LPC #1630000000 -- St. Clair County
Yvonne Sauget (Trust)
ILD982073611

EPA Region 5 Records Ctr.
350383

CERCLA

Preliminary Assessment Report

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

EPA

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

I. IDENTIFICATION
01 STATE: ILD | 02 SITE NUMBER: 982073611

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site): Yvonne Sauget (Trust)
02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER: 2700 Falling Springs Rd
03 CITY: Sauget
04 STATE: IL. | 05 ZIP CODE: 62206 | 06 COUNTY: ST. CLAIR | 07 COUNTY CODE: 163 | 08 CONG DIST: 22
09 COORDINATES LATITUDE: 383525.0 | LONGITUDE: 0901000.0
10 DIRECTIONS TO SITE (Starting from nearest public road): I55 SOUTH TO ROUTE 3 South, Go Left AT Queeny Avenue, 1 block past Falling Springs Road

III. RESPONSIBLE PARTIES

01 OWNER (If known): Yvonne Sauget (TRUST FUND, BANK of Belleville)
02 STREET (Business, mailing, residential): 4800 W. MAIN
03 CITY: Belleville
04 STATE: IL | 05 ZIP CODE: 62206 | 06 TELEPHONE NUMBER: 618234-3014
07 OPERATOR (If known and different from owner): NONE
08 STREET (Business, mailing, residential): N/A
09 CITY: N/A
10 STATE: N/A | 11 ZIP CODE: N/A | 12 TELEPHONE NUMBER: ( ) NA / N/A
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 ☐ NO DATE 8 30 88 (MONTH DAY YEAR)
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) 1973 (ENDING YEAR) ☐ UNKNOWN
04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED: ORGANICS: (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	982073611

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
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			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

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
SOL	Toluene	108883		0.015	mg/Kg
	4-methyl-2-pentanone	106101		0.011	mg/Kg
	pyrene	129000		1.8	mg/Kg
	naphthalene	91203		0.15	mg/Kg
	phenanthrene	85018		1.7	mg/Kg
	1,2,4-Trichlorobenzene	120821		0.096	mg/Kg
	benzo(a) pyrene	50328		0.94	mg/Kg
	2-methylnaphthalene	91576		0.12	mg/Kg
	PCBs (Aroclor 1248)	1336363		120	Mg/Kg
	PCBs (Aroclor 1242)	1336363		19	mg/Kg
	PCBs (Aroclor 1260)	1336363		6.3	mg/Kg
	Chrysene	218019		1.0	mg/Kg
	benzo(b)fluoranthene	205992		1.2	mg/Kg
	benzo(a)anthracene	56553		0.94	mg/Kg
	fluoranthene	206440		2.2	mg/Kg
	dibenzofuran	132649		0.13	mg/Kg

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)

ILLINOIS EPA, DIVISION OF LAND Files "Dead Creek Project report by E&E" (PART 2, Sec II-V)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
ILD	982073611

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. GROUNDWATER CONTAMINATION — 02 [ ] OBSERVED (DATE ____) — POTENTIAL [X] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 1054 — 04 NARRATIVE DESCRIPTION
Between December, 1986 and January of 1987, E&E drilled 3 subsurface borings to a depth of 30 feet. Groundwater was encountered at depths ranging from 11 to 17.5. Analytical results from subsurface soil samples collected from a 10 to 20 ft. depth indicate widespread organic contamination in all 3 soil borings.

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 E&E, groundwater from the the Dead Creek Project Area is discharging into the Mississippi River at a maximum rates of 67.93 lbs/day and 219 lbs/day. Due to widespread subsurface contamination at Yvonne Sauget, it is alleged that contaminants from the site is contributing to surface water degradation.

01 [X] C. CONTAMINATION OF AIR — 02 [ ] OBSERVED (DATE ____) — [X] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ____ — 04 NARRATIVE DESCRIPTION
During E&E's investigation, a soil gas survey was conducted across the property. Sampling points SG-64, SG-65, SG-66, and SG-90 contained volatile organic soil gases ranging from 500 mg/kg above background to levels greater than 1000 mg/kg

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
No surface soil samples were collected during E&E's site investigation. No fence or site security exist at Yvonne Sauget (Trust)

01 [X] F. CONTAMINATION OF SOIL — 02 [X] OBSERVED (DATE 1/12, 22/87, 2/6/87) — POTENTIAL — ALLEGED
03 AREA POTENTIALLY AFFECTED: ____ (Acres) — 04 NARRATIVE DESCRIPTION
Subsurface soil samples collected at the above observed dates indicate widespread organic contamination has occurred in all 3 soil borings. (See PART 2, Sec IV of this form for specific chemical detected)

01 [X] G. DRINKING WATER CONTAMINATION — 02 [X] OBSERVED (DATE 3/26/87) — [ ] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 1054 — 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 E&E indicated 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

EPA

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

I. IDENTIFICATION
01 STATE: ILD
02 SITE NUMBER: 982073611

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 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 K

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES (Spills runoff standing liquids leaking drums) — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
THE disposal AREA AT Yvonne Sauget (TRUST) consisi of an unlined SAND P.t. migration of contaminants have been detected in subsurface samples TO A depth of 20 feet.

