



CB&I Environmental &Infrastructure, Inc.  
7330 W 33rd Street North, Suite 106  
Wichita, KS 67205  
414-687-3313  
[www.CBI.com](http://www.CBI.com)

June 19, 2017  
Mr. Binyoti Amungwafor  
Wisconsin Department of Natural Resources  
Southeast Region Headquarters  
2300 N. Martin Luther King, Jr. Drive  
Milwaukee, Wisconsin 53212-0436

**Re: Closure Request Status Update**  
**Redi Quick Dry Cleaners**  
**9508 West Greenfield Avenue,**  
**West Allis, Wisconsin**  
**BRRTS No. 02-41-000676**

Dear Mr. Amungwafor:

CB&I Environmental and Infrastructure (CB&I) is presenting this Closure Request Status Update for the Redi Quick facility located at the above referenced address (**Figure B.1.a**). Site activities and reporting were conducted in response to discussions held in a July 26, 2016 meeting regarding the next steps for the Site with the Wisconsin Department of Natural Resources (WDNR) representatives; Mr. Sam Gruichich of Redi Quick; his counsel Mr. Carl Sinderbrand of Axley Brynelsoon, LLP and CB&I. The next steps identified included the following:

- Conduct an operation and maintenance (O&M) assessment of the vapor mitigation system installed at the adjacent residence located at 1361 South 95<sup>th</sup> Street.
- Update the soil, groundwater, and vapor tables with all current and historic data and compare all results to the current State of Wisconsin standards and the May 2016 United States Environmental Protection Agency (USEPA) Vapor and Indoor Air Regional Screening Level Tables.
- Update the soil data figures and cross sectional figures to indicate where reported impacts at concentrations exceeding State of Wisconsin standards.
- Collect a round of groundwater samples from the monitoring well network to establish the current conditions.
- Prepare a Site Status Update presenting the updated tables and figures and the results of the groundwater sampling event.



### ***Vapor Mitigation System Operation & Maintenance***

The vapor mitigation system (VMS) installed in the residence located at 1361 South 95<sup>th</sup> Street was inspected in July 2016 by Radon Abatement of Hales Corners, Wisconsin. Radon Abatement had originally installed the sub slab depressurization VMS system in 2006. The operation and maintenance (O&M) activities of the system included the inspection of the fan and piping located on the exterior of the residence as well as the drop pit located in the southwest corner of the basement. The system fan was replaced with a RP-145 manufactured by Spruce Environmental of Massachusetts to increase the vacuum efficiency of the system. The floor was inspected for any cracks or joints that may provide a preferential pathway for vapors and the floor was found to be in good condition. Radon Abatement also conducted communications testing to verify the vacuum extent of the system beneath the basement floor. The Radon Abatement O&M report is presented in **Attachment A**.

#### ***Air Sampling Data***

The data tables for the indoor air and the sub slab vapor samples were updated to compare the results to the May 2016 United States Environmental Protection Agency (USEPA) Regional Screening Level Tables. The data comparison for the residential buildings against the updated screening levels did not present any additional volatile organic compound (VOC) concentration in exceedance of the screening levels as compared to the 2006 to 2012 data reviews.

- Data for the 1349 S. 95<sup>th</sup> Street residence showed no VOCs collected from the sub slab samples in exceedance of the residential sub slab screening levels. The ambient air samples for the residence showed concentrations of 1,3-Butadiene, benzene, and trichloroethene (TCE) exceeding the residential target indoor air screening levels. It should be noted, at the time of the air sampling activities at 1349 S. 95<sup>th</sup> Street, the house had occupants who heavily smoked nicotine products.
- Data for the 1356 S. 95<sup>th</sup> Street residence showed no VOCs collected from the sub slab samples in exceedance of the residential sub slab screening levels. The ambient air samples for the residence showed TCE in the basement samples exceeding the target residential indoor air screening levels.
- Data for the 1361 S. 95<sup>th</sup> Street residence did not have any sub slab samples collected from it as the Department of Health and Family Services (DHFS) performed indoor air monitoring in 2005 and 2006 to assess the possible vapor migration and intrusion to the indoor air pathway. Concentrations of tetrachloroethene (PCE) were confirmed by the DHFS at elevated concentrations which resulted in the need for a vapor mitigation system. Indoor air samples were collected by Shaw Environmental and Infrastructure between 2006 and 2012. Concentrations of PCE were reported exceeding the target residential indoor air screening level for a background sampled collected on the porch and from a basement sample collected during the amendment injection pilot test conducted in 2009.

**Table A.4** presents the updated indoor air and sub slab data.



### ***Groundwater Sampling Activities***

On March 30, 2017, CB&I conducted a reconnaissance and inspection of the monitoring well network. Monitoring well MW-8 was not located as it was covered by new asphalt paving. The rest of the monitoring well network was found to be in good condition. **Figure B.1.b** presents the site layout.

Following the monitoring well network reconnaissance, CB&I conducted groundwater gauging of the network prior to groundwater sampling activities. The depth to groundwater on March 30, 2017 ranged from 2 feet to 9 feet below ground surface (bgs) (**Table A.7**). General groundwater flow is the northeast, which is consistent with previous gauging events. There is a mound of groundwater around monitoring well MW-14 which may be due to the presence of a sandy silt on the eastern portion of the Site containing perched water. **Figure B.3.c** presents the groundwater flow for the Site.

Following the groundwater gauging, the monitoring well network was low flow purged and sampled. Each monitoring well was purged utilizing disposable tubing connected to a peristaltic pump and an YSI multi-parameter water quality meter. The YSI was used to monitor groundwater aquifer properties for stabilization prior to sampling. The properties monitored included temperature, pH, dissolved oxygen, specific conductivity, and oxidation reduction potential (ORP). The groundwater samples from each well were collected into laboratory supplied jars for VOC analysis by EPA Method 8260 by Pace Analytical of Green Bay, Wisconsin. The historic groundwater data from the monitoring wells prior to the injection activities is presented on **Table A.1.a**, and **Table A.8** presents the natural attenuation data from the 2006 sampling event as a baseline for the Site. **Table A.1.b** presents the groundwater analytical data post injection with the natural attenuation data. **Attachment B** presents the laboratory analytical report.

### **Groundwater Analytical Results**

The groundwater VOC data for the groundwater monitoring well network has shown a stable footprint of the dissolved groundwater plume since the May 2013 sampling event. The breakdown daughter products of cis-1,2-dichloroethene (cis-DCE) and vinyl chloride (VC) have shown reductions in concentrations over time. PCE and TCE have remained stable, with some increases in concentration in monitoring wells near the former solvent tank located beneath the building. The down gradient and off-site monitoring wells of MW-11 and MW-21, as well as cross gradient well MW-13 have continued to exhibit low to non-detect concentrations of VOCs.

In April 2009, a pilot test was conducted around monitoring well MW-14. Nine injection points were installed to 20 feet bgs for the injections of a carbon source amendment (Newman's Zone®). A total of 365 gallons of Newman's Zone® was injected into the subsurface.

In May 2010, a full scale amendment injection was conducted with 27 injection points installed across the Site. A total of 2,150 gallons of Newman's Zone® was injected into the subsurface.

The injection activities have provided electron donors to PCE which has resulted in the breakdown to daughter products reported during the May 2013 sampling event and the subsequent daughter products' reduced concentrations during the March 2017 sampling event. The amendment was formulized to be injected as very fine droplets which are retained on the soil particles and slowly

ferment to hydrogen and volatile fatty acids which support anaerobic biodegradation for long as five years following injection. Due to the fine soils in the area, it is believed that the mobility of the amendment is slower than expected, therefore, it is still in the subsurface providing a carbon source.

Piezometer PZ-20, near the former solvent tank source area, has shown the breakdown of PCE and TCE into daughter products following the amendment injection, while PZ-10, downgradient of PZ-20, has remained stable. The amendment injection points were installed in 2010 within close proximity to PZ-20, while none were installed near PZ-10. Since the amendment was injected to an average depth of 20 feet bgs, the groundwater table wells have received the benefit of the amendment. Due to the silty clays at the Site, the downward migration of the amendment is somewhat limited due to their formulation to stay on soil particles. There is approximately 20 feet of soil thickness between the injection area and the total depth of the piezometers, which may have limited the impacts from the amendment deeper in the aquifer.

Overall, the groundwater VOCs data has shown reduction of the source materials of PCE and TCE, the increase and decline in concentration of the daughter products of cis-DCE, and VC across the Site, and improved groundwater natural attenuation properties with increased dissolved oxygen and negative oxidation reduction potential values which will promote further breakdown of the source materials. **Figures B.3.b thru B.3.b.7** present the isocontours in groundwater for PCE, TCE, cis-DCE, and VC for the 2013 and the 2017 sampling events. The figures present a stable to reduced dissolve plume for the site for the 2017 data.

### ***Saturated Soils Data Review***

The extent of impacted soils at the Site with concentrations of PCE exceeding the WDNR direct contact standard and the soil to groundwater standard are found beneath the Redi Quick building, the north adjacent driveway for 1361 S. 95<sup>th</sup> Street residence, and east by MW-10 and PZ-10; all impacts are on-Site. It should be noted that the Dorothy G Corporation, which owns the Redi Quick site, also owns the residence to the north at 1361 S. 95<sup>th</sup> Street. The highest concentrations of PCE in soil were reported in samples collected from the groundwater interface interval of 10 to 16 feet below ground surface (bgs) in samples P-3, P-6, and IS-2. These three samples are in close proximity to the former solvent tank located beneath the building. The extent of impacted soils does not extent off-site to the south, east, or west. The north adjacent residence does have impacted soils reported beneath the driveway, and it assumed the soils extend up to the basement south wall of the building. Soils with elevated direct contact PCE concentrations extend from PZ-10 over to GP-1. It should be noted that GP-1 was removed during the 1989 soil excavation activities for the underground storage tanks. **Figure B.2.b** presents the Soil PCE Contours in the 0-4' Direct Contact Interval and the 10-16' Groundwater Interface Interval.

The direct contact and the soil to groundwater standards exceedances for TCE follows the similar footprints as that of PCE. TCE impacts remain on-site. **Figure B.2.b.1** presents the Soil TCE isocontours within the direct contact interval and **Figure B.2.b.2** presents the soil TCE isocontours within the groundwater interface interval.

**Figures B.3.a.1 and B.3.a.2** present the cross sections for the Site with the impacts of PCE and DCE exceeding the direct contact and the soil to groundwater pathway standards identified.

**Figure B.2.b.3** presents the isocontours for soil cis-DCE within the direct contact and the groundwater interface interval of 10 to 16 ft bgs. Cis-DCE concentrations in soil did not exceed the standards, but the footprint of the soil impacts is similar to PCE and TCE beneath on the on-site building. **Figure B.2.b.4** presents isocontours for soil naphthalene and n-propylbenzene within the groundwater interface interval of 10 to 14 ft bgs. No concentrations of these VOCs were reported above standards. **Figure B.2.b.5** presents the isocontours for soil petroleum volatile organic compounds (PVOCs) ethylbenzene and toluene within the direct contact and the groundwater interface interval of 10 to 16 ft bgs. **Figure B.2.b.6** presents the isocontours soil total trimethylbenzenes within the groundwater interface interval of 10 to 16 ft bgs. The petroleum VOCs (PVOCs) in soil were previously remediated through a soil excavation of the former USTs and dispenser area. No PVOCs are reported in soil exceeding soil direct contact or soil to groundwater pathway standards.

Soils with reported concentrations of VOCs within the direct contact interval of 0 to 4 ft bgs have had the impacts delineated and the extent of the impacts remain on-site. The majority of the direct contact impacts are reported beneath the Redi Quick building or beneath the newly repaved parking area in front of the building, therefore, the impacted soils are capped to prevent direct contact with the soils.

Soils with reported concentrations of VOCs within the groundwater interface interval of 10 to 16 ft bgs have been delineated and remain on-site. The main impacts within the interval are from PCE and its breakdown products. The PVOC compounds of total trimethylbenzenes within the interval are residual concentrations of the heavy end carbon compounds from the gasoline UST leak.

### *Summary*

The Site has been adequately investigated and the impacts to soil from VOCs have been delineated. The impacts in soil for both the direct contact interval and the groundwater interface interval of 10 to 16 ft bgs have been delineated and the impacts remain on-site. Groundwater for the Site has shown significant improvement since the initial investigation work in 2006 and from the amendment injections in 2009 and in 2010. The concentrations of PCE, TCE and the breakdown daughter products continue to show that natural attenuation of the dissolved plume will continue to promote the reductive dechlorination of these compounds within groundwater.

The on-site building and the parking area will serve to prevent direct contact with soils and will inhibit the infiltration of water through the soils. Site closure will require that these two covers remain in-place, and that the building be recorded as a structural impediment to the underlying soils. The vapor mitigation system in place at 1361 S. 95<sup>th</sup> Street continues to function optimally in order to break the soil and groundwater vapor migration pathway into the residence. The VMS will need to be continuously operated and maintained following site closure.

The Redi Quick building will need to have a vapor assessment conducted in order to verify the potential pathway for soil and groundwater vapors to enter the building. Since the building still occasionally uses and stores drums of PCE, indoor air sampling is not recommended. Sub slab vapor samples should be collected to evaluate whether vapor intrusion is a potential pathway of concern for the Redi Quick Building. An alternative option for the building is to install a VMS without collecting



any vapor samples. The VMS will need to have regularly scheduled O&M to ensure the system is effectively operating to break the pathway for vapors to migrate into the building.

***Closing***

If you have any questions concerning this update, please contact me at (414) 687-3313.

Sincerely,

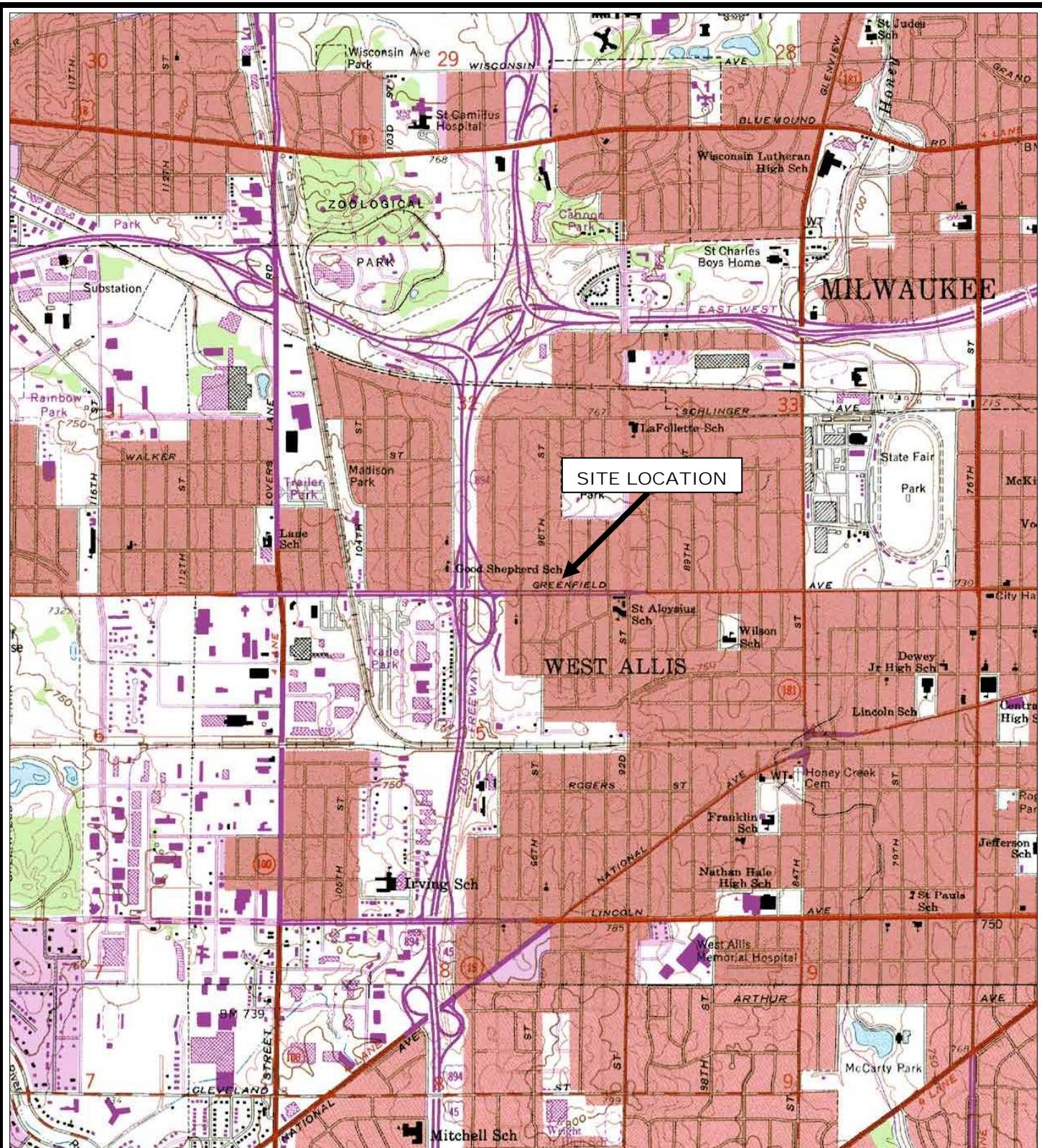
A handwritten signature in blue ink that reads "Heidi. Woelfel".

Heidi Woelfel  
Project Manager  
CB&I Environmental and Infrastructure, Inc.

Please Reply To: Heidi Woelfel  
Phone: 414-687-3313  
E-Mail Address: [heidi.woelfel@CBI.com](mailto:heidi.woelfel@CBI.com)



## **Figures**



Source:

USGS Wauwatosa, Wisconsin 7.5-minute Series (topographic) Quadrangle Map

Scale:

1:24,000

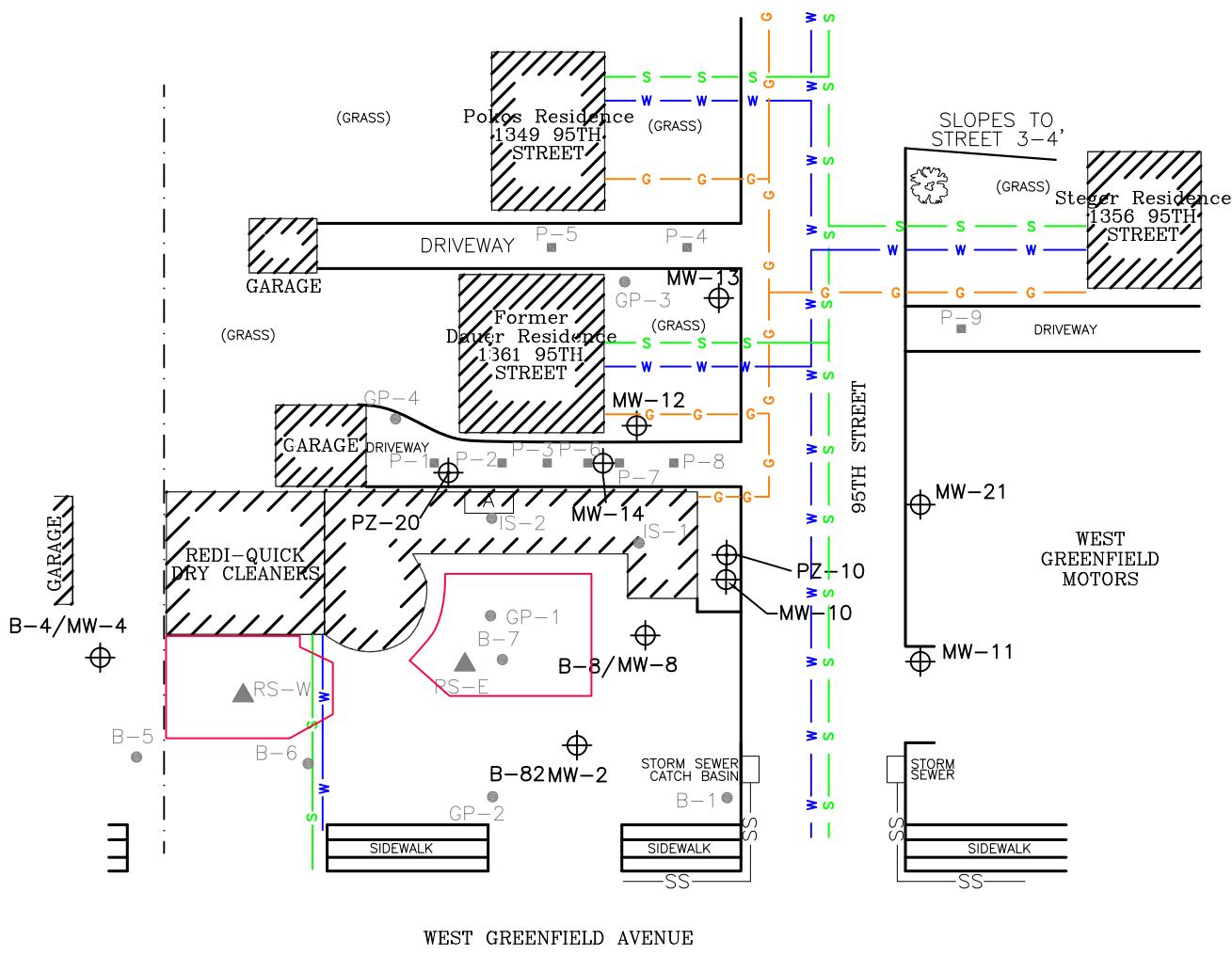
Contour Interval:

10 feet



Redi-Quick Dry Cleaners Site  
9805 West Greenfield Avenue  
West Allis, Wisconsin

Figure B.1.a  
Site Location Map



## LEGEND

- APPROXIMATE PROPERTY BOUNDARY
  - FORMER UNDERGROUND STORAGE TANK (UST)
  - ⊕ MONITORING WELL
  - ⊕ PIEZOMETER
  - ▲ RECOVERY SUMP
  - GEOPROBE BORING
  - PROBE

—W WATER LINE  
—S SEWER LINE  
—G GAS LINE  
— UST EXCAVATION LIMITS (1989)

## TANK KEY

- A 1,000-GALLON DRY CLEANER SOLVENT UST  
(NO LONGER IN USE)

APPROXIMATE SCALE IN FEET



CB&I  
200 South Executive Drive, Suite 101  
Brookfield, Wisconsin

& | TITLE

## SITE PLAN VIEW MAP

CLIENT

**Redi-Quick Dry Cleaners**

**LOCATION**

**Redi-Quick Dry Cleaners Site**  
9508 West Greenfield Avenue  
West Allis, Wisconsin

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BY

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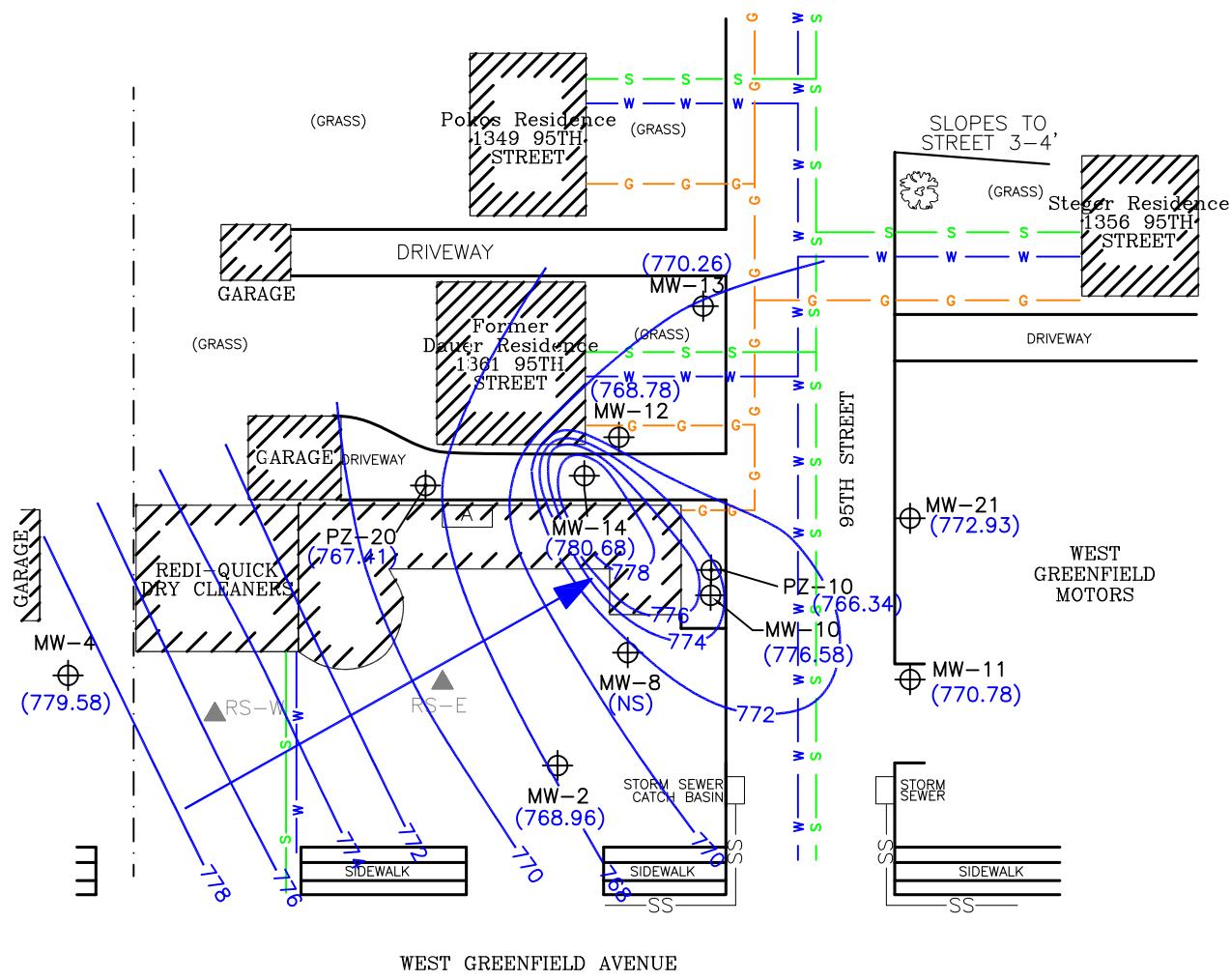
BY

PROJECT  
NO. 631224187

- NO. 631224167

FIGURE NO.

B1 b



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Brookfield, Wisconsin

## GROUNDWATER FLOW MAP MARCH 30, 2017

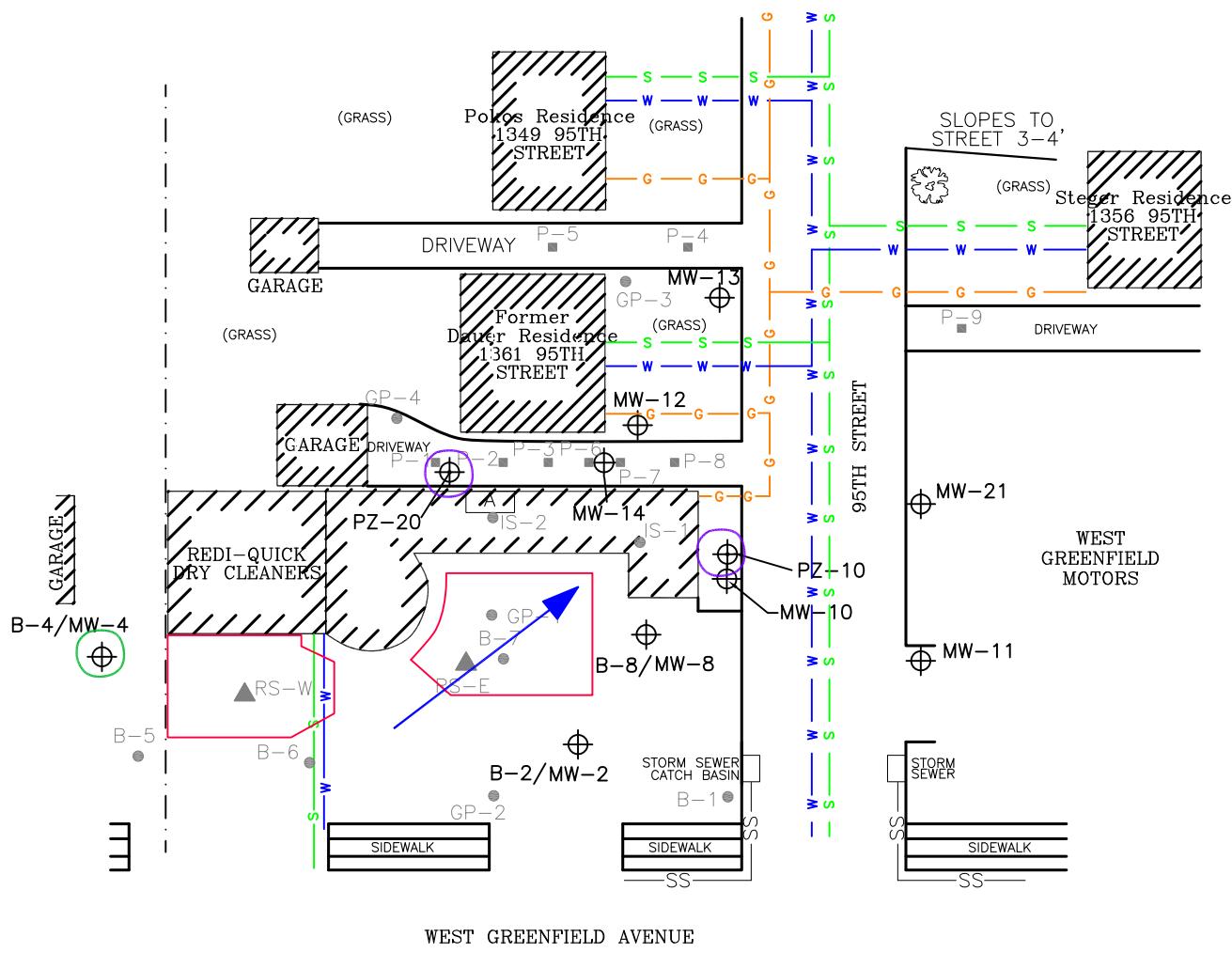
CLIENT

Redi-Quick Dry Cleaners

LOCATION

Redi-Quick Dry Cleaners Site  
9508 West Greenfield Avenue  
West Allis, Wisconsin

DRWN	CHKD	REVD BY	APPRVD BY	PROJECT NO.	FIGURE NO.
JRD	HAW	JRD	-	631224187	B.3.c
		REVISION DATE	-	DATE 04/11/17	

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- FORMER UNDERGROUND STORAGE TANK (UST)
- MONITORING WELL
- PIEZOMETER
- ▲ RECOVERY SUMP
- GEOPROBE BORING
- PROBE
- W WATER LINE
- S SEWER LINE
- G GAS LINE
- UST EXCAVATION LIMITS (1989)
- GROUNDWATER PCE CONTOUR 9.0 ug/l
- GROUNDWATER PCE CONTOUR 4.5 ug/l
- GROUNDWATER FLOW DIRECTION

TANK KEY

- A 1,000-GALLON DRY CLEANER SOLVENT UST (NO LONGER IN USE)



