DAI ENVIRONMENTAL

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

March 4, 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***
(January 2020 Results)
BRRTS #: 02-41-576336 & 02-41-579429
FID #: 241828620
Sunrise Shopping Center
2410-2424 10th 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 January 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.

Christopher Cailles

Christopher Cailles, P.E.
Project Engineer

Enclosure

cc: Steven Dukatt – Carol Investment Corporation (w/enclosure electronically)

ENVIRONMENTAL

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

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

March 4, 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

TABLE OF CONTENTS

LIST OF TABLES (APPENDIX A)

LIST OF FIGURES (APPENDIX B)

LIST OF APPENDICES

1.0 INTRODUCTION

Soil and groundwater Remedial Actions are being performed at the Sunrise Shopping Center facility, addressed as 2410-2424 10th 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 will document Tetrachloroethene (Perc) groundwater concentrations during and following the chemical injections as described in October 18, 2018, *Design Report Addendum/Remedial Action Plan* (RAP) approved by the WDNR in a letter dated December 19, 2018. Based upon the historical sampling results provided in the RAP, the quarterly groundwater sampling shall continue 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 ±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^{o}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 first quarter 2020 groundwater sampling event. The static water level elevations were collected from all monitoring wells on January 17, 2020. Table A.6 in Attachment A provides a historical summary of groundwater elevation information.

Review of Table A.6 shows that the January groundwater elevations were slightly higher than were observed in October, with the exception of MW-4 and MW-201 (which were lower than in the last quarter). 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 northerly groundwater flow direction is indicated along the northern half of the Site. The potentiometric surface map generated from the January 2020 data is included as Figure B.3.c.12 (see Attachment B).

3.2 Groundwater Analytical Results

Groundwater samples for the first quarter 2020 (i.e., January-March 2020) were collected on January 17, 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 first 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, Perc has been consistently observed in monitoring well MW-5, with concentrations exceeding the Enforcement Standard of 0.005-mg/L, since February 2016. However, the Perc concentrations in MW-5 indicate a continued decline from 0.0153-mg/L (September 2019) to 0.012-mg/L (October 2019) to 0.0084-mg/L (January 2020). The observed January concentration is consistent with the earlier July 2018 concentration, when a sample was collected following the chemical injection pilot testing. 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 occasions; in January 2019 (0.0027-mg/L) and April 2019 (0.00071-mg/L). However, all subsequent TCE concentrations are below the PAL, with the most recent concentration from January 2020 of 0.00038-mg/L. Figure B.3.b.1b has been added to provide 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 January 2020 results

remain above the Enforcement Standards but show a small decrease from the October 2019 results, and are two (2) orders of magnitude lower than the April 2019 concentration spike. As previously noted, no discernable trend in PAH concentrations can be determined due to the high variability in observed concentrations with time. It appears that the groundwater concentrations are most influenced by fluctuations in the groundwater table elevation changes through the contaminated fill material, particularly in the area for MW-3. However, these impacts are still limited to the area along the southern property boundary.

Several PAH constituents continue to be observed at concentrations above the Limit of Detection (LOD) in MW-4 (installed to the rear of the 2414B tenant space in the approximate location of a former heating oil UST). In contrast to the observations in MW-3, PAH concentrations in MW-4 increased for the second quarter in a row, with January 2020 concentrations of Benzo(a)pyrene, Benzo(b)fluoranthene, and Chrysene an order of magnitude above the Enforcement Standards, the highest concentrations observed to date. Review of the historical data indicates that the Benzo(a)pyrene, Benzo(b)fluoranthene, and Chrysene concentrations are approximately equal to the PALs. While the increase is slightly concerning, there is no known active source of contamination, and the fluctuation in concentrations in MW-4 appear to correlate most closely with fluctuations in the groundwater table.

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 15th, 23rd, 29th, 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 LOD 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 and the results of the sump water sampling will be provided in future quarterly sampling reports.

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 increasing with time until July 2018 when the pilot-scale chemical injection was performed. The Perc concentration measured in MW-5 in July 2018 indicated a reduction in concentration, demonstrating that the chemical injections helped reduce the Perc concentration in the area of MW-5. However, because not all the Perc contamination in the soil was removed during the pilot scale test, the groundwater Perc concentrations rebounded to levels above the Enforcement Standard. No significant change in groundwater concentration was observed immediately following an additional chemical injection in the area of MW-5 in August 2019, although a slowly decreasing concentrations of PCE has been noted since that time.
- 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. Influent and effluent sampling will continue on a monthly basis.
- The PAH concentrations observed in MW-3 in January 2020 remain above the Enforcement Standards for Benzo(a)pyrene, Benzo(b)fluoranthene, and Chrysene, although the concentrations do indicate a slight decrease from those observed in October 2019. Benzo(a)pyrene, Benzo(b)fluoranthene, and Chrysene concentrations in MW-4 increased for the second quarter to levels above the Enforcement Standard. Groundwater concentrations will be closely monitored for any continuing trend.
- The next quarterly sampling event is scheduled for April 2020.

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	01/17/20	**0.0084**	0.00038 (J)
	10/24/19	**0.012**	0.00039 (J)
	09/05/19	**0.0153**	0.00038 (J)
	07/07/19	**0.0106**	0.00048 (J)
	04/29/19	**0.0114**	**0.00071 (J)**
	01/25/19	**0.0065**	**0.0027**
	10/11/18	**0.021**	0.00027 (J)
	07/30/18	**0.0086**	<0.00026
	04/07/18	**0.0203**	<0.00033
	01/05/18	**0.0181**	<0.00033
	05/30/17	**0.0124**	<0.00033
	02/23/16	**0.0083**	<0.00033
	01/27/15	**0.0026**	<0.00033
	11/12/14 (TW-2)	**0.0026**	<0.00033
PAL[1]		**0.0005**	**0.0005**
Enforcement Standard[2]		**0.005**	**0.005**

[1] – Preventive Action Limits (PALs) taken from Wisconsin Administrative Code, Chapter NR 140, Table 1
[2] – 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[1]	ES[2]
	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)	MW-3 (07/30/18)		
Acenaphthene	0.00076	0.0000043 (J)	0.000026 (J)	0.0000077 (J)	0.000029	0.000014 (J)	NL	NL
Acenaphthylene	0.00013	0.0000036 (J)	0.000016 (J)	<0.0000045	0.000053	0.000023	NL	NL
Anthracene	0.00056	<0.0000023	0.00013	0.000031 (J)	0.00015	0.000073	0.6	3
Benzo(a)anthracene	0.00069	<0.0000031	0.00073	0.0000069 (J)	0.001	0.00043	NL	NL
Benzo(a)pyrene	**0.0006**	0.000011 (J)	**0.001**	<0.0000096	**0.0019**	**0.00068**	0.00002	0.0002
Benzo(b)fluoranthene	**0.00077**	0.00002 (J)	**0.002**	**0.000037**	**0.0039**	**0.0013**	0.00002	0.0002
Benzo(g,h,i)perylene	0.0004	0.000016 (J)	0.0011	0.00018 (J)	0.0025	0.00082	NL	NL
Benzo(k)fluoranthene	0.00029	0.00001 (J)	0.00068	0.000014 (J)	0.0014	0.00041	NL	NL
Chrysene	**0.00084**	**0.000028 (J)**	**0.0015**	**0.000047 (J)**	**0.003**	**0.00095**	0.00002	0.0002
Dibenzo(a,h)anthracene	0.000091	<0.0000032	0.00022	<0.0000091	0.00034	0.00015	NL	NL
Fluoranthene	0.0024	0.000041 (J)	0.0031	0.00021	0.0052	0.0019	0.08	0.4
Fluorene	0.0011	0.0000035 (J)	0.000052	0.000022 (J)	0.000048	0.00004	0.08	0.4
Indeno(1,2,3-cd)pyrene	0.0003	0.0000081 (J)	0.00086	<0.000016	0.0021	0.00089	NL	NL
1-Methylnaphthalene	0.002	0.0000091 (J)	0.00018	0.00016	0.000033	0.000033	NL	NL
2-Methylnaphthalene	0.00017	0.0000084 (J)	0.00013	0.00016	0.000024	0.000031	NL	NL
Naphthalene	0.00016	<0.0000056	0.00012	0.00046	0.000051	0.000053 (J)	0.017	0.1
Phenanthrene	0.0021	0.000043 (J)	0.00071	0.000085	0.0013	0.00047	NL	NL
Pyrene	0.0025	0.000059	0.002	0.00011	0.0037	0.0012	0.05	0.25