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

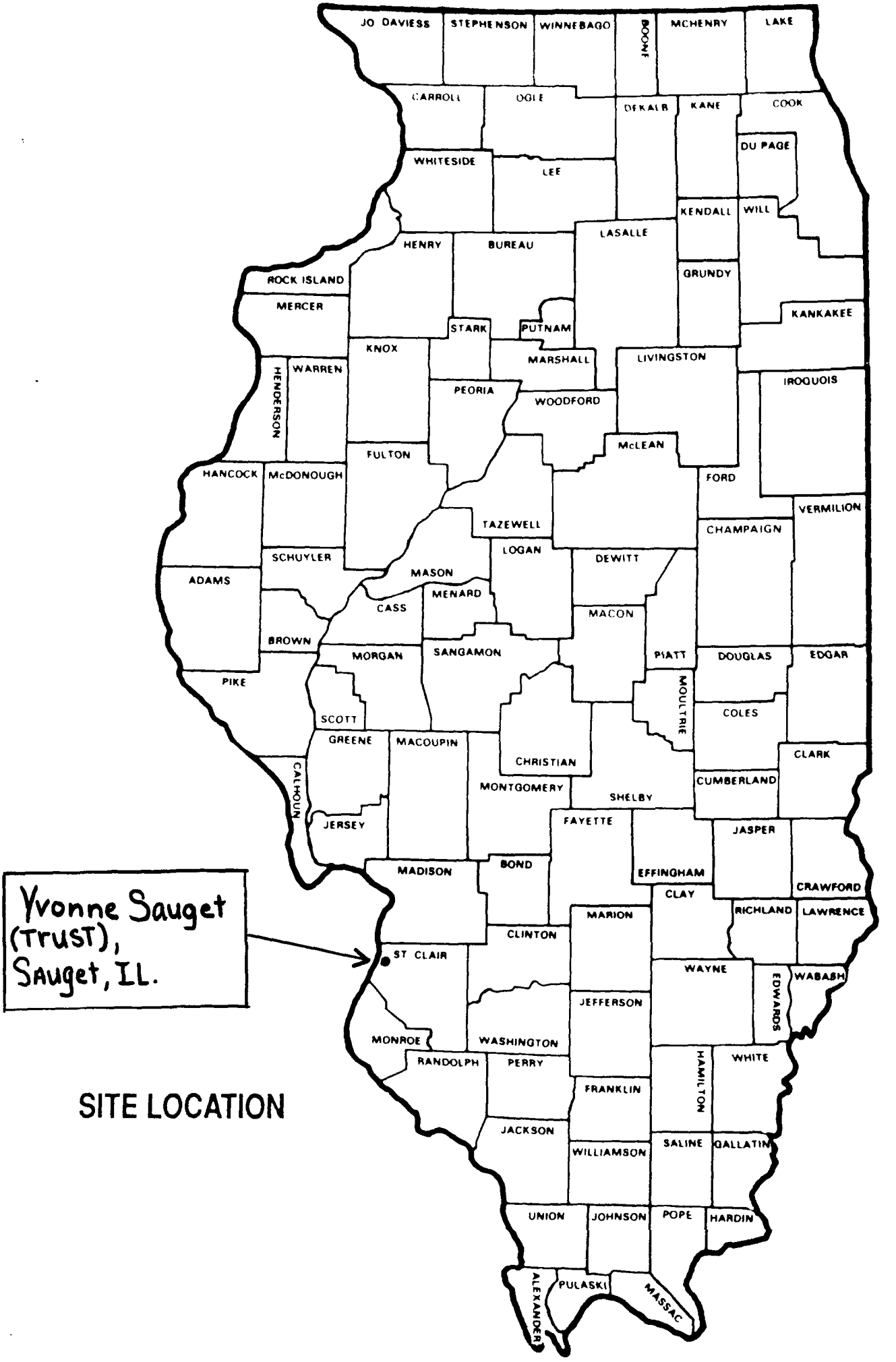
05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: _____

IV. COMMENTS
ON August 31, 1988, IEPA personnel CONDUCTED AN OFF-SITE Reconnaissance INSPECTION AT the Yvonne Sauget (TRUST) site. SEE Executive 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 IEPA, DIVISION OF LAND, JEFF LARSON.

EPA FORM 2070-12 (7-81)



Yvonne Sauget (TRUST), Sauget, IL.

SITE LOCATION

LPC #1630000000 -- St. Clair County
Yvonne Sauget (Trust)
ILD982073611

September 9, 1988

Executive Summary

Yvonne Sauget (Trust) 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.

Yvonne Sauget (Trust) is an abandoned sand pit that occupies an area of approximately 6 acres in Sauget, Illinois. The site is located north of a residential area on Queeny Avenue, and east of Falling Springs Road. Historical aerial photographs indicate a disposal pit was excavated sometime prior 1950 and was filled prior to 1962. A later photograph indicates the site was re-excavated sometime prior to 1973 and contained a dark liquid substance. A property search conducted by E & E indicates the property was owned by Leo and Louise Sauget during the years of operation, and is currently an asset in a trust fund for Yvonne Sauget at the Bank of Belleville. Although no records are available documenting the disposal of hazardous waste, a soil gas survey conducted by E & E revealed that 4 on-site gas sampling points (SG-64, SG-65, SG-66, and SG-90) contained volatile organic soil gases ranging from 800 mg/kg above background to levels greater than 1000 mg/kg.

