SDMS US EPA REGION V -1

SOME IMAGES WITHIN THIS DOCUMENT MAY BE ILLEGIBLE DUE TO BAD SOURCE DOCUMENTS.

LPC #1630000000 -- St. Clair County
Dead Creek Area G
ILD981953623

149482

CERCLA

Preliminary Assessment Report

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

LPC #1630000000 -- St. Clair County
Dead Creek Area G
ILD981953623

September 9, 1988

Executive Summary

Dead Creek Site G is one of eighteen suspected hazardous waste sites in the St. Clair County area investigated by Ecology and Environment, Inc. (E & E) under contract by the Illinois EPA. The purpose of the Dead Creek Project was to gather sufficient data to apply the HRS model and characterize site conditions.

Site G is an abandoned landfill that occupies an area of approximately 4.5 acres in Sauget, Illinois. The site is bordered by Queeny Avenue on the north, and by Dead Creek to the southeast. Historical aerial photographs indicate disposal activities were first evident in 1950, and had ceased sometime in the early 1970's. Currently, the property is jointly owned by Cerro Coppers Product Co., Wiese Engineering Co., and Emily and Myrtle Hankins. Although no records are available documenting the types of waste accepted during the landfill's operation, visual observations by E & E indicate the property is presently littered with demolition debris and metal waste. In addition, the site contains two small pits, oily tar-like waste, and a series of areas containing corroded and deteriorated drums.

The site is situated in an unconsolidated alluvium and glacial outwash environment. This section is underlain by Mississippi age bedrock and older bedrock formations. The alluvium consist of two layers, the Cahokia alluvium and the MacKinaw Member of the Henry Formation. These two formations are hydraulically interconnected and have a composite thickness ranging from 70 to 120 feet thick. Sand and gravel deposits within this section supply water to several local industries, and to private residents in the area who are unable to obtain water from public supply systems due to distribution restrictions. The primary source of public drinking water is supplied from the Mississippi River at a water intake 3 miles upstream from the site. The closest downstream intake is 28 miles south of the site and supplies drinking water to the Village of Crystal, Missouri.

During July, 1985, the Illinois EPA selected E & E as the prime contractor to conduct a preliminary site investigation at Dead Creek Area G. Site characterization activities included a geophysical survey, soil gas monitoring, surface and subsurface soil sampling, air sampling, and well installation and groundwater sampling.

The geophysical work began in October, 1985 and consisted of a magnetometry and electromagnetic survey. Both surveys revealed subsurface anomalies, suggesting the site may contain buried metal objects throughout the disposal area. In addition, the soil gas survey located two areas which potentially contained volatile organic gases in concentrations greater than 100 mg/l.

Analysis from both surface and subsurface soil samples collected at Site G indicate widespread contamination across the entire site. During November, 1986, 43 surface soil samples were submitted for analysis. The analytical results indicated that only one sample showed no detected concentrations or

organic contaminants. The remaining samples contained total organic concentrations ranging from 0.2 mg/kg to levels greater than 74,000 mg/kg. The most frequently detected volatile organic compounds include 4-methyl-2-pentanone, toluene, tetrachloroethene, benzene, ethylbenzene, and xylene. The highest concentrations of semivolatiles included 22,000 mg/kg of 1,4-dichlorobenzene and 21,000 mg/kg of pentachlorophenol. In addition to the widespread volatile organic contamination, the presence of PCBs were detected in 40 samples, and the pesticide degradation product 4,4'-DDE in five samples. Elevated levels of inorganic contaminants detected, include antimony, arsenic, barium, cadmium, chromium, cobalt, copper, lead, mercury, nickel, silver, vanadium, zinc, and cyanide.

During January, 1987, E & E collected 12 subsurface soil samples from nine borings. Results from the analysis indicates subsurface contamination has occurred to a depth of at least 20 feet. Waste material was seen in borings G5, G6, G7, G8, and G9 at depths ranging from approximately 5 to 35 feet. Total organic concentrations in subsurface soil ranged from 0 in background boring G1 to 10,000 mg/kg in boring G8. The highest concentrations of contaminants detected include 5,400 mg/kg of naphthalene, 4,800 mg/kg of pentachlorophenol, and 4,400 mg/kg of Aroclor 1260 (PCBs).

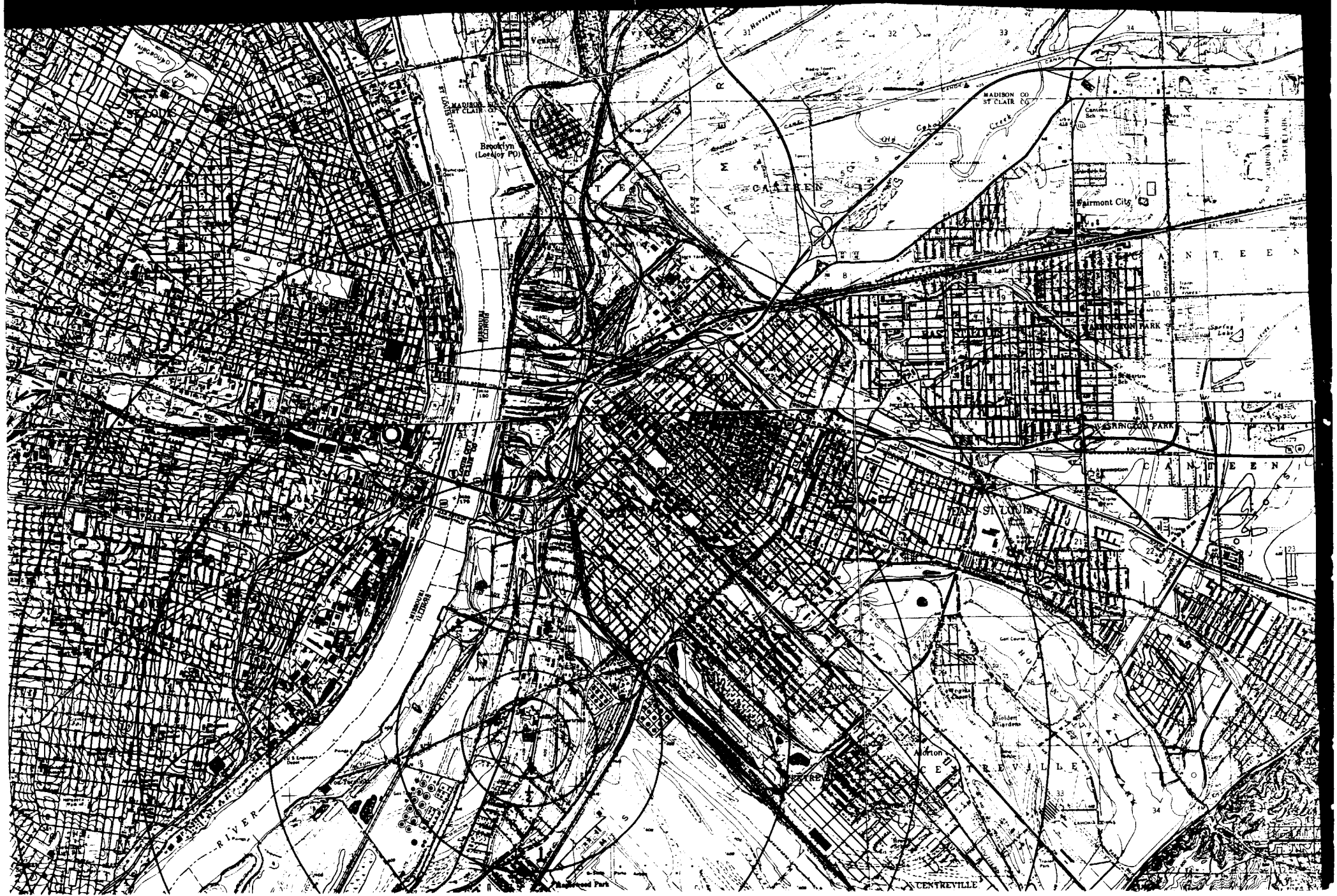
A total of 8 groundwater monitoring wells located on the site and around the perimeter were sampled by E & E during March of 1987. Laboratory results from Site G indicates that organic and inorganic contamination was detected in all nine samples that were submitted for analysis. The most frequently detected contaminants were chlorobenzene, naphthalene, toluene, benzene, 2-chlorophenol, and Aroclor 1260 (PCBs). Total organic concentrations ranged from 0.02 mg/l to 258 mg/l. The highest organic concentrations of contaminants detected were 150 mg/l of benzoic acid, 21 mg/l of naphthalene, 15 mg/l of chloroaniline, and 30 mg/l of phenol. In addition to the widespread organic contamination, elevated levels of antimony, arsenic, cadmium, chromium, cobalt, mercury, nickel, vanadium, zinc and cyanide were detected in groundwater samples at the site.

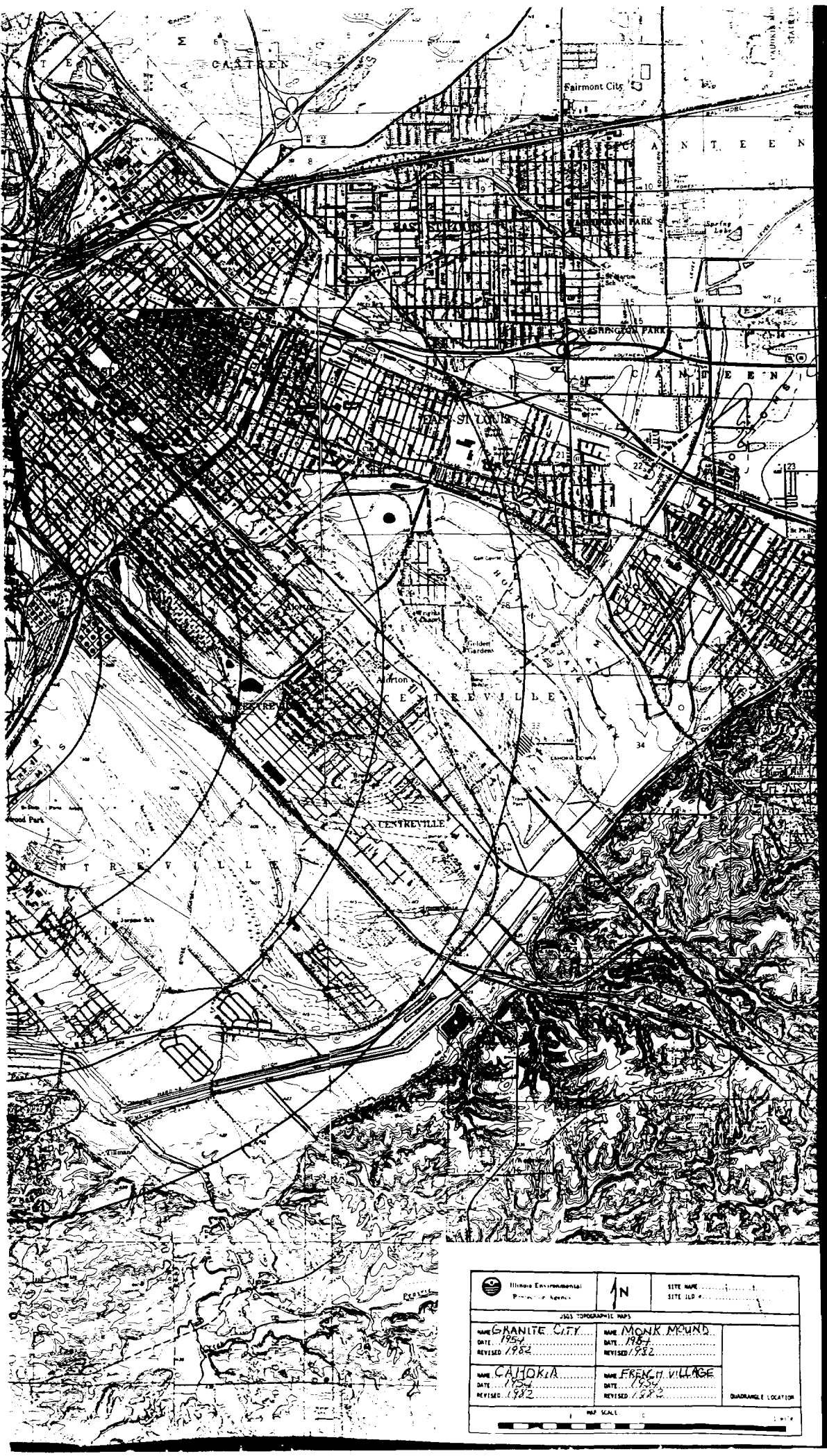
During July 16, and July 17, 1987, E & E implemented an air sampling program around Site G and a portion of Dead Creek which borders the site to the east. The contaminants detected on the first day include phenanthrene, fluoranthrene, naphthalene, nitroaniline, pyrene, and PCBs. Phenanthrene was the only contaminant detected in the background samples. PCBs were the only contaminant detected on the second day in downwind samples. The samples contained total PCB concentrations of 0.50 ug/m^3 the first day and 0.47 ug/m^3 the second day.

On August 13, 1988, IEPA personnel conducted an off-site reconnaissance inspection at Site G. The site was abandoned at the time of the inspection, and was completely surrounded by a secure metal fence. Although the area was mostly covered with overgrown vegetation, a portion of an oily pit and areas containing demolition debris and metal waste were visible from the outside perimeter of property. The Mississippi River is located about 1 mile west and the surrounding area is heavily industrialized.

Dead Creek Site G has been assigned a high priority for a site inspection. This decision is based on the large population potentially affected by a combination of health hazards associated with the site.

JM:jab/2735j/84-85


ST LOUIS
Venice
MADISON CO
ST CLAIR CO
ST LOUIS CITY
Brooklyn
(Loesjoy PO)
MISSOURI
ILLINOIS
CAHOKIA
Cahokia Creek
Canteen Sch
Fairmont City
Rose Lake
EAST ST LOUIS
CANTEEN
CENTREVILLE
Golden Gardens
Adorton
RIVER
Rudwood Park


Fairmont City
EAST ST. LOUIS
WASHINGTON PARK
CENTREVILLE
Illinois Environmental Protection Agency
N
SITE NAME
SITE ID #
USGS TOPOGRAPHIC MAPS
NAME GRANITE CITY
DATE 1954
REVISED 1982
NAME MONK MOUND
DATE 1954
REVISED 1982
NAME CAHOKIA
DATE 1954
REVISED 1982
NAME FRENCH VILLAGE
DATE 1954
REVISED 1982
QUADRANGLE LOCATION
MAP SCALE

MISSISSIPPI
RIVER
Island
Dupo
East Carondelet
North Dupo
Washington Park
Lake Park
Fairmont
Cahokia Dupo Co
Old Pacific
Tin Bridge
Bridge
Ferry
Ferry
Ferry

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: ILD
02 SITE NUMBER: 981953623

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

UNKNOWN

01 ☒ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☒ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)

THE FDA completed AN INVESTIGATION MARCH of 1983 relative to contamination in Mississippi River FISH in the ST. LOUIS/SAUGET AREA. THE REPORT INDICATED the presence of ORGANIC CONTAMINANTS IN FISH up to 150 miles SOUTH of the Sauget AREA, AND CONCLUDED THAT the CONTAMINANTS detected WERE directly ATTRIBUTABLE to discharges IN the SAUGET AREA.

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

SEE NARRATIVE ABOVE IN SECTION X.

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES (Spills runoff standing liquids flowing drums) — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

THE DISPOSAL AREA AT SITE G CONSIST of AN UNLINED abandoned LANDFILL. CONTAMINATION has been detected IN SOIL, SUBSURFACE, GROUNDWATER, AND AIR SAMPLES. OBSERVATIONS by EPE indicate the site IS currently littered with demolition debris + METAL WASTE.

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

UNKNOWN

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

UNKNOWN

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

UNKNOWN

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

UNKNOWN

III. TOTAL POPULATION POTENTIALLY AFFECTED: _____

IV. COMMENTS

ON AUGUST 13, 1988, IEPA personnel conducted an off-site Reconnaissance inspection at Site G. SEE exective Summary FOR details.

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

ALL INFORMATION TAKEN FROM the DEAD CREEK Project (Sauget Sites) Report. Ecology & Environment CONDUCTED the site investigation and compiled and submitted the Report to the IEPA, DIVISION OF LAND, JEFF LARSON

EPA FORM 2070-12 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION
01 STATE: ILD | 02 SITE NUMBER: 981953623

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site): DEAD CREEK AREA G
02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER: Queeny Avenue
03 CITY: Sauget
04 STATE: IL | 05 ZIP CODE: 62201 | 06 COUNTY: St. CLAIR | 07 COUNTY CODE: 163 | 08 CONG DIST: 22
09 COORDINATES: LATITUDE 383523.0 | LONGITUDE 0901035.0
10 DIRECTIONS TO SITE (Starting from nearest public road): I55 SOUTH TO ROUTE 3 SOUTH, TAKE RT. 3 to Queeny Ave., Go LEFT on Queeny Ave about ½ mile, just past Wiese Engineering.

III. RESPONSIBLE PARTIES

01 OWNER (If known): CERRO Copper Products Co.
02 STREET (Business, mailing, residential): Queeny Avenue
03 CITY: SAUGET
04 STATE: IL | 05 ZIP CODE: 62201 | 06 TELEPHONE NUMBER: 618 337-6000
07 OPERATOR (If known and different from owner): UNKNOWN
08 STREET (Business, mailing, residential): —
09 CITY: unKNOWN
10 STATE: — | 11 ZIP CODE: — | 12 TELEPHONE NUMBER: ( ) —
13 TYPE OF OWNERSHIP (Check one): ☐ A. PRIVATE ☐ B. FEDERAL: _____ (Agency name) ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL ☐ F. OTHER: _____ (Specify) ☐ G. UNKNOWN
14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply): ☐ A. RCRA 3001 DATE RECEIVED: / / (MONTH DAY YEAR) ☐ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: / / (MONTH DAY YEAR) ☒ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION: ☒ YES DATE 8 31 88 (MONTH DAY YEAR) ☐ NO
BY (Check all that apply): ☐ A. EPA ☐ B. EPA CONTRACTOR ☒ C. STATE ☐ D. OTHER CONTRACTOR ☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ (Specify)
CONTRACTOR NAME(S): _____
02 SITE STATUS (Check one): ☐ A. ACTIVE ☒ B. INACTIVE ☐ C. UNKNOWN
03 YEARS OF OPERATION: PRIOR to 1950 (BEGINNING YEAR) | EARLY 1970's (ENDING YEAR) ☐ UNKNOWN
04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED:
ORGANICS: (PERSISTANT, TOXIC)
INORGANICS: (PERSISTANT, TOXIC)
05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION:
GROUNDWATER (Population, ENVIRONMENT), DIRECT CONTACT (population)
SURFACE WATER (ENVIRONMENT)
ATMOSPHERE (Population, ENVIRONMENT)

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents): ☒ A. HIGH (Inspection required promptly) ☐ B. MEDIUM (Inspection required) ☐ C. LOW (Inspect on time available basis) ☐ D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT: JEFF LARSON
02 OF (Agency/Organization): IEPA / RPMS
03 TELEPHONE NUMBER: 217 782-6760
04 PERSON RESPONSIBLE FOR ASSESSMENT: John MORGAN
05 AGENCY: IEPA
06 ORGANIZATION: RPMS
07 TELEPHONE NUMBER: 217 782-6760
08 DATE: 9 14 88 (MONTH DAY YEAR)

EPA FORM 2070-12 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
ILD	981953623

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 UNKNOWN
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	UNKNOWN		
OLW	OILY WASTE	UNKNOWN		
SOL	SOLVENTS	UNKNOWN		
PSD	PESTICIDES	UNKNOWN		
OCC	OTHER ORGANIC CHEMICALS	SEE ATTACHED	ANALYTICAL LAB RESULTS	
IOC	INORGANIC CHEMICALS	UNKNOWN		
ACD	ACIDS	UNKNOWN		
BAS	BASES	UNKNOWN		
MES	HEAVY METALS	UNKNOWN		

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
	SEE ATTACHED SUMMARY OF ANALYTICAL LAB RESULTS IN SUPPORTING DOCUMENTS. (LIST IS TO extensive TO be provided in the given SPACE IN THIS SECTION)				

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)

EPA FORM 2070-12 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE: ILD | 02 SITE NUMBER: 981953623

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. GROUNDWATER CONTAMINATION — 02 [X] OBSERVED (DATE _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

ANALYSIS of the NINE GROUNDWATER SAMPLES from eight monitoring wells revealed ORGANIC CONTAMINANTS IN ALL NINE samples. THE MOST FREQUENTLY detected CONTAMINANTS WERE CHLOROBENZENE, NAPHTHALENE, TOLUENE, BENZENE 2-CHLOROPHENOL AND AROCLOR 1260. TOTAL ORGANIC CONCENTRATIONS IN Groundwater RANGED FROM 0.02 mg/L to 258 mg/L. (SEE ATTACHED LAB ANALYSIS for complete Results.)

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

BASED ON Groundwater modeling CONDUCTED by EEE, groundwater from the DEAD CREEK Project AREA IS discharging INTO the MISSISSIPPI RIVER AT maximum RATES OF 69.93 lbs/DAY AND 219 lbs/DAY. DUE to WIDESPREAD DETECTED Groundwater CONTAMINATION AT SITE G, IT IS ALLEGED THAT CONTAMINANTS from the SITE IS CONTRIBUTING TO SURFACE WATER DEGRADATION.

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

ANALYSIS of AIR samples COLLECTED over a two PERIOD AT site G indicated the presence of phenanthrene, FLUORANTHENE, NAPHTHALENE, NITROANILINE, PYRENE, AND PCB's IN downwind LOCATIONS. Phenanthrene WAS the only sample detected IN background samples. ALL of the CONTAMINANTS detected IN downwind AIR samples WERE ALSO FREQUENTLY detected IN SOIL SAMPLES AT site G

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

UNKNOWN

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

AREA CONTAIN high SOIL CONTAMINATION and exposed WASTE on the SURFACE. SITE G is currently surrounded by a secure Fence

01 [X] F. CONTAMINATION OF SOIL — 02 [X] OBSERVED (DATE _____) POTENTIAL ALLEGED
03 AREA POTENTIALLY AFFECTED: _____ (Acres) 04 NARRATIVE DESCRIPTION

SOIL CONTAMINATION WAS detected IN both surface AND subsurface samples COLLECTED by EEE. TOTAL ORGANIC CONCENTRATIONS IN subsurface samples ranged FROM 0 IN background TO LEVELS AS high AS 10,000 mg/Kg. TOTAL ORGANIC CONCENTRATIONS IN SURFACE SOIL RANGED FROM 0.2 mg/Kg to LEVELS greater than 74,000 mg/Kg.

