

LEGEND

- Update III Soil Sample
- Update II Soil Sample
- Storm Sewer
- Storm Sewer Manhole Cover
- Storm Sewer Catch Basin
- Sanitary Sewer
- Sanitary Sewer Manhole Cover
- Sanitary Sewer Sedimentation Structure
- Vernay Facility Boundary

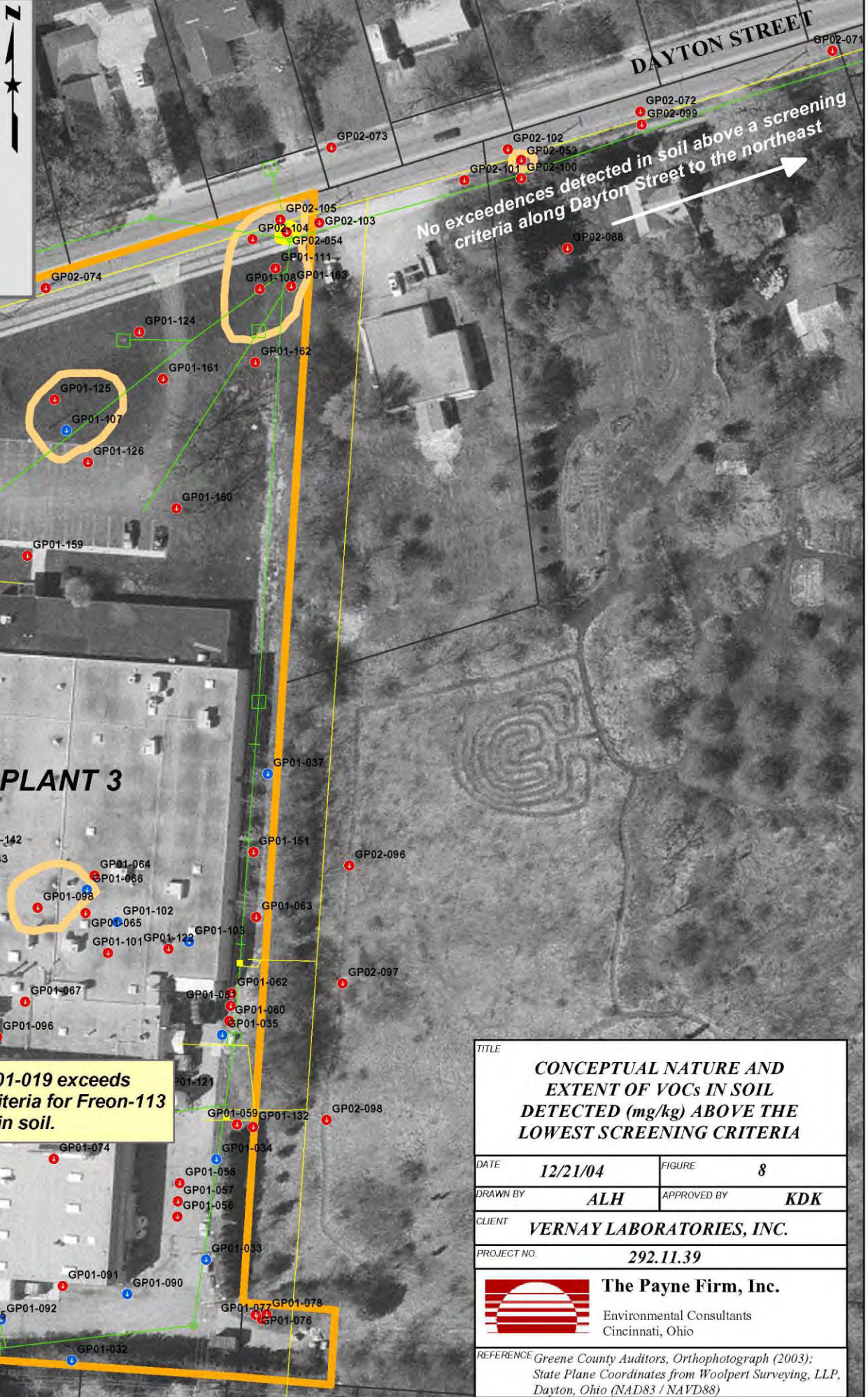
- Conceptual VOC Contours
- PCE in Soil > lowest screening criteria
 - TCE in Soil > lowest screening criteria
 - 1,2-DCP in Soil > lowest screening criteria
 - cis-1,2-DCE in Soil > lowest screening criteria
 - 1,2-DCE(total) in Soil > lowest screening criteria
 - VC in Soil > lowest screening criteria

