



SITE SCOPING INVESTIGATION REPORT

***ZILLMER PROPERTY
323 SUNSET DRIVE
WAUKESHA, WISCONSIN***

HOWARD AND INEZ ZILLMER



May 27, 2003

Howard and Inez Zillmer
C/o Attorney Michael Carlton
von Briesen & Roper s.c.
411 East Wisconsin Avenue Suite 700
P.O. Box 3262
Milwaukee, WI 53201-3262

RE: Site Scoping Investigation Report for the Zillmer Property, Located at 323 Sunset Drive in Waukesha, Wisconsin — Drake Project No. J03035

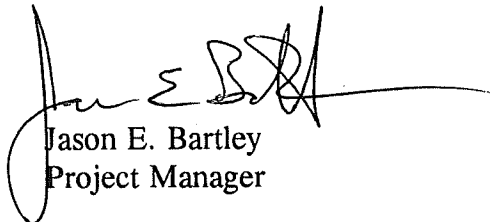
Dear Attorney Carlton:

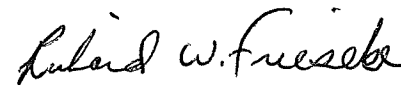
As requested, Drake Environmental, Inc. conducted a site scoping investigation for the above-referenced site. The attached report presents the results of project research, field and laboratory testing, a discussion of the results, and our findings and conclusions.

We appreciated the opportunity to provide environmental consulting services for this phase of the project. If you have any questions regarding this report, please call us at (414) 351-1440.

Respectfully,

DRAKE ENVIRONMENTAL, INC.


Jason E. Bartley
Project Manager


Richard W. Frieseke, P.E.
President

Cc Howard and Inez Zillmer

Attachment
J03035c

6980 North Teutonia Avenue
Milwaukee, WI 53209-2536
(414) 351-1440
1-800-853-8440
Fax: (414) 351-1404

REPORT

PROJECT

Site Scoping Investigation
Zillmer Property
323 Sunset Drive
Waukesha, Wisconsin

CLIENT

Howard and Inez Zillmer
2201 Gulfview Road
Punta Gorda, FL 53151

Project Number

J03035

Date

May 27, 2003

DRAKE ENVIRONMENTAL, INC.

*6980 North Teutonia Avenue
Milwaukee, WI 53209-2536*

1.0 INTRODUCTION

1.1 Project Description

On behalf of Howard and Inez Zillmer, Drake Environmental, Inc. conducted a site scoping investigation for the property located at 323 Sunset Drive in the City of Waukesha, Wisconsin. Figure 1 in Appendix A depicts the location of the subject property. An All Parts auto supply store currently occupies the building on the property. It is understood that on site dry cleaning operations occurred on the site between 1973 and 1981.

A Phase II conducted by Giles Engineering Associates (GEA) in July 2000 on the Kentucky Fried Chicken (KFC) site (331 West Sunset Drive) concluded that the drycleaners was the likely source of solvent impacts detected at the KFC site. The Phase II Environmental Site Assessment consisted of collecting soil and groundwater "grab" samples from three borings along the eastern KFC property border. A Remedial Investigation (RI) was conducted at the former Mobil Oil station site (300 West Sunset Drive). A Citgo Gas Station currently occupies the former Mobil Oil station site. Montgomery Watson conducted the RI including a supplemental off site investigation in October 1996 that included two groundwater monitoring wells installed in the northern portion of the Zillmer property. The soil and groundwater test results are discussed later in this report. Figure 2 in Appendix A depicts the site features and surrounding area property usage.

1.2 Scope of Work

As part of this site scoping investigation, Drake performed limited research of the site and surrounding area regarding history and location of dry cleaning equipment, dumpsters, vents, sumps and possible source/contributors to any contamination. In addition, Drake evaluated neighboring site features as receptors or sensitive areas.

The proposed fieldwork for this project included the advancement of seven soil probes at the subject property. Continuous soil samples were collected from each probe location for field evaluation, and selected soil samples were preserved for laboratory

analysis. At the conclusion of soil sampling activities, temporary monitoring wells were installed within four of the probeholes. Following installation, the elevation of each well was measured, and a groundwater sample was collected and preserved for laboratory analysis from each well.

Drake was present on-site to document site conditions, measure and map the site, collect representative soil and groundwater samples, and preserve selected samples for laboratory analysis. Following receipt of field and laboratory reports, Drake evaluated the project data and prepared this report documenting the site scoping investigation. The purpose of this site scoping investigation is to document the discharge from the site and obtain sufficient information to develop an adequate work plan.

2.0 PROCEDURES

The procedures utilized in collecting, evaluating, and analyzing the soil and groundwater samples are described in the following section.

2.1 Interview, Site Visit and Research

Drake conducted an interview with Howard Zillmer, owner of the site, to evaluate the possible source(s) of the contamination. Drake also conducted a site visit and reviewed the aforementioned assessment reports conducted on the neighboring properties to evaluate neighboring site features and possible receptors or sensitive areas.

2.2 Soil Probe and Sampling Procedures

Soil samples were collected at the subject property on April 18, 2003 with the use of a direct-push soil probe unit. Figure 2 in Appendix A depicts the probe locations. Kitson Environmental Services, Inc. of Helenville, Wisconsin provided personnel and a truck-mounted soil probe unit to advance soil probes, retrieve soil cores, and construct temporary monitoring wells. Prior to the beginning of the fieldwork, Drake prepared a site-specific health and safety plan. A continuous core of soil was collected at 4-foot vertical intervals from each probe location with a steel sampling tube equipped with an acetate sample tube liner. The soil cores were retrieved with the probe unit, and Drake then collected soil samples from the cores representative of each 2-foot depth interval for field evaluation and laboratory analysis. Probeholes that were not converted to temporary groundwater monitoring wells were abandoned by filling with bentonite chips.

2.3 Field Screening and Soil Classification Procedures

A representative sample from each 2-foot section of soil core was placed into an 8-ounce glass jar for field screening with a photoionization detector (PID) utilizing the Wisconsin Department of Natural Resources (DNR) headspace method. PID screening provides a qualitative measure of volatile organic vapor emissions in soils. The PID readings were used in conjunction with physical observations of the soil samples for the presence of staining and/or odors to evaluate potential contamination. Following field

screening, each soil sample was examined and classified for soil type, odor, staining, and color.

2.4 Monitoring Well Installation and Sampling Procedures

At the conclusion of soil sampling, 1-inch diameter PVC temporary monitoring wells were constructed within four of the probeholes. The temporary wells were designated W-1, W-2, W-3, and W-4, and each well was constructed with a 10-foot PVC well screen, a coarse sand filter pack, PVC well pipe, a bentonite surface seal and a flush mount cover. The wells were constructed in general accordance with NR 141 of the Wisconsin Administrative Code and DNR guidance for temporary wells. The elevation of the top of casing of each monitoring well was measured in relation to a permanent site datum utilizing a laser level instrument, and the depth to groundwater within each monitoring well was measured with an electronic water level probe. Following installation, the temporary monitoring wells were allowed to recharge and were then sampled on April 23, 2003. Groundwater samples were collected for laboratory analysis with the use of ½-inch diameter dedicated disposable polyethylene bailers. The monitoring wells will continue to be used to collect samples during the investigation/monitoring phase of the project. DNR forms documenting the well construction are included in Appendix C.