APPROXIMATE SCALE IN FEET  
0 20 40 60



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Brookfield, Wisconsin

TITLE  
**GROUNDWATER PCE ISOCONTOURS**  
**MAY 2013**

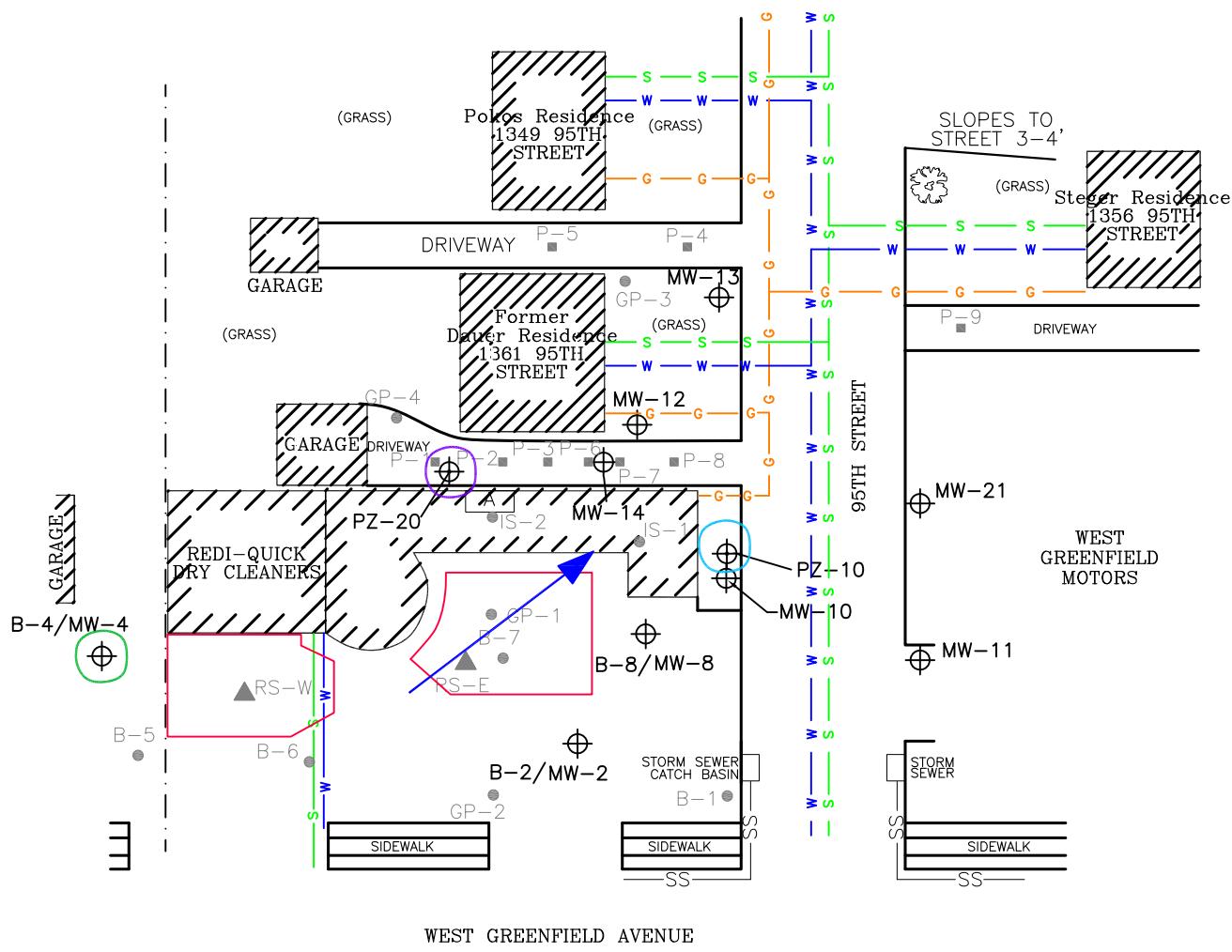
CLIENT

Redi-Quick Dry Cleaners

LOCATION

Redi-Quick Dry Cleaners Site  
9508 West Greenfield Avenue  
West Allis, Wisconsin

DRWN	CHKD	REVD BY	APPRVD BY	PROJECT NO.	FIGURE NO.
JRD	HAW	JRD	-	631224187	B.3.b
		REVISION DATE	-	DATE	04/11/17

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- FORMER UNDERGROUND STORAGE TANK (UST)
- MONITORING WELL
- PIEZOMETER
- ▲ RECOVERY SUMP
- GEOPROBE BORING
- PROBE
- W WATER LINE
- S SEWER LINE
- G GAS LINE
- UST EXCAVATION LIMITS (1989)
- GROUNDWATER PCE CONTOUR 22 ug/l
- GROUNDWATER PCE CONTOUR 4.5 ug/l
- GROUNDWATER PCE CONTOUR 14 ug/l
- GROUNDWATER FLOW DIRECTION

TANK KEY

- A 1,000-GALLON DRY CLEANER SOLVENT UST (NO LONGER IN USE)

APPROXIMATE SCALE IN FEET  
0 20 40 60



CB&I  
200 South Executive Drive, Suite 101  
Brookfield, Wisconsin

TITLE  
**GROUNDWATER PCE ISOCONTOURS**  
**MARCH 2017**

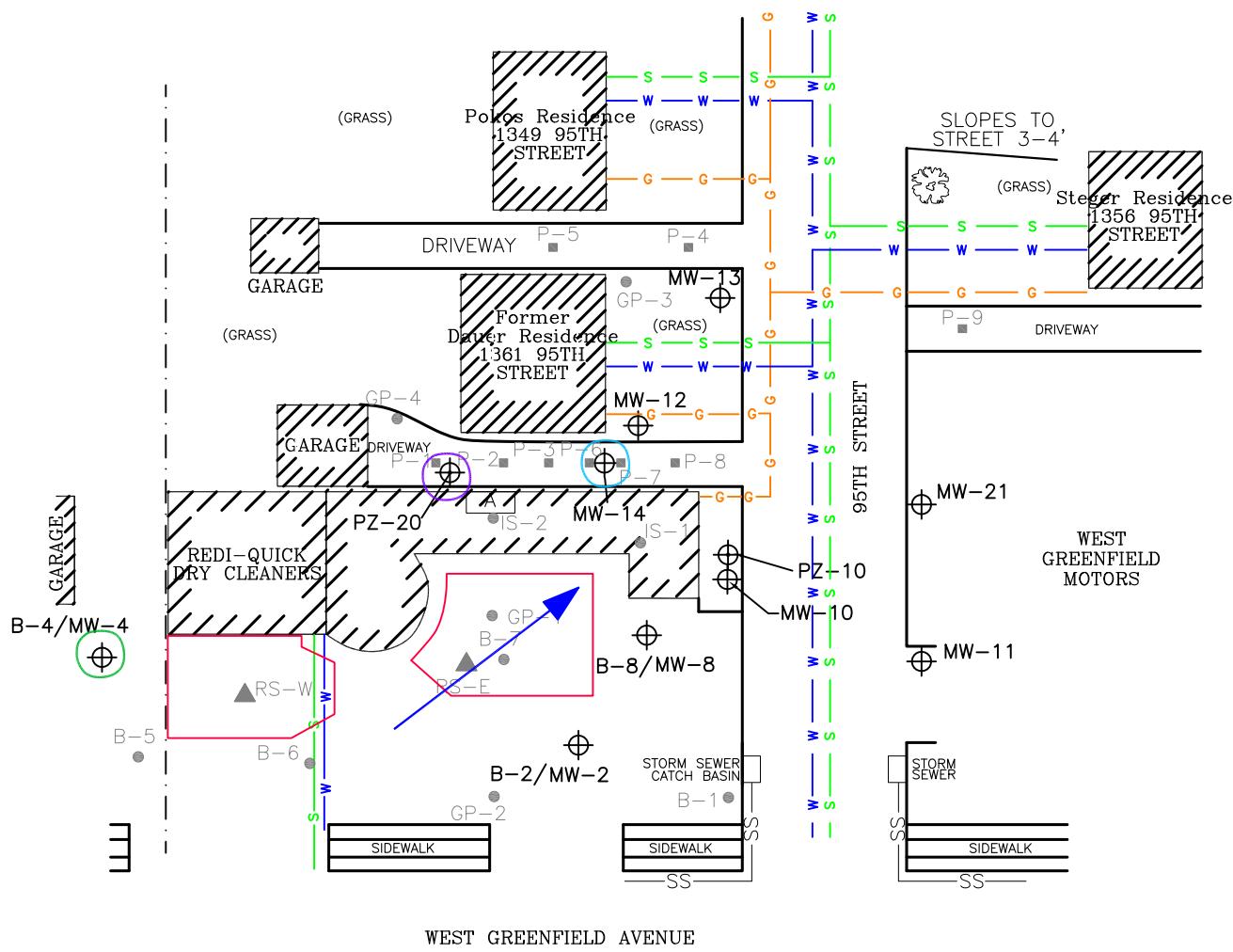
CLIENT

Redi-Quick Dry Cleaners

LOCATION

Redi-Quick Dry Cleaners Site  
9508 West Greenfield Avenue  
West Allis, Wisconsin

DRWN	CHKD	REVD BY	APPRVD BY	PROJECT NO.	FIGURE NO.
JRD	HAW	JRD	-	631224187	B.3.b.1
		REVISION DATE	-	DATE	04/11/17

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- FORMER UNDERGROUND STORAGE TANK (UST)
- MONITORING WELL
- PIEZOMETER
- ▲ RECOVERY SUMP
- GEOPROBE BORING
- PROBE
- W WATER LINE
- S SEWER LINE
- G GAS LINE
- UST EXCAVATION LIMITS (1989)
- GROUNDWATER TCE CONTOUR 3.0 ug/l
- GROUNDWATER TCE CONTOUR 1.5 ug/l
- GROUNDWATER TCE CONTOUR 6.0 ug/l
- GROUNDWATER FLOW DIRECTION

TANK KEY

- A 1,000-GALLON DRY CLEANER SOLVENT UST (NO LONGER IN USE)

APPROXIMATE SCALE IN FEET  
0 20 40 60



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## GROUNDWATER TCE ISOCONTOURS MAY 2013

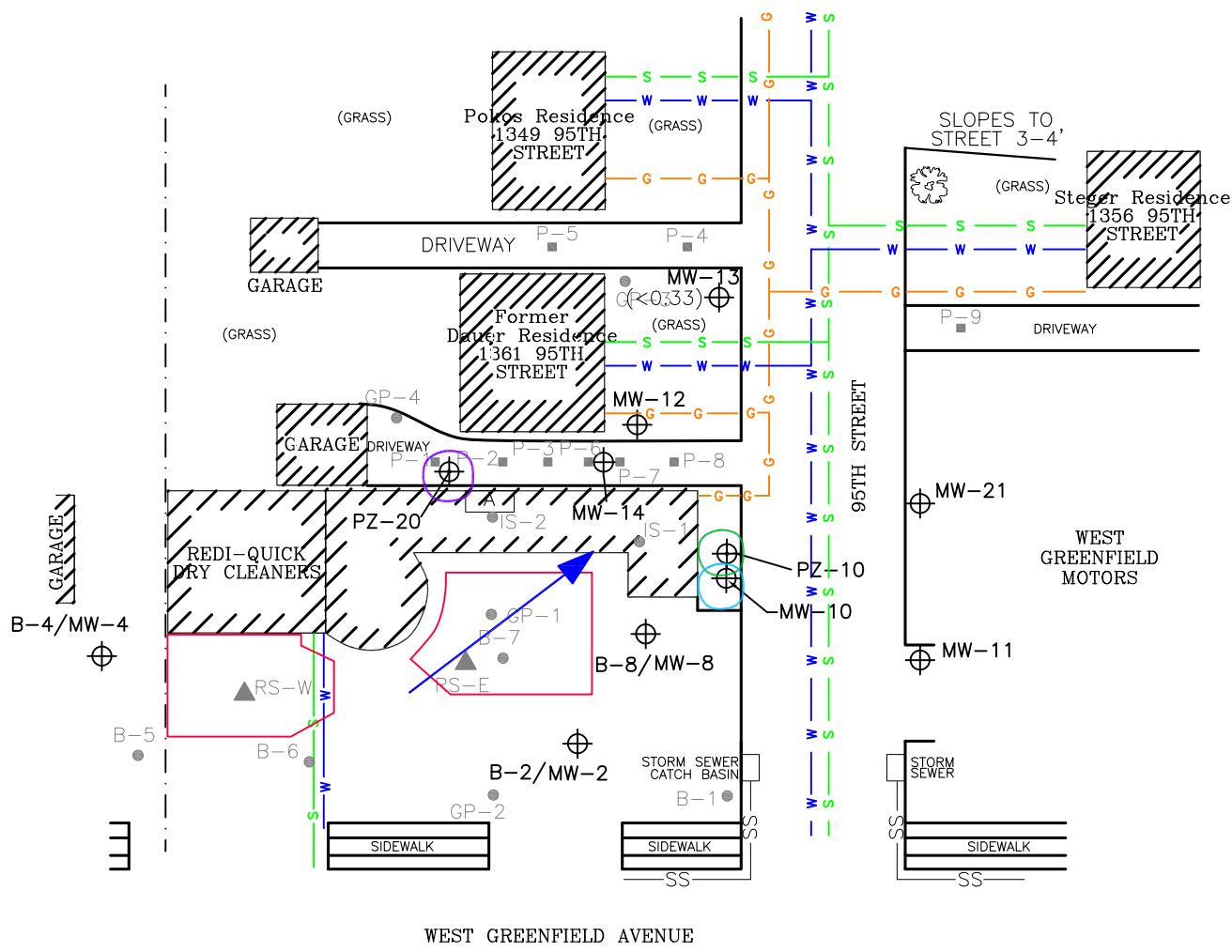
CLIENT

Redi-Quick Dry Cleaners

LOCATION

Redi-Quick Dry Cleaners Site  
9508 West Greenfield Avenue  
West Allis, Wisconsin

DRWN	CHKD	REVD BY	APPRVD BY	PROJECT NO.	FIGURE NO.
JRD	HAW	JRD	-	631224187	B.3.b.2



#### LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- FORMER UNDERGROUND STORAGE TANK (UST)
- MONITORING WELL
- PIEZOMETER
- ▲ RECOVERY SUMP
- GEOPROBE BORING
- PROBE
- W WATER LINE
- S SEWER LINE
- G GAS LINE
- UST EXCAVATION LIMITS (1989)
- GROUNDWATER TCE CONTOUR 10 ug/L
- GROUNDWATER TCE CONTOUR 0.5 ug/L
- GROUNDWATER TCE CONTOUR 125 ug/L
- GROUNDWATER FLOW DIRECTION

#### TANK KEY

- A 1,000-GALLON DRY CLEANER SOLVENT UST (NO LONGER IN USE)

APPROXIMATE SCALE IN FEET  
0 20 40 60



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Brookfield, Wisconsin

#### GROUNDWATER TCE ISOCONTOURS MARCH 2017

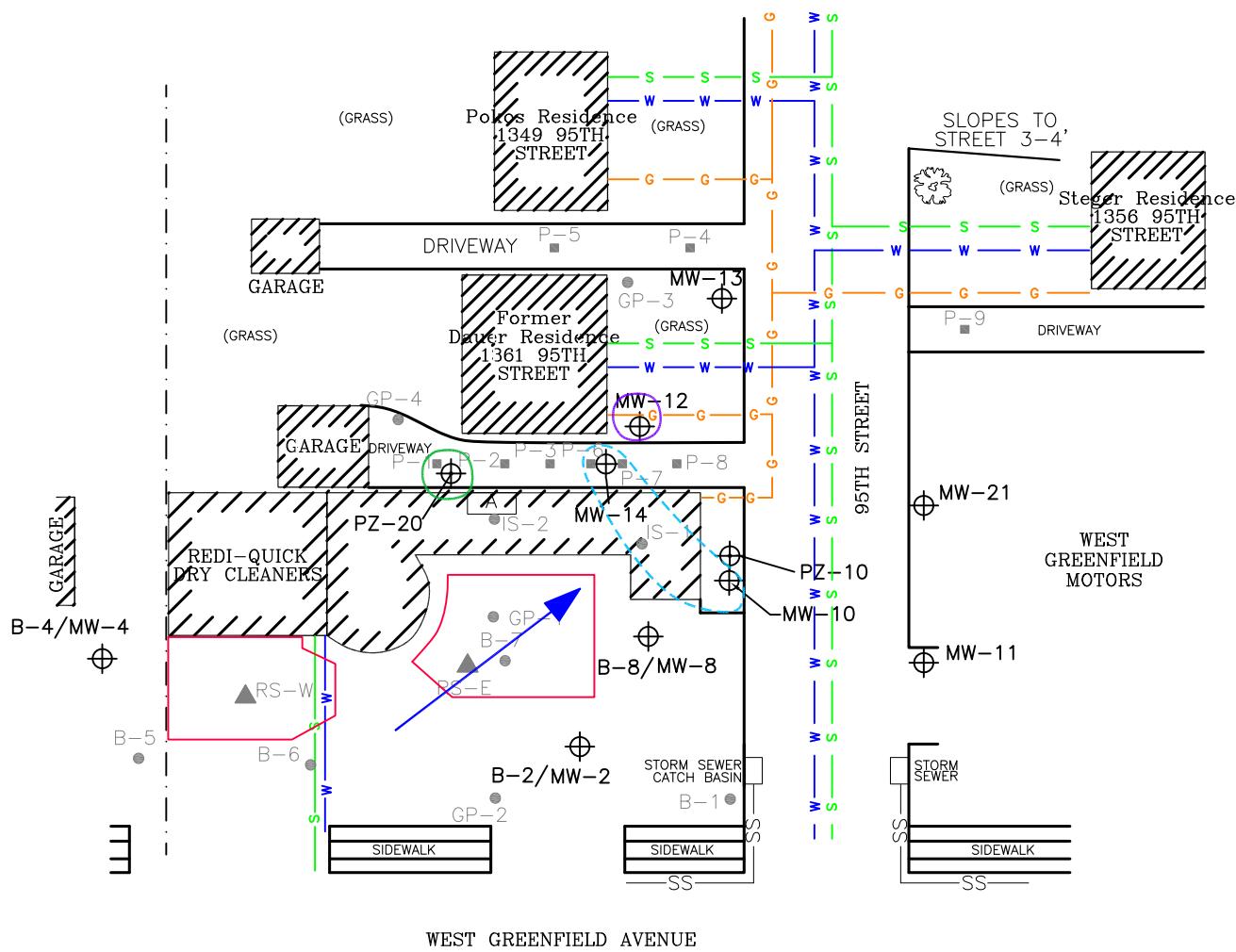
CLIENT

**Redi-Quick Dry Cleaners**

LOCATION

**Redi-Quick Dry Cleaners Site**  
9508 West Greenfield Avenue  
West Allis, Wisconsin

DRWN	CHKD	REVD BY	APPRVD BY	PROJECT NO.	FIGURE NO.
JRD	HAW	JRD	-	631224187	B.3.b.3
		REVISION DATE	-	DATE 04/11/17	

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- FORMER UNDERGROUND STORAGE TANK (UST)
- MONITORING WELL
- △ PIEZOMETER
- ▲ RECOVERY SUMP
- GEOPROBE BORING
- PROBE
- W WATER LINE
- S SEWER LINE
- G GAS LINE
- UST EXCAVATION LIMITS (1989)
- GROUNDWATER CIS-DCE CONTOUR 18,000 UG/L
- GROUNDWATER CIS-DCE CONTOUR 18 UG/L
- GROUNDWATER CIS-DCE CONTOUR 1,800 UG/L
- GROUNDWATER FLOW DIRECTION

TANK KEY

- A 1,000-GALLON DRY CLEANER SOLVENT UST (NO LONGER IN USE)

APPROXIMATE SCALE IN FEET  
0 20 40 60



## GROUNDWATER CIS-1,2-DCE ISOCONTOURS MAY 2013



CB&I  
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Brookfield, Wisconsin

TITLE

CLIENT

Redi-Quick Dry Cleaners

LOCATION

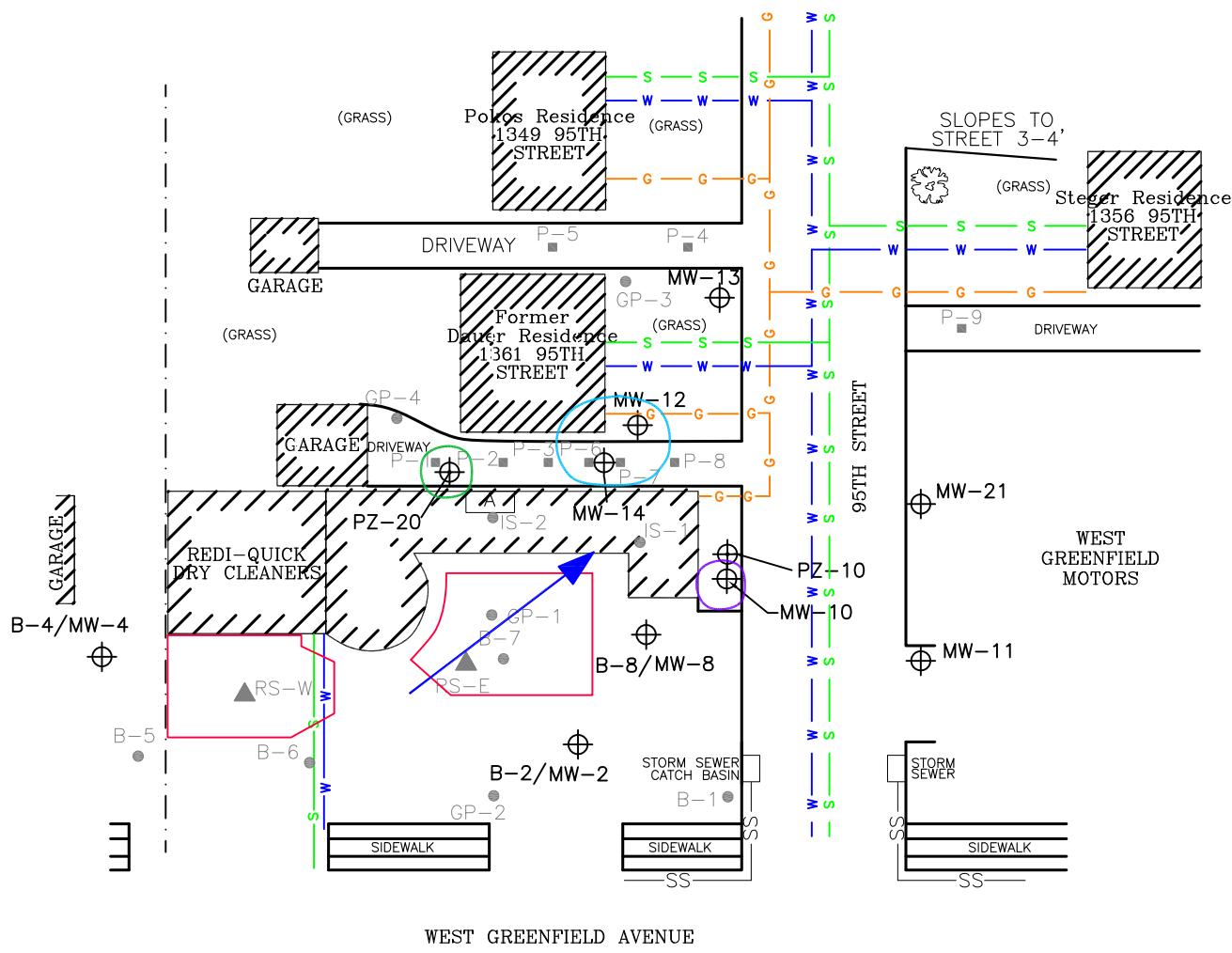
Redi-Quick Dry Cleaners Site  
9508 West Greenfield Avenue  
West Allis, Wisconsin

DRWN	CHKD	REVD BY	APPRVD BY	PROJECT NO.	FIGURE NO.
JRD	HAW	JRD		631224187	B.3.b.4

REVISION DATE

DATE

04/11/17



#### LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- FORMER UNDERGROUND STORAGE TANK (UST)
- MONITORING WELL
- PIEZOMETER
- ▲ RECOVERY SUMP
- GEOPROBE BORING
- PROBE
- W WATER LINE
- S SEWER LINE
- G GAS LINE
- UST EXCAVATION LIMITS (1989)
- GROUNDWATER CIS-DCE CONTOUR 1,100 UG/L
- GROUNDWATER CIS-DCE CONTOUR 60 UG/L
- GROUNDWATER CIS-DCE CONTOUR 6.0 UG/L
- GROUNDWATER FLOW DIRECTION

#### TANK KEY

- A 1,000-GALLON DRY CLEANER SOLVENT UST (NO LONGER IN USE)

APPROXIMATE SCALE IN FEET  
0 20 40 60



#### GROUNDWATER CIS-1,2-DCE ISOCONTOURS MARCH 2017



CB&I  
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TITLE

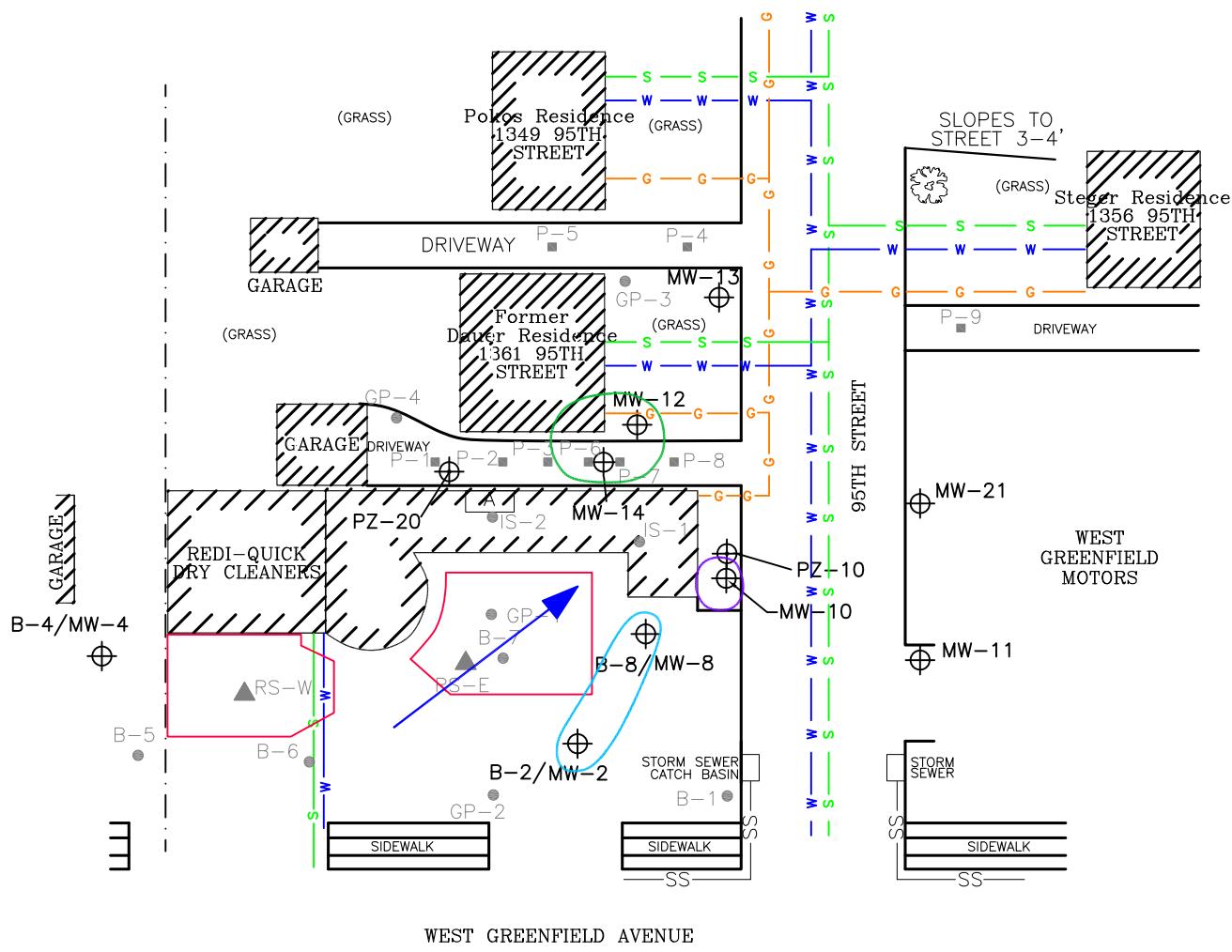
CLIENT

Redi-Quick Dry Cleaners

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9508 West Greenfield Avenue  
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DRWN JRD	CHKD HAW	REVD BY JRD	APPRVD BY -	PROJECT NO. 631224187	FIGURE NO. B.3.b.5
		REVISION DATE -	DATE 04/11/17		

**LEGEND**

- APPROXIMATE PROPERTY BOUNDARY
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- MONITORING WELL
- △ PIEZOMETER
- ▲ RECOVERY SUMP
- GEOPROBE BORING
- PROBE
- W WATER LINE
- S SEWER LINE
- G GAS LINE
- UST EXCAVATION LIMITS (1989)
- GROUNDWATER VC CONTOUR 700 UG/L
- GROUNDWATER VC CONTOUR 200 UG/L
- GROUNDWATER VC CONTOUR 2.0 UG/L
- GROUNDWATER FLOW DIRECTION

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APPROXIMATE SCALE IN FEET  
0 20 40 60



CB&I  
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TITLE  
**GROUNDWATER VC ISOCONTOURS**  
**MAY 2013**

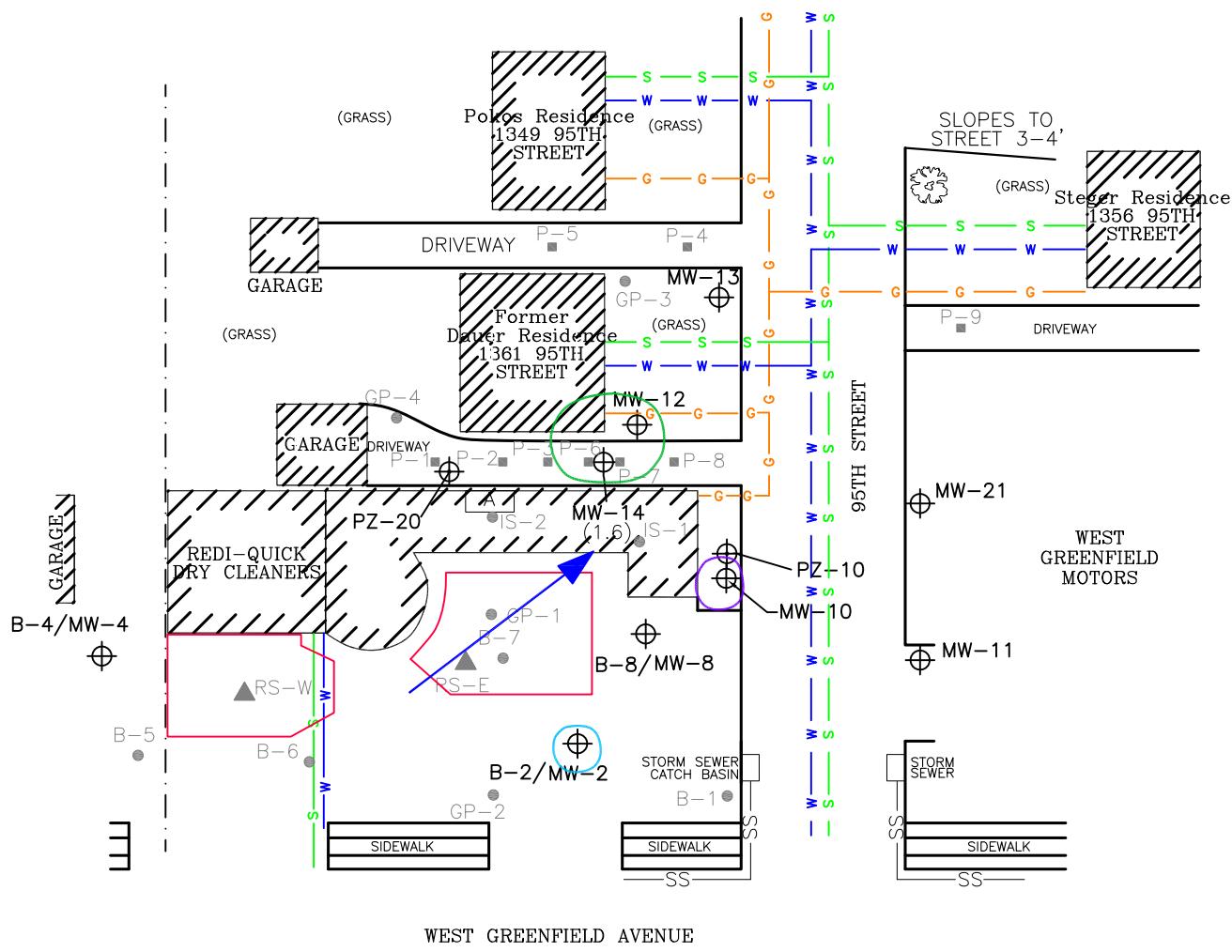
CLIENT

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DRWN	CHKD	REVD BY	APPRVD BY	PROJECT NO.	FIGURE NO.
JRD	HAW	JRD	-	631224187	B.3.b.6
		REVISION DATE	-	DATE	04/11/17



#### LEGEND

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- W WATER LINE
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- G GAS LINE
- UST EXCAVATION LIMITS (1989)
- GROUNDWATER VC CONTOUR 700 ug/L
- GROUNDWATER VC CONTOUR 2.0 ug/L
- GROUNDWATER VC CONTOUR 1.0 ug/L
- GROUNDWATER FLOW DIRECTION

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TITLE  
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**MARCH 2017**