The following VOCs detected in soil exceed the lowest screening criteria evaluated during the Phase II RFI:

Sampling Media Exceeding Screening Criteria	Chemical Group	Chemical	Industrial Criteria (TR=1E-5 & HQ=1) (mg/kg)	Industrial Soil Volatilization to Indoor Air Criteria (TR=1E-5 & HQ=1) (mg/kg)	Migration to GW (based on Drinking Water) (TR=1E-5) Criteria (mg/kg)	Residential Criteria (TR=1E-5 & HQ=1) (mg/kg)
On-Facility Soil	VOC (Update III)	Vinyl Chloride (VC)		2.5E-02	8.0E-01	
	VOC (Update III)	Trichloroethene (TCE)		1.5E+00	2.0E+00	
	VOC (Update III)	Tetrachloroethene (PCE)	3.40E+01	4.53E-01	2.00E+00	
	VOC (Update III)	Methylene Chloride (MC)		2.6E+00	2.00E+00	
	VOC (Update III)	cis-1,2-Dichloroethene (cis-1,2-DCE)		1.9E+00		
	VOC (Update III)	Carbon Tetrachloride (CT)		6.44E-02		
Off-Facility Soil	VOC (Update III)	1,2-Dichloroethane (1,2-DCE)	7.40E+00	3.84E-01	2.00E+00	
	VOC (Update III)	1,2-Dichloroethene (total) (1,2-DCE total)		1.14E+00		
	VOC (Update III)	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)		5.35E+02		
	VOC (Update III)	Tetrachloroethene (PCE)	3.40E+01		2.00E+00	1.50E+01

mg/kg = milligram per kilogram
Blank cells indicate the screening criteria was not exceeded or not applicable

The screening criteria are discussed in the RFI Phase II report, Sections 3.1 to 3.7. A sample by sample comparison of the results to the screening criteria is provided in Appendix VII to the RFI Phase II report. A discussion on the use of the screening criteria for evaluating RFI data quantitatively is provided in the RFI Phase II report, Section 3.7. The potential for human exposure to constituents exceeding a screening criteria is discussed in Section 5.3, and the significance of any potential exposures is discussed in Section 5.5 of the Baseline Human Health Risk Assessment in the RFI Phase II report.




TITLE
CONCEPTUAL NATURE AND EXTENT OF VOCs IN SOIL DETECTED (mg/kg) ABOVE THE LOWEST SCREENING CRITERIA

DATE 12/21/04 FIGURE 8

DRAWN BY ALH APPROVED BY KDK

CLIENT VERNAY LABORATORIES, INC.

PROJECT NO. 292.11.39

 **The Payne Firm, Inc.**
Environmental Consultants
Cincinnati, Ohio

REFERENCE Greene County Auditors, Orthophotograph (2003);
State Plane Coordinates from Woolpert Surveying, LLP,
Dayton, Ohio (NAD83 / NAVD88)

LEGEND

- SVOC Soil Sample
- Storm Sewer
- Storm Sewer Manhole Cover
- Storm Sewer Catch Basin
- Sanitary Sewer
- Sanitary Sewer Manhole Cover
- Sanitary Sewer Sedimentation Structure
- Vernay Facility Boundary

The following VOCs detected in soil exceed the lowest screening criteria evaluated during the Phase II RFI:

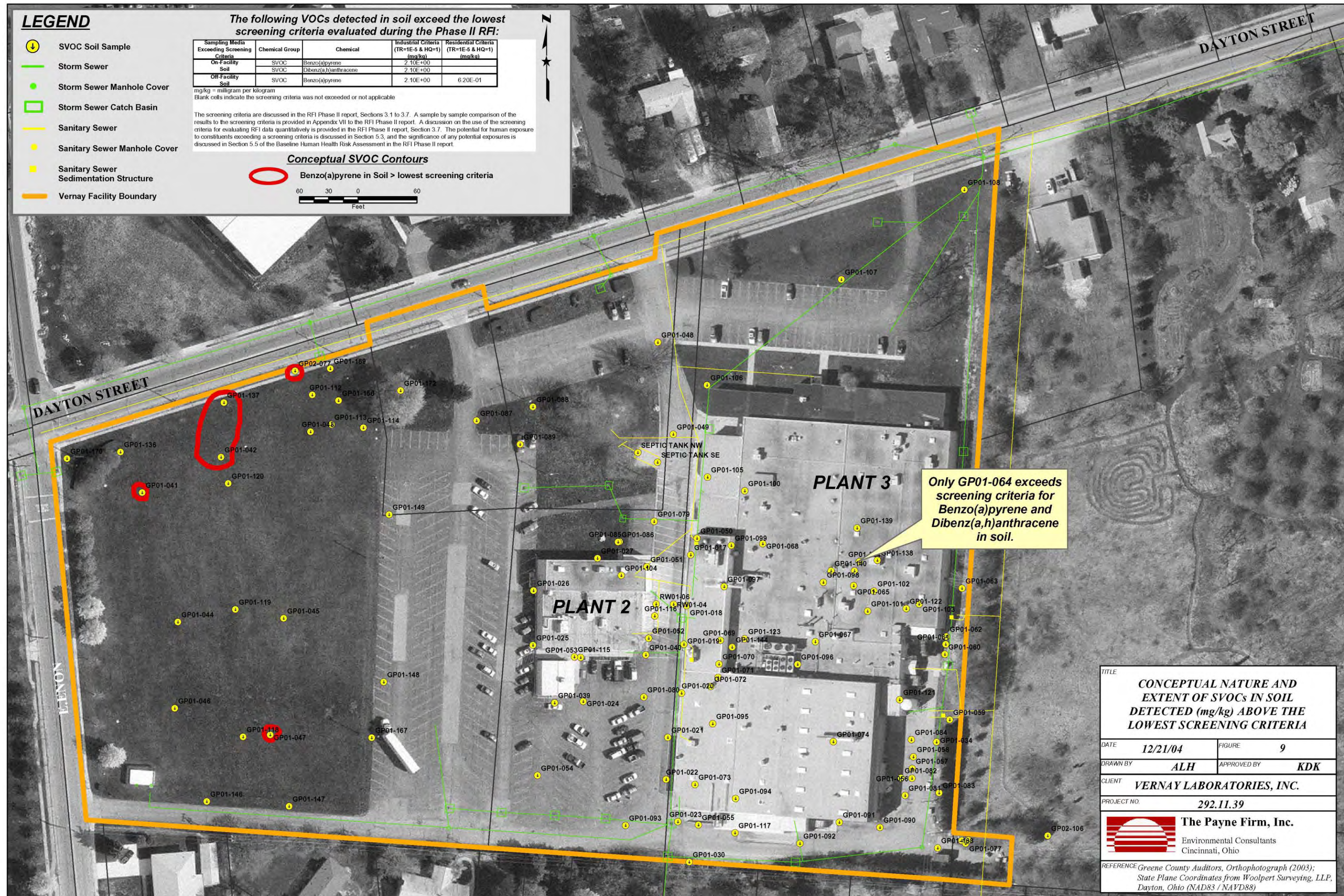
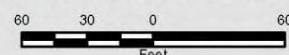
Sampling Media	Chemical Group	Chemical	Industrial Criteria (TR=1E-5 & HQ=1) (mg/kg)	Residential Criteria (TR=1E-5 & HQ=1) (mg/kg)
On-Facility Soil	SVOC	Benzo(a)pyrene	2.10E+00	
Off-Facility Soil	SVOC	Dibenz(a,h)anthracene	2.10E+00	
Off-Facility Soil	SVOC	Benzo(a)pyrene	2.10E+00	6.20E-01

mg/kg = milligram per kilogram
Blank cells indicate the screening criteria was not exceeded or not applicable

The screening criteria are discussed in the RFI Phase II report, Sections 3.1 to 3.7. A sample by sample comparison of the results to the screening criteria is provided in Appendix VII to the RFI Phase II report. A discussion on the use of the screening criteria for evaluating RFI data quantitatively is provided in the RFI Phase II report, Section 3.7. The potential for human exposure to constituents exceeding a screening criteria is discussed in Section 5.3, and the significance of any potential exposures is discussed in Section 5.5 of the Baseline Human Health Risk Assessment in the RFI Phase II report.

