State of Wisconsin DEPARTMENT OF NATURAL RESOURCES 2984 Shawano Avenue Green Bay WI 54313-6727

Scott Walker, Governor Cathy Stepp, Secretary Telephone 608-266-2621 Toll Free 1-888-936-7463



January 24, 2017

Mr. David Charles Satellite Receivers, Ltd. 1740 Cofrin Drive, Suite 2 Green Bay, WI 54302

#### KEEP THIS DOCUMENT WITH YOUR PROPERTY RECORDS

SUBJECT:

Final Case Closure with Continuing Obligations

University Cleaners - 1608, 1608 University Avenue, Green Bay, Wisconsin

DNR BRRTS Activity #: 02-05-233555

Dear Mr. Charles:

The Department of Natural Resources (DNR) considers the University Cleaners - 1608 case to be closed, with continuing obligations. No further investigation or remediation is required at this time. However, you, future property owners, and occupants of the property must comply with the continuing obligations as explained in the conditions of closure in this letter. Please read over this letter closely to ensure that you comply with all conditions and other on-going requirements. Provide this letter and any attachments listed at the end of this letter to anyone who purchases, rents or leases this property from you. Certain continuing obligations also apply to affected property owners or rights-of-way (ROW) holders. These are identified within each continuing obligation.

This final closure decision is based on the correspondence and data provided, and is issued under chs. NR 726 and 727, Wis. Adm. Code. The Northeast Region (NER) Closure Committee reviewed the request for closure on December 18, 2015. The DNR Closure Committee reviewed this environmental remediation case for compliance with state laws and standards to maintain consistency in the closure of these cases. An email request for modifications to the submitted Case Closure - GIS Registry, Form 4400-202 was issued by the DNR on January 13, 2016, and documentation that the conditions in that email were met was received on January 4, 2017.

This former drycleaner site has soil and groundwater contaminated with chlorinated volatile organic compounds. Site investigation activities were completed to define the degree and extent of soil and groundwater contamination. Remedial actions at the site consisted of the removal of the former building and excavation/disposal of contaminated soil. The conditions of closure and continuing obligations required were based on the property being used for commercial purposes.

#### Continuing Obligations

The continuing obligations for this site are summarized below. Further details on actions required are found in the section Closure Conditions.

- Groundwater contamination is present at or above ch. NR 140, Wis. Adm. Code enforcement standards.
- Residual soil contamination exists that must be properly managed should it be excavated or removed.
- Pavement must be maintained over contaminated soil and the DNR must be notified and approve any changes to this barrier.
- Remaining contamination could result in vapor intrusion if future construction activities occur. Future construction includes expansion or partial removal of current buildings as well as construction of new buildings. Vapor control technologies will be required for occupied buildings, unless the property owner assesses the potential for vapor intrusion, and the DNR agrees that vapor control technologies are not needed.



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The DNR fact sheet "Continuing Obligations for Environmental Protection," RR-819, helps to explain a property owner's responsibility for continuing obligations on their property. The fact sheet may be obtained at http://dnr.wi.gov/files/PDF/pubs/rr/RR819.pdf.

#### **GIS** Registry

This site will be included on the Bureau for Remediation and Redevelopment Tracking System (BRRTS on the Web) at <a href="http://dnr.wi.gov/topic/Brownfields/clean.html">http://dnr.wi.gov/topic/Brownfields/clean.html</a>, to provide public notice of residual contamination and of any continuing obligations. The site can also be viewed on the Remediation and Redevelopment Sites Map (RRSM), a map view, under the Geographic Information System (GIS) Registry layer, at the same web address.

DNR approval prior to well construction or reconstruction is required for all sites shown on the GIS Registry, in accordance with s. NR 812.09 (4) (w), Wis. Adm. Code. This requirement applies to private drinking water wells and high capacity wells. To obtain approval, complete and submit Form 3300-254 to the DNR Drinking and Groundwater program's regional water supply specialist. This form can be obtained on-line at http://dnr.wi.gov/topic/wells/documents/3300254.pdf.

All site information is also on file at the NER DNR office located at 2984 Shawano Avenue, Green Bay, Wisconsin. This letter and information that was submitted with your closure request application, including any maintenance plan and maps, can be found as a Portable Document Format (PDF) in BRRTS on the Web.

#### **Prohibited Activities**

Certain activities are prohibited at closed sites because maintenance of a barrier is intended to prevent contact with any remaining contamination. When a barrier is required, the condition of closure requires notification of the DNR before making a change, in order to determine if further action is needed to maintain the protectiveness of the remedy employed. The following activities are prohibited on any portion of the property where pavement is required, as shown on the attached map (Figure D.2. Location Map, December 19, 2016), unless prior written approval has been obtained from the DNR:

- · removal of the existing barrier or cover;
- · replacement with another barrier or cover;
- excavating or grading of the land surface;
- filling on covered or paved areas;
- plowing for agricultural cultivation;
- construction or placement of a building or other structure; and
- changing the use or occupancy of the property to a residential exposure setting, which may include certain uses, such as single or multiple family residences, a school, day care, senior center, hospital, or similar residential exposure settings.

#### Closure Conditions

Compliance with the requirements of this letter is a responsibility to which you, the current property owner, and any subsequent property owners must adhere. DNR staff will conduct periodic prearranged inspections to ensure that the conditions included in this letter and the attached maintenance plan are met. If these requirements are not followed, the DNR may take enforcement action under s. 292.11, Wis. Stats. to ensure compliance with the specified requirements, limitations or other conditions related to the property.

Please send written notifications in accordance with the following requirements to:

Department of Natural Resources Attn: Remediation and Redevelopment Program Environmental Program Associate 2984 Shawano Avenue Green Bay, WI 54313-6727

Residual Groundwater Contamination (ch. NR 140, 812, Wis. Adm. Code)

Groundwater contamination greater than enforcement standards is present both on this contaminated property and within the Elizabeth Street and University Avenue ROWs, as shown on the attached map (Figure B.3.b. Groundwater Isoconcentration, October 21, 2016). If you intend to construct a new well, or reconstruct an

January 24, 2017 Mr. David Charles Final Closure Letter University Cleaners – 1608 BRRTS # 02-05-233555

existing well, you'll need prior DNR approval. Affected ROW holders were notified of the presence of groundwater contamination. This continuing obligation also applies to the ROW holders for Elizabeth Street and University Avenue.

Residual Soil Contamination (ch. NR 718, chs. 500 to 536, Wis. Adm. Code or ch. 289, Wis. Stats.) Soil contamination remains on this contaminated property and within the Elizabeth Street ROW as indicated on the attached map (Figure B.2.b. Residual Soil Contamination, October 10, 2016). If soil in the specific locations described above is excavated in the future, the property owner or ROW holder at the time of excavation must sample and analyze the excavated soil to determine if contamination remains. If sampling confirms that contamination is present, the property owner or ROW holder at the time of excavation will need to determine whether the material is considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable standards and rules. Contaminated soil may be managed in accordance with ch. NR 718, Wis. Adm. Code, with prior DNR approval. This continuing obligation also applies to the ROW holders for Elizabeth Street.

In addition, all current and future owners and occupants of the property and ROW holders need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken to prevent a direct contact health threat to humans.

Cover or Barrier (s. 292.12 (2) (a), Wis. Stats., s. NR 726.15, s. NR 727.07 Wis. Adm. Code)
The pavement that exists in the location shown on the attached map (Figure D.2., Location Map, December 19, 2016) shall be maintained in compliance with the attached maintenance plan (University Cleaners – 1608, Cap Maintenance Plan, December 2, 2016) in order to minimize the infiltration of water and prevent additional groundwater contamination that would violate the groundwater quality standards in ch. NR 140, Wis. Adm. Code.

The cover approved for this closure was designed to be protective for a commercial or industrial use setting. Before using the property for residential purposes, you must notify the DNR at least 45 days before taking an action, to determine if additional response actions are warranted.

A request may be made to modify or replace a cover or barrier. Before removing or replacing the cover, you must notify the DNR at least 45 days before taking an action. The replacement or modified cover or barrier must be protective of the revised use of the property, and must be approved in writing by the DNR prior to implementation. A cover or barrier for industrial land uses, or certain types of commercial land uses may not be protective if the use of the property were to change such that a residential exposure would apply. This may include, but is not limited to single or multiple family residences, a school, day care, senior center, hospital or similar settings. In addition, a cover or barrier for multi-family residential housing use may not be appropriate for use at a single family residence.

The attached maintenance plan (University Cleaners – 1608, Cap Maintenance Plan, December 2, 2016) and inspection log (DNR form 4400-305) are to be kept up-to-date and at an off-site location. Inspections shall be conducted annually, in accordance with the attached maintenance plan. Submit the inspection log to the DNR only upon request.

<u>Vapor Mitigation or Evaluation</u> (s. 292.12 (2), Wis. Stats., s. NR 726.15, s. NR 727.07, Wis. Adm. Code) Vapor intrusion is the movement of vapors coming from volatile chemicals in the soil or groundwater, into buildings where people may breathe air contaminated by the vapors. Vapor mitigation systems are used to interrupt the pathway, thereby reducing or preventing vapors from moving into the building.

Future Concern: Chlorinated volatile organic compounds remain in soil and/or groundwater on the 1608 University Avenue property and within the Elizabeth Street and University Avenue ROWs, as shown on the attached map (University Cleaners – 1608, Cap Maintenance Plan, December 2, 2016), at levels that may be of concern for vapor intrusion in the future, depending on construction and occupancy of a building. Currently, there are no buildings or occupancy on the 1608 University Avenue property. Therefore, before a building is constructed, the property owner must notify the DNR at least 45 days before the change. Vapor control technologies are required

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for construction of occupied buildings unless the property owner assesses the vapor pathway and DNR agrees that vapor control technologies are not needed.

General Wastewater Permits for Construction Related Dewatering Activities

The DNR's Water Quality Program regulates point source discharges of contaminated water, including discharges to surface waters, storm sewers, pits, or to the ground surface. This includes discharges from construction related dewatering activities, including utility and building construction.

If you or any other person plan to conduct such activities, you or that person must contact that program, and if necessary, apply for the necessary discharge permit. Additional information regarding discharge permits is available at <a href="http://dnr.wi.gov/topic/wastewater/GeneralPermits.html">http://dnr.wi.gov/topic/wastewater/GeneralPermits.html</a>. If residual soil or groundwater contamination is likely to affect water collected in a pit/trench that requires dewatering, a general permit for Discharge of Contaminated Groundwater from Remedial Action Operations may be needed. If water collecting in a pit/trench that requires dewatering is expected to be free of pollutants other than suspended solids and oil and grease, a general permit for Pit/Trench Dewatering may be needed.

#### In Closing

Please be aware that the case may be reopened pursuant to s. NR 727.13, Wis. Adm. Code, for any of the following situations:

- if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety, or welfare or to the environment,
- if the property owner does not comply with the conditions of closure, with any deed restrictions applied to the property, or with a certificate of completion issued under s. 292.15, Wis. Stats., or
- a property owner fails to maintain or comply with a continuing obligation (imposed under this closure approval letter).

The DNR appreciates your efforts to restore the environment at this site. If you have any questions regarding this closure decision or anything outlined in this letter, please contact Kristin DuFresne at 920-662-5443, or at Kristin.Dufresne@wisconsin.gov.

Sincerely

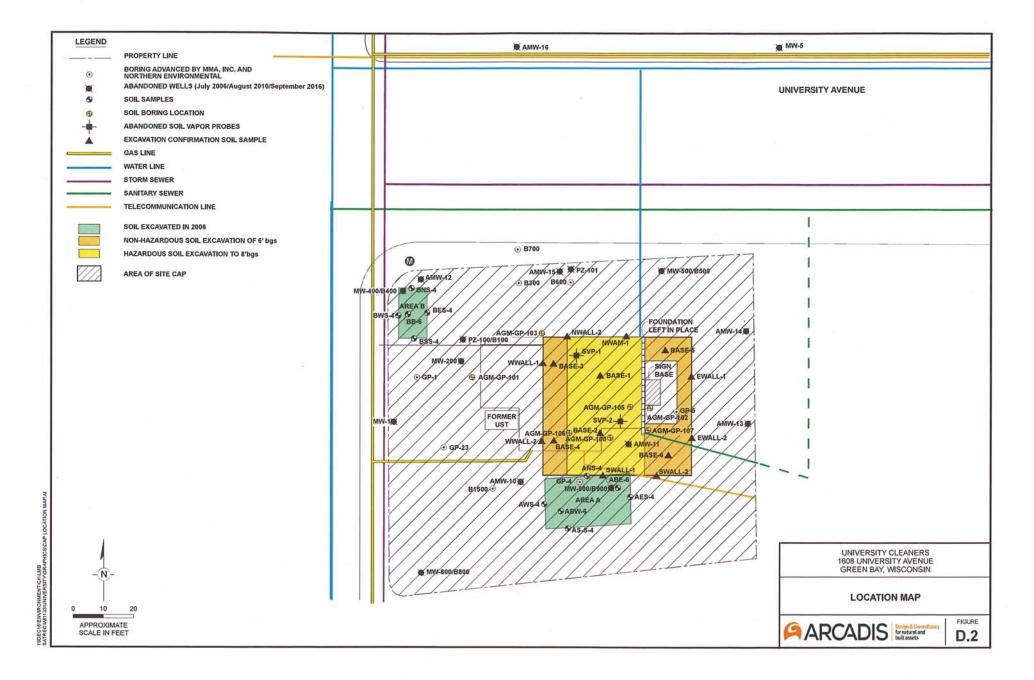
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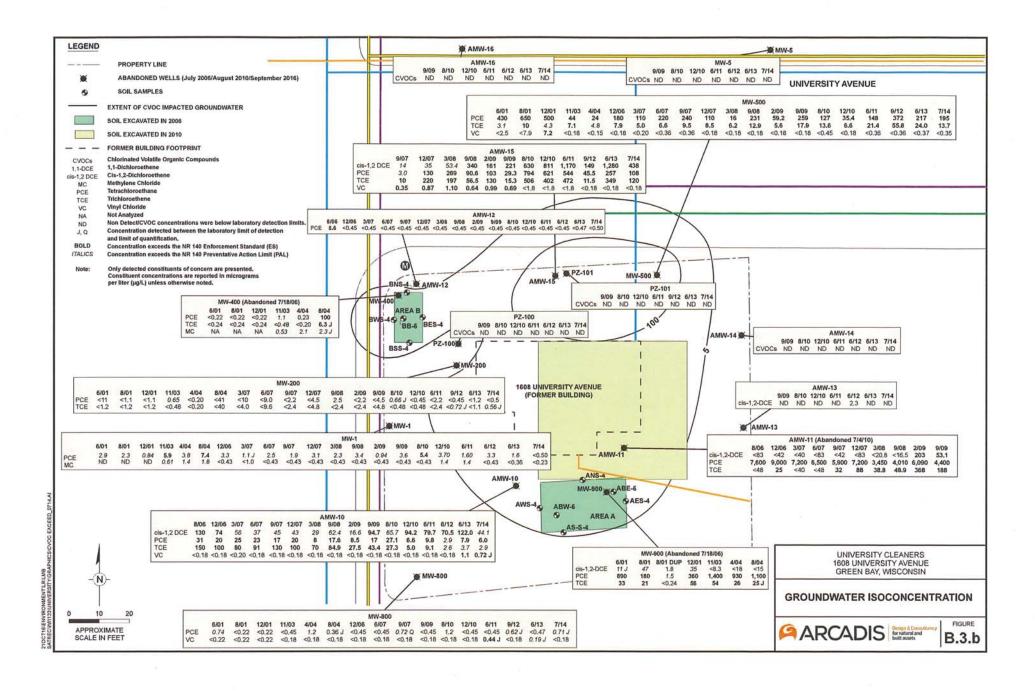
Team Supervisor, Northeast Region Remediation & Redevelopment Program

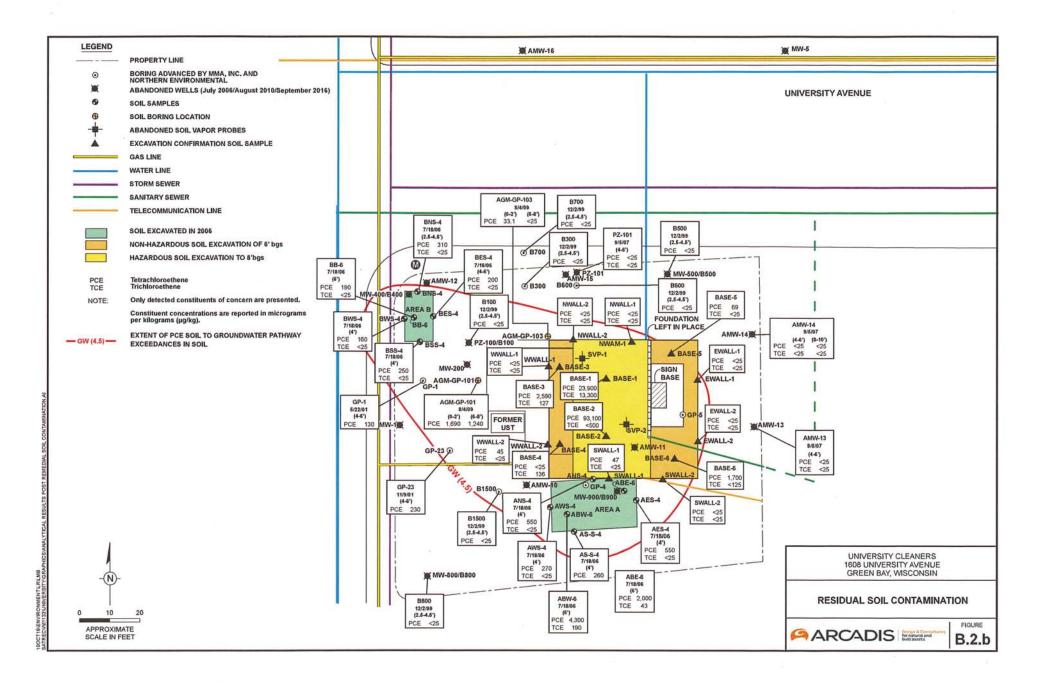
#### Attachments:

- Figure D.2., Location Map, December 19, 2016
- Figure B.3.b, Groundwater Isoconcentration, October 21, 2016
- Figure B.2.b., Residual Soil Contamination, October 10, 2016
- University Cleaners 1608, Cap Maintenance Plan, December 2, 2016
- Continuing Obligations Inspection and Maintenance Log, Form 4400-305 (2/14)

ec: Chris Kubacki, ARCADIS







#### UNIVERSITY CLEANERS - 1608, CAP MAINTENANCE PLAN

December 2, 2016

Property Located at:

1608 University Avenue, Green Bay, Wisconsin, 54302

DNR BRRTS/Activity # 02-05-233555 & # 03-05-216499, FID # 405095570

Parcel ID: 21-2270-2

#### D.1 Introduction:

This document is the Maintenance Plan for a cap at the above-referenced property in accordance with the requirements of s. NR 724.13 (2), Wis. Adm. Code. The maintenance activities relate to an existing cap which addresses or occupies the area over contaminated soil and groundwater.

This Maintenance Plan applies to University Cleaners – 1608 (BRRTS # 02-05-233555) and University Cleaners – Former Standard Stn (BRRTS # 03-05-216499) and supersedes the Maintenance Plan associated with the University Cleaners – Former Standard Stn (BRRTS # 03-05-216499) dated February 12, 2003.

More site-specific information about this property/site may be found in:

- The case file in the DNR Green Bay office
- <u>BRRTS on the Web</u> (DNR's internet based data base of contaminated sites) for the link to a PDF for site-specific information at the time of closure and on continuing obligations;
- RR Sites Map/GIS Registry layer for a map view of the site, and
- The DNR project manager for Brown County.

#### D.1. Descriptions:

#### Description of Contamination

This Maintenance Plan applies to petroleum and chlorinated solvent-related volatile organic compounds in soil and groundwater.

#### Soil:

Concentrations of petroleum and chlorinated solvent-related volatile organic compounds (VOCs) remain in soil at the site at concentrations above the WDNR's soil to groundwater pathway residual contaminant levels (RCLs) and/or above the WDNR's non-industrial direct contact pathway RCLs.

Presently tetrachloroethene (PCE) concentrations ranging from non-detectable to 1,690 micrograms per kilogram ( $\mu$ g/kg) remain in localized areas in the upper 4 feet of soil on site. Below 4 feet, tetrachloroethene concentrations generally range from non-detect to 4,300  $\mu$ g/kg. The highest remaining concentrations of





tetrachloroethene are present at the base of the main excavation in the central portion of the site at 8 to 10 feet below ground surface (ft bgs), and range from non-detect to 93,100  $\mu$ g/kg.

Trichloroethene (TCE) is not present in the upper 4 feet of soil, and generally ranges from non-detect to 190  $\mu$ g/kg below 4 feet. The highest remaining concentrations of trichloroethene are also at the base of the main excavation, and range from non-detect to 13,300  $\mu$ g/kg. Methylene chloride concentrations ranging from non-detectable to 3,200  $\mu$ g/kg also are present at the base of the main excavation. The chlorinated VOCs of PCE, TCE, and methylene chloride are addressed under WDNR BRRTS No. 02-05-233555.

Petroleum compounds (benzene [37  $\mu$ g/kg], naphthalene [1,300  $\mu$ g/kg] and lead [60 milligrams per kilogram]) are also present at two soil boring locations at depths of 2.5 to 4 ft bgs. Petroleum compounds are addressed under WDNR BRRTS No. 03-05-216499, closed by WDNR on February 26, 2003.

#### Groundwater:

Concentrations of petroleum and chlorinated solvent-related VOCs remain in groundwater at the site at concentrations above the WDNR's preventive action limits (PALs) and/or above the WDNR's enforcement standards (ESs).

Groundwater contamination consisting of chlorinated compounds, from prior dry cleaning activities at the site, begin at approximately 6 ft bgs (the depth to groundwater) and extend to approximately 14 ft bgs. Impacted groundwater has not been identified below approximately 14 ft bgs based on data collected from piezometers. Groundwater contamination is highest in the north central portion of the site.

Of the 13 monitoring wells sampled during the latest round of groundwater sampling, 3 monitoring wells contained constituent concentrations above the ES and 3 monitoring wells have constituent concentrations above the PAL. Monitoring Wells MW-200 and MW-800 contained trichloroethene and tetrachloroethene concentrations above the PAL, respectively. Monitoring Well AMW-10 contained concentrations of trichloroethene and cis-1,2-dichloroethane above the PAL.

Monitoring Well AMW-10 also contained concentrations of tetrachloroethene (6 micrograms per liter  $[\mu g/L]$ ) and vinyl chloride (0.29  $\mu g/L$ ) above the ES. Monitoring Well AMW-15 contained concentrations of cis-1,2-dichloroethane (438  $\mu g/L$ ), tetrachloroethene (108  $\mu g/L$ ) and trichloroethene (120  $\mu g/L$ ) above the ES, and Monitoring Well MW-500 contained concentrations of tetrachloroethene (195  $\mu g/L$ ) and trichloroethene (13.7  $\mu g/L$ ) above the ES. The chlorinated VOCs are addressed under WDNR BRRTS No. 02-05-233555.

Petroleum compounds are also present in groundwater. Petroleum compounds such as benzene, ethylbenzene, toluene, xylenes, naphthalene, styrene and trimethylbenzenes have been detected in groundwater above the PAL and/or ES at Monitoring Well MW-200. Petroleum compounds are addressed under WDNR BRRTS No. 03-05-216499, closed by WDNR on February 26, 2003.

#### Description of the Barrier to be Maintained

#### 1608 University Avenue:

The existing barrier consists of approximately three inches of asphalt across the parcel used as a parking lot.

University Avenue and Elizabeth Street Rights-of-Way (ROWS):

The existing barrier consists of roadway asphalt along University Avenue and Elizabeth Street. Along the ROWs, there are also concrete sidewalks. These areas are to be maintained by the City of Green Bay.

The existing barrier features are shown on Figure D.2. Photographs of the barriers to be maintained are included in D.3.

#### Barrier Purpose

The cap over the contaminated soil and groundwater serves as a barrier to prevent direct human contact with residual soil contamination that might otherwise pose a threat to human health. The cap also acts as an infiltration barrier to minimize future soil-to-groundwater contamination migration that could violate the groundwater standards in ch. NR 140, Wisconsin Administrative Code. Based on the current use of the property the barrier should function as intended unless disturbed.

#### Annual Inspection

The asphalt and concrete cap overlying the contaminated soil and groundwater as depicted in Figure D.2 will be inspected once a year, normally in the spring after all snow and ice is gone, for deterioration, cracks and other potential problems that can cause exposure to underlying soils. The inspections will be performed by the property owner or their designated representative. The inspections will be performed to evaluate damage due to settling, exposure to the weather, wear from traffic, increasing age and other factors. Any area where soils have become or are likely to become exposed will be documented.

A log of the inspections and any repairs will be maintained by the property owner and is included as D.4, Form 4400-305, Continuing Obligations Inspection and Maintenance Log. The log will include recommendations for necessary repair of any areas where underlying soils are exposed and where infiltration from the surface will not be effectively minimized. Once repairs are completed, they will be documented in the inspection log. A copy of the maintenance plan and inspection log will be kept at the site; or, if there is no acceptable place (for example, no building is present) to keep it at the site, at the address of the property owner and available for submittal or inspection by Wisconsin Department of Natural Resources (DNR) representatives upon their request.

A copy of the inspection log will be submitted electronically to the DNR upon request.

#### **Maintenance Activities**

If problems are noted during the annual inspections or at any other time during the year, repairs will be scheduled as soon as practical. Repairs can include patching and filling or larger resurfacing or construction operations. In the event that necessary maintenance activities expose the underlying soil, the owner must inform maintenance workers of the direct contact exposure hazard and provide them with appropriate personal protection equipment (PPE). The owner must also sample any soil that is excavated from the site prior to disposal to ascertain if contamination remains. The soil must be treated, stored and disposed of by the owner in accordance with applicable local, state and federal law.

In the event the asphalt and concrete cap overlying the contaminated soil are removed or replaced, the replacement barrier must be equally impervious. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this Cap Maintenance Plan unless indicated otherwise by the DNR or its successor.

The property owner, in order to maintain the integrity of the asphalt and concrete cap, will maintain a copy of this Maintenance Plan at the site; or, if there is no acceptable place to keep it at the site (for example, no building is present), at the address of the property owner and make it available to all interested parties (i.e. on-

site employees, contractors, future property owners, etc.) for viewing.

#### Prohibition of Activities and Notification of DNR Prior to Actions Affecting a Cover/Barrier

The following activities are prohibited on any portion of the property the engineered cap is required as shown on the attached map, unless prior written approval has been obtained from the Wisconsin Department of Natural Resources: 1) removal of the existing barrier; 2) replacement with another barrier; 3) excavating or grading of the land surface; 4) filling on capped or paved areas; 5) plowing for agricultural cultivation; 6) construction or placement of a building or other structure; 7) changing the use or occupancy of the property to a residential exposure setting, which may include certain uses, such as single or multiple family residences, a school, day care, senior center, hospital, or similar residential exposure settings;

If removal, replacement or other changes to a cover, or a building which is acting as a cover, are considered, the property owner will contact DNR at least 45 days before taking such an action, to determine whether further action may be necessary to protect human health, safety, or welfare or the environment, in accordance with s. NR 727.07, Wis. Adm. Code.

#### Amendment or Withdrawal of Maintenance Plan

This Cap Maintenance Plan can be amended or withdrawn by the property owner and its successors with the written approval of DNR.

#### **D.1 Contact Information:**

Site Owner and Operator: David Charles

Satellite Receivers, Ltd.

1740 Cofrin Drive, Suite 2, Green Bay, Wisconsin, 54302

(920) 432-5777

Signature:

(DNR may request signature of affected property owners, on a case-by-case basis)

Property Owner: David Charles

Satellite Receivers, Ltd.

1740 Cofrin Drive, Suite 2, Green Bay, Wisconsin, 54302

(920) 432-5777

Consultant: Arcadis U.S., Inc.

126 N. Jefferson Street, Suite 400, Milwaukee, WI 53202

414-276-7742

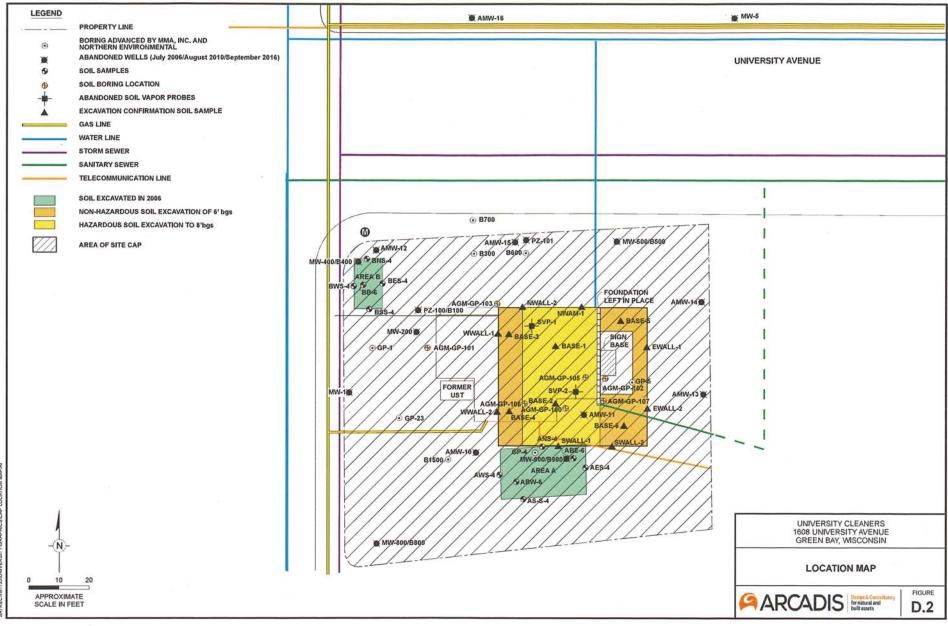
DNR: Ms. Kristin DuFresne

Wisconsin Department of Natural Resources

Green Bay Service Center 2984 Shawano Avenue

Green Bay, Wisconsin 54313-6727

920-662-5443



ECISIENVIRONMENTICKLMB

# **D.3 Photographs**



# **Project Photographs**

University Cleaners – 1608 1608 University Avenue Green Bay, Wisconsin, 54302



Photo: 1

Date: 6-28-2012

**Description:**North side of Cap

Location: Facing West



Photo: 2

Date: 6-28-2012

**Description:**North side of Cap

**Location:**Facing Southwest



# **Project Photographs**

University Cleaners – 1608 1608 University Avenue Green Bay, Wisconsin, 54302

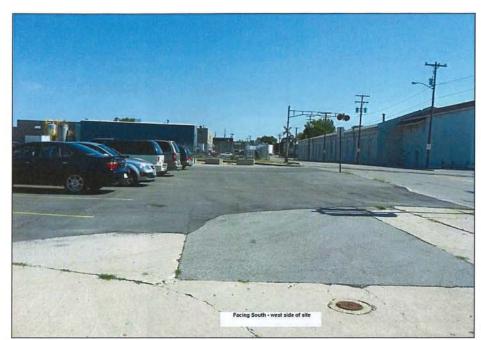


Photo: 3

Date: 6-28-2012

**Description:**West side of Cap

Location: Facing South



Photo: 4

Date: 6-28-2012

**Description:**South side of Cap

**Location:** Facing Southeast



# **Project Photographs**

University Cleaners – 1608 1608 University Avenue Green Bay, Wisconsin, 54302



Photo: 5

Date: 6-28-2012

**Description:** East side of Cap

Location: Facing North



Photo: 6

Date: 6-28-2012

**Description:** North side of Cap

**Location:** Facing North

State of Wisconsin Department of Natural Resources dnr.wi.gov

# **D.4 Inspection Log**

# **Continuing Obligations Inspection and Maintenance Log**

Form 4400-305 (2/14)

Page 1 of

Directions: In accordance with s. NR 727.05 (1) (b) 3., Wis. Adm. Code, use of this form for documenting the inspections and maintenance of certain continuing obligations is required. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31-19.39, Wis. Stats.]. When using this form, identify the condition that is being inspected. See the closure approval letter for this site for requirements regarding the submittal of this form to the Department of Natural Resources. A copy of this inspection log is required to be maintained either on the property, or at a location specified in the closure approval letter. Do NOT delete previous inspection results. This form was developed to provide a continuous history of site inspection results. The Department of Natural Resources project manager is identified in the closure letter. The project manager may also be identified from the database, BRRTS on the Web, at <a href="http://dnr.wi.gov/botw/SetUpBasicSearchForm.do">http://dnr.wi.gov/botw/SetUpBasicSearchForm.do</a>, by searching for the site using the BRRTS ID number, and then looking in the "Who" section.

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Activity (Site	e) Name		2		BRRTS No.						
University	Cleaners - 1608			02-05-233555							
Inspections	○ annual	•	pproval letter):	When submittal of this form is required, submit the form electronically to the DNR promanager. An electronic version of this filled out form, or a scanned version may be so the following email address (see closure approval letter):							
Inspection Date	Inspector Name	Item	Describe the condition of the item that is being inspected	Recommendations for repair or mainte	recom	revious mendations emented?	Photographs taken and attached?				
		monitoring well cover/barrier vapor mitigation system other:			01	/ () N	OYON				
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02-05-233555
BRRTS No.

University Cleaners - 1608 Activity (Site) Name

# Continuing Obligations Inspection and Maintenance Log Form 4400-305 (2/14) Page 2 of 2

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Title:		Title:	

State of Wisconsin DEPARTMENT OF NATURAL RESOURCES 2984 Shawano Avenue Green Bay WI 54313-6727

Scott Walker, Governor Cathy Stepp, Secretary Telephone 608-266-2621 Toll Free 1-888-936-7463

TTY Access via relay - 711



January 24, 2017

RIGHT-OF-WAY

Mr. Steve Grenier 100 North Jefferson Street, Room 300 Green Bay, WI 54301

SUBJECT:

Notice of Closure Approval with Continuing Obligations for Rights-of-Way Holders for

Elizabeth Street and University Avenue, Green Bay, Wisconsin

Final Case Closure for University Cleaners – 1608 1608 University Avenue, Green Bay, Wisconsin

DNR BRRTS Activity #: 02-05-233555

Dear Mr. Grenier:

The Department of Natural Resources (DNR) recently approved the completion of environmental work done at the University Cleaners – 1608 site. This letter describes how that approval applies to the right-of-way (ROW) at Elizabeth Street and University Avenue. As the ROW holder, you are responsible for complying with these continuing obligations for any work you conduct in the ROW.

State law directs parties responsible for environmental contamination to take actions to restore the environment and minimize harmful effects. The law allows some contamination to remain in soil and groundwater if it does not pose a threat to public health, safety, welfare or to the environment.

On March 26, 2015 and October 3, 2016, you received information from David Charles, Satellite Receivers, Ltd., about the chlorinated solvent contamination in the ROW from University Cleaners - 1608, located at 1608 University Avenue, and about the continuing obligations. Continuing obligations are meant to limit exposure to any remaining contamination.

#### Applicable Continuing Obligations

The continuing obligations that apply to these ROWs are described below, and are consistent with Wis. Stat. § 292.12, and Wis. Admin. § NR 700 series.

Residual Groundwater Contamination (ch. NR 140, 812, Wis. Adm. Code)
Groundwater contamination greater than enforcement standards is within the Elizabeth Street and University Avenue ROWs, as shown on the attached map (Figure B.3.b. Groundwater Isoconcentration, October 21, 2016). If you intend to construct a new well, or reconstruct an existing well, you'll need prior DNR approval.

Residual Soil Contamination (ch. NR 718, chs. 500 to 536, Wis. Adm. Code or ch. 289, Wis. Stats.) Soil contamination remains within the Elizabeth Street ROW as indicated on the attached map (Figure B.2.b. Residual Soil Contamination, October 10, 2016). If soil in the specific locations described above is excavated in the future, the property owner or ROW holder at the time of excavation must sample and analyze the excavated soil to determine if contamination remains. If sampling confirms that contamination is present, the property owner or ROW holder at the time of excavation will need to determine whether the material is considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable standards and rules. Contaminated soil may be managed in accordance with ch. NR 718, Wis. Adm. Code, with prior DNR approval.



RIGHT-OF-WAY

January 24, 2017 Mr. Steve Grenier Notice of Closure Approval with Continuing Obligations for Rights-of-Way Holders University Cleaners – 1608 BRRTS # 02-05-233555

In addition, all current and future owners and occupants of the property and ROW holders need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken to prevent a direct contact health threat to humans.

Send all written notifications in accordance with the following requirements to:

Department of Natural Resources
Attn: Remediation and Redevelopment Program Environmental Program Associate
2984 Shawano Avenue
Green Bay, WI 54313-6727

#### Additional Information

Additional information about this case is available at the DNR's Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the Web at <a href="http://dnr.wi.gov/botw/SetUpBasicSearchForm.do">http://dnr.wi.gov/botw/SetUpBasicSearchForm.do</a>. Enter 0205233555 in the Activity Number field in the initial screen, then click on Search. Scroll down and click on the GIS Registry Packet link for information about the completion of the environmental work. The site may also be seen on the map view, RR Sites Map. RR Sites Map can be found at <a href="http://dnr.wi.gov/topic/Brownfields/clean.html">http://dnr.wi.gov/topic/Brownfields/clean.html</a>.

Please contact Kristin DuFresne, the DNR Project Manager, at 920-662-5443 or Kristin Dufresne@wisconsin.gov with any questions or concerns.

Sincerely,

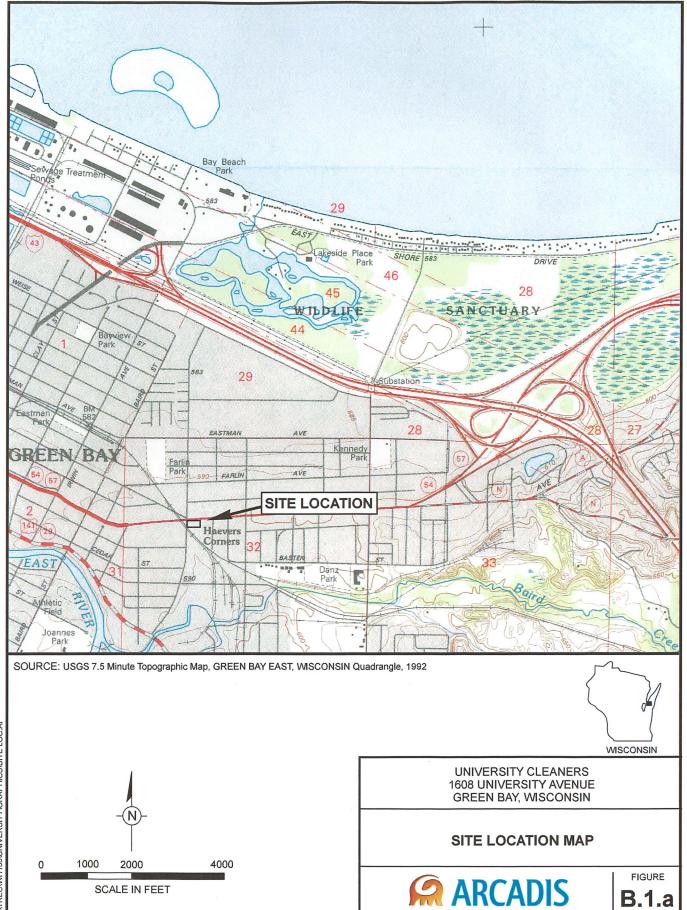
Roxanne N. Chronert

Team Supervisor, Northeast Region Remediation & Redevelopment Program

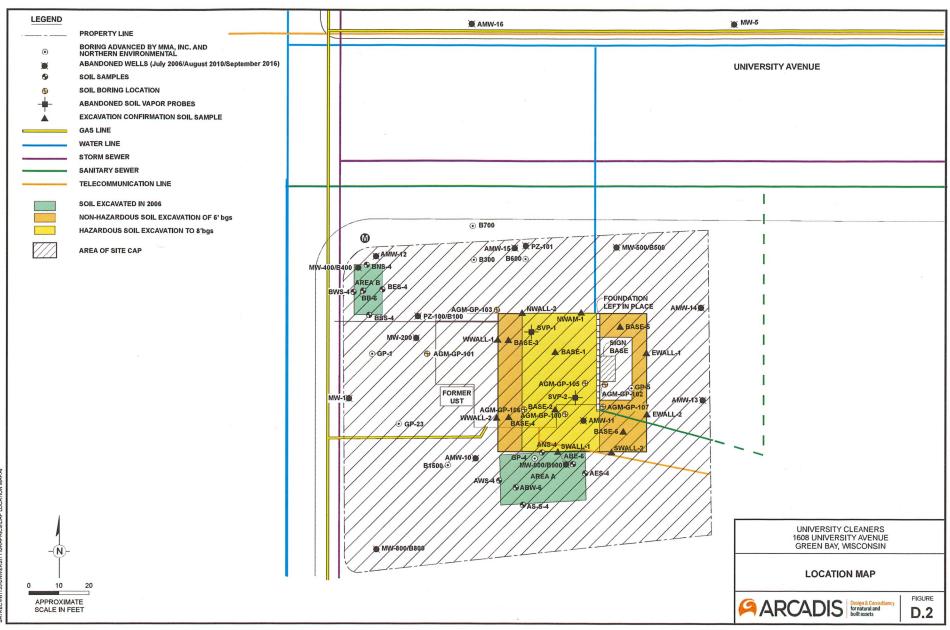
#### Attachments:

- Figure B.1.a., Site Location Map, October 20, 2016
- Figure D.2., Location Map, December 19, 2016
- Figure B.3.b, Groundwater Isoconcentration, October 21, 2016
- Figure B.2.b., Residual Soil Contamination, October 10, 2016

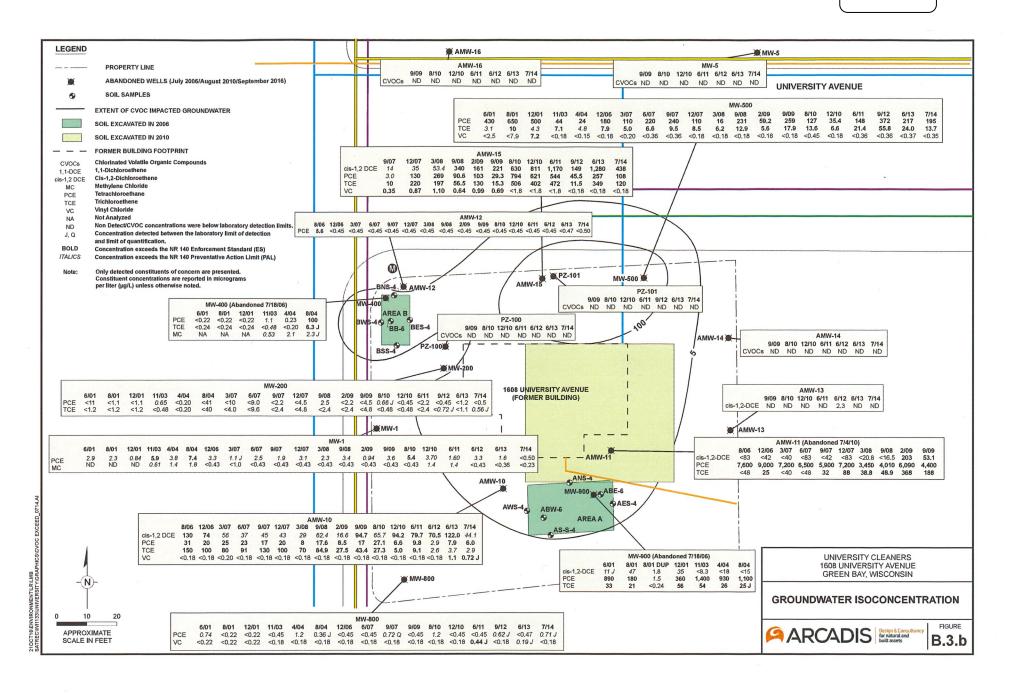
ec: David Charles, Satellite Receivers, Ltd. Chris Kubacki, ARCADIS

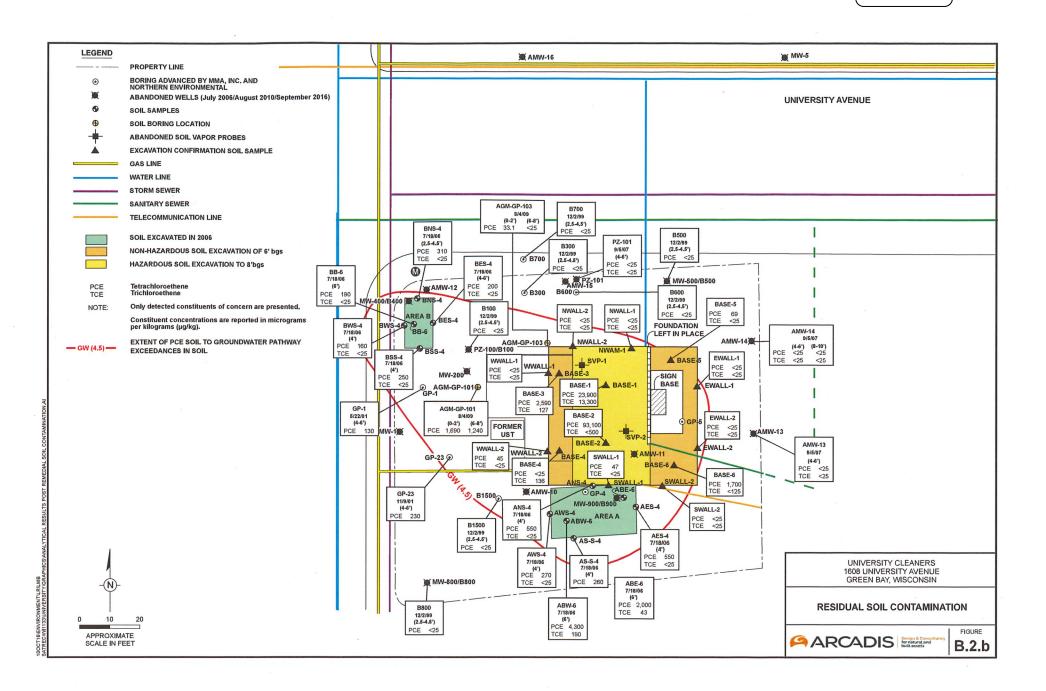


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# Case Closure - GIS Registry

Form 4400-202 (R 3/15)

### SUBMIT AS UNBOUND PACKAGE IN THE ORDER SHOWN

Notice: Pursuant to ch. 292, Wis. Stats., and chs. NR 726 and 746, Wis. Adm. Code, this form is required to be completed for case closure requests. The closure of a case means that the Department of Natural Resources (DNR) has determined that no further response is required at that time based on the information that has been submitted to the DNR. All sections of this form must be completed unless otherwise directed by the Department. DNR will consider your request administratively complete when the form and all sections are completed, all attachments are included, and the applicable fees required under ch. NR 749, Wis. Adm. Code, are included, and sent to the proper destinations. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law (ss. 19.31 - 19.39, Wis. Stats.). Incomplete forms will be considered "administratively incomplete" and processing of the request will stop until required information is provided.

Site Information				
BRRTS No.	VPLE No.			
02-05-233555	J. a			
Parcel ID No.				
21-2270-2				
FID No.	WTM Co	ordinates		71.0
405095570	X 680349.0	Y	150716	.1
BRRTS Activity (Site) Name	WTM Coordinates Represent:			
University Cleaners - 1608	Source Area	□ Parcel	Center	
Site Address	City		State	ZIP Code
1608 University Avenue	Green Bay		WI	54302
Acres Ready For Use				100 100 100 100 100 100 100 100 100 100
0	.25			
Responsible Party (RP) Name		X400		
David Charles				
Company Name				3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
Satellite Receivers, Ltd.				
Mailing Address	City		State	ZIP Code
1740 Cofrin Drive, Suite 2	Green Bay		WI	54302
Phone Number	Email			-111
(920) 432-5777	dcharles@srlcd.com			
Check here if the RP is the owner of the source property.				
Environmental Consultant Name				
Christopher Kubacki				
Consulting Firm				
Arcadis U.S., Inc.				
Mailing Address	City		State	ZIP Code
126 N. Jefferson Street, Suite 400	Milwaukee		WI	53202
Phone Number	Email			
(414) 276-7742	chris.kubacki@arcadis.com			
Fees and Mailing of Closure Request				
<ol> <li>Send a copy of page one of this form and the applicable ch. N (Environmental Program Associate) at <a href="http://dnr.wi.gov/topic/">http://dnr.wi.gov/topic/</a></li> </ol>	IR 749, Wis. Adm. Code, fee(s) to Brownfields/Contact.html. Check	the DNR Reg k all fees tha	gional E it apply:	PA
\$1,050 Closure Fee	\$300 Database Fee for S	ioil		
\$350 Database Fee for Groundwater or	Total Amount of Payment \$	\$1,700.00		
Monitoring Wells (Not Abandoned)	Resubmittal, Fees Previo		**	

Send one paper copy and one e-copy on compact disk of the entire closure package to the Regional Project Manager assigned to your site. Submit as unbound, separate documents in the order and with the titles prescribed by this form. For electronic document submittal requirements, see http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf.

Activity (Site) Name

Form 4400-202 (R 3/15)

#### Site Summary

If any portion of the Site Summary Section is not relevant to the case closure request, you must fully explain the reasons why in the relevant section of the form. All information submitted shall be legible. Providing illegible information will result in a submittal being considered incomplete until corrected.

