C.2
N.P

L1630200005/St. Clair County
H.H. Hall Excavation Pit
AKA Site M
ILD 984809251
Superfund/HRS

153461

CERCLA

Preliminary Assessment Report

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

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SITE ASSESSMENT
SECTION

SECTION 1

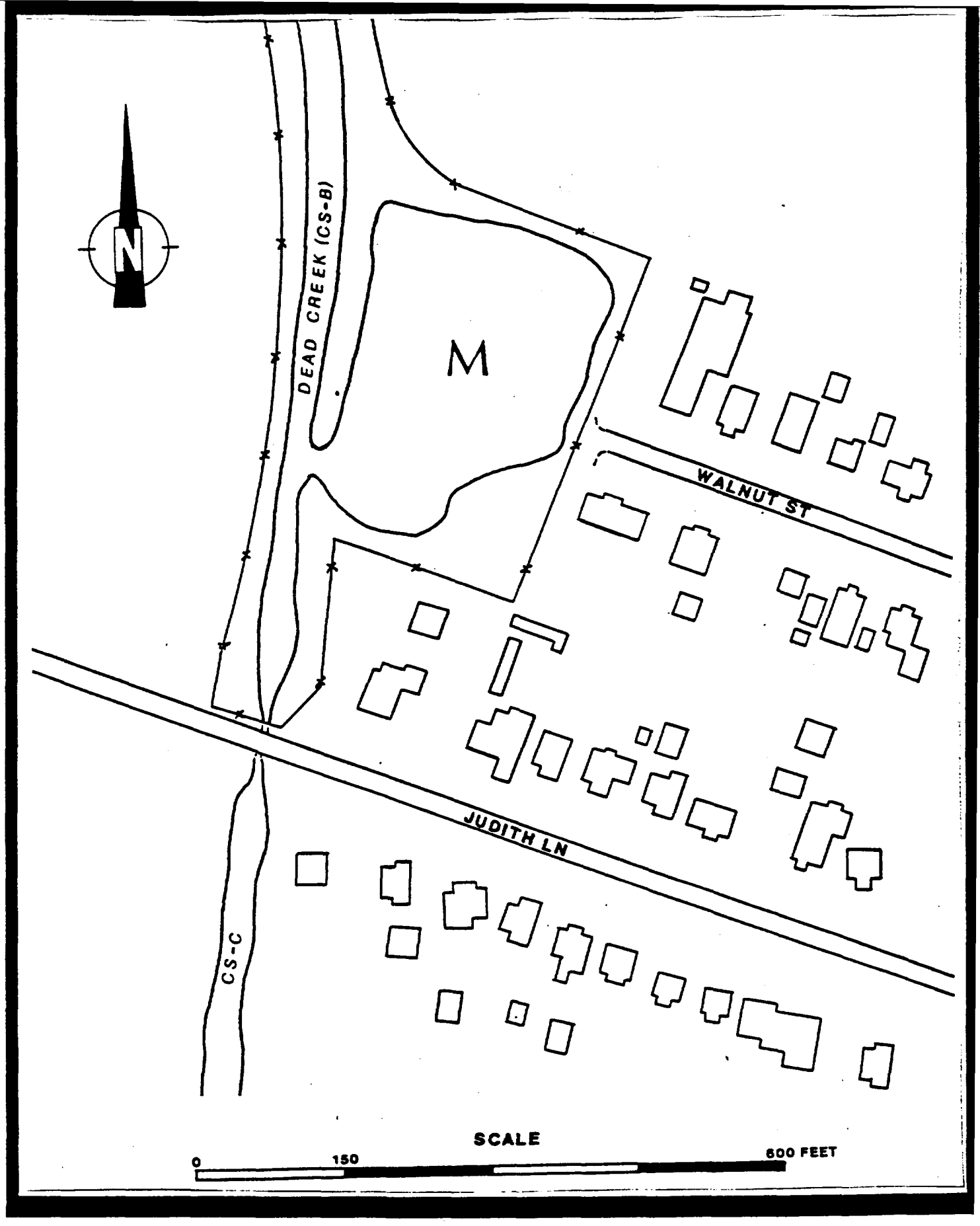
EXECUTIVE SUMMARY

Executive Summary

H.H. Hall Excavation Pit was placed on the Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) on October 26, 1990, as a result of a request for discovery action initiated by the Illinois Environmental Protection Agency (IEPA). This action was taken as a result of alleged waste disposal practices at the site and the belief that excavation pit is one of many sites in Sauget (formerly Monsanto) and northern Cahokia, which has contributed to the degradation of environmental quality in this area.

H.H. Hall Excavation Pit is also known as Site M in IEPA file information. Therefore, H.H. Hall Excavation Pit will also be referred to as Site M for much of this report.

Site M is a former sand pit excavated by the H.H. Hall Construction Company in the mid- to late-1940's. It is located in Cahokia immediately east of Dead Creek and approximately 300 feet north of Judith Lane. The dimensions of the pit are approximately 275 feet by 350 feet, and its depth is estimated to be 40 feet. Presently, site M is filled with water although it remains unclear as to whether the water is a surface expression of the groundwater, or simply collected rainwater and drainage. Site M is depicted in the drawing on the following page.



PA: H.H. Hall Excavation Pit AKA Site M ILD 984809251

Site M is located in a residential area of northern Cahokia, just south of Sauget, Illinois. The closest residents live just east of the pit on Walnut Street. In the past, Walnut Street served as the access road to site, prior to the residential development. The site geographic location is within the southeast quarter of Section 26, Township 2 North, Range 10 West of the Third Principal Meridian in St. Clair County.

No information is available on file concerning waste disposal activities at Site M. It is possible that disposal did occur, since access to the pit remained unrestricted until a snow fence was erected in 1980. From review of historical aerial photographs, it is evident that minor changes in the dimensions of the pit have occurred. This could be an indication of filling around the perimeter of the pit. A 1950 aerial photograph is contained in Section 3 of this report. A Cahokia resident, Mr. Thomas Owen, is the current site owner.

IEPA and the Cahokia Health Department have received numerous complaints about Site M and the creek, from residents in the area. These complaints address, for the most part, seepage of odoriferous water into basements and problems associated with well water use.

IEPA sampled several wells in the area during the preliminary

hydrogeologic study conducted in 1980. In addition, a sample of basement seepage was collected from a home on Walnut Street near Site M. The results showed concentrations of copper, manganese and phosphorus above the state's water quality standards in one or more wells and in the basement seepage sample .

In conjunction with the creek sampling done in 1980, IEPA collected sediment and water samples from Site M. Although the water samples showed no significant contamination, the water quality standards for copper, phosphorous and zinc were exceeded and trace amounts of PCB's were detected in both samples. In the sediment samples, obvious contamination was observed. Fairly high levels of cadmium, chromium, copper, lead, nickel, zinc and PCB's were detected in the mud at Site M. Reference #1 contains the results of the well sampling, basement seepage, pit water and pit sediment samples from the Dead Creek study.

In 1985, IEPA contracted Ecology and Environment, Incorporated (E&E) to investigate 12 suspected uncontrolled hazardous waste sites and six segments of Dead Creek in Sauget and Cahokia. Site M was among the 12 sites with which a soil gas survey and samples of surface water sediments were collected. E&E also collected surface water and sediment samples from the adjacent creek as well as nearby groundwater samples from private wells. The results of the IEPA financed

investigation were used in the preparation of this report.

Six locations were tested for volatile soil gases at Site M. Only relatively low levels were identified. In the north central portion of the site and on the northeast side of the site, 18 milligrams per liter (mg/l) and 16 mg/l of volatile organics were detected respectively. Results of the soil gas tests, as well as the pit surface water and sediment samples, nearby Dead Creek surface water and sediment samples, and nearby private well samples are all included in Reference #2.

In the 2 surface water samples collected from the pit, the only organic compound detected was di-n-octyl phthalate found in both samples at an estimated 2 micrograms per liter (ug/l) and 4 ug/l. Heavy metals in the pit's surface water included elevated levels of barium, chromium, copper, iron, lead, nickel and zinc as compared with some of the Dead Creek surface water samples.

Three sediment samples were collected from the pit. The analytical results also indicated the presents of phthalate esters. Methyl ethyl ketone and PCB's were also detected in the sediment samples. The table on the following page summarizes the sediment sample results.

Summary of Sediment Sample Results for Site M

Chemical Name	Number of Detections	Highest Conc.	Sample with Highest Conc.
Volatiles			
2-butanone (MEK)	3	1400	SD-16
Semi-volatiles			
di-n-butyl phthalate	3	560J	SD-17
bis(2-ethylhexyl) phthalate	2	540J	SD-16
di-n-octyl phthalate	2	270J	SD-16
PCB's			
AROCLOR 1242	1	20000	SD-16
AROCLOR 1248	3	8830	SD-16
AROCLOR 1254	2	4200	SD-17
AROCLOR 1260	2	2700J	SD-17

Conc.-Concentration, J-estimated value, values in mg/kg (ppm)

Creek Segment B (CS-B) is the portion of Dead Creek which intermittently flows between Queeny Avenue and Judith Lane in Sauget and Cahokia. Site M is located adjacent to the end of this segment, on the east side of the creek. Nitroaniline, Aroclor 1260 (PCB) and elevated levels of cadmium, mercury, copper, barium, arsenic, chromium and lead were all detected in surface water samples of CS-B. The CS-B sediment samples found volatiles as well as greater numbers and concentrations of semi-volatiles near Site M.

Groundwater samples were collected from four private residences along Judith Lane, just south of Site M. Trace levels of organic contamination were detected in 3 of the 4

wells, and although the fourth well did not show organic contamination, elevated levels of arsenic, copper, lead, and mercury were detected in that well.

A CERCLA Preliminary Assessment site reconnaissance was conducted at Site M by IEPA on March 27, 1991. At this time, IEPA was also conducting a CERCLA Screening Site Inspection for Sauget Sites Area #1.

Site M appears as a nice small pond, although the east bank is strewn with miscellaneous trash and debris. Other than this material, no evidence of waste disposal was observed in the pit. Site M is connected to CS-B by a drainageway, or cut-through, about 8 feet wide, which allows flow between the creek and the pit. The pit receives surface run-off from the from the small residential area located east and south of the site. Excess water in the pit, drains through the cut-through located in the southwest corner.

Site M is located in an area known as the American Bottoms. Area well logs indicated the upper stratigraphy in this area consists of 70-120 feet of unconsolidated alluvium and glacial outwash overlying Mississippian aged limestone and sandstone formations (Ste. Genevieve and St. Louis Limestones). The valley fill deposits are composed of two formations, the uppermost being the Cahokia Alluvium followed by the Mackinaw Member of the Henry Formation.

The Cahokia Alluvium is composed predominantly of silt, clay and fine sand deposits, generally indicative of a aggrading environment. In the vicinity of Dead Creek, these deposits vary in thickness, with a range of 15 to 30 feet. This formation was laid down via flood events, eolian activity, bank slumping, erosion and/or slugs of material deposited directly by tributary steams. The Mississippi River has frequently reworked this formation in such a way that coarser material is intermingled with finer-grained deposits.

Underlying the Cahokia Alluvium is the Mackinaw Member of the Henry Formation. This formation is composed of sand and gravel from glacial outwash. At the Dead Creek area, this material rest directly on the bedrock surface and varies between 70 and 100 feet in thickness. Reference #3 contains area well logs which describe the area geology.

Local hydrogeologic information has been obtained through groundwater monitoring in the Dead Creek area. In the vicinity of Site M, shallow sand and gravel deposits close to the ground surface, yield significant quantities of water for nearby homes and business. Horizontal groundwater movement in the shallow deposits generally follow the land surface topography, with lateral movement toward local discharge zones (wells and small streams), and some movement into the deeper unconsolidated aquifers. Groundwater is encountered

between 10 and 28 feet below the ground surface in the Dead Creek area. Under Site M, the aquifer of concern (AOC) is encountered at 10 feet. Groundwater in the deeper unconsolidated valley fill deposits generally follows the bedrock surface. Accordingly, groundwater generally flows downstream through the sand and gravel aquifers in much the same direction as the original stream flow, but at a much slower rate.

Most area residents are supplied with drinking water by the Illinois-American Water Company (IAWC) which operates an intake on the Mississippi River upstream of Sauget. IAWC sells the water to the various water departments and districts within the Sauget/Cahokia area. However, some area residents do obtain drinking water from shallow wells. Illinois Department of Public Health (IDPH) files and Illinois State Water Survey (ISWS) well logs indicate at least 50 area residents have wells which are used for drinking or irrigation. These wells are located in Cahokia (23), East St. Louis (5), East Carondelet (16) and Dupo (6). These do not include the wells at the homes on Judith Lane in Cahokia or an unknown number of residents in the Schmids Lake area (approximately 3.75 miles southwest) that are not covered by any public water distribution. A 1983 report by the Southwestern Illinois Metropolitan and Regional Planning Commission (SIMRPC) listed 69 residences in Centreville Township (includes Sauget, Cahokia, Alorton and Centreville)

which use private water systems. The same report lists 57 residences in East St. Louis and 365 residences in Sugarloaf Township (includes Dupo, North Dupo and East Carondelet). SIMRPC based their report on 1980 census data. Reference #4 contains a map which pin-points some of the ISWS well locations and a printout of area wells.

Surface water drainage that enters the intermittent Dead Creek (AKA Old Cahokia Creek and Rigolet Creek), travels south and southwest through its course. As the creek exits the village of Cahokia, it enters a large wetland. The wetland and Dead Creek drain underneath the 500-year levee (with flood control gate that protects the villages of Sauget and Cahokia) into the Old Prairie DuPont Creek. From the Old Prairie DuPont Creek, water flows west into the Cahokia Chute which discharges into the Mississippi River at river mile 174.2.

The average discharge of the Mississippi River, as measured over a 128 year period at St. Louis, Missouri, is 179,800 cubic feet per second. The Old Prairie DuPont Creek and the Cahokia Chute are minimal streams that lack stream flow information. The probable point of entry (PPE) is where the Dead Creek wetland area enters Old Prairie DuPont Creek, 15,740 feet or 2.98 miles from Site M. The flow distance from the PPE to the Mississippi River is 8,520 feet or 1.61 miles. A 15-mile surface water map is included in Section 3

of this report. The 15-mile surface water target limit extends to Mississippi River mile 160.8.

Surface water use in the immediate area (from Mississippi River mile 174 to 178) is limited to recreation and freight trafficking. The upstream surface water intake (river mile 181), which supplies most of the Illinois side area residents, was mentioned in a previous paragraph. The city of St. Louis is also supplied by an upstream surface water intake, about 12 miles north at river mile 190. At downstream river mile 149 (about 28 river miles south), the village of Crystal City, Missouri (population 4000) utilizes a Ranney well, adjacent the Mississippi River, for drinking water. A well of this kind, is assumed to draw in surface water due to its construction and location to the river. On the Illinois side, the nearest downstream surface water intake is located approximately 65 river miles south, at river mile 110. The intake is used by the town of Chester and surrounding communities in Randolf County.

According to the Illinois Department of Conservation (IDOC), the Resource Inventory for the Mississippi River at river miles 178-162 shows fishing areas, sport fishing areas, important wildlife habitat and bald eagle use at selected areas in this reach. Correspondence from IDOC, details the aforementioned sensitive areas in Reference #5.

Although air samples have not been collected from Site M, there is a slight potential for an air release to occur, due to the off gassing of contaminated soil. As noted early in this report, access to Site M is restricted by a cyclone fence, however, there are several areas along CS-B where the fence is in need of repair. Local kids could find their way through these holes. Contamination is within 2 feet of the surface and the site is bordered on the east by Walnut Street residents.

Through 1990 U.S. Census data, it has been estimated that about 2000 people live within a mile Site M and about 148,000 people live within 4-miles. The following table shows the 4-mile radius population calculation. According to the Illinois Department of Commerce and Community Affairs (1988), approximately 3,200 people are employed in the immediate area of the site.

Target Population Calculation

City	Population Density/ Total Population	Area w/in 4-Mile Radius	Population w/in 4-Mile Radius
St. Louis	7,379/sq mi	11.5 sq mi	84,826
E. St. Louis	4,119/sq mi	8.5 sq mi	34,875
Alorton	2,237	100%	2,237
Cahokia	18,904	100%	18,904
Centreville	9,747	75%	7,310

Total Target Population = 148,152

A high priority has been assigned to this site. In order to quantitatively determine the threat posed by the contaminated sand pit, a CERCLA Screening Site Inspection should be conducted at H.H. Hall Excavation Pit/Site M. The site will be aggregated along with nine other similar sites in the immediate area (Sauget Sites Area #1), so as to more accurately assess their cumulative health risks and environmental threats.

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U.S. Geological Survey, 1974, Monks Mound, IL. Quadrangle (225A), 1982, Granite City, IL-MO Quadrangle (225B), 1974, Cahokia, IL-MO. Quadrangle (225C), 1982, French Village, IL Quadrangle (225D), 7.5 Minute Series

U.S. Department of the Interior. Fish and Wildlife Service, National Wetlands Inventory Maps: Monks Mound, IL. Quadrangle (225A), Granite City, IL-MO Quadrangle (225B), Cahokia, IL-MO Quadrangle (225C), French Village, IL. Quadrangle (225D).

SECTION 2

EPA FORM 2070-12

"Potential Hazardous Waste Site
Preliminary Assessment"

EPA

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

I. IDENTIFICATION
01 STATE: ILD | 02 SITE NUMBER: 984809251

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ■ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) — ■ POTENTIAL — ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Sparse vegetation in areas near bank

01 ■ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) — ■ POTENTIAL — ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)
None observed, however, there appears to be no fish in pit water also see D. above about burning dog

01 ■ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) — ■ POTENTIAL — ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Potential due to bioaccumulation of metals and PCB's

01 ■ M. UNSTABLE CONTAINMENT OF WASTES (Spills, runoff, standing liquids, leaking drums) — 02 ☐ OBSERVED (DATE: _____) — ■ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
8 feet cut-through allows drainage to enter Deed Creek and vis-versa. Sand pit is presumed to be unlined

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
04 NARRATIVE DESCRIPTION
None documented or observed

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
04 NARRATIVE DESCRIPTION
None documented or observed

01 ■ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) — ■ POTENTIAL — ● ALLEGED
04 NARRATIVE DESCRIPTION
Sand pit dimensions have changed over time (review of dated aerial photos), an indication of filling. Also complaints allege of dumping drums etc. into pit.

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

III. TOTAL POPULATION POTENTIALLY AFFECTED: >50

IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)
IEPA Div of Land Pollution Control files L1630200005

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: 984809251

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site): H. H. Hall Excavation Pit AKA Site M
02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER: West End of Walnut Street
03 CITY: Cahokia
04 STATE: IL | 05 ZIP CODE: 62201 | 06 COUNTY: St. Clair | 07 COUNTY CODE: 163 | 08 CONG DIST: 23
09 COORDINATES — LATITUDE: 38 35 05.0 | LONGITUDE: 090 10 50.0
Cahokia, IL-MO Quadrangle (225C)
10 DIRECTIONS TO SITE (Starting from nearest public road)
See map section of report

III. RESPONSIBLE PARTIES

01 OWNER (If known): Thomas Owen
02 STREET (Business, mailing, residential): 1929 Sandy Ridge Rd.
03 CITY: Cahokia
04 STATE: IL | 05 ZIP CODE: 62206 | 06 TELEPHONE NUMBER: (618) 337-5146
07 OPERATOR (If known and different from owner):
08 STREET (Business, mailing, residential):
09 CITY:
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 ☐ NO DATE 11/5/86 (MONTH DAY YEAR)
BY (Check all that apply): ☐ A. EPA ■ B. EPA CONTRACTOR (Illinois EPA) ☐ C. STATE ☐ D. OTHER CONTRACTOR ☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____
CONTRACTOR NAME(S): Ecology and Environment, Inc.

02 SITE STATUS (Check one): ☐ A. ACTIVE ■ B. INACTIVE ☐ C. UNKNOWN
03 YEARS OF OPERATION: 1950 (BEGINNING YEAR) | UNKNOWN (ENDING YEAR) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
~~phthalates~~ PCB's (toxic, persistant)
Heavy metals

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
Groundwater (env. + pop.)
Surface water (env. + pop.)
Air (pop.) only slight potential

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: Timothy J. Murphy
02 OF (Agency/Organization): IEPA/DLPC/RPMS
03 TELEPHONE NUMBER: 217 782-6760
04 PERSON RESPONSIBLE FOR ASSESSMENT: Timothy J. Murphy
05 AGENCY: IEPA | 06 ORGANIZATION: DLPC/RPMS | 07 TELEPHONE NUMBER: (217) 782-6760 | 08 DATE: 08/12/91 (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	984809251

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 UNKNOWN

03 WASTE CHARACTERISTICS (Check all that apply)

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

III. WASTE TYPE

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

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

highest Sediment

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
SOL	2-Butanone (MEK)	78933	UNKNOWN	14,000	ug/Kg
OCC	bis(2ethylhexyl)phthalate	N.A.	"	540 J	"
OCC	di-N-octyl phthalate	N.A.	"	270 J	"
OLW	AROCLOR 1242 } PCB's	53469219	"	20,000	"
OLW	AROCLOR 1248 } PCB's	12672296	"	8,830	"
OLW	AROCLOR 1254 } PCB's	11097691	"	4,200	"
OLW	AROCLOR 1260 } PCB's	11096825	"	2,700 J	"
MES	Zinc	N.A.	"	1,810	mg/Kg
MES	Mercury	N.A.	"	0.56	"
MES	Lead	N.A.	"	71	"
MES	Copper	N.A.	"	1,780	"
MES	Cadmium	N.A.	"	"	"
			"		

V. FEEDSTOCKS (See Appendix for CAS Numbers)

J - estimated, B - found in blank

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 Environmental Protection Agency (IEPA) Div. of Land Pollution Control files L1630200005

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	02 SITE NUMBER
ILD	984809251

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 (●) A. GROUNDWATER CONTAMINATION — 02 ☐ OBSERVED (DATE ____) (●) POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 750 — 04 NARRATIVE DESCRIPTION
4 Neighboring homes, just south of the site on Judith Ln., show organic and inorganic contamination in wells and basement seep samples.

01 (●) B. SURFACE WATER CONTAMINATION — 02 (●) OBSERVED (DATE: 11-5-86) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ____ — 04 NARRATIVE DESCRIPTION
Dead Creek Segment B adjacent the site is contaminated w/ PCB's also found on-site.

01 (●) C. CONTAMINATION OF AIR — 02 ☐ OBSERVED (DATE: ____) (●) POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ____ — 04 NARRATIVE DESCRIPTION
Soil gas readings of 18 mg/l and 16 mg/l were obtained from the banks of the pit.