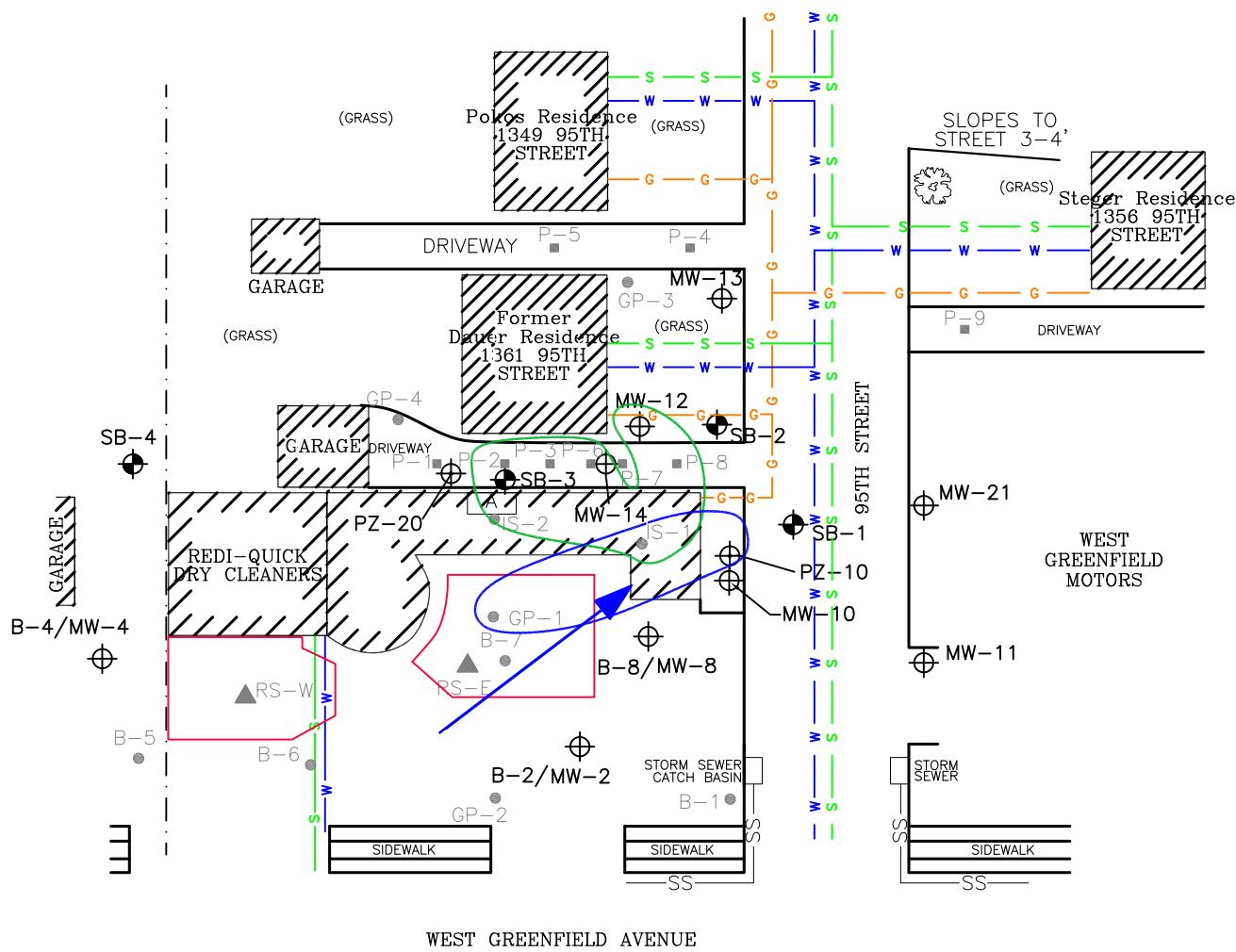
CLIENT

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LOCATION

**Redi-Quick Dry Cleaners Site**  
9508 West Greenfield Avenue  
West Allis, Wisconsin

DRWN	CHKD	REVD BY	APPRVD BY	PROJECT NO.	FIGURE NO.
JRD	HAW	JRD	-	631224187	B.3.b.7
		REVISION DATE	-	DATE	04/11/17

**LEGEND**

- APPROXIMATE PROPERTY BOUNDARY
- FORMER UNDERGROUND STORAGE TANK (UST)
- MONITORING WELL
- PIEZOMETER
- TEST BORING, DRILLED 5/19/99 BY JJS & ASSOCIATES
- ▲ RECOVERY SUMP
- GEOPROBE BORING
- PROBE
- W WATER LINE
- S SEWER LINE
- G GAS LINE
- UST EXCAVATION LIMITS (1989)
- SOIL PCE RCL EXCEEDANCE CONTOUR (10'-16') (ABOVE BOTH DIRECT CONTACT AND GROUNDWATER PATHWAY RCLS)

**TANK KEY**

- A 1,000-GALLON DRY CLEANER SOLVENT UST (NO LONGER IN USE)

- SOIL PCE RCL EXCEEDANCE CONTOUR (0'-4') (ABOVE THE DIRECT CONTACT RCL)
- GROUNDWATER FLOW DIRECTION

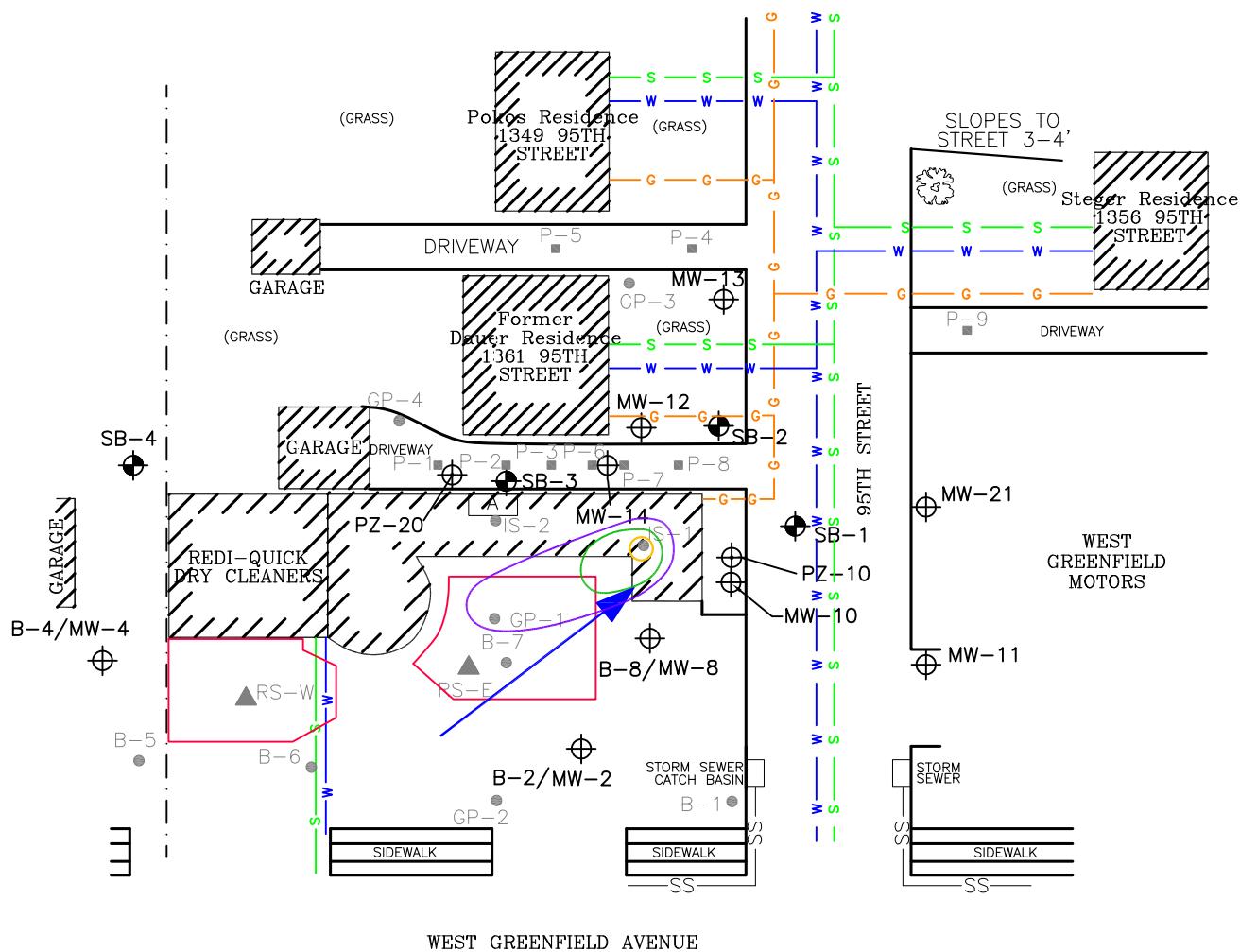
APPROXIMATE SCALE IN FEET  
 0 20 40 60



**CB&I**  
200 South Executive Drive, Suite 101  
Brookfield, Wisconsin

**TITLE**  
**SOIL PCE CONTOURS IN THE 0-4' DIRECT CONTACT INTERVAL AND THE 10-16' GROUNDWATER INTERFACE INTERVAL**

CLIENT	Redi-Quick Dry Cleaners	DRWN	CHKD	REVD BY	APPRVD BY	PROJECT NO.	FIGURE NO.
LOCATION	Redi-Quick Dry Cleaners Site 9508 West Greenfield Avenue West Allis, Wisconsin	JRD	HAW	JRD		631224187	B.2.b

**LEGEND**

- APPROXIMATE PROPERTY BOUNDARY
- FORMER UNDERGROUND STORAGE TANK (UST)
- MONITORING WELL
- PIEZOMETER
- TEST BORING, DRILLED 5/19/99 BY JJS & ASSOCIATES
- ▲ RECOVERY SUMP
- GEOPROBE BORING
- PROBE
- W WATER LINE
- S SEWER LINE
- G GAS LINE
- UST EXCAVATION LIMITS (1989)
- SOILS TRICHLOROETHYLENE ISOCONTOUR (0.06 PPM) WITHIN THE DIRECT CONTACT INTERVAL (0-4')
- SOILS TRICHLOROETHYLENE ISOCONTOUR (0.6 PPM) WITHIN THE DIRECT CONTACT INTERVAL (0-4')

**TANK KEY**

- A 1,000-GALLON DRY CLEANER SOLVENT UST (NO LONGER IN USE)

— SOIL TRICHLOROETHYLENE ISOCONTOUR (1.1 PPM)  
WITHIN THE DIRECT CONTACT INTERVAL (0-4')  
→ GROUNDWATER FLOW DIRECTION

APPROXIMATE SCALE IN FEET  
0 20 40 60



**CB&I**  
200 South Executive Drive, Suite 101  
Brookfield, Wisconsin

**TITLE**  
**SOIL TRICHLOROETHYLENE ISOCONTOURS  
WITHIN THE DIRECT CONTACT INTERVAL (0-4')**

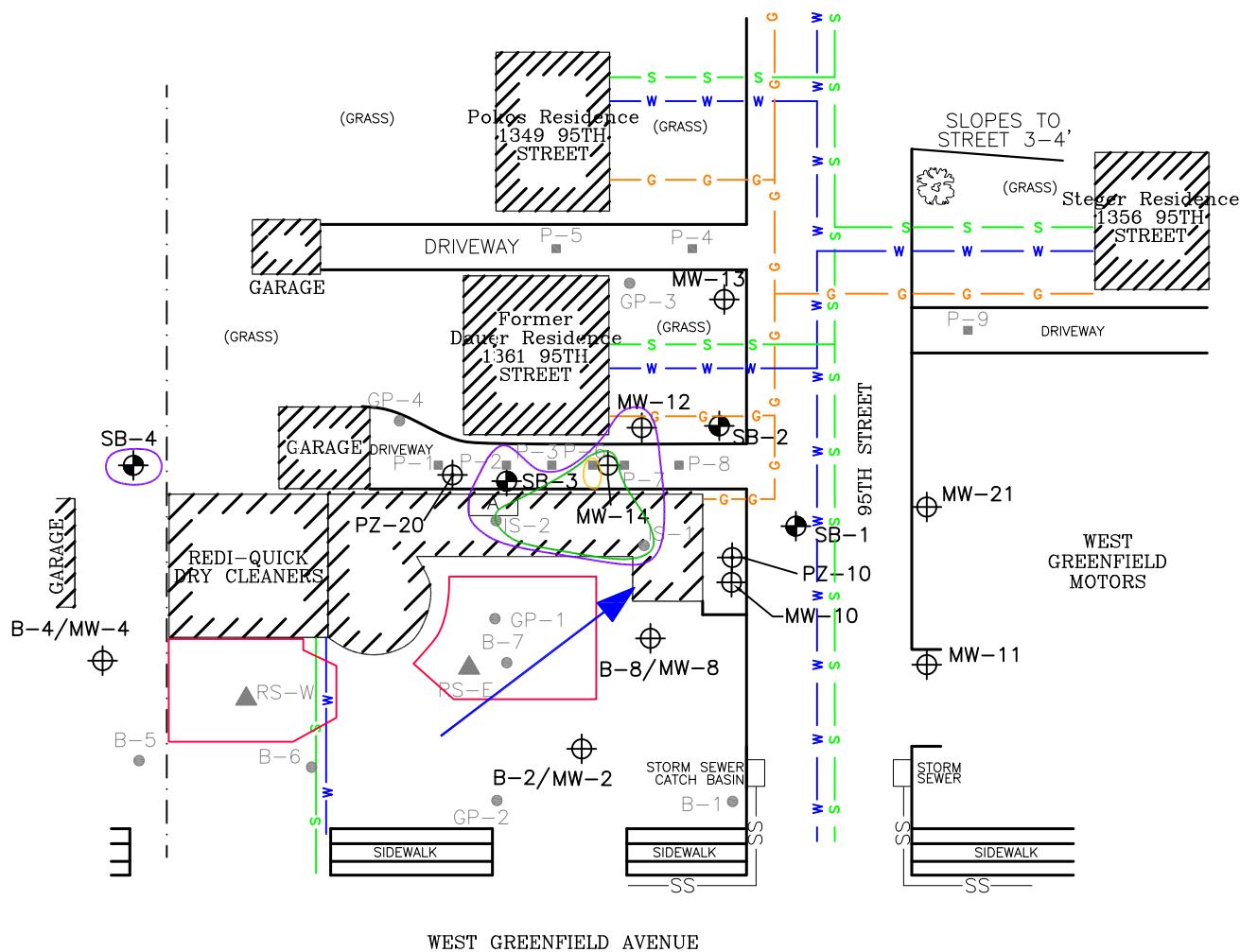
CLIENT

Redi-Quick Dry Cleaners

LOCATION

Redi-Quick Dry Cleaners Site  
9508 West Greenfield Avenue  
West Allis, Wisconsin

DRWN	CHKD	REVD BY	JRD	APPRVD BY	PROJECT NO.	FIGURE NO.
JRD	HAW	REVISION DATE	JRD	-	631224187	B.2.b.1
					DATE	04/11/17

**LEGEND**

- - APPROXIMATE PROPERTY BOUNDARY
- [ ] FORMER UNDERGROUND STORAGE TANK (UST)
- MONITORING WELL
- PIEZOMETER
- TEST BORING, DRILLED 5/19/99 BY JJS & ASSOCIATES
- ▲ RECOVERY SUMP
- GEOPROBE BORING
- PROBE
- W WATER LINE
- S SEWER LINE
- G GAS LINE
- UST EXCAVATION LIMITS (1989)
- SOILS TRICHLOROETHYLENE ISOCONTOUR (0.03 PPM) WITHIN THE GROUNDWATER INTERFACE INTERVAL (10-16')
- SOILS TRICHLOROETHYLENE ISOCONTOUR (0.3 PPM) WITHIN THE GROUNDWATER INTERFACE INTERVAL (10-16')

**TANK KEY**

- A 1,000-GALLON DRY CLEANER SOLVENT UST (NO LONGER IN USE)

— SOIL TRICHLOROETHYLENE ISOCONTOUR (0.6 PPM) WITHIN THE GROUNDWATER INTERFACE INTERVAL (10-16')

→ GROUNDWATER FLOW DIRECTION

APPROXIMATE SCALE IN FEET  
0 20 40 60



**CB&I**  
200 South Executive Drive, Suite 101  
Brookfield, Wisconsin

**TITLE**  
**SOIL TRICHLOROETHYLENE ISOCONTOURS  
WITHIN THE GROUNDWATER INTERFACE  
INTERVAL (10-16')**

CLIENT

**Redi-Quick Dry Cleaners**

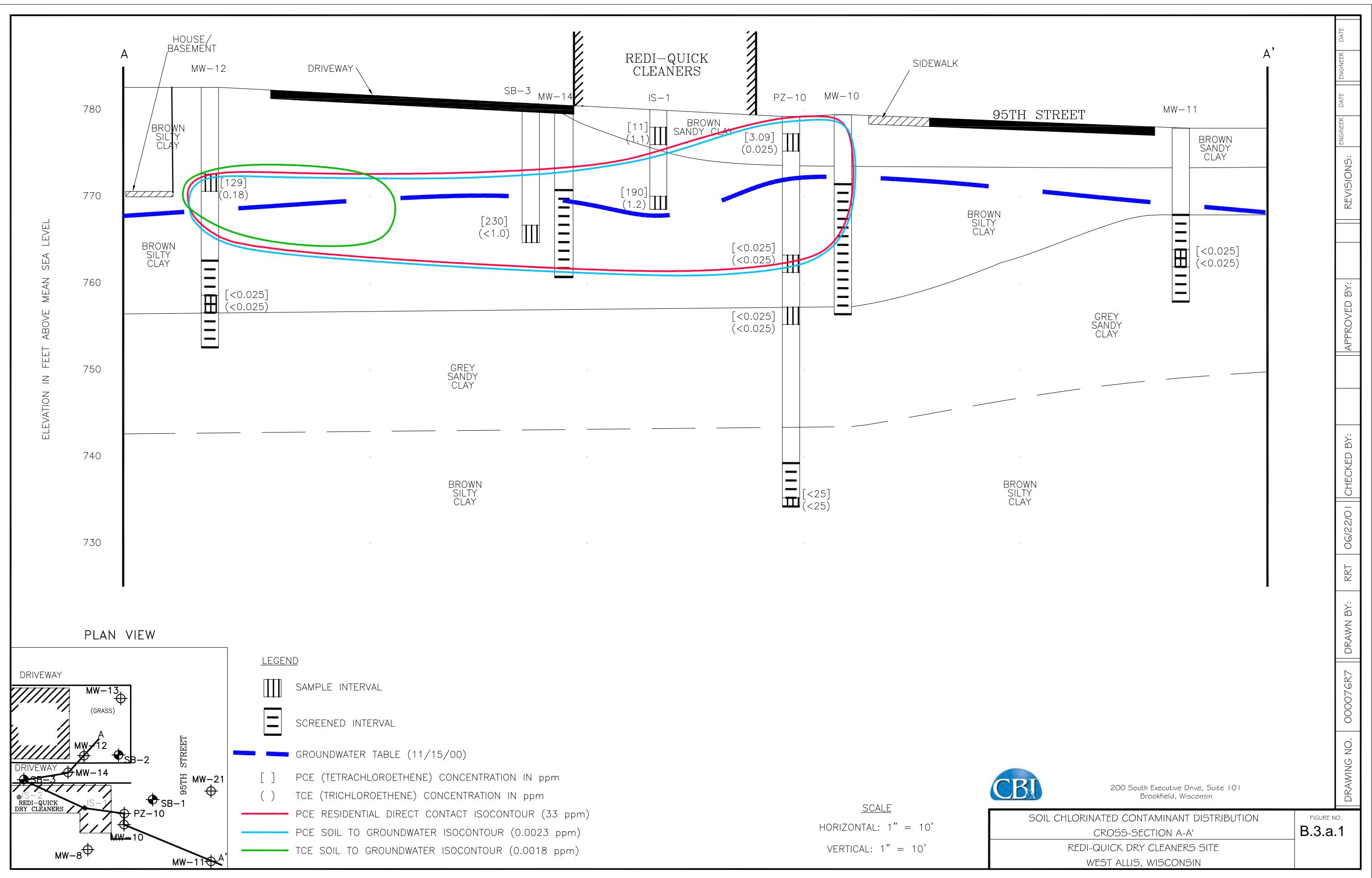
LOCATION

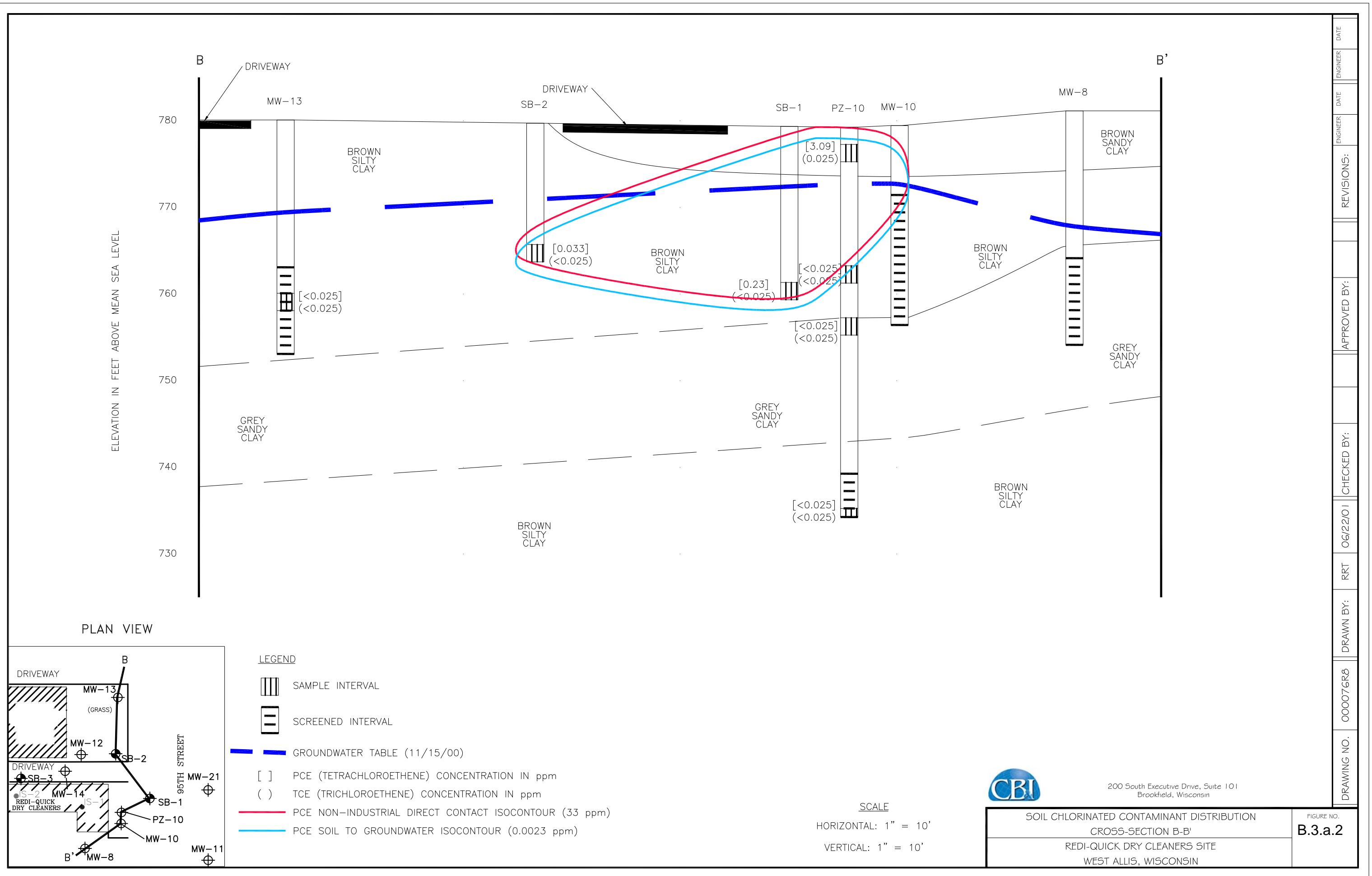
**Redi-Quick Dry Cleaners Site**  
9508 West Greenfield Avenue  
West Allis, Wisconsin

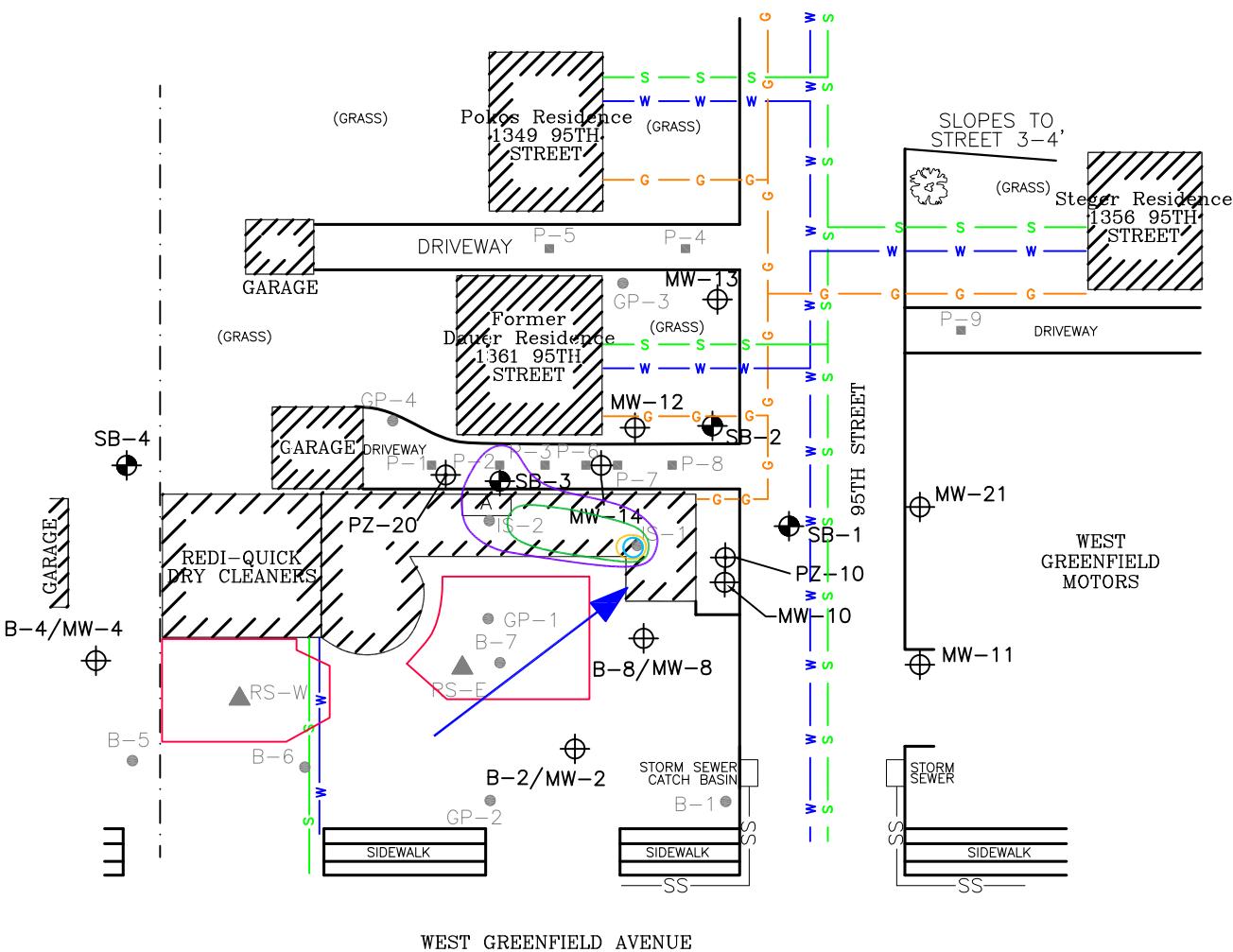
DRWN	CHKD	REVD BY	APPRVD BY	PROJECT NO.	FIGURE NO.
JRD	HAW	JRD		631224187	B.2.b.2

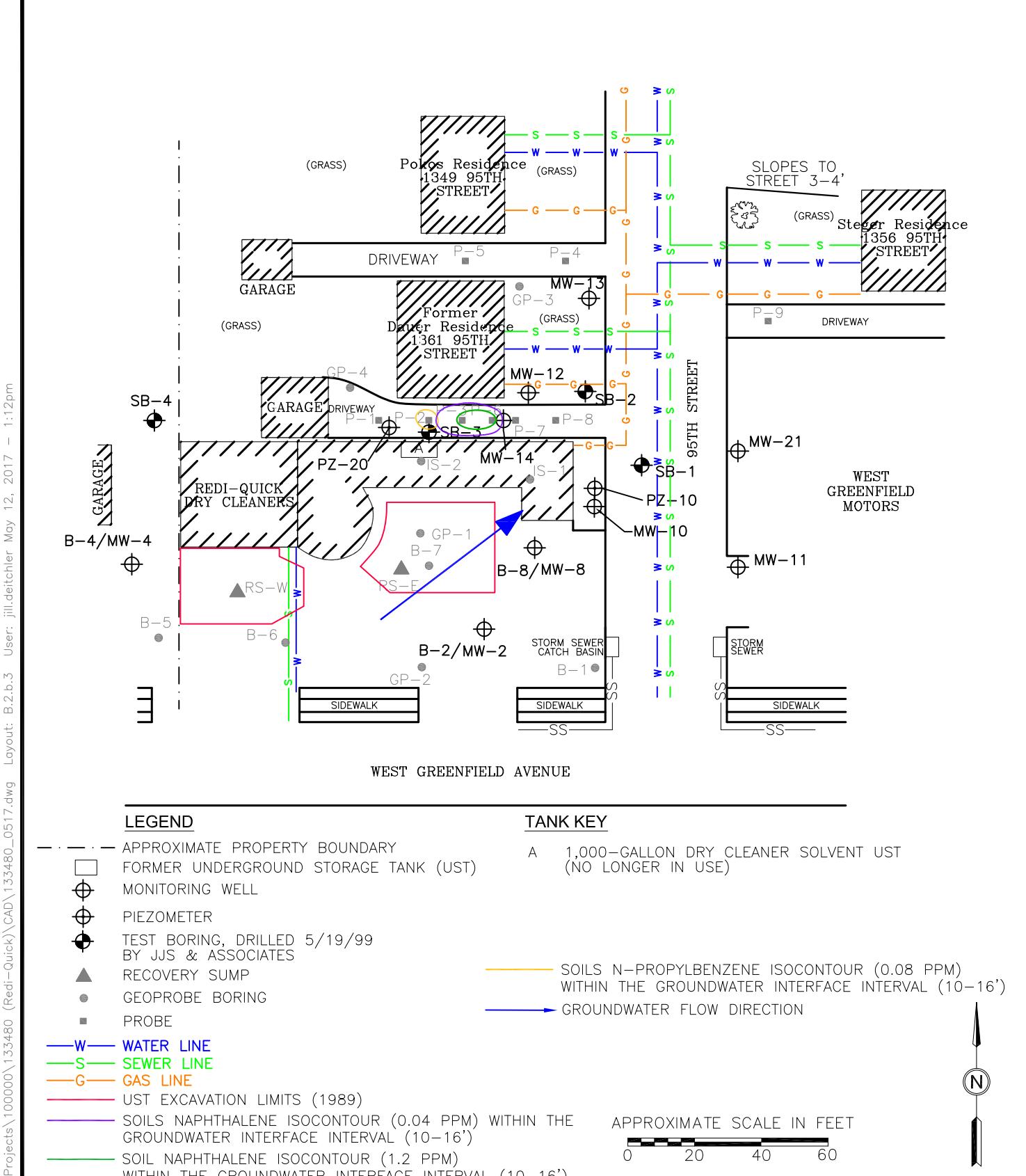
REVISION DATE

DATE 04/11/17

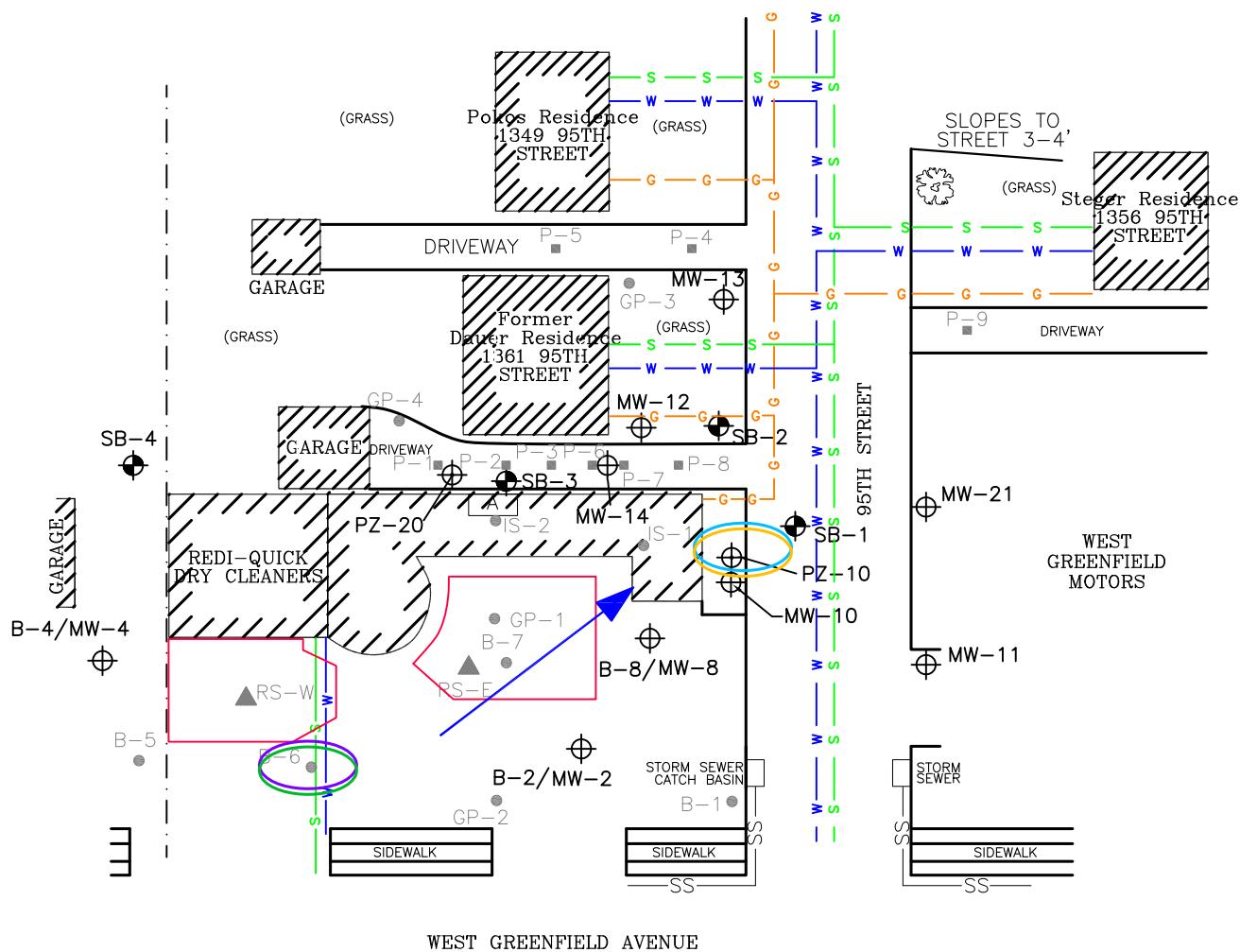








		CB&I		TITLE <b>SOIL NAPHTHALENE AND N-PROPYLBENZENE ISOCONTOURS WITHIN THE GROUNDWATER INTERFACE INTERVAL (10-16')</b>					
CLIENT		200 South Executive Drive, Suite 101 Brookfield, Wisconsin							
LOCATION		<b>Redi-Quick Dry Cleaners</b>				DRWN	CHKD	APPRVD	
Redi-Quick Dry Cleaners Site 9508 West Greenfield Avenue West Allis, Wisconsin		JRD	HAW	BY JRD	-	PROJECT NO. 631224187	FIGURE NO. B.2.b.4		
				REVD BY REVISION DATE	-	DATE 04/11/17			