01 [X] G. DRINKING WATER CONTAMINATION — 02 [X] OBSERVED (DATE 3/26/87) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

Although the primary source of public drinking water is supplied from the MISSISSIPPI RIVER AT A WATER INTAKE 3 miles upstream from the site, PRIVATE RESIDENTS WHO ARE UNABLE TO OBTAIN WATER FROM public supplies due to DISTRIBUTION RESTRICTIONS, STILL RELY ON GROUNDWATER AS their SOURCE OF DRINKING WATER. FOUR PRIVATE WELLS TESTED by EEE IN the Project AREA INDICATE LOW-LEVEL ORGANIC CONTAMINATION.

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

UNKNOWN

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

UNKNOWN

DATE: 8-31-88

TIME: 11:00 AM

Photograph by:

JOHN MORGAN

Location:

DEAD CREEK AREA G, SAUGET, ILLINOIS

Comments: Picture taken toward SW:

#P-1

DATE: 8-31-88

TIME: 11:05 AM

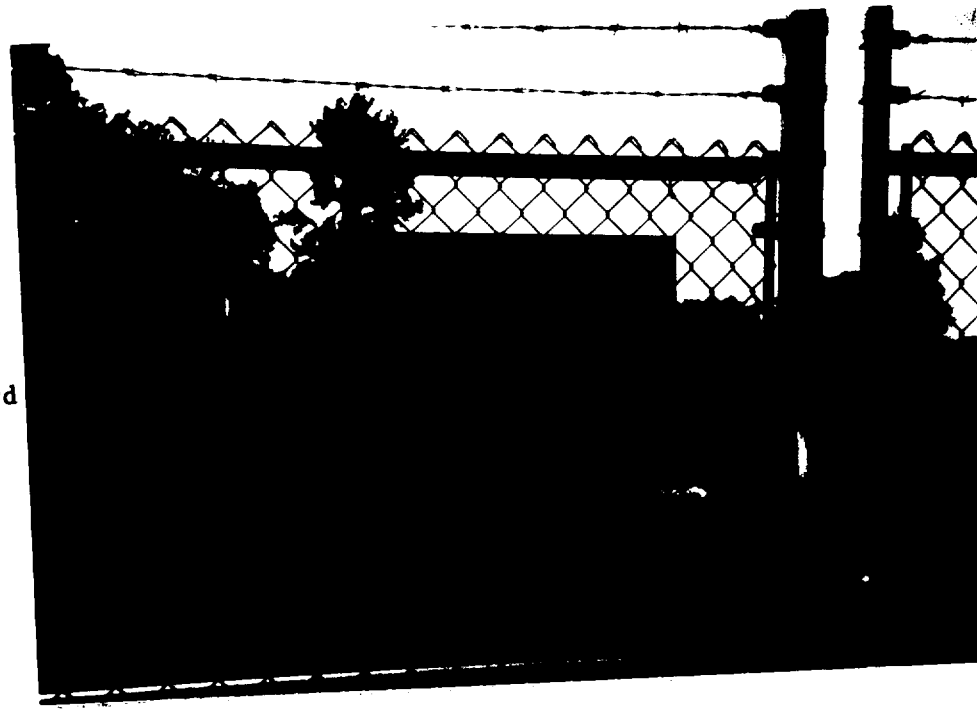
Photograph by:

JOHN MORGAN

Location: DEAD CREEK AREA G

Comments: Picture taken toward SOUTH:

#P-2



DATE: 8-31-88

TIME: 11:10 AM

Photograph by:

JOHN MORGAN

Location:

DEAD CREEK
AREA G, SAUGET IL.

Comments: Picture taken toward

SOUTH

#P-3 (OILY PIT)

DATE: 8-31-88

TIME: 11:15 AM

Photograph by:

JOHN MORGAN

Location: DEAD CREEK
AREA G, SAUGET IL.

Comments: Picture taken toward

SE.

#P-4

DATE: 8-31-88

TIME: 11:20 AM

Photograph by:

JOHN MORGAN

Location:

DEAD CREEK AREA G,
SAUGET, IL.

Comments: Picture taken toward

SOUTH:

#P-5

DATE: 8-31-88

TIME: 11:25 AM

Photograph by:

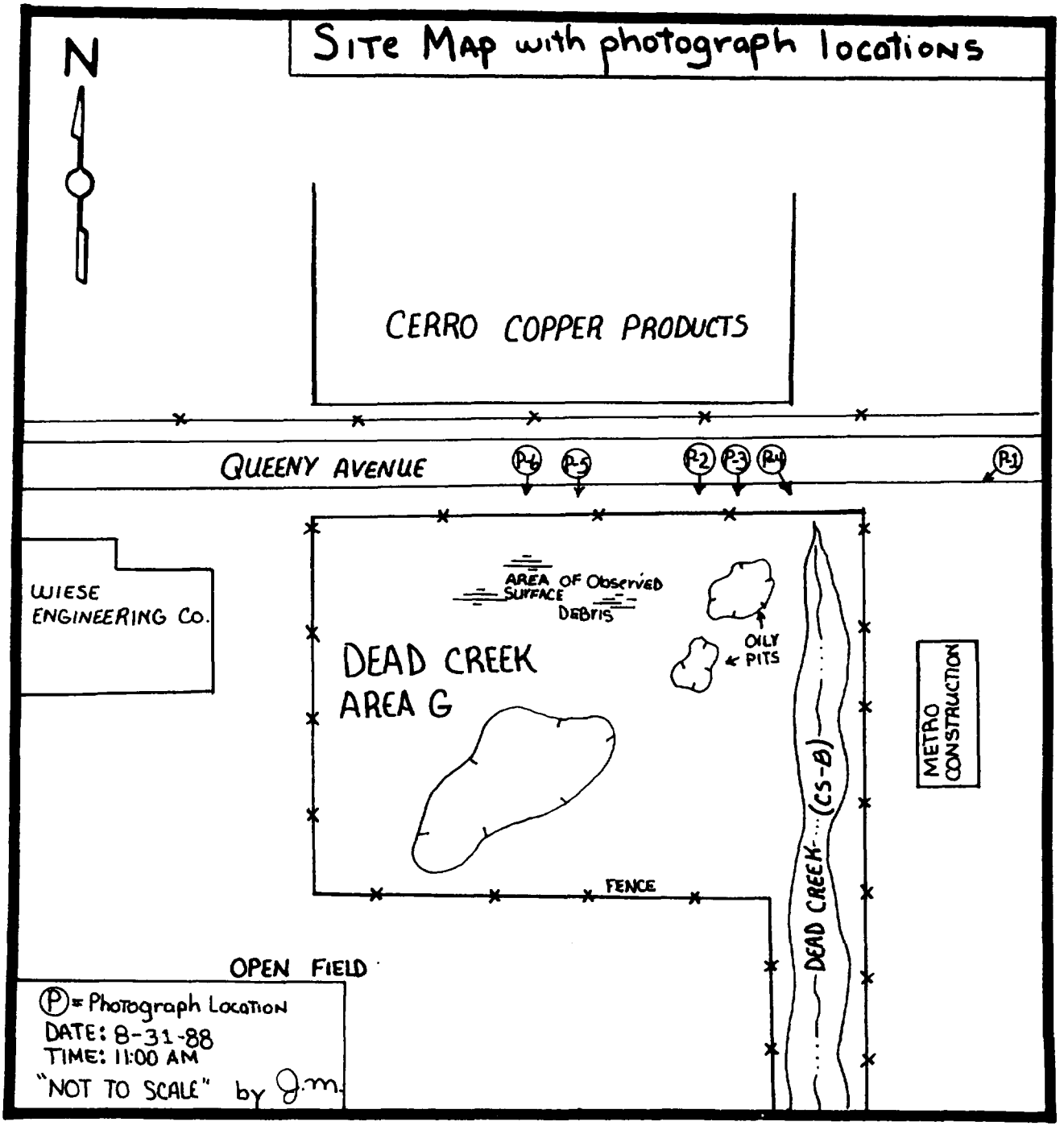
JOHN MORGAN

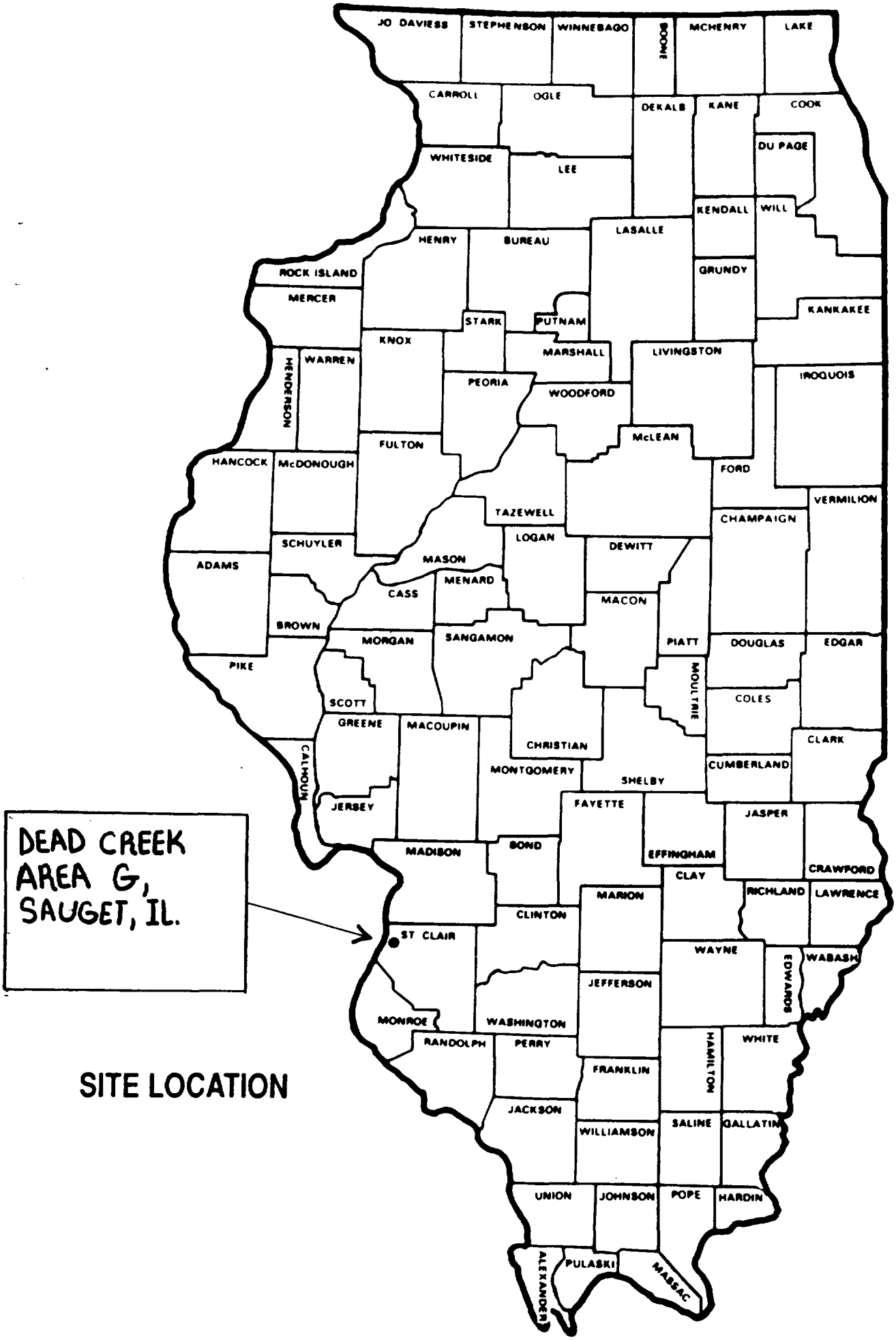
Location: DEAD CREEK
AREA G

Comments: Picture taken toward

SOUTH:

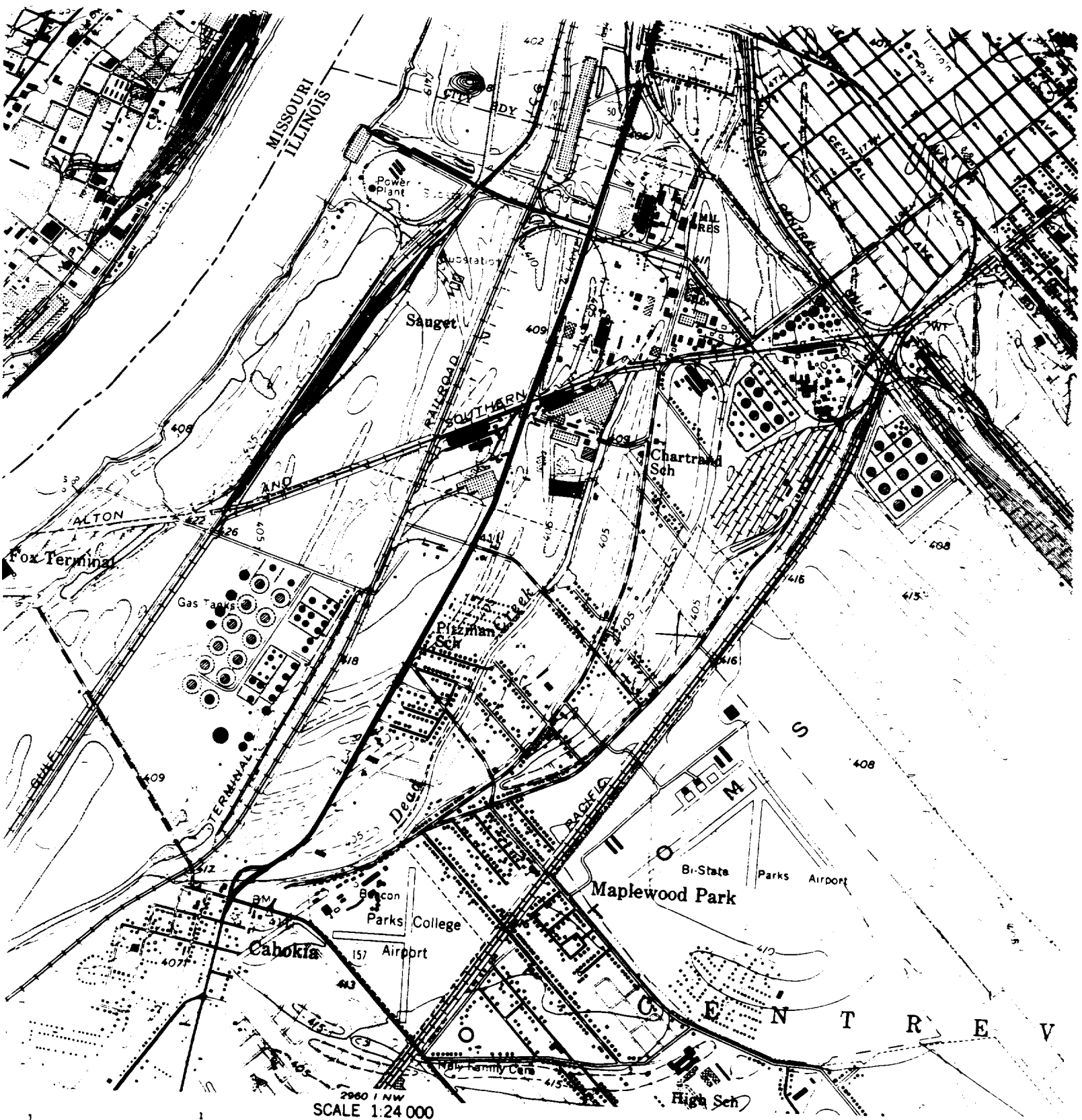
P-6


Site Map with photograph locations
N
CERRO COPPER PRODUCTS
QUEENY AVENUE
P-6
P-5
P-2
P-3
P-4
P-1
WIESE ENGINEERING CO.
AREA OF Observed SURFACE DEBRIS
OILY PITS
DEAD CREEK AREA G
FENCE
DEAD CREEK (CS-B)
METRO CONSTRUCTION
OPEN FIELD
P = Photograph Location
DATE: 8-31-88
TIME: 11:00 AM
"NOT TO SCALE" by J.M.



DEAD CREEK
AREA G,
SAUGET, IL.

SITE LOCATION



CONTOUR INTERVAL 10 FEET
DOTTED LINES REPRESENT 5-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
STATE GEOLOGICAL SURVEY, URBANA, ILLINOIS 61801,
AND BY THE DIVISION OF RESEARCH AND TECHNICAL INFORMATION
MISSOURI DEPARTMENT OF NATURAL RESOURCES, ROLLA, MISSOURI

QUADRANGLE LOCATION

Revisions shown in purple compiled by the Geol

Supporting

Documentation

Reference Sheet

"Document 1" (Lab results and sample location maps) Division of Land, IEPA

Note: All information taken from the Dead Creek Project (Sauget Sites) report, compiled by Ecology and Environment, Inc., Division of Land, IEPA

Table 3-3

SURFACE SOIL SAMPLE LOCATIONS

Sample Number	Date Sampled	Sample Location	Comments
SS-01	11-10-86	Site G, Grid C1	
SS-02	11-10-86	Site G, Grid G1	
SS-03	11-11-86	Site G, Grid B2	
SS-04	11-11-86	Site G, Grid E2	
SS-05	11-11-86	Site G, Grid H2	
SS-06	11-11-86	Site G, Grid H2	duplicate of SS-05
SS-07	11-11-86	Site G, Grid I2	
SS-08	11-11-86	Site G, Grid J2	
SS-09	11-11-86	Site G, Grid A3	
SS-10	11-11-86	Site G, Grid B3	
SS-11	11-11-86	Site G, Grid C3	
SS-12	11-11-86	Site G, Grid D3	
SS-13	11-11-86	Site G, Grid E3	
SS-14	11-11-86	Site G, Grid F3	
SS-15	11-11-86	Site G, Grid G3	
SS-16	11-11-86	Site G, Grid G3	duplicate of SS-15
SS-17	11-11-86	Site G, Grid H3	
SS-18	11-11-86	Site G, Grid A4	
SS-19	11-11-86	Site G, Grid B4	
SS-20	11-11-86	Site G, Grid C4	
SS-21	11-11-86	Site G, Grid D4	
SS-22	11-11-86	Site G, Grid E4	
SS-23	11-11-86	Site G, Grid F4	
SS-24	11-11-86	Site G, Grid G4	
SS-25	11-11-86	Site G, Grid G4	duplicate of SS-24
SS-26	11-11-86	Site G, Grid H4	
SS-27	11-11-86	Site G, Grid I4	
SS-28	11-11-86	Site G, Grid J4	
SS-29	11-11-86	Site G, Grid A5	
SS-30	11-11-86	Site G, Grid B5	
SS-31	11-11-86	Site G, Grid B5	duplicate of SS-30
SS-32	11-11-86	Site G, Grid C5	
SS-33	11-12-86	Site G, Grid D5	
SS-34	11-12-86	Site G, Grid E5	
SS-35	11-12-87	Site G, Grid F5	
SS-36	11-12-87	Site G, Grid G5	
SS-37	11-12-87	Site G, Grid H5	
SS-38	11-12-87	Site G, Grid A6	
SS-39	11-12-87	Site G, Grid B6	
SS-40	11-12-87	Site G, Grid C6	
SS-41	11-12-87	Site G, Grid D6	
SS-42	11-12-87	Site G, Grid F6	
SS-43	11-12-87	Site G, Grid B7	

Table 3-3 (Cont.)

Sample Number	Date Sampled	Sample Location	Comments
SS-44	11-13-86	Field Blank*	Blank soil
SS-45	11-11-86	Field Blank*	Blank soil
SS-46	11-13-86	Site J, southeast of pit	
SS-47	11-13-86	Site J, surface disposal area	
SS-48	11-13-86	Site J, surface disposal area	duplicate of SS-47

* Field blanks consisted of soil from an undisturbed area in a background location to the east of the project area.

Source: Ecology and Environment, Inc. 1988.