01 (●) D. FIRE/EXPLOSIVE CONDITIONS — 02 ☐ OBSERVED (DATE: ____) (●) POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ____ — 04 NARRATIVE DESCRIPTION
In July of 1979, IEPA recieved complaints of smoldering and fires in Dead Creek (segment B)-also May of 1980. Also, in Aug. of 1980 Local residents dog burns in creek segment B - All w/in close proximity of Site M

01 (●) E. DIRECT CONTACT — 02 ☐ OBSERVED (DATE ____) (●) POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ____ — 04 NARRATIVE DESCRIPTION
Fence was erected around Dead Creek Segment B and Site M in October 1982 however there are holes in the fence at several locations

01 (●) F. CONTAMINATION OF SOIL — 02 (●) OBSERVED (DATE 11-5-86) ☐ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: 5 (Acres) — 04 NARRATIVE DESCRIPTION
Sediment samples are contaminated w/ MEK, phthalates, PCB's and heavy metals, see opposite page (Z IV)

01 (●) G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE ____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 750 — 04 NARRATIVE DESCRIPTION
See A. above

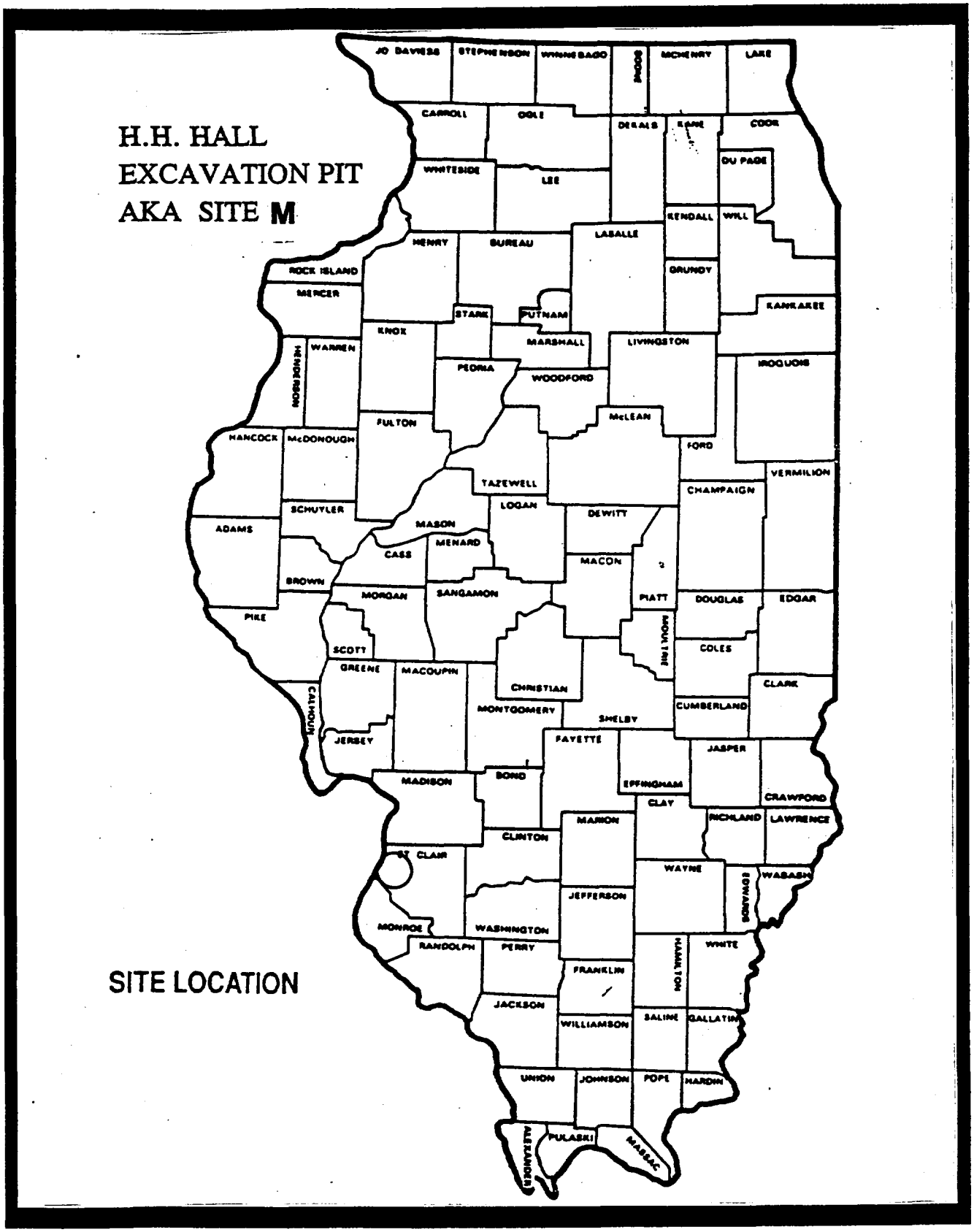
01 ☐ H. WORKER EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE ____) ☐ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: ____ — 04 NARRATIVE DESCRIPTION
None documented or observed

01 (●) I. POPULATION EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE ____) (●) POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ____ — 04 NARRATIVE DESCRIPTION
See A. and E. above

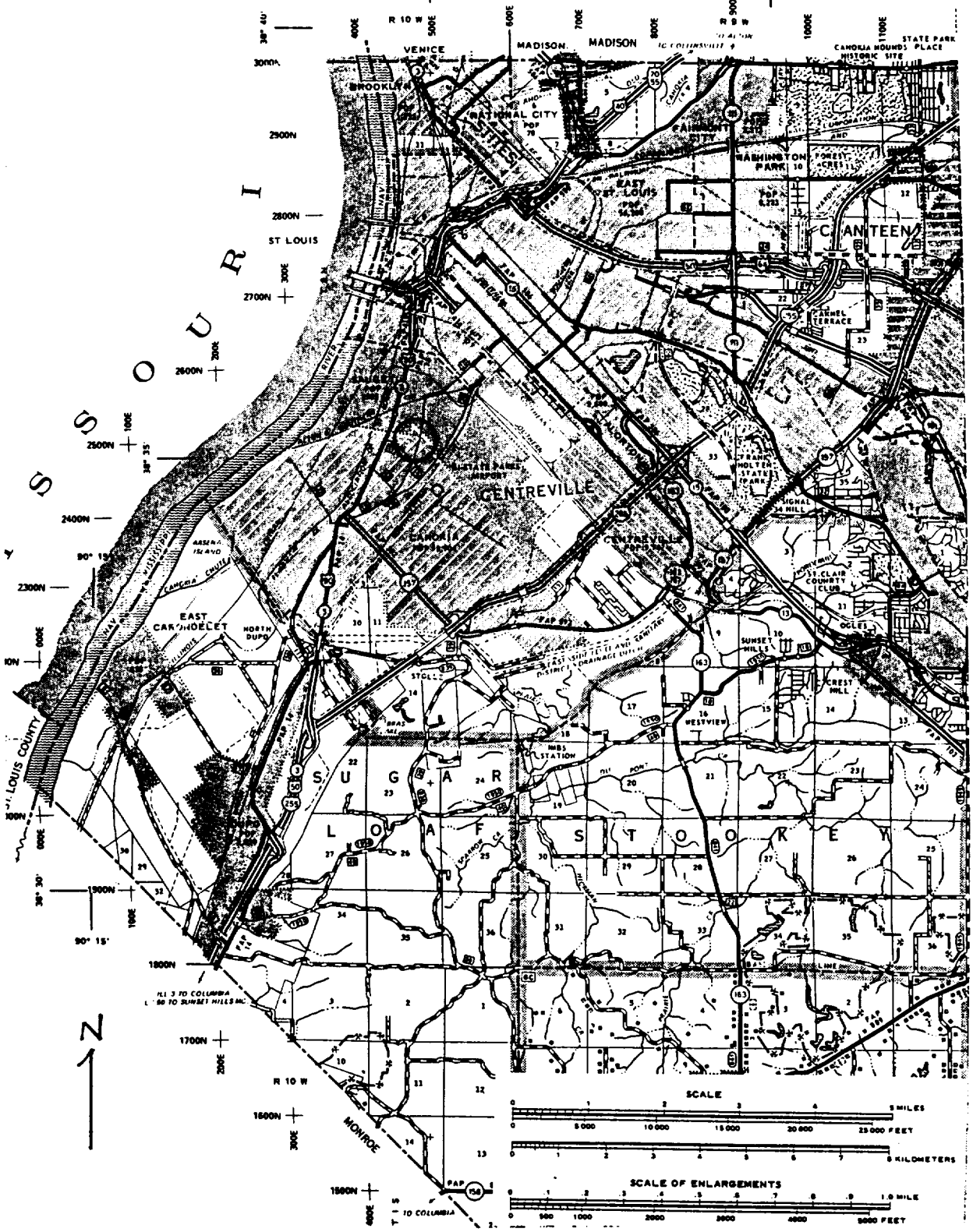
EPA FORM 2070-12 (7-81)

SECTION 3

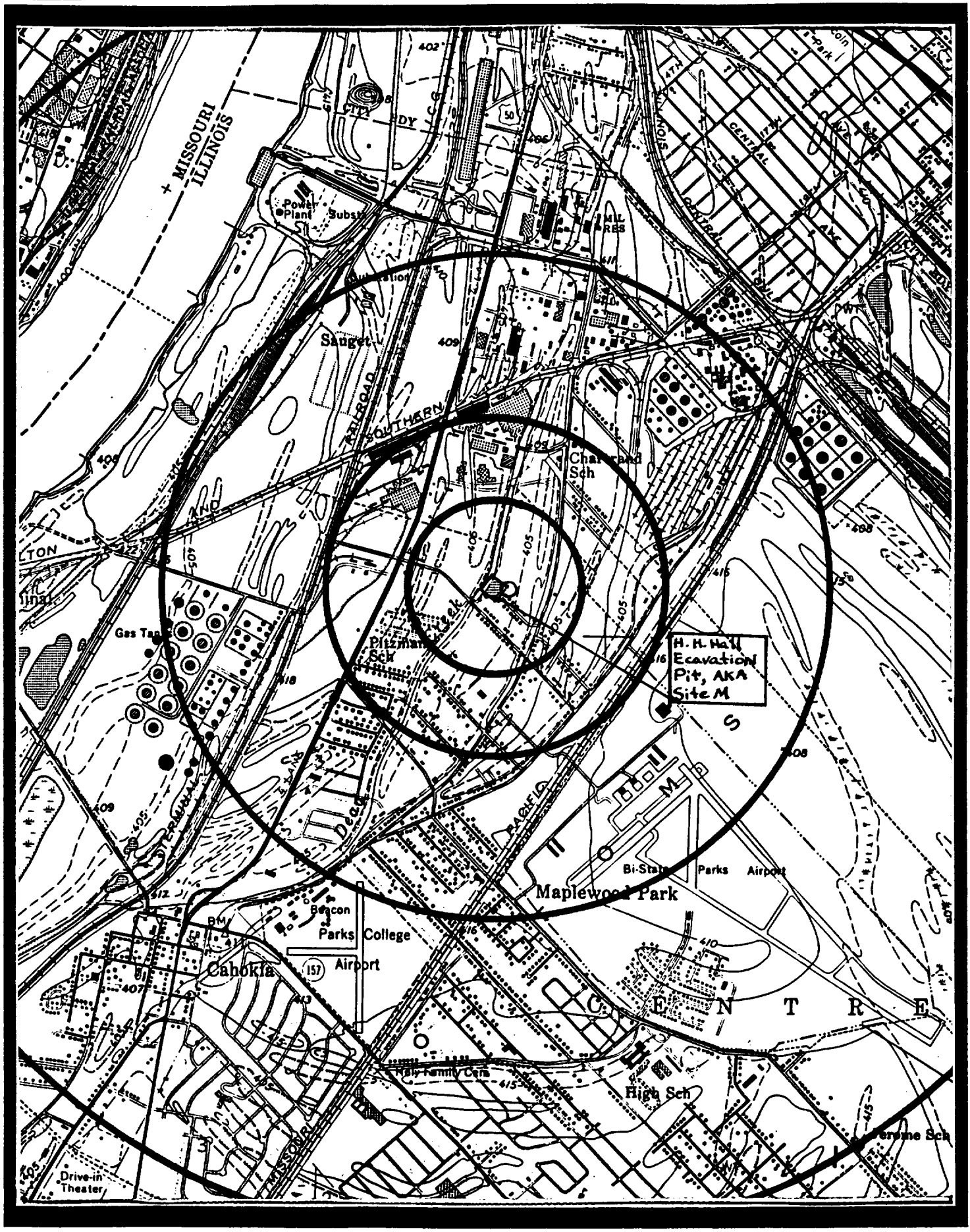
MAPS


H.H. HALL
EXCAVATION PIT
AKA SITE M
SITE LOCATION
JO DAVIESS
STEPHENSON
WINNEBAGO
BOONE
MCHENRY
LAKE
CARROLL
OGLE
DEKALB
KANE
COOK
WHITESIDE
LEE
DU PAGE
KENDALL
WILL
HENRY
BUREAU
LASALLE
ROCK ISLAND
GRUNDY
MERCER
STARK
PUTNAM
KANKAKEE
KNOX
MARSHALL
LIVINGSTON
HENDERSON
WARREN
PEORIA
WOODFORD
IROQUOIS
FULTON
McLEAN
HANCOCK
McDONOUGH
FORD
VERMILION
TAZEWELL
CHAMPAIGN
SCHUYLER
LOGAN
DEWITT
ADAMS
MASON
MENARD
CASS
MACON
BROWN
MORGAN
SANGAMON
PIATT
DOUGLAS
EDGAR
PIKE
MOUTRIE
SCOTT
COLES
GREENE
MACOUPIN
CHRISTIAN
CLARK
CALHOUN
MONTGOMERY
SHELBY
CUMBERLAND
JERSEY
FAYETTE
JASPER
MADISON
BOND
EFFINGHAM
CRAWFORD
CLAY
MARION
RICHLAND
LAWRENCE
CLINTON
ST CLAIR
WAYNE
EDWARDS
WABASH
JEFFERSON
MONROE
WASHINGTON
RANDOLPH
PERRY
HAMILTON
WHITE
FRANKLIN
JACKSON
SALINE
GALLATIN
WILLIAMSON
UNION
JOHNSON
POPE
HARDIN
ALEXANDER
PULASKI
MASSAC

GENERAL HIGHWAY MAP
ST. CLAIR COUNTY
ILLINOIS



PA: H.H. Hall Excavation Pit AKA Site M ILD 984809251

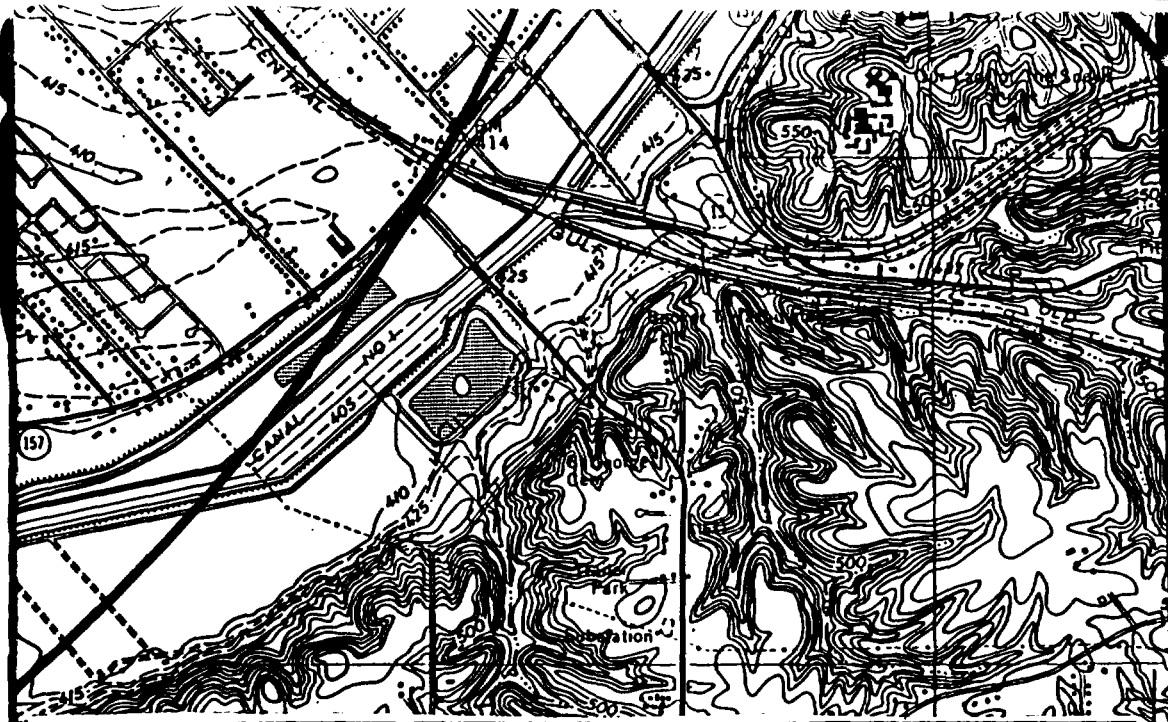


PA: H.H. Hall Excavation Pit AKA Site M ILD 984809251

SDMS US EPA REGION V
FORMAT- OVERSIZED - 5
IMAGERY INSERT FORM

The item(s) listed below are not available in SDMS. In order to view original document or document pages, contact the Superfund Records Center.

SITE NAME	SAUGET AREA 1		
DOC ID #	153461		
DESCRIPTION OF ITEM(S)	SITE MAPS		
REASON WHY UNSCANNABLE	_X_OVERSIZED	OR	___ FORMAT
DATE OF ITEM(S)			
NO. OF ITEMS	2		
PHASE	SAS		
PRP			
PHASE (AR DOCUMENTS ONLY)	___ Remedial ___ Removal ___ Deletion Docket ___ AR ___ Original ___ Update # ___ Volume ___ of ___		
COMMENT(S)			
PARTIAL COPY FIGURE: 225B - 225C			



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

N

SITE NAME H.H. Hall Excavation Pit AKA Site M

SITE ILD# 984809251

USGS TOPOGRAPHIC MAPS	
225B NAME Granite City, IL-MO DATE 1954 REVISED 1982	225A NAME Monks Mound, IL DATE 1954 REVISED 1968, 1974
225C NAME Cahokia, IL-MO DATE 1954 REVISED 1968, 1974	225D NAME French Village, IL DATE 1954 REVISED 1982

LEGEND

- SITE LOCATION
- PUBLIC WELL
- NEAREST WELL
- SURFACE WATER INTAKE

ILLINOIS

QUADRANGLE LOCATION

MAP SCALE

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

1 MILE

5000 6000 7000 FEET

1 KILOMETER

20 acres

port concerning the
nt may be available.

n III

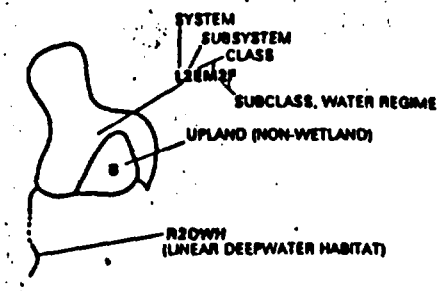
SP)

SPECIAL NOTE

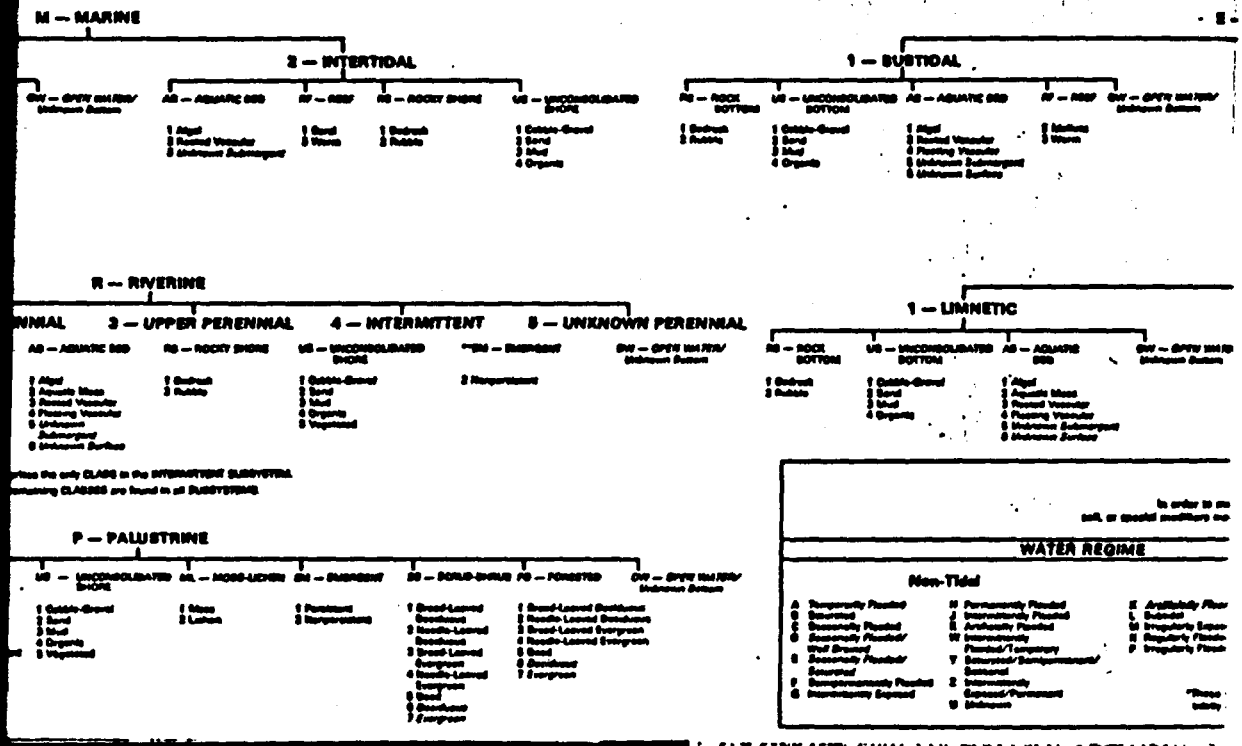
This document was prepared primarily by stereoscopic analysis of high altitude aerial photographs. Wetlands were identified on the photographs based on vegetation, visible hydrology, and geography in accordance with Classification of Wetlands and Deepwater Habitats of the United States (FWS/OBS - 79/31 December 1979). The aerial photographs typically reflect conditions during the specific year and season when they were taken. In addition, there is a margin of error inherent in the use of the aerial photographs. Thus, a detailed on the ground and historical analysis of a single site may result in a revision of the wetland boundaries established through photographic interpretation. In addition, some small wetlands and those obscured by dense forest cover may not be included on this document.

Federal, State and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, State or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, State or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

SYMBOLOGY EXAMPLE



B — Primarily represents upland areas, but may inclu unclassified wetlands such as man-modified areas, n photo-identifiable areas and/or unintentional omission



SITE: H.H. Hall Excavation Pit
AKA Site M
SITE ILD
984809251

D-IL

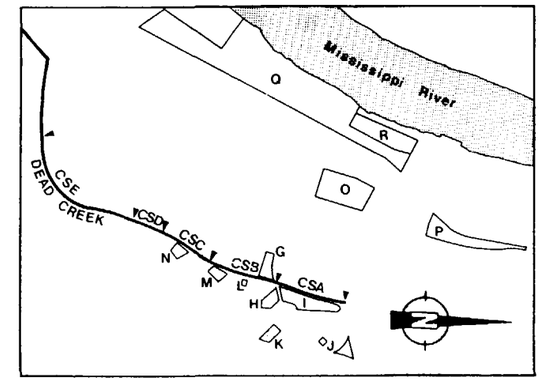
QUAD: Cahokia, IL-MO

NUMBER: 225 C

DATE: 1974/1988 Wetland

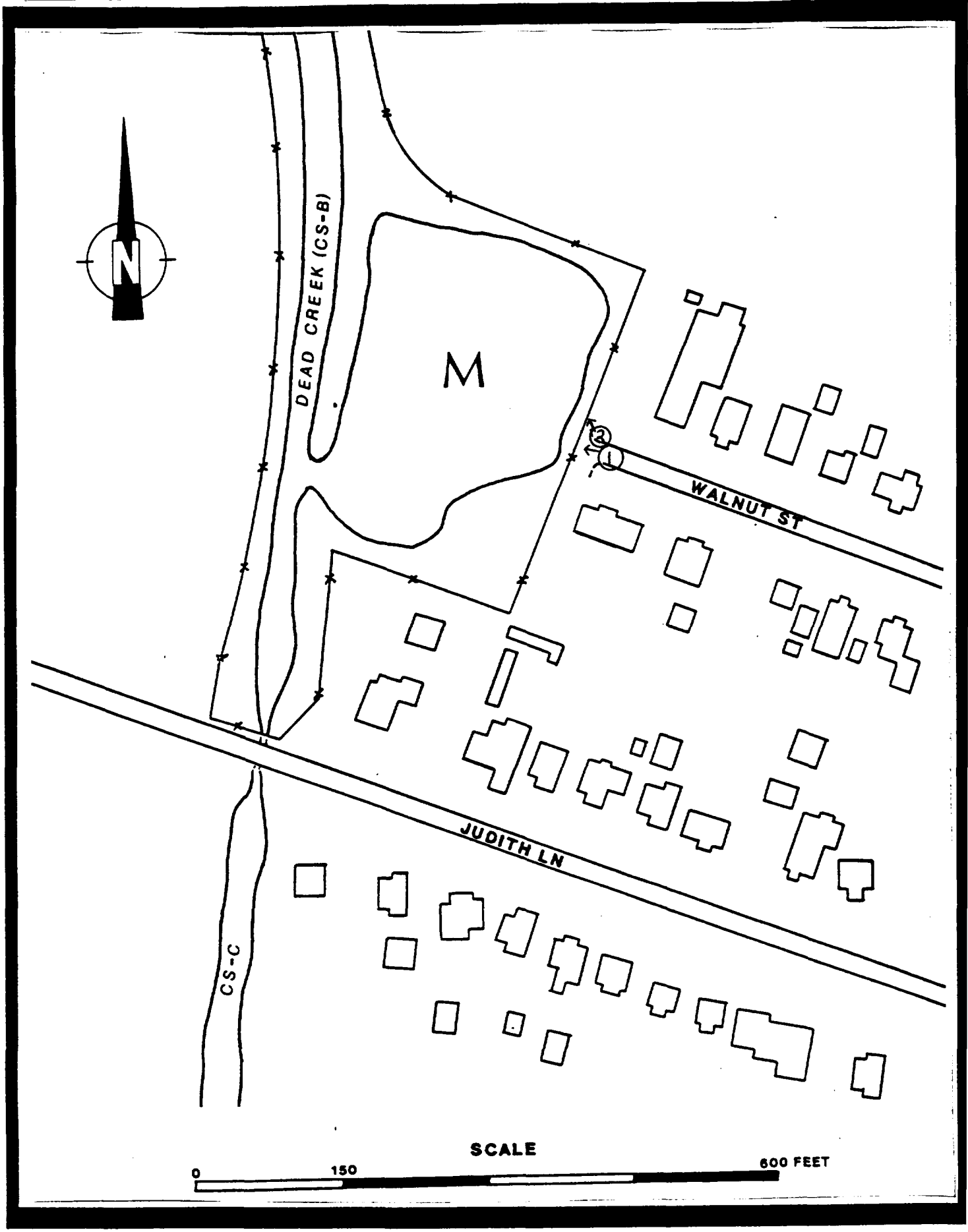
SECTION 4

PHOTOGRAPHS



SITE LOCATION INDEX MAP

AERIAL PHOTOGRAPHY
OF DCP AREA, 1950



Photograph Location Map

PA: H.H. Hall Excavation Pit AKA Site M ILD 984809251

SDMS US EPA REGION V
FORMAT- OVERSIZED - 5
IMAGERY INSERT FORM

The item(s) listed below are not available in SDMS. In order to view original document or document pages, contact the Superfund Records Center.

