1278550002 - Massac County
Missouri Portland Cement
Superfund / HRS
ILD# 006294623

EPA Region 5 Records Ctr.
381465

CERCLA
Screening Site Inspection Report

Illinois Environmental Protection Agency
P.O. Box 19276
Springfield, IL 62794-9276

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RML:tk:4/32/36-1(9/13/88)

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RML:tk:4/32/36a-1(9/13/88)

1. INTRODUCTION

Illinois Environmental Protection Agency's Pre-Remedial Unit was tasked by the United States Environmental Protection Agency (U.S. EPA) to conduct a screening site inspection (SSI) of the Missouri Portland Cement site.

The site was initially discovered by U.S. EPA through a Notification of Hazardous Waste Site (103c). The site was evaluated in the form of a Preliminary Assessment (PA) that was submitted to U.S. EPA. The PA was prepared by Richard Lange of the IEPA and is dated January 10, 1985. IEPA Pre-Remedial Unit prepared an SSI workplan of the Missouri Portland Cement site that was approved by U.S. EPA. The SSI of the Missouri Portland Cement was conducted on June 8, 1988. The IEPA SSI included an interview with the site manager, a reconnaissance inspection and the collection of five samples (4 sediment and 1 waste).

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

> All sites will receive a screening SI to 1) collect additional data beyond the PA to enable a more refined preliminary HRS [Hazard Ranking System] score, 2) establish priorities among sites most likely to qualify for the NPL [National Priorities List], and 3) identify the most critical data requirements for the listing SI step. A screening SI will not have rigorous data quality objectives (DQOs). Based on the refined preliminary HRS score and other technical judgement factors, the site will then either be designated as NFRAP [no further remedial action planned], or carried forward as an NPL listing candidate. A listing SI will not automatically be done on these sites, however. First, they will go through a management evaluation to determine whether they can be addressed by another authority such as RCRA [Resource Conservation and Recovery Act].... Sites that are designated NFRAP or deferred to other statutes are not candidates for a listing SI.

The listing SI will address all the data requirements of the revised HRS using field screening and NPL level DQOs. It may also provide needed data in a format to support remedial investigation work plan development. Only sites that appear to score high enough for listing and that have not been deferred to another authority will receive a listing SI (U.S. EPA 1988).

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

RL:lab/2812j, 33-34

2. SITE BACKGROUND

2.1 INTRODUCTION

This section includes information obtained from the SSI workplan preparation.

2.2 SITE DESCRIPTION

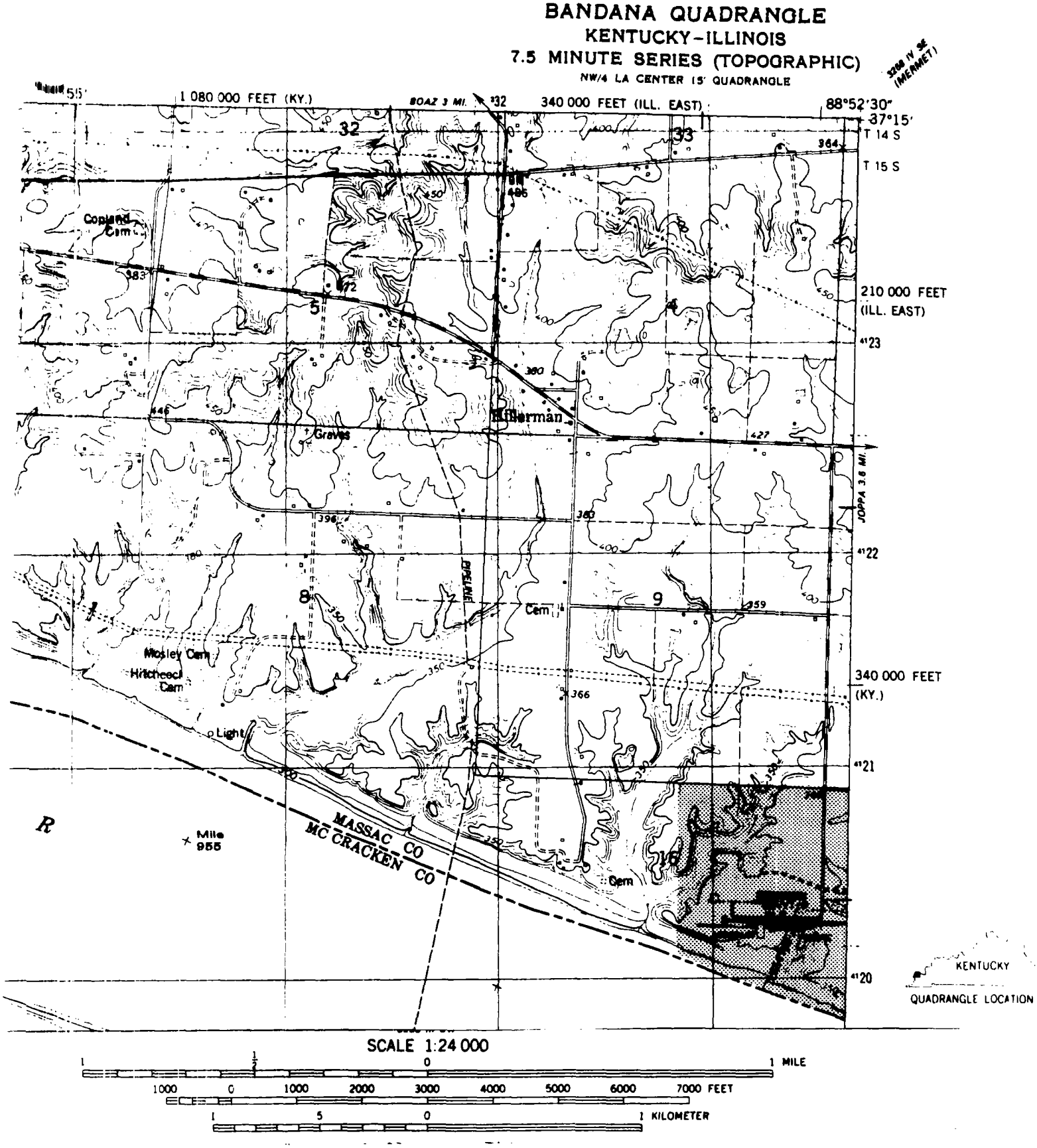
Missouri Portland Cement Company is an active manufacturer of Portland Cement. The facility consists of MORE THAN ~~in excess of~~ 300 acres of Ohio River front property, only a portion of which is involved in the manufacturing process. The CERCLA segment of the site is confined to a waste pile, approximately 3 acres in extent, immediately north of the cement kiln portion of the site. The waste pile contains used refractory brick from past kiln repair operations along with off-spec product, kiln dust, etc. Certain types of brick known to be in the pile have been determined to be hazardous because of their leachable chrome content.

2.3 SITE HISTORY

Missouri Portland Cement Company purchased the property and constructed the kiln facilities in 1963. Use of the waste pile can be presumed to have started soon after facility startup. The 103c Notice indicates that Missouri

Portland ceased use of the waste pile in 1980 for hazardous material disposal but site visits indicate that other material, ie. cement kiln dust is still deposited there. The used refractory brick is currently ground and incorporated into the kiln charge.

RL:lab/2812j, 35-36



Site Location

Figure 2-1

INDICATE A NORTH ARROW ON MAP.

3. SCREENING SITE INSPECTION PROCEDURES AND FIELD OBSERVATIONS

3.1 INTRODUCTION

This section outlines procedures and observations of the SSI at the Missouri Portland Cement site. Individual subsections address the site representative interview, reconnaissance inspection, and sampling. The SSI was conducted in accordance with the U.S. EPA-approved workplan with the deletion of several sampling points.

The U.S. EPA Potential Hazardous Waste Site Inspection Report (Form 2070-13) for the Missouri Portland Cement site is provided in Appendix C. The U.S. EPA Immediate Removal Action checksheet for the site is provided in Appendix D.

3.2 SITE REPRESENTATIVE INTERVIEW

On May 5, 1988 Richard Lange of IEPA DLPC Pre Remedial Unit and Gary Steele of Field Operations met with Max Fraley, manager of the Missouri Portland Cement, Joppa plant. Mr. Fraley was advised of where the site stood in the CERCLA evaluation process and the Site Inspection /HRS procedure in general.

Mr. Fraley advised Lange and Steele that the ownership of the site had changed and identified the current owner as Davenport Cement Company of Davenport, Iowa with no change in the Joppa site name. Mr. Fraley also noted

that Robert Hines had been promoted to Environmental Coordinator and transferred to the corporate offices in Davenport. Mr. Hines should be PROVIDED copies of all correspondences.

Before leaving the offices Mr. Fraley and G. Steele discussed several RCRA issues and procedures to maintain THEIR current status.

3.3 RECONNAISSANCE INSPECTION

After leaving the office area, Fraley, Lange and Steele walked to the area of the waste pile. After viewing the pile and material, access to stream sampling points was investigated. It was readily apparent that access could not be gained to the stream from the pile because of the grade of the slope being greater than 45%. It was also determined at this time that all potential chrome bearing material was in a solid matrix and not air mobile, HENCE, sampling to evaluate the air route was removed from consideration.

To gain access to stream sampling points, Fraley, Steele and Lange then walked to the Ohio River bank and down stream several hundred yards to the mouth of the unnamed tributary. It was determined that this was the best access to the proposed sediment sampling points.

3.4 SAMPLING PROCEDURES

On June 8, 1988 the Site Inspection sampling team collected four sediment samples and one waste sample from the Missouri Portland site. One sediment sample was deemed unnecessary because of local drainage patterns and property use. No groundwater samples were collected due to the extreme distance,

greater than 1/2 mile, and apparent discontinuities in the shallow aquifers between the site and the nearest residence not served by public water SUPPLY. As previously mentioned, sampling for an air release had already been removed from consideration.

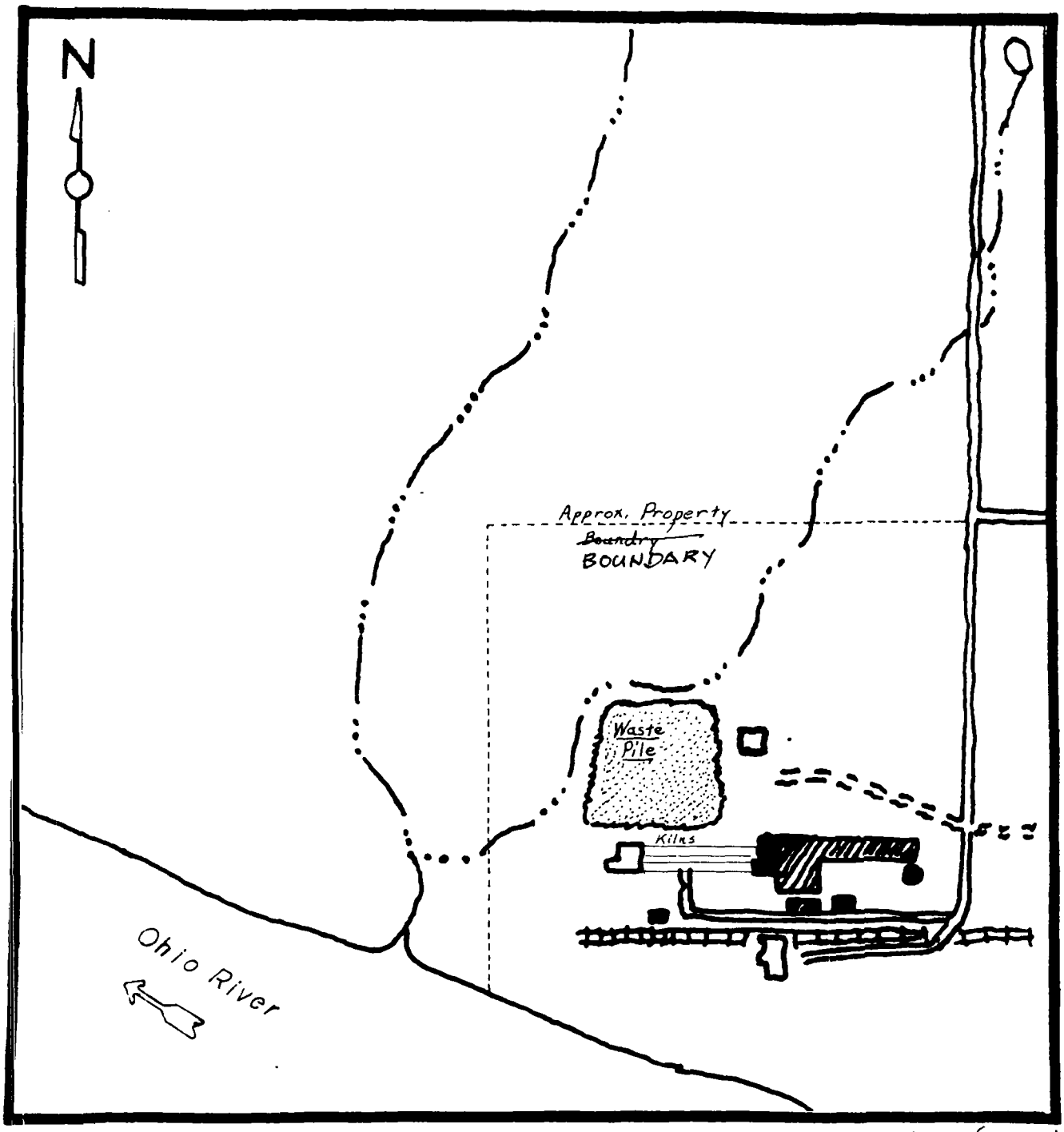
As agreed upon during the Recon. visit, Missouri Portland split samples with the S.I. team. All samples were collected by the S.I. team with splits being made after completion of sample collection on all but the vessel for Volatile analysis. A separate Volatile jar was collected for the S.I. team and for Missouri Portland.

All samples were collected directly into sampling jars with the use of medical grade tongue depressors. A new depressor was utilized at each sampling point, no decontamination was required nor preformed.

All samples were sealed, on site, with evidence tape and transmitted to Envirodyne Engineers for analysis maintaining chain of custody.

RL:lab/2812j, 37-39

YOU HAVE TO DISCUSS HOW THE SAMPLES WERE COLLECTED IN GREATER DETAIL. WHAT ARE THE SAMPLE ID'S, WHAT ARE THEIR RELATIVE LOCATIONS, WERE THE SAMPLES TAKEN FROM THE SURFACE?

