SITE INSPECTION REPORT
FOR
CALUMENT INDUSTRIES
GARY, INDIANA
IND014387880
F05-8704-018

PAN: FIN0567SA

AUGUST 27, 1987

EPA Region 5 Records Ctr.
292335

ecology and environment, inc.

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

International Specialists in the Environment

MEMORANDUM

DATE: August 27, 1987

TO: File

FROM: Thomas A. Kouris TAK

SUBJECT: Indiana/F05-8704-018/FIN0567SA
Gary/Calumet Industries
IND014387880

Calumet Industries is located across Industrial Highway from its current owner Gary Municipal Airport. Correct Piping Co. leases the site as well as other adjacent properties. A machine shop and sand-blasting shanty are locasted on the 2-acre property. Site historical records indicate a waste pit filled with an absorbent compound and scrap metals was once present, but there is no visible evidence of its existence. This site was assigned to FIT for a site inspection after being indentified by the Indiana Department of Environmental Management (IDEM) in the form of a preliminary assessment submitted to the U.S. EPA.

On May 27, 1987, FIT collected four soil samples from site. The sampling was conducted because waste characteristics were undefined. Samples were collected around the two buildings and on the east edge of the site.

Several organic compounds were detected in the samples, but the concentrations were not high enough to be usable for HRS purposes. One of these compounds was Aroclor 1260 (520 ppm). The inorganic analysis detected cyanide and heavy metals. Copper (829 ppm), lead (151 ppm), and nickel (54 ppm) all exceeded the CRDLs in concentrations useable for HRS purposes.

recycled paper

Since the soil contains contaminants, the shallow Calumet aquifer can potentially be contaminated by this site through infiltration. However, groundwater use in the immediate area is minimal, and the closest well is located over 1 mile from the site. Groundwater contamination attributable to the site may be difficult to verify, because the immediate area is industrialized and other known and potential contributors to groundwater contamination are located nearby. A potential worker exposure threat exists because of surface soil contamination. The local population is not threatened because of site's security and population's distance from the site.

The work plan for this site was followed except for one modification. The work plan called for sampling near the waste pit this sample was not collected because the waste pit could not be located.

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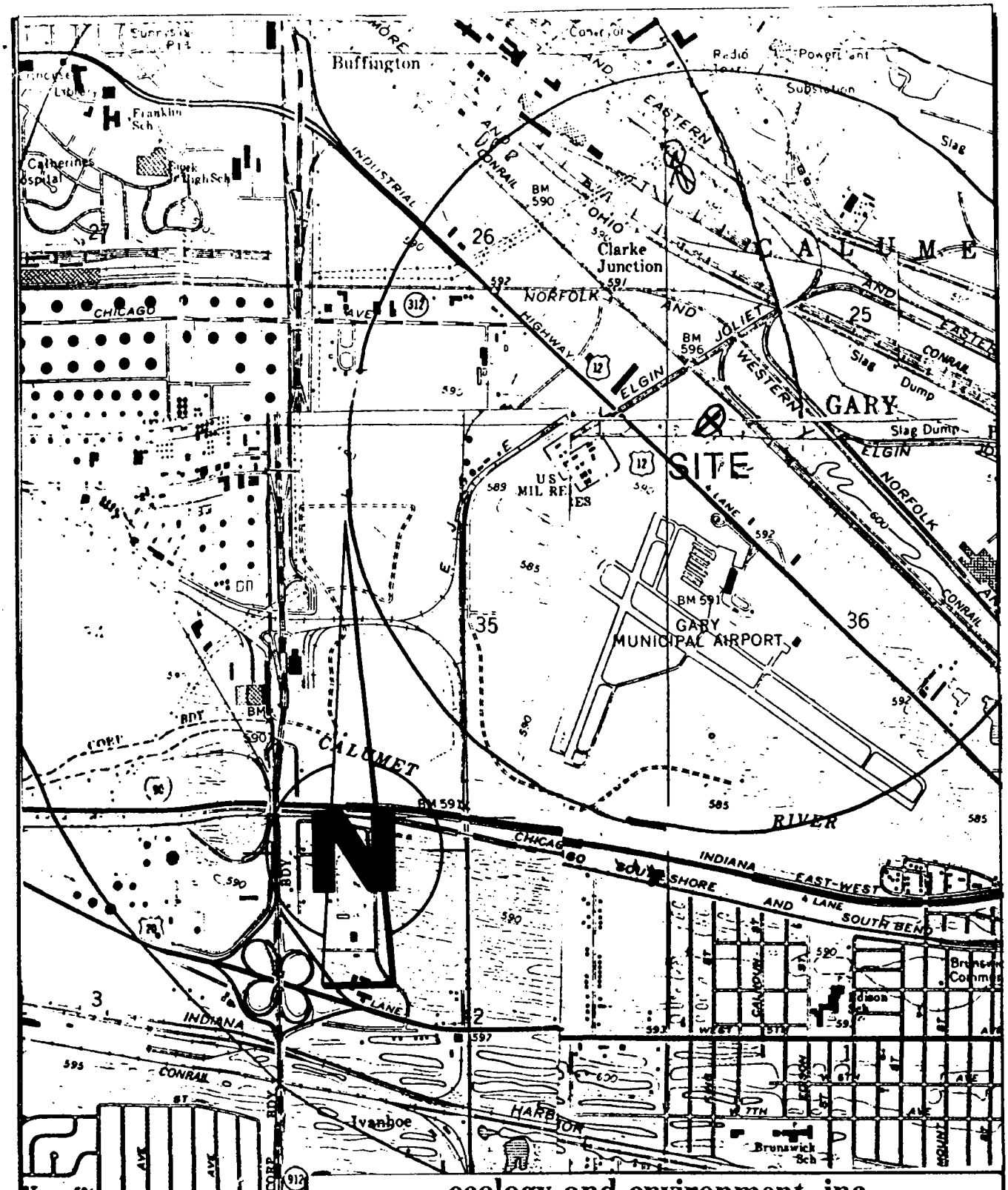

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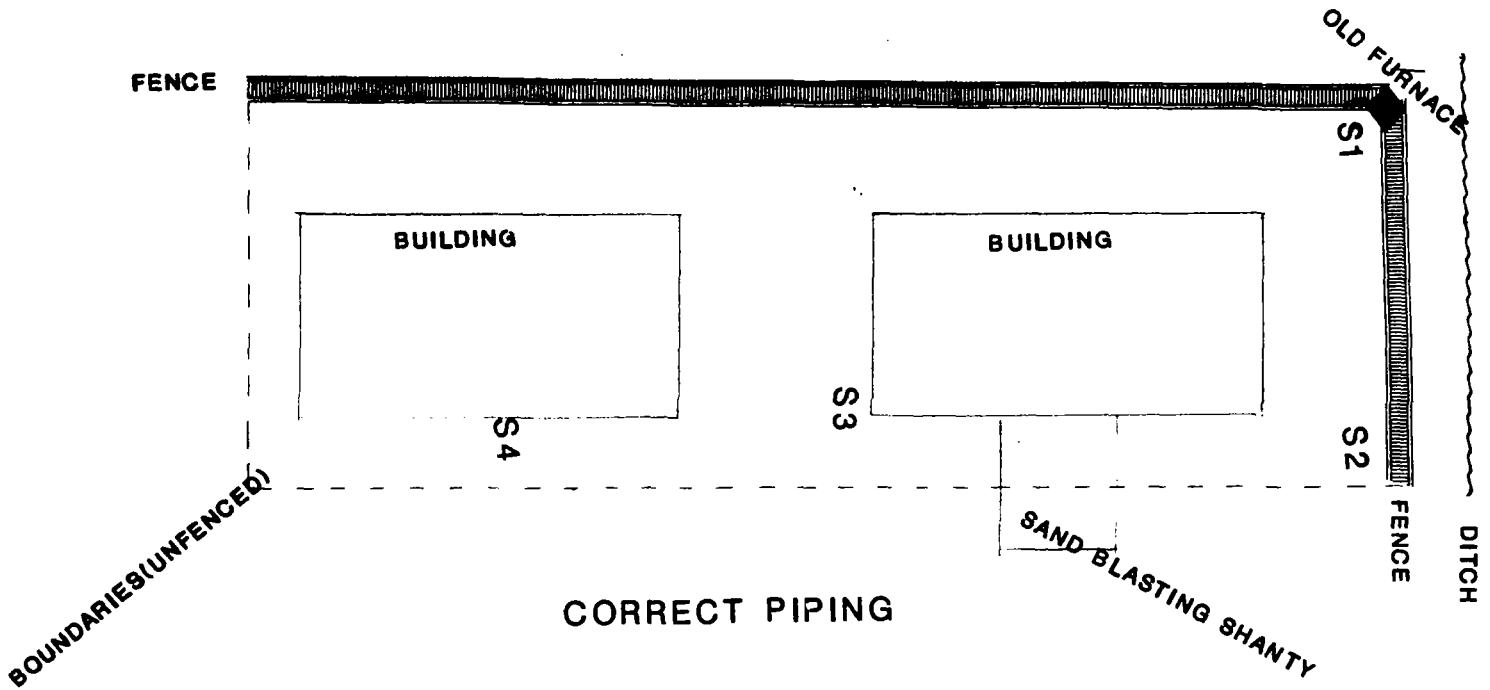
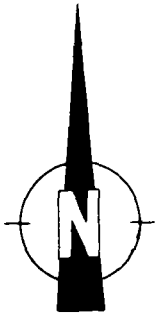
TITLE: AREA MAP	FIGURE #: 2
SITE: CALUMET INDUSTRIES	SCALE: 1:24000
CITY: GARY STATE: IN.	P.A.N.: FIN0567SA
SOURCE: USGS WHITING, HIGHLAND, GARY	DATE: 1968 REVISED: 1980





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TITLE: SITE SKETCH	FIGURE #: 1
SITE: CALUMET INDUSTRIES	SCALE: NOT TO SCALE
CITY: GARY STATE: IN.	P.A.N.: FIN0567SA
SOURCE: SITE INSPECTION	DATE: 8-19-87
	REVISED:

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
IND	014387880

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
CALUMET INDUSTRIES	6010 W. INDUSTRIAL HWY.

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
GARY	IN	46406	LAKE	89	01

09 COORDINATES: LATITUDE 41°37'28".N | LONGITUDE 087°25'01".W

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

III. INSPECTION INFORMATION

01 DATE OF INSPECTION: 5 27 87 (MONTH DAY YEAR)

02 SITE STATUS: ■ ACTIVE ☐ INACTIVE

03 YEARS OF OPERATION: UNKNOWN | 1970 (BEGINNING YEAR ENDING YEAR) ____ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply): ☐ A. EPA ■ B. EPA CONTRACTOR ECOLOGY & ENVIRONMENT, INC. (Name of firm) ☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR ____ (Name of firm) ☐ E. STATE ☐ F. STATE CONTRACTOR ____ (Name of firm) ☐ G. OTHER ____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
THOMAS A KOURIS	CIVIL ENGINEER / FIT	ECOLOGY & ENVIRONMENT, INC.	(312) 6639415

09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
MARGARET HEIN	BIOLOGIST / FIT	"	( ) "
MARY GZYRA	FIELD TECHNICIAN / FIT	"	( ) "
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
ROBERT SELVA	OFFICER CORRECT PIPING	6012 W. INDUSTRIAL HWY GARY, INDIANA 46406	(312) 734-1587
DR. WILLIAM DOUGLASS	DIRECTOR GARY AIRPORT	6131 W. INDUSTRIAL HWY GARY, INDIANA 46406	(219) 949-9722
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
■ PERMISSION ☐ WARRANT	1030 am	75°F, SUNNY

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
DR. DON JOSIF	U.S. EPA-REGION V	(312) 886-0393

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
THOMAS A. KOURIS	U.S. EPA FIT	ECOLOGY & ENVIRONMENT, INC	(312) 663-9415	8 27 87 (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
IND	014387880

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

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

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

TONS UNKNOWN
CUBIC YARDS
NO. OF DRUMS

03 WASTE CHARACTERISTICS (Check all that apply)

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

III. WASTE TYPE

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

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

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
MES	COPPER	7440-50-8	UNKNOWN	829	mg/kg
MES	LEAD	7439-92-1	"	151	"
MES	NICKEL	7440-02-0	"	54	"
OCC	AROCLOR 1260	11096-82-5	"	520	mg/kg

NOTE: AROCLOR 1260 DOES NOT EXCEED CRDL BY FIVE TIMES, BUT DOES EXCEED CRDL.

V. FEEDSTOCKS (See Appendix for CAS Numbers)

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

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

SAMPLE RESULTS FROM SITE INSPECTION (FIT - 5/27/87)
SAX LISTING OF HAZARDOUS CHEMICALS

EPA

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

I. IDENTIFICATION
01 STATE: IND | 02 SITE NUMBER: 014387880

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ■ A. GROUNDWATER CONTAMINATION | 02 ☐ OBSERVED (DATE: _____) | ■ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 68
04 NARRATIVE DESCRIPTION: AREA HAS A SHALLOW AQUIFER AND SINCE THERE ARE CONTAMINANTS FOUND IN SITE SOIL SAMPLES, THE POTENTIAL EXISTS FOR GROUNDWATER CONTAMINATION. BECAUSE OF THE INDUSTRIAL NATURE OF THE AREA, GROUNDWATER CONTAMINANTS MAY BE DIFFICULT TO ATTRIBUTE TO SITE.

01 ☐ B. SURFACE WATER CONTAMINATION | 02 ☐ OBSERVED (DATE: _____) | ☐ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION
N/A - THERE IS NO ROUTE TO ANY SURFACE WATER BODY (LAKE MICHIGAN) OR RIVER (CALUMET RIVER) FROM SITE.

01 ☐ C. CONTAMINATION OF AIR | 02 ☐ OBSERVED (DATE: _____) | ☐ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION
N/A - NATURE OF SITE CONTAMINANTS WOULD NOT RELEASE AND CONTAMINATE THE AIR.

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS | 02 ☐ OBSERVED (DATE: _____) | ☐ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION
N/A - NATURE OF CONTAMINANTS DETECTED IN SITE SAMPLES ARE NOT INCOMPATIBLE, DO NOT HAVE LOW FLASHPOINTS, AND ARE NOT CONSIDERED TO BE OF ANY FIRE/EXPLOSION HAZARD

01 ■ E. DIRECT CONTACT | 02 ☐ OBSERVED (DATE: _____) | ■ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 12
04 NARRATIVE DESCRIPTION
POTENTIAL EXIST FOR DIRECT CONTACT TO SITE WORKERS SINCE THERE ARE KNOWN SITE CONTAMINANTS. POPULATION IS OVER 1 MILE FROM SITE AND IT IS UNLIKELY TO AFFECT THEM.

01 ■ F. CONTAMINATION OF SOIL | 02 ■ OBSERVED (DATE: 5-27-87) | ☐ POTENTIAL | ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: ≈ 2 (Acres)
04 NARRATIVE DESCRIPTION
SITE SAMPLES CONFIRM THE SOIL IS CONTAMINATED. CONCENTRATIONS OF COPPER, LEAD, AND NICKEL ALL EXCEEDED GREATLY THE CRDL. PCB'S WERE DETECTED IN LOW CONCENTRATION.

01 ■ G. DRINKING WATER CONTAMINATION | 02 ☐ OBSERVED (DATE: _____) | ■ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 68
04 NARRATIVE DESCRIPTION
THE ONLY POTENTIAL DRINKING WATER CONTAMINATION WOULD BE THROUGH THE GROUNDWATER. THERE ARE NO SURFACE WATER ROUTES FROM SITE. SEE PARTS A, B.

01 ■ H. WORKER EXPOSURE/INJURY | 02 ☐ OBSERVED (DATE: _____) | ■ POTENTIAL | ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: 12
04 NARRATIVE DESCRIPTION
SINCE THERE ARE KNOWN CONTAMINANTS IN THE SOIL AT SITE, POTENTIAL EXISTS FOR WORKER/EXPOSURE INJURY. HEAVY METALS AND PCB'S BOTH ARE POSSIBLE CARCINOGENS.

01 ☐ I. POPULATION EXPOSURE/INJURY | 02 ☐ OBSERVED (DATE: _____) | ☐ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION
N/A - SINCE THE POPULATION IS OVER 1 MILE FROM SITE, IT IS IMPROBABLE THAT SITE COULD CAUSE AN EXPOSURE/INJURY TO THE POPULATION.

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
IND	014387880

II. HAZARDOUS CONDITIONS AND INCIDENTS *(Continued)*

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
N/A - NONE REPORT. INDUSTRIALIZED AREA WOULD MAKE DAMAGE TO FLORA VERY UNLIKELY.

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION *(Include name(s) of species)*
N/A - NONE REPORTED OR OBSERVED. INDUSTRIAL NATURE OF THE AREA WOULD MAKE THIS UNLIKELY.

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
N/A - AREA IS HEAVILY INDUSTRIALIZED AND THERE ARE NO FARMLANDS IN THE VICINITY.

01 ■ M. UNSTABLE CONTAINMENT OF WASTES *(Spills/Runoff/Standing liquids, Leaking drums)* — 02 ☐ OBSERVED (DATE: 5-27-87) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 12 — 04 NARRATIVE DESCRIPTION
HEAVY METALS FOUND IN SITE SAMPLES CONFIRMS THERE IS UNSTABLE WASTE CONTAINMENTS. ONLY SITE WORKERS WOULD BE AFFECTED.

01 ■ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ■ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
EAST OF SITE THERE IS A RUNOFF DITCH WHICH COULD CARRY CONTAMINANTS OFF SITE.

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
N/A - NO RUNOFFS INTO SEWER SYSTEM. NO DRAINS IN THE VICINITY OF SITE.

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
N/A - WHILE THERE HAVE BEEN TRESPASSING ON SITE, THERE HAVE BEEN NO ILLEGAL DUMPINGS AND THE TERRAIN & FENCELINE WOULD MAKE IT IMPROBABLE.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS
ON THE SOUTHEAST SECTION OF THE SITE IS SANDBLASTING CHIPS. THE PARTICULATE IS LYING ON THE SURFACE. IT IS UNKNOWN WHETHER THIS POSES ANY POTENTIAL DIRECT CONTACT OR CONTAMINATION PROBLEMS.