Surface Soil Volatiles

	SITE	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6
	SAMPLE NUMBER	DC-SS-16 B	DC-SS-17	DC-SS-18	DC-SS-19	DC-SS-20	DC-SS-21	DC-SS-22	DC-SS-23	DC-SS-24	DC-SS-25 B	DC-SS-26	DC-SS-27	DC-SS-28	DC-SS-29	DC-SS-30
	LOCATION/GRID	G-3	H-3	A-4	B-4	C-4	D-4	E-4	F-4	G-4	G-4	H-4	I-4	J-4	A-5	B-5
	DATE SAMPLED	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86
1	Chloromethane															
2	Bromomethane															
3	Vinyl Chloride															
4	Chloroethane															
5	Methylene Chloride	56 B	90 B	36 B	81 B	73 B	160 B	62 B	58 B	71 B	79 B	68 B	63 B	65 B	80 B	62 B
6	Acetone	20 BJ	13 BJ	67 B	140 B	99 B	400 B		41	39 B	90	14 BJ	17 BJ	13 BJ	37 B	16 BJ
7	Carbon Disulfide															
8	1,1-Dichloroethene															
9	1,1-Dichloroethane															
10	trans-1,2-Dichloroethene															
11	Chloroform															
12	1-2-Dichloroethane															
13	2-Butanone (MEK)	46 B			100 B				42			40 B	46 B	36 B	36 B	
14	1,1,1-Trichloroethane															
15	Carbon Tetrachloride															
16	Vinyl Acetate															
17	Bromodichloromethane															
18	1,2-Dichloropropane															
19	trans-1,3-Dichloropropene															
20	Trichloroethene															
21	Dibromochloromethane															
22	1,1,2-Trichloroethane															
23	Benzene															
24	cis-1,3-Dichloropropene															
25	2-Chloroethyl Vinyl Ether															
26	Bromoform															
27	4-Methyl-2-pentanone			55	220 B	310 B	160	49 B		320	610					47
28	2-Hexanone				17 BJ	30 B	23 BJ	28 BJ	20 J	51 B						
29	Tetrachloroethene				13 J		40 J					12 J				
30	1,1,2,2-Tetrachloroethane															
31	Toluene										45	37				
32	Chlorobenzene															
33	Ethylbenzene															
34	Styrene															
35	Total Xylenes															

Surface Soil Volatiles

SITE	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	BLANK	BLANK
SAMPLE NUMBER	DC-SS-31 0	DC-SS-32	DC-SS-33	DC-SS-34	DC-SS-35	DC-SS-36	DC-SS-37	DC-SS-38	DC-SS-39	DC-SS-40	DC-SS-41	DC-SS-42	DC-SS-43	DC-SS-44+	DC-SS-45+
LOCATION/GRID	D-5	C-5	D-5	E-5	F-5	G-5	H-5	A-6	B-6	C-6	D-6	F-6	D-7		
DATE SAMPLED	11-11-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-13-86	11-11-86
1 Chloroethane															
2 Bromomethane															
3 Vinyl Chloride															
4 Chloroethane															
5 Methylene Chloride	90 B	35 B	230 B	46 B	23 B	55 B	69 B	40 B	63 B	40 B	37 B	60 B	29 B	52 B	65 B
6 Acetone	36 B	30 B	170 B	19 BJ		25 B	48 B	43 B	66 B	150 B	41 B	50 B	21 BJ	18 BJ	28 J
7 Carbon Disulfide															
8 1,1-Dichloroethene															
9 1,1-Dichloroethane															
10 trans-1,2-Dichloroethene															
11 Chloroform															
12 1-2-Dichloroethane															
13 2-Butanone (MEK)		43 B		37 B		40 B	34 B	35 B	59 B	46 B	37 B	39 B	40 B		
14 1,1,1-Trichloroethane															
15 Carbon Tetrachloride															
16 Vinyl Acetate															
17 Bromodichloromethane															
18 1,2-Dichloropropane															
19 trans-1,3-Dichloropropene															
20 Trichloroethene						11 J		19							
21 Dibromochloromethane															
22 1,1,2-Trichloroethane															
23 Benzene							2 J	80					4 J		
24 cis-1,3-Dichloropropene															
25 2-Chloroethyl Vinyl Ether															
26 Bromoform															
27 4-Methyl-2-pentanone	190	29 J	2000	68	100			140	12 J	31	34				
28 2-Hexanone	16 BJ		89 B												
29 Tetrachloroethene	21						12 J								
30 1,1,2,2-Tetrachloroethane															
31 Toluene				32				1400		33					
32 Chlorobenzene				18				40							
33 Ethylbenzene							55	140							
34 Styrene															
35 Total Xylenes							150	170							

Surface Soil Volatiles

SITE	SITE 3	SITE 3	SITE 3
SAMPLE NUMBER	DC-SS-46	DC-SS-47	DC-SS-48
LOCATION/GRID	SE	NE	NE
DATE SAMPLED	11-13-86	11-13-86	11-13-86
1 Chloromethane			
2 Bromomethane			
3 Vinyl Chloride			
4 Chloroethane			
5 Methylene Chloride	40 B	32 B	24 B
6 Acetone	18 BJ	33 B	12 BJ
7 Carbon Disulfide			
8 1,1-Dichloroethene			
9 1,1-Dichloroethane			
10 trans-1,2-Dichloroethene			
11 Chloroform			
12 1-2-Dichloroethane			
13 2-Butanone (MEK)	54 B	30 B	35 B
14 1,1,1-Trichloroethane			
15 Carbon Tetrachloride			
16 Vinyl Acetate			
17 Bromodichloromethane			
18 1,2-Dichloropropane			
19 trans-1,3-Dichloropropene			
20 Trichloroethene			
21 Dibromochloromethane			
22 1,1,2-Trichloroethane			
23 Benzene			
24 cis-1,3-Dichloropropene			
25 2-Chloroethyl Vinyl Ether			
26 Bromoform			
27 4-Methyl-2-pentanone			
28 2-Hexanone			
29 Tetrachloroethene			
30 1,1,2,2-Tetrachloroethane			
31 Toluene			
32 Chlorobenzene			
33 Ethylbenzene			
34 Styrene			
35 Total Xylenes			

Surface Soils Semivolatiles

SITE	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6
SAMPLE NUMBER	DC-SS-01	DC-SS-02	DC-SS-03	DC-SS-04	DC-SS-05	DC-SS-06	DC-SS-07	DC-SS-08	DC-SS-09	DC-SS-10	DC-SS-11	DC-SS-12	DC-SS-13	DC-SS-14
LOCATION/GRID	C-1	G-1	B-2	E-2	H-2	H-2	I-2	I-2	A-3	G-3	C-3	D-3	E-3	F-3
DATE SAMPLED	11-10-86	11-10-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86
1 Phenol														
2 bis(2-Chloroethyl)ether														
3 2-Chlorophenol														
4 1,3-Dichlorobenzene														
5 1,4-Dichlorobenzene														
6 Benzyl Alcohol														
7 1,2-Dichlorobenzene														
8 2-Methylphenol														
9 bis(2-Chloroisopropyl) ether														
10 4-Methylphenol														
11 N-Nitroso-n-Dipropylamine														
12 Hexachloroethane														
13 Nitrobenzene														
14 Isophorone														
15 2-Nitrophenol														
16 2,4-Dimethylphenol														
17 Benzoic Acid														
18 bis-(2-Chloroethoxy)methane														
19 2,4-Dichlorophenol														
20 1,2,4-Trichlorobenzene														
21 Naphthalene									810 J		14000			
22 4-Chloroaniline														
23 Hexachlorobutadiene														
24 4-Chloro-3-methylphenol														
25 2-Methylnaphthalene											1000 J			
26 Hexachlorocyclopentadiene														
27 2,4,6-Trichlorophenol														
28 2,4,5-Trichlorophenol														
29 2-Chloronaphthalene														
30 2-Nitroaniline														

Surface Soils Semivolatiles

	SITE	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6
	SAMPLE NUMBER	DC-SS-15	DC-SS-16	DC-SS-17	DC-SS-18	DC-SS-19	DC-SS-20	DC-SS-21	DC-SS-22	DC-SS-23	DC-SS-24	DC-SS-25	DC-SS-26	DC-SS-27	DC-SS-28
	LOCATION/GRID	B-3	B-3	N-3	A-4	B-4	C-4	D-4	E-4	F-4	G-4	G-4	H-4	I-4	J-4
	DATE SAMPLED	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86
1	Phenol									78 J					
2	bis(2-Chloroethyl)ether														
3	2-Chlorophenol														
4	1,3-Dichlorobenzene														
5	1,4-Dichlorobenzene							22000000							
6	Benzyl Alcohol														
7	1,2-Dichlorobenzene									89 J					
8	2-Methylphenol														
9	bis(2-Chloroisopropyl) ether														
10	4-Methylphenol														
11	N-Nitroso-n-Dipropylamine														
12	Hexachloroethane														
13	Nitrobenzene														
14	Isophorone														
15	2-Nitrophenol														
16	2,4-Dimethylphenol														
17	Benzoic Acid														
18	bis-(2-Chloroethoxy)methane														
19	2,4-Dichlorophenol									120 J					
20	1,2,4-Trichlorobenzene			990 J						180 J				140 J	1800 J
21	Naphthalene			120000			1000 J			110 J					
22	4-Chloroaniline														
23	Hexachlorobutadiene														
24	4-Chloro-3-methylphenol														
25	2-Methylnaphthalene														
26	Hexachlorocyclopentadiene														
27	2,4,6-Trichlorophenol														
28	2,4,5-Trichlorophenol														
29	2-Chloronaphthalene														
30	2-Nitroaniline									1000 J					24000 J

Surface Soils Semivolatiles

SITE	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6
SAMPLE NUMBER	DC-SS-29	DC-SS-30	DC-SS-31	DC-SS-32	DC-SS-33	DC-SS-34	DC-SS-35	DC-SS-36	DC-SS-37	DC-SS-38	DC-SS-39	DC-SS-40	DC-SS-41	DC-SS-42	DC-SS-43
LOCATION/GRID	A-5	B-5	B-5	C-5	D-5	E-5	F-5	G-5	H-5	A-6	B-6	C-6	D-6	F-6	D-7
DATE SAMPLED	11-11-86	11-11-86	11-11-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86
1 Phenol															
2 bis(2-Chloroethyl)ether															
3 2-Chlorophenol															
4 1,3-Dichlorobenzene															
5 1,4-Dichlorobenzene								240 J		2600 J					210 J
6 Benzyl Alcohol															
7 1,2-Dichlorobenzene															
8 2-Methylphenol															
9 bis(2-Chloroisopropyl) ether															
10 4-Methylphenol															
11 N-Nitroso-n-Dipropylamine															
12 Hexachloroethane															
13 Nitrobenzene															
14 Isophorone															
15 2-Nitrophenol															
16 2,4-Dimethylphenol															
17 Benzoic Acid															
18 bis-(2-Chloroethoxy)methane															
19 2,4-Dichlorophenol												6200			
20 1,2,4-Trichlorobenzene						35000		65 J	5300 J		1800 J				
21 Naphthalene								71 J	26000	110000		140 J		290 J	110 J
22 4-Chloroaniline															
23 Hexachlorobutadiene															
24 4-Chloro-3-methylphenol															
25 2-Methylnaphthalene								50 J		850 J					
26 Hexachlorocyclopentadiene															
27 2,4,6-Trichlorophenol												1500 J			
28 2,4,5-Trichlorophenol															
29 2-Chloronaphthalene															
30 2-Nitroaniline								1100 J	220000						

Surface Soils Semivolatiles

SITE	BLANK	BLANK	SITE J	SITE J	SITE J
SAMPLE NUMBER	BC-SS-44+	BC-SS-45+	BC-SS-46	BC-SS-47	BC-SS-48+
LOCATION/GRID			SE	NE	NE
DATE SAMPLED	11-13-86	11-11-86	11-13-86	11-13-86	11-13-86
1 Phenol					
2 bis(2-Chloroethyl)ether					
3 2-Chlorophenol					
4 1,3-Dichlorobenzene					
5 1,4-Dichlorobenzene					
6 Benzyl Alcohol					
7 1,2-Dichlorobenzene					
8 2-Methylphenol					
9 bis(2-Chloroisopropyl) ether					
10 4-Methylphenol					
11 N-Nitroso-n-Dipropylamine					
12 Hexachloroethane					
13 Nitrobenzene					
14 Isophorone					
15 2-Nitrophenol					
16 2,4-Dimethylphenol					
17 Benzoic Acid					
18 bis-(2-Chloroethoxy)methane					
19 2,4-Dichlorophenol					
20 1,2,4-Trichlorobenzene					
21 Naphthalene					
22 4-Chloroaniline					
23 Hexachlorobutadiene					
24 4-Chloro-3-methylphenol					
25 2-Methylnaphthalene					
26 Hexachlorocyclopentadiene					
27 2,4,6-Trichlorophenol					
28 2,4,5-Trichlorophenol					
29 2-Chloronaphthalene					
30 2-Nitroaniline					

Surface Soil Semivolatiles

SITE	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G
SAMPLE NUMBER	DC-SS-01	DC-SS-02	DC-SS-03	DC-SS-04	DC-SS-05	DC-SS-06	DC-SS-07	DC-SS-08	DC-SS-09	DC-SS-10	DC-SS-11	DC-SS-12	DC-SS-13	DC-SS-14
LOCATION/GRID	C-1	G-1	B-2	E-2	H-2	H-2	I-2	I-2	A-3	B-3	C-3	B-3	E-3	F-3
DATE SAMPLED	11-10-86	11-10-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86
1 Dimethyl Phthalate														
2 Acenaphtylene														
3 3-Nitroaniline														
4 Acenaphthene											570 J			
5 2,4-Dinitrophenol														
6 4-Nitrophenol														
7 Dibenzofuran											920 J			
8 2,4-Dinitrotoluene														
9 2,6-Dinitrotoluene														
10 Diethylphthalate														
11 4-Chlorophenyl-Phenylether														
12 Fluorene														
13 4-Nitroaniline														
14 4,6-Dinitro-2-methylphenol														
15 N-Nitrosodiphenylamine														
16 4-Bromophenyl-phenylether														
17 Hexachlorobenzene														
18 Pentachlorophenol									2600 J		4700 J	7800 J		
19 Phenanthrene											4800 J			
20 Anthracene														
21 Di-n-butyl phthalate				170 BJ	2000 B		460 BJ	320 BJ						
22 Fluoranthene							480		540 J			1300 J		
23 Pyrene							290 J					1100 J		
24 Butyl Benzyl phthalate														
25 3,3'-Dichlorobenzidine														
26 Benzo(a)Anthracene							220 J		950 J					
27 bis(2-ethylhexyl) phthalate		910	230 J	470			170 J	140 J	240 J		6000	820 J		
28 Chrysene							310 J							4400 J
29 Di-n-octyl phthalate										610 BJ	2600 BJ	3100 B		14000 B
30 Benzo(b)Fluoranthene							610		750 J			1200 J		
31 Benzo(k)Fluoranthene								160 J						
32 Benzo(a)Pyrene							190 J	47 J				520 J		
33 Indeno(1,2,3-cd)Pyrene							280 J							
34 Benzo(g,h,i)Perylene							84 J							
35 Dibenz(a,h)Anthracene							230 J		1100 J					

Surface Soil Semivolatiles

SITE	SITE 8	SITE 8	SITE 8	SITE 8	SITE 8	SITE 8	SITE 8	SITE 8	SITE 8	SITE 8	SITE 8	SITE 8	SITE 8	SITE 8
SAMPLE NUMBER	DC-SS-15	DC-SS-16	DC-SS-17	DC-SS-18	DC-SS-19	DC-SS-20	DC-SS-21	DC-SS-22	DC-SS-23	DC-SS-24	DC-SS-25	DC-SS-26	DC-SS-27	DC-SS-28
LOCATION/GRID	G-3	G-3	H-3	A-4	B-4	C-4	D-4	E-4	F-4	G-4	G-4	H-4	I-4	J-4
DATE SAMPLED	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86
1 Dimethyl Phthalate														
2 Acenaphtylene														
3 3-Nitroaniline														
4 Acenaphthene		1800 J	1100 J						70 J					
5 2,4-Dinitrophenol														
6 4-Nitrophenol														
7 Dibenzofuran														
8 2,4-Dinitrotoluene														
9 2,6-Dinitrotoluene														
10 Diethylphthalate														
11 4-Chlorophenyl-Phenylether														
12 Fluorene														
13 4-Nitroaniline														
14 4,6-Dinitro-2-methylphenol														
15 N-Nitrosodiphenylamine														
16 4-Bromophenyl-phenylether														
17 Hexachlorobenzene			10000 J											
18 Pentachlorophenol	1200000	1400000							12000		18000 J			23000 J
19 Phenanthrene	40000 J	37000 J	8700 J						1200				180 J	
20 Anthracene									300 J					
21 Di-n-butyl phthalate						3800 BJ		360 BJ	1700 B				350 BJ	
22 Fluoranthene	44000	45000							2200		6700 J	4800 J		
23 Pyrene	85000	71000	3800 J						850	5500 J	9000 J			
24 Butyl Benzyl phthalate														
25 3,3'-Dichlorobenzidine		86000												
26 Benzo(a)Anthracene		27000 J							960		5100 J			
27 bis(2-ethylhexyl) phthalate									660					
28 Chrysene	39000 J	39000 J							1100		6400 J		270 J	
29 Di-n-octyl phthalate								140 BJ	99 BJ					
30 Benzo(b)Fluoranthene	47000	48000							1800					
31 Benzo(k)Fluoranthene										10000 J	10000 J			
32 Benzo(a)Pyrene	27000 J	20000 J							840		4500 J			
33 Indeno(1,2,3-cd)Pyrene									1100					
34 Benzo(g,h,i)Perylene									430					
35 Dibenz(a,h)Anthracene									1200					

Surface Soil Semivolatiles

SITE	SITE 8	SITE 8	SITE 6	SITE 8	SITE 6	SITE 8	SITE 8	SITE 8	SITE 6	SITE 8	SITE 8	SITE 8	SITE 6	SITE 6	SITE 6
SAMPLE NUMBER	DC-SS-29	DC-SS-30	DC-SS-31	DC-SS-32	DC-SS-33	DC-SS-34	DC-SS-35	DC-SS-36	DC-SS-37	DC-SS-38	DC-SS-39	DC-SS-40	DC-SS-41	DC-SS-42	DC-SS-43
LOCATION/GRID	A-5	B-5	B-5	C-5	D-5	E-5	F-5	G-5	H-5	A-6	B-6	C-6	D-6	F-6	D-7
DATE SAMPLED	11-11-86	11-11-86	11-11-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86
1 Diethyl Phthalate															
2 Acenaphtylene															
3 3-Nitroaniline															
4 Acenaphthene								200 J							770 J
5 2,4-Dinitrophenol															
6 4-Nitrophenol												1000000			
7 Dibenzofuran								95 J							460 J
8 2,4-Dinitrotoluene															
9 2,6-Dinitrotoluene															
10 Diethylphthalate															
11 4-Chlorophenyl-Phenylether															
12 Fluorene															1500 J
13 4-Nitroaniline															
14 4,6-Dinitro-2-methylphenol															
15 N-Nitrosodiphenylamine															
16 4-Bromophenyl-phenylether															
17 Hexachlorobenzene															
18 Pentachlorophenol						9900 J		1600 J			21000000	1100 J		20000	25000
19 Phenanthrene								2000	4700 J			920 J			15000
20 Anthracene								600				810 J			4100
21 Di-n-butyl phthalate												880 J			
22 Fluoranthene								4600				2600			20000
23 Pyrene								3100		5800 J		2400			19000
24 Butyl Benzyl phthalate															
25 3,3'-Dichlorobenzidine															
26 Benzo(a)Anthracene								2100				1400 J			10000
27 bis(2-ethylhexyl) phthalate	2900 J				1400 J							2500			
28 Chrysene								2700		8400 J		2500			10000
29 Di-n-octyl phthalate					2000 BJ										
30 Benzo(b)Fluoranthene								4800				3600			15000
31 Benzo(k)Fluoranthene														750 J	
32 Benzo(a)Pyrene								1900		1900 J	3900 J	1700 J		100 J	7000
33 Indeno(1,2,3-cd)Pyrene								1700				2100			5200
34 Benzo(g,h,i)Perylene								550 J				530 J			1530 J
35 Dibenz(a,h)Anthracene								1500				2400			5400

Surface Soil Semivolatiles

SITE	BLANK	BLANK	SITE J	SITE J	SITE J
SAMPLE NUMBER	BC-SS-44+	BC-SS-45+	BC-SS-46	BC-SS-47	BC-SS-48!
LOCATION/GRID			SE	NE	NE
DATE SAMPLED	11-13-86	11-11-86	11-13-86	11-13-86	11-13-86
1 Dimethyl Phthalate					
2 Acenaphtylene					
3 3-Nitroaniline					
4 Acenaphthene					
5 2,4-Dinitrophenol					
6 4-Nitrophenol					
7 Dibenzofuran					
8 2,4-Dinitrotoluene					
9 2,6-Dinitrotoluene					
10 Diethylphthalate					
11 4-Chlorophenyl-Phenylether					
12 Fluorene					
13 4-Nitroaniline					
14 4,6-Dinitro-2-methylphenol					
15 N-Nitrosodiphenylamine					
16 4-Bromophenyl-phenylether					
17 Hexachlorobenzene					
18 Pentachlorophenol					
19 Phenanthrene					
20 Anthracene					
21 Di-n-butyl phthalate	150 J	1500 B	1600 B	230 J	
22 Fluoranthene					
23 Pyrene					
24 Butyl Benzyl phthalate					
25 3,3'-Dichlorobenzidine					
26 Benzo(a)Anthracene					
27 bis(2-ethylhexyl) phthalate			240 J		
28 Chrysene					
29 Bi-n-octyl phthalate		79 BJ			
30 Benzo(b)Fluoranthene	81 J				
31 Benzo(k)Fluoranthene					
32 Benzo(a)Pyrene					
33 Indeno(1,2,3-cd)Pyrene					
34 Benzo(g,h,i)Perylene					
35 Dibenz(a,h)Anthracene					

Surface Soils Pest/PCBs

SITE	SITE 8	SITE 8	SITE 8	SITE 6	SITE 6	SITE 8	SITE 8	SITE 8	SITE 6	SITE 6	SITE 8	SITE 6	SITE 6	SITE 6	SITE 6
SAMPLE NUMBER	DC-SS-01	DC-SS-02	DC-SS-03	DC-SS-04	DC-SS-05	DC-SS-06	DC-SS-07	DC-SS-08	DC-SS-09	DC-SS-10	DC-SS-11	DC-SS-12	DC-SS-13	DC-SS-14	DC-SS-15
LOCATION/GRID	C-1	G-1	B-2	E-2	H-2	H-2	I-2	I-2	A-3	B-3	C-3	D-3	E-3	F-3	G-3
DATE SAMPLED	11-10-86	11-10-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86
1 Alpha-BHC															
2 Beta-BHC															
3 Delta-BHC															
4 Gamma-BHC (Lindane)															
5 Heptachlor															
6 Aldrin															
7 Heptachlor Epoxide															
8 Endosulfan I															
9 Dieldrin															
10 4,4'-DDE		31 J			79	51	290	84							
11 Endrin															
12 Endosulfan II															
13 4,4'-DDD															
14 Endosulfan Sulfate															
15 4,4'-DDT															
16 Methoxychlor															
17 Endrin Ketone															
18 Chlordane															
19 Toxaphene															
20 AROCLOR-1016															
21 AROCLOR-1221															
22 AROCLOR-1232															
23 AROCLOR-1242															
24 AROCLOR-1248									2730000 C	44000	24000000 C				184000
25 AROCLOR-1254								1430			29000000 C				
26 AROCLOR-1260		450		751	990	740	3800	1830			21000000 C	174000 C	165000 J	887000	305000 J

Surface Soils Pest/PCBs

SITE	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G
SAMPLE NUMBER	DC-SS-16	DC-SS-17	DC-SS-18	DC-SS-19	DC-SS-20	DC-SS-21	DC-SS-22	DC-SS-23	DC-SS-24	DC-SS-25	DC-SS-26	DC-SS-27	DC-SS-28	DC-SS-29	DC-SS-30
LOCATION/GRID	G-3	H-3	A-4	B-4	C-4	D-4	E-4	F-4	G-4	G-4	H-4	I-4	J-4	A-5	B-5
DATE SAMPLED	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86
1 Alpha-BHC															
2 Beta-BHC															
3 Delta-BHC															
4 Gamma-BHC (Lindane)															
5 Heptachlor															
6 Aldrin															
7 Heptachlor Epoxide															
8 Endosulfan I															
9 Dieldrin															
10 4,4'-DDE															
11 Endrin															
12 Endosulfan II															
13 4,4'-DDD															
14 Endosulfan Sulfate															
15 4,4'-DDT															
16 Methoxychlor															
17 Endrin Ketone															
18 Chlordane															
19 Toxaphene															
20 AROCLOR-1016															
21 AROCLOR-1221															
22 AROCLOR-1232															
23 AROCLOR-1242															
24 AROCLOR-1248	171000		1700000	3600000 C			145000 JC	110000 C						21000	30300
25 AROCLOR-1254				7500000 C		2700000							240000 J		
26 AROCLOR-1260	232000 J	2700000 JC		8000000 C	639000		547000 C	218000 C	117000 J	122000 J	120000	2200000 C	625000	23000	35600

