

SUPERFUND PROGRAM
**SCHMALZ DUMP SITE
HARRISON, WISCONSIN**

EPA Region 5 Records Ctr.



235903

MAY 1987

PHASE I REMEDIAL INVESTIGATION SUMMARY

INTRODUCTION

This fact sheet describes the results of the first phase of the Remedial Investigation (RI) recently completed by the U.S. Environmental Protection Agency (U.S. EPA) to determine the nature and extent of contamination at the Schmalz Dump Superfund site. This study was authorized and funded under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), better known as "Superfund", which was amended and reauthorized by Congress in October 1986. A report describing the results of the RI is available for public review at Fox Valley Library and through the Harrison Town Chairman.

BACKGROUND ON THE SCHMALZ SITE

The Schmalz Dump site is located on the north shore of Lake Winnebago in Harrison, Wisconsin. The site occupies about one-half acre of wetlands on property owned by Mr. Gregory Schmalz. The site was owned by Gerald Schmalz while dumping occurred. There had been widespread dumping of industrial wastes for decades in and around the Schmalz site. In late 1978, Mr. Schmalz began accepting building debris and demolition wastes from the Allis-Chalmers Corporation. This material was transported to the Schmalz site by the Weiseler Construction Company and deposited in approximately 15,000 square feet of the site. Materials deposited at the site consisted of approximately 2,500 cubic yards of debris such as wood, masonry, and shingles.

In 1979, in response to a resident's complaints about the site, the Wisconsin Department of Natural Resources (WDNR) ordered Weiseler Construction Company to stop transporting the demolition materials to the site. Sampling of the soil and sediment at the site by the U.S. Army Corps of Engineers and the U.S. Soil Conservation Service determined that a portion of the area where the Allis-Chalmers debris had been disposed of was contaminated with polychlorinated biphenyl (PCB) concentrations ranging from one part per million (ppm) to greater than 3,000 ppm. In addition, various heavy metals (primarily lead) were found in concentrations that were of concern to U.S. EPA as potentially affecting public health. Using data from these sampling efforts, U.S. EPA conducted a preliminary public health evaluation (PHE) in Spring 1985. Based on the preliminary PHE, U.S. EPA decided to conduct two short-term actions at the site: 1) In June 1985, U.S. EPA took immediate action and fenced the site to prevent access; and 2) U.S. EPA initiated plans to remove and dispose of the contaminated materials believed to

be the source of ground- and surface-water contamination. The removal of debris is scheduled to begin in May 1987 and will require approximately three months to complete. U.S. EPA will be excavating building debris and sediment from the site and transporting the material in covered dump trucks to a specially licensed landfill. The sediment will be treated on-site to remove water, thereby reducing the volume of the sediment.

In October 1985, U.S. EPA began the RI to define the area of contamination, to determine if PCBs and heavy metals had migrated off-site, and to consider if further work would be needed once the suspected source of contamination had been removed. Part of the RI process includes performing an Endangerment Assessment, which estimates the potential impact of the contaminants on human health and the environment depending upon the action taken at the site. U.S. EPA will use the data gathered during both phases of the RI to develop alternatives for reducing the potential long-term threat if any is still posed by contamination at the site.

PUBLIC MEETING

U.S. EPA will hold a public meeting to present the findings from Phase I of the Remedial Investigation and to respond to questions.