Conceptual SVOC Contours

Benzo(a)pyrene in Soil > lowest screening criteria




TITLE
**CONCEPTUAL NATURE AND
EXTENT OF SVOCs IN SOIL
DETECTED (mg/kg) ABOVE THE
LOWEST SCREENING CRITERIA**

DATE **12/21/04** FIGURE **9**

DRAWN BY **ALH** APPROVED BY **KDK**

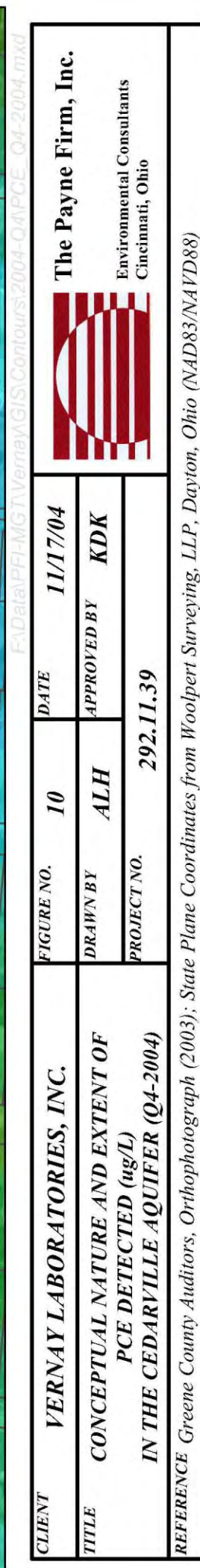
CLIENT **VERNAY LABORATORIES, INC.**

PROJECT NO. **292.11.39**

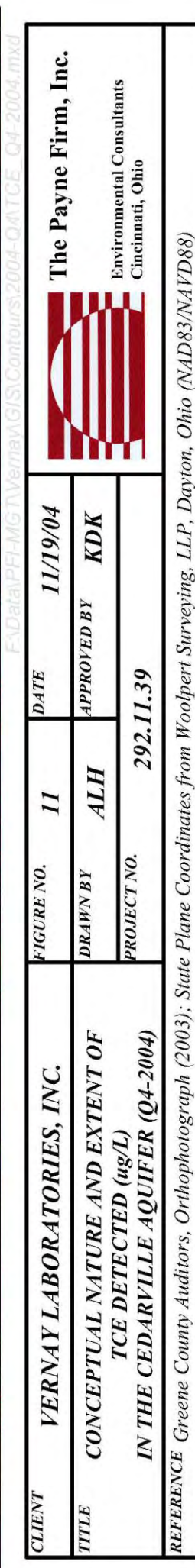
 **The Payne Firm, Inc.**
Environmental Consultants
Cincinnati, Ohio

REFERENCE *Greene County Auditors, Orthophotograph (2003);
State Plane Coordinates from Woolpert Surveying, LLP,
Dayton, Ohio (NAD83 / NAVD88)*

PCE is a Contaminant of Interest above the maximum contaminant level for PCE in drinking water of 5 ug/L.



TCE is a Contaminant of Interest above the maximum contaminant level for TCE in drinking water of 5 ug/L.