#### 1. General Site Information and Site History

- A. Site Location: Describe the physical location of the site, both generally and specific to its immediate surroundings. The Site is located in the SE 1/4 of the NW 1/4 of Sec 32, T24N, R21E in the county of Brown, at 1608 University Avenue in Green Bay, Wisconsin. The Site is approximately 0.25 acre in size and was developed with a building located in the center, with the remainder of the site completed with asphalt and concrete parking lots. The Site is bordered by University Avenue to the north, Elizabeth Street to the west, a residence to the east, and industrial property to the south. The building was demolished in 2010. The Site is currently vacant, unoccupied, and paved. There is a billboard located in the center of the Site.
- B. Prior and current site usage: Specifically describe the current and historic occupancy and types of use. A gasoline service station previously occupied the Site. Underground storage tanks (USTs) were located along the southwestern corner of the building, and a dispensing island was located in the northern portion of the Site. The building on the Site was later occupied by a dry cleaner. Dry cleaning was conducted at the Site until approximately November 2000. The building was demolished in 2010. The Site is currently vacant and unoccupied, except for a billboard located in the center of the Site, and used as a parking lot.
- Current zoning (e.g., industrial, commercial, residential) for the site and for neighboring properties, and how verified (Provide documentation in Attachment G).
  - Commercial 2. Verified from the Green Bay Zoning Map.
- D. Describe how and when site contamination was discovered.

A limited Phase II Environmental Site Assessment (ESA) was completed at the Site in February 1999 by Northern Environmental. The Phase II ESA identified a release associated with dry cleaning operations. The WDNR was notified of the release on March 22, 1999. It is understood that at the time of this release, the dry cleaners was a licensed facility as defined in ch. NR 169, Wis. Adm. Code.

- E. Describe the type(s) and source(s) or suspected source(s) of contamination. Site contamination consisted of chlorinated solvents, primarily tetrachloroethene and trichloroethene, sourced from dry cleaning operations.
- F. Other relevant site description information (or enter Not Applicable).

A gasoline service station previously occupied the Site. Underground storage tanks (USTs) were located along the southwestern corner of the building, and a dispensing island was located in the northern portion of the Site. An investigation of potential releases associated with the USTs was completed under WDNR BRRTS No. 03-05-216499, closed by WDNR on February 26, 2003. It is noted that at the time of closure, petroleum constituents remained in the groundwater at concentrations exceeding ch. NR 140, Wis. Adm. Code enforcement standards (ES). According to the WDNR BRRTS web site, the petroleum release at the Site was closed with a deed restriction and cap maintenance plan, and registration on the groundwater Geographical Information System (GIS).

- G. List BRRTS activity/site name and number for BRRTS activities at this source property, including closed cases. 03-05-216499 UNIVERSITY CLEANERS (FORMER STANDARD STATION) 02-05-000203 UNIVERSITY CLEANERS
- H. List BRRTS activity/site name(s) and number(s) for all properties immediately adjacent to (abutting) this source property. 02-05-321297 UNIVERSITY CLEANERS - 1620 04-05-045892 1545 UNIVERSITY AVE

#### **General Site Conditions**

- A. Soil/Geology
  - Describe soil type(s) and relevant physical properties, thickness of soil column across the site, vertical and lateral variations in soil types.
    - The Site geology generally consists of three units of unconsolidated materials with some variations within each unit. Fill is present from the ground surface to approximately 2.0 feet (ft) below ground surface (bgs) and is underlain by sand and silty sand. The sand is gray, generally fine grained up to medium and coarse grain (in places), with little silt and trace gravel. From approximately 3.5 to 7 ft bgs a sandy silt unit is observed that is predominantly grayish brown and mottled. This unit includes very fine sand, trace gravel, and trace black staining with groundwater observed within the unit. At approximately 7 to 8.0 ft bgs a clay/silt unit is present that is predominately brown with trace very fine to fine grain sand lenses.
  - Describe the composition, location and lateral extent, and depth of fill or waste deposits on the site. Fill is present from the ground surface to approximately 2.0 ft bgs and is underlain by sand and silty sand.

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- iii. Describe the depth to bedrock, bedrock type, competency and whether or not it was encountered during the investigation. No bedrock encountered. Based on regional geology bedrock consists of dolomite at a depth of 100 ft bgs or less.
- iv. Describe the nature and locations of current surface cover(s) across the site (e.g., natural vegetation, landscaped areas, gravel, hard surfaces, and buildings).
  - An asphalt parking lot covers the entire site with concrete at the perimeter. No buildings or structures are present.

#### B. Groundwater

- Discuss depth to groundwater and piezometric elevations. Describe and explain depth variations, including high and low water table elevation and whether free product affects measurement of water table elevation. Describe the stratigraphic unit(s) where water table was found or which were measured for piezometric levels.
  - Groundwater is encountered at approximately 6 ft bgs or an elevation of approximately 102 ft msl. The water table occurs in a sandy silt unit that extends from approximately 3 to 7 ft bgs and is underlain by a clay/silt unit. Based on wells placed across the water table and piezometers placed at approximately 28 ft bgs there may be a slight upwards gradient in the area.
- Discuss groundwater flow direction(s), shallow and deep. Describe and explain flow variations, including fracture flow if present.
  - Groundwater flow direction is generally to the north and northwest. Based on wells placed across the water table and piezometers placed at approximately 28 ft bgs there may be a slight upwards gradient in the area. Green Bay is approximately 1.5 miles to the north.
- iii. Discuss groundwater flow characteristics: hydraulic conductivity, flow rate and permeability, or state why this information was not obtained.
  - No direct hydraulic conductivity measurements were collected. The hydraulic conductivity of sandy silt, indicative of the geology at the site where the water table occurs, is typically in the range from 10-6 to 10-4 centimeters/second or .3 to 3 feet/day.
- Identify and describe locations/distance of potable and/or municipal wells within 1200 feet of the site. Include general summary of well construction (geology, depth of casing, depth of screened or open interval).
   None.

#### 3. Site Investigation Summary

#### A. General

 Provide a brief summary of the site investigation history. Reference previous submittals by name and date. Describe site investigation activities undertaken since the last submittal for this project and attach the appropriate documentation in Attachment C, if not previously provided.

Initial investigation of the site was in February 1999, when Northern Environmental conducted a Phase II ESA that encountered contamination by petroleum compounds from a former gas station (related to WDNR BRRTS No. 03-05-216499) and chlorinated solvents from a dry cleaning operation existing on site. Investigation activities continued in December 1999 when Northern Environmental completed 12 soil borings, installed seven monitoring wells and 1 piezometer, and collected soil and groundwater samples to define the extent of petroleum and chlorinated solvents in the soil/groundwater.

In May 2001, additional site investigation activities were completed by Northern Environmental and MMA, Inc. These activities included completion of eight geoprobe soil borings additional soil and groundwater sampling.

In February 2006, ARCADIS became involved with the site and in July 2006, ARCADIS implemented remedial activities including soil excavation. In addition, these activities included the installation of three monitoring wells and one piezometer to support a groundwater monitoring program for natural attenuation. Groundwater monitoring activities were continued from 2006 through 2009. In 2008, one additional monitoring well was installed to supplement the groundwater monitoring program.

In August 2009, ARCADIS completed seven additional geoprobe soil borings and soil sampling to further define extent and concentrations of chlorinated solvents in the soil. In July 2010, remediation activities continued with the additional removal of soil. Groundwater monitoring continued from 2009 through 2014.

Previous report submittals that describe these investigation activities are listed in Attachment C.

ii. Identify whether contamination extends beyond the source property boundary, and if so describe the media affected (e.g., soil, groundwater, vapors and/or sediment, etc.), and the vertical and horizontal extent of impacts.

Soil contamination may extend off the site property as verified by soil samples collected from soil borings located at the edges of the property. Soil contamination in the vadose zone was historically present primarily within the upper 4 ft bgs, and extended to as deep as approximately 6 ft bgs in the central area of the site, where this soil has been excavated. Groundwater impacts begin at approximately 6 ft bgs (the depth to groundwater) and extend to approximately 14 ft bgs.

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Impacted groundwater has not been identified below approximately 14 ft bgs based on data collected from piezometers. Groundwater contamination is highest in the north central portion of the site. Groundwater impacts extend to the north of the site onto the right-of-way for University Avenue, but are not present on the north side of University Avenue, based on data collected from the monitoring wells present. Soil and groundwater impacts may also extend to the west of the site onto the right-of-way for Elizabeth Street adjacent to the soil excavation completed in 2006 near the northwest corner of the site.

Identify any structural impediments to the completion of site investigation and/or remediation and whether these impediments are on the source property or off the source property. Identify the type and location of any structural impediment (e.g., structure) that also serves as the performance standard barrier for protection of the direct contact or the groundwater pathway.

There are currently no impediments on or off the source property for site investigation/remediation. A former building on site was demolished in July 2010, allowing for the removal of impacted soil as a remedy. Currently the site is paved with asphalt and is used as a parking lot.

#### B. Soil

Describe degree and extent of soil contamination. Relate this to known or suspected sources and known or potential receptors/migration pathways.

Based on soil boring results, soil contamination may extend off-site. Site contamination consisted of chlorinated solvents, primarily tetrachloroethene and trichloroethene, sourced from previous dry cleaning operations. Methylene chloride has also been identified in the soil. Impacts in the soil were mostly found in the interval from 2-8 ft bgs, with tetrachloroethene concentrations ranging from non-detectable to 368,000 micrograms per kilogram (ug/kg). The highest chlorinated concentrations were present in the central portion of the site, beneath a building that was demolished to allow excavation of this impacted soil. Previous chlorinated constituent concentrations were above direct contact and groundwater pathway protection standards.

Petroleum compounds (benzene/ethylbenzene/naphthalene) are present at two soil boring locations related to former USTs from a gas station also at the site. Petroleum compounds are addressed under WDNR BRRTS No. 03-05-216499, closed by WDNR on February 26, 2003.

Describe the concentration(s) and types of soil contaminants found in the upper four feet of the soil column. Tetrachloroethene concentrations ranging from non-detectable to 368,000 ug/kg were historically present in the upper 4 ft of soil. Presently tetrachloroethene concentrations ranging from non-detectable to 1,690 ug/kg remain in the upper 4 ft of soil. Methylene chloride concentrations ranging from non-detectable to 37 ug/kg also remain in the upper 4 ft of

Petroleum compounds (benzene (37 ug/kg)/ethylbenzene (2,900 ug/kg)/naphthalene (1,300 ug/kg)) are present at two soil boring locations. Petroleum compounds are addressed under WDNR BRRTS No. 03-05-216499, closed by WDNR on February 26, 2003.

Identify the ch. NR 720, Wis. Adm. Code, method used to establish the soil cleanup standards for this site. This includes a soil performance standard established in accordance with s. NR 720.08, a Residual Contaminant Level (RCL) established in accordance with s. NR 720.10 that is protective of groundwater quality, or an RCL established in accordance with s. NR 720.12 that is protective of human health from direct contact with contaminated soil. Identify the land use classification that was used to establish cleanup standards. Provide a copy of the supporting calculations/ information in Attachment C.

Generic NR 720.08 Residual Contaminant Levels (RCLs) for Non-Industrial direct contact and soil to groundwater pathway standards were used.

#### C. Groundwater

Describe degree and extent of groundwater contamination. Relate this to known or suspected sources and known or potential receptors/migration pathways. Specifically address any potential or existing impacts to water supply wells or interception with building foundation drain systems.

Groundwater contamination consisting of chlorinated compounds, from prior dry cleaning activities at the site, begin at approximately 6 ft bgs (the depth to groundwater) and extend to approximately 14 ft bgs. Impacted groundwater has not been identified below approximately 14 ft bgs based on data collected from piezometers. Groundwater contamination is highest in the north central portion of the site. Groundwater impacts extend to the north of the site onto the right-of-way for University Avenue, but are not present on the north side of University Avenue, based on data collected from monitoring wells located there. Groundwater impacts also extend to the west of the site onto the right-of-way for Elizabeth Street adjacent to the soil excavation completed in 2006 near the northwest corner of the site. Potable water is supplied by the city of Green Bay, and there are no water supply walls with the area. There are no buildings or foundations on the site. Groundwater contamination does not extend to buildings north and east of the site.

Describe the presence of free product at the site, including the thickness, depth, and locations. Identify the depth and location of the smear zone.

No free product was encountered at the site.

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#### D. Vapor

- Describe how the vapor migration pathway was assessed, including locations where vapor, soil gas, or indoor air samples were collected. If the vapor pathway was not assessed, explain reasons why.

  The former building at the site was demolished and the chlorinated compound source was excavated and removed from the site. No buildings remain at the site. Surrounding buildings are not within 100 ft of the previous chlorinated compounds source area. No buildings overlay the remaining groundwater plume with groundwater concentrations above Wisconsin's groundwater enforcement standards (ES). Monitoring wells present between the site and buildings to the north and east indicate that groundwater is not contaminated in the area of the off site buildings.
- ii. Identify the applicable DNR action levels and the land use classification used to establish them. Describe where the DNR action levels were reached or exceeded (e.g., sub slab, indoor air or both).
  Not Applicable. No buildings on site or within 100 feet of former source area.

#### E. Surface Water and Sediment

- i. Identify whether surface water and/or sediment was assessed and describe the impacts found. If this pathway was not assessed, explain why.
  - Not Applicable. No surface water/sediment within 1200 ft of site.
- Identify any surface water and/or sediment action levels used to assess the impacts for this pathway and how these were derived. Describe where the DNR action levels were reached or exceeded.
   Not Applicable. No surface water/sediment was assessed.

#### 4. Remedial Actions Implemented and Residual Levels at Closure

A. General: Provide a brief summary of the remedial action history. List previous remedial action report submittals by name and date. Identify remedial actions undertaken since the last submittal for this project and provide the appropriate documentation in Attachment C.

Based on the investigation activities conducted by Northern Environmental and MMA, Inc. in 1999 and 2001, two areas of the site were identified as likely source areas. These initial soil removal activities were approved by the WDNR in a letter dated May 15, 2006. Remedial actions at the Site were initially completed in 2006, and consisted of soil excavation at the two apparent source areas totaling 170 tons, and the abandonment of two wells within the areas of the excavations. Subsequent investigation activities indicated an additional source area beneath the building. In 2010, the building was demolished and 709.4 tons of soil were removed from the area of the former building. These soil removal activities were approved by the WDNR in a letter dated June 17, 2010. A total of approximately 879 tons of impacted soil were removed in 2006 and 2010 from these three source areas, and are defined by soil samples collected from soil borings. Groundwater impacts are being addressed through natural attenuation. There are no active systems at the Site presently or historically.

- B. Describe any immediate or interim actions taken at the site under ch NR 708, Wis. Adm. Code. There were no immediate or interim actions.
- C. Describe the active remedial actions taken at the source property, including: type of remedial system(s) used for each media affected; the size and location of any excavation or in-situ treatment; the effectiveness of the systems to address the contaminated media and substances; operational history of the systems; and summarize the performance of the active remedial actions. Provide any system performance documentation in Attachment A.7.

There were no active remedial actions.

- D. Describe the alternatives considered during the Green and Sustainable Remediation evaluation in accordance with NR 722.09 and any practices implemented as a result of the evaluation.
  - Removing the source from the site addressed the long-term care and management of the property.
- E. Describe the nature, degree and extent of residual contamination that will remain at the source property or on other affected properties after case closure.

Based on soil boring results, soil contamination may extend off-site. Presently tetrachloroethene concentrations ranging from non-detectable to 1,690 ug/kg remain in localized areas in the upper 4 ft of soil on site. Below 4 ft, tetrachloroethene concentrations generally range from non-detect to 4,300 ug/kg. The highest remaining concentrations of tetrachloroethene are present at the base of the main excavation in the central portion of the site at 8 to 10 ft bgs, and range from non-detect to 93,100 ug/kg. This area is covered by 8-10 ft of clean fill material and an asphalt cover in place under requirements of the WDNR BRRTS No. 03-05-216499 case closure.

Trichloroethene is not present in the upper 4 ft of soil, and generally ranges from non-detect to 190 ug/kg below 4 ft. The highest remaining concentrations of trichloroethene are also at the base of the main excavation, and range from non-detect to 13,300 ug/kg. Methylene chloride concentrations ranging from non-detectable to 3,200 ug/kg also are present at the base of the main excavation.

Petroleum compounds (benzene (37 ug/kg)/ethylbenzene (2,900 ug/kg)/naphthalene (1,300 ug/kg)) are also present at two

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soil boring locations at depths of 2.5 to 4 ft bgs. Petroleum compounds are addressed under WDNR BRRTS No. 03-05-216499, closed by WDNR on February 26, 2003.

F. Describe the residual soil contamination within four feet of ground surface (direct contact zone) that attains or exceeds RCLs established under s. NR 720.12, Wis. Adm. Code, for protection of human health from direct contact.
Presently tetrachloroethene concentrations ranging from non-detectable to 1,690 ug/kg remain in the upper 4 ft of soil.
Methylene chloride concentrations ranging from non-detectable to 37 ug/kg also remain in the upper 4 ft of soil. These concentrations are all below the non-industrial direct contact RCLs.

Petroleum compounds (benzene (37 ug/kg)/ethylbenzene (2,900 ug/kg)/naphthalene (1,300 ug/kg)) are present at two soil boring locations. These concentrations are all below the direct contact RCLs. Petroleum compounds are addressed under WDNR BRRTS No. 03-05-216499, closed by WDNR on February 26, 2003.

G. Describe the residual soil contamination that is above the observed low water table that attains or exceeds the soil standard(s) for the groundwater pathway.

Tetrachloroethene concentrations present above the observed low water table that exceed the soil standards for groundwater pathway range from 33.1 to 1,690 ug/kg. Trichloroethene concentrations present above the observed low water table that exceed the soil standard for groundwater pathway range from 43 to 190 ug/kg. Methylene chloride concentrations are also present above the observed low water table that exceed the soil standard for the groundwater pathway, and range from 37 to 167 ug/kg.

Petroleum compounds (benzene (37 ug/kg)/ethylbenzene (2,900 ug/kg)/naphthalene (1,300 ug/kg)) are present above the observed low water table at two soil boring locations that exceed the soil standards for the groundwater pathway.

H. Describe how the residual contamination will be addressed, including but not limited to details concerning: covers, engineering controls or other barrier features; use of natural attenuation of groundwater; and vapor mitigation systems or measures.

The site currently has an asphalt/concrete engineered barrier, cap maintenance plan, and the property is recorded on the WDNR GIS registry per the requirements of WDNR BRRTS No. 03-05-216499 case closure. A new maintenance plan that addresses the residual contamination associated with both the petroleum and chlorinated sites is included in Attachment D. Residual contamination in the groundwater is being addressed by natural attenuation. There are no buildings on-site or within 100 ft of the original source.

- I. If using natural attenuation as a groundwater remedy, describe how the data collected supports the conclusion that natural attenuation is effective in reducing contaminant mass and concentration (e.g., stable or receding groundwater plume). As many as 21 rounds of groundwater samples have been collected from older wells and up to 12 rounds from more recent monitoring wells (including 5 years of post excavation monitoring activities) to establish decreasing concentrations in the groundwater and a receding groundwater plume. Mann-Kendall analysis have been completed on 5 select wells to establish decreasing trends. Groundwater analytical results show a decrease of up to approximately 80 percent for tetrachloroethene and trichloroethene between historic high concentrations and the most recent round of groundwater samples. Trends in CVOC daughter product concentrations also support a receding groundwater plume through the use of natural attenuation.
- J. Identify how all exposure pathways (soil, groundwater, vapor) were removed and/or adequately addressed by immediate, interim and/or remedial action(s).

Chlorinated contaminated soil at the site has been excavated and removed from the site. There are no soil exceedances above the non-industrial direct contact RCLs within four feet of ground surface. Residual groundwater impacts are being addressed by natural attenuation. There are no buildings on-site or within 100 ft of the original source.

Petroleum compounds are addressed under WDNR BRRTS No. 03-05-216499, closed by WDNR on February 26, 2003, with an asphalt/concrete cover, cap maintenance, and property recorded on the WDNR GIS registry. A new maintenance plan that addresses the residual contamination associated with both the petroleum and chlorinated sites is included in Attachment D.

- K. Identify any system hardware anticipated to be left in place after site closure, and explain the reasons why it will remain. Not applicable. There were no systems installed at the site.
- L. Identify the need for a ch. NR 140, Wis. Adm. Code, groundwater Preventive Action Limit (PAL) or Enforcement Standard (ES) exemption, and identify the affected monitoring points and applicable substances.
   Of the 13 monitoring wells sampled during the latest round of groundwater sampling, 3 monitoring wells contained

constituent concentrations above the ES and 3 monitoring wells have constituent concentrations above the PAL. Monitoring Wells MW-200 and MW-800 contained trichloroethene and tetrachloroethene concentrations above the PAL, respectively. Monitoring Well AMW-10 contained concentrations of trichloroethene and cis-1,2-dichloroethane above the PAL.

Monitoring Well AMW-10 also contained concentrations of tetrachloroethene (6 ug/L) and vinyl chloride (0.29 ug/L) above the ES. Monitoring Well AMW-15 contained concentrations of cis-1,2-dichloroethane (438 ug/L), tetrachloroethene (108 ug/L), and trichloroethene (120 ug/L) above the ES, and Monitoring Well MW-500 contained concentrations of tetrachloroethene (195 ug/L) and trichloroethene (13.7 ug/L) above the ES. All of the current concentrations in the groundwater above PAL or ES standards have decreased by greater than 50 percent from historic high concentrations and

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display an overall decreasing trend.

- M. If a DNR action level for vapor intrusion was exceeded (for indoor air, sub slab, or both) describe where it was exceeded and how the pathway was addressed.
  - Not applicable. There are no buildings present on site or within 100 feet of the former source area. The source area has been excavated and removed from the site.
- N. Describe the surface water and/or sediment contaminant concentrations and areas after remediation. If a DNR action level was exceeded, describe where it was exceeded and how the pathway was addressed. Not applicable. No surface water/sediment within 1200 ft of the site.
- Continuing Obligations: Situations where sites, including all affected properties and rights-of-way (ROWs), are included on the DNR's GIS Registry. In certain situations, maintenance plans are also required, and must be included in Attachment D.

Directions: For each of the 3 property types below, check all situations that apply to this closure request.

(NOTE: Monitoring wells to be transferred to another site are addressed in Attachment E

	This situation property of	on applies to the or Right of Wa	ne following y (ROW):		
	Property Ty	pe:		Case Closure Situation - Continuing Obligation Inclusion on the GIS Registry is Required (ii xiv.)	Maintenance Plan
	Source Property (Off-Source) ROW		ROW	instable of the control of the contr	Required
				None of the following situations apply to this case closure request.	NA
	$\boxtimes$		$\boxtimes$	Residual groundwater contamination exceeds ch. NR 140 ESs.	NA
	$\boxtimes$		$\boxtimes$	Residual soil contamination exceeds ch. NR 720 RCLs.	NA
ĺ				Monitoring Wells Remain:	
				Not Abandoned (filled and sealed)	NA
				Continued Monitoring (requested or required)	Yes
				Cover/Barrier/Engineered Cover or Control for (soil) direct contact pathways (includes vapor barriers)	Yes
	$\boxtimes$			Cover/Barrier/Engineered Cover or Control for (soil) groundwater infiltration pathway	Yes
				Structural Impediment: impedes completion of investigation or remedial action (not as a performance standard cover)	NA
				Residual soil contamination meets NR 720 industrial soil RCLs, land use is classified as industrial	NA
			NĄ	Vapor Mitigation System (VMS) required due to exceedances of vapor risk screening levels or other health based concern	Yes
			NA	Vapor: Dewatering System needed for VMS to work effectively	Yes
			NA	Vapor: Compounds of Concern in use: full vapor assessment could not be completed	NA
			NA	Vapor: Commercial/industrial exposure assumptions used.	NA
	$\boxtimes$			Vapor: Residual volatile contamination poses future risk of vapor intrusion	NA
				Site-specific situation: (e. g., fencing, methane monitoring, other) (discuss with project manager before submitting the closure request)	Site specific

XI.	XI. NA Vapor. Compounds of Concern in use: full vapor assessment could not be completed									
xii			NA	Vapor: Commercial/industrial exposure assumptions used.		NA				
xiii.	$\boxtimes$			Vapor: Residual volatile contamination poses future risk of vapor intrusi	on	NA				
xiv.	xiv. Site-specific situation: (e. g., fencing, methane monitoring, other) (discuss with project manager before submitting the closure request)									
5. L	Inderground  Were any or remedia	tanks, piping		ssociated tank system components removed as part of the investigation	○ Yes	<ul><li>No</li></ul>				
E	B. Do any upgraded tanks meeting the requirements of ch. ATCP 93, Wis. Adm. Code, exist on the property?									
(	C. If the answer to question 6.B. is yes, is the leak detection system currently being monitored?									

Activity (Site) Name

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#### General Instructions

All information shall be legible. Providing illegible information will result in a submittal being considered incomplete until corrected. For each attachment (A-G), provide a Table of Contents page, listing all 'applicable' and 'not applicable' items by Closure Form titles (e.g., A.1. Groundwater Analytical Table, A.2. Soil Analytical Results Table, etc.). If any item is 'not applicable' to the case closure request, you must fully explain the reasons why.

#### Data Tables (Attachment A)

#### **Directions for Data Tables:**

- Use bold and italics font for information of importance on tables and figures. Use bold font for ch. NR 140, Wis. Adm. Code ES attainments or exceedances, and italicized font for ch. NR 140, Wis. Adm. Code, PAL attainments or exceedances.
- Use bold font to identify individual ch. NR 720 Wis. Adm. Code RCL exceedances. Tables should also include the corresponding groundwater pathway and direct contact pathway RCLs for comparison purposes. Cumulative hazard index and cumulative cancer risk exceedances should also be tabulated and identified on Tables A.2 and A.3.
- Do not use shading or highlighting on the analytical tables.
- Include on Data Tables the level of detection for results which are below the detection level (i.e., do not just list as no detect (ND)).
- Include the units on data tables.
- Summaries of all data must include information collected by previous consultants.
- Do not submit lab data sheets unless these have not been submitted in a previous report. Tabulate all data required in s. NR 716.15 (3)(c), Wis. Adm. Code, in the format required in s. NR 716.15(4)(e), Wis. Adm. Code.
- Include in Attachment A all of the following tables, in the order prescribed below, with the specific Closure Form titles noted on the separate attachments (e.g., Title: A.1. Groundwater Analytical Table; A.2. Soil Analytical Results Table, etc.).
- For required documents, each table (e.g., A.1., A.2., etc.) should be a separate Portable Document Format (PDF).

#### **Data Tables**

- Groundwater Analytical Table(s): Table(s) showing the analytical results and collection dates for all groundwater sampling points (e.g., monitoring wells, temporary wells, sumps, extraction wells, potable wells) for which samples have been
- A.2. Soil Analytical Results Table(s): Table(s) showing all soil analytical results and collection dates. Indicate if sample was collected above or below the observed low water table (unsaturated versus saturated).
- Residual Soil Contamination Table(s): Table(s) showing the analytical results of only the residual soil contamination at the time of closure. This table shall be a subset of table A.2 and should include only the soil sample locations that exceed an RCL. Indicate if sample was collected above or below the observed low water table (unsaturated versus saturated). Table A.3 is optional only if a total of fewer than 15 soil samples have been collected at the site.
- Vapor Analytical Table(s): Table(s) showing type(s) of samples, sample collection methods, analytical method, sample results, date of sample collection, time period for sample collection, method and results of leak detection, and date, method and results of communication testing.
- Other Media of Concern (e.g., sediment or surface water): Table(s) showing type(s) of sample, sample collection method, analytical method, sample results, date of sample collection, and time period for sample collection.
- A.6. Water Level Elevations: Table(s) showing all water level elevation measurements and dates from all monitoring wells. If present, free product should be noted on the table.
- Other: This attachment should include: 1) any available tabulated natural attenuation data; 2) data tables pertaining to engineered remedial systems that document operational history, demonstrate system performance and effectiveness, and display emissions data; and (3) any other data tables relevant to case closure not otherwise noted above. If this section is not applicable, please explain the reasons why.

# Maps, Figures and Photos (Attachment B)

#### Directions for Maps, Figures and Photos:

- Provide on paper no larger than 11 x 17 inches, unless otherwise directed by the Department. Maps and figures may be submitted in a larger electronic size than 11 x 17 inches, in a PDF readable by the Adobe Acrobat Reader. However, those larger-size documents must be legible when printed.
- Prepare visual aids, including maps, plans, drawings, fence diagrams, tables and photographs according to the applicable portions of ss. NR 716.15(4), 726.09(2) and 726.11(3), (5) and (6), Wis. Adm. Code.
- Include all sample locations.
- Contour lines should be clearly labeled and defined.
- Include in Attachment B all of the following maps and figures, in the order prescribed below, with the specific Closure Form titles noted on the separate attachments (e.g., Title: B.1. Location Map; B.2. Detailed Site Map, etc).
- For the electronic copies that are required, each map (e.g., B.1.a., B.2.a, etc.,) should be a separate PDF.
- Maps, figures and photos should be dated to reflect the most recent revision.

#### **Location Maps**

- B.1.a. Location Map: A map outlining all properties within the contaminated site boundaries on a United States Geological Survey (U.S.G.S.) topographic map or plat map in sufficient detail to permit easy location of all affected and/or adjacent parcels. If groundwater standards are exceeded, include the location of all potable wells, including municipal wells, within 1200 feet of the area of contamination.
- B.1.b. Detailed Site Map: A map that shows all relevant features (buildings, roads, current ground surface cover, individual property boundaries for all affected properties, contaminant sources, utility lines, monitoring wells and potable wells) within the contaminated area. This map is to show the location of all contaminated public streets, and highway and railroad rights-of-way in relation to the source property and in relation to the boundaries of groundwater contamination attaining or exceeding a ch. NR 140 ES, and/or in relation to the boundaries of soil contamination attaining or exceeding a RCL. Provide parcel identification numbers for all affected properties.
- B.1.c. RR Sites Map: From RR Sites Map (http://dnrmaps.wi.gov/sl/?Viewer=RR Sites) attach a map depicting the source property, and all open and closed BRRTS sites within a half-mile radius or less of the property.

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#### **B.2.** Soil Figures

- B.2.a. Soil Contamination: Figure(s) showing the location of all identified unsaturated soil contamination. Use a single contour to show the horizontal extent of each area of contiguous soil contamination that exceeds a soil to groundwater pathway RCL as determined under ch. NR 720.Wis. Adm. Code. A separate contour line should be used to indicate the horizontal extent of each area of contiguous soil contamination that exceeds a direct contact RCL exceedances (0-4 foot depth).
- B.2.b. Residual Soil Contamination: Figure(s) showing only the locations of soil samples where unsaturated soil contamination remains at the time of closure (locations represented in Table A.3). Use a single contour to show the horizontal extent of each area of contiguous soil contamination that exceeds a soil to groundwater pathway RCL as determined under ch. NR 720 Wis. Adm. Code. A separate contour line should be used to indicate the horizontal extent of each area of contiquous soil contamination that exceeds a direct contact RCL exceedence (0-4 foot depth).

#### **B.3.** Groundwater Figures

- B.3.a. Geologic Cross-Section Figure(s): One or more cross-section diagrams showing soil types and correlations across the site, water table and piezometric elevations, and locations and elevations of geologic rock units, if encountered. Display on one or more figures all of the following:
  - Source location(s) and vertical extent of residual soil contamination exceeding an RCL. Distinguish between direct contact and the groundwater pathway RCLs.
  - Source location(s) and lateral and vertical extent if groundwater contamination exceeds ch. NR 140 ES.
  - Surface features, including buildings and basements, and show surface elevation changes.
  - Any areas of active remediation within the cross section path, such as excavations or treatment zones.
  - Include a map displaying the cross-section location(s), if they are not displayed on the Detailed Site Map (Map
- B.3.b. Groundwater Isoconcentration: Figure(s) showing the horizontal extent of the post-remedial groundwater contamination exceeding a ch. NR 140, Wis. Adm. Code, PAL and/or an ES. Indicate the date and direction of groundwater flow based on the most recent sampling data.
- B.3.c. Groundwater Flow Direction: Figure(s) representing groundwater movement at the site. If the flow direction varies by more than 20° over the history of the site, submit two groundwater flow maps showing the maximum variation in
- B.3.d. Monitoring Wells: Figure(s) showing all monitoring wells, with well identification number. Clearly designate any wells that: (1) are proposed to be abandoned; (2) cannot be located; (3) are being transferred; (4) will be retained for further sampling, or (5) have been abandoned.

#### Vapor Maps and Other Media

- B.4.a. Vapor Intrusion Map: Map(s) showing all locations and results for samples taken to investigate the vapor intrusion pathway in relation to residual soil and groundwater contamination, including sub-slab, indoor air, soil vapor, soil gas, ambient air, and communication testing. Show locations and footprints of affected structures and utility corridors, and/or where residual contamination poses a future risk of vapor intrusion.
- B.4.b. Other media of concern (e.g., sediment or surface water): Map(s) showing all sampling locations and results for other media investigation. Include the date of sample collection and identify where any standards are exceeded.
- B.4.c. Other: Include any other relevant maps and figures not otherwise noted above. (This section may remain blank). Structural Impediment Photos: One or more photographs documenting the structural impediment feature(s) which precluded a complete site investigation or remediation at the time of the closure request. The photographs should document the area that could not be investigated or remediated due to a structural impediment. The structural impediment should be indicated on Figures B.2.a and B.2.b.

#### **Documentation of Remedial Action (Attachment C)**

#### Directions for Documentation of Remedial Action:

- Include in Attachment C all of the following documentation, in the order prescribed below, with the specific Closure Form titles noted on the separate attachments (e.g., Title: C.1. Site Investigation Documentation; C.2. Investigative Waste, etc.).
- If the documentation requested below has already been submitted to the DNR, please note the title and date of the report for that particular document requested.
  - C.1. Site investigation documentation, that has not otherwise been submitted with the Site Investigation Report.
  - Investigative waste disposal documentation.
  - Provide a description of the methodology used along with all supporting documentation if the RCLs are different than those contained in the Department's RCL Spreadsheet available at: http://dnr.wi.gov/topic/Brownfields/Professionals.html.
  - C.4. Construction documentation or as-built report for any constructed remedial action or portion of, or interim action specified in s. NR 724.02(1), Wis. Adm. Code.
  - Decommissioning of Remedial Systems. Include plans to properly abandon any systems or equipment.
  - C.6. Other. Include any other relevant documentation not otherwise noted above (This section may remain blank).

#### Maintenance Plan(s) and Photographs (Attachment D)

#### Directions for Maintenance Plans and Photographs:

Attach a maintenance plan for each affected property (source property, each off-source affected property) with continuing obligations requiring future maintenance (e.g., direct contact, groundwater protection, vapor intrusion). See Site Summary section 5 for all affected property(s) requiring a maintenance plan. Maintenance plan guidance and/or templates for: 1) Cover/barrier systems; 2) Vapor intrusion; and 3) Monitoring wells, can be found at: http://dnr.wi.gov/topic/Brownfields/Professionals.html#tabx3

- D.1. Descriptions of maintenance action(s) required for maximizing effectiveness of the engineered control, vapor mitigation system, feature or other action for which maintenance is required:
  - Provide brief descriptions of the type, depth and location of residual contamination.

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- Provide a description of the system/cover/barrier/monitoring well(s) to be maintained.
- Provide a description of the maintenance actions required for maximizing effectiveness of the engineered control, vapor mitigation system, feature or other action for which maintenance is required.
- Provide contact information, including the name, address and phone number of the individual or facility who will be conducting the maintenance.
- D.2. Location map(s) which show(s): (1) the feature that requires maintenance; (2) the location of the feature(s) that require(s) maintenance on and off the source property; (3) the extent of the structure or feature(s) to be maintained, in relation to other structures or features on the site; (4) the extent and type of residual contamination; and (5) all property boundaries.
- D.3. Photographs for site or facilities with a cover or other performance standard, a structural impediment or a vapor mitigation system, include one or more photographs documenting the condition and extent of the feature at the time of the closure request. Pertinent features shall be visible and discernible. Photographs shall be submitted with a title related to the site name and location, and the date on which it was taken.
- D.4. **Inspection log**, to be maintained on site, or at a location specified in the maintenance plan or approval letter. The inspection and maintenance log is found at: <a href="http://dnr.wi.gov/files/PDF/forms/4400/4400-305.pdf">http://dnr.wi.gov/files/PDF/forms/4400/4400-305.pdf</a>.

## Monitoring Well Information (Attachment E)

#### **Directions for Monitoring Well Information:**

For all wells that will remain in use, be transferred to another party, or that could not be located; attach monitoring well construction and development forms (DNR Form 4400-113 A and B: http://dnr.wi.gov/topic/groundwater/documents/forms/4400\_113\_1\_2.pdf)

_		_	
Sel	ect	On	P.

00,		one.
0	No	monitoring wells were installed as part of this response action.
•	ı IIA	monitoring wells have been located and will be properly abandoned upon the DNR granting conditional closure to the site
		ect One or More:
	Ш	Not all monitoring wells can be located, despite good faith efforts. Attachment E must include a description of efforts made to locate the wells.
		One or more wells will remain in use at the site after this closure. Attachment E must include documentation as to the reason (s) the well(s) will remain in use. When one or more monitoring wells will remain in use this is considered a continuing obligation and a maintenance plan will be required and must be included in Attachment D.
	Ш	One or more monitoring wells will be transferred to another owner upon case closure being granted. Attachment E should include documentation identifying the name, address and email for the new owner(s). Provide documentation from the party accepting future responsibility for monitoring well(s).

#### Source Legal Documents (Attachment F)

## **Directions for Source Legal Documents:**

Label documents with the specific closure form titles (e.g., F.1. Deed, F.2. Certified Survey Map, etc.). Include all of the following documents, in the order listed:

- F.1. Deed: The most recent deed with legal description clearly listed.
  - **Note:** If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written documentation of the property transfer should be submitted along with the most recent deed.
- F.2. Certified Survey Map: A copy of the certified survey map or the relevant section of the recorded plat map for those properties where the legal description in the most recent deed refers to a certified survey map or a recorded plat map. In cases where the certified survey map or recorded plat map are not legible or are unavailable, a copy of a parcel map from a county land information office may be substituted. A copy of a parcel map from a county land information office shall be legible, and the parcels identified in the legal description shall be clearly identified and labeled with the applicable parcel identification number.
- F.3. **Verification of Zoning**: Documentation (e.g., official zoning map or letter from municipality) of the property's or properties' current zoning status.
- F.4. **Signed Statement:** A statement signed by the Responsible Party (RP), which states that he or she believes that the attached legal description(s) accurately describe(s) the correct contaminated property or properties. This section applies to the source property only. Signed statements for Other Affected Properties should be included in Attachment G.

Case Closure - GIS Registry

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#### Notifications to Owners of Affected Properties (Attachment G)

#### **Directions for Notifications to Owners of Affected Properties:**

Complete the table on the following page for sites which require notification to owners of affected properties pursuant to ch. 292, Wis. Stats. and ch. NR 725 and 726, Wis. Adm. Code. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31- 19.39, Wis. Stats.]. The DNR's "Guidance on Case Closure and the Requirements for Managing Continuing Obligations" (PUB-RR-606) lists specific notification requirements http://dnr.wi.gov/files/PDF/pubs/rr/RR606.pdf.

State law requires that the responsible party provide a 30-day, written advance notification to certain persons prior to applying for case closure. This requirement applies if: (1) the person conducting the response action does not own the source property; (2) the contamination has migrated onto another property; and/or (3) one or more monitoring wells will not be abandoned. Use form 4400-286, Notification of Continuing Obligations and Residual Contamination, at http://dnr.wi.gov/files/PDF/forms/4400/4400-286.pdf

Include a copy of each notification sent and accompanying proof of delivery, i.e., return receipt or signature confirmation. (These items will not be placed on the GIS Registry.)

Include the following documents for each property, keeping each property's documents grouped together and labeled with the letter G and the corresponding ID number from the table on the following page. (Source Property documents should only be included in Attachment F):

- **Deed:** The most recent deed with legal descriptions clearly listed for all affected properties.

  Note: If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written documentation of the property transfer should be submitted along with the most recent deed.
- Certified Survey Map: A copy of the certified survey map or the relevant section of the recorded plat map for those properties where the legal description in the most recent deed refers to a certified survey map or a recorded plat map. In cases where the certified survey map or recorded plat map are not legible or are unavailable, a copy of a parcel map from a county land information office may be substituted. A copy of a parcel map from a county land information office shall be legible, and the parcels identified in the legal description shall be clearly identified and labeled with the applicable parcel identification number.
- Verification of Zoning: Documentation (e.g., official zoning map or letter from municipality) of the property's or properties' current zoning status.
- Signed Statement: A statement signed by the Responsible Party (RP), which states that he or she believes the attached legal description(s) accurately describe(s) the correct contaminated property or properties.

University Cleaners - 1608

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BRRTS No.

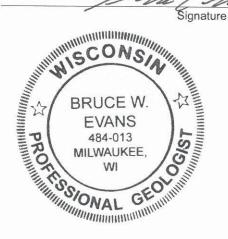
Activity (Site) Name

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		· ·		T	T					Reas	ons	Noti	ifica	tion	Lette	er S	ent:		
ID	Address of Affected Property	Parcel ID No.	Date of Receipt of Letter	Type of Property Owner	WTMX	WTMY	Residual Groundwater Contamination = or > ES	Residual Soil Contamination Exceeds RCLs	Monitoring Wells: Not Abandoned	Monitoring Wells: Continued Monitoring	Cover/Barrier/Engineered Control	Structural Impediment	Industrial RCLs Met/Applied	Vapor Mitigation System(VMS)	Dewatering System Needed for VMS	Compounds of Concern in Use	Commercial/Industrial Vapor Exposure Assumptions Applied	Residual Volatile Contamination Poses Future Risk of Vapor Intrusion	Site Specification Situation
	City of Green Bay ROW adjacent to 1608	Faicer ID No.	Letter	Owner	WIMX	WIMY	02	œ	Σ	Σ	Ü	Ś	므	>	Ď	Ü	OA	2 2	Ü
Α	University Ave - University Avenue	N/A	03/09/2015	ROWH	680366	450734	X				X								
В	City of Green Bay ROW adjacent to 1608 University Ave - Elizabeth Street	N/A	10/31/2016	ROWH	680337	450719	X	X			X								
C																			
D				100000000000000000000000000000000000000							-100								

02-05-233555 BRRTS No.	University Cleaners - 1	608	_ Case Closure - GIS I	
The second secon	Activity (Site) Name		Form 4400-202 (R 3/15)	Page 13 of 13
Signatures and Findin				
ch. NR 712, Wis. Adm. C	ode, sign this documen			l in
A response action(s)	) for this site addresses	groundwater contamination (including r	natural attenuation remedies).	
The response action	(s) for this site addresse	es media other than groundwater.		
<b>Engineering Certificati</b>	ion			
Closure request has be Conduct in ch. A-E 8, closure request is corr to 726, Wis. Adm. Coolinvestigation has been	een prepared by me o Wis. Adm. Code; and ect and the document le. Specifically, with conducted in accordance.	hereby certify to bridge the requirements of charge and a requirement of charge prepared under my supervision in the state of the theorem of the respect to compliance with the rule ance with ch. NR 716, Wis. Adm. Comp. NR 140, NR 718, NR 720, NR 73	accordance with the Rules of Pricall information contained in this all applicable requirements in chass, in my professional opinion a signature of all necessary remedial 22, NR 724360 MR 76. Wis. Accordance of the contained of	rofessional case s. NR 700 ite
Chr	ristopher Kubacki		Senior REDECTION	
Chutwo Ku	Printed Name	11/3/16 Date	WAUWATOSA WI	€-37734 per
Hydrogeologist Certific	cation			THE STREET
supervision and, in cor with respect to complia accordance with ch. NI	est is correct and the on mpliance with all appliance with the rules, in R 716, Wis. Adm. Coo	hereby certify the parties, and that, to the best of my knowled document was prepared by me or parties and equirements in chs. NR 700 my professional opinion a site investe, and all necessary remedial action, NR 724 and NR 726, Wis. Adm. Co.	repared by me or prepared under to 726, Wis. Adm. Code. Specification has been conducted in the part of the properties of the part of the properties of the part o	iined in er my fically,
	Bruce Evans		Staff Geologist	
	Printed Name		Title	
	an Jan	w P	11/12/20	11

Date



## Attachment A Data Tables

### Attachments:

- A.1 Groundwater Analytical Table Included
- A.2 Soil Analytical Results Tables Included
- A.3 Residual Soil Contamination Table Included
- A.4 Vapor Analytical Table Not included. There is no risk for vapor migration at the Site so no vapor analytical samples were collected.
- A.5 Other Media of Concern Not included. There are no other media of concern at the Site.
- A.6 Water Level Elevations Included.
- A.7 Other Mann-Kendall Statistical Tests (Form 4400-215) Included

## University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID	NR 140	NR 140						MW-1					
Sample Date	ES	PAL	6/13/01	8/7/01	12/17/01	11/21/03	4/27/04	8/9/04	12/11/06	3/13/07	6/12/07	9/24/07	12/4/07
VOCs													
Benzene	5.0	0.5	<0.21	<0.21	<0.21	<0.41	<0.18	<0.18	<0.41	<0.20	<0.41	<0.41	<0.41
n-Butyl-benzene			<0.13	<0.13	<0.13	< 0.93	<0.15	<0.15	< 0.93	<0.20	< 0.93	< 0.93	< 0.93
Chloromethane	3.0	0.3	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
1,1-Dichloroethane	850	85	NA	NA	NA	NA	NA	NA	<0.75	<0.50	<0.75	<0.75	<0.75
1,2-Dichloroethane	5.0	0.5	<0.23	<0.23	<0.23	< 0.36	<0.22	<0.22	<0.36	< 0.50	<0.36	<0.36	< 0.36
1,1-Dichloroethene	7.0	0.7	NA	NA	NA	NA	NA	NA	<0.57	<0.50	<0.57	<0.57	<0.57
cis-1,2-Dichloroethene	70	7.0	1.5	2.3	1.9	<0.83	<0.15	0.38 J	<0.83	<0.20	<0.83	<0.83	<0.83
trans-1,2-Dichloroethene	100	20	<0.25	1	0.68 J	<0.89	<0.17	<0.17	<0.89	<0.20	<0.89	<0.89	<0.89
Ethylbenzene	700	140	<0.22	<0.22	<0.22	<0.54	<0.18	<0.18	<0.54	< 0.50	0.62 Q	<0.54	<0.54
Isopropylbenzene			<0.19	<0.19	<0.19	<0.59	<0.19	<0.19	<0.59	<0.20	<0.59	<0.59	<0.59
Methylene Chloride	5.0	0.5	NA	NA	NA	0.61	1.4	1.8	<0.43	<1.0	< 0.43	< 0.43	<0.43
Naphthalene	40	8	<0.69	< 0.69	< 0.69	<0.74	<0.24	<0.24	<0.74	<0.25	<0.74	<0.74	<0.74
n-Propylbenzene			<0.13	<0.13	<0.13	< 0.93	<0.15	<0.15	< 0.93	<0.50	< 0.93	<0.81	<0.81
Styrene	100	10	<0.86	<0.86	<0.86	<0.86	<0.18	<0.18	<0.86	<0.20	<0.86	<0.86	<0.86
Tetrachloroethene	5.0	0.5	2.9	2.3	0.84	5.9	3.8	7.4	3.3	1.1 J	2.5	1.9	3.1
Toluene	1,000	200	<0.41	<0.41	<0.41	< 0.67	<0.21	<0.21	<0.67	<0.20	<0.67	<0.67	< 0.67
Trichloroethene	5.0	0.5	<0.24	0.33 J	<0.24	<0.48	<0.20	0.34 J	<0.48	<0.20	<0.48	<0.48	<0.48
1,2,4-Trimethylbenzene			NA	NA	NA	NA	NA	NA	<0.99	<0.20	<0.99	<0.97	<0.97
1,3,5-Trimethylbenzene			NA	NA	NA	NA	NA	NA	<0.97	<0.20	<0.97	<0.83	<0.83
Trimethylbenzenes	480	96	<0.60	< 0.34	< 0.34	<0.97	<0.18	<0.18	<1.96	<0.40	<1.96	<1.8	<1.8
Vinyl Chloride	0.2	0.02	<0.25	<0.25	<0.25	<0.18	<0.15	<0.15	<0.18	<0.20	<0.18	<0.18	<0.18
Xylene, m+p			NA	NA	NA	NA	NA	NA	<1.8	NA	<1.8	<1.8	<1.8
Xylene, o			NA	NA	NA	NA	NA	NA	<0.83	NA	<0.83	<0.83	<0.83
Xylenes	10,000	1,000	< 0.69	<0.43	<0.43	<1.8	<0.31	< 0.31	<2.63	< 0.50	<2.63	<2.63	<2.63
Laboratory Parameters													
Ethane			NA	NA	NA	NA	NA	NA	0.082	NA	NA	NA	0.120
Ethene			NA	NA	NA	NA	NA	NA	0.026	NA	NA	NA	0.12
Methane			NA	NA	NA	NA	NA	NA	4.2	NA	NA	NA	15
Total Organic Carbon (mg/L)			NA	NA	NA	NA	NA	NA	NA	3.82	NA	NA	7.0

Footnotes on Page 2.

### University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID	NR 140	NR 140						MW-1					
Sample Date	ES	PAL	6/13/01	8/7/01	12/17/01	11/21/03	4/27/04	8/9/04	12/11/06	3/13/07	6/12/07	9/24/07	12/4/07
Field Parameters													
Dissolved oxygen (mg/L)			NA	NA	NA	NA	NA	NA	1.21	1.08	0.09	0.17	0.57
ORP (mV)			NA	NA	NA	NA	NA	NA	23.2	-13.5	-36.9	-84.0	13.6

#### **General Note:**

Results reported in micrograms per liter (µg/L) unless otherwise indicated.

### **Acronyms and Abbreviations:**

Italics = Concentration exceeds the NR 140 Preventive Action Limti (PAL).

**BOLD** = Concentration exceeds the NR 140 Enforcement Standard (ES).

\* = Duplicate of AMW-12.

ES = Enforcement Standard.

mg/L = Milligrams per liter.

J, Q = Concentration detected between the laboratory limit of detection and limit of quantitation.

mV = Millivolts.

N = Spiked sample recovery not within control limits.

NA = Sample not analyzed for this parameter.

ORP = Oxidation reduction potential.

PAL = Preventive Action Limit.