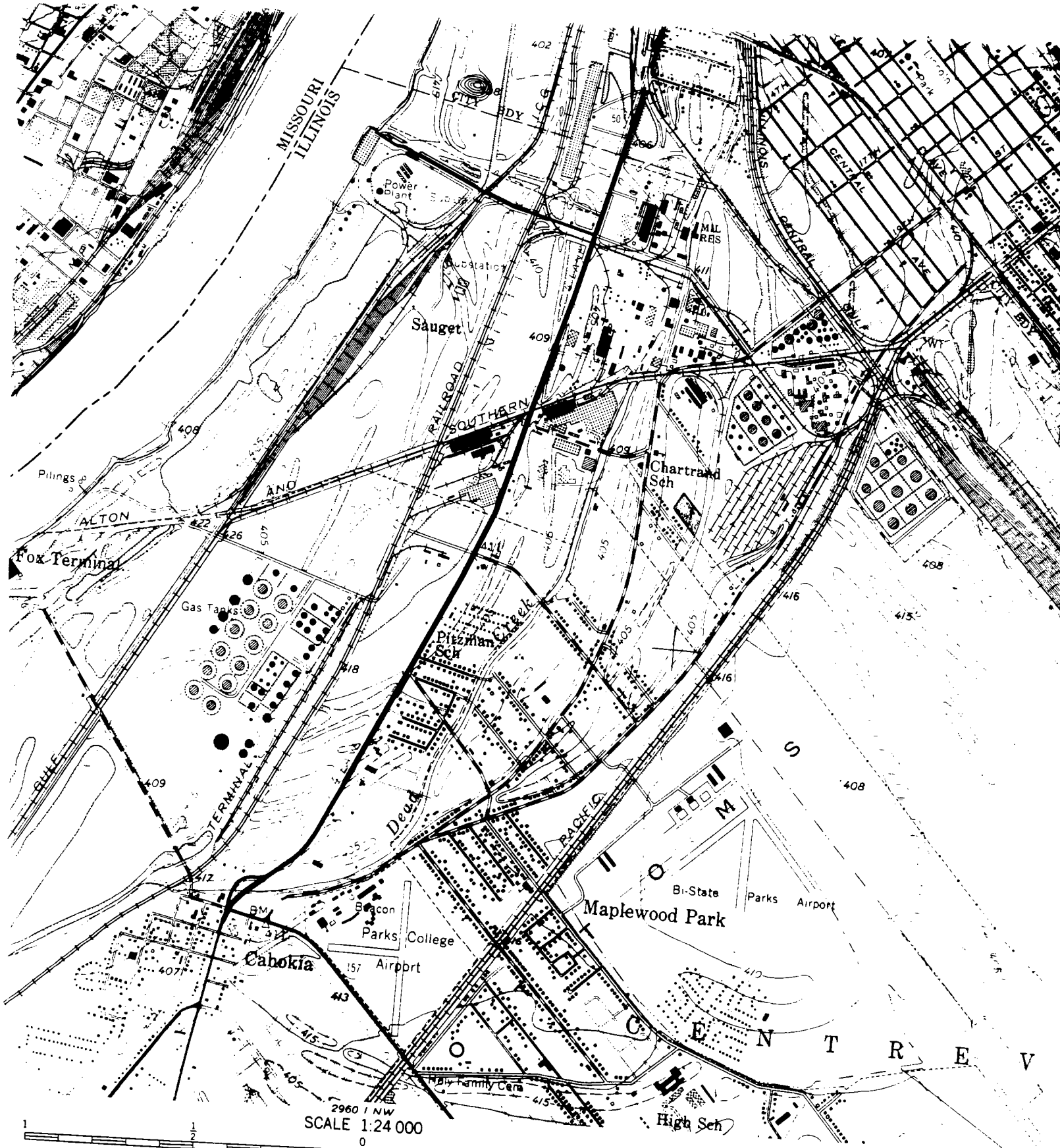
Analytical results from subsurface soil sampling indicates contamination across the entire site to a maximum depth of 20 feet. The most significant levels of organics detected include toluene, phenanthrene, pyrene, benzo(a) pyrene, and PCBs. The highest concentration detected was 120 mg/kg of Aroclor 1248 in sample K1-08. Total organic concentrations ranged from 23 mg/kg in borings K2 and K3 to 150 mg/kg in boring K1.

The geology in the area consist of unconsolidated alluvium and glacial outwash material. This section is underlain by Mississippian age bedrock and old age 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 who are unable to obtain water from public supplies 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.

On August 31, 1988, IEPA personnel conducted an off-site reconnaissance inspection at the Yvonne Sauget site. No fence or security measures were observed at the site. The sand pit is no longer visible and the affected area appears to be filled and grass covered. Small residential areas border the site to the north, south, and east. The Mississippi River is about 1 1/4 miles west of the site, and the remaining area in the immediate vicinity is mainly industrial.