Surface Soils Pest/PCBs

SITE	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	SITE 6	BLANK	BLANK
SAMPLE NUMBER	DC-SS-31	DC-SS-32	DC-SS-33	DC-SS-34	DC-SS-35	DC-SS-36	DC-SS-37	DC-SS-38	DC-SS-39	DC-SS-40	DC-SS-41	DC-SS-42	DC-SS-43	DC-SS-44	DC-SS-45
LOCATION/GRID	B-5	C-5	B-5	E-5	F-5	G-5	H-5	A-6	B-6	C-6	D-6	F-6	D-7		
DATE SAMPLED	11-11-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-13-86	11-11-86
1 Alpha-BHC															
2 Beta-BHC															
3 Delta-BHC															
4 Gamma-BHC (Lindane)															
5 Heptachlor															
6 Aldrin															
7 Heptachlor Epoxide															
8 Edosulfan I															
9 Dieldrin															
10 4,4'-DDE															
11 Endrin															
12 Edosulfan II															
13 4,4'-DDD															
14 Endosulfan Sulfate															
15 4,4'-DDT															
16 Methoxychlor															
17 Endrin Ketone															
18 Chlordane															
19 Toxaphene															
20 AROCLOR-1016															
21 AROCLOR-1221															
22 AROCLOR-1232															
23 AROCLOR-1242															
24 AROCLOR-1248											26600 J		17000		
25 AROCLOR-1254										119000 JC					
26 AROCLOR-1260		12600 J	25600 J	3250000 C	96000	144000 C	151000 J	8700	544000	279000 C	85000	52000	30100		

Surface Soils Pest/PCBs

SITE	SITE J	SITE J	SITE J
SAMPLE NUMBER	DC-SS-46	DC-SS-47	DC-SS-48 I
LOCATION/GRID	SE	NE	NE
DATE SAMPLED	11-13-86	11-13-86	11-13-86
1 Alpha-BHC			
2 Beta-BHC			
3 Delta-BHC			
4 Gamma-BHC (Lindane)			
5 Heptachlor			
6 Aldrin			
7 Heptachlor Epoxide			
8 Edosulfan I			
9 Dieldrin			
10 4,4'-DDE			
11 Endrin			
12 Edosulfan II			
13 4,4'-DDD			
14 Endosulfan Sulfate			
15 4,4'-DDT			
16 Methoxychlor			
17 Endrin Ketone			
18 Chlordane			
19 Toxaphene			
20 AROCLOR-1016			
21 AROCLOR-1221			
22 AROCLOR-1232			
23 AROCLOR-1242			
24 AROCLOR-1248			
25 AROCLOR-1254			
26 AROCLOR-1260			

Ground Water Volatiles

SITE	SITE I	SITE G	SITE G	SITE G	SITE G	BLANK	SITE H	SITE L	SITE O	SITE O	SITE O	SITE O	SITE O	SITE O	SITE O	SITE O
SAMPLE NUMBER	DC-GW-31	DC-GW-32	DC-GW-33	DC-GW-34	DC-GW-34A	DC-GW-35 *	DC-GW-36	DC-GW-37	DC-GW-38	DC-GW-38A	DC-GW-39	DC-GW-39A	DC-GW-40	DC-GW-40A	DC-GW-41	DC-GW-41A
WELL NUMBER	EE-20	EE-11	EE-G106	EE-G102	EE-G102		EE-G110	EE-G109	EE-21	EE-21	EE-22	EE-22	EE-23	EE-23	EE-24	EE-24
DATE SAMPLED	3-23-87	3-24-87	3-24-87	3-24-87	7-14-87	3-24-87	3-24-87	3-24-87	3-24-87	7-14-87	3-24-87	7-14-87	3-24-87	7-14-87	3-24-87	7-14-87
1 Chloromethane																
2 Bromomethane																
3 Vinyl Chloride																
4 Chloroethane																
5 Methylene Chloride			440			2 J		44 J			52000	31000				
6 Acetone	29 B	1700 B	210	7 BJ		13 B		650 B	7 J		38000 B	34000	6 J		10	
7 Carbon Disulfide																
8 1,1-Dichloroethene																
9 1,1-Dichloroethane												1700				
10 trans-1,2-Dichloroethene			110									14000				
11 Chloroform						1 J		730			3000 J	1800				
12 1-2-Dichloroethane											4000 J	2600				
13 2-Butanone (MEK)			560		6 BJ					13 B	62000	54000 E		11 B		
14 1,1,1-Trichloroethane			51 J								7800	5000				
15 Carbon Tetrachloride																
16 Vinyl Acetate																
17 Bromodichloromethane																
18 1,2-Dichloropropane																
19 trans-1,3-Dichloropropene																
20 Trichloroethene			800								83000	64000 E				
21 Dibromochloromethane																
22 1,1,2-Trichloroethane																
23 Benzene		460	1800				1 J	150			190000	150000 E			10	20
24 cis-1,3-Dichloropropene																
25 2-Chloroethyl Vinyl Ether																
26 Bromoform																
27 4-Methyl-2-pentanone			150					270 B			38000	28000				
28 2-Hexanone																
29 Tetrachloroethene											10000					
30 1,1,2,2-Tetrachloroethane												12000				
31 Toluene		100 BJ	83 J					970 B			15000	1300		17	1 J	
32 Chlorobenzene		2500	1200	20	36		6				150000	180000 E			5	8
33 Ethylbenzene		840										860				
34 Styrene																
35 Total Xylenes		400									4600 J	2600			2 J	

Ground Water Semivolatiles

	SITE	SITE Q	SITE Q	SITE Q	SITE Q	SITE Q	SITE Q	SITE Q	SITE Q	SITE Q	SITE H	SITE H	SITE H	SITE H	SITE G
	SAMPLE NUMBER	DC-GW-01	DC-GW-02	DC-GW-03	DC-GW-04	DC-GW-05	DC-GW-06	DC-GW-07	DC-GW-08	DC-GW-09	DC-GW-10	DC-GW-11	DC-GW-12	DC-GW-13	DC-GW-14
	WELL NUMBER	EE-06	EE-07	EE-09	EE-10	EE-17	EE-08	EE-19	EE-19	EE-18	EE-01	EE-02	EE-03	EE-04	EE-G101
	DATE SAMPLED	3-16-87	3-16-87	3-16-87	3-16-87	3-16-87	3-16-87	3-16-87	3-16-87	3-16-87	3-17-87	3-17-87	3-17-87	3-17-87	3-17-87
1	Phenol							110000 E	190000 E	6100 E	66	950			
2	bis(2-Chloroethyl)ether														
3	2-Chlorophenol				4 J			20000 E	33000 E	2600	31 J	47 J			
4	1,3-Dichlorobenzene										120				
5	1,4-Dichlorobenzene				4			220 J	250	70 J	2600	530	11		
6	Benzyl Alcohol							460	490	180		740			
7	1,2-Dichlorobenzene							260	300	2000	560	430	3		
8	2-Methylphenol							190 J	350	10 J	26 J	70 J			
9	bis(2-Chloroisopropyl) ether		3 J												
10	4-Methylphenol							14000 E	23000 E	850	65	620			
11	N-Nitroso-n-Dipropylamine														
12	Hexachloroethane														
13	Nitrobenzene								100 J	820		97 J			
14	Isophorone											110 J			
15	2-Nitrophenol														
16	2,4-Dimethylphenol		5 J						2800	62		330			
17	Benzoic Acid		10 J							600	140 J	5800 E			
18	bis-(2-Chloroethoxy)methane														
19	2,4-Dichlorophenol							1900 E	14000 E	7600 E		1900			
20	1,2,4-Trichlorobenzene									390	580	720			
21	Naphthalene							41 J	42 J	70	250	240			1 J
22	4-Chloroaniline	120						14000 E	15000 E	4400	6400 E	810	200		
23	Hexachlorobutadiene														
24	4-Chloro-3-methylphenol														
25	2-Methylnaphthalene										21 J	47 J			
26	Hexachlorocyclopentadiene														
27	2,4,6-Trichlorophenol							4100	6000	1800	140	1200			
28	2,4,5-Trichlorophenol										27 J	580 J			
29	2-Chloronaphthalene														
30	2-Nitroaniline							1700	1800	2000					

Ground Water Semivolatiles

	SITE	SITE G	SITE G	BLANK	SITE L	SITE G	SITE G	SITE G	BLANK	SITE I	SITE I	SITE I	SITE I	SITE I	SITE I
	SAMPLE NUMBER	DC-GW-15	DC-GW-16	DC-GW-17 +	DC-GW-18	DC-GW-19	DC-GW-20 #	DC-GW-21	DC-GW-22 +	DC-GW-23	DC-GW-24	DC-GW-25	DC-GW-26	DC-GW-27	DC-GW-28
	WELL NUMBER	EE-G103	EE-G104		EE-G108	EE-G107	EE-G107	EE-05		EE-13	EE-12	EE-G112	EE-14	EE-15	EE-16
	DATE SAMPLED	3-17-87	3-17-87	3-17-87	3-18-87	3-18-87	3-18-87	3-18-87	3-18-87	3-23-87	3-23-87	3-23-87	3-23-87	3-23-87	3-23-87
1	Phenol					6600	30000						1800		80
2	bis(2-Chloroethyl)ether														
3	2-Chlorophenol					690	1900				5 J		370		
4	1,3-Dichlorobenzene										110				
5	1,4-Dichlorobenzene					570	470 J				640		910	10	110
6	Benzyl Alcohol					5400	8600						230 J		350
7	1,2-Dichlorobenzene					200 J	180 J				110		220 J	4 J	15 J
8	2-Methylphenol					280 J	810						89 J		76
9	bis(2-Chloroisopropyl) ether														
10	4-Methylphenol					2200	9000						350		
11	N-Nitroso-n-Dipropylamine														
12	Hexachloroethane														
13	Nitrobenzene														
14	Isophorone														
15	2-Nitrophenol														
16	2,4-Dimethylphenol					1400	4300								
17	Benzoic Acid					35000 E	150000 E								
18	bis-(2-Chloroethoxy)methane					2400	7300				2 J		2900		
19	2,4-Dichlorophenol					480 J	450 J				22		1000		
20	1,2,4-Trichlorobenzene					1900	1700						2700		
21	Naphthalene		8 J			21000 E	18000						57 J		230
22	4-Chloroaniline										140	14	8300	18	9600 E
23	Hexachlorobutadiene														
24	4-Chloro-3-methylphenol												140 J		
25	2-Methylnaphthalene										1 J				9 J
26	Hexachlorocyclopentadiene														
27	2,4,6-Trichlorophenol						350						290		
28	2,4,5-Trichlorophenol														
29	2-Chloronaphthalene														
30	2-Nitroaniline														

Ground Water Semivolatiles

	SITE	SITE I	BLANK	SITE I	SITE G	SITE G	SITE G	SITE G	BLANK	SITE H	SITE L	SITE O	SITE O	SITE O	SITE O	SITE O
	SAMPLE NUMBER	DC-GW-29	DC-GW-30 +	DC-GW-31	DC-GW-32	DC-GW-33	DC-GW-34	DC-GW-34A	DC-GW-35 +	DC-GW-36	DC-GW-37	DC-GW-38	DC-GW-38A	DC-GW-39	DC-GW-39A	DC-GW-40
	WELL NUMBER	EE-12		EE-20	EE-11	EE-6106	EE-6102	EE-6102		EE-6110	EE-6109	EE-21	EE-21	EE-22	EE 22	EE-23
	DATE SAMPLED	3-23-87	3-23-87	3-23-87	3-24-87	3-24-87	3-24-87	7-14-87	3-24-87	3-24-87	3-24-87	3-24-87	7-14-87	3-24-87	7-14-87	3-24-87
1	Phenol					2 J					150			500	1100	
2	bis(2-Chloroethyl)ether														91 J	
3	2-Chlorophenol				130	9 J					130			120	50 J	
4	1,3-Dichlorobenzene	110				4 J								320	290	
5	1,4-Dichlorobenzene	830			34 J	350								10000 E	15000 E	
6	Benzyl Alcohol															
7	1,2-Dichlorobenzene	110				6 J								7800	11000 E	
8	2-Methylphenol										6 J			78 J	120	
9	bis(2-Chloroisopropyl) ether															
10	4-Methylphenol				37 J						75			820	1100	
11	N-Nitroso-n-Dipropylamine															
12	Hexachloroethane															
13	Nitrobenzene															
14	Isophorone															
15	2-Nitrophenol										41					
16	2,4-Dimethylphenol				240									350	400	
17	Benzoic Acid															
18	bis-(2-Chloroethoxy)methane															
19	2,4-Dichlorophenol					11								30 J		
20	1,2,4-Trichlorobenzene					280								270	200	
21	Naphthalene				36 J									160	100	
22	4-Chloroaniline	78			15000 E	110				30	60			780		
23	Hexachlorobutadiene															
24	4-Chloro-3-methylphenol															
25	2-Methylnaphthalene													6 J		
26	Hexachlorocyclopentadiene															
27	2,4,6-Trichlorophenol					3 J										
28	2,4,5-Trichlorophenol															
29	2-Chloronaphthalene															
30	2-Nitroaniline															

Ground Water Semivolatiles

SITE	BLANK	SITE L	SITE G	SITE G	SITE G	BLANK	SITE I	SITE I	SITE I	SITE I	SITE I	SITE I	SITE I	BLANK	SITE I	SITE G
SAMPLE NUMBER	DC-GW-17*	DC-GW-18	DC-GW-19	DC-GW-20*	DC-GW-21	DC-GW-22*	DC-GW-23	DC-GW-24	DC-GW-25	DC-GW-26	DC-GW-27	DC-GW-28	DC-GW-29 *	DC-GW-30*	DC-GW-31	DC-GW-32
WELL NUMBER		EE-G108	EE-G107	EE-G107	EE-05		EE-13	EE-12	EE-G112	EE-14	EE-15	EE-16	EE-12		EE-[illegible]	EE-11
DATE SAMPLED	3-17-87	3-18-87	3-18-87	3-18-87	3-18-87	3-18-87	3-23-87	3-23-87	3-23-87	3-23-87	3-23-87	3-23-87	3-23-87	3-23-87	3-23-87	3-24-87
1 Dimethyl Phthalate																98
2 Acenaphtylene																
3 3-Nitroaniline																
4 Acenaphthene																
5 2,4-Dinitrophenol																
6 4-Nitrophenol																
7 Dibenzofuran																
8 2,4-Dinitrotoluene																
9 2,6-Dinitrotoluene																
10 Diethylphthalate									23 B		13 B	140 B		13 B	8 BJ	
11 4-Chlorophenyl-Phenylether																
12 Fluorene												25 J				
13 4-Nitroaniline																
14 4,6-Dinitro-2-methylphenol																
15 N-Nitrosodiphenylamine																
16 4-Bromophenyl-phenylether																
17 Hexachlorobenzene					6 J											
18 Pentachlorophenol			1300 J	6300	12 J				6 J	2400	7 J	60 J				
19 Phenanthrene																
20 Anthracene											2 JB					
21 Di-n-butyl phthalate		9 BJ			10 B		2 JB	7 BJ	2 JB					2 JB	4 BJ	
22 Fluoranthene																
23 Pyrene																
24 Butyl Benzyl phthalate																
25 3,3'-Dichlorobenzidine																
26 Benzo(a)Anthracene																
27 bis(2-ethylhexyl) phthalate		18 B			10 B	4 BJ	2 JB	5 BJ	3 JB		2	20 BJ		2 JB	3 BJ	
28 Chrysene																
29 Di-n-octyl phthalate														1 J		
30 Benzo(b)Fluoranthene																
31 Benzo(k)Fluoranthene																
32 Benzo(a)Pyrene																
33 Indeno(1,2,3-cd)Pyrene																
34 Benzo(g,h,i)Perylene																
35 Dibenz(a,h)Anthracene																

Ground Water Semivolatiles

SITE	SITE G	SITE G	SITE G	BLANK	SITE M	SITE L	SITE O	SITE O	SITE O	SITE O	SITE O	SITE O	SITE O	SITE O	SITE O	SITE O
SAMPLE NUMBER	DC-GW-33	DC-GW-34	DC-GW-34A	DC-GW-35 +	DC-GW-36	DC-GW-37	DC-GW-38	DC-GW-38A	DC-GW-39	DC-GW-39A	DC-GW-40	DC-GW-40A	DC-GW-41	DC-GW-41A	DC-GW-42 *	DC-GW-43
WELL NUMBER	EE-G106	EE-G102	EE-G102		EE-G110	EE-G109	EE-21	EE-21	EE-22	EE-22	EE-23	EE-23	EE-24	FE-24	EE-24	EE-25
DATE SAMPLED	3-24-87	3-24-87	7-14-87	3-24-87	3-24-87	3-24-87	3-24-87	7-14-87	3-24-87	7-14-87	3-24-87	7-14-87	3-24-87	7-14-87	3-24-87	3-24-87
1 Dimethyl Phthalate																
2 Acenaphtylene																
3 3-Nitroaniline																
4 Acenaphthene																
5 2,4-Dinitrophenol																
6 4-Nitrophenol																
7 Dibenzofuran																
8 2,4-Dinitrotoluene																
9 2,6-Dinitrotoluene																
10 Diethylphthalate																
11 4-Chlorophenyl-Phenylether																
12 Fluorene																
13 4-Nitroaniline																
14 4,6-Dinitro-2-methylphenol																
15 N-Nitrosodiphenylamine																
16 4-Bromophenyl-phenylether																
17 Hexachlorobenzene																
18 Pentachlorophenol									23 J							
19 Phenanthrene																
20 Anthracene																
21 Di-n-butyl phthalate	12 B			6 BJ		6 BJ							10 B	7 J	10 B	
22 Fluoranthene																
23 Pyrene																
24 Butyl Benzyl phthalate																
25 3,3'-Dichlorobenzidine																
26 Benzo(a)Anthracene																
27 bis(2-ethylhexyl) phthalate	4 BJ			2 BJ									3 BJ			
28 Chrysene																
29 Di-n-octyl phthalate	2 BJ			3 BJ									2 BJ		11 B	
30 Benzo(b)Fluoranthene																
31 Benzo(k)Fluoranthene																
32 Benzo(a)Pyrene																
33 Indeno(1,2,3-cd)Pyrene																
34 Benzo(g,h,i)Perylene																
35 Dibenz(a,h)Anthracene																

Ground Water Semivolatiles

	SITE	SITE Q	SITE Q	SITE Q	SITE Q	SITE Q	SITE Q	SITE Q	SITE Q	SITE Q	SITE H	SITE H	SITE H	SITE H	SITE G	SITE G	SITE G
	SAMPLE NUMBER	DC-GW-01	DC-GW-02	DC-GW-03	DC-GW-04	DC-GW-05	DC-GW-06	DC-GW-07	DC-GW-08	DC-GW-09	DC-GW-10	DC-GW-11	DC-GW-12	DC-GW-13	DC-GW-14	DC-GW-15	DC-GW-16
	WELL NUMBER	EE-06	EE-07	EE-09	EE-10	EE-17	EE-08	EE-19	EE-19	EE-18	EE-01	EE-02	EE-03	EE-04	EE-G101	EE-G103	EE-G104
	DATE SAMPLED	3-16-87	3-16-87	3-16-87	3-16-87	3-16-87	3-16-87	3-16-87	3-16-87	3-16-87	3-17-87	3-17-87	3-17-87	3-17-87	3-17-87	3-17-87	3-17-87
1	Diaethyl Phthalate											8 J					
2	Acenaphtylene																
3	3-Nitroaniline							3900		460 J							
4	Acenaphthene																
5	2,4-Dinitrophenol																
6	4-Nitrophenol									80 J							
7	Dibenzofuran										6 J						
8	2,4-Dinitrotoluene																
9	2,6-Dinitrotoluene																
10	Diethylphthalate											22 J					
11	4-Chloropheayl-Phenylether										20 J						
12	Fluorene																
13	4-Nitroaniline																
14	4,6-Dinitro-2-methylphenol																
15	N-Nitrosodiphenylamine										800						
16	4-Bromophenyl-phenylether																
17	Hexachlorobenzene																
18	Pentachlorophenol							24000 E	35000 E	310	650						
19	Phenanthrene										15 J						
20	Anthracene																
21	Di-n-butyl phthalate	12 BJ	8 BJ	5 BJ	8 BJ	5 BJ	5 BJ									2 BJ	
22	Fluoranthene																
23	Pyrene																
24	Butyl Benzyl phthalate																
25	3,3'-Dichlorobenzidine																
26	Benzo(a)Anthracene														32		
27	bis(2-ethylhexyl) phthalate	95	160	32		26						24 J					24
28	Chrysene														6 J		
29	Di-n-octyl phthalate		7 J	4 J			2 J										
30	Benzo(b)Fluoranthene																
31	Benzo(k)Fluoranthene																
32	Benzo(a)Pyrene																
33	Indeno(1,2,3-cd)Pyrene																
34	Benzo(g,h,i)Perylene																
35	Dibenz(a,h)Anthracene																

Ground Water Pest/PCBs

SITE	SITE Q	SITE Q	SITE Q	SITE Q	SITE Q	SITE Q	SITE Q	SITE Q	SITE Q	SITE H	SITE H	SITE H	SITE H	SITE G	SITE G
SAMPLE NUMBER	DC-GW-01	DC-GW-02	DC-GW-03	DC-GW-04	DC-GW-05	DC-GW-06	DC-GW-07	DC-GW-08 &	DC-GW-09	DC-GW-10	DC-GW-11	DC-GW-12	DC-GW-13	DC-GW-14	DC-GW-15
WELL NUMBER	EE-06	EE-07	EE-09	EE-10	EE-17	EE-08	EE-19	EE-19	EE-18	EE-01	EE-02	EE-03	EE-04	EE-G191	EE-G193
DATE SAMPLED	3-16-87	3-16-87	3-16-87	3-16-87	3-16-87	3-16-87	3-16-87	3-16-87	3-16-87	3-17-87	3-17-87	3-17-87	3-17-87	3-17-87	3-17-87
1 Alpha-BHC															
2 Beta-BHC															
3 Delta-BHC															
4 Gamma-BHC (Lindane)															
5 Heptachlor															
6 Aldrin															
7 Heptachlor Epoxide															
8 Edosulfan I															
9 Dieldrin															
10 4,4'-DDE															
11 Endrin															
12 Edosulfan II															
13 4,4'-DDD															
14 Endosulfan Sulfate															
15 4,4'-DDT															
16 Methoxychlor															
17 Endrin ketone															
18 Chlordane															
19 Toxaphene															
20 AROCLOR-1016															
21 AROCLOR-1221															
22 AROCLOR-1232															
23 AROCLOR-1242															
24 AROCLOR-1248															
25 AROCLOR-1254															
26 AROCLOR-1260															

