United States Environmental Protection Agency
Region 5
77 W. Jackson Blvd.
Chicago, Illinois 60604
Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin

Cleanup Study Begins

Work part of legal agreement with EPA

Vernay Laboratories Inc.
Yellow Springs, Ohio
June 2003

For more information

To learn more about Vernay's cleanup activities, you may review site documents at the **Yellow Springs Community Library** located at 415 Xenia Ave. in Yellow Springs, Ohio.

For additional information, please visit EPA's Web site at **www.epa.gov/region5/sites/vernay** or contact:

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In September 2002, Vernay Laboratories Inc. signed a legal agreement with U.S. Environmental Protection Agency. The agreement requires Vernay to study and clean up contamination on and around the facility in Yellow Springs, Ohio. EPA calls this process "corrective action."

Federal law requires that facilities begin corrective action any time there is a suspected release of chemicals into the environment as a result of past activities. This law is known as the Resource Conservation and Recovery Act or RCRA. Corrective action removes contaminants from the environment, contains them or reduces their potential hazard to people and the environment.

As part of the agreement with EPA, Vernay will study the type, amount and location of chemicals in the property's soil and area ground water. Ground water is the water that has collected underground in the spaces between dirt and rocks.

Vernay collects samples from different depths below the surface.

Vernay will also research the best option for removing or containing the contaminants. The steps through the corrective action process are on the timeline on page 2. In addition, Vernay agreed to perform the following activities:

- Maintain site files at the library for the public to review;
- Communicate with EPA often to ensure work is performed successfully;
- Meet with EPA at least twice a year to discuss site activities;
- Provide a final report to document all the work performed, including a plan for any ongoing site monitoring or maintenance, if necessary; and
- Provide EPA written reports quarterly that summarize work performed, data collected, problems encountered and project schedule.

This summary explains the activities that Vernay has performed to date. It also provides information on how you can stay updated about the work.

Timeline of Vernay's corrective action activities

Following are dates for key activities Vernay agreed to conduct as part of the legal agreement with EPA. Completed activities are noted with a ✓.

November 2002
- Submit a current conditions report, which describes the property and any known contamination.✓

Winter 2002 - 2003

Phase one of the RCRA facility investigation to study site ground water, soil and sediment

- Begin a quarterly ground water monitoring program to collect and test samples of water from area monitoring wells. ✓
- Review data collected about the ground water — called a capture zone analysis — and decide where to install another pumping well to slow movement of contaminated ground water. ✓
- Begin researching the option of treating contaminated soil in place without having to dig it up and move it off site. ✓

February 2003
- Install a second ground water pumping well on the property. ✓

April 2003
- Submit first quarterly report about the types and amounts of chemicals found in ground water samples. ✓ *Vernay will submit quarterly reports about the ground water during the entire corrective action process.*

June 2003
- Begin treating contaminated soils in place (if Vernay and EPA decide this is the best option for cleaning the soil).

September 2003
- Install more wells on and off the property to study the ground water and the water in the sewer that collects runoff water from storms.

December 2003
- Submit a report — called a ground water monitoring technical memorandum — that sums up results from the quarterly ground water testing program.

June 2004
- Submit the phase one facility investigation report, which describes all the results from testing the ground water and storm sewer water. The report will help EPA and Vernay decide if more wells are needed to study ground water farther away from the site.

Phase two of the RCRA facility investigation

- Begin a study of contamination in ground water deeper under the site, if necessary. This would be done as part of a phase two RCRA facility investigation.
- Submit the environmental indicator report for human health to show Vernay has removed health risks to people.

December 2004
- Submit the phase two facility investigation report, providing details about the extent of all site contamination.

Winter 2004 - 2005
- Submit the environmental indicator report for ground water, which shows contaminated ground water has stopped moving away from the site.

Summer 2005
- Propose an option for cleaning up any remaining contamination on the property and in the ground water. This is called the final corrective measures proposal.

EPA holds a comment period and public meeting for the public to comment on cleanup options.