2.5 Analytical Testing Procedures

Great Lakes Analytical, Inc. of Oak Creek, Wisconsin (DNR Laboratory Certification Number 999917160) provided laboratory analytical testing services for the soil and groundwater samples collected from the subject property during the site scoping investigation. Upon collection, soil and groundwater samples were placed into appropriate laboratory-supplied containers, preserved as required by DNR guidance, and submitted to Great Lakes Analytical for analysis within appropriate holding times.

The soil and groundwater samples were analyzed for volatile organic compounds (VOCs) using EPA Method 8021. For quality control purposes, Drake submitted trip blanks along with both the soil and groundwater samples to identify contamination that may have occurred as a result of external influences.

3.0 RESULTS AND ANALYSIS

The results of the field evaluation and laboratory analysis for the soil and groundwater samples collected during the site scoping investigation are discussed in the following section. In addition, the test results of soil and groundwater samples collected on the subject site and adjoining properties as part of other studies are discussed.

3.1 Research/Review Results

Drake conducted an interview with Howard Zillmer, owner of the site. Mr. Zillmer indicated that on-site dry cleaning activities occurred from approximately 1971 to 1981. He also indicated that a sump pump was located in the building. Drake observed what appeared to be an abandoned sump crock, which had been filled with concrete, in the northwestern portion of the building. In addition, Drake observed the dumpsters for the property near the north exterior wall of the former dry cleaning building. The site features are shown on Figure 2. Drake also reviewed the aforementioned assessment reports conducted on the neighboring properties and noted neighboring site features and possible receptors or sensitive areas during the site visit. There do not appear to be the potential for impacts to any receptors or sensitive areas such as basements, wetlands, potable wells, or resource waters on or near the property. Diggers Hotline marked utilities prior to conducting the soil probes, however, a formal utility corridor evaluation was not conducted as part of this study.

3.2 Field Evaluation Results

The native soil encountered at the site consisted generally of light brown to gray silty fine to coarse sand and gravel. No unusual odors or staining were observed in any of the soil samples. Elevated PID readings (greater than 10) were observed in the soil samples collected from P-1, P-2, P-3, P-4 and P-7. No detectable PID readings were observed for the soil samples from P-5 or P-6. Table 1 in Appendix B presents a summary of the results of Drake's field evaluation of soil samples collected during the site scoping investigation.

Saturated soils were encountered at depths of approximately 12 feet below ground surface (bgs) in the probeholes located on the subject property. Groundwater was measured to be approximately 14 to 16 feet bgs in the temporary monitoring wells, and

based on groundwater elevation measurements recorded for April 23, 2003, the direction of groundwater movement at the subject property was calculated to be toward the southwest. The measured groundwater flow direction is consistent with the previous studies. Figure 3 in Appendix A depicts the general groundwater flow pattern at the site, and groundwater elevation data for the temporary monitoring wells is summarized in Table 2 of Appendix B. No free product or visible sheening was noted for the groundwater samples collected from the temporary monitoring wells.

3.3 Laboratory Analysis Results

The analytical results for the soil samples collected during the site scoping investigation are summarized on Figure 4 in Appendix A and in Table 3 of Appendix B. Analytical results for the groundwater samples are summarized on Figure 5 in Appendix A and in Table 4 of Appendix B. Copies of the laboratory analysis reports and chain of custody forms for the samples are included in Appendix D. No concentrations of VOCs were detected in the trip blanks that accompanied the soil and groundwater samples.

3.3.1 Soil Sample Analytical Results

Previous Soil Sample Analytical Results

Analytical results indicated that concentrations of tetrachloroethene (PCE) had been detected in several of the soil samples collected during the Phase II Assessment conducted by GEA at the KFC site. The concentrations of PCE ranged from 45 to 647 parts per billion (ppb). The GEA results are illustrated on their Figure 3 and Table 1 in Appendix A. There currently is not a clean up standard for PCE in soil.

Site Scoping Soil Sample Analytical Results

The analytical results for the soil samples collected during the site scoping investigation indicated that PCE was the only VOC detected at the site and was detected in soil samples collected from probes P-1, P-2, P-3, P-4, P-6 and P-7. No concentrations of PCE or any other VOCs were detected in soil samples collected from probe P-5. The analytical results are illustrated on Figure 4.

The highest soil concentrations were detected at depths of approximately 10-14 feet, the approximate depth to groundwater. The soil concentrations decrease with depth. As such, soil concentrations do not appear to have significant vertical migration.

3.3.2 Groundwater Sample Analytical Results

Previous Groundwater Sample Analytical Results

Analytical results did not indicate any concentrations of VOCs (including PCE) in groundwater samples collected the wells (MW-11 and MW-12) installed in the northern portion of the subject site during the investigation conducted by Montgomery Watson for the Mobil Service Station site. Analytical results indicated that minor concentrations (1.1 and 12 ppb) of PCE had been detected in the groundwater "grab" samples collected during the Phase II Assessment conducted by GEA at the KFC site.

Site Scoping Groundwater Sample Analytical Results

Analytical results indicate that concentrations of PCE were detected in the groundwater samples collected from the four temporary monitoring wells during the site scoping investigation. Chapter NR 140 of the Wisconsin Administrative Code establishes groundwater quality preventive action limits (PALs) and enforcement standards (ESs) for specific VOCs based on the protection of public health.

Based on the laboratory analytical results, concentrations of PCE were detected in the groundwater samples in excess of its NR 140 PAL and the ES. It should be noted that there were also minor concentrations of benzene and toluene detected in the samples collected from W-1 and W-4. The concentrations of benzene detected in the groundwater samples were in excess of its NR 140 PAL, but below its ES. It should also be noted that there were no detections of any breakdown components of PCE (TCE, DCE, vinyl chloride etc.).

4.0 FINDINGS AND CONCLUSIONS

Drake performed limited research of the site and surrounding area regarding history, location of dry cleaning equipment, dumpsters, vents and sumps. In addition, Drake evaluated subject and neighboring site features as receptors or sensitive areas and possible source/contributors to contamination. Drake also reviewed the results of the Phase II and Remedial Investigation conducted on neighboring properties. The fieldwork for the scoping investigation included the advancement of seven soil probes at the subject property, installation and surveying of four temporary monitoring wells and testing of the soil and groundwater samples. The findings and conclusions of the site scoping investigation are discussed in the following section.

