

**APPENDIX IV**

**2006 RCRA CORRECTIVE ACTION  
ANNUAL WATER WELL SURVEY REPORT**

**RCRA CORRECTIVE ACTION  
2006 ANNUAL WATER  
WELL SURVEY  
REPORT**

**VERNAY LABORATORIES, INC. FACILITY  
875 Dayton Street  
Yellow Springs, Ohio**

Project No. 0292.11.40

April 12, 2007

Prepared For

**VERNAY LABORATORIES, INC.  
Yellow Springs, Ohio**

Prepared By



**THE PAYNE FIRM, INC.**  
11231 Cornell Park Drive  
Cincinnati, Ohio 45242  
513-489-2255 Fax: 513-489-2533

In collaboration with

**ENVIRON**  
**ENVIRON International Corporation**

## TABLE OF CONTENTS

<b>1.0</b>	<b>INTRODUCTION.....</b>	<b>1</b>
<b>2.0</b>	<b>METHODOLOGY.....</b>	<b>1</b>
2.1	Water Well Change-In-Use Survey Area .....	1
2.2	Water Well Change-In-Use Survey Mailing and Follow-Up Process.....	2
2.3	New Property Owners .....	3
<b>3.0</b>	<b>SUMMARY OF SURVEY RESULTS.....</b>	<b>4</b>
<b>4.0</b>	<b>WELL WATER SAMPLING AND RESULTS.....</b>	<b>4</b>
<b>5.0</b>	<b>CONCLUSIONS.....</b>	<b>5</b>

### **List of Figures**

- 1: Identified Water Well Locations and Current Use Within the Survey Area

### **List of Tables**

- 1: Water Well Change-In-Use Survey Properties
- 2: New Property Owners Survey Results
- 3: Summary of Water Well Analytical Laboratory Results (2006)

### **List of Appendices**

- I: GCCHD Letter and Well Water Change-In-Use Survey Questionnaire
- II: GCCHD New Property Owner Letter and Survey
- III: Analytical Laboratory Reports
- IV: Water Well Sampling Statement of Work

## **1.0 INTRODUCTION**

A water well change-in-use survey, new property owner survey, and sampling of water wells currently in use was conducted between October and December 2006 conducted for Vernay Laboratories, Inc. (Vernay) as part of the Resource Conservation and Recovery Act (RCRA) Corrective Action with the United States Environmental Pollution Agency (U.S. EPA). The main objective of these activities was to verify the conclusions of the approved RCRA Current Human Exposures under Control Environmental Indicator (CA725 EI) which states that all current human exposures to releases of hazardous waste or hazardous constituents at or from the Facility are under control.

In October 2006, The Payne Firm, Inc. (Payne Firm) in cooperation with the Greene County Combined Health District (GCCHD) initiated a water well change-in-use survey and new property owner survey (2006 survey) within a defined area in Yellow Springs, Ohio associated with the Vernay Laboratories, Inc. facility (Facility). The change-in-use and new property owner survey documented herein is part of an annual review to ensure that "Current Human Exposures Under Control," as defined in the U.S. EPA-approved July 15, 2004 CA725 EI, continues to be effective at the on and off Facility areas. The change-in-use survey targeted properties with water wells that were previously identified by an initial well water survey and sampling report completed for Vernay in 2003-2004 (Payne Firm and ENVIRON, 2004).

The well survey information presented in this report was obtained through telephone correspondence, notification mailings, and review of property parcel information on the Greene County Auditor's web page ([www.co.green.oh.us](http://www.co.green.oh.us)). Section 2.0 of this report discusses the methodology that was used to conduct the survey. Section 3.0 presents the results of the change-in-use and new property owner surveys and Section 4.0 presents the results of the water well sampling.

## **2.0 METHODOLOGY**

### **2.1 Water Well Change-In-Use Survey Area**

The water well survey area is located in Yellow Springs (Greene County), Ohio as depicted on Figure 1. The change-in-use survey targeted properties within the survey area that were previously identified by the initial 2003-2004 survey as having water wells.

The initial survey area was determined by the Payne Firm and ENVIRON International Corporation (ENVIRON) in November 2003. The boundary of the survey area was based on an evaluation of Vernay ground water monitoring well data that included at that time detections of tetrachloroethene (PCE), trichloroethene (TCE), and 1,2-dichloropropane (1,2-DCP) in ground water of the Cedarville Aquifer beneath and downgradient of the Facility. Based on the concentrations detected at monitoring wells and the known ground water flow direction (east to southeast), it was determined that the survey area needed to include properties along Dayton Street and properties between the Facility and West South College Street and Green Street (Figure 1). In addition, properties to the west and northwest of the Facility (upgradient) were also included in the initial 2003 well survey area.

## **2.2 Water Well Change-In-Use Survey Mailing and Follow-Up Process**

Fourteen properties with water wells in the survey area received a water well change-in-use survey in 2006. Three properties (775 Dayton Street, 825 Dayton Street, and 401 Suncrest [550 Green Street]) had their water wells abandoned by Vernay in June 2005 and were not included in the change-in-use survey. Two properties (324 Dayton Street and 420 Enon Street) were upgradient and not included in the change-in-use survey. The purpose of the water well change-in-use survey was to determine if the use of the water well had changed since the last survey that was conducted in 2005.

Following the identification of properties with water wells in the survey area, the Payne Firm either initiated a call or a mailing to all 14 identified property owners. Included in the mailing campaign was a brief letter from Mr. Marc Isaacson, Program Manager for the GCCHD, asking the recipient to complete an included change-in-use survey questionnaire and return it to the Payne Firm. Examples of the GCCHD letter and the Well Water Change-In-Use Survey Questionnaire are included in Appendix I. The survey requested information on the use of the water well at the property. If the information provided in a completed questionnaire did not provide sufficient information, the Payne Firm initiated a follow-up telephone call to determine whether a change-in-use regarding the well had occurred at the property.

Overall, the initial phone calls generated seven responses from a total of 14 properties, a response rate of 50 percent. Two properties (685 Wright Street and 195 Park Meadows Drive) had unlisted phone numbers and were not included in the initial phone calls. Phone messages were left for the remaining seven properties regarding the change-in-use survey and no responses were received. Follow-up mailings were completed on December 23, 2006 to the seven property owners that could not be reached by phone. Five of these seven property owners (759 Dayton Street, 880 Dayton Street, 820 Green Street, 195 Park Meadows Drive, and 675 Wright Street) completed the change-in-use survey by mail. Two follow-up phone calls were again placed to the remaining property at 402 Fairfield Road in January 2007 and no response was received. A Payne Firm representative followed up door to door with the non-responding properties at 402 Fairfield Road and 685 Wright Street in February 2007. The property owner at 402 Fairfield Road completed the change-in-use survey delivered during the door to door follow-up and mailed it back to the Payne Firm. As of March 2007, one property (685 Wright Street) has still not responded to the 2006 Well Water Change-In-Use Questionnaire. Table 1 summarizes the 14 identified

properties with water wells and the action taken regarding potential change-in-use of their respective water wells.

### **2.3 New Property Owners**

In addition to verifying properties with water wells from the initial 2003-2004 survey, the 255 properties within the survey area were reviewed on the Green County Auditors website to identify new property ownership. Fifteen properties in the survey area were identified as having new owners and are summarized in Table 2.

Well Water and Ground Water Survey questionnaires and letters under the GCCHD letterhead were mailed to these 15 new property owners. The survey was identical to the initial 2003 survey and inquired if any structures that may collect ground water are present on the property. Appendix II contains a copy of the survey and GCCHD letter.

Eleven of the 15 new property owners returned the survey via mail. Seven of the eleven mail survey responses received reported that they did not have any well water or ground water structures (wells, cisterns, basement sumps, or ponds) on their property. Three of the eleven properties that responded (603 West South College, 775 Dayton Street, and 430 Suncrest) indicated that ground water structures are located on their property; however no new water wells were reported by these property owners.

In January of 2007, follow-up phone calls were made to three of the five remaining property owners (682 Omar, 693 Omar, and an unlisted address on Dayton Street) with available phone numbers. Two of the three properties (682 Omar and the Dayton Street property with no address) that received a follow-up phone call were reached and reported to have no water well or ground water structures on their property. A Payne Firm representative followed up door to door with the three remaining non-responsive new property owners (614 Omar, 693 Omar, and 703 Dayton Street) in February of 2007 and all three property owners responded and indicated that no water well or ground water structures are located on their property.

Five of the 15 responses received indicated that the property had different ground water structures than reported in the initial 2003 well survey. The property at 405 West North College reported no ground water structures on the property in 2006, but it was indicated that there was a cistern located on the property in the initial 2003 survey. The property at 603 West College reported a basement sump in 2006, but there was no sump reported in the initial 2003 survey. The properties at 703 Dayton Street and 760 Wright Street reported no ground water structures on the property in 2006; however, sumps were reported to be located on the property in the initial 2003 survey. The property at 775 Dayton reported a cistern and a basement sump to be located on the property in 2006, but the 2003 survey reported a sump was present on the property, but no cistern present on the property.

### **3.0 SUMMARY OF SURVEY RESULTS**

Of the 14 properties identified during the well water change-in-use survey, 13 responses were received through mailings, telephone correspondence, and door to door follow-ups. No properties reported a change-in-use for their water wells (Table 1).