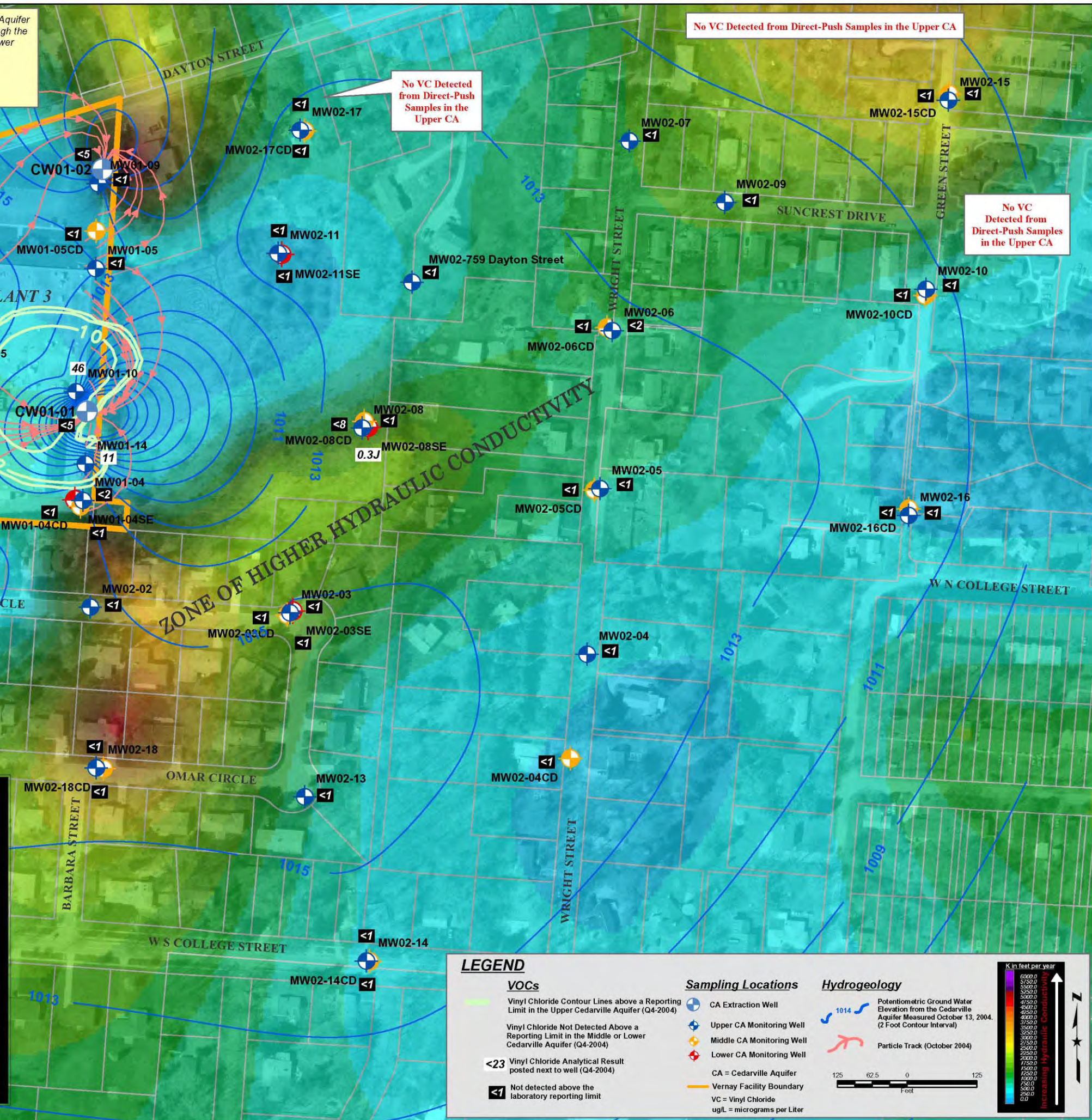
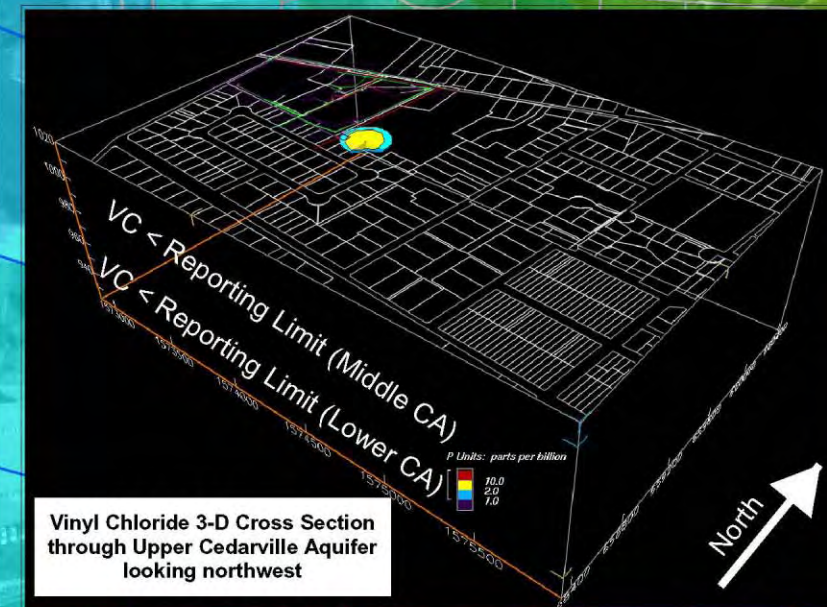
Vinyl Chloride is not a Contaminant of Interest off the Facility above the maximum contaminant level for Vinyl Chloride in drinking water of 2 ug/L.

