichloroethene	13	U
124-48-1	Dibromochloromethane	13	U
79-00-5	1,1,2-Trichloroethane	13	U
71-43-2	Benzene	13	U
10061-02-6	Trans-1,3-Dichloropropene	13	U
75-25-2	Bromoform	13	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	13	U
108-88-3	Toluene	13	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
108-90-7	Chlorobenzene	13	U
100-41-4	Ethylbenzene	13	U
100-42-5	Styrene	13	U
1330-20-7	Total Xylenes	13	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EAFL6

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: 53180001

Sample wt/vol: 5 (g/mL) g Lab File ID: A2428

Level: (low/med) LOW Date Received: 08/02/95

% Moisture: not dec. 22 Date Analyzed: 08/07/95

GC Column: RTX-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs Found: 0

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL7

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: 53180002

Sample wt/vol: 5 (g/mL) g Lab File ID: A2434

Level: (low/med) LOW Date Received: 08/02/95

% Moisture: not dec. 28 Date Analyzed: 08/07/95

GC Column: RTX-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	14	U
67-64-1	Acetone	14	U
75-15-0	Carbon Disulfide	14	U
75-35-4	1,1-Dichloroethene	14	U
75-34-3	1,1-Dichloroethane	14	U
540-59-0	1,2-Dichloroethene(total)	14	U
67-66-3	Chloroform	14	U
107-06-2	1,2-Dichloroethane	14	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	14	U
56-23-5	Carbon Tetrachloride	14	U
75-27-4	Bromodichloromethane	14	U
78-87-5	1,2-Dichloropropane	14	U
10061-01-5	cis-1,3-Dichloropropene	14	U
79-01-6	Trichloroethene	14	U
124-48-1	Dibromochloromethane	14	U
79-00-5	1,1,2-Trichloroethane	14	U
71-43-2	Benzene	14	U
10061-02-6	Trans-1,3-Dichloropropene	14	U
75-25-2	Bromoform	14	U
108-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	14	U
108-88-3	Toluene	14	U
79-34-5	1,1,2,2-Tetrachloroethane	14	U
108-90-7	Chlorobenzene	14	U
100-41-4	Ethylbenzene	14	U
100-42-5	Styrene	14	U
1330-20-7	Total Xylenes	14	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EAFL7

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: 53180002

Sample wt/vol: 5 (g/mL) g Lab File ID: A2434

Level: (low/med) LOW Date Received: 08/02/95

% Moisture: not dec. 28 Date Analyzed: 08/07/95

GC Column: RTX-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs Found: 0

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01.				
02.				
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2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
01	SBLKD1	82	82	47	77	71	81	73	71	0
02	EAFL6	81	85	62	77	75	85	73	66	0
03	EAFL7	74	79	53	73	66	92	68	60	0
04	EAFL7MS	63	70	53	65	58	81	59	53	0
05	EAFL7MSD	63	69	55	61	55	78	56	49	0
06	EAFL4	68	77	50	71	68	87	67	57	0
07	EAFL5	88	83	54	74	71	92	71	66	0
08	EAFL6DL	76	90	48	85	76	81	84	74	0
09										
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		QC LIMITS	
S1 (NBZ)	= Nitrobenzene-d5	(23-120)	
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)	
S3 (TPH)	= Terphenyl-d14	(18-137)	
S4 (PHL)	= Phenol-d5	(24-113)	
S5 (2FP)	= 2-Fluorophenol	(25-121)	
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)	
S7 (2CP)	= 2-Chlorophenol-d4	(20-130)	(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(20-130)	(advisory)

Column to be used to flag recovery values
* Values outside of QC limits.
D System Monitoring Compound diluted out

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix Spike - EPA Sample No.: EAFL7 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Phenol	3500	0	2000	56	26-90
2-Chlorophenol	3500	0	1900	54	25-102
1,4-Dichlorobenzene	2300	0	1200	52	28-104
N-Nitroso-di-n-prop.(1)	2300	0	1400	61	41-126
1,2,4-Trichlorobenzene	2300	0	1500	65	38-107
4-Chloro-3-Methylphenol	3500	0	2400	68	26-103
Acenaphthene	2300	0	1600	70	31-137
4-Nitrophenol	3500	0	2600	74	11-114
2,4-Dinitrotoluene	2300	0	1800	78	28-89
Pentachlorophenol	3500	0	3200	91	17-109
Pyrene	2300	330	2000	73	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	3500	1900	53	6	35	26-90
2-Chlorophenol	3500	1900	54	0	50	25-102
1,4-Dichlorobenzene	2300	1100	48	8	27	28-104
N-Nitroso-di-n-prop.(1)	2300	1300	56	8	38	41-126
1,2,4-Trichlorobenzene	2300	1400	61	6	23	38-107
4-Chloro-3-Methylphenol	3500	2600	74	8	33	26-103
Acenaphthene	2300	1700	74	6	19	31-137
4-Nitrophenol	3500	2500	71	4	50	11-114
2,4-Dinitrotoluene	2300	1800	78	0	47	28-89
Pentachlorophenol	3500	3000	86	6	47	17-109
Pyrene	2300	2000	73	0	36	35-142

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits.
RPD: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits
COMMENTS: _____

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKD1

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Lab File ID: D4550 Lab Sample ID: SBLK1505

Instrument ID: MSD Date Extracted: 08/07/95

Matrix: (soil/water) Soil Date Analyzed: 08/09/95

Level: (low/med) low Time Analyzed: 15:10

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EAFL6	53180001	D4551	15:57
02	EAFL7	53180002	D4552	16:44
03	EAFL7MS	53180003MS	D4553	17:31
04	EAFL7MSD	53180004MSD	D4554	18:18
05	EAFL4	53180005	D4555	19:05
06	EAFL5	53180006	D4556	19:52
07	EAFL6DL	53180001DL	D4561	09:05
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COMMENTS: _____

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKD1

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: SBLK1505

Sample wt/vol: 30 (g/mL) g Lab File ID: D4550

Level: (low/med) LOW Date Received: _____

% Moisture: 0 decanted: (Y/N) N Date Extracted: 08/07/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 08/09/95

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
108-95-2	Phenol	330	U
111-44-4	Bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitrosodi-N-Propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	Bis(2-Chloroethoxy) Methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	830	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	830	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
99-09-2	3-Nitroaniline	830	U
83-32-9	Acenaphthene	330	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKD1

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: SBLK1505

Sample wt/vol: 30 (g/mL) g Lab File ID: D4550

Level: (low/med) LOW Date Received: _____

% Moisture: 0 decanted: (Y/N) N Date Extracted: 08/07/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 08/09/95

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NO.	COMPOUND		Q
51-28-5	2,4-Dinitrophenol	830	U
100-02-7	4-Nitrophenol	830	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-Phenyl Ether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	830	U
534-52-1	4,6-Dinitro-2-Methylphenol	830	U
86-30-6	N-Nitrosodiphenylamine	330	U
101-55-3	4-Bromophenyl-Phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	830	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-N-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(A)Anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	140	J
117-84-0	Di-N-Octylphthalate	330	U
205-99-2	Benzo(B)Fluoranthene	330	U
207-08-9	Benzo(K)Fluoranthene	330	U
50-32-8	Benzo(A)Pyrene	330	U
193-39-5	Indeno(1,2,3-Cd)Pyrene	330	U
53-70-3	Dibenz(A,H)Anthracene	330	U
191-24-2	Benzo(G,H,I)Perylene	330	U

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EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLKD1

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: SBLK1505

Sample wt/vol: 30 (g/mL) g Lab File ID: D4550

Level: (low/med) LOW Date Received:

% Moisture: 0 decanted: (Y/N) N Date Extracted: 08/07/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 08/09/95

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

Number TICs Found: 9

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01.	Aldol Condensation Product	5.97	9100	JA
02.	Unknown	5.41	1200	J
03.	Unknown	7.96	1200	J
04.	Unknown	9.42	640	J
05.	Unknown	6.32	450	J
06.	Unknown	7.54	400	J
07.	Unknown	4.21	230	J
08.	Unknown Acid	22.78	220	J
09.	Unknown Acid	24.83	70	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL4

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23355 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: 53180005

Sample wt/vol: 30 (g/mL) g Lab File ID: D4555

Level: (low/med) LOW Date Received: 08/02/95

% Moisture: 27 decanted: (Y/N) N Date Extracted: 08/07/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 08/09/95