Fifteen properties in the survey area were identified as having a change in ownership. As discussed in Section 3.0, these new property owners were mailed surveys in December of 2006. All 15 new property owners that completed the survey reported no water wells on their properties (Table 2).

### **4.0 WELL WATER SAMPLING AND RESULTS**

Five water wells that were verified as being used downgradient of the Facility were resampled in 2006 for volatile organic compounds (VOCs). The objective of the water well sampling event was to determine if there was a current unacceptable risk to human health and the environment posed by the use of the well in order to verify the conclusions of the CA725 EI report. The in-use water wells which were sampled are located at the following properties:

- 860 Dayton Street
- 850 Dayton Street
- 780 Dayton Street
- 545 Dayton Street
- 690 Wright Street

The Statement of Work prepared for the water well sampling is provided in Appendix IV. Below is a summary of the water well sampling methodology:

- Prior to sampling a water well, appropriate measurements such as the static water level and total well depth were recorded if the well head was accessible at the surface. A water level meter dedicated for potable use wells was used to record the measurements. The water level meter was properly disinfected prior to the next use.
- If present, the well pumping system was used to collect the water samples. The water sample was collected from the sampling point (i.e. spigot, faucet, etc.) closest to the wellhead. Two samples were collected from this sampling point: 1) one non-purged (NP) sample was collected immediately when the spigot, faucet, pump, etc. was turned on and 2) a second purged (P) sample was collected after ten minutes of purging the well, or until sufficient volume had been purged to remove all water standing in the distribution system (including pressure/holding tank, if present).
- If the well did not have an operable pumping system and the well head was accessible, samples from the well were collected with a submersible pump. New tubing was used at each well and the submersible pump was properly disinfected prior to the next use. Two samples were collected with the submersible pump from the well as noted above (1 and 2).

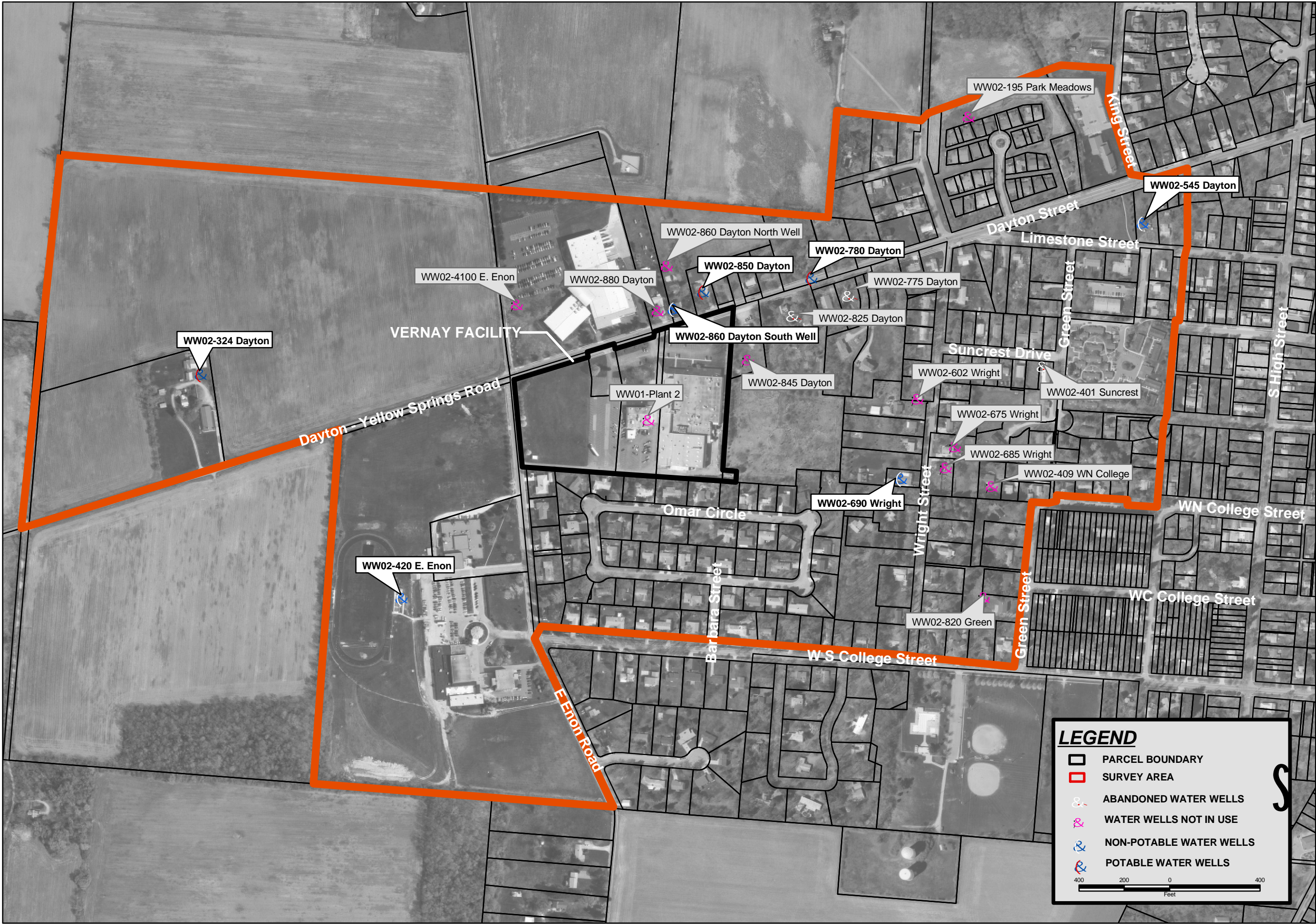
- If the well did not have an operable pumping system and the well head was not accessible, a water sample was not collected from the well.
- Water samples were transferred to laboratory supplied containers for analysis of VOCs. The laboratory containers had appropriate sample preservation in the container.
- The water samples were appropriately packaged and shipped to the project laboratory, Severn Trent Laboratories, North Canton, Ohio.
- Water sampling information was recorded in the project field logbook.

A summary of the water well analytical data is presented on Table 3. The laboratory reports are provided in Appendix III. Of the five properties that were verified in 2006 as currently using the well water, three properties did not detect any VOCs above the laboratory reporting limit. Two properties (545 Dayton Street and 690 Wright Street) did report detections of VOCs above the laboratory reporting limits, but below the human health criteria for the non-potable use of the wells. According to the two property owners, these water wells are not used for potable purposes. Both properties are connected to the Village of Yellow Springs municipal water system.

## 5.0 CONCLUSIONS

- The 2006 change-in-water well use survey generated a response rate of 93 percent (13 of 14 identified properties). No property owners responding to the 2006 survey reported a change-in-use for their water wells.
- The 2006 new property owner survey generated a response rate of 100 percent (15 of 15 identified properties). Five properties from the 2006 new property owner survey indicated a different response from the initial 2003 well survey. However, no new water wells were reported by the property owners.
- The well survey, sampling, and closure activities completed in 2006 verified the conclusions of the CA725 EI; all current human exposures to known ground water contamination are under control.





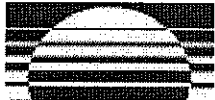
F:\Data\PF+MGT\Verway\GIS\Q1-2007\Water Well Use and Survey Area.mxd

CLIENT	VERNAY LABORATORIES, INC.		FIGURE NO.	1	DATE	3/16/07
TITLE	IDENTIFIED WATER WELL LOCATIONS AND CURRENT USE WITHIN THE SURVEY AREA		DRAWN BY	ALH	APPROVED BY	KDK
			PROJECT NO.		292.11.40	
REFERENCE	Greene County Auditors, Orthophotograph (1998); State Plane Coordinates from Woolpert Surveying, LLP, Dayton, Ohio (NAD83/NAVD88)					



**The Payne Firm, Inc.**  
Environmental Consultants  
Cincinnati / Cleveland / Chicago





**The Payne Firm, Inc.**

## Vernay Laboratories, Inc.

Yellow Springs, Ohio

Project No. 0292.11.40

**TABLE 1: Water Well Change-In-Use Survey Properties**

	Address of Property Owner	Change-In-Use Survey Mailed	Received	Phone Follow-Up Completed	Door to Door Follow-Up Completed	Comment
545	Dayton Street - 455 West Limestone Street	No	NA	Yes	NA	No Change
759	Dayton Street	Yes	Yes	No	NA	No Change
780	Dayton Street	No	NA	Yes	NA	No Change
850	Dayton Street	No	NA	Yes	NA	No Change
860	Dayton Street	No	NA	Yes	NA	No Change
875	Dayton Street	No	NA	Yes	NA	Vernay Property, no change.
880	Dayton Street	Yes	Yes	No	NA	No Change
402	Fairfield Road	Yes	No	No	Yes	No Change
820	Green Street	Yes	Yes	No	NA	No Change
195	Park Meadows Drive	Yes	Yes	NA	NA	No Change
409	West North College Street	No	NA	Yes	NA	No Change
685	Wright Street	Yes	No	NA	Yes	Number not listed. Well Change-in-use undetermined.
675	Wright Street	Yes	Yes	No	NA	No Change
690	South Wright Street	No	NA	Yes	NA	No Change