DATE: May 13, 1987

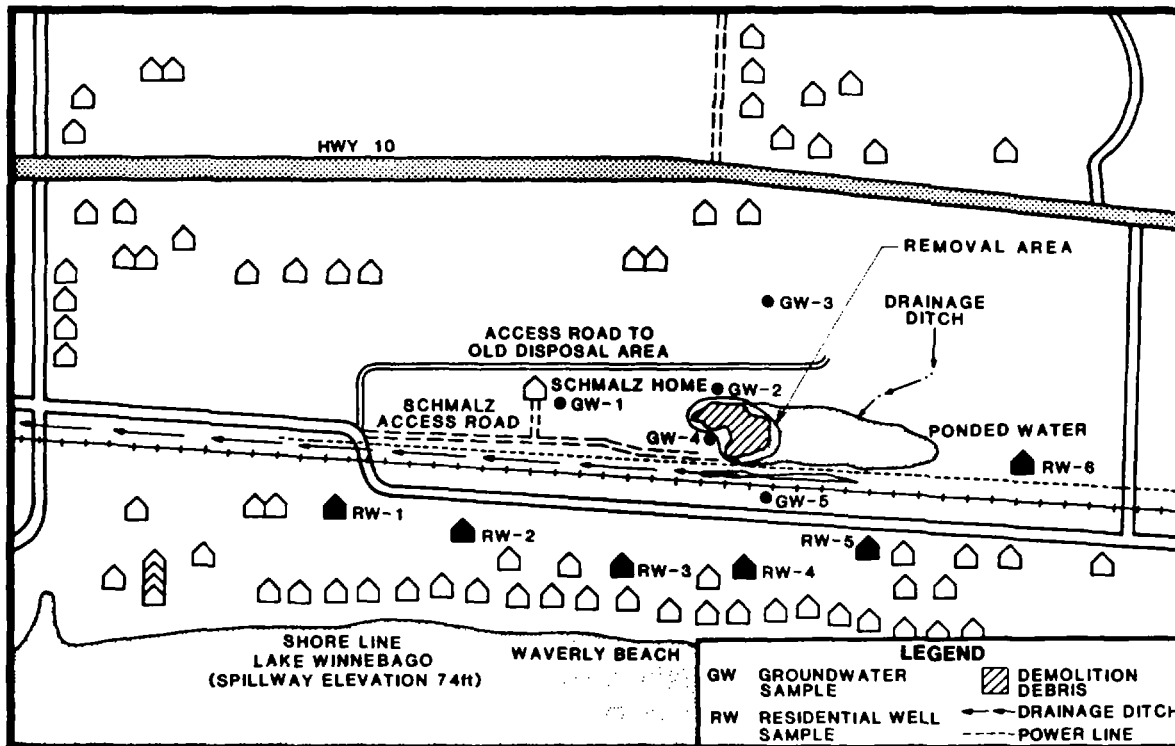
TIME: 7:30 p.m.

LOC:

Harrison Town Hall

Highway 114 & State Park Road

**EXHIBIT 1
APPROXIMATE GROUNDWATER SAMPLING LOCATIONS
SCHMALZ DUMP SITE**



RESULTS OF THE REMEDIATION

From October to December 1985, U.S. EPA contractors collected over 200 samples as part of the RI for the Schmalz site. Soil, sediment, and surface-water samples were taken from the site, the old disposal area west of the site, the marshy area that borders the site to the east, and the drainage ditch leading from the site. Ground-water samples were collected from on-site wells and wells immediately surrounding the site; residential wells were sampled downgradient of the site. (See Exhibit 1.)

Based on the findings of the first phase of the RI, U.S. EPA concludes that very few contaminants are migrating off-site. More detailed information on the findings of the first phase RI are presented below. The second phase of the RI will determine whether contamination is confined to the site and whether more than one area of the site is causing contamination.

Soil Samples

U.S. EPA contractors collected a total of 147 surface and subsurface soil samples from various locations

throughout the site. Analysis of these samples indicates that soils found at various depths on the site near the pond are contaminated with PCBs. In addition, polynuclear aromatic hydrocarbons (PAHs - see glossary) were also detected in on-site surface soil samples. The highest concentration of PAHs was found in soils located near the debris. PAHs are commonly used in roofing materials, asphalts, and wood preserving agents, all parts of the debris disposed of at the site. In addition to PCBs and PAHs, a number of organic compounds were found in low concentrations both on- and off-site.

Surface-Water Samples

A total of sixteen surface-water samples were collected from the pond located near the disposal area, and from the drainage ditches leading into the pond, bordering the south side of the site. (See Exhibit 2.) PCBs were found in most of the ten surface-water samples taken from the on-site pond. Heavy metals (mainly chromium and lead) were also detected at levels exceeding Federal drinking water

standards in the ditch samples (chromium only) and in samples taken from surface water under the demolition material.