[1] – Preventive Action Limits (PALs) taken from Wisconsin Administrative Code, Chapter NR 140, Table 1
[2] – 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[1]	ES[2]
	MW-3 (10/11/18)	MW-3 (01/25/19)	MW-3 (04/29/19)	MW-3 (07/07/19)	MW-3 (10/24/19)	MW-3 (01/17/20)		
Acenaphthene	0.00001 (J)	0.0000068 (J)	0.0015	0.000023 (J)	0.00016	0.0003	NL	NL
Acenaphthylene	<0.0000045	<0.0000047	0.0027	0.000084	0.00043	0.0002	NL	NL
Anthracene	0.00002 (J)	0.000027 (J)	0.0089	0.00013	0.00088	0.00028	0.6	3
Benzo(a)anthracene	0.000017 (J)	0.000053	0.11	0.00087	0.009	0.0042	NL	NL
Benzo(a)pyrene	**0.000024 (J)**	**0.00017**	**0.115**	**0.0019**	**0.015**	**0.0063**	0.00002	0.0002
Benzo(b)fluoranthene	**0.000074**	**0.00034**	**0.209**	**0.0036**	**0.03**	**0.0104**	0.00002	0.0002
Benzo(g,h,i)perylene	0.000037	0.00023	0.132	0.0025	0.018	0.0072	NL	NL
Benzo(k)fluoranthene	0.000026 (J)	0.00012	0.0643	0.0016	0.0095	0.004	NL	NL
Chrysene	**0.000079**	**0.00028**	**0.13**	**0.0026**	**0.016**	**0.0013**	0.00002	0.0002
Dibenzo(a,h)anthracene	<0.000009	0.000034 (J)	0.0258	0.00028	0.0034	0.0117	NL	NL
Fluoranthene	0.00026	0.00043	**0.248**	0.0035	0.025	0.0005	0.08	0.4
Fluorene	0.000031 (J)	0.000014 (J)	0.0028	0.000037	0.00022	0.00004	0.08	0.4
Indeno(1,2,3-cd)pyrene	0.000027 (J)	0.00016	0.108	0.0019	0.014	0.0056	NL	NL
1-Methylnaphthalene	0.000019 (J)	0.000013 (J)	0.0003	0.000011 (J)	--	0.00039	NL	NL
2-Methylnaphthalene	0.000015 (J)	0.000012 (J)	0.00025	0.000014 (J)	--	0.000048	NL	NL
Naphthalene	0.000032 (J)	0.000022 (J)	0.00035	0.000019 (J)	0.00015	0.0001	0.017	0.1
Phenanthrene	0.000093	0.00011	0.066	0.00079	0.0061	0.003	NL	NL
Pyrene	0.0002	0.00031	**0.21**	0.0029	0.024	0.011	0.05	0.25

[1] – Preventive Action Limits (PALs) taken from Wisconsin Administrative Code, Chapter NR 140, Table 1
[2] – 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[1]	ES[2]
	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)	**<0.00049**	0.00002	0.0002
Benzo(b)fluoranthene	0.0000093 (J)	**0.000043 (J)**	0.000014 (J)	**<0.00027**	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	**0.000021 (J)**	**0.000042 (J)**	0.000017 (J)	**0.0018 (J)**	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	0.00027	0.00017	**0.0243**	0.01	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

[1] – Preventive Action Limits (PALs) taken from Wisconsin Administrative Code, Chapter NR 140, Table 1
[2] – 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-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[1]	ES[2]
	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	**<0.0002**	<0.0000095	**<0.000048**	**<0.000029**	0.00002	0.0002
Benzo(b)fluoranthene	**0.00022 (J)**	0.0000096 (J)	**<0.000026**	**0.000022**	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	**0.001 (J)**	**0.000031 (J)**	**<0.00006**	**0.000084 (J)**	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	**0.0151**	0.0022	0.0015	0.00081	0.01	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

[1] – Preventive Action Limits (PALs) taken from Wisconsin Administrative Code, Chapter NR 140, Table 1
[2] – 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-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[1]	ES[2]
	MW-4 (01/25/19)	MW-4 (04/29/19)	MW-4 (07/07/19)	MW-4 (10/24/19)	MW-4 (01/17/20)		
Acenaphthene	0.0016	0.0033	0.0028	0.01	0.0357	NL	NL
Acenaphthylene	0.00024	0.00059	0.0005	0.0029	0.0114	NL	NL
Anthracene	0.000093	0.00033	0.00044	0.0068	0.0063	0.6	3
Benzo(a)anthracene	0.0000076 (J)	0.000061	<0.000026	0.00069	0.0036	NL	NL
Benzo(a)pyrene	<0.0000095	**0.000041 (J)**	<0.000037	**0.00045**	**0.0031**	0.00002	0.0002
Benzo(b)fluoranthene	0.000012 (J)	**0.000093**	<0.00002	**0.00086**	**0.0056**	0.00002	0.0002
Benzo(g,h,i)perylene	<0.0000061	0.000045	<0.000024	0.00049	0.0032	NL	NL
Benzo(k)fluoranthene	0.000016 (J)	0.00005	<0.000026	0.00038	0.0022	NL	NL
Chrysene	**0.000033 (J)**	**0.00017**	<0.000046	**0.0016**	**0.0074**	0.00002	0.0002
Dibenzo(a,h)anthracene	<0.000009	0.0000091 (J)	<0.000035	0.000074 (J)	0.000061 (J)	NL	NL
Fluoranthene	0.000091	0.0004	0.00011 (J)	0.0026	0.0128	0.08	0.4
Fluorene	0.0022	0.0046	0.0044	0.019	0.0576	0.08	0.4
Indeno(1,2,3-cd)pyrene	<0.000016	0.00004 (J)	<0.000062	0.00033 (J)	0.0025	NL	NL
1-Methylnaphthalene	0.006	0.0151	0.0174	--	0.0947	NL	NL
2-Methylnaphthalene	0.000048	0.00026	0.00048	--	0.0032	NL	NL
Naphthalene	0.00078	0.0014	0.0034	0.0026	0.0074	0.01	0.1
Phenanthrene	0.00077	0.0037	0.0013	0.026	0.0992	NL	NL
Pyrene	0.00021	0.0014	0.00037	0.0096	0.0344	0.05	0.25

[1] – Preventive Action Limits (PALs) taken from Wisconsin Administrative Code, Chapter NR 140, Table 1
[2] – 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	02/03/20	**0.006**
	01/07/20	**0.0065**
	12/03/19	**0.0068**
	11/04/19	**0.008**
	10/02/19	**0.0069**
	09/05/19	**0.0076**
	08/02/19	**0.005**
	07/19/19	**0.0062**
	06/25/19	**0.0054**
	06/06/19	**0.0069**
	05/29/19	**0.0043**
	05/23/19	**0.0042**
	05/15/19	**0.0093**
	02/04/19	**0.0064**
	01/05/18	**0.0082**
	06/04/17	**0.006**
PAL[1]		**0.0005**
Enforcement Standard[2]		**0.005**

[1] – Preventive Action Limits (PALs) taken from Wisconsin Administrative Code, Chapter NR 140, Table 1
[2] – 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	01/17/20	2.74	14.49	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	01/17/20	6.83	14.41	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	01/17/20	3.20	14.46	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	01/17/20	6.21	14.57	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	01/17/20	5.87	14.60	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	01/17/20	7.00	14.57	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.

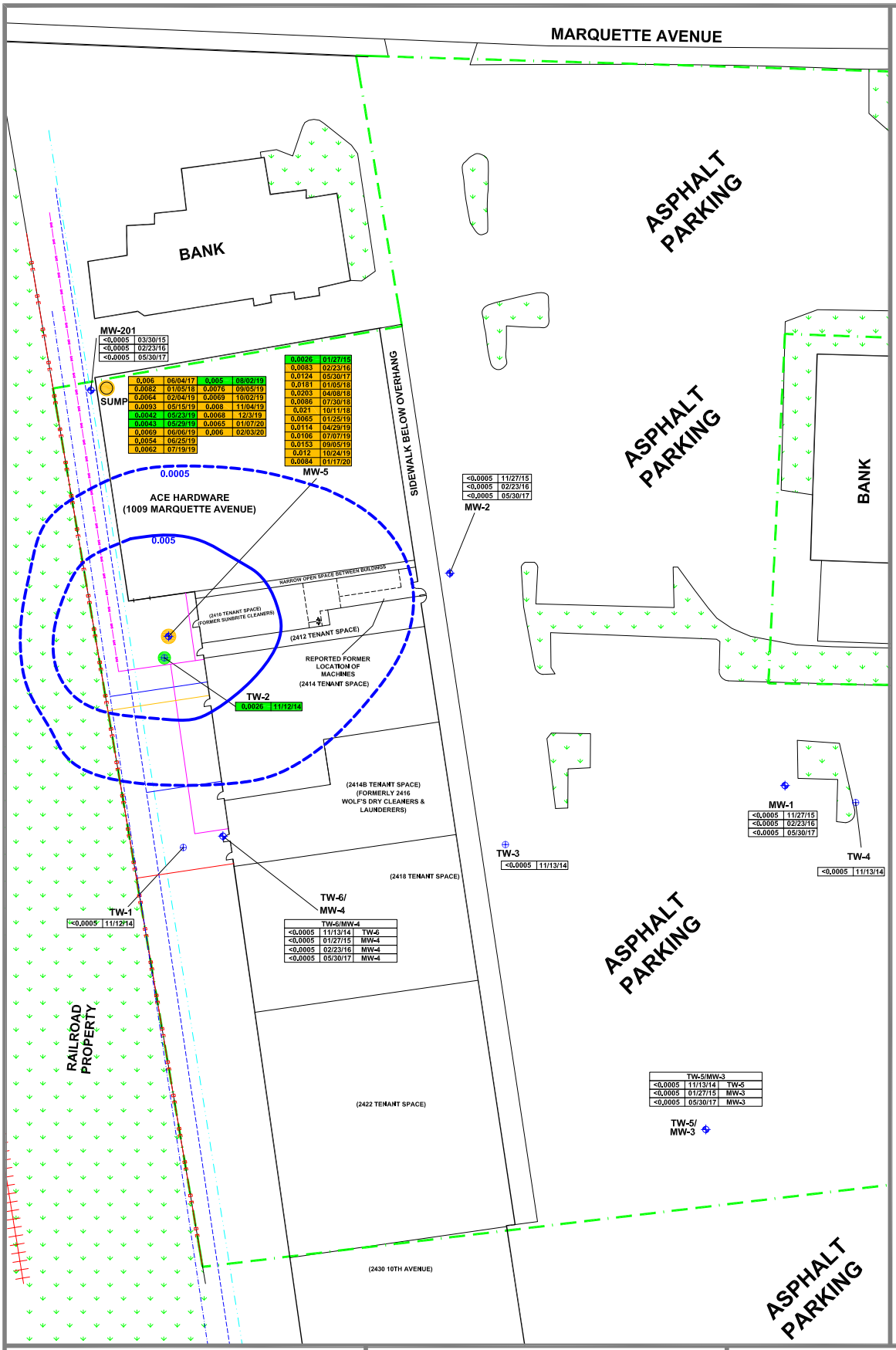
APPENDIX B
FIGURES

CAD FILE: 6255-22A
REVISED: 09/07/17

ENVIRONMENTAL DAI

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 (2015 AERIAL TAKEN FROM GOOGLE EARTH)