III. TOTAL POPULATION POTENTIALLY AFFECTED: 80 (WORKERS & G.W. USERS)

IV. COMMENTS
NONE

V. SOURCES OF INFORMATION *(Cite specific references, e.g., state files, sample analysis, reports)*
SITE INSPECTION INTERVIEW WITH BOB SELVA (5-26-87)
SITE INSPECTION DATA FROM SAMPLES (5-27-87)
E&E, INC (FIT) FILES

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
IND	014387880

II. PERMIT INFORMATION N/A

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

III. SITE DESCRIPTION

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

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

05 OTHER
- ■ A. BUILDINGS ON SITE

06 AREA OF SITE: 2 (Acres)

07 COMMENTS

NONE

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

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

see below

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

THE ONLY VISUAL EVIDENCE OF WASTE IS SAND BLASTING DUST ON THE SURFACE ADJACENT TO THE SANDBLASTING SHANTY.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☐ YES ■ NO

02 COMMENTS

THERE ARE GUARDS ON SITE 24 HOURS, FENCES ARE LOCKED AT NIGHT. HOWEVER, THERE HAVE STILL BEEN CASES OF VANDALISM.

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

EEE SITE INSPECTION INTERVIEW (5-27-87)

EEE, INC FILE INFORMATION

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
IND	014387880

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)	SURFACE	WELL	02 STATUS: ENDANGERED	AFFECTED	MONITORED	03 DISTANCE TO SITE
COMMUNITY	A. ■	B. ☐	A. ☐	B. ☐	C. ■	A. 1 (mi)
NON-COMMUNITY	C. ☐	D. ■	D. ☐	E. ☐	F. ■	B. N/A (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

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

02 POPULATION SERVED BY GROUND WATER 68

03 DISTANCE TO NEAREST DRINKING WATER WELL 1 1/2 (mi)

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFER
10 (ft)	NORTH	10 (ft)	UNKNOWN (gpd)	☐ YES ■ NO

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

THERE IS VERY LITTLE GROUNDWATER USE IN THIS AREA. THE WELLS ARE FOR DOMESTIC USE AND ARE COMPLETED GENERALLY IN THE CALUMET AQUIFER.

10 RECHARGE AREA	COMMENTS	11 DISCHARGE AREA	COMMENTS
■ YES ☐ NO	THROUGH THE GROUND BY PRECIPITATION	■ YES ☐ NO	INTO LAKE MICHIGAN & GRAND CALUMET R.

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

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

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
LAKE MICHIGAN	☐	73 (mi)
GRAND CALUMET	☐	1/4 (mi)
	☐	(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE
A. ≈338 NO OF PERSONS	B. ≈1634 NO OF PERSONS	C. ≈83656 NO OF PERSONS

02 DISTANCE TO NEAREST POPULATION 1 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE ≈450

04 DISTANCE TO NEAREST OFF-SITE BUILDING 1/10 (mi)

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)

IMMEDIATE VICINITY IS HEAVILY INDUSTRIALIZED BORDERED BY A VERY DENSE POPULATION

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
IND	014387880

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE *(Check one)*

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

02 PERMEABILITY OF BEDROCK *(Check one)*

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

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH
≈50 (ft)	UNKNOWN (ft)	N/A

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
6.0 (in)	2.4" (in)	0 %	—	0 %

09 FLOOD POTENTIAL

SITE IS IN N/A YEAR FLOODPLAIN

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

11 DISTANCE TO WETLANDS *(5 acre minimum)*

ESTUARINE: A. N/A (mi)

OTHER: B. N/A (mi)

12 DISTANCE TO CRITICAL HABITAT *(of endangered species)*

N/A (mi)

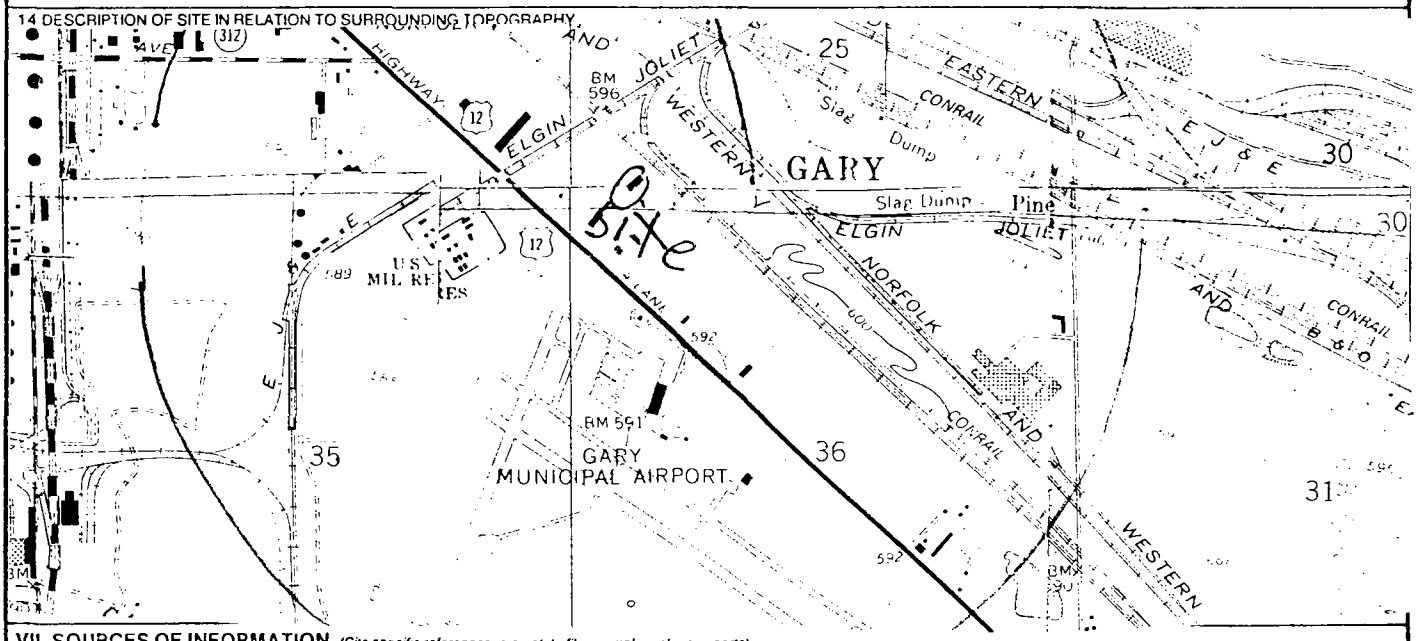
ENDANGERED SPECIES: N/A

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS: PRIME AG LAND	AGRICULTURAL LANDS: AG LAND
A. <0.1 (mi)	B. 1 (mi)	C. >3 (mi)	D. >3 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY



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

ECOLOGY & ENVIRONMENT FILE INFO (FIT)
CLIMATIC ATLAS OF THE U.S. (June 1968)
SOIL SURVEY FOR LAKE COUNTY, INDIANA (US Dept of Agriculture)
USGS Topographic Map (HIGHLAND, INDIANA)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
IND	014387880

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL	5	INORGANICS - ACCU ORGANICS - KEMRON	8-5-87
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
HNU	NO READINGS ABOVE BACKGROUND
RAD MINI	" " "
O_2 METER	" " "
EXPLOSIMETER	" " "
HCN DRAEGER TUBES	" " "

IV. PHOTOGRAPHS AND MAPS

01 TYPE ■ GROUND ☐ AERIAL

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

03 MAPS ■ YES ☐ NO

04 LOCATION OF MAPS ECOLOGY & ENVIRONMENT, INC

V. OTHER FIELD DATA COLLECTED *(Provide narrative description)*

NONE

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

SITE INSPECTION LOG BOOK - E&E, INC (5-27-87)
E&E, INC FILE INFORMATION

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
IND	014387880

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE
GARY MUNICIPAL AIRPORT		6131 W. INDUSTRIAL HWY		GARY	IN	46406

PARENT COMPANY (If applicable)

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

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

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE
CALUMET INDUSTRIES		6010 W. INDUSTRIAL HWY		GARY	IN	46406

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

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

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

SITE INSPECTION LOG BOOK - E&E, INC (5-27-87)
E&E FILE INFO.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
IND	014387880

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

01 NAME	02 D+B NUMBER
CORRECT PIPING	

03 STREET ADDRESS *(P.O. Box, RFD #, etc.)*	04 SIC CODE
6012 W. INDUSTRIAL HWY	

05 CITY	06 STATE	07 ZIP CODE
GARY	IN	

08 YEARS OF OPERATION	09 NAME OF OWNER
1970-PRESENT	

OPERATOR'S PARENT COMPANY *(If applicable)*

10 NAME	11 D+B NUMBER

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

14 CITY	15 STATE	16 ZIP CODE

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

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

PREVIOUS OPERATORS' PARENT COMPANIES *(If applicable)*

10 NAME	11 D+B NUMBER

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

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

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

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

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

14 CITY	15 STATE	16 ZIP CODE

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

SITE INSPECTION INTERVIEW/LOG BOOK - EME, INC (5-27-87)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
IND	D143878 80

II. ON-SITE GENERATOR No Information Available On Past Practices

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

III. OFF-SITE GENERATOR(S) N/A

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

IV. TRANSPORTER(S) N/A

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

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

Site Inspection Interview - E&E, Inc (5-27-87)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
IND	004387880

II. PAST RESPONSE ACTIVITIES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
IND	014387880

II PAST RESPONSE ACTIVITIES *(Continued)*

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

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

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

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

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

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

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

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

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

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

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

01 ☐ 3. OTHER REMEDIAL ACTIVITIES — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

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

SITE INSPECTION LOG BOOK & INTERVIEW - E & E, INC (5-27-87)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
IND	014387880

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ■ NO

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

N/A

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

SITE INSPECTION LOG BOOK & INTERVIEW, E&E, INC (5-27-87)

Immediate Removal Action Check Sheet

	High	Moderate	Low
Fire and Explosion Hazard			
Flammable Materials N/A			
Explosives N/A			
Incompatable Chemicals N/A			
Direct Contact with Acutely Toxic Chemicals			
Site Security Some Trespassing Has Occurred		X	
Leaking Drums or Tanks N/A			
Open Lagoons or pits N/A			
Materials on Surface Sandblasting Dust			X
Proximity of Population ≈1 mile			X
Evidence of Casual Site Use Active Facility		X	
Contaminated Water Supply			
Exceeds 10 Day Snarl N/A			
Gross Taste or Odors N/A			
Alternate Water Available N/A			
Potential Contamination No Surface Water Route To Lake Michigan – N/A			
Is the site abandoned or active? Active			

Comments

No Comments

FIELD PHOTOGRAPHY LOG SHEET

PAGE 1

DATE 5-27-87

TIME 1050 (A.M.) P.M.

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

WEATHER 75°F
SUNNY

SITE CALUMET INDUSTRIES

TDD# F05-8704-018

PHOTOGRAPHED BY:
MARGE HEIN

SAMPLE ID# (if applicable)
S2

DESCRIPTION: SOUTHEAST CORNER OF SITE BOUNDARY

DATE 5-27-87

TIME 1050 (A.M.) P.M.

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

WEATHER 75°F
SUNNY

SITE CALUMET INDUSTRIES

TDD# F05-8704-018

PHOTOGRAPHED BY:
MARGE HEIN

SAMPLE ID# (if applicable)
S2

DESCRIPTION: AGAINST FENCE - NOTE DITCH IS ON EASTERN BORDER - EAST OF SITE

FIELD PHOTOGRAPHY LOG SHEET

DATE 5-27-87

TIME 1100 (A.M.) P.M.

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

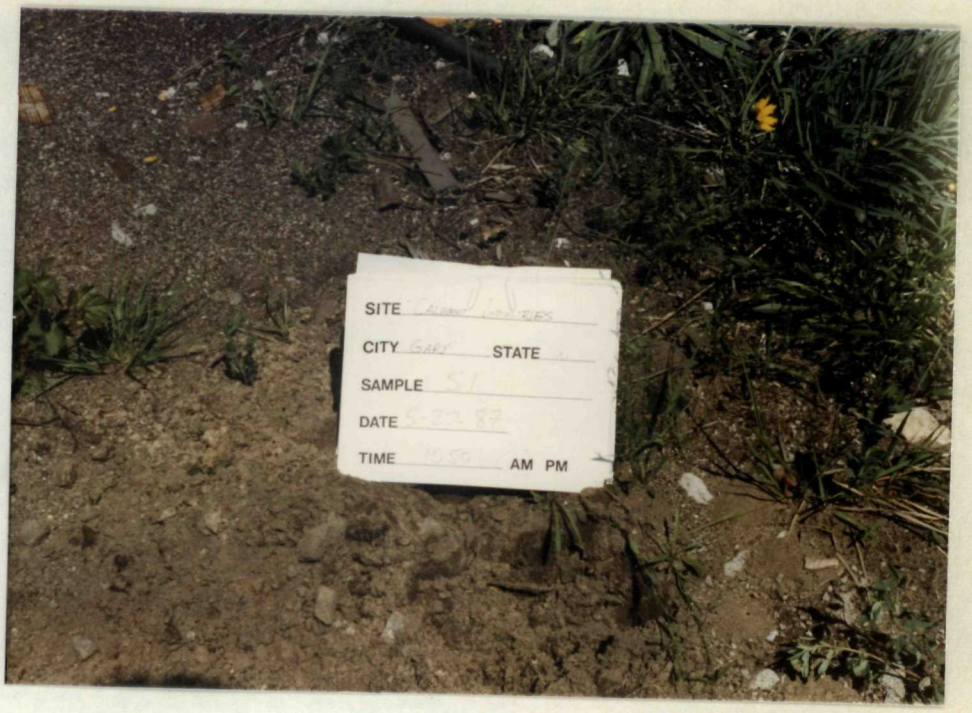
WEATHER 75°F
SUNNY

SITE CALUMET INDUSTRIES

TDD# F05-8704-018

PHOTOGRAPHED BY:
MARGE HEIN

SAMPLE ID# (if applicable)
S1



DESCRIPTION: NORTHEAST CORNER OF SITE

DATE 5-27-87

TIME 1100 (A.M.) P.M.

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

WEATHER 75°F
SUNNY

SITE CALUMET INDUSTRIES

TDD# F05-8704-018

PHOTOGRAPHED BY:
MARGE HEIN

SAMPLE ID# (if applicable)
S1

DESCRIPTION: NEXT TO OLD FURNACE WHICH RESTS IN THE CORNER

FIELD PHOTOGRAPHY LOG SHEET

DATE 5-27-87

TIME 1110 (A.M.) P.M.

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

WEATHER 75°F
SUNNY

SITE CALUMET INDUSTRIES

TDD# F05-8704-018

PHOTOGRAPHED BY:
MARGE HEIN

SAMPLE ID# (if applicable)
S3

DESCRIPTION: SOUTHWEST CORNER OF THE EAST BUILDING

DATE 5-27-87

TIME 1110 (A.M.) P.M.

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

WEATHER 75°F
SUNNY

SITE CALUMET INDUSTRIES

TDD# F05-8704-018

PHOTOGRAPHED BY:
MARGE HEIN

SAMPLE ID# (if applicable)
S3

DESCRIPTION: SOUTH OF DRIVEWAY / CURB

FIELD PHOTOGRAPHY LOG SHEET

DATE 5-2787

TIME 1120 A.M. P.M.

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

WEATHER 75°F
SUNNY

SITE CALUMET INDUSTRIES

TDD# F05-8704-018

PHOTOGRAPHED BY:
MARGE HEIN

SAMPLE ID# (if applicable)
S4

DESCRIPTION: SOUTH OF WESTERN BUILDING

DATE 5-27-87

TIME 1120 A.M. P.M.

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

WEATHER 75°F
SUNNY

SITE CALUMET INDUSTRIES

TDD# F05-8704-018

PHOTOGRAPHED BY:
MARGE HEIN

SAMPLE ID# (if applicable)
S4

DESCRIPTION: IN FRONT OF #3 RECEIVING DOOR

FIELD PHOTOGRAPHY LOG SHEET

DATE 5-2787

TIME 1140 A.M. P.M.

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

WEATHER 75°F
SUNNY

SITE CALUMET INDUSTRIES

TDD# F05-8704-018

PHOTOGRAPHED BY:
Tom Kouris

SAMPLE ID# (if applicable)
—

DESCRIPTION: SOUTHWEST CORNER OF WESTERN BUILDING

DATE 5-27-87

TIME 1140 A.M. P.M.

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

WEATHER 75°F
SUNNY

SITE CALUMET INDUSTRIES

TDD# F05-8704-018

PHOTOGRAPHED BY:
Tom Kouris

SAMPLE ID# (if applicable)
—

DESCRIPTION: SOUTHWEST CORNER OF EASTERN BUILDING

FIELD PHOTOGRAPHY LOG SHEET

DATE 5-27-87

TIME 1150 (A.M.) P.M.

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

WEATHER 75°F
SUNNY

SITE CALUMET INDUSTRIES

TDD# F05-8704-018

PHOTOGRAPHED BY:
TOM KOURIS

SAMPLE ID# (if applicable)
—

DESCRIPTION: EASTERN SIDE OF PROPERTY

DATE 5-27-87

TIME 1150 (A.M.) P.M.

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

WEATHER 75°F
SUNNY

SITE CALUMET INDUSTRIES

TDD# F05-8704-018

PHOTOGRAPHED BY:
TOM KOURIS

SAMPLE ID# (if applicable)
—

DESCRIPTION: NORTH SIDE OF PROPERTY

FIELD PHOTOGRAPHY LOG SHEET

DATE 5-2787

TIME 1240 A.M. (P.M.)

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

WEATHER 75°F
SUNNY

SITE CALUMET INDUSTRIES

TDD# F05-8704-018

PHOTOGRAPHED BY:
MARGE HEIN

SAMPLE ID# (if applicable)
S5-BACKGROUND

DESCRIPTION: BACKGROUND SAMPLE - HOOSIER PRARIE - SCHERERVILLE, INDIANA

DATE 5-27-87

TIME 1240 A.M. (P.M.)

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

WEATHER 75°F
SUNNY

SITE CALUMET INDUSTRIES

TDD# F05-8704-018

PHOTOGRAPHED BY:
MARGE HEIN

SAMPLE ID# (if applicable)
S5-BACKGROUND

DESCRIPTION: SOUTH OF THE PARKING LOT ON MAIN STREET.