Sediment Samples

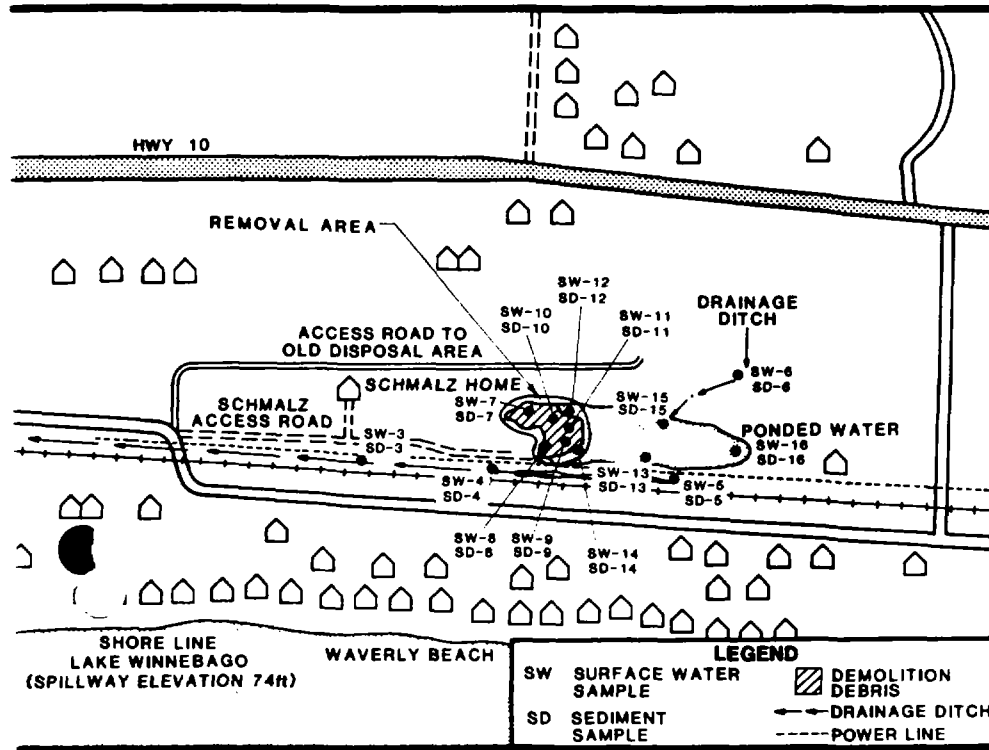
Sediment samples were collected at the same locations as the surface water samples. PCBs were found in three of the four sediment samples collected from the disposal area. Elevated levels of lead were also found in some of the sediment samples. Low concentrations of PAHs were detected off-site, just north of the site boundary. No other chemicals of potential concern were found at levels above background (see glossary) in the drainage ditch sediments.

Ground-Water and Residential Well Samples

U.S. EPA contractors installed five ground-water monitoring wells on site and in the surrounding area. In addition, six residential wells downgradient of the site were sampled. (See Exhibit 1 for well locations.)

The hydrogeologic study, which

**EXHIBIT 2
OXIMATE, SURFACE WATER AND SEDIMENT SAMPLING LOCATIONS
SCHMALZ DUMP SITE**



THE NEXT STEP

The next step in the Superfund process for the Schmalz Dump site is the second phase of the RI. During this part of the RI, U.S. EPA will try to define the source and extent of chromium found in the ground water. Based upon the findings of the RI, several alternatives, including a no-action alternative, for addressing any remaining contamination at the site will be evaluated in a Feasibility Study (FS). During the FS, these alternatives will be evaluated on the basis of: effectiveness in protecting public health, welfare, and the environment; technical feasibility; and cost. From the findings of the FS, U.S. EPA and WDNR will choose a long-term plan that is both environmentally sound and cost-effective. Local officials and the community will have an opportunity to review and comment on the proposed remedial alternatives before a final decision is made. U.S. EPA expects to complete a report on the FS by Summer 1987. When the FS is complete, U.S. EPA will provide copies of the report and a fact sheet summarizing the report to the public before conducting a public meeting and formal comment period.

DIAL INVESTIGATION

examined the direction and rate of ground-water flow underneath the site and surrounding area, indicates that the ground water flows from the site in a south-southwesterly direction toward Lake Winnebago. PCBs were not detected in any of the ground-water monitoring wells on- or off-site. Lead and chromium were detected at levels exceeding Federal drinking water standards in monitoring wells both on- and off-site. The highest concentrations of these two

heavy metals were found in one of the on-site wells.