SITE NAME	SAUGET AREA 1		
DOC ID #	153461		
DESCRIPTION OF ITEM(S)	INDIVIDUAL COLOR PHOTOGRAPHS		
REASON WHY UNSCANNABLE	___OVERSIZED	OR	_X_ FORMAT
DATE OF ITEM(S)	8/30/91		
NO. OF ITEMS	2		
PHASE	SAS		
PRP			
PHASE (AR DOCUMENTS ONLY)	___ Remedial ___ Removal ___ Deletion Docket ___ AR ___ Original ___ Update # ___ Volume ___ of ___		
COMMENT(S)			
FIGURE 4-3			

SECTION 5

SUPPORTING DOCUMENTATION AND REFERENCES

Reference Number 1

TABLE M-1:

ANALYSIS OF SURFACE WATER AND SEDIMENT SAMPLES FROM SITE M
(COLLECTED BY IEPA 9-15-80)

	SAMPLE LOCATIONS			
	Water		Sediment	
PARAMETERS	S 501	S 502	X 123	X 124
Alkalinity	80	85		
Arsenic	0.006	0.01		
Barium	0.2	0.5	4,400	350
Berylium			3	1
BOD-5	4	33		
Boron	0.2	0.2	-	25
Cadmium	-	-	40	4
Calcium			12,500	4,500
COD	58	85		
Chloride	27	28		
Chromium	-	-	150	50
Copper	0.035	0.33	18,700	4,500
Cyanide	0.02	-		
Flouride	0.4	0.4		
Iron	0.8	1.8	49,000	13,500
Lead	-	0.01	1,400	130
Magnesium	6	6	3,400	3,500
Manganese	0.06	0.82	200	80
Mercury	-	-		
Nickel	0.02	0.05	1,600	590
Phenol	0.01	0.01		
Phosphorus	0.17	0.31		
Potassium	5.9	6.2	950	1,000
Silver	-	-	30	6
Sodium	24	25	650	100
Strontium			175	27
Vanadium			42	19
Zinc	0.1	0.7	17,700	2,600
PCBs	0.0009	0.0044	1,100	24
Dichlorobenzene				

NOTE: All results in ppm.
Blanks indicate parameter not analyzed.
- Indicates below detection limits.

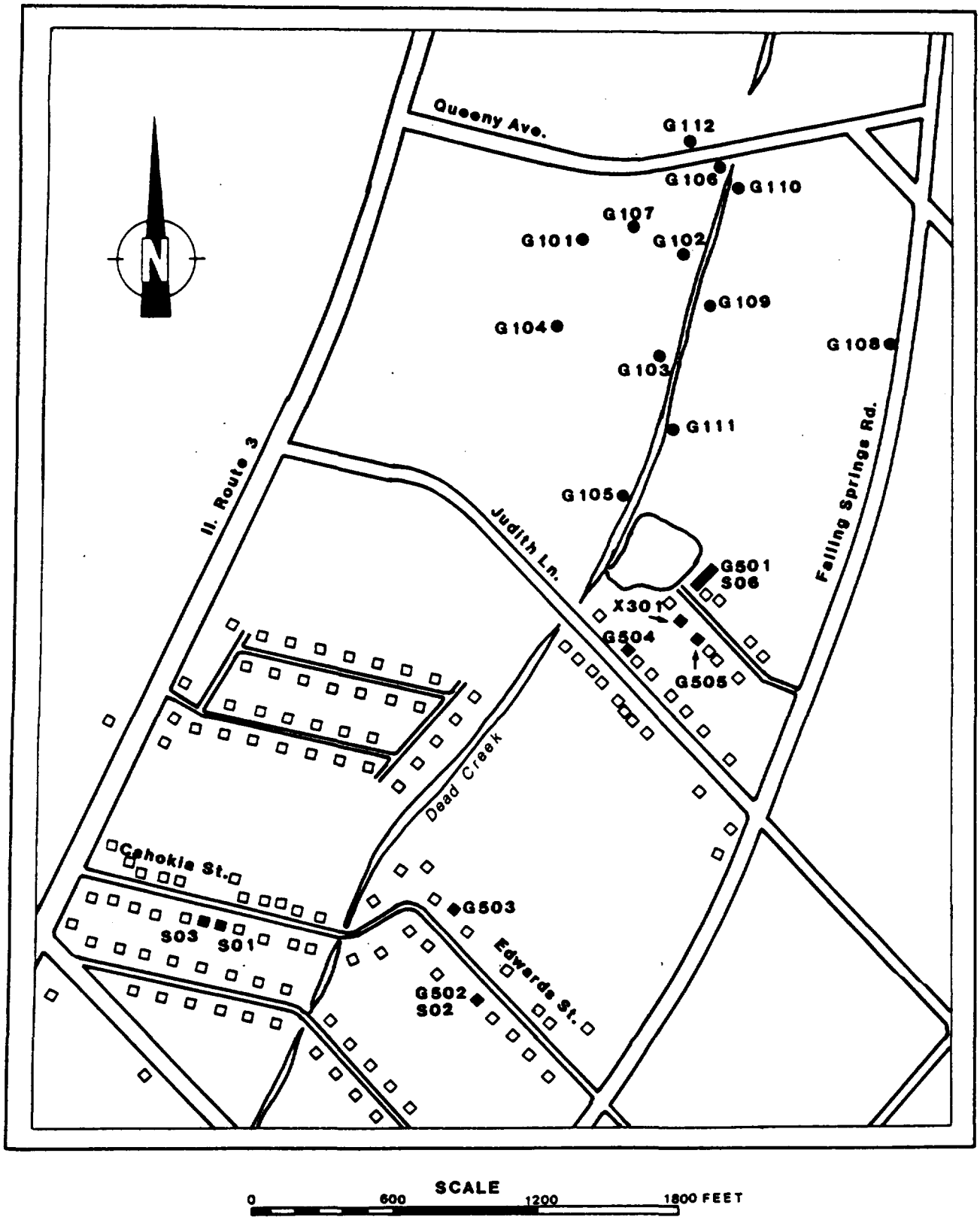


FIGURE B-2
LOCATIONS OF IEPA MONITORING WELLS AND RESIDENTIAL WELLS SAMPLED IN THE VICINITY OF DEAD CREEK

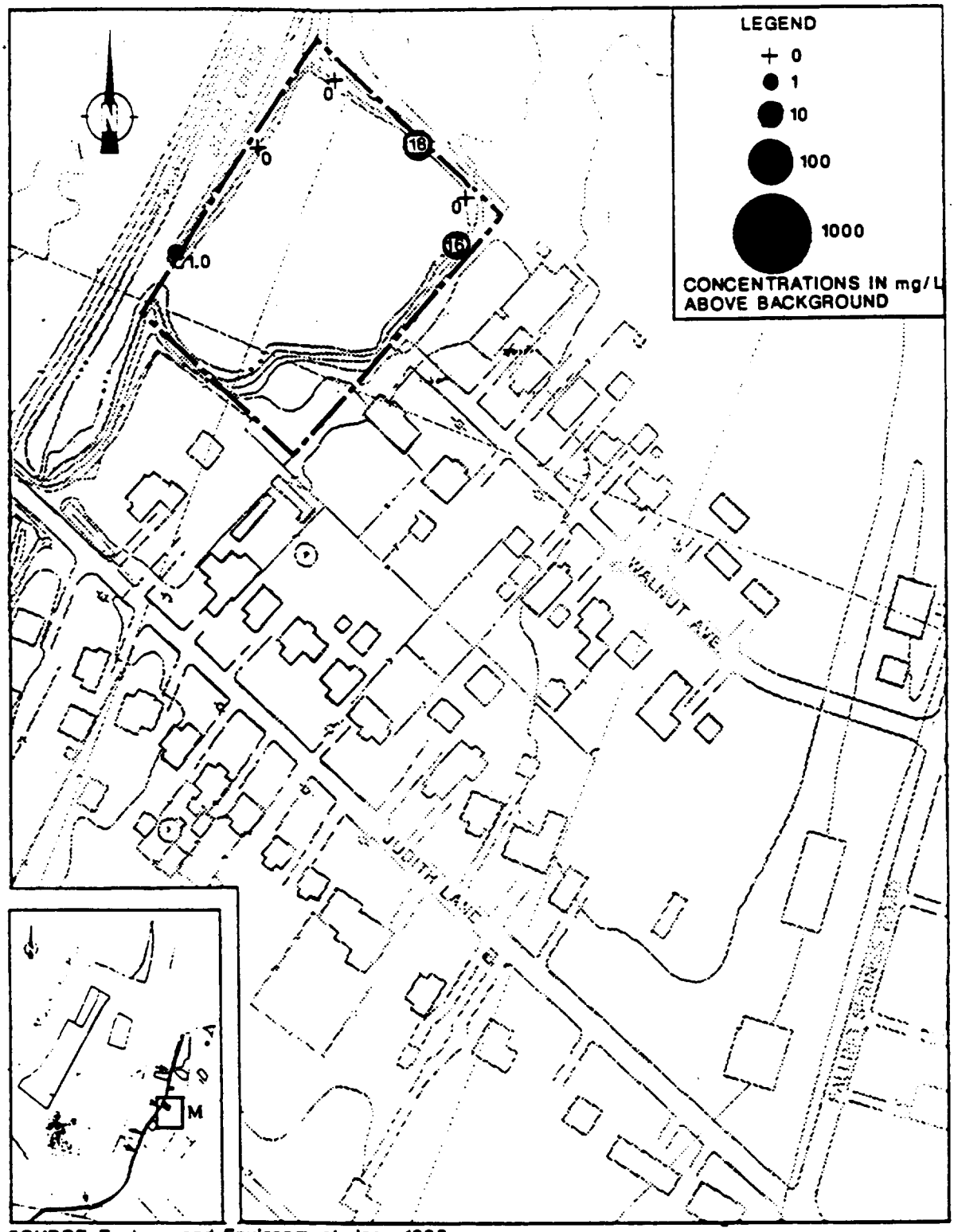
TABLE B-9: ANALYSIS OF RESIDENTIAL WELL AND SEEPAGE SAMPLES COLLECTED BY IEPA

SAMPLE DATES AND LOCATIONS

PARAMETERS	9/16/80 G501	9/16/80 G502	9/16/80 G503	9/23/80 G504	6/8/83 G505	1/5/83 x301
Arsenic	0.008	0.004	0.001		0.01	0.07
Barium	0.2	0.16	0.39	0.05	0.4	1.1
Boron	0.28	0.27	0.25	0.58	0.4	0.3
Cadmium						
Chromium						
Copper	0.02			0.06	0.01	0.03
Iron	4.6	19	17.7	0.73	26	31
Lead						0.03
Magnesium	33	39	36	30	35.3	54
Manganese	1.02	1.26	0.79	0.65	1.3	1.49
Mercury				0.0001		
Nickel				0.02		0.1
Phosphorus				0.02	0.62	1.2
Potassium	6.6	5.7	4.5	6	6.2	6.4
Silver						
Sodium	21	24	12	26	15.2	19
Zinc	0.85		0.18	0.8		0.7
PCBs	-	-	-			
Chlordane (ppb)	-	-	-	-		0.13

NOTE: All results in ppm unless otherwise noted
Blanks indicate below detection limit
- Indicates parameter not analyzed
Sample x301 was collected from basement seepage

Reference Number 2



SOURCE: Ecology and Environment, Inc., 1988.

SCALE

0 100 200 300 400 500 FEET

FIGURE 4-33 SOIL GAS ANALYSIS RESULTS FOR SITE M

Table 4-8 (Cont.)

Soil Gas Location Number	Site Designation	Location of Sample	Depth (ft)	Concentration Above Background (mg/L)
SG-33	N	Southwest corner of pit	3	0
SG-34	N	East side of pit on east-west center line	2.2	680
SG-35	N	Northeast corner of pit	2.5	7
SG-36	N	35 feet east of SG-30	3.2	>1000
SG-37	M/CS-B	North side of cut-through, Dead Creek side	1	1
SG-38	M	West-central site area	2.5	0
SG-39	M	Northwest corner of site area	1.2	0
SG-40	M	North-central site area	1.2	18
SG-41	M	Northeast corner of site	1	0
SG-42	M	East side of site, 25 feet from northeast corner	1	16
SG-53	I/CS-A	50 feet north of access road, West side of pond	1	1.6

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.

Surface Water Volatiles

SITE	SITE M	SITE M	SITE M	CS-B	CS-B	CS-B	CS-C	CS-C	CS-D	CS-D		CS-A	CS-A
SAMPLE NUMBER	DC-SW-01 *	DC-SW-02	DC-SW-03	DC-SW-04	DC-SW-05	DC-SW-06 *	DC-SW-07	DC-SW-08	DC-SW-09	DC-SW-10	DC-SW-11 *	DC-SW-12	DC-SW-13
DATE	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-6-86	11-6-86	11-6-86
1 Chloromethane													
2 Bromomethane													
3 Vinyl Chloride													
4 Chloroethane													
5 Methylene Chloride	6 B	3 BJ	3 BJ	3 BJ	3 BJ	3 BJ	3 BJ	6 B	5 B	7 B	6 B	4 BJ	4
6 Acetone	12 B		7 BJ	9 BJ	12 B	11 B	13 B	13 B	11 B	11 B	17 B	20 B	6
7 Carbon Disulfide													
8 1,1-Dichloroethene													
9 1,1-Dichloroethane													3
10 trans-1,2-Dichloroethene													
11 Chloroform	27										25	8	7
12 1-2-Dichloroethane													
13 2-Butanone (MEK)													
14 1,1,1-Trichloroethane												33	41
15 Carbon Tetrachloride													31
16 Vinyl Acetate													
17 Bromodichloromethane													
18 1,2-Dichloropropane													
19 trans-1,3-Dichloropropene													
20 Trichloroethene												6	16
21 Dibromochloromethane													
22 1,1,2-Trichloroethane													
23 Benzene												1 J	
24 cis-1,3-Dichloropropene													
25 2-Chloroethyl Vinyl Ether													
26 Bromoform													
27 4-Methyl-2-pentanone												6 J	
28 2-Hexanone													
29 Tetrachloroethene													
30 1,1,2,2-Tetrachloroethane													
31 Toluene													
32 Chlorobenzene												2 J	
33 Ethylbenzene													
34 Styrene													
35 Total Xylenes												2 J	

Surface Water Semivolatiles

	SITE	BLANK	SITE M	SITE M	CS-B	CS-B	CS-B	CS-C	CS-C	CS-D	CS-D	BLANK	CS-A	CS-A
	SAMPLE NUMBER	DC-SW-01 +	DC-SW-02	DC-SW-03	DC-SW-04	DC-SW-05	DC-SW-06 *	DC-SW-07	DC-SW-08	DC-SW-09	DC-SW-10	DC-SW-11 +	DC-SW-12	DC-SW-13
	DATE	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-6-86	11-6-86	11-6-86
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							1 J						
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												4 J	
20	Anthracene													
21	Di-n-butyl phthalate	15 B	26 B	25 B	18 B	15 B	16 B	19 B	19 B	19 B	20 B	17 B	5 BJ	27 B
22	Fluoranthene													
23	Pyrene													
24	Butyl Benzyl phthalate												12 J	
25	3,3'-Dichlorobenzidine													
26	Benzo(a)Anthracene													
27	bis(2-ethylhexyl) phthalate												7 J	5 J
28	Chrysene													
29	Di-n-octyl phthalate		4 J	2 J							1 J		36 J	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													

Sediment Volt

SITE	CS-B	CS-B	SITE M	SITE M	SITE M	CS-B	CS-B	CS-B	CS-C	CS-C	CS-C	CS-C	CS-D	CS-D	CS-D
SAMPLE NUMBER	DC-SD-13 B	DC-SD-14	DC-SD-15	DC-SD-16	DC-SD-17	DC-SD-18 B	DC-SD-19	DC-SD-20	DC-SD-21	DC-SD-22	DC-SD-23	DC-SD-24	DC-SD-25	DC-SD-26	DC-SD-27
SAMPLE DEPTH	0-6"	2'-3'	0-6"	0-6"	0-6"	0-6"	0-6"	1.5'-2'	0-6"	2'-2.5'	0-6"	2'-2.5'	0-6"	1.5'-2'	0-6"
DATE SAMPLED	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86
1 Chloromethane															
2 Bromomethane															
3 Vinyl Chloride															
4 Chloroethane															
5 Methylene Chloride	11000 B	2200 B	7800 B	10000 B	8400 B	12000 B	13000 B	14000 B	19000 B	18000 B	27000 B	17000 B	23000 B	19000 B	43000 B
6 Acetone	15000 B	820	4900 B	5100 B	5600 B	4100 JB	10000 B	6100 B	6400 B	9900 B	15000 B	7300 B	18000 B	9800 B	36000 B
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)	21000 B	510	11000	14000	13000	14000	14000	10000 B	11000 B	14000 B	22000 B	12000 B	21000 B	16000 B	35000 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		87 J													
24 cis-1,3-Dichloropropene															
25 2-Chloroethyl Vinyl Ether															
26 Bromoform															
27 4-Methyl-2-pentanone		220 J													
28 2-Hexanone							52000 B			1200 J					
29 Tetrachloroethene															
30 1,1,2,2-Tetrachloroethane															
31 Toluene		810													
32 Chlorobenzene		5200													
33 Ethylbenzene		3600													
34 Styrene															
35 Total Xylenes		990													

Sediment Semivolatiles

SITE	CS-B	CS-B	SITE M	SITE M	SITE M	CS-B	CS-D	CS-D	CS-C	CS-C	CS-C	CS-C	CS-D	CS-D
SAMPLE NUMBER	DC-SD-13 B	DC-SD-14	DC-SD-15	DC-SD-16	DC-SD-17	DC-SD-18 B	DC-SD-19	DC-SD-20	DC-SD-21	DC-SD-22	DC-SD-23	DC-SD-24	DC-SD-25	DC-SD-26
SAMPLE DEPTH	0-6"	2'-3'	0-6"	0-6"	0-6"	0-6"	0-6"	1.5'-2'	0-6"	2'-2.5'	0-6"	2'-2.5'	0-6"	1.5'-2'
DATE SAMPLED	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86
1 Phenol											580 J	81 J		
2 bis(2-Chloroethyl)ether														
3 2-Chlorophenol														
4 1,3-Dichlorobenzene										110 J				
5 1,4-Dichlorobenzene		220000					130 J			690 J				
6 Benzyl Alcohol														
7 1,2-Dichlorobenzene		17000 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														
20 1,2,4-Trichlorobenzene		5400 J					390 J	76 J		260 J	130 J	64 J		
21 Naphthalene	400 J	9500 J				190 J	120 J			330 J	100 J			
22 4-Chloroaniline														
23 Hexachlorobutadiene														
24 4-Chloro-3-methylphenol														
25 2-Methylnaphthalene		8400 J								100 J				
26 Hexachlorocyclopentadiene														
27 2,4,6-Trichlorophenol														
28 2,4,5-Trichlorophenol														
29 2-Chloronaphthalene														
30 2-Nitroaniline														

Sediment Volt

	SITE	CS-B	CS-B	SITE M	SITE M	SITE M	CS-B	CS-B	CS-B	CS-C	CS-C	CS-C	CS-C	CS-D	CS-D	CS-D
	SAMPLE NUMBER	DC-SD-13	DC-SD-14	DC-SD-15	DC-SD-16	DC-SD-17	DC-SD-18	DC-SD-19	DC-SD-20	DC-SD-21	DC-SD-22	DC-SD-23	DC-SD-24	DC-SD-25	DC-SD-26	DC-SD-27
	SAMPLE DEPTH	0-6"	2'-3'	0-6"	0-6"	0-6"	0-6"	0-6"	1.5'-2'	0-6"	2'-2.5'	0-6"	2'-2.5'	0-6"	1.5'-2'	0-6"
	DATE SAMPLED	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86
1	Chloromethane															
2	Bromomethane															
3	Vinyl Chloride															
4	Chloroethane															
5	Methylene Chloride	11000 B	2200 B	7800 B	10000 B	8400 B	12000 B	13000 B	14000 B	19000 B	18000 B	27000 B	17000 B	23000 B	19000 B	43000 B
6	Acetone	15000 B	820	4900 B	5100 B	5600 B	4100 JB	10000 B	6100 B	6400 B	9900 B	15000 B	7300 B	18000 B	9800 B	36000 B
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)	21000 B	510	11000	14000	13000	14000	14000	10000 B	11000 B	14000 B	22000 B	12000 B	21000 B	16000 B	35000 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		87 J													
24	cis-1,3-Dichloropropene															
25	2-Chloroethyl Vinyl Ether															
26	Bromoform															
27	4-Methyl-2-pentanone		220 J													
28	2-Hexanone							52000 B			1200 J					
29	Tetrachloroethene															
30	1,1,2,2-Tetrachloroethane															
31	Toluene		810													
32	Chlorobenzene		5200													
33	Ethylbenzene		3600													
34	Styrene															
35	Total Xylenes		990													

Surface Water Semivolatiles

SITE	BLANK	SITE M	SITE M	CS-B	CS-B	CS-B	CS-C	CS-C	CS-D	CS-D	BLANK	CS-A	CS-A
SAMPLE NUMBER	DC-SW-01 +	DC-SW-02	DC-SW-03	DC-SW-04	DC-SW-05	DC-SW-06 +	DC-SW-07	DC-SW-08	DC-SW-09	DC-SW-10	DC-SW-11 +	DC-SW-12 +	DC-SW-13
DATE	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-6-86	11-6-86	11-6-86
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												3 J	
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				9 J									

Sediment Pest

SITE	CS-D	CS-D	SITE M	SITE M	SITE M	CS-D	CS-D	CS-D	CS-C	CS-C	CS-C	CS-C	CS-D	CS-D	CS-D
SAMPLE NUMBER	DC-SD-13 *	DC-SD-14	DC-SD-15	DC-SD-16	DC-SD-17	DC-SD-18 *	DC-SD-19	DC-SD-20	DC-SD-21	DC-SD-22	DC-SD-23	DC-SD-24	DC-SD-25	DC-SD-26	DC-SD-27
SAMPLE DEPTH	0-6"	2'-3'	0-6"	0-6"	0-6"	0-6"	0-6"	1.5'-2'	0-6"	2'-2.5'	0-6"	2'-2.5'	0-6"	1.5'-2'	0-6"
DATE SAMPLED	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86
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													580		
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				20000											
24 AROCLOR-1248		480000 C	660	8830	5200					8700					
25 AROCLOR-1254			670		4200		141000 C	16000 C		9300	11000	1600 J			7500
26 AROCLOR-1260	10300 J	66000 C	430 J		2700 J	7700	54000 JC	5600 JC		5000 J	7800 J				4500