CB&I  
200 South Executive Drive, Suite 101  
Brookfield, Wisconsin

**TITLE**  
**SOIL PVOC ISOCONTOUR WITHIN THE DIRECT CONTACT INTERVAL (0-4') AND THE GROUNDWATER INTERFACE INTERVAL (10-16')**

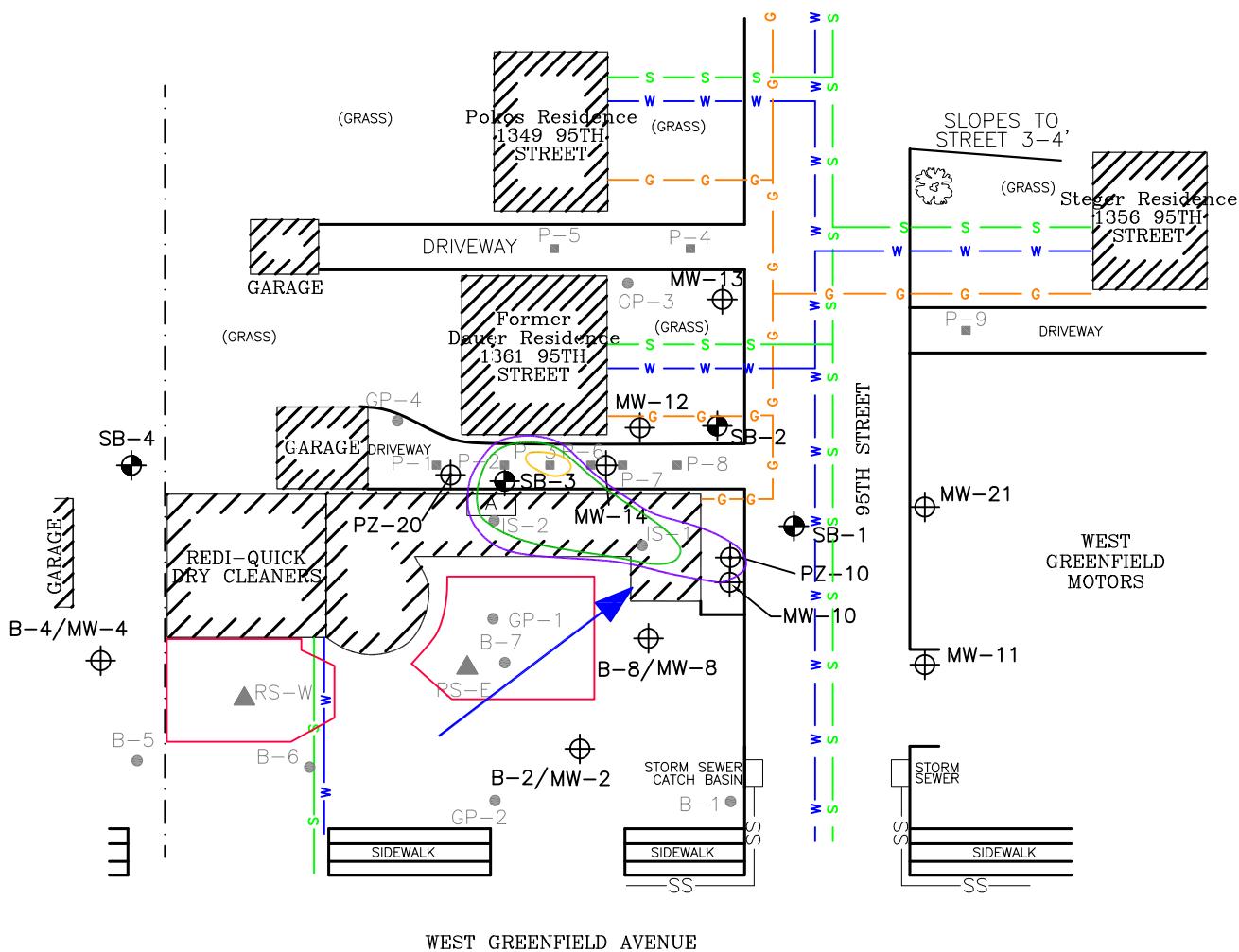
CLIENT

Redi-Quick Dry Cleaners

LOCATION

Redi-Quick Dry Cleaners Site  
9508 West Greenfield Avenue  
West Allis, Wisconsin

DRWN	CHKD	REVD BY	JRD	APPRVD BY	PROJECT NO.	FIGURE NO.
JRD	HAW	JRD			631224187	B.2.b.5
		REVISION DATE	-	DATE	04/11/17	

**LEGEND**

- APPROXIMATE PROPERTY BOUNDARY
- FORMER UNDERGROUND STORAGE TANK (UST)
- MONITORING WELL
- PIEZOMETER
- TEST BORING, DRILLED 5/19/99 BY JJS & ASSOCIATES
- ▲ RECOVERY SUMP
- GEOPROBE BORING
- PROBE
- W WATER LINE
- S SEWER LINE
- G GAS LINE
- UST EXCAVATION LIMITS (1989)
- TOTAL TMB ISOCONTOUR (0.03 PPM) IN SOILS WITHIN THE 10-16' INTERVAL
- TOTAL TMB ISOCONTOUR (0.3 PPM) IN SOILS WITHIN THE 10-16' INTERVAL

**TANK KEY**

- |                                                                                                 |                                                            |
|-------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| A                                                                                               | 1,000-GALLON DRY CLEANER SOLVENT UST<br>(NO LONGER IN USE) |
| — TOTAL TMB ISOCONTOUR (3.0 PPM) IN SOILS<br>WITHIN THE GROUNDWATER INTERFACE INTERVAL (10-16') |                                                            |
| — GROUNDWATER FLOW DIRECTION                                                                    |                                                            |
- Note: TMB concentrations did not exceed the direct contact nor the soil to groundwater RCLs

APPROXIMATE SCALE IN FEET



CB&I  
200 South Executive Drive, Suite 101  
Brookfield, Wisconsin

**TITLE**  
**SOIL TOTAL TRIMETHYLBENZENE  
ISOCONTOUR WITHIN THE GROUNDWATER  
INTERFACE INTERVAL (10-16')**

CLIENT

Redi-Quick Dry Cleaners

LOCATION

Redi-Quick Dry Cleaners Site  
9508 West Greenfield Avenue  
West Allis, Wisconsin

DRWN	CHKD	REVD BY	APPRVD BY	PROJECT NO.	FIGURE NO.
JRD	HAW	JRD	-	631224187	B.2.b.6
		REVISION DATE	-	DATE	04/11/17



## Tables

**Table A.4**  
**Vapor Concentration of Detected VOC Compounds**  
**Residential Buildings Ambient and Sub Slab Samples**  
**1349, 1356, and 1361 S. 95th St.**  
**West Allis, Wisconsin**

Residence	Ambient Air and Sub-Slab Soil Gas Samples		1349 S. 95th Street					
	Residential Target Indoor Air Concentration AF=0.03	Residential Target Sub-Slab Soil Gas AF=0.03	Basement	Living Room	Sub Slab	Basement	Living Room	Sub Slab
			6/20/2006	6/20/2006	6/7/2006	1/23/2007	1/23/2007	1/24/2007
1,2-Dichloroethane (1,2-DCA)	18	600	ND	ND	ND	ND	3.6	ND
1,2,4-Trimethylbenzene	7.3	240	ND	3.5	4.5	ND	ND	ND
1,3-Butadiene	0.94	31	12	15	15	3.5	5.9	ND
2-Butanone (Methyl Ethyl Ketone)	NES	NES	16	15	14	140	170	ND
2-Propanol	NES	NES	42	38	22	46	72	ND
4-Methyl-2-pentanone	3100	100000	3.6	ND	ND	ND	ND	ND
4-Ethyltoluene	NES	NES	ND	3.7	ND	ND	ND	ND
Acetone	32000	1100000	130	140	130	36	57	8.8
Benzene	3.6	120	10	12	11	3.4	4.9	ND
Carbon Disulfide	94	3100	ND	ND	ND	10	ND	ND
Chloromethane	94	3100	11	15	18	ND	8.3	ND
Cyclohexane	NES	NES	ND	ND	ND	2.8	3.4	ND
Ethanol	NES	NES	660 E	850 E	35	67	71	ND
Ethyl Benzene	11	370	6	6.4	5.1	5.6	7.4	ND
Heptane	NES	NES	4.2	4.1	5.6	31	36	ND
Hexane	NES	NES	5	4.8	5.0	ND	ND	ND
Methylene Chloride	630	21000	130	96	130	48	30	3.4
Styrene	NES	NES	4.9	5.2	3.7	ND	ND	ND
Tetrachloroethene (PCE)	42	1400	12	12	ND	ND	ND	ND
Tetrahydrofuran	2100	70000	ND	ND	ND	ND	ND	ND
Toluene	5200	170000	110	110	37	120	160	5.3
Trichloroethene (TCE)	2.1	70	6.8	6.7	ND	ND	ND	ND
Xylenes (m,p)	100	3300	18	19	11	17	25	ND
Xylenes (o)	100	3300	4.1	4.4	ND	5.7	8.1	ND

## NOTES:

 $\mu\text{g}/\text{m}^3$  = micrograms per cubic meter

AF - Attenuation Factor

ND= not detected, Laboratory Report Not Available

NES = No Standard Available

Pilot Test refers to the amendment injection pilot test conducted in 2009 for groundwater remediation

Indoor Air Vapor Action Levels and Vapor Risk Screening Levels are based on May 2016 USEPA Regional Screening Level Tables

Wisconsin Vapor Action Levels (VALs) are based on a Hazard Index (HI) = 1 and/or cRCL = 1x 10-5 for carcinogens.

**Table A.4**  
**Vapor Concentration of Detected VOC Compounds**  
**Residential Buildings Ambient and Sub Slab Samples**  
**1349, 1356, and 1361 S. 95th St.**  
**West Allis, Wisconsin**

Residence	Ambient Air and Sub-Slab Soil Gas Samples		1356 S. 95th St.					
	Residential Target Indoor Air Concentration AF=0.03	Residential Target Sub-Slab Soil Gas AF=0.03	Basement	Living Room	Sub Slab	Basement	Living Room	Sub Slab
			6/21/2006	6/21/2006	6/7/2006	1/23/2007	1/23/2007	1/24/2017
Units			µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³
1,2-Dichloroethane (1,2-DCA)	18	600	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	7.3	240	ND	ND	ND	ND	ND	ND
1,3-Butadiene	0.94	31	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl Ethyl Ketone)	NES	NES	4.5	ND	6.0	ND	ND	2.5
2-Propanol	NES	NES	ND	ND	ND	20	480	52
4-Methyl-2-pentanone	3100	100000	ND	ND	ND	ND	ND	ND
4-Ethyltoluene	NES	NES	ND	ND	ND	ND	ND	ND
Acetone	32000	1100000	44	15	32	23	30	16
Benzene	3.6	120	ND	ND	ND	ND	ND	ND
Carbon Disulfide	94	3100	9.8	ND	ND	ND	ND	ND
Chloromethane	94	3100	ND	ND	ND	ND	ND	ND
Cyclohexane	NES	NES	ND	ND	ND	ND	ND	ND
Ethanol	NES	NES	110	39	10	270	610	230
Ethyl Benzene	11	370	ND	ND	ND	ND	ND	ND
Heptane	NES	NES	ND	ND	ND	ND	ND	ND
Hexane	NES	NES	ND	ND	ND	ND	ND	ND
Methylene Chloride	630	21000	3.4	ND	3.4	2.3	ND	ND
Styrene	NES	NES	ND	ND	ND	ND	ND	ND
Tetrachloroethene (PCE)	42	1400	ND	ND	ND	ND	ND	ND
Tetrahydrofuran	2100	70000	ND	ND	ND	ND	ND	ND
Toluene	5200	170000	16	3.8	7.7	6.8	9.4	6.6
Trichloroethene (TCE)	2.1	70	5.6	ND	ND	4.2	ND	ND
Xylenes (m,p)	100	3300	5.6	ND	ND	ND	ND	ND
Xylenes (o)	100	3300	ND	ND	ND	ND	ND	ND

## NOTES:

µg/m³ = micrograms per cubic meter

AF - Attenuation Factor

ND= not detected, Laboratory Report Not Available

NES = No Standard Available

Pilot Test refers to the amendment injection pilot test conducted in 2009 for groundwater remediation

Indoor Air Vapor Action Levels and Vapor Risk Screening Levels are based on May 2016 USEPA Regional Screening Level Tables

Wisconsin Vapor Action Levels (VALs) are based on a Hazard Index (HI) = 1 and/or cRCL = 1x 10-5 for carcinogens.

**Table A.4**  
**Vapor Concentration of Detected VOC Compounds**  
**Residential Buildings Ambient and Sub Slab Samples**  
**1349, 1356, and 1361 S. 95th St.**  
**West Allis, Wisconsin**

Residence	Ambient Air and Sub-Slab Soil Gas Samples				1361 S. 95th St.							
	Residential Target Indoor Air Concentration AF=0.03	Residential Target Sub-Slab Soil Gas AF=0.03	Basement	Basement	Background (Porch)	Basement	Background (Porch)	Basement (Pilot Test)	Basement	Basement	Basement	Basement
			6/20/2006	7/31/2006	7/31/2006	1/23/2007	1/23/2007	4/9/2009	11/11/2010	12/18/2012		
Units			µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³
1,2-Dichloroethane (1,2-DCA)	18	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	7.3	240	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Butadiene	0.94	31	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl Ethyl Ketone)	NES	NES	34	41	2.9	3.0	ND	8.3	5.3	4.1		
2-Propanol	NES	NES	19	46	ND	ND	ND	20	220	13.2		
4-Methyl-2-pentanone	3100	100000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Ethyltoluene	NES	NES	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	32000	1100000	700	65	16	9.6	9.3	74	43	28		
Benzene	3.6	120	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	94	3100	ND	ND	2.9	ND	2.8	<1.2	<0.62	ND		
Chloromethane	94	3100	ND	ND	ND	ND	ND	1.2	2.5	1.4		
Cyclohexane	NES	NES	ND	ND	ND	ND	ND	ND	1.5	1.4	ND	
Ethanol	NES	NES	440	110	ND	38	6.3	1000	380	278		
Ethyl Benzene	11	370	ND	ND	ND	ND	ND	2.6	1.3	ND		
Heptane	NES	NES	ND	ND	ND	ND	ND	2.0	1.9	ND		
Hexane	NES	NES	ND	ND	ND	ND	2.3	ND	ND	ND		
Methylene Chloride	630	21000	ND	ND	ND	ND	21	ND	ND	ND		
Styrene	NES	NES	ND	ND	ND	ND	ND	ND	ND	ND		
Tetrachloroethene (PCE)	42	1400	23	7.6	44	ND	ND	ND	410	17	2.8	
Tetrahydrofuran	2100	70000	22	27	ND	2.4	ND	2.2	<0.59	ND		
Toluene	5200	170000	6.7	7.8	ND	ND	ND	11	9	3.7		
Trichloroethene (TCE)	2.1	70	ND	ND	ND	ND	ND	ND	ND	ND		
Xylenes (m,p)	100	3300	ND	ND	ND	ND	ND	9.5	3.4	ND		
Xylenes (o)	100	3300	ND	ND	ND	ND	ND	2.3	1.2	ND		

## NOTES:

µg/m³ = micrograms per cubic meter

AF - Attenuation Factor

ND= not detected, Laboratory Report Not Available

NES = No Standard Available

Pilot Test refers to the amendment injection pilot test conducted in 2009 for groundwater remediation

Indoor Air Vapor Action Levels and Vapor Risk Screening Levels are based on May 2016 USEPA Regional Screening Level Tables

Wisconsin Vapor Action Levels (VALs) are based on a Hazard Index (HI) = 1 and/or cRCL = 1x 10-5 for carcinogens.

**Table A.7 - Water Elevation Table****Summary of Groundwater Elevations****Redi-Quick Dry Cleaners****West Allis, Wisconsin**

Well Number	Measurement Date	Top of Casing Elevation (ft msl)	Screen Interval Top (ft msl)	Screen Interval Bottom (ft msl)	TOC to Water (ft btoc)	Water Elevation (ft msl)	Depth to TOS (ft)	Depth to BOW (ft)	Screen Length (feet)
MW-2	9/14/2000	781.58	765.63	755.63	NM	NM	15.95	25.95	10
	11/15/2000				12.56	769.02			
	6/9/2006				13.60	767.98			
	3/30/2009				13.33	768.25			
	7/28/2009				13.43	768.15			
	8/26/2009				13.62	767.96			
	7/7/2010				13.23	768.35			
	10/28/2010				13.65	767.93			
	1/27/2011				13.90	767.68			
	4/28/2011				12.21	769.37			
	8/7/2012				13.68	767.90			
	11/28/2012				15.38	766.20			
	2/27/2013				13.67	767.91			
	5/20/2013				12.92	768.66			
	3/30/2017				12.62	768.96			
MW-4	9/14/2000	783.30	780.15	770.15	3.25	766.90	3.15	13.15	10
	11/15/2000				4.71	778.59			
	3/30/2009				5.23	778.07			
	7/28/2009				5.72	777.58			
	8/26/2009				5.69	777.61			
	7/6/2010				4.63	778.67			
	10/28/2010				5.69	777.61			
	1/27/2011				6.20	777.10			
	4/28/2011				3.63	779.67			
	8/7/2012				6.68	776.62			
	11/28/2012				5.92	777.38			
	2/27/2013				4.31	778.99			
	5/20/2013				4.13	779.17			
	3/30/2017				3.72	779.58			
MW-8	9/14/2000	781.13	766.23	756.23	12.94	743.29	14.90	24.90	10
	11/15/2000				13.22	767.91			
	6/9/2006				13.90	767.23			
	3/30/2009				13.41	767.72			
	7/28/2009				13.62	767.51			
	8/26/2009				13.79	767.34			
	7/7/2010				13.19	767.94			
	10/28/2010				14.37	766.76			
	1/27/2011				14.13	767.00			
	4/28/2011				12.87	768.26			
	8/7/2012				13.74	767.39			
	11/28/2012				16.68	764.45			
	2/27/2013				15.03	766.10			
	5/20/2013				14.85	766.28			
	3/30/2017				NM				
RS-E	9/14/2000	781.97	-	771.47	NM	-	-	10.50	-
	11/15/2000				2.22	779.75			
RS-W	9/14/2000	782.45	-	771.71	NM	-	-	10.74	-
	11/15/2000				2.99	779.46			
MW-10	9/14/2000	779.26	771.37	756.37	4.37	752.00	7.89	22.89	15
	11/15/2000				6.61	772.65			
	6/9/2006				5.29	773.97			
	3/30/2009				4.75	774.51			
	7/28/2009				5.63	773.63			
	8/26/2009				5.47	773.79			
	7/7/2010				4.13	775.13			
	10/28/2010				11.48	767.78			
	1/27/2011				5.01	774.25			
	4/28/2011				1.77	777.49			
	8/7/2012				5.12	774.14			
	11/26/2012				4.42	774.84			
	2/27/2013				2.76	776.50			
	5/20/2013				2.33	776.93			
	3/30/2017				2.68	776.58			

**Table A.7 - Water Elevation Table****Summary of Groundwater Elevations****Redi-Quick Dry Cleaners****West Allis, Wisconsin**

Well Number	Measurement Date	Top of Casing Elevation (ft msl)	Screen Interval Top (ft msl)	Screen Interval Bottom (ft msl)	TOC to Water (ft btoc)	Water Elevation (ft msl)	Depth to TOS (ft)	Depth to BOW (ft)	Screen Length (feet)
MW-11	9/14/2000	777.89	769.57	759.57	8.60	750.97	8.32	18.32	10
	11/15/2000				8.81	769.08			
	6/9/2006				8.26	769.63			
	3/30/2009				8.25	769.64			
	7/28/2009				9.16	768.73			
	8/26/2009				8.05	769.84			
	7/6/2010				8.01	769.88			
	10/28/2010				9.46	768.43			
	1/27/2011				10.00	767.89			
	4/28/2011				7.39	770.50			
	8/7/2012				9.13	768.76			
	11/28/2012				9.97	767.92			
	2/27/2013				9.14	768.75			
	5/20/2013				8.63	769.26			
	3/30/2017				7.11	770.78			
MW-12	9/14/2000	782.61	762.55	752.55	13.74	738.81	20.06	30.06	10
	11/15/2000				14.03	768.58			
	6/9/2006				14.94	767.67			
	3/30/2009				14.33	768.28			
	6/24/2009				14.03	768.58			
	7/28/2009				14.68	767.93			
	8/26/2009				14.98	767.63			
	7/6/2010				19.83	762.78			
	10/28/2010				15.54	767.07			
	1/26/2011				15.48	767.13			
	4/28/2011				15.21	767.40			
	8/7/2012				16.00	766.61			
	11/28/2012				15.23	767.38			
	2/27/2013				14.70	767.91			
	5/20/2013				13.52	769.09			
	3/30/2017				13.83	768.78			
MW-13	9/14/2000	780.08	763.44	753.44	9.54	743.90	16.64	26.64	10
	11/15/2000				10.70	769.38			
	6/9/2006				11.60	768.48			
	3/30/2009				11.08	769.00			
	7/28/2009				11.60	768.48			
	8/26/2009				11.92	768.16			
	7/6/2010				10.37	769.71			
	10/28/2010				11.94	768.14			
	1/27/2011				12.49	767.59			
	4/28/2011				9.50	770.58			
	8/7/2012				12.12	767.96			
	11/28/2012				12.33	767.75			
	2/27/2013				11.49	768.59			
	5/20/2013				10.42	769.66			
	3/30/2017				9.82	770.26			
MW-14	3/25/2009	783.07	773.77	763.77	16.74	766.33	9.30	19.30	10
	3/30/2009				14.43	768.64			
	6/24/2009				6.71	776.36			
	7/28/2009				3.58	779.49			
	7/6/2010				14.63	768.44			
	10/28/2010				11.50	771.57			
	1/26/2011				8.54	774.53			
	4/28/2011				7.06	776.01			
	8/7/2012				7.65	775.42			
	11/28/2012				5.99	777.08			
	2/27/2013				5.01	778.06			
	5/20/2013				4.25	778.82			
	3/30/2017				2.39	780.68			

**Table A.7 - Water Elevation Table****Summary of Groundwater Elevations****Redi-Quick Dry Cleaners****West Allis, Wisconsin**

Well Number	Measurement Date	Top of Casing Elevation (ft msl)	Screen Interval Top (ft msl)	Screen Interval Bottom (ft msl)	TOC to Water (ft btoc)	Water Elevation (ft msl)	Depth to TOS (ft)	Depth to BOW (ft)	Screen Length (feet)
MW-21	6/9/2006	778.65	772.35	762.35	7.18	771.47	6.30	16.30	10
	3/30/2009				7.56	771.09			
	7/28/2009				7.68	770.97			
	8/26/2009				8.05	770.60			
	7/6/2010				7.09	771.56			
	10/28/2010				7.74	770.91			
	1/26/2011				9.11	769.54			
	4/28/2011				7.28	771.37			
	8/7/2012				8.00	770.65			
	11/28/2012				8.90	769.75			
	2/27/2013				NM	NM			
	5/20/2013				7.40	771.25			
	3/30/2017				5.72	772.93			
PZ-10	9/14/2000	779.44	738.98	733.98	38.72	695.26	40.46	45.46	5
	11/15/2000				13.40	766.04			
	6/9/2006				13.80	765.64			
	3/30/2009				13.13	766.31			
	7/28/2009				13.62	765.82			
	8/26/2009				13.91	765.53			
	7/7/2010				12.77	766.67			
	10/28/2010				13.94	765.50			
	1/27/2011				15.81	763.63			
	4/28/2011				13.31	766.13			
	8/7/2012				14.53	764.91			
	11/28/2012				14.39	765.05			
	2/27/2013				14.59	764.85			
	5/20/2013				13.83	765.61			
	3/30/2017				13.1	766.34			
PZ-20	6/9/2006	783.33	744.21	739.21	16.75	766.58	39.12	44.12	5
	3/30/2009				15.79	767.54			
	8/26/2009				16.76	766.57			
	7/6/2010				15.65	767.68			
	10/28/2010				16.90	766.43			
	1/26/2011				17.13	766.20			
	4/28/2011				16.42	766.91			
	8/7/2012				17.23	766.10			
	11/28/2012				17.24	766.09			
	2/27/2013				17.23	766.10			
	5/20/2013				16.75	766.58			
	3/30/2017				15.92	767.41			

## Notes:

All units in feet

ft msl = feet relative to mean sea level

TOC = top of casing

TOS = top of screen

BOC = bottom of casing

BOW = bottom of well

NM = not measured

"-" = not available

**Table A.1.a**  
**Detected Groundwater VOC Results - Pre-Injection**  
**Redi-Quick Cleaners**  
**West Allis, Wisconsin**

Well Number Sample Date	NR 140.10 Table 1			MW-2					
	Units	PAL	ES	8/17/1992	2/23/1993	8/12/1998	5/10/1999	11/3/1999	6/9/2006
1,1-Dichloroethene	µg/l	0.7	7	< 1	< 1	< 0.61	< 0.43	< 0.43	< 0.5
1,1,2-Trichloroethane	µg/l	0.5	5	NA	NA	NA	NA	NA	< 0.25
1,2-Dichloroethane (1,2-DCA)	µg/l	0.5	5	NA	7.4	11	13	11	6.8
1,2,4-TMB	µg/l	96*	480*	< 1	< 1	< 0.41	< 0.22	< 0.22	< 0.2
1,3,5-Trimethylbenzene	µg/l	96*	480*	< 1	< 1	< 0.4	< 0.27	< 0.27	< 0.2
Benzene	µg/l	0.5	5	< 0.6	< 1	< 0.49	< 0.27	0.27	< 0.2
cis-1,2-Dichloroethene (DCE)	µg/l	7	70	< 1	< 1	10	13	19	37
cis-1,3-Dichloropropene	µg/l	0.02	0.2	< 1	< 1	< 0.48	< 0.32	< 0.42	< 0.2
Ethylbenzene	µg/l	140	700	< 1	< 1	< 0.39	< 0.32	< 0.32	< 0.5
Methyl-tert-butyl-ether (MTBE)	µg/l	12	60	< 1	< 1	< 0.55	< 0.32	< 0.32	< 0.5
Tetrachloroethene (PCE)	µg/l	0.5	5	< 1	< 1	< 0.4	< 0.43	< 0.43	< 0.5
trans-1,2-Dichloroethene (DCE)	µg/l	20	100	< 1	< 1	< 0.36	< 0.79	< 0.79	1.2 J
Trichloroethene (TCE)	µg/l	0.5	5	< 1	< 1	0.29	< 0.37	1.4	1.5
Toluene	µg/l	200	1000	< 1	< 1	< 0.4	< 0.27	< 0.27	< 0.2
Vinyl Chloride	µg/l	0.02	0.2	< 5	< 1	2	0.43	2.5	3.9
Xylenes	µg/l	1000	10000	< 2.5	< 2	< 1.04	< 0.43	< 0.43	< 0.5

Notes:

Only constituents with at least one concentration above laboratory detection limit are listed.

J= Value below limit of quantitation, but greater than the method detection limit

[D] = duplicate sample

M = sample pH greater than 2

NA = not analyzed

NES = no established standard

Q = analyte detected between the limit of detection (LOD) and limit of quantitation (LOQ)

TMB = Trimethylbenzene

µg/l = micrograms per liter

\* = NR 140.10 standards apply to Total Trimethylbenzene concentration.

**Red/Bold** = Wisconsin Administrative Code NR 140 Enforcement Standard (ES) exceedence

**Blue/Italic** = Wisconsin Administrative Code NR 140 Preventive Action Limit (PAL) exceedence

**Table A.1.a**  
**Detected Groundwater VOC Results - Pre-Injection**  
**Redi-Quick Cleaners**  
**West Allis, Wisconsin**

Well Number Sample Date	NR 140.10 Table 1			MW-4					
	Units	PAL	ES	8/17/1992	2/23/1993	8/12/1998	5/10/1999	11/3/1999	9/14/2000
1,1-Dichloroethene	µg/l	0.7	7	< 1	< 1	< 0.61	< 0.43	< 0.43	< 0.5
1,1,2-Trichloroethane	µg/l	0.5	5	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane (1,2-DCA)	µg/l	0.5	5	< 1	< 1	< 0.5	< 0.37	< 0.37	< 0.5
1,2,4-TMB	µg/l	96*	480*	< 1	< 1	< 0.41	< 0.22	< 0.22	< 5
1,3,5-Trimethylbenzene	µg/l	96*	480*	< 1	< 1	< 0.4	< 0.27	< 0.27	< 5
Benzene	µg/l	0.5	5	< 0.6	< 1	< 0.49	< 0.27	< 0.27	< 0.5
cis-1,2-Dichloroethene (DCE)	µg/l	7	70	12.2	3.2	0.4	J	0.5	0.37
cis-1,3-Dichloropropene	µg/l	0.02	0.2	4.03	< 1	< 0.48	< 0.32	< 0.42	NA
Ethylbenzene	µg/l	140	700	< 1	< 1	< 0.39	< 0.32	< 0.32	< 5
Methyl-tert-butyl-ether (MTBE)	µg/l	12	60	< 1	< 1	< 0.55	< 0.32	< 0.32	< 0.5
Tetrachloroethylene (PCE)	µg/l	0.5	5	6.59	2.8	6	3.7	5.6	10.6
trans-1,2-Dichloroethene (DCE)	µg/l	20	100	< 1	< 1	< 0.36	< 0.79	< 0.79	< 5
Trichloroethene (TCE)	µg/l	0.5	5	2.79	1.4	0.88	J	0.77	0.71
Toluene	µg/l	200	1000	< 1	< 1	< 0.4	< 0.27	< 0.27	< 5
Vinyl Chloride	µg/l	0.02	0.2	< 5	< 1	< 0.6	< 0.2	< 0.2	0.586
Xylenes	µg/l	1000	10000	< 2.5	< 2	< 1.0	< 0.43	< 0.43	< 5

Notes:

Only constituents with at least one concentration above laboratory detection limit are listed.

J= Value below limit of quantitation, but greater than the method detection limit

[D] = duplicate sample

M = sample pH greater than 2

NA = not analyzed

NES = no established standard

Q = analyte detected between the limit of detection (LOD) and limit of quantitation (LOQ)

TMB = Trimethylbenzene

µg/l = micrograms per liter

\* = NR 140.10 standards apply to Total Trimethylbenzene concentration.