Vernay begins cleanup.

Vernay prepares initial site report

Vernay prepared and submitted an initial report to EPA in November 2002. The document, called a current conditions report, describes the facility and the surrounding area. It also provides information about soil and ground water contamination gathered from previous site studies and tests, including data that EPA collected during a study of the site in 2001.

Vernay's contractors install a second pumping well on the property to pump ground water to the surface for treatment to remove contaminants.

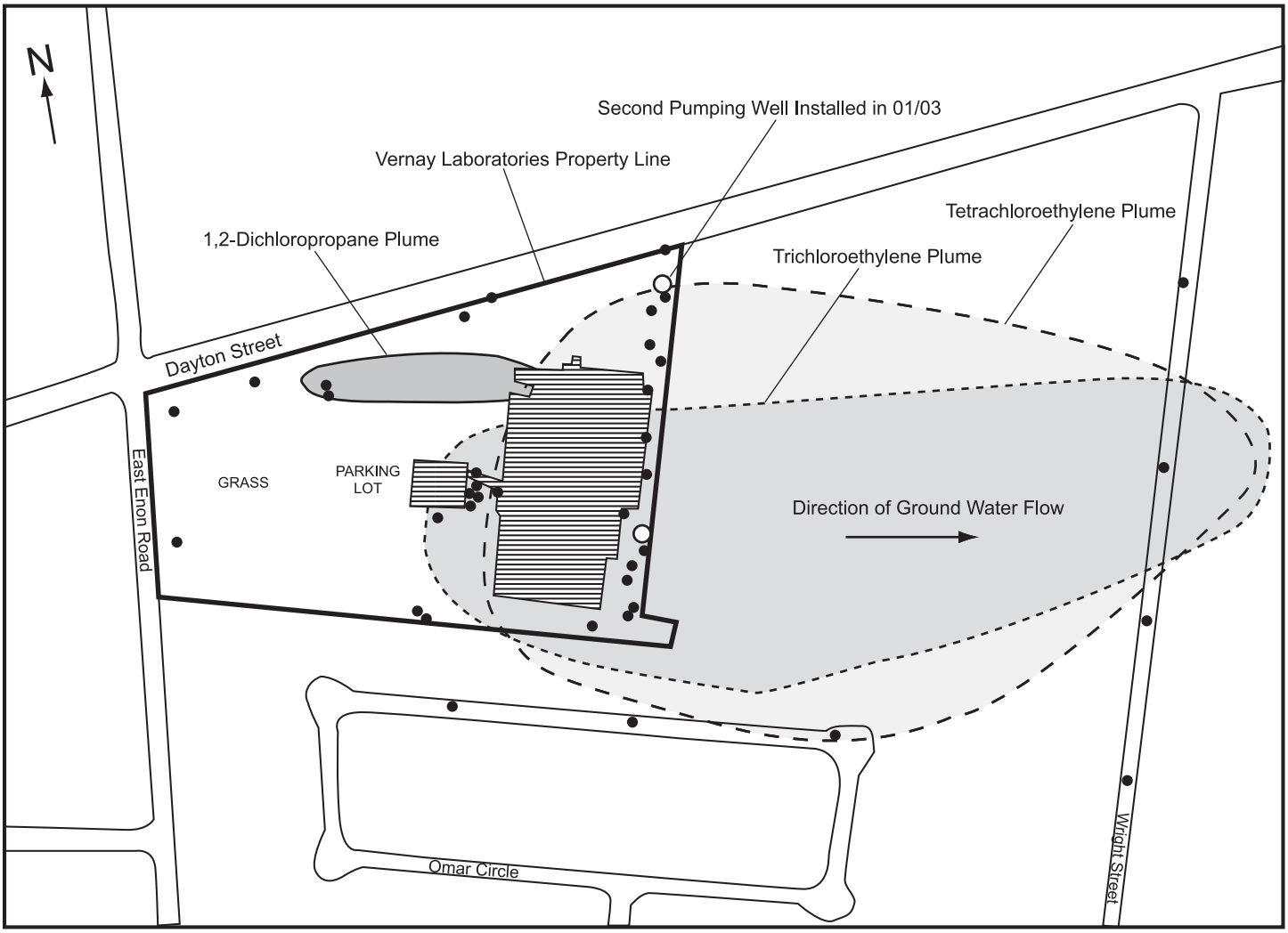
Soil

During its study of the site, EPA found contaminants in soil next to and beneath many of the facility's buildings and structures. Many of the contaminants found were volatile organic compounds (chemicals that evaporate easily in air) and types of petroleum products.