NA = No phone number available; not applicable



**The Payne Firm, Inc.**

**Vernay Laboratories, Inc.**

Yellow Springs, Ohio

Project No. 0292.11.40

**TABLE 2: New Property Owners Survey Results**

Address of Property Owner	Water Well Survey Mailed	Received	Door to Door Follow-Up Completed	Phone Follow-Up Completed	Comment
405 West North College	Yes	Yes	NA	NA	No well reported on property.
416 Whiteman	Yes	Yes	NA	NA	No well reported on property.
428 Limestone	Yes	Yes	NA	NA	No well reported on property.
603 West South College	Yes	Yes	NA	NA	Basement sump; No well reported on property.
614 Omar	Yes	No	Yes	NA	No well reported on property.
619 Omar	Yes	Yes	NA	NA	No well reported on property.
647 Omar	Yes	Yes	NA	NA	No well reported on property.
682 Omar	Yes	No	NA	Yes	No well reported on property.
693 Omar	Yes	No	Yes	NA	No well reported on property.
703 Dayton	Yes	No	Yes	NA	No well reported on property.
706 Wright	Yes	Yes	NA	NA	No well reported on property.
775 Dayton	Yes	Yes	NA	NA	Cistern, basement sump; No well reported on property.
802 Green	Yes	Yes	NA	NA	No well reported on property.
NA Dayton	Yes	No	NA	Yes	No well reported on property.
430 Suncrest	Yes	Yes	NA	NA	Basement sump, pond; No well reported on property.

NA = Not Applicable



The Payne Firm, Inc.

## Vernay Laboratories, Inc.

Yellow Springs, Ohio

Project No. 0292.11.26

TABLE 3: Aqueous VOC Analytical Data from Water Wells (Q3-2006)

Sample ID	WW02-545 Dayton St - WW- NP	WW02-545 Dayton St - WW- P	WW02-690 Wright St - OH- NP
Sample Date (yyyy/mm/dd)	2006-08-25	2006-08-25	2006-08-25
Sample Type	GW	GW	GW
Screened Interval	Cedarville Aquifer	Cedarville Aquifer	Cedarville Aquifer
Reporting Units	µg/L	µg/L	µg/L
1,1,1-TRICHLOROETHANE	1.1	1.1	< 1
1,1,2,2-TETRACHLOROETHANE	< 1	< 1	< 1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	< 1	< 1	9.8
1,1,2-TRICHLOROETHANE	< 1	< 1	< 1
1,1-DICHLOROETHANE	< 1	< 1	< 1
1,1-DICHLOROETHENE	0.28 J	0.25 J	< 1
1,2,4-TRICHLOROBENZENE	< 1	< 1	< 1
1,2-DIBROMO-3-CHLOROPROPANE	< 2	< 2	< 2
1,2-DIBROMOETHANE	< 1	< 1	< 1
1,2-DICHLOROBENZENE	< 1	< 1	< 1
1,2-DICHLOROETHANE	< 1	< 1	< 1
1,2-DICHLOROPROPANE	< 1	< 1	< 1
1,3-DICHLOROBENZENE	< 1	< 1	< 1
1,4-DICHLOROBENZENE	< 1	< 1	< 1
2-BUTANONE	< 10	< 10	3.5 J
2-HEXANONE	< 10	< 10	0.54 J
4-METHYL-2-PENTANONE	< 10	< 10	< 10
ACETONE	1.1 J B	1 J B	< 10
BENZENE	< 1	< 1	< 1
BROMODICHLOROMETHANE	< 1	< 1	< 1
BROMOFORM	< 1	< 1	< 1
BROMOMETHANE	< 1	< 1	< 1
CARBON DISULFIDE	< 1	< 1	< 1
CARBON TETRACHLORIDE	< 1	< 1	< 1
CHLOROBENZENE	< 1	< 1	< 1
CHLOROETHANE	< 1	< 1	< 1
CHLOROFORM	< 1	< 1	< 1
CHLOROMETHANE	< 1	< 1	0.26 J
CIS-1,2-DICHLOROETHENE	< 0.5	< 0.5	< 0.5
CIS-1,3-DICHLOROPROPENE	< 1	< 1	< 1
CYCLOHEXANE	< 1	< 1	< 1
DIBROMOCHLOROMETHANE	< 1	< 1	< 1
DICHLORODIFLUOROMETHANE	< 1	< 1	< 1
ETHYLBENZENE	< 1	< 1	< 1
ISOPROPYLBENZENE	< 1	< 1	< 1
METHYL ACETATE	< 10	< 10	< 10
METHYL TERT-BUTYL ETHER	< 5	< 5	< 5
METHYLCYCLOHEXANE	< 1	< 1	< 1
METHYLENE CHLORIDE	< 1	0.23 J B	< 1
STYRENE	< 1	< 1	< 1
TETRACHLOROETHENE	< 1	< 1	3.2 B
TOLUENE	< 1	< 1	< 1
TRANS-1,2-DICHLOROETHENE	< 0.5	< 0.5	< 0.5
TRANS-1,3-DICHLOROPROPENE	< 1	< 1	< 1
TRICHLOROETHENE	1.1	1	0.82 J
TRICHLOROFLUOROMETHANE	< 1	< 1	< 1
VINYL CHLORIDE	< 1	< 1	< 1
XYLENES (TOTAL)	< 1	< 1	< 1

VOC = Volatile organic compound

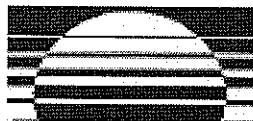
GW = Ground Water

DUP = Duplicate Sample

CA = Cedarville Aquifer

µg/L = micrograms per liter

See Table 5 in the Third Quarter 2006 Progress Report for definitions of data qualifiers.



The Payne Firm, Inc.

# Vernay Laboratories, Inc.

Yellow Springs, Ohio  
Project No. 0292.11.26

TABLE 3: Aqueous VOC Analytical Data from Water Wells (Q3-2006)

Sample ID Sample Date (yyyy/mm/dd) Sample Type Screened Interval Reporting Units	WW02-690 Wright St -OH- P 2006-08-25 GW Cedarville Aquifer µg/L	WW02-690 Wright St -OH- P 2006-08-25 GWDUP Cedarville Aquifer UG	WW02-780 Dayton St -OS- NP 2006-08-25 GW Cedarville Aquifer µg/L
1,1,1-TRICHLOROETHANE	<1	<1	<1
1,1,2,2-TETRACHLOROETHANE	<1	<1	<1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	24	19	<1
1,1,2-TRICHLOROETHANE	<1	<1	<1
1,1-DICHLOROETHANE	<1	<1	<1
1,1-DICHLOROETHENE	<1	<1	<1
1,2,4-TRICHLOROBENZENE	<1	<1	<1
1,2-DIBROMO-3-CHLOROPROPANE	<2	<2	<2
1,2-DIBROMOETHANE	<1	<1	<1
1,2-DICHLOROBENZENE	<1	<1	<1
1,2-DICHLOROETHANE	<1	<1	<1
1,2-DICHLOROPROPANE	<1	<1	<1
1,3-DICHLOROBENZENE	<1	<1	<1
1,4-DICHLOROBENZENE	<1	<1	<1
2-BUTANONE	<10	<10	<10
2-HEXANONE	<10	<10	<10
4-METHYL-2-PENTANONE	<10	<10	<10
ACETONE	<10	1.4 J B	<10
BENZENE	<1	<1	<1
BROMODICHLOROMETHANE	<1	<1	<1
BROMOFORM	<1	<1	<1
BROMOMETHANE	<1	<1	<1
CARBON DISULFIDE	<1	<1	0.35 J
CARBON TETRACHLORIDE	<1	<1	<1
CHLOROBENZENE	<1	<1	<1
CHLOROETHANE	<1	<1	<1
CHLOROFORM	<1	<1	<1
CHLOROMETHANE	<1	<1	<1
CIS-1,2-DICHLOROETHENE	0.27 J	0.3 J	<0.5
CIS-1,3-DICHLOROPROPENE	<1	<1	<1
CYCLOHEXANE	<1	<1	<1
DIBROMOCHLOROMETHANE	<1	<1	<1
DICHLORODIFLUOROMETHANE	<1	<1	<1
ETHYLBENZENE	<1	<1	<1
ISOPROPYLBENZENE	<1	<1	<1
METHYL ACETATE	<10	<10	<10
METHYL TERT-BUTYL ETHER	<5	<5	<5
METHYLCYCLOHEXANE	<1	<1	<1
METHYLENE CHLORIDE	<1	<1	<1
STYRENE	<1	<1	<1
TETRACHLOROETHENE	9.8 B	11	<1
TOLUENE	<1	<1	<1
TRANS-1,2-DICHLOROETHENE	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE	<1	<1	<1
TRICHLOROETHENE	2.1	2.1	<1
TRICHLOROFLUOROMETHANE	<1	<1	<1
VINYL CHLORIDE	<1	<1	<1
XYLENES (TOTAL)	<1	<1	<1

VOC = Volatile organic compound

GW = Ground Water

DUP = Duplicate Sample

CA = Cedarville Aquifer

µg/L = micrograms per liter

See Table 5 in the Third Quarter 2006 Progress Report for definitions of data qualifiers.



The Payne Firm, Inc.