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 PAL EXCEEDANCE FOR PERC

OBSERVED PAL AND ES EXCEEDANCE FOR PERC

PERC CONC. mg/L	SAMPLE DATE

SITE INVESTIGATION DEFINED PERC ISOCONCENTRATION LINE (mg/L)

SITE INVESTIGATION ESTIMATED PERC ISOCONCENTRATION LINE (mg/L)

N

0' 65'

S C A L E

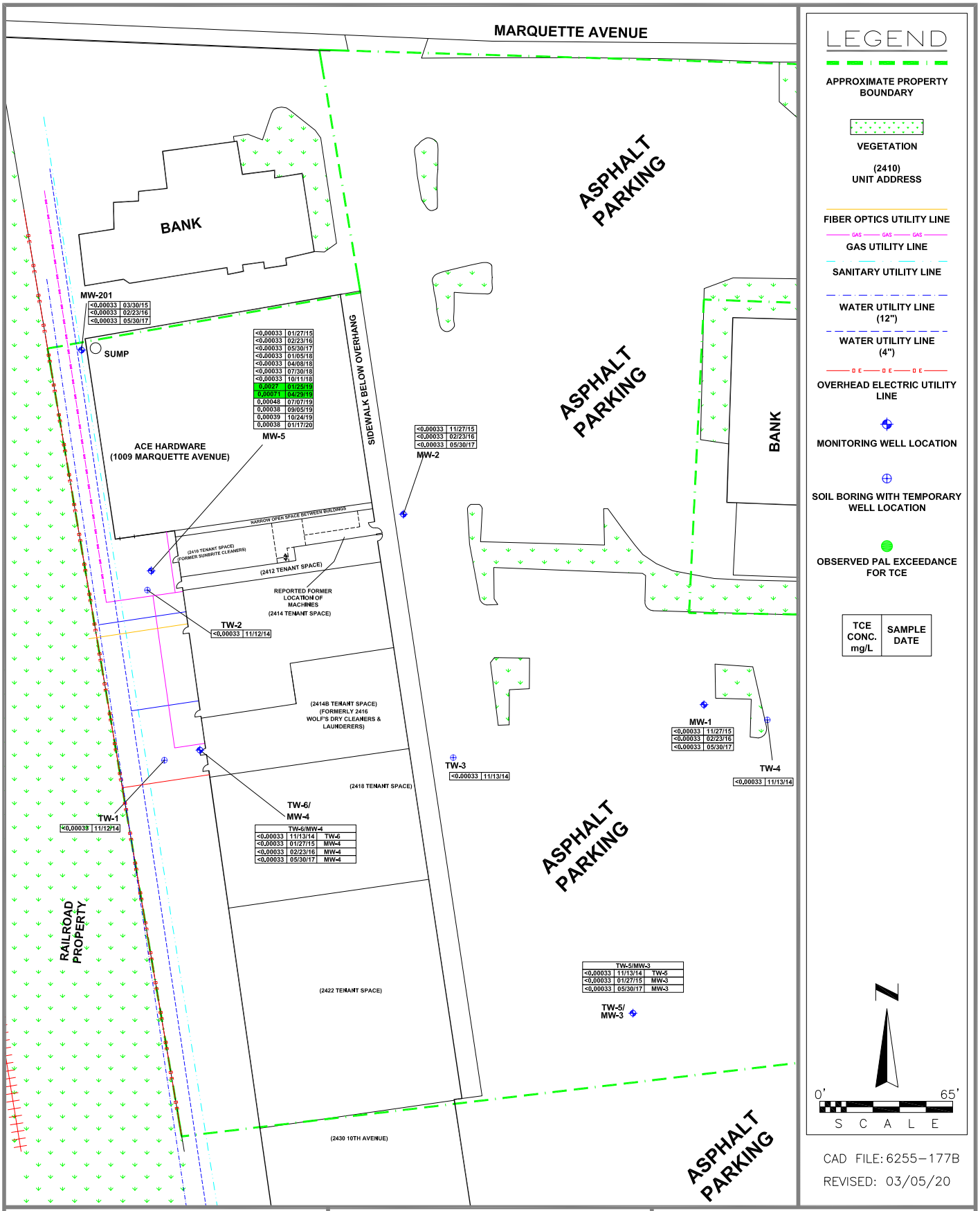
CAD FILE: 6255-133H

REVISED: 03/05/20

ENVIRONMENTAL DAI

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

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



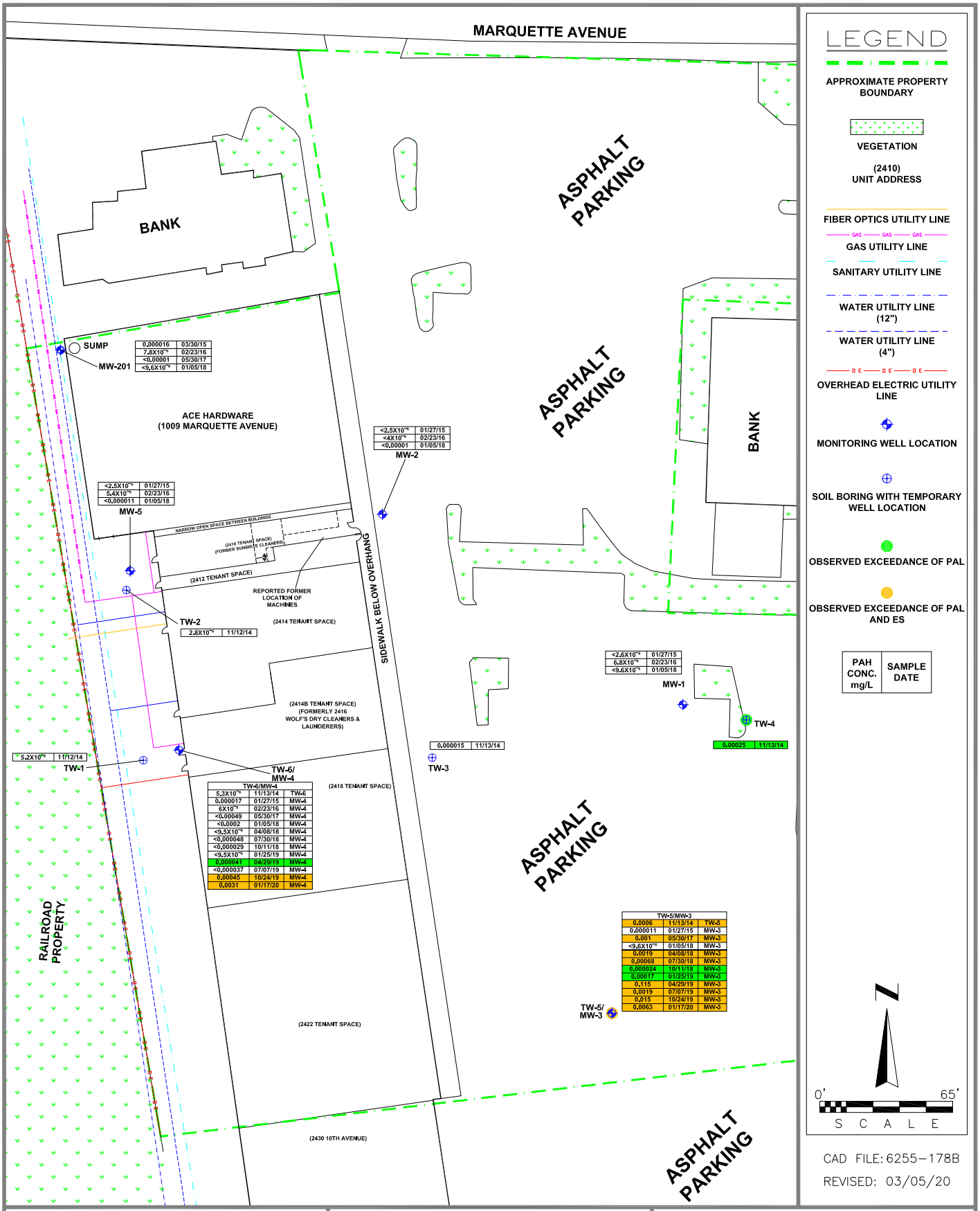
CAD FILE: 6255-177B

REVISED: 03/05/20