## University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID				ı	MW-1 (co	ntinued)					MW-5	DUP	MW-5
Sample Date	3/12/08	9/24/08	2/23/09	9/9/09	8/17/10	12/1/10	6/1/11	6/27/12	6/11/13	7/8/14	4/27/04	4/27/04	8/9/04
VOCs													
Benzene	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.50	<0.50	<0.18	<0.18	<0.18
n-Butyl-benzene	<0.93	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	<0.40	<0.50	<0.15	<0.15	<0.15
Chloromethane	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.28	<0.50	<0.24	<0.24	<0.24
1,1-Dichloroethane	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	< 0.39	<0.24	NA	NA	NA
1,2-Dichloroethane	<0.36	<0.36	<0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	<0.48	<0.17	<0.22	<0.22	<0.22
1,1-Dichloroethene	<0.57	<0.57	<0.57	<0.57	< 0.57	<0.57	<0.57	< 0.57	<0.43	<0.41	NA	NA	NA
cis-1,2-Dichloroethene	<0.83	1.0	<0.83	0.9	0.9	0.9	0.9	0.94 J	0.64 J	<0.26	<0.15	<0.15	<0.15
trans-1,2-Dichloroethene	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	< 0.37	<0.26	<0.17	<0.17	<0.17
Ethylbenzene	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.50	<0.50	<0.18	<0.18	<0.18
Isopropylbenzene	<0.59	<0.59	<0.59	<0.59	< 0.59	<0.59	<0.59	< 0.59	< 0.34	<0.14	<0.19	<0.19	<0.19
Methylene Chloride	< 0.43	<0.43	< 0.43	< 0.43	< 0.43	1.4	1.4	< 0.43	< 0.36	<0.23	0.71	0.74	2.2
Naphthalene	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	<0.89	<2.5	<2.5	<0.24	<0.24	<0.24
n-Propylbenzene	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.50	<0.50	<0.15	<0.15	<0.15
Styrene	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	< 0.35	<0.50	<0.18	<0.18	<0.18
Tetrachloroethene	2.3	3.4	0.94	3.60	5.4	3.70	1.6	3.3	1.6	<0.50	<0.20	<0.20	0.33 J
Toluene	<0.67	<0.67	< 0.67	< 0.67	<0.67	<0.67	<0.67	<0.67	<0.44	<0.50	<0.21	<0.21	<0.21
Trichloroethene	<0.48	0.52 J	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.43	< 0.33	<0.20	<0.20	<0.20
1,2,4-Trimethylbenzene	<0.97	<0.97	<0.97	<0.97	<0.97	<0.97	<0.97	<0.97	<0.57	<0.50	NA	NA	NA
1,3,5-Trimethylbenzene	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<2.5	<0.50	NA	NA	NA
Trimethylbenzenes	<1.8	<1.8	<1.8	<1.8	NA	<1.8	<1.8	<1.8	<3.07	<1.00	<0.18	<0.18	<0.18
Vinyl Chloride	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.15	<0.15	<0.15
Xylene, m+p	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<0.82	<1.0	NA	NA	NA
Xylene, o	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.50	<0.50	NA	NA	NA
Xylenes	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	1.32	<1.50	<0.31	<0.31	0.62 J
Laboratory Parameters													
Ethane	0.029	NA	NA	0.029	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	<.025	NA	NA	<.025	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	5.8	NA	NA	5.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (mg/L)	4.3	NA	NA	7.6	NA	NA	NA	NA	NA	NA	NA	NA	NA

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## University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID				r	MW-1 (co	ntinued)					MW-5	DUP	MW-5
Sample Date	3/12/08	9/24/08	2/23/09	9/9/09	8/17/10	12/1/10	6/1/11	6/27/12	6/11/13	7/8/14	4/27/04	4/27/04	8/9/04
Field Parameters													
Dissolved oxygen (mg/L)	1.13	0.99	0.58	0.73	0.43	7.96	0.34	0.11	5.72	0.65	NA	NA	NA
ORP (mV)	2.7	-0.2	7.4	55.0	-278.9	2.03	16.60	69.4	93.3	-1.7	NA	NA	NA

#### **General Note:**

Results reported in micrograms per liter (µg/L) unless otherwise indicated.

### **Acronyms and Abbreviations:**

Italics = Concentration exceeds the NR 140 Preventive Action Limti (PAL).

**BOLD** = Concentration exceeds the NR 140 Enforcement Standard (ES).

\* = Duplicate of AMW-12.

ES = Enforcement Standard.

mg/L = Milligrams per liter.

J, Q = Concentration detected between the laboratory limit of detection and limit of quantitation.

mV = Millivolts.

N = Spiked sample recovery not within control limits.

NA = Sample not analyzed for this parameter.

ORP = Oxidation reduction potential.

PAL = Preventive Action Limit.

## University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID		MW-	5 (contin	ued)		DUP-A	M\	N-5	DUP-A	MW-5	DUP-A	M	W-5	DUP-1	MW-5
Sample Date	12/12/06	3/13/07	6/13/07	9/25/07	3/11/08	3/12/08	9/25/08	2/23/09	2/23/09	9/9/09	9/9/09	8/16/10	11/30/10	11/30/10	6/2/11
VOCs															
Benzene	<0.41	<0.20	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
n-Butyl-benzene	< 0.93	<0.20	< 0.93	< 0.93	<0.93	< 0.93	<0.93	<0.93	<0.93	< 0.93	< 0.93	<0.93	<0.93	<0.93	<0.93
Chloromethane	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	0.28 J	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
1,1-Dichloroethane	<0.75	<0.50	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75
1,2-Dichloroethane	< 0.36	<0.50	< 0.36	< 0.36	<0.36	< 0.36	< 0.36	<0.36	<0.36	< 0.36	< 0.36	< 0.36	<0.36	<0.36	<0.36
1,1-Dichloroethene	<0.57	<0.50	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57
cis-1,2-Dichloroethene	<0.83	<0.20	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83
trans-1,2-Dichloroethene	<0.89	<0.20	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89
Ethylbenzene	<0.54	<0.50	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54
Isopropylbenzene	<0.59	<0.20	<0.59	<0.59	<0.59	<0.59	<0.59	<0.59	<0.59	<0.59	<0.59	<0.59	<0.59	<0.59	<0.59
Methylene Chloride	<0.43	1.1 J	<0.43	< 0.43	<0.43	< 0.43	< 0.43	< 0.43	<0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	<0.43
Naphthalene	<0.74	<0.25	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	<0.89	<0.89	<0.89
n-Propylbenzene	< 0.93	<0.50	<0.93	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81
Styrene	<0.86	<0.20	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86
Tetrachloroethene	<0.45	<0.50	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45
Toluene	<0.67	<0.20	< 0.67	< 0.67	<0.67	< 0.67	<0.67	<0.67	<0.67	< 0.67	<0.67	<0.67	<0.67	<0.67	<0.67
Trichloroethene	<0.48	<0.20	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48
1,2,4-Trimethylbenzene	<0.99	<0.20	<0.99	<0.97	<0.97	<0.97	<0.97	<0.97	<0.97	<0.97	<0.97	<0.97	<0.97	<0.97	<0.97
1,3,5-Trimethylbenzene	<0.97	<0.20	<0.97	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83
Trimethylbenzenes	<1.96	<0.40	<1.96	<1.8	<1.8	1.80	<1.8	<1.8	<1.8	<1.8	<1.8	NA	<1.8	<1.8	<1.8
Vinyl Chloride	<0.18	<0.20	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18
Xylene, m+p	<1.8	NA	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8
Xylene, o	<0.83	NA	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83
Xylenes	<2.63	<0.50	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63
Laboratory Parameters															
Ethane	<0.025	NA	NA	NA	<0.025	NA	NA	NA	NA	<0.025	NA	NA	NA	NA	NA
Ethene	<0.025	NA	NA	NA	0.034	NA	NA	NA	NA	<0.025	NA	NA	NA	NA	NA
Methane	0.66	NA	NA	NA	0.170	NA	NA	NA	NA	0.66	NA	NA	NA	NA	NA
Total Organic Carbon (mg/L)	NA	2.36	NA	NA	1.9 J	NA	NA	NA	NA	2.0	NA	NA	NA	NA	NA

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### University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID		MW-	5 (contin	ued)		DUP-A	MV	V-5	DUP-A	MW-5	DUP-A	М	W-5	DUP-1	MW-5
Sample Date	12/12/06	12/06   3/13/07   6/13/07   9/25/07   3/11/08					9/25/08	2/23/09	2/23/09	9/9/09	9/9/09	8/16/10	11/30/10	11/30/10	6/2/11
Field Parameters															
Dissolved oxygen (mg/L)	0.48	0.66	3.43	0.42	3.58	NA	1.08	1.16	NA	1.24	NA	0.88	2.42	NA	2.71
ORP (mV)	41.6	16.4	103.1	35.2	18.5	NA	107.2	112.6	NA	109.1	NA	-256.6	16.4	NA	31.7

#### **General Note:**

Results reported in micrograms per liter (µg/L) unless otherwise indicated.

### **Acronyms and Abbreviations:**

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**BOLD** = Concentration exceeds the NR 140 Enforcement Standard (ES).

\* = Duplicate of AMW-12.

ES = Enforcement Standard.

mg/L = Milligrams per liter.

J, Q = Concentration detected between the laboratory limit of detection and limit of quantitation.

mV = Millivolts.

N = Spiked sample recovery not within control limits.

NA = Sample not analyzed for this parameter.

ORP = Oxidation reduction potential.

PAL = Preventive Action Limit.

Table A.1
Goundwater Analytical Table

## University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID	DUP-1	MW-	-5 (continu	ued)					MW-200				
Sample Date	6/2/11	6/26/12	6/11/13	7/8/14	6/13/01	8/7/01	12/17/01	11/21/03	4/27/04	8/9/04	3/13/07	6/12/07	9/25/07
VOCs	•	•											
Benzene	<0.41	<0.41	<0.50	<0.50	29 J	16	5.8	<0.41	<0.18	<36	<4.0	<8.2	<2.0
n-Butyl-benzene	< 0.93	< 0.93	< 0.40	< 0.50	42	6.9	4.7	< 0.93	<0.15	47 J	<4.0	<19	<4.6
Chloromethane	<0.24	<0.24	< 0.39	<0.50	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
1,1-Dichloroethane	<0.75	<0.75	<0.28	<0.24	NA	NA	NA	NA	NA	NA	<10	<15	<3.8
1,2-Dichloroethane	< 0.36	<0.36	<0.48	<0.17	<1.2	<1.2	<1.2	< 0.36	<0.22	<39	<10	<7.2	<1.8
1,1-Dichloroethene	< 0.57	<0.57	< 0.43	<0.41	NA	NA	NA	NA	NA	NA	<10	<11	<2.8
cis-1,2-Dichloroethene	<0.83	<0.83	<0.42	<0.26	<11	<1.1	<1.1	<0.83	<0.15	<29	<4.0	<17	<4.1
trans-1,2-Dichloroethene	<0.89	<0.89	< 0.37	<0.26	<1.3	<1.3	<1.3	<0.89	<0.17	<29	<4.0	<18	<4.4
Ethylbenzene	< 0.54	<0.54	<0.50	< 0.50	520	1.6 J	<1.1	<0.54	100	940	510	730	240
Isopropylbenzene	< 0.59	< 0.59	< 0.34	<0.14	46	<1	<1	<0.59	<0.19	43 J	28	36 Q	20
Methylene Chloride	< 0.43	< 0.43	< 0.36	<0.23	NA	NA	NA	0.52	<4.4	<35	<20	<8.6	<2.2
Naphthalene	<0.89	<0.89	<2.5	<2.5	130	28	25	< 0.74	16	180	120	150	79
n-Propylbenzene	<0.81	<0.81	<0.50	< 0.50	<1.2	<1.2	<1.2	< 0.36	<0.22	<39	56	99	51
Styrene	<0.86	<0.86	< 0.35	<0.50	<8.6	<0.86	<0.86	<0.86	8.3	57 J	<4.0	<17	<4.3
Tetrachloroethene	<0.45	<0.45	<0.47	<0.50	<11	<1.1	<1.1	0.65	<0.20	<41	<10	<9.0	<2.2
Toluene	< 0.67	<0.67	<0.44	<0.50	40 J	18	10	< 0.67	150	1,500	93	190	44
Trichloroethene	<0.48	<0.48	<0.43	< 0.33	<12	<1.2	<1.2	<0.48	<0.20	<40	<4.0	<9.6	<2.4
1,2,4-Trimethylbenzene	< 0.97	<0.97	<0.57	< 0.50	NA	NA	NA	NA	NA	NA	1200	1200	580
1,3,5-Trimethylbenzene	<0.83	<0.83	<2.5	<0.50	NA	NA	NA	NA	NA	NA	67	140	46
Trimethylbenzenes	<1.8	<1.8	<3.07	<1.00	885 J	182.5 J	42	< 0.97	248	1,220	1,267	1,340	626
Vinyl Chloride	<0.18	<0.18	<0.18	<0.18	<1.3	<1.3	<1.3	<0.18	<0.15	<31	<4.0	<3.6	<0.90
Xylene, m+p	<1.8	<1.8	<0.82	<1.0	NA	NA	NA	NA	NA	NA	NA	2700	960
Xylene, o	<0.83	<0.83	<0.50	< 0.50	NA	NA	NA	NA	NA	NA	NA	500	61
Xylenes	<2.63	<2.63	<1.32	<1.50	731	165	440	<1.8	660	5,000	2,400	3,200	1,021
Laboratory Parameters													
Ethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (mg/L)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.95	NA	NA

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### University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID	DUP-1	MW-	-5 (contini	ued)					MW-200				
Sample Date	6/2/11	6/26/12	6/11/13	7/8/14	6/13/01	8/7/01	12/17/01	11/21/03	4/27/04	8/9/04	3/13/07	6/12/07	9/25/07
Field Parameters													
Dissolved oxygen (mg/L)	NA	1.31	3.13	2.02	NA	NA	NA	NA	NA	NA	0.23	0.04	0.04
ORP (mV)	NA	58.9	65.6	-23.5	NA	NA	NA	NA	NA	NA	-165.5	-123.9	-186.7

#### **General Note:**

Results reported in micrograms per liter (µg/L) unless otherwise indicated.

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**BOLD** = Concentration exceeds the NR 140 Enforcement Standard (ES).

\* = Duplicate of AMW-12.

ES = Enforcement Standard.

mg/L = Milligrams per liter.

J, Q = Concentration detected between the laboratory limit of detection and limit of quantitation.

mV = Millivolts.

N = Spiked sample recovery not within control limits.

NA = Sample not analyzed for this parameter.

ORP = Oxidation reduction potential.

PAL = Preventive Action Limit.

## University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID				M	W-200 (cd	ontinued)						MW-500	
Sample Date	12/3/07	9/24/08	2/24/09		08/16/10		6/2/11	9/11/12	6/11/13	7/9/14	6/13/01	8/7/01	12/17/01
VOCs													
Benzene	<4.1	<2.0	<2.0	<4.1	<0.41	<0.41	<2.0	0.46 J	<1.2	<0.50	<2.1	<2.1	<2.1
n-Butyl-benzene	<9.3	<4.6	<4.6	<9.3	<0.93	4.3	<4.6	1.90	<1.0	<0.50	<1.3	<1.3	<1.3
Chloromethane	<0.24	<1.2	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.97	<0.50	<0.24	<0.24	<0.24
1,1-Dichloroethane	<7.5	<3.8	<3.8	<7.5	<0.75	<0.75	<3.8	<0.75	<0.71	<0.24	NA	NA	NA
1,2-Dichloroethane	<3.6	<1.8	<1.8	<3.6	< 0.36	< 0.36	<1.8	<0.36	<1.2	<0.17	<2.3	<2.3	<2.3
1,1-Dichloroethene	<7.5	<2.8	<2.8	<7.5	<0.57	<0.57	<2.8	<0.57	<1.1	<0.41	NA	NA	NA
cis-1,2-Dichloroethene	<8.3	<4.1	<4.1	<8.3	<0.83	<0.83	<4.1	<0.83	1.0 J	<0.26	<2.1	<2.1	<2.1
trans-1,2-Dichloroethene	<8.9	<4.4	<4.4	<8.9	<0.89	<0.89	<4.4	<0.89	<0.93	<0.26	<2.5	<2.5	<2.5
Ethylbenzene	490	424	192	433	13.2	149	179	46	105	<0.50	<2.2	<2.2	<2.2
Isopropylbenzene	36	27.9	19.9	27.5	1.3	11.9	13.9	7.8	8.3	3.1	<1.9	<1.9	<1.9
Methylene Chloride	<4.3	<2.2	<2.2	<4.3	<0.43	< 0.43	<2.2	<0.43	< 0.90	<0.23	NA	NA	NA
Naphthalene	110	102	32.3	79.9	<0.89	32.2	49.1	8.3	16.3	<2.5	<6.9	<6.9	<6.9
n-Propylbenzene	85	74.6	45.1	89.9	2.7	34.1	39.5	22.6	21.8	0.57 J	<1.3	<1.3	<1.3
Styrene	<8.6	<4.3	<4.3	<8.6	<0.86	2.7	<4.3	<0.86	<0.87	<0.50	<0.86	<0.86	<0.86
Tetrachloroethene	<4.5	2.5 J	<2.2	<4.5	0.66 J	<0.45	<2.2	<0.45	<1.2	<0.50	430	650	500
Toluene	63	80.8	8.1	46	0.89 J	10	<3.4	10.7	11.9	<0.50	<4.1	<4.1	<4.1
Trichloroethene	<4.8	<2.4	<2.4	<4.8	<0.48	<0.48	<2.4	0.72 J	<1.1	0.56 J	3.1 J	10	4.3 J
1,2,4-Trimethylbenzene	910	515	299	642	19.3	<0.97	412	98.5	139.0	5.2	NA	NA	NA
1,3,5-Trimethylbenzene	130	61.3	17.9	55	<0.83	24	51.8	5.0	7.0 J	<0.50	NA	NA	NA
Trimethylbenzenes	1,040	576.3	317	697	NA	25	464	103.5	146	4.7	<6.0	<3.4	<3.4
Vinyl Chloride	<1.8	< 0.90	<0.90	<1.8	<0.18	<0.18	< 0.90	<0.18	<0.46	<0.18	<2.5	<7.9	7.2 J
Xylene, m+p	2,300	1240	689	1,400	52.9	494	837	179	350	<1.0	NA	NA	NA
Xylene, o	140	276	36.0	264	10.8	84.1	140	13.1	23.0	<0.50	NA	NA	NA
Xylenes	2,440	1,516	725	1,664	63.7	578	977	192.1	373	<1.50	<6.9	<4.3	<4.3
Laboratory Parameters													
Ethane	19.00	NA	NA	18.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	0.18	NA	NA	0.18	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	2,700	NA	NA	2,655	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (mg/L)	8.8	NA	NA	10.3	NA	NA	NA	NA	NA	NA	NA	NA	NA

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### University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID				М	W-200 (cd	ontinued)						MW-500	
Sample Date	12/3/07	9/24/08	2/24/09	7/9/14	6/13/01	8/7/01	12/17/01						
Field Parameters													
Dissolved oxygen (mg/L)	1.6	0.28	0.48	0.2	0.72	1.2	0.33	0.43	0.79	0.38	NA	NA	NA
ORP (mV)	-176.0	-142.4	-48.9	-87.3	-323.8	-233.9	-78.6	29.2	-114.3	-34.1	NA	NA	NA

#### **General Note:**

Results reported in micrograms per liter (µg/L) unless otherwise indicated.

### **Acronyms and Abbreviations:**

Italics = Concentration exceeds the NR 140 Preventive Action Limti (PAL).

**BOLD** = Concentration exceeds the NR 140 Enforcement Standard (ES).

\* = Duplicate of AMW-12.

ES = Enforcement Standard.

mg/L = Milligrams per liter.

J, Q = Concentration detected between the laboratory limit of detection and limit of quantitation.

mV = Millivolts.

N = Spiked sample recovery not within control limits.

NA = Sample not analyzed for this parameter.

ORP = Oxidation reduction potential.

PAL = Preventive Action Limit.

## University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID						MW-	500 (conti	nued)					
Sample Date	11/21/03	4/27/04	12/12/06	3/13/07	6/12/07	9/25/07	12/4/07	3/12/08	9/23/08	2/24/09	9/10/09	8/17/10	12/2/10
VOCs											•	•	
Benzene	<0.41	<0.18	<0.41	<0.20	<0.82	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<1.0	<0.41
n-Butyl-benzene	< 0.93	<0.15	< 0.93	<0.20	<1.9	<0.93	< 0.93	< 0.93	<0.93	<0.93	< 0.93	<2.3	< 0.93
Chloromethane	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.60	<0.24
1,1-Dichloroethane	NA	NA	<0.75	<0.50	<1.5	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<1.9	<0.75
1,2-Dichloroethane	< 0.36	<0.22	< 0.36	<0.50	<0.72	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	<1.9	< 0.36
1,1-Dichloroethene	NA	NA	< 0.57	<0.50	<1.1	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<1.4	<0.57
cis-1,2-Dichloroethene	<0.83	<0.15	<0.83	<0.20	<1.7	<0.83	<0.83	<0.83	<0.83	<0.83	< 0.83	<2.1	<0.83
trans-1,2-Dichloroethene	<0.89	<0.17	<0.89	<0.20	<1.8	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<2.2	<0.89
Ethylbenzene	<0.54	<0.18	<0.54	<0.50	<1.1	<0.54	<0.54	<0.54	<0.54	<0.54	< 0.54	<1.4	<0.54
Isopropylbenzene	<0.59	<0.19	< 0.59	<0.20	<1.2	<0.59	<0.59	<0.59	< 0.59	<0.59	< 0.59	<1.5	<0.59
Methylene Chloride	< 0.43	0.87	< 0.43	<2.0	<0.86	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	<1.1	< 0.43
Naphthalene	<0.74	<0.24	< 0.74	<0.25	<1.5	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	<2.2	<0.74
n-Propylbenzene	< 0.93	<0.15	< 0.93	< 0.50	<1.9	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<2.0	<0.81
Styrene	<0.86	<0.18	<0.86	<0.20	<1.7	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<2.2	<0.86
Tetrachloroethene	44	24	180	110	220	240	110	16	231	59.2	259	127	35.4
Toluene	< 0.67	<0.21	< 0.67	<0.20	<1.3	<0.67	<0.67	< 0.67	< 0.67	<0.67	<0.67	<1.7	< 0.67
Trichloroethene	7.1	4.8	7.9	5.0	6.6	9.5	8.5	6.2	12.9	5.6	17.9	13.6	6.6
1,2,4-Trimethylbenzene	NA	NA	< 0.99	0.68 J	<1.9	<0.97	<0.97	<0.97	< 0.97	<0.97	<0.97	<2.4	<0.97
1,3,5-Trimethylbenzene	NA	NA	< 0.97	<0.20	<1.9	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<2.1	<0.83
Trimethylbenzenes	< 0.97	<0.18	<1.96	0.88	<3.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	NA	<1.8
Vinyl Chloride	<0.18	<0.15	<0.18	<0.20	< 0.36	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.45	<0.18
Xylene, m+p	NA	NA	<1.8	NA	<3.6	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<4.5	<1.8
Xylene, o	NA	NA	<0.83	NA	<1.7	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<2.1	<0.83
Xylenes	<1.8	<0.31	<2.63	3.2 J	<5.3	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<6.60	<2.63
Laboratory Parameters													
Ethane	NA	NA	<0.025	NA	NA	NA	0.041	0.03	NA	NA	<0.025	NA	NA
Ethene	NA	NA	<0.025	NA	NA	NA	<0.025	<0.025	NA	NA	<0.025	NA	NA
Methane	NA	NA	1.4	NA	NA	NA	4.6	2.8	NA	NA	1.4	NA	NA
Total Organic Carbon (mg/L)	NA	NA	NA	5.03	NA	NA	3.5	2.1	NA	NA	4.2	NA	NA

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### University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID						MW-	500 (conti	nued)						
Sample Date	11/21/03	1/03   4/27/04   12/12/06   3/13/07   6/12/07   9/25/07   12/4/07   3/12/08   9/23/08   2/24/09   9/10/09   8/17/10   12/2/10												
Field Parameters														
Dissolved oxygen (mg/L)	NA	NA	0.62	1.24	0.70	0.35	0.78	0.25	0.67	0.63	0.48	1.68	0.35	
ORP (mV)	NA	NA	13.5	-73.7	28.1	25.0	60.3	-86.7	127.2	-9.3	141.9	-248.2	28.5	

#### **General Note:**

Results reported in micrograms per liter (µg/L) unless otherwise indicated.

### **Acronyms and Abbreviations:**

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**BOLD** = Concentration exceeds the NR 140 Enforcement Standard (ES).

\* = Duplicate of AMW-12.

ES = Enforcement Standard.

mg/L = Milligrams per liter.

J, Q = Concentration detected between the laboratory limit of detection and limit of quantitation.

mV = Millivolts.

N = Spiked sample recovery not within control limits.

NA = Sample not analyzed for this parameter.

ORP = Oxidation reduction potential.

PAL = Preventive Action Limit.

## University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID		MW-500 (d	continued)		MW-800	DUP			B-WM	300		
Sample Date	6/2/11	9/11/12	6/12/13	7/9/14	6/13/01	6/13/01	8/7/01	12/17/01	11/21/03	4/27/04	8/9/04	12/12/06
VOCs												
Benzene	<0.82	<0.82	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.41	<0.18	<0.18	<0.41
n-Butyl-benzene	<1.82	<1.9	<0.80	<1.0	<0.13	<0.13	<0.13	<0.13	< 0.93	<0.15	<0.15	<0.93
Chloromethane	<0.48	<0.48	<0.78	<1.0	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
1,1-Dichloroethane	<1.2	<1.5	<0.57	<0.48	NA	NA	NA	NA	NA	NA	NA	<0.75
1,2-Dichloroethane	<0.72	<0.72	<0.95	< 0.34	<0.23	<0.23	<0.23	<0.23	< 0.36	<0.22	<0.22	<0.36
1,1-Dichloroethene	<1.2	<1.1	<0.85	<0.82	NA	NA	NA	NA	NA	NA	NA	<0.57
cis-1,2-Dichloroethene	<1.6	<1.7	<0.84	<0.51	1.2	1.5	1.3	1.3	1.6	0.18	2.3	2.1 Q
trans-1,2-Dichloroethene	<1.7	<1.8	<0.74	<0.51	<0.25	<0.25	<0.25	<0.25	<0.89	<0.17	0.24 J	<0.89
Ethylbenzene	<1.1	<1.1	<1.0	<1.0	<0.22	<0.22	<0.22	<0.22	<0.54	<0.18	<0.18	<0.54
Isopropylbenzene	<1.2	<1.2	<0.68	<0.29	<0.19	<0.19	<0.19	<0.19	<0.59	<0.19	<0.19	<0.59
Methylene Chloride	<0.86	<0.86	<0.72	< 0.47	NA	NA	NA	NA	0.85	0.23	0.77	< 0.43
Naphthalene	<1.4	<1.8	<5.0	<5.0	<0.69	< 0.69	< 0.69	<0.69	<0.74	<0.24	<0.24	<0.74
n-Propylbenzene	<1.6	<1.6	<1.0	<1.0	<0.13	<0.13	<0.13	<0.13	< 0.93	<0.15	<0.15	< 0.93
Styrene	<1.7	<1.7	<0.70	<1.0	<0.86	<0.86	<0.86	<0.86	<0.86	<0.18	<0.18	<0.86
Tetrachloroethene	148	372	217	195	<0.22	0.74	<0.22	<0.22	<0.45	1.2	0.36 J	<0.45
Toluene	<1.2	<1.3	<0.88	<1.0	<0.41	<0.41	<0.41	<0.41	<0.67	<0.21	<0.21	<0.67
Trichloroethene	21.4	58.8	24	13.7	<0.24	<0.24	<0.24	<0.24	<0.48	<0.20	<0.20	<0.48
1,2,4-Trimethylbenzene	<1.8	<1.9	<1.1	<1.0	NA	NA	NA	NA	NA	NA	NA	<0.99
1,3,5-Trimethylbenzene	<1.6	<1.7	<5.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<0.97
Trimethylbenzenes	<3.4	<3.6	<6.1	<2.0	<0.60	<0.60	< 0.34	<0.34	<0.97	<0.18	<0.18	<1.96
Vinyl Chloride	< 0.36	< 0.36	< 0.37	< 0.35	<0.25	<0.25	<0.25	<0.25	<0.18	<0.15	<0.15	<0.18
Xylene, m+p	<3.6	<3.6	<1.6	<2.0	NA	NA	NA	NA	NA	NA	NA	<1.8
Xylene, o	<1.6	<1.7	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<0.83
Xylenes	<5.2	<5.3	<2.6	<3.0	<0.69	<0.69	< 0.43	<0.43	<1.8	<0.31	<0.31	<2.63
Laboratory Parameters												
Ethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.025
Ethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.025
Methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2
Total Organic Carbon (mg/L)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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### University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID		MW-500 (d	continued)		MW-800	DUP			MW-8	300		
Sample Date	6/2/11   9/11/12   6/12/13   7/9/14			6/13/01	6/13/01	8/7/01	12/17/01	11/21/03	4/27/04	8/9/04	12/12/06	
Field Parameters												
Dissolved oxygen (mg/L)	5.21	1.25	1.31	0.83	NA	NA	NA	NA	NA	NA	NA	0.22
ORP (mV)	38.5	49.4	76.0	-22.7	NA	NA	NA	NA	NA	NA	NA	40.0

### **General Note:**

Results reported in micrograms per liter (µg/L) unless otherwise indicated.

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**BOLD** = Concentration exceeds the NR 140 Enforcement Standard (ES).

\* = Duplicate of AMW-12.

ES = Enforcement Standard.

mg/L = Milligrams per liter.

J, Q = Concentration detected between the laboratory limit of detection and limit of quantitation.

mV = Millivolts.

N = Spiked sample recovery not within control limits.

NA = Sample not analyzed for this parameter.

ORP = Oxidation reduction potential.

PAL = Preventive Action Limit.

## University Cleaners 1608 University Avenue Green Bay, Wisconsin

				MW-8	00 (contir	nued)					AMW	<i>'</i> -10	
Sample Date	6/13/07	9/25/07	9/9/09	8/16/10	12/1/10	6/1/11	9/11/12	6/10/13	7/8/14	8/24/06	12/11/06	3/13/07	6/13/07
VOCs													
Benzene	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.50	<0.50	<0.41	<0.41	<0.20	<0.41
n-Butyl-benzene	< 0.93	< 0.93	<0.93	<0.93	< 0.93	< 0.93	< 0.93	<0.40	<0.50	< 0.93	< 0.93	<0.20	<0.93
Chloromethane	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	< 0.39	<0.50	<0.24	<0.24	<0.24	<0.24
1,1-Dichloroethane	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.28	<0.24	<0.75	<0.75	<0.50	<0.75
1,2-Dichloroethane	< 0.36	< 0.36	<0.36	< 0.36	< 0.36	< 0.36	< 0.36	<0.48	<0.17	< 0.36	< 0.36	<0.50	<0.36
1,1-Dichloroethene	<0.57	< 0.57	<0.57	<0.57	<0.57	<0.57	< 0.57	<0.43	<0.41	<0.57	< 0.57	<0.50	<0.57
cis-1,2-Dichloroethene	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.42	<0.26	130	74	56	37
trans-1,2-Dichloroethene	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	< 0.37	<0.26	<0.89	2.2 Q	2.2	2.3 Q
Ethylbenzene	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	< 0.54	<0.50	<0.50	<0.54	<0.54	<0.50	<0.54
Isopropylbenzene	< 0.59	< 0.59	< 0.59	< 0.59	< 0.59	< 0.59	< 0.59	< 0.34	<0.14	<0.59	<0.59	<0.20	<0.59
Methylene Chloride	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.36	<0.23	< 0.43	< 0.43	<1.0	<0.43
Naphthalene	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	<0.89	<2.5	<2.5	<0.74	<0.74	<0.25	<0.74
n-Propylbenzene	< 0.93	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	< 0.50	< 0.50	< 0.93	< 0.93	< 0.50	< 0.93
Styrene	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	< 0.35	<0.50	<0.86	<0.86	<0.20	<0.86
Tetrachloroethene	<0.45	0.72	<0.45	1.2	<0.45	<0.45	0.62 J	<0.47	0.77 J	31	20	25	23
Toluene	<0.67	<0.67	<0.67	<0.67	< 0.67	<0.67	< 0.67	<0.44	<0.50	<0.67	< 0.67	<0.20	<0.67
Trichloroethene	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.43	< 0.33	150	100	80	91
1,2,4-Trimethylbenzene	< 0.99	< 0.97	< 0.97	< 0.97	< 0.97	< 0.97	< 0.97	<0.57	< 0.50	<0.99	< 0.99	<0.20	<0.99
1,3,5-Trimethylbenzene	< 0.97	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<2.5	<0.50	<0.97	< 0.97	<0.20	<0.97
Trimethylbenzenes	<1.96	<1.8	<1.8	NA	<1.8	<1.8	<1.8	<3.07	<1.00	<1.96	<1.96	<0.40	<1.96
Vinyl Chloride	<0.18	<0.18	<0.18	<0.18	<0.18	0.44 J	<0.18	0.19 J	<0.18	<0.18	<0.18	<0.20	<0.18
Xylene, m+p	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<0.82	<1.0	<1.8	<1.8	NA	<1.8
Xylene, o	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.50	<0.50	<0.83	<0.83	NA	<0.83
Xylenes	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<1.32	<1.50	<2.63	<2.63	<0.50	<2.63
Laboratory Parameters													
Ethane	NA	NA	<0.025	NA	NA	NA	NA	NA	NA	NA	0.061	NA	NA
Ethene	NA	NA	<0.025	NA	NA	NA	NA	NA	NA	NA	0.110	NA	NA
Methane	NA	NA	1.4	NA	NA	NA	NA	NA	NA	NA	5.1	NA	NA
Total Organic Carbon (mg/L)	NA	NA	10.1	NA	NA	NA	NA	NA	NA	NA	NA	3.18	NA

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### University Cleaners 1608 University Avenue Green Bay, Wisconsin

				MW-8	00 (contir	nued)					AMW	<i>'</i> -10	
Sample Date	6/13/07	9/25/07	9/9/09	8/16/10	8/24/06	12/11/06	3/13/07	6/13/07					
Field Parameters													
Dissolved oxygen (mg/L)	0.15	0.25	0.37	0.22	1.49	0.37	0.43	1.56	0.59	1.20	0.36	0.68	0.13
ORP (mV)	6.6	-11.7	64.1	-310.3	-123.4	59	29.2	69.5	-2.0	-76.60	-81.8	-53.6	-72.4

#### **General Note:**

Results reported in micrograms per liter (µg/L) unless otherwise indicated.

### **Acronyms and Abbreviations:**

Italics = Concentration exceeds the NR 140 Preventive Action Limti (PAL).

**BOLD** = Concentration exceeds the NR 140 Enforcement Standard (ES).

\* = Duplicate of AMW-12.

ES = Enforcement Standard.

mg/L = Milligrams per liter.

J, Q = Concentration detected between the laboratory limit of detection and limit of quantitation.

mV = Millivolts.

N = Spiked sample recovery not within control limits.

NA = Sample not analyzed for this parameter.

ORP = Oxidation reduction potential.

PAL = Preventive Action Limit.

## University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID	AMW-10 (	continued)	DUP-1					AMW-10 (	continued	l)			
Sample Date	9/25/07	12/4/07	12/4/07	3/11/08	9/24/08	2/24/09	9/10/09	8/17/10	12/2/10	6/2/11	6/27/12	DUP-1	6/11/13
VOCs													
Benzene	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.50
n-Butyl-benzene	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	<0.40
Chloromethane	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	< 0.39
1,1-Dichloroethane	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.28
1,2-Dichloroethane	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	<0.36	<0.48
1,1-Dichloroethene	< 0.57	< 0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	< 0.43
cis-1,2-Dichloroethene	45	43	42	29	62.4	16.6	94.7	65.7	94.2	79.7	70.5	69.6	122
trans-1,2-Dichloroethene	2.5	6.0	6.0	3.4	4.5	1.4	3.8	1.5	2.0	1.8	7.6	7.5	14.4
Ethylbenzene	< 0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.50
Isopropylbenzene	<0.59	< 0.59	< 0.59	<0.59	<0.59	<0.59	< 0.59	<0.59	<0.59	<0.59	< 0.59	<0.59	< 0.34
Methylene Chloride	< 0.43	< 0.43	< 0.43	< 0.43	<0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	<0.43	< 0.43	< 0.36
Naphthalene	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	<0.89	<0.89	<2.5
n-Propylbenzene	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.50
Styrene	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	< 0.35
Tetrachloroethene	17	20	11	8	17.6	8.5	17	27.1	6.6	9.8	2.9	2.6	7.9
Toluene	<0.67	< 0.67	< 0.67	<0.67	<0.67	<0.67	< 0.67	<0.67	<0.67	<0.67	<0.67	<0.67	<0.44
Trichloroethene	130	100	100	70	84.9	27.5	43.4	27.3	5.0	9.1	2.6	2.7	3.7
1,2,4-Trimethylbenzene	< 0.97	< 0.97	<0.97	<0.97	<0.97	<0.97	<0.97	<0.97	<0.97	<0.97	<0.97	<0.97	<0.57
1,3,5-Trimethylbenzene	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	< 0.83	<2.5
Trimethylbenzenes	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<3.07
Vinyl Chloride	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	1.1
Xylene, m+p	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<0.82
Xylene, o	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.50
Xylenes	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<1.32
Laboratory Parameters													
Ethane	NA	0.036	NA	0.037	NA	NA	0.036	NA	NA	NA	NA	NA	NA
Ethene	NA	0.072	NA	0.076	NA	NA	0.072	NA	NA	NA	NA	NA	NA
Methane	NA	5.6	NA	3.5	NA	NA	5.6	NA	NA	NA	NA	NA	NA
Total Organic Carbon (mg/L)	NA	3.4	NA	2.7	NA	NA	1.6 J	NA	NA	NA	NA	NA	NA

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### University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID	AMW-10 (	continued)	DUP-1					AMW-10 (	continued	l)			
Sample Date	9/25/07	12/4/07	12/4/07	3/11/08	9/24/08	2/24/09	9/10/09	8/17/10	12/2/10	6/2/11	6/27/12	DUP-1	6/11/13
Field Parameters													
Dissolved oxygen (mg/L)	0.40	0.25	NA	1.87	0.49	0.56	0.41	0.22	0.85	1.53	0.07	NA	1.85
ORP (mV)	-62.8	-34.0	NA	-36.0	-53.7	-13.8	96.3	-309.7	-151.1	2.8	35.1	NA	-4.5

#### **General Note:**

Results reported in micrograms per liter (µg/L) unless otherwise indicated.

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**BOLD** = Concentration exceeds the NR 140 Enforcement Standard (ES).

\* = Duplicate of AMW-12.

ES = Enforcement Standard.

mg/L = Milligrams per liter.

J, Q = Concentration detected between the laboratory limit of detection and limit of quantitation.

mV = Millivolts.

N = Spiked sample recovery not within control limits.

NA = Sample not analyzed for this parameter.

ORP = Oxidation reduction potential.

PAL = Preventive Action Limit.

## University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID	AMW-10 (continued)		AMW	<i>I</i> -11		MW-99			AM	W-11		
Sample Date	7/9/14	8/24/06	12/11/06	3/13/07	6/13/07	6/13/07	9/26/07	12/4/07	3/12/08	9/24/08	2/25/09	9/11/09
VOCs												
Benzene	<0.50	<41	<20	<40	<41	<41	<20	<41	<10.2	<8.2	<20	<16.4
n-Butyl-benzene	<0.50	<93	<46	<40	<93	<93	<46	<93	<23.2	<18.6	<46	<37.2
Chloromethane	<0.50	<24	<24	<24	<24	<24	<24	<24	<24	<4.8	<24	<9.6
1,1-Dichloroethane	<0.24	<75	<38	<100	<75	<75	<38	<75	<18.8	<15	<38	<30
1,2-Dichloroethane	<0.17	<36	<18	<100	<36	<36	<18	<36	<9.0	<7.2	<18	<14.4
1,1-Dichloroethene	<0.41	<57	<28	<100	<57	<57	<28	<57	<14.2	<11.4	<28	<22.8
cis-1,2-Dichloroethene	44.1	<83	<42	<40	<83	<83	<42	<83	<20.8	<16.5	203	53.1
trans-1,2-Dichloroethene	4.8	<89	<44	<40	<89	<89	<44	<89	<22.2	<17.8	<44	<35.6
Ethylbenzene	<0.50	<54	<27	<100	<54	<54	<27	<54	<13.5	<10.8	<27	<21.6
Isopropylbenzene	<0.14	<59	<30	<40	<59	<59	<30	<59	<14.8	<11.8	<30	<23.6
Methylene Chloride	<0.23	<43	<22	<200	<43	<43	<22	<43	<10.8	<8.6	<22	<17.2
Naphthalene	<2.5	<74	<37	<50	<74	<74	<37	<74	<18.5	<17.8	<37	<35.6
n-Propylbenzene	<0.50	<93	<46	<100	<93	<93	<40	<81	<20.2	<16.2	<40	<32.4
Styrene	<0.50	<86	<43	<40	<86	<86	<43	<86	<21.5	<17.2	<43	<34.4
Tetrachloroethene	6.0	7,600	9,000 N	7,200	6,500	6,200	5,900	7,200	3,450	4,010	6,090	4,400
Toluene	<0.50	<67	<34	<40	<67	<67	<34	<67	<16.8	<13.4	<34	<26.8
Trichloroethene	2.9	<48	25 Q	<40	<48	<48	32	88	38.8	48.9	368	188
1,2,4-Trimethylbenzene	<0.50	<99	<48	<40	<99	<99	<48	<97	<24.2	<19.4	<48	<38.8
1,3,5-Trimethylbenzene	<0.50	<83	<42	<40	<83	<83	<42	<83	<20.8	<16.6	<42	<32.3
Trimethylbenzenes	<1.00	<182	<90	<80	<182	<182	<90	<180	<45	<36	<90	<62
Vinyl Chloride	0.72 J	<18	<9.0	<40	<18	<18	<9.0	<18	<4.5	<3.6	<9.0	<7.2
Xylene, m+p	<1.0	<83	<42	NA	<83	<83	<90	<180	<45.0	<36	<90	<62
Xylene, o	<0.50	<180	<90	NA	<180	<180	<42	<83	<20.8	<16.6	<42	<32.3
Xylenes	<1.50	<263	<132	<100	<263	<263	<132	<263	<65.8	<52.6	<132	<105.2
Laboratory Parameters												
Ethane	NA	NA	<0.025	NA	NA	NA	NA	0.032	0.026	NA	NA	0.036
Ethene	NA	NA	0.042	NA	NA	NA	NA	0.720	<0.025	NA	NA	0.072
Methane	NA	NA	0.430	NA	NA	NA	NA	1.1	4.7	NA	NA	5.6
Total Organic Carbon (mg/L)	NA	NA	NA	10.1	NA	NA	NA	12	9.1	NA	NA	9.6

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### University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID	AMW-10 (continued)		AMW	<i>I</i> -11		MW-99			AM	W-11		
Sample Date	7/9/14	8/24/06	12/11/06	3/13/07	6/13/07	6/13/07	9/26/07	12/4/07	3/12/08	9/24/08	2/25/09	9/11/09
Field Parameters												
Dissolved oxygen (mg/L)	0.40	1.50	0.67	3.02	0.45	NA	0.56	0.66	1.31	0.81	0.99	0.91
ORP (mV)	-34.8	33	16.3	-48.9	46.3	NA	871.2	44.2	-28.8	87.5	5.8	95.9

#### **General Note:**

Results reported in micrograms per liter (µg/L) unless otherwise indicated.

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**BOLD** = Concentration exceeds the NR 140 Enforcement Standard (ES).

\* = Duplicate of AMW-12.

ES = Enforcement Standard.

mg/L = Milligrams per liter.

J, Q = Concentration detected between the laboratory limit of detection and limit of quantitation.

mV = Millivolts.

N = Spiked sample recovery not within control limits.

NA = Sample not analyzed for this parameter.

ORP = Oxidation reduction potential.

PAL = Preventive Action Limit.

## University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID	AMW-12	MW-99*	AMW-12	DUP-A*		AMW-12		DUP-1		-	<b>AMW-12</b>		
Sample Date	8/24/06	8/24/06	12/11/06	12/11/06	3/13/07	6/12/07	9/24/07	9/24/07	12/4/07	3/11/08	9/24/08	2/24/09	9/9/09
VOCs													
Benzene	<0.41	<0.41	<0.41	<0.41	<0.20	<0.41	<0.41	<0.41	<0.41	0.87	<0.41	1.0	<0.41
n-Butyl-benzene	< 0.93	< 0.93	< 0.93	< 0.93	<0.20	< 0.93	< 0.93	<0.93	< 0.93	< 0.93	<0.93	< 0.93	<0.93
Chloromethane	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
1,1-Dichloroethane	<0.75	<0.75	<0.75	<0.75	<0.50	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75
1,2-Dichloroethane	< 0.36	< 0.36	< 0.36	< 0.36	<0.50	< 0.36	< 0.36	<0.36	<0.36	< 0.36	< 0.36	< 0.36	<0.36
1,1-Dichloroethene	< 0.57	<0.57	<0.57	<0.57	<0.50	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57
cis-1,2-Dichloroethene	<0.83	<0.83	<0.83	<0.83	<0.20	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83
trans-1,2-Dichloroethene	<0.89	<0.89	<0.89	<0.89	<0.20	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89
Ethylbenzene	< 0.54	<0.54	< 0.54	<0.54	<0.50	<0.54	<0.54	<0.54	<0.54	1.5	<0.54	1.0	<0.54
Isopropylbenzene	< 0.59	<0.59	< 0.59	<0.59	<0.20	<0.59	<0.59	<0.59	<0.59	0.66J	<0.59	<0.59	<0.59
Methylene Chloride	< 0.43	< 0.43	< 0.43	< 0.43	1.2 J	< 0.43	< 0.43	< 0.43	<0.43	<0.43	< 0.43	< 0.43	0.47 JZ
Naphthalene	<0.74	<0.74	<0.74	<0.74	<0.25	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74
n-Propylbenzene	< 0.93	< 0.93	< 0.93	< 0.93	<0.50	<0.93	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81
Styrene	<0.86	<0.86	<0.86	<0.86	<0.20	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86
Tetrachloroethene	5.6	5.8	<0.45	<0.45	<0.50	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45
Toluene	< 0.67	< 0.67	< 0.67	<0.67	<0.20	<0.67	< 0.67	< 0.67	<0.67	1.5	<0.67	3.7	<0.67
Trichloroethene	<0.48	<0.48	<0.48	<0.48	<0.20	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48
1,2,4-Trimethylbenzene	< 0.99	< 0.99	< 0.99	<0.99	<0.20	<0.99	<0.97	<0.97	<0.97	3.3	<0.97	<0.97	<0.97
1,3,5-Trimethylbenzene	< 0.97	< 0.97	< 0.97	< 0.97	<0.20	< 0.97	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83
Trimethylbenzenes	<1.96	<1.96	<1.96	<1.96	<0.40	<1.96	<1.8	<1.8	<1.8	<3.98	<1.8	<3.98	<1.8
Vinyl Chloride	<0.18	<0.18	<0.18	<0.18	<0.20	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18
Xylene, m+p	<1.8	<1.8	<1.8	<1.8	NA	<1.8	<1.8	<1.8	<1.8	164	<1.8	167	<1.8
Xylene, o	<0.83	<0.83	<0.83	<0.83	NA	<0.83	<0.83	<0.83	<0.83	.85J	<0.83	.84J	<0.83
Xylenes	<2.63	<2.63	<2.63	<2.63	<0.50	<2.63	<2.63	<2.63	<2.63	164.85	<2.63	167.84	<2.63
Laboratory Parameters													
Ethane	NA	NA	<0.025	NA	NA	NA	NA	NA	1.400	3.0	NA	NA	1.2
Ethene	NA	NA	<0.025	NA	NA	NA	NA	NA	<0.025	0.070	NA	NA	<0.025
Methane	NA	NA	2.6	NA	NA	NA	NA	NA	250	480	NA	NA	234
Total Organic Carbon (mg/L)	NA	NA	NA	NA	3.57	NA	NA	NA	6.1	5.3	NA	NA	5.1

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### University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID	AMW-12	MW-99*	AMW-12	DUP-A*		AMW-12		DUP-1		-	AMW-12		
Sample Date	8/24/06	8/24/06	12/11/06	12/11/06	3/13/07	6/12/07	9/24/07	9/24/07	12/4/07	3/11/08	9/24/08	2/24/09	9/9/09
Field Parameters													
Dissolved oxygen (mg/L)	0.19	NA	1.51	NA	0.80	0.10	0.71	0.71	0.64	0.56	0.84	0.36	0.97
ORP (mV)	31.6	NA	6.88	NA	23.0	22.5	27.6	27.6	59.0	-9.8	86.4	-6.3	117.1

#### **General Note:**

Results reported in micrograms per liter (µg/L) unless otherwise indicated.

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**BOLD** = Concentration exceeds the NR 140 Enforcement Standard (ES).

\* = Duplicate of AMW-12.

ES = Enforcement Standard.

mg/L = Milligrams per liter.

J, Q = Concentration detected between the laboratory limit of detection and limit of quantitation.

mV = Millivolts.

N = Spiked sample recovery not within control limits.

NA = Sample not analyzed for this parameter.

ORP = Oxidation reduction potential.

PAL = Preventive Action Limit.