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.52

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NO.	COMPOUND		Q
108-95-2	Phenol	450	U
111-44-4	Bis(2-Chloroethyl)Ether	450	U
95-57-8	2-Chlorophenol	450	U
541-73-1	1,3-Dichlorobenzene	450	U
106-46-7	1,4-Dichlorobenzene	450	U
95-50-1	1,2-Dichlorobenzene	450	U
95-48-7	2-Methylphenol	450	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	450	U
106-44-5	4-Methylphenol	450	U
621-64-7	N-Nitrosodi-N-Propylamine	450	U
67-72-1	Hexachloroethane	450	U
98-95-3	Nitrobenzene	450	U
78-59-1	Isophorone	450	U
88-75-5	2-Nitrophenol	450	U
105-67-9	2,4-Dimethylphenol	450	U
111-91-1	Bis(2-Chloroethoxy) Methane	450	U
120-83-2	2,4-Dichlorophenol	450	U
120-82-1	1,2,4-Trichlorobenzene	450	U
91-20-3	Naphthalene	450	U
106-47-8	4-Chloroaniline	450	U
87-68-3	Hexachlorobutadiene	450	U
59-50-7	4-Chloro-3-Methylphenol	450	U
91-57-6	2-Methylnaphthalene	450	U
77-47-4	Hexachlorocyclopentadiene	450	U
88-06-2	2,4,6-Trichlorophenol	450	U
95-95-4	2,4,5-Trichlorophenol	1100	U
91-58-7	2-Chloronaphthalene	450	U
88-74-4	2-Nitroaniline	1100	U
131-11-3	Dimethylphthalate	450	U
208-96-8	Acenaphthylene	450	U
606-20-2	2,6-Dinitrotoluene	450	U
99-09-2	3-Nitroaniline	1100	U
83-32-9	Acenaphthene	450	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL4

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: ____ SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: 53180005

Sample wt/vol: 30 (g/mL) g Lab File ID: D4555

Level: (low/med) LOW Date Received: 08/02/95

% Moisture: 27 decanted: (Y/N) N Date Extracted: 08/07/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 08/09/95

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.52

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NO.	COMPOUND		Q
51-28-5	2,4-Dinitrophenol	1100	U
100-02-7	4-Nitrophenol	1100	U
132-64-9	Dibenzofuran	450	U
121-14-2	2,4-Dinitrotoluene	450	U
84-66-2	Diethylphthalate	450	U
7005-72-3	4-Chlorophenyl-Phenyl Ether	450	U
86-73-7	Fluorene	450	U
100-01-6	4-Nitroaniline	1100	U
534-52-1	4,6-Dinitro-2-Methylphenol	1100	U
86-30-6	N-Nitrosodiphenylamine	450	U
101-55-3	4-Bromophenyl-Phenylether	450	U
118-74-1	Hexachlorobenzene	450	U
87-86-5	Pentachlorophenol	1100	U
85-01-8	Phenanthrene	160	J
120-12-7	Anthracene	450	U
86-74-8	Carbazole	450	U
84-74-2	Di-N-Butylphthalate	450	U
206-44-0	Fluoranthene	280	J
129-00-0	Pyrene	250	J
85-68-7	Butylbenzylphthalate	450	U
91-94-1	3,3'-Dichlorobenzidine	450	U
56-55-3	Benzo(A)Anthracene	120	J
218-01-9	Chrysene	130	J
117-81-7	Bis(2-Ethylhexyl)Phthalate	450 ~~200~~	JBu
117-84-0	Di-N-Octylphthalate	450	U
205-99-2	Benzo(B)Fluoranthene	180	J
207-08-9	Benzo(K)Fluoranthene	47	J
50-32-8	Benzo(A)Pyrene	97	J
193-39-5	Indeno(1,2,3-Cd)Pyrene	450	U
53-70-3	Dibenz(A,H)Anthracene	450	U
191-24-2	Benzo(G,H,I)Perylene	450	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL4

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: 53180005

Sample wt/vol: 30 (g/mL) g Lab File ID: D4555

Level: (low/med) LOW Date Received: 08/02/95

% Moisture: 27 decanted: (Y/N) N Date Extracted: 08/07/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 08/09/95

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.52

Number TICs Found: 12

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01.	Aldol Condensation Product	5.99	11000	JAB µ
02.	Unknown	7.98	1600	JB µ
03.	Unknown	5.41	1500	JB µ
04.	Unknown	9.42	920	JB µ
05.	Unknown Acid	22.80	760	JB µ
06.	Unknown	7.54	520	JB µ
07.	Unknown	6.32	430	JB µ
08.	Unknown Acid	24.84	210	JB µ
09.	Unknown	18.52	200	J
10.	Unknown	24.76	170	J
11.	Unknown Cycloalkane	13.36	160	J
12.	Unknown	15.13	150	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL5

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: 53180006

Sample wt/vol: 30 (g/mL) g Lab File ID: D4556

Level: (low/med) LOW Date Received: 08/02/95

% Moisture: 19 decanted: (Y/N) N Date Extracted: 08/07/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 08/09/95

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
108-95-2	Phenol	410	U
111-44-4	Bis(2-Chloroethyl)Ether	410	U
95-57-8	2-Chlorophenol	410	U
541-73-1	1,3-Dichlorobenzene	410	U
106-46-7	1,4-Dichlorobenzene	410	U
95-50-1	1,2-Dichlorobenzene	410	U
95-48-7	2-Methylphenol	410	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	410	U
106-44-5	4-Methylphenol	410	U
621-64-7	N-Nitrosodi-N-Propylamine	410	U
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
111-91-1	Bis(2-Chloroethoxy) Methane	410	U
120-83-2	2,4-Dichlorophenol	410	U
120-82-1	1,2,4-Trichlorobenzene	410	U
91-20-3	Naphthalene	410	U
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
59-50-7	4-Chloro-3-Methylphenol	410	U
91-57-6	2-Methylnaphthalene	410	U
77-47-4	Hexachlorocyclopentadiene	410	U
88-06-2	2,4,6-Trichlorophenol	410	U
95-95-4	2,4,5-Trichlorophenol	1000	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	1000	U
131-11-3	Dimethylphthalate	410	U
208-96-8	Acenaphthylene	410	U
606-20-2	2,6-Dinitrotoluene	410	U
99-09-2	3-Nitroaniline	1000	U
83-32-9	Acenaphthene	410	U

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EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EAFL5

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: 53180006

Sample wt/vol: 30 (g/mL) g Lab File ID: D4556

Level: (low/med) LOW Date Received: 08/02/95

% Moisture: 19 decanted: (Y/N) N Date Extracted: 08/07/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 08/09/95

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.7

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NO.	COMPOUND			Q
51-28-5	2,4-Dinitrophenol		1000	U
100-02-7	4-Nitrophenol		1000	U
132-64-9	Dibenzofuran		410	U
121-14-2	2,4-Dinitrotoluene		410	U
84-66-2	Diethylphthalate		410	U
7005-72-3	4-Chlorophenyl-Phenyl Ether		410	U
86-73-7	Fluorene		410	U
100-01-6	4-Nitroaniline		1000	U
534-52-1	4,6-Dinitro-2-Methylphenol		1000	U
86-30-6	N-Nitrosodiphenylamine		410	U
101-55-3	4-Bromophenyl-Phenylether		410	U
118-74-1	Hexachlorobenzene		410	U
87-86-5	Pentachlorophenol		1000	U
85-01-8	Phenanthrene		65	J
120-12-7	Anthracene		410	U
86-74-8	Carbazole		410	U
84-74-2	Di-N-Butylphthalate		410	U
206-44-0	Fluoranthene		110	J
129-00-0	Pyrene		110	J
85-68-7	Butylbenzylphthalate		410	U
91-94-1	3,3'-Dichlorobenzidine		410	U
56-55-3	Benzo(A)Anthracene		44	J
218-01-9	Chrysene		54	J
117-81-7	Bis(2-Ethylhexyl)Phthalate	410	180	JB
117-84-0	Di-N-Octylphthalate		410	U
205-99-2	Benzo(B)Fluoranthene		66	J
207-08-9	Benzo(K)Fluoranthene		410	U
50-32-8	Benzo(A)Pyrene		410	U
193-39-5	Indeno(1,2,3-Cd)Pyrene		410	U
53-70-3	Dibenz(A,H)Anthracene		410	U
191-24-2	Benzo(G,H,I)Perylene		410	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL5

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: 53180006

Sample wt/vol: 30 (g/mL) g Lab File ID: D4556

Level: (low/med) LOW Date Received: 08/02/95

% Moisture: 19 decanted: (Y/N) N Date Extracted: 08/07/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 08/09/95