ENVIRONMENTAL DAI

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

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



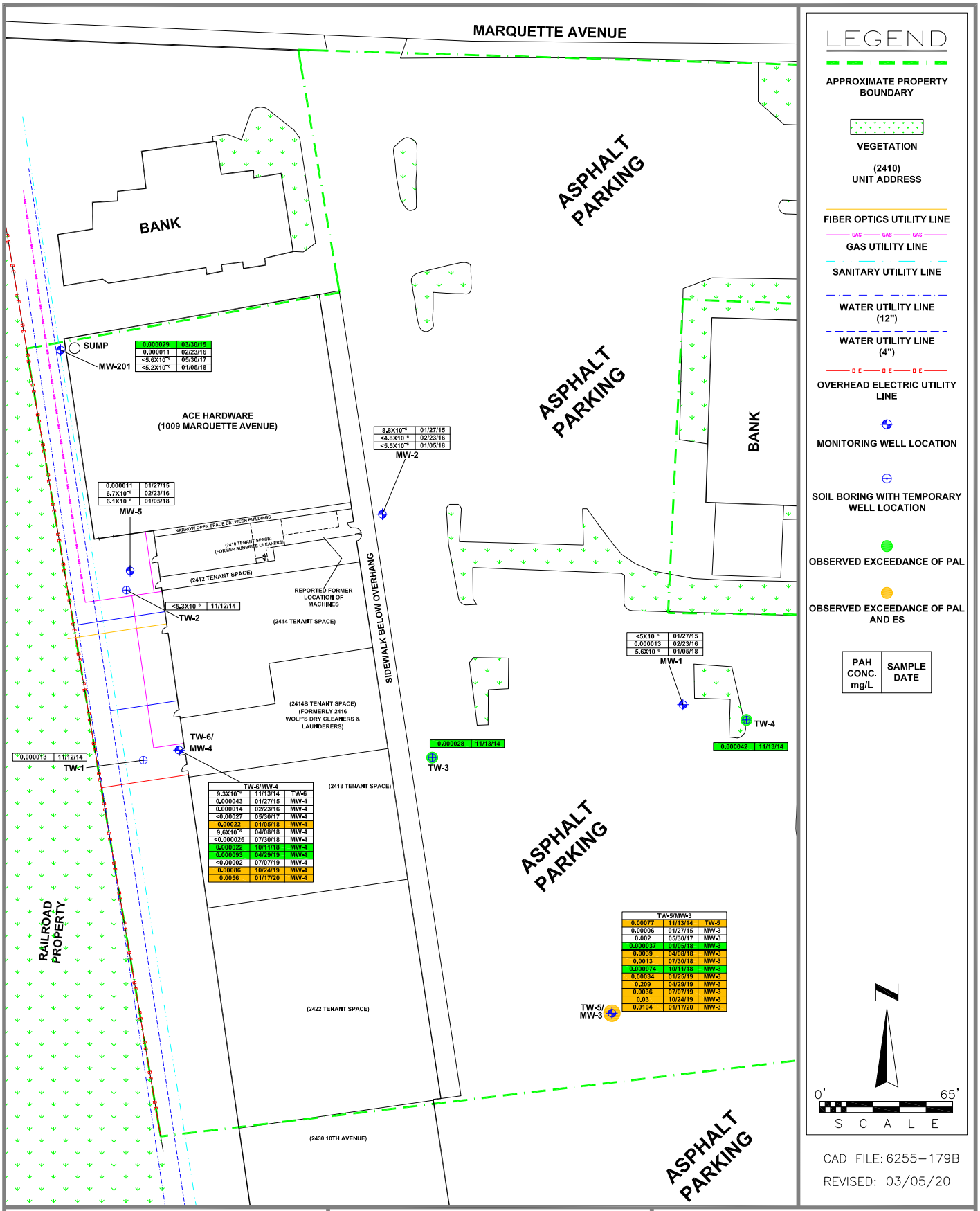
CAD FILE: 6255-178B

REVISED: 03/05/20

ENVIRONMENTAL DAI

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

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



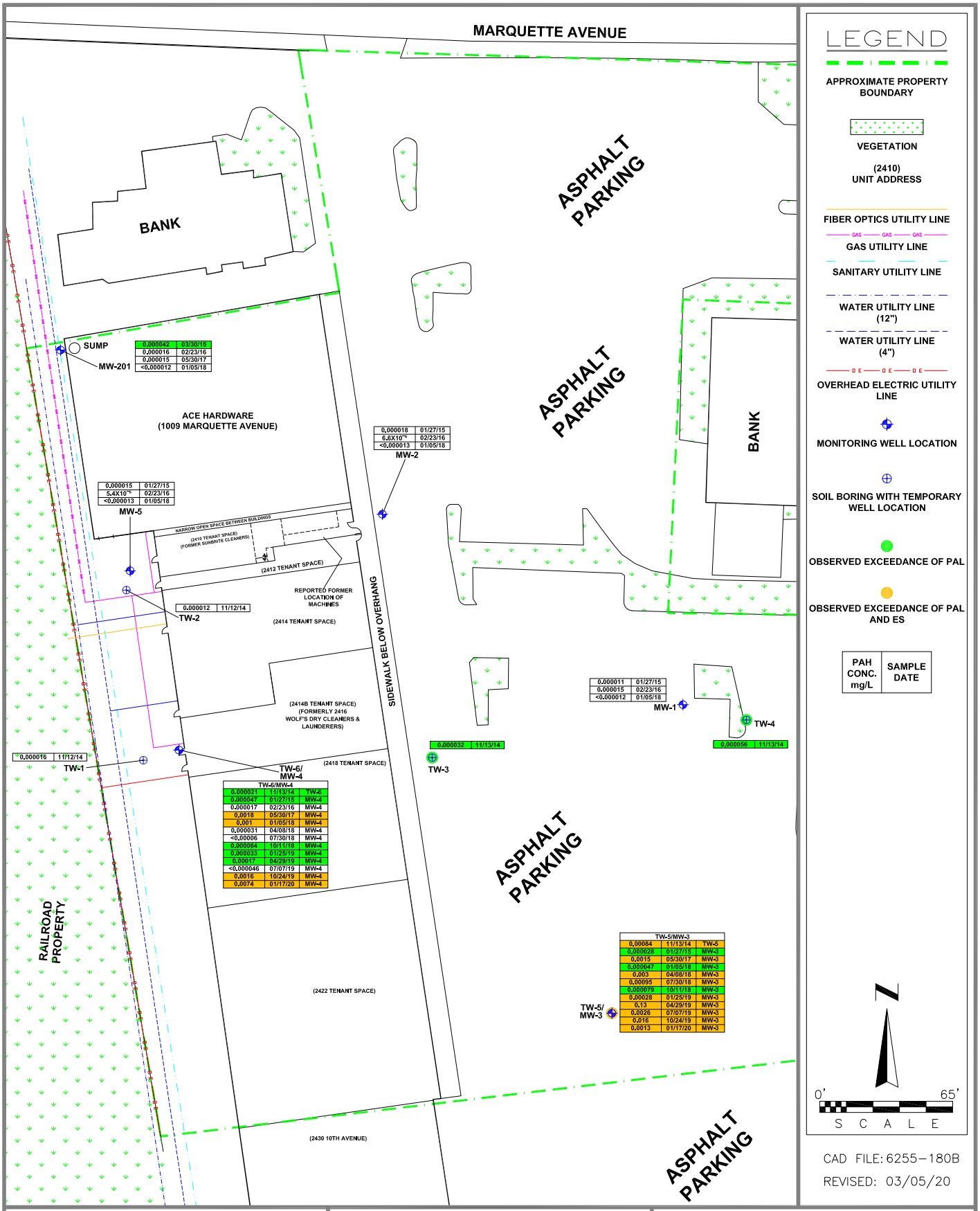
CAD FILE: 6255-179B

REVISED: 03/05/20

ENVIRONMENTAL

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

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



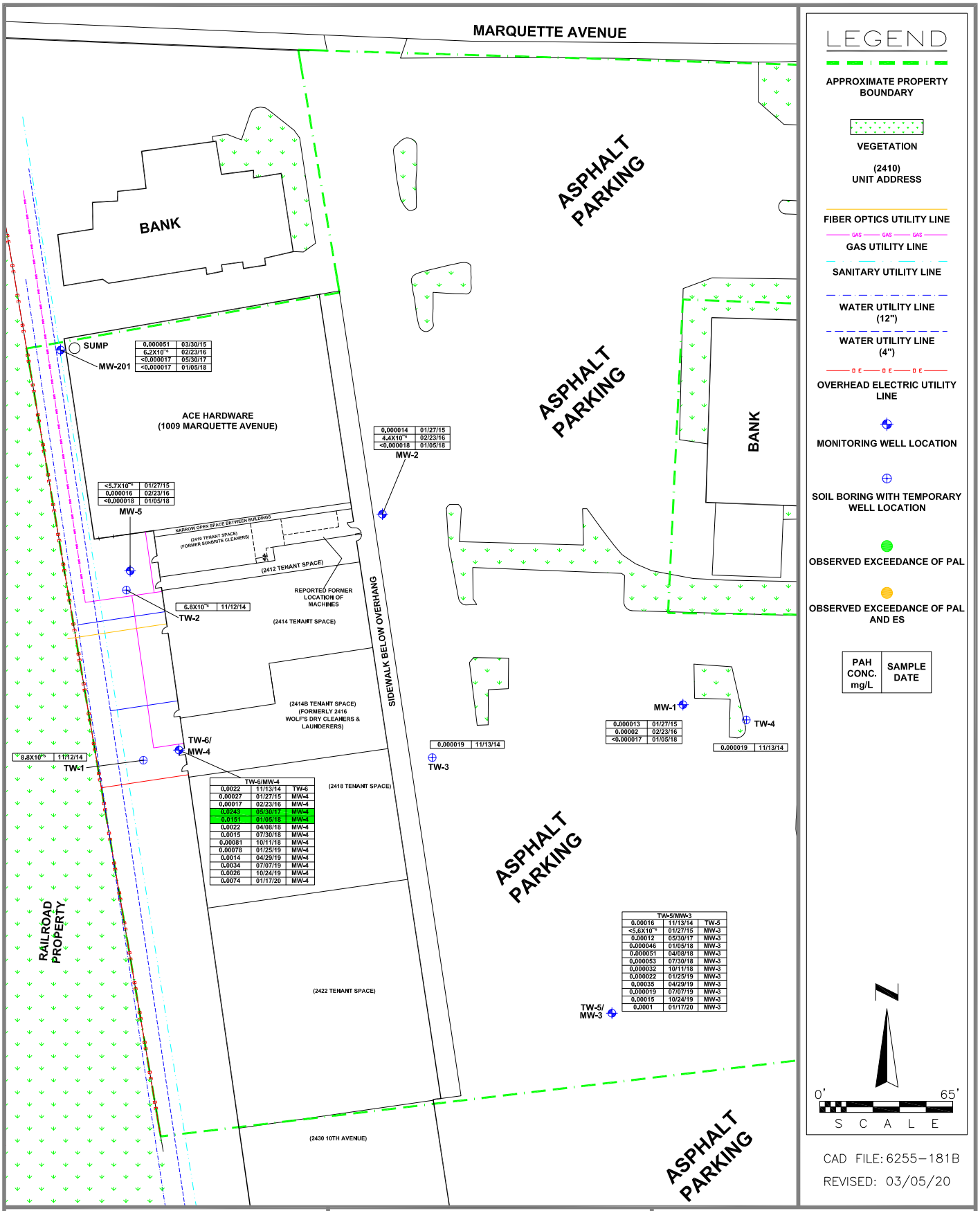