No VC Detected from Direct-Push Samples in the Upper CA

**No VC Detected
from Direct-Push
Samples in the
Upper CA**

No VC Detected from Direct-Push Samples in the Upper CA

**No VC
Detected from
Direct-Push Samples
in the Upper CA**



LEGEND

VOCs





Vinyl Chloride Contour Lines above a Reporting Limit in the Upper Cedarville Aquifer (Q4-2004)

Vinyl Chloride Not Detected Above a Reporting Limit in the Middle or Lower Cedarville Aquifer (Q4-2004)

<23 Vinyl Chloride Analytical Results
posted next to well (Q4-2004)

<1 Not detected above the laboratory reporting limit

Sampling Locations

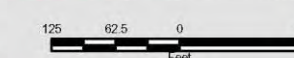
-  CA Extraction Well
-  Upper CA Monitoring Well
-  Middle CA Monitoring Well
-  Lower CA Monitoring Well

CA = Cedarville Aquifer
 Vernay Facility Boundary
 VC = Vinyl Chloride
 ug/L = micrograms per Liter

Hydrogeology

1014 Potentiometric Ground Water
Elevation from the Cedarville
Aquifer Measured October 13, 2004.
(2 Foot Contour Interval)

Particle Track (October 2004)



The Payne Firm, Inc.



**Environmental Consultants
Cincinnati, Ohio**

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2

VERNAY LABORATORIES, INC.

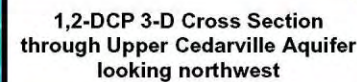
**CONCEPTUAL NATURE AND EXTENT OF
VINYL CHLORIDE DETECTED (ug/L)
IN THE CEDARVILLE AQUIFER (Q4-2004)**

