LEGEND

940 — Bedrock Topographic Contour Line of the Springfield Formation (2.5-foot Contour Interval above MSL)

⊗ Bedrock Surface Data Point of the Springfield Formation

Vernay Facility Boundary

190 95 0 190
Feet

N

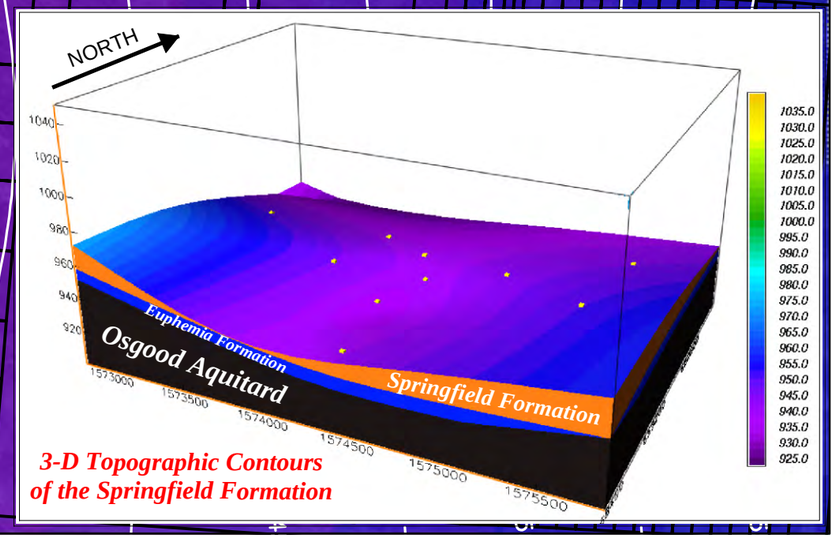
937.5 940 942.5 945 947.5 950 952.5 955 957.5

DAYTON STREET
LIMESTONE STREET
WRIGHT STREET
GREEN STREET
SUNCREST DRIVE
OMAR CIRCLE
E.NON
BARBARA STREET
W N COLLEGE ST
W S COLLEGE ST

MW01-02SE
MW01-04SE
CW01-02
MW02-03SE
MW02-06CD
MW02-08SE
MW02-11SE
MW02-14CD
MW02-15CD
MW02-16CD

PLANT 2
PLANT 3

ZONE OF LOWER BEDROCK TOPOGRAPHY



3-D Topographic Contours of the Springfield Formation

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Cincinnati, Ohio

DATE	6/29/04
APPROVED BY	KDK
DRAWN BY	ALH
PROJECT NO.	292.11.31
FIGURE NO.	20

CLIENT: VERNAY LABORATORIES, INC.

TITLE: SPRINGFIELD FORMATION BEDROCK TOPOGRAPHIC CONTOURS

REFERENCE: Greene County Auditors, Orthophotograph (1998); State Plane Coordinates from Woolpert Surveying, LLP, Dayton, Ohio (NAD83/NAVD88)

LEGEND

935 — Bedrock Topographic Contour Line of the Euphemia Formation (2.5-foot Contour Interval above MSL)