CAD FILE: 6255-180B

REVISED: 03/05/20

ENVIRONMENTAL DAI

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

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



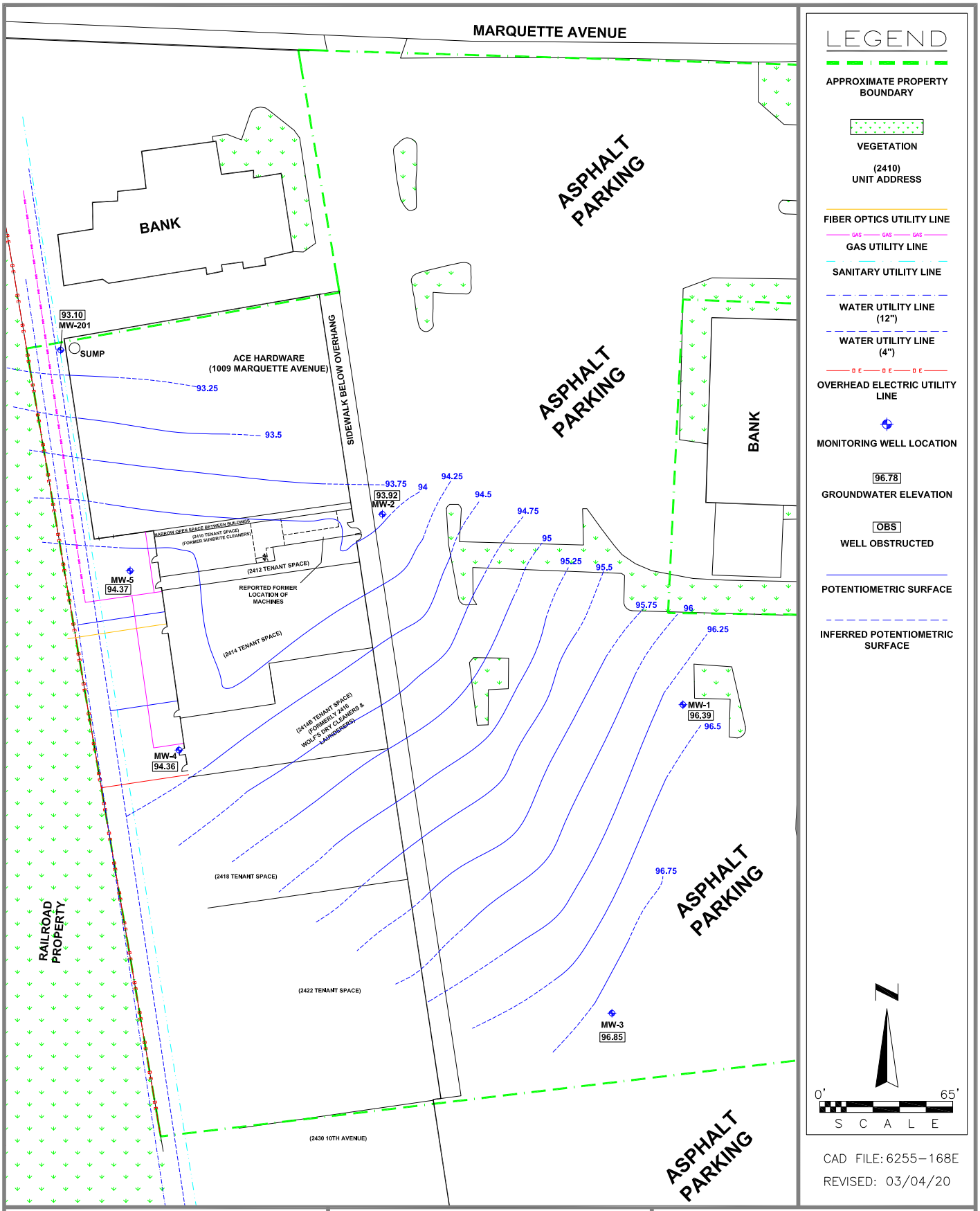
CAD FILE: 6255-181B

REVISED: 03/05/20

ENVIRONMENTAL

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

FIGURE B.3.b.2d
GROUNDWATER ISOCONCENTRATION (NAPHTHALENE)



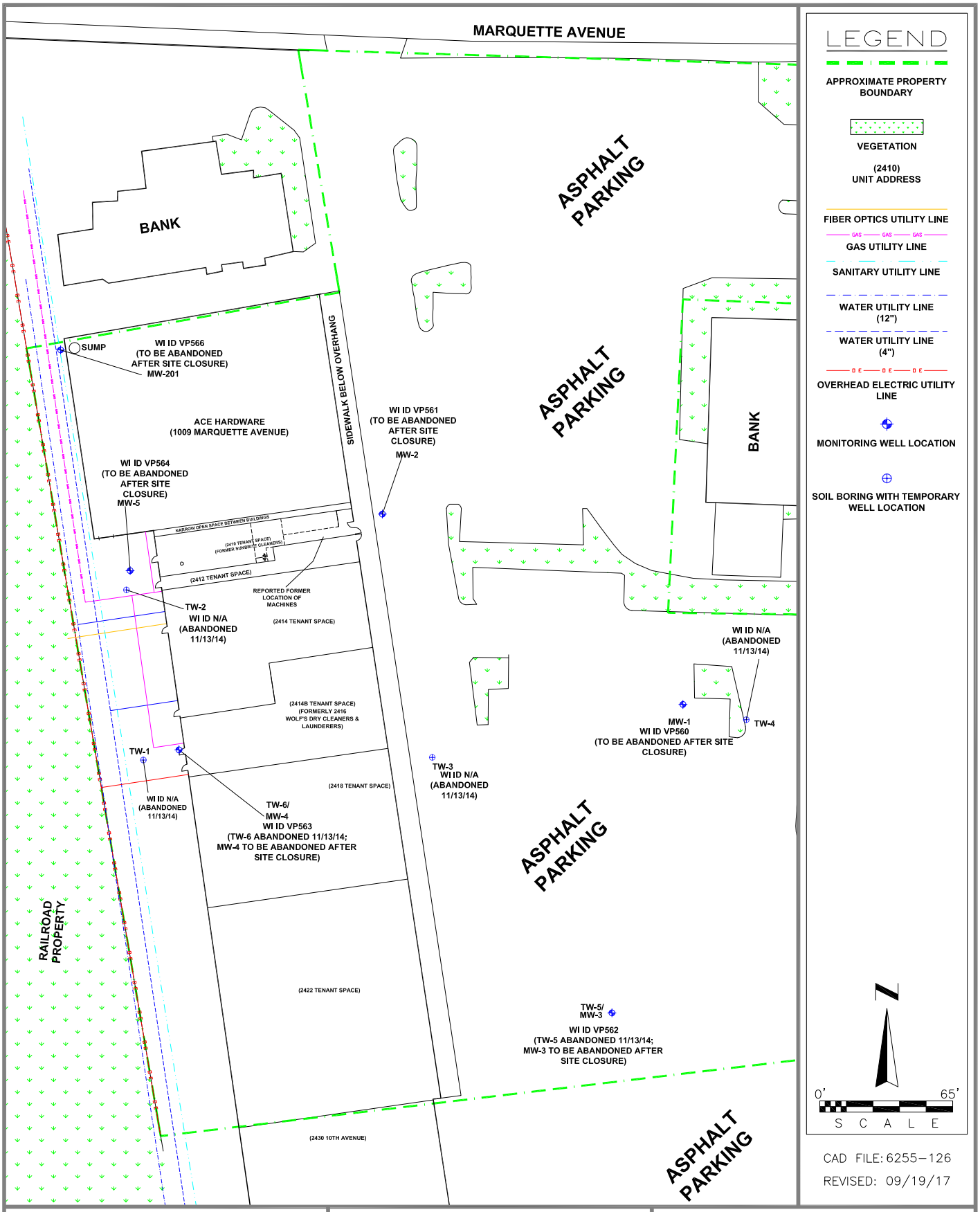
CAD FILE: 6255-168E

REVISED: 03/04/20

ENVIRONMENTAL

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

FIGURE B.3.c.12
GROUNDWATER FLOW DIRECTION
(JANUARY 17, 2020)