Based on the amounts of contaminants in the soil samples, EPA identified possible source areas where chemicals could have leaked into the ground in the past. Some no longer exist. Knowing the location of possible source areas helps Vernay and EPA identify possible problem areas to investigate. These areas include:

- Sewer lines and floor drains that collected waste liquids from Vernay's operations;
- A former storage area for drums of chemical waste;
- Areas where Vernay is thought to have used chemicals to control dust and weeds in the 1950s and 1960s;
- Loading docks where Vernay stored wastes;
- A basin used to collect water from rain storms;
- A former system beneath the facility used to collect sanitary waste;
- A system of pipes used to transport oil to and from machines on the property;
- Fill material left on the property after a road construction project;
- An area where Vernay cleaned metal parts with chemicals;
- The former location of two tanks used to store chemicals; and
- A storage area for empty chemical drums.

Location of ground water wells and contamination



Ground water

During the past studies, ground water samples were taken from 31 monitoring wells on the property and seven wells in the surrounding area. The results showed that water flowing underneath the eastern side of the property is contaminated with volatile organic compounds. The main types of chemicals found include:

- Tetrachlorethylene, also known as PCE;
- Trichlorethylene, known as TCE; and
- 1,2-Dichloropropane, or 1,2-DCP for short.

PCE and TCE are commonly used to remove grease from metal parts. 1,2-DCP was used in pesticides many years ago.

The map above shows three areas where most of the chemicals have been found in the ground water. These contaminated areas are called plumes.

Although the levels of chemicals in the water would make it unsafe for drinking, the Village of Yellow Springs pumps its drinking water from a location several miles south of the contaminated area.

Legend

- Monitoring Well
- Pumping Well
- Building

In the next mailing...

In a future mailing, EPA will provide more information about ground water contamination and what Vernay will do to slow the spread of the plumes. EPA will also describe in more detail phase one of the RCRA facility investigation, now underway.

Vernay's contractors complete installation of the pumping well, above, and dig a trench (to the right). After the ground water is pumped to the surface, it will flow through pipes in the trench to the treatment system that will remove the contaminants.

Mailing list updates

To add a friend to the Vernay site mailing list or update your contact information, please fill out the information below and return it to Bri Bill, EPA community involvement coordinator, at the address on page 1. You may also e-mail any updates to **bill.briana@epa.gov.**

Name _____

Address _____

_____

City _____ **State** _____ **Zip Code** _____

Please add me to the mailing list ☐

Please update my contact information ☐

Please remove me from the mailing list ☐

About the Vernay Site

The Vernay site covers approximately ten acres and is located at 875 Dayton St. in the northwest portion of Yellow Springs in Greene County, Ohio. Since 1951, Vernay has used two plants on the property to make molded rubber parts for use in cars, appliances and medical equipment.

Contamination was first found in soil and ground water at the site in 1989. Between 1989 and 1998, Vernay received several violations from the Ohio Environmental Protection Agency about its storage of chemicals on the site. Vernay began efforts to collect and treat contaminated ground water in 1994. After additional contamination was found in 1998, Vernay began conducting additional activities to study and clean up the site. In 2002, U.S. Environmental Protection Agency and Vernay signed a legal agreement requiring Vernay to study and cleanup contamination on and around the facility.

This mailer summarizes the work to be done, provides a timeline of activities, shows where contamination has been found in ground water and suggests ways to learn more.

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