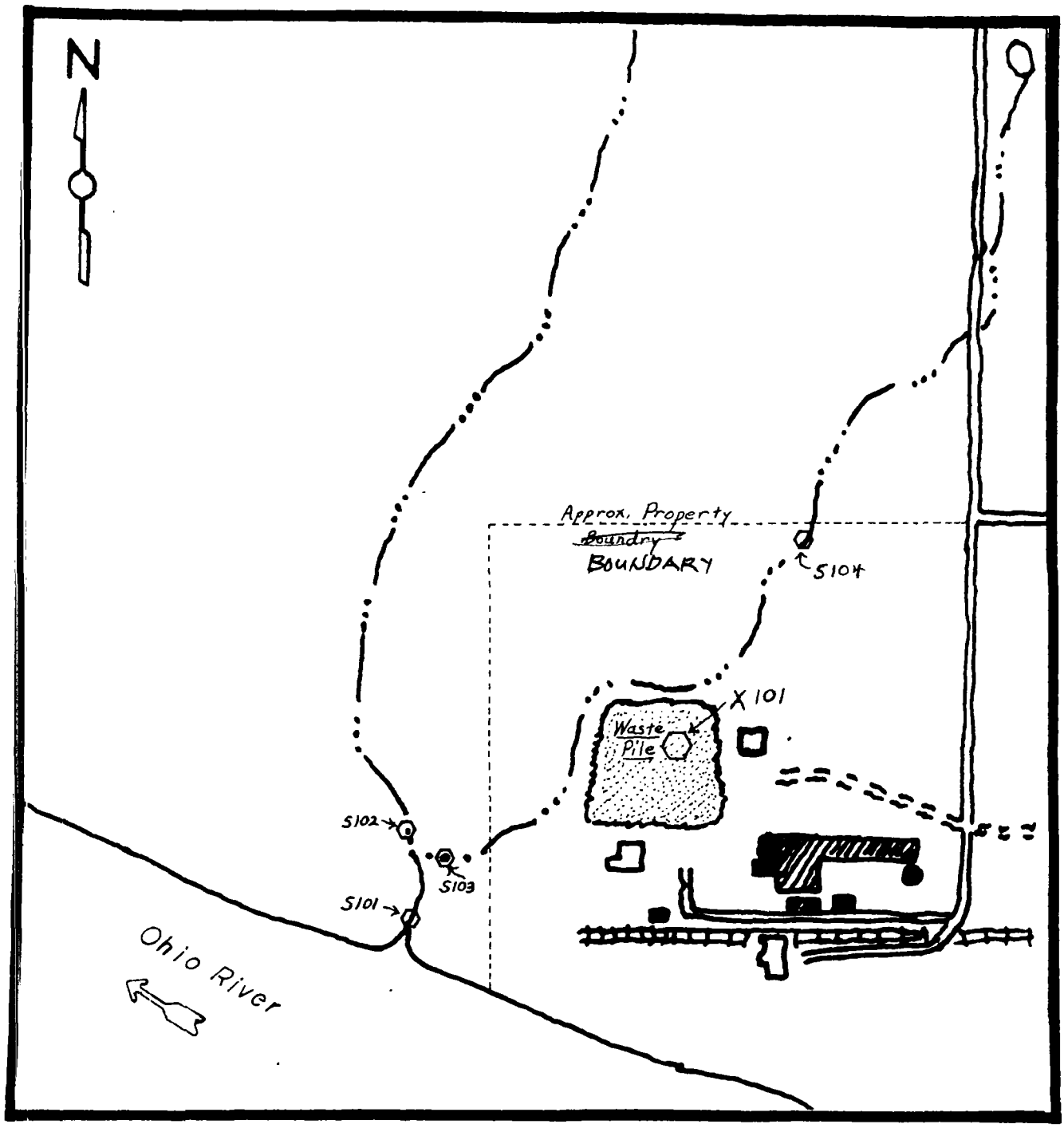


Not To Scale

Compiled from Topos (USGS)
+ Field Observations

Site Features

Figure 3-1



Not to Scale

Taken from USGS Topos
& field observations

Sampling Locations

Figure 3-2

4. ANALYTICAL RESULTS

4.1 INTRODUCTION

This section includes the results of IEPA collected samples for Contract Lab Target Compound List Analyses.

4.2 SUMMARY OF Analytical Results

The attached analysis (Appendix E) indicate the presence of significant metals concentrations and various semivolatile compounds (all below the contract required detection limits). No volatile, PCB or pesticide compounds were reported. For a summary of analytical results see Table 4-1.

RL:lab/2812j, 40

TABLE 4-1

MISSOURI PORTLAND CEMENT
ILD 006294623

INORGANIC ANALYSIS
SUMMARY

SOIL SAMPLES ALL CONCENTRATIONS IN mg/kg

SAMPLING POINT	X101	S101	S102	S103	S104
	6-8-88	6-8-88	6-8-88	6-8-88	6-8-88
PARAMETER					
ALUMINUM	8030.00	14500.00	7190.00	7670.00	6580.00
ANTIMONY	4.20 UR	7.58 UR	1.39 UR	6.92 UR	6.19 UR
ARSENIC	7.46	10.40	8.40	5.55	5.33
BARIUM	277.00	182.00	115.00	395.00	102.00
BERYLLIUM					
CADMIUM				4.68	
CALCIUM	229000.00	12200.00	1580.00	262000.00	11000.00
CHROMIUM	586.00	28.90	30.30	14.50	7.60
COBALT	11.60	16.40	9.12	4.46	6.25
COPPER	4.73	27.80	9.49	10.50	8.34
IRON	10600.00	27900.00	23400.00	10500.00	11400.00
LEAD	30.59	31.36	12.62	75.00	10.75
MAGNESIUM	79.20	4960.00	1310.00	9820.00	1470.00
MANGANESE	184.00	1440.00	697.00	369.00	670.00
MERCURY					
NICKEL	42.80	36.10	12.30	10.40	9.58
POTASSIUM	1990.00	2030.00	628.00	3230.00	804.00
SELENIUM				2.34	
SILVER	0.31 UR	0.52 UR	0.41 UR	0.46 UR	0.38 UR
SODIUM	369.00	264.00	174.00	492.00	152.00
THALLIUM	0.30 UR	0.52 UR	0.42 UR	4.51 R	0.41 UR
TIN					
VANADIUM	75.80	30.70	60.80	21.90	23.70
ZINC	100.00	173.00	70.20	77.90	44.90
CYANIDE					
SULFATE	1425.00	64.30		1655.00	122.00
SULFIDE		13.10	16.60	13.90	
Ph (lab/field)					
CONDUCTIVITY (1/f)					

TABLE 4-1

MISSOURI PORTLAND CEMENT
ILD006294623

SEMIVOLATILE
ORGANIC ANALYSIS
SUMMARY
SOIL SAMPLES

ALL CONCENTRATIONS IN ~~ug/l~~ ug/kg ~~ug/l~~

SAMPLING POINT	S101	S102	S103	S104	X101
	6-8-88	6-8-88	6-8-88	6-8-88	6-8-88
PARAMETER					
Phenol	130.0 J	76.0 J	110.0 J	72.0 J	40.0 J
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					160.0 J
Hexachloroethane					
Nitrobenzene					
Isophorone					
2 Nitrophenol					
2,4 Dimethylphenol					
Benzoic acid					
bis(2 Chloroethoxy)Methane					
2,4 Dichlorophenol					
1,2,4 Trichlorobenzene					
Naphthalene	50.0 J				61.0 J
4 Chloroaniline					59.0 J
Hexachlorobutadiene					
4 Chloro 3 methylphenol					
2 Methylnaphthalene	81.0 J		31.0 J		160.0 J
Hexachlorocyclopentadiene					
2,4,6 Trichlorophenol					
2,4,5 Trichlorophenol					
2 Chloronaphthalene					
2 Nitroaniline					
Dimethylphthalate					
Acenaphthylene					
2,6 Dinitrotoluene					
3 Nitroaniline					
Acenaphthalene					
2,4 Dinitrophenol					
4 Nitrophenol					
Dibenzofuran					36.0 J
Diethylphthalate			51.0 J		
4 Chlorophenyl phenylether					
Fluorene					
4 Nitroaniline					
4,6 Dinitro 2 Methylphenol					
N Nitrosodiphenylamine					
4 Bromophenyl Phenylether					
Hexachlorobenzene					

~~Table 4-1~~
~~(continued)~~ 4-3

TABLE 4-1

Pentachlorophenol					
Phenanthrene	120.0 J		34.0 J		110.0 J
Anthracene					
Di n Butylphthalate	370.0 JB	80.0 JB	330.0 JB	120.0 JB	77.0 JB
Fluoranthene	220.0 J		32.0 J		48.0 J
Pyrene	140.0 J		28.0 J		46.0 J
Butylbenzylphthalate					
3,3' Dichlorobenzidine					
Benzo(a)anthracene	110.0 J		23.0 J		35.0 J
Chrysene	120.0 J		23.0 J		32.0 J
bis(2 Ethylhexyl)phthalate	230.0 JB	76.0 JB	140.0 JB	850.0 B	59.0 JB
Di n octylphthalate					
Benzo(b)fluoranthene	200.0 J				36.0 J
Benzo(k)fluoranthene	120.0 J				19.0 J
Benzo(a)pyrene	160.0 J				28.0 J
Indeno(1,2,3 cd)pyrene	97.0 J				
Dibenz(a,h)anthracene					
Benzo(g,h,i)perylene	99.0 J				

Qualifier

NR - Not required by contract at this time.
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 (ie [10]). Indicate the analytical method used with P (for ICP/Flame AA) or F (for furnace).
U - Indictates element was analyzed for but not detected. Report with the detection limit value (ie 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.

AFTER THE SECTION ON 'ANALYTICAL RESULTS', SEC. 4, A NEW TOPIC MAY BE OPENED TO DISCUSS MIGRATION PATHWAYS.

APPENDIX A

SITE 4-MILE RADIUS MAP

SDMS US EPA Region V

Imagery Insert Form

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APPENDIX A: SITE 4 MILE RADIUS

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APPENDIX B

SITE 15-MILE STREAM MAP

SDMS US EPA Region V

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APPENDIX B: SITE 15 MILE STREAM MAP

☐ **Other:**

APPENDIX C

U.S. EPA FORM 2070-13

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Site Inspection Report

EPA

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

I. IDENTIFICATION
01 STATE: ILD | 02 SITE NUMBER: 006294623

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER				
Missouri Portland Cement Co	Massac Co. Rd 1000N + 300 E				
03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Joppa	IL	62953	Massac	127	22

09 COORDINATES: LATITUDE 32 13 22.0 | LONGITUDE 088 52 45.0

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

III. INSPECTION INFORMATION

01 DATE OF INSPECTION: 06 08 88 (MONTH DAY YEAR)

02 SITE STATUS: ☑ ACTIVE ☐ INACTIVE

03 YEARS OF OPERATION: 1963 (BEGINNING YEAR) | Present (ENDING YEAR) ☐ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply): ☐ A. EPA ☐ B. EPA CONTRACTOR (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.
Richard M. Lange	Environmental Protection Spec	IEPA/DLPC	( )

09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
Ken Corkill	" " "	" / "	(217) 782-6760
Tim Murphy	" " "	" / "	(") " "
			(") " "
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO.
Max Fraley	Manager	Box 84A, Grand Chain, Il 62941	618 543-7541
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☑ PERMISSION ☐ WARRANT	8:30 AM / 1:30 PM	Clear, ~90°F, Calm

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Max Fraley	Missouri Portland Cement	618 543-7541

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Richard Lange	IEPA	DLPC/RPMS	217-782-6760	08 18 88 (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
ILD	006294623

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

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

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

TONS _____

CUBIC YARDS >70,000 yds³

NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

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

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS	>70,000	yds³	3 acres ~15 ft average depth

mg/kg used

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	Chromium		Waste Pile	586	PPM
Mes	Barium		" "	277	PPM

V. FEEDSTOCKS (See Appendix for CAS Numbers)

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

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

Site visit, SI Sample X-101, 103c Notification

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	006294623

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☑ A. GROUNDWATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) ☑ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 87 — 04 NARRATIVE DESCRIPTION

34 homes within 3 miles are believed to be served by shallow ground water with no access to public supply
34 x 2.57 People/home (1980 Census data Massac Cnty)

01 ☑ B. SURFACE WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☑ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

Increases of Barium, Lead, Calcium, Magnesium, Potassium, Sodium, Zinc + Sulfate noted comparing down stream against upstream samples. Ranges of increase are too narrow to definatively call an observed release.

01 ☑ C. CONTAMINATION OF AIR — 02 ☐ OBSERVED (DATE: _____) ☑ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

Material in pile may become dust mobile during dry, hot windy periods. Less likely in that high chrome material is mainly in brick chunk matrix.

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

NONE DOCUMENTED OR OBSERVED.

01 ☐ E. DIRECT CONTACT — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

NONE DOCUMENTED OR OBSERVED

01 ☑ F. CONTAMINATION OF SOIL — 02 ☑ OBSERVED (DATE: 6-8-88) ☐ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: >3.0 (Acres) — 04 NARRATIVE DESCRIPTION

Area of waste pile plus extensive vegitative kill in forrest area below pile

01 ☑ G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 87 — 04 NARRATIVE DESCRIPTION

See A above

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

NONE DOCUMENTED OR OBSERVED

01 ☐ I. POPULATION EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

N/A

EPA

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

I. IDENTIFICATION
01 STATE: ILD
02 SITE NUMBER: 006294623

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☑ J. DAMAGE TO FLORA — 02 ☑ OBSERVED (DATE: 6-5-88) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
See F above.

01 ☑ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ☑ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)
Ohio River in the area of the site is habitat for 2 Federal Listed endangered species of Mollusk along with numerous food & sport fish.

01 ☑ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ☑ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
The Ohio River is subject to both Sport & Commercial fishing

01 ☑ M. UNSTABLE CONTAINMENT OF WASTES (Spills/Runoff/Standing liquids, Leaking drums) — 02 ☑ OBSERVED (DATE: 6-8-88) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Udt
04 NARRATIVE DESCRIPTION
Waste Pile releasing to the Ohio River via local drainage.

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
NONE DOCUMENTED OR OBSERVED

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
N/A

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
N/A

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS
NONE

III. TOTAL POPULATION POTENTIALLY AFFECTED: 82

IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)
US Fish & Wildlife
Attn: Melanie Young
Marion, Il Field office
618-997-5491
Field Sampling & Observation
USGS Topographic Maps
IEPA Files (DHR)

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
ILD	006294623

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☐ A. NPDES				
☐ B. UIC				
☑ C. AIR	Multiple			State ID# 127855AAA
☐ D. RCRA				
☐ E. RCRA INTERIM STATUS				
☐ F. SPCC PLAN				
☐ G. STATE (Specify)				
☐ H. LOCAL (Specify)				
☐ I. OTHER (Specify)				
☐ J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☐ A. SURFACE IMPOUNDMENT		
☐ B. PILES		
☐ C. DRUMS, ABOVE GROUND		
☐ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
☐ F. LANDFILL		
☐ G. LANDFARM		
☑ H. OPEN DUMP	70,000	yds3
☐ I. OTHER (Specify)		

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

05 OTHER
- ☑ A. BUILDINGS ON SITE

06 AREA OF SITE: 282 (Acres)

07 COMMENTS
Quantity of 70,000 YDS3 based on 3 acres of material (103c Notice) and ~~underestimation~~ AN ~~of~~ average depth ~~of~~ 15 feet. Facility is currently recycling used brick in cement mfg. process.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)
- ☐ A. ADEQUATE, SECURE
- ☐ B. MODERATE
- ☐ C. INADEQUATE, POOR
- ☑ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.
No containment was noted during the SI or reported by operator. Material is piled with toe of slope at streams edge.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☑ YES ☐ NO

02 COMMENTS
No access restriction exist other than very difficult terrain.

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

Site Recon. Visit, 103c Notice, Preliminary Assessment

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

I. IDENTIFICATION
01 STATE: ILD | 02 SITE NUMBER: 006294623

II. DRINKING WATER SUPPLIES

01 TYPE OF DRINKING SUPPLY (Check as applicable)

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

02 STATUS

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

03 DISTANCE TO SITE
A. 2.0 (mi)
B. 1/4 (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: 87
03 DISTANCE TO NEAREST DRINKING WATER WELL: 1/4 (mi)

04 DEPTH TO GROUNDWATER: <50 (ft)
05 DIRECTION OF GROUNDWATER FLOW: ? South
06 DEPTH TO AQUIFER OF CONCERN: 50 (ft)
07 POTENTIAL YIELD OF AQUIFER: Udt (gpd)
08 SOLE SOURCE AQUIFER: ☐ YES ☑ NO

09 DESCRIPTION OF WELLS (Including usage, depth, and location relative to population and buildings)
Variable, 50-200 ft deep, diameters from 4"-36", casing ranges from concrete to steel including PVC.