Yvonne Sauget (Trust) 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/82-83

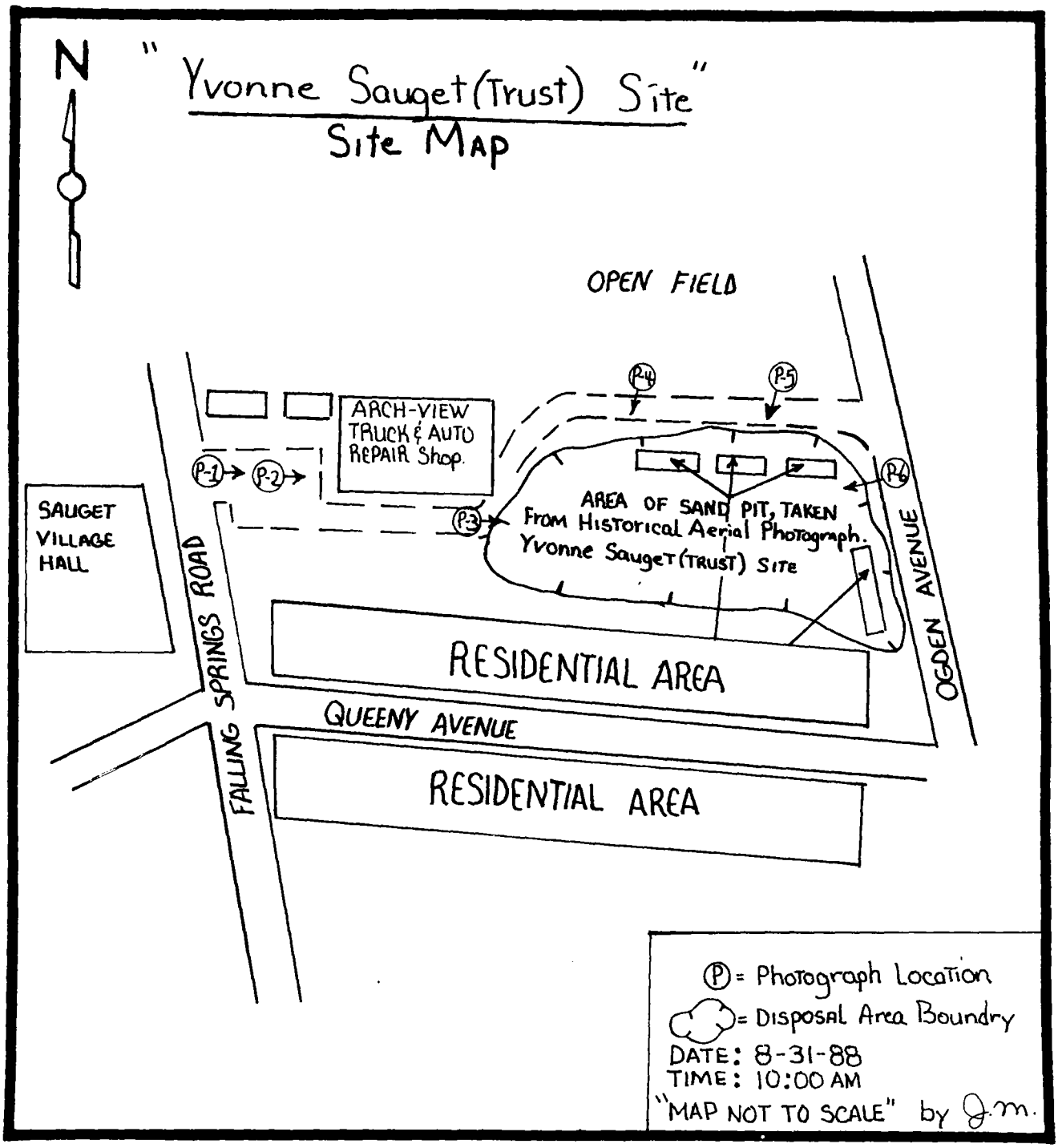


CONTOUR INTERVAL 10 FEET
DOTTED LINES REPRESENT 5-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

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 65401
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

QUADRANGLE LOCATION

Revisions shown in purple compiled by the Geolc
Survey from aerial photographs taken 1968 and
This information not field checked


N
"Yvonne Sauget (Trust) Site"
Site Map
OPEN FIELD
ARCH-VIEW TRUCK & AUTO REPAIR Shop.
P-1
P-2
P-3
P-4
P-5
P-6
AREA OF SAND PIT, TAKEN From Historical Aerial Photograph. Yvonne Sauget (TRUST) Site
SAUGET VILLAGE HALL
FALLING SPRINGS ROAD
OGDEN AVENUE
QUEENY AVENUE
RESIDENTIAL AREA
RESIDENTIAL AREA
P = Photograph Location
= Disposal Area Boundry
DATE: 8-31-88
TIME: 10:00 AM
"MAP NOT TO SCALE" by J.M.

SDMS US EPA Region V

Imagery Insert Form

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OVERSIZED MAP: GRANITE CITY; MONK MOUND; CAHOKIA & FRENCH VILLAGE

☐ Document is available at the EPA Region 5 Records Center.