Sediment Semivolatiles

SITE	CS-B	CS-B	SITE M	SITE M	SITE M	CS-B	CS-B	CS-B	CS-C	CS-C	CS-C	CS-C	CS-D	CS-D
SAMPLE NUMBER	DC-SD-13 B	DC-SD-14	DC-SD-15	DC-SD-16	DC-SD-17	DC-SD-18 B	DC-SD-19	DC-SD-20	DC-SD-21	DC-SD-22	DC-SD-23	DC-SD-24	DC-SD-25	DC-SD-26
SAMPLE DEPTH	0-6"	2'-3'	0-6"	0-6"	0-6"	0-6"	0-6"	1.5'-2'	0-6"	2'-2.5'	0-6"	2'-2.5'	0-6"	1.5'-2'
DATE SAMPLED	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86
1 Dimethyl Phthalate														
2 Acenaphtylene														
3 3-Nitroaniline														
4 Acenaphthene										130 J				
5 2,4-Dinitrophenol														
6 4-Nitrophenol		2600 J												
7 Dibenzofuran														
8 2,4-Dinitrotoluene														
9 2,6-Dinitrotoluene														
10 Diethylphthalate														
11 4-Chlorophenyl-Phenylether														
12 Fluorene		3900 J								370 J				
13 4-Nitroaniline														
14 4,6-Dinitro-2-methylphenol														
15 N-Nitrosodiphenylamine														
16 4-Bromophenyl-phenylether														
17 Hexachlorobenzene							1900	210 J						
18 Pentachlorophenol							940 J	370 J						
19 Phenanthrene		15000 J							280 J	810 J		220 J		
20 Anthracene										500 J				
21 Di-n-butyl phthalate			580 B	570 BJ	560 J	300 J		280 J				120 J	130 J	79 J
22 Fluoranthene		11000 J								4600		370 J		130 J
23 Pyrene		13000 J				1400 J		91 J	440 J	4500		290 J		120 J
24 Butyl Benzyl phthalate						830 J								
25 3,3'-Dichlorobenzidine														
26 Benzo(a)Anthracene						430 J			380 J	3300	650 J	230 J		
27 bis(2-ethylhexyl) phthalate	9900 J	9500 J		540 J	150 J	5300		95 J	740 J		660 J			72 J
28 Chrysene						1200 J		180 J	550 J	4400	1000	300 J		83 J
29 Di-n-octyl phthalate		2600 J	120 J	270 J		940 J		96 J		190 J				
30 Benzo(b)Fluoranthene		3400 J					2400			7500	2000	1000		200 J
31 Benzo(k)Fluoranthene	720 J					1500 J		410 J	920	660 J				
32 Benzo(a)Pyrene	1100 J	1800 J				490 J	310 J	95 J	480 J	4500	940	350 J		86 J
33 Indeno(1,2,3-cd)Pyrene						850 J	1400 J	200 J	590 J	4300	1700	530 J		100 J
34 Benzo(g,h,i)Perylene							390 J			1500 J	640 J	110 J		
35 Dibenz(a,h)Anthracene						1400 J	1800	210 J	550 J	4000	1700	470 J		91 J

Surface-Water / anic

	SITE	BLANK	SITE M	SITE M	CS-B	CS-B	CS-B	CS-C	CS-C	CS-D	CS-D	BLANK	CS-A	CS-A
	SAMPLE NUMBER	DC-SW-01 +	DC-SW-02	DC-SW-03	DC-SW-04	DC-SW-05	DC-SW-06 *	DC-SW-07	DC-SW-08	DC-SW-09	DC-SW-10	DC-SW-11 +	DC-SW-12	DC-SW-13
	DATE	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-6-86	11-6-86
1	Aluminum		464		1090	204	9080		767	5000	1190	323	354	294
2	Antimony												115	
3	Arsenic						31							
4	Barium		200				7130			274				
5	Beryllium													
6	Boron													
7	Cadmium						25			8.1			75	23
8	Chromium, trivalent		14				99			12			81	65
9	Cobalt													
10	Copper		51	46	660	239	17900	226	84	619	57		7030	2410
11	Iron	255	937	350	1510	495	24500	528	2790	7470	1570		2040	724
12	Lead		6.4		77	17	1300	710	30	89	36		3060	76
13	Manganese		97	95	188	66	222	141	234	196	28		68	252
14	Mercury				8.6			1.9	0.2	0.26			0.59	0.2
15	Nickel		46				1500	83		189			2600	667
16	Selenium													
17	Silver												16	
18	Thallium													
19	Tin						60		40				499	
20	Vanadium													
21	Zinc		186	73	404	302	10300	537	247	1090	185		1450	480
22	Cyanide													

Surface Water Pest/PCBs

SITE	BLANK	SITE M	SITE M	CS-B	CS-B	CS-B	CS-C	CS-C	CS-D	CS-D	BLANK	CS-A	CS-A
SAMPLE NUMBER	DC-SW-01 *	DC-SW-02	DC-SW-03	DC-SW-04	DC-SW-05	DC-SW-06 *	DC-SW-07	DC-SW-08	DC-SW-09	DC-SW-10	DC-SW-11 *	DC-SW-12	DC-SW-13
DATE	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-6-86	11-6-86	11-6-86
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				3.6	34	44							

Sediment Inorga

SITE	CS-D	CS-D	SITE M	SITE M	SITE M	CS-D	CS-D	CS-D	CS-C	CS-C	CS-C	CS-C	CS-D	CS-D	CS-D
SAMPLE NUMBER	DC-SD-13 *	DC-SD-14	DC-SD-15	DC-SD-16	DC-SD-17	DC-SD-18 *	DC-SD-19	DC-SD-20	DC-SD-21	DC-SD-22	DC-SD-23	DC-SD-24	DC-SD-25	DC-SD-26	DC-SD-27
SAMPLE DEPTH	0-6"	2'-3'	0-6"	0-6"	0-6"	0-6"	0-6"	1.5'-2'	0-6"	2'-2.5'	0-6"	2'-2.5'	0-6"	1.5'-2'	0-6"
DATE SAMPLED	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86	11-5-86
1 Aluminum	4900	6380	6560	2430	7510	5380	9750	12900	12600	7530	8450	12600	11250	12500	6400
2 Antimony															
3 Arsenic	14 R	20 R	3.6 R	12 R	16 R	16 R	21	13 R	5.1 R	9 R	33 R	30 R	3.2 R	7.8 *	4.7 R
4 Barium	410	1110	156	131	196	467	17300	3120	376	570	1700	1010	239	622	214
5 Beryllium															
6 Boron															
7 Cadmium	22	36	1.5	11	8	24	30	8.2	17	34	27	42	12	42	23
8 Chromium, trivalent	62	153	15	37	53	79	118	113	41	60	54	68	33	48	34
9 Cobalt	6.6	9.2	7.7	7.2	5	6	11	6.9	7.5	10	6.6	7.2	5	12	
10 Copper	8740 *	6700 *	167 *	1270 *	1780 *	8640 *	15300 *	2610 *	580 *	5910 *	6540 *	2440 *	379 *	1630 *	1320 *
11 Iron	16400	19500	11100	26000	14400	16300	58200	21300	18400	18000	35800	50900	22800	46200	31300
12 Lead	853	931	26	65	71	983	1460	330	467	593	975	661	146	480	309
13 Manganese	197	153	100	97	139	218	82	70	177	98	161	151	190	273	178
14 Mercury	0.73	1.3	0.13	0.56	0	0.9	1.68	0.89	0.71	0.95	1.64	2.81	1	0.89	0.34
15 Nickel	56 R*	502 R*	356 R*	258 R*	309 R*	82	1520 R*	867 R*	116 R*	838 R*	1290 R*	748 R*	174 R*	665 R*	537 R*
16 Selenium	3.3	4.1				4	2					2.5			
17 Silver	10	11				14	15								
18 Thallium							4								
19 Tin	32	28		23			16								
20 Vanadium	23	27	19		19	24	48	25	32	22	27	36	37	32	
21 Zinc	3310	6650	868	872	1010	3410	11900	6610	1370	15600	6880	6430	1010	6590	2380
22 Cyanide		3.8													

Ground Water Volatiles

	SITE	SITE D	SITE D	SITE D	SITE R	SITE R	SITE R	SITE R	SITE R	SITE R	SITE R	BLANK	PRIVATE	PRIVATE	PRIVATE	PRIVATE	PRIVATE
	SAMPLE NUMBER	DC-GW-42 B	DC-GW-43	DC-GW-43A	DC-GW-44	DC-GW-45	DC-GW-46	DC-GW-47	DC-GW-48B	DC-GW-49	DC-GW-50	DC-GW-51+	DC-GW-52	DC-GW-53	DC-GW-54	DC-GW-55	DC-GW-56
	WELL NUMBER	EE-24	EE-25	EE-25	P-1	B-28A	P-7	B-26A	B-26A	B-25A	P-11		WRIGHT	SETTLES	SCHMIDT	McDONALD	CLAYTON
	DATE SAMPLED	3-24-87	3-24-87	7-14-87	3-25-87	3-25-87	3-25-87	3-25-87	3-25-87	3-25-87	3-25-87	3-25-87	3-26-87	3-26-87	3-26-87	3-26-87	3-26-87
1	Chloromethane																
2	Bromomethane																
3	Vinyl Chloride																17
4	Chloroethane																10
5	Methylene Chloride	310										2 J	4 BJ	12 B		37 B	
6	Acetone	430	5J			71 B	1700 B	3 BJ	36 BJ	1600 B	26 BJ	3 BJ	18 B	10 B	8 BJ	9 BJ	5 J
7	Carbon Disulfide													3 J			
8	1,1-Dichloroethene							7									
9	1,1-Dichloroethane							3 J									
10	trans-1,2-Dichloroethene	94 J															6
11	Chloroform											1 J		2 J			
12	1-2-Dichloroethane									16000							
13	2-Butanone (MEK)	570		5 BJ													
14	1,1,1-Trichloroethane	43 J															
15	Carbon Tetrachloride																
16	Vinyl Acetate																
17	Bromodichloromethane																
18	1,2-Dichloropropane																
19	trans-1,3-Dichloropropene																
20	Trichloroethene	1000															
21	Dibromochloromethane																
22	1,1,2-Trichloroethane																
23	Benzene	1800			2 J		1500	41	44 J		150						94
24	cis-1,3-Dichloropropene																
25	2-Chloroethyl Vinyl Ether																
26	Bromoform																
27	4-Methyl-2-pentanone																9 J
28	2-Hexanone																
29	Tetrachloroethene																
30	1,1,2,2-Tetrachloroethane																
31	Toluene	130					480	7 B	13 BJ	760 J			1 BJ	1 BJ		1 BJ	5
32	Chlorobenzene	1000			350 E	990	5000	190	199	8100	570	1 J					120
33	Ethylbenzene							2 J					4 J				1 J
34	Styrene													2 J		2 J	
35	Total Xylenes	27 J					95 J	7									

Ground Water Semivolatiles

	SITE	SITE O	SITE O	SITE O	SITE O	SITE O	SITE O	SITE R	SITE R	SITE R	SITE R	SITE R	SITE R	SITE R	BLANK	PRIVATE	PRIVATE
	SAMPLE NUMBER	DC-GW-40A	DC-GW-41	DC-GW-41A	DC-GW-42	DC-GW-43	DC-GW-43A	DC-GW-44	DC-GW-45	DC-GW-46	DC-GW-47	DC-GW-48	DC-GW-49	DC-GW-50	DC-GW-51	DC-GW-52	DC-GW-53
	WELL NUMBER	EE-23	EE-24	EE-24	EE-24	EE-25	EE-25	P-1	B-28A	P-7	B-26A	B-26A	B-25A	P-11		WRIGHT	SETTLES
	DATE SAMPLED	7-14-87	3-24-87	7-14-87	3-24-87	3-24-87	7-14-87	3-25-87	3-25-87	3-25-87	3-25-87	3-25-87	3-25-87	3-25-87	3-25-87	3-26-87	3-26-87
1	Phenol									25000 E			60000 E				
2	bis(2-Chloroethyl)ether																
3	2-Chlorophenol							4 J	8 J	2100	8 J	9 J	14000 E				
4	1,3-Dichlorobenzene																
5	1,4-Dichlorobenzene							8 J		550	4 J	3 J		54 J			
6	Benzyl Alcohol									750							
7	1,2-Dichlorobenzene									340	1 J	1 J	91 J				
8	2-Methylphenol																
9	bis(2-Chloroisopropyl) ether																
10	4-Methylphenol									120 J			6100				
11	N-Nitroso-n-Dipropylamine																
12	Hexachloroethane									850							
13	Nitrobenzene										35	29	420				
14	Isophorone																
15	2-Nitrophenol																
16	2,4-Dimethylphenol												160				
17	Benzoic Acid									270 J			6800				
18	bis-(2-Chloroethoxy)methane																
19	2,4-Dichlorophenol									5300			14000 E				
20	1,2,4-Trichlorobenzene																
21	Naphthalene									82 J							
22	4-Chloroaniline									25000 E	680	540		4100			
23	Hexachlorobutadiene																
24	4-Chloro-3-methylphenol																
25	2-Methylnaphthalene									200							
26	Hexachlorocyclopentadiene																
27	2,4,6-Trichlorophenol									2100			1500				
28	2,4,5-Trichlorophenol																
29	2-Chloronaphthalene																
30	2-Nitroaniline																

Ground Water Semivolatiles

	SITE	PRIVATE	PRIVATE	PRIVATE	BLANK
	SAMPLE NUMBER	DC-GW-54	DC-GW-55	DC-GW-56	DC-GW-57 +
	WELL NUMBER	SCHMIDT	McDONALD	CLAYTON	
	DATE SAMPLED	3-26-87	3-26-87	3-26-87	7-14-87
1	Phenol				
2	bis(2-Chloroethyl)ether				
3	2-Chlorophenol				
4	1,3-Dichlorobenzene				
5	1,4-Dichlorobenzene			5 J	
6	Benzyl Alcohol				
7	1,2-Dichlorobenzene			3 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				
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				

Ground Water Semivolatiles

SITE	SITE O	SITE R	SITE R	SITE R	SITE R	SITE R	SITE R	SITE R	BLANK	PRIVATE	PRIVATE	PRIVATE	PRIVATE	PRIVATE	BLANK
SAMPLE NUMBER	DC-GW-43A	DC-GW-44	DC-GW-45	DC-GW-46	DC-GW-47	DC-GW-48A	DC-GW-49	DC-GW-50	DC-GW-51+	DC-GW-52	DC-GW-53	DC-GW-54	DC-GW-55	DC-GW-56	DC-GW-57 +
WELL NUMBER	EE-25	P-1	B-28A	P-7	B-26A	B-26A	B-25A	P-11		WRIGHT	SETTLES	SCHMIDT	McDONALD	CLAYTON	
DATE SAMPLED	7-14-87	3-25-87	3-25-87	3-25-87	3-25-87	3-25-87	3-25-87	3-25-87	3-25-87	3-26-87	3-26-87	3-26-87	3-26-87	3-26-87	7-14-87
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															
19 Phenanthrene															
20 Anthracene															
21 Di-n-butyl phthalate		7 J													
22 Fluoranthene															
23 Pyrene															
24 Butyl Benzyl phthalate															
25 3,3'-Dichlorobenzidine															
26 Benzo(a)Anthracene															
27 bis(2-ethylhexyl) phthalate			4 J		37	4			4 J						
28 Chrysene															
29 Di-n-octyl phthalate			4 J		40	26			5 J	2 J		2 J	4 J	6 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 O	SITE O	SITE O	SITE O	SITE R	SITE R	SITE R	SITE R	SITE R	SITE R	SITE R	BLANK	PRIVATE	PRIVATE	PRIVATE	PRIVATE
SAMPLE NUMBER	DC-GW-41A	DC-GW-42 &	DC-GW-43	DC-GW-43A	DC-GW-44	DC-GW-45	DC-GW-46	DC-GW-47	DC-GW-48&	DC-GW-49	DC-GW-50	DC-GW-51+	DC-GW-52	DC-GW-53	DC-GW-54	DC-GW-55
WELL NUMBER	EE-24	EE-24	EE-25	EE-25	P-1	B-28A	P-7	B-26A	B-26A	B-25A	P-11		WRIGHT	SETTLES	SCHMIDT	McDONALD
DATE SAMPLED	7-14-87	3-24-87	3-24-87	7-14-87	3-25-87	3-25-87	3-25-87	3-25-87	3-25-87	3-25-87	3-25-87	3-25-87	3-26-87	3-26-87	3-26-87	3-26-87
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																

Ground Wat ,t/PCBs

SITE	PRIVATE	BLANK
SAMPLE NUMBER	DC-GW-56	DC-GW-57 +
WELL NUMBER	CLAYTON	
DATE SAMPLED	3-26-87	7-14-87
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		

Ground Water Inorganics

	SITE	SITE D	SITE D	SITE D	SITE R	SITE R	SITE R	SITE R	SITE R	SITE R	SITE R	BLANK	PRIVATE	PRIVATE	PRIVATE	PRIVATE	PRIVATE	BLANK
	SAMPLE NUMBER	DC-GW-42	DC-GW-43	DC-GW-43A	DC-GW-44	DC-GW-45	DC-GW-46	DC-GW-47	DC-GW-48	DC-GW-49	DC-GW-50	DC-GW-51+	DC-GW-52	DC-GW-53	DC-GW-54	DC-GW-55	DC-GW-56	DC-GW-57
	WELL NUMBER	EE-24	EE-25	EE-25	P-1	B-28A	P-7	B-26A	B-26A	B-25A	P-11		WRIGHT	SETTLES	SCHMIDT	McDONALD	CLAYTON	
	DATE SAMPLED	3-24-87	3-24-87	7-14-87	3-25-87	3-25-87	3-25-87	3-25-87	3-25-87	3-25-87	3-25-87	3-25-87	3-26-87	3-26-87	3-26-87	3-26-87	3-26-87	7-14-87
1	Aluminum																	
2	Antimony																	
3	Arsenic	23			34	41		48	45		35				11	26		
4	Barium	[184]	141	[92]	440	[123]	[27]	[194]	201		[168]		[73]	[89]	292	[117]	300	
5	Beryllium																	
6	Boron																	
7	Cadmium																	
8	Chromium, trivalent																	
9	Cobalt						120											
10	Copper													[10]	115			
11	Iron	36600	3930	2360	10800	20800	15500	26900	27500		11800		2990	4600	21600	10600	17400	[87]
12	Lead											[91]		12 R	18 R			
13	Manganese	4300	2300	1320	2190	6840	11200	3330	3570		2640		1060	665	1660	257	1950	
14	Mercury														0.2			
15	Nickel						[18]											
16	Selenium																	
17	Silver																	
18	Thallium																	
19	Tin																	
20	Vanadium						[18]											
21	Zinc	34	26	24	45 R	24 R	102 R	41 R	62 R		39 R	[10]	4140 R	2000 R	377 R	1350 R		
22	Cyanide										14							

Reference Number 3

Plotted on Cahokia Quad.

437

LOG OF WATER WELL

Property owner Midwest Rubber Co. Reclaiming East St. Louis Well No. #4

Drilled by _____ Year May 1951

Formations passed through	Thickness	Depth of Bottom
Clay	7	7
Dry yellow sand	21	28
Building sand	17	45
Fine gray sand	9	54
Med. Coarse sand	6	60
Ext. fine very dirty sand + silt	18	78
Coarse sand + Boulders	32	110

[Continue on back if necessary]

Finished in _____ at _____ to _____ ft.

COUNTY No. 1940

Cased with _____ inch _____ from 0 to _____ ft.

and _____ inch _____ from _____ to _____ ft.

Size hole below casing _____ inch. Static level from surf. 36' 10" ft.

Tested capacity _____ gal. per min. Temperature _____ °F.

Water lowered to _____ ft. _____ in. in _____ hrs. _____ min.

Length of test _____ hrs. _____ min. Screen _____

Slot _____ Diam. _____ Length _____ Bottom set at _____ ft.

[Show location in Section Plat]

Township name _____ Elev. _____ Sec. 26

Description of location _____ Twp. 2N

Rge. 10 W

Location by Groundwater Dept.

Signed _____ County St. Clair

St. CLAIR NO ENVELOPE

Copy for Illinois State Geological Survey Index: 26-2N-10W

...ESTED AND MAIL ORIGINAL TO STATE ...ER HEALTH PROTECTION, 535 WEST ... DO NOT ATTACH GEOLOGICAL/WATER PROPER W... LOCATION.

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 4-12-76

10. Property owner Clayton Chemical Co. Well No. _____
Address 101 S. Brentwood Clayton Mo.
Driller A. Charles Drilling Co. License No. 102-50
11. Permit No. 45480 Date 3-22-76
12. Water from Sand & Gravel Formation 13. County St. Clair
at depth 40 to 78 ft.
14. Screen: Diam. _____ in.
Length: 10 ft. Slotted ✓
Sec. 26
Twp. 2N
Rge. 10W
Elev. _____

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
6 5/8	PVC	0	78

SHOW LOCATION IN SECTION PLAT

562'SL, 587'WL SW (permit)

6. Size Hole below casing: 6 in.
7. Static level 15 ft. below casing top which is 1 ft. above ground level. Pumping level _____ ft. when pumping at 200+ gpm for _____ hours. Sub. pump set at 60'.

8. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Clay	40	40
Sand & Gravel	38	78

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Robert M. Mellis DATE 5-4-76

ST. CLAIR COUNTY No. 24077 26-2N-10W

89 435

Plotted on Cahokia Quad.

LOG OF WATER WELL

Property owner Midwest Rubber Reclaiming Co. Well No. 2

Drilled by Thorpe (Morgan) Year ?

Formations passed through	Thickness	Depth of Bottom
Sandy soil	27	27
River silt	8	35
Coarse sand + pea gravel	8	43
Ext. fine sand + silt	21	64
Very coarse sand	6	70
Coarse sand, wood, decayed veg., etc.	11	81
Very coarse sand	5	86
Very coarse sand + gravel	28	114

[Continue on back if necessary]

Finished in _____ at _____ to _____ ft.

COUNTY No. 1938

Cased with _____ inch _____ from 0 to _____ ft.

and _____ inch _____ from _____ to _____ ft.

Size hole below casing _____ inch. Static level from surf. 25' 6" ft.

Tested capacity _____ gal. per min. Temperature _____ °F.

Water lowered to _____ ft. _____ in. in _____ hrs. _____ min.

Length of test _____ hrs. _____ min. Screen _____

Slot _____ Diam. _____ Length _____ Bottom set at _____ ft.

[Show location in Section Plat]

Township name _____ Elev. _____ Sec. 26

Description of location _____ Twp. 2N

Rge. 10W

Location by Groundwater Div.

Signed _____ County St. Clair

St. CLAIR

Copy for Illinois State Geological Survey NO ENVELOPE Index: 26-2N-10W

Use Log # 435 436

See Mr. Luther

LOG OF WATER WELL

Property owner Midwest Rubber Reclaiming Co. Well No. 3

Drilled by Thorpe (Morgan) Year Mar. 1951

Formations passed through	Thickness	Depth of Bottom
Hard fill	3	3
Fine dry sand + silt	34	37
Med. fine sand very dirty	14	51
Med. coarse sand, dirty	11	62
Building sand some fine gravel	9	71
Clean coarse sand	23	94
Coarse sand + boulders	8	102
Med. coarse sand	10	112

[Continue on back if necessary]

Finished in _____ at _____ to _____ ft.

COUNTY No. 1939

Cased with _____ inch _____ from 0 to _____ ft.

and _____ inch _____ from _____ to _____ ft.

Size hole below casing _____ inch. Static level from surf. 35' Apr. 18 ft.

Tested capacity _____ gal. per min. Temperature _____ °F.

Water lowered to _____ ft. _____ in. in _____ hrs. _____ min.

Length of test _____ hrs. _____ min. Screen _____

Slot _____ Diam. _____ Length _____ Bottom set at _____ ft.