## University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID	AMW-12	DUP-1			AMW-12	2				AMV	V-13		
Sample Date	8/17/10	8/17/10	12/1/10	6/1/11	6/27/12	6/10/13	7/9/14	9/26/07	12/03/07	03/11/07	9/23/08	2/24/09	9/10/09
VOCs													
Benzene	<0.41	<0.41	<0.41	0.62 J	<0.41	<0.50	<0.50	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
n-Butyl-benzene	< 0.93	<0.93	< 0.93	< 0.93	< 0.93	<0.40	<0.50	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93
Chloromethane	<0.24	<0.24	<0.24	<0.24	<0.24	< 0.39	<0.50	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
1,1-Dichloroethane	< 0.75	<0.75	<0.75	<0.75	<0.75	<0.28	<0.24	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75
1,2-Dichloroethane	< 0.36	<0.36	< 0.36	<0.36	< 0.36	<0.48	<0.17	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
1,1-Dichloroethene	<0.57	<0.57	<0.57	<0.57	<0.57	< 0.43	<0.41	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57
cis-1,2-Dichloroethene	<0.83	<0.83	<0.83	0.90 J	<0.83	<0.42	<0.26	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83
trans-1,2-Dichloroethene	<0.89	<0.89	<0.89	<0.89	<0.89	< 0.37	<0.26	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89
Ethylbenzene	<0.54	<0.54	<0.54	<0.54	<0.54	<0.50	<0.50	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54
Isopropylbenzene	<0.59	<0.59	<0.59	0.64 J	<0.59	<0.34	<0.14	<0.59	<0.59	<0.59	<0.59	<0.59	<0.59
Methylene Chloride	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.36	<0.23	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43
Naphthalene	<0.74	<0.74	< 0.74	<0.74	<0.89	<2.5	<2.5	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74
n-Propylbenzene	<0.81	<0.81	<0.81	<0.81	<0.81	<0.50	<0.50	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81
Styrene	<0.86	<0.86	<0.86	<0.86	<0.86	< 0.35	< 0.50	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86
Tetrachloroethene	<0.45	<0.45	<0.45	<0.45	<0.45	< 0.47	< 0.50	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45
Toluene	<0.67	<0.67	< 0.67	1.2	< 0.67	<0.44	<0.50	<0.67	<0.67	<0.67	<0.67	<0.67	< 0.67
Trichloroethene	<0.48	<0.48	<0.48	<0.48	<0.48	< 0.43	< 0.33	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48
1,2,4-Trimethylbenzene	< 0.97	<0.97	<0.97	<0.97	< 0.97	< 0.57	<0.50	<0.97	<0.97	<0.97	<0.97	<0.97	<0.97
1,3,5-Trimethylbenzene	<0.83	<0.83	<0.83	<0.83	<0.83	<2.5	< 0.50	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83
Trimethylbenzenes	NA	NA	<1.8	<1.8	<1.8	<3.07	<1.00	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8
Vinyl Chloride	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18
Xylene, m+p	<1.8	<1.8	<1.8	1.8 J	<1.8	<0.82	<1.0	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8
Xylene, o	<0.83	<0.83	<0.83	<0.83	<0.83	<0.50	< 0.50	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83
Xylenes	<2.63	<2.63	<2.63	<2.63	<2.63	<1.32	<1.50	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63
Laboratory Parameters													
Ethane	NA	NA	NA	NA	NA	NA	NA	NA	0.046	0.067	NA	NA	0.067
Ethene	NA	NA	NA	NA	NA	NA	NA	NA	0.025	<0.025	NA	NA	<0.025
Methane	NA	NA	NA	NA	NA	NA	NA	NA	0.1	160	NA	NA	160
Total Organic Carbon (mg/L)	NA	NA	NA	NA	NA	NA	NA	NA	<1.4	2.6	NA	NA	3.8

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## University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID	AMW-12	DUP-1			AMW-12	2				AMV	<i>I</i> -13		
Sample Date	8/17/10	8/17/10	12/1/10   6/1/11   6/27/12   6/10/13   7/9/14				9/26/07	12/03/07	03/11/07	9/23/08	2/24/09	9/10/09	
Field Parameters													
Dissolved oxygen (mg/L)	0.40	0.40	1.21	0.28	0.58	3.37	3.13	0.38	0.44	0.35	0.33	0.50	0.47
ORP (mV)	-336.8	-336.8	-88.5	20.2	145.6	75.6	-15.9	697.3	52.1	-11.3	111.9	-9.7	95.1

#### **General Note:**

Results reported in micrograms per liter (µg/L) unless otherwise indicated.

### **Acronyms and Abbreviations:**

Italics = Concentration exceeds the NR 140 Preventive Action Limti (PAL).

**BOLD** = Concentration exceeds the NR 140 Enforcement Standard (ES).

\* = Duplicate of AMW-12.

ES = Enforcement Standard.

mg/L = Milligrams per liter.

J, Q = Concentration detected between the laboratory limit of detection and limit of quantitation.

mV = Millivolts.

N = Spiked sample recovery not within control limits.

NA = Sample not analyzed for this parameter.

ORP = Oxidation reduction potential.

PAL = Preventive Action Limit.

## University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID		-	AMW-13 (	continued	l)		DUP			AMV	V-14		
Sample Date	8/16/10	12/1/10	6/1/11	6/26/12	6/11/13	7/8/14	7/8/14	9/26/07	12/13/07	3/11/08	9/23/08	2/25/09	9/10/09
VOCs													•
Benzene	<0.41	<0.41	<0.41	<0.41	<0.50	<0.50	<0.50	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
n-Butyl-benzene	<0.93	< 0.93	< 0.93	< 0.93	<0.40	<0.50	<0.50	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	<0.93
Chloromethane	<0.24	<0.24	<0.24	<0.24	<0.39	<0.50	2.1	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
1,1-Dichloroethane	<0.75	<0.75	<0.75	<0.75	<0.28	<0.24	<0.24	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75
1,2-Dichloroethane	<0.36	< 0.36	< 0.36	< 0.36	<0.48	<0.17	<0.17	< 0.36	< 0.36	< 0.36	< 0.36	<0.36	<0.36
1,1-Dichloroethene	<0.57	<0.57	<0.57	<0.57	<0.43	<0.41	<0.41	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57
cis-1,2-Dichloroethene	<0.83	1.3	<0.83	2.3	<0.42	<0.26	<0.26	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83
trans-1,2-Dichloroethene	<0.89	<0.89	<0.89	<0.89	< 0.37	<0.26	<0.26	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89
Ethylbenzene	<0.54	<0.54	<0.54	<0.54	<0.50	<0.50	<0.50	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54
Isopropylbenzene	<0.59	<0.59	<0.59	<0.59	< 0.34	<0.14	<0.14	< 0.59	<0.59	< 0.59	<0.59	<0.59	<0.59
Methylene Chloride	<0.43	0.78 J	< 0.43	<0.43	< 0.36	<0.23	<0.23	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	<0.43
Naphthalene	<0.74	<0.74	<0.74	<0.89	<2.5	<2.5	<2.5	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74
n-Propylbenzene	<0.81	<0.81	<0.81	<0.81	<0.50	<0.50	<0.50	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81
Styrene	<0.86	<0.86	<0.86	<0.86	< 0.35	<0.50	<0.50	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86
Tetrachloroethene	<0.45	<0.45	<0.45	<0.45	<0.47	<0.50	<0.50	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45
Toluene	<0.67	< 0.67	< 0.67	<0.67	<0.44	<0.50	<0.50	< 0.67	< 0.67	< 0.67	<0.67	<0.67	<0.67
Trichloroethene	<0.48	<0.48	<0.48	<0.48	< 0.43	< 0.33	< 0.33	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48
1,2,4-Trimethylbenzene	<0.97	< 0.97	<0.97	< 0.97	<0.57	<0.50	<0.50	< 0.97	< 0.97	< 0.97	<0.97	< 0.97	<0.97
1,3,5-Trimethylbenzene	<0.83	<0.83	<0.83	<0.83	<2.5	<0.50	<0.50	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83
Trimethylbenzenes	NA	<1.8	<1.8	<1.8	<3.07	<1.00	<1.00	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8
Vinyl Chloride	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18
Xylene, m+p	<1.8	<1.8	<1.8	<1.8	<0.82	<1.0	<1.0	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8
Xylene, o	<0.83	<0.83	<0.83	<0.83	<0.50	<0.50	<0.50	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83
Xylenes	<2.63	<2.63	<2.63	<2.63	<1.32	<1.50	<1.50	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63
Laboratory Parameters													
Ethane	NA	NA	NA	NA	NA	NA	NA	NA	0.076	0.073	NA	NA	0.073
Ethene	NA	NA	NA	NA	NA	NA	NA	NA	1.900	< 0.025	NA	NA	<0.025
Methane	NA	NA	NA	NA	NA	NA	NA	NA	14.0	16.0	NA	NA	10.0
Total Organic Carbon (mg/L)	NA	NA	NA	NA	NA	NA	NA	NA	1.8	2.8	NA	NA	2.4

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## University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID		A	AMW-13 (	continued	l)		DUP			AMV	<i>I</i> -14		
Sample Date	8/16/10	12/1/10	6/1/11	6/26/12	6/11/13	7/8/14	7/8/14	9/26/07	12/13/07	3/11/08	9/23/08	2/25/09	9/10/09
Field Parameters													
Dissolved oxygen (mg/L)	0.15	1.94	0.60	0.20	1.05	0.27	0.27	0.40	0.24	0.35	1.30	0.60	0.36
ORP (mV)	-311.3	-46.6	51.2	46.7	32.9	-3.8	-3.8	1,010.6	0.2	-37.3	9.7	3.5	80.9

#### **General Note:**

Results reported in micrograms per liter (µg/L) unless otherwise indicated.

### **Acronyms and Abbreviations:**

Italics = Concentration exceeds the NR 140 Preventive Action Limti (PAL).

**BOLD** = Concentration exceeds the NR 140 Enforcement Standard (ES).

\* = Duplicate of AMW-12.

ES = Enforcement Standard.

mg/L = Milligrams per liter.

J, Q = Concentration detected between the laboratory limit of detection and limit of quantitation.

mV = Millivolts.

N = Spiked sample recovery not within control limits.

NA = Sample not analyzed for this parameter.

ORP = Oxidation reduction potential.

PAL = Preventive Action Limit.

## University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID		Α	MW-14 (	continued	)				AMV	V-15		
Sample Date	8/16/10	11/30/10	6/1/11	6/26/12	6/11/13	7/8/14	09/24/07	12/03/07	03/12/08	09/24/08	02/25/09	09/10/09
VOCs												
Benzene	<0.41	<0.41	<0.41	<0.41	<0.50	<0.50	<0.41	<1.0	<0.41	<1.0	<0.41	<1.0
n-Butyl-benzene	< 0.93	< 0.93	< 0.93	< 0.93	<0.40	<0.50	< 0.93	<2.3	< 0.93	<2.3	< 0.93	<2.3
Chloromethane	<0.24	<0.24	<0.24	<0.24	< 0.39	<0.50	<0.24	<0.24	<0.24	<0.6	<0.24	<0.6
1,1-Dichloroethane	<0.75	< 0.75	<0.75	<0.75	<0.28	<0.24	<0.75	<1.9	< 0.75	<1.9	< 0.75	<1.9
1,2-Dichloroethane	<0.36	< 0.36	< 0.36	< 0.36	<0.48	<0.17	< 0.36	< 0.90	< 0.36	<0.9	< 0.36	<0.9
1,1-Dichloroethene	<0.57	< 0.57	<0.57	<0.57	<0.43	<0.41	<0.57	<1.4	0.76J	<1.4	1.1	<1.4
cis-1,2-Dichloroethene	<0.83	<0.83	<0.83	<0.83	<0.42	<0.26	14	35	53.4	340	161	221
trans-1,2-Dichloroethene	<0.89	<0.89	<0.89	<0.89	< 0.37	<0.26	<0.89	<2.2	1.60	5.2	1.4	2.5
Ethylbenzene	<0.54	< 0.54	<0.54	<0.54	<0.50	<0.50	<0.54	<1.4	< 0.54	<1.4	<0.54	<1.4
Isopropylbenzene	<0.59	< 0.59	<0.59	<0.59	< 0.34	<0.14	< 0.59	<1.5	< 0.59	<1.5	< 0.59	<1.5
Methylene Chloride	< 0.43	< 0.43	< 0.43	<0.43	< 0.36	<0.23	< 0.43	<1.1	< 0.43	<1.1	2.6	<1.1
Naphthalene	<0.74	<0.89	<0.89	<0.89	<2.5	<2.5	<0.74	<1.8	< 0.74	<2.2	< 0.74	<2.2
n-Propylbenzene	<0.81	<0.81	<0.81	<0.81	<0.50	<0.50	<0.81	<2.0	<0.81	<2.0	<0.81	<2.0
Styrene	<0.86	<0.86	<0.86	<0.86	< 0.35	<0.50	<0.86	<2.2	<0.86	<2.2	<0.86	<2.2
Tetrachloroethene	<0.45	<0.45	<0.45	<0.45	<0.47	<0.50	3	130	269	90.6	103	29.3
Toluene	<0.67	< 0.67	<0.67	<0.67	<0.44	< 0.50	<0.67	<1.7	< 0.67	<1.7	< 0.67	<1.7
Trichloroethene	<0.48	<0.48	<0.48	<0.48	< 0.43	< 0.33	10	220	197	56.5	130	15.3
1,2,4-Trimethylbenzene	< 0.97	< 0.97	< 0.97	<0.97	<0.57	<0.50	<0.97	<2.4	< 0.97	<2.4	< 0.97	<2.4
1,3,5-Trimethylbenzene	<0.83	<0.83	<0.83	<0.83	<2.5	<0.50	<0.83	<2.1	<0.83	<2.1	<0.83	<2.1
Trimethylbenzenes	NA	<1.8	<1.8	<1.8	<3.07	<1.00	<1.8	<4.5	<1.8	<4.5	<1.8	<4.5
Vinyl Chloride	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	0.35	0.87	1.1	0.64	0.99 J	0.69 J
Xylene, m+p	<1.8	<1.8	<1.8	<1.8	<0.82	<1.0	<1.8	<4.5	<1.8	<4.5	<1.8	<4.5
Xylene, o	<0.83	<0.83	<0.83	<0.83	<0.50	<0.50	<0.83	<2.1	<0.83	<2.1	<0.83	<2.1
Xylenes	<2.63	<2.63	<2.63	<2.63	<1.32	<1.50	<2.63	<6.6	<2.63	<6.6	<2.63	<6.6
Laboratory Parameters												
Ethane	NA	NA	NA	NA	NA	NA	NA	0.069	0.063	NA	NA	0.063
Ethene	NA	NA	NA	NA	NA	NA	NA	0.079	0.072	NA	NA	0.072
Methane	NA	NA	NA	NA	NA	NA	NA	64	22	NA	NA	19
Total Organic Carbon (mg/L)	NA	NA	NA	NA	NA	NA	NA	5.5	6.7	NA	NA	4.0

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### University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID		A	MW-14 (	continued	)				AMV	V-15		
Sample Date	8/16/10	11/30/10	6/1/11	6/26/12	6/11/13	7/8/14	09/24/07	12/03/07	03/12/08	09/24/08	02/25/09	09/10/09
Field Parameters												
Dissolved oxygen (mg/L)	0.17	0.51	0.54	0.51	1.11	0.24	0.4	0.22	0.21	1.34	4.70	0.57
ORP (mV)	-318.2	-25.3	78.7	76.1	48.1	-8.4	42.9	-60.5	-97.6	-5.40	2.00	40.10

#### **General Note:**

Results reported in micrograms per liter (µg/L) unless otherwise indicated.

### **Acronyms and Abbreviations:**

Italics = Concentration exceeds the NR 140 Preventive Action Limti (PAL).

**BOLD** = Concentration exceeds the NR 140 Enforcement Standard (ES).

\* = Duplicate of AMW-12.

ES = Enforcement Standard.

mg/L = Milligrams per liter.

J, Q = Concentration detected between the laboratory limit of detection and limit of quantitation.

mV = Millivolts.

N = Spiked sample recovery not within control limits.

NA = Sample not analyzed for this parameter.

ORP = Oxidation reduction potential.

PAL = Preventive Action Limit.

## University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID			AMW-15 (	continued	)		AMW-16	DUP999		AM	W-16	
Sample Date	08/17/10	12/02/10	06/02/11	09/11/12	06/11/13	07/09/14	9/25/08	9/25/08	2/23/09	9/9/09	8/16/10	11/30/10
VOCs												
Benzene	<4.1	<4.1	<4.1	<0.41	<5.0	<5.0	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
n-Butyl-benzene	<9.3	<9.3	<9.3	< 0.93	<4.0	17.7	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93
Chloromethane	<2.4	<2.4	<2.4	<0.24	<3.9	<5.0	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
1,1-Dichloroethane	<7.5	<7.5	<7.5	<0.75	<2.8	<2.4	<0.75	< 0.75	<0.75	<0.75	<0.75	<0.75
1,2-Dichloroethane	<3.6	<3.6	<3.6	< 0.36	<4.8	<1.7	<0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
1,1-Dichloroethene	<5.7	<5.7	<5.7	<0.57	<4.3	<4.1	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57
cis-1,2-Dichloroethene	630	811	1,170	149	1,280	438	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83
trans-1,2-Dichloroethene	<8.9	9.0 J	10.3	2.9	26.5	4.7 J	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89
Ethylbenzene	<0.54	<5.4	<5.4	<0.54	<5.0	<5.0	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54
Isopropylbenzene	<5.9	<5.9	<5.9	<0.59	<3.4	30.4	<0.59	< 0.59	<0.59	<0.59	<0.59	<0.59
Methylene Chloride	<4.3	<4.3	<4.3	< 0.43	<3.6	<2.3	< 0.43	< 0.43	< 0.43	< 0.43	0.58J	< 0.43
Naphthalene	<8.9	<8.9	<8.9	<0.89	<25.0	<25.0	<0.74	< 0.74	<0.74	<0.74	<0.74	<0.89
n-Propylbenzene	<8.1	<8.1	<8.1	<0.81	<5.0	<5.0	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81
Styrene	<8.6	<8.6	<8.6	<0.86	<3.5	<5.0	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86
Tetrachloroethene	794	621	544	45.5	257	108	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45
Toluene	<6.7	<6.7	<6.7	< 0.67	<4.4	<5.0	< 0.67	< 0.67	<0.67	< 0.67	<0.67	< 0.67
Trichloroethene	506	402	472	11.5	349	120	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48
1,2,4-Trimethylbenzene	<9.7	<9.7	<9.7	< 0.97	<5.7	<5.0	< 0.97	< 0.97	<0.97	<0.97	<0.97	< 0.97
1,3,5-Trimethylbenzene	<8.3	<8.3	<8.3	<0.83	<25.0	<5.0	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83
Trimethylbenzenes	<18	<18	<18	<1.8	<30.7	<1.0	<1.8	<1.8	<1.8	<1.8	NA	<1.8
Vinyl Chloride	<1.8	<1.8	<1.8	<0.18	<1.8	<1.8	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18
Xylene, m+p	<18.0	<18.0	<18.0	<1.8	<8.2	<10.0	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8
Xylene, o	<8.3	<8.3	<8.3	<0.83	<5.0	<5.0	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83
Xylenes	<26.3	<26.3	<26.3	<2.63	<13.2	<15.0	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63
Laboratory Parameters												
Ethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.095	NA	NA
Ethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.025	NA	NA
Methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.7	NA	NA
Total Organic Carbon (mg/L)	NA	NA	NA	NA	NA	NA	NA	NA	NA	12.8	NA	NA

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### University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID			AMW-15 (	continued	)		AMW-16	DUP999		AM	W-16	
Sample Date	08/17/10	12/02/10	06/02/11	09/11/12	06/11/13	07/09/14	9/25/08	9/25/08	2/23/09	9/9/09	8/16/10	11/30/10
Field Parameters												
Dissolved oxygen (mg/L)	0.25	0.88	0.47	0.39	0.91	0.59	0.62	NA	0.40	0.24	0.21	1.03
ORP (mV)	-298.9	-19.5	-103.7	38	-18.0	-28.2	37.7	NA	54.20	40.60	-338.1	5.1

#### **General Note:**

Results reported in micrograms per liter (µg/L) unless otherwise indicated.

### **Acronyms and Abbreviations:**

Italics = Concentration exceeds the NR 140 Preventive Action Limti (PAL).

**BOLD** = Concentration exceeds the NR 140 Enforcement Standard (ES).

\* = Duplicate of AMW-12.

ES = Enforcement Standard.

mg/L = Milligrams per liter.

J, Q = Concentration detected between the laboratory limit of detection and limit of quantitation.

mV = Millivolts.

N = Spiked sample recovery not within control limits.

NA = Sample not analyzed for this parameter.

ORP = Oxidation reduction potential.

PAL = Preventive Action Limit.

## **University Cleaners** 1608 University Avenue Green Bay, Wisconsin

Well ID		AMW-16 (	continued	)					PZ-100				
Sample Date	5/31/11	6/27/12	6/11/13	7/8/14	6/13/01	8/7/01	12/17/01	11/21/03	4/27/04	8/9/04	12/12/06	3/13/07	6/12/07
VOCs													
Benzene	<0.41	<0.41	<0.50	<0.50	<0.21	<0.21	<0.21	<0.41	<0.18	<0.18	<0.41	<0.20	<0.41
n-Butyl-benzene	< 0.93	< 0.93	<0.40	<0.50	<0.13	<0.13	<0.13	< 0.93	<0.15	<0.15	< 0.93	<0.20	< 0.93
Chloromethane	<0.24	<0.24	< 0.39	<0.50	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
1,1-Dichloroethane	<0.75	<0.75	<0.28	<0.24	NA	NA	NA	NA	NA	NA	<0.75	<0.50	<0.75
1,2-Dichloroethane	< 0.36	<0.36	<0.48	<0.17	<0.23	<0.23	<0.23	< 0.36	<0.22	<0.22	< 0.36	<0.50	<0.36
1,1-Dichloroethene	<0.57	<0.57	<0.43	<0.41	NA	NA	NA	NA	NA	NA	<0.57	<0.50	<0.57
cis-1,2-Dichloroethene	<0.83	<0.83	<0.42	<0.26	<0.21	<0.21	<0.21	<0.83	<0.15	<0.15	<0.83	<0.20	<0.83
trans-1,2-Dichloroethene	<0.89	<0.89	< 0.37	<0.26	<0.25	<0.25	<0.25	<0.89	<0.17	<0.17	<0.89	<0.20	<0.89
Ethylbenzene	<0.54	<0.54	<0.50	<0.50	<0.22	<0.22	<0.22	<0.54	<0.18	<0.18	<0.54	<0.50	<0.54
Isopropylbenzene	<0.59	<0.59	< 0.34	<0.14	<0.19	<0.19	<0.19	<0.59	<0.19	<0.19	< 0.59	<0.20	<0.59
Methylene Chloride	< 0.43	< 0.43	< 0.36	<0.23	NA	NA	NA	0.46	0.32	0.95	< 0.43	1.1 J	<0.43
Naphthalene	<0.89	<0.89	<2.5	<2.5	< 0.69	<0.69	<0.69	<0.74	<0.24	<0.24	<0.74	<0.25	<0.74
n-Propylbenzene	<0.81	<0.81	<0.50	<0.50	<0.13	<0.13	<0.13	< 0.93	<0.15	<0.15	< 0.93	<0.50	<0.93
Styrene	<0.86	<0.86	< 0.35	<0.50	<0.86	<0.86	<0.86	<0.86	<0.18	<0.18	<0.86	<0.20	<0.86
Tetrachloroethene	<0.45	<0.45	<0.47	<0.50	<0.22	<0.22	<0.22	<0.45	<0.20	<0.20	<0.45	<0.50	<0.45
Toluene	< 0.67	<0.67	<0.44	<0.50	<0.41	<0.41	<0.41	< 0.67	<0.21	<0.21	< 0.67	<0.20	<0.67
Trichloroethene	<0.48	<0.48	<0.43	< 0.33	<0.24	<0.24	<0.24	<0.48	<0.20	<0.20	<0.48	<0.20	<0.48
1,2,4-Trimethylbenzene	<0.97	<0.97	<0.57	<0.50	NA	NA	NA	NA	NA	NA	<0.99	<0.20	<0.99
1,3,5-Trimethylbenzene	<0.83	<0.83	<2.5	< 0.50	NA	NA	NA	NA	NA	NA	<0.97	<0.20	< 0.97
Trimethylbenzenes	<1.8	<1.8	<3.07	<1.0	<0.60	< 0.34	<0.34	<0.97	<0.18	<0.18	<1.96	<0.40	<1.96
Vinyl Chloride	<0.18	<0.18	<0.18	<0.18	<0.25	<0.25	<0.25	<0.18	<0.15	<0.15	<0.18	<0.20	<0.18
Xylene, m+p	<1.8	<1.8	<0.82	<1.0	NA	NA	NA	NA	NA	NA	<1.8	NA	<1.8
Xylene, o	<0.83	<0.83	<0.50	<0.50	NA	NA	NA	NA	NA	NA	<0.83	NA	<0.83
Xylenes	<2.63	<2.63	<1.32	<1.50	< 0.69	< 0.43	<0.43	<1.8	<0.31	<0.31	<2.63	<0.50	<2.63
Laboratory Parameters													
Ethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.095	NA	NA
Ethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.025	NA	NA
Methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	27	NA	NA
Total Organic Carbon (mg/L)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.41	NA

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Table A.1 MW\_water\_voc\_2014.xlsx

### University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID		AMW-16 (d	continued	)					PZ-100				
Sample Date	5/31/11	6/27/12	6/11/13	7/8/14	6/13/01	8/7/01	12/17/01	11/21/03	4/27/04	8/9/04	12/12/06	3/13/07	6/12/07
Field Parameters													
Dissolved oxygen (mg/L)	0.38	0.31	1.50	0.39	NA	NA	NA	NA	NA	NA	0.90	1.47	0.69
ORP (mV)	-36.2	73.1	44.8	-19.2	NA	NA	NA	NA	NA	NA	-72.2	-90.3	-75.6

#### **General Note:**

Results reported in micrograms per liter (µg/L) unless otherwise indicated.

### **Acronyms and Abbreviations:**

Italics = Concentration exceeds the NR 140 Preventive Action Limti (PAL).

**BOLD** = Concentration exceeds the NR 140 Enforcement Standard (ES).

\* = Duplicate of AMW-12.

ES = Enforcement Standard.

mg/L = Milligrams per liter.

J, Q = Concentration detected between the laboratory limit of detection and limit of quantitation.

mV = Millivolts.

N = Spiked sample recovery not within control limits.

NA = Sample not analyzed for this parameter.

ORP = Oxidation reduction potential.

PAL = Preventive Action Limit.

## University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID						PZ-100 (c	ontinued	)					PZ.	-101
Sample Date	9/25/07	12/3/07	3/12/08	9/24/08	2/25/09	9/11/09	8/17/10	12/2/10	6/2/11	6/27/12	6/12/13	7/8/14	9/24/07	12/03/07
VOCs										•				
Benzene	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.50	<0.50	<0.41	<0.41
n-Butyl-benzene	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	<0.40	<0.50	< 0.93	< 0.93
Chloromethane	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	< 0.39	<0.50	<0.24	<0.24
1,1-Dichloroethane	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.28	<0.24	<0.75	<0.75
1,2-Dichloroethane	< 0.36	< 0.36	<0.36	< 0.36	<0.36	<0.36	< 0.36	< 0.36	< 0.36	< 0.36	<0.48	<0.17	< 0.36	< 0.36
1,1-Dichloroethene	< 0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	< 0.57	<0.57	<0.43	<0.41	<0.57	<0.57
cis-1,2-Dichloroethene	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	< 0.83	<0.83	<0.42	<0.26	<0.83	<0.83
trans-1,2-Dichloroethene	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	< 0.37	<0.26	<0.89	<0.89
Ethylbenzene	< 0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	< 0.54	< 0.54	<0.50	<0.50	<0.54	<0.54
Isopropylbenzene	< 0.59	<0.59	<0.59	<0.59	<0.59	<0.59	<0.59	<0.59	< 0.59	< 0.59	< 0.34	<0.14	< 0.59	<0.59
Methylene Chloride	< 0.43	< 0.43	<0.43	< 0.43	<0.43	<0.43	<0.43	< 0.43	< 0.43	< 0.43	< 0.36	<0.23	< 0.43	< 0.43
Naphthalene	< 0.74	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	<0.89	<2.5	<2.5	<0.74	<0.74
n-Propylbenzene	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.50	<0.50	<0.81	<0.81
Styrene	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	< 0.35	<0.50	<0.86	<0.86
Tetrachloroethene	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.47	<0.50	<0.45	<0.45
Toluene	<0.67	<0.67	< 0.67	< 0.67	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67	<0.44	<0.50	< 0.67	< 0.67
Trichloroethene	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.43	< 0.33	<0.48	<0.48
1,2,4-Trimethylbenzene	< 0.97	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.97	<0.57	<0.50	< 0.97	< 0.97
1,3,5-Trimethylbenzene	<0.83	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.83	<2.5	<0.50	<0.83	<0.83
Trimethylbenzenes	<1.8	<0.45	<0.45	<0.45	<0.45	<0.45	NA	<0.45	<0.45	<1.8	<3.07	<1.00	<1.8	<1.8
Vinyl Chloride	<0.18	<0.67	< 0.67	< 0.67	<0.67	<0.67	<0.18	<0.67	< 0.67	<0.18	<0.18	<0.18	<0.18	<0.18
Xylene, m+p	<1.8	<0.48	<0.48	<0.48	<0.48	<0.48	<1.8	<0.48	<0.48	<1.8	<0.82	<1.0	<1.8	<1.8
Xylene, o	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.50	<0.50	<0.83	<0.83
Xylenes	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<1.32	<1.50	<2.63	<2.63
Laboratory Parameters														
Ethane	NA	0.110	0.630	NA	NA	0.560	NA	NA	NA	NA	NA	NA	NA	0.470
Ethene	NA	0.540	<0.025	NA	NA	<0.025	NA	NA	NA	NA	NA	NA	NA	0.230
Methane	NA	36.0	20.0	NA	NA	17.0	NA	NA	NA	NA	NA	NA	NA	30.0
Total Organic Carbon (mg/L)	NA	3.6	4.3	NA	NA	3.0	NA	NA	NA	NA	NA	NA	NA	3.7

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### University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID						PZ-100 (c	ontinued	)					PZ-	101
Sample Date	9/25/07	12/3/07	3/12/08	9/24/08	2/25/09	9/11/09	8/17/10	12/2/10	6/2/11	6/27/12	6/12/13	7/8/14	9/24/07	12/03/07
Field Parameters										-				
Dissolved oxygen (mg/L)	0.29	0.22	2.31	0.68	0.51	3.77	4.41	1.59	2.16	0.14	4.00	1.13	0.77	0.58
ORP (mV)	-103.4	-75.8	-65.5	-69.0	-54.1	85.4	-253.5	18.6	-48.6	51.8	42.7	-37.8	18.2	-23.2

#### **General Note:**

Results reported in micrograms per liter (µg/L) unless otherwise indicated.

### **Acronyms and Abbreviations:**

Italics = Concentration exceeds the NR 140 Preventive Action Limti (PAL).

**BOLD** = Concentration exceeds the NR 140 Enforcement Standard (ES).

\* = Duplicate of AMW-12.

ES = Enforcement Standard.

mg/L = Milligrams per liter.

J, Q = Concentration detected between the laboratory limit of detection and limit of quantitation.

mV = Millivolts.

N = Spiked sample recovery not within control limits.

NA = Sample not analyzed for this parameter.

ORP = Oxidation reduction potential.

PAL = Preventive Action Limit.

## University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID					Р	Z-101				
Sample Date	03/12/08	9/24/08	2/25/09	9/11/09	8/17/10	12/2/10	6/2/11	09/11/12	06/12/13	07/09/14
VOCs										
Benzene	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.50	<0.50
n-Butyl-benzene	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	<0.40	<0.50
Chloromethane	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	< 0.39	<0.50
1,1-Dichloroethane	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.28	<0.24
1,2-Dichloroethane	< 0.36	< 0.36	< 0.36	<0.36	< 0.36	< 0.36	< 0.36	< 0.36	<0.48	<0.17
1,1-Dichloroethene	< 0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	< 0.43	<0.41
cis-1,2-Dichloroethene	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	< 0.42	<0.26
trans-1,2-Dichloroethene	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	< 0.37	<0.26
Ethylbenzene	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.50	<0.50
Isopropylbenzene	< 0.59	<0.59	<0.59	<0.59	<0.59	<0.59	<0.59	< 0.59	< 0.34	<0.14
Methylene Chloride	<0.43	< 0.43	< 0.43	<0.43	< 0.43	< 0.43	<0.43	< 0.43	< 0.36	<0.23
Naphthalene	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	<2.5	<2.5
n-Propylbenzene	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	< 0.50	<0.50
Styrene	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	< 0.35	< 0.50
Tetrachloroethene	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	< 0.45	<0.47	<0.50
Toluene	<0.67	<0.67	<0.67	<0.67	<0.67	< 0.67	< 0.67	< 0.67	<0.44	<0.50
Trichloroethene	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.43	< 0.33
1,2,4-Trimethylbenzene	<0.97	<0.81	<0.81	<0.81	<0.97	<0.81	<0.81	< 0.97	<0.57	<0.50
1,3,5-Trimethylbenzene	<0.83	<0.86	<0.86	<0.86	<0.83	<0.86	<0.86	<0.83	<2.5	<0.50
Trimethylbenzenes	<1.8	<0.45	<0.45	<0.45	NA	<0.45	<0.45	<1.8	<3.07	<1.0
Vinyl Chloride	<0.18	< 0.67	<0.67	<0.67	<0.18	< 0.67	< 0.67	<0.18	<0.18	<0.18
Xylene, m+p	<1.8	<0.48	<0.48	<0.48	<1.8	<0.48	<0.48	<1.8	<0.82	<1.0
Xylene, o	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	< 0.50	<0.50
Xylenes	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<1.32	<1.50
Laboratory Parameters										
Ethane	0.160	NA	NA	0.160	NA	NA	NA	NA	NA	NA
Ethene	0.030	NA	NA	0.030	NA	NA	NA	NA	NA	NA
Methane	15.0	NA	NA	14.0	NA	NA	NA	NA	NA	NA
Total Organic Carbon (mg/L)	3.9	NA	NA	3.1	NA	NA	NA	NA	NA	NA

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# Table A.1 Goundwater Analytical Table

### University Cleaners 1608 University Avenue Green Bay, Wisconsin

Well ID					Р	Z-101				
Sample Date	03/12/08	9/24/08	2/25/09	9/11/09	8/17/10	12/2/10	6/2/11	09/11/12	06/12/13	07/09/14
Field Parameters										
Dissolved oxygen (mg/L)	0.70	0.61	0.74	3.14	2.40	2.62	4.42	0.57	2.92	0.47
ORP (mV)	-88.6	89	89.4	174.3	-281.9	59.6	17.4	69.1	45.3	-31.5

#### **General Note:**

Results reported in micrograms per liter (µg/L) unless otherwise indicated.

#### **Acronyms and Abbreviations:**

Italics = Concentration exceeds the NR 140 Preventive Action Limti (PAL).

**BOLD** = Concentration exceeds the NR 140 Enforcement Standard (ES).

\* = Duplicate of AMW-12.

ES = Enforcement Standard.

mg/L = Milligrams per liter.

J, Q = Concentration detected between the laboratory limit of detection and limit of quantitation.

mV = Millivolts.

N = Spiked sample recovery not within control limits.

NA = Sample not analyzed for this parameter.

ORP = Oxidation reduction potential.

PAL = Preventive Action Limit.

QX = Analysis occurred following extremely high PCE sample, carryover was observed.

### University Cleaners 1608 University Avenue Green Bay, Wisconsin

	Wisconsin So Contaminant L											
Boring	Non-Industrial		AGM-0	GP-100	AGM-0	3P-101	AGM-0	3P-102	AGM-0	3P-103	AGM-0	GP-105
Sample Depth	Direct	Soil-to-	0-2'	6-8'	0-2'	6-8'	0-2'	6-8'	0-2'	6-8'	2-4'	6-8'
Sample Date	Contact	Groundwater	8/4/09	8/4/09	8/4/09	8/4/09	8/4/09	8/4/09	8/4/09	8/4/09	11/24/09	11/24/09
Benzene	1,490	5.12	<25	<250	<25	<25	<25	<50	<25	<25	<125	<1,250
Ethylbenzene	7,470	1,570	<25	<250	<25	<25	<25	<50	<25	<25	<125	<1,250
Naphthalene	5,150	658.18	<25	<250	172	<25	134	<50	<25	<25	<125	<1,250
Tetrachloroethene	30,700	4.5	4,220	46,700	1,690	1,240	1,380	10,200	33.1	<25	25,200	368,000
Toluene	818,000	1,107.2	<25	<250	65.1	<25	<25	<50	<25	<25	<125	<1,250
Trichloroethene	1,260	3.6	<25	<250	<25	<25	<25	<50	<25	<25	<125	<1,250
Trimethylbenzenes	182,000		<25	<250	<25	<25	<25	<50	<25	<25	<125	<1,250
Xylenes	258,000	3,940	<25	<500	<50	<50	<50	<100	<50	<50	<250	<2500

#### **General Notes:**

Only analytes detected in soil samples are presented.

RCLs for Trimethylbenzene is for 1,2,4-Trimethylbenzene, the lower RCLs of the trimethylbenzenes.

Results reported in micrograms per kilogram (µg/kg)

#### **Acronyms and Abbreviations:**

-- = Screening levels not available.

Italics = Concentration exceeds soil to groundwater pathway RCLs.

**Bold** = Concentration exceeds Non-Industrial Direct contact RCLs.

NA = Not analyzed.

### University Cleaners 1608 University Avenue Green Bay, Wisconsin

	Wisconsin So Contaminant L											
Boring	Non-Industrial		AGM-0	3P-106	AGM-0	GP-107	AM\	N-14	PZ-101	AMW-13	ABE-6	ABW-6
Sample Depth	Direct	Soil-to-	2-4'	6-8'	2-4'	6-8'	4-6'	8-10'	4-6'	4-6'	6'	6'
Sample Date	Contact	Groundwater	11/24/09	11/24/09	11/24/09	11/24/09	9/5/07	9/5/07	9/5/07	9/5/07	7/18/06	7/18/06
Benzene	1,490	5.12	<50	<62.5	<25	<25	NA	NA	NA	NA	NA	NA
Ethylbenzene	7,470	1,570	<50	<62.5	<25	<25	NA	NA	NA	NA	NA	NA
Naphthalene	5,150	658.18	<50	<62.5	<25	<25	NA	NA	NA	NA	NA	NA
Tetrachloroethene	30,700	4.5	6,170	9,310	1,570	4,160	<25	<25	<25	<25	2,000	4,300
Toluene	818,000	1,107.2	<50	<62.5	<25	<25	NA	NA	NA	NA	NA	NA
Trichloroethene	1,260	3.6	<50	240	<25	<25	<25	<25	<25	<25	43	190
Trimethylbenzenes	182,000		<50	<62.5	<25	<25	NA	NA	NA	NA	NA	NA
Xylenes	258,000	3,940	<100	<125	<50	<50	NA	NA	NA	NA	NA	NA

#### **General Notes:**

Only analytes detected in soil samples are presented.

RCLs for Trimethylbenzene is for 1,2,4-Trimethylbenzene, the lower RCLs of the trimethylbenzenes.

Results reported in micrograms per kilogram (µg/kg)

#### **Acronyms and Abbreviations:**

-- = Screening levels not available.

Italics = Concentration exceeds soil to groundwater pathway RCLs.

**Bold** = Concentration exceeds Non-Industrial Direct contact RCLs.

NA = Not analyzed.

### University Cleaners 1608 University Avenue Green Bay, Wisconsin

	Wisconsin So Contaminant L											
Boring Sample Depth	Non-Industrial Direct	Soil-to-	AES-4	ANS-4	AWS-4 4'	BB-6 6'	BES-4 4'	BNS-4 4'	BSS-4 4'	BWS-4 4'	GP-1 4-6'	GP-4 4-6'
Sample Date	Contact	Groundwater	7/18/06	7/18/06	7/18/06	7/18/06	7/18/06	7/18/06	7/18/06	7/18/06	5/22/01	5/22/01
Benzene	1,490	5.12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	7,470	1,570	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	5,150	658.18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	30,700	4.5	550	480	270	190	200	310	250	160	130	3,700
Toluene	818,000	1,107.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	1,260	3.6	<25	<25	<25	<25	<25	<25	<25	<25	NA	NA
Trimethylbenzenes	182,000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes	258,000	3,940	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

#### **General Notes:**

Only analytes detected in soil samples are presented.

RCLs for Trimethylbenzene is for 1,2,4-Trimethylbenzene, the lower RCLs of the trimethylbenzenes.

Results reported in micrograms per kilogram (µg/kg)

#### **Acronyms and Abbreviations:**

-- = Screening levels not available.

Italics = Concentration exceeds soil to groundwater pathway RCLs.

**Bold** = Concentration exceeds Non-Industrial Direct contact RCLs.

NA = Not analyzed.

### University Cleaners 1608 University Avenue Green Bay, Wisconsin

	Wisconsin So Contaminant L												
Boring Sample Depth	Non-Industrial Direct	Soil-to-	GP-5 4-6'	GP-23 4-6'	B100 2.5-4.5'	B300 2.5-4.5'	B400 2.5-4.5'	B500 2.5-4.5'	B600 2.5-4.5'	B700 2.5-4.5'	B800 2.5-4.5'		B1500 2.5-4.5'
Sample Date	Contact	Groundwater	11/9/01	11/9/01	12/2/99	12/2/99	12/2/99	12/2/99	12/2/99	12/2/99	12/2/99	12/2/99	12/2/99
Benzene	1,490	5.12	NA	NA	37	<25	<25	<25	<25	<25	<25	<25	<25
Ethylbenzene	7,470	1,570	NA	NA	2,900	<25	130	<25	<25	<25	<25	<25	<25
Naphthalene	5,150	658.18	NA	NA	<25	1,300	<25	<25	<25	<25	<25	<25	<25
Tetrachloroethene	30,700	4.5	1,700	230	<25	<25	<25	<25	<25	<25	<25	1,400	<25
Toluene	818,000	1,107.2	NA	NA	<25	45	<25	<25	<25	<25	<25	<25	<25
Trichloroethene	1,260	3.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trimethylbenzenes	182,000		NA	NA	<25	6,700	<25	<25	<25	<25	<25	<25	<25
Xylenes	258,000	3,940	NA	NA	410	<75	1,510	<75	<75	<75	<75	<75	<75

#### **General Notes:**

Only analytes detected in soil samples are presented.

RCLs for Trimethylbenzene is for 1,2,4-Trimethylbenzene, the lower RCLs of the trimethylbenzenes.

Results reported in micrograms per kilogram (µg/kg)

#### **Acronyms and Abbreviations:**

-- = Screening levels not available.

Italics = Concentration exceeds soil to groundwater pathway RCLs.

**Bold** = Concentration exceeds Non-Industrial Direct contact RCLs.

NA = Not analyzed.

## University Cleaners 1608 University Avenue Green Bay, Wisconsin

	Wisconsin So Contaminant L										
Boring	Non-Industrial		AGM-0	GP-101	AGM-	GP-103	AM\	N-14	PZ-101	AMW-13	ABE-6
Sample Depth	Direct	Soil-to-	0-2'	6-8'	0-2'	6-8'	4-6'	8-10'	4-6'	4-6'	6'
Sample Date	Contact	Groundwater	8/4/09	8/4/09	8/4/09	8/4/09	9/5/07	9/5/07	9/5/07	9/5/07	7/18/06
Benzene	1,490	5.12	<25	<25	<25	<25	NA	NA	NA	<25	<25
Ethylbenzene	7,470	1,570	<25	<25	<25	<25	NA	NA	NA	<25	<25
Methylene Chloride	60,700	2.6	<25	<25	<25	<25	NA	NA	NA	<25	<25
Naphthalene	5,150	658.18	172	<25	<25	<25	NA	NA	NA	<25	<25
Tetrachloroethene	30,700	4.5	1,690	1,240	33.1	<25	<25	<25	<25	<25	2,000
Toluene	818,000	1,107.2	65.1	<25	<25	<25	NA	NA	NA	<25	<25
Trichloroethene	1,260	3.6	<25	<25	<25	<25	<25	<25	<25	<25	43
Trimethylbenzenes	182,000	-	<25	<25	<25	<25	NA	NA	NA	<25	<25
Xylenes	258,000	3,940	<50	<50	<50	<50	NA	NA	NA	<50	<50

#### **General Notes:**

Only analytes detected in soil samples are presented.

RCLs for Trimethylbenzene is for 1,2,4-Trimethylbenzene, the lower RCLs of the trimethylbenzenes.

Results reported in micrograms per kilogram (µg/kg)

#### **Acronyms and Abbreviations:**

-- = Screening levels not available.

Italics = Concentration exceeds soil to groundwater pathway RCLs.

NA = Not analyzed.

## University Cleaners 1608 University Avenue Green Bay, Wisconsin

	Wisconsin So Contaminant L										
Boring	Non-Industrial	0-114-	ABW-6	AES-4	ANS-4	AWS-4	BB-6	BES-4	BNS-4	BSS-4	BWS-4
Sample Depth Sample Date	Direct Contact	Soil-to- Groundwater	6' 7/18/06	7/18/06	4' 7/18/06	4' 7/18/06	6' 7/18/06	4' 7/18/06	4' 7/18/06	4' 7/18/06	4' 7/18/06
Benzene	1,490	5.12	<25	<25	<25	<25	<25	<25	<25	<25	<25
Ethylbenzene	7,470	1,570	<25	<25	<25	<25	<25	<25	<25	<25	<25
Methylene Chloride	60,700	2.6	<25	<25	<25	<25	<25	<25	<25	<25	<25
Naphthalene	5,150	658.18	<25	<25	<25	<25	<25	<25	<25	<25	<25
Tetrachloroethene	30,700	4.5	4,300	550	480	270	190	200	310	250	160
Toluene	818,000	1,107.2	<25	<25	<25	<25	<25	<25	<25	<25	<25
Trichloroethene	1,260	3.6	190	<25	<25	<25	<25	<25	<25	<25	<25
Trimethylbenzenes	182,000		<25	<25	<25	<25	<25	<25	<25	<25	<25
Xylenes	258,000	3,940	<50	<50	<50	<50	<50	<50	<50	<50	<50

#### **General Notes:**

Only analytes detected in soil samples are presented.

RCLs for Trimethylbenzene is for 1,2,4-Trimethylbenzene, the lower RCLs of the trimethylbenzenes.

Results reported in micrograms per kilogram (µg/kg)

#### **Acronyms and Abbreviations:**

-- = Screening levels not available.

Italics = Concentration exceeds soil to groundwater pathway RCLs.

NA = Not analyzed.

## University Cleaners 1608 University Avenue Green Bay, Wisconsin

	Wisconsin So Contaminant L									
Boring	Non-Industrial		GP-1	GP-23	B100	B300	B500	B600	B700	B800
Sample Depth	Direct	Soil-to-	4-6'	4-6'	2.5-4.5'	2.5-4.5'	2.5-4.5'	2.5-4.5'	2.5-4.5'	2.5-4.5'
Sample Date	Contact	Groundwater	5/22/01	11/9/01	12/2/99	12/2/99	12/2/99	12/2/99	12/2/99	12/2/99
Benzene	1,490	5.12	<25	NA	37	<25	<25	<25	<25	<25
Ethylbenzene	7,470	1,570	<25	NA	2,900	<25	<25	<25	<25	<25
Methylene Chloride	60,700	2.6	<25	NA	37	<25	<25	<25	<25	<25
Naphthalene	5,150	658.18	<25	NA	<25	1,300	<25	<25	<25	<25
Tetrachloroethene	30,700	4.5	130	230	<25	<25	<25	<25	<25	<25
Toluene	818,000	1,107.2	<25	NA	<25	45	<25	<25	<25	<25
Trichloroethene	1,260	3.6	<25	NA	NA	NA	NA	NA	NA	NA
Trimethylbenzenes	182,000		<25	NA	<25	6,700	<25	<25	<25	<25
Xylenes	258,000	3,940	<50	NA	410	<75	<75	<75	<75	<75

#### **General Notes:**

Only analytes detected in soil samples are presented.

RCLs for Trimethylbenzene is for 1,2,4-Trimethylbenzene, the lower RCLs of the trimethylbenzenes.

Results reported in micrograms per kilogram (µg/kg)

#### **Acronyms and Abbreviations:**

-- = Screening levels not available.

Italics = Concentration exceeds soil to groundwater pathway RCLs.

NA = Not analyzed.

### University Cleaners 1608 University Avenue Green Bay, Wisconsin

	Wisconsin So Contaminant L									
Boring	Non-Industrial		B1500							
Sample Depth	Direct	Soil-to-	2.5-4.5'	Base-1	Base-2	Base-3	Base-4	Base-5	Base-6	NWALL-1
Sample Date	Contact	Groundwater	12/2/99	07/30/10	08/04/10	08/03/10	08/03/10	08/06/10	08/06/10	07/03/10
Benzene	1,490	5.12	<25	<62.5	<500	<25	<25	<25	<25	<25
Ethylbenzene	7,470	1,570	<25	<62.5	<500	<25	<25	<25	<25	<25
Methylene Chloride	60,700	2.6	<25	<62.5	3,200	<25	<25	125	181	<25
Naphthalene	5,150	658.18	<25	<62.5	<500	<25	<25	<25	<25	<25
Tetrachloroethene	30,700	4.5	<25	23,900	93,100	2,590	<25	68.8	1,710	<25
Toluene	818,000	1,107.2	<25	<62.5	<500	<25	<25	<25	<25	<25
Trichloroethene	1,260	3.6	NA	13,300	<500	127	136	<25	<25	<25
Trimethylbenzenes	182,000		<25	<62.5	<500	<25	<25	<25	<25	<25
Xylenes	258,000	3,940	<75	<125	<1,000	<50	<50	<50	<50	<50

#### **General Notes:**

Only analytes detected in soil samples are presented.

RCLs for Trimethylbenzene is for 1,2,4-Trimethylbenzene, the lower RCLs of the trimethylbenzenes.

Results reported in micrograms per kilogram (µg/kg)

#### **Acronyms and Abbreviations:**

-- = Screening levels not available.

Italics = Concentration exceeds soil to groundwater pathway RCLs.

NA = Not analyzed.