Specify Type of Document(s) / Comments:

DATE: 8-31-88

TIME: 10:00 AM

Photograph by:

JOHN MORGAN

Location:

Yvonne Sauget (Trust), Sauget, Illinois

Comments: Picture taken toward

EAST:

#P-1

DATE: 8-31-88

TIME: 10:03 AM

Photograph by:

John MORGAN

Location: Yvonne Sauget (Trust)

Comments: Picture taken toward

EAST:

P-2

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

DATE: 8-31-88

TIME: 10:10

Photograph by:

John MORGAN

Location:

Yvonne Sauget (TRUST)

Comments: Picture taken toward

EAST

#P-3

DATE: 8-31-88

TIME: 10:15 AM

Photograph by:

John MORGAN

Location:

Yvonne SAuget (TRUST)

Comments: Picture taken toward

SW.

#P-4

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

DATE: 8-31-88

TIME: 10:20 AM

Photograph by:

JOHN MORGAN

Location:

Yvonne Sauget (TRUST)
SAUGET, IL.

Comments: Picture taken toward

SOUTH.

#P-5

DATE: 8-31-88

TIME: 10:23 AM

Photograph by:

JOHN MORGAN

Location: Yvonne Sauget
(TRUST)

Comments: Picture taken toward

WEST.

#P-6

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

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

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.

Table 4-17

SUMMARY OF SUBSURFACE SOIL SAMPLING RESULTS AT SITE K

Chemical Name	Number of Times Detected*	Highest Concentration Detected (mg/kg)	Sample Containing Highest Concentration
Volatile Organics			
toluene	1	0.015	K1-08
4-methyl-2-pentanone	1	0.011J	K1-08
Semivolatile Organics			
naphthalene	2	0.15J	K1-08
1,2,4-trichlorobenzene	1	0.096J	K1-08
2-methylnaphthalene	1	0.12J	K1-08
dibenzofuran	2	0.13J	K1-08
phenanthrene	3	1.7	K2-25
pyrene	3	1.8J	K1-08
fluoranthene	3	2.2	K2-25
benzo(a)pyrene	3	0.94	K2-25
benzo(a)anthracene	3	0.94J	K1-08
benzo(b)fluoranthene	3	1.2	K2-25
chrysene	3	1.0	K1-08
Pesticides/PCBs			
Aroclor 1242	1	19	K3-32
Aroclor 1248	2	120C	K1-08
Aroclor 1260	1	6.3	K2-25

* A total of 3 subsurface soil samples were collected from Site K. The numbers listed represent the number of samples, of the total of 3, in which each compound was detected.

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

C Identification confirmed by GC/MS.

Source: Ecology and Environment, Inc. 1988.

Subsurface Soils Semivolatiles

SITE	SITE I	SITE I	SITE J	SITE J	SITE J	SITE K	SITE K	SITE K	BLANK	SITE L	SITE L	SITE L	SITE L	SITE L
SAMPLE NUMBER	DC-I12-57	DC-I12-58	DC-J1-11	DC-J2-12	DC-J3-13	DC-K1-08	DC-K2-25	DC-K3-32	DC-LB-01 *	DC-L1-02	DC-L2-03	DC-L3-04	DC-L4-09	DC-L4-10 *
SAMPLE DEPTH	3.5'-12.5'	18.5'-27.5'	10'-20'	15'-25'	0-10'	0-10'	0-10'	10'-20'		5'-10'	5'-15'	5'-15'	10'-20'	10'-20'
DATE SAMPLED	2-13-87	2-13-87	12-17-86	12-17-86	12-17-86	12-16-87	1-12-87	1-22-87	12-12-86	12-12-86	12-12-86	12-12-86	12-17-86	12-17-86
1 Phenol											346 J	1519 J		
2 bis(2-Chloroethyl)ether														
3 2-Chlorophenol												2152		
4 1,3-Dichlorobenzene														
5 1,4-Dichlorobenzene					211 J							215 J		
6 Benzyl Alcohol														
7 1,2-Dichlorobenzene					100 J									
8 2-Methylphenol														
9 bis(2-Chloroisopropyl) ether														
10 4-Methylphenol											88 J	1089 J		
11 N-Nitroso-n-Dipropylamine														
12 Hexachloroethane														
13 Nitrobenzene														49 J
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						96 J								
21 Naphthalene				17949		153 J	48 J				154 J	532 J		
22 4-Chloroaniline														
23 Hexachlorobutadiene														
24 4-Chloro-3-methylphenol														
25 2-Methylnaphthalene				61538		118 J					333 J	1000 J		
26 Hexachlorocyclopentadiene														
27 2,4,6-Trichlorophenol														
28 2,4,5-Trichlorophenol														
29 2-Chloronaphthalene														
30 2-Nitroaniline														