# Vernay Laboratories, Inc.

Yellow Springs, Ohio

Project No. 0292.11.26

TABLE 3: Aqueous VOC Analytical Data from Water Wells (Q3-2006)

Sample ID	WW02-780 Dayton St -OS- P	WW02-850 Dayton St -IP- NP	WW02-850 Dayton St -IP- P
Sample Date (yyyy/mm/dd)	2006-08-25	2006-08-25	2006-08-25
Sample Type	GW	GW	GW
Screened Interval	Cedarville Aquifer	Cedarville Aquifer	Cedarville Aquifer
Reporting Units	µg/L	µg/L	µg/L
1,1,1-TRICHLOROETHANE	< 1	< 1	< 1
1,1,2,2-TETRACHLOROETHANE	< 1	< 1	< 1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	< 1	< 1	< 1
1,1,2-TRICHLOROETHANE	< 1	< 1	< 1
1,1-DICHLOROETHANE	< 1	< 1	< 1
1,1-DICHLOROETHENE	< 1	< 1	< 1
1,2,4-TRICHLOROBENZENE	< 1	< 1	< 1
1,2-DIBROMO-3-CHLOROPROPANE	< 2	< 2	< 2
1,2-DIBROMOETHANE	< 1	< 1	< 1
1,2-DICHLOROBENZENE	< 1	< 1	< 1
1,2-DICHLOROETHANE	< 1	< 1	< 1
1,2-DICHLOROPROPANE	< 1	< 1	< 1
1,3-DICHLOROBENZENE	< 1	< 1	< 1
1,4-DICHLOROBENZENE	< 1	< 1	< 1
2-BUTANONE	< 10	< 10	< 10
2-HEXANONE	< 10	< 10	< 10
4-METHYL-2-PENTANONE	< 10	< 10	< 10
ACETONE	< 10	1 J B	1.2 J B
BENZENE	< 1	< 1	< 1
BROMODICHLOROMETHANE	< 1	< 1	< 1
BROMOFORM	< 1	< 1	< 1
BROMOMETHANE	< 1	< 1	< 1
CARBON DISULFIDE	< 1	< 1	< 1
CARBON TETRACHLORIDE	< 1	< 1	< 1
CHLOROBENZENE	< 1	< 1	< 1
CHLOROETHANE	< 1	< 1	< 1
CHLOROFORM	< 1	< 1	< 1
CHLOROMETHANE	< 1	< 1	0.22 J
CIS-1,2-DICHLOROETHENE	< 0.5	< 0.5	< 0.5
CIS-1,3-DICHLOROPROPENE	< 1	< 1	< 1
CYCLOHEXANE	< 1	< 1	< 1
DIBROMOCHLOROMETHANE	< 1	< 1	< 1
DICHLORODIFLUOROMETHANE	< 1	< 1	< 1
ETHYLBENZENE	< 1	< 1	< 1
ISOPROPYLBENZENE	< 1	< 1	< 1
METHYL ACETATE	< 10	< 10	< 10
METHYL TERT-BUTYL ETHER	< 5	< 5	< 5
METHYLCYCLOHEXANE	< 1	< 1	< 1
METHYLENE CHLORIDE	< 1	0.25 J B	< 1
STYRENE	< 1	< 1	< 1
TETRACHLOROETHENE	< 1	< 1	< 1
TOLUENE	< 1	< 1	< 1
TRANS-1,2-DICHLOROETHENE	< 0.5	< 0.5	< 0.5
TRANS-1,3-DICHLOROPROPENE	< 1	< 1	< 1
TRICHLOROETHENE	< 1	< 1	< 1
TRICHLOROFLUOROMETHANE	< 1	< 1	< 1
VINYL CHLORIDE	< 1	< 1	< 1
XYLENES (TOTAL)	< 1	< 1	< 1

VOC = Volatile organic compound

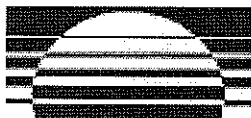
GW = Ground Water

DUP = Duplicate Sample

CA = Cedarville Aquifer

µg/L = micrograms per liter

See Table 5 in the Third Quarter 2006 Progress Report for definitions of data qualifiers.



The Payne Firm, Inc.

# Vernay Laboratories, Inc.

Yellow Springs, Ohio

Project No. 0292.11.26

TABLE 3: Aqueous VOC Analytical Data from Water Wells (Q3-2006)

Sample ID	WW02-860 Dayton St South -WW- NP	WW02-860 Dayton St North -WW- P
Sample Date (yyyy/mm/dd)	2006-08-25	2006-08-25
Sample Type	GW	GW
Screened Interval	Cedarville Aquifer	Cedarville Aquifer
Reporting Units	µg/L	µg/L
1,1,1-TRICHLOROETHANE	< 1	< 1
1,1,2,2-TETRACHLOROETHANE	< 1	< 1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	< 1	< 1
1,1,2-TRICHLOROETHANE	< 1	< 1
1,1-DICHLOROETHANE	< 1	< 1
1,1-DICHLOROETHENE	< 1	< 1
1,2,4-TRICHLOROBENZENE	< 1	< 1
1,2-DIBROMO-3-CHLOROPROPANE	< 2	< 2
1,2-DIBROMOETHANE	< 1	< 1
1,2-DICHLOROBENZENE	< 1	< 1
1,2-DICHLOROETHANE	< 1	< 1
1,2-DICHLOROPROPANE	< 1	< 1
1,3-DICHLOROBENZENE	< 1	< 1
1,4-DICHLOROBENZENE	< 1	< 1
2-BUTANONE	< 10	< 10
2-HEXANONE	< 10	< 10
4-METHYL-2-PENTANONE	< 10	< 10
ACETONE	< 10	< 10
BENZENE	< 1	< 1
BROMODICHLOROMETHANE	< 1	< 1
BROMOFORM	< 1	< 1
BROMOMETHANE	< 1	< 1
CARBON DISULFIDE	< 1	< 1
CARBON TETRACHLORIDE	< 1	< 1
CHLOROBENZENE	< 1	< 1
CHLOROETHANE	< 1	< 1
CHLOROFORM	< 1	< 1
CHLOROMETHANE	< 1	< 1
CIS-1,2-DICHLOROETHENE	< 0.5	< 0.5
CIS-1,3-DICHLOROPROPENE	< 1	< 1
CYCLOHEXANE	< 1	< 1
DIBROMOCHLOROMETHANE	< 1	< 1
DICHLORODIFLUOROMETHANE	< 1	< 1
ETHYLBENZENE	< 1	< 1
ISOPROPYLBENZENE	< 1	< 1
METHYL ACETATE	< 10	< 10
METHYL TERT-BUTYL ETHER	< 5	< 5
METHYLCYCLOHEXANE	< 1	< 1
METHYLENE CHLORIDE	< 1	< 1
STYRENE	< 1	< 1
TETRACHLOROETHENE	< 1	< 1
TOLUENE	< 1	< 1
TRANS-1,2-DICHLOROETHENE	< 0.5	< 0.5
TRANS-1,3-DICHLOROPROPENE	< 1	< 1
TRICHLOROETHENE	< 1	< 1
TRICHLOROFLUOROMETHANE	< 1	< 1
VINYL CHLORIDE	< 1	< 1
XYLENES (TOTAL)	< 1	< 1

VOC = Volatile organic compound

GW = Ground Water

DUP = Duplicate Sample

CA = Cedarville Aquifer

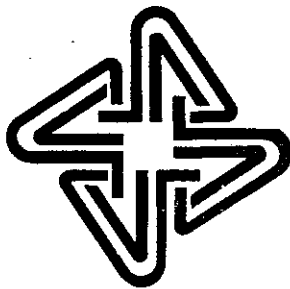
µg/L = micrograms per liter

See Table 5 in the Third Quarter 2006 Progress Report for definitions of data qualifiers.

## **APPENDIX I**

### **GCCHD LETTER AND WELL WATER CHANGE-IN-USE SURVEY QUESTIONNAIRE**





**GCCHD**

**GREENE COUNTY COMBINED HEALTH DISTRICT**

Mark A. McDonnell, RS, MS, Health Commissioner  
Robert P. Dillaplain, MD, Medical Director

December 14, 2006

Reference: Change in Use Survey of Identified Existing Water Wells

Dear Property Owner or Resident:

In April of 2005, the Greene County Combined Health District conducted a survey within a defined area in Yellow Springs to identify water wells. Your response indicated that a water well was present on the property. This follow-up survey is being conducted to document any change in use of the previously identified well on your property. This survey is part of the Vernay Laboratories, Inc. (Vernay) ground water investigation at and near its facility at 875 Dayton Street. This investigation is being conducted in accordance with an agreement with the United States Environmental Protection Agency (U.S. EPA).

The Greene County Combined Health District is working in cooperation with the Payne Firm, Inc., an environmental consultant for Vernay, to help gather updated well use information.

It is important that you respond to the attached questionnaire to document any change in use of the previously identified well on your property.

Please return the completed questionnaire in the enclosed self-addressed stamped envelope.

If you have any questions, please call Kevin Kallini or David Contant at the Payne Firm, Inc. at 1-(800)-229-1443. If you identify any changes in the use of the water well previously identified on your property, you may be contacted by the Payne Firm for additional information.

Thank you for your cooperation in this matter.