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.7

Number TICs Found: 8

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01.	Aldol Condensation Product	5.99	8200	JAB M
02.	Unknown	7.98	1200	JB M
03.	Unknown	5.41	1100	JB M
04.	Unknown Alkene	14.25	860	J
05.	Unknown	9.42	790	JB M
06.	Unknown Alcohol	18.14	740	J
07.	Unknown Alkene	12.21	230	J
08.	Unknown	11.88	180	J
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EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EAFL6

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: 53180001

Sample wt/vol: 30 (g/mL) g Lab File ID: D4551

Level: (low/med) LOW Date Received: 08/02/95

% Moisture: 22 decanted: (Y/N) N Date Extracted: 08/07/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 08/09/95

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.97

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NO.	COMPOUND		Q
108-95-2	Phenol	420	U
111-44-4	Bis(2-Chloroethyl)Ether	420	U
95-57-8	2-Chlorophenol	420	U
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	420	U
95-50-1	1,2-Dichlorobenzene	420	U
95-48-7	2-Methylphenol	420	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	420	U
106-44-5	4-Methylphenol	420	U
621-64-7	N-Nitrosodi-N-Propylamine	420	U
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
111-91-1	Bis(2-Chloroethoxy) Methane	420	U
120-83-2	2,4-Dichlorophenol	420	U
120-82-1	1,2,4-Trichlorobenzene	420	U
91-20-3	Naphthalene	58	J
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-Methylphenol	420	U
91-57-6	2-Methylnaphthalene	420	U
77-47-4	Hexachlorocyclopentadiene	420	U
88-06-2	2,4,6-Trichlorophenol	420	U
95-95-4	2,4,5-Trichlorophenol	1100	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	1100	U
131-11-3	Dimethylphthalate	420	U
208-96-8	Acenaphthylene	420	U
606-20-2	2,6-Dinitrotoluene	420	U
99-09-2	3-Nitroaniline	1100	U
83-32-9	Acenaphthene	190	J

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EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EAFL6

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: 53180001

Sample wt/vol: 30 (g/mL) g Lab File ID: D4551

Level: (low/med) LOW Date Received: 08/02/95

% Moisture: 22 decanted: (Y/N) N Date Extracted: 08/07/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 08/09/95

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.97

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NO.	COMPOUND		Q
51-28-5	2,4-Dinitrophenol	1100	U
100-02-7	4-Nitrophenol	1100	U
132-64-9	Dibenzofuran	100	J
121-14-2	2,4-Dinitrotoluene	420	U
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenyl-Phenyl Ether	420	U
86-73-7	Fluorene	180	J
100-01-6	4-Nitroaniline	1100	U
534-52-1	4,6-Dinitro-2-Methylphenol	1100	U
86-30-6	N-Nitrosodiphenylamine	420	U
101-55-3	4-Bromophenyl-Phenylether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	1100	U
85-01-8	Phenanthrene	1800	
120-12-7	Anthracene	370	J
86-74-8	Carbazole	230	J
84-74-2	Di-N-Butylphthalate	52	J
206-44-0	Fluoranthene	2900	
129-00-0	Pyrene	3700	E
85-68-7	Butylbenzylphthalate	51	J
91-94-1	3,3'-Dichlorobenzidine	420	U
56-55-3	Benzo(A)Anthracene	1700	
218-01-9	Chrysene	1700	
117-81-7	Bis(2-Ethylhexyl)Phthalate	930	B u
117-84-0	Di-N-Octylphthalate	420	U
205-99-2	Benzo(B)Fluoranthene	2700	
207-08-9	Benzo(K)Fluoranthene	950	
50-32-8	Benzo(A)Pyrene	1600	
193-39-5	Indeno(1,2,3-Cd)Pyrene	670	
53-70-3	Dibenz(A,H)Anthracene	190	J
191-24-2	Benzo(G,H,I)Perylene	730	

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EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EAFL6

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: 53180001

Sample wt/vol: 30 (g/mL) g Lab File ID: D4551

Level: (low/med) LOW Date Received: 08/02/95

% Moisture: 22 decanted: (Y/N) N Date Extracted: 08/07/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 08/09/95

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.97

Number TICs Found: 20

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01.	Aldol Condensation Product	5.98	11000	JAB
02.	Unknown PAH	32.00	2000	J
03.	Unknown	5.39	1600	JB
04.	Unknown	7.96	1500	JB
05.	Unknown	9.40	920	JB
06.	Unknown Acid	22.79	660	JB
07.	Unknown	7.52	530	JB
08.	Unknown	6.30	410	JB
09.	Unknown Aromatic	22.92	350	J
10.	Unknown	4.72	290	J
11.	Unknown Aromatic	10.60	280	J
12.	Unknown Aromatic	23.47	270	J
13.	Unknown Aromatic	21.02	170	J
14.	Unknown PAH	22.62	170	J
15.	Unknown	15.12	150	J
16.	Unknown	18.53	150	J
17.	Unknown Aromatic	26.24	130	J
18.	Unknown PAH	25.96	120	J
19.	Unknown Acid	24.84	110	J
20.	Unknown PAH	25.13	100	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL6DL

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: 53180001DL

Sample wt/vol: 30 (g/mL) g Lab File ID: D4561

Level: (low/med) LOW Date Received: 08/02/95

% Moisture: 22 decanted: (Y/N) N Date Extracted: 08/07/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 08/10/95

Injection Volume: 2 (uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) Y pH: 8.97

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NO.	COMPOUND		Q
108-95-2	Phenol	2100	U
111-44-4	Bis(2-Chloroethyl)Ether	2100	U
95-57-8	2-Chlorophenol	2100	U
541-73-1	1,3-Dichlorobenzene	2100	U
106-46-7	1,4-Dichlorobenzene	2100	U
95-50-1	1,2-Dichlorobenzene	2100	U
95-48-7	2-Methylphenol	2100	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	2100	U
106-44-5	4-Methylphenol	2100	U
621-64-7	N-Nitrosodi-N-Propylamine	2100	U
67-72-1	Hexachloroethane	2100	U
98-95-3	Nitrobenzene	2100	U
78-59-1	Isophorone	2100	U
88-75-5	2-Nitrophenol	2100	U
105-67-9	2,4-Dimethylphenol	2100	U
111-91-1	Bis(2-Chloroethoxy) Methane	2100	U
120-83-2	2,4-Dichlorophenol	2100	U
120-82-1	1,2,4-Trichlorobenzene	2100	U
91-20-3	Naphthalene	2100	U
106-47-8	4-Chloroaniline	2100	U
87-68-3	Hexachlorobutadiene	2100	U
59-50-7	4-Chloro-3-Methylphenol	2100	U
91-57-6	2-Methylnaphthalene	2100	U
77-47-4	Hexachlorocyclopentadiene	2100	U
88-06-2	2,4,6-Trichlorophenol	2100	U
95-95-4	2,4,5-Trichlorophenol	5300	U
91-58-7	2-Chloronaphthalene	2100	U
88-74-4	2-Nitroaniline	5300	U
131-11-3	Dimethylphthalate	2100	U
208-96-8	Acenaphthylene	2100	U
606-20-2	2,6-Dinitrotoluene	2100	U
99-09-2	3-Nitroaniline	5300	U
83-32-9	Acenaphthene	2100	U

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EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EAFL6DL

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: 53180001DL

Sample wt/vol: 30 (g/mL) g Lab File ID: D4561

Level: (low/med) LOW Date Received: 08/02/95

% Moisture: 22 decanted: (Y/N) N Date Extracted: 08/07/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 08/10/95

Injection Volume: 2 (uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) Y pH: 8.97

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NO.	COMPOUND			Q
51-28-5	2,4-Dinitrophenol		5300	U
100-02-7	4-Nitrophenol		5300	U
132-64-9	Dibenzofuran		2100	U
121-14-2	2,4-Dinitrotoluene		2100	U
84-66-2	Diethylphthalate		2100	U
7005-72-3	4-Chlorophenyl-Phenyl Ether		2100	U
86-73-7	Fluorene		2100	U
100-01-6	4-Nitroaniline		5300	U
534-52-1	4,6-Dinitro-2-Methylphenol		5300	U
86-30-6	N-Nitrosodiphenylamine		2100	U
101-55-3	4-Bromophenyl-Phenylether		2100	U
118-74-1	Hexachlorobenzene		2100	U
87-86-5	Pentachlorophenol		5300	U
85-01-8	Phenanthrene		1900	JD
120-12-7	Anthracene		370	JD
86-74-8	Carbazole		220	JD
84-74-2	Di-N-Butylphthalate		2100	U
206-44-0	Fluoranthene		4100	D
129-00-0	Pyrene		3400	D
85-68-7	Butylbenzylphthalate		2100	U
91-94-1	3,3'-Dichlorobenzidine		2100	U
56-55-3	Benzo(A)Anthracene		1700	JD
218-01-9	Chrysene		1600	JD
117-81-7	Bis(2-Ethylhexyl) Phthalate	2100	~~1000~~	JBD M
117-84-0	Di-N-Octylphthalate		2100	U
205-99-2	Benzo(B)Fluoranthene		2000	JD
207-08-9	Benzo(K)Fluoranthene		630	JD
50-32-8	Benzo(A)Pyrene		1300	JD
193-39-5	Indeno(1,2,3-Cd)Pyrene		630	JD
53-70-3	Dibenz(A,H)Anthracene		2100	U
191-24-2	Benzo(G,H,I)Perylene		570	JD