⊗ Bedrock Surface Data Point of the Euphemia Formation

Vernay Facility Boundary

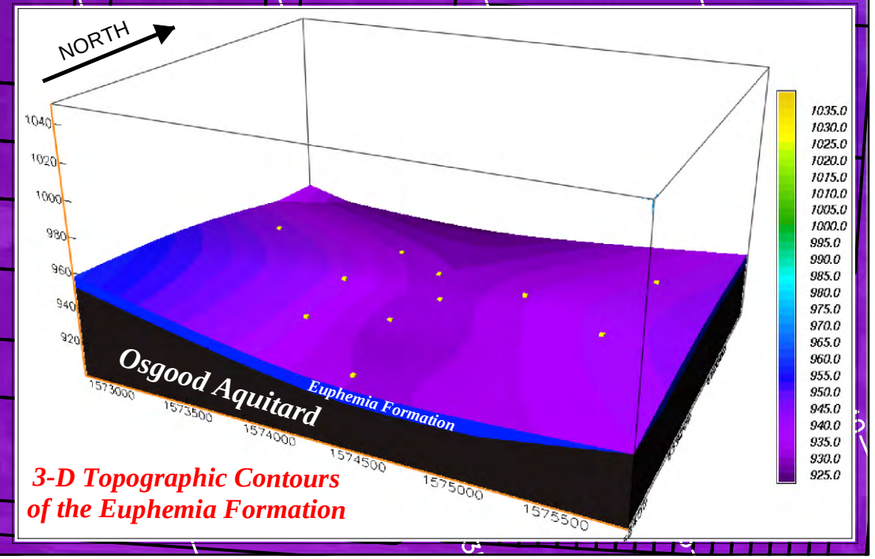
190 95 0 190
Feet

N

ZONE OF LOWER BEDROCK TOPOGRAPHY

DAYTON STREET
LIMESTONE STREET
WRIGHT STREET
GREEN STREET
SUNCREST DRIVE
OMAR CIRCLE
E. ENON
BARBARA STREET
W N COLLEGE ST
W S COLLEGE ST
PLANT 3
PLANT 2

CW01-02
MW01-02SE
MW01-04SE
MW02-03SE
MW02-06CD
MW02-08SE
MW02-11SE
MW02-14CD
MW02-15CD
MW02-16CD
MW02-18CD



3-D Topographic Contours of the Euphemia Formation

CLIENT	VERNAY LABORATORIES, INC.
TITLE	EUPHEMIA FORMATION BEDROCK TOPOGRAPHIC CONTOURS
FIGURE NO.	21
DRAWN BY	ALH
PROJECT NO.	292.11.31
DATE	6/29/04
APPROVED BY	KDK

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Cincinnati, Ohio

REFERENCE Greene County Auditors, Orthophotograph (1998); State Plane Coordinates from Woolpert Surveying, LLP, Dayton, Ohio (NAD83/NAVD88)

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LEGEND

927 — Bedrock Topographic Contour Line of the Osgood Aquitard (2.5-foot Contour Interval above MSL)

Bedrock Surface Data Point of the Osgood Aqitard

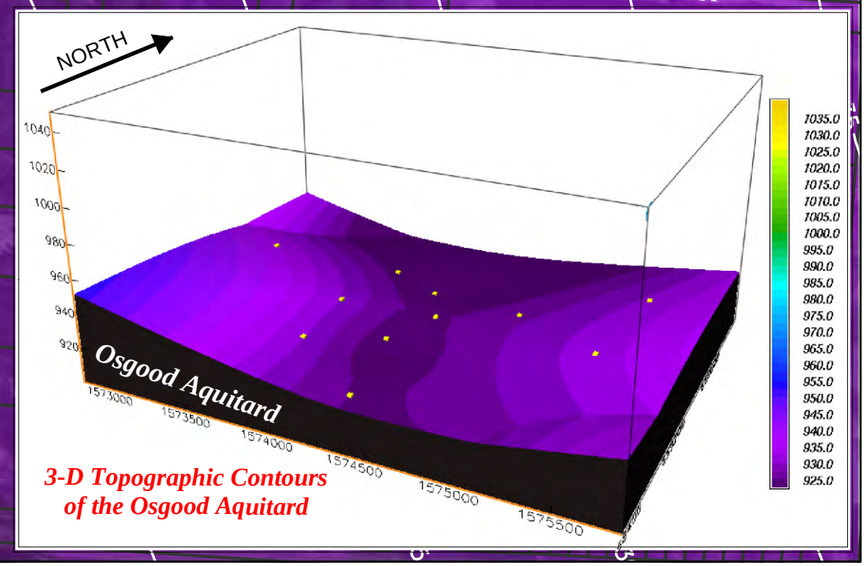
Vernay Facility Boundary

190 95 0 190
Feet

N

DAYTON STREET
LIMESTONE STREET
WRIGHT STREET
GREEN STREET
SUNCREST DRIVE
E.ENON
OMAR CIRCLE
BARBARA STREET
W N COLLEGE ST
W S COLLEGE ST
PLANT 3
PLANT 2
ZONE OF LOWER BEDROCK TOPOGRAPHY

