

# **THIRD QUARTER 2005 PROGRESS REPORT**

**VERNAY LABORATORIES, INC.  
PLANT 2/3 FACILITY  
Yellow Springs, Ohio**

Project No. 0292.11.26

October 14, 2005

Prepared For



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Prepared By



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## The Payne Firm, Inc.

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**VIA FEDERAL EXPRESS**  
**AM Priority**

October 14, 2005

United States Environmental Protection Agency  
Region 5  
Corrective Action Section, DW-8J  
77 West Jackson  
Chicago, Illinois 60604

Attention: Ms. Patricia J. Polston, Project Manager  
Waste Management Branch

Reference: Quarterly Progress Report (Third Quarter 2005)  
Administrative Order on Consent  
Vernay Laboratories, Inc.  
Yellow Springs, Ohio  
Project No. 0292.11.26

Dear Ms. Polston:

The Payne Firm, Inc. (Payne Firm) is pleased to submit, on behalf of Vernay Laboratories, Inc. (Vernay), the attached Progress Report for the Third Quarter 2005, as required by the Administrative Order on Consent (AOC) journalized by the United States Environmental Protection Agency (U.S. EPA) on September 27, 2002.

We understand that the U.S. EPA may provide this quarterly progress report on the U.S. EPA's website at [www.epa.gov/region5/sites/vernay](http://www.epa.gov/region5/sites/vernay). The electronic version of this quarterly progress report is also included on a CD-Rom in Appendix I.

Should you have any questions regarding the enclosed document, please contact either of us at (513) 489-2255 or via e-mail at [dcc@paynefirm.com](mailto:dcc@paynefirm.com) or [ddw@paynefirm.com](mailto:ddw@paynefirm.com).

Sincerely,

**The Payne Firm, Inc.**

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*Daniel D. Weed*  
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Principal

cc: Mr. Doug Fisher – Vernay Laboratories, Inc.  
Mr. Joseph Lonardo – Vorys, Sater, Seymour and Pease  
Mr. Rob Hillard – Village of Yellow Springs  
Ms. Connie Collett – Yellow Springs Community Library

**PROGRESS REPORT – SECOND QUARTER 2005**  
**Vernay Laboratories, Inc. RCRA Corrective Action**  
**Yellow Springs, Ohio**

**A. IDENTIFICATION OF FACILITY AND ACTIVITY**

Vernay Laboratories, Inc. (Vernay) agreed to an Administrative Order on Consent (AOC), journalized September 27, 2002, to complete a United States Environmental Protection Agency (U.S. EPA) Resource Conservation and Recovery Act (RCRA) Corrective Action for the Vernay Facility located at 875 Dayton Street in Yellow Springs, Ohio.

**B. STATUS OF WORK AT THE FACILITY AND PROGRESS DURING THE QUARTER**

The status of the work at the Facility and a summary of the progress made during the quarter are presented below.

**1. Technology Screening for Treatability/Pilot Study Evaluation**

Vernay continued to evaluate data generated from treatability sampling and ground water field measurements performed at the Facility. Prior to this quarter, samples were collected to evaluate soil and ground water parameters which can influence the effectiveness of remediation technologies that may be implemented for corrective measures at the Facility. The Payne Firm is preparing a memorandum that summarizes the results of treatability testing, evaluation of those results, and the consideration of potential follow-up pilot studies for Vernay's consideration.

**2. Vernay's Response to U.S. EPA Preliminary Draft Comments on Phase II RFI Report**

On July 29, 2005, Vernay received preliminary draft comments from the U.S. EPA regarding the December 20, 2004 "U.S. EPA RCRA Corrective Action Facility Investigation, Phase II Report" (RFI Phase II Report). Vernay prepared responses to these preliminary draft comments in a document entitled "Responses to U.S. EPA's July 29, 2005 Draft Comments" dated August 30, 2005. This document is included in Appendix III.

On September 16, 2005, Vernay and the U.S. EPA participated in a conference call to discuss the use of screening levels for the CA-725 and the RFI. During the call, the U.S. EPA indicated that some additional clarifying language regarding the use of these screening levels needed to be added to the RFI Phase II Report. On September 22, 2005, Vernay submitted to the U.S. EPA clarifying language to Section 3.0 of the RFI Phase II Report.

