



Environmental Engineers, Geologists and Scientists

Tel 847.573.8900  
Fax 847.573.8953

Polo Park Business Center  
27834 N. Irma Lee Circle  
Lake Forest, Illinois 60045-5130

November 20, 2020

Mr. Riley Neumann  
Wisconsin Department of Natural Resources  
2300 North Dr. Martin Luther King, Jr. Drive  
Milwaukee, Wisconsin 53212-3128

**Re: Quarterly Groundwater Sampling Report  
(October 2020 Results)  
BRRTS #: 02-41-576336 & 02-41-579429  
FID #: 241828620  
Sunrise Shopping Center  
2410-2424 10<sup>th</sup> Avenue & 1009 Marquette Avenue  
South Milwaukee, Wisconsin 53172**

Mr. Neumann:

Please find enclosed the *Quarterly Groundwater Sampling Report* for the Sunrise Shopping Center facility located at the above-referenced address. Quarterly groundwater sampling of three (3) monitoring wells on-site continues to monitor any changes in Polynuclear Aromatic Hydrocarbon (PAH) and Tetrachloroethene (Perc) concentrations. PAH groundwater contaminant concentrations are monitored at MW-3 and MW-4 to assess if there is a need for remedial actions. Sampling for Perc concentrations in MW-5 continues to assess remedial progress and to determine plume stability.

A brief discussion of the quarterly sampling protocol and results of the October 2020 groundwater sampling are included in this quarterly report. As required, this quarterly report and all supporting documentation have also been submitted electronically to WDNR. If you have any questions or require additional information in regards to this submission, please contact me at 847-573-8900 extension 580. Thank you for your time.

Sincerely,  
**DAI Environmental, Inc.**

A handwritten signature in blue ink that reads "Christopher Cailles".  
Christopher Cailles, P.E.  
Project Engineer

Enclosure



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Tel 847.573.8900  
Fax 847.573.8953

Polo Park Business Center  
27834 N. Irma Lee Circle  
Lake Forest, Illinois 60045-5130

**QUARTERLY GROUNDWATER SAMPLING REPORT  
(OCTOBER 2020 RESULTS)  
SUNRISE SHOPPING CENTER  
2410-2424 10<sup>TH</sup> AVENUE & 1009 MARQUETTE AVENUE  
SOUTH MILWAUKEE, WISCONSIN 53172  
WDNR BRRTS ACTIVITY #02-41-576336 & 02-41-579429  
WDNR FID #241828620**

November 20, 2020

DAI Project Number: 6255

**Prepared For:  
Carol Investment Corporation  
1410 South Clinton Street  
Chicago, IL 60607**

**Prepared By:  
DAI Environmental, Inc.  
27834 North Irma Lee Circle  
Lake Forest, Illinois 60045**

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## **1.0 INTRODUCTION**

Soil and groundwater Remedial Actions are being performed at the Sunrise Shopping Center facility, addressed as 2410-2424 10<sup>th</sup> Avenue and 1009 Marquette Avenue in South Milwaukee, Wisconsin (Site). Figure B.1.b.1 in Attachment B provides an aerial view of the Site and surrounding property. The Remedial Actions to address Volatile Organic Compound (VOC) contamination are being performed under BRRTS number 02-41-576336 and the Remedial Actions to address Polynuclear Aromatic Hydrocarbon (PAH) contamination are being performed under BRRTS number 02-41-579429. As part of the Remedial Actions, quarterly groundwater sampling has been conducted since January 2018. A brief discussion of the quarterly sampling protocol and results are provided below.

## **2.0 QUARTERLY GROUNDWATER SAMPLING PROGRAM**

Quarterly groundwater sampling was first performed on January 5, 2018. The first quarterly sampling event included a complete round of sampling from each of the six (6) monitoring wells (MW-1 to MW-5 and MW-201) installed at the Site. Figure B.3.d provides the locations of the monitoring wells. As proposed in the December 28, 2017, *Site Investigation Work Plan*, the groundwater samples from all monitoring wells were submitted for analysis of PAHs, and a sample from MW-5 was also collected for VOC analysis. Results of the January 2018 groundwater sampling were provided to the Wisconsin Department of Natural Resources (WDNR) in the *Site Investigation Report Amendment Addendum* dated February 28, 2018. Results of subsequent 2018 quarterly sampling events were provided in *Quarterly Groundwater Sampling Reports*.

### **2.1 Quarterly Sampling Protocol**

Quarterly groundwater sampling is being conducted at monitoring wells MW-3 to MW-5. The purpose of the quarterly groundwater sampling is to monitor any changes in groundwater contaminant concentrations and determine the need for any future remedial actions. The groundwater sampling has documented Tetrachloroethene (Perc) groundwater concentrations before, during, and following the chemical treatment Remedial Actions. The quarterly groundwater sampling has been performed as follows:

- Static water level measurements are collected from all accessible monitoring wells using an electronic water level indicator capable of detecting water depth with an accuracy of  $\pm 0.01$  ft;
- Groundwater samples are collected from monitoring wells MW-3 and MW-4 for laboratory analysis of PAHs; and
- A groundwater sample is collected from monitoring well MW-5 for laboratory analysis of VOCs.

### **2.2 Groundwater Sampling Procedures and Chemical Analysis**

Consistent with sampling protocol followed during Site Investigation activities, the three (3) monitoring wells were purged prior to sample collection, to the extent practicable, to remove turbidity from the groundwater and allow the collection of a sediment-free sample that was representative of the surrounding groundwater conditions. Following purging, groundwater

samples were collected from MW-3 to MW-5. Monitoring wells MW-4 and MW-5 were sampled using disposable PVC bailers; a groundwater sample was obtained from MW-3 using a peristaltic pump with dedicated PVC tubing. Groundwater samples were distributed directly into the appropriate sample containers for subsequent laboratory analyses as follows:

- MW-5: VOCs via USEPA Method SW8260; and
- MW-3 and MW-4: PAHs via USEPA Method SW8270 by HVI.

The sample submitted for analysis of VOCs was dispensed into 40-mL vials preserved with hydrochloric acid, and the samples submitted for analysis of PAHs were dispensed into unpreserved 100-mL amber glass containers. New disposable nitrile gloves were used to collect each sample to limit cross contamination. The samples were stored on ice immediately after collection and were maintained at a temperature of 4°C or lower via a cooler with ice. Samples were ultimately transferred to Pace Analytical Services, LLC (Pace Analytical) of Green Bay, Wisconsin, an independent analytical laboratory following the standard chain-of-custody procedures.

## **3.0 QUARTERLY GROUNDWATER SAMPLING RESULTS**

### **3.1 Static Groundwater Elevations**

To evaluate potential seasonal fluctuation in static water elevation and/or groundwater flow direction, a complete round of static groundwater elevations was collected as part of the fourth quarter 2020 groundwater sampling event. The static water level elevations were collected from all monitoring wells on October 12, 2020, with the exception of MW-1 (inaccessible at the time). Table A.6 in Attachment A provides a historical summary of groundwater elevation information.

Review of Table A.6 shows that the October 2020 groundwater elevations are between 0.46-ft and 1.46-ft lower than the groundwater elevations observed in July 2020. In general, monitoring wells MW-1 through MW-4 indicate the highest quarterly variability, while MW-5 and MW-201 fluctuate less between quarters. The highest static elevation differences are noted in monitoring wells MW-1 and MW-3, which are located in areas of the Site with known subsurface disturbance.

While some variability in elevation between quarters is noted, the groundwater flow direction is generally consistent. The groundwater flow direction along the southern half of the Site remains northwesterly, and a north-northeasterly groundwater flow direction is indicated along the northern half of the Site. The potentiometric surface map generated from the October 2020 data is included as Figure B.3.c.15 (see Attachment B).

### **3.2 Groundwater Analytical Results**

Groundwater samples for the fourth quarter 2020 (i.e., October-December 2020) were collected on October 12, 2020, following the protocol described in Section 2.2. The groundwater sample collected from MW-5 was analyzed for VOCs, and the samples from MW-3 and MW-4 were analyzed for PAHs. A summary of all groundwater sampling data collected from monitoring wells MW-3 to MW-5 since the beginning of Site Investigations is provided Tables A.1.A-A.1.B (see Attachment A). The tables are compared to the Preventative Action Limits PAL (s) and Enforcement Standards listed in Table 1 of NR 140. A copy of the laboratory analytical report for the fourth quarter 2020 sampling is provided in this report as Attachment C.1.E.

### **Volatile Organic Compounds**

Table A.1.A summarizes the results for Perc and Trichloroethene (TCE), the only VOCs of concern in the groundwater (previous quarterly reports include a full summary of VOC analyses). All results are for groundwater samples collected from MW-5, installed to the rear of the 2410 tenant space (former Sunbrite Cleaners location).

As noted in the table, since February 2016 Perc has been present consistently in monitoring well MW-5, with concentrations exceeding the Enforcement Standard of 0.005-mg/L. Concentrations were noted as increasing between November 2014 and October 2018, followed by an overall declining trend (though highly variable from quarter to quarter). The chemical injection activities conducted in July 2018 and August 2019 appear to have contributed to the declining concentrations. The results of the most recent groundwater from October 2020 sampling indicate a Perc concentration in MW-5 of 0.014-mg/L, generally consistent with the three (3) previous quarters, indicating that Perc concentrations are stable. Figure B.3.b.1a provides a historical summary of Perc groundwater concentrations and the estimated extent of Perc groundwater contamination.

Since the groundwater sampling was initiated, the TCE concentration in MW-5 was observed at a level above the PAL on two (2) occasions: January 2019 (0.0027-mg/L) and April 2019 (0.00071-mg/L). All subsequent TCE concentrations have remained below the PAL, with the most recent concentration from October 2020 of 0.00047-mg/L. Figure B.3.b.1b provides a historical summary of TCE groundwater concentrations.

### **Polynuclear Aromatic Hydrocarbons**

Table A.1.B summarizes the results of the PAH analyses for MW-3 and MW-4. Figures B.3.b.2a to B.3.b.2d provide a historical summary of groundwater results for Benzo(a)pyrene, Benzo(b)fluoranthene, Chrysene, and Naphthalene, respectively.

A review of historical sampling results from MW-3 (which is installed in the southern portion of the property where contamination from historical petroleum and/or coal storage is identified) indicates the presence of PAH contamination in groundwater during each sampling event.

Consistent with past sampling events, Benzo(a)pyrene, Benzo(b)fluoranthene, and Chrysene groundwater contamination was observed in MW-3. The most recent concentrations from October 2020 remain above the Enforcement Standards, although the results are stable with concentrations nearly identical to those observed during the previous two (2) quarterly sampling events of May and July 2020. As previously noted, it appears that the groundwater concentrations are most influenced by fluctuations in the groundwater table elevation through the contaminated fill material, particularly in the area for MW-3. Additionally, the monitoring well has been damaged as a result of snow removal operations, so that the integrity of casing may be negatively impacting the PAH sampling results. The damage to the monitoring well casing and fluctuations in the groundwater table elevations contribute to the high variability in observed concentrations over time. However, these impacts are still limited to the area along the southern property boundary.

Similar to the results from MW-3, the Benzo(a)pyrene, Benzo(b)fluoranthene, and Chrysene concentrations in MW-4 (installed to the rear of the 2414B tenant space in the approximate location of a former heating oil UST) are also above the Enforcement Standards in October 2020, but have decreased for the third consecutive quarter. The Naphthalene groundwater concentration declined to below the PAL. The variability of the PAH concentrations in MW-4 appears to be largely influenced by fluctuations in the groundwater table elevation.

## **4.0 SUMP WATER SAMPLING RESULTS**

To address the Perc contamination identified in the sump water from the basement of the Ace Hardware building, an activated carbon treatment system was proposed to the WDNR. The proposed treatment system discharge was issued coverage under WPDES Permit Number WI-0046566-07-0 in a letter dated April 10, 2019, and the system began operation on May 14, 2019. As a condition of the permit approval, weekly discharge samples were required to be collected for a period of 4-weeks followed by monthly sampling thereafter. Weekly samples were collected on May 15<sup>th</sup>, 23<sup>rd</sup>, 29<sup>th</sup>, and June 6, 2019. The first monthly sample was collected on June 25, 2019. In addition to the required discharge samples, samples of the sump water have been collected for VOC analysis to both monitor the groundwater contaminant concentrations around the Ace Hardware building and verify the system is operating correctly.

While not strictly part of the quarterly sampling protocol, results of the sump water sampling are included with this submission as an indication of the groundwater contaminant concentrations below and around the Ace Hardware building. The results of the sump water samples are summarized in Table A.5. (Because all VOCs are reported below the Limit of Detection with the exception of Perc, Table A.5 only summarizes the Perc results.) The historical sump water sample results are also provided in Figure B.3.b.1a.

As noted in Table A.5, the Perc concentrations in the influent sump water are often above the Enforcement Standard, and always above the PAL. However, all corresponding discharge samples indicate that the treatment system has been fully effective in removing Perc from the water prior to discharge into the stormwater sewer system. None of the discharge samples are reported with a detectable concentration of Perc.

Monthly sampling of the sump water influent and system effluent discharge will continue. The discharge sample results are submitted electronically to WDNR, as required by the WPDES permit.

## 5.0 SUMMARY AND SCHEDULE

- Perc has been observed in monitoring well MW-5 at concentrations exceeding the Enforcement Standard since February 2016. The concentrations were observed to be increasing with time until chemical injection was performed in July 2018. Subsequently, Perc concentrations in MW-5, though highly variable, have shown an overall decline since October 2018. The additional chemical injection performed near MW-5 in August 2019 also helped reduce the mass of Perc contamination. However because there is still Perc in the soil surrounding MW-5, the groundwater Perc concentrations in MW-5 remain at concentrations above the Enforcement Standard. The most recent sampling data from 2020 indicate relatively stable Perc concentrations in MW-5.
- Sampling of the Ace Hardware sump water indicates influent Perc concentrations above the Enforcement Standard, although all effluent discharge samples from the treatment system are below detectable concentrations. Sump water treatment and influent and effluent sampling will continue on a monthly basis.
- The PAH concentrations of Benzo(a)pyrene, Benzo(b)fluoranthene, and Chrysene in MW-3 and MW-4 remain above the Enforcement Standards. PAH concentrations observed in MW-3 in October 2020 are nearly identical to results of both the May and July 2020 sampling events. Concentrations in MW-4 have declined for the third consecutive quarter, with the Naphthalene concentration returning to below the PAL. The quarterly sampling of MW-3 and MW-4 has indicated that groundwater concentrations are variable and are influenced by groundwater fluctuations through impacted backfill. The site-wide presence of fill material (including coal and cinders remaining from the historical use of the property) also likely contributes to the observed PAH groundwater concentrations. (A large portion of the Site exhibits low-level PAH soil contamination.) The most recent sampling data do not indicate an increase or spread of contamination.
- Quarterly groundwater sampling has been conducted since January 2018. The sampling results indicate levels of Perc, Benzo(a)pyrene, Benzo(b)fluoranthene, and Chrysene at concentrations above the Enforcement Standards. The concentrations of Perc in MW-5 are generally stable, and the PAH concentrations in MW-3 and MW-4, though variable, do not indicate an overall increase or further spread of contamination.