MW01-02SE
MW01-04SE
CW01-02
MW02-11SE
MW02-06CD
MW02-08SE
MW02-15CD
MW02-16CD
MW02-03SE
MW02-13CD
MW02-14CD



3-D Topographic Contours of the Osgood Aquitard

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Environmental Consultants
Cincinnati, Ohio

DATE	6/29/04
APPROVED BY	KDK
FIGURE NO.	22
DRAWN BY	ALH
PROJECT NO.	292.11.31

CLIENT: VERNAY LABORATORIES, INC.

TITLE: OSGOOD AQUITARD BEDROCK TOPOGRAPHIC CONTOURS

REFERENCE: Greene County Auditors, Orthophotograph (1998); State Plane Coordinates from Woolpert Surveying, LLP, Dayton, Ohio (NAD83/NAVD88)

LEGEND

- AOI 1: FACILITY - UNDEVELOPED
- AOI 2: FACILITY - DEVELOPED
- AOI 3: OFF FACILITY
- AOI 3A: OFF FACILITY - SEWERS
- AOI 4: OFF FACILITY - UNNAMED CREEK
- Vernay Facility

Note: AOI 2A includes On Facility Sewers

0 300 600 1,200
Feet

N

YELLOW SPRINGS FAIRFIELD ROAD
Unnamed Creek
KING STREET
DAYTON STREET
S HIGH STREET
GREEN STREET
WRIGHT STREET
OMAR CIRCLE
E. ENON ROAD
W. S. COLLEGE STREET
GREEN STREET
XENIA AVENUE

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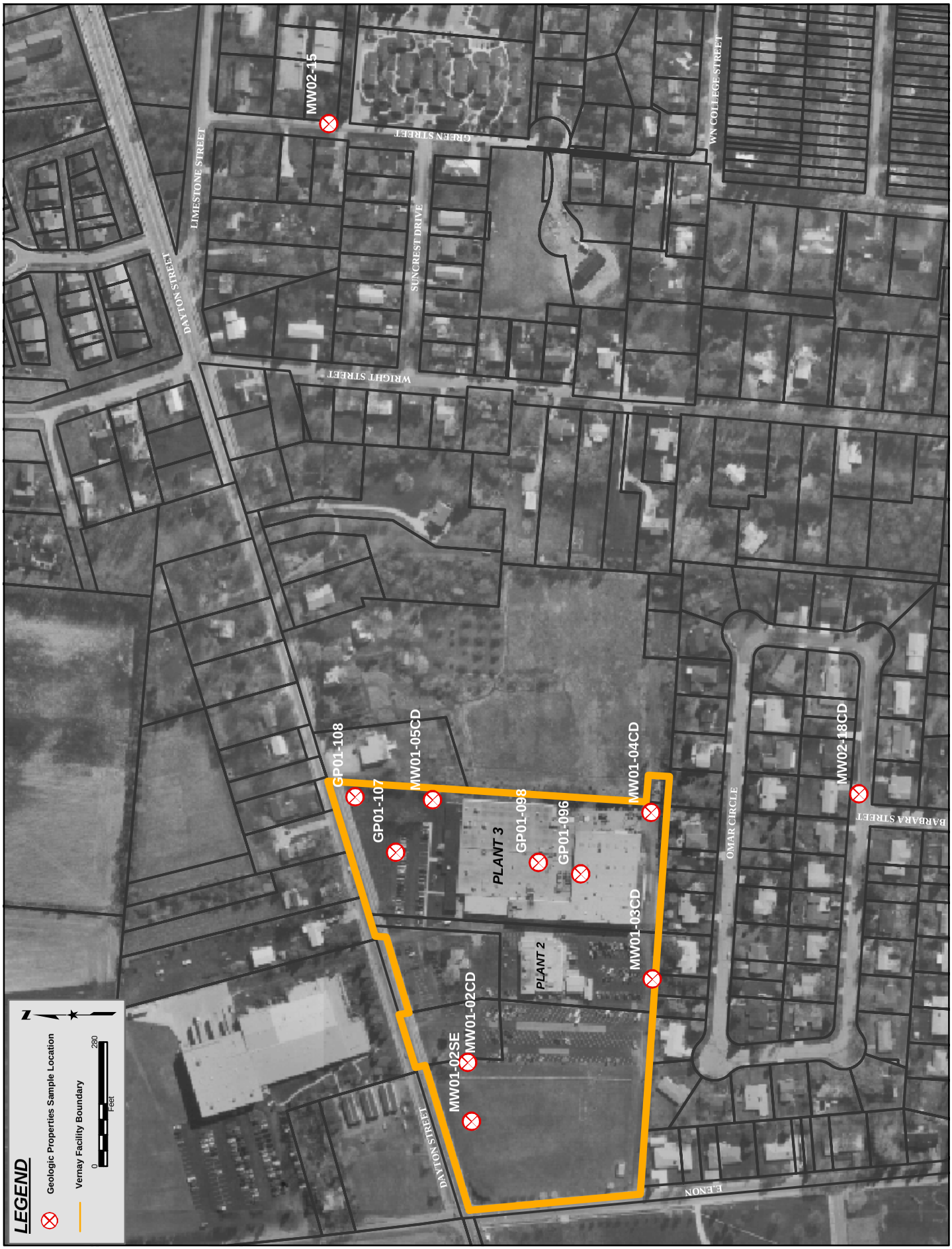
Environmental Consultants
Cincinnati, Ohio