10 RECHARGE AREA: ☐ YES ☐ NO
COMMENTS: Unknown

11 DISCHARGE AREA: ☑ YES ☐ NO
COMMENTS: Seeps noted supplying local drainage

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)
☑ A. RESERVOIR, RECREATION, DRINKING WATER SOURCE ☐ B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES ☐ C. COMMERCIAL, INDUSTRIAL ☐ D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
Unnamed intermittent Tributary	☑	0 (mi)
Ohio River	☐	<1/4 (mi)
	☐	(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN
ONE (1) MILE OF SITE: A. 41 NO. OF PERSONS
TWO (2) MILES OF SITE: B. 208 NO. OF PERSONS
THREE (3) MILES OF SITE: C. 1092 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION: 1/4 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE: 81
04 DISTANCE TO NEAREST OFF-SITE BUILDING: 1/4 (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)
Scattered rural, village of Joppa ~ 1.75 miles East of site.

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	006294623

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 ($10^{-3} - 10^{-4}$ cm/sec) ☐ D. VERY PERMEABLE (Greater than 10^{-3} cm/sec)

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH
140 (ft)	Udt (ft)	Udt

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
+10.0 (in)	3.0 (in)	>45.0 %	Radial	>8.0 %

09 FLOOD POTENTIAL

SITE IS IN 1 YEAR FLOODPLAIN

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

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE: A. NA (mi) OTHER: B. 0.0 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

< 1/4 (mi)

See Attached DOI Letter

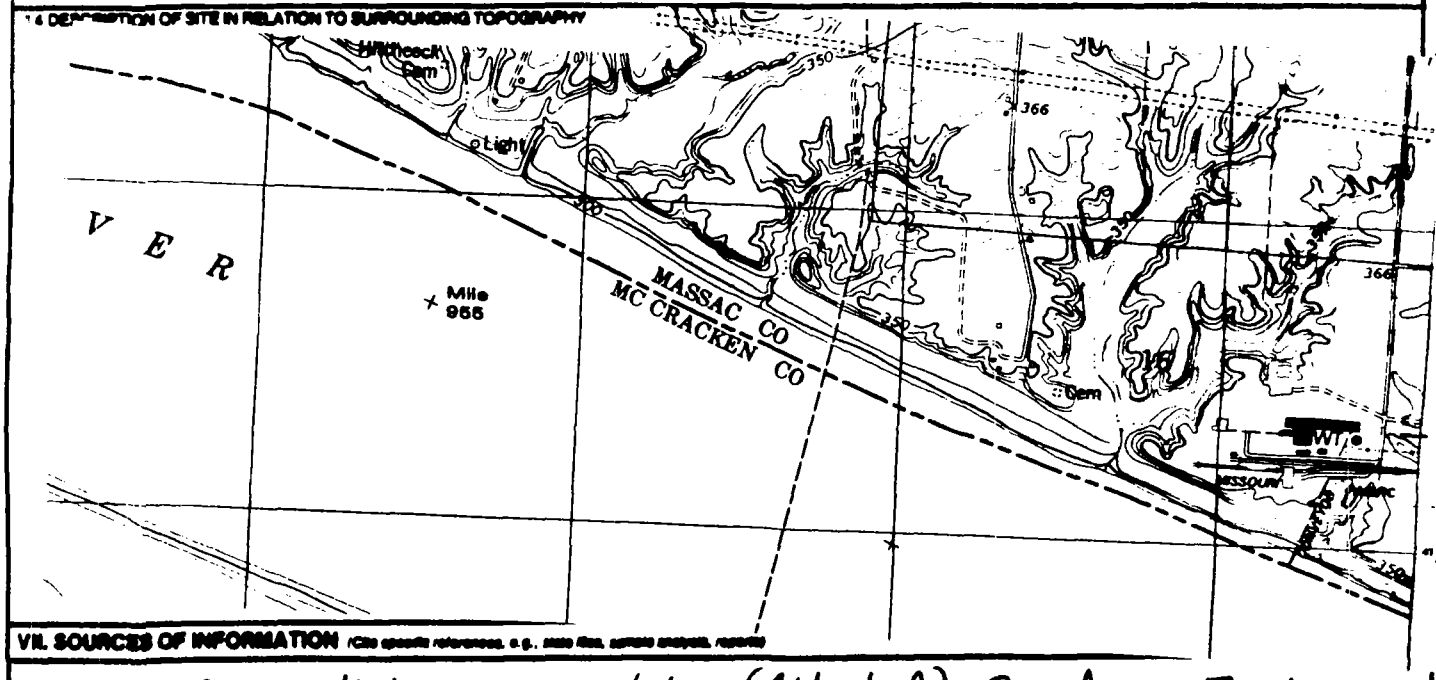
ENDANGERED SPECIES: 2 mollusk & Sandpiper

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 (mi)	B. 1/4 (mi)	C. NA (mi)	D. 1/4 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY



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

Site Recon. Visit, Area well logs (Attached), Bandana 7.5' Quadrangle Topo, U.S. Dept of Interior.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
ILD	006294623

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER			
WASTE	1	Envirodyne Engineers, St Louis	Attached
AIR			
RUNOFF			
SPILL			
SOIL	4 (Sediment)	" " "	"
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
HNu	No respence above background
LEL/O2	" " " "

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☑ GROUND ☑ AERIAL

02 IN CUSTODY OF Richard Lange DLPC/RPMS
(Name of organization or individual)

03 MAPS ☑ YES ☐ NO

04 LOCATION OF MAPS Attached

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

None

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

Site Sampling Visit, USDA-ASCS

EPA FORM 2070-13 (7-81)

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
ILD	006294623

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER
Missouri Portland Cement	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
Box 84A	

05 CITY	06 STATE	07 ZIP CODE
Grand Chain	Il	62941

PARENT COMPANY (If applicable)

08 NAME	09 D+B NUMBER
Davenport Cement Co.	

10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE
220 Emerson Place	

12 CITY	13 STATE	14 ZIP CODE
Davenport	IA	52801

01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE

01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE

01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE

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

01 NAME	02 D+B NUMBER
MISSOURI PORTLAND CEMENT	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
BOX 84A	

05 CITY	06 STATE	07 ZIP CODE
GRAND CHAIN	IL	62941

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

01 NAME	02 D+B NUMBER
N/A	

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

05 CITY	06 STATE	07 ZIP CODE

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)

Max Fraley of Missouri Portland Cement Co.

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	006294623

II. CURRENT OPERATOR (Provide if different from owner)			OPERATOR'S PARENT COMPANY (If applicable)		
01 NAME: Same as Owner		02 D+B NUMBER	10 NAME: Same as Owner		11 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER				

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)			PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)		
01 NAME: N/A		02 D+B NUMBER	10 NAME: N/A		11 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD				
01 NAME		02 D+B NUMBER	10 NAME		11 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD				
01 NAME		02 D+B NUMBER	10 NAME		11 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD				

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

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	006294623

II. ON-SITE GENERATOR

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

III. OFF-SITE GENERATOR(S)

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

N/A

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
N/A			
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)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
ILD	006294623

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

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

I. IDENTIFICATION
01 STATE: ILD
02 SITE NUMBER: 006294623

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:

None Known

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

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	006294623

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☑ YES ☐ NO

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

NEED INPUT ON DESCRIPTION OF REGULATORY/ENFORCEMENT ACTION GIVEN

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

[illegible]
CHAIN OF CUSTODY

Seal #: [illegible]

Date Sealed: 6/6/88 By: AWL

Facility
Name: MISSOURI PORTLAND CEMENT
Region: MARION
County: MASSAC

Site Inventory #: 1278550002
Site Billing Code: SA-06-660
Project Manager: RICH LANG

LABORATORY	SAMPLE I.D.	SAMPLE DATE	SAMPLE TIME
88006058	S102	6-8-88	10:08

Sample Appearance: _____

Sampling Comments: _____

Sample Signature: Richard Lange Division/Company: LPC

CONTAINER				ANALYSIS	FILTERING		
No.	Code	Size	Pres		(Y/N)	Date	Time
1	5	32oz	----	BNA, PEST/PCB			
1	5	32oz	----	SULFATES, SULFIDES, MERCURY			
				TOTAL METALS, CYANIDE			
2	12	2oz	----	VOA			

CHAIN OF CUSTODY CHRONICLE

[illegible] that I [illegible] the sample [illegible] with the shipping container sealed and intact.

Opened by (print): Richard Lange Signature: Richard Lange

Date: 6-8-88 Time: 9:27 Seal #: 2211 Intact?: Y / N

[illegible] that the sample listed above was collected and placed in bottles in my presence, that each bottle was placed intact in the [illegible] and that I sealed the sample shipping container at the date and time listed below.

Sealed by (print): Rich Lange Signature: Richard Lange

Date: 6-9-88 Time: 10:30 Seal #: 2212

Y - sample pickup: UPS

Courier - sample [illegible]

I certify that I received [illegible]
that each bottle in the [illegible]
the custody of competent [illegible]

Opened by (print): [illegible]

Date: 6-10-88 Time: 1200 [illegible] Intact? Y / N

Lab Name: Environmental Engineers Comments: Sample received intact

IEPA - CLP
CHAIN OF CUSTODY

Seal #: 2213

Date Sealed: 6/6/88 By: AWU

Facility
Name: MISSOURI PORTLAND CEMENT
Region: MARION
County: MASSAC

Site Inventory #: 1278550002
Site Billing Code: SA-06-660
Project Manager: RICH LANG

LABORATORY	SAMPLE I.D.	SAMPLE DATE	SAMPLE TIME
88006059	5103	6-8-88	10:25

Sample Type/Sample #:

Collector Contents:

Sample Signature: Richard Lange Division/Company: LPC

CONTAINER No.	Code	Size	Pres	ANALYSIS	FILTERING (Y/N)	Date	Time
1	5	32oz	----	BNA, PEST/PCB			
1	5	32oz	----	SULFATES, SULFIDES, MERCURY			
				TOTAL METALS, CYANIDE			
2	12	2oz	----	VOA			

CHAIN OF CUSTODY CHRONICLE

I certify that I received the sample shipping container with the shipping container sealed and intact.

Opened by (print): Rich Lange Signature: Richard Lange

Date: 6-8-88 Time: 9:21 Seal #: 2213 Intact? Y / N

I certify that the sample listed above was collected and placed in bottles in my presence, that each bottle was placed intact in the sample shipping container, and that I sealed the sample shipping container at the date and time listed below.

Sealed by (print): Rich Lange Signature: Richard Lange

Date: 6-9-88 Time: 10:30 AM Seal #: 2212

Courier - sample pickup: UPS

Courier - [redacted]

I certify that I recei[redacted]
that each bottle in the [redacted]
the custody of [redacted]

Opened by (pri[redacted]

Date: 6-10-8[redacted]

Lab Name: E[redacted]

IEPA - OLP
CHAIN OF CUSTODY

Seal #: 2213

Date Sealed: 6/6/88 By: AWW

Facility
Name: MISSOURI PORTLAND CEMENT
Region: MARION
County: MASSAC

Site Inventory #: 1278550002
Site Billing Code: SA-06-660
Project Manager: RICH LANG

LABORATORY	SAMPLE I.D.	SAMPLE DATE	SAMPLE TIME
88006060	S104	6-8-88	11:15

Double Acceptance:

Collector Comments:

Sample Signature: Richard Lange Division/Company: LPC

CONTAINER No.	Code	Size	Pres	ANALYSIS	FILTERING (Y/N)	Date	Time
1	5	32oz	----	BNA, PEST/PCB			
1	5	32oz	----	SULFATES, SULFIDES, MERCURY			
				TOTAL METALS, CYANIDE			
2	12	2oz	----	VOA			

CHAIN OF CUSTODY CHRONICLE

I certify that I received the sample shipping container with the shipping container sealed and intact.

Opened by (print): Richard Lange Signature: Richard Lange

Date: 6-8-88 Time: 9:21 Seal #: 2213 Intact? Y / N

I certify that the sample listed above was collected and placed in bottles in my presence, that each bottle was placed intact in the sample shipping container and that I sealed the sample shipping container at the date and time listed below.

Sealed by (print): Rich Lange Signature: Richard Lange

Date: 6-9-88 Time: 10:30 AM Seal #: 2212

[illegible] - sample pickup: UPS

Courier - sample [illegible]

I certify that I received [illegible]
that each bottle in the [illegible]
the custody of competent [illegible]

Opened by (print): [illegible]

Date: 6-10-88 Time: 12[illegible] Y / N

Lab Name: ENVIRODYNE [illegible] intact

CHAIN OF CUSTODY

Date Sealed: 6/6/88 By: AWW

Facility
Name : MISSOURI PORTLAND CEMENT
Region: MARION
County: MASSAC

Site Inventory # : 1278550002
Site Billing Code: SA-06-660
Project Manager : RICH LANG

LABORATORY #	SAMPLE I.D.	SAMPLE DATE	SAMPLE TIME
88006056	X-101	6-8-88	12:25 PM

Sample Appearance :

[illegible]

[illegible] Signature: Richard Lange Division Company: LPC

CONTAINER				ANALYSIS	FILTERING		
No.	Code	Size	Pres		(Y/N)	Date	Time
1	.5	32oz	----	BNA, PEST/PCB			
1	.5	32oz	----	SULFATES, SULFIDES, MERCURY			
				TOTAL METALS, CYANIDE			
~~2~~	~~.12~~	~~2oz~~	~~---~~	~~VOA~~ RL			

CHAIN OF CUSTODY CHRONICLE

[illegible] I received the sample shipping container with the shipping container sealed and intact.

Opened by (print): Rich Lange Signature: Richard Lange

Date: 6-8-88 Time: 9:27 Seal #: 2211 Intact? Y / N

[illegible] that the sample listed above was collected and placed in bottles in my presence, that each bottle was placed intact in the [illegible] shipping container and that I sealed the sample shipping container at the date and time listed below.