No PCBs were found in the six residential wells that were sampled in October 1985. Lead and chromium either were not detected, or were present at very low levels which do not exceed Federal drinking water standards. No other chemicals of potential concern were detected at significant concentrations in the residential well samples.

MAILING LIST ADDITIONS

To be placed on the mailing list to receive information on the Schmalz Dump site, please fill out and mail this form to:

**Judy Beck
Office of Public Affairs
U.S. EPA - REGION V
230 South Dearborn Street
Chicago, Illinois 60604**

Name: _____

Address: _____

Affiliation: _____

Phone: _____

AVAILABLE INFORMATION

Anyone desiring additional information about the RI/FS process or specific site activities is encouraged to review the various U.S. EPA documents that have been prepared for the Schmalz Dump site. Copies of the Phase I RI report, applicable laws, the work plan for RI/FS activities, and the community relations plan are available at:

Fox Valley Library
East Building
University of Wisconsin
1475 Midway Road
Manasha, WI 54952

Town of Harrison
George Schwalbach, Chairman
W5971 Manitowas Road
Appleton, WI 54915

As they are completed, other RI/FS documents will be placed in these repositories as well. For more information about the Schmalz Dump Site, contact:

Sady Book
Community Relations Coordinator
Office of Public Affairs
(312) 363-1325

Margaret Guerriero
Remedial Project Manager
Emergency and Remedial Response Branch
(312) 366-0369

U.S. EPA — REGION V
230 South Dearborn Street
Chicago, IL 60604

Toll Free Number 1-800-621-8431
(8:30 a.m. — 4:30 p.m. Central Time)

GLOSSARY

Aquifer	A particular zone or layer of rock or soil below the ground surface that is capable of yielding usable quantities of ground water.	Polychlorinated Biphenyls (PCBs)	A family of organic compounds used since 1926 in electric transformers as insulators and coolants as well as in lubricants, carbonless copy paper, adhesives, and caulking compounds. PCBs are persistent and are stored in the fatty tissues of humans and animals through the bioaccumulation process. EPA banned the general use of PCBs in 1979. PCBs are not as toxic in short-term doses as some other chemicals, although acute and chronic exposure can cause liver damage. PCBs have also caused cancer in laboratory animals.
Background Levels	Concentrations of a chemical substance that occur naturally in the environment. To determine the degree of contamination by a substance, it is first necessary to establish the substance's background concentration.	Polynuclear Aromatic Hydrocarbons (PAHs)	A group of compounds that are often byproducts of combustion. Combustion sources include cigarettes, wood stoves, and fireplaces. Some PAHs occur naturally. PAHs are also associated with coal tar derivatives.
Bioaccumulation	The accumulation of a substance by an organism from all environmental media (air, water, soil, food).	Remedial Investigation/ Feasibility Study (RI/FS)	A two-part study which must be completed before a Superfund cleanup can begin. The first part is the Remedial Investigation (RI), which studies the nature and extent of the site contamination problem. The second part is the Feasibility Study (FS), which evaluates the need for action at a site and evaluates different methods of cleaning up contamination if such a situation has been documented in the RI.
Chromium	Commonly used in electroplating, in photography, and as a paint pigment. Acute ingestion of one form of chromium can cause hemorrhages of the gastrointestinal tract. Airborne chromium has caused lung and other respiratory cancers in workers who are frequently exposed to it on the job.	Sediment	Material that settles to the bottom of a stream, creek, lake, or other body of water.
Ground Water	Water beneath the earth's surface that flows through soil pores and rock openings.	Short-term Action	A response measure (action) that is undertaken in conjunction with other longer-term activities at a site. A short-term action can be investigated, evaluated, and implemented in a relatively short period of time. A short-term action must be consistent with a permanent remedy to protect the public health and environment.
Heavy Metal	Metals including lead, chromium, and cadmium that can be toxic at relatively low concentrations.		
Hydrogeologic Study	Examines the nature and distribution of aquifers in a geologic system. One part of a hydrogeologic study is identifying the direction and rate of ground-water flow within aquifers.		
Lead	A heavy metal that is toxic by ingestion or inhalation of dust or fumes. The toxic effects of lead are cumulative. Lead is used as a gasoline additive, in storage batteries, solder, and foil, and in the construction of equipment such as piping and tank linings.		
Organic Compounds	Chemical compounds composed of carbon, including materials such as oils, pesticides, and solvents.		