UNITS = mg/kg

COMPOUND	ITC	MEN405	MEN406	MEN407	MEN408	MEN409						
	OTC	EI877	EI878	EI879	EI880	EM848						
	SAMPLE	S_1	S_2	S_3	S_4	S_5						
chloromethane												
bromomethane												
vinyl chloride												
chloroethane												
methylene chloride												
acetone												
carbon disulfide												
1,1-dichloroethene												
1,1-dichloroethane												
trans-1,2,-dichloroethene												
chloroform												
1,2-dichloroethane												
2-butanone												
1,1,1-trichloroethane		4 J		6	7	155						
carbon tetrachloride												
vinyl acetate												
bromodichloromethane												
1,1,2,2-tetrachloroethane												
1,2-dichloropropane												
trans-1,3-dichloropropene												
trichloroethene												
dibromochloromethane												
1,1,2-trichloroethane												
benzene												
cis-1,3-dichloropropene												
2-chloroethylvinylether												
bromoform												
2-hexanone												
4-methyl-2-pentanone												
tetrachloroethene												
toluene												
chlorobenzene			1 J									
ethylbenzene												
styrene												
total xylenes												
N-nitrosodimethylamine												
phenol												
aniline												
bis(2-chloroethyl)ether												
2-chlorophenol												
1,3-dichlorobenzene												
1,4-dichlorobenzene												
benzyl alcohol												
1,2-dichlorobenzene												
2-methylphenol												
bis(2-chloroisopropyl)ether												
4-methylphenol												
N-nitroso-di-n-propylamine												
hexachloroethane												
nitrobenzene												
isophrone												
2-nitrophenol												
2,4-dimethylphenol												
benzoic acid												
bis(2-chloroethoxy)methane												
2,4-dichlorophenol												
1,2,4-trichlorobenzene												
napthalene			75 J	45 J								
4-chloroaniline												
hexachlorobutadiene												
4-chloro-3-methylphenol												
2-methylnapthalene		50 J	75 J									
hexachlorocyclopentadiene												
2,4,6-trichlorophenol												
2,4,5-trichlorophenol												
2-chloronaphthalene												
2-nitroaniline												
dimethyl phthalate												
acenapthylene			80 J	50 J								
3-nitroaniline												
acenaphthene												
2,4-dinitrophenol												
4-nitrophenol												
dibenzofuran												
2,4-dinitrotoluene												
2,6-dinitrotoluene												
diethylphthalate												
4-chlorophenyl-phenylether												
fluorene												
4-nitroaniline												
4,6-dinitro-2-methylphenol												
N-nitrosodiphenylamine												
4-bromophenyl-phenylether												
hexachlorobenzene												

STATE INDIANA SITE CALUMET INDUSTRIES TDD F05-8704-018 PAGE 1 OF 2, SET # 1

UNITS: mg/kg

COMPOUND											
ITC	MEN405	MEN406	MEN407	MEN408	MEN409						
OTC	EI877	EI878	EI879	EI880	EM848						
SAMPLE	S_1	S_2	S_3	S_4	S_5						
pentachlorophenol											
phenanthrene	70 J	130 J	240 J	80 J							
anthracene	50 J	80 J	50 J								
di-n-butylphthalate											
fluoranthene	80 J	200 J	570	150 J	125 J						
benzidine											
pyrene	60 J	200 J	380	100 J							
butylbenzylphthalate											
3,3'-dichlorobenzidine											
benzo(a)anthracene		90 J	320 J	70 J							
bis(2-ethylhexyl)phthalate											
chrysene	70 J	150 J	450	100 J	70 J						
di-n-octylphthalate											
benzo(b,k)fluoranthene	60 J	140 J	820	280 J	120 J						
benzo(a)pyrene	50 J	80 J	420	60 J							
indeno(1,2,3-cd)pyrene		75 J	460								
dibenzo(a,h)anthracene			160 J								
benzo(g,h,i)perylene	90 J	125 J	650	60 J	40 J						
alpha-BHC											
beta-BHC											
delta-BHC											
gamma-BHC(lindane)											
heptachlor											
aldrin											
heptachlor epoxide											
endosulfan I					11						
dieldrin											
4,4'-DDE					4.4 J						
endrin											
endosulfan II					0.69 J						
4,4'-DDD											
endrin aldehyde											
endosulfan sulfate											
4,4'-DDT											
methoxychlor											
endrin ketone											
chlordane											
toxaphene											
Aroclor-1016											
Aroclor-1221											
Aroclor-1232											
Aroclor-1242											
Aroclor-1248											
Aroclor-1254											
Aroclor-1260		520									
ELEMENT											
aluminum											
antimony											
arsenic		8.4									
barium											
beryllium			3.2								
cadmium											
calcium											
chromium											
cobalt											
copper	70	829	632	100							
iron											
lead		151	86	99							
magnesium											
manganese											
mercury											
nickel			54								
potassium											
selenium											
silver											
sodium											
thallium											
tin											
vanadium											
zinc											
cyanide CHECK IF ANALYZED (X)	0.97	3.5	3.4	0.61							
TENTATIVELY IDENTIFIED ORGANICS											

STATE INDIANA SITE CALUMET INDUSTRIES TDD F05-8704-018 PAGE 2 OF 2, SET # 1

A SURVEY OF THE ANALYTICAL RESULTS FOR SAMPLES WHICH WERE TAKEN DURING FIELD ACTIVITIES CAN BE FOUND IN THE FOLLOWING TABLES. ONLY DETECTABLE CONCENTRATIONS ARE REPORTED. HOWEVER, IF THE COMPOUND HAS A FOOTNOTE FOLLOWING THE VALUE, CONSULT THE DEFINITION OF THE FOOTNOTE PROVIDED BELOW. ADDITIONAL QA/QC INFORMATION IS PROVIDED IN THE ATTACHED DATA SHEETS.

I. REPORTING UNITS

A. Organics

1. Water Samples - ug/L or ppb (parts per billion)
2. Soils or Sediments - ug/kg or ppb (parts per billion)

B. Metals

1. Water Samples - ug/L or ppb
2. Soils or Sediments - mg/kg or ppm

II. DEFINITION OF FOOTNOTES TO ANALYTICAL DATA

A. Organics

FOOTNOTE	DEFINITION	INTERPRETATION
UJ	Detection Limit (DL) is estimated because of a Quality Control (QC) protocol. DL is possibly above or below Contract Required Detection Limit (CRDL).	Compound was not detected
UB	Compound found in laboratory blank. No value above CRDL.	Compound was not detected
UJB	Compound found in laboratory blank, but not detected in sample. CRDL is estimated because of a QC protocol.	Compound was not detected
B	Compound found in blank. Two interpretations are possible:	
	a. If sample value is equivalent to DL to 5x blank concentration;	Compound value is semi-quantitative
	b. If sample value is greater than 5x the blank concentration.	Compound value is quantitative
JB	Compound found in blank, value is estimated because of QC protocol.	Compound value is semi-quantitative
R	Do Not Use Value. Major Violation of QC Protocol.	Compound value is not usable
C	Value adjusted for blank (an unacceptable procedure).	Compound value is semi-quantitative
J	Value is above CRDL and is an estimated value because of a QC protocol.	Compound value is semi-quantitative
Q	No Analytical Result.	Compound was not detected
N	Presumptive evidence for the presence of a compound as used for a Tentatively Identified Compound (TIC).	Compound value is semi-quantitative

B. Metals

FOOTNOTE	DEFINITION	INTERPRETATION
E	Estimated or not reported due to interference. See laboratory narrative.	Compound or element was not detected or value is semi-quantitative
s	Analysis by Method of Standard Additions (Look for a "+" footnote).	Value is quantitative
R	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative
*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value is semi-quantitative
+	Correlation coefficient for standard additions is less than 0.995. See review and laboratory narrative.	Data value is biased
[ ]	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative
UJ	DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected
J	Value is above CRDL and is an estimated value because of a QC Protocol.	Value is semi-quantitative

SAMPLE DESCRIPTION

SITE NAME/TDD# CALUMET IND F05-8704-018

CASE NUMBER 7342

SAMPLE #/STATION LOCATION S1

SAMPLING DATE 5-27-87 SAMPLING TIME 1050

ORGANIC TRAFFIC NUMBER EI 877

INORGANIC TRAFFIC NUMBER MEN 405

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz	M&C	5-35001	F7132142
8 oz	EX	02	F7132142
120 ml	VOA	03	D7086101
120 ml	VOA	04	D7086101

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Sandy clay

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: NONE

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# CALUMET IND F05-8704-018

CASE NUMBER 7342

SAMPLE #/STATION LOCATION S2

SAMPLING DATE 5-27-87 SAMPLING TIME 1100

ORGANIC TRAFFIC NUMBER EI 878

INORGANIC TRAFFIC NUMBER MEN 406

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8oz	M+C	5-35005	F7132142
8oz	EX	06	F7132142
120 ML	VOA	07	D7086101
120 ML	VOA	08	D7086101

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Sandy clay

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: NONE

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# CALUMET IND. F05-8704-018

CASE NUMBER 7342

SAMPLE #/STATION LOCATION S3

SAMPLING DATE 5-27-87 SAMPLING TIME 1110

ORGANIC TRAFFIC NUMBER EI 879

INORGANIC TRAFFIC NUMBER MEN 407

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz	M&C	5-35009	F7132142
8 oz	EX	10	F7132142
120 ML	VOA	11	D7086091
120 ML	VOA	12	D7086091

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Sandy clay

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: NONE

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# CALUMET IND F05-8704-018

CASE NUMBER 7342

SAMPLE #/STATION LOCATION S4

SAMPLING DATE 5-27-87 SAMPLING TIME 1120

ORGANIC TRAFFIC NUMBER EI 880

INORGANIC TRAFFIC NUMBER MEN 408

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz	M&C	5-35013	F7132142
8 oz	EX	14	F7132142
120 ML	VOA	15	D7086091
120 ML	VOA	16	D7086091

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Sandy Clay

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: NONE

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# CALUMET IND F05-8704-018

CASE NUMBER 7342

SAMPLE #/STATION LOCATION S5 - BACKGROUND

SAMPLING DATE 5-27-87 SAMPLING TIME 1230

ORGANIC TRAFFIC NUMBER EM 848

INORGANIC TRAFFIC NUMBER MEN 409

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz	M&C	5-35017	F7132142
8 oz	EX	18	F7132142
120 ML	VOA	19	D7086091
120 ML	VOA	20	D7086091

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Sandy Clay

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: NONE

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

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

Date Received for Review 24 July 87 Date Review Completed 26 July 87

To: Tom Kouris

From: Brenda R. Jones

Subject: Calumet Industries

PAN: IN0567 Case # 7-342

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
#	Low Soil	# 5	Low Soil
	Low Water		Low Water
	Drinking Water		Drinking Water
	Other		Other

Project Data Status _____ Completed!!

✓✓ Incomplete, awaiting: _____

FIT Data Review Findings:

✓✓ Compounds were detected in sample(s); see enclosed Chemical Evaluation Form.

Book No. 6 Page No. 135

recycled paper

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CHICAGO, ILLINOIS

CHEMICAL EVALUATION FORM

SITE NAME: Calumet Industries PAN# IN0567 DATE: 26 July 87

CASE # 7342 UNITS- mg/kg REVIEWER: BRJ

TOX/ PERS	COMPOUND	CRDL	3-5xCRDL	MEN 405	406	407	408	409		
	Copper	5	15-25	70	829	632	100			
	Cyanide	2	6-10	0.97	3.5	3.4	0.61			
	Arsenic	2	6-10		8.4					
	Lead	1	3-5		151	86	99			
	Beryllium	1	3-5			3.2				
	Nickel	8	24-40			54				

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

RECEIVED JUL 2 4 1987

DATE: 7-22-87

SUBJECT: Review of Region V CLP Data
Received for Review on 7-02-87

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

TO: Data User: FIT

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

SITE NAME: CALUMET INDUSTRIES SMO case No. 7342

EPA Data Set No. SF 4063 No. of Samples: 5 D.U./Activity Numbers Y905/C72100

CRL No. 87FK08S79

SMO Traffic No. MEN 405 - MEN 409

CLP Laboratory: ACCULABS Hrs. Required for Review: 2

Following are our findings: This review covers 5 low soil samples analyzed for metals and cyanide.
The RPDs for duplicate analysis for Cr (42%), Pb (147%), Hg (25%) are high. limits of ±35 apply for soil duplicate analysis. All Cr, Pb, Hg data are estimated.
Spike recoveries for Sb (40%), Mn (45%), Sn (67%) V (16 are shown above. Detection limit for Sb could be elevated. All Sb data are estimat. All Mn, Sn, V data are estimated.
All other QC audits are acceptable.

Ida Lesin
7.21.87

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

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

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

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Case Narrative
Case 7342
QC 145

The analysis of Na, Mg, Ca, K, Al and Ba by flame AA require additions of LaCs or KCl for suppression of ionization. For this reason, the resulting sample has a 1.1 dilution factor following the addition. The reportable detection limit is the IDL multiplied by 1.1. These levels are still below the CRDL.

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

Date 7/1/87

COVER PAGE
INORGANIC ANALYSES DATA PACKAGE

Lab Name Accu-Labs Research Case No. 7342

SOW No. 787 Q.C. Report No. 145

Sample Numbers

EPA No.	Lab ID No.	EPA No.	Lab ID No.
MEN 405	145-7342-5-1		
MEN 406	145-7342-5-2		
MEN 407	145-7342-5-3		
MEN 408	145-7342-5-4		
MEN 409	145-7342-5-5		

Comments: Background Correction used during analysis of all elements with wavelengths less than 350nm.

ICP Interelement and background corrections applied? Yes ____ No ____.

If yes, corrections applied before _____ or after _____ generation of raw data.

Footnotes:

NR - not required by contract at this time

Form I:

Value - If the result is a value greater than or equal to the instrument detection limit but less than the contract required detection limit, report the value in brackets (i.e., [10]). Indicate the analytical method used with P (for ICP/Flame AA) or F (for furnace).

U - Indicates element was analyzed for but not detected. Report with the detection limit value (e.g., 10U).

E - Indicates a value estimated or not reported due to the presence of interference. Explanatory note included on cover page.

S - Indicates value determined by Method of Standard Addition.

R - Indicates spike sample recovery is not within control limits.

* - Indicates duplicate analysis is not within control limits.

+ - Indicates the correlation coefficient for method of standard addition is less than 0.995

145-7342-5-0011

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Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
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703/557-2490 FTS: 8-557-2490

EPA Sample No. MEN-405

Date 7/1/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ACCU-LABS RESEARCH INC. CASE NO. 7342

SOW NO. 784

LAB SAMPLE ID. NO. 145-7342-5-1 QC REPORT NO. 145

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

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

1.	Aluminum	6430 P	13.	Magnesium	11800 P
2.	Antimony	31 UF 'R' UJ	14.	Manganese	344 P 'R' J
3.	Arsenic	5.2 UF	15.	Mercury	0.24 'R' cus *
4.	Barium	56 UP	16.	Nickel	10 UP
5.	Beryllium	1.0 UP	17.	Potassium	[282] P
6.	Cadmium	2.0 UP	18.	Selenium	2.6 UF
7.	Calcium	31600 P	19.	Silver	2.0 UP
8.	Chromium	38 P * J	20.	Sodium	[169] P
9.	Cobalt	15 UP	21.	Thallium	5.2 UF
10.	Copper	70 P	22.	Tin	21 UF 'R' J
11.	Iron	8720 P	23.	Vanadium	26 UF 'R' J
12.	Lead	240 ~~246~~ as F * 'S' J	24.	Zinc	114 P
	Cyanide	0.97		Percent Solids (%)	92

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

Comments:

Lab Manager Cathy Lucourt

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Form I

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

EPA Sample No. MEN-406

Date 7/1/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ACCU-LABS RESEARCH INC. CASE NO. 7342

SOW NO. 784

LAB SAMPLE ID. NO. 145-7342-5-2 QC REPORT NO. 145

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

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

1.	Aluminum	48800 P	13.	Magnesium	12400 P
2.	Antimony	36 UF 'R' UJ	14.	Manganese	1160 P 'R' J
3.	Arsenic	8.4 F	15.	Mercury	0.16 'R' CRAS *
4.	Barium	64 UP	16.	Nickel	70 P
5.	Beryllium	[1.2] P	17.	Potassium	[511] P
6.	Cadmium	2.3 UP	18.	Selenium	3.0 UF
7.	Calcium	33900 P	19.	Silver	2.3 UP
8.	Chromium	116 P * J	20.	Sodium	[256] P
9.	Cobalt	17 UP	21.	Thallium	6.0 UF
10.	Copper	829 P	22.	Tin	62 F 'R' 'S' J
11.	Iron	22400 P	23.	Vanadium	56 F 'R' J
12.	Lead	151 P	24.	Zinc	839 P
	Cyanide	3.5		Percent Solids (%)	82

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

Comments: ____

Lab Manager Arthur Stuart

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Form I

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

EPA Sample No. MEN-408

Date 7/1/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ACCU-LABS RESEARCH INC. CASE NO. 7342

SOW NO. 784

LAB SAMPLE ID. NO. 145-7342-5-4 QC-REPORT NO. 145

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

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

1.	Aluminum	7370 P	13.	Magnesium	17400 P
2.	Antimony	33 UF 'R' UJ	14.	Manganese	436 P 'R' J
3.	Arsenic	5.4 UF	15.	Mercury	0.27 'R' MS *
4.	Barium	57 UP	16.	Nickel	[16] P
5.	Beryllium	1.0 UP	17.	Potassium	[286] P
6.	Cadmium	2.1 UP	18.	Selenium	2.7 UF
7.	Calcium	41100 P	19.	Silver	2.1 UP
8.	Chromium	37 P * J	20.	Sodium	[171] P
9.	Cobalt	16 UP	21.	Thallium	5.4 UF
10.	Copper	100 P	22.	Tin	22 UF 'R' J
11.	Iron	16400 P	23.	Vanadium	27 F 'R' J
12.	Lead	99 P	24.	Zinc	175 P
	Cyanide	0.61		Percent Solids (%)	90

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

Comments:

Lab Manager Cathy Stewart

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Form I

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Sample Management Office
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703/557-2490 FTS: 8-557-2490

EPA Sample No. MEN-407

Date 7/1/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ACCU-LABS RESEARCH INC. CASE NO. 7342

SOW NO. 784

LAB SAMPLE ID. NO. 145-7342-5-3 QC REPORT NO. 145

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

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

1.	Aluminum	31400 P	13.	Magnesium	7300 P
2.	Antimony	32 UF 'R' UJ	14.	Manganese	562 P 'R' J
3.	Arsenic	5.3 UF	15.	Mercury	1.1 'R' *
4.	Barium	415 P	16.	Nickel	54 P
5.	Beryllium	3.2 P	17.	Potassium	[2710] P
6.	Cadmium	2.2 UP	18.	Selenium	2.7 UF
7.	Calcium	34400 P	19.	Silver	2.2 UP
8.	Chromium	173 P * J	20.	Sodium	[1420] P
9.	Cobalt	16 UP	21.	Thallium	5.3 UF
10.	Copper	632 P	22.	Tin	23 F 'R' 'S' J
11.	Iron	40100 P	23.	Vanadium	47 F 'R' J
12.	Lead	86 P	24.	Zinc	477 P
	Cyanide	3.4		Percent Solids (%)	90

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

Comments: ____

Lab Manager [signature]

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Form I

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Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MEN-409

Date 7/1/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ACCU-LABS RESEARCH INC. CASE NO. 7342

SOW NO. 784

LAB SAMPLE ID. NO. 145-7342-5-5 QC REPORT NO. 145

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

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

1.	Aluminum	5000 P	13.	Magnesium	[383] P
2.	Antimony	36 UF 'R' UJ	14.	Manganese	55 P 'R' J
3.	Arsenic	6.0 UF	15.	Mercury	0.12 U 'R' cas *
4.	Barium	61 UP	16.	Nickel	11 UP
5.	Beryllium	1.1 UP	17.	Potassium	[304] P
6.	Cadmium	2.2 UP	18.	Selenium	3.0 UF
7.	Calcium	[425] P	19.	Silver	2.2 UP
8.	Chromium	[3.9] P * J	20.	Sodium	[61] P
9.	Cobalt	17 UP	21.	Thallium	6.0 UF
10.	Copper	[2.8] P	22.	Tin	24 UF 'R' J
11.	Iron	5210 P	23.	Vanadium	30 F 'R' J
12.	Lead	18 ~~20~~ F * ~~8~~ cas 'R' J	24.	Zinc	31 P
	Cyanide	0.30 U		Percent Solids (%)	83

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

Comments: ____

Lab Manager Cathy Hungate

QC EXCEPTION SUMMARY REPORT

CASE # 7342.
DATA SET # 4063
LAB Q.C. # 145
DATE: 7.21.87

SITE Calumet Industr.
LAB Accutab
REVIEWED BY Ado Lesin

MATRIX: SS
CONC. : SL

WATER SAMPLE SPK.
WATER SAMPLE DUP.
SOIL SAMPLE SPK. MEN 406
SOIL SAMPLE DUP.