Sealed by (print): Rich Lange Signature: Richard Lange

Date: 6-9-88 Time: 10:30 AM Seal #: 2212

[illegible] - sample pickup: UPS

Courier - sample [illegible] UPS

I certify that I received the [illegible]
that each bottle in the shipping [illegible]
the custody of competent [illegible]

Opened by (print): [illegible]

Date: 6-10-88 Time: [illegible] Seal #: [illegible] Intact? Y / N

Lab Name: [illegible] Environmental [illegible] Sample Received Intact

IEPA - CLP
CHAIN OF CUSTODY

Seal #: 2211

Date Sealed: 6/6/88 By: AW

Facility
Name : MISSOURI PORTLAND CEMENT
Region: MARION
County: MASSAC

Site Inventory # : 1278550002
Site Billing Code: SA-06-660
Project Manager : RICH LANG

LABORATORY	SAMPLE I.D.	SAMPLE DATE	SAMPLE TIME
88006059	S101	6-8-88	9:55 AM

Sample Appearance

Collector Comments

Sampler Signature: Richard Lange Division/Company: LPC

CONTAINER No.	Code	Size	Pres	ANALYSIS	FILTERING (Y/N)	Date	Time
1	5	32oz	----	BNA, PEST/PCB			
1	5	32oz	----	SULFATES, SULFIDES, MERCURY			
				TOTAL METALS, CYANIDE			
2	12	2oz	----	VOA			

CHAIN OF CUSTODY CHRONICLE

I certify that I sealed the sample shipping container with the shipping container sealed and intact.

Opened by (print): Rich Lange Signature: Richard Lange

Date: 6-8-88 Time: 9:27 Seal #: 2211 Intact?: Y / N

I certify that the sample listed above was collected and placed in bottles in my presence, that each bottle was placed intact in the sample shipping container and that I sealed the sample shipping container at the date and time listed below.

Sealed by (print): Rich Lange Signature: Richard Lange

Date: 6-8-88 Time: 10:30 AM Seal #: 22-12

Courier - sample pickup: UPS

Courier - sample [illegible]

I certify that I received the [illegible]
that each bottle in the [illegible]
the custody of competent [illegible]

Opened by (print): [illegible]

Date: 6-10-88 Time: [illegible] Intact?: Y / N

Lab Name: ENVIRODYNE ENGINEERS [illegible] Sample received intact

Illinois Environmental Protection Agency
Contract Laboratory Services
Organic Analysis Data Package

Date: JULY 22, 1988

COVER PAGE

Lab Name: Envirodyne Engineers, Inc.
Site Inventory Number : 1278550002
Region : MARION

Q.C. Report No. : 3132-00027
Facility Name : MISSOURI PORTLAND CEMENT
County: MASSAC

DATA REPORTING QUALIFIERS FOR ORGANICS ANALYSIS

For reporting results, the following results qualifiers are used:
(Additional flags or footnotes are encouraged. However, the definition of such flags must be explicite.)

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 with the detection limit value (i.e. 10U).

J - Indicates estimated value. This flag is used when estimating the concentration of tentatively identified compounds.

C - This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B - This flag is used when the analyte being reported was also found in the blank.

CONTENTS SUMMARY (use additional page if necessary)

IEPA I.D. No.	Lab I.D. No.	Analysis Type	Analysis Date
MB #1		VOA	06/18/88
S101	88006057	VOA	06/18/88
S102	88006058	VOA	06/18/88
S103	88006059	VOA	06/18/88
MB #2		VOA	06/18/88
S104	88006060	VOA	06/18/88
MB #3		VOA	06/29/88
S103 RE	88006059	VOA	06/29/88
S104 MS	88006060	VOA	06/29/88
S104 MSD	88006060	VOA	06/29/88

Narrative summary of any QC, sample, or analytical problems encountered with the samples being reported. Attach additional sheets if necessary.

Illinois Environmental Protection Agency
Contract Laboratory Services
Organic Analysis Data Package

Date: JULY 22, 1988

COVER PAGE

Lab Name: Envirodyne Engineers, Inc.
Site Inventory Number : 1278550002
Region : MARION

Q.C. Report No. : 3132-00027
Facility Name : MISSOURI PORTLAND CEMENT
County: MASSAC

DATA REPORTING QUALIFIERS FOR ORGANICS ANALYSIS

For reporting results, the following results qualifiers are used:
(Additional flags or footnotes are encouraged. However, the definition of such flags must be explicite.)

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 with the detection limit value (i.e. 10U).

J - Indicates estimated value. This flag is used when estimating the concentration of tentatively identified compounds.

C - This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B - This flag is used when the analyte being reported was also found in the blank.

CONTENTS SUMMARY (use additional page if necessary)

IEPA I.D. No.	Lab I.D. No.	Analysis Type	Analysis Date
MB #4		VOA	06/30/88
S104 RE	88006060	VOA	06/30/88

Narrative summary of any QC, sample, or analytical problems encountered with the samples being reported. Attach additional sheets if necessary.

Illinois Environmental Protection Agency
Contract Laboratory Services
Organic Analysis Data Package

Date: JULY 22, 1988

COVER PAGE

Lab Name: Envirodyne Engineers, Inc.
Site Inventory Number : 1270550002
Region : MARION

Q.C. Report No. : 3132-00027
Facility Name : MISSOURI PORTLAND CEMENT
County: MASSAC

DATA REPORTING QUALIFIERS FOR ORGANICS ANALYSIS

For reporting results, the following results qualifiers are used:
(Additional flags or footnotes are encouraged. However, the definition of such flags must be explicite.)

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 with the detection limit value (i.e. 10U).

J - Indicates estimated value. This flag is used when estimating the concentration of tentatively identified compounds.

C - This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B - This flag is used when the analyte being reported was also found in the blank.

CONTENTS SUMMARY (use additional page if necessary)

IEPA I.D. No.	Lab I.D. No.	Analysis Type	Analysis Date
MB #1		BNA	07/12/88
X101	88006056	BNA	07/19/88
S101	88006057	BNA	07/19/88
S102	88006058	BNA	07/19/88
S103	88006059	BNA	07/19/88
S104	88006060	BNA	07/19/88
X101 MS	88006056	BNA	07/19/88
X101 MSD	88006056	BNA	07/19/88

Narrative summary of any QC, sample, or analytical problems encountered with the samples being reported. Attach additional sheets if necessary.

Illinois Environmental Protection Agency
Contract Laboratory Services
Inorganic Analyses Data Package

Date: JULY 22, 1988

COVER SHEET

Lab Name : Envirodyne Engineers, Inc.
Site Inventory No: 1278550002
Region: MARION

Q.C. Report No.: 3132-00027
Facility Name: MISSOURI PORTLAND CEMENT
County: MASSAC

Sample Numbers

IEPA Monitor Point No.	Lab ID Number	IEPA Monitor Point No.	Lab ID Number
X101	88006056		
S101	88006057		
S102	88006058		
S103	88006059		
S104	88006060		

Comments:

ICP Interelement and background corrections applied.
ICP Interelement and background corrections were not applied.
Background corrections were applied before raw data generation. Interelement corrections were applied after raw data generation.

Footnotes:

NR - Not required by contract at this time.
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 (ie [10]). Indicate the analytical method used with P (for ICP/Flame AA) or F (for furnace).
U - Indictates element was analyzed for but not detected. Report with the detection limit value (ie 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.

APPENDIX D

U.S. EPA IMMEDIATE REMOVAL ACTION CHECKSHEET

IMMEDIATE REMOVAL ACTION CHECK SHEET

Site Name: Missouri Portland Cement IL D006294623

		High	Moderate	Low
Fire and Explosion Hazard:				
Flammable Materials:	No			X
Explosives:	No			X
Incompatible Chemicals:	No			X
Direct Contact with Acutely Toxic Chemicals:				
Site Security:	None below pile	X		
Leaking Drums or Tanks:	No			X
Open Lagoons or Pits:	No			X
Materials on Surface:			X	
Proximity of Population:	> 1/4 mile			X
Evidence of Casual Site Use:	No			X
Contaminated Water Supply:				
Exceeds 10 Day Snarl:	No			X
Gross Taste or Odors:	No			X
Alternate Water Available:	NA			X
Potential Contamination:	Low			X
Is the site abandoned or active?	Active			X

Comments:

APPENDIX E

CHEMICAL ANALYSIS DATA OF IEPA COLLECTED SAMPLES

1278550002 / MASSAC
Missouri Portland Cement
S. F. / Tech
Original Lab Data

ENVIRODYNE ENGINEERS

12161 Lackland Road,
St. Louis, Missouri 63146
(314) 434-6960

July 25, 1988
3132-00027

Ms. Sue Doubet
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, Illinois 62706

Dear Sue,

Enclosed you will find the analytical data and associated QC information for the five soil samples received June 10, 1988 from the Missouri Portland Cement facility (Site No. 1278550002). The analyses requested were the full routine target compound list including cyanide, sulfate, and sulfide.

Please note, due to difficulties associated with the sample matrix and the pesticide/PCB extraction, all five of the samples associated with this case were returned to our organic preparation laboratory for re-extraction. As a consequence, there are not pesticide/PCB data included in this submittal. We anticipate finishing the pesticide/PCB analyses soon, at which time those data will be forwarded to you.

For volatile organics, sample S103 and S104 were rerun along with the S104 MS and S104 MSD due to low internal standard recoveries. Unfortunately, the reruns were after the holding times had expired, but the results between the two runs are comparable. Both sets of runs are included in the report. The calibration criteria for bromoform was not met on the June 18 initial calibration, but bromoform was not observed in any of the samples and the runs were allowed to continue.

Due to poor surrogate recoveries in the method blank, all samples were re-extracted and re-analyzed for the base/neutral-acid extractable organics. Only the re-extracted data are included in the report.

All samples were digested and analyzed twice for thallium, antimony and silver due to poor matrix spike recoveries. The recoveries were out of QC range for both runs. Due to the lead levels in some of the samples, the lead analyses were run by both graphite furnace AA and plasma.

Please survey this package upon receipt. There should be one volume each for VOA, BNA, inorganics, and sample data summary.

RECEIVED
JUL 26 1988
IEPA-DLPC

ENVIRODYNE
ENGINEERS

If you have any questions about these data, please feel free to call me at (314) 434-6960. Thank you for your patience and your patronage.

Sincerely,

John J. Coniglio
Project Manager

JJC/mab/331
Enclosure

FORM 1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID

S101

Lab Name: Envirodyne Engineers, Inc.
Contract:
Lab Code: Case No.: 3132-00027 SAS No.: SDG No.: X101

Matrix: SOIL
Sample wt/vol: 5 gm
Level: L
% Moisture: not dec. 45
Column: packed or capillary
(circle one)

Lab Sample ID: 88006057
Lab File ID: A2468
Date Received: 06/10/88
Date Analysed: 06/18/88
Dilution Factor: 1

CAS No.	COMPOUND	UG/KG	Q
74-87-3	Chloromethane	18	U
74-83-9	Bromomethane	18	U
75-01-4	Vinyl Chloride	18	U
75-00-3	Chloroethane	18	U
75-09-2	Methylene Chloride	21	B
67-64-1	Acetone	79	
75-15-0	Carbon Disulfide	9	U
75-35-4	1,1-Dichloroethene	9	U
75-35-3	1,1-dichloroethane	9	U
540-59-0	1,2-Dichloroethene(total)	9	U
67-66-3	Chloroform	9	U
107-06-2	1,2-Dichloroethane	9	U
78-93-3	2-Butanone	18	U
71-55-6	1,1,1-Trichloroethane	9	U
56-23-5	Carbon Tetrachloride	9	U
108-05-4	Vinyl Acetate	18	U
75-27-4	Bromodichloromethane	9	U
78-87-5	1,2-Dichloropropane	9	U
10061-01-5	cis-1,3-Dichloropropene	9	U
79-01-6	Trichloroethene	9	U
124-48-1	Dibromochloromethane	9	U
79-00-5	1,1,2-Trichloroethane	9	U
71-43-2	Benzene	9	U
10061-02-6	trans-1,3-Dichloropropene	9	U
75-25-2	Bromoform	9	U
108-10-1	4-Methyl-2-pentanone	18	U
591-78-6	2-Hexanone	18	U
127-18-4	Tetrachloroethene	9	U
108-88-3	Toluene	9	U
79-34-5	1,1,2,2-Tetrachloroethane	9	U
108-90-7	Chlorobenzene	9	U
100-41-4	Ethylbenzene	9	U
100-42-5	Styrene	9	U
1330-20-7	Xylenes (Total)	9	U

FORM 1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID

S-101 RE

Lab Name: Envirodyne Engineers, Inc.
Contract: IEPA
Lab Code: Case No.: 3132-27 SAS No.: SDG No.:X101

Matrix: SOIL
Sample wt/vol: 30 gm
Level: L
% Moisture: 45 not dec.
Extraction: (SepF/Cont/Sonc) SONC
GPC Cleanup: (Y/N) N pH: 7

Lab Sample ID: 88006057
Lab File ID: C0456
Date Received: 06/10/88
Date Extracted:07/11/88
Date Analysed: 07/19/88
Dilution Factor: 1

CAS No.	COMPOUND	UG/KG	Q
108-95-2	Phenol	130	J
111-44-4	bis(2-Chloroethyl) ether	600	U
95-57-8	2-Chlorophenol	600	U
541-73-1	1,3-Dichlorobenzene	600	U
106-46-7	1,4-Dichlorobenzene	600	U
100-51-6	Benzyl Alcohol	600	U
95-50-1	1,2-Dichlorobenzene	600	U
95-48-7	2-Methylphenol	600	U
108-60-1	bis(2-Chloroisopropyl)ether	600	U
106-44-5	4-Methylphenol	600	U
621-64-7	N-Nitroso-di-n-dipropylamine	600	U
67-72-1	Hexachloroethane	600	U
98-95-3	Nitrobenzene	600	U
78-59-1	Isophorone	600	U
88-75-5	2-Nitrophenol	600	U
105-67-9	2,4-Dimethylphenol	600	U
65-85-0	Benzoic Acid	2900	U
111-91-1	bis(2-Chloroethoxy)methane	600	U
120-83-2	2,4-Dichlorophenol	600	U
120-82-1	1,2,4-Trichlorobenzene	600	U
91-20-3	Naphthalene	50	J
106-47-8	4-Chloroaniline	600	U
87-68-3	Hexachlorobutadiene	600	U
59-50-7	4-Chloro-3-methylphenol	600	U
91-57-6	2-Methylnaphthalene	81	J
77-47-4	Hexachlorocyclopentadiene	600	U
88-06-2	2,4,6-Trichlorophenol	600	U
95-95-4	2,4,5-Trichlorophenol	2900	U
91-58-7	2-Chloronaphthalene	600	U
88-74-4	2-Nitroaniline	2900	U
131-11-3	Dimethylphthalate	600	U
208-96-8	Acenaphthylene	600	U
606-20-2	2,6-Dinitrotoluene	600	U

FORM 1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID

S-101 RE

Lab Name: Envirodyne Engineers, Inc.
Contract: IEPA
Lab Code: Case No.: 3132-27 SAS No.: SDG No.:X101