Subsurface Soil Inorganics

	SITE	SITE J	SITE J	SITE K	SITE K	SITE K	BLANK	SITE L	SITE L	SITE L	SITE L	SITE L	SITE N	SITE N	BLANK	SITE P
	SAMPLE NUMBER	DC-J2-12	DC-J3-13	DC-K1-08	DC-K2-25	DC-K3-32	DC-LB-01 +	DC-L1-02	DC-L2-03	DC-L3-04	DC-L4-09	DC-L4-10 *	DC-N1-05	DC-N2-06	DC-NB-07 +	DC-P1-53
	SAMPLE DEPTH	15'-25'	0-10'	0-10'	0-10'	10'-20'		5'-10'	5'-15'	5'-15'	10'-20'	10'-20'	0-10'	5'-15'		0-10'
	DATE SAMPLED	12-17-86	12-17-86	12-16-87	1-12-87	1-22-87	12-12-86	12-12-86	12-12-86	12-12-86	12-17-86	12-17-86	12-15-86	12-15-86	12-16-86	2-11-87
1	Aluminum	5026	2522	4780	9073	10076	9397	10697	5205	7380	1120	1378	4763	1924	9385	5013
2	Antimony								32							
3	Arsenic	2 *	6 *	9 *	8 R	9 R	6 *	5 *		172	55 *	68 *	3 *	2 *	6 *	
4	Barium	106	44	112	202	192	410	197	192	192	114	142	130	46	358	126
5	Beryllium															
6	Boron															
7	Cadmium		4	2	1	4			6						2	4
8	Chromium, trivalent	7	55	351	22	15		16	15	10		3	8	5	13	16
9	Cobalt	4	5	11				6	9	9			4	3	7	
10	Copper	6	83	44	39	129		12	105	141	82	101	10	5	33	50
11	Iron	7320	5489	17765	22439	20000	13846	16053	5564	11899	1500	1446	820	6253	16026	12750
12	Lead	5 *	10 *	107 *	132 R	238 R	43 *	9 *	106	41	5 *	5 *	24	34 *	78 *	
13	Manganese	113	827	499	388	606	345	255	44	149	10	10	164	82	429	201 *
14	Mercury			2.2	0.4	0.2				0.1				9		3.9
15	Nickel	8	72	20	20	21	14	21	408	2392	83	93	11		18	25 *
16	Selenium															
17	Silver															
18	Thallium															
19	Tin					13										
20	Vanadium			16	29	27	22	25	10	19					21	19
21	Zinc	24	70	235	245	503	178	59	144	166	11	10	42	65	182	463 *
22	Cyanide			9												

Subsurface Soils Pest/PCBs

SITE	SITE J	SITE J	SITE K	SITE K	SITE K	BLANK	SITE L	SITE L	SITE L	SITE L	SITE L	SITE N	SITE N	BLANK	SITE P
SAMPLE NUMBER	DC-J2-12	DC-J3-13	DC-K1-08	DC-K2-25	DC-K3-32	DC-LB-01 +	DC-L1-02	DC-L2-03	DC-L3-04	DC-L4-09	DC-L4-10 8	DC-N1-05	DC-N2-06	DC-NB-07 +	DC-P1-53
SAMPLE DEPTH	15'-25'	0-10'	0-10'	0-10'	10'-20'		5'-10'	5'-15'	5'-15'	10'-20'	10'-20'	0-10'	5'-15'		0-10
DATE SAMPLED	12-17-86	12-17-86	12-16-87	1-12-87	1-22-87	12-12-86	12-12-86	12-12-86	12-12-86	12-17-86	12-17-86	12-15-86	12-15-86	12-16-86	2-11-87
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					19000										
24 AROCLOR-1248			117647 C	4880											
25 AROCLOR-1254															
26 AROCLOR-1260		179		6344											