292.11.39


KDK**KDK**

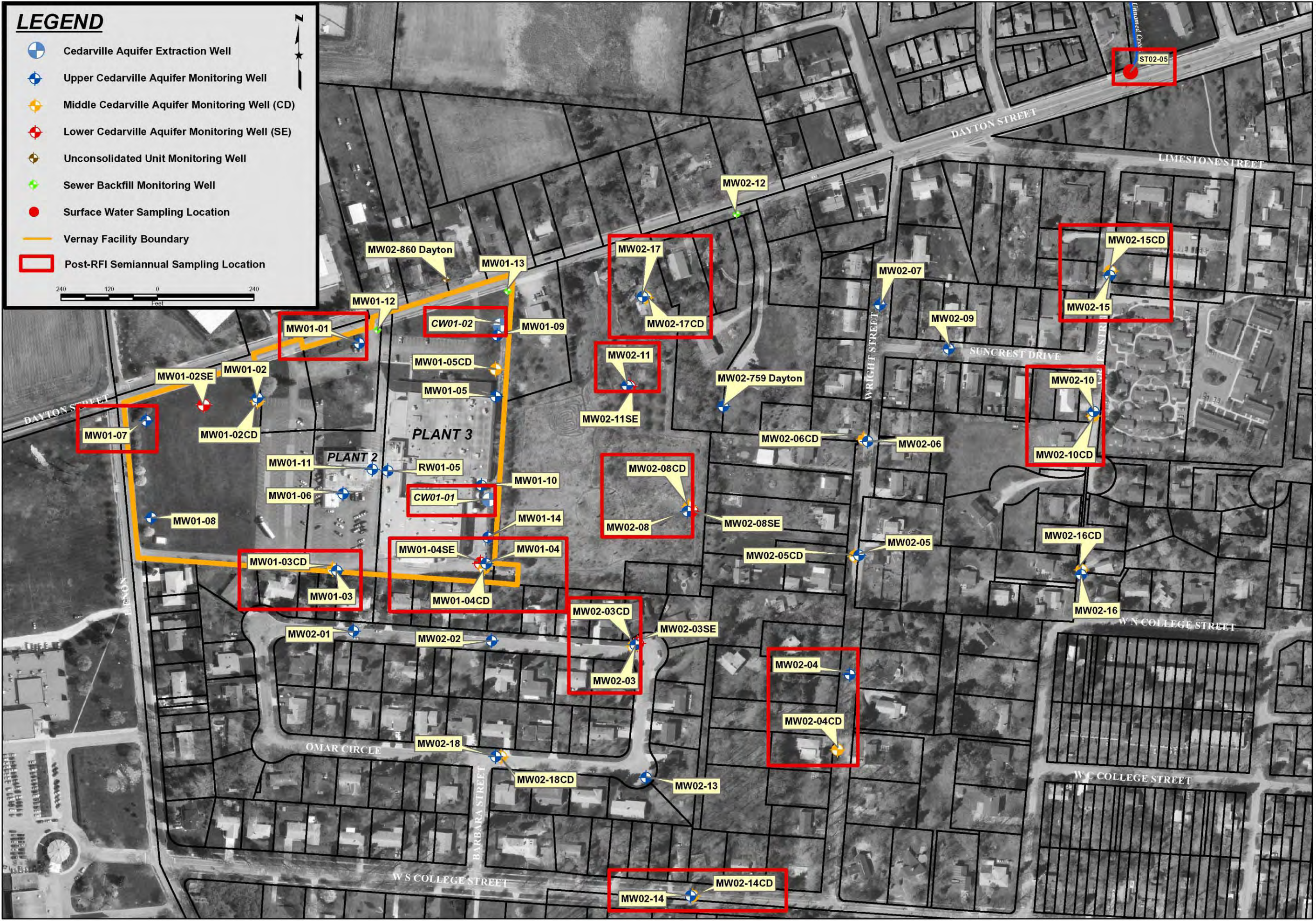
REFERENCE *Greene County Auditors, Orthophotograph (2003); State Plane Coordinates from Woolpert Surveying, LLP, Dayton Ohio (NAD83/NAVD88)*

1,2-DCP is not a Contaminant of Interest On or Off the Facility above a screening criteria. The Maximum Contaminant Level for 1,2-DCP in drinking water is 5 ug/L.



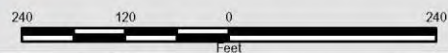
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CLIENT	VERNAVY LABORATORIES, INC.			FIGURE NO.	13	DATE	11/17/04	 <p>The Payne Firm, Inc. Environmental Consultants Cincinnati, Ohio</p>
TITLE	CONCEPTUAL NATURE AND EXTENT OF 1,2-DCP DETECTED (ug/L) IN THE CEDARVILLE AQUIFER (Q4-2004)			DRAWN BY	ALH	APPROVED BY	KDK	
				PROJECT NO.		292.11.39		
REFERENCE: Greene County Auditors, Orthophotograph (2003); State Plane Coordinates from Woolpert Surveying, LLP, Dayton, Ohio (NAD83/NAV88)								




LEGEND

- Cedarville Aquifer Extraction Well
- Upper Cedarville Aquifer Monitoring Well
- Middle Cedarville Aquifer Monitoring Well (CD)
- Lower Cedarville Aquifer Monitoring Well (SE)
- Unconsolidated Unit Monitoring Well
- Sewer Backfill Monitoring Well
- Surface Water Sampling Location
- Vernay Facility Boundary
- Post-RFI Semiannual Sampling Location



CLIENT	VERNAY LABORATORIES, INC.	FIGURE NO.	14	DATE	10/22/04
TITLE	POST-RFI SEMIANNUAL SAMPLING LOCATIONS	DRAWN BY	ALH	APPROVED BY	KDK
		PROJECT NO.	292.11.39		
REFERENCE	Greene County Auditors, Orthophotograph (2003); State Plane Coordinates from Woolpert Surveying, LLP, Dayton, Ohio (NAD83/NAVD88)				



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