## **APPENDIX A**

### **TABLES**

**Table A.1.A. Groundwater Analytical Table for Volatile Organic Compounds (mg/L)  
(Quarterly Groundwater Sampling Wells)**

Sample Location	Sample Date	Tetrachloroethene	Trichloroethene
MW-5	10/12/20	<b><u>0.014</u></b>	0.00047
	07/14/20	<b><u>0.01</u></b>	<0.00026
	05/05/20	<b><u>0.0088</u></b>	<0.00026
	01/17/20	<b><u>0.0084</u></b>	0.00038 (J)
	10/24/19	<b><u>0.012</u></b>	0.00039 (J)
	09/05/19	<b><u>0.0153</u></b>	0.00038 (J)
	07/07/19	<b><u>0.0106</u></b>	0.00048 (J)
	04/29/19	<b><u>0.0114</u></b>	<b>0.00071 (J)</b>
	01/25/19	<b><u>0.0065</u></b>	<b>0.0027</b>
	10/11/18	<b><u>0.021</u></b>	0.00027 (J)
	07/30/18	<b><u>0.0086</u></b>	<0.00026
	04/07/18	<b><u>0.0203</u></b>	<0.00033
	01/05/18	<b><u>0.0181</u></b>	<0.00033
	05/30/17	<b><u>0.0124</u></b>	<0.00033
	02/23/16	<b><u>0.0083</u></b>	<0.00033
	01/27/15	<b><u>0.0026</u></b>	<0.00033
	11/12/14 (TW-2)	<b><u>0.0026</u></b>	<0.00033
<b>PAL<sup>1</sup></b>		<b>0.0005</b>	<b>0.0005</b>
<b>Enforcement Standard<sup>2</sup></b>		<b>0.005</b>	<b>0.005</b>

<sup>1</sup> – Preventive Action Limits (PALs) taken from Wisconsin Administrative Code, Chapter NR 140, Table 1

<sup>2</sup> – Enforcement Standards (ES) taken from Wisconsin Administrative Code, Chapter NR 140, Table 1

**Bold** – Concentration exceeds the PAL

Underlined – Concentration exceeds the PAL and the ES

(J) – Concentration reported by the laboratory above the Limit of Detection, but below the Limit of Quantification  
VOCs via USEPA Method SW8260

**Table A.1.B. Groundwater Analytical Table for Polynuclear Aromatics (mg/L)  
(Quarterly Groundwater Sampling Wells)**

Polynuclear Aromatic	Sample Location (Sample Date)					PAL <sup>1</sup>	ES <sup>2</sup>
	TW-5 (11/13/14)	MW-3 (01/27/15)	MW-3 (05/30/17)	MW-3 (01/05/18)	MW-3 (04/07/18)		
Acenaphthene	0.00076	0.0000043 (J)	0.000026 (J)	0.0000077 (J)	0.000029	NL	NL
Acenaphthylene	0.00013	0.0000036 (J)	0.000016 (J)	<0.0000045	0.000053	NL	NL
Anthracene	0.00056	<0.0000023	0.00013	0.000031 (J)	0.00015	0.6	3
Benzo(a)anthracene	0.00069	<0.0000031	0.00073	0.0000069 (J)	0.001	NL	NL
Benzo(a)pyrene	<b>0.0006</b>	0.000011 (J)	<b>0.001</b>	<0.0000096	<b>0.0019</b>	0.00002	0.0002
Benzo(b)fluoranthene	<b>0.00077</b>	0.00002 (J)	<b>0.002</b>	<b>0.000037</b>	<b>0.0039</b>	0.00002	0.0002
Benzo(g,h,i)perylene	0.0004	0.000016 (J)	0.0011	0.00018 (J)	0.0025	NL	NL
Benzo(k)fluoranthene	0.00029	0.00001 (J)	0.00068	0.000014 (J)	0.0014	NL	NL
Chrysene	<b>0.00084</b>	<b>0.000028 (J)</b>	<b>0.0015</b>	<b>0.000047 (J)</b>	<b>0.003</b>	0.00002	0.0002
Dibenzo(a,h)anthracene	0.000091	<0.0000032	0.00022	<0.0000091	0.00034	NL	NL
Fluoranthene	0.0024	0.000041 (J)	0.0031	0.00021	0.0052	0.08	0.4
Fluorene	0.0011	0.0000035 (J)	0.000052	0.000022 (J)	0.000048	0.08	0.4
Indeno(1,2,3-cd)pyrene	0.0003	0.0000081 (J)	0.00086	<0.000016	0.0021	NL	NL
1-Methylnaphthalene	0.002	0.0000091 (J)	0.00018	0.00016	0.000033	NL	NL
2-Methylnaphthalene	0.00017	0.0000084 (J)	0.00013	0.00016	0.000024	NL	NL
Naphthalene	0.00016	<0.0000056	0.00012	0.00046	0.000051	0.017	0.1
Phenanthrene	0.0021	0.000043 (J)	0.00071	0.000085	0.0013	NL	NL
Pyrene	0.0025	0.000059	0.002	0.00011	0.0037	0.05	0.25

<sup>1</sup> – Preventive Action Limits (PALs) taken from Wisconsin Administrative Code, Chapter NR 140, Table 1

<sup>2</sup> – Enforcement Standards (ES) taken from Wisconsin Administrative Code, Chapter NR 140, Table 1

**Bold** – Concentration exceeds the PAL

Underlined – Concentration exceeds the PAL and the ES

(J) – Concentration reported by the laboratory above the Limit of Detection, but below the Limit of Quantification

NL – Not Listed in Wisconsin Administrative Code

PNAs via USEPA Method SW8270SIM

NOTE – MW-3 installed to duplicate TW-5

**Table A.1.B (Continued). Groundwater Analytical Table for Polynuclear Aromatics (mg/L)  
(Quarterly Groundwater Sampling Wells)**

Polynuclear Aromatic	Sample Location (Sample Date)					PAL <sup>1</sup>	ES <sup>2</sup>
	MW-3 (07/30/18)	MW-3 (10/11/18)	MW-3 (01/25/19)	MW-3 (04/29/19)	MW-3 (07/07/19)		
Acenaphthene	0.000014 (J)	0.00001 (J)	0.0000068 (J)	0.0015	0.000023 (J)	NL	NL
Acenaphthylene	0.000023	<0.0000045	<0.0000047	0.0027	0.000084	NL	NL
Anthracene	0.000073	0.00002 (J)	0.000027 (J)	0.0089	0.00013	0.6	3
Benzo(a)anthracene	0.00043	0.000017 (J)	0.000053	0.11	0.00087	NL	NL
Benzo(a)pyrene	<b>0.00068</b>	<b>0.000024 (J)</b>	<b>0.00017</b>	<b>0.115</b>	<b>0.0019</b>	0.00002	0.0002
Benzo(b)fluoranthene	<b>0.0013</b>	<b>0.000074</b>	<b>0.00034</b>	<b>0.209</b>	<b>0.0036</b>	0.00002	0.0002
Benzo(g,h,i)perylene	0.00082	0.000037	0.00023	0.132	0.0025	NL	NL
Benzo(k)fluoranthene	0.00041	0.000026 (J)	0.00012	0.0643	0.0016	NL	NL
Chrysene	<b>0.00095</b>	<b>0.000079</b>	<b>0.00028</b>	<b>0.13</b>	<b>0.0026</b>	0.00002	0.0002
Dibenzo(a,h)anthracene	0.00015	<0.000009	0.000034 (J)	0.0258	0.00028	NL	NL
Fluoranthene	0.0019	0.00026	0.00043	<b>0.248</b>	0.0035	0.08	0.4
Fluorene	0.00004	0.000031 (J)	0.000014 (J)	0.0028	0.000037	0.08	0.4
Indeno(1,2,3-cd)pyrene	0.00089	0.000027 (J)	0.00016	0.108	0.0019	NL	NL
1-Methylnaphthalene	0.000033	0.000019 (J)	0.000013 (J)	0.0003	0.000011 (J)	NL	NL
2-Methylnaphthalene	0.000031	0.000015 (J)	0.000012 (J)	0.00025	0.000014 (J)	NL	NL
Naphthalene	0.000053 (J)	0.000032 (J)	0.000022 (J)	0.00035	0.000019 (J)	0.017	0.1
Phenanthrene	0.00047	0.000093	0.00011	0.066	0.00079	NL	NL
Pyrene	0.0012	0.0002	0.00031	<b>0.21</b>	0.0029	0.05	0.25

<sup>1</sup> – Preventive Action Limits (PALs) taken from Wisconsin Administrative Code, Chapter NR 140, Table 1

<sup>2</sup> – Enforcement Standards (ES) taken from Wisconsin Administrative Code, Chapter NR 140, Table 1

**Bold** – Concentration exceeds the PAL

Underlined – Concentration exceeds the PAL and the ES

(J) – Concentration reported by the laboratory above the Limit of Detection, but below the Limit of Quantification

NL – Not Listed in Wisconsin Administrative Code

PNAs via USEPA Method SW8270SIM

**Table A.1.B (Continued). Groundwater Analytical Table for Polynuclear Aromatics (mg/L)  
(Quarterly Groundwater Sampling Wells)**

Polynuclear Aromatic	Sample Location (Sample Date)					PAL <sup>1</sup>	ES <sup>2</sup>
	MW-3 (10/24/19)	MW-3 (01/17/20)	MW-3 (05/05/20)	MW-3 (07/14/20)	MW-3 (10/12/20)		
Acenaphthene	0.00016	0.0003	0.000013 (J)	0.000026	0.00022	NL	NL
Acenaphthylene	0.00043	0.0002	0.00002 (J)	0.00034	0.000075	NL	NL
Anthracene	0.00088	0.00028	0.000086	0.00016	0.00016	0.6	3
Benzo(a)anthracene	0.009	0.0042	0.00066	0.00057	0.00076	NL	NL
Benzo(a)pyrene	<b>0.015</b>	<b>0.0063</b>	<b>0.0011</b>	<b>0.0012</b>	<b>0.0013</b>	0.00002	0.0002
Benzo(b)fluoranthene	<b>0.03</b>	<b>0.0104</b>	<b>0.0023</b>	<b>0.0022</b>	<b>0.0027</b>	0.00002	0.0002
Benzo(g,h,i)perylene	0.018	0.0072	0.0015	0.0017	0.0017	NL	NL
Benzo(k)fluoranthene	0.0095	0.004	0.00078	0.00092	0.0009	NL	NL
Chrysene	<b>0.016</b>	<b>0.0013</b>	<b>0.0012</b>	<b>0.0014</b>	<b>0.0015</b>	0.00002	0.0002
Dibenzo(a,h)anthracene	0.0034	0.0117	0.00026	0.00027	0.00027	NL	NL
Fluoranthene	0.025	0.0005	0.0018	0.0028	0.0024	0.08	0.4
Fluorene	0.00022	0.00004	0.000014 (J)	0.00004	0.00025	0.08	0.4
Indeno(1,2,3-cd)pyrene	0.014	0.0056	0.0012	0.0014	0.0013	NL	NL
1-Methylnaphthalene	--	0.00039	<0.0000057	0.000024	0.00027	NL	NL
2-Methylnaphthalene	--	0.000048	<0.0000048	0.000015	0.000091	NL	NL
Naphthalene	0.00015	0.0001	<0.000018	0.00003	0.0001	0.017	0.1
Phenanthrene	0.0061	0.003	0.00046	0.00038	0.00086	NL	NL
Pyrene	0.024	0.011	0.0015	0.0016	0.0021	0.05	0.25

<sup>1</sup> – Preventive Action Limits (PALs) taken from Wisconsin Administrative Code, Chapter NR 140, Table 1

<sup>2</sup> – Enforcement Standards (ES) taken from Wisconsin Administrative Code, Chapter NR 140, Table 1

**Bold** – Concentration exceeds the PAL

Underlined – Concentration exceeds the PAL and the ES

(J) – Concentration reported by the laboratory above the Limit of Detection, but below the Limit of Quantification

NL – Not Listed in Wisconsin Administrative Code

PNAs via USEPA Method SW8270SIM

**Table A.1.B (Continued). Groundwater Analytical Table for Polynuclear Aromatics (mg/L)  
(Quarterly Groundwater Sampling Wells)**

Polynuclear Aromatic	Sample Location (Sample Date)				PAL <sup>1</sup>	ES <sup>2</sup>
	TW-6 (11/13/14)	MW-4 (01/27/15)	MW-4 (02/23/16)	MW-4 (05/30/17)		
Acenaphthene	0.00049	0.0000039 (J)	0.00056	0.0386	NL	NL
Acenaphthylene	0.00012	0.000084	0.000073	0.0166	NL	NL
Anthracene	0.00006	0.00006	0.00011	0.0018 (J)	0.6	3
Benzo(a)anthracene	0.000013 (J)	<0.0000032	0.0000082 (J)	0.00044 (J)	NL	NL
Benzo(a)pyrene	0.0000053 (J)	0.000017 (J)	0.000006 (J)	<b>&lt;0.00049</b>	0.00002	0.0002
Benzo(b)fluoranthene	0.0000093 (J)	<b>0.000043 (J)</b>	0.000014 (J)	<b>&lt;0.00027</b>	0.00002	0.0002
Benzo(g,h,i)perylene	0.0000071 (J)	0.000025 (J)	0.0000081 (J)	<0.00031	NL	NL
Benzo(k)fluoranthene	<0.000005	0.000021 (J)	<0.0000051	<0.00035	NL	NL
Chrysene	<b>0.000021 (J)</b>	<b>0.000042 (J)</b>	0.000017 (J)	<b>0.0018 (J)</b>	0.00002	0.0002
Dibenzo(a,h)anthracene	<0.0000035	<0.0000033	<0.0000051	<0.00046	NL	NL
Fluoranthene	0.00004 (J)	0.000049	0.00003 (J)	0.0037	0.08	0.4
Fluorene	0.00061	0.000031 (J)	0.00051	0.0759	0.08	0.4
Indeno(1,2,3-cd)pyrene	0.0000044 (J)	0.000017 (J)	0.0000056 (J)	<0.00082	NL	NL
1-Methylnaphthalene	0.0087	0.000076	0.0041	0.357	NL	NL
2-Methylnaphthalene	0.0065	0.000066	0.000037 (J)	0.0747	NL	NL
Naphthalene	0.0022	0.000027	0.00017	<b>0.0243</b>	0.017	0.1
Phenanthrene	0.00062	0.000033 (J)	0.00029	0.165	NL	NL
Pyrene	0.00006	0.0001	0.000081	0.0165	0.05	0.25

<sup>1</sup> – Preventive Action Limits (PALs) taken from Wisconsin Administrative Code, Chapter NR 140, Table 1

<sup>2</sup> – Enforcement Standards (ES) taken from Wisconsin Administrative Code, Chapter NR 140, Table 1

**Bold** – Concentration exceeds the PAL

Underlined – Concentration exceeds the PAL and the ES

(J) – Concentration reported by the laboratory above the Limit of Detection, but below the Limit of Quantification

NL – Not Listed in Wisconsin Administrative Code

PNAAs via USEPA Method SW8270SIM

NOTE – MW-4 installed to duplicate TW-6

**Table A.1.B (Continued). Groundwater Analytical Table for Polynuclear Aromatics (mg/L)  
(Quarterly Groundwater Sampling Wells)**

Polynuclear Aromatic	Sample Location (Sample Date)				PAL <sup>1</sup>	ES <sup>2</sup>
	MW-4 (01/05/18)	MW-4 (04/07/18)	MW-4 (07/30/18)	MW-4 (10/11/18)		
Acenaphthene	0.0246	0.0031	0.0021	0.004	NL	NL
Acenaphthylene	0.0083	0.00073	0.00064	0.00091	NL	NL
Anthracene	0.0019	0.00051	0.00024	0.001	0.6	3
Benzo(a)anthracene	<0.00014	0.000012 (J)	<0.000035	0.00004 (J)	NL	NL
Benzo(a)pyrene	<b>&lt;0.0002</b>	<0.0000095	<b>&lt;0.000048</b>	<b>&lt;0.000029</b>	0.00002	0.0002
Benzo(b)fluoranthene	<b>0.00022 (J)</b>	0.0000096 (J)	<b>&lt;0.000026</b>	<b>0.000022</b>	0.00002	0.0002
Benzo(g,h,i)perylene	<0.00013	<0.0000061	<0.000031	<0.000018	NL	NL
Benzo(k)fluoranthene	<0.00014	<0.0000068	<0.000035	<0.000021	NL	NL
Chrysene	<b>0.001 (J)</b>	<b>0.000031 (J)</b>	<b>&lt;0.00006</b>	<b>0.000084 (J)</b>	0.00002	0.0002
Dibenzo(a,h)anthracene	<0.00019	<0.000009	<0.000046	<0.000027	NL	NL
Fluoranthene	0.0046	0.0001	0.000061 (J)	0.00019	0.08	0.4
Fluorene	0.0504	0.0053	0.0035	0.0067	0.08	0.4
Indeno(1,2,3-cd)pyrene	<0.00033	<0.000016	<0.000081	<0.000048	NL	NL
1-Methylnaphthalene	0.183	0.0109	0.0395	0.0268	NL	NL
2-Methylnaphthalene	0.0126	0.00026	0.00051	0.00021	NL	NL
Naphthalene	<b>0.0151</b>	0.0022	0.0015	0.00081	0.017	0.1
Phenanthrene	0.102	0.0033	0.0031	0.0059	NL	NL
Pyrene	0.0102	0.00032	0.00017 (J)	0.0001	0.05	0.25