[Show location in Section Plat]

Township name _____ Elev. _____ Sec. 26

Description of location _____ Twp. 2N

Rge. 10W

Location by Groundwater Div.

Signed _____ County St. Clair

St. CLAIR

Copy for Illinois State Geological Survey NO ENVELOPE Index: 26-2N-10W

Plotted on photo 372

LOG OF WATER WELL

M.C. #

Property owner Monsanto Chemical Co. Well No. 20

East of bldg. BI in plant 15'E. from RR. spur. L.W. # 3

Drilled by Layne-Western (Milliren) Year 7-13-49

Formations passed through	Thickness	Depth of Bottom
Clay	1	1
Cinders	1	2
Clay	2	5
Sandy clay	26	31
Black fine sand	30	61
Med. sand, gray	13	74
Med. to coarse sand	5	79
Rock + coarse sand	2	81
Coarse sand	3	84
Coarse sand + gravel + small rocks	19	103

[Continue on back if necessary]

Finished in _____ at _____ to _____ ft.

COUNTY No. 1949

Cased with _____ inch _____ from 0 to _____ ft.

and _____ inch _____ from _____ to _____ ft.

Size hole below casing _____ inch. Static level from surf. _____ ft.

Tested capacity _____ gal. per min. Temperature _____ °F.

Water lowered to _____ ft. _____ in. in _____ hrs. _____ min.

Length of test _____ hrs. _____ min. Screen Shutter

Slot _____ Diam. _____ Length 25 Bottom set at _____ ft.

[Show location in Section Plat]

Township name _____ Elev. _____ Sec. 26

Description of location SW, NE Sec. 26 Twp. 2 N

T 2 N, R 10 W Rge. 10 W

Signed _____ County St. Clair

St. CLAIR NO ENVELOPE

Copy for Illinois State Geological Survey Index: 26-2N-10W

Plotted on Photo IF 89 Illinois U.S. 134

Map Log # 437

LOG OF WATER WELL

Property owner Midwest Rubber Reclaiming Co. Well No. 1

Drilled by Thorpe (Morgan) Year ?

Formations passed through	Thickness	Depth of Bottom
Sandy loam	10	10
Dry sand	14	24
Coarse sand	14	38
Coarse sand, some gravel	4	42
Fine sand	24	66
Ext. fine sand	8	74
Coarse sand + boulders	8	82
Very coarse sand + gravel	24	106

[Continue on back if necessary]

Finished in _____ to _____ ft.

COUNTY No. 1937

Cased with _____ inch _____ from 0 to _____ ft.

and _____ inch _____ from _____ to _____ ft.

Size hole below casing _____ inch. Static level from surf. 28' 2" ft.

Tested capacity _____ gal. per min. Temperature _____ °F.

Water lowered to _____ ft. _____ in. in _____ hrs. _____ min.

Length of test _____ hrs. _____ min. Screen _____

Slot _____ Diam. _____ Length _____ Bottom set at _____ ft.

[Show location in Section Plat]

Township name _____ Elev. _____ Sec. 26

Description of location _____ Twp. 2 N

Rge. 10 W

Signed Location by Groundwater Drill Clair Co County St. Clair

NO ENVELOPE

Copy for Illinois State Geological Survey Index: 26-2N-10W

283

LOG OF WATER WELL

#17

Property owner: Monsanto Chem. Co. Well No. 3

Drilled by: H.C. Watson (Waly) Year: July 1941

Formations passed through	Thickness	Depth of Bottom
Fill	10	10
Mud	8	18
Yellow sand	10	28
Gray sand (getting coarser)	35	63
#30 sand	15	78
#40 gravel	5	83
#50 "	5	88
#60 "	17	105 TD

[Continue on back if necessary]

COUNTY No. 1947

Finished in _____ to _____ ft.

Cased with _____ inch _____ from 0 to _____ ft.

and _____ inch _____ from _____ to _____ ft.

Size hole below casing _____ inch. Static level from surf. 30 ft.

Tested capacity _____ gal. per min. Temperature _____ °F.

Water lowered to _____ ft. _____ in. in _____ hrs. _____ min.

Length of test _____ hrs. _____ min. Screen Johnson

Slot 40 Diam. 16 Length 30' Bottom set at _____ ft.

[Show location in Section Plat]

Township name _____ Elev. _____ Sec. 26

Description of location SW, NE Sec. 26, T 2 N, R 10 W Twp. 2 N Rge. 10 W

Location by Groundwater Div. St. Clair

Signed _____ County St. Clair

St. CLAIR

Copy for Illinois State Geological Survey No ENVELOPE Index: 26-2N-10W

Plotted on photo

273

LOG OF WATER WELL

Property owner: Monsanto Chem Co. (80'S+E of main entrance gate) Well No. 19 (K.W. #2)

Drilled by: Layne-Western (F. Sallee) Year: Aug. 1948

Formations passed through	Thickness	Depth of Bottom
Cinder + clay fill	2	2
Brown sand	14	16
Brown + blue clay	2	18
Brown silty sand	27	45
Med. gray sand	5	50
Med like clammy gray sand	5	55
Med. coarse sand + gravel, much rotten wood	6	61
Coarse sand + gravel	5	66
Black med sand, some gravel	7	73
Coarse sand + gravel	2	75
Coarse brown sand	5	80
Med. brownish gray sand + bulbs	4	84
Coarse gray sand	6	90
" " " + gravel	18	108

[Continue on back if necessary]

COUNTY No. 1948

Finished in _____ to _____ ft.

Cased with _____ inch _____ from 0 to _____ ft.

and _____ inch _____ from _____ to _____ ft.

Size hole below casing _____ inch. Static level from surf. _____ ft.

Tested capacity _____ gal. per min. Temperature _____ °F.

Water lowered to _____ ft. _____ in. in _____ hrs. _____ min.

Length of test _____ hrs. _____ min. Screen Shelby

Slot _____ Diam. _____ Length 25 Bottom set at _____ ft.

[Show location in Section Plat]

Township name _____ Elev. _____ Sec. 26

Description of location NE, NE Sec. 26, T 2 N, R 10 W Twp. 2 N Rge. 10 W

Signed _____ County St. Clair

St. CLAIR

Copy for Illinois State Geological Survey No ENVELOPE Index: 26-2N-10W

280

LOG OF WATER WELL

Property owner: Monsanto Chem. Co. Well No. 15

Drilled by: H. L. Watson (Moretti) Year: ~~Mar.~~ Feb. 1941

Formations passed through	Thickness	Depth of Bottom
No log	70	
Fine sand	5	75
Fine sand + gravel	5	80
Coarse sand + gravel	5	85
" " " "	5	90
Coarse sand	5	95
Coarse sand + gravel	5	100
" " " "	5	105
Sand + gravel	1½	106½ T.D.

[Continue on back if necessary]

Finished in _____ at _____ to _____ ft.

COUNTY No. 1945

Cased with _____ inch _____ from 0 to _____ ft.

and _____ inch _____ from _____ to _____ ft.

Size hole below casing _____ inch. Static level from surf. 34' ft.

Tested capacity _____ gal. per min. Temperature _____ °F.

Water lowered to _____ ft. _____ in. in _____ hrs. _____ min.

Length of test _____ hrs. _____ min. Screen Johnson

Slot 60-80-100 Diam. 16" Length 25' Bottom set at _____ ft.

[Show location in Section Plat]

Township name _____ Elev. _____ Sec. 26

Description of location SW, NE Sec. 26, T 2 N R 10 W Twp. 2 N Rge. 10 W

Location by Illinois Water Div. Signed _____ County St. Clair

St. CLAIR No ENVELOPE Index: 26-2N-10W

Copy for Illinois State Geological Survey

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LOG OF WATER WELL

#16

Property owner: Monsanto Chem. Co. Well No. 7

Drilled by: Watson (Waly) Year: June 1941

Formations passed through	Thickness	Depth of Bottom
Fill	10	10
Mud	8	18
Fine yellow sand → ?		
Sand	20'	38
Gravel	38	76
Fine gravel	5	81
Gray gravel	10	91
gravel	10	101
gravel	5	106

[Continue on back if necessary] TD = 106'

Finished in _____ at _____ to _____ ft.

COUNTY No. 1946

Cased with _____ inch _____ from 0 to _____ ft.

and _____ inch _____ from _____ to _____ ft.

Size hole below casing _____ inch. Static level from surf. 30 ft.

Tested capacity _____ gal. per min. Temperature _____ °F.

Water lowered to _____ ft. _____ in. in _____ hrs. _____ min.

Length of test _____ hrs. _____ min. Screen Johnson

Slot _____ Diam. 16" Length 30' Bottom set at _____ ft.

[Show location in Section Plat]

Township name _____ Elev. _____ Sec. 26

Description of location SW, NE Sec. 26, T 2 N, R 10 W Twp. 2 N Rge. 10 W

Location by Illinois Water Div. Signed _____ County St. Clair

St. CLAIR No ENVELOPE Index: 26-2N-10W

Copy for Illinois State Geological Survey

(22844—50M—9-55)

Page 1

ILLINOIS GEOLOGICAL SURVEY, URBANA

Strata	Thickness	Top	Bottom
Redish sandy and blue silt		0	15
Grey sand little silt		15	20
Grey sand		20	25
Blue and grey sand		25	30
Fine grey sand		30	35
Fine grey sand and blue silt		35	40
Fine blue and grey sand		40	45
No recovery wash samole. Fine blue and grey sand		40	50
No recovery wash sample. fine blue and grey sand.		50	55
Fine blue sand, No recovery		55	60
Blue sand and wood no recovery		60	65
Grey and blue sand. No recovery		65	70
Fine blue sand. No recovery		70	75
Fine blue sand. No recovery		75	80
Medium blue sand. No recovery		80	85
Mixed grey and blue sand no recovery		85	90
Mixed grey and blue sand. No recovery		90	95
Mixed blue and grey sand. Could not drive sample Barrell. Felt like gravel		95	100
Blue and grey sand. No spoon sample taken.		100	105
Blue and redish sand. no spoon sample taken. Drove casing to 110'4". refusal Set well screen at 108'11". Could not get any deeper as sand was running under casing.		105	110
Total Depth			110'4" TD

Location plat filed.
S.S. # 29900

COMPANY Wabash Drilling Co.
FARM Monsanto Chemical Co. NO. SR-2
DATE DRILLED November 1956 COUNTY NO. 1987
AUTHORITY Wabash Drilling Co.
ELEVATION 412.5' refusal (MSL)
LOCATION 680'W of 90° 10'W longitude, 4310'S of 3[illegible] 35' north latitude.
COUNTY ST. CL[illegible]R Projected 26- 2N-10W

SC Jack Bufe (or Kelley) Photo 1F-88 279

Plotted on Photo

LOG OF WATER WELL

Property owner Monsanto Chem. Co. (Plant "B") Well No. 12

Drilled by H. C. Watson Year

Formations passed through	Thickness	Depth of Bottom
No log	70	
Fine sand	5	75
Coarse sand + gravel	5	80
Coarse sand + gravel	5	85
" " " "	5	90
" " " "	5	95
" " " "	5	100
Sand + gravel	5	105
" " "	5	110
Few boulders	2	112

[Continue on back if necessary]

Finished in _____ at _____ to _____ ft.

COUNTY No. 1944

Cased with _____ inch _____ from 0 to _____ ft.

and _____ inch _____ from _____ to _____ ft.

Size hole below casing _____ inch. Static level from surf. 39'6" ft.

Tested capacity 1250 gal. per min. Temperature _____ °F.

Water lowered to _____ ft. _____ in. in _____ hrs. _____ min.

Length of test _____ hrs. _____ min. Screen Johnson

Slot 60-80-100 Diam. 16 Length 27½' Bottom set at _____ ft.

[Show location in Section Plat]

Township name _____ Elev. _____ Sec. 26

Description of location SE, NE Sec. 26, T 2N, R 10W Twp. 2N Rge. 10W

Location by Groundwater [illegible] 656 St. Clair

Signed _____ County _____

St. CLAIR NO ENVELOPE

Copy for Illinois State Geological Survey Index: 26-2N 10W

LOG OF WATER WELL

Property owner: Monsanto Chem. Co. Well No. 2 (Test well)

Drilled by: Layne-Western (F. Sallee) Year: Feb. 1948

Formations passed through	Thickness	Depth of Bottom
Cinder fill	8	8
Hard green clay	4	12
Clay & black sand turning brown	3	15
Black & brown sand w/ clay	5	20
Brown sand	10	30
" " turning gray	5	35
Fine to med. gray sand	5	40
Med. gray sand	10	50
Med. to coarse gray sand	15	65
Med. gray sand	5	70
Sand & boulders, blue clay showing	5	75
Fine to med. sand, silt, few boulders	5	80
Med. sand, some gravel	5	85
Med. to coarse sand & gravel	15	100
Coarse sand, gravel & boulders	8	108
On rock at 108		

[Continue on back if necessary]

Finished in _____ at _____ to _____ ft.

Cased with _____ inch COUNTY No. 1942 from 0 to _____ ft.

and _____ inch _____ from _____ to _____ ft.

Size hole below casing _____ inch. Static level from surf. _____ ft.

Tested capacity _____ gal. per min. Temperature _____ °F.

Water lowered to _____ ft. _____ in. in _____ hrs. _____ min.

Length of test _____ hrs. _____ min. Screen _____

Slot _____ Diam. _____ Length _____ Bottom set at _____ ft.

[Show location in Section Plat]

Township name _____ Elev. 410 TOPO

Description of location NE, NE Sec. 26 T2N, R10W

Sec. 26 Twp. 2N Rge. 10W

Signed _____ County St. Clair

 St. CLAIR No ENVELOPE Index: 26-2N-10W

Copy for Illinois State Geological Survey

LOG OF WATER WELL

(Same as well #4)

Property owner: Monsanto Chem. Co. Well No. #4 (Test hole)

Drilled by: Layne-Western (F. Sallee) Year: Feb. 1948

Formations passed through	Thickness	Depth of Bottom
Cinders	1	1
Brown to yellow clay	9	10
Brown sandy clay	20	30
Brown sand clay showing	10	40
Brown packed sand	3	43
Med. sand, some gravel, clay showing	7	50
Fine packed sand & gravel	10	65
Med sand, some coarse gravel - water at 68-70	5	70
Med. sand, some gravel	5	75
Fine to coarse sand & gravel, some clay	10	85
Medium fine sand, some gravel	5	90
Medium to coarse sand & gravel (rock)	19'8"	109'8"
On rock at 109'8"		

[Continue on back if necessary]

Finished in _____ at _____ to _____ ft.

Cased with _____ inch COUNTY No. 1943 from 0 to _____ ft.

and _____ inch _____ from _____ to _____ ft.

Size hole below casing _____ inch. Static level from surf. _____ ft.

Tested capacity _____ gal. per min. Temperature _____ °F.

Water lowered to _____ ft. _____ in. in _____ hrs. _____ min.

Length of test _____ hrs. _____ min. Screen _____

Slot _____ Diam. _____ Length _____ Bottom set at _____ ft.

[Show location in Section Plat]

Township name _____ Elev. _____

Description of location NE, NE Sec. 26, T2N, R10W

Sec. 26 Twp. 2N Rge. 10W

Signed _____ County St. Clair

ST. CLAIR No ENVELOPE Index: 26-2N-10W

Copy for Illinois State Geological Survey

(2840—50M—12-64) 2

ILLINOIS GEOLOGICAL SURVEY, URBANA

	Thickness	Top	Bottom
Soil	1'6"		1'6"
Sand	34		35'6"
Fine gravel	6		41'6"
Gravel & sand	24		65'6"
Gravel & boulders	13		84'6"
Gravel	5'6"		90
Coarse gravel & boulders	18		108

Tested 1400 gallons per minute.

Water stands 12'6" from surface of ground.

Water stands 26'6" when pumping 1400 gallons per minute.

Size of well 24".

20 cubic yards of gravel.

Material used in well:
50' of 38" Pit,
106'8" of 24" which includes 58' of 24" Shutter Screen & 48'4" of 24" Pit.

Kind of seal used Steel Plug.

*50'N and 50'E of crossing of Alton & Southern R.R. & Falling Springs Rd.

COMPANY Layne & Bowler Company
FARM Monsanto Chemical Works NO. 1
DATE DRILLED May 8, 1920 COUNTY NO. 1741
AUTHORITY Layne & Bowler Co.
ELEVATION 410' ±
LOCATION *
COUNTY ST. C(R

Projected 26-2N-10W

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LOG OF WATER WELL

Property owner Monsanto Chem. Co. Well No. #1 Test well

Drilled by Layne-Western (F. Sallee) Year Feb. 1948

Formations passed through	Thickness	Depth of Bottom
Soil Fill	1	1
Cinder fill	4	5
Cinders, blue, green clay	5	10
Cinders + fine black sand	5	15
Fine black sand + clay	5	20
" " " , streak med. gray sand	5	25
Fine black mucky sand. Hard to get sample	20	45
Med Coarse gray sand	10	55
Coarse gray sand	5	60
Fine, packed gray-brown sand boulders from 67 to 70	14	74
Sand + gravel, packed w/ much fine sand	3	77
Packed sand, gravel + boulders	3	80
Packed sand, gravel + boulders	13	93
Sand + boulders	9	102
(Formation in general is very tight)		TD

[Continue on back if necessary]

Finished in _____ at _____ to _____ ft.

COUNTY No. 1941

Cased with _____ inch _____ from 0 to _____ ft.

and _____ inch _____ from _____ to _____ ft.

Size hole below casing _____ inch. Static level from surf. _____ ft.

Tested capacity _____ gal. per min. Temperature _____ °F.

Water lowered to _____ ft. _____ in. in _____ hrs. _____ min.

Length of test _____ hrs. _____ min. Screen _____

Slot _____ Diam. _____ Length _____ Bottom set at _____ ft.

[Show location in Section Plat]

Township name _____ Elev. 410 TOPO

Description of location SW, NE Sec. 26, T2N, R10W

Sec. 26

Twp. 2N

Rge. 10W

Located by Layne-Western Div. 6

Signed _____ County St. Clair

CLAIR NO ENVELOPE

Copy for Illinois State Geological Survey Index: 26-2N-10W

287

LOG OF WATER WELL

Property owner Lewin-Mathes Well No.

Drilled by H.L. Watson (Moll) Year June 1948

Formations passed through	Thickness	Depth of Bottom
Lumber	3	3
Fine sand	12	15
" "	20	35
" " + gravel	10	45
Med sand + gravel	2	47
Log	1	48
Med. Sand + gravel	4	52
" " " " + rock	10	62
" " " "	8	70
" " " "	5	75
" " " " + rock	5	80
Coarse sand	5	85
Coarse sand + rock	5	90
Coarse sand	5	95
Boulder	1	96
Coarse sand + rock	5	101

[Continue on back if necessary]

COUNTY No. 1933

Finished in at to ft.

Cased with inch from 0 to ft.

and inch from to ft.

Size hole below casing inch. Static level from surf. ft.

Tested capacity gal. per min. Temperature °F.

Water lowered to ft. in. in hrs. min.

Length of test hrs. min. Screen

Slot Diam. Length Bottom set at ft.

[Show location in Section Plat]

Township name Elev.

Description of location NE, SW Sec. 26

T2N, R10W

Sec. 26

Twp.

Rge. 10W

Location by Brown Water Div.

Signed County St. Clair

St. CLAIR NO ENVELOPE

Copy for Illinois State Geological Survey Index: 26-2N-10W

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on Caholcia Quad.

286

LOG OF WATER WELL

Property owner Lewin-Mathes-Monsanto, Ill. Well No.

Drilled by H.L. Watson (Graves) Year Feb. 1947

Formations passed through	Thickness	Depth of Bottom
Fine sand	70	70
Fine sand + gravel	8	78
Good formation	26	104 TD

COUNTY No. 1936

[Continue on back if necessary]

Finished in at to ft.

Cased with inch from 0 to ft.

and inch from to ft.

Size hole below casing inch. Static level from surf. ft.

Tested capacity gal. per min. Temperature °F.

Water lowered to ft. in. in hrs. min.

Length of test hrs. min. Screen

Slot 30 Diam. 12" Length 26'5" Bottom set at ft.

[Show location in Section Plat]

Township name Elev.

Description of location NE, SW Sec. 26,

T2N, R10W

Sec. 26

Twp. 2N

Rge. 10W

Location by Brown Water Div.

Signed County St. Clair

St. CLAIR NO ENVELOPE

Copy for Illinois State Geological Survey Index: 26-2N-10W

(36941—50M—2-67)27-0

ILLINOIS GEOLOGICAL SURVEY, URBANA

PERMIT # NF 08825

A 4" test hole was first drilled to a depth of 111', then filled in with sand and later re-drilled with a bigger bit. Both records follow.

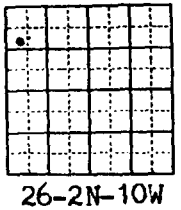
TEST HOLE

	Thickness	Top	Bottom
Clay		0	11
Silty sand brown		12	21
Fine sand brown		22	30
Fine sand gray		31	41
Medium sand gray		42	51
Coarse sand gray with pea gravel		52	56
Coarse sand gray with pea gravel		57	61
Coarse sand gray with pea gravel		62	86
Very coarse sand gray with 3/8" gravel		87	91
Very coarse sand gray with ½" gravel		92	96
Very coarse sand gray with ½" gravel		97	101
Very coarse sand gray with ½" gravel		102	104
Very coarse sand gray with ½" gravel		105	111
			TD

WELL RECORD

	Thickness	Top	Bottom
Clay		0	18
Sand coarse gray			20
Sand coarse gray with gravel			25
Sand fine			30
Sand coarse gray with gravel			35
Sand coarse gray with gravel			40
Sand coarse gray with 1" gravel			45
Sand coarse gray with 1" gravel		55	60
Sand coarse gray with 3/4" gravel		65	70

COMPANY Luhr Brothers, Inc.
FARM Cerro Copper & Brass Co. NO. 1
DATE DRILLED July 10, 1970 COUNTY NO. 3208
AUTHORITY Company
ELEVATION
LOCATION 1000' N line, 400' W line of NW
COUNTY ST. CLAIR



26-2N-10W

(2840—30M—12-64)

	Thickness	Top	Bottom
Sand very coarse gray			75
Sand very coarse gray with cobbles to 5"		80	110½
			TD

Well Casing:
- Material - Steel coated with bituminous
- Diameter: 20" outside diameter
- Length - 78.73'
- Wall Thickness - .075

Final Casing Elevation Above Grade: 1'

Size of Drilled Hole:
- 40" to 20'
- 38" to bottom

Well Screen:
- Material - Stainless steel #304
- Diameter - 20" nominal
- Length - 31.82
- Slot Size - .100
- Type Make - UOP Johnson

Depth of Screen set at 110.55'

Gravel Filter:
- Used 23 tons Muscatine, 1/16" - 3/16" No. 3
- Wall Thickness - 8½"
- Feet Above Screen - 26'

Static Level: 23.86'

S.S. # 57106.

John C. Moore Corporat Rochester, N. Y. Binder and holes in leaves, each Patented 1906. 356308

TOWN E. St. Louis-Monsanto P. O. Map No. 4W
COMPANY F. Thorpe - Engineer R. 10W
FARM Evans-Wallower Zinc Co. No. 2 T. 2N Sec. 24 ?
AUTHORITY F. Thorpe
ELEVATION
COLLECTOR DATE DRILLED March 1929
CONFIDENTIAL

No.	STRATA COUNTY NO. 1740	Thickness Feet	Thickness In.	Depth Feet	Depth In.
	Subsoil & clay	16		16	
	Sand, extremely fine	11		27	
	Sand, very fine, loamy	8		35	
	Sand, very fine	11		46	
	Sand, fine	6		52	
	Sand, very fine	3		55	
	Sand, fine, gritty	7		62	
	Boulders up to 4" with some sand	5		67	
	Regular building sand	14		81	
	Sand, medium coarse	2		83	
	Sand, very coarse	19		102	

"During the month of March, 1929, I installed a porous concrete well 30" I.D. and 40" O.D. at the plant of the Evans-Wallower Zinc Co. at Monsanto P.O., East St. Louis, Ill. and the above is the log of all the strata we went through in Well #2.

"The static level of water varies with the river level."
(Letter of F. Thorpe rec'd. 4-3-29)

NO ENVELOPE

County St. Clair Index No. 04W24
T.—DRILL RECORD 24-2N-10W
17893 4M 5 29 26

John C. Moore Corporation, Rochester, N. Y. Binder and holes in leaves, each Patented 1906.