DATE	6/29/04
APPROVED BY	DCC
FIGURE NO.	23
DRAWN BY	JAW
PROJECT NO.	0292.11.31

PROJECT: VERNAY LABORATORIES, INC.

TITLE: AREAS OF INTEREST ON AND OFF THE FACILITY

REFERENCE: Greene County Auditors, Orthophotograph (1998)



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CLIENT	VERNAY LABORATORIES, INC.	FIGURE NO.	24	DATE	6/29/04
TITLE	SAMPLING LOCATIONS ANALYZED FOR GEOLOGIC PROPERTIES	DRAWN BY	ALH	APPROVED BY	KDK
		PROJECT NO.	292.11.31		

The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

REFERENCE Greene County Auditors, Orthophotograph (1998); State Plane Coordinates from Woolpert Surveying, LLP, Dayton, Ohio (NAD83/NAVD88)

LEGEND

- Update II VOC Soil Sample
- Update III VOC 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

80 40 0 80
Feet

N

DAYTON STREET

DAYTON STREET

E.ENON

PLANT 2

PLANT 3

GP02-071 GP02-072 GP02-073 GP02-053 GP02-088 GP02-054 GP01-111 GP01-108 GP02-074 GP01-124 GP02-075 GP01-125 GP02-076 GP01-107 GP01-126 GP01-048 GP02-077 GP01-127 GP01-106 GP01-112 GP01-137 GP01-088 GP01-113 GP01-114 GP01-043 GP01-087 GP01-049 GP01-089 ST NW ST SE GP01-042 GP01-120 GP01-105 GP01-041 GP01-100 GP01-149 GP01-079 GP01-128 GP01-086 GP01-085 GP01-050 GP01-141 GP01-142 GP01-017 GP01-050 GP01-068 GP01-099 GP01-068 GP01-064 GP01-051 GP01-017 GP01-065 GP01-066 GP01-027 GP01-104 GP01-063 GP01-026 GP01-097 GP01-098 GP01-122 GP01-119 GP01-018 GP01-101 GP01-044 GP01-045 RW01-04 GP01-116 GP01-102 GP01-052 GP01-101 GP01-062 GP01-123 GP01-067 GP01-144 GP01-025 GP01-115 GP01-053 GP01-019 GP01-069 GP01-060 GP01-061 GP01-040 GP01-070 GP01-145 GP01-071 GP01-046 GP01-080 GP01-072 GP01-096 GP01-121 GP01-129 GP01-034 GP01-020 GP01-059 GP01-132 GP01-035 GP01-118 GP01-047 GP01-130 GP01-021 GP01-095 GP01-074 GP01-058 GP01-034 GP01-057 GP01-054 GP01-073 GP01-056A GP01-022 GP01-094 GP01-033 GP01-093 GP01-055 GP01-131 GP01-117 GP01-091 GP01-090 GP01-076 GP01-078 GP01-077 GP01-092 GP01-150 GP01-059