CAD FILE: 6255-126

REVISED: 09/19/17

DAI ENVIRONMENTAL

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
(FIRST QUARTER 2020)

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

January 23, 2020

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

RE: Project: 6255 SOUTH MILWAUKEE
Pace Project No.: 40202194

Dear Chris Cailles:
Enclosed are the analytical results for sample(s) received by the laboratory on January 18, 2020. 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,

Laurie Woelfel

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

Enclosures

cc: Jenny Rovzar, DAI

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 6255 SOUTH MILWAUKEE
Pace Project No.: 40202194

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

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 6255 SOUTH MILWAUKEE
Pace Project No.: 40202194

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40202194001	**MW-5**	Water	01/17/20 12:35	01/18/20 09:40
40202194002	**MW-4**	Water	01/17/20 12:50	01/18/20 09:40
40202194003	**MW-3**	Water	01/17/20 13:45	01/18/20 09:40

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 6255 SOUTH MILWAUKEE
Pace Project No.: 40202194

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40202194001	**MW-5**	EPA 8260	LAP	64
40202194002	**MW-4**	EPA 8270 by HVI	TPO	20
40202194003	**MW-3**	EPA 8270 by HVI	TPO	20

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 6255 SOUTH MILWAUKEE
Pace Project No.: 40202194

Sample: MW-5 **Lab ID: 40202194001** Collected: 01/17/20 12:35 Received: 01/18/20 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.25**	ug/L	1.0	0.25	1		01/22/20 12:54	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		01/22/20 12:54	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		01/22/20 12:54	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		01/22/20 12:54	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		01/22/20 12:54	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		01/22/20 12:54	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		01/22/20 12:54	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		01/22/20 12:54	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		01/22/20 12:54	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		01/22/20 12:54	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		01/22/20 12:54	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		01/22/20 12:54	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		01/22/20 12:54	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		01/22/20 12:54	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		01/22/20 12:54	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		01/22/20 12:54	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		01/22/20 12:54	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		01/22/20 12:54	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		01/22/20 12:54	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		01/22/20 12:54	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		01/22/20 12:54	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		01/22/20 12:54	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		01/22/20 12:54	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		01/22/20 12:54	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		01/22/20 12:54	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		01/22/20 12:54	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		01/22/20 12:54	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		01/22/20 12:54	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		01/22/20 12:54	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		01/22/20 12:54	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		01/22/20 12:54	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		01/22/20 12:54	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		01/22/20 12:54	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		01/22/20 12:54	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		01/22/20 12:54	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		01/22/20 12:54	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		01/22/20 12:54	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		01/22/20 12:54	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		01/22/20 12:54	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		01/22/20 12:54	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		01/22/20 12:54	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		01/22/20 12:54	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		01/22/20 12:54	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		01/22/20 12:54	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		01/22/20 12:54	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		01/22/20 12:54	630-20-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 6255 SOUTH MILWAUKEE
Pace Project No.: 40202194

Sample: MW-5 **Lab ID: 40202194001** Collected: 01/17/20 12:35 Received: 01/18/20 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		01/22/20 12:54	79-34-5	
Tetrachloroethene	**8.4**	ug/L	1.1	0.33	1		01/22/20 12:54	127-18-4	
Toluene	**<0.17**	ug/L	5.0	0.17	1		01/22/20 12:54	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		01/22/20 12:54	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		01/22/20 12:54	120-82-1	
1,1,1-Trichloroethane	**0.28J**	ug/L	1.0	0.24	1		01/22/20 12:54	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		01/22/20 12:54	79-00-5	
Trichloroethene	**0.38J**	ug/L	1.0	0.26	1		01/22/20 12:54	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		01/22/20 12:54	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		01/22/20 12:54	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		01/22/20 12:54	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		01/22/20 12:54	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		01/22/20 12:54	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		01/22/20 12:54	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		01/22/20 12:54	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	89	%	70-130		1		01/22/20 12:54	460-00-4	
Dibromofluoromethane (S)	101	%	70-130		1		01/22/20 12:54	1868-53-7	
Toluene-d8 (S)	91	%	70-130		1		01/22/20 12:54	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 6255 SOUTH MILWAUKEE
Pace Project No.: 40202194

Sample: MW-4 **Lab ID: 40202194002** Collected: 01/17/20 12:50 Received: 01/18/20 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by HVI	Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510								
Acenaphthene	**35.7**	ug/L	0.55	0.11	20	01/20/20 09:23	01/22/20 16:11	83-32-9	
Acenaphthylene	**11.4**	ug/L	0.45	0.090	20	01/20/20 09:23	01/22/20 16:11	208-96-8	
Anthracene	**6.3**	ug/L	0.94	0.19	20	01/20/20 09:23	01/22/20 16:11	120-12-7	
Benzo(a)anthracene	**3.6**	ug/L	0.68	0.14	20	01/20/20 09:23	01/22/20 16:11	56-55-3	
Benzo(a)pyrene	**3.1**	ug/L	0.95	0.19	20	01/20/20 09:23	01/22/20 16:11	50-32-8	
Benzo(b)fluoranthene	**5.6**	ug/L	0.52	0.10	20	01/20/20 09:23	01/22/20 16:11	205-99-2	
Benzo(g,h,i)perylene	**3.2**	ug/L	0.61	0.12	20	01/20/20 09:23	01/22/20 16:11	191-24-2	
Benzo(k)fluoranthene	**2.2**	ug/L	0.68	0.14	20	01/20/20 09:23	01/22/20 16:11	207-08-9	
Chrysene	**7.4**	ug/L	1.2	0.24	20	01/20/20 09:23	01/22/20 16:11	218-01-9	L1
Dibenz(a,h)anthracene	**0.61J**	ug/L	0.90	0.18	20	01/20/20 09:23	01/22/20 16:11	53-70-3	
Fluoranthene	**12.8**	ug/L	0.96	0.19	20	01/20/20 09:23	01/22/20 16:11	206-44-0	
Fluorene	**57.6**	ug/L	0.72	0.14	20	01/20/20 09:23	01/22/20 16:11	86-73-7	
Indeno(1,2,3-cd)pyrene	**2.5**	ug/L	1.6	0.32	20	01/20/20 09:23	01/22/20 16:11	193-39-5	
1-Methylnaphthalene	**94.7**	ug/L	0.53	0.11	20	01/20/20 09:23	01/22/20 16:11	90-12-0	
2-Methylnaphthalene	**3.2**	ug/L	0.44	0.088	20	01/20/20 09:23	01/22/20 16:11	91-57-6	
Naphthalene	**7.4**	ug/L	1.7	0.33	20	01/20/20 09:23	01/22/20 16:11	91-20-3	
Phenanthrene	**99.2**	ug/L	1.2	0.25	20	01/20/20 09:23	01/22/20 16:11	85-01-8	
Pyrene	**34.4**	ug/L	0.69	0.14	20	01/20/20 09:23	01/22/20 16:11	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	0	%	30-85		20	01/20/20 09:23	01/22/20 16:11	321-60-8	S4
Terphenyl-d14 (S)	10	%	10-120		20	01/20/20 09:23	01/22/20 16:11	1718-51-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 6255 SOUTH MILWAUKEE
Pace Project No.: 40202194

Sample: MW-3 **Lab ID: 40202194003** Collected: 01/17/20 13:45 Received: 01/18/20 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by HVI	Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510								
Acenaphthene	**0.30**	ug/L	0.028	0.0056	1	01/20/20 09:23	01/22/20 15:34	83-32-9	
Acenaphthylene	**0.20**	ug/L	0.023	0.0046	1	01/20/20 09:23	01/22/20 15:34	208-96-8	
Anthracene	**0.28**	ug/L	0.048	0.0096	1	01/20/20 09:23	01/22/20 15:34	120-12-7	
Benzo(a)anthracene	**4.2**	ug/L	0.035	0.0069	1	01/20/20 09:23	01/22/20 15:34	56-55-3	
Benzo(a)pyrene	**6.3**	ug/L	0.048	0.0097	1	01/20/20 09:23	01/22/20 15:34	50-32-8	
Benzo(b)fluoranthene	**10.4**	ug/L	0.026	0.0053	1	01/20/20 09:23	01/22/20 15:34	205-99-2	
Benzo(g,h,i)perylene	**7.2**	ug/L	0.031	0.0062	1	01/20/20 09:23	01/22/20 15:34	191-24-2	
Benzo(k)fluoranthene	**4.0**	ug/L	0.035	0.0069	1	01/20/20 09:23	01/22/20 15:34	207-08-9	
Chrysene	**7.5**	ug/L	0.060	0.012	1	01/20/20 09:23	01/22/20 15:34	218-01-9	L1
Dibenz(a,h)anthracene	**1.3**	ug/L	0.046	0.0092	1	01/20/20 09:23	01/22/20 15:34	53-70-3	
Fluoranthene	**11.7**	ug/L	0.049	0.0098	1	01/20/20 09:23	01/22/20 15:34	206-44-0	
Fluorene	**0.50**	ug/L	0.037	0.0073	1	01/20/20 09:23	01/22/20 15:34	86-73-7	
Indeno(1,2,3-cd)pyrene	**5.6**	ug/L	0.081	0.016	1	01/20/20 09:23	01/22/20 15:34	193-39-5	
1-Methylnaphthalene	**0.39**	ug/L	0.027	0.0054	1	01/20/20 09:23	01/22/20 15:34	90-12-0	
2-Methylnaphthalene	**0.048**	ug/L	0.022	0.0045	1	01/20/20 09:23	01/22/20 15:34	91-57-6	
Naphthalene	**0.10**	ug/L	0.084	0.017	1	01/20/20 09:23	01/22/20 15:34	91-20-3	
Phenanthrene	**3.0**	ug/L	0.063	0.013	1	01/20/20 09:23	01/22/20 15:34	85-01-8	
Pyrene	**11.0**	ug/L	0.035	0.0070	1	01/20/20 09:23	01/22/20 15:34	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	52	%	30-85		1	01/20/20 09:23	01/22/20 15:34	321-60-8	
Terphenyl-d14 (S)	49	%	10-120		1	01/20/20 09:23	01/22/20 15:34	1718-51-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 6255 SOUTH MILWAUKEE
Pace Project No.: 40202194