Matrix: SOIL
Sample wt/vol: 30 gm
Level: L
% Moisture: 45 not dec.
Extraction: (SepF/Cont/Sonc) SONC
GPC Cleanup: (Y/N) N pH: 7

Lab Sample ID: 88006057
Lab File ID: C0456
Date Received: 06/10/88
Date Extracted:07/11/88
Date Analysed: 07/19/88
Dilution Factor: 1

CAS No.	COMPOUND	UG/KG	Q
99-09-2	3-Nitroaniline	2900	U
83-32-9	Acenaphthene	600	U
51-28-5	2,4-Dinitrophenol	2900	U
100-02-7	4-Nitrophenol	2900	U
132-64-9	Dibenzofuran	600	U
121-14-2	2,4-Dinitrotoluene	600	U
84-66-2	Diethylphthalate	600	U
7005-72-3	4-Chlorophenyl-phenyl ether	600	U
86-73-7	Fluorene	600	U
100-01-6	4-Nitroaniline	2900	U
534-52-1	4,6-Dinitro-2-methylphenol	2900	U
86-30-6	N-Nitrosodiphenylamine (1)	600	U
101-55-3	4-Bromophenyl-phenyl ether	600	U
118-74-1	Hexachlorobenzene	600	U
87-86-5	Pentachlorophenol	2900	U
85-01-8	Phenanthrene	120	J
120-12-7	Anthracene	600	U
84-74-2	Di-n-butylphthalate	370	JB
206-44-0	Fluoranthene	220	J
129-00-0	Pyrene	140	J
85-68-7	Butylbenzylphthalate	600	U
91-94-1	3,3'-Dichlorobenzidine	1200	U
56-55-3	Benzo(a)anthracene	110	J
218-01-9	Chrysene	120	J
117-81-7	bis(2-ethylhexyl)phthalate	230	JB
117-84-0	Di-n-octylphthalate	600	U
205-99-2	Benzo(b)fluoranthene	200	J
207-0809	Benzo(k)fluoranthene	120	J
50-32-8	Benzo(a)pyrene	160	J
193-39-5	Indeno(1,2,3-cd)pyrene	97	J
53-70-3	Dibenzo(a,h)anthracene	600	U
191-24-2	Benzo(g,h,i)perylene	99	J

(1) - Cannot be separated from Diphenylamine

FORM 1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE ID

S101

Lab Name: Envirodyne Engineers, Inc.
Contract:
Lab Code: Case No.: 3132-00027 SAS No.: SDG No.: X101

Matrix: SOIL
Sample wt/vol: 5 gm
Level: L
% Moisture: not dec. 45
Column: packed or capillary
(circle one)

Lab Sample ID: 88006057
Lab File ID: A2468
Date Received: 06/10/88
Date Analysed: 06/18/88
Dilution Factor: 1

Number of TICs found: 0

UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		No Peaks to Search			
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

FORM 1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE ID
S-101 RE

Lab Name: Envirodyne Engineers, Inc.
Contract: IEPA
Lab Code: Case No.: 3132-27 SAS No.: SDG No.:X101

Matrix: SOIL
Sample wt/vol: 30 gm
Level: L
% Moisture: 45 not dec.
Extraction: (SepF/Cont/Sonc) SONC
GPC Cleanup: (Y/N) N pH: 7

Lab Sample ID: 88006057
Lab File ID: C0456
Date Received: 06/10/88
Date Extracted:07/11/88
Date Analysed: 07/19/88
Dilution Factor: 1

Number of TICs found: 20 UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	3.24	1200	J
2. 123422	2-PENTANONE, 4-HYDROXY-4-	4.10	356700	JB
3.	METHYL-			
4. 96480	2(3H)-FURANONE, DIHYDRO-	5.58	3800.00	JB
5.	UNKNOWN	5.65	4100.00	J
6.	UNKNOWN	6.29	2100.00	J
7. 111466	ETHANOL, 2,2'OXYBIS-	6.80	730.00	J
8.	UNKNOWN	7.06	1300.00	J
9.	UNKNOWN	8.46	410.00	J
10.	UNKNOWN	8.73	3300.00	J
11.	UNKNOWN	11.38	440.00	J
12.	UNKNOWN	13.92	2200.00	J
13.	UNKNOWN	23.23	480.00	J
14. 10544500	SULFUR, MOL. (S8)	24.42	770.00	J
15. 57114	OCTADECANOIC ACID	25.86	320.00	J
16. 629787	HEPTADECANE	29.50	340.00	J
17. 630068	HEXATRIACONTANE	31.45	540.00	J
18.	UNKNOWN	32.68	300.00	J
19. 7098228	TETRATETRACONTANE	35.04	390.00	J
20.	UNKNOWN	35.40	210.00	J
21.	UNKNOWN	37.26	250.00	J
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

IEPA ANALYSIS PROGRAM
Report of INORGANIC Results
Soil Samples

Site ID: S101
Sample #: S8006057

	PARAMETER	VALUE (ug/kg)	DILUTION FACTOR
1	Aluminum	14500000	1
2	Antimony	7580 UR	1
3	Arsenic	10400	4
4	Barium	182000	1
5	Beryllium	1360 U	1
6	Cadmium	1360 U	1
7	Calcium	12200000	1
8	Chromium	28900	1
9	Cobalt	16400	1
10	Copper	27800	1
11	Iron	27900000	1
12	Lead	31360	5
13	Magnesium	4960000	5
14	Manganese	1440000	1
15	Mercury	230	1
16	Nickel	36100	1
17	Potassium	2030000	1
18	Selenium	480 U	1
19	Silver	520 UR	1
20	Sodium	264000	1
21	Thallium	520 UR	1
22	Tin	35400 U	1
23	Vanadium	30700	1
24	Zinc	173000	1
25	Cyanide	2230 U	1
26	Sulfide	13100	1
27	Sulfate	64300	1
28			---

FORM 1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID

S102

Lab Name: Envirodyne Engineers, Inc.
Contract:
Lab Code: Case No.: 3132-00027 SAS No.: SDG No.: X101

Matrix: SOIL
Sample wt/vol: 5 gm
Level: L
% Moisture: not dec. 25
Column: packed or capillary
(circle one)

Lab Sample ID: 88006058
Lab File ID: A2469
Date Received: 06/10/88
Date Analysed: 06/18/88
Dilution Factor: 1

CAS No.	COMPOUND	UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	17	B
67-64-1	Acetone	54	
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-35-3	1,1-dichloroethane	6	U
540-59-0	1,2-Dichloroethene(total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	13	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-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
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6	U
108-88-3	Toluene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylenes (Total)	6	U

FORM 1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID

S-102 RE

Lab Name: Envirodyne Engineers, Inc.
Contract: IEPA
Lab Code: Case No.: 3132-27 SAS No.: SDG No.:X101

Matrix: SOIL
Sample wt/vol: 30 gm
Level: L
% Moisture: 25 not dec.
Extraction: (SepF/Cont/Sonc) SONC
GPC Cleanup: (Y/N) N pH: 7

Lab Sample ID: 88006058
Lab File ID: C0457
Date Received: 06/10/88
Date Extracted:07/11/88
Date Analysed: 07/19/88
Dilution Factor: 1

CAS No.	COMPOUND	UG/KG	Q
108-95-2	Phenol	76	J
111-44-4	bis(2-Chloroethyl) ether	440	U
95-57-8	2-Chlorophenol	440	U
541-73-1	1,3-Dichlorobenzene	440	U
106-46-7	1,4-Dichlorobenzene	440	U
100-51-6	Benzyl Alcohol	440	U
95-50-1	1,2-Dichlorobenzene	440	U
95-48-7	2-Methylphenol	440	U
108-60-1	bis(2-Chloroisopropyl)ether	440	U
106-44-5	4-Methylphenol	440	U
621-64-7	N-Nitroso-di-n-dipropylamine	440	U
67-72-1	Hexachloroethane	440	U
98-95-3	Nitrobenzene	440	U
78-59-1	Isophorone	440	U
88-75-5	2-Nitrophenol	440	U
105-67-9	2,4-Dimethylphenol	440	U
65-85-0	Benzoic Acid	2100	U
111-91-1	bis(2-Chloroethoxy)methane	440	U
120-83-2	2,4-Dichlorophenol	440	U
120-82-1	1,2,4-Trichlorobenzene	440	U
91-20-3	Naphthalene	440	U
106-47-8	4-Chloroaniline	440	U
87-68-3	Hexachlorobutadiene	440	U
59-50-7	4-Chloro-3-methylphenol	440	U
91-57-6	2-Methylnaphthalene	440	U
77-47-4	Hexachlorocyclopentadiene	440	U
88-06-2	2,4,6-Trichlorophenol	440	U
95-95-4	2,4,5-Trichlorophenol	2100	U
91-58-7	2-Chloronaphthalene	440	U
88-74-4	2-Nitroaniline	2100	U
131-11-3	Dimethylphthalate	440	U
208-96-8	Acenaphthylene	440	U
606-20-2	2,6-Dinitrotoluene	440	U

FORM 1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID

S-102 RE

Lab Name: Envirodyne Engineers, Inc.
Contract: IEPA
Lab Code: Case No.: 3132-27 SAS No.: SDG No.:X101

Matrix: SOIL
Sample wt/vol: 30 gm
Level: L
% Moisture: 25 not dec.
Extraction: (SepF/Cont/Sonc) SONC
GPC Cleanup: (Y/N) N pH: 7

Lab Sample ID: 88006058
Lab File ID: C0457
Date Received: 06/10/88
Date Extracted:07/11/88
Date Analysed: 07/19/88
Dilution Factor: 1

CAS No.	COMPOUND	UG/KG	Q
99-09-2	3-Nitroaniline	2100	U
83-32-9	Acenaphthene	440	U
51-28-5	2,4-Dinitrophenol	2100	U
100-02-7	4-Nitrophenol	2100	U
132-64-9	Dibenzofuran	440	U
121-14-2	2,4-Dinitrotoluene	440	U
84-66-2	Diethylphthalate	440	U
7005-72-3	4-Chlorophenyl-phenyl ether	440	U
86-73-7	Fluorene	440	U
100-01-6	4-Nitroaniline	2100	U
534-52-1	4,6-Dinitro-2-methylphenol	2100	U
86-30-6	N-Nitrosodiphenylamine (1)	440	U
101-55-3	4-Bromophenyl-phenyl ether	440	U
118-74-1	Hexachlorobenzene	440	U
87-86-5	Pentachlorophenol	2100	U
85-01-8	Phenanthrene	440	U
120-12-7	Anthracene	440	U
84-74-2	Di-n-butylphthalate	80	JB
206-44-0	Fluoranthene	440	U
129-00-0	Pyrene	440	U
85-68-7	Butylbenzylphthalate	440	U
91-94-1	3,3'-Dichlorobenzidine	880	U
56-55-3	Benzo(a)anthracene	440	U
218-01-9	Chrysene	440	U
117-81-7	bis(2-ethylhexyl)phthalate	76	JB
117-84-0	Di-n-octylphthalate	440	U
205-99-2	Benzo(b)fluoranthene	440	U
207-0809	Benzo(k)fluoranthene	440	U
50-32-8	Benzo(a)pyrene	440	U
193-39-5	Indeno(1,2,3-cd)pyrene	440	U
53-70-3	Dibenzo(a,h)anthracene	440	U
191-24-2	Benzo(g,h,i)perylene	440	U

(1) - Cannot be separated from Diphenylamine

FORM 1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE ID

S102

Lab Name: Envirodyne Engineers, Inc.
Contract:
Lab Code: Case No.: 3132-00027 SAS No.: SDG No.: X101

Matrix: SOIL
Sample wt/vol: 5 gm
Level: L
% Moisture: not dec. 25
Column: packed or capillary
(circle one)

Lab Sample ID: 88006058
Lab File ID: A2469
Date Received: 06/10/88
Date Analysed: 06/18/88
Dilution Factor: 1

Number of TICs found: 0 UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No Peaks to Search			
2.				
3.				
4.				
5.				
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IEPA ANALYSIS PROGRAM
Report of INORGANIC Results
Soil Samples

Site ID: S102
Sample #: 88006058

	PARAMETER	VALUE (ug/kg)	DILUTION FACTOR
1	Aluminum	7190000	1
2	Antimony	1390 UR	1
3	Arsenic	8400	4
4	Barium	115000	1
5	Beryllium	960 U	1
6	Cadmium	960 U	1
7	Calcium	1580000	1
8	Chromium	30300	1
9	Cobalt	9120	1
10	Copper	9490	1
11	Iron	23400000	1
12	Lead	12620	5
13	Magnesium	1310000	1
14	Manganese	697000	1
15	Mercury	140 U	1
16	Nickel	12300	1
17	Potassium	628000	1
18	Selenium	400 U	1
19	Silver	410 UR	1
20	Sodium	174000	1
21	Thallium	420 UR	1
22	Tin	26900 U	1
23	Vanadium	60800	1
24	Zinc	70200	1
25	Cyanide	1770 U	1
26	Sulfide	16600	1
27	Sulfate	<50000	1
28			---

FORM 1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE ID

S-102 RE

Lab Name: Envirodyne Engineers, Inc.
Contract: IEPA
Lab Code: Case No.: 3132-27 SAS No.: SDG No.: X101

Matrix: SOIL
Sample wt/vol: 30 gm
Level: L
% Moisture: 25 not dec.
Extraction: (SepF/Cont/Sonc) SONC
GPC Cleanup: (Y/N) N pH: 7

Lab Sample ID: 88006058
Lab File ID: C0457
Date Received: 06/10/88
Date Extracted: 07/11/88
Date Analysed: 07/19/88
Dilution Factor: 1

Number of TICs found: 18 UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	3.26	190	J
2.		Unknown	3.51	1800	J
3.	123422	2-Pentanone, 4-hydroxy-4-	3.94	76400	JB
4.		methyl-			
5.	2216344	Octane, 4-methyl-	4.21	1200	J
6.		Unknown	4.38	3200	J
7.	96480	2(3H)-Furanone, dihydro-	5.45	2600	JB
8.		Unknown	5.49	830	J
9.		Unknown	5.63	480	J
10.	4436753	3-Hexene-2, 5-dione	6.18	460	JB
11.	111466	Ethanol, 2,2'-oxybis-	6.98	1500	J
12.	123193	4-Heptanone	8.32	200	J
13.		Unknown	8.46	410	J
14.	10544500	Sulfur, mol. (S8)	24.41	160	J
15.	112925	1-Octadecanol	31.41	210	J
16.		Unknown Alkane	31.44	346	J
17.		Unknown Alkane	34.99	467	J
18.		Unknown	35.32	251	J
19.		Unknown	37.18	338	J
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