	OVERALL CASE QC									MATRIX SPECIFIC QC						SAMPLE SPECIFIC QC		FIELD QC			REGIONAL QC			OTHER COMMENTS
	Holding Time	Cal Blanks	Init Calibr	Contin. Calibr	Prep Blk AQ	Prep Blk SOL	ICS %R	LCS % AQ	LCS % SOL	Sol Dup RPD	Sol Spk. %R	AQ Dup RPD	AQ Spk. %R	Ser Dilu AQ	Ser Dilu SOL	GFAA Dup	GFAA Spike	Blank	Dup RPD	Spike %R	Blind Blank	Blind Spike %R	Split Sample RPD	
Aluminum																								
Antimony											40													
Arsenic																								
Barium																								
Beryllium																								
Cadmium																								
Calcium																								
Chromium										42														
Cobalt																								
Copper																								
Iron																								
Lead										147														
Magnesium																								
Manganese											45													
Mercury										25														
Nickel																								
Potassium																								
Selenium																								
Silver																								
Sodium																								
Thallium																								
Tin											67													
Vanadium											16													
Zinc																								
Cyanide																								

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Form III A

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Q. C. Report No. 145

BLANKS

LAB NAME ACCU-LABS RESEARCH

CASE NO. 7342

DATE 7-1-87

UNITS mg/kg

Matrix soil

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank 1	2
Metals:							
1. Aluminum	0.16U	[0.16]	0.16U			0.176U	
2. Antimony	0.005U	0.005U	0.005U			0.005U	
3. Arsenic	0.005U	0.005U	0.005U			0.005U	
4. Barium	0.1U	0.1U	0.1U			0.11U	
5. Beryllium	0.002U	0.002U	0.002U			0.002U	
6. Cadmium	0.004U	0.004U	0.004U			0.004U	
7. Calcium	0.1U	0.1U	0.1U			0.11U	
8. Chromium	0.003U	0.003U	0.003U			0.003U	
9. Cobalt	0.030U	0.030U	0.030U			0.030U	
10. Copper	0.003U	0.003U	0.003U			0.003U	
11. Iron	0.020U	0.020U	0.020U			0.020U	
12. Lead	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U	
13. Magnesium	0.05U	0.05U	0.05U			0.055U	
14. Manganese	0.004U	0.004U	0.004U			0.004U	
15. Mercury	0.0001U	0.0001U	0.0001U				
16. Nickel	0.020U	0.020U	0.020U			0.020U	
17. Potassium	0.1U	0.1U	0.1U			0.11U	
18. Selenium	0.002U	0.002U	0.002U			0.002U	
19. Silver	0.004U	0.004U	0.004U			0.004U	
20. Sodium	0.1U	0.1U	0.1U			0.11U	
21. Thallium	0.002U	0.002U	0.002U			0.002U	
22. Tin	0.007U	0.007U	[0.007]	0.007U	[0.008]	[0.009]	
23. Vanadium	0.007U	0.007U	0.007U	0.007U	0.007U	0.007U	
24. Zinc	0.004U	0.004U	0.004U			0.004U	
Other: Lead (Flame)	0.03U	0.03U				0.03U	
Cyanide	0.005U	0.005U				0.005U	

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Form III B

Q. C. Report No. 145

BLANKS

LAB NAME ACCU-LABS RESEARCH

CASE NO. 7342

DATE 7-1-87

UNITS mg/kg

Matrix soil

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank 1	2
Metals:							
1. Aluminum							
2. Antimony							
3. Arsenic							
4. Barium							
5. Beryllium							
6. Cadmium							
7. Calcium							
8. Chromium							
9. Cobalt							
10. Copper							
11. Iron							
12. Lead		0.002U					
13. Magnesium							
14. Manganese							
15. Mercury							
16. Nickel							
17. Potassium							
18. Selenium							
19. Silver							
20. Sodium							
21. Thallium							
22. Tin							
23. Vanadium		0.007U					
24. Zinc							
Other:							
Cyanide							

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Form III C

Q. C. Report No. 145

BLANKS - analytical spike

LAB NAME ACCU-LABS RESEARCH

CASE NO. 7342

DATE 7-1-87

UNITS mg/kg

Matrix Soil

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank 1	2
Metals:							
1. Aluminum							
2. Antimony	0.005U	0.005U	0.005U				
3. Arsenic	0.005U	0.005U	0.005U				
4. Barium							
5. Beryllium							
6. Cadmium							
7. Calcium							
8. Chromium							
9. Cobalt							
10. Copper							
11. Iron							
12. Lead	0.002U	0.002U	0.002U	0.002U			
13. Magnesium							
14. Manganese							
15. Mercury							
16. Nickel							
17. Potassium							
18. Selenium	0.002U	0.002U	0.002U				
19. Silver							
20. Sodium							
21. Thallium	0.002U	0.002U	0.002U				
22. Tin	0.007U	0.007U	0.007U				
23. Vanadium	0.007U	0.007U	0.007U				
24. Zinc							
Other:							
Cyanide							

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Form III D

Q. C. Report No. 145

BLANKS USA

LAB NAME ACCU-LABS RESEARCH

CASE NO. 7342

DATE 7-1-87

UNITS mg/kg

Matrix soil

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank 1	2
Metals:							
1. Aluminum							
2. Antimony	0.005U	0.005U					
3. Arsenic	0.005U	0.005U	0.005U	0.005U	0.005U		
4. Barium							
5. Beryllium							
6. Cadmium							
7. Calcium							
8. Chromium							
9. Cobalt							
10. Copper							
11. Iron							
12. Lead	0.002U	0.002U	0.002U				
13. Magnesium							
14. Manganese							
15. Mercury							
16. Nickel							
17. Potassium							
18. Selenium	0.002U	0.002U					
19. Silver							
20. Sodium							
21. Thallium							
22. Tin	0.007U	0.007U	0.007U				
23. Vanadium	0.007U	0.007U					
24. Zinc							
Other:							
Cyanide							

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Form III E

Q. C. Report No. 145

BLANKS MSA

LAB NAME ACCU-LABS RESEARCH

CASE NO. 7342

DATE 7-1-87

UNITS mg/kg

Matrix Soil

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank 1	2
Metals:							
1. Aluminum							
2. Antimony							
3. Arsenic		0.005U					
4. Barium							
5. Beryllium							
6. Cadmium							
7. Calcium							
8. Chromium							
9. Cobalt							
10. Copper							
11. Iron							
12. Lead							
13. Magnesium							
14. Manganese							
15. Mercury							
16. Nickel							
17. Potassium							
18. Selenium							
19. Silver							
20. Sodium							
21. Thallium							
22. Tin							
23. Vanadium							
24. Zinc							
Other:							
Cyanide							

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Form V A

Q. C. Report No. 145

SPIKE SAMPLE RECOVERY

LAB NAME ACCU-LABS RESEARCH

DATE 7-1-87

CASE NO. 7342
EPA Sample No. MEN 406
Lab Sample ID No. 145-7342-5-2
Units mg/kg wet wt.

Matrix soil

Compound	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spiked Added (SA)	%R[1]	
Metals:						
1. Aluminum	75-125	—	—	—	NR	
2. Antimony	-	9.9	2.4 U	25	40	'R'
3. Arsenic	-	23	6.9	20	80	
4. Barium	-	952	52 U	1000	95	
5. Beryllium	-	24	[0.95]	25	92	
6. Cadmium	-	25	1.9 U	25	100	
7. Calcium	-	—	—	—	NR	
8. Chromium	-	219	95	100	124	
9. Cobalt	-	250	14 U	250	100	
10. Copper	-	801	680	125	97	
11. Iron	-	—	—	—	NR	
12. Lead	-	~~350~~ cus	~~114~~ cus	~~250~~ cus	~~95~~ cus	
13. Magnesium	-	—	—	—	NR	
14. Manganese	-	1062	950	250	45	'R'
15. Mercury	-					
16. Nickel	-	303	57	250	98	
17. Potassium	-	—	—	—	NR	
18. Selenium	-	5.9	[1.5]	5.0	88	
19. Silver	-	23	1.9 U	25	92	
20. Sodium	-	—	—	—	NR	
21. Thallium	-	21	0.98 U	25	84	
22. Tin	-	121	54	100	67	'R'
23. Vanadium	-	60	56	25	16	'R'
24. Zinc	-	892	688	250	82	
Other: Lead (Flame)		350	114	250	95	
Cyanide	-	4.7	0.20 U	5.0	94	

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

"R" - out of control

Comments:

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Form V B

Q. C. Report No. 145

SPIKE SAMPLE RECOVERY

LAB NAME ACCU-LABS RESEARCH

DATE 7-1-87

CASE NO. 7342

EPA Sample No. MEN 409

Lab Sample ID No. 145-7342-5-5

Units mg/kg wet wt.

Matrix soil

Compound	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spiked Added (SA)	%R[1]
Metals:					
1. Aluminum	75-125				
2. Antimony	-				
3. Arsenic	-				
4. Barium	-				
5. Beryllium	-				
6. Cadmium	-				
7. Calcium	-				
8. Chromium	-				
9. Cobalt	-				
10. Copper	-				
11. Iron	-				
12. Lead	-				
13. Magnesium	-				
14. Manganese	-				
15. Mercury	-	0.52	0.05 u	0.50	104
16. Nickel	-				
17. Potassium	-				
18. Selenium	-				
19. Silver	-				
20. Sodium	-				
21. Thallium	-				
22. Tin	-				
23. Vanadium	-				
24. Zinc	-				
Other:					
Cyanide	-				

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

"*"- out of control

Comments:

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Form VI A

Q. C. Report No. 145

DUPLICATES

LAB NAME Accu-Labs Research, Inc.

CASE NO. 7342

EPA Sample No. MEN 405

Lab Sample ID No. 145-7342-5-1

DATE 7-1-87

Units mg/kg dry wt

Matrix Soil

Compound	Control Limit[1]	Sample(S)	Duplicate(D)	RPD[2]	
Metals:					
1. Aluminum		6430	6930	7.5	
2. Antimony		2.4U	2.4U	NC	
3. Arsenic		5.2U	5.2U	NC	
4. Barium		56U	56U	NC	
5. Beryllium		1.0U	1.0U	NC	
6. Cadmium		2.0U	2.0U	NC	
7. Calcium		31600	29600	6.5	
8. Chromium		38	58	42	*
9. Cobalt		15U	15U	NC	
10. Copper		70	76	8.2	
11. Iron		8720	10200	16	
12. Lead		240	~~45~~ 37	147	R LCS *
13. Magnesium		11800	11400	3.4	
14. Manganese		344	355	3.1	
15. Mercury		0.24	0.31	25	R LCS *
16. Nickel		10U	10U	NC	
17. Potassium		[282]	[279]	NC	
18. Selenium		2.6U	2.6U	NC	
19. Silver		2.0U	2.0U	NC	
20. Sodium		[169]	[168]	NC	
21. Thallium		5.2U	5.2U	NC	
22. Tin		21U	21U	NC	
23. Vanadium		26U	26U	NC	
24. Zinc		114	139	20	
Other:					
Cyanide		0.97	1.0	3.0	

* Out of Control

[1] To be added at a later date.

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

NC - Not calculable RPD due to value(s) less than CRDL

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Form VII

Q.C. Report No. 145

INSTRUMENT DETECTION LIMITS AND

LABORATORY CONTROL SAMPLE

LAB NAME ACCU-LABS RESEARCH CASE NO. 7342

DATE 7-1-87 LCS UNITS ug/L mg/kg

(Circle One)

Compound	Required Detection Limits (CRDL)-ug/l	Instrument Detection Limits (IDL)-ug/l ICP/AA	Instrument Detection Limits (IDL)-ug/l Furnace	Lab Control Sample True	Lab Control Sample Found	Lab Control Sample %R	
Metals:							
1. Aluminum	200	160		1.97	1.89	96	
2. Antimony	60		5	0.109	0.116	106	'S'
3. Arsenic	10		5	0.049	0.052	106	'S'
4. Barium	200	100		2.12	1.87	88	
5. Beryllium	5	2		0.527	0.474	90	
6. Cadmium	5	4		0.488	0.471	96	
7. Calcium	5000	100		51.8	47.3	91	
8. Chromium	10	3		0.529	0.456	86	
9. Cobalt	50	30		0.496	0.470	95	
10. Copper	25	3		0.524	0.495	94	
11. Iron	100	20		2.06	1.88	91	
12. Lead	5		2	0.098	0.096	98	
13. Magnesium	5000	50		25.5	22.1	87	
14. Manganese	15	4		0.520	0.479	92	
15. Mercury	0.2	0.1		0.050	0.054	108	
16. Nickel	40	20		0.495	0.510	103	
17. Potassium	5000	100		51.3	47.3	92	
18. Selenium	5		5	0.098	0.091	93	'S'
19. Silver	10	4		0.495	0.446	90	
20. Sodium	5000	100		50.3	49.5	98	
21. Thallium	10		2	0.097	0.093	96	
22. Tin	40		7	0.050	0.047	94	'S'
23. Vanadium	50		7	0.520	0.475	91	
24. Zinc	20	4		3.07	2.82	92	
Other: Lead (Flame)	5	30		5.16	5.10	99	
Cyanide	10	5		0.224	0.212	95	

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

Date Received for Review 21 Aug 1987 Date Review Completed 23 Aug 1987

To: ~~Danny Lynch~~ Tom Kouris

From: Brenda R. Jones

Subject: Calumet Industries
IN0567

PAN: ~~MI 0138~~ Case # 7342

Sample Description

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

Project Data Status ✓✓ Completed!!

_____ Incomplete, awaiting: _____

FIT Data Review Findings:

✓ Compounds were detected in sample(s); see enclosed Chemical Evaluation Form.