Surface Soil Inorganic

	SITE	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G
	SAMPLE NUMBER	DC-SS-01	DC-SS-02	DC-SS-03	DC-SS-04	DC-SS-05	DC-SS-06	DC-SS-07	DC-SS-08	DC-SS-09	DC-SS-10	DC-SS-11	DC-SS-12	DC-SS-13	DC-SS-14
	LOCATION/GRID	C-1	G-1	D-2	E-2	H-2	H-2	I-2	I-2	A-3	B-3	C-3	D-3	E-3	F-3
	DATE SAMPLED	11-10-86	11-10-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86
1	Aluminum	11400	10900	7820	9670	15300	16500	7610	5950	9290	7800	2790	23300	4700	4710
2	Antimony														
3	Arsenic	6.8 R	4.9 R	5.7 R	5.8 R	5.8	5.7 R	7.5	5.6 R	13 R	5.4 R	5.6 R	26 R	12 R	8 R
4	Barium	163	174	151	145	222	224	202	138	13800	575	20700	7340	169000	67300
5	Beryllium														
6	Boron														
7	Cadmium	2.6	3.4	1.8	1.7	6.3	4.8	10	3.3	10	4.4	4.5	8.1	6	4
8	Chromium, trivalent	16	15	12	14	21	22	19	11	119	52	39	46	24	52
9	Cobalt	6.2	7.8	6.4	6.4	8	9.3	6	5.6	15	8.5	12	13	89	27
10	Copper	377	344	162	245	392	372	2220	675	1200	260	487	1430	624	983
11	Iron	19000	20300	15700	17400	25900	27600	20300	13800	38600	18000	29800	45000	22200	22400
12	Lead	103 E	134 E	68 E	99 E	232 E	230 E	514 E	131 E	655 E	334*E	614 E	711 E	310 E	2950 E
13	Manganese	336	295	300	329	339	390	291	217	322	171	96	150	129	191
14	Mercury	0.16	0.23			0.11	0	0		6.6	1.3	1.7	14	2	7.4
15	Nickel	22	25	18	22	35	33	24	16	360	84	61	382	62	48
16	Selenium														
17	Silver									4.2	5				
18	Thallium														
19	Tin														
20	Vanadium	25	26	20	23	35	38	22	16	139	31	75	129	29	46
21	Zinc	299	406	188	281	619	613	975	354	4580	5130	794	23900	8110	1840
22	Cyanide											4.8	3.3	2	2.8

Surface Soil Inorganic

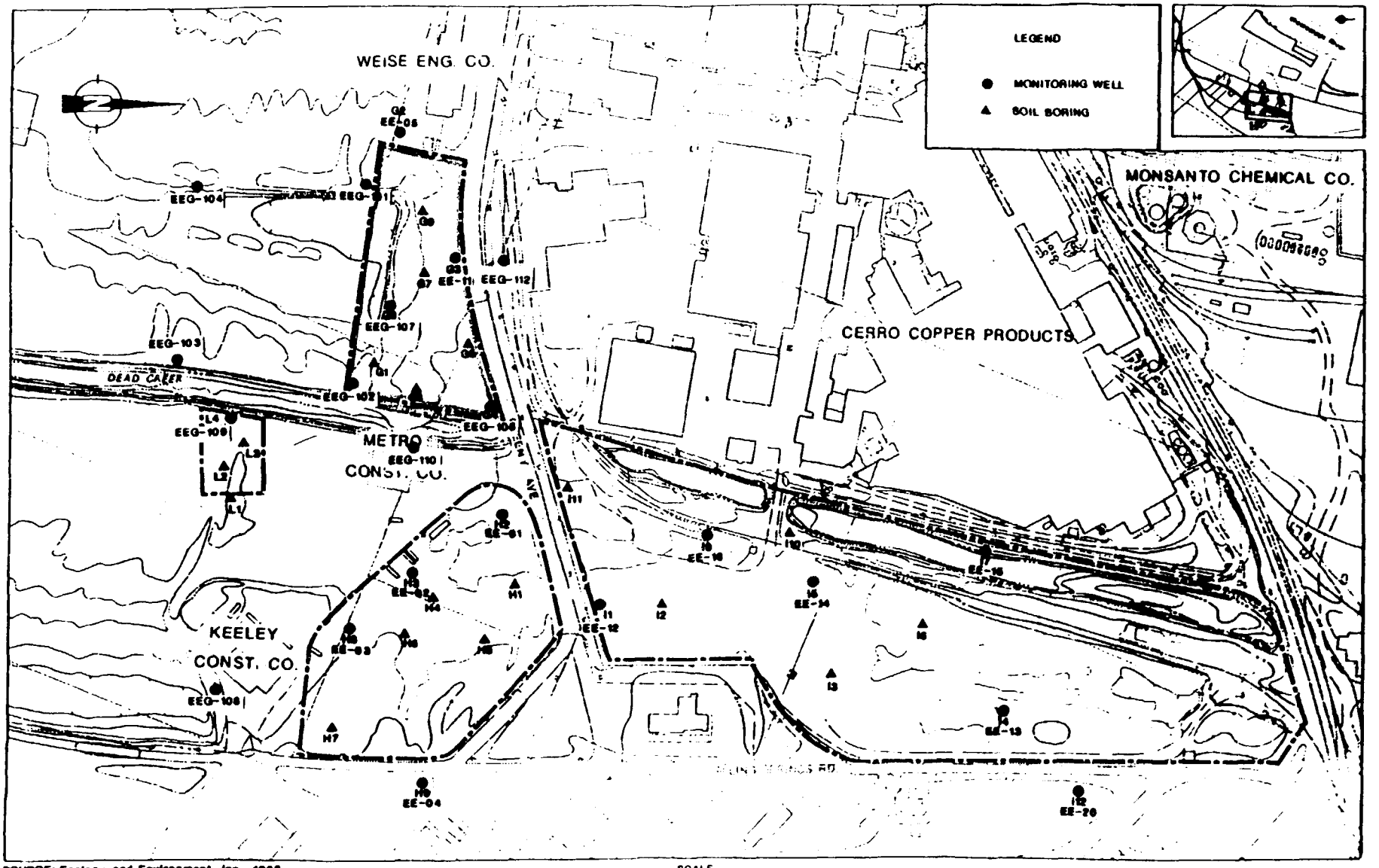
SITE	SITE 8	SITE 8	SITE 8	SITE 8	SITE 8	SITE 8	SITE 8	SITE 8	SITE 8	SITE 8	SITE 8	SITE 8	SITE 8	SITE 8
SAMPLE NUMBER	DC-SS-15	DC-SS-16 #	DC-SS-17	DC-SS-18	DC-SS-19	DC-SS-20	DC-SS-21	DC-SS-22	DC-SS-23	DC-SS-24	DC-SS-25 #	DC-SS-26	DC-SS-27	DC-SS-28
LOCATION/GRID	G-3	G-3	H-3	A-4	B-4	C-4	D-4	E-4	F-4	G-4	G-4	H-4	I-4	J-4
DATE SAMPLED	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86	11-11-86
1 Aluminum	6960	6170	8890	4860	4790	9410	6960	4990	9620	4470	5720	16300	3040	14900
2 Antimony	14	21												
3 Arsenic	36 R	38 R	33 R	64 R	57 R	40 R	14 R	23 R	22 R	39 #	24 #	11 #	10 #	11 #
4 Barium	1150	869	1860	13900	1810	4700	10600	19300	4340	6320	2220	3190	1460	1000
5 Beryllium														1.4
6 Boron														
7 Cadmium	46	45	17	7.2	10	11	5	8.7	20	17 R#	20 R#	21 R#	27 R#	5.2 R#
8 Chromium, trivalent	147	98	66	137	47	34	44	81	48	41 R#	50 R#	137 R#	22 R#	92 R#
9 Cobalt	11	11	7.3	15	3.8	6.7	12	18	59		[5.0]	[6.3]	[5.2]	[3.9]
10 Copper	2170	1620	914	246	637	659	444	684	1950	1480	1900	1020	640	4080
11 Iron	75800	108000	46000	46800	48600	25800	33600	15900	39900	26800 #	29200 #	33900 #	28700 #	35600 #
12 Lead	1240 #	1610 #	1470 #	207 #	263 #	1470 #	482 #	296 #	11700 #	418 #	437 #	500 #	440 #	873 #
13 Manganese	770	874	534	193	223	196	116	278	10800	184 R#	204 R#	326 R#	259 R#	247 R#
14 Mercury	3.2	5.8	6.6	0.57	12	2.3	3	2.7	11	1.02	1.13	1.6	26	3
15 Nickel	122	109	87	95	84	39	52	33	50	105 #	135 #	60 #	34 #	86 #
16 Selenium					3									
17 Silver	6.4	5.4	6.1			3.3			33	3.7 R#	3.4 R#	3.5 R#		
18 Thallium					21									
19 Tin	34	34			163						16			43
20 Vanadium	133	140	211	25	19400	20	69	41	166	64	75	108	59	75
21 Zinc	22000	15600	5100	32100	3.9	46700	814	7100	24200	32200	41400	4660	4520	3200
22 Cyanide	1.6						4.4	3.2	2.7	1.3	1.7			2.5

Surface Soil Inorganic

	SITE	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G	SITE G
	SAMPLE NUMBER	DC-SS-29	DC-SS-30	DC-SS-31	DC-SS-32	DC-SS-33	DC-SS-34	DC-SS-35	DC-SS-36	DC-SS-37	DC-SS-38	DC-SS-39	DC-SS-40	DC-SS-41	DC-SS-42	DC-SS-43
	LOCATION/GRID	A-5	B-5	B-5	C-5	D-5	E-5	F-5	G-5	H-5	A-6	B-6	C-6	D-6	F-6	D-7
	DATE SAMPLED	11-11-86	11-11-86	11-11-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86	11-12-86
1	Aluminum	19500	2890	4790	12700	14300	5720	2030	6370	4560	2630	4890	7640	10300	5540	8960
2	Antimony					19						16	18			
3	Arsenic	10 B	84 B	74 B	8.6 B	16 B	25 B	16 B	4.6 B	5.2 B	4.1 B	17 B	18 B	42 B	12 B	8 B
4	Barium	3760	1830	1290	1390	1340	9200	533	1750	3870	18300	4400	1940	5210	1960	360
5	Beryllium															
6	Boron															
7	Cadmium	8 RB	11 RB	8.7 RB	8.1 RB	5.2 RB	6.5 RB	5.3 RB	15 RB	26 RB	2 RB	9.7 RB	26 RB	8.1 RB	13 RB	14 RB
8	Chromium, trivalent	12 RB	20 RB	29 RB	21 RB	14 RB	24 RB	20 RB	49 RB	45 RB	19 RB	26 RB	106 RB	20 RB	21 RB	66 RB
9	Cobalt	[18]	[3.3]		[4.0]		[12]	[2.4]	[9.7]	[5.9]	[20]	[6.3]	[16]	[4.6]	[10]	[4.4]
10	Copper	489	852	624	1420	596	435	317	5300	2260	327	1090	1660	1510	1090	793
11	Iron	12500 RB	34000 B	82900 B	17500	12400 B	16400 B	23400 B	20400 B	53900 B	9780 B	22000 B	75100 B	15300 B	26500 B	17700 B
12	Lead	279 RB	304 B	232 B	1270 B	417 B	318 B	205 B	689 B	724 B	105 B	725 B	10400 B	516 B	411 B	326 B
13	Manganese	75 RB	238 RB	408 RB	191 RB	43 RB	119 RB	102 RB	243 RB	746 RB	50 RB	193 RB	457 RB	77 RB	331 RB	139 RB
14	Mercury	0.66	23	18	0.91	0.9	2	2.2	5	3	0.49	2.9	2.2	1.2	3	3.4
15	Nickel	111 B	52 B	35 B	29 B		21 B	15 B	95 B	53 B	35 B	159 B	70 B	30 B	145 B	27 B
16	Selenium								1.9	4.1		1.8	1.3			
17	Silver		3.6 RB		5.4 RB	4.1 RB			8.9 RB	8 RB		6.9 RB	19 RB	3.9 RB	3 RB	3 RB
18	Thallium															
19	Tin		17	14					14	18	16	17	22			
20	Vanadium	11	284	632	38	16	112	39	132	118	23	120	33	17	556	16
21	Zinc	3000	67800	20600	1890	44400	12000	21700	4900	4720	239	1660	6350	39000	2360	1500
22	Cyanide						2	22		2.3	1.4		13	1.8	1	

Surface Soil Inorganic

	SITE	BLANK	BLANK	SITE J	SITE J	SITE J
	SAMPLE NUMBER	DC-SS-44+	DC-SS-45+	DC-SS-46	DC-SS-47	DC-SS-48!
	LOCATION/GRID			SE	NE	NE
	DATE SAMPLED	11-13-86	11-11-86	11-13-86	11-13-86	11-13-86
1	Aluminum	7520	9260	4810	630	631
2	Antimony					
3	Arsenic		7 R	5.3 B	9.1 B	6.4 B
4	Barium	441	326	346	25	24
5	Beryllium					
6	Boron					
7	Cadmium	1.5 RB	1.4	2.3 RB	13 RB	9.9 RB
8	Chromium, trivalent	11 RB	13	123 RB	690 RB	500 RB
9	Cobalt	(4.1)	4.9		(19)	(13)
10	Copper	33	31	135	614	(615)
11	Iron	13400 B	16200	52500 B	243000 B	201000
12	Lead	60 B	68 B	34 B	23 B	30 B
13	Manganese	336 RB	381	627 RB	2180 RB	1430 RB
14	Mercury			0.41		
15	Nickel	15 B	16	59 B	350 B	377 B
16	Selenium					
17	Silver					
18	Thallium					
19	Tin					
20	Vanadium	19	22			
21	Zinc	170	162	65	46	34
22	Cyanide					



SOURCE: Ecology and Environment, Inc., 1988.

SCALE 0 200 400 600 800 1000 FEET

FIGURE 3-7 MONITORING WELL AND BORING LOCATIONS AT AREA 1

Ground Water Volatiles

SITE	SITE Q	SITE Q	SITE Q	SITE Q	SITE Q	SITE Q	SITE Q	SITE Q	SITE Q	SITE H	SITE H	SITE H	SITE H	SITE G	SITE G
SAMPLE NUMBER	DC-GW-01	DC-GW-02	DC-GW-03	DC-GW-04	DC-GW-05	DC-GW-06	DC-GW-07	DC-GW-08	DC-GW-09	DC-GW-10	DC-GW-11	DC-GW-12	DC-GW-13	DC-GW-14	DC-GW-15
WELL NUMBER	EE-06	EE-07	EE-09	EE-10	EE-17	EE-08	EE-19	EE-19	EE-18	EE-01	EE-02	EE-03	EE-04	EE-G101	EE G102
DATE SAMPLED	3-16-87	3-16-87	3-16-87	3-16-87	3-16-87	3-16-87	3-16-87	3-16-87	3-16-87	3-17-87	3-17-87	3-17-87	3-17-87	3-17-87	3-17-87
1 Chloromethane															
2 Bromomethane															
3 Vinyl Chloride															
4 Chloroethane															
5 Methylene Chloride							23 J	61 J	2200 BJ		140 J	18 J	68	6 B	1 BJ
6 Acetone	15	9 BJ	10 B	14 B	12 B	13 B	400 B	210 B	7100 B	170 BJ	910 BJ	8 J	9 BJ		
7 Carbon Disulfide															
8 1,1-Dichloroethene															
9 1,1-Dichloroethane															
10 trans-1,2-Dichloroethene		1 J			4 J										
11 Chloroform					1 J						3000			2 J	9
12 1-2-Dichloroethane									3000						
13 2-Butanone (MEK)															
14 1,1,1-Trichloroethane															
15 Carbon Tetrachloride															
16 Vinyl Acetate															
17 Bromodichloromethane															1 J
18 1,2-Dichloropropane															
19 trans-1,3-Dichloropropene															
20 Trichloroethene					2 J										
21 Dibromochloromethane															
22 1,1,2-Trichloroethane															
23 Benzene	9	24	1 J	14	1 J	1 J	2000	2000	2000 J	1900	4300	2 J		1 J	
24 cis-1,3-Dichloropropene															
25 2-Chloroethyl Vinyl Ether															
26 Bromoform															
27 4-Methyl-2-pentanone							250	290	2700 J	140 J	3600				
28 2-Hexanone		5 J							3500 J						
29 Tetrachloroethene															
30 1,1,2,2-Tetrachloroethane															
31 Toluene		4 J					450	410	1600 J	48 J	7300			2 J	
32 Chlorobenzene	14	1 J	33	380 E	29	7	1500	1400	6700 J	1600	11000	11			5
33 Ethylbenzene		1 J					33 J	28 J		210		1 J			
34 Styrene															
35 Total Xylenes	2	230					180	160		64 J	120 J				

Ground Water Volatiles

SITE	SITE G	BLANK	SITE L	SITE G	SITE G	SITE G	BLANK	SITE I	SITE I	SITE I	SITE I	SITE I	SITE I	SITE I	BLANK
SAMPLE NUMBER	DC-GW-16	DC-GW-17 +	DC-GW-18	DC-GW-19	DC-GW-20 *	DC-GW-21	DC-GW-22 +	DC-GW-23	DC-GW-24	DC-GW-25	DC-GW-26	DC-GW-27	DC-GW-28	DC-GW-29 *	DC-GW-30 +
WELL NUMBER	EE-G104		EE-G108	EE-G107	EE-G107	EE-05		EE-13	EE-12	EE-G112	EE-14	EE-15	EE-16	EE-12	
DATE SAMPLED	3-17-87	3-17-87	3-18-87	3-18-87	3-18-87	3-18-87	3-18-87	3-23-87	3-23-87	3-23-87	3-23-87	3-23-87	3-23-87	3-23-87	3-23-87
1 Chloroethane															
2 Bromoethane															
3 Vinyl Chloride										5 J		76	790	6 J	
4 Chloroethane															
5 Methylene Chloride	5 B	1 BJ		110 BJ	250 B		2 BJ				56 J	2 J			2 J
6 Acetone	5 BJ	14 B		620 B	590 B		4 BJ	29 B	40 B	17 B	180 J	10 B	190 B	16 B	23 B
7 Carbon Disulfide															
8 1,1-Dichloroethene												10			
9 1,1-Dichloroethane												120			
10 trans-1,2-Dichloroethene				180 J	200 J						150	310	640		
11 Chloroform	3 J	1 J					1 J				110 J				
12 1-2-Dichloroethane				480	450										
13 2-Butanone (MEK)															
14 1,1,1-Trichloroethane															
15 Carbon Tetrachloride															
16 Vinyl Acetate															
17 Bromodichloromethane															
18 1,2-Dichloropropane															
19 trans-1,3-Dichloropropene															
20 Trichloroethene				320	300						270	4 J			
21 Dibromochloromethane															
22 1,1,2-Trichloroethane															
23 Benzene	1 J		1 J	4100	3700	2 J	3 J		50	28	1400	5	550	75	
24 cis-1,3-Dichloropropene															
25 2-Chloroethyl Vinyl Ether															
26 Bromoform															
27 4-Methyl-2-pentanone				1900	2200						230 J				
28 2-Hexanone							4 J								
29 Tetrachloroethene				420	350	14					470				
30 1,1,2,2-Tetrachloroethane															
31 Toluene	3 J			7300	6300	2 J	4 J				240		740	1 J	
32 Chlorobenzene	5	1 J	1 J	3100	3100	1 J	2 J		270	33	3100	120	550	390	
33 Ethylbenzene				63 J						1 J	190		58	2 J	
34 Styrene				50 J											
35 Total Xylenes				280	240 J						61 J		58		

Ground Water Pest/PCBs

SITE	SITE B	BLANK	SITE L	SITE G	SITE G	SITE G	BLANK	SITE I	SITE I	SITE I	SITE I	SITE I	SITE I	SITE I	BLANK
SAMPLE NUMBER	DC-GW-16	DC-GW-17+	DC-GW-18	DC-GW-19	DC-GW-20 *	DC-GW-21	DC-GW-22 +	DC-GW-23	DC-GW-24	DC-GW-25	DC-GW-26	DC-GW-27	DC-GW-28	DC-GW-29 *	DC-GW-30 +
WELL NUMBER	EE-G104		EE-G108	EE-G107	EE-G107	EE-05		EE-13	EE-12	EE-G112	EE-14	EE-15	EE-16	EE-12	
DATE SAMPLED	3-17-87	3-17-87	3-18-87	3-18-87	3-18-87	3-18-87	3-18-87	3-23-87	3-23-87	3-23-87	3-23-87	3-23-87	3-23-87	3-23-87	3-23-87
1 Alpha-BHC															
2 Beta-BHC															
3 Delta-BHC															
4 Gamma-BHC (Lindane)															
5 Heptachlor															
6 Aldrin															
7 Heptachlor Epoxide															
8 Edosulfan I															
9 Dieldrin															
10 4,4'-DDE															
11 Endrin															
12 Edosulfan II															
13 4,4'-DDD															
14 Endosulfan Sulfate															
15 4,4'-DDT															
16 Methoxychlor															
17 Endrin Ketone															
18 Chlordane															
19 Toxaphene															
20 AROCLOR-1016															
21 AROCLOR-1221															
22 AROCLOR-1232															
23 AROCLOR-1242															
24 AROCLOR-1248															
25 AROCLOR-1254															
26 AROCLOR-1260				890	650										