IEPA ANALYSIS PROGRAM
Report of INORGANIC Results
Soil Samples

Site ID: S103
Sample #: 88006059

	PARAMETER	VALUE (ug/kg)	DILUTION FACTOR
1	Aluminum	7670000	1
2	Antimony	6920 UR	1
3	Arsenic	5550	4
4	Barium	395000	1
5	Beryllium	1110 U	1
6	Cadmium	4680	1
7	Calcium	262000000	100
8	Chromium	14500	1
9	Cobalt	4460	1
10	Copper	10500	1
11	Iron	10500000	1
12	Lead	75000	1
13	Magnesium	9820000	10
14	Manganese	369000	1
15	Mercury	130 U	1
16	Nickel	10400	1
17	Potassium	3230000	1
18	Selenium	2340	1
19	Silver	460 UR	1
20	Sodium	492000	1
21	Thallium	4510 R	1
22	Tin	30000 U	1
23	Vanadium	21900	1
24	Zinc	77900	1
25	Cyanide	2010 U	1
26	Sulfide	13900	1
27	Sulfate	1655000	1
28			---

FORM 1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID

S103

Lab Name: Envirodyne Engineers, Inc.
Contract:
Lab Code: Case No.: 3132-00027 SAS No.: SDG No.: X101

Matrix: SOIL
Sample wt/vol: 5 gm
Level: L
% Moisture: not dec. 37
Column: packed or capillary
(circle one)

Lab Sample ID: 88006059
Lab File ID: A2470
Date Received: 06/10/88
Date Analysed: 06/18/88
Dilution Factor: 1

CAS No.	COMPOUND	UG/KG	Q
74-87-3	Chloromethane	15	U
74-83-9	Bromomethane	15	U
75-01-4	Vinyl Chloride	15	U
75-00-3	Chloroethane	15	U
75-09-2	Methylene Chloride	23	B
67-64-1	Acetone	15	U
75-15-0	Carbon Disulfide	7	U
75-35-4	1,1-Dichloroethene	7	U
75-35-3	1,1-dichloroethane	7	U
540-59-0	1,2-Dichloroethene(total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	15	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	15	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-pentanone	15	U
591-78-6	2-Hexanone	15	U
127-18-4	Tetrachloroethene	7	U
108-88-3	Toluene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Xylenes (Total)	7	U

FORM 1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID

S103 RE

Lab Name: Envirodyne Engineers, Inc.
Contract:
Lab Code: Case No.: 3132-00027 SAS No.: SDG No.: X101

Matrix: SOIL
Sample wt/vol: 5 gm
Level: L
% Moisture: not dec. 37
Column: packed or capillary
(circle one)

Lab Sample ID: 88006059
Lab File ID: A2676
Date Received: 06/10/88
Date Analysed: 06/29/88
Dilution Factor: 1

CAS No.	COMPOUND	UG/KG	Q
-74-87-3	Chloromethane	15	U
-74-83-9	Bromomethane	15	U
-75-01-4	Vinyl Chloride	15	U
-75-00-3	Chloroethane	15	U
-75-09-2	Methylene Chloride	27	B
-67-64-1	Acetone	15	U
-75-15-0	Carbon Disulfide	7	U
-75-35-4	1,1-Dichloroethene	7	U
-75-35-3	1,1-dichloroethane	7	U
-540-59-0	1,2-Dichloroethene(total)	7	U
-67-66-3	Chloroform	7	U
-107-06-2	1,2-Dichloroethane	7	U
-78-93-3	2-Butanone	15	U
-71-55-6	1,1,1-Trichloroethane	7	U
-56-23-5	Carbon Tetrachloride	7	U
-108-05-4	Vinyl Acetate	15	U
-75-27-4	Bromodichloromethane	7	U
-78-87-5	1,2-Dichloropropane	7	U
-10061-01-5	cis-1,3-Dichloropropene	7	U
-79-01-6	Trichloroethene	7	U
-124-48-1	Dibromochloromethane	7	U
-79-00-5	1,1,2-Trichloroethane	7	U
-71-43-2	Benzene	7	U
-10061-02-6	trans-1,3-Dichloropropene	7	U
-75-25-2	Bromoform	7	U
-108-10-1	4-Methyl-2-pentanone	15	U
-591-78-6	2-Hexanone	15	U
-127-18-4	Tetrachloroethene	7	U
-108-88-3	Toluene	7	U
-79-34-5	1,1,2,2-Tetrachloroethane	7	U
-108-90-7	Chlorobenzene	7	U
-100-41-4	Ethylbenzene	7	U
-100-42-5	Styrene	7	U
-1330-20-7	Xylenes (Total)	7	U

FORM 1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID

S-103 RE

Lab Name: Envirodyne Engineers, Inc.
Contract: IEPA
Lab Code: Case No.: 3132-27 SAS No.: SDG No.:X101

Matrix: SOIL
Sample wt/vol: 30 gm
Level: L
% Moisture: 37 not dec.
Extraction: (SepF/Cont/Sonc) SONC
GPC Cleanup: (Y/N) N pH: 8

Lab Sample ID: 88006059
Lab File ID: C0458
Date Received: 06/10/88
Date Extracted:07/11/88
Date Analysed: 07/19/88
Dilution Factor: 1

CAS No.	COMPOUND	UG/KG	Q
108-95-2	Phenol	110	J
111-44-4	bis(2-Chloroethyl) ether	520	U
95-57-8	2-Chlorophenol	520	U
541-73-1	1,3-Dichlorobenzene	520	U
106-46-7	1,4-Dichlorobenzene	520	U
100-51-6	Benzyl Alcohol	520	U
95-50-1	1,2-Dichlorobenzene	520	U
95-48-7	2-Methylphenol	520	U
108-60-1	bis(2-Chloroisopropyl)ether	520	U
106-44-5	4-Methylphenol	520	U
621-64-7	N-Nitroso-di-n-dipropylamine	520	U
67-72-1	Hexachloroethane	520	U
98-95-3	Nitrobenzene	520	U
78-59-1	Isophorone	520	U
88-75-5	2-Nitrophenol	520	U
105-67-9	2,4-Dimethylphenol	520	U
65-85-0	Benzoic Acid	2500	U
111-91-1	bis(2-Chloroethoxy)methane	520	U
120-83-2	2,4-Dichlorophenol	520	U
120-82-1	1,2,4-Trichlorobenzene	520	U
91-20-3	Naphthalene	520	U
106-47-8	4-Chloroaniline	520	U
87-68-3	Hexachlorobutadiene	520	U
59-50-7	4-Chloro-3-methylphenol	520	U
91-57-6	2-Methylnaphthalene	31	J
77-47-4	Hexachlorocyclopentadiene	520	U
88-06-2	2,4,6-Trichlorophenol	520	U
95-95-4	2,4,5-Trichlorophenol	2500	U
91-58-7	2-Chloronaphthalene	520	U
88-74-4	2-Nitroaniline	2500	U
131-11-3	Dimethylphthalate	520	U
208-96-8	Acenaphthylene	520	U
606-20-2	2,6-Dinitrotoluene	520	U

FORM 1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID

S-103 RE

Lab Name: Envirodyne Engineers, Inc.
Contract: IEPA
Lab Code: Case No.: 3132-27 SAS No.: SDG No.: X101

Matrix: SOIL
Sample wt/vol: 30 gm
Level: L
% Moisture: 37 not dec.
Extraction: (SepF/Cont/Sonc) SONC
GPC Cleanup: (Y/N) N pH: 8

Lab Sample ID: 88006059
Lab File ID: C0458
Date Received: 06/10/88
Date Extracted: 07/11/88
Date Analysed: 07/19/88
Dilution Factor: 1

CAS No.	COMPOUND	UG/KG	Q
99-09-2	3-Nitroaniline	2500	U
83-32-9	Acenaphthene	520	U
51-28-5	2,4-Dinitrophenol	2500	U
100-02-7	4-Nitrophenol	2500	U
132-64-9	Dibenzofuran	520	U
121-14-2	2,4-Dinitrotoluene	520	U
84-66-2	Diethylphthalate	51	J
7005-72-3	4-Chlorophenyl-phenyl ether	520	U
86-73-7	Fluorene	520	U
100-01-6	4-Nitroaniline	2500	U
534-52-1	4,6-Dinitro-2-methylphenol	2500	U
86-30-6	N-Nitrosodiphenylamine (1)	520	U
101-55-3	4-Bromophenyl-phenyl ether	520	U
118-74-1	Hexachlorobenzene	520	U
87-86-5	Pentachlorophenol	2500	U
85-01-8	Phenanthrene	34	J
120-12-7	Anthracene	520	U
84-74-2	Di-n-butylphthalate	330	JB
206-44-0	Fluoranthene	32	J
129-00-0	Pyrene	28	J
85-68-7	Butylbenzylphthalate	520	U
91-94-1	3,3'-Dichlorobenzidine	1000	U
56-55-3	Benzo(a)anthracene	23	J
218-01-9	Chrysene	23	J
117-81-7	bis(2-ethylhexyl)phthalate	140	JB
117-84-0	Di-n-octylphthalate	520	U
205-99-2	Benzo(b)fluoranthene	520	U
207-0809	Benzo(k)fluoranthene	520	U
50-32-8	Benzo(a)pyrene	520	U
193-39-5	Indeno(1,2,3-cd)pyrene	520	U
53-70-3	Dibenzo(a,h)anthracene	520	U
191-24-2	Benzo(g,h,i)perylene	520	U

(1) - Cannot be separated from Diphenylamine

FORM 1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE ID

S103

Lab Name: Envirodyne Engineers, Inc.
Contract:
Lab Code: Case No.: 3132-00027 SAS No.: SDG No.: X101

Matrix: SOIL
Sample wt/vol: 5 gm
Level: L
% Moisture: not dec. 37
Column: packed or capillary
(circle one)

Lab Sample ID: 88006059
Lab File ID: A2470
Date Received: 06/10/88
Date Analysed: 06/18/88
Dilution Factor: 1

Number of TICs found: 0

UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	See S103 RE FRN# > A2476			
2.				
3.				
4.				
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FORM 1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE ID

S103 RE

Lab Name: Envirodyne Engineers, Inc.
Contract:
Lab Code: Case No.: 3132-00027 SAS No.: SDG No.: X101

Matrix: SOIL
Sample wt/vol: 5 gm
Level: L
% Moisture: not dec. 37
Column: packed or capillary
(circle one)

Lab Sample ID: 88006059
Lab File ID: A2676
Date Received: 06/10/88
Date Analysed: 06/29/88
Dilution Factor: 1

Number of TICs found: 0 UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No Peaks to Search			
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FORM 1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE ID
S-103 RE

Lab Name: Envirodyne Engineers, Inc.
Contract: IEPA
Lab Code: Case No.: 3132-27 SAS No.: SDG No.:X101

Matrix: SOIL
Sample wt/vol: 30 gm
Level: L
% Moisture: 37 not dec.
Extraction: (SepF/Cont/Sonc) SONC
GPC Cleanup: (Y/N) N pH: 8

Lab Sample ID: 88006059
Lab File ID: C0458
Date Received: 06/10/88
Date Extracted:07/11/88
Date Analysed: 07/19/88
Dilution Factor: 1

Number of TICs found: 16 UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	3.23	350	J
2. 123422	2-Pentanone, 4-hydroxy-4-	3.98	135000	JB
3.	methyl-			
4.	Unknown Alkane	4.18	830	J
5. 96480	2(3H)-Furanone, dihydro-	5.41	2600	JB
6.	Unknown	5.47	1600	J
7. 123751	Pyrrolidine	5.61	650	J
8. 4436753	3-Hexene-2,5-dione	6.17	600	JB
9. 111466	Ethanol, 2,2'-oxybis-	6.98	2900	J
10.	Unknown	8.47	1300	J
11. 111013	Tetracosane, 2,6,10,15,19,23	20.07	210	J
12.	-hexamethyl-			
13.	Unknown	23.24	720	J
14. 10544500	Sulfur, mol. (S8)	24.44	750	J
15.	Unknown	29.43	370	J
16.	Unknown Alkasane	29.52	590	J
17.	Unknown Alkasane	31.46	2700	J
18.	Unknown	32.69	2000	J
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Date: JULY 25,1988 Page: 1

IEPA ANALYSIS PROGRAM
Report of INORGANIC Results
Soil Samples

Site ID: S104
Sample #: 88006060

	PARAMETER	VALUE (ug/kg)	DILUTION FACTOR
1	Aluminum	6580000	1
2	Antimony	6190 UR	1
3	Arsenic	5330	2
4	Barium	102000	1
5	Beryllium	1000 U	1
6	Cadmium	1000 U	1
7	Calcium	11000000	1
8	Chromium	7600	1
9	Cobalt	6250	1
10	Copper	8340	1
11	Iron	11400000	1
12	Lead	10750	5
13	Magnesium	1470000	1
14	Manganese	670000	1
15	Mercury	150 U	1
16	Nickel	9580	1
17	Potassium	804000	1
18	Selenium	390 U	1
19	Silver	380 UR	1
20	Sodium	152000	1
21	Thallium	410 UR	1
22	Tin	25400 U	1
23	Vanadium	23700	1
24	Zinc	44900	1
25	Cyanide	1590 U	1
26	Sulfide	9700 U	1
27	Sulfate	122000	1
28			---

FORM 1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID

S104

Lab Name: Envirodyne Engineers, Inc.
Contract:
Lab Code: Case No.: 3132-00027 SAS No.: SDG No.: X101

Matrix: SOIL
Sample wt/vol: 5 gm
Level: L
% Moisture: not dec. 20
Column: packed or capillary
(circle one)

Lab Sample ID: 88006060
Lab File ID: A2482
Date Received: 06/10/88
Date Analysed: 06/18/88
Dilution Factor: 1

CAS No.	COMPOUND	UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	39	B
67-64-1	Acetone	38	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-35-3	1,1-dichloroethane	6	U
540-59-0	1,2-Dichloroethene(total)	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	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-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
10061-02-6	trans-1,3-Dichloropropene	6	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
108-88-3	Toluene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylenes (Total)	6	U

FORM 1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID

S104 RE

Lab Name: Envirodyne Engineers, Inc.
Contract:
Lab Code: Case No.: 3132-00027 SAS No.: SDG No.: X101

Matrix: SOIL
Sample wt/vol: 5 gm
Level: L
% Moisture: not dec. 20
Column: packed or capillary
(circle one)

Lab Sample ID: 88006060
Lab File ID: A2699
Date Received: 06/10/88
Date Analysed: 06/30/88
Dilution Factor: 1

CAS No.	COMPOUND	UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	41	B
67-64-1	Acetone	41	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-35-3	1,1-dichloroethane	6	U
540-59-0	1,2-Dichloroethene(total)	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	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-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
10061-02-6	trans-1,3-Dichloropropene	6	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
108-88-3	Toluene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylenes (Total)	6	U

FORM 1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID

S-104 RE

Lab Name: Envirodyne Engineers, Inc.
Contract: IEPA
Lab Code: Case No.: 3132-27 SAS No.: SDG No.:X101

Matrix: SOIL
Sample wt/vol: 30 gm
Level: L
% Moisture: 20 not dec.
Extraction: (SepF/Cont/Sonc) SONC
GPC Cleanup: (Y/N) N pH: 7

Lab Sample ID: 88006060
Lab File ID: C0459
Date Received: 06/10/88
Date Extracted:07/11/88
Date Analysed: 07/19/88
Dilution Factor: 1