Subsurface Soils Volatiles

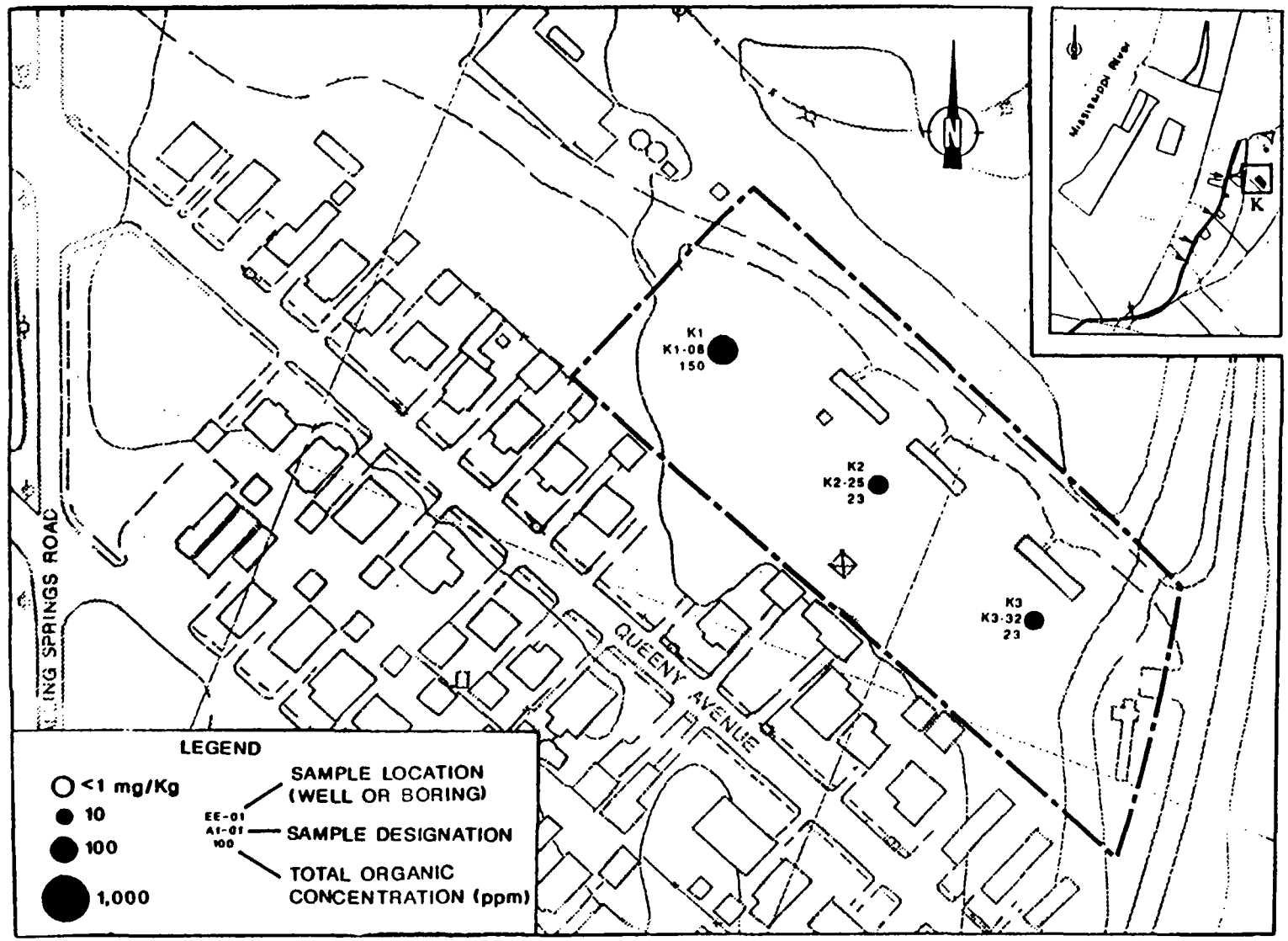
	SITE	SITE J	SITE J	SITE K	SITE K	SITE K	BLANK	SITE L	SITE L	SITE L	SITE L	SITE L	SITE N	SITE N	BLANK	SITE P
	SAMPLE NUMBER	DC-J2-12	DC-J3-13	DC-K1-08	DC-K2-25	DC-K3-32	DC-LB-01 +	DC-L1-02	DC-L2-03	DC-L3-04	DC-L4-09	DC-L4-10 B	DC-N1-05	DC-N2-06	DC-NB-07 +	DC-P1-53
	SAMPLE DEPTH	15'-25'	0-10'	0-10'	0-10'	10'-20'		5'-10'	5'-15'	5'-15'	10'-20'	10'-20'	0-10'	5'-15'		0-17'
	DATE SAMPLED	12-17-86	12-17-86	12-16-87	1-12-87	1-22-87	12-12-86	12-12-86	12-12-86	12-12-86	12-17-86	12-17-86	12-15-86	12-15-86	12-16-86	2-11-87
1	Chloroethane															
2	Bromoethane															
3	Vinyl Chloride															
4	Chloroethane															
5	Methylene Chloride	372 BJ	3 BJ	6 B	13 B	9 B	17 B	14 B	141 B	2278 B	8	5 J	4 BJ	6 J	4 BJ	18 B
6	Acetone	4487 B	467 BE	212 B	44 B	1003 EB	32 B	907 B	449 B	4557 B	32 B	81 B	45 B	11 BJ	23 B	1025 BE
7	Carbon Disulfide															
8	1,1-Dichloroethene															
9	1,1-Dichloroethane															
10	trans-1,2-Dichloroethene															
11	Chloroform									20253	96	49				13
12	1-2-Dichloroethane															
13	2-Butanone (MEK)	6026 B		25 B	29 B	29 B		16		10000 B	16 B			14 J		188 B
14	1,1,1-Trichloroethane															
15	Carbon Tetrachloride															
16	Vinyl Acetate															
17	Bromodichloroethane															
18	1,2-Dichloropropane															
19	trans-1,3-Dichloropropene															
20	Trichloroethene															
21	Dibromochloromethane															
22	1,1,2-Trichloroethane															
23	Benzene								141	4177	7 J	4 J				49
24	cis-1,3-Dichloropropene															
25	2-Chloroethyl Vinyl Ether															
26	Bromoform															
27	4-Methyl-2-pentanone		4 J	11 J				8 J	167		68 B	49 B	4 J			49
28	2-Hexanone															38
29	Tetrachloroethene															
30	1,1,2,2-Tetrachloroethane															
31	Toluene			15					2179	26582	93	50				413
32	Chlorobenzene															138
33	Ethylbenzene	2051							40 J							119
34	Styrene															
35	Total Xylenes	7947							179	670 J						450