### University Cleaners 1608 University Avenue Green Bay, Wisconsin

	Wisconsin So Contaminant L								
Boring Sample Depth Sample Date	Non-Industrial Direct Contact	Soil-to- Groundwater	NWALL-2 08/03/10	EWALL-1 08/06/10	EWALL-2 08/06/10	SWALL-1 08/04/10	SWALL-2 08/06/10	WWALL-1 08/04/10	WWALL-2 08/04/10
Benzene	1,490	5.12	<25	<25	<25	<25	<25	<25	<25
Ethylbenzene	7,470	1,570	<25	<25	<25	<25	<25	<25	<25
Methylene Chloride	60,700	2.6	<25	167	142	146	160	<25	<25
Naphthalene	5,150	658.18	<25	<25	<25	<25	<25	<25	<25
Tetrachloroethene	30,700	4.5	<25	<25	<25	47.4	<25	<25	44.5
Toluene	818,000	1,107.2	<25	<25	<25	<25	<25	<25	<25
Trichloroethene	1,260	3.6	<25	<25	<25	<25	<25	<25	<25
Trimethylbenzenes	182,000		<25	<25	<25	<25	<25	<25	<25
Xylenes	258,000	3,940	<50	<50	<50	<50	<50	<50	<50

#### General Notes:

Only analytes detected in soil samples are presented.

RCLs for Trimethylbenzene is for 1,2,4-Trimethylbenzene, the lower RCLs of the trimethylbenzenes.

Results reported in micrograms per kilogram (µg/kg)

#### **Acronyms and Abbreviations:**

-- = Screening levels not available.

Italics = Concentration exceeds soil to groundwater pathway RCLs.

NA = Not analyzed.

# University Cleaners Green Bay, Wisconsin

		Top of	Total Well	Well Screen	Depth to	Water Level
Monitoring		Casing Elevation	Depth	Elevation	Water	Elevation
Well	Date	(ft msl)	(ft msl)	(ft msl)	(ft TOC)	(ft msl)
	12/11/2006				6.54	101.95
	3/6/2007				6.73	101.76
	6/12/2007				6.2	102.29
	9/24/2007				6.95	101.54
	12/3/2007				6.1	102.39
	3/11/2008				6.43	102.06
	9/23/2008				6.01	102.48
MW-1	2/23/2009	108.49	11.67	96.82 - 106.82	5.98	102.51
	9/9/2009				6.32	102.17
	8/16/2010				6.02	102.47
	11/30/2010				6.22	102.27
	5/31/2011				5.62	102.87
	6/26/2012				5.85	102.64
	6/10/2013				5.82	102.67
	7/8/2014				5.77	102.72
	12/11/2006				5.87	101.85
	3/6/2007				5.86	101.86
	6/12/2007				5.6	102.12
	9/24/2007				5.84	101.88
	12/3/2007					
	3/11/2008				5.27	102.45
	9/23/2008				6.04	101.68
MW-5	2/23/2009	107.72	14.19	93.53 - 103.53	5.62	102.10
	9/9/2009				6.02	101.70
	8/16/2010				4.95	102.77
	11/30/2010				5.68	102.04
	5/31/2011				4.89	102.83
	6/26/2012				5.55	102.17
	6/10/2013				5.15	102.57
	7/8/2014				5.09	102.63
	12/11/2006					
	3/6/2007				6.36	101.82
	6/12/2007				5.81	102.37
	9/24/2007				5.96	102.22
	12/3/2007				6.16	102.02
	3/11/2008				5.59	102.59
	9/23/2008				6.24	101.94
MW-200	2/23/2009	108.18	12.57	95.61 - 105.61	6.01	102.17
	9/9/2009				6.23	101.95
ĺ	8/16/2010				5.02	103.16
	11/30/2010				5.82	102.36
	5/31/2011				5.02	103.16
	9/11/2012				5.98	102.20
	6/10/2013				5.45	102.73
	7/8/2014				5.37	102.81
	12/11/2006				6.06	101.93
	3/6/2007				6.18	101.81
NAVA 500	6/12/2007	107.00	12.53	95.46 - 105.46	5.76	102.23
MW-500	9/24/2007	107.99	12.33	90.40 - 100.40	5.99	102.00
	12/3/2007				6.16	101.83
	3/11/2008				5.61	102.38

Footnotes on Page 3.

# University Cleaners Green Bay, Wisconsin

MW-500   Policy			Top of	Total Well	Well Screen	Depth to	Water Level
MW-500   9/3/2008   2/23/2009   9/3/2009   9/3/2009   9/3/2009   9/3/2009   9/3/2010   107.99   12.53   95.46 - 105.46   5.97   102.02   101.78   5.97   102.02   101.78   5.97   102.02   101.78   5.97   102.02   101.78   5.97   102.02   101.78   5.97   102.02   101.78   5.97   102.02   101.78   5.94   101.98   5.15   102.84   5.94   102.05   6.12   102.05   6.12	Monitoring		<u> </u>				
MW-500   9/9/2/020   107.99   12.53   95.46 - 105.46     5.97   102.02   102.07   103.02   107.99   12.53   95.46 - 105.46     5.22   102.77   102.02   102.07   102.02   102.07   102.02   102.07   102.02   102.07   102.02   102.07   102.02   102.05   102.08   102.05   102.08   102.05   10	Well		(ft msl)	(ft msl)	(ft msl)	` ,	
MW-500 (continued)   107.99   12.53   95.46 - 105.46   6.21   101.78   102.77   102.77   102.84   102.05   102.77   102.84   102.05   102.85   102.83   102.84   102.05   102.83   102.24   102.35   102.24   102.35   102.24   102.35   102.24   102.35   102.24   102.35   102.24   102.35   102.24   102.35   102.24   102.35   102.34   102.35   102.34   103.16   103.							
MW-500 (continued)							
MV-900   11/30/2010   107.99   12.53   95.46 - 105.46   6.01   101.98   102.84   102.05   5.15   102.84   102.05   5.43   102.56   5.44   102.06   5.44   102.06   5.42   102.35   5.23   102.24   5.23   102.24   5.24							
(continued) 11/30/2010 11/30/2010 107.99 12.53 95.46 - 105.46 6.01 101.98 15/31/2011 9/11/2012 6/10/2013	MW-500						
10.201			107.99	12.53	95.46 - 105.46		
6.101/2013   5.43   102.58   102.63   102.63   102.63   102.63   102.63   102.63   102.63   102.63   102.63   102.63   102.63   102.60	(continuou)						
T/8/2014							
12/11/2006   3/6/2007   6.12/2007   6.12/2007   6.12/2007   6.12/2007   6.12/2007   6.12/2007   6.12/2007   6.22   102.35   6.23   102.24							
MW-800   9/24/2007   12/3/2008   108.47   12.89   95.58 - 105.58							
MW-800						6.41	102.06
MW-800   9/24/2007   12/3/2008   108.47   12.89   95.58 - 105.58							
MW-800   12/3/2008   3/8/2008   108.47   12.89   95.58 - 105.58		6/12/2007					
MW-800						6.23	102.24
MW-800		12/3/2007					
MW-800		3/11/2008					
## Supplication   ## Supplicat		9/23/2008					
## AMW-10  ## AMW-11  ## AMW-12  ## AMW-14  ## AMW-15  ## AMW-15  ## AMW-16  ## AMW-16  ## AMW-17  ## AMW-17  ## AMW-18  ## AMW-18  ## AMW-19  ## AMM-19	MW-800	2/23/2009	108.47	12.89	95.58 - 105.58		
AMW-10    11/30/2010   5/31/2011   6.17   102.30   5.34   103.13   9/11/2012   6.26   102.21   5.63   102.84   5.67   102.80   5.67   102.80   5.67   102.80   5.67   102.80   6.26   102.21   6/10/2013   5.63   101.84   5.67   102.80   6.26   102.51   6/10/2010   6.06   102.31   6.26   102.11   6.26   102.11   6.26   6.26   102.11   6.26   6.26   102.11   6.26   6.26   102.11   6.26   6.33   102.04   6.33   102.04   6.33   102.04   6.33   102.04   6.06   102.33   6.03   102.34   6.26   6.33   102.04   6.06   6.04   102.33   6.03   102.34   6.26   6.04   102.33   6.04   102.33   6.05   6.06   6.07   102.56   6.07   6.12/2007   6.60   6.07   102.56   6.07   102.56   6.07   102.56   6.07   102.36		9/9/2009					
5/31/2011   9/11/2012   6/10/2013   6.26   102.21     6/10/2014   5.63   102.84     7/8/2014   5.67   102.80     3/6/2007   6/12/2007   6.06   102.31     12/3/2007   3/11/2008   9/23/2009     8/16/2010   11/30/2010   5.29   108.37     11/30/2010   5/31/2011   6/26/2012   6/10/2013   5.64   102.31     6/26/2012   6/10/2013   7/8/2014   6/26/2012   6/10/2013   5.64   102.25     6/10/2013   7/8/2014   5.64   102.25     6/10/2013   7/8/2014   6/26/2012   6/10/2013   5.64   102.25     6/10/2013   7/8/2014   5.74   102.63     3/6/2007   6/12/2007   9/24/2007   108.63   13.45   95.18 - 105.18   6.5   102.13     AMW-11   3/6/2007   6.52   102.11     3/6/2007   6/12/2007   6.53   101.87     3/6/2007   6/12/2007   6.53   102.01     3/6/2007   6/12/2007   6.53   102.10     3/6/2007   6/12/2007   6.53   102.01     3/6/2007   6/12/2007   6.53   102.10     3/6/2007   6/12/2007   6.53   102.10     3/6/2007   6/12/2007   6.53   102.10     3/6/2007   6/12/2007   6/12/2007   6/12/2007   6/12/2007     3/11/2008   9/23/2008   6/12/2007   6/		8/16/2010				5.31	103.16
AMW-10    Solid column		11/30/2010				6.17	102.30
AMW-10    6/10/2013   7/8/2014   5.63   102.84   5.67   102.80   5.67   102.80   5.67   102.80   5.67   102.80   5.67   102.80   5.67   102.80   5.67   102.80   6.53   101.84   5.86   102.51   6.06   102.31   6.26   102.11   5.68   102.69   6.33   102.04   6.26   102.11   5.68   102.69   6.33   102.04   6.26   102.31   6.26   102.31   6.26   102.34   6.26   102.34   6.26   102.34   6.26   102.34   6.26   102.34   6.26   102.34   6.26   102.34   6.26   102.34   6.26   102.34   6.26   102.33   6.20   6.12   102.25   6.10   102.33   6.67   102.63   6.67   101.96   6.12   102.25   6.67   101.96   6.76   102.33   6.57   102.33   6.57   102.33   6.57   102.33   6.57   102.33   6.57   102.33   6.57   102.33   6.57   102.33   6.57   102.33   6.57   102.33   6.57   102.33   6.57   102.33   6.57   102.33   6.57   102.33   6.57   102.33   6.57   102.33   6.57   102.33   6.57   102.33   6.57   102.34   6.37   102.34   102.34   102.34   102.34   102.34   10		5/31/2011				5.34	103.13
AMW-11  AMW-12  AMW-14  AMW-15  AMW-15  AMW-16  AMW-16  AMW-17  AMW-17  AMW-18  AMW-18  AMW-19  AMW-19  AMW-19  AMW-19  AMW-19  AMW-10  AMM-10  AMM-10		9/11/2012				6.26	102.21
AMW-11  AMW-12  AMW-14  AMW-15  AMW-15  AMW-16  AMW-16  AMW-17  AMW-17  AMW-18  AMW-18  AMW-19  AMW-19  AMW-19  AMW-19  AMW-19  AMW-10  AMM-10  AMM-10		6/10/2013				5.63	102.84
AMW-10  AMW-10  AMW-10  AMW-11  AMW-11  AMW-11  AMW-12  AMW-14  AMW-15  AMW-15  AMW-16  AMW-16  AMW-17  AMW-17  AMW-18  AMW-18  AMW-19  AMW-19  AMW-19  AMW-19  AMW-10  AMW-10  AMM-10  AMM-10							
AMW-10    9/24/2007   12/3/2007   3/11/2008   9/23/2008   9/23/2009   108.37   12.95   95.39 - 105.39   6.06   102.31   5.68   102.69   6.03   102.34   6.03   102.34   6.03   102.34   6.26   102.11   5.68   102.69   6.03   102.34   6.03   102.34   6.03   102.34   6.04   102.33   5.31/2011   6/26/2012   6/10/2013   5.43   102.94   6.12   102.25   6.64   102.73   7/8/2014   5.74   102.63   102.40   6.12   102.25   6.64   102.73   7/8/2007   9/24/2007   108.63   13.45   95.18 - 105.18   6.5   102.13   5.81   102.82   6.54   102.09   6.29   102.34   6.52   102.11   102.56   6.54   102.09   6.29   102.34   6.52   102.11   6/12/2007   108.40   95.57 - 105.57   6.39   102.01   6.33   102.10   6.53   101.87   6.54   102.99   6.53   101.87   6.54   102.99   6.53   101.87   6.54   102.99   6.55   102.11   6.54   102.99   6.55   102.10   6.55   6.55   102.10   6.55   6.55   102.10   6.55   6.55   102.10   6.55   6.55   102.10   6.55   6.55   102.10   6.55   6.55   102.10   6.55   6.55   102.10   6.55   6.55   102.10   6.55		3/6/2007				6.53	
AMW-10    12/3/2007   3/11/2008   9/23/2008   9/23/2009   108.37   12.95   95.39 - 105.39   6.26   102.11   5.68   102.69   6.33   102.04   6.03   102.34   11/30/2010   5/31/2011   6/26/2012   6/10/2013   7/8/2014   6.12   102.25   5.64   102.73   7/8/2014   6.12   102.25   6.67   101.96   6.67   101.96   6.67   101.96   6.67   102.56   6.33   102.33   102.94   6.12   102.25   6.12   102.25   6.12   102.25   6.12   102.25   6.67   101.96   6.67   101.96   6.67   101.96   6.12   102.33   102.34   102.82   102.34   102.82   102.34   102.82   102.34   102.34   102.35		6/12/2007				5.86	102.51
AMW-10    12/3/2007   3/11/2008   9/23/2008   9/23/2009   108.37   12.95   95.39 - 105.39   6.26   102.11   5.68   102.69   6.33   102.04   6.03   102.34   11/30/2010   5/31/2011   6/26/2012   6/10/2013   7/8/2014   6.12   102.25   5.64   102.73   7/8/2014   6.12   102.25   6.67   101.96   6.67   101.96   6.67   101.96   6.67   102.56   6.33   102.33   102.94   6.12   102.25   6.12   102.25   6.12   102.25   6.12   102.25   6.67   101.96   6.67   101.96   6.67   101.96   6.12   102.33   102.34   102.82   102.34   102.82   102.34   102.82   102.34   102.34   102.35		9/24/2007				6.06	102.31
AMW-10  AMW-10  AMW-10  AMW-10  AMW-10  AMW-10  AMW-10  AMW-11  AMW-11  AMW-12  AMW-14  AMW-15  AMW-16  AMW-17  AMW-17  AMW-17  AMW-18  AMW-19  AMW-18  AMW-19  AMW-19  AMW-19  AMW-19  AMW-19  AMW-10  AMM-10  AMM-10						6.26	
AMW-10    9/23/2008   2/23/2009   108.37   12.95   95.39 - 105.39     6.33   102.04     6.03   102.34						5.68	
AMW-10    2/23/2009						6.33	102.04
AMW-10  9/9/2009 8/16/2010 11/30/2010 5/31/2011 6/26/2012 6/10/2013 7/8/2014  AMW-11  AMW-11  AMW-11  AMW-12  9/9/2007  AMW-12  9/9/24/2007 108.40  108.57  12.95  95.39 - 105.39	A B 40 A 4 A 6		100.07	40.05	05.00 405.00		
8/16/2010       5.29       103.08         11/30/2010       6.04       102.33         5/31/2011       5.43       102.94         6/26/2012       6.10       102.25         6/10/2013       5.64       102.73         7/8/2014       5.74       102.63         3/6/2007       6.12/2007       6.67       101.96         6/12/2007       6.3       102.33         12/3/2007       6.5       102.13         3/11/2008       9/23/2008       6.54       102.09         6.52       102.13         5.81       102.09         6.52       102.11         3/6/2007       6.76       101.64         6/12/2007       108.40       95.57 - 105.57       6.39       102.01         AMW-12       9/24/2007       108.40       95.57 - 105.57       6.39       102.01	AIVIVV-10	9/9/2009	108.37	12.95	95.39 - 105.39		
AMW-12    11/30/2010						5.29	103.08
5/31/2011   6/26/2012   6.12   102.25     6/10/2013   5.64   102.73     7/8/2014   5.74   102.63     3/6/2007   6/12/2007   9/24/2007     3/11/2008   9/23/2008   2/23/2009     9/9/2009   102.34     AMW-12   9/24/2007   108.40   95.57 - 105.57     6/12/2007   108.40   95.57 - 105.57     6.12   102.25     6.12   102.25     6.13   102.63     6.67   101.96     6.07   102.56     6.3   102.33     5.81   102.82     6.54   102.09     6.52   102.11     6.76   101.64     6.76   101.64     6.76   102.10     6.76   102.10     6.76   102.10     7/8/2007   12/3/2007     7/8/2014   108.40   95.57 - 105.57     6.76   101.87     6.							
6/26/2012 6/10/2013 7/8/2014 5.64 5.64 102.73 5.64 102.63 5.74 102.63 6.67 101.96 6.07 102.56 6.07 102.56 6.07 102.56 6.3 102.33 102.33 102.13 102.13 5.81 102.82 9/23/2008 2/23/2009 9/9/2009 102.44 102.99 6.52 102.11 6.54 102.09 6.52 102.11 6.52 102.11 6.65 102.13 6.54 102.09 6.29 102.34 6.52 102.11 6.65 102.13 6.54 102.09 6.29 102.34 6.50 6.51 102.10 6.52 102.11 6.53 102.10						5.43	
AMW-11		6/26/2012				6.12	102.25
AMW-11							
AMW-11							
AMW-11							
AMW-11 9/24/2007 108.63 13.45 95.18 - 105.18 6.3 102.33 6.5 102.13 5.81 102.82 6.54 102.09 6.29 102.34 6.52 102.11 6.76 101.64 6.76 101.64 6.76 102.00 6.3 102.10 9/24/2007 108.40 95.57 - 105.57 6.39 102.01 6.53 101.87							
AMW-11							
AMW-11 3/11/2008 9/23/2008 9/23/2009 9/9/2009 6.29 102.34 6.52 102.11 6.76 101.64 6.72 102.10 AMW-12 9/24/2007 108.40 95.57 - 105.57 6.39 102.01 6.53 101.87	A B A S A 4 4		400.00	40.45	05.40 405.40		
9/23/2008 2/23/2009 9/9/2009 3/6/2007 6/12/2007 AMW-12 9/24/2007 12.81 6.76 6.76 101.64 6.3 6.3 102.10 95.57 - 105.57 6.39 102.01 6.53 101.87	AIMVV-11		108.63	13.45	95.18 - 105.18		
2/23/2009     6.29     102.34       9/9/2009     6.52     102.11       3/6/2007     12.81     6.76     101.64       6/12/2007     6.3     102.10       AMW-12     9/24/2007     108.40     95.57 - 105.57     6.39     102.01       12/3/2007     108.40     6.53     101.87							
9/9/2009     6.52     102.11       3/6/2007     12.81     6.76     101.64       6/12/2007     6.3     102.10       AMW-12     9/24/2007     108.40     95.57 - 105.57     6.39     102.01       12/3/2007     108.40     6.53     101.87							
AMW-12 9/24/2007 108.40 12.81 6.76 101.64 6.3 102.10 12/3/2007 108.40 95.57 - 105.57 6.39 102.01 6.53 101.87							
AMW-12				12 81			
AMW-12 9/24/2007 108.40 95.57 - 105.57 6.39 102.01 12/3/2007 6.53 101.87				12.51			
12/3/2007 6.53 101.87	AMW-12		108.40		95.57 - 105.57		
					,		
J		3/11/2008				5.94	102.46

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# University Cleaners Green Bay, Wisconsin

		Top of	Total Well	Well Screen	Depth to	Water Level
Monitoring		Casing Elevation	Depth	Elevation	Water	Elevation
Well	Date	(ft msl)	(ft msl)	(ft msl)	(ft TOC)	(ft msl)
	9/23/2008				6.7	101.70
	2/23/2009				6.46	101.94
	9/9/2009				6.69	101.71
AMW-12	8/16/2010				5.58	102.82
	11/30/2010	108.40	12.81	95.57 - 105.57	6.36	102.04
(continued)	5/31/2011				5.54	102.86
	6/26/2012				6.28	102.12
	6/10/2013				5.92	102.48
	7/8/2014				5.87	102.53
	9/24/2007				5.89	101.98
	12/3/2007				6.06	101.81
	3/11/2008				5.32	102.55
	9/23/2008				6.15	101.72
	2/23/2009				5.78	102.09
AMW-13	9/9/2009	107.87	13.28	94.46 - 104.46	6.22	101.65
AIVIVV-13	8/16/2010	107.07	13.20	94.40 - 104.46	4.99	102.88
	11/30/2010				5.84	102.03
	5/31/2011				4.95	102.92
	6/26/2012				5.81	102.06
	6/10/2013				5.32	102.55
	7/8/2014				5.32	102.55
	9/24/2007	100.01	13.37	94.55 - 104.55	5.88	102.13
	12/3/2007				6.02	101.99
	3/11/2008				5.33	102.68
	9/23/2008				6.08	101.93
	2/23/2009				5.71	102.30
AMW-14	9/9/2009				6.12	101.89
AIVIVV-14	8/16/2010	108.01			4.97	103.04
	11/30/2010				5.79	102.22
	5/31/2011				4.91	103.10
l	6/26/2012				5.73	102.28
l	6/10/2013				5.23	102.78
l	7/8/2014	-			5.19	102.82
	9/24/2007				5.8	102.00
	12/3/2007				6.1	101.70
	3/11/2008				5.42	102.38
l	9/23/2008				6.04	101.76
	2/23/2009				5.71	102.09
ANAL 45	9/9/2009	407.00	40.07	04.00 404.00	6.02	101.78
AMW-15	8/16/2010	107.80	13.37	94.29 - 104.29	4.99	102.81
	11/30/2010				5.79	102.01
	5/31/2011				4.97	102.83
	9/11/2012				5.75	102.05
	6/10/2013				5.29	102.51
	7/8/2014				5.21	102.59
<u> </u>	9/23/2008				6.82	101.62
<u></u>	2/23/2009				6.39	102.05
AMW-16	9/9/2009	108.44			6.52	101.92
	8/16/2010				5.59	102.85

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Footnotes on Page 3.

# University Cleaners Green Bay, Wisconsin

		Top of	Total Well	Well Screen	Depth to	Water Level
Monitoring		Casing Elevation	Depth	Elevation	Water	Elevation
Well	Date	(ft msl)	(ft msl)	(ft msl)	(ft TOC)	(ft msl)
AMW-16	11/30/2010				6.23	102.21
	5/31/2011				5.60	102.84
AMW-16	6/26/2012	108.44			5.93	102.51
	6/10/2013				5.89	102.55
	7/8/2014				5.87	102.57
	12/11/2006				6.5	101.93
	3/6/2007				7.18	101.25
	6/12/2007				6.8	101.63
	9/24/2007				6.32	102.11
	12/3/2007				6.33	102.10
	3/11/2008				5.46	102.97
	9/23/2008		28.85	79.58 - 84.58	6.04	102.39
PZ-100	2/23/2009	108.43			6.95	101.48
	9/9/2009				6.29	102.14
	8/16/2010				6.36	102.07
	11/30/2010				6.61	101.82
	5/31/2011				5.40	103.03
	6/26/2012				5.64	102.79
	6/10/2013				5.80	102.63
	7/8/2014				5.83	102.60
	9/24/2007				5.9	102.50
	12/3/2007				6.32	102.08
	3/11/2008				5.46	102.94
	9/23/2008				6.2	102.20
	2/23/2009				5.97	102.43
PZ-101	9/9/2009	108.40	28.65	79.75 - 84.75	6.22	102.18
12-101	8/16/2010	100.40	20.00	19.10 - 07.10	5.03	103.37
	11/30/2010				5.68	102.72
	5/31/2011				4.99	103.41
	9/11/2012				5.86	102.54
	6/10/2013				5.38	103.02
	7/8/2014				5.28	103.12

**Acronyms and Abbreviations:** 

-- = Not sampled.

ft = Feet.

ft msl = Feet above mean sea level.

ft TOC = Feet below top of casing.

NA = Not available.

# State of Wisconsin Department of Natural Resources

Mann-Kendall Statistical Test Form 4400-215 (5/2000)

**Remediation and Redevelopment Program** 

**Notice:** This form is provided to consultants as an optional tool to be used to provide groundwater contaminant data required to support site closure requests under s. Comm 46.07 or s. NR 746.07, Wis. Adm. Code. Use this form or a manual method to calculate the Mann-Kendall statistic, as specified in Appendix A of ch. Comm 46 and ch. NR 746, Wis. Adm. Code.

Instructions: To use the spreadsheet, provide at least four rounds and not more than 10 rounds of data. Use cells with yellow background for data entry. Use consistent units. The spreadsheet contains several error checks, and a data entry error may cause "DATA ERR" to be displayed. Dates that are not consecutive will show an error message and will not display the test results. The spreadsheet tests the data for both increasing and decreasing trends at an 80% confidence level. If an increasing or decreasing trend is not present, use an additional coefficient of variation test is used for stable and non-stable conditions as proposed by Wiedemeier et al, 1999. For additional information, refer to guidance in Interim Guidance on Natural Attenuation for Petroleum Releases, dated October 1999. Refer to the guidance for recommendations on data entry for non-detect values.

Site Name =	University Cleaners	Green Bay	Wisconsin	BRRTS No. =	02-05-233555	Well Number =	MW-1
Compound		PCE				The second secon	The second second to be a second to the second seco
		Concentration	Concentration	Concentration	Concentration	Concentration	Concentration
Event		(leave blank	(leave blank				
Number		if no data)	if no data)				
1	13-Jun-01	2.90					
2	7-Aug-01	2.30					
3		0.84					
4		5.90					
5		3.80					
6	9-Aug-04	7.40					
7	12-Dec-06	3.30					
8	13-Mar-07	1.10					
9		2.50					
10							
	S =	0	0	0	0	0	0
	n =	9	0	0	0	0	0
	Average =	3.337777778	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	Standard Deviation =	2.135964523	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	Coefficient of Variation(CV)=	0.639936109	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	rend (80% Confidence)	NO	ERROR	ERROR	ERROR	ERROR	ERROR
	Frend (80% Confidence)	NO	ERROR	ERROR	ERROR	ERROR	ERROR
	d Stable Trend, CV<=1	YES	ERROR	ERROR	ERROR	ERROR	ERROR
Undetermined Non-Stable Trend, CV>1		NO	ERROR	ERROR	ERROR	ERROR	ERROR
	Error Check, OK if Blank		ERR, n < 4	ERR, n < 4			
Stable or Dec	creasing Trend						
at 80% Confi		YES	ERROR	ERROR	ERROR	ERROR	ERROR
	Data Entry By =	BJM	Date =	27-Jun-07	Checked By =	a desirable de la constante de	

# State of Wisconsin Department of Natural Resources

# Mann-Kendall Statistical Test Form 4400-215 (5/2000)

**Remediation and Redevelopment Program** 

**Notice:** This form is provided to consultants as an optional tool to be used to provide groundwater contaminant data required to support site closure requests under s. Comm 46.07 or s. NR 746.07, Wis. Adm. Code. Use this form or a manual method to calculate the Mann-Kendali statistic, as specified in Appendix A of ch. Comm 46 and ch. NR 746, Wis. Adm. Code.

Instructions: To use the spreadsheet, provide at least four rounds and not more than 10 rounds of data. Use cells with yellow background for data entry. Use consistent units. The spreadsheet contains several error checks, and a data entry error may cause "DATA ERR" to be displayed. Dates that are not consecutive will show an error message and will not display the test results. The spreadsheet tests the data for both increasing and decreasing trends at an 80% confidence level. If an increasing or decreasing trend is not present, use an additional coefficient of variation test is used for stable and non-stable conditions as proposed by Wiedemeier et al, 1999. For additional information, refer to guidance in Interim Guidance on Natural Attenuation for Petroleum. Releases, dated October 1999. Refer to the guidance for recommendations on data entry for non-detect values.

Site Name =	University Cleaners	Green Bay	Wisconsin	BRRTS No. =	02-05-233555	Well Number =	MW-500
Compound		PCE	TCE		The state of the s	Commence of Course characteristics and a straightful	TATAL BASIN MAN TAKE STANK TO SHOW AND A
		Concentration	Concentration	Concentration	Concentration	Concentration	Concentration
Event				,	(leave blank	(leave blank	(leave blank
Number				if no data)	if no data)	if no data)	if no data)
1	13-Jun-01	430.00	3.10				
2		650.00	10.00				
3		500.00	4.30				
4	21-Nov-03		7.10				
5		24.00	4.80				
6		180.00	7.90				
7	13-Mar-07	110.00	5.00				
8		220.00	6.60				
9							
10	The state of the s						
	S =	-8	6	0	0	0	0
	n =	8	8	0	0	0	0
	Average =	269.75	6.1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	Standard Deviation =	230.1215517	2.23095111	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	Coefficient of Variation(CV)=	0.853091943	0.36572969	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	rend (80% Confidence)	NO	NO	ERROR	ERROR	ERROR	ERROR
	Frend (80% Confidence)	YES	NO	ERROR	ERROR	ERROR	ERROR
Undetermined Stable Trend, CV<=1		NO	YES	ERROR	ERROR	ERROR	ERROR
Undetermined Non-Stable Trend, CV>1		NO	NO	ERROR	ERROR	ERROR	ERROR
Error Check,	OK if Blank			ERR, n < 4	ERR, n < 4	ERR, n < 4	ERR, n < 4
Stable or Dec	creasing Trend						
	at 80% Confidence Level		YES	ERROR	ERROR	ERROR	ERROR
1. 7. 67	Data Entry By =	BJM	Date =	28-Jun-07	Checked By =	e - Alle Chinise : Charles Chinapel Chinapel Andrews	

#### State of Wisconsin

## **Department of Natural Resources**

# Mann-Kendall Statistical Test Form 4400-215 (5/2000)

# **Remediation and Redevelopment Program**

**Notice:** This form is provided to consultants as an optional tool to be used to provide groundwater contaminant data required to support site closure requests under s. Comm 46.07 or s. NR 746.07, Wis. Adm. Code. Use this form or a manual method to calculate the Mann-Kendall statistic, as specified in Appendix A of ch. Comm 46 and ch. NR 746, Wis. Adm. Code.

Instructions: To use the spreadsheet, provide at least four rounds and not more than 10 rounds of data. Use cells with yellow background for data entry. Use consistent units. The spreadsheet contains several error checks, and a data entry error may cause "DATA ERR" to be displayed. Dates that are not consecutive will show an error message and will not display the test results. The spreadsheet tests the data for both increasing and decreasing trends at an 80% confidence level. If an increasing or decreasing trend is not present, use an additional coefficient of variation test is used for stable and non-stable conditions as proposed by Wiedemeier et al, 1999. For additional information, refer to guidance in Interim Guidance on Natural Attenuation for Petroleum Releases, dated October 1999. Refer to the guidance for recommendations on data entry for non-detect values.

Site Name =	University Cleaners	Green Bay	Wisconsin	BRRTS No. =	02-05-233555	Well Number =	AMW-10
3 11 1 11	Compound	PCE	TCE	cis-1,2-DCE			
		Concentration	Concentration	Concentration	Concentration	Concentration	Concentration
Event		(leave blank	(leave blank	(leave blank	(leave blank	(leave blank	(leave blank
Number	(most recent last)		if no data)	if no data)	if no data)	if no data)	if no data)
1	24-Aug-06	31	150	130			
2	11-Dec-06	20	100	74			
3	13-Mar-07	25	80	56			
4	13-Jun-07	23	91	37			
5	24-Sep-07	17.00	130.00	45.00			
6	3-Dec-07	20.00	100.00	43.00			
7	11-Mar-08	8.00	70.00	29.00			
8	23-Sep-08	17.60	84.90	62.40			
9	23-Feb-09	8.50	27.50	16.60			
10			A SPACE OF THE PROPERTY OF THE				
	S =	-23	-19	-22	0	0	0
	n =	9	9	9	0	0	0
	Average =	18.9	92.6	54.77777778	#DIV/0!	#DIV/0!	#DIV/0!
100	Standard Deviation =	7.374957627	34.9507153	33 09054917	#DIV/0!	#DIV/0!	#DIV/0!
	Coefficient of Variation(CV)	0.390209398	0.37743753	0.604087105	#DIV/0!	#DIV/0!	#DIV/0!
	end (80% Confidence)	NO	NO	NO	ERROR	ERROR	ERROR
	rend (80% Confidence)	YES	YES	YES	ERROR	ERROR	ERROR
	d Stable Trend, CV<=1	NO	NO	NO	ERROR	ERROR	ERROR
Undetermined Non-Stable Trend, CV>1		NO	NO	NO	ERROR	ERROR	ERROR
Error Check,			170		ERR, n < 4	ERR, n < 4	ERR, n < 4
	creasing Trend						The state of the s
at 80% Confid	dence Level	YES	YES	YES	ERROR	ERROR	ERROR
	Data Entry By =	BJM	Date =	28-Jun-07	Checked By =		
			4		P. Miller Strategies and Control of the Control of	The state of the s	-

# State of Wisconsin Department of Natural Resources

# Mann-Kendall Statistical Test Form 4400-215 (5/2000)

**Remediation and Redevelopment Program** 

**Notice:** This form is provided to consultants as an optional tool to be used to provide groundwater contaminant data required to support site closure requests under s. Comm 46.07 or s. NR 746.07, Wis. Adm. Code. Use this form or a manual method to calculate the Mann-Kendali statistic, as specified in Appendix A of ch. Comm 46 and ch. NR 746, Wis. Adm. Code.

Instructions: To use the spreadsheet, provide at least four rounds and not more than 10 rounds of data. Use cells with yellow background for data entry. Use consistent units. The spreadsheet contains several error checks, and a data entry error may cause "DATA ERR" to be displayed. Dates that are not consecutive will show an error message and will not display the test results. The spreadsheet tests the data for both increasing and decreasing trends at an 80% confidence level. If an increasing or decreasing trend is not present, use an additional coefficient of variation test is used for stable and non-stable conditions as proposed by Wiedemeier et al, 1999. For additional information, refer to guidance in Interim Guidance on Natural Attenuation for Petroleum Releases, dated October 1999. Refer to the guidance for recommendations on data entry for non-detect values.

Site Name =	University Cleaners	Green Bay	Wisconsin	BRRTS No. =	02-05-233555	Well Number =	AMW-11
	Compound	PCE	The state of the s			And the second s	
		Concentration	Concentration	Concentration	Concentration		Concentration
Event	Sampling Date	(leave blank	(leave blank	(leave blank	(leave blank	(leave blank	(leave blank
Number	(most recent last)		if no data)	if no data)	if no data)	if no data)	if no data)
1	24-Aug-06						
2	11-Dec-06						
3		7,200.00					
4	13-Jun-07	6,500.00					
5							
6							
/							
8							
10							
	S =	4	- Spart Mr-Almer man car		0	0	
	n =	-4	0	0	0	0	0
	Average =	7575	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	Standard Deviation =	1053.169819	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	Coefficient of Variation(CV)=	0.139032319	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Increasing Tr	end (80% Confidence)	NO	ERROR	ERROR	ERROR	ERROR	ERROR
	rend (80% Confidence)	YES	ERROR	ERROR	ERROR	ERROR	ERROR
Undetermined Stable Trend, CV<=1		NO	ERROR	ERROR	ERROR	ERROR	ERROR
Undetermined Non-Stable Trend, CV>1		NO	ERROR	ERROR	ERROR	ERROR	ERROR
Error Check, OK if Blank			ERR, n < 4	ERR, n < 4	ERR, n < 4	ERR, n < 4	ERR, n < 4
	creasing Trend						
at 80% Confid	dence Level	YES	ERROR	ERROR	ERROR	ERROR	ERROR
	Data Entry By =	ВЈМ	Date =	28-Jun-07	Checked By =		

# State of Wisconsin

# **Department of Natural Resources**

Remediation and Redevelopment Program

Mann-Kendall Statistical Test Form 4400-215 (2/2001)

Notice: This form is the DNR supplied spreadsheet referenced in Appendices A of Comm 46 and NR 746, Wis. Adm. Code. It is provided to consultants as an optional tool for groundwater contaminant trend analysis to support site closure requests under s. Comm 46.07, Comm 46.08, NR 746.07, NR 746.08, Wis. Adm. Code. Use this form or a manual method when seeking case closure under those rules. Earlier versions of this form should not be used.

Instructions: Do not change formulas or other information in cells with a blue background, only cells with a yellow background are used for data entry. To use the spreadsheet, provide at least four rounds and not more than ten rounds of data that is not seasonally affected. Use consistent units. The spreadsheet contains several error checks, and a data entry error may cause "DATA ERR" or "DATE ERR" to be displayed. Dates that are not consecutive will show an error message and will not display the test results. The spreadsheet tests the data for both increasing and decreasing trends at both 80 percent and 90 percent confidence levels. If a declining trend is present at 80 percent but not at 90 percent, a site is still eligible for closure under Comm 46 and NR 746 provided that other conditions in those rules are met. If an increasing or decreasing trend is not present, an additional coefficient of variation test is used to test for stability, as proposed by Wiedemeier et al. 1999. For additional information, refer to the Interim Guidance on Natural Attenuation for Petroleum Releases, dated October 1999. Refer to the guidance for recommendations on data entry for non-detect values.

Site Name :	te Name : University Cleaners				02-05-233555	Well Number =	AMW-11
	Compound ->	cis-1,2-dce	PCE	and the state of t	TCE	THE PERSON NAMED OF TAXABLE PARTY AND ADDRESS OF TAXABLE PARTY.	Michael Charles - Michael (1997), Augustus (1996), 4000 (1996)
		Concentration	Concentration	Concentration	Concentration	Concentration	Concentration
Event	Sampling Date		(leave blank		(leave blank	(leave blank	(leave blank
Number	(most recent last)		if no data)		if no data)		if no data)
1	24-Aug-07		5,900.00		32.00		
2	3-Dec-07		7,200.00		88.00		
3	11-Mar-08		3,450.00		38.80		
4	23-Sep-08		4,010.00		48.90		
5	23-Feb-09	203.00	6,090.00		368.00		
6							
7							
8							
9							
10							
	Mann Kendall Statistic (S) =		0.0	0.0	6.0	0.0	0.0
	Number of Rounds (n) =		5	0	5	0	0
	Average =		5330.00	#DIV/0!	115.14	#DIV/0!	#DIV/0!
4.75	Standard Deviation =	ERROR	1555.330	#DIV/0!	143.006	#DIV/0!	#DIV/0!
	Coefficient of Variation(CV)=	ERROR	0.292	#DIV/0!	1.242	#DIV/0!	#DIV/0!
THE PARTY OF THE P	Error Check, Blank if No Errors Detected DATA ERR			n<4		n<4	n<4
Trend ≥ 80% Confidence Level		ERROR	No Trend	n<4	INCREASING	n<4	n<4
L. Daniel and A.	% Confidence Level	ERROR	No Trend	n<4	No Trend	n<4	n<4
Stability Tes	t, If No Trend Exists at	ERROR	CV <= 1	n<4		n<4	n<4
80% Confid	dence Level	ERROR	STABLE	n<4	NA	n<4	n<4
	Data Entry By =	PAL	Date =	2-Apr-09	Checked By =	THE CONTRACTOR OF THE PARTY NAMED AND ADDRESS OF THE PARTY NAM	

# **State of Wisconsin**

# **Department of Natural Resources**

Mann-Kendall Statistical Test Form 4400-215 (2/2001)

**Remediation and Redevelopment Program** 

Notice: This form is the DNR supplied spreadsheet referenced in Appendices A of Comm 46 and NR 746, Wis. Adm. Code. It is provided to consultants as an optional tool for groundwater contaminant trend analysis to support site closure requests under s. Comm 46.07, Comm 46.08, NR 746.07, NR 746.08, Wis. Adm. Code. Use this form or a manual method when seeking case closure under those rules. Earlier versions of this form should not be used.

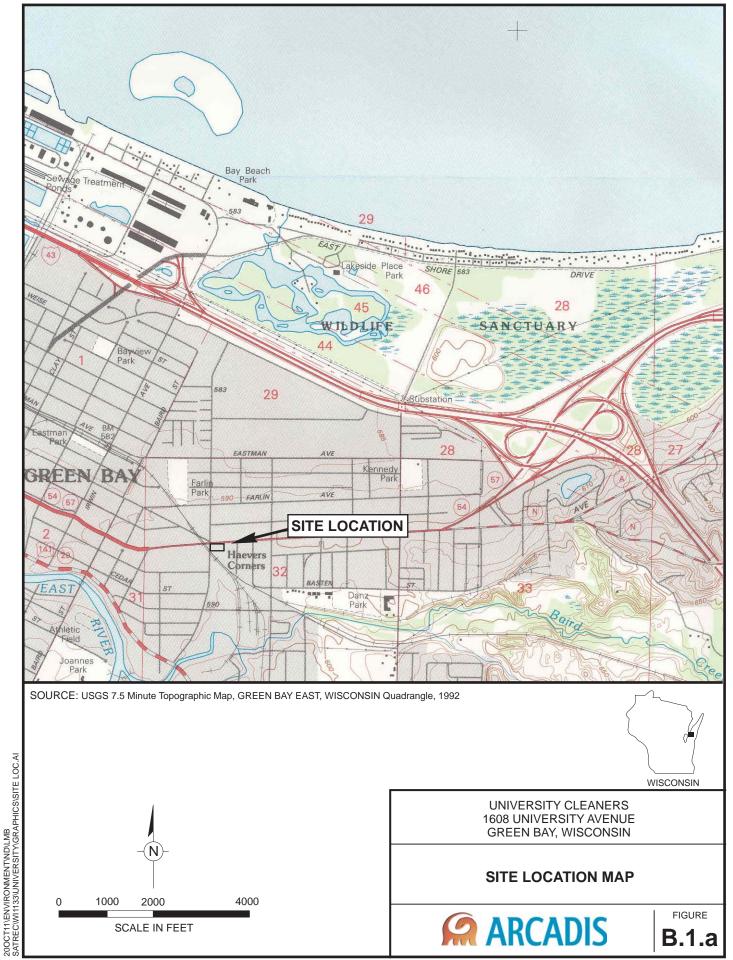
Instructions: Do not change formulas or other information in cells with a blue background, only cells with a yellow background are used for data entry. To use the spreadsheet, provide at least four rounds and not more than ten rounds of data that is not seasonally affected. Use consistent units. The spreadsheet contains several error checks, and a data entry error may cause "DATA ERR" or "DATE ERR" to be displayed. Dates that are not consecutive will show an error message and will not display the test results. The spreadsheet tests the data for both increasing and decreasing trends at both 80 percent and 90 percent confidence levels. If a declining trend is present at 80 percent but not at 90 percent, a site is still eligible for closure under Comm 46 and NR 746 provided that other conditions in those rules are met. If an increasing or decreasing trend is not present, an additional coefficient of variation test is used to test for stability, as proposed by Wiedemeier et al, 1999. For additional information, refer to the Interim Guidance on Natural Attenuation for Petroleum Releases, dated October 1999. Refer to the guidance for recommendations on data entry for non-detect values.

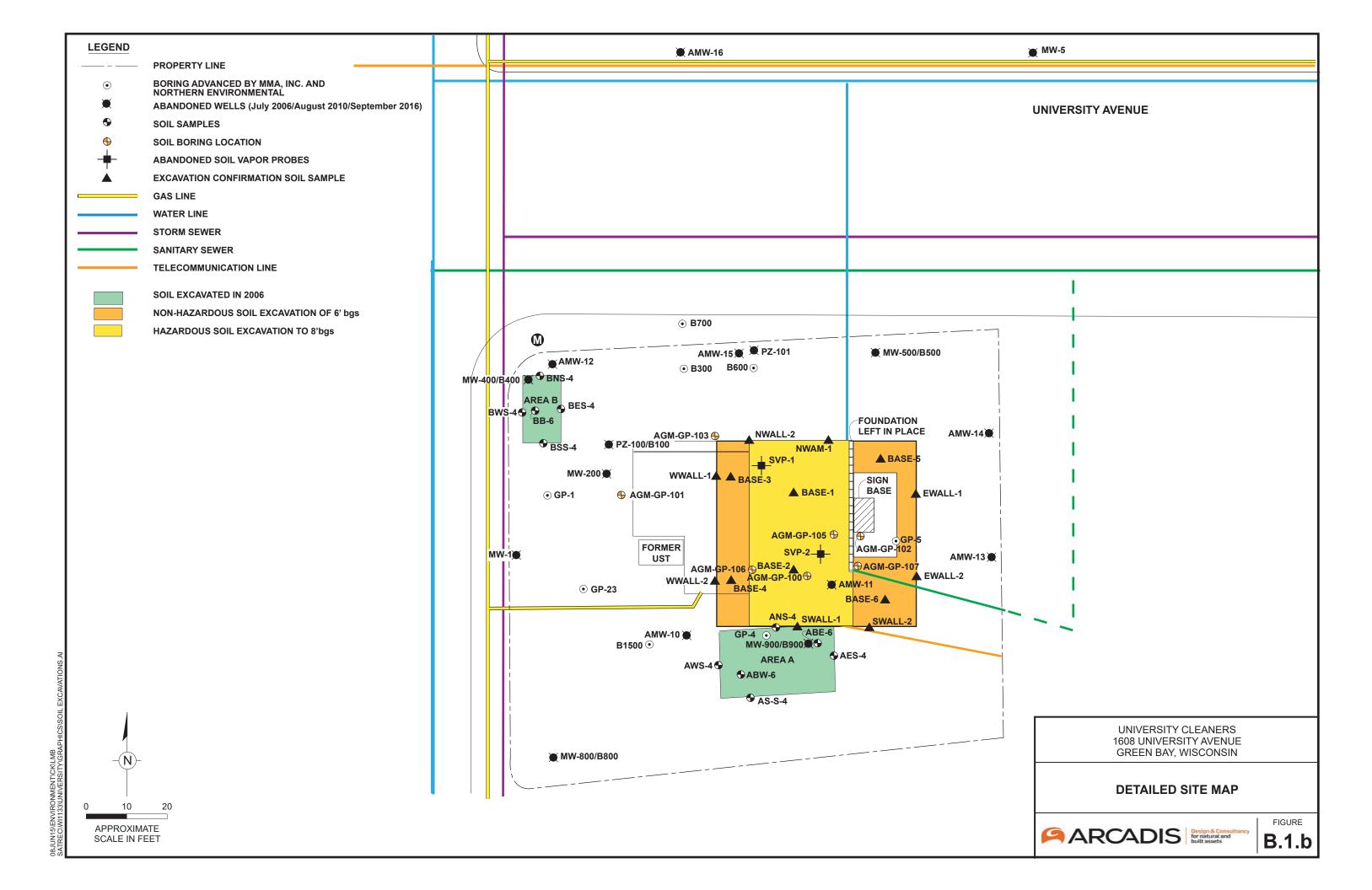
Site Name :	Site Name : University Cleaners				02-05-233555	Well Number =	AMW-15
	Compound ->	cis-1,2-dce	PCE	VC	TCE	Arsenic	ALTERNATION OF THE CHARLES STREET, STREET, STREET, ST. 1944
		Concentration	Concentration	Concentration	Concentration	Concentration	Concentration
Event	Sampling Date	(leave blank	(leave blank)				
Number	(most recent last)		if no data)				
1	24-Aug-07	14.00	3.00	0.35	10.00		
2	3-Dec-07	35.00	130.00	0.87	220.00		
3	11-Mar-08	53.40	269.00	1.10	197.00		
4	23-Sep-08	340.00	90.60	0.64	56.50		
5	23-Feb-09	161.00	103.00	0.99	130.00		
6							
7							
8							
9							
10							
	Mann Kendall Statistic (S) =	8.0	2.0	4.0	0.0	0.0	0.0
	Number of Rounds (n) =	5	5	5	5	0	0
	Average =	120.68	119.12	0.79	122.70	#DIV/0!	#DIV/0!
	Standard Deviation =	135.070	96.358	0.299	89.617	#DIV/0!	#DIV/0!
	Coefficient of Variation(CV)=	1.119	0.809	0.379	0.730	#DIV/0!	#DIV/0!
The same of the sa	, Blank if No Errors Detected					n<4	n<4
	% Confidence Level	INCREASING	No Trend	No Trend	No Trend	n<4	n<4
And the Control of the Stripe of the Control of the	% Confidence Level	INCREASING	No Trend	No Trend	No Trend	n<4	n<4
	st, If No Trend Exists at		CV <= 1	CV <= 1	CV <= 1	n<4	n<4
80% Confid	dence Level	NA	STABLE	STABLE	STABLE	n<4	n<4
	Data Entry By =	PAL	Date =	2-Apr-09	Checked By =		

# Attachment B Maps and Figures

#### Attachments:

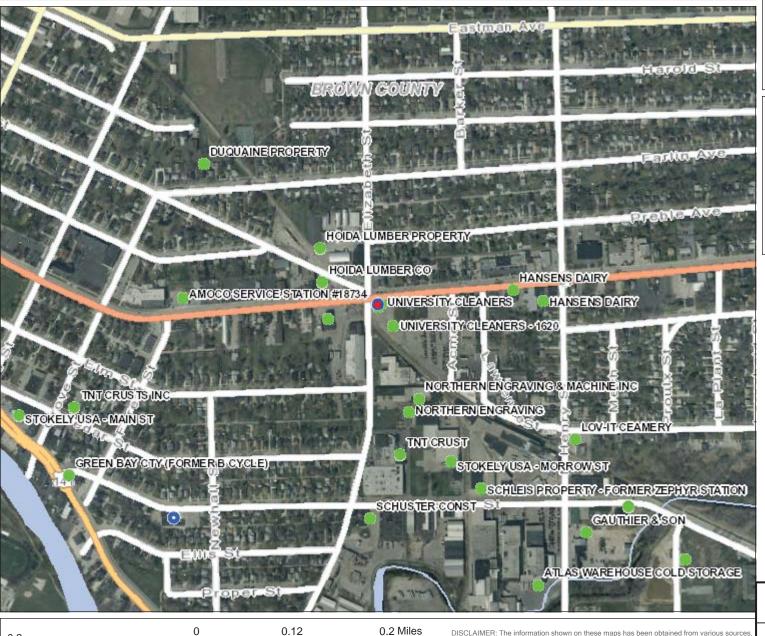
- B.1.a Location Map Included
- B.1.b Detailed Site Map Included
- B.1.c RR Sites Map Included
- B.2.a Soil Contamination Included
- B.2.b Residual Soil Contamination Included
- B.3.a Geologic Cross-Section Figure Included
- B.3.b Groundwater Isoconcentration Included
- B.3.c.1 Groundwater Flow Direction (May 31, 2011) Included
- B.3.c.2 Groundwater Flow Direction (July 8, 2014) Included
- B.3.d Monitoring Wells Included.
- B.4.a Vapor Intrusion Map Not included. There is no risk for vapor intrusion at the Site so no map has been created.
- B.4.b Other media of concern Not included. There are no other media of concern at the Site
- B.5 Structural Impediment Photos Not included. There are no structural impediments limiting the investigation or remediation at the Site.