TOWN East St. Louis Map No. 4W
COMPANY Thorpe Concrete Well Co. R. 10W
FARM Certain-teed Products No. 3 T. 2 N Sec. 24
AUTHORITY written log
ELEVATION 416 topo.
COLLECTOR Ireland DATE DRILLED 4-34
CONFIDENTIAL 18th and Broadway

No.	STRATA COUNTY NO. 1739	Thickness Feet	Thickness In.	Depth Feet	Depth In.
	Cinder fill	6		6	
	Gumbo	4		10	
	Soil, sandy	7		17	
	Sand, fine	10		27	
	Sand, extremely fine	13		40	
	Sand, fine, loamy	13		53	
	Sand, fine, gritty	7		60	
	Clay, blue	4		64	
	Sand, quick	26		90	
	Sand, fine	2		92	
	Sand, gritty	9		101	
	Gravel, fine	6		107	
	Sand, coarse	2		109	
	Boulders 2" to 10"	7		116	
	Baits drilled 3 wells	1-21		120	
		7-17		120	
		11-17		119	

NO ENVELOPE

County ST. CLAIR Index No. 04W 24
T.—DRILL RECORD 24-2N-10W
47327—10M—4-35 4 Illinois Geological Survey, Urbana.

John C. Moore Corporation, Rochester, N. Y. Binder and holes in leaves, each Patented 1906. 302136

(575—5M—7-23)

OWN TOWNSHIP MAP No. 4W
OMPANY Union Electric Light and Power 10W
ARM 300 ft. S. of North property Line
UTHORITY 50 ft. E. of Eastern Inner 2 Proj.
LEVATION Harbor Line HOLE No. 6 N 23
OLLECTOR DATE DRILLED

No.	COUNTY NO. 1732 STRATA	Thickness Feet	Thickness In.	Depth Feet	Depth In.
	Water	16		16	
	Sand, fine	12		28	
	Sand, coarse	10		38	
	Sand, very coarse 1/2 in. gravel	10		48	
	Sand, coarse	27		75	
	Sand, coarse 5% 1/2 in. gravel	4		79	
	Sand, coarse 25% 1/2 in. gravel	4		89	
	Sand, coarse 40% 3 in. gravel	3		92	
	Sand with gravel	12	8	104	8
	Minus 76.06 rock				

St. Clair
County Index No.
DRILL RECORD Projected 23-2N-10W

John C. Moore Corporation, Rochester, N. Y. Binder and holes in leaves, each Patented 1906. 302136

(575—5M—7-23)

TOWN Cahokia TOWNSHIP MAP No. 4W
COMPANY Union Electric Light & Power 10W
FARM 100 ft. S. of N. property Line on
AUTHORITY Eastern Inner Harbor Line. 2 Proj.
ELEVATION HOLE No. 7 N 23
COLLECTOR DATE DRILLED

No.	COUNTY NO. 1733 STRATA	Thickness Feet	Thickness In.	Depth Feet	Depth In.
	Water	35		35	
	Sand, fine	5		40	
	Sand, coarse 5% 2 in. gravel	10		50	
	Sand, coarse 15% 1/8 in. gravel	15		65	
	Sand, coarse 20% 1 1/2 and 10% 1/8 in. gravel	12		77	

St. Clair
County Index No.
DRILL RECORD Projected 23-2N-10W

John C. Moore Corporation, Rochester, N. Y. Binder and holes in leaves, each Patented 1908. 306742

(575—5M—7-23)

WN Cahokia TOWNSHIP MAP No. 4W 10W

MPANY Union Electric Light & Power

RM 100 ft. S. of N. property line

THORITY 258 ft. E. of Eastern Inner Harbor line. HOLE No. 1

EVATION

LLECTOR DATE DRILLED

Proj. 23

COUNTY NO. 1730 STRATA	Thickness Feet	Thickness In.	Depth Feet	Depth In.
Mud, black and fine sand	30		30	
Sand, fine	4		34	
Sand, coarse 5% 1/8 in. gravel	2		36	
25% 1/4 in. gravel	2		38	
30% 2½ in. gravel	2		40	
Sand, coarse 30% 1/8 to 1 in. gravel	8		48	
Sand, coarse 10% 1/4 in. gravel	4		52	

County St. Clair Index No. 0414

DRILL RECORD ILLINOIS STATE Projected 23-2N-10W

John C. Moore Corporation, Rochester, N. Y. Binder and holes in leaves, each Patented 1908. 302136

(575—5M—7-23)

TOWN Cahokia TOWNSHIP MAP No. 4W 10W

COMPANY Union Electric Light and Power

FARM 300 ft. S. of N. Property Line

AUTHORITY 250 ft. E. of Eastern Inner

ELEVATION Harbor line HOLE No. 2

COLLECTOR DATE DRILLED

Proj. 23

No. COUNTY NO. 1731 STRATA	Thickness Feet	Thickness In.	Depth Feet	Depth In.
Sand, fine	10		10	
Sand, very fine	8		18	
Mud, black	6		24	
Mud, black and fine sand mixed	11		33	
Sand, fine. 10% 1/4 in. gravel	5		38	
Sand, coarse. 15% 1/2 in. gravel	5		43	
Sand, coarse 20% 1/2 in. gravel	5		48	
Sand, fine	5		53	
Sand, coarse. Pieces of soapstone	5		58	
Sand, coarse 5% 1/4 in. gravel	8		66	
Sand, coarse 10% 1/2 in. gravel	6		72	
Sand, coarse 20% 4 in. gravel	4		76	
Sand, coarse, 20% 3/4 in. gravel	15		91	
Sand, coarse	10		101	
Minus 73.66 Rock				

County St. Clair Index No.

DRILL RECORD ILLINOIS STATE Projected 23-2N-10W

Photo IF-36

321

LOG OF WATER WELL

Property owner American Zinc Co. Monsanto, Ill. Well No. 8

Drilled by H. L. Watson Year Feb. 1946

Formations passed through	Thickness	Depth of Bottom
Gumbo	20	20'
Quick sand	30	50'
Sand	16	66'
Med. Sand	10	76
No log	26	102
TD = 102		

[Continue on back if necessary]

Finished in _____ at _____ to _____ ft.

COUNTY No. 1927

Cased with _____ inch _____ from 0 to _____ ft.

and _____ inch _____ from _____ to _____ ft.

Size hole below casing _____ inch. Static level from surf. _____ ft.

Tested capacity _____ gal. per min. Temperature _____ °F.

Water lowered to _____ ft. _____ in. in _____ hrs. _____ min.

Length of test _____ hrs. _____ min. Screen Cooke

Slot _____ Diam. 16 Length 30' Bottom set at _____ ft.

[Show location in Section Plat]

Township name _____ Elev. _____ Sec. 23

Description of location SE SE Sec. 23 Twp. 2N

T 2N, R 10W Rge. 10W

Location by Groundwater Div.

Signed _____ County St. Clair

St. CLAIR No ENVELOPE 23-2N-10W

Copy for Illinois State Geological Survey Index:

323

LOG OF WATER WELL

Property owner American Zinc Co. Monsanto, Ill. Well No. 9

Drilled by H. L. Watson (G. W. Finke) Year Nov. 1950

Formations passed through	Thickness	Depth of Bottom
Mud	35	35
Sand	45	80
Medium sand	20	100
Sand + coarse gravel	4	104
TD = 104'		

[Continue on back if necessary]

Finished in _____ at _____ to _____ ft.

Cased with _____ inch _____ from 0 to _____ ft.

COUNTY No. 1928

and _____ inch _____ from _____ to _____ ft.

Size hole below casing _____ inch. Static level from surf. _____ ft.

Tested capacity _____ gal. per min. Temperature _____ °F.

Water lowered to _____ ft. _____ in. in _____ hrs. _____ min.

Length of test _____ hrs. _____ min. Screen _____

Slot _____ Diam. 40" Length 60' Bottom set at _____ ft.

[Show location in Section Plat]

Township name _____ Elev. _____ Sec. 23

Description of location SW, SE Sec. 23 Twp. 2N

T 2N, R 10W Rge. 10W

Location by Groundwater Div.

Signed _____ County St. Clair

St. CLAIR No ENVELOPE 23-2N-10W

Copy for Illinois State Geological Survey Index:

ILLINOIS GEOLOGICAL SURVEY, URBANA

INDUSTRIAL Permit #NF4849	Thickness	Top	Bottom
Yellow brown clay		0	10
Fine sand brown		10	25
Medium coarse sand brown		25	30
Coarse sand brown with pea gravel		30	35
Coarse sand brown		35	40
Medium coarse sand brown		40	55
Medium fine sand brown		55	60
Fine sand brown		60	70
Very coarse sand gray with 1½" gravel		70	80
Very coarse sand gray with ¼" gravel		80	85
Very coarse sand gray with 3/4" gravel		85	90
Very coarse sand gray with ½" gravel		90	95
Very coarse sand gray with 3/8" gravel		95	100
Very coarse sand gray with 1" gravel		100	105
Very coarse sand gray with 3/4" gravel		105	107
Very coarse sand gray with ¼" gravel		107	113
Very coarse sand gray with ½" gravel		113	116
			TD

Size of hole 38"
Casing: 88" - 18" outside diameter steel
Casing elevation 2' above grade
Static water level 36.9' top of casing
24 tons gravel pack 11" wall 45' above screen
Screen: Johnson Stainless Steel 18" nominal diameter. Length 30' set at 116'
Slot size: .060'
Two well 300' apart were drilled under Permit #NF4849 S.S. # 55984
NO ENVELOPE
* North Reservoir

COMPANY Luhr Brothers, Inc.
FARM Midwest Rubber Reclaiming Co. 10
DATE DRILLED September 3, 1968 COUNTY NO. 2856
AUTHORITY Luhr Bros. Inc.
ELEVATION
LOCATION Lot 209 Third Subdivision of Cahokia* Commonfields
COUNTY ST. CLAIR 23?-2N-10 W

ILLINOIS GEOLOGICAL SURVEY, URBANA

INDUSTIRAL Permit #NF4849	Thickness	Top	Bottom
Brown Clay		0	5
Brown silty sand		5	20
Fine sand brown		20	25
Fine sand gray		25	30
Coarse sand gray with pea gravel		30	35
Medium coarse sand gray		35	40
Coarse sand gray		40	45
Medium fine sand gray		45	55
Very coarse sand gray with pea gravel		55	60
Medium coarse sand gray		60	65
Very coarse sand gray with 3/4" gravel		65	70
Medium coarse sand gray with pea gravel		70	75
Very coarse sand gray with 3/4" gravel		75	110
Very coarse sand gray with 1" gravel		110	115.5
			TD

Size of hole 38"
Casing: 88.70' - 18" outside diameter steel
Casing elevation 3.2' above grade
Static water level 37'
26.5 tons gravel pack 11" wall 55' above screen.
Screen: Johnson Stainless Steel 16" nominal diameter. Length 30' set at 115.5'
Slot size: .060
Two wells 300' apart were drilled under Permit #NF4849
NO ENVELOPE
* Southwest Reservoir S.S.#55983

COMPANY Luhr Brothers, Incorparted.
FARM Midwest Rubber Reclaiming Co. 11
DATE DRILLED September 6, 1968 COUNTY NO. 2857
AUTHORITY Luhr Bros. Inc.
ELEVATION
LOCATION Lot 209 Third Subdivision of Cahokia* Commonfields
COUNTY ST. CLAIR 23?-2N-10W

Platteville
Ph. No. 1F37

322

LOG OF WATER WELL

Property owner American Zinc Co - Monsanto United Engineers + Const. Co. E. St. Louis Well No. 6

Drilled by H. L. Walton (Sandmill) Year Nov. 1940

Formations passed through	Thickness	Depth of Bottom
Cinders + Mud	15	15
Fine sand	60	75
good water bearing formation	30	105
Quicksand to strainer	2	107

Abandoned

[Continue on back if necessary]

Finished in _____ at _____ to _____ ft.

Cased with _____ inch COUNTY No. 1926 from 0 to _____ ft.

and _____ inch _____ from _____ to _____ ft.

Size hole below casing _____ inch. Static level from surf. 34 ft.

Tested capacity 1500 gal. per min. Temperature _____ °F.

Water lowered to _____ ft. _____ in. in _____ hrs. _____ min.

Length of test _____ hrs. _____ min. Screen Cole

Slot 120 Diam. 16 Length 30' Bottom set at _____ ft.

[Show location in Section Plat]

Township name _____ Elev. _____ Sec. 23

Description of location NE, NE Sec 23 Twp. 2N

T 2N, R 10 W (6th) Rge. 10 W

Location by Monsanto Zinc

Signed _____ County St. Clair

St. CLAIR NO ENVELOPE 23-2N-10W

Copy for Illinois State Geological Survey Index:

251

LOG OF WATER WELL

Property owner United Engineers American Zinc Co. Monsanto, Ill. Well No. 7

Drilled by Walton (Moretti + Cerilg) Year Jan. 1942

Formations passed through	Thickness	Depth of Bottom
Dirt	5	
Fine sand	45	50
Coarse sand	25	75
gravel	30	105

COUNTY No. 1929

[Continue on back if necessary]

Finished in _____ at _____ to _____ ft.

Cased with _____ inch _____ from 0 to _____ ft.

and _____ inch _____ from _____ to _____ ft.

Size hole below casing _____ inch. Static level from surf. 33' 6" ft.

Tested capacity _____ gal. per min. Temperature _____ °F.

Water lowered to _____ ft. _____ in. in _____ hrs. _____ min.

Length of test _____ hrs. _____ min. Screen _____

Slot 40+50 Diam. 16" Length 30' Bottom set at _____ ft.

[Show location in Section Plat]

Township name _____ Elev. 404 TOPO Sec. 23

Description of location SE, SE Sec 23, T 2N, R 10 W Twp. 2N

800' N 90°10' 7000' N 38°35' (6th) Rge. 10 W

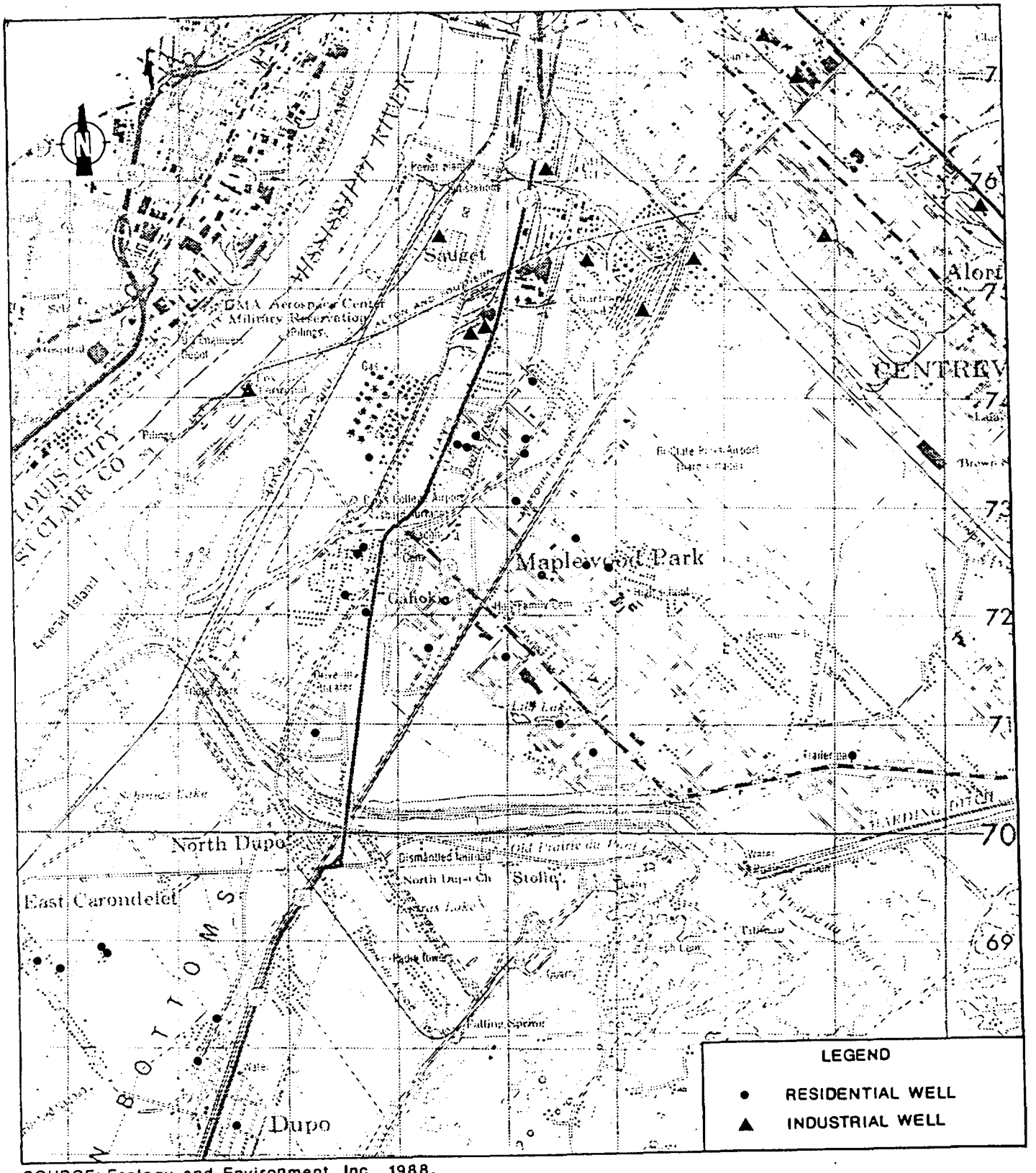
Location by Monsanto Water Dept.

Signed _____ County St. Clair

St. CLAIR NO ENVELOPE 23-2N-10W

Copy for Illinois State Geological Survey Index:

Reference Number 4



SOURCE: Ecology and Environment, Inc., 1988.

SCALE

0 1 2 3 4 MILES

RESIDENTIAL AND INDUSTRIAL WELL LOCATIONS IN THE DCP AREA

The following is an explanation of the ISWS Private Well Database Printout.

Columns	Field Length	Name	Description
1-3	3	FIPS	County Code Number

FIPS means Federal Information Processing System and is a Federal number to designate a county.

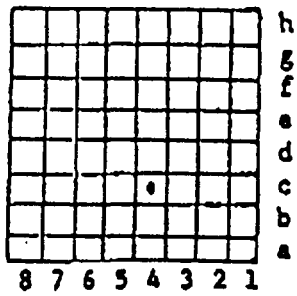
4-8	5	SGS County number	

SGS County number is the Geological Survey ID# that is assigned as an internal identification number.

9-18	10	Location	Township columns 9-11 Range columns 12-14 Section columns 15-16 Plot columns 12-18

The location system uses the township, range, and section. The location consists of five parts: county, township, range, section, and coordinate within the section. Sections are divided into rows of 1/8-mile squares. Each 1/8-mile square contains 10 acres and corresponds to a quarter of a quarter of a quarter section. A normal section of 1 square mile contains 8 rows of 1/8-mile squares; an odd-sized section contains more or fewer rows. Rows are numbered from east to west and lettered from south to north as shown in the diagram.

St. Clair County
T.2N., R.10W.
Sec. 23



The location of the well shown above is STC 2N10W-23.4c. Where there is more than one well in a 10-acre square they are identified by arabic numbers after the lower-case letter in the well number.

Columns	Field Length	Name	Description
93-94	2	Well type -	A two letter code indicating the type of well Blank - Assumed drilled BD Bored and dug DU Dug (being phased out) DR Driven SP Sand point SG Spring
95-96	2	Aquifer type -	A two letter code indicating aquifer type Blank - Undeterminable BR Bedrock UN Unconsolidated

The data in the Private Well Inventory Database is a listing of those non-municipal wells which are known to the Illinois State Water Survey (ISWS). This information has been entered verbatim from well logs submitted by the driller, from chemical analysis reports, from well sealing forms or well inventory forms from the 1930-34 well survey and other special projects. The accuracy of this data is controlled by those who submitted the form. Information in the private well database has not been field verified.

Columns	Field Length	Name	Description
19-48	30	Owner	
49-68	20	Driller	
69-75	7	Date	Month columns 69-70 Day columns 71-72 Century columns 73 Year columns 74-75
76	1	Permit code letter indicates agency which issued permit #. M Mines and Minerals (after 1988 only observation wells and irrigation wells) P Public Health - all non-community supplies E EPA - Community supplies N No fee X Undetermined	
77-82	6	Permit number	
83-86	4	Depth (in feet)	
87-90	4	Record type - Indicates paper source that documents the well exists, since records were collected before well log submittal was required. L Log A Affidavit C Chemical analysis I Inventory X Indicates comment in owner field something unusual	
91-92	2	Well use - A two letter code indicating the usage of the well CM Commercial CO Conservation DO Domestic IN Industrial IR Irrigation MO Monitoring MU Municipal NC Non-Community OB Observation PK Park SC School ST State	

163	01N09W047FLALUMIER E		0000943	29	C	DU
163	01N09W06 JC RR A YARD	LAYNE WESTERN	0400947	105	L	CM
163	01N09W081ABARBEAU E	DOHRMAN	0901977M065458207		L	DO
163	01N09W081COLIVER M	DS DRILL	0911974M032393140		L	DO
163	01N09W087EPIAT E		0000943	27	C	DU
163	02N09W075DCIRCLE PKG CO	WATSON	0200942	120	L	CM
163	02N09W075ECIRCLE PKG CO	LUHR	0000962	112	IC	CM
163	02N09W075ECIRCLE PKG CO	LUHR	0719966	115	IC	CM
163	02N09W076DCIRCLE PKG CO		0000941	111	LC	CM
163	02N09W076EE SIDE PKG		0000906	100	L	CM
163	02N09W076EHUNTER PKG CO	BUTLER	0421958	116	L	CM
163	02N09W076EHUNTER PKG CO	LAYNE WESTERN	0000968	106	I	CM
163	02N09W077EHUNTER PKG CO	FRANK	0322957	100	L	CM
163	02N09W077EHUNTER PKG CO	LUHR	0306956	106	LC	CM
163	02N09W077FHUNTER PKG CO		0000943	110	C	CM
163	02N09W087APFIZER	LAYNE WESTERN	0814972M016352115		L	CM
163	02N09W087APFIZER	RUESTER	1100983M109867117		L	CM
163	02N09W092HPENN RR LAKE ROAD HOUSE	WATSON	0900941	115	L	CM
163	02N09W097ANIEDERER DAIRY		0000936	96	C	CM
163	02N09W097ANIEDERER DAIRY	WATSON	0300946	98	LC	CM
163	02N09W103DWATERLOO ICECREAM		0000942	122	C	CM
163	02N09W103DWATERLOO ICECREAM		0000942	124	C	CM
163	02N09W106GWALWORTH CO		0000943	122	C	CM
163	02N09W108HWALWORTH CO		0000943	124	C	CM
1632659102N09W151EFREEDOM CONCRETE		ST CH DRILL	1208987M137981100		L	CM
163	02N09W157ASCHRANZ J		0908964	98	L	DO
163	02N09W16		0000930	110	C	DO
163	02N09W16 JONES PK		0000954		C	PK
163	02N09W167AE ST LOUIS CASTING		0200943	116	LC	CM
163	02N09W168EWATERLOO ICECREAM	WATSON	0909939	59	L	CM
163	02N09W172BAM ASPHALT ROOFING	WATSON	0200947	105	L	CM
163	02N09W173BAM ASPHALT ROOFING		0000939	115	LC	CM
163	02N09W173FE ST LOUIS PK DIST		0000930	110	C	PK
163	02N09W177FWILLIAMS PAINT CO	THORPE	0600929	117	L	CM
163	02N09W177GWILLAIMS PAINT CO(TEST)	LAYNE WESTERN	0000947	116	LX	CM
163	02N09W177GWILLIAMS PAINT CO	THORPE	0000947	114	L	CM
163	02N09W177GWILLIAMS PAINT CO	THORPE	0000947	115	L	CM
163	02N09W177GWILLIAMS PAINT CO	THORPE	0600929	113	L	CM
163	02N09W177GWILLIAMS PAINT CO(TEST)	LAYNE WESTERN	0000947	117	LX	CM
163	02N09W177GWILLIAMS PAINT CP		0000928	100	C	CM
163	02N09W177HPFIZER	THORPE	0000947	114	IC	CM
163	02N09W178BDRUG STORE		0000949	84	C	CM
163	02N09W187CROXY THEATRE		0000944	91	C	CM
163	02N09W187GBANNER ICE	WATSON	0000943	116	CL	CM
1632590302N09W19 PRESTRESSED SLABS		ST CH DRILL	1029986M126802100		L	CM
163	02N09W193HHOME ICECREAM CO		0000933	115	LC	CM
163	02N09W198EOBEAR NESTER CO		0000943	104	C	CM
163	02N09W198FCERTAIN TEED PROD		0903952	106	L	CM
163	02N09W198FCERTAIN TEED PROD		1026950	110	L	CM
163	02N09W198FOBEAR NESTER CO		0000943	104	C	CM
163	02N09W198GLEMP BREWING CO		0000946	720	C	CM
163	02N09W208AALTON AND SOUTH RR		0000944	100	C	IN
163	02N09W231AOPEN AIR THEATRE	WATSON	1000941	83	L	CM
~~163~~	~~02N09W231EPOPP R~~	~~ST CH DRILL~~	~~0727977M063762114~~		~~L~~	~~DO~~
~~163~~	~~02N09W232FPOPP R~~	~~KOHNEN~~	~~0623984M11312561~~		~~L~~	~~IR~~
163	02N09W263HAM ZINC CO			97	C	CM
163	02N09W29 ALUMINUM ORE COO		1000940	1215	L	IN
163	02N09W295GIND TRACK SUP INC	KOHNEN	0119981M09811132		L	DU
163	02N09W298FCHEM TECK PROD		0000972	98	IC	CM