CAS No.	COMPOUND	UG/KG	Q
108-95-2	Phenol	72	J
111-44-4	bis(2-Chloroethyl) ether	410	U
95-57-8	2-Chlorophenol	410	U
541-73-1	1,3-Dichlorobenzene	410	U
106-46-7	1,4-Dichlorobenzene	410	U
100-51-6	Benzyl Alcohol	410	U
95-50-1	1,2-Dichlorobenzene	410	U
95-48-7	2-Methylphenol	410	U
108-60-1	bis(2-Chloroisopropyl)ether	410	U
106-44-5	4-Methylphenol	410	U
621-64-7	N-Nitroso-di-n-dipropylamine	410	U
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
65-85-0	Benzoic Acid	2000	U
111-91-1	bis(2-Chloroethoxy)methane	410	U
120-83-2	2,4-Dichlorophenol	410	U
120-82-1	1,2,4-Trichlorobenzene	410	U
91-20-3	Naphthalene	410	U
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
59-50-7	4-Chloro-3-methylphenol	410	U
91-57-6	2-Methylnaphthalene	410	U
77-47-4	Hexachlorocyclopentadiene	410	U
88-06-2	2,4,6-Trichlorophenol	410	U
95-95-4	2,4,5-Trichlorophenol	2000	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethylphthalate	410	U
208-96-8	Acenaphthylene	410	U
606-20-2	2,6-Dinitrotoluene	410	U

FORM 1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID

S-104 RE

Lab Name: Envirodyne Engineers, Inc.
Contract: IEPA
Lab Code: Case No.: 3132-27 SAS No.: SDG No.:X101

Matrix: SOIL
Sample wt/vol: 30 gm
Level: L
% Moisture: 20 not dec.
Extraction: (SepF/Cont/Sonc) SONC
GPC Cleanup: (Y/N) N pH: 7

Lab Sample ID: 88006060
Lab File ID: C0459
Date Received: 06/10/88
Date Extracted:07/11/88
Date Analysed: 07/19/88
Dilution Factor: 1

CAS No.	COMPOUND	UG/KG	Q
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	410	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenyl ether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	410	U
101-55-3	4-Bromophenyl-phenyl ether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	410	U
120-12-7	Anthracene	410	U
84-74-2	Di-n-butylphthalate	120	JB
206-44-0	Fluoranthene	410	U
129-00-0	Pyrene	410	U
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3,3'-Dichlorobenzidine	830	U
56-55-3	Benzo(a)anthracene	410	U
218-01-9	Chrysene	410	U
117-81-7	bis(2-ethylhexyl)phthalate	850	B
117-84-0	Di-n-octylphthalate	410	U
205-99-2	Benzo(b)fluoranthene	410	U
207-0809	Benzo(k)fluoranthene	410	U
50-32-8	Benzo(a)pyrene	410	U
193-39-5	Indeno(1,2,3-cd)pyrene	410	U
53-70-3	Dibenzo(a,h)anthracene	410	U
191-24-2	Benzo(g,h,i)perylene	410	U

(1) - Cannot be separated from Diphenylamine

FORM 1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE ID

S104

Lab Name: Envirodyne Engineers, Inc.
Contract:
Lab Code: Case No.: 3132-00027 SAS No.: SDG No.: X101

Matrix: SOIL
Sample wt/vol: 5 gm
Level: L
% Moisture: not dec. 20
Column: packed or capillary
(circle one)

Lab Sample ID: 88006060
Lab File ID: A2482
Date Received: 06/10/88
Date Analysed: 06/18/88
Dilution Factor: 1

Number of TICs found: 0

UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No Peaks to Search			
2.				
3.				
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FORM 1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE ID

S104 RE

Lab Name: Envirodyne Engineers, Inc.
Contract:
Lab Code: Case No.: 3132-00027 SAS No.: SDG No.: X101

Matrix: SOIL
Sample wt/vol: 5 gm
Level: L
% Moisture: not dec. 20
Column: packed or capillary
(circle one)

Lab Sample ID: 88006060
Lab File ID: A2699
Date Received: 06/10/88
Date Analysed: 06/30/88
Dilution Factor: 1

Number of TICs found: 0

UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		No Peaks to Search			
2.					
3.					
4.					
5.					
6.					
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FORM 1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE ID
S-104 RE

Lab Name: Envirodyne Engineers, Inc.
Contract: IEPA
Lab Code: Case No.: 3132-27 SAS No.: SDG No.:X101

Matrix: SOIL
Sample wt/vol: 30 gm
Level: L
% Moisture: 20 not dec.
Extraction: (SepF/Cont/Sonc) SONC
GPC Cleanup: (Y/N) N pH: 7

Lab Sample ID: 88006060
Lab File ID: C0459
Date Received: 06/10/88
Date Extracted:07/11/88
Date Analysed: 07/19/88
Dilution Factor: 1

Number of TICs found: 19 UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 123422	2-PENTANONE, 4-HYDROXY-4-	4.03	77200	JB
2.	METHYL-			
3. 96480	2(3H)-FURANONE, DIHYDRO-	5.39	2100.00	JB
4.	UNKNOWN	5.45	860.00	J
5.	UNKNOWN	5.60	740.00	J
6. 111466	ETHANOL, 2,2'-OXYBIS-	6.89	1400.00	J
7.	UNKNOWN	8.44	870.00	J
8.	UNKNOWN	23.26	710.00	J
9.	UNKNOWN	23.37	820.00	J
10.	UNKNOWN	25.61	490.00	J
11.57114	OCTADECANOIC ACID	25.89	570.00	J
12.	UNKNOWN ALCOHOL	31.42	460.00	J
13.	UNKNOWN ALKANE	31.46	360.00	J
14.0	10-DEMETHYLSQUALENE	32.68	590.00	J
15.	UNKNOWN ALKANE	35.00	1500.00	J
16.593497	HEPTACOSANE	36.74	380.00	J
17.83465	STIGMAST-5-EN-3-OL,	37.20	730.00	J
18.	(3.BETA.)-			
19.	UNKNOWN	37.85	390.00	J
20.	UNKNOWN	38.14	420.00	J
21.0	(24R)-4-STIGMASTEN-3-ONE	38.73	470.00	J
22.				
23.				
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Date: JULY 25,1988 Page: 1

IEPA ANALYSIS PROGRAM
Report of INORGANIC Results
Soil Samples

Site ID: X101
Sample #: 38006056

	PARAMETER	VALUE (ug/kg)	DILUTION FACTOR
1	Aluminum	8030000	1
2	Antimony	4200 UR	1
3	Arsenic	7460	2
4	Barium	277000	1
5	Beryllium	870 U	1
6	Cadmium	880 U	1
7	Calcium	229000000	100
8	Chromium	586000	10
9	Cobalt	11600	1
10	Copper	4730	1
11	Iron	10600000	1
12	Lead	30590	5
13	Magnesium	79200000	100
14	Manganese	184000	1
15	Mercury	100 U	1
16	Nickel	42800	1
17	Potassium	1990000	1
18	Selenium	310 U	1
19	Silver	310 UR	1
20	Sodium	369000	1
21	Thallium	300 UR	1
22	Tin	19100 U	1
23	Vanadium	75800	1
24	Zinc	100000	1
25	Cyanide	1270 U	1
26	Sulfide	10000 U	1
27	Sulfate	1425000	1
28			---

FORM 1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID

X101 RE

Lab Name: Envirodyne Engineers, Inc.
Contract: IEPA
Lab Code: Case No.: 3132-27 SAS No.: SDG No.: X101

Matrix: SOIL
Sample wt/vol: 30 gm
Level: L
% Moisture: 1 not dec.
Extraction: (SepF/Cont/Sonc) SONC
GPC Cleanup: (Y/N) N pH: 7

Lab Sample ID: 88006056
Lab File ID: C0455
Date Received: 06/10/88
Date Extracted: 07/11/88
Date Analysed: 07/19/88
Dilution Factor: 1

CAS No.	COMPOUND	UG/KG	Q
108-95-2	Phenol	40	J
111-44-4	bis(2-Chloroethyl) ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
100-51-6	Benzyl Alcohol	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	bis(2-Chloroisopropyl)ether	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-di-n-dipropylamine	160	J
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
65-85-0	Benzoic Acid	1600	U
111-91-1	bis(2-Chloroethoxy)methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	61	J
106-47-8	4-Chloroaniline	59	J
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-57-6	2-Methylnaphthalene	160	J
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U

FORM 1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID

X101 RE

Lab Name: Envirodyne Engineers, Inc.
Contract: IEPA
Lab Code: Case No.: 3132-27 SAS No.: SDG No.: X101

Matrix: SOIL
Sample wt/vol: 30 gm
Level: L
% Moisture: 1 not dec.
Extraction: (SepF/Cont/Sonc) SONC
GPC Cleanup: (Y/N) N pH: 7

Lab Sample ID: 88006056
Lab File ID: C0455
Date Received: 06/10/88
Date Extracted: 07/11/88
Date Analysed: 07/19/88
Dilution Factor: 1

CAS No.	COMPOUND	UG/KG	Q
99-09-2	3-Nitroaniline	1600	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	36	J
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenyl ether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	1600	U
534-52-1	4,6-Dinitro-2-methylphenol	1600	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenyl ether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	110	J
120-12-7	Anthracene	330	U
84-74-2	Di-n-butylphthalate	77	JB
206-44-0	Fluoranthene	48	J
129-00-0	Pyrene	46	J
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	670	U
56-55-3	Benzo(a)anthracene	35	J
218-01-9	Chrysene	32	J
117-81-7	bis(2-ethylhexyl)phthalate	59	JB
117-84-0	Di-n-octylphthalate	330	U
205-99-2	Benzo(b)fluoranthene	36	J
207-0809	Benzo(k)fluoranthene	19	J
50-32-8	Benzo(a)pyrene	28	J
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U

(1) - Cannot be separated from Diphenylamine

FORM 1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE ID

X101 RE

Lab Name: Envirodyne Engineers, Inc.
Contract: IEPA
Lab Code: Case No.: 3132-27 SAS No.: SDG No.:X101

Matrix: SOIL
Sample wt/vol: 30 gm
Level: L
% Moisture: 1 not dec.
Extraction: (SepF/Cont/Sonc) SONC
GPC Cleanup: (Y/N) N pH: 7

Lab Sample ID: 88006056
Lab File ID: C0455
Date Received: 06/10/88
Date Extracted:07/11/88
Date Analysed: 07/19/88
Dilution Factor: 1

Number of TICs found: 18 UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 123422	2-Pentanone, 4-hydroxy-4-	3.42	66500	JB
2.	methyl-			
3. 96480	2(3H)-Furanone, dihydro	5.13	960	JB
4.	Unknown	5.20	650	J
5.	Unknown	5.46	2000	J
6. 629505	Tridecane	13.50	210	J
7. 629594	Tetradecane	15.20	340	J
8.	Unknown Alkane	16.34	270	J
9.	Unknown Alkane	16.95	360	J
10. 544763	Hexadecane	18.52	520	J
11. 629787	Heptadecane	19.99	530	J
12.	Unknown Substituted Alkane	20.00	860	J
13. 593453	Octadecane	21.38	430	J
14.	Unknown Alkane	22.69	390	J
15.	Unknown Alkane	23.94	310	J
16. 10544500	Sulfur, mol. (S8)	24.42	260	J
17.	Unknown Alkane	28.49	450	J
18.	Unknown Alkane	29.52	570	J
19.	Unknown Alkane	31.46	710	J
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FORM 2B
SOIL VOLATILE SURROGATE RECOVERY

Lab Name: Envirodyne Engineers, Inc. Contract:_____

Lab Code:_____ Case No.: 3132-00027 SAS No.:_____ SDG No.: X101

Level:(low/med) L

	SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	OTHER	TOT OUT
1	MB #1	102	104	97		0
2	S101	91	96	75		0
3	S102	91	98	83		0
4	S103	99	97	78		0
5	MB #2	98	98	94		0
6	S104	94	89	103		0
7	MB #3	100	89	101		0
8	S103 RE	99	82	95		0
9	S104 MS	95	81	95		0
10	S104 MSD	95	81	97		0
11	MB #4	111	98	103		0
12	S104 RE	107	89	103		0
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	QC LIMITS
S1 (TOL) = Toluene-d8	(81-117)
S2 (BFB) = Bromofluorobenzene	(74-121)
S3 (DCE) = 1,2-Dichlorobenzene-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

FORM II VOA-2

FORM 2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: Envirodyne Engineers, Inc. Contract:_____

Lab Code:_____ Case No.: 3132-27 SAS No.:_____ SDG No.: X101

Level:(low/med) L

	SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
1	X101 RE	58	58	69	63	53	58		0
2	S-101 RE	63	56	70	39	80	82		0
3	S-102 RE	64	58	73	88	83	81		0
4	S-103 RE	62	57	86	81	77	83		0
5	S-104 RE	56	53	73	74	64	82		0
6	X-101RE MS	64	55	94	63	62	79		0
7	X-101REMSD	64	54	102	61	57	65		0
8	MB #1	59	70	82	51	52	55		0
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	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(23-120)
S2 (FBP) = 2-Fluorobiphenyl	(30-115)
S3 (TPH) = Terphenyl-d14	(18-137)
S4 (PHL) = Phenol-d6	(24-113)
S5 (2FP) = 2-Fluorophenol	(25-121)
S6 (TBP) = 2,4,6-Tribromophenol	(19-122)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

FORM II SV-2

FORM 3B
SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Envirodyne Engineers, Inc. Contract:_____

Lab Code:_____ Case No.: 3132-00027 SAS No.: SDG No.: X101

Matrix Spike - Sample ID: S104 Level:(low/med) L

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	MS CONCENTRATION (ug/kg)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	63	0	67	106	59-172
Trichloroethene	63	0	63	100	62-137
Benzene	63	0	57	90	66-142
Toluene	63	0	61	97	59-139
Chlorobenzene	63	0	56	89	60-133

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENTRATION (ug/kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	63	58	92	14	22	59-172
Trichloroethene	63	64	102	2	24	62-137
Benzene	63	61	97	7	21	66-142
Toluene	63	61	97	0	21	59-139
Chlorobenzene	63	60	95	7	21	60-133

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

* Values outside of QC limits

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

Comments:

FORM III V-2

FORM 3D
SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Envirodyne Engineers, Inc. Contract:_____

Lab Code:_____ Case No.: 3132-27 SAS No.: SDG No.: X101

Matrix Spike - Sample ID: X101 RE Level:(low/med) L

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	MS CONCENTRATION (ug/kg)	MS % REC #	QC LIMITS REC.
Phenol	6660	40	4187	62	26- 90
2-Chlorophenol	6650	0	3552	53	25-102
1,4-Dichlorobenzene	3330	0	1591	48	28-104
N-Nitroso-di-n-prop.(1)	3330	159	1987	55	41-126
1,2,4-Trichlorobenzene	3340	0	1788	54	38-107
4-Chloro-3-Methylphenol	6670	0	5976	90	26-103
Acenaphthene	3330	0	1997	60	31-137
4-Nitrophenol	6670	0	7394	111	11-114
2,4-Dinitrotoluene	3340	0	2743	82	28- 89
Pentachlorophenol	6660	0	2949	44	17-109
Pyrene	3340	46	2602	77	35-142