Subsurface Soils Semivolatiles

SITE	SITE I	SITE I	SITE J	SITE J	SITE J	SITE K	SITE K	SITE K	BLANK	SITE L	SITE L	SITE L	SITE L	SITE L
SAMPLE NUMBER	DC-I12-57	DC-I12-58	DC-J1-11	DC-J2-12	DC-J3-13	DC-K1-08	DC-K2-25	DC-K3-32	DC-LB-01 +	DC-L1-02	DC-L2-03	DC-L3-04	DC-L4-09	DC-L4-10 8
SAMPLE DEPTH	3.5'-12.5'	18.5'-27.5'	10'-20'	15'-25'	0-10'	0-10'	0-10'	10'-20'		5'-10'	5'-15'	5'-15'	10'-20'	10'-20'
DATE SAMPLED	2-13-87	2-13-87	12-17-86	12-17-86	12-17-86	12-16-87	1-12-87	1-22-87	12-12-86	12-12-86	12-12-86	12-12-86	12-17-86	12-17-86
1 Dimethyl Phthalate														
2 Acenaphtylene							220 J							
3 3-Nitroaniline														
4 Acenaphthene				2179 J		150 J					44 J			
5 2,4-Dinitrophenol														
6 4-Nitrophenol														
7 Dibenzofuran				1013 J		129 J	104 J							
8 2,4-Dinitrotoluene														
9 2,6-Dinitrotoluene														
10 Diethylphthalate														310 J
11 4-Chlorophenyl-Phenylether														
12 Fluorene				3462 J			195 J							
13 4-Nitroaniline														
14 4,6-Dinitro-2-methylphenol														
15 N-Nitrosodiphenylamine														
16 4-Bromophenyl-phenylether														
17 Hexachlorobenzene														
18 Pentachlorophenol											11538	58228		
19 Phenanthrene				14103		1529 J	1708	559	45 J		602	1772 J		
20 Anthracene				910 J		294 J	415							
21 Di-n-butyl phthalate		134 J					378 BJ	1329 B		171 J	372 J	2784		
22 Fluoranthene						1765 J	2196	1208			448			
23 Pyrene				462 J		1765 J	1342	634			282 J			
24 Butyl Benzyl phthalate														
25 3,3'-Dichlorobenzidine														
26 Benzo(a)Anthracene						941 J	878	332 J				911 J		
27 bis(2-ethylhexyl) phthalate			1027	2949 J	1100	21176 E	1074	4681 B			1217		750	1297
28 Chrysene						1035 J	891	544			205 J			
29 Di-n-octyl phthalate						2941	146 J	302 J						
30 Benzo(b)Fluoranthene						1035	1220	619						
31 Benzo(k)Fluoranthene														
32 Benzo(a)Pyrene						929 J	939	378 J						
33 Indeno(1,2,3-cd)Pyrene							610							
34 Benzo(g,h,i)Perylene							598							
35 Dibenz(a,h)Anthracene														

Subsurface Soils Semivolatiles

SITE	SITE I	SITE I	SITE J	SITE J	SITE J	SITE K	SITE K	SITE K	BLANK	SITE L	SITE L	SITE L	SITE L	SITE L
SAMPLE NUMBER	DC-I12-57	DC-I12-58	DC-J1-11	DC-J2-12	DC-J3-13	DC-K1-08	DC-K2-25	DC-K3-32	DC-LB-01 +	DC-L1-02	DC-L2-03	DC-L3-04	DC-L4-09	DC-L4-10 *
SAMPLE DEPTH	3.5'-12.5'	18.5'-27.5'	10'-20'	15'-25'	0-10'	0-10'	0-10'	10'-20'		5'-10'	5'-15'	5'-15'	10'-20'	10'-20'
DATE SAMPLED	2-13-87	2-13-87	12-17-86	12-17-86	12-17-86	12-16-87	1-12-87	1-22-87	12-12-86	12-12-86	12-12-86	12-12-86	12-17-86	12-17-86
1 Dimethyl Phthalate														
2 Acenaphtylene							220 J							
3 3-Nitroaniline														
4 Acenaphthene				2179 J		150 J					44 J			
5 2,4-Dinitrophenol														
6 4-Nitrophenol														
7 Dibenzofuran				1013 J		129 J	104 J							
8 2,4-Dinitrotoluene														
9 2,6-Dinitrotoluene														
10 Diethylphthalate														310 J
11 4-Chlorophenyl-Phenylether														
12 Fluorene				3462 J			195 J							
13 4-Nitroaniline														
14 4,6-Dinitro-2-methylphenol														
15 N-Nitrosodiphenylamine														
16 4-Bromophenyl-phenylether														
17 Hexachlorobenzene														
18 Pentachlorophenol											11538	58228		
19 Phenanthrene				14103		1329 J	1708	559	45 J		602	1772 J		
20 Anthracene				910 J		294 J	415							
21 Di-n-butyl phthalate		134 J					378 BJ	1329 B		171 J	372 J	2784		
22 Fluoranthene						1765 J	2196	1208			448			
23 Pyrene				462 J		1765 J	1342	634			282 J			
24 Butyl Benzyl phthalate														
25 3,3'-Dichlorobenzidine														
26 Benzo(a)Anthracene						941 J	878	332 J				911 J		
27 bis(2-ethylhexyl) phthalate			1027	2949 J	1100	21176 E	1074	4681 B			1217		750	1297
28 Chrysene						1035 J	891	544			205 J			
29 Di-n-octyl phthalate						2941	146 J	302 J						
30 Benzo(b)Fluoranthene						1035	1220	619						
31 Benzo(k)Fluoranthene														
32 Benzo(a)Pyrene						929 J	939	378 J						
33 Indeno(1,2,3-cd)Pyrene							610							
34 Benzo(g,h,i)Perylene							598							
35 Dibenz(a,h)Anthracene														



SOURCE: Ecology and Environment, Inc., 1988.

SCALE

0 100 200 300 400 500 FEET

FIGURE 4-44 TOTAL ORGANIC CONCENTRATIONS IN SUBSURFACE SOILS AT SITE K