Red/Bold = Wisconsin Administrative Code NR 140 Enforcement Standard (ES) exceedence

Blue/Italic = Wisconsin Administrative Code NR 140 Preventive Action Limit (PAL) exceedence

**Table A.1.a**  
**Detected Groundwater VOC Results - Pre-Injection**  
**Redi-Quick Cleaners**  
**West Allis, Wisconsin**

Well Number Sample Date	NR 140.10 Table 1			MW-8						
	Units	PAL	ES	8/17/1992	2/23/1993	8/12/1998	5/10/1999	11/3/1999	9/14/2000	6/9/2006
1,1-Dichloroethene	µg/l	0.7	7	< 1	< 1	< 0.61	< 0.35	< 0.43	< 0.5	< 0.5
1,1,2-Trichloroethane	µg/l	0.5	5	NA	NA	NA	NA	NA	NA	< 0.25
1,2-Dichloroethane (1,2-DCA)	µg/l	0.5	5	< 1	< 1	< 0.5	< 0.37	< 0.37	< 0.5	< 0.5
1,2,4-TMB	µg/l	96*	480*	< 1	< 1	< 0.41	< 0.22	< 0.22	< 5	< 0.2
1,3,5-Trimethylbenzene	µg/l	96*	480*	< 1	< 1	< 0.4	< 0.27	< 0.27	< 5	< 0.2
Benzene	µg/l	0.5	5	< 0.6	< 1	< 0.49	< 0.27	< 0.27	< 0.5	< 0.2
cis-1,2-Dichloroethene (DCE)	µg/l	7	70	< 1	< 1	< 0.41	< 0.28	< 0.28	< 5	< 0.5
cis-1,3-Dichloropropene	µg/l	0.02	0.2	< 1	< 1	< 0.48	< 0.32	< 0.42	NA	< 0.2
Ethylbenzene	µg/l	140	700	< 1	< 1	< 0.39	< 0.32	< 0.32	< 5	< 0.5
Methyl-tert-butyl-ether (MTBE)	µg/l	12	60	< 1	< 1	< 0.55	< 0.32	< 0.32	< 0.5	< 0.5
Tetrachloroethene (PCE)	µg/l	0.5	5	< 1	< 1	< 0.4	< 0.43	< 0.43	< 0.5	< 0.5
trans-1,2-Dichloroethene (DCE)	µg/l	20	100	< 1	< 1	< 0.36	< 0.79	< 0.79	< 5	< 0.5
Trichloroethene (TCE)	µg/l	0.5	5	< 1	< 1	< 0.51	< 0.37	< 0.37	< 0.5	< 0.2
Toluene	µg/l	200	1000	< 1	< 1	< 0.4	< 0.27	< 0.27	< 5	< 0.2
Vinyl Chloride	µg/l	0.02	0.2	< 5	< 1	< 0.61	< 0.2	< 0.2	< 0.17	< 0.2
Xylenes	µg/l	1000	10000	< 2.5	< 2	< 1.04	< 0.43	< 0.43	< 5	< 0.5

Notes:

Only constituents with at least one concentration above laboratory detection limit are listed.

J= Value below limit of quantitation, but greater than the method detection limit

[D] = duplicate sample

M = sample pH greater than 2

NA = not analyzed

NES = no established standard

Q = analyte detected between the limit of detection (LOD) and limit of quantitation (LOQ)

TMB = Trimethylbenzene

µg/l = micrograms per liter

\* = NR 140.10 standards apply to Total Trimethylbenzene or Total Xylene concentration.

Red/Bold = Wisconsin Administrative Code NR 140 Enforcement Standard (ES) exceedence

Blue/Italic = Wisconsin Administrative Code NR 140 Preventive Action Limit (PAL) exceedence

**Table A.1.a**  
**Detected Groundwater VOC Results - Pre-Injection**  
**Redi-Quick Cleaners**  
**West Allis, Wisconsin**

Well Number Sample Date	Units	NR 140.10 Table 1		RW-E				
		PAL	ES	8/17/1992	2/23/1993	8/12/1998	5/10/1999	11/3/1999
1,1-Dichloroethene	µg/l	0.7	7	< 1	< 1	< 0.61	< 0.43	< 0.43
1,1,2-Trichloroethane	µg/l	0.5	5	NA	NA	NA	NA	NA
1,2-Dichloroethane (1,2-DCA)	µg/l	0.5	5	< 1	3.9	2	< 0.37	0.75
1,2,4-TMB	µg/l	96*	480*	< 1	< 1	< 0.41	< 0.22	< 0.22
1,3,5-Trimethylbenzene	µg/l	96*	480*	< 1	< 1	< 0.4	< 0.27	< 0.27
Benzene	µg/l	0.5	5	< 0.6	4.4	0.42	J 0.69	< 0.27
cis-1,2-Dichloroethene (DCE)	µg/l	7	70	< 1	44	95	0.8	29
cis-1,3-Dichloropropene	µg/l	0.02	0.2	23	< 1	< 0.48	< 0.32	< 0.32
Ethylbenzene	µg/l	140	700	< 1	1.4	< 0.39	< 0.32	< 0.32
Methyl-tert-butyl-ether (MTBE)	µg/l	12	60	< 1	< 1	< 0.55	< 0.32	< 0.32
Tetrachloroethylene (PCE)	µg/l	0.5	5	50	220	15	3	35
trans-1,2-Dichloroethene (DCE)	µg/l	20	100	< 1	< 1	0.69	J < 0.79	0.88
Trichloroethene (TCE)	µg/l	0.5	5	13	29	64	0.41	30
Toluene	µg/l	200	1000	< 1	< 1	< 0.4	< 0.27	< 0.27
Vinyl Chloride	µg/l	0.02	0.2	< 5	37	3	0.86	1.3
Xylenes	µg/l	1000	10000	< 2.5	< 2	< 1.04	< 0.43	< 0.43

Notes:

Only constituents with at least one concentration above laboratory detection limit are listed.

J= Value below limit of quantitation, but greater than the method detection limit

[D] = duplicate sample

M = sample pH greater than 2

NA = not analyzed

NES = no established standard

Q = analyte detected between the limit of detection (LOD) and limit of quantitation (LOQ)

TMB = Trimethylbenzene

µg/l = micrograms per liter

\* = NR 140.10 standards apply to Total Trimethylbenzene concentration.

**Red/Bold** = Wisconsin Administrative Code NR 140 Enforcement Standard (ES) exceedence

**Blue/Italic** = Wisconsin Administrative Code NR 140 Preventive Action Limit (PAL) exceedence

**Table A.1.a**  
**Detected Groundwater VOC Results - Pre-Injection**  
**Redi-Quick Cleaners**  
**West Allis, Wisconsin**

Well Number Sample Date	NR 140.10 Table 1			RW-W				
	Units	PAL	ES	8/17/1992	2/23/1993	8/12/1998	5/10/1999	11/3/1999
1,1-Dichloroethene	µg/l	0.7	7	< 1	2.4	< 0.61	< 0.43	< 0.43
1,1,2-Trichloroethane	µg/l	0.5	5	NA	NA	NA	NA	NA
1,2-Dichloroethane (1,2-DCA)	µg/l	0.5	5	< 1	1.1	< 0.5	0.76	< 0.37
1,2,4-TMB	µg/l	96*	480*	< 1	< 1	< 0.41	< 0.22	< 0.22
1,3,5-Trimethylbenzene	µg/l	96*	480*	< 1	< 1	< 0.4	< 0.27	< 0.27
Benzene	µg/l	0.5	5	< 0.6	4	< 0.49	0.69	< 0.27
cis-1,2-Dichloroethene (DCE)	µg/l	7	70	3.95	35	0.42 J	23	3.2
cis-1,3-Dichloropropene	µg/l	0.02	0.2	< 1	< 1	< 0.48	< 0.32	< 0.32
Ethylbenzene	µg/l	140	700	< 1	< 1	< 0.39	< 0.32	< 0.32
Methyl-tert-butyl-ether (MTBE)	µg/l	12	60	< 1	< 1	< 0.55	< 0.32	< 0.32
Tetrachloroethene (PCE)	µg/l	0.5	5	< 1	< 1	6	44	6.5
trans-1,2-Dichloroethene (DCE)	µg/l	20	100	< 1	< 1	< 0.36	< 0.79	< 0.79
Trichloroethene (TCE)	µg/l	0.5	5	< 1	17	0.98 J	21	3
Toluene	µg/l	200	1000	< 1	< 1	< 0.4	< 0.27	< 0.27
Vinyl Chloride	µg/l	0.02	0.2	< 5	17	< 0.61	3.9	0.27
Xylenes	µg/l	1000	10000	< 2.5	< 2	< 1.04	< 0.43	< 0.43

Notes:

Only constituents with at least one concentration above laboratory detection limit are listed.

J= Value below limit of quantitation, but greater than the method detection limit

[D] = duplicate sample

M = sample pH greater than 2

NA = not analyzed

NES = no established standard

Q = analyte detected between the limit of detection (LOD) and limit of quantitation (LOQ)

TMB = Trimethylbenzene

µg/l = micrograms per liter

\* = NR 140.10 standards apply to Total Trimethylbenzene concentration.

**Red/Bold** = Wisconsin Administrative Code NR 140 Enforcement Standard (ES) exceedence

**Blue/Italic** = Wisconsin Administrative Code NR 140 Preventive Action Limit (PAL) exceedence

**Table A.1.a**  
**Detected Groundwater VOC Results - Pre-Injection**  
**Redi-Quick Cleaners**  
**West Allis, Wisconsin**

Well Number Sample Date	NR 140.10 Table 1			MW-10		MW-11		MW-12		MW-13
	Units	PAL	ES	9/14/2000	6/9/2006	9/14/2000	6/9/2006	9/14/2000	6/9/2006	9/14/2000
1,1-Dichloroethene	µg/l	0.7	7	2.11	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloroethane	µg/l	0.5	5	< 0.16	0.34 J	< 0.16	< 0.25	< 0.16	< 0.25	< 0.16
1,2-Dichloroethane (1,2-DCA)	µg/l	0.5	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2,4-TMB	µg/l	96*	480*	< 5	0.3 J	< 5	< 0.2	< 5	< 0.2	< 5
1,3,5-Trimethylbenzene	µg/l	96*	480*	< 5	< 0.2	< 5	< 0.2	< 5	< 0.2	< 5
Benzene	µg/l	0.5	5	< 0.5	0.37 J	< 0.5	< 0.2	< 0.5	< 0.2	< 0.5
cis-1,2-Dichloroethene (DCE)	µg/l	7	70	2630 A,B	49	< 5	< 0.5	12	< 0.5	< 5
cis-1,3-Dichloropropene	µg/l	0.02	0.2	NA	< 0.2	NA	< 0.2	NA	< 0.2	NA
Ethylbenzene	µg/l	140	700	< 5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 5
Methyl-tert-butyl-ether (MTBE)	µg/l	12	60	47.8	< 0.5	< 5	< 0.5	< 5	< 0.5	< 5
Tetrachloroethylene (PCE)	µg/l	0.5	5	24700 A	17000	5.9	< 0.5	708 A	2.1	< 0.5
trans-1,2-Dichloroethene (DCE)	µg/l	20	100	28.5 C	4.3	< 5	< 0.5	< 5	< 0.5	< 5
Trichloroethene (TCE)	µg/l	0.5	5	4670 A	330	< 0.5	< 0.2	17	< 0.2	< 0.5
Toluene	µg/l	200	1000	< 5	< 0.2	< 5	< 0.2	< 5	< 0.2	< 5
Vinyl Chloride	µg/l	0.02	0.2	9.13	0.64 J	< 0.17	< 0.2	< 0.17	< 0.2	< 0.17
Xylenes	µg/l	1000	10000	< 5	< 0.5	< 5	< 0.5	< 5	< 0.5	< 5

Notes:

Only constituents with at least one concentration above laboratory detection limit are listed.

J= Value below limit of quantitation, but greater than the method detection limit

[D] = duplicate sample

M = sample pH greater than 2

NA = not analyzed

NES = no established standard

A= The reporting limit of this sample/analyte is elevated due to sample matrix and/or other effects

B= The recovery of this analyte in the check standard is above the method specified acceptance criteria

C= The recovery of this analyte is below the method specified acceptance criteria

Q = analyte detected between the limit of detection (LOD) and limit of quantitation (LOQ)

TMB = Trimethylbenzene

µg/l = micrograms per liter

\* = NR 140.10 standards apply to Total Trimethylbenzene concentration.

Red/Bold = Wisconsin Administrative Code NR 140 Enforcement Standard (ES) exceedence

Blue/Italic = Wisconsin Administrative Code NR 140 Preventive Action Limit (PAL) exceedence

**Table A.1.a**  
**Detected Groundwater VOC Results - Pre-Injection**  
**Redi-Quick Cleaners**  
**West Allis, Wisconsin**

Well Number Sample Date	NR 140.10 Table 1		PZ-10		PZ-20		MW-DUP	
	Units	PAL <i>ES</i>	9/14/2000	6/9/2006	6/9/2006	6/9/2006		
1,1-Dichloroethene	µg/l	0.7 <b>7</b>	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
1,1,2-Trichloroethane	µg/l	0.5 <b>5</b>	< 0.16	< 0.25	< 0.25	< 0.25	< 0.25	
1,2-Dichloroethane (1,2-DCA)	µg/l	0.5 <b>5</b>	< 0.5	< 0.5	< 0.5	< 0.5	<b>6.9</b>	
1,2,4-TMB	µg/l	96* <b>480*</b>	< 5	< 0.2	< 0.2	< 0.2	< 0.2	
1,3,5-Trimethylbenzene	µg/l	96* <b>480*</b>	< 5	< 0.2	< 0.2	< 0.2	< 0.2	
Benzene	µg/l	0.5 <b>5</b>	< 0.5	< 0.2	< 0.2	< 0.2	< 0.2	
cis-1,2-Dichloroethene (DCE)	µg/l	7 <b>70</b>	< 5	< 0.5	< 0.5	< 0.5	<b>37</b>	
cis-1,3-Dichloropropene	µg/l	0.02 <b>0.2</b>	NA	< 0.2	< 0.2	< 0.2	< 0.2	
Ethylbenzene	µg/l	140 <b>700</b>	< 5	< 0.5	< 0.5	< 0.5	< 0.5	
Methyl-tert-butyl-ether (MTBE)	µg/l	12 <b>60</b>	< 5	< 0.5	< 0.5	< 0.5	< 0.5	
Tetrachloroethene (PCE)	µg/l	0.5 <b>5</b>	< 0.5	<b>15</b>	<b>59</b>	< 0.5	< 0.5	
trans-1,2-Dichloroethene (DCE)	µg/l	20 <b>100</b>	< 5	< 0.5	< 0.5	< 0.5	1.2	J
Trichloroethene (TCE)	µg/l	0.5 <b>5</b>	< 0.5	< 0.2	<b>0.95</b>	< 0.5	<b>1.5</b>	
Toluene	µg/l	200 <b>1000</b>	< 5	< 0.2	< 0.2	< 0.2	< 0.2	
Vinyl Chloride	µg/l	0.02 <b>0.2</b>	< 0.17	< 0.2	< 0.2	< 0.2	<b>3.7</b>	
Xylenes	µg/l	1000 <b>10000</b>	< 5	< 0.5	< 0.5	< 0.5	< 0.5	

Notes:

Only constituents with at least one concentration above laboratory detection limit are listed.

J= Value below limit of quantitation, but greater than the method detection limit

[D] = duplicate sample

M = sample pH greater than 2

NA = not analyzed

NES = no established standard

A= The reporting limit of this sample/analyte is elevated due to sample matrix and/or other effects

B= The recovery of this analyte in the check standard is above the method specified acceptance criteria

C= The recovery of this analyte is below the method specified acceptance criteria

Q = analyte detected between the limit of detection (LOD) and limit of quantitation (LOQ)

TMB = Trimethylbenzene

µg/l = micrograms per liter

\* = NR 140.10 standards apply to Total Trimethylbenzene concentration.

**Red/Bold** = Wisconsin Administrative Code NR 140 Enforcement Standard (ES) exceedence

**Blue/Italic** = Wisconsin Administrative Code NR 140 Preventive Action Limit (PAL) exceedence

**Table A.8****Summary of Groundwater Field Measurements & Geochemical Parameters Pre-Injection**

**Redi-Quick Cleaners**  
**West Allis, Wisconsin**

Well Number		MW-2	MW-8	MW-10	MW-11	MW-12	PZ-10	PZ-20
Measurement Date		6/9/2006	6/9/2006	6/9/2006	6/9/2006	6/9/2006	6/9/2006	6/9/2006
Temperature	deg. C	13.03	13.47	13.78	12.25	13.12	14.09	13.62
pH		7	7.08	7.31	6.88	7.23	7.53	7.52
Dissolved Oxygen	mg/l	0.62	0.49	4.29	0.76	1.14	3.98	1.96
Specific Conductivity	μmhos	5029	1775	1656	3852	1002	768	817
ORP	mV	144	35	127	145	128	131	97
Nitrate/Nitrite	mg/L	.11 J	<.10	1.4	0.36	0.11	.22	0.12
Sulfate	mg/L	200	110	140	210	87	52	40
Iron	mg/L	<0.042	0.16	<0.042	<0.042	<0.042	<0.042	<0.042

Notes:

deg. C = degrees Celsius

mg/l = milligrams per liter

mV = milli-volts

NM = not measured, MW-5: sheen observed on 12/9/05.

ORP = oxidation-reduction potential

μs/cm = micro siemens per centimeter

**Table A.1.b Groundwater Analytical Table**

**Summary of Groundwater Data (Detected Compounds Only)**

Redi-Quick Dry Cleaners  
9508 West Greenfield Avenue  
West Allis, Wisconsin

MW-2		Pilot Testing Program					Quarterly Performance Monitoring Program									
		Baseline 3/30/2009		3 Month Performance 6/24/2009 7/30/2009		1Q 7/7/2010 2Q 10/28/2010 3Q 1/27/2011 4Q 4/28/2011			5Q 8/7/2012 6Q 11/28/2012 7Q 2/27/2013 8Q 5/20/2013							
Detected VOCs	NR 140.10 Table 1 PAL ES															
		Benzene µg/l	0.5 <b>5</b>	< 0.24	NS	NS	NS	0.59 J	0.81 J <	0.5	< 0.5	< 0.5	0.32 J	0.40 J	< 0.5	
		1,2-Dichloroethane µg/l	0.5 <b>5</b>	4.3	NS	NS	NS	6.0 <b>7.2</b>	4.4 <b>3.7</b>	4.7	< 0.74	< 0.74	1.12 J	1.1 J	0.32 J	1.5
		cis-1,2-Dichloroethene µg/l	7 <b>70</b>	28	NS	NS	NS	36 <b>35</b>	8.4 <b>3.7</b>	4.7	1.31 J	1.16 J	1.02 J	1.33 J	0.6 J	
		trans-1,2-Dichloroethene µg/l	20 <b>100</b>	1.6 J	NS	NS	NS	1.95 J	2.36 J	1.21 J	1.21 J	2.52 J	2.24 J	1.5 J	1.71 J	1.3 J
		Di-isopropyl ether µg/l	NES	NES	0.62 J	NS	NS	2.4 J	2.52 J	1.41 J	1.87 J	2.52 J	2.24 J	1.5 J	1.71 J	
		Tetrachloroethene (PCE) µg/l	0.5 <b>5</b>	< 0.5	NS	NS	NS	8.7 <b>10.8</b>	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.33	< 0.33	< 0.5
		Trichloroethene (TCE) µg/l	0.5 <b>5</b>	1.37 J	NS	NS	NS	2.62 <b>2.51</b>	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.33	< 0.33	< 0.33
		Vinyl Chloride µg/l	0.02 <b>0.2</b>	1.79	NS	NS	NS	3.5 <b>6.8</b>	3.09 <b>2.65</b>	2.65	0.80 <b>0.62</b>	0.62 <b>0.86</b>	1.01 <b>0.67</b>	J		
Field Measurements		Temperature deg. C	--	--	10.67	NS	NS	NS	14.89	16.30	13.95	8.57	16.02	16.84	13.84	14.66
		pH	--	--	7.11	NS	NS	NS	6.11	6.79	6.78	6.92	7.07	7.10	7.03	6.90
		Dissolved Oxygen mg/l	--	--	2.08	NS	NS	NS	0.25	0.03	0.30	0.18	0.73	0.17	0.28	0.43
		Specific Conductivity µs/cm	--	--	6674	NS	NS	NS	5107	4767	4307	4937	4999	4499	3861	3956
		ORP mV	--	--	300.1	NS	NS	NS	-113	-151	-414	-83	-138	-257	-89	-125
Geochemical Parameters		TOC µg/l	--	--	1,700	NS	NS	NS	400,000	170,000	170,000	91,000	NS	NS	NS	NS
		Dissolved Iron µg/l	--	--	< 60	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		Dissolved Nitrate/Nitrite mg/l	--	--	0.1 J	NS	NS	NS	0.1 J <	0.1	< 0.1	< 0.1	NS	NS	NS	NS
		Dissolved Sulfate mg/l	--	--	156	NS	NS	NS	91.8	4.44 J <	3.4	< 3.4	NS	NS	NS	NS
		Ethane µg/l	--	--	NS	NS	NS	NS	4.2	895 J <	5	< 20	< 0.5	< 10	1.98 J <	10
		Ethene µg/l	--	--	NS	NS	NS	NS	6.6	2.54 J	6.5	J < 20	0.75 J <	10	0.85 J <	10
		Methane µg/l	--	--	NS	NS	NS	NS	5.2	2.69 J	7,100	10,200	11,500	13,600	11,500	5,900

NOTES

deg. C = degrees Celsius

mg/l = milligrams per liter

µs/cm = micro siemens per centimeter

µg/l = micrograms per liter

mV = milli-volts

ORP = oxidation-reduction potential

TOC = Total Organic Carbon

J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain than results at or above the LOQ.

NS = not sampled

**Red/Bold** = ch. NR 140 Wis. Adm. Code Enforcement Standard (ES) exceedance

**Blue/Italic** = ch. NR 140 Wis. Adm. Code Preventive Action Limit (PAL) exceedance

Table A.1.b Groundwater Analytical Table

## Summary of Groundwater Data (Detected Compounds Only)

Redi-Quick Dry Cleaners  
 9508 West Greenfield Avenue  
 West Allis, Wisconsin

		Pilot Testing Program				Quarterly Performance Monitoring Program									
		Baseline 3/30/2009	3 Month Performance 6/24/2009 7/30/2009 8/30/2009	1Q 7/7/2010	2Q 10/28/2010	3Q 1/27/2011	4Q 4/28/2011	5Q 8/7/2012	6Q 11/28/2012	7Q 2/27/2013	8Q 5/20/2013		3/30/2017		
<b>MW-4</b>		NR 140.10 Table 1 <b>PAL</b> <b>ES</b>													
Detected VOCs	cis-1,2-Dichloroethene	µg/l <b>7</b> <b>70</b>	NS	NS	NS	NS	1.93 J <b>4.0</b>	22 <b>5.2</b>	24.8 <b>2.73</b>	36 <b>2.36</b>	35 <b>3.12</b>	23.2 <b>3.7</b>	10.1 <b>2.95</b>	5.6 <b>3.3</b>	0.73 J <b>3.7</b>
	Tetrachloroethene (PCE)	µg/l <b>0.5</b> <b>5</b>	NS	NS	NS	NS	< 0.39	1.23	0.74 J <b>0.54</b>	J <b>1.04</b>	1.87 <b>2.41</b>	1.6 <b>2.24</b>	1.15 <b>2.24</b>	1.38 <b>0.18</b>	1.2 <b>0.18</b>
	Trichloroethene (TCE)	µg/l <b>0.5</b> <b>5</b>	NS	NS	NS	NS									
	Vinyl Chloride	µg/l <b>0.02</b> <b>0.2</b>	NS	NS	NS	NS	< 0.19	0.62	1.42	1.04					
Field Measurements	Temperature	deg. C --	--	NS	NS	NS	17.02	17.01	9.14	3.65	19.34	13.82	6.25	11.61	7.3
	pH	--	--	NS	NS	NS	6.77	7.16	7.18	7.22	6.99	7.16	7.06	6.75	7.13
	Dissolved Oxygen	mg/l --	--	NS	NS	NS	0.73	0.84	1.44	6.24	0.42	0.86	2.60	5.16	2.2
	Specific Conductivity	µs/cm --	--	NS	NS	NS	730	672	662	700	734	780	720	620	711
	ORP	mV --	--	NS	NS	NS	-129	10	-394	26	110	-249	133	70	225.9
Geochemical Parameters	TOC	µg/l --	--	NS	NS	NS	550 J <b>&lt; 1</b>	2300 <b>&lt; 1</b>	1200 <b>&lt; 1</b>	NS <b>&lt; 1</b>	NS <b>&lt; 0.5</b>	NS <b>&lt; 0.5</b>	NS <b>&lt; 0.5</b>	NS <b>&lt; 0.5</b>	NS
	Dissolved Nitrate/Nitrite	mg/l --	--	NS	NS	NS	0.51	0.13 J <b>&lt; 1</b>	0.14 J <b>&lt; 1</b>	0.52	NS <b>&lt; 0.5</b>	NS <b>&lt; 0.5</b>	NS <b>&lt; 0.5</b>	NS <b>&lt; 0.5</b>	NS
	Dissolved Sulfate	mg/l --	--	NS	NS	NS	11.4	7.93 J <b>&lt; 1</b>	8.85 J <b>&lt; 1</b>	11.4	NS <b>&lt; 0.5</b>	NS <b>&lt; 0.5</b>	NS <b>&lt; 0.5</b>	NS <b>&lt; 0.5</b>	NS
	Ethane	µg/l --	--	NS	NS	NS					NS <b>&lt; 1</b>	NS <b>&lt; 1</b>	NS <b>&lt; 1</b>	NS <b>&lt; 1</b>	NS
	Ethene	µg/l --	--	NS	NS	NS					NS <b>&lt; 1</b>	NS <b>&lt; 1</b>	NS <b>&lt; 1</b>	NS <b>&lt; 1</b>	NS
	Methane	µg/l --	--	NS	NS	NS	1.2 J <b>&lt; 1</b>	1	26.5	NS <b>&lt; 1</b>	31.2	NS <b>&lt; 1</b>	NS <b>&lt; 1</b>	NS <b>&lt; 1</b>	NS

## NOTES

deg. C = degrees Celsius

mg/l = milligrams per liter

µs/cm = micro siemens per centimeter

µg/l = micromicrograms per liter

mV = milli-volts

ORP = oxidation-reduction potential

TOC = Total Organic Carbon

J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain than results at or above the LOQ.

NS = not sampled

**Red/Bold** = ch. NR 140 Wis. Adm. Code Enforcement Standard (ES) exceedance**Blue/Italic** = ch. NR 140 Wis. Adm. Code Preventive Action Limit (PAL) exceedance



**Table A.1.b Groundwater Analytical Table**

**Summary of Groundwater Data (Detected Compounds Only)**

Redi-Quick Dry Cleaners  
9508 West Greenfield Avenue  
West Allis, Wisconsin

<b>MW-10</b>		Pilot Testing Program				Quarterly Performance Monitoring Program								3/30/2017			
		Baseline 3/30/2009	3 Month Performance 5/30/2009	6/30/2009	7/30/2009	1Q 7/7/2010	2Q 10/28/2010	3Q 1/27/2011	4Q 4/28/2011	5Q 8/7/2012	6Q 11/28/2012	7Q 2/27/2013	8Q 5/20/2013				
<b>Detected VOCs</b>		NR 140.10 Table 1 <b>PAL</b> <b>ES</b>															
cis-1,2-Dichloroethene	µg/l	7	70	< 220	NS	NS	NS	< 8,700	138,000	181,000	3,500	J	51,000	5,800	31,300	1,120	1,010
trans-1,2-Dichloroethene	µg/l	20	100	< 305	NS	NS	NS	< 650	3,070	< 790	< 1580		< 395	< 395	< 175	< 175	104
Tetrachloroethene (PCE)	µg/l	0.5	5	33,000	NS	NS	NS	13,200	< 430	< 440	< 880		< 220	< 220	< 165	< 165	2.5
Trichloroethene (TCE)	µg/l	0.5	5	580	J	NS	NS	2,540	< 390	< 470	< 940		< 235	< 235	< 165	< 165	125
Vinyl Chloride	µg/l	0.02	0.2	< 100	NS	NS	NS	220	J	14,700	25,700	1,660	21,100	4,600	13,300	640	699
<b>Field Measurements</b>																	
Temperature	deg. C	--	--	9.33	NS	NS	NS	15.50	16.48	11.44	6.53		18.45	15.61	10.32	12.50	8.90
pH	--	--	--	7.15	NS	NS	NS	6.48	6.60	6.33	6.87		6.54	6.79	6.79	6.86	7
Dissolved Oxygen	mg/l	--	--	0.51	NS	NS	NS	0.28	0.10	0.37	0.31		0.57	0.18	0.25	0.51	.37
Specific Conductivity	µs/cm	--	--	3575	NS	NS	NS	3326	4992	5362	3936		4281	2794	3340	2432	2786
ORP	mV	--	--	294	NS	NS	NS	-136	-84	-413	-83		-95	-262	-70	-151	-137.5
<b>Geochemical Parameters</b>																	
TOC	µg/l	--	--	2,800	NS	NS	NS	120,000	320,000	390,000	82,000		NS	NS	NS	NS	NS
Dissolved Iron	µg/l	--	--	< 60	NS	NS	NS	NS	NS	NS	NS		NS	NS	NS	NS	NS
Dissolved Nitrate/Nitrite	mg/l	--	--	0.5	NS	NS	NS	< 0.1	< 0.1	< 0.1	< 0.1		NS	NS	NS	NS	NS
Dissolved Sulfate	mg/l	--	--	103	NS	NS	NS	4.65	J <	3.4	< 3.4		NS	NS	NS	NS	NS
Ethane	µg/l	--	--	NS	NS	NS	NS	78	299	2630	4210		10300	13,500	10,100	4,910	NS
Ethene	µg/l	--	--	NS	NS	NS	NS	2.5	J	4670	< 10	< 20	< 0.5	5	3.91	< 10	NS
Methane	µg/l	--	--	NS	NS	NS	NS	62	< 1	4620	7870		5,600	10,300	10,500	7,380	NS

NOTES

deg. C = degrees Celsius

mg/l = milligrams per liter

µs/cm = micro siemens per centimeter

µg/l = micrograms per liter

mV = milli-volts

ORP = oxidation-reduction potential

TOC = Total Organic Carbon

J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain than results at or above the LOQ.

NS = not sampled

**Red/Bold** = ch. NR 140 Wis. Adm. Code Enforcement Standard (ES) exceedance

**Blue/Italic** = ch. NR 140 Wis. Adm. Code Preventive Action Limit (PAL) exceedance

**Table A.1.b Groundwater Analytical Table**  
**Summary of Groundwater Data (Detected Compounds Only)**  
**Redi-Quick Dry Cleaners**  
**9508 West Greenfield Avenue**  
**West Allis, Wisconsin**

				Pilot Testing Program								Quarterly Performance Monitoring Program												
				Baseline 3/30/2009				3 Month Performance 5/30/2009 6/30/2009 7/30/2009				1Q 7/6/2010	2Q 10/28/2010	3Q 1/27/2011	4Q 4/28/2011	5Q 8/7/2012	6Q 11/28/2012	7Q 2/27/2013	8Q 5/20/2013					3/30/2017
				NR 140.10 Table 1 <i>PAL</i> <b>ES</b>																				
<b>MW-11</b>	<b>Detected VOCs</b>	cis-1,2-Dichloroethene	µg/l	<i>7</i>	<b>70</b>	< 0.44	NS	NS	NS	< 0.78	< 0.78	< 0.74	< 0.74	< 0.74	< 0.74	< 0.74	< 0.74	< 0.38	< 0.38	< 0.26	< 0.26	< 0.26		
		trans-1,2-Dichloroethene	µg/l	<i>20</i>	<b>100</b>	< 0.61	NS	NS	NS	< 1.3	< 1.3	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.35	< 0.35	< 0.35	< 0.26	< 0.26	< 0.26	
		Tetrachloroethene (PCE)	µg/l	<i>0.5</i>	<b>5</b>	< 0.5	NS	NS	NS	< 0.43	< 0.43	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.33	< 0.33	< 0.5	< 0.5	< 0.5	
		Trichloroethene (TCE)	µg/l	<i>0.5</i>	<b>5</b>	< 0.47	NS	NS	NS	< 0.39	< 0.39	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	
		Vinyl Chloride	µg/l	<i>0.02</i>	<b>0.2</b>	< 0.2	NS	NS	NS	<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	<0.18	
<b>Field Measurements</b>	Temperature	deg. C	--	--		8.43	NS	NS	NS	15.07	16.70	11.57	5.15	17.74	15.64	10.23	11.29	9						
	pH		--	--		7.00	NS	NS	NS	6.45	6.99	6.92	7.00	6.93	6.89	6.97	6.82	6.86						
	Dissolved Oxygen	mg/l	--	--		0.89	NS	NS	NS	0.47	0.53	2.21	3.22	0.77	0.58	3.45	3.07	.83						
	Specific Conductivity	µs/cm	--	--		3446	NS	NS	NS	3567	3483	3202	3349	3388	3338	3226	3428	3428						
	ORP	mV	--	--		295.4	NS	NS	NS	-139	107	-370	14	81	-211	89	126	228.1						
<b>Geochemical Parameters</b>	TOC	µg/l	--	--		3,000	NS	NS	NS	2,000	1400	1100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dissolved Iron	µg/l	--	--		< 60	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dissolved Nitrate/Nitrite	mg/l	--	--		<0.1	NS	NS	NS	< 0.1	0.1	J	0.15	J <	0.1	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dissolved Sulfate	mg/l	--	--		138	NS	NS	NS	193	172	127	168	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Ethane	µg/l	--	--		NS	NS	NS	NS	< 1	< 1	< 1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Ethene	µg/l	--	--		NS	NS	NS	NS	< 1	< 1	< 1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Methane	µg/l	--	--		NS	NS	NS	NS	< 1	1.4	J	2.6	J	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

NOTES  
deg. C = degrees Celsius  
mg/l = milligrams per liter  
µs/cm = micro siemens per centimeter  
µg/l = micrograms per liter  
mV = milli-volts

ORP = oxidation-reduction potential  
TOC = Total Organic Carbon

J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain than results at or above the LOQ.