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENTRATION (ug/kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	6660	3992	59	5	35	26- 90
2-Chlorophenol	6650	3404	51	4	50	25-102
1,4-Dichlorobenzene	3330	1570	47	2	27	28-104
N-Nitroso-di-n-prop.(1)	3330	1957	54	2	38	41-126
1,2,4-Trichlorobenzene	3340	1787	54	0	23	38-107
4-Chloro-3-Methylphenol	6670	6060	90	0	33	26-103
Acenaphthene	3330	1962	59	2	19	31-137
4-Nitrophenol	6670	6089	91	20	50	11-114
2,4-Dinitrotoluene	3340	2654	79	4	47	28- 89
Pentachlorophenol	6660	2796	42	5	47	17-109
Pyrene	3340	2767	81	5	36	35-142

N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with the asterisk
* Values outside of QC limits

RPD: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

Comments:

FORM III SV-2

FORM 4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: Envirodyne Engineers, Inc. Contract:

Lab Code:_____ Case No.: 3132-00027 SAS No.: SDG No.: X101

Lab File ID: A2461 Lab Sample ID: MB #1

Date Analyzed: 06/18/88 Time Analyzed: 0057

Matrix: (soil/water) SOIL Level: (low/med) L

Instrument ID: 5985-1

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	S101	88006057	A2468	0529
2	S102	88006058	A2469	0602
3	S103	88006059	A2470	0809
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Comments:

FORM 4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: Envirodyne Engineers, Inc. Contract:

Lab Code:_____ Case No.: 3132-00027 SAS No.: SDG No.: X101

Lab File ID: A2481 Lab Sample ID: MB #2

Date Analyzed: 06/18/88 Time Analyzed: 1715

Matrix: (soil/water) SOIL Level: (low/med) L

Instrument ID: 5985-1

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	S104	88006060	A2482	1751
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Comments:

FORM 4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: Envirodyne Engineers, Inc. Contract:

Lab Code:_____ Case No.: 3132-00027 SAS No.: SDG No.: X101

Lab File ID: A2674 Lab Sample ID: MB #3

Date Analyzed: 06/29/88 Time Analyzed: 0432

Matrix: (soil/water) SOIL Level: (low/med) L

Instrument ID: 5985-1

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	S103 RE	88006059	A2676	0604
2	S104 MS	88006060	A2677	0637
3	S104 MSD	88006060	A2679	0748
4				
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Comments:

FORM 4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: Envirodyne Engineers, Inc. Contract:

Lab Code:_____ Case No.: 3132-00027 SAS No.: SDG No.: X101

Lab File ID: A2698 Lab Sample ID: MB #4

Date Analyzed: 06/30/88 Time Analyzed: 1031

Matrix: (soil/water) SOIL Level: (low/med) L

Instrument ID: 5985-1

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	MB #4		A2698	1031
2	S104 RE	88006060	A2699	1153
3				
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Comments:

FORM 4B
SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: Envirodyne Engineers, Inc. Contract: IEPA

Lab Code:_____ Case No.: 3132-27 SAS No.: SDG No.: X101

Lab File ID: C0400 Lab Sample ID: MB #1

Date Extracted: 07/11/88 Extraction:(SepF/Cont/Sonc) SONC

Date Analyzed: 07/12/88 Time Analyzed: 0257

Matrix: (soil/water) SOIL Level: (low/med) L

Instrument ID: 59961C

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	X101 RE	88006056	C0455	07/19/88
2	S-101 RE	88006057	C0456	07/19/88
3	S-102 RE	88006058	C0457	07/19/88
4	S-103 RE	88006059	C0458	07/19/88
5	S-104 RE	88006060	C0459	07/19/88
6	X-101RE MS	88006056	C0460	07/19/88
7	X-101REMSD	88006056	C0461	07/19/88
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Comments:

FORM 1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID

MB #1

Lab Name: Envirodyne Engineers, Inc.
Contract:
Lab Code: Case No.: 3132-00027 SAS No.: SDG No.: X101

Matrix: SOIL
Sample wt/vol: 5 gm
Level: L
% Moisture: not dec. 0
Column: packed or capillary
(circle one)

Lab Sample ID:
Lab File ID: A2461
Date Received: / /
Date Analysed: 06/18/88
Dilution Factor: 1

CAS No.	COMPOUND	UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	8	B
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-dichloroethane	5	U
540-59-0	1,2-Dichloroethene(total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
108-88-3	Toluene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	B
100-42-5	Styrene	5	U
1330-20-7	Xylenes (Total)	1	JB

FORM 1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID

MB #1

Lab Name: Envirodyne Engineers, Inc.
Contract: IEPA
Lab Code: Case No.: 3132-27 SAS No.: SDG No.:X101

Matrix: SOIL
Sample wt/vol: 30 gm
Level: L
% Moisture: 0 not dec.
Extraction: (SepF/Cont/Sonc) SONC
GPC Cleanup: (Y/N) N pH: 7

Lab Sample ID: OPA1324A
Lab File ID: C0400
Date Received: / /
Date Extracted:07/11/88
Date Analysed: 07/12/88
Dilution Factor: 1

CAS No.	COMPOUND	UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl) ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
100-51-6	Benzyl Alcohol	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	bis(2-Chloroisopropyl)ether	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-di-n-dipropylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
65-85-0	Benzoic Acid	1600	U
111-91-1	bis(2-Chloroethoxy)methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U

FORM 1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID

MB #1

Lab Name: Envirodyne Engineers, Inc.
Contract: IEPA
Lab Code: Case No.: 3132-27 SAS No.: SDG No.:X101

Matrix: SOIL
Sample wt/vol: 30 gm
Level: L
% Moisture: 0 not dec.
Extraction: (SepF/Cont/Sonc) SONC
GPC Cleanup: (Y/N) N pH: 7

Lab Sample ID: OPA1324A
Lab File ID: C0400
Date Received: / /
Date Extracted:07/11/88
Date Analysed: 07/12/88
Dilution Factor: 1

CAS No.	COMPOUND	UG/KG	Q
99-09-2	3-Nitroaniline	1600	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenyl ether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	1600	U
534-52-1	4,6-Dinitro-2-methylphenol	1600	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenyl ether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-butylphthalate	130	JB
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	660	U
56-55-3	Benzo(a)anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-ethylhexyl)phthalate	300	JB
117-84-0	Di-n-octylphthalate	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-0809	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U

(1) - Cannot be separated from Diphenylamine

FORM 1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE ID

MB #1

Lab Name: Envirodyne Engineers, Inc.
Contract:
Lab Code: Case No.: 3132-00027 SAS No.: SDG No.: X101

Matrix: SOIL
Sample wt/vol: 5 gm
Level: L
% Moisture: not dec. 0
Column: packed or capillary
(circle one)

Lab Sample ID:
Lab File ID: A2461
Date Received: / /
Date Analysed: 06/18/88
Dilution Factor: 1

Number of TICs found: 0 UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No Peaks to Search			
2.				
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FORM 1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE ID

MB #1

Lab Name: Envirodyne Engineers, Inc.
Contract: IEPA
Lab Code: Case No.: 3132-27 SAS No.: SDG No.:X101

Matrix: SOIL
Sample wt/vol: 30 gm
Level: L
% Moisture: 0 not dec.
Extraction: (SepF/Cont/Sonc) SONC
GPC Cleanup: (Y/N) N pH: 7

Lab Sample ID: OPA1324A
Lab File ID: C0400
Date Received: / /
Date Extracted:07/11/88
Date Analysed: 07/12/88
Dilution Factor: 1

Number of TICs found: 5 UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123422	2-Pentanone, 4-hydroxy-4-	4.17	121500	JB
2.		methyl-			
3.	96480	2(3H)-Furanone, dihydro	5.63	1235	JB
4.		Unknown	5.73	2170	J
5.		Unknown	5.93	1653	J
6.	4436753	3-Hexene-2,5-dione	6.36	267	JB
7.					
8.					
9.					
10.					
11.					
12.					
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FORM 1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID

MB #2

Lab Name: Envirodyne Engineers, Inc.
Contract:
Lab Code: Case No.: 3132-00027 SAS No.: SDG No.: X101

Matrix: SOIL
Sample wt/vol: 5 gm
Level: L
% Moisture: not dec. 0
Column: packed or capillary
(circle one)

Lab Sample ID:
Lab File ID: A2481
Date Received: / /
Date Analysed: 06/18/88
Dilution Factor: 1

CAS No.	COMPOUND	UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	13	B
67-64-1	Acetone	17	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-dichloroethane	5	U
540-59-0	1,2-Dichloroethene(total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
108-88-3	Toluene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylenes (Total)	5	U

FORM 1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE ID

MB #2

Lab Name: Envirodyne Engineers, Inc.
Contract:
Lab Code: Case No.: 3132-00027 SAS No.: SDG No.: X101

Matrix: SOIL
Sample wt/vol: 5 gm
Level: L
% Moisture: not dec. 0
Column: packed or capillary
(circle one)

Lab Sample ID:
Lab File ID: A2481
Date Received: / /
Date Analysed: 06/18/88
Dilution Factor: 1

Number of TICs found: 0 UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No Peaks to Search			
2.				
3.				
4.				
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FORM 1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID

MB #3

Lab Name: Envirodyne Engineers, Inc.
Contract:
Lab Code: Case No.: 3132-00027 SAS No.: SDG No.: X101

Matrix: SOIL
Sample wt/vol: 5 gm
Level: L
% Moisture: not dec. 0
Column: packed or capillary
(circle one)

Lab Sample ID:
Lab File ID: A2674
Date Received: / /
Date Analysed: 06/29/88
Dilution Factor: 1

CAS No.	COMPOUND	UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	B
67-64-1	Acetone	15	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-dichloroethane	5	U
540-59-0	1,2-Dichloroethene(total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
108-88-3	Toluene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylenes (Total)	5	U

FORM 1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE ID

MB #3

Lab Name: Envirodyne Engineers, Inc.
Contract:
Lab Code: Case No.: 3132-00027 SAS No.: SDG No.: X101

Matrix: SOIL
Sample wt/vol: 5 gm
Level: L
% Moisture: not dec. 0
Column: packed or capillary
(circle one)

Lab Sample ID:
Lab File ID: A2674
Date Received: / /
Date Analysed: 06/29/88
Dilution Factor: 1

Number of TICs found: 1 UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123911	1,4-DIOXANE	10.49	35.00	J
2.					
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FORM 1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID

MB #4

Lab Name: Envirodyne Engineers, Inc.
Contract:
Lab Code: Case No.: 3132-00027 SAS No.: SDG No.:X101

Matrix: SOIL
Sample wt/vol: 5 gm
Level: L
% Moisture: not dec. 0
Column: packed or capillary
(circle one)

Lab Sample ID:
Lab File ID: A2698
Date Received: / /
Date Analysed: 06/30/88
Dilution Factor: 1

CAS No.	COMPOUND	UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	7	B
67-64-1	Acetone	7	JB
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-dichloroethane	5	U
540-59-0	1,2-Dichloroethene(total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
108-88-3	Toluene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylenes (Total)	5	U

FORM 1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE ID

MB #4

Lab Name: Envirodyne Engineers, Inc.
Contract:
Lab Code: Case No.: 3132-00027 SAS No.: SDG No.: X101

Matrix: SOIL
Sample wt/vol: 5 gm
Level: L
% Moisture: not dec. 0
Column: packed or capillary
(circle one)

Lab Sample ID:
Lab File ID: A2698
Date Received: / /
Date Analysed: 06/30/88
Dilution Factor: 1

Number of TICs found: 1 UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	110-54-3	HEXANE	2.95	15.00	J
2.					
3.					
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APPENDIX F

IEPA SITE PHOTOGRAPHS

DATE: May 5, 1988

TIME:

Photograph by:

R. M. Lange

Location:

Mo. Portland Cement

Comments: Picture taken toward

South - across top of

Waste Pile

DATE: May 5, 1988

TIME:

Photograph by:

R. M. Lange

Location: Mo Portland

Cement

Comments: Picture taken toward

DATE: May 5, 1988

TIME:

Photograph by:

R.M. Lange

Location:

Mo Portland

Comments: Picture taken toward

S104

COMPLETE THE COMMENTS SPACES — PROVIDE DESCRIPTION OF WHAT IS SHOWN, LOCATION ON SITE WHERE PHOTO WAS TAKEN, SAMPLE NUMBER, ETC.

DATE: May 5, 1988

TIME:

Photograph by:

R.M. Lange

Location:

Mo. Portland

Comments: Picture taken toward

X-101

IL 532-0603
L/NPC 24 (Rev. 7/86)

DATE: May 5, 1988

TIME:

Photograph by:

R. M. Lange

Location:

Mo. Portland Cement

Comments: Picture taken toward

North looking down the toe at stream/ wetland

DATE: May 5, 1988

TIME:

Photograph by:

R. M. Lange

Location: Mo Portland Cement

Comments: Picture taken toward

DATE: May 5, 1988

TIME:

Photograph by:

R. M. Lange

Location:

Mo. Portland Cement

Comments: Picture taken toward

Northwest from

waste pile to

Stream/wetland

DATE: May 5, 1988

TIME:

Photograph by:

R. M. Lange

Location: Mo Portland

Cement

Comments: Picture taken toward

East toward area

to be sampled

as X-101

DATE: June 8, 1988

TIME:

Photograph by:

R. M. Lange

Location:

Mo. Portland Cement

Comments: Picture taken toward

North west looking

@ S101

DATE: June 8, 1988

TIME:

Photograph by:

R.M. Lange

Location: Mo Portland

Cement

Comments: Picture taken toward

as above

DATE: June 8, 1988

TIME:

Photograph by:

R. M. Lange

Location:

Mo. Portland Cement

Comments: Picture taken toward South from above S101 toward Ohio River

DATE: June 8, 1988

TIME:

Photograph by:

R.M. Lange

Location: Mo Portland Cement

Comments: Picture taken toward South from S102

DATE: June 8, 1988

TIME:

Photograph by:

R. M. Lange

Location:

Mo. Portland Cement

Comments: Picture taken toward

North looking down on confluence of site drainage & unnamed trib. of Ohio R.

DATE: June 8, 1988

TIME:

Photograph by:

R.M. Lange

Location: Mo Portland Cement

Comments: Picture taken toward

IL 532-0803
L/NPC 24 (Rev. 7/88)

DATE: June 8, 1988

TIME:

Photograph by:

R. M. Lange

Location:

Mo. Portland Cement

Comments: Picture taken toward the West at area of S103

DATE: June 8, 1988

TIME:

Photograph by:

R.M. Lange

Location: Mo Portland Cement

Comments: Picture taken toward the South at area of S103 (Shows raccoon tracks)

DATE: June 8, 1988

TIME:

Photograph by:

R. M. Lange

Location:

Mo. Portland Cement

Comments: Picture taken toward the ~ North at S104

DATE: June 8, 1988

TIME:

Photograph by:

R.M. Lange

Location: Mo Portland Cement

Comments: Picture taken toward the South @ S104

IL 532-0603
L7NPC 24 (Rev. 7/86)