Sincerely,

Mark Isaacson  
Program Manager Water, Sewage and Solid Waste  
Environmental Division

**WELL WATER CHANGE IN USE QUESTIONNAIRE**  
Greene County Combined Health District

Date of Survey \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

Residential or Business Property? (Circle which applies)    **Residential**    **Business**

Do you own the property? (Circle which apply)    **Yes**    **No**

If you do not own the property, who does? \_\_\_\_\_

Your Phone (home)\* \_\_\_\_\_ Your Phone (work)\* \_\_\_\_\_

When is the best time to call? \_\_\_\_\_

How long have you occupied the property? \_\_\_\_\_

*If you are not the owner, please provide a phone number where the owner(s) can be reached:*

Owner's Phone (home)\* \_\_\_\_\_ Owner's Phone (work)\* \_\_\_\_\_

A water well was previously identified on your property. Please answer the following questions regarding its use.

1. Is the well in use?    **YES**    **NO**
2. Well Usage? (Circle all that apply)

**Drinking**    **Irrigation**    **Lawn/Garden**    **Vehicle Washing**    **Showering**

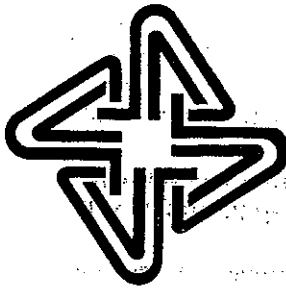
Other: \_\_\_\_\_

---

\*Phone numbers will only be used for the purpose of follow-up as it pertains to this questionnaire, if needed.

## **APPENDIX II**

### **GCCHD NEW PROPERTY OWNER LETTER AND SURVEY**



GCCHD

GREENE COUNTY COMBINED HEALTH DISTRICT

Mark A. McDonnell, RS, MS, Health Commissioner  
Robert P. Dillaplain, MD, Medical Director

December 14, 2006

Reference: Survey to Identify Existing Water Wells and Other Ground Water Collection Structures

Dear Property Owner:

The Greene County Combined Health District conducted a survey in October 2005 within a defined area in Yellow Springs to identify wells or other structures that may collect ground water. Ground water is water that collects underground in spaces between soil and rocks. Your property was documented as not having any water wells or structures that may collect ground water. A review of the Greene County Auditor's website indicated that the ownership of the property may have changed since the October 2005 survey. Please complete the attached survey so that we may document any changes in the property's status associated with the new ownership.

This survey is being conducted as part of the Vernay Laboratories, Inc. (Vernay) ground water investigation at and near its facility at 875 Dayton Street. Vernay is studying contaminated soil and ground water under an agreement with the United States Environmental Protection Agency (U.S. EPA).

It is important that you respond to the attached questionnaire even if you do not have a well or other ground water collection structure.

Please return the completed questionnaire in the self addressed stamped envelope enclosed. If you have any questions, please call Kevin Kallini or David Contant at the Payne Firm, Inc. (environmental consultant for Vernay) at (800) 229-1443. If you identify that a water well or ground water collection structure exists on your property, you may be contacted by the Payne Firm for additional information.

Thank you for your cooperation in this matter.

Sincerely,

Mark Isaacson

Program Manager Water Sewage Solid Waste  
Environmental Division

**WELL WATER AND GROUND WATER STRUCTURE QUESTIONNAIRE**  
Greene County Combined Health District

Name \_\_\_\_\_

Address \_\_\_\_\_

Residential or Business Property? (Circle which applies)    **Residential**    **Business**

Do you own the property? (Circle which apply)    **Yes**    **No**

*If you are not the owner, please provide the following information where the owner(s) can be reached:*

Owner Name (if different from above) \_\_\_\_\_

Owner Address (if different from above) \_\_\_\_\_

Owner's Phone (home)\* \_\_\_\_\_ Owner's Phone (work)\* \_\_\_\_\_

Your Phone (home)\* \_\_\_\_\_ Your Phone (work)\* \_\_\_\_\_

When is the best time to call? \_\_\_\_\_

How long have you occupied the property? \_\_\_\_\_

Do you have any of the following structures on your property? (Circle which apply)

WELL?	Yes	No
CISTERN?**	Yes	No
BASEMENT SUMP?	Yes	No
POND?	Yes	No

Any other system that may collect ground water (if yes, please describe below or on the back of this form)?

---

\*Phone numbers will only be used for the purpose of follow-up as it pertains to this questionnaire, if needed.

\*\*A CISTERN is a large tank for storing water, especially rain water.

**APPENDIX III**

**ANALYTICAL LABORATORY REPORTS**

The Payne Firm, Inc.

Client Sample ID: WW02-690 WRIGHT ST-OH-NP/082506

GC/MS Volatiles

Lot-Sample #....: A6H260175-001 Work Order #....: JC9X61AA Matrix.....: WG  
 Date Sampled....: 08/25/06 11:19 Date Received...: 08/26/06  
 Prep Date.....: 09/02/06 Analysis Date...: 09/02/06  
 Prep Batch #....: 6245042  
 Dilution Factor: 1 Initial Wgt/Vol: 5 mL Final Wgt/Vol...: 5 mL  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone	3.5 J	10	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	0.26 J	1.0	ug/L
Cyclohexane	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
2-Hexanone	0.54 J	10	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methyl acetate	ND	10	ug/L
Methylene chloride	ND	1.0	ug/L
Methylcyclohexane	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L
Styrene	ND	1.0	ug/L

(Continued on next page)

The Payne Firm, Inc.

Client Sample ID: WW02-690 WRIGHT ST-OH-NP/082506

GC/MS Volatiles

Lot-Sample #...: A6H260175-001 Work Order #...: JC9X61AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
<b>Tetrachloroethene</b>	<b>3.2 B</b>	<b>1.0</b>	<b>ug/L</b>
Toluene	ND	1.0	ug/L
1,2,4-Trichloro- benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
<b>Trichloroethene</b>	<b>0.82 J</b>	<b>1.0</b>	<b>ug/L</b>
Trichlorofluoromethane	ND	1.0	ug/L
1,1,2-Trichloro- 1,2,2-trifluoroethane	9.8	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS	
Dibromofluoromethane	100	(73 - 122)	
1,2-Dichloroethane-d4	99	(61 - 128)	
Toluene-d8	94	(76 - 110)	
4-Bromofluorobenzene	88	(74 - 116)	

NOTE (S) :

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.



The Payne Firm, Inc.

Client Sample ID: WW02-690 WRIGHT ST-OH-P/082506

GC/MS Volatiles

Lot-Sample #....: A6H260175-002 Work Order #....: JC90G1AA Matrix.....: WG  
 Date Sampled....: 08/25/06 11:29 Date Received...: 08/26/06  
 Prep Date.....: 09/02/06 Analysis Date...: 09/02/06  
 Prep Batch #....: 6245042  
 Dilution Factor: 1 Initial Wgt/Vol: 5 mL Final Wgt/Vol...: 5 mL  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Cyclohexane	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,2-Dibromo-3-chloro- propane	ND	2.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	0.27 J	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methyl acetate	ND	10	ug/L
Methylene chloride	ND	1.0	ug/L
Methylcyclohexane	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L
Styrene	ND	1.0	ug/L

(Continued on next page)

The Payne Firm, Inc.

Client Sample ID: WW02-690 WRIGHT ST-OH-P/082506

GC/MS Volatiles

Lot-Sample #....: A6H260175-002 Work Order #....: JC90G1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
<b>Tetrachloroethene</b>	<b>9.8 B</b>	<b>1.0</b>	<b>ug/L</b>
Toluene	ND	1.0	ug/L
1,2,4-Trichloro- benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
<b>Trichloroethene</b>	<b>2.1</b>	<b>1.0</b>	<b>ug/L</b>
Trichlorofluoromethane	ND	1.0	ug/L
1,1,2-Trichloro- 1,2,2-trifluoroethane	24	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
1,2-Dichloroethane-d4	99	(61 - 128)
Toluene-d8	92	(76 - 110)
4-Bromofluorobenzene	83	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

The Payne Firm, Inc.

Client Sample ID: WW02-780 DAYTON ST-OS-NP/082506

GC/MS Volatiles

Lot-Sample #....: A6H260178-001 Work Order #....: JC9001AA Matrix.....: WG  
 Date Sampled....: 08/25/06 10:09 Date Received...: 08/26/06  
 Prep Date.....: 09/02/06 Analysis Date...: 09/02/06  
 Prep Batch #....: 6245042  
 Dilution Factor: 1 Initial Wgt/Vol: 5 mL Final Wgt/Vol...: 5 mL  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
Carbon disulfide	0.35 J	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Cyclohexane	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,2-Dibromo-3-chloro- propane	ND	2.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methyl acetate	ND	10	ug/L
Methylene chloride	ND	1.0	ug/L
Methylcyclohexane	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L
Styrene	ND	1.0	ug/L

(Continued on next page)

The Payne Firm, Inc.

Client Sample ID: WW02-780 DAYTON ST-OS-NP/082506

GC/MS Volatiles

Lot-Sample #....: A6H260178-001 Work Order #....: JC9001AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro- benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
1,2-Dichloroethane-d4	97	(61 - 128)
Toluene-d8	94	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)

NOTE(S) :

J Estimated result. Result is less than RL.

The Payne Firm, Inc.