NS = not sampled

**Red/Bold** = ch. NR 140 Wis. Adm. Code Enforcement Standard (ES) exceedance

**Blue/Italic** = ch. NR 140 Wis. Adm. Code Preventive Action Limit (PAL) exceedance

Table A.1.b Groundwater Analytical Table

Summary of Groundwater Data (Detected Compounds Only)

Redi-Quick Dry Cleaners  
 9508 West Greenfield Avenue  
 West Allis, Wisconsin

MW-12				Pilot Testing Program				Quarterly Performance Monitoring Program															
				Baseline 3/30/2009		3 Month Performance 6/24/2009 7/28/2009 8/26/2009		1Q 7/6/2010		2Q 10/28/2010		3Q 1/26/2011		4Q 4/28/2011		5Q 8/7/2012		6Q 11/28/2012		7Q 2/27/2013		8Q 5/20/2013	
Detected VOCs	NR 140.10 Table 1			PAL	ES																		
cis-1,2-Dichloroethene	µg/l	7	70	< 0.44	<	34	<	0.68	<	0.68	<	1,200	J	75,000	98,000	61,000	25,200	16,400	18,200	17,200	2.4		
trans-1,2-Dichloroethene	µg/l	20	100	< 0.61	<	30.5	<	0.61	<	0.61	<	650		1,290	940	J < 395	< 395	< 395	< 175	< 70	8.4		
Tetrachloroethene (PCE)	µg/l	0.5	5	2.1	25.5	J	4.8	4.1				21,700		14,100	7,000	< 220	< 220	< 165	< 66	< 0.50			
Trichloroethene (TCE)	µg/l	0.5	5	< 0.47	<	19.5	0.44	J	<	0.47	J	235	J	740	700	J < 235	< 235	< 235	< 165	< 66	< 0.33		
Vinyl Chloride	µg/l	0.02	0.2									< 95	<	95	280	260	J	320	< 90	110	J	192	1.4
Field Measurements	Temperature	deg. C	--	--	11.35	18.53	15.85	13.97		16.31	13.85	12.70	8.19		16.43	12.24	11.96	14.61	11.70				
	pH	--	--	7.38	6.60	5.82	6.37		6.11	6.71	6.57	6.63		6.63	6.78	6.81	6.65	6.96					
	Dissolved Oxygen	mg/l	--	--	1.78	1.43	3.14	0.52		0.42	0.07	0.26	0.40		0.48	0.73	0.40	7.13	0.70				
	Specific Conductivity	µs/cm	--	--	1008	1114	1147	1363		3461	2446	2667	2763		2603	2513	2281	2129	1620				
	ORP	mV	--	--	274.1	-15.3	-152.7	-167		-153	-112	-160	-71		-106	-266	-80	-120	-130.9				
Geochemical Parameters	TOC	µg/l	--	--	2,200	22,000	230,000	280		830,000	510,000	580,000	430,000		NS	NS	NS	NS	NS				
	Dissolved Iron	µg/l	--	--	< 60	2,930	2.7	< 5		NS	NS	NS	NS		NS	NS	NS	NS	NS				
	Dissolved Nitrate/Nitrite	mg/l	--	--	0.1	J	1.01	<0.1	0.1	0.14	J	< 0.1	0.10	J < 0.1	0.1	NS	NS	NS	NS	NS			
	Dissolved Sulfate	mg/l	--	--	92.0	76.7	7.68	J	< 3.4	4.66	J	4.07	J < 3.4	21.3	NS	NS	NS	NS	NS				
	Ethane	µg/l	--	--	NS	NS	NS	NS		< 1	2.0	J < 10	20.1	J	1.5	5.3	3.17	5.61	NS				
	Ethene	µg/l	--	--	NS	NS	NS	NS		< 1	< 1.0	< 10	< 20.0		< 0.5	< 0.5	< 0.5	< 5.0	NS				
	Methane	µg/l	--	--	NS	NS	NS	NS		1150	3660	5420	4280		6,380	12,200	5,780	4,420	NS				
	Acetic Acid	mg/l	--	--	NS	46.00	190	210.0		NS	NS	NS	NS		NS	NS	NS	NS	NS				
	Butyric Acid	mg/l	--	--	NS	5.80	30	32.0		NS	NS	NS	NS		NS	NS	NS	NS	NS				
	Formic Acid	mg/l	--	--	NS	2.40	18	1.6		NS	NS	NS	NS		NS	NS	NS	NS	NS				

## NOTES

deg. C = degrees Celsius

µg/l = micrograms per liter

µs/cm = micro siemens per centimeter

µg/l = micrograms per liter

mV = milli-volts

ORP = oxidation-reduction potential

TOC = Total Organic Carbon

J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain than results at or above the LOQ.

NS = not sampled

Red/Bold = ch. NR 140 Wis. Adm. Code Enforcement Standard (ES) exceedance

Blue/Italic = ch. NR 140 Wis. Adm. Code Preventive Action Limit (PAL) exceedance

**Table A.1.b Groundwater Analytical Table**

**Summary of Groundwater Data (Detected Compounds Only)**

Redi-Quick Dry Cleaners  
9508 West Greenfield Avenue  
West Allis, Wisconsin

				Pilot Testing Program				Quarterly Performance Monitoring Program								
				Baseline 3/30/2009	3 Month Performance 5/30/2009 6/30/2009 7/30/2009		1Q 7/6/2010	2Q 10/28/2010	3Q 1/27/2011	4Q 4/28/2011	5Q 8/7/2012	6Q 11/28/2012	7Q 2/27/2013	8Q 5/20/2013	3/30/2017	
<b>MW-13</b>				NR 140.10 Table 1 <i>PAL</i> <b>ES</b>												
Detected VOCs	cis-1,2-Dichloroethene	µg/l	<b>7</b>	<b>70</b>	< 0.44	NS	NS	NS	< 0.78	< 0.78	< 0.74	< 0.74	< 0.74	NS	NS	<0.26
	trans-1,2-Dichloroethene	µg/l	<b>20</b>	<b>100</b>	< 0.61	NS	NS	NS	< 1.3	< 1.3	< 0.79	< 0.79	< 0.79	NS	NS	<0.26
	Tetrachloroethene (PCE)	µg/l	<b>0.5</b>	<b>5</b>	< 0.5	NS	NS	NS	< 0.43	< 0.43	< 0.44	< 0.44	< 0.44	NS	NS	<0.50
	Trichloroethene (TCE)	µg/l	<b>0.5</b>	<b>5</b>	< 0.47	NS	NS	NS	< 0.39	< 0.39	< 0.47	< 0.47	< 0.47	NS	NS	<0.033
	Vinyl Chloride	µg/l	<b>0.02</b>	<b>0.2</b>	< 0.2	NS	NS	NS	<0.18	<0.18	<0.18	<0.18	<0.18	NS	NS	<0.18
Field Measurements	Temperature	deg. C	--	--	10.27	NS	NS	NS	13.61	13.86	12.01	6.82	13.68	NS	NS	11
	pH	-	--	--	7.40	NS	NS	NS	7.03	7.42	7.26	7.62	7.29	NS	NS	7.12
	Dissolved Oxygen	mg/l	--	--	1.94	NS	NS	NS	2.33	0.93	2.88	8.33	0.48	NS	NS	0.41
	Specific Conductivity	µs/cm	--	--	810	NS	NS	NS	793	760	800	609	879	NS	NS	1188
	ORP	mV	--	--	280.3	NS	NS	NS	-157	-12	-352	19	-39	NS	NS	-49.5
Geochemical Parameters	TOC	µg/l	--	--	3,500	NS	NS	NS	5200	6200	3900	NS	NS	NS	NS	NS
	Dissolved Iron	µg/l	--	--	< 60	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dissolved Nitrate/Nitrite	mg/l	--	--	0.37	NS	NS	NS	1.43	0.27	J	0.30	J <	0.1	NS	NS
	Dissolved Sulfate	mg/l	--	--	33.0	NS	NS	NS	27.9	23.7	33.0	8.33	J	NS	NS	NS
	Ethane	µg/l	--	--	NS	NS	NS	NS	< 1	< 1	< 1	NS	NS	NS	NS	NS
	Ethene	µg/l	--	--	NS	NS	NS	NS	< 1	< 1	< 1	NS	NS	NS	NS	NS
	Methane	µg/l	--	--	NS	NS	NS	NS	< 1	1.8	J	2.3	J	NS	NS	NS

NOTES

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mg/l = milligrams per liter

µs/cm = micro siemens per centimeter

µg/l = micrograms per liter

mV = milli-volts

ORP = oxidation-reduction potential

TOC = Total Organic Carbon

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NS = not sampled

**Red/Bold** = ch. NR 140 Wis. Adm. Code Enforcement Standard (ES) exceedance

**Blue/Italic** = ch. NR 140 Wis. Adm. Code Preventive Action Limit (PAL) exceedance

Table A.1.b Groundwater Analytical Table

Summary of Groundwater Data (Detected Compounds Only)

Redi-Quick Dry Cleaners  
 9508 West Greenfield Avenue  
 West Allis, Wisconsin

MW-14				Pilot Testing Program								Quarterly Performance Monitoring Program												
				Baseline 3/30/2009		3 Month Performance 6/24/2009 7/28/2009 8/26/2009		1Q 7/6/2010		2Q 10/28/2010		3Q 1/26/2011		4Q 4/28/2011		5Q 8/7/2012		6Q 11/28/2012		7Q 2/27/2013		8Q 5/20/2013		3/30/2017
Detected VOCs	NR 140.10 Table 1 PAL ES																							
	cis-1,2-Dichloroethene	µg/l	7	70	< 0.44	< 34	45	J	94	<	2,320	18,600	11,700	10,200	<	360	490	510	580	5.9				
	trans-1,2-Dichloroethene	µg/l	20	100	< 0.61	< 30.5	NS	<	6.1	<	65	550	183	J	81	<	79	46	53	55	6.3			
	Tetrachloroethene (PCE)	µg/l	0.5	5	1.87	3300	550		208	<	2,040	98	J < 44	< 44	<	<	44	< 4.4	< 3.3	<	3.3	< 0.5		
	Trichloroethene (TCE)	µg/l	0.5	5	< 0.47	< 19.5	< 19.5		4.1	J	174	< 78	< 47	< 47	<	<	47	< 4.7	< 3.3	<	3.6	< 0.33		
	Vinyl Chloride	µg/l	0.02	0.2	< 0.2	< 10	< 10		2.2	J	14.5	J	164	113	202	<	179	162	172	211	1.6			
Field Measurements	Temperature	deg. C	--	--	11.3	21.54	16.43		15.53		16.44	15.40	12.75	6.88		17.12	14.84	10.72	12.46	9.6				
	pH	--	--	--	7.39	5.9	5.88		6.18		5.97	6.42	6.42	6.51		6.43	6.40	6.37	6.30	6.58				
	Dissolved Oxygen	mg/l	--	--	1.74	2.44	3.23		0.96		0.40	0.04	0.31	0.27		0.55	0.21	0.35	5.40	0.51				
	Specific Conductivity	µs/cm	--	--	1020	3263	3200		3197		5207	3600	2907	2807		2964	3124	3144	3449	4122				
	ORP	mV	--	--	268.2	40.1	-51.9		-72		-133	-90	-161	-44		-70	-257	1	-61	-60.9				
Geochemical Parameters	TOC	µg/l	--	--	2,400	22,000	1,200,000		810		1,900,000	1,100,000	680,000	410,000		NS	NS	NS	NS	NS				
	Dissolved Iron	µg/l	--	--	< 60	5030	2.8	<	5		NS	NS	NS	NS		NS	NS	NS	NS	NS				
	Nitrate/Nitrite	mg/l	--	--	0.1	J	2.47	0.1	J	0.1	J	0.14	J < 0.1	0.12	J < 0.1		NS	NS	NS	NS	NS			
	Sulfate	mg/l	--	--	82.5	35.2	35.4	<	3.4		22.4	5.12	J	3.76	J < 3.4		NS	NS	NS	NS	NS			
	Ethane	µg/l	--	--	NS	NS	NS		NS		< 1	< 5	1.1	J < 20		179	146	104	139	NS				
	Ethene	µg/l	--	--	NS	NS	NS		NS		1.1	J < 5	< 1	< 20		< 10	< 0.5	< 0.5	< 10	NS				
	Methane	µg/l	--	--	NS	NS	NS		NS		2,520	3920	9330	8580		7,240	9,910	8,290	7,850	NS				
	Acetic Acid	mg/l	--	--	NS	380	280.0		320		NS	NS	NS	NS		NS	NS	NS	NS	NS				
	Butyric Acid	mg/l	--	--	NS	42	51.0		24		NS	NS	NS	NS		NS	NS	NS	NS	NS				
	Formic Acid	mg/l	--	--	NS	18	11.0		4.6		NS	NS	NS	NS		NS	NS	NS	NS	NS				
Notes	Hexanoic Acid	mg/l	--	--	NS	7.4	<0.10		9.8		NS	NS	NS	NS		NS	NS	NS	NS	NS				
	i-Hexanoic Acid	mg/l	--	--	NS	<1	<0.10		0.41		NS	NS	NS	NS		NS	NS	NS	NS	NS				
	i-Pentanoic Acid	mg/l	--	--	NS	2.2	<0.70		1.4		NS	NS	NS	NS		NS	NS	NS	NS	NS				
	Lactic Acid	mg/l	--	--	NS	52	35.0		3.5		NS	NS	NS	NS		NS	NS	NS	NS	NS				
	Pentanoic Acid	mg/l	--	--	NS	4.6	8.10		7.9		NS	NS	NS	NS		NS	NS	NS	NS	NS				
	Propionic Acid	mg/l	--	--	NS	760	590.0		680		NS	NS	NS	NS		NS	NS	NS	NS	NS				
	Pyruvic Acid	mg/l	--	--	NS	10	5.80		6.6		NS	NS	NS	NS		NS	NS	NS	NS	NS				

NOTES  
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 µg/l = micrograms per liter  
 mV = milli-volts

ORP = oxidation-reduction potential

TOC = Total Organic Carbon

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Red/Bold = ch. NR 140 Wis. Adm. Code Enforcement Standard (ES) exceedance

Blue/Italic = ch. NR 140 Wis. Adm. Code Preventive Action Limit (PAL) exceedance

**Table A.1.b Groundwater Analytical Table**  
**Summary of Groundwater Data (Detected Compounds Only)**  
**Redi-Quick Dry Cleaners**  
**9508 West Greenfield Avenue**  
**West Allis, Wisconsin**

				Pilot Testing Program								Quarterly Performance Monitoring Program																	
				Baseline 3/30/2009				3 Month Performance 5/30/2009 6/30/2009 7/30/2009				1Q 7/6/2010		2Q 10/28/2010		3Q 1/27/2011		4Q 4/28/2011		5Q 8/7/2012		6Q 11/28/2012		7Q 2/27/2013		8Q 5/20/2013		3/30/2017	
				NR 140.10 Table 1																									
MW-21	Detected VOCs			NR 140.10 Table 1	PAL	ES																							
	cis-1,2-Dichloroethene	µg/l	7	70	< 0.44	NS	NS	NS	NS	NS	<	0.78	NS	NS	<	0.74	NS	NS	NS	NS	< 0.26								
	trans-1,2-Dichloroethene	µg/l	20	100	< 0.61	NS	NS	NS	NS	NS	<	1.3	NS	NS	<	0.79	NS	NS	NS	NS	< 0.26								
	Tetrachloroethene (PCE)	µg/l	0.5	5	< 0.5	NS	NS	NS	NS	NS	<	0.43	NS	NS	<	0.44	NS	NS	NS	NS	< 0.50								
	Trichloroethene (TCE)	µg/l	0.5	5	< 0.47	NS	NS	NS	NS	NS	<	0.39	NS	NS	<	0.47	NS	NS	NS	NS	< 0.33								
	Vinyl Chloride	µg/l	0.02	0.2	< 0.2	NS	NS	NS	NS	NS	<	0.18	NS	NS	<	0.18	NS	NS	NS	NS	< 0.18								
Field Measurements	Temperature	deg. C	--	--	7.43	NS	NS	NS	NS	NS	16.37	NS	NS	NS	17.09	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	8.6	
	pH	--	--	--	6.95	NS	NS	NS	NS	NS	6.89	NS	NS	NS	6.84	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	6.85	
	Dissolved Oxygen	mg/l	--	--	0.3	NS	NS	NS	NS	NS	0.26	NS	NS	NS	0.58	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.98	
	Specific Conductivity	µs/cm	--	--	4632	NS	NS	NS	NS	NS	4736	NS	NS	NS	4989	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	4020	
	ORP	mV	--	--	283.2	NS	NS	NS	NS	NS	98	NS	NS	NS	72	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	181.9	
Geochemical Parameters	TOC	µg/l	--	--	3,600	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	Ammonia as N	mg/l	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	Dissolved Iron	µg/l	--	--	< 0.06	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	Dissolved Manganese	µg/l	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	Total Alkalinity (CaCO <sub>3</sub> )	mg/l	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	Dissolved Nitrate/Nitrite	mg/l	--	--	< 0.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	Dissolved Sulfate	mg/l	--	--	343.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	Ethane	µg/l	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	Ethene	µg/l	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	Methane	µg/l	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	Acetic Acid	mg/l	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	Butyric Acid	mg/l	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	Lactic Acid	mg/l	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	Propionic Acid	mg/l	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	Pyruvic Acid	mg/l	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	

NOTES  
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µs/cm = micro siemens per centimeter  
µg/l = micrograms per liter  
mV = milli-volts  
ORP = oxidation-reduction potential  
TOC = Total Organic Carbon  
J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain than results at or above the LOQ.  
NS = not sampled  
**Red/Bold** = ch. NR 140 Wis. Adm. Code Enforcement Standard (ES) exceedance  
**Blue/Italic** = ch. NR 140 Wis. Adm. Code Preventive Action Limit (PAL) exceedance

Table A.1.b Groundwater Analytical Table

## Summary of Groundwater Data (Detected Compounds Only)

Redi-Quick Dry Cleaners  
 9508 West Greenfield Avenue  
 West Allis, Wisconsin

PZ-10		Pilot Testing Program				Quarterly Performance Monitoring Program																															
		Baseline 3/30/2009		3 Month Performance 5/30/2009 6/30/2009 7/30/2009		1Q 7/7/2010		2Q 10/28/2010		3Q 1/27/2011		4Q 4/28/2011		5Q 8/7/2012		6Q 11/28/2012		7Q 2/27/2013		8Q 5/20/2013	3/30/2017																
Detected VOCs	NR 140.10 Table 1  cis-1,2-Dichloroethene trans-1,2-Dichloroethene Tetrachloroethene (PCE) Trichloroethene (TCE) Vinyl Chloride																																				
Field Measurements	Temperature	deg. C	--	--	10.91	NS	NS	NS	14.7	14.37	12.45	8.40	15.23	13.34	12.64	14.19	11.00																				
	pH		--	--	7.64	NS	NS	NS	7.33	7.75	7.67	7.75	7.57	7.66	7.72	7.40	7.56																				
	Dissolved Oxygen	mg/l	--	--	2.85	NS	NS	NS	2.58	2.78	2.83	6.30	2.10	1.51	5.85	7.89	4.96																				
	Specific Conductivity	µs/cm	--	--	779	NS	NS	NS	847	767	762	801	795	752	816	792	782																				
	ORP	mV	--	--	287	NS	NS	NS	-125	71	-344	19	107	-262	55	99	239.9																				
Geochemical Parameters	TOC	µg/l	--	--	3,800	NS	NS	NS	1900	3100	3100	NS	NS	NS	NS	NS	NS	NS																			
	Dissolved Iron	µg/l	--	--	< 60	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS																			
	Dissolved Nitrate/Nitrite	mg/l	--	--	0.1	J	NS	NS	0.22	J	0.15	J	0.18	J	0.1	J	NS	NS																			
	Dissolved Sulfate	mg/l	--	--	37.0	NS	NS	NS	38.2	29.5	32.8	34.9	NS	NS	NS	NS	NS																				
	Ethane	µg/l	--	--	NS	NS	NS	NS	< 1	< 1	< 1	NS	NS	NS	NS	NS	NS																				
	Ethene	µg/l	--	--	NS	NS	NS	NS	< 1	< 1	< 1	NS	NS	NS	NS	NS	NS																				
	Methane	µg/l	--	--	NS	NS	NS	NS	< 1	< 1	2.8	J	NS	NS	NS	NS	NS																				

## NOTES

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mg/l = milligrams per liter

µs/cm = micro siemens per centimete

µg/l = micrograms per liter

mV = milli-volts

ORP = oxidation-reduction potential

TOC = Total Organic Carbon

J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain than results at or above the LOQ.

NS = not sampled

**Red/Bold** = ch. NR 140 Wis. Adm. Code Enforcement Standard (ES) exceedance**Blue/Italic** = ch. NR 140 Wis. Adm. Code Preventive Action Limit(PAL) exceedance

Table A.1.b Groundwater Analytical Table

Summary of Groundwater Data (Detected Compounds Only)

Redi-Quick Dry Cleaners

9508 West Greenfield Avenue

West Allis, Wisconsin

PZ-20			Pilot Testing Program								Quarterly Performance Monitoring Program						3/30/2017		
			Baseline 3/30/2009		3 Month Performance 5/30/2009 6/30/2009 7/30/2009		1Q 7/6/2010 10/28/2010		2Q 1/26/2011 4/28/2011		3Q 8/7/2012 11/28/2012		4Q 2/27/2013 5/20/2013						
Detected VOCs	NR 140.10 Table 1		PAL	ES															
	cis-1,2-Dichloroethene	µg/l	7	70	< 0.44	NS	NS	NS	< 0.78	1.37	J	3.8	2.05	J	10.2	14.3	5.0	10.3	26.3
	trans-1,2-Dichloroethene	µg/l	20	100	< 0.61	NS	NS	NS	< 1.3	< 1.3	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.35	< 0.35	1.3
	Tetrachloroethene (PCE)	µg/l	0.5	5	147	NS	NS	NS	83	43	22	12	17.5	19.8	5.5	8.6	21.9		
	Trichloroethene (TCE)	µg/l	0.5	5	1.64	NS	NS	NS	1.53	1.76	1.44	J	1.08	J	3.02	3.8	1.62	2.44	7.6
Field Measurements	Vinyl Chloride	µg/l	0.02	0.2	<0.2	NS	NS	NS	< 0.19	< 0.19	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	
	Temperature	deg. C	--	--	10.61	NS	NS	NS	14.58	13.05	12.47	8.57	14.32	12.03	11.47	14.03	12.90		
	pH	--	--	--	7.67	NS	NS	NS	7.34	7.62	7.60	7.65	7.54	7.70	7.58	7.51	7.52		
	Dissolved Oxygen	mg/l	--	--	2.49	NS	NS	NS	4.39	2.21	2.21	4.07	4.41	5.65	1.38	5.86	3.49		
	Specific Conductivity	µs/cm	--	--	849	NS	NS	NS	888	833	816	867	848	817	898	843	861		
Geochemical Parameters	ORP	mV	--	--	285.8	NS	NS	NS	-140	28	-138	16	116	-218	141	121	225		
	TOC	µg/l	--	--	1,900	NS	NS	NS	1400	1100	1620	NS	NS	NS	NS	NS	NS	NS	
	Dissolved Iron	µg/l	--	--	< 60	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
	Dissolved Nitrate/Nitrite	mg/l	--	--	0.1	J	NS	NS	0.12	J < 0.1	0.14	J < 0.1	NS	NS	NS	NS	NS		
	Dissolved Sulfate	mg/l	--	--	41.4	NS	NS	NS	40.7	35.8	36.9	34.5	NS	NS	NS	NS	NS		
Geological Parameters	Ethane	µg/l	--	--	NS	NS	NS	NS	< 1	< 1	< 1	NS	NS	NS	NS	NS	NS		
	Ethene	µg/l	--	--	NS	NS	NS	NS	< 1	< 1	< 1	NS	NS	NS	NS	NS	NS		
	Methane	µg/l	--	--	NS	NS	NS	NS	< 1	< 1	2.8	J	NS	NS	NS	NS	NS		

## NOTES

deg. C = degrees Celsius

mg/l = milligrams per liter

µs/cm = micro siemens per centimeter

µg/l = micrograms per liter

mV = milli-volts

ORP = oxidation-reduction potential

TOC = Total Organic Carbon

J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain than results at or above the LOQ.

NS = not sampled

Red/Bold = ch. NR 140 Wis. Adm. Code Enforcement Standard (ES) exceedance

Blue/Italic = ch. NR 140 Wis. Adm. Code Preventive Action Limit (PAL) exceedance



Mr. Binyoti Amungwafor  
June 19, 2017  
Page 9

**Attachment A**



**Corporate Office 12221 West Rockne Avenue Hales Corners, WI 53130**  
**414-303-4038 [www.radonprofessionalcare.com](http://www.radonprofessionalcare.com) [radabt1@wi.rr.com](mailto:radabt1@wi.rr.com)**

## O&M REPORT

Date: 081216

Contact: CB&I

Representative: Heidi Woefel

Project Manager / Geologist

Environmental and Sustainability

414-687-3313

[heidi.woefel@cbi.com](mailto:heidi.woefel@cbi.com)

Vapor Extraction Location: Milwaukee County  
Residential Home adjacent to Redi-Quick Dry Cleaners  
Owner: Sam Gruichich  
1356 S. 95<sup>th</sup> Street  
West Allis, WI 53214  
414-771-1280  
[redi-quick@att.net](mailto:redi-quick@att.net)

## REPORT

In late July of 2016 a request was made for an O&M, at the captioned location, by Heidi Woefel of CB&I. Several years ago Radon Abatement Incorporated installed a vapor extraction, sub-slab depressurization system, to remediate dry cleaning by-product fumes affecting the captioned residential home. The exterior portion of the system, which contains the mechanicals, was applied to the rear south-west corner of the building. The internal portion of the system was developed in the basement at the west wall of the southwest corner. The drop pit was developed at the existing drain tile and sub-soil at the south-west corner.

At the initial evaluation of the SSD system was conducted on 072916. The SSD system was found to be in need of repair, fan replacement and assessment for efficiency and safety.

The system was evaluated and repaired to assure compliance with USEPA and AARST-NRPP standards. President and owner of Radon Abatement Incorporated Thomas J. Heine conducted the evaluations and repairs of the system on 072916, 080816, 080916 and 081216.

The exterior system was ventilating compliantly, but not efficiently. Following fan replacement, efficiency was gained. The fan replacement increased ventilation volume. This was indicated in pre and post communication testing.

The fans new limited manufacturer's warranty is for five years. The fan is an RP-145 manufactured by Spruce Environmental of Massachusetts.

At the drop pipe the system is pulling 1.58 cfm in inches of water column. It is drawing approximately 70 watts of electrical energy.

Mechanical diagnostics identified the failing of the originally installed fan and verified the new fans efficiency. Vapor extraction efficiency data was based on the volume and velocity of the exhausting, as well as the sub-slab suction communication effectiveness.

The system assessment was found to be efficient after the new fan replacement. Refer to communication testing data below and the schematic attached.

Communication testing was conducted with the new fan functioning. Data gained at the main drop pipe and the four communication evaluation ports which were developed in the remaining corners of the building, as well as a one central to the basement concrete slab. The communication ports that were developed at the corners of the slab, were deliberately placed more central and away from the drain tile. This is to better access the communication efficiency that is not directly delivered at the ventilating drain tile.

Note: The drain tile was originally utilized as the suction drop point and gained additional excavation around it, to increase a larger area of low pressure; this in turn afforded additional efficiency improvement.

Communication calculations were accessed at the main suction point, as well as the additional four communication ports. Calculations were determined with n INFILTEC digital micro-manometer.

#### FINDINGS in INCHES OF WATER COLUMN

Main Drop	1.630
CP "A"	0.721
CP "B"	0.534
CP "C"	0.086
CP "D"	0.091

Safety checks were run to determine leakage and proper sealing at the remediation fan, floor, ventilation pipes and exhausting piping. No breach was discovered.

This vapor extraction system was due for maintenance and repair. After the stated repairs and replacement were made, the system was found to be safe and efficient.



Notes: We will coordinate the next O&M evaluation with CBI representatives, to assure permission and access to the property.

If there is a requirement for any additional governmentally requested reports, they can be generated at a cost of one-hundred fifty dollars (\$150.00). This O&M report was conducted in line with coordinated contracting.

Payment will be required immediately following receipt of the invoicing for this report and the activity that generated it.