# University Cleaners 1608 University Avenue, Green Bay, WI



1:7.629

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#### Legend

- Open Site (ongoing cleanup)
- Closed Site (completed cleanup)
- Rivers and Streams
- Open Water
- Cities
- Villages

UNIVERSITY CLEANERS 1608 UNIVERSITY AVENUE GREEN BAY, WISCONSIN

RR SITE MAP



B.1.c

28JAN15\ENVIRONMENT\CB\LMB SATREC\W1133\UNIVERSITY\GRAPHICS\RR FIGURE.PDF

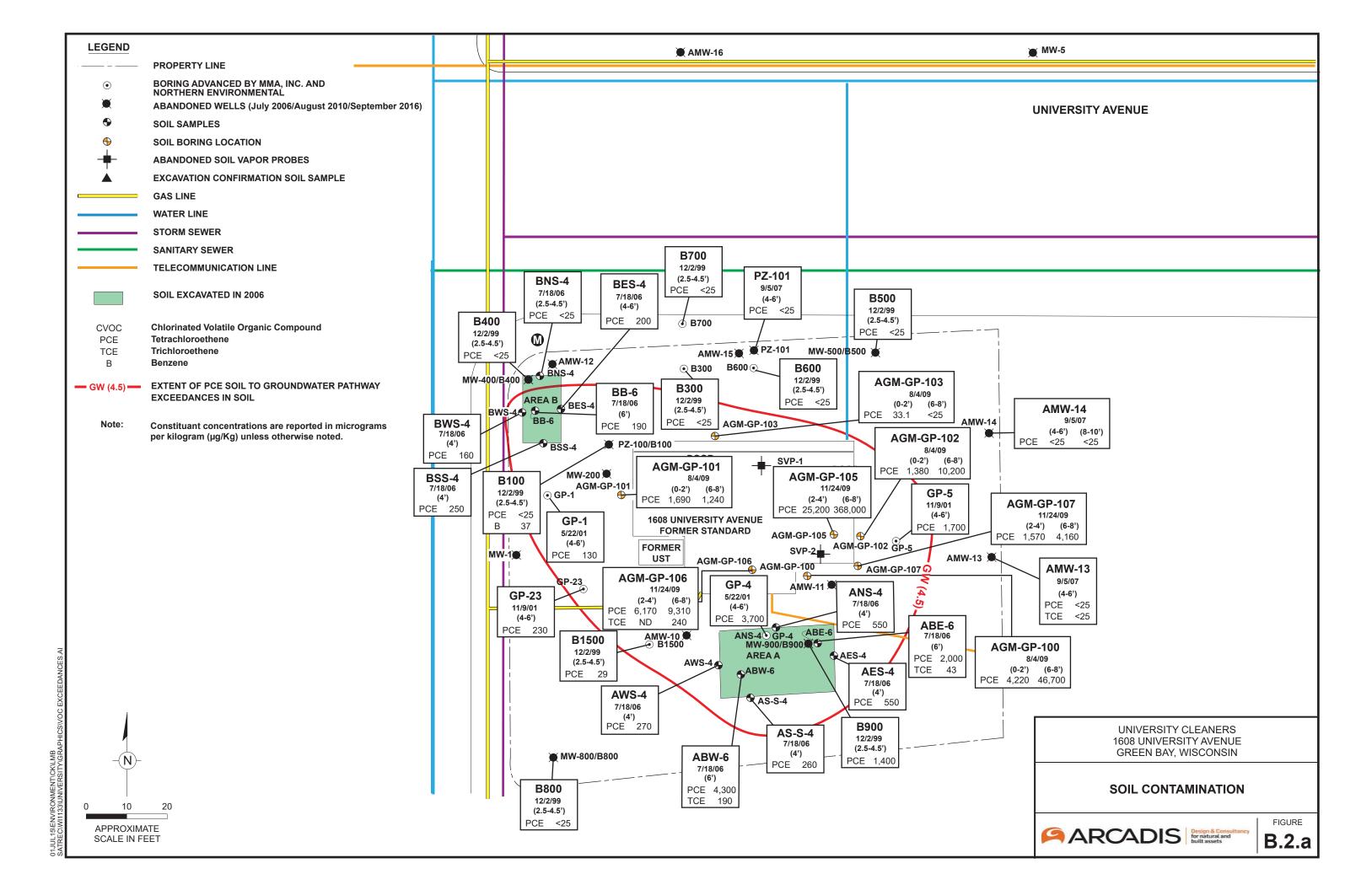
0.2

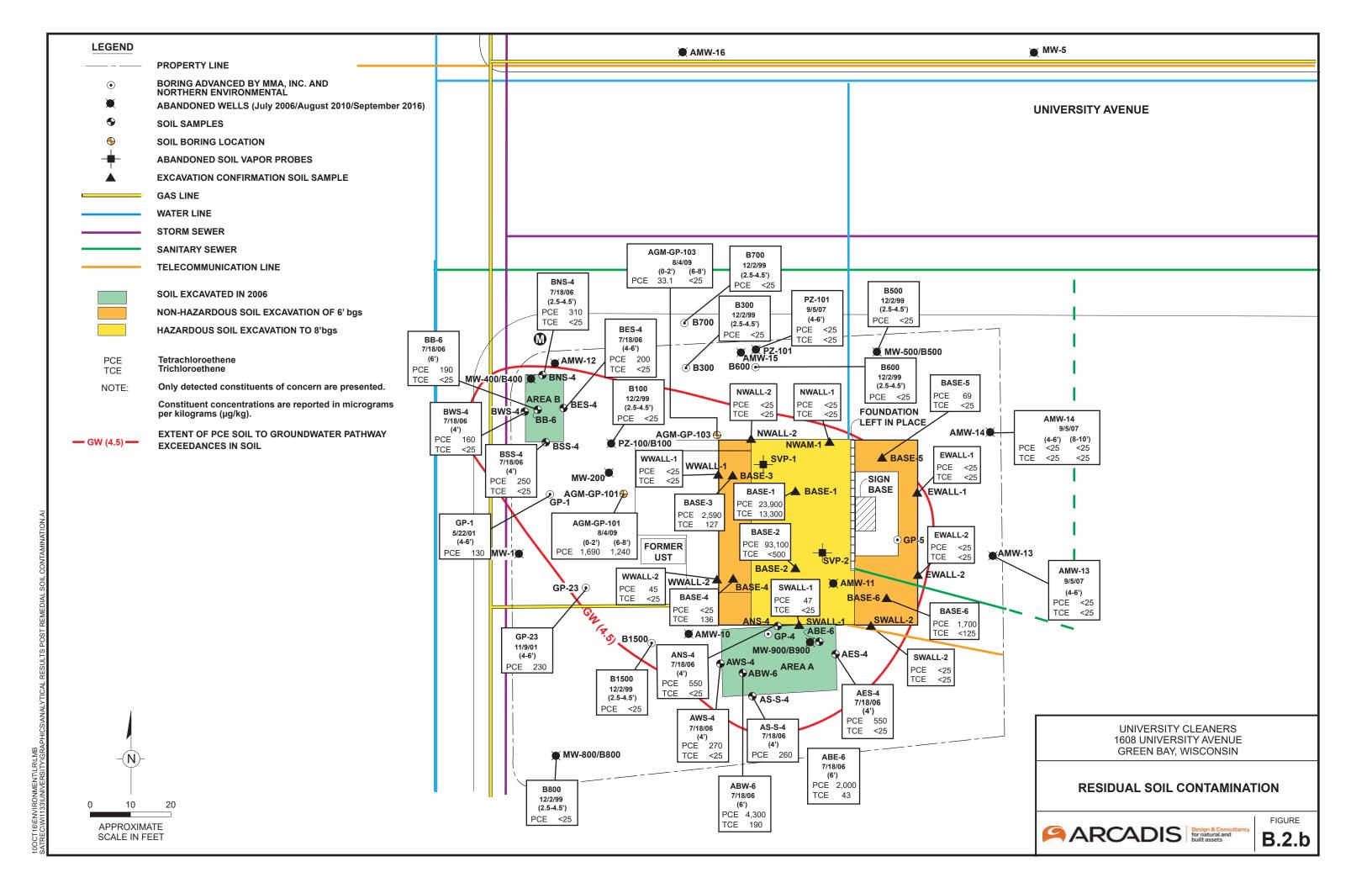
NAD\_1983\_HARN\_Wisconsin\_TM

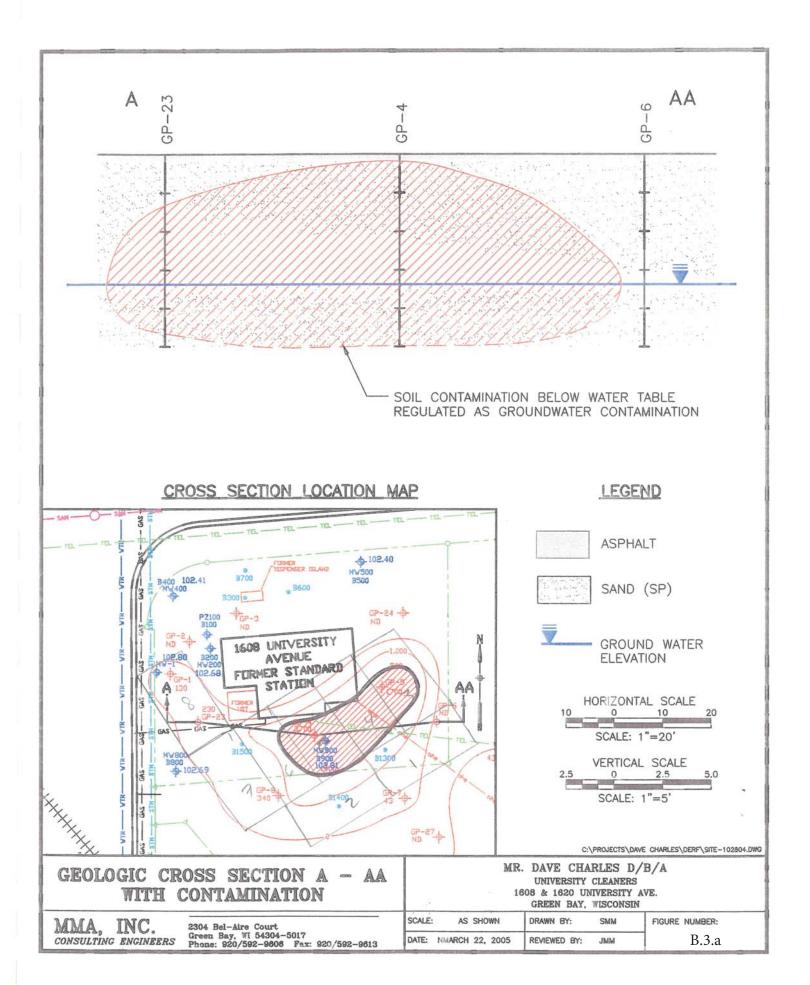
© Latitude Geographics Group Ltd.

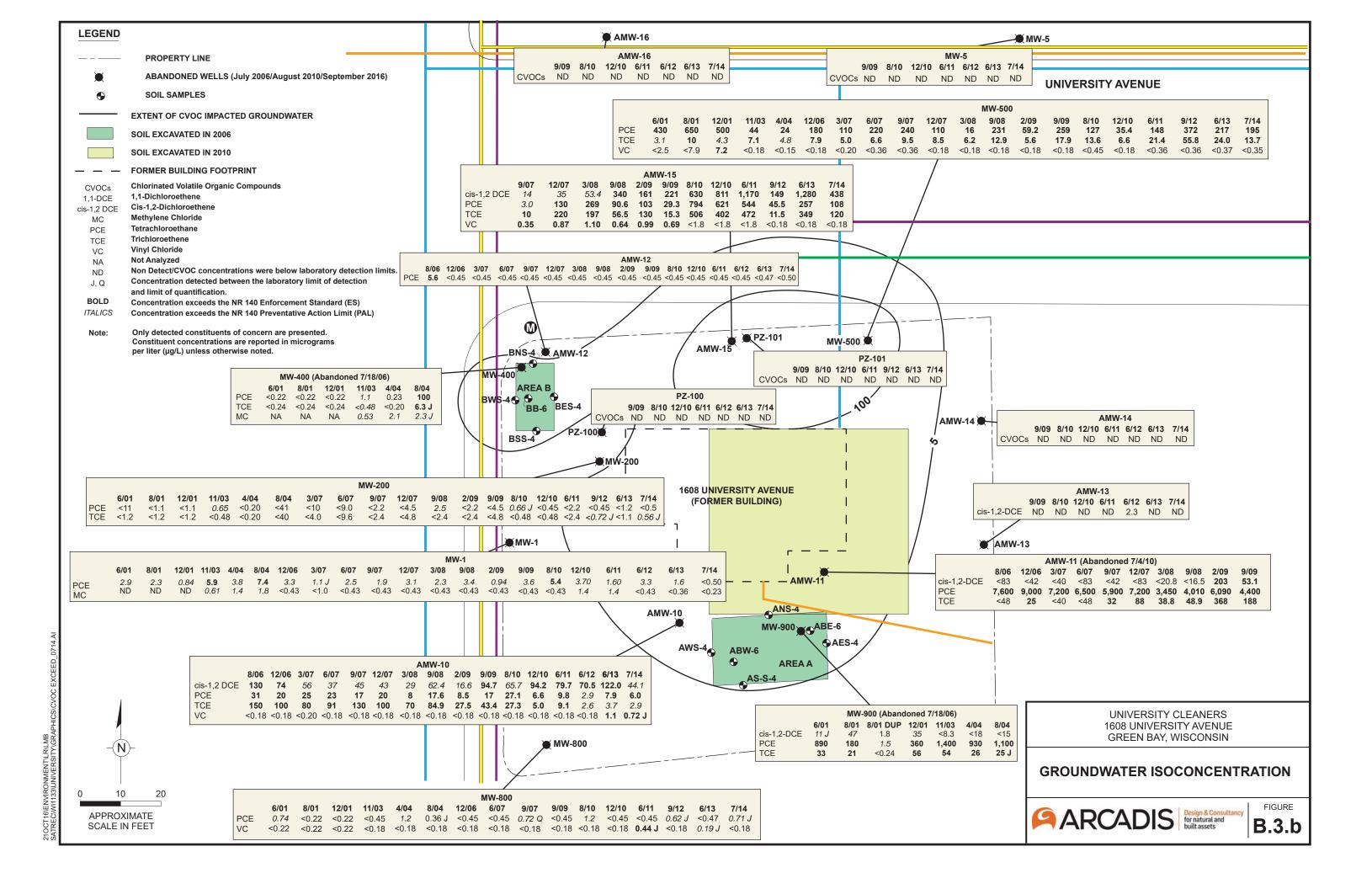
DISCLAIMER: The information shown on these maps has been obtained from various sources and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made aregarding accuracy, applicability for a particular use, completemenss, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: http://dnr.wi.gov/org/legal/

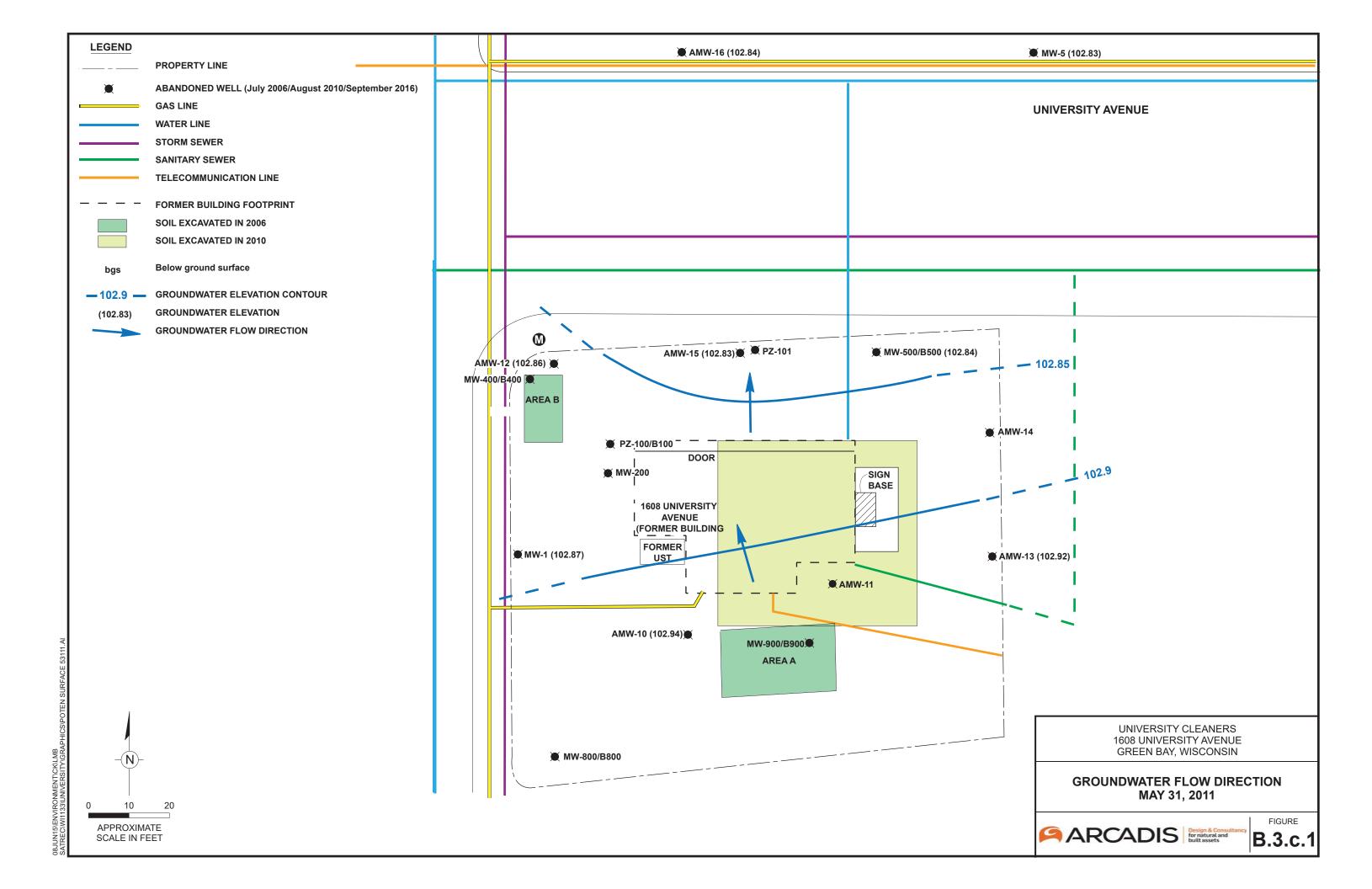
Note: Not all sites are mapped.

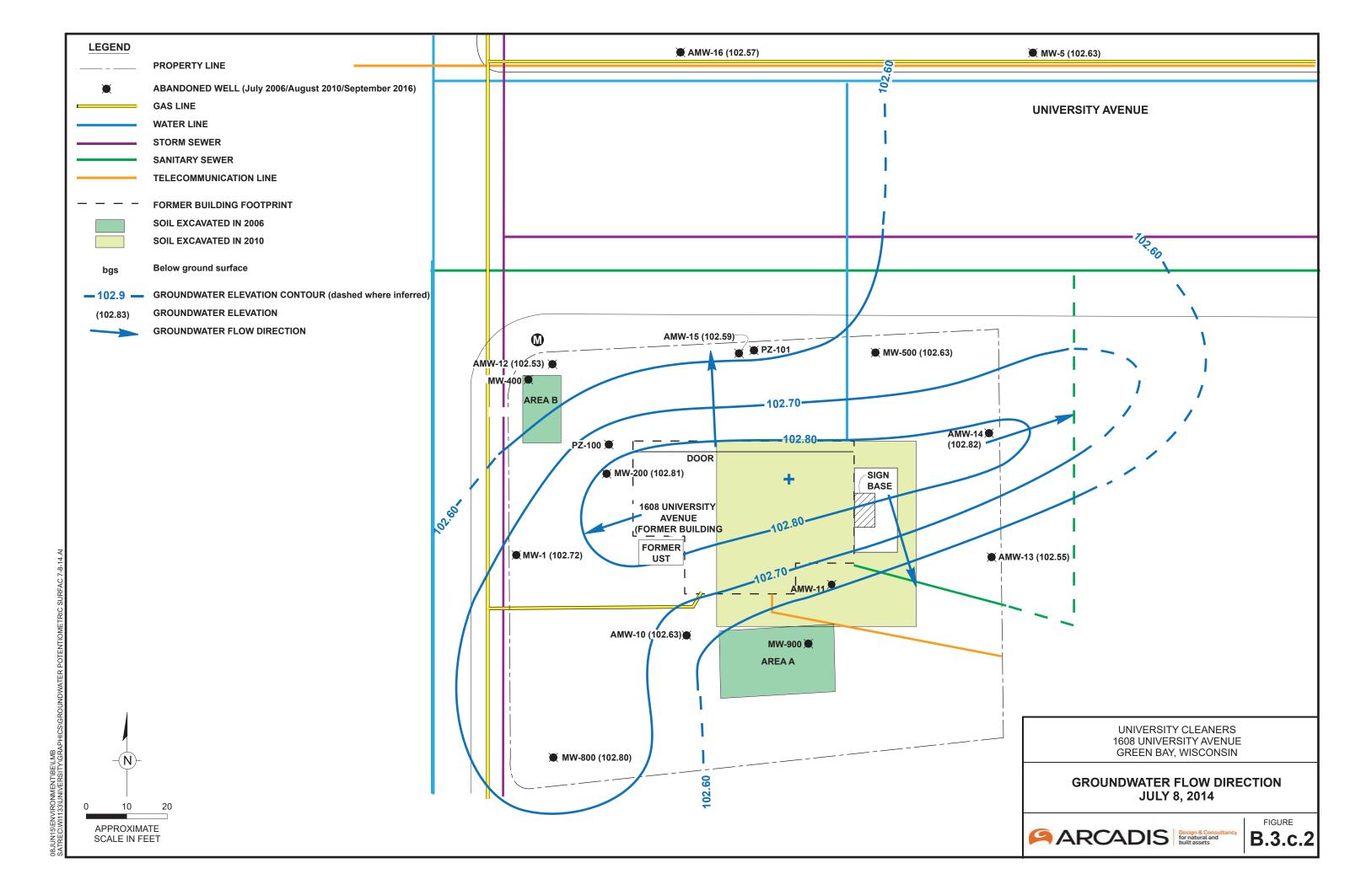


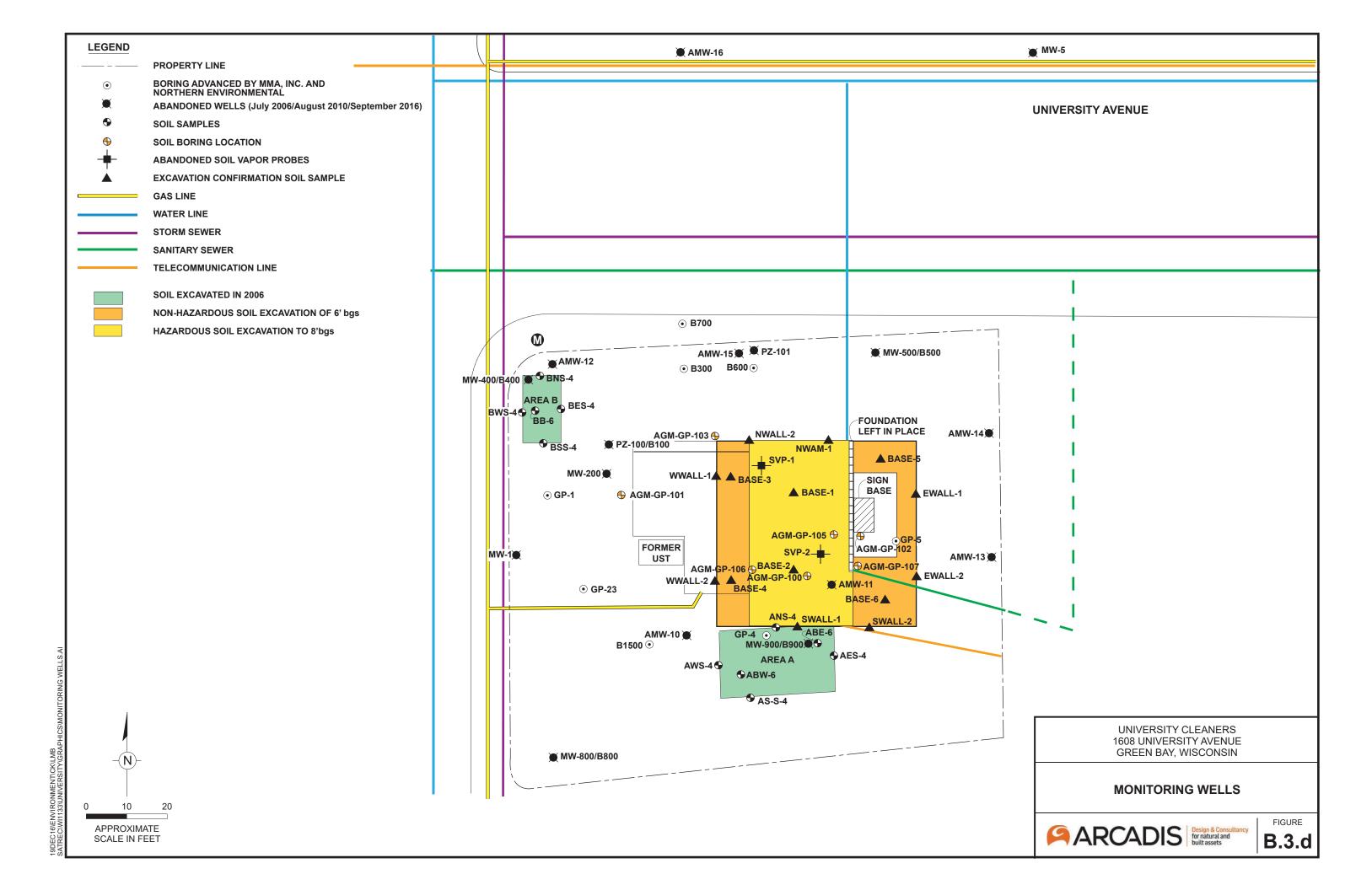












# Attachment C Documentation of Remedial Action

#### Attachments:

- C.1 Site Investigation Documentation Included. Summary/no new investigations.
- C.2 Investigative Waste Not Included. Documented with previous submittals.
- C.3 Description of Methodology Not Included.
- C.4 Construction Documentation Not Included. No systems constructed at the Site.
- C.5 Decommissioning of Remedial Systems Not included. There are no systems at the Site.
- C.6 Other Included. Photos.

### C.1 Site Investigation Summary/Previous Reports

Initial investigation of the site was in February 1999, when Northern Environmental conducted a Phase II ESA that encountered contamination by petroleum compounds from a former gas station (related to WDNR BRRTS No. 03-05-216499) and chlorinated solvents from a dry cleaning operation existing on site. Investigation activities continued in December 1999 when Northern Environmental completed 12 soil borings, installed seven monitoring wells and 1 piezometer, and collected soil and groundwater samples to define the extent of petroleum and chlorinated solvents in the soil/groundwater. These activities included Soil Borings B100/B200/B300/B400/B500/B600/B700/B800/B900/B1300/B1500/MW-1, Monitoring Wells MW-1/MW-5/B-200/B-400/B-500/B-800/B-900, and Piezometer PZ-100. Previous report submittals that describe these investigation activities are listed below.

In May 2001, additional site investigation activities were completed by Northern Environmental and MMA, Inc. These activities included completion of eight geoprobe soil borings/soil and groundwater sampling. The soil borings included GP-1/GP-2/GP-3/GP-4/GP-5/GP-6/GP-23/GP-24.

In February 2006, ARCADIS became involved with the site to perform remediation services. In July, 2006, ARCADIS implemented remedial activities including soil excavation totaling 170 tons and abandonment of two wells within the areas of the excavations. In addition, follow-up activities included the installation of three monitoring wells and one piezometer to support a groundwater monitoring program for natural attenuation. The monitoring wells and piezometer included Monitoring Wells AMW-10/AMW-11/AMW-12/and PZ-10. Groundwater monitoring activities were continued from 2006 through 2009. In 2008, one additional monitoring well was installed to supplement the groundwater monitoring program (Monitoring Well AMW-16).

In August 2009, ARCADIS completed four geoprobe soil borings to further define extent and concentrations of chlorinated solvents, including AGM-GP-100/AGM-GP-101/AGM-GP-102/AGM-GP-103. In November 2009, three additional geoprobe soil borings were completed, including AGM-GP-105/AGM-GP-106/AGM-GP-107.

Based on the results of the 2009 activities, additional soil excavation activities were completed from July 26 to August 11, 2010 totaling 709.4 tons of hazardous and non-hazardous material and the demolition of the existing building onsite that had previously been used as a gas station and dry cleaners.

Following the soil excavation, annual rounds of groundwater sampling were conducted through 2014 to document the natural attenuation and concentration decline of chlorinated solvents remaining in the groundwater.

### **Previous Reports**

"Phase II Environmental Site Assessment, University Cleaners, Green Bay, Wisconsin", February 1999, Northern Environmental.

"Site Investigation Status Update, Chlorinated Solvent Release, University Cleaners, 1608 and 1620 University Avenue, Green Bay, Wisconsin", February 10, 2000, Northern Environmental.

"Site Investigation Report (SIR) Former Standard Station (Currently University Cleaners)", January 2002, Northern Environmental.

"Revised Final Site Investigation Report (SIR) and Remedial Action Options Report (RAOR), University Cleaners, 1608 and 1620 University Avenue, Green Bay, Wisconsin, 54302, BRRTs Case No. 02-05-233555/BRRTs Case No. 02-05-321297", June 28, 2005, MMA, Inc..

"Soil Excavation Completion and Groundwater Monitoring Status Report with Supplemental Work Plan, University Cleaners, 1608 University Avenue, Green Bay, Wisconsin, BRRTs Number 02-05-233555", July 2007, ARCADIS.

"Work Plan for Supplemental Monitoring Well Installation and Groundwater Monitoring Activities, Former University Cleaners, 1608 University Avenue, Green Bay, Wisconsin. BRRTS# 02-05-233555", July 16, 2008, ARCADIS.

"Summary of Soil, Subslab Vapor, and Groundwater Sampling Activities, Former University Cleaners, 1608 University Avenue, Green Bay, Wisconsin, BRRTS# 02-05-233555", February 17, 2010, ARCADIS.

"Soil Excavation and Groundwater Monitoring Report, University Cleaners, 1608 University Avenue, Green Bay, Wisconsin, BRRTS# 02-05-233555", December 9, 2011, ARCADIS.

"Groundwater Sampling Results for 2012, Former University Cleaners, 1608 University Avenue, Green Bay, Wisconsin, BRRTS# 02-05-233555", September 28, 2012, ARCADIS.

"Groundwater Sampling Results for 2013, Former University Cleaners, 1608 University Avenue, Green Bay, Wisconsin, BRRTS# 02-05-233555", August 15, 2013, ARCADIS.

"Groundwater Sampling Results for 2014, Former University Cleaners, 1608 University Avenue, Green Bay, Wisconsin, BRRTS# 02-05-233555", September 24, 2014, ARCADIS.

# **C.6 Photos**



Figure 1. Original site building /west view.



Figure 2. Original building demolished/west view.



Figure 3. Site excavation/southwest view.



Figure 4. Excavation backfilled/northwest view.



Figure 5. Current site conditions/southwest view.



Figure 6. Current site conditions/south view.

## Attachment D Maintenance Plans and Photographs

### Attachments:

- D.1 Descriptions of Maintenance Actions Included.
- D.2 Location Map Included.
- D.3 Photographs Included.
- D.4 Inspection Log Included.

### **UNIVERSITY CLEANERS – 1608, CAP MAINTENANCE PLAN**

December 2, 2016

Property Located at:

1608 University Avenue, Green Bay, Wisconsin, 54302

DNR BRRTS/Activity # 02-05-233555 & # 03-05-216499, FID # 405095570

Parcel ID: 21-2270-2

#### **D.1** Introduction:

This document is the Maintenance Plan for a cap at the above-referenced property in accordance with the requirements of s. NR 724.13 (2), Wis. Adm. Code. The maintenance activities relate to an existing cap which addresses or occupies the area over contaminated soil and groundwater.

This Maintenance Plan applies to University Cleaners – 1608 (BRRTS # 02-05-233555) and University Cleaners – Former Standard Stn (BRRTS # 03-05-216499) and supersedes the Maintenance Plan associated with the University Cleaners – Former Standard Stn (BRRTS # 03-05-216499) dated February 12, 2003.

More site-specific information about this property/site may be found in:

- The case file in the DNR Green Bay office
- <u>BRRTS on the Web</u> (DNR's internet based data base of contaminated sites) for the link to a PDF for site-specific information at the time of closure and on continuing obligations;
- RR Sites Map/GIS Registry layer for a map view of the site, and
- The DNR project manager for Brown County.

### **D.1.** Descriptions:

### <u>Description of Contamination</u>

This Maintenance Plan applies to petroleum and chlorinated solvent-related volatile organic compounds in soil and groundwater.

#### Soil:

Concentrations of petroleum and chlorinated solvent-related volatile organic compounds (VOCs) remain in soil at the site at concentrations above the WDNR's soil to groundwater pathway residual contaminant levels (RCLs) and/or above the WDNR's non-industrial direct contact pathway RCLs.

Presently tetrachloroethene (PCE) concentrations ranging from non-detectable to 1,690 micrograms per kilogram ( $\mu$ g/kg) remain in localized areas in the upper 4 feet of soil on site. Below 4 feet, tetrachloroethene concentrations generally range from non-detect to 4,300  $\mu$ g/kg. The highest remaining concentrations of





tetrachloroethene are present at the base of the main excavation in the central portion of the site at 8 to 10 feet below ground surface (ft bgs), and range from non-detect to 93,100  $\mu$ g/kg.

Trichloroethene (TCE) is not present in the upper 4 feet of soil, and generally ranges from non-detect to 190  $\mu$ g/kg below 4 feet. The highest remaining concentrations of trichloroethene are also at the base of the main excavation, and range from non-detect to 13,300  $\mu$ g/kg. Methylene chloride concentrations ranging from non-detectable to 3,200  $\mu$ g/kg also are present at the base of the main excavation. The chlorinated VOCs of PCE, TCE, and methylene chloride are addressed under WDNR BRRTS No. 02-05-233555.

Petroleum compounds (benzene [37  $\mu$ g/kg], naphthalene [1,300  $\mu$ g/kg] and lead [60 milligrams per kilogram]) are also present at two soil boring locations at depths of 2.5 to 4 ft bgs. Petroleum compounds are addressed under WDNR BRRTS No. 03-05-216499, closed by WDNR on February 26, 2003.

#### Groundwater:

Concentrations of petroleum and chlorinated solvent-related VOCs remain in groundwater at the site at concentrations above the WDNR's preventive action limits (PALs) and/or above the WDNR's enforcement standards (ESs).

Groundwater contamination consisting of chlorinated compounds, from prior dry cleaning activities at the site, begin at approximately 6 ft bgs (the depth to groundwater) and extend to approximately 14 ft bgs. Impacted groundwater has not been identified below approximately 14 ft bgs based on data collected from piezometers. Groundwater contamination is highest in the north central portion of the site.

Of the 13 monitoring wells sampled during the latest round of groundwater sampling, 3 monitoring wells contained constituent concentrations above the ES and 3 monitoring wells have constituent concentrations above the PAL. Monitoring Wells MW-200 and MW-800 contained trichloroethene and tetrachloroethene concentrations above the PAL, respectively. Monitoring Well AMW-10 contained concentrations of trichloroethene and cis-1,2-dichloroethane above the PAL.

Monitoring Well AMW-10 also contained concentrations of tetrachloroethene (6 micrograms per liter [ $\mu$ g/L]) and vinyl chloride (0.29  $\mu$ g/L) above the ES. Monitoring Well AMW-15 contained concentrations of cis-1,2-dichloroethane (438  $\mu$ g/L), tetrachloroethene (108  $\mu$ g/L) and trichloroethene (120  $\mu$ g/L) above the ES, and Monitoring Well MW-500 contained concentrations of tetrachloroethene (195  $\mu$ g/L) and trichloroethene (13.7  $\mu$ g/L) above the ES. The chlorinated VOCs are addressed under WDNR BRRTS No. 02-05-233555.

Petroleum compounds are also present in groundwater. Petroleum compounds such as benzene, ethylbenzene, toluene, xylenes, naphthalene, styrene and trimethylbenzenes have been detected in groundwater above the PAL and/or ES at Monitoring Well MW-200. Petroleum compounds are addressed under WDNR BRRTS No. 03-05-216499, closed by WDNR on February 26, 2003.

### <u>Description of the Barrier to be Maintained</u>

#### 1608 University Avenue:

The existing barrier consists of approximately three inches of asphalt across the parcel used as a parking lot.

University Avenue and Elizabeth Street Rights-of-Way (ROWS):

The existing barrier consists of roadway asphalt along University Avenue and Elizabeth Street. Along the ROWs, there are also concrete sidewalks. These areas are to be maintained by the City of Green Bay.

The existing barrier features are shown on Figure D.2. Photographs of the barriers to be maintained are included in D.3.

### **Barrier Purpose**

The cap over the contaminated soil and groundwater serves as a barrier to prevent direct human contact with residual soil contamination that might otherwise pose a threat to human health. The cap also acts as an infiltration barrier to minimize future soil-to-groundwater contamination migration that could violate the groundwater standards in ch. NR 140, Wisconsin Administrative Code. Based on the current use of the property the barrier should function as intended unless disturbed.

### **Annual Inspection**

The asphalt and concrete cap overlying the contaminated soil and groundwater as depicted in Figure D.2 will be inspected once a year, normally in the spring after all snow and ice is gone, for deterioration, cracks and other potential problems that can cause exposure to underlying soils. The inspections will be performed by the property owner or their designated representative. The inspections will be performed to evaluate damage due to settling, exposure to the weather, wear from traffic, increasing age and other factors. Any area where soils have become or are likely to become exposed will be documented.

A log of the inspections and any repairs will be maintained by the property owner and is included as D.4, Form 4400-305, Continuing Obligations Inspection and Maintenance Log. The log will include recommendations for necessary repair of any areas where underlying soils are exposed and where infiltration from the surface will not be effectively minimized. Once repairs are completed, they will be documented in the inspection log. A copy of the maintenance plan and inspection log will be kept at the site; or, if there is no acceptable place (for example, no building is present) to keep it at the site, at the address of the property owner and available for submittal or inspection by Wisconsin Department of Natural Resources (DNR) representatives upon their request.

A copy of the inspection log will be submitted electronically to the DNR upon request.

### Maintenance Activities

If problems are noted during the annual inspections or at any other time during the year, repairs will be scheduled as soon as practical. Repairs can include patching and filling or larger resurfacing or construction operations. In the event that necessary maintenance activities expose the underlying soil, the owner must inform maintenance workers of the direct contact exposure hazard and provide them with appropriate personal protection equipment (PPE). The owner must also sample any soil that is excavated from the site prior to disposal to ascertain if contamination remains. The soil must be treated, stored and disposed of by the owner in accordance with applicable local, state and federal law.

In the event the asphalt and concrete cap overlying the contaminated soil are removed or replaced, the replacement barrier must be equally impervious. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this Cap Maintenance Plan unless indicated otherwise by the DNR or its successor.

The property owner, in order to maintain the integrity of the asphalt and concrete cap, will maintain a copy of this Maintenance Plan at the site; or, if there is no acceptable place to keep it at the site (for example, no building is present), at the address of the property owner and make it available to all interested parties (i.e. on-

site employees, contractors, future property owners, etc.) for viewing.

### Prohibition of Activities and Notification of DNR Prior to Actions Affecting a Cover/Barrier

The following activities are prohibited on any portion of the property the engineered cap is required as shown on the attached map, unless prior written approval has been obtained from the Wisconsin Department of Natural Resources: 1) removal of the existing barrier; 2) replacement with another barrier; 3) excavating or grading of the land surface; 4) filling on capped or paved areas; 5) plowing for agricultural cultivation; 6) construction or placement of a building or other structure; 7) changing the use or occupancy of the property to a residential exposure setting, which may include certain uses, such as single or multiple family residences, a school, day care, senior center, hospital, or similar residential exposure settings;

If removal, replacement or other changes to a cover, or a building which is acting as a cover, are considered, the property owner will contact DNR at least 45 days before taking such an action, to determine whether further action may be necessary to protect human health, safety, or welfare or the environment, in accordance with s. NR 727.07, Wis. Adm. Code.

### Amendment or Withdrawal of Maintenance Plan

This Cap Maintenance Plan can be amended or withdrawn by the property owner and its successors with the written approval of DNR.

#### **D.1 Contact Information:**

Site Owner and Operator: David Charles

Satellite Receivers, Ltd.

1740 Cofrin Drive, Suite 2, Green Bay, Wisconsin, 54302

(920) 432-5777

Signature:

(DNR may request signature of affected property owners, on a case-by-case basis)

Property Owner: David Charles

Satellite Receivers, Ltd.

1740 Cofrin Drive, Suite 2, Green Bay, Wisconsin, 54302

(920) 432-5777

Consultant: Arcadis U.S., Inc.

126 N. Jefferson Street, Suite 400, Milwaukee, WI 53202

414-276-7742

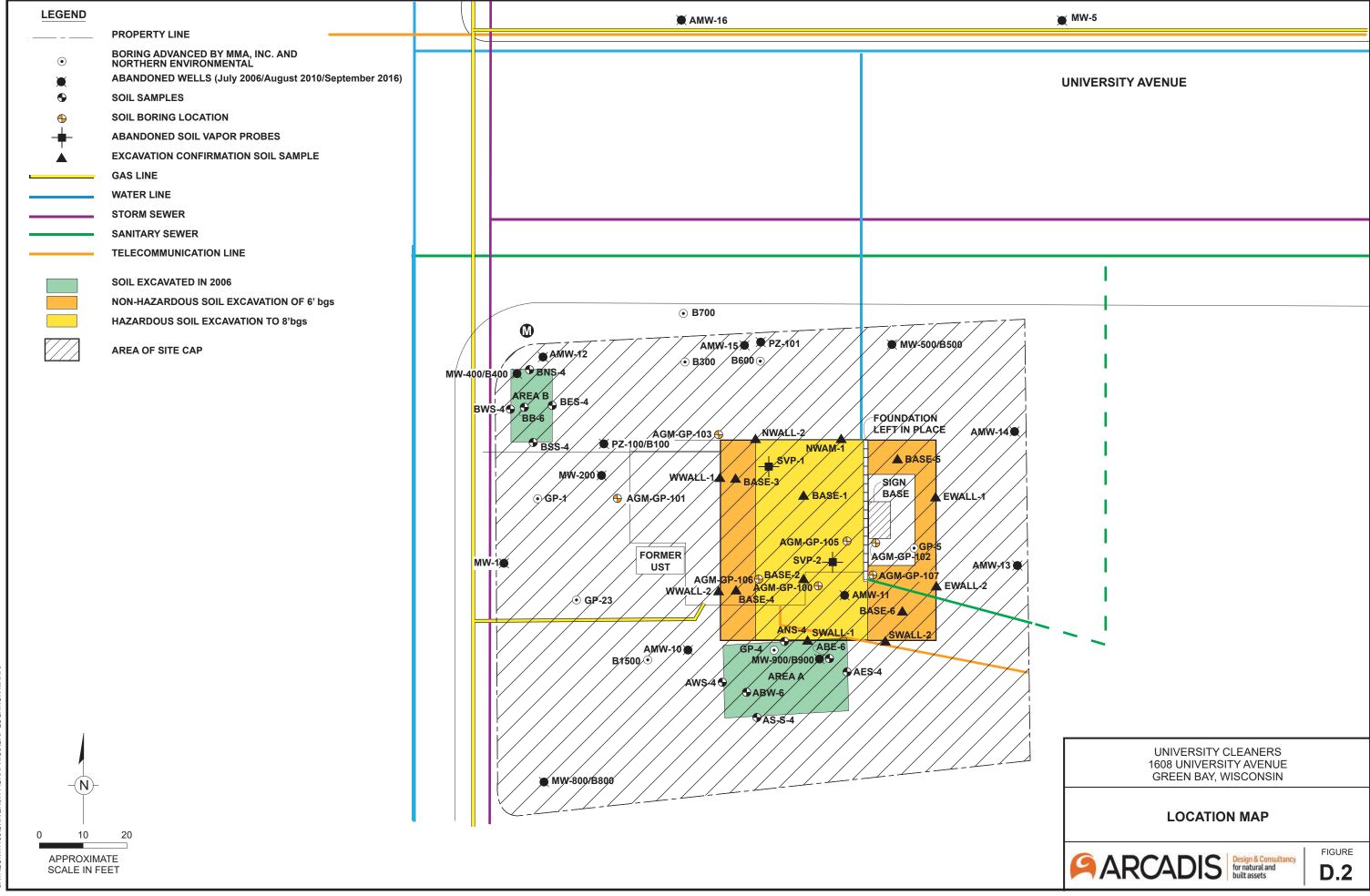
DNR: Ms. Kristin DuFresne

Wisconsin Department of Natural Resources

Green Bay Service Center 2984 Shawano Avenue

Green Bay, Wisconsin 54313-6727

920-662-5443



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### **D.3 Photographs**



### **Project Photographs**

University Cleaners – 1608 1608 University Avenue Green Bay, Wisconsin, 54302



Photo: 1

**Date:** 6-28-2012

**Description:**North side of Cap

**Location:** Facing West



Photo: 2

**Date:** 6-28-2012

**Description:**North side of Cap

**Location:** Facing Southwest



### **Project Photographs**

University Cleaners – 1608 1608 University Avenue Green Bay, Wisconsin, 54302



Photo: 3

**Date:** 6-28-2012

**Description:**West side of Cap

**Location:** Facing South



Photo: 4

Date:

6-28-2012

**Description:**South side of Cap

Location:

Facing Southeast



### **Project Photographs**

University Cleaners – 1608 1608 University Avenue Green Bay, Wisconsin, 54302



Photo: 5

**Date:** 6-28-2012

**Description:**East side of Cap

**Location:** Facing North

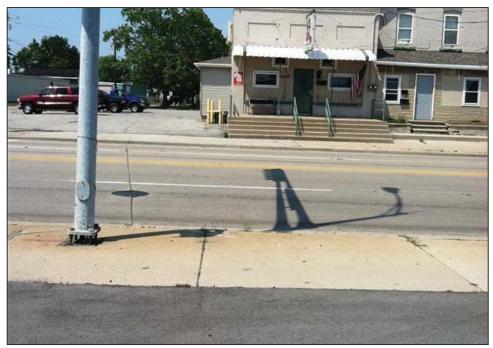


Photo: 6

**Date:** 6-28-2012

**Description:**North side of Cap

**Location:** Facing North

State of Wisconsin Department of Natural Resources dnr.wi.gov

### **D.4 Inspection Log**

### **Continuing Obligations Inspection and Maintenance Log**

Form 4400-305 (2/14)

Page 1 of 2

Directions: In accordance with s. NR 727.05 (1) (b) 3., Wis. Adm. Code, use of this form for documenting the inspections and maintenance of certain continuing obligations is required. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31-19.39, Wis. Stats.]. When using this form, identify the condition that is being inspected. See the closure approval letter for this site for requirements regarding the submittal of this form to the Department of Natural Resources. A copy of this inspection log is required to be maintained either on the property, or at a location specified in the closure approval letter. Do NOT delete previous inspection results. This form was developed to provide a continuous history of site inspection results. The Department of Natural Resources project manager is identified in the closure letter. The project manager may also be identified from the database, BRRTS on the Web, at <a href="http://dnr.wi.gov/botw/SetUpBasicSearchForm.do">http://dnr.wi.gov/botw/SetUpBasicSearchForm.do</a>, by searching for the site using the BRRTS ID number, and then looking in the "Who' section.

doing the Di	TTTO ID Hamber,	and their looking in the W	110 300(1011.				
Activity (Site	e) Name				BRRTS No.		
University	Cleaners - 1608				0.3	2-05-233555	
Inspections	○ annual	conducted (see closure a ly nnually - specify	pproval letter):	When submittal of this form is required, submi- manager. An electronic version of this filled ou the following email address (see closure appro	it form, or a scanr		
Inspection Date	Inspector Name	Item	Describe the condition of the item that is being inspected	Recommendations for repair or maint	reca enance in	Previous ommendations oplemented?	Photographs taken and attached?
		monitoring well cover/barrier vapor mitigation system other:			С	) Y () N	$\bigcirc$ Y $\bigcirc$ N
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02-05-233555 BRRTS No.	University Cleane Activity (Site) Nam			Continuing Obligation Form 4400-305 (2/14)	ations Inspection and Mai	ntenance Log Page 2 of 2
{Click to Add/E	Edit  mage}	Date added:	{Clic	ck to Add/Edit Image}	Date added:	

Title:

Title:

### Attachment E Monitoring Well Information

### Attachment:

E – Monitoring Well Information – Not Included. Documented with previous submittals.