Client Sample ID: WW02-780 DAYTON ST-OS-P/082506

GC/MS Volatiles

Lot-Sample #....: A6H260178-002 Work Order #....: JC9051AA Matrix.....: WG  
 Date Sampled....: 08/25/06 10:19 Date Received...: 08/26/06  
 Prep Date.....: 09/02/06 Analysis Date...: 09/02/06  
 Prep Batch #....: 6245042  
 Dilution Factor: 1 Initial Wgt/Vol: 5 mL Final Wgt/Vol...: 5 mL  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Cyclohexane	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,2-Dibromo-3-chloro- propane	ND	2.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methyl acetate	ND	10	ug/L
Methylene chloride	ND	1.0	ug/L
Methylcyclohexane	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L
Styrene	ND	1.0	ug/L

(Continued on next page)

The Payne Firm, Inc.

Client Sample ID: WW02-780 DAYTON ST-OS-P/082506

GC/MS Volatiles

Lot-Sample #...: A6H260178-002 Work Order #...: JC9051AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro- benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(73 - 122)
1,2-Dichloroethane-d4	96	(61 - 128)
Toluene-d8	93	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)

The Payne Firm, Inc.

Client Sample ID: WW02-850 DAYTON ST-IP-NP/082506

GC/MS Volatiles

Lot-Sample #....: A6H260173-001 Work Order #....: JC9XW1AA Matrix.....: WG  
 Date Sampled....: 08/25/06 11:53 Date Received...: 08/26/06  
 Prep Date.....: 09/02/06 Analysis Date...: 09/02/06  
 Prep Batch #....: 6248151  
 Dilution Factor: 1 Initial Wgt/Vol: 5 mL Final Wgt/Vol...: 5 mL  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	1.0 J,B	10	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Cyclohexane	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,2-Dibromo-3-chloro- propane	ND	2.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methyl acetate	ND	10	ug/L
Methylene chloride	0.25 J,B	1.0	ug/L
Methylcyclohexane	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L
Styrene	ND	1.0	ug/L

(Continued on next page)

The Payne Firm, Inc.

Client Sample ID: WW02-850 DAYTON ST-IP-NP/082506

GC/MS Volatiles

Lot-Sample #....: A6H260173-001 Work Order #....: JC9XW1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro- benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	77	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.



The Payne Firm, Inc.

Client Sample ID: WW02-850 DAYTON ST-IP-P/082506

GC/MS Volatiles

Lot-Sample #....: A6H260173-002 Work Order #....: JC9XX1AA Matrix.....: WG  
 Date Sampled....: 08/25/06 12:03 Date Received...: 08/26/06  
 Prep Date.....: 09/02/06 Analysis Date...: 09/02/06  
 Prep Batch #....: 6248151  
 Dilution Factor: 1 Initial Wgt/Vol: 5 mL Final Wgt/Vol...: 5 mL  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	1.2 J,B	10	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	0.22 J	1.0	ug/L
Cyclohexane	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,2-Dibromo-3-chloro- propane	ND	2.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methyl acetate	ND	10	ug/L
Methylene chloride	ND	1.0	ug/L
Methylcyclohexane	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L
Styrene	ND	1.0	ug/L

(Continued on next page)

The Payne Firm, Inc.

Client Sample ID: WW02-850 DAYTON ST-IP-P/082506

GC/MS Volatiles

Lot-Sample #...: A6H260173-002 Work Order #...: JC9XX1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro- benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	78	(61 - 128)
Toluene-d8	93	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

The Payne Firm, Inc.

Client Sample ID: WW02-545 DAYTON ST-WW-NP/082506

GC/MS Volatiles

Lot-Sample #....: A6H260172-001 Work Order #....: JC9XV1AA Matrix.....: WATER  
 Date Sampled....: 08/25/06 10:47 Date Received...: 08/26/06  
 Prep Date.....: 09/02/06 Analysis Date...: 09/02/06  
 Prep Batch #....: 6248151  
 Dilution Factor: 1 Initial Wgt/Vol: 5 mL Final Wgt/Vol...: 5 mL  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	1.1 J,B	10	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Cyclohexane	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,2-Dibromo-3-chloro- propane	ND	2.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	0.28 J	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methyl acetate	ND	10	ug/L
Methylene chloride	ND	1.0	ug/L
Methylcyclohexane	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L
Styrene	ND	1.0	ug/L

(Continued on next page)

The Payne Firm, Inc.

Client Sample ID: WW02-545 DAYTON ST-WW-NP/082506

GC/MS Volatiles

Lot-Sample #...: A6H260172-001 Work Order #...: JC9XV1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro- benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	1.1	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	1.1	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
1,2-Dichloroethane-d4	76	(61 - 128)
Toluene-d8	94	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)

NOTE(S) :

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

The Payne Firm, Inc.

Client Sample ID: WW02-545 DAYTON ST-WW-P/082506

GC/MS Volatiles

Lot-Sample #....: A6H260172-002 Work Order #....: JC9X41AA Matrix.....: WATER  
 Date Sampled....: 08/25/06 10:57 Date Received...: 08/26/06  
 Prep Date.....: 09/02/06 Analysis Date...: 09/02/06  
 Prep Batch #....: 6248151  
 Dilution Factor: 1 Initial Wgt/Vol: 5 mL Final Wgt/Vol...: 5 mL  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	1.0 J,B	10	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Cyclohexane	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,2-Dibromo-3-chloro- propane	ND	2.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	0.25 J	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methyl acetate	ND	10	ug/L
Methylene chloride	0.23 J,B	1.0	ug/L
Methylcyclohexane	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L
Styrene	ND	1.0	ug/L

(Continued on next page)

The Payne Firm, Inc.

Client Sample ID: WW02-545 DAYTON ST-WW-P/082506

GC/MS Volatiles

Lot-Sample #....: A6H260172-002 Work Order #....: JC9X41AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro- benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	1.1	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	1.0	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
1,2-Dichloroethane-d4	75	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	85	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

The Payne Firm, Inc.

Client Sample ID: WW02-860 DAYTON ST SOUTH-WW-NP/082506

GC/MS Volatiles

Lot-Sample #....: A6H260180-001 Work Order #....: JC9091AA Matrix.....: WG  
 Date Sampled....: 08/25/06 09:45 Date Received...: 08/26/06  
 Prep Date.....: 09/02/06 Analysis Date...: 09/02/06  
 Prep Batch #....: 6245042  
 Dilution Factor: 1 Initial Wgt/Vol: 5 mL Final Wgt/Vol...: 5 mL  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Cyclohexane	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,2-Dibromo-3-chloro- propane	ND	2.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methyl acetate	ND	10	ug/L
Methylene chloride	ND	1.0	ug/L
Methylcyclohexane	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L
Styrene	ND	1.0	ug/L

(Continued on next page)

The Payne Firm, Inc.

Client Sample ID: WW02-860 DAYTON ST SOUTH-WW-NP/082506

GC/MS Volatiles

Lot-Sample #...: A6H260180-001 Work Order #...: JC9091AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro- benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	97	(61 - 128)
Toluene-d8	92	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)



The Payne Firm, Inc.

Client Sample ID: WW02-860 DAYTON ST SOUTH-WW-P/082506

GC/MS Volatiles

Lot-Sample #....: A6H260180-002 Work Order #....: JC91F1AA Matrix.....: WG  
 Date Sampled....: 08/25/06 09:55 Date Received...: 08/26/06  
 Prep Date.....: 09/02/06 Analysis Date...: 09/02/06  
 Prep Batch #....: 6245042  
 Dilution Factor: 1 Initial Wgt/Vol: 5 mL Final Wgt/Vol...: 5 mL  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Cyclohexane	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methyl acetate	ND	10	ug/L
Methylene chloride	ND	1.0	ug/L
Methylcyclohexane	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L
Styrene	ND	1.0	ug/L

(Continued on next page)

The Payne Firm, Inc.

Client Sample ID: WW02-860 DAYTON ST SOUTH-WW-P/082506

GC/MS Volatiles

Lot-Sample #....: A6H260180-002 Work Order #....: JC91F1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro- benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
1,2-Dichloroethane-d4	97	(61 - 128)
Toluene-d8	94	(76 - 110)
4-Bromofluorobenzene	82	(74 - 116)

**APPENDIX IV**

**WATER WELL SAMPLING  
STATEMENT OF WORK**

**STATEMENT OF WORK #25**  
**Annual Water Well Sampling**

**VERNAY LABORATORIES, INC.**  
**PLANT 2/3 FACILITY**  
**YELLOW SPRINGS, OHIO**

Project No. 0292.11.40

EPA ID No. OHD004243002

US EPA Docket No. RCRA-05-2002-0016  
(Administrative Order on Consent)

August 9, 2006

Prepared For



VERNAY LABORATORIES, INC.  
875 Dayton Street  
Yellow Springs, Ohio 45387

Prepared By



**THE PAYNE FIRM, INC.**  
11231 Cornell Park Drive  
Cincinnati, Ohio 45242  
1-800-229-1443 Fax: 513-489-2533

**STATEMENT OF WORK #25  
Annual Water Well Sampling**

**VERNAY LABORATORIES, INC.  
PLANT 2/3 FACILITY  
YELLOW SPRINGS, OHIO**

Project No. 0292.11.40

August 9, 2006

---

Curt S. Kugler  
Field Coordinator/QA Officer

---

Kevin D. Kallini, P.G.  
Project Manager

Prepared For



VERNAY LABORATORIES, INC.  
875 Dayton Street  
Yellow Springs, Ohio 45387

Prepared By



**THE PAYNE FIRM, INC.**  
11231 Cornell Park Drive  
Cincinnati, Ohio 45242  
1-800-229-1443 Fax: 513-489-2533



## STATEMENT OF WORK #25

The Payne Firm, Inc.  
Environmental Consultants

11231 Cornell Park Drive  
Cincinnati, Ohio 45242  
513-489-2255 Fax: 513-489-2533

DATE: August 9, 2006  
SUBJECT: Annual Water Well Sampling  
PROJECT NO.: 292.11.40

---

### 1. OBJECTIVES

This Statement of Work (SOW) identifies the 25<sup>th</sup> task that will be undertaken as part of a September 27, 2002 RCRA 106(a)(1) Corrective Action Order (Order) agreed between Vernay Laboratories, Inc. located at 875 Dayton Street, Yellow Creek (Facility), Yellow Creek, Ohio (Facility) and the United States Environmental Protection Agency (US EPA).