Book No. 6 Page No. 135

recycled paper

CASE - 7342

Calumet INDUST

µg/Kg

COMPOUND	SAMPLE DET. LIMIT	µg/Kg E1877	E1878	E1879	E1880	E1848			
chloromethane									
bromomethane									
vinyl chloride									
chloroethane									
methylene chloride									
acetone									
carbon disulfide									
1,1-dichloroethene									
1,1-dichloroethane									
trans-1,2,-dichloroethene									
chloroform									
1,2-dichloroethane									
2-butanone									
1,1,1-trichloroethane		4J		6	7	155			
carbon tetrachloride									
vinyl acetate									
bromodichloromethane									
1,1,2,2-tetrachloroethane									
1,2-dichloropropane									
trans-1,3-dichloropropene									
trichloroethene									
dibromochloromethane									
1,1,2-trichloroethane									
benzene									
cis-1,3-dichloropropene									
2-chloroethylvinylether									
bromoform									
2-hexanone									
4-methyl-2-pentanone									
tetrachloroethene									
toluene									
chlorobenzene			1J						
ethylbenzene									
styrene									
total xylenes									
N-nitrosodimethylamine									
phenol									
aniline									
bis(2-chloroethyl)ether									
2-chlorophenol									
1,3-dichlorobenzene									
1,4-dichlorobenzene									
benzyl alcohol									
1,2-dichlorobenzene									
2-methylphenol									
bis(2-chloroisopropyl)ether									
4-methylphenol									
N-nitroso-di-n-propylamine									
hexachloroethane									
nitrobenzene									
isophrone									
2-nitrophenol									
2,4-dimethylphenol									
benzoic acid									
bis(2-chloroethoxy)methane									
2,4-dichlorophenol									
1,2,4-trichlorobenzene									
napthalene			75J	45J					
4-chloroaniline									
hexachlorobutadiene									
4-chloro-3-methylphenol									
2-methylnapthalene	360	50J	75J						
hexachlorocyclopentadiene									
2,4,6-trichlorophenol									
2,4,5-trichlorophenol									

VOA

RECEIVED AUG 21 1987

Calumet Industries Case # 7342

RECEIVED AUG 21 1987

	COMPOUND	DET. LIMIT (µg/kg)	E1877	E1878	E1879	E1880	EM848
L	dimethyl phthalate						
	acenapthylene			80 J	50 J		
	3-nitroaniline						
	acenaphthene						
	2,4-dinitrophenol						
	4-nitrophenol						
	dibenzofuran						
	2,4-dinitrotoluene						
S	2,6-dinitrotoluene						
	diethylphthalate						
	4-chlorophenyl-phenylether						
V	fluorene						
	4-nitroaniline						
	4,6-dinitro-2-methylphenol						
	N-nitrosodiphenylamine						
	4-bromophenyl-phenylether						
	hexachlorobenzene						
	pentachlorophenol						
	phenanthrene	330	70 J	130 J	240 J	80 J	
	anthracene		50 J	80 J	50 J		
	di-n-butylphthalate						
	fluoranthene	330	80 J	200 J	570	150 J	125 J
	benzidine						
	pyrene	330	60 J	200 J	380	100 J	
	butylbenzylphthalate						
	3,3'-dichlorobenzidine						
	benzo(a)anthracene	330		90 J	320 J	70 J	
	bis(2-ethylhexyl)phthalate						
	chrysene	330	70 J	150 J	450	100 J	70 J
	di-n-octylphthalate						
	benzo(b,k)fluoranthene	330	60 J	140 J	820	280 J	120 J
	benzo(a)pyrene		50 J	80 J	420	60 J	
	indeno(1,2,3-cd)pyrene	360		75 J	460		
	dibenzo(a,h)anthracene	360			160 J		
T	benzo(g,h,i)perylene	330	90 J	125 J	650	60 J	40 J
	alpha-BHC						
	beta-BHC						
	delta-BHC						
	gamma-BHC(lindane)						
P	heptachlor						
	aldrin						
E	heptachlor epoxide						
	endosulfan I	10					11
S	dieldrin						
	4,4'-DDE	19					4.4 J
T	endrin						
	endosulfan II	19					0.69 J
	4,4'-DDD						
	endrin aldehyde						
	endosulfan sulfate						
	4,4'-DDT						
	methoxychlor						
	endrin ketone						
	chlordane						
	toxaphene						
	Aroclor-1016						
P	Aroclor-1221						
C	Aroclor-1232						
B	Aroclor-1242						
	Aroclor-1248						
	Aroclor-1254						
	Aroclor-1260	180					

520

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

RECEIVED AUG 21 1987

DATE: 8/18/87

SUBJECT: Review of Region V CLP Data
Received for Review on 7/08/87

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

TO: Date User: FIT

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

SITE NAME Calumet Industries SMO Case No. 7342

EPA DATA SET NO. SF4063 No. OF SAMPLES 5 D.U./ACTIVITY NUMBERS Y905/C72100

CRL No.: 87FK08S79
SMO
Traffic No. EI877, EL880, EM848

CLP Laboratory: Kemron Hrs. Required for Review: 7
PAN # IN0567

Following are our findings. reviewed by Elna Hold-Kaufman 8/18/87

This review covers 5 low soil samples analyzed for full organic analysis.

(A) Holding Times - Acceptable. All samples were extracted and/or analyzed within the required holding times.

(B) Surrogates - Acceptable. All fractions fully meet QC criteria

(C) Matrix Spike/MSD - Acceptable. The laboratory indvertantly spiked the MSD and MS with 1mL of 100/200 ug/mL matrix spike standard instead of 0.5 mL. Results are aceptable. Lab did not enter RPD or

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

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

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

RECEIVED AUG 2 1 198

recovery summary values. The reviewer entered numbers for laboratory.

(D) Method Blank - Acceptable. All values below CRDL
VOA - 2-Butanone
SV - 2 Unknowns
Pesticides - Gamma BHC, 4,4-DDT. It is unusual and not good reflection of the laboratory's proficiency to find pesticides in the method blank. However the contaminants are at a low level, therefore it is the opinion of the reviewer that the data is acceptable. However any pesticide hits will be viewed with close scrutiny.

(E) Calibrations - Acceptable. Some standards were outside QC criteria with respect to response factor, per cent difference, and/or relative percent difference. These compounds are so noted on the calibration outlier form.

(F) Tuning - Acceptable. All ion abundance criteria are met
All calculations are acceptable
All samples were run with 12 hours of tune.

(G) Pesticide - Laboratory states that the DBC shift showed strong interference from samples; data acceptable.

Linearity check acceptable
DBC shift acceptable
DDT retention time greater than 12 minutes.

ZGK 8/18/87

CALUMET INDUSTRIES CASE #7342 PAN # IN0567

RECEIVED AUG 2 1 1987

USER INFORMATION SHEET

	TCL COMPOUNDS UG/KG	TICs COMPOUNDS
EI877	1,1,1-Trichloroethane 4J ug/kg 2,Methylnaphthalene 50J ug/kg Several PAHs below CRDL No pesticides detected	3 VOAs 8 Unknown SVs
EI878	Chlorobenzene 1J ug/kg Several PAHs below CRDL Aroclor-1260 520 ug/kg No pesticide	1 VOA 22 SVs
EI879	1,1,1-Trichloroethane 6 ug/kg Several PAHs above below CRDL No pesticides detected	1 VOA 12 SVs
EI880	1,1,1-Trichloroethane 7 ug/kg Several PAHs below CRDL No pesticides detected	1 VOA 15 SVs
EM848	1,1,1-Trichloroethane 155 ug/kg PAH's below CRDL Endosulfan I 11 ug/kg 4,4'-DDE 44J ug/kg Endosulfan II 0.69J ug/kg	1 VOA 10 SVs

The VOA TIC is 1,1,2-trichloro, 1,2,2 trifluoroethane, found in all samples. Also 1,1,1-trichloroethane detected in 4 out of 5 samples. PAHs detected above and below the detection limits. Samples contained pesticides and one PCB was detected. See attached sheets for TCL compounds that were detected.

ZGK 8/18/87

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
VOLATILE HSL COMPOUNDS

CASE# 7342 CONTRACTOR Kemron

	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	6/07/87														
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane															
Bromomethane															
Vinyl Chloride															
X Chloroethane	.276		J												
Methylene Chloride															
Acetone		38.6	J												
Carbon Disulfide															
1,1-Dichloroethane															
1,1-Dichloroethene															
Trans-1,2-Dichloroethene															
Chloroform															
X 2-Butanone	.11	49	J												
1,2-Dichloroethane															
X 1,1,1-Trichloroethane	.26		J												
X Carbon Tetrachloride	.24		J												
Vinyl Acetate															
Bromodichloromethane															
1,2-Dichloropropane															
Trans-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane															
1,1,2-Trichloroethane															
Benzene															
cis-1,3-Dichloropropene															
2-Chloroethylvinylether	.016	36	J												
Bromoform															
4-Methyl-2-Pentanone															
2-Hexanone															
Tetrachloroethene															
1,1,2,2-Tetrachloroethane															
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															

AFFECTED SAMPLES:

E1878
E1879
EM848
E1878MS
E1878MSD
E1877
E1880

RECEIVED AUG 21 1987

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

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

CASE# 7342 CONTRACTOR Kemron

	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	6/27			6/28 1004											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol															
bis(-2-Chloroethyl)Ether															
2-Chlorophenol															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
Benzyl Alcohol															
1,2-Dichlorobenzene															
2-Methylphenol															
bis(2-chloroisopropyl)Ether															
4-Methylphenol															
N-Nitroso-Di-n-Propylamine															
Hexachloroethane															
Nitrobenzene															
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol															
Benzoic Acid															
bis(2-Chloroethoxy)Methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline															
Hexachlorobutadiene															
4-Chloro-3-Methylphenol															
2-Methylnaphthalene															
Hexachlorocyclopentadiene															
2,4,6-Trichlorophenol															
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline															
Dimethyl Phthalate															
Acenaphthylene															
3-Nitroaniline															
Acenaphthene															
2,4-Dinitrophenol	.044		J												
4-Nitrophenol															
Dibenzofuran															

AFFECTED SAMPLES:

E1879	E1848			
Em848	E1877			
Em848ms	E1878			
Em848msD	E1880			
	E1877			

RECEIVED AUG 21 1987

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

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

CASE# 734R CONTRACTOR Kemron

	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	6/27			6/28 1004											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
2,4-Dinitrotoluene															
2,6-Dinitrotoluene															
Diethylphthalate															
4-Chlorophenyl-phenylether															
Fluorene															
4-Nitroaniline															
4,6-Dinitro-2-Methylphenol				.048		J									
N-Nitrosodiphenylamine															
4-Bromophenyl-phenylether															
Hexachlorobenzene															
Pentachlorophenol															
Phenanthrene															
Anthracene															
Di-n-Butylphthalate															
Fluoranthene															
Pyrene															
Butylbenzylphthalate															
Benzo(a)Anthracene															
bis(2-Ethylhexyl)Phthalate															
Chrysene															
Di-n-Octyl Phthalate															
Benzo(b)Fluoranthene															
Benzo(k)Fluoranthene															
Benzo(a)Pyrene															
Indeno(1,2,3-cd)Pyrene															
Dibenz(a,h)Anthracene															
Benzo(g,h,i) Perylene															

RECEIVED AUG 21 1987

SEE PAGE 1 FOR AFFECTED SAMPLES.

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

KEMRON
Environmental Services

July 6, 1987

Contract No.: 68-01-7279
Case No. 7342

RECEIVED AUG 21 1987

CASE NARRATIVE

The following soil samples were received May 28, 1987 from Region V for analysis of VOA, BNA/Pest.

RECEIVED
JUL 08 1987
U.S. EPA, CENTRAL REGIONAL LAB.
536 S. CLARK STREET
CHICAGO, ILLINOIS 60605

Sample No.
EI 877
EI 878
EI 879
EI 880
EM 848

There were no problems encountered in this case except that in BNA fraction for MS and MSD, 1 ml of 100/200 ug/ml matrix spike standard was inadvertantly added instead of 0.5 ml.

Madhava R. Arimilli
Project Manager

MRA:gds

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. 7342 Contract Laboratory Kemron, Baton Rouge Contract No. 68-01-7279

Low ✓ Medium _____

SMO TRAFFIC NO.	VOLATILE: TOLUENE-D8 (81-117)	VOLATILE: BFB (74-121)	VOLATILE: 1,2 DICHLORO-ETHANE-D4 (70-121)	SEMI-VOLATILE: NITRO-BENZENE-D5 (23-120)	SEMI-VOLATILE: 2-FLUORO-BIPHENYL (30-116)	SEMI-VOLATILE: TERPHENYL-D14 (18-137)			SEMI-VOLATILE: PHENOL-D5 (24-113)	SEMI-VOLATILE: 2-FLUORO-PHENOL (25-121)	SEMI-VOLATILE: 2,4,6 TRIBROMO-PHENOL (19-122)	PESTICIDE: ** DIBUTYL-CHLORENDATE (20-150)
Method Blank	101	98	95									
EI877	109	94	97									
EI878	116	90	95									
EI879	106	96	96									
EI880	116	87	97									
EM848	111	96	96									
EI878MS	112	93	102									
EI878MSD	113	91	101									
Method Blank				74	72	74			78	77	48	93
EI877				72	72	68			77	83	71	93
EI878				70	68	52			76	84	58	126
EI879				68	74	62			66	71	58	129
EI880				68	70	66			53	80	77	104
EM848				74	70	60			75	75	85	99
EM848MS				72	78	96			71	73	75	101
EM848MSD				78	78	74			91	92	72	119

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 0 out of 24 ; outside of QC limits

Semi-Volatiles: 0 out of 48 ; outside of QC limits

Pesticides: 0 out of 8 ; outside of QC limits

7/85

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Comments:

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. 7342 Contractor KEMRON, Baton Rouge Contract No. 68-01-7279

Low Level ✓ Medium Level

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS * RPD	QC LIMITS * RECOVERY
VOA SMO SAMPLE NO. EI878	1,1-Dicholorethene	50	0	24	48	21	42	13	22	59-172
	Trichloroethene	50	0	37	74	33	66	11	24	62-137
	Chlorobenzene	50	0	46	92	43	86	7	21	60-133
	Toluene	50	0	44	88	43	86	2	21	59-139
	Benzene	50	0	44	88	40	80	9	21	66-142
B/N SMO SAMPLE NO. EM848	1,2,4-Trichlorobenzene	100 (a)	0	66	66	65	65	2	23	38-107
	Acenaphthene	100 (a)	0	65	65	68	68	5	19	31-137
	2,4 Dinitrotoluene	100 (a)	0	53	53	62	62	16	47	28-89
	Pyrene	100 (a)	0	84	84	69	69	20	36	35-142
	N-Nitrosodi-n-Propylamine	100 (a)	0	51	51	65	65	24	38	41-126
	1,4-Dichlorobenzene	100 (a)	0	56	56	66	66	16	27	28-104
ACID SMO SAMPLE NO. EM848	Pentachlorophenol	200 (a)	0	245	123*	188	94	27	47	17-109
	Phenol	200 (a)	0	108	54	150	75	32	35	26-90
	2-Chlorophenol	200 (a)	0	125	63	153	76	19	50	25-102
	4-Chloro-3-Methylphenol	200 (a)	0	132	66	144	72	7	33	26-103
	4-Nitrophenol	200 (a)	0	210	105	211	105	0	50	11-114
PEST SMO SAMPLE NO. EM848	Lindane	(b) 0.04	0	0.044	110	0.062	153*	34	50	46-127
	Heptachlor	(b) 0.04	0	0.042	105	0.048	120	13	31	35-130
	Aldrin	(b) 0.04	0	0.041	103	0.048	120	15	43	34-132
	Dieldrin	(b) 0.10	0	0.096	96	0.110	110	14	38	31-134
	Endrin	(b) 0.10	0	0.110	110	0.130	130	17	45	42-139
	4,4'-DDT	(b) 0.10	0	0.150	150*	0.170	170*	13	50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD's are entered by EDT

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

RECOVERY: VOAs 2 out of 10; outside QC limits
B/N 0 out of 12; outside QC limits
ACID 1 out of 10; outside QC limits
PEST 3 out of 12; outside QC limits

Comments: (b) total (ug) micrograms of spike added.
(a) 100/200 ug each of spike compounds were inadvertently added to the sample, instead of 50/100 ug each.

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METHOD BLANK SUMMARY

Case No. 7342 Region _____ Contractor Kemron, Baton Rouge Contract No. 68-01-7279

FILE ID	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	INST. ID	CAS NUMBER	COMPOUND (HSL, TIC OR UNKNOWN)	CONC.	UNITS	CRDL
WBK060787	6/7/87	VOA	SOIL	L	FINN1	78-93-3	2-Butanone	3	mg/kg	12
WSVBLK60487	6/27/87	BNA	SOIL	L	FINN2	—	unknown	24600	↓	—
↓	↓	↓	↓	↓	↓	—	unknown	2500	↓	—
ZWEI A26A	6/25/87	PEST	SOIL	L	GC-A	58-89-9	gamma-BHC	1.1 *	µg/kg	8.0
↓	↓	↓	↓	↓	↓	50-29-3	4,4'-DDT	2.2 *	↓	16.0

* pesticides detected in blank.

Comments:

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FORM IV 7/85

INSTRUMENT DETECTION LIMITS

Organics Analysis Data Sheet
(Page 1)

oratory Name: KEMRON-Baton Rouge

Case No: 7342

Sample ID No:

QC Report No: 000471

ple Matrix:

Contract No: 68-01-7279

a Release Authorized By: Marion L. Arnold 9/26/88

Date Sample Received:

Volatile Compounds

Instrument: FINN 1

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: —

Date Analyzed: —

Conc/Dil Factor: 1 pH —

Percent Moisture: (Not Decanted) —

RECEIVED AUG 2 1 1987

S umber		ug/l or ug/Kg (Circle One)
4-87-3	Chloromethane	2.13
-83-9	Bromomethane	3.57
-01-4	Vinyl Chloride	3.12
5-00-3	Chloroethane	1.41
-09-2	Methylene Chloride	1.56
-64-1	Acetone	12.5
5-15-0	Carbon Disulfide	0.96
-35-4	1, 1-Dichloroethene	0.60
-34-3	1, 1-Dichloroethane	3.30
6-60-5	Trans-1, 2-Dichloroethene	0.18
-66-3	Chloroform	1.95
07-06-2	1, 2-Dichloroethane	3.63
3-93-3	2-Butanone	8.40
-55-6	1, 1, 1-Trichloroethane	0.96
-23-5	Carbon Tetrachloride	1.05
8-05-4	Vinyl Acetate	5.43
-27-4	Bromodichloromethane	0.63

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1.20
10061-02-6	Trans-1, 3-Dichloropropene	3.06
79-01-6	Trichloroethene	4.95
124-48-1	Dibromochloromethane	3.36
79-00-5	1, 1, 2-Trichloroethane	2.85
71-43-2	Benzene	0.75
10061-01-5	cis-1, 3-Dichloropropene	1.35
110-75-8	2-Chloroethylvinylether	5.34
75-25-2	Bromoform	2.76
108-10-1	4-Methyl-2-Pentanone	9.60
591-78-6	2-Hexanone	4.80
127-18-4	Tetrachloroethene	0.60
79-34-5	1, 1, 2, 2-Tetrachloroethane	3.51
108-88-3	Toluene	0.45
108-90-7	Chlorobenzene	1.68
100-41-4	Ethylbenzene	1.95
100-42-5	Styrene	2.58
	Total Xylenes	3.00

Data Reporting Qualifiers

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

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

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

Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3 J

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

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

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

atory Name: XENRON-Baton Rouge

lo: 7342

INSTRUMENT DETECTION LIMITS

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

RECEIVED AUG 2 1 1987 000472

ıtration: Low Medium (Circle One)

Extracted/Prepared: _____

nalyzed: _____

/Dil Factor: _____

ıt Moisture (Decanted) _____

GPC Cleanup ☐Yes ☐No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

instrument = FINN1

ıber		ug/L or ug/Kg (Circle One)
5-2	Phenol	4.11
4-4	bis(-2-Chloroethyl)Ether	3.84
7-8	2-Chlorophenol	1.41
3-1	1, 3-Dichlorobenzene	0.45
6-7	1, 4-Dichlorobenzene	1.77
51-6	Benzyl Alcohol	2.70
-1	1, 2-Dichlorobenzene	0.69
-7	2-Methylphenol	0.96
38-32-9	bis(2-chloroisopropyl)Ether	7.05
4-5	4-Methylphenol	5.58
o4-7	N-Nitroso-Di-n-Propylamine	5.40
2-1	Hexachloroethane	2.10
-3	Nitrobenzene	3.03
9-1	Isophorone	3.21
5-5	2-Nitrophenol	4.59
7-9	2, 4-Dimethylphenol	6.48
5-0	Benzoic Acid	39.9
-91-1	bis(-2-Chloroethoxy)Methane	3.51
13-2	2, 4-Dichlorophenol	9.66
-82-1	1, 2, 4-Trichlorobenzene	0.96
70-3	Napnthalene	0.45
17-8	4-Chloroaniline	8.52
8-3	Hexachlorobutadiene	0.48
0-7	4-Chloro-3-Methylphenol	4.08
7-6	2-Methylnaphthalene	3.45
-7-4	Hexachlorocyclopentadiene	6.63
6-2	2, 4, 6-Trichlorophenol	3.18
5-4	2, 4, 5-Trichlorophenol	6.99
8-7	2-Chloronaphthalene	1.77
4-4	2-Nitroaniline	12.1
11-3	Dimethyl Phthalate	9.60
-96-8	Acenaphthylene	8.01
9-2	3-Nitroaniline	12.12