4.1 Findings

- The dumpsters for the property are located near the north exterior wall of the former dry cleaners. This is also the approximate location of a former sump pump on the interior of the building. Based on the research conducted to date and the results of the analytical testing, the area adjacent to the north exterior wall appears to be the source of the PCE impacts.
- Native soil encountered at the site consisted generally of light brown to gray silty fine to coarse sand and gravel. Indications of impacts (elevated PID readings) were observed in the soil samples collected from P-1, P-2, P-3, P-4 and P-7. No unusual odors, staining, or elevated PID readings were observed for the soil samples collected from P-5 and P-6.
- Analytical results indicated that the concentrations of PCE were detected in the soil samples collected from probes P-1, P-2, P-3, P-4, P-6 and P-7. It will likely be necessary to establish site-specific residual contaminant levels (SSRCLs) for PCE based on the protection of groundwater and direct contact.
- Groundwater was measured to be approximately 14 to 16 feet bgs in the temporary groundwater monitoring wells installed on the subject property, and groundwater was calculated to be flowing toward the southwest. No free product or visible sheening was noted for any of the groundwater samples.
- Analytical results indicated that concentrations of PCE were detected in the groundwater samples collected from the four temporary groundwater monitoring wells, and the concentration of PCE exceed its NR 140 ES.
- Based on the results, vertical migration of PCE appears to be limited.
- Based on a review of the site and surrounding area and the results of the field sampling, there does not appear to be any known impacts to receptors or sensitive areas such as basements, potable wells, wetlands.

4.2 Conclusions

- Based on the results of the site scoping investigation, a solvent from the historic property usage has impacted the soil and groundwater of the subject property and neighboring properties. Additional investigation consisting of soil probes, monitoring wells and piezometers is needed to determine the extents of the impacts and the most appropriate course of remedial action. Additional investigation should include an evaluation of remediation by natural attenuation (RNA) and a utility corridor evaluation.

4.3 General Qualifications

Drake conducts their services with that degree of care and skill ordinarily exercised by members of the environmental consulting community practicing under similar conditions at the same time in the same or similar locality. The procedures Drake followed in completing this project were in general accordance with applicable regulations of the DNR at the time the work was conducted. If the applicable regulations change, the DNR may require additional information.

The results, findings, and conclusions presented in this report are based on the data obtained from the specific sampling locations at the times and under the conditions stated in this report. Variations in soil and groundwater conditions typically exist at most sites between sampling locations and may change with time. If variations are noted in the future, Drake should be informed to determine if these variations affect the findings and conclusions in this report. Some of the factual information in this report was obtained from the client, client's agents, and third parties, and is assumed by Drake to be correct and complete. Changes or modifications to the site and/or facilities made after the site visit are not included. The conclusions are Drake's professional opinion and should not be construed as a guarantee or warranty that liabilities do or do not exist.

Drake assumes no responsibility for the discovery and elimination of hazards that could possibly cause accidents, injuries, or damage. Compliance with the recommendations and/or suggestions contained in this report in no way assures elimination of hazards or a fulfillment of a property owner's obligation under local, state, or federal laws. It is the responsibility of the property owner to notify authorities of any conditions that are in violation of current legal standards.

Drake prepared this report at the request of their client. Drake assumes responsibility for the accuracy of the contents of this report subject to what is stated elsewhere in this section, but recommends the report be used only for the purpose intended by the client and Drake when the report was prepared. The report may be unsuitable for other uses and reliance upon its contents by anyone other than the client is done at the sole risk of the user. Drake accepts no responsibility for application or interpretation of the results by anyone other than the client.