163	02N10W103BNAT STOCK YD		0000967	108	C	CM
163	02N10W11 MISSOIRI ILL MATERIAL		0400943	115	L	CM
1630137002N10W22	MONSANTO CHEM	RANNEY	0800952	97	L	IN
1630137202N10W22	MONSANTO CHEM	RANNEY	0800952	97	L	IN
1630137102N10W22	MONSANTO CHEM	RANNEY	0909952	90	L	OB
163	02N10W23 AP GROCERY	WATSON	0600946	80	L	CM
163	02N10W241ECERTAIN TEED PROD		0000943	106	C	CM
163	02N10W241HCERTAIN TEED PROD	WATSON	1200942	123	L	CM
163	02N10W25 MOBIL OIL		0000987	105	A	IN
163	02N10W25 MOBIL OIL		0000987	109	A	IN
163	02N10W25 MOBIL OIL	EATSON	0000943	16	A	IN
163	02N10W25 MOBIL OIL	WATSON	0000940	115	A	IN
163	02N10W25 MOBIL OIL	WATSON	0000946	92	A	IN
163	02N10W25 MOBIL OIL	WATSON	0000951	106	A	IN
163	02N10W25 MOBIL OIL(PLANT CLOSED)	WATSON	0000939	115	AX	IN
163	02N10W25 MONSANTO CHEM(TEMPORARY)	BARBATO	0404984M11165967		LX	DU
163	02N10W25 MONSANTO CHEM(TEMPORARY)	BARBATO	0404984M11165968		LX	DU
163	02N10W25 MONSANTO CHEM(TEMPORARY)	BARBATO	0405984M11166068		LX	DU
163	02N10W25 MONSANTO CHEM(TEMPORARY)	BARBATO	0414984M11166168		LX	DU
163	02N10W25 MONSANTO CHEM(TEMPORARY)	BARBATO	0414984M11166268		LX	DU
163	02N10W25 MONSANTO CHEM(TEMPORARY)	BARBATO	0414984M11166368		LX	DU
163	02N10W25 MONSANTO CHEM(TEMPORARY)	BARBATO	0414984M11166468		LX	DU
163	02N10W25 MONSANTO CHEM(TEMPORARY)	BARBATO	0414984M11166568		LX	DU
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163	02N10W25 MONSANTO CHEM(TEMPORARY)	BARBATO	0414984M11166768		LX	DU
163	02N10W25 MONSANTO CHEM(TEMPORARY)	BARBATO	0414984M11166868		LX	DU
163	02N10W25 MONSANTO CHEM(TEMPORARY)	BARBATO	0414984M11166968		LX	DU
163	02N10W25 MONSANTO CHEM(TEMPORARY)	BARBATO	0414984M11167068		LX	DU
163	02N10W25 MONSANTO CHEM(TEMPORARY)	BARBATO	0414984M11167168		LX	DU
163	02N10W25 MONSANTO CHEM(TEMPORARY)	BARBATO	0414984M11167268		LX	DU
163	02N10W25 MONSANTO CHEM(TEMPORARY)	BARBATO	0414984M11167368		LX	DU
1632569702N10W25	TWI INC	ST CH DRILL	0702985M11870189		L	CM
163	02N10W25 TWI INC	ST CH DRILL	1217982M10581984		L	CM
163	02N10W255DMOBIL OIL	LUHR	9214961	107	LC	IN
163	02N10W255EMOBIL OIL	LUHR	0000959	114	C	IN
163	02N10W256AMIDWEST RUBBER CO	THORPE	0500951	110	L	CM
163	02N10W256ESOCONY OIL	WATSON	0000943	95	L	IN
163	02N10W257BMONSANTO CHEM		0000920	100	L	IN
163	02N10W257EMOBIL OIL	LUHR	0411957	113	L	IN
163	02N10W257EMOBIL OIL	THORPE	0000951	106	LA	IN
163	02N10W257ESOCONY MOBIL OIL	WATSON	0000955	112	L	IN
163	02N10W26 AM AG CHEM CO	WATSON	000000	102	L	IN
163	02N10W26 LEWIN MATHES	WATSON	0200947	104	L	CM
163	02N10W26 MIDEWST RUBBER CO	THORPE	1200946	111	L	CM
163	02N10W26 MIDWEST RUBBER	WATSON	0321960	113	L	CM
163	02N10W26 MIDWEST RUBBER CO	MORGAN	0000950	106	L	CM
163	02N10W26 MIDWEST RUBBER CO	MORGAN	0000950	114	L	CM
163	02N10W26 MIDWEST RUBBER CO	WATSON	1007959	110	L	CM
163	02N10W261EMONSANTO CHEM		0000947	105	C	IN
163	02N10W261ESTERLING STEEL CASTING		0000942	95	LC	CM
163	02N10W261GMONSANTO CHEM(TEST)	WATSON	0000950	108	LX	IN
163	02N10W261HCWS PLANT US ARMY		0000941	100	LC	CM
163	02N10W261HCWS PLANT US ARMY		0700941	105	L	CM
163	02N10W262DSTERLING STEEL CATSING		0000973		C	CM
163	02N10W262EMONSANTO CHEM		0000947	105	C	IN
163	02N10W262EMONSANTO CHEM		0300941	107	LC	IN
163	02N10W262EMONSANTO CHEM	WATSON	0000941	107	L	IN
163	02N10W262HAM ZINC CO(ABANDONED)	WATSON	0000943	107	LX	CM
163	02N10W317LEWIN MATHES		0000938	95	C	CM

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163     02N10W263DLEWIN MATHES                                  0000942      110 C   CM
163     02N10W263GMONSANTO CHEM                                 0100942      110 LC  IN
163     02N10W263GMONSANTO CHEM                                 1000939      105 LC  IN
163     02N10W263HAM ZINC CO                    WATSON          0100942      105 LC  CM
163     02N10W264DLEWIN MATHES                  WATSON          0600948      101 L   CM
163     02N10W264EMONSANTO CHEM                                 0000947      109 C   IN
163     02N10W264FMONSANTO CHEM                                 1000939      105 LC  IN
163     02N10W264GMONSANTO CHEM                                 0200943      104 LC  IN
163     02N10W265DCERRO COPPER BRASS            LUHR            0000970      111 CI  CM
163     02N10W265DDARLING CO                                    0000939      70  LC  CM
163     02N10W266BMIDWEST RUBBER CO             THORPE          0300951      112 LC  CM
163     02N10W268ACLAYTON CHEM CO               ST CH DRILL     0225983M10620890  L   CM
163     02N10W268ACLAYTON CHEM CO               ST CH DRILL     0412976M04548078  L   CM
163     02N10W268AMIDWEST RUBBER                LUHR            0906968M004849115 LC  CM
1630137602N10W27  MONSANTO CHEM                 RANNEY          0000952      100 L   IN
163     02N10W27  MONSANTO CHEM                 RANNEY          0801952      99  L   IN
163     02N10W27  MONSANTO CHEM                 RANNEY          0826952      97  L   IN
163     02N10W273FMONSANTO CHEM                 LUHR            0600959      101 L   IN
163     02N10W273HMONSANTO CHEM                 RANNEY          0000952      102 I   IN
163     02N10W306GAP GROCERY                    WATSON          0600946      120 L   CM
163     02N10W331FCARGILL ELEVATOR              WATSON          0600952      105 L   CM
163     02N10W333FMOBIL OIL                     FUESTER         0217984M11117196  L   IN
163     02N10W34  PHILLIPS PETRO                WATSON          0000000      23  L   CM
163     02N10W34  US GOVT                                       0000000          L   RW
163     02N10W342FPHILLIPS PETRO                LAYNE WESTERN   0500978      100 IC  CM
163     02N10W342FPHILLIPS PETRO                RUESTER         0428978M072589102 L   CM
163     02N10W342GPHILLIPS PETRO                                0000943      73  C   CM
163     02N10W345FCORPS OF ENGINEERS                            1015947      102 L   CM
163     02N10W355AUP OIL AND READY CONCRETE     ST CH DRILL     1107977M068630103 L   CM
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Reference Number 5

Brent Manning
Director

John W. Comerio
Deputy Director

Bruce F. Clay
Assistant Director

Illinois Department of Conservation

life and land together

LINCOLN TOWER PLAZA • 524 SOUTH SECOND STREET • SPRINGFIELD 62701-1787
CHICAGO OFFICE • ROOM 4-300 • 100 WEST RANDOLPH 60601
[redacted]

June 24, 1991

Mr. Tim Murphy
IL EPA/LPC
P.O. Box 19276
Springfield, IL 62794-9276

Re: ILD #980606982, 000672329, 000605790, 000722074, 000665836
Sauget Sites Area #2

Dear Mr. Murphy:

In response to your June 10, 1991 request the Department has reviewed the proposed CERCLIS Sites (Sauget Area #2) in St. Clair County.

There are no sensitive areas on site, but there are several sensitive areas in the 0-¼ and ¼ to ½ mile radius of the site and along the water path, both on the Illinois and Missouri Sides.

The Resource Inventory for the Mississippi River for the 178-162 River Miles (see attached information) shows fish spawning areas, commercial fishing areas, sport fishing areas, important wildlife habitat and bald eagle use at selected areas in this reach.

Also, during September, 1989 fish contaminant sampling we observed numerous (~100) 9-12 inch sauger using this area of the river between RM. 178-176. Large numbers of channel catfish and white bass were also observed. It is likely these species also use much of the 178-162 mile reach.

Thank you for the opportunity to comment. If you need further information please advise.

Sincerely,

Richard W. Lutz

Richard W. Lutz, Supervisor
Impact Analysis Section
Division of Planning

RWL:ts

Att: sensitive areas form
Resource Inventory maps

RECEIVED
JUN 26 1991
IEPA/DLPC

DEPARTMENT OF CONSERVATION IDENTIFICATION OF
ENVIRONMENTAL SENSITIVE AREAS

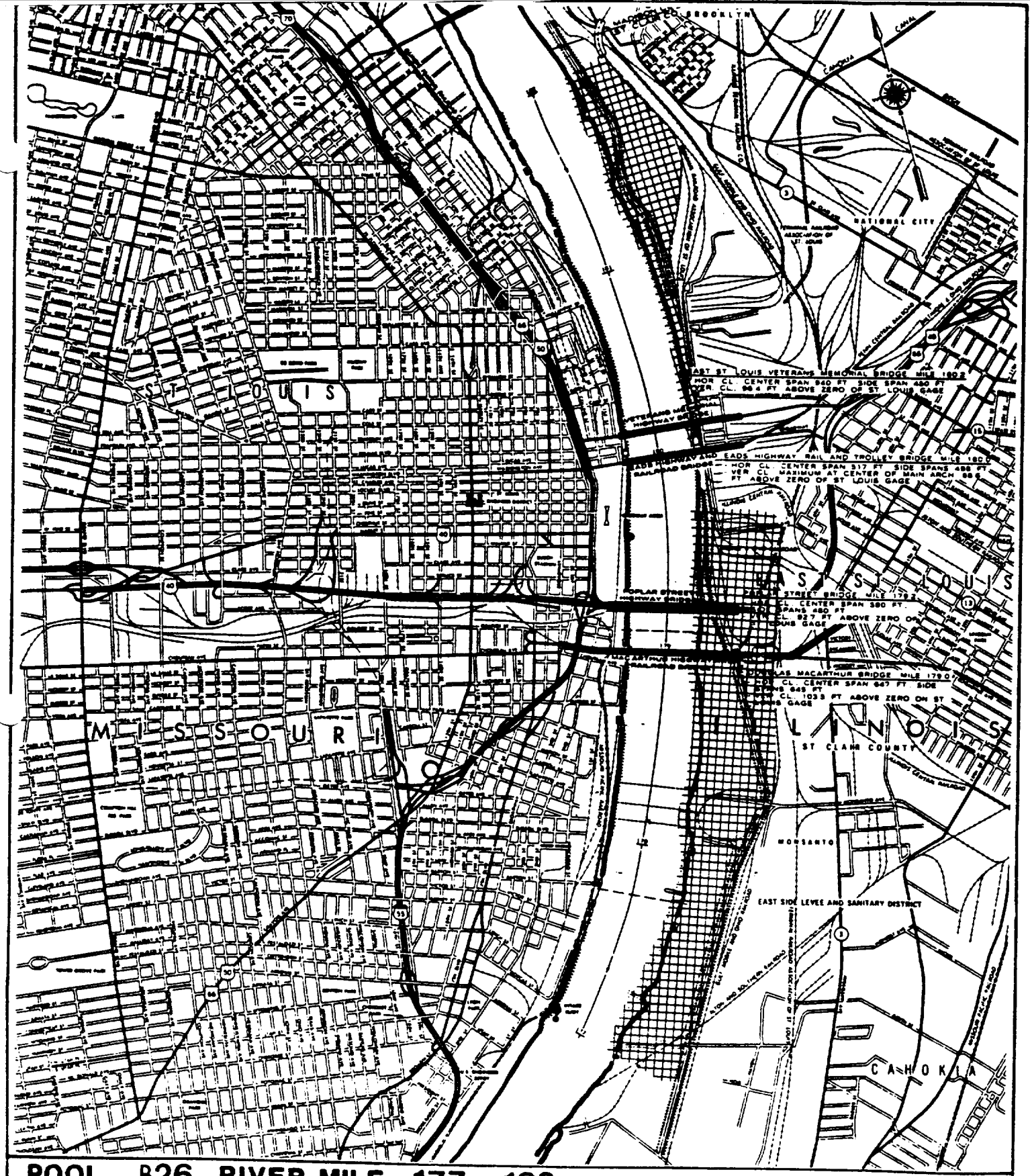
— = None in Area

ILD# 000665836
980606982
000672329
000605790
000722074

TARGET DISTANCE CATEGORIES

SENSITIVE ENVIRONMENTS	On-site	0-1/4 mile	1/4-1/2 mile	stream milage
I. Critical habitat for Federally designated or proposed endangered or threatened species	—	—	—	
II. Habitat known to be used by Federally designated or proposed endangered or threatened species	—	—	—	*
III. State wildlife refuge	—			
IV. Spawning areas critical for the maintenance of fish/ shellfish species within a river system	—	*	*	*
V. Terrestrial areas utilized by large or dense aggregations of verbebrate animals for breeding	—	—	—	*
VI. Habitat known to be used by State designated or threatened species	—	—	—	*
VII. Habitat known to be used by a species under review as to its Federal endangered or threatened status	—	—	—	—
VIII. State lands designated for wildlife or game management	—	—	—	*
IX. State designated natural area	—	—	—	—
X. Particular areas, relatively small in size, important to the maintenance of unique biotic communities	—	—	—	—

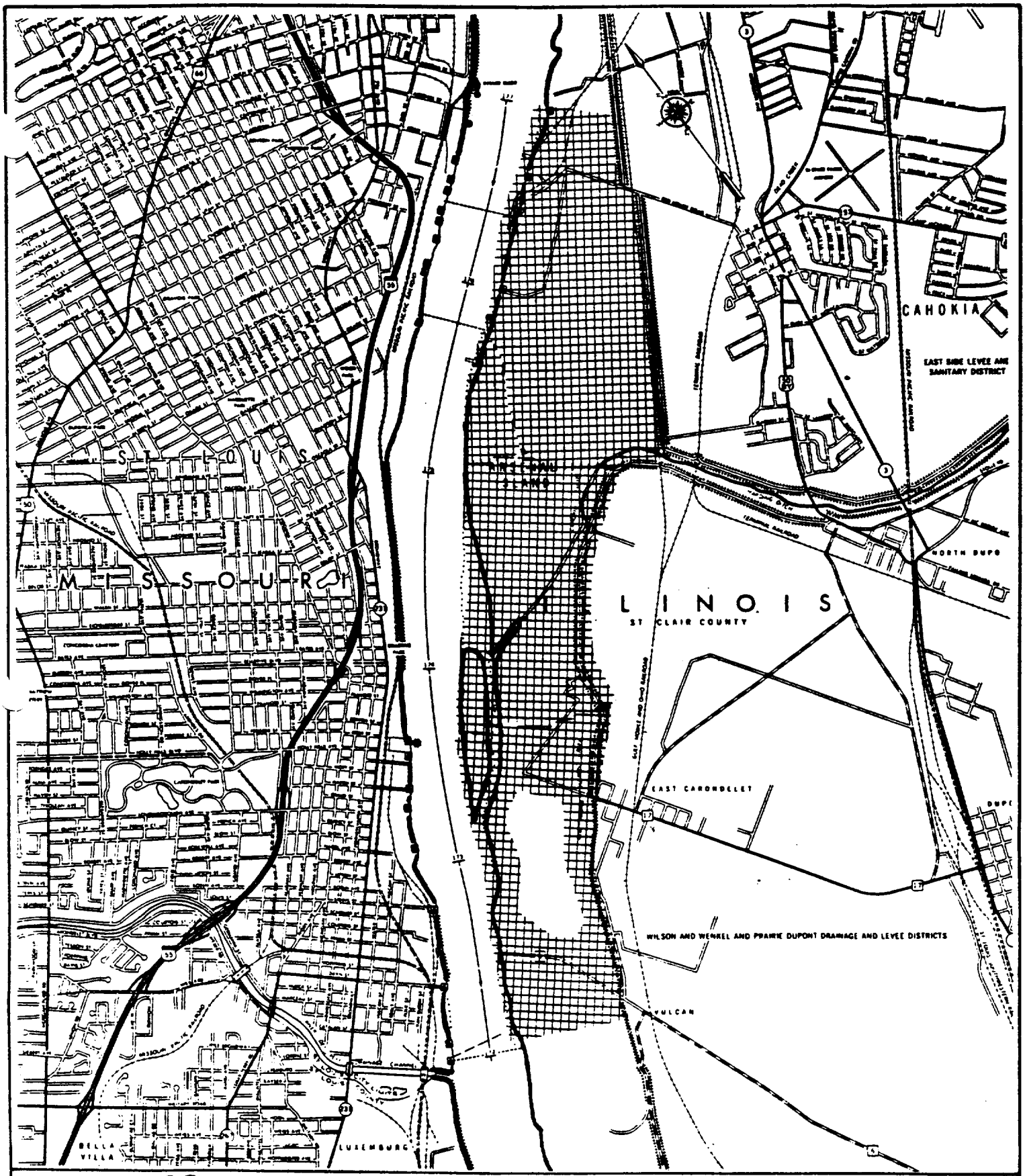
If any of the sensitive areas identified above exist within the designated target distance limits, please post an asterisk (*) in the appropriate column.



POOL B26 RIVER MILE 177 - 182

USFWS Closed area (restricted hunting)
Important wildlife habitat
Rookery
Bald eagle

WILDLIFE



POOL B26 RIVER MILE 172 - 177

USFWS Closed area (restricted hunting)
Important wildlife habitat
Rookery
Bald eagle

WILDLIFE

River Mile 177-182

Recreation

179.6(L) - The East St. Louis Access contains bank fishing and a scenic view of Gateway Arch.

179.7(R) - St. Louis City Harbor (boat ramp and marina).

179.8(R) - Jefferson National Expansion Memorial.

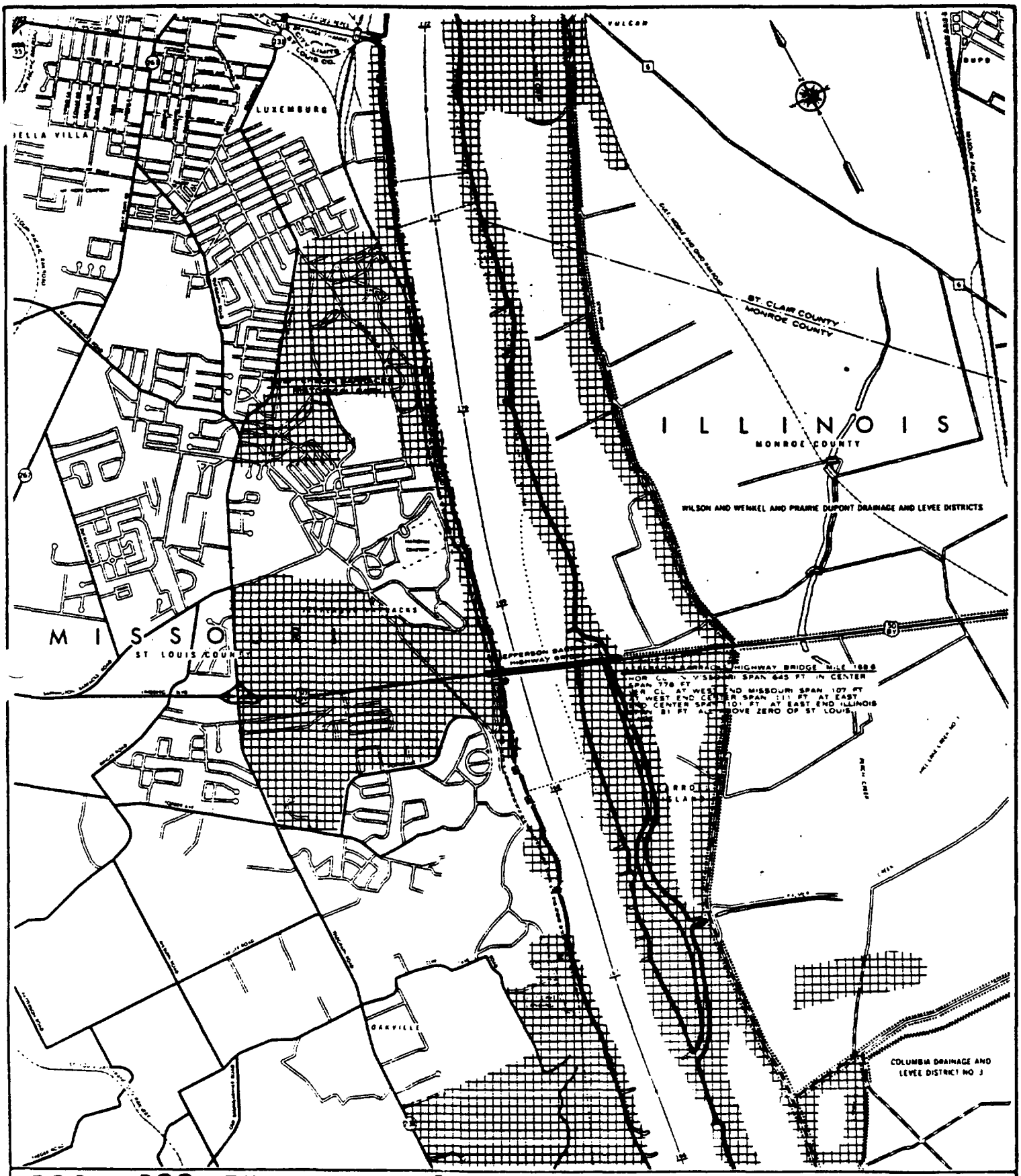
River Mile 172-177

Wildlife

173.5-176.0(L) - Important area for mourning dove.