CAS Number		ug/L or ug/Kg (Circle One)
83-32-9	Acenaphthene	0.18
51-28-5	2, 4-Dinitrophenol	20.13
100-02-7	4-Nitrophenol	12.45
132-64-9	Dibenzofuran	2.67
121-14-2	2, 4-Dinitrotoluene	6.63
606-20-2	2, 6-Dinitrotoluene	5.10
84-66-2	Diethylphthalate	8.91
7005-72-3	4-Chlorophenyl-phenylether	2.16
86-73-7	Fluorene	3.93
100-01-6	4-Nitroaniline	31.8
534-52-1	4, 6-Dinitro-2-Methylphenol	20.1
86-30-6	N-Nitrosodiphenylamine (1)	7.29
101-55-3	4-Bromophenyl-phenylether	8.70
118-74-1	Hexachlorobenzene	3.00
87-86-5	Pentachlorophenol	15.45
85-01-8	Phenanthrene	5.37
120-12-7	Anthracene	5.37
84-74-2	Di-n-Butylphthalate	7.86
206-44-0	Fluoranthene	7.86
129-00-0	Pyrene	9.78
85-68-7	Butylbenzylphthalate	9.12
91-94-1	3, 3'-Dichlorobenzidine	46.2
56-55-3	Benzo(a)Anthracene	6.54
117-81-7	bis(2-Ethylhexyl)Phthalate	7.41
218-01-9	Chrysene	2.97
117-84-0	Di-n-Octyl Phthalate	15.6
205-99-2	Benzo(b)Fluoranthene	2.25
207-08-9	Benzo(k)Fluoranthene	2.79
50-32-8	Benzo(a)Pyrene	1.98
193-39-5	Indeno(1, 2, 3-cd)Pyrene	8.40
53-70-3	Dibenz(a, h)Anthracene	8.88
191-24-2	Benzo(g, h, i)Perylene	5.85

(1)-Cannot be separated from diphenylamine

000473

Volatile HSL Compounds
Instrument Detection Limits

RECEIVED AUG 2 1 1987

Region: VI
Contractor: KEMRON Environmental Services
Contract No.: 08-01-7279
Instrument ID: Finnigan-4515 (A) - GC/MS

Compound	Standard A (ug/l)	Standard B (ug/l)	Standard C (ug/l)	Standard Deviation (s) (ug/l)	Detection Limits (3s) (ug/l)
Chloromethane	50	49.1	50.5	0.71	2.13
Bromomethane	50	52.3	50.6	1.19	3.57
Vinyl Chloride	50	48.5	50.5	1.04	3.12
Chloroethane	50	49.8	50.7	0.47	1.41
Methylene Chloride	50	51.0	50.8	0.52	1.56
Acetone	50	53.8	45.5	4.15	12.50
Carbon Disulfide	50	50.5	50.6	0.32	0.95
1,1-Dichloroethene	50	50.2	50.4	0.20	0.60
1,1-Dichloroethane	50	51.2	52.2	1.10	3.30
Trans-1,2-Dichloroethene	50	49.9	50.0	0.06	0.18
Chloroform	50	49.4	50.7	0.65	1.95
1,2-Dichloroethane	50	48.2	50.5	1.21	3.63
2-Butanone	50	44.4	47.4	2.80	8.40
1,1,1-Trichloroethane	50	50.6	50.5	0.32	0.96
Carbon Tetrachloride	50	50.6	50.0	0.35	1.05
Vinyl Acetate	50	50.6	47.2	1.81	5.43
Bromodichloromethane	50	50.1	50.4	0.21	0.63
1,2-Dichloropropane	50	49.3	49.3	0.40	1.20
Trans-1,3-Dichloropropene	50	49.7	48.1	1.02	3.06
Trichloroethene	50	51.6	53.2	1.65	4.95
Dibromochloromethane	50	47.8	48.5	1.12	3.36
1,1,2-Trichloroethane	50	49.9	51.6	0.95	2.85
Benzene	50	50.2	49.7	0.25	0.75
cis-1,3-Dichloropropene	50	50.4	50.9	0.45	1.35
2-Chloroethylvinylether	50	47.2	46.7	1.78	5.34
Bromoform	50	48.4	50	0.92	2.76
4-Methyl-2-Pentanone	50	46.8	43.6	3.20	9.60
2-Hexanone	50	48.4	46.8	1.60	4.80
Tetrachloroethene	50	49.6	49.6	0.20	0.60
1,1,2,2-Tetrachloroethane	50	50.4	48.2	1.17	3.51
Toluene	50	49.9	50.2	0.15	0.45
Chlorobenzene	50	50.4	49.3	0.56	1.68
Ethylbenzene	50	49.8	50.8	0.53	1.59
Styrene	50	48.9	48.3	0.86	2.58
Total Xylenes	50	50.9	52	1.00	3.00

Note: File ID for Standard A = A50V062786
File ID for Standard B = B50V062786
File ID for Standard C = C50V062786

Semi-Volatile HSL Compounds
Instrument Detection Limits

Region: VI
Contractor: KEMRON Environmental Services
Contract No.: 08-01-7279
Instrument ID: Finnigan-4515 (A) - GC/MS

RECEIVED AUG 2 1 1987

Compound	Standard A (mg/l)	Standard B (mg/l)	Standard C (mg/l)	Standard Deviation (s) (mg/l)	* Detection Limits (3s) (mg/l)
Phenol	58.4	59.4	61.1	1.37	4.11
bis(-2-Chloroethyl)Ether	61	60.2	58.5	1.28	3.84
2-Chlorophenol	60.5	61.4	60.7	0.47	1.41
1,3-Dichlorobenzene	51.8	51.6	51.4	0.15	0.45
1,4-Dichlorobenzene	50.2	51.3	50.4	0.59	1.77
Benzyl Alcohol	55.4	56.9	57	0.9	2.7
1,2-Dichlorobenzene	48.8	49.2	49.2	0.23	0.69
2-Methylphenol	46.9	47	47.5	0.32	0.96
bis(2-chloroisopropyl)Ether	49.5	46.9	44.8	2.35	7.05
4-Methylphenol	49.1	47.5	51.2	1.86	5.58
N-Nitroso-Di-n-Propylamine	48.5	47.5	45	1.8	5.4
Hexachloroethane	43.7	42.9	42.3	0.7	2.1
Nitrobenzene	44	42.2	42.3	1.01	3.03
Isoophorone	53.7	53.6	51.8	1.07	3.21
2-Nitrophenol	52.7	55.6	55	1.53	4.59
2-4-Dimethylphenol	56.1	55.5	59.5	2.16	6.48
Benzoic Acid	47.7	74.1	64.2	13.3	39.9
bis(-2-Chloroethoxy)Methane	51.7	50.9	49.4	1.17	3.51
2,4-Dichlorophenol	48.3	50.9	54.7	3.22	9.66
1,2,4-Trichlorobenzene	47.9	48.5	48	0.32	0.96
Naphthalene	50.3	50.2	50.5	0.15	0.45
4-Chloraniline	53	58.5	54.3	2.84	8.52
Hexachlorobutadiene	44.2	44.3	44.3	0.15	0.45
4-Chloro-3-Methylphenol	48.7	51.3	50.7	1.36	4.08
2-Methylnaphthalene	48.4	46.1	47.3	1.15	3.45
Hexachlorcyclopentadiene	46	47.9	43.5	2.21	6.63
2,4,6-Trichlorphenol	48.5	50.2	48.2	1.06	3.18
2,4,5-Trichlorphenol	47.5	51.2	46.9	2.33	6.99
2-Chloronaphthalene	49.9	50.1	49	0.59	1.77
2-Nitroaniline	50.3	57.3	50.3	4.04	12.12
Dimethyl Phthalate	48.9	51.1	44.8	3.2	9.6
Acenaphthylene	51.8	50.9	46.8	2.67	8.01
3-Nitroaniline	50.3	57.3	50.3	4.04	12.12
Acenaphthene	51.6	51.7	51.7	0.06	0.18
2,4-Dinitrophenol	41.4	51.9	39.4	6.71	20.13
4-Nitrophenol	48.2	53.4	45.2	4.15	12.45
Dibenzofuran	49.7	48.4	48	0.89	2.67
Aniline	79.7	86.1	79.1	3.88	11.64

NOTE: Standards are of 50 mg/l concentration.

Standard A = 50SV71686D
Standard B = 50SV71686E
Standard C = 50SV71686F

* Detection limits given are f

Semi-Volatile HSL Compounds
Instrument Detection Limits

Region: VI
Contractor: KEMRON Environmental Services
Contract No.: 08-01-7279
Instrument ID: Finnigan-4515 (A) GC/MS

RECEIVED AUG 2 1 1987

Compound	Standard A (mg/l)	Standard B (mg/l)	Standard C (mg/l)	Standard Deviation (s) (mg/l)	Detection Limits (3s) (mg/l)
2,4-Dinitrotoluene	42.8	39.8	38.5	2.21	6.63
2,6-Dinitrotoluene	45.6	47.4	44	1.7	5.1
Diethylphthalate	49.2	51.6	45.7	2.97	8.91
4-Chlorophenyl-phenylether	49	47.8	47.7	0.72	2.16
Fluorene	48	49.5	46.9	1.31	3.93
4-Nitroaniline	54.6	59.4	39.2	10.6	31.8
4,6-Dinitro-2-Methylphenol	42.9	50.3	36.9	6.71	20.13
N-Nitrosodipheynlamine (1)	57.3	55.6	52.5	2.43	7.29
4-Bromophenyl-phenylether	48.7	46	51.8	2.9	8.7
Hexachlorbenzene	43.2	41.3	41.7	1	3
Pentachlorphenol	41.4	50.9	42.7	5.15	15.45
Phenanthrene	50	49.8	53	1.79	5.37
Anthracene	50	49.8	53	1.79	5.37
Di-N-Butylphthalate	54.8	59.6	55.4	2.62	7.86
Fluoranthene	48.8	52	46.8	2.62	7.86
Pyrene	49.6	53.9	47.5	3.26	9.78
Butylbenzylphthalate	59.7	65.7	61.9	3.04	9.12
3,3-Dichlorobenzidine	68.1	63.6	39.5	15.4	46.2
Benzo(a)Anthracene	51.9	53.5	56.4	2.28	6.84
bis(2-Ethylhexyl)Phthalate	53.8	58.7	56.8	2.47	7.41
Chrysene	50.6	50.4	48.8	0.99	2.97
Di-n-Octyl Phthalate	52.0	55.1	62.3	5.2	15.6
Benzo(b)Fluoranthene	45.4	44.5	46	0.75	2.25
Benzo(k)Fluoranthene	44.3	44.5	46	0.93	2.79
Benzo(a)Pyrene	50.5	51.3	51.8	0.66	1.98
Indeno(1,2,3-cd)Pyrene	43.4	48.3	43.5	2.8	8.4
Dibenz(a,h)Anthracene	51.8	49.9	46	2.96	8.88
Benzo(g,h,i)Perylene	49.3	47.2	45.4	1.95	5.85

Note: Standards are of 50 mg/l concentration.

Standard A = 50SV71686D
Standard B = 50SV71686E
Standard C = 50SV71686E

* Detection limits given are for extracts only in mg/l.
Detection limits for aqueouos samples will be the same in ug/l.

LABORATORY NAME: KEMRON Environmental Services

CONTRACT NO.: 68-01-7279

CASE NO.: 7342

INSTRUMENT DETECTION LIMITS

Pesticides/PCBs

Instrument ID: GC-A

Column: 1.5% SP-2250/1.95% SP-2401

RECEIVED AUG 2 1 1987

CAS Number		ug/l
319-84-6	Alpha-BHC	0.002
319-85-7	Beta-BHC	0.003
319-86-8	Delta-BHC	0.004
58-89-9	Gamma-BHC (Lindane)	0.005
76-44-8	Heptachlor	0.005
309-00-2	Aldrin	0.005
1024-57-3	Heptachlor Epoxide	0.006
959-98-8	Endosulfan I	0.006
60-57-1	Dieldrin	0.005
72-55-9	4,4'-DDE	0.002
72-20-8	Endrin	0.006
33213-65-9	Endosulfan II	0.006
72-54-8	4,4'-DDD	0.003
1031-07-8	Endosulfan Sulfate	0.020
50-29-3	4,4'-DDT	0.043
72-43-5	Methoxychlor	0.046
53494-70-5	Endrin Ketone	0.014
57-74-9	Chlordane	0.072
8001-35-2	Toxaphene	0.523
12674-11-2	Aroclor-1016	0.159
11104-28-2	Aroclor-1221	0.096
11141-16-5	Aroclor-1232	0.151
53469-21-9	Aroclor-1242	0.241
12672-29-6	Aroclor-1248	0.151
11097-69-1	Aroclor-1254	0.151
11096-82-5	Aroclor-1260	0.462

LABORATORY NAME: KEMRON Environmental Services

CONTRACT NO.: 68-01-7279

CASE NO.: 7342

INSTRUMENT DETECTION LIMITS

Pesticides/PCBs

Instrument ID: GC-A

Column: 3% SP-2100

RECEIVED AUG 2 1 1987

CAS Number		ug/l
319-84-6	Alpha-BHC	0.044
319-85-7	Beta-BHC	0.011
319-86-8	Delta-BHC	0.044
58-89-9	Gamma-BHC (Lindane)	0.041
76-44-8	Heptachlor	0.014
309-00-2	Aldrin	0.037
1024-57-3	Heptachlor Epoxide	0.018
959-98-8	Endosulfan I	0.022
60-57-1	Dieldrin	0.035
72-55-9	4,4'-DDE	0.026
72-20-8	Endrin	0.084
33213-65-9	Endosulfan II	0.012
72-54-8	4,4'-DDD	0.023
1031-07-8	Endosulfan Sulfate	0.020
50-29-3	4,4'-DDT	0.057
72-43-5	Methoxychlor	0.040
53494-70-5	Endrin Ketone	0.021
57-74-9	Chlordane	0.103
8001-35-2	Toxaphene	1.508
12674-11-2	Aroclor-1016	0.561
11104-28-2	Aroclor-1221	0.171
11141-16-5	Aroclor-1232	0.420
53469-21-9	Aroclor-1242	0.697
12672-29-6	Aroclor-1248	0.632
11097-69-1	Aroclor-1254	0.563
11096-82-5	Aroclor-1260	0.634

Sample Number
EI877

Organics Analysis Data Sheet
(Page 1)

000009

Laboratory Name: KEMRON-Baton Rouge
Case No.: 7342
Lab Sample ID No: WEI877R
QC Report No: —
Sample Matrix: SOIL
Contract No: 68-01-7279
Data Release Authorized By:
Date Sample Received: ✓ 5/28/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: —

Date Analyzed: 6/7/87 ✓

RECEIVED AUG 2 1 1987

Conc/Dil Factor: 1 pH 7-8

Percent Moisture: (Not Decanted) 6

Dry weight

CAS Number		ug/l or ug/Kg (Circle One)	
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	2	J
67-64-1	Acetone	12	UJ
75-15-0	Carbon Disulfide	6	U
75-35-4	1, 1-Dichloroethene	6	U
75-34-3	1, 1-Dichloroethane	6	U
156-60-5	Trans-1, 2-Dichloroethene	6	U
67-66-3	Chloroform	6	U
107-06-2	1, 2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1, 1, 1-Trichloroethane	4	J
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U

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

J,R ZGK

Data Reporting Qualifiers

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

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

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

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

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

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

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

aboratory Name: KEMRON, Baton Rouge

ase No: 7342

Sample Number
EI877

RECEIVED AUG 21 1987

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

000010

ncentration: (Low) Medium (Circle One)

ate Extracted/Prepared: 6/4/87

ate Analyzed: 6/25/87

onc/Dil Factor: 1

ercent Moisture (Decanted) 6

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Dry weight

CAS Number		ug/l or ug/Kg (Circle One)
08-95-2	Phenol	360 U
11-44-4	bis(-2-Chloroethyl)Ether	360 U
95-57-8	2-Chlorophenol	360 U
41-73-1	1, 3-Dichlorobenzene	360 U
05-46-7	1, 4-Dichlorobenzene	360 U
100-51-6	Benzyl Alcohol	360 U
5-50-1	1, 2-Dichlorobenzene	360 U
95-48-7	2-Methylphenol	360 U
39638-32-9	bis(2-chloroisopropyl)Ether	360 U
06-44-5	4-Methylphenol	360 U
621-64-7	N-Nitroso-Di-n-Propylamine	360 U
67-72-1	Hexachloroethane	360 U
98-95-3	Nitrobenzene	360 U
78-59-1	Isophorone	360 U
88-75-5	2-Nitrophenol	360 U
105-67-9	2, 4-Dimethylphenol	360 U
65-85-0	Benzoic Acid	1750 U
111-91-1	bis(-2-Chloroethoxy)Methane	360 U
120-83-2	2, 4-Dichlorophenol	360 U
120-82-1	1, 2, 4-Trichlorobenzene	360 U
91-20-3	Naphthalene	360 U
106-47-8	4-Chloroaniline	360 U
87-68-3	Hexachlorobutadiene	360 U
59-50-7	4-Chloro-3-Methylphenol	360 U
91-57-6	2-Methylnaphthalene	50 J
77-47-4	Hexachlorocyclopentadiene	360 U
88-06-2	2, 4, 6-Trichlorophenol	1750 U
95-95-4	2, 4, 5-Trichlorophenol	360 U
91-58-7	2-Chloronaphthalene	360 U
88-74-4	2-Nitroaniline	1750 U
131-11-3	Dimethyl Phthalate	360 U
208-96-8	Acenaphthylene	360 U
99-09-2	3-Nitroaniline	1750 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	360 U
51-28-5	2, 4-Dinitrophenol	1750 U J
100-02-7	4-Nitrophenol	1750 U
132-64-9	Dibenzofuran	360 U
121-14-2	2, 4-Dinitrotoluene	360 U
606-20-2	2, 6-Dinitrotoluene	360 U
84-66-2	Diethylphthalate	360 U
7005-72-3	4-Chlorophenyl-phenylether	360 U
86-73-7	Fluorene	360 U
100-01-6	4-Nitroaniline	1750 U
534-52-1	4, 6-Dinitro-2-Methylphenol	1750 U
86-30-6	N-Nitrosodiphenylamine (1)	360 U
101-55-3	4-Bromophenyl-phenylether	360 U
118-74-1	Hexachlorobenzene	360 U
87-86-5	Pentachlorophenol	1750 U
85-01-8	Phenanthrene	70 J
120-12-7	Anthracene	50 J
84-74-2	Di-n-Butylphthalate	360 U
206-44-0	Fluoranthene	50 J
129-00-0	Pyrene	60 J
85-68-7	Butylbenzylphthalate	360 U
91-94-1	3, 3'-Dichlorobenzidine	720 U
56-55-3	Benzo(a)Anthracene	360 U
117-81-7	bis(2-Ethylhexyl)Phthalate	90 J
218-01-9	Chrysene	70 J
117-84-0	Di-n-Octyl Phthalate	360 U
205-99-2	Benzo(b)Fluoranthene	60 J
207-08-9	Benzo(k)Fluoranthene	50 J
50-32-8	Benzo(a)Pyrene	50 J
193-39-5	Indeno(1, 2, 3-cd)Pyrene	360 U
53-70-3	Dibenz(a, h)Anthracene	360 U
191-24-2	Benzo(g, h, i)Perylene	90 J