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL6DL

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: 53180001

Sample wt/vol: 30 (g/mL) g Lab File ID: D4561

Level: (low/med) LOW Date Received: 08/02/95

% Moisture: 22 decanted: (Y/N) N Date Extracted: 08/07/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 08/10/95

Injection Volume: 2 (uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) Y pH: 8.97

Number TICs Found: 8

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01.	Aldol Condensation Product	5.94	16000	JAB u
02.	Unknown	5.41	2000	JB u
03.	Unknown	7.92	1800	JB u
04.	Unknown PAH	31.99	1300	J
05.	Unknown	9.40	930	JB u
06.	Unknown	7.54	570	JB u
07.	Unknown	6.32	470	JB u
08.	Unknown Acid	22.78	430	JB u
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EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EAFL7

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: 53180002

Sample wt/vol: 30 (g/mL) g Lab File ID: D4552

Level: (low/med) LOW Date Received: 08/02/95

% Moisture: 28 decanted: (Y/N) N Date Extracted: 08/07/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 08/09/95

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.04

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NO.	COMPOUND		Q
108-95-2	Phenol	460	U
111-44-4	Bis(2-Chloroethyl)Ether	460	U
95-57-8	2-Chlorophenol	460	U
541-73-1	1,3-Dichlorobenzene	460	U
106-46-7	1,4-Dichlorobenzene	460	U
95-50-1	1,2-Dichlorobenzene	460	U
95-48-7	2-Methylphenol	460	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	460	U
106-44-5	4-Methylphenol	460	U
621-64-7	N-Nitrosodi-N-Propylamine	460	U
67-72-1	Hexachloroethane	460	U
98-95-3	Nitrobenzene	460	U
78-59-1	Isophorone	460	U
88-75-5	2-Nitrophenol	460	U
105-67-9	2,4-Dimethylphenol	460	U
111-91-1	Bis(2-Chloroethoxy) Methane	460	U
120-83-2	2,4-Dichlorophenol	460	U
120-82-1	1,2,4-Trichlorobenzene	460	U
91-20-3	Naphthalene	460	U
106-47-8	4-Chloroaniline	460	U
87-68-3	Hexachlorobutadiene	460	U
59-50-7	4-Chloro-3-Methylphenol	460	U
91-57-6	2-Methylnaphthalene	460	U
77-47-4	Hexachlorocyclopentadiene	460	U
88-06-2	2,4,6-Trichlorophenol	460	U
95-95-4	2,4,5-Trichlorophenol	1200	U
91-58-7	2-Chloronaphthalene	460	U
88-74-4	2-Nitroaniline	1200	U
131-11-3	Dimethylphthalate	460	U
208-96-8	Acenaphthylene	460	U
606-20-2	2,6-Dinitrotoluene	460	U
99-09-2	3-Nitroaniline	1200	U
83-32-9	Acenaphthene	460	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL7

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: 53180002

Sample wt/vol: 30 (g/mL) g Lab File ID: D4552

Level: (low/med) LOW Date Received: 08/02/95

% Moisture: 28 decanted: (Y/N) N Date Extracted: 08/07/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 08/09/95

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.04

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
51-28-5	2,4-Dinitrophenol	1200	U
100-02-7	4-Nitrophenol	1200	U
132-64-9	Dibenzofuran	460	U
121-14-2	2,4-Dinitrotoluene	460	U
84-66-2	Diethylphthalate	460	U
7005-72-3	4-Chlorophenyl-Phenyl Ether	460	U
86-73-7	Fluorene	460	U
100-01-6	4-Nitroaniline	1200	U
534-52-1	4,6-Dinitro-2-Methylphenol	1200	U
86-30-6	N-Nitrosodiphenylamine	460	U
101-55-3	4-Bromophenyl-Phenylether	460	U
118-74-1	Hexachlorobenzene	460	U
87-86-5	Pentachlorophenol	1200	U
85-01-8	Phenanthrene	190	J
120-12-7	Anthracene	460	U
86-74-8	Carbazole	460	U
84-74-2	Di-N-Butylphthalate	460	U
206-44-0	Fluoranthene	400	J
129-00-0	Pyrene	330	J
85-68-7	Butylbenzylphthalate	460	U
91-94-1	3,3'-Dichlorobenzidine	460	U
56-55-3	Benzo(A)Anthracene	140	J
218-01-9	Chrysene	160	J
117-81-7	Bis(2-Ethylhexyl)Phthalate	460 ~~370~~	JBu
117-84-0	Di-N-Octylphthalate	460	U
205-99-2	Benzo(B)Fluoranthene	220	J
207-08-9	Benzo(K)Fluoranthene	62	J
50-32-8	Benzo(A)Pyrene	120	J
193-39-5	Indeno(1,2,3-Cd)Pyrene	58	J
53-70-3	Dibenz(A,H)Anthracene	460	U
191-24-2	Benzo(G,H,I)Perylene	96	J

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL7

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water) Soil Lab Sample ID: 53180002

Sample wt/vol: 30 (g/mL) g Lab File ID: D4552

Level: (low/med) LOW Date Received: 08/02/95

% Moisture: 28 decanted: (Y/N) N Date Extracted: 08/07/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 08/09/95

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.04

Number TICs Found: 14

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01.	Aldol Condensation Product	5.99	11000	JAB µ
02.	Unknown	7.98	1600	JB µ
03.	Unknown	5.41	1600	JB µ
04.	Unknown	9.42	940	JB µ
05.	Unknown Acid	22.79	600	JB µ
06.	Unknown	7.54	540	JB µ
07.	Unknown	6.32	500	JB µ
08.	Unknown	4.97	230	J
09.	Unknown	4.75	230	J
10.	Unknown Aromatic	24.33	210	J
11.	Unknown Acid	18.53	180	J
12.	Unknown Acid	24.84	160	JB µ
13.	Tetramethylbutyl isomer	18.82	150	J
14.	Unknown	27.88	120	J
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SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

GC Column(1): DB-608 ID: 0.53 (mm) GC Column(2): DB-1701 ID: 0.53 (mm)

	EPA SAMPLE NO.	TCX 1 %REC	#	TCX 2 %REC	#	DCB 1 %REC	#	DCB 2 %REC	#	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK19	67		74		ND	D	ND	D			0
02	EAFL7DL	67		78		ND	8*	ND	2*			0 2
03	EAFL7MS	78		83		ND	2*	ND	4*			0 2
04	EAFL7MSD	72		78		ND	19*	ND	2*			0 2
05	EAFL4	67		72		ND	2*	ND	D			0 1
06	EAFL5	60		41		ND	6*	ND	D			0 1
07	EAFL7	72		78		ND	8*	ND	2*			0 2
08	EAFL6DL	70		76		ND	6*	ND	D			0 1
09	EAFL6	70		38		70		9*				0 1
10	EAFL4RE	56		56		52		48				0
11	EAFL5RE	59		62		50		49				0
12	EAFL4REMS	67		67		53		50				0
13	EAFL4REMSD	61		61		50		50				0
14	EAFL6REDL	59		65		88		42				0
15	EAFL7RE	67		72		56		54				0
16	EAFL6RE	70		76		88		50				0
17												
18												
19												
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22												
23												
24												
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QC LIMITS

TCX = Tetrachloro-m-xylene (30-150)
DCB = Decachlorobiphenyl (30-150)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
ND - NON-DETECTABLE (not added to the sample).