<sup>1</sup> – Preventive Action Limits (PALs) taken from Wisconsin Administrative Code, Chapter NR 140, Table 1

<sup>2</sup> – Enforcement Standards (ES) taken from Wisconsin Administrative Code, Chapter NR 140, Table 1

**Bold** – Concentration exceeds the PAL

Underlined – Concentration exceeds the PAL and the ES

(J) – Concentration reported by the laboratory above the Limit of Detection, but below the Limit of Quantification

NL – Not Listed in Wisconsin Administrative Code

PNA<sub>s</sub> via USEPA Method SW8270SIM

**Table A.1.B (Continued). Groundwater Analytical Table for Polynuclear Aromatics (mg/L)  
(Quarterly Groundwater Sampling Wells)**

Polynuclear Aromatic	Sample Location (Sample Date)				PAL <sup>1</sup>	ES <sup>2</sup>
	MW-4 (01/25/19)	MW-4 (04/29/19)	MW-4 (07/07/19)	MW-4 (10/24/19)		
Acenaphthene	0.0016	0.0033	0.0028	0.01	NL	NL
Acenaphthylene	0.00024	0.00059	0.0005	0.0029	NL	NL
Anthracene	0.000093	0.00033	0.00044	0.0068	0.6	3
Benzo(a)anthracene	0.0000076 (J)	0.000061	<0.000026	0.00069	NL	NL
Benzo(a)pyrene	<0.0000095	<b>0.000041 (J)</b>	<0.000037	<b>0.00045</b>	0.00002	0.0002
Benzo(b)fluoranthene	0.000012 (J)	<b>0.000093</b>	<0.00002	<b>0.00086</b>	0.00002	0.0002
Benzo(g,h,i)perylene	<0.0000061	0.000045	<0.000024	0.00049	NL	NL
Benzo(k)fluoranthene	0.000016 (J)	0.00005	<0.000026	0.00038	NL	NL
Chrysene	<b>0.000033 (J)</b>	<b>0.00017</b>	<0.000046	<b>0.0016</b>	0.00002	0.0002
Dibenzo(a,h)anthracene	<0.000009	0.0000091 (J)	<0.000035	0.000074 (J)	NL	NL
Fluoranthene	0.000091	0.0004	0.00011 (J)	0.0026	0.08	0.4
Fluorene	0.0022	0.0046	0.0044	0.019	0.08	0.4
Indeno(1,2,3-cd)pyrene	<0.000016	0.00004 (J)	<0.000062	0.00033 (J)	NL	NL
1-Methylnaphthalene	0.006	0.0151	0.0174	--	NL	NL
2-Methylnaphthalene	0.000048	0.00026	0.00048	--	NL	NL
Naphthalene	0.00078	0.0014	0.0034	0.0026	0.017	0.1
Phenanthrene	0.00077	0.0037	0.0013	0.026	NL	NL
Pyrene	0.00021	0.0014	0.00037	0.0096	0.05	0.25

<sup>1</sup> – Preventive Action Limits (PALs) taken from Wisconsin Administrative Code, Chapter NR 140, Table 1

<sup>2</sup> – Enforcement Standards (ES) taken from Wisconsin Administrative Code, Chapter NR 140, Table 1

**Bold** – Concentration exceeds the PAL

Underlined – Concentration exceeds the PAL and the ES

(J) – Concentration reported by the laboratory above the Limit of Detection, but below the Limit of Quantification

NL – Not Listed in Wisconsin Administrative Code

PNAAs via USEPA Method SW8270SIM

**Table A.1.B (Continued). Groundwater Analytical Table for Polynuclear Aromatics (mg/L)  
(Quarterly Groundwater Sampling Wells)**

Polynuclear Aromatic	Sample Location (Sample Date)				PAL <sup>1</sup>	ES <sup>2</sup>
	MW-4 (01/17/20)	MW-4 (05/05/20)	MW-4 (07/14/20)	MW-4 (10/12/20)		
Acenaphthene	0.0357	0.097	0.047	0.016	NL	NL
Acenaphthylene	0.0114	0.029	0.011	0.0033	NL	NL
Anthracene	0.0063	0.014	0.017	0.0057	0.6	3
Benzo(a)anthracene	0.0036	0.0016 (J)	0.0014	0.00062 (J)	NL	NL
Benzo(a)pyrene	<b>0.0031</b>	<b>0.0012 (J)</b>	<b>0.00046 (J)</b>	<b>0.00029 (J)</b>	0.00002	0.0002
Benzo(b)fluoranthene	<b>0.0056</b>	<b>0.0032</b>	<b>0.00098</b>	<b>0.00065</b>	0.00002	0.0002
Benzo(g,h,i)perylene	0.0032	0.0019	0.00054	0.00035 (J)	NL	NL
Benzo(k)fluoranthene	0.0022	0.00089 (J)	0.00055	0.0003 (J)	NL	NL
Chrysene	<b>0.0074</b>	<b>0.005</b>	<b>0.0038</b>	<b>0.0015</b>	0.00002	0.0002
Dibenzo(a,h)anthracene	0.000061 (J)	<0.00048	<0.00018	<0.00018	NL	NL
Fluoranthene	0.0128	0.015	0.008	0.0026	0.08	0.4
Fluorene	0.0576	<b>0.15</b>	0.055	0.017	0.08	0.4
Indeno(1,2,3-cd)pyrene	0.0025	0.00096 (J)	0.00036 (J)	<0.00032	NL	NL
1-Methylnaphthalene	0.0947	0.24	0.087	0.03	NL	NL
2-Methylnaphthalene	0.0032	0.003	0.0018	0.00079	NL	NL
Naphthalene	0.0074	<b>0.035</b>	<b>0.025</b>	0.007	0.017	0.1
Phenanthrene	0.0992	0.26	0.082	0.026	NL	NL
Pyrene	0.0344	0.049	0.028	0.01	0.05	0.25

<sup>1</sup> – Preventive Action Limits (PALs) taken from Wisconsin Administrative Code, Chapter NR 140, Table 1

<sup>2</sup> – Enforcement Standards (ES) taken from Wisconsin Administrative Code, Chapter NR 140, Table 1

**Bold** – Concentration exceeds the PAL

Underlined – Concentration exceeds the PAL and the ES

(J) – Concentration reported by the laboratory above the Limit of Detection, but below the Limit of Quantification

NL – Not Listed in Wisconsin Administrative Code

PNAs via USEPA Method SW8270SIM

**Table A.5. Ace Hardware Sump Water Analytical Table for Tetrachlorethene (mg/L)**

Sample Location	Sample Date	Tetrachloroethene
Sump	10/12/20	<u>0.009</u>
	09/03/20	<u>0.0065</u>
	08/17/20	<u>0.01</u>
	07/14/20	<u>0.0078</u>
	06/03/20	<u>0.0068</u>
	05/05/20	<u>0.0054</u>
	04/06/20	<u>0.005</u>
	03/10/20	<u>0.0063</u>
	02/03/20	<u>0.006</u>
	01/07/20	<u>0.0065</u>
	12/03/19	<u>0.0068</u>
	11/04/19	<u>0.008</u>
	10/02/19	<u>0.0069</u>
	09/05/19	<u>0.0076</u>
	08/02/19	<u>0.005</u>
	07/19/19	<u>0.0062</u>
	06/25/19	<u>0.0054</u>
	06/06/19	<u>0.0069</u>
	05/29/19	<u>0.0043</u>
	05/23/19	<u>0.0042</u>
	05/15/19	<u>0.0093</u>
	02/04/19	<u>0.0064</u>
	01/05/18	<u>0.0082</u>
	06/04/17	<u>0.006</u>
<b>PAL<sup>1</sup></b>		<b>0.0005</b>
<b>Enforcement Standard<sup>2</sup></b>		<b>0.005</b>

<sup>1</sup> – Preventive Action Limits (PALs) taken from Wisconsin Administrative Code, Chapter NR 140, Table 1

<sup>2</sup> – Enforcement Standards (ES) taken from Wisconsin Administrative Code, Chapter NR 140, Table 1

**Bold** – Concentration exceeds the PAL

Underlined – Concentration exceeds the PAL and the ES

NOTE – All other VOCs reported below the Limit of Detection

VOCs via USEPA Method SW8260

**Table A.6. Water Level Elevations**

Monitoring Well	Top of Casing Elevation*	Date	Measured Depth to Groundwater (ft)	Measured Depth to Well Bottom (ft)	Relative Groundwater Elevation (ft)
MW-1	99.13	10/12/20	Obstructed	14.49	--
		07/14/20	1.79		97.34
		05/05/20	1.80		97.33
		01/17/20	2.74		96.39
		10/24/19	3.07		96.06
		07/07/19	3.46		95.67
		04/29/19	2.35		96.78
		01/25/19	4.65		94.48
		10/11/18	1.66		97.47
		07/30/18	3.32		95.81
		04/08/18	2.24		96.89
		02/27/18	1.58		97.55
		05/30/17	2.17		96.96
		04/24/15	1.46		97.67
		03/30/15	1.98		97.15
		01/27/15	3.93		95.20
MW-2	100.75	10/12/20	7.82	14.41	92.93
		07/14/20	6.36		94.39
		05/05/20	6.24		94.51
		01/17/20	6.83		93.92
		10/14/19	Obstructed		--
		07/07/19	7.51		93.24
		04/29/19	8.47		92.28
		01/25/19	8.42		92.33
		10/11/18	6.45		94.30
		07/30/18	7.45		93.30
		04/08/18	8.36		92.39
		02/27/18	8.54		92.21
		05/30/17	7.95		92.80
		04/24/15	7.21		93.54
		03/30/15	8.01		92.74
		01/27/15	8.60		92.15
MW-3	100.05	10/12/20	4.25	14.46	95.80
		07/14/20	3.37		96.68
		05/05/20	2.27		97.78
		01/17/20	3.20		96.85
		10/14/19	3.61		96.44
		07/07/19	3.73		96.32
		04/29/19	2.61		97.44
		01/25/19	4.44		95.61
		10/11/18	2.35		97.70
		07/30/18	3.62		96.43
		04/08/18	2.53		97.52
		02/27/18	2.43		97.62
		05/30/17	2.45		97.60
		04/24/15	2.27		97.78
		03/30/15	2.73		97.32
		01/27/15	4.46		95.59

**Table A.6. Water Level Elevations**

Monitoring Well	Top of Casing Elevation*	Date	Measured Depth to Groundwater (ft)	Measured Depth to Well Bottom (ft)	Relative Groundwater Elevation (ft)
MW-4	100.57	10/12/20	6.65	14.57	93.92
		07/14/20	5.34		95.23
		05/05/20	5.07		95.50
		01/17/20	6.21		94.36
		10/24/19	6.14		94.43
		07/07/19	6.98		93.59
		04/29/19	7.30		93.27
		01/25/19	6.88		93.69
		10/11/18	5.43		95.14
		07/30/18	6.91		93.66
		04/08/18	7.26		93.31
		02/27/18	7.23		93.34
		05/30/17	6.38		94.19
		04/24/15	5.94		94.63
		03/30/15	7.04		93.53
		01/27/15	6.53		94.04
MW-5	100.24	10/12/20	6.30	14.60	93.94
		07/14/20	5.84		94.39
		05/05/20	5.83		94.41
		01/17/20	5.87		94.37
		10/24/19	5.98		94.26
		07/07/19	6.25		93.99
		04/29/19	6.33		93.91
		01/25/19	6.35		93.89
		10/11/18	5.85		94.39
		07/30/18	6.19		94.05
		04/08/18	6.27		93.97
		02/27/18	6.15		94.09
		05/30/17	5.96		94.28
		04/24/15	5.92		94.32
		03/30/15	6.26		93.98
		01/27/15	6.50		93.74
MW-201	100.10	10/12/20	7.95	14.57	92.15
		07/14/20	7.11		92.29
		05/05/20	6.44		93.66
		01/17/20	7.00		93.10
		10/24/19	6.57		93.53
		07/07/19	6.72		93.38
		04/29/19	6.82		93.28
		01/25/19	6.88		93.22
		10/11/18	6.22		93.88
		07/30/18	6.69		93.41
		04/08/18	6.79		93.34
		02/27/18	6.46		93.64
		05/30/17	6.26		93.84
		04/24/15	5.91		94.19
		03/30/15	6.28		93.82
		01/27/15	Not Installed		Not Installed

\* – Relative Elevation based upon generic 100-ft on-site datum and survey data collected on January 27, 2015, and March 30, 2015.

## **APPENDIX B FIGURES**

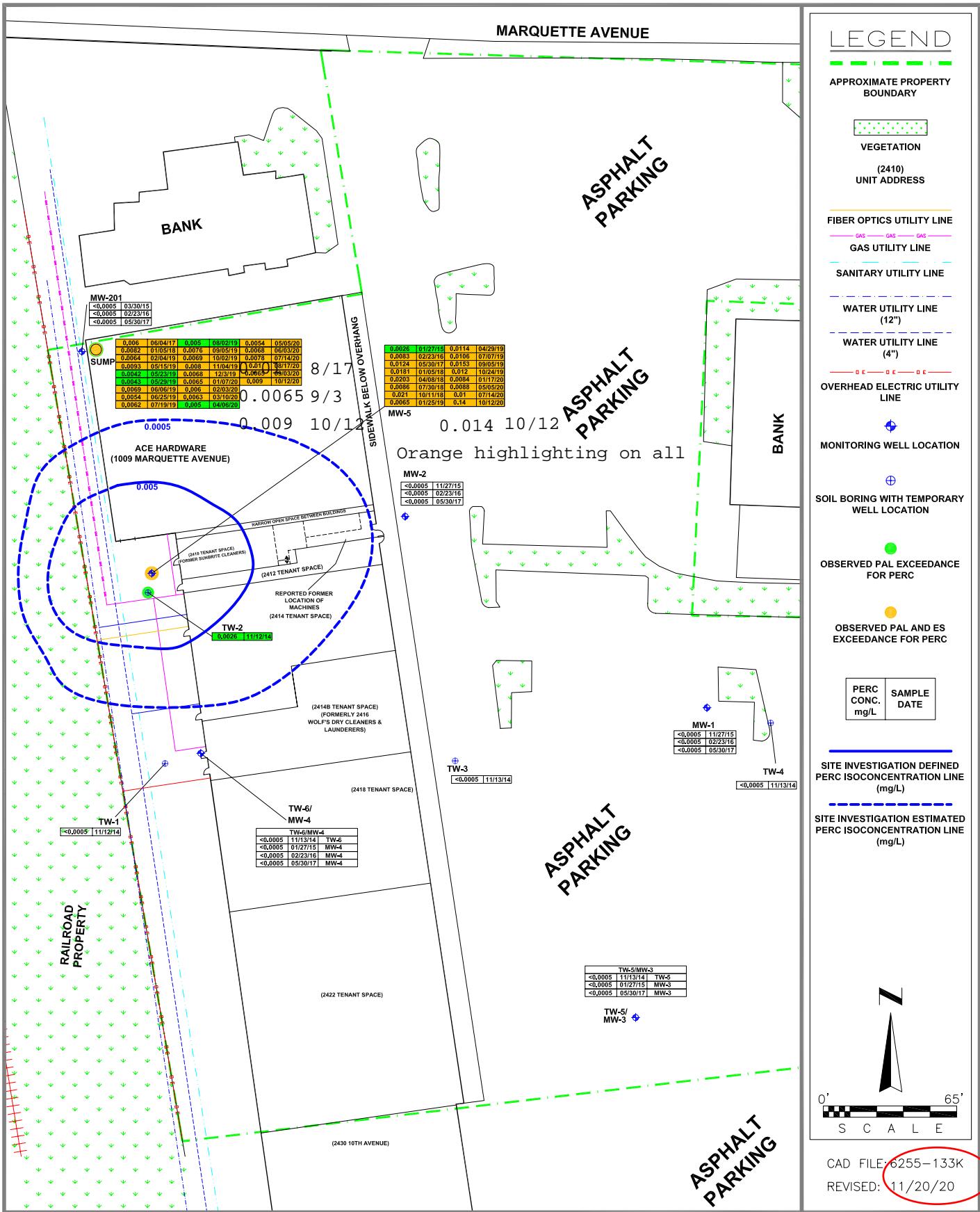


**DAI**  
ENVIRONMENTAL

SUNRISE SHOPPING CENTER  
2410-2424 10TH AVENUE  
1009 MARQUETTE AVENUE  
SOUTH MILWAUKEE, WISCONSIN

**FIGURE B.1.b.1**  
DETAILED SITE MAP WITH AERIAL VIEW  
OF SITE AND SURROUNDING PROPERTY  
(2019 AERIAL TAKEN FROM GOOGLE EARTH)