(1)-Cannot be separated from diphenylamine

J - 7/5

Form I

Laboratory Name Kenron-Baton Rouge

Case No 7342

Sample Number
EI 877

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

000011

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 6/4/87

Date Analyzed: 6/25/87

Conc/Dil Factor: —

Percent Moisture (decanted) 6%, pH = 7.8

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

RECEIVED AUG 21 1987

CAS Number		ug/l or ug/Kg (Circle One) DRY WT.
319-84-6	Alpha-BHC	8.5 U
319-85-7	Beta-BHC	8.5 U
319-86-8	Delta-BHC	8.5 U
58-89-9	Gamma-BHC (Lindane)	8.5 U
76-44-8	Heptachlor	8.5 U
309-00-2	Aldrin	8.5 U
1024-57-3	Heptachlor Epoxide	8.5 U
959-98-8	Endosulfan I	8.5 U
60-57-1	Dieldrin	17 U
72-55-9	4, 4'-DDE	17 U
72-20-8	Endrin	17 U
33213-65-9	Endosulfan II	17 U
72-54-8	4, 4'-DDD	17 U
1031-07-8	Endosulfan Sulfate	17 U
50-29-3	4, 4'-DDT	17 U
72-43-5	Methoxychlor	85 U
53494-70-5	Endrin Ketone	17 U
57-74-9	Chlordane	85 U
8001-35-2	Toxaphene	170 U
12674-11-2	Aroclor-1016	85 U
11104-28-2	Aroclor-1221	85 U
11141-16-5	Aroclor-1232	85 U
53469-21-9	Aroclor-1242	85 U
12672-29-6	Aroclor-1248	85 U
11097-69-1	Aroclor-1254	170 U
11096-82-5	Aroclor-1260	170 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s — or W_s 30 V_t 1000 V_i 3

aboratory Name: KEMRON, Baton Rouge

ase No: 7342

Sample Number
EI877

Organics Analysis Data Sheet
(Page 4)

000012

Tentatively Identified Compounds

RECEIVED AUG 21 1987

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 76-13-1	Ethane, 1,1,2 Trichloro, 1,2,2-Trifluoro-	VOA	214	7
2. 110-54-3	Hexane	↓	351	3 J
3. 124-18-5	Decane	↓	732	60
4. —	unknown	BNA	549	23350 B
5. —	unknown	↓	576	200 J
6. —	unknown	↓	742	250 J
7. —	unknown	↓	1969	150 J
8. —	unknown	↓	2174	200 J
9. —	unknown	↓	2239	125 J
10. —	unknown	↓	2305	200 J
11. —	unknown	↓	2449	175 J
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
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25.				
26.				
27.				
28.				
29.				
30.				

Sample Number
EI 578

Organics Analysis Data Sheet
(Page 1)

000091

tory Name: KEMRON-Baton Rouge
Case No: 7342
mple ID No: WEI 578
QC Report No: —
le Matrix: SOIL
Contract No: 68-01-7279
elease Authorized By:
Date Sample Received: 5/28/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

RECEIVED AUG 2 1 1987

Date Analyzed: 6/7/87

Conc/Dil Factor: 1 pH 7.7

Percent Moisture: (Not Decanted) 14

Dry weight

er		ug/l or ug/Kg (Circle One)	
87-3	Chloromethane	12	U
-9	Bromomethane	12	U
-4	Vinyl Chloride	12	U
00-3	Chloroethane	12	U
-2	Methylene Chloride	6	U
-1	Acetone	12	U J
15-0	Carbon Disulfide	6	U
-4	1, 1-Dichloroethene	6	U
-3	1, 1-Dichloroethane	6	U
5-60-5	Trans-1, 2-Dichloroethene	6	U
-3	Chloroform	6	U
6-2	1, 2-Dichloroethane	6	U
93-3	2-Butanone	4	BJ U
-6	1, 1, 1-Trichloroethane	3	J
-5	Carbon Tetrachloride	6	U
3-05-4	Vinyl Acetate	12	U
-4	Bromodichloromethane	6	U

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

Data Reporting Qualifiers

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

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

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

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

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

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

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

boratory Name: KEMRON, Baton Rouge

se No: 7342

Sample Number
EI878

Organics Analysis Data Sheet
(Page 2)

000092

RECEIVED AUG 2 1 1987

Semivolatile Compounds

ncentration: (Low) Medium (Circle One)

te Extracted/Prepared: 6/4/87

te Analyzed: 6/28/87

onc/Dil Factor: 1

rcent Moisture (Decanted) 14

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Dry weight

CAS Number		ug/l or ug/Kg (Circle One)
08-95-2	Phenol	360 U
11-44-4	bis(-2-Chloroethyl)Ether	360 U
5-57-8	2-Chlorophenol	360 U
11-73-1	1, 3-Dichlorobenzene	360 U
06-46-7	1, 4-Dichlorobenzene	360 U
00-51-6	Benzyl Alcohol	360 U
5-50-1	1, 2-Dichlorobenzene	360 U
5-48-7	2-Methylphenol	360 U
9638-32-9	bis(2-chloroisopropyl)Ether	360 U
06-44-5	4-Methylphenol	360 U
21-64-7	N-Nitroso-Di-n-Propylamine	360 U
7-72-1	Hexachloroethane	360 U
8-95-3	Nitrobenzene	360 U
8-59-1	Isophorone	360 U
38-75-5	2-Nitrophenol	360 U
05-67-9	2, 4-Dimethylphenol	360 U
5-85-0	Benzoic Acid	1750 U
11-91-1	bis(-2-Chloroethoxy)Methane	360 U
20-83-2	2, 4-Dichlorophenol	360 U
20-82-1	1, 2, 4-Trichlorobenzene	~~360 U~~
31-20-3	Naphthalene	75 J
06-47-8	4-Chloroaniline	360 U
7-68-3	Hexachlorobutadiene	360 U
9-50-7	4-Chloro-3-Methylphenol	~~360 U~~
1-57-6	2-Methylnaphthalene	75 J
7-47-4	Hexachlorocyclopentadiene	360 U
38-06-2	2, 4, 6-Trichlorophenol	1750 U
5-95-4	2, 4, 5-Trichlorophenol	360 U
31-58-7	2-Chloronaphthalene	360 U
38-74-4	2-Nitroaniline	1750 U
131-11-3	Dimethyl Phthalate	~~360 U~~
208-96-8	Acenaphthylene	80 J
99-09-2	3-Nitroaniline	1750 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	360 U
51-28-5	2, 4-Dinitrophenol	1750 U J
100-02-7	4-Nitrophenol	1750 U
132-64-9	Dibenzofuran	360 U
121-14-2	2, 4-Dinitrotoluene	360 U
606-20-2	2, 6-Dinitrotoluene	360 U
84-66-2	Diethylphthalate	360 U
7005-72-3	4-Chlorophenyl-phenylether	360 U
86-73-7	Fluorene	360 U
100-01-6	4-Nitroaniline	1750 U
534-52-1	4, 6-Dinitro-2-Methylphenol	1750 U
86-30-6	N-Nitrosodiphenylamine (1)	360 U
101-55-3	4-Bromophenyl-phenylether	360 U
118-74-1	Hexachlorobenzene	360 U
87-86-5	Pentachlorophenol	1750 U
85-01-8	Phenanthrene	130 J
120-12-7	Anthracene	80 J
84-74-2	Di-n-Butylphthalate	360 U
206-44-0	Fluoranthene	200 J
129-00-0	Pyrene	200 J
85-68-7	Butylbenzylphthalate	360 U
91-94-1	3, 3'-Dichlorobenzidine	720 U
56-55-3	Benzo(a)Anthracene	90 J
117-81-7	bis(2-Ethylhexyl)Phthalate	130 J
218-01-9	Chrysene	150 J
117-84-0	Di-n-Octyl Phthalate	~~360 U~~
205-99-2	Benzo(b)Fluoranthene	140 J
207-08-9	Benzo(k)Fluoranthene	~~360 U~~
50-32-8	Benzo(a)Pyrene	50 J
193-39-5	Indeno(1, 2, 3-cd)Pyrene	75 J
53-70-3	Dibenz(a, h)Anthracene	~~360 U~~
191-24-2	Benzo(g, h, i)Perylene	125 J

(1)-Cannot be separated from diphenylamine

Laboratory Name Kenron-Baton Rouge

Case No 7342

Sample Number EI 878

000093

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 6/4/87

Date Analyzed 6/25/87

Conc/Dil Factor: —

Percent Moisture (decanted) 14, pH = 7.7

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

RECEIVED AUG 2 1 1987

CAS Number		ug/l or (ug/Kg) (Circle One) dry wt.
319-84-6	Alpha-BHC	9.3 u
319-85-7	Beta-BHC	9.3 u
319-86-8	Delta-BHC	9.3 u
58-89-9	Gamma-BHC (Lindane)	9.3 u
76-44-8	Heptachlor	9.3 u
309-00-2	Aldrin	9.3 u
1024-57-3	Heptachlor Epoxide	9.3 u
959-98-8	Endosulfan I	9.3 u
60-57-1	Dieldrin	19 u
72-55-9	4, 4'-DDE	19 u
72-20-8	Endrin	19 u
33213-65-9	Endosulfan II	19 u
72-54-8	4, 4'-DDD	19 u
1031-07-8	Endosulfan Sulfate	19 u
50-29-3	4, 4'-DDT	19 u
72-43-5	Methoxychlor	93 u
53494-70-5	Endrin Ketone	19 u
57-74-9	Chlordane	93 u
8001-35-2	Toxaphene	190 u
12674-11-2	Aroclor-1016	93 u
11104-28-2	Aroclor-1221	93 u
11141-16-5	Aroclor-1232	93 u
53469-21-9	Aroclor-1242	93 u
12672-29-6	Aroclor-1248	93 u
11097-69-1	Aroclor-1254	~~190~~ u
11096-82-5	Aroclor-1260	520

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s — or W_s 30 V_t 1000 V_i 3

aboratory Name: KEMRON, Baton Rouge

ase No: 7342

Sample Number
EI878

Organics Analysis Data Sheet
(Page 4)

000094

RECEIVED AUG 21 1987

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 76-13-1	Ethane, 1,1,2 Trichloro, 1,2,2 Trifluoro-	VOA	216	10 J
2. —	unknown	BNA	548	26250B
3. 17301-32-5	Undecane, dimethyl isomers		1280	200 J
4. 544-76-3	Hexadecane		1478	600
5. 629-78-7	Heptadecane		1740	975
6. 1576-67-6	Phenanthrene, Dimethyl isomers		1871	400
7. 1576-67-6	Phenanthrene, Dimethyl isomers		1882	400
8. —	unknown		1888	200 J
9. 629-99-2	Pentacosane		1896	650
10. —	unknown		1926	200 J
11. —	unknown		1952	350
12. 629-97-0	Docosane		1969	300 J
13. —	unknown		2040	500
14. 3353-12-6	Methyl Pyrene isomers		2059	200 J
15. —	unknown		2065	250 J
16. —	unknown		2107	200 J
17. —	unknown		2174	400
18. —	unknown		2215	260 J
19. —	unknown		2240	300 J
20. —	unknown		2306	500
21. —	unknown		2372	200 J
22. —	unknown		2450	400
23. 205-82-3	Benzo(j) Fluoranthene		2469	250 J
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Sample Number
EI879

Organics Analysis Data Sheet
(Page 1)

000219

Laboratory Name: KEMRON-Baton Rouge
Case No: 7342
Lab Sample ID No: WEI879
QC Report No: —
Sample Matrix: SOIL
Contract No: 68-01-7279
Data Release Authorized By: M. Jack R. Arnold 7/6/87
Date Sample Received: 5/28/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

RECEIVED AUG 21 1987

Date Extracted/Prepared: —
Date Analyzed: 6/7/87
Conc/Dil Factor: 1 pH 8.2
Percent Moisture: (Not Decanted) 10

Dry weight

CAS Number		ug/l or ug/Kg (Circle One)	
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	6	U
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	6	U
75-35-4	1, 1-Dichloroethene	6	U
75-34-3	1, 1-Dichloroethane	6	U
156-60-5	Trans-1, 2-Dichloroethene	6	U
67-66-3	Chloroform	6	U
107-06-2	1, 2-Dichloroethane	6	U
78-93-3	2-Butanone	~~11~~ 85	U
71-55-6	1, 1, 1-Trichloroethane	6	
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U

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

Data Reporting Qualifiers

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

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

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

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

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

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

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

oratory Name: KEMRON, Baton Rouge

e No: 7342

Sample Number
EI879

Organics Analysis Data Sheet
(Page 2)

000220

Semivolatile Compounds

centration: (Low) Medium (Circle One)

e Extracted/Prepared: 6/4/87

Analyzed: 6/27/87

c/Dil Factor: 1

cent Moisture (Decanted) 10

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

RECEIVED AUG 21 1987

Dry weight

S umber		ug/l or ug/Kg (Circle One)
8-95-2	Phenol	360 U
1-44-4	bis(-2-Chloroethyl)Ether	360 U
-57-8	2-Chlorophenol	360 U
1-73-1	1, 3-Dichlorobenzene	360 U
6-46-7	1, 4-Dichlorobenzene	360 U
0-51-6	Benzyl Alcohol	360 U
-50-1	1, 2-Dichlorobenzene	360 U
-48-7	2-Methylphenol	360 U
638-32-9	bis(2-chloroisopropyl)Ether	360 U
6-44-5	4-Methylphenol	360 U
1-64-7	N-Nitroso-Di-n-Propylamine	360 U
7-72-1	Hexachloroethane	360 U
-95-3	Nitrobenzene	360 U
-59-1	Isophorone	360 U
8-75-5	2-Nitrophenol	360 U
5-67-9	2, 4-Dimethylphenol	360 U
-85-0	Benzoic Acid	1750 U
11-91-1	bis(-2-Chloroethoxy)Methane	360 U
0-83-2	2, 4-Dichlorophenol	360 U
0-82-1	1, 2, 4-Trichlorobenzene	~~360 U~~
1-20-3	Naphthalene	45 J
6-47-8	4-Chloroaniline	360 U
-68-3	Hexachlorobutadiene	360 U
9-50-7	4-Chloro-3-Methylphenol	360 U
1-57-6	2-Methylnaphthalene	360 U
7-47-4	Hexachlorocyclopentadiene	360 U
8-06-2	2, 4, 6-Trichlorophenol	1750 U
5-95-4	2, 4, 5-Trichlorophenol	360 U
1-58-7	2-Chloronaphthalene	360 U
8-74-4	2-Nitroaniline	1750 U
31-11-3	Dimethyl Phthalate	~~360 U~~
08-96-8	Acenaphthylene	50 J
9-09-2	3-Nitroaniline	1750 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	360 U
51-28-5	2, 4-Dinitrophenol	1750 U
100-02-7	4-Nitrophenol	1750 U
132-64-9	Dibenzofuran	360 U
121-14-2	2, 4-Dinitrotoluene	360 U
606-20-2	2, 6-Dinitrotoluene	360 U
84-66-2	Diethylphthalate	360 U
7005-72-3	4-Chlorophenyl-phenylether	360 U
86-73-7	Fluorene	360 U
100-01-6	4-Nitroaniline	1750 U
534-52-1	4, 6-Dinitro-2-Methylphenol	1750 U
86-30-6	N-Nitrosodiphenylamine (1)	360 U
101-55-3	4-Bromophenyl-phenylether	360 U
118-74-1	Hexachlorobenzene	360 U
87-86-5	Pentachlorophenol	~~1750 U~~
85-01-8	Phenanthrene	240 J
120-12-7	Anthracene	50 J
84-74-2	Di-n-Butylphthalate	~~360 U~~
206-44-0	Fluoranthene	570
129-00-0	Pyrene	380
85-68-7	Butylbenzylphthalate	~~360 U~~
91-94-1	3, 3'-Dichlorobenzidine	~~720 U~~
56-55-3	Benzo(a)Anthracene	320 J
117-81-7	bis(2-Ethylhexyl)Phthalate	175 J
218-01-9	Chrysene	450
117-84-0	Di-n-Octyl Phthalate	360 U
205-99-2	Benzo(b)Fluoranthene	820
207-08-9	Benzo(k)Fluoranthene	~~360 U~~
50-32-8	Benzo(a)Pyrene	420
193-39-5	Indeno(1, 2, 3-cd)Pyrene	460
53-70-3	Dibenz(a, h)Anthracene	160 J
191-24-2	Benzo(g, h, i)Perylene	650

(1)-Cannot be separated from diphenylamine

Laboratory Name Kemron-Baton Rouge

Case No 7342

Sample Number EI879

Organics Analysis Data Sheet
(Page 3)