#### *Annual Monitoring*

To support the verification of the CA725 determination and the RFI risk assessment conclusions, Vernay is following up annually with the property owners having water wells identified in the water well survey area. In addition, during the corrective measures study, Vernay is annually resampling those water wells that are identified as currently being used for potable or non-potable purposes within the defined survey area downgradient from the Facility. This SOW was prepared following the project Quality Assurance Project Plan (QAPP), Payne Firm SOPs, and the regulations under the Ohio Administrative Code (OAC) 3701-28-04.

### 2. WATER WELLS TO BE SAMPLED

The five private water wells verified as being used in 2006 include:

- 860 Dayton Street (non-potable)
- 850 Dayton Street (potable)
- 780 Dayton Street (potable)
- 545 Dayton Street (non-potable)
- 690 Wright Street (non-potable)

### 3. SAMPLING METHODOLOGY

The sampling methodology will consist of the following primary elements:

- Prior to sampling a water well, appropriate measurements such as the static water level and total well

**DRAFT**

depth will be made if the well head is accessible at the surface. A water level meter dedicated for potable use wells will be used to measure the water level and total depth of the well.

- The well pumping system will be used to collect the water samples. The water sample shall be collected from the sampling point (i.e. spigot, faucet, etc.) closest to the wellhead. Two samples shall be collected from this sampling point: 1) one non-purged (NP) sample shall be collected immediately when the spigot, faucet, pump, etc. is turned on and 2) a second purged (P) sample shall be collected after 10 minutes of purging the well, or until sufficient volume has been purged to remove all water standing in the distribution system (including pressure/holding tank, if present).
- If the well does not have an operable pumping system and the well head is accessible, samples from the well will be collected with a submersible pump. New tubing will be used at each well that is sampled with the submersible pump. Two samples will be collected from the well as noted above (1 & 2).
- If the well does not have an operable pumping system and the well head is not accessible, a water sample will not be collected from the well.
- Water samples will be transferred to laboratory supplied containers for analysis of VOCs. The laboratory containers will have appropriate sample preservation in the container.
- The water samples will be appropriately packaged and shipped to the project laboratory, Severn Trent Laboratories, North Canton, Ohio.
- Water sampling information will be recorded in the project field logbook.

#### 4. SAMPLING CONTAINERS, IDENTIFICATION, ANALYSIS AND PRESERVATION

The ground water samples will be labeled as **WW02-address-sample location-NP or P/[date]**, where:

**WW02-860 Dayton St-WW-P/[date]**, WW=water well;

**WW02-860 Dayton St-WW-P/[date]**, 02=Off-Facility (01=On-Facility);

**WW02-860 Dayton St-WW-P/[date]**, 860 Dayton St=property address;

**WW02-860 Dayton St-WW-P/[date]**, WW=water well or sample location (i.e., OS=outside spigot, OH=outside hose, KF=kitchen faucet, SPT=spigot post tank, IP=inside plumbing.);

**WW02-860 Dayton St-WW-P/[date]**, P=Purged (NP=no purge);

**WW02-860 Dayton St-WW-P/[date]**, [date]=date of sample;

Water samples will be collected into three 40-milliliter (mL) vials, and will be analyzed for VOCs by U.S. EPA Method SW-846 8260 (TCL/TAL list). Each sample container will be provided by the analytical laboratory, and will be preserved with hydrochloric acid. Each sample will be cooled to 4° Celsius after collection.

#### 5. SAMPLE HANDLING AND SHIPMENT

All samples will be labeled immediately after collection. The information on the sample label will include the project name, sample identification, sample date and time, and the analyses requested. Samples will be packaged and shipped to the project laboratory.

#### 6. FIELD DOCUMENTATION

##### 6.1 Field Logbook

A field logbook and a field ground water sampling form will be used to record facts and circumstances of the sampling event. Information recorded in the logbook/field form will include the following:

- Name of sampling personnel;

**DRAFT**

- Sample location;
- Time and date;
- Weather conditions;
- Sample type (i.e. grab, composite, etc.); and
- Pertinent sample data and observations.

## **6.2 Chain-of-Custody**

Chain-of-custody documentation will accompany each sample shipment. The chain-of-custody record will record the project name, type of sample collected, date of sample collection, name(s) of the person(s) responsible for sample collection, date of custody transfer, signature of the person relinquishing and accepting sample custody, and other pertinent information. A separate chain-of-custody will be used for each property where a water sample is collected.

## **7. EQUIPMENT DECONTAMINATION**

The water level meter will be decontaminated prior to use at each water well location. Decontamination procedures include:

- Scrub the exterior of the water level meter probe and measuring line in a non-phosphate detergent solution (Bucket #1);
- Rinse thoroughly with distilled water (Bucket #2);
- Allow to air dry.

If a submersible pump is used to collect a water sample, it will be decontaminated prior to use at each well location. Decontamination procedures for the pump include:

- Disconnect internal pump parts and pump fittings and discard Teflon bladder.
- Scrub the exterior of the pump and associated internal pump fittings in a non-phosphate detergent solution; allow the pump to operate with the non-phosphate detergent solution (Bucket #1);
- Rinse with distilled water and allow the pump to operate with distilled water (Bucket #2);
- Allow to air dry.

Dedicated tubing and Teflon bladders will be used at each well location if a submersible pump is used to collect a sample; therefore, it will not be necessary to decontaminate pump tubing and Teflon bladders between well sampling locations.

All decontamination solutions will be contained and properly disposed by Vernay.

## **8. QUALITY ASSURANCE**

Sample collection, quality assurance/quality control procedures, and employment of data quality objectives will be conducted by the Payne Firm in accordance with the Payne Firm's SOPs and project-related QAPP. During the sampling event, the following QA/QC samples will be collected at a minimum:

- One trip blank sample will be shipped with each sample cooler containing samples for VOC analysis. The trip blank samples will be identified as: TB01/[date]. The trip blank sample will be analyzed for VOCs.
- One duplicate sample will be collected. The duplicate sample will be collected from the well located at 690 Wright Street after the initial purge. The duplicate sample will be identified as: DUP01/[date] and will be

**DRAFT**



analyzed for VOCs.

- One matrix spike/matrix spike duplicate (MS/MSD) sample will be collected during the sampling event. The MS/MSD sample will be collected from the well located at 690 Wright Street after the initial purge. The lab will be provided triple the volume for the MS/MSD.
- One field blank sample will be collected during the sampling event by filling laboratory grade water directly into the appropriate sample containers. The field blank sample will be labeled as FB01/[date], and will be analyzed for VOCs.
- An equipment rinsate sample will be collected after each pump decontamination.

## **9. SAMPLING TEAM**

Project Manager-Kevin D. Kallini, P.G.