Ground Water Pest/PCBs

SITE	SITE I	SITE G	SITE G	SITE G	SITE G	BLANK	SITE H	SITE L	SITE O	SITE O	SITE O	SITE O	SITE O	SITE O	SITE O
SAMPLE NUMBER	DC-GW-31	DC-GW-32	DC-GW-33	DC-GW-34	DC-GW-34A	DC-GW-35 +	DC-GW-36	DC-GW-37	DC-GW-38	DC-GW-38A	DC-GW-39	DC-GW-39A	DC-GW-40	DC-GW-40A	DC-GW-41
WELL NUMBER	EE-20	EE-11	EE-G106	EE-G102	EE-G102		EE-G110	EE-G109	EE-21	EE-21	EE-22	EE-22	EE-23	EE-23	EE-24
DATE SAMPLED	3-23-87	3-24-87	3-24-87	3-24-87	7-14-87	3-24-87	3-24-87	3-24-87	3-24-87	7-14-87	3-24-87	7-14-87	3-24-87	7-14-87	3-24-87
1 Alpha-BHC			70 C												
2 Beta-BHC															
3 Delta-BHC															
4 Gamma-BHC (Lindane)															
5 Heptachlor															
6 Aldrin															
7 Heptachlor Epoxide															
8 Edosulfan I															
9 Dieldrin															
10 4,4'-DDE															
11 Endrin															
12 Edosulfan II															
13 4,4'-DDD															
14 Endosulfan Sulfate															
15 4,4'-DDT															
16 Methoxychlor															
17 Endrin Ketone															
18 Chlordane															
19 Toxaphene															
20 AROCLOR-1016															
21 AROCLOR-1221															
22 AROCLOR-1232															
23 AROCLOR-1242															
24 AROCLOR-1248															
25 AROCLOR-1254															
26 AROCLOR-1260															

Ground Water Inorganics

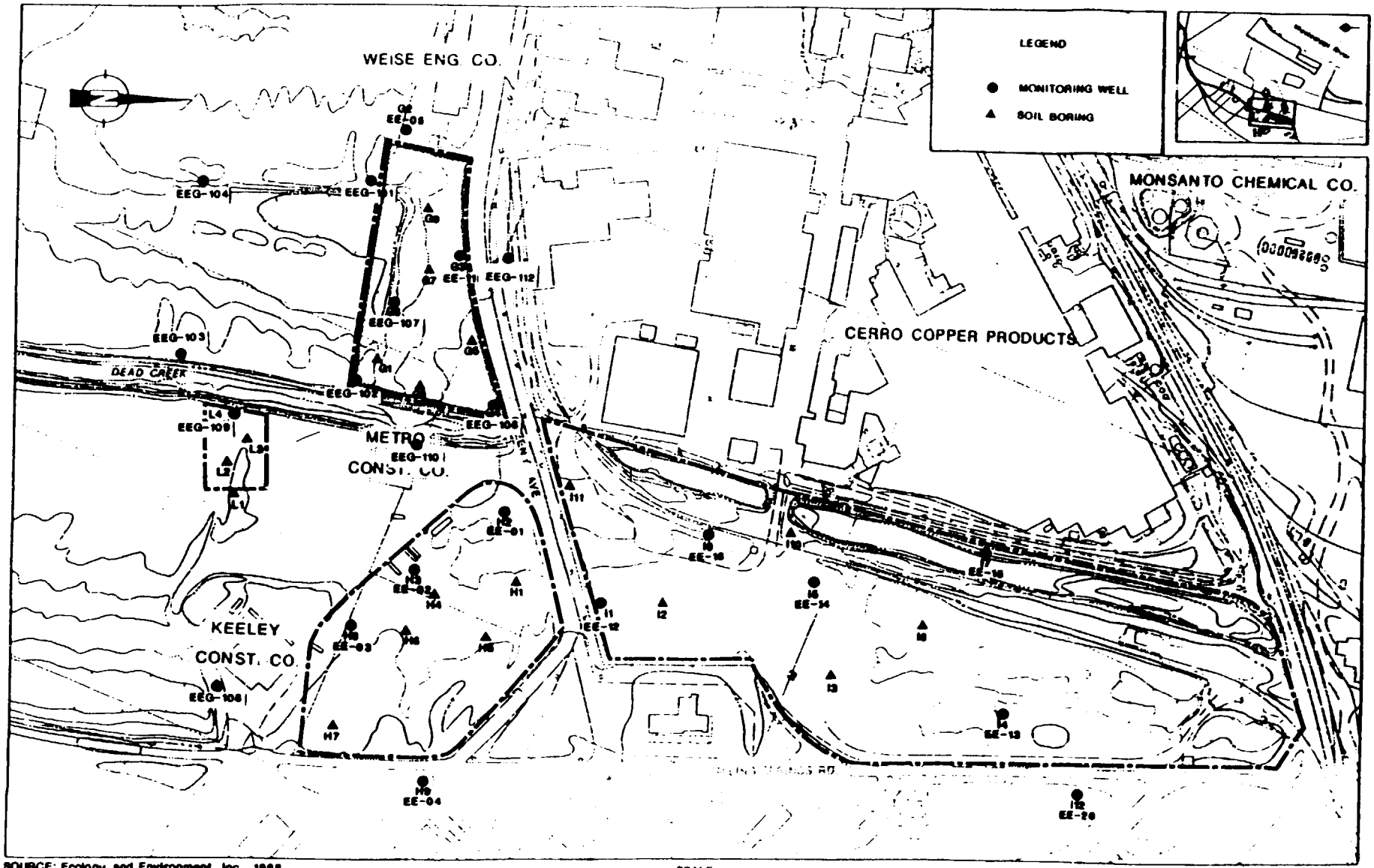
SITE	SITE D	SITE D	SITE D	SITE D	SITE D	SITE D	SITE D	SITE D	SITE D	SITE H	SITE H	SITE H	SITE H	SITE G	SITE G
SAMPLE NUMBER	DC-GW-01	DC-GW-02	DC-GW-03	DC-GW-04	DC-GW-05	DC-GW-06	DC-GW-07	DC-GW-08	DC-GW-09	DC-GW-10	DC-GW-11	DC-GW-12	DC-GW-13	DC-GW-14	DC-GW-15
WELL NUMBER	EE-06	EE-07	EE-09	EE-10	EE-17	EE-08	EE-19	EE-19	EE-18	EE-01	EE-02	EE-03	EE-04	EE-G101	EE-G103
DATE SAMPLED	3-16-87	3-16-87	3-16-87	3-16-87	3-16-87	3-16-87	3-16-87	3-16-87	3-16-87	3-17-87	3-17-87	3-17-87	3-17-87	3-17-87	3-17-87
1 Aluminum											11800				
2 Antimony															63 R
3 Arsenic	64	82	18	100			11	11	15		8490	26			
4 Barium	384	482		358		336								219	
5 Beryllium															
6 Boron															
7 Cadmium											70 R				
8 Chromium, trivalent									13		24				
9 Cobalt									148		758				
10 Copper											2410				
11 Iron	8960	54000	15800	20000	571	11300	36700	36500	41200	29600	104000	34900		1280	1150
12 Lead											28 R				
13 Manganese	1320	1600	522	1090	1640	13200	2660	2600	6630	907	8020	1030	1800	2230	242
14 Mercury														1.4	2.1
15 Nickel	64	74							112	261	17200				
16 Selenium															
17 Silver															
18 Thallium															
19 Tin															
20 Vanadium															
21 Zinc	25	326	26	22	313	48	172	171	4.31	57	6840	25	24	31	42
22 Cyanide	1560									460	21			157	101

Ground Water Inorganics

SITE	SITE G	BLANK	SITE L	SITE G	SITE G	SITE G	BLANK	SITE I	SITE I	SITE I	SITE I	SITE I	SITE I	SITE I	BLANK
SAMPLE NUMBER	DC-GW-16	DC-GW-17 +	DC-GW-18	DC-GW-19	DC-GW-20 *	DC-GW-21	DC-GW-22 +	DC-GW-23	DC-GW-24	DC-GW-25	DC-GW-26	DC-GW-27	DC-GW-28	DC-GW-29 *	DC-GW-30 +
WELL NUMBER	EE-G104		EE-G108	EE-G107	EE-G107	EE-05		EE-13	EE-12	EE-G112	EE-14	EE-15	EE-16	EE-12	
DATE SAMPLED	3-17-87	3-17-87	3-18-87	3-18-87	3-18-87	3-18-87	3-18-87	3-23-87	3-23-87	3-23-87	3-23-87	3-23-87	3-23-87	3-23-87	3-23-87
1 Aluminum															
2 Antimony															
3 Arsenic				14	12			12		20	15	12			
4 Barium			331	610	580					223			956		
5 Beryllium															
6 Boron															
7 Cadmium				22 R	22 R										
8 Chromium, trivalent				24	23										
9 Cobalt				588	572										
10 Copper															
11 Iron	1110		21900	247000	241000			25400	23300	10800	24100	10500	9540	24900	107
12 Lead															
13 Manganese	103		1200	7240	6850	286		1520	1550	1650	1260	1270	1750	1580	
14 Mercury															
15 Nickel				349	328						95				
16 Selenium															
17 Silver															
18 Thallium															
19 Tin															
20 Vanadium				93	94										
21 Zinc	24		24	1910	1820	26					25	26			
22 Cyanide						330									

INORGANICS GROUND-WATER

SITE	SITE I	SITE G	SITE G	SITE G	SITE G	BLANK	SITE H	SITE L	SITE O	SITE O	SITE O	SITE O	SITE O	SITE O	SITE O	SITE O
SAMPLE NUMBER	DC-GW-31	DC-GW-32	DC-GW-33	DC-GW-34	DC-GW-34A	DC-GW-35 +	DC-GW-36	DC-GW-37	DC-GW-38	DC-GW-38A	DC-GW-39	DC-GW-39A	DC-GW-40	DC-GW-40A	DC-GW-41	DC-GW-41A
WELL NUMBER	EE-20	EE-11	EE-G106	EE-G102	EE-G102		EE-110	EE-G109	EE-21	EE-21	EE-22	EE-22	EE-23	EE-23	EE-24	EE-24
DATE SAMPLED	3-23-87	3-24-87	3-24-87	3-24-87	7-14-87	3-24-87	3-24-87	3-24-87	3-24-87	7-14-87	3-24-87	7-14-87	3-24-87	7-14-87	3-24-87	7-14-87
1 Aluminum		85								200						
2 Antimony																
3 Arsenic		178	34	27				14000	16		133	123	23	17	18	13
4 Barium			192	48	[51]		173		159	[35]	536	500	[161]	[152]	[170]	204
5 Beryllium																
6 Boron																
7 Cadmium								32			8	11				
8 Chromium, trivalent			41													
9 Cobalt					[10]			84								
10 Copper																
11 Iron	124	43800	49500	3850	2860	111	2160	523000	20400	15900	147000	171000	19600	16800	36400	29200
12 Lead										3270		6350				
13 Manganese		2290	3940	1460	1510		274	7660	4340		5460		1270	1330	4110	1520
14 Mercury																
15 Nickel			37	72			111									
16 Selenium																
17 Silver																
18 Thallium																
19 Tin																
20 Vanadium								159			42	55			504	
21 Zinc		129	58	14	31	10	53	2210	41	57	101	40	95	[15]	23	24
22 Cyanide		26							20							



SOURCE: Ecology and Environment, Inc., 1988.

SCALE 0 200 400 600 800 1000 FEET

FIGURE 3-7 MONITORING WELL AND BORING LOCATIONS AT AREA 1

Table 3-4

SOIL BORING AND MONITORING WELL DEPTHS

Boring/Well Number	Date of Completion	Boring Depth (ft)	Well Depth (ft)	Elevation of Screen Bottom (MSL)	Elevation at TOIC* (MSL)
Site G					
G1	01/12/87	20	NA	NA	NA
G2/EE-05	01/14/87	25	23	386.06	411.36
G3/EE-11	01/26/87	25	23	384.45	409.02
G4/EE-G106	01/27/87	25	23	383.53	407.97
G5	01/27/87	20	NA	NA	NA
G6/EE-G107	02/23/87	30	28	377.55	406.67
G7	02/24/87	27.5	NA	NA	NA
G8	02/24/87	30	NA	NA	NA
G9	02/24/87	37.5	NA	NA	NA
EE-G101	02/25/87	22.5	22.5	387.34	412.35
EE-G102	02/26/87	22	21.5	386.38	409.10
EE-G103	02/26/87	23.5	21.5	386.16	408.74
EE-G104	02/25/87	24	24	383.87	408.96
Site H					
H1	12/18/86	50	NA	NA	NA
H2/EE-01	01/05/87	35	33	373.55	408.84
H3/EE-02	01/06/87	23	23	384.66	409.91
H4	01/07/87	50	NA	NA	NA
H5	01/08/87	27.5	NA	NA	NA
H6	01/07/87	50	NA	NA	NA
H7	01/08/87	50	NA	NA	NA
H8/EE-03	01/09/87	35	32	377.11	411.47
H9/EE-04	01/13/87	25	23	388.33	413.26
EE-G108	03/02/87	30	29	377.28	407.21
EE-G110	12/18/86	23	23	384.68	409.00
Site I					
I1/EE-12	01/28/87	34.5	34.5	374.14	409.16
I2	01/28/87	40	NA	NA	NA
I3	01/29/87	30	NA	NA	NA
I4/EE-13	01/29/87	27.5	27.5	381.07	409.79
I5/EE-14	01/30/87	38	38	371.39	410.95
I6	02/02/87	32.5	NA	NA	NA
I7/EE-15	02/03/87	32.5	29	376.08	406.41
I8/EE-G112	02/03/87	29	26	380.68	407.87
I9/EE-16	02/04/87	33	33	373.91	408.65
I10	02/04/87	30	NA	NA	NA
I11	02/05/87	38.5	NA	NA	NA
I12/EE-20	02/13/87	29	29	381.00	411.41

Subsurface Soils Semivolatiles

SITE	SITE 6	SITE 6	BLANK	SITE 6	SITE 6	SITE 6	BLANK	SITE 6	SITE 6	SITE 6	SITE 6	BLANK	SITE 6	SITE 6
SAMPLE NUMBER	DC-61-26	DC-61-27	DC-60-29 +	DC-62-30	DC-62-31 *	DC-63-33	DC-60-34	DC-64-35	DC-64-36	DC-65-37 *	DC-66-67	DC-60-68 +	DC-67-69	DC-68-70
SAMPLE DEPTH	0-10'	10'-20'		5'-15'	5'-15'	10'-20'		5'-20'	5'-20	5'-15'	20'-30'		10'-25'	10'-20'
DATE SAMPLED	1-12-87	1-12-87	1-14-87	1-14-87	1-14-87	1-26-87	1-26-87	1-26-87	1-26-87	1-27-87	2-23-87	2-24-87	2-24-87	2-24-87
1 Dimethyl Phthalate														
2 Acenaphtylene														
3 3-Nitroaniline														
4 Acenaphthene														
5 2,4-Dinitrophenol														
6 4-Nitrophenol														
7 Dibenzofuran													33046 J	
8 2,4-Dinitrotoluene														
9 2,6-Dinitrotoluene														
10 Diethylphthalate														22857
11 4-Chlorophenyl-Phenylether														
12 Fluorene														
13 4-Nitroaniline														
14 4,6-Dinitro-2-methylphenol														
15 N-Nitrosodiphenylamine										177000				
16 4-Bromophenyl-phenylether														
17 Hexachlorobenzene				40640	27940									
18 Pentachlorophenol				620000 E	990600						23529 J		4769231	185714 J
19 Phenanthrene										26670	32991 J			51029 J
20 Anthracene														
21 Di-n-butyl phthalate	279 BJ	293 BJ	368 BJ								17647 J	10000 B		
22 Fluoranthene											6588 J			
23 Pyrene										19050				
24 Butyl Benzyl phthalate														
25 3,3'-Dichlorobenzidine														
26 Benzo(a)Anthracene														
27 bis(2-ethylhexyl) phthalate														
28 Chrysene										22860				
29 Di-n-octyl phthalate														
30 Benzo(b)Fluoranthene														
31 Benzo(k)Fluoranthene														
32 Benzo(a)Pyrene														
33 Indeno(1,2,3-cd)Pyrene														
34 Benzo(g,h,i)Perylene														
35 Dibenz(a,h)Anthracene														

Subsurface Soils Semivolatiles

SITE	SITE B	SITE H	SITE H	SITE H	SITE H	SITE H	SITE H	BLANK	SITE H	SITE H	SITE H	SITE H	SITE H	SITE I
SAMPLE NUMBER	BC-G9-71	BC-H1-14	BC-H1-15	BC-H2-16	BC-H3-17	BC-H3-18 *	BC-H4-19	BC-H8-20 +	BC-H5-21	BC-H6-22	BC-H7-23	BC-H8-24	BC-H9-28	BC-I1-30
SAMPLE DEPTH	35'-40'	15'-25'	35'-50'	5'-20'	10'-20'	10'-20'	10'-25'		0-10'	35'-50'	35'-50'	5'-15'	15'-25'	0-10'
DATE SAMPLED	2-24-87	12-18-86	12-18-87	1-5-87	1-6-87	1-6-87	1-6-87	1-7-87	1-7-87	1-8-87	1-8-87	1-9-87	1-13-87	1-27-87
1 Diethyl Phthalate														
2 Acenaphtylene				377500		251 J						130 J		
3 3-Nitroaniline														
4 Acenaphthene	2674 J													
5 2,4-Dinitrophenol	13953 J													
6 4-Nitrophenol														
7 Dibenzofuran	9302 J			604000	205 J	1180						143 J		
8 2,4-Dinitrotoluene														
9 2,6-Dinitrotoluene														
10 Diethylphthalate														
11 4-Chlorophenyl-Phenylether														
12 Fluorene	11279			483200		647						247 J		
13 4-Nitroaniline							1834000 E							
14 4,6-Dinitro-2-methylphenol														
15 N-Nitrosodiphenylamine							6681 J							
16 4-Bromophenyl-phenylether														
17 Hexachlorobenzene			714											
18 Pentachlorophenol														191840
19 Phenanthrene	25581			2114000	256 J	1320			947	47 J		169 J		7946 J
20 Anthracene	8480 J			679500		198 J			221 J			129 J		
21 Di-n-butyl phthalate	17442 BJ			25670 BJ	1152 B	1267 B		1126 B	824 B	878 B	1062 B	1014 B	343 BJ	
22 Fluoranthene				1330000		145 J			972			351 J		8905 J
23 Pyrene	7558 J			664400					935			1209		2877 J
24 Butyl Benzyl phthalate	23256													
25 3,3'-Dichlorobenzidine														
26 Benzo(a)Anthracene				377500					554			1157		2466 J
27 bis(2-ethylhexyl) phthalate						251 J			541		614		305 J	15070
28 Chrysene				332200					750			3380		3973 J
29 Di-n-octyl phthalate														
30 Benzo(b)Fluoranthene				211400					1021			442		1507 J
31 Benzo(k)Fluoranthene														
32 Benzo(a)Pyrene				271800								700		2466 J
33 Indeno(1,2,3-cd)Pyrene				135900										
34 Benzo(g,h,i)Perylene				113250								494		
35 Dibenz(a,h)Anthracene				31710 J										

Subsurface Soils Semivolatiles

SITE	SITE G	SITE G	BLANK	SITE G	SITE G	SITE G	BLANK	SITE G	SITE G	SITE G	SITE G	BLANK	SITE G	SITE G
SAMPLE NUMBER	DC-61-26	DC-61-27	DC-60-29 +	DC-62-30	DC-62-31 +	DC-63-33	DC-60-34	DC-64-35	DC-64-36	DC-65-37 +	DC-66-67	DC-60-68 +	DC-67-69	DC-60-70
SAMPLE DEPTH	0-10'	10'-20'		5'-15'	5'-15'	10'-20'		5'-20'	5'-20	5'-15'	20'-30'		10'-25'	10'-20'
DATE SAMPLED	1-12-87	1-12-87	1-14-87	1-14-87	1-14-87	1-26-87	1-26-87	1-26-87	1-26-87	1-27-87	2-23-87	2-24-87	2-24-87	2-24-87
1 Phenol										177000				
2 bis(2-Chloroethyl)ether														
3 2-Chlorophenol										8763 J				
4 1,3-Dichlorobenzene														
5 1,4-Dichlorobenzene				3556 J				2376	3750 J					
6 Benzyl Alcohol										6095 J				
7 1,2-Dichlorobenzene														
8 2-Methylphenol										3556 J				
9 bis(2-Chloroisopropyl) ether														
10 4-Methylphenol														
11 N-Nitroso-n-Dipropylamine														
12 Hexachloroethane														
13 Nitrobenzene														
14 Isophorone														
15 2-Nitrophenol														
16 2,4-Dimethylphenol														
17 Benzoic Acid														
18 bis-(2-Chloroethoxy)methane														
19 2,4-Dichlorophenol										38100	14118 J			101429 J
20 1,2,4-Trichlorobenzene										7874 J	103529		120000 J	
21 Naphthalene				4953 J	4826 J					254000	341176		109231 J	5428571
22 4-Chloroaniline										5969 J			239769 J	
23 Hexachlorobutadiene														
24 4-Chloro-3-methylphenol														
25 2-Methylnaphthalene										13970 J	8706 J			37143 J
26 Hexachlorocyclopentadiene														
27 2,4,6-Trichlorophenol										49530				
28 2,4,5-Trichlorophenol														
29 2-Chloronaphthalene														
30 2-Nitroaniline														

Subsurface Soils Semivolatiles

SITE	SITE W	SITE W	SITE W	SITE W	SITE W	SITE W	SITE W	BLANK	SITE W	SITE W	SITE W	SITE W	SITE W	SITE J
SAMPLE NUMBER	DC-G9-71	DC-H1-14	DC-H1-15	DC-H2-16	DC-H3-17	DC-H3-18 *	DC-H4-19	DC-H8-20 +	DC-H5-21	DC-H6-22	DC-H7-23	DC-H8-24	DC-H9-28	DC-I1-30
SAMPLE DEPTH	35'-40'	15'-25'	35'-50'	5'-20'	10'-20'	10'-20'	10'-25'		0-10'	35'-50'	35'-50'	5'-15'	15'-25'	0-10'
DATE SAMPLED	2-24-87	12-18-86	12-18-87	1-5-87	1-6-87	1-6-87	1-6-87	1-7-87	1-7-87	1-8-87	1-8-87	1-9-87	1-13-87	1-27-87
1 Phenol						422 J								
2 bis(2-Chloroethyl)ether														
3 2-Chlorophenol														
4 1,3-Dichlorobenzene		241935 J		13200 J			7645 J							
5 1,4-Dichlorobenzene		30645161 E	1190	890000			68110					62 J		10960 J
6 Benzyl Alcohol							7923 J							
7 1,2-Dichlorobenzene		19354839 E	548	90600										8905 J
8 2-Methylphenol														
9 bis(2-Chloroisopropyl) ether														
10 4-Methylphenol						172 J								
11 N-Nitroso-n-Dipropylamine														
12 Hexachloroethane														3014 J
13 Nitrobenzene														
14 Isophorone														
15 2-Nitrophenol														
16 2,4-Dimethylphenol						92 J								
17 Benzoic Acid					1408 J	2640								
18 bis-(2-Chloroethoxy)methane														
19 2,4-Dichlorophenol		741935	167 J		294 J	330 J	8479 J							
20 1,2,4-Trichlorobenzene	15116 J	7500645	4048	211400		145 J	194600			61 J				6713 J
21 Naphthalene	109302			2265000	202 J	1320						44 J		2877 J
22 4-Chloroaniline	8023 J													
23 Hexachlorobutadiene														
24 4-Chloro-3-methylphenol														
25 2-Methylnaphthalene	13953 J			347300		277 J						156 J		3475 J
26 Hexachlorocyclopentadiene														
27 2,4,6-Trichlorophenol		612903	179 J											
28 2,4,5-Trichlorophenol														
29 2-Chloronaphthalene														
30 2-Nitroaniline														