MARQUETTE AVENUE

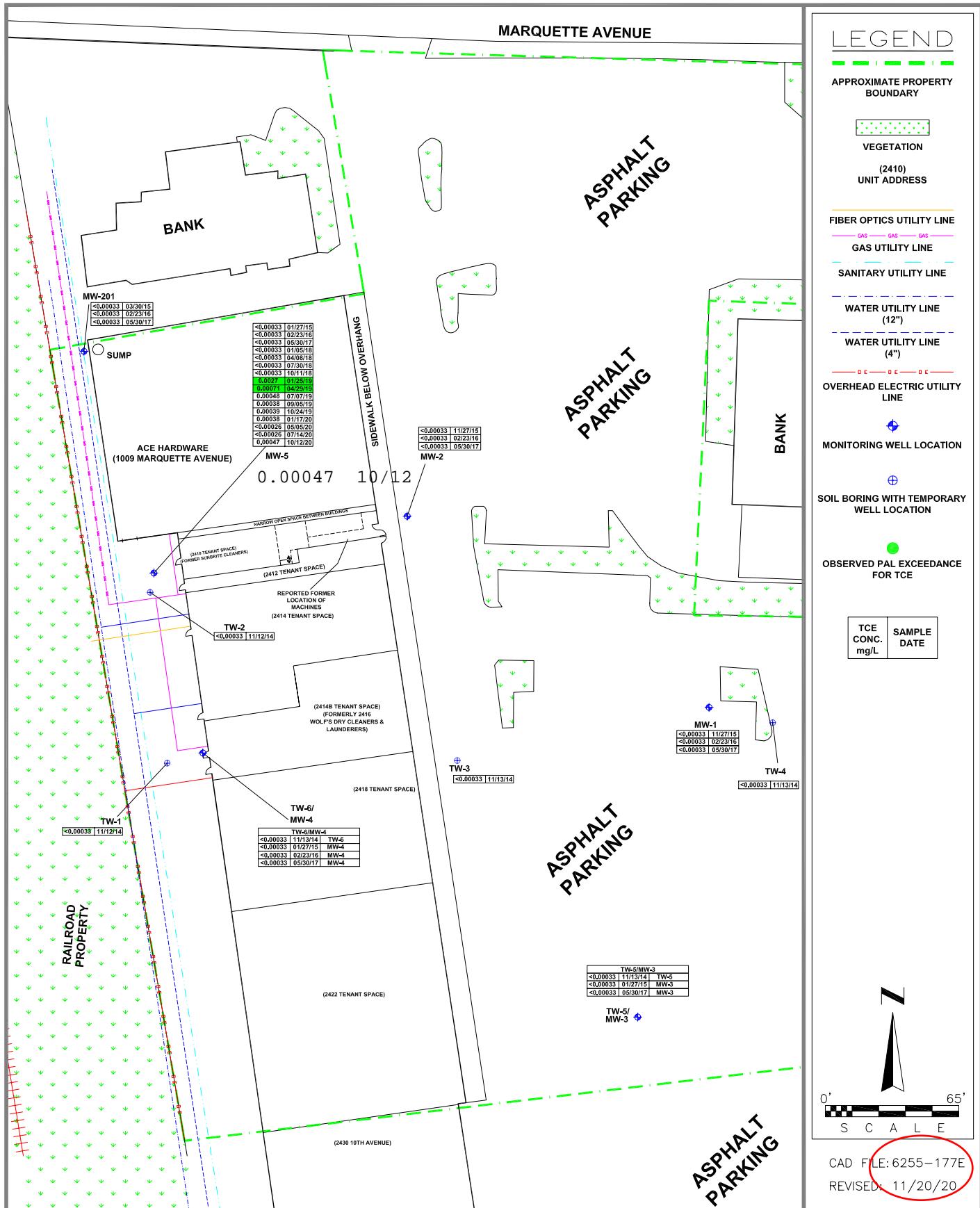


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SUNRISE SHOPPING CENTER  
2410-2424 10TH AVENUE  
1009 MARQUETTE AVENUE  
SOUTH MILWAUKEE, WISCONSIN

FIGURE B.3.b.1a  
GROUNDWATER  
ISOCONCENTRATION  
(PERC)

SA



# DAN ENVIRONMENTAL

**SUNRISE SHOPPING CENTER  
2410-2424 10TH AVENUE  
1009 MARQUETTE AVENUE  
SOUTH MILWAUKEE, WISCONSIN**

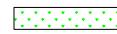
**FIGURE B.3.b.1b  
GROUNDWATER  
ISOCONCENTRATION  
(TCE)**

SA

MARQUETTE AVENUE

LEGEND

APPROXIMATE PROPERTY BOUNDARY



VEGETATION

(2410) UNIT ADDRESS

FIBER OPTICS UTILITY LINE

GAS UTILITY LINE

SANITARY UTILITY LINE

WATER UTILITY LINE (12")

WATER UTILITY LINE (4")

OVERHEAD ELECTRIC UTILITY LINE



MONITORING WELL LOCATION



SOIL BORING WITH TEMPORARY WELL LOCATION



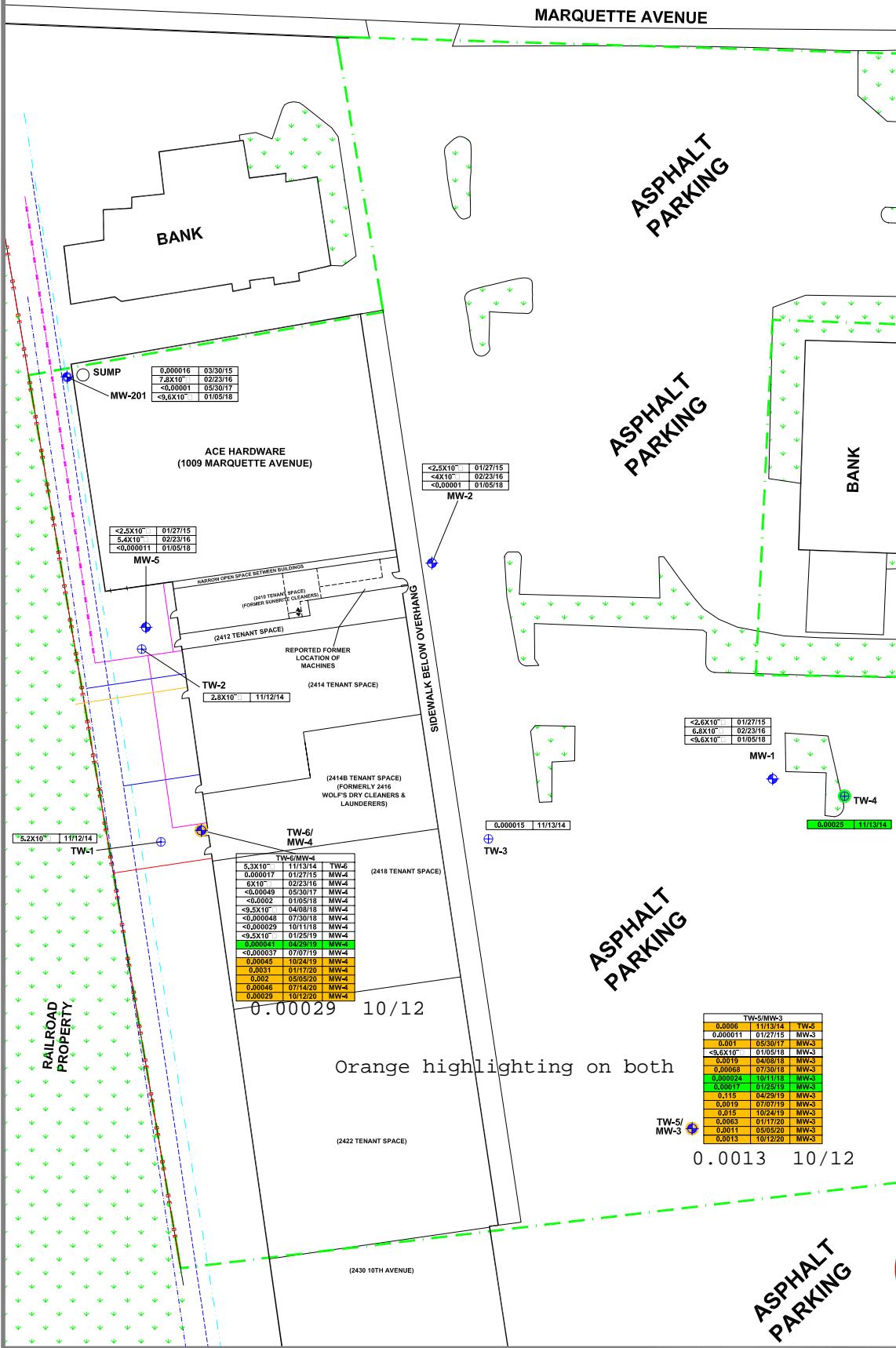
OBSERVED EXCEEDANCE OF PAL



OBSERVED EXCEEDANCE OF PAL AND ES

PAH CONC. mg/L

SAMPLE DATE



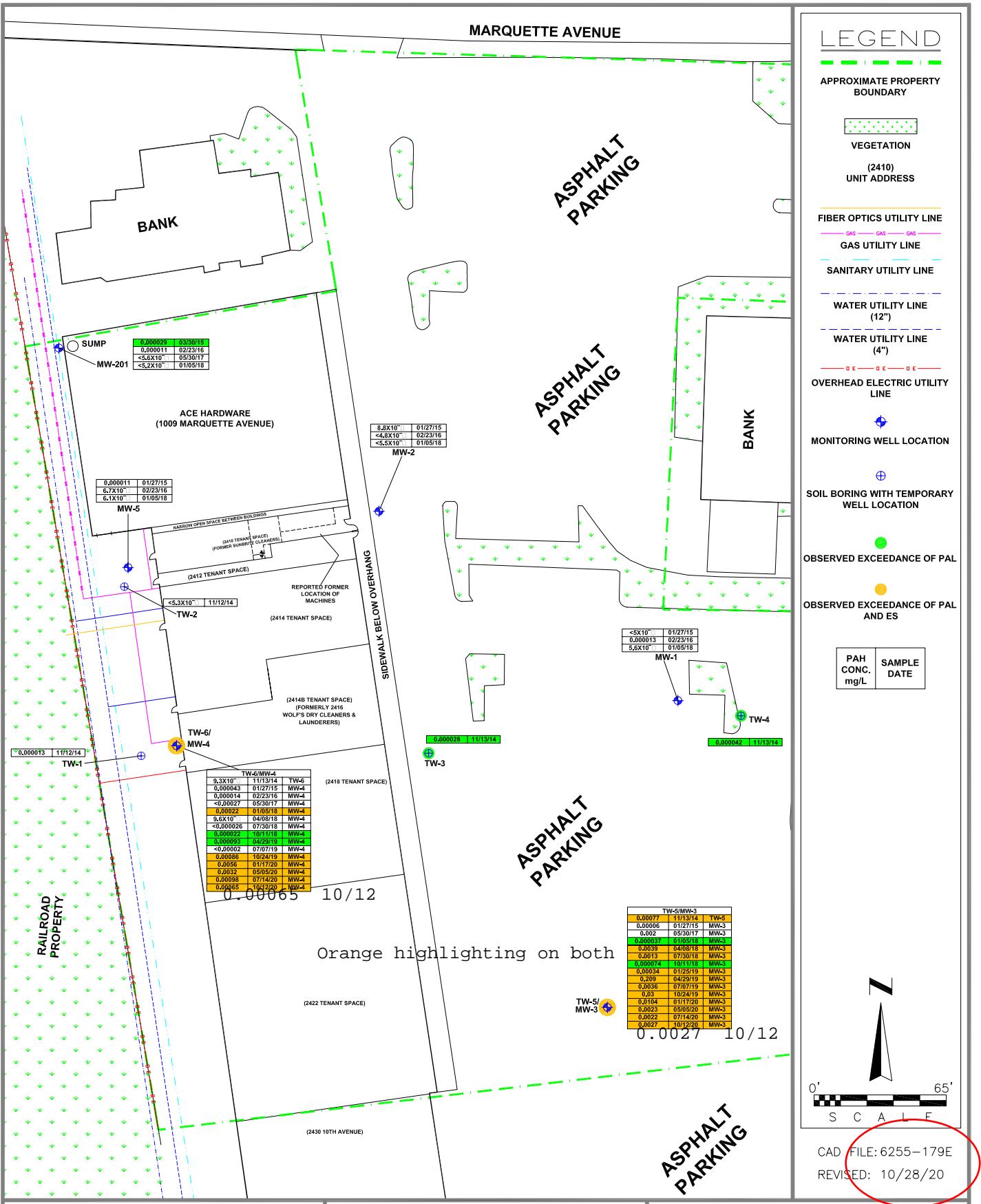
**DAM**  
ENVIRONMENTAL

SUNRISE SHOPPING CENTER  
2410-2424 10TH AVENUE  
1009 MARQUETTE AVENUE  
SOUTH MILWAUKEE, WISCONSIN

FIGURE B.3.b.2a  
GROUNDWATER  
ISOCONCENTRATION  
(BENZO(A)PYRENE)

SA

MARQUETTE AVENUE

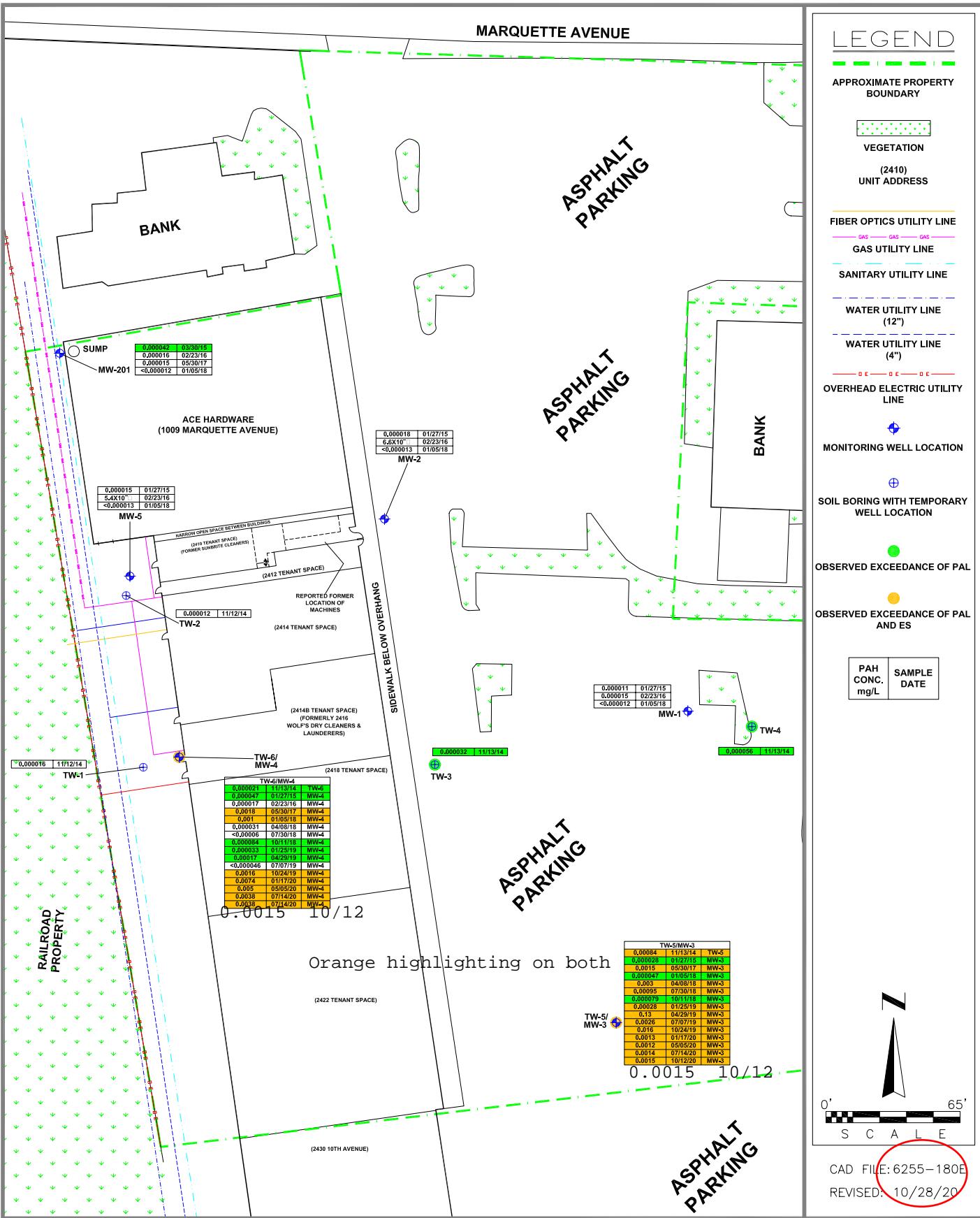


**DAM**  
**ENVIRONMENTAL**

SUNRISE SHOPPING CENTER  
2410-2424 10TH AVENUE  
1009 MARQUETTE AVENUE  
SOUTH MILWAUKEE, WISCONSIN

FIGURE B.3.b.2b  
GROUNDWATER  
ISOCONCENTRATION  
(BENZO(B)FLUORANTHENE)