TITLE	*VOC SOIL SAMPLING LOCATIONS AT THE VERNAY FACILITY*
DATE *6/15/04*	FIGURE *25*
DRAWN BY *ALH*	APPROVED BY *KDK*
CLIENT	*VERNAY LABORATORIES, INC.*
PROJECT NO.	*292.11.31*

The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

REFERENCE *Greene County Auditors, Orthophotograph (1998); State Plane Coordinates from Woolpert Surveying, LLP, Dayton, Ohio (NAD83 / NAVD88)*

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LEGEND

- Update II VOC Soil Sample
- Update III VOC 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

N

120 60 0 120
Feet

VSGP-001
VSGP-002
VSGP-003
VSGP-005
VSGP-006
VSGP-008
VSGP-009
VSGP-010
VSGP-011
VSGP-012

GP02-070
GP02-071
GP02-072
GP02-073
GP02-053
GP02-054
GP02-088
GP01-111
GP01-108
GP01-124
GP01-125
GP01-107
GP01-126

GP01-064
GP01-065
GP01-066
GP01-063
GP01-122
GP01-102
GP01-103
GP01-101
GP01-062
GP01-061
GP01-060
GP01-121
GP01-059
GP01-132
GP01-058
GP01-034
GP01-056A
GP01-057

DAYTON STREET
LIMESTONE STREET
GREEN STREET
WRIGHT STREET
SUNCREST DRIVE
PLANT 3

TITLE
VOC SOIL SAMPLING LOCATIONS ALONG DAYTON STREET NORTHEAST OF THE VERNAY FACILITY

DATE	6/15/04	FIGURE	26
DRAWN BY	ALH	APPROVED BY	KDK

CLIENT: VERNAY LABORATORIES, INC.
PROJECT NO.: 292.11.31

The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

REFERENCE: Greene County Auditors, Orthophotograph (1998); State Plane Coordinates from Woolpert Surveying, LLP, Dayton, Ohio (NAD83 / NAVD88)

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LEGEND

- Cedarville Aquifer Extraction Well
- Upper Cedarville Aquifer Monitoring Well
- Middle Cedarville Aquifer Monitoring Well (CD)
- Lower Cedarville Aquifer Monitoring Well (SE)
- Upper Cedarville Aquifer Direct-Push Location
- Vernay Facility Boundary

N

225 112.5 0 225
Feet

DAYTON STREET
LIMESTONE STREET
GREENE STREET
WRIGHT STREET
SUNCREST DRIVE
E ENON
OMAR CIRCLE
BARBARA STREET
W S COLLEGE STREET
W N COLLEGE STREET
PLANT 3
PLANT 2