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FORM II PEST-1

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3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ **SDG No.:** EAFL4

Matrix Spike - EPA Sample No.: EAFL7

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
gamma-BHC (Lindane)	23	0.0	20	87	46-127
Heptachlor	23	0.0	20	87	35-130
Aldrin	23	0.0	18	78	34-132
Dieldrin	46	0.0	40	87	31-134
Endrin	46	0.0	41	89	42-139
4,4'-DDT	46	12	97	185 *	23-134

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	23	21	91	4	50	46-127
Heptachlor	23	19	83	5	31	35-130
Aldrin	23	16	70	11	43	34-132
Dieldrin	46	44	96	10	38	31-134
Endrin	46	41	89	0	45	42-139
4,4'-DDT	46	51	85	74 *	50	23-134

 # Column to be used to flag recovery and RPD values with an asterisk

*** Values outside of QC limits**

RPD: 1 out of 6 outside limits
Spike Recovery: 1 out of 12 outside limits

COMMENTS: _____

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SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix Spike - EPA Sample No.: EAFL4RE

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
gamma-BHC (Lindane)	23	0.0	17	74	46-127
Heptachlor	23	0.0	18	78	35-130
Aldrin	23	0.0	16	70	34-132
Dieldrin	46	0.0	35	76	31-134
Endrin	46	0.0	38	83	42-139
4,4'-DDT	46	4.0	48	96	23-134

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	23	17	74	0	50	46-127
Heptachlor	23	17	74	5	31	35-130
Aldrin	23	15	65	7	43	34-132
Dieldrin	46	32	70	8	38	31-134
Endrin	46	35	76	9	45	42-139
4,4'-DDT	46	43	85	12	50	23-134

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: out of 6 outside limits
Spike Recovery: 1 out of 12 outside limits

COMMENTS: _____

FORM III PEST-2

OLM03.0

4C

EPA SAMPLE NO.

PESTICIDE METHOD BLANK SUMMARY

PBLK19

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Lab sample ID: PBLK19WG1595 Lab File ID: D4B77C_058

Matrix: (soil/water) SOIL Extraction: (SepF/Cont/Sonc) SONC

Sulfur Cleanup: (Y/N) Y Date Extracted: 08/10/95

Date Analyzed (1): 08/27/95 Date Analyzed (2): 08/27/95

Time Analyzed (1): 1826 Time Analyzed (2): 1916

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column (1): DB-608 ID: 0.53 (mm) GC Column (2): DB-1701 ID: 0.53 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EAFL7DL	53180002DL	08/27/95	08/27/95
02	EAFL7MS	53180003MS	08/27/95	08/27/95
03	EAFL7MSD	53180004MSD	08/27/95	08/27/95
04	EAFL4	53180005	08/27/95	08/27/95
05	EAFL5	53180006	08/27/95	08/27/95
06	EAFL7	53180002	08/27/95	08/28/95
07	EAFL6DL	53180001DL	08/28/95	08/28/95
08	EAFL6	53180001	08/28/95	08/28/95
09				
10				
11				
12				
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COMMENTS: _____

FORM IV PEST

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK20

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Lab sample ID: PBLK20WG1739 Lab File ID: D4B77E_011

Matrix: (soil/water) _____ Extraction: (SepF/Cont/Sonc) SONC

Sulfur Cleanup: (Y/N) Y Date Extracted: 08/25/95

Date Analyzed (1): 08/30/95 Date Analyzed (2): 08/30/95

Time Analyzed (1): 1957 Time Analyzed (2): 2048

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column (1): DB-608 ID: 0.53 (mm) GC Column (2): DB-1701 ID: 0.53 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EAFL4RE	53180005RE	08/30/95	08/30/95
02	EAFL5RE	53180006RE	08/30/95	08/30/95
03	EAFL4REMS	53180005REMS	08/30/95	08/30/95
04	EAFL4REMSD	53180005REMSD	08/30/95	08/31/95
05	EAFL6REDL	53180001REDL	08/31/95	08/31/95
06	EAFL7RE	53180002RE	08/31/95	08/31/95
07	EAFL6RE	53180001RE	08/31/95	08/31/95
08				
09				
10				
11				
12				
13				
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26				

COMMENTS: _____

FORM IV PEST

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK19

Lab Name: IEA-NJ Contract: 68D20022

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water): SOIL Lab Sample ID: PBLK19WG1595

Sample wt/vol: 30 (g/ml) g Lab File ID: D4B77C_058

Moisture: 0 decanted: __ Date Received: _____

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 08/10/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/27/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: ____ Sulfur Cleanup: Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.7	U
319-85-7	Beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor Epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.3	U
72-55-9	4,4'-DDE	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan Sulfate	3.3	U
50-29-3	4,4'-DDT	3.3	U
72-43-5	Methoxychlor	17	U
5[illegible]-5	Endrin Ketone	3.3	U
7[illegible]3-4	Endrin Aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	67	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK20

Lab Name: IEA-NJ Contract: 68D20022

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water): _____ Lab Sample ID: PBLK20WG1739

Sample wt/vol: 30 (g/ml) g Lab File ID: D4B77E_011

Moisture: _____ decanted: __ Date Received: _____

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 08/25/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/30/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____ Sulfur Cleanup: Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) (ug/L	Q
319-84-6	alpha-BHC	1.7	U
319-85-7	Beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor Epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.3	U
72-55-9	4,4'-DDE	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan Sulfate	3.3	U
50-29-3	4,4'-DDT	3.3	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin Ketone	3.3	U
7421-93-4	Endrin Aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	67	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U

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EPA SAMPLE NO.

EAFL4

Lab Name: IEA-NJ Contract: 68D20022

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water): SOIL Lab Sample ID: 53180005

Sample wt/vol: 30 (g/ml) g Lab File ID: D4B77C 062

Moisture: 27 decanted: N Date Received: 08/02/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 08/10/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/27/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.5 Sulfur Cleanup: Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.3	U
319-85-7	Beta-BHC	2.3	U
319-86-8	delta-BHC	2.3	U
58-89-9	gamma-BHC (Lindane)	2.3	U
76-44-8	Heptachlor	2.3	U
309-00-2	Aldrin	2.3	U
1024-57-3	Heptachlor Epoxide	2.3	U
959-98-8	Endosulfan I	2.3	U
60-57-1	Dieldrin	4.5	U
72-55-9	4,4'-DDE	4.9	P
72-20-8	Endrin	4.5	U
33213-65-9	Endosulfan II	4.5	U
72-54-8	4,4'-DDD	5.6	P
1031-07-8	Endosulfan Sulfate	4.5	U
50-29-3	4,4'-DDT	6.2	
72-43-5	Methoxychlor	23	U
53494-70-5	Endrin Ketone	4.5	U
7421-93-4	Endrin Aldehyde	4.5	U
5103-71-9	alpha-Chlordane	2.3	U
5103-74-2	gamma-Chlordane	2.3	U
8001-35-2	Toxaphene	230	U
12674-11-2	Aroclor-1016	45	U
11104-28-2	Aroclor-1221	92	U
11141-16-5	Aroclor-1232	45	U
53469-21-9	Aroclor-1242	45	U
12672-29-6	Aroclor-1248	45	U
11097-69-1	Aroclor-1254	45	U
11096-82-5	Aroclor-1260	45	U

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EPA SAMPLE NO.
EAFL4RE

Lab Name: IEA-NJ Contract: 68D20022

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water): SOIL Lab Sample ID: 53180005RE

Sample wt/vol: 30 (g/ml) g Lab File ID: D4B77E_012

Moisture: 27 decanted: N Date Received: 08/02/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 08/25/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/30/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.5 Sulfur Cleanup: Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.3	U
319-85-7	Beta-BHC	2.3	U
319-86-8	delta-BHC	2.3	U
58-89-9	gamma-BHC (Lindane)	2.3	U
76-44-8	Heptachlor	2.3	U
309-00-2	Aldrin	2.3	U
1024-57-3	Heptachlor Epoxide	2.3	U
959-98-8	Endosulfan I	2.3	U
60-57-1	Dieldrin	4.5	U
72-55-9	4,4'-DDE	3.0	JP
72-20-8	Endrin	4.5	U
33213-65-9	Endosulfan II	4.5	U
72-54-8	4,4'-DDD	3.4	J
1031-07-8	Endosulfan Sulfate	4.5	U
50-29-3	4,4'-DDT	4.0	J
72-43-5	Methoxychlor	23	U
53494-70-5	Endrin Ketone	4.5	U
7421-93-4	Endrin Aldehyde	4.5	U
5103-71-9	alpha-Chlordane	2.3	U
5103-74-2	gamma-Chlordane	2.3	U
8001-35-2	Toxaphene	230	U
12674-11-2	Aroclor-1016	45	U
11104-28-2	Aroclor-1221	92	U
11141-16-5	Aroclor-1232	45	U
53469-21-9	Aroclor-1242	45	U
12672-29-6	Aroclor-1248	45	U
11097-69-1	Aroclor-1254	45	U
11096-82-5	Aroclor-1260	45	U

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EPA SAMPLE NO.