MARQUETTE AVENUE



**DAM**  
ENVIRONMENTAL

SUNRISE SHOPPING CENTER  
2410-2424 10TH AVENUE  
1009 MARQUETTE AVENUE  
SOUTH MILWAUKEE, WISCONSIN

FIGURE B.3.b.2c  
GROUNDWATER  
ISOCONCENTRATION  
(CHRYSENE)

SA

MARQUETTE AVENUE

LEGEND

APPROXIMATE PROPERTY BOUNDARY



VEGETATION

(2410) UNIT ADDRESS

FIBER OPTICS UTILITY LINE

GAS UTILITY LINE

SANITARY UTILITY LINE

WATER UTILITY LINE (12")

WATER UTILITY LINE (4")

OVERHEAD ELECTRIC UTILITY LINE



MONITORING WELL LOCATION

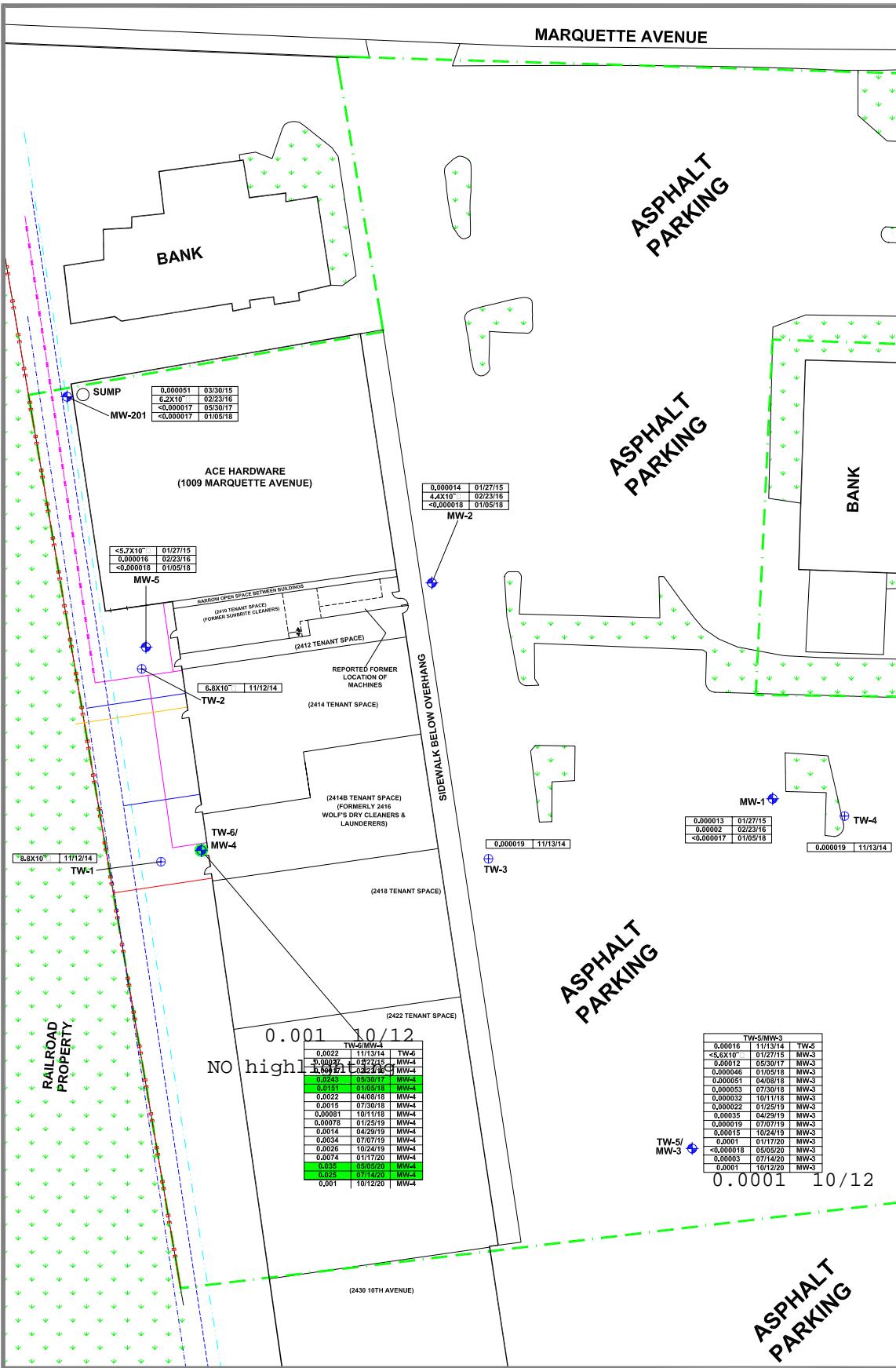


SOIL BORING WITH TEMPORARY WELL LOCATION

OBSERVED EXCEDENCE OF PAL

OBSERVED EXCEDENCE OF PAL AND ES

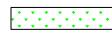
PAH CONC.	mg/L
SAMPLE DATE	



MARQUETTE AVENUE

LEGEND

APPROXIMATE PROPERTY BOUNDARY



(2410) UNIT ADDRESS

FIBER OPTICS UTILITY LINE

GAS UTILITY LINE

SANITARY UTILITY LINE

WATER UTILITY LINE (12")

WATER UTILITY LINE (4")

OVERHEAD ELECTRIC UTILITY LINE

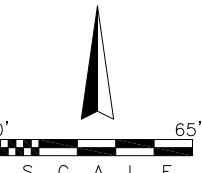


MONITORING WELL LOCATION  
96.78 GROUNDWATER ELEVATION

OBS WELL OBSTRUCTED

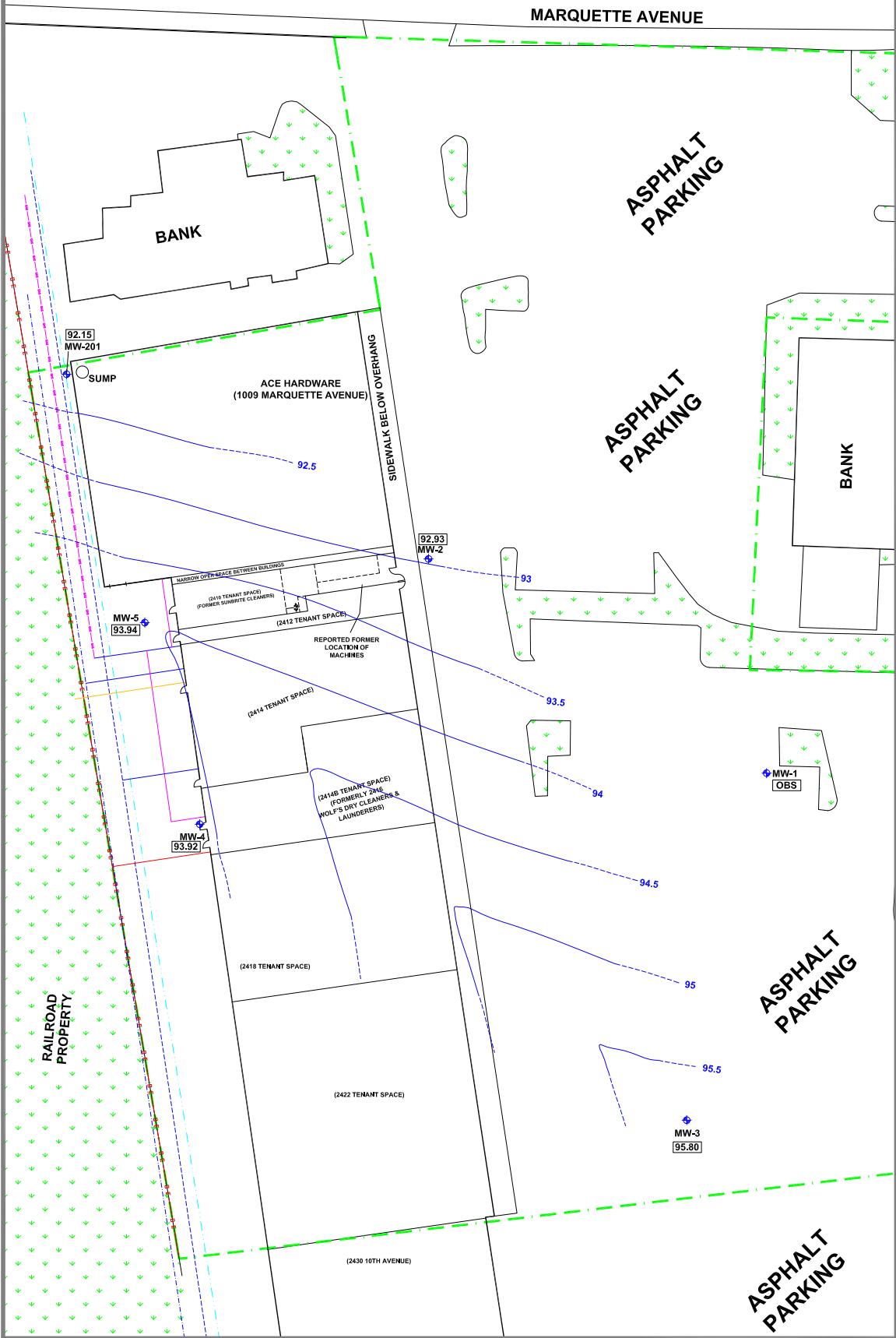
POTENIOMETRIC SURFACE

INFERRED POTENIOMETRIC SURFACE



CAD FILE: 6255-168H

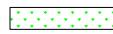
REVISED: 10/28/20



MARQUETTE AVENUE

LEGEND

APPROXIMATE PROPERTY BOUNDARY



VEGETATION

(2410) UNIT ADDRESS

FIBER OPTICS UTILITY LINE

GAS UTILITY LINE

SANITARY UTILITY LINE

WATER UTILITY LINE (12")

WATER UTILITY LINE (4")

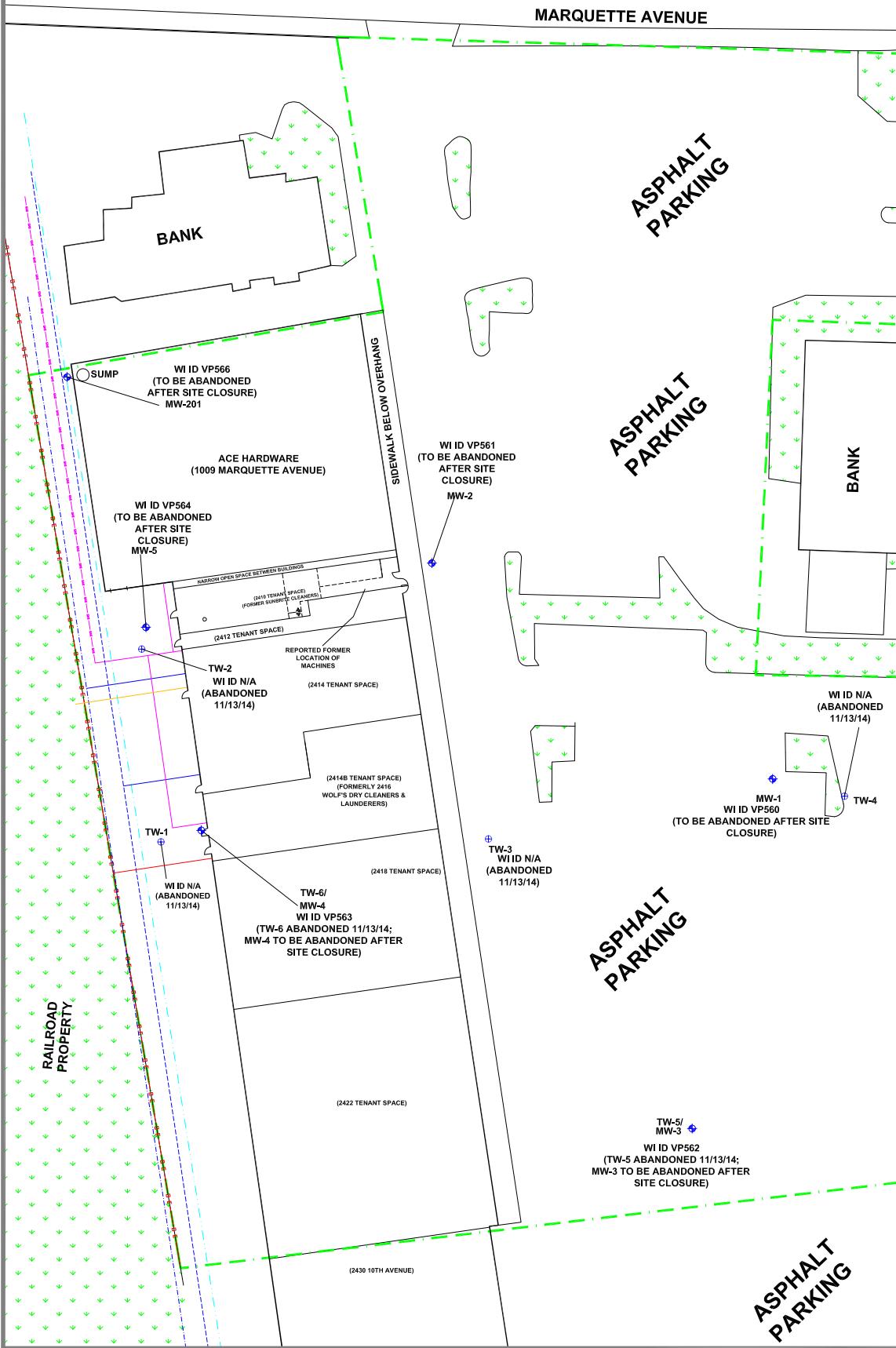
OVERHEAD ELECTRIC UTILITY LINE



MONITORING WELL LOCATION



SOIL BORING WITH TEMPORARY WELL LOCATION



0' 65'  
S C A L E

CAD FILE: 6255-126

REVISED: 09/19/17

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SUNRISE SHOPPING CENTER  
2410-2424 10TH AVENUE  
1009 MARQUETTE AVENUE  
SOUTH MILWAUKEE, WISCONSIN

FIGURE B.3.d  
MONITORING WELLS

**APPENDIX C.1.E  
LABORATORY ANALYTICAL REPORTS  
(FOURTH QUARTER 2020)**

October 21, 2020

Chris Cailles  
DAI Environmental  
Polo Park Business Center  
27834 Irma Lee Circle  
Lake Forest, IL 60045