MW01-01
MW01-02
MW01-02CD
MW01-02SE
MW01-07
MW01-08
MW01-03
MW01-03CD
MW01-04SE
MW01-04
MW01-04CD
MW01-14
MW01-05
MW01-05CD
MW01-09
MW01-10
MW01-11
MW01-06
RW01-05
MW02-01
MW02-02
MW02-03
MW02-03CD
MW02-03SE
MW02-04
MW02-04CD
MW02-05
MW02-05CD
MW02-06
MW02-06CD
MW02-07
MW02-08
MW02-08CD
MW02-08SE
MW02-09
MW02-10
MW02-10CD
MW02-11
MW02-11SE
MW02-12
MW02-13
MW02-14
MW02-14CD
MW02-15
MW02-15CD
MW02-16
MW02-16CD
MW02-17
MW02-17CD
MW02-18
MW02-18CD

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Cincinnati, Ohio

DATE	6/14/04
APPROVED BY	KDK
FIGURE NO.	27
DRAWN BY	ALH
PROJECT NO.	292.11.31

CLIENT: VERNAY LABORATORIES, INC.

TITLE: CEDARVILLE AQUIFER SAMPLING LOCATIONS

REFERENCE: Greene County Auditors, Orthophotograph (1998); State Plane Coordinates from Woolpert Surveying, LLP, Dayton, Ohio (NAD83/NAVD88)

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LEGEND

- Cedarville Aquifer Extraction Well
- Upper Cedarville Aquifer Monitoring Well
- Middle Cedarville Aquifer Monitoring Well (CD)
- Lower Cedarville Aquifer Monitoring Well (SE)
- Sewer Backfill Monitoring Well
- Vernay Facility Boundary

N

225 112.5 0 225
Feet

DAYTON STREET
LIMESTONE STREET
WRIGHT STREET
GREEN STREET
SUNCREST DRIVE
DAYTON STREET
PLANT 3
PLANT 2
E ENON
OMAR CIRCLE
BARBARA STREET
W S COLLEGE STREET
W N COLLEGE STREET
W C COLLEGE STREET

MW01-13
MW01-12
MW01-01
MW01-09
MW01-05CD
MW01-05
MW01-02
MW01-02CD
MW01-02SE
MW01-07
MW01-08
RW01-05
MW01-11
MW01-06
MW01-10
MW01-14
MW01-04
MW01-04CD
MW01-03
MW01-03CD
MW01-04SE
MW02-12
MW02-17
MW02-17CD
MW02-11
MW02-11SE
MW02-07
MW02-09
MW02-15CD
MW02-15
MW02-10
MW02-10CD
MW02-06
MW02-06CD
MW02-08CD
MW02-08
MW02-08SE
MW02-05
MW02-05CD
MW02-16CD
MW02-16
MW02-01
MW02-02
MW02-03
MW02-03CD
MW02-03SE
MW02-04
MW02-04CD
MW02-18
MW02-18CD
MW02-13
MW02-14
MW02-14CD

CLIENT	VERNAY LABORATORIES, INC.
TITLE	MONITORING WELL NETWORK ON AND OFF THE FACILITY
REFERENCE	Greene County Auditors, Orthophotograph (1998); State Plane Coordinates from Woolpert Surveying, LLP, Dayton, Ohio (NAD83/NAVD88)
FIGURE NO.	28
DRAWN BY	ALH
PROJECT NO.	292.11.31
DATE	6/14/04
APPROVED BY	KDK

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Cincinnati, Ohio

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LEGEND

Indoor Air Sample Location

Select VOCs are presented for Indoor Air; refer to Table 26 in the Phase I RFI Report for a summary of all VOCs analyzed.

Based on the conclusions of the CA725, VOCs from indoor air do not present a current risk to human receptors at the Facility.