APPENDICES

Appendix A

Figure 1 – Vicinity Diagram

Figure 2 – Site Diagram

Figure 3 – Groundwater Elevations

Figure 4 – Soil Sample Analytical Results Diagram

Figure 5 – Groundwater Sample Analytical Results Diagram

Figures/Tables – Neighboring Properties

Appendix B

Table 1 – PID Screening Results

Table 2 - Analytical Results- Soil Samples

Table 3 – Groundwater Elevations

Table 4 - Analytical Results- Groundwater Samples

Appendix C

Boring Logs

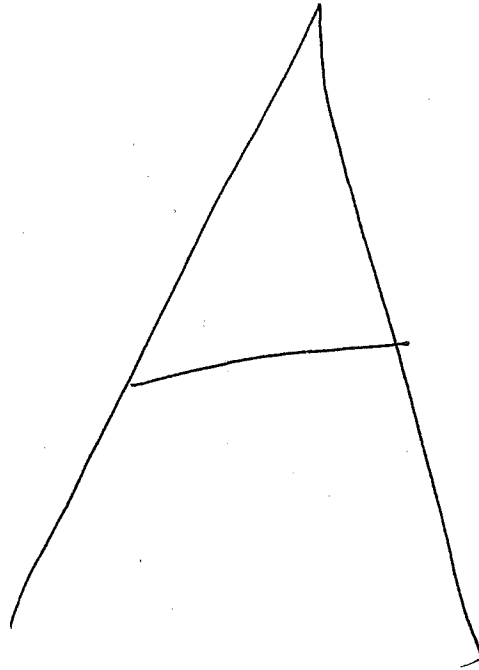
Borehole Abandonment Forms

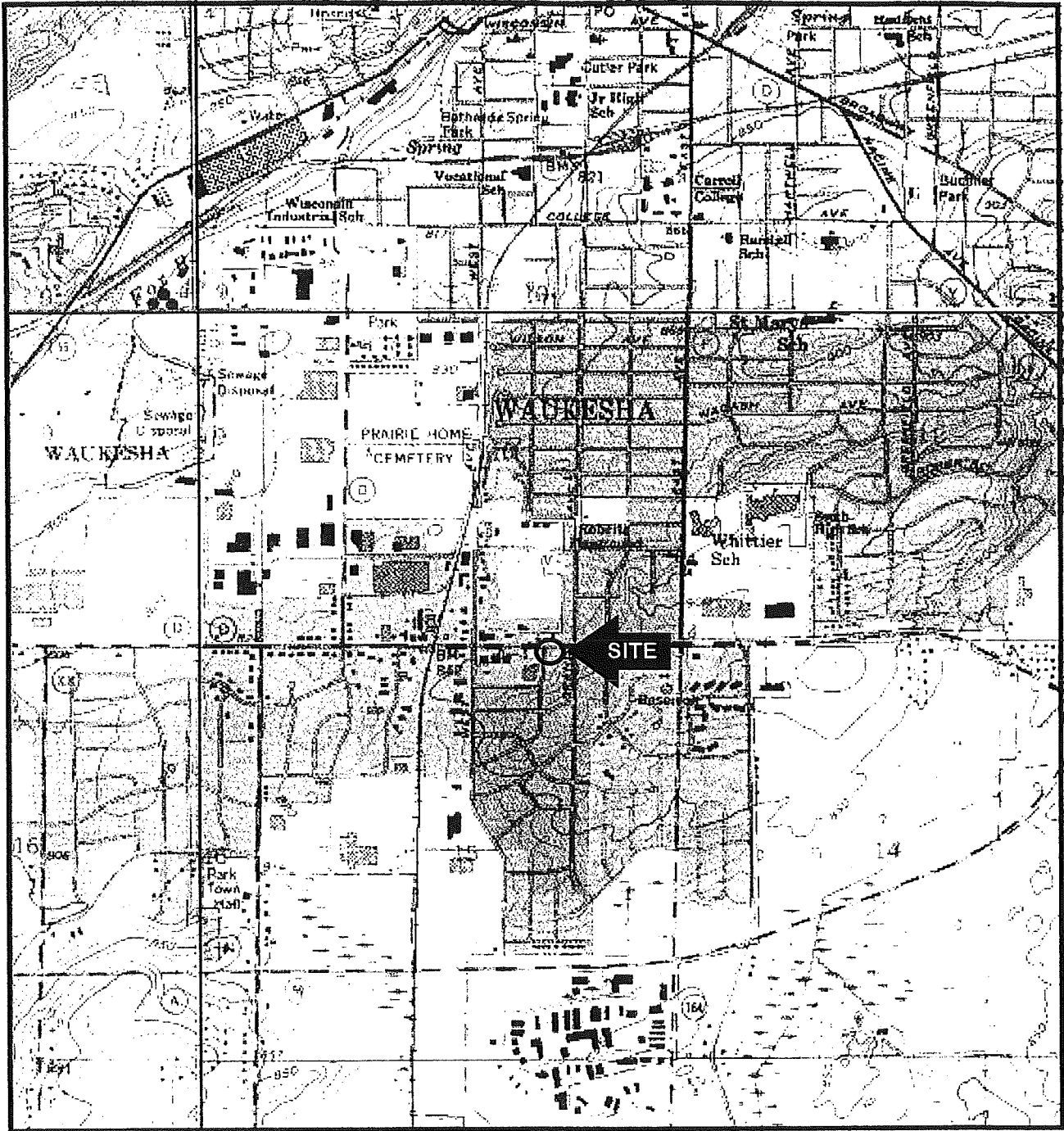
Well Construction/Development Forms

Appendix D

Analytical Laboratory Reports

Chain of Custody Forms

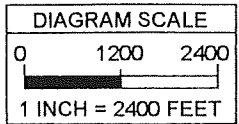




MUSKEGO - WISCONSIN
 USGS 7.5 MINUTE QUADRANGLE MAP
 CREATED 1959, PHOTOREVISED 1971
 NW 1/4 NE 1/4 SEC 15 T6N R19E



NORTH



ZILLMER PROPERTY

PROJECT NO: J03035	PM: TJO
DRAWN BY: MLP	DATE: 5/21/03
CHKD BY: <i>MLP</i>	DATE: 5/21/03
APRVD BY:	DATE:

VICINITY
 DIAGRAM

FIGURE
 1

TILES & MORE

FORMER HARDEE'S

CITGO

SUNSET DRIVE

LIGHT POLE TELEPHONE POLE TREE TELEPHONE POLE

GRASS

SIDEWALK

GRASS

ASPHALT

P-7

325 WEST SUNSET

MICHAEL'S PIZZA

VICTORIA STREET

TREE

P-2

P-1/
W-1

DUMPSTERS

LEGEND

SOIL PROBE LOCATION

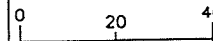
P-4/
W-3

ABANDONED SUMP

323 WEST SUNSET



DIAGRAM SCALE



1 INCH = 40 FEET

ALL DIMENSIONS ON THIS DIAGRAM ARE APPROXIMATE

TREE

TELEPHONE POLE

P-3/
W-2

RESIDENCE

P-6/
W-4

P-5

RESIDENCE



ZILLMER PROPERTY
REMEDIAL INVESTIGATION

PROJECT NO: J03035 PM: TJO
DRAWN BY: AKW DATE: 4/28/03
CHECKED BY: [Signature] DATE: 5/27/03
APPRVD BY: [Signature] DATE: 5/24/03
FILE: J03035-A1

SITE
DIAGRAM

FIGURE

2

TILES & MORE

FORMER HARDEE'S

CITGO

SUNSET DRIVE

LIGHT POLE TELEPHONE POLE GRASS GRASS TELEPHONE POLE TELEPHONE POLE

SIDEWALK

KFC

VICTORIA STREET

GRASS ASPHALT

325 WEST SUNSET

MICHAEL'S PIZZA

LEGEND

SOIL PROBE LOCATION

TREE TELEPHONE POLE

P-3/
W-2
[83.39]

P-4/
W-3
[85.60]

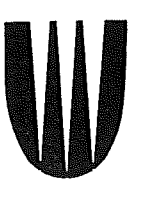
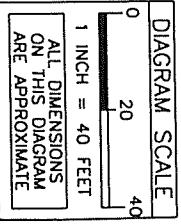
P-1/
W-1
[86.02]

RESIDENCE P-6/
W-4
[85.71]

323 WEST SUNSET

GROUNDWATER FLOW DIRECTION

RESIDENCE



DRAKE
ENVIRONMENTAL, INC.