RE: Project: 6255 SOUTH MILWAUKEE ACE  
Pace Project No.: 40216461

Dear Chris Cailles:

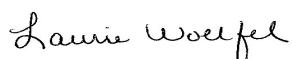
Enclosed are the analytical results for sample(s) received by the laboratory on October 14, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay

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

Sincerely,



Laurie Woelfel  
laurie.woelfel@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures

cc: Jenny Rovzar, DAI



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 6255 SOUTH MILWAUKEE ACE  
Pace Project No.: 40216461

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### **Pace Analytical Services Green Bay**

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky UST Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334  
New York Certification #: 12064  
North Dakota Certification #: R-150

Virginia VELAP ID: 460263  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
Wisconsin Certification #: 405132750  
Wisconsin DATCP Certification #: 105-444  
USDA Soil Permit #: P330-16-00157  
Federal Fish & Wildlife Permit #: LE51774A-0

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 6255 SOUTH MILWAUKEE ACE

Pace Project No.: 40216461

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40216461001	MW-5	Water	10/12/20 10:30	10/14/20 10:05
40216461002	MW-4	Water	10/12/20 10:45	10/14/20 10:05
40216461003	MW-3	Water	10/12/20 11:15	10/14/20 10:05

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: 6255 SOUTH MILWAUKEE ACE  
Pace Project No.: 40216461

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40216461001	MW-5	EPA 8260	HNW	64
40216461002	MW-4	EPA 8270 by HVI	JJB	20
40216461003	MW-3	EPA 8270 by HVI	JJB	20

PASI-G = Pace Analytical Services - Green Bay

## REPORT OF LABORATORY ANALYSIS

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## SUMMARY OF DETECTION

Project: 6255 SOUTH MILWAUKEE ACE  
Pace Project No.: 40216461

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>40216461001</b>	<b>MW-5</b>					
EPA 8260	Tetrachloroethene	0.014	mg/L	0.0011	10/20/20 01:36	
EPA 8260	1,1,1-Trichloroethane	0.00040J	mg/L	0.0010	10/20/20 01:36	
EPA 8260	Trichloroethene	0.00047J	mg/L	0.0010	10/20/20 01:36	
<b>40216461002</b>	<b>MW-4</b>					
EPA 8270 by HVI	Acenaphthene	0.016	mg/L	0.00055	10/15/20 18:09	
EPA 8270 by HVI	Acenaphthylene	0.0033	mg/L	0.00045	10/15/20 18:09	
EPA 8270 by HVI	Anthracene	0.0057	mg/L	0.00095	10/15/20 18:09	
EPA 8270 by HVI	Benzo(a)anthracene	0.00062J	mg/L	0.00069	10/15/20 18:09	
EPA 8270 by HVI	Benzo(a)pyrene	0.00029J	mg/L	0.00096	10/15/20 18:09	
EPA 8270 by HVI	Benzo(b)fluoranthene	0.00065	mg/L	0.00052	10/15/20 18:09	
EPA 8270 by HVI	Benzo(g,h,i)perylene	0.00035J	mg/L	0.00062	10/15/20 18:09	
EPA 8270 by HVI	Benzo(k)fluoranthene	0.00030J	mg/L	0.00069	10/15/20 18:09	
EPA 8270 by HVI	Chrysene	0.0015	mg/L	0.0012	10/15/20 18:09	
EPA 8270 by HVI	Fluoranthene	0.0026	mg/L	0.00097	10/15/20 18:09	
EPA 8270 by HVI	Fluorene	0.017	mg/L	0.00072	10/15/20 18:09	
EPA 8270 by HVI	1-Methylnaphthalene	0.030	mg/L	0.00054	10/15/20 18:09	
EPA 8270 by HVI	2-Methylnaphthalene	0.00079	mg/L	0.00045	10/15/20 18:09	
EPA 8270 by HVI	Naphthalene	0.0070	mg/L	0.0017	10/15/20 18:09	
EPA 8270 by HVI	Phenanthrene	0.026	mg/L	0.0013	10/15/20 18:09	
EPA 8270 by HVI	Pyrene	0.010	mg/L	0.00070	10/15/20 18:09	
<b>40216461003</b>	<b>MW-3</b>					
EPA 8270 by HVI	Acenaphthene	0.00022	mg/L	0.000028	10/15/20 18:27	
EPA 8270 by HVI	Acenaphthylene	0.000075	mg/L	0.000023	10/15/20 18:27	
EPA 8270 by HVI	Anthracene	0.00016	mg/L	0.000048	10/15/20 18:27	
EPA 8270 by HVI	Benzo(a)anthracene	0.00076	mg/L	0.000035	10/15/20 18:27	
EPA 8270 by HVI	Benzo(a)pyrene	0.0013	mg/L	0.000048	10/15/20 18:27	
EPA 8270 by HVI	Benzo(b)fluoranthene	0.0027	mg/L	0.000026	10/15/20 18:27	
EPA 8270 by HVI	Benzo(g,h,i)perylene	0.0017	mg/L	0.000031	10/15/20 18:27	
EPA 8270 by HVI	Benzo(k)fluoranthene	0.00090	mg/L	0.000035	10/15/20 18:27	
EPA 8270 by HVI	Chrysene	0.0015	mg/L	0.000060	10/15/20 18:27	
EPA 8270 by HVI	Dibenz(a,h)anthracene	0.00027	mg/L	0.000046	10/15/20 18:27	
EPA 8270 by HVI	Fluoranthene	0.0024	mg/L	0.000049	10/15/20 18:27	
EPA 8270 by HVI	Fluorene	0.00025	mg/L	0.000037	10/15/20 18:27	
EPA 8270 by HVI	Indeno(1,2,3-cd)pyrene	0.0013	mg/L	0.000081	10/15/20 18:27	
EPA 8270 by HVI	1-Methylnaphthalene	0.00027	mg/L	0.000027	10/15/20 18:27	
EPA 8270 by HVI	2-Methylnaphthalene	0.000091	mg/L	0.000022	10/15/20 18:27	
EPA 8270 by HVI	Naphthalene	0.00010	mg/L	0.000084	10/15/20 18:27	
EPA 8270 by HVI	Phenanthrene	0.00086	mg/L	0.000063	10/15/20 18:27	
EPA 8270 by HVI	Pyrene	0.0021	mg/L	0.000035	10/15/20 18:27	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 6255 SOUTH MILWAUKEE ACE

Pace Project No.: 40216461

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**Sample: MW-5**      **Lab ID: 40216461001**      Collected: 10/12/20 10:30      Received: 10/14/20 10:05      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								
	Pace Analytical Services - Green Bay								
Benzene	<0.00025	mg/L	0.0010	0.00025	1		10/20/20 01:36	71-43-2	
Bromobenzene	<0.00024	mg/L	0.0010	0.00024	1		10/20/20 01:36	108-86-1	
Bromoform	<0.00036	mg/L	0.0050	0.00036	1		10/20/20 01:36	74-97-5	
Bromochloromethane	<0.00036	mg/L	0.0012	0.00036	1		10/20/20 01:36	75-27-4	
Bromodichloromethane	<0.00040	mg/L	0.013	0.0040	1		10/20/20 01:36	75-25-2	
Bromomethane	<0.00097	mg/L	0.0050	0.00097	1		10/20/20 01:36	74-83-9	
n-Butylbenzene	<0.00071	mg/L	0.0024	0.00071	1		10/20/20 01:36	104-51-8	
sec-Butylbenzene	<0.00085	mg/L	0.0050	0.00085	1		10/20/20 01:36	135-98-8	
tert-Butylbenzene	<0.00030	mg/L	0.0010	0.00030	1		10/20/20 01:36	98-06-6	
Carbon tetrachloride	<0.0011	mg/L	0.0036	0.0011	1		10/20/20 01:36	56-23-5	
Chlorobenzene	<0.00071	mg/L	0.0024	0.00071	1		10/20/20 01:36	108-90-7	
Chloroethane	<0.0013	mg/L	0.0050	0.0013	1		10/20/20 01:36	75-00-3	
Chloroform	<0.0013	mg/L	0.0050	0.0013	1		10/20/20 01:36	67-66-3	
Chloromethane	<0.0022	mg/L	0.0073	0.0022	1		10/20/20 01:36	74-87-3	
2-Chlorotoluene	<0.00093	mg/L	0.0050	0.00093	1		10/20/20 01:36	95-49-8	
4-Chlorotoluene	<0.00076	mg/L	0.0025	0.00076	1		10/20/20 01:36	106-43-4	
1,2-Dibromo-3-chloropropane	<0.0018	mg/L	0.0059	0.0018	1		10/20/20 01:36	96-12-8	
Dibromochloromethane	<0.0026	mg/L	0.0087	0.0026	1		10/20/20 01:36	124-48-1	
1,2-Dibromoethane (EDB)	<0.00083	mg/L	0.0028	0.00083	1		10/20/20 01:36	106-93-4	
Dibromomethane	<0.00094	mg/L	0.0031	0.00094	1		10/20/20 01:36	74-95-3	
1,2-Dichlorobenzene	<0.00071	mg/L	0.0024	0.00071	1		10/20/20 01:36	95-50-1	
1,3-Dichlorobenzene	<0.00063	mg/L	0.0021	0.00063	1		10/20/20 01:36	541-73-1	
1,4-Dichlorobenzene	<0.00094	mg/L	0.0031	0.00094	1		10/20/20 01:36	106-46-7	
Dichlorodifluoromethane	<0.00050	mg/L	0.0050	0.00050	1		10/20/20 01:36	75-71-8	
1,1-Dichloroethane	<0.00027	mg/L	0.0010	0.00027	1		10/20/20 01:36	75-34-3	
1,2-Dichloroethane	<0.00028	mg/L	0.0010	0.00028	1		10/20/20 01:36	107-06-2	
1,1-Dichloroethene	<0.00024	mg/L	0.0010	0.00024	1		10/20/20 01:36	75-35-4	
cis-1,2-Dichloroethene	<0.00027	mg/L	0.0010	0.00027	1		10/20/20 01:36	156-59-2	
trans-1,2-Dichloroethene	<0.00046	mg/L	0.0015	0.00046	1		10/20/20 01:36	156-60-5	
1,2-Dichloropropane	<0.00028	mg/L	0.0010	0.00028	1		10/20/20 01:36	78-87-5	
1,3-Dichloropropane	<0.00083	mg/L	0.0028	0.00083	1		10/20/20 01:36	142-28-9	
2,2-Dichloropropane	<0.0023	mg/L	0.0076	0.0023	1		10/20/20 01:36	594-20-7	
1,1-Dichloropropene	<0.00054	mg/L	0.0018	0.00054	1		10/20/20 01:36	563-58-6	
cis-1,3-Dichloropropene	<0.0036	mg/L	0.012	0.0036	1		10/20/20 01:36	10061-01-5	
trans-1,3-Dichloropropene	<0.0044	mg/L	0.015	0.0044	1		10/20/20 01:36	10061-02-6	
Diisopropyl ether	<0.0019	mg/L	0.0063	0.0019	1		10/20/20 01:36	108-20-3	
Ethylbenzene	<0.00032	mg/L	0.0011	0.00032	1		10/20/20 01:36	100-41-4	
Hexachloro-1,3-butadiene	<0.0015	mg/L	0.0049	0.0015	1		10/20/20 01:36	87-68-3	
Isopropylbenzene (Cumene)	<0.0017	mg/L	0.0056	0.0017	1		10/20/20 01:36	98-82-8	
p-Isopropyltoluene	<0.00080	mg/L	0.0027	0.00080	1		10/20/20 01:36	99-87-6	
Methylene Chloride	<0.00058	mg/L	0.0050	0.00058	1		10/20/20 01:36	75-09-2	
Methyl-tert-butyl ether	<0.0012	mg/L	0.0042	0.0012	1		10/20/20 01:36	1634-04-4	
Naphthalene	<0.0012	mg/L	0.0050	0.0012	1		10/20/20 01:36	91-20-3	
n-Propylbenzene	<0.00081	mg/L	0.0050	0.00081	1		10/20/20 01:36	103-65-1	
Styrene	<0.0030	mg/L	0.010	0.0030	1		10/20/20 01:36	100-42-5	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 6255 SOUTH MILWAUKEE ACE  
Pace Project No.: 40216461

Sample: MW-5	Lab ID: 40216461001	Collected: 10/12/20 10:30	Received: 10/14/20 10:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1,2-Tetrachloroethane	<0.00027	mg/L	0.0010	0.00027	1		10/20/20 01:36	630-20-6	
1,1,2,2-Tetrachloroethane	<0.00028	mg/L	0.0010	0.00028	1		10/20/20 01:36	79-34-5	
Tetrachloroethene	0.014	mg/L	0.0011	0.00033	1		10/20/20 01:36	127-18-4	
Toluene	<0.00027	mg/L	0.0010	0.00027	1		10/20/20 01:36	108-88-3	
1,2,3-Trichlorobenzene	<0.0022	mg/L	0.0074	0.0022	1		10/20/20 01:36	87-61-6	
1,2,4-Trichlorobenzene	<0.00095	mg/L	0.0050	0.00095	1		10/20/20 01:36	120-82-1	
1,1,1-Trichloroethane	0.00040J	mg/L	0.0010	0.00024	1		10/20/20 01:36	71-55-6	
1,1,2-Trichloroethane	<0.00055	mg/L	0.0050	0.00055	1		10/20/20 01:36	79-00-5	
Trichloroethene	0.00047J	mg/L	0.0010	0.00026	1		10/20/20 01:36	79-01-6	
Trichlorofluoromethane	<0.00021	mg/L	0.0010	0.00021	1		10/20/20 01:36	75-69-4	
1,2,3-Trichloropropane	<0.00059	mg/L	0.0050	0.00059	1		10/20/20 01:36	96-18-4	
1,2,4-Trimethylbenzene	<0.00084	mg/L	0.0028	0.00084	1		10/20/20 01:36	95-63-6	
1,3,5-Trimethylbenzene	<0.00087	mg/L	0.0029	0.00087	1		10/20/20 01:36	108-67-8	
Vinyl chloride	<0.00017	mg/L	0.0010	0.00017	1		10/20/20 01:36	75-01-4	
m&p-Xylene	<0.00047	mg/L	0.0020	0.00047	1		10/20/20 01:36	179601-23-1	
o-Xylene	<0.00026	mg/L	0.0010	0.00026	1		10/20/20 01:36	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	97	%	70-130		1		10/20/20 01:36	460-00-4	
Dibromofluoromethane (S)	107	%	70-130		1		10/20/20 01:36	1868-53-7	
Toluene-d8 (S)	102	%	70-130		1		10/20/20 01:36	2037-26-5	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 6255 SOUTH MILWAUKEE ACE  
Pace Project No.: 40216461