000221

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 6/4/87

Date Analyzed 6/25/87

Conc/Dil Factor —

Percent Moisture (decanted) 4, pH=8.2

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

RECEIVED AUG 21 1987

CAS Number		ug/l or (ug/Kg) (Circle One) DRY WT.	
319-84-6	Alpha-BHC	8.3	u
319-85-7	Beta-BHC	8.3	u
319-86-8	Delta-BHC	8.3	u
58-89-9	Gamma-BHC (Lindane)	8.3	u
76-44-8	Heptachlor	8.3	u
309-00-2	Aldrin	8.3	u
1024-57-3	Heptachlor Epoxide	8.3	u
959-98-8	Endosulfan I	8.3	u
60-57-1	Dieldrin	17	u
72-55-9	4, 4'-DDE	17	u
72-20-8	Endrin	17	u
33213-65-9	Endosulfan II	17	u
72-54-8	4, 4'-DDD	17	u
1031-07-8	Endosulfan Sulfate	17	u
50-29-3	4, 4'-DDT	17	u
72-43-5	Methoxychlor	83	u
53494-70-5	Endrin Ketone	17	u
57-74-9	Chlordane	83	u
8001-35-2	Toxaphene	170	u
12674-11-2	Aroclor-1016	83	u
11104-28-2	Aroclor-1221	83	u
11141-16-5	Aroclor-1232	83	u
53469-21-9	Aroclor-1242	83	u
12672-29-6	Aroclor-1248	83	u
11097-69-1	Aroclor-1254	170	u
11096-82-5	Aroclor-1260	170	u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s — or W_s 30 V_t 1000 V_i 3

aboratory Name: KEMRON, Baton Rouge

ase No: 7342

Sample Number
EI579

Organics Analysis Data Sheet
(Page 4)

000222
RECEIVED AUG 2 1 1987

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 76-13-1	Ethane, 1,1,2 Trichloro-1,2,2 Trifluoro	VOA	217	11
2. —	Unknown	BNA	551	28200B
3. 88-19-7	Benzene sulfonamide, 2 Methyl		1517	750
4. —	Unknown		1532	1950
5. 70-55-3	Benzene Sulfonamide, 4-Methyl		1554	1050
6. —	Unknown		1794	575
7. —	—		~~1910~~	~~650~~ CS 7/2
8. —	—		~~1953~~	~~500~~ CS 7/2
9. —	Unknown		2014	950
10. —	Unknown		2216	775
11. 205-82-3	Benzo (J) Fluoranthene		2408	950
12. 205-82-3	Benzo (J) Fluoranthene isomer		2470	550
13. 205-82-3	Benzo (J) Fluoranthene		2482	400
14.				
15.				
16.				
17.				
18.				
19.				
20.				
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Sample Number
EI 880

Organics Analysis Data Sheet
(Page 1)

000308

Laboratory Name: KEMRON-Baton Rouge
Case No: 7342
Lab Sample ID No: WEI 880R
QC Report No: —
Sample Matrix: SOIL
Contract No: 68-01-7279
Data Release Authorized By: M. Jean R. Arnold 7/6/87
Date Sample Received: 5-28-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 6/2/87

Conc/Dil Factor: 1 pH 7.9

Percent Moisture: (Not Decanted) 10

RECEIVED AUG 2 1 1987

Dry weight

CAS Number		ug/l or ug/Kg (Circle One)	
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	2	J
67-64-1	Acetone	12	U J
75-15-0	Carbon Disulfide	6	U
75-35-4	1, 1-Dichloroethene	6	U
75-34-3	1, 1-Dichloroethane	6	U
156-60-5	Trans-1, 2-Dichloroethene	6	U
67-66-3	Chloroform	6	U
107-06-2	1, 2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1, 1, 1-Trichloroethane	7	
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U

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

Data Reporting Qualifiers

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

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

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

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

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

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

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

aboratory Name: KEMRON, Baton Rouge

ase No: 7342

Sample Number
EI880

Organics Analysis Data Sheet
(Page 2)

000309

Semivolatile Compounds

ncentration: (Low) Medium (Circle One)

ate Extracted/Prepared: 6/4/87

ate Analyzed: 6/28/87

Conc/Dil Factor: 1

rcent Moisture (Decanted) 10

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

RECEIVED AUG 21 1987

Dry weight

CAS Number		ug/l or ug/Kg (Circle One)
08-95-2	Phenol	360 U
11-44-4	bis(-2-Chloroethyl)Ether	360 U
95-57-8	2-Chlorophenol	360 U
41-73-1	1, 3-Dichlorobenzene	360 U
06-46-7	1, 4-Dichlorobenzene	360 U
100-51-6	Benzyl Alcohol	360 U
5-50-1	1, 2-Dichlorobenzene	360 U
5-48-7	2-Methylphenol	360 U
39638-32-9	bis(2-chloroisopropyl)Ether	360 U
06-44-5	4-Methylphenol	360 U
621-64-7	N-Nitroso-Di-n-Propylamine	360 U
67-72-1	Hexachloroethane	360 U
98-95-3	Nitrobenzene	360 U
78-59-1	Isophorone	360 U
88-75-5	2-Nitrophenol	360 U
105-67-9	2, 4-Dimethylphenol	360 U
65-85-0	Benzoic Acid	1750 U
111-91-1	bis(-2-Chloroethoxy)Methane	360 U
120-83-2	2, 4-Dichlorophenol	360 U
120-82-1	1, 2, 4-Trichlorobenzene	360 U
91-20-3	Naphthalene	360 U
106-47-8	4-Chloroaniline	360 U
87-68-3	Hexachlorobutadiene	360 U
59-50-7	4-Chloro-3-Methylphenol	360 U
91-57-6	2-Methylnaphthalene	360 U
77-47-4	Hexachlorocyclopentadiene	360 U
88-06-2	2, 4, 6-Trichlorophenol	1750 U
95-95-4	2, 4, 5-Trichlorophenol	360 U
91-58-7	2-Chloronaphthalene	360 U
88-74-4	2-Nitroaniline	1750 U
131-11-3	Dimethyl Phthalate	360 U
208-96-8	Acenaphthylene	360 U
99-09-2	3-Nitroaniline	1750 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	360 U
51-28-5	2, 4-Dinitrophenol	1750 U
100-02-7	4-Nitrophenol	1750 U
132-64-9	Dibenzofuran	360 U
121-14-2	2, 4-Dinitrotoluene	360 U
606-20-2	2, 6-Dinitrotoluene	360 U
84-66-2	Diethylphthalate	360 U
7005-72-3	4-Chlorophenyl-phenylether	360 U
86-73-7	Fluorene	360 U
100-01-6	4-Nitroaniline	1750 U
534-52-1	4, 6-Dinitro-2-Methylphenol	1750 U
86-30-6	N-Nitrosodiphenylamine (1)	360 U
101-55-3	4-Bromophenyl-phenylether	360 U
118-74-1	Hexachlorobenzene	360 U
87-86-5	Pentachlorophenol	1750 U
85-01-8	Phenanthrene	80 J
120-12-7	Anthracene	360 U
84-74-2	Di-n-Butylphthalate	360 U
206-44-0	Fluoranthene	150 J
129-00-0	Pyrene	100 J
85-68-7	Butylbenzylphthalate	360 U
91-94-1	3, 3'-Dichlorobenzidine	720 U
56-55-3	Benzo(a)Anthracene	70 J
117-81-7	bis(2-Ethylhexyl)Phthalate	300 J
218-01-9	Chrysene	100 J
117-84-0	Di-n-Octyl Phthalate	360 U
205-99-2	Benzo(b)Fluoranthene	250 J
207-08-9	Benzo(k)Fluoranthene	360 U
50-32-8	Benzo(a)Pyrene	60 J
193-39-5	Indeno(1, 2, 3-cd)Pyrene	360 U
53-70-3	Dibenz(a, h)Anthracene	360 U
191-24-2	Benzo(g, h, i)Perylene	60 J

(1)-Cannot be separated from diphenylamine

Laboratory Name Kemron-Baton Rouge

Case No 7342

Sample Number
ET880

Organics Analysis Data Sheet
(Page 3)

000310

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 6/4/87

Date Analyzed: 6/25/87

Conc/Dil Factor: —

Percent Moisture (decanted) 10, pH = 7.9

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

RECEIVED AUG 21 1987

CAS Number		ug/l or ug/Kg (Circle One) DRY WT.
319-84-6	Alpha-BHC	9.0 U
319-85-7	Beta-BHC	9.0 U
319-86-8	Delta-BHC	9.0 U
58-89-9	Gamma-BHC (Lindane)	9.0 U
76-44-8	Heptachlor	9.0 U
309-00-2	Aldrin	9.0 U
1024-57-3	Heptachlor Epoxide	9.0 U
959-98-8	Endosulfan I	9.0 U
60-57-1	Dieldrin	18 U
72-55-9	4, 4'-DDE	18 U
72-20-8	Endrin	18 U
33213-65-9	Endosulfan II	18 U
72-54-8	4, 4'-DDD	18 U
1031-07-8	Endosulfan Sulfate	18 U
50-29-3	4, 4'-DDT	18 U
72-43-5	Methoxychlor	90 U
53494-70-5	Endrin Ketone	18 U
57-74-9	Chlordane	90 U
8001-35-2	Toxaphene	180 U
12674-11-2	Aroclor-1016	90 U
11104-28-2	Aroclor-1221	90 U
11141-16-5	Aroclor-1232	90 U
53469-21-9	Aroclor-1242	90 U
12672-29-6	Aroclor-1248	90 U
11097-69-1	Aroclor-1254	180 U
11096-82-5	Aroclor-1260	180 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s — or W_s 30 V_t 4000 V_i 3

Laboratory Name: KEMRON, Baton Rouge

Case No: 7342

Sample Number
EI880

Organics Analysis Data Sheet
(Page 4)

000311

Tentatively Identified Compounds

RECEIVED AUG 21 1987

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 76-13-1	Ethane, 1,1,2 Trichloro, 1,2,2 Trifluoro-	VOA	214	9 B
2. —	Unknown	BNA	550	23700B
3. 17301-32-5	Undecane, 4,7-Dimethyl		1056	300J
4. 62016-34-6	Octane, 2,3,7-Trimethyl		1142	350J
5. —	Unknown		1172	750
6. 629-59-4	Tetradecane		1281	500
7. 54105-67-8	Heptadecane, 2,6 Dimethyl		1345	300J
8. —	Unknown		1437	250J
9. 544-76-3	Hexadecane		1479	625
10. —	Unknown		1525	250J
11. 629-78-7	Heptadecane		1571	375
12. 54105-67-8	Heptadecane, 2,6 Dimethyl		1577	375
13. 27554-26-3	1,2 Benzenedicarboxylic Acid, Diisooctyl Ester		2215	350
14. —	Unknown		2307	225J
15. —	Unknown		2456	250J
16. 205-82-3	Benzo (J) Fluoranthene		2470	200J
17.				
18.				
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Sample Number
EM848

Organics Analysis Data Sheet
(Page 1)

000402

Laboratory Name: KEMRON-Baton Rouge Case No: 7342

Lab Sample ID No: WEM848 QC Report No: —

Sample Matrix: SOIL Contract No: 68-01-7279

Data Release Authorized By: [illegible] Date Sample Received: 5-28-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: — RECEIVED AUG 21 1987

Date Analyzed: 6/7/87 ✓

Conc/Dil Factor: 1 pH 6.2

Percent Moisture: (Not Decanted) 17

Dry weight

CAS Number		ug/l or ug/Kg (Circle One)	
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	6	U
67-64-1	Acetone	7	J
75-15-0	Carbon Disulfide	6	U
75-35-4	1, 1-Dichloroethene	6	U
75-34-3	1, 1-Dichloroethane	6	U
156-60-5	Trans-1, 2-Dichloroethene	6	U
67-66-3	Chloroform	6	U
107-06-2	1, 2-Dichloroethane	6	U
78-93-3	2-Butanone	~~3~~	~~BJ~~ 10U
71-55-6	1, 1, 1-Trichloroethane	155	
56-23-5	Carbon Tetrachloride	~~6~~	~~U~~
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U

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

Data Reporting Qualifiers

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

R - [illegible]

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

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

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

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

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

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

boratory Name: KEMRON, Baton Rouge

se No: 7342

Sample Number
EM 845

Organics Analysis Data Sheet
(Page 2)

000403

Semivolatile Compounds

ncentration: (Low) Medium (Circle One)

ate Extracted/Prepared: 6/4/87

te Analyzed: 6/27/87

onc/Dil Factor: 1

rcent Moisture (Decanted) 17

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

RECEIVED AUG 2 1 1987

Dry weight

CAS Number		ug/l or ug/Kg (Circle One)
08-95-2	Phenol	400 U
111-44-4	bis(-2-Chloroethyl)Ether	400 U
95-57-8	2-Chlorophenol	400 U
541-73-1	1, 3-Dichlorobenzene	400 U
106-46-7	1, 4-Dichlorobenzene	400 U
100-51-6	Benzyl Alcohol	400 U
95-50-1	1, 2-Dichlorobenzene	400 U
95-48-7	2-Methylphenol	400 U
39638-32-9	bis(2-chloroisopropyl)Ether	400 U
106-44-5	4-Methylphenol	400 U
621-64-7	N-Nitroso-Di-n-Propylamine	400 U
67-72-1	Hexachloroethane	400 U
98-95-3	Nitrobenzene	400 U
78-59-1	Isophorone	400 U
88-75-5	2-Nitrophenol	400 U
105-67-9	2, 4-Dimethylphenol	400 U
65-85-0	Benzoic Acid	2000 U
111-91-1	bis(-2-Chloroethoxy)Methane	400 U
120-83-2	2, 4-Dichlorophenol	400 U
120-82-1	1, 2, 4-Trichlorobenzene	400 U
91-20-3	Naphthalene	400 U
106-47-8	4-Chloroaniline	400 U
87-68-3	Hexachlorobutadiene	400 U
59-50-7	4-Chloro-3-Methylphenol	400 U
91-57-6	2-Methylnaphthalene	400 U
77-47-4	Hexachlorocyclopentadiene	400 U
88-06-2	2, 4, 6-Trichlorophenol	2000 U
95-95-4	2, 4, 5-Trichlorophenol	400 U
91-58-7	2-Chloronaphthalene	400 U
88-74-4	2-Nitroaniline	2000 U
131-11-3	Dimethyl Phthalate	400 U
208-96-8	Acenaphthylene	400 U
99-09-2	3-Nitroaniline	2000 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	400 U
51-28-5	2, 4-Dinitrophenol	2000 U
100-02-7	4-Nitrophenol	2000 U
132-64-9	Dibenzofuran	400 U
121-14-2	2, 4-Dinitrotoluene	400 U
606-20-2	2, 6-Dinitrotoluene	400 U
84-66-2	Diethylphthalate	400 U
7005-72-3	4-Chlorophenyl-phenylether	400 U
86-73-7	Fluorene	400 U
100-01-6	4-Nitroaniline	2000 U
534-52-1	4, 6-Dinitro-2-Methylphenol	2000 U
86-30-6	N-Nitrosodiphenylamine (1)	400 U
101-55-3	4-Bromophenyl-phenylether	400 U
118-74-1	Hexachlorobenzene	400 U
87-86-5	Pentachlorophenol	2000 U
85-01-8	Phenanthrene	400 U
120-12-7	Anthracene	400 U
84-74-2	Di-n-Butylphthalate	400 U
206-44-0	Fluoranthene	125 J
129-00-0	Pyrene	400 U
85-68-7	Butylbenzylphthalate	400 U
91-94-1	3, 3'-Dichlorobenzidine	800 U
56-55-3	Benzo(a)Anthracene	400 U
117-81-7	bis(2-Ethylhexyl)Phthalate	400 U
218-01-9	Chrysene	70 J
117-84-0	Di-n-Octyl Phthalate	400 U
205-99-2	Benzo(b)Fluoranthene	120 J
207-08-9	Benzo(k)Fluoranthene	400 U
50-32-8	Benzo(a)Pyrene	400 U
193-39-5	Indeno(1, 2, 3-cd)Pyrene	400 U
53-70-3	Dibenz(a, h)Anthracene	400 U
191-24-2	Benzo(g, h, i)Perylene	70 J

(1)-Cannot be separated from diphenylamine

Laboratory Name Kenrm-Baton Rouge

Case No 7342

Sample Number EM848

Organics Analysis Data Sheet
(Page 3)

000404

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 6/4/87

Date Analyzed: 6/25/87

Conc/Dil Factor: —

Percent Moisture (decanted) 17% pH = 6.2

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

RECEIVED AUG 2 1 1987

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	10	U
319-85-7	Beta-BHC	10	U
319-86-8	Delta-BHC	10	U
58-89-9	Gamma-BHC (Lindane)	10	U
76-44-8	Heptachlor	10	U
309-00-2	Aldrin	10	U
1024-57-3	Heptachlor Epoxide	10	U
959-98-8	Endosulfan I	11	
60-57-1	Dieldrin	19	U
72-55-9	4, 4'-DDE	4.4	J
72-20-8	Endrin	19	U
33213-65-9	Endosulfan II	0.69	J
72-54-8	4, 4'-DDD	19	U
1031-07-8	Endosulfan Sulfate	19	U
50-29-3	4, 4'-DDT	19	U
72-43-5	Methoxychlor	96	U
53494-70-5	Endrin Ketone	19	U
57-74-9	Chlordane	96	U
8001-35-2	Toxaphene	190	U
12674-11-2	Aroclor-1016	96	U
11104-28-2	Aroclor-1221	96	U
11141-16-5	Aroclor-1232	96	U
53469-21-9	Aroclor-1242	96	U
12672-29-6	Aroclor-1248	96	U
11097-69-1	Aroclor-1254	190	U
11096-82-5	Aroclor-1260	190	U

dry wt.

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s — or W_s 30 V_t 1000 V_i 3

Laboratory Name: KEMRON, Baton Rouge

Case No: 7342

Sample Number: EMS48

Organics Analysis Data Sheet
(Page 4)

000405

Tentatively Identified Compounds

RECEIVED AUG 21 1987

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	76-13-1	Ethane, 1,1,2 Trichloro-1,2,2 Trifluoro	VOA	214	15
2.	—	unknown	BNA	550	25000 B
3.	—	unknown		1532	1270
4.	57-10-3	Hexadecanoic Acid		1788	350 J
5.	—	unknown		1916	350 J
6.	—	unknown		2175	350 J
7.	—	unknown		2307	600
8.	—	unknown		2404	750
9.	—	unknown		2455	2100
10.	629-99-2	Pentacosane		2653	1000
11.	—	unknown		2669	2700
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