Field Coordinator/Quality Assurance Officer-Curt S. Kugler

Field Samplers-Payne Firm field personnel

**DRAFT**

# TABLES



Vernay Laboratories, Inc.  
Plant 2/3 Facility  
Yellow Springs, Ohio  
Project No. 0292.11.40

Table 1: Water Well Sampling Event Information (SOW #25)

On-Property Monitoring Wells								
Property Address (sample closest to wellhead)	Sample ID on Chain-of-Custody	Notes to Sample ID	Analytical Method	Sample Container	Preservative	QA/QC Samples	QA/QC Sample ID	QA/QC Sample Analysis
860 Dayton Street at wellhead (next to house)	WW02-860 Dayton St South -WW- NP/DATE	water well / non-purge (initial sample)	VOC-8260	3-40 ml. vials	ice, HCl (vials)	NA	NA	NA
	WW02-860 Dayton St South -WW- P/DATE	water well / purged	VOC-8260	3-40 ml. vials	ice, HCl (vials)	NA	NA	NA
850 Dayton Street (inside plumbing)	WW02-850 Dayton St -IP- NP/DATE	inside plumbing / non-purge (initial sample)	VOC-8260	3-40 ml. vials	ice, HCl (vials)	NA	NA	NA
	WW02-850 Dayton St -IP- P/DATE	inside plumbing / purged	VOC-8260	3-40 ml. vials	ice, HCl (vials)	NA	NA	NA
780 Dayton Street (outside spigot)	WW02-780 Dayton St -OS- NP/DATE	outside spigot / non-purge (initial sample)	VOC-8260	3-40 ml. vials	ice, HCl (vials)	NA	NA	NA
	WW02-780 Dayton St -OS- P/DATE	outside spigot / purged	VOC-8260	3-40 ml. vials	ice, HCl (vials)	NA	NA	NA
545 Dayton Street (at wellhead)	WW02-545 Dayton St -WW- NP/DATE	water well / non-purge (initial sample)	VOC-8260	3-40 ml. vials	ice, HCl (vials)	NA	NA	NA
	WW02-545 Dayton St -WW- P/DATE	water well / purged	VOC-8260	3-40 ml. vials	ice, HCl (vials)	NA	NA	NA
690 Wright Street (outside hose)	WW02-690 Wright St -OH- NP/DATE	outside hose / non-purge (initial sample)	VOC-8260	3-40 ml. vials	ice, HCl (vials)	NA	NA	NA
	WW02-690 Wright St -OH- P/DATE	outside hose / purged	VOC-8260	12-40 ml. vials	ice, HCl (vials)	Field Duplicate, MS/MSD	DUP01/DATE, WW02-690 Wright St -OH- P/DATE	NA

\* = indicate "MS/MSD" under "Special Instructions/Conditions of Receipt" on Chain of Custody - not on sample label or separate line on chain

Other QA/QC Samples				
Sample Type	Sample ID		Analysis	Comments
Trió Blank	TB01/[date], TB02/[date], etc.		VOCs-8260	Sent with every shipment of VOC samples
Field Blank	FB01/[date]		VOCs-8260	Total of 1 Field Blank Sample
Rinsate	RIN01/[date]		VOCs-8260	Total of 1 Rinsate Sample



**The Payne Firm, Inc.**

**Vernay Laboratories, Inc.**

Plant 2/3 Facility

Yellow Springs, Ohio

Project No. 0292.11.40

**Table 2: Data Objective Summary Form (SOW #25: Water Well Sampling Event)**

<b>Activity:</b>	Water Well Sampling Event
<b>Sample Media:</b>	Ground Water
<b>Sample Type:</b>	Grab (ground water)
<b>Number of Samples</b>	5 ground water
<b>QA/QC Samples:</b>	1 Field Duplicate
	1 MS/MSD
	1 Trip Blank with every cooler for VOC analysis
	1 Field Blank
	1 Equipment Rinsate
<b>Sampling Procedures:</b>	See applicable SOPs attached to QAPP
<b>Analytical Methods:</b>	SW-846 8260
<b>Appropriate Analytical Support Levels:</b>	ASL-IV

# Vernay Laboratories, Inc.

Plant 2/3 Facility  
Yellow Springs, Ohio  
Project No. 0292.11.09



# The Payne Firm, Inc.

Environmental Consultants

TABLE 7: Sample Containers, Preservatives, and Holding Times

Analytical Parameters	Matrix	Minimum Sample Size <sup>1</sup>	RCRA (SW846) <sup>2,3</sup>		
			Analytical Method	Sample Preparation Method	Requirements
VOCs	Water	40 mL	8260B	SW-846 5030B	40 mL glass, VOA vial (in triplicate) with Teflon <sup>®</sup> -lined septa without headspace, Cool, 4° C, Add sodium thiosulfate if residual chlorine, 1:1 HCl to pH $\pm$ 2, 14 days with pH $\pm$ 2
	Solid <sup>4</sup>	5 g or 25 g	8260B	SW-846 5035	4 or 8 oz glass with Teflon <sup>®</sup> -lined lid, Cool 4° C, 14 days. Field preserved with sodium bisulfate solution for low level analysis, or with methanol for medium level analysis. Soil sample can also be taken by using three EnCore <sup>™</sup> samplers and preserved in the laboratory within 48 hours of sampling. Maximum holding time for EnCore Sampler is 48 hours (before the sample is added to methanol or sodium bisulfate). Cool, 4° C <sup>5</sup>
	Air	6 L	TO-14	TO-14	Summa canister, no preservative, holding time is 30 days after sample collection.
SVOCs	Solid	50 g	SW-846 8270C	SW-846 3550B	4 oz. glass wide mouth with Teflon-lined lid, cool, 4° C, Extraction within 14 days of sample collection, and analysis within 40 days of extraction.
	Water	1000 ml	SW-846 8270C	SW-846 3520C	2X1 liter amber glass with Teflon-lined lid, cool to 4° C, extraction within 7 days of sample collection, and analysis within 40 days of extraction.
Metals	Solid	50 g	SW846-6010B	SW846-3050B	4 oz. glass jar at 4° C, holding time 6 months after sample collection.
	Water	500 ml	SW846-6010B	SW846-3005A	500 ml, plastic bottle preserved with HNO <sub>3</sub> to pH < 2, holding time 6 months after sample collection.

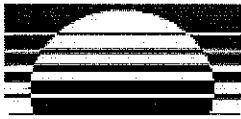
1 = Minimum sample size indicates sample amount needed for a single analysis. Matrix spikes or duplicates will require an additional sample amount of at least this amount for each additional QC sample aliquot required.

2 = Holding times are calculated from the date of collection.

3 = Resource Conservation and Recovery Act, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, September 1986. Contains Final Update I (July 1992), Final Update IIA (August 1993), Final Update II (September 1994), Final Update IIB (January 1995), and Final Update III (December 1996).

4 = Solid matrix type includes soil, sediment, sludge or other solids not classified as waste.

5 = Depending on regulatory programs, EnCore<sup>™</sup> samplers may be preserved for up to 14 days from sampling by freezing at -5 to -12° C until analysis. Alternatively the EnCore<sup>™</sup> sample may be transferred to a 40-ml VOA vial and preserved by freezing at -5 to -12° C until analysis. Some regulatory agencies may require 4 or 8 oz glass with Teflon<sup>®</sup>-lined lid, Cool 4° C, 14 days. This technique is not recommended, but will be supported where required. (Preservation and holding times are subject to client specifications.)



## The Payne Firm, Inc.

### Vernay Laboratories, Inc.

Plant 2/3 Facility

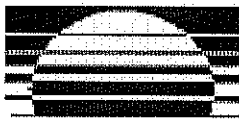
Yellow Springs, Ohio

Project No. 0292.11.09

**TABLE 8: List of Filed Standard Operating Procedures (SOPs)**

Field Procedure	The Payne Firm SOP Number <sup>1</sup>
Field Log Books	1-1
Labeling and Custody	1-3
Packaging and Shipping	1-4
Hazard Recognition	1-5
Restoration of Work Site	1-7
Land or Elevation Survey	1-8
Water Level Measurements	2-5
Turbidity Measurements	2-7
Measurement of Specific Conductance and pH	2-9
Measurement of Temperature	2-10
Collection of an Air Sample	2-11
Use of Toxic Vapor Analyzers	2-14
Decontamination of Drilling Equipment	3-1
Observation of Hollow Stem Auger Drilling Activities	3-2
Borehole Logging	3-5
Borehole Abandonment	3-6
Observation of Rotasonic Drilling Activities	3-7
Installation of Monitoring Wells	4-2
Well Abandonment	4-4
Decontamination of Soil Sampling Equipment	5-1
Soil Sampling	5-2
Soil Headspace Organic (HSO) Field Screening	5-3
Decontamination of Water Sampling Equipment	6-1
Well Development	6-2
Well Purging	6-3
Ground Water Sampling	6-4
Field Filtration of Ground Water Samples	6-6
Project Management	8-1

<sup>1</sup> SOPs are located in Appendix II of the site-specific Quality Assurance Project Plan



**The Payne Firm, Inc.**

**Vernay Laboratories, Inc.**

Plant 2/3 Facility

Yellow Springs, Ohio

Project No. 0292.11.09

**TABLE 10: Summary of Analytical Methods**

Parameter Group	Water	Solid	Air	Sample Preparation Method	
				Water	Solid
<b>Volatile Organic Compounds</b>	SW-846 8260B	SW-846 8260B	TO-14	SW-846 5030B	SW-846 5035
<b>Semi-Volatile Organic Compounds</b>	SW-846 8270C	SW-846 8270C	NA	SW-846 3520C	SW-846 3550B
<b>Metals</b>	SW-846 6010B	SW-846 6010B	NA	SW-846 3005C	SW-846 3050B
<b>Geotechnical</b>					
Grain Size	NA	ASTM D422	NA	NA	NA
Unit Weight	NA	ACOE	NA	NA	NA
Moisture Content	NA	ASTM D2216	NA	NA	NA
Specific Gravity	NA	ASTM D854	NA	NA	NA
Atterberg Limits	NA	ASTM D4318	NA	NA	NA
Permeability	NA	ASTM D5084	NA	NA	NA
<b>Total Organic Carbon</b>	NA	SW-846 9060	NA	NA	NA

NA = Not Applicable

SW-846 = "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA SW-846, 3rd Edition

TO-14 = "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air," EPA-600/4-79-041, April 1984.

ASTM = American Society for Testing Materials

ACOC = "Laboratory Soil Testing," Army Corps of Engineers, EM 1110-2-1906, November 30, 1970.

# **FIGURES**