QC Batch: 345897
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV
Associated Lab Samples: 40202194001

METHOD BLANK: 2006918
Matrix: Water
Associated Lab Samples: 40202194001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.27	1.0	01/22/20 09:11	
1,1,1-Trichloroethane	ug/L	<0.24	1.0	01/22/20 09:11	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	1.0	01/22/20 09:11	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	01/22/20 09:11	
1,1-Dichloroethane	ug/L	<0.27	1.0	01/22/20 09:11	
1,1-Dichloroethene	ug/L	<0.24	1.0	01/22/20 09:11	
1,1-Dichloropropene	ug/L	<0.54	1.8	01/22/20 09:11	
1,2,3-Trichlorobenzene	ug/L	<0.63	5.0	01/22/20 09:11	
1,2,3-Trichloropropane	ug/L	<0.59	5.0	01/22/20 09:11	
1,2,4-Trichlorobenzene	ug/L	<0.95	5.0	01/22/20 09:11	
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	01/22/20 09:11	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	01/22/20 09:11	
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	01/22/20 09:11	
1,2-Dichlorobenzene	ug/L	<0.71	2.4	01/22/20 09:11	
1,2-Dichloroethane	ug/L	<0.28	1.0	01/22/20 09:11	
1,2-Dichloropropane	ug/L	<0.28	1.0	01/22/20 09:11	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	01/22/20 09:11	
1,3-Dichlorobenzene	ug/L	<0.63	2.1	01/22/20 09:11	
1,3-Dichloropropane	ug/L	<0.83	2.8	01/22/20 09:11	
1,4-Dichlorobenzene	ug/L	<0.94	3.1	01/22/20 09:11	
2,2-Dichloropropane	ug/L	<2.3	7.6	01/22/20 09:11	
2-Chlorotoluene	ug/L	<0.93	5.0	01/22/20 09:11	
4-Chlorotoluene	ug/L	<0.76	2.5	01/22/20 09:11	
Benzene	ug/L	<0.25	1.0	01/22/20 09:11	
Bromobenzene	ug/L	<0.24	1.0	01/22/20 09:11	
Bromochloromethane	ug/L	<0.36	5.0	01/22/20 09:11	
Bromodichloromethane	ug/L	<0.36	1.2	01/22/20 09:11	
Bromoform	ug/L	<4.0	13.2	01/22/20 09:11	
Bromomethane	ug/L	<0.97	5.0	01/22/20 09:11	
Carbon tetrachloride	ug/L	<0.17	1.0	01/22/20 09:11	
Chlorobenzene	ug/L	<0.71	2.4	01/22/20 09:11	
Chloroethane	ug/L	<1.3	5.0	01/22/20 09:11	
Chloroform	ug/L	<1.3	5.0	01/22/20 09:11	
Chloromethane	ug/L	<2.2	7.3	01/22/20 09:11	
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	01/22/20 09:11	
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	01/22/20 09:11	
Dibromochloromethane	ug/L	<2.6	8.7	01/22/20 09:11	
Dibromomethane	ug/L	<0.94	3.1	01/22/20 09:11	
Dichlorodifluoromethane	ug/L	<0.50	5.0	01/22/20 09:11	
Diisopropyl ether	ug/L	<1.9	6.3	01/22/20 09:11	
Ethylbenzene	ug/L	<0.22	1.0	01/22/20 09:11	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 6255 SOUTH MILWAUKEE
Pace Project No.: 40202194

METHOD BLANK: 2006918 Matrix: Water
Associated Lab Samples: 40202194001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<1.2	5.0	01/22/20 09:11	
Isopropylbenzene (Cumene)	ug/L	<0.39	5.0	01/22/20 09:11	
m&p-Xylene	ug/L	<0.47	2.0	01/22/20 09:11	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	01/22/20 09:11	
Methylene Chloride	ug/L	<0.58	5.0	01/22/20 09:11	
n-Butylbenzene	ug/L	<0.71	2.4	01/22/20 09:11	
n-Propylbenzene	ug/L	<0.81	5.0	01/22/20 09:11	
Naphthalene	ug/L	<1.2	5.0	01/22/20 09:11	
o-Xylene	ug/L	<0.26	1.0	01/22/20 09:11	
p-Isopropyltoluene	ug/L	<0.80	2.7	01/22/20 09:11	
sec-Butylbenzene	ug/L	<0.85	5.0	01/22/20 09:11	
Styrene	ug/L	<0.47	1.6	01/22/20 09:11	
tert-Butylbenzene	ug/L	<0.30	1.0	01/22/20 09:11	
Tetrachloroethene	ug/L	<0.33	1.1	01/22/20 09:11	
Toluene	ug/L	<0.17	5.0	01/22/20 09:11	
trans-1,2-Dichloroethene	ug/L	<1.1	3.6	01/22/20 09:11	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	01/22/20 09:11	
Trichloroethene	ug/L	<0.26	1.0	01/22/20 09:11	
Trichlorofluoromethane	ug/L	<0.21	1.0	01/22/20 09:11	
Vinyl chloride	ug/L	<0.17	1.0	01/22/20 09:11	
4-Bromofluorobenzene (S)	%	87	70-130	01/22/20 09:11	
Dibromofluoromethane (S)	%	102	70-130	01/22/20 09:11	
Toluene-d8 (S)	%	89	70-130	01/22/20 09:11	

LABORATORY CONTROL SAMPLE: 2006919

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	56.3	113	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	45.5	91	70-130	
1,1,2-Trichloroethane	ug/L	50	48.6	97	70-130	
1,1-Dichloroethane	ug/L	50	68.0	136	73-150	
1,1-Dichloroethene	ug/L	50	59.0	118	73-138	
1,2,4-Trichlorobenzene	ug/L	50	52.9	106	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	43.3	87	64-129	
1,2-Dibromoethane (EDB)	ug/L	50	52.3	105	70-130	
1,2-Dichlorobenzene	ug/L	50	51.6	103	70-130	
1,2-Dichloroethane	ug/L	50	56.1	112	75-140	
1,2-Dichloropropane	ug/L	50	50.1	100	73-135	
1,3-Dichlorobenzene	ug/L	50	52.5	105	70-130	
1,4-Dichlorobenzene	ug/L	50	52.5	105	70-130	
Benzene	ug/L	50	51.7	103	70-130	
Bromodichloromethane	ug/L	50	50.8	102	70-130	
Bromoform	ug/L	50	48.5	97	68-129	
Bromomethane	ug/L	50	47.1	94	18-159	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 6255 SOUTH MILWAUKEE
Pace Project No.: 40202194

LABORATORY CONTROL SAMPLE: 2006919

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/L	50	51.0	102	70-130	
Chlorobenzene	ug/L	50	56.0	112	70-130	
Chloroethane	ug/L	50	55.5	111	53-147	
Chloroform	ug/L	50	52.8	106	74-136	
Chloromethane	ug/L	50	53.0	106	29-115	
cis-1,2-Dichloroethene	ug/L	50	53.5	107	70-130	
cis-1,3-Dichloropropene	ug/L	50	46.6	93	70-130	
Dibromochloromethane	ug/L	50	50.7	101	70-130	
Dichlorodifluoromethane	ug/L	50	52.0	104	10-130	
Ethylbenzene	ug/L	50	50.5	101	80-124	
Isopropylbenzene (Cumene)	ug/L	50	53.0	106	70-130	
m&p-Xylene	ug/L	100	111	111	70-130	
Methyl-tert-butyl ether	ug/L	50	53.7	107	54-137	
Methylene Chloride	ug/L	50	55.8	112	73-138	
o-Xylene	ug/L	50	53.2	106	70-130	
Styrene	ug/L	50	54.2	108	70-130	
Tetrachloroethene	ug/L	50	56.8	114	70-130	
Toluene	ug/L	50	52.5	105	80-126	
trans-1,2-Dichloroethene	ug/L	50	59.9	120	73-145	
trans-1,3-Dichloropropene	ug/L	50	41.1	82	70-130	
Trichloroethene	ug/L	50	55.4	111	70-130	
Trichlorofluoromethane	ug/L	50	57.0	114	76-147	
Vinyl chloride	ug/L	50	56.6	113	51-120	
4-Bromofluorobenzene (S)	%			95	70-130	
Dibromofluoromethane (S)	%			100	70-130	
Toluene-d8 (S)	%			91	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 6255 SOUTH MILWAUKEE
Pace Project No.: 40202194