ZILLMER PROPERTY
REMEDIAL INVESTIGATION

PROJECT NO.: J03035 PM: 110
 DRAWN BY: AKW DATE: 5/20/03
 CHECKED BY: DATE:
 APPROVD BY: DATE:
 FILE: J03035-A2

GROUNDWATER ELEVATIONS
DIAGRAM


FIGURE
3

TILES & MORE

FORMER HARDEE'S

CITGO

LEGEND

-  SOIL PROBE LOCATION
- PCE TETRACHLOROETHENE
- ppb PARTS PER BILLION

SUNSET DRIVE

P-7	P-7
10-12 FT	18-20 FT
PID 28	PID <1
PCE 1,950 ppb	PCE <25.0 ppb

P-2	P-2
14-16 FT	
PID 105	
PCE 10,400 ppb	

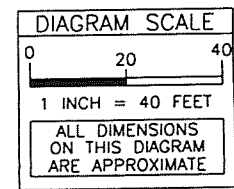
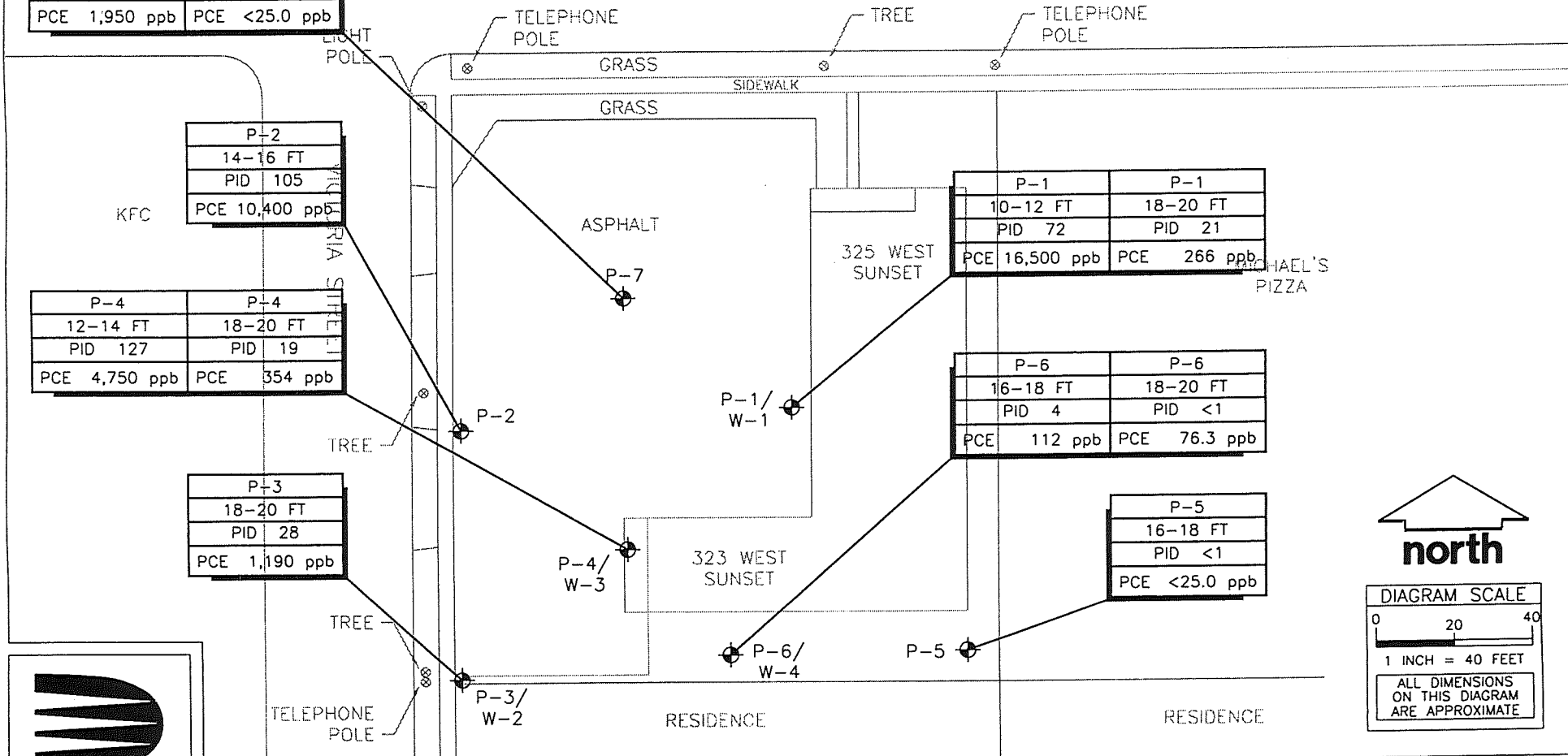
P-4	P-4
12-14 FT	18-20 FT
PID 127	PID 19
PCE 4,750 ppb	PCE 354 ppb

P-3	P-3
18-20 FT	
PID 28	
PCE 1,190 ppb	

P-1	P-1
10-12 FT	18-20 FT
PID 72	PID 21
PCE 16,500 ppb	PCE 266 ppb

P-6	P-6
16-18 FT	18-20 FT
PID 4	PID <1
PCE 112 ppb	PCE 76.3 ppb

P-5	P-5
16-18 FT	
PID <1	
PCE <25.0 ppb	



ZILLMER PROPERTY
REMEDIAL INVESTIGATION

PROJECT NO: J03035 PM: TJO
 DRAWN BY: AKW DATE: 5/20/03
 CHECKED BY: DATE:
 APPRVD BY: DATE:
 FILE: J03035-A3

SOIL ANALYTICAL RESULTS
DIAGRAM




FIGURE
4

TILES & MORE

FORMER HARDEE'S

CITGO

LEGEND

-  SOIL PROBE LOCATION
-  WELLS INSTALLED DURING CITGO INVESTIGATION (1996)
-  TEST BORING GRAB SAMPLES GILES (JULY 2000)
- PCE TETRACHLOROETHENE
- ppb PARTS PER BILLION
- NS NO SAMPLE COLLECTED

SUNSET DRIVE

TELEPHONE POLE TREE TELEPHONE POLE

LIGHT POLE

GRASS

SIDEWALK

GRASS

TREE

TELEPHONE POLE

PCE 12 ppb

B-1

KFC

MW-12

PCE <0.3 ppb

MW-11

PCE <0.3 ppb

VICTORIA STREET

ASPHALT

P-7

325 WEST SUNSET

MICHAEL'S PIZZA

PCE 1.1 ppb

B-2

TREE

P-2

P-1/
W-1

PCE 253 ppb

PCE 433 ppb

P-4/
W-3

323 WEST SUNSET

PCE 89.4 ppb

PCE 244 ppb

NS

B-3

TREE

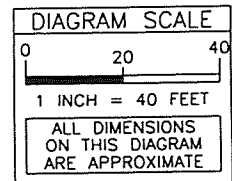
P-3/
W-2

P-6/
W-4

P-5

RESIDENCE

RESIDENCE



ZILLMER PROPERTY
REMEDIAL INVESTIGATION

PROJECT NO: J03035 PM: TJO
 DRAWN BY: AKW DATE: 5/20/03
 CHECKED BY: DATE:
 APPRVD BY: DATE:
 FILE: J03035-A4

GROUNDWATER ANALYTICAL
RESULTS DIAGRAM

FIGURE

5

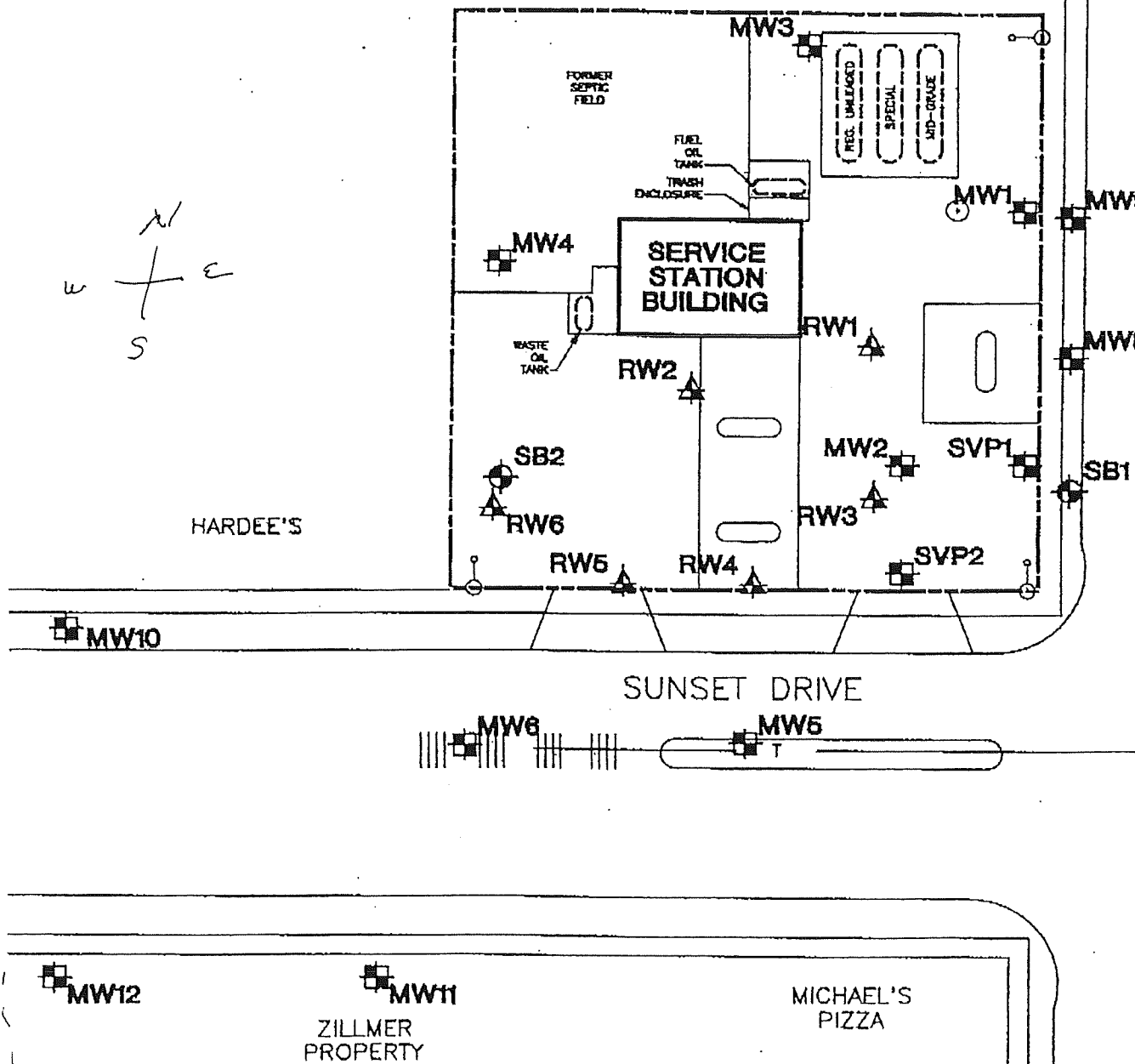
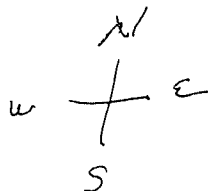
Management Review
Other