Sample: MW-4	Lab ID: 40216461002	Collected: 10/12/20 10:45	Received: 10/14/20 10:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by HVI</b>	Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510 Pace Analytical Services - Green Bay								
Acenaphthene	<b>0.016</b>	mg/L	0.00055	0.00011	20	10/15/20 08:30	10/15/20 18:09	83-32-9	
Acenaphthylene	<b>0.0033</b>	mg/L	0.00045	0.000091	20	10/15/20 08:30	10/15/20 18:09	208-96-8	
Anthracene	<b>0.0057</b>	mg/L	0.00095	0.00019	20	10/15/20 08:30	10/15/20 18:09	120-12-7	
Benzo(a)anthracene	<b>0.00062J</b>	mg/L	0.00069	0.00014	20	10/15/20 08:30	10/15/20 18:09	56-55-3	
Benzo(a)pyrene	<b>0.00029J</b>	mg/L	0.00096	0.00019	20	10/15/20 08:30	10/15/20 18:09	50-32-8	
Benzo(b)fluoranthene	<b>0.00065</b>	mg/L	0.00052	0.00010	20	10/15/20 08:30	10/15/20 18:09	205-99-2	
Benzo(g,h,i)perylene	<b>0.00035J</b>	mg/L	0.00062	0.00012	20	10/15/20 08:30	10/15/20 18:09	191-24-2	
Benzo(k)fluoranthene	<b>0.00030J</b>	mg/L	0.00069	0.00014	20	10/15/20 08:30	10/15/20 18:09	207-08-9	
Chrysene	<b>0.0015</b>	mg/L	0.0012	0.00024	20	10/15/20 08:30	10/15/20 18:09	218-01-9	
Dibenz(a,h)anthracene	<b>&lt;0.00018</b>	mg/L	0.00091	0.00018	20	10/15/20 08:30	10/15/20 18:09	53-70-3	
Fluoranthene	<b>0.0026</b>	mg/L	0.00097	0.00019	20	10/15/20 08:30	10/15/20 18:09	206-44-0	
Fluorene	<b>0.017</b>	mg/L	0.00072	0.00014	20	10/15/20 08:30	10/15/20 18:09	86-73-7	
Indeno(1,2,3-cd)pyrene	<b>&lt;0.00032</b>	mg/L	0.0016	0.00032	20	10/15/20 08:30	10/15/20 18:09	193-39-5	
1-Methylnaphthalene	<b>0.030</b>	mg/L	0.00054	0.00011	20	10/15/20 08:30	10/15/20 18:09	90-12-0	
2-Methylnaphthalene	<b>0.00079</b>	mg/L	0.00045	0.000089	20	10/15/20 08:30	10/15/20 18:09	91-57-6	
Naphthalene	<b>0.0070</b>	mg/L	0.0017	0.00033	20	10/15/20 08:30	10/15/20 18:09	91-20-3	
Phenanthrene	<b>0.026</b>	mg/L	0.0013	0.00025	20	10/15/20 08:30	10/15/20 18:09	85-01-8	
Pyrene	<b>0.010</b>	mg/L	0.00070	0.00014	20	10/15/20 08:30	10/15/20 18:09	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	0	%	39-120		20	10/15/20 08:30	10/15/20 18:09	321-60-8	S4
Terphenyl-d14 (S)	0	%	10-159		20	10/15/20 08:30	10/15/20 18:09	1718-51-0	S4

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 6255 SOUTH MILWAUKEE ACE  
Pace Project No.: 40216461

Sample: MW-3	Lab ID: 40216461003	Collected: 10/12/20 11:15	Received: 10/14/20 10:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by HVI</b>	Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510 Pace Analytical Services - Green Bay								
Acenaphthene	<b>0.00022</b>	mg/L	0.000028	0.0000056	1	10/15/20 08:30	10/15/20 18:27	83-32-9	
Acenaphthylene	<b>0.000075</b>	mg/L	0.000023	0.0000046	1	10/15/20 08:30	10/15/20 18:27	208-96-8	
Anthracene	<b>0.00016</b>	mg/L	0.000048	0.0000096	1	10/15/20 08:30	10/15/20 18:27	120-12-7	
Benzo(a)anthracene	<b>0.00076</b>	mg/L	0.000035	0.0000069	1	10/15/20 08:30	10/15/20 18:27	56-55-3	
Benzo(a)pyrene	<b>0.0013</b>	mg/L	0.000048	0.0000097	1	10/15/20 08:30	10/15/20 18:27	50-32-8	
Benzo(b)fluoranthene	<b>0.0027</b>	mg/L	0.000026	0.0000053	1	10/15/20 08:30	10/15/20 18:27	205-99-2	
Benzo(g,h,i)perylene	<b>0.0017</b>	mg/L	0.000031	0.0000062	1	10/15/20 08:30	10/15/20 18:27	191-24-2	
Benzo(k)fluoranthene	<b>0.00090</b>	mg/L	0.000035	0.0000069	1	10/15/20 08:30	10/15/20 18:27	207-08-9	
Chrysene	<b>0.0015</b>	mg/L	0.000060	0.000012	1	10/15/20 08:30	10/15/20 18:27	218-01-9	
Dibenz(a,h)anthracene	<b>0.00027</b>	mg/L	0.000046	0.0000092	1	10/15/20 08:30	10/15/20 18:27	53-70-3	
Fluoranthene	<b>0.0024</b>	mg/L	0.000049	0.0000098	1	10/15/20 08:30	10/15/20 18:27	206-44-0	
Fluorene	<b>0.00025</b>	mg/L	0.000037	0.0000073	1	10/15/20 08:30	10/15/20 18:27	86-73-7	
Indeno(1,2,3-cd)pyrene	<b>0.0013</b>	mg/L	0.000081	0.000016	1	10/15/20 08:30	10/15/20 18:27	193-39-5	
1-Methylnaphthalene	<b>0.00027</b>	mg/L	0.000027	0.0000054	1	10/15/20 08:30	10/15/20 18:27	90-12-0	
2-Methylnaphthalene	<b>0.000091</b>	mg/L	0.000022	0.0000045	1	10/15/20 08:30	10/15/20 18:27	91-57-6	
Naphthalene	<b>0.00010</b>	mg/L	0.000084	0.000017	1	10/15/20 08:30	10/15/20 18:27	91-20-3	
Phenanthrene	<b>0.00086</b>	mg/L	0.000063	0.000013	1	10/15/20 08:30	10/15/20 18:27	85-01-8	
Pyrene	<b>0.0021</b>	mg/L	0.000035	0.0000070	1	10/15/20 08:30	10/15/20 18:27	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	44	%	39-120		1	10/15/20 08:30	10/15/20 18:27	321-60-8	
Terphenyl-d14 (S)	71	%	10-159		1	10/15/20 08:30	10/15/20 18:27	1718-51-0	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 6255 SOUTH MILWAUKEE ACE

Pace Project No.: 40216461

QC Batch: 368541 Analysis Method: EPA 8260

QC Batch Method: EPA 8260 Analysis Description: 8260 MSV

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40216461001

METHOD BLANK: 2130620

Matrix: Water

Associated Lab Samples: 40216461001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	mg/L	<0.00027	0.0010	10/19/20 18:26	
1,1,1-Trichloroethane	mg/L	<0.00024	0.0010	10/19/20 18:26	
1,1,2,2-Tetrachloroethane	mg/L	<0.00028	0.0010	10/19/20 18:26	
1,1,2-Trichloroethane	mg/L	<0.00055	0.0050	10/19/20 18:26	
1,1-Dichloroethane	mg/L	<0.00027	0.0010	10/19/20 18:26	
1,1-Dichloroethene	mg/L	<0.00024	0.0010	10/19/20 18:26	
1,1-Dichloropropene	mg/L	<0.00054	0.0018	10/19/20 18:26	
1,2,3-Trichlorobenzene	mg/L	<0.0022	0.0074	10/19/20 18:26	
1,2,3-Trichloropropane	mg/L	<0.00059	0.0050	10/19/20 18:26	
1,2,4-Trichlorobenzene	mg/L	<0.00095	0.0050	10/19/20 18:26	
1,2,4-Trimethylbenzene	mg/L	<0.00084	0.0028	10/19/20 18:26	
1,2-Dibromo-3-chloropropane	mg/L	<0.0018	0.0059	10/19/20 18:26	
1,2-Dibromoethane (EDB)	mg/L	<0.00083	0.0028	10/19/20 18:26	
1,2-Dichlorobenzene	mg/L	<0.00071	0.0024	10/19/20 18:26	
1,2-Dichloroethane	mg/L	<0.00028	0.0010	10/19/20 18:26	
1,2-Dichloropropane	mg/L	<0.00028	0.0010	10/19/20 18:26	
1,3,5-Trimethylbenzene	mg/L	<0.00087	0.0029	10/19/20 18:26	
1,3-Dichlorobenzene	mg/L	<0.00063	0.0021	10/19/20 18:26	
1,3-Dichloropropane	mg/L	<0.00083	0.0028	10/19/20 18:26	
1,4-Dichlorobenzene	mg/L	<0.00094	0.0031	10/19/20 18:26	
2,2-Dichloropropane	mg/L	<0.0023	0.0076	10/19/20 18:26	
2-Chlorotoluene	mg/L	<0.00093	0.0050	10/19/20 18:26	
4-Chlorotoluene	mg/L	<0.00076	0.0025	10/19/20 18:26	
Benzene	mg/L	<0.00025	0.0010	10/19/20 18:26	
Bromobenzene	mg/L	<0.00024	0.0010	10/19/20 18:26	
Bromochloromethane	mg/L	<0.00036	0.0050	10/19/20 18:26	
Bromodichloromethane	mg/L	<0.00036	0.0012	10/19/20 18:26	
Bromoform	mg/L	<0.0040	0.013	10/19/20 18:26	
Bromomethane	mg/L	<0.00097	0.0050	10/19/20 18:26	
Carbon tetrachloride	mg/L	<0.0011	0.0036	10/19/20 18:26	
Chlorobenzene	mg/L	<0.00071	0.0024	10/19/20 18:26	
Chloroethane	mg/L	<0.0013	0.0050	10/19/20 18:26	
Chloroform	mg/L	<0.0013	0.0050	10/19/20 18:26	
Chloromethane	mg/L	<0.0022	0.0073	10/19/20 18:26	
cis-1,2-Dichloroethene	mg/L	<0.00027	0.0010	10/19/20 18:26	
cis-1,3-Dichloropropene	mg/L	<0.0036	0.012	10/19/20 18:26	
Dibromochloromethane	mg/L	<0.0026	0.0087	10/19/20 18:26	
Dibromomethane	mg/L	<0.00094	0.0031	10/19/20 18:26	
Dichlorodifluoromethane	mg/L	<0.00050	0.0050	10/19/20 18:26	
Diisopropyl ether	mg/L	<0.0019	0.0063	10/19/20 18:26	

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## QUALITY CONTROL DATA

Project: 6255 SOUTH MILWAUKEE ACE

Pace Project No.: 40216461

METHOD BLANK: 2130620

Matrix: Water

Associated Lab Samples: 40216461001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	mg/L	<0.00032	0.0011	10/19/20 18:26	
Hexachloro-1,3-butadiene	mg/L	<0.0015	0.0049	10/19/20 18:26	
Isopropylbenzene (Cumene)	mg/L	<0.0017	0.0056	10/19/20 18:26	
m&p-Xylene	mg/L	<0.00047	0.0020	10/19/20 18:26	
Methyl-tert-butyl ether	mg/L	<0.0012	0.0042	10/19/20 18:26	
Methylene Chloride	mg/L	<0.00058	0.0050	10/19/20 18:26	
n-Butylbenzene	mg/L	<0.00071	0.0024	10/19/20 18:26	
n-Propylbenzene	mg/L	<0.00081	0.0050	10/19/20 18:26	
Naphthalene	mg/L	<0.0012	0.0050	10/19/20 18:26	
o-Xylene	mg/L	<0.00026	0.0010	10/19/20 18:26	
p-Isopropyltoluene	mg/L	<0.00080	0.0027	10/19/20 18:26	
sec-Butylbenzene	mg/L	<0.00085	0.0050	10/19/20 18:26	
Styrene	mg/L	<0.0030	0.010	10/19/20 18:26	
tert-Butylbenzene	mg/L	<0.00030	0.0010	10/19/20 18:26	
Tetrachloroethene	mg/L	<0.00033	0.0011	10/19/20 18:26	
Toluene	mg/L	<0.00027	0.0010	10/19/20 18:26	
trans-1,2-Dichloroethene	mg/L	<0.00046	0.0015	10/19/20 18:26	
trans-1,3-Dichloropropene	mg/L	<0.0044	0.015	10/19/20 18:26	
Trichloroethene	mg/L	<0.00026	0.0010	10/19/20 18:26	
Trichlorofluoromethane	mg/L	<0.00021	0.0010	10/19/20 18:26	
Vinyl chloride	mg/L	<0.00017	0.0010	10/19/20 18:26	
4-Bromofluorobenzene (S)	%	99	70-130	10/19/20 18:26	
Dibromofluoromethane (S)	%	102	70-130	10/19/20 18:26	
Toluene-d8 (S)	%	102	70-130	10/19/20 18:26	

LABORATORY CONTROL SAMPLE: 2130621

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	mg/L	0.05	0.056	111	70-130	
1,1,2,2-Tetrachloroethane	mg/L	0.05	0.054	108	64-131	
1,1,2-Trichloroethane	mg/L	0.05	0.051	101	70-130	
1,1-Dichloroethane	mg/L	0.05	0.056	113	69-163	
1,1-Dichloroethene	mg/L	0.05	0.056	111	77-123	
1,2,4-Trichlorobenzene	mg/L	0.05	0.051	101	68-130	
1,2-Dibromo-3-chloropropane	mg/L	0.05	0.051	102	63-130	
1,2-Dibromoethane (EDB)	mg/L	0.05	0.053	106	70-130	
1,2-Dichlorobenzene	mg/L	0.05	0.053	107	70-130	
1,2-Dichloroethane	mg/L	0.05	0.055	109	78-142	
1,2-Dichloropropane	mg/L	0.05	0.051	102	86-134	
1,3-Dichlorobenzene	mg/L	0.05	0.053	105	70-130	
1,4-Dichlorobenzene	mg/L	0.05	0.051	103	70-130	
Benzene	mg/L	0.05	0.055	110	70-130	
Bromodichloromethane	mg/L	0.05	0.052	103	70-130	
Bromoform	mg/L	0.05	0.050	100	70-130	

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 6255 SOUTH MILWAUKEE ACE

Pace Project No.: 40216461

**LABORATORY CONTROL SAMPLE:** 2130621

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromomethane	mg/L	0.05	0.048	95	39-129	
Carbon tetrachloride	mg/L	0.05	0.052	104	70-132	
Chlorobenzene	mg/L	0.05	0.054	108	70-130	
Chloroethane	mg/L	0.05	0.054	108	66-140	
Chloroform	mg/L	0.05	0.054	109	75-132	
Chloromethane	mg/L	0.05	0.047	95	32-143	
cis-1,2-Dichloroethene	mg/L	0.05	0.051	102	70-130	
cis-1,3-Dichloropropene	mg/L	0.05	0.053	106	70-130	
Dibromochloromethane	mg/L	0.05	0.054	108	70-130	
Dichlorodifluoromethane	mg/L	0.05	0.036	73	10-141	
Ethylbenzene	mg/L	0.05	0.056	112	80-120	
Isopropylbenzene (Cumene)	mg/L	0.05	0.057	114	70-130	
m&p-Xylene	mg/L	0.1	0.11	110	70-130	
Methyl-tert-butyl ether	mg/L	0.05	0.054	109	61-129	
Methylene Chloride	mg/L	0.05	0.054	108	70-130	
o-Xylene	mg/L	0.05	0.055	110	70-130	
Styrene	mg/L	0.05	0.056	112	70-130	
Tetrachloroethene	mg/L	0.05	0.053	106	70-130	
Toluene	mg/L	0.05	0.054	108	80-120	
trans-1,2-Dichloroethene	mg/L	0.05	0.056	112	70-130	
trans-1,3-Dichloropropene	mg/L	0.05	0.051	102	69-130	
Trichloroethene	mg/L	0.05	0.055	111	70-130	
Trichlorofluoromethane	mg/L	0.05	0.061	122	75-145	
Vinyl chloride	mg/L	0.05	0.051	103	51-140	
4-Bromofluorobenzene (S)	%			105	70-130	
Dibromofluoromethane (S)	%			103	70-130	
Toluene-d8 (S)	%			101	70-130	

**MATRIX SPIKE & MATRIX SPIKE DUPLICATE:** 2131809      2131810

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40216464002	Spike Conc.	Spike Conc.	MS Result								
1,1,1-Trichloroethane	mg/L	<0.00024	0.05	0.05	0.057	0.058	114	117	70-130	2	20		
1,1,2,2-Tetrachloroethane	mg/L	<0.00028	0.05	0.05	0.056	0.058	112	117	64-137	4	20		
1,1,2-Trichloroethane	mg/L	<0.00055	0.05	0.05	0.052	0.054	103	108	70-137	5	20		
1,1-Dichloroethane	mg/L	<0.00027	0.05	0.05	0.058	0.059	115	117	69-163	2	20		
1,1-Dichloroethene	mg/L	<0.00024	0.05	0.05	0.056	0.058	113	116	77-129	3	20		
1,2,4-Trichlorobenzene	mg/L	<0.00095	0.05	0.05	0.051	0.055	102	109	68-130	7	20		
1,2-Dibromo-3-chloropropane	mg/L	<0.0018	0.05	0.05	0.053	0.056	107	111	60-130	4	20		
1,2-Dibromoethane (EDB)	mg/L	<0.00083	0.05	0.05	0.054	0.056	109	112	70-130	3	20		
1,2-Dichlorobenzene	mg/L	<0.00071	0.05	0.05	0.054	0.057	108	113	70-130	4	20		
1,2-Dichloroethane	mg/L	<0.00028	0.05	0.05	0.056	0.058	112	116	78-145	3	20		
1,2-Dichloropropane	mg/L	<0.00028	0.05	0.05	0.051	0.054	102	109	86-135	6	20		
1,3-Dichlorobenzene	mg/L	<0.00063	0.05	0.05	0.054	0.056	107	112	70-130	4	20		