EAFL5

Lab Name: IEA-NJ Contract: 68D20022

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water): SOIL Lab Sample ID: 53180006

Sample wt/vol: 30 (g/ml) g Lab File ID: D4B77C 063

Moisture: 19 decanted: N Date Received: 08/02/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 08/10/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/27/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.7 Sulfur Cleanup: Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.1	U
319-85-7	Beta-BHC	2.1	U
319-86-8	delta-BHC	2.1	U
58-89-9	gamma-BHC (Lindane)	2.1	U
76-44-8	Heptachlor	2.1	U
309-00-2	Aldrin	2.1	U
1024-57-3	Heptachlor Epoxide	2.1	U
959-98-8	Endosulfan I	2.1	U
60-57-1	Dieldrin	4.0	U
72-55-9	4,4'-DDE	2.2	JP
72-20-8	Endrin	4.0	U
33213-65-9	Endosulfan II	4.0	U
72-54-8	4,4'-DDD	2.5	J
1031-07-8	Endosulfan Sulfate	4.0	U
50-29-3	4,4'-DDT	4.7	P
72-43-5	Methoxychlor	21	U
53494-70-5	Endrin Ketone	4.0	U
7421-93-4	Endrin Aldehyde	4.0	U
5103-71-9	alpha-Chlordane	1.0	J
5103-74-2	gamma-Chlordane	2.1	U
8001-35-2	Toxaphene	210	U
12674-11-2	Aroclor-1016	40	U
11104-28-2	Aroclor-1221	82	U
11141-16-5	Aroclor-1232	40	U
53469-21-9	Aroclor-1242	40	U
12672-29-6	Aroclor-1248	40	U
11097-69-1	Aroclor-1254	40	U
11096-82-5	Aroclor-1260	40	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL5RE

Lab Name: IEA-NJ Contract: 68D20022

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water): SOIL Lab Sample ID: 53180006RE

Sample wt/vol: 30 (g/ml) g Lab File ID: D4B77E_013

Moisture: 19 decanted: N Date Received: 08/02/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 08/25/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/30/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.7 Sulfur Cleanup: Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.1	U
319-85-7	Beta-BHC	2.1	U
319-86-8	delta-BHC	2.1	U
58-89-9	gamma-BHC (Lindane)	2.1	U
76-44-8	Heptachlor	2.1	U
309-00-2	Aldrin	2.1	U
1024-57-3	Heptachlor Epoxide	2.1	U
959-98-8	Endosulfan I	2.1	U
60-57-1	Dieldrin	4.0	U
72-55-9	4,4'-DDE	4.0	U
72-20-8	Endrin	4.0	U
33213-65-9	Endosulfan II	4.0	U
72-54-8	4,4'-DDD	4.0	U
1031-07-8	Endosulfan Sulfate	4.0	U
50-29-3	4,4'-DDT	4.0	U
72-43-5	Methoxychlor	21	U
53494-70-5	Endrin Ketone	4.0	U
7421-93-4	Endrin Aldehyde	4.0	U
5103-71-9	alpha-Chlordane	2.1	U
5103-74-2	gamma-Chlordane	2.1	U
8001-35-2	Toxaphene	210	U
12674-11-2	Aroclor-1016	40	U
11104-28-2	Aroclor-1221	82	U
11141-16-5	Aroclor-1232	40	U
53469-21-9	Aroclor-1242	40	U
12672-29-6	Aroclor-1248	40	U
11097-69-1	Aroclor-1254	40	U
11096-82-5	Aroclor-1260	40	U

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EPA SAMPLE NO.
EAFL6

Lab Name: IEA-NJ Contract: 68D20022

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water): SOIL Lab Sample ID: 53180001

Sample wt/vol: 30 (g/ml) g Lab File ID: D4B77C_066

Moisture: 22 decanted: N Date Received: 08/02/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 08/10/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/28/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9 Sulfur Cleanup: Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.2	U
319-85-7	Beta-BHC	2.2	U
319-86-8	delta-BHC	2.2	U
58-89-9	gamma-BHC (Lindane)	2.2	U
76-44-8	Heptachlor	2.2	U
309-00-2	Aldrin	2.2	U
1024-57-3	Heptachlor Epoxide	2.2	U
959-98-8	Endosulfan I	2.2	U
60-57-1	Dieldrin	2.4	JP
72-55-9	4,4'-DDE	38	P
72-20-8	Endrin	4.2	U
33213-65-9	Endosulfan II	4.2	U
72-54-8	4,4'-DDD	220	EP
1031-07-8	Endosulfan Sulfate	4.2	U
50-29-3	4,4'-DDT	92	E
72-43-5	Methoxychlor	27	
53494-70-5	Endrin Ketone	4.2	U
7421-93-4	Endrin Aldehyde	4.2	U
5103-71-9	alpha-Chlordane	3.2	P
5103-74-2	gamma-Chlordane	2.2	U
8001-35-2	Toxaphene	220	U
12674-11-2	Aroclor-1016	42	U
11104-28-2	Aroclor-1221	86	U
11141-16-5	Aroclor-1232	42	U
53469-21-9	Aroclor-1242	42	U
12672-29-6	Aroclor-1248	42	U
11097-69-1	Aroclor-1254	83	P
11096-82-5	Aroclor-1260	42	U

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EPA SAMPLE NO.
EAFL6RE

Lab Name: IEA-NJ Contract: 68D20022

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water): SOIL Lab Sample ID: 53180001RE

Sample wt/vol: 30 (g/ml) g Lab File ID: D4B77E_019

Moisture: 22 decanted: N Date Received: 08/02/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 08/25/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/31/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9 Sulfur Cleanup: Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.2	U
319-85-7	Beta-BHC	2.2	U
319-86-8	delta-BHC	2.2	U
58-89-9	gamma-BHC (Lindane)	2.2	U
76-44-8	Heptachlor	2.2	U
309-00-2	Aldrin	2.2	U
1024-57-3	Heptachlor Epoxide	2.2	U
959-98-8	Endosulfan I	2.2	U
60-57-1	Dieldrin	4.2	U
72-55-9	4,4'-DDE	44	P
72-20-8	Endrin	4.2	U
33213-65-9	Endosulfan II	4.2	U
72-54-8	4,4'-DDD	240	E
1031-07-8	Endosulfan Sulfate	4.2	U
50-29-3	4,4'-DDT	49	
72-43-5	Methoxychlor	18	J
53494-70-5	Endrin Ketone	4.2	U
7421-93-4	Endrin Aldehyde	4.2	U
5103-71-9	alpha-Chlordane	3.6	P
5103-74-2	gamma-Chlordane	3.4	P
8001-35-2	Toxaphene	220	U
12674-11-2	Aroclor-1016	42	U
11104-28-2	Aroclor-1221	86	U
11141-16-5	Aroclor-1232	42	U
53469-21-9	Aroclor-1242	42	U
12672-29-6	Aroclor-1248	42	U
11097-69-1	Aroclor-1254	130	
11096-82-5	Aroclor-1260	42	U

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EPA SAMPLE NO.

EAFL6DL

Lab Name: IEA-NJ Contract: 68D20022

Lab Code: IEANJ Case No.: 22355 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water): SOIL Lab Sample ID: 53180001DL

Sample wt/vol: 30 (g/ml) g Lab File ID: D4B77C 065

Moisture: 22 decanted: N Date Received: 08/02/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 08/10/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/28/95

Injection Volume: 1.0 (uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) Y pH: 9 Sulfur Cleanup: Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	11	U
319-85-7	Beta-BHC	11	U
319-86-8	delta-BHC	11	U
58-89-9	gamma-BHC (Lindane)	11	U
76-44-8	Heptachlor	11	U
309-00-2	Aldrin	11	U
1024-57-3	Heptachlor Epoxide	11	U
959-98-8	Endosulfan I	11	U
60-57-1	Dieldrin	21	U
72-55-9	4,4'-DDE	37	PD
72-20-8	Endrin	21	U
33213-65-9	Endosulfan II	21	U
72-54-8	4,4'-DDD	190	PD
1031-07-8	Endosulfan Sulfate	21	U
50-29-3	4,4'-DDT	83	D
72-43-5	Methoxychlor	110	U
53494-70-5	Endrin Ketone	21	U
7421-93-4	Endrin Aldehyde	21	U
5103-71-9	alpha-Chlordane	11	U
5103-74-2	gamma-Chlordane	11	U
8001-35-2	Toxaphene	1100	U
12674-11-2	Aroclor-1016	210	U
11104-28-2	Aroclor-1221	430	U
11141-16-5	Aroclor-1232	210	U
53469-21-9	Aroclor-1242	210	U
12672-29-6	Aroclor-1248	210	U
11097-69-1	Aroclor-1254	250	D
11096-82-5	Aroclor-1260	210	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EAFL6REDL