Technical Review
Project Manager

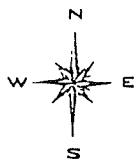
Graphic Standards
Lead Professional

QUALITY CONTROL

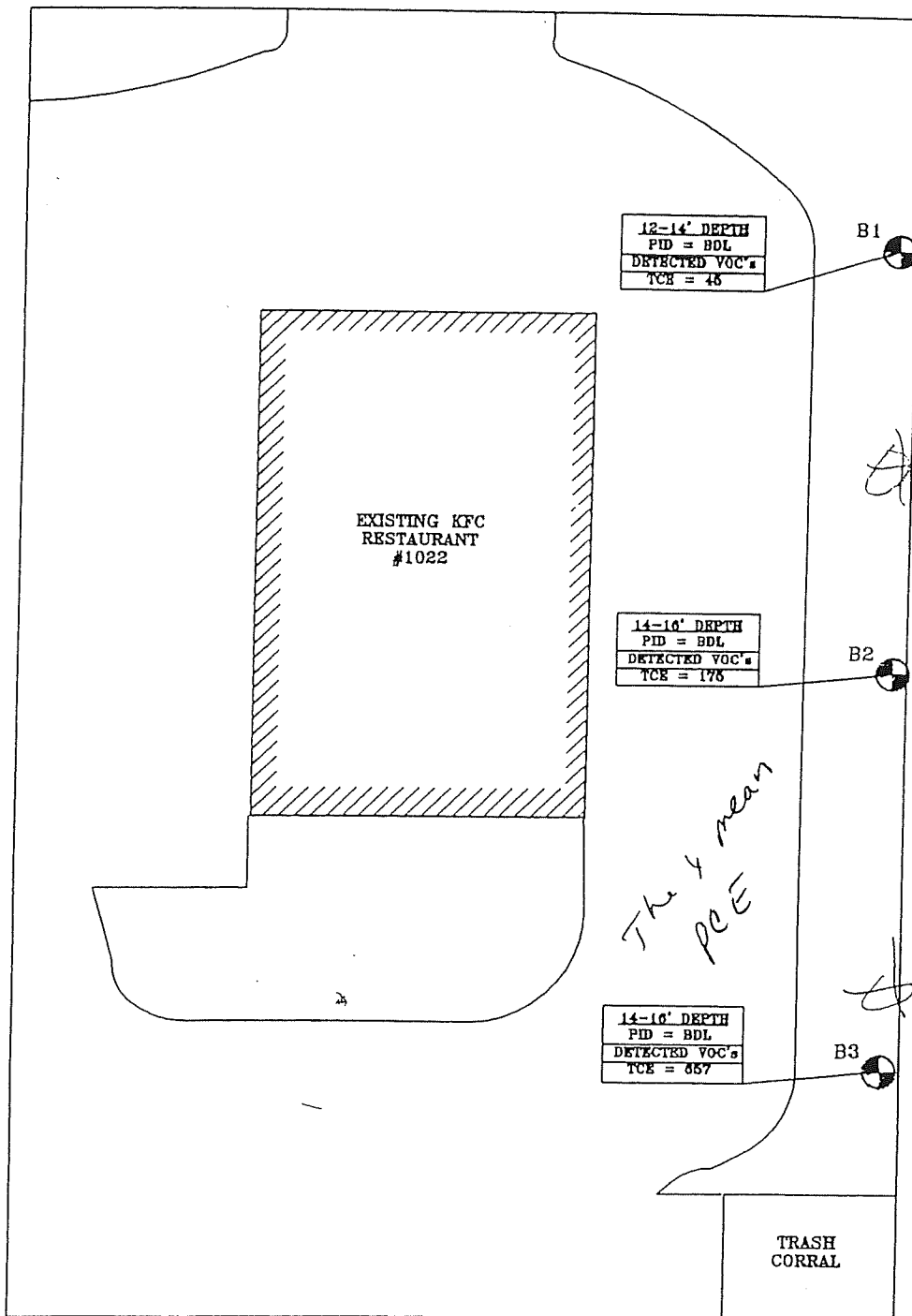
This document has been developed for a specific application and may not be used without the written approval of Montgomery Watson.



SUNSET DRIVE



SIDEWALK



12-14' DEPTH
PID = BDL
DETECTED VOC's
TCE = 48

B1

EXISTING KFC
RESTAURANT
#1022

14-16' DEPTH
PID = BDL
DETECTED VOC's
TCE = 175

B2

14-16' DEPTH
PID = BDL
DETECTED VOC's
TCE = 857

B3

*The 4 mean
PCE*

TRASH
CORRAL

SIDEWALK

GRASS AREA

VICTORIA DRIVE

*Fabricator
Dry Cleaners*

CHEMICAL KEY:
-TCE: TRICHLOROETHENE
NOTES:
VOC RESULTS EXPRESSED IN
MICROGRAMS PER KILOGRAM (Ug/Kg)
EQUIVALENT TO PARTS PER BILLION (ppb)
PID = PHOTOIONIZATION DETECTOR



GILES ENGINEERING ASSOCIATES, INC.
NB W22360 JOHNSON RD.; WAUKESHA, WI, 53186
(414)-644-0118

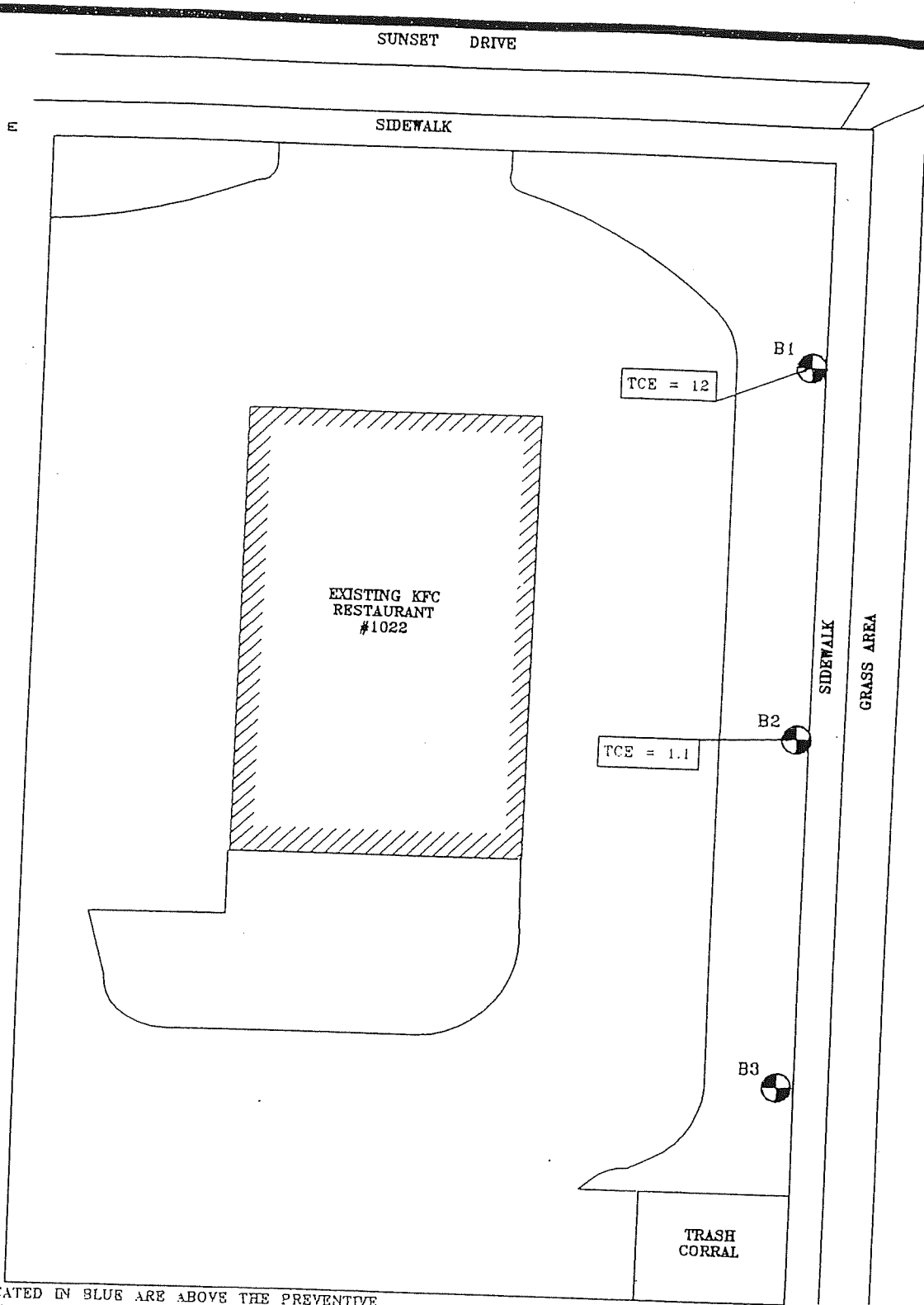
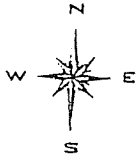
FIGURE 3 SOIL ANALYTICAL RESULTS KFC RESTAURANT NO. 1022 331 EAST SUNSET WAUKESHA, WISCONSIN				
DESIGNED	DRAWN	APPROVED	SCALE	DATE
SCT	ALW	X	1" = 20'	6/19/2000
PROJECT NO.: 1E0005114			CAD No. E0051143	

**TABLE 1
SOIL ANALYTICAL RESULTS**

KFC Restaurant No. 1022
331 East Sunset Drive
Waukesha, Wisconsin
Project No. 1E-0005114

Analyte		WDNR NR 720 Soil Standards	Test Boring Numbers		
			B1	B2	B3
Sample Depth (feet)		--	12-14	14-16	14-16
Sample Date		--	6/12/00	6/12/00	6/12/00
PID (instrument units)		--	BDL	BDL	BDL
Detected VOC (ug/L)	PCE	--	45	175	657

PID: Photoionization Detector
VOC: Volatile Organic Compounds
PCE: Tetrachloroethene
BDL: Below Detection Limit
LOD: Limit of Detection
ug/kg: Micrograms per kilograms; equivalent to parts per billion (ppb)
-- Not applicable



RESULTS INDICATED IN BLUE ARE ABOVE THE PREVENTIVE ACTION LIMIT (PAL) SET FORTH IN TABLE 1 OF NR 140-10
 RESULTS INDICATED IN RED ARE ABOVE THE ENFORCMENT STANDARD (ES) SET FORTH IN TABLE 1 OF NR 140-10

CHEMICAL KEY:
 -TCE: TRICHLOROETHENE

NOTES:
 VOC RESULTS EXPRESSED IN MICROGRAMS PER LITER (ug/l) EQUIVALENT TO PARTS PER BILLION (ppb)



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FIGURE 4
 GROUNDWATER ANALYTICAL RESULTS
 KFC RESTAURANT NO. 1022
 331 EAST SUNSET
 WAUKESHA, WISCONSIN

DESIGNED	DRAWN	APPROVED	SCALE	DATE
SCT	ALW	X	1" = 20'	6/19/2000
PROJECT NO.: 1E0005114			CAD No. R0051144	

TABLE 2
GROUNDWATER ANALYTICAL RESULTS

KFC Restaurant No. 1022
331 East Sunset Drive
Waukesha, Wisconsin
Project No. 1E-0005114

Analyte	WDNR ES (ug/L)	WDNR PAL (ug/L)	Sample Location	
			B1	B2
Date:	--	--	6/14/00	6/14/00
Detected VOC (ug/L)	Tetrachlorethene	5	12	1.1
	Total Xylenes	1,000	<0.29	0.34
	Total VOC (ug/L)	--	--	12

VOC: Volatile Organic Compound
 WDNR: Wisconsin Department of Natural Resources
 -- Not Analyzed/Not Applicable
 ES: Enforcement Standard
 PAL: Preventive Action Limit
 ug/L: Micrograms per liter; equivalent to parts per billion (ppb)

B

TABLE 1 (Page 1 of 2)
PID Screening Results
Zillmer Property
Waukesha, Wisconsin

Probehole No.	Depth (ft.)	PID Reading (iu)
P-1	0-2	< 1
	2-4	9
	4-6	7
	6-8	4
	8-10	12
	10-12	*72
	12-14	45
	14-16	47
	16-18	14
	18-20	*21
P-2	0-2	< 1
	2-4	< 1
	4-6	< 1
	6-8	8
	8-10	4
	10-12	18
	12-14	39
	14-16	*105
P-3	0-2	< 1
	2-4	< 1
	4-6	< 1
	6-8	< 1
	8-10	< 1
	10-12	< 1
	12-14	4
	14-16	22
	16-18	8
	18-20	*28
P-4	0-2	< 1
	2-4	< 1
	4-6	1
	6-8	6
	8-10	20
	10-12	50
	12-14	*127
	14-16	45
	16-18	10
	18-20	*19

*Indicates soil samples submitted for laboratory analyses.

Note: For a list of abbreviations used in this table, see the "Guide to Abbreviations in Laboratory Data Tables" provided at the beginning of this appendix.

TABLE 1 (Page 2 of 2)
PID Screening Results
Zillmer Property
Waukesha, Wisconsin

Probehole No.	Depth (ft.)	PID Reading (iu)
P-5	0-2	<1
	2-4	<1
	4-6	<1
	6-8	<1
	8-10	<1
	10-12	<1
	12-14	<1
	14-16	<1
	16-18	*<1
P-6	0-2	<1
	2-4	<1
	4-6	<1
	6-8	<1
	8-10	1
	10-12	<1
	12-14	1
	14-16	1
	16-18	*4
18-20	*<1	
P-7	0-2	<1
	2-4	12
	4-6	2
	6-8	10
	8-10	14
	10-12	*28
	12-14	<1
	14-16	<1
	16-18	17
18-20	*<1	

*Indicates soil samples submitted for laboratory analyses.

Note: For a list of abbreviations used in this table, see the "Guide to Abbreviations in Laboratory Data Tables" provided at the beginning of this appendix.

TABLE 2
Analytical Results — Soil Samples
Zillmer Property
Waukesha, Wisconsin

Sample No.	Sample Depth (ft.)	PID Reading (iu)	Tetra-chloro-ethene (ppb)	Trichloro-ethene (ppb)	Vinyl chloride (ppb)	cis-1,2-Dichloro-ethene (ppb)	trans-1,2-Dichloro-ethene (ppb)
P-1:S-6	10-12	72	16,500	<25.0	<25.0	<25.0	<25.0
P-1:S-10	18-20	21	266	<25.0	<25.0	<25.0	<25.0
P-2:S-8	14-16	105	10,400	<25.0	<25.0	<25.0	<25.0
P-3:S-10	18-20	28	1,190	<25.0	<25.0	<25.0	<25.0
P-4:S-7	12-14	127	4,750	<25.0	<25.0	<25.0	<25.0
P-4:S-10	18-20	19	354	<25.0	<25.0	<25.0	<25.0
P-5:S-9	16-18	<1	<25.0	<25.0	<25.0	<25.0	<25.0
P-6:S-9	16-18	4	112	<25.0	<25.0	<25.0	<25.0
P-6:S-10	18-20	<1	76.3	<25.0	<25.0	<25.0	<25.0
P-7:S-6	10-12	28	1,950	<25.0	<25.0	<25.0	<25.0
P-7:S-10	18-20	<1	<25.0	<25.0	<25.0	<25.0	<25.0
GEA B-1	12-14	<1	45	<0.34	<0.21	<0.27	<0.25
GEA B-2	14-16	<1	175	<0.34	<0.21	<0.27	<0.25
GEA B-3	14-16	<1	657	<0.34	<0.21	<0.27	<0.25
Generic RCL		—	<i>NS</i>	<i>NS</i>	<i>NS</i>	<i>NS</i>	<i>NS</i>

Note: Concentrations that exceed their DNR NR 720 generic RCLs are in bold type.

Note: For a list of abbreviations used in this table, see the "Guide to Abbreviations in Laboratory Data Tables" provided at the beginning of this appendix.

Note: GEA is Giles Engineering Associates' boring conducted on the KFC site.

Table 3
Groundwater Elevations
Zillmer Property
Waukesha, Wisconsin

Well Number	Date	Total Well Depth	Ground Surface Elevation	Top of Casing Elevation	*Depth to Water Below Casing	Depth to Water Below Ground	Groundwater Elevation
MW-1	4/23/2003	18.76	100.01	99.81	13.79	13.99	86.02
MW-2	4/23/2003	18.27	99.19	98.98	15.59	15.80	83.39
MW-3	4/23/2003	18.63	99.80	99.80	14.20	14.20	85.60
MW-4	4/23/2003	17.20	100.21	100.04	14.33	14.50	85.71

*Measured from the north rim of the top of well casing.

All measurements are presented in feet.

Benchmark: Elevations referenced to a benchmark assigned an arbitrary elevation of 100.00 feet.

Note: For a list of abbreviations used in this table, see the "Guide to Abbreviations in Laboratory Data Tables" provided at the beginning of this appendix.

TABLE 4
Analytical Results-Groundwater Samples
Zillmer Property
Waukesha, Wisconsin

Well ID	Date	Benzene (ppb)	Carbon tetra-chloride (ppb)	Chloro-form (ppb)	cis-1,2-Dichloro-ethene (ppb)	trans-1,2-Dichloro-ethene (ppb)	Methylene chloride (ppb)	Tetra-chloro-ethene (ppb)	Toluene (ppb)	Trichloro ethene (ppb)	Vinyl chloride (ppb)
MW-1	4/23/03	0.53	<0.5	<0.14	<0.5	<0.5	<0.53	253	1.17	<0.5	<0.17
MW-2	4/23/03	<0.5	<0.5	<0.14	<0.5	<0.5	<0.53	244	0.587	<0.5	<0.17
MW-3	4/23/03	<0.5	<0.5	<0.14	<0.5	<0.5	<0.53	433	<0.5	<0.5	<0.17
MW-4	4/23/03	0.849	<0.5	<0.14	<0.5	<0.5	<0.53	89.4	1.29	<0.5	<0.17
<i>ES (ppb)</i>	-	<i>5</i>	<i>5</i>	<i>6</i>	<i>70</i>	<i>100</i>	<i>5</i>	<i>5</i>	<i>1,000</i>	<i>5</i>	<i>0.2</i>
<i>PAL (ppb)</i>	-	<i>0.5</i>	<i>0.5</i>	<i>0.6</i>	<i>7</i>	<i>20</i>	<i>0.5</i>	<i>0.5</i>	<i>200</i>	<i>0.5</i>	<i>0.02</i>

Note: Concentrations which exceed their respective WAC Chapter NR 140 ESs are in bold type.

Note: For a list of abbreviations used in this table, see the "Guide to Abbreviations in Laboratory Data Tables" provided at the beginning of this appendix.