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## QUALITY CONTROL DATA

Project: 6255 SOUTH MILWAUKEE ACE

Pace Project No.: 40216461

Parameter	Units	MS		MSD		MS		MSD		% Rec		Max	
		40216464002	Spike Conc.	Spike Conc.	MS Result	MSD Result	% Rec	MSD % Rec	Limits	RPD	RPD	Qual	
1,4-Dichlorobenzene	mg/L	<0.00094	0.05	0.05	0.053	0.054	106	109	70-130	3	20		
Benzene	mg/L	<0.00025	0.05	0.05	0.056	0.057	113	115	70-136	2	20		
Bromodichloromethane	mg/L	<0.00036	0.05	0.05	0.053	0.054	106	109	70-130	3	20		
Bromoform	mg/L	<0.0040	0.05	0.05	0.051	0.053	103	106	69-130	4	20		
Bromomethane	mg/L	<0.00097	0.05	0.05	0.053	0.055	105	110	39-138	4	20		
Carbon tetrachloride	mg/L	<0.0011	0.05	0.05	0.054	0.055	107	110	70-142	2	20		
Chlorobenzene	mg/L	<0.00071	0.05	0.05	0.054	0.057	108	113	70-130	4	20		
Chloroethane	mg/L	<0.0013	0.05	0.05	0.055	0.056	110	113	61-149	3	20		
Chloroform	mg/L	<0.0013	0.05	0.05	0.056	0.057	112	114	75-133	2	20		
Chloromethane	mg/L	<0.0022	0.05	0.05	0.047	0.048	95	96	32-143	2	20		
cis-1,2-Dichloroethene	mg/L	<0.00027	0.05	0.05	0.053	0.054	105	107	70-130	2	20		
cis-1,3-Dichloropropene	mg/L	<0.0036	0.05	0.05	0.055	0.057	110	114	70-130	4	20		
Dibromochloromethane	mg/L	<0.0026	0.05	0.05	0.055	0.059	110	117	70-130	7	20		
Dichlorodifluoromethane	mg/L	<0.00050	0.05	0.05	0.033	0.035	67	70	10-141	4	20		
Ethylbenzene	mg/L	<0.00032	0.05	0.05	0.056	0.058	113	117	80-120	4	20		
Isopropylbenzene (Cumene)	mg/L	<0.0017	0.05	0.05	0.058	0.060	115	119	70-130	3	20		
m-&p-Xylene	mg/L	<0.00047	0.1	0.1	0.11	0.12	111	116	70-130	4	20		
Methyl-tert-butyl ether	mg/L	<0.0012	0.05	0.05	0.056	0.058	112	115	61-136	3	20		
Methylene Chloride	mg/L	<0.00058	0.05	0.05	0.056	0.058	111	116	68-137	4	20		
o-Xylene	mg/L	<0.00026	0.05	0.05	0.056	0.058	111	115	70-130	4	20		
Styrene	mg/L	<0.0030	0.05	0.05	0.056	0.059	112	117	70-130	4	20		
Tetrachloroethene	mg/L	<0.00033	0.05	0.05	0.054	0.056	109	112	70-130	3	20		
Toluene	mg/L	<0.00027	0.05	0.05	0.055	0.056	109	112	80-120	2	20		
trans-1,2-Dichloroethene	mg/L	<0.00046	0.05	0.05	0.057	0.059	113	117	70-130	4	20		
trans-1,3-Dichloropropene	mg/L	<0.0044	0.05	0.05	0.052	0.054	104	109	69-130	4	20		
Trichloroethene	mg/L	<0.00026	0.05	0.05	0.056	0.058	113	116	70-130	2	20		
Trichlorofluoromethane	mg/L	<0.00021	0.05	0.05	0.063	0.064	125	128	74-157	2	20		
Vinyl chloride	mg/L	<0.00017	0.05	0.05	0.052	0.053	104	105	51-140	1	20		
4-Bromofluorobenzene (S)	%						101	104	70-130				
Dibromofluoromethane (S)	%						101	103	70-130				
Toluene-d8 (S)	%						99	101	70-130				

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 6255 SOUTH MILWAUKEE ACE

Pace Project No.: 40216461

QC Batch:	368319	Analysis Method:	EPA 8270 by HVI
QC Batch Method:	EPA 3510	Analysis Description:	8270 Water PAH by HVI
		Laboratory:	Pace Analytical Services - Green Bay

Associated Lab Samples: 40216461002, 40216461003

METHOD BLANK: 2129179 Matrix: Water

Associated Lab Samples: 40216461002, 40216461003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	mg/L	<0.0000059	0.000030	10/15/20 14:25	
2-Methylnaphthalene	mg/L	<0.0000049	0.000024	10/15/20 14:25	
Acenaphthene	mg/L	<0.0000061	0.000030	10/15/20 14:25	
Acenaphthylene	mg/L	<0.0000050	0.000025	10/15/20 14:25	
Anthracene	mg/L	<0.000010	0.000052	10/15/20 14:25	
Benzo(a)anthracene	mg/L	<0.0000076	0.000038	10/15/20 14:25	
Benzo(a)pyrene	mg/L	<0.000011	0.000053	10/15/20 14:25	
Benzo(b)fluoranthene	mg/L	<0.0000057	0.000029	10/15/20 14:25	
Benzo(g,h,i)perylene	mg/L	<0.0000068	0.000034	10/15/20 14:25	
Benzo(k)fluoranthene	mg/L	<0.0000076	0.000038	10/15/20 14:25	
Chrysene	mg/L	<0.000013	0.000065	10/15/20 14:25	
Dibenz(a,h)anthracene	mg/L	<0.000010	0.000050	10/15/20 14:25	
Fluoranthene	mg/L	<0.000011	0.000053	10/15/20 14:25	
Fluorene	mg/L	<0.0000080	0.000040	10/15/20 14:25	
Indeno(1,2,3-cd)pyrene	mg/L	<0.000018	0.000088	10/15/20 14:25	
Naphthalene	mg/L	<0.000018	0.000092	10/15/20 14:25	
Phenanthrene	mg/L	0.000026J	0.000069	10/15/20 14:25	
Pyrene	mg/L	<0.0000076	0.000038	10/15/20 14:25	
2-Fluorobiphenyl (S)	%	62	39-120	10/15/20 14:25	
Terphenyl-d14 (S)	%	100	10-159	10/15/20 14:25	

LABORATORY CONTROL SAMPLE: 2129180

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	mg/L	0.002	0.0011	53	37-120	
2-Methylnaphthalene	mg/L	0.002	0.0010	51	38-120	
Acenaphthene	mg/L	0.002	0.0013	63	49-120	
Acenaphthylene	mg/L	0.002	0.0011	56	43-85	
Anthracene	mg/L	0.002	0.0015	77	57-110	
Benzo(a)anthracene	mg/L	0.002	0.0016	79	47-118	
Benzo(a)pyrene	mg/L	0.002	0.0016	80	70-120	
Benzo(b)fluoranthene	mg/L	0.002	0.0016	78	54-97	
Benzo(g,h,i)perylene	mg/L	0.002	0.0013	64	26-74	
Benzo(k)fluoranthene	mg/L	0.002	0.0018	91	73-126	
Chrysene	mg/L	0.002	0.0019	96	75-151	
Dibenz(a,h)anthracene	mg/L	0.002	0.0013	64	13-72	
Fluoranthene	mg/L	0.002	0.0015	76	63-120	
Fluorene	mg/L	0.002	0.0013	65	53-120	
Indeno(1,2,3-cd)pyrene	mg/L	0.002	0.0016	80	51-101	

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 6255 SOUTH MILWAUKEE ACE

Pace Project No.: 40216461

LABORATORY CONTROL SAMPLE: 2129180

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	mg/L	0.002	0.0011	54	41-120	
Phenanthrene	mg/L	0.002	0.0014	69	47-100	
Pyrene	mg/L	0.002	0.0017	83	70-128	
2-Fluorobiphenyl (S)	%			65	39-120	
Terphenyl-d14 (S)	%			92	10-159	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 2129181 2129182

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40216446004	Result	Spike Conc.	MSD Result						
1-Methylnaphthalene	mg/L	8.6 ug/L	0.002	0.0021	0.0079	0.0077	-34	-43	16-120	3	28 M6
2-Methylnaphthalene	mg/L	1.9 ug/L	0.002	0.0021	0.0023	0.0023	18	19	29-120	2	31 M6
Acenaphthene	mg/L	15.1 ug/L	0.002	0.0021	0.015	0.014	-29	-64	33-120	5	30 M6
Acenaphthylene	mg/L	2.0 ug/L	0.002	0.0021	0.0025	0.0025	25	26	21-85	1	26
Anthracene	mg/L	0.39J ug/L	0.002	0.0021	0.0012	0.0012	39	39	16-114	1	36
Benzo(a)anthracene	mg/L	0.19J ug/L	0.002	0.0021	0.00094	0.00090	37	35	10-118	5	35
Benzo(a)pyrene	mg/L	<0.21 ug/L	0.002	0.0021	0.00053J	0.00051J	26	25	10-120		37
Benzo(b)fluoranthene	mg/L	<0.12 ug/L	0.002	0.0021	0.00055J	0.00054J	27	26	10-97		36
Benzo(g,h,i)perylene	mg/L	<0.14 ug/L	0.002	0.0021	0.00052J	0.00055J	26	27	10-74		45
Benzo(k)fluoranthene	mg/L	<0.15 ug/L	0.002	0.0021	0.00082	0.00065J	41	32	10-126		41
Chrysene	mg/L	<0.26 ug/L	0.002	0.0021	0.0011J	0.0011J	43	44	10-161		30
Dibenz(a,h)anthracene	mg/L	<0.20 ug/L	0.002	0.0021	0.00060J	0.00061J	29	30	10-72		50
Fluoranthene	mg/L	0.23J ug/L	0.002	0.0021	0.0010J	0.0010J	39	37	35-120		33
Fluorene	mg/L	0.77J ug/L	0.002	0.0021	0.0015	0.0015	37	36	17-120	0	33
Indeno(1,2,3-cd)pyrene	mg/L	<0.36 ug/L	0.002	0.0021	0.00057J	0.00057J	28	28	10-101		41
Naphthalene	mg/L	172 ug/L	0.002	0.0021	0.14	0.14	-1710	-1590	24-120	1	30 M6
Phenanthrene	mg/L	1.0J ug/L	0.002	0.0021	0.0019	0.0019	45	40	15-100	4	30
Pyrene	mg/L	0.23J ug/L	0.002	0.0021	0.0010	0.0011	40	40	14-137	3	31
2-Fluorobiphenyl (S)	%						0	0	39-120		S4
Terphenyl-d14 (S)	%						0	0	10-159		S4

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## REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: 6255 SOUTH MILWAUKEE ACE

Pace Project No.: 40216461

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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, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

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.

### ANALYTE QUALIFIERS

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

S4 Surrogate recovery not evaluated against control limits due to sample dilution.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

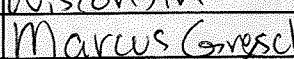
Project: 6255 SOUTH MILWAUKEE ACE  
 Pace Project No.: 40216461

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40216461002	MW-4	EPA 3510	368319	EPA 8270 by HVI	368390
40216461003	MW-3	EPA 3510	368319	EPA 8270 by HVI	368390
40216461001	MW-5	EPA 8260	368541		

### REPORT OF LABORATORY ANALYSIS

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**(Please Print Clearly)**

(Please Print Clearly)		
<b>Company Name:</b>	DAI Environmental	
<b>Branch/Location:</b>	Lake Forest	
<b>Project Contact:</b>	Chris Caillies	
<b>Phone:</b>	847-573-8906	
<b>Project Number:</b>	6255	
<b>Project Name:</b>	South Milwaukee Ace	
<b>Project State:</b>	Wisconsin	
<b>Sampled By (Print):</b>	Marcus Greschler	
<b>Sampled By (Sign):</b>		
<b>PO #:</b>		<b>Regulatory Program:</b>



# **CHAIN OF CUSTODY**

*Preservation Codes							
A=None	B=HCl	C=H <sub>2</sub> SO <sub>4</sub>	D=HNO <sub>3</sub>	E=DI Water	F=Methanol	G=NaOH	
H=Sodium Bisulfate Solution	I=Sodium Thiosulfate	J=Other					

Rush Turnaround Time Requested - Prelims  
(Rush TAT subject to approval/surcharge)  
Date Needed:

**Transmit Prelim Rush Results by (complete what you want):**

**Email #1:**

**Email #2:**

**Telephone:** \_\_\_\_\_

**Fax:** \_\_\_\_\_

**Samples on HOLD are subject to  
special pricing and release of liability**

## **UPPER MIDWEST REGION**

**MN:** 612-607-1700   **WI:** 920-469-2436

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Version 6.0 08/14/06

ORIGINAL

# Sample Preservation Receipt Form

Pace Analytical Services, LLC  
1241 Bellevue Street, Suite 200  
Green Bay, WI 54302

Client Name: DAI ENV.

Project # Y021646

All containers needing preservation have been checked and noted below:  Yes  No  N/A

Lab Lot# of pH paper: 1001194

Lab Std #ID of preservation (if pH adjusted):

Initial when completed: NY

Date/  
Time:

Page 19 of 20

Pace Lab #	Glass				Plastic				Vials				Jars				General				VOA Vials (>6mm)*	H2SO4 pH ≤ 2	NaOH+Zn Act pH ≥ 9	NaOH pH ≥ 12	HNO3 pH ≤ 2	pH after adjusted	Volume (mL)		
	AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN			
001																													2.5 / 5 / 10
002																													2.5 / 5 / 10
003																													2.5 / 5 / 10
004																													2.5 / 5 / 10
005																													2.5 / 5 / 10
006																													2.5 / 5 / 10
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017																													2.5 / 5 / 10
018																													2.5 / 5 / 10
019																													2.5 / 5 / 10
020																													2.5 / 5 / 10

Exceptions to preservation check: VOA Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other:

Headspace in VOA Vials (>6mm):  Yes  No  N/A \*If yes look in headspace column

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	VG9A	40 mL clear ascorbic	JGFU	4 oz amber jar unpres
BG1U	1 liter clear glass	BP3U	250 mL plastic unpres	DG9T	40 mL amber Na Thio	JG9U	9 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP3B	250 mL plastic NaOH	VG9U	40 mL clear vial unpres	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9H	40 mL clear vial HCL	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3S	250 mL plastic H2SO4	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG5U	100 mL amber glass unpres			VG9D	40 mL clear vial DI	ZPLC	ziploc bag
AG2S	500 mL amber glass H2SO4					GN	
BG3U	250 mL clear glass unpres						

**Sample Condition Upon Receipt Form (SCUR)**

Project #:

**WO# : 40216461**


40216461

 Client Name: DAI ENV.

 Courier:  CS Logistics  Fed Ex  Speedee  UPS  Waltco

 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 SR - NM Type of Ice: Wet Blue Dry None  Samples on ice, cooling process has begun

 Cooler Temperature Uncorr: 10.1 /Corr:

 Temp Blank Present:  Yes  No 10/14/20 Biological Tissue is Frozen:  Yes  no

Temp should be above freezing to 6°C.

Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Person examining contents:

 Date: 10/14/20 /Initials: JPB

 Labeled By Initials: JPB

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 checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>pqf, Mail, Invoice</u> <u>10/14/20</u>
Chain of Custody Relinquished:	<input checked="" 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:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:	8.	
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	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:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>W</u>	
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

 If checked, see attached form for additional comments 
**Client Notification/ Resolution:**

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

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

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