Recreation

174.4(R) - Upper and Lower Bellerive Park.



POOL B26 RIVER MILE 166 - 172

- USFWS Closed area (restricted hunting)
- Important wildlife habitat
- Rookery
- Bald eagle

WILDLIFE

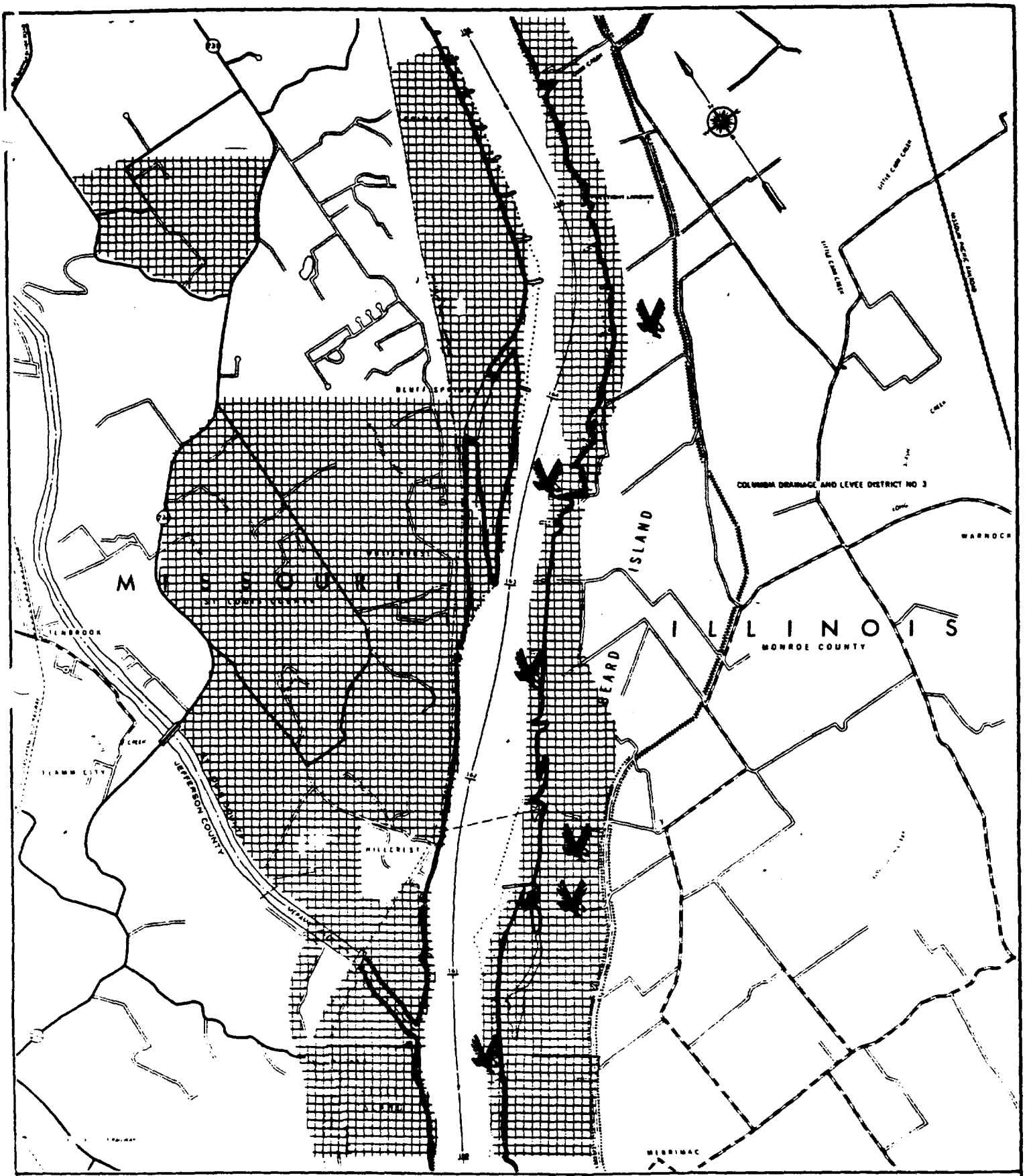
River Mile 166-172

Recreation

167.0(R) - Cliff Cave contains a picnic area, bluffs, and caves. The Cliff Cave Natural Area is also located here.

170.0-171.0(R) - Jefferson Barracks Historical Park (camping, picnic area, historic site).

171.5(R) - Black Forest Park (picnic area).



POOL B26 RIVER MILE 160 - 166

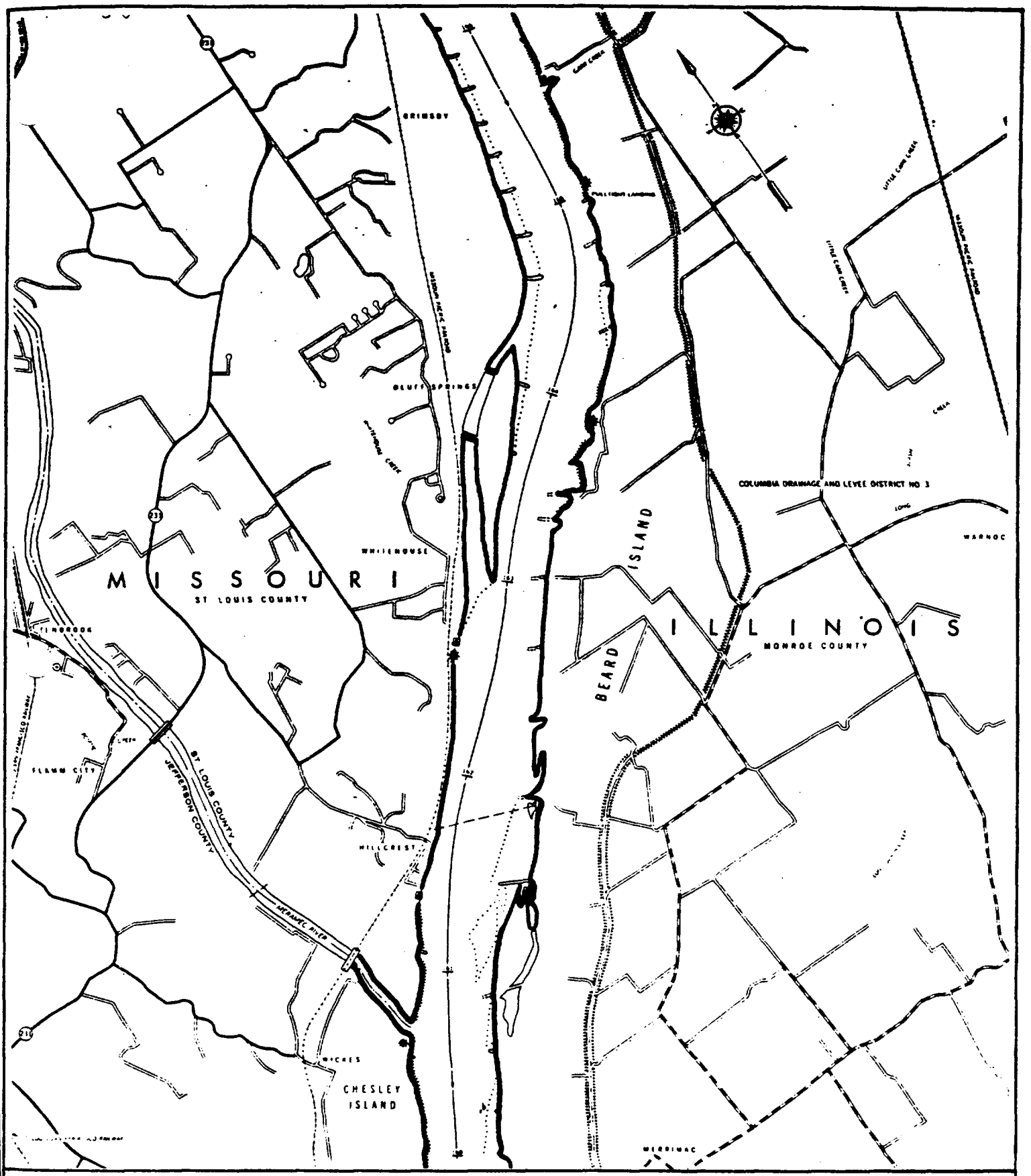
USFWS Closed area (restricted hunting)
Important wildlife habitat
Rookery
Bald eagle

WILDLIFE

River Mile 160-166

Recreation

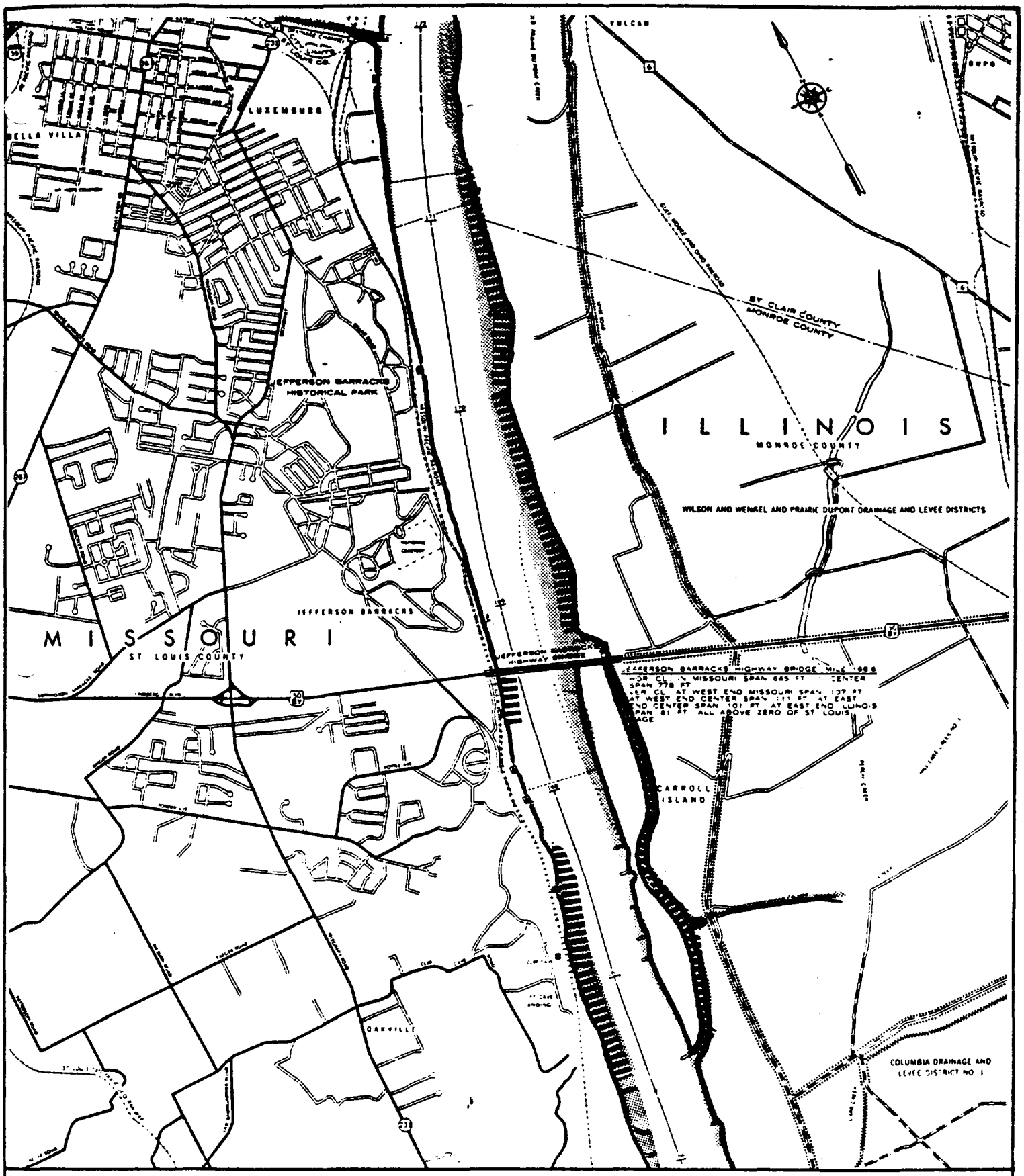
162.8 - Bee Tree (hiking trail and picnic area).



Popular sand beach
Water oriented recreation facility
Public park or recreation area
Popular water sport area
Access to side channel

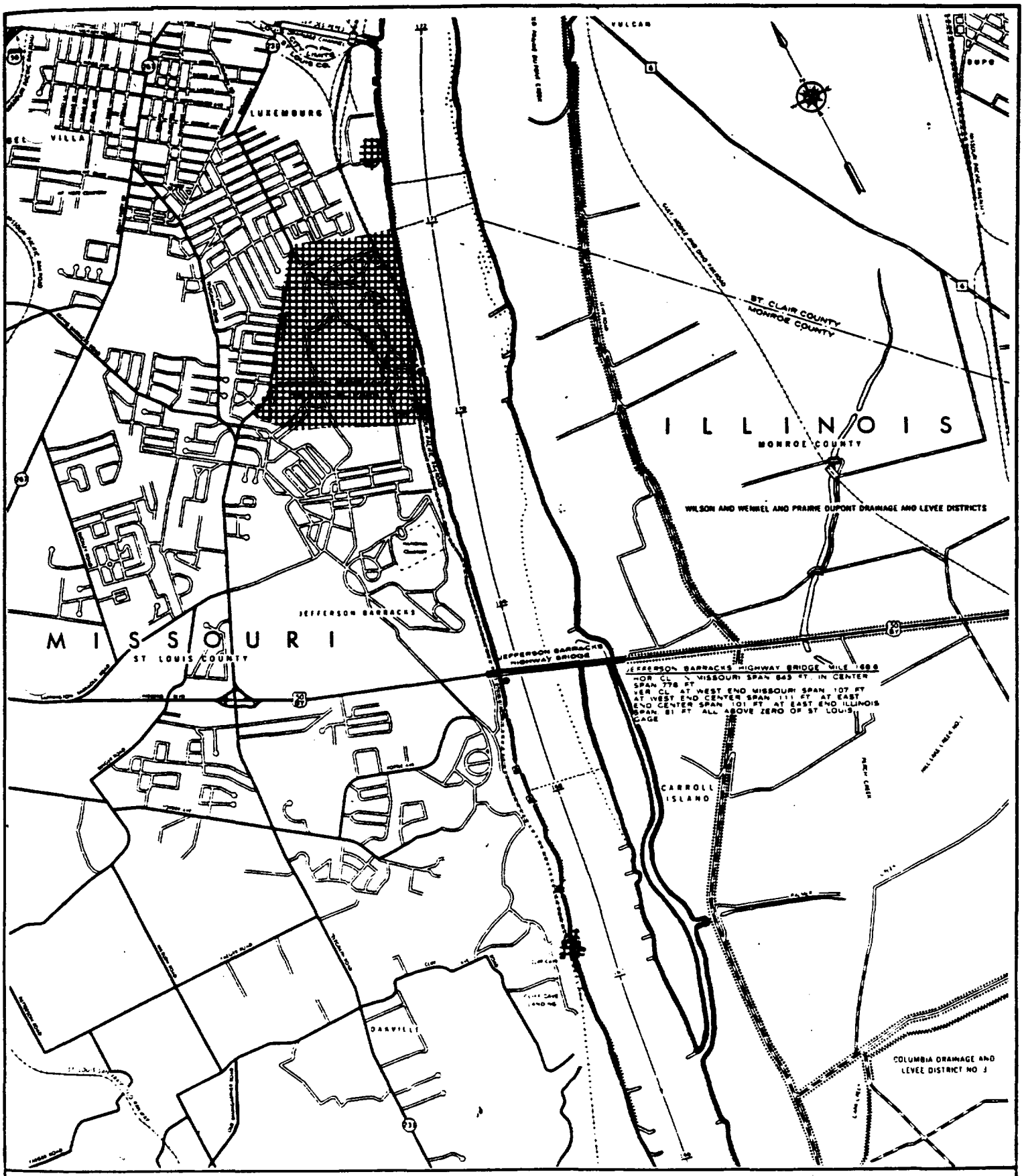
Significant vista

RECREATION



Spawning habitat
Sport fishing area
Important commercial fishing area
Mussel bed

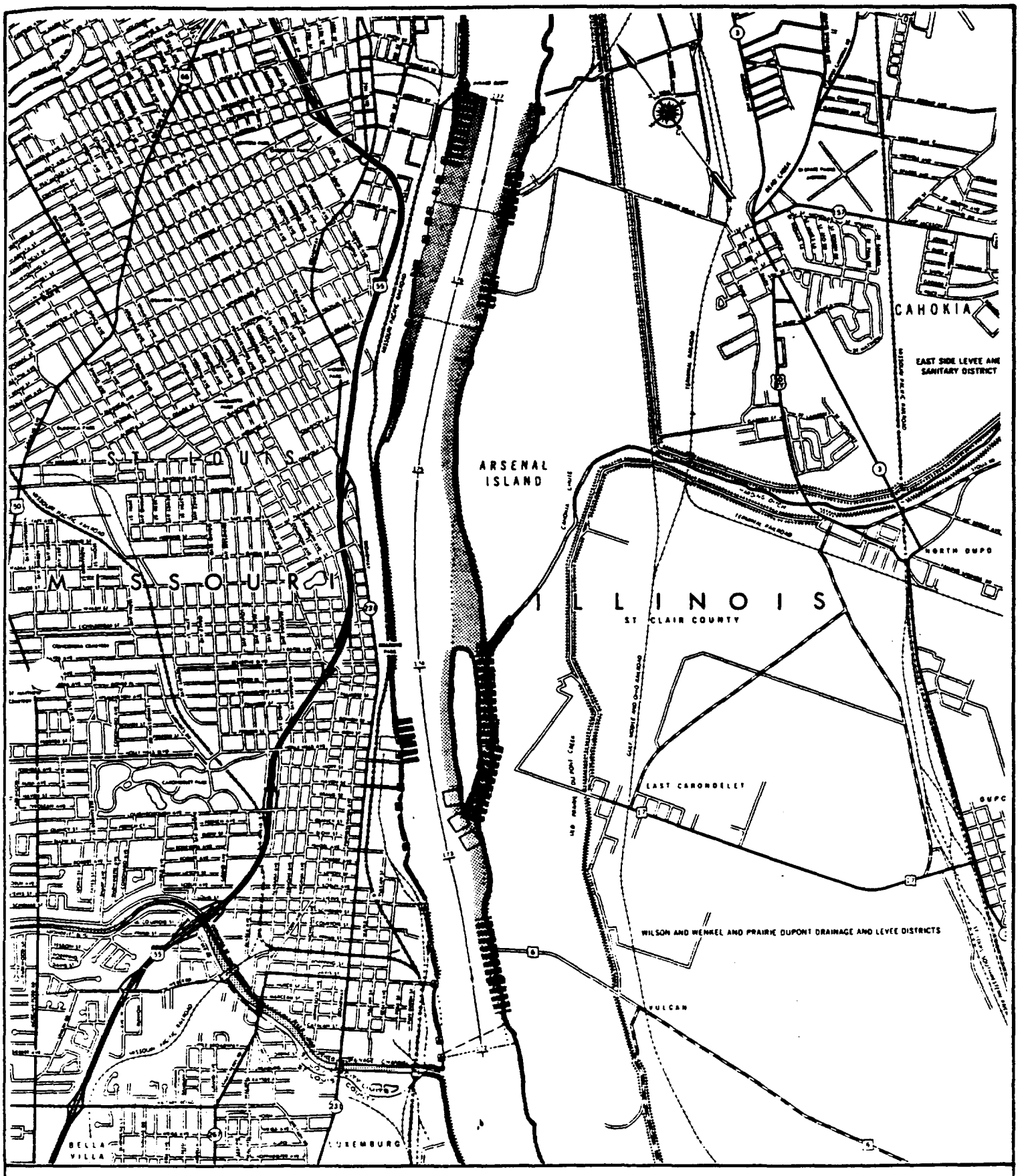
FISHERIES



Popular sand beach
Water oriented recreation facility
Public park or recreation area
Popular water sport area
Access to side channel

Significant vista

RECREATION



Spawning habitat
Sport fishing area
Important commercial fishing area
Mussel bed

FISHERIES

Spawning habitat
Sport fishing area
Important commercial fishing area
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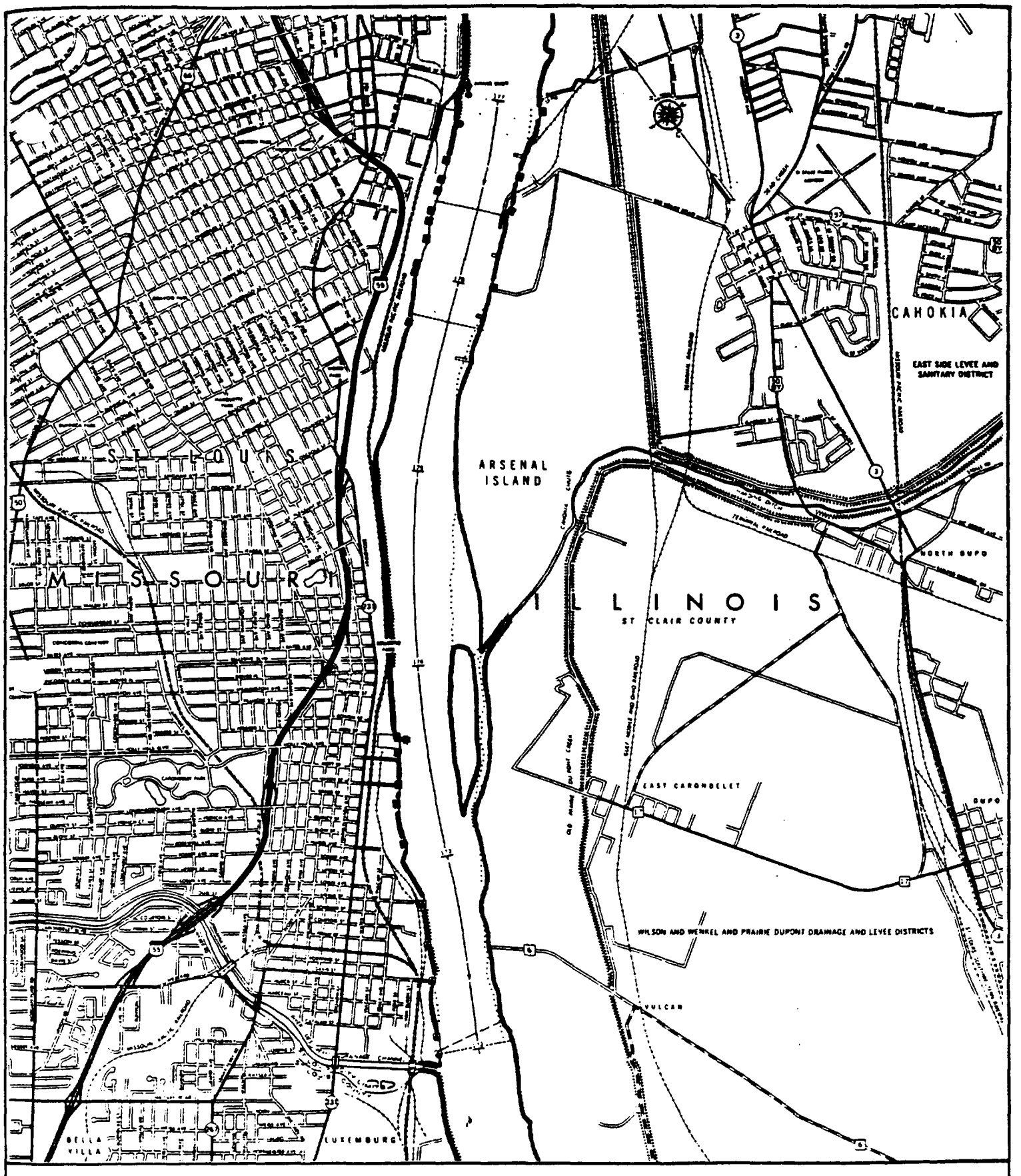
FISHERIES



Popular sand beach
Water oriented recreation facility
Public park or recreation area
Popular water sport area
Access to side channel

Significant vista

RECREATION

Popular sand beach
Water oriented recreation facility
Public park or recreation area
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RECREATION