Subsurface Soils Volatiles

SITE	SITE G	SITE G	BLANK	SITE G	SITE G	SITE G	BLANK	SITE G	SITE G	SITE G	SITE G	BLANK	SITE G	SITE G	SITE G
SAMPLE NUMBER	DC-61-26	DC-61-27	DC-60-29 +	DC-62-30	DC-62-31 +	DC-63-33	DC-60-34	DC-64-35	DC-64-36	DC-65-37 +	DC-66-67	DC-60-68 +	DC-67-69	DC-68-70	DC-69-71
SAMPLE DEPTH	0-10'	10'-20'		5'-15'	5'-15'	10'-20'		5'-20'	5'-20	5'-15'	20'-30'		10'-25'	10'-20'	35'-40'
DATE SAMPLED	1-12-87	1-12-87	1-14-87	1-14-87	1-14-87	1-26-87	1-26-87	1-26-87	1-26-87	1-27-87	2-23-87	2-24-87	2-24-87	2-24-87	2-24-87
1 Chloromethane															
2 Bromomethane															
3 Vinyl Chloride															
4 Chloroethane															
5 Methylene Chloride	8 BJ	15 B	9 BJ	6223 B	7112 B	602 B	4 BJ	3 BJ	3 BJ	851 BJ	1082 BJ	48 B	646 BJ	871 BJ	465 BJ
6 Acetone	32 B	266 B		4699 B	3048 BJ	10500 B	20 B	1980 EB	2250 EB	3302 B	4118 B	18 B	15365 B	12857 B	6047 B
7 Carbon Disulfide															
8 1,1-Dichloroethene															
9 1,1-Dichloroethane															
10 trans-1,2-Dichloroethene														700 J	
11 Chloroform															11620
12 1-2-Dichloroethane											435 J				
13 2-Butanone (MEK)	36 B	29 B	27 B	15240 B	17700 B	9100 B		22 B	15 B	3683 B	8941 B	27 B	9692 B	12286	9535 B
14 1,1,1-Trichloroethane															
15 Carbon Tetrachloride															
16 Vinyl Acetate															
17 Bromodichloromethane															
18 1,2-Dichloropropane															
19 trans-1,3-Dichloropropene															
20 Trichloroethene										762 J	1141 J		3846	2000 J	
21 Dibromochloromethane															
22 1,1,2-Trichloroethane															
23 Benzene								3 J	5 J	10160	9882		21538	5143	45309
24 cis-1,3-Dichloropropene															
25 2-Chloroethyl Vinyl Ether															
26 Bromoform															
27 4-Methyl-2-pentanone										635 J	1176 J		4154	6000	
28 2-Hexanone															
29 Tetrachloroethene		9 J		13970	5207					3556	11765		44615	58571	12791
30 1,1,2,2-Tetrachloroethane															501 J
31 Toluene				806 J						27940	117647		38462	12143	94186
32 Chlorobenzene				584 J		1600		107	150	2413	27059 B	1 J	538462 E	100000 B	197674 E
33 Ethylbenzene						164 J				1245 J	988 J		16923	14286	7209
34 Styrene															
35 Total Xylenes						92				2794	2235		41538	25714	16279 B

Subsurface Soil Inorganics

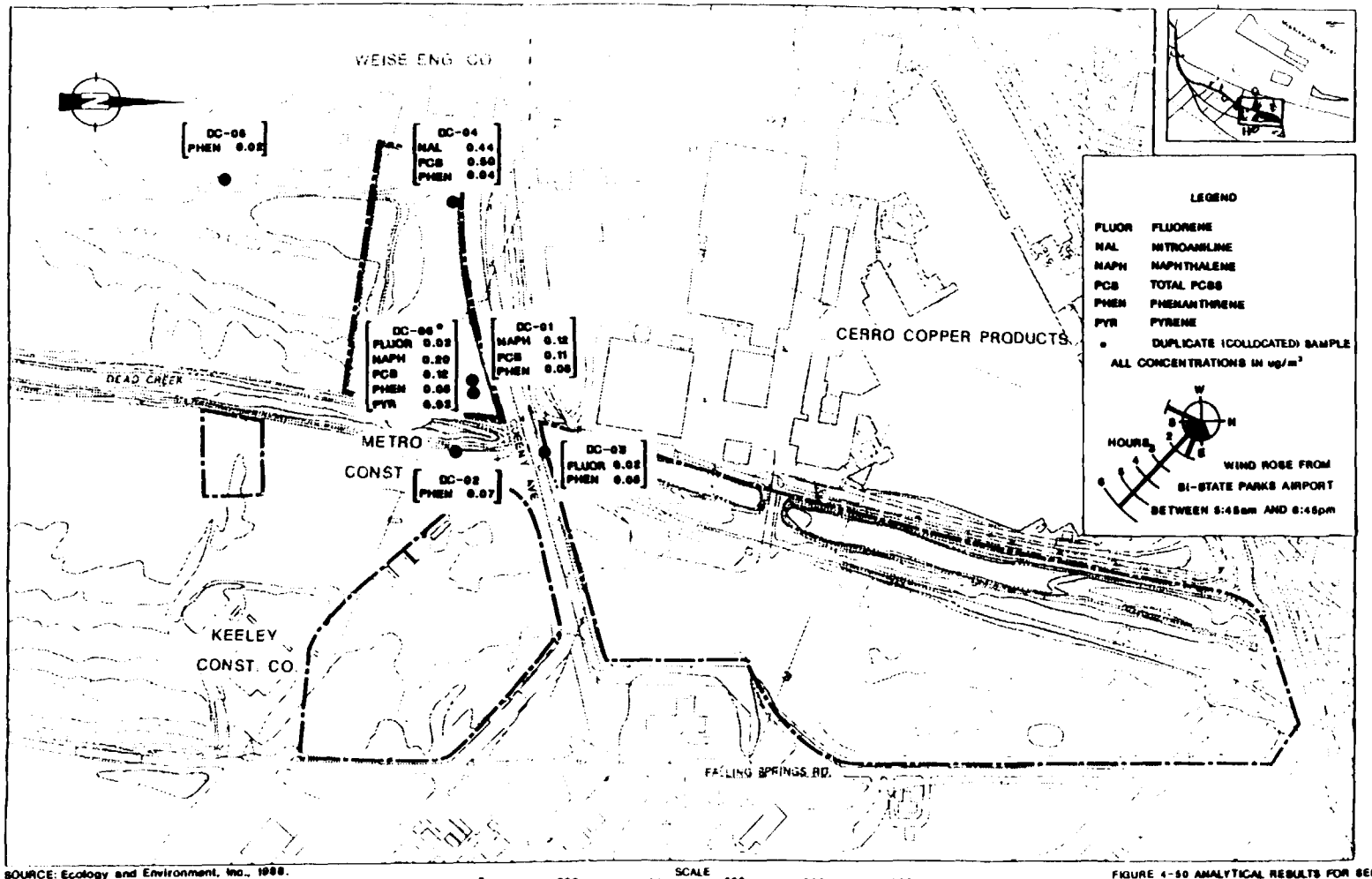
SITE	SITE G	SITE G	BLANK	SITE G	SITE G	SITE G	BLANK	SITE G	SITE G	SITE G	SITE G	BLANK	SITE G	SITE G	SITE G
SAMPLE NUMBER	DC-61-26	DC-61-27	DC-60-29 +	DC-62-30	DC-62-31 +	DC-63-33	DC-60-34	DC-64-35	DC-64-36	DC-65-37 +	DC-66-67	DC-00-68 +	DC-67-69	DC-68-70	DC-69-71
SAMPLE DEPTH	0-10'	10'-20'		5'-15'	5'-15'	10'-20'		5'-20'	5'-20	5'-15'	20'-30'		10'-25'	10'-20'	35'-40'
DATE SAMPLED	1-12-87	1-12-87	1-14-87	1-14-87	1-14-87	1-26-87	1-26-87	1-26-87	1-26-87	1-27-87	2-23-87	2-24-87	2-24-87	2-24-87	2-24-87
1 Aluminum	9760	18667	12021	5304	3380	12767	14359	8671	8209	9304	1859	6705	16615	4545	966
2 Antimony															
3 Arsenic	4 R	2 R	6 R	3 R	2 R	5	7	4	4	5		6 R	123 R	16 R	
4 Barium	213	168	359	45949	15570	204	424	117	140	233	142	363	1554	284	173
5 Beryllium															
6 Boron															
7 Cadmium			2	2			3					2	14	5	
8 Chromium, trivalent	9	6	13	10	5	16	13	9	7	16	12	11	905	109	11
9 Cobalt				56	19					16					13
10 Copper	16		31	28	8	8	33	18	3	16	18	30	2215	507	10
11 Iron	14000	9053	16282	13544	6392	12712	13846	8029	9900	11410	6035	12354	53692	12243	4956
12 Lead	12 R	8 R	68 R	30 R	16 R	11 +	51 +	8 +	32 +	14 +	25 +	57 +	3123 +	833 +	22 +
13 Manganese	308	179	410	242	92	278 R	382 R	182 R	209 R	461	73 +	357 +	282 +	195 +	43 +
14 Mercury	0.3													34.3	
15 Nickel	13		17	35		15	19	13	13	89	10 +	14	123 +	399 +	
16 Selenium															
17 Silver														12	
18 Thallium															
19 Tin													80	28	
20 Vanadium	28	21	36	22	14	25	28		19	27	31	16	1315	109	
21 Zinc	103	27	167	115	39	44	190	50	65	224	86 +	168 +	2954 +	4257 +	51
22 Cyanide															

Subsurface Soils Pest/PCBs

SITE	SITE G	SITE G	BLANK	SITE G	SITE G	SITE G	BLANK	SITE G	SITE G	SITE G	SITE G	BLANK	SITE G	SITE G	SITE G
SAMPLE NUMBER	DC-61-26	DC-61-27	DC-60-29 +	DC-62-30	DC-62-31 *	DC-63-33	DC-60-34	DC-64-35	DC-64-36	DC-65-37 *	DC-66-67	DC-60-68 +	DC-67-69	DC-68-70	DC-69-71
SAMPLE DEPTH	0-10'	10'-20'		5'-15'	5'-15'	10'-20'		5'-20'	5'-20	5'-15'	20'-30'		10 -25	10'-20'	35'-40'
DATE SAMPLED	1-12-87	1-12-87	1-14-87	1-14-87	1-14-87	1-26-87	1-26-87	1-26-87	1-26-87	1-27-87	2-23-87	2-24-87	2-24-87	2-24-87	2-24-87
1 Alpha-BHC															
2 Beta-BHC															
3 Delta-BHC															
4 Gamma-BHC (Lindane)															
5 Heptachlor															
6 Aldrin															
7 Heptachlor Epoxide															
8 Edosulfan I															
9 Dieldrin															
10 4,4'-DDE				3073	3683						52941		135385 J		
11 Endrin															
12 Edosulfan II															
13 4,4'-DDD															
14 Endosulfan Sulfate															
15 4,4'-DDT															
16 Methoxychlor															
17 Endrin Ketone															
18 Chlordane															
19 Toxaphene															
20 AROCLOR-1016															
21 AROCLOR-1221															
22 AROCLOR-1232															
23 AROCLOR-1242															
24 AROCLOR-1248															179019 C
25 AROCLOR-1254															
26 AROCLOR-1260	130 J						1792 J			57150	764706		661530 J	6428571	267042 C

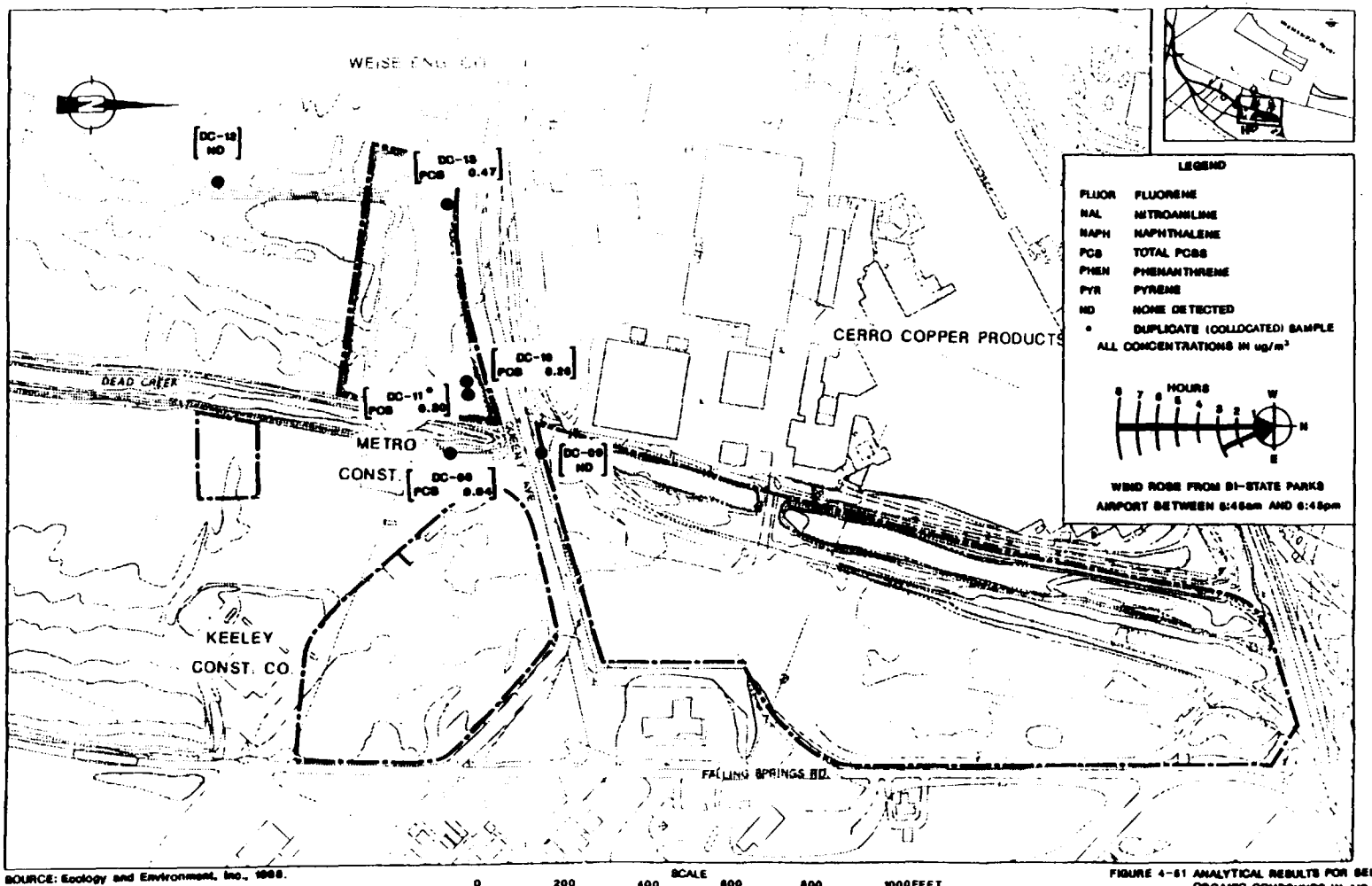
Subsurface Soils Volatiles

SITE	SITE G	SITE G	BLANK	SITE G	SITE G	SITE G	BLANK	SITE G	SITE G	SITE G	SITE G	BLANK	SITE G	SITE G	SITE G
SAMPLE NUMBER	DC-61-26	DC-61-27	DC-60-29 +	DC-62-30	DC-62-31 +	DC-63-33	DC-60-34	DC-64-35	DC-64-36	DC-65-37 +	DC-66-67	DC-60-68 +	DC-67-69	DC-68-70	DC-69-71
SAMPLE DEPTH	0-10'	10'-20'		5'-15'	5'-15'	10'-20'		5'-20'	5'-20	5'-15'	20'-30'		10'-25'	10'-20'	25'-40'
DATE SAMPLED	1-12-87	1-12-87	1-14-87	1-14-87	1-14-87	1-26-87	1-26-87	1-26-87	1-26-87	1-27-87	2-23-87	2-24-87	2-24-87	2-24-87	2-24-87
1 Chloroethane															
2 Bromoethane															
3 Vinyl Chloride															
4 Chloroethane															
5 Methylene Chloride	8 BJ	15 B	9 BJ	6223 B	7112 B	602 B	4 BJ	3 BJ	3 BJ	851 BJ	1082 BJ	48 B	646 BJ	871 BJ	465 BJ
6 Acetone	32 B	266 B		4699 B	3040 BJ	10500 B	20 B	1980 EB	2250 EB	3302 B	4118 B	10 B	15365 B	12857 B	6047 B
7 Carbon Disulfide															
8 1,1-Dichloroethene															
9 1,1-Dichloroethane															
10 trans-1,2-Dichloroethene														700 J	
11 Chloroform															11620
12 1-2-Dichloroethane											435 J				
13 2-Butanone (MEK)	36 B	29 B	27 B	15240 B	17700 B	9100 B		22 B	15 B	3683 B	8941 B	27 B	9692 B	12200	9535 B
14 1,1,1-Trichloroethane															
15 Carbon Tetrachloride															
16 Vinyl Acetate															
17 Bromodichloromethane															
18 1,2-Dichloropropane															
19 trans-1,3-Dichloropropene															
20 Trichloroethene										762 J	1141 J		3846	2000 J	
21 Dibromochloromethane															
22 1,1,2-Trichloroethane															
23 Benzene								3 J	5 J	10160	9882		21538	5143	45349
24 cis-1,3-Dichloropropene															
25 2-Chloroethyl Vinyl Ether															
26 Bromoform															
27 4-Methyl-2-pentanone										635 J	1176 J		4154	6000	
28 2-Hexanone															
29 Tetrachloroethene		9 J		13970	5207					3556	11765		44615	58571	12791
30 1,1,2,2-Tetrachloroethane															581 J
31 Toluene				806 J						27940	117647		38462	12143	94186
32 Chlorobenzene				584 J		1600		107	150	2413	27059 B	1 J	538462 E	100000 B	197676 E
33 Ethylbenzene						164 J				1245 J	908 J		16923	14286	7209
34 Styrene															
35 Total Xylenes						92				2794	2235		41538	25714	16279 B



SOURCE: Ecology and Environment, Inc., 1988.

FIGURE 4-50 ANALYTICAL RESULTS FOR SELECT ORGANIC COMPOUNDS IN AIR SAMPLES AT SITES G AND CS-8 ON JULY 16, 1987



SOURCE: Ecology and Environment, Inc., 1988.

FIGURE 4-61 ANALYTICAL RESULTS FOR SELECT ORGANIC COMPOUNDS IN AIR SAMPLES AT SITES G AND CS-8 ON JULY 17, 1987

Table 4-10

SUMMARY OF ORGANIC CONTAMINATION OF SURFACE SOIL SAMPLES AT SITE G

Chemical Name	Number of Times Detected*	Highest Concentration Detected (mg/kg)	Sample Containing Highest Concentration	Grid Number of Highest Concentration
Volatile Organics				
4-methyl-2-pentanone	22	2	SS-33	D-5
toluene	9	1.4	SS-38	A-6
xylene	2	0.17	SS-38	A-6
ethylbenzene	2	0.14	SS-38	A-6
tetrachlorobenzene	10	0.06	SS-11	C-3
benzene	3	0.08	SS-38	A-6
Semivolatile Organics				
1,4-dichlorobenzene	4	22,000	SS-21	D-4
pentachlorophenol	14	21,000	SS-39	B-6
4-nitrophenol	1	1,000	SS-40	C-6
2-nitroaniline	4	220	SS-37	H-5
naphthalene	11	120	SS-17	H-3
pyrene	12	85	SS-15	G-3
benzo-b-fluoranthene	10	48	SS-16	G-3
chrysene	11	39J	SS-15	G-3
1,2,4-trichlorobenzene	8	35	SS-34	E-5
benzo-a-pyrene	13	22J	SS-15	G-3
fluoranthrene	11	45	SS-16	G-3
phenanthrene	10	40J	SS-15	G-3
dibenzo(a,h)anthracene	6	5.4	SS-43	B-7
indeno(1,2,3-cd)pyrene	5	5.2	SS-43	B-7
dibenzofuran	3	0.9J	SS-11	C-3
2,4-dichlorophenol	2	6.2	SS-40	C-6
2-methylnaphthalene	3	1J	SS-11	C-3

Table 4-10 (Cont.)

Chemical Name	Number of Times Detected*	Highest Concentration Detected (mg/kg)	Sample Containing Highest Concentration	Grid Number of Highest Concentration
benzo(g,h,i)perylene	5	1.5J	SS-43	B-7
benzo(k)fluoranthene	4	10	SS-25	G-4
Pesticides/PCBs				
4,4'-DDE	5	0.3	SS-07	I-2
Aroclor 1248	13	24,000	SS-11	C-3
Aroclor 1254	6	29,000	SS-11	C-3
Aroclor 1260	36	21,000	SS-11	C-3

* A total of 43 surface soil samples were collected at Site G. The numbers listed indicate the number of samples, of the total of 43, in which each compound was detected.

J Estimated values. Result is greater than zero, but less than the specified detection limit.

Source: Ecology and Environment, Inc. 1988.

Table 4-11

SUMMARY OF SUBSURFACE SOIL SAMPLING RESULTS FOR SITE G

Chemical Name	Number of Times Detected*	Highest Concentration Detected (mg/kg)	Sample Containing Highest Concentration
Volatile Organics			
chlorobenzene	9	540E	G7-69
tetrachloroethene	8	58	G8-70
trichloroethene	4	4	G7-69
benzene	7	45	G9-71
toluene	6	117	G6-67
4-methyl-2-pentanone	4	6	G8-70
ethylbenzene	6	17	G7-69
Semivolatile Organics			
phenol	1	177	G5-37
naphthalene	7	5,400	G8-70
2-methylnaphthalene	4	37J	G8-70
1,2,4-trichlorobenzene	4	120J	G7-69
2,4,6-trichlorophenol	1	0.49	G5-37
1,4-dichlorobenzene	3	3J	G4-36
2,4-dichlorophenol	3	141J	G8-70
pentachlorophenol	5	4,800	G7-69
phenanthrene	4	51J	G8-70
dibenzofuran	2	34J	G7-69
pyrene	2	19	G5-37
chrysene	1	23	G5-37

Table 4-11 (Cont.)