QC Batch: 345848
QC Batch Method: EPA 3510
Analysis Method: EPA 8270 by HVI
Analysis Description: 8270 Water PAH by HVI
Associated Lab Samples: 40202194002, 40202194003

METHOD BLANK: 2006681 Matrix: Water
Associated Lab Samples: 40202194002, 40202194003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/L	<0.0059	0.030	01/22/20 11:54	
2-Methylnaphthalene	ug/L	<0.0049	0.024	01/22/20 11:54	
Acenaphthene	ug/L	<0.0061	0.030	01/22/20 11:54	
Acenaphthylene	ug/L	<0.0050	0.025	01/22/20 11:54	
Anthracene	ug/L	<0.010	0.052	01/22/20 11:54	
Benzo(a)anthracene	ug/L	<0.0076	0.038	01/22/20 11:54	
Benzo(a)pyrene	ug/L	<0.011	0.053	01/22/20 11:54	
Benzo(b)fluoranthene	ug/L	<0.0057	0.029	01/22/20 11:54	
Benzo(g,h,i)perylene	ug/L	<0.0068	0.034	01/22/20 11:54	
Benzo(k)fluoranthene	ug/L	<0.0076	0.038	01/22/20 11:54	
Chrysene	ug/L	<0.013	0.065	01/22/20 11:54	
Dibenz(a,h)anthracene	ug/L	<0.010	0.050	01/22/20 11:54	
Fluoranthene	ug/L	<0.011	0.053	01/22/20 11:54	
Fluorene	ug/L	<0.0080	0.040	01/22/20 11:54	
Indeno(1,2,3-cd)pyrene	ug/L	<0.018	0.088	01/22/20 11:54	
Naphthalene	ug/L	<0.018	0.092	01/22/20 11:54	
Phenanthrene	ug/L	<0.014	0.069	01/22/20 11:54	
Pyrene	ug/L	<0.0076	0.038	01/22/20 11:54	
2-Fluorobiphenyl (S)	%	64	30-85	01/22/20 11:54	
Terphenyl-d14 (S)	%	118	10-120	01/22/20 11:54	

METHOD BLANK: 2006708 Matrix: Water
Associated Lab Samples: 40202194002, 40202194003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/L	<0.0055	0.028	01/22/20 12:12	
2-Methylnaphthalene	ug/L	<0.0046	0.023	01/22/20 12:12	
Acenaphthene	ug/L	<0.0057	0.028	01/22/20 12:12	
Acenaphthylene	ug/L	<0.0047	0.023	01/22/20 12:12	
Anthracene	ug/L	<0.0098	0.049	01/22/20 12:12	
Benzo(a)anthracene	ug/L	<0.0071	0.035	01/22/20 12:12	
Benzo(a)pyrene	ug/L	<0.0098	0.049	01/22/20 12:12	
Benzo(b)fluoranthene	ug/L	<0.0054	0.027	01/22/20 12:12	
Benzo(g,h,i)perylene	ug/L	<0.0063	0.032	01/22/20 12:12	
Benzo(k)fluoranthene	ug/L	<0.0071	0.035	01/22/20 12:12	
Chrysene	ug/L	<0.012	0.061	01/22/20 12:12	
Dibenz(a,h)anthracene	ug/L	<0.0094	0.047	01/22/20 12:12	
Fluoranthene	ug/L	<0.010	0.050	01/22/20 12:12	
Fluorene	ug/L	<0.0074	0.037	01/22/20 12:12	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 6255 SOUTH MILWAUKEE
Pace Project No.: 40202194

METHOD BLANK: 2006708 Matrix: Water
Associated Lab Samples: 40202194002, 40202194003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Indeno(1,2,3-cd)pyrene	ug/L	<0.016	0.082	01/22/20 12:12	
Naphthalene	ug/L	<0.017	0.086	01/22/20 12:12	
Phenanthrene	ug/L	<0.013	0.064	01/22/20 12:12	
Pyrene	ug/L	<0.0071	0.036	01/22/20 12:12	
2-Fluorobiphenyl (S)	%	66	30-85	01/22/20 12:12	
Terphenyl-d14 (S)	%	98	10-120	01/22/20 12:12	

LABORATORY CONTROL SAMPLE & LCSD: 2006682 2006683

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1-Methylnaphthalene	ug/L	2	1.1	1.1	55	57	39-88	4	29	
2-Methylnaphthalene	ug/L	2	1.2	1.2	58	60	40-93	4	29	
Acenaphthene	ug/L	2	1.5	1.5	73	75	43-102	2	30	
Acenaphthylene	ug/L	2	1.4	1.5	71	73	42-103	2	31	
Anthracene	ug/L	2	2.0	1.7	98	87	52-105	12	36	
Benzo(a)anthracene	ug/L	2	1.8	1.7	88	83	39-120	5	39	
Benzo(a)pyrene	ug/L	2	1.9	1.9	94	93	57-117	1	39	
Benzo(b)fluoranthene	ug/L	2	1.6	1.6	82	79	54-117	3	41	
Benzo(g,h,i)perylene	ug/L	2	1.2	0.91	60	46	32-82	27	44	
Benzo(k)fluoranthene	ug/L	2	2.0	2.0	102	101	56-123	0	39	
Chrysene	ug/L	2	2.5	2.5	126	124	63-122	2	38	L1
Dibenz(a,h)anthracene	ug/L	2	1.0	0.73	52	37	23-76	34	46	
Fluoranthene	ug/L	2	1.9	1.8	95	88	52-112	7	35	
Fluorene	ug/L	2	1.6	1.6	80	82	46-116	2	33	
Indeno(1,2,3-cd)pyrene	ug/L	2	1.8	1.6	89	81	49-110	10	32	
Naphthalene	ug/L	2	1.2	1.2	60	62	37-84	4	29	
Phenanthrene	ug/L	2	1.6	1.5	81	77	50-104	5	36	
Pyrene	ug/L	2	2.1	2.0	103	100	57-123	3	36	
2-Fluorobiphenyl (S)	%				72	74	30-85			
Terphenyl-d14 (S)	%				120	118	10-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 6255 SOUTH MILWAUKEE
Pace Project No.: 40202194

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.

BATCH QUALIFIERS

Batch: 345882

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

L1 Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high.

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

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 6255 SOUTH MILWAUKEE
Pace Project No.: 40202194

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40202194002	**MW-4**	EPA 3510	345848	EPA 8270 by HVI	345882
40202194003	**MW-3**	EPA 3510	345848	EPA 8270 by HVI	345882
40202194001	**MW-5**	EPA 8260	345897		

Pace Analytical®
www.pacelabs.com

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Page 1 of 1

40202194

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	DAI
Branch/Location:	Lake Forest, IL
Project Contact:	Chris Cailes
Phone:	847-573-8900
Project Number:	6255
Project Name:	South Milwaukee
Project State:	WI
Sampled By (Print):	Konrad Grochocki
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, SI = Sludge, W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
					N	B	VOCs			
					N	A	PNAs			
001	MW-5	1/17/20	1235	GW	X					
002	MW-4	1/17/20	1250	GW		X				
003	MW-3	1/17/20	1345	GW		X				

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

Relinquished By:	Date/Time:	Received By:	Date/Time:
[signature]	1/17/20 3:46	[signature]	1/17/20 1546
[signature]	1/17/20 1700	[signature]	1/17/20
C.S Logistics	1/18/20 0940	[signature] Dave	1/18/20 0940

PACE Project No.
40202194

Receipt Temp = 0.6 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Sample Preservation Receipt Form

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

Client Name: DAI Project # 40202194

All containers needing preservation have been checked and noted below: □Yes □No ☒N/A Initial when completed: Date/ Time:

Lab Lot# of pH paper: Lab Sid #ID of preservation (if pH adjusted):

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	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3B	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU	SP5T	ZPLC	GN							
001																		3															2.5 / 5 / 10
002					2																												2.5 / 5 / 10
003					2																												2.5 / 5 / 10
004																																	2.5 / 5 / 10
005																																	2.5 / 5 / 10
006																																	2.5 / 5 / 10
007																																	2.5 / 5 / 10
008																																	2.5 / 5 / 10
009																																	2.5 / 5 / 10
010																																	2.5 / 5 / 10
011																																	2.5 / 5 / 10
012																																	2.5 / 5 / 10
013																																	2.5 / 5 / 10
014																																	2.5 / 5 / 10
015																																	2.5 / 5 / 10
016																																	2.5 / 5 / 10
017																																	2.5 / 5 / 10
018																																	2.5 / 5 / 10
019																																	2.5 / 5 / 10
020																																	2.5 / 5 / 10

1/18/20 HC

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	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3B	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	

Pace Analytical™ 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 25Apr2018
	Document No.: F-GB-C-031-Rev.07	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #: WO# : 40202194

Client Name: DAI

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 - NA **Type of Ice:** (Wet) Blue Dry None ☒ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: ROI /Corr:

Temp Blank Present: ☒ yes ☐ no **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Person examining contents:
Date: 1/18/20
Initials: MO

Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☒No ☐N/A	2. No mail to, Invoice, PO# 1/18/20
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☒No	6.
Rush Turn Around Time Requested:	☐Yes ☒No	7.
Sufficient Volume:		8.
For Analysis: ☒Yes ☐No MS/MSD:	☐Yes ☒No ☐N/A	
Correct Containers Used:	☒Yes ☐No	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☒N/A	
Containers Intact:	☒Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W		
Trip Blank Present:	☐Yes ☐No ☒N/A	13.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased):		

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

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: CLW **Date:** 1/20/20

Page 2 of 2