### Well / Drillhole / Borehole Filling & Sealing Report Form 3300-005 (R 4/2015) Page 1 of 2

						Rou	ute to DN	NR Bu	ıreau:								
							Drinkin	g Wa	nter		Watershed	d/Wastewa	ter [	X Remed	diation	/Redeve	elopmen
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•	Well City, Village or Town  Green Bay  54302							1740 Cofrin Drive, Suite 2									
Subdivision Name Lot #							2	$\dashv$	City of Pres	ent	Owner Green	Ray		State W		Code 5/	302
Subdivision Name									4. Pump. l	Line		Casing & S	Sealine	_	_	J4:	302
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	onger nee								Liner(s) re		iping remo	ovea?			Yes [	☐ No	X N//
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### Well / Drillhole / Borehole Filling & Sealing Report Form 3300-005 (R 4/2015) Page 1 of 2

			Route t	o DNR B	ureau:								
Verification Only of I	Fill and Seal	Dri	nking W	ater [	Watershe	d/Wastewater	X Remedia	ation/Redev	elopment				
			Wa	ste Man	agement [	Other: _							
1. Well Location Information					2. Facility	/ Owner Info	rmation						
County WI Uniq	ue Well # ed Well	Hicap #			Facility Nam	ne			Common W				
Brown			NA		F 11: 10 /F		rsity Cleane	rs - 1608	AMW-1	2			
Latitude / Longitude (see instru	, i	at Code	Method		Facility ID (F	40509	95570						
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or Gov't Lot #		24 N	21	X E W	Original We		CI I						
Well Street Address	32   2	<u> N</u>		<u> </u>	Present Wel		Charles						
1608 University A	lvenue				Fresent wei		Charles						
Well City, Village or Town	Wellac	Well	ZIP Code		Mailing Add	dress of Prese	nt Owner						
Green Bay		"	54302		City of Dross		<u>Cofrin Drive,</u>		TZID Codo				
Subdivision Name		Lot #			City of Present Owner State ZIP Code WI 54302								
					4. Pump, L		, Casing & Seal	ing Material	•				
Reason For Removal From Servi	ce WI Uniqu	ue Well # c	of Replacem	ent Well	Pump and	d piping remo	oved?	Y	res No	X N/A			
No longer needed	_		_			oveu:	=	res No	X N/A X N/A				
3. Filled & Sealed Well / Drill	hole / Borehole I	ion		Liner(s) removed:  Liner(s) perforated?  Yes No									
X Monitoring Well	Original Constr	uction D	ate (mm/d	ld/yyyy)	Screen removed?								
	07/	/19/200	06			ft inplace?				□ N/A			
☐ Water Well	If a Well Construction	uction Re	port is ava	ailable,		ng cut off belo			Yes N	=			
☐ Borehole / Drillhole	piease attach.				1	_	se to surface?	<u>IX</u>	Yes No				
Construction Type:						rial settle afte		Ļ	_	⊃ X N/A			
X Drilled	Priven (Sandpoint	:)	Dug		1	, was hole reto			Yes N	N/A			
Other (specify):					hydrated	with water fr	e used, were the om a known saf	e source?	Yes X N	o N/A			
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Total Well Depth From Ground S	Surface (ft.) Casi	ng Diame	eter (in.)		Sealing Mat	<u> </u>							
13		2			1	ement Grout		Concrete	<u> </u>				
Lower Drillhole Diameter (in.)	Casi	ng Depth	n (ft.)		-	Cement (Cond		X Bentonite	e Chips				
8.25		13			<u> </u>			I Parabalas Or	ah.				
Was well annular space grouted	d?	ΧN	lo 🗌 Uı	nknown	FOI MONICO	nng wens ana	Monitoring Wel	i borerioles Or	ny:				
If yes, to what depth (feet)?	Depth to	Water (fe	et)		X Benton	ite Chips	☐ Bei	ntonite - Cem	ent Grout				
		5.87			Granula	ar Bentonite	Bei	ntonite - Sand	d Slurry				
5. Material Used to Fill Well / Dr	illhole				From (ft.)	To (ft.)	No. Yards, Sac		Mix Ra				
							or Volume (ci		Mud W	eignt			
Bentonite Chi	ps				Surface	12.81	1/3 Sa	ack	1				
									1				
6. Comments													
7. Supervision of Work								DNR Use	Only				
Name of Person or Firm Doing Fillin	g & Sealing	_icense #	Dat		g & Sealing (m	ım/dd/yyyy)	Date Rece		Noted By				
Arcadis U.S., Inc.					/08/2016		Comments						
Street or Route 126 N. Jefferson	Street Suite	400	Tele	ephone N <b>41</b>	umber <b>4.277.623</b>	12	Comments						
City Milwaukee	State WI		e 53202			n Doing Work			e Signed	1.6			
iviiiwaukee	1	1	33202			111	n A. Pay	dan	09/09/20	116			

### Well / Drillhole / Borehole Filling & Sealing Report Form 3300-005 (R 4/2015) Page 1 of 2

		Г	Route t	to DNR B	ureau:							
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			Wa	ste Man	agement [	Other: _		_	•			
1. Well Location Information		·			2. Facility	/ Owner Info	rmation					
County WI Unique Well Removed Well	# Hi	icap #			Facility Nam	ne			Common Well Name			
Brown	. — —		NA		F 11: 15 /F	Univer	sity Cleane	<u>rs - 1608</u>	AMW-13			
Latitude / Longitude (see instructions)			Method		Facility ID (F	40509	95570					
<u>44.5119506</u> <u>-87.9825697</u>	N DDN	.   🗵	☐GPS008 ☐SCR002	2	License/Peri	mit/Monitorir						
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or Gov't Lot # 32	24	N	21	X E W	Original We		Charles					
Well Street Address					Present Wel	l Owner						
1608 University Avenน	ie						Charles					
Well City, Village or Town		Well ZIF	P Code		Mailing Add	dress of Prese		Suite 2				
Green Bay	302		1740 Cofrin Drive, Suite 2 City of Present Owner State ZIP Code									
Subdivision Name				Green		WI	54302					
					4. Pump, L	.iner, Screen,	Casing & Seal					
Reason For Removal From Service	WI Unique V	Vell # of R	Replacem	ent Well		d piping remo	oved?		Yes No N/A Yes No N/A			
No longer needed		— —		_	Liner(s) re	emoved? erforated?		=	Yes No N/A			
3. Filled & Sealed Well / Drillhole / E		ارم م م الما	Screen re				Yes X No N/A					
Monitoring well	Monitoring Well Original Construction Date (mm/dd/y											
	ell Constructi	on Repo	ort is ava	ailable,	Was casing cut off below surface?							
Borehole / Drillhole	e attach.				l	ng material ris		<u> </u>	Yes No N/A			
Construction Type:						rial settle afte		Ļ	Yes No No N/A			
X Drilled Driven (	Sandpoint)		Dug			was hole reto	opped? e used, were the	.v	Yes No N/A			
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Total Well Depth From Ground Surface	(ft.) Casing	Diamete	er (in.)		Sealing Mat	-						
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Was well annular space grouted?	Yes	X No	Uı	nknown	For Monitor	ring Wells and	Monitoring Wel	II Boreholes O	nly:			
If yes, to what depth (feet)?	Depth to Wa	ter (feet)	)		X Benton	ite Chips	☐ Be	ntonite - Cen	nent Grout			
	1	5.32			Granula	ar Bentonite	☐ Be	ntonite - San	d Slurry			
5. Material Used to Fill Well / Drillhole					From (ft.)	To (ft.)	No. Yards, Sac or Volume (c		Mix Ratio or Mud Weight			
Bentonite Chips					Surface	13.28	1/3 S					
<u> </u>												
6. Comments												
7. Supervision of Work								DNR Use	Only			
Name of Person or Firm Doing Filling & Sea	ling Lice	nse #	Dat	te of Fillin	g & Sealing (m	m/dd/yyyy)	Date Rece		Noted By			
Arcadis U.S., Inc.					/08/2016		Comments					
Street or Route 126 N. Jefferson Street	, Suite 400				4.277.623		Comments					
City Milwaukee		IP Code	53202	Signa	ature of Person	Doing Work	in A. Pa	Pan	e Signed 09/09/2016			

### Well / Drillhole / Borehole Filling & Sealing Report Form 3300-005 (R 4/2015) Page 1 of 2

			Г	Route to D	NR Bu	ıreau:								
Verification Only	Drinki	ing Wa	iter [	Watershe	d/Wastewater	X Remedi	iation/Redev	elopment						
				Waste	Mana	gement [	Other: _							
1. Well Location Informat	ion					2. Facility	/ Owner Info	ormation						
County	Unique Well # noved Well	# Н	icap #			Facility Nam	ne			Common V				
Brown				NA		F :::: ID/F		rsity Cleane	<u>rs - 1608</u>	AMW-1	4			
Latitude / Longitude (see in	structions)	Format C		Method Cod	de	Facility ID (F		95570						
<u>44.5119506</u> -87.9825697		N DD	l 🗵	☐GPS008 ☐SCR002	ŀ	License/Peri	mit/Monitori							
	Section	W □ DDI Township		OTHOO1										
or Gov't Lot #	32	24		21	]	Original We								
Well Street Address	32		N	<u> </u>		D + \\\/-1		Charles						
1608 Universit	ty Avanu	0				Present Wel		Charles						
Well City, Village or Town	ty Averiu	<del>C</del>	Well ZIF	P Code	<del> </del>	Mailing Add	dress of Prese							
, ,				302				Cofrin Drive,						
Green Bay Subdivision Name			Lot #	302	-	City of Prese	ent Owner <b>Green</b>	Ray	State WI	ZIP Code	302			
Subdivision rune			200 11			4. Pump. L		, Casing & Seal		•	302			
Reason For Removal From S	Service	I WI I Inique V	Mell # of R	eplacement	الم//\					Yes No	X N/A			
No longer neede		Wromque	ven # or it	еріасеттеті	· vveii	Pump and Liner(s) re	d piping rem	oved?		Yes No	X N/A			
	No longer needed									Yes 🔲 No	X N/A			
		nal Construct			ννν)	Liner(s) perforated?  Screen removed?  Yes X No								
X Monitoring Well	Origin		5/2007		,,,,,	Casing let	ft inplace?		X '	Yes No	□ N/A			
Water Well	If a We	ell Construct			ble.	Was casing cut off below surface?   ☐ Yes ☐ No ☐								
Borehole / Drillhole	please	e attach.			,	Did sealin	ng material ris	se to surface?	X	Yes N	o 🔲 N/A			
Construction Type:						Did mate	rial settle afte	er 24 hours?		Yes N	o X N/A			
X Drilled	Drivon (	Sandpoint)		Dug		If yes,	was hole ret	opped?		Yes N	0 X N/A			
		·		_ Dug		If bentoni	ite chips were	e used, were the	<sub>у</sub>	Yes X N	о П N/A			
Other (specify):					<u> </u>			om a known sa cing Sealing Ma			o ∐ N/A			
Formation Type:								ivity    Condu		mned				
X Unconsolidated Form	ation		Bedrock	k		_	ed & Poured	· =		•				
							nite Chips)	☐ Other	(Explain):					
Total Well Depth From Grou	ınd Surface	(ft.)   Casing	Diamete	er (in.)		Sealing Mat	terials		_					
14 Lower Drillhole Diameter (ir	- \	Casina	2 Danth /6	<u>.</u> \		☐ Neat C	ement Grout	t	Concrete	9				
8.25	1.)		Depth (f <b>4</b>	ι.)		Sand-C	Cement (Cond	crete) Grout	X Bentonit	e Chips				
		<u> </u>				For Monitor	rina Wells and	d Monitoring We	II Roreholes Oi	nlv·				
Was well annular space gro		☐ Yes	X No	☐ Unkn	nown		_	_		•				
If yes, to what depth (feet)?		Depth to Wa	ter (feet)			X Benton	ite Chips	=	ntonite - Cem					
			5.19			Granula	ar Bentonite	Be	ntonite - San	d Slurry				
5. Material Used to Fill Well	/ Drillhole					From (ft.)	To (ft.)	No. Yards, Sa		Mix Ra				
								or Volume (c		Mud W	/eignt			
<u>Bentonite</u>	Cnips					Surface	13.37	1/3 S	аск					
6. Comments							'							
7 Supervision of Work									DNR Use	Only				
7. Supervision of Work Name of Person or Firm Doing	Filling & Seali	ing Ilica	nse #	Date of	f Filling	g & Sealing (m	m/dd/yyvv)	Date Rece		Noted By				
Arcadis U.S., Ir	-	5	JC if			08/2016								
Street or Route		C 1, 155		Telepho			2	Comments	5					
126 N. Jefferso	n Street,			<u> </u>		4.277.623 ture of Person		4 /)	Dat	e Signed				
<sup>City</sup> Milwaukee		State WI Z	IP Code	53202	Jagina	care or reisor	Im	A. Pap.		09/09/20	)16			

### Well / Drillhole / Borehole Filling & Sealing Report Form 3300-005 (R 4/2015) Page 1 of 2

		Г	Route t	to DNR B	ureau:							
Verification Only of Fill and	Dri	inking W	ater [	Watershee	d/Wastewater	X Remed	iation/Redevelopment					
			Wa	ste Man	agement [	Other: _			•			
1. Well Location Information		·			2. Facility	/ Owner Info	rmation					
County WI Unique Well Removed Well	# Hi	cap#			Facility Nam	ie			Common Well Name			
Brown			NA		F 11: 15 /F	Univer	rsity Cleane	<u>rs -1608</u>	AMW-15			
Latitude / Longitude (see instructions)	Format C		Method		Facility ID (F	40509	95570					
07.0035607	N XDD W DDN	.   🗅	GPS008 SCR002	2	License/Peri	mit/Monitorir						
1/4/1/4 SE 1/4 NW Section	W L DDN Township		<u>JOTH00</u> nge									
or Gov't Lot # 32	24	N	21	X E W	Original We		Charles					
Well Street Address					Present Wel	l Owner						
1608 University Avenu	e						Charles					
Well City, Village or Town		Well ZIF	P Code		Mailing Add	dress of Prese	nt Owner C <b>ofrin Drive</b> ,	Suite 2				
Green Bay			302		City of Prese	ent Owner		State	ZIP Code			
Subdivision Name		Lot #				Green		WI	54302			
	T				4. Pump, L	.iner, Screen,	Casing & Seal					
Reason For Removal From Service	WI Unique W	Vell # of R	Replacem	nent Well		d piping remo	oved?		Yes No N/A Yes No N/A			
No longer needed		4:			Liner(s) re	emoved? erforated?		=	Yes No No N/A			
3. Filled & Sealed Well / Drillhole / B		المارات و ما	Screen re			_	Yes 🔲 No 🔲 N/A					
Monitoring Well	, ,	dd/yyyy)	Casing let	ft inplace?								
	ell Constructi	on Repo	ort is ava	ailable,	Was casing cut off below surface?							
Borehole / Drillhole please	e attach.				1	ng material ris		<u> </u>	Yes No No N/A			
Construction Type:						rial settle afte		Ļ	Yes No No N/A			
X Drilled Driven (S	Sandpoint)		Dug		1 '	was hole reto	opped? e used, were the		Yes No N/A			
Other (specify):					hydrated	with water fro	om a known sa	fe source? L	Yes No N/A			
Formation Type:					I —		vity Condu		mped			
X Unconsolidated Formation		Bedrocl	k		X Screen	ed & Poured nite Chips)	´ =	•				
Total Well Depth From Ground Surface	(ft.) Casing I	Diamete	er (in.)		Sealing Mat							
14	Ci	2	۲. ۱		☐ Neat C	ement Grout		Concrete				
Lower Drillhole Diameter (in.)  8.25	Casing 1	Depth (f   4	τ.)		Sand-C	Cement (Cond	crete) Grout	X Bentonit	te Chips			
Was well annular space grouted?	Yes	X No	U	nknown	For Monitor	ing Wells and	Monitoring We	II Boreholes O	nly:			
If yes, to what depth (feet)?	Depth to Wat	ter (feet)	)		X Benton	ite Chips	☐ Be	ntonite - Cen	nent Grout			
	Į.	5.21			Granula	r Bentonite	☐ Be	ntonite - San	d Slurry			
5. Material Used to Fill Well / Drillhole					From (ft.)	To (ft.)	No. Yards, Sad or Volume (c		Mix Ratio or Mud Weight			
Bentonite Chips					Surface	13.37	1/3 S					
•												
6. Comments												
7. Supervision of Work								DNR Use	Only			
Name of Person or Firm Doing Filling & Seal	ing Lice	nse #	Dat		g & Sealing (m	m/dd/yyyy)	Date Rece		Noted By			
Arcadis U.S., Inc.					/08/2016		Comments	;				
Street or Route 126 N. Jefferson Street,					4.277.623		A					
City Milwaukee		P Code 5	3202	Signa	ature of Person	DoingWork	A. Pape	Dat	te Signed 09/09/2016			

### Well / Drillhole / Borehole Filling & Sealing Report Form 3300-005 (R 4/2015) Page 1 of 2

		Γ	Route	to DNR B	ureau:							
Verification Only of Fill ar	Dı	rinking W	ater [	Watershe	d/Wastewater	X Remed	liation/Redevelopment					
			□w	aste Man	agement [	Other: _			'			
1. Well Location Information		·			2. Facility	/ Owner Info	rmation					
County WI Unique Well Removed Well	I# H	icap #			Facility Nam	ne			Common Well Name			
Brown			NA		F 11: 15 /F	Unive	rsity Cleane	<u>rs - 1608</u>	AMW-16			
Latitude / Longitude (see instructions			Method		Facility ID (F	40509	95570					
<u>44.5119506</u> <u>-87.9825697</u>	_N   ⊠DD -W   □DDI	.   0	☐GPS00 ☑SCR00	)2	License/Peri	mit/Monitorii						
1/4/ 1/4 SE 1/4 NW Section	_W   <u></u> DD/ Township		OTHOO									
or Gov't Lot # 32	24	N	21	⊠ E □ W	Original We		Charles					
Well Street Address					Present Wel	l Owner						
1608 University Aven	ue						Charles					
Well City, Village or Town		Well ZII	P Code		Mailing Add	dress of Prese	nt Owner C <b>ofrin Drive,</b>	Suite 2				
Green Bay			1302		City of Prese	ent Owner		State	ZIP Code			
Subdivision Name		Lot #				Green		WI				
					4. Pump, L	.iner, Screen,	, Casing & Seal					
Reason For Removal From Service	WI Unique V	Vell # of F	Replacer	ment Well		d piping remo	oved?		Yes No N/A			
No longer needed			- — -		Liner(s) re			=	Yes No N/A Yes No N/A			
3. Filled & Sealed Well / Drillhole /			Carron removed?									
Monitoring Weil	inal Construct 09/23	tion Date 3/2008		dd/yyyy)		ft inplace?			Yes No N/A			
	Vell Constructi	ion Repo	ort is av	ailable,	Was casing cut off below surface?							
Borehole / Drillhole	se attach.				l	_	se to surface?	<u>D</u>	Yes No N/A			
Construction Type:						rial settle afte		Ļ	Yes No No N/A			
X Drilled Driven	(Sandpoint)		Dug		If bentoni	was hole reto	e used, were the	L	Yes No N/A			
Other (specify):					hydrated	with water fr	om a known sat ing Sealing Ma	fe source?	Yes X No N/A			
Formation Type:					I —		vity Condu		ımped			
$\overline{\mathbf{X}}$ Unconsolidated Formation		Bedroc	k		Screen (Bento	ed & Poured nite Chips)	Other	(Explain):	·			
Total Well Depth From Ground Surfac	e (ft.) Casing	Diamete	er (in.)		Sealing Mat	-		_				
Lower Drillhole Diameter (in.)	Casing	2 Depth (f	F+ \		☐ Neat C	ement Grout		Concret				
8.25		15	11.)		Sand-C	Cement (Cond	crete) Grout	X Bentoni	te Chips			
Was well annular space grouted?	Yes	X No		Jnknown	For Monitor	ring Wells and	Monitoring Wel	II Boreholes O	Inly:			
If yes, to what depth (feet)?	Depth to Wa	ter (feet)	)		X Benton	ite Chips	Be	ntonite - Cen	nent Grout			
		5.87			Granula	ar Bentonite	☐ Be	ntonite - San	ıd Slurry			
5. Material Used to Fill Well / Drillhole					From (ft.)	To (ft.)	No. Yards, Sac or Volume (c		Mix Ratio or Mud Weight			
Bentonite Chips					Surface	15.64	1/3 ba					
·												
6. Comments												
7. Supervision of Work								DNR Use				
Name of Person or Firm Doing Filling & Se	aling Lice	nse #	Da		g & Sealing (m	m/dd/yyyy)	Date Rece	ived	Noted By			
Arcadis U.S., Inc.			   T-		/08/2016		Comments	5				
Street or Route 126 N. Jefferson Street,	Suite 400				4.277.623							
<sup>City</sup> Milwaukee	State WI Z	IP Code	53202	2 Signa	ature of Person	Deing Work	A. Papa	N Dat	te Signed 09/09/2016			

### Well / Drillhole / Borehole Filling & Sealing Report Form 3300-005 (R 4/2015) Page 1 of 2

				Γ	Route	to DNR B	ureau:							
Verification Only of Fill and Seal Drin							ater [	Watershe	d/Wastewater	X Remed	liation/Redevelopment			
					Πw	/aste Man	agement	Other: _			•			
1. Well Location Inform	nation						2. Facility	/ Owner Info	rmation					
County	WI Unique Removed V	Well #	Hi	icap #			Facility Nam	ne			Common Well Name			
Brown		— —			NA	١	F '11' ID /F	Unive	rsity Cleane	<u>rs - 1608</u>	MW-1			
Latitude / Longitude (se	e instructi	ons)	Format C			d Code	Facility ID (F	40509	95570					
<u>44.5119506</u> -87.9825697		N		. 🗀	☐ GPS00 ☑ SCR00	02	License/Per	mit/Monitorii						
1/4 / 1/4 SE 1/4 NW	Sect	ion W	Township		<u>Потно</u> ange									
or Gov't Lot #		32	24	N	21	⊠ E □ W	Original We		Charles					
Well Street Address							Present Wel	l Owner						
1608 Unive	rsity Ave	enue							Charles					
Well City, Village or Towr	1			Well Z	IP Code	5	Mailing Add	dress of Prese		Suite 2				
Green Bay			4302		1740 Cofrin Drive, Suite 2  City of Present Owner   State   ZIP Code									
Subdivision Name Lot #								Green		WI				
							4. Pump, L	.iner, Screen	, Casing & Seal					
Reason For Removal Fro		١,	WI Unique V	Vell # of	Replace	ment Well		d piping rem	oved?		Yes No N/A Yes No N/A			
No longer nee		la / Dan					Liner(s) re			=	Yes No N/A			
3. Filled & Sealed Wel						/alal / 0 0 0 d	Screen removed?							
	Monitoring Well Original Construction Date (mm/dd/										Yes No N/A			
☐ Water Well			Constructi	on Rep	ort is a	vailable,	Was casing cut off below surface?							
Borehole / Drillhol	e F	olease at	ttach.				Did sealing material rise to surface?  Did material settle after 24 hours?  Yes No X							
Construction Type:										L				
X Drilled	Driv	/en (San	ndpoint)		Dug		If bentoni	was hole reto	e used, were the	۰v _	Yes No No N/A			
Other (specify):							hydrated	with water fr	om a known sa ing Sealing Ma	fe source?	Yes X No N/A			
Formation Type:							I —		vity Condu		ımped			
X Unconsolidated Fo	ormation			Bedroo	ck		X Screen	ed & Poured nite Chips)	· =					
Total Well Depth From G	iround Sur	face (ft.	) Casing	Diamet	er (in.)		Sealing Materials							
Lower Drillhole Diamete	or (in )		Casing	2 Donth (	'f+ \		☐ Neat C	ement Grout		Concret				
8	:1 (111.)		Casing	рери (	,ιι.)		Sand-0	Cement (Cond	crete) Grout	X Bentoni	te Chips			
Was well annular space	grouted?		Yes	X No		Unknown	For Monitor	ring Wells and	Monitoring We	II Boreholes O	nly:			
If yes, to what depth (fee	et)?	De	pth to Wa	ter (feet	t)		X Benton	ite Chips	☐ Be	ntonite - Cen	nent Grout			
			!	5.77			Granula	ar Bentonite	Ве	ntonite - San	nd Slurry			
5. Material Used to Fill \	Well / Drilll	nole					From (ft.)	To (ft.)	No. Yards, Sad or Volume (c		Mix Ratio or Mud Weight			
Bentoni	te Chips	5					Surface	11.67	1/3 S					
6. Comments														
7. Supervision of Wor	k									DNR Use	e Only			
Name of Person or Firm Do		& Sealing	Lice	nse #	D	ate of Fillin	g & Sealing (m	m/dd/yyyy)	Date Rece		Noted By			
Arcadis U.S	., Inc.						/08/2016		Comments					
Street or Route 126 N. Jeffer	son Stre	eet, Su	iite 400		Te		4.277.623			,				
City Milwaukee		Sta		IP Code	5320	2 Sign	ature of Persor	Doing Work	im A. H	Dat	te Signed 09/09/2016			
		•	•					12	11117.1	your				

### Well / Drillhole / Borehole Filling & Sealing Report Form 3300-005 (R 4/2015) Page 1 of 2

	Ro	oute to DNR B	ureau:	_							
Verification Only of Fill and Seal	[	Drinking W	ater [	Watershed	d/Wastewater	X Remedi	iation/Redevelopment				
		Waste Man	agement [	Other: _							
1. Well Location Information			2. Facility	/ Owner Info	rmation						
County  Brown  WI Unique Well # Removed Well  O W 8 7 7	Hicap #	NA	Facility Nam	Univer	sity Cleane	rs - 1608	Common Well Name MW-5				
	t Code Me	thod Code	Facility ID (F		VE E 7.0						
44.5119506 N	″U IMTG	SPS008 CR002	License/Perr	40509 mit/Monitorir							
	DDM DO	OTH001	LICCHSC/T CIT		33555						
SE INV	· I		Original Wel								
32 2	4 <sub>N</sub> 2	1 W			Charles						
Well Street Address			Present Well		Cll						
1608 University Avenue	L =		Mailing Add	dress of Prese	Charles						
Well City, Village or Town	Well ZIP C		I Mailing Add	1740 C	ofrin Drive,	Suite 2					
Green Bay	5430	02	City of Prese	ent Owner		State	ZIP Code				
Subdivision Name	Lot #		4 December 1	Green		WI	54302				
			4. Pump, L	iner, Screen,	Casing & Seali						
I	ie Well # of Rep	lacement Well		d piping remo	oved?		Yes No N/A Yes No N/A				
No longer needed			Liner(s) re			=	Yes No N/A				
3. Filled & Sealed Well / Drillhole / Borehole II		1111	Screen re	erforated?		$\Box$	Yes X No N/A				
Monitoring Well Original Constru		mm/dd/yyyy)	Casing left inplace?								
Water Well	16/2004			-	w surface?		Yes No N/A				
Borehole / Drillhole  If a Well Construplease attach.	iction Report	is available,	Was casing cut off below surface?  Did sealing material rise to surface?  X Yes No 1								
Construction Type:			Did material settle after 24 hours?								
X Drilled Driven (Sandpoint)	) $\Box$ [	Dug	1	was hole reto			Yes No X N/A				
Other (specify):		9	If bentoni hydrated	te chips were with water fro	used, were the om a known saf	y e source?	Yes X No N/A				
Forms of the True			I —		ing Sealing Ma						
Formation Type:					vity 🔲 Condu	•	mped				
X Unconsolidated Formation	Bedrock		X Screen (Bento	ed & Poured nite Chips)	☐ Other	(Explain):					
Total Well Depth From Ground Surface (ft.) Casir  15	ng Diameter ( <b>2</b>	in.)	Sealing Mat			Concrete	2				
	ng Depth (ft.)		_	ement Grout		X Bentonit					
8	15		Sand-C	Cement (Conc	rete) Grout	▼ peritoriit	.e Chips				
Was well annular space grouted? Yes	X No	Unknown	For Monitor	ing Wells and	Monitoring Wel	l Boreholes Oi	nly:				
If yes, to what depth (feet)? Depth to \	Nater (feet)		X Bentoni	ite Chips	Bei	ntonite - Cem	nent Grout				
	5.09		Granula	ar Bentonite	Bei	ntonite - San	d Slurry				
5. Material Used to Fill Well / Drillhole			From (ft.)	To (ft.)	No. Yards, Sac or Volume (ci		Mix Ratio or Mud Weight				
Bentonite Chips			Surface	14.19	1/3 S						
•											
6. Comments											
7 Supervision of Mark						DNR Use	Only				
7. Supervision of Work Name of Person or Firm Doing Filling & Sealing	icense #	Date of Fillin	g & Sealing (m	m/dd/yvvv)	Date Recei		Noted By				
Arcadis U.S., Inc.	ACCITION IT		/08/2016	, , , , , , , , , , , , , , , , ,							
Street or Route 126 N. Jefferson Street, Suite 4	00		4.277.623		Comments						
City Milwaukee State WI	3202 Signa	ature of Person		1 6		e Signed 09/09/2016					
satrac/MI1133/university/graphics/logs/mw5 ahand ai	1			11	mf. t	apan	03/03/2010				

### Well / Drillhole / Borehole Filling & Sealing Report Form 3300-005 (R 4/2015) Page 1 of 2

				ſ	Rou	ite to DN	R Bureau:								
							Water		Watershee	d/Wastewater	X Rem	ediation	n/Redev	elopment	
						Waste M	anagement		Other: _						
1. Well Location Inforr							2. Facilit	y /	Owner Info	rmation					
County	WI Uniqu Removed	ue Well # d Well	Н	icap #		IA	Facility Na	ame	Univer	rsity Cleane	rs - 160		mmon W MW-	Vell Name	
Brown Latitude / Longitude (se		tions)	Format C	oda l		od Code	Facility ID	(FII	D or PWS)	•		<u> </u>	17177	200	
44.5119506	e ilistiut	N	X DD		□GP9	8008			40509						
-87.9825697		N	I =	М	SCF □ OTH	R002 H001	License/P	erm	nit/Monitorir	ng#					
1/4 / 1/4 SE 1/4 NW	Se	ction	Township	o R	ange	X E	Original W	/ell	Owner						
or Gov't Lot #		32	24	N	21	\	N			Charles					
Well Street Address							Present W	Present Well Owner David Charles							
	1608 University Avenue  Yell City, Village or Town Well 2							ddı							
, ,				I Mailing A	Mailing Address of Present Owner 1740 Cofrin Drive, Suite 2										
Green Bay 54 ubdivision Name Lot #						2	City of Pre	esei	nt Owner		State		P Code	202	
Subdivision Name	bdivision Name Lot #						4 Pumn	. 1 :	Green	Bay Casing & Sea		VI	54	302	
Reason For Removal Fro	om Corvid	- I	WI Unique V	Nall # a6	Davida		all				iiig Matei	Yes	□ No	X N/A	
No longer nee		Le	wi Unique v	veii # oi	керіа	cement w	Fullipa		piping remo	oved?	F	Yes	H No	X N/A	
		ole / Bo	rehole Info	rmatic	nn .				moved? rforated?		Ī	Yes	☐ No	X N/A	
	3. Filled & Sealed Well / Drillhole / Borehole Information  Original Construction Date (mm/dd							•	noved?			=	X No	□ N/A	
Monitoring Well		Origina	12/03			111, aa, yy)	Casing	left	inplace?			Yes	☐ No	N/A	
Water Well			l Constructi			available	., Was cas	sing	g cut off belo	ow surface?		X Yes		o	
Borehole / Drillhol	le	please a	attach.					Did sealing material rise to surface?							
Construction Type:								Did material settle after 24 hours?  Yes No							
X Drilled	D	riven (Sa	ndpoint)		Du	ıg			was hole reto	opped? e used, were the	21.6	Yes	i ∐ N	o X N/A	
Other (specify):							hydrate	d v	vith water fro	om a known sa	fe source?	Yes	XN	o N/A	
Formation Type:							<u>_                                  </u>			ting Sealing Ma vity \(\sime\) Cond		Pumne	Ч		
X Unconsolidated Fo	ormation	1		Bedro	ck		X Scre	ene	ed & Poured nite Chips)	· =	(Explain):_				
Total Well Depth From C	Ground S	urface (f	t.) Casing	Diamet	ter (in	.)	Sealing N		<u> </u>						
13.5	<i>(</i> * )		<u> </u>	2	(6: )		Neat	: Ce	ement Grout		Conci	rete			
Lower Drillhole Diamete	er (in.)		Casing 1	Depth 3.5	(ft.)				ement (Cond		X Bento		ips		
Was well annular space	grouted	l? [	Yes	X No		Unknov	For Monit	ori	ng Wells and	Monitoring We	II Borehole:	s Only:			
If yes, to what depth (fee	et)?	D	epth to Wa	ter (fee	t)		X Bento	onit	te Chips	☐ Be	ntonite - C	ement	Grout		
				5.37			Grani	ular	Bentonite	☐ Be	entonite - S	and Slu	rry		
5. Material Used to Fill	Well / Dri	illhole					From (ft.	)	To (ft.)	No. Yards, Sa or Volume (c		t	Mix Ra Mud W		
Bentoni	Bentonite Chips								12.57	1/3 ba					
								4							
6. Comments															
or Comments															
7 Supervision of Mon	l.										DNRI	Jse Onl	v		
7. Supervision of Wor Name of Person or Firm Do		g & Sealing	a lice	nse #		Date of Fi	lling & Sealing	(mn	n/dd/vvvv)	Date Rece			ed By		
Arcadis U.S							09/08/201			C					
Street or Route		at Suite	400				e Number 414.277.62	) 2 1	 >	Comment	S				
						gnature of Pers			1		Date Sigr	ned			
wiiiwaukee	:		VVI		552	.02			Im	7 A. Pay	Jan	09,	/09/20	)16	

### Well / Drillhole / Borehole Filling & Sealing Report Form 3300-005 (R 4/2015) Page 1 of 2

				Г	Route	to DNR B	ureau:							
Verification Only of Fill and Seal							ater [	Watershe	d/Wastewater	X Remed	iation/Redevelopment			
					□w	aste Man	agement	Other: _		_	•			
1. Well Location Inform	nation			·			2. Facility	/ Owner Info	ormation					
County	WI Unique Removed	e Well #	Hi	icap #			Facility Nam	ne			Common Well Name			
Brown		- — –			NA	1	F '11' ID /F	Unive	rsity Cleane	<u>rs - 1608</u>	MW-500			
Latitude / Longitude (se	e instruct	ions)	Format C			d Code	Facility ID (F		95570					
<u>44.5119506</u> -87.9825697		N		.   [	GPS00	)2	License/Per	mit/Monitori						
1/4 / 1/4 SE 1/4 NW	Sec	tion W	Township		□OTH0									
or Gov't Lot #		32	24	N	21	⊠ E □ W	Original We		Charles					
Well Street Address							Present Wel	l Owner						
1608 Unive	rsity Av	enue/							Charles					
Well City, Village or Towr	า			Well ZI	P Code	!	Mailing Add	dress of Prese	ent Owner C <b>ofrin Drive</b> ,	Suite 2				
Green Bay					1302		City of Prese	ent Owner		State	ZIP Code			
Subdivision Name Lot #								Green		WI	54302			
							4. Pump, L	iner, Screen	, Casing & Seal					
Reason For Removal Fro		e	WI Unique V	Vell # of F	Replace	ment Well		d piping rem	oved?		Yes No N/A Yes No N/A			
No longer nee					- —		Liner(s) re			=	Yes No N/A Yes No N/A			
3. Filled & Sealed Wel	l / Drillho						Screen removed?							
Monitoring Well		_	l Construct 12/03/1		e (mm/	/dd/yyyy)		ft inplace?						
☐ Water Well		If a Well	Constructi	on Repo	ort is av	/ailable,	Was casing cut off below surface?							
Borehole / Drillhol	e	please a	attach.				Did sealing material rise to surface?  Did material settle after 24 hours?  Yes No X No							
Construction Type:														
X Drilled	Dri	iven (Sa	ndpoint)		Dug		If bentoni	ite chips were	e used, were the	۰v				
Other (specify):							hydrated	with water fr	om a known sa	fe source?	Yes X No N/A			
Formation Type:							I —		vity Condu		mped			
X Unconsolidated Fo	ormation			Bedroc	:k		Screen (Bento	ed & Poured nite Chips)	Other	(Explain):	·			
Total Well Depth From G	round Su	ırface (ft	t.) Casing	Diamete	er (in.)		Sealing Materials							
13.5				2			☐ Neat C	ement Grout	:	Concrete	e			
Lower Drillhole Diamete	er (in.)			Depth (1 13.5	ft.)		Sand-0	Cement (Cond	crete) Grout	X Bentonit	te Chips			
Was well annular space	grouted?	. [	Yes	X No		Jnknown	For Monitor	ring Wells and	Monitoring We	II Boreholes O	nly:			
If yes, to what depth (fee	et)?	D	epth to Wa	ter (feet	:)		X Benton	ite Chips	☐ Be	ntonite - Cen	nent Grout			
			!	5.36			Granula	ar Bentonite	Be	ntonite - San	d Slurry			
5. Material Used to Fill \	Well / Dril	lhole					From (ft.)	To (ft.)	No. Yards, Sad or Volume (c		Mix Ratio or Mud Weight			
<u>Bentoni</u>	te Chip	S					Surface	12.53	1/3 ba					
6. Comments														
7. Supervision of Worl	k									DNR Use				
Name of Person or Firm Do	ing Filling	& Sealing	9 Lice	nse #	D		g & Sealing (m	m/dd/yyyy)	Date Rece	ived	Noted By			
Arcadis U.S Street or Route	<u>., Inc.</u>				T <sub>C</sub>	09 elephone N	/08/2016		Comments	5				
126 N. Jefferson Street, Suite 400 414.					4.277.623									
<sup>City</sup> Milwaukee		St	tate WI	IP Code	5320	2 Signa	ature of Persor	n Doing Work	im f. 1	apan	te Signed 09/09/2016			

### Well / Drillhole / Borehole Filling & Sealing Report Form 3300-005 (R 4/2015) Page 1 of 2

			e to DNR B	-	_		<u> </u>					
Verification Only of Fill and Seal			Orinking W		Watershed	d/Wastewater	iation/Redevelopment					
	v	Waste Man										
1. Well Location Information				2. Facility	/ Owner Info	rmation						
County WI Unique Well # Removed Well P I 0 3	Removed Well					Facility Name University Cleaners - 1608 Common Well Name MW-800						
Latitude / Longitude (see instructions)	Format Cod	de Metho	od Code	Facility ID (F								
44.5119506	√ ⊠ DD	☐GPS0 ☑SCR0	008	Liconco/Dor	40509 mit/Monitorir							
	w □DDM			License/Pen	TIIL/WIOTIILOTII	ig #						
1/4/ 1/4 SE 1/4 NW Section	Township	Range	X E	Original We	ll Owner							
or Gov't Lot #	24	N 21	☐ W	David Charles								
Well Street Address				Present Well Owner								
1608 University Avenue				David Charles								
Well City, Village or Town	W	ell ZIP Cod	e	Mailing Address of Present Owner 1740 Cofrin Drive, Suite 2								
Green Bay		54302		City of Prese	ZIP Code							
Subdivision Name	L	ot#		·	54302							
				4. Pump, L	iner, Screen,	Casing & Seal	ing Material					
Reason For Removal From Service	WI Unique Wel	l # of Replace	ement Well	Pump and	d piping remo	oved?		Yes No N/A				
No longer needed	<u> </u>			Liner(s) re	emoved?		=	Yes No N/A Yes No N/A				
3. Filled & Sealed Well / Drillhole / Bo	orehole Inforn	nation			erforated?		=	Yes No N/A Yes No N/A				
X Monitoring Well Origin	nal Construction	n Date (mm	/dd/yyyy)	Screen re			=	Yes No NA				
Water Well	12/03/1	1999		Casing left inplace:								
IIr a we	ell Construction	Report is a	vailable,	Was casing cut off below surface? X Yes No N/A								
Borehole / Drillhole	e attach.			Did sealing material rise to surface?  XYes No N/A								
Construction Type:				Did material settle after 24 hours?  Yes No X N/A								
X Drilled Driven (Sandpoint) Dug					If yes, was hole retopped?  If bentonite chips were used, were they							
Other (specify):					te chips were with water fro	e used, were the om a known saf	y e source? [	Yes X No N/A				
						ing Sealing Ma						
Formation Type:				Condu	ctor Pipe-Gra	vity 🔲 Condu	ctor Pipe-Pu	mped				
X Unconsolidated Formation	☐ Be	edrock		Screened & Poured (Explain):								
Total Well Depth From Ground Surface ( $13.5$	ft.) Casing Dia	ameter (in.) 2		Sealing Materials  Neat Cement Grout  Concrete								
Lower Drillhole Diameter (in.)	Casing De			Sand-Cement (Concrete) Grout Bentonite Chips								
8 13.5												
Was well annular space grouted? Yes No Unknown					For Monitoring Wells and Monitoring Well Boreholes Only:							
If yes, to what depth (feet)?	Depth to Water	(feet)		X Benton	ite Chips	☐ Bei	ntonite - Cen	nent Grout				
	5.6	52		Granula	ar Bentonite	Bei	ntonite - San	d Slurry				
5. Material Used to Fill Well / Drillhole				From (ft.)	To (ft.)	No. Yards, Sac or Volume (ci		Mix Ratio or Mud Weight				
Bentonite Chips				Surface	12.89	1/3 Sa						
•												
6. Comments												
7. Supervision of Work							DNR Use					
Name of Person or Firm Doing Filling & Sealing	ng License	e #   [		g & Sealing (m /08/2016	m/dd/yyyy)	Date Recei	ived	Noted By				
Arcadis U.S., Inc. 09/ Street or Route Telephone No.						Comments						
126 N. Jefferson Street, S	Suite 400		41	4.277.623								
<sup>City</sup> Milwaukee	State WI ZIP (	<sup>Code</sup> 5320	2 Signa	ature of Person	Doing Work	n A. Pap	Pan Dat	te Signed 09/09/2016				
. 04044224							•					

### Well / Drillhole / Borehole Filling & Sealing Report Form 3300-005 (R 4/2015) Page 1 of 2

		Г	Route to	o DNR B	ureau:						
Verification Only of Fill and Seal Drinking Wa				/ater Watershed/Wastewater X Remediation/Redevelopment							
			Waste Mana		agement [	Other: _			nation, near troping		
1. Well Location Information					2. Facility / Owner Information						
County WI Unique Well	# H	Hicap #			Facility Nam	ne			Common Well Name		
County WI Unique Well Removed Well Ploan	78	NA			F 11: 15 /F	Univer	rsity Cleane	<u>rs - 1608</u>	PZ-100		
Latitude / Longitude (see instructions			Aethod (		Facility ID (F	40509	95570				
<u>44.5119506</u> <u>-87.9825697</u>	_N   ⊠DD _W   □DDI		GPS008 SCR002		License/Peri	mit/Monitorir					
1/4/ 1/4 SE 1/4 NW Section	_W   DDI Townshi		<u>JOTH001</u> nge								
or Gov't Lot # 32	24	- 1	21	X E W	Original Well Owner  David Charles						
Well Street Address					Present Well Owner						
1608 University Avenu	ıe				David Charles						
Well City, Village or Town		Well ZIF	Code		Mailing Address of Present Owner 1740 Cofrin Drive, Suite 2						
Green Bay			302		City of Prese	ent Owner		State	ZIP Code		
Subdivision Name		Lot #				Green Bay WI 543 4. Pump, Liner, Screen, Casing & Sealing Material					
					4. Pump, L	iner, Screen,	, Casing & Seal				
Reason For Removal From Service	WI Unique V	Vell # of R	eplaceme	ent Well		d piping remo	oved?		Yes No NA		
No longer needed					Liner(s) removed?  Liner(s) removed?  Yes No X N/A  Liner(s) perforated?  Yes No X N/A						
3. Filled & Sealed Well / Drillhole /				14	Liner(s) perforated?  Screen removed?  Yes NO N/A						
Monitoring well	inal Construct 12/03	tion Date 3/1999		d/yyyy)	Casing left inplace?						
	Vell Construct	ion Repo	rt is ava	ilable,	Was casing cut off below surface? XYes No N/A						
Borehole / Drillhole please attach.					Did sealing material rise to surface?  Did material settle after 24 hours?  No N/A  Yes No N/A						
Construction Type:											
▼ Drilled	(Sandpoint)		Dug		If bentonite chins were used were they						
Other (specify):					hydrated with water from a known safe source? Yes No N/A Required Method of Placing Sealing Material						
Formation Type:					I —		vity Condu		ımped		
X Unconsolidated Formation		Bedrock	k		Screened & Poured (Bentonite Chips) Other (Explain):						
Total Well Depth From Ground Surface	e (ft.) Casing	Diamete	r (in.)		Sealing Materials						
30		2			Neat Cement Grout Concrete						
Lower Drillhole Diameter (in.) Casing Depth (ft.) 30					Sand-Cement (Concrete) Grout Bentonite Chips						
Was well annular space grouted?	Yes	X No	Un	ıknown	For Monitoring Wells and Monitoring Well Boreholes Only:						
If yes, to what depth (feet)?	Depth to Wa	ter (feet)			X Benton	ite Chips	Be	ntonite - Cen	nent Grout		
5.83					Granula	ar Bentonite	Ве	ntonite - San	nd Slurry		
5. Material Used to Fill Well / Drillhole					From (ft.)	To (ft.)	No. Yards, Sad or Volume (c		Mix Ratio or Mud Weight		
Bentonite Chips					Surface	28.65	1/2 S				
6. Comments											
7. Supervision of Work								DNR Use	e Only		
·				g & Sealing (m	m/dd/yyyy)	Date Rece		Noted By			
Arcadis U.S., Inc.					/08/2016		Comments				
Street or Route 126 N. Jefferson Street, Suite 400 Telephone Nu 414				4.277.623		Comments					
City Milwaukee		IP Code	53202	Signa	ature of Person	Doing Work	in A. R	Date Date	te Signed 09/09/2016		

### Well / Drillhole / Borehole Filling & Sealing Report Form 3300-005 (R 4/2015) Page 1 of 2

			ſ	Rou	ite to DNI	R Bureau:								
Verification Only of Fill and Seal				Drinking	Water	ater Watershe			X Rem	Remediation/Redevelopment				
				Waste Mana		anagement		Other: _						
1. Well Location Information						2. Facility	2. Facility / Owner Information							
County WII Ren	Unique Well : noved Well	Hicap # NA			Facility Na	Facility Name University Cleaners - 1608 Common Well Name PZ-101								
Brown NA  Latitude / Longitude (see instructions) Format Code Method Code					Facility ID (	FIC	or PWS)							
44.5119506		N DD		□GP9	8008	L:(D-	405095570							
<u>-87.9825697</u>		w DDI	VI	⊠ SCF □ OTH	1002 1001	License/Pe	License/Permit/Monitoring #							
1/4 / 1/4 SE 1/4 NW or Gov't Lot #	Section	Township	o  Ri	ange	X E		Original Well Owner							
Well Street Address	32	24	N	21			David Charles							
	tu Avanu	•				Present We	Present Well Owner David Charles							
1608 Universit	ty Avenu	<u>e</u>	Well Z	IP Co	de	Mailing Ac	Mailing Address of Present Owner							
Green Bay				4302		Cir. CD	1740 Cofrin Drive, Suite 2							
Subdivision Name			Lot #	+302	<u> </u>	City of Pre	ser		Bay	State	e  ZIP VI	Code 54	302	
						4. Pump,	Green Bay WI 54302 4. Pump, Liner, Screen, Casing & Sealing Material							
Reason For Removal From S	Service	WI Unique V	Vell # of	Repla	cement We	ell Pump a	ad	nining rom	avod?		Yes	No	X N/A	
No longer needed	d	_			- —		Liner(s) removed?							
3. Filled & Sealed Well / D	Orillhole / B	orehole Info	rmatio	on				rforated?		<u> </u>	Yes	No	N/A	
X Monitoring Well	Origii	nal Construct			m/dd/yyy	(V) I	Screen removed?							
☐ Water Well	If 2 \\\	09/05		available		Was casing cut off below surface? XYes No N/A								
Borehole / Drillhole	If a Well Construction Report is available, please attach.						Did sealing material rise to surface?							
Construction Type:										Yes	∐ No	23,		
X Drilled	Driven (	Sandpoint)		Du	ıg	1 '	If yes, was hole retopped?  If bentonite chips were used, were they							
Other (specify):					hydrated	hydrated with water from a known safe source? Yes No N/A Required Method of Placing Sealing Material								
Formation Type:					<u>_                                  </u>			vity Condu		Pumpeo	I			
					X Scree	Screened & Poured (Bentonite Chips) Other (Explain):								
Total Well Depth From Ground Surface (ft.)   Casing Diameter (in.)						Sealing Materials								
30 2 Lower Drillhole Diameter (in.) Casing Depth (ft.)					☐ Neat	Neat Cement Grout Concrete								
Lower Drillhole Diameter (in.) Casing Depth (ft.)  8.25 30						<b></b>	Sand-Cement (Concrete) Grout X Bentonite Chips  For Monitoring Wells and Monitoring Well Boreholes Only:							
Was well annular space gro	outed?	Yes	X No		Unknov	vn   <i>For Monito</i>	orir	ng Wells and	Monitoring We	II Borehole:	s Only:			
If yes, to what depth (feet)?  Depth to Water (fe			ter (feet	t)		X Bento	nite	e Chips	☐ Be	ntonite - C	ement (	Grout		
			5.28			Granu	Granular Bentonite Bentonite - Sand Slurry							
5. Material Used to Fill Well	/ Drillhole					From (ft.)		To (ft.)	No. Yards, Sa or Volume (c		t	Mix Rat Mud W		
Bentonite (	Chips					Surface	Ţ	28.65	1/2 S					
							+							
6. Comments							_							
7. Supervision of Work										DNRU	Jse Only	1		
Name of Person or Firm Doing	Filling & Seal	ing Lice	nse #			lling & Sealing (r		n/dd/yyyy)	Date Rece		Note			
Arcadis U.S., In	nc.					09/08/2016	9/08/2016							
Street or Route 126 N. Jefferson Street, Suite 400 Telephone Nu 414				e Number <b>114.277.62</b> .	32		comment							
City Milwaukee			IP Code	532		gnature of Perso			A. Papa	n	Date Sign	ed 09/20	16	

### Attachment F **Source Legal Documents**

### Attachments:

- F.1 Deeds Included
- F.2 Certified Survey Map Included F.3 Verification of Zoning Included F.4 Signed Statement Included

### STATE BAR OF WISCONSIN FORM 3 - 1999

QUIT CLAIM DEED BROWN COUNTY Document Number REGISTER OF DEEDS CATHY WILLIQUETTE This Deed, made between GALE L. CHARLES, a single person 2000 OCT 10 P 4: 16 Grantor, and SATELLITE RECEIVERS, LTD., a Wisconsin corporation Grantee: Grantor quit claims to Grantee the following described real estate in County, State of Wisconsin (if more space is BAY TITLE needed, please attach addendum): Recording Area Name and Return Address Attorney Herbert C. Liebmann, III P.O. Box 23200 SEE ATTACHED ADDENDUM Green Bay, WI 54305-3200 72- 45921 21-2270-2 AND 21-2270 Parcel Identification Number (PIN) This IS NOT homestead property. (is not) Together with all appurtenant rights, title and interests. day of OCTOBER 2000 AUTHENTICATION ACKNOWLEDGMENT STATE OF Wisconsin Signature(s) Brown County ) authenticated this day of Personally came before me thi October Gale L. Charles TITLE: MEMBER STATE BAR OF WISCONSIN to me known to be the person(s) instrument and acknowledged the s authorized by § 706.06, Wis. Stats.) THIS INSTRUMENT WAS DRAFTED BY Margaret Attorney Herbert C. Liebmann, III Notary Public, State of Wisconsin My Commission is permanent. (If not, state expiration date: (Signatures may be authenticated or acknowledged. Both are not necessary.) *200*3 3-16

<sup>\*</sup> Names of persons signing in any capacity must be typed or printed below their signature.