Lab Name: IEA-NJ Contract: 68D20022

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water): SOIL Lab Sample ID: 53180001REDL

Sample wt/vol: 30 (g/ml) g Lab File ID: D4B77E_017

Moisture: 22 decanted: N Date Received: 08/02/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 08/25/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/31/95

Injection Volume: 1.0 (uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) Y pH: 9 Sulfur Cleanup: Y

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	11	U
319-85-7	Beta-BHC	11	U
319-86-8	delta-BHC	11	U
58-89-9	gamma-BHC (Lindane)	11	U
76-44-8	Heptachlor	11	U
309-00-2	Aldrin	11	U
1024-57-3	Heptachlor Epoxide	11	U
959-98-8	Endosulfan I	11	U
60-57-1	Dieldrin	21	U
72-55-9	4,4'-DDE	38	P
72-20-8	Endrin	21	U
33213-65-9	Endosulfan II	21	U
72-54-8	4,4'-DDD	190	P
1031-07-8	Endosulfan Sulfate	21	U
50-29-3	4,4'-DDT	42	
72-43-5	Methoxychlor	110	U
53494-70-5	Endrin Ketone	21	U
7421-93-4	Endrin Aldehyde	21	U
5103-71-9	alpha-Chlordane	11	U
5103-74-2	gamma-Chlordane	11	U
8001-35-2	Toxaphene	1100	U
12674-11-2	Aroclor-1016	210	U
11104-28-2	Aroclor-1221	430	U
11141-16-5	Aroclor-1232	210	U
53469-21-9	Aroclor-1242	210	U
12672-29-6	Aroclor-1248	210	U
11097-69-1	Aroclor-1254	170	J
11096-82-5	Aroclor-1260	210	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL7

Lab Name: IEA-NJ Contract: 68D20022

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water): SOIL Lab Sample ID: 53180002

Sample wt/vol: 30 (g/ml) g Lab File ID: D4B77C 064

Moisture: 28 decanted: N Date Received: 08/02/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 08/10/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/27/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8 Sulfur Cleanup: Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.4	U
319-85-7	Beta-BHC	2.4	U
319-86-8	delta-BHC	2.4	U
58-89-9	gamma-BHC (Lindane)	2.4	U
76-44-8	Heptachlor	2.4	U
309-00-2	Aldrin	2.4	U
1024-57-3	Heptachlor Epoxide	2.4	U
959-98-8	Endosulfan I	2.4	U
60-57-1	Dieldrin	4.6	U
72-55-9	4,4'-DDE	17	P
72-20-8	Endrin	4.6	U
33213-65-9	Endosulfan II	4.6	U
72-54-8	4,4'-DDD	87	EP
1031-07-8	Endosulfan Sulfate	4.6	U
50-29-3	4,4'-DDT	12	
72-43-5	Methoxychlor	24	U
53494-70-5	Endrin Ketone	4.6	U
7421-93-4	Endrin Aldehyde	4.6	U
5103-71-9	alpha-Chlordane	4.1	P
5103-74-2	gamma-Chlordane	3.5	
8001-35-2	Toxaphene	240	U
12674-11-2	Aroclor-1016	46	U
11104-28-2	Aroclor-1221	93	U
11141-16-5	Aroclor-1232	46	U
53469-21-9	Aroclor-1242	46	U
12672-29-6	Aroclor-1248	46	U
11097-69-1	Aroclor-1254	69	
11096-82-5	Aroclor-1260	46	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EAFL7RE

Lab Name: IEA-NJ Contract: 68D20022

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water): SOIL Lab Sample ID: 53180002RE

Sample wt/vol: 30 (g/ml) g Lab File ID: D4B77E 018

Moisture: 28 decanted: N Date Received: 08/02/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 08/25/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/31/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8 Sulfur Cleanup: Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.4	U
319-85-7	Beta-BHC	2.4	U
319-86-8	delta-BHC	2.4	U
58-89-9	gamma-BHC (Lindane)	2.4	U
76-44-8	Heptachlor	2.4	U
309-00-2	Aldrin	2.4	U
1024-57-3	Heptachlor Epoxide	2.4	U
959-98-8	Endosulfan I	2.4	U
60-57-1	Dieldrin	4.6	U
72-55-9	4,4'-DDE	6.0	P
72-20-8	Endrin	4.6	U
33213-65-9	Endosulfan II	4.6	U
72-54-8	4,4'-DDD	24	P
1031-07-8	Endosulfan Sulfate	4.6	U
50-29-3	4,4'-DDT	5.6	
72-43-5	Methoxychlor	24	U
53494-70-5	Endrin Ketone	4.6	U
7421-93-4	Endrin Aldehyde	4.6	U
5103-71-9	alpha-Chlordane	2.0	J
5103-74-2	gamma-Chlordane	2.4	U
8001-35-2	Toxaphene	240	U
12674-11-2	Aroclor-1016	46	U
11104-28-2	Aroclor-1221	93	U
11141-16-5	Aroclor-1232	46	U
53469-21-9	Aroclor-1242	46	U
12672-29-6	Aroclor-1248	46	U
11097-69-1	Aroclor-1254	24	JP
11096-82-5	Aroclor-1260	46	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL7DL

Lab Name: IEA-NJ Contract: 68D20022

Lab Code: IEANJ Case No.: 23855 SAS No.: _____ SDG No.: EAFL4

Matrix: (soil/water): SOIL Lab Sample ID: 53180002DL

Sample wt/vol: 30 (g/ml) g Lab File ID: D4B77C_059

Moisture: 28 decanted: N Date Received: 08/02/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 08/10/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/27/95

Injection Volume: 1.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 8 Sulfur Cleanup: Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	4.7	U
319-85-7	Beta-BHC	4.7	U
319-86-8	delta-BHC	4.2	JPD
58-89-9	gamma-BHC (Lindane)	4.7	U
76-44-8	Heptachlor	4.7	U
309-00-2	Aldrin	4.7	U
1024-57-3	Heptachlor Epoxide	4.7	U
959-98-8	Endosulfan I	4.7	U
60-57-1	Dieldrin	9.2	U
72-55-9	4,4'-DDE	17	PD
72-20-8	Endrin	9.2	U
33213-65-9	Endosulfan II	9.2	U
72-54-8	4,4'-DDD	80	PD
1031-07-8	Endosulfan Sulfate	9.2	U
50-29-3	4,4'-DDT	14	D
72-43-5	Methoxychlor	47	U
53494-70-5	Endrin Ketone	9.2	U
7421-93-4	Endrin Aldehyde	9.2	U
5103-71-9	alpha-Chlordane	4.7	U
5103-74-2	gamma-Chlordane	3.0	JPD
8001-35-2	Toxaphene	470	U
12674-11-2	Aroclor-1016	92	U
11104-28-2	Aroclor-1221	190	U
11141-16-5	Aroclor-1232	92	U
53469-21-9	Aroclor-1242	92	U
12672-29-6	Aroclor-1248	92	U
11097-69-1	Aroclor-1254	69	JPD
11096-82-5	Aroclor-1260	92	U

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No: _____ CERCLIS No: ILD980677744

Case No: 23855 Site Name Location: Glenview Lutter Bricky

Contractor or EPA Lab: IEANJ Data User: E & E

No. of Samples: 4 Date Sampled or Data Received: 9-7-95

Have Chain-of-Custody records been received? Yes ✓ No ___
Have traffic reports or packing lists been received? Yes ✓ No ___
If no, are traffic report or packing list numbers written on the c
of-custody record? Yes ✓ No ___
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? Yes ✓ No ___
No of samples claimed: 4 No. of samples received: 4

Received by: Lynette Burnett Date: 9-7-95

Received by LSSS: Allison C Harvey Date: 9-8-95

Review started: 9-8-95 Reviewer Signature: Allison C Har

Total time spent on review: 5.5 hrs Date review completed: 9-11

Copied by: Patricia J Scott Date: 09/14/95

Mailed to user by: _____ Date: _____

DATA USER:
Please fill in the blanks below and return this form to:
Sylvia Griffen, Data mgmt. Coordinator, Region V, 5SCRL

Data received by: _____ Date: _____

Data review received by: _____ Date: _____

Inorganic Data Complete [ ] Suitable for Intended Purpose [ ] ✓
Organic Data Complete [ ] Suitable for Intended Purpose [ ] ✓
Dioxin Data Complete [ ] Suitable for Intended Purpose [ ] ✓
SAS Data Complete [ ] Suitable for Intended Purpose [ ] ✓

PROBLEMS: Please indicate reasons why data are not suitable for uses.