**failure of the vapor extraction system. This includes damage, common wear and environmental effects. Further, it is the client's responsibility to report any malfunctions.**

**It is also the property owner's responsibility to report any property ownership transfer. All the data that surrounds any property transfer must be extensive and include the new owners contact information. The new owner must be informed of the contracting and any reports that have been generated by Radon Abatement Incorporated.**

**Submitted by Radon Abatement Incorporated President Thomas J. Heine**



**081216**

**If there are further questions or additional information needed, please do not hesitate to contact us by email or phone. Contact information is in this reports heading.**

**Page three of three**



0.086

\*CP "C"

0.721

\*CP"A"

0.534 \*CP "B"

STAIRCASE

Utility Room

0.091 \*CP "D"

1.630 Main Drop \*

E

N



Communication Diagnostics 080916

Active Sub Slab Depressurization Vapor Extraction System ASSDVES  
1356 S. 95th Street; West Allis, WI 53214

This drawing is not to scale



Mr. Binyoti Amungwafor  
June 19, 2017  
Page 10

**Attachment B**

April 07, 2017

Heidi Woelfel  
CB & I  
3757 Maplewood Ct  
Hubertus, WI 53033

RE: Project: 631224187 REDI-QUICK  
Pace Project No.: 40147589

Dear Heidi Woelfel:

Enclosed are the analytical results for sample(s) received by the laboratory on March 31, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Christopher Hyska  
christopher.hyska@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 631224187 REDI-QUICK  
Pace Project No.: 40147589

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302	Virginia VELAP ID: 460263
Florida/NELAP Certification #: E87948	South Carolina Certification #: 83006001
Illinois Certification #: 200050	Texas Certification #: T104704529-14-1
Kentucky UST Certification #: 82	Wisconsin Certification #: 405132750
Louisiana Certification #: 04168	Wisconsin DATCP Certification #: 105-444
Minnesota Certification #: 055-999-334	USDA Soil Permit #: P330-16-00157
New York Certification #: 12064	Federal Fish & Wildlife Permit #: LE51774A-0
North Dakota Certification #: R-150	

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40147589001	MW-2	Water	03/30/17 09:20	03/31/17 14:55
40147589002	MW-4	Water	03/30/17 08:45	03/31/17 14:55
40147589003	MW-10	Water	03/30/17 11:10	03/31/17 14:55
40147589004	MW-11	Water	03/30/17 09:40	03/31/17 14:55
40147589005	MW-12	Water	03/30/17 12:45	03/31/17 14:55
40147589006	MW-13	Water	03/30/17 10:40	03/31/17 14:55
40147589007	MW-14	Water	03/30/17 13:30	03/31/17 14:55
40147589008	MW-21	Water	03/30/17 10:10	03/31/17 14:55
40147589009	MW-120	Water	03/30/17 12:50	03/31/17 14:55
40147589010	PZ-10	Water	03/30/17 11:50	03/31/17 14:55
40147589011	PZ-20	Water	03/30/17 14:05	03/31/17 14:55
40147589012	TRIP BLANK	Water	03/30/17 12:00	03/31/17 14:55

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: 631224187 REDI-QUICK  
Pace Project No.: 40147589

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40147589001	MW-2	EPA 8260	LAP	64	PASI-G
40147589002	MW-4	EPA 8260	LAP	64	PASI-G
40147589003	MW-10	EPA 8260	LAP	64	PASI-G
40147589004	MW-11	EPA 8260	LAP	64	PASI-G
40147589005	MW-12	EPA 8260	LAP	64	PASI-G
40147589006	MW-13	EPA 8260	LAP	64	PASI-G
40147589007	MW-14	EPA 8260	LAP	64	PASI-G
40147589008	MW-21	EPA 8260	LAP	64	PASI-G
40147589009	MW-120	EPA 8260	LAP	64	PASI-G
40147589010	PZ-10	EPA 8260	LAP	64	PASI-G
40147589011	PZ-20	EPA 8260	LAP	64	PASI-G
40147589012	TRIP BLANK	EPA 8260	LAP	64	PASI-G

## REPORT OF LABORATORY ANALYSIS

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## SUMMARY OF DETECTION

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>40147589001</b>	<b>MW-2</b>					
EPA 8260	1,2-Dichloroethane	1.5	ug/L	1.0	04/06/17 20:00	
EPA 8260	cis-1,2-Dichloroethene	0.32J	ug/L	1.0	04/06/17 20:00	
EPA 8260	trans-1,2-Dichloroethene	0.60J	ug/L	1.0	04/06/17 20:00	
EPA 8260	Diisopropyl ether	1.3	ug/L	1.0	04/06/17 20:00	
EPA 8260	Vinyl chloride	0.67J	ug/L	1.0	04/06/17 20:00	
<b>40147589002</b>	<b>MW-4</b>					
EPA 8260	cis-1,2-Dichloroethene	0.73J	ug/L	1.0	04/06/17 20:22	
EPA 8260	Tetrachloroethene	3.7	ug/L	1.0	04/06/17 20:22	
EPA 8260	Trichloroethene	1.2	ug/L	1.0	04/06/17 20:22	
<b>40147589003</b>	<b>MW-10</b>					
EPA 8260	cis-1,2-Dichloroethene	1010	ug/L	5.0	04/06/17 10:20	
EPA 8260	trans-1,2-Dichloroethene	104	ug/L	5.0	04/06/17 10:20	
EPA 8260	Trichloroethene	125	ug/L	5.0	04/06/17 10:20	
EPA 8260	Vinyl chloride	699	ug/L	5.0	04/06/17 10:20	
<b>40147589005</b>	<b>MW-12</b>					
EPA 8260	cis-1,2-Dichloroethene	2.4	ug/L	1.0	04/05/17 14:40	
EPA 8260	trans-1,2-Dichloroethene	8.4	ug/L	1.0	04/05/17 14:40	
EPA 8260	Vinyl chloride	1.4	ug/L	1.0	04/05/17 14:40	
<b>40147589007</b>	<b>MW-14</b>					
EPA 8260	cis-1,2-Dichloroethene	5.9	ug/L	1.0	04/05/17 12:24	
EPA 8260	trans-1,2-Dichloroethene	6.3	ug/L	1.0	04/05/17 12:24	
EPA 8260	Vinyl chloride	1.6	ug/L	1.0	04/05/17 12:24	
<b>40147589009</b>	<b>MW-120</b>					
EPA 8260	cis-1,2-Dichloroethene	2.8	ug/L	1.0	04/05/17 13:09	
EPA 8260	trans-1,2-Dichloroethene	8.3	ug/L	1.0	04/05/17 13:09	
EPA 8260	Vinyl chloride	1.6	ug/L	1.0	04/05/17 13:09	
<b>40147589010</b>	<b>PZ-10</b>					
EPA 8260	Tetrachloroethene	13.6	ug/L	1.0	04/05/17 13:32	
EPA 8260	Trichloroethene	0.48J	ug/L	1.0	04/05/17 13:32	
<b>40147589011</b>	<b>PZ-20</b>					
EPA 8260	cis-1,2-Dichloroethene	26.3	ug/L	1.0	04/05/17 14:17	
EPA 8260	trans-1,2-Dichloroethene	1.3	ug/L	1.0	04/05/17 14:17	
EPA 8260	Tetrachloroethene	21.9	ug/L	1.0	04/05/17 14:17	
EPA 8260	Trichloroethene	7.6	ug/L	1.0	04/05/17 14:17	

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 631224187 REDI-QUICK  
Pace Project No.: 40147589

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**Method:** EPA 8260  
**Description:** 8260 MSV  
**Client:** CB&I\_WI  
**Date:** April 07, 2017

### General Information:

12 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

### Surrogates:

All surrogates were within QC limits with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

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**Sample: MW-2**      **Lab ID: 40147589001**      Collected: 03/30/17 09:20      Received: 03/31/17 14:55      Matrix: Water

---

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
Benzene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:00	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		04/06/17 20:00	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		04/06/17 20:00	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		04/06/17 20:00	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		04/06/17 20:00	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		04/06/17 20:00	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:00	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		04/06/17 20:00	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		04/06/17 20:00	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		04/06/17 20:00	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:00	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		04/06/17 20:00	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		04/06/17 20:00	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		04/06/17 20:00	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:00	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		04/06/17 20:00	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		04/06/17 20:00	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		04/06/17 20:00	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		04/06/17 20:00	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		04/06/17 20:00	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:00	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:00	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:00	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		04/06/17 20:00	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		04/06/17 20:00	75-34-3	
1,2-Dichloroethane	1.5	ug/L	1.0	0.17	1		04/06/17 20:00	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		04/06/17 20:00	75-35-4	
cis-1,2-Dichloroethene	0.32J	ug/L	1.0	0.26	1		04/06/17 20:00	156-59-2	
trans-1,2-Dichloroethene	0.60J	ug/L	1.0	0.26	1		04/06/17 20:00	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		04/06/17 20:00	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		04/06/17 20:00	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		04/06/17 20:00	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		04/06/17 20:00	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:00	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		04/06/17 20:00	10061-02-6	
Diisopropyl ether	1.3	ug/L	1.0	0.50	1		04/06/17 20:00	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:00	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		04/06/17 20:00	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		04/06/17 20:00	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:00	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		04/06/17 20:00	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		04/06/17 20:00	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		04/06/17 20:00	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:00	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:00	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		04/06/17 20:00	630-20-6	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

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**Sample: MW-2**      **Lab ID: 40147589001**      Collected: 03/30/17 09:20      Received: 03/31/17 14:55      Matrix: Water

---

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		04/06/17 20:00	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:00	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:00	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		04/06/17 20:00	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		04/06/17 20:00	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		04/06/17 20:00	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		04/06/17 20:00	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		04/06/17 20:00	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		04/06/17 20:00	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		04/06/17 20:00	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:00	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:00	108-67-8	
Vinyl chloride	0.67J	ug/L	1.0	0.18	1		04/06/17 20:00	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		04/06/17 20:00	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:00	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	90	%	70-130		1		04/06/17 20:00	460-00-4	
Dibromofluoromethane (S)	98	%	70-130		1		04/06/17 20:00	1868-53-7	
Toluene-d8 (S)	93	%	70-130		1		04/06/17 20:00	2037-26-5	

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## ANALYTICAL RESULTS

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

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**Sample: MW-4**      **Lab ID: 40147589002**      Collected: 03/30/17 08:45      Received: 03/31/17 14:55      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
Benzene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:22	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		04/06/17 20:22	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		04/06/17 20:22	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		04/06/17 20:22	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		04/06/17 20:22	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		04/06/17 20:22	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:22	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		04/06/17 20:22	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		04/06/17 20:22	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		04/06/17 20:22	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:22	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		04/06/17 20:22	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		04/06/17 20:22	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		04/06/17 20:22	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:22	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		04/06/17 20:22	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		04/06/17 20:22	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		04/06/17 20:22	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		04/06/17 20:22	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		04/06/17 20:22	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:22	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:22	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:22	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		04/06/17 20:22	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		04/06/17 20:22	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		04/06/17 20:22	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		04/06/17 20:22	75-35-4	
cis-1,2-Dichloroethene	0.73J	ug/L	1.0	0.26	1		04/06/17 20:22	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		04/06/17 20:22	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		04/06/17 20:22	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		04/06/17 20:22	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		04/06/17 20:22	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		04/06/17 20:22	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:22	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		04/06/17 20:22	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		04/06/17 20:22	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:22	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		04/06/17 20:22	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		04/06/17 20:22	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:22	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		04/06/17 20:22	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		04/06/17 20:22	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		04/06/17 20:22	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:22	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:22	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		04/06/17 20:22	630-20-6	

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## ANALYTICAL RESULTS

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

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**Sample: MW-4**      **Lab ID: 40147589002**      Collected: 03/30/17 08:45      Received: 03/31/17 14:55      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		04/06/17 20:22	79-34-5	
Tetrachloroethene	3.7	ug/L	1.0	0.50	1		04/06/17 20:22	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:22	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		04/06/17 20:22	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		04/06/17 20:22	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		04/06/17 20:22	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		04/06/17 20:22	79-00-5	
Trichloroethene	1.2	ug/L	1.0	0.33	1		04/06/17 20:22	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		04/06/17 20:22	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		04/06/17 20:22	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:22	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:22	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		04/06/17 20:22	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		04/06/17 20:22	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		04/06/17 20:22	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	83	%	70-130		1		04/06/17 20:22	460-00-4	
Dibromofluoromethane (S)	97	%	70-130		1		04/06/17 20:22	1868-53-7	
Toluene-d8 (S)	90	%	70-130		1		04/06/17 20:22	2037-26-5	

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## ANALYTICAL RESULTS

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

Sample: MW-10	Lab ID: 40147589003	Collected: 03/30/17 11:10	Received: 03/31/17 14:55	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
Benzene	<2.5	ug/L	5.0	2.5	5		04/06/17 10:20	71-43-2	
Bromobenzene	<1.2	ug/L	5.0	1.2	5		04/06/17 10:20	108-86-1	
Bromochloromethane	<1.7	ug/L	5.0	1.7	5		04/06/17 10:20	74-97-5	
Bromodichloromethane	<2.5	ug/L	5.0	2.5	5		04/06/17 10:20	75-27-4	
Bromoform	<2.5	ug/L	5.0	2.5	5		04/06/17 10:20	75-25-2	
Bromomethane	<12.2	ug/L	25.0	12.2	5		04/06/17 10:20	74-83-9	
n-Butylbenzene	<2.5	ug/L	5.0	2.5	5		04/06/17 10:20	104-51-8	
sec-Butylbenzene	<10.9	ug/L	25.0	10.9	5		04/06/17 10:20	135-98-8	
tert-Butylbenzene	<0.90	ug/L	5.0	0.90	5		04/06/17 10:20	98-06-6	
Carbon tetrachloride	<2.5	ug/L	5.0	2.5	5		04/06/17 10:20	56-23-5	
Chlorobenzene	<2.5	ug/L	5.0	2.5	5		04/06/17 10:20	108-90-7	
Chloroethane	<1.9	ug/L	5.0	1.9	5		04/06/17 10:20	75-00-3	
Chloroform	<12.5	ug/L	25.0	12.5	5		04/06/17 10:20	67-66-3	
Chloromethane	<2.5	ug/L	5.0	2.5	5		04/06/17 10:20	74-87-3	
2-Chlorotoluene	<2.5	ug/L	5.0	2.5	5		04/06/17 10:20	95-49-8	
4-Chlorotoluene	<1.1	ug/L	5.0	1.1	5		04/06/17 10:20	106-43-4	
1,2-Dibromo-3-chloropropane	<10.8	ug/L	25.0	10.8	5		04/06/17 10:20	96-12-8	
Dibromochloromethane	<2.5	ug/L	5.0	2.5	5		04/06/17 10:20	124-48-1	
1,2-Dibromoethane (EDB)	<0.89	ug/L	5.0	0.89	5		04/06/17 10:20	106-93-4	
Dibromomethane	<2.1	ug/L	5.0	2.1	5		04/06/17 10:20	74-95-3	
1,2-Dichlorobenzene	<2.5	ug/L	5.0	2.5	5		04/06/17 10:20	95-50-1	
1,3-Dichlorobenzene	<2.5	ug/L	5.0	2.5	5		04/06/17 10:20	541-73-1	
1,4-Dichlorobenzene	<2.5	ug/L	5.0	2.5	5		04/06/17 10:20	106-46-7	
Dichlorodifluoromethane	<1.1	ug/L	5.0	1.1	5		04/06/17 10:20	75-71-8	
1,1-Dichloroethane	<1.2	ug/L	5.0	1.2	5		04/06/17 10:20	75-34-3	
1,2-Dichloroethane	<0.84	ug/L	5.0	0.84	5		04/06/17 10:20	107-06-2	
1,1-Dichloroethene	<2.1	ug/L	5.0	2.1	5		04/06/17 10:20	75-35-4	
cis-1,2-Dichloroethene	1010	ug/L	5.0	1.3	5		04/06/17 10:20	156-59-2	
trans-1,2-Dichloroethene	104	ug/L	5.0	1.3	5		04/06/17 10:20	156-60-5	
1,2-Dichloropropane	<1.2	ug/L	5.0	1.2	5		04/06/17 10:20	78-87-5	
1,3-Dichloropropane	<2.5	ug/L	5.0	2.5	5		04/06/17 10:20	142-28-9	
2,2-Dichloropropane	<2.4	ug/L	5.0	2.4	5		04/06/17 10:20	594-20-7	
1,1-Dichloropropene	<2.2	ug/L	5.0	2.2	5		04/06/17 10:20	563-58-6	
cis-1,3-Dichloropropene	<2.5	ug/L	5.0	2.5	5		04/06/17 10:20	10061-01-5	
trans-1,3-Dichloropropene	<1.1	ug/L	5.0	1.1	5		04/06/17 10:20	10061-02-6	
Diisopropyl ether	<2.5	ug/L	5.0	2.5	5		04/06/17 10:20	108-20-3	
Ethylbenzene	<2.5	ug/L	5.0	2.5	5		04/06/17 10:20	100-41-4	
Hexachloro-1,3-butadiene	<10.5	ug/L	25.0	10.5	5		04/06/17 10:20	87-68-3	
Isopropylbenzene (Cumene)	<0.72	ug/L	5.0	0.72	5		04/06/17 10:20	98-82-8	
p-Isopropyltoluene	<2.5	ug/L	5.0	2.5	5		04/06/17 10:20	99-87-6	
Methylene Chloride	<1.2	ug/L	5.0	1.2	5		04/06/17 10:20	75-09-2	
Methyl-tert-butyl ether	<0.87	ug/L	5.0	0.87	5		04/06/17 10:20	1634-04-4	
Naphthalene	<12.5	ug/L	25.0	12.5	5		04/06/17 10:20	91-20-3	
n-Propylbenzene	<2.5	ug/L	5.0	2.5	5		04/06/17 10:20	103-65-1	
Styrene	<2.5	ug/L	5.0	2.5	5		04/06/17 10:20	100-42-5	
1,1,1,2-Tetrachloroethane	<0.90	ug/L	5.0	0.90	5		04/06/17 10:20	630-20-6	

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## ANALYTICAL RESULTS

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

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**Sample: MW-10**      **Lab ID: 40147589003**      Collected: 03/30/17 11:10      Received: 03/31/17 14:55      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	<1.2	ug/L	5.0	1.2	5		04/06/17 10:20	79-34-5	
Tetrachloroethene	<2.5	ug/L	5.0	2.5	5		04/06/17 10:20	127-18-4	
Toluene	<2.5	ug/L	5.0	2.5	5		04/06/17 10:20	108-88-3	
1,2,3-Trichlorobenzene	<10.7	ug/L	25.0	10.7	5		04/06/17 10:20	87-61-6	
1,2,4-Trichlorobenzene	<11.0	ug/L	25.0	11.0	5		04/06/17 10:20	120-82-1	
1,1,1-Trichloroethane	<2.5	ug/L	5.0	2.5	5		04/06/17 10:20	71-55-6	
1,1,2-Trichloroethane	<0.99	ug/L	5.0	0.99	5		04/06/17 10:20	79-00-5	
Trichloroethene	125	ug/L	5.0	1.7	5		04/06/17 10:20	79-01-6	
Trichlorofluoromethane	<0.92	ug/L	5.0	0.92	5		04/06/17 10:20	75-69-4	
1,2,3-Trichloropropane	<2.5	ug/L	5.0	2.5	5		04/06/17 10:20	96-18-4	
1,2,4-Trimethylbenzene	<2.5	ug/L	5.0	2.5	5		04/06/17 10:20	95-63-6	
1,3,5-Trimethylbenzene	<2.5	ug/L	5.0	2.5	5		04/06/17 10:20	108-67-8	
Vinyl chloride	699	ug/L	5.0	0.88	5		04/06/17 10:20	75-01-4	
m&p-Xylene	<5.0	ug/L	10.0	5.0	5		04/06/17 10:20	179601-23-1	
o-Xylene	<2.5	ug/L	5.0	2.5	5		04/06/17 10:20	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	84	%	70-130		5		04/06/17 10:20	460-00-4	
Dibromofluoromethane (S)	99	%	70-130		5		04/06/17 10:20	1868-53-7	
Toluene-d8 (S)	96	%	70-130		5		04/06/17 10:20	2037-26-5	

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## ANALYTICAL RESULTS

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

Sample: MW-11	Lab ID: 40147589004	Collected: 03/30/17 09:40	Received: 03/31/17 14:55	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
Benzene	<0.50	ug/L	1.0	0.50	1		04/05/17 11:38	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		04/05/17 11:38	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		04/05/17 11:38	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		04/05/17 11:38	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		04/05/17 11:38	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		04/05/17 11:38	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 11:38	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		04/05/17 11:38	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		04/05/17 11:38	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		04/05/17 11:38	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 11:38	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		04/05/17 11:38	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		04/05/17 11:38	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		04/05/17 11:38	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		04/05/17 11:38	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		04/05/17 11:38	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		04/05/17 11:38	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		04/05/17 11:38	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		04/05/17 11:38	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		04/05/17 11:38	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 11:38	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 11:38	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 11:38	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		04/05/17 11:38	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		04/05/17 11:38	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		04/05/17 11:38	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		04/05/17 11:38	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		04/05/17 11:38	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		04/05/17 11:38	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		04/05/17 11:38	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		04/05/17 11:38	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		04/05/17 11:38	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		04/05/17 11:38	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		04/05/17 11:38	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		04/05/17 11:38	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		04/05/17 11:38	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 11:38	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		04/05/17 11:38	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		04/05/17 11:38	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		04/05/17 11:38	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		04/05/17 11:38	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		04/05/17 11:38	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		04/05/17 11:38	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 11:38	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		04/05/17 11:38	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		04/05/17 11:38	630-20-6	

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## ANALYTICAL RESULTS

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

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**Sample: MW-11      Lab ID: 40147589004      Collected: 03/30/17 09:40      Received: 03/31/17 14:55      Matrix: Water**


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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		04/05/17 11:38	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		04/05/17 11:38	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		04/05/17 11:38	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		04/05/17 11:38	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		04/05/17 11:38	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		04/05/17 11:38	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		04/05/17 11:38	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		04/05/17 11:38	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		04/05/17 11:38	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		04/05/17 11:38	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 11:38	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 11:38	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		04/05/17 11:38	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		04/05/17 11:38	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		04/05/17 11:38	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	93	%	70-130		1		04/05/17 11:38	460-00-4	
Dibromofluoromethane (S)	109	%	70-130		1		04/05/17 11:38	1868-53-7	
Toluene-d8 (S)	92	%	70-130		1		04/05/17 11:38	2037-26-5	

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## ANALYTICAL RESULTS

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

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**Sample: MW-12**      **Lab ID: 40147589005**      Collected: 03/30/17 12:45      Received: 03/31/17 14:55      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
Benzene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:40	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		04/05/17 14:40	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		04/05/17 14:40	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		04/05/17 14:40	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		04/05/17 14:40	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		04/05/17 14:40	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:40	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		04/05/17 14:40	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		04/05/17 14:40	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		04/05/17 14:40	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:40	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		04/05/17 14:40	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		04/05/17 14:40	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		04/05/17 14:40	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:40	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		04/05/17 14:40	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		04/05/17 14:40	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		04/05/17 14:40	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		04/05/17 14:40	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		04/05/17 14:40	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:40	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:40	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:40	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		04/05/17 14:40	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		04/05/17 14:40	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		04/05/17 14:40	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		04/05/17 14:40	75-35-4	
cis-1,2-Dichloroethene	2.4	ug/L	1.0	0.26	1		04/05/17 14:40	156-59-2	
trans-1,2-Dichloroethene	8.4	ug/L	1.0	0.26	1		04/05/17 14:40	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		04/05/17 14:40	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		04/05/17 14:40	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		04/05/17 14:40	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		04/05/17 14:40	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:40	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		04/05/17 14:40	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		04/05/17 14:40	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:40	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		04/05/17 14:40	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		04/05/17 14:40	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:40	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		04/05/17 14:40	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		04/05/17 14:40	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		04/05/17 14:40	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:40	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:40	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		04/05/17 14:40	630-20-6	

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## ANALYTICAL RESULTS

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

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**Sample: MW-12**      **Lab ID: 40147589005**      Collected: 03/30/17 12:45      Received: 03/31/17 14:55      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		04/05/17 14:40	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:40	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:40	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		04/05/17 14:40	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		04/05/17 14:40	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		04/05/17 14:40	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		04/05/17 14:40	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		04/05/17 14:40	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		04/05/17 14:40	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		04/05/17 14:40	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:40	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:40	108-67-8	
Vinyl chloride	1.4	ug/L	1.0	0.18	1		04/05/17 14:40	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		04/05/17 14:40	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:40	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	102	%	70-130		1		04/05/17 14:40	460-00-4	
Dibromofluoromethane (S)	108	%	70-130		1		04/05/17 14:40	1868-53-7	
Toluene-d8 (S)	86	%	70-130		1		04/05/17 14:40	2037-26-5	

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## ANALYTICAL RESULTS

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

Sample: MW-13	Lab ID: 40147589006	Collected: 03/30/17 10:40	Received: 03/31/17 14:55	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
Benzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:01	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		04/05/17 12:01	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		04/05/17 12:01	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		04/05/17 12:01	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		04/05/17 12:01	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		04/05/17 12:01	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:01	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		04/05/17 12:01	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		04/05/17 12:01	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		04/05/17 12:01	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:01	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		04/05/17 12:01	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		04/05/17 12:01	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		04/05/17 12:01	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:01	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		04/05/17 12:01	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		04/05/17 12:01	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		04/05/17 12:01	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		04/05/17 12:01	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		04/05/17 12:01	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:01	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:01	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:01	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		04/05/17 12:01	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		04/05/17 12:01	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		04/05/17 12:01	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		04/05/17 12:01	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		04/05/17 12:01	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		04/05/17 12:01	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		04/05/17 12:01	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		04/05/17 12:01	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		04/05/17 12:01	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		04/05/17 12:01	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:01	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		04/05/17 12:01	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		04/05/17 12:01	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:01	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		04/05/17 12:01	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		04/05/17 12:01	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:01	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		04/05/17 12:01	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		04/05/17 12:01	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		04/05/17 12:01	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:01	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:01	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		04/05/17 12:01	630-20-6	

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## ANALYTICAL RESULTS

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

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**Sample: MW-13      Lab ID: 40147589006      Collected: 03/30/17 10:40      Received: 03/31/17 14:55      Matrix: Water**


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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		04/05/17 12:01	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:01	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:01	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		04/05/17 12:01	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		04/05/17 12:01	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		04/05/17 12:01	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		04/05/17 12:01	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		04/05/17 12:01	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		04/05/17 12:01	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		04/05/17 12:01	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:01	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:01	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		04/05/17 12:01	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		04/05/17 12:01	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:01	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	90	%	70-130		1		04/05/17 12:01	460-00-4	
Dibromofluoromethane (S)	107	%	70-130		1		04/05/17 12:01	1868-53-7	
Toluene-d8 (S)	90	%	70-130		1		04/05/17 12:01	2037-26-5	

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## ANALYTICAL RESULTS

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

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**Sample: MW-14**      **Lab ID: 40147589007**      Collected: 03/30/17 13:30      Received: 03/31/17 14:55      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
Benzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:24	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		04/05/17 12:24	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		04/05/17 12:24	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		04/05/17 12:24	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		04/05/17 12:24	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		04/05/17 12:24	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:24	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		04/05/17 12:24	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		04/05/17 12:24	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		04/05/17 12:24	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:24	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		04/05/17 12:24	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		04/05/17 12:24	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		04/05/17 12:24	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:24	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		04/05/17 12:24	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		04/05/17 12:24	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		04/05/17 12:24	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		04/05/17 12:24	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		04/05/17 12:24	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:24	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:24	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:24	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		04/05/17 12:24	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		04/05/17 12:24	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		04/05/17 12:24	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		04/05/17 12:24	75-35-4	
cis-1,2-Dichloroethene	5.9	ug/L	1.0	0.26	1		04/05/17 12:24	156-59-2	
trans-1,2-Dichloroethene	6.3	ug/L	1.0	0.26	1		04/05/17 12:24	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		04/05/17 12:24	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		04/05/17 12:24	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		04/05/17 12:24	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		04/05/17 12:24	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:24	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		04/05/17 12:24	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		04/05/17 12:24	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:24	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		04/05/17 12:24	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		04/05/17 12:24	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:24	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		04/05/17 12:24	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		04/05/17 12:24	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		04/05/17 12:24	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:24	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:24	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		04/05/17 12:24	630-20-6	

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## ANALYTICAL RESULTS

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

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**Sample: MW-14**      **Lab ID: 40147589007**      Collected: 03/30/17 13:30      Received: 03/31/17 14:55      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		04/05/17 12:24	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:24	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:24	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		04/05/17 12:24	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		04/05/17 12:24	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		04/05/17 12:24	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		04/05/17 12:24	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		04/05/17 12:24	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		04/05/17 12:24	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		04/05/17 12:24	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:24	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:24	108-67-8	
Vinyl chloride	1.6	ug/L	1.0	0.18	1		04/05/17 12:24	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		04/05/17 12:24	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:24	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	88	%	70-130		1		04/05/17 12:24	460-00-4	
Dibromofluoromethane (S)	106	%	70-130		1		04/05/17 12:24	1868-53-7	
Toluene-d8 (S)	85	%	70-130		1		04/05/17 12:24	2037-26-5	

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## ANALYTICAL RESULTS

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

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**Sample: MW-21**      **Lab ID: 40147589008**      Collected: 03/30/17 10:10      Received: 03/31/17 14:55      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
Benzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:46	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		04/05/17 12:46	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		04/05/17 12:46	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		04/05/17 12:46	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		04/05/17 12:46	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		04/05/17 12:46	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:46	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		04/05/17 12:46	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		04/05/17 12:46	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		04/05/17 12:46	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:46	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		04/05/17 12:46	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		04/05/17 12:46	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		04/05/17 12:46	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:46	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		04/05/17 12:46	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		04/05/17 12:46	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		04/05/17 12:46	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		04/05/17 12:46	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		04/05/17 12:46	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:46	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:46	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:46	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		04/05/17 12:46	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		04/05/17 12:46	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		04/05/17 12:46	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		04/05/17 12:46	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		04/05/17 12:46	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		04/05/17 12:46	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		04/05/17 12:46	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		04/05/17 12:46	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		04/05/17 12:46	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		04/05/17 12:46	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:46	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		04/05/17 12:46	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		04/05/17 12:46	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:46	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		04/05/17 12:46	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		04/05/17 12:46	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:46	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		04/05/17 12:46	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		04/05/17 12:46	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		04/05/17 12:46	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:46	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:46	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		04/05/17 12:46	630-20-6	

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## ANALYTICAL RESULTS

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

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**Sample: MW-21**      **Lab ID: 40147589008**      Collected: 03/30/17 10:10      Received: 03/31/17 14:55      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		04/05/17 12:46	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:46	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:46	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		04/05/17 12:46	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		04/05/17 12:46	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		04/05/17 12:46	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		04/05/17 12:46	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		04/05/17 12:46	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		04/05/17 12:46	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		04/05/17 12:46	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:46	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:46	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		04/05/17 12:46	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		04/05/17 12:46	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		04/05/17 12:46	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	92	%	70-130		1		04/05/17 12:46	460-00-4	
Dibromofluoromethane (S)	109	%	70-130		1		04/05/17 12:46	1868-53-7	
Toluene-d8 (S)	90	%	70-130		1		04/05/17 12:46	2037-26-5	

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## ANALYTICAL RESULTS

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

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**Sample: MW-120**      **Lab ID: 40147589009**      Collected: 03/30/17 12:50      Received: 03/31/17 14:55      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
Benzene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:09	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		04/05/17 13:09	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		04/05/17 13:09	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		04/05/17 13:09	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		04/05/17 13:09	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		04/05/17 13:09	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:09	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		04/05/17 13:09	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		04/05/17 13:09	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		04/05/17 13:09	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:09	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		04/05/17 13:09	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		04/05/17 13:09	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		04/05/17 13:09	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:09	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		04/05/17 13:09	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		04/05/17 13:09	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		04/05/17 13:09	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		04/05/17 13:09	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		04/05/17 13:09	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:09	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:09	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:09	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		04/05/17 13:09	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		04/05/17 13:09	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		04/05/17 13:09	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		04/05/17 13:09	75-35-4	
cis-1,2-Dichloroethene	2.8	ug/L	1.0	0.26	1		04/05/17 13:09	156-59-2	
trans-1,2-Dichloroethene	8.3	ug/L	1.0	0.26	1		04/05/17 13:09	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		04/05/17 13:09	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		04/05/17 13:09	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		04/05/17 13:09	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		04/05/17 13:09	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:09	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		04/05/17 13:09	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		04/05/17 13:09	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:09	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		04/05/17 13:09	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		04/05/17 13:09	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:09	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		04/05/17 13:09	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		04/05/17 13:09	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		04/05/17 13:09	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:09	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:09	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		04/05/17 13:09	630-20-6	

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## ANALYTICAL RESULTS

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

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**Sample: MW-120**      **Lab ID: 40147589009**      Collected: 03/30/17 12:50      Received: 03/31/17 14:55      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		04/05/17 13:09	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:09	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:09	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		04/05/17 13:09	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		04/05/17 13:09	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		04/05/17 13:09	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		04/05/17 13:09	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		04/05/17 13:09	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		04/05/17 13:09	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		04/05/17 13:09	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:09	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:09	108-67-8	
Vinyl chloride	1.6	ug/L	1.0	0.18	1		04/05/17 13:09	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		04/05/17 13:09	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:09	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	98	%	70-130		1		04/05/17 13:09	460-00-4	
Dibromofluoromethane (S)	106	%	70-130		1		04/05/17 13:09	1868-53-7	
Toluene-d8 (S)	83	%	70-130		1		04/05/17 13:09	2037-26-5	

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## ANALYTICAL RESULTS

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

Sample: PZ-10	Lab ID: 40147589010	Collected: 03/30/17 11:50	Received: 03/31/17 14:55	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
Benzene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:32	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		04/05/17 13:32	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		04/05/17 13:32	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		04/05/17 13:32	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		04/05/17 13:32	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		04/05/17 13:32	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:32	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		04/05/17 13:32	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		04/05/17 13:32	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		04/05/17 13:32	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:32	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		04/05/17 13:32	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		04/05/17 13:32	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		04/05/17 13:32	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:32	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		04/05/17 13:32	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		04/05/17 13:32	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		04/05/17 13:32	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		04/05/17 13:32	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		04/05/17 13:32	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:32	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:32	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:32	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		04/05/17 13:32	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		04/05/17 13:32	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		04/05/17 13:32	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		04/05/17 13:32	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		04/05/17 13:32	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		04/05/17 13:32	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		04/05/17 13:32	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		04/05/17 13:32	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		04/05/17 13:32	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		04/05/17 13:32	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:32	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		04/05/17 13:32	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		04/05/17 13:32	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:32	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		04/05/17 13:32	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		04/05/17 13:32	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:32	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		04/05/17 13:32	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		04/05/17 13:32	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		04/05/17 13:32	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:32	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:32	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		04/05/17 13:32	630-20-6	

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## ANALYTICAL RESULTS

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

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**Sample: PZ-10      Lab ID: 40147589010      Collected: 03/30/17 11:50      Received: 03/31/17 14:55      Matrix: Water**


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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		04/05/17 13:32	79-34-5	
Tetrachloroethene	13.6	ug/L	1.0	0.50	1		04/05/17 13:32	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:32	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		04/05/17 13:32	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		04/05/17 13:32	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		04/05/17 13:32	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		04/05/17 13:32	79-00-5	
Trichloroethene	0.48J	ug/L	1.0	0.33	1		04/05/17 13:32	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		04/05/17 13:32	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		04/05/17 13:32	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:32	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:32	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		04/05/17 13:32	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		04/05/17 13:32	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		04/05/17 13:32	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	94	%	70-130		1		04/05/17 13:32	460-00-4	
Dibromofluoromethane (S)	109	%	70-130		1		04/05/17 13:32	1868-53-7	
Toluene-d8 (S)	88	%	70-130		1		04/05/17 13:32	2037-26-5	

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## ANALYTICAL RESULTS

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

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**Sample: PZ-20**      **Lab ID: 40147589011**      Collected: 03/30/17 14:05      Received: 03/31/17 14:55      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
Benzene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:17	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		04/05/17 14:17	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		04/05/17 14:17	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		04/05/17 14:17	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		04/05/17 14:17	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		04/05/17 14:17	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:17	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		04/05/17 14:17	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		04/05/17 14:17	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		04/05/17 14:17	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:17	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		04/05/17 14:17	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		04/05/17 14:17	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		04/05/17 14:17	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:17	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		04/05/17 14:17	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		04/05/17 14:17	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		04/05/17 14:17	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		04/05/17 14:17	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		04/05/17 14:17	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:17	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:17	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:17	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		04/05/17 14:17	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		04/05/17 14:17	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		04/05/17 14:17	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		04/05/17 14:17	75-35-4	
cis-1,2-Dichloroethene	26.3	ug/L	1.0	0.26	1		04/05/17 14:17	156-59-2	
trans-1,2-Dichloroethene	1.3	ug/L	1.0	0.26	1		04/05/17 14:17	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		04/05/17 14:17	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		04/05/17 14:17	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		04/05/17 14:17	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		04/05/17 14:17	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:17	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		04/05/17 14:17	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		04/05/17 14:17	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:17	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		04/05/17 14:17	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		04/05/17 14:17	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:17	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		04/05/17 14:17	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		04/05/17 14:17	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		04/05/17 14:17	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:17	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:17	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		04/05/17 14:17	630-20-6	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