A conference call with the U.S. EPA was held on August 1, 2005 to discuss ground water monitoring results that were presented in the RFI Phase II Report. As a result of the call, the U.S. EPA submitted to Vernay on August 19, 2005 a list of 19 monitoring wells that U.S. EPA proposed to be sampled quarterly. The U.S. EPA also requested that cross-sections be prepared quarterly utilizing the analytical results from each quarterly monitoring event. A conference call with the U.S. EPA was held on September 8, 2005 to discuss U.S. EPA's request for quarterly sampling. Vernay agreed to sample the 19 monitoring wells proposed by the U.S. EPA during the Second Semi-Annual 2005/Fourth Quarter Monitoring Event.

### **3. Monthly Operation and Maintenance Activities**

Data associated with the existing ground water interim measure were collected monthly during the third quarter. These data include water samples analyzed for VOCs from the ground water treatment systems of the capture zone and the utility tunnel sump operating on the Facility. Water level measurements from the entire RFI monitoring well network are collected on a quarterly basis during the post-RFI. Quarterly water level elevations are summarized in Table 1. Potentiometric contour maps generated for the Cedarville Aquifer during the third quarter are presented in Appendix II.

Water samples collected from the Ground Water Capture Treatment System (GWCTS) included: 1) a sample at each wellhead (CW01-01 and CW01-02); 2) a sample after the first carbon vessel; and 3) a system effluent sample after treatment. Likewise, samples collected from the Utility Tunnel Sump Treatment System (UTSTS) included: 1) a pre-treatment sample; 2) a sample after the first carbon drum; and 3) a sample after the second carbon drum. The VOC data collected from the two treatment systems are summarized on Tables 2 and 3, respectively. Electronic copies of the laboratory analytical reports are included on a CD-Rom in Appendix I.

### **4. Water Well Survey Follow Up, Sampling and Abandonment**

Vernay continued to follow-up with known water well owners within a defined survey area (Figure 1). The purpose of this follow-up is to confirm whether or not any change in well use had occurred since the last survey conducted in late 2003/early 2004. Vernay also determined the property transactions that occurred within the well survey area, and followed-up with these new owners to document any changes that may have occurred with respect to the original well survey response that was obtained (i.e. was a water well installed by the new owner?). Vernay expects an updated Water Well Survey and Sampling Report to be completed in the fourth quarter 2005.

### **5. Evaluation of Corrective Measures Objectives and Preliminary Remediation Goals**

Vernay continued the process of determining corrective measures objectives (CMOs) consisting of goals for protecting human health or the environment.

## **C. PROBLEMS ENCOUNTERED DURING THE QUARTER**

A problem with CW01-01 was observed in July 2005. The problem was diagnosed by AST Environmental to be an electrical overload caused by the pump motor. No other problems were encountered during the quarter.

## **D. ACTIONS TAKEN TO RECTIFY PROBLEMS**

In order to rectify the electrical overload problem that occurred for the pump in CW01-01, a new pump motor was installed on July 22, 2005. The problem has not reoccurred at CW01-01 since July 22, 2005.

## **E. PROJECT SCHEDULE**

Based on the information presented in the RFI Phase II report and the requirements of the AOC, the following activities are planned for next quarter (Q4-2005).

- Continue monthly monitoring of existing interim measures and quarterly water level measurements.
- Perform the second 2005 semi-annual/Fourth Quarter sampling event.

- Determine the property transactions that occurred within the well survey area, and follow up with these new owners (if any) to document any changes that may have occurred with respect to the original well survey response that was obtained in 2003/2004.
- Continue the determination of preliminary remediation goals and corrective measures objectives for the Facility.
- Continue corrective measures evaluation and, if needed, commencement of potential treatability pilot studies.

Future SOWs will be based on the project schedule presented on Table 4 and on potential U.S. EPA comments to the RFI Phase II report.

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- 1: Quarterly Water Level Measurements (Q3-2005)
- 2: Ground Water Capture Treatment System (GWCTS) Sampling Results – Detected VOCs
- 3: Utility Tunnel Sump Water Treatment System (UTSWTS) Sampling Results – Detected VOCs
- 4: RCRA Corrective Action Project Schedule

### **List of Appendices**

- I: CD-Rom Containing Adobe Acrobat® Documents:
  - A. Third Quarter 2005 Progress Report (excluding laboratory analytical reports)
  - B. Third Quarter 2005 Laboratory Analytical Reports
- II: Third Quarter 2005 Potentiometric Contour Maps for the Cedarville Aquifer
- III: Responses to U.S. EPA's Draft Comments to Phase II RFI Report