Received by Data Mgmt. Coordinator for Files. Data: _____

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APPENDIX E

REFERENCE DOCUMENTS

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ECOLOGY AND ENVIRONMENT INC. TELECON MEMO

Date: 9-11-95 Time: 1130	With: Donna Czeck Phone: 708.338.7908 Of: IEPA - MAYWOOD
By: Donovan Robin cc: File	E & E Project #: 2T3051 Site Name: Glenview Lutter Brickyard File Location: telecon

I asked Ms. Czeck if IEPA has recently inspected the GLB Site (Krohn Property) she said yes, she had been there in July. She identified violations related to ponding water, and erosion in the cover material. She explained that the site is near the end of the 5-year post-closure care period, however the post closure care period will not end until all violations are corrected. A meeting between IEPA and Krohn is scheduled for some time this month. I asked about the golf course, she explained that IEPA had granted Krohn a supplimental permit to allow the construction of the g.c. however the construction is not complete. I asked if the site has any groundwater problems, she explained that g.w. samples are collected quarterly and the results are submitted to IEPA in Springfield.

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ECOLOGY AND ENVIRONMENT INC. TELECON MEMO

Date: September 19, 1995	With: Robert Sulski Phone: 708.338.7908
Time: 1445	Of: IEPA - Water Pollution Control
By: Donovan Robin	E & E Project #: 2T3051
cc: File	Site Name: Glenview Lumber Brickyard.
	File Location: telecon

I asked Mr. Sulski if the West Fork North Branch Chicago River is considered a recreational fishery, he said yes, as are the North Branch and Chicago River. The goal for the rivers is fishable-swimmable waters.

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International Specialists in the Environment

Job Number ZT3051/EIL0070VAA

Glenview Cutter Brickyard
Glenview, Cook County, Illinois
ILD980677744
FSIP Sampling / Recon

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E & E Job Number ZT3051

Telephone Code Number —

Site Name Glenview Lower Brick-yard

City/State Glenview, Illinois

TDD

PAN

SSID —

Start/Finish Date 8-1-95

Book 1 of 1

E & E Emergency Response Center: (716) 684-8940
E & E Corporate Center: (716) 684-8060
MEDTOX Hotline: (501) 370-8263
E & E Safety Director (Home): Non-responsive

8-1-95 Glenview Lutter Dump 2T3051 EIL0070UAA-ILD980677744 [CLOUDY HUMID 75°F 1 no wind]

0820 - DR arrives at warehouse with rental van, decons sampling equipment, bowls, spoons, shovels etc...

0915 DR picks up Cathy Sullivan from office, depart for site,

1010 - Arrive at site, survey perimeter south side along Chestnut Street - Apartments Valley - lo estates, west side - St. DR John Street, contains warehouses, commercial and office space, some small machine shops, appear inactive. locate area for S1, return to East side, along Tanglewood Street, lined with residences of Valley - lo estates.

1030 - Collect sample S3, from east bank of River, about 1' in from the edge, sediment obtained using shovel, material is sticky grey silty clay w/ lt. brown sand and some black organic material

Donovan Robert 8-1-95

1030 (cont) sort of a rubbery smell take photo 1 facing west note: collected dup. sample S4 here also.

1035 - Resident stops by, she tells us that there is a leachate seep a bit up stream from where we are.

1040 - locate sample: approx 50' west and 20' south of yellow fire hydrant infront of 1845 Tanglewood St., about 0.1 mile n. of Chestnut St. and 0.2 miles South of the "circle" in the road.

1045 take photo 2+3 facing west of leachate seep, appears to be a tributary, cannot tell how far back it goes, see two ducks, the sediment has a slight orange color. like iron oxide, does not look to serious but water

Donovan Robert 8-1-95

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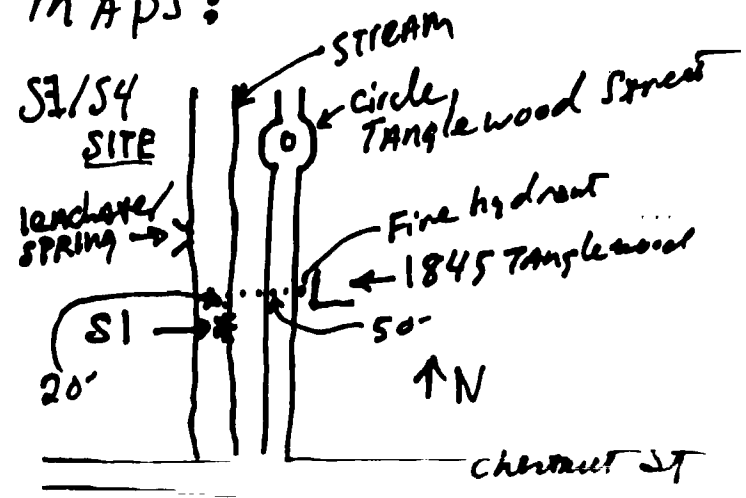
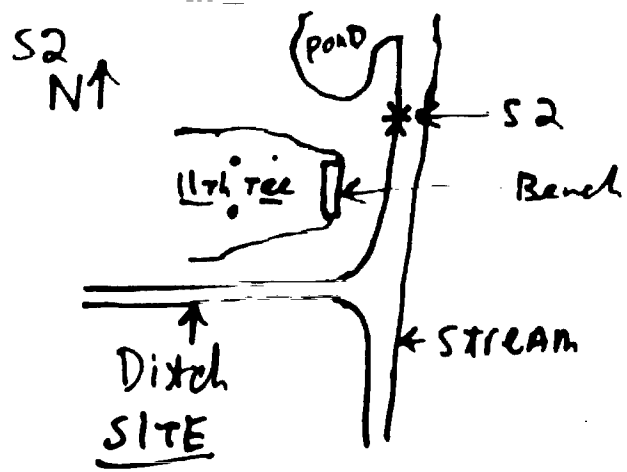
8-6-95 Glenview Lower FSIP
1045 (cont). is coming in from it
1055 Proceed to collect sample
S2, meet with grounds
keeper for golf course
(Valley-Lo Country club) he
grants us permission to
sample + use grounds, he
name is Bill,
1115 collect sample S2, from
West bank of River, approx
1 foot off bank, use trowell,
sample texture is similar
to S3/S4, no off odors
1125 - Take photo 4 facing East
of sample location S2, we
are 20' south of a small
pond on the w. side of river
and approx 70' north of
the ditch on n side of L.F.
and approx 30' north of
the 11th Tee for golf course.

Donovan Robin 8-1-95

ILD980677744.
MAPS:





Donovan Robin 8-1-95

8-1-95 Glenview Lutter FSIP.
1130 - proceed to sample S1, locate a crack in the cover near where leachate seeps had been located in past, at the bend in at Johnson Road.
1132 - Photo 5 facing n.e. in of crack/erosion gulley in cap, cannot tell if clay cap is affected, no signs of staining/leaching. runoff in this area goes to shallow ditch at base of landfill. then, probably to river, notice silt fencing at base of L.F.
1145 - Samples on ice, will complete packaging at warehouse.
1300 - complete packaging, proceed to Fed Ex to send samples

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Barbara Robb

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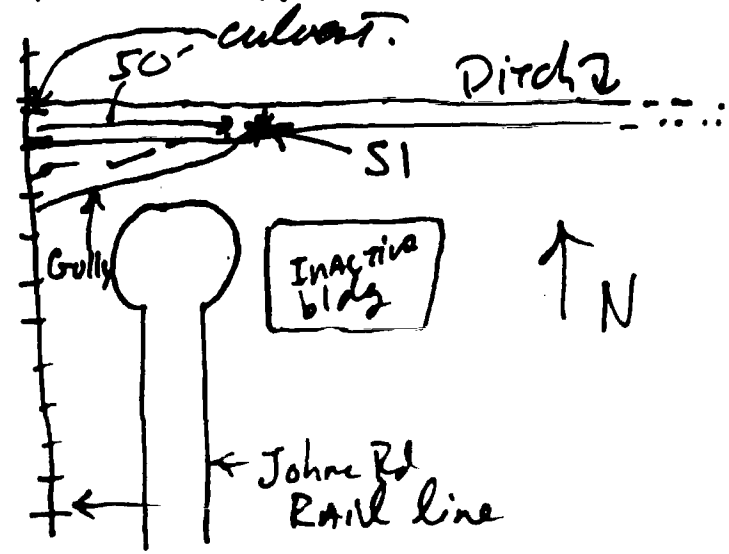
8-1-95 Glenview Lutter Brickyard.

MAP - S1 - 1145



Material - pebbley, coarse, brown deposited material.

location - Approx 50' east of Rail line, near area where gully enters stream

Photo: 6 facing west in of sample location

Donovan Robbins 8-1-95