30 15 0 30
Feet

PLANT 3

Sample ID Sample Date (year-mm-dd) Sample Medium/Location Reporting Units	AIR-0101 1999-05-21 Indoor Air Plant 3 - Hydraulic Pit PPB(V/V)	AIR-0102 1999-05-21 Indoor Air Plant 3 - Hydraulic Pit PPB(V/V)	AIR-0109 2004-02-10 Indoor Air Plant 3 - Hydraulic Pit 1' PPB(V/V)	AIR-0110 2004-02-10 Indoor Air Plant 3 - Hydraulic Pit 4' PPB(V/V)
1,2-DICHLOROPROPANE	< 0.6	< 0.76	< 0.48	< 0.46
CIS-1,2-DICHLOROETHENE	< 0.6	< 0.76	< 0.48	< 0.46
TETRACHLOROETHENE	5.7	5.6	0.37 J	0.39 J
TRICHLOROETHENE	< 0.6	< 0.76	< 0.48	< 0.46
VINYL CHLORIDE	< 0.6	< 0.76	< 0.48	< 0.46

AIR-101
AIR-102
AIR-109
AIR-110

AIR-104

AIR-107
AIR-108

Sample ID Sample Date (year-mm-dd) Sample Medium/Location Reporting Units	AIR-0104 1999-05-21 Indoor Air - Utility Tunnel PPB(V/V)	AIR-0107 2004-02-10 Indoor Air Plant 3 - Tunnel 4' PPB(V/V)	AIR-0108 2004-02-10 Indoor Air Plant 3 - Tunnel 1' PPB(V/V)
1,2-DICHLOROPROPANE	< 0.58	< 0.39	< 0.74
CIS-1,2-DICHLOROETHENE	< 0.58	0.18 J	0.27 J
TETRACHLOROETHENE	3.5	0.62	0.75
TRICHLOROETHENE	< 0.58	< 0.39	< 0.74
VINYL CHLORIDE	< 0.58	< 0.39	< 0.74

PLANT 2

Sample ID Sample Date (year-mm-dd) Sample Medium/Location Reporting Units	AIR-0105 1999-05-21 Indoor Air Plant 2 - Hydraulic Pit PPB(V/V)	AIR-0106 1999-05-21 Indoor Air Plant 2 - Hydraulic Pit PPB(V/V)	AIR-0113 2004-02-10 Indoor Air Plant 2 - Hydraulic Pit 1' PPB(V/V)	AIR-0114 2004-02-10 Indoor Air Plant 2 - Hydraulic Pit 4' PPB(V/V)
1,2-DICHLOROPROPANE	< 0.75	< 0.7	< 0.51	< 0.39
CIS-1,2-DICHLOROETHENE	< 0.75	< 0.7	< 0.51	< 0.39
TETRACHLOROETHENE	< 0.75	0.75	0.28 J	0.24 J
TRICHLOROETHENE	< 0.75	< 0.7	0.27 J	0.24 J
VINYL CHLORIDE	< 0.75	< 0.7	< 0.51	< 0.39

AIR-106
AIR-105
AIR-113
AIR-114

AIR-103
AIR-111
AIR-112

Sample ID Sample Date (year-mm-dd) Sample Medium/Location Reporting Units	AIR-0103 1999-05-21 Indoor Air - Utility Tunnel PPB(V/V)	AIR-0111 2004-02-10 Indoor Air Plant 2 - Tunnel 1' PPB(V/V)	AIR-0112 2004-02-10 Indoor Air Plant 2 - Tunnel 4' PPB(V/V)
1,2-DICHLOROPROPANE	< 0.48	< 0.49	< 0.44
CIS-1,2-DICHLOROETHENE	0.69	0.71	0.72
TETRACHLOROETHENE	2.3	1.2	1.2
TRICHLOROETHENE	0.68	0.36 J	0.39 J
VINYL CHLORIDE	< 0.48	< 0.49	< 0.44

The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

DATE 6/29/04
APPROVED BY KDK
DRAWN BY ALH
PROJECT NO. 292.11.31
FIGURE NO. 29

CLIENT VERNAY LABORATORIES, INC.

TITLE NATURE AND EXTENT OF VOCs FROM INDOOR AIR SAMPLES AT THE FACILITY

REFERENCE Greene County Auditors, Orthophotograph (1998); State Plane Coordinates from Woolpert Surveying, LLP, Dayton, Ohio (NAD83/NAVD88)

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