Chemical Name	Number of Times Detected*	Highest Concentration Detected (mg/kg)	Sample Containing Highest Concentration
Pesticides/PCBs			
4,4'-DDE	4	135J	G7-69
Aroclor 1248	1	174C	G9-71
Aroclor 1260	6	4,400	G8-70

* A total of 12 subsurface soil samples were collected from Site G. The numbers listed represent the number of samples, of the total of 12, in which each compound was detected.

E Estimated value. Amount detected in sample exceeds the calibrated range.

J Estimated value. Result is greater than zero, but less than the specified detection limit.

C Result confirmed by GC/MS.

Source: Ecology and Environment, Inc. 1988.

Table 4-20

SUMMARY OF GROUNDWATER SAMPLING RESULTS FOR SITE G

Chemical Name	Number of Times Detected*	Highest Concentration Detected (mg/L)	Sample Containing Highest Concentration
Volatile Organics			
toluene	4	7.3	GW-19
benzene	4	4.1	GW-19
chlorobenzene	7	3.1	GW-19, GW-20
4-methyl-2-pentanone	3	2.2	GW-20
1-2-dichloroethane	2	0.48	GW-19
xylenes	3	0.4	GW-32
ethylbenzene	2	0.84	GW-32
trans-1,2-dichloroethene	3	0.2J	GW-20
trichloroethene	3	0.8	GW-33
1,1,1-trichloroethane	1	0.051J	GW-33
tetrachloroethene	3	0.42	GW-19
Semivolatile Organics			
benzoic acid	2	150E	GW-20
phenol	3	30	GW-20
naphthalene	5	21E	GW-19
4-chloroanaline	2	15E	GW-32
2-chlorophenol	4	1.9	GW-20
benzyl alcohol	2	8.6	GW-20
4-methylphenol	3	9.0	GW-20
2,4-dimethylphenol	3	4.3	GW-20
bis-(2-chloroethoxy)methane	2	7.3	GW-20
1,2,4-trichlorobenzene	3	1.9	GW-19

Table 4-20, (Cont.)

Chemical Name	Number of Times Detected*	Highest Concentration Detected (mg/L)	Sample Containing Highest Concentration
2,4,6-trichlorophenol	2	0.35	GW-20
2,4-dichlorophenol	3	0.48J	GW-19
pentachlorophenol	3	6.3	GW-20
hexachlorobenzene	1	0.006J	GW-21
benzo(a)anthracene	1	0.032	GW-14
1,4-dichlorobenzene	4	0.57	GW-19
1,2-dichlorobenzene	3	0.2J	GW-19
Pesticides/PCBs			
Arochlor 1260	3	0.89	GW-19

* A total of 9 groundwater samples were collected from Site G. The numbers listed represent the number of samples, of the total of 9, in which each compound was detected.

J Estimated value. Result is greater than zero, but less than specified detection limit.

E Estimated value. Amount detected in sample exceeds calibrated range.

Source: Ecology and Environment, Inc. 1988.

Table 4-26

SUMMARY OF AIR SAMPLING RESULTS FOR SITE G/CS-B

	Sample Number													
Compound	DC-01†	DC-02	DC-03	DC-04	DC-05	DC-06†	DC-07*	DC-08	DC-09	DC-10†	DC-11†	DC-12	DC-13	DC-14*
benzene	74JB	80JB	63JB	NA	75JB	118JB	17JB	67JB	51JB	66JB	101JB	70JB	NA	15JB
naphthalene	0.12	--	--	--	--	0.20	--	--	--	--	--	--	--	--
phenanthrene	0.08J	0.07J	0.08J	0.04J	0.02J	0.08J	--	--	--	--	--	--	--	--
2-methylnaphthalene	--	--	0.03J	--	0.02J	0.02J	--	--	--	--	--	--	--	--
isophorone	--	--	--	--	0.02JB	0.01J	--	--	--	--	--	--	--	--
n-nitrosodiphenylamine	--	--	--	0.02J	0.02J	0.05J	--	--	--	--	--	--	--	--
fluorene	--	--	0.02J	--	--	0.02J	--	--	--	--	--	--	--	--
2-nitroaniline	--	--	--	0.44	--	--	--	--	--	--	--	--	--	--
benzyl alcohol	--	--	--	--	--	0.05J	--	--	--	--	--	--	--	--
fluoranthene	--	--	--	--	--	0.01J	--	--	--	--	--	--	--	--
pyrene	--	--	--	--	--	0.02J	--	--	--	--	--	--	--	--
Aroclor 1248	0.11	--	--	0.15	--	0.12	--	0.04	--	0.26	0.30	--	0.12	--
Aroclor 1254	--	--	--	0.18	--	--	--	--	--	--	--	--	0.18	--
Aroclor 1260	--	--	--	0.17	--	--	--	--	--	--	--	--	0.17	--
chromium	--	--	--	--	--	0.08	--	--	--	--	--	--	--	--
copper	0.94	0.67	0.66	0.71	0.35	0.73	--	0.87	0.78	0.62	0.76	0.38	0.67	--
lead	0.08	0.09	0.09	0.08	0.08	0.08	--	0.77	0.64	0.56	0.67	0.04	0.04	--
zinc	0.20	0.32	0.31	0.13	0.13	0.18	--	0.56	1.43	0.28	0.92	0.08	0.11	--

All results in ug/m^3.

Samples DC-01 through DC-07 collected 7/16/87. Samples DC-08 through DC-14 collected 7/17/87.

† Duplicate (collocated) samples.

* Blank samples - results reported in ug per sample medium (filter, cartridge).

J Indicates estimated value. Result is less than the specified detection limit, but greater than zero.

B Compound also found in blank sample.

NA Not analyzed.

-- Not detected.

Source: Ecology and Environment, Inc. 1988.

Explanation For Analytical Data Summary Tables

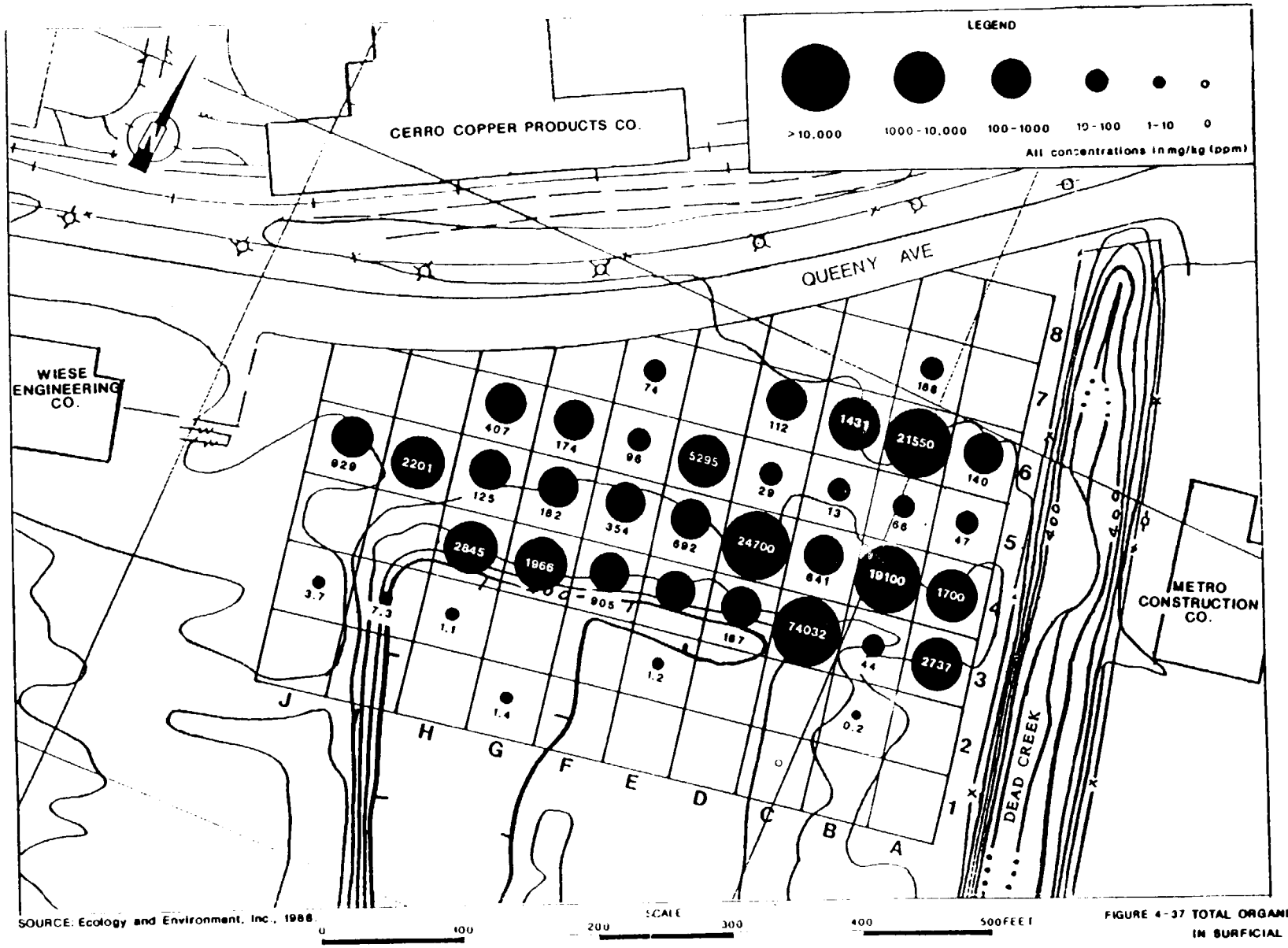
All ground water results in ug/l.
All soil/sediment organic results in ug/kg
All soil/ sediment inorganic results in mg/kg

For sample location headings, the following qualifiers are used :

- + Denotes blank samples.
- * Denotes duplicate samples.
- ^ Denotes that sample was not analyzed for the compounds listed.

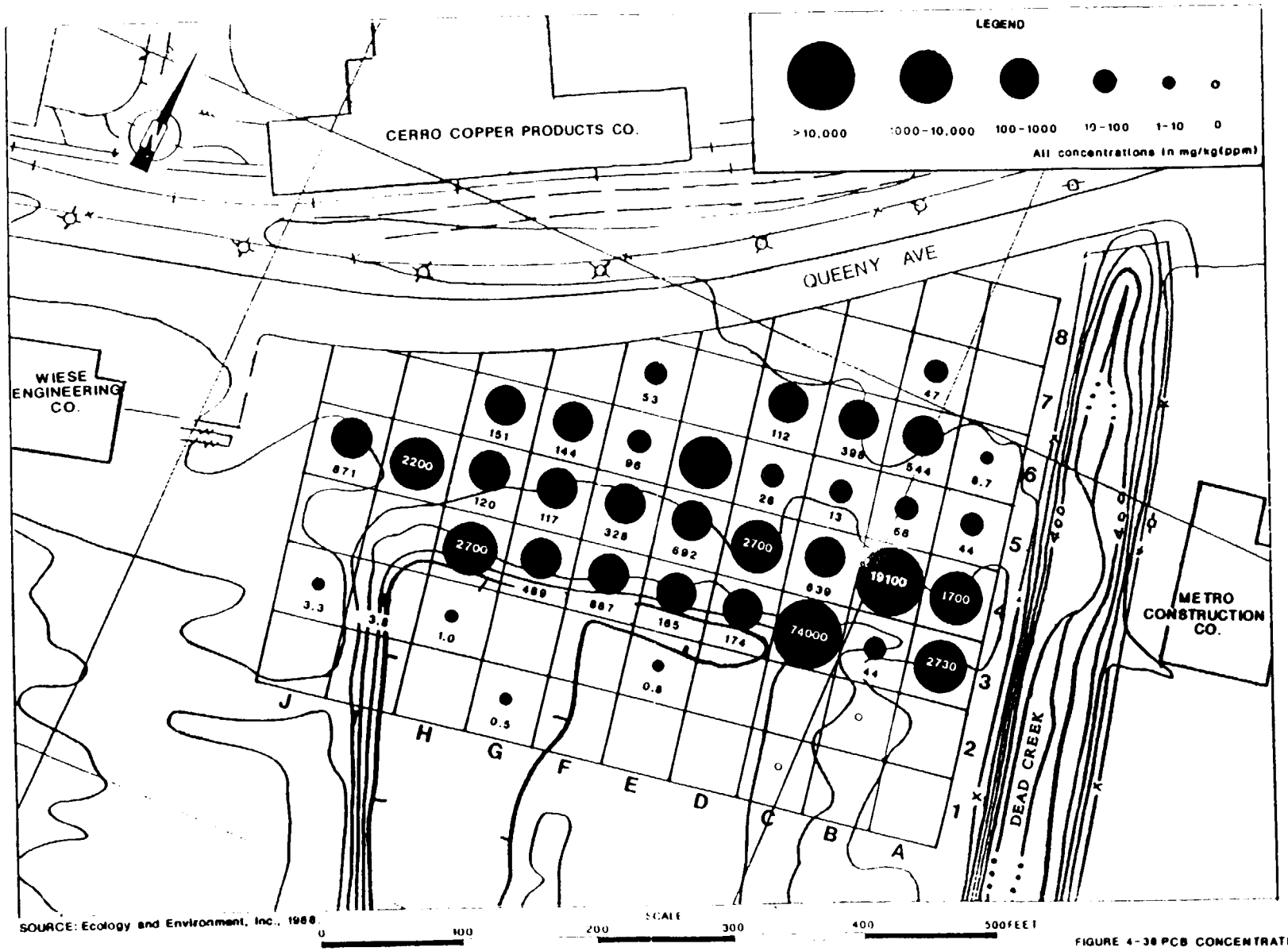
For chemical results, the folling qualifiers are used :

- B Compound detected in blank samples.
- J Estimated value . Result is less than the specified detection limit, but greater than zero.
- E Estimated value. Concentration detected exceeds the calibrated range.
- C Result confirmed by GC/MS.
- * Duplicate analysis not with in control limits.
- R Spike sample recovery not with in control limits.



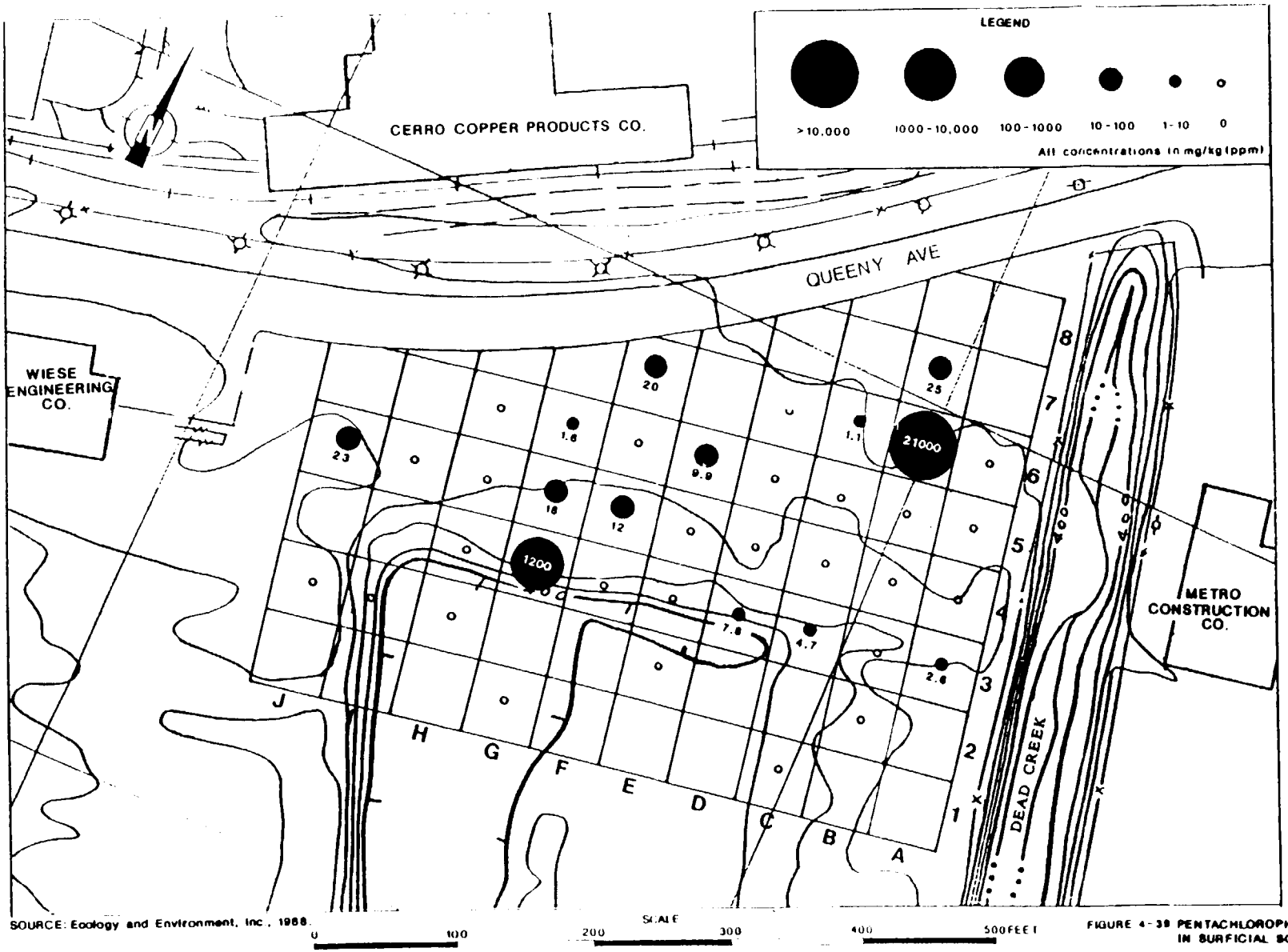
SOURCE: Ecology and Environment, Inc., 1988.

FIGURE 4-37 TOTAL ORGANIC CONCENTRATIONS IN SURFICIAL SOIL AT SITE G



SOURCE: Ecology and Environment, Inc., 1988.

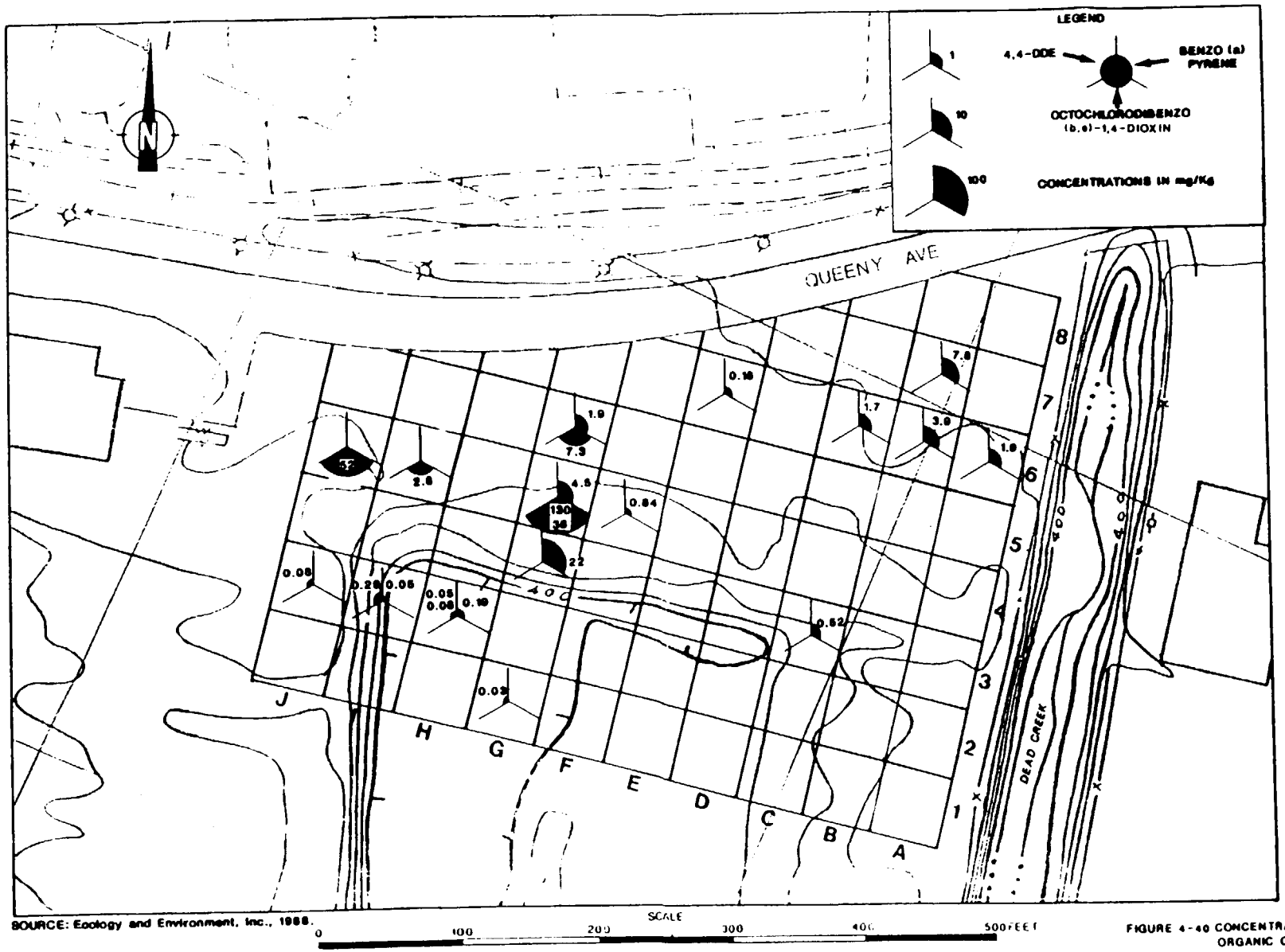
FIGURE 4-38 PCB CONCENTRATIONS IN SURFICIAL SOILS AT SITE G



SOURCE: Ecology and Environment, Inc., 1988.

SCALE 0 100 200 300 400 500 FEET

FIGURE 4-39 PENTACHLOROPHENOL CONCENTRATIONS IN SURFICIAL SOIL AT SITE G



SOURCE: Ecology and Environment, Inc., 1988.

SCALE 0 100 200 300 400 500 FEET

FIGURE 4-40 CONCENTRATIONS OF SELECT ORGANIC CONTAMINANTS IN SURFACE SOILS AT SITE G