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**Sample: PZ-20      Lab ID: 40147589011      Collected: 03/30/17 14:05      Received: 03/31/17 14:55      Matrix: Water**


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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		04/05/17 14:17	79-34-5	
Tetrachloroethene	21.9	ug/L	1.0	0.50	1		04/05/17 14:17	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:17	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		04/05/17 14:17	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		04/05/17 14:17	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		04/05/17 14:17	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		04/05/17 14:17	79-00-5	
Trichloroethene	7.6	ug/L	1.0	0.33	1		04/05/17 14:17	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		04/05/17 14:17	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		04/05/17 14:17	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:17	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:17	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		04/05/17 14:17	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		04/05/17 14:17	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		04/05/17 14:17	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	89	%	70-130		1		04/05/17 14:17	460-00-4	
Dibromofluoromethane (S)	105	%	70-130		1		04/05/17 14:17	1868-53-7	
Toluene-d8 (S)	90	%	70-130		1		04/05/17 14:17	2037-26-5	

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## ANALYTICAL RESULTS

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

Sample: TRIP BLANK	Lab ID: 40147589012	Collected: 03/30/17 12:00	Received: 03/31/17 14:55	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
Benzene	<0.50	ug/L	1.0	0.50	1		04/05/17 22:21	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		04/05/17 22:21	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		04/05/17 22:21	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		04/05/17 22:21	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		04/05/17 22:21	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		04/05/17 22:21	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 22:21	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		04/05/17 22:21	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		04/05/17 22:21	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		04/05/17 22:21	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 22:21	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		04/05/17 22:21	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		04/05/17 22:21	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		04/05/17 22:21	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		04/05/17 22:21	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		04/05/17 22:21	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		04/05/17 22:21	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		04/05/17 22:21	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		04/05/17 22:21	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		04/05/17 22:21	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 22:21	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 22:21	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 22:21	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		04/05/17 22:21	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		04/05/17 22:21	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		04/05/17 22:21	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		04/05/17 22:21	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		04/05/17 22:21	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		04/05/17 22:21	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		04/05/17 22:21	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		04/05/17 22:21	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		04/05/17 22:21	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		04/05/17 22:21	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		04/05/17 22:21	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		04/05/17 22:21	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		04/05/17 22:21	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 22:21	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		04/05/17 22:21	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		04/05/17 22:21	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		04/05/17 22:21	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		04/05/17 22:21	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		04/05/17 22:21	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		04/05/17 22:21	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 22:21	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		04/05/17 22:21	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		04/05/17 22:21	630-20-6	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

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**Sample: TRIP BLANK      Lab ID: 40147589012      Collected: 03/30/17 12:00      Received: 03/31/17 14:55      Matrix: Water**


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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		04/05/17 22:21	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		04/05/17 22:21	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		04/05/17 22:21	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		04/05/17 22:21	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		04/05/17 22:21	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		04/05/17 22:21	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		04/05/17 22:21	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		04/05/17 22:21	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		04/05/17 22:21	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		04/05/17 22:21	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 22:21	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		04/05/17 22:21	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		04/05/17 22:21	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		04/05/17 22:21	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		04/05/17 22:21	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	94	%	70-130		1		04/05/17 22:21	460-00-4	
Dibromofluoromethane (S)	112	%	70-130		1		04/05/17 22:21	1868-53-7	
Toluene-d8 (S)	90	%	70-130		1		04/05/17 22:21	2037-26-5	

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## QUALITY CONTROL DATA

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

QC Batch:	251628	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV
Associated Lab Samples: 40147589001, 40147589002, 40147589003			

METHOD BLANK: 1485204	Matrix: Water
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Associated Lab Samples: 40147589001, 40147589002, 40147589003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.18	1.0	04/06/17 07:18	
1,1,1-Trichloroethane	ug/L	<0.50	1.0	04/06/17 07:18	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	1.0	04/06/17 07:18	
1,1,2-Trichloroethane	ug/L	<0.20	1.0	04/06/17 07:18	
1,1-Dichloroethane	ug/L	<0.24	1.0	04/06/17 07:18	
1,1-Dichloroethene	ug/L	<0.41	1.0	04/06/17 07:18	
1,1-Dichloropropene	ug/L	<0.44	1.0	04/06/17 07:18	
1,2,3-Trichlorobenzene	ug/L	<2.1	5.0	04/06/17 07:18	
1,2,3-Trichloropropane	ug/L	<0.50	1.0	04/06/17 07:18	
1,2,4-Trichlorobenzene	ug/L	<2.2	5.0	04/06/17 07:18	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	04/06/17 07:18	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	04/06/17 07:18	
1,2-Dibromoethane (EDB)	ug/L	<0.18	1.0	04/06/17 07:18	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	04/06/17 07:18	
1,2-Dichloroethane	ug/L	<0.17	1.0	04/06/17 07:18	
1,2-Dichloropropane	ug/L	<0.23	1.0	04/06/17 07:18	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	04/06/17 07:18	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	04/06/17 07:18	
1,3-Dichloropropane	ug/L	<0.50	1.0	04/06/17 07:18	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	04/06/17 07:18	
2,2-Dichloropropane	ug/L	<0.48	1.0	04/06/17 07:18	
2-Chlorotoluene	ug/L	<0.50	1.0	04/06/17 07:18	
4-Chlorotoluene	ug/L	<0.21	1.0	04/06/17 07:18	
Benzene	ug/L	<0.50	1.0	04/06/17 07:18	
Bromobenzene	ug/L	<0.23	1.0	04/06/17 07:18	
Bromochloromethane	ug/L	<0.34	1.0	04/06/17 07:18	
Bromodichloromethane	ug/L	<0.50	1.0	04/06/17 07:18	
Bromoform	ug/L	<0.50	1.0	04/06/17 07:18	
Bromomethane	ug/L	<2.4	5.0	04/06/17 07:18	
Carbon tetrachloride	ug/L	<0.50	1.0	04/06/17 07:18	
Chlorobenzene	ug/L	<0.50	1.0	04/06/17 07:18	
Chloroethane	ug/L	<0.37	1.0	04/06/17 07:18	
Chloroform	ug/L	<2.5	5.0	04/06/17 07:18	
Chloromethane	ug/L	<0.50	1.0	04/06/17 07:18	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	04/06/17 07:18	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	04/06/17 07:18	
Dibromochloromethane	ug/L	<0.50	1.0	04/06/17 07:18	
Dibromomethane	ug/L	<0.43	1.0	04/06/17 07:18	
Dichlorodifluoromethane	ug/L	<0.22	1.0	04/06/17 07:18	
Diisopropyl ether	ug/L	<0.50	1.0	04/06/17 07:18	
Ethylbenzene	ug/L	<0.50	1.0	04/06/17 07:18	

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## QUALITY CONTROL DATA

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

METHOD BLANK: 1485204 Matrix: Water

Associated Lab Samples: 40147589001, 40147589002, 40147589003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<2.1	5.0	04/06/17 07:18	
Isopropylbenzene (Cumene)	ug/L	<0.14	1.0	04/06/17 07:18	
m&p-Xylene	ug/L	<1.0	2.0	04/06/17 07:18	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	04/06/17 07:18	
Methylene Chloride	ug/L	<0.23	1.0	04/06/17 07:18	
n-Butylbenzene	ug/L	<0.50	1.0	04/06/17 07:18	
n-Propylbenzene	ug/L	<0.50	1.0	04/06/17 07:18	
Naphthalene	ug/L	<2.5	5.0	04/06/17 07:18	
o-Xylene	ug/L	<0.50	1.0	04/06/17 07:18	
p-Isopropyltoluene	ug/L	<0.50	1.0	04/06/17 07:18	
sec-Butylbenzene	ug/L	<2.2	5.0	04/06/17 07:18	
Styrene	ug/L	<0.50	1.0	04/06/17 07:18	
tert-Butylbenzene	ug/L	<0.18	1.0	04/06/17 07:18	
Tetrachloroethene	ug/L	<0.50	1.0	04/06/17 07:18	
Toluene	ug/L	<0.50	1.0	04/06/17 07:18	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	04/06/17 07:18	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	04/06/17 07:18	
Trichloroethene	ug/L	<0.33	1.0	04/06/17 07:18	
Trichlorofluoromethane	ug/L	<0.18	1.0	04/06/17 07:18	
Vinyl chloride	ug/L	<0.18	1.0	04/06/17 07:18	
4-Bromofluorobenzene (S)	%	88	70-130	04/06/17 07:18	
Dibromofluoromethane (S)	%	102	70-130	04/06/17 07:18	
Toluene-d8 (S)	%	96	70-130	04/06/17 07:18	

LABORATORY CONTROL SAMPLE: 1485205

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	53.7	107	70-131	
1,1,2,2-Tetrachloroethane	ug/L	50	51.5	103	67-130	
1,1,2-Trichloroethane	ug/L	50	58.3	117	70-130	
1,1-Dichloroethane	ug/L	50	48.1	96	70-133	
1,1-Dichloroethene	ug/L	50	48.0	96	70-130	
1,2,4-Trichlorobenzene	ug/L	50	48.1	96	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	59.4	119	50-150	
1,2-Dibromoethane (EDB)	ug/L	50	60.6	121	70-130	
1,2-Dichlorobenzene	ug/L	50	54.2	108	70-130	
1,2-Dichloroethane	ug/L	50	53.1	106	70-130	
1,2-Dichloropropane	ug/L	50	49.4	99	70-130	
1,3-Dichlorobenzene	ug/L	50	50.1	100	70-130	
1,4-Dichlorobenzene	ug/L	50	51.8	104	70-130	
Benzene	ug/L	50	53.0	106	60-135	
Bromodichloromethane	ug/L	50	51.9	104	70-130	
Bromoform	ug/L	50	63.8	128	70-130	
Bromomethane	ug/L	50	33.4	67	33-130	

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## QUALITY CONTROL DATA

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

**LABORATORY CONTROL SAMPLE: 1485205**

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/L	50	55.0	110	70-138	
Chlorobenzene	ug/L	50	53.1	106	70-130	
Chloroethane	ug/L	50	38.2	76	51-130	
Chloroform	ug/L	50	52.1	104	70-130	
Chloromethane	ug/L	50	33.8	68	25-132	
cis-1,2-Dichloroethene	ug/L	50	52.2	104	69-130	
cis-1,3-Dichloropropene	ug/L	50	48.0	96	70-130	
Dibromochloromethane	ug/L	50	56.9	114	70-130	
Dichlorodifluoromethane	ug/L	50	25.9	52	23-130	
Ethylbenzene	ug/L	50	56.4	113	70-136	
Isopropylbenzene (Cumene)	ug/L	50	57.7	115	70-140	
m&p-Xylene	ug/L	100	119	119	70-138	
Methyl-tert-butyl ether	ug/L	50	53.6	107	66-138	
Methylene Chloride	ug/L	50	48.1	96	70-130	
o-Xylene	ug/L	50	59.5	119	70-134	
Styrene	ug/L	50	57.8	116	70-133	
Tetrachloroethene	ug/L	50	55.0	110	70-138	
Toluene	ug/L	50	55.2	110	70-130	
trans-1,2-Dichloroethene	ug/L	50	47.5	95	70-131	
trans-1,3-Dichloropropene	ug/L	50	53.1	106	69-130	
Trichloroethene	ug/L	50	53.8	108	70-130	
Trichlorofluoromethane	ug/L	50	49.3	99	50-150	
Vinyl chloride	ug/L	50	40.8	82	49-130	
4-Bromofluorobenzene (S)	%			106	70-130	
Dibromofluoromethane (S)	%			96	70-130	
Toluene-d8 (S)	%			96	70-130	

**MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1485206 1485207**

Parameter	Units	MS Result		MSD Spike Conc.		MS Result		MSD % Rec		% Rec Limits		RPD	Max RPD	Qual
		40147528002	Spike Conc.	Conc.	Result	MSD	Result	% Rec	MSD	% Rec	RPD	RPD		
1,1,1-Trichloroethane	ug/L	ND	50	50	51.2	52.4	102	105	70-134	2	20			
1,1,2,2-Tetrachloroethane	ug/L	ND	50	50	44.6	45.6	89	91	67-130	2	20			
1,1,2-Trichloroethane	ug/L	ND	50	50	46.7	47.8	93	96	70-130	2	20			
1,1-Dichloroethane	ug/L	ND	50	50	45.9	46.4	92	93	70-134	1	20			
1,1-Dichloroethene	ug/L	ND	50	50	49.7	48.8	99	98	68-136	2	20			
1,2,4-Trichlorobenzene	ug/L	ND	50	50	44.0	45.6	88	91	62-139	3	20			
1,2-Dibromo-3-chloropropane	ug/L	ND	50	50	42.5	45.6	85	91	50-150	7	20			
1,2-Dibromoethane (EDB)	ug/L	ND	50	50	46.3	46.9	93	94	70-130	1	20			
1,2-Dichlorobenzene	ug/L	ND	50	50	50.4	50.6	101	101	70-130	0	20			
1,2-Dichloroethane	ug/L	ND	50	50	48.6	47.3	97	95	70-130	3	20			
1,2-Dichloropropene	ug/L	ND	50	50	47.6	48.4	95	97	70-130	2	20			
1,3-Dichlorobenzene	ug/L	ND	50	50	47.1	48.9	94	98	70-131	4	20			
1,4-Dichlorobenzene	ug/L	ND	50	50	46.0	48.4	92	97	70-130	5	20			

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## QUALITY CONTROL DATA

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

Parameter	Units	40147528002		MS		MSD		1485207		Max		
		Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	RPD	Qual
Benzene	ug/L	ND	50	50	50.1	50.6	100	101	57-138	1	20	
Bromodichloromethane	ug/L	ND	50	50	48.4	48.4	97	97	70-130	0	20	
Bromoform	ug/L	ND	50	50	47.3	50.7	95	101	70-130	7	20	
Bromomethane	ug/L	ND	50	50	48.1	49.5	96	99	33-130	3	27	
Carbon tetrachloride	ug/L	ND	50	50	50.8	52.2	102	104	70-138	3	20	
Chlorobenzene	ug/L	ND	50	50	47.2	49.0	94	98	70-130	4	20	
Chloroethane	ug/L	ND	50	50	42.4	44.4	85	89	51-130	5	20	
Chloroform	ug/L	ND	50	50	48.0	49.1	96	98	70-130	2	20	
Chloromethane	ug/L	ND	50	50	48.1	47.0	96	94	25-132	2	20	
cis-1,2-Dichloroethene	ug/L	ND	50	50	49.8	49.7	100	99	61-140	0	20	
cis-1,3-Dichloropropene	ug/L	ND	50	50	44.7	46.1	89	92	70-130	3	20	
Dibromochloromethane	ug/L	ND	50	50	48.1	48.7	96	97	70-130	1	20	
Dichlorodifluoromethane	ug/L	ND	50	50	53.7	54.3	107	109	23-130	1	20	
Ethylbenzene	ug/L	ND	50	50	50.7	51.7	101	103	70-138	2	20	
Isopropylbenzene (Cumene)	ug/L	ND	50	50	52.5	52.3	105	105	70-152	0	20	
m&p-Xylene	ug/L	ND	100	100	103	104	103	104	70-140	1	20	
Methyl-tert-butyl ether	ug/L	ND	50	50	47.5	47.1	95	94	66-139	1	20	
Methylene Chloride	ug/L	ND	50	50	46.8	46.7	94	93	70-130	0	20	
o-Xylene	ug/L	ND	50	50	52.2	52.3	104	105	70-134	0	20	
Styrene	ug/L	ND	50	50	50.2	51.8	100	104	70-138	3	20	
Tetrachloroethene	ug/L	ND	50	50	48.2	51.4	96	103	70-148	6	20	
Toluene	ug/L	ND	50	50	50.8	51.8	102	104	70-130	2	20	
trans-1,2-Dichloroethene	ug/L	ND	50	50	47.6	48.2	95	96	70-133	1	20	
trans-1,3-Dichloropropene	ug/L	ND	50	50	44.8	45.3	90	91	69-130	1	20	
Trichloroethene	ug/L	ND	50	50	53.2	53.4	106	107	70-131	0	20	
Trichlorofluoromethane	ug/L	ND	50	50	52.3	52.4	105	105	50-150	0	20	
Vinyl chloride	ug/L	ND	50	50	52.4	52.5	105	105	49-133	0	20	
4-Bromofluorobenzene (S)	%						93	90	70-130			
Dibromofluoromethane (S)	%						95	95	70-130			
Toluene-d8 (S)	%						92	91	70-130			

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## QUALITY CONTROL DATA

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

QC Batch: 251629 Analysis Method: EPA 8260

QC Batch Method: EPA 8260 Analysis Description: 8260 MSV

Associated Lab Samples: 40147589004, 40147589005, 40147589006, 40147589007, 40147589008, 40147589009, 40147589010,  
40147589011, 40147589012

METHOD BLANK: 1485208

Matrix: Water

Associated Lab Samples: 40147589004, 40147589005, 40147589006, 40147589007, 40147589008, 40147589009, 40147589010,  
40147589011, 40147589012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.18	1.0	04/05/17 07:03	
1,1,1-Trichloroethane	ug/L	<0.50	1.0	04/05/17 07:03	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	1.0	04/05/17 07:03	
1,1,2-Trichloroethane	ug/L	<0.20	1.0	04/05/17 07:03	
1,1-Dichloroethane	ug/L	<0.24	1.0	04/05/17 07:03	
1,1-Dichloroethene	ug/L	<0.41	1.0	04/05/17 07:03	
1,1-Dichloropropene	ug/L	<0.44	1.0	04/05/17 07:03	
1,2,3-Trichlorobenzene	ug/L	<2.1	5.0	04/05/17 07:03	
1,2,3-Trichloropropane	ug/L	<0.50	1.0	04/05/17 07:03	
1,2,4-Trichlorobenzene	ug/L	<2.2	5.0	04/05/17 07:03	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	04/05/17 07:03	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	04/05/17 07:03	
1,2-Dibromoethane (EDB)	ug/L	<0.18	1.0	04/05/17 07:03	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	04/05/17 07:03	
1,2-Dichloroethane	ug/L	<0.17	1.0	04/05/17 07:03	
1,2-Dichloropropene	ug/L	<0.23	1.0	04/05/17 07:03	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	04/05/17 07:03	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	04/05/17 07:03	
1,3-Dichloropropene	ug/L	<0.50	1.0	04/05/17 07:03	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	04/05/17 07:03	
2,2-Dichloropropane	ug/L	<0.48	1.0	04/05/17 07:03	
2-Chlorotoluene	ug/L	<0.50	1.0	04/05/17 07:03	
4-Chlorotoluene	ug/L	<0.21	1.0	04/05/17 07:03	
Benzene	ug/L	<0.50	1.0	04/05/17 07:03	
Bromobenzene	ug/L	<0.23	1.0	04/05/17 07:03	
Bromochloromethane	ug/L	<0.34	1.0	04/05/17 07:03	
Bromodichloromethane	ug/L	<0.50	1.0	04/05/17 07:03	
Bromoform	ug/L	<0.50	1.0	04/05/17 07:03	
Bromomethane	ug/L	<2.4	5.0	04/05/17 07:03	
Carbon tetrachloride	ug/L	<0.50	1.0	04/05/17 07:03	
Chlorobenzene	ug/L	<0.50	1.0	04/05/17 07:03	
Chloroethane	ug/L	<0.37	1.0	04/05/17 07:03	
Chloroform	ug/L	<2.5	5.0	04/05/17 07:03	
Chloromethane	ug/L	<0.50	1.0	04/05/17 07:03	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	04/05/17 07:03	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	04/05/17 07:03	
Dibromochloromethane	ug/L	<0.50	1.0	04/05/17 07:03	
Dibromomethane	ug/L	<0.43	1.0	04/05/17 07:03	
Dichlorodifluoromethane	ug/L	<0.22	1.0	04/05/17 07:03	
Diisopropyl ether	ug/L	<0.50	1.0	04/05/17 07:03	

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## QUALITY CONTROL DATA

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

METHOD BLANK: 1485208

Matrix: Water

Associated Lab Samples: 40147589004, 40147589005, 40147589006, 40147589007, 40147589008, 40147589009, 40147589010,  
40147589011, 40147589012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/L	<0.50	1.0	04/05/17 07:03	
Hexachloro-1,3-butadiene	ug/L	<2.1	5.0	04/05/17 07:03	
Isopropylbenzene (Cumene)	ug/L	<0.14	1.0	04/05/17 07:03	
m&p-Xylene	ug/L	<1.0	2.0	04/05/17 07:03	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	04/05/17 07:03	
Methylene Chloride	ug/L	<0.23	1.0	04/05/17 07:03	
n-Butylbenzene	ug/L	<0.50	1.0	04/05/17 07:03	
n-Propylbenzene	ug/L	<0.50	1.0	04/05/17 07:03	
Naphthalene	ug/L	<2.5	5.0	04/05/17 07:03	
o-Xylene	ug/L	<0.50	1.0	04/05/17 07:03	
p-Isopropyltoluene	ug/L	<0.50	1.0	04/05/17 07:03	
sec-Butylbenzene	ug/L	<2.2	5.0	04/05/17 07:03	
Styrene	ug/L	<0.50	1.0	04/05/17 07:03	
tert-Butylbenzene	ug/L	<0.18	1.0	04/05/17 07:03	
Tetrachloroethene	ug/L	<0.50	1.0	04/05/17 07:03	
Toluene	ug/L	<0.50	1.0	04/05/17 07:03	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	04/05/17 07:03	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	04/05/17 07:03	
Trichloroethene	ug/L	<0.33	1.0	04/05/17 07:03	
Trichlorofluoromethane	ug/L	<0.18	1.0	04/05/17 07:03	
Vinyl chloride	ug/L	<0.18	1.0	04/05/17 07:03	
4-Bromofluorobenzene (S)	%	89	70-130	04/05/17 07:03	
Dibromofluoromethane (S)	%	106	70-130	04/05/17 07:03	
Toluene-d8 (S)	%	88	70-130	04/05/17 07:03	

LABORATORY CONTROL SAMPLE: 1485209

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	54.4	109	70-131	
1,1,2,2-Tetrachloroethane	ug/L	50	41.0	82	67-130	
1,1,2-Trichloroethane	ug/L	50	42.5	85	70-130	
1,1-Dichloroethane	ug/L	50	53.2	106	70-133	
1,1-Dichloroethene	ug/L	50	55.8	112	70-130	
1,2,4-Trichlorobenzene	ug/L	50	47.2	94	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	38.4	77	50-150	
1,2-Dibromoethane (EDB)	ug/L	50	44.2	88	70-130	
1,2-Dichlorobenzene	ug/L	50	46.4	93	70-130	
1,2-Dichloroethane	ug/L	50	52.7	105	70-130	
1,2-Dichloropropane	ug/L	50	50.2	100	70-130	
1,3-Dichlorobenzene	ug/L	50	47.4	95	70-130	
1,4-Dichlorobenzene	ug/L	50	48.4	97	70-130	
Benzene	ug/L	50	52.3	105	60-135	
Bromodichloromethane	ug/L	50	54.9	110	70-130	

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## QUALITY CONTROL DATA

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

LABORATORY CONTROL SAMPLE: 1485209

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromoform	ug/L	50	43.9	88	70-130	
Bromomethane	ug/L	50	37.6	75	33-130	
Carbon tetrachloride	ug/L	50	59.8	120	70-138	
Chlorobenzene	ug/L	50	50.8	102	70-130	
Chloroethane	ug/L	50	39.7	79	51-130	
Chloroform	ug/L	50	54.9	110	70-130	
Chloromethane	ug/L	50	33.7	67	25-132	
cis-1,2-Dichloroethene	ug/L	50	52.3	105	69-130	
cis-1,3-Dichloropropene	ug/L	50	48.5	97	70-130	
Dibromochloromethane	ug/L	50	47.1	94	70-130	
Dichlorodifluoromethane	ug/L	50	31.6	63	23-130	
Ethylbenzene	ug/L	50	53.8	108	70-136	
Isopropylbenzene (Cumene)	ug/L	50	57.5	115	70-140	
m&p-Xylene	ug/L	100	113	113	70-138	
Methyl-tert-butyl ether	ug/L	50	45.0	90	66-138	
Methylene Chloride	ug/L	50	51.9	104	70-130	
o-Xylene	ug/L	50	52.8	106	70-134	
Styrene	ug/L	50	54.5	109	70-133	
Tetrachloroethene	ug/L	50	50.5	101	70-138	
Toluene	ug/L	50	51.9	104	70-130	
trans-1,2-Dichloroethene	ug/L	50	54.2	108	70-131	
trans-1,3-Dichloropropene	ug/L	50	41.3	83	69-130	
Trichloroethene	ug/L	50	55.4	111	70-130	
Trichlorofluoromethane	ug/L	50	57.9	116	50-150	
Vinyl chloride	ug/L	50	43.4	87	49-130	
4-Bromofluorobenzene (S)	%			102	70-130	
Dibromofluoromethane (S)	%			105	70-130	
Toluene-d8 (S)	%			94	70-130	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1485210      1485211

Parameter	Units	MS		MSD		MS Result	MS % Rec	MSD Result	MSD % Rec	% Rec Limits		Max	
		40147613004	Spike Conc.	Spike Conc.	MSD					RPD	RPD	Qual	
1,1,1-Trichloroethane	ug/L	<0.50	50	50	56.2	55.3	112	111	70-134	2	20		
1,1,2,2-Tetrachloroethane	ug/L	<0.25	50	50	45.1	45.6	90	91	67-130	1	20		
1,1,2-Trichloroethane	ug/L	<0.20	50	50	47.0	47.9	94	96	70-130	2	20		
1,1-Dichloroethane	ug/L	<0.24	50	50	52.2	54.7	104	109	70-134	5	20		
1,1-Dichloroethene	ug/L	<0.41	50	50	52.7	49.8	105	100	68-136	6	20		
1,2,4-Trichlorobenzene	ug/L	<2.2	50	50	47.9	50.4	96	101	62-139	5	20		
1,2-Dibromo-3-chloropropane	ug/L	<2.2	50	50	37.0	43.3	74	87	50-150	16	20		
1,2-Dibromoethane (EDB)	ug/L	<0.18	50	50	45.8	46.4	92	93	70-130	1	20		
1,2-Dichlorobenzene	ug/L	<0.50	50	50	47.3	46.7	95	93	70-130	1	20		
1,2-Dichloroethane	ug/L	<0.17	50	50	55.0	54.8	110	110	70-130	0	20		
1,2-Dichloropropane	ug/L	<0.23	50	50	50.6	53.1	101	106	70-130	5	20		

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## QUALITY CONTROL DATA

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

Parameter	Units	40147613004		MSD		1485211		% Rec	MSD % Rec	% Rec Limits	Max	
		MS Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec				RPD RPD	RPD RPD
1,3-Dichlorobenzene	ug/L	<0.50	50	50	47.0	48.0	94	96	70-131	2	20	
1,4-Dichlorobenzene	ug/L	<0.50	50	50	48.6	49.7	97	99	70-130	2	20	
Benzene	ug/L	<0.50	50	50	52.6	52.5	105	105	57-138	0	20	
Bromodichloromethane	ug/L	<0.50	50	50	55.0	55.2	110	110	70-130	0	20	
Bromoform	ug/L	<0.50	50	50	44.7	47.3	89	95	70-130	6	20	
Bromomethane	ug/L	<2.4	50	50	43.0	46.9	86	94	33-130	9	27	
Carbon tetrachloride	ug/L	<0.50	50	50	59.1	57.3	118	115	70-138	3	20	
Chlorobenzene	ug/L	<0.50	50	50	48.8	51.4	98	103	70-130	5	20	
Chloroethane	ug/L	<0.37	50	50	42.1	41.3	84	83	51-130	2	20	
Chloroform	ug/L	<2.5	50	50	52.9	53.9	106	108	70-130	2	20	
Chloromethane	ug/L	<0.50	50	50	32.1	31.4	64	63	25-132	2	20	
cis-1,2-Dichloroethene	ug/L	<0.26	50	50	52.9	53.7	106	107	61-140	2	20	
cis-1,3-Dichloropropene	ug/L	<0.50	50	50	51.8	49.2	104	98	70-130	5	20	
Dibromochloromethane	ug/L	<0.50	50	50	47.7	48.4	95	97	70-130	1	20	
Dichlorodifluoromethane	ug/L	<0.22	50	50	33.0	30.9	66	62	23-130	7	20	
Ethylbenzene	ug/L	<0.50	50	50	53.9	53.5	108	107	70-138	1	20	
Isopropylbenzene (Cumene)	ug/L	<0.14	50	50	57.8	57.0	116	114	70-152	1	20	
m&p-Xylene	ug/L	<1.0	100	100	107	110	107	110	70-140	2	20	
Methyl-tert-butyl ether	ug/L	<0.17	50	50	51.7	50.8	103	102	66-139	2	20	
Methylene Chloride	ug/L	<0.23	50	50	53.3	51.3	107	103	70-130	4	20	
o-Xylene	ug/L	<0.50	50	50	51.9	52.6	104	105	70-134	1	20	
Styrene	ug/L	<0.50	50	50	51.6	52.2	103	104	70-138	1	20	
Tetrachloroethene	ug/L	<0.50	50	50	47.8	53.3	96	107	70-148	11	20	
Toluene	ug/L	<0.50	50	50	49.4	53.6	99	107	70-130	8	20	
trans-1,2-Dichloroethene	ug/L	<0.26	50	50	52.7	53.3	105	107	70-133	1	20	
trans-1,3-Dichloropropene	ug/L	<0.23	50	50	42.2	41.8	84	84	69-130	1	20	
Trichloroethene	ug/L	<0.33	50	50	55.4	56.0	111	112	70-131	1	20	
Trichlorofluoromethane	ug/L	<0.18	50	50	57.1	56.0	114	112	50-150	2	20	
Vinyl chloride	ug/L	<0.18	50	50	48.3	45.9	97	92	49-133	5	20	
4-Bromofluorobenzene (S)	%						103	100	70-130			
Dibromofluoromethane (S)	%						107	101	70-130			
Toluene-d8 (S)	%						91	96	70-130			

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## QUALIFIERS

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.

### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 631224187 REDI-QUICK

Pace Project No.: 40147589

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40147589001	MW-2	EPA 8260	251628		
40147589002	MW-4	EPA 8260	251628		
40147589003	MW-10	EPA 8260	251628		
40147589004	MW-11	EPA 8260	251629		
40147589005	MW-12	EPA 8260	251629		
40147589006	MW-13	EPA 8260	251629		
40147589007	MW-14	EPA 8260	251629		
40147589008	MW-21	EPA 8260	251629		
40147589009	MW-120	EPA 8260	251629		
40147589010	PZ-10	EPA 8260	251629		
40147589011	PZ-20	EPA 8260	251629		
40147589012	TRIP BLANK	EPA 8260	251629		

### REPORT OF LABORATORY ANALYSIS

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(Please Print Clearly)

Company Name:	C-B&I
Branch/Location:	WI

Project Contact:	Heddi Weigel
Phone:	414-687-3313

Project Number:	631224187
Project State:	WI

Sampled By (Print):	Jared Schmitz
Sampled By (Sign):	

PO #:	
Program:	

Data Package Options		MS/MSD	Matrix Codes	Preservation Codes	
<input type="checkbox"/>	(billable) EPA Level III	<input type="checkbox"/> On your sample	A = Air B = Biota C = Charcoal D = Oil S = Soil Sl = Sludge	W = Water DW = Drinking Water GW = Ground Water SW = Surface Water WW = Waste Water	B=HCl C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other
<input type="checkbox"/>	EPA Level IV	<input type="checkbox"/> NOT needed on your sample			

FILTERED? (YES/NO)	N
PRESERVATION (CODE)*	

Pick Letter:	B
Y/N	

Analyses Requested	VO
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CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)
	Profile #

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# Sample Condition Upon Receipt

Pace Analytical Services, Inc.  
1241 Bellevue Street, Suite 9  
Green Bay, WI 54302

Client Name: CB + I

Project

WO# : **40147589**



40147589

Courier:  Fed Ex  UPS  Client  Pace Other:

Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used

N/A

Type of Ice:  Wet  Blue  Dry  None

Samples on ice, cooling process has begun

Cooler Temperature

Uncorr: ROT /Corr:

Biological Tissue is Frozen:  yes

Temp Blank Present:  yes  no

Temp should be above freezing to 6°C for all sample except Biota.

Frozen Biota Samples should be received ≤ 0°C.

Comments: \_\_\_\_\_

Person examining contents:

Date: 3-31-17

Initials: SCU

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time: - VOA Samples frozen upon receipt	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	5. Date/Time: _____
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	8.
Correct Containers Used: -Pace Containers Used: -Pace IR Containers Used:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	9.
Containers Intact:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	12.
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	13. <input type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> ≤2; NaOH+ZnAct ≥9, NaOH ≥12) exceptions: VOA coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics,	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	
OTHER:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	Initial when completed
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A	Lab Std #/ID of preservative
Trip Blank Present:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	Date/ Time: _____
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):	<u>375</u>			

**Client Notification/ Resolution:**

Person Contacted: \_\_\_\_\_

If checked, see attached form for additional comments

Comments/ Resolution: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Project Manager Review: CHS

Date: 3-31-17