### 1776445

### ADDENDUM TO QUIT CLAIM DEED

### LEGAL DESCRIPTION:

### PARCEL I:

The North 92 feet of the West 125 feet of that part of Lot Ninety (90), lying North of the right-of-way of the Kewaunee, Green Bay and Western Railway Company, according to the recorded Plat of Newberry's Addition Subdivision No. 1, in the City of Green Bay, East side of Fox River, Brown County, Wisconsin, except that part sold for road purposes, described in Jacket 305 Records, Image 01.

### PARCEL II:

All that part of Lots Eighty-nine (89) and Ninety (90), lying North of the Kewaunee, Green Bay and Western Railway Company's right-of-way, according to the recorded Plat of Newberry's Addition Subdivision No. 1, in the City of Green Bay, East side of Fox River, Brown County, Wisconsin, except premises described in Vol. 345 Deeds, Page 434, and except the North 92 feet of the West 125 feet of said Lot 90 and except the East 200 feet of said Lot 89.

Tax Parcel Number: 21-2270-2 and 21-2270.

# PLAT OF SURVEY

DESCRIPTION OF LAND

That part of Lot 90, Newberry's Subdivision Number One, City of Green Bay, Brown County,

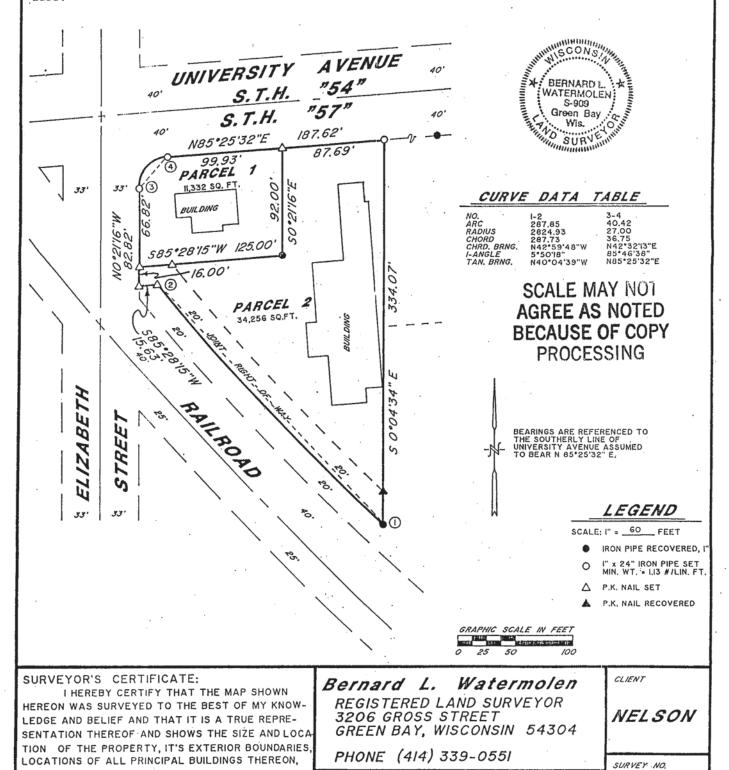
That part of Lot 90, Newberry's Subdivision Number One, City of Green Bay, Brown County, Wisconsin described as follows:

Commencing at the Northeast corner of Lot 90; thence S 85°-25'-32" W 87.69 feet to the point of beginning; thence S 0°-21'-16' E 92.00 feet; thence S 85°-28'-15" W 125.00 feet; thence N 0°-21'-16" W 66.82 feet; thence 40.42 feet along the arc of a 27.00 foot radius curve to the right, the chord of which bears N 42°-32'-13" E 36.75 feet; thence N 85°-25'-32" E 99.93 feet to the point of beginning and subject to easements, reservations and restrictions of record. Parcel contains 11,332 square feet, more or less.

### DESCRIPTION OF LAND - PARCEL 2

That part of Lot 90, Newberry's Subdivision Number One, City of Green Bay, Brown County, Wisconsin described as follows:

Commencing at the Northeast corner of Lot 90, Said Corner being the point of Beginning; thence S 0°-04'-34" E 334.07 feet; thence 287.85 feet along the arc of a 2,824.93 foot radius curve to the right the chord of which bears N 42°-59'-48" W 287.73 feet; thence S 85°-28'-15" W 15.63 feet; thence N 0°-21'-16" W 16.00 feet; thence N 85°-28'-15" W 125.00 feet; thence N 0°-21'-16" W 92.00 feet; thence N 85°-25'-32" E 87.69 feet to the point of beginning and subject to easements, reservations and restrictions of record. Parcel contains 34,256 square feet, more or less.



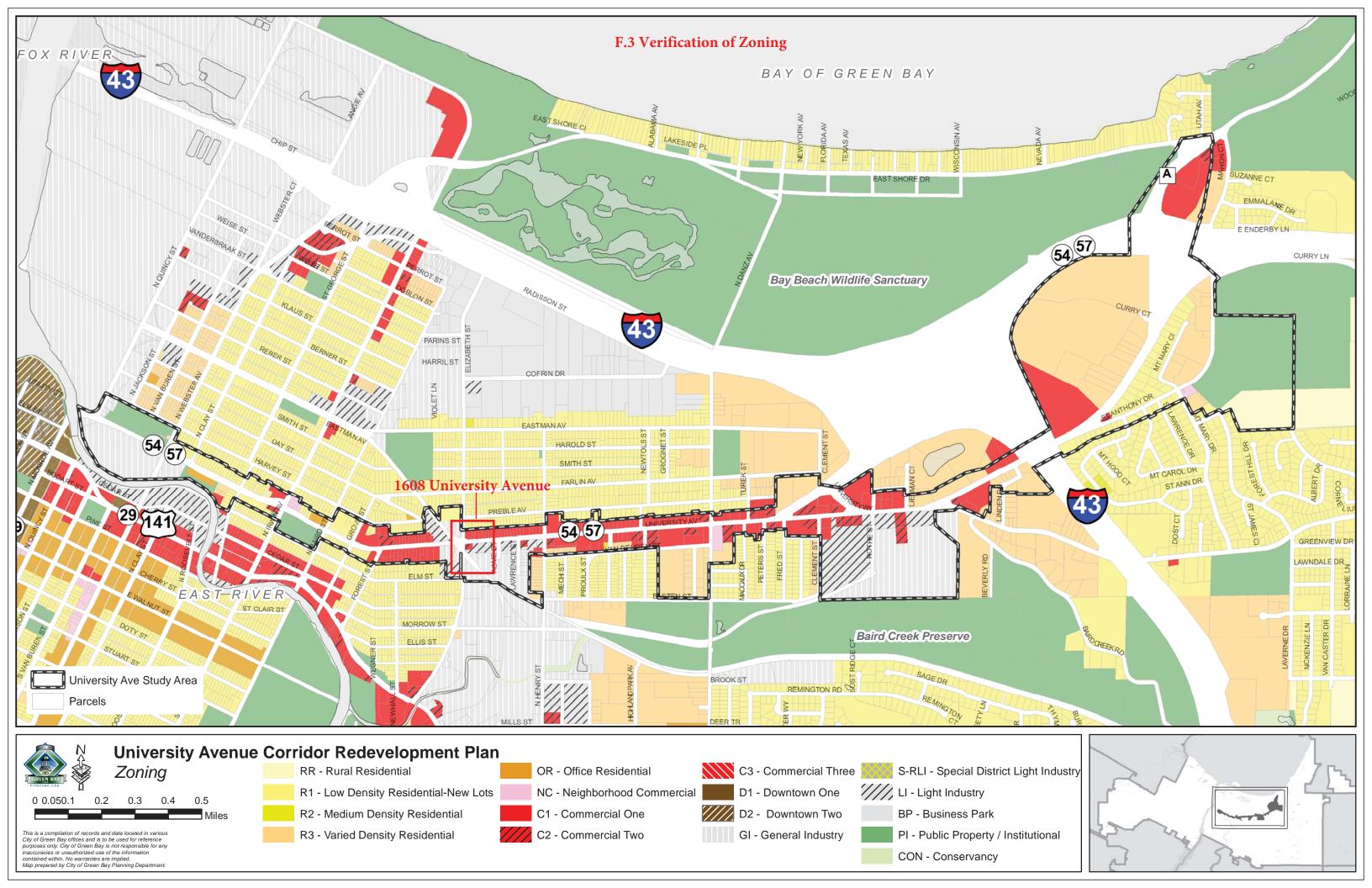
ENCROACHMENTS, IF ANY.

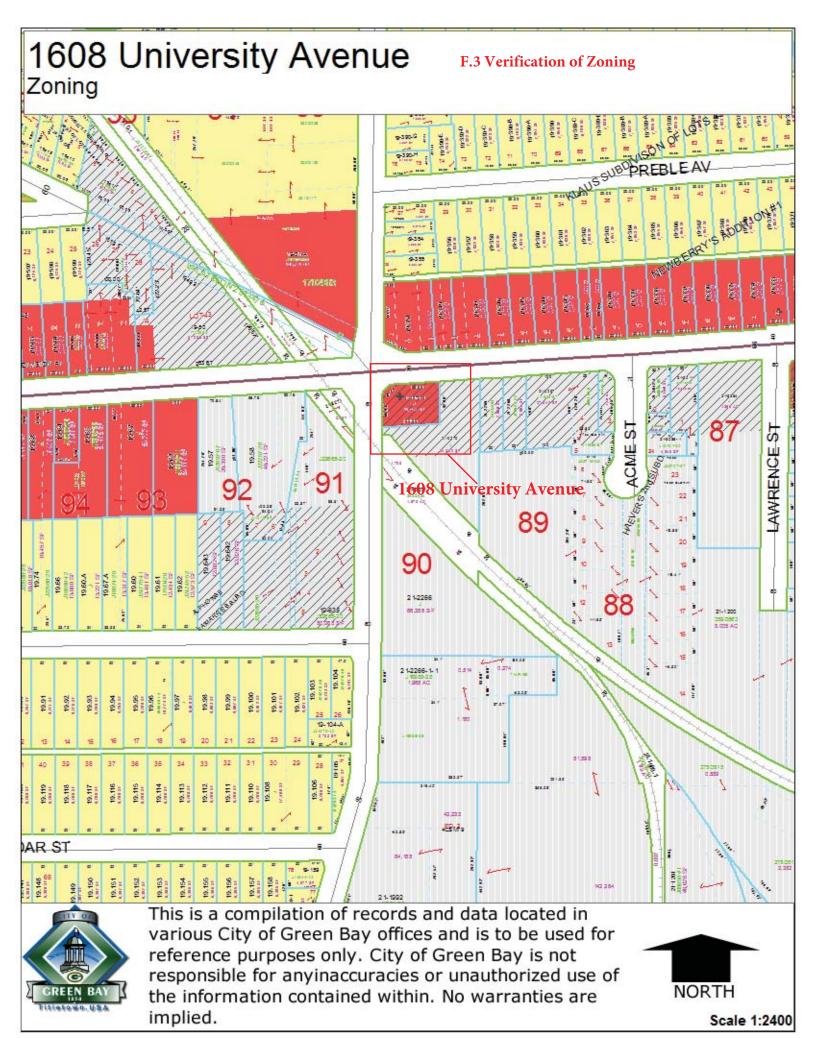
BOUNDARY FENCES, APPARENT EASEMENTS AND

3-5-92

Watermolen

*2440* 





### **F.4 Signed Statement**

### **Certification of Legal Description**

Parcel Identification No. 21-2270-2 1608 University Avenue Green Bay, Wisconsin

### PARCEL 1:

The North 92 feet of the West 125 feet of that part of Lot Ninety (90), lying North of the right-of-way of the Kewaunee, Green Bay and Western Railway Company, according to the recorded Plat of Newberry's Addition Subdivision No.1, in the City of Green Bay, East side of the Fox River, brown County, Wisconsin, except that part sold for road purposes, described in Jacket 305 Records, Image 01.

I, Dav	certify that the legal description provided above is complete and accurate
io the best	of my knowledge for the purpose of registering this site onto the Wisconsin Geographical on System (GIS) Registry of Closed Remediation Sites.
Signature	: Wall Charge
Title:	President
Date:	3-9-15

### Attachment G

### **Notifications to Owners of Affected Properties**

### Attachments:

- G.1 Deed Not Included. Not available for City of Green Bay Right-of Way.
- G.2 Certified Survey Map Not Included. Not available for City of Green Bay Right-of-Way.
- G.3 Verification of Zoning Not Included. Not available for City of Green Bay Right-of Way.
- G.4 Signed Statement Not Included. There is no available deed or legal description for the City of Green Bay Right-of-Way.
- G.5.a.1 Notification Letter 2015
- G.5.a.2 Notification Letter 2016
- G.5.b.1 Proof of Delivery 2015
- G.5.b.2 Proof of Delivery 2016

### G.5.a.1 Noticiation Letter 2015

**Notification of Continuing Obligations** and Residual Contamination Page 8 of 10

Form 4400-286 (10/13)

### Section B: ROW Notification: Residual Contamination and/or Continuing Obligations - Non-DOT ROWs

### KEEP THIS DOCUMENT WITH YOUR PROPERTY RECORDS

100 North Jefferson Street, Room 300 Green Bay, WI, 54301

Dear Mr. Grenier:

I am providing this notification to inform you of the location and extent of contamination remaining in a right-of-way for which you are responsible, and of certain long-term responsibilities (continuing obligations) for which city of Green Bay may become responsible. I have conducted an

investigation of a release of

chlorinated volatile organic compounds (CVOCs)

on 1608 University Avenue, Green Bay, WI, 54302 that has shown that contamination remains in the right-of-way for which city of Green Bay is responsible.

I have conducted a cleanup, and will be requesting that the Department of Natural Resources (DNR) grant case closure. Closure means that the DNR will not be requiring any further investigation or cleanup action to be taken. However, continuing obligations may be imposed as a condition of closure approval.

### You have 30 days to comment on the proposed closure request:

The DNR will not review my closure request for at least 30 days after the date of this letter. As an affected right-of-way holder, you have a right to contact the DNR to provide any technical information that you may have that indicates that closure should not be granted for this site. If you would like to submit any information to the DNR that is relevant to this closure request, you should mail that information to the DNR contact: Kristen DuFresne at 2984 Shawano Ave. Green Bay, WI, 54313.

### **Residual Contamination:**

### Groundwater Contamination:

Groundwater contamination originated at the property located at 1608 University Avenue, Green Bay, WI, 54302. Contaminated groundwater has migrated onto your property at right-of-way, north of and adjacent to 1608 University Avenue

CVOCs, specifically tetrachoroethene, trichoroethane, and cis-1,2-dichoroethene (see Figure B.3.b) contamination in the groundwater on your property are above the state groundwater enforcement standards found in ch. NR 140, Wis. Adm. Code.

If residual soil or groundwater contamination is likely to affect water collected in a pit/trench that requires dewatering, a general permit for Discharge of Contaminated Groundwater from Remedial Action Operations may be needed. If you or any other person plan to conduct utility or building construction for which dewatering will be necessary, you or that person must contact the DNR's Water Quality Program, and if necessary, apply for the necessary discharge permit. Additional information regarding discharge permits is available at <a href="http://dnr.wi.gov/topic/wastewater/GeneralPermits">http://dnr.wi.gov/topic/wastewater/GeneralPermits</a>. html.

Continuing Obligations on the Right-of-Way (ROW): As part of the cleanup, I am proposing that the following continuing obligations be used at the affected ROW. If my closure request is approved, you will be responsible for the following continuing obligations:

### Notification of Continuing Obligations and Residual Contamination

Form 4400-286 (10/13)

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### GIS Registry and Well Construction Requirements:

If this site is closed, all properties within the site boundaries where contamination remains, or where a continuing obligation is applied, will be listed on the Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the Web, at <a href="http://dnr.wi.gov/topic/Brownfields/clean.html">http://dnr.wi.gov/topic/Brownfields/clean.html</a>. Inclusion on this database provides public notice of remaining contamination and of any continuing obligations. Documents can be viewed on this database, and include final closure letters, site maps and any applicable maintenance plans. The location of the site may also be viewed on the Remediation and Redevelopment Sites Map (RR Sites Map), on the "GIS Registry" layer, at the same internet address listed above.

DNR approval prior to well construction or reconstruction is required for all sites included in the GIS Registry, in accordance with s. NR 812.09 (4) (w), Wis. Adm. Code. This requirement applies to private drinking water wells and high capacity wells. Special well construction standards may be necessary to protect the well from the remaining contamination. Well drillers need to first obtain approval from a regional water supply specialist in DNR's Drinking Water and Groundwater Program. The well construction application, form 3300–254, is on the internet at <a href="http://dnr.wi.gov/topic/wells/documents/3300254.pdf">http://dnr.wi.gov/topic/wells/documents/3300254.pdf</a>.

### **Site Closure:**

Once the DNR grants closure, site information, including a copy of the final closure letter, site maps and any applicable maintenance plan, may be found by using BRRTS on the Web. The status of the site (open or closed) may also be checked by searching BRRTS on the Web.

You may also request a copy of the final closure letter from the **responsible party** or by writing to the DNR contact, at Kristen DuFresne, kristen.dufresne@wisconsin.gov, (920) 662-5443. The final closure letter will contain a description of the continuing obligation, any prohibitions on activities and will include any applicable maintenance plan.

If you have any questions regarding this notification, I can be reached at (920) 432-5777, dcharles@srlcd.com.

MMM and		
Signature of responsible party/environmental consultant for the responsible party	Date Signed	***************************************
David R. Charles, Sn	3-9-15	

Attachment: Contact Information

**Checklist of Documents to Submit** 

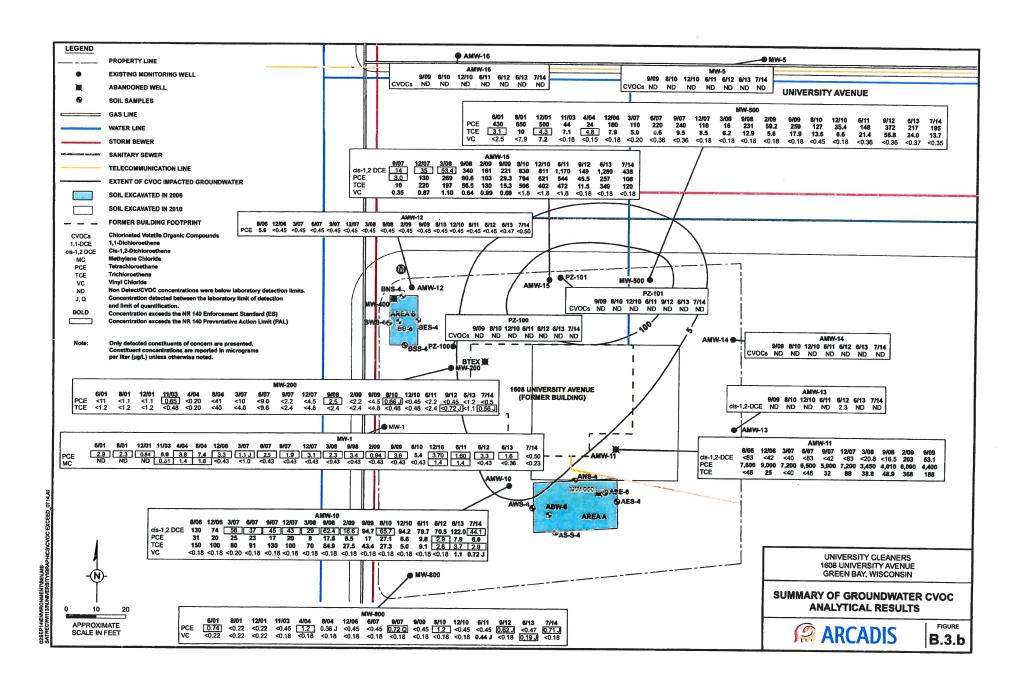
### **Factsheets:**

RR 819, Continuing Obligations for Environmental Protection

# Notification of Continuing Obligations and Residual Contamination Form 4400-286 (10/13) Page 3 of 10

Inc	lua	e this	completed	page as an	attachment with a	all notifications	provided i	under sections A	and B.
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Con	tact Information	Section of the second	SV STEEL	18 T T	918	NAME OF		DE GARA
Resp	oonsible Party: The person responsibl	e for sending this fo	orm, and for	conductir	ng the	environmen	tal inv	estigation and
Resp	onsible Party Name Satellite Receivers,	Ltd.						
Conta	act Person Last Name	First	WARRANT CONTRACTOR OF THE PERSON OF THE PERS	And Annual Control of the State of the Control of t	MI	Phone Num	ber (in	clude area code)
Char	les	David				1		2-5777
Addre	· <del>-</del> -		City			<u> </u>		ZIP Code
1740	Cofrin Drive, Suite 2		Gree	en Bay			WI	54302
E-ma	il dcharles@srlcd.com							
Nam	e of Party Receiving Notification:							
Title	Last Name	First			MI	Phone Num	ber (in	clude area code)
Mr.	Grenier	Steven			M	1		8-3100
Addre	·ss		City					ZIP Code
100 1	North Jefferson Street, Room 300	7	Gree	n Bay			WI	54301
Site (	Name and Source Property Informat Activity) Name University Cleaners	tion:						
Addre			City				1	ZIP Code
	University Avenue			n Bay			WI	54302
	ID # (BRRTS#) 5-233555		(DATCP) ID	#				
apove	have any questions regarding the clear e, or contact: conmental Consultant: ARCADIS	nup or about this no	otification, p	lease con	tact th	e Responsik	ole Par	ty identified
	ct Person Last Name	First			MI	Phone Num	ber (ind	clude area code)
Kuba		Chris				(4)	(4) 27	6-7742
Addre	<del></del>		City				State	ZIP Code
	Jefferson, Suite 400		Milv	vaukee			WI	53202
E-mai	ed.buc@arcadis-us.com							
•	rtment Contact:							
To re	view the Department's case file, or for <b>q</b>	uestions on cleanu	ps or closure	e requiren	nents,	contact:		
Depai	rtment of: Natural Resources (DNR)							
Addre			City				State	ZIP Code
2984	Shawano Ave		Gree	n Bay			WI	54313
	ct Person Last Name	First			MI	Phone Numb	oer (inc	clude area code)
DuFr		Kristen				(92	(0) 662	2-5443
E-mai	(Firstname.Lastname@wisconsin.gov) $k_{ m T}$	risten.dufresne@wi	isconsin.gov	•				
C	offected property is:  the source property (the source of the had conducted the cleanup (a deeded property) a deeded property affected by contamination of the contamination of t	rty) ation from the source		it the prop	erty is	not owned by	the pe	rson who
С	a Department of Transportation (DOT) R	.OW						



### **G.5.a.2 Notification Letter 2016**

State of Wisconsin Department of Natural Resources PO Box 7921, Madison WI 53707-7921 dnr.wi.gov

## Notification of Continuing Obligations and Residual Contamination

Form 4400-286 (10/13)

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Notice: Pursuant to s. 292.12(4), Wis. Stats., written notification of parties affected by residual contamination is required. Pursuant to ch. NR 725, Wis. Adm. Code, this form is required to be completed for those sites meeting the criteria in s. NR 725.05 (see below), by a responsible party seeking case closure approval pursuant to ch. NR 726, Wis. Adm. Code or by those persons seeking a remedial action plan approval pursuant to ch. NR 722, Wis. Adm. Code, or by local government units or economic development corporations that are required to take an action pursuant to ch. NR 708, Wis. Adm. Code, when the Department of Natural Resources (DNR) determines that notification is necessary. Personally identifiable information collected will be used for program administration and may be provided to requesters to the extent required by Wisconsin's Open Records law (ss. 19.31-19.39, Wis. Stats.). (Unless otherwise noted, citations refer to Wis. Adm. Code.)

**Note:** A copy of each completed form must also be submitted to the WI Department of Natural Resources, in accordance with s. NR 726.09 (3), Wis. Adm. Code.

#### **Directions:**

- 1. Include the first page of this form, **Contact Information**, as an attachment with all notifications sent using Sections A and B. (*Filling out this page first allows for automatic entry of the contact information within the letter.*)
- 2. To notify affected parties about residual contamination and continuing obligations, use the appropriate section (A, B or C, beginning on page 5), based on the type of property to which the required notification is to be sent, per s. NR 725.05 and 725.07, Wis. Adm. Code:

**Section A: Deeded Properties** 

Section B: Right-of-Way (ROW) - non-Department of Transportation

Section C: Department of Transportation (DOT) ROW

- 3. Select and use the applicable paragraphs, based on the types of residual contamination and continuing obligations for the specific property. For the "Residual Contamination" and "Continuing Obligations on Your Property" sections, the applicable language will appear upon selection of the checkboxes.
- 4. Include the information requested within each paragraph. If requesting remedial action plan approval, or if the Department has directed a local governmental unit to take an action at a site, modify the language regarding a "closure request" to reflect the appropriate situation ("remedial action plan approval" or a "liability clarification letter").
- 5. Once completed, print the form for mailing.
- 6. Under s. NR 725.07, Wis. Adm. Code, notification letters under section A and B are required to be sent via certified mail, return receipt requested, or priority mail with signature confirmation. If the notifications are sent via priority mail with signature confirmation, you may use the signature waiver option if you have reason to believe that the owner of the property or other recipient may refuse to sign for the notification.

#### **Situations for Which Notifications are Required:**

Under s. NR 725.07, Wis. Adm. Code, notification is required for the following situations:

- groundwater contamination that attains or exceeds applicable standards remains upon completion of the remedial action
- soil contamination that attains or exceeds applicable standards remains upon completion of the remedial
  action,
- one or more monitoring wells have not been located for abandonment (fill and seal), or
- one or more monitoring wells will be kept for future monitoring,
- a cover (which may include soil covers, pavement, engineered cover, foundations) was used to address
  exposure by either direct contact or the groundwater pathway,
- a structural impediment (generally a building or other type of structure) prevented completion of a site investigation or remedial action. This may also apply to site-specific situations which prevent a complete investigation or cleanup, such as an overhead power lines. Contact the agency with administrative authority first for site-specific situations.
- soil contamination has only been cleaned up to industrial residual contaminant levels, and the property's land use has been classified as industrial under ch. NR 720,
- (vapor) the continued operation of a vapor mitigation system is necessary in order to limit or prevent vapor intrusion. Notification is provided to the current property owner when that person is not the responsible party conducting the cleanup, and to any other property owners when sub-slab vapor risk screening levels are exceeded, and the operation and maintenance of a vapor mitigation system is necessary in order to limit or prevent vapor intrusion.
- (vapor) compounds of concern will continue to be used in facility operations after closure. *Notification is provided to the current owner of the source property when that person is not the responsible party*

## Notification of Continuing Obligations and Residual Contamination

Form 4400-286 (10/13) Page 2 of 1

conducting the cleanup. Because the compound of concern is still in use, complete investigation of the vapor pathway may be impracticable, and cleanup may be limited in effectiveness as well.

- (vapor) a dewatering system needs to be operated and maintained in order for the vapor mitigation system (VMS) to work effectively.
  Notification is provided to the current property owner when that person is not the responsible party conducting the cleanup, and to any other property owner where a vapor mitigation system is necessary and a dewatering system is necessary to enable the vapor mitigation system to operate effectively, due to the hydrogeology. (Used in conjunction with the VMS option)
- (vapor) vapor inhalation exposure assumptions for a non-residential setting will be applied for closure. Notification is provided to the current property owner when that person is not the responsible party conducting the cleanup, and to any other property owner where residential vapor action levels are exceeded, including at properties used for commercial or industrial purposes.
- (vapor) contamination in soil or groundwater from volatile compounds remains after completion of the remedial
  action, that could lead to vapor intrusion upon new construction, reconstruction or occupation of an
  existing building.

This is especially important in cases where elevated residual soil concentrations or large volumes of soil contaminated with volatile compounds remain. Notification is provided to the current property owner when that person is not the responsible party conducting the cleanup, and to any other property owner where vapors may pose a health issue if buildings are to be constructed in the future, or if other land use changes or actions could result in a completed vapor pathway. This includes expansion or reconstruction of existing buildings.

The Department may also require a condition based on site-specific circumstances. In this case, consult with the project manager to determine what specific information to include in the notification of any affected property owner or right-of-way holder. This has been used in limited situations where actions such as methane monitoring or fencing were required.

### **Parties Receiving Notifications:**

Under s. NR 725.05, Wis. Adm. Code, notification must be provided to:

- the owner of each property within or partially within the contaminated site or facility boundaries, other than properties owned by the responsible party,
- occupants of affected properties, as appropriate, (consult with the project manager if you have questions)
- the clerk of the county, town, village or city in which an affected public street or highway ROW is located, and municipal department or state agency that is responsible for the maintaining the public street or highway,
- the railroad that maintains the railroad right of way, and
- the owner of each property where a monitoring well will remain, for future abandonment or continued monitoring.

A copy of form 4400-246, Impacted Property Notification Information, is to be submitted with the case closure request. This form is a summary of the notifications sent to all property owners or occupants of affected properties and holders of affected ROWs, prior to submittal of a closure request

**Note:** A response to a closure request cannot be provided until at least 30 days after this notification letter has been sent. Documentation that this letter has been sent must be provided to the agency with administrative authority for an approval or decision under ch. NR 726, Wis. Adm. Code.

# Notification of Continuing Obligations and Residual Contamination Form 4400-286 (10/13) Page 3 of 11

Page 3 of 11

Include this completed page as an attack	nment with all notificati	ons provided	under	sections A	l and l	В.
Contact Information						
Responsible Party: The person responsible cleanup is:		nd for conductir	ng the	environmen	tal inve	estigation and
Responsible Party Name Satellite Receivers, I	Ltd.					
Contact Person Last Name	First		MI	1	-	lude area code)
Charles	David			(92	,	2-5777
Address		City			I	ZIP Code
1740 Cofrin Drive, Suite 2		Green Bay			WI	54302
E-mail dcharles@srlcd.com						
Name of Party Receiving Notification:						
Title Last Name	First		MI	Phone Num	ber (inc	lude area code)
Mr. Grenier	Steven		M	(92		3-3100
Address		City			ı	ZIP Code
100 North Jefferson Street, Room 300		Green Bay			WI	54301
Site Name and Source Property Informat	ion:					
Site (Activity) Name University Cleaners - 160	08					
Address		City				ZIP Code
1608 University Avenue		Green Bay			WI	54302
DNR ID # (BRRTS#) 02-05-233555	(DAT	CP) ID#				
Contacts for Questions: If you have any questions regarding the clear above, or contact:	nup or about this notificat	tion, please con	tact th	e Responsik	ole Part	ty identified
Environmental Consultant: Arcadis U.S.,	Inc.					
Contact Person Last Name	First		MI	1	-	lude area code)
Kubacki	Chris	To:		(4)		5-7742
Address		City				ZIP Code
126 N. Jefferson Street, Suite 400		Milwaukee			WI	53202
E-mail chris.kubacki@arcadis.com						
Department Contact:						
To review the Department's case file, or for q	uestions on cleanups or o	closure requirer	nents,	contact:		
Department of: Natural Resources (DNR)	·	•	,			
Address		City			State	ZIP Code
2984 Shawano Ave		Green Bay			WI	54313
Contact Person Last Name	First		MI	1	•	lude area code)
DuFresne	Kristin			(92	20) 662	2-5443
E-mail (Firstname.Lastname@wisconsin.gov) kr	ristin.dufresne@wisconsi	n.gov				
The affected property is:						

- O the source property (the source of the hazardous substance discharge), but the property is not owned by the person who conducted the cleanup (a deeded property)
- O a deeded property affected by contamination from the source property
- a right-of-way (ROW)
- o a Department of Transportation (DOT) ROW

## Notification of Continuing Obligations and Residual Contamination

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**List of attachments:** (list all attachments to be included; include name of attachment and figure numbers)

Maps

Section A

Monitoring Well Location Map - (Filling & Sealing, Continue Sampling of Wells)
Location of Cover in relation to the extent of contamination (Maintenance of a Cover)

Section B

Monitoring Well Location Map - (Filling & Sealing, Continue Sampling of Wells)

Section C:

Groundwater Isoconcentration Map

Soil Isoconcentration Map

#### Maintenance plan

Section A

Maintenance of Plan - (Maintenance of a cover, Barrier, and/or Vapor Mitigation System)

#### Factsheets:

Section A

RR 819, Continuing Obligations for Environmental Protection

RR 671, What Landowners Should Know: Information About Using Natural Attenuation to Clean Up Contaminated Groundwater

RR 892, Vapor Intrusion: What to Expect if Vapor Intrusion from Soil and Groundwater Contamination Exist on My Property

#### Section B

Groundwater RR 892, Vapor Intrusion: What to Expect if Vapor Intrusion from Soil and Groundwater Contamination Exist on My Property

Page 8 of 11

Form 4400-286 (10/13)

Section B: ROW Notification: Residual Contamination and/or Continuing Obligations - Non-DOT ROWs

#### KEEP THIS DOCUMENT WITH YOUR PROPERTY RECORDS

100 North Jefferson Street, Room 300 Green Bay, WI, 54301

Dear Mr. Grenier:

I am providing this notification to inform you of the location and extent of contamination remaining in a right-of-way for which you are responsible, and of certain long-term responsibilities (continuing obligations) for which city of Green Bay may become responsible. I have conducted an

investigation of a release of

chlorinated volatile organic compounds (CVOCs)

on 1608 University Avenue, Green Bay, WI, 54302 that has shown that contamination

has migrated into the right-of-way for which city of Green Bay is responsible.

I have conducted a cleanup, and will be requesting that the Department of Natural Resources (DNR) grant case closure. Closure means that the DNR will not be requiring any further investigation or cleanup action to be taken. However, continuing obligations may be imposed as a condition of closure approval.

#### You have 30 days to comment on the proposed closure request:

The DNR will not review my closure request for at least 30 days after the date of this letter. As an affected right-of-way holder, you have a right to contact the DNR to provide any technical information that you may have that indicates that closure should not be granted for this site. If you would like to submit any information to the DNR that is relevant to this closure request, you should mail that information to the DNR contact: Kristin DuFresne at 2984 Shawano Ave, Green Bay, WI, 54313.

#### **Residual Contamination:**

#### **Groundwater Contamination:**

Groundwater contamination originated at the property located at 1608 University Avenue, Green Bay, WI, 54302. Contaminated groundwater has migrated onto your property at

the right-of-way of Elizabeth Street, west of and adjacent to 1608 University Avenue. This is in addition to the notification dated March 9, 2015 for groundwater contamination along University Ave.

The levels of

Tetrachloroethene and trichloroethene (see Figure B.3.b)

contamination in the groundwater on your property are above the state groundwater enforcement standards found in ch. NR 140, Wis. Adm. Code.

#### Soil Contamination:

Soil contamination remains at

the right-of-way of Elizabeth Street, west of and adjacent to 1608 University Avenue near soil samples BB-6, BNS-4, BWS-4 and BSS-4, as shown on the attached Figure B.2.b.

The remaining contaminants include

Tetrachloroethene (see figure B.2.b)

at levels which exceed the soil standards found in ch. NR 720, Wis. Adm. Code. The following steps have been taken to address any exposure to the remaining soil contamination.

The soil contamination is located in pavement in the sidewalk and street along Elizabeth Street adjacent to the property. This pavement is an impermeable barrier that prevents exposure to remaining soil contamination.

If residual soil or groundwater contamination is likely to affect water collected in a pit/trench that requires dewatering, a general permit for Discharge of Contaminated Groundwater from Remedial Action Operations may be needed. If you or any other person plan to conduct utility or building construction for which dewatering will be necessary, you or that person must contact the DNR's Water Quality Program, and if necessary, apply for the necessary discharge permit. Additional information regarding discharge permits is available at <a href="http://dnr.wi.gov/topic/wastewater/GeneralPermits.">http://dnr.wi.gov/topic/wastewater/GeneralPermits.</a>

**Continuing Obligations on the Right-of-Way (ROW):** As part of the cleanup, I am proposing that the following continuing obligations be used at the affected ROW. If my closure request is approved, you will be responsible for the following continuing obligations:

# Notification of Continuing Obligations and Residual Contamination

Form 4400-286 (10/13) Page 9 of 11

#### Residual Soil Contamination:

If soil is excavated from the areas with residual contamination, the right-of-way holder at the time of excavation will be responsible for the following:

- determine if contamination is present,
- determine whether the material would be considered solid or hazardous waste,
- ensure that any storage, treatment or disposal is in compliance with applicable statutes and rules.
   Contaminated soil may be managed in-place, in accordance with s. NR 718, Wis. Adm. Code, with prior Department approval.

The right-of-way holder needs to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken during excavation activities to prevent a health threat to humans from ingestion, inhalation or dermal contact.

Depending on site-specific conditions, construction over contaminated soils or groundwater may result in vapor migration of contaminants into enclosed structures or migration along newly placed underground utility lines. The potential for vapor inhalation and means of mitigation should be evaluated when planning any future redevelopment, and measures should be taken to ensure the continued protection of public health, safety, welfare and the environment at the site.

### **GIS Registry and Well Construction Requirements:**

If this site is closed, all properties within the site boundaries where contamination remains, or where a continuing obligation is applied, will be listed on the Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the Web, at <a href="http://dnr.wi.gov/topic/Brownfields/clean.html">http://dnr.wi.gov/topic/Brownfields/clean.html</a>. Inclusion on this database provides public notice of remaining contamination and of any continuing obligations. Documents can be viewed on this database, and include final closure letters, site maps and any applicable maintenance plans. The location of the site may also be viewed on the Remediation and Redevelopment Sites Map (RR Sites Map), on the "GIS Registry" layer, at the same internet address listed above.

DNR approval prior to well construction or reconstruction is required for all sites included in the GIS Registry, in accordance with s. NR 812.09 (4) (w), Wis. Adm. Code. This requirement applies to private drinking water wells and high capacity wells. Special well construction standards may be necessary to protect the well from the remaining contamination. Well drillers need to first obtain approval from a regional water supply specialist in DNR's Drinking Water and Groundwater Program. The well construction application, form 3300–254, is on the internet at <a href="http://dnr.wi.gov/topic/wells/documents/3300254.pdf">http://dnr.wi.gov/topic/wells/documents/3300254.pdf</a>.

#### **Site Closure:**

Once the DNR grants closure, site information, including a copy of the final closure letter, site maps and any applicable maintenance plan, may be found by using BRRTS on the Web. The status of the site (open or closed) may also be checked by searching BRRTS on the Web.

You may also request a copy of the final closure letter from the **responsible party** or by writing to the DNR contact, at Kristin DuFresne, kristin.dufresne@wisconsin.gov, (920) 662-5443. The final closure letter will contain a description of the continuing obligation, any prohibitions on activities and will include any applicable maintenance plan.

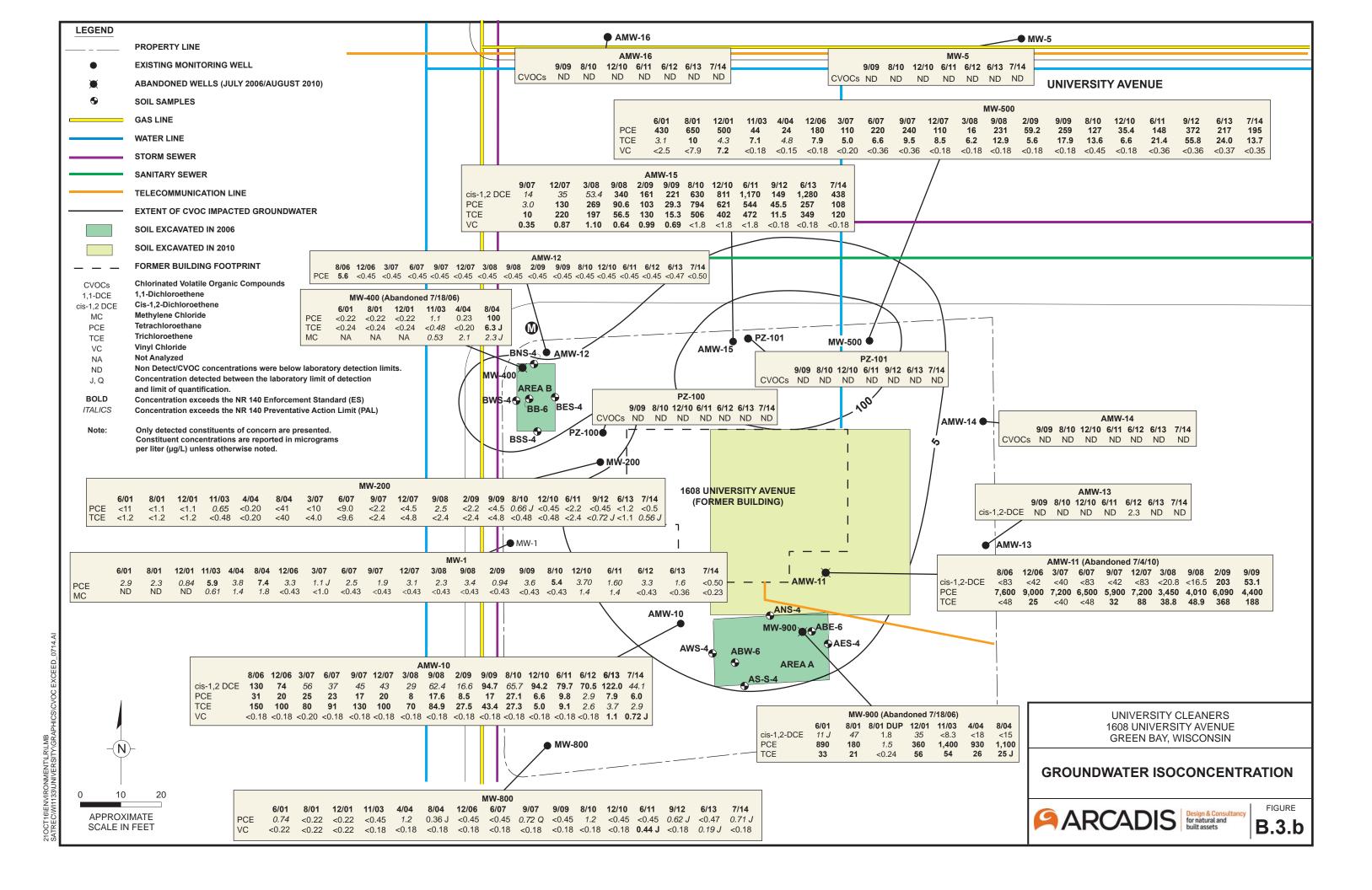
If you have any questions regarding this notification, I can be reached at (920) 432-5777, dcharles@srlcd.com.

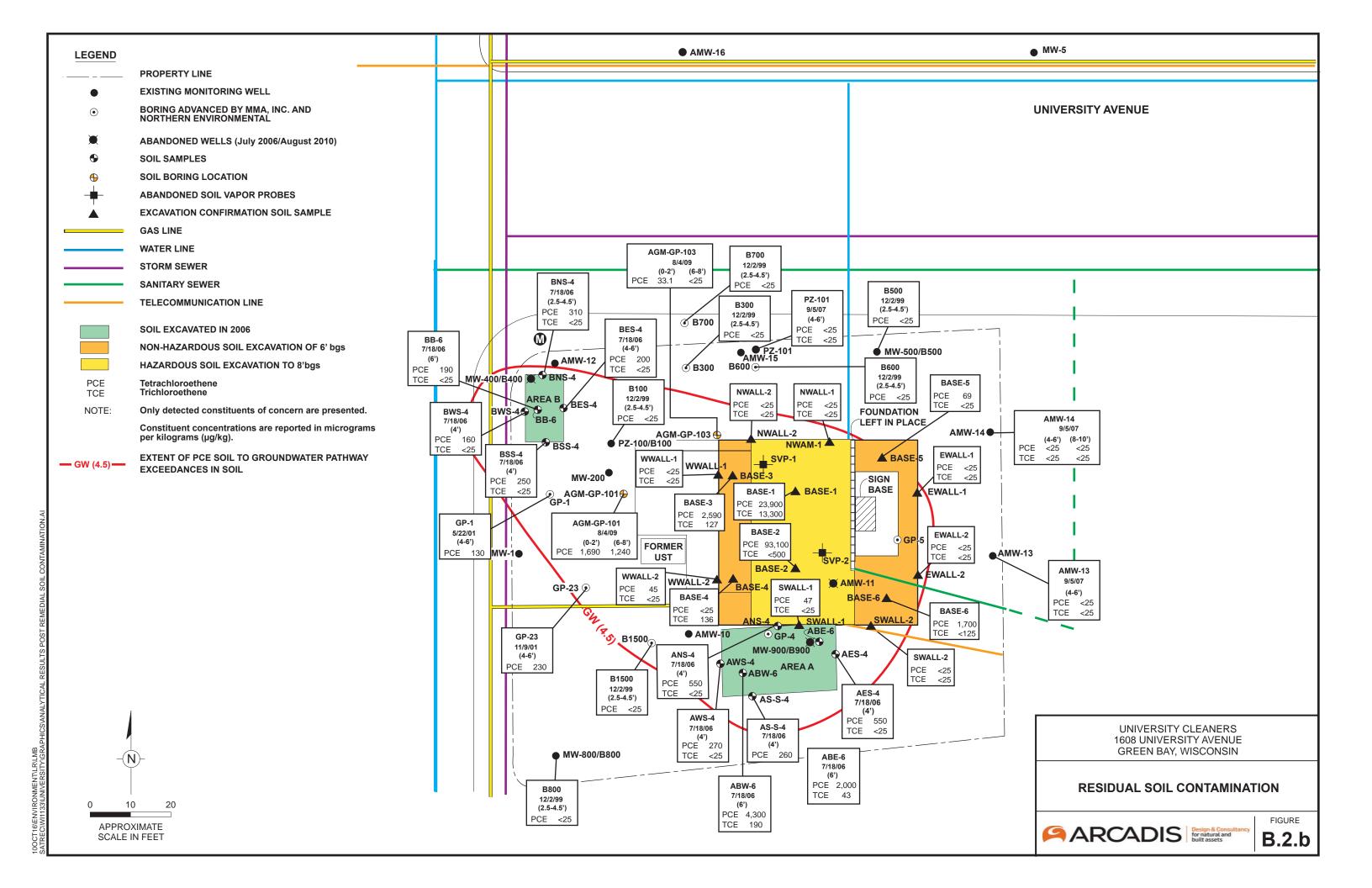
Signature of responsible party/environmental consultant for the responsible party	Date Signed

# Notification of Continuing Obligations and Residual Contamination Form 4400-286 (10/13) Page 10 of 11

## **Factsheets:**

RR 819, Continuing Obligations for Environmental Protection





## **G.5.b.1 Proof of Delivery 2015**

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY				
<ul> <li>Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> <li>Article Addressed to:</li> <li>Article Addressed to:</li> <li>Article Addressed to:</li> </ul>	A. Signature  X NOMCY CHART Addressee  B. Received by ( Printed Name)  C. Date of Delivery  C. Date of Delivery  D. Is delivery address different from item 1? Yes  If YES, enter delivery address below: No				
5604	3. Service Type  Certified Mail				
	4. Restricted Delivery? (Extra Fee)				
2. Article Number (Transfer from service label) 7012 2920	0001 7617 8124				
PS Form 3811, August 2001 Domestic Retu	rn Receipt 102595-02-M-1540				

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul> <li>Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> <li>Article Addressed to:</li> <li>Mr. Store Green str. But 300</li> <li>Green 361, WT Sy301</li> </ul>	A. Signature  X. B. Braceived by (Printed Name)  D. Is delivery address different from item 1? Yes  If YES, enter delivery address below:
	3. Service Type  Certified Mail  □ Registered □ Insured Mail □ C.O.D.
	4. Restricted Delivery? (Extra Fee)
2. Article Number (Transfer from service label)	0001 7617 8414
PS Form 3811, August 2001 Domestic Ret	